



Historical Studies Project Coordination Request (PCR)

Reset Form

Main CSJ: 1059-01-047

District personnel should complete this form with all appropriate documentation attached. ENV-HIST staff review is contingent on provision of an active CSJ (or equivalent if the project is not a construction project) against which environmental work can be charged. District personnel shall ensure project description information in ECOS is complete and accurate prior to submitting the PCR to ENV-HIST. District-provided responses should reflect known data about the project and identify any limitations that hindered provision of the requested information. ENV-HIST staff will review the PCR form and attached information per established Documentation Standards. This review will result in:

- ENV-HIST environmental clearance of the project; OR
- ENV-HIST identification of additional technical studies required for clearance; OR
- ENV-HIST rejection of the PCR for failure to meet specific Documentation Standards and instructions on how to redress the rejection.

This form specifies minimally required information needed to properly facilitate ENV-HIST's review process. Please submit all relevant documentation with this PCR at one time.

NOTE: * If this project information changes over the course of design OR if the funding source changes, then HIST requires re-coordination and a revised PCR in ECOS.

 No If FHWA funded, does the project conform to the type listed in Appendix 4 and the Historic Resources Toolkit?
OR

Does this historic coordination apply to the Antiquities Code as referenced in the Historic Resources Toolkit?

Information Required to Process Projects with Potential to Affect Historic Properties

1. Targeted ENV clearance date: November 26, 2020

2. *Anticipated letting date: January 2022

3. "Historic-age" date (let date minus 45 years): 1977

4. Yes *The proposed action is subject to federal permitting (i.e. Corps of Engineers, Coast Guard, IBWC, etc.).

Describe:

404 Field Evaluation and NWP14 with or without Pre-construction Notification

5. Yes *The proposed action requires additional ROW (purchased or donated) or easements?

Parcel ID	Required New ROW (acres)	Required New Easements	
		Temporary	Permanent
See attached table.	51.5779	0	0
Total:	51.5779	0	0



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6. The following maps, tables or equivalents are uploaded to ECOS.

Yes/No/NA	Map Type	ECOS File Name:
<u>Yes</u>	Existing and proposed ROW boundaries.	1059-01-047, etc._FM1173 PCR Attachments
<u>Yes</u>	Parcel boundaries for properties within the APE.	1059-01-047, etc._FM1173 PCR Attachments
<u>Yes</u>	Results of the Texas Historic Sites Atlas search, identifying NHL, NRHP, SAL, and RTHL resources located within one-quarter mile of the project area listed in a table format and identified on color aerial map(s) or equivalent.	1059-01-047, etc._FM1173 PCR Attachments
	Comments:	There are no NHL, NRHP properties or districts, SAL, or RTHL located in the project study area per the Texas Historic Sites Atlas. There is one OTHM for the City of Krum located in the project area.
<u>Yes</u>	Results of TxDOT eligibility and historic bridge layers search. (See Historic Resources Toolkit for links).	1059-01-047, etc._FM1173 PCR Attachments
	Comments:	There are no previously eligible or listed historic properties or bridges in the project study area per TxDOT databases.

7. Yes Representative and dated photographs of the project area are uploaded to ECOS.

Note: Photographs should include the following elements:

- Buildings/structures adjacent to project, especially if TxDOT will acquire ROW or easements from parcel.
- Road Features (culverts, bridges, landscaping, etc.)
- Areas of proposed construction.

File Name in ECOS:

8. Yes Preliminary plans are uploaded to ECOS.

File Name in ECOS:

9. Yes Historic-age bridges are within the project area.

Location	NBI #	Year Built	Eligibility
0.25 Mi. SE of FM 156	180610105901006	1957	Not Eligible
1.10 Mi. E of FM 156	180610105901007	1957	Not Eligible
2.30 Mi. N of US 380	180610019503040	1958	Not Eligible

9.1 Yes Aerial map(s) or equivalent with bridge location(s) identified are uploaded to ECOS.



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File Name in ECOS:

- 9.2 No CHC consultation required (contact HIST if needed).
- 10. No Rock masonry features (culverts, ditches, walls, etc.) are within the project area.
- 11. No Historic-age rest area(s) are located within the project area.
- 12. No The proposed action involves the relocation of historical markers.
- 13. Yes Additional consulting parties (other than the THC) may be involved in this project.

Consulting Party Name	Representing	Contact Information
Denton County Historical Commission	CHC	Gary Hayden 2106 North Bell Avenue Denton, TX 76209 214-695-5079 mchpartnersinc@gmail.com

Additional Project Comments:

District Personnel Certification

Yes I reviewed all submitted documents for quality assessment and control.

Mohammed Shaikh
District Personnel Name

March 10, 2020
Date:



Reset Form

The following table shows the revision history for this document.

Revision History	
Effective Date Month, Year	Reason for and Description of Change
December 2013	Version 1 released.
June 2015	Version 2 released. The form was converted to a PDF format. Form level validations were installed to ensure that all certified forms contained the minimum required information. Various questions were modified to accommodate the improved functionality of the PDF format.
August 2015	Version 3 released. Revised the form to make it compatible with Adobe Acrobat Reader DC. No changes were made to the question sequence or form logic.
June 2019	Version 4 released. The form was updated to include a separate section for Appendix 4. Additional questions were added for form logic.



Historical Studies Research Design

Reconnaissance Survey

Project Name: FM 1173

Project Limits: FM 156 to IH 35

District(s): Dallas

County(s): Denton

CSJ Number(s): 1059-01-047, 1059-02-002

Principal Investigator: Kurt Korfmacher and Deborah Dobson-Brown

Report Completion Date: April 2020

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated 12-9-2019, and executed by FHWA and TxDOT.

This historical studies research design is produced for the purposes of meeting requirements under Section 106 of the National Historic Preservation Act, the Antiquities Code of Texas, and other cultural resource legislation related to environmental clearance as applicable.

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Project Identification

- Report Completion Date: 04/14/2020
- Anticipated Date(s) for Fieldwork: May 2020
- Anticipated Survey Type: Windshield Reconnaissance Intensive
- Research Design Version: Draft Final
- Regulatory Jurisdiction: Federal State
- TxDOT Contract Number: 36-7IDP5029/PS 6468
- District or Districts: Dallas
- County or Counties: Denton
- Highway or Facility: FM 1173
- Proposed Project Limits: FROM FM 156 TO IH 35
- Main CSJ Number 1059-01-047
- Anticipated Report Author(s): Kurt Korfmacher and Paige Ritter
- Anticipated Principal Investigator: Kurt Korfmacher and Deborah Dobson-Brown
- Anticipated List of Preparers: Kurt Korfmacher and Paige Ritter, field survey and authors; Vanessa Cragle and Jeff Cragle, GIS

Recommended Area of Potential Effects (APE):

- Existing ROW
- 150' from Proposed ROW and Easements
- 300' from Proposed ROW and Easements
- Custom: <0'> from Proposed ROW and Easements

- **Anticipated Historic-Age Survey Cut-Off Date:** 1977
- **Study Area Scope:** 1300 feet from edge of existing or proposed new ROW

Project Setting/Study Area

- **Current Land Use**

Current land use is rural and agricultural with pockets of modern, suburban development north and south of FM 1173. The City of Krum, located west of the project area, consists of modern and historic-age resources. Agricultural land is north of Barthold Road, located in the east portion of the project area.

- **Natural Environment**

Located in north central Texas in central west Denton County, the project area consists of black soil of the Grand Prairie region making the area ideal for general crop and livestock production. Originally, the county was covered in grasses with groupings of trees along water resources. By the 1980s, uncultivated land was planted with Bermuda grass. There are four stream crossings within the proposed project limits: Jordan Creek, one tributary to Dry Fork Creek, Dry Fork Creek, and the tributary to Milam Creek. Possible floodplains and wetlands may be associated with the stream crossings.

