



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

# Public Notice

Applicant: City of Denton

Permit Application No.: SWF-2008-00229

Date: January 19, 2010

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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 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: Eric Jon Dephouse

Phone Number: (817) 886-1820

**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 drainage improvements associated with a tributary of Pecan Creek (PEC-4) in the City of Denton in Denton County, Texas.

**APPLICANT:** City of Denton  
Mr. George C. Cambell, City Manager  
901A Texas Street  
Denton, Texas 76209

**APPLICATION NUMBER:** SWF-2008-00229

**DATE ISSUED:** January 19, 2010

**LOCATION:** The project area would be located along approximately 4,513 feet of a tributary to Pecan Creek, known as PEC-4, in the City of Denton, Denton County, Texas (Sheets 1 and 2 of 17). The northern limits of the project would be approximately 330 feet east of the intersection of Bernard Street and Mulberry Street and the southern limits of the project would be approximately 200 feet downstream of the intersection of Wainwright Street and Highland Street. The proposed project would be located approximately at UTM coordinates 673793.5 East and 3676353.7 North (Zone 14) on the Denton West, Texas 7.5-minute USGS quadrangle map in the USGS Hydrologic Unit 12030103.

**OTHER AGENCY AUTHORIZATIONS:** State Water Quality Certification

**PROJECT DESCRIPTION:** The City of Denton proposes to discharge approximately 306 cubic yards of concrete, consisting primarily of concrete lining and box culverts, to modify approximately 2,230 linear feet (0.3792 acre) of PEC-4 in association with the construction of the proposed flood control project. Field delineations of the PEC-4 project area revealed jurisdictional waters within the project area. Based on the results of the delineations, the project would involve activities subject to the requirements of Section 404 of the Clean Water Act. Construction of the PEC-4 modification project would permanently impact a total of 2,230 linear feet (0.3792 acre) of Waters of the United States. No wetland impacts are proposed.

The section of PEC-4 to be modified is located within the south-central portion of City of Denton, which has been completely developed for decades. As part of this past development, PEC-4 was fully channelized, concrete lined, and had box culverts installed to facilitate drainage and erosion protection. Consequently, the surrounding area of PEC-4 developed with buildings and associated infrastructure in very close proximity. However, when this channelization occurred, the channel was not designed to any specific geometry other than the size at the time of construction. Based on recent flood studies and mapping conducted by the Federal Emergency Management Agency (Sheet 3 of 17), much of the surrounding infrastructure is located in the floodplain. The City of Denton has received many complaints of flooded homes and roadways over many years, and has compiled these complaints into the need for drainage improvement projects along PEC-4. The proposed project would involve the replacement of the outdated existing concrete-lined channel with a box culvert structure that would confine the 100-year floodplain within the proposed drainage easement.

Waters of the U.S. located within the project area corridor consist of approximately 4,513 linear feet (0.8424 acre) of PEC-4, which is still considered an unnamed ephemeral tributary of Pecan Creek (Sheet 5 of 17), though it has been completely modified with concrete lining and box culverts. Generally, at the time of the original modification of the tributary, it was very narrow, ranging in width from one to 20 feet, due to the “V”-shaped floor of the channel. The proposed project would only affect the existing concrete lined and assorted box culvert sections of the PEC-4 project area corridor, or 2,230 linear feet (0.3792 acre) of the 4,513 linear feet (0.8424 acre) section. Areas not affected would remain in their existing condition (primarily box culverts).

Currently, vegetation along the PEC-4 system is minimal and located mainly at the top of bank, outside of the concrete structure. Pecan (*Carya illinoensis*), hackberry (*Celtis laevigata*), and Osage orange (*Maclura pomifera*) dominated the canopy with greenbrier (*Smilax bona-nox*), mulberry (*Morus rubra*), and annual ragweed (*Ambrosia trifida*) comprising the understory and herbaceous cover. The concrete channel sections of PEC-4 are located mainly within residential neighborhoods and surrounding vegetation reflects the maintained and planted nature of lawns and gardens.

Descriptions of the project area and the work proposed for Phases 1 through 4 (Sheets 7 and 8 of 17) are detailed below:

Phase I – Begins in the southeast portion of the project site (Sheets 9 through 10 and 17 of 17) approximately 200 feet downstream of the intersection of Highland Street and Wainwright Street, and ends 224 feet northwest of the intersection of Highland Street and Locust Street. This phase currently consists of open, concrete lined drainage and underground box culverts. Proposed activities within this phase include: a discharge of fill into the existing channel and realignment of flows into two (2) 9-foot by 9-foot underground box culverts. Approximately 142 feet of the original channel would be filled within its original alignment; the remainder of the proposed channel would be realigned within this phase, thereby placing all flows into an underground system. This

phase would have a loss of water of the United States to PEC-4 totaling 759 linear feet (0.1823 acre).

Phase II – Begins at the northern limits of Phase I and extends to the northwest approximately 636 feet (Sheets 10 through 12 and 17 of 17). This phase terminates approximately 327 feet east of the intersection of Pierce Street and Prairie Street. This phase currently consists of open, concrete-lined drainage and underground box culverts. Proposed activities within the phase would include the replacement of the open, concrete lined drainage and existing underground box culverts with two (2) 8-foot by 9-foot underground box culverts along the existing alignment, thereby placing all flows into an underground system. This phase would have a loss of waters of the United States to PEC-4 totaling 646 linear feet (0.0974 acre).

Phase III – Extends approximately 825 feet north and west from the northern limits of Phase II. This phase (Sheets 12 through 15 and 17 of 17) terminates at the intersection of Mulberry Street and Carroll Boulevard. This phase currently consists of open, concrete-lined drainage and underground box culverts. Proposed activities within this phase include replacement of a portion of PEC-4 with one (1) 10-foot by 9-foot underground box culvert along the current alignment. This phase would also involve construction of a section of underground box culvert that is being constructed along a new alignment. However, this section would only handle high flows and is not replacing any water features. Loss of waters of the United States within this phase to PEC-4 totals 825 linear feet (0.0995 acre).

Phase IV – This phase continues from the end of Phase III and extends approximately 978 feet west to the terminus of the project (Sheets 15 and 16 and 17 of 17). This phase is an extension of the high flow box culverts from Phase III and is being constructed along a new alignment that is not taking the place of any other water feature. Proposed activities within Phase IV include installation of a 10-foot by 9-foot underground box culvert. This phase of the project has no impacts to waters of the United States.

**ALTERNATIVE SITE LOCATIONS:** Since the proposed project purpose is to alleviate local flooding, the applicant did not consider alternative project locations. The No Action Alternative would result in the proposed project not being built and subsequently, no project-related adverse impacts to waters of the U.S. Local flooding and erosion along PEC-4 would continue and the applicant’s proposed purpose would not be met.

**ALTERNATIVE LAYOUTS:** The City of Denton has explored multiple scenarios to improve the flooding conditions associated with PEC-4. Three alternatives were identified to that of the preferred alternative; Option 1 – No Build Alternative, Option 2 – Confine 100-year floodplain to an open channel, or Option 3 – confine the entire length of PEC-4 to underground culverts. The No Build Alternative (Option 1) was considered infeasible due to the public health and safety issues that created the need for drainage improvements within the immediate vicinity. Multiple residences routinely flood during high storm events. In order to confine the 100-year floodplain to an open channel (Option 2), the existing channel would have to be significantly larger. The existing

channel would have to be excavated much deeper than it is now, and the width of the channel would need to be much larger than the current footprint. Increasing the footprint of the channel would require the acquisition of more right-of-way (ROW), residences, commercial buildings, and associated infrastructure, which would be significantly more expensive. Additionally, there is very little space between the existing channel and residences surrounding the channel so there would likely be displaced residents requiring relocation with the acquisition of ROW to make room for the larger channel. Option 3 would accomplish the task at hand (confine the 100-year flood to the channel). However, this option would have the most impacts to waters of the United States, since this option would have impacts to the entire length of the project site. The preferred alternative was selected since Option 1 does not address the need for the drainage improvements and Option 2 would require a significant amount of ROW acquisition, which would require relocation of some adjacent residents. The preferred alternative was selected as it is the most economical, accomplishes the agenda of the proposed project, with the least amount of ROW acquisition and resident relocation. The applicant has stated that the anticipated schedule to initiate the proposed project is September 2010, provided all necessary permits are obtained.

A compensatory mitigation proposal is not being presented for this project because the overall condition of the stream would remain relatively unchanged as the stream is confined within an existing concrete channel. Additionally, the applicant believes that the proposed project would provide flood control benefits to the tributaries and the project area. The applicant has considered stream hydrologic, flood storage, and water quality functions, and believes that these functions would be replaced and/or improved on-site with post-project conditions.

**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 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 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 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 (USFWS) 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 a county where the interior least tern (*Sterna antillarum athalassos*), piping plover (*Charadrius melodus*), and whooping crane (*Grus americana*) is known to occur or may occur as a migrant. The interior least tern, piping plover, and whooping crane are all listed as endangered 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.

