



**US Army Corps  
of Engineers** ®  
Fort Worth District

# Public Notice

Applicant: City of Lewisville

Project No.: SWF-2018-00485

Date: May 7, 2019

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## Purpose

The purpose of this public notice is to inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. We hope you will participate in this process.

## Regulatory Program

Since its early history, the U.S. Army Corps of Engineers has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the U.S. Army Corps of Engineers Regulatory Program.

## Section 10

The U.S. Army Corps of Engineers is directed by Congress under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) to regulate *all work or structures in or affecting the course, condition or capacity of navigable waters of the United States*. The intent of this law is to protect the navigable capacity of waters important to interstate commerce.

## Section 404

The U.S. Army Corps of Engineers is directed by Congress under Section 404 of the Clean Water Act (33 USC 1344) to regulate the *discharge of dredged and fill material into all waters of the United States, including wetlands*. The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.

## Contact

Name: Mr. Eric Dephouse, Project Manager

Phone Number: 817-886-1820

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**JOINT PUBLIC NOTICE**  
**U. S. ARMY CORPS OF ENGINEERS, FORT WORTH DISTRICT**  
**AND**  
**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

**SUBJECT:** Application for a Department of the Army Permit under Section 404 of the Clean Water Act (CWA) and for water quality certification under Section 401 of the CWA to discharge dredged and fill material into waters of the United States associated with the extension of Corporate Drive in the City of Lewisville, Denton County, Texas.

**APPLICANT:** City of Lewisville  
151 W. Church St.  
Lewisville, TX 75057

**APPLICATION NUMBER:** SWF-2018-00485

**DATE ISSUED:** May 7, 2019

**LOCATION:** The proposed extension of Corporate Drive would extend the current limits between the Railroad Street intersection east of the Interstate Highway (IH) 35 corridor (latitude 33.024127°, longitude -96.969386) and Carrollton Parkway in the west (latitude 33.039172°, longitude -96.931518°) in the City of Lewisville, Texas. The site is mapped on the 7.5-minute USGS quadrangle map, Lewisville East, Texas. The site is in USGS Hydrologic Unit 12030103. See Sheets 1 and 2 for the project location.

**OTHER AGENCY AUTHORIZATIONS:** Section 401 State Water Quality Certification.

**PROJECT DESCRIPTION:** The applicant proposes to discharge approximately 8,451 cubic yards of dredged and fill material into approximately 7.04 acres of waters of the United States in conjunction with the extension of Corporate Drive. Direct, permanent impacts would include 336 linear feet (0.03 acres) of ephemeral streams, 4.93 acres of non-forested wetlands, 0.06 acres of forested wetlands, and 0.91 acres of open water. Proposed temporary impacts for this project include 159 linear feet (0.02 acres) of an intermittent stream and 1.09 acres of a non-forested wetland. See Table 1 – Summary of Impacts to Waters of the United States and Sheets 3A through 3J for further information.

The applicant states that the proposed construction would extend Corporate Drive from the intersection of Railroad Street east to the western terminus of the developed Carrollton Parkway. The proposed project also includes the expansion of Carrollton Parkway between the Sam Rayburn Tollway and Windhaven Parkway. The applicant's proposed purpose is to provide an alternate major arterial roadway to connect and improve regional mobility between the City of Lewisville and the neighboring City of Carrollton and the Colony to the east. This work was determined based on the applicant's need to accommodate projected future traffic demands and to improve long-term traffic mobility within the city in southeastern Denton County.

**Table 1 - Summary of Impacts to Waters of the United States**

Feature ID	Average OHWM (feet)	Length of Impact (feet)	Area of Impact (acres)	Activity Description	Impact Type
<b>Streams</b>					
Intermittent Stream (IS-1)	5	159	0.02	Excavation and Backfill	Temporary
Ephemeral Stream (ES-1)	1-4	287	0.02	Backfill	Permanent
Ephemeral Stream (ES-3)	8	48	0.01	Excavation and Backfill	Permanent
<b>Forested Wetlands</b>					
Forested Wetland (FW-1)	---	---	0.02	Clearing	Permanent
Forested Wetland (FW-3)	---	---	0.03	Backfill	Permanent
<b>Scrub/Shrub Wetlands</b>					
Scrub/Shrub Wetland (SS-1)	---	---	< 0.01	Clearing	Permanent
Scrub/Shrub Wetland (SS-1)			1.09	Bridge installation	Temporary
Scrub/Shrub Wetland (SS-2)	---	---	0.18	Backfill	Permanent
<b>Emergent Wetlands</b>					
Emergent Wetland (EW-1)	---	---	0.01	Bridge installation and grade	Permanent
Emergent Wetland (EW-2)	---	---	4.51	Backfill	Permanent
Emergent Wetland (EW-3)	---	---	0.23	Backfill	Permanent
<b>Open Water</b>					
Open Water (OW-2)	---	---	0.91	Excavation	Permanent

**ALTERNATIVES:** The alternatives analysis includes four geographic alternatives and the no-build alternative. These included routing the extension to the north past SH-121 south of the Lake Lewisville Dam, expanding SH-121 or Business 121, routing to the south between the Waste Management DFW Landfill and Camelot Landfill, and routing the extension to Carrollton Parkway in the east (Sheets 4 and 5). A no-build alternative was also considered. The United States Army Corps of Engineers (USACE) has not yet evaluated the alternatives analysis.

*Alternative 1:* Alternative 1 is defined as any conceptual route between SH-121 and the Lake Lewisville Dam. This alternative would entail crossing the Lewisville Lake Environmental Learning Area (LLELA), which is owned by the USACE for wildlife habitat and flood control. Within the LLELA, there are several mapped National Wetland Inventory features, along with a potential for additional features not mapped (see Sheet 5). It is reasonable to assume that this alternative could impact more aquatic resources than other potential alternatives, thereby eliminating it as a less damaging alternative. This alternative would require USACE Section 408 consultation, which would require an alternatives analysis that includes alternatives not crossing federal property. For this reason, it may also be eliminated as a practicable alternative.

*Alternative 2:* Alternative 2 is defined as any conceptual route expanding the existing infrastructure to SH-121 or Business 121. These roads are TxDOT and/or NTTA facilities and the City of Lewisville would not have the authority to improve these features. Several areas to the south of Business 121 were investigated previously under unrelated projects. Such an alternative would directly impact several wetland features, and additional impacts may occur due to the need to relocate a new 24-inch water line constructed by the City of Lewisville, located adjacent to SH-121. Additionally, there are numerous developed properties located in the proposed right-of-way that would result in substantial impacts to these locations. Whereas the alternative could be slightly less damaging, it would have several challenges to practicability as it relates to existing development.

*Alternative 3:* Alternative 3 would be an eastern progression of Corporate Drive from the intersection with Railroad Street, turning between two landfills to an undetermined conceptual eastern terminus. A proposed alignment could perhaps avoid impacts to the Elm Fork, however, the impacts to the two existing landfills would eliminate this alternative from a practicability standpoint. Any impact to the landfill boundary would

require the modification of the landfill plan through the TCEQ and could affect existing safety infrastructure to the landfills. Additionally, along any eastern terminus of this alignment, the Coyote Ridge Golf Course exists. Acquiring right-of-way would be very difficult and would be a limiting factor. For these reasons, the applicant determined that Alternative 3 would not be a practical alternative.

*Alternative 4:* Alternative 4, the proposed project, routes the extension of Corporate Drive Railroad Street through existing undeveloped right-of-way adjacent to the Waste Management Landfill. From this point, the route will cross the Elm Fork proceeding east across a narrow reach of the Elm Fork riparian corridor to Carrollton Parkway. The alignment makes use of open pasture along this approach, with the exception of a large cattail wetland created by beaver activity.

*Alternative 5:* Alternative 5 is the “no-build” alternative. This alternative would result in no discharge of dredge and fill material into Waters of the U.S. SH-121 and Hebron Parkway would remain as the primary route for traffic utilizing east-west corridors within the city of Lewisville. This alternative would not satisfy the need and purpose of the proposed project. Safety and congestion within the City of Lewisville would not be improved. Existing road right-of-way could be dedicated back to the original owners for their interests. It is also possible that aquatic features along the eastern alignment may still be impacted by flood improvement projects, industrial development, and/or a reduced scale thoroughfare. For these reasons, the applicant determined that Alternative 5 would not meet the project need and purpose.

**MITIGATION:** The applicant has proposed compensatory mitigation consistent with the USACE Fort Worth District guidelines. This would include the purchase of credits from the Bunker Sands Mitigation Bank to offset impact associated with wetland impacts. In addition, the purchase of stream credits is proposed from the Mill Branch Mitigation Bank and the Red Oak Umbrella Mitigation bank consistent with the Texas Rapid Assessment Method and banking instrument debit ratios, where applicable.

**PUBLIC INTEREST REVIEW FACTORS:** This application will be reviewed in accordance with 33 CFR 320-331, the Regulatory Program of the U. S. Army Corps of Engineers (USACE), and other pertinent laws, regulations, and executive orders. Our evaluation will also follow the guidelines published by the U. S. Environmental Protection Agency pursuant to Section 404(b)(1) of the CWA. The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impact, of the proposed activity on the public interest. That decision will reflect the national concerns for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including its cumulative effects. Among the factors addressed are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The USACE is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the USACE in determining whether to issue; issue with modifications or conditions; or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

STATE WATER QUALITY CERTIFICATION: This project would result in a direct impact of greater than three acres of waters of the state or 1,500 linear feet of streams (or a combination of the two is above the threshold), and as such would not fulfill Tier I criteria for the project. Therefore, Texas Commission on Environmental Quality (TCEQ) certification is required. Concurrent with USACE processing of this Department of the Army application, the TCEQ is reviewing this application under Section 401 of the Clean Water Act, and Title 30, Texas Administrative Code Section 279.1-13 to determine if the work would comply with State water quality standards. By virtue of an agreement between the USACE and the TCEQ, this public notice is also issued for the purpose of advising all known interested persons that there is pending before the TCEQ a decision on water quality certification under such act. **Any comments concerning this application may be submitted to the Texas Commission on Environmental Quality, 401 Coordinator, MSC-150, P.O. Box 13087, Austin, Texas 78711-3087.** The public comment period extends 30 days from the date of publication of this notice. A copy of the public notice with a description of the work is made available for review in the TCEQ's Austin Office. The complete application may be reviewed in the USACE's office. The TCEQ may conduct a public meeting to consider all comments concerning water quality if requested in writing. A request for a public meeting must contain the following information: the name, mailing address, application number, or other recognizable reference to the application; a brief description of the interest of the requestor, or of persons represented by the requestor; and a brief description of how the application, if granted, would adversely affect such interest.

