DFW Connector North Airport Interchange

FY 2017 AND 2018 INFRA GRANT APPLICATION

ATTACHMENT 1 – COVER PAGE AND PROJECT NARRATIVE

North Central Texas Council of Governments

Transportation Department

DFW Connector North Airport Interchange: Cover Page

A. Was an INFRA application for this project submitted previously?	YES
B. If yes, what was the name of the project in the previous application?	DFW Connector North Airport Interchange
C. Previously Incurred Project Cost*	$ 1,139,966,000
D. Future Eligible Project Cost	$ 121,666,000
E. Total Project Cost (This should be the sum of the previous two rows)	$ 1,261,632,000
F. INFRA Request	$ 65,000,000
G. Total Federal Funding (including INFRA)	$ 97,333,000
H. Are matching funds restricted to a specific project component? If so, which one?	NO
I. Is the project or a portion of the project currently located on the National Highway Freight Network?	YES
J. Is the project or a portion of the project location on the National Highway System?	YES
i. Does the project add capacity to the Interstate system?	NO
ii. Is the project in a national scenic area?	NO
K. Do the project components include a railway-highway grade crossing or grade separation project?	NO
L. Do the project components include an intermodal or freight rail project, or freight project within the boundaries of a public or private freight rail, water (including ports), or intermodal facility?	NO
M. If answered yes to either of the two component questions above, how much of the requested INFRA funds will be spent on each of these project components?	N/A
N. State(s) in which project is located?	TEXAS
O. Small or large project?	LARGE
P. Urbanized Area in which project is located, if applicable.	DALLAS - FORT WORTH - ARLINGTON
Q. Population of Urbanized Area.	5,391,487 (2017)
R. Is the project currently programmed in the:	
i. TIP	YES - 2017-2020 (APPENDIX D)
ii. STIP	YES - 2017-2020
iii. MPO Long Range Transportation Plan	YES - MTP 2040
iv. State Long Range Transportation Plan	YES - TEXAS TRANSPORTATION PLAN 2040
v. State Freight Plan	NO
S. If selected, would you be interested in participating in a new environmental review and permitting approach?	NO

Note: All dollar amounts are rounded to $1,000.

* - The amount given is the previously incurred costs for the overall DFW Connector project; the INFRA project is one phase of this overall project.

TABLE OF CONTENTS

LIST OF EXHIBITS

LIST OF GRANT APPLICATION (SF-424) ATTACHMENTS:

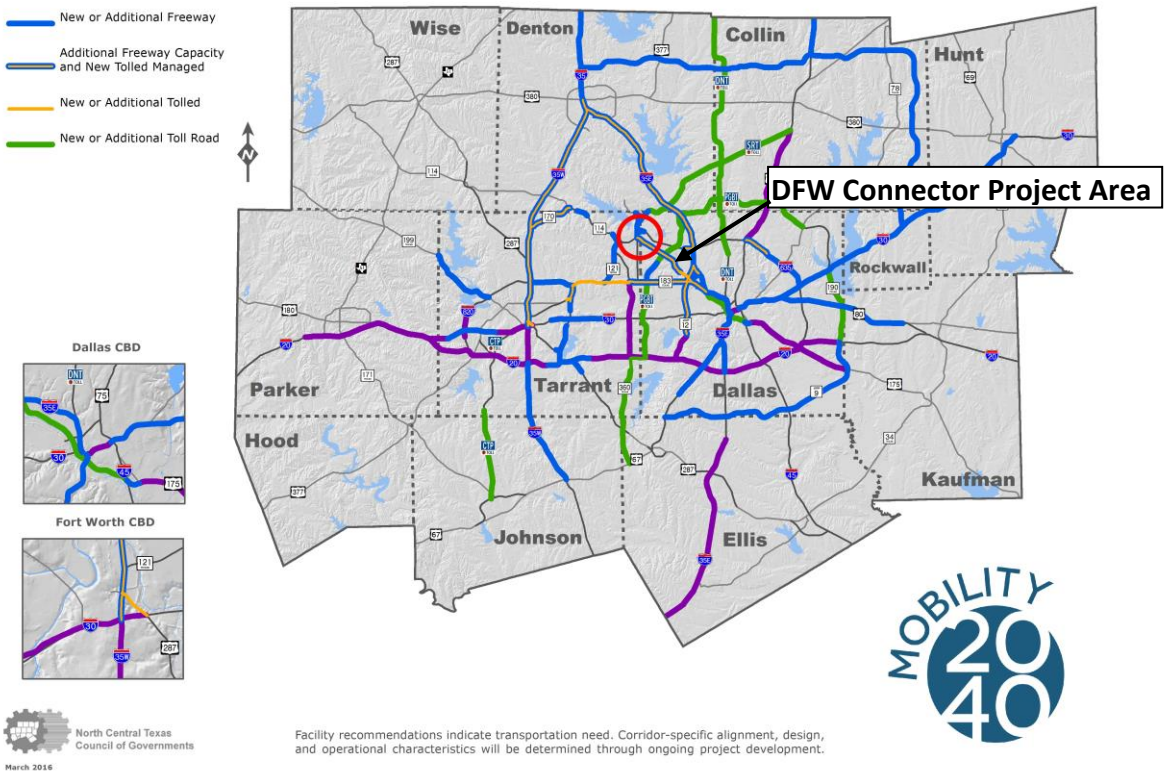
LIST OF ABBREVIATIONS:

ADT	Average Daily Traffic
ARRA	American Recovery and Reinvestment Act
BCA	Benefit-Cost Analysis
BCR	Benefit-Cost Ratio
CDA	Comprehensive Development Agreement
DART	Dallas Area Rapid Transit
DFW	Dallas-Fort Worth
DFW Airport	Dallas Fort Worth International Airport
EA	Environmental Assessment
EB	Eastbound
FASTLANE	Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies
FHWA	Federal Highway Administration
FM	Farm-to-Market Road
FONSI	Finding of No Significant Impact
FTZ	Foreign Trade Zone
FY	Fiscal Year
HOV	High-Occupancy Vehicle
IH	Interstate Highway
INFRA	Infrastructure For Rebuilding America
MPA	Metropolitan Planning Area
MPH	Miles-per-Hour
MPO	Metropolitan Planning Organization
MTP	Metropolitan Transportation Plan
NB	Northbound
NCTCOG	North Central Texas Council of Governments
NEPA	National Environmental Policy Act
NPV	Net Previous Value
NOFO	Notice of Funding Opportunity
NSFHP	Nationally Significant Freight and Highway Projects
NTTA	North Texas Tollway Authority
OMB	Office of Management and Budget
PE	Preliminary Engineering
PGBT	President George Bush Turnpike
PPP	Public-Private Partnership
ROW	Right-of-Way
RTC	Regional Transportation Council
RTR	Regional Toll Revenue
SB	Southbound
SH	State Highway
SRT	Sam Rayburn Tollway
STIP	State Transportation Improvement Program
STP-MM	Surface Transportation Program – Metropolitan Mobility
TIP	Transportation Improvement Program
TRIP	Terminal Renewal and Improvement Program
TxDOT	Texas Department of Transportation
UTP	Unified Transportation Program
WB	Westbound

Executive Summary

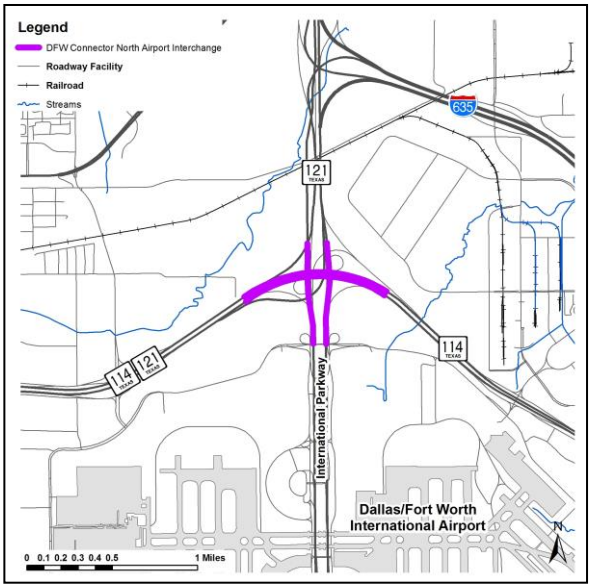
The overall DFW Connector project is a successful public-private partnership (PPP) between the Texas Department of Transportation (TxDOT) and Northgate Constructors that has delivered an initial staged reconstruction of a highly-congested and complex convergence of multiple freeway facilities near the north entrance of Dallas Fort Worth International Airport (DFW Airport). Built in phases and partially funded by the American Recovery and Reinvestment Act (ARRA), the DFW Connector project was designed to eliminate existing transportation system deficiencies, improve mobility, and enhance access to/from one of the world's busiest airports as well as the largest economic engine for the North Central Texas region.

Figure E1: Dallas-Fort Worth Area Funded Roadway Recommendations



The $1.02 billion initial DFW Connector construction phase completed substantial improvements to the North Airport Interchange, known as the junction of Interstate Highway (IH) 635, State Highway (SH) 114, SH 121, and the DFW Airport limited-access facility known as International Parkway, as well as its parallel service roads. However, due to funding constraints, not all elements of the overall $1.6 billion in approved ultimate improvements could be constructed, and extensive deferments resulted in more limited mobility and accessibility enhancements in several critical locations. The various deferments, in addition to the location, configuration, and access patterns of new ramps built at the North Airport Interchange, particularly those that access to/from the International Parkway service roads, resulted in some longer-distance and lower-speed local trips on alternate routes in/out of the airport that affect DFW Airport freight operations, airport-related large employer sites, and long-term passenger parking locations.