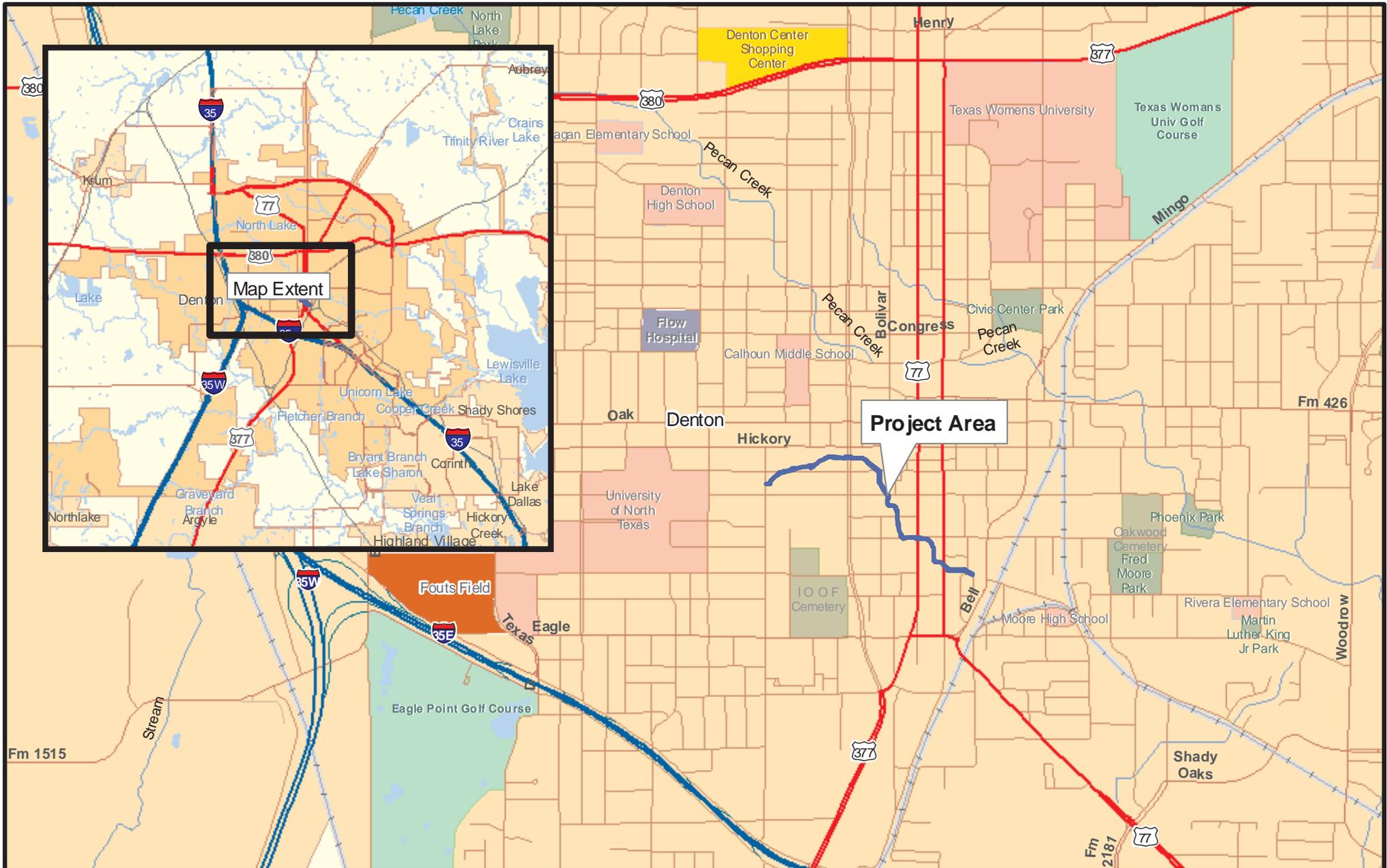
**FLOODPLAIN MANAGEMENT:** The USACE is sending a copy of this public notice to the local floodplain administrator. In accordance with 44 CFR part 60 (Flood Plain Management Regulations Criteria for Land Management and Use), the floodplain administrators of participating communities are required to review 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 February 18, 2010, 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 Mr. Eric Dephouse; 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) 886-1820. Please note that names and addresses of those who submit comments in response to this public notice may be made publicly available.

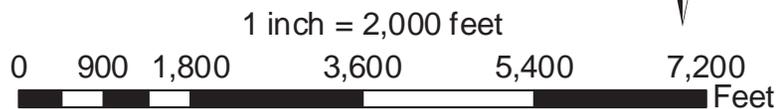
DISTRICT ENGINEER  
FORT WORTH DISTRICT  
CORPS OF ENGINEERS



Sheet 1 of 17  
General Site Location

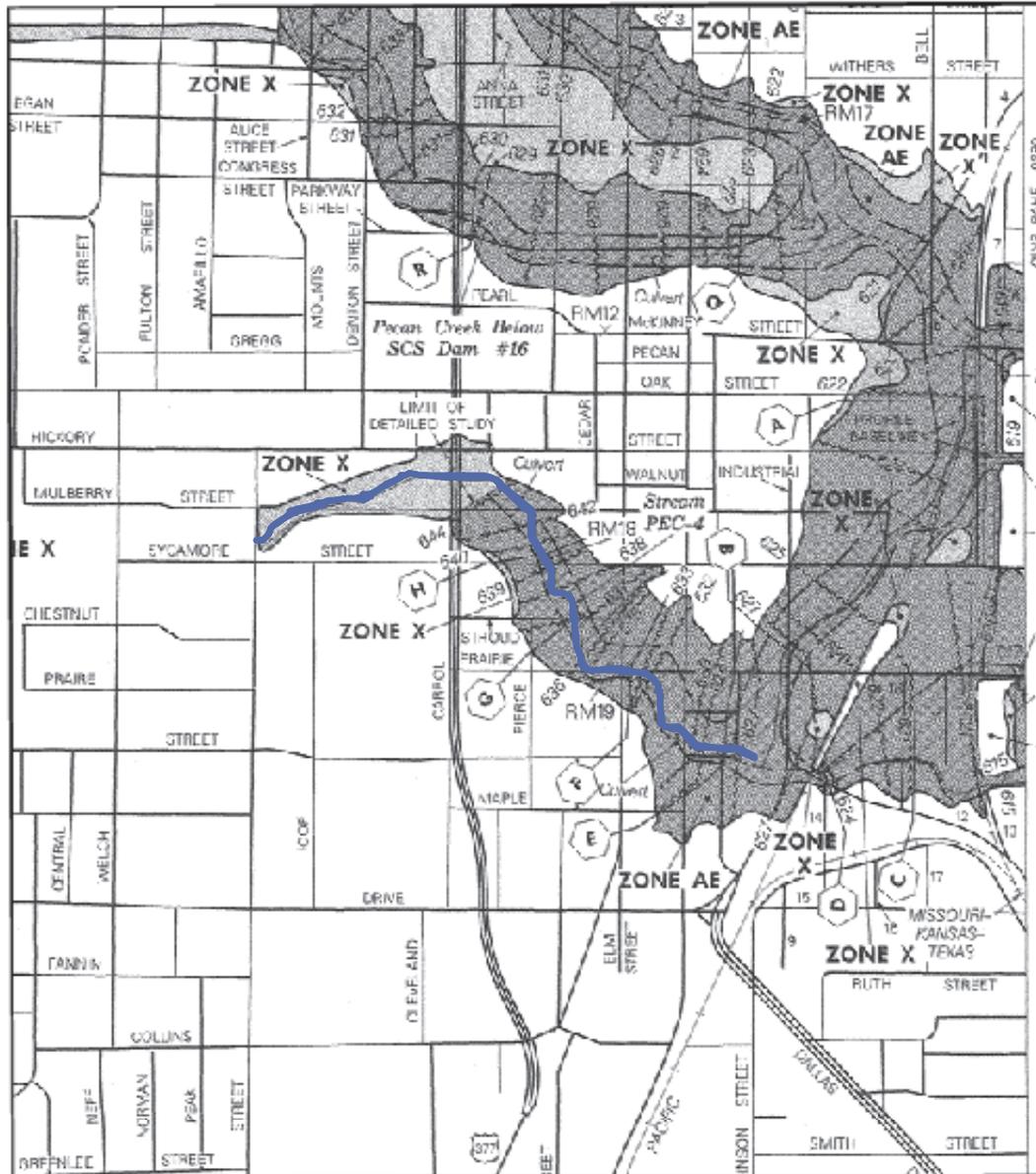


 Project Site



County: Denton  
 State: Texas  
 USACE Project Number: SWF-2008-229  
 Date map created: 7/23/09  
 Source: ESRI 9.3 Streetmap Data based on 2003  
 Tele Atlas DynamapTransportation version 5.2







APPROXIMATE SCALE IN FEET



**NATIONAL FLOOD INSURANCE PROGRAM**

**FIRM**  
**FLOOD INSURANCE RATE MAP**

**DENTON COUNTY, TEXAS AND INCORPORATED AREAS**

**PANEL 360 OF 750**  
SEE MAP INDEX FOR PANELS NOT PRINTED

COUNTY	NUMBER	ENGL	DATE
DENTON COUNTY	48121C0360	E	APRIL 2, 1997

MAP NUMBER  
48121C0360 E

EFFECTIVE DATE:  
APRIL 2, 1997

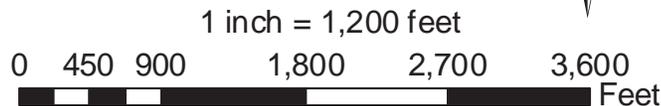
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT OnLine. This map does not reflect changes or amendments which may have been made subsequent to the date on this title block. For the latest product information about National Flood Insurance Program flood maps, check the FEMA Flood Map Store at [www.maf.fema.gov](http://www.maf.fema.gov)

