Best Practices for Detailed Applications

TxDOT’s 2021 TA Call for Projects
### Criteria Evaluation Categories (Program Guide Table 3)

<table>
<thead>
<tr>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
</tr>
<tr>
<td>Project Readiness</td>
</tr>
<tr>
<td>Geographic Equity</td>
</tr>
<tr>
<td>Connectivity &amp; Accessibility</td>
</tr>
<tr>
<td>Community Support and Planning and Planning</td>
</tr>
<tr>
<td>Demand</td>
</tr>
</tbody>
</table>
Focus of this presentation

- Photos
- Public Support
- Proposed Budget
- Maps & Exhibits
- Design Details
- Project Readiness
- Project Evaluation & Selection Criteria
9. Identified bicycle and/or pedestrian safety hazards and countermeasures

Check all of the safety hazards located within the project limits. Next to each checked safety hazard, state the proposed countermeasure(s) addressing the hazard identified. Provide additional countermeasures, information about countermeasures, and photos of safety hazards as an attachment: C-Safety Hazards and Countermeasures. Clearly identify these features on Map 1-Safety and include in attachment C.

<table>
<thead>
<tr>
<th>Safety Hazard</th>
<th>Countermeasure</th>
</tr>
</thead>
<tbody>
<tr>
<td>High roadway speed (45 mph or greater)</td>
<td></td>
</tr>
<tr>
<td>Hazardous intersection/conflict point</td>
<td></td>
</tr>
<tr>
<td>Uncontrolled intersection/crossing</td>
<td></td>
</tr>
<tr>
<td>Lack of bike/ped infrastructure</td>
<td></td>
</tr>
<tr>
<td>High motor vehicle traffic volume</td>
<td></td>
</tr>
<tr>
<td>On-street parking</td>
<td></td>
</tr>
<tr>
<td>Wide roadway crossing (3 or more lanes)</td>
<td></td>
</tr>
<tr>
<td>Lack of lighting</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

10. Bicycle and/or pedestrian infrastructure elements

Which of the following features are part of the proposed project? Check all that apply. Clearly identify these features on Map 1-Safety. New bicycle/pedestrian infrastructure.

<table>
<thead>
<tr>
<th>Infrastructure Feature</th>
<th>Countermeasure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closes a gap in bicycle or pedestrian network</td>
<td></td>
</tr>
<tr>
<td>Features new traffic calming elements</td>
<td></td>
</tr>
<tr>
<td>Separates bicycles &amp;/or pedestrians from motor vehicle traffic</td>
<td></td>
</tr>
<tr>
<td>Facility is offset from road (≥5')</td>
<td></td>
</tr>
<tr>
<td>Features traffic markings/signage</td>
<td></td>
</tr>
<tr>
<td>Addresses railroad/highway/water crossing</td>
<td></td>
</tr>
<tr>
<td>New bicycle &amp;/or pedestrian infrastructure including a vertical separation element (e.g., curb, flexible delineator, bollard)</td>
<td></td>
</tr>
</tbody>
</table>

* must meet warrants
What do design details convey?

- A comprehensive picture of the project
- How the project meets current standards and state-of-the-practice
- Constructability and durability
- Safety, accessibility, and project readiness criteria

How does the project sponsor address design details?

- Project Description (3-4 sentence project description)
- Project Details (drop-downs & fill-ins about project design)
- Project typical section, layout, location map (attachments)
- Itemized Construction Cost Estimate – discussed later
3-4 sentence written description, which includes:

• Facility type (ie. shared use path)
• Project location (ie. along to FM 345)
• Limits (ie. from Main Street to Birch Street)
• Width (ie. 12-foot-wide)
• Major construction items (e.g., pedestrian bridge) or elements that affect motor vehicle traffic patterns (ie. new medians, new signals, traffic calming elements, road diets, etc.)
Sample project descriptions

“The project would construct a **12-foot-wide shared use path** along Brushy Creek from the Sunshine Apartments (public housing) to Comstock Elementary School. The project would include a pedestrian hybrid beacon, ADA-curb ramps, crosswalks, and signage at both termini, as well as a 60-foot-long, 14-foot (clear width) pre-fabricated **bicycle/pedestrian bridge** over Brushy Creek.”