Figure E2: Project Overview and Limits



The North Central Texas Council of Governments (NCTCOG), in cooperation with TxDOT, is preparing this application to seek **$65 million** in funding assistance through the FY 2017 and 2018 Infrastructure For Rebuilding America (INFRA) Discretionary Grant Program for a project that will implement all remaining approved Airport-related DFW Connector project features at the North Airport Interchange. Construction of the deferred ramps, as well as the proposed improvements to various nearby Airport roadway facilities, will fully restore direct International Parkway service road access to/from each of the North Airport Interchange intersecting freeways. The project will also deliver new direct connector ramps to/from the SH 114 TEXpress Lanes being built via the Midtown Express Project. The North Airfield Drive Bridge would be replaced and improved with an acceleration lane.

This application includes estimates of the project's expected benefits based on the requirements and outcomes specified in the INFRA Notice of Funding Opportunity (NOFO) and the Benefit-Cost Analysis Guidance for TIGER and INFRA Applications (July 2017). This Project Narrative and the Benefit-Cost Analysis (BCA) identifies the benefit calculation methodology, quantifies the monetary benefit in net present value for the project, and substantiates the expected benefits and costs in accordance with federal requirements.

The costs and benefits contained within this application were derived using travel demand model data, assumptions from TxDOT safety and performance data/documents, NCTCOG demographic and economic trends/forecasts, and additional relevant information from all levels of government. The BCA (refer to Application Attachment 3) was utilized to analyze the benefits verses the costs for the project. The analysis summarizes net present value (NPV) and the benefit-cost ratio (BCR) utilizing a seven percent discount rate scenario. Net benefits of over **$575 million** over the 20-year time horizon are attainable with a B/C ratio of **4.64**. **Table E1** outlines a summary of costs and benefits for the DFW Connector North Airport Interchange project.

Table E1: Benefit-Cost Analysis Summary Results

Benefit-Cost Summary Results			***Average Annual***	***Total Over 20 Years***
Life-Cycle Costs	$ 124,020,977	***ITEMIZED BENEFITS***		
Life-Cycle Benefits	$1,620,234,508	Travel Time Savings (mil. $)	$14.5	$290.1
Net Present Value	$575,323,288	Safety Cost Savings (mil. $)	$5.64	$112.7
BENEFIT-COST RATIO	**4.64**	Emissions Cost Savings (thou. $)	$28.7	$573.7
		TOTAL BENEFITS (mil. $)	**$122.4**	**$575.3**
Annual Percentage Yield	14%	Person Hours of Delay Saved	3,522,304	70,446,081
Payback Period	3 years			

The approval to submit this project was passed by NCTCOG's Regional Transportation Council (RTC) on October 12, 2017. For reference, the RTC agenda that includes this action is linked here: http://www.nctcog.org/trans/committees/rtc/documents/web.agenda.rtc101217.pdf

Letters of support for this project have been received from the RTC, DFW Airport, Tarrant County, and the Cities of Dallas, Fort Worth, Euless, and Irving (refer to Application Attachment 4).

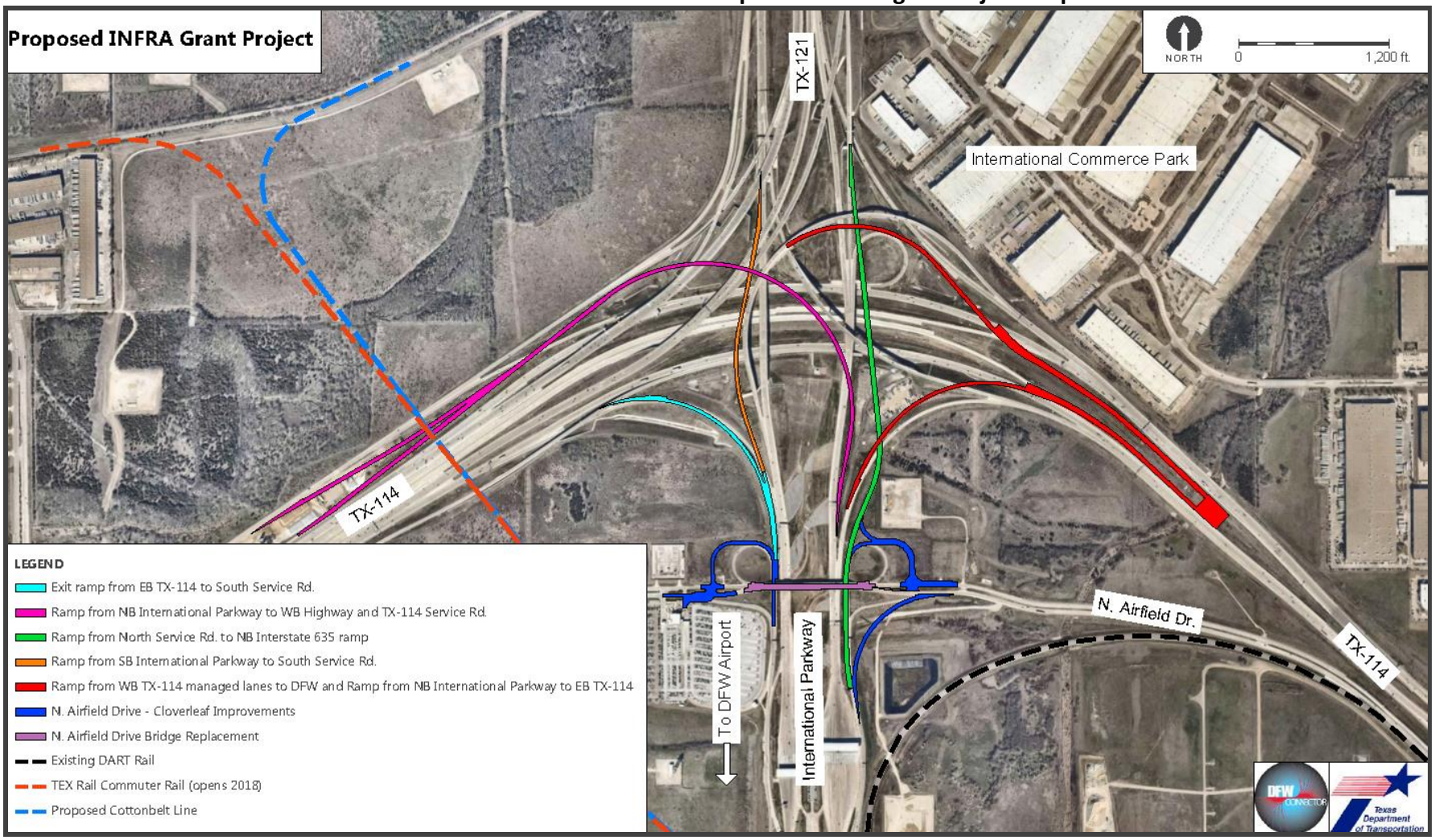
I. Project Description

Background

The North Airport Interchange is a major component of the 14.4-mile-long DFW Connector project, a comprehensive improvement plan first initiated in 1996 through an intensive public involvement process to improve a critical convergence zone of multiple freeways and local thoroughfares surrounding the north entrance of DFW Airport. The DFW Connector project was designed to eliminate existing transportation system deficiencies, reduce numerous weaving conflicts, improve safety, and enhance capacity and accessibility to/from major commercial centers and large economic activity areas along SH 114 and SH 121 through four cities in far northeastern Tarrant County and far northwestern Dallas County. The unique characteristics of the project, including its large size and proposed incorporation of managed lanes, provided considerable design-build advantages through implementation as a public-private partnership and the Texas Department of Transportation (TxDOT) was authorized in 2006 to initiate a bidding process in preparation for a comprehensive development agreement (CDA). Shortly after receipt of a Finding of No Significant Impact (FONSI) from the Federal Highway Administration (FHWA) in April 2009, TxDOT selected a consortium of design and engineering contractors known collectively as Northgate Constructors to deliver an initial phase of the DFW Connector project (www.dfwconnector.com). The $1.02 billion construction package was executed in October 2009 and completed in November 2013 (nearly a full year ahead of the originally scheduled completion date), and it included a $250 million allocation from the American Recovery and Reinvestment Act (ARRA), which was the nation's largest single-project transportation allotment.

Though the initial construction phase of the DFW Connector project incorporated significant portions of the $1.6 billion ultimate improvement plan, there were substantial elements that were deferred due to lack of available funding resources. One of the largest deferments were direct freeway ramp connections and proposed local thoroughfare network upgrades in the area of the North Airport Interchange. The various deferments, in addition to the location, configuration, and access patterns of numerous new ramps built with the initial construction phase, resulted in some longer-distance and lower-speed local trips on alternate routes in/out of the airport that affect freight carriers, airport-related large employer sites, and long-term passenger parking locations.

