DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

CIVIL WORKS, MINOR SECTION 408 NEPA COMPLIANCE

U.S. ARMY CORPS OF ENGINEERS FORT WORTH DISTRICT

FOR TWO STORM DRAINS (E4 AND W4)

March 19, 2013

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1.0 INTRODUCTION

The North Texas Tollway Authority (NTTA), City of Fort Worth, and Casso Development Company are submitting the proposed project, the E4 and W4 Outfalls, as a future minor 408 request for NEPA compliance under the PEA.

This document is a supplemental environmental assessment (SEA) to then programmatic environmental assessment (PEA) entitled *Civil Works Minor Section 408 NEPA Compliance, United States Army Corps of Engineers (USACE), Fort Worth District*, dated April 11, 2011. The PEA received a Finding of No Significant Impact (FONSI) on April 15, 2011. The PEA is posted on Fort Worth District website www.usace.army.mil.

The purpose of the PEA was to evaluate known minor Section 408 requests and future minor Section 408 requests on properties of USACE Public Works projects located within the USACE Fort Worth District Civil Works boundaries. Due to the high demand and increasing interest of non-federal entities proposing alterations within USACE Public Works boundaries, USACE found it necessary to prepare the PEA to address NEPA compliance for minor Section 408 requests on completed USACE Public Works projects to expedite the Federal review and approval process.

This document provides information on a project that will require alterations to Fort Worth Floodway, which is a USACE Public Works project, and a levee easement along the Clear Fork Trinity River, which was not included in the PEA. In accordance with 33 USC Section 408, any alteration of a USACE Public Works project will require USACE review and approval to ensure that the alteration does not adversely impact the USACE Public Works. Furthermore, 33 CFR Section 230, Procedures for Implementing NEPA (Engineering Regulation 200-2-2), stipulates that a NEPA document must be prepared to address the impacts to the environment as a result of the Federal action. All requests for alterations to a USACE Public Works project are submitted by the non-Federal sponsor.

The PEA identified five criteria that, if met, would preclude the need for additional NEPA documentation on future minor Section 408 requests:

1. Primary vegetative impact must consist of grasslands with no riparian bottomland forest impacted.
2. No impacts to federal mitigation areas and/or lands specified as ecosystem restoration.
3. Impacts to waters of the U.S. would have to meet the requirements of a Nationwide or Regional General Permit.
4. No significant impacts to threatened or endangered species will be allowed to ensure Endangered Species Act (ESA).
5. No significant impacts to cultural resources will be allowed.

The action that this SEA addresses meets all but one of these criteria. The project will impact riparian woodland vegetation. The PEA states that if the proposed minor Section 408 request does not meet the five categories, then a standalone or supplemental EA or EIS would be required. Hence, the preparation of this SEA.

1.1 PURPOSE AND NEED

The proposed action will include the construction of two outfall structures located on the south bank of the Clear Fork Trinity River, just east of Bryant Irvin Road in Fort Worth, Texas (*Appendix A, Sheets 1 and 2*). These outfall structures are necessary to provide drainage for the NTTA Chisholm Trail Parkway project within the Edwards Ranch-Riverhills development. Currently drainage from the Chisholm Trail Parkway project is routed through a series of retention/detention ponds running south-to-north on either side of roadway, which is currently under construction. The retention/detention ponds were included in the *Final Environmental Impact Statement FHWA-TX-EIS-90-05-F State Highway 121 from IH 30 to FM 1187 Tarrant County, Texa*s, dated October 2004. However, the two outfall structures were not included in this NEPA document. The two outfall structures are necessary to allow for the storm water drainage system of this section of the Chisholm Trail Parkway to drain as designed.

The piping connecting the outfall structures and the retention/detention ponds would cross the levee easement along the Clear Fork Trinity River and flow into the Fort Worth Floodway and channel, which is a federal project. At the time the Chisholm Trail project was first initiated (i.e., NEPA documentation completed), the Section 408 approval requirement did not exist. Therefore an SEA to address Section 408 is required.

The project (selected alternative) must provide for safe drainage of excess water collected in the retention/detention ponds. The outfall structures were part of the drainage plan for the Chisholm Trail Parkway throughout the planning and design process for the road project.

1.2 SCOPE

The scope of the SEA is to evaluate the Section 408 request to install two outfall structures and piping on the south bank of the Clear Fork Trinity River which will cross the levee easement which runs along the south bank of the river and flow into the Fort Worth Floodway and channel. A 100-foot wide area between the intake and outfall of the two structures (i.e., the levee easement) was evaluated as the project area for this document (*Appendix A, Sheet 3*).

2.0 DESCRIPTION OF ALTERNATIVES

There are only two reasonable alternatives for this project, the No Action and Proposed Action.

2.1 ALTERNATIVE 1 - NO ACTION

The No Action alternative would maintain the status quo. The two series of retention/detention ponds would continue to function as-is, without the means to drain excess collected storm water other than overtopping the structures and flowing overland. Water would remain in the retention/detention ponds until the water levels reach the 100-year flood elevations and would then spill over the structures. This situation is not desirable and is potentially unsafe for trail users and adjacent residential areas to the east of the project area. Additionally, water levels on the ponds would remain high for longer periods of time and may promote a health hazard (e.g., mosquitoes).

The No Action alternative would not allow for the installation of the two outfalls at the south bank of the Clear Fork Trinity River. If the outfalls are not constructed the storm drainage system for the Chisholm Trail Parkway would not function as designed. Additionally, adjacent areas surrounding the retention/detention ponds would flood and flood waters would flow overland until they reached the Clear Fork Trinity River.

2.2 ALTERNATIVE 2 - PROPOSED ACTION

The proposed action would include the installation of two outfall structures into the Clear Fork Trinity River. These two outfalls will provide necessary drainage for the Chisholm Trail Parkway project within the Edwards Ranch/Riverhills development. The piping connecting the outfall structures and the retention/detention ponds would cross the levee easement along the Clear Fork Trinity River and flow into the Fort Worth Floodway and channel.

The eastern outfall (Storm Drain E4) will consist of a 4-foot concrete apron connected to two 6-foot by 3-foot reinforced concrete boxes (RCB) (*Appendix A, Sheet 4*). The two RCB's will connect to the eastern retention/detention pond that collects drainage from the east side of Chisholm Trail Parkway. The piping will be buried approximately 15 feet below the existing ground surface. Approximately 0.09 acres of RCB will be laid within the project area and the total disturbance area associated with installation of the RCB and outfall structure will be approximately 0.49 acres.

The western outfall (Storm Drain W4) will also consist of a 4-foot concrete apron connected by two 4-foot by 4-foot RCB (*Appendix A, Sheet 5*). The two RCB's will connect to the western retention/detention pond that collects drainage from the west side of Chisholm Trail Parkway. The piping will be buried approximately 17 feet below the existing ground surface. Approximately 0.08 acres of RCB will be laid within the project

area and the total disturbance area associated with the installation of the RCB and outfall structure will be approximately 0.69 acres.

Both outfall structures will be constructed within the 100-foot wide levee easement along the Clear Fork Trinity River and will flow into the Fort Worth Floodway and channel.

3.0 AFFECTED ENVIRONMENT

In order to assess the environmental consequences of alternatives, the existing conditions or affected environment of the proposed study area must be known.

3.1 SETTING

The project is surrounded by land that is planned as a mixed-use development. The approximately 50 percent of the project area was previously impacted due to the construction of the Fort Worth floodway and channel. The other approximate 50 percent of the project area has remained relatively undisturbed. Any disturbances that have occurred in this area would likely be associated with low impact agriculture practices (i.e., grazing). The project area is currently zoned as “C” Medium Density Multifamily and “A-5” One-Family.

3.2 SOCIOECONOMIC RESOURCES

According to U.S. Census Bureau data for 2010, the project area is located in Census Tract 1054.05, Block Group 3, Block 3041. The median household income within this Census Tract 1054.05 is $113,423.

Currently the U.S. Census Bureau does not have 2010 population data available online, so 2000 data was utilized for this study. According to 2000 census data the project is located in Census Tract 1054.05, Block Group 1, Block 1009. There are a total of 272 people that live in Block 1009, with 4 percent of the population consisting of minorities (2 percent Hispanic, 2 percent Asian).

3.3 HAZARDOUS MATERIALS

No hazardous, toxic, or radioactive waste (HTRW) is anticipated within the project area. Two field surveys were conducted during the preparation of this document and no evidence of past contamination was observed (i.e., stained soils, stressed vegetation, etc.).

3.4 NOISE AND AESTHETICS

The construction of the outfall structures and installation of the piping for Storm Drains E4 and W4 will likely only take two to three weeks. Noise and aesthetic concerns

associated would be a factor during this time. Heavy machinery would be used to clear vegetation and dig the trench to install the piping for both outfall structures.

3.5 AQUATIC RESOURCES

3.5.1 SURFACE WATER

Surface water associated with the project area is the Clear Fork Trinity River. The outfall structure and a small amount of pipe associated with Storm Drain W4 will be located below the 100-year floodplain (*Appendix A, Sheet 6*). All of Storm Drain E4 will be located within the 100-year floodplain

3.5.2 GROUND WATER

The project area is located within the Trinity (subcrop) Aquifer and located in the Trinity Basin and Lower West Fork Trinity Sub-Basin (Hayes 2004).

3.5.3 WETLANDS AND WATERS OF THE U.S.

No wetlands are located within the project area. The Clear Fork Trinity River is located within the project area and would be classified as a waters of the U.S. The Clear Fork Trinity River would be considered as a perennial stream. The banks of the Clear Fork Trinity River, within the project area, are dominated by bermudagrass (*Cynodon dactylon*). This vegetation appears to be maintained on a regular basis (i.e., mowed).

3.6 BIOLOGICAL RESOURCES

3.6.1 VEGETATION

The vegetation within the project area consists of grassland and riparian woodlands. The vegetation at both Storm Drain E4 and W4 could be described as being 50 percent grassland and 50 percent riparian woodland vegetation. The existing grassland vegetation is dominated by bermudagrass, that is maintained on a regular basis.

The riparian vegetation associated with Storm Drain E4 consisted of an understory that was dominated by Virginia wildrye (*Elymus virginicus*), Chinese ligustrum (*Ligustrum sinense*), western ragweed (*Ambrosia psilostachya*), giant ragweed (*Ambrosia trifida*), and cedar sedge (*Carex planostachys*). The understory consisted of 40 percent vegetation cover, 45 percent litter, and 15 percent bare ground. The overstory consisted of chinaberry (*Melia azedarach*) and Texas ash (*Fraxinus texensis*). The average diameter at breast height (dbh) of the overstory trees was 4 to 6 inches.

The riparian vegetation associated with Storm Drain W4 consisted of an understory that was dominated by coralberry (*Symphoricarpos orbiculatus*), Chinese ligustrum, greenbrier (*Smilax bona-nox*), Virginia wildrye, and cedar sedge. The understory consisted of 40 percent vegetation cover, 55 percent litter, and 5 percent bare ground.

The overstory consisted of Texas ash, bur oak (*Quercus macrocarpa*), and Osage orange (*Maclura pomifera*). The average diameter at breast height (dbh) of the overstory trees was 6 to 8 inches.

The overstory at Storm Drain W4 was denser that than observed at Storm Drain E4. The overstory at both locations consisted of lower successional species and understory at both locations was dominated by invasive species (i.e., Chinese ligustrum). The riparian vegetation at both locates would be classified as low to mid quality.

3.6.2 FISH AND WILDLIFE SPECIES

Fish and wildlife species found within the project area would be similar to that described in the PEA.

3.6.3 THREATENED AND ENDANGERED SPECIES

The U.S. Fish and Wildlife Service (USFWS) lists two species within Tarrant County as endangered, the interior least tern and whooping crane (USFWS 2013). No designated critical habitat is present for the federally listed species associated with the project area.

Interior least tern nests along sand and gravel bars within braided streams and rivers. They are also known to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc.). Their diet includes small fish and crustaceans and when breeding they will forage within a few hundred feet of the nesting colony (TPWD 2013).

Whooping cranes are a potential migrant throughout most of Texas to the coast. They winter in coastal marshes of Aransas, Calhoun, and Refugio counties (TPWD 2013).

Neither federally listed species was observed within the project area. Some habitat adjacent to the project area could be suited for brief use as feeding habitat by the interior least tern (i.e., the river proper). However, it is unlikely that this species would use the project area for the foreseeable future given the construction activity associated with Chisholm Trail Parkway.

3.7 AIR QUALITY

The proposed action is located within the nine-county Dallas/Fort Worth (DFW) non-attainment area. The General Conformity Determinations described for the DFW non-attainment area in the PEA would apply to this project. The only difference from the PEA is the 2008 eight-hour ozone standard designation. A ten-county DFW area was designated nonattainment and classified moderate under the 2008 eight-hour ozone NAAQS, effective July 20, 2012 (77 FR 30088). The DFW area includes the nine counties that were designated under the 1997 eight-hour ozone standard in addition to

Wise County. The attainment deadline for the DFW moderate attainment area is December 31, 2018.

3.8 CLIMATE

The climate for the state of Texas for this proposed project would be similar to what is described in the PEA.

3.9 CULTURAL RESOURCES

An intensive pedestrian archeological survey was conducted on the portions of the project area south of the existing pedestrian trail along the Clear Fork Trinity River (Appendix B). The archeologists walked transects that were oriented north/south and were spaced 15 meters apart. Shovel tests were excavated to approximately 150 centimeters below the ground surface. Two recorded sites are located near the project areas, 41TR65 and 41TR170. The subsurface testing should have encountered a buried site if they are present due to the fact that auger test depth was greater than the upper level of either recorded site.

Storm Drain E4

Shovel test 1 was excavated at the fence line. The shovel test uncovered three culturally sterile soils before being terminated. Shovel test 2 was excavated approximately 33 meters southwest of Shovel test 1. Four culturally sterile soil layers were encountered. Shovel test 3 was placed along the southeastern boundary of the project area and about midway (16.7 meters) from the northeast and southeast corners of the proposed impact area boundary. The shovel test was excavated adjacent to the abandoned channel of the Clear Fork Trinity River and off the ridge. Fill was encountered from the surface to about 50 centimeters below the ground surface when the auger would not turn due to the amount of limestone gravel/cobbles.

Storm Drain W4

The three shovel tests for Storm Drain W4 (4 through 6) were excavated in a pattern similar to those in Storm Drain E4. All encountered fill. Shovel tests 4 and 6 encountered the fill on the ground surface. So much rock was present in Shovel test 6 that it had to be terminated at a shallow depth (20 centimeters) below the ground surface. No cultural resources were encountered.

3.10 RECREATION

The Trinity River Bike Trail and Pedestrian Trail is located within the project area. Both Storm Drain E4 and W4 will cross under the trail. The trail will remain open at all times during construction. No temporary or permanent closures of the trail will occur. Detours will be constructed to allow traffic to continue on the trail when piping is being installed

under the existing trail (*Appendix A, Sheet 7*). No designated park areas area located within the project area.

4.0 ENVIRONMENTAL CONSEQUENCES

This section describes the environmental consequences for each alternative that is considered under this SEA.

4.1 SOCIOECONOMIC RESOURCES

4.1.1 *NO ACTION*

No impacts to minorities or low-income populations would occur as a result of implementing the No Action alternative.

