

**ENVIRONMENTAL ASSESSMENT**

**AHTD JOB NUMBER 080164**

**FAP NUMBER STP-0058(35)**

**Highway 7 Improvements (Dover)  
Pope County**

Submitted Pursuant to 42 U.S.C. 4332(2)

by the

U.S. Department of Transportation

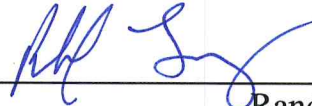
Federal Highway Administration

and the

Arkansas State Highway and Transportation Department

September 2011

10/18/2011  
Date of Approval

  
\_\_\_\_\_  
Randal Looney  
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## **PROJECT DESCRIPTION**

The Arkansas State Highway and Transportation Department (AHTD) is proposing improvements to Highway 7 in the City of Dover. The proposed project is located in Pope County and consists of seven alternatives, including the No-Action Alternative, upgrading the existing highway, and five new location alternatives. Figure 1 shows the project study area.

## **PURPOSE AND NEED**

### Purpose of the Proposed Project

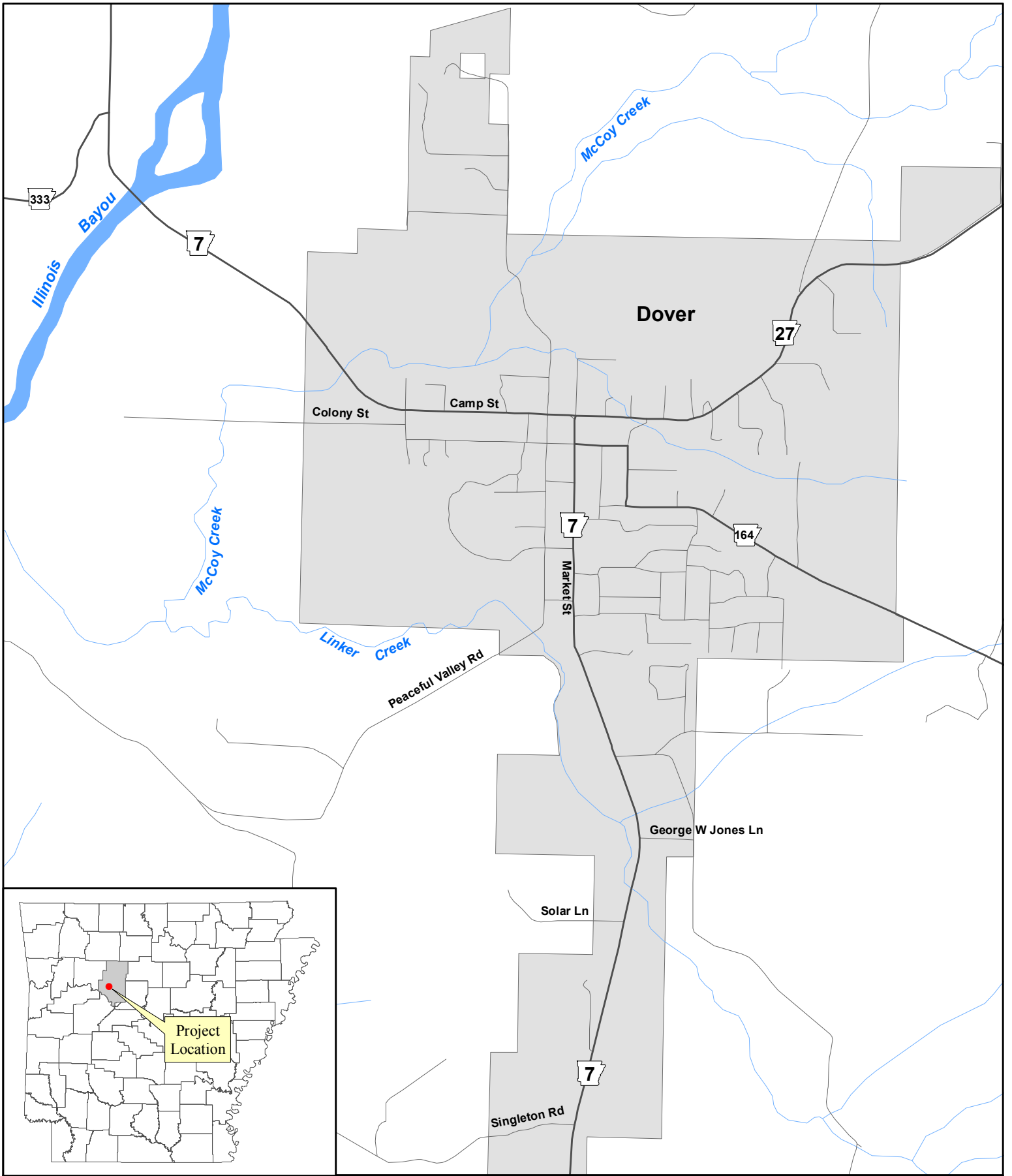
The AHTD, in conjunction with the Federal Highway Administration (FHWA), is proposing improvements to approximately 2.7 miles of Highway 7. The purpose of the proposed project is to improve north-south travel and reduce congestion on Highway 7 in Dover.

### Needs Analysis

The need for improvement to Highway 7 through Dover was studied in 1999 while planning for improvements to Highway 7 north of Russellville. The study concluded that a bypass of Dover would be the most cost-effective alternative. Highway 7 was improved to a 5-lane typical cross-section from Russellville north to George W. Jones Lane in order to facilitate a future bypass of Dover.

### Existing Conditions

Dover is located in Pope County in central Arkansas. The center of the city is located approximately seven miles north of Interstate 40. Highway 7 is an Arkansas Scenic Byway that extends from Harrison to the Louisiana State Line. In Pope County, the north-south route extends through Sand Gap, the Ozark National Forest, Pleasant Valley, Dover, and then south to Russellville. Highway 27 and Highway 164 intersect Highway 7 inside the City of Dover and Highway 333 intersects Highway 7 on the north



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Figure 1  
Project Study Area

0 500 1,000  
Feet



side of the Illinois Bayou Bridge outside of the city limits. See Figure 1 for a vicinity map.

Highway 7 is the most direct route to get from Dover and the surrounding areas south to Russellville. The north-south segment of Highway 7 is signed as Market Street within Dover, while the east-west segment is signed as Camp Street. The morning traffic peak corresponds to the typical workday morning traffic peak, while the afternoon traffic peak is earlier and longer than normal, beginning around 3:30 p.m. and lasting until approximately 6:30 p.m.

Currently, the cross-section on Highway 7 through the center of Dover consists of two 10-foot lanes with little or no shoulders. In many places along the route, the roadway is bordered by drainage ditches and sidewalks. There are numerous intersections and driveways along Highway 7 in Dover.

### Operational Analysis

In 2011, traffic on Highway 7 is estimated to vary between 5,300 vehicles per day (vpd) near the Illinois Bayou Bridge to 11,400 vpd near George W. Jones Lane. Future (2031) Average Daily Traffic (ADT) on Highway 7 is estimated to range from around 6,700 vpd near the Illinois Bayou Bridge to 16,000 vpd near George W. Jones Lane.

The level of service (LOS) has been calculated. See Appendix A for a description of each level of service. The LOS is E from George W. Jones Lane to Highway 27, and this is considered unacceptable. From Highway 27 to the Illinois Bayou Bridge the LOS is C, which is acceptable.

### Safety Analysis

The relative safety of a route can be determined by comparing the crash rate, the number of crashes per million vehicle miles (mvm) traveled, on the route to a statewide crash rate for similar routes. Crash data for 2007, 2008 and 2009 (the three most recent years for

which data are available) were analyzed to determine crash rates for each of the three years on Highway 7 through Dover. Of the eight crashes that occurred during the three-year period on Highway 7, one fatality, one incapacitating injury, and two possible injuries were reported. The fatality was the result of a head-on collision. The fatal crash occurred in a curve on wet pavement where center-line rumble strips had already been constructed. The other four crash reports indicated property damage only. All crash rates were below the statewide average crash rates for similar facilities.

## ALTERNATIVES

Seven alternatives, including the No-Action Alternative, were considered for this project. Details are provided in the following sections. Non-traditional highway improvement alternatives (upgrading of public transit options, pedestrian facilities, bike lanes, etc.) would have minimal impact on the natural and built environment, but do not adequately address the identified traffic congestion in this setting. These non-traditional alternatives are not considered viable options for further analysis separately or in combination with the alternatives discussed below.

### No-Action Alternative

The No-Action Alternative would provide only routine maintenance for Highway 7. By taking no action other than routine maintenance, the No-Action Alternative would not address the unacceptable level of traffic operation within this highway corridor.

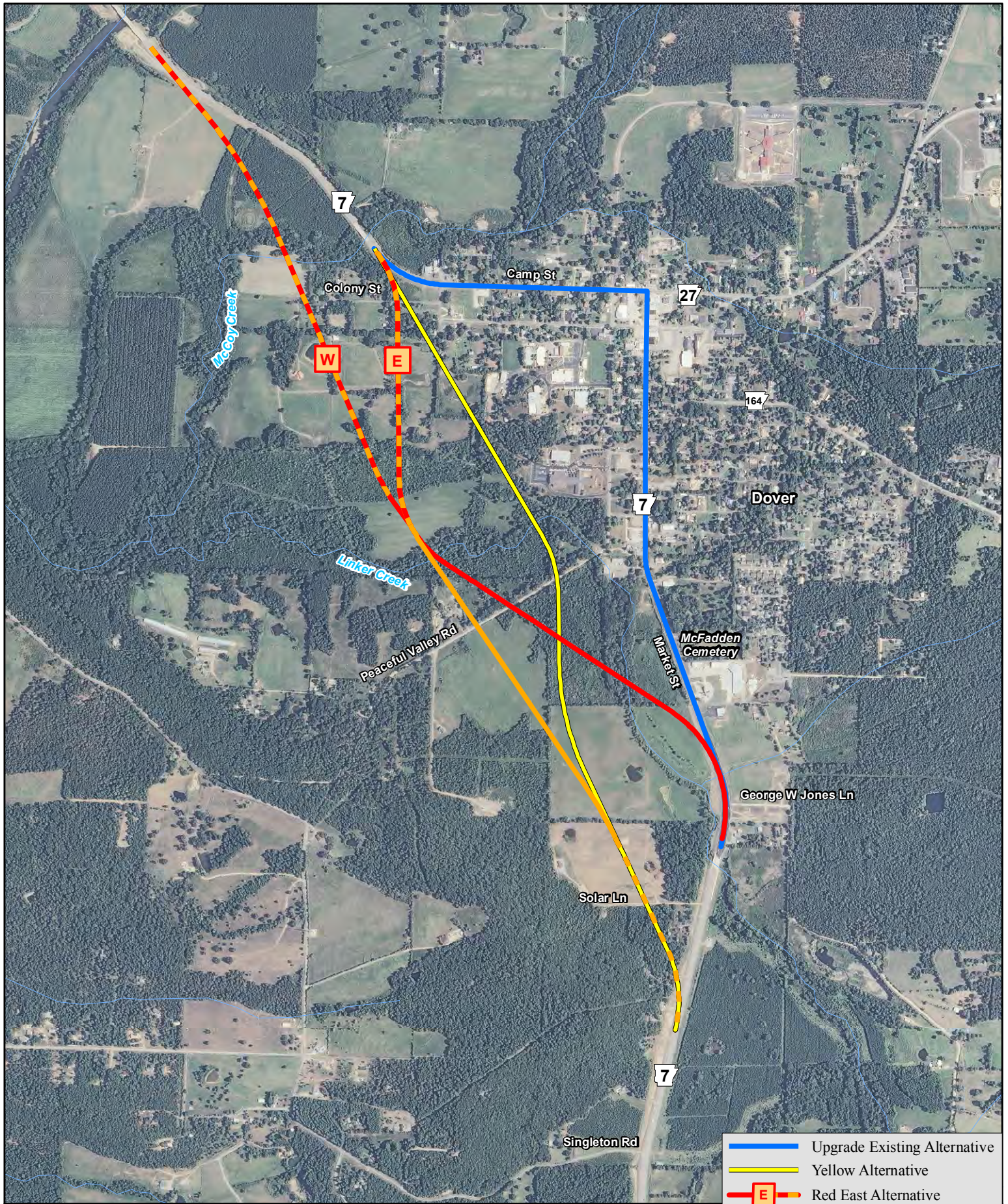
### Upgrade Existing Alternative

To address capacity issues, improvements to existing Highway 7 would include widening Highway 7 along the existing alignment between George W. Jones Lane and the McCoy Creek Bridge, as shown in Figure 2. The typical section would consist of three 12-foot lanes, curb and gutter, and two five-foot sidewalks, as shown in Figure 3. This alternative (Blue) is approximately 1.8 miles in length and is estimated to cost \$11.7 million.

### Bypass Alternatives

The new location alternatives that were studied include five bypass alternatives, as shown in Figure 2. The typical section for the bypass alternatives would consist of two 12-foot lanes with eight-foot shoulders (Figure 3).









