Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Appendix E: Technical Memorandums Set 2 of 2

Cultural Resources TMF Alternatives Analysis



Federal Railroad Administration

AECOM

TECHNICAL MEMORANDUM CULTURAL RESOURCES

To: Jerry Smiley, AICP, AECOM

From: Tanya McDougall, AECOM

Date: November 1, 2017

RE: Dallas to Houston HSR – Cultural Resources

This technical memorandum includes the following sections:

- Initiated SHPO Consultation Correspondence
- Section 106 Consulting Party Correspondence
- Federally-Recognized Native American Tribes Correspondence
- Historic Resources Research Design / Archeological Resources Research Design
- Cultural Sensitive Locations Correspondence
- Cultural Context
- Historic Resources NRHP Evaluation Table
- Cultural Resources Survey Reports SHPO Concurrence

Initiated SHPO Consultation Correspondence



Federal Railroad Administration

February 23, 2015

Mark Wolfe State Historic Preservation Officer Texas Historical Commission P.O. Box 12276 Austin, TX 78711-2276

RE: Initiation of Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Wolfe,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, gradeseparated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors.

Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process. The undertaking requires compliance with NEPA and Section 106 of the National Historic Preservation Act (NHPA), as amended.

As the lead federal agency, FRA is contacting you to initiate formal consultation with the Texas Historic Commission regarding the undertaking in accordance with 36 CFR 800 and its implementing regulations. We appreciate the information provided by your staff to date and look forward to working with you throughout the review process.

Sincerely,

Vales aute

David Valenstein Division Chief, Environment and Systems Planning Division





Section 106 Consulting Party Correspondence

U.S. Department of Transportation

Federal Railroad Administration

FEB 2 3 2015¹ U.S. Army Corps of Engineers Galveston District Ms. Felicity Dodson 2000 Fort Point Road Galveston, TX 77550

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Ms. Felicity Dodson,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to participate in review of the undertaking as a consulting party in accordance with the Section 106 National Historic Preservation Act (36 CFR 800). A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

A map of the alternative corridors currently under consideration is attached for your use. The environmental review process has only recently begun, and alignment alternatives have not been developed as of this writing. If you agree to participate as a consulting party, FRA will provide project information as it becomes available. In the meantime, a description of the project and maps be found at <u>https://www.fra.dot.gov/Page/P0700</u>.

Sincerely,

Tana Vales

David Valenstein Division Chief, Environment and Systems Planning Division



U.S. Department of Transportation

Federal Railroad Administration FEB 2 3 2015 U.S. Army Corps of Engineers Ft. Worth District Mr. Darvin Messer PO Box 17300 819 Taylor Street, Room 3A37

Ft. Worth, TX 76102

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Darvin Messer,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to participate in review of the undertaking as a consulting party in accordance with the Section 106 National Historic Preservation Act (36 CFR 800). A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

A map of the alternative corridors currently under consideration is attached for your use. The environmental review process has only recently begun, and alignment alternatives have not been developed as of this writing. If you agree to participate as a consulting party, FRA will provide project information as it becomes available. In the meantime, a description of the project and maps be found at <u>https://www.fra.dot.gov/Page/P0700</u>.

Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division

U.S. Department of Transportation

Federal Railroad Administration

FEB 2 3 2015¹ Preservation Texas Mr. Evan Thompson, Executive Director P.O. Box 12832 Austin, TX 78711

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Evan Thompson,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to participate in review of the undertaking as a consulting party in accordance with the Section 106 National Historic Preservation Act (36 CFR 800). A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

A map of the alternative corridors currently under consideration is attached for your use. The environmental review process has only recently begun, and alignment alternatives have not been developed as of this writing. If you agree to participate as a consulting party, FRA will provide project information as it becomes available. In the meantime, a description of the project and maps be found at <u>https://www.fra.dot.gov/Page/P0700</u>.

Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division



U.S. Department of Transportation

Federal Railroad Administration

FEB 2 3 2015 County of Ellis THC Ms. Sylvia Smith PO Box 175 Waxahachie, TX 75165

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Ms. Sylvia Smith,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to participate in review of the undertaking as a consulting party in accordance with the Section 106 National Historic Preservation Act (36 CFR 800). A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

A map of the alternative corridors currently under consideration is attached for your use. The environmental review process has only recently begun, and alignment alternatives have not been developed as of this writing. If you agree to participate as a consulting party, FRA will provide project information as it becomes available. In the meantime, a description of the project and maps be found at <u>https://www.fra.dot.gov/Page/P0700</u>.

Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division

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U.S. Department of Transportation

Federal Railroad Administration

County of Freestone THC Mr. Brad Pullin 245 FM 833 West Streetman, TX 75840

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Brad Pullin,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to participate in review of the undertaking as a consulting party in accordance with the Section 106 National Historic Preservation Act (36 CFR 800). A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

A map of the alternative corridors currently under consideration is attached for your use. The environmental review process has only recently begun, and alignment alternatives have not been developed as of this writing. If you agree to participate as a consulting party, FRA will provide project information as it becomes available. In the meantime, a description of the project and maps be found at <u>https://www.fra.dot.gov/Page/P0700</u>.

Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division



U.S. Department of Transportation

Federal Railroad Administration

FEB 2 3 2015 County of Grimes THC Ms. Denise Upchurch 9927 FM 1696 Bedias, TX 77830

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Ms. Denise Upchurch,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to participate in review of the undertaking as a consulting party in accordance with the Section 106 National Historic Preservation Act (36 CFR 800). A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

A map of the alternative corridors currently under consideration is attached for your use. The environmental review process has only recently begun, and alignment alternatives have not been developed as of this writing. If you agree to participate as a consulting party, FRA will provide project information as it becomes available. In the meantime, a description of the project and maps be found at <u>https://www.fra.dot.gov/Page/P0700</u>.

Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division

U.S. Department of Transportation

Federal Railroad Administration

FEB 2 3 2015 County of Harris THC Ms. Janet Wagner 710 North Post Oak Road, #400 Houston, TX 77002

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Ms. Janet Wagner,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to participate in review of the undertaking as a consulting party in accordance with the Section 106 National Historic Preservation Act (36 CFR 800). A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

A map of the alternative corridors currently under consideration is attached for your use. The environmental review process has only recently begun, and alignment alternatives have not been developed as of this writing. If you agree to participate as a consulting party, FRA will provide project information as it becomes available. In the meantime, a description of the project and maps be found at <u>https://www.fra.dot.gov/Page/P0700</u>.

Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division



of Transportation

Federal Railroad Administration

FEP 2 3 2015 County of Leon THC Ms. Charleie Casey PO Box 866 Buffalo, TX 75833

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Ms. Charlcie Casey,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to participate in review of the undertaking as a consulting party in accordance with the Section 106 National Historic Preservation Act (36 CFR 800). A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

A map of the alternative corridors currently under consideration is attached for your use. The environmental review process has only recently begun, and alignment alternatives have not been developed as of this writing. If you agree to participate as a consulting party, FRA will provide project information as it becomes available. In the meantime, a description of the project and maps be found at <u>https://www.fra.dot.gov/Page/P0700</u>.

Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division



U.S. Department of Transportation

Federal Railroad Administration

FEB 2 3 2015 County of Limestone THC Mr. William Reagan PO Box 860 Groesback, TX 76642

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Mr. William Reagan,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to participate in review of the undertaking as a consulting party in accordance with the Section 106 National Historic Preservation Act (36 CFR 800). A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

A map of the alternative corridors currently under consideration is attached for your use. The environmental review process has only recently begun, and alignment alternatives have not been developed as of this writing. If you agree to participate as a consulting party, FRA will provide project information as it becomes available. In the meantime, a description of the project and maps be found at <u>https://www.fra.dot.gov/Page/P0700</u>.

Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division



of Transportation

Federal Railroad Administration

FEB 2 3 2015 County of Madison THC Ms. Bonne Hendrix 802 S. May Street Madisonville, TX 77864

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Ms. Bonne Hendrix,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to participate in review of the undertaking as a consulting party in accordance with the Section 106 National Historic Preservation Act (36 CFR 800). A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

A map of the alternative corridors currently under consideration is attached for your use. The environmental review process has only recently begun, and alignment alternatives have not been developed as of this writing. If you agree to participate as a consulting party, FRA will provide project information as it becomes available. In the meantime, a description of the project and maps be found at <u>https://www.fra.dot.gov/Page/P0700</u>.

Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division



Federal Railroad Administration

FEB 2 3 2015 County of Madison THC Mr. Sonny Knight PO Box 925 Madisonville, TX 77864

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Sonny Knight,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to participate in review of the undertaking as a consulting party in accordance with the Section 106 National Historic Preservation Act (36 CFR 800). A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

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Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division



U.S. Department of Transportation

Federal Railroad Administration

FEB 2 3 2015 County of Montgomery THC Mr. Larry Foerster 414 West Phillips Suite 100 Conroe, TX 77301

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Larry Foerster,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to participate in review of the undertaking as a consulting party in accordance with the Section 106 National Historic Preservation Act (36 CFR 800). A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

A map of the alternative corridors currently under consideration is attached for your use. The environmental review process has only recently begun, and alignment alternatives have not been developed as of this writing. If you agree to participate as a consulting party, FRA will provide project information as it becomes available. In the meantime, a description of the project and maps be found at <u>https://www.fra.dot.gov/Page/P0700</u>.

Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division



U.S. Department of Transportation

Federal Railroad Administration

County of Navarro THC Mr. Bruce McManus 3019 McKnight Lane Corsicana, TX 75110

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Bruce McManus,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

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Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division

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U.S. Department of Transportation

Federal Railroad Administration

County of Waller THC Mr. Truett Bell PO Box 9 Pattison, TX 77445

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Truett Bell,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

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Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division

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U.S. Department of Transportation

Federal Railroad Administration

Ennis Main Street Program Manager Ms. Becky McCarty PO Box 220 Ennis, TX 75120

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Ms. Becky McCarty,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

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Melissa Hatcher of my staff will be the FRA contact for this project. She can be reached at (202) 493-6075 or by email <u>melissa.hatcher@dot.gov</u>.

Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division



U.S. Department of Transportation

Federal Railroad Administration

City of Dallas Mr. Mark Doty, Historic Preservation Officer 1500 Marilla Street, Room 5BN Dallas, TX 75204

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Mark Doty,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to participate in review of the undertaking as a consulting party in accordance with the Section 106 National Historic Preservation Act (36 CFR 800). A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

A map of the alternative corridors currently under consideration is attached for your use. The environmental review process has only recently begun, and alignment alternatives have not been developed as of this writing. If you agree to participate as a consulting party, FRA will provide project information as it becomes available. In the meantime, a description of the project and maps be found at <u>https://www.fra.dot.gov/Page/P0700</u>.

We look forward to your response to our request to be a consulting party and to working with you to advance this transportation project. The favor of a reply is requested within 30 days after receipt of this letter.

Melissa Hatcher of my staff will be the FRA contact for this project. She can be reached at (202) 493-6075 or by email <u>melissa.hatcher@dot.gov</u>.

Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division

U.S. Department of Transportation

Federal Railroad Administration

FEP 2 3 2015 City of Ennis Mr. Marty Nelson, Economic Development District/CLG PO Box 220 Ennis, TX 75120

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Marty Nelson,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

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Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division



of Transportation

Federal Railroad Administration

FFP 2.3 2015 City of Corsicana Ms. Sara Beth Wilson, Main Street & Tourism Director/HPO 200 North 12th Street Corsicana, TX 75110

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project

Dear Ms. Sara Beth Wilson,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

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Melissa Hatcher of my staff will be the FRA contact for this project. She can be reached at (202) 493-6075 or by email <u>melissa.hatcher@dot.gov</u>.

Sincerely,

Janu Vales

David Valenstein Division Chief, Environment and Systems Planning Division

From:	Welch, Jim
То:	Hartsfield, Shelley
Subject:	FW: Dallas to Houston High Speed Rail Project - Section 106 Consultation (UNCLASSIFIED)
Date:	Monday, March 09, 2015 3:39:42 PM

-----Original Message-----From: melissa.hatcher@dot.gov [mailto:melissa.hatcher@dot.gov] Sent: Monday, March 09, 2015 3:08 PM To: Felicity.A.Dodson@usace.army.mil Cc: Jerry.L.Androy@usace.army.mil; Welch, Jim Subject: RE: Dallas to Houston High Speed Rail Project - Section 106 Consultation (UNCLASSIFIED)

Thank you Felicity. I look forward to working with you and Jerry.

Melissa Hatcher Environmental Protection Specialist Federal Railroad Administration (202) 493-6075

-----Original Message-----From: Dodson, Felicity A SWG [<u>mailto:Felicity.A.Dodson@usace.army.mil</u>] Sent: Monday, March 09, 2015 4:03 PM To: Hatcher, Melissa (FRA) Cc: Androy, Jerry L SWG Subject: Dallas to Houston High Speed Rail Project - Section 106 Consultation (UNCLASSIFIED)

Classification: UNCLASSIFIED Caveats: NONE

Melissa,

Thanks for your call today, to go over the status of the Federal Railroad Administration's forecast schedule for this proposed project. As we discussed, I did receive your February 23, 2015 letter, inviting us to participate in the Section 106 Consultation. Since the Corps has agreed to participate as a cooperating agency in the preparation of an EIS for this project, we would also like to participate in the Section 106 consultation. Jerry Androy is our Regulatory Staff Archaeologist, and would be the point person for any action related to 106. I will forward him a copy of your letter. For future reference, he may be reached at 409-766-3821 or via email at Jerry.L.Androy@usace.army.mil.

Best regards, Felicity

Felicity A. Dodson Acting Central Unit Leader Regulatory Project Manager U.S. Army Corps of Engineers, Galveston District Phone: 409-766-3105 Fax: 409-766-6301 or 409-766-3931 felicity.a.dodson@usace.army.mil

Physical Address:

2000 Fort Point Road Galveston, TX 77550

Post Office Box: P.O. Box 1229 Galveston, TX 77553-1229

Web: www.swg.usace.army.mil/BusinessWithUs/RegulatoryBranch.aspx Facebook: www.facebook.com/GalvestonDistrict DVIDS: www.dvidshub.net/units/USACE-GD Twitter: www.twitter.com/usacegalveston

To assist us in improving our service to you, please complete the survey found at: <u>http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0</u>

Classification: UNCLASSIFIED Caveats: NONE

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-----Original Message-----From: melissa.hatcher@dot.gov [mailto:melissa.hatcher@dot.gov] Sent: Thursday, March 26, 2015 10:00 AM To: Welch, Jim Cc: melissa.hatcher@dot.gov Subject: Preservation Texas

Hi Jim,

Preservation Texas called me to tell me they will be a consulting party.

Thanks, Melissa

Sent with Good (www.good.com)

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From:	Welch, Jim
То:	Hartsfield, Shelley
Subject:	FW: Dallas to Houston High-Speed Rail Project
Date:	Thursday, April 16, 2015 9:43:50 AM

From: melissa.hatcher@dot.gov [mailto:melissa.hatcher@dot.gov]
Sent: Thursday, April 16, 2015 7:35 AM
To: Welch, Jim
Subject: FW: Dallas to Houston High-Speed Rail Project

The Ellis County Historical Commission will be a consulting party.

Melissa Hatcher Environmental Protection Specialist Federal Railroad Administration (202) 493-6075

From: rjcarey1@gmail.com [mailto:rjcarey1@gmail.com] Sent: Thursday, April 16, 2015 7:44 AM To: Hatcher, Melissa (FRA) Cc: Sylvia Smith; Ryan Mize Subject: Dallas to Houston High-Speed Rail Project

Dear Ms. Hatcher -

This is in response to the letter of 23 Feb 2015 to Sylvia Smith, Chair of the Ellis County Historical Commission, from David Valenstein regarding consultation under Sec. 106 of the National Historic Preservation Act on the project on the Dallas to Houston High-Speed Rail Project (HSR). The letter was forwarded to me for response. The Ellis County Historical Commission would like to participate in consultation on the project.

It would be good, however, if we had the specific geographic locations of the alternative routes for the HSR whenever they are available. The maps from the website in the letter noted above were provided to Ryan Mize, our Ellis County GIS Specialist, to show how the alternative routes might impact on historic features, such as our cemeteries. He provided a map, however, he noted that the alternative routes were still somewhat general in nature and not geographically specific. As goes without saying, knowing the specific geographic alternative routes is critical to determining possible impact on historical features.

We appreciate very much the opportunity to participate in the Sec. 106 review of this project.

Rex Carey Ellis County Historical Commission 972-775-2463 - Hm 214-802-3505 - Cell rjcarey1@gmail.com 4041 Rollingwood Ln. Midlothian, TX 76065

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ROGER KNIGHT, JR., INC.

A PROFESSIONAL CORPORATION ATTORNEYS AT LAW 714 S. MADISON MADISONVILLE, TEXAS 77864

MAILING ADDRESS: P.O. BOX 925

OFFICE (936) 348-3543 FAX (936) 348-5433

LAURIE LOUISE KNIGHT

ROGER KNIGHT 1910-1991

March 4, 2015

Re: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CRF 800) for the Dallas to Houston High-Speed Rail Project

Mr. David Valenstein Division Chief Environment and Systems Planning Division 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Mr. Valenstein:

I have and thank you for your letter of February 23, 2015. I suppose the letter is written to me because of my connection with the Texas Historical Commission of Madison County. I will be happy to help in any way I can that does not damage Madison County or its residents, does not shut down any of our roads or facilities, or prevents Madison County residents from accessing their ranch properties as they currently have as of the writing of this letter.

I will be happy to serve as a consulting party in accordance with Section 106 of the National Historic Preservation Act. I do agree to participate as a consulting party with the qualifications and conditions I have already set forth.

Thank you, and with cordial good wishes, I am

Yours

RK, JR/jls

KEVIN ROGER KNIGHT* *Board Certified-Personal Injury Trial Law Texas Board of Legal Specialization Member American Board of Trial Advocates

ROGER KNIGHT, JR.

MEMBER AMERICAN BOARD OF TRIAL ADVOCATES

From:	Welch, Jim
To:	Hartsfield, Shelley
Subject:	FW: Dallas to Houston High-Speed Rail Project
Date:	Tuesday, March 10, 2015 9:06:13 AM

From: melissa.hatcher@dot.gov [mailto:melissa.hatcher@dot.gov]
Sent: Tuesday, March 10, 2015 9:02 AM
To: hchc.janet@gmail.com
Cc: Welch, Jim
Subject: RE: Dallas to Houston High-Speed Rail Project

Dear Ms. Wagner,

Thank you for agreeing to act as consulting party pursuant to Section 106 of the National Historic Preservation Act. I look forward to communicating with you in the near future about the next steps in the process and our anticipated tmeframes for Section 106 consulting parties meetings.

Sincerely, Melissa Hatcher Environmental Protection Specialist Federal Railroad Administration Office of Railroad Policy and Development 1200 New Jersey Avenue, SE Washington, DC 20590 (202) 493-6075

Rail – Moving America Forward

The Federal Railroad Administration's mission is to enable the safe, reliable, and efficient movement of people and goods for a strong America, now and in the future.

From: Janet Wagner [mailto:hchc.janet@gmail.com]
Sent: Tuesday, March 10, 2015 9:41 AM
To: Hatcher, Melissa (FRA)
Subject: Fwd: Dallas to Houston High-Speed Rail Project

------ Forwarded message ------From: Janet Wagner <<u>hchc.janet@gmail.com</u>> Date: Mon, Mar 9, 2015 at 3:09 PM Subject: Fwd: Dallas to Houston High-Speed Rail Project To: Glen Van Slyke <<u>glen.vanslyke@cao.hctx.net</u>>

------ Forwarded message ------From: Janet Wagner <<u>hchc.janet@gmail.com</u>> Date: Mon, Mar 9, 2015 at 3:08 PM Subject: Dallas to Houston High-Speed Rail Project To: <u>melissa.hactcher@dot.gov</u> Ms Hatcher:

The Harris County Historical Commission (HCHC) agrees to be a consultant for the above project. The consulting letter, sent as a hard copy to Mr. David Valenstein, Division Chief, is attached, along with copies of his letter to the HCHC. The HCHC awaits the MOA or PA when necessary.

Regards,

Janet K. Wagner

Chair, Harris County Historical Commission

HCHC.janet@gmail.com

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HARRIS COUNTY, TEXAS



HARRIS COUNTY HISTORICAL COMMISSION

Janet K. Wagner RLA, Chair

Chris Varela, Vice Chairman Trevia Wooster Beverly, Corresponding Secretary Debra Blacklock-Sloan, Marker Dedication Chair Ann Dunphy Becker, Website Review Dr. Gayle Davies, Harris County Marker Chair Bernice Mistrot, Texas Treasure Business Chair Gene Wiggins, Website Coordinator Sarah Canby Jackson, CA, Archives Susan Armstrong, Recording Secretary Jim Fisher, Marker Inventory Chair Paul R. Scott, State Marker Chair Ed C. Ming Chen, Parliamentarian Charles Duke, Legislative Liaison Michael D. Vance, Historic Videos Joseph Strange, Historical Photographer James H. Ford, Jr., Marker Mentor Chair

March 10, 2015

Mr. David Valenstein, Division Chief, Environment and Systems Planning Division
U. S. Department of Transportation, Federal Railroad Administration
1200 New Jersey Avenue, SE
Washington, D. C. 20590

RE: Invitation to Participate in Consultation pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800) for the Dallas to Houston High-Speed Rail Project.

Dear Mr. Valenstein:

Regarding the invitation for the Harris County Historical Commission (HCHC) to participate as a consulting party for the Dallas to Houston High-Speed Rail Project, the HCHC detracts the March 9, 2015 agreement letter to become a consulting party participant for the High-Speed Rail Project.

A copy of this letter will be emailed to Ms. Melissa Hatcher. Thank you for your time and consideration of the HCHC.

Regards,

Chair, Harris County Historical Commission

Milford Wayne Donaldson, Chairman

Clement A. Price, Ph.D. Vice Chairman

John M. Fowler Executive Director



Preserving America's Heritage

March 20, 2015

Ms. Sarah Feinberg Acting Administrator Federal Railway Administration 1200 New Jersey Avenue, SE Washington, DC 20590

REF: Proposed Dallas to Houston High Speed Rail Project Dallas and Houston, Texas

Dear Ms. Feinberg:

In response to a notification by the U.S. Department of Transportation, Federal Railway Administration, the Advisory Council on Historic Preservation (ACHP) will participate in consultation to develop a Memorandum of Agreement for the proposed Dallas to Houston High Speed Rail Project. Our decision to participate in this consultation is based on the *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, contained within our regulations. The criteria are met for this proposed undertaking because the project may include adverse effects to large numbers of historic properties, such as impacts to multiple properties within a historic district.

Section 800.6(a)(1)(iii) of our regulations requires that we notify you, as the head of the agency, of our decision to participate in consultation. By copy of this letter, we are also notifying David Valenstein, Division Chief, Environment and Systems Planning Division of this decision.

Our participation in this consultation will be handled by Christopher Wilson, who can be reached at 202-517-0229, or via e-mail at cwilson@achp.gov. We look forward to working with your agency and other consulting parties to consider alternatives to this undertaking that could avoid, minimize, or mitigate potential adverse effects on historic properties and to reach a Memorandum of Agreement.

Sincerely,

John M. Fowler Executive Director

January 25, 2016

Mr. Jerry Smiley Project Manager AECOM 1950 North Stemmons Freeway, Suite 6000 Dallas, Texas 75207

Dear Mr. Smiley,

Thank you for contacting the Boren-Reagor Springs Historical Society requesting information in relation to the proposed High-Speed Rail from Dallas to Houston.

The Boren Cemetery is a significant cultural resource in Ellis County, Texas. It contains the graves of 283 residents of the area, some of them the very first settlers who arrived in 1847. The first burial date recorded on a tombstone is 1868. Interred there is Michael Boren who served in the Army of the Republic of Texas. Three Civil War veterans are also buried there: John W. Bell served in the Tennesse Infantry and Cavalry before coming to Texas, William Milton Boren fought in the Spanish-American war as well as the Civil War, and James Addison Davis served in the Mississippi State Cavalry. These men and their families helped shape the community and the state of Texas.

Growing out of the effort begun in 1998 to clean up the cemetery, the BRSHS published a book, Boren Cemetery, the First One Hundered and Forty Years, available at Ellis County Libraries and through our web site. We have shared all the information we have uncovered in an effort to preserve this slice of Texas history and to aid the searches of future historians and geneologists.

We sincerely hope that the proposed High-Speed Rail line will respect the history of the cemetery and this community.

Sincerely,

Lenny Boren & Calor

Nancy Boren Solohubow Presdient, BRSHS 972-625-6261 nancy@nancyboren.com

PS I hope you are also aware of the historic Richardson Cemetery (30 graves) one mile southwest of its historical marker on Hwy 287 at the Reagor Springs exit. The historic Templeton Farm Cemetery (36 graves and often competely over grown) is also in the area on the north side of Old Waxahachie Road between Old Boyce Road and Cooke Road. This cemetery was used for many of the African-American residents, many of whom were descendants of slaves brought to the area in 1855.