4.1.2 *PROPOSED ACTION*

The proposed action would not result in any notable impacts on the surrounding community. The census tract that the proposed action falls within is above the 2013 Department of Health and Human Services (HHS) poverty guideline of $23,550. The proposed project would not restrict access to any existing public or community services (i.e., use of the trail system). While minority and low income population could be affected by the proposed project, there would not be any disproportionately high and adverse affects to these populations.

4.2 HAZARDOUS MATERIALS

4.2.1 *NO ACTION*

No impacts to hazardous materials would occur as a result of implementing the No Action alternative.

4.2.2 *PROPOSED ACTION*

No impact related to hazardous materials is anticipated as a result of the proposed action. If, during construction of the two outfalls, any hazardous materials are discovered or unearthed, construction will immediately cease and hazardous materials will be classified, removed, and properly disposed of before activities will continue in the project area.

4.3 NOISE AND AESTHETICS

4.3.1 *NO ACTION*

No impacts from noise or to the visual aspect of the area would occur as a result of implementing the No Action alternative.

4.3.2 *PROPOSED ACTION*

Impacts resulting from noise and the aesthetic of the project area would only be temporary in nature and occur during the construction phase. Construction of the proposed action is only anticipated to occur over a two to three week period. Construction would occur during daylight hours when occasional loud noises are more tolerable. No extended disruption to normal activities in the area would be anticipated by the proposed project.

Typically construction activities such as storage of materials necessary for installation of the outfall and piping would temporarily affect the aesthetics within the project area. Once construction is completed the area will be returned to near pre-construction contours and the trail system will be reconstructed in the same location and manner as it existed prior to construction.

4.4 AQUATIC RESOURCES

4.4.1 SURFACE WATER

4.4.1.1 *NO ACTION*

No impacts to surface waters would occur as a result of implementing the No Action alternative.

4.4.1.2 *PROPOSED ACTION*

The proposed action would result in direct impacts to the Clear Fork Trinity River as a result of the eastern outfall, Storm Drain E4. The western outfall, Storm Drain W4, would be installed above the normal water elevation of the Clear Fork Trinity River, resulting in no direct impact to this surface water feature. Impacts from Strom Drain E4 will be limited to the minimum necessary for construction and would fall within the impact threshold for use of a Nationwide General Permit. See Section 4.4.3 (Wetlands and Waters of the U.S.) for more detailed discussion of the impacts that will occur as a result of the installation of Storm Drain E4.

Impacts to surface water quality may occur during construction due to transport of sediment and other pollutants from the construction area to the river. Silt fence will be installed along both sides of the construction area where the RCB piping and outfalls will

be installed. The disturbed area will be covered with sod after construction. This will minimize soil erosion and transport of sediment into the Clear Fork Trinity River.

Currently, the Clear Fork Trinity River receives runoff from adjacent uplands areas. These flows would be directed into the retention/detention ponds and then discharged through the outfall structures. The retention/detention ponds will allow sediment and other potential pollutants to settle out before being discharged into Clear Fork Trinity River. Given the use of these practices, the proposed action would not result in adverse impact to surface waters.

4.4.2 GROUND WATER

4.4.2.1 *NO ACTION*

No impact to aquifers and ground water resources would occur from implementing the No Action alternative because no construction would occur.

4.4.2.2 *PROPOSED ACTION*

Impacts to ground water would be minimal to non-existent for the proposed action. The outfalls and RCB would be installed through an open-cut method close to the natural ground surface. No horizontal drilling or other techniques that have been associated with groundwater impacts would occur.

4.4.3 WETLANDS AND WATER OF THE U.S.

4.4.3.1 *NO ACTION*

No impacts to wetlands or waters of the U.S. would occur under the No Action alternative.

4.4.3.2 *PROPOSED ACTION*

The proposed action would result in impacts to waters of the U.S. at the eastern outfall location, Storm Drain E4. The impact would result in less than 0.01 acres of fill in the Clear Fork Trinity River. The discharges at this location would be less than 10 cubic yards (approximately 7.5 cubic yards of fill) and would not impact wetlands or other special aquatic sites. The impact from Storm Drain E4 should be authorized under Nationwide Permit 12 for Utility Line Activities without the need for a pre-construction notification to the USACE Fort Worth District Regulatory Branch.

The proposed action would not impact Section 10 waters.

4.5 BIOLOGICAL RESOURCES

4.5.1 VEGETATION

4.5.1.1 *NO ACTION*

No impacts to vegetation would occur under the No Action alternative.

4.5.1.2 *PROPOSED ACTION*

The proposed action would result in impacts to both grassland and riparian woodland vegetation. Impacts to grassland would be temporary. The existing grassland vegetation is dominated by bermudagrass, which is maintained on a regular basis. The disturbance area at both outfalls is proposed to be sodded post-construction to restore the vegetation grassland community to pre-construction conditions.

Approximately 25 trees would be removed to construct Storm Drain E4 and approximately 50 trees would be removed to construct Storm Drain W4.

4.5.2 FISH AND WILDLIFE SPECIES

4.5.2.1 *NO ACTION*

The No Action alternative would not result in impacts to fish and wildlife species because no construction activities would occur.

4.5.2.2 *PROPOSED ACTION*

Currently, water flows directly into the Clear Fork Trinity River. The treatment of water collected in the retention/detention ponds prior to it being discharged into the river through the two outfalls structures would likely improve the quality of the water from currently conditions. The retention/detention ponds and outfalls structures are designed to maintain water levels in the Clear Fork Trinity River (i.e., attenuate flows to avoid a rise). Impacts to grassland and aquatic habitats would be restored after completion of construction.

The impacts to fish and wildlife species would be similar to those impacts described in the PEA, which states that projects “located within urban environments with typical fish and wildlife species adapted to urban activities and surroundings. Since the fish and wildlife have adapted to the present conditions and the proposed alteration would not significantly alter that condition, any impacts to wildlife and their habitats would be temporary in nature and limited to the construction phase.”

4.5.3 THREATENED AND ENDANGERED SPECIES

4.5.3.1 *NO ACTION*

No impacts to threatened or endangered species would occur under the No Action alternative.

4.5.3.2 *PROPOSED ACTION*

Due to the urban nature of the project area, on-going disturbances, fragmented and altered habitat, and the small footprint of the project, no adverse impacts to the listed threatened or endangered species would occur as a result of the proposed action.

4.6 AIR QUALITY

4.6.1. *NO ACTION*

There would be no impact to air quality as a result of implementing the No Action alternative because no construction would occur.

4.6.2 *PROPOSED ACTION*

Impact to regional air quality resulting from the relatively minor construction activities associated with the Proposed Action, such as dust and exhaust from construction equipment, would be temporary, minimal, considered deminimus, and not require a General Conformity Analysis.

4.7 CULTURAL RESOURCES

4.7.1. *NO ACTION*

Under the No Action alternative, any cultural resources that may be present in the project area would remain in place subject to both the protective effects of no ground disturbing activities, as well as the potential negative effects that occur through natural and biological actions such as erosion, scouring, or rodent and tree root activity. No additional impact to cultural resources would result from the No Action alternative.

4.7.2 *PROPOSED ACTION*

It is not anticipated that cultural resources would be impacted as a result of the proposed project. A cultural resources evaluation was conducted on-site. Six shovel tests were excavated in the testing of Storm Drains E4 and W4. Of the six, two (Shovel tests 1 and 2 located within Storm Drain E4) encountered native soils. The shovel tests were excavated to 160 and 174 centimeters below the ground surface, respectively. If a prehistoric site was present, it probably would have been encountered during augering,

since the nearby site 41TR170 only ranged from 84 to 204 centimeters below the ground surface.

If cultural materials are encountered during the construction, work will stop in that area and the USACE Fort Worth District will be notified. Work will not continue until the proper investigations have been carried out after consultation with the USACE.

4.8 RECREATION

4.8.1. *NO ACTION*

The No Action alternative would not result in impacts to recreational usage because no construction activities would occur

4.8.2 *PROPOSED ACTION*

Recreation would not be impacted by the proposed project. The Trinity River Bike Trail and Pedestrian Trail will remain open during the construction of this project. At no time will the trail be closed, temporarily or permanently. The contractor will provide continuous and safe passage for cyclists and pedestrians during construction. Fencing or other necessary barricades will be utilized during construction to ensure the safety of trail users. A detour will be used to keep the trail open when disturbances to the existing trail are necessary. Once the outfalls and piping has been installed and construction areas have been re-graded the existing hike/bike trail be reconstructed with 8-foot wide, 6-inch thick concrete trail.

5.0 MITIGATION

5.1 SECTION 404

Adverse impacts to waters of the U.S. would be avoided and minimized to the extent practicable, and pre-construction contours would be restored. The need for compensatory mitigation for adverse impacts to waters of the U.S. is not necessary since the impacts can be considered minimal both individually and cumulatively from a Section 404 standpoint.

5.2 VEGETATION MITIGATION

Clearing of vegetation would be limited to the minimum amount necessary for construction. The disturbed soil in the project area would be sodded with bermudagrass to prevent erosion and restore herbaceous vegetation cover to the impacted areas. This will restore the impacted grassland to pre-construction conditions. This USACE does not require woodland mitigation for Section 408 actions, unless impacts occur with Section 404 jurisdictional areas. This action does not require a pre-construction notification or compensatory mitigation under Section 404.

6.0 CUMULATIVE IMPACTS

Past, Present and Reasonably Foreseeable Projects

Past projects would include the USACE flood control projects associated with the Clear Fork Trinity River and residential and commercial development adjacent and near the project area.

Present projects would include the operation and maintenance of the Clear Fork Trinity River by the USACE, Tarrant Regional Water District, and the City of Fort Worth. Additionally, the construction of Chisholm Trail Parkway is on-going adjacent to the project area. Current mixed-use development is also underway north of the project area.

Future projects would include residential and commercial development adjacent to the project (i.e., on the south side of the river along Chisholm Trail Parkway). The two outfalls will service both Chisholm Trail Parkway and future development adjacent to this new roadway. Residential and commercial development is planned from the south side of the Clear Fork Trinity River south to the Interstate Highway (IH) 20 corridor. It would be reasonable to assume that this land would develop even if these outfall structures were not built or if their configuration/location were changed due to the existing development pattern in the area and the addition of the NTTA Chisholm Trail Parkway.

No direct or indirect impacts from this project are anticipated to groundwater or threatened and endangered species. Therefore, groundwater and threatened and endangered species were not included in the discussion of cumulative impacts. Individual and cumulative impacts would be minimal to surface water and wetlands/waters of the U.S., since disturbances would be minimal during construction and impacts to waters of the U.S. would fall within the limits of Nationwide Permit 12.

6.1 BIOLOGICAL RESOURCES

The impact to riparian woodlands has been minimized to the extent possible and approximately 50 percent of the woodland would be converted to grassland vegetation. The remaining wooded portions of the levee easement adjacent to the storm drains would not be disturbed by future development given than much of the area is encumbered by the levee easement that triggered the SEA. Cumulative impacts to vegetation would result from development of open space into urban uses. Portions of grassland and wooded areas outside of the levee easement will likely be converted to residential and commercial uses.

6.2 AIR QUALITY

The very limited scope of the Proposed Action, both in terms of duration and area preclude the potential for cumulative impacts to air quality.

6.3 CULTURAL RESOURCES

No direct impacts to cultural resources are anticipated for the proposed project. Cumulative impacts could result from the development of adjacent land.

7.0 FINDINGS AND CONCLUSIONS

No significant impacts to the human environment are identified from the implementation of the Proposed Action. Vegetation impacts would be to grassland and riparian woodland vegetation. The impacts to grassland would be restored and a minimal amount of trees would be cleared. There are no anticipated impacts to habitat for threatened and endangered species, and impacts to waters of the U.S. would be minimal and fall within the allowable limits of Nationwide Permit 12.

Taking into account the findings of this section, an EIS would not be necessary. Accordingly, a Finding of No Significant Impact (FONSI) was prepared for the selected action.

8.0 PUBLIC INVOLVMENT

8.1 AGENCY COORDINATION

This section discusses consultation and coordination that will occur during the preparation of this document. This includes contacts made during development of the proposed action, other alternatives considered, and preparation of the draft SEA. Copies of agency coordination letters are presented in *Appendix C*. Formal and informal coordination will be conducted with the following agencies:

- State Historic Preservation Office (SHPO),
- U.S. Fish and Wildlife Service (USFWS),
- Environmental Protection Agency (EPA), Region 6 Office
- Texas Parks and Wildlife Department (TPWD),
- Texas Commission on Environmental Quality (TCEQ)

8.2 PUBLIC INFORMATION AND REVIEW

In accordance with NEPA, a 30-day review period of the draft SEA will be provided via a Notice of Availability, posting of the document on the Fort Worth District website www.swf.usace.army.mil, and a local mailing (*Appendix D*).

9.0 REFERENCES

Hayes, Mark. Texas Water Development Board. January 2004. Texas Major River Basins and Sub-Basins over DEM Map. Retrieved January 9, 2013 from http://www.twdb.state.tx.us/mapping/maps.asp.

Hayes, Mark. Texas Water Development Board. December 2004. Major Aquifers of Texas. Retrieved January 9, 2013 from http://www.twdb.state.tx.us/mapping/maps.asp.

Texas Commission on Environmental Quality. Texas State Implementation Plan. Retrieved January 9. 2013 from http://www.tceq.texas.gov/airquality/sip/texas-sip.

Texas Commission on Environmental Quality. Dallas-Fort Worth and The State Implementation Plan. Retrieved January 9, 2013 from http://www.tceq.texas.gov/airquality/sip/dfw/sip-dfw.

Texas Parks and Wildlife Department. Rare, Threatened, and Endangered Species by County. Retrieved January 9, 2013 from http://www.tpwd.state.tx.us/landwater/land/maps/gis/ris/endangered_species/.

United States Army Corps of Engineers. 2011. Final Programmatic Environmental Assessment, Civil Works, Minor Section 408 NEPA Compliance, United States Army Corps of Engineers Fort Worth District, Texas. April 11, 2011.

United State Fish and Wildlife Service. Ecological Service, Southwest Region, Endangered Species Program, T&E Species Lists. Retrieved January 9, 2013 from http://www.fws.gov/southwest/es/ES_ListSpecies.cfm.