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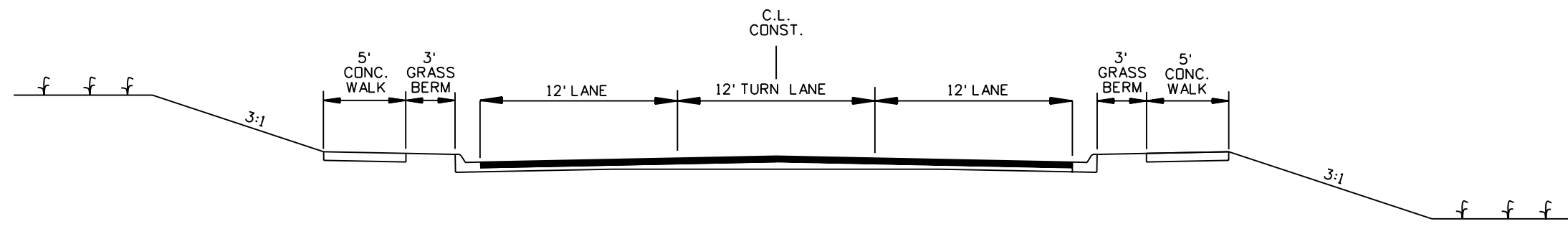
AHTD - Environmental GIS - Reed  
June 9, 2011

Figure 2  
Alternatives

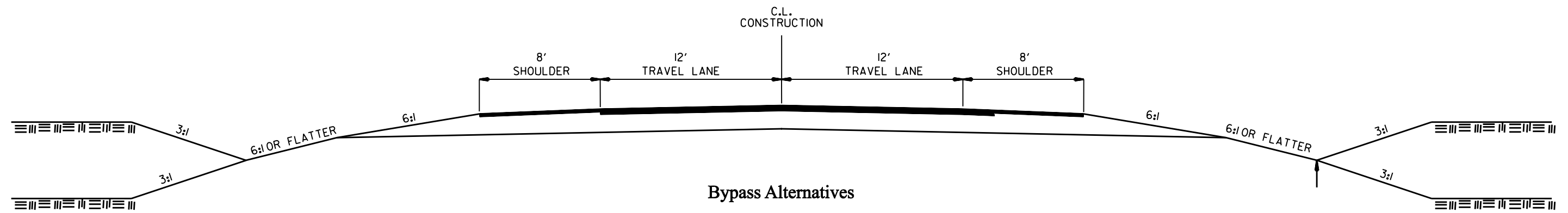
-  Upgrade Existing Alternative
-  Yellow Alternative
-  Red East Alternative
-  Red West Alternative
-  Orange East Alternative
-  Orange West Alternative

Photography Date: Summer 2010





Upgrade Existing Alternative



Bypass Alternatives

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### *Yellow Alternative*

The Yellow Alternative starts on Highway 7 approximately 0.5 mile south of George W. Jones Lane. It follows new location in a northwesterly direction, intersecting Solar Lane and Peaceful Valley Road before crossing Linker Creek. It continues northwesterly until it connects to Highway 7 just south of the McCoy Creek Bridge. The Yellow Alternative is approximately 1.8 miles in length and is estimated to cost \$6.2 million.

### *Red East Alternative*

The Red East Alternative starts at George W. Jones Lane on Highway 7. It then follows new location in a northwesterly direction, crossing Linker Creek and intersecting with Peaceful Valley Road. It continues northwesterly on new location until it crosses Linker Creek a second time and then turns north. It continues north on new location, and then intersects the existing alignment of Highway 7, just south of the McCoy Creek Bridge. The Red East Alternative is approximately 1.6 miles in length and is estimated to cost \$6.0 million.

### *Red West Alternative*

The Red West Alternative starts at the same location as the Red East Alternative and follows the same path until the second crossing of Linker Creek. The Red West Alternative then continues northwesterly on new location to a crossing of McCoy Creek, before it connects to Highway 7 just south of the Illinois Bayou Bridge. It is approximately 2.1 miles in length and is estimated to cost \$8.9 million.

### *Orange East Alternative*

The Orange East Alternative starts on Highway 7 approximately 0.5 mile south of George W. Jones Lane. It follows new location in a northwesterly direction, intersecting Solar Lane and Peaceful Valley Road before crossing Linker Creek and turning north. It continues north, and then intersects the existing alignment of Highway 7, just south of the

McCoy Creek Bridge. It is approximately 1.8 miles in length and is estimated to cost \$6.2 million.

### *Orange West Alternative*

The Orange West Alternative starts at the same location as the Orange East Alternative and follows the same path until the crossing of Linker Creek. The Orange West Alternative then continues northwesterly on new location to a crossing of McCoy Creek, before it connects to Highway 7 just south of the Illinois Bayou Bridge. It is approximately 2.3 miles in length and is estimated to cost \$9.2 million.

### Operational Analysis

It is estimated that roughly 80% of the traffic north of Dover is continuing south on Highway 7, and it is assumed that this traffic would utilize a bypass if constructed. The LOS has been calculated for each segment within the study area. A summary of the LOS results can also be found in Table 1.

Widening along the existing highway (Blue Alternative) would improve the level of service to an acceptable level in 2011, but it would return to an unacceptable level by 2031. Without a bypass, the through traffic, in combination with local traffic, would result in congestion during peak traffic periods.

All of the bypass alternatives would improve the level of service to acceptable levels for Highway 7 in Dover in 2011 and 2031. These alternatives would allow the through traffic to bypass the existing narrow route through Dover and connect with the existing five-lane section south of George W. Jones Lane. Building on new location would also limit the disruption to traffic in Dover during construction.



**Table 1**  
**Operational and Cost Summary**

| Alternative                         | Traffic Volumes (ADT) |           | Level of Service (LOS) |           | Length (miles) | Total Cost millions (2011\$) |
|-------------------------------------|-----------------------|-----------|------------------------|-----------|----------------|------------------------------|
|                                     | Year 2011             | Year 2031 | Year 2011              | Year 2031 |                |                              |
| <b>No-Action</b>                    |                       |           |                        |           |                |                              |
| George W. Jones Lane to Highway 27  | 11,400                | 16,000    | E                      | E         | --             | --                           |
| Highway 27 to Illinois Bayou Bridge | 5,300                 | 6,700     | C                      | C         |                |                              |
| <b>Upgrade Existing (Blue)</b>      |                       |           |                        |           |                |                              |
| George W. Jones Lane to Highway 27  | 11,400                | 16,000    | D                      | E         | 1.8            | \$11.7                       |
| Highway 27 to Illinois Bayou Bridge | 5,300                 | 6,700     | C                      | C         |                |                              |
| <b>Yellow</b>                       |                       |           |                        |           |                |                              |
| George W. Jones Lane to Highway 27  | 7,200                 | 10,600    | D                      | D         | 1.8            | \$6.2                        |
| Highway 27 to Illinois Bayou Bridge | 1,100                 | 1,300     | B                      | B         |                |                              |
| New Bypass                          | 4,200                 | 5,400     | B                      | B         |                |                              |
| <b>Red East</b>                     |                       |           |                        |           |                |                              |
| George W. Jones Lane to Highway 27  | 7,200                 | 10,600    | D                      | D         | 1.6            | \$6.0                        |
| Highway 27 to Illinois Bayou Bridge | 1,100                 | 1,300     | B                      | B         |                |                              |
| New Bypass                          | 4,200                 | 5,400     | B                      | B         |                |                              |
| <b>Red West</b>                     |                       |           |                        |           |                |                              |
| George W. Jones Lane to Highway 27  | 7,200                 | 10,600    | D                      | D         | 2.1            | \$8.9                        |
| Highway 27 to Illinois Bayou Bridge | 1,100                 | 1,300     | B                      | B         |                |                              |
| New Bypass                          | 4,200                 | 5,400     | B                      | B         |                |                              |
| <b>Orange East</b>                  |                       |           |                        |           |                |                              |
| George W. Jones Lane to Highway 27  | 7,200                 | 10,600    | D                      | D         | 1.8            | \$6.2                        |
| Highway 27 to Illinois Bayou Bridge | 1,100                 | 1,300     | B                      | B         |                |                              |
| New Bypass                          | 4,200                 | 5,400     | B                      | B         |                |                              |
| <b>Orange West</b>                  |                       |           |                        |           |                |                              |
| George W. Jones Lane to Highway 27  | 7,200                 | 10,600    | D                      | D         | 2.3            | \$9.2                        |
| Highway 27 to Illinois Bayou Bridge | 1,100                 | 1,300     | B                      | B         |                |                              |
| New Bypass                          | 4,200                 | 5,400     | B                      | B         |                |                              |

### Alternative Considered and Discarded

It was determined that the Upgrading Existing Alternative would not be carried forward. A 3-lane typical cross-section was analyzed in an attempt to limit impacts within the city while also providing relief of the traffic congestion. Widening the highway to three lanes with sidewalks through the city was estimated to result in up to 14 relocations and has the potential to impact historic properties. Additionally, this alternative does not satisfy the purpose and need for the project, since the 3-lane typical cross-section would not have an acceptable level of service through the 2031 planning period. Widening to four lanes would create an acceptable level of service in 2031; however, it would result in escalated impacts and costs

## AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section contains information related to the affected environment, environmental consequences, and mitigation for each potential impact area of the proposed project.

### Relocations

Relocations occur when residential, business, or non-profit properties fall within the established right of way limits for a proposed project. Until a Selected Alternative has been identified and the final design has been established, relocation quantities are only estimates.

Estimated right of way widths were used in determining potential structures to be relocated. Cost estimates, a Conceptual Stage Relocation Statement, and an available housing inventory are located in Appendix B. The Conceptual Stage Inventory of Relocation Impacts provides the general listing characteristics of residences, businesses, and property estimated to be affected by each alternative. Results of the Conceptual Stage Relocation Study are provided in Table 2.

| <b>Table 2</b>     |                    |                          |            |       |
|--------------------|--------------------|--------------------------|------------|-------|
| <b>Relocations</b> |                    |                          |            |       |
| Alternative        | Residential Owners | Non-Profit Organizations | Businesses | Total |
| No-Action          | 0                  | 0                        | 0          | 0     |
| Yellow             | 2                  | 0                        | 0          | 2     |
| Red East           | 0                  | 0                        | 0          | 0     |
| Red West           | 0                  | 0                        | 0          | 0     |
| Orange East        | 1                  | 0                        | 1          | 2     |
| Orange West        | 1                  | 0                        | 1          | 2     |

The No-Action Alternative would not require the relocation of any residences, businesses, or non-profit organizations.

Most of the proposed project is located in undeveloped farmland; however, two relocations would be necessary for the Yellow, Orange East and Orange West Alternatives. All relocation activities would be governed by the *Federal Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970*, which ensures that decent, safe and sanitary housing is available and offered to displaced residents prior to the initiation of construction.

There are no low-income populations or minority families that would be relocated as a result of this project.

#### Environmental Justice Impacts and Title VI Compliance

This proposed project is in compliance with Title VI and Executive Order 12898. The AHTD public involvement process did not exclude any individuals due to income, race, color, religion, national origin, sex, age, or disability. By using the 2000 U.S. Census Data, the Health and Human Services Poverty Guidelines, (Federal Register, February 2000), making field observations, and conducting public involvement meetings, the determination was made that the proposed project would not have any disproportionate or adverse impacts on minorities, low-income, elderly, or disabled populations.

#### Social Environment

The geographic area considered for analysis of existing social conditions and environmental consequences consists of a one-county region (Pope County) and in the town of Dover, just north of the county seat of Russellville. The project study area consists of commercial, agricultural, and residential development, but is generally rural by nature.

The No-Action Alternative consists of no improvements being made to existing Highway 7 in Dover. No improvements would be made to address the need for the project, resulting in worsening congestion through the town.

Alternatives Orange East and Orange West may affect a small business with approximately four employees; however, the impacts should not affect the overall community.

Due to the lack of recent development within the community, none of the alternatives under consideration are likely to have any substantial impacts on the density or growth rate of the area's population. However, of the alternatives considered, it is likely that Yellow Alternative would have the highest potential to benefit the community due to its proximity to Dover High School providing the potential for a connection to the school campus. If there is any potential for residential or commercial development to happen as a result of this project, it would most likely occur here.

### Public Land

There are no public parks, recreational lands, or wildlife refuges impacted by this project.

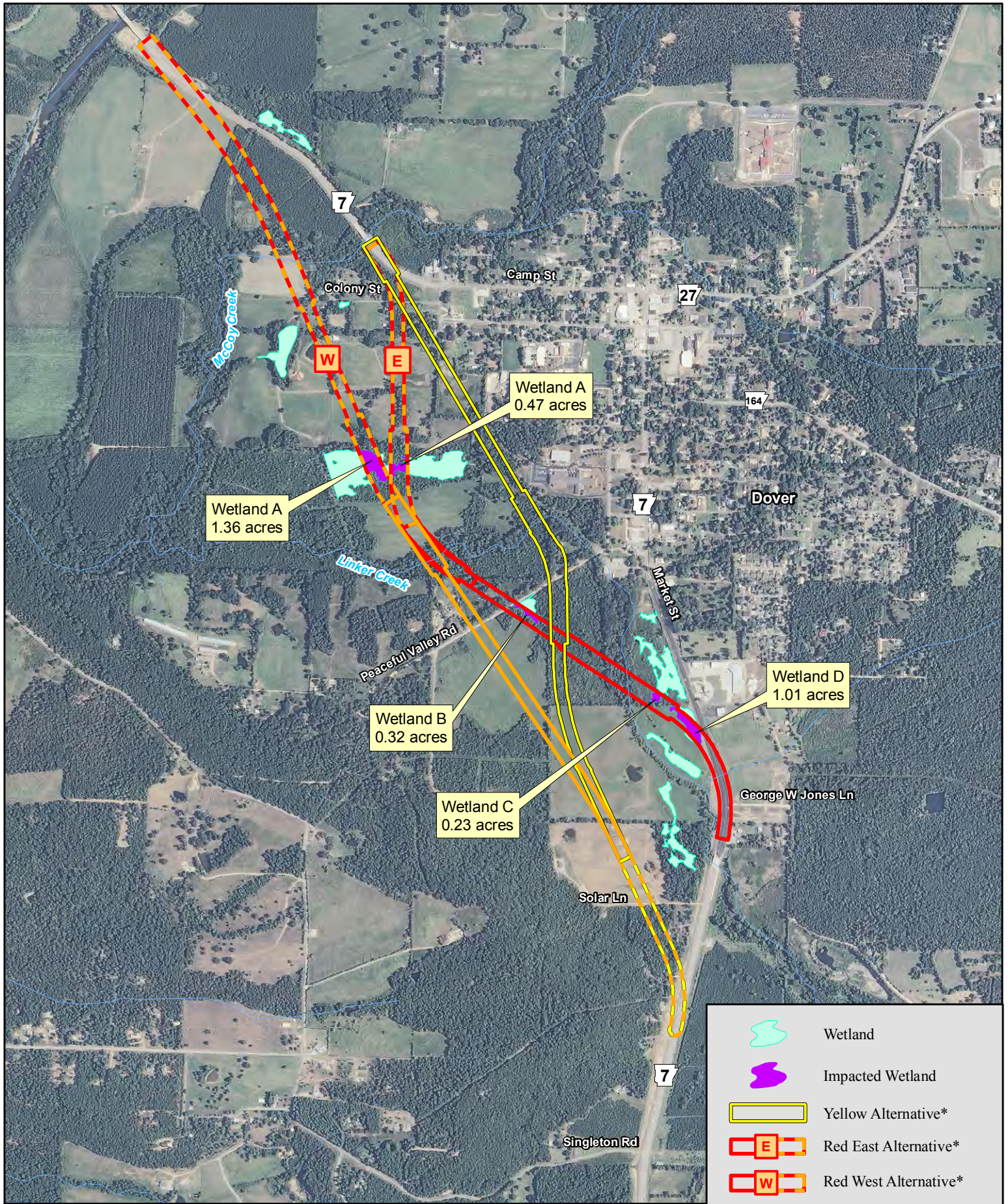
### Wetland, Stream, and Floodplain Impacts

#### *Wetlands*

A field survey of the landscape surrounding the project area revealed several jurisdictional wetlands. There are four different wetland areas that could potentially be impacted by the different proposed alternatives. These wetlands are listed as A, B, C and D, and are shown in Figure 4. Figures 5 - 8 give a view of each wetland. All four of the potentially impacted wetlands are located along the base of a terrace in a shallow depression, adjacent to and within the floodplain of Linker Creek.