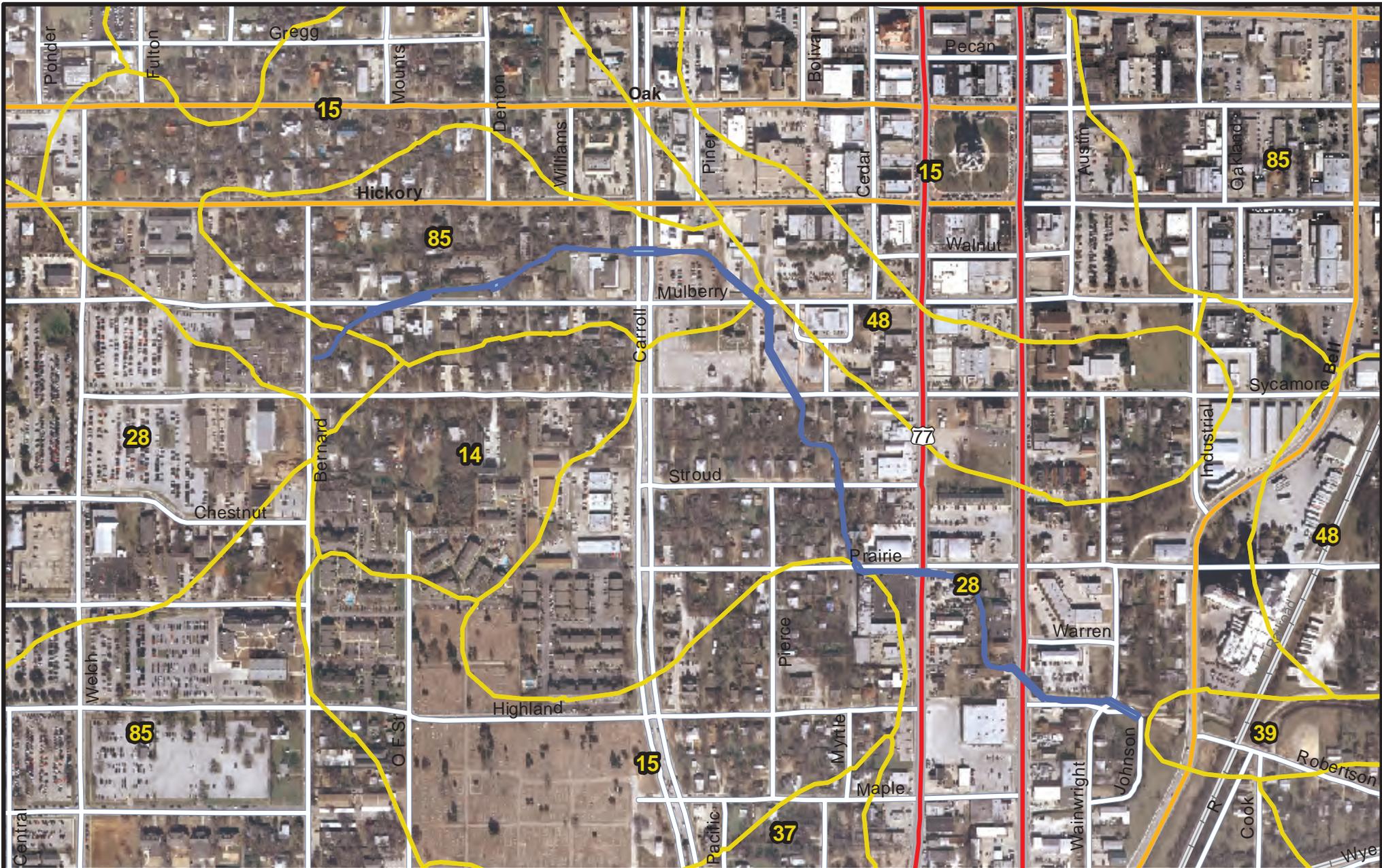
Sheet 3 of 17  
FEMA FIRM with  
Approximate Project Location



Project Site



County: Denton  
State: Texas  
USACE Project Number: SWF-2008-229  
Date map created: 7/23/09  
Source: Federal Emergency Management Agency  
Flood Insurance Rate Map Digital Data

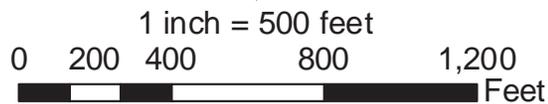


Sheet 4 of 17  
 Digital Soil Survey  
 for Denton County

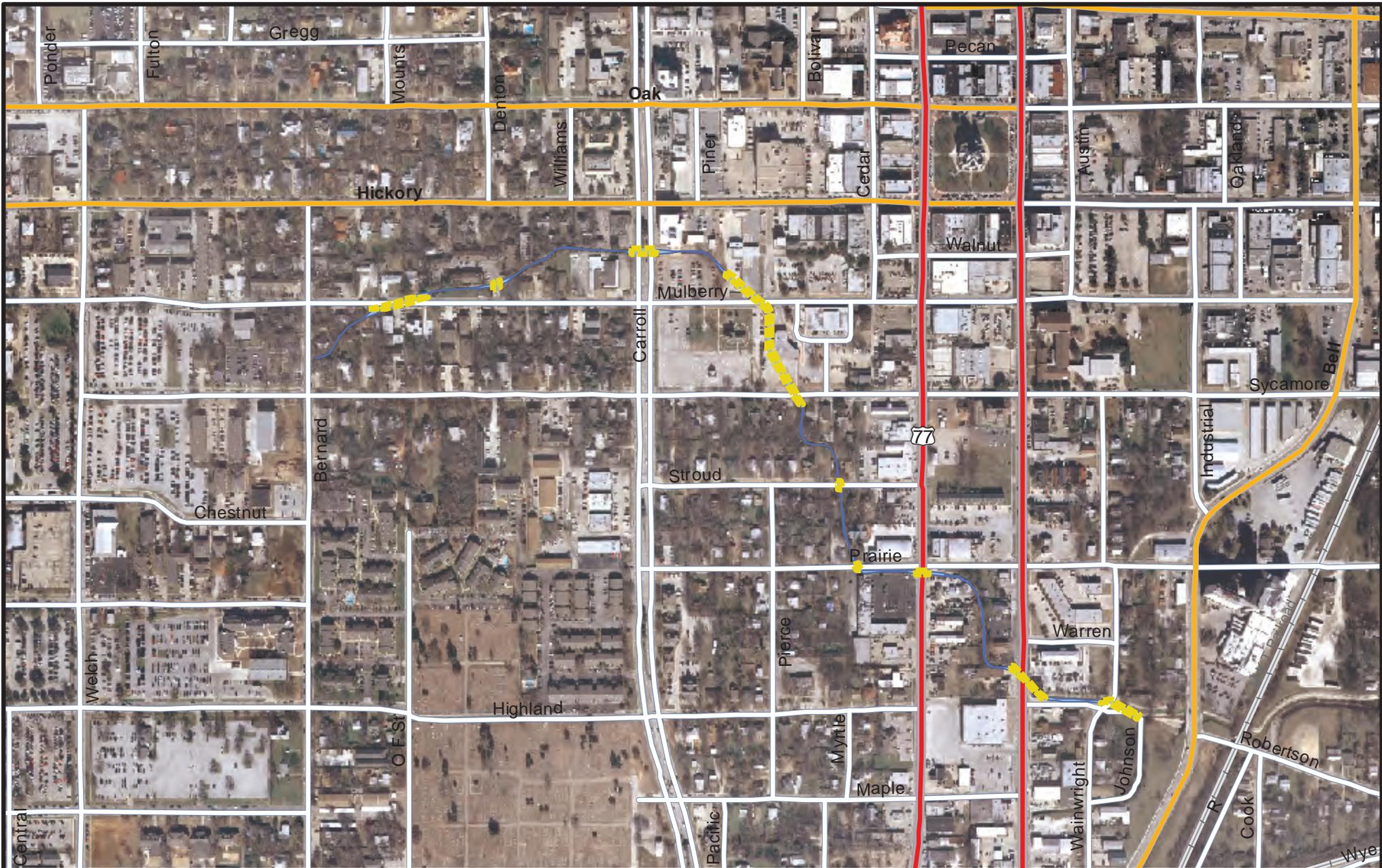


 Soil Series  Project Site

Soil Series Description:  
 15 - Birome-Urban land complex, 1 to 5 % slopes  
 28 - Wilson-Urban land complex, 0 to 2 % slopes  
 48 - Justin-Urban land complex 0 to 3 % slopes  
 85 - Crockett-Urban land complex 0 to 2 % slopes



County: Denton  
 State: Texas  
 USACE Project Number: SWF-2008-229  
 Date map created: 7/23/09  
 Source: NRSC Soil Survey Geographic Database Denton County, 2003; NCTCOG 2005 Aerial Photography; ESRI 9.3  
 Streetmap Data based on 2003 TeleAtlas Dynamap Transportation version 5.2