APPENDIX A

EXHIBITS

SHEET NO. 1

GRAPHIC SCALE

1 in = 4 miles

0 4 Miles

Storm Drains E4 and W4

Vicinity Exhibit

Fort Worth, Tarrant County, Texas

Prepared By:

PELOTON LAND SOLUTIONS

5751 KROGER DRIVE, SUITE 185
KELLER, TX 76244,
PHONE: 817-562-3350

Source: Esri, DeLorme, NAVTEQ, TomTom, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand)

Date: 1/16/2013

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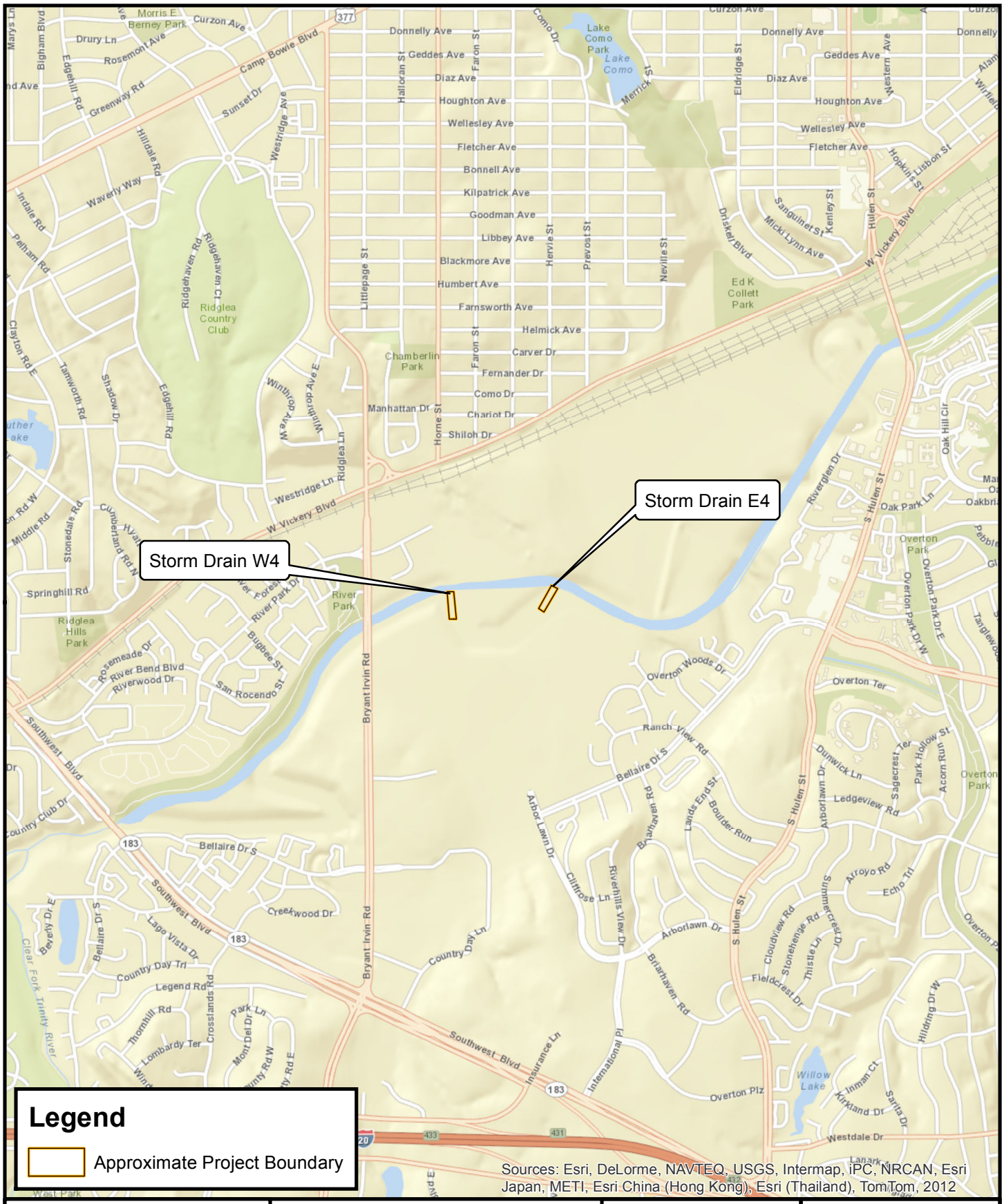

SHEET NO. 2

GRAPHIC SCALE

1 inch = 2,000 feet

0 2,000 Feet

Storm Drains E4 and W4

Local Area Exhibit

Fort Worth, Tarrant County, Texas

Prepared By:

PELOTON LAND SOLUTIONS

5751 KROGER DRIVE, SUITE 185
KELLER, TX 76244,
PHONE: 817-562-3350

Source: Esri, DeLorme, NAVTEQ, TomTom, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand)

Date: 1/16/2013

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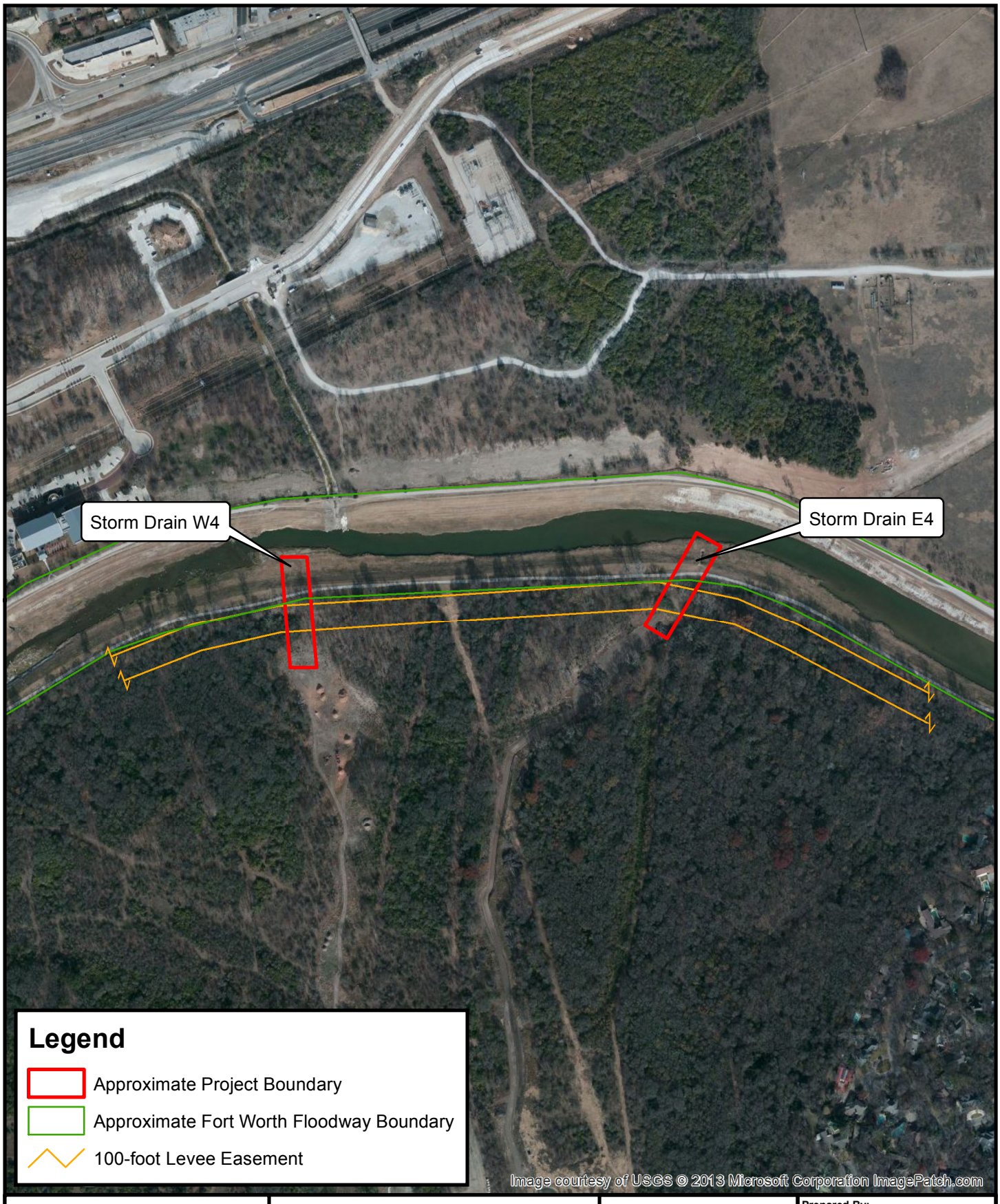

SHEET NO. 3

GRAPHIC SCALE

1 inch = 500 feet

0 500 Feet

Storm Drains E4 and W4

Aerial Photograph Exhibit

Fort Worth, Tarrant County, Texas

Prepared By:

PELOTON LAND SOLUTIONS

5751 KROGER DRIVE, SUITE 185
KELLER, TX 76244,
PHONE: 817-562-3350

Source: (c) 2010 Microsoft Corporation and its data suppliers

Date: 2/12/2013

File Path: G:\JOB\TWS\13001 – Outfall NEPA Assistance\Env\GIS\MXD\Ex3 Aerial Map.mxd

GENERAL UTILITY NOTE:

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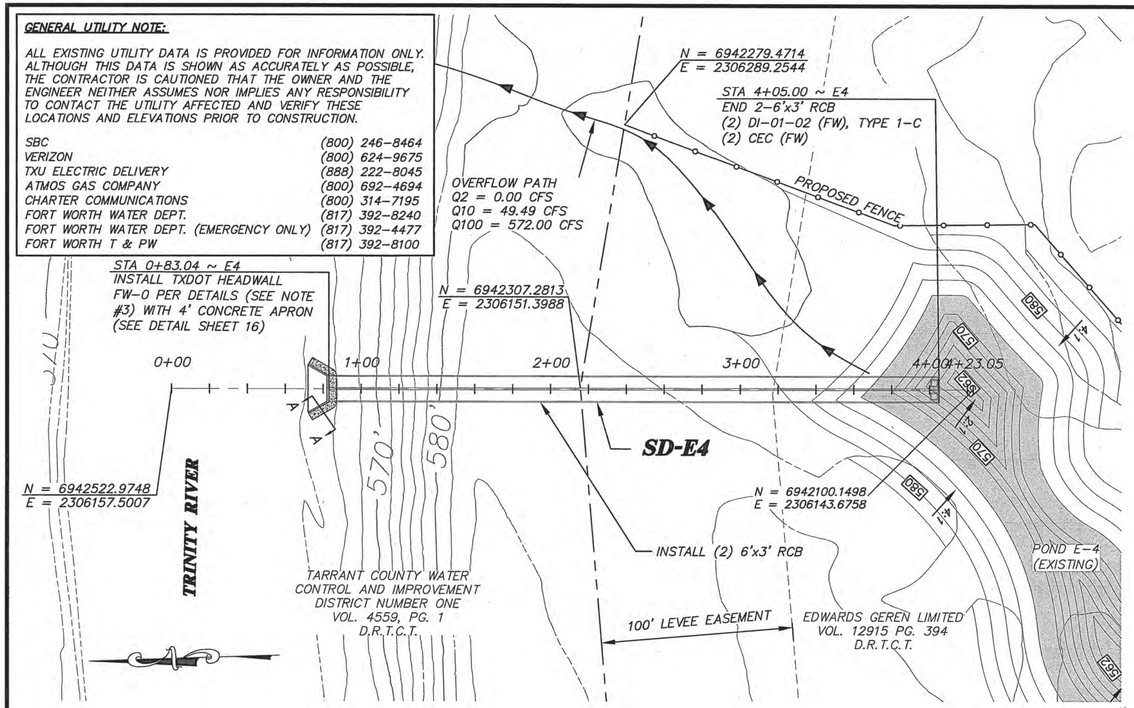
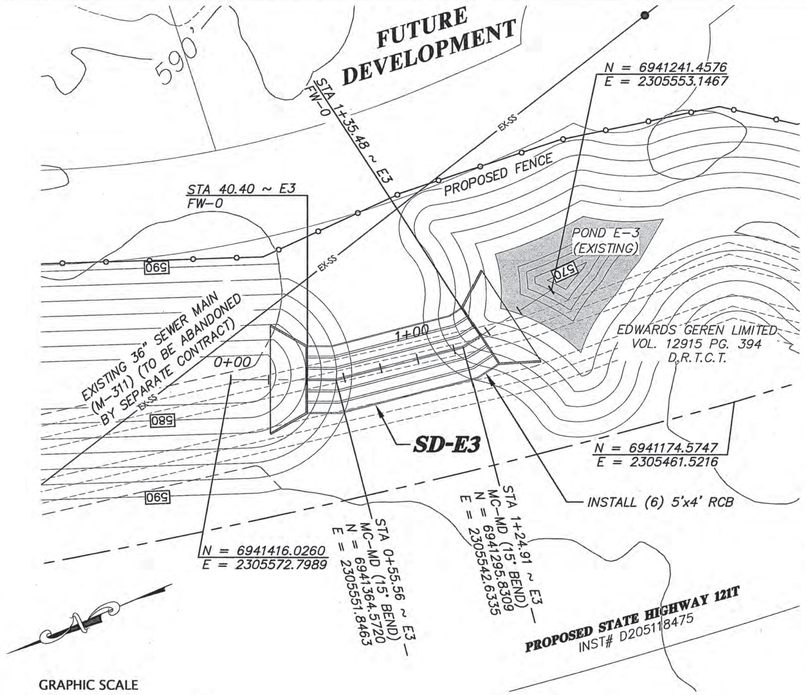
SBC	(800) 246-8464
VERIZON	(800) 624-9675
TXU ELECTRIC DELIVERY	(888) 222-8045
ATMOS GAS COMPANY	(800) 692-4694
CHARTER COMMUNICATIONS	(800) 314-7195
FORT WORTH WATER DEPT.	(817) 392-8240
FORT WORTH WATER DEPT. (EMERGENCY ONLY)	(817) 392-4477
FORT WORTH T & PW	(817) 392-8100



STORM DRAIN E4



GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 inch= 40 ft.