Wetland A was a former palustrine forested wetland that has recently changed into a hybrid between an herbaceous and scrub/shrub wetland due to a wetter regime. There are numerous large dead snags in the area. Typical sapling tree species found in the area include pin oak (*Quercus palustris*), green ash (*Fraxinus pennsylvanica*), black willow (*Salix nigra*), red maple (*Acer rubrum*), river birch (*Betula nigra*), willow oak (*Quercus*





Wetland A  
1.36 acres

Wetland A  
0.47 acres

Wetland B  
0.32 acres



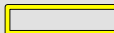




Wetland C  
0.23 acres

Wetland D  
1.01 acres



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Figure 4  
Wetlands

-  Wetland
-  Impacted Wetland
-  Yellow Alternative\*
-  Red East Alternative\*
-  Red West Alternative\*
-  Orange East Alternative\*
-  Orange West Alternative\*

\*Estimated Right of Way

Photography Date: Summer 2010





**Figure 5. View of Wetland Area A**



**Figure 6. View of Wetland Area B**





**Figure 7. View of Wetland Area C**



**Figure 8. View of Wetland Area D**



*phellos*), and overcup oak (*Quercus lyrata*.) Herbaceous vegetation consist of soft rush (*Juncus effuses*), an unknown panicum grass (*Dicanthelium* sp.) and large patches of cattail (*Typha* sp.).

Wetland B has a young sapling size stand of willow oak. This wetland is classified as a palustrine forested wetland. Much of the area east of this wetland is dominated by a fairly young uniform size stand of sweetgum (*Liquidambar styraciflua*). This area appears to have been a former pasture that was abandoned years ago.

Wetland C, like Wetland B, had also been cleared in the past. This wetland would be classified the same as Wetland A, a hybrid between a herbaceous and scrub/shrub wetland. This area is dominated by a young sapling size stand of green ash. Common buttonbush (*Cephalanthus occidentalis*) can be found scattered across the wetland area. Most of the herbaceous vegetation consist of unidentifiable panicum grass and soft rush.

Wetland D is located within an area that is maintained as pasture. This wetland would be classified as an herbaceous wetland. The species most noticeable at the time of the field survey was soft rush. There were numerous other herbaceous species present, but they were not identifiable at the time of the field survey.

The soil series is the same for all five wetland areas. The soil found within the wetland areas is the Guthrie series (Vodrazka 1981). Due to poor permeability, this series is classified as poorly drained and can be ponded for several weeks during the winter and early spring. The Guthrie series is typically found on upland flats and in depressions. In this case, the wetlands are all located within slight depressions.

To determine wetland impacts, an estimated right of way width of 125 feet was used outside floodplain areas and 185 feet was used inside floodplain areas. The No-Action and the Yellow Alternatives would not impact wetlands. The Red East and the Red West Alternatives would impact wetlands A – D for a total of 2.0 acres and 2.9 acres

respectively. The Orange East alternative would impact 0.5 acre of Wetland A. The Orange West Alternative would impact 1.4 acres of Wetland A.

If required, mitigation for the unavoidable wetland impacts will be offered at Hartman Bottoms Mitigation Bank in accordance with the approved banking instrument.

### *Stream and Floodplain Impacts*

Linker and McCoy Creeks, shown in Figures 9 and 10, and their related floodplains would be impacted by the construction of the proposed bypass alternatives (Figure 11). The Yellow, Orange East, and Orange West Alternatives would only cross Linker Creek one time. The Red East and Red West Alternatives would cross Linker Creek twice. McCoy Creek would be crossed once by the Red West or Orange West Alternatives. Stream mitigation may be required depending on the final design of the selected alternative.

All stream crossings for this project would be through a Special Flood Hazard Area (SFHA). The local flood damage prevention ordinance allows up to a one-foot increase in upstream flood elevations due to the cumulative effects of all construction within the SFHA from the time of the communities entrance into the National Flood Insurance Program. However, since insurable buildings are within, or near, the existing 100-year floodplain in this area of the SFHA, the stream crossings along the Selected Alternative will be designed so as not to cause an increase in flooding depth on the buildings.

Construction should be allowed under the terms of a Section 404 Nationwide Permit 14 for Linear Transportation Crossings as defined in Federal Register 72(47):11180–11198, or under the terms of a Letter of Permission (LOP) permit. The No-Action Alternative would not have stream or floodplain impacts. Wetland, stream and floodplain impacts are summarized in Table 3.

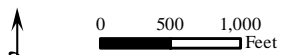
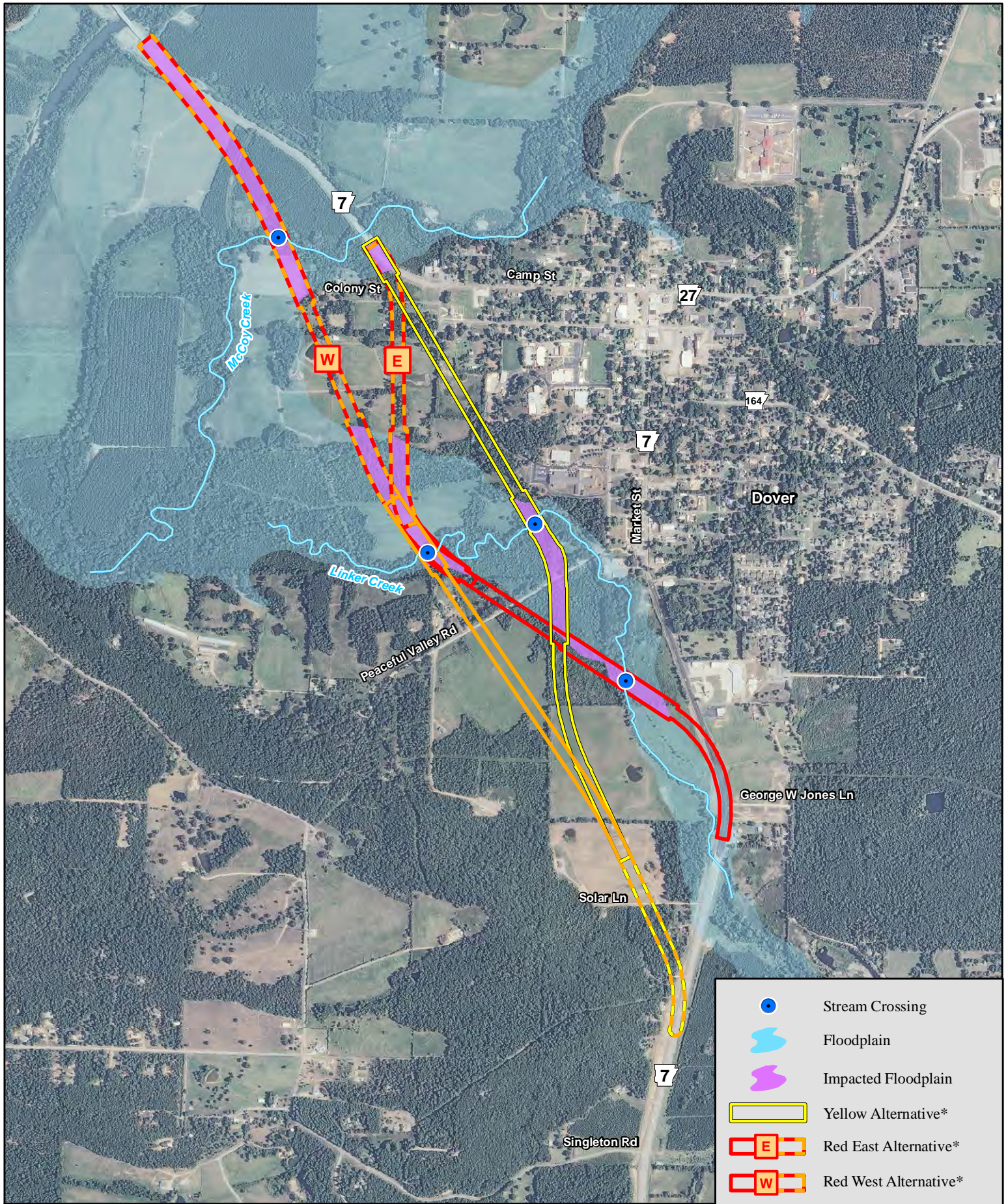


**Figure 9. View of Linker Creek**



**Figure 10. View of McCoy Creek**




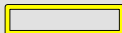








Job 080164

Figure 11  
Stream and Floodplain Crossings

AHTD - Environmental GIS - Reed  
September 22, 2011

-  Stream Crossing
-  Floodplain
-  Impacted Floodplain
-  Yellow Alternative\*
-  Red East Alternative\*
-  Red West Alternative\*
-  Orange East Alternative\*
-  Orange West Alternative\*

\*Estimated Right of Way

Photography Date: Summer 2010



| <b>Table 3</b>                                |                |                       |                           |
|-----------------------------------------------|----------------|-----------------------|---------------------------|
| <b>Wetland, Stream and Floodplain Impacts</b> |                |                       |                           |
| Alternative                                   | Wetlands acres | # of Stream Crossings | Floodplain Crossings feet |
| No-Action                                     | 0              | 0                     | 0                         |
| Yellow                                        | 0              | 1                     | 1848                      |
| Red East                                      | 2.0            | 2                     | 2957                      |
| Red West                                      | 2.9            | 3                     | 6230                      |
| Orange East                                   | 0.5            | 1                     | 1689                      |
| Orange West                                   | 1.4            | 2                     | 4963                      |

### Threatened and Endangered Species

The US Fish and Wildlife Service has reviewed the project alternatives and determined that no federally listed threatened or endangered species are known to occur within the action area (Appendix C).

In addition to those species that are federally designated threatened or endangered species, the Arkansas Natural Heritage Commission (ANHC) tracks those that are considered sensitive species within Arkansas. A records check of the ANHC database of sensitive species indicated that although none of the proposed alternatives would impact known locations of any tracked species, three of these species have been identified from the project area and have the potential to be adversely impacted by the project. This includes two fish: suckermouth minnow (*Phenacobius mirabilis*) S1G5 and longnose darter (*Percina nasuta*) S2G3, and one freshwater mussel: purple lilliput (*Toxolasma lividum*) S2G2.

The suckermouth minnow is listed as critically imperiled (S1) in Arkansas but secure (G5) globally. Robison and Buchanan (1988) indicated that the species has always been rare in Arkansas with only five known records prior to 1940 and only a single specimen collected since 1960. The collection from Illinois Bayou includes two individuals collected north of Russellville in 1956. The suckermouth minnow inhabits riffles of perennial streams with sand or gravel substrates and moderate gradients (Robison and Buchanan 1988, Rohde 1980). Although suitable habitat is available within the project area, the species is unlikely to be impacted due to its rarity within the state.

The longnose darter is listed as imperiled (S2) in Arkansas and vulnerable (G3) globally. It inhabits clear, silt-free upland streams, preferring pools of large streams and small rivers with cobble and gravel bottoms (Robison and Buchanan 1988). Robison and Buchanan (1988) hypothesized that its range has been restricted by reservoir construction and that the species appears to be very sensitive to environmental disturbance.

The purple lilliput is listed as imperiled both globally and within the state. Purple lilliputs have been reported from small to medium-sized rivers in mud, sand, and gravel substrates as well as shallow areas of some reservoirs (Parmalee and Bogan 1998).

Although neither the longnose darter nor the purple lilliput are known to occur within the project area, suitable habitat exists within McCoy and Linker Creeks. Impacts to populations within Illinois Bayou could also potentially be impacted by increases in sedimentation during construction of stream crossings for the bypass alternatives. Expected impacts will be minimized with the incorporation of a Water Pollution Control Special Provision into the Contract. The Red West Alternative would have three stream crossings, and thus the highest potential to impact these species. The Red East and Orange West Alternatives would have the next highest potential to impact aquatic species with two stream crossings each. The Yellow and Orange East alternatives each cross Linker Creek once and would have similar impacts to sensitive aquatic species. The No-Action Alternative would not affect sensitive species.

## Water Quality

The project area lies within the Arkansas River Valley Ecoregion where the primary turbidity standard set by Arkansas Department of Environmental Quality (ADEQ) for streams is 21 Nephelometric Turbidity Units (NTUs) and 25 NTUs for lakes and reservoirs (Regulation 2). Given the existing water quality within the region, additional sediments contributed during construction would likely result in localized, short-term adverse water quality impacts. Temporary exceedances of state water quality standards for turbidity may occur. Other potential sources of water quality impacts include petroleum products from construction equipment, highway pollutants from the operations of the facility, and toxic and hazardous material spills.