Exhibit 1: DFW Connector North Airport Interchange – Project Map



SOURCE: *Dallas Fort-Worth International Airport*, 2017

Proposed Project

The $122 million project identified for this INFRA application, as illustrated in **Exhibit 1**, will build the following elements that were deferred during the initial DFW Connector construction phase:

a. **WB SH 114 – SB International Parkway Service Road Direct Connector Ramp**
b. **NB International Parkway – WB SH 114 Mainlanes/Service Road (with direct access to Texan Trail) Direct Connector Ramp**
c. **NB International Parkway Service Road – EB IH 635 Direct Connector Ramp**
d. **SB International Parkway (including access from SB SH 121/WB IH 635) – SB International Parkway Service Road Direct Connector Ramp**
e. **WB SH 114 Managed Lanes – SB International Parkway Direct Connector Ramp**
f. **NB International Parkway – EB SH 114 Managed Lanes Direct Connector Ramp**
g. **DFW Airport – Ramp/Service Road Improvements and North Airfield Drive Bridge Replacement**

Construction of the deferred ramps, as well as the remaining proposed on-airport improvements to North Airfield Drive and access ramps surrounding the DFW Airport north entrance toll plaza, will fully restore direct International Parkway service road access to/from each of the North Airport Interchange intersecting freeways. With IH 635 as part of the National Highway Freight Network, DFW Airport cargo operations and other freight-oriented employers will become fully integrated into the system with direct high-speed ramp access as a result of this project. IH 635 movements will be further improved upon expedited completion of another deferred DFW Connector element, the recently-approved $370 million IH 635/SH 121/FM 2499 interchange reconstruction per the 2017 Unified Transportation Program (UTP) and Texas House Bill 20 – Ten Year Plan process. Freight movements to/from SH 114 and SH 121 in/out of the airport will also be enhanced, reducing overall truck volumes on large portions of the local thoroughfare system. Original local/regional access and circulation patterns to/from the DFW Airport "Remote North" and "Express North" parking lots will be restored due to the project, adding extra time and cost convenience for airport passengers. The project will also benefit on-airport commuting and parking conditions for DFW Airport employees, and through movements using the International Parkway service roads between various off-airport locations can once again become a potentially effective commuting option. The North Airfield Drive Bridge at International Parkway would be replaced due to age and would be improved with an additional acceleration lane.

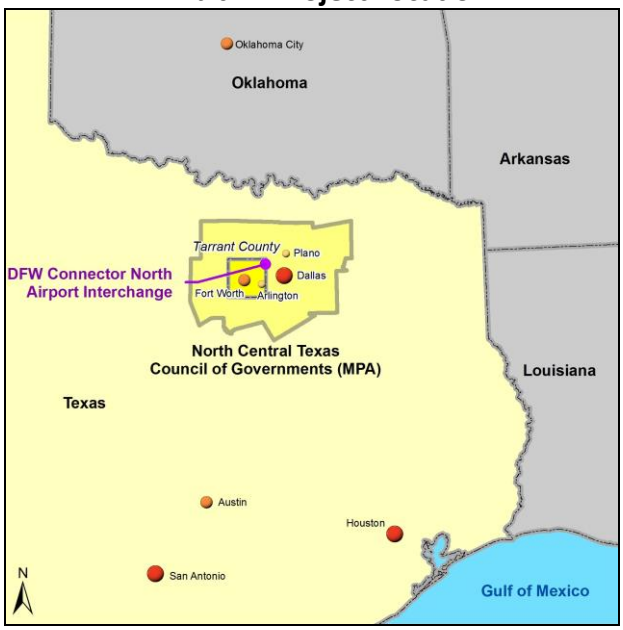
In all, this project is consistent with the ultimate DFW Connector project vision for maximizing mobility, safety, and accessibility for the IH 635, SH 114, and SH 121 corridor as they converge at DFW Airport. The project is warranted given past demographic and economic development growth trends, as well as the likelihood for strong future activity projections at the airport to reach fruition. Comprehensive and effective ground access is just as essential for an airport's success as efficient aircraft service and capacity, and this project provides an essential link to accomplish both at DFW Airport. Finally, as a complement to the soon-to-be-completed $61 million SH 121/SH 360 Texas Clear Lanes Initiative project at the west end of the airport, as well as the recently-approved

IH 635/SH 121/FM 2499 interchange reconstruction further to the north, this project will enable all major DFW Connector deferments to be appropriately addressed in quick succession, and the overall effort would fulfill one of the North Central Texas region's largest and most important transportation priorities.

II. Project Location

Located in the United States Census-designated Fort Worth – Arlington Urbanized Area at the far northeastern corner of Tarrant County, Texas, the project identified for this fiscal year (FY) 2017and 2018 INFRA Discretionary Grant Program application will advance the next construction phase for the DFW Connector North Airport Interchange. **Exhibit 2** displays the project area location with respect to the spatial extent of the North Central Texas Metropolitan Planning Area (MPA) and the Fort Worth – Arlington Urbanized Area.

Exhibit 2: Project Location



The North Central Texas region is centrally located within the lower 48 states, allowing the Dallas-Fort Worth (DFW) Metropolitan Area a logistics advantage in serving as a primary distribution center, or inland port, for the southwestern United States and the nation at-large. Trucks can travel between the region and a majority of the country within 72 hours, and the IH 635 corridor provides the direct connection between the National Freight Highway Network and DFW Airport via the North Airport Interchange.

DFW's Cargo operations totaled nearly 25,000 during the past year. Air cargo shipments can be flown between DFW Airport and nearly every domestic airport within three hours, and as a

growing international hub with air cargo services to/from cities on five continents, a diverse range of commodities including electronics, machinery, medical equipment, and pharmaceuticals are being shipped in greater quantities and frequency as the region's population, employment, and overall economic activities continue to increase. Implementation of this proposed INFRA project will help provide a critical multimodal freight linkage which can improve long-term transportation efficiencies for all users simultaneously. Combined with high-priority regional/state initiatives to address other remaining DFW Connector deferments as mentioned previously, this INFRA grant request will help substantially complete one of the North Central Texas region's largest and most critical legacy projects.

Socio-Economic Context

DFW Airport (www.dfwairport.com/fastfacts) opened in 1974 through a joint venture between the cities of Dallas and Fort Worth to become the principal commercial airport and international gateway for the North Central Texas region. Ranked as the second largest aviation facility by land area in the United States and third largest in the world, the DFW Airport covers approximately 27 square miles with seven runways, five terminals (including space reserved for a future sixth terminal), 165 gates, and nearly 6,000 acres of land designated for commercial and industrial development. In 2016, 12 domestic and 17 foreign airlines, as well as 21 cargo carriers, provided service from DFW Airport to 209 total destinations, including 58 cities in international territories. This level of service generated approximately 680,000 aircraft movements, which enplaned 66.3 million passengers and 829,000 tons of cargo shipments, respectively ranking fourth, fourth, and ninth among airports nationally in those statistics. These massive activities, in combination with nearly 60,000 jobs provided by various employers on DFW Airport property, contributed to an annual economic output of approximately $37 billion into the North Central Texas economy. Of that robust figure, nearly $17 billion was estimated to be attributed to freight movements and logistics operations, and it also translated indirectly to the creation and support of an additional 228,000 regional jobs. All of these factors in tandem have and will continue to generate copious passenger and freight traffic on numerous regional surface roadways, and an extensive concentration of that activity occurs in the vicinity of the DFW Connector North Airport Interchange.

DFW Airport Statistics (2016):

- 27 square miles in area (national rank – 2nd)
- 7 runways
- 5 terminals with 165 gates
- 680,000 aircraft movements (national rank – 4th)
- 66.3 million passengers (national rank – 4th)
- 829,000 tons of cargo (national rank – 9th)
- $37 billion in regional economic impact

Overall, the initial DFW Connector construction completed in 2013 represented an innovative means to efficiently collect and distribute regional traffic within a complex junction of five major limited-access facilities. The fact that those roadways all converged together around the north side of DFW Airport certainly added extra complexity and constructability issues, however enhancing capacity at the north entrance and direct access in all directions to/from the passenger terminals was also a critical priority. Furthermore, the project concurrently provided improved local access

ramps, reconstructed cross-street bridges, and additional service road capacity to serve smaller-scale mobility, connectivity, and convenience demands through the adjacent cities. The project succeeded in eliminating the most chronic congestion locations, but with continued changes in local/regional demographics and land-use development, safety and delay issues are becoming more prevalent where substantial deferments or lower-capacity staged construction elements remain. This is why one of the original project segments, SH 121 from Business SH 121 (Lewisville) to SH 114/International Parkway, was ranked 86th among the state's top 100 congested roadways in 2016. **Exhibit 3** shows year 2014/2015 TxDOT average daily traffic (ADT) counts and future traffic for the freeway segments within the project area.

Exhibit 3: Current/Future Daily Volumes - North Airport Interchange Approach Segments

Location	2014/15 Traffic Volumes[1]	2040 Traffic Volumes[2]	Numerical Change	% Change
IH 635 (East of SH 121)	92,100	156,400	64,300	70%
International Parkway (South of SH 114)	84,500	107,900	12,900	28%
SH 114 (West of International Parkway)	188,800	381,000[4]	192,200	102%
SH 114 (East of International Parkway)	90,400	247,800[4]	157,400	174%
SH 121 (North of SH 114/International Parkway)	115,700	383,800	268,100	232%
SH 121 (North of IH 635)	123,200	308,300	185,100	150%
North Airfield Drive[3]	10,300	13,100	2,800	27%

Sources: 1. TxDOT average daily traffic counts in 2014
2. NCTCOG DFWDFX regional travel demand model
3. DFW average daily traffic counts in 2015
4. Volume includes TEXpress Lanes

The projected high traffic growth for the above segments can certainly be attributed to forecasted population increases for both adjacent cities and the North Central Texas region at-large. **Exhibit 4** highlights both past population growth trends and future forecasts within the adjoining DFW Connector project cities, Dallas and Tarrant Counties, and the 12-county MPA. While forecasted city populations are expected to slow as they approach jurisdictional build-out, regional growth elsewhere and the strong economic draw of DFW Airport will continue to attract traffic surges.