“The proposed project would construct **new 6-foot-wide**, 5-inch reinforced concrete, ADA-compliant **sidewalks** on both sides of Garner St from Tunica St to James St (1 mile), including **replacing** damaged, non-compliant sidewalks on the north side of Garner St between John St and James St (0.3 mile of total project length). The project includes **curb extensions** at Tunica, John, and James Streets and a raised **median** with pedestrian refuge at John St.”
Project Location Information and Project Details

**Project Information**
- Project Dimensions
  - Total length
  - Facility width
  - Material depth
- Project Location
  - Google map link
  - Written description
  - Latitude/Longitude

**Project Details**
- 30% or more plans for review (if available)
- Primary (and Secondary) Facility type
- Surface type/material
- Lighting included?
- Bridge details
  - Construction
  - Number
  - Length
  - Width
  - Superstructure material
Designs must comply with TxDOT manuals and specifications

All manuals are web hyperlinks.
Nationally recognized design guides

**AASHTO**
(adopted by TxDOT)

**NACTO**
(optional)

All manuals are web hyperlinks.
Recent FHWA bikeway design guidance

All manuals are web hyperlinks.

“The proposed guidelines apply to pedestrian facilities in the public right-of-way. The proposed guidelines define the public right-of-way to mean "public land or property, usually in interconnected corridors, that is acquired for or dedicated to transportation purposes". …”

- Sidewalks
- Shared use paths
- Pedestrian crossings
- Pedestrian signals

https://www.access-board.gov/prowag/
Typical sections *(DA attachments)*

- Demonstrate compliance with standards
- Show how the project fits into existing footprint as well as the built and natural environments
Typical sections (*attachments*)

**EXISTING**

- 6’ Sidewalk
- 5’ Bike Lane
- 10’ Travel Lane
- 10’ Travel Lane
- 5’ Bike Lane

**PROPOSED**

- 6’ Sidewalk
- 5’ Bike Lane
- 10’ Travel Lane
- 10’ Travel Lane
- 5’ Bike Lane

*1’ minimum required, 2’ recommended

Free online tool: streetmix.net
# Maps

## What do maps convey?
- **Need and purpose**
- **Context**
- **Connectivity**
- **Accessibility**
- **Safety countermeasures**
- **Communities/areas served**

## What should be included?
- **Project limits and location** (all maps)
- **Schools, transit, major destinations** (Map 2 - Connectivity)
- **Important community landmarks and features** (Map 2 - Connectivity)
- **Identified safety hazards** (Map 1 - Safety)
- **Proposed countermeasures** (Map 1 - Safety)
- **Elements of project complexity** (ROW, Utilities, RR x-ing, etc.) (Project location map)
- **Existing and/or planned pedestrian/bicycle routes** (Map 2 - Connectivity)
Project location map - REQUIRED

Identifies:
• Street names
• Transit stops
• Existing bike/ped network
• Parks
• Public housing
• Government facilities
• Retail establishments
• Identified safety concerns
• Location of proposed improvements
Identifies:
• Bicycle and pedestrian accommodations
• Safety countermeasures
• Interactions between auto and non-motorized traffic
• Transit connections
• Preserved landscape features

Includes:
• Scale
• Context
• Street names
Safety Hazard Countermeasures Map: REQUIRED

Safety Hazard & Countermeasures Map(s) can:
- Identify project improvements in relation to hazards
- Gaps filled or safety concerns mitigated by project improvements
Potential Safety Hazards

Be sure to feature safety hazards to be mitigated by the proposed project on your Map 1- Safety:

- High roadway speeds (45 mph or greater)
- Hazardous intersection/conflict point
- Uncontrolled intersection/crossing
- Lack of bike/ped infrastructure
- High motor vehicle traffic volume
- On-street parking
- Wide roadway crossing (3 or more lanes)
- Lack of lighting
- Other
Connectivity Map(s) can:

- Identify project improvements in relation to destinations, community amenities, and other related projects.
- Show connections to bike/ped infrastructure, transit, commerce, residential areas, schools, etc.
Example: Project is on Texas Bicycle Tourism Trails Example Network

**Legend**

- Example Network Routes by Category
  - Cross-state Spines
  - Connecting Spurs
  - Regional Routes

**Project**

*Begin*

**Project**

*End*
Maps can be made easily!