ENDANGERED AND THREATENED SPECIES: The USACE has reviewed the U.S. Fish and Wildlife Service's latest published version of endangered and threatened species to determine if any may occur in the project area. Our initial review indicates that the proposed work would have no effect on federally-listed endangered or threatened species.

NATIONAL REGISTER OF HISTORIC PLACES: The USACE has reviewed the latest complete published version of the National Register of Historic Places and found no listed properties to be in the project area. However, presently unknown scientific, archaeological, cultural or architectural data may be lost or destroyed by the proposed work under the requested permit.

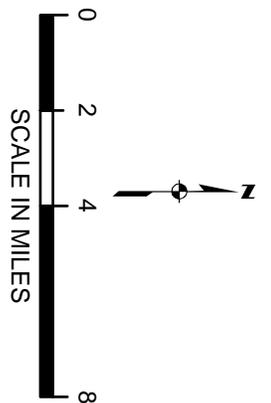
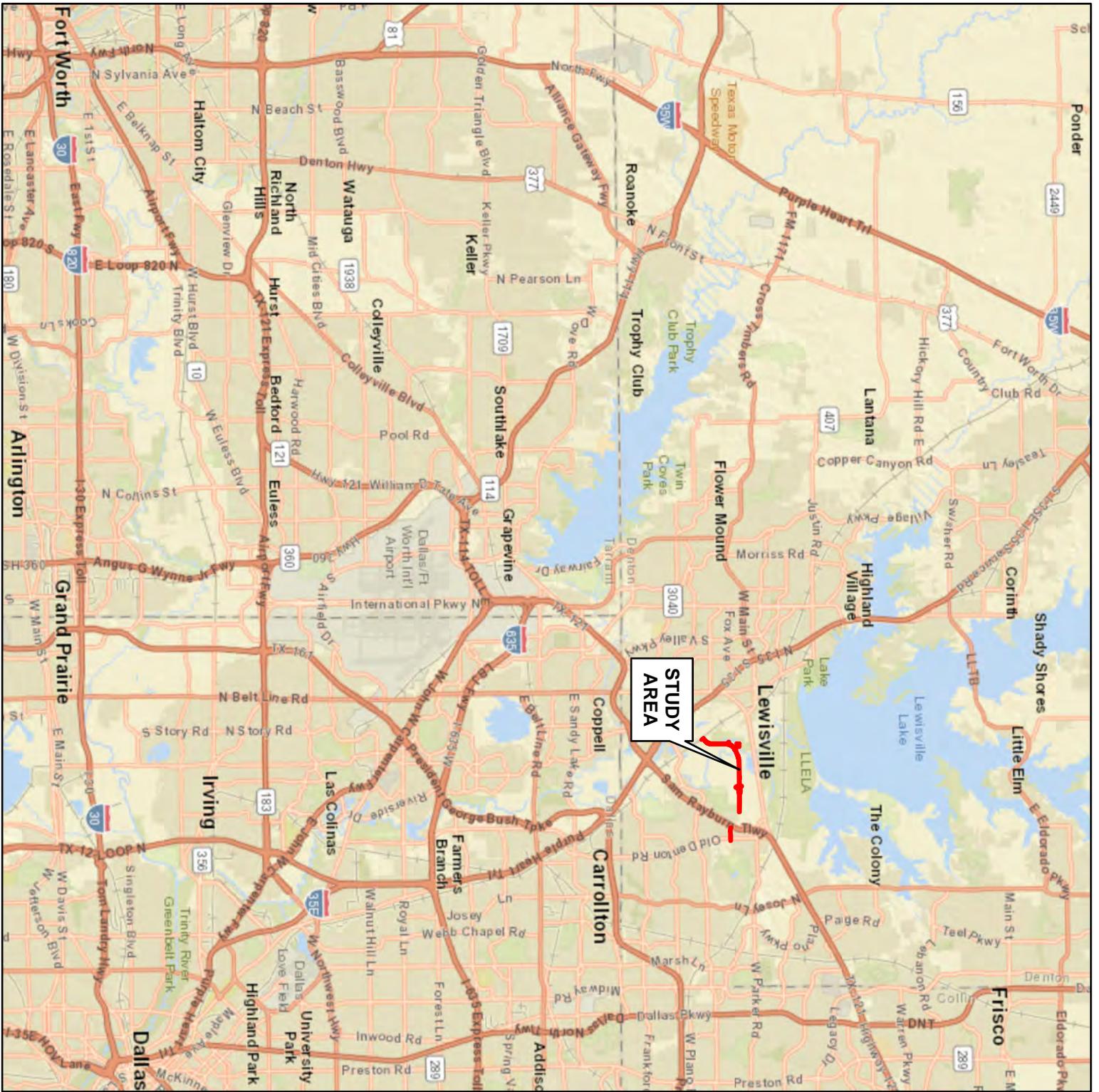
FLOODPLAIN MANAGEMENT: The USACE is sending a copy of this public notice to the local floodplain administrator. In accordance with 44 CFR part 60 (Flood Plain Management Regulations Criteria for Land Management and Use), the floodplain administrators of participating communities are required to review all proposed development to determine if a floodplain development permit is required and maintain records of such review.

SOLICITATION OF COMMENTS: The public notice is being distributed to all known interested persons in order to assist in developing facts upon which a decision by the USACE may be based. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition.

PUBLIC HEARING: Prior to the close of the comment period any person may make a written request for a public hearing setting forth the particular reasons for the request. The District Engineer will determine whether the issues raised are substantial and should be considered in his permit decision. If a public hearing is warranted, all known interested persons will be notified of the time, date, and location.

**CLOSE OF COMMENT PERIOD:** All comments pertaining to this Public Notice must reach this office on or before June 6, 2019, which is the close of the comment period. Extensions of the comment period may be granted for valid reasons provided a written request is received by the limiting date. If no comments are received by that date, it will be considered that there are no objections. Comments and requests for additional information should be submitted to: Regulatory Branch, CESWF DE-R; U. S. Army Corps of Engineers; Post Office Box 17300; Fort Worth, Texas 76102 0300. You may visit the Regulatory Branch in Room 3A37 of the Federal Building at 819 Taylor Street in Fort Worth between 8:00 A.M. and 3:30 P.M., Monday through Friday. Telephone inquiries should be directed to (817) 886-1820. Please note that names and addresses of those who submit comments in response to this public notice may be made publicly available.

**DISTRICT ENGINEER  
FORTH WORTH DISTRICT  
CORPS OF ENGINEERS**



**Legend**  
 Study Area

**Notes:**  
 1. Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, and the OpenStreetMap contributors, and the

Lewisville Corporate Drive Extension

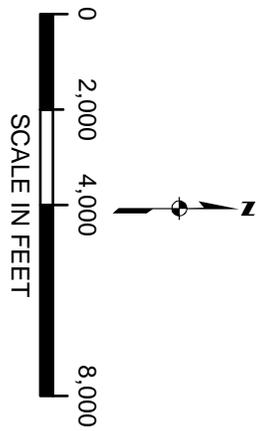
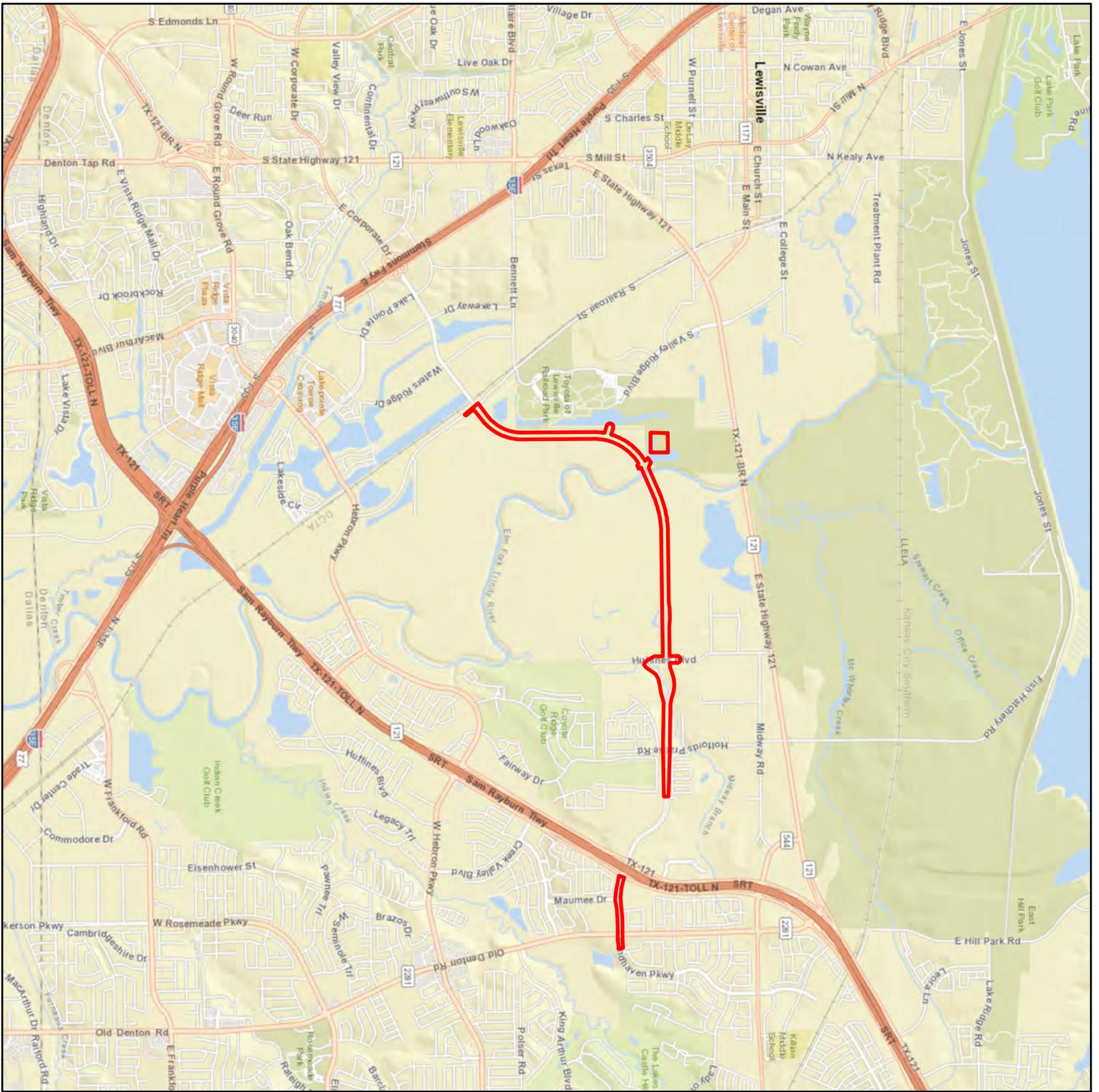
Project Number: SWF-2018-00485