Anticipated Section 106 Consulting Parties

- **Proposed Public Involvement Outreach Efforts:**

Consulting parties will be identified through the standard list of interested parties for TxDOT projects. This list includes, but is not limited to, county historical commissions, certified local governments, other federal agencies involved in the Section 106 process, and historical societies with a standing expressed interest in the types of historic-age resources likely to be encountered and identified in the project APE. Project historians will contact the consulting parties and inquire of the existence of any properties of known local importance or concern and request any information they may have on these properties. If a consulting party requests a summary of survey results, project historians will contact TxDOT District and/or ENV personnel to coordinate with the consulting party. TxDOT will provide all identified consulting parties time for comment on the identification

of any historic-age resources and any potential adverse effect on properties eligible for listing in the National Register of Historic Places (NRHP).

- **Potential Consulting Parties:**

Denton County Historical Commission
Gary Hayden, Chair
2106 North Bell Avenue
Denton, TX 76209
214-695-5079
mchpartnersinc@gmail.com

Anticipated Project Stakeholders

At this time, there are no known stakeholders. Project stakeholders may be identified during or after fieldwork, depending on the results of field investigations.

Previously Designated Historic Properties and Evaluated Resources

- **Previously Evaluated Historic Resources**

None

- **Previously Designated Historic Properties**

One Official Texas Historical Marker (OTHM) is located in the project area for the City of Krum (Marker No. 18834) at 815 East McCart Street (Parcel No. 44).

- **Previously Designated Historic Districts**

None

Preliminary Assessment of Impacts to Historic Properties

- **Description of Impacts**

As no previously identified and designated historic properties, except for one Official Texas Historical Marker (OTHM), exist within the project APE, a preliminary assessment of impacts on historic properties cannot be made at this time. The OTHM is located within the APE, north of Krum Public Library but is not expected to be relocated.

Anticipated Survey Methods

- **Anticipated Surveyors:** Kurt Korfmacher and Paige Ritter
- **Methodology Description**

In accordance with the 2015 Programmatic Agreement for Transportation Undertakings among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding the implementation of transportation undertakings, the APE is set at 150 from proposed new ROW along the existing road, 300 feet from proposed new ROW along proposed new road, and confined to the existing ROW where no new ROW is proposed. The APE includes all parcels of land that are partially or wholly contained within the limits of the APE boundary.

All work will be conducted and/or supervised by individuals meeting the Secretary of the Interior's Professional Qualification Standards for history and/or architectural history. The survey will comply with ENV Standards of Submission in regards to maps, tables, images and image quality, and geographic information system files.

Digital photos will be taken of each resource that is of historic-age and is accessible. If possible, photographs will include at least two oblique views, one of the primary façade and a side façade. Additional photographs will be taken if the surveyor feels that a property warrants in-depth documentation or to show diminished integrity of resources. Digital files with descriptive photo file names will be made available upon request.

Each resource will be given a map ID number, keyed to a resource location map, and included in a tabular inventory. The address, if available, or location information and latitude/longitude will be recorded and provided in the survey report.

To determine the construction date, field assessment by a professional historian will be combined with historic mapping and aerial photography. Data that will be collected in the field will include, but not be limited to, style, construction date, and any modifications made to the property. Once information is gathered, analysis will be conducted to determine whether the property is individually eligible for listing in the NRHP.

- **Compliance with TxDOT Standards Statement**

The level of effort necessary to satisfy Section 106 obligations for the proposed action includes a reconnaissance-level survey of the proposed new right-of-way to identify historic-age properties, evaluate them for eligibility for listing in the NRHP, and assess effects to historic properties. While the character of the area has changed significantly since the preliminary historic period of 1945-1975, a cursory comparison of historic aerial

photography to current aerials reveals small pockets of historic-age properties within the proposed APE requiring further investigation.

Literature Review and Methodology

- **Research to Date**

Project historians reviewed several information sources to determine existing resources located within the project study area, as well as to compile a historic context of the proposed project area. These sources include, but are not limited to, general interest (*Handbook of Texas* and the *Portal to Texas History*) and governmental websites (City of Krum and Denton County), historic and current aerial photography, as well as historic and current maps. In addition, historians consulted the *Texas Historic Sites Atlas* for information on the project area and historic properties. This effort was done in order to guide surveyors in their anticipated field investigations.

Historians compared historic and current aerial imagery and noted parcels that appeared to contain historic-age resources that would need to be evaluated. Then the historians consulted the Denton County Appraisal District (CAD) data to obtain a general idea of the age of resources developed within the APE (Appendix B: Table 1). Through reviewing the Denton CAD data, historians noted seven properties with historic-age resources (1945-1975), the preliminary period of significance; multiple modern properties; and several properties featuring no recorded dates.

- **Proposed Literature Review**

To understand the development of the project area, professional historians will review secondary sources on the history of the project area. *The Handbook of Texas Online* gives researchers an overview of the history of Denton County and the City of Krum. Historic road and county highway maps will be used to identify roadways constructed near or through the project area before and after the construction of IH 35. S.G. Reed's *A History of the Texas Railroads* may provide information about railroad construction and systems that operated near or through the project area. Project historians may visit Krum Public Library at the time of field survey for additional information on the City of Krum, the project area, and Denton County. Additional information will come from historic aerial photographs obtained through the U.S. Geological Survey's EarthExplorer website.

Preliminary Historical Context Outline

Krum and Denton County

Denton County is in North Central Texas, between Dallas and Tarrant counties to the south and Cooke and Grayson counties to the north. Its location gives access to the fertile soils of the Grand Prairie to the west and Blackland Prairie to the east. Sandy soil from Oklahoma reaches south into the center of the county, providing a variety of soils for Denton County's agricultural industry (Odom, 2010). The City of Krum is located seven miles west of the City of Denton in west central Denton County. Agriculture and ranching have played significant roles in the development of Denton County, and more specifically Krum, as has the creation, maintenance, and expansion of transportation corridors and systems. Project historians, therefore, developed the preliminary themes of Early Settlement and Railroads (1841-1945), Wheat and Agricultural Dominance (1870-1940), and Post World War II Suburbanization and Transportation (1945-Present Day) as a framework in which patterns of settlement, land use, and other historic trends along this corridor could be analyzed, and associated properties evaluated.

Early Settlement and Railroads (1841-1945)

Anglo settlement of present-day Denton County began in 1841 by William S. Peters, an English businessman, and others, when they received a land grant from the Texas Congress to form the larger Peters Colony, a business venture of Peters' (Odom, 2010). Residents voted, and Denton County was organized in 1846. Residents expressed the need for a centralized county seat, and so the City of Denton was founded in 1857. The founding of Denton as the county seat brought gradual growth as the city became the local agricultural trade and light agricultural-related manufacturing center with the opening of flour mills, potteries, and a cotton gin (Odom, 2010). By the 1850s, forty percent of Denton County's population was from the upper south, while the 1860 census reported there were 256 slaves (Knight, 1999: 5).

By the late 1870s, Denton County experienced rapid population growth in anticipation of the Texas and Pacific Railroad and the Missouri, Kansas and Texas to Dallas Railroad systems. Following their construction, the 1880s witnessed Denton County's largest population expansion. By the 1870s, as the population expanded, more acreage was converted to farmland, which set the stage for an agricultural boom.

The Gulf, Colorado, Santa Fe Railway ran a line through western Denton County in the mid-1880s. The railway company purchased approximately 200 acres to become the City of Krum, named after railroad official, Charles K. Krum. By 1900, the town consisted of several businesses, churches, and a school, as the population steadily rose. However, just before and following the Great Depression, the population fell, remaining at 300 to 400 citizens for the following decades.

Wheat and Agricultural Dominance (1870-1940)

While Texas was experiencing a spike in wheat production, agriculture in Denton County in the 1870s was limited to subsistence farming due to a lack of water transportation. However, following the introduction of the railways in the 1880s, Denton County

supported a significant increase in wheat production and continued to place first or second place statewide in the production of this valuable cash crop (Odom, 2010). By the turn of the century, Krum recorded shipping approximately a half million bushels of wheat on the Gulf, Colorado, Santa Fe Railway. Within the first decade, a flour mill and several grain elevator companies opened their operations in the community. Krum was coined as the “largest inland grain market in the world” (Hilliard, 2010).