- Google Earth, Google maps, Powerpoint, and other FREE online map creation software

Sample map made in Google Earth

Safety Issue #1: uncontrolled crossing of high speed roadway from neighborhood to school
### Photographs

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>What do photographs convey?</td>
<td>Context, including built and natural environment</td>
</tr>
<tr>
<td></td>
<td>Existing conditions</td>
</tr>
<tr>
<td></td>
<td>Need for project</td>
</tr>
<tr>
<td></td>
<td>Safety hazards</td>
</tr>
<tr>
<td></td>
<td>Accessibility issues</td>
</tr>
<tr>
<td></td>
<td>Environmental considerations</td>
</tr>
</tbody>
</table>
Photographs provide context

- Historic districts
- Environmental features
- Separated vs on-street pathways
- Repurposed bridges

Adjacent historic buildings along SH 29 facing west (7/19/16)

Historic truss bridge repurposed for bike/ped use on SH 150 facing south (5/14/16)
Photographs demonstrate existing conditions

1. Poor conditions
2. Absent facilities
3. Worn paths
Photographs identify locations of unsafe conditions

Safety hazards identified
- Kids walking in streets
- Unsignalized crossings
Photography: Best Practices

- Group well-labeled photographs together for attachments (i.e., using Word, PowerPoint, or Publisher).
- Photograph labels should identify: location, direction of photograph, date taken, and items of note.
Public and stakeholder support

What does public/stakeholder support convey?

- Community awareness and interest in the project
- Partnerships and coordination
- Transparency
- Consistency with local planning

How is public and stakeholder support documented?

- Public outreach documentation
- Local bicycle, pedestrian, safe routes to school, or other transportation plan (attach relevant pages)
- Property ownership and acquisition information
- TxDOT District letter of concurrence
- Collaborative implementation
- Local match commitment (*Project Sponsor resolution*)
## Local Support: Best Practice - Public involvement summary

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/2012</td>
<td>Public Meeting - SRTS Plan</td>
<td>Presented proposed Milam ISD SRTS Plan to community; general public support</td>
</tr>
<tr>
<td>2/14/2014</td>
<td>Open House - Milam MS Trail</td>
<td>Presented trail project to neighborhood; 12 citizens attended; all in support of project</td>
</tr>
<tr>
<td>3/17/2014</td>
<td>Website and online survey - Milam MS Trail project</td>
<td>50 citizens visited website and took survey; 88% supported the project</td>
</tr>
</tbody>
</table>

- 6/1/2014 Meeting with adjacent property owner - property owner agreed to relocate fence to accommodate project construction (letter attached)
- 7/15/2014 Presentation to Milam ISD PTA - MISD passed resolution supporting project (resolution attached)
- 7/17/2014 Presentation to Whispering Oaks Neighborhood Association (WONA) - WONA passed a resolution in support of project (resolution attached)
- 7/20/2014 Presentation to Milam City Council - ordinance supporting the project (ordinance attached)
- 7/27/2014 News article - described community presentations and local support (article attached)
- 2/14/2017 Letter from Congressman Johnson - expressed support for project (letter attached)
- 2/16/2017 Letter from Downtown Business Alliance - supports project (letter attached)
- 2/20/2017 Letter from Mr. Bob Jones - indicated a willingness to enter into negotiations for ROW acquisition (letter attached)
Example: Project identified in regional plan

### Appendix C
Recommended Bicycle and Pedestrian Facilities

<table>
<thead>
<tr>
<th>ID</th>
<th>Type</th>
<th>Action</th>
<th>Location</th>
<th>Limits</th>
<th>Existing Condition</th>
<th>In Local Plan</th>
<th>State Highway</th>
<th>Length (m)</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>156.1</td>
<td>Pedestrian Sidewalk, Bike Signage</td>
<td>Modify existing sidewalk for ADA compliance, add bike signage</td>
<td>South side of East Main St. South along Front St.</td>
<td>From proposed IH35 improvements Eastward to Front St.</td>
<td>2 lane roadway</td>
<td>No</td>
<td>Yes</td>
<td>.1</td>
<td>1245000</td>
</tr>
<tr>
<td>156.3</td>
<td>Pedestrian Sidewalk, Bike Signage</td>
<td>Modify existing sidewalk for ADA compliance, add bike signage</td>
<td>North side of East Main St.</td>
<td>From proposed IH35 improvements Eastward to Front St. then crosswalk South</td>
<td>2 lane roadway</td>
<td>No</td>
<td>Yes</td>
<td>.1</td>
<td>1211200</td>
</tr>
</tbody>
</table>

TOTAL * Cost estimates provided by project sponsoring entity

*1456250
Example: Project type/location shown in local/regional plan

Project listed in regional transit plan
November 15, 2012

Mayor Michael Morgan
City of Troy
P.O. Box 389
Troy, Texas 76579

Subject: Troy Streetscape Project

Dear Mayor Morgan:

I am writing this letter on behalf of the Texas Department of Transportation to express our enthusiastic support of the pedestrian developments proposed along Main Street (FM 935). We definitely believe that this project will serve the community as it creates a pedestrian-friendly atmosphere around the historic downtown district. Travelers along our system will be invited to stop and enjoy the sites and shopping offered the revitalized downtown business district.

