

RECORD OF DECISION

US 181 Harbor Bridge Project From Beach Avenue to Morgan Avenue at the Crosstown Expressway Nueces County, Texas

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U.S. DEPARTMENT OF TRANSPORTATION
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1.0 INTRODUCTION

This document is the Federal Highway Administration's (FHWA) Record of Decision (ROD) regarding the proposed US 181 Harbor Bridge Project from Beach Avenue to Morgan Avenue at the Crosstown Expressway, Nueces County, Texas. This ROD approves the selection of the Recommended Alternative for the Harbor Bridge, as identified and described in the project's Final Environmental Impact Statement (Final EIS), dated November 2014. This approval constitutes FHWA's acceptance of the Recommended Alternative for the Harbor Bridge and completes the environmental approval process for the project.

2.0 DECISION

The Federal Highway Administration (FHWA), in agreement with the Texas Department of Transportation (TxDOT) as a Joint Lead Agency, selects the Recommended Alternative for the US 181 Harbor Bridge project with associated improvements from Beach Avenue to Morgan Avenue at the Crosstown Expressway and along Interstate 37 (I-37) from Shoreline Boulevard to Up River Road. This is the Red Alternative that was identified as the Preferred Alternative in the Draft EIS and the Recommended Alternative in the Final EIS. The Final EIS discusses the purpose and need (Section 1.0), the development and evaluation of the alternatives (Section 2.0), the affected environment (Section 3.0), the environmental consequences (Section 4.0), Section 4(f) (Section 5.0), the indirect and cumulative effects of the project (Sections 6.0 and 7.0), public involvement and community input (Section 8.0) and the environmental commitments, permits, and mitigation (Section 9.0).

TxDOT and FHWA evaluated all reasonable alternatives using an interdisciplinary approach and balanced the consideration of the need for safe and efficient transportation with the project's social, economic, and environmental impacts and national, state, and local environmental protection goals (see Section 2.0 of the Final EIS). **Table 1** (derived from Table 2.8-1 in the Final EIS) provides a summary of the evaluation of the factors considered in the comparison of the reasonable alternatives for the project:

Alternative	Meets Purpose and Need (Yes/No)	Section 4(f) Least Overall Harm* (Rank 1-5)	Maximizes Engineering Considerations (High/Medium/Low)
Green	Yes	2	Low
Recommended	Yes	1	High
Orange	Yes	3	Medium
West	Yes	4	Low
No Build	No	5	NA

Source: US 181 Harbor Bridge EIS Team 2013

* To determine the alternative that causes the least overall harm, project planners balanced the following seven factors listed in 23 CFR §774.3(c)(1): the ability to mitigate adverse impacts to each property (including any measures that result in benefits to the property); the relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each property for protection; the relative significance of each property; the views of officials with jurisdiction over each property; the degree to which each alternative meets the need and purpose for the project; after reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f); and substantial differences in costs among the alternatives.

The Recommended Alternative meets the project purpose and need stated in Section 1.0 of the Final EIS by providing a solution for the long-term highway operability of the US 181 crossing of the Corpus Christi Ship Channel, a non-fracture critical bridge structure with a 75-year design life. The Recommended Alternative also meets the need for improving safety for the travelling public, including during hurricane evacuations, by correcting design deficiencies and upgrading the facility to current design standards.

The Recommended Alternative best meets the project objectives of providing the transportation infrastructure to support economic opportunity in the area and addressing connectivity to the local roadway system and its effect on adjacent neighborhoods. The Recommended Alternative will best meet these objectives because it will remove the US 181 barrier from downtown and improve mobility and access into and out of the Sports, Entertainment and Arts (SEA) District and the downtown area. The Recommended Alternative will also best support the City of Corpus Christi's ability to implement its long-term community sustainability planning initiatives relative to the other alternatives. As noted in Section 4.1.3 of the Final EIS, the local plans, including the *North Beach Development Plan* and the *Integrated Community Sustainability Plan*, identify a path resembling the Recommended Alternative for the relocation of US 181. The Recommended Alternative also preserves much of the existing connectivity to the facility from adjacent neighborhoods relative to the other build alternatives, including accommodating bicycle and pedestrian modes of travel to and from the adjacent communities. The location of US 181 under the Recommended Alternative would allow for the most opportunity for future increased connection between the Washington-Coles neighborhood, the SEA District and the downtown area.

Because there is no feasible and prudent avoidance alternative to the use of Section 4(f) property, FHWA has selected the Recommended Alternative as the one that causes the least overall harm based on the factors set forth in 23 CFR § 774.3(c), including, among other items, consideration of the degree of harm to Section 4(f) properties as well as the degree to which each alternative meets the purpose and need and objectives of the project (see Section 5.0 of the Final EIS).

The Recommended Alternative also maximizes the engineering considerations and accommodates the potential navigational transportation needs of the Port of Corpus Christi. Finally, the Recommended Alternative was the only alternative to receive official endorsement by the Corpus Christi MPO, the City of Corpus Christi, and the Port of Corpus Christi Authority.

3.0 ALTERNATIVES CONSIDERED

The Draft EIS evaluated four build alternatives and a no build alternative, and identified the Red Alternative as the Preferred Alternative. The Final EIS evaluated the following build alternatives: Green, Orange, West, and Recommended (Red). Each of the proposed build alternatives would consist of a controlled-access facility and would include six lanes within a right of way that varies between 200 and 430 feet in width. There would be three, 12-foot lanes in each direction with a median barrier and 12-foot inside and 10-foot outside shoulders. Each of the proposed build alternatives would include a 10-foot bicycle and pedestrian shared-use path on the main span of the bridge and on the bridge approaches. Each of the proposed build alternatives would include a non-fracture critical bridge with a

75- to 100-year design life, constructed primarily of concrete and other non-corrodible materials, with exceptions for structural stability. A reconstructed interchange with US 181, I-37 and the Crosstown Expressway would be included with each of the proposed build alternatives.

Section 2.4 of the Final EIS provides a thorough description of each of the reasonable alternatives; **Table 2** below (derived from Table 2.4-1 in the Final EIS) provides a direct comparison of the primary design and cost considerations for each alternative. The Recommended Alternative was studied to a higher level of detail in the Final EIS than the other reasonable alternatives to facilitate the development of mitigation measures and to comply with other federal agency requirements.

Alternative	Bridge Height* (feet over MHW)	Length (miles)	Main Bridge Span Length (feet)	Length of Mainlanes on Structure (miles within project limits)	Estimated New Right of Way Required (acres)	Estimated Construction Cost (millions[^])	Estimated 75 yr Maintenance Cost [^]
Green	207	5.06	1,045	2.93	30.5	\$558	\$19,247,228
Recommended	216	5.98	1,515	2.76	58.5	\$637	\$27,903,876
Orange	210	6.00	1,208	2.80	49.8	\$630	\$22,249,427
West	206	7.59	1,500	3.42	69.8	\$679	\$27,627,600
No Build	138	NA	600	NA	0.0	NA	\$279,471,206

Source: US 181 Harbor Bridge EIS Team 2014

The No Build Alternative does not meet the purpose and need of the project as discussed in Section 2.3 of the Final EIS because it would involve taking no action to address the safety and other problems identified in the need for the project as discussed in Section 1.3 of the Final EIS. Section 2.0 of the Final EIS evaluated the build alternatives in detail and identified the Red Alternative as the Recommended Alternative.

In accordance with 40 CFR §1505.2(b), a Record of Decision must identify the alternative or alternatives that were considered to be environmentally preferable. As explained by the Council on Environmental Quality (CEQ), the environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources. (See, the definition of "environmentally preferable alternative," Question 6a, published in the CEQ's "Forty Most Asked Questions." (46 Fed. Reg. 18026, March 23, 1981).) As discussed in the Final EIS in Section 4.0, FHWA evaluated each of the alternatives and identified the environmental impacts associated with each alternative. Further, in Section 2.0 (Alternatives), Table 2.6-1 and Table 2.6-2 summarize FHWA's comparison of the impacts of the alternatives. In this ROD, FHWA concludes that the Recommended Alternative and the Green Alternative are the environmentally preferable alternatives as compared to the Orange and West Alternatives. The Green Alternative would follow the existing alignment of US 181, resulting in fewer adverse impacts in minority and low-income areas, and as explained in Section 2.0 of the Final EIS, the Green Alternative would have less environmental impacts to wetlands, marsh habitat, and fish habitat, and would be the least visually intrusive. The Recommended Alternative

removes the US 181 barrier from downtown and allows for the most opportunity for future increased connection between the Washington-Coles neighborhood, the SEA District and the downtown area. The Recommended Alternative also minimizes impacts to wetlands, marsh habitat and fish habitat; it avoids impacts to historic and archeological resources; and the bridge's location is able to convey its status as being an important local landmark.

FHWA selects the Recommended Alternative as the agency's Preferred Alternative because it would fulfill FHWA's statutory mission and responsibilities, giving consideration to economic, environmental, technical and other factors. (See, the CEQ's definition of "agency's preferred alternative." The concept of the "agency's preferred alternative" is different from the "environmentally preferable alternative." (Question 4a, published in the CEQ's "Forty Most Asked Questions." (46 Fed. Reg. 18026, March 23, 1981).) The Recommended Alternative was selected because it best meets the objectives of the project. It would remove the US 181 barrier in downtown, which would improve mobility and access into and out of the SEA District and the downtown area and would therefore support the City's ability to implement its long-term community sustainability planning initiatives. The Recommended Alternative best meets the objectives of the project of providing transportation infrastructure to support economic opportunity in the area, and to address connectivity to the local roadway system. Relative to the other build alternatives, the Recommended Alternative preserves much of the existing connectivity to the facility from the adjacent neighborhoods, including the improvement of Lake Street and the accommodation of bicycle and pedestrian modes of travel to and from the adjacent communities. Moreover, as further discussed in Section 5.6 of the Final EIS and **Section 5.0** of the ROD, the Section 4(f) evaluation concluded that the Recommended Alternative would cause the least overall harm (as shown in the seven-factor evaluation comparison to the other alternatives). The Recommended Alternative was the only alternative that received official endorsement by the Corpus Christi MPO, the City of Corpus Christi, and the Port of Corpus Christi Authority.

In contrast, the Green Alternative would not meet the objectives of the proposed project as well, relative to the other build alternatives. By maintaining the existing US 181 barrier downtown, the Green Alternative only minimally improves accessibility and mobility as well as connectivity to the facility from adjacent neighborhoods. This is discussed in Section 5.6.2.5 of the Final EIS.

4.0 TRANSPORTATION PLANNING

At the time the Final EIS was developed, the Corpus Christi Metropolitan Planning Organization's (MPO) 2010-2035 Metropolitan Transportation Plan (MTP) was still in effect; the 2015-2040 MTP became effective December 3, 2014. The proposed project was included in the MPO's 2010–2035 MTP and the 2013–2016 STIP. The project is also included in the 2015–2040 MTP and the 2015–2018 STIP.

The design, concept and scope, and logical termini for the proposed project have not changed and are therefore consistent with the 2040 MTP. Likewise, the purpose and need for the project has not changed, although neither the 2035 MTP nor 2040 MTP addressed the purpose and need for the Harbor Bridge project. The total project cost is estimated to be \$1,071,422,202. The estimated construction cost (which is only a portion of the total project cost) noted in the 2035 MTP was \$600,000,000; the

estimated construction cost in the 2040 MTP is \$807,800,000. It is anticipated that construction of the proposed project would begin in 2016 with an estimated completion date of 2020.

Demographic characteristics reported in the 2035 MTP were very similar to those reported in the 2040 MTP. The MPO study area in both cases included the city of Corpus Christi, the city of Portland, the city of Gregory and parts of Nueces and San Patricio Counties; neither MTP reports demographics specifically for the project corridor. The minority population in the MPO study area was reported as 60% in the 2035 MTP and 66% in the 2040 MTP. The minority population reported in the Final EIS was 66%, which included characteristics for the city of Corpus Christi, the city of Portland, Nueces County and San Patricio County. Population projections noted in the 2035 MTP rely on 2004 estimates from the Texas State Data Center. These show an estimated 2040 population for the study area of 575,720, a 24.4 percent increase from 2010. The 2040 MTP uses 2012 estimates from the State Data Center which were revised downward relative to earlier estimates; the 2040 estimated population is 491,526, a 21.4 percent increase from 2010. The Final EIS reported State Data Center estimates from 2008 for all of Nueces and San Patricio counties (a slightly larger area than the MPO study area), and these showed a 2040 population of 579,225, a 30 percent increase since 2010.

With respect to employment in the MPO study area, the 2035 MTP showed August 2009 civilian labor force estimates from the Texas Workforce Commission of 195,121. The 2040 MTP shows May 2014 civilian labor force estimates as 210,184. The Final EIS reported employment through July 2013 for the Corpus Christi MSA (which includes Nueces, San Patricio and Aransas counties) as 207,250.

Land use considerations in both the 2035 MTP and the 2040 MTP, which involve assessing developed and developable land areas on the basis of defined traffic analysis zones (TAZ), are similar and both use the same TAZ structure. The 2035 MTP included a set of land use assumptions continued from the 1996-2025 forecast scenario. The 2040 MTP started with the same set of 1996-2025 forecast assumptions and continued them out an additional fifteen years to 2040. Land use mapping prepared for the Final EIS was based on numerous site investigations and evaluations of aerial photography, and is therefore more specific particularly with regard to the project area; both developed and undeveloped areas are mapped. For future land use, the Final EIS considered the City of Corpus Christi's future land use plan, the 2040 MTP, and direct coordination with local land use planning officials. These varied sources provided a more comprehensive outlook on the likelihood of land use change in the project area, as well as the broader Corpus Christi region.

The list of significant transportation network projects noted in the 2040 MTP, as compared to the 2035 MTP, does not include the Southside Mobility Corridor, which was described as a roadway across the Laguna Madre to connect Kleberg County to Padre Island for emergency evacuation purposes. This project was not in the funded portion of either the 2035 MTP or the 2040 MTP, and this project is therefore not in either model network. This difference is therefore not considered substantial in terms of the evaluation of cumulative effects of reasonably foreseeable transportation projects, and the Final EIS is consistent with the 2040 MTP in this regard.