STORM DRAIN E3

REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT BENCHMARKS:

CITY MONUMENT #7578 LOCATED ON THE NORTH CURB LINE OF WEST VICKERY BOULEVARD IN WEST END OF A 10' CURB INLET 533' EAST OF PREVOST STREET 26.7 FEET SOUTHWEST OF AN EXISTING LIGHT POLE AND PLUS OR MINUS 150 FEET SOUTHWEST OF THE DRIVEWAY SERVING PARTY PACKAGE INC.
ELEVATION.....602.83'

EDWARDS RANCH CONTROL POINT #30 "X" CUT IN EXISTING SIDEWALK ALONG NORTHSIDE OF TRINITY RIVER. LOCATED 0.45 MILES WEST OF CONTROL POINT #27, 0.4' NORTH OF THE SOUTH EDGE OF SIDEWALK.
ELEVATION.....594.52'

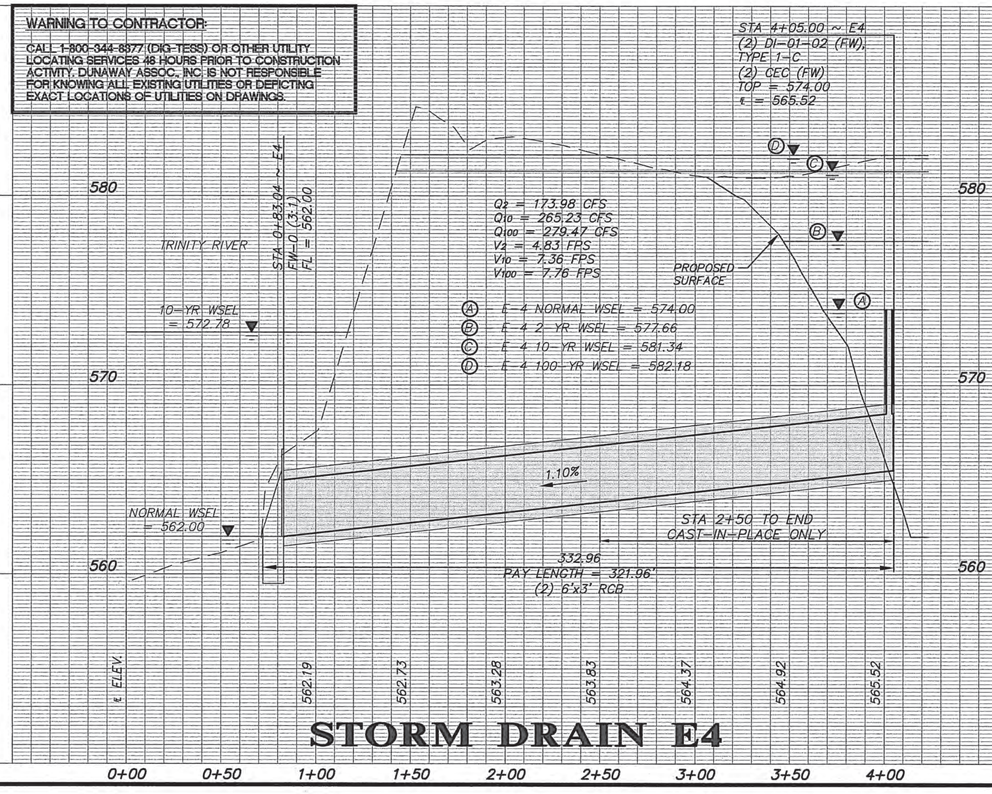
EDWARDS RANCH CONTROL POINT #36 "X" CUT IN EXISTING SIDEWALK ON THE WESTSIDE OF BRYANT IRVIN ROAD 135' NORTH OF THE BRIDGE OVER THE TRINITY RIVER AND 5.5' WEST OF THE FACE OF CURB.
ELEVATION.....601.37'

EDWARDS RANCH CONTROL POINT #42 "X" CUT ON EXISTING CURB INLET AT THE SOUTHEAST CORNER OF THE INTERSECTION OF BRYANT IRVIN ROAD AND BRYAN HENDERSON ROAD, 3.4' SOUTH OF THE FACE OF CURB.
ELEVATION.....609.75'

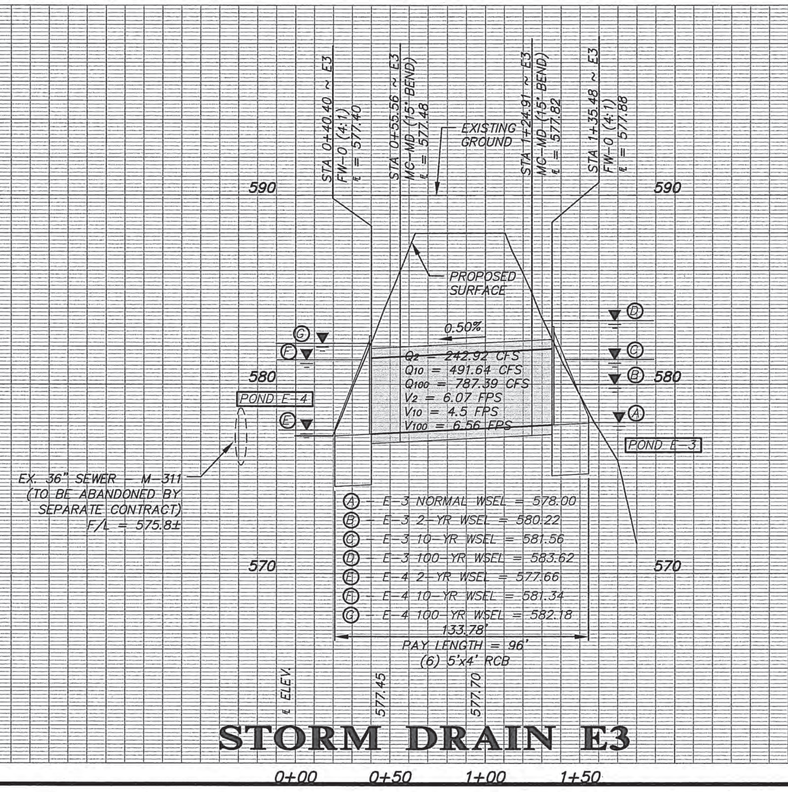
NOTE:
1. CONTROL BASED ON ELECTRONIC DATA PROVIDED BY KIMLEY-HORN AND ASSOCIATES, INC.
2. PROPOSED CONTOURS SHOWN ARE 2' INTERVALS.
3. CONTRACTOR SHALL PATTERN ALL EXPOSED CONCRETE WITH FITZGERALD FORMLINERS PATTERN 16984 (AGED MARYLAND ASHLAR) OR APPROVED EQUAL
4. NO MATERIAL/EQUIPMENT STAGING WILL BE ALLOWED IN THE TARRANT COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT PROPERTY

WARNING TO CONTRACTOR:

CALL 1-800-344-8377 (DIG-TESS) OR OTHER UTILITY LOCATING SERVICES 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY. DUNAWAY ASSOC., INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES OR DEPICTING EXACT LOCATIONS OF UTILITIES ON DRAWINGS.



STORM DRAIN E4



STORM DRAIN E3

PROFILE SCALE
HORIZ: 1" = 40'
VERT: 1" = 4'

7-12-12

STATE OF TEXAS
RICHARD J. SHAHEEN III
98610
LICENSED
PROFESSIONAL ENGINEER

FORT WORTH

DUNAWAY

550 Bailey Avenue • Suite 400 • Fort Worth, Texas 76107
Tel: 817.335.1121 • Fax: 817.335.7437
(TX REG. F-1114)

EDWARDS RANCH RIVERHILLS

STORM DRAIN PLAN & PROFILE - E3 & E4

DESIGNED: RJS		PROJECT NO: DOE #6272	SHEET: 14 OF 36
DRAWN: PEK	DATE: JULY 2012		
CHECKED: RJS			

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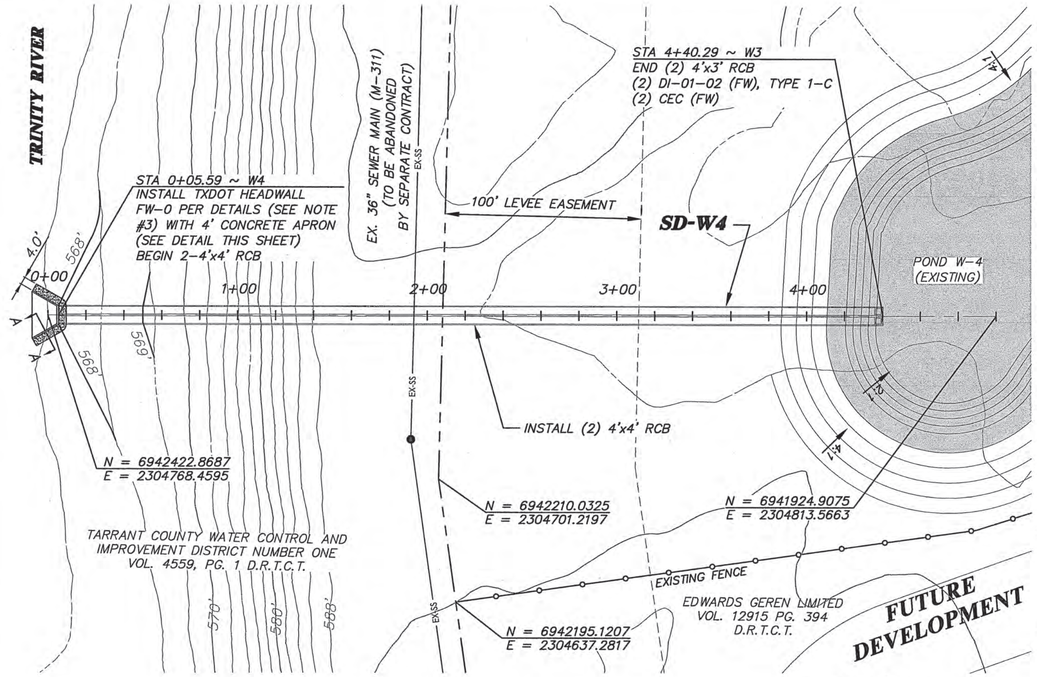
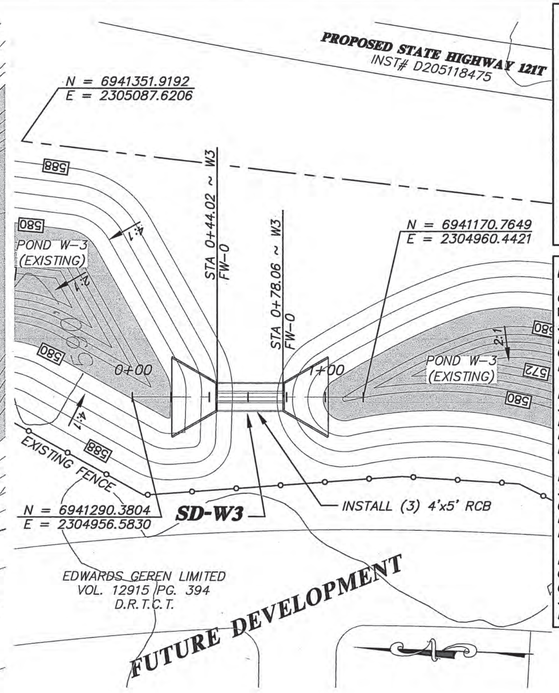
PLOTTED BY: Richard Shaheen
PLOTTED ON: Thursday, July 12, 2012
PLOTTED AT: 07:52:36 AM
PLOTTED WITH: NAN.pc3



STORM DRAIN W4



STORM DRAIN W3

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TXU ELECTRIC DELIVERY	(888) 222-8045
ATMOS GAS COMPANY	(800) 692-4694
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FORT WORTH WATER DEPT.	(817) 392-8240
FORT WORTH WATER DEPT. (EMERGENCY ONLY)	(817) 392-4477
FORT WORTH T & PW	(817) 392-8100

PROJECT BENCHMARKS:

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ELEVATION.....602.83'

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ELEVATION.....609.75'

REVISIONS		
NO.	DATE	DESCRIPTION

WARNING TO CONTRACTOR:

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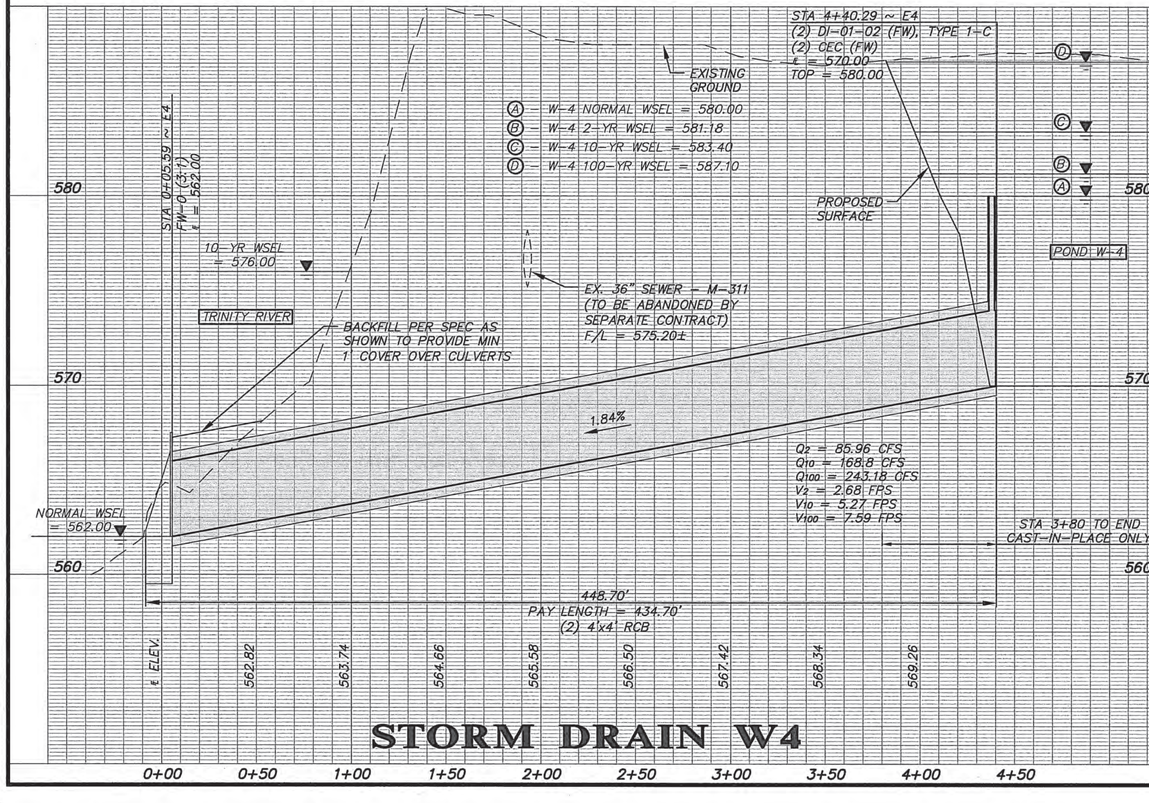
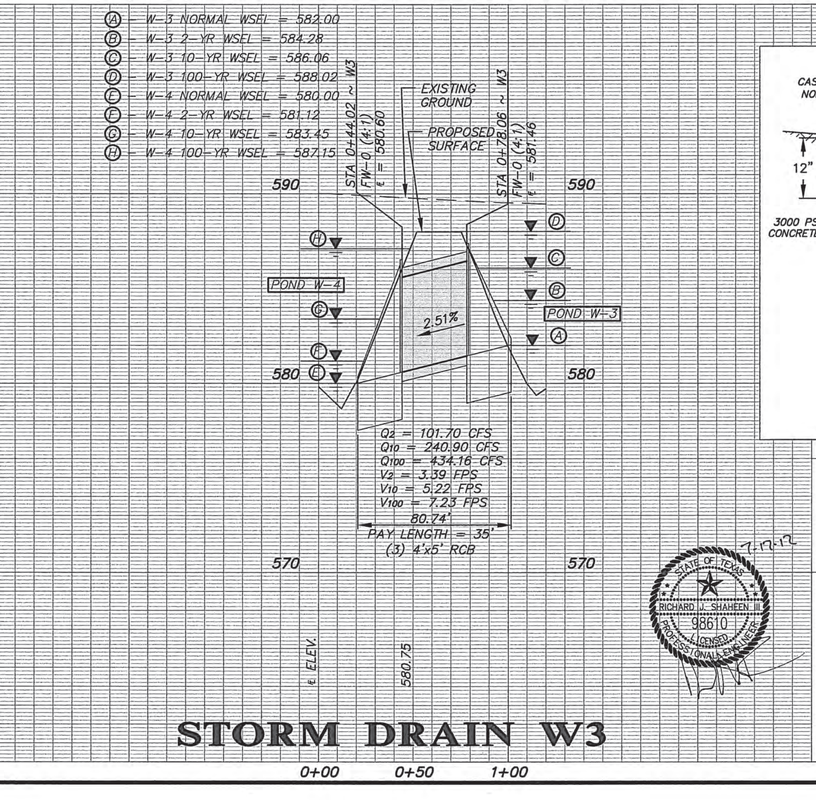
GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 inch= 40 ft.