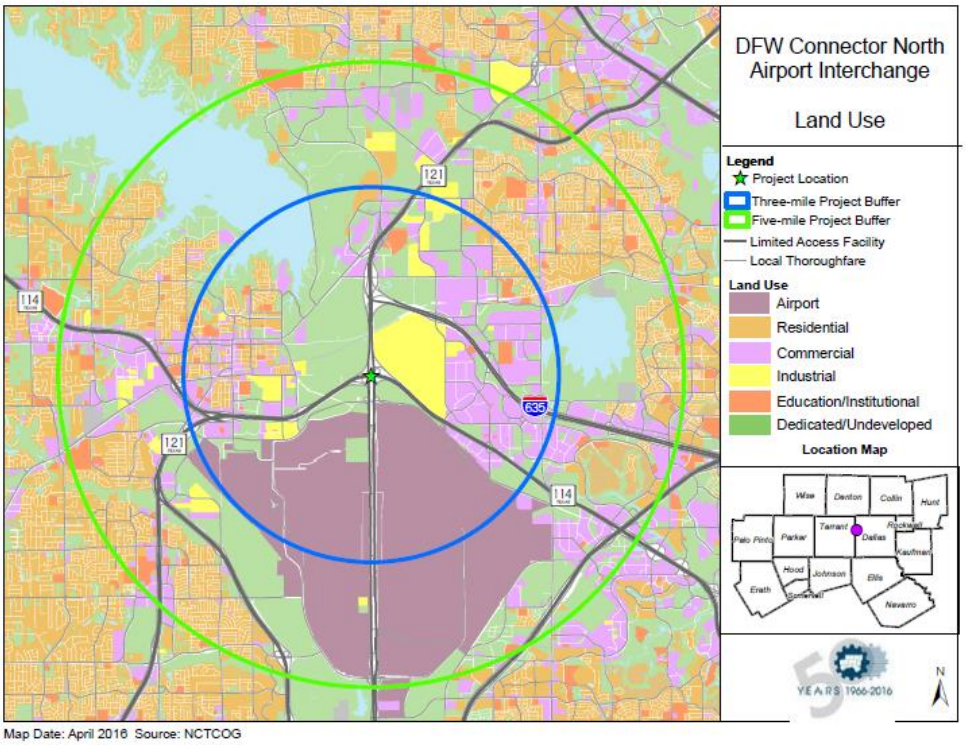
The type, intensity, distribution, and availability of specific land uses can be an important determinant for identifying travel demand characteristics and prioritizing transportation needs. **Exhibit 5** illustrates the distribution of current land uses in and around the DFW Connector North Airport Interchange, and buffer limits of three-mile and five-mile radii are displayed to highlight proximity to the project location.

Exhibit 4: Population Trends and Forecasts for Project-Related Locations

Location	1980 Census[1]	1990 Census[1]	2000 Census[1]	2010 Census[1]	2020 Forecast[2]	2040 Forecast[3]	Growth 2010-2040
Coppell	3,826	16,881	35,958	38,659	41,460[2]	42,953[2]	11%
Grapevine	11,801	29,202	42,059	46,334	52,414[2]	60,000[2]	29%
Irving	109,943	155,037	191,615	216,290	260,752[2]	284,500[2]	32%
Southlake	2,808	7,065	21,519	26,575	27,818[2]	36,669[2]	38%
Dallas County	1,556,390	1,852,810	2,218,899	2,368,139	2,566,134[2]	3,357,469[3]	42%
Tarrant County	860,880	1,170,103	1,446,219	1,809,034	2,006,473[2]	3,094,649[3]	71%
NCTCOG MPA	3,030,053	4,013,418	5,197,317	6,417,724	7,504,200[2]	10,676,844[3]	66%

Sources: 1. U.S. Census 2010 PL94-171, NCTCOG (February 2011).
2. Texas Water Development Board, 2016 Regional Water Plan Population Projections for 2020-2070 for Cities, Utilities, and County-Other by Region by County, Region C (December 2015).
3. NCTCOG 2040 Demographic Forecast (May 2015), http://rdc.nctcog.org/Index.aspx (at county level only).

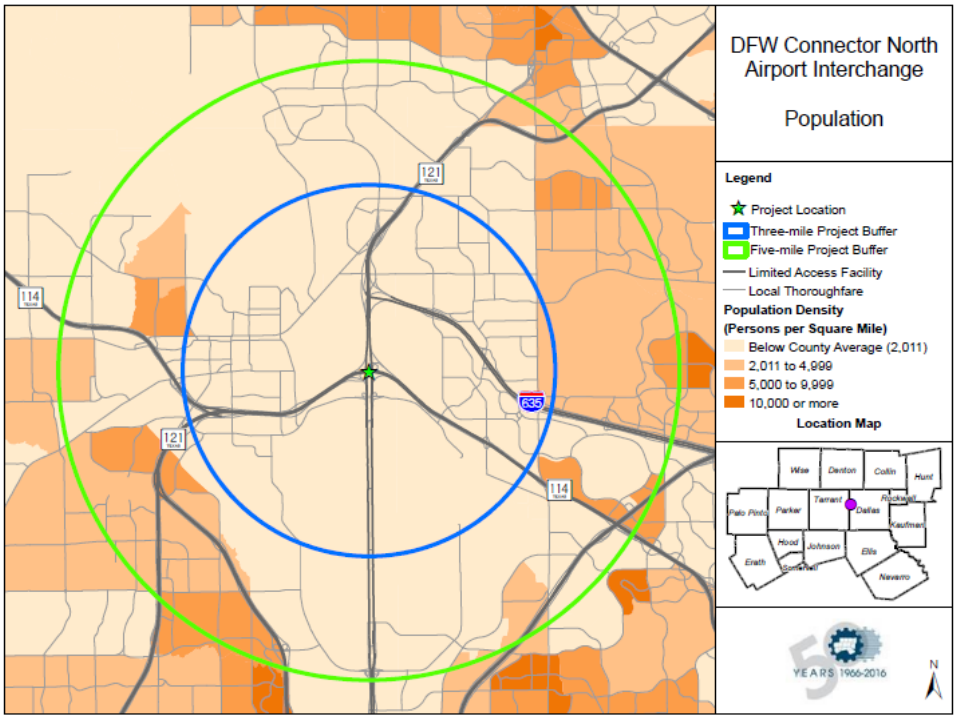
Exhibit 5: Project Area Land Use Map



DFW Airport dominates overall land-use activities south of SH 114 with a large mix of commercial and industrial uses related to its numerous passenger and freight-related operations, as well as appropriate quantities of dedicated open space preserved for safety purposes at the approaches to DFW Airport's seven runways. Other high-intensity land uses occur north of SH 114, particularly

in the project area's northeast quadrant in the city of Irving. Two locations of interest occur there, including a 774-acre DFW Airport-controlled tract designated as the United States Foreign Trade Zone (FTZ) #39, and a 550-acre development immediately to the east managed by Woodbine Development Corporation (the company originally responsible for DFW Airport land acquisition) known as DFW Freeport. Undeveloped land and dedicated open space dominate the northwest quadrant of the project area (also primarily controlled by DFW Airport), but several large commercial tracts in the area are locations recently developed as major tourism destinations such as the Gaylord Texan Resort and Conference Center, Great Wolf Lodge, and Grapevine Mills Mall. Residential land uses are generally removed from the immediate project area, but this condition is attributed to the configuration of DFW Airport runways and approach zones. The overall intensity and distribution of residential development is further reflected in **Exhibit 6** which highlights population density. While population density is certainly a key indicator of transportation needs in most other cases, movements around DFW Airport are more clearly governed by it being one of the region's most concentrated industrial and commercial employment centers.

Exhibit 6: Project Area Population Density

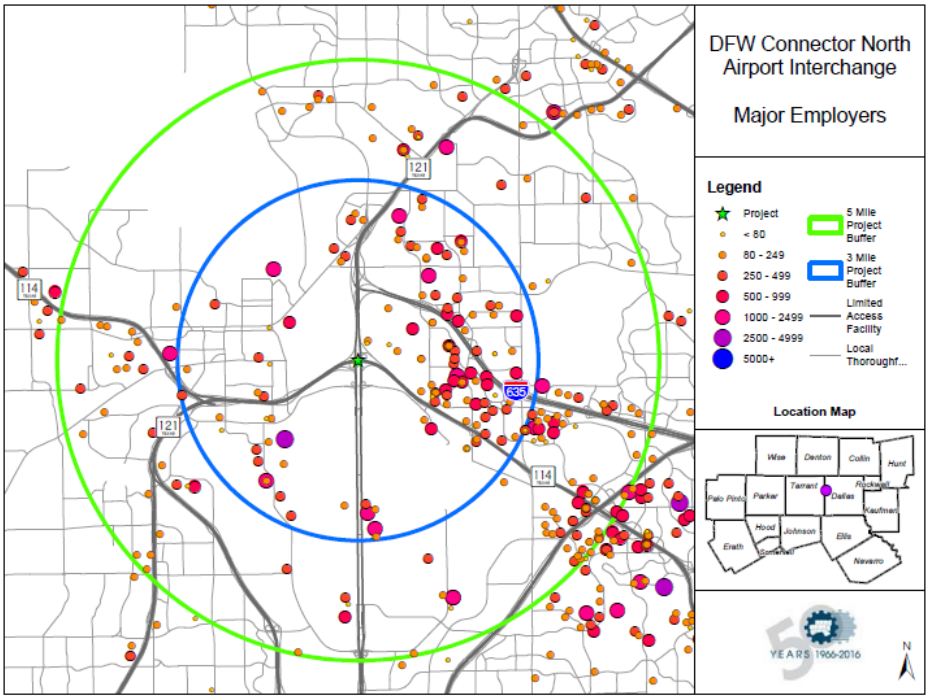


Map Date: April 2016 Source: US Census Bureau (American Community Survey 2010-2015 5-Year Data by Census Tract)