With respect to the expansion of industrial development in and around the Port of Corpus Christi, the 2035 MTP and the 2040 MTP both emphasize the importance of the Port economically to the region and the plans to continue to encourage industry to locate in the area. The main difference between the 2035 MTP and the 2040 MTP is that the 2040 MTP provides a listing of several specific development projects that the Port is pursuing. This list is largely consistent with the listing of reasonably foreseeable industrial development evaluated in the Final EIS, with three projects being included in the 2040 MTP that were not listed in the Final EIS and, conversely, three projects that were listed in the Final EIS that are not listed in the 2040 MTP. The three future projects listed in the 2040 MTP that were not listed in the Final EIS include the development of petroleum operations by Castleton Commodities International, LLC, Texas Fuels and Asphalt Company, LLC, and Plains All American Pipeline, L.P. The three projects listed in the Final EIS that are not listed in the 2040 MTP include the Gulf Compress cotton storage facility, the Petronilla wind farm in Nueces County and the offshore Baryonyx Corp wind farm. Both lists are an accounting of potential projects, not actual projects, that based on published or local sources are reasonably foreseeable over the 2035 planning horizon. Overall, the accounting of future industrial development, particularly with respect to major oil and gas development projects, in the Final EIS is consistent with the 2040 MTP, and the minor difference in the two lists is not considered substantial with respect to the analysis of potential cumulative effects.

The 2040 MTP does not include tolled/managed lane facilities or changes in implementation dates of tolled/managed lane facilities that could potentially affect or require a Regional Toll Analysis (RTA).

The traffic forecast utilized for the Final EIS was based on the MPO's 2040 Corpus Christi Regional Travel Demand Model (TDM). The 2040 TDM was officially adopted by the MPO in May 2014. The model files include roadway network and demographics for both base year 2006 and future year 2040. These models were used to develop traffic forecasts and analysis for the Harbor Bridge Final EIS.

The Corpus Christi MPO's 2040 TDM is an evaluation tool for the development of the 2015-2040 MTP but does not constrain the development of the MTP. The base year for the 2040 TDM is 2006. The Harbor Bridge project team received the 2040 TDM with demographics and roadway networks for base year 2006 and horizon year 2040 in May 2014 while the 2015-2040 MTP was still in preparation. According to the MPO planning staff, there had been no revisions in the 2040 TDM, roadway network, or demographics for the 2040 MTP since the release of the 2040 TDM in May 2014. All project related traffic analysis was based on 2040 TDM and the 2015-2040 MTP demographics and roadway network. As the project analysis year is 2035 and 2035 is not an interim year for 2040 MTP, the project team used the method of interpolation to obtain 2035 demographics within the 2015-2040 MTP and forecasted traffic volumes under the framework of the 2015-2040 MTP. Therefore, the estimated traffic volumes for the Final EIS are consistent with the 2040 MTP.

5.0 SECTION 4(f)

Section 4(f) implications are analyzed in Section 5.0 of the Final EIS. Section 4(f) and its implementing regulations prohibit FHWA from using publicly owned land of a public park, recreation area, or wildlife and waterfowl refuges of national, state or local significance, or land of a historic site of national, state

or local significance for transportation projects unless there is no feasible and prudent alternative to doing so and the project includes all possible planning to minimize harm to the property resulting from the use, or the impact is *de minimis* (does not adversely affect important attributes of the property). Where Section 4(f) property use cannot be avoided, FHWA may approve, from among the remaining alternatives that use Section 4(f) property, only the alternative that causes the least overall harm in light of the statute's preservation purpose.

Because each of the proposed build alternatives would result in the use of one or more 4(f) properties (see Section 5.3.1 of the Final EIS), additional factors were considered to evaluate alternatives. Section 5.0 of the Final EIS describes the full evaluation of factors and is summarized here. The balancing of factors leads to the conclusion that the Recommended Alternative will cause the least overall harm.

The factors to consider in the evaluation of the least overall harm alternative are defined in FHWA's Section 4(f) regulations at 23 CFR § 774.3(c) and listed in Section 5.6 of the Final EIS. The first four factors relate to the net harm that each alternative would cause to Section 4(f) property, while the remaining three factors take into account any substantial problems the alternatives may have with issues other than Section 4(f), including Environmental Justice. Section 5.6 of the Final EIS provides a detailed evaluation of each of these seven factors, the results of which are summarized in **Table 3** (derived from Tables 5.6-2 and 5.6-3 in the Final EIS).

Table 3 Summary of Section 4(f) Least Overall Harm Analysis				
Least Overall Harm Criteria	Build Alternatives			
	Green	Recommended	Orange	West
Ability to Mitigate Adverse Impacts to 4(f) Properties*	Medium	Medium	Medium	High
Severity of Harm to 4(f) Properties after Mitigation	Medium	Medium	Medium	Medium
Relative Significance of 4(f) Properties	Medium	Medium	Medium	High
Views of Officials with Jurisdiction	City of Corpus Christi - In agreement with the determination of project impacts and favorable toward proposed mitigation measures	City of Corpus Christi - In agreement with the determination of project impacts and favorable toward proposed mitigation measures	City of Corpus Christi - In agreement with the determination of project impacts and favorable toward proposed mitigation measures	City of Corpus Christi - In agreement with project impacts and less favorable toward proposed mitigation measures
	THC - concurred with effect determination and mitigation	THC - concurred with effect determination and mitigation	THC - concurred with effect determination and mitigation	THC - concurred with effect determination and mitigation
Degree to which the Alternative Meets Purpose and Need and Objectives	Medium	High	Medium	Low

Table 3 Summary of Section 4(f) Least Overall Harm Analysis				
Least Overall Harm Criteria	Build Alternatives			
	Green	Recommended	Orange	West
Magnitude of Impacts to Non-4(f) Resources After Mitigation	Medium	Low	High [^]	High
Cost Comparison	Lowest (\$558 million)	Medium (\$637 million)	Medium (\$630 million)	Highest (\$679 million)

Source: US 181 Harbor Bridge EIS Team 2014

* high = TxDOT has the ability to reasonably mitigate the potential effects from the use of the Section 4(f) property; medium = some of the effects from the use could be offset by mitigation while others could not; low = TxDOT does not have the ability to reasonably mitigate the effects.

[^]The evaluation in Section 5.6.2.6 of the Final EIS indicates the Orange Alternative as the alternative with the highest degree of adverse impacts to non-Section 4(f) resources after mitigation. The West Alternative is high because it is inconsistent and incompatible with the City’s future land use and community sustainability planning goals; it does not accommodate direct access to the I-37 main lanes from the Hillcrest neighborhood and northbound US 181 access from the Northside community; it removes a landmark view from visually sensitive areas, such as the marina and downtown; and the construction phase for this alternative would potentially jeopardize the ability of the US Army Corps of Engineers to maintain the ship channel in the event the need for emergency dredging arises (see Section 5.6.2.6 of the Final EIS).

In consideration of all seven factors, and in light of the Section 4(f) statute’s preservation purpose, the Recommended Alternative is considered to cause the least overall harm. The Recommended Alternative will result in the use of three Section 4(f) properties, including the Harbor Bridge system, and TxDOT and FHWA have included all possible planning to minimize harm to these properties resulting from such use. Coordination with the officials with jurisdiction over the public parks indicates that the proposed mitigation involving comparable replacement of function of T.C. Ayers Park and Lovenskiold Park, as well as development of bicycle and pedestrian connections between the replacement park and other parks in the project area, will result in an overall benefit to the community.

The Recommended Alternative is the alternative that best meets the purpose and need and the objectives of the project. The impacts to non-Section 4(f) resources (cultural resources, wetlands and coastal environments, community resources) associated with the alternatives not selected, after applying mitigation, would be greater in magnitude than the Recommended Alternative. Although the Recommended Alternative will have disproportionately high and adverse effects to minority communities and low-income communities, this would be the case with any of the proposed build alternatives, as it is not possible to avoid such impacts given the practical limitations on the location of the bridge crossing. As presented in Section 4.7.7 of the Final EIS, the Recommended Alternative includes measures to avoid and minimize adverse effects and is considered the alternative that is in the overall public interest given the substantial need for the project.

6.0 MEASURES TO MINIMIZE HARM

The mitigation commitments identified in this section have been developed through active and continuous coordination with Cooperating and Participating agencies and the public, including the

neighborhoods and communities affected by the proposed action. Some commitments, such as noise barriers for example, are subject to additional public involvement as noted.

6.1 DESIGN COORDINATION REQUIREMENTS

The project will contain several design elements for which TxDOT will coordinate with the appropriate entities. Specifically, TxDOT will coordinate with the following entities:

- The Metropolitan Planning Organization (MPO) and the City of Corpus Christi about the accommodation of bicycle and pedestrian facilities into the final design of the project, including any requirements for signage or striping for the 10-foot shared-use path for bicyclists and pedestrians to use to cross the Inner Harbor (providing an alternative means of transportation throughout the project limits);
- The Regional Transportation Authority (RTA) about the accommodation of bus routes or bus stops into the final design of the project, as needed, including any requirements for signage or striping;
- Union Pacific Railroad and the Port of Corpus Christi Authority about accommodation of rail crossings into the final design of the project;
- The City of Corpus Christi's Storm Water Management Department about accommodation of existing storm sewer infrastructure into the final design of the project;
- Public and private utility owners about accommodation of existing overhead and underground utilities into the final design of the project. Utility relocations and adjustments will be accomplished with the minimum practicable disruption in service to customers; and
- The Port of Corpus Christi Authority and the U.S. Coast Guard (USCG) about any temporary restriction of the Inner Harbor due to construction operations and any needed closures.

Also, various Context Sensitive Solutions activities are underway to identify the aesthetics preferences of the local community. These are discussed in **Section 6.3.6**.

6.2 DISPLACEMENTS

The project will cause business and residential displacements, as discussed in Section 4.4 of the Final EIS. Decent, safe, and sanitary dwellings will be available to all displaced persons, without discrimination. Residents displaced will have access to relocation resources and receive assistance from TxDOT's right of way acquisition and relocation assistance program (RAP), which is administered in accordance with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (P.L. 91-646), and consistent with the requirements of the Civil Rights Act of 1964 and the Housing and Urban Development Act of 1974.

For those tenants qualifying for the U.S. Department of Housing and Urban Development's Annual Survey of Income Limits for the Public Housing and Section 8 Programs, considerations for Housing and Urban Development (HUD) Section 8 Existing Housing Certificates or Housing Vouchers will be offered through the TxDOT Rental Assistance program.

If comparable housing is not available at the time of right of way acquisition, TxDOT will provide the required housing or, if necessary, provide housing supplement payments in excess of the standard payment limits to ensure that decent, safe and sanitary dwellings are made available to all eligible persons displaced by the project.

In addition to relocation assistance, TxDOT relocation counselors will work independently with the person or persons displaced by the proposed action to determine whether special accommodations will be required, such as finding a decent, safe and sanitary dwelling in the resident's preferred location, particularly in cases where proximity to family members or other interdependencies may exist. Elderly persons may require special accommodation, and TxDOT will work closely with affected residents to find appropriate housing.

TxDOT will assist displaced business owners and tenants by reimbursing reasonable moving costs, personal property losses, expenses in finding a replacement, and expenses in reestablishing the business. TxDOT will offer relocation counseling to employees of displaced businesses to minimize economic harm and provide information as to possible sources of funding and assistance from other local, state, and federal agencies.

TxDOT will work with the Workforce Solutions of the Coastal Bend to ensure that displaced employees are aware of offerings including career development information, job search resources, and training programs.

6.3 COMMUNITIES AND ENVIRONMENTAL JUSTICE

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, signed by the President on February 11, 1994 directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law.

As defined by the Council on Environmental Quality (CEQ) report, Environmental Justice Guidance Under the National Environmental Policy Act (NEPA), a minority population should be identified where either: (a) the minority population of the affected area exceeds 50 percent, or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

A majority of the residents of Corpus Christi identify themselves as Hispanic or Latino (about 60 percent) according to the 2010 Census, with approximately 33 percent identifying themselves as White. Black or African-American persons make up approximately 4 percent of the population, and Asians represent 1.8 percent. Residents of Portland and San Patricio County have relatively lower percentages of minority populations than Corpus Christi and Nueces County as well as the state of Texas. San Patricio County is somewhat more ethnically diverse than the city of Portland. It should be noted that although there are more Hispanic, Latino, or non-White persons than non-Hispanic or non-Latino White persons in both

Nueces County and Corpus Christi, these Hispanic, Latino, and non-White populations are considered “minorities,” per the FHWA definition of minority.

According to data from the 2010 Census, of the 82 populated blocks adjacent to or intersected by one or more of the proposed build alternatives, 68 blocks have a minority population greater than 50 percent, and two blocks have a minority population of exactly 50 percent. These 70 blocks were identified as minority populations.

Residents of Corpus Christi had a lower 2011 median household income than the state of Texas, and the City reported a slightly larger percentage of persons living below poverty level. Corpus Christi residents had slightly higher incomes than county residents as a whole. The 2011 median income for San Patricio County residents was comparable to that of Nueces County and Corpus Christi, though residents of the city of Portland reported a substantially higher median income. As defined by FHWA, low-income means a household income at or below the Department of Health and Human Services (DHHS) poverty guideline for the current year. For 2014, the DHHS poverty guideline is \$23,850 for a family of four. The median household income for all of the municipal geographies were above the poverty guideline, although there are several block groups (BGs) in the project area that have incomes below the 2014 DHHS poverty guideline and would be considered low-income populations.

Low-income populations were identified for the lowest level census geographies adjacent to or intersected by any of the proposed build alternatives. According to data from the 2007–2011 American Community Survey, seven BGs adjacent to or intersected by the build alternatives have been identified as low-income populations.