Date: 04/2018 AVO: 30619

Project Location Map

Sheet 1





**Legend**



Study Area

**Notes:**

1. Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the

Lewisville Corporate Drive Extension

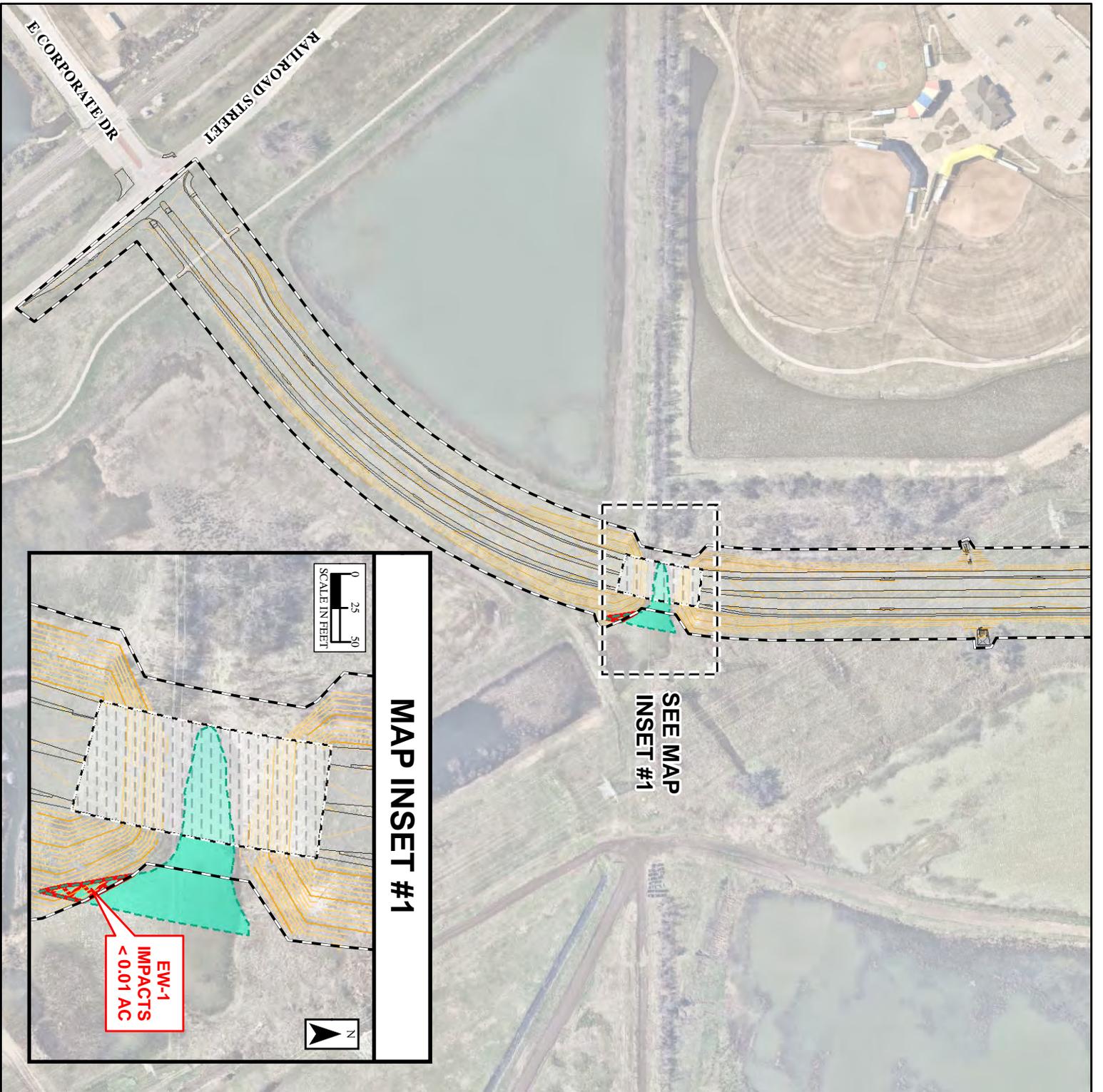
Project Number: SWF-2018-00485

Date: 04/2018 AVO: 30619

Project Vicinity Map

Sheet 2





**LEGEND**

	PROJECT IMPACTS TO WOUS		PROJECT LIMITS
	NON-JURISDICTIONAL FEATURE		PAVEMENT LIMITS
	WOUS		BRIDGE LIMITS
	EMERGENT WETLAND (EW)		BRIDGE STRUCTURAL MEMBER
	FORESTED WETLAND (FW)		BOX CULVERT
	SCRUB/SHRUB WETLAND (SS)		CONCRETE CULVERT
	EPHEMERAL STREAM (ES)		ROCK RIP/RAP CULVERT
	PERENNIAL STREAM (PS)		GRADING CONTOUR (MINOR)
	OPEN WATER (OW)		GRADING CONTOUR (MINOR)

**PROJECT DESIGN**

	PROJECT LIMITS
	PAVEMENT LIMITS
	BRIDGE LIMITS
	BRIDGE STRUCTURAL MEMBER
	BOX CULVERT
	CONCRETE CULVERT
	ROCK RIP/RAP CULVERT
	GRADING CONTOUR (MINOR)
	GRADING CONTOUR (MINOR)

**KEY MAP**

0 150 300 600  
SCALE IN FEET

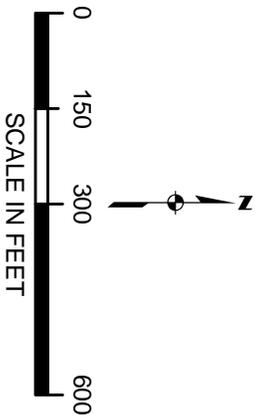
**Notes:**  
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Lewisville Corporate Drive Extension

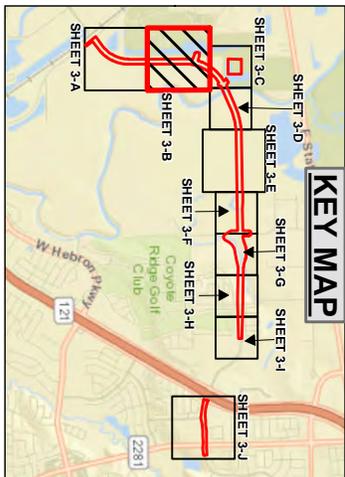
Project Number: SWF-2018-00485  
 Date: 05/2018 AVO: 30619  
 Waters of the United States Impacts Map

Sheet 3-A





LEGEND	
	PROJECT IMPACTS TO WOUS
	NON-JURISDICTIONAL FEATURE
<b>WOUS</b>	
	EMERGENT WETLAND (EW)
	FORESTED WETLAND (FW)
	SCRUB/SHRUB WETLAND (SS)
	EPHEMERAL STREAM (ES)
	PERENNIAL STREAM (PS)
	OPEN WATER (OW)
	PROJECT LIMITS
	PAVEMENT LIMITS
	BRIDGE LIMITS
	BRIDGE STRUCTURAL MEMBER
	BOX CULVERT
	CONCRETE CULVERT INTAKE/OUTFALL
	ROCK RIP/RAP CULVERT OUTFALL
	GRADING CONTOUR (MINOR)
	GRADING CONTOUR (MAJOR)