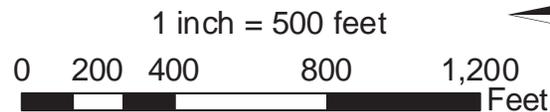


Sheet 5 of 17  
Proposed Jurisdictional  
Determination

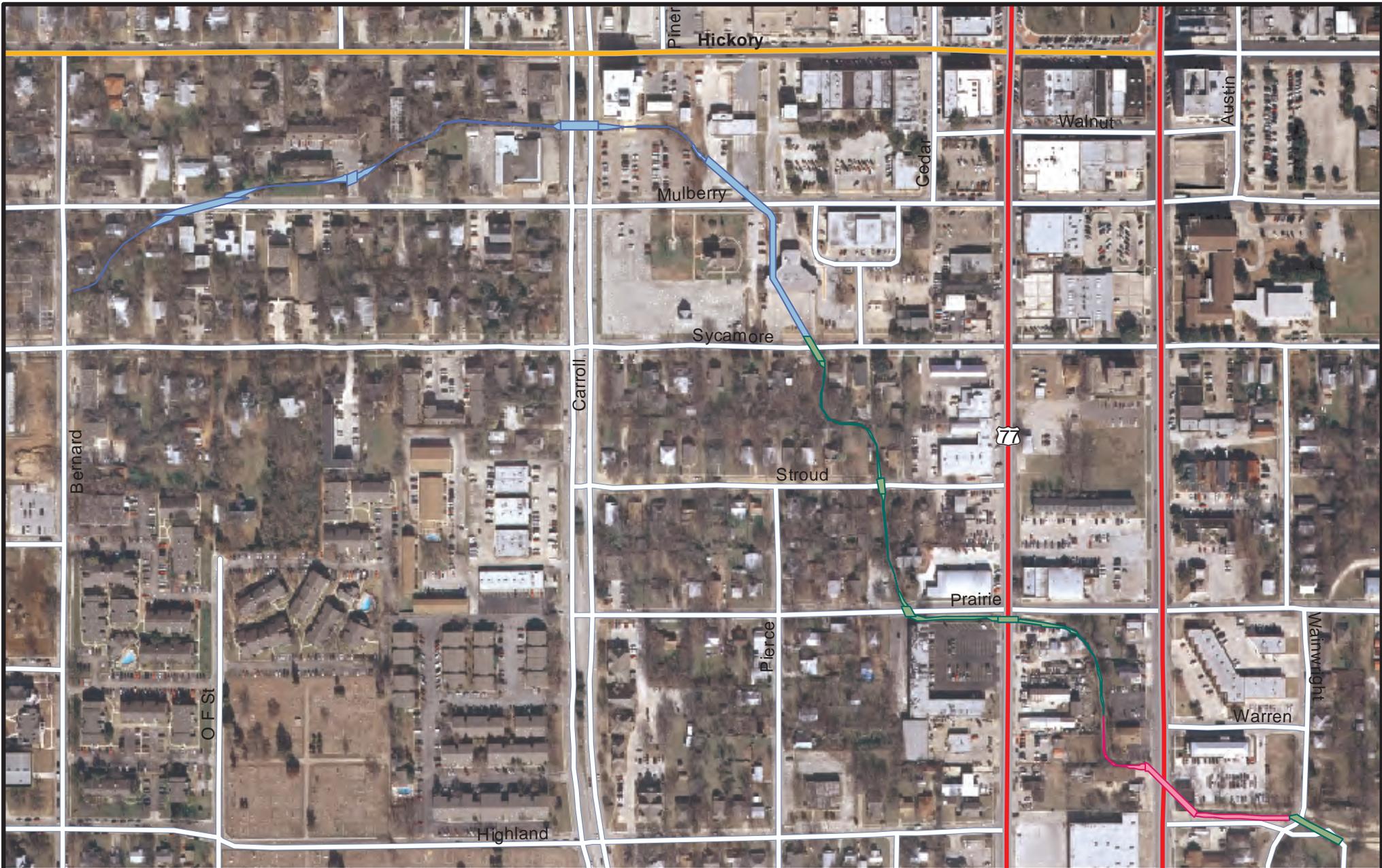


Features that meet a definition of a Water of the United States

-  Culvertized Tributary
-  Concrete-lined Tributary



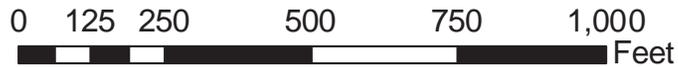
County: Denton  
State: Texas  
USACE Project Number: SWF-2008-229  
Date map created: 7/23/09  
Source: NCTCOG 2005 Aerial Photography;  
ESRI 9.3 Streetmap Data based on 2003  
TeleAtlas Dynamap Transportation version 5.2



Sheet 6 of 17  
Impact Assessment

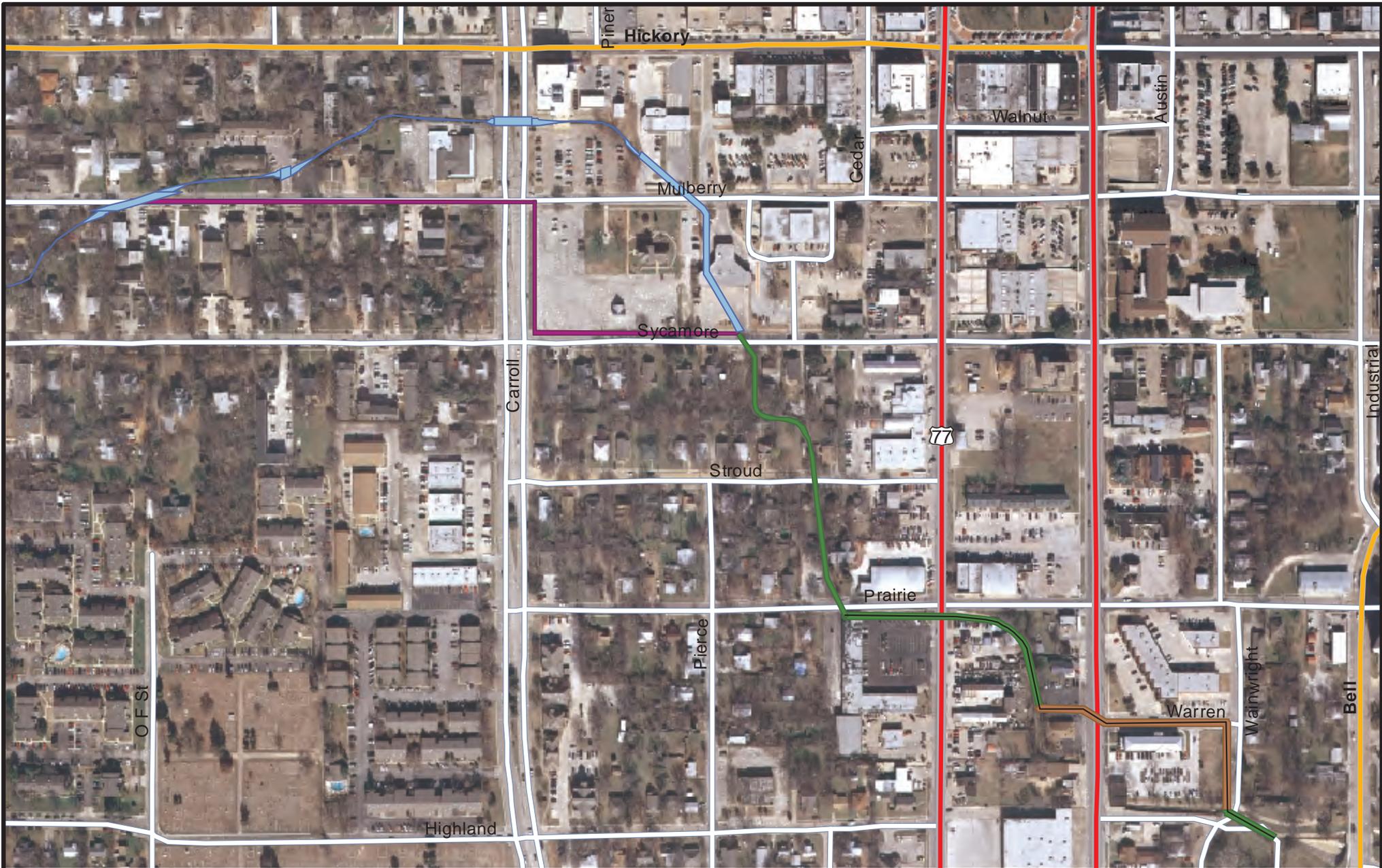


- Avoided Waters of the United States
- Minimized Impacts to Waters of the United States
- Unavoidable Loss to Waters of the United States



1 inch = 325 feet

County: Denton  
State: Texas  
USACE Project Number: SWF-2008-229  
Date map created: 7/23/09  
Source: NCTCOG 2005 Aerial Photography;  
ESRI 9.3 Streetmap Data based on 2003  
TeleAtlas Dynamap Transportation version 5.2



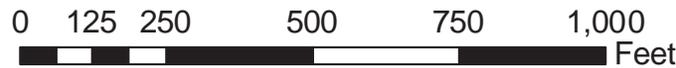
Sheet 7 of 17  
Proposed Activity



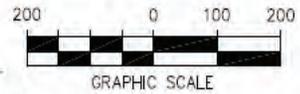
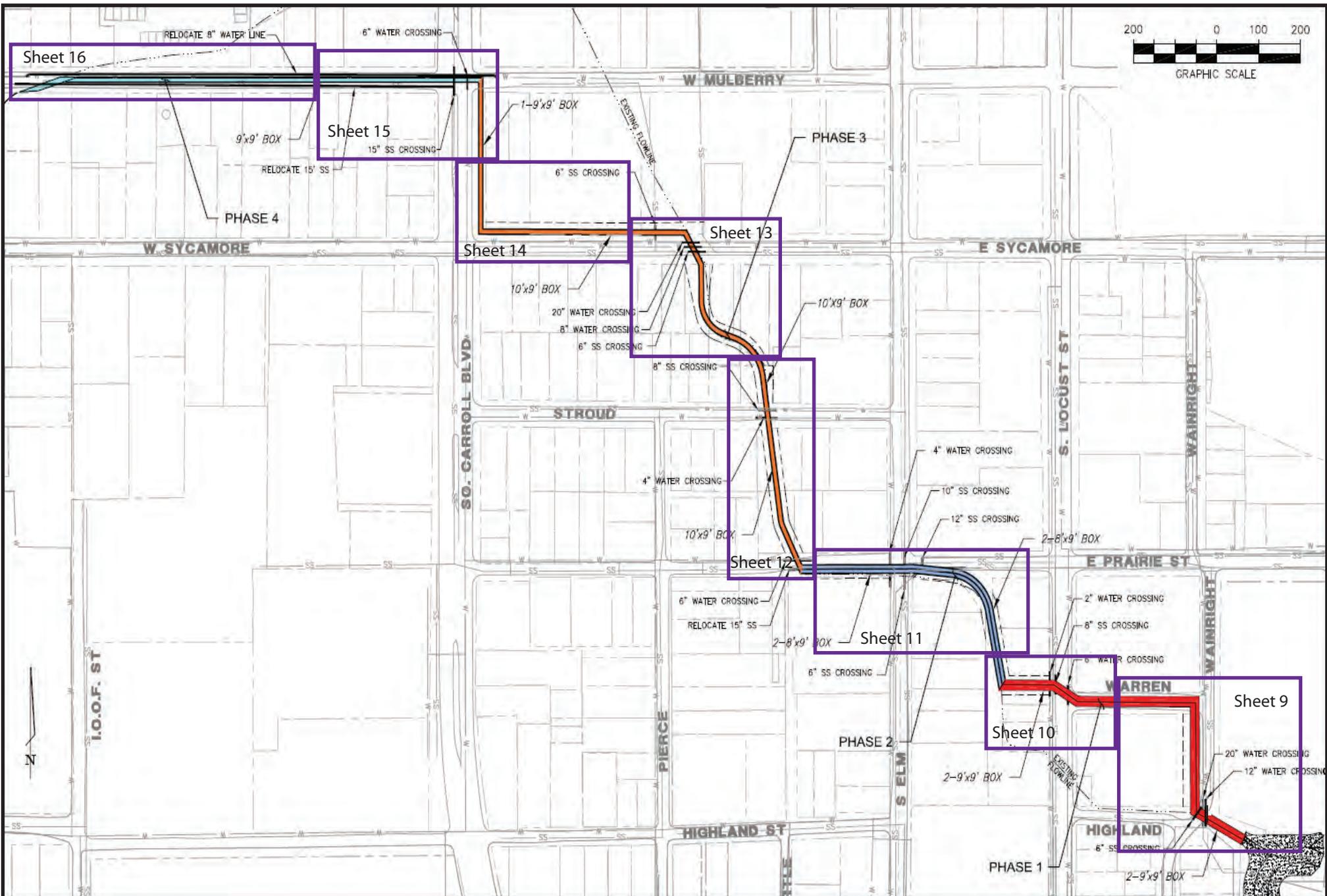
- Existing Waters of the United States
- Replaced Waters of the United States
- Created Waters of the United States
- High-Flow Culvert
- Non-Waters of the United States