The AHTD will comply with all requirements of The Clean Water Act, as Amended, for the construction of this project. This includes Section 401; Water Quality Certification, Section 402; National Pollutant Discharge Elimination Permit (NPDES), and Section 404; Permits for Dredged or Fill Material. The NPDES Permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP will include all specifications and best management practices (BMPs) needed for control of erosion and sedimentation. This will be prepared when the roadway design work has been completed in order to best integrate the BMPs with the project design. No indirect or cumulative impacts to water quality are expected.

## Public/Private Water Supplies

The project area is not within a public drinking water system's Wellhead Protection Area. No direct, indirect, or cumulative impacts to public drinking water supplies are anticipated due to this project.

If any permanent impacts to private drinking water sources occur due to this project, the AHTD will take appropriate action to mitigate these impacts. Impacts to private water

sources due to the contractor neglect or misconduct are the responsibility of the contractor.

### Wild and Scenic Rivers

There are no federal or state regulated waterbodies impacted by this project. No indirect or cumulative impacts to federal or state regulated waterbodies are expected.

### Hazardous Materials

Field inspections and record research has determined that none of these alternatives should impact any known hazardous waste facilities, illegal dumps or areas of concern for hazardous materials.

If hazardous materials are identified, observed or accidentally uncovered by any AHTD personnel, contracting company(s) or state regulatory agency, it will be the AHTD's responsibility to determine the type, size and extent of contamination. The AHTD will identify the type of contaminant, develop a remediation plan and coordinate disposal methods to be employed for the particular type of contamination. All remediation work will be conducted in conformance with Arkansas Department of Environmental Quality (ADEQ), Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) regulations.

An asbestos survey by a certified asbestos inspector will be conducted on each building slated for acquisition and demolition. If the survey detects the presence of any asbestos-containing materials, plans will be developed to accomplish the safe removal of these materials prior to demolition. All asbestos abatement work will be conducted in accordance with ADEQ, EPA and OSHA asbestos abatement regulations.



## Prime Farmland

Agriculture activity in the study area consists mainly of pastures utilized for grazing and hay production for beef cattle. Right of way acquisition for the proposed facility would reduce the amount of land available to the impacted farmers for production. Splitting these farms with a new highway would not only convert farmland to highway right of way, but would result in the disruption of some farm operations.

The construction of the new facility would result in positive impacts by providing easier farm to market access and more efficient transportation of farm supplies.

Form NRCS-CPA-106, The Farmland Conversion Impact Rating, can be found in Appendix D. The amount of prime farmland estimated to be converted to highway right of way is shown in Table 4.

| Alternative | Prime Farmland acres | Statewide Importance acres |
|-------------|----------------------|----------------------------|
| No Action   | 0                    | 0                          |
| Yellow      | 9.7                  | 0                          |
| Red East    | 9.5                  | 0                          |
| Red West    | 22.7                 | 2.0                        |
| Orange East | 11.8                 | 0                          |
| Orange West | 25.2                 | 2.0                        |

## Cultural Resources

A reconnaissance level cultural resources survey of the project area was conducted in order to identify any obvious archeological sites or historic properties that might be affected by the project and to see if any of the alternatives were located within areas having a high probability for the occurrence of undiscovered cultural resources.

A review of site files revealed three previously recorded archeological sites located near the project area. One site was determined ineligible for the NRHP and was likely destroyed by the construction of a water line in the 1970s; no further work is recommended on this site. The second site is currently defined as being located outside of the estimated buffer area, but it may extend to the south side of the road into the project area. Further testing will be required to assess the possible presence of and the eligibility of the site to the NRHP, if the site is impacted. The third site is a cemetery located well outside of any of the alignments and will not be impacted by the project.

The windshield survey of the project area identified numerous structures at least fifty years in age or older, most being located along the existing alignment of Highway 7. Photographs of 38 structures believed to be at least fifty years in age were submitted to the SHPO as a request for technical assistance (RTA); two structures located on the existing highway alignment were determined to be eligible to the NRHP. These structures could be impacted by widening of the existing highway and should be avoided.

The 1843 GLO map indicated several fields and roads and a possible structure near the project area, which indicates a high amount of historic activity relatively early in the area. The 1936 Pope County road map shows most of the existing roads in place at that time, and a few structures were located along Highway 7. An analysis of the quadrangle maps reveals that all the alternatives cross similar terrain and each has at least one crossing of permanent creeks. An archeological survey for the Dover to Russellville waterline was conducted in 1977 and appears to have crossed parts of the alternative alignments; only one site, ineligible to the NRHP was found. Based on the existing data, the probability

for finding unknown archeological sites along the alternatives is relatively high, especially where they cross water sources.

There are two concerns regarding the Yellow and Orange Alternatives where they share a common alignment at the south end of the project area: an unmarked cemetery and a rumored archeological site. Aerial imagery indicated that in circa 1972, there was a cemetery present extremely close to or in these alignments. As is often the case, the existing physical boundaries of cemeteries (fences, tree lines, property boundaries, or even tombstones) may not be accurate. Over the years, many grave markers get accidentally moved, shifted, or lost and wooden markers rot and are often not replaced by more permanent markers. There is the potential for additional unmarked graves scattered across the landform and finding them will require the stripping of the topsoil within the project limits. Any grave shafts found will require avoidance and protection. A Dover avocational historian has mentioned that there could be an important historic archeological site on the same landform as the cemetery, and this may also require avoidance and protection.

Once a Selected Alternative has been identified, an intensive cultural resources survey will be conducted, including a metal detector survey and mechanical stripping, if required. Human burials and any deposits associated with the rumored archeological site would require avoidance and protection measures. If no cultural resources are identified, the project will be documented on an AHTD Project Identification Form and submitted to the SHPO with a recommendation of no further work. If Native American sites are identified, further consultation with the appropriate Native American Tribes will be initiated and the sites will be evaluated to determine if Phase II testing is necessary. A full report documenting the results of the survey and stating the AHTD's recommendations will be prepared and submitted to the SHPO for review. Should any of the sites be determined eligible or potentially eligible for nomination to the NRHP, and avoidance is not possible, then site specific data recovery plans will be prepared and data recovery will be carried out at the earliest practicable time.

## Noise

### *Fundamentals of Sound and Noise*

“Noise” is defined as an unwanted sound. Sounds are described as noise if they interfere with an activity or disturb the person hearing them. Sound is measured in a logarithmic unit called a decibel (dB). The human ear is more sensitive to middle and high frequency sounds than it is to low frequency sounds, so sound levels are weighted to more closely reflect human perceptions. These “A-weighted” sounds are measured using the decibel unit dB(A). Because the dB(A) is based on a logarithmic scale, a 10 dB(A) increase in sound level is generally perceived as twice as loud, while a 3 dB(A) increase is just barely perceptible to the human ear.

Sound levels fluctuate with time depending on the sources of the sound audible at a specific location. In addition, the degree of annoyance associated with certain sounds varies by time of day, depending on other ambient sounds affecting the listener and/or the activities of the listener. The time-varying fluctuations in sound levels at a fixed location can be quite complex, so they are typically reported using statistical or mathematical descriptors that are a function of sound intensity and time. A commonly used descriptor of the equivalent sound level is  $L_{eq}$ , which represents the equivalent of a steady, unvarying level over a defined period of time containing the same level of sound energy as the time varying noise environment.  $L_{eq}(h)$  is a sound level averaged over one hour. For highway projects, the  $L_{eq}(h)$  is commonly used to describe traffic-generated sound levels at locations of outdoor human use and activity (such as residences).

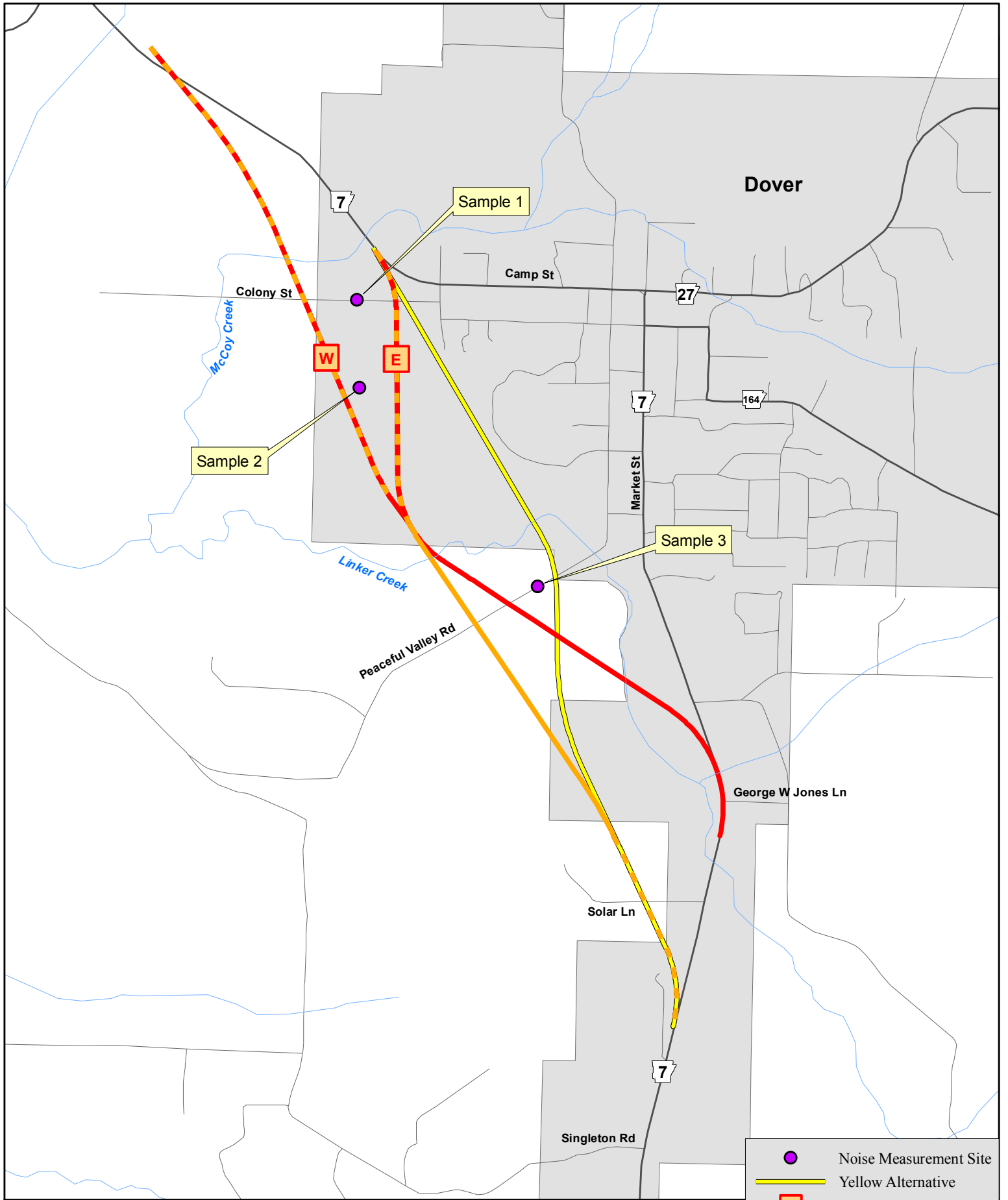
### *Noise Impact Criteria*

Traffic noise impacts take place when the predicted traffic noise levels approach or exceed the noise abatement standard, or when the predicted traffic noise levels exceed the existing noise level by ten dB(A). The noise abatement standard of 67 dB(A) is used for sensitive noise receptors such as residences, schools, churches, and parks. The term “approach” is considered to be one dB(A) less than the noise abatement standard.

The number of noise receptors was estimated for this project utilizing the Federal Highway Administration's Traffic Noise Model 2.5, existing and proposed roadway information, existing traffic information, and projected traffic levels for 2031.

### *Existing Conditions*

All bypass alternatives pass through rural areas dominated by pastures and few houses. Existing noise levels were measured at three representative locations and are shown in Figure 12. The sites were selected as being generally representative of noise-sensitive, ground-level, outdoor human use or activity areas in proximity to the alternatives. The noise measurement locations and ambient noise levels are listed in Table 5 and shown on Figure 12.



- Noise Measurement Site
- Yellow Alternative
- E Red East Alternative
- W Red West Alternative
- E Orange East Alternative
- W Orange West Alternative

Figure 12  
Noise Measurement Sites



Job 080164

| <p style="text-align: center;"><b>Table 5</b><br/><b>Existing Noise Levels</b></p> |       |                                                                                    |
|------------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------|
| Sample No.                                                                         | dB(A) | Location                                                                           |
| 1                                                                                  | 44.5  | Northern terminus of the Red/Orange East and Yellow Alternatives on Colony Street  |
| 2                                                                                  | 48.6  | Pasture between Red /Orange East and Red/Orange West Alternatives                  |
| 3                                                                                  | 47.6  | Near the intersection of the Red and Yellow Alternatives with Peaceful Valley Road |

*Traffic Noise Analyses*

Traffic noise analyses were performed for each of the alternatives utilizing a roadway cross-section of two 12-foot wide paved travel lanes and 8-foot wide paved shoulders. Traffic noise analysis for the No-Action Alternative was modeled using Highway 7 traffic and road conditions.

*Effects of Project Alternatives*

The traffic noise estimates result in noise abatement distances for each alternative, and these are shown in Table 6. These distances are measured from the centerline of each alternative. The estimated noise receptor count for each alternative is shown in Table 7.