Notes:  
1. Service Layer Credits: NearMap 2018

Lewisville Corporate Drive Extension

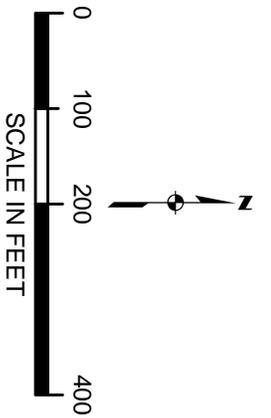
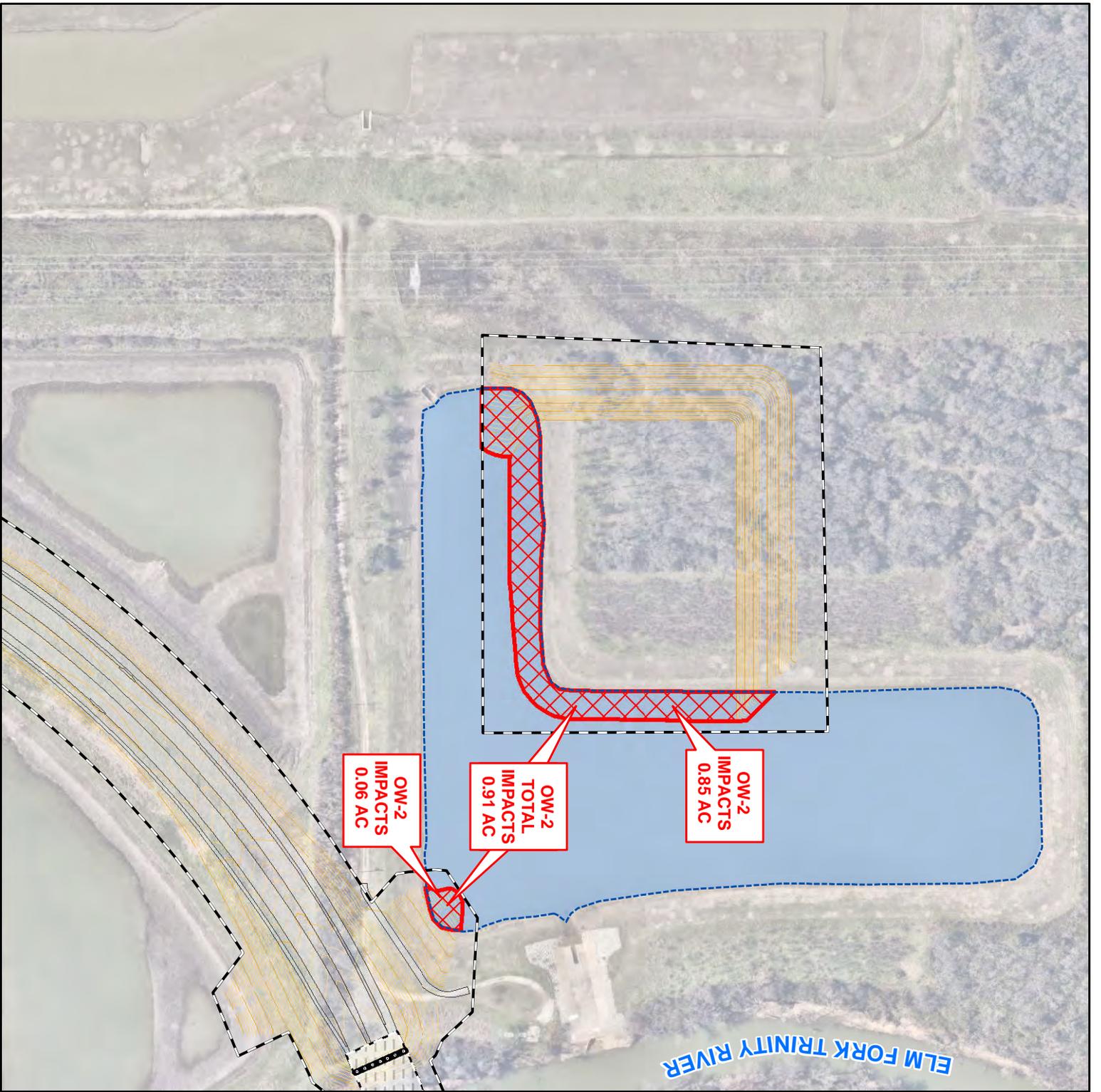
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Date: 05/2018 AVO: 30619

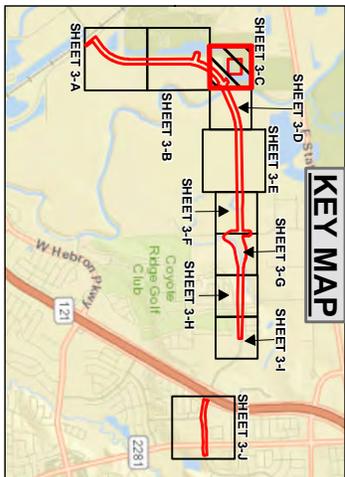
Waters of the United States Impacts Map

Sheet 3-B





LEGEND	
	PROJECT IMPACTS TO WOUS
	NON-JURISDICTIONAL FEATURE
	WOUS
	EMERGENT WETLAND (EW)
	FORESTED WETLAND (FW)
	SCRUB/SHRUB WETLAND (SS)
	EPHEMERAL STREAM (ES)
	PERENNIAL STREAM (PS)
	OPEN WATER (OW)
	PROJECT LIMITS
	PAVEMENT LIMITS
	BRIDGE LIMITS
	BRIDGE STRUCTURAL MEMBER
	BOX CULVERT
	CONCRETE CULVERT
	ROCK RIP/RAP CULVERT
	GRADING CONTOUR (MINOR)
	GRADING CONTOUR (MINOR)



Notes:  
1. Service Layer Credits: NearMap 2018

Lewisville Corporate Drive Extension

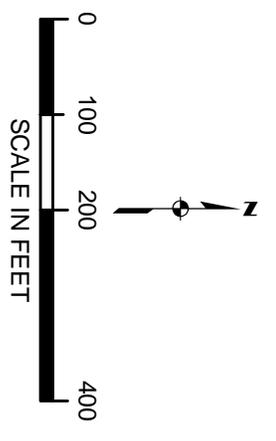
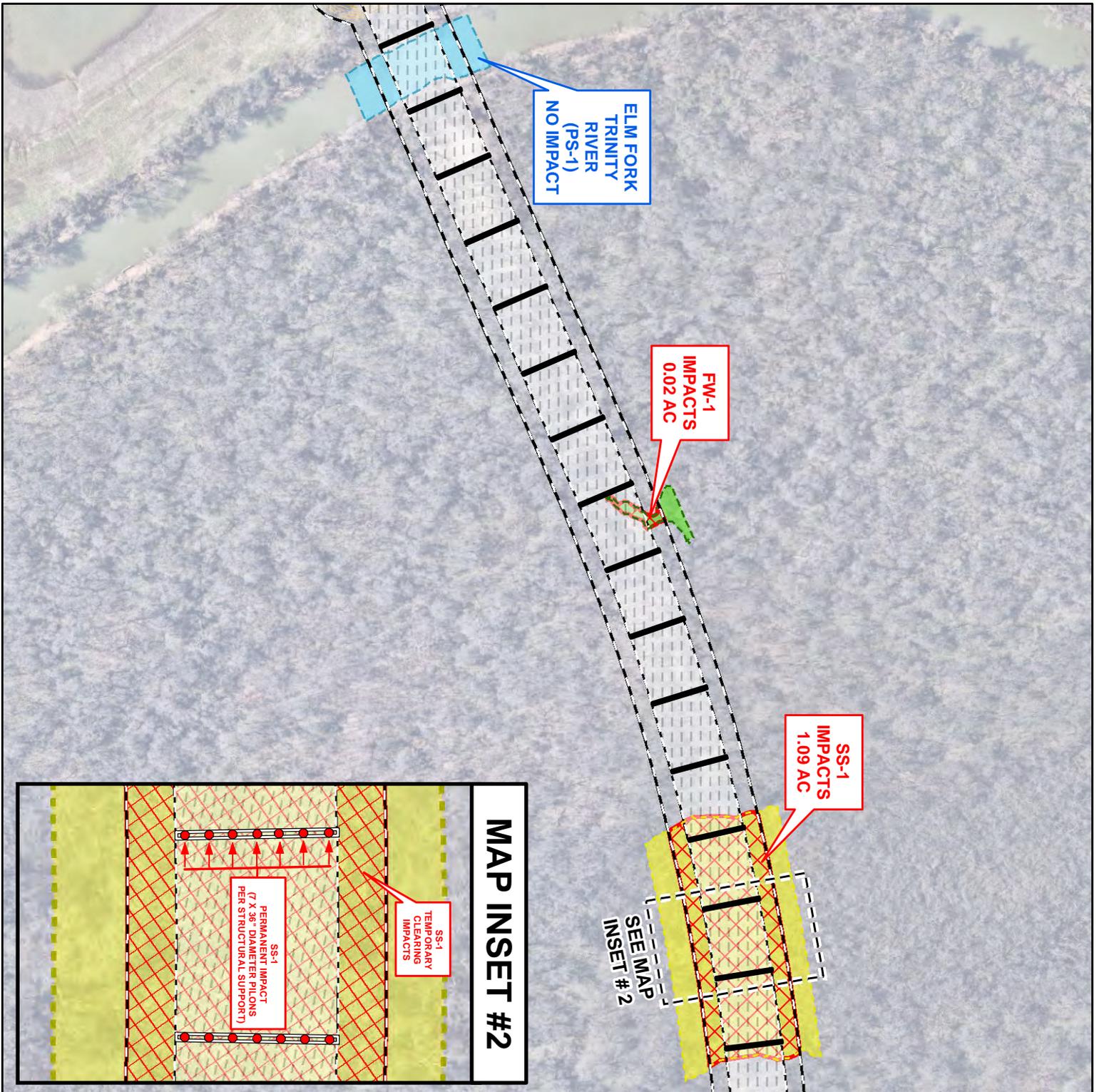
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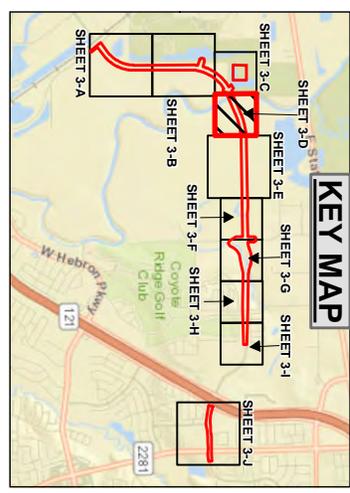
Waters of the United States Impacts Map