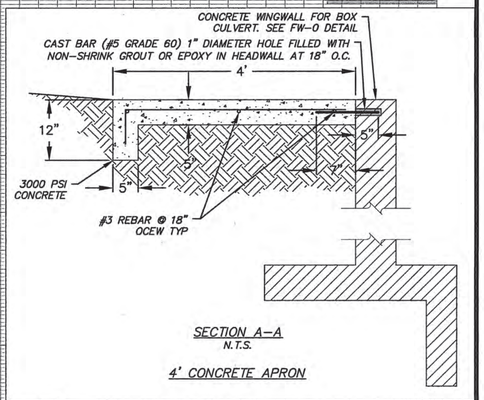


STORM DRAIN W4



STORM DRAIN W3

PROFILE SCALE
HORIZ: 1" = 40
VERT: 1" = 4



SECTION A-A
N.T.S.

4' CONCRETE APRON

STATE OF TEXAS
RICHARD L. SHAHEEN
98610
LICENSED PROFESSIONAL ENGINEER
7.17.12

FORT WORTH

DUNAWAY
550 Bailey Avenue • Suite 400 • Fort Worth, Texas 76107
Tel: 817.335.1121 • Fax: 817.335.7437
(TX REG. F-1114)

EDWARDS RANCH RIVERHILLS

STORM DRAIN PLAN & PROFILE - W3 & W4

DESIGNED:	RJS		PROJECT NO: DOE #6272	SHEET: 16 OF 36
DRAWN:	PEK	DATE: JULY 2012		
CHECKED:	RJS			

FILENAME: 13-16 STORM DRAIN PLAN & PROFILE.dwg
PLOT DATE: Wednesday, July 11, 2012
PLOTTED BY: Kimley-Horn
PLOTTED WITH: AWG To PDF.pc3

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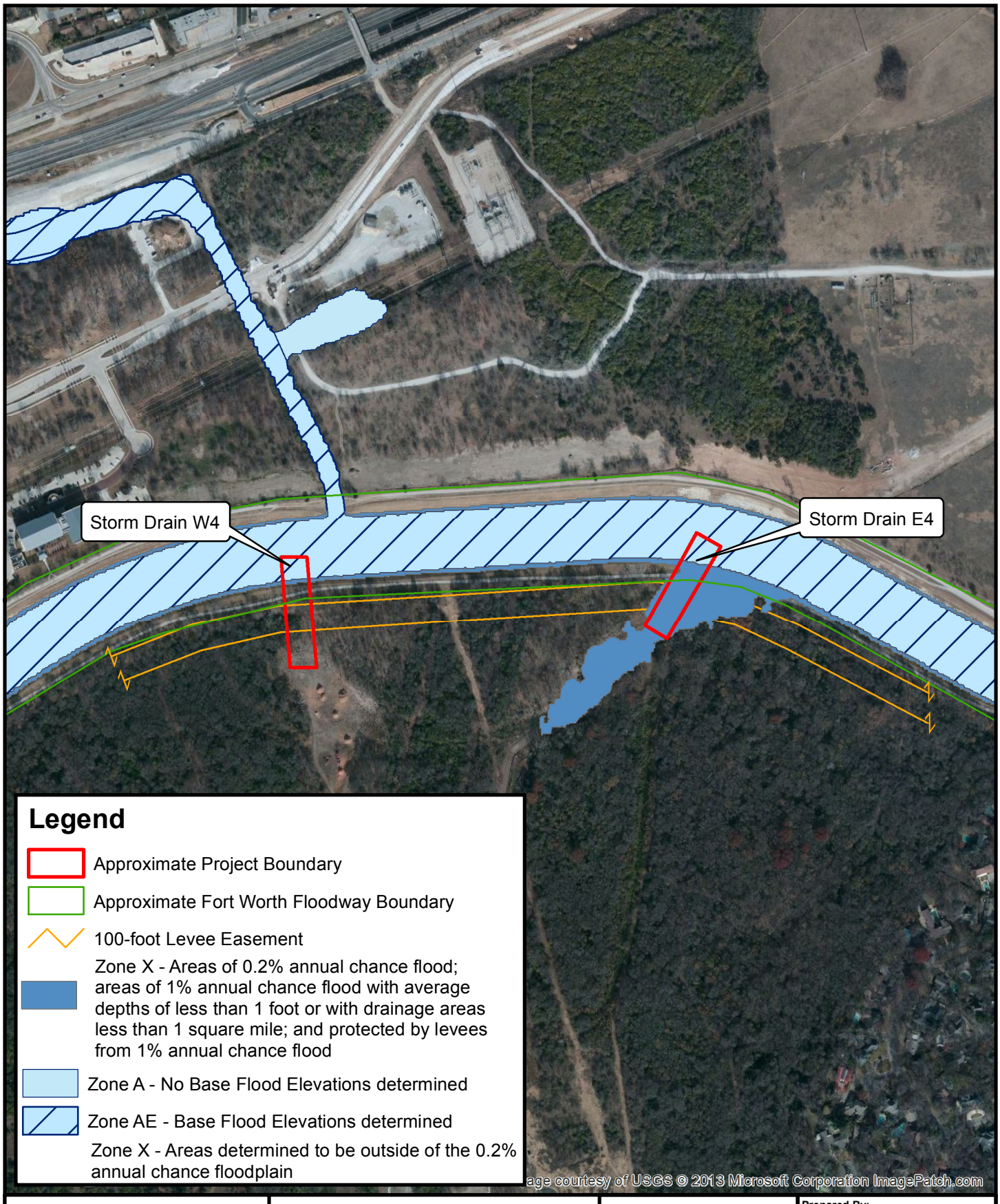


SHEET NO. 6

GRAPHIC SCALE

1 inch = 500 feet

0 500 Feet

Storm Drains E4 and W4

FEMA Exhibit

Fort Worth, Tarrant County, Texas

Prepared By:

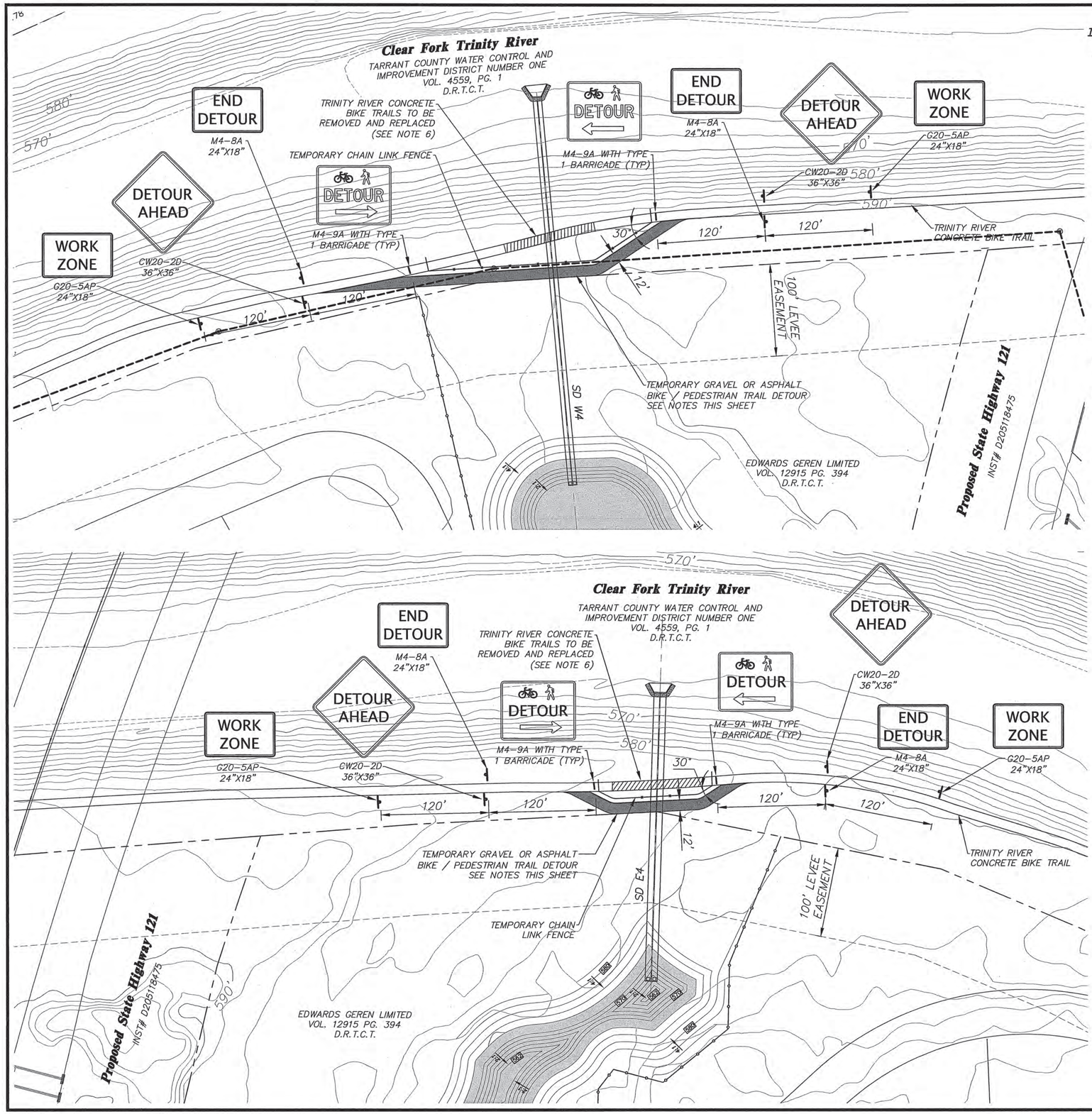
PELOTON LAND SOLUTIONS

5751 KROGER DRIVE, SUITE 185
KELLER, TX 76244,
PHONE: 817-562-3350

Source: (c) 2010 Microsoft Corporation and its data suppliers and FEMA DFIRM Tarrant County.

Date: 2/12/2013

File Path: G:\JOB\TWS13001 – Outfall NEPA Assistance\Env\GIS\MXD\Ex6 FEMA Map.mxd



TRAFFIC CONTROL NOTES:

1) EXISTING TRINITY RIVER BIKE TRAIL AND PEDESTRIAN TRAIL SHALL REMAIN OPEN AT ALL TIMES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE SAFE, CONTINUOUS PASSAGE FOR CYCLISTS AND PEDESTRIANS ALONG THE TRAIL. CONTRACTOR SHALL USE FENCING OR OTHER NECESSARY BARRICADES TO ENSURE PUBLIC SAFETY IS NOT COMPROMISED. NO TEMPORARY OR PERMANENT CLOSURES OF THE TRAIL WILL BE ALLOWED.

2) TRAFFIC CONTROL SIGNAGE SHALL BE ERECTED A MINIMUM OF 1 WEEK PRIOR TO CONSTRUCTION IN THE TARRANT REGIONAL WATER DISTRICT PROPERTY AND NOT MORE THAN 3 WEEKS PRIOR.

3) IF, DEPENDING ON CONTRACTORS SPECIFIC CONSTRUCTION SEQUENCE, THIS DETOUR STILL CONFLICTS WITH CONSTRUCTION ACTIVITIES, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A SIGNED SEALED DRAWING OF PEDESTRIAN DETOUR THAT MEETS CURRENT ADA STANDARDS. THE CONTRACTOR MUST RECEIVE APPROVAL FROM THE ENGINEER BEFORE DETOURING PEDESTRIANS. ANY ADDITIONAL COST FOR ALTERNATE DETOUR ALIGNMENTS WILL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS.

4) TEMPORARY TRAIL DETOURS TO BE COMPACTED 3/8" MINUS FLEX BASE OR ASPHALT AND SHALL BE LOCATED COMPLETELY WITHIN THE PROPERTY OF THE TARRANT REGIONAL WATER CONTROL DISTRICT. TEMPORARY TRAIL MUST MEET CURRENT ADA STANDARDS.

5) GRAVEL PEDESTRIAN TRAIL SHALL BE REPLACED TO EQUAL OR BETTER CONDITIONS FOLLOWING CONSTRUCTION.

6) REPLACE CONCRETE TRAIL AFTER CONSTRUCTION
   - 6)1) REPLACE USING A MINIMUM 6" THICK 3000 PSI CONCRETE WITH 1' PERIMETER BEAMS REINFORCED WITH #4 REBAR TIED 100% ON 1' CENTERS BOTH WAYS.
   - 6)2) REBAR SHALL BE INSTALLED ON PLASTIC CHAIRS
   - 6)3) SURFACE OF TRAIL SHALL BE FINISHED WITH A UNIFORM MEDIUM-BROOM FINISH.
   - 6)4) TRAIL MUST BE 8' MINIMUM WIDTH AND NO SMALLER THAN THE EXISTING TRAIL.

7) TEMPORARY PEDESTRIAN TRAIL AND CHAIN LINK FENCE TO BE REMOVED AFTER CONSTRUCTION OF PERMANENT CONCRETE BIKE TRAIL. DISTURBED AREA SHALL BE RE-GRADED TO CONDITION EQUAL TO OR BETTER THAN ORIGINAL. PROVIDE SEEDING AND OR SOD TO INSURE GROUND COVER.

REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT BENCHMARKS:

CITY MONUMENT #7578 LOCATED ON THE NORTH CURB LINE OF WEST VICKERY BOULEVARD IN WEST END OF A 10' CURB INLET 533' EAST OF PREVOST STREET 26.7 FEET SOUTHWEST OF AN EXISTING LIGHT POLE AND PLUS OR MINUS 150 FEET SOUTHWEST OF THE DRIVEWAY SERVING PARTY PACKAGE INC.
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FORT WORTH WATER DEPT.	(817) 392-4477
FORT WORTH TPW	(817) 392-8100
TEXAS 811 (LOCATING SERVICE)	811
CHARTER COMMUNICATIONS	(888) 438-2427
MCI (OWNER OF WESTERN UNION LINES)	(800) 624-9675
AT&T	(817) 338-6202
VERIZON	(800) 483-1000
ATMOS ENERGY	(800) 817-8090
ONCOR ELECTRIC DELIVERY	(888) 215-6688

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GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 inch= 60 ft.

STATE OF TEXAS
RICHARD J. SHAHEEN III
98610
LICENSED PROFESSIONAL ENGINEER
7-12-12

FORT WORTH

DUNAWAY
550 Bailey Avenue • Suite 400 • Fort Worth, Texas 76107
Tel: 817.335.1121 • Fax: 817.335.7437
(TX REG. F-1114)

EDWARDS RANCH RIVERHILLS

TRAFFIC CONTROL PLAN

DESIGNED: RJS		PROJECT NO: DOE #6272	SHEET: 17 OF 36
DRAWN: PEK	DATE: JULY 2012		
CHECKED: RJS			

PLOTTED ON: Wednesday, July 11, 2012
PLOTTED BY: Richard Shaheen
PLOTTED WITH: DWG To PDF.pc3

APPENDIX B

CULTURAL RESOURCES REPORT

AJC ENVIRONMENTAL LLC

1752 NORTHVIEW, CARROLLTON, TX 75007 • 214.731.9956

AN ARCHEOLOGICAL SURVEY OF

PROPOSED DRAINAGE PIPES E4 AND W4,

ON THE CLEAR FORK OF THE TRINITY RIVER,

TARRANT COUNTY, TEXAS

Jesse Todd, MS, MA
Principal Investigator

Submitted to:

PELOTON LAND SOLUTIONS
5751 Kroger Drive, Suite 185
Keller, Texas 76244

Submitted by:

AJC ENVIRONMENAL, LLC
1752 Northview
Carrollton, Texas 75007

Cultural Resources Report 2013-01
January 21, 2013

ABSTRACT

Trinity Works, a private company, intends to construct two drainage pipes (W4 and E4) from existing ponds so that water may drain into the Clear Fork of the Trinity River in Fort Worth which is located in Tarrant County, Texas. Since the proposed drainage pipes will cross a Tarrant Regional Water District levee easement, the project is subject to Section 408 review, which triggered the need for a Supplemental Programmatic Environmental Assessment. The Fort Worth District of the U. S. Army Corps of Engineers is the review agency for the project, and, after a project review, requested Trinity Works to have an intensive pedestrian archeological survey conducted on the portions of the proposed pipeline routes south of an existing pedestrian trail. The drainage pipes will be located east of Bryant Irvin Road North.