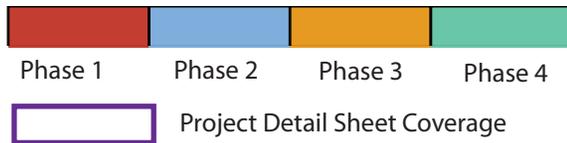
1 inch = 325 feet



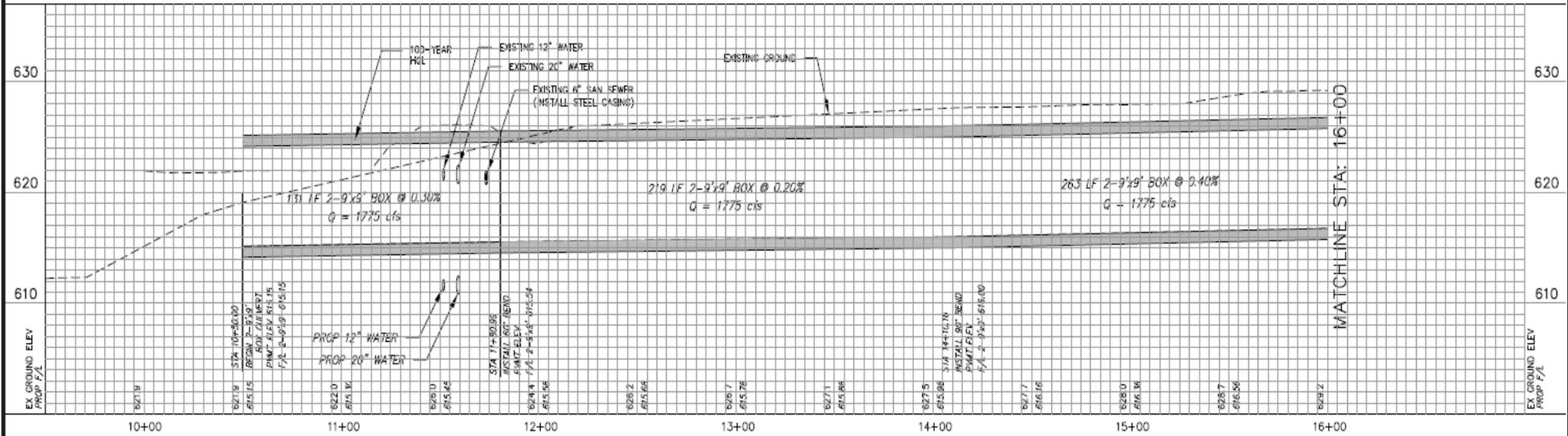
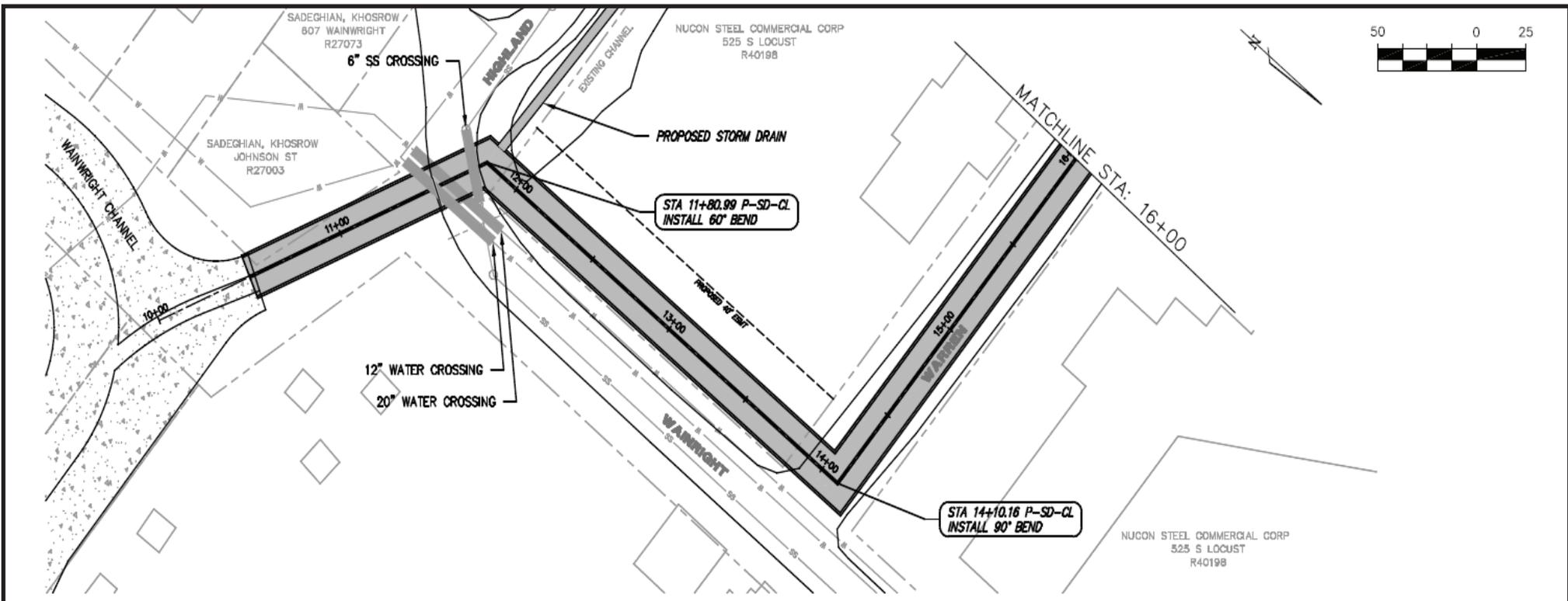
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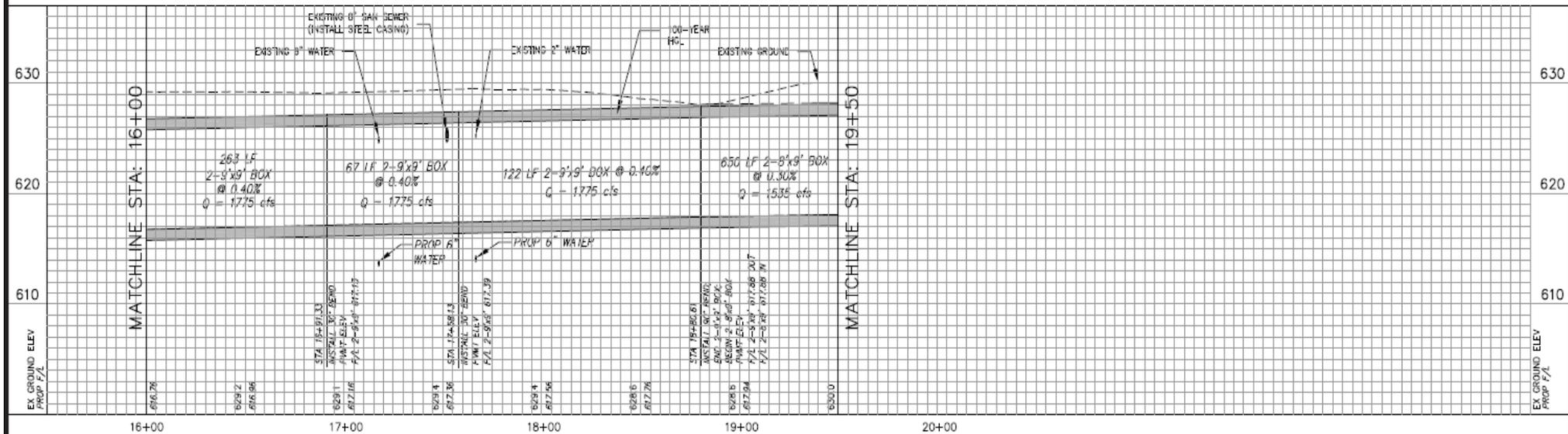
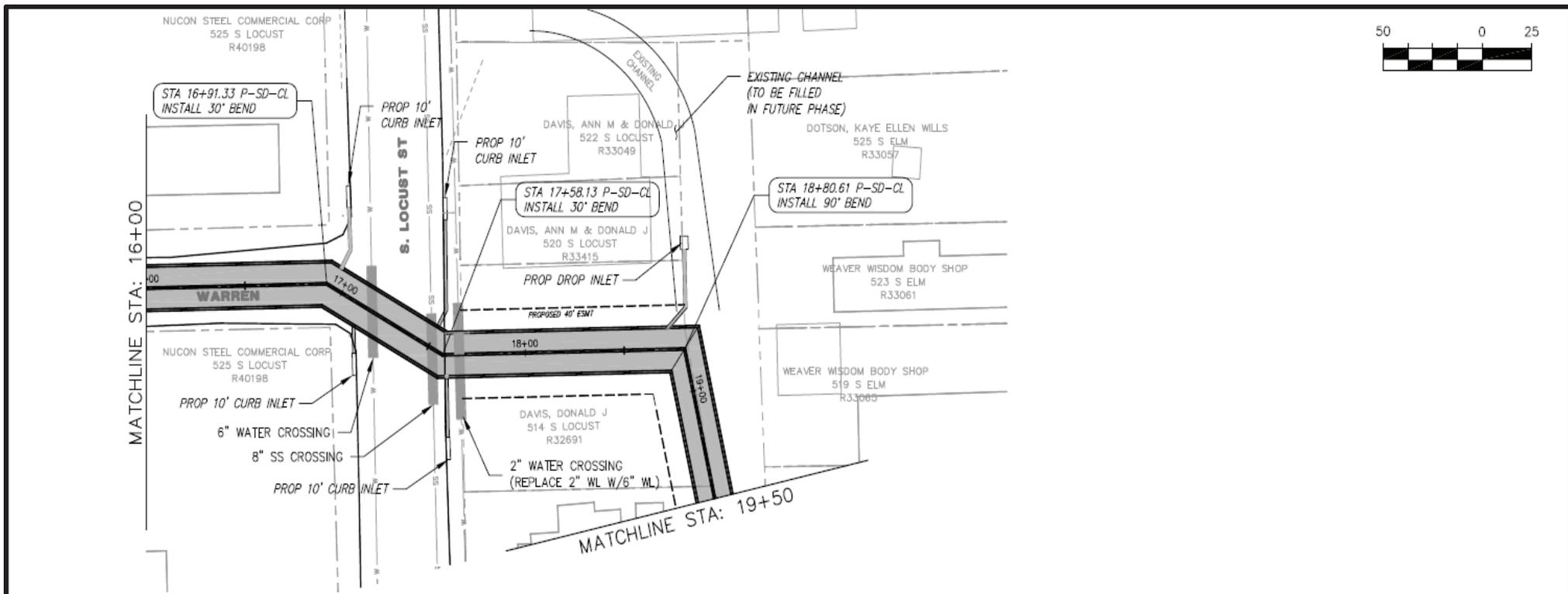