Sheet 3-C





LEGEND	
	PROJECT IMPACTS TO WOUS
	NON-JURISDICTIONAL FEATURE
<b>WOUS</b>	
	EMERGENT WETLAND (EW)
	FORESTED WETLAND (FW)
	SCRUB/SHRUB WETLAND (SS)
	EPHEMERAL STREAM (ES)
	PERENNIAL STREAM (PS)
	OPEN WATER (OW)
<b>PROJECT DESIGN</b>	
	PROJECT LIMITS
	PAVEMENT LIMITS
	BRIDGE LIMITS
	BRIDGE STRUCTURAL MEMBER
	BOX CULVERT
	CONCRETE CULVERT
	ROCK RIP/RAP CULVERT
	GRADING CONTOUR (MINOR)
	GRADING CONTOUR (MINOR)



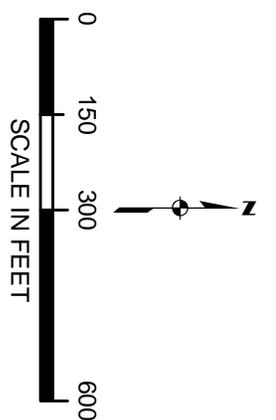
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Lewisville Corporate Drive Extension

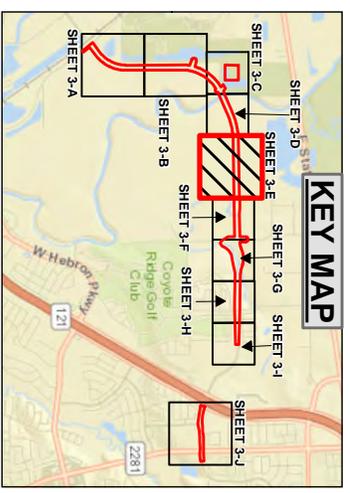
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 Date: 05/2018 AVO: 30619  
 Waters of the United States Impacts Map

Sheet 3-D





LEGEND			
	PROJECT IMPACTS TO WOUS		
	NON-JURISDICTIONAL FEATURE		
<b>WOUS</b>			
	EMERGENT WETLAND (EW)		BRIDGE STRUCTURAL MEMBER
	FORESTED WETLAND (FW)		BOX CULVERT
	SCRUB/SHRUB WETLAND (SS)		CONCRETE CULVERT
	EPHEMERAL STREAM (ES)		ROCK RIP/RAP CULVERT
	PERENNIAL STREAM (PS)		GRADING CONTOUR (MINOR)
	OPEN WATER (OW)		GRADING CONTOUR (MINOR)



Notes:  
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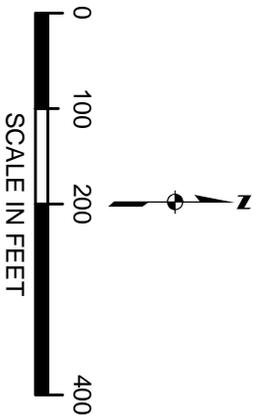
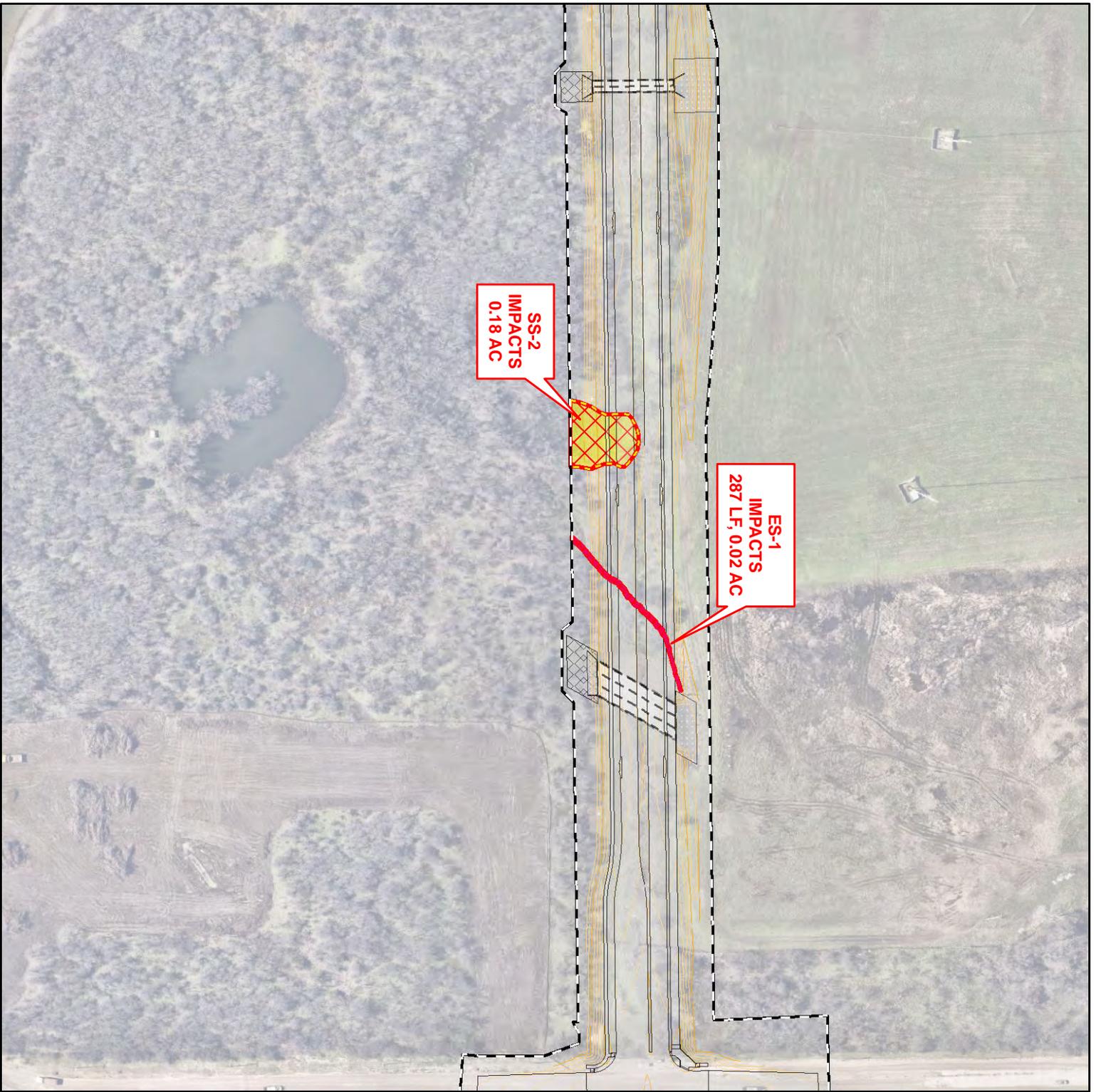
Lewisville Corporate Drive Extension

Project Number: SWF-2018-00485

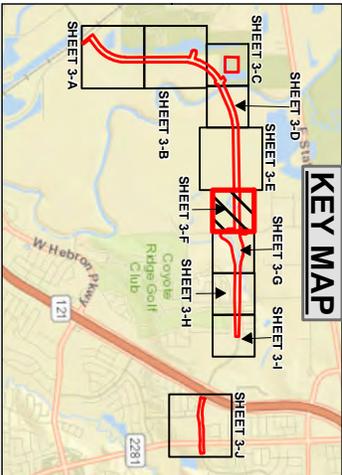
Date: 05/2018 AVO: 30619  
Waters of the United States Impacts Map

Sheet 3-E





LEGEND	
	PROJECT IMPACTS TO WOUS
	NON-JURISDICTIONAL FEATURE
<b>WOUS</b>	
	EMERGENT WETLAND (EW)
	FORESTED WETLAND (FW)
	SCRUB/SHRUB WETLAND (SS)
	EPHEMERAL STREAM (ES)
	PERENNIAL STREAM (PS)
	OPEN WATER (OW)
<b>PROJECT DESIGN</b>	
	PROJECT LIMITS
	PAVEMENT LIMITS
	BRIDGE LIMITS
	BRIDGE STRUCTURAL MEMBER
	BOX CULVERT
	CONCRETE CULVERT
	ROCK RIP/RAP
	INTAKE/OUTFALL
	GRADING CONTOUR (MINOR)
	GRADING CONTOUR (MINOR)