Exhibit 7 displays the size and location of major employers in the vicinity of the North Airport Interchange. The map illustrates that the largest clusters of employers closest to the project location occur either on DFW Airport property south of SH 114, the FTZ #39/DFW Freeport development north of SH 114 in Irving, or in Coppell north of IH 635. Large employers located on

DFW Airport property include Amazon, Airbus Helicopters, Sikorsky, DHL, Dallas Cowboys Merchandise, and Omni International. The most notable presence though is American Airlines (AA), the world's largest airline by fleet size, with approximately 26,700 jobs scattered among various branches of its corporate headquarters, on-site service and aircraft maintenance facilities, and major destination hub operations which are devoted exclusively to three of the five terminal buildings and a large share of the international terminal. American Airlines Cargo Operations has their main office and freight operations center with 160 employees located off the northbound Service with immediately access to North Airfield Drive and the SH 114 "DFW North Airport Interchange". AA Cargo deploys 50 "hub" trucks (standard 53 foot trailers) per day. Other private entities on-property with greater than 1,000 employees include United Parcel Service and FedEx Corporation, each with large cargo operations near the North Airport Interchange. The FTZ #39/DFW Freeport (www.woodbinedevelopment.com/properties/master-planned/dfw-freeport) area contains a variety of corporate tenants occupying more than 13 million square feet of warehouse/distribution center space and over 2 million square feet of office space, and the area is also home to numerous large hotels and other lodging facilities.

Exhibit 7: Project Area Major Employers



Map Date: April 2016 Source: NCTCOG

Projected increases in traffic volumes for the North Airport Interchange will be most greatly attributed to changes in economic activity at DFW Airport and the broad regional impacts resulting from enhanced job growth. The current Metropolitan Transportation Plan (MTP), *Mobility 2040: The Metropolitan Transportation Plan for North Central Texas* (www.nctcog.org/trans/mtp/2040),

indicates that employment within the 12-county MPA is projected to grow from 4,584,235 jobs in the present year to 6,691,449 jobs by 2040. A vast majority of those additional jobs will be added in Dallas (1,050,448 jobs) and Tarrant (542,806 jobs) Counties, and it seems clear that development trends will continue to favor DFW Airport as one of the region's strongest employment clusters. According to the 2009 Airport Development Plan Update, year 2030 DFW Airport projections indicate annual service to more than 80 million total passengers, nearly 900,000 aircraft operations, and almost 2.2 million tons of cargo shipments. Those figures represent increases of 25%, 32%, and 199% respectively. In moving toward those ends, DFW Airport is close to completion with its multi-year $2.7 billion Terminal Renewal and Improvement Program (TRIP) that will upgrade four of the five existing terminals with modern aesthetic features, enhanced security and safety provisions, revised baggage-handling infrastructure, new self-service technologies, extra amenities and concession opportunities, and reconstructed parking facilities. Advanced planning toward adding a sixth terminal within the next decade, as well as new cargo and ancillary aircraft storage facilities, is occurring as well.

In August 2014, the Dallas Area Rapid Transit (DART) Orange Line was extended 4.7 miles to connect DFW Airport to a 90-mile light-rail system (largest in North America) and 55 miles of commuter rail. DFW Airport also anticipates significant land development to occur on many of its property tracts near the north end of the airport following construction and opening of the TEXRail commuter rail connection to/from downtown Fort Worth, by late 2018. New transit-oriented development tied to a planned station location north of SH 114 will likely boost demand for more large tourism destinations similar to the nearby Gaylord Texas Resort. All of these activities will ultimately translate to greater amounts of local and regional traffic that justify delivery of remaining DFW Connector improvements to the North Airport Interchange, as soon as possible.

Targeted Transportation Challenges

The initial DFW Connector construction phase successfully addressed the primary goal of reconfiguring access patterns to more efficiently and reliably distribute traffic through the North Airport Interchange between the five existing freeway facilities. The original project accomplished that objective while also improving local access/connectivity through the affected cities, and upgrading capacity for all traffic traveling to/from the DFW Airport terminals along International Parkway. However, all of the various freeway-to-freeway connections at the North Airport Interchange required longer, wider, and higher ramps which created a much larger right-of-way (ROW) footprint than the previous interchange. This also eliminated the past ability to provide shared access to/from International Parkway and its parallel service roads as traffic traveled in both directions through the airport's north entrance. Changes in ramp distance and geometry, a consistent configuration concept for ramp entry/exit points throughout the DFW Connector project, the demand for future direct access to/from the ultimate SH 114 managed lanes, and increased traffic speeds overall through the North Airport Interchange required that:

- New dedicated ramps between various freeways and the International Parkway service roads be built in both directions;

- International Parkway service road access to/from North Airfield Drive must be rebuilt; and
- New bypass lanes must be built around the DFW Airport north entrance toll plaza for additional reorientation of International Parkway and service road traffic to maximize local access and circulation for nearby land uses and airport operations.

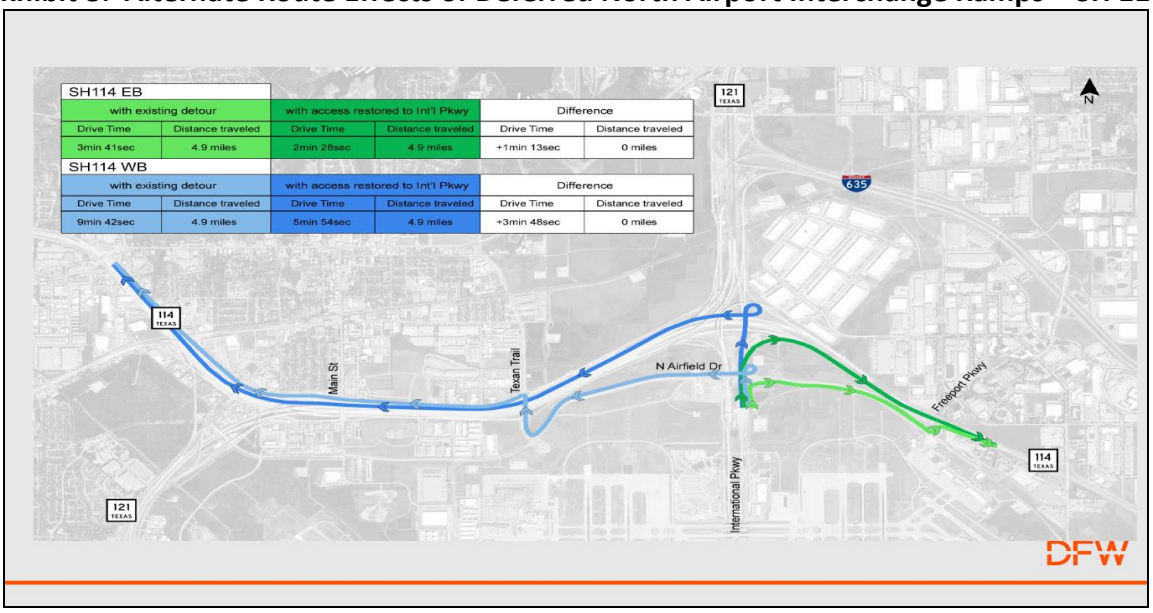
Unfortunately, these improvements could not be incorporated within the initial DFW Connector construction phase given available financial resources. Various local thoroughfare network connections were determined available and capable of accommodating International Parkway service road traffic on alternative routes to/from each of the freeway facilities. Utilization of alternate routes was beneficial during the initial DFW Connector construction to help reduce overall traffic traveling through the North Airport Interchange. However, with the project completed, continued area-wide economic growth, and substantial latent demand redistribution resulting from other nearby transportation projects, it's becoming more critical to build the deferred ramps and restore the lost connections. DFW Airport passengers wishing to use the two large long-term parking facilities at the north side of the airport are affected by the loss of direct freeway access to the International Parkway service roads. As a result of the North Airport Interchange reconfiguration and toll plaza reconstruction, all traffic from IH 635, SH 114, and SH 121 accessing the DFW Airport "Remote North" Parking Lot are unable to enter or leave the lot directly using the north airport entrance. Users must either exit each freeway at upstream or downstream locations and use service road and local thoroughfare connections to reach the lot off of North Airfield Drive, or travel south deeper into DFW Airport property along the International Parkway service roads and perform a U-turn to backtrack toward North Airfield Drive. Each of these paths require extra distance and travel time as a result of the DFW Connector initial construction phase, and the shortest route to enter the "Remote North" Parking Lot from IH 635 and SH 121 is also not the same route travelers must use to leave. This same inconvenience for potential users also applies to the DFW Airport "Express North" Parking Lot. This facility, located farther south and closer to the terminals, can be reached directly from the freeways via the North Airport Interchange, but users wanting to travel the same route entering/exiting the lot must proceed through the north entrance toll plaza. To bypass the toll, users exiting the lot must travel the northbound (NB) International Parkway service road and leave the airport via North Airfield Drive and local thoroughfare connections back to the freeway system.