However, this successful era was short-lived. The county witnessed a decline in subsistence crops as the cash crop industry flourished. In addition, as the wheat and cotton industries thrived, the production of beef cattle fell. Farming, particularly cotton farming, peaked in the 1920s and began to decline following the Great Depression. In addition, with the advent of World War I came devastation for many farmers who made unwise investments as wheat prices soared then plummeted (Knight, 1999: 14).

Post-World War II Suburbanization and Transportation (1945-Present Day)

By 1925, Denton County possessed 165 miles of all-weather roads (Knight, 1999: 15). Per historic aerial imagery, in 1952, the grid-like pattern of the City of Krum remained west of FM 156. Agricultural land dominated the landscape with a few farmsteads dotting areas north and south of FM 1173 and Barthold Road east of FM 156. Travelling further east, away from the City of Krum, development becomes sparser. By 1959, suburban sprawl spread into the City of Krum due in part to the construction of Interstate Highway (IH) 35, which made commuting into the Dallas and Fort Worth areas easier.

By the early sixties, little change was noted. However, by 1968, the City of Denton expanded northwest towards Krum. Two 1970s/1980s subdivisions directly south of FM 1173 are apparent in a 1981 aerial image of the west and central portions of the project area.

By the nineties, the City of Krum expanded its grid-like pattern east of FM 156. The City of Denton continued to span northwest towards the project area and encompasses a small east portion of the project area, south of Barthold Road. Today’s development is most dense in the west portion of the project area nearest Krum and south of FM 1173. Few commercial properties and domestic, agricultural properties dominate the east portion of the project area nearest IH 35.

References Cited

Hilliard, Ruth Knox

- 2010 *Handbook of Texas Online*, s.v. “Krum, TX (Denton County)”
<https://tshaonline.org/handbook/online/articles/hlk16> (accessed April 8, 2020)

Knight, Lila

1999 *National Register of Historic Places Multiple Property Documentation Form: Historic and Architectural Resources of Denton, Texas, 1882-1949.* (Kyle, Texas: City of Denton Certified Local Government Program)
[http://www.cityofdenton.com/CoD/media/City-of-Denton/Business/Development%20Review/Historic%20Preservation/NationalRegisteredDistrict-\(1\).pdf](http://www.cityofdenton.com/CoD/media/City-of-Denton/Business/Development%20Review/Historic%20Preservation/NationalRegisteredDistrict-(1).pdf) (accessed April 9, 2019)

Odom, E. Dale

2010 *Handbook of Texas Online*, s.v. "Denton County"
<http://www.tshaonline.org/handbook/online/articles/hed05> (accessed April 9, 2019)

2010 *Handbook of Texas Online*, s.v. "Denton, TX (Denton County)"
<http://www.tshaonline.org/handbook/online/articles/hed05> (accessed April 9, 2020)

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Historical Resources Survey Report

Reconnaissance Survey

Project Name: FM 1173

Project Limits: FM 156 to IH 35

District(s): Dallas

County(s): Denton

CSJ Number(s): 1059-01-047, 1059-02-002

Principal Investigator: Kurt Korfmacher and Deborah Dobson-Brown

Report Completion Date: July 2020

This historical resources survey report is produced for the purposes of meeting requirements under Section 106 of the National Historic Preservation Act, the Antiquities Code of Texas, and other cultural resource legislation related to environmental clearance as applicable.

Abstract

The Texas Department of Transportation (TxDOT) Dallas District proposes to reconstruct and widen Farm to Market Road (FM) 1173 in Denton County from west of FM 156 to Interstate Highway (IH) 35 (**Figures 1 and 2**). The project would include constructing a new six-lane, divided highway with sidewalks on both sides in place of the existing two-lane, undivided facility. The construction of four travel lanes would take place from FM 156 to East 6th Street, and the construction of six travel lanes would take place from East 6th Street to IH 35. The proposed project would be approximately 3.6 miles in length, with approximately 51.75 acres of new right-of-way (ROW).

Project historians surveyed the project area of potential effect (APE) in May 2020 and documented fifteen properties with historic-age resources. Following evaluation of the properties and resources, project historians recommend that one property is eligible for listing in the National Register of Historic Places (NRHP). The proposed project would have *no adverse effect* on historic properties in the APE under Section 106. The proposed undertaking would be considered a transportation use of historic properties under Section 4(f), and a Section 4(f) analysis would be required. Due to the minimal amount of acreage required for new ROW, a finding of *de minimis* impact under Section 4(f) is recommended.

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Project Identification

- Report Completion Date: 07/14/2020
- Date(s) of Fieldwork: 05/20/2020
- Survey Type: Windshield Reconnaissance Intensive
- Report Version: Draft Final
- Regulatory Jurisdiction: Federal State
- TxDOT Contract Number: 36-7IDP5029/PS 6468
- District or Districts: Dallas
- County or Counties: Denton
- Highway or Facility: FM 1173
- Project Limits:
 - From: FM 156
 - To: IH 35
- Main CSJ Number: 1059-01-047
- Report Author(s): Paige Ritter
- Principal Investigator: Kurt Korfmacher and Deborah Dobson-Brown
- List of Preparers: Cherise Bell and Paige Ritter, field survey; Paige Ritter, author; Jeff Cragle, GIS

Area of Potential Effects (APE)

- Existing ROW
- 150' from Proposed ROW and Easements
- 300' from Proposed ROW and Easements
- Custom: <0'> from Proposed ROW and Easements

- **Historic-Age Survey Cut-Off Date:** 1977

- **Study Area** 1300 feet from edge of the Area of Potential Effects

Section 106 Consulting Parties

- **Public Involvement Outreach Efforts:**

The first public meeting was held on May 8, 2018 at the Krum High School Cafeteria, located at 700 Bobcat Blvd, in which there were a total of 141 attendees and 45 written comments. Of the written comments, five were positive, five were negative, and 35 were neutral of the proposed project. An additional public meeting was held on October 10, 2019 at the Krum High School Cafeteria, in which there were a total of 61 attendees and 14 written comments. Comments were mixed, as some were in favor of the design, others believed the project should be modified, and several were against the project, deeming it unnecessary. No comments related to historic resources.

- **Identification of Section 106 Consulting Parties:**

Consulting parties were identified through the standard list of interested parties for TxDOT projects. This list includes but is not limited to County Historical Commissions (CHC), Certified Local Governments, other federal agencies involved in the Section 106 process, and historical societies with a standing expressed interest in the types of historic-age resources likely to be encountered and identified in the project APE.

Denton County Historical Commission
Gary Hayden, Chair
2106 North Bell Avenue
Denton, TX 76209
214-695-5079
mchpartnersinc@gmail.com

	<p>Krum Historic Preservation Society Janice Callarman, President 150 West McCart Street Krum, TX 76249</p>
<ul style="list-style-type: none"> ▪ Section 106 Review Efforts: 	
	<p>At the District’s request, formal draft letters were sent to the Denton County Historical Commission (CHC) and the Krum Society of Historic Preservation on June 15, 2020 asking for comment within 30 days on area historic resources. Their responses are described in the below section,</p>
<ul style="list-style-type: none"> ▪ Summary of Consulting Parties Comments: 	
	<p>The Denton CHC provided comment on July 13, 2020 stating they were unaware of any historic properties outside of the downtown area within the project limits. See Appendix G for their response.</p> <p>The Krum Society of Historic Preservation provided a response on July 10, 2020 to inform of the presence of four properties of “intrinsic value to the history of Krum” within the project area. The project historian located said properties and confirmed all outside the project area APE. See Appendix G for their response and property details.</p>
<p>Stakeholders</p>	
<ul style="list-style-type: none"> ▪ Stakeholder Outreach Efforts: 	
	<p>Two public meetings were held on May 8, 2018 and October 10, 2019 at Krum High School. A total of 141 and 61 attendees, respectively, were present at the meetings. Comments received are further described in the above section, Public Involvement Outreach Efforts.</p>
<ul style="list-style-type: none"> ▪ Identification of Stakeholder Parties: 	
	<p>TxDOT and the project team met with City of Krum staff and representatives to provide information on the proposed project, gather feedback on the schematic design, and discuss updates with local city and agency stakeholders within the project corridor. The district may have additional interested parties on file.</p>
<ul style="list-style-type: none"> ▪ Summary of Stakeholder Comments: 	
	<p>Two public meetings held on May 8, 2018 and October 10, 2019 received mixed reviews from the public. The first held public meeting received five positive, five</p>