Peloton Land Solutions, which is acting as the environmental agent for Trinity Works, contracted with AJC Environmental, LLC. to conduct an intensive pedestrian archeological survey of the drainage pipes south of the existing trail. The Archeology Division of the Texas Historical Commission will act as the Section 106 Agency.

Based upon the absence of cultural materials on the ground surface and the lack of buried cultural materials in six shovel tests that averaged approximately 66 centimeters below the ground surface, AJC Environmental recommends that further cultural resource investigations are unwarranted and that Trinity Works be allowed to construct the drainage pipes E4 and W4. However, if cultural materials are encountered during the construction, work should stop in that area and the Fort Worth District of the US Army Corps of Engineers should be notified. Work should not continue until the proper investigations have been carried out after consultation with the Corps of Engineers.

MANAGEMENT SUMMARY

Sponsor:	Peloton Land Solutions which is conducting the environmental permitting for Trinity Works.
Project Location:	The center of the two drain pipes is approximately 2,940 feet south of West Vickery Boulevard and about 2,640 feet east of Bryan Irvin Road North.
Review Agency:	The U. S Army Corps of Engineers, Fort Worth District and the Archeology Division of the Texas Historical Commission
Principal Investigator:	Jesse Todd, MS, MA
Field Crew:	Brett Lang and Jesse Todd
Fieldwork Date(s):	January 20, 2013
Acres Surveyed:	Approximately 0.46
Sites Recorded:	None
Curation Facility:	No artifacts collected

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CHAPTER 1. INTRODUCTION

Trinity Works, a private company, intends to construct two drainage pipes (W4 and E4) from existing ponds so that water may drain into the Clear Fork of the Trinity River in Fort Worth which is located in Tarrant County, Texas. Since the proposed drainage pipes will cross a Tarrant Regional Water District levee easement, the project is subject to Section 408 review, which triggered the need for a Supplemental Programmatic Environmental Assessment. The Fort Worth District of the U. S. Army Corps of Engineers is the review agency for the project, and, after a project review, requested Trinity Works to have an intensive pedestrian archeological survey conducted on the portions of the proposed pipeline routes south of an existing pedestrian trail. Other relevant federal legislation includes the National Historic Preservation Act of 1966, as amended (PL-96-515), the National Environmental Policy Act of 1969 (PL-90-190), and the Archeological and Historical Preservation Act of 1974, as amended (PL-93-291). The Archeology Division of the Texas Historical Commission will act as the Section 106 Review Agency. Drainage pipe W4 will be located approximately 2,180 feet south of West Vickery Boulevard and about 1,360 feet east of Bryant Irvin Road North while Drainage pipe E4 will be placed approximately 2,800 feet south of West Vickery Boulevard and about 3,920 feet west of Bryant Irvin Road North (Figure 1).

Peloton Land Solutions, which is acting as the environmental agent for Trinity Works, contracted with AJC Environmental, LLC. to conduct an intensive pedestrian archeological survey of the drainage pipes south of the existing trail. The purpose of the survey was to determine if cultural materials were present, and, if so, make recommendations about their significance as well as to determine how the cultural materials might be affected by construction.

The following report contains a brief description of the natural environment and then a summary of the cultural history of eastern North Central Texas which includes Tarrant County. This is followed by the research design and the methodology. The description of the results of the field investigation constitutes the major part of the report. The last chapter presents recommendations that arise from the study. A list of references cited concludes the report.

CHAPTER 2. NATURAL ENVIRONMENT

Tarrant County is located in North Central Texas and contains gently sloping to level terrain. The Clear Fork and the West Fork of the Trinity River drains the western half of the county while smaller tributaries drain the eastern half. Four econiches are found in the count and going from east to west, they are the Blackland Prairie which is located in the southeastern portion of the county. The prairie consists of rolling grassland with rich clayey and loamy soils. The Eastern Cross Timbers is made up of deep loamy soil that supports blackjack oak and post oak while the Grand Prairie has shallow, clayey soils and alternating layers of limestone and marl. The Western Cross Timbers has very shallow to deep loamy and clayey soils that support shinnery oak and post oak. Trees such as American elm, pecan, and box elder are found throughout most of the county along rivers and creeks. Exposed rock formations in the area are almost exclusively of the Cretaceous period (Kelton 2010:1)

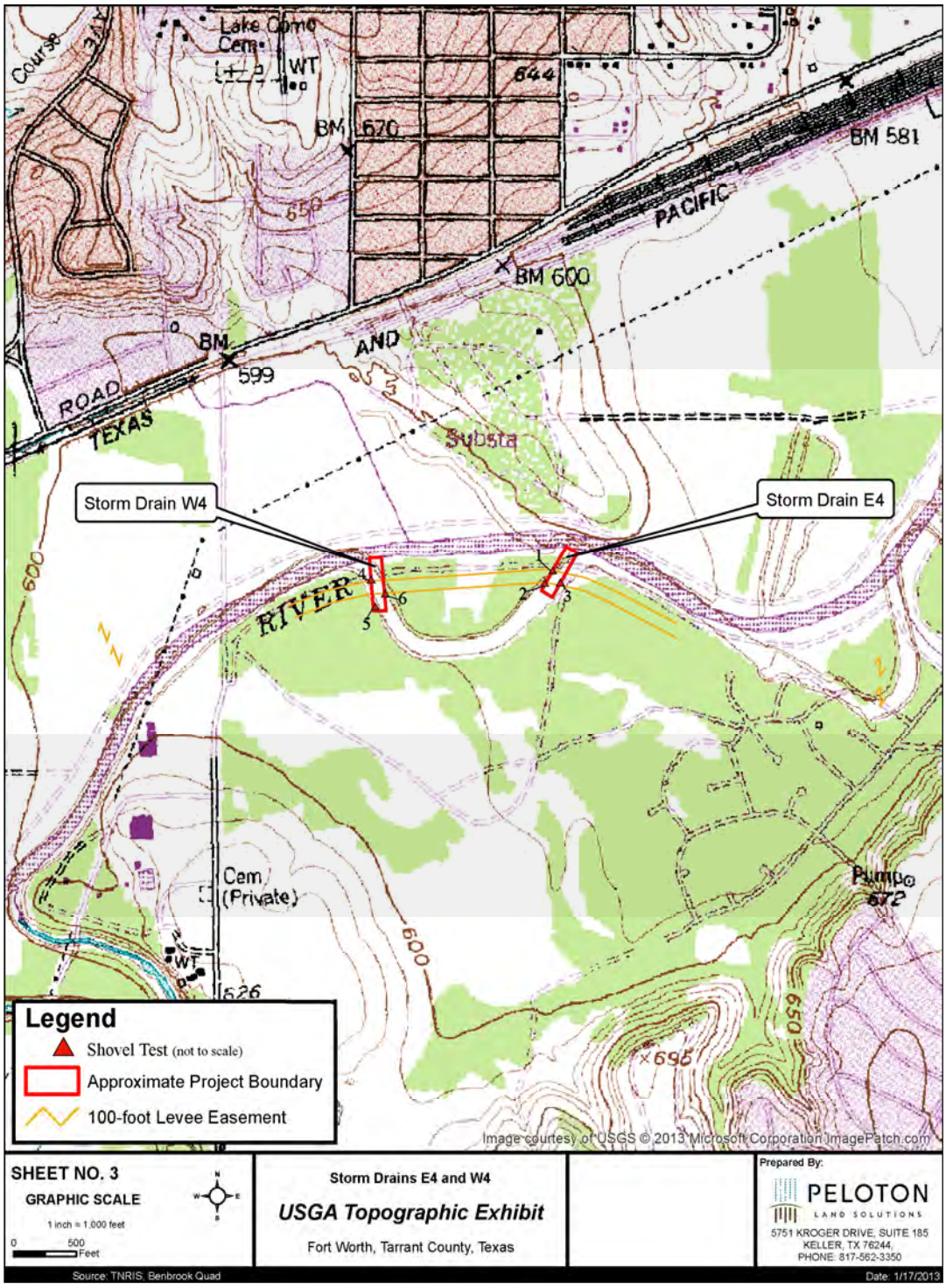

Figure 1. Locations of the proposed drainage pipes W4 and E4 and the shovel tests plotted on a portion of the Benbrook, Texas 7.5-minute U.S.G.S. quadrangle. Map provided by Peloton Land Solutions.

The study area lies within the northern portion of the Gulf Coastal Plain and the Texan biotic province. Forty-nine species of mammals occur in the Texan province, including deer, raccoon, rabbits and opossum. Both species of terrapins (*Terrapene ornata* and *Terrapene carolina*) occur, as well as nine species of lizards. In addition, thirty-nine types of snakes occur, as well as thirteen species of anuran fauna (Blair 1950:101-102).

The major aquifers in the county are the Trinity Outcrop and Subcrop while the minor aquifers are the Woodbine Outcrop and Subcrop (Texas Water Development Board 2010). The nearest water resource is the Clear Fork of the Trinity River which the proposed drainage pipes are adjacent to and south of.

According to Ressel (1981:General Soils Map), the study area lies within the Frio-Trinity soil association which consists of nearly level floodplain clays. The specific soil in which the study area lies is the occasionally flooded Frio silty clay (Ressel 1981:Sheet 41). The B horizon for the Frio series is listed as being 34 inches (~86 centimeters) below the ground surface (Ressel 1981:91). The study area is within the Quaternary alluvium/terrace deposits (Bureau of Economic Geology 1972).

CHAPTER 3. CULTURAL HISTORY

Numerous archeological surveys have been conducted in Tarrant County, but few excavations have been conducted in the county (Texas Archeological Sites Atlas 2010). Most of the prehistoric archeological sites are located along the West Fork of the Trinity River and major drainages such as Rush Creek. Prehistoric sites along the West Fork usually are buried.

The following chronology for eastern North Central Texas and Tarrant County has been taken from Prikryl (1990:62). The Historic Native American and Historic Anglo-American periods have been added (Table 1). The general discussion of the prehistory of North Central Texas has been taken from Prikryl (1990) and Lintz and others (2008:15-19).

Table 1. General chronology for Eastern North Central Texas and Tarrant County.

Historic Anglo-American	A.D. 1840 to the present
Historic Native American	A.D. 1700 to1850
Late Prehistoric	A.D. 700 to 1700
Late Prehistoric II	A.D. 1200 to 1700
Late Prehistoric I	A.D. 700 to 1200
Archaic	6,000 B.C. to A.D. 700
Late	1500 B.C. to A.D. 700
Middle	4000 to 1500 B.C.
Early	6000 to 4000 B.C.
Paleoindian	prior to 6,000 B.C.

Paleoindian

Although Prikryl (1990:49) mentions that Paleoindian points have been found in Tarrant County, neither Prewitt (1995) or Belver and Meltzer (2007) list any points from the county. Excavated Paleoindian sites are scarce in North Central Texas with only four having been tested/excavated. The Lewisville Lake site (41DN72) (Crook and Harris

1957, 1958) and the Aubrey Clovis site (41DN479) (Ferring 2001) are in Denton County, the Dickie Carr site (41PR26) (Byers 2007) is in Parker County and the Brushy Creek site (41HU74) (Crook, Hughston and McGraw 2009) is in Hunt County. Bever and Meltzer (2007:76) believe that one reason that the presence of Paleoindian sites is not abundant in North Central Texas is due to their being deeply buried and only sporadically available to researchers. Spear points from Paleoindian sites include Clovis, Folsom, Midland, San Patrice and Scottsbluff. The Paleoindian people have been viewed as big game hunters but this view is changing based upon the fauna recovered from the excavated sites (Johnson 1977; Ferring 2001). It appears that the Paleoindian inhabitants of North Central Texas were nomadic and either directly acquired or traded for exotic materials from which they made their tools. The climate began to become dryer and warmer near the end of the Pleistocene.

Archaic

During the Early Archaic, it appears that the aboriginal inhabitants were mobile, with poorly defined territories and a generalized hunting-and-gathering economy. Although, there is no evidence to support it, it has been hypothesized that bottomland forests were being more exploited than during Paleoindian times. Sites appear to have been on terraces. An emphasis on hunting changed from the Paleoindian times and probably focused upon deer because spear points were replaced by dart points. Early Split-stemmed and possibly Angostura points are associated with the Early Archaic. The climate trend continued from the Late Pleistocene.

Fewer sites have been recorded in North Central Texas during the Middle Archaic than the Early Archaic. Cultural differences may have appeared at the end of the Middle Archaic based upon the dart point types such as Calf Creek, Wells, Dawson, Carrollton, and Bulverde. Sites on terraces above stream floodplains appear to have been preferred. The period appears to have been dryer and warmer than before.

There was a population boom during the Late Archaic because more sites than any other time are found. The generalized hunting-and-gathering life way continued but probably territories were present based upon the use of local lithic materials instead of exotic materials. Sites are found adjacent to first order drainages as well as first and second order tributaries, especially at the confluence of the drainages. Wetter conditions prevailed and probably floral resources such as mast were exploited. Burials are found during this period. Dart point types include Godley, Ellis, Elam, Edgewood and Yarborough.

Late Prehistoric

The Late Prehistoric period in North Central Texas is marked by the presence of arrow points and pottery. The period is divided into the Late Prehistoric I and II periods. The hunting-and-gathering life ways found in the Late Archaic still continued to the end of the Late Prehistoric and sites probably were seasonally and temporarily occupied. The Late Prehistoric I period is characterized by the presence of sand- and grog-tempered ceramics and by Scallorn, Steiner, Catahoula, and Alba arrow points. Ceramics probably were trade items from the Caddos to the east. Burials appear to be more abundant during this time and indications of fishing are found in some of the sites. During this time,

remains of what appear to be houses have been found in various areas of North Central Texas but none in Tarrant County. The closest residential site to the study area is the Cobb-Pool site (41DL148) at Joe Pool Lake (Peter and McGregor 1988). Possibly three house structures were found at the site as well as maize cupules although it appears that the maize was not relied on as the primary vegetable subsistence resource. A variety of lithic tools, faunal and floral species, ceramics, burned-rock features and other features also were found at the site.

During the Late Prehistoric II times, site occupations also appear to be short term in nature without any architectural features. Sites appear to be along stream terraces where some form of horticulture may have been practiced although wild plant resources appear to have been used. Bison was hunted opportunistically. Chert materials appear to have been imported through long-distance trade. Southern Plains influence is shown by the presence of the shell-tempered Nocona Plain and unstemmed triangular points such as Maud, Fresno, Harrel and Washita points. Perdiz points also make their appearance. Based upon sherds recovered from sites, especially in the eastern portion of North Central Texas, some trade continued with the Caddo to the east.