Similar conditions also exist for a vast majority of DFW Airport employees who work at the terminal buildings including concession workers, airline ticket agents and baggage handlers, Transportation Security Administration (TSA) enforcement personnel, and other professionals. The primary parking lot and internal bus transit center for those commuters is located adjacent to the DFW Airport North "Express" Parking Lot along the southbound (SB) International Parkway service road. Directly opposite from this location along the NB International Parkway service road is the American Airlines Cargo Operations Facility, one of the largest freight-oriented employers on DFW Airport property and a major generator of truck trips. These and other numerous centers of on-airport activities represent a substantial portion of overall DFW Airport traffic relocated to

alternate routes as a result of the North Airport Interchange deferments. It should also be noted that prior to the initial DFW Connector construction, the straight-line path of the International Parkway service roads through the north and south DFW Airport entrances had been a commuting choice for various travelers wishing to avoid circumventing the airport. This option has also been negated by service road access removal at the North Airport Interchange.

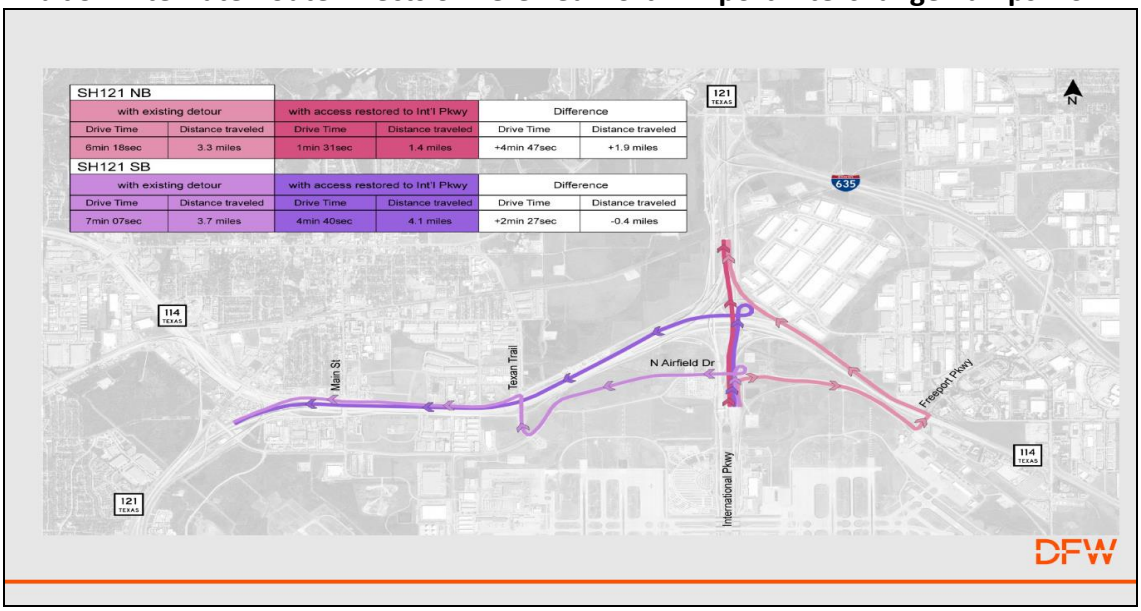
The following maps highlight alternate routes from the NB International Parkway service road that commuters and trucks must utilize to exit DFW Airport on each freeway due to the deferred North Airport Interchange ramp connections. Prepared in 2013 shortly after the initial DFW Connector construction phase was completed, the maps also indicate the measured travel time and distance savings if original International Parkway service road access was restored. **Exhibit 8** illustrates the effects for eastbound (EB) and westbound (WB) travelers on SH 114, **Exhibit 9** displays the same information for NB and SB traffic on SH 121, and **Exhibit 10** shows the differences for EB IH 635 travelers based on two route options.

Exhibit 8: Alternate Route Effects of Deferred North Airport Interchange Ramps – SH 114



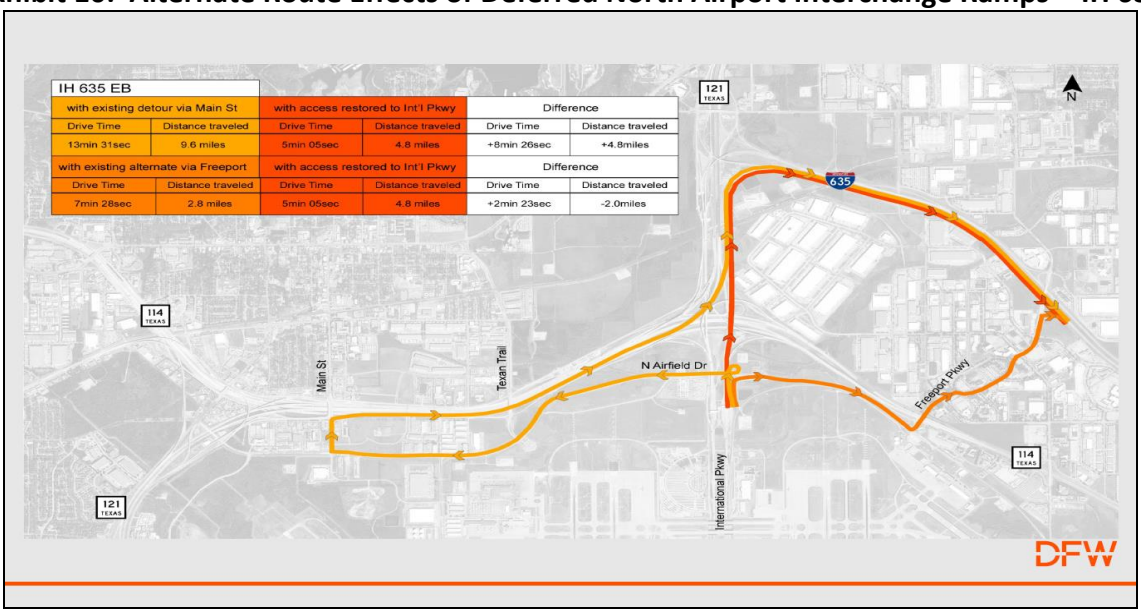
Source: Dallas Fort Worth International Airport, Traffic Count and Travel Route Survey (2013)

Exhibit 9: Alternate Route Effects of Deferred North Airport Interchange Ramps – SH 121



Source: Dallas Fort Worth International Airport, Traffic Count and Travel Route Survey (2013)

Exhibit 10: Alternate Route Effects of Deferred North Airport Interchange Ramps – IH 635



Source: Dallas Fort Worth International Airport, Traffic Count and Travel Route Survey (2013)

Each of the above maps identify significant extra time and distance required for multiple trips exiting DFW Airport in all directions. Combined with other trip purposes along various service roads, as well as local thoroughfares that extend into the cities of Grapevine and Irving, this condition allows for congestion to spread beyond the original DFW Connector project limits. This is especially the case for IH 635, a major regional corridor on the National Highway Freight Network,

to which one of the alternate access routes takes traffic across multiple traffic signals through the dense DFW Freeport employment cluster (northeast of the project area). Because daily peak truck traffic flows to/from DFW Airport occur at/near the fringes of typical peak-period times for home-based-work trips, substantial delay can occur frequently in this area, and it also limits effective incident management options if a major accident or closure affects the freeways through the North Airport Interchange.

III. Project Parties

North Central Texas Council of Governments (Grant Applicant)

The North Central Texas Council of Governments (NCTCOG) is a voluntary association of cities, counties, school districts, and special districts established in January 1966 to assist local governments in planning for common needs, cooperating for mutual benefit, and coordinating for sound regional development. NCTCOG serves a 16-county metropolitan region comprised around the urban centers of Dallas and Fort Worth, and it consists of 234 members, including 16 counties, 169 cities, 22 independent school districts, and 28 special districts. The regional area is nearly 12,800 square miles, and the regional population is over seven million.

Since 1974, NCTCOG has served as the Metropolitan Planning Organization (MPO) for the Dallas-Fort Worth area. The NCTCOG Transportation Department is responsible for the regional planning process for all transportation modes, and also provides technical support and staff assistance to the Regional Transportation Council (RTC) and its technical committees, which comprise the MPO policy-making structure. The department also provides technical aid to local governments and transportation providers in planning, coordinating, and implementing transportation decisions.

Texas Department of Transportation (Grant Recipient/Project Implementation)

The Texas Legislature originally established TxDOT in 1917 as the Texas Highway Department. Headquartered in Austin, TxDOT is made up of 25 district offices, 21 divisions, and 6 regional offices. This project is located in the Fort Worth District which plans, designs, builds, operates, and maintains the state transportation system in the following counties: Erath, Hood, Jack, Johnson, Palo Pinto, Parker, Somervell, Tarrant, and Wise. The project is a PPP that would be implemented through an existing design-build contract between TxDOT and Northgate Constructors.

Dallas Fort Worth International Airport (Airport-Related Project Implementation)

The Airport was created by the 1968 Contract and Agreement between the Cities of Dallas and Fort Worth. Under the terms of the Contract and Agreement, the Airport is operated by a Board of Directors on behalf of the Owner Cities. The Board is authorized to plan, acquire, establish, develop, construct, maintain, equip, operate, lease, regulate, and police the Airport and is obligated to exercise on behalf of the Owner Cities the powers of each with respect thereto.

IV. Grant Funds, Sources, and Uses of Project Funds

Exhibit 11 details the project funding sources and **Exhibit 12** details the estimated project costs to be funded through this INFRA Grant. All costs are in 2016 dollars. The amount of this FY 2017 and 2018 INFRA Grant request is **$65 million**, designated for use in the project's construction phase.

