



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

Public Notice

Applicant: City of Frisco

Project No.: SWF-2014-00188

Date: November 24, 2015

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. Frederick Land

Phone Number: (817) 886-1729

PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS, FORT WORTH DISTRICT

SUBJECT: Application for a Department of the Army Permit under Section 404 of the Clean Water Act (CWA) to discharge dredged or fill material into waters of the United States associated with the 4th Army Drive Reconstruction Project in the City of Frisco, Denton County, Texas, near the Reedy High School.

APPLICANT: City of Frisco
c/o Mr. Jason Brodigan
6101 Frisco Square Boulevard
Frisco, Texas 75034

APPLICATION NUMBER: SWF-2014-00118

DATE ISSUED: November 24, 2015

LOCATION: The proposed improvements to 4th Army Drive would occur between Timber Ridge Drive to Lebanon Road in the City of Frisco, Denton County, Texas (**Figure 1**). The proposed project would be centered at approximate North Latitude 33.124073 and West Longitude -96.860523. The project is located in the Frisco and Hebron, Texas, 7.5-minute USGS quadrangle maps (**Figure 2**) and is within the USGS Hydrologic Unit 12030103.

OTHER AGENCY AUTHORIZATIONS: None

PROJECT DESCRIPTION: The applicant proposes to discharge approximately 3,810 cubic yards of dredged and fill material into 0.90 acres of emergent wetland in conjunction with the construction of the 4th Army Drive improvements. The discharge of dredged and fill material into waters of the U.S. would be for roadway fill, bridge approaches, riprap, and grading.

INTRODUCTION: The applicant proposes to widen 4th Army Drive from Timber Ridge Drive to Lebanon Road in the City of Frisco, Denton County, Texas. The applicant's proposed purpose is to improve land access and traffic demands, providing a collector street, which would provide safe access to BF Phillips Park, Ruff Range Dog Park, Reedy High School, a future housing development, and the Stewart Creek West Wastewater Treatment Plant (WWTP). The existing roadway that services these developments, 4th Army Drive (4th Army), is deteriorating and will be unable to accommodate future school traffic and other traffic demands. Furthermore, the existing culverts along 4th Army are undersized. 4th Army is routinely overtopped by flood waters making the roadway unsafe and restricting traffic. In order to meet the project purpose, the City is proposing to reconstruct 4th Army to address the following needs:

Safety: 4th Army Drive is overtopped during the 2-year storm event at both crossings. When overtopped by flood waters, 4th Army is impassable and unsafe for use by local residents and by students traveling to Reedy High School. The proposed reconstruction will include drainage improvements at the existing culvert crossings on Stream 1 (SC4) and Stewart Creek. Also, there is a median blocking southbound traffic turning from Lebanon onto 4th Army Drive. This presents a safety concern for students and buses commuting to Reedy High School; therefore, the construction of the project is necessary to provide direct access to the school.

100-Year Flood Protection: The existing culvert crossings on Stream 1 (SC4) and Stewart Creek are undersized and do not provide protection from the 100-year flood. The 100-year storm event overtops the roadway at the Stewart Creek crossing by over 4 feet and at the Stream 1 (SC4) crossing by approximately 1 foot. The proposed project will be designed to accommodate the 100-year flood with freeboard.

Traffic: With the opening of Reedy High School in Fall 2015, traffic along 4th Army from local residents and students increased to an unacceptable level of service. To accommodate this increase in traffic, 4th Army would be reconstructed from Lebanon Road to the entrance of BF Phillips Park as a widened (26-33 ft), undivided, concrete curb and gutter roadway. This portion of the proposed roadway would include a center turn lane at existing driveway entrances, sidewalks, and a roundabout at the entrance of BF Phillips Park. The proposed project would also reconstruct 4th Army Drive from the entrance of BF Phillips Park to Timber Ridge Drive as a widened (33-36 ft), undivided, concrete curb and gutter roadway. This portion of the roadway would include a continuous dual turn lane in the center of the road, sidewalks, and a roundabout at the intersection of Timber Ridge Drive.

Neighborhood Connectivity: At the present time, neighborhood connectivity south of Reedy High School is limited by the unsafe conditions created by flooding along 4th Army. The reconstruction of 4th Army will provide north to south neighborhood connectivity consistent with the 2006 Comprehensive Plan.

Emergency Access: Under flooded conditions, the Stewart Creek West WWTP can only be accessed from Lebanon Road to the south. Reconstruction will provide emergency access from the north.

EXISTING CONDITIONS: Land uses in the project vicinity include residential developments, schools, parks, and fallow pasture. The review area includes two stream crossings, a manmade ditch, and an emergent wetland.

Stewart Creek is a perennial stream with an ordinary high water mark (OHWM) that averages 20 feet wide (**Figure 3**). The OHWM varies and is indicated by shelving and vegetative scour. Stewart Creek is a deeply incised natural channel with a substrate which consists primarily of silt, clay, and gravel. At the existing culvert crossing there is a large amount of poured concrete and artificial substrate. The crossing shows evidence of multiple repairs and reconstructions. Five culverts ranging in size from approximately 48 to 60 inches were observed. Three of the culverts sit above the current flow line. A large sand bar bisects the channel approximately 100 feet downstream of the crossing. Stewart Creek flows in a southwesterly direction into Lake Lewisville, a traditionally navigable water (TNW).

Stream 1 (SC4) is an intermittent tributary to Stewart Creek with an OHWM that averages 15 feet wide (**Figure 3**). The OHWM for Stream 1 originates downstream of the existing culvert crossing. The crossing has several culverts and appears to have been reconstructed multiple times. A portion of Stream 1 is concrete lined near the existing culvert crossing. Consequently, the OHWM within the project area is indicated by a combination of water staining on concrete and vegetative scour. Substrates include concrete, sand, silt, and clay. Stream 1 is characterized by heavy sedimentation immediately downstream of the culvert. Emergent vegetation, namely broadleaf cattail (*Typha*

latifolia), has colonized the depositional areas. Upstream of the culvert crossing, a large emergent wetland (**Figure 3**) conveys overland flow southwest to Stream 1.

Gully 1 is a small erosional feature, approximately 150 feet in length, which conveys stormwater from roadside ditches and an existing culvert under 4th Army Drive south to Stream 1 (**Figure 3**). According to historical USGS Aerial Mosaics, the culvert and Gully 1 appear to have existed as early as 1968 (**Figure 4**). The USGS 7.5 minute topographic quadrangle, Hebron, does not show evidence of Gully 1 or any other water feature in this area (**Figure 2**). Based on the 2015 Waters Rule, swales or erosional features such as gullies are not jurisdictional.