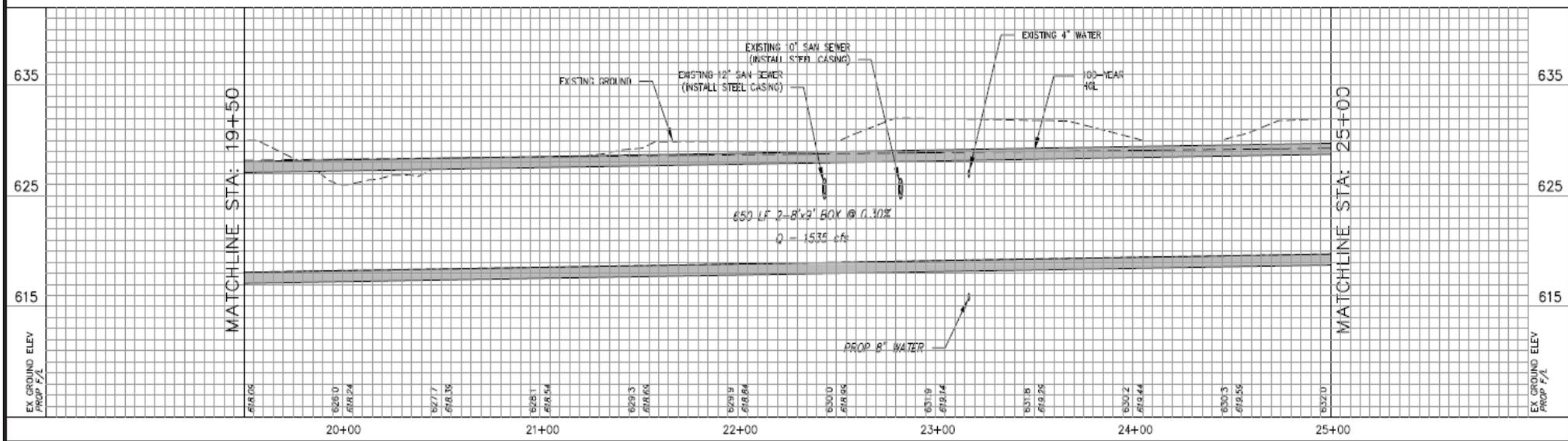
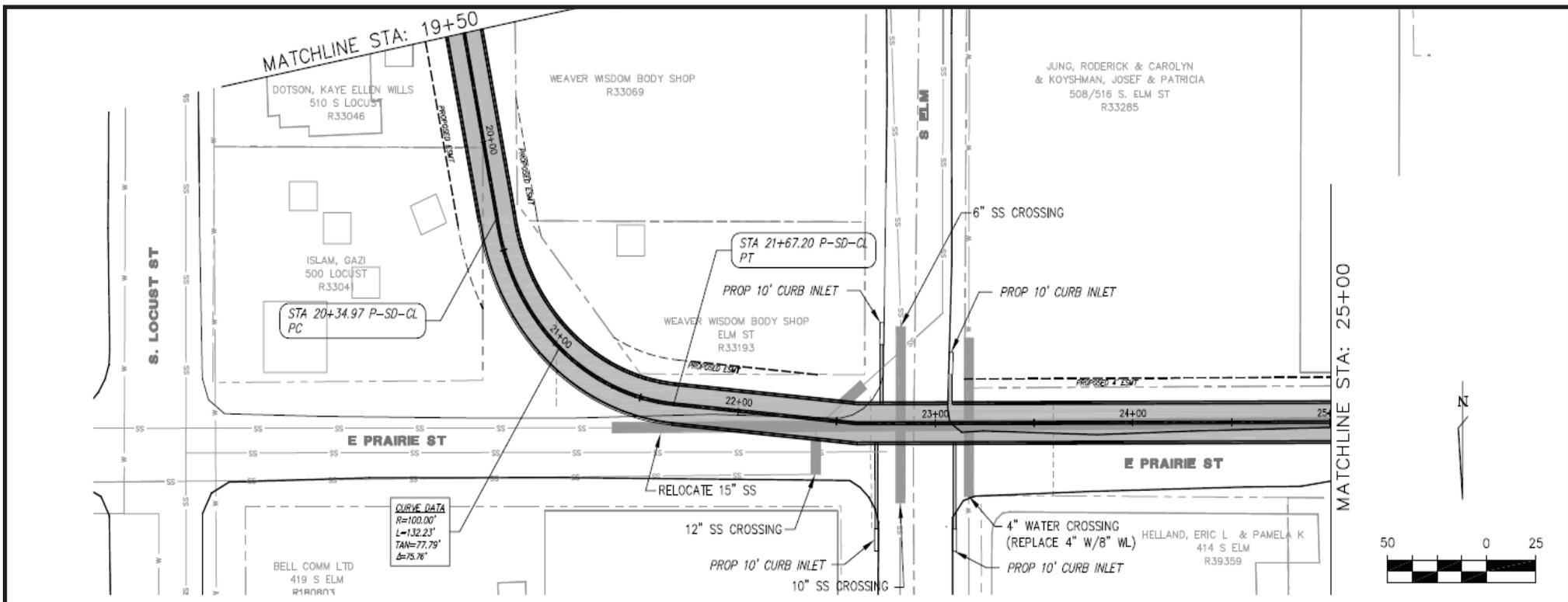
Sheet 8 of 17  
Upper Pecan Creek Tributary 4 Drainage  
Phase Locations



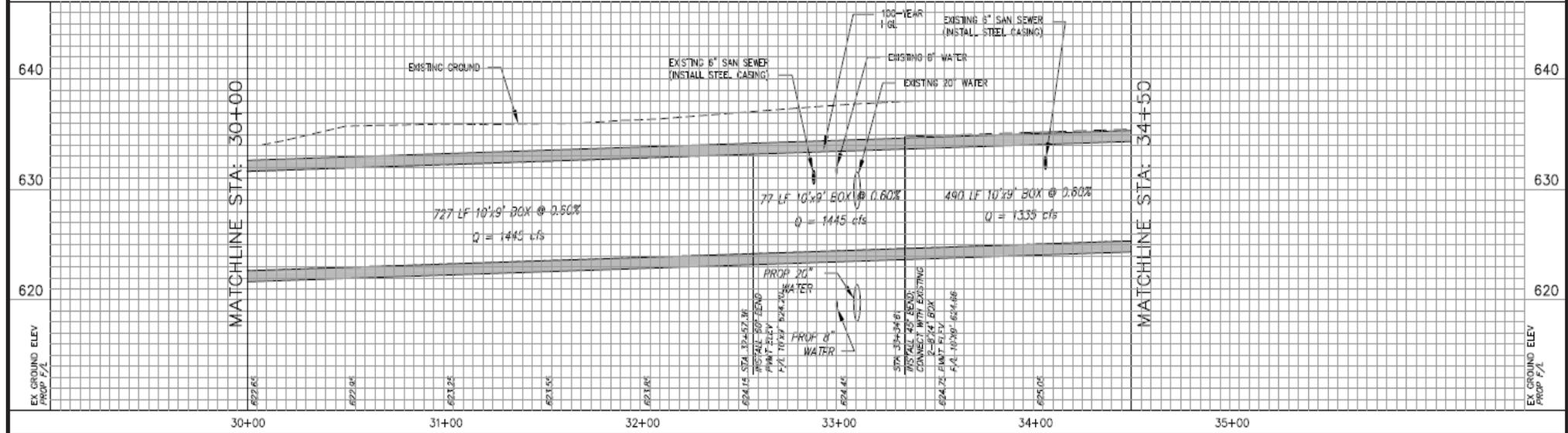
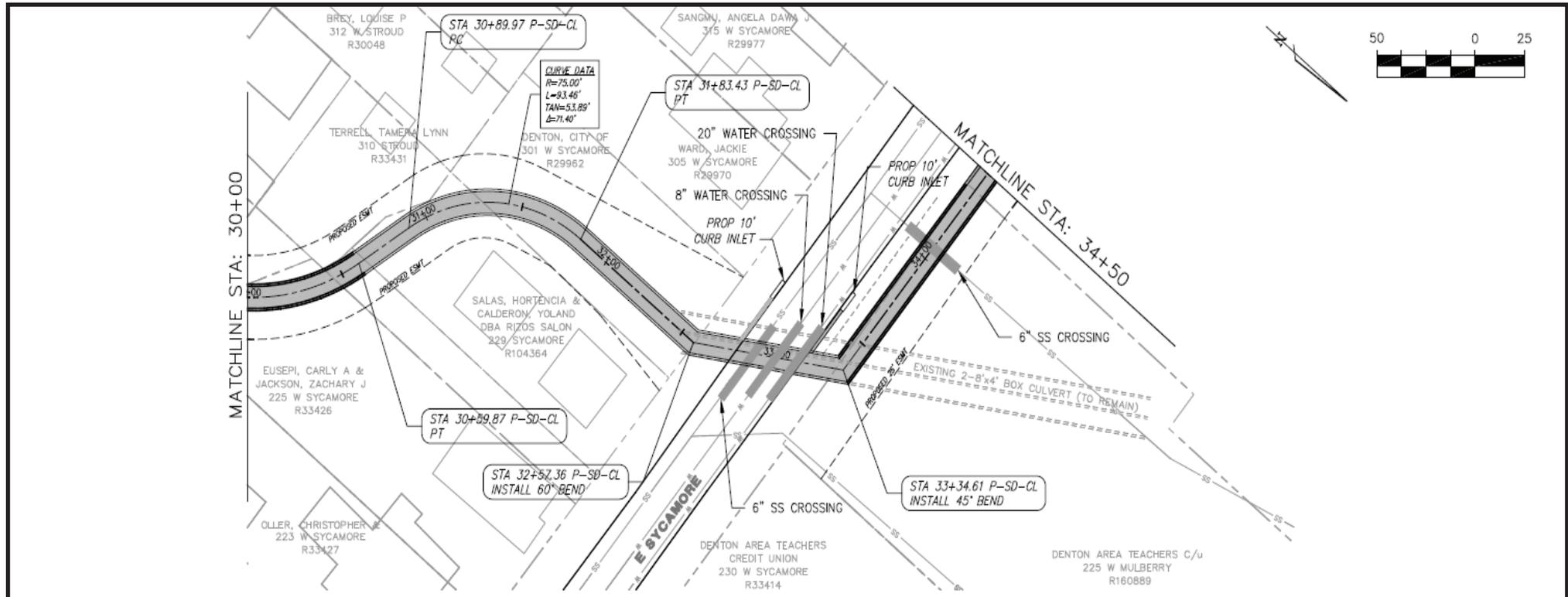
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State: Texas  
USACE Project Number: SWF-2009-229  
Date map created: 7/29/2009







