

Highway 199 Expressway Upgrade Project

Revised Right-of-Way Technical Report

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October, 2006

Project Alternatives

Alternative A

Midway Avenue to Dowell Road

This segment has the following design features:

- Highway 199 would continue to have four travel lanes (two in each direction) but a median barrier would be added between the eastbound and westbound lanes. From Midway Avenue to the Rogue Community College entrance, the barrier would be an approximately 42-inch high concrete median barrier. This median barrier would transition to a median curb (approximately 8 inches high) in the vicinity of the Rogue Community College entrance. The median curb would continue east to Dowell Road.
- The existing configuration of the Highway 199 at Midway Avenue intersection would remain two through lanes in each direction and left-turn-only and right-turn-only lanes from Highway 199 north and south onto Midway Avenue . Improvements to this intersection would include widening Highway 199 to accommodate u-turn movements.
- Arbor Ridge Drive, Dawn Drive, and various private driveways would be restricted to right in/right out movements due to the median barrier along Highway 199. A new driveway collector nearly 500 feet long would also be constructed east from Dawn Drive.
- The entrance to Rogue Community College from eastbound Highway 199 would have a deceleration lane for right turns into the college. Entrance to the college from westbound on Highway 199 would be from a left-turn-only lane. Exit from the college would be right out only.
- A portion of the South Highline Canal adjacent to the southeast corner of the intersection of Highway 199 and the Rogue Community College entrance would be realigned for about 150 feet.
- Highway 199 at the intersection with Hubbard Lane would include left-turn-only lanes, two through lanes, and right-turn-only lanes in both directions. U-turns would be permissible. This intersection would be constructed to accommodate a future traffic signal once traffic conditions warrant signal installation.
- Hubbard Lane would be improved to City of Grants Pass design standards (including a planter strip and sidewalk along both sides) south of Highway 199 . The southern-most 400 feet of Hubbard Lane would be realigned to create a new intersection with Demaray Drive. The existing intersection of Hubbard Lane and Demaray Drive would be closed and made into a cul-de-sac.
- A separated bicycle and pedestrian shared use path would be constructed along the north side of Highway 199 between Hubbard Lane and Dowell Road. The existing bicycle and

pedestrian shared use path along the south side of Highway 199, beginning at the Rogue Community College entrance and continuing east past Dowell Road, would be reconstructed.

- Highway 199 at the intersection with Willow Lane would remain two through lanes in each direction, right-turn-only lanes in both directions, and median curb allowing left-turn-only from a dedicated turn pocket for westbound traffic. Eastbound traffic would continue to be prohibited from making left-turns. Willow Lane would continue to be right in/right out only north and south of Highway 199.
- Highway 199 at the intersection with Dowell Road would continue to be signalized. It would include left-turn-only and right-turn-only lanes off Highway 199.

Dowell Road to Josephine County Fairgrounds Entrance

This segment of has the following design features:

- At Dowell Road, Highway 199 would transition from four travel lanes to six travel lanes with median curb continuing between the eastbound and westbound lanes .
- The intersection of Highway 199 and Allen Creek Road would be signalized and include the following features:
 - Eastbound Highway 199 would have three through lanes, one left-turn-only lane, and one right-turn-only lane.
 - Westbound Highway 199 would have three through lanes, with the right hand lane also allowing for right turns, and two left-turn-only lanes.
 - Northbound Allen Creek Road would have one through lane, two left-turn-only lanes, and one right-turn-only lane.
 - Southbound Allen Creek Road would have one combined through and right-turn lane and two left-turn-only lanes.
- Allen Creek Road would be extended approximately 250 feet north of the existing Redwood Avenue where it currently ends at a “T” intersection. Sidewalks would be added on both sides of Allen Creek Road and u-turns would be permissible at the intersection of Allen Creek Road, Redwood Avenue, and the new access road. This new intersection would be signalized and:
 - Northbound from Allen Creek Road would have one through lane and one left-turn-only lane.
 - Eastbound from a realigned Redwood Avenue would have no through lanes, one left-turn-only lane, and two right-turn-only lanes.
 - Southbound from a new access road would have a combined through lane and right-turn lane.

- Westbound from a realigned westbound Highway 199 slip ramp would have one through lane, one left-turn-only lane and one right-turn-only lane.
- To connect with the new extension of Allen Creek Road, Redwood Avenue would be realigned starting just west of Redwood Circle. The realigned portion of Redwood Avenue would curve to the north. The remaining portion of Redwood Avenue east of the new curve would cul-de-sac just before Allen Creek Road and properties along this stretch would use this road to access the realigned Redwood Avenue at a new signalized intersection with Redwood Circle.
- A new local street would be constructed to connect Daisy Lane with Redwood Circle; thereby providing properties along Daisy Lane access to Redwood Avenue.
- Access to the Josephine County Fairgrounds, the YMCA, and other county-owned parcels east of the YMCA would be from Pansy Lane with some reconnection work performed during construction of the project.
- A realigned one-way slip ramp from westbound Highway 199 would be constructed. This slip ramp would allow westbound traffic to either continue through the new Allen Creek Road intersection to the realigned Redwood Avenue, turn right onto the new access road, or turn left towards the Highway 199 at Allen Creek Road intersection.
- The existing signal at the Highway 199 at Redwood Avenue intersection would be removed.
- The existing separated bicycle and pedestrian shared use path along the south side of Highway 199, which begins at the Rogue Community College entrance, would continue east to Nebraska Avenue.
- A bike lane along the north side of Highway 199 between the Redwood Avenue slip ramp and the Fairgrounds entrance, and continuing east to Tussey Lane, would be striped on the roadway shoulder.
- A bike lane would be added along the south side of Highway 199 between Allen Creek Road and Ringuette Street and would be striped on the roadway shoulder.
- Sidewalk, separated by a planter strip, would be added to the north side of Highway 199 from the Redwood Avenue slip ramp to Tussey Lane. A sidewalk would be added to the south side of Highway 199 from Allen Creek Road to Ringuette Street.