	negative, and 35 neutral comments. The second held meeting also received mixed opinions, as some were in favor of the design, others believed the project should be modified, and several were against the project, deeming it unnecessary.
Project Setting/Study Area	
<ul style="list-style-type: none"> ▪ Study Area 	
	Current land use within the study area is agricultural with expanding pockets of modern, suburban development mostly confined to the western half of the project area, west of Masch Branch Road and directly north and south of FM 1173. The eastern half of the study area east of Masch Branch Road and along Barthold Road is primarily agricultural. The City of Krum is located at the western study area limit and had a population of 4,988 in 2018, according to the U.S. Census Bureau.
<ul style="list-style-type: none"> ▪ Previously Evaluated Historic Resources 	
	A review of the Texas Historical Commission’s (THC) Texas Historic Sites Atlas (Atlas), the TxDOT Historic Bridge Survey database and TxDOT Historic Districts and Properties databases resulted in the identification of no historic resources within the project study area.
<ul style="list-style-type: none"> ▪ Previously Designated Historic Properties 	
	A review of the THC Atlas and survey files, the National Park Service NRHP database, the TxDOT Historic Districts and Properties database, the list of non-archeological State Antiquities Landmarks (SAL), and the list of Recorded Texas Historic Landmarks (RTHL) resulted in the identification of no historic properties within the study area.
<ul style="list-style-type: none"> ▪ Previously Designated Historic Districts 	
	A review of the THC Atlas and survey files, the National Park Service NRHP database, the list of non-archeological SALs, and the list of RTHLs resulted in the identification of no historic districts within the project study area.
<ul style="list-style-type: none"> ▪ Historic Land Use 	
	Historic land use within the project study area has been agricultural since early Anglo-settlement in the late nineteenth century following the completion of the Gulf, Colorado and Santa Fe Railway. By the turn of the century, agricultural land remained dominant with a few farmsteads dotting the landscape north and south of FM 1173 and Barthold

	<p>Road. By 1959, suburban sprawl spread, changing the landscape of the project study area directly east of Krum city limits, and by the late sixties and early seventies, suburban sprawl spread further east with the construction of two new subdivisions. Agricultural fields still dominated the landscape by the late seventies.</p>
<ul style="list-style-type: none"> ▪ Current Land Use and Environment 	
	<p>Current land use is agricultural with expanding pockets of modern, suburban development north and south of FM 1173. Located in north central Texas in central west Denton County, the project area consists of the Grand Prairie region, making the area ideal for general crop and livestock production. In the 1980s, uncultivated land was planted with Bermuda grass, which is noticeable today. There are four stream crossings within the proposed project limits: Jordan Creek, one tributary to Dry Fork Creek, Dry Fork Creek, and the tributary to Milam Creek. Possible floodplains and wetland may be associated with the stream crossings.</p>
<ul style="list-style-type: none"> ▪ Historic Period(s) and Property Types 	
	<p>Based on the resources identified in the project APE, the historic period is from 1927 to the historic cut-off date of 1977. Property types are primarily domestic and agricultural, with two industrial, one educational, and one recreational. Most resources were built in the post-war period between 1945-1977 and are mostly concentrated in the western half of the project area towards Krum.</p>
<ul style="list-style-type: none"> ▪ Integrity of Historic Setting 	
	<p>The historic setting of the project area was once rural with agricultural fields. Located approximately four miles northwest of the City of Denton and approximately forty miles northwest of the City of Dallas, the project area has witnessed significant change in the recent years due to suburban sprawl. Suburban sprawl caused gradual change in the project area following the construction of IH 35 in 1959, connecting Krum to the Dallas and Fort Worth areas. New development, particularly residential subdivisions, is quickly converting the remaining farmland for suburban land uses. However, downtown Krum has retained its historic character. Agricultural land is still present in the eastern half of the project area along Masch Branch Road, as well as further north and south of FM 1173. As such, the integrity of the historic setting is mixed; within Krum, it is stable and intact, but the integrity of the agricultural lands outside of the city is declining.</p>
<p>Survey Methods</p>	
<ul style="list-style-type: none"> ▪ Methodological Description 	

As stipulated in the 2015 Programmatic Agreement among the Federal Highway Administration, TxDOT, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings, project historians conducted a reconnaissance survey on the parcels within the project study area from west of FM 156 to IH 35E.

Multiple digital photographs were taken of each accessible resource of historic-age. When possible, photographs include at least two oblique views of the primary façade and at times a side or rear façade. Visible modern buildings or structures located on properties with historic-age resources were photographed to show their relationships to the historic-age resources but were not individually recorded. Each historic-age resource was given a map ID number, keyed to a resource location map, and included in a tabular inventory. The address, when available, or location information and latitude/longitude were recorded and provided in the survey report.

To determine the construction date, project historians use field assessment by a professional historian combined with historic mapping, aerial photography, and property owner information. County appraisal district records (where available) were used to assist with dating changes to the property such as additions and shed. Where appraisal district data matched what historians observed in the field, that information was used for construction date. Data collected in the field included, but was not limited to, style, construction date, and any modifications made to the property. Analysis was conducted to determine whether the property was individually eligible for listing in the NRHP or whether it contributed to the significance of a potential historic district.

Although project historians were unable to visit Krum Public Library due to safety and health regulations in wake of Covid-19, they received information on the local history of Krum and several properties within the project area from library director, Donna Pierce. Additionally, project historians were unable to visit the Krum Heritage Museum as planned due to safety and health regulations but attained helpful information from the museum website.

▪ **Comments on Methods**

All work was conducted and supervised by individuals meeting the Secretary of Interior's Professional Qualification Standards for history and architectural history. The survey complies with ENV Standards of Submission regarding maps, tables, images and image quality, and geographic information system files. The period for historic-age survey is 1927-1977. Survey maps and project schematics reflect the current proposed ROW as known to project historians at the time of report authorship.

Fieldwork was conducted on May 20, 2020. Weather conditions were fair with warm temperatures and overcast skies. While right-of-entry (ROE) was awarded for several properties, ROE was not pursued due to the visibility from the public ROW and/or inability to

access resources due to thick vegetation or fencing. All properties were surveyed and photographed from the public ROW. Heavy vegetation growth and/or topography obstructed views at some locations. Where necessary, project historians have supplemented survey photographs with aerial imagery.

The May 20, 2020 survey efforts identified a total of 15 properties in the project APE with historic-age resources, using the approved APE maps from the research design. Identified resources consist of domestic and agricultural structures. Per current TxDOT-ENV guidance, this report does not include any bridges or culverts from 1945 and onward previously determined *not eligible* for NRHP listing. The survey inventory may be found in **Appendix B**. Photo inventory pages are located in **Appendix C**. Maps showing the location of all surveyed resources may be found in **Appendix D**.

Survey Results

▪ Project Area Description

The project area mainly consists of suburban and semi-rural development nearest Krum, and agricultural lands between Masch Branch Road and IH 35. While most development is modern, there are two neighborhoods dating from the 1960s and 1970s near Krum, directly north and south of FM 1173. Further east, the project area is less dense, and most resources are affiliated with large farmsteads/ranches. Domestic, industrial, recreational, and educational buildings are confined to the western half of the project area, while agricultural properties are located in the eastern half of the project area.

▪ Literature Review

In preparation of this report, project historians reviewed general information sources. Sources included general interest websites and historic and current maps. In addition, historians consulted the Texas Historic Sites Atlas, and TxDOT-provided Google Earth layer for information regarding existing historic properties located within the project study area which is shown in **Figure 3**. Online resources, such as *The Handbook of Texas Online*, gave researchers an overview of the history of Denton County and Krum. S.G. Reed's *A History of the Texas Railroads* provided information about railroad construction and systems that operated near or through the project area. Project historians were unable to visit Krum Public Library due to safety and health regulations in wake of Covid-19, but they received information on the local history of Krum and several properties within the project area from library director, Donna Pierce. Additionally, project historians were unable to visit the Krum Heritage Museum as planned due to safety and health regulations but attained helpful information from the museum website.