WET 1 is a large emergent wetland dominated by switchgrass (*Panicum virgatum*) and broadleaf cattail that originates northeast of the existing 4th Army Drive culvert crossing on Stream 1. Based on historical imagery (**Figure 3**), WET 1 may have formed naturally in low lying areas of the historical floodplain of Stream 1. In its present configuration the existing culvert crossing acts like a dam, impounding upstream flows and causing water to pond throughout WET 1. Upstream of the culvert crossing; no concentrated flow or stream channel was observed; however, the wetland boundary appears to follow the historical flow line of Stream 1 (**Figure 4**).

The dominant vegetative communities identified in the project area include upland forests grasslands, emergent wetlands, and riparian forests (see below).

Dominant vegetation in upland communities consist of Johnsongrass (*Sorghum halepense*), field brome (*Bromus arvensis*), bermudagrass (*Cynodon dactylon*), silver bluestem (*Bothriochloa saccharoides*), mealy blue sage (*Salvia farinacea*), giant ragweed (*Ambrosia trifida*), white sagebrush (*Artemisia ludoviciana*), Canada goldenrod (*Solidago canadensis*), poison ivy (*Toxicodendron radicans*) saw greenbrier (*Smilax bona-nox*), honey mesquite (*Prosopis glandulosa*), sugarberry (*Celtis laevigata*), Eastern red cedar (*Juniperus virginiana*), and cedar elm (*Ulmus crassifolia*). Dominant vegetation in wetland communities are composed primarily of herbaceous species, including switchgrass (*Panicum virgatum*), sand spikerush (*Eleocharis montevidensis*), balloon vine (*Cardiospermum halicacabum*), and broadleaf cattail. Woody vegetation was limited to clumps of black willow (*Salix nigra*) growing along the fringe of ponded areas.

Soils characterization

The Natural Resources Conservation Service (NRCS) soil survey for Denton County, Texas (NRCS, 1980), lists five different soil map units in the study area (**Figure 5**). Soil Map Unit Descriptions include:

1. Branyon clay, 0-1 percent slopes – This deep nearly level soil is found in broad, smooth valley fills and ancient terraces. This soil is moderately well drained. Runoff is slow and permeability is very slow.
2. Ferris-Heiden Clay, 5-15 percent slopes – This soil complex is sloping to moderately steep and found in convex ridges and the sides of drains. The soils in this complex are well drained. Runoff is rapid and permeability is slow.
3. Houston Black Clay, 1-3 percent slopes – This deep, gently sloping soil is found in broad, smooth upland areas. This soil is moderately well drained. Runoff is medium and permeability is very slow.
4. Heiden Clay, 3-5 percent slopes – This is a deep, gently sloping soil found in convex ridge tops and the sides of ridges. This soil is well drained. Runoff is rapid and permeability is very slow.

5. Ovan Clay, frequently flooded – This is a deep, nearly level soil found in the Floodplains of major streams. This soil is moderately well drained. Runoff is slow and permeability is slow.

None of the soil types being crossed by the proposed project are listed as hydric soils on the NRCS Hydric Soils List (NRCS, 2012)

The vegetative characteristics of upland plant communities appear representative of past land uses, including agriculture and ranching (**Figure 3**). Open grassland areas on hilltops and slopes are dominated by native and introduced grasses, such as field brome, johnsongrass, and silver bluestem, while upland forests are characterized by honey mesquite shrub interspersed with pockets of mature eastern red cedar, hackberry, and cedar elm. Upland plant communities in B.F. Phillips Park (**Figure 3**) are dominated by maintained species including bermudagrass, Chinese pistache (*Pistacia chinensis*), and native landscape trees, including Shumard oak (*Quercus shumardii*). Clay is the dominant texture of soils in upland plant communities and hydrology is limited to direct precipitation and runoff from roadside ditches.

Wetland plant communities are located in low lying areas at the bottom of hillslopes and adjacent to streams. Evidence of historical inundation throughout WET 1 can be observed as early as 1968 (**Figure 4**). The wetland plant community is typical of areas subject to periodic wetting and drying and includes a mixture of native species such as switchgrass, broadleaf cattail, and sand spike rush, as well as introduced species such as balloon vine. Community composition appears to be influenced by water depth and sedimentation, as monocultures of broadleaf cattail appear to dominate deeper water and depositional areas.

Areas of riparian forest within the study area were confined to undisturbed locations along Stewart Creek upstream of the existing culvert crossing. Dominant species in the understory include poison ivy, saw greenbrier, spreading hedge parsley (*Torilis arvensis*), and Virginia wildrye (*Elymus virginicus*), while the canopy was dominated by mature trees and saplings of species such as green ash (*Fraxinus pennsylvanica*), black willow, sugarberry, cedar elm, Osage orange (*Maclura pomifera*), and Eve's necklace pod (*Styphnolobium affine*).

ADVERSE IMPACTS:

ALTERNATIVES: Offsite alternatives were evaluated by the applicant; however, none were considered practicable by the applicant due to the site specific need and purpose of the project. On-site alternatives were considered by the applicant for the proposed project. Under the no-action alternative, the proposed roadway extension would not be constructed and the project need would not be met; however, there would be no effect to the natural environment.

MITIGATION: The applicant believes the project has been designed to incorporate all practicable measures to avoid and minimize impacts to waters of the U.S. to the maximum extent practicable. The applicant proposes to debit the appropriate number and type of credits from a U.S. Army Corps of Engineer, Fort Worth District (USACE) approved mitigation bank(s) having a service area encompassing the project site. The debit(s) would compensate off-site for unavoidable adverse project impacts and would be calculated in accordance with the appropriate mitigation banking instrument (MBI).

FIGURES

1. Vicinity Map
2. USGS Quadrangle Map
3. Waters of the United States
4. 1968 Historic Aerial Photo
5. Soils Map
6. Floodplain Map
7. Project Plan Overview
8. Stewart Creek Crossing Plan View and Cross-Section
9. Stream 1 (SC4)/WET 1 Crossing Plan View and Cross-Section
10. Typical Sections
11. Typical Sections

PUBLIC INTEREST REVIEW FACTORS: This application will be reviewed in accordance with 33 CFR 320-332, the Regulatory Program of the 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 in order 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 incorporates the requirements necessary to comply with the Texas Commission on Environmental Quality's (TCEQ) Tier I project criteria. Tier I projects are those that result in a direct impact of three acres or less of waters of the State or 1,500 linear feet of streams (or a combination of the two is below the threshold) for which the applicant has incorporated best management practices (BMPs) and other provisions designed to safeguard water quality. The USACE has received a completed checklist and signed statement fulfilling Tier I criteria for the project. Accordingly, a request for Section 401 certification is not necessary and there will be no additional TCEQ review.