Notes:  
1. Service Layer Credits: NearMap 2018

Lewisville Corporate Drive Extension

Project Number: SWF-2018-00485

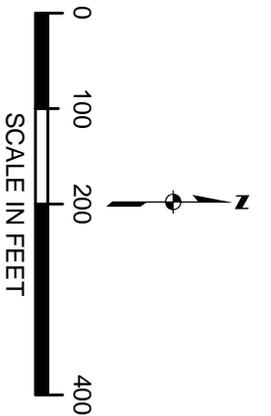
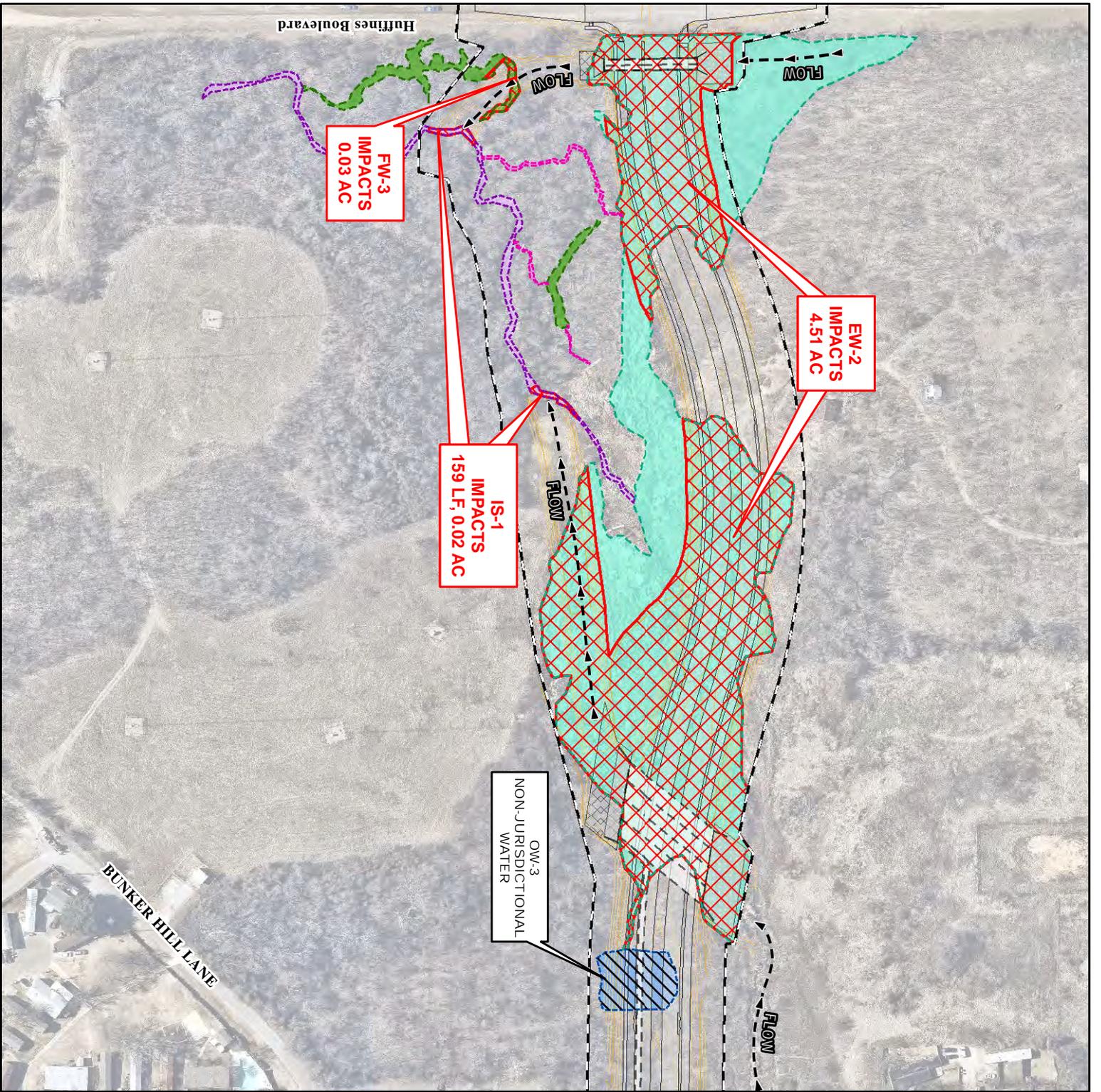
Date: 05/2018 AVO: 30619

Waters of the United States Impacts

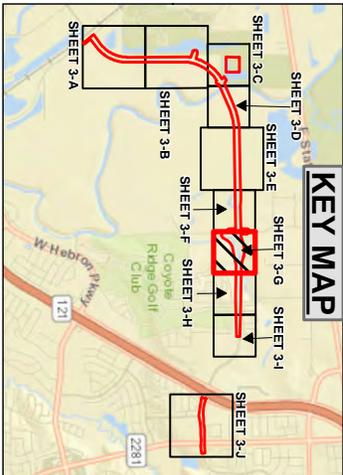
Map

Sheet 3-F





LEGEND	
	PROJECT IMPACTS TO WOUS
	NON-JURISDICTIONAL FEATURE
<b>WOUS</b>	
	EMERGENT WETLAND (EW)
	FORESTED WETLAND (FW)
	SCRUB/SHRUB WETLAND (SS)
	EPHEMERAL STREAM (ES)
	PERENNIAL STREAM (PS)
	INTERMITTENT STREAM (IS)
	OPEN WATER (OW)
<b>PROJECT DESIGN</b>	
	PROJECT LIMITS
	PAVEMENT LIMITS
	BRIDGE LIMITS
	BRIDGE STRUCTURAL MEMBER
	BOX CULVERT
	CONCRETE CULVERT
	ROCK RIP/RAP CULVERT
	GRADING CONTOUR (MINOR)
	GRADING CONTOUR (MINOR)



Notes:  
 1. Service Layer Credits: NearMap 2018

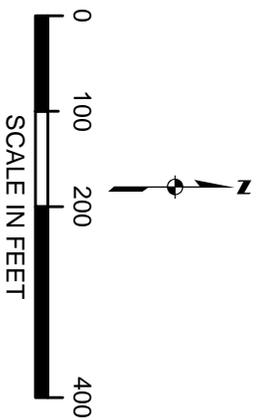
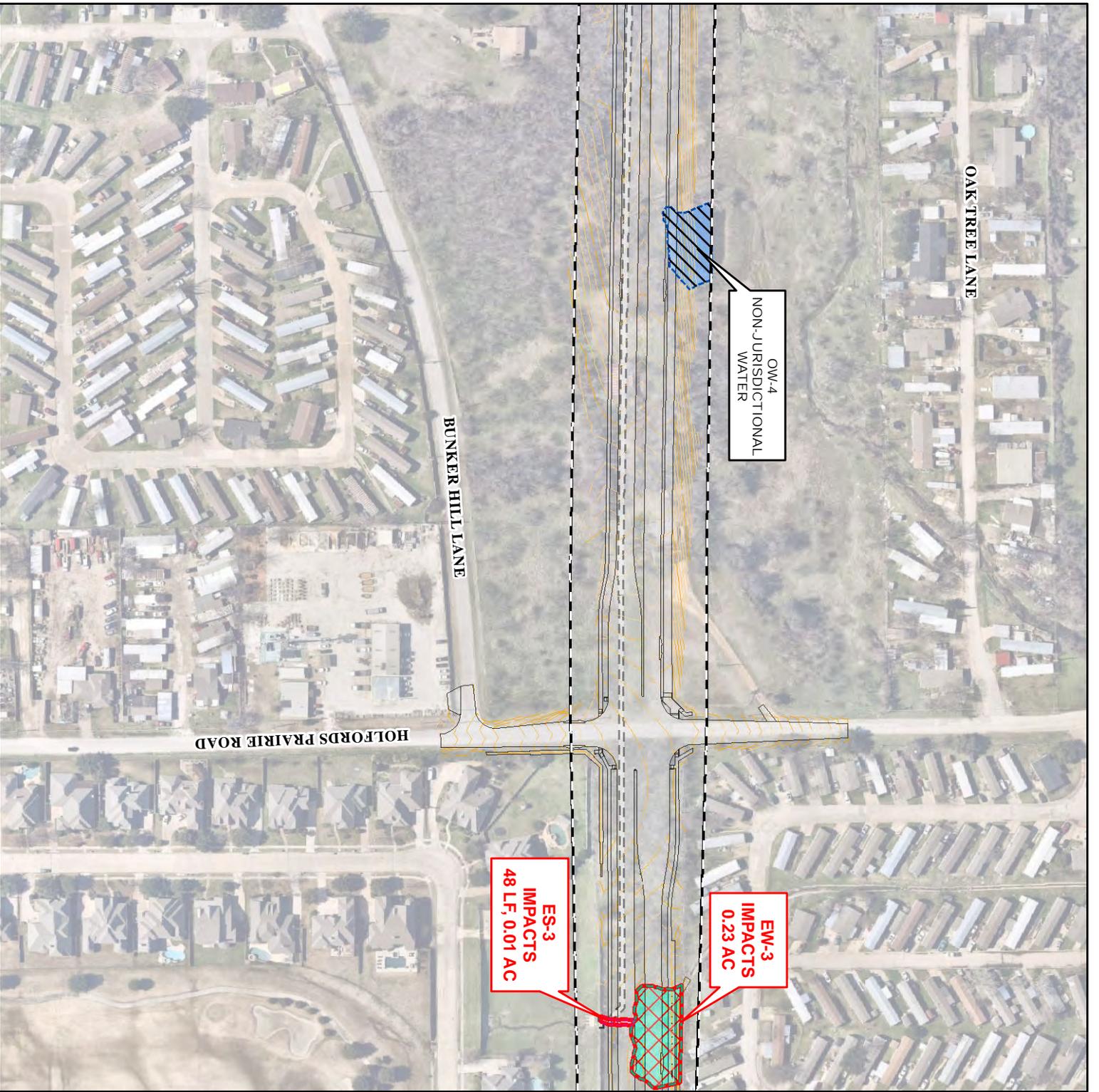
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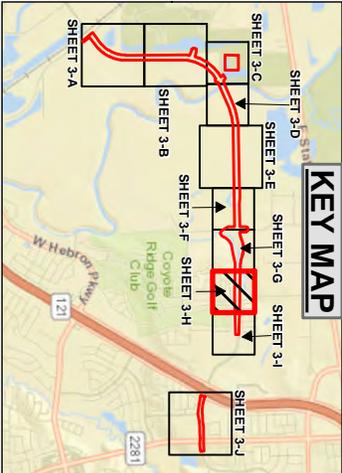
Waters of the United States Impacts Map