Historic Native American

Historic Native American nations that probably occupied Tarrant County were the Tonkawas and the Hasinai Caddos, but by the late 1700s, the Comanches, Kiowas, and Wichitas had also moved into the region. These nations were removed by the late 1870s by early American settlers (Hightower 2010:1)

Historic Anglo-American

The most noted fort in the area was Fort Bird which was constructed near Village Creek in 1841. The fort was abandoned due to a possible Comanche attack but was reoccupied by 1843. After a treaty was signed with the Native Americans, immigrants from Tennessee, Virginia, and Kentucky settled in the region. Tarrant County was formed by Texas Congress in August of 1850. Slaves made up a small portion of the county's population and various opinions were expressed about secession from the United States. However, Texas seceded from the Union which brought about economic decline. After the Civil War, Tarrant County began to prosper with cattle ranching and the appearance of railroads, but by the 1920s, farms producing such crops as cotton, corn and wheat appeared. Also during the 1920s, the petroleum industry (mainly oil refineries) sprang up in the county (Hightower 2010:1-3).

During World War I, several training camps were established in the county, including three airfields, Hicks, Benbrook and Barron (Hightower 2010:3). One of the concrete airplanes used for target practice at Hicks Field was discovered by AR Consultants, Inc. (Skinner 2002) and preserved by the land owner. During the 1920s, more than 250 commercial businesses were established. The Great Depression affected Tarrant County and the economy did not recover until the 1940s when World War II occurred and war related industries were established. After the war, the aviation industry aided the growth of the county with the establishment of companies such as General Dynamics and Bell Helicopter. In addition, the Strategic Air Command operated out of Carswell Air Force Base from the 1940s into the 1980s. Today, the county continues to grow with an

economy based upon various industries, farming, ranching, the petroleum industry and other economic activities (Hightower 2010:3-5).

Previous Investigations

According to the Texas Archeological Sites Atlas (2013), site 41TR65 is located downstream from the study area. The site consists of thermally altered rock, the site is buried about 2 feet below the ground surface. The Texas Department of Transportation intended to construct SH 121 which would have went between both the drainage pipe locations. During the archeological survey, site 41TR170 was located just south of the study area (Siebel et al. 2000; Lintz et al. 2008). The site contains mussel shell, bone, lithic tools, lithic flakes and burned rock features. The site is Late Archaic in age and ranged from 84 to 204 centimeters below the ground surface. The site was deemed ineligible for nomination to the National Registry of Historic Places or as a State Archeological Landmark.

CHAPTER 4. RESEARCH DESIGN AND METHODOLOGY

Research Design

No historic archeological sites were expected to be present since no mapped historic residences were present and the study area is in a floodplain; therefore, the presence of a historic site is unlikely due to seasonal flooding. Based upon the presence of sites 41TR65 and 41TR170, there is the potential to uncover a buried prehistoric site.

Methodology

Where possible, the archeologists walked transects that were oriented either north-south or northeast-southwest and spaced approximately 15 meters apart. The investigated portions of the proposed drainage pipe locations consisted of approximately 100 feet (~33 meters) by 100 feet (~33 meters). The total acreage for both drainage pipes that is to be surveyed is approximately 0.46 acres. Three shovel tests are recommended per acre by the Council of Texas Archeologists (2013), and this number has been accepted by the Texas Historical Commission. The drainage pipe ditches are to be excavated from 10 feet (~3.2 meters) to 12 feet (~3.85 meters) below the ground surface. Even though site 41TR170 extends to 204 centimeters below the ground surface, subsurface testing should encounter a buried site if one is present due to the fact that the auger test depth is greater than the upper level of either sites 41TR65 and 41TR170.

Shovel tests were excavated to approximately 150 centimeters below the ground surface so that the B horizon of the Frio silty clay could be encountered. The depth is a result of the shovel tests being supplemented by augering. The silty clay matrices were not screened but were broken manually and visibly examined for cultural materials as were the shovel test pit walls. Shovel test locations were located using a hand-held Garmin GPS unit. Notes on the terrain, soil types, vegetation, ground visibility and other relevant data were made and photographs were taken. Deep testing was not done due to the shallow depth to the B horizon which is listed as being 34 inches (~86 centimeters) below the ground surface.

CHAPTER 5. THE SURVEY AND RESULTS

In this portion of the report, the archeological survey of the two drainage pipe areas is discussed. Shovel tests are described generally in the text, but specific information is listed in Table 2. Shovel test locations are plotted on Figure 1. Both locations were staked and easy to find.

Drainage Pipe E4

The terrain within the Drainage pipe E4 area ranges from generally level to a ridge that stands approximately 1.5 to 1.67 meters about the surrounding area. Trees in the area consist of hackberry, bur oak and bois d'arc. Understory vegetation includes bermuda grass, grama grasses, an unidentified species of berry bush, saw greenbriar and other miscellaneous perennials (Figure 2). Ground visibility was less than 10 percent and eye-height visibility was excellent.

Shovel test 1 was excavated at the fence line south of the stake for Drainage pipe E4. The shovel test uncovered three culturally sterile soils before being terminated. A fine sandy loam was sandwiched between two silty clay layers. The silty clays fall within the description of the Frio series, but not the sandy loam. Shovel test 2 was excavated approximately 33 meters southwest of Shovel test 1 upon the knoll. Four culturally sterile soil layers were encountered. The two silty clays from 0 to 80 centimeters below the ground surface fall within the description for the Frio series. The third silty clay that ranged from 80 to 90 centimeters is similar to the description of the B horizon for the Frio series (Ressel 1981:91). The fourth soil layer was the same fine sandy loam encountered in Shovel test 1. Interestingly, even though Shovel test 2 was located on a ridge, the fine sandy loam is located stratigraphically only about 10 centimeters lower than Shovel test 1. It also appears the B horizon for the Frio series is absent in Shovel test 1 and probably truncated/shortened in Shovel test 2. Shovel test 3 was placed along the southeastern boundary and about midway (16.7 meters) from the northeast and southeast corners of the drainage pipe area boundary. The shovel test was excavated adjacent to the abandoned channel of the Clear Fork of the Trinity River and off the ridge (Figure 3). Fill was encountered from the surface to about 50 centimeters below the ground surface when the auger would not turn due to the amount of limestone gravel/cobbles.

Drainage Pipe W4

The terrain in the area of Drainage pipe W4 is generally level. The description of the vegetation (Figure 4), ground visibility and eye-height level are the same as previously described for the Drainage pipe E4 area. The exception is that limestone gravel/cobbles were on the ground surface and chinaberry trees were present. The three shovel tests (4 through 6) were excavated in a pattern similar to those in Drainage pipe E4. All encountered fill. Shovel tests 4 and 6 encountered the fill on the ground surface. So much rock was present in Shovel test 6 that it had to be terminated at a shallow depth (20 centimeters) below the ground surface. Interestingly, and unexplained, 40 centimeters of silty clay overlaid the fill material in Shovel test 5.

Figure 2. Vegetation within the Drainage Pipe E4 area. View is to the southwest.

Figure 3. View from top of ridge to Shovel test 3 being excavated by Mr. Brett Lang. View is to the east.

Figure 4. Vegetation with the Drainage Pipe W4 area. View is to the south.

Table 2. Shovel test descriptions.

ST No.	Depth (cm)	Description*	Results
1	0-12 12-83 83-160	Grayish-brown (10YR5/2) silty clay Pale brown (10YR6/3) fine sandy loam Dark grayish-brown (10YR4/2) silty clay	Negative
2	0-20 20-80 80-90 90-174	Dark brown (7.5YR3/2) silty clay Grayish-brown silty clay **Brown (10YR5/3) silty clay** Pale brown fine sandy loam	Negative
3	0-55	Fill, clay and limestone gravel; auger would not turn at 55 cm.	Negative
4	0-50	Fill, clay and limestone gravel; auger would not turn at 50 cm	Negative
5	0-40 40-55	Very dark gray (7.5YR3/2) silty clay Fill, clay and limestone gravel; auger would not turn at 55 cm	Negative
6	0-20	Fill, clay and limestone gravel; auger would not turn at 20 cm	Negative

*** Note: Munsell color numbers are presented only the first time that they occur in the table. Bolded descriptions indicate either C horizon, B horizon or bedrock.**

CHAPTER 6. CONCLUSIONS AND RECOMMENDATIONS

Six shovel tests were excavated in the testing of Drainage pipes E4 and W4 areas. Of the six, two (Shovel tests 1 and 2) encountered native soils. The shovel tests were excavated to 160 and 174 centimeters below the ground surface, respectively. If a prehistoric site was present, it probably would have been encountered during augering

Since the nearby site 41TR170 only ranged from 84 to 204 centimeters below the ground surface.

Based upon the absence of cultural materials on the ground surface and the lack of cultural materials in the six shovel tests, AJC Environmental, LLC. recommends that further cultural resource investigations are unwarranted and that Trinity Works be allowed to construct Drainage pipes E4 and W4. However, if cultural materials are encountered during the construction, work should stop in that area and the Fort Worth District of the US Army Corps of Engineers should be notified. Work should not continue until the proper investigations have been carried out after consultation with the Corps of Engineers.

REFERENCES CITED

Bever, Michael R. and David J. Meltzer
2007 Exploring Variation in Paleoindian Life Ways: The Third Revised Edition of the Texas Clovis Fluted Point Survey. *Bulletin of the Texas Archeological Society* 78:65-99.

Bureau of Economic Geology
1972 *Geologic Atlas of Texas, Dallas Sheet.* The University of Texas at Austin.

Byers, Johnny A.
2007 The Geologic and Archaeological History of the Dickie Carr Site 41PR26. Unpublished Master's Thesis, Department of Geography, University of North Texas, Denton.

Crook, Wilson W., Jr. and R. King Harris
1957 Hearths and Artifacts of Early Man near Lewisville, Texas and Associated Faunal Material. *Bulletin of the Texas Archeological Society* 28:7-79.
1958 A Pleistocene Campsite near Lewisville, Texas. *American Antiquity* 23(3):233-246.

Crook, Wilson W., III, Mark D. Hughston and John L. McGraw, Jr.
2009 The Brushy Creek Clovis Site (41HU74): An Early Paleoindian Occupation in Hunt County, Texas. *The Record*, published by the Dallas Archeological Society, 56(1):1-18.

Ferring, C. Reid, Editor
2001 *The Archaeology and Paleoecology of the Aubrey Clovis Site (41DN479), Denton County, Texas*. Center for Environmental Archeology, Department of Geography, North Texas State University, Denton.

Hightower, W. Kellon
2010 *Handbook of Texas Online*, s.v. "Tarrant County." Texas State Historical Association internet site. Electronic domument, http://www.tshaonline.org/handbook/online/articles/TT/hct1.html (Accessed February 9, 2010).

Johnson, Eileen
1977 Animal Food Resources of Paleoindian Indians. *The Museum Journal* 17:65-77.

Lintz, Christopher, Stephen A. Hall, Timothy O. Baugh and Tiffany Osburn
2008 *Archeological Testing at 41TR170, Along the Clear Fork of the Trinity River, Tarrant County, Texas*. Miscellaneous Reports of Investigations Number 348, Geo-Marine, Inc., Plano, Texas.

Peter, Duane E. and Daniel E. McGregor, Editors
1988 *Late Holocene Prehistory of the Mountain Creek Drainage*. Joe Pool Lake Archaeological Project, Vol. I, Archaeology Research Program, Southern Methodist University, Dallas, Texas.

Prewitt, Elton R.
1995 Distributions of Typed Projectile Points in Texas. *Bulletin of the Texas Archeological Society* 66:83–174.

Prikryl, Daniel J.
1990 *Lower Elm Fork Prehistory: A Redefinition of the Cultural Concepts and Chronologies along the Trinity River, North-Central Texas.* Research Report 37, Office of the State Archeologist, Texas Historical Commission, Austin.

Ressel, Dennis D.
1981 *Soil Survey of Tarrant County, Texas*. Soil Conservation Service, U. S. Department of Agriculture in cooperation with the Texas Agricultural Experiment Station.

Siebel, S. J. W. Karbula and R. Feit
2000 *Archaeological Investigations along the Clear Fork of the Trinity River: Intensive Survey of SH 121 Project, Tarrant County, Texas*. Archaeology Series No. 74, Hicks and Company, Inc., Austin, Texas.

Skinner, S. Alan
1988 Where Did All the Indians Go? *The Record*, 50th Anniversary Edition, 42(3):101-104.
2002 *Archaeological Survey at Chapel Hill Tarrant County, Texas*. Cultural Resources Report 2002-5, AR Consultants, Inc., Dallas, Texas.

Texas Archeological Sites Atlas
2013 Search for recorded sites listed on the Benbrook, Texas 7.5-minute USGS quadrangle. Texas Historical Commission internet site. Electronic document. (Accessed January, 18, 2013.) http://nueces.thc.state.tx.us

Texas Water Development Board
2010 Major and Minor Aquifers of Texas. Electronic document. Accessed February 11, 2010. http://www,twdb.state.tx.us/mapping/maps/pdf/aqu_maj_8x11.pdf.

APPENDIX C

AGENCY COORDINATION LETTERS

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

March 13, 2013

Planning, Environmental, and Regulatory Division

Ms. Kathy Boydston
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

Dear Ms. Boydston:

The U.S. Army Corps of Engineers (USACE) is assessing the potential impacts to the environment which may result from the proposed construction of two outfall structures located on the south bank of the Clear Fork Trinity River, just east of Bryant Irvin Road in Fort Worth, Texas. These outfall structures are necessary to provide drainage for the NTTA Chisholm Trail Parkway project within the Edwards Ranch-Riverhills development. Currently drainage from the Chisholm Trail Parkway project is routed through a series of retention/detention ponds running south-to-north on either side of roadway, which is currently under construction. Proposed modifications to USACE public works by non-federal entities must adhere to 33 U.S.C. Section 408, including National Environmental Policy Act (NEPA) compliance. The City of Fort Worth submitted a Section 408 Request for review, including NEPA compliance coverage under the Programmatic Environmental Assessment (PEA) for Civil Works Minor Section 408 NEPA Compliance dated April 11, 2011, with a Finding of No Significant Impact (FONSI) signed April 15, 2011 as a Future Minor Section 408 Request. At the time the Chisholm Trail project was first initiated (i.e., NEPA documentation completed), the Section 408 approval requirement did not exist. Therefore an SEA to address Section 408 is required. A Draft Supplemental Environmental Assessment (SEA) has been prepared to address NEPA compliance and disclose all associated impacts for public review.

A Public Notice has been prepared to notify the public of this action and to solicit comments. The Public Notice, draft FONSI and SEA are enclosed with this communication for your review and to solicit any additional comments or concerns your agency may have regarding this action. We will consider any comments that we receive from you by the close of the comment period as indicated on the Public Notice. Please address any comments you may have to the contact indicated in the Public Notice. Thank you for your cooperation in this matter.