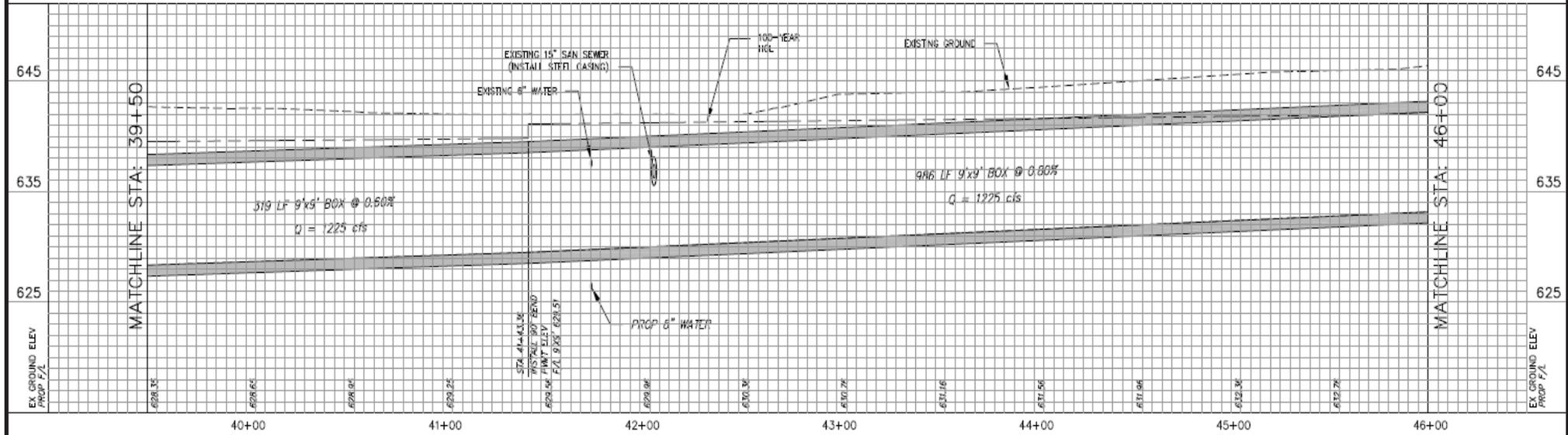
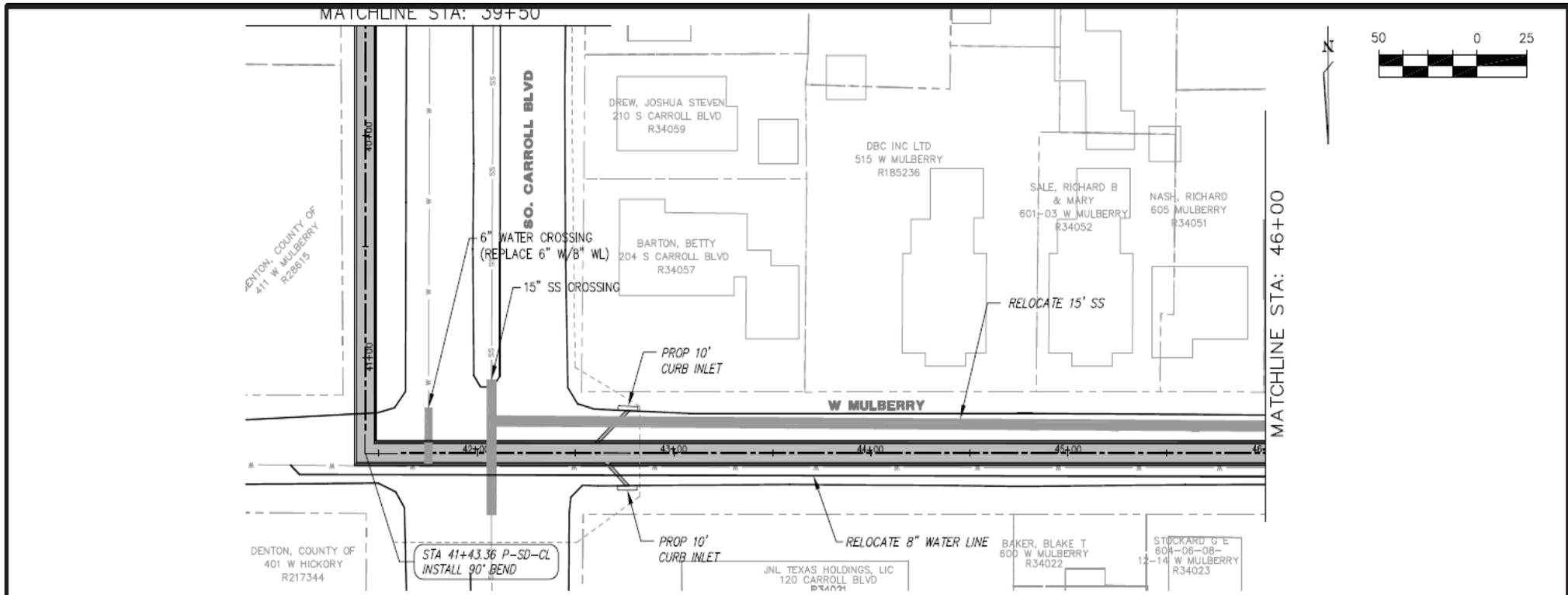




Sheet 13 of 17  
 Upper Pecan Creek Tributary 4 Drainage  
 Project Detail

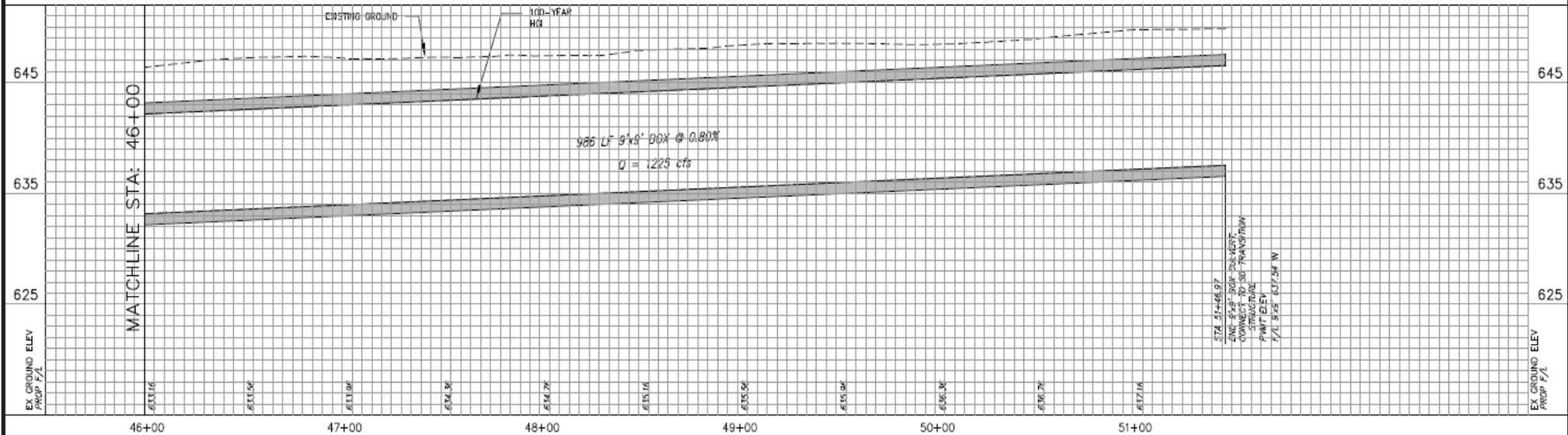
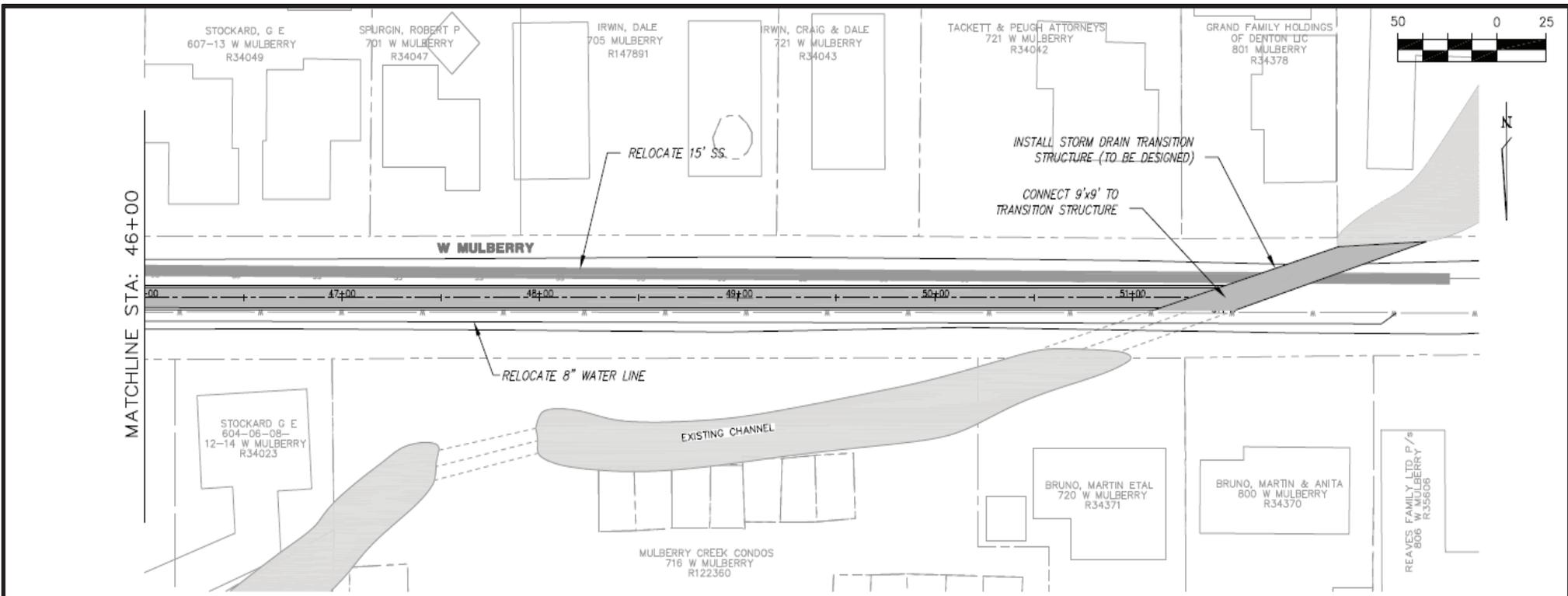
County: Denton  
 State: Texas  
 USACE Project Number: SWF-2008-229  
 Date map created: 7/29/2009