Federally-Recognized Native American Tribes Correspondence

U.S. Department of Transportation

Federal Railroad Administration

FEB 1 9 2015 Kiowa Indian Tribe of Oklahoma Ms. Amie Tah-Bone Museum Director and NAGPRA Representative Ms. Amber Toppah, Chairperson P.O. Box 369 Carnegie, OK 73015

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Ms. Amie Tah-Bone,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to initiate Government-to-Government consultations, as the designated point of contact for your tribe, regarding the undertaking in accordance with 36 CFR 800.2(c)(2)(ii). We are available for formal consultations by telephone and other means. We also invite you to share information regarding tribal concerns in the project area.

<u>https://www.fra.dot.gov/Page/P0700</u>. FRA is committed to ensuring that you are kept informed as the project progresses and new information will be provided to you as it becomes available.

Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division



Federal Railroad Administration

FEB 1 9 2015

Mescalero Apache Tribe Mr. Danny Breuninger, Sr. President C/O Holly Houghten, THPO P.O. Box 227 Mescalero, NM 88340

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Danny Breuninger,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

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Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division

U.S. Department of Transportation

1200 New Jersey Avenue, SE Washington, DC 20590

Federal Railroad Administration

FEB 1 9 2015

Muscogee (Creek) Nation of Oklahoma Ms. Odette Freeman, Manager's Assistant Cultural Preservation Office George Tiger, Principal Chief Creek National Tribal Complex P.O. Box 580 Okmulgee, OK 74447

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Ms. Odette Freeman,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

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<u>https://www.fra.dot.gov/Page/P0700</u>. FRA is committed to ensuring that you are kept informed as the project progresses and new information will be provided to you as it becomes available.

Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division



U.S. Department of Transportation

Federal Railroad Administration

FFB 19 2015

The Delaware Nation Ms. Nekole Alligood, Director Cultural Preservation Office Mr. Clifford Peacock, President P.O. Box 825 Anadarko, OK 73005

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Ms. Nekole Alligood,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

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Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division



U.S. Department of Transportation

Federal Railroad Administration

EEB 1 9 2015

Thlopthlocco Tribal Town Mr. George Scott, Town King P.O. Box 188 Okemah, OK 74859

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Mr. George Scott,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

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<u>https://www.fra.dot.gov/Page/P0700</u>. FRA is committed to ensuring that you are kept informed as the project progresses and new information will be provided to you as it becomes available.

Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division



U.S. Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

Federal Railroad Administration

FEB 1.9 2015

Tonkawa Tribe of Indians of Oklahoma Mr. Don Patterson, President 1 Rush Buffalo Rd Tonkawa, OK 74653

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Don Patterson,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to initiate Government-to-Government consultations, as the designated point of contact for your tribe, regarding the undertaking in accordance with 36 CFR 800.2(c)(2)(ii). We are available for formal consultations by telephone and other means. We also invite you to share information regarding tribal concerns in the project area.

<u>https://www.fra.dot.gov/Page/P0700</u>. FRA is committed to ensuring that you are kept informed as the project progresses and new information will be provided to you as it becomes available.

Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division



Federal Railroad Administration

FEB 1 9 2015

United Keetoowah Band of Cherokee Indians Ms. Lisa LaRue-Baker, Acting THPO Mr. George Wickliffe, Chief P.O. Box 748 Tahlequah, OK 74465

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Ms. Lisa LaRue-Baker,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to initiate Government-to-Government consultations, as the designated point of contact for your tribe, regarding the undertaking in accordance with 36 CFR 800.2(c)(2)(ii). We are available for formal consultations by telephone and other means. We also invite you to share information regarding tribal concerns in the project area.

<u>https://www.fra.dot.gov/Page/P0700</u>. FRA is committed to ensuring that you are kept informed as the project progresses and new information will be provided to you as it becomes available.

Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division

U.S. Department of Transportation

Federal Railroad Administration

FEB 1 9 2015.

Wichita and Affiliated Tribes Ms. Terri Parton, President P.O. Box 729 Anadarko, OK 73005

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Ms. Terri Parton,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to initiate Government-to-Government consultations, as the designated point of contact for your tribe, regarding the undertaking in accordance with 36 CFR 800.2(c)(2)(ii). We are available for formal consultations by telephone and other means. We also invite you to share information regarding tribal concerns in the project area.

<u>https://www.fra.dot.gov/Page/P0700</u>. FRA is committed to ensuring that you are kept informed as the project progresses and new information will be provided to you as it becomes available.

Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division



U.S. Department of Transportation

Federal Railroad Administration

FEB 1 9 2015

Caddo Nation of Oklahoma Mr. Robert Cast, THPO P.O. Box 487 Binger, OK 73009

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Robert Cast,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to initiate Government-to-Government consultations, as the designated point of contact for your tribe, regarding the undertaking in accordance with 36 CFR 800.2(c)(2)(ii). We are available for formal consultations by telephone and other means. We also invite you to share information regarding tribal concerns in the project area.
<u>https://www.fra.dot.gov/Page/P0700</u>. FRA is committed to ensuring that you are kept informed as the project progresses and new information will be provided to you as it becomes available.

Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division

1200 New Jersey Avenue, SE Washington, DC 20590



U.S. Department of Transportation

Federal Railroad Administration

FEB 19 2015

Mr. Bryant J. Celestine Historic Preservation Officer Colabe Clem Sylestine, Principal Chief 571 State Park Rd 56 Livingston, TX 77351

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Bryant J. Celestine,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to initiate Government-to-Government consultations, as the designated point of contact for your tribe, regarding the undertaking in accordance with 36 CFR 800.2(c)(2)(ii). We are available for formal consultations by telephone and other means. We also invite you to share information regarding tribal concerns in the project area.

Through consultation, we hope to incorporate into the cultural resources survey process your concerns for locations of traditional or cultural significance and provide an opportunity for participation in the continuing process to identify cultural resources, effects of the project on significant resources, and resolution of any adverse effects of the project which may result from the undertaking. A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

<u>https://www.fra.dot.gov/Page/P0700</u>. FRA is committed to ensuring that you are kept informed as the project progresses and new information will be provided to you as it becomes available.

Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division

1200 New Jersey Avenue, SE Washington, DC 20590



Federal Railroad Administration

FEB 1 9 2015.

Apache Tribe of Oklahoma Mr. Lyman Guy, Chairman P.O. Box 1330 Anadarko, OK 73005

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Lyman Guy,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to initiate Government-to-Government consultations, as the designated point of contact for your tribe, regarding the undertaking in accordance with 36 CFR 800.2(c)(2)(ii). We are available for formal consultations by telephone and other means. We also invite you to share information regarding tribal concerns in the project area.

Through consultation, we hope to incorporate into the cultural resources survey process your concerns for locations of traditional or cultural significance and provide an opportunity for participation in the continuing process to identify cultural resources, effects of the project on significant resources, and resolution of any adverse effects of the project which may result from the undertaking. A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

<u>https://www.fra.dot.gov/Page/P0700</u>. FRA is committed to ensuring that you are kept informed as the project progresses and new information will be provided to you as it becomes available.

Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division

1200 New Jersey Avenue, SE Washington, DC 20590



Federal Railroad Administration

FEB 1 9 2015

Coushatta Tribe of Louisiana Mr. Lovelin Poncho, Chairman P.O. Box 818 Elton, LA 70532

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Lovelin Poncho,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to initiate Government-to-Government consultations, as the designated point of contact for your tribe, regarding the undertaking in accordance with 36 CFR 800.2(c)(2)(ii). We are available for formal consultations by telephone and other means. We also invite you to share information regarding tribal concerns in the project area.

Through consultation, we hope to incorporate into the cultural resources survey process your concerns for locations of traditional or cultural significance and provide an opportunity for participation in the continuing process to identify cultural resources, effects of the project on significant resources, and resolution of any adverse effects of the project which may result from the undertaking. A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

<u>https://www.fra.dot.gov/Page/P0700</u>. FRA is committed to ensuring that you are kept informed as the project progresses and new information will be provided to you as it becomes available.

Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division

1200 New Jersey Avenue, SE Washington, DC 20590



Federal Railroad Administration

FED 79 2015

Comanche Nation of Oklahoma Mr. Jimmy Arterberry, THPO Mr. Wallace Coffey, Chairman P.O. Box 908 Lawton, OK 73502

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Jimmy Arterberry,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to initiate Government-to-Government consultations, as the designated point of contact for your tribe, regarding the undertaking in accordance with 36 CFR 800.2(c)(2)(ii). We are available for formal consultations by telephone and other means. We also invite you to share information regarding tribal concerns in the project area.

Through consultation, we hope to incorporate into the cultural resources survey process your concerns for locations of traditional or cultural significance and provide an opportunity for participation in the continuing process to identify cultural resources, effects of the project on significant resources, and resolution of any adverse effects of the project which may result from the undertaking. A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

<u>https://www.fra.dot.gov/Page/P0700</u>. FRA is committed to ensuring that you are kept informed as the project progresses and new information will be provided to you as it becomes available.

Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division

1200 New Jersey Avenue, SE Washington, DC 20590



U.S. Department of Transportation

Federal Railroad Administration

FEB 1 9 2015

Alabama-Coushatta Tribe of Texas Mr. Bryant J. Celestine Historic Preservation Officer Colabe Clem Sylestine, Principal Chief 571 State Park Rd 56 Livingston, TX 77351

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Bryant J. Celestine,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to initiate Government-to-Government consultations, as the designated point of contact for your tribe, regarding the undertaking in accordance with 36 CFR 800.2(c)(2)(ii). We are available for formal consultations by telephone and other means. We also invite you to share information regarding tribal concerns in the project area.

Through consultation, we hope to incorporate into the cultural resources survey process your concerns for locations of traditional or cultural significance and provide an opportunity for participation in the continuing process to identify cultural resources, effects of the project on significant resources, and resolution of any adverse effects of the project which may result from the undertaking. A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

<u>https://www.fra.dot.gov/Page/P0700</u>. FRA is committed to ensuring that you are kept informed as the project progresses and new information will be provided to you as it becomes available.

Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division

1200 New Jersey Avenue, SE Washington, DC 20590



U.S. Department of Transportation

Federal Railroad Administration

FFR 19 2015

Alabama-Quassarte Tribal Town Mr. Tarpie Yargee, Chief P.O. Box 187 Wetumka, OK 74883

RE: Initiation of Government-to-Government Consultation with Native American Tribal Governments pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800.2(c)(2)(ii)) for the Dallas to Houston High-Speed Rail Project

Dear Mr. Tarpie Yargee,

The Federal Railroad Administration (FRA) has initiated a project-level Environmental Impact Statement (EIS) to implement proposed new high-speed passenger rail service between Dallas and Houston. FRA's action under the National Environmental Policy Act (NEPA) is review and approval of the safety of the high-speed train system. The project is proposed by a private applicant, Texas Central Railway (TCR) and its affiliates. Major project actions consist of construction and operation of a new fully-fenced, grade-separated corridor with two new tracks, overhead power supply, and a service road; power substations; maintenance facilities; and new stations in Dallas and Houston, and potentially one midpoint station in the Shiro area serving Bryan/College Station. The proposed passenger rail service will travel a distance of approximately 240 miles at speeds of approximately 200 miles per hour for a 90-minute trip time. As currently proposed, the corridor will be located adjacent to existing transportation and infrastructure corridors. Potential project effects to any cultural resources will be evaluated by FRA and other consulting parties as part of the environmental process.

As the lead federal agency, FRA is contacting you to initiate Government-to-Government consultations, as the designated point of contact for your tribe, regarding the undertaking in accordance with 36 CFR 800.2(c)(2)(ii). We are available for formal consultations by telephone and other means. We also invite you to share information regarding tribal concerns in the project area.

Through consultation, we hope to incorporate into the cultural resources survey process your concerns for locations of traditional or cultural significance and provide an opportunity for participation in the continuing process to identify cultural resources, effects of the project on significant resources, and resolution of any adverse effects of the project which may result from the undertaking. A Memorandum of Agreement (MOA) or Programmatic Agreement (PA) is anticipated to be necessary.

<u>https://www.fra.dot.gov/Page/P0700</u>. FRA is committed to ensuring that you are kept informed as the project progresses and new information will be provided to you as it becomes available.

Sincerely,

Van Valas

David Valenstein Division Chief, Environment and Systems Planning Division

From:	Welch, Jim
To:	Hartsfield, Shelley
Subject:	FW: Gov to Gov Consultation for Dallas to Houston HSR
Date:	Thursday, March 19, 2015 3:07:16 PM
Attachments:	image002.gif

From: melissa.hatcher@dot.gov [mailto:melissa.hatcher@dot.gov]
Sent: Thursday, March 19, 2015 2:48 PM
To: ofreeman@mcn-nsn.gov
Cc: Welch, Jim
Subject: RE: Gov to Gov Consultation for Dallas to Houston HSR

Dear Ms. Freeman,

Thank you for your prompt response. FRA will continue to include you on the project mailing list so that you will be informed as the National Environmental Policy Act (NEPA) process advances. Should you change your mind at any point or should the project change to involve the Muscogee (Creek) Nation historic area of interest, please do not hesitate to contact me.

Sincerely,

Melissa Hatcher

Environmental Protection Specialist Federal Railroad Administration (202) 493-6075

From: Odette Freeman [mailto:ofreeman@mcn-nsn.gov]
Sent: Thursday, March 19, 2015 3:28 PM
To: Hatcher, Melissa (FRA)
Subject: Gov to Gov Consultation for Dallas to Houston HSR

Thank you the correspondence regarding the Dallas to Houston High Speed Rail project. This project is outside of the Muscogee (Creek) Nation historic area of interest. We respectfully defer to the other Tribes that have been contacted. If you have any further questions or concerns, please give us a call.

Odette Freeman

Historic and Cultural Preservation Department, Manager's Assistant Muscogee (Creek) Nation P. O. Box 580 | Okmulgee, OK 74447 T 918.732.7758 F 918.758.0649 ofreeman@mcn-nsn.gov www.MCN-nsn.gov

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Welch, Jim
Hartsfield, Shelley
FW: Texas Central Railway project
Wednesday, May 13, 2015 11:40:14 AM

Please add to project files and update the spreadsheet.

From: melissa.hatcher@dot.gov [mailto:melissa.hatcher@dot.gov]
Sent: Tuesday, May 12, 2015 3:14 PM
To: NAlligood@delawarenation.com
Cc: CSmith@delawarenation.com; Welch, Jim
Subject: RE: Texas Central Railway project

Dear Nekole,

Thank you for letting me know that none of the counties involved in the proposed railway are part of the Delaware Nation's area of interest. Your response is greatly appreciated.

Best regards, **Melissa Hatcher** Environmental Protection Specialist Federal Railroad Administration (202) 493-6075

From: Nekole Alligood [mailto:NAlligood@delawarenation.com]
Sent: Tuesday, May 12, 2015 4:12 PM
To: Hatcher, Melissa (FRA)
Cc: Corey Smith
Subject: Texas Central Railway project

Good afternoon. I apologize for not getting back with you within the 30 day review period, although I must inform you that none of the counties involved in the proposed rail way are part of the Delaware Nation's area of interest in Texas. Therefore, there are no concerns surrounding the location of the proposed rail line.

Best of luck with the project!

Nekole Alligood Director of Cultural Preservation Delaware Nation 31064 HWY 281 PO Box 281 Anadarko, OK 73005 Phone: 405-247-2448 Fax: 405-247-8905 This e-mail and any attachments contain AECOM confidential information that may be proprietary or privileged. If you receive this message in error or are not the intended recipient, you should not retain, distribute, disclose or use any of this information and you should destroy the e-mail and any attachments or copies.



TONKAWA TRIBE OF OKLAHOMA NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT

• 1 RUSH BUFFALO ROAD, TONKAWA, OKLAHOMA 74653 • • PHONE (580) 628-2561 • FAX: (580) 628-9903 • WEB SITE: www.tonkawatribe.com

Dear Sir or Madam,

Regarding your proposed projects, the Tonkawa Tribe of Indians of Oklahoma submits the following:

The Tonkawa Tribe has no specifically designated historical or cultural sites identified in the above listed project area. However if any human remains, funerary objects, or other evidence of historical or cultural significance is inadvertently discovered then the Tonkawa Tribe would certainly be interested in proper disposition thereof.

We appreciate notification by your office of the many projects on-going, and as always the Tonkawa Tribe is willing to work with your representatives in any manner to uphold the provisions of NAGPRA to the extent of our capability.

Respectfully,

inda Mysee Muse

Miranda "Nax'ce" Myer NAGPRA Representative

From:	<u>Welch, Jim</u>
То:	Hartsfield, Shelley
Subject:	FW: Dallas to Houston High-SPeed Rail Project
Date:	Friday, March 06, 2015 10:47:21 AM

From: melissa.hatcher@dot.gov [mailto:melissa.hatcher@dot.gov]
Sent: Thursday, March 05, 2015 7:30 AM
To: ukbthpo-larue@yahoo.com
Cc: hnoe@unitedkeetoowahband.org; Welch, Jim
Subject: RE: Dallas to Houston High-SPeed Rail Project

Dear Ms. Baker,

Thank you for your prompt response. FRA will continue to consult and coordinate with federally recognized tribes with a more established historic interest in the project area. Should you have questions or concerns in the future, please do not hesitate to contact me.

Best regards, Melissa Hatcher Environmental Protection Specialist Federal Railroad Administration (202) 493-6075

From: Lisa LaRue-Baker - UKB THPO [mailto:ukbthpo-larue@yahoo.com]
Sent: Wednesday, March 04, 2015 2:45 PM
To: Hatcher, Melissa (FRA)
Cc: Holly Noe
Subject: Dallas to Houston High-SPeed Rail Project

The United Keetoowah Band of Cherokee Indians in Oklahoma thanks you for initiating consultation with us. We respectfully defer to federally recognized tribes with a more established historic interest in this particular area of Texas (ours if further North). Thank you again,

Lisa C. Baker Acting THPO United Keetoowah Band of Cherokee Indians in Oklahoma PO Box 746 Tahlequah, OK 74465

c 918.822.1952 ukbthpo-larue@yahoo.com

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March 12, 2015

URS Corporation Attention: Melissa Hatcher 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Ms. Hatcher:

On behalf of Mikko Colabe III Clem Sylestine and the Alabama-Coushatta Tribe, our appreciation is expressed on your efforts to consult us regarding the Dallas to Houston High–Speed Rail proposal.

ALABAMA-COUSHATTA TRIBE OF TEXAS 571 State Park Road 56 • Livingston, Texas 77351 • (936) 563-1100

Our Tribe maintains ancestral associations throughout the state of Texas despite the absence of written records to completely identify Tribal activities, villages, trails, or burial sites. However, it is our objective to ensure significances of American Indian ancestry, especially of Alabama-Coushatta origin, are administered with the utmost considerations.

Upon review of your February 19, 2015 submission, immediately impacts to cultural assets of the Alabama-Coushatta Tribe of Texas could not be completely ascertained in conjunction with this proposal. Within the project area, our Office is aware of the Coushatta Trace as well as potential archaeological occupations. Efforts should be incorporated to minimize or avoid impacts to such sites. In the event of the inadvertent discovery of archaeological artifacts and/or human remains, activity in proximity to the location must cease and appropriate authorities, including our Office, notified without delay for additional consultations.

Should you require further assistance, please do not hesitate to contact us.

Sincerely,

Bryant J. Celestine Historic Preservation Officer

celestine.bryant@actribe.org

Historic Resources Research Design / Archeological Resources Research Design



Federal Railroad Administration 1200 New Jersey Avenue, SE Washington, DC 20590

OCT 1 6 2015

Mark Wolfe State Historic Preservation Officer Texas Historical Commission 108 W. 16th Street Austin, Texas 78701

Subject: Historic Resources Coordination Pursuant to Section 106 of the National Historic Preservation Act for the Dallas to Houston High-Speed Rail Project

Dear Mr. Wolfe,

The Federal Railroad Administration (FRA) contracted AECOM to conduct an environmental review for the Dallas to Houston High-Speed Rail Project (Project) proposed by Texas Central High-Speed Railway, LLC (TCR) and its affiliates (Project Proponent). FRA is authorized to regulate the safety of railroads, including the Project, and must make specific safety determinations regarding the type of trainset proposed to be constructed and operated as part of the Project prior to initiation of passenger service. For this Project, FRA may issue a Rule of Particular Applicability (regulations that apply to a specific railroad or a specific type of operation), a series of waivers, or another action that will ensure the Project is operated safely. This constitutes a federal undertaking and requires review under the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended.

To assist in meeting compliance requirements under Section 106, and in support of the Environmental Impact Statement (EIS) being prepared as required by NEPA, attached to this letter is the proposed research design for the non-archeological historic resources (historic resources) survey to be conducted for the Project (Attachment A). For your review, the attached research design contains the results of a background study conducted for the Project, and a summary of the recommended Area of Potential Effect (APE) and survey methodology. In addition, attached are maps, presented on CD, that illustrate the Project area, recommended maximum APE, study area, and previously recorded and/or designated historic resources. Per the guidance of the Texas Historical Commission (THC) staff, the archeological survey effort for the Project will be coordinated separately.

FRA is consulting with you in accordance with 36 CFR Part 800 implementing Section 106 of the National Historic Preservation Act for this undertaking. At the present time, FRA is seeking your concurrence on the adequacy of the Area of Potential Effects (APE) for historic properties.

FRA also respectfully requests the concurrence of the THC for the recommendations presented in the attached historic resources research design for the Project, including the survey methodology.

Should you have any questions regarding this request, please feel free to contact Melissa Hatcher at (202) 493-6075 or Melissa.Hatcher@dot.gov.

Sincerely,

Paur Valas .

David Valenstein Division of Environmental and Corridor Planning

ATTACHMENT A

RESEARCH DESIGN

NON-ARCHEOLOGICAL HISTORIC RESOURCES SURVEY FOR THE DALLAS TO HOUSTON HIGH SPEED RAIL PROJECT

(Dallas, Ellis, Navarro, Freestone, Limestone, Leon, Madison, Grimes, Waller, and Harris Counties)

Prepared for

Federal Railroad Administration (FRA)

Prepared by

Tanya McDougall

AECOM 1950 North Stemmons Freeway Dallas, Texas 75207

October 2015

Introduction

The Federal Railroad Administration (FRA) has initiated a National Environmental Policy Act (NEPA) evaluation for the Dallas to Houston High-Speed Rail Project (Project [Figure 1]) proposed by Texas Central High-Speed Railway, LLC (TCR) and its affiliates (Project Proponent). As required by NEPA, FRA is preparing an Environmental Impact Statement (EIS) to accomplish this evaluation. AECOM, under contract with FRA, proposes to conduct the non-archaeological historic resources (historic resources) survey for the Project in support of the EIS, as well as to assist in meeting applicable requirements under Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended.

As a federal agency, FRA has the authority to regulate the safety of railroads, including the Project, and must make specific safety determinations regarding the type of trainset proposed to be constructed and operated as part of the Project prior to initiation of passenger service. For this Project, FRA may issue a Rule of Particular Applicability (regulations that apply to a specific railroad or a specific type of operation), a series of waivers, or another action that will ensure the Project is operated safely. This constitutes a federal action and triggers an environmental review under NEPA and Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. In accordance with Advisory Council on Historic Preservation (ACHP) regulations pertaining to the protection of historic properties (36 CFR 800), federal agencies are required to assess the effects of their undertaking on historic properties prior to issuing permits or funding. Historic properties are defined as those properties that are included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). Therefore, the Project is subject to review by the Texas State Historic Preservation Office (SHPO), formally known in Texas as the Texas Historical Commission (THC).

For the purpose of this coordination, the term historic resource refers to any buildings, structures, objects, and potential historic districts dating 1972 or earlier. This date is based on 2017 (anticipated let date for construction) minus 45 years to provide a 5-year buffer that allows for unexpected delays in project planning.

Provided below is a summary of the Project Description. For your review, this document contains the results of a historic resources background study conducted for the Project, and a summary of the recommended Area of Potential Effect (APE) and survey methodology proposed for the historic resources survey. In addition, attached are maps, presented on CD, that illustrate the Project area, recommended maximum APE, study area, and previously recorded and/or designated historic resources.

Project Description

TCR is a Texas-based company formed in 2009 to bring high-speed passenger rail to Texas. TCR has taken a private-sector approach for the deployment of high-speed rail in Texas. Working closely with Central Japan Railway Company (JRC), TCR is promoting the deployment of a high-speed rail system based on JRC's N700-I Bullet System (known as Shinkansen) that will have a maximum operating speed of 205 miles per hour (mph) and a travel time of less than 90-minutes between the two cities.

FRA studied multiple potential alignment alternatives between Dallas and Houston and is tentatively proposing detailed evaluation of six draft alternative alignments. The draft alignment alternatives intersect the Texas counties of Dallas, Ellis, Navarro, Freestone, Limestone, Leon, Madison, Grimes, Waller, and Harris (see Figure 1). The Project will extend approximately 240 miles long, with an estimated right-of-way (ROW) width of approximately 100 feet (ft), and varying depths of impact. Additional acreage is expected to be utilized for ancillary facilities consisting of passenger stations, rail car and track maintenance facilities, electrical substations, maintenance roads, and signal houses. To date, design

efforts have focused on the rail alignment, the principal component of the Project. Once the rail alignment is fixed, siting and conceptual design of the ancillary facilities will begin.