Historical Context Statement

Krum and Denton County

Denton County is in North Central Texas, between Dallas and Tarrant Counties to the south and Cooke and Grayson Counties to the north. Its location gives access to the fertile soils of the Grand Prairie to the west and Blackland Prairie to the east. Sandy soil from Oklahoma reaches south into the center of the county, providing a variety of soils for Denton County's agricultural industry (Odom, 2010). The City of Krum is located seven miles west of the City of Denton in west central Denton County. Agriculture and ranching have played significant roles in the development of Denton County, and more specifically Krum, as has the creation, maintenance, and expansion of transportation corridors and systems. Project historians, therefore, developed the preliminary themes of The Gulf, Colorado and Santa Fe Railway and Pre-World War II Development (1880-1940), Wheat and Agricultural Dominance (1870-1940), and Post World War II Suburbanization and Transportation (1945-Present Day) as a framework in which patterns of settlement, land use, and other historic trends along this corridor could be analyzed, and associated properties evaluated.

The Gulf, Colorado and Santa Fe Railway and Pre-World War II Development (1880-1940)

The Gulf, Colorado and Santa Fe Railway ran a line through western Denton County in the mid-1880s. The railway company purchased approximately 200 acres alongside the railroad to become the City of Krum, named after railroad official, Charles K. Krum. According to an article posted by the *Dallas Morning News*, dated February 3, 1957, B.F. Wilson expanded the south part of the town by the turn of the century "and a building boom was experienced." (*Dallas Morning News*, 1957). By 1900, the town consisted of several businesses, churches, a cemetery, and a school as the population steadily rose. By 1925, Denton County possessed 165 miles of all-weather roads (Knight, 1999: 15). The Great Depression impacted the population and economy of Krum as did the introduction of cars and trucks, which opened the trade market to other areas outside of Krum. In the decades following the Great Depression, when the population fell below 300, Krum maintained approximately 300 to 400 citizens (Hilliard, 2010).

Wheat and Agricultural Dominance (1870-1940)

While Texas was experiencing a spike in wheat production, agriculture in Denton County in the 1870s was limited to subsistence farming. However, following the introduction of the railways in the 1880s, Denton County supported a significant increase in wheat production and continued to place first or second place statewide in the production of the valuable cash crop (Odom, 2010).

By the turn of the century, Krum recorded shipping approximately half a million to one million pounds of grain on the Gulf, Colorado and Santa Fe Railway. Krum was coined the

“largest inland grain market in the world” (Denton County Office of History and Culture, 2017 and Hilliard, 2010). To support this market, by 1905, Krum was home to four grain and elevator companies: Krum Mill and Elevator Co. (est. 1901), M.P. Bewley Milling Co. (est. 1902), Burroughs Mill (est. 1902), and R.L. Cole Grain and Elevator Co. (est. 1905). Simultaneously, Krum’s first cotton gin was constructed by Amos Rowley, and by 1924, there were seven cotton gins (Krum Heritage Museum, 2020).

However, this successful era was short-lived. The county witnessed a decline in subsistence crops as the cash crop industry flourished. In addition, as the wheat and cotton industries thrived, the production of beef cattle fell. With the advent of World War I came devastation for many farmers who made unwise investments as wheat prices soared then unexpectedly plummeted, and farming, particularly cotton farming, peaked in the 1920s and began to decline the years following the Great Depression. (Knight, 1999: 14).

Post-World War II Suburbanization and Transportation (1945-Present Day)

In the *Denton Record Chronicle*, dated September 22, 1946, Krum was a “progressive small town of 500 inhabitants with most its revenue from grain and dairy farming...[and has] a water and light system,” as well as modern brick buildings, well-maintained roads, schools, churches, and lodges. The listed chief “business concerns” included “three grain elevators, a mill...” (*Denton Record Chronicle*, 1946).

Per historic aerial imagery, in 1952, the grid-like pattern of the City of Krum was confined to the areas west of FM 156. Agricultural land dominated the landscape with a few farmsteads dotting areas north and south of FM 1173 and Barthold Road. Travelling further east, away from the City of Krum, development becomes sparser. **See Figure 5.**

In 1957, Krum was described as a thriving town, supported by “cotton, grain, and row crops...[and] several large dairies.” The town supported several enterprises. The R. Cole Grain Elevator Company, run by R.L. Cole’s son, Weldon Cole consisted of “a modern highspeed concrete elevator [(**Resource No. 02**)] together with a feed manufacturing plant” (*Dallas Morning News*, 1957). By 1959, suburban sprawl spread into the City of Krum due in part to the construction of IH 35, which made commuting into the Dallas and Fort Worth areas easier (Hilliard, 2010).

By the early sixties, little change was noted. **See Figure 6.** However, by 1968, the City of Denton expanded further northwest towards Krum. Two 1970s/1980s subdivisions directly north (along East 6th Street) and south of FM 1173 (Meadow Subdivision) are apparent in a 1981 aerial image of the west and central portions of the project area. Meadow Subdivision’s development is further discussed under Ineligible Properties/Districts.

By the nineties, the City of Krum began expanding its grid-like pattern east of FM 156. The City of Denton continued to span northwest towards the project area and

encompasses a small east portion of the project area today located just south of Barthold Road. Today's development is most dense in the west portion of the project area nearest Krum and south of FM 1173. Agricultural properties dominate the east and north halves of the project area.

National Register Eligibility Recommendations

▪ Eligible Properties/Districts

Of the fifteen properties surveyed, **Property No. 02** is recommended *eligible* at the *local level* under *Criterion A: Commerce*. **Property No. 02** is comprised of one historic-age resource, **Resource No. 02**, the R.L. Cole Grain Elevator. R. L. Cole Mill operated from 1905 to 1956, according to the Krum Heritage Museum (Krum Heritage Museum, 2020). Krum was considered the largest wagon grain market in the United States thanks in large part to the fertile soils (Hilliard, 2010). The town was known for its superior quality product, and it is said the Chicago Board of Trade called Krum every morning to gain insight on prices and quantities (Clements, 2017:5). By 1900, half a million to one million pounds of grain was shipped out on the Gulf, Colorado and Santa Fe Railway (Denton County Office of History and Culture, 2017 and Hilliard, 2010). By 1905, Krum was home to four grain elevator companies with the capacity to store over 150,000 bushels: Krum Mill and Elevator Co. (est. 1901), M.P. Bewley Milling Co. (est. 1902), Burroughs Mill (Est. 1902), and R.L. Cole Grain and Elevator Co. (est. 1905) (Krum Heritage Museum, 2020). In 1915, the Krum Mill burned, but the three remaining companies continued operations (Krum Heritage Museum, 2020).

Grain dealer Ralph L. Cole constructed the concrete elevator in 1927, replacing the original structure, ca. 1905 (Krum Heritage Museum, 2020). R.L. Cole arrived in Krum as a boy in the 1880s, according to his daughter, Janice Callarman, who serves as president of the Krum Society of Historic Preservation. He was a highly influential man in the banking and grain industries, and his influence would later deem the R.L. Cole Grain and Elevator Co. one of the leading grain and cotton dealers in Denton County (Hervey, 2002 and Stokes, 2019). When the adjacent mill burned down in 1957, the company was taken over by his son, who ran the business until selling it to Harpool Seed Co. By the 1980s, the elevator was determined no longer suitable for grain storage. In 1993, Preston Like purchased the property to convert into a residence (Krum Heritage Museum, 2020). Between 2004 and 2006, the Krum Society of Historic Preservation issued eleven markers to resources of historic significance around Krum. The R.L. Cole Grain Elevator received its designation in 2005 as Marker No. 8 (Clements, 2017: 10).