Sincerely,

Eric Verwers
Chief, Planning, Environmental, and
Regulatory Division

Enclosures

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

March 13, 2013

Planning, Environmental, and Regulatory Division

Mr. Tom Heger
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

Dear Mr. Heger:

The U.S. Army Corps of Engineers (USACE) is assessing the potential impacts to the environment which may result from the proposed construction of two outfall structures located on the south bank of the Clear Fork Trinity River, just east of Bryant Irvin Road in Fort Worth, Texas. These outfall structures are necessary to provide drainage for the NTTA Chisholm Trail Parkway project within the Edwards Ranch-Riverhills development. Currently drainage from the Chisholm Trail Parkway project is routed through a series of retention/detention ponds running south-to-north on either side of roadway, which is currently under construction. Proposed modifications to USACE public works by non-federal entities must adhere to 33 U.S.C. Section 408, including National Environmental Policy Act (NEPA) compliance. The City of Fort Worth submitted a Section 408 Request for review, including NEPA compliance coverage under the Programmatic Environmental Assessment (PEA) for Civil Works Minor Section 408 NEPA Compliance dated April 11, 2011, with a Finding of No Significant Impact (FONSI) signed April 15, 2011 as a Future Minor Section 408 Request. At the time the Chisholm Trail project was first initiated (i.e., NEPA documentation completed), the Section 408 approval requirement did not exist. Therefore an SEA to address Section 408 is required. A Draft Supplemental Environmental Assessment (SEA) has been prepared to address NEPA compliance and disclose all associated impacts for public review.

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Sincerely,

Enclosures

Eric Verwers
Chief, Planning, Environmental, and
Regulatory Division

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

March 13, 2013

Planning, Environmental, and Regulatory Division

Mr. Mark Wolfe
Texas Historical Commission
Executive Director
Austin, Texas 78701

Dear Mr. Wolfe:

The U.S. Army Corps of Engineers (USACE) is assessing the potential impacts to the environment which may result from the proposed construction of two outfall structures located on the south bank of the Clear Fork Trinity River, just east of Bryant Irvin Road in Fort Worth, Texas. These outfall structures are necessary to provide drainage for the NTTA Chisholm Trail Parkway project within the Edwards Ranch-Riverhills development. Currently drainage from the Chisholm Trail Parkway project is routed through a series of retention/detention ponds running south-to-north on either side of roadway, which is currently under construction. Proposed modifications to USACE public works by non-federal entities must adhere to 33 U.S.C. Section 408, including National Environmental Policy Act (NEPA) compliance. The City of Fort Worth submitted a Section 408 Request for review, including NEPA compliance coverage under the Programmatic Environmental Assessment (PEA) for Civil Works Minor Section 408 NEPA Compliance dated April 11, 2011, with a Finding of No Significant Impact (FONSI) signed April 15, 2011 as a Future Minor Section 408 Request. At the time the Chisholm Trail project was first initiated (i.e., NEPA documentation completed), the Section 408 approval requirement did not exist. Therefore an SEA to address Section 408 is required. A Draft Supplemental Environmental Assessment (SEA) has been prepared to address NEPA compliance and disclose all associated impacts for public review.

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Sincerely,

Eric Verwers
Chief, Planning, Environmental, and
Regulatory Division

Enclosures

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

March 13, 2013

Planning, Environmental, and Regulatory Division

Mr. David Galindo
Texas Commission on Environmental Quality
12100 Park Circle 35, Building F
Austin, Texas 78711

Dear Mr. Galindo:

The U.S. Army Corps of Engineers (USACE) is assessing the potential impacts to the environment which may result from the proposed construction of two outfall structures located on the south bank of the Clear Fork Trinity River, just east of Bryant Irvin Road in Fort Worth, Texas. These outfall structures are necessary to provide drainage for the NTTA Chisholm Trail Parkway project within the Edwards Ranch-Riverhills development. Currently drainage from the Chisholm Trail Parkway project is routed through a series of retention/detention ponds running south-to-north on either side of roadway, which is currently under construction. Proposed modifications to USACE public works by non-federal entities must adhere to 33 U.S.C. Section 408, including National Environmental Policy Act (NEPA) compliance. The City of Fort Worth submitted a Section 408 Request for review, including NEPA compliance coverage under the Programmatic Environmental Assessment (PEA) for Civil Works Minor Section 408 NEPA Compliance dated April 11, 2011, with a Finding of No Significant Impact (FONSI) signed April 15, 2011 as a Future Minor Section 408 Request. At the time the Chisholm Trail project was first initiated (i.e., NEPA documentation completed), the Section 408 approval requirement did not exist. Therefore an SEA to address Section 408 is required. A Draft Supplemental Environmental Assessment (SEA) has been prepared to address NEPA compliance and disclose all associated impacts for public review.

A Public Notice has been prepared to notify the public of this action and to solicit comments. The Public Notice, draft FONSI and SEA are enclosed with this communication for your review and to solicit any additional comments or concerns your agency may have regarding this action. We will consider any comments that we receive from you by the close of the comment period as indicated on the Public Notice. Please address any comments you may have to the contact indicated in the Public Notice. Thank you for your cooperation in this matter.

Sincerely,

Eric Verwers
Chief, Planning, Environmental, and
Regulatory Division

Enclosures

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

March 13, 2013

Planning, Environmental, and Regulatory Division

Mr. Michael Jansky
U.S. Environmental Protection Agency, Region 6
Office of Planning and Coordination
1445 Toss Ave, Mail Stop 6ENXP
Dallas, Texas 75202

Dear Mr. Jansky:

The U.S. Army Corps of Engineers (USACE) is assessing the potential impacts to the environment which may result from the proposed construction of two outfall structures located on the south bank of the Clear Fork Trinity River, just east of Bryant Irvin Road in Fort Worth, Texas. These outfall structures are necessary to provide drainage for the NTTA Chisholm Trail Parkway project within the Edwards Ranch-Riverhills development. Currently drainage from the Chisholm Trail Parkway project is routed through a series of retention/detention ponds running south-to-north on either side of roadway, which is currently under construction. Proposed modifications to USACE public works by non-federal entities must adhere to 33 U.S.C. Section 408, including National Environmental Policy Act (NEPA) compliance. The City of Fort Worth submitted a Section 408 Request for review, including NEPA compliance coverage under the Programmatic Environmental Assessment (PEA) for Civil Works Minor Section 408 NEPA Compliance dated April 11, 2011, with a Finding of No Significant Impact (FONSI) signed April 15, 2011 as a Future Minor Section 408 Request. At the time the Chisholm Trail project was first initiated (i.e., NEPA documentation completed), the Section 408 approval requirement did not exist. Therefore an SEA to address Section 408 is required. A Draft Supplemental Environmental Assessment (SEA) has been prepared to address NEPA compliance and disclose all associated impacts for public review.

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Chief, Planning, Environmental, and
Regulatory Division

Enclosures

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

March 13, 2013

Planning, Environmental, and Regulatory Division

Mr. Thomas Cloud, Jr.
U.S. Fish and Wildlife Service
Ecological Services
2005 N.E. Green Oaks Blvd, Suite 140
Arlington, Texas 76006

Dear Mr. Cloud:

The U.S. Army Corps of Engineers (USACE) is assessing the potential impacts to the environment which may result from the proposed construction of two outfall structures located on the south bank of the Clear Fork Trinity River, just east of Bryant Irvin Road in Fort Worth, Texas. These outfall structures are necessary to provide drainage for the NTTA Chisholm Trail Parkway project within the Edwards Ranch-Riverhills development. Currently drainage from the Chisholm Trail Parkway project is routed through a series of retention/detention ponds running south-to-north on either side of roadway, which is currently under construction. Proposed modifications to USACE public works by non-federal entities must adhere to 33 U.S.C. Section 408, including National Environmental Policy Act (NEPA) compliance. The City of Fort Worth submitted a Section 408 Request for review, including NEPA compliance coverage under the Programmatic Environmental Assessment (PEA) for Civil Works Minor Section 408 NEPA Compliance dated April 11, 2011, with a Finding of No Significant Impact (FONSI) signed April 15, 2011 as a Future Minor Section 408 Request. At the time the Chisholm Trail project was first initiated (i.e., NEPA documentation completed), the Section 408 approval requirement did not exist. Therefore an SEA to address Section 408 is required. A Draft Supplemental Environmental Assessment (SEA) has been prepared to address NEPA compliance and disclose all associated impacts for public review.

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Eric Verwers
Chief, Planning, Environmental, and
Regulatory Division

Enclosures

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

March 13, 2013

Planning, Environmental, and Regulatory Division

Honorable Wallace Coffey, Chairman
Comanche Nation
ATTN: Mr. James Aterberry
584 N.W. Bingo Road
Lawton, Oklahoma 73502

Dear Honorable Coffey:

The U.S. Army Corps of Engineers (USACE) is assessing the potential impacts to the environment which may result from the proposed construction of two outfall structures located on the south bank of the Clear Fork Trinity River, just east of Bryant Irvin Road in Fort Worth, Texas. These outfall structures are necessary to provide drainage for the NTTA Chisholm Trail Parkway project within the Edwards Ranch-Riverhills development. Currently drainage from the Chisholm Trail Parkway project is routed through a series of retention/detention ponds running south-to-north on either side of roadway, which is currently under construction. Proposed modifications to USACE public works by non-federal entities must adhere to 33 U.S.C. Section 408, including National Environmental Policy Act (NEPA) compliance. The City of Fort Worth submitted a Section 408 Request for review, including NEPA compliance coverage under the Programmatic Environmental Assessment (PEA) for Civil Works Minor Section 408 NEPA Compliance dated April 11, 2011, with a Finding of No Significant Impact (FONSI) signed April 15, 2011 as a Future Minor Section 408 Request. At the time the Chisholm Trail project was first initiated (i.e., NEPA documentation completed), the Section 408 approval requirement did not exist. Therefore an SEA to address Section 408 is required. A Draft Supplemental Environmental Assessment (SEA) has been prepared to address NEPA compliance and disclose all associated impacts for public review.

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Eric Verwers
Chief, Planning, Environmental, and
Regulatory Division

Enclosures

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

March 13, 2013

Planning, Environmental, and Regulatory Division

Honorable Ronald D. Twohatchet, Chairman
Kiowa Tribe of Oklahoma
Hwy 9 West
Carnegie, Oklahoma 73015

Dear Honorable Twohatchet:

The U.S. Army Corps of Engineers (USACE) is assessing the potential impacts to the environment which may result from the proposed construction of two outfall structures located on the south bank of the Clear Fork Trinity River, just east of Bryant Irvin Road in Fort Worth, Texas. These outfall structures are necessary to provide drainage for the NTTA Chisholm Trail Parkway project within the Edwards Ranch-Riverhills development. Currently drainage from the Chisholm Trail Parkway project is routed through a series of retention/detention ponds running south-to-north on either side of roadway, which is currently under construction. Proposed modifications to USACE public works by non-federal entities must adhere to 33 U.S.C. Section 408, including National Environmental Policy Act (NEPA) compliance. The City of Fort Worth submitted a Section 408 Request for review, including NEPA compliance coverage under the Programmatic Environmental Assessment (PEA) for Civil Works Minor Section 408 NEPA Compliance dated April 11, 2011, with a Finding of No Significant Impact (FONSI) signed April 15, 2011 as a Future Minor Section 408 Request. At the time the Chisholm Trail project was first initiated (i.e., NEPA documentation completed), the Section 408 approval requirement did not exist. Therefore an SEA to address Section 408 is required. A Draft Supplemental Environmental Assessment (SEA) has been prepared to address NEPA compliance and disclose all associated impacts for public review.

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Eric Verwers
Chief, Planning, Environmental, and
Regulatory Division

Enclosures

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

March 13, 2013

Planning, Environmental, and Regulatory Division

Honorable Terri Parton, Chairman
Wichita Executive Committee
1 Mile North of Anadarko on Hwy 281
Anadarko, Oklahoma 73005

Dear Honorable Parton:

The U.S. Army Corps of Engineers (USACE) is assessing the potential impacts to the environment which may result from the proposed construction of two outfall structures located on the south bank of the Clear Fork Trinity River, just east of Bryant Irvin Road in Fort Worth, Texas. These outfall structures are necessary to provide drainage for the NTTA Chisholm Trail Parkway project within the Edwards Ranch-Riverhills development. Currently drainage from the Chisholm Trail Parkway project is routed through a series of retention/detention ponds running south-to-north on either side of roadway, which is currently under construction. Proposed modifications to USACE public works by non-federal entities must adhere to 33 U.S.C. Section 408, including National Environmental Policy Act (NEPA) compliance. The City of Fort Worth submitted a Section 408 Request for review, including NEPA compliance coverage under the Programmatic Environmental Assessment (PEA) for Civil Works Minor Section 408 NEPA Compliance dated April 11, 2011, with a Finding of No Significant Impact (FONSI) signed April 15, 2011 as a Future Minor Section 408 Request. At the time the Chisholm Trail project was first initiated (i.e., NEPA documentation completed), the Section 408 approval requirement did not exist. Therefore an SEA to address Section 408 is required. A Draft Supplemental Environmental Assessment (SEA) has been prepared to address NEPA compliance and disclose all associated impacts for public review.

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Sincerely,

Enclosures

Eric Verwers
Chief, Planning, Environmental, and
Regulatory Division

APPENDIX D

PUBLIC INVOLVEMENT

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

March 13, 2013

NOTICE OF AVAILABILITY

DRAFT FONSI AND SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT CIVIL WORKS, MINOR SECTION 408 NEPA COMPLIANCE U.S. ARMY CORPS OF ENGINEERS FORT WORTH DISTRICT FOR TWO STORM DRAINS (E4 AND W4)

The public is hereby notified of the availability of the Draft Finding of No Significant Impact (FONSI) and Supplemental Environmental Assessment (SEA) for the proposed the construction of two outfall structures located on the south bank of the Clear Fork Trinity River, just east of Bryant Irvin Road in Fort Worth, Texas. These outfall structures are necessary to provide drainage for the NTTA Chisholm Trail Parkway project within the Edwards Ranch-Riverhills development. Proposed modifications to USACE public works by non-federal entities must adhere to 33 U.S.C. Section 408, including National Environmental Policy Act (NEPA) compliance. The City of Fort Worth submitted a Section 408 Request for review, including NEPA compliance coverage under the Programmatic Environmental Assessment (PEA) for Civil Works Minor Section 408 NEPA Compliance dated April 11, 2011, with a Finding of No Significant Impact (FONSI) signed April 15, 2011 as a Future Minor Section 408 Request. At the time the Chisholm Trail project was first initiated (i.e., NEPA documentation completed), the Section 408 approval requirement did not exist. Therefore an SEA to address Section 408 is required. A Supplemental Environmental Assessment (SEA) has been prepared to address NEPA compliance and disclose all associated impacts for public review.

The Draft FONSI and SEA will be available for review at the following locations:

Ridglea Public Library
3628 Bernie Aderson
Fort Worth Texas 76116-5403

Southwest Regional Public Library
4001 Library Lane
Fort Worth, Texas 76109-4407

The Draft FONSI, SEA, and PEA can also be viewed via the Internet on the Fort Worth District website at the following address: www.swf.usace.army.mil

A 30-day public comment period begins with publication of this Notice of Availability. Please address any comments to Mrs. Hope Pollmann, CESWF-PER-EE, P.O. Box 17300, Fort Worth, Texas 76102-0300 or hope.l.pollmann@usace.army.mil.

Eric Verwers
Chief, Planning, Environmental, and
Regulatory Division