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. The proposed project would be located in Denton County where the whooping crane (*Grus americana*), piping plover (*Charadrius melodus*), and the least tern (*Sterna antillarum*), are known to occur or may occur as migrants. The whooping crane and least tern are endangered species and the piping plover is a threatened species. 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.

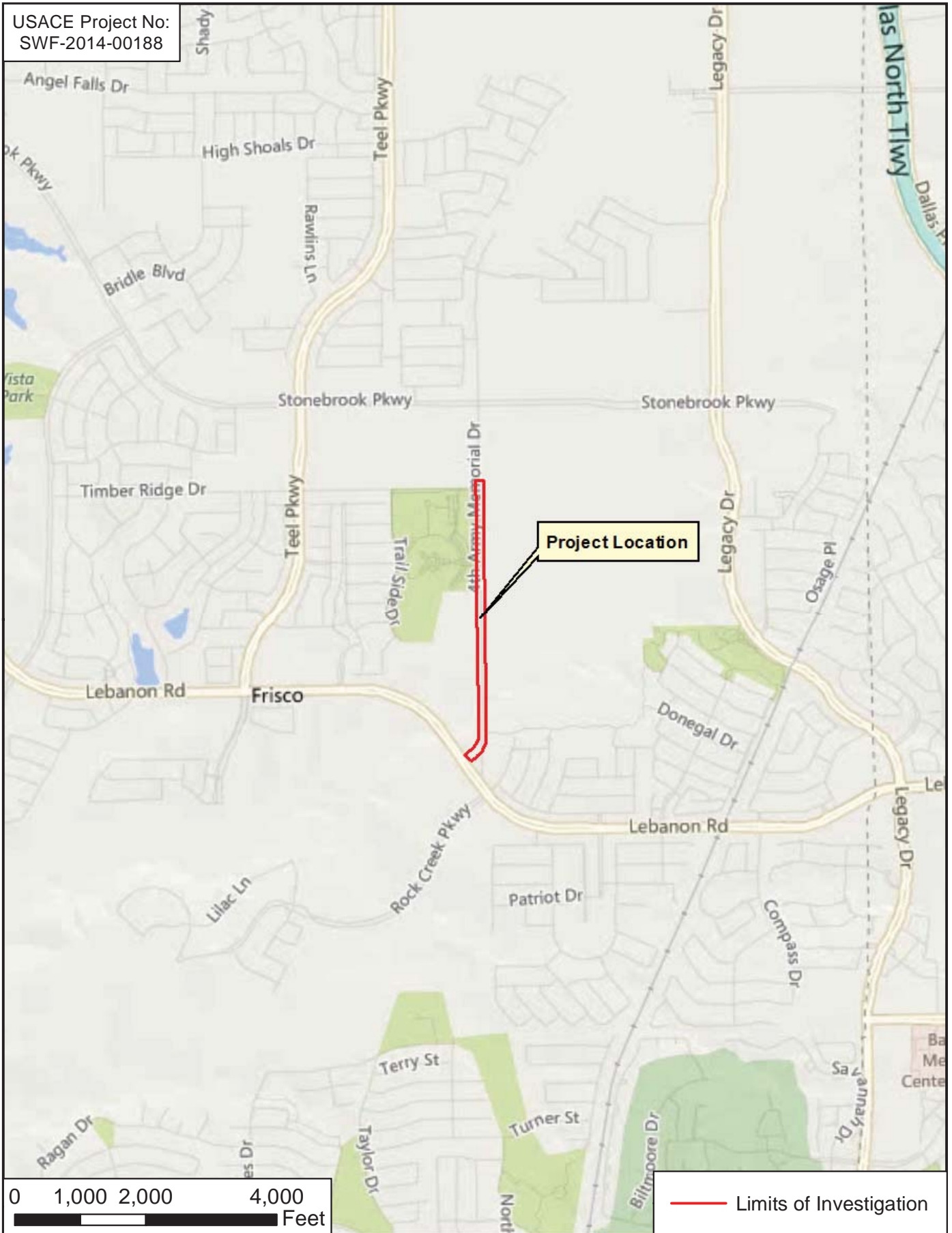
FLOODPLAIN MANAGEMENT: The USACE is sending a copy of this public notice to the local floodplain administrator. In accordance with 44 CFR part 60 (Flood Plain Management Regulations Criteria for Land Management and Use), the floodplain administrators of participating communities are required to review 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 fact 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 December 24, 2015, 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-PER-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) 886-1731. Please note that names and addresses of those who submit comments in response to this public notice may be made publicly available.