The concrete grain elevator features four cylinder-shaped protrusions, known as the silos (purposed for storage), boasting the original four-pane windows and a new roof-top balustrade. A square tower, known as the headhouse, extends upward, featuring the

	<p>same original windows and a new balustrade/railing. On the ground-level, a small concrete addition (ca. 1927), (purposed for shipping and receiving) features a low-pitch, shed roof, replacement sliding windows and replacement board-and-batten wood siding located on the south façade. A replacement stacked cinderblock wall is noted on the base of the southwest silo with new vinyl sash windows. The integrity of the building has been negatively impacted as it has gradually undergone renovations to be converted into a residence. Therefore, Resource No. 02 has lost significance under Criterion C. Figure 7 is a historic photograph of the concrete elevator, and Figure 8 is a historic photograph of the original R.L. Cole Mill (Krum Heritage Museum, 2020).</p> <p>While there is little evidence suggesting R.L. Cole’s direct association with the R.L. Cole Grain Elevator for Resource No. 02 to be considered eligible under Criterion B, his influence within the community and grain industry promoted the company’s success. Research suggests the R.L. Cole Grain Elevator is the last remaining grain elevator in Krum, and therefore, one of the last remaining pieces of evidence of Krum’s grand success in grain handling. Its proximity to the Gulf, Colorado and Santa Fe Railway (directly west) further illustrates the inter-relationship between Resource No. 02 and the transportation/trade of grain in Krum, Texas, which greatly shaped and supported the town’s economic development throughout twentieth century. Therefore, Resource No. 02 is recommended <i>eligible</i> at the <i>local level</i> under <i>Criterion A: Commerce</i>.</p>
<ul style="list-style-type: none"> ▪ Ineligible Properties/Districts 	
	<p><u>Domestic Properties</u></p> <p>Domestic properties usually refer to residential properties, but also include motels, hotels, hostels, shelters, and other locations where people may sleep. Survey efforts identified seven domestic properties in the project APE.</p> <p>A domestic building can be eligible for NRHP listing under Criterion C if it was constructed in or prior to 1977 and it retains a significant amount of its architectural integrity; i.e., it should appear much as it did at the time of construction or when it was sympathetically altered in or prior to the historic survey cut-off date. Significant additions and unsympathetic alterations, such as the application of synthetic siding, replacement of original wood porch supports with metal, and the replacement of wood-sash or steel casement windows with aluminum units, diminish the building’s architectural integrity and make it ineligible for NRHP listing. In addition, a domestic building should be clearly associated with one of the significant historic themes listed above. Buildings eligible under Criterion A or B should have strong historical associations, but can be altered, and do not even have to be particularly noteworthy examples of an architectural style, form, or type.</p> <p><i>Ranch Style</i></p>

The Ranch style (American Ranch, Western Ranch, or California Rambler) originated in the early 1930s in California loosely following the Spanish Colonial precedents in California filtered through Craftsman and Prairie house styles that had been widely popular earlier in the twentieth century. The style remained largely confined to California until after World War II. A combination of factors created a “perfect storm” that led to the wide popularity of the Ranch style in the 1950s and 1960s: the demand for single family housing by World War II veterans starting families; the GI Bill, which provided many different types of loans for returning veterans to buy homes; an increase in automobile ownership, which freed workers from the need to live close to public transportation routes; and the strict FHA-VA guidelines under which developers operated in order to be able to market the houses to buyers using FHA and VA government-subsidized mortgages. Because Ranch houses are very common, the bar of individual architectural significance tends to be high.

Ranch style houses have several notable character-defining features. They are usually horizontally oriented, parallel to the street with asymmetrical facades. The roof is low pitched, either gabled or hipped, with large eaves. Windows tend to be large and plentiful. Fixed picture windows and sliding glass doors are common. The overall form emphasizes the horizontal, accentuated by low walls, horizontal wood, brick, or stone siding, and a long, narrow shape with relatively simple floor plans and an attached garage (McAlester 2013: 597-612).

Survey efforts identified seven properties with Ranch style houses: **Property Nos. 04, 05, 06, 10, 11, 12 and 13. Resource No. 13a** is part of a large agricultural complex discussed under Agricultural Complexes.

Property No. 04 includes a Ranch style house (**Resource No. 04a**) and a garage (**Resource No. 04b**). The house features a rectangular plan, a shallow-pitch, hipped roof, and common course brick veneer with a soldier course brick cornice. The house has its original aluminum-frame, sash windows, attached garage with the original door, and a covered front stoop accentuated by decorative wrought iron porch supports. Although the house’s integrity of materials is maintained, it is a modest example of Ranch style architecture, and therefore is not significant under Criterion C. The property has no known direct associations with significant events, trends, or persons under Criteria A or B. As such, **Resource No. 04a** is recommended *not eligible* for listing in the NRHP.

Property No. 05 features a Ranch style house (**Resource No. 05a**), a garage (**Resource No. 05b**), and a modern shed. **Resource No. 05a** is unique to the project area in that it has Swiss chalet stylistic influence with its scalloped edging and elongated asymmetrical gable roof with wide overhanging eaves. Additionally, the house features a rectangular plan over a concrete foundation and a shallow-pitch, centered gable roof with wide, overhanging eaves. The house has common course brick veneer with a soldier course brick cornice, aluminum frame, sash windows, a few remaining louvered shutters, and an attached garage with the original garage door. While the house maintains integrity of

materials, it is a modest example of a Ranch style house, and more specifically, a modest example of a Ranch style house with chalet influence. Therefore, it is not significant under Criterion C. The property has no known direct associations with significant events, trends, or persons under Criteria A or B. As such, **Resource No. 05a** is recommended *not eligible* for listing in the NRHP.

Property No. 06 includes a Ranch style (**Resource No. 06**) house and a modern garage. The house features a rectangular plan with an ell addition (according to recent aerial imagery), a shallow-pitch, gable-on-hip roof, stretcher brick veneer with a soldier course brick cornice, and a recessed, partial-width porch featuring vertical wood and brick siding, and a replacement door. It appears the original attached garage was later enclosed to become interior living space; it features horizontal vinyl siding (where the original garage door was originally located), and vinyl sash windows/sidelights. Unlike **Resource Nos. 04a** and **05a**, **Resource No. 06** has not retained integrity of materials and design, as the original garage was enclosed with modern materials, and several windows and the front entry have been replaced. Additionally, the house is a modest example of Ranch style architecture and therefore not significant under Criterion C. The property has no known association with historically significant events, trends, or persons under Criteria A or B. As such, **Resource No. 06** is recommended *not eligible* for the NRHP.

Meadow Subdivision is located approximately 0.6 miles east of Krum and south of FM 1173. **Property Nos. 10, 11, and 12**, located within Meadow Subdivision fall within the project APE. According to a current resident of the neighborhood, the subdivision was first constructed in 1973 along Glen Garden Circle by Dallas-based architect, C. E. Stewart. The neighborhood consists of three streets running east-west, parallel to FM 1173: Glen Garden Circle, Meadowcreek Drive, and Clearview Circle. Per historic topographic maps, the three streets were constructed by 1978, and Meadowcreek Drive was the first to be fully developed by 1978. Approximately eight houses were constructed along Glen Garden Circle with the remaining parcels to be developed by the eighties. Only three parcels were developed along Clearview Circle by 1978. Lots are uniform in size and shape, but the subdivision lacks signage, parks, etc. to create a unifying theme. Houses vary in design based on their construction date. The project historian was unable to locate any further information on the architect or the subdivision.

Resource Nos. 10, 11, and 12 are Ranch style houses featuring rectangular plans, multi-level, side-gable roofs, brick veneer siding, and partial-width porches. **Resource No. 10** replaced its garage door and original windows, while **Resource No. 11** has retained integrity of materials. All three properties are modest examples of Ranch style architecture, and Meadows Subdivision is not an ideal example of post-war subdivision development to be considered eligible under Criterion C. Neither Meadows Subdivision or **Property Nos. 10, 11, and 12** have any known associations with historically significant trends, events, or persons under Criteria A or B. As such, **Resource Nos. 10, 11, and 12** are recommended *not eligible* for NRHP listing.