I also understand from reviewing your nomination that the scope of your project will require the use of TxDOT’s right-of-way. The Waco District is committed to support the project and will provide the City with adequate right-of-entry necessary to allow such development along our existing transportation facilities. Your efforts to address safety improvements within TxDOT’s and the City’s existing traffic facilities should directly impact the traveling public’s overall perception of our joint system.

With your comprehensive nomination and widespread community support, I believe that your proposal will receive careful consideration by the Texas Transportation Commission.

Should you have any questions, please contact Mr. Jim Reed, Waco District TE Program Coordinator, at (254) 867-2733.

Sincerely,

Albin A. Petter
Interim District Engineer
Waco District

cc: Ali Bashir, P.E.
    Kevin Diekey, P.E.
    Jim Reed

PROPERTY OWNERSHIP AND ACQUISITION INFORMATION
ATTACHMENT D
PAGE 1

THE TEXAS PLAN
REDUCE CONGESTION • ENHANCE SAFETY • EXPAND ECONOMIC OPPORTUNITY • IMPROVE AIR QUALITY
INCREASE THE VALUE OF OUR TRANSPORTATION ASSETS

An Equal Opportunity Employer
Project Sponsor Resolution

- All Detailed Applications must include a resolution from the governing board
  - Declaring support for the project
  - Committing to develop, implement, construct, maintain, manage, and finance the project
  - Committing to provide the local match (if any)
  - Committing to enter into an Advance Funding Agreement with TxDOT if selected for funding

Plan ahead!
What does the itemized budget convey?

- Project scope and scale
- Prevention of potential overruns
- Supports activities described elsewhere in detailed application form
- Project readiness and local support

Where does the project sponsor provide the itemized budget?

- Itemized Construction Cost Estimate (fill-in)
- Additional Construction-Related Costs (fill-in)
### Average low bid unit prices

**TEXAS DEPARTMENT OF TRANSPORTATION**

#### AVERAGE LOW BID UNIT PRICE - CONSTRUCTION - STATEWIDE

<table>
<thead>
<tr>
<th>Items</th>
<th>December 31, 2016</th>
<th>Twelve-Month-Moving</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Units</td>
<td>Avg Bid</td>
</tr>
<tr>
<td>100 6001</td>
<td>PREPARING ROW</td>
<td>AC</td>
</tr>
<tr>
<td>100 6002</td>
<td>PREPARING ROW</td>
<td>STA</td>
</tr>
<tr>
<td>100 6019</td>
<td>PREPARING ROW</td>
<td>STA</td>
</tr>
<tr>
<td>100 6003</td>
<td>PREPARING ROW</td>
<td>STA</td>
</tr>
</tbody>
</table>

#### AVERAGE LOW BID UNIT PRICE - CONSTRUCTION - ABILENE DISTRICT

<table>
<thead>
<tr>
<th>Item No</th>
<th>Description</th>
<th>Units</th>
<th>December 31, 2016</th>
<th>Twelve-Month-Moving</th>
</tr>
</thead>
<tbody>
<tr>
<td>0100 - 0169</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0210 - 0251</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0250 - 0300</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0400 - 0425</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0430 - 0475</td>
<td></td>
<td></td>
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<tr>
<td>0480 - 0525</td>
<td></td>
<td></td>
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<tr>
<td>0490 - 0535</td>
<td></td>
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<tr>
<td>0500 - 0540</td>
<td></td>
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<tr>
<td>0600 - 0640</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>0700 - 0740</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Budget considerations

- Small quantities may have higher unit costs
- Inflation to year of construction
- Quality construction (e.g., 6-in concrete reinforced with rebar)
- Adequate dimensions (6-ft sidewalks, 12-ft shared use paths)
Budget items to remember

- Mobilization
- Site preparation
- Erosion control/revegetation
- Lighting
- Curb/driveway work
- Traffic control
- Demolition
- Remediation of hazardous conditions
Examples of eligible vs ineligible activities