DISTRICT ENGINEER
FORT WORTH DISTRICT
CORPS OF ENGINEERS



— Limits of Investigation

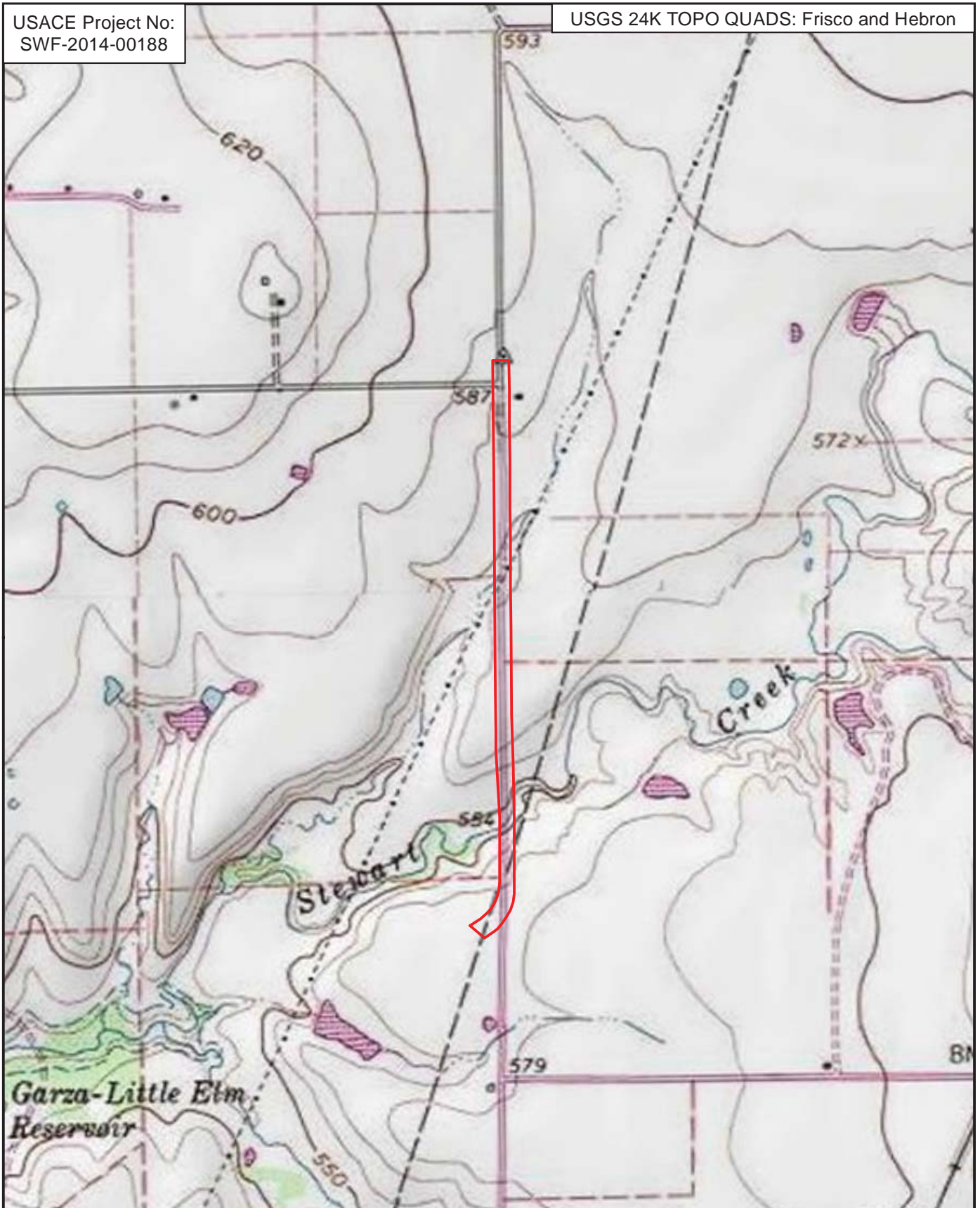


4th Army Drive Reconstruction Project
City of Frisco, Texas

Vicinity Map

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DESIGNED	RMZ
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Figure
1 of 11