In addition to the Census geographies identified above, analysis of the various communities identified in the community impact assessment completed for the US 181 Harbor Bridge Project indicates that of the six communities (North Beach, Northside, Westside, South Central, Refinery Row, and Portland), all but North Beach and Portland have an overall minority population over 50 percent. Four of the communities (Northside, Westside, South Central, and Portland) include BGs with median household incomes below the 2014 DHHS poverty guideline for a family of four (\$23,850). The population within the combined community boundaries, including Portland is approximately 62 percent minority. Excluding Portland, the area has a minority population of approximately 84 percent.

The analysis in the Final EIS included an assessment of the potential effects on local communities, including low-income populations and minority populations in the area (see Sections 4.6 and 4.7 of the Final EIS, also see Sections 6.6 and 7.6.4 of the Final EIS for a discussion of indirect effects and cumulative effects respectively, on local communities). The analysis focused on the communities with potential to be affected by the project. FHWA guidance identifies a variety of impact types that may apply to communities, either singly or as interrelated effects. These impact types include: displacements; mobility and access; social and psychological; physical; provision of public services; visual; land use; economics; and safety.

Due to practical limitations on the location of the bridge crossing, each of the proposed build alternatives, including the Recommended Alternative will have a disproportionately high and adverse effect on minority and low-income populations in the project area. The activities leading up to and including the preparation of the Final EIS complied with NEPA, Executive Order 12898, DOT Order 5610.2(a), FHWA Order 6640.23A, and Title VI of the Civil Rights Act of 1964 (Title VI). No person was or will be excluded from participating in activities related to, or benefits deriving from, this project's transportation development process.

To ensure compliance with Environmental Justice guidelines and Title VI and related statutes, a variety of efforts were made, including, but not limited to:

1. An intensive community outreach and involvement process (described more fully below) was conducted to explore environmental justice concerns and potential impacts (see Section 8.0 of the Final EIS).
2. An indirect impact analysis (see Section 6.0 of the Final EIS) was performed to determine the indirect impacts of the Harbor Bridge Project on the communities located in the project area.
3. A cumulative impact analysis (see Section 7.0 of the Final EIS) was performed that included an analysis to determine the incremental impact of the Harbor Bridge Project in the context of other past, present and reasonably foreseeable projects affecting the communities located in the project area.

6.3.1 Coordination, Access to Information and Public Involvement

The potential for controversy with the proposed project was identified in the early stages of project development and scoping. TxDOT and FHWA have made continuous, proactive efforts to resolve or (at a minimum) address the controversy and ensure meaningful opportunities for public participation in the decision-making process. This has led to sustained engagement with community leaders and the community as a whole from the outset of the scoping phase, which included multiple agency/public scoping meetings as described in Section 8.2.1.1 and Appendix K-Scoping of the Final EIS. Ongoing communication with the community has allowed TxDOT and FHWA to fully evaluate the potential effects of the project in minority and low-income areas. A full summary of TxDOT's engagement with environmental justice communities is included in Section 4.7.2 of the Final EIS; public involvement as a whole for the Harbor Bridge project is discussed in Section 8.0 of the Final EIS.

In total since 2011, TxDOT and FHWA have held six Citizens Advisory Committee meetings, five Technical Advisory Committee meetings, 16 neighborhood meetings, 20 storefront meetings—held every Tuesday at the Oveal Williams Senior Center and every Thursday at the La Retama Public Library between January 7 and March 13, 2014—numerous individual stakeholder meetings, one Public Meeting, and one Public Hearing. Feedback was gathered from these opportunities, as well as from the community survey developed for the project, and considered for incorporation into the project. Many of the measures proposed to first avoid and then minimize harm, as well as ultimately mitigate adverse effects, come directly from suggestions made by members of the affected minority and low-income neighborhoods.

6.3.2 Livability Enhancements

As a way of mitigating for the potential loss of community cohesion and providing fair distribution of the beneficial effects of the project, TxDOT and FHWA hosted a Livability Summit in Corpus Christi sponsored by the Partnership for Sustainable Communities—an interagency initiative of FHWA, the Environmental Protection Agency (EPA), and HUD.

The Livability Summit was held October 15, 2014 at the Congressman Solomon P. Ortiz International Center. This was a day-long event where participants were provided with information on major plans and programs to advance livability in the Corpus Christi Region. The agenda included a presentation on the Harbor Bridge project, as well as other local opportunities for enhancing sustainability, including plans by the Corpus Christi Metropolitan Planning Organization (MPO), the City of Corpus Christi, and the Port of Corpus Christi. The agenda also included identification of ways for the local community to seek grants and other federal funding through FHWA, EPA and HUD. Representatives of FHWA, EPA and HUD each provided information as part of a panel discussion of the funding opportunities afforded by their respective agencies. Local participation was encouraged through active public outreach which included print ads, web ads, direct mail to affected neighborhoods, flyers, postings, and phone calls to community leaders, including members of the Citizens Advisory Committee and Technical Advisory Committee. There were 35 attendees at the Summit, including local, state and federal agency representatives, local residents, business leaders and local university students and faculty. Attendees participated in a workshop addressing questions related to defining livability and sustainability and prioritizing livability initiatives. Among the priorities noted were a comprehensive transportation system, revitalization of Downtown, the SEA District and North Beach, and revitalizing neighborhoods.

Input from the Livability Summit will contribute to a Community Sustainability Plan to be developed by TxDOT for the Northside neighborhoods. Among other matters, it will identify grant opportunities to further the goals and strategies of the Plan. This effort was requested of TxDOT by the Hillcrest Residents Association and will build upon the continued collaboration with community members begun during the Harbor Bridge EIS public involvement effort. The Community Sustainability Plan will be drafted and finalized by TxDOT within one year of the start of construction of the project, at which time implementation of the Plan will be led by local entities.

TxDOT will work with the Partnership for Sustainable Communities (FHWA, EPA and HUD), as well as the City of Corpus Christi, the Port of Corpus Christi Authority, the MPO, and the Corpus Christi RTA during the development of the Community Sustainability Plan. The Partnership agencies offer grant funding opportunities, including technical assistance in preparing grant applications. Available grant assistance programs address an array of sustainability enhancements aimed at creating healthy neighborhoods, providing more housing and home improvement options, generating economic opportunities, and advancing efficient transportation options. These funding and technical assistance programs, such as the Surface Transportation Program (STP) and the Community Development Block Grant (CDBG) program can provide other means of federal resources for the state, the Coastal Bend region and the city of Corpus Christi. The Partnership produced the Environmental Justice and Sustainability Deskbook (available at www.epa.gov/smartgrowth) to provide information on the resources available to

communities through the Partnership agencies. TxDOT will utilize this guidance as it develops the Community Sustainability Plan. There is no guarantee of funding in this regard, but the identified programs exist so that local communities can use the opportunities within each program to apply for potential funding.

6.3.3 Accessibility

As part of the livability enhancement discussion in Section 9.3.1 of the Final EIS, TxDOT commits to addressing the potential hindrance of the Northside neighborhood residents' access to important community facilities during project construction, such as the Oveal Williams Senior Center and the CHRISTUS Spohn Health Clinic, TxDOT will provide for shuttle bus service during the construction phase of the project to transport residents through the US 181 construction zone. The shuttle bus service will be wheelchair accessible and will remain in place for the duration of construction activities affecting access across US 181 in the Northside community. TxDOT or its contractor will provide the shuttle bus and the driver. Once project construction is complete, improved local pedestrian access, as well regular city bus service, across US 181 will be available.

To offset the potential community cohesion effects of the loss of access across US 181 via Winnebago Street, the extension of Lake Street to replace access will also serve to connect neighborhood parks and other important community resources. This route will provide vehicular access as well as an improved accommodation for bicycle and pedestrian facilities and will offer a connection between Dr. H.J. Williams Memorial Park, T.C. Ayers Park, the Oveal Williams Senior Center, the community swimming pool, the proposed new park at the site of the former Washington Elementary School, and Solomon Coles High School. An interlocal agreement between the City of Corpus Christi and TxDOT will be developed to identify the parties responsible for carrying out the above-mentioned actions and improvements (more fully described in **Section 6.11**, below).

6.3.4 Historic Preservation

To further address the specific community cohesion effects from the project, TxDOT will additionally and formally document the important cultural history of the Northside neighborhoods by: conducting oral history interviews with current and past residents; creating printed representations of the neighborhood history for display at the Oveal Williams Senior Center; and publishing a report of the neighborhood history to be made available for viewing at the Oveal Williams Senior Center, or other venue if preferred by the community. TxDOT staff and qualified historians and planners are collaborating with community leaders regarding the development of the oral history, displays, and report, building on the historical research that has been conducted thus far for the project. The community has provided input through attending three open houses and a lunch presentation at the Oveal Williams Senior Center, each of which provided opportunities to share historical neighborhood photographs and memorabilia. Current and past community residents have recorded oral histories for the report and are participating in editing their oral histories to ensure accuracy of their historical accounts. These community resources together with archival research are being used to develop the displays and report, which will be completed by TxDOT within one year of the start of construction.

6.3.5 Workforce Support

In Section 9.3.3 of the Final EIS, TxDOT further explains how it will address the effects of business displacements and the potential for temporary or permanent loss of employment for both low-income and non-low-income residents. Goals will be developed for encouraging participation of disadvantaged or historically underutilized businesses in project construction. TxDOT will monitor contractors' compliance with these goals as part of its administration of the construction contract.

Additionally, TxDOT will establish a new local partnership with the non-profit Workforce Solutions of the Coastal Bend which provides a range of services for both employers and employees affected by the displacement of businesses specifically resulting from the project. During the right of way acquisition process, TxDOT staff will mail notices to both employers and employees affected by the displacement of businesses to make them aware of the services offered by Workforce Solutions of the Coastal Bend.

Workforce Solutions of the Coastal Bend receives funding from the Texas Workforce Commission, which is the state-government agency charged with overseeing and providing workforce development services to employers and job seekers for the state of Texas. For employers, the Texas Workforce Commission offers recruiting, retention, training and retraining, and outplacement services as well as valuable information on labor law and labor market statistics. For job seekers, the Texas Workforce Commission offers career development information, job search resources, training programs, and, as appropriate, unemployment benefits. See Section 9.3.3 of the Final EIS for a complete list of services offered by Workforce Solutions of the Coastal Bend to both employers and job seekers.

In addition, once a construction contractor is selected, TxDOT will provide the facility for the contractor to conduct a job fair that will provide opportunities for all local residents to learn about the different types of employment that could be available on the construction project and to apply for employment. The job fair will occur prior to the start of construction and will include appropriate outreach to the minority and low-income communities affected by the project, including postings at the Workforce Solutions of the Coastal Bend, the Texas Workforce Commission, the HEB grocery store on Leopard Street, City Hall or other similar locations. Invitations will also be made to the Citizens Advisory Committee for distribution amongst the various groups represented by the members.

6.3.6 Aesthetic Enhancements

In an effort to minimize the community cohesion effects of visual and aesthetic impacts of the project in minority and low-income neighborhoods, the public, including neighborhood residents, will have the opportunity to participate in the ongoing process led by TxDOT regarding the project aesthetics. Various Context Sensitive Solutions (CSS) activities are underway to identify the aesthetics preferences of the local community. An initial workshop to discuss aesthetics with members of the Citizens Advisory Committee was held on July 8, 2014, and feedback from that workshop will be incorporated into the design for the Recommended Alternative. Community feedback emphasized the need for lighting on the proposed bridge similar to the existing bridge, utilizing a common aesthetic theme evoking the ocean with a cool color palette, and utilizing drought tolerant coastal plantings in the landscape design.

Per TxDOT's contract guidelines, the project's final aesthetic design will require consideration and incorporation of this community input. Other CSS activities include the formation of a Blue Ribbon Panel comprised of local agency and city leaders, and a Corridor Advisory Committee was formed to gather local neighborhood input for park and trail mitigation (see **Section 6.11**). These CSS activities will continue and preferred aesthetic treatments will be determined by TxDOT. Thus far, based on TxDOT's public involvement efforts, the community has expressed an interest in hardscape and landscape improvements along the proposed hike and bike trail, a theme celebrating the local community history within the parks, and safety lighting, particularly where the bridge structure intersects the proposed hike and bike trail. Future CSS activities are planned to determine how the community would like to incorporate their history into the project, and TxDOT will continue to work with the community throughout the development and construction of the project.

6.3.7 Traffic Noise

Since traffic noise impacts have been identified for this project, the feasibility and reasonableness of potential noise abatement measures has been evaluated per the 2011 TxDOT (FHWA approved) *Guidelines for Analysis and Abatement of Roadway Traffic Noise*. Specific abatement measures including traffic management measures, alteration of horizontal and vertical alignments, acquisition of undeveloped property to provide noise buffers, and the construction of noise barriers were evaluated for feasibility and reasonableness. Abatement measures determined to be feasible and reasonable per TxDOT criteria are recommended to reduce adverse noise impacts associated with the proposed project.

Based on the noise analysis performed for this project, FHWA and TxDOT determined that the inclusion of noise walls at three locations is reasonable and feasible see **Section 6.5** and also Section 4.10.3.5 of the Final EIS). While there will be noise impacts at other locations, the noise abatement reasonableness and feasibility criteria established by TxDOT's guidelines are not met, so noise walls are not proposed at those locations. Residential noise receivers located throughout the study area are anticipated to experience noise levels that approach or exceed the NAC by 2035 for all of the proposed build alternatives after the application of noise abatement. The Recommended Alternative will result in noise impacts to 607 receivers that are predominately residential after the application of noise abatement. These adverse effects would be predominately borne by minority populations and low-income populations. As discussed in Section 4.10 of the Final EIS, abatement measures for many of these receivers were not reasonable and feasible (did not meet cost effectiveness or noise reduction criteria), and therefore, are not practicable.