Sheet 3-G





LEGEND	
	PROJECT IMPACTS TO WOUS
	NON-JURISDICTIONAL FEATURE
<b>WOUS</b>	
	EMERGENT WETLAND (EW)
	FORESTED WETLAND (FW)
	SCRUB/SHRUB WETLAND (SS)
	EPHEMERAL STREAM (ES)
	PERENNIAL STREAM (PS)
	OPEN WATER (OW)
<b>PROJECT DESIGN</b>	
	PROJECT LIMITS
	PAVEMENT LIMITS
	BRIDGE LIMITS
	BRIDGE STRUCTURAL MEMBER
	BOX CULVERT
	CONCRETE CULVERT
	ROCK RIP/RAP
	GRADING CONTOUR (MINOR)
	GRADING CONTOUR (MINOR)



Notes:  
 1. Service Layer Credits: NearMap 2018

Lewisville Corporate Drive Extension

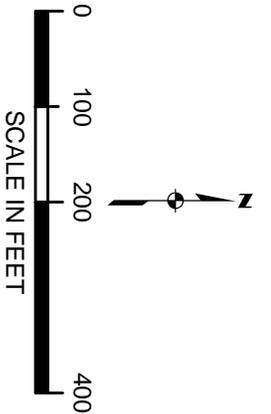
Project Number: SWF-2018-00485

Date: 05/2018 AVO: 30619

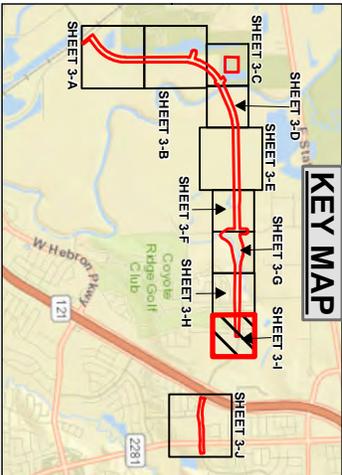
Waters of the United States Impacts Map

Sheet 3-H





LEGEND			
	PROJECT IMPACTS TO WOUS		
	NON-JURISDICTIONAL FEATURE		
<b>WOUS</b>			
	EMERGENT WETLAND (EW)		BRIDGE STRUCTURAL MEMBER
	FORESTED WETLAND (FW)		BOX CULVERT
	SCRUB/SHRUB WETLAND (SS)		CONCRETE CULVERT
	EPHEMERAL STREAM (ES)		ROCK RIP/RAP CUTFALL
	PERENNIAL STREAM (PS)		GRADING CONTOUR (MINOR)
	OPEN WATER (OW)		GRADING CONTOUR (MINOR)



Notes:  
 1. Service Layer Credits: NearMap 2018

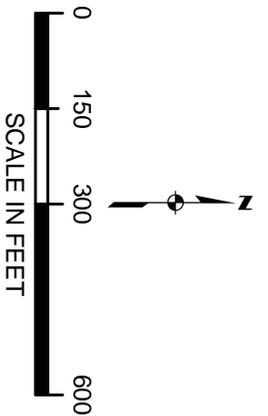
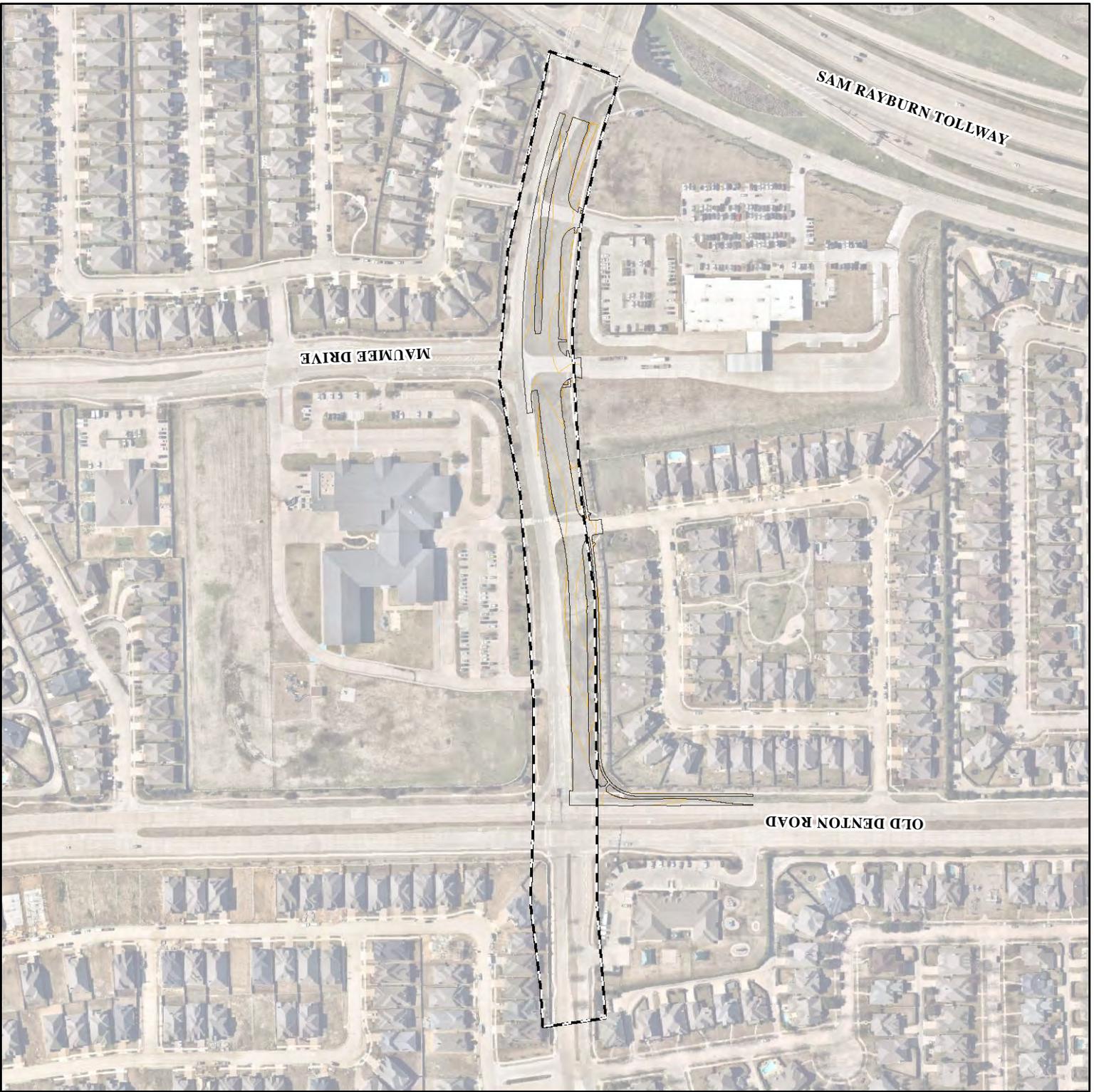
Lewisville Corporate Drive Extension

Project Number: SWF-2018-00485  
 Date: 05/2018 AVO: 30619

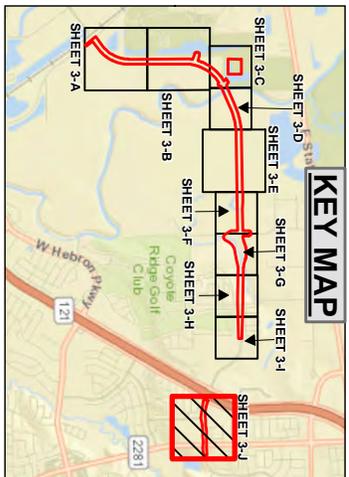
Waters of the United States Impacts Map

Sheet 3-1





LEGEND			
	PROJECT IMPACTS TO WOUS		
	NON-JURISDICTIONAL FEATURE		
<b>WOUS</b>			
	EMERGENT WETLAND (EW)		BRIDGE STRUCTURAL MEMBER
	FORESTED WETLAND (FW)		BOX CULVERT
	SCRUB/SHRUB WETLAND (SS)		CONCRETE CULVERT
	EPHEMERAL STREAM (ES)		ROCK RIP/RAP CULVERT
	PERENNIAL STREAM (PS)		GRADING CONTOUR (MINOR)
	OPEN WATER (OW)		GRADING CONTOUR (MINOR)
	PROJECT LIMITS		PAVEMENT LIMITS
	BRIDGE LIMITS		BRIDGE LIMITS
	PROJECT LIMITS		PROJECT LIMITS