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— Limits of Investigation

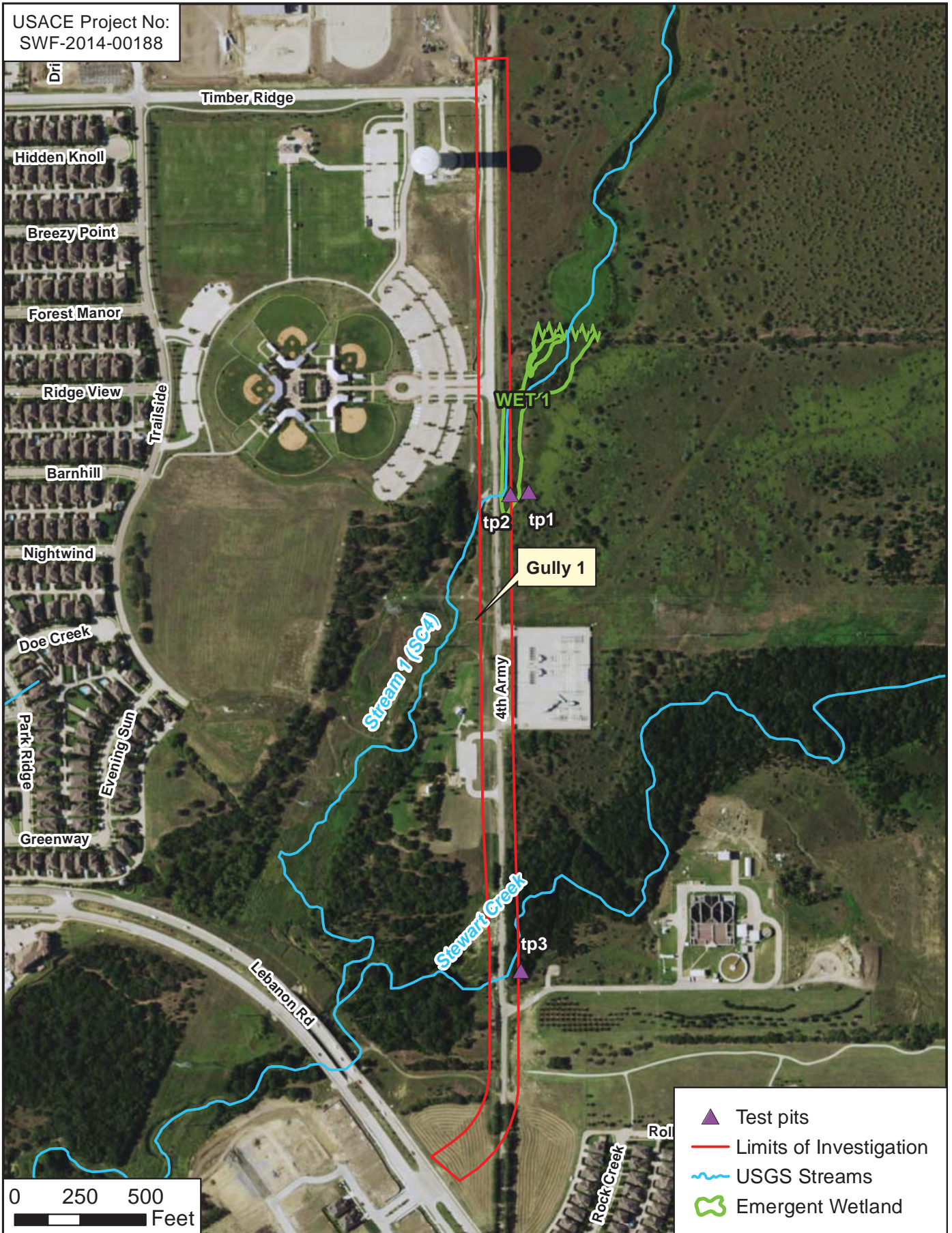


4th Army Drive Reconstruction Project
City of Frisco, Texas

USGS Topographic Map

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Figure
2 of 11



- ▲ Test pits
- Limits of Investigation
- ~ USGS Streams
- ⊞ Emergent Wetland

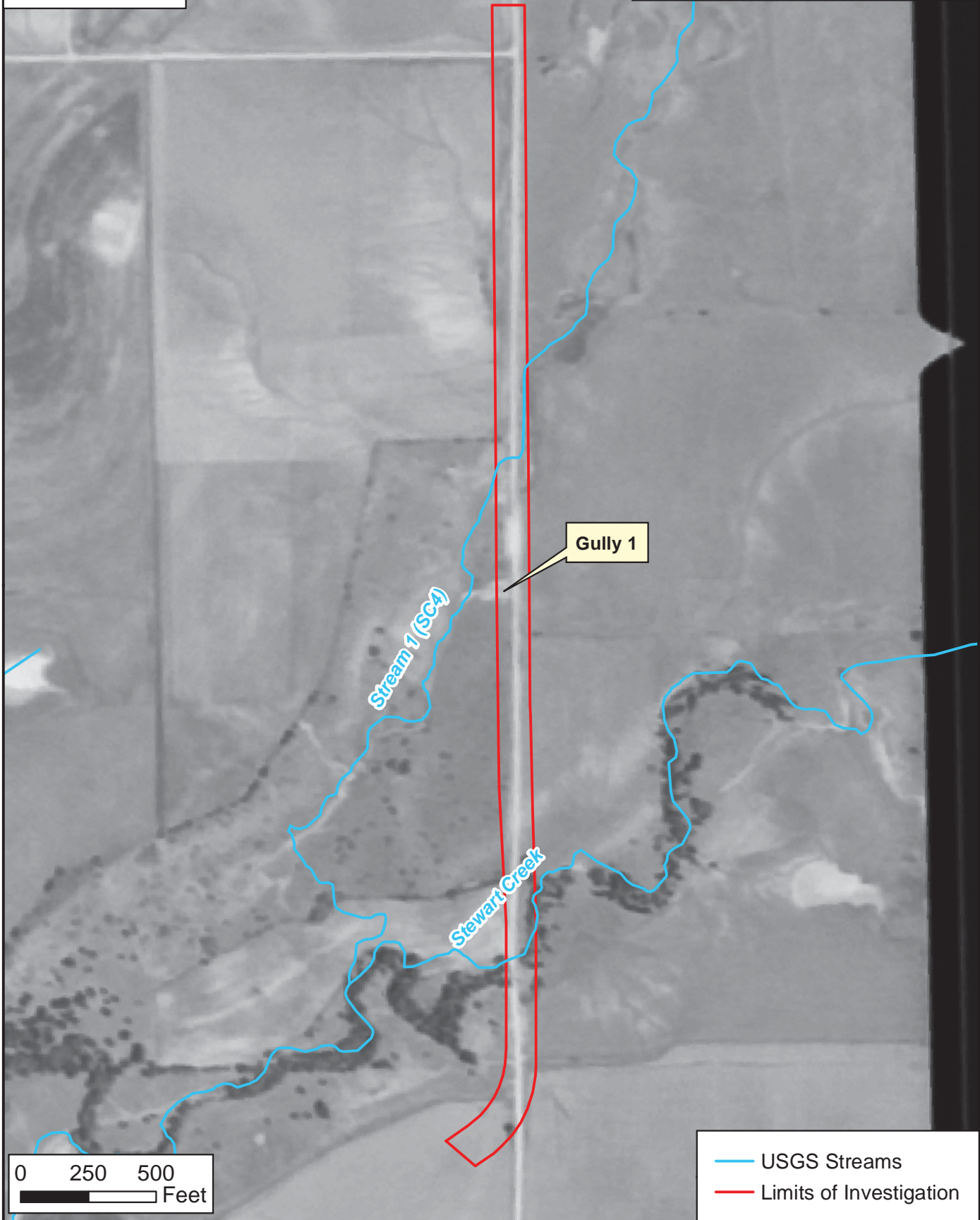


4th Army Drive Reconstruction Project
City of Frisco, Texas

Aerial Map

PN JOB NO	FRC13536
FILE	3 Wetlands Waters.mxd
DATE	October 16 2015
SCALE	1:6,000
DESIGNED	RMZ
DRAFTED	02405

Coordinate System: NAD 1983 StatePlane Texas North Central FIPS 4202 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983



0 250 500
Feet

— USGS Streams
— Limits of Investigation



4th Army Drive Reconstruction Project
City of Frisco, Texas

USGS 1968 Aerial Photo Single Frame Map

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DATE	October 16 2015
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Figure
4 of 11