*Traffic Noise Abatement*

Since noise impacts are predicted within 500 feet of the proposed alternatives, the feasibility and reasonableness of potential noise abatement measures must be evaluated. Based upon AHTD’s “Policy of Reasonableness and Feasibility for Type 1 – Noise Abatement Measures”, noise abatement efforts that use barrier walls or berms are not warranted for any of the alternatives. In order to provide direct access to the highway

| <b>Table 6</b>                                    |                    |                                                              |
|---------------------------------------------------|--------------------|--------------------------------------------------------------|
| <b>Noise Abatement Standard Distance For 2031</b> |                    |                                                              |
| Alternative                                       | > 66 dB(A)<br>feet | > 10 dB(A) Increase<br>over Existing Noise<br>Levels<br>feet |
| No-Action                                         | 80                 | -                                                            |
| Yellow                                            | 70                 | 248                                                          |
| Red East                                          | 70                 | 248                                                          |
| Red West                                          | 70                 | 248                                                          |
| Orange East                                       | 70                 | 248                                                          |
| Orange West                                       | 70                 | 248                                                          |

| <b>Table 7</b>                   |            |                                                      |
|----------------------------------|------------|------------------------------------------------------|
| <b>Estimated Noise Receptors</b> |            |                                                      |
| Alternative                      | > 66 dB(A) | > 10 dB(A) Increase<br>over Existing Noise<br>Levels |
| No-Action                        | 58         | -                                                    |
| Yellow                           | 0          | 8                                                    |
| Red East                         | 0          | 7                                                    |
| Red West                         | 0          | 4                                                    |
| Orange East                      | 0          | 13                                                   |
| Orange West                      | 0          | 6                                                    |



from adjacent properties, breaks in the barrier walls or berms would be required. These necessary breaks for highway access would render any noise barrier ineffective.

To avoid noise levels in excess of design levels, any future receptors should be located a minimum of ten feet beyond the distance that the noise abatement standard is projected to occur. This distance should be used as a general guide and not a specific rule since the noise will vary depending upon the roadway grades and other noise contributions.

Any excessive project noise that results from construction operations should be of short duration and have a minimum adverse effect on land uses or activities associated with this project area.

In compliance with Federal guidelines, a copy of this analysis will be transmitted to the West Central Arkansas Planning and Development District for possible use in present and future land use planning.

### Air Quality

Utilizing the Mobile Source Emission Factor Model 5.0a and CALINE 3 dispersion model, air quality analysis was conducted on previous projects for carbon monoxide. These analyses incorporated information relating to traffic volumes, weather conditions, vehicle mix, and any vehicle operating speeds to estimate carbon monoxide levels for the design year.

These computer analyses indicate that carbon monoxide concentrations of less than one part per million (ppm) will be generated in the mixing cell for a project of this type. This computer estimate, when combined with an estimated ambient level of 1.0 ppm, would be less than 2.0 ppm and well below the national standards for carbon monoxide.

This project is located in an area that is designated as in attainment for all transportation pollutants. Therefore, the conformity procedures of the Clean Air Act, as Amended, do not apply.

### Natural and Visual Environment

The proposed project is located within the Arkansas Valley Hills of the Arkansas Valley Ecoregion. The Arkansas Valley Ecoregion is primarily an alluvial valley formed by the Arkansas River lying between the Ozark Highlands to the north and the Ouachita Mountains to the south. This region is characterized by rolling hills, long narrow high ridges, and broad valleys.

Bedrock geology is mapped by the Arkansas Geological Commission as part of the Atoka formation. This Pennsylvanian period geologic formation is a sequence of marine, mostly tan to gray silty sandstones and grayish-black shales. The unit contains discontinuous streaks of coal and coaly shale. The Dover gas field is located northeast of Dover, and gas wells are scattered in the project area.

Landforms in the project area consist of flat valleys, rolling hills, and nearby mountains. The McCoy Creek/Linker Creek valley is relatively flat; elevations vary only from 390 feet above mean sea level (msl) at Illinois Bayou, to approximately 420 feet msl at the southern terminus of the project. The existing road through Dover rises to about 460 feet msl. However, the nearby Linker Mountain rises to about 760 feet msl.

Water resources include Illinois Bayou at the northern terminus of the project, its tributary McCoy Creek, and Linker Creek, a tributary of McCoy Creek. In turn, the Illinois Bayou flows into Lake Dardanelle on the Arkansas River.

Soils are mapped by the USDA (*Soil Survey of Pope County Arkansas* 1981) on the general soil map into two soil associations. Mountain-Linker are well-drained, nearly

level to steep, shallow to moderately deep, loamy soils on hills, mountains, and ridges. Spadra are well-drained, level and nearly level, deep, loamy soils on low stream terraces.

Natural vegetation consists of pine, mixed oak-pine, and floodplain forest. Upland forest is principally shortleaf pine (*Pinus echinata*), post oak (*Quercus stellata*), and southern red oak (*Q. falcata*). Floodplain forest is quite diverse and includes pin oak (*Q. palustris*), water oak (*Q. nigra*), willow oak (*Q. phellos*), overcup oak (*Q. lyrata*), sweetgum (*Liquidambar styraciflua*), American elm (*Ulmus americana*), green ash (*Fraxinus pennsylvanica*), and red maple (*Acer rubrum*). Rivercane (*Arundinaria gigantea*) is a frequent component in the floodplain forest.

Much of the project area has been converted to pasture, mostly native broomsedge (*Andropogon virginicus*), but some areas have been planted with the introduced tall fescue (*Festuca arundinacea*). Some pasture areas have more recently been planted with loblolly pine (*P. taeda*), and some small areas have been planted with sawtooth oak (*Q. acutissima*) or black walnut (*Juglans nigra*).

No direct impacts to local biodiversity are expected, primarily due to the historical conversion of native forest first to subsistence farming and cotton, and later to pasture and modern development. Potential secondary impacts may occur due to the possible introduction of invasive species on new highway right of way. Invasive species noted in the project area include Chinese privet (*Ligustrum sinense*) and Japanese honeysuckle (*Lonicera japonica*). However, both of these species are common statewide due to their widespread use as ornamentals.

The town of Dover is situated on a flat-topped foothill between the valleys of McCoy Creek to the north and Linker Creek to the south. Dover was the county seat of Pope County from 1841 to 1888, when the county seat was moved to Russellville. The railroad from Little Rock to Fort Smith was built through Russellville in the early 1870s,

promoting the growth of that town. The 2000 census recorded the population of Dover as 1,329.

Potential users of the road include local, commuter, and tourist traffic. Interstate 40 and Russellville, the principal city in the area and county seat of Pope County, are approximately seven miles from downtown Dover. Highway 7 is a principal route north to the Ozark National Forest and the Buffalo National River, and south to Lake Dardenelle, the Ouachita National Forest, and Hot Springs National Park.

Highway 7 is a State Scenic Byway and has been named “one of the top ten driving experiences in the country” by *Car and Driver Magazine*. However, the visual quality of the viewshed in the immediate project area is only moderate to good. Numerous business and residential structures line the existing roadway (Figure 13). The viewshed from each of the alternatives would not differ substantially, viewing primarily pastures and woodland (Figure 14). The southbound view for all alternatives of the forested slopes of Linker Mountain and pastoral valley (Figure 15) make positive contributions to the viewshed.

If one of the new location alternatives were constructed, overall visual impacts to the Highway 7 Scenic Byway would be positive. Since the construction of a new location alternative will not preclude the traveler from using the highway route through Dover, the result would be a new visual environment option for travel through this approximately 2-mile section of the 290 mile Scenic Byway. The traveler would have a choice between a route that includes cultural and historical views of Dover and a route with scenic views of the countryside around Dover.

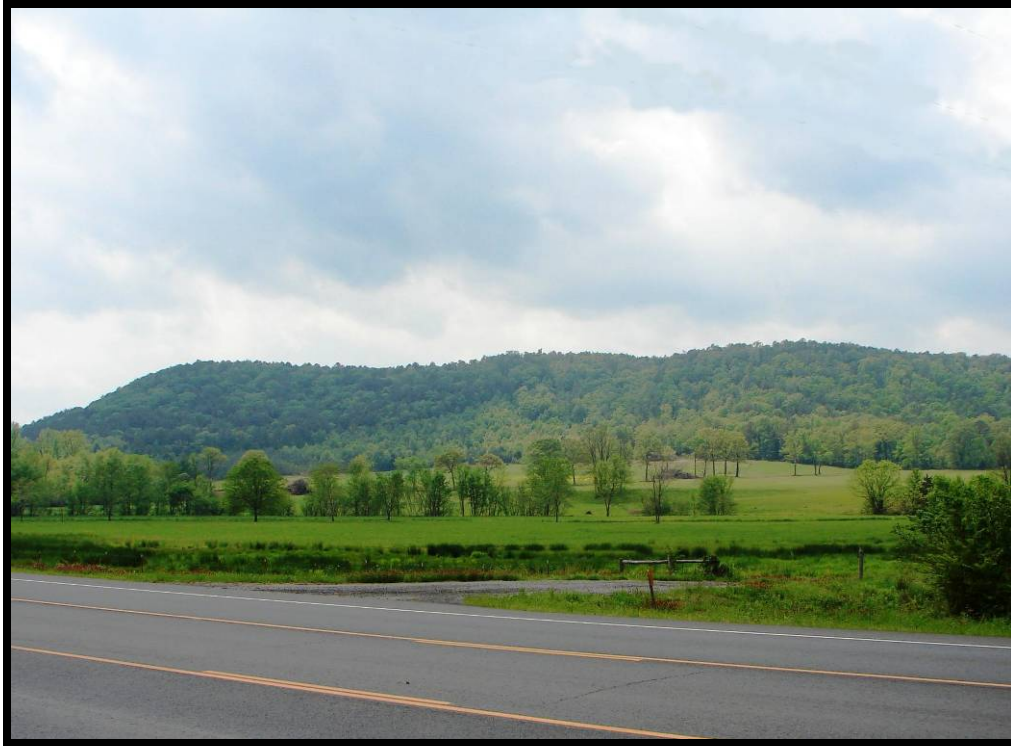


**Figure 13. View to the west on existing Highway 7 from midtown Dover**



**Figure 14. Typical viewshed on the new location alternatives**





**Figure 15. View of Linker Mountain southwest from Highway 7**

### Land Use/Land Cover

Land use on the existing roadway through Dover is commercial and residential. The principal land use and land cover on the new location alternatives is pasture and floodplain forest. The direct impact of the alternatives on land use and the natural environment would be the conversion of pasture, floodplain forest, and developed property to highway right of way. Existing land use was digitized using aerial imagery interpretation and spatial analysis to estimate conversions to roadway (Table 8). Secondary impacts to land use can be expected on the new location alternatives due to the high potential for residential and commercial development on property adjacent to the new roadway.

**Table 8**  
**Land Use/Land Cover Impacts**  
**Acres**

| <b>Alternative</b> | <b>Yellow</b> | <b>Red East</b> | <b>Red West</b> | <b>Orange East</b> | <b>Orange West</b> |
|--------------------|---------------|-----------------|-----------------|--------------------|--------------------|
| Pasture            | 10            | 11              | 17              | 15                 | 22                 |
| Woodland           | 13            | 13              | 16              | 7                  | 11                 |
| Residential        | 5             | 2               | 2               | 5                  | 4                  |
| Commercial         | 0             | 0               | 0               | 0                  | 0                  |
| Existing Roadway   | 3             | 3               | 6               | 3                  | 5                  |
| Total Impacts      | 28            | 26              | 35              | 27                 | 37                 |

## COMMENTS AND COORDINATION

The AHTD provided the opportunity for early public input into the development of the proposed project on April 8, 2010, at the Dover Middle School. Proposed corridors were available for review, and visitors were given the opportunity to discuss the proposed project with AHTD staff. Approximately 86 citizens attended the meeting. A copy of the Public Involvement Synopsis is located in Appendix E.

## COMMITMENTS

The AHTD's standard commitments associated with relocation procedures, hazardous waste abatement, and control of water quality impacts have been made in association with this project. They are as follows:

- See Relocation procedures located in Appendix B.
- If hazardous materials, unknown illegal dumps or underground storage tanks are identified or accidentally uncovered by AHTD personnel or its contractors, the AHTD will determine the type, size, and extent of the contamination according to the AHTD's response protocol. The AHTD in cooperation with the ADEQ will determine the remediation and disposal methods to be employed for that particular type of contamination. The proposed project will be in compliance with local, state, and Federal laws and regulations.
- An asbestos survey will be conducted by a certified asbestos inspector on each building slated for acquisition and demolition. If the survey detects the presence of any asbestos-containing materials, plans will be developed to accomplish the safe removal of these materials prior to demolition. All asbestos abatement work will be conducted in conformance with ADEQ, EPA and OSHA asbestos abatement regulations.
- Once a Selected Alternative has been identified, an intensive cultural resources survey will be conducted. If sites are affected, a full report documenting the results of the survey and stating the AHTD's recommendations will be prepared and submitted to the SHPO for review. If prehistoric sites are

impacted, consultation led by FHWA with the appropriate Native American Tribe will be conducted and the site(s) evaluated to determine if Phase II testing is necessary. Should any of the sites be found to be eligible or potentially eligible for nomination to the NHRP and avoidance is not possible, then site specific treatment plans will be prepared and data recovery will be conducted at the earliest practicable time. All borrow pits, waste areas and work roads will be surveyed for cultural resources when locations become available.

- Wetland mitigation will be offered at the Hartman Bottoms Mitigation Bank Site at the ratio approved during the Section 404 permitting process. Stream and wetland mitigation will be coordinated with the USCOE during the permitting process.
- Stream crossings along the Selected Alternative will be designed so as not to cause an increase in flooding depth on the buildings within and close to the Special Flood Hazard Area.
- The AHTD will comply with all requirements of the Clean Water Act, as Amended, for the construction of this project. This includes Section 401, Water Quality Certification; Section 402, NPDES; and Section 404, Permit for Dredged or Fill Material.
- A Water Pollution Control Special Provision will be incorporated into the contract to minimize potential water quality impacts.
- If any permanent impacts to private drinking water sources occur due to this project, the AHTD will take appropriate action to mitigate these impacts.
- A wildflower seed mix will be included in the permanent seeding for the project.