6.3.8 Conclusion of Environmental Justice Analysis

The Environmental Justice Analysis in Section 4.7 of the Final EIS indicates that the majority of the project's effects will be borne by minority populations or low-income populations as compared to the effects to non-minority populations or non-low-income populations. Minor changes in the design of the Recommended Alternative shown in the Final EIS and changes in the affected environment have resulted in differences in impacts in minority and low-income neighborhoods relative to the Red Alternative shown in the Draft EIS. These include a reduction in the estimated number of residential

displacements from 37 to 19, as noted below in **Table 4** (Table 4.7-1 in the Final EIS). The reduction in the number of residential displacements is primarily the result of the tenants of the North Side Manor Apartment complex on Lake Street being moved by the property owner to a new apartment complex.

Table 4 Residential Displacements in Minority or Low-Income Areas by Alternative

	Green	Recommended	Orange*	West
Total Residential Displacements	15	21	42	13
Residential Displacements within Minority Block and/or Low-Income Block Group	9	19	27	13
Percent of Total Residential Displacements	60%	90%	64%	100%

Source: US 181 Harbor Bridge EIS Team 2013

* As explained in the Final EIS (See Section 4.4.1.3) changes in the design of the Orange Alternative shown in the Final EIS and changes in the affected environment resulted in differences in the table shown here versus the Table 4.7-1 in the Final EIS.

Based on the analysis of the impacts presented in Section 4.7.3 of the Final EIS, and including the proposed measures to avoid, minimize, and mitigate effects, each of the proposed build alternatives, including the Recommended Alternative, will still have disproportionately high and adverse effects to minority populations and low-income populations. As noted above in **Section 3.0**, these disproportionately high and adverse effects were considered alone and in the context of the Section 4(f) Least Overall Harm analysis, and it was determined that the Recommended Alternative, although not the alternative with the least impacts in minority and low-income communities, is the alternative that will cause the least overall harm (see **Section 5.0** and **Table 3**).

It is important to note that the effects of the project are reduced as a result of TxDOT's efforts to avoid and minimize impacts through design modifications, input from the local community, and the additional Title VI mitigation described in **Section 9.0** that led to the overall mitigation elements proposed for the project.

6.3.8.1 Substantial Need for the Project Based on the Overall Public Interest

Section 1.0 of the Final EIS describes in detail the underlying problems associated with the existing Harbor Bridge and the US 181 facility. The safety concerns related to design deficiencies and long-term maintenance costs have led TxDOT and FHWA to propose replacement of the bridge and reconstruction of the approaches to improve safety and maximize the long-term operability of the facility. The need and purpose for the project has been shared with the public and Cooperating and Participating agencies from the initial project scoping meetings through the public hearing and public comment period. There has been strong support for the need for the project at the local level with the City of Corpus Christi, the Corpus Christi MPO, the Port of Corpus Christi Authority, the Corpus Christi Regional Transit Authority and many other local stakeholder groups endorsing the project. TxDOT and FHWA find that a substantial need for the project exists, based on the overall public interest. The adverse effects of the

Recommended Alternative would be mitigated or otherwise offset to the extent practicable through the implementation of measures described in Final EIS Section 9.0. After evaluation, FHWA and TxDOT have determined that there are no further practicable mitigation measures or practicable alternatives that would avoid or reduce the disproportionately high and adverse effects.

6.3.8.2 Adverse Impacts of the Other Alternatives

Each of the proposed build alternatives, including the Recommended Alternative, would have disproportionately high and adverse effects to minority populations and low-income populations. The displacement and community cohesion effects of the Orange Alternative are considered more adverse than those of the Recommended Alternative, whereas the effects of the Green and West Alternatives are considered less adverse to minority populations and low-income populations when compared to those of the Recommended Alternative. However, as summarized in Section 2.6 and addressed in various sections throughout the Final EIS, there are social, economic and environmental resources in the project area that would also be adversely affected in one way or another by the Green and West Alternatives (see **Table 5**), and some of these effects would be severe. The Green and West Alternatives would both be inconsistent with the City's future land use and community sustainability planning initiatives. The Green Alternative would have adverse effects to accessibility in the downtown area and adjacent neighborhoods and would result in the displacement of 57 businesses and the Templo Trinidad Church. In addition, the displacement of the Port's Warehouse #9/Public Cargo dock would potentially affect the Port's designation as a strategic military port, an important economic designation for the Corpus Christi region.

The West Alternative would limit neighborhood access to the two primary hurricane evacuation routes for the area—part of the purpose for the project is to improve hurricane evacuation—and would not be able to accommodate direct access to the I-37 mainlanes from the Hillcrest neighborhood. The West Alternative would remove the view of a landmark (the bridge itself) from visually sensitive areas like the marina, and the bridge would no longer be visible from many other areas downtown. Members of the TAC and CAC agreed in large measure that the alignment of the West Alternative would be too far west to be a landmark in the manner of the existing bridge and that it would not be able to contribute to the city skyline, an important factor in the identity of Corpus Christi. The West Alternative would have adverse effects to marsh habitat and tidal wetlands, and could affect the ability of the U.S. Army Corps of Engineers to maintain navigational access to the ship channel during the construction phase due to this alternative's use of the designated dredged spoils disposal area north of the Inner Harbor.

Each of the proposed build alternatives, including the Recommended Alternative, would have adverse effects to social, economic, and environmental resources, and although the Green and West Alternatives have less adverse effects to environmental justice populations, they would have other adverse effects that are severe. The Green and West Alternatives would have adverse traffic noise effects that could not be reasonably offset with practicable mitigation measures. The Green and West Alternatives would be inconsistent with the City's future land use and community sustainability planning initiatives. The

Table 5 Adverse Impacts to Social, Economic and Environmental Resources

	Green	Recommended	Orange	West
Displacements	<ul style="list-style-type: none"> •15 residential •57 business (includes 41 tenants in Park Tower) •1 church •2 other (Ortiz Center Outdoor Pavilion, Port Warehouse and Public Dock #9-U.S. Military) 	<ul style="list-style-type: none"> •21 residential (including 10 apartment units) •3 business •4 other (Port Warehouse #10 refrigerated distribution facility, Port Warehouses #26 and 27, H&S Fabricators warehouse) 	<ul style="list-style-type: none"> •42 residential (includes 22 apartment units) •10 business •3 other (including Ortiz Center Conference Room and Outdoor Pavilion; Port Warehouse and Public Dock #9-U.S. Military; Broadway Wastewater Treatment Plant) 	<ul style="list-style-type: none"> •13 residential (includes 6 apartment units) •2 business •1 other (2 large above ground petroleum storage tanks)
Local Land Use Planning	<ul style="list-style-type: none"> •Inconsistent with future land use and community sustainability planning •Compatible with existing and future neighborhood land use 	<ul style="list-style-type: none"> •Consistent with future land use and community sustainability planning •Incompatible with existing and future neighborhood land use 	<ul style="list-style-type: none"> •Inconsistent with future land use and community sustainability planning •Incompatible with existing and future neighborhood land use 	<ul style="list-style-type: none"> •Inconsistent with future land use and community sustainability planning •Incompatible with existing and future neighborhood land use
Community Cohesion	<ul style="list-style-type: none"> •Leaves physical US 181 barrier in place between the Northside neighborhoods and downtown 	<ul style="list-style-type: none"> •Separation of the Washington-Coles and Hillcrest neighborhoods affecting the cohesion of the Northside community 	<ul style="list-style-type: none"> •Separation of the Washington-Coles and Hillcrest neighborhoods affecting the cohesion of the Northside community •Substantial number of residential displacements affecting cohesion 	<ul style="list-style-type: none"> •No impact to community cohesion; loss of accessibility to major transportation facilities (adverse effect to community values)
Accessibility	<ul style="list-style-type: none"> •Elimination of northbound exit to Burleson Street reduces access to North Beach •Reduction in access from downtown and South Central community 	<ul style="list-style-type: none"> •Elimination of northbound exit to Burleson Street reduces access to North Beach •Winnebago Street closure affects mobility—comparable access replaced along Lake Street 	<ul style="list-style-type: none"> •Elimination of northbound exit to Burleson Street reduces access to North Beach •Winnebago Street closure affects mobility—comparable access replaced along Lake Street 	<ul style="list-style-type: none"> •Elimination of northbound exit to Burleson Street reduces access to North Beach •Substantially reduced accessibility to US 181 and I-37 from the Hillcrest neighborhood, affecting hurricane evacuation
Visual and Aesthetic Effects	<ul style="list-style-type: none"> •Least visually intrusive •Most able to convey landmark status •Most able to contribute to an iconic Corpus Christi skyline 	<ul style="list-style-type: none"> •Visually and aesthetically intrusive in the Northside community •Able to still convey landmark status •Less able to contribute to an iconic Corpus Christi skyline 	<ul style="list-style-type: none"> •Most visually and aesthetically intrusive in the Northside community •Able to convey landmark status •Able to contribute to an iconic Corpus Christi skyline 	<ul style="list-style-type: none"> •Less visually and aesthetically intrusive in the Northside community •Visually and aesthetically intrusive in the Westside community (Oak Park neighborhood) •Least able to convey landmark status •Not able to contribute to an iconic Corpus Christi skyline
Noise Effects	<ul style="list-style-type: none"> •522 total receivers impacted; 3 barriers proposed 	<ul style="list-style-type: none"> •538 total receivers impacted; 3 barriers proposed 	<ul style="list-style-type: none"> •480 total receivers impacted; 3 barriers proposed 	<ul style="list-style-type: none"> •424 total receivers impacted; 2 barrier proposed
Construction Phase Effects	<ul style="list-style-type: none"> •Greater user effects (travel delays, alteration of traffic patterns for a longer duration) due to the construction overlap with the existing US 181 alignment 	<ul style="list-style-type: none"> •User effects (travel delays, alteration of traffic patterns) 	<ul style="list-style-type: none"> •User effects (travel delays, alteration of traffic patterns) 	<ul style="list-style-type: none"> •User effects (travel delays, alteration of traffic patterns) •Affects U.S. Army Corps of Engineers ability to fulfill their obligation in the event emergency dredging operations were called for to maintain the ship channel •Potential adverse water quality effects from disturbance of dredged sediments in Upland Confinement Area

Source: US 181 Harbor Bridge EIS Team 2014

Green Alternative would have adverse effects to accessibility in the downtown area and adjacent neighborhoods, and the West Alternative would limit neighborhood access to the two primary hurricane evacuation routes for the area.

In the course of this analysis, TxDOT and FHWA have evaluated several reasonable alternative courses of action and balanced the consideration of the need for safe and efficient transportation with the social, economic, and environmental impacts of the proposed project and national, State, and local environmental protection goals. The Recommended Alternative best meets the purpose and need and objectives of the proposed project and was determined through the Section 4(f) evaluation to be the alternative that causes the least overall harm.

6.4 AIR QUALITY AND HEALTH IMPACTS

An air quality analysis for carbon monoxide was conducted for each of the build alternatives considered in the Final EIS. Additionally, a qualitative and quantitative analysis of Mobile Source Air Toxics (MSAT) was performed. FHWA and TxDOT determined that the project will not result in any adverse air quality impacts (see generally Section 4.9 of the Final EIS). The project will not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS) which are health-based standards for criteria pollutants under the Clean Air Act. The project is located in Nueces County which is an area in attainment or unclassifiable for all NAAQS, including ozone and carbon monoxide. NAAQS are standards promulgated by the Environmental Protection Agency (EPA) at levels to protect public health and welfare. Because the project does not occur in a nonattainment area, a transportation conformity analysis was not required. FHWA recommends a project-level carbon monoxide analysis under NEPA be completed for certain added capacity projects in its guidance titled FHWA Technical Advisory T 6640.8A. This project is not adding capacity and does not meet the traffic volume threshold established by TxDOT and FHWA for determining when a carbon monoxide Traffic Air Quality Analysis (TAQA) should be conducted for projects in Texas. Those facts notwithstanding, FHWA and TxDOT conducted an air quality analysis for carbon monoxide utilizing the traffic volume data for the completion year of the project (2020) and the horizon year (2035) of the Corpus Christi MPO's 2010-2035 MTP in effect at the time of the analysis. The carbon monoxide TAQA was conducted in response to air quality concerns raised by the public. Based on this analysis, discussed in Section 4.9.2 of the Final EIS, FHWA and TxDOT determined that the project is not anticipated to cause an exceedance of a carbon monoxide NAAQS standard.

FHWA guidance states that a quantitative MSAT analysis is not recommended for a project with an AADT volume of less than 140,000 vehicles per day. However, due to public concerns raised regarding air quality, FHWA and TxDOT performed a quantitative MSAT analysis which is discussed in Section 4.9.2.2 in the Final EIS. This analysis indicated a decrease in total MSAT emissions in the horizon-year (2035) compared to the 2015 base year for the project.

FHWA and TxDOT evaluated MSATs in accordance with FHWA's tiered approach to evaluating MSAT as detailed in FHWA's December 6, 2012 Interim MSAT Guidance. The project has a low potential for MSAT effects because it does not add capacity and the horizon-year (2035) traffic projections indicate

an annual daily traffic (AADT) of less than 140,000 vehicles. In compliance with FHWA's Interim Guidance, TxDOT and FHWA performed a qualitative MSAT analysis as discussed in Section 4.9 of the Final EIS to evaluate the potential differences in MSAT emissions among the alternatives. The amount of MSAT emitted is proportional to the vehicle miles traveled (VMT). Based on this analysis, FHWA and TxDOT determined that estimated VMT for the project alternatives is slightly higher than the No Build Alternative and may result in increased exposure to MSAT emissions in certain locations where VMT would increase. Even if these increases occur, MSAT emissions are anticipated to be lower than present levels in the horizon-year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 80 percent from 2010 to 2050. Health effects as a result of exposure to MSAT cannot be forecast due to the uncertainty of the concentrations and duration of exposure and a lack of adequate science to assess project-specific health outcomes as a result of the lifetime MSAT exposure. MSAT emissions will be substantially reduced in the future due to implementation of EPA's vehicle and fuel regulations.

Air quality impacts during project construction will be minimized by TxDOT and its contractors. Contractors will be required by provisions in the project plans and specifications to develop a construction air emission control plan and to make every reasonable effort to minimize construction emissions through abatement measures such as limiting construction equipment idling and other emission limitation techniques, as appropriate.