<table>
<thead>
<tr>
<th>Eligible activities</th>
<th>Ineligible activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Preliminary Engineering (for pop areas &lt;50k)</td>
<td>• Preliminary Engineering (for pop areas &gt;50k)</td>
</tr>
<tr>
<td>• <em>Incidental</em> landscaping, environmental mitigation, utility adjustments</td>
<td>• <em>Major</em> landscaping, environmental mitigation, utility adjustments</td>
</tr>
<tr>
<td>• Land survey for ROW demarcation</td>
<td>• ROW activities</td>
</tr>
<tr>
<td>• Construction engineering and inspection</td>
<td>• Legal services</td>
</tr>
<tr>
<td>• Project administration</td>
<td>• Application preparation</td>
</tr>
</tbody>
</table>

*Incidental* landscaping includes incidental landscaping, environmental mitigation, and utility adjustments for populations under 50,000.
### Proposed safety countermeasures included in Itemized Budget

<table>
<thead>
<tr>
<th>Work Activities</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobilization</td>
<td>1</td>
<td>LS</td>
<td>$72,000</td>
<td>$72,000</td>
</tr>
<tr>
<td>Barricades, Signs and Traffic Control</td>
<td>1</td>
<td>LS</td>
<td>$60,000</td>
<td>$60,000</td>
</tr>
<tr>
<td>Remove Concrete Pavement (drive/intersection)</td>
<td>2,489</td>
<td>SY</td>
<td>$30</td>
<td>$74,667</td>
</tr>
<tr>
<td>Remove Concrete Curb &amp; Gutter x 1</td>
<td>500</td>
<td>LF</td>
<td>$8</td>
<td>$3,000</td>
</tr>
<tr>
<td>Preparing Right of Way</td>
<td>2</td>
<td>AC</td>
<td>$6,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>Embankment (FINAL), density controlled</td>
<td>5,000</td>
<td>CY</td>
<td>$30</td>
<td>$150,000</td>
</tr>
<tr>
<td>Excavation (special)</td>
<td>1,840</td>
<td>CY</td>
<td>$20</td>
<td>$37,545</td>
</tr>
<tr>
<td>Relocate Signage</td>
<td>1</td>
<td>LS</td>
<td>$50,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>Lime Treated Subgrade (6 in)</td>
<td>8,149</td>
<td>SY</td>
<td>$7</td>
<td>$58,675</td>
</tr>
<tr>
<td>6 ft wide sidewalk - 4 in Concrete</td>
<td>5,256</td>
<td>SY</td>
<td>$54</td>
<td>$283,824</td>
</tr>
<tr>
<td>12 ft wide shared use path - 6in Concrete</td>
<td>2,893</td>
<td>SY</td>
<td>$115</td>
<td>$332,733</td>
</tr>
<tr>
<td>Curb ramps - 12 ft wide</td>
<td>2</td>
<td>EA</td>
<td>$6,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>Curb ramps - 6 ft wide</td>
<td>30</td>
<td>EA</td>
<td>$3,000</td>
<td>$90,000</td>
</tr>
<tr>
<td>Cross Walk (Thermo)</td>
<td>7</td>
<td>EA</td>
<td>$3,000</td>
<td>$21,000</td>
</tr>
<tr>
<td>Conduit for signal (bore) - 4 inch</td>
<td>800</td>
<td>LF</td>
<td>$120</td>
<td>$96,000</td>
</tr>
<tr>
<td>Pedestrian Signal (head, pole, wiring complete)</td>
<td>8</td>
<td>EA</td>
<td>$24,000</td>
<td>$192,000</td>
</tr>
<tr>
<td>Concrete Driveway Replacement (6 in thick)</td>
<td>2,489</td>
<td>SY</td>
<td>$78</td>
<td>$194,133</td>
</tr>
<tr>
<td>Sod Re-establishment</td>
<td>11,440</td>
<td>LF</td>
<td>$2</td>
<td>$27,456</td>
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<tr>
<td>Extension of existing Culvert</td>
<td>1</td>
<td>LS</td>
<td>$75,000</td>
<td>$75,000</td>
</tr>
<tr>
<td>Bike Route Signage</td>
<td>1</td>
<td>LS</td>
<td>$60,000</td>
<td>$60,000</td>
</tr>
<tr>
<td>Pavement Markings and signage (bike/ped)</td>
<td>1</td>
<td>LS</td>
<td>$12,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>Erosion Control</td>
<td>1</td>
<td>LS</td>
<td>$16,800</td>
<td>$16,800</td>
</tr>
<tr>
<td>Cobra head light pole -200 ft spc. - wire incl.</td>
<td>23</td>
<td>EA</td>
<td>$12,000</td>
<td>$27,600</td>
</tr>
<tr>
<td>Barrier in area where path nears road</td>
<td>1</td>
<td>LS</td>
<td>$150,000</td>
<td>$150,000</td>
</tr>
<tr>
<td>Utility Adjustments (sanitary sewer manholes)</td>
<td>1</td>
<td>LS</td>
<td>$4,800</td>
<td>$4,800</td>
</tr>
<tr>
<td>Storm Sewer (fill existing ditch)</td>
<td>2,000</td>
<td>LF</td>
<td>$90</td>
<td>$180</td>
</tr>
<tr>
<td>Retaining Wall &lt;4 ft tall (west side near V.M.)</td>
<td>1</td>
<td>LS</td>
<td>$65,000</td>
<td>$65,000</td>
</tr>
<tr>
<td>Concrete Curb and Gutter</td>
<td>2,200</td>
<td>LF</td>
<td>$24</td>
<td>$44,400</td>
</tr>
</tbody>
</table>