## **RECOMMENDATIONS**

The environmental analysis of the proposed project did not identify any significant impact to the natural and social environment. Table 9 shows a comparison of the alternative information, impacts, and costs.



| Table 9<br>Alternatives Comparison |                 |                                    |                                |                    |                     |                   |                                 |                       |                            |  |
|------------------------------------|-----------------|------------------------------------|--------------------------------|--------------------|---------------------|-------------------|---------------------------------|-----------------------|----------------------------|--|
| Alternative                        | Length<br>miles | Total Cost<br>millions<br>(2011\$) | Relocations                    | Noise<br>Receptors | Stream<br>Crossings | Wetlands<br>acres | Floodplain<br>Crossings<br>feet | Cultural<br>Resources | Prime<br>Farmland<br>acres |  |
| No-Action                          | 1.8             | 0                                  | 0                              | 0                  | 0                   | 0                 | 0                               | 0                     | 0                          |  |
| Yellow                             | 1.8             | 6.2                                | 2<br>Residential               | 8                  | 1                   | 0                 | 1848                            | 0*                    | 9.7                        |  |
| Red East                           | 1.6             | 6.0                                | 0                              | 7                  | 2                   | 2.0               | 2957                            | 0                     | 9.5                        |  |
| Red West                           | 2.1             | 8.9                                | 0                              | 4                  | 3                   | 2.9               | 6230                            | 0                     | 24.7                       |  |
| Orange East                        | 1.8             | 6.2                                | 1<br>Residential<br>1 Business | 13                 | 1                   | 0.5               | 1689                            | 0*                    | 11.8                       |  |
| Orange<br>West                     | 2.3             | 9.2                                | 1<br>Residential<br>1 Business | 6                  | 2                   | 1.4               | 4963                            | 0*                    | 27.2                       |  |

\* A cemetery with unknown boundaries exists close to these alignments. Additionally, a rumored archeological site may exist in the area.

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## **APPENDIX A**

### **Level of Service Descriptions**



The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level of service definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations, from A to F, with level of service F the worst.

In general, the various levels of service are defined as follows for uninterrupted flow facilities.

#### *Two-Lane Highway*

**LOS A** - LOS A represents traffic flow where motorists are able to travel at their desired speed. Passing is rarely affected and drivers are delayed no more than 35% of the time by slower drivers.

**LOS B** - Traffic speeds in LOS B drop and drivers are delayed up to 50% of the time by other drivers.

**LOS C** - At LOS C, speeds are slower than at LOS B. Although traffic flow is stable, it is susceptible to congestion due to turning traffic and slow-moving vehicles. Drivers may be delayed up to 65% of the time by slower drivers.

**LOS D** - LOS D describes unstable flow and passing becomes extremely difficult. Motorists are delayed nearly 80% of the time by slower drivers.

**LOS E** - At LOS E passing becomes nearly impossible and speeds can drop dramatically.

**LOS F** - LOS F represents heavily congested flow where traffic demand exceeds capacity and speeds are highly variable.

#### *Multi-Lane Highway*

**LOS A** - LOS A represents free flow conditions where individual users are unaffected by the presence of others in the traffic stream.



**LOS B** - Traffic flow in LOS B is stable, but other users in the traffic stream are noticeable.

**LOS C** - At LOS C, maneuverability begins to be significantly affected by other vehicles.

**LOS D** - LOS D represents dense but stable flow where speed and maneuverability are severely restricted.

**LOS E** - Traffic volumes approach peak capacity for given operating conditions at LOS E; speeds are low and operation at this level is unstable.

**LOS F** - Minor interruptions in the traffic stream will cause breakdown in the flow and deterioration to LOS F, which is characterized by forced flow operation at low speeds and an unstable stop-and-go traffic stream.

## **APPENDIX B**

### **Conceptual Stage Relocation Statement**



**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT**

**INTEROFFICE MEMORANDUM**

**RECEIVED  
AHTD**

April 21, 2011

APR 21 2011

**ENVIRONMENTAL  
DIVISION**

**TO:** Lynn Malbrough, Division Head, Environmental Division

**FROM:** Perry M. Johnston, Division Head, Right of Way Division



**SUBJECT:** Cost Estimate  
Job 080164  
Hwy. 7 Improvements (Dover)  
Pope County

Per your request, cost estimates for acquiring right of way and adjusting utilities for the identified alternatives for this project are summarized:

| <u>Alternate</u> | <u>Property Acquisition</u> | <u>Relocation</u> | <u>Reimb. Utility Adjustments</u> | <u>Non-Reimb. Utility Adjustments</u> | <u>Total</u> |
|------------------|-----------------------------|-------------------|-----------------------------------|---------------------------------------|--------------|
| Blue             | \$3,000,000                 | \$360,000         | \$1,203,500                       | \$1,109,000                           | \$5,672,500  |
| Yellow           | 350,000                     | 72,000            | 201,580                           | 51,440                                | 675,020      |
| Orange East      | 250,000                     | 60,000            | 218,320                           | 51,440                                | 579,760      |
| Orange West      | 450,000                     | 60,000            | 243,020                           | 14,720                                | 767,740      |
| Red East         | 150,000                     | 0                 | 146,480                           | 51,440                                | 347,920      |
| Red West         | 350,000                     | 0                 | 151,020                           | 14,720                                | 515,740      |


A Conceptual Stage Relocation Statement and copies of the cost estimates are attached. Please note the premises under which the estimates were provided.

If you need additional information, please contact Kay Crutchfield at 2311.

Attachments

**INTEROFFICE MEMORANDUM**

**TO:** Kay Crutchfield, Assistant Division Head,  
Right of Way Division

**FROM:**  E. P. Scruggs III, Reviewing Appraiser,  
Right of Way Division

**DATE:** April 18, 2011

**SUBJECT:** Job 080164  
Hwy 7 Improvements (Dover)  
Pope County  
Row Information Request

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Regarding the Right of Way Acquisition Cost Estimate Request, memo dated March 24, 2011, from Lynn P. Malbrough, Division Head, Environmental Division, the alignments/alternatives and cost estimates are as follows. (Memo and Alignment Map Dated March 22, 2011 Attached)

**Yellow**  
**Three Hundred and Fifty Thousand Dollars**  
**\$350,000**

**Orange East**  
**Two Hundred Thousand Dollars**  
**\$250,000**

**Orange West**  
**Four Hundred and Fifty Thousand Dollars**  
**\$450,000**

**Red East**  
**One Hundred and Fifty Thousand Dollars**  
**\$150,000**

**Red West**  
**Three Hundred and Fifty Thousand Dollars**  
**\$350,000**

**Blue**  
**Three Million Dollars**  
**\$3,000,000**



**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
RIGHT OF WAY DIVISION                      RELOCATION SECTION**

**INTEROFFICE MEMORANDUM**

**TO:** Lynn P. Malbrough, Environmental Division Head  
**FROM:** Perry M. Johnston, Right of Way Division Head  
**DATE:** April 20, 2011  
**SUBJECT:** Job 080164  
Hwy. 7 Improvements (Dover) (S)  
Pope County  
**CONCEPTUAL STAGE RELOCATION STATEMENT**



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**GENERAL STATEMENT OF RELOCATION PROCEDURE**

Persons displaced as a direct result of acquisition for the subject project will be eligible for relocation assistance in accordance with Public Law 91-646, Uniform Relocation Assistance Act of 1970. The Relocation Program provides advisory assistance and payments to minimize the adverse impact and hardship of displacement upon such persons. No lawful occupant shall be required to move without receiving a minimum of 90 days advance written notice. All displaced persons; residential, business, farm, nonprofit organization, and personal property occupants are eligible for reimbursement for actual reasonable moving costs.

Construction of the project will not begin until decent, safe and sanitary replacement housing is in place and offered to all residential occupants. It is the Department's Policy that adequate replacement housing will be made available, built if necessary, before any person is required to move from their dwelling. All replacement housing must be fair housing and offered to all affected persons regardless of race, color, religion, sex or national origin.

There are two basic types of residential relocation payments: (1) Replacement Housing Payments and (2) Moving Expense Payments. Replacement Housing Payments are made to qualified owners and tenants. An owner may receive a payment of up to \$22,500.00 for the increased cost of a comparable replacement dwelling. The amount of this payment is determined by a study of the housing market. Owners may also be eligible for payments to compensate them for the increased interest cost for a new mortgage and the incidental expenses incurred in connection with the purchase of a replacement dwelling. A tenant may receive a rental subsidy payment of up to \$5,250.00. Tenants may elect to receive a down payment rather than a rental subsidy to enable them to purchase a replacement dwelling. Replacement Housing Payments are made in addition to Moving Expense Payments.

Businesses, farms and nonprofit organizations are eligible for Reestablishment Payments, not to exceed \$10,000.00. Reestablishment Expense Payments are made in addition to Moving Expense Payments. A business, farm or nonprofit organization may be eligible for a fixed payment in lieu of the moving costs and reestablishment costs if relocation cannot be accomplished without a substantial loss of existing patronage. The fixed payment will be computed in accordance with the Code of Federal Regulations and cannot exceed \$20,000.00.

If the displaced person is not satisfied with the amounts offered as relocation payments, they will be provided a form to assist in filing a formal appeal. A hearing will be arranged at a time and place convenient for the displaced person, and the facts of the case will be promptly and carefully reviewed.

Relocation services will be provided until all persons are relocated or their relocation eligibility expires. The Relocation Office will have listings of available replacement housing and commercial properties. Information is also maintained concerning other Federal and State Programs offering assistance to displaced persons.

Based on preliminary right of way plans, aerial photographs, and an on-site project review, it is estimated that the Alternates for the subject project could cause the following displacements and costs:

**Alternate Yellow**

|                      |                  |
|----------------------|------------------|
| 2 Residential Owners | \$ 60,000.00     |
| Services             | <u>12,000.00</u> |
| Total                | \$ 72,000.00     |

**Alternate Orange East**

|                     |                  |
|---------------------|------------------|
| 1 Residential Owner | \$ 30,000.00     |
| 1 Business          | 20,000.00        |
| Services            | <u>10,000.00</u> |
| Total               | \$ 60,000.00     |

**Alternate Orange West**

|                     |                  |
|---------------------|------------------|
| 1 Residential Owner | \$ 30,000.00     |
| 1 Business          | 20,000.00        |
| Services            | <u>10,000.00</u> |
| Total               | \$ 60,000.00     |

**Alternate Red East**

No Relocation

**Alternate Red West**

No Relocation

**Alternate Blue**

|                           |                     |
|---------------------------|---------------------|
| 3 Residential Owners      | \$ 90,000.00        |
| 9 Businesses              | 170,000.00          |
| 2 Nonprofit Organizations | 40,000.00           |
| Services                  | <u>\$ 60,000.00</u> |
| Total                     | \$360,000.00        |

The general characteristics of the displaced persons are listed on the Conceptual Stage Inventory Record forms in the back of this report. The general characteristics have been determined by a visual inspection of the potential displacements by Relocation Coordinators. The Relocation Coordinators utilize area demographic data, visual inspections, past experiences and knowledge in making this determination.

An available housing inventory has been compiled and it indicates there are at least forty comparable replacement dwellings available for sale and six comparable replacement dwellings available for rent within ten miles of the project. At least six commercial properties are currently for sale and six for lease in the project area. Vacant sites for residential and commercial construction are also available within ten miles of the subject project. A breakdown of the available properties is as follows:

|                             |                                  |
|-----------------------------|----------------------------------|
| <u>Residential For Sale</u> | <u>Number of Units</u>           |
| <u>Listing Price</u>        | <u>Single Family Residential</u> |
| \$ 75,000 - \$100,000       | 9                                |
| \$100,001 - \$125,000       | 8                                |
| \$125,001 - \$150,000       | 8                                |
| \$151,001 - \$175,000       | 9                                |
| \$175,001 - \$200,000       | <u>6</u>                         |
| Total                       | 40                               |
| <br>                        |                                  |
| <u>Residential For Rent</u> | <u>Number of Units</u>           |
| <u>Monthly Rent</u>         | <u>Single Family Residential</u> |
| \$300 - \$400               | 1                                |
| \$401 - \$500               | 1                                |
| \$501 - \$600               | 1                                |
| \$601 - \$700               | 2                                |
| \$701 - \$800               | 0                                |
| \$801 - \$900               | 0                                |
| \$901-\$1,000               | <u>1</u>                         |
| Total                       | 6                                |
| <br>                        |                                  |
| <u>Vacant Land For Sale</u> | <u>Residential</u>               |
| <u>Listing Price</u>        | <u>Sites</u>                     |
| \$10,000 - 20,000           | 2                                |
| \$20,001 - 30,000           | 2                                |
| \$30,001 - 40,000           | <u>2</u>                         |
| Total                       | 6                                |
| <br>                        |                                  |
| <u>Commercial For Sale</u>  | <u>Number of Units</u>           |
| <u>Listing Price</u>        | <u>Improved Commercial</u>       |
| \$100,000 - \$200,000       | 3                                |
| \$200,001 - \$300,000       | 1                                |
| \$300,001 - \$400,000       | 0                                |
| \$400,001 - \$500,000       | 0                                |
| \$500,001 - \$600,000       | <u>1</u>                         |
| Total                       | 5                                |

| <u>Commercial For Lease</u> | <u>Number of Units</u>     |
|-----------------------------|----------------------------|
| <u>Monthly Rent</u>         | <u>Improved Commercial</u> |
| Under \$1,000               | 3                          |
| \$1,001 - \$2,000           | 1                          |
| \$2,001 - \$3,000           | 1                          |
| \$3,001 - \$4,000           | 0                          |
| \$ 4,001 - \$5,000          | <u>1</u>                   |
| Total                       | 6                          |

| <u>Vacant Land For Sale</u> | <u>Commercial</u> |
|-----------------------------|-------------------|
| <u>Listing Price</u>        | <u>Sites</u>      |
| \$ 50,000 - 100,000         | 1                 |
| \$100,001 - 150,000         | 2                 |
| \$151,001 - 200,000         | 1                 |
| \$200,001 - 250,000         | 1                 |
| \$250,001 - 300,000         | 0                 |
| \$300,001 - 350,000         | 0                 |
| \$350,001 - 400,000         | <u>1</u>          |
| Total                       | 6                 |

This is a highway widening and/or new location project for Hwy. 7 in Dover, AR. The number of dwellings and properties currently available on the market are adequate and comparable to provide replacement housing for the families displaced from the subject project. The housing market should not be detrimentally affected and there should be no problems with insufficient housing at this time. In the event replacement housing is not available at the time of displacement or Replacement Housing Payments exceed the monetary limits, Section 206 of Public Law 91-646 (Housing of Last Resort) will be utilized to its fullest and practical extent.