Craftsman Style

Craftsman style houses reached popularity from 1905 to 1930. Brother architects, Charles Sumner Greene and Mather Greene began designing Craftsman bungalows by the early twentieth century in California. Their designs quickly became the most fashionable choice for smaller American houses due in large part to pattern books and magazines. The Greene brothers were most likely inspired by the English Arts and Crafts movement and Asian wooden architecture. Craftsman style houses typically feature a low-pitched, gable roof; wide overhanging eaves; exposed rafter tails; decorative beams under gables; deep full or partial-width porches; tapered, square columns often over pedestals. Single-story, simpler designs are often referred to as bungalows.

Survey efforts identified one resource with Craftsman influence, **Resource No. 14a**. It is part of a large agricultural complex discussed under Agricultural Properties.

Agricultural Properties

Agricultural resources include a variety of buildings, objects, and structures with varying roles in the production of crops and livestock. The form of individual elements, as well as the arrangement of the buildings, fields, fence lines, and vehicular access, often reflects the type of farming or ranching originally practiced. Postwar ranches saw a shift to premanufactured metal buildings and silos and an increase in recreational ranches where owners leased their land to active ranches. At some point, landowners separated the homesite plat on one acre or so from the entire acreage to address property taxes and agricultural exemptions. This pattern is not visible from the streetscape but is noticeable when reviewing aerial maps and reviewing county records superimposed over aerial maps.

Agricultural resources may be eligible under Criterion A if they have known associations with a historic event, trend, or ethnic group, or under Criterion B for association with a significant person or group of persons. To be considered eligible in the area of Agriculture, they must show a clear association with historic agricultural methods and retain integrity to convey how such methods were used. Agricultural resources are usually evaluated under Criterion C for the architecture of the primary residence or building.

Agricultural properties, farms and ranches, are best understood when separated into functions: domestic work zone, agricultural work zone, and fields/pastures. The residential portion of an agricultural property includes a domestic work zone. "Common types of resources found within the domestic work zone are: main house, privy, garage or carport, domestic shed, cistern, well, windmill, well house and pump house, worker housing, chicken coop, storm shelter, smokehouse, [and] landscaping features (including vegetation, fences, gates, paths, driveways)" (Moore, 2013: 5-2). Several properties in the project APE had several agricultural outbuildings of some type (mostly small sheds or barns), but several appear to no longer be used for agricultural purposes.

The agricultural work zone includes structures which support the daily management and operation of the property. Common resources in this area include barn, work shed, silo, corrals, pens, stock tank, grain storage and self-feeders (Moore, 2013: 5-34). “The agricultural zone is usually located close to the domestic work zone, mainly to allow workers easy access to both areas. This zone is also located adjacent to the fields and pastures so equipment and/or feed can be moved directly into the fields and pastures zone” (Moore, 2013: 5-34). To access the agricultural zone there is often a driveway direct from the main road separate from the driveway to the main house. The agricultural work zone is often not enclosed by fencing.

Fields and pastures are the third zone for an agricultural property. Common resources found in this zone include drainage ditch, self-feeder, stock tank, corrals, fences, cattle guard, and contouring or terracing for soil conservation.

Agricultural Complexes

Agricultural complexes are ranches and farmsteads with a historic-age domestic work zone, agricultural work zone, and associated fields or pasture (actively cultivated/grazed or fallow). They vary greatly in size and complexity, ranging from simple compounds with a house and a handful of outbuildings to large organized properties with multiple groupings of outbuildings of differing functions (Moore, 2013). Many of the agricultural properties identified by the survey did not appear to be used for active agricultural practices, but others did have observable activities occurring at the time of survey. Three properties were identified as agricultural complex in the project survey area: **Property Nos. 13, 14, and 15.**

Property Nos. 13 and 15 are associated with the Thrill Hill Ranch, est. 2018. Serving as a cattle ranch, the complex is divided into the three functions: domestic work zone, agricultural work zone, fields/pastures. **Resource No. 13**, a large Ranch style house, and a large modern, two-story garage are located within the domestic work zone. **Resource No. 13** features featuring a Y-shaped plan and western stylistic influences. The shallow-pitch, side-gable roof system includes a clerestory and at least four low, broad chimneys with masonry facades. Additionally, the house has a modern rusticated masonry façade, replacement windows, an attached garage with a replacement garage door, and a large porte-cochère with a gable roof and masonry-wrapped supports. The house lacks integrity of materials due to modern replacements and additions, and therefore is not significant under Criterion C.

Resource No. 15 is a large pole barn located within the agricultural work zone of the ranch, along with a modern machine shed and loafing shed. **Resource No. 15** is a wood or steel-frame pole barn featuring a rectangular plan, four open bays, and an attached, enclosed machine shed all under a low-pitch, side-gable, standing seam, metal roof. The machine shed attachment, located on the west end features metal siding, and four large bays, possibly enclosed with rolling or sliding doors. The open portion of the pole barn includes

wood corrals, and the east façade features metal siding. The pole barn is not a significant example of agricultural architecture to be considered eligible under Criterion C. Although the land is in operation as a cattle ranch, it lacks integrity of design and material as new buildings and structures have been introduced to the property. Additionally, there is no known association with the properties and historically significant trends, events, or persons under Criteria A and B. Therefore, **Property Nos. 13** and **15** are recommended *not eligible* for NRHP listing.

Property No. 14 is large, vacant agricultural complex. The original structures date to the circa 1940s, while a separate parcel (outside the APE) is comprised of a separate domestic work zone circa 1970s. The domestic work zone of **Property 14** is located nearest Barthold Road to the north and includes a Craftsman style house (**Resource No. 14a**). **Resource No. 14a** is a simplified Craftsman bungalow style house featuring a rectangular plan, a high-pitch, cross-gable roof with multi-level, wide-overhanging eaves, exposed rafter tails, horizontal wood siding, a partial-width, covered porch featuring Doric style columns, and both replacement and nonextant/boarded windows. The house lacks integrity of material, and is a modest example of Craftsman bungalow architecture; therefore, it is considered not significant under Criterion C.

The agricultural work zone is located directly south of the domestic work zone and is comprised of several barns (**Resource Nos. 14b, 14d, 14e**, and a barn now located on the separate 1970s parcel), sheds (**Resource Nos. 14c** and **14i**), and tanks (**Resource Nos. 14f, 14g**, and **14h**). The barns are similar in that they have rectangular plans, metal, gable roofs, and metal siding. However, none are an exemplary example of barn architecture, and therefore are not considered significant under Criterion C. The circa 1970s parcel interrupts the overall design and spatial organization of **Property No. 14's** functions/zones, negatively impacting the integrity of the complex. Additionally, there is no known association with a historically significant trend, event, or person under Criteria A or B. As such, **Property No. 14** and its resources are recommended *not eligible* for NRHP listing.

Free Standing/Disassociated Structures

Free standing and disassociated structures are outbuildings with no corresponding domestic work zone. Typically, these buildings include metal pole barns, hay shelters, or loafing sheds. Dating such structures can be difficult based on appearance, so historic aerials are often used in comparison with contemporary aerials.

Survey efforts identified one free standing resource within the project survey area: **Resource No. 03**. **Resource No. 03** is a wood-frame barn featuring a rectangular plan, a shallow-pitched, front-gable, metal roof, corrugated metal siding, and a large open bay enclosed by a large, sliding, metal door. Historic aerials and topographic maps are limited in this area, so it is difficult to discern whether **Resource No. 03** was associated with an agricultural complex at one point. Per aerial imagery, there appears to be a structure in

ruin directly north of the barn, but because of its condition, it is difficult to determine what the structure may have originally been, perhaps a house or another barn. The barn is not an exemplary example of barn architecture. Its integrity of association is greatly lacking, as it is the only remaining structure on the parcel. The barn has no known association with historically significant trends, events, or persons under Criteria A or B. As such, **Resource No. 03** is recommended *not eligible* for listing in the NRHP.