Exhibit 11: DFW Connector North Airport Interchange Funding Sources

Funding Source	Type	Funding Amount	Percent
Local	DFW International Airport	$2,957,000	(2%)
State	TxDOT PE Funding	$1,286,000	(1%)
State	TxDOT ROW Funding	$886,000	(1%)
State	TxDOT State Matching to INFRA Grant	$16,250,000	(13%)
State	State Match to Leveraged STP-MM Funding	$2,954,000	(2%)
Total of Non-Federal Funding Sources		**$24,333,000**	**(20%)**
Federal (MPO-Selected)	Leveraged STP-MM (Federal)	$23,645,000	(20%)
Federal	TxDOT PE Funding	$5,145,000	(4%)
Federal	TxDOT ROW Funding	$3,543,000	(3%)
Federal	INFRA Request	$65,000,000	(53%)
Total of Federal Funding Sources		**$97,333,000**	**(80%)**

Exhibit 12: DFW Connector North Airport Interchange Cost Estimate

Cost Category	Total Cost	Funding Source	
		Federal (Percent)	Non-Federal (Percent)
Design	$6,432,000	$5,145,000 (80%)	$1,286,000 (20%)
Utility Relocation	$4,429,000	$3,543,000 (80%)	$886,000 (20%)
Construction	$80,249,000	$64,199,000 (80%)	$16,050,000 (20%)
Miscellaneous	$9,212,000	$7,370,000 (80%)	$1,842,000 (20%)
Contingency	$21,344,000	$17,075,000 (80%)	$4,269,000 (20%)
TOTAL PROJECT COST	**$121,666,000**	**$97,333,000 (80%)**	**$24,333,000 (20%)**

V. Merit Criteria

Criterion #1: Support for National or Regional Economic Vitality

Results of the Benefit-Cost Analysis

The anticipated benefits and costs were monetized in the BCA (Application Attachment 3). The project benefits documented in the BCA are shown in **Exhibit 13**. The net present value of the DFW Connector North Airport Interchange is shown in **Exhibit 14**. Applied to a total project cost of $122 million, a substantial net benefit is achieved assuming a discount rate of 7 percent. Based on a 20-year project life, the overall effect of this transportation investment will result in a positive net value of $575.3 million, after netting out the cost of the project. Calculations used to determine this total are discussed in more detail in the BCA Attachment.

Exhibit 13: Total Project Benefits

Benefit Category	Benefits
	7% Discount Rate
O&M Costs	$(2,354,877)
Time Savings	$265,545,638
Crash Reduction	$112,669,443
Air Quality Emission Savings	$573,747

Exhibit 14: Net Project Benefits

Discount Rate	Net Present Value of Total Benefits	Rounded Net Present Value of Total Benefits	Return on Investment
7 Percent	$575,323,288	$575.0 million	**464 percent**

The overall net value of this transportation investment will result in a positive return on investment of **464 percent ($575 million/$124 million)**. The results of this BCA clearly indicate that this project will provide a lifetime of regional benefits and substantially improve quality of life for its residents.

This project will increase the economic competitiveness and freight movement of the United States over the medium- and long-term by increasing accessibility to jobs and other activities at DFW Airport and the cities surrounding the north side of the airport. There will be direct freight and economic competitiveness benefits to project users including reduced air quality emissions, auto and commercial vehicle travel-time savings, and reductions in vehicle crashes. By providing direct International Parkway service road access to/from each of the primary limited-access facilities, the project also benefits all transportation system users through reduced freight shipping costs, new economic development opportunities, increased system reliability, reduced roadway and freight operating costs, and fuel savings.

The travel time savings due to reducing the number of intersections between connections is $1.4 Billion. Calculation of regional benefits from reduced congestion and travel times associated with the new direct connector ramps are also included in the BCA. The net present value of travel time savings to transportation system users is $290 million.

As with all infrastructure improvements, the DFW Connector North Airport Interchange will generate an increment of new short-term jobs. Based on the Council of Economic Advisers' September 2011 determination that a job-year is created by every $76,900 in transportation infrastructure spending, this $122 million project would generate approximately 1,389.6 job-years. This number is inclusive of onsite jobs and additional employment in other industries due to the multiplier effect. Benefits from short-term job creation were not included in the BCA because some or all of these benefits would have to be considered transfer benefits.

Regional safety is increased by providing an opportunity for the bypass of multiple intersections. The additional capacity allows traffic to transition to limited access facilities with the conversion to an above grade direction connection interchange. Therefore, the annual crash frequency for this project was calculated based on a three-mile buffer from the center of the project. The net present value of crash reduction benefits is $113 million. Similar to the safety improvements, air quality emissions are reduced as a result of bypassing multiple intersections. The net present value of emission reductions is $573,700.

Criterion #2: Leveraging of Federal Funding

NCTCOG currently manages federal, as well as state-administered, grants that are in various stages of development, implementation, and closeout. In FY 2016, NCTCOG facilitated expenditures of $12.6 million from various federal grants including awards from the Department of Commerce, Department of Energy, Environmental Protection Agency, Federal Transit Administration, Federal Emergency Management Agency, Department of Defense, Department of Labor, and the Federal Housing Administration. Also in FY 2016, NCTCOG facilitated expenditures of $112.3 million from various state-administered grants including awards from the Texas Commission on Environmental Quality, Texas Department of Health, Texas State Energy Conservation Office, and TxDOT. The NCTCOG Transportation Department employs 21 fiscal and grant professionals who provide financial, legal, and compliance support for projects funded from these grants. No adverse audit

findings from standards used by states, local governments, and non-profit organizations expending federal awards (Circular A-133) have been determined at this time. NCTCOG has not been required to comply with special "high risk" terms and conditions under agency regulations in the implementation of consistency and uniformity in the management of grants and cooperative agreements with state, local, and federally-recognized Indian tribal governments (OMB Circular A-102).

The current metropolitan transportation plan (MTP), *Mobility 2040: The Metropolitan Transportation Plan for North Central Texas*, represents a $118.9 billion blueprint for the continued maintenance and development of the regional transportation system over 20-plus years. The MTP complies with all federal requirements regarding identifying and defining a financially-constrained long-range transportation plan. Funds available for implementing projects and programs are estimated using financial forecasting models which track and project revenue based on historical trends and anticipated future growth. Overall, the MTP financial forecast utilizes the following sources:

- Federal and state motor fuels taxes;
- State vehicle registration revenues;
- Other federal and state taxes;
- Revenue from the region's toll and managed lane system;
- Local funds;
- Sales tax collected by transit authorities; and
- Proposition 1/Proposition 7 funds.

State legislative action in the 2013 and 2015 sessions allowed for additional transportation revenue approved by voters as Proposition 1 and Proposition 7. Proposition 1 authorized a constitutional amendment allocating a portion of the Economic Stabilization Fund derived from oil and gas revenues to be deposited in the State Highway Fund for non-tolled projects (http://www.txdot.gov/government/legislative/state-affairs/ballot-proposition.html). Proposition 7 enabled an additional constitutional amendment to dedicate portions of revenue from the state's general sales and use tax, as well as from the motor vehicle sales and rental tax, to the State Highway Fund for non-tolled projects (http://www.txdot.gov/government/legislative/state-affairs/ballot-proposition-7.html). TxDOT developed the estimate for the funding available to the region from these propositions, and Texas House Bill 20 (2015) provides the mechanism for establishing funding categories and developing performance metrics to support project selection through an annually-updated UTP, also known as the Ten Year Plan. The Texas Clear Lanes Project for the SH 121/SH 360 interchange, and the $370 million project for the IH 635/SH 121/FM 2499 interchange are recent examples of uses for these funds in the DFW Connector project area (http://www.nctcog.org/trans/committees/rtc/documents/web.agenda.rtc120816.pdf). It should be noted that possible cost savings from these construction phases and other on-system projects in Tarrant County could be applied as potential alternative funding sources for this project.

Should funds be needed for the proposed INFRA project as a result of potential cost overruns or shortage of federal/state funds, Regional Toll Revenue (RTR) funds can be utilized by the RTC. RTR funds comprise a unique funding source, created in 2007 after the North Texas Tollway Authority (NTTA) agreed to build the 28-mile-long SH 121 extension, or Sam Rayburn Tollway (SRT), through Collin, Dallas and Denton Counties. In addition to the expedited construction of a major roadway, the NTTA agreement also enabled delivery of a $3.2 billion upfront payment in exchange for appropriate SRT operations, maintenance, and upgrades for a minimum of 52 years, and the available revenue could be applied to projects of varying types throughout the North Central Texas region. Since inception, additional payments and toll revenues from the 10-mile-long President George Bush Turnpike (PGBT) Eastern Extension, which opened in 2011, and the 12-mile-long PGBT Western Extension (also known as SH 161) completed in 2012, have increased the total RTR funds over time. These funds have helped leverage additional resources from multiple public/private transportation partners for a comprehensive regional list of projects/programs, with total user benefits and economic values that greatly exceed the overall funds received.

Criterion #3: Potential for Innovation

The project will build six direct connector ramps and additional planned local thoroughfare network improvements at the north entrance of Dallas Fort Worth International Airport (DFW Airport) in an effort to complete the ultimate access and circulation pattern at the North Airport Interchange between Interstate Highway (IH) 635, State Highway (SH) 114, SH 121, International Parkway, its parallel service roads, and North Airfield Drive. The infrastructure improvements will help fulfill the DFW Airport ultimate vision for effective ground capacity and optimal connectivity to the regional surface transportation system, ensuring that the largest economic engine for North Central Texas can successfully meet current and future demands for growth, convenience, efficiency, and economic vitality.