The replacement property inventory was compiled from data obtained from real estate companies, web sites, and local newspapers for the subject area. The dwellings contained in the inventory have been determined to be comparable and decent, safe and sanitary. The locations of the comparable dwellings are not less desirable in regard to public utilities and public and commercial facilities, reasonably accessible to the displaced persons' places of employment, adequate to accommodate the displaced persons, and in neighborhoods which are not subject to unreasonable adverse environmental factors. It has also been determined that the available housing is within the financial means of the displaced persons and is fair housing open to all persons regardless of race, color, sex, religion or national origin consistent with the requirements of 49 CFR, Subpart A, Section 24.2 and Title VIII of the Civil Rights Act of 1968. Appropriate measures will be taken to ensure that each displaced person is fully aware of their benefits, entitlements, and available courses of action.

All displaced persons will be offered relocation assistance under provisions in the applicable FHWA regulations. At the time of displacement another inventory of available housing in the subject area will be obtained and an analysis of the market made to ensure that there are dwellings adequate to meet the needs of all displaced residential occupants. Also, special relocation advisory services and assistance will be administered commensurate with displaced persons' needs, when necessary. Examples of these include, but are not limited to,

Housing of Last Resort as previously mentioned and consultation with local officials, social and federal agencies and community groups.

There are no other identified unusual conditions involved with this project.

PMJ:KMH





ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
 CONCEPTUAL STAGE RELOCATION INVENTORY

Alternate Yellow

Job No.: 080164 Job Name: Hwy. 7 Improvements (Dover) Date of Inventory: April 11, 2011

| Type Relocation         | Number   | Residential Property Values or Rental Rates | Large Family Households | Disabled Person Households | Minority Households | Elderly Households | Low Income Households | Employees Affected (Range) |
|-------------------------|----------|---------------------------------------------|-------------------------|----------------------------|---------------------|--------------------|-----------------------|----------------------------|
| Residential Owners      | 2        | \$60,000 - \$100,000                        | 0                       | 0                          | 0                   | 0                  | 0                     |                            |
| Residential Tenants     | 0        |                                             |                         |                            |                     |                    |                       |                            |
| Businesses              | 0        |                                             |                         |                            |                     |                    |                       |                            |
| Landlord Businesses     | 0        |                                             |                         |                            |                     |                    |                       |                            |
| Nonprofit Organizations | 0        |                                             |                         |                            |                     |                    |                       |                            |
| Personal Properties     | 0        |                                             |                         |                            |                     |                    |                       |                            |
| <b>Totals</b>           | <b>2</b> | <b>N/A</b>                                  | <b>0</b>                | <b>0</b>                   | <b>0</b>            | <b>0</b>           | <b>0</b>              | <b>0</b>                   |

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
 CONCEPTUAL STAGE RELOCATION INVENTORY

Alternate Red East

Job No.: 080164 Job Name: Hwy. 7 Improvements (Dover) Date of Inventory: April 11, 2011

| Type Relocation         | Number | Residential Property Values or Rental Rates | Large Family Households | Disabled Person Households | Minority Households | Elderly Households | Low Income Households | Employees Affected (Range) |
|-------------------------|--------|---------------------------------------------|-------------------------|----------------------------|---------------------|--------------------|-----------------------|----------------------------|
| Residential Owners      | 0      |                                             |                         |                            |                     |                    |                       |                            |
| Residential Tenants     | 0      |                                             |                         |                            |                     |                    |                       |                            |
| Businesses              | 0      |                                             |                         |                            |                     |                    |                       |                            |
| Landlord Businesses     | 0      |                                             |                         |                            |                     |                    |                       |                            |
| Nonprofit Organizations | 0      |                                             |                         |                            |                     |                    |                       |                            |
| Personal Properties     | 0      |                                             |                         |                            |                     |                    |                       |                            |
| Totals                  | 0      | N/A                                         | 0                       | 0                          | 0                   | 0                  | 0                     | 0                          |

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
 CONCEPTUAL STAGE RELOCATION INVENTORY

Alternate Red West

Job No.: 080164 Job Name: Hwy. 7 Improvements (Dover) Date of Inventory: April 11, 2011

| Type Relocation         | Number   | Residential Property Values or Rental Rates | Large Family Households | Disabled Person Households | Minority Households | Elderly Households | Low Income Households | Employees Affected (Range) |
|-------------------------|----------|---------------------------------------------|-------------------------|----------------------------|---------------------|--------------------|-----------------------|----------------------------|
| Residential Owners      | 0        |                                             |                         |                            |                     |                    |                       |                            |
| Residential Tenants     | 0        |                                             |                         |                            |                     |                    |                       |                            |
| Businesses              | 0        |                                             |                         |                            |                     |                    |                       |                            |
| Landlord Businesses     | 0        |                                             |                         |                            |                     |                    |                       |                            |
| Nonprofit Organizations | 0        |                                             |                         |                            |                     |                    |                       |                            |
| Personal Properties     | 0        |                                             |                         |                            |                     |                    |                       |                            |
| <b>Totals</b>           | <b>0</b> | N/A                                         | <b>0</b>                | <b>0</b>                   | <b>0</b>            | <b>0</b>           | <b>0</b>              | <b>0</b>                   |



Alternate Orange West

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
 CONCEPTUAL STAGE RELOCATION INVENTORY

Job No.: 080164 Job Name: Hwy. 7 Improvements (Dover) Date of Inventory: April 11, 2011

| Type Relocation         | Number | Residential Property Values or Rental Rates | Large Family Households | Disabled Person Households | Minority Households | Elderly Households | Low Income Households | Employees Affected (Range) |
|-------------------------|--------|---------------------------------------------|-------------------------|----------------------------|---------------------|--------------------|-----------------------|----------------------------|
| Residential Owners      | 1      | \$60,000 to \$80,000                        | 0                       | 0                          | 0                   | 0                  | 0                     | N/A                        |
| Residential Tenants     | 0      |                                             |                         |                            |                     |                    |                       |                            |
| Businesses              | 1      |                                             |                         |                            |                     |                    |                       | 2 - 4                      |
| Landlord Businesses     | 0      |                                             |                         |                            |                     |                    |                       |                            |
| Nonprofit Organizations | 0      |                                             |                         |                            |                     |                    |                       |                            |
| Personal Properties     | 0      |                                             |                         |                            |                     |                    |                       |                            |
| Totals                  | 2      | N/A                                         | 0                       | 0                          | 0                   | 0                  | 0                     | 2 - 4                      |



## INTER OFFICE MEMORANDUM

**DATE:** April 20, 2011

**TO:** Perry M. Johnston, Division Head, Right of Way Division

**FROM:** Gene Kuettel, Section Head Utilities, Right of Way Division

**SUBJECT:** Job 080164  
Hwy. 7 Improvements (Dover)  
Pope County  
Utility Cost Estimate

Per the Environmental Division's request, the utility cost estimate for the Existing Location Alternative (Blue), New Location Alternative Yellow, New Location Alternative Orange E, New Location Alternative Orange W, New Location Alternative Red E and New Location Alternative Red W.

|            | Existing Location Alternative (Blue) |                      |                      |
|------------|--------------------------------------|----------------------|----------------------|
|            | Reimb.                               | Non-Reimb.           | Totals               |
| Water      | \$ 67,500.00                         | \$ 160,000.00        | \$ 227,500.00        |
| Sewer      | \$ 189,000.00                        | \$ 160,000.00        | \$ 349,000.00        |
| Power      | \$ 400,000.00                        | \$ 360,000.00        | \$ 760,000.00        |
| Telephone  | \$ 29,000.00                         | \$ 236,000.00        | \$ 265,000.00        |
| CATV       | \$ 35,000.00                         | \$ 33,000.00         | \$ 68,000.00         |
| <u>Gas</u> | <u>\$ 483,000.00</u>                 | <u>\$ 160,000.00</u> | <u>\$ 643,000.00</u> |
| Total      | \$ 1,203,500.00                      | \$ 1,109,000.00      | \$ 2,312,500.00      |

|            | New Location Alternative Yellow |                |                      |
|------------|---------------------------------|----------------|----------------------|
|            | Reimb.                          | Non-Reimb.     | Totals               |
| Water      | \$ 5,760.00                     | \$ 0.00        | \$ 5,760.00          |
| Sewer      | \$ 17,640.00                    | \$ 0.00        | \$ 17,640.00         |
| Power      | \$ 62,500.00                    | \$ 20,000.00   | \$ 82,500.00         |
| Telephone  | \$ 5,680.00                     | \$ 29,440.00   | \$ 35,120.00         |
| CATV       | \$ 6,000.00                     | \$ 2,000.00    | \$ 8,000.00          |
| <u>Gas</u> | <u>\$ 104,000.00</u>            | <u>\$ 0.00</u> | <u>\$ 104,000.00</u> |
| Total      | \$ 201,580.00                   | \$ 51,440.00   | \$ 253,020.00        |

| New Location Alternative Orange E |                      |                     |                      |
|-----------------------------------|----------------------|---------------------|----------------------|
|                                   | Reimb.               | Non-Reimb.          | Totals               |
| Water                             | \$ 11,680.00         | \$ 0.00             | \$ 11,680.00         |
| Sewer                             | \$ 15,120.00         | \$ 0.00             | \$ 15,120.00         |
| Power                             | \$ 62,500.00         | \$ 20,000.00        | \$ 82,500.00         |
| Telephone                         | \$ 5,220.00          | \$ 29,440.00        | \$ 34,660.00         |
| CATV                              | \$ 6,000.00          | \$ 2,000.00         | \$ 8,000.00          |
| Gas                               | \$ 117,800.00        | \$ 0.00             | \$ 117,800.00        |
| <b>Total</b>                      | <b>\$ 218,320.00</b> | <b>\$ 51,440.00</b> | <b>\$ 269,760.00</b> |

| New Location Alternative Orange W |                      |                     |                      |
|-----------------------------------|----------------------|---------------------|----------------------|
|                                   | Reimb.               | Non-Reimb.          | Totals               |
| Water                             | \$ 32,800.00         | \$ 0.00             | \$ 32,800.00         |
| Sewer                             | \$ 0.00              | \$ 0.00             | \$ 0.00              |
| Power                             | \$ 45,000.00         | \$ 0.00             | \$ 45,000.00         |
| Telephone                         | \$ 5,220.00          | \$ 14,720.00        | \$ 19,940.00         |
| CATV                              | \$ 4,000.00          | \$ 0.00             | \$ 4,000.00          |
| Gas                               | \$ 156,000.00        | \$ 0.00             | \$ 156,000.00        |
| <b>Total</b>                      | <b>\$ 243,020.00</b> | <b>\$ 14,720.00</b> | <b>\$ 257,740.00</b> |

| New Location Alternative Red E |                      |                     |                      |
|--------------------------------|----------------------|---------------------|----------------------|
|                                | Reimb.               | Non-Reimb.          | Totals               |
| Water                          | \$ 11,680.00         | \$ 0.00             | \$ 11,680.00         |
| Sewer                          | \$ 35,280.00         | \$ 0.00             | \$ 35,280.00         |
| Power                          | \$ 47,500.00         | \$ 20,000.00        | \$ 67,500.00         |
| Telephone                      | \$ 5,220.00          | \$ 29,440.00        | \$ 34,660.00         |
| CATV                           | \$ 5,000.00          | \$ 2,000.00         | \$ 7,000.00          |
| Gas                            | \$ 41,800.00         | \$ 0.00             | \$ 41,800.00         |
| <b>Total</b>                   | <b>\$ 146,480.00</b> | <b>\$ 51,440.00</b> | <b>\$ 197,920.00</b> |

| New Location Alternative Red W |                      |                     |                      |
|--------------------------------|----------------------|---------------------|----------------------|
|                                | Reimb.               | Non-Reimb.          | Totals               |
| Water                          | \$ 32,800.00         | \$ 0.00             | \$ 32,800.00         |
| Sewer                          | \$ 0.00              | \$ 0.00             | \$ 0.00              |
| Power                          | \$ 30,000.00         | \$ 0.00             | \$ 30,000.00         |
| Telephone                      | \$ 5,220.00          | \$ 14,720.00        | \$ 19,940.00         |
| CATV                           | \$ 3,000.00          | \$ 0.00             | \$ 3,000.00          |
| Gas                            | \$ 80,000.00         | \$ 0.00             | \$ 80,000.00         |
| <b>Total</b>                   | <b>\$ 151,020.00</b> | <b>\$ 14,720.00</b> | <b>\$ 165,740.00</b> |

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## **APPENDIX C**

### **USFWS Correspondence**





IN REPLY REFER TO:

## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

110 South Amity Road, Suite 300

Conway, Arkansas 72032

Tel.: 501/513-4470 Fax: 501/513-4480

March 1, 2011

Mr. Lynn P. Malbrough  
Environmental Division Head  
Arkansas Highway and Transportation Department  
P.O. Box 2261  
Little Rock, AR 72203-2261

Re: AHTD Job # 080164, Dover Bypass, Pope County, Arkansas

Dear Mr. Malbrough,

This letter provides U.S. Fish and Wildlife Service (Service) technical assistance concerning the above referenced project and is in response to a phone call from your staff on March 1, 2011, requesting comments on proposed alternative alignments. Our response is submitted in accordance with the Fish and Wildlife Coordination Act (16 U.S.C. 661-667e) and the Endangered Species Act of 1973 (87 stat. 884, as amended; 16 U.S.C. 1531 et seq.).

A review of the project area revealed no documented federally listed threatened or endangered species occurrences within the action area. The Service expects only minor impacts to fish and wildlife resources from the proposed project to construct a western bypass around the community of Dover, Arkansas. A new suggested alternative alignment that would avoid impacts to streams in the project area has been submitted to Arkansas Highway and Transportation Department staff for consideration. Alternatives carried forward for further analysis in an environmental assessment or other National Environmental Policy Act document should avoid and minimize impacts to aquatic resources and other wildlife habitats to the greatest degree possible.