Industrial Properties

Industrial properties are defined by the National Park Service as properties contributing to “technology and process of managing materials, labor, and equipment to produce goods and services” (National Register Bulletin 16A: How to Complete the National Registration Form, 1997: 41). According to TxDOT’s “A Field Guide to Industrial Properties in Texas,” industrial properties are organized into four major property types: petroleum and natural gas property types, grain property types, cotton property types, and utilities and services property types. These four property types are subdivided into typologies. The grain property typologies include storage complexes, processing complexes, auxiliary buildings, and storage bins. The surveyed property falls under grain property types and the storage complex typology, as grain elevators were purposed for grain storage. According to A Field Guide to Industrial Properties in Texas, **Property No. 02** consists of several of the character-defining features of a grain storage complex: an elevator with a headhouse, silos, a possible warehouse related to operations (**Resource No. 01**), and a small addition (ca. 1927) that may have functioned as the office.

Industrial properties share several similarities despite their varying functions as described in the field guide. Industrial resources are typically simple in architectural design. Industrial buildings adorning architectural ornamentation are purposed for “public reception areas...” (v). “...a standardized, pre-fabricated design aesthetic...characterized the American engineered landscape from the late nineteenth through the twentieth centuries” (v). Functionalism was the driving force behind the design aesthetic and industrial resources. They often feature “flat, bare surfaces.” Property types may display regional and local variations, “including construction date, available materials, community size, and the builder’s level of expertise” (vi). Warehouses are described as featuring gable roofs, concrete foundations, steel construction with metal sheathing, rectangular plans, sliding metal doors on gable ends...[steel casement windows], and [are] part of a complex” (Dase, 2003: 28). Office buildings are typically small, one-story buildings with square or rectangular plans featuring gable or hipped roofs, and frame sash or metal casement windows (Dase, 2003: 38).

Survey efforts identified two industrial properties with the project survey area: **Resource Nos. 01 and 02**. **Resource No. 02** is discussed under Eligible Properties. **Resource No. 01** is a Quonset hut featuring polychrome, corrugated metal siding, a barrel-vaulted form with a rectangular plan over a concrete foundation. Small, single-pane windows are located high along the side facades, while two small vents and a large bay enclosed with two large

metal doors are featured on the front façade. Approximately 40 feet wide by one-hundred feet long, **Resource No. 01** fits the dimensions to be considered a 40, also known as an “Elephant Hut.” Although on a separate parcel and built at a later date, **Resource No. 01** appears to be associated with the R.L. Cole Grain Elevator located on the adjacent parcel, **Property No. 02**. Because **Resource No. 01** was constructed years following the establishment of the R.L. Cole Grain and Elevator Company, it lacks a direct association with **Resource No. 02** to be considered eligible under Criteria A or B. Additionally, the Quonset hut is a modest structure, and therefore, not significant under Criterion C. As such, **Resource No. 01** is recommended *not eligible* for NRHP listing.

Educational Properties

Per the *National Register Bulletin 16A*, educational properties are defined as properties purposed for “the process of conveying or acquiring knowledge or skills through systematic instruction, training, or study” (U.S Department of the Interior, 1997: 40). In the nineteenth century, small town libraries were housed in existing buildings, such as post offices and town halls, but as book collections grew, these small American towns began saw the need for larger spaces to hold vast collections (Breisch, 2020).

Survey efforts identified one educational property within the project survey area: **Property No. 09**. According to Krum Public Library director, Donna Pierce, **Resource No. 09** served as the Krum Young Citizens Club (KYCC). The previous owners trusted the property to the Young Citizens of Krum, and the local schoolboard became the trustees. The building was used as the Krum Public Library from 1996 to 2017. The cement and rebar building features a rectangular plan and a new metal, shed roof, adding height to the building’s original form, and a new portico supported by steel posts. Windows have been replaced with single-pane fixed ones, and a few of the original paneled shutters remain, impacting integrity of materials and design. **Resource No. 09** is a modest building lacking discernible style or unique characters, and is therefore is not eligible under Criterion C. Additionally, the property has no known direct associations with historically significant trends, events, or persons under Criteria A or B. As such, **Resource No. 09** is recommended *not eligible* for NRHP listing.

Recreational Properties

Per the *National Register Bulletin 16A*, recreational properties are defined as properties purposed for “the development and practice of leisure activities for refreshment, diversion, amusement, or sport” (U.S. Department of Interior, 1997: 40). Survey efforts identified one recreational resource within the project survey area: **Resource No. 08**. **Resource No. 08** is a baseball field (ca. 1960s per Krum Public Library Director, Donna Pierce) with its corresponding, attached metal dugouts (ca. 1977) and other resources located on adjacent parcels associated with the baseball field and the Krum Young Citizens Club (KYCC). The baseball field is surrounded by chain link fencing of varying heights. The attached dugouts feature flat, standing seam, metal roofs, steel supports,

	<p>chain link screens, and benches spanning the entirety of the structures' widths. The field is in fair condition with a tended lawn and clay baseball diamond and bases. However, Resource No. 08 lacks integrity of materials and design, as it features new materials and modern structures, including replacement/pathworking fencing and posts, bleachers (ca. 2009), a concession stand (ca. 1980), and a modern baseball field (ca. 1985) to the north. Therefore, Resource No. 08 does not rise to a level of significance to be considered eligible under Criterion C. Resource No. 08 has no known association with any historically significant trends, events, or persons under Criterion A or B, nor does it exemplify any significant design or construction methods. Therefore, Resource No. 08 is recommended <i>not eligible</i> for NRHP listing.</p>
<ul style="list-style-type: none"> ▪ Recommendations for Further Study 	
<p>There are no recommendations for further study.</p>	
<p>Determination of Section 106 Effects Recommendations</p>	
<ul style="list-style-type: none"> ▪ Direct Effects 	
	<p>The proposed undertaking would require small amounts of ROW (a corner clip) from one parcel containing a recommended-eligible resource.</p> <ul style="list-style-type: none"> • Property No. 02: parcel acreage (approximate) 0.16; proposed ROW .0074, 4.63 percent <p>A corner clip at the southeast corner of Property No. 02 at the corner of W. McCart Street (FM 1173) and the Gulf, Colorado and Santa Fe Railway for sidewalk improvements impact the parcel occupied by Resource No. 02, recommended eligible under Criterion A: Commerce.</p> <p>Based on the above, the proposed ROW take would not result in the direct effect to historic properties in the project area. The proposed taking would not introduce new visual or audible impacts. The proposed taking would not result in a loss of integrity of location, design, setting, materials, workmanship, feeling, or association to the listed property and therefore not impact its ability to convey significance. As such, the project is recommended as having <i>no adverse effect</i> on historic properties under Section 106.</p>
<ul style="list-style-type: none"> ▪ Indirect, Cumulative or Reasonable Foreseeable Effects 	
	<p>The proposed undertaking is recommended to have no adverse effect on historic properties within the project APE. FM 1173 has remained a stable transportation corridor through the City of Krum for decades. Proposed project activity includes reconstructing, constructing, and widening FM 1173 from west of FM 156 to IH 35 to a six-lane, divided</p>

facility with sidewalks along both sides. Given the pedestrian nature of this location, the sidewalks are not anticipated to have an adverse indirect effect on recommended-eligible property. Existing developmental patterns show a desire to reuse and adapt existing historic building stock for new use, as is the case with **Resource No. 02**, and the historic downtown area, rather than a pattern of demolish and replace. As such, there would be no indirect, cumulative, or reasonably foreseeable effects due to proposed project activity.

U.S. DOT Section 4(f) Applicability Statement

The proposed project activities would require ROW from a parcel occupied by a recommended-eligible property, **Resource No. 02**. See **Appendix D: Figures 9-11**.

- Property No. 02: parcel acreage (approximate) 0.16; proposed ROW .0074, 4.63 percent

The proposed ROW take constitutes a transportation use of a recommended-eligible property under Section 4(f) and would require a Section 4(f) analysis. However, as the project is recommended to have *no adverse effect* on historic properties under Section 106 and the percentage of land required is less than five percent, a finding of *de minimis* impact is warranted under Section 4(f) analysis.

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