To minimize the impacts of the Project's construction and operation on the land and communities through which it travels, the Project will consist of entirely new track that will be completely grade-separated, meaning that all crossings would be under or over the rail line and not at the same elevation as the high-speed tracks, and reserved for the exclusive use of the N700-I Bullet System.

The Project will involve construction of two general rail design concepts: the first is at-grade construction where the rail is located on an embankment structure and separated from other transportation modes; and the second is an elevated concept (pier and beam) where the rail is located on an elevated viaduct structure. The alignment will consist of a mixture of these two general types of construction and will also include an assortment of culverts, short span bridges, and long span crossings as required to address site-specific requirements and to mitigate impacts. Based on preliminary construction schematics/plans, the Project maximum height at grade will be approximately 50 ft and for elevated structures the maximum height will be approximately 70 ft.

Background Study

A historic resources background study within a study area defined as 3,280 ft (1,000 meters [m]) on either side of the centerline of the draft alignment alternatives was completed in September 2015. The background study included a review of the Texas Historic Sites Atlas, National Register of Historic Places (NRHP) database, Texas Department of Transportation (TxDOT) historic resources database, and available previous reports. The purpose of the study was to identify previously-recorded and/or designated historic resources, including NRHP-listed properties, NRHP-eligible properties, National Historic Landmarks (NHLs), State Antiquities Landmarks (SALs), Recorded Texas Historic Landmarks (RTHLs), Official Texas Historic Markers (OTHMs), Historic Texas Cemeteries (HTCs), and recorded cemeteries with no designation. The results of the background study are presented below in tabular format and on maps provided on CD.

As a result of the background study, a total of 71 previously recorded historic resources were identified within the study area (**Table 1**). Of these resources, 31 are within 1,300 ft of the centerline of the draft alignment alternatives, which is the maximum recommended APE (see Area of Potential Effect section below). None of the previously-recorded and/or designated historic resources within the study area are designated SALs. The remaining resources include 8 NRHP-listed properties, 13 NRHP-eligible properties, 3 RTHLs, 7 OTHMs, 12 HTCs, and 28 recorded cemeteries with no designation. One of the NRHP-listed properties is also designated as an NHL (Dealey Plaza Historic District). No previously-recorded and/or designated historic resources were identified within Waller County. Moreover, all of the NRHP-listed properties identified during the study are concentrated in Dallas County, more specifically the City of Dallas.

Table 1 Previously Recorded Historic Resources within Maximum APE (1,300 feet) and Study Area (3,280 feet)				
County	Resource Name	Resource Type	Designation	Within 1,300 ft
Dallas		·		
	Westend Historic District	Historic District	NRHP Listed	-

Table 1				
Previously Recorded Historic Resources within				
Maximum APE (1,300 feet) and Study Area (3,280 feet)				
County	Resource Name Resource Type Designation Within 1,300 ft			
Dallas (cont'd)				
	Dealey Plaza Historic District	Historic District	NRHP Listed; NHL	-
	Dallas County Courthouse	Building	NRHP Listed	-
	Dallas Morning News	Building	NRHP Eligible	1,211 ft
	Women's Suffrage in Dallas County	Marker	OTHM (Marker #15814)	-
	Union Station	Marker	RTHL (Marker #6908)	-
	Dallas Union Terminal Historic District	Historic District	NRHP Listed	-
	Houston Street Viaduct	Structure	NRHP Listed	1,160 ft
	Cadiz Pump Station	Building	NRHP Eligible	260 ft
	Dallas Coffin Company	Building	NRHP Listed	998 ft
	Corinth Street Viaduct	Structure	NRHP Eligible	1,082 ft
	Pioneer	Cemetery	NRHP Eligible (Cemetery #DL-C105) -	
	Santa Fe Avenue Bridge	Structure	NRHP Eligible -	
	Stanard Tilton Flour Mill	Building	NRHP Listed	-
	US 175 Bridge (Metropolitan Ave.)	Structure	NRHP Eligible -	
	US 175 Bridge (Hatcher St.)	Structure	NRHP Eligible -	
	Colonial Hill Historic District	Historic District	NRHP Listed	-
	SH 310 Bridge	Structure	NRHP Eligible	-
	Overton	Cemetery	HTC (Cemetery #DL-C006)	-
Ellis				
	Geaslin	Cemetery	No designation (Cemetery #EL-C061)	65 ft
	Boren	Cemetery	HTC (Cemetery #EL-C003)	476 ft
	Grady	Cemetery	No designation (Cemetery #EL-C076)	-
Navarro				
	Marshall	Cemetery	No designation (Cemetery #NV- C061)	367 ft
	Ward	Cemetery	HTC (Cemetery #NV-C110)	-
	Anderson Family	Cemetery	HTC (Cemetery #NV-C079)	-
	Shelton Family	Cemetery	HTC (Cemetery #NV-C080)	996 ft
	Powers	Cemetery	HTC (Cemetery #NV-C128)	-
	H & TC RR Bridge	Structure	NRHP Eligible	-
Freestone				
	Red	Cemetery	No designation (Cemetery #FT-C057)	766 ft
	Unknown (Cotton Gin)	Cemetery	No designation (Cemetery #FT-C047)	-

Table 1				
Previously Recorded Historic Resources within				
Maximum APE (1,300 feet) and Study Area (3,280 feet)				
County	Resource Name Resource Type Designation With 1,300			Within 1,300 ft
Freestone (cont'd)				
	Cotton Gin	Marker	OTHM (Marker #11886)	-
	Furney Richardson High School	Marker	OTHM (Marker #14966)	871 ft
	Unknown (S of Asia)	Cemetery	No designation (Cemetery #FT-C038)	993 ft
	CR 1041 Bridge	Structure	NRHP Eligible	-
	General Joseph Burton Johnson	Marker	OTHM (Marker #9887)	1,240 ft
	Johnson 2	Cemetery	HTC (Cemetery #FT-C063)	-
	Johnson 1	Cemetery	No designation (Cemetery #FT-C062)	873 ft
	Holly Grove	Cemetery	No designation (Cemetery #FT-C016)	-
Limestone				1
	Personville	Marker	OTHM (Marker #3993)	-
	Personville/Ebenezer	Cemetery	HTC (Cemetery #LT-C005)	-
	Unknown (New Hope)	Cemetery	No designation (Cemetery #LT-C015)	711 ft
Leon			·	
	Little Flock	Cemetery	HTC (Cemetery # LN-C129)	-
	Unknown (Concord)	Cemetery	No designation (Cemetery #LN-C061)	-
	Kessee Cemetery No designation (Cemetery #LN-C145) -		-	
	Concord Missionary Baptist Marker RTHL (Marker #9619) - Church -		-	
	Bridge at FM 39 and BNSF RR	Structure	NRHP Eligible	-
	Sand Hill	Cemetery	No designation (Cemetery #LN-C072)	-
	Graham	Cemetery	No designation (Cemetery #LN-C071)	1,225 ft
	Nettles	Cemetery	No designation (Cemetery #LN-C070)	54 ft
	Fort Boggy	Marker	OTHM (Marker #9624)	273 ft
	Liberty	Cemetery	No designation (Cemetery #LN-C057)	630 ft
	Rogers	Cemetery	No designation (Cemetery #LN-C020)	-
	Mustang Creek Bridge	Structure	NRHP Eligible	-
Madison				1
	Randolph	Cemetery	No designation (Cemetery #MA-C032)	538 ft
	Ten Mile	Cemetery	No designation (Cemetery #MA-C031)	148 ft
	Oxford	Cemetery	NRHP Eligible (Cemetery #MA-C026)	370 ft
	Sweet Home	Cemetery	No designation (Cemetery #MA-C013)	-
Grimes				1
	Bethel	Cemetery	HTC (Cemetery #GM-C001)	1,236 ft
	Pankey – Shiloh	Cemetery	No designation (Cemetery #GM-C054)	787 ft

Table 1 Previously Recorded Historic Resources within Maximum APE (1,300 feet) and Study Area (3,280 feet)				
County	Resource Name	Resource Type	Designation	Within 1,300 ft
Grimes (cont'd)				
	Union Hill	Cemetery	No designation (Cemetery #GM-C117)	120 ft
	Singleton	Cemetery	No designation (Cemetery #GM-C112)	1,093 ft
Oakland Baptist Church Marker RTHL (Marker #8606)		-		
	Ratliff Cemetery HTC (Cemetery #GM-C104)		161 ft	
	Old Oakland	Marker	OTHM (Marker #8607)	1,275 ft
	Old Oakland Cemetery- Roans Prairie	Cemetery	No designation (Cemetery #GM-C094)	1,275 ft
	Oakland	Cemetery	No designation (Cemetery #GM-C028)	-
	Mason	Cemetery	No designation (Cemetery #GM-C014)	1,040 ft
	Stonehamville Church	Cemetery	No designation (Cemetery #GM-C010)	-
Harris				
	Dolen	Cemetery	No designation (Cemetery #HR-C076)	-
	Mueller	Cemetery	No designation (Cemetery #HR-C073)	-
	Fairbanks	Cemetery	No designation (Cemetery #HR-C175)	343 ft

Based on the background study and location of the draft alignment alternatives, it is anticipated historic resources will be highly concentrated in urban settings including the cities of Dallas and Houston, while in suburban and rural settings historic resources will be more sparsely located. The types of historic resources likely to be encountered in urban settings include buildings, structures, objects, and potential historic districts associated with the following functions or use: domestic, commerce/trade, social, religion, funerary, industry/processing, and transportation. These types of historic resources, as well as those associated with agricultural functions, are also likely to be located in suburban and rural settings; however, it is anticipated that historic resources in these settings will mostly consist of domestic and agricultural resources located on larger parcels of land.

Area of Potential Effect

As defined in 36 CFR § 800.16(d), an APE is "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic resources, if any such resources exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." Therefore, the APE for historic resources was determined by taking into consideration the Project's potential to both directly and indirectly (noise, vibration, and visual) affect historic resources.

Guidance for defining the APE for historic resources was obtained from the FRA's *High-Speed Ground Transportation Noise and Vibration Impact Assessment*, the Federal Communication Commission (FCC) FCC-04-222A3 *Visual Effects Guidelines*, the National Cooperative Highway Research Program (NCHRP) *NCHRP Report 741: Evaluation of Methodologies for Visual Impact Assessments*, and the American Association of State Highway and Transportation Officials (AASHTO) *AASHTO Practitioner's Handbook 12: Assessing Indirect Effects and Cumulative Impacts Under NEPA*.

Per the guidance documents listed above, direct effects are typically well understood and predictable; therefore, direct effects for this Project are considered to be limited to ground disturbing activities associated with the construction of the railway. However, indirect effects are those effects that may occur later in time, be further removed by distance, or be cumulative. Therefore, to determine the limits of indirect effects the project maximum height of 50 ft at grade and 70 ft for elevated structures, as well as the condition of existing settings, were considered.

Based on the background study, the Project will cross urban, suburban, and rural settings. Each setting contains different typical conditions that influence the potential the Project has to indirectly affect historic resources. Broadly defined typical conditions for each setting the draft alignment alternatives will cross are provided below in **Table 2**. The Project's recommended maximum screening distances for noise, vibration, and visual indirect effects within each setting are also provided below (see **Table 2**). The screening distances provided are based on the guidance documents referenced above.

Table 2 Typical Conditions and Maximum Screening Distances for Indirect Effects					
Environment	Location	Density	Defined Land Use	Maximum Scr Distance	eening s
Urban	Typically defined by city limits (For this Project, defined as the Dallas and Houston city limits)	Areas with more than 50% development	 Clustered development on small lots with little open space Open space is typically limited to parks and recreational areas 	*Noise *Vibration **Visual	350 ft 220 ft 350 ft
Suburban	Can be within or outside of city limits around urban areas (For this Project, defined as rural communities and developed areas surrounding the Dallas and Houston city limits)	Areas with 25- 50% development	 Clustered development arranged on small subdivided lots surrounded by open space 	*Noise *Vibration **Visual	700 ft 275 ft 700 ft
Rural	Outside of city limits (For this Project, defined as all other areas outside of Urban and Suburban environments)	Areas with less than 25% development	 Mostly open space with scattered development on large parcels 	*Noise ***Vibration **Visual	1,300 ft N.A. 1,300 ft

* Information based on guidance from FRA's High-Speed Ground Transportation Noise and Vibration Impact Assessment.

** Information from FCC-04-222A3 *Visual Effects Guidelines* used in part for the development of the visual effects screening distance. *** N.A. = Information Not Available

Pageuse the limits of indirect offects must take into considerat

Because the limits of indirect effects must take into consideration the conditions of the setting in which the Project will be located, it is recommended the APE for historic resources be variable and defined based on the largest screening distance of considered potential indirect effects for each setting. Therefore, the recommended APE for historic resources is as follows:

- 350 ft beyond the ROW where the Project will be constructed in Urban settings
- 700 ft beyond the ROW where the Project will be constructed in Suburban settings
- 1,300 ft beyond the ROW where the Project will be constructed in Rural settings

The variable APE for the Project will be applied through the review of modern aerials, prior to the field survey. Should the conditions of an area appear different in the field than was projected prior to fieldwork; the APE will be adjusted in the field at the discretion of the architectural historian. Only historic resources that fall within the APE will be documented. However, extension of the APE for the purpose of including historic resources on a parcel with historic resources being recorded within the APE will be determined by the architectural historian.

Methodology

Historic resources, defined as any buildings, structures, objects, and potential historic districts constructed in 1972 or earlier, will be documented and evaluated for NRHP eligibility by historians that meet the Secretary of the Interior's professional qualification standards. The evaluation of historic resources will be based on the National Park Service (NPS) standards for identification and evaluation of historic properties, as presented in 36 CFR § 60.4 [a-d].

Field Survey

Prior to the field survey, historic aerial photographs and historic maps will be reviewed and compared to modern aerial photographs. The purpose of this review will be to identify the locations of potential historic resources within the APE. In addition, the information obtained from this review will be used to gain an understanding of the built environment and patterns of development along the draft alignment alternatives.

During the field survey, each historic resource within the APE will be documented from the public ROW with digital photography that meets the NPS standards for digital photography. The photographs taken will be sufficient in number and perspective to capture the character defining features of a resource, except under circumstances beyond the technical expert's control, such as resources obscured by leafy vegetation. Under these circumstances the technical expert will provide written description of any visual architectural elements not captured in photographs.

Historic resources will be documented on individual field survey forms that are formatted to capture specific information relevant to the location, style, form, details, materials, and construction methods of the historic resource. Each historic resource will be provided a unique identification number that will include the first two letters of the county in which the resource was recorded, followed by a number (i.e. DA-001 [DA=Dallas County]). Ancillary historic resources will be recorded as subsets of the primary historic resource and labeled accordingly (i.e. DA-001a and DA-001b [a=primary resource; b=ancillary resource]). Field survey forms will at a minimum include:

- a. Unique resource identification number
- b. Location (i.e. address)
- c. List of photographs taken and direction of each photograph
- d. Architectural style and/or form
- e. Construction date or if not known, estimated construction date
- f. Construction materials
- g. Architectural details including roof, cladding, windows, doors, entrance, etc.
- h. Investigation limitations

A phased approach for compliance with Section 106, as provided for in 36 CFR § 800.4(b)(2), may be necessary for the historic resources survey effort due to the length of the draft alignment alternatives. Completion of the identification of historic resources, determination of effects for NRHP-listed or NRHP-eligible properties, and consultation concerning measures to avoid, minimize, or mitigate, if needed, will be completed prior to notice to proceed for construction, as detailed in the agreement document, anticipated to be a Programmatic Agreement. In situations where identification of historic resources

cannot be completed during preparation of the EIS due to access denials, the Programmatic Agreement will provide for the development and implementation of a post-review identification and evaluation effort as applicable.

Research

Research efforts will focus on primary sources (i.e., historic maps, historic aerials, and available historic newspapers) and secondary literary sources including, but not limited to, county histories and city histories. The information gathered and on-site observation obtained through the field survey will provide data for the development of historic contexts and information for evaluating the NRHP eligibility of the historic resources within the Project APE.

Report

Subsequent to the completion of the historic resources field survey and research efforts, AECOM will prepare a draft technical report that summarizes the findings of the historic resources survey and shall contain sufficient evidence to either support NRHP eligibility recommendations for all historic resources encountered in the APE or make a case for conducting additional work. The NRHP eligibility recommendations will be based on the NPS Bulletin *How to Apply the National Register Criteria for Evaluation*. An effects assessment for each historic resource listed in the NRHP or recommended eligible for listing in the NRHP will also be included in the draft technical report.

Due to the length of the draft alignment alternatives and potential for a phased survey approach, the submittal of interim draft technical reports may be necessary. Interim technical draft reports will be organized by county. Each historic resource presented in the interim technical draft reports will be documented on a THC Historic Resources Survey Form that will include photographs of the resource. The historic resources will also be documented in tabular format and mapped on current aerial photographs. Final identification numbers will be provided to each historic resource, formatted to include the first two letters of the county in which the resource was recorded followed by a number assigned sequentially from north to south and west to east.

One printed copy of the interim draft technical reports will be submitted to THC for review. Once all historic resources within the APE have been recorded and all interim draft reports have been reviewed, one complete draft technical report will be compiled and submitted to THC for review. After addressing THC comments to the compiled draft technical report and completion of necessary Section 106 consultation, AECOM will furnish one hardcopy of the final technical report and one CD or DVD containing a PDF of the final technical report to THC.













MAPS REDACTED DUE TO CULTURALLY SENSITIVE INFORMATION

McDougall, Tanya

From:	melissa.hatcher@dot.gov
Sent:	Monday, November 23, 2015 12:01 PM
То:	Linda.Henderson@thc.state.tx.us
Cc:	Elizabeth.Brummett@thc.state.tx.us; McDougall, Tanya; Inman, Megan
Subject:	RE: Texas SHPO comment and question on Dallas to Houston rail project
Attachments:	Section_106_Consulting_Parties_Invite_List.xlsx

Hi Linda,

Thanks for your comments on concurrence with the research design for non-archeological resources. As you suggested, I will add Boren Reagor Springs Historical Society to the list of potential consulting parties. Formal written invitations to consulting parties based on the attached list were sent out in late February 2015. Those highlighted in green accepted the formal invitations. Harris County was the only one to formally decline. Please let me know if there are other parties that should be considered. We plan to contact all of these parties during the survey effort to request information on historic resources now that we have identified the alignments that are being evaluated.

The public outreach plan is broad and covers all agency and public involvement for the EIS, including Section 106. I will gladly share the most recent version with you if requested. However, it may not be the most appropriate or succinct document to attach to the research design. For Section 106, the outreach plan is relatively generic talking about the general time periods in which consultation will be sought. On behalf of the EIS team at FRA and AECOM (URS), we will continue to work with you and the THC team on consultation and coordination pursuant to Section 106.

Best regards, Melissa

Melissa Hatcher Environmental Protection Specialist Federal Railroad Administration (202) 493-6075

-----Original Message-----From: Linda Henderson [mailto:Linda.Henderson@thc.state.tx.us] Sent: Wednesday, November 18, 2015 1:35 PM To: Hatcher, Melissa (FRA) Cc: Elizabeth Brummett Subject: Texas SHPO comment and question on Dallas to Houston rail project

Melissa,

Hello! We received this query through our website, and I am sharing my response with you so you are aware of it. Would you please make sure that the Boren Reagor Springs Historical Society is listed as a potential consulting party for Ellis County/Boren Cemetery?

That's the one thing I am going to comment on in my response on the non-archeological survey methodology-consulting parties. I know we talked about them generally but I do not recall making specific recommendations relative to this research design submittal. Do you think it's appropriate to include them in the survey methodology? Their input can be important to knowing more about properties as we evaluate them. Do you have a public outreach plan you can share that I can attach to what we're currently reviewing? Other than that question, I am in concurrence with what is outlined in the methodology, and once I've heard from you, I'll get our response out.

Thanks,

Linda

Linda Henderson Historian, Federal Programs History Programs Division Texas Historical Commission P.O. Box 12276 Austin, Texas 78711-2276 phone: 512/463-5851 www.thc.state.tx.us

-----Original Message-----From: Linda Henderson Sent: Wednesday, November 18, 2015 12:28 PM To: 'kacod@sbcglobal.net' Subject: FW: Form submission from: Need Help? Ask Us.

Mr. Cooke,

Bob Brinkman forwarded me your question. I am one of our agency's reviewers for the Dallas-to-Houston high-speed train project. I apologize in advance for what is going to seem like a very bureaucratic answer, but I wanted to give you as much information as possible.

We are currently reviewing the research design for the rail project's consultants, and they have already flagged the Boren Cemetery as a property to be studied. We will be evaluating the property as part of our review of the proposed rail project under the federal Section 106 regulations.

Even with state recognition, like the Historic Texas Cemetery designation, cemeteries are most often not considered "historic properties" under Section 106, which uses that phrase to mean "eligible for or listed in the National Register of Historic Places." Under the National Register criteria, a cemetery must have special qualities that distinguish it from other cemeteries. The state marker and HTC designation is focused more on identifying cemeteries--to get them noted on maps and in deed records, so they do not have those same criteria.

As part of the survey work that will be done for the proposed rail project, consultant historians and archeologists will be reviewing all historic-age properties--including Boren Cemetery--to see if they are eligible for National Register listing, and we will have an opportunity once that work is done to agree or disagree with their findings.

They should also be holding public meetings and reaching out to local historical commissions and groups, so I will be sure to give them your contact information! We value your feedback and will ensure that your comments are included in their analysis.

The Federal Rail Administration is the agency coordinating with our office, and you can find project information on their website: https://www.fra.dot.gov/Page/P0700. There is a place there for the public to send in comments, and you and
your group should definitely get on their radar! Be sure to identify yourself and that you are concerned about a historic cemetery.

Please let me know if you have any other questions.

Best,

Linda

Linda Henderson Historian, Federal Programs History Programs Division Texas Historical Commission P.O. Box 12276 Austin, Texas 78711-2276 phone: 512/463-5851 www.thc.state.tx.us

-----Original Message-----From: Bob Brinkman Sent: Wednesday, November 18, 2015 10:27 AM To: Linda Henderson Subject: FW: Form submission from: Need Help? Ask Us.

Bob Brinkman Coordinator, Historical Markers Program History Programs Division Texas Historical Commission P.O. Box 12276 Austin, Texas 78711-2276 512.463.8769 512.475.3122 fax www.thc.state.tx.us

-----Original Message-----From: admin@thc.state.tx.us [mailto:admin@thc.state.tx.us] Sent: Tuesday, November 17, 2015 11:05 AM To: Bob Brinkman Subject: Form submission from: Need Help? Ask Us.

Submitted on Tuesday, November 17, 2015 - 11:04am Submitted by anonymous user: [66.196.202.14] Submitted values are:

Category: Historical Markers Ask a Question: I am on the Board for the Boren Reagor Springs Historical Society. We oversee the preservation of the Boren Cemetery. It has a

historical marker and is a Historic Texas Cemetery. Neighbors have contacted us that they have been contacted by land surveyors regarding the Bullet Train project. We have not yet been contacted. Is our cemetery, with its designation and marker, protected from such a project? Thanks. --kyle cooke Email (for a response): kacod@sbcglobal.net

--Historical Markers--

Historical Markers Email: bob.brinkman@thc.state.tx.us

The results of this submission may be viewed at: http://www.thc.state.tx.us/node/1715/submission/4131



Federal Railroad Administration

1200 New Jersey Avenue, SE Washington, DC 20590

OCT 2 9 2015

Mark Wolfe State Historic Preservation Officer Texas Historical Commission 108 W. 16th Street Austin, Texas 78701

Subject: Archeological Resources Coordination Pursuant to Section 106 of the National Historic Preservation Act for the Dallas to Houston High-Speed Rail Project

Dear Mr. Wolfe,

The Federal Railroad Administration (FRA) is conducting an environmental review for the Dallas to Houston High-Speed Rail Project (Project) proposed by Texas Central High-Speed Railway, LLC (TCR) and its affiliates (Project Proponent). FRA is authorized to regulate the safety of railroads, including the Project, and must make specific safety determinations regarding the type of trainset proposed to be constructed and operated as part of the Project prior to initiation of passenger service. For this Project, FRA may issue a Rule of Particular Applicability (regulations that apply to a specific railroad or a specific type of operation), a series of waivers, or another action that will ensure the Project is operated safely. This constitutes a federal undertaking and requires review under the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. Furthermore, portions of the Project fall within non-federal public land, or land under the ownership or control of a political subdivision of the State of Texas, and these areas require review by the Texas Historical Commission (THC) under the Antiquities Code of Texas.

To assist in meeting compliance requirements under Section 106 and the Antiquities Code of Texas, and in support of the Environmental Impact Statement (EIS) FRA is preparing as required by NEPA, attached to this letter is the Archeology Antiquities Permit Application and research design (Attachment A) for the proposed archeological survey to be conducted for the Project. For your review, the research design contains the results of a background review and a summary of the recommended survey methodology. In addition, maps are attached, presented on CD that illustrate the Project area and previously recorded archeological sites within a 1,000-meter study area. Per THC guidance, the non-archeological historic resources survey effort for the Project will be coordinated separately.