Included with this project is construction of two direct connector ramps between International Parkway and the SH 114 tolled managed lanes, also known as TEXpress Lanes (www.texpresslanes.com). Opened in 2013 as part of the initial DFW Connector construction phase, the SH 114 TEXpress Lanes (two lanes in each direction) extend approximately three miles from west of Freeport Parkway in Irving to east of Farm-to-Market Road (FM) 1709 in Grapevine. The SH 114 TEXpress Lanes were built as an innovative congestion-pricing tool to allow opportunities via tolls to bypass general purpose lane congestion between the split interchanges with SH 121, as well as added friction caused by various integrated entrance/exit ramps to from local cross-streets, through the city of Grapevine. Starting in 2015, TxDOT initiated construction of another design-build CDA project called Midtown Express (www.drivemidtown.com). TxDOT and its joint venture entity known as SouthGate Mobility Partners is building interim improvements with new and modified existing infrastructure including additional TEXpress Lanes, general purpose lanes, ramps, and service roads along extensive sections of Loop 12, SH 114, and SH 183 in western Dallas County. For SH 114 in particular, the Midtown Express project will add one continuous WB TEXpress Lane that will flow seamlessly for nearly 15 miles from SH 183 near the IH

35E split in the city of Dallas directly into the existing DFW Connector TEXpress Lanes as they pass around DFW Airport. The Midtown Express project will also build an EB TEXpress Lane on SH 114, although due to funding and right-of-way limitations a three-mile gap will remain between the DFW Connector TEXpress termination point (where it becomes the far left general purpose lane) and the new facility's starting point near the President George Bush Turnpike (PGBT). Bridging the gap will be accomplished in a future construction phase as funding becomes available.

Direct TEXpress lane connections to/from DFW Airport provide an extra benefit of convenience and reliability for users when the value of time is critical, particularly for frequent business travelers. Roadside monitoring equipment for real-time communication of traffic conditions, demand-based variable pricing strategies, and mobile app-based registration for high-occupancy vehicle (HOV) discounts during peak periods are all used collectively to provide predictable and expedient drive times at set speeds greater than 50 miles-per-hour (MPH). The overall length of the SH 114 TEXpress facility, and the proposed location of several intermediate access points along the route, will allow more direct and dependable high-speed travel to DFW Airport from major regional employment centers such as:

- Southwestern Medical District (www.swmeddistrict.org) – 1,000-acre multi-faceted medical complex in Dallas with a bio-technology business park, four hospitals with over 2,000 beds and 29,000 employees, and anchored by the University of Texas Southwestern Medical Campus; and
- Las Colinas (www.irvingtexas.com/about-irving/las-colinas) – 12,000-acre master-planned development in Irving containing over 25 million square-feet of total office space, home to 2,000 companies and 400 corporate headquarters.

At the time of this project's proposed completion, direct connections to/from DFW Airport via the SH 114 TEXpress Lanes would be the first such provisions to/from a major airport in the nation, outside of the metropolitan areas of Washington D.C. (Dulles) and New York City (Newark Liberty). It should also be noted that TEXpress Lanes are designed for accommodation of trucks as well as passenger vehicles. With MTP policies in place to encourage and expand utilization of tolled managed lanes by trucks given available capacity, this project would enable the same potential for travel time savings and reliability to be realized for cargo shipments and other freight-oriented activities to/from DFW Airport. The project would continue the integration of managed toll lane technology on the regional roadway system, and public-private partnership would be used to implement project, providing efficiencies through a design-build contract.

Criterion #4: Performance and Accountability

The DFW Connector North Airport Interchange project will be added to the scope of the existing design-build contract with NorthGate Constructors. The contract addition is the most efficient means of advancing construction, because TxDOT can elect to request pricing for additional scope from the current developer. This allows for the best schedule for construction with the ability to release some construction packages early. Some benefits to using the existing developer include:

- Familiarity between key design staff, contractor staff, and TxDOT staff, as well as with the current process for changes and additions to the contract;
- Existing contract change would allow rapid mobilization for scoping and design initiation;
- Early packages would allow for rapid start of construction while design is completed;
- As labor resources in the area are consumed by competing projects, using design-build method sets the price earlier and Developer assumes risk of obtaining crews and material;
- No mobilization period and relatively little cost due to current/proposed work by Northgate Constructors to deliver other deferred DFW Connector project items (i.e. FM 2499 grade separations, SH 121/SH 360 interchange Texas Clear Lanes Project, etc.).

If awarded INFRA funding, the NCTCOG would work with TxDOT to investigate performance incentive clauses in the change order to the existing design-build contract. The NCTCOG would request regular project updates from TxDOT as part of future RTC meetings. Once construction has been initiated, performance and accountability would be monitored in both the TxDOT Project Tracker web page and the existing contractor's website (http://www.dfwconnector.com/).

Exhibit 15 summarizes key points highlighting how the DFW Connector North Airport Interchange Project meets the criteria established for the INFRA Discretionary Grant Program.

Exhibit 15: Project Consistency with Merit Criteria

Merit Criterion 1 Supporting national/regional economic vitality	• Enhances capacity and improves safety on a congested area of a critical regional roadway system used for access to/from large economic and commercial centers, including DFW International Airport, in the DFW Region
Merit Criterion 2 Leveraging of federal funding	• INFRA grant request would provide remaining funding requirements for a project, initially conceived in 2009 • Current funding is composed of federal and state grants, including a match by TXDOT for INFRA grant funds
Merit Criterion 3 Incorporating innovation into project	• Project would continue the integration of managed toll lane technology on roadway system • Public-Private Partnership (PPP) would be used to implement project, providing efficiencies through design-build contract
Merit Criterion 4 Performance and accountability	• A past PPP developer, Northgate Constructors, would be used to implement project • Northgate Constructors finished the initial DFW Connector project 1-year ahead of schedule

VI. Project Readiness

Project Schedule

The DFW Connector North Airport Interchange project is set for an expedited delivery that will be in a position to move ahead well before the INFRA obligation requirements and for construction commencement within 18 months thereafter. The project schedule shown in **Exhibit 16** indicates obligation of funding and construction letting in summer 2019, and completion of the project anticipated by the end of 2021.

Exhibit 16: DFW Connector North Airport Interchange Project Schedule

DFW Connector North Airport Interchange	Comments	2018				2019				2020				2021			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Activities																	
Contracting	Change Order																
Design																	
Utility Relocation																	
Construction																	
Misc./Landscaping /Punchlist																	
Final Acceptance																	

NEPA Status

The scope of the DFW Connector North Airport Interchange project was identified within ultimate plans for the overall DFW Connector project, which received NEPA approval when a Finding of No Significant Impact (FONSI) was issued in April 2009. FHWA has reviewed the Reevaluation Consultation Checklist (RCC) submitted by TxDOT for previous phases of the overall DFW Connector project and has concurred with the conclusion and recommendation in the RCC that the original FONSI decision remains valid. Additional NEPA documentation is not anticipated.

State and Local Approvals

Permits involving waters of the United States would be relatively minor in nature for culvert crossings. No major Section 404 (of the Clean Water Act) issues have been identified. No revision to the STIP/TIP will be necessary. No ROW will need to be acquired for the project.

Project Risks and Mitigation Strategies

a. Potential procurement delays – Amending the existing contract with the current developer mitigates convention risks associated with preconstruction activities and other professional services. The existing contract should have available capacity for the proposed work, provided TxDOT Contract Services agrees with proposed usage of the contract capacity.
b. Environmental uncertainties – Project risks should be minimal because the proposed work is environmentally cleared, needed ROW is already acquired/purchased, and all stakeholders fully support the project.

VII. Large/Small Project Requirements

Large Project Determination

1. Does the project generate national or regional economic, mobility, safety benefits?

Yes. The project enhances capacity and improves safety within a congested critical regional roadway system used for access to/from large economic and commercial centers.

2. *Is the project cost effective?*

Yes. As previously noted in the summary of the BCA analysis, the project will result in a positive return on investment of **464 percent** ($575 million/$124 million). The results of the BCA clearly indicate that this project will provide a lifetime of regional benefits and substantially improve quality of life for its residents.

3. *Does the project contribute to one or more of the Goals listed under 23 U.S.C. 150?*

Yes. The proposed project improvements (direct connector ramps, service roads, bridge replacement, etc.) at DFW Airport promote the following Goals under 23 U.S.C. 150: Safety; Infrastructure Condition; Congestion Reduction; System Reliability; Freight Movement and Economic Vitality; and Reduced Project Delivery Delays.

4. *Is the project based on the results of preliminary engineering?*

Yes. The project was evaluated as part of a FONSI issued in 2009.

5a. *With respect to non-Federal financial commitments, does the project have one or more stable and dependable funding or financing sources to construct, maintain, and operate the project?*

As previously noted, current funding is composed of federal and state funds, including match funds from TxDOT and DFW Airport.

5b. *Are contingency amounts available to cover unanticipated cost increases?*

As previously noted, Regional Toll Revenue (RTR) funds can be utilized to cover potential cost overruns or shortages of federal/state funds. Cost savings from other DFW Connector construction phases and/or other on-system Tarrant County projects may also be utilized.

6. *Is it the case that the project cannot be easily and efficiently completed without other Federal funding or financial assistance available to the project sponsor?*

As previously noted, this project is a component of the overall $1.6 billion DFW Connector project. Due to funding constraints, this project could not be constructed without deferred elements, resulting in more limited mobility and accessibility enhancements in several critical locations. This INFRA grant request would provide the remaining funding for a project that has been constructed in multiple stages since 2009.

7. *Is the project reasonably expected to begin construction not later than 18 months after the date of obligation of funds for the project?*

Yes. As previously noted, the project schedule shown in **Exhibit 16** indicates obligation of funding and construction letting in summer 2019, and completion of the project is anticipated by the end of 2021. The existing PPP developer (Northgate Constructors) would be used to implement project. Northgate Constructors finished the initial DFW Connector project one year ahead of schedule.