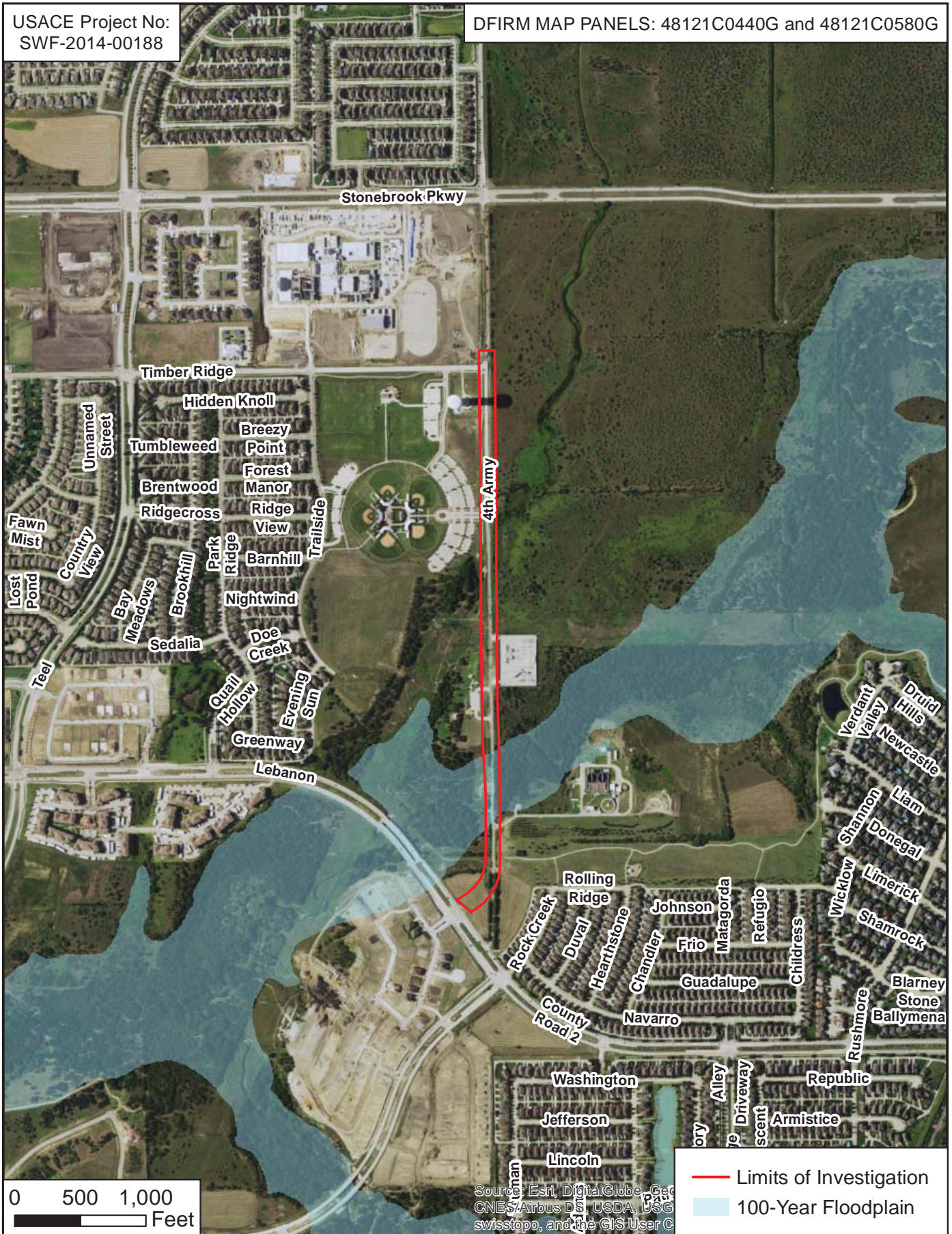


4th Army Drive Reconstruction Project
City of Frisco, Texas

USDA Soils Map

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DATE	October 16 2015
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Figure
5 of 11



Source: Esri, DigitalGlobe, GeoEye, IGN, CNES/Airbus DS, USDA, USGS, swisstopo, and the GIS User C

- Limits of Investigation
- 100-Year Floodplain



4th Army Drive Reconstruction Project
City of Frisco, Texas

FEMA Floodplain Map

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FILE	6 FEMA FP.mxd
DATE	October 16 2015
SCALE	1:12,000
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Figure
6 of 11

Coordinate System: NAD 1983 StatePlane Texas North Central FIPS 4202 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983



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FREES AND NICHOLS, INC.
 TEXAS REGISTERED ENGINEERING FIRM F-2144

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 2711 North Haskell Avenue, Suite 3300
 Frisco, TX 75034
 Phone - (214) 217-2200
 Fax - (214) 217-2201
 Web - www.freese.com

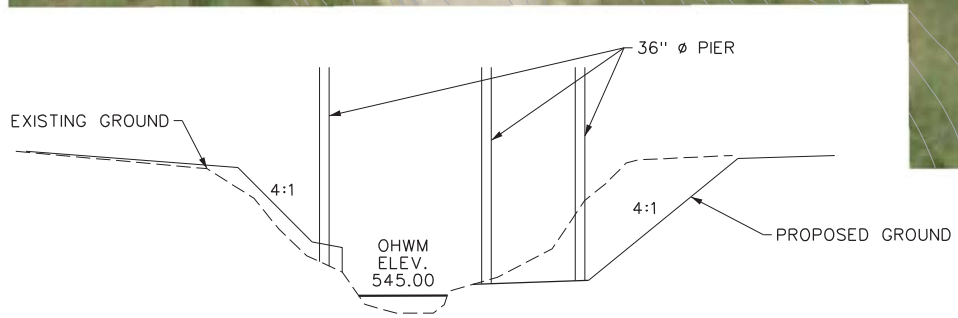
CITY OF FRISCO, TEXAS
4TH ARMY DRIVE RECONSTRUCTION

CIVIL
PROJECT PLAN OVERVIEW

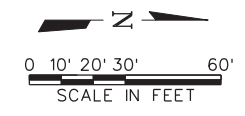
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SHEET 7 OF 11
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1 STEWART CREEK
NOT TO SCALE



LEGEND

- OHWM
- 550 EXISTING CONTOUR
- 555 PROPOSED CONTOUR

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4TH ARMY DRIVE RECONSTRUCTION
CITY OF FRISCO, TEXAS
STEWART CREEK CROSSING
CIVIL
PLAN VIEW AND CROSS SECTION

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




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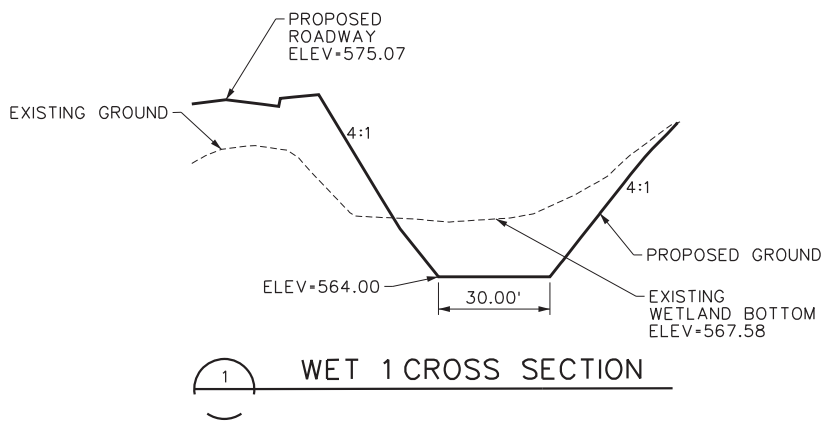
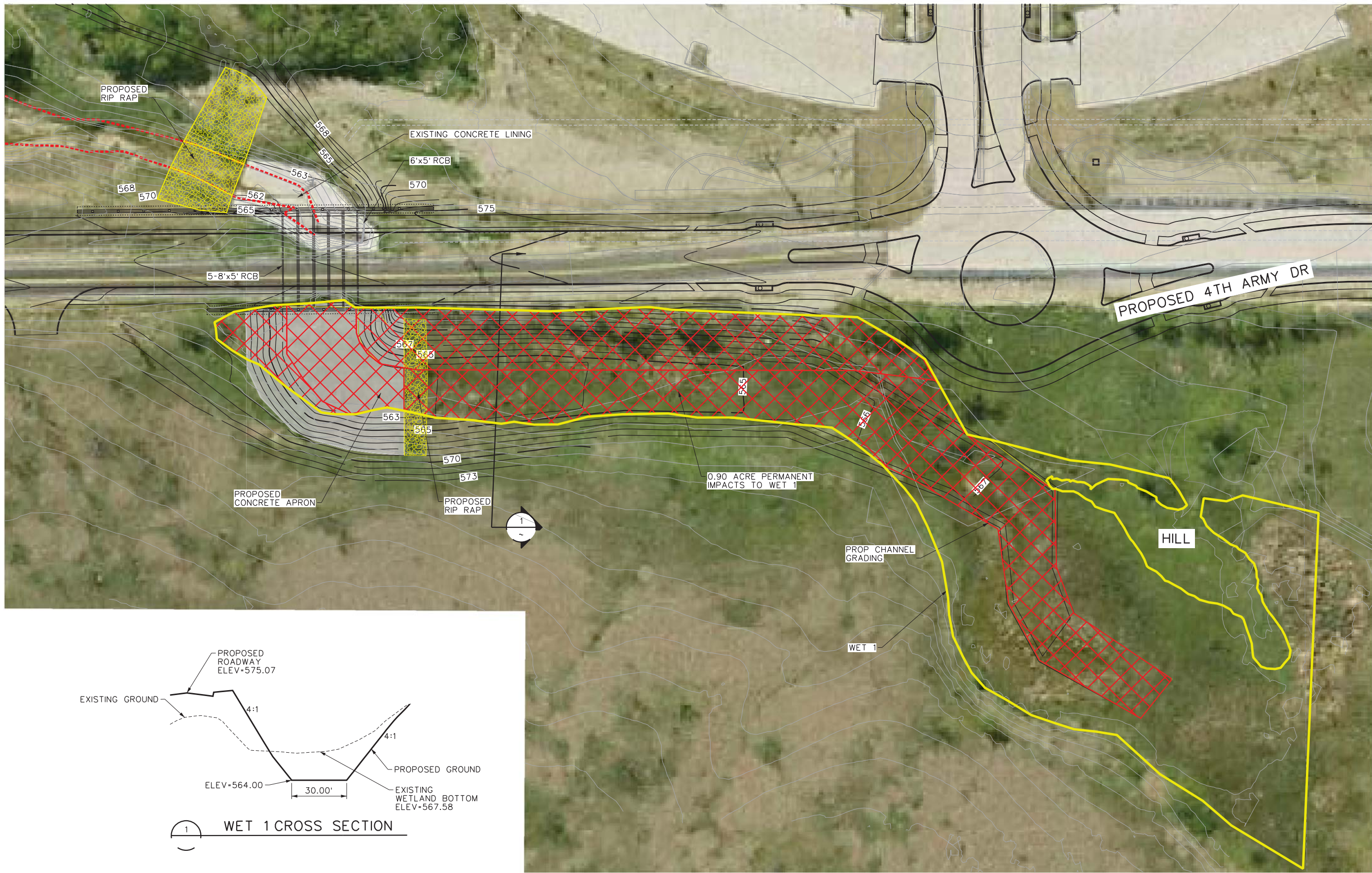
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USACE PROJECT NO. SWF-2014-00188