FRA is consulting with you in accordance with 36 CFR Part 800 implementing Section 106 for this undertaking. At the present time, FRA is seeking your concurrence on the adequacy of the Area of Potential Effects (APE) for archeological resources.

FRA also respectfully requests the concurrence of the THC for the recommendations presented in the attached archeology research design for the Project, including the survey methodology.

Should you have any questions regarding this request, please feel free to contact Melissa Hatcher at (202) 493-6075 or Melissa.Hatcher@dot.gov.

Sincerely,

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David Valenstein Division of Environmental and Corridor Planning

Enclosures

TEXAS HISTORICAL COMMISSION

ANTIQUITIES PERMIT APPLICATION FORM ARCHEOLOGY

GENERAL INFORMATION

I. PROPERTY TYPE AND LOCATION

Project Name (and	/or Site Trinomial)	Dallas to Houston I	High-Speed Ra	il Project	
County (ies)Da	allas, Ellis, Navarro, F	reestone, Limestone	, Leon, Madiso	on, Grimes, Wa	ller, and Harris
USGS Quadrangle	Name and Number _	See Attachment A:	Research Des	sign	
UTM Coordinates	Zone		E		_N
Location Se	e Attachment A				
Federal Involveme	nt	☑ Yes		No	
Name of Federal A	gency Federal	Railroad Administr	ation		
Agency Representa	ative Melissa Hatcher	r			
II. OWNER (OR C	CONTROLLING AGE	ENCY)			
Owner					
Representative		~			
Address					
City/State/Zip					
Telephone (include	e area code)	En	nail Address		
_					
III. PROJECT SPC	NSOR (IF DIFFERE	NT FROM OWNED	R)		
Sponsor Te	xas Central High-Spe	ed Railway, LLC			
Representative_Me	elvin E. Richmond				
Address 434	43 Thanksgiving Tow	er, 1601 Elm St			
City/State/Zip_Da	allas, Texas 75201				
Telephone (include	area code) 214-785	-6015 En	nail Address m	richmond@texa	iscentral.com

PROJECT INFORMATION

I. PRINCIPAL INVESTIGATOR (ARCHEOLOGIST)

Name	Steve Ahr, RP.	A				
Affiliation	AECOM					
Address	1950 North Ste	1950 North Stemmons Freeway, Suite 6000				
City/State/Zip_	Dallas, TX 75	207		4		
Telephone (inc	lude area code)	210-321-4992	Email Address	steve.ahr@aecom.com		

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ANTIQUITIES PERMIT APPLICATION FORM (CONTINUED)

II. PROJECT DESCRIPTION

Proposed Starting Date of Fieldwork No	vember 2015
Requested Permit Duration 5 X Ye	ars Months (1 year minimum)
Scope of Work (Provided an Outline of Proposed W	ork) See Attachment A: Research Design
III. CURATION & REPORT	
Temporary Curatorial or Laboratory Facility <u>AE</u> Permanent Curatorial Facility <u>Texas Archeologica</u>	COM- Dallas, Texas
IV. LAND OWNER'S CERTIFICATION	
I,	as legal representative of the Land Owner,
	do certify that I have reviewed the plans and
research design, and that no investigations will be p	reformed prior to the issuance of a permit by the Texas Historical
Commission. Furthermore, I understand that the Ow	ner, Sponsor, and Principal Investigator are responsible for
completing the terms of the pertnit.	Data
Signature	Date
V SPONSOR'S CERTIFICATION	
I. Melvin E. Kichmond.	, as legal representative of the Sponsor,
Texas Central High-Speed Railway, LLC	, do certify that I have review the plans
and research design, and that no investigations will h	be performed prior to the issuance of a permit by the Texas Historical
Commission. Furthermore, I understand that the Spo	onsor, Owner, and Principal Investigator are responsible for
completing the terms of this permit.	
Signature	Date 20 0 ct 20 / J
(
VI. INVESTIGATOR'S CERTIFICATION	\bigcirc
I Stave Ahr	as Principal Investigator employed by
AECOM	(Investigative Firm) do certify that I will
<u>ABCOM</u> execute this project according to the submitted plans	and research design and will not conduct any work prior to the
issuance of a nermit by the Texas Historical Commis	ssion Furthermore I understand that the Principal Investigator (and
the Investigative Firm, as well as the Owper and Sp	onsor, are responsible for completing the terms of this permit.
Signature 94C-	Date 10-28-5
Principal Investigator must attach a research design,	a copy of the USGS quadrangle showing project boundaries, and any
additional pertinent information. Curriculum vita mu	ist be on file with the Archeology Division.

FOR OFFICIAL USE ONLY Reviewer ____ Date Permit Issues Permit Number Permit Expiration Date Date Received for Data Entry Type of Permit

Texas Historical Commission Archeology Division P.O. Box 12276, Austin, TX 78711-2276 Phone 512/463-6096 www.thc.state.tx.us 3/3/09



The State Agency for Historic Preservation

Attachment A

RESEARCH DESIGN

ARCHEOLOGICAL SURVEY FOR THE DALLAS TO HOUSTON HIGH-SPEED RAIL PROJECT

(Dallas, Ellis, Navarro, Freestone, Limestone, Leon, Madison, Grimes, Waller, and Harris Counties)

Prepared for

Federal Railroad Administration (FRA)

Prepared by

AECOM 1950 North Stemmons Freeway Dallas, Texas 75207

December 2015

INTRODUCTION

The Federal Railroad Administration (FRA) has initiated a National Environmental Policy Act (NEPA) evaluation of Texas Central High-Speed Railway, LLC's (TCR) and its affiliates (Project Proponent) proposal to construct and operate a high-speed passenger railroad (Project) between Dallas and Houston, Texas (**Figure 1**). As required by NEPA, FRA is preparing an Environmental Impact Statement (EIS) to accomplish this evaluation. AECOM, under contract with FRA, proposes to conduct the archeological resources survey for the Project in support of the EIS, as well as to assist in meeting applicable requirements under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the Antiquities Code of Texas.

As a federal agency, FRA has the authority to regulate the safety of railroads, including the Project, and must make specific safety determinations regarding the type of trainset proposed to be constructed and operated as part of the Project prior to initiation of passenger service. For this Project, FRA may issue a Rule of Particular Applicability (regulations that apply to a specific railroad or a specific type of operation), a series of waivers, or another action that will ensure the Project is operated safely. This constitutes a federal action and triggers an environmental review under NEPA and Section 106. In accordance with Advisory Council on Historic Preservation (ACHP) regulations pertaining to the protection of historic properties (36 CFR 800), federal agencies are required to assess the effects of their undertaking on historic properties prior to issuing permits or funding. Historic properties are defined as those properties that are included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). Therefore, the Project is subject to review by the Texas State Historic Preservation Office (SHPO), formally known in Texas as the Texas Historical Commission (THC).

A total of six end-to-end draft alignment alternatives have been developed for the Project, which cross portions of Dallas, Ellis, Navarro, Freestone, Limestone, Leon, Madison, Grimes, Waller, and Harris Counties (see **Figure 1**). The non-overlapping portions of these draft alignment alternatives represent a combined total of approximately 442 linear miles of potential impacts. Construction of the high-speed rail line will consist of entirely new track. Due to the length of the Project, however, it is anticipated that access to properties will be restricted during the EIS process, and as allowed by 36 CFR 800.4(b)(2), a phased approach for the identification and evaluation of historic properties will be necessary.

While a majority of the Project is located on private property, various portions of the Project fall within non-federal public land, or land that is under the ownership or control of a political subdivision of the State of Texas. As a result, these areas are within the purview of the Antiquities Code of Texas, which requires the THC to review actions that have the potential to disturb prehistoric or historic sites within the public domain. Regulations pertaining to the code can be found within Title 13, Part 2, Chapter 26 of the Texas Administrative Code (TAC). THC issues Antiquities Permits that stipulate the conditions under which survey, discovery, excavation, demolition, restoration, or scientific investigations can occur. Therefore, AECOM is submitting this research design in support of an Antiquities Permit application for conducting an intensive archeological survey (13 TAC 26.13 and 26.15).

PROJECT DESCRIPTION

TCR is a Texas-based company formed in 2009 to bring high-speed passenger rail to Texas. TCR has taken a private-sector approach for the deployment of high-speed rail in Texas. Working closely with Central Japan Railway Company (JRC), TCR is promoting the deployment of a high-speed rail system

based on JRC's N700-I Bullet System (known as Shinkansen) that will have a maximum operating speed of 205 miles per hour (mph) and a travel time of less than 90-minutes between the two cities.

The Project will extend approximately 240 miles long, with an estimated right-of-way (ROW) width of approximately 100 feet (ft), and varying depths of impact. Additional acreage is expected to be utilized for ancillary facilities consisting of passenger stations, rail car and track maintenance facilities, electrical substations, maintenance roads, and signal houses. To date, design efforts have focused on the rail alignment, the principal component of the Project. Once the rail alignment is fixed, siting and conceptual design of the ancillary facilities will begin.

To minimize the impacts of the Project's construction and operation on the land and communities through which it travels, the Project will consist of entirely new track that will be completely grade-separated, meaning that all crossings would be under or over the rail line and not at the same elevation as the high-speed tracks, and reserved for the exclusive use of the N700-I Bullet System.

The Project will involve construction of two general rail design concepts: the first is at-grade construction where the rail is located on an embankment structure and separated from other transportation modes; and the second is an elevated concept (pier and beam) where the rail is located on an elevated viaduct structure. The alignment will consist of a mixture of these two general types of construction and will also include an assortment of culverts, short span bridges, and long span crossings as required to address site-specific requirements and to mitigate impacts. Based on preliminary construction schematics/plans, the Project maximum height at-grade will be approximately 50 ft and for elevated structures the maximum height will be approximately 70 ft.

At-Grade Rail Design

The high-speed rail technology and operating philosophy requires that no other vehicle (car, truck, or train) be allowed to access or cross the rails, leading to a design of a completely grade-separated railroad system. Various types of crossing methods are available, and the type used would be based on the unique characteristics at each crossing. The available crossing methods are:

Rail over road; and Road over rail;

The initial alignment studies, and subsequent studies of the alignment alternatives, included between 250 and 350 crossings, of which approximately 75 percent are grade crossings. All at-grade crossings will be replaced with grade-separated crossings. To incorporate these treatments, solutions may include changing the location of frontage or side roads, or cloverleaf bridges in tight sections where the road is closer to the track.

At-grade track may be used where the ground is relatively flat, and in rural areas where there is limited potential to interfere with local roadways. The at-grade track would be built on compacted soil and ballast material (a thick bed of angular rock) to prevent subsidence or changes in the track surface from soil movement. To avoid potential disruption of service from floodwater, the rail would be constructed above the 100-year floodplain. The height of the at-grade profile may vary to accommodate slight changes in topography, provide clearance for storm water culverts and structures in order to allow water flow, and sometimes wildlife movement.

Roadway overcrossings would be utilized when a typical roadway would be grade-separated over an atgrade high-speed rail track alignment. Roadway under crossings may be required for grade-separation below an at-grade high-speed rail track alignment. Elevated high-speed rail road crossings may be built in downtown urban areas where the use of an elevated rail may be the only means to access downtown areas.

Elevated Rail Design (Viaduct)

Elevated structure will be used to maintain the design grade for the track and to potentially avoid sensitive environmental features. Larger floodplains and select infrastructure would be crossed with elevated structures when a ground level design is not suitable. The initial alignment studies identified approximately 175 locations where a bridge may be required; conceptual engineering is ongoing to determine optimal use of elevated structures versus at-grade. Piers may be spaced at 120 feet (36.6 m) and the beams may have an air gap of 18 feet (5.5 m). Depths of impacts will depend on geotechnical site conditions, but could be as deep as 70 feet below ground surface.

AREA OF POTENTIAL EFFECT

As defined in 36 CFR 800.16(d), an Area of Potential Effect (APE) is "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic resources, if any such resources exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." The archeological APE is defined on the basis of the current Project understanding at the time of this permit application. The archeological APE will be comprised of the construction footprint of the six draft alignment alternatives (approximately 100 feet [30.48 m] in width), any permanent and temporary easements, access roads, drainage swales, all locations of ancillary facilities (e.g., passenger stations, rail car and track maintenance facilities, electrical substations, maintenance roads, and signal houses), and any other Project-specific locations designated by the Proponent. The APE is focused on any potential direct effects resulting from ground-disturbing activities associated with construction of the railway. Ground disturbing activities may include excavation, grading, cut-and-fill, easements, staging areas, utility relocation, or drilling. Location specific conditions will dictate the depth of subsurface disturbance.

ENVIRONMENTAL SETTING

The draft alignment alternatives cross a variety of environmental settings, which are introduced here in a very broad regional manner. The Project spans the east-central portion of Texas through ten counties from north to south; Dallas, Ellis, Navarro, Freestone, Limestone, Leon, Madison, Grimes, Waller, and Harris.

Hydrology

The Project traverses through the Trinity River Basin, skirting to the east of the Brazos River Basin, and ending within the San Jacinto River Basin in Houston (BEG 1996a). Numerous named and unnamed intermittent and ephemeral streams are located along the draft alignment alternatives.

Physiography

The Project spans the physiographic region of the Gulf Coastal Plains, with the low rolling topography of the south and east tilting geologic beds of chalks and marls of the Blackland Prairies in the northern counties of Dallas, Ellis, and Navarro; the parallel ridges and valleys of the Gulf tilting geologic beds of unconsolidated sands and muds of the Interior Coastal Plains in the central counties of Freestone, Limestone, Leon, Madison, and Grimes; and the nearly flat prairie of geologic deltaic sands and muds of the Coastal Prairies in the southern counties of Waller and Harris. The Gulf Coastal Plains range in elevation from 0 to 1,000 feet above mean sea level (amsl) (BEG 1996b).

Geology

The draft alignment alternatives cross 11 geological groups and formations defined by the Bureau of Economic Geology (BEG), ranging in age from the Cretaceous through the Pleistocene (BEG 1968, 1970, 1972, 1974, 1992). The geologic groups and formations, decreasing in age from northwest to southeast, consist of the Austin, Eagle Ford, Woodbine, and Upper Washita Groups; the Navarro and Taylor Groups; the Wilcox and Midway Groups; the Claiborne Group; the Yegua Formation; the Jackson Group; the Catahoula Formation; the Fleming and Oakville Formations; the Willis Formation; the Lissie Formation; and the Beaumont Formation.

Beginning in Dallas County, the Cretaceous-age Austin Chalk formation (Kau) underlies the Project (BEG 1970, 1972). In Ellis and Navarro Counties, the Project is underlain by the Cretaceous-age Navarro and Taylor Groups, which include marls and sandy marls of the Ozan Formation (Ko), the Wolf City Formation (Kwc), and Marlbrook Marl (Knm). Upland soils developed upon these formations within the Blackland Prairies are comprised mainly of clay-rich, expansive Vertisols that formed within calcareous clays and marls. Given the residual nature of these soils, and their high shrink-swell potential, there is little likelihood that any cultural materials would be buried in primary context in these upland settings. However, nearer stream crossings it is possible that cultural materials are present in floodplain deposits and on older soil surfaces beneath younger Holocene overbank veneers.

Southeast from Freestone and Limestone Counties, the Project moves from Cretaceous-age chalk and marls, to traversing a basinward series of down-dipping, fluvial-deltaic formations that are Paleogene through Quaternary in age (BEG 1968, 1970, 1974, 1992). Most of these formations are comprised of weakly-consolidated sedimentary rocks of cross-bedded quartz sand, intercalated with thin beds of clay, sandy clay, and ironstone concretions. The Paleocene Wilcox and Midway Groups make up much of the bedrock geology of Freestone and Limestone Counties, with the Tehuacana Member of Kincaid (Kwc), Hooper (Eh), Simsboro (Esb), and Calvert Bluff Formations (Ecb) from northwest to southeast. The underlying Eocene geology within Leon, Madison, and Grimes Counties is comprised of the Carrizo Sands (Ec), Reklaw (Er), Queen City Sand (Eqc), Sparta Sand (Es), Stone City (Esc), Cook Mountain (Ecm), Yegua (Ey), Wellborn (Ewb), Caddell (Eca), the Manning Formation (Em), and Whitsett (Eow) Formations.

Sandy loam soils are typically found capping the upland surfaces associated with Tertiary formations across the Gulf Coastal Plain. These soils are taxonomically classified as Alfisols, which formed on ancient, stable landscapes that are at least Pleistocene in age, or older. These soils often exhibit strong, coarse-over-fine textural contrasts between the upper and lower parts of the solum. The sandier A through E horizons are referred to by archeologists as the *sandy mantle*, which often contains buried archeological deposits, sometimes in correct stratigraphic order, while cultural materials are absent from the lower clayey subsoil horizons (Bruseth and Martin 2001; Frederick et al. 2002; Heinrich 1986; Mandel 1987; Thoms 1993). The ages of these upland soils, along with artifact burial process and

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integrity potential, has been strongly debated (Ahr et al. 2012, 2013; Frederick et al. 2002). It has been suggested that the burial and stratification of cultural materials within the sandier horizons in upland settings occurred contemporaneously with widespread geomorphic activity, such as eolian deposition during more arid phases of the Holocene, and that this resulted in the burial and preservation of some sites and features (Boutler et al., 2007, 2010; Frederick et al., 2002). Recent research, however, suggests that such a geomorphic event did not occur on a regional basis, though small-scale localized erosion and deposition could have resulted under certain geomorphic and pedologic conditions (Ahr et al. 2012). Absent any geomorphic burial agents, artifact movement down profile in upland settings would have resulted from bioturbation and gravity. Thus, while sandy upland areas of the Project likely offer good potential for containing archeological materials, the degree of archeological integrity is not likely to be high due to the potential for soil mixing. Recent (Holocene) alluvial deposits associated with floodplains offer greater preservation potential for buried archeological sites. But, because of poor drainage and frequent saturation, they may have been less desirable for prehistoric habitation.

The Miocene-age Catahoula (Mc) and Fleming (Mf) Formations in southern Grimes County give way to Pleistocene-age clay, silt, and sand deposits of the Willis Formation (Qwl and Qwc), which continue on into Waller and Harris Counties (BEG 1968, 1974, 1992). The Willis Formation consists of fluvial clay, silt, sand, and gravel deposits and is subdivided into two members based on the degree of weathering and age (BEG 1992; Bradley 1985; Duessan 1924; Fisk 1938; Bernard 1950). The less weathered Willis member (Qwl) is comprised of clay, silt, sand and siliceous gravels, deeply weathered and lateritic, and indurated by clay and cemented by iron oxides (BEG 1968, 1992). This member is strongly dissected into upland remnants surrounded by middle-Miocene deposits. The strongly weathered Willis member (Qwc) is preserved as prominent outcrop scarps and contains abundant iron concentrations and ferric concretions (BEG 1968, 1992). Toward the coast, these deposits give way to Pleistocene-age Lissie (Ql) deposits, and the Beaumont (Qb) Formation that extends from the Texas-Louisiana border to southwest of Corpus Christi.

The Beaumont Formation occurs as an offlapped sequence of coastwise, alluvial-deltaic plain sediments that were deposited during the latest interglacial highstand, from the middle to the late Pleistocene (Blum and Aslan 2006; Blum and Price 1994; Winkler 1982). Beaumont surfaces have been mapped and differentiated into numerous cross-cutting meanderbelt facies, with intervening floodplain depositional environments (BEG 1992; DuBar et al. 1991; Blum and Aslan 2006; Blum and Price 1994). The spatial distribution of clay, silt, and fine sand within the Beaumont formation reflect the distribution of these major channel, point bar, levee, and backswamp facies. Sandy clays and sands are present in multistoried stacks of flood basin mud and splay sands (Blum et al. 1995). Developed on these are thick A and E horizons in the sandier regions, and well-developed Bt and Bk horizons in the more clayey regions. The non-sandy portions of the Beaumont surface are characterized by clay-rich Vertisols, with high shrinkswell capacity, representing floodbasin, backswamp, and abandoned channel-fill muds with low permeability, high water holding capacity, high compressibility, high to very high shrink-swell potential, poor drainage, level to depressed relief, low shear strength, and high plasticity (BEG 1992). The Beaumont Formation has been dated to more than 35,000 to 40,000 years before present (B.P.) by radiocarbon analysis (Birdseye and Aronow 1991), and to between approximately 70,000 to 115,000 years B.P. by thermoluminescence (TL) dating (Blum and Price 1994; Blum et al. 1995; Durbin et al. 1997). Given the age of the Beaumont Formation, which predates human occupation of North America, low geoarchaeological potential exists (Abbott 2001).

Pleistocene terraces and recent Holocene-age valley fills comprise the bulk of Late Quaternary depositional units traversed by the draft alignment alternatives. On the coastal plain, terrace landforms

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are informally known as "Deweyville terraces" (Bernard 1950), and are mapped stratigraphically between Holocene floodplain deposits and the Pleistocene-age Beaumont surface (Blum et al. 1995). Large abandoned arcuate meander scars along valley walls are the principal distinguishing geomorphic characteristic of these older terrace deposits and suggest greater discharge regimes than modern stream systems (Barton 1930).

Holocene-age deposits are extensive within the stream valleys traversed by the Project and are of the appropriate age to contain cultural materials. Alluvial stratigraphic studies in Central Texas suggest that many Texas alluvial valleys began to aggrade sometime during the late Pleistocene or early Holocene. Except in valleys that have undergone significant erosion, early Holocene alluvium likely comprises a significant portion of the valley floors within the Project area. The extent to which older Holocene alluvial fills are preserved is not currently known, however, and is largely dependent upon variations in floodplain evolution, such as avulsions and cutting and filling rates, within a valley. As such, deep prospection would be needed to confirm this.

Soils

Natural Resources Conservation Service (NRCS) county soil surveys were used to identify and characterize the soils within the Project area, which offer insights into the burial and preservation potential of archeological sites. By grouping the soils into general soil associations (**Table 1**), general observations regarding site integrity potential can be made. In general, level, deep soils on floodplains offer greater potential to contain deeply buried and preserved sites, while clayey, residual soils on upland plains or moderately sloping uplands exhibit lower overall burial potential and may contain shallow site deposits that are mixed.

Table 1				
Project Area Soils				
Soil Association	County	Description		
Houston Black-Heiden	Dallas	Nearly level to strongly sloping, deep, clayey soils; on uplands		
Trinity-Frio	Dallas	Nearly level, deep, clayey soils; on flood plains		
Austin-Houston Black	Dallas	Nearly level to sloping, moderately deep, clayey soils; on uplands		
Houston Black-Houston	Ellis	Gently sloping, very deep, clayey soils; on upland ridges and plains		
Burleson-Houston Black-	Ellis	Nearly level to sloping, very deep, clayey soils; on terraces and valley slopes		
Lewisville				
Trinity-Frio	Ellis	Nearly level, deep, clayey soils; on flood plains		
Crockett-Wilson	Navarro	Moderately sloping, deep, clayey soils, on uplands and stream terraces		
Houston Black-Heiden	Navarro	Deep, Nearly level to strongly sloping, deep, clayey soils; on uplands		
Trinity-Kaufman	Navarro	Nearly level, very deep, clayey soils; on flood plains		
Crockett	Freestone	Nearly level to moderately sloping, very deep, loamy soils; on uplands		
Whitesboro	Freestone	Nearly level, very deep, loamy soils; on flood plains of large creeks		
Edge-Tabor	Freestone	Nearly level to strongly sloping, very deep, loamy soils; on uplands and high stream terraces		
Padina-Silstid	Freestone	Gently sloping to moderately sloping, very deep, sandy soils; on uplands		
Silawa-Gasil-Tabor	Freestone	Nearly level to strongly sloping, loamy soils; on stream terraces and uplands		
Silstid-Gasil-Padina	Limestone	Gently sloping to strongly sloping, very deep, sandy soils; on uplands		
Edge-Tabor	Limestone	Nearly level to strongly sloping, very deep, loamy soils; on uplands and high		
		stream terraces		
Axtell-Rader	Limestone	Nearly level and gently sloping, very deep, loamy soils; on stream terraces		
Uhland-Nahatche	Limestone	Nearly level, very deep, loamy soils; on flood plains		
Padina-Hilstid-Hearne	Leon	Gently sloping to moderately steep, deep, sandy and loamy soils; on savannahs		

Table 1 Project Area Soils				
Soil Association	County	Description		
Padina-Arenosa	Leon	Gently sloping to moderately steep, deep, sandy soils; on savannahs		
Crockett-Benchly-Wilson	Leon	Nearly level to strongly sloping, deep, loamy soils; on prairies		
Axtell-Radar	Leon	Nearly level to strongly sloping, deep, loamy soils; on savannahs		
Margie-Jedd-Lexton	Leon	Gently sloping to steep, deep and moderately deep, loamy soils; on savannahs		
Crockett-Benchley-Dimebox	Madison	Nearly level to gently sloping, loamy and clayey soils; on uplands		
Rader-Gredge-Chazos	Madison	Very gently sloping to moderately sloping, loamy and sandy soils; high terraces and uplands		
Rader-Derly	Madison	Nearly level and very gently sloping, loamy soils; on terraces		
Gowker-Nahatche	Madison	Nearly level, loamy soils; on flood plains		
Zulch-Zock-Boonville	Grimes	Nearly level to gently sloping, loamy soils; on flat ridges and foot slopes		
Axtell-Lufkin-Gredge	Grimes	Nearly level to strongly sloping, loamy soils; on ridges and slopes		
Singleton-Burlewash-Shiro	Grimes	Nearly level to strongly sloping, sandy and loamy soils; on hilltops and hillsides		
Gomery-Shiro-Elmiina	Grimes	Gently sloping or moderately sloping, sandy soils; on broad ridgetops		
Falba-Shiro-Greenvine	Grimes	Gently sloping or moderately sloping, sandy, loamy, and clayey soils; on ridgetops and side slopes		
Freisburg-Crockett-Brenham	Grimes	Gently sloping or moderately sloping, loamy and clayey soils; on ridges and side slopes		
Depcor-Fetzer-Huntsburg	Grimes	Gently sloping or moderately sloping, loamy and clayey soils; on ridgetops and slopes		
Depcor-Splendora-Boy	Waller	Nearly level to gently sloping, sandy and loamy soils; on ridgetops and side slopes near streams		
Hockley-Wockley-Monaville	Waller	Nearly level to gently sloping, loamy and sandy soils; on hillsides and ridges		
Segno-Hockley	Harris	Nearly level to gently sloping, loamy soils; on uplands		
Wockley-Gessner	Harris	Nearly level, loamy soils; on prairies		
Clodine-Addicks-Gessner	Harris	Nearly level, loamy soils; on prairies		
Katy-Aris	Harris	Nearly level, loamy soils; on prairies		

Sources: Brooks et al. 1992; Coffee et al. 1980; Greenwade 1996; Greenwade 1984; Griffin 1998; Janak and Griffin 2002; Meade et al. 1974; Neitsch 1994; Neitsch et al. 1989; Wheeler 1976

Ecoregions and Land Use

The Project traverses three major ecoregions, comprised of similar soils, vegetation, climate, and topography. These ecoregions, from northwest to southeast, consist of the Texas Blackland Prairies, the East Central Texas Plains, and the Western Gulf Coastal Plains. Data regarding Texas ecoregions was obtained primarily from Griffith et al. (2007) who prepared a report on Texas ecoregions for the Texas Commission on Environmental Quality, the U.S. Environmental Protection Agency (EPA), the USDA, and other interested parties. The final report defined 12 Level III ecoregions and 56 Level IV ecoregions compatible with EPA ecoregion framework. The following provides general information on each of the level III and level IV ecoregions which will be crossed by the draft alignment alternatives. Where relevant and/or necessary, additional references and source material are cited in-text.