Contractors must also comply with other abatement measures contained in the project plans and specifications such as limiting construction equipment idling and other emission limitation techniques, as appropriate. Contractors must also follow TxDOT's Standard Specifications, which include provisions to protect the health and safety of persons in the proximity of construction and staging sites.

Health impacts will also be minimized during the construction phase by testing for lead and asbestos prior to demolition to ensure that these materials are handled appropriately.

TxDOT will ensure that hazardous materials sites are avoided where practicable, or that they are sufficiently managed so that the public will not be exposed to health risk.

Particulate matter emissions will be minimized by using fugitive dust control measures such as covering or treating disturbed areas with dust suppression techniques, sprinkling, covering loaded trucks, and other dust abatement controls, as appropriate during project construction.

6.5 TRAFFIC NOISE

Traffic noise impacts for the project were evaluated in accordance with the FHWA regulations, policy and procedures, and TxDOT (FHWA approved) *Guidelines for Analysis and Abatement of Roadway Traffic Noise* (2011). The noise impact analysis is contained in Section 4.10 of the Final EIS. FHWA regulations establish noise abatement criteria (NAC), which represent the upper limit of acceptable highway traffic noise for different types of land uses and human activities.

Noise receivers located throughout the study area are anticipated to experience noise levels that approach or exceed the NAC by 2035 for all of the proposed build alternatives. In accordance with TxDOT guidelines and FHWA regulations, FHWA and TxDOT considered reasonable and feasible noise abatement measures for each noise receiver. An abatement measure is feasible if it can reduce the noise level at greater than 50 percent of impacted, first row receivers by at least 5 dBA. A noise abatement measure is "reasonable," if the following criteria are met:

1. The noise reduction design goal is met – a minimum of one first row benefited receiver must receive a noise reduction of at least 7 dBA;
2. The cost-effectiveness goal is met – the cost of the abatement measure should be equal to or less than \$25,000 per benefited receiver (noise impact reduced by at least 5 dBA); and
3. Concurrence from the public on the noise abatement measure – at least 50 percent plus one of the affected property owners supports the proposed abatement.

Based on the noise analysis performed for this project, FHWA and TxDOT determined that the inclusion of noise walls at three locations is reasonable and feasible. (See Section 4.10.3.5 of the Final EIS).

The three noise barriers proposed for incorporation into the final design of the project are presented in **Table 6** (Table 4.10-4 in the Final EIS) below and more specifically described in Section 4.10.3.2 of the Final EIS.

Barrier	Representative Receivers	Total No. Benefited	Length (feet)	Height (feet)	Total Cost	\$/Benefited Receiver	Reasonable & Feasible
A	R37 (Elliot Grant Homes; HUD-assisted housing)	7	295	11	\$58,410	\$8,344	Yes
B	R72	9	525	12	\$113,400	\$12,600	Yes
D	R88-R91 (Navarro Place Apts.; HUD-assisted housing)	15	1,368	14	\$344,736	\$22,982	Yes

Source: US 181 Harbor Bridge EIS Team 2014

While there will be noise impacts at other locations, the noise abatement reasonableness and feasibility criteria established by TxDOT's 2011 guidelines are not met, so noise walls are not proposed at those locations. Residential noise receivers located throughout the study area are anticipated to experience noise levels that approach or exceed the NAC by 2035 for all of the proposed build alternatives after the application of noise abatement. The Recommended Alternative will result in noise impacts to 507 receivers that are predominately residential after the application of noise abatement.

6.6 WATER RESOURCES

No adverse impacts to surface or ground water quality in the project area are expected as a result of the project (see Section 4.11 of the Final EIS). Actions to minimize impacts to water quality during construction of the Recommended Alternative include:

- Authorization under the Texas Commission on Environmental Quality (TCEQ) Construction General Permit (CGP), TXR150000 as a Large Construction Activity. The project will be eligible for authorization under the CGP for discharges to impaired surface waters, if applicable at the time of construction, provided the project and associated activities are implemented, operated, and maintained in a manner that is consistent with the approved Total Maximum Daily Load (TMDL) and TMDL Implementation Plan for Nueces Bay, and if applicable, a TMDL for Corpus Christi Bay beaches.
- Implementation of a Storm Water Pollution Prevention Plan (SW3P) to minimize pollutants in construction storm water discharges. Temporary erosion and sediment control Best Management Practices (BMP) will be designed, put in place, and maintained throughout the construction phase, as required by the CGP and by TxDOT Construction Specifications.
- Coordination with the Texas General Land Office to maintain compliance with the Coastal Management Program (CMP).
- Preparation of a bridge permit application packet that will be submitted to the USCG to obtain a bridge permit for the construction of the project.
- Establishment of a regulated navigation area (RNA) within the Inner Harbor during the demolition and project construction phases, to protect individuals and vessels from potential safety hazards and allow for safe and orderly movements through the area.
- Compliance with local National Flood Insurance Program (NFIP) standards, in compliance with 23 CFR § 650.115. The City of Corpus Christi and Nueces County are participants in the NFIP; coordination with the local Floodplain Administrators is required.

6.7 WETLANDS AND WATERS OF THE U.S.

TxDOT and FHWA will coordinate with the Galveston District of the U.S. Army Corps of Engineers (USACE), as needed, to obtain a Section 404 Individual Permit (and Section 10 Permit under the Rivers and Harbors Act). TxDOT and FHWA will assure compliance with the permit conditions, including the completion of any compensatory mitigation that may be required by the USACE.

TxDOT specifications for revegetation, erosion/sedimentation control, and other restoration will be employed during and after the construction phase until the Texas Pollutant Discharge Elimination System (TPDES) Notice of Termination is issued.

TxDOT and FHWA will comply with the Texas Water Quality Certification by implementation of TCEQ-approved BMPs for erosion control, sediment control, and post-construction total suspended solids (TSS) control. The Storm Water Pollution Prevention Plan required for the project and project design will include at least one BMP from the 401 Water Quality Certification Conditions for Nationwide

Permits. These BMPs will address each of the following categories: 1) erosion control, 2) sedimentation control, and 3) post construction TSS control.

6.8 VEGETATION

Some vegetation loss will occur as a result of the project. TxDOT will ensure that disturbed areas are restored and reseeded according to TxDOT specifications.

Impacts during construction or construction-staging activities will be avoided or minimized by limiting disturbance to only that which is necessary to construct the project.

TxDOT will work to prevent the introduction of invasive species during construction.

Upon completion of earthwork operations, TxDOT will restore and reseed disturbed areas in accordance with TxDOT's Vegetation Management Guidelines and in compliance with the intent of the FHWA Executive Memorandum on Environmentally and Economically Beneficial Landscape Practices.

6.9 WILDLIFE INCLUDING THREATENED AND ENDANGERED SPECIES

Construction phase activities for the project will directly or indirectly affect most wildlife species present. The use of BMPs, careful vegetation clearing techniques, and replanting will minimize impacts to wildlife habitat within the project area. Monitoring before and during construction activities will protect wildlife species, including nesting birds, from direct harm. Adjacent wildlife habitat will be protected from storm water runoff by implementing BMPs that will control erosion, post construction TSS, and sedimentation.

6.9.1 Threatened and Endangered Species

The project area was studied for the presence of federal and state listed threatened, endangered, or candidate wildlife species and their habitats (see Section 3.13 of the Final EIS). TxDOT and the contractor are required to avoid and minimize impacts to open water areas to the extent practicable, including the Inner Harbor, during construction and demolition of the project. Regardless of the methods chosen to demolish the existing bridge, the contractor will not be authorized to intentionally discharge pieces of the existing bridge, however small, into the Inner Harbor. Incidental discharges shall be minimized to the extent practicable and measures to control these types of discharges will be developed and implemented during all phases of construction and demolition with the potential to impact aquatic habitats.

6.9.1.1 Federally-listed threatened, endangered, or candidate species

Potential habitat for nine federally-listed threatened or endangered species and one candidate species occurs within the project area (see Table 3.13-1 of the Final EIS). These species include the Atlantic hawksbill sea turtle (LE), Green sea turtle (LE), Kemp's Ridley sea turtle (LE), Leatherback sea turtle (LE), Loggerhead sea turtle (LT), West Indian manatee (LE), Whooping Crane (LE), Red Knot (C), Piping Plover

(LT), and the smalltooth sawfish (LE). A combination of desktop/database research, extensive field investigations by qualified ecologists on three different occasions and coordination with local natural resource agency personnel and other subject matter experts was conducted to determine whether additional localities of listed or protected species (including rookeries) were known in the project area. No occurrences were found in the project area (see Section 3.13.3 of the Final EIS).

If conditions change and one of the above-mentioned species appears in the project area, TxDOT will take appropriate measures to avoid and minimize impacts to the species.

If a protected sea turtle or West Indian manatee appears in the project area, TxDOT will avoid and minimize impacts to those species caused by construction and demolition activities by implementing procedures specific to those species, as described in Section 9.10.1 of the Final EIS.

To prevent impacts to the Whooping Crane, Piping Plover and Red Knot, a qualified biologist will be required to conduct pre-construction surveys within the Rincon Channel tidal flats. If one of the bird species is detected during pre-construction surveys, a U.S. Fish and Wildlife Service-approved biologist will monitor for presence of the birds during all phases of construction.

6.9.1.2 State-listed threatened, endangered, or candidate species

Potential habitat for seven state-listed threatened species occurs within the project area; these species include the Opossum pipefish, Peregrine Falcon, Reddish Egret, White-faced Ibis, White-tailed Hawk, Wood Stork, and Southern yellow bat (see Table 3.13-1 in Final EIS). During construction, in the unlikely event that any of these species occurs in the project area, efforts will be made to avoid direct harm to individuals of state-listed or rare species; particularly those most vulnerable to earth moving and de-watering activities. Specific notes will be inserted into the construction plans that indicate the potential presence of these species and instruct the contractor to avoid impacting them. The contractor will be briefed on the species appearance and habitat preferences prior to construction and instructed to cease activities in the vicinity of the protected species, if encountered, for a sufficient amount of time to enable escape or relocation.

To avoid and minimize impacts to aquatic species, waterways will be spanned whenever practicable and appropriate BMPs put in place. When areas must be de-watered, the work site will be isolated to prevent fish and other aquatic species from moving into the construction zone and work activities conducted as quickly as possible to minimize the length of time that flow is modified or interrupted. Prompt and effective erosion control and re-vegetation and restoration of flow lines and grades will be employed to further minimize impacts. The contractor will return temporary work areas to pre-project conditions as soon as practicable.

6.9.2 Essential Fish Habitat

Coordination with National Marine Fisheries Service (NMFS) regarding Essential Fish Habitat (EFH) consultation requirements has been initiated. The implementation of applicable recommendations from NMFS regarding the preservation of EFH will be the responsibility of TxDOT and FHWA.

6.9.3 Migratory Bird Treaty Act

Appropriate measures will be taken to avoid adverse impacts on migratory birds and include the following:

- Removing or destroying active migratory bird nests (nests containing eggs and/or young) at any time of the year will be prohibited until the nests become inactive.
- If colonial nesting (for example, swallows) occurs on or in structures, nests will not be removed until all nests in the colony become inactive. A qualified wildlife biologist will be consulted to determine what constitutes a colony in the context of birds nesting on a bridge, culvert or other structure and to examine nests for eggs or young as needed.
- Measures will be utilized, to the extent practicable, to prevent or discourage migratory birds from building nests within portions of the project area scheduled for immediate construction or demolition.
- Inactive nests will be removed from the project area to minimize the potential for reuse by migratory birds.

When practicable, construction or demolition activities will be scheduled outside the typical nesting season (February to October), noting that the prohibitive provisions of the MBTA apply year-round.

6.9.4 Marine Mammal Protection Act

To avoid and minimize potential incidental harassment of marine mammals, the contractor will implement the following:

1. Qualified biologists will monitor the presence of marine mammals during all phases of construction and demolition within open waters of the project area, including the Inner Harbor.
2. Before construction or demolition commences, a preliminary marine mammal impact zone will be established, delineated by a 50-foot radius from the work area if that impact zone will extend into the water. If any marine mammal were to be observed within the appropriate impact zone, the biological monitor will instruct that construction activities cease until it could be determined that the animal had moved beyond the impact zone radius, either through sighting or by waiting until enough time has elapsed (approximately 15 minutes) to assume that the animal has moved beyond the impact zone.

6.10 CULTURAL RESOURCES

6.10.1 Archeological Resources

If unanticipated archeological deposits are encountered during construction, work in the immediate area will cease. TxDOT archeological staff will be contacted to initiate post-review discovery procedures under the provisions of the First Amended Programmatic Agreement among FHWA, TxDOT, the Texas State Historic Preservation Officer and the Advisory Council On Historic Preservation Regarding the

Implementation of Transportation Undertakings and Memorandum of Understanding (MOU) between TxDOT and Texas Historical Commission (THC).

6.10.2 Historic Resources

TxDOT is currently developing programmatic mitigation outlined by the Advisory Council on Historic Preservation in its *Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges*, published in the Federal Register on November 16, 2012. In 2014, TxDOT began a multi-year planning process for all historic bridges in the state that integrates public engagement opportunities and bridge management planning efforts to develop and demonstrate effective strategies. TxDOT, the THC and the Historic Bridge Foundation (HBF) worked together to determine which bridges in Texas built between 1945 and 1965 are the most significant. During the summer of 2014, TxDOT jointly conducted a series of open houses to discuss a treatment plan for mid-20th century historic bridges in Texas. This plan separates the bridges into three groups based on their relative historic and/or engineering significance. This approach will mandate the type of compliance and mitigation that TxDOT will apply to projects that resulted in adverse effects to the NRHP-eligible, post-1945 bridges. As part of the Group I Bridges, the Harbor Bridge is an exceptionally important bridge that is significant in more than one evaluation category and therefore its removal will be afforded full review and individual mitigation. TxDOT recently completed its public involvement activities and provided documentation and public engagement materials to the THC and HBF. Therefore, TxDOT will coordinate with the THC and consulting parties and finalize individualized mitigation for the Harbor Bridge under this programmatic approach to historic bridges. Complete information about TxDOT's historic bridge program and programmatic bridge mitigation efforts can be found at <http://www.txdot.gov/inside-txdot/projects/studies/statewide/historic-bridges.html>. There is also information available about the on-going efforts at <http://www.thc.state.tx.us/learn/historic-bridges-texas>.