LEGEND

	OHWM		PERMANENT WET 1 IMPACTS
	550 EXISTING CONTOUR		WET 1 BOUNDARY
	574 PROPOSED CONTOUR		



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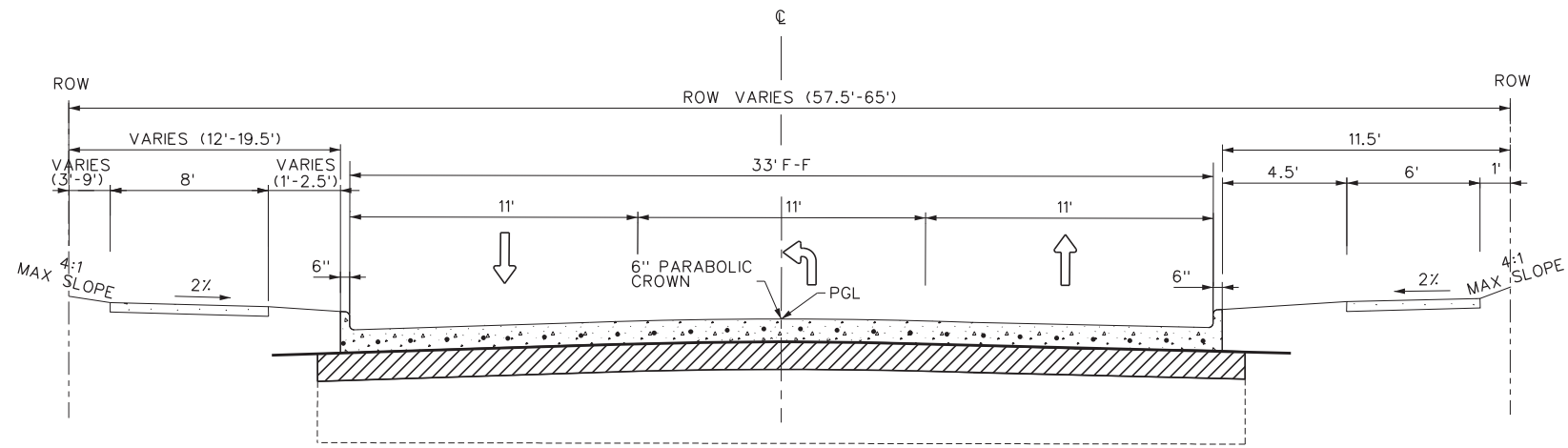
4TH ARMY DR RECONSTRUCTION
CIVIL
STREAM 1 (SC 4)/WET 1 CROSSING
PLAN VIEW AND CROSS SECTION