Josephine County Fairgrounds Entrance to Tussey Lane

This segment has the following design features:

- This segment of Highway 199 would provide six travel lanes with median curb continuing between the eastbound and westbound lanes.

- Where permitted, direct access to Highway 199 would be right in/right out only. Curb and a detached sidewalk would be constructed along the westbound portion of Highway 199. Access would be defined by driveways with some shared between parcels.
- The existing signal at the intersection of Highway 199 and the Josephine County Fairgrounds entrance would be removed and traffic movements would be restricted to right in/right out. The new access road would provide a new, additional access point for fairgrounds traffic.
- The intersection of Highway 199 and Ringuette Street would continue to be signalized and include the following features:
 - Westbound Highway 199 would have three through lanes, one left-turn-only lane, and one free flowing right-turn-only lane.
 - Eastbound Highway 199 would have three through lanes, two left-turn-only lanes, and one right-turn-only lane.
 - Northbound Ringuette Street would have one through lane, two left-turn-only lanes, and one right-turn-only lane.
 - Southbound Ringuette Street would have one through lane, one left-turn-only lane, and one right-turn-only lane.
 - A left-turn-only lane would be added to southbound Ringuette Street at the intersection with Union Avenue.
- Henderson Lane and Tussey Lane would continue to provide access to Highway 199 and traffic would continue to be restricted to right in/right out movements due to median curb along Highway 199.
- A sidewalk, separated from Highway 199 by a planter strip, would continue along the north side of Highway 199 between the Fairgrounds entrance and Tussey Lane. A sidewalk would also be constructed along both sides of Ringuette Street north of Highway 199 for approximately 300 feet. A sidewalk along the south side of Highway 199 would continue from Allen Creek Road to Ringuette Street.
- The bike lane striped on the roadway shoulder along the north side of Highway 199, starting at Allen Creek Road, would continue between the Fairgrounds entrance and Tussey Lane. The bike lane striped on the roadway shoulder along the south side of Highway 199, starting at Allen Creek Road, would continue to Ringuette Street.

Alternative C

Midway Avenue to Dowell Road

This section of Alternative C has the same design features as Alternative A.

Dowell Road to Josephine County Fairgrounds Entrance

This segment has the following design features:

- At Dowell Road, Highway 199 would transition from four travel lanes to six travel lanes with median curb continuing between the eastbound and westbound lanes. There would be no direct access to Highway 199 from businesses or residences.
- The intersection of Highway 199 and Allen Creek Road would be signalized and include the following features:
 - Eastbound Highway 199 would have three through lanes, one left-turn-only lane and one right-turn-only lane.
 - Westbound Highway 199 would have three through lanes, two left-turn-only lanes and two right-turn-only lanes. The right-turn-only lanes would be signalized. The right-turn-only lanes would begin approximately 700 feet east of the intersection to enable vehicle queuing when the signal is red.
 - Northbound Allen Creek Road would have two through lanes, one left-turn-only lane, and one right-turn-only lane.
 - Southbound Allen Creek Road would have one combined through and right-turn lane and two left-turn-only lanes.
- Allen Creek Road, north of Highway 199 would be curved slightly to the west to connect with a new three-legged signalized intersection with a realigned Redwood Avenue and a new access road. This intersection would include the following features:
 - Northbound Allen Creek Road would have two through lanes and one right-turn-only lane.
 - Southbound realigned Redwood Avenue would have two through lanes and one left-turn-only lane.
 - Westbound new access road would have one left-turn-only lane and one right-turn-only lane.
- To connect with the new Allen Creek Road intersection, Redwood Avenue would be realigned and curved north just west of Redwood Circle.

- A new four-legged signalized intersection with Redwood Avenue and Redwood Circle would provide access to the properties located along the old Redwood Avenue alignment between Redwood Circle and Allen Creek Road. This intersection would also provide access to those properties north along Redwood Circle. In addition, a new local street would be constructed connecting Daisy Lane with Redwood Circle; thereby providing properties along Daisy Lane access to Redwood Avenue. This intersection would include the following features:
 - Eastbound realigned Redwood Avenue would have one through lane and one left-turn-only lane.
 - Westbound realigned Redwood Avenue would have one through lane, one combined through and right-turn lane, and one left-turn-only lane.
 - Southbound Redwood Circle would include one combined through and right-turn lane and one left-turn-only lane.
 - Northbound Redwood Circle would have one combined through and right-turn lane and one left-turn-only lane.
- Access to the Josephine County Fairgrounds, the YMCA, and other Fairground parcels east of the YMCA would be from Pansy Lane with some reconnection work being done during the construction project.
- Access to properties along the old Redwood Avenue alignment between Allen Creek Road and the Fairgrounds would be at an intersection with a new access road and Pansy Lane. Cul-de-sacs would be constructed on either end of this portion of the old Redwood Avenue alignment. Properties along