6.11 SECTION 4(F)

The Recommended Alternative will require the use of Section 4(f) properties, including the Harbor Bridge system, T.C. Ayers Park, and Lovenskiold Park. Mitigation commitments for the use of Section 4(f) properties were developed following coordination with the City of Corpus Christi and the Texas Historical Commission (officials with jurisdiction), as well as multiple neighborhood meetings and meetings with the Citizens and Technical Advisory Committees.

Commitments to offset the project impacts to T.C. Ayers Park include replacement of park functions on the City's closed Washington Elementary School property near the existing park. The new park will include:

- Elements commemorating neighborhood history;
- Two new covered basketball courts;
- Community gardens;
- Playground equipment;

- Baseball backstop;
- Parking lot;
- Overhead trellis structure;
- Bleachers;
- Trail around the park with trailhead;
- Shade tree plantings; and
- Pedestrian lighting.

The remainder of T.C. Ayers Park, including the municipal swimming pool, will be enhanced to include:

- A trail around the park;
- A new pool changing facility;
- Resurfacing of the pool;
- Shade tree plantings; and
- New recreational turf.

Additional enhancements are also proposed at Dr. H.J. Williams Memorial Park in the Hillcrest neighborhood. These enhancements will include:

- Resurfacing the existing basketball court;
- New playground equipment;
- New overhead trellis structure;
- New picnic tables;
- Shade tree plantings; and
- Benches.

Mitigation for the impacts to Lovenskiold Park will be in the form of enhancement of Ben Garza Park, a much larger regional park less than a half-mile away from Lovenskiold Park. Enhancements to Ben Garza Park will include resurfacing the basketball court and resurfacing and restriping the parking lot.

In addition to the development of new park properties and enhancement of existing park properties, TxDOT will provide for enhancement to recreational facilities at the Oveal Williams Senior Center, with details to be determined through continued collaboration with members of the senior center and the City of Corpus Christi.

TxDOT plans to enter into an agreement with the City of Corpus Christi to develop the new Washington Park property and to provide enhancements and improvements to the other park properties serving the minority and low-income community. These enhancements and improvements will be implemented prior to final completion of the project. Under the agreement, the City will be responsible for designing, constructing, and maintaining the park improvements.

6.12 HAZARDOUS MATERIALS

Risks associated with hazardous wastes will be minimized prior to and during the construction of the Recommended Alternative as discussed in Section 4.19 of the Final EIS. Any unanticipated hazardous materials and/or petroleum contamination encountered during construction will be handled according

to applicable local, state, and federal regulations and TxDOT Standard Specifications and Guidelines for handling emergency discovery of hazardous materials. Prior to construction, a hazardous materials management plan that incorporates industry standards and federal, state and local guidelines for the handling of impacted soils and groundwater will be prepared. If oil/gas well-related contamination is encountered during construction, any necessary remediation will be conducted prior to continuation of construction activities.

Excavated soils that exceed applicable, relevant clean up levels will not be permanently stored on site but characterized and hauled off site to an authorized disposal facility. During excavation, TxDOT standard precautions will be implemented to ensure that excavated soils and groundwater do not migrate away from the site to surrounding properties and neighborhoods.

Activities associated with the use and storage of hazardous materials during construction will be required to conform to TxDOT standards for spill containment and control strategies.

Asbestos issues during structure demolition will be addressed during right of way acquisition prior to construction and applicable asbestos inspections, specification, notification, license, accreditation, abatement, and disposal, will be in compliance with federal, state and local regulations.

Subsurface penetrations for piers, columns or storm sewers are likely to encounter contaminated soil and groundwater in this area. Excavated soil and pumped groundwater will likely require treatment or disposal, and will be contained and managed as a non-hazardous waste.

TxDOT will conduct a surface water, sediment, and soil investigation of Culberson Ditch which originates at the intersection of Comanche Street and N. 19th Street and terminates to the north at the Inner Harbor approximately 1,000 feet west of Stroman Street. It flows through T.C. Ayers Park and east of the former Southwestern Oil and Refining Company/Kerr-McGee facility, Terminal 1 site and traverses several bulk petroleum storage terminal properties and the former D.N. Leathers II site.

The Recommended Alternative is in proximity to the Martin Operating Partnership, LP (Koch Pipeline Company, LP) and petroleum product aboveground storage tanks (ASTs). Petroleum product ASTs closest to the proposed right of way may need to be removed.

One or more piers for the Harbor Bridge structure will be excavated in approximately the center of the Port of Corpus Christi Authority Recyclable Transfer Container Yard. A soil and groundwater quality investigation will be conducted prior to excavation in order that the appropriate mitigation procedures can be incorporated into the Soil and Groundwater Management Plans (SGMPs).

7.0 MONITORING AND ENFORCEMENT PROGRAM

In compliance with NEPA legislation and implementing regulations, TxDOT will implement and monitor mitigation measures to reduce or eliminate adverse environmental impacts associated with the Harbor Bridge project. From an oversight perspective, TxDOT and FHWA roles will include:

- FHWA will continue to oversee activities associated with this project. TxDOT will oversee the design and construction activities associated with the project through their contractors.
- TxDOT will prepare the contract documents to ensure environmental commitments are implemented, as appropriate, in both the design and construction of the project.
- TxDOT will track project commitments from inception through design, construction, and completion.

TxDOT will require the Developer awarded the design and construction contract for the Harbor Bridge project to develop, operate, and maintain a Comprehensive Environmental Protection Program (CEPP) for the project to ensure environmental compliance with all applicable Environmental Laws and Commitments. The CEPP shall obligate the Developer to implement measures during the performance of the work to avoid and minimize impacts on the environment from the design, construction, maintenance, operation, and rehabilitation activities of the project and to meet all environmental commitments.

The Developer will be required to prepare a Construction Monitoring Plan that shall identify times, locations, and other conditions where monitoring of construction activities is to be performed to maintain and cause compliance with environmental laws, environmental approvals, and the contract documents.

TxDOT has also taken steps to provide mitigation already in the form of livability and sustainability discussions, and will continue to work with the community to make other improvements.

8.0 SUBSTANTIVE COMMENTS ON THE FINAL EIS

The Final EIS was signed on November 25, 2014, made available for agency and public review and sent to the U.S. EPA for filing the Notice of Availability, which appeared in the *Federal Register* on Friday, December 5, 2014. The Notice of Availability was also published in the December 5, 2014, edition of the *Texas Register*. Additional notices were published in the *Federal Register* on December 29, 2014, and in the *Texas Register* on January 2, 2015, extending the notice period from January 5, 2015, to January 20, 2015. All comment submittals from Participating and Cooperating agencies and the public were reviewed and considered in the development of the ROD.

The comments are summarized by topic and discussed below. They are organized by topic: air quality; traffic noise; environmental justice; Port of Corpus Christi; hazardous materials; mitigation for adverse impacts; reasonable alternatives; Section 4(f) approval; supplemental EIS; and public involvement. FHWA and TxDOT have reviewed all comments received and found that the potential impacts of the project have been considered and addressed.

Air Quality

Comments: *Several comments raised concerns about the air quality effects of the proposed project, including the potential for reasonably foreseeable indirect and cumulative effects arising from the operation of the Port of Corpus Christi.*

Response: The Joint Lead Agencies have addressed the direct, indirect and cumulative air quality effects of the proposed project in accordance with applicable regulations (23 CFR 771 and 40 CFR 1502) and in accordance with current FHWA and TxDOT Air Quality guidance. The project air quality assessment includes a discussion of transportation conformity in the project area, an air quality analysis of carbon monoxide emissions for all Build Alternatives, a qualitative mobile source air toxics (MSAT) emissions analysis for all alternatives, and a quantitative assessment of MSAT emissions for the 2015 base year and 2035 horizon year for the No Build and Recommended Alternatives; 2035 is the horizon year of the Corpus Christi MPO's 2010-2035 MTP in effect at the time the air quality analyses were completed.

The Joint Lead Agencies also considered indirect impacts on air quality, and concluded that this project would not result in any meaningful changes in traffic volumes, vehicle mix, location of existing roadways, or any other factor that would cause a substantial increase in emissions impacts relative to the No Build Alternative. As such, the Joint Lead Agencies concluded that the proposed project would generate minimal indirect impacts on air quality. See Final EIS Section 6.5.1.1. Note that the Joint Lead Agencies specifically concluded that a clear cause-effect relationship between the proposed project and increased shipping at the Port cannot be demonstrated. See Final EIS Section 6.5.2.2.

The Joint Lead Agencies also addressed cumulative effects on air quality, taking into account contributions both from roadway sources and from non-roadway sources including Eagle Ford Shale exploration and drilling, future shipping activity, port-related development, highway improvements, railroad improvements, and development of industrial facilities (e.g., refineries). See Final EIS Section 7.6.1. Note that, while future increased shipping activity and development associated with the Port was determined not to be an indirect impact of the project, such increased activity and development was determined to be reasonably foreseeable, and therefore was considered in the cumulative impacts analysis. As explained in Section 7.6.1, the results of air quality analyses performed for the project show that it would result in minimal direct or indirect effects to air quality, leading to minimal contribution to cumulative effects. The Final EIS also concludes that the Corpus Christi area is in attainment or unclassifiable for all NAAQS, and federal and state data indicate a downward trend in emissions. See Final EIS Section 7.6.1.3.

Comments: Several comments emphasized the need to analyze the potential near-roadway effects, particularly within the Northside community neighborhoods and to address health impacts. Concerns were specifically noted regarding benzene exposure.

Response: The Joint Lead Agencies address the potential health effects of MSAT emissions in Final EIS Section 4.9.2.2 as well as in Section 7.6.1.3. Community Health, including health in the Northside neighborhoods, is addressed in Final EIS Section 3.5.1.4. This section specifically addresses a study by the U.S. Department of Health and Human Services showing no evidence of elevated benzene levels in personal air samples from Hillcrest and Dona Park neighborhood participants. In addition, as noted in Final EIS Section 7.3.1.2, the TCEQ's air quality monitor number 1402 (installed in 1998 on Huisache Street near the refineries west of the Hillcrest neighborhood) was removed from the Air Quality Watch List in 2010 following steady declines in benzene levels beginning in 2002.

With respect to near-road emissions, Final EIS Section 4.9.2.2 includes a quantitative MSAT analysis per FHWA guidance, which recommends an emission-based approach for analyzing project-level MSAT impacts. The analysis includes identifying traffic volume changes for roadway links between the build and no-build scenarios in order to identify an affected transportation network. All roadway links in the identified affected transportation network are included in the MSAT emissions analysis in order to identify the project's relative contribution of emissions. The analysis concludes that emissions of total MSAT are predicted to decrease by approximately 73.3 percent in the 2035 horizon year for the Recommended Alternative compared with 2015 base year levels. Note also that the amount of benzene, specifically, is expected to decrease by 51.1 percent by 2035 for the Recommended Alternative.

In addition, the Joint Lead Agencies have performed a localized traffic air quality analysis for carbon monoxide (CO). The results of this analysis are summarized in Final EIS Section 4.9.2.1, and they indicate that even under a worst-case scenario, emissions from the roadway would not be expected to cause or contribute to an exceedance of the National Ambient Air Quality Standards (NAAQS) for CO in any of the years analyzed.

Comments: One comment suggested that the Final EIS did not include an analysis of the project's impacts on ozone levels and should have included background information on the possible health impacts of ozone.

Response: The project area is not exceeding the current NAAQS for ozone, as demonstrated by current ozone monitoring data in the project area. See Final EIS Section 3.6.2. Section 7.6.1.3 of the Final EIS documents that the project area is in attainment for ozone, and that there are regulatory control measures in place that are intended to prevent industry from negatively impacting air quality (including new stationary Major Sources). In addition, the aforementioned "Trends in Air Quality within the Project Area", indicates NO_x and VOC (ozone precursor pollutants) emissions are expected to continue

an overall decreasing trend over time. These trends are also consistent with EPA data that predict Nueces County would attain the ozone NAAQS in 2020 at a level of 65 parts per billion (ppb) or higher—the current NAAQS for ozone is 75 ppb). EPA predicts that NOx emissions in 2030 will be reduced by at least 3,728,509 tons/year nationwide, consistent with the lower NOx emissions predicted by TCEQ for Nueces County. As explained in Section 7.6.1, the results of air quality analyses performed for the project show that it would result in minimal direct or indirect effects to air quality, leading to minimal contribution to cumulative effects.

Traffic Noise

Comments: *Several comments addressed traffic noise effects and the infeasibility of applying noise abatement in many cases.*

Response: The FEIS explains the recommended feasible and reasonable mitigation for predicted traffic noise impacts based on current FHWA regulations (see 23 CFR 772) and TxDOT noise guidelines. See Section 4.10.3.2 of the Final EIS. This section of the Final EIS discusses specific reasons why noise barriers would not be reasonable and feasible at specific locations. At this time, three noise barriers are proposed for incorporation into the final design of the project. See Section 9.6 of the Final EIS. TxDOT will hold public noise workshops to solicit the viewpoints of property owners and residents adjacent to the proposed barriers and allow the property owners to vote as to whether to construct any or all of these barriers.

Comments: *Specific recommendations for noise abatement included building improvements (sound insulation, new windows) and including reductions in property values in the cost-effectiveness calculation for reasonableness.*

Response: With respect to dampening noise impacts with building improvements, FHWA regulations consider sound insulation as an abatement option for public-use or non-profit institutional structures, especially where there is no exterior area of frequent human use. FHWA does not consider sound insulation for residences to be a practicable noise abatement measure.