CITY OF FRISCO, TEXAS

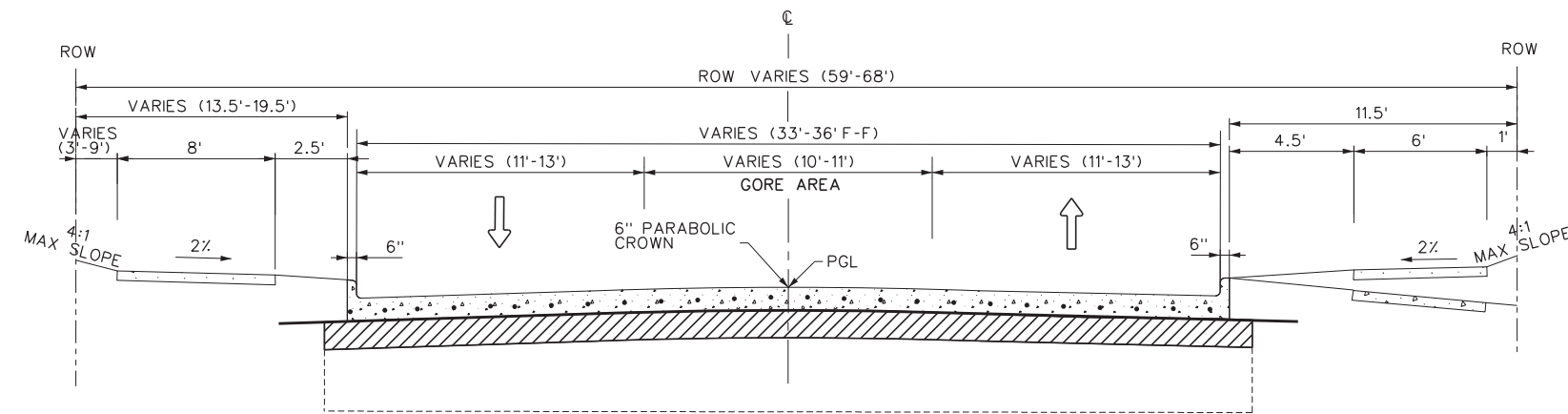
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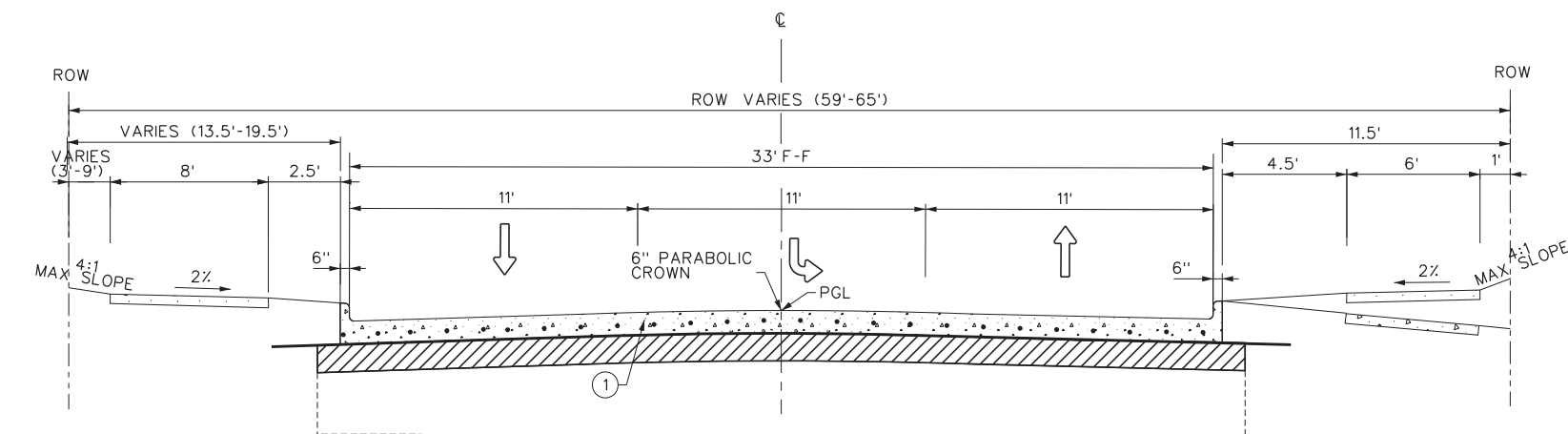
SHEET 9 OF 11
SEQ.



1
PROPOSED 33' F-F WITH LEFT TURN LANE
TYPICAL SECTION
N.T.S.



2
PROPOSED 33' F-F
TYPICAL SECTION
N.T.S.



3
PROPOSED 33' F-F WITH LEFT TURN LANE
TYPICAL SECTION
N.T.S.

FREESSE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-2144

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FREESSE AND NICHOLS
2711 North Haskell Avenue, Suite 3300
Frisco, TX 75034
Phone - (214) 217-2200
Fax - (214) 217-2201
Web - www.freesse.com

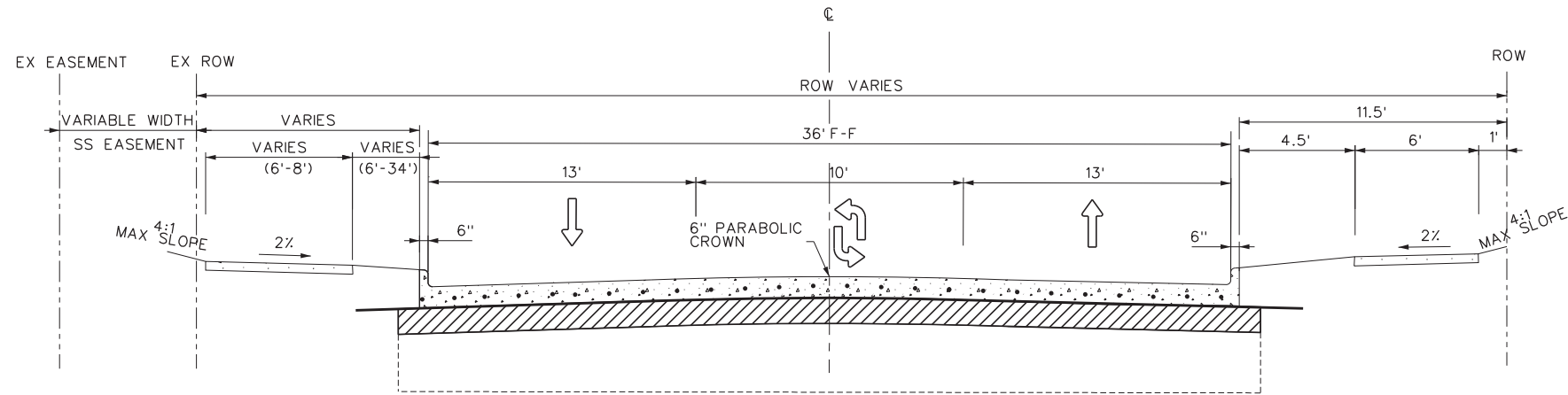
CITY OF FRISCO, TEXAS
4TH ARMY DRIVE RECONSTRUCTION

CIVIL
TYPICAL SECTIONS

NO.	ISSUE	BY	DATE	FRN JOB NO.	DATE	DESIGNED	SEC	DRAWN	CHM	REVIS	CHKD	B/JH	FILE NAME
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MicroStation V8 User: chm, Office: Dallas
\$ACCOUNT\$ N:\N\Report\cv-trt-gn-tp02.sht
Plot Scale: 10.0000 1/8" = 1'-0"
Date: Nov 12, 2015 - 11:33:30 AM
Project: Freesse and Nichols, Inc.



PROPOSED 33' F-F WITH DUAL TURN LANE
TYPICAL SECTION
N.T.S.

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FREESE AND NICHOLS
2711 North Haskell Avenue, Suite 3300
Frisco, TX 75034
Phone - (214) 217-2200
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CITY OF FRISCO, TEXAS
4TH ARMY DRIVE RECONSTRUCTION

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				FRC13536
				DATE 10/8/2015
				DESIGNED SEC
				DRAWN CHM
				REVISED CHM
				CHECKED BJH
				FILE NAME
				cv-trt-gn-tp03.sht

MicroStation V8 User: chm Office: Dallas
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Plot Scale: 10.0001 x 1 in. = 100.0001 ft
Date: Nov. 12, 2015 - 01:56:27 PM
Project: Freese and Nichols, Inc.