Texas Blackland Prairies

The Blackland Prairie Region is primarily typified by rolling to nearly level plains, and is distinguished from surrounding regions by soils, vegetation, and geology (Griffith et al. 2007:61). Prior to Euroamerican settlement, an array of animal species were present in the region although the variety of species has declined over time and current game species typically include dove, quail, and fox squirrel along bottomlands (Griffith et al. 2007:61). The Blackland Prairie contains a high percentage of cropland and many areas have been converted from native grass communities to use for urban and industrial

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purposes (Griffith et al. 2007:61). Native grass communities began to decline with the introduction of ranching and agriculture. The farming of cotton and other crops promoting extensive clearing of land resulted in the loss of much of the native prairie grasses (Griffith et al. 2007:62). Non-native grasses, introduced to the Blackland Prairie during the 19th and 20th centuries, include Johnson grass, Bermuda grass, and King Ranch Blustem. Frequent historic and prehistoric fires have shaped the ecology of the region by promoting new vegetation growth and preventing the encroachment of woodlands, although some wooded areas do exist (Griffith et al. 2007:61-62). The Blackland Prairie is bisected by the broad floodplains and terraces of the Trinity, Brazos, and Colorado Rivers. These floodplains typically contain the aforementioned areas of forest and can include species of oak, hackberry, elm, ash, cottonwood, and pecan (Griffith et al. 2007:65). As with much of the other areas of the Blackland Prairie, many of these floodplains and terrace settings have been cleared over time for agricultural purposes.

East Central Texas Plains

The East Central Texas Plains Region is comprised mainly of post oak savannah vegetation (Griffith et al. 2007:66). This region exhibits a varied topography, with level to gently rolling landscapes in the north, and more highly dissected landscapes to the south (Griffith et al. 2007:66). Consequently, agricultural development has been more prominent in the north while urbanization and mineral resources exploration was focused on the south (Griffith et al. 2007:66-68). The local habitat supports white-tailed deer, turkey, quail, and several species of squirrel. Within this post oak savannah setting are grassland ecoregions known as Prairies and Outliers. The Prairies and Outliers are defined largely by an approximately 100 mile stretch of narrow, isolated prairie (e.g., String Prairie) that runs along the Old San Antonio Road (Griffith et al. 2007:69). This prairie provided prime farmland along a major transportation route, which in turn promoted settlement of the area without the need to clear surrounding forests. The Prairies and Outliers also include distinct areas of mixed prairies between the Sulfur and Red Rivers. These mixed prairies contain grasses as well as dispersed woodland and have been utilized for ranching (Griffith et al. 2007:70). Floodplain bottomlands and low terrace areas contain numerous hardwood tree species.

Western Gulf Coastal Plains

The Western Gulf Coastal Plains region is characterized by flat topography, and vegetation transitioning from the forest and savannahs to the west, to increasing grasslands and marshlands to the east along the coastline (Griffith et al 2007:73). River bottomlands, in particular, may contain woodlands although agriculture and urbanization in the area has resulted in significant impacts to native animal habitats. Bird, fish, and shrimp habitats remain important to native and migratory species. The Gulf Coastal Prairies in the area are very similar to those in the Texas Blackland Prairies with regard to vegetation composition and present species (Griffith et al. 2007:74). As such, the area was ideal grazing territory for bison and other animals prior to the arrival of European Americans. Recognizing the potential for grazing, cattle were brought in and ranching became a popular industry. As in the Texas Blackland Prairie, the grasslands were sustained through time with periodic fires that rejuvenated vegetation and prevented significant impediment of forests. Humans have, upon arrival, also utilized fire for this purpose although regular controlled burns had become the norm. In this region, floodplain bottoms and low terraces are covered by decreased diversity in tree species than in neighboring ecoregions. Much of these native species have been cleared, leaving a ground cover of mixed forest, cropland, and pasture (Griffith et al. 2007:77). Freshwater is readily available in a number of drainages within the floodplains and is split between the needs of aquatic life in bays and estuaries near the coast and human needs and uses of the surface water further inland (Griffith et al. 2007:77).

RECORDS REVIEW

The Texas Archeological Sites Atlas (TASA) was consulted to identify any previously recorded archeological sites, NRHP-listed properties, State Antiquities Landmarks (SALs), and recorded cemeteries within a study area that extends for 1,000 m on either side of the draft alignment alternatives. TASA review indicates there are 234 archeological sites (**Table 2**) that had been previously recorded within this study area (TASA 2015). Out of the total recorded sites, 115 contain only prehistoric cultural materials, while 94 sites contain only historic materials, and 20 sites contain both historic and prehistoric materials. The cultural and temporal association was unknown for five sites.

Common prehistoric site types in the region include campsites, lithic procurement sites, burned rock and shell middens, and sites within alluvial terrace deposits (Fields et al. 1996). Of the prehistoric sites within the study area, 49 percent are lithic scatters, 47 percent are open campsites, 2 percent are middens, and 2 percent are lithic procurement sites. Historic site types in the region commonly include farmsteads, ranches, cemeteries, stone walls, mills, lime kilns, artifact or trash scatters, and industrial sites. Of the historic sites recorded in the study area, 67 percent are farmstead, homestead, or ranchrelated sites (including buildings or other features), 15 percent are historic dumps or trash scatters, 11 percent of the historic sites are bridge or railroad related, and the remaining 7 percent represent historic cemeteries classified as recorded archeological sites. In addition to the cemeteries classified as archeological sites, 40 historic cemeteries are also located within the study area, of which three are described as "unknown graves." The presence of these previously recorded sites indicates the high potential for previously unrecorded prehistoric and historic sites to be present in the APE.

Pro	Table 2 Previously Recorded Archeological Sites Within the Study Area.					
County	Prehistoric Only	Historic Only	Prehistoric and Historic Components	Unknown Period	Total Sites	
Dallas	14	13	1	0	28	
Ellis	8	8	1	3	20	
Navarro	10	4	3	1	18	
Freestone	17	17	1	0	35	
Limestone	4	0	0	0	4	
Leon	34	39	12	0	85	
Madison	6	2	0	0	8	
Grimes	18	4	0	1	23	
Waller	2	0	2	0	4	
Harris	2	7	0	0	9	
Total Sites	115	94	20	5	234	

Source: THC 2015

A review of the TASA indicates that 130 cultural resources investigations have been performed within the study area. Previous archeological investigations have consisted primarily of linear and areal cultural resources surveys (**Table 3**).

Table 3 Previously Conducted Archeological Surveys Within the Study Area.					
County	Areal Surveys	Linear Surveys	Total Surveys	Survey Area within Current Alignments (miles)	
Dallas	12	10	22	6.4	
Ellis	6	4	10	0.8	
Navarro	14	0	14	0.8	
Freestone	9	2	11	5.0	
Limestone	4	0	4	0.0	
Leon	17	4	21	3.9	
Madison	1	2	3	6.9	
Grimes	9	3	12	2.8	
Waller	1	0	1	0.0	
Harris	24	8	32	8.3	
Total Surveys	97	33	130	34.9	

Source: THC 2015

ARCHEOLOGICAL PROBABILITY

Background research indicates that the APE has a high likelihood for containing archeological sites. Historic sites generally have a greater surface visibility because they are usually either not buried as deeply as prehistoric sites, or are not buried at all. They are also often associated with surface features, such as wells and buildings, and, as a rule, contain a much higher density of artifacts. Historic sites often occur along old roads, and are more common in the uplands than on floodplains. During the survey, high historic probability areas will be identified for investigation by examining historic maps and overlays along specific project routes. When appropriate, intensive pedestrian survey in high historic probability areas will be supplemented with shovel testing to locate potential buried historic sites.

Prehistoric sites typically are found within relatively level, well-drained soils, on terraces and floodplains, interfluve summits, shoulder- and toe-slopes overlooking valley floors, natural levees, upland-valley wall margins, and at stream confluences. Paleoindian through Middle Archaic sites are common within the lower slope portions of interfluves along small streams (Fields et al. 1996; Prikryl 1993; Thoms et al. 2004), while Late Archaic and later sites are often situated on landforms adjacent to tributary stream floodplains, on sandy knolls, and on high terraces (Story 1990). Of the 140 prehistoric archeological sites that occur within the study area, 98 percent are located within 500 m of a stream.

Based on the likelihood for the presence of archeological sites in the region, the APE was stratified into zones of High, Medium, and Low Archeological Potential. High Archeological Potential (HAP) areas possess the greatest potential for containing prehistoric sites, including deep, well-drained loamy soils in relatively close proximity to natural water sources. Of the previously recorded prehistoric sites in the study area, 86 percent are within 300 m of a stream.

Moderate Archeological Potential (MAP) areas are less likely to contain archeological sites, due to increased distance to water, or other factors such as sloping topography or poor soil drainage. MAP areas include outer margins of wide floodplains, older terrace settings, and upland-valley wall margins. Of the previously recorded prehistoric sites in the study area, 12 percent are found at distances between 300 and 500 m from a stream.

Low Archeological Potential (LAP) areas are those areas in which prehistoric archeological sites are unlikely to be present because of steeply sloping topography (>20%), poor soil drainage, or significant distance to water (>500 m). Of the previously recorded prehistoric sites in the study area, only 2 percent are found at distances greater than 500 m from a stream.

The above stratification relies on assumptions about prehistoric cultural preferences (e.g., behavior) for sites to be located near loamy, well-drained soils, and certain topographic settings (e.g., elevated areas with level ground above water), and proximity to streams. Based on the current level of background research, these assumptions appear to be valid and confirmed by the distribution of extant sites within the study area. While this model favors identifying where sites are likely to be found, it fails to take into account the dynamic nature of the landscape, and thus, the potential for different areas to exhibit *integrity potential*.

Integrity potential refers to the likelihood that an area exhibits natural conditions conducive to the burial and preservation of archeological materials in such a way as to maintain the systemic site context. Integrity potential is considered relevant, because the Section 106 compliance processes require an evaluation of the effects of an undertaking on *historic properties*, which are sites that are listed in, or eligible for listing in the NRHP. In order to be a *historic property*, and therefore worthy of protection, the site must meet the legal criteria spelled out in 36 CFR 60.4, and it must possess integrity. For archeological sites, integrity commonly refers to the degree to which intra- and inter- site components have been preserved within its unique environmental site setting (i.e., systemic context). Similarly, at the state level, under Title 13, Part 2, Chapter 26, Subchapter C, Rule 26.10 of the Texas Administrative Code, an archeological site under the ownership or control of the State of Texas may also merit official designation as a SAL if it has the ability to contribute to a better understanding of history or prehistory, and if it is relatively well-preserved.

In order to account for the integrity aspect for the Project, the APE was further stratified into areas of High, Medium, and Low Integrity Potential. High Integrity Potential (HIP) areas include active depositional environments, such as floodplains, which are ideal for deep site burial and preservation. Other important depositional areas, such as natural levees, eolian deposits, and shoulder- and toe-slopes, are also present in the APE. Because site burial typically proceeds within a low-energy environment, preservation of systemic site context is enhanced, and sites in these settings often have enormous research potential due in part to vertical separation of different cultural components. Deeply-buried sites are also further removed from surface and near-surface impacts, but tend to be less visible due to great burial depth. Because the APE traverses numerous stream crossings and floodplain settings, where Holocene-age deposits often exceed 1 m in thickness, HIP conditions exist in numerous places within the APE.

Moderate Integrity Potential (MIP) areas include upland and older terrace settings that are less likely than HIP areas to exhibit the geologic conditions necessary for the deep burial of cultural materials. MIP areas exist where recent (Holocene) overbank sediments have shallowly buried cultural materials resting on older geologic surfaces, as well as colluvial slopes along valley walls and older terrace-valley wall settings that have undergone small-scale, localized sedimentation (e.g., minor slopewash episodes or the formation of thin overbank veneers). These areas are very slowly aggrading, with very limited potential for deep site burial. Due to the shallow depths of any artifact-bearing sediments, archeological materials may be bioturbated, and archeological integrity potential is lowered.

Low Integrity Potential (LIP) areas exist where there is no potential for the presence of buried archeological sites with reasonable integrity. Such areas include non-aggrading environments, including exposed bedrock, residual soils on uplands, or areas undergoing net soil erosion (e.g., lag setting). LIP areas also include those places that have been destroyed by construction impacts, such as roadways, easements, buried utilities, borrow pits, rutting, etc., or are otherwise physically inaccessible to standard survey methods.

It should be emphasized that assigning integrity potential was based solely upon environmental variables (e.g., geomorphological and depositional setting, soil types, past disturbances, etc.), rather than on the likelihood that sites may be present. Such an integrity-based approach is similar to the TxDOT-Houston District's Potential Archeological Liabilities Mapping (PALM) (Abbott 2001). Unlike the Houston PALM, however, the model developed for the Project integrates behavioral-based archeological potential with environmental-based integrity potential. As a result of this integration, nine Evaluation Mapping Units (EMUs) were developed for the APE. Each EMU represents a unique set of cultural and environmental conditions requiring varying levels of field survey intensity. **Table 4** summarizes the probability and integrity modeling, which in turn provides a useful framework for efficiently carrying out fieldwork to conform to THC's Archeological Survey Standards for Texas. Because this model is based solely on remotely sensed environmental data and known site distributions, unexpected field conditions may require field-methodological adjustments during the survey. Thus, a certain degree of flexibility in the survey effort is built into each of the EMUs in order to correspond to such unanticipated conditions. Where deviations are needed in field efforts, adequate justifications will be presented in the field survey report.

Table 4 Probability Matrix of Archeological and Integrity Potential of the APF						
Evaluation Mapping Unit	Potential	Conditions	Proposed Work			
1	ΗΑΡ-ΗΙΡ	Areas near water, typically within 300 m of a stream, with level, well-drained loamy soils, mainly in medium to large stream valleys. Includes constructional surfaces such as Holocene-age floodplains and terraces, areas near stream confluences, springs, natural levees, larger valley shoulder- and toe-slopes, and eolian features at upland-valley wall margins. These areas tend to be conducive to rapid sedimentation and deep burial of archeological deposits.	Intensive backhoe trenching recommended due to likelihood for deeply buried deposits with reasonable integrity.			
2	ΗΑΡ-ΜΙΡ	Areas near water, typically within 300 m of a stream, with level, well-drained loamy soils. This occurs mainly in small, narrow stream valleys that are either non-aggrading, or very slowly aggrading. Such areas are less conducive to rapid sedimentation and deep burial of archeological deposits. Includes narrow floodplains with possible thin overbank alluvial veneers, as well as some shoulder slope settings, side slopes, and upland-valley wall margins.	Intensive shovel testing recommended due to the potential for relatively shallow archeological materials. Backhoe trenching may be needed if Holocene-age sediments are deeper than anticipated, exceeding 1 m in depth.			

Table 4 Probability Matrix of Archeological and Integrity Potential of the APE					
Evaluation Mapping Unit	Potential	Conditions	Proposed Work		
3	HAP-LIP	Areas near water, typically within 300 m of a stream, with level, well-drained loamy soils. Limited to narrow, non-aggrading or erosional stream settings, with no potential for deep burial of archeological materials. In larger valley settings, the area exhibits low integrity potential due mainly to extensive impacts from construction, buried utilities, borrow pits, rutting, standing water, the presence of large- scale infrastructure, or other factors. As a result, these areas are unlikely to contain archeological materials in good context.	Pedestrian walkover survey of exposed, stable, and eroded soil surfaces. No subsurface excavations recommended due to prior disturbances. Document extant disturbances, noting any observed cultural materials. No further work unless field conditions reveal presence of intact soils.		
4	ΜΑΡ-ΗΙΡ	Areas located between 300 and 500 m from water, including distal margins of wide floodplains, older terrace settings, and upland- valley wall margins within generally narrow stream valleys. Recent (Holocene) floodplain sediments and overbank veneers are likely to have buried cultural materials on older geologic surfaces. Such areas are generally slowly aggrading, but exhibit good potential for archeological deposits in good preservation context.	Intensive shovel testing recommended. Limited backhoe trenching may be warranted if soils are deeper than anticipated (>1 m). If archeological materials are found, intensive trenching may be necessary.		
5	ΜΑΡ-ΜΙΡ	Areas located between 300 and 500 m from water, including older terrace settings, toe- and shoulder slopes, and upland-valley wall margins in relatively wide stream valleys. These areas have likely been subjected to localized sedimentation, possibly during slopewash episodes or during the formation of overbank veneers on older terrace settings. Such areas are very slowly aggrading and are less likely to exhibit the geologic conditions necessary for the deep burial of cultural materials.	Limited shovel testing recommended. Backhoe trenching may be needed if Holocene-age sediments are found to extend below 1 m.		
6	MAP-LIP	Areas located between 300 and 500 m from water, typically within relatively narrow, non- aggrading stream valleys. While cultural materials have moderate potential to be present, there is low probability that these materials would be buried deeply due to stable and/or eroded surfaces.	Pedestrian walkover survey of stable and/or eroded soil surfaces. Documentation only for built areas of APE. No subsurface excavations recommended due to prior disturbances and soil erosion, unless field conditions reveal presence of intact soils.		
7	LAP-HIP	Areas with strongly sloping topography (e.g., >20% slopes), very poorly drained soils, or significant distance (>500 m) to water. Includes undisturbed net-depositional areas, such as might exist in backswamp, swale, paleochannel, bog, marsh, or clayey oxbow channel fill settings. While these areas might exhibit high integrity potential, it is assumed that such settings were unattractive as occupation sites.	Pedestrian walkover assessment of field conditions; judgmental shovel testing to determine presence/absence of buried cultural material and soil depth and integrity. If archeological materials are found, backhoe trenching may be needed.		

Table 4 Probability Matrix of Archeological and Integrity Potential of the APE						
Evaluation Mapping Unit	Potential	Conditions	Proposed Work			
8	LAP-MIP	Areas with strongly sloping topography (e.g., >20% slopes), very poorly drained soils, or significant distance (>500 m) to water. Includes very slowly aggrading settings that may have received minor sediment inputs from thin overbank veneers, eolian deposits, or from colluvium on sideslopes within undulating uplands. These areas may have also been moderately impacted by natural forces or construction activities (e.g., roadways, easements, borrowing, buried utilities, etc.). May include bioturbated upland sand sheet deposits along upland divides and valley margins. Vertical component separation is possible, mainly due to soil mixing.	Pedestrian walkover assessment of field conditions; judgmental shovel testing to determine presence/absence of buried cultural material and soil depth and integrity. If archeological materials are found, additional shovel testing may be needed. Backhoe trenching may also be required if shovel testing reveals artifacts extend to at least 1 m below the surface.			
9	LAP-LIP	Areas with strongly sloping topography (e.g., >20% slopes), very poorly drained soils, or significant distance (>500 m) to water. Includes non-aggrading to erosive settings. These areas may have also been heavily impacted by natural forces or construction activities (e.g., roadways, easements, borrowing, buried utilities, etc.), or may be covered by existing infrastructure.	Documentation-only for built areas of APE. No subsurface excavations due to prior disturbances, unless field conditions reveal undisturbed areas with intact soils.			

FIELD METHODS

The Project will traverse the Texas counties of Dallas, Ellis, Navarro, Freestone, Limestone, Leon, Madison, Grimes, Waller, and Harris. AECOM will conduct an intensive archeological survey of each nonoverlapping segment of the six draft alignment alternatives, which totals approximately 442 miles. The survey will conform to THC's Archeological Survey Standards for Texas, and all archeological investigations will be supervised by an archeological professional meeting the *U.S. Secretary of the Interior's Professional Qualification Standards for Archaeology and Historic Preservation*, and professional qualification requirements for Principal Investigator (13 TAC 26.4). Components of the survey may include pedestrian reconnaissance, stream cutbank recording, shovel testing and/or mechanical subsurface testing, artifact inventories, site recording, and impact assessment.

With the exception of extensively disturbed portions of the APE, which will be subjected only to photographic and written documentation of disturbances, the remainder of the study area will typically be surveyed using two parallel transects within the 100-ft ROW corridor, and exposed ground surfaces will be examined for evidence of archeological resources. With consideration to the proposed levels of field efforts outlined in **Table 4**, shovel tests will be excavated in settings that have potential for buried cultural materials, including those areas where a high probability for historic sites is indicated by historic map overlay review. Shovel tests will be dug whenever there is less than 30 percent ground surface visibility, except on slopes greater than 20 percent. In accordance with THC Survey Standards, a shovel test intensity of at least 16 shovel tests per mile will be utilized, except where ground conditions (e.g., disturbances, standing water, steep slope, outcropping bedrock, or safety hazards) obviate the need for subsurface testing. Shovel tests will be 30 centimeters in diameter and excavated to the bottom of

Holocene deposits, if possible. Shovel tests will be dug in 20 centimeter levels and all excavated soil screened through ¼ inch mesh, unless high clay or water content requires that they be troweled through. Location, depth, soil strata, and presence/absence of cultural materials will be recorded for each shovel test. All shovels tests will be backfilled upon completion.

If there is a potential for deeply buried cultural deposits within the depth of impacts, deeper subsurface investigations (such as backhoe trenches) will be required. The need for backhoe trenches in the APE was initially assessed on the basis of the site probability and integrity potential (see **Table 4**). This assessment will be further evaluated and refined during the subsequent pedestrian survey and shovel testing phases of fieldwork.

Backhoe trenches will be excavated approximately 4 m in length, 1 m wide, and from 1 to 3 m deep, depending on the depth of Holocene deposits. In accordance with the Texas Utility Code, at least 48 hours of prior notification would be given to Texas Excavation Safety System (Texas811) damage prevention service before any trench excavations occur. Trench walls will be closely inspected for cultural materials and subjected to detailed soil descriptions. Entry into trenches will be limited to the upper 5 feet, in accordance with OSHA trench safety standards. One wall section (typically 1-m wide) in each trench will be selected for description following NRCS standards for soil profile descriptions (Schoenberger et al. 2002). Trenches will be photographed and then immediately backfilled to the original level.

Site Recording

If archeological deposits are identified during the survey, site boundaries will be delineated using a minimum of 6 shovel tests within the APE, or if more appropriate due to field conditions with greater than 30 percent ground surface visibility, site boundaries would be delineated by the surficial extent of artifacts or surface features. The field team will investigate the extent and integrity potential of the cultural materials, within the limits of applicable OSHA safety standards. The location of each site will be recorded with a handheld sub-meter GPS unit, and a sketch map will be drawn showing the location of all shovel tests, trenches, features, and other salient features of the site. A temporary field designation will be assigned to each site, and a TexSite form would be completed and submitted to the Texas Archeological Research Laboratory (TARL) for assignment of a permanent trinomial designation.

Site Assessment

All newly discovered sites will be assessed to determine if they could be eligible for the NRHP (and thus designated as a historic property). The criteria for eligibility are spelled out in 36 CFR 60.4, which states:

"...the quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

- a) that are associated with events that have made a significant contribution to the broad patters of our history; or
- b) that are associated with the lives of persons significant in our past; or
- c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d) that have yielded or may be likely to yield, information important in prehistory or history."

In order to be considered eligible for the NRHP, a site must satisfy at least one of the four criteria listed above (a through d), and it must retain integrity. For archeological sites, integrity generally means that components of a site must be in their original depositional context, such that the stratigraphic relationships of site components are maintained.

At the state level, an archeological site under the ownership or control of the State of Texas may merit official designation as a SAL, if any of the following criteria are met:

- 1. the site has the potential to contribute to a better understanding of the prehistory and/or history of Texas by the addition of new and important information;
- 2. the site's archeological deposits and the artifacts within the site are preserved and intact, thereby supporting the research potential or preservation interests of the site;
- 3. the site possesses unique or rare attributes concerning Texas prehistory and/or history;
- 4. the study of the site offers the opportunity to test theories and methods of preservation, thereby contributing to new scientific knowledge;
- 5. there is a high likelihood that vandalism and relic collecting has occurred or could occur, and official landmark designation is needed to ensure maximum legal protection, or alternatively, further investigations are needed to mitigate the effects of vandalism and relic collecting when the site cannot be protected (13 TAC 26.10).

Both Section 106 and the Antiquities Code recognize that the eligibility of archeological sites should hinge on the ability of a site to contribute an important understanding to prehistory, as well as a demonstration that such sites are preserved well enough to convey this importance.

Phased Process for Cultural Resources Surveys

A phased process for compliance with Section 106, as provided for in 36 CFR 800.4(b)(2), is appropriate for the Project due to limited access to the properties within the draft alignment alternatives under consideration. Completion of the identification of historic properties, determination of effects on these historic properties, and consultation concerning measures to avoid, minimize, or mitigate if needed, any adverse effects may be delayed due to no right-of-entry (ROE) and will be carried out prior to any notice to proceed for construction. In situations where identification of historic properties cannot be completed due to access denials, subsequent Memoranda of Agreement (MOA) or Programmatic Agreement (PA) will provide for the development and implementation of a post-review identification and evaluation effort as applicable. Due to the numerous stream crossings along the draft alignment alternatives that may require backhoe trenching, separate ROE requests will be made.

REPORT

After completion of the archeological resources research, surveys, evaluations, assessments, and tribal consultations, technical reports will be prepared to document the findings and identification effort. Technical reports will be submitted by FRA, via transmittal letter, to TCR, SHPO, and Federally-recognized Native American tribes, as appropriate, in both hard copy and electronic format.

Because of the phased nature of investigation proposed for the Project, it may be prudent for numerous interim-based reports to be produced and coordinated as the Project progresses. Such interim reports will be in the form of a summary letter and will present information on the methods of the survey,

descriptions of the cultural resources identified, and recommendations regarding the eligibility and treatment of each site. The information in any interim reports will be specific enough to allow FRA and the THC to make determinations regarding the Project's effects on cultural resources.

Following the completion of all fieldwork, interim reporting, and post-field analyses, AECOM will prepare and submit a draft technical report to FRA for review and transmittal to the THC, which summarizes the findings of the archeological resources survey and recommendations for further work or no further work, with appropriate justifications. The draft report will fully incorporate the information contained in any and all interim reports previously coordinated with the THC. The draft survey report will include all documentation for the identification and NRHP evaluation of archeological resources. This includes all resources identified within the APE. The report will conform to Council of Texas Archeologists' guidelines for cultural resources management reports. One printed copy of the draft survey report will be submitted to the THC for review. After addressing comments to the draft report, AECOM will furnish THC with one printed copy of the final report that contains at least one map with the plotted locations of any and all sites recorded, and two copies of a tagged PDF format of the report on an archival quality CD or DVD. One of the tagged PDF CD or DVD will include the plotted locations of any and all sites recorded and the other will not include the site location data.

CURATION

Pursuant to 13 TAC 26.17, any collected artifacts will be prepared for curation according to relevant specifications and would be submitted to TARL, or other regional Texas facility that meets federal standards 36 CFR 79, for permanent curation after acceptance of the final report by the THC. These artifacts would be washed, catalogued, and analyzed according to TARL curation standards. Artifacts collected from publically-owned land would be kept separate from those on privately-owned land. All records and final report produced from this undertaking will be prepared in accordance with the *Stipulations and Procedures for the Preparation of Archeological Records and Photographs* and permanently curated at TARL in Austin, Texas.

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MAPS REDACTED DUE TO CULTURALLY SENSITIVE INFORMATION

TEXAS HISTORICAL COMMISSION

real places telling real stories

December 14, 2015

Steve Ahr AECOM 1950 North Stemmons Freeway Suite 6000 Dallas, TX 75207

Re: Project review under the Antiquities Code of Texas Dallas to Houston High-Speed Rail, Dallas, Ellis, Navarro, Freestone, Limestone, Leon, Madison, Grimes, Waller, Harris Counties, Texas Texas Antiquities Permit Application **#7497**

Dear Colleague:

Thank you for your Antiquities Permit Application for the above referenced project. This letter presents the final copy of the permit from the Executive Director of the Texas Historical Commission (THC), the state agency responsible for administering the Antiquities Code of Texas.

Please keep this copy for your records. The Antiquities Permit investigations requires the production and submittal of one printed copy of the final report, a completed abstract form submitted via our online system, two copies of the tagged PDF final report on CD (one with site location information & one without), and verification that any artifacts recovered and records produced during the investigations are curated at the repository listed in the permit. The abstract form maybe submitted via the THC website (www.thc.state.tx.us) or use url: http://xapps.thc.state.tx.us/Abstract/login.aspx Additionally, you must send the THC shapefiles showing the boundaries of the project area and the areas actually surveyed via email to archeological_projects@thc.state.tx.us.

If you have any questions concerning this permit or if we can be of further assistance, please contact Lillie Thompson at 512/463-1858. The reviewer for this project is Rebecca Shelton, 512/463-6096.

Sincerely,

Willing a Mart

for Mark Wolfe Executive Director

MW/lft

Enclosures

Cc: Melvin Richmond, Texas Central High Speed Railway, LLC



State of Texas TEXAS ANTIQUITIES COMMITTEE

ARCHEOLOGY PERMIT # 7497

This permit is issued by the Texas Historical Commission, hereafter referred to as the Commission, represented herein by and through its duly authorized and empowered representatives. The Commission, under authority of the Texas Natural Resources Code, Title 9, Chapter 191, and subject to the conditions hereinafter set forth, grants this permit for:

Intensive Survey

To be performed on a potential or designated landmark or other public land known as:

Title: Dallas to Houston High-Speed Rail

County: Dallas, Ellis, Navarro, Freestone, Limestone, Leon, Madison, Grimes, Waller, Ha

Location: Dallas, Ellis, Navarro, Freestone, Limestone, Leon, Madison, Grimes, Waller, and Harris Counties

Owned or Controlled by: (hereafter known as the Permittee):

Texas Central High Speed Railway, LLC

4343 Thanksgiving Tower, 1601 Elm Street

Dallas, TX 75201

Sponsored by (hereafter known as the Sponsor

Texas Central High Speed Railway, LLC 4343 Thanksgiving Tower, 1601 Elm Street

Dallas, TX 75201

The Principal Investigator/Investigation Firm representing the Owner or Sponsor is:

Steven Ahr

AECOM

1950 North Stemmons Freeway, Suite 6000

Dallas, TX 75207

This permit is to be in effect for a period of:

5 Years and 0 Months

and Will Expire on:

12/07/2020

During the preservation, analysis, and preparation of a final report or until further notice by the Commission, artifacts, field notes, and other data gathered during the investigation will be kept temporarily at:

AECOM, Dallas, TX

Upon completion of the final permit report, the same artifacts, field notes, and other data will be placed in a permanent curatorial repository at:

Texas Archeological Research Lab.

Scope of Work under this permit shall consist of:

An intensive pedestrian archaeological survey with shovel testing of high probability areas that meets or exceeds the State Archeological Survey Standards for Texas. This includes, subsurface shovel testing of pedestrian survey transects and mechanical testing in appropriate alluvial areas. For details, see research design submitted with permit application.

ARCHEOLOGY PERMIT # 7497

This permit is granted on the following terms and conditions:

1) This project must be carried out in such a manner that the maximum amount of historic, scientific, archeological, and educational information will be recovered and preserved and must include the scientific, techniques for recovery, recording, preservation and analysis commonly used in archeological investigations. All survey level investigations must follow the state survey standards and the THC survey requirements established with the projects sponsor(s).

2) The Principal Investigator/Investigation Firm, serving for the Owner/Permittee and/or the Project Sponsor, is responsible for insuring that specimens, samples, artifacts, materials and records that are collected as a result of this permit are appropriately cleaned, and cataloged for curation. These tasks will be accomplished at no charge to the Commission, and all specimens, artifacts, materials, samples, and original field notes, maps, drawings, and photographs resulting from the investigations remain the property of the State of Texas, or its political subdivision, and must be curated at a certified repository. Verification of curation by the repository is also required, and duplicate copies of any requested records shall be furnished to the Commission before any permit will be considered complete.

3) The Principal Investigator/Investigation Firm serving for the Owner/Permittee, and/or the Project Sponsor is responsible for the publication of results of the investigations in a thorough technical report containing relevant descriptions, maps, documents, drawings, and photographs. A draft copy of the report must be submitted to the Commission for review and approval. Any changes to the draft report requested by the Commission must be made or addressed in the report, or under separate written response to the Commission. Once a draft has been approved by the Commission, one (1) printed, unbound copy of the final report containing at least one map with the plotted location of any and all sites recorded and two copies of the report in tagged PDF format on an archival quality CD or DVD shall be furnished to the commission. One copy must include the plotted location of any and all sites recorded and an electronic copy of the completed Abstracts in Texas Contract Archeology Summary Form must also be submitted with the final report to the Commission. (Printed copies of forms are available from the Commission or also online at www.thc.state.tx.us.)

4) If the Owner/Permittee, Project Sponsor or Principal Investigator/Investigation Firm fails to comply with any of the Commission's Rules of Practice and Procedure or with any of the specific terms of this permit, or fails to properly conduct or complete this project within the allotted time, the permit will fall into default status. A notification of Default status shall be sent to the Principal Investigator/Investigation Firm, and the Principal Investigator will not be eligible to be issued any new permits until such time that the conditions of this permit are complete or, if applicable, extended.

5) The Owner/Permittee, Project Sponsor, and Principal Investigator/Investigation Firm, in the conduct of the activities hereby authorizes, must comply with all laws, ordinances and regulations of the State of Texas and of its political subdivisions including, but not limited to, the Antiquities Code of Texas; they must conduct the investigation in such a manner as to afford protection to the rights of any and all lessees or easement holders or other persons having an interest in the property and they must return the property to its original condition insofar as possible, to leave it in a state which will not create hazard to life nor contribute to the deterioration of the site or adjacent lands by natural forces.

6) Any duly authorized and empowered representative of the Commission may, at any time, visit the site to inspect the fieldwork as well as the field records, materials, and specimens being recovered.

7) For reasons of site security associated with historical resources, the Project Sponsor (if not the Owner/Permittee), Principal Investigator, Owner, and Investigation Firm shall not issue any press releases, or divulge to the news media, either directly or indirectly, information regarding the specific location of, or other information that might endanger those resources, or their associated artifacts without first consulting with the Commission, and the State agency or political subdivision of the State that owns or controls the land where the resource has been discovered.

8) This permit may not be assigned by the Principal Investigator/Investigation Firm, Owner/Permittee, or Project Sponsor in whole, or in part to any other individual, organization, or corporation not specifically mentioned in this permit without the written consent of the Commission. 9) Hold Harmless: The Owner/Permittee hereby expressly releases the State and agrees that Owner/Permittee will hold harmless, indemnify, and defend (including reasonable attorney's fees and cost of litigation) the State, its officers, agents, and employees in their official and/or individual capacities from every liability, loss, or claim for damages to persons or property, direct or indirect of whatsoever nature arising out of, or in any way connected with, any of the activities covered under this permit. The provisions of this paragraph are solely for the benefit of the State and the Texas Historical Commission and are not intended to create or grant any rights, contractual or otherwise, to any other person or entity.

10) Addendum: The Owner/Permittee, Project Sponsor and Principal Investigator/Investigation Firm must abide by any addenda hereto attached.

Upon a finding that it is in the best interest of the State, this permit is issued on 12/07/2015.

Pat Mercado-Allinger, for the C Texas Historical Commission

Culturally Sensitive Locations Correspondence

January 12, 2016 (Via Mail)



Federal Railroad Administration

Darvin Messer U.S. Army Corps of Engineers Ft. Worth District PO Box 17300 Ft. Worth, TX 76102

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)

Dear Mr.Messer:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

AECOM is assisting FRA in preparing the Section 106 cultural resources study and EIS. As part of this effort, AECOM is currently gathering data on the existing environment and identifying historic properties within the study area that will be used to avoid and/or minimize impacts and determine a preferred alignment.

We are respectfully requesting the assistance of your organization to provide information concerning significant cultural resources within the study area. Significance of a cultural resource may be defined by four criteria: association with historic events or activities; association with important persons; distinctive design or physical characteristics; or potential to provide important information about prehistory or history. The information provided will be used by FRA and AECOM in the assessment of impacts documented in the Draft EIS and the evaluation of alignment alternatives.

Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

AECOM 1950 North Stemmons Freeway, Suite 6000 Dallas, Texas 75207 Tel: (214) 741-7777


Federal Railroad Administration

Felicity Dodson U.S. Army Corps of Engineers Galveston District 2000 Fort Point Road Galveston, TX 77550

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)

Dear Ms.Dodson:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electricpowered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: <u>https://www.fra.dot.gov/Page/P0700</u>.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA



Federal Railroad Administration

Evan Thompson Preservation Texas P.O. Box 12832 Austin, TX 78711

Dear Mr.Thompson:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)



Federal Railroad Administration

Don Baynham County of Dallas THC 5806 Firecrest Drive Garland, TX 75202

Dear Mr.Baynham:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)



Federal Railroad Administration

Sylvia Smith County of Ellis THC PO Box 175 Waxahachie, TX 75165

Dear Ms.Smith:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)



Federal Railroad Administration

Nancy Boren Solohubow President Boren Reagor Springs Historical Society 3817 Shoal Creek Drive The Colony, TX 75056

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)

Dear Ms. Boren Solohubow:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment Cc: FRA



Federal Railroad Administration

Brad Pullin County of Freestone THC 245 FM 833 West Streetman, TX 75840

Dear Mr.Pullin:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electricpowered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)



Federal Railroad Administration

Denise Upchurch County of Grimes THC 9927 FM 1696 Bedias, TX 77830

Dear Ms.Upchurch:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)



Federal Railroad Administration

Janet Wagner County of Harris THC 710 North Post Oak Road Houston, TX 77002

Dear Ms.Wagner:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)



Federal Railroad Administration

Charlcie Casey County of Leon THC PO Box 866 Buffalo, TX 75833

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)

Dear Charlcie Casey:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA



Federal Railroad Administration

William Reagan County of Limestone THC PO Box 860 Groesback, TX 76642

Dear Mr.Reagan:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electricpowered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)



Federal Railroad Administration

Bonne Hendrix County of Madison THC 802 S. May Street Madisonville, TX 77864

Dear Ms.Hendrix:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)



Federal Railroad Administration

Sonny Knight County of Madison THC PO Box 925 Madisonville, TX 77864

Dear Mr.Knight:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electricpowered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: <u>https://www.fra.dot.gov/Page/P0700</u>.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)



Federal Railroad Administration

Larry Foerster County of Montgomery THC 414 West Phillips Conroe, TX 77301

Dear Mr.Foerster:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electricpowered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

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Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)



Federal Railroad Administration

Bruce McManus County of Navarro THC 3019 McKnight Lane Corsicana, TX 75110

Dear Mr.McManus:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)



Federal Railroad Administration

Truett Bell County of Waller THC PO Box 9 Pattison, TX 77445

Dear Bell:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)



Federal Railroad Administration

Becky McCarty Ennis Main Street Program Manager P.O. Box 220 Ennis, TX 75120

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)

Dear Ms.McCarty:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA



Federal Railroad Administration

Mark Doty City of Dallas 1500 Marilla Street Dallas, TX 75204

Dear Mr.Doty:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

AECOM is assisting FRA in preparing the Section 106 cultural resources study and EIS. As part of this effort, AECOM is currently gathering data on the existing environment and identifying historic properties within the study area that will be used to avoid and/or minimize impacts and determine a preferred alignment.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)



Federal Railroad Administration

Marty Nelson City of Ennis P.O. Box 220 Ennis, TX 75120-0220

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)

Dear Mr.Nelson:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Thank you for your assistance with this high-speed rail project. Please contact Melissa Hatcher, Federal Railroad Administration at 202-493-6075 or <u>melissa.hatcher@dot.gov</u>, or me at 214-672-2842 jerry.smiley@aecom.com, if you have any questions or require additional information. Your earliest reply will be appreciated.

Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA



Federal Railroad Administration

Sara Beth Wilson City of Corsicana 200 North 12th Street Corsicana, TX 75110

Dear Ms.Wilson:

The Federal Railroad Administration (FRA) is conducting a cultural resources study under Section 106 of the National Historic Preservation Act of 1966, as amended, in support of the Environmental Impact Statement (EIS) the agency is preparing to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project. Texas Central High-Speed Railway, LLC (TCR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. This includes the deployment of an electric-powered, high-speed rail system based on Central Japan Railway Company's N700-I Tokaido Shinkansen. The project would operate in a fully sealed corridor with portions of the track at-grade or elevated on berm or viaduct. The fully sealed corridor would not be interconnected with any other railroad systems and the high-speed rail train would either travel below or above existing roadways and other infrastructure. This would enable trains to achieve speeds exceeding 200 mph and maintain the 90-minute travel time between Dallas and Houston. The proposed high-speed rail system would be constructed between two terminus locations: Downtown Dallas and U.S. Highway 290/Interstate Highway 610 northwest of downtown Houston, approximately 240 miles in length. As part of the EIS, FRA is studying six potential end-to-end preliminary alignment alternatives (Attachment 1). Additional information about the project is available on FRA's project website: https://www.fra.dot.gov/Page/P0700.

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Sincerely,

Jerry Smiley Project Manager

Attachment

Cc: FRA

Re: Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties, Texas)

Cultural Context

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CULTURAL CONTEXT

1.0 INTRODUCTION

The following is a general background of the prehistoric and historic context of the cultural landscape encompassed by the Build Alternatives of the TCRR High-Speed Rail Project, which takes into account a broader study area from the project Limits of Disturbance (LOD). The contextual information presented is a compilation of the contexts developed for evaluating the significance and National Register of Historic Places (NRHP) eligibility of cultural resources identified within the project Areas of Potential Effects (APE). For clarity, the data has been divided into two sections, the first of which is a broad discussion of the prehistoric and historic archeological records of the region. The second section provides an overview of the 10 Texas counties (Dallas, Ellis, Navarro, Freestone, Limestone, Leon, Madison, Grimes, Waller, and Harris) crossed by the project, and includes discussions of relevant communities within each county.

2.0 PREHISTORIC CULTURAL CONTEXT

2.1 Introduction

The state of Texas is divided into four archeological planning regions: the Plains Planning Region; the Eastern Planning Region; the Central and Southern Planning Region; and the Trans-Pecos Planning Region (**Figure 1**). Guidance for the preservation planning for archeological sites in each of the four regions was developed by the Texas Historical Commission (THC) with the intent to provide "recommendations to federal agencies, to direct the effort to list sites in the NRHP, and to preserve significant sites through other mechanisms" (Kenmotsu and Perttula 1993). Boundaries for each of the regions "were based upon physiography, hydrology, and known cultural variations, and then adjusted to correspond with the nearest county boundaries" (Kenmotsu and Perttula 1993). The Build Alternatives are entirely within the Eastern Planning Region (EPR).

Each of the archeological planning regions is further divided into archeological study regions, or subdivisions, based on geographic variations and cultural divisions from the Late Prehistoric period (ca. 1300 to 200 Before Present [BP]). The Build Alternatives intersect two of the three archeological subdivision within the EPR (**Figure 2**). The Prairie-Savanna Archeological Study Region includes Dallas, Ellis, Navarro, Freestone, Limestone, Leon, and Madison counties. The Southeast Texas Archeological Study Region includes Grimes, Waller, and Harris counties.

The Prairie-Savanna Archeological Study Region is characterized by north to south bands of prairie and oak savanna. The Southeast Texas Archeological Study Region is comprised of a mix of prairies and marshes interspersed with swamps and forests (Blair 1950). Each Archeological Study Region exhibits distinctive cultural-archeological traits. The following sections provide a brief overview of the EPR and each Study Region crossed by the Build Alternatives.



Figure 1. Archeological Planning Regions of Texas (Kenmotsu and Perttula 1993).



Figure 2. Eastern Planning Region of Texas (Kenmotsu and Perttula 1993).

2.2 Eastern Planning Region

Early cultures throughout Texas exhibited a homogeneity of cultural organization, while later cultural groups showed greater diversity represented by subsistence-based economies within the region. The early inhabitants of the EPR were highly mobile hunter-gatherer groups exploiting a large geographical area. Archeological evidence for population mobility is identified by the widespread distribution of projectile point styles, the frequent occurrence of 'exotic' lithic materials, and limited evidence for the extended use of habitation sites. Later cultural groups show reduced territory sizes and greater reliance of locally sourced materials. The reduction in seasonal migration may reflect a general population increase, limiting the availability of resources and leading to greater social diversity within the region due to the adaptation of groups to specific environments and resources (Kenmotsu and Perttula 1993). Although this social diversity became pronounced in the Late Prehistoric period, a clear division from the Archaic period onward begins to exhibit regional diversity between the Prairie Savanna and Southeast Texas Archeological Study Regions.

2.2.1 *Prairie-Savanna Archeological Study Region* (*Dallas, Ellis, Navarro, Freestone, Limestone, Leon, and Madison Counties*)

The Prairie-Savanna Archeological Study Region of the EPR consists of 26 counties from the Red River to Madison County, bounded to the east by the Trinity River, while encompassing much of the Brazos and Navasota Rivers to the west. Although archeological evidence from this region has frequently come from investigations related to reservoir construction, lignite mining, and federal and state sponsored roadway projects, site destruction has been the result of many of these investigations limiting the potential for reinvestigation of archeological sites. Therefore the majority of the seven counties' archeological information comes from the more populated areas due to infrastructure development (Kenmotsu and Perttula 1993). The cultural chronological periods of the Prairie Savanna Archeological Study Region has primarily been developed from these investigations (**Table 1**).

Table 1. Chronological Periods for the Prairie- Savanna Archeological Study Region		
Chronological Period	Dates	
Paleoindian	11,900-8500 BP*	
Early Archaic	8500-6000 BP	
Middle Archaic	6000–3500 BP	
Late Archaic	3500-2100 BP	
Woodland	2100-1300 BP	
Late Prehistoric	1300–350 BP	
Protohistoric/Historic Indian	AD 1600-1800	

*Before Present (BP)

2.2.1.1 Paleoindian (11,900-8500 BP)

The Paleoindian period is characterized by assemblages associated with the terminal late Pleistocene and early Holocene epochs (Hofman 1989; Prikryl 1993; Story 1990). Paleoindian occupation of the Prairie-Savanna Archeological Study Region is primarily identified by diagnostic projectile points from surface collections or stratigraphically mixed contexts (Peter et al. 2001). Dates for the Paleoindian period are often based on cross dating projectile point types from neighboring regions. The majority of the recorded Paleoindian sites cluster in the Upper Trinity River drainage basin, where the most intensive archeological investigations have taken place (Ferring 1989). The low density of Paleoindian artifacts and sites suggest a highly mobile population indicated by the frequent use of non-locally sourced lithic material, suggesting a large geographical area being exploited for the procurement of raw materials (Lynott 1981). Megafauna fossil finds within the region suggest that the subsistence practices were linked to the hunting and processing of mammoth and bison (Prikryl 1990, 1993; Story 1990), as well as deer and other small game, such as rabbit, squirrel, fish, and abundant numbers of turtle (Ferring 1989; Ferring and Yates 1997).

Projectile point types associated with the early to late phases of the Paleoindian period in this area include Clovis and Folsom projectile points. In the later phase of the Paleoindian transition to the Early Archaic period, Dalton, San Patrice, Scottsbluff, Hell Gap, and Plainview projectile points became more commonplace (Story 1990). The Field Ranch site (41CO10) along the upper Elm Fork in Cooke County provides an example of a typical Paleoindian site setting in the Prairie-Savanna Archeological Study Region (Jensen 1968). Clovis, Folsom, Plainview, and Hell Gap point types have been collected from the surface of the site. However, excavations at Field Ranch have failed to locate undisturbed artifacts in primary context (Jensen 1968).

The Horn Shelter No.2 Site (41BQ42), a cave site in Bosque County, is comprised of 27 well preserved stratified occupational layers dating from 12,500 BP to historic. Lithic projectile points recovered from the stratified cave deposits included Scottsbluff, San Patrice-like, Plainview, Folsom, and an unfluted Clovis dart point. Faunal remains associated with the unfluted dart point included an extinct species of land turtle. Later occupations of the site showed a change in technology and hunting practices as faunal remains associated with the Folsom projectile point contained bison bones and small animal remains (Story 1990). The diversity of the faunal remains indicates a change in subsistence practices between the Clovis and Folsom phases, requiring different lithic technology to exploit the natural resources.

The Lewisville Lake Site (41DN71) and the Aubrey Site (41DN479) are Denton County sites that produced cultural materials dating to the early part of the Paleoindian period. The Lewisville Lake Site contained 21 hearth features, a sparse lithic scatter in a near-surface context, and one Clovis point (Crook and Harris 1957, 1958; Story 1990). The predominant faunal remains from the site consisted of land turtles. This site has a controversial history, as initial radiocarbon dates suggested the site dated to 37,000 BP (Crook and Harris 1958). Additional analysis of the cultural material to confirm the earliest occupation of the site was restricted as the site was intentionally flooded to form the Lewisville Dam Reservoir. Later testing confirmed that the radiocarbon dates were contaminated by the burning of Cretaceous-

age lignite in the hearth features, producing the earlier and erroneous dates (Stanford 1982). Stanford reported radiocarbon dates to 12,500-10,000 BP.

The Aubrey Site (41DN479), dating to 11,550 BP (Ferring 2001), is a Clovis period site that was initially identified from a projectile point eroding out of a thin lens of lithic debitage approximately 8 meters below the current ground surface within the Elm Fork floodplain. The single component site included multiple hearth features and numerous lithic and faunal artifacts. The artifact assemblage from the site included high quality raw materials (quartzite and chert), lithic blades, and a wide range of faunal remains from prairie and woodland environments, including mammoth and bison bone. The lithic artifacts exhibited significant reuse and reworking, indicating the value of the raw material (Ferring 2001).

2.2.1.2 Archaic (8500-2100 BP)

The Archaic period is marked by the increased use of locally sourced lithic materials, increased population size, and increased complex settlement systems, indicating a less mobile population than the Paleoindian period (Prikryl 1990; Story 1985). The Archaic period is tentatively dated between 8500-2100 BP, with a threefold division of the period consisting of the Early, Middle, and Late Archaic sub-periods (Prikryl 1993). These sub-periods are defined through a limited number of tested and excavated archeological sites. Diagnostic artifacts for the Archaic period in the Prairie-Savanna Region are similar to those of neighboring geographical regions, established by cross-dating projectile point forms. However, the development of a chronological sequence based off of diagnostic tool types is problematic due to early investigations focusing on terrace settings (Peter et al. 2001). Subsequent reanalysis of these previously excavated terrace sites indicated that the artifacts were frequently mixed with more recent artifacts from later occupations (Prikryl 1990). The mixed deposits and extensive erosion of mid-Holocene deposits in active river drainage basins (Ensor et al. 1992) may explain the low number of recorded Early and Middle Archaic sites in the region.

Similar to the Paleoindian period, the Early Archaic period (8500 to 6000 BP) population densities remained low, still consisting of small, mobile bands. Early Archaic sites are typically located on terraces along tributaries, but are also found deeply buried in floodplain alluvium. The locations of these sites provide evidence of a shift in subsistence patterns, showing an increase in aquatic sources (including mussels and fish). Grooved or notched stones are occasionally found on Early Archaic sites and are often interpreted as net sinkers or bola stones, indicating a change in hunting and gathering techniques (Collins 1994). Seasonal plant resources are also likely to have been exploited when available. Diagnostic projectile points from the Early Archaic period often include early split-stemmed varieties and occasionally include Angostura points (Prikryl 1990; Story 1990).

During the Middle Archaic period (6000-3500 BP), the trend toward habitation near the bottomland of major water sources increases, with fewer sites found along minor tributaries, although the Middle Archaic period is less-represented than the Early Archaic, with fewer sites known to contain Middle Archaic components than any other sub-period. Population densities remained relatively low, slowly increasing over time with broad-spectrum hunting and gathering represented at larger sites where food sources were more abundant. Cultural adaptations based on geographic regions begin to appear during

the latter part of the Middle Archaic period. Burned rock middens (for processing plant materials) increase in use in localized areas of the Prairie-Savanna Archeological Study Region, and later became a prominent site feature across the region. Climatic variations resulted in a variety of natural resources being exploited when environmental conditions changed. Middle Archaic points include basal-notched forms such as Andice, Bell, and Calf Creek along with Bulverde, Carrollton, Dawson, and Wells (Prikryl 1990; Story 1990).

The Late Archaic (3500-2100 BP) is characterized by an increase in the number and distributions of sites coupled with a decrease in mobility (Prikryl 1990). These sites were often reused on a seasonal basis as shown by the development of overlaying stratigraphic deposition as groups relied on locally available floral and faunal resources in a reducing geographic region. Late Archaic sites are typically found on sandy terraces along tributaries, as well as on clay rich soils on floodplains. Late Archaic projectile point typologies often include Castroville, Dallas, Edgewood, Elam, Ellis, Gary, Godley, Marshall, Palmillas, Trinity, and Yarbrough points (Prikryl 1990; Story 1990).

Late Archaic hunting continued to focus on deer and smaller mammals as a primary food source but there is increasing evidence for fishing. The documentation of "Wylie pits," (large man-made depressions) at excavations at Bird Point Island and Adams Ranch also suggest communal processing of vegetal resources took place. The expenditure of energy required for digging large pit features and processing large volumes of plant materials suggest a degree of social organization where groups of people are working together to process large quantities of natural resources (Bruseth and Martin 1987). Preserved plant remains from Late Archaic sites often include pecans, acorns, hickory nuts, prairie turnips, and other plant materials. Additional changes in social organization may also be indicated by the increase in human burials in the archeological record (Prikryl 1993).

2.2.1.3 Woodland (2100-1150 BP)

Fields (1995) suggests that the cultural chronology of the Prairie-Savanna Archeological Study Region should include the Woodland period (2100-1150 BP), traditionally marking the transition between the Late Archaic period and the Late Prehistoric period. Sites located in the southern extent of the Prairie-Savanna exhibit Woodland tradition based on the excavation of a multiple sites at Jewett Mine, paralleling the Early Ceramic period of East Texas as defined by Story (1981). Jewett Mine is a 35,000-acre mine complex located in parts of Leon, Limestone and Freestone counties.

Many of the Woodland period sites are located within alluvial settings of the Navasota River and tributaries of the Trinity River. The artifact assemblages from this period include ceramics with sandy paste and grog tempers. Projectile point typologies include Gary, Dawson, and Kent dart points. The absence of smaller arrow points suggests bow and arrow technology had not yet been introduced in the region. The presence of hearth-associated occupation sites continues from the Late Archaic period with multiple hearth features, baking pits and large quantities of scattered burned rock dating to or associated with the Woodland period. Sites from this period indicate seasonal occupations with foraging and hunting variations, which included aquatic resources being exploited alongside white tailed deer and smaller mammals (Fields 1995; Perttula 2004).

Paleo-botanical information from Woodland period sites indicates the consumption of cultivated squash as well as the use of seeds and tubers. The presence of hoe-shaped tools and chipped stone axes suggests horticultural practices slowly being adopted, although stable isotope analysis of human remains in the region do not indicate maize as being a significant part of the diet (Perttula 2004). Human burials dating to the Woodland period suggest that burial mounds may have been used to mark territorial boundaries (Sutton 2016), which are commonly found in areas of East Texas, Louisiana and Arkansas (Perttula 2004).

2.2.1.4 Late Prehistoric (1300-350 BP)

Societal changes such as group aggregation and large-scale manipulation of subsistence resources become evident at the beginning of, and continue throughout, the Late Prehistoric period. Habitation structures in some areas indicate increased sedentism, coupled with the introduction of cultigens such as corn. The appearance of arrow points and ceramics indicate important technological changes and signal the start of this period. The introduction of the bow and arrow in the region is marked by a number of small, diagnostic arrow points beginning to replace the larger dart points of previous cultural periods (Story 1990).

The Late Prehistoric period has traditionally been divided into early and late phases (Lynott 1977; Prikryl 1990). The early phase, which dates between 1300 and 800 BP, is characterized by sand and grog-tempered ceramics and Scallorn, Steiner, Catahoula, and Alba arrow points (Lynott 1977; Prikryl 1990). Archeological evidence indicates a continuation of hunter gatherer subsistence from the Late Archaic period. However, Lynott (1977) suggests the later phase of the Late Prehistoric period (800-350 BP) reflects an increase in Southern Plains influence, from the emergence of horticulture and the active procurement of bison in the region.

Excavations at the Cobb-Pool Site at Joe Pool Lake by Peter and McGregor (1998) suggest a three phase Late Prehistoric period may be more appropriate. The early phase (1300–950 BP) is characterized by sand and grog tempered ceramics with a continuation of hunter-gather subsistence based economy, with only Scallorn arrow points being considered in the projectile point assemblage. The subsequent intermediate phase (950–650 BP) is characterized by the consumption of maize and the introduction of Alba arrow points, habitation structures, and grog tempered ceramics. Radiocarbon dates from multiple features at the Cobb-Pool Site indicate the site was occupied during this phase (Peter and McGregor 1998). Carbon isotope analysis of human remains from several sites in the Dallas area suggests that subsistence patterns were diversifying with the evidence that consumption of maize was increasing.

The late phase of the Late Prehistoric period (650–350 BP) reflects an increased influence from the Southern Plains. The artifact types include Nocona Plain ceramics of the Henrietta focus and various types of unstemmed triangular projectile points (e.g. Fresno, Harrell, and Washita) and the Perdiz point. The lithic tool assemblage also becomes increasingly specialized. Tools associated with this phase include Harahey knives, thumbnail scrapers, flake drills, and bison scapula hoes. The late phase of the Late Prehistoric period is often characterized by increasing evidence of horticulture and the hunting of bison (Harris and Harris 1970; Morris and Morris 1970).
2.2.1.5 Protohistoric / Historic Indian (AD 1600-1800)

Limited historical documentation and archeological evidence has been recorded for the protohistoric period in the Prairie-Savanna Archeological Study Region (Peter et al. 2001), which is also considered the Historic Indian period with the arrival of Spanish missionaries and French explorers near the beginning of the 1700s. Through European historic records such as journals and correspondence, local Native Americans known to occupy the Prairie-Savanna Archeological Study Region include the Tonkawa, Apache, Comanche, Wichita, Kitsai (Kichai), Yojaune, Caddo, Delaware, and Kickapoo (Prikryl 1993), although the exact locations of sites are almost nonexistent. European trade items, such as metal knives and knife handles, axes, splitting wedges, kettle fragments, awls, chisels, scissors, buttons, flintlock gun parts, bullets and shot, bridle parts, metal ornaments such as bells, finger rings, and bracelets, and numerous trade beads., begin to appear on sites attributed to the Wichita Confederacy, but almost no Protohistoric sites have been thoroughly investigated. What is clear is that the Protohistoric period in the area was a time of population fluctuation, movement, and amalgamation (Newcomb 1993).

2.2.2 Southeast Texas Archeological Study Region (Grimes, Waller, and Harris Counties)

The Southeast Texas Archeological Study Region contains over 2,000 archeological sites throughout the cultural periods (**Table 2**), and is typically subdivided into two broad geographic areas, the inland and coastal regions (Perttula 1993). Evidence from sites within the Southeast Texas Archeological Study Region frequently comes from excavations of midden deposits near freshwater streams and tributaries, which begin to appear around 9950 BP. The Region suffers from a general lack of archeological data, and, similar to the Prairie-Savanna Archeological Study Region, information tends to cluster around specific areas due to infrastructure development. The cultural chronological periods of the Southeast Texas Archeological Study Region has primarily been developed from these investigations.

Table 2. Chronological Periods for the Southeast TexasArcheological Study Region	
Chronological Period	Dates
Paleoindian	9950-7000 BP
Early Archaic	7000–5000 BP
Middle Archaic	5000-3500 BP
Late Archaic/Early Ceramic	3500-1900 BP
Late Prehistoric	1900–300 BP
Protohistoric/Historic Indian	AD 1650-1800

2.2.2.1 Paleoindian (9950–7000 BP)

Patterson (1995) noted that the Clovis population is the earliest identifiable cultural group, with the projectile points typically discovered in singular contexts (Story 1990). Limited radiocarbon dates or supporting evidence is available in the Southeast Texas Archeological Study Region to confirm that Clovis groups were contemporaneous with those in other regions, but appear to have practiced a similar nomadic hunter-gatherer lifestyle later than populations further north in the Prairie-Savanna Archeological Study Region.

The spatial distribution of Paleoindian artifacts trends towards major streams or within stream drainages. The projectile points from the early to late phases of the Paleoindian period, Clovis, Plainview, Folsom, Scottsbluff, and San Patrice, are often isolated finds, surface finds, or have been recovered from mixed deposits (Ricklis 2004). The types of lithic raw materials used in tool production suggest the population was highly migratory as many of the lithic types are not sourced in the region. This indicates extensive movement of people and/or trade of raw materials in a larger geographical region (Ricklis 2004).

More definitive radiocarbon dates exist surrounding Folsom projectile points. A single diagnostic Folsom projectile point was recovered from excavations at 41WH19 in Wharton County (Patterson et al. 1987), stratigraphically associated with charcoal deposits. The radiocarbon dates produced a date of 9920±530 BP (AA-298). Although isolated Folsom points have been reported from other sites in the region (Story 1990), limited additional evidence has been reported to help understand the subsistence economy of the Paleoindian period. Traditionally, the Folsom culture is associated with bison hunting, however; environmental data indicates that bison were unlikely to be an available resource in the Southeast Texas Archeological Study Region, suggesting a different subsistence tradition was in use.

Following the earlier phases of the Paleoindian period, a variety of projectile points, and presumably associated cultural groups, begin to appear in the region. The later phases of projectile points include Dalton, side-notched San Patrice, and Big Sandy (Patterson 1995). Occasionally, projectile points of the Southern Plains tradition are present, including Plainview, Scottsbluff, Meserve, and Angostura. Similar to the Folsom tradition, the prehistoric cultures associated with these point types were hunter-gatherers, frequently associated with bison hunting as a primary subsistence strategy, although the Southeast Texas Archeological Study Region lacks significant collections of faunal remains to support a subsistence economy based on bison hunting.

2.2.2.2 Archaic (7000–1900 BP)

The context from which Archaic and Paleoindian sites and artifacts have been recovered in the Southeast Texas Archeological Study Region is one of ongoing soil mixing processes and pedoturbation (Ahr et al. 2013). The soil acidity in the region from the commonly occurring alfisols (Abbott 2001) is not conducive to the preservation of organic artifacts such as faunal remains, plant materials and/or charcoal. The overall effects of these conditions have restricted the development of archeological insights regarding changes in subsistence strategies and settlement patterns over time. In addition, no significant primary lithic sources exist in the region that would have made the area more appealing to prehistoric cultural groups, despite the presence of high-quality, river worn cobbles found in secondary contexts (Ensor and White 1998; Patterson 1995).

Without stratigraphic integrity, a general lack of preservation, and an absence of locally available, highquality lithic sources, researchers have relied on diagnostic projectile point data to develop a chronology for the Archaic period within the Southeast Texas Archeological Study Region. By comparing similarities in projectile point morphology to specimens from surrounding regions found in dated and stratified contexts, a baseline chronology, consisting of three stages (i.e. Early, Middle, and Late-Early Ceramic) has been proposed (Patterson 1995).

Utilizing a similar theoretical framework to that used in the development of a chronology for the Archaic period in the Prairie-Savanna Archeological Study Region, researchers have inferred potential mobility patterns and subsistence strategies. With the exception of a more diverse toolkit indicating greater cultural diversity than the preceding Paleoindian period, it seems that groups in Southeast Texas continued to practice a nomadic hunter-gather lifestyle throughout the Early (7000-5000 BP) and Middle (5000-3500 BP) Archaic periods. Little information is available regarding site location patterns and limited evidence is currently available regarding the temporal timescale of occupation sites (i.e. temporary, semi-permanent, permanent).

The Late Archaic/Early Ceramic period (3500-1900 BP) in the Southeast Texas Archeological Study Region has been defined by the increasing use and appearance of ceramic material in the archeological record. The early ceramics are believed to have been introduced into the area from Louisiana and the Lower Mississippi Valley. During the transitional phases of the Middle to Late Archaic, the use of ceramics does not appear to have led to significant changes in settlement patterns. Early ceramics are frequently found overlaying previous Archaic deposits, indicating a continued occupation within specific geographical areas. Traditionally, the increased use of ceramics is seen as an indication of increased sedentism (longer and increased reuse of camps). Patterson (1995) hypothesized that an increased use of ceramics results from population increase. He also notes that Goose Creek Plain ceramics were used throughout the region during this phase. Story (1990) suggests that Goose Creek Plain ceramics typify the Mossy Grove cultures/traditions in this region, as well as portions of the previously discussed Prairie-Savanna Archeological Study Region.

The Later Archaic/Early Ceramic period shows evidence for landscape stabilization and sites attributed to this period have become more common and visually pronounced in the archeological record. Evidence for human burials in cemetery settings has been reported from the Lower Brazos and Colorado River basins (Story 1990). The Ernest Witte Cemetery in Austin County is the largest prehistoric cemetery in the region. The largest inhumation group at the cemetery is believed to have occurred during the Late Archaic period with 145 interments, approximately 60 percent of all interments at the site. Approximately 48 percent of these burials had grave goods associated with the inhumations. Burials tend to be indicative of social groups with reduced mobility within a smaller territory (Sutton 2016), as well as the evidence of an increased use of poor quality local lithic materials as groups adapt to the natural resources that are unique to their localized geographic region.

2.2.2.3 Late Prehistoric (1900–300 BP)

Evidence for the development of horticulture appears in the archeological record in Texas during the Late Prehistoric period as previously discussed (Joe Pool Lake) in the Prairie-Savanna Archeological Study Region; however, the Southeast Texas Archeological Study Region appear to have continued a hunter-gatherer subsistence economy without the inclusion of cultigens in the local population's diet (Perttula 1993). Inland areas continued with a hunter-gather lifestyle with groups nearest the coastline relying heavily on marine resources. Both inland and coastal subsistence strategies relied on the seasonal availability of food resources, with inland groups relying on the hunting of small mammals and plant materials while the coastal groups relied on fish, shellfish, alligator, and turtle (Patterson 1995).

Artifacts in the Southeast Texas Archeological Study Region reflect the diversity and the seasonal reuse of sites between inland and coastal populations during the Late Prehistoric. Inland assemblages are characterized by modest amounts of ceramics, fired clay balls, significant amounts of lithic material, and bow and arrow technology (Patterson 1995). Coastal sites are typified by a limited quantity of lithic materials, oyster shell tools, and a large volume of ceramics (Patterson 1995). The overall lack of lithic materials and aforementioned shell middens suggest coastal groups were less mobile and had access to more abundant food sources than inland groups. Unlike other regions north and east, it does not appear that the introduction of ceramics was accompanied by crop domestication and horticulture (Perttula 1993).

2.2.2.4 Protohistoric/ Historic Indian (AD 1650-1800)

The Protohistoric and Historic Indian period cultures known to have occupied the Southeast Texas Archeological Study Region include the Karankawa, Tonkawa, Bidai, Akokisa (Orcoquisa), Kickapoo, Couchatta, and Atakapa tribes (Patterson 1995). These local Native American groups interacted with early French explorers and Spanish missionaries and traded locally sourced items, such as furs and skins, for goods manufactured and transported from Europe. Protohistoric and Historic Indian period researchers rely heavily on radiocarbon dates, and/or the presence of items manufactured in Europe due to limited diagnostic artifacts from this period, and historic documentation. Trade goods produced by indigenous groups dating to this period include Rockport-type ceramics and ceramic loop handles, as well as bulbar-stemmed, Guerro, Fresno, and Cuney-type arrow points. European manufactured items include, firearms, gunflints, glass and glass beads, and metal objects such as coins, brass bells, kettles, and iron projectile points.

The first Europeans to reach the Southwest Texas Archeological Region were likely the French explorer René Robert Cavelier, Sieur de La Salle, in 1687, and Spaniard Alonso De León, the governor of Coahuila, in 1690. De León's route, which followed an old Native American trace, became known the La Bahía Road, and operated as an important Spanish thoroughfare in southeastern Texas and southwestern Louisiana. When the Spanish arrived in the vicinity, they noted that the area was already populated by the Bedai Indians. The two groups had little contact with one another, however the Bedai did trade with the French during the late 1700s. The Bedai suffered a massive population decline in the late eighteenth and early nineteenth centuries, primarily due to disease. As Europeans began to settle in the area, members of neighboring tribes such as the Kickapoo and Couchatta merged what remained of their small villages. The Native American and European inhabitants lived rather amicably amongst each other, and there is even some evidence that these local tribes provided some protection against the Comanche and Lipan Apache tribes to the Europeans (Jackson 2016a).

Few members of the Bedai remained in the area by this point, as many assimilated with the Orcoquizas, Coushattas, or Caddo. After this time, surviving members of the Bidai tribes were relocated to reservations by the United States government's general removal program in 1854. By 1860, six members of the Bedia tribe were listed by the United States Census; three in 1870; four in 1880; and none by 1890 (Blair 1930; Jackson 2016a).

3.0 HISTORIC CONTEXT

3.1 Introduction

The National Park Service guidance for determining if a resource qualifies for listing in the NRHP states "Historic Contexts are those patterns or trends in history by which a specific occurrence, property, or site is understood and its meaning (and ultimately its significance) within history or prehistory is made clear(National Register Bulletin #15:1997:7)." Therefore, the historic context for evaluating the significance and NRHP eligibility of the historic resources identified within the project APE takes into account the broader area of each of the 10 counties crossed by the Build Alternatives, with a focus on land use, spatial organization, development of the built environment, and the cultural landscape. Although variances between each of the counties are evident, through archival research and survey data, common relevant themes impacting the development patterns and trends within the project area were identified. These themes include early settlement, arrival of the railroad, and community development. The following sections are a brief overview of the historic record of each of the 10 counties crossed by the Build Alternatives.

3.2 Dallas County

Early communities in Dallas County were primarily engaged in farming and develop along key trails, roads, and railroads that crossed through the county. The town sites and communities that developed in proximity to the Build Alternatives in Dallas County include the City of Dallas, Fruitdale, Joppa, Hutchins, Lancaster, and Wilmer (**Figure 3**). A brief discussion of the county and the communities is provided below.



Figure 3: 1886 Murphy & Bolanz map of Dallas County (Library of Congress 2016a).

3.2.1 Development of Dallas County

Dallas County, which encompasses 902 square miles of rich Blackland Prairie, is located in Northcentral Texas. In general the area remained largely unsettled until 1841 when people, primarily from the upper southern states, were drawn by a land grant made to William S. Peters and the Texas Land and Emigration Company of St. Louis in 1841 and 1842. The Texas Land and Emigration Company was an organization of twenty American and English investors who began the systematic settlement of what would become the counties of North Texas, including Dallas County (Wade 2016). The first land grant of August 1841 offered 320 acres to single males and a maximum of 640 acres per family. Insufficient unappropriated land within the area, financial difficulties, and the lack of interest in settling the area resulted in multiple requests for boundary extensions to the original grant (Wade 2016). However, by 1848, the Peter's Colony had introduced more than 2,000 families to North Texas, including Dallas County (Connor 1959).

Dallas County was officially formed in 1846 after Texas was annexed to the United States. Early settlers of Dallas County developed farming and ranching as the county's economic mainstay, and corn was the primary crop grown. In 1850, the city of Dallas was chosen as the temporary county seat, at which time the population in Dallas County was 2,743, including 207 slaves. Although slavery in Dallas County was not as vital to the economy as it was farther east, in 1860, the census showed Dallas County had a total population of 8,655, of whom 1,074 were slaves owned by 228 slaveholders. Slaves accounted for approximately 12 percent of the county's total population, but less than one percent of the total slave population in Texas, which totaled 180,682 people in 1860 (Wade 2016).

The absence of rail slowed Dallas County's growth. From 1843 to 1850 goods were shipped by road to the nearest markets of Houston, Texas, and Shreveport, Louisiana. The county was at the crossroads of two roads: the Military Road from Austin (south) to the Red River (north), which was completed in 1842, and Preston Road. Preston Road was laid out in 1840 by Colonel W.G. Cooke and the First Texas Infantry Regiment Texas soldiers. It served as a military road, beginning in Austin and terminating at the Coffee trading post, adjacent to a fort established by Captain William Preston. The road was part of the Central National Road of the Republic of Texas that had been authorized by the Eighth Congress of the Republic of Texas (Cowling 1936). Between 1850 and 1870, the road was heavily utilized for freight, immigration, and as a trail for driving cattle (Dunn 2000). Preston Road remains a primary transportation route today, although it has been paved and designated as SH 289 (Dunn 2000).