The proposed project follows TxDOT and FHWA approved noise guidelines, which preclude the usage of federal funds for providing monetary compensation to property owners. Federal-aid highway money is used under certain circumstances to abate highway traffic noise impacts. TxDOT applies abatement uniformly to all impacted residences included in what the noise guidelines refer to as Land Use Activity Category B (relating to exterior noise impacts to single- and multi-family residences). For an abatement measure to be proposed for incorporation into the project, it must be both feasible and reasonable. In order to be "feasible," the abatement measure must be able to reduce the noise level at greater than 50% of impacted, first row receivers by at least five dB(A); and to be "reasonable," it must not exceed the cost-effectiveness criterion of

\$25,000 for each receiver that would benefit by a reduction of at least five dB(A), and the abatement measure must be able to reduce the noise level at least one impacted, first row receiver by at least seven dB(A). FHWA and TxDOT apply these standards consistently across all highway projects in Texas.

Comments: Additional comments raised concerns about the human physiological impacts of traffic noise and the effects on the elderly.

Response: TxDOT and FHWA followed federal regulations (23 CFR 772) in determining the extent of traffic noise impacts to residents within the proposed project area, regardless of age. The analysis in Section 4.10 of the Final EIS identifies existing activities, developed lands, and undeveloped lands, which may be affected by noise from the highway and predicts the future noise levels based on the volume of traffic in the project's design year and the proposed horizontal and vertical design proposed for the project. A traffic noise abatement wall is proposed at the site of Elliot Grant Homes, which provides housing for seniors in the Northside community, and this wall will reduce traffic noise by at least 5 decibels for 7 apartment units and by at least 7 decibels for 3 apartment units. The existing decibel level at the apartment complex is 64 decibels and the predicted 2035 decibel level is 67. With the proposed noise wall, the future noise levels will be lower than the levels that exist today at this site.

Environmental Justice

Comments: Several comments indicated that the Final EIS did not analyze the impacts of the project on minority and low-income communities, and emphasis was placed on potential effects to property values and the long term viability of neighborhoods in the project area. Concern was also expressed regarding the potential for the proposed action to isolate the Northside neighborhoods from the rest of the city, and questions were raised regarding the future of the neighborhoods in light of this potential.

The proposed project will have disproportionately high and adverse impact on minority and low-income communities in the project area. Mitigation in the form of avoidance, minimization and new or modified amenities was fully considered with input from the affected communities. The anticipated impacts will be made less severe based on the commitments made as a result of this mitigation. The effects of the proposed project on minority and low-income communities are fully addressed in Final EIS Section 4.7, and long-term effects to communities, including the Northside neighborhoods, are addressed in detail in the Final EIS Sections 6.6 and 7.6.4. Property values are dependent on a number of different factors including the economy and real estate market in the area, the quality of amenities offered in the area (such as schools, parks, and other public services), and the subjective needs and desires of potential purchasers. A decrease or increase in property values as a result of this project cannot be quantified in a meaningful way. The EIS includes a discussion of the indirect economic impacts on

the neighborhoods; however, the CEQ regulations (40 CFR §1508.8) describe indirect effects as needing to be “reasonably foreseeable.” Given the analysis, it is too speculative to predict how the project would affect real property values, and would not be prudent for a state transportation agency to make such predictions for privately-owned property.

Port of Corpus Christi

Comments: One comment indicated that the Final EIS did not analyze the impacts related to expansion of transportation infrastructure and industrial development associated with the Port of Corpus Christi and that the analysis should account for the differences in the people and communities impacted by the various alternatives.

Response: The cumulative effects of reasonably foreseeable future development associated with the Port of Corpus Christi are addressed in Final EIS Section 7.6; Section 7.6.4 specifically addresses cumulative effects to communities by alternative. The differences in the people and communities affected by the various alternatives are documented in Final EIS Section 3.5, and Section 4.6 addresses the effects of the proposed project on the different communities by alternative.

Hazardous Materials

Comments: One comment indicated that the Final EIS did not adequately document the potential impacts from hazardous materials present in soils and groundwater or evaluate the relative risks or costs to construction from known sites of contamination.

Response: Hazardous materials assessment, management, and remediation are part of the environmental permitting process, and are addressed in Final EIS Section 4.19. A hazardous materials management plan that incorporates industry standards and federal and state guidelines for the handling of impacted soils and groundwater will be prepared by the contractor, and reviewed and approved by TxDOT. The plan will adhere to the requirements of the technical provisions as included in the May 16, 2013 memorandum of understanding with TCEQ. The plan will incorporate measures to avoid hazardous materials and affected soil and groundwater, and, if unavoidable, incorporate mitigation plans to minimize the generation of hazardous materials and protect against uncontrolled emissions or discharges. Soil affected above acceptable human health and ecological based levels that are disturbed or displaced during construction will be characterized and, if appropriate, treated and/or transported off site to an authorized disposal facility.

TxDOT environmental experts reviewed publicly available TCEQ and EPA records for existing soil and groundwater quality data related to the proposed right-of-way on former and existing commercial and industrial sites of concern, including the former Kerr-McGee site and its historical plume footprint data. This additional information was

incorporated into Final EIS Section 4.19. In addition, Final EIS Table 4.19-1 evaluates the relative risk to construction from the known sites, and Table 4.19-2 summarizes preliminary estimated total volumes of soil and groundwater that will be disturbed during construction activities associated with each of the four build alternatives. Given the high degree of similarity of the constituents of concern found at the known sites of contamination, the volume estimates summarized in Table 4.19-2 can be used as a proxy to begin understanding the relative ranking of the cost to construction from individual sites and collectively each of the four build alternatives.

Comments: One comment addressed the risk of accidents involving trucks carrying hazardous materials on the elevated highway above the community.

Response: Regarding the potential of highway accidents involving hazardous materials carriers to affect the community, part of the purpose for the project is to improve safety for the traveling public, and each of the proposed alternatives would meet this purpose by updating and upgrading the facility to current design standards. The elements of the existing facility that are in need of upgrade are documented in Section 1.3.2 of the Final EIS, and these upgrades would result in a safer highway facility. The proposed bridge design would not permit drainage from discharging directly off the bridge, and therefore potential contaminants that might result from accidents on the elevated structures would be contained and directed along the roadway to designated collection points.

Mitigation for Adverse Impacts

Comments: Several comments raised the concern that the adverse effects of the proposed action be mitigated and that the mitigation commitments made by the Joint Lead Agencies in the Final EIS did not adequately address the effects to the Hillcrest and Washington Coles neighborhoods specifically. The mitigation of adverse visual and aesthetic effects in these neighborhoods was mentioned in particular, along with traffic noise effects, neighborhood access, and loss of community cohesion. Recommendations for specific mitigation contained in the comments included funding a community redevelopment plan, and application of the Partnership for Sustainable Communities' Greening America's Capitals project methodology for development of the proposed Community Sustainability Plan. The comments by Hillcrest residents recommended mitigation in the form of granting funds to individuals who wish to move out of the neighborhood, and funding to develop affordable rental housing in other areas of the city.

Response: Final EIS Section 4.7.6 addresses the measures to avoid, minimize and mitigate disproportionately high and adverse effects to minority populations and low-income populations. Development of these mitigation measures occurred in conjunction with residents of the Hillcrest and Washington Coles neighborhoods, the Technical and Citizens Advisory Committees, local stakeholders, and the general public. As a result of this effort, TxDOT developed a detailed mitigation plan that outlines all commitments

that will be implemented as part of the proposed project. Although the impacts to minority and low-income communities are still considered disproportionately high and adverse, as proposed the project's effects are less severe due to TxDOT's avoidance and minimization efforts and the mitigation that will be implemented.

It is consistent with applicable law and policy to relocate persons only when those persons' properties are within the boundaries of the project. 42 USC 4621(c)(2)(Uniform Relocation Act); 40 CFR 1500.2(f); 23 CFR 771.105(d). Concerning affordable rental housing, as described in **Section 5.3.2** of this ROD, the agenda of the Livability Summit held on October 14, 2014, included identification of ways for the local community to seek grants and other federal funding through HUD among other federal agencies.

Comments: One comment recommended that the Joint Lead Agencies address the mitigation for adverse visual and aesthetic effects.

Response: Mitigation measures to address adverse visual and aesthetic effects are identified in Final EIS Section 4.7.6. In an effort to minimize the community cohesion effects of visual and aesthetic impacts of the proposed project in minority and low-income neighborhoods, the public, including neighborhood residents, will have the opportunity to participate in the ongoing process regarding the aesthetics of the proposed project.

Various Context Sensitive Solutions (CSS) activities are underway to identify the aesthetic preferences of the local community. An initial workshop to discuss CSS with members of the project's Citizens Advisory Committee was held on July 8, 2014, and feedback from that workshop will be incorporated into the final design for the Recommended Alternative. Other CSS activities include the formation of a Blue Ribbon Panel comprised of local agency and city leaders, and a Corridor Advisory Committee was formed to gather local neighborhood input for park and trail mitigation.

TxDOT will continue to work with community leaders to incorporate appropriate aesthetic elements into the project, including potentially commemorating community history. The commitment to incorporate this mitigation is included in Section 9.3 of the Final EIS.

Comments: Several comments recommended that the Joint Lead Agencies address mitigation for traffic noise effects.

Response: Section 4.10.3.2 of the Final EIS includes a discussion of recommended feasible and reasonable mitigation for predicted traffic noise impacts based upon compliance with current FHWA and TxDOT noise guidelines. The commitment to construct reasonable and feasible noise barriers, if warranted, is made in Section 9.6 of the Final EIS. Per procedures, TxDOT will hold public noise workshops to solicit the viewpoints of property

owners and residents adjacent to the proposed barriers and allow the property owners to vote on whether or not to construct the proposed barriers.

Comments: One comment recommended that the Joint Lead Agencies address mitigation for effects to neighborhood access.

Response: In an effort to avoid and minimize impacts to access, TxDOT and FHWA have proposed to improve access into and out of the Northside neighborhoods through reconfiguration of highway on- and off-ramps and neighborhood access points in response to public comments received during development of the proposed project design. In addition, coordination with the City of Corpus Christi and the local community resulted in the alteration of the I-37/SH 286/US 181 interchange design that minimized the project footprint and avoided impacts to the Oveal Williams Senior Center, Christus Spohn Northside Family Health Clinic, Navarro Place Apartments and other community facilities.

The Recommended Alternative would result in the closure of a portion of Winnebago Street, which is the main thoroughfare that connects Hillcrest and Washington Coles neighborhoods. To minimize the effects of this closure, TxDOT and FHWA propose to replace the east-west access through the Northside community provided by Winnebago Street by improving Lake Street to create a through-street connection. Lake Street is approximately one block (370 feet) north of Winnebago Street and would result in a 0.17 mile detour to tie back into Winnebago Street. The Regional Transportation Authority (RTA) has indicated to TxDOT that they will maintain the existing Winnebago Street bus route to include the through-street connection along Lake Street. The extension of Lake Street to replace access along Winnebago Street will also serve to connect neighborhood parks and other important community resources. This route will provide an accommodation for bicycle and pedestrian facilities and will offer a connection between Dr. H.J. Williams Memorial Park, T.C. Ayers Park, the Oveal Williams Senior Center, the community swimming pool, the proposed new park at the site of the former Washington Elementary School, and Solomon Coles High School. Northside residents will be able to cross I-37 using the southbound US 181 service road through the I-37/SH 286/US 181 interchange, a traffic movement that matches the current movement along Brownlee Boulevard.

To address the potential for the construction phase to hinder neighborhood residents' access to important community facilities, such as the Oveal Williams Senior Center and the Christus Spohn Northside Family Health Clinic, TxDOT will provide for temporary shuttle bus service during the construction phase of the project to transport residents through the US 181 construction zone. The shuttle bus service will be wheelchair accessible and will remain in place for the duration of construction activities affecting access across US 181 in the Northside community. TxDOT or its contractor will provide

the temporary shuttle bus and the driver. Upon completion of construction of the proposed project, local pedestrian access across US 181 will be available via Lake Street.

Comments: Several comments recommended that the Joint Lead Agencies address mitigation for adverse effects to community cohesion.

Response: With respect to community cohesion, specific mitigation measures and commitments that will be implemented to offset adverse impacts are discussed in the Final EIS Section 4.7.6. As one way of mitigating for the potential loss of community cohesion and providing fair distribution of the beneficial effects of the proposed project, TxDOT and FHWA hosted a Livability Summit in Corpus Christi on October 15, 2014, sponsored by the Partnership for Sustainable Communities (FHWA, EPA and HUD). There were 35 attendees at the Summit, including local, state and federal agency representatives, local residents, business leaders and local university students and faculty. Attendees participated in a workshop addressing questions related to defining livability and sustainability and prioritizing livability initiatives. Among the priorities noted were a comprehensive transportation system and revitalization of Downtown, the SEA District, North Beach and residential neighborhoods.

Input from that Livability Summit will contribute to a Community Sustainability Plan being developed by TxDOT for the Northside neighborhoods. Among other matters, the Plan will identify grant opportunities to further the goals and strategies identified by the local community. This effort was requested of TxDOT by the Hillcrest Residents Association and will build upon the continued collaboration with community members initiated during the Harbor Bridge EIS public involvement effort. The Plan will incorporate the six Livability Principles established by the Partnership for Sustainable Communities and will reflect the input of the community and interested stakeholders.

Further efforts to develop the Community Sustainability Plan included a Neighborhood Workshop specifically for the Northside neighborhoods held on January 29, 2015. This workshop was designed to provide community residents and interested stakeholders, including the City of Corpus Christi, Corpus Christi Housing Authority and EPA, an opportunity to outline specific livability needs for the Northside neighborhoods which will be documented in the Community Sustainability Plan. TxDOT will continue to work with the Partnership for Sustainable Communities as well as the City of Corpus Christi, the Port of Corpus Christi Authority, the Corpus Christi MPO, and the Corpus Christi RTA during the development of the Community Sustainability Plan. The Partnership agencies offer grant funding opportunities, including technical assistance in preparing grant applications. Available grant assistance programs address an array of sustainability enhancements aimed at creating healthy neighborhoods, providing more housing and home improvement options, generating economic opportunities, and advancing efficient transportation options. These funding and technical assistance programs, such as the Surface Transportation Program (STP) and the Community Development Block

Grant (CDBG) program can provide other means of federal resources for the state, the Coastal Bend region and the city of Corpus Christi. There is no guarantee of funding through these grant programs, and outcomes will be driven by the local community rather than by the Joint Lead Agencies. The Community Sustainability Plan may identify street improvements in the Washington Coles neighborhood (along the lines of the green and complete streets network concept), utilization of vacant lots for community gardens, more recreational opportunities and a multitude of other needs if so directed by local community input. TxDOT will commit to complete development of the Plan within one year of the start of construction of the project, at which time implementation of the Plan will be led by local entities.