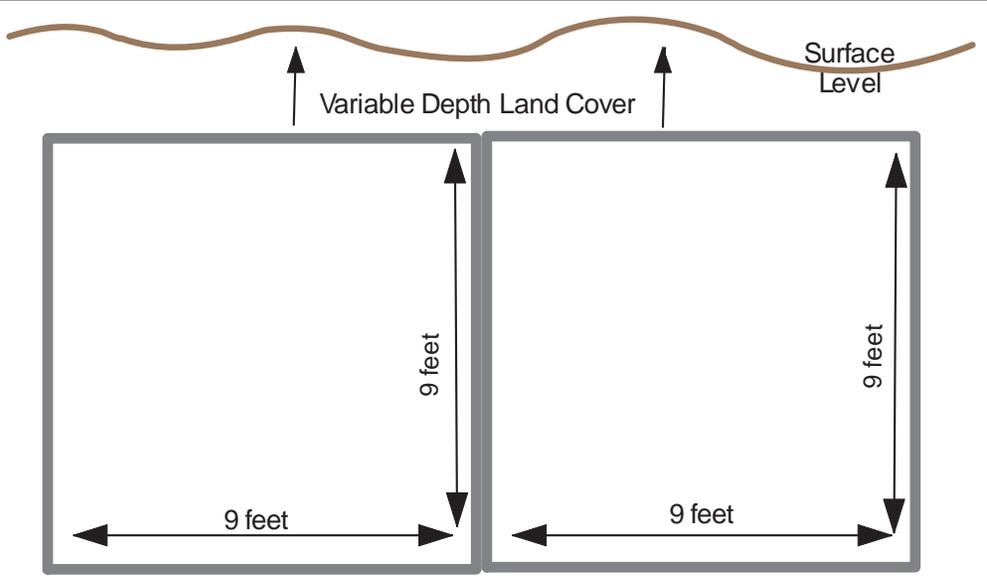




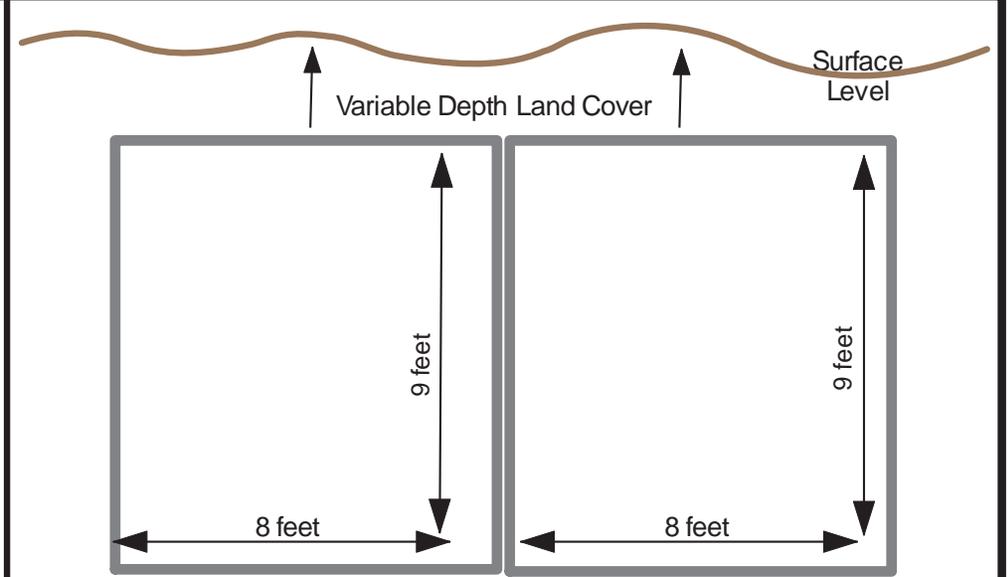
Sheet 15 of 17  
Upper Pecan Creek Tributary 4 Drainage  
Project Detail

County: Denton  
State: Texas  
USACE Project Number: SWF-2008-229  
Date map created: 7/29/2009

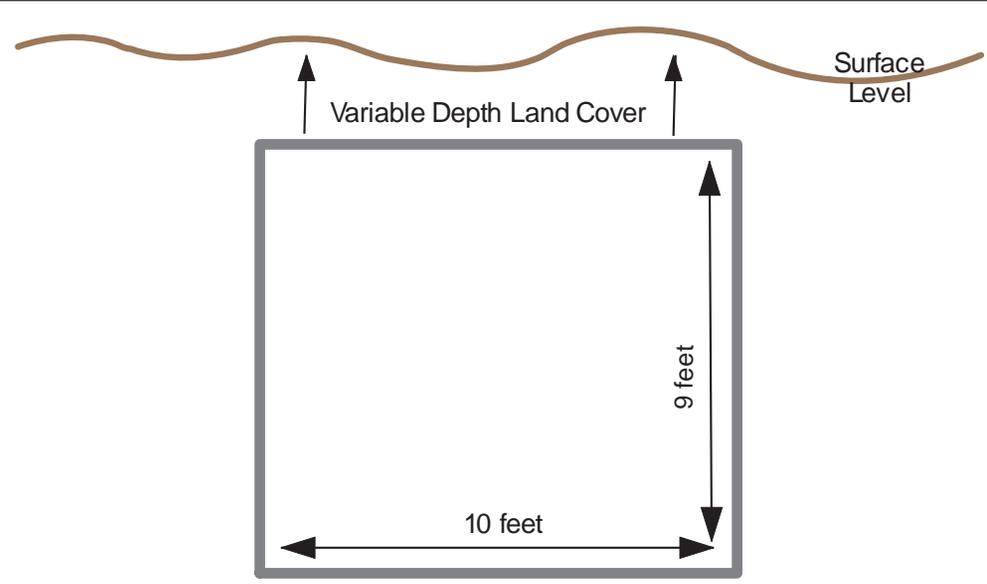




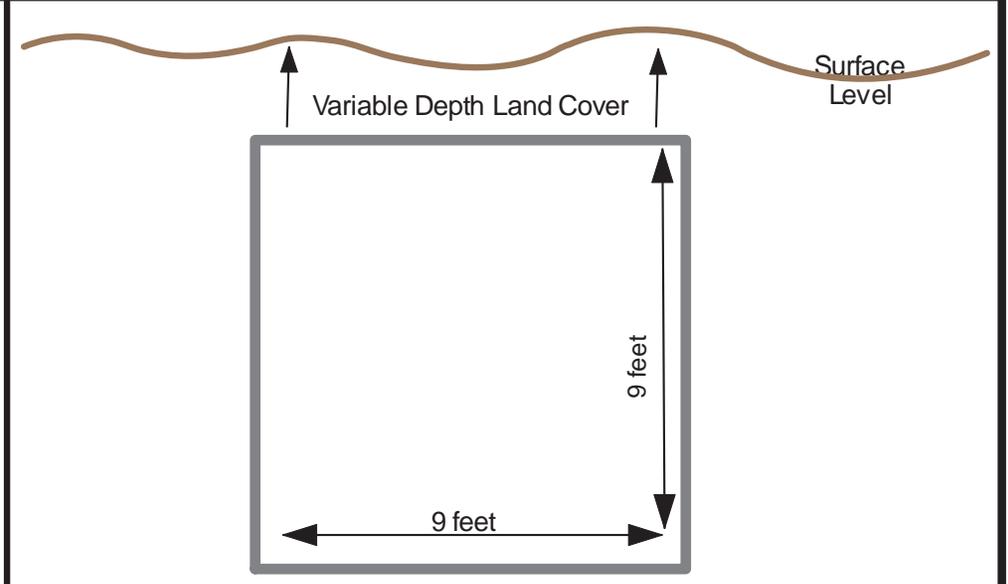
Typical Cross-Section of Box Culverts located in Phase 1



Typical Cross-Section of Box Culverts located in Phase 2



Typical Cross-Section of Box Culvert located in most of Phase 3



Typical Cross-Section of Box Culvert located in the remainder of Phase 3 and all of Phase 4