Thank you for allowing our agency the opportunity to comment on the proposed project. For future correspondence on this matter, please contact Mitch Wine of this office at 501-513-4488.

Sincerely,

Melvin Tobin  
Deputy Project Leader



cc:

**Randal Looney, Federal Highway Administration**

**John Fleming, Arkansas Highway and Transportation Department**

**Don Nichols, Arkansas Highway and Transportation Department**

**Josh Seagraves, Arkansas Highway and Transportation Department**

**Johnny McLean, United States Army Corps of Engineers**

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## **APPENDIX D**

### **Farmland Conversion Impact Rating**



FARMLAND CONVERSION IMPACT RATING  
FOR CORRIDOR TYPE PROJECTS

**PART I (To be completed by Federal Agency)** 080164 3. Date of Land Evaluation Request: 6/10/11<sup>4</sup> Sheet 1 of \_\_\_\_

1. Name of Project: Hwy 7 Improvement District 5. Federal Agency Involved: FHWA

2. Type of Project: Bypass 6. County and State: Pope AR

**PART II (To be completed by NRCS)**

1. Date Request Received by NRCS: \_\_\_\_\_ 2. Person Completing Form: \_\_\_\_\_

3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES  NO

4. Acres Irrigated: \_\_\_\_\_ Average Farm Size: \_\_\_\_\_

5. Major Crop(s): \_\_\_\_\_ 6. Farmable Land in Government Jurisdiction: \_\_\_\_\_ 7. Amount of Farmland As Defined in FPPA: \_\_\_\_\_

8. Name Of Land Evaluation System Used: \_\_\_\_\_ 9. Name of Local Site Assessment System: \_\_\_\_\_ 10. Date Land Evaluation Returned by NRCS: \_\_\_\_\_

**PART III (To be completed by Federal Agency)**

|                                                                   | Alternative Corridor For Segment |      |      |      |
|-------------------------------------------------------------------|----------------------------------|------|------|------|
|                                                                   | W.O.                             | W.R. | E.O. | E.R. |
| A. Total Acres To Be Converted Directly                           |                                  |      |      |      |
| B. Total Acres To Be Converted Indirectly, Or To Receive Services |                                  |      |      |      |
| C. Total Acres In Corridor                                        | 0                                | 0    | 0    | 0    |

**PART IV (To be completed by NRCS) Land Evaluation Information**

|                                                                                    |       |       |       |      |
|------------------------------------------------------------------------------------|-------|-------|-------|------|
| A. Total Acres Prime And Unique Farmland                                           | 22.24 | 22.66 | 11.83 | 9.52 |
| B. Total Acres Statewide And Local Important Farmland                              | 1.98  | 1.98  | 0     | 0    |
| C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted            |       |       |       |      |
| D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value |       |       |       |      |

**PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)**

**PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))**

| Maximum Points                                       | Western Orange | Western Red | Eastern Orange | Eastern Red |
|------------------------------------------------------|----------------|-------------|----------------|-------------|
| 1. Area in Nonurban Use                              | 15             | 10          | 10             | 10          |
| 2. Perimeter in Nonurban Use                         | 10             | 5           | 5              | 5           |
| 3. Percent Of Corridor Being Farmed                  | 20             | 10          | 10             | 10          |
| 4. Protection Provided By State And Local Government | 20             | 0           | 0              | 0           |
| 5. Size of Present Farm Unit Compared To Average     | 10             | 0           | 0              | 0           |
| 6. Creation Of Nonfarmable Farmland                  | 25             | 0           | 0              | 0           |
| 7. Availability Of Farm Support Services             | 5              | 5           | 5              | 5           |
| 8. On-Farm Investments                               | 20             | 0           | 0              | 0           |
| 9. Effects Of Conversion On Farm Support Services    | 25             | 0           | 0              | 0           |
| 10. Compatibility With Existing Agricultural Use     | 10             | 0           | 0              | 0           |
| <b>TOTAL CORRIDOR ASSESSMENT POINTS</b>              | 160            | 0 30        | 0 30           | 0 30        |

**PART VII (To be completed by Federal Agency)**

|                                                                           |     |       |       |       |
|---------------------------------------------------------------------------|-----|-------|-------|-------|
| Relative Value Of Farmland (From Part V)                                  | 100 | 100   | 100   | 100   |
| Total Corridor Assessment (From Part VI above or a local site assessment) | 160 | 0 30  | 0 30  | 0 30  |
| <b>TOTAL POINTS (Total of above 2 lines)</b>                              | 260 | 0 130 | 0 130 | 0 130 |

1. Corridor Selected: \_\_\_\_\_ 2. Total Acres of Farmlands to be Converted by Project: See Part IV

3. Date Of Selection: \_\_\_\_\_ 4. Was A Local Site Assessment Used? YES  NO

5. Reason For Selection: \_\_\_\_\_

Signature of Person Completing this Part: *Ad Bd* DATE: 6/10/11

NOTE: Complete a form for each segment with more than one Alternate Corridor

FARMLAND CONVERSION IMPACT RATING  
FOR CORRIDOR TYPE PROJECTS

**PART I (To be completed by Federal Agency)** 080164 3. Date of Land Evaluation Request 6/10/11 Sheet 1 of \_\_\_  
 1. Name of Project Hwy 7 Improvement/Ditch 6. Federal Agency Involved FHWN  
 2. Type of Project Bypasses 6. County and State Pope AR

**PART II (To be completed by NRCS)**  
 1. Date Request Received by NRCS 2. Person Completing Form  
 3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form.) YES  NO   
 4. Acres Irrigated | Average Farm Size  
 5. Major Crop(s) 6. Farmable Land in Government Jurisdiction 7. Amount of Farmland As Defined in FPPA  
 Acres: % Acres: %  
 8. Name Of Land Evaluation System Used 9. Name of Local Site Assessment System 10. Date Land Evaluation Returned by NRCS

**PART III (To be completed by Federal Agency)** Alternative Corridor For Segment

|                                                                   | W.O | WVR | E.O | E.R |
|-------------------------------------------------------------------|-----|-----|-----|-----|
| A. Total Acres To Be Converted Directly                           |     |     |     |     |
| B. Total Acres To Be Converted Indirectly, Or To Receive Services |     |     |     |     |
| C. Total Acres In Corridor                                        | 0   | 0   | 0   | 0   |

**PART IV (To be completed by NRCS) Land Evaluation Information**

|                                                                                    | W.O   | WVR   | E.O   | E.R  |
|------------------------------------------------------------------------------------|-------|-------|-------|------|
| A. Total Acres Prime And Unique Farmland                                           | 22.24 | 20.66 | 11.83 | 9.52 |
| B. Total Acres Statewide And Local Important Farmland                              | 1.98  | 1.98  | 0     | 0    |
| C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted            |       |       |       |      |
| D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value |       |       |       |      |

**PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative Value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)**

**PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))**

| Maximum Points                                       | Western Orange | Western Red | Eastern Orange | Eastern Red |
|------------------------------------------------------|----------------|-------------|----------------|-------------|
| 1. Area in Nonurban Use                              | 15             | 10          | 10             | 10          |
| 2. Perimeter in Nonurban Use                         | 10             | 5           | 5              | 5           |
| 3. Percent Of Corridor Being Farmed                  | 20             | 10          | 10             | 10          |
| 4. Protection Provided By State And Local Government | 20             | 0           | 0              | 0           |
| 5. Size of Present Farm Unit Compared To Average     | 10             | 0           | 0              | 0           |
| 6. Creation Of Nonfarmable Farmland                  | 25             | 0           | 0              | 0           |
| 7. Availability Of Farm Support Services             | 5              | 5           | 5              | 5           |
| 8. On-Farm Investments                               | 20             | 0           | 0              | 0           |
| 9. Effects Of Conversion On Farm Support Services    | 25             | 0           | 0              | 0           |
| 10. Compatibility With Existing Agricultural Use     | 10             | 0           | 0              | 0           |
| <b>TOTAL CORRIDOR ASSESSMENT POINTS</b>              | <b>160</b>     | <b>0 30</b> | <b>0 30</b>    | <b>0 30</b> |

**PART VII (To be completed by Federal Agency)**

|                                                                           |            |              |              |              |
|---------------------------------------------------------------------------|------------|--------------|--------------|--------------|
| Relative Value Of Farmland (From Part V)                                  | 100        | 100          | 100          | 100          |
| Total Corridor Assessment (From Part VI above or a local site assessment) | 160        | 0 30         | 0 30         | 0 30         |
| <b>TOTAL POINTS (Total of above 2 lines)</b>                              | <b>260</b> | <b>0 130</b> | <b>0 130</b> | <b>0 130</b> |

1. Corridor Selected: 2. Total Acres of Farmlands to be Converted by Project: See part IV 3. Date Of Selection: 4. Was A Local Site Assessment Used? YES  NO

5. Reason For Selection:

Signature of Person Completing this Part: [Signature] DATE 6/10/11

NOTE: Complete a form for each segment with more than one Alternate Corridor

## **APPENDIX E**

### **Public Involvement Synopsis**





## PUBLIC INVOLVEMENT SYNOPSIS

**Job Number 080164**  
**Hwy. 7 Improvements (Dover)**  
**Pope County**  
**April 8, 2010**

An open forum Public Involvement Meeting was held for the proposed Highway 7 Improvements project at the Dover Middle School from 4:00 p.m. – 7:00 p.m. on April 8, 2010. Efforts to involve minorities and the public in the meeting included:

- Display advertisement placed in *The Courier* on Sunday, March 28, 2010 and Sunday, April 4, 2010.
- Distribution of flyers in the project area.

The following information was available for inspection and comment at the meeting.

- Three copies of an aerial photograph display showing the proposed alternative corridors at a scale of one-inch equals 230 feet.

Handouts for the public included a comment sheet and a small-scale map illustrating the proposed corridors, which was identical to the aerial photograph display. Copies are attached.

A discrepancy between the numbering of the alternative corridors on the map handout and the survey form was discovered during the meeting. It is believed that it did not impact the survey results because it became apparent that people were identifying the alternative corridors by color instead of number, and the color designations were consistent between the handout map and survey form.

Table 1 describes the results of the public participation at the meeting.

| TABLE 1                                      |        |
|----------------------------------------------|--------|
| Public Participation                         | Totals |
| Attendance at meeting (including AHTD staff) | 86     |
| Total comments received                      | 32     |

*AHTD staff reviewed all comments received and evaluated their contents. The summary of comments listed below reflects the personal perception or opinion of the person or organization making the statement. The sequencing of the comments is random and is not intended to reflect importance or numerical values. Some of the comments were combined and/or paraphrased to simplify the synopsis process.*

An analysis of the responses received as a result of the public survey is shown in Table 2.

| TABLE 2                            |        |
|------------------------------------|--------|
| Survey Questions                   | Totals |
| Supports improvements to Highway 7 | 24     |
| Opposes improvements to Highway 7  | 5      |
| Favors existing corridor           | 5      |
| Favors yellow corridor             | 7      |
| Favors green corridor              | 5      |
| Favors red corridor                | 5      |

Comments concerning issues associated with the proposed project were as follows:

Supporting improvements to Highway 7

- Commercial traffic on Highway 7 needs to be routed around downtown Dover.
- Highway 7 is too narrow and the curve at Highway 27 is hard for trucks.

Opposing improvements to Highway 7

- This project will have a negative impact on the businesses and the City of Dover.
- Dover depends greatly upon the business of travelers.

Existing Corridor

- It would help preserve the downtown business district.

Green Corridor

- Closest route that could provide connections to other streets in the city.
- Less floodplain impacts.

Yellow Corridor

- Less impact on existing homes.

Red Corridor

- It makes the road straighter.

A letter was also received from Dover Mayor Bradley that stated his reservations about the proposed project due to his belief that it would have a negative impact on existing businesses in Dover.

Attachments: Public handouts, including comment form  
Small-scale aerial photograph display

DN:ym

RJ   
BP 

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT (AHTD)**

**CITIZEN COMMENT FORM**

**AHTD JOB NUMBER 080164  
Hwy. 7 Improvements (Dover)  
POPE COUNTY**

**LOCATION:  
DOVER MIDDLE SCHOOL  
Fine Arts Building (Cafeteria)  
170 COLLEGE ST.  
DOVER, AR  
4:00 – 7:00 P.M.  
THURSDAY, APRIL 8, 2010**

Make your comments on this form and leave it with AHTD personnel at the meeting or mail it within 15 days to: Arkansas State Highway and Transportation Department, Environmental Division, Post Office Box 2261, Little Rock, Arkansas 72203-2261.

Yes    No  
     Do you feel there is a need for the proposed improvements to Highway 7 in Dover? Comment (optional) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

    Do you know of any historical sites, family cemeteries, or archaeological sites in the project area? Please note and discuss with staff. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

    Do you know of any environmental constraints, such as endangered species, hazardous waste sites, gas wells, existing or former landfills, or parks and public lands in the vicinity of the project? Please note and discuss with AHTD staff. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

    Does your home or property offer any limitations to the project, such as septic systems, springs or wells that the Department needs to consider in its design? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

(Continue on back)

Yes No

Do you have a suggestion that would make this proposed project better serve the needs of the community? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Do you feel that the proposed improvements to Hwy. 7 will have any impacts ( Beneficial or  Adverse) on your property and/or community (economic, environmental, social, etc.)? Please explain. \_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Which corridor would you prefer?

- Existing Corridor (Blue)                       Corridor 1 (Green)
- Corridor 2 (Yellow)                               Corridor 3 (Red)

Why is that your preference? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

It is often necessary for the AHTD to contact property owners along potential routes. If you are a property owner along or adjacent to the route under consideration, please provide information below. Thank you.

Name : \_\_\_\_\_ (Please Print)

Address: \_\_\_\_\_ Phone: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

E-mail: \_\_\_\_\_

Please make additional comments here. \_\_\_\_\_

\_\_\_\_\_  
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