★★ Safety Countermeasures

Proposed safety countermeasures not included in the budget will be removed from final project evaluation score.
Project readiness

What does project readiness convey?

- TA projects must let for construction within 3 years! Readiness is important.
- Awareness of potential pitfalls, challenges, and delays
- Consideration of all phases of project development
- Understanding of TxDOT’s project development processes

How does the project sponsor demonstrate project readiness?

- Project Details
- MPO TIP Inclusion Letter (as attachment – grouping is encouraged!)
- Environmental Documentation, if available (as attachment)
- Property Ownership and Acquisition Information, if nec. (as attachment)
- Railroad Support/Right-of-Entry, if necessary (as attachment)
- Project Timeline (fill-in and as attachment)
- Itemized Construction Cost Estimate (fill-in)
Advanced coordination may be necessary

- Railroad agreements
- Individual listing in TIP/STIP
- Resource agency coordination
- Environmental permits
- ROW acquisitions
- Utility relocations
Environmental documentation for categorical exclusions

- Maps and diagrams
- TxDOT environmental scoping tool/process
- Historical resource review
- Archeological resources/cemeteries
- Water resources
- Hazardous materials
- Biological evaluation
- Public involvement

Coordinate with your local TxDOT Environmental Coordinator!
Historical resources

Be proactive!

- Check the Texas Historical Commission atlas: atlas.thc.state.tx.us
- Search for Historic Resources Toolkit on txdot.gov

THC coordination occurs prior to environmental approval

Historical properties can affect design – and cost

Use TxDOT pre-certified professionals

Contact your district environmental coordinator to learn more!
### Summary

<table>
<thead>
<tr>
<th>Provide good project details</th>
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<tbody>
<tr>
<td>Use maps, diagrams, and photos that tell a story</td>
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<tr>
<td>Demonstrate good public awareness and support</td>
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<tr>
<td>Include a thorough, comprehensive budget</td>
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<tr>
<td>Plan ahead and coordinate early</td>
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<tr>
<td>Focus on the evaluation criteria</td>
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</table>
Questions?

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Online map requirement

- **Need**: Exact project locations.
- **Solution**: Create digital map, which TxDOT can import easily.

### Instructions for creating simple Google map

1. **Create Google account** (if necessary)
2. **Set-up map**
   - Create Map Name
   - Choose Map Base
3. **Add project start and end points**
4. **OPTIONAL:**
   - Draw proposed project route (line)
   - Draw any other elements
5. **Share Map**
   - Click share
   - “Enable link sharing”
   - Copy map link URL
6. **Paste map link into PA and DA**
Online map requirement walk-through (slide 1)

- Create map name
  - Click “Untitled Map” and type preferred name in the pop-up.
  - Name should include Project sponsor and name (e.g. SanAngelo_GreenSt_SUP)

- Select base map
  - Click triangle next to “Base map” on left side and select a background
Online map requirement walk-through (slide 2)

- Navigate to your project area
  - Click in search area
  - Type location name or street name

- Add starting and ending points
  - Click “Add marker”
  - Place markers on the map
  - Label markers “Start” and “End”
  - Click save
Online map requirement walk-through (slide 3)

- **Share map**
  - Click “Share”

- **Click slider next to “Enable link sharing”**
  - Copy link and paste into PA and eventually DA
  - No need to share Google Drive