The establishment of railroads in Dallas County by the 1870s resulted in the continued expansion of the county's large-scale crop production and spurred the development of small communities along the rail line. In 1872, the first railroad to be built through Dallas County was the Houston and Texas Central Railroad (HT&C). A year later, the Texas and Pacific (T&P) connected Dallas County to the areas to the west and east, and by 1885, the county had a total of five railroads (Maxwell 2016a). Dallas County remained primarily rural and agricultural through 1920, although manufacturing and industries became more important to the county's economy during this time period. Cotton production was at its peak in

1900; while wheat and oats had their largest crops in 1920. The year 1920 also saw the largest number of farms in the county, 5,379 (Maxwell 2016a).

By the 1950s, farming in Dallas County began to decline and became less significant to the county's economy compared to manufacturing. With an increase in manufacturing and other industries such as retail trade and wholesale trade during the latter part of the 1900s, the population in Dallas County increased rapidly and land use shifted from primarily rural to urban. In 1950, nearly 90 percent of the land in the county was classified as urban and the census bureau listed the entire county as the Dallas Metropolitan Statistical Area (Maxwell 2016a).

3.2.2 Dallas County Communities

3.2.2.1 City of Dallas

The City of Dallas was founded on the east bank of the Trinity River near a natural ford by John Neely Bryan in 1841. The spot Bryan chose provided a good crossing point of the river for miles and in 1848 he developed a ferry terminus in this spot (McElhaney and Hazel 2016). It was hoped that the Trinity would prove to be a navigable river for the transportation of goods in and out of the city, specifically from Dallas to the Gulf of Mexico. However, all attempts proved to be impractical. Railroads and eventually highways would prove to be an easier way for Dallas to achieve the economic expansion the city desired (McElhaney and Hazel 2016).

In 1844, Bryan laid out the town plat based on the orientation of a bend in the Trinity River, and established 300 square-feet blocks separated by 80-foot wide streets (Holmes and Saxon 1992). Although Bryan's survey was preceded by the 1841 survey of John Grigsby, it was Bryan's survey that established the development pattern of what became the Dallas central business district (Moir et al. 1987). Most of the town lots purchased during the next ten years surrounded the courthouse on Houston Street between Main and Commerce streets.

During the late 1860s, Dallas became a center of the buffalo trade, and continued in that role into the mid-1870s. In 1875, the combined revenue from buffalo hide dealing and railroad activities was estimated at over six million dollars. Although the population steadily increased from the establishment of the city in the 1840s through the next thirty years, the coming of the railroads in the 1870s was one of the most significant factors in shaping the city. The H&TC was the first to arrive, linking Dallas with Houston and Galveston in 1872. The T&P, one of the most important east-west railways in the state, built its line through Dallas in 1873. Although the coming of the T&P brought new business and development to the area, navigation north and south across the tracks at Pacific Avenue was difficult. This caused commercial development to concentrate south of the tracks, expanding east from the river rather than north (Holmes and Saxon 1992).

Following the arrival of the railroad there was a boom in Dallas, resulting in the establishment of many warehouse and commercial buildings; however, most of these were demolished during the ensuing twentieth century boom (Moir et al. 1987; Williams and Hardy 1978). Economic difficulties resulting from the Panic of 1873 actually had a positive effect on development in the central business district in

Dallas. With financial backing for expansion reduced, the T&P halted construction of new tracks, and through 1876, Dallas served as the railroad's terminus and an important shipping point (Moir et al. 1987).

In the early 1880s, the population of the city and its environs, within a circumference of about 15 miles, stood at approximately 60,000. Commercial interests in Dallas were highly focused on wholesale and retail distribution businesses. Between 1880 and 1882, trade through the city was estimated to have nearly doubled (Holmes and Saxon 1992).

In 1908, Dallas was struck by flooding, which was a significant factor in shaping future development in the city during the early twentieth century. Water from the flooding caused approximately five million dollars of damage, which prompted city officials to consider actions that would lessen the impact of flooding and improve transportation-related problems in the city (Furlong et al. 2003). Landscape architect George Kessler was commissioned by the city of Dallas in 1910 to develop a city plan (Kessler 1911). Kessler's recommendations included the consolidation of railroad facilities into a single central depot and the construction of levees adjacent to the Trinity River, but the plan was never fully implemented (Kessler 1911; Moir et al. 1987, Skinner et al. 1996).

In 1919, the Dallas Property Owners Association asked Kessler to update his earlier plan. However, interest in implementing the second plan was not sparked until after the area was again hit by severe flooding in 1921 and 1922 (Jackson 2000). By 1926, designs to improve the Trinity River were well underway. Improvement plans included straightening the river channel, which required several railroads to realign their routes. Initially, the railroads opposed the project, but quickly realized its benefit and withdrew their opposition (*Dallas Morning News* 12 July 1926).

World War II brought growth, prosperity and new industries, especially related to aircraft manufacturing, to Dallas. The city physically grew from 45 square miles in 1945 to 198 square miles in 1955. By 1955 the population hit 795,000. In the post-war years, Dallas continued to grow. Interstate Highway (IH) 35 North opened in 1959 being the first freeway completed under the 1956 Federal Highway Act. By 1960, the population was 679,684 and the city encompassed approximately 282 square miles (Quimby and Singleton 2008). Dallas experienced a building boom in the 1970s and 1980s which impacted the downtown and north Dallas areas. The population during this time had grown to 844,401, which represented the continued expansion and development of the city. By the year 2000, the population had grown to 1,188,580 (McElhaney and Hazel 2016).

3.2.2.2 Fruitdale (Smith-Kinnard Cemetery)

Fruitdale, formally Christian Valley, is bounded by Fordham Road to the north, the Missouri, Kansas, and Texas Railway to the east, Ledbetter Drive to the south, and Sunnyvale Street to the west, located on the original J. K. Sloan and G. L. Haas Surveys immediately west of the LOD of Segment 1 of the Build Alternatives. First settled in the 1850s, Fruitdale remained a farming community even after the Missouri, Kansas, and Texas Railway came through in 1886. By 1937, Fruitdale was incorporated with deed restrictions forbidding businesses within the limits of the city, keeping the population low at 432 residents. By 1950, the population had risen to 876 when the large lots began to be divided and sold

(Figure 4). Eventually the wells began to dry and the residents decided to un-incorporate in 1964, when Fruitdale was annexed by the city of Dallas (Maxwell 2016b).



Figure 4. 1961 General Highway Map of Dallas County (Texas GLO 2016a).

Fewer than 300 feet east of the Fruitdale eastern boundary, lays the Smith/Kinnard Family Cemetery. The earliest known interment is that of Thomas Smith (1866), followed by William Kinnard (1867) and Howard Kinnard (1868). There are believed to be a total of 16 burials within the cemetery, although only three headstones remain (THC 2016). The cemetery is located on property previously belonging to the Linfield Elementary School.

3.2.2.3 Joppa (Honey Springs Cemetery)

The community of Joppa, founded in 1872 on the R. F. Smith Survey by the freed slave Henry Critz Hines of the William Brown Miller Plantation, is located approximately 0.75 miles east of the LOD of Segment 1 of the Build Alternatives. This community is considered one of the best preserved Freedmen's communities remaining in the southern United States (Dallas Trinity Trails 2016). William Brown Miller was one of the original pioneers to settle the south Dallas area. Arriving in 1847 from Tennessee, Miller purchased 562 acres of the Van Cleave Survey (Dallas Trinity Trails 2016). In 1866, Miller formed the Honey Springs Ferry Company, creating a crucial Trinity River crossing point. Run by Hines, Miller's Ferry connected Dallas, Hutchins, Corsicana, and Galveston prior to the arrival of H&TC in 1872. By 1900, the unincorporated community was surrounded by the H&TC to the west, the Trinity River to the east, and Honey Springs Branch to the south (**Figure 5**). The community remains very much the same, with many residents being the descendants of the original freedmen of the Miller Plantation.



Figure 5: 1900 Sam Street's Map of Dallas County identifying the location of the community of Joppa. The (c) beside the resident's name indicates "colored" (Library of Congress 2016b); Dallas Trinity Trails 2016).

Located south of Overton Road on the old Overton farm within the LOD of Segment 1 of the Build Alternatives is the Honey Springs Cemetery (also known as Bulova Cemetery, Queen's Cemetery, Coming Home Cemetery, and Homecoming Cemetery). The cemetery is near the intersection of Bulova Street and IH-45, approximately 1.5 miles northwest of the community of Joppa. The cemetery was established in 1872 and is associated with the freedmen of the William Brown Miller plantation. After Emancipation, the descendants of the Miller slaves continued to be buried in the cemetery. The most recent interment occurred in 1966. Many of the graves are unmarked, but a memorial wall constructed in ca. 2003 lists the names of those known to be buried at the cemetery (**Figure 6**). The cemetery appears to retain sufficient integrity to convey its historic significance and association with the early development of south Dallas and is determined eligible for listing in the NRHP at the local level of significance.



Figure 6: 1993 memorial wall erected on the south entrance of Honey Springs Cemetery in Dallas County (URS 2016).

3.2.2.4 Hutchins

The community of Hutchins, located just south of IH-20, bisected by IH-45, and immediately east of Segment 1 of the Build Alternatives, was established around 1860 when it became a trading place for settlers along the west bank of the Trinity River. The H&TC was completed through Hutchins in 1872. By the end of that year, the community had a post office, cotton gins, a gristmill, general stores, a school, and a church. It wasn't until 1945 that the City of Hutchins was incorporated. The population of Hutchins has remained low, with 300 residents recorded in 1890, 500 in 1926, more than 700 by 1952, and close to 3,000 by the time of the 2000 census. A recorded 133 businesses were located within Hutchins, although the majority of the residents work in Dallas (Woestman 2016).

3.2.2.5 Lancaster

The city of Lancaster was first settled in 1847 when Abram Bledsoe purchased a portion of the Rodrick Rawlins survey, north of Ten Mile Creek (**Figure 7**). Bledsoe, naming the town after his birthplace of Lancaster, Kentucky, laid out the town in 1852. The post office was established in 1860, and the city was incorporated in 1887. Prior to incorporation, the population of Lancaster was 550, but nearly doubled by 1900. During this time, Lancaster established a newspaper, two roller mills, three cotton gins, four churches, a Masonic Temple, and the Lancaster Tap Railroad, a connecting line from Lancaster to the H&TC stop in Hutchins five miles to the northeast. The Dallas and Waco Railroad was built through Lancaster in 1888, later become part of the Missouri, Kansas and Texas. The Lancaster Tap was abandoned in 1934. The population of Lancaster remained low, with 1,200 residents in 1925. The population more than quadrupled by 1960, with nearly 7,000 inhabitants. By 1970, the city had a population of 12,500, and rose to 18,718 by 1990 (Nall 2016).



Figure 7: Location of the city of Lancaster on the 1886 Murphy and Bolanz map of Dallas County (Library of Congress 2016a).

3.2.2.6 Wilmer

Located approximately 1.3 miles east of the LOD of Segment 1 of the Build Alternatives, the community of Wilmer is at the junction of IH-45 and US 75, bisected by Cottonwood Creek. Although no founded until 1876, the community of "Prairie Valley" was a stop for the H&TC in 1872. When the Post Office was established in 1884, the town was renamed Wilmer, after a conductor for the H&TC, A. J. Wilmer (Maxwell 2016c). By 1890, the population of Wilmer reached over 100 and had two churches, a cotton gin, a steam mill and two stores. A fire devastated the downtown area in 1929 due to the shallow wells not being able to produce enough water. Most of the town was rebuilt to the east and the population reached 250. By 1945, Wilmer was incorporated with the focus of implementing a public water system, although none was in place by the end of the decade. The town of Wilmer combined the school district with nearby Hutchins, and a voluntary fire department was put in place by 1949. The community continued to grow, with 2,479 residents in the 1990s and 3,393 by 2000. An estimated 85 percent of the population of Wilmer commutes to Dallas for work (Maxwell 2016c).

3.3 Ellis County

While no communities lie directly within the TCRR Historic Resources APE, the corridor is surrounded by several smaller towns whose growth is indicative of the county's settlement patterns from the midnineteenth century, many of which were directly related to the booming agricultural economy and the railroad industry. Ellis County and communities surrounding the Build Alternatives include Ferris, Palmer, Reagor Springs, Ennis, Bardwell, and Rankin are discussed below (**Figure 8**).



Figure 8: 1879 Texas General Land Office map of Ellis County (Library of Congress 2016c).

3.3.1 Development of Ellis County

Before Texas independence, while under the control of Mexico, several empresario grants were awarded by Mexico in order to populate the territory (Haaser 2016; Hardy nd a). Under both Spanish and Mexican rule, the purpose of the empresario system was to increase the population of Texas and prevent takeover by another country. Immigrants were expected to convert to Catholicism and slavery was illegal (though overlooked) (McComb 1989). Although many grants were awarded overall, only three were within present-day Ellis County. The first was awarded to Thomas Jefferson Chambers for 8 leagues on September 23, 1834, with each league consisting of approximately three linear miles, followed by a second grant to Rafael de la Pena for 11 leagues, and then a third to Alejandro de la Garza for 4 leagues, both on October 22, 1834. On March 2, 1836, Texas declared its independence from Mexico and became the Republic of Texas; although it was not until 1846 that Texas was annexed into the United States. While still a Republic, Texas followed the example set by Mexico as it sought to populate its new country by offering land as an incentive (Haaser 2016; Hardy nd a). In 1841-1842, Texas awarded a land grant, which included the northern section of present-day Ellis County, to William S. Peters, also doing business as (DBA) Texas Emigration and Land (Ericson 2016; Haaser 2016).

In 1843, the Republic of Texas awarded another land grant, which included the southern section of present-day Ellis County, to Charles Fenton Mercer, DBA Texas Association. The Peters and Mercer land grants were to become two of the most significant grants in the development of Texas. The Peters land grant, or Peters Colony, eventually covered 16,000 square miles, including the area around the present-day City of Ennis (Hardy nd a). Peters solicited settlers exclusively from the states of Arkansas, Kentucky, Missouri, and Tennessee. By 1848, over 2,000 families had settled on his land. Early settlers included William R. Howe, who established Forreston in 1843; the Southerland Mayfield family, who established Reagor Springs in 1844; and the Billingsley family, who established Ovilla in 1844 (Haaser 2016). In 1849, Ellis County was excised from Navarro County and named in honor of Richard Ellis, President of the Constitutional Congress during the declaration of Texas' independence (Brooks 1964). Waxahachie, a Native American word for "buffalo creek," was established as the county seat of Ellis County in 1850 on land donated by the pioneer settler Emory W. Rogers (County of Ellis 2016; Felty 2016).

The early settlers of Ellis County included many who emigrated from southern states, bringing cotton with them and, frequently, their slaves (Haaser 2016, Hardy nd a). In 1850, the number of slaves in Ellis County stood at 87, with an average of less than five per family farm. Despite this early influx, the main economy was cattle in the late 1850s, and by 1860 cattle production ranked sixth in the state. However, as the overall population of Ellis County continued to increase, the cotton economy began to develop on a wider scale. Not coincidently, the number of slaves rapidly increased, reaching 1,104 by 1860. Settlers from cotton-producing states were not the only ones drawn to Ellis County, immigrants from Europe, most notably from Czechoslovakia Slovakia and the Czech Republic, Hungary, and Germany, also arrived.

The Civil War divided the county as it divided the country. Nonetheless, Ellis County residents supported the Confederacy and, as such, voted for succession from the United States (Haaser 2016). In fact, one source stated that every single person of voting age in Ellis County voted for succession (Lewis Publishing 1892). In support of the war effort and their beliefs, a Confederate powder mill was

established in Waxahachie and a Confederate hat factory was established in Italy (Haaser 2016). Several regiments quickly formed within Ellis County with the Twelfth Texas Cavalry Regiment, also known as Parsons' Brigade, quickly becoming recognized as one of the finest cavalries west of the Trans-Mississippi line (Bailey 2016; *Waxahachie Daily Light* 1907).

The loss of the war and the subsequent Reconstruction period proved to be a very difficult time as the county struggled with occupation by Union troops and the change in culture and economics brought about by the freeing of former slaves (Haaser 2016). With the end of slavery, both the landowner and the former slaves were in need of new economic models. As such, the practice of tenant farming emerged and included both African- and European-Americans (Hardy nd b). In addition, Ellis County suffered the loss of 100 square miles to Johnson County in a dispute over boundaries, which was not resolved until a new survey was undertaken in 1939 (Haaser 2016). A bright spot in the midst of all the post-war difficulties was the arrival of the H&TC Railroad into Ellis County in 1871/1872, which bolstered the economy by allowing crops and goods to be shipped more widely, while at the same time providing easier access to supplies for local farmers and merchants (**Figure 9**) (Haaser 2016; Hardy nd b).



Figure 9: 1906 Official Guide of the H&TC (Ellis County stops are within outlined area) (Texas Transportation Archive 2016).

During the Panic of 1873, one-fourth of the railroads nationwide went bankrupt. Within the next two years, 18,000 businesses failed and unemployment skyrocketed to 14 percent. The massive financial failure led many to migrate west, including many from southern cotton states which served to reinforce the early cotton culture in Ellis County (Haaser 2016). During the 1870s, cotton production increased by 600 percent (to 18,956) and by 1880, aided by new technologies such as mechanical cotton feeders, condensers, compact presses, and unloading devices, Ellis County was producing one-fourth of the world's cotton (Brooks 1964; Haaser 2016; Hardy nd b). By 1880, there were 2,884 farms and the population had tripled from 7,515 in 1879 to 21,294.

With the success of farming, and in particular cotton, farmers needed better roads in order to reach the various market towns and railroads that were operating in the county (Haaser 2016; Hardy nd b). As a result, during the late 19th century to early 20th century, old roads received improvements, while new roads were built. In addition, Ellis County was becoming important within the railroad industry, with five railroad routes crisscrossing the county (**Figure 10**).

By 1900, the county's population had risen to 50,059. There were 203 industrial businesses and the number of farms had more than doubled to over 6,000—a number which remained consistent until the 1930s (Haaser 2016). Of these 6,000 farms, approximately 80 percent were farmed by tenants. For a brief period in the early 1900s, Ellis County led the state in cotton production (Brooks 1964).



Figure 10: The "Railroad Map of Texas, 1926 " depicting rail lines through Ellis County; H&TC (1859) [blue]; Gulf Colorado & Santa Fe (1883) [dark red]; Great Northern (1900) and International- Great Northern (1903) [yellow]; and the Trinity & Brazos Valley Railway (1907) [orange] (Library of Congress 2016d).

While Ellis County had remained rural and predominately agricultural until this point, the 1930s through the 1940s would prove to be a time of major change. By 1930, the population had grown to 53,936. The black population, the fastest growing segment, accounted for almost one-fourth of the overall population (Brooks 1964; Haaser 2016; Hardy nd a). Cotton production began to decline due to soil erosion, subsequent acreage controls, the introduction of other crops, and a decreased demand caused by the Great Depression. As a result of the decreased demand for cotton and the continued mechanization of farming, the number of tenant farmers decreased sharply to only 1,236 by 1935.

In an effort to combat unemployment, in 1935, the Civilian Conservation Corps (CCC) set up camps in Waxahachie (*Waxahachie Daily Light* 1940). The CCC, a New Deal program, hired local young men, provided them with new skill sets and training, and then used those skills to make improvements within the county. During their tenure in Ellis County, the CCC built 319 miles of new fence, sodded 4,166 acres, stripped 17,007 acres, terraced 3,025 acres, and utilized new cultivation practices on 17,651 acres.

By 1940, the population had decreased slightly to 47,753, unemployment had jumped from 6 to 16 percent, and the county was in the process of transitioning from a largely agricultural economy to an urban one (Haaser 2016). The number of farms declined further, from 3,982 to 2,100, in a trend that was to continue until the 1980s (Brooks 1964). By 1945, the mechanization of farming had become widespread. As less land was needed for the upkeep of horses and mules, it was now appropriated for cattle production. The increased mechanization also made farming faster and easier, leading to fewer but larger farms (**Figure 11**).



Figure 11: Ellis County cotton field ca. 1945 (City of Palmer 2016).

By 1950, Ellis County had become over 50 percent urban (Haaser 2016). Cotton had been replaced by maize and small farms had been replaced by ranches. Oil was discovered in 1953, adding to the county's economy. By 1954, electricity was available nearly county wide, reaching over 95 percent of the rural areas. By 1960 the transition from agricultural to urban was almost complete (Brooks 1964; Haaser 2016). The number of farms continued to decrease, although those that did remain increased in size by almost 200 percent, reaching an average of 258 acres. Tenant farming, which accounted for 80 percent of the farming in 1930, now accounted for 32 percent (in the 1960's). Many large industrial plants—including clothing, refrigeration, steel, and packing had been established by this time.

The 1960 and 1970 populations, 43,395 and 46,638 respectively, were far less than the 1930 population. Of these numbers, African-Americans accounted for 18 percent (8,593), slightly less than the 1930 national average. Major transportation routes in Ellis County now included four major U.S. highways and six railroads. From 1970, and at least through the next decade, the primary industries became oil and gas, construction, manufacturing, transportation, public utilities, and wholesale trade.

3.3.2 Ellis County Communities

3.3.2.1 Ferris

Ferris, located in northeast Ellis County near the Dallas County line, approximately 0.5 miles east of the LOD, was settled in the 1850s by the McKnight and Andrews families, both of which emigrated from Tennessee. The town was originally known as McKnight-Andrews Corner, but with the arrival of the H&TC Railroad in 1874, the town was replatted and renamed in honor of Judge Justus Wesley Ferris. The same year as the completion of the railroad, the town boasted its own general store and post office. By the mid-1880s there were approximately 300 residents in the town. When Ferris was incorporated in 1892, there were 350 residents and approximately 20 businesses (Hart 2016a).

Ferris continued to grow through the turn of the twentieth century, and by 1910, there were a recorded 1,233 residents, along with numerous brick companies established due to an abundance of local mineral clay found in the area soils. The earliest of these brick companies was the Ferris Pressed Brick Company, by T.J. Hurst of Dallas, and the Atlas Press Brick Works, both established in 1895. By 1914, six brick plants operated in Ferris (Ferris [1895-1923], Atlas [1895-1918], Diamond [1910-1923], Globe [1904-1923], Lone Star [1905-1923], and Texas [1909-1926]) (**Figure 12**), which was known as was one of the principal brick manufacturing cities in the state. As of 1921, there were eight brick factories operating in Ferris (Hardy nd a; Perry-Castañeda 2016a), as well as several cotton gins. The longest running was the Mutz and Cassidy Gin Company, also known as the Merchants and Planters Gin, which operated from 1880 to 1957 (Ferris Wheel 1899; Hardy nd a; Perry-Castañeda 2016a) Ferris 2016).



Figure 12: Brick manufacturers of Ferris, Texas, ca. 1914 (bricknames.com 2016).

3.3.2.2 Palmer (Geaslin Cemetery)

Palmer, originally a part of the Raphael de la Pena land grant, is located just northeast of Waxahachie in central Ellis County and was incorporated in 1890. Settlement in the vicinity of Palmer began during the

late 1840s, prior to the actual establishment of the town which occurred in 1872 with the arrival of the H&TC Railway and its incorporation. Early settlers included Peter Stout in 1846, a local gristmill owner; Hans Smith, a dry good / grocery store owner, during the late 1840s; Alfred Anthony and John Bunker in 1850; and J. W. Stacks in 1855. Palmer was officially established in 1870 with the arrival of the H&TC Railway. Anthony, a local carpenter who also happened to own the original land claim that covers the town of Palmer, sold that portion of his land to the railroad for \$1.00. Despite Anthony's generosity, the town was named for D.S. Palmer, a railroad stockholder and doctor in Houston. By the mid-1880s, Palmer was home to 250 citizens. Like other towns in Ellis County, Palmer also had its own brick factory, the Palmer Press Brick Company, which opened its doors in 1902. The Palmer Press Brick Company purchased another local company in 1929, and merged to form the Barron Brick Company. Barron Brick became one of the principle brick suppliers in the county. The town had approximately 750 citizens in the 1910s, which stayed consistent through the mid-twentieth century until it dropped to approximately 600 residents in the 1970s. Within a decade, by 1988, the population of Palmer had more than doubled to 1,505 residents, and has continued to grow at a slow pace with 1,731 residents as of 2000 (Blocker 2004; Minor 2014, 2016a).

The Geaslin Cemetery consists of a small, family burial plot located approximately 2.5 miles northwest of Palmer on the old D.A. Epps Farm, originally belonging to William King Geaslin (TASA 2016; USGW 2016a) (Figure 13). Also known as the Bell and/or Grimes Cemetery, Geaslin Cemetery is located just north of an unnamed tributary of Brushy Creek, partially falling within the LOD of the Build Alternatives. Established in the late nineteenth century, the cemetery contains between 29 and approximately 80 interments and is completely overgrown. The earliest interments are that of John Miller (July 8, 1805-June 29, 1873) and Cirena H. Geaslin (October 27, 1852-September 26, 1873). The most recent interment is that of Lela M. Grimes (1868-1964).



Figure 13: Ellis County land patents, including that of W. K. Geaslin, in 1879 (Library of Congress 2016c).