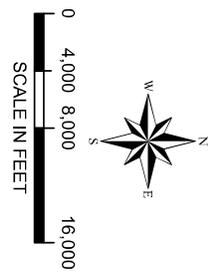
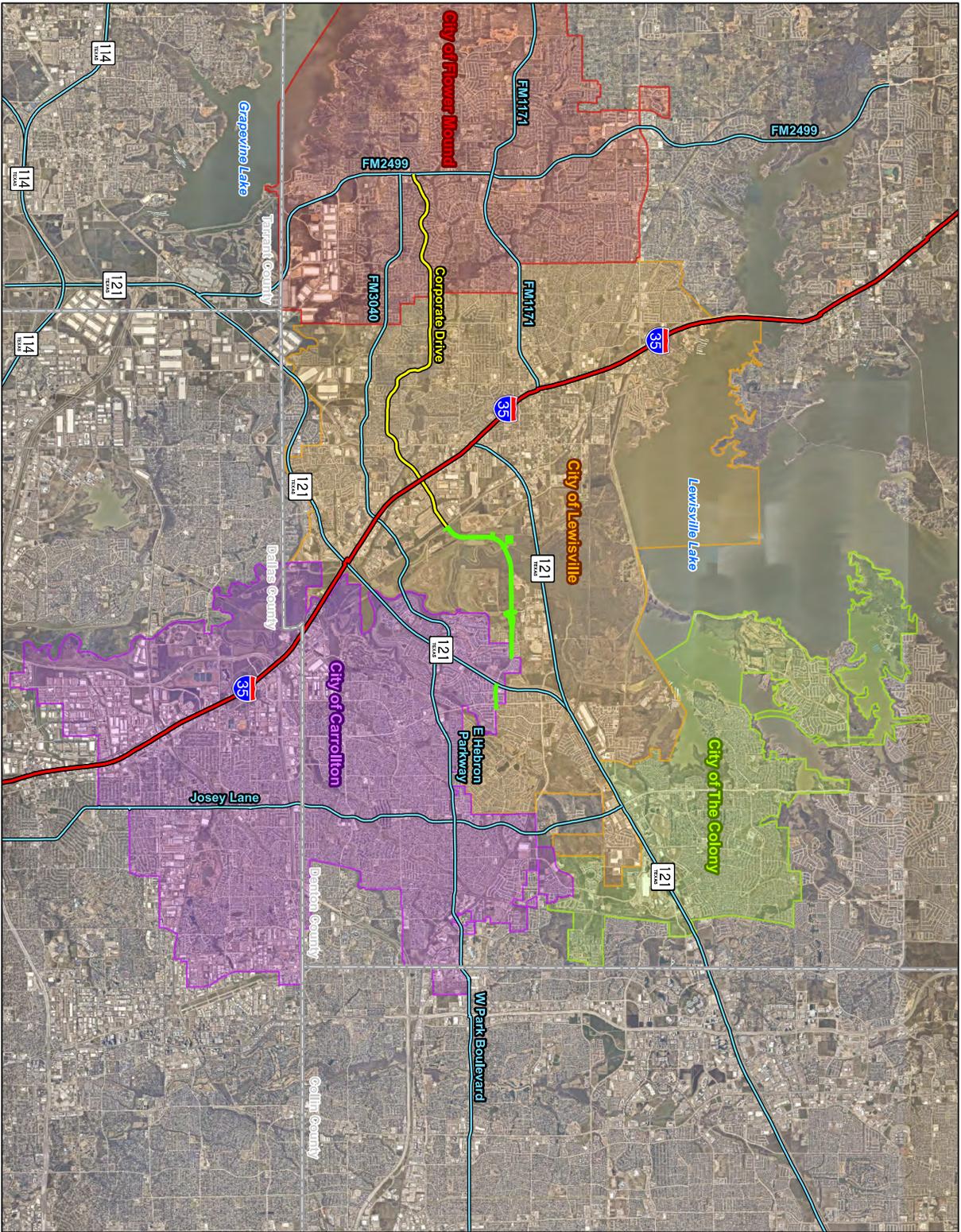
Notes:  
 1. Service Layer Credits: NearMap 2018

Lewisville Corporate Drive Extension

Project Number: SWF-2018-00485  
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 Waters of the United States Impacts Map

Sheet 3-J



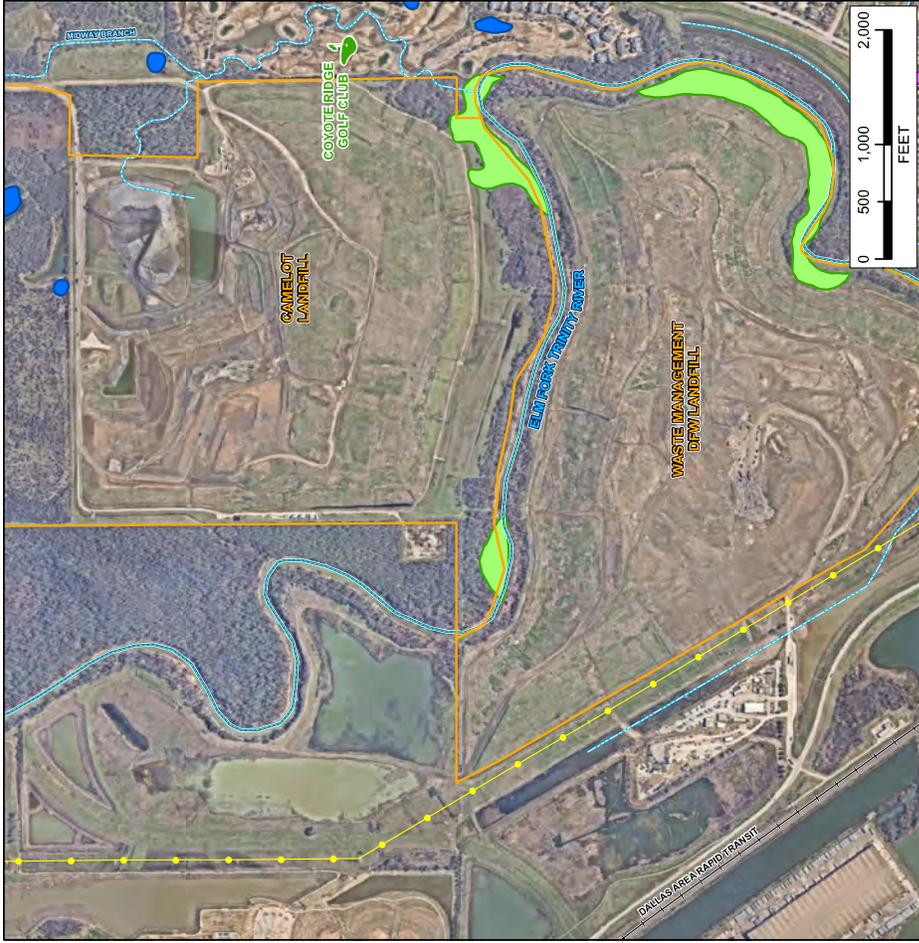
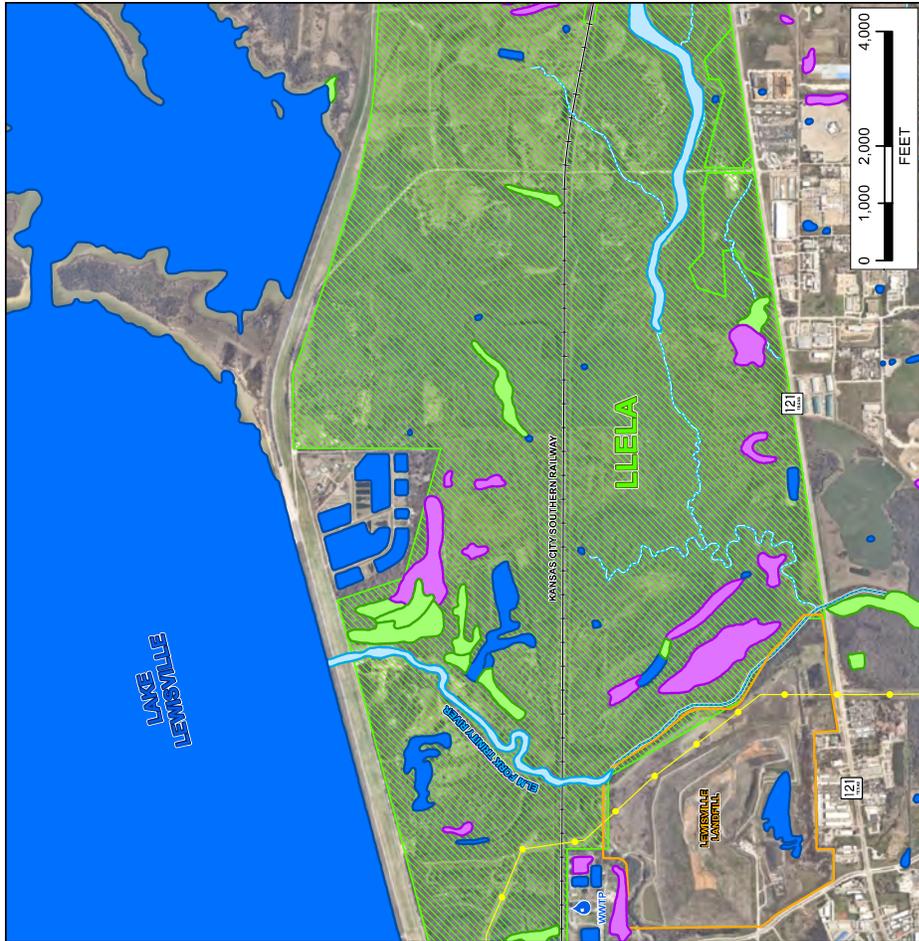


**Legend**  
 Study Area

- Notes:**
1. Service Layer Credits: NearMap, 2018
  - 2.
  - 3.
  - 4.
  - 5.
  - 6.

Lewisville Corporate Drive Extension
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ALTERNATIVES MAP
Sheet 4





NOTES:  
 1. Aerial Imagery Source: Nearmap, 2018  
 2.  
 3.  
 4.  
 5.

LEGEND	
ALTERNATIVES CONSTRAINTS	NW/NHD FEATURES
LANDFILL	NHD STREAM CENTERLINE
LAKE LEWISVILLE ENVIRONMENTAL LEARNING AREA	ELM FORK TRINITY RIVER (NHD)
RAILROAD	EMERGENT WETLAND (NWI)
TRANSMISSION LINE	FORESTED/SHRUB WETLAND (NWI)
GOLF COURSE	PERENNIAL WATERBODY (NHD & NWI)
WASTEWATER TREATMENT PLANT	



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CONSTRAINTS MAP

SHEET 5