To further address the community cohesion effects of the proposed project, TxDOT will document the cultural history of the Northside neighborhoods by: conducting oral history interviews with current and past residents; creating printed representations of the neighborhood history for display at the Oveal Williams Senior Center and La Retama Library; and publishing a report of the neighborhood history to be made available for viewing at the Oveal Williams Senior Center and La Retama Library, or other venue if preferred by the community. TxDOT staff and qualified historians and planners will collaborate with community leaders regarding the development of the oral history, displays, and report, building on the historical research that has been conducted thus far for the proposed project. The oral history, displays, and report will be completed within one year of the start of construction.

Comments: One comment recommended that TxDOT and FHWA follow the Partnership for Sustainable Communities' Greening America's Capitals project methodology for development of the proposed Community Sustainability Plan.

Response: The Joint Lead Agencies' approach to developing the Community Sustainability Plan aligns with the EPA's recommended methodology and includes working with the local community to analyze baseline conditions and identify community needs; identify key stakeholders, hold collaborative, public workshops with community residents and stakeholders; and develop a set of community-driven recommendations for neighborhood improvement.

Comments: One comment recommended that an Advance Funding Agreement (AFA) be developed with the City of Corpus Christi to identify parties responsible for carrying out the mitigation commitments outlined in Section 9.3.1 and 9.12 of the Final EIS.

Response: TxDOT will to clarify responsibility for mitigation commitments through an interlocal agreement with the City of Corpus Christi under Chapter 791 of the Texas Government Code.

Reasonable Alternatives

Comments: One comment suggested that the Final EIS did not consider alternatives that might meet the purpose for the project without raising the height of the proposed bridge.

Response: The decision to raise the elevation of the bridge as part of this proposed action was a result of several considerations, as discussed in Section 2.4.2.3 of the Final EIS. First, the existing Harbor Bridge provides 138 feet of vertical clearance at mean high water, which means the maximum air-draft for vessels calling at the Port's Inner Harbor is 138 feet. The existing Harbor Bridge was designed and built in the 1950s and, as a result, it accommodates vessel sizes of the post-World War II era. As the maritime industry has evolved with the expansion of global trade, the growth in size of modern ships and cargo has outgrown the Harbor Bridge's 138-foot vertical restriction. Updating the vertical clearance of the proposed bridge to accommodate current and future navigation needs was necessarily considered for all of the proposed build alternatives. As part of the project objective to provide the transportation infrastructure to support economic opportunities in the area, TxDOT and FHWA considered multiple modes of transportation in the development of the proposed project, including waterborne freight, and these modes were considered in the context of a 75- to 100-year project design life.

Section 4(f) Approval

Comments: One comment requested information on the resolution among consulting parties of adverse effects on the National Register-eligible Harbor Bridge system.

Response: TxDOT would develop programmatic mitigation outlined by the Advisory Council on Historic Preservation in its Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges, published in the Federal Register on November 16, 2012. In 2014, TxDOT began a multi-year planning process for all historic bridges in the state that integrates public engagement opportunities and bridge management planning efforts to develop and demonstrate effective strategies. TxDOT, the Texas Historical Commission (THC) and the Historic Bridge Foundation (HBF) worked together to determine which bridges in Texas built between 1945 and 1965 are the most significant. During the summer of 2014, TxDOT jointly conducted a series of open houses to discuss a treatment plan for mid-20th century historic bridges in Texas. This plan separates the bridges into three groups based on their relative historic and/or engineering significance. This approach would mandate the type of compliance and mitigation that TxDOT would apply to projects that resulted in adverse effects to the NRHP-eligible, post-1945 bridges. As part of the Group I Bridges, the Harbor Bridge is an exceptionally important bridge that is significant in more than one evaluation category and therefore its removal would be afforded full

review and individual mitigation. TxDOT recently completed its public involvement activities and provided documentation and public engagement materials to the THC and HBF. Therefore, TxDOT will coordinate with the THC and consulting parties and finalize individualized mitigation for the Harbor Bridge under this programmatic approach to historic bridges. Complete information about TxDOT's historic bridge program and programmatic bridge mitigation efforts can be found at <http://www.txdot.gov/inside-txdot/division/environmental/historic-bridge.html>. There is also information available about the on-going efforts at <http://www.thc.state.tx.us/learn/historic-bridges-texas>.

Comments: Another comment indicated that the Section 4(f) Evaluation did not present an objective comparison of the impacts to Section 4(f) properties from the various alternatives, did not support its conclusions with evidence and did not select the least harm alternative.

Response: All of the proposed build alternatives would require the removal of the National Register of Historic Places (NRHP)-eligible Harbor Bridge system, a property protected by Section 4(f). An Individual Section 4(f) analysis was completed for the bridge, which concluded that there were no prudent and feasible avoidance alternatives to the use of the bridge system. Therefore, the proposed project would not be able to avoid the use of Section 4(f) property entirely. Even though there are no feasible and prudent end-to-end alternatives that would avoid a use of the Harbor Bridge system, an analysis was conducted to determine whether each of the remaining Section 4(f) properties could be avoided, as detailed in Section 5.4.3 of the Final EIS. This analysis considered alignment shifts and design changes, but all of the build alternatives would require the use of at least one Section 4(f) property in addition to the Harbor Bridge system. In cases like this, where the use of Section 4(f) property cannot be avoided, FHWA may approve an alternative that uses Section 4(f) property, provided that it is the alternative that causes the least overall harm in light of the statute's preservation purpose (23 CFR 774.3[c]). Final EIS Section 5.6 presents the Least Overall Harm analysis which determined that the Red Alternative (Recommended) was the alternative that caused the least overall harm. The Individual Section 4(f) analysis was reviewed by the Department of the Interior, the Officials with Jurisdiction (the City of Corpus Christi and the THC), and the public.

Supplemental EIS

Comments: One comment asserted that new information included in the Final EIS and changes to the Recommended Alternative should have been documented in a Supplemental EIS.

Response: Subsequent to the Public Hearing, and pursuant to 23 USC §139(f)(4)(d), TxDOT and FHWA developed the Recommended Alternative to a higher level of detail in order to facilitate the development of mitigation measures and to comply with other federal agency requirements, such as the U.S. Department of the Army requirements under Section 404 of the Clean Water Act and the U.S. Coast Guard requirements under the

General Bridge Act. The design changes made to the Recommended Alternative since the publication of the Draft EIS included refinement of the proposed right of way line resulting from detailed land surveys establishing more precisely the location of existing rights of way as well as ownership of properties adjacent to the Recommended Alternative. This resulted in a slightly more expanded proposed right of way line relative to that established for the Red Alternative (Recommended) in the Draft EIS. Another change in the design consisted of a minor adjustment to the Lake Street alignment as it would cross US 181 north of I-37. The design of the US 181 bridge over the Inner Harbor has also been modified to reflect two separate bridge structures to carry the northbound and southbound lanes.

The primary impact categories affected by the design changes or changes in the affected environment since the Draft EIS were environmental justice, air quality, traffic noise, wetlands and waters of the US and hazardous materials. In the cases of air quality and traffic noise, categories that are greatly influenced by the projected volume of traffic on the proposed facility and elsewhere in the transportation network, new information not available at the time of the development of the Draft EIS was considered. This information included new traffic data derived from an update to the Corpus Christi MPO's regional travel demand model. The new 2040 model information was used by project engineers to develop updated traffic projections for use in the modeling of traffic noise and air emissions for all project alternatives. The inclusion of this new information and the resulting changes in impacts are consistent with 23 CFR §771.130 and do not result in new significant impacts relative to those evaluated in the Draft EIS, therefore a Supplemental EIS was not warranted.

Public Involvement

Comments: *One comment suggested that the Joint Lead Agencies' public involvement process did not allow an open dialogue with neighborhood residents.*

Response: The Joint Lead Agencies have made extensive, proactive efforts to ensure meaningful opportunities for ongoing public participation and input in the decision-making process. This has led to continuous engagement by community leaders and the community as a whole from the outset of the scoping phase initiated on August 9, 2011. Ongoing communication with the community, including a project-specific community survey, has allowed TxDOT and FHWA to fully evaluate the potential effects of the project in minority and low-income areas. A full summary of TxDOT's engagement with the environmental justice community is included in Section 4.7.2 of the Final EIS; public involvement as a whole for the Harbor Bridge project is discussed in Section 8.0 of the Final EIS. All this input was fully considered and led to revisions of the project design (to avoid and minimize impacts in the project area) and ultimately to the mitigation plan as

proposed to incorporate public input into the agreed upon commitments that will be implemented before, during and after construction.

In total since 2011, TxDOT and FHWA have held six Citizens Advisory Committee (CAC) meetings, five Technical Advisory Committee (TAC) meetings, 16 neighborhood meetings throughout the project area, 20 storefront meetings—meetings held every Tuesday at the Oveal Williams Senior Center and every Thursday at the La Retama Public Library between January 7 and March 13, 2014—numerous individual stakeholder meetings, two Public Scoping Meetings, one Public Meeting, and one Public Hearing. All CAC and TAC meetings were open to the public and time at the end of each meeting was reserved for public comment. All members of the public were made aware of the opportunity to join the CAC; a representative cross-section of the local community was sought. Detailed information on CAC meetings may be found in Section 8.3 of the Final EIS, and meeting summaries are contained in Appendix K. CAC and TAC meeting agendas, summaries, and meeting materials are posted on the project website at ccharborbridgeproject.com. The scoping meetings, public meeting, and public hearing were heavily publicized through direct mailings, posters and flyers distributed in various neighborhood venues (including community centers, schools, and churches), radio spots, social media, media advisories, the project newsletter, email blasts, and the project website. Documentation of this outreach is found in Appendix K of the Final EIS. Public input was gathered from these opportunities and considered for incorporation into the project. Many of the measures to avoid and minimize harm as well as mitigation elements proposed come directly from suggestions made by members of the affected minority and low-income neighborhoods.

9.0 CIVIL RIGHTS ACT COMPLAINT

The FHWA Office of Civil Rights received a complaint (dated March 5, 2015) filed under Title VI of the Civil Rights Act of 1964 challenging TxDOT's identification of the Recommended Alternative in the Final EIS. This complaint was filed on behalf of residents of the Hillcrest neighborhood. FHWA accepted the complaint based upon the allegation that the proposed construction of the project, along the Recommended alignment shown in the Final EIS, would result in a disparate impact on the Hillcrest neighborhood by further isolating the neighborhood from the rest of the city.

Title VI provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving Federal financial assistance. Title 49 of the Code of Federal Regulations, Part 21 (the Regulations) implements Title VI for the U.S. Department of Transportation (USDOT) and provides that Recipients may not, directly or through contractual or other arrangements, utilize criteria or methods of administration which have the effect of subjecting persons

to discrimination because of their race, color, or national origin, or have the effect of defeating or substantially impairing accomplishment of the objectives of the program with respect to individuals of a particular race, color, or national origin. TxDOT is a Recipient of Federal financial assistance from the FHWA, and the Project is eligible for Federal financial assistance.

To develop a response for FHWA and to address the complaint, TxDOT entered into a Voluntary Resolution Agreement (dated December 17, 2015) with FHWA committing to implementation of these measures intended to mitigate the adverse Title VI related effects of the proposed project on the Hillcrest and Washington-Coles neighborhoods. A copy of the executed Voluntary Resolution Agreement can be found at ccharborbridgeproject.com. TxDOT also coordinated with local governmental entities (City of Corpus Christi, Port of Corpus Christi, and Corpus Christi Housing Authority) to develop measures to address the issues raised by the Civil Rights Act complaint.

10.0 CONCLUSION

10.1 FHWA DECISION

FHWA has reviewed all of the relevant documents and material and all of the environmental studies and findings. Based upon our independent agency review and consideration of the analysis and evaluation contained in the Final EIS for this project, and after extensive and careful consideration of all social, economic, and environmental factors, including input from the public involvement process, FHWA hereby issues this ROD for the project. As initially stated in **Section 2.0**, FHWA selects the Recommended Alternative for the proposed project and refers to it as the Selected Alternative here and within the determination section (**Section 9.2**) of this ROD. FHWA has determined that the Selected Alternative would best fulfill the need and purpose for the project and meets the objectives identified for the US 181 Harbor Bridge project.

Based upon FHWA's balanced consideration of the need for safe and efficient transportation; the social, economic, and environmental impacts of the Selected Alternative; and national, state, and local environmental goals, FHWA has determined that it is in the best overall public interest to construct the Selected Alternative.

FHWA has evaluated all the issues raised in the record and has consulted with other federal and state agencies during the development of this project, including the USACE, USFWS, EPA and HUD, as well as local jurisdictions in the study area. The Selected Alternative was developed through a proactive and continuous public involvement process that included public meetings, neighborhood meetings, Citizens and Technical Advisory Committee meetings, and a public hearing with an agency and public comment and response process. Mitigation for unavoidable direct impacts will be incorporated into the project design for the Selected Alternative as described in this ROD and will be implemented before, during and after construction as appropriate.

10.2 DETERMINATION

The FHWA has determined that the Selected Alternative will have significant impacts on the human or natural environment that will be mitigated to be less severe. This ROD is based on the Final EIS and project file which has been independently evaluated by FHWA with an interdisciplinary approach and determined to adequately and accurately discuss the need, potential environmental issues and impacts of the proposed project and appropriate mitigation measures.

BY: 
Division Administrator
Federal Highway Administration

DATE: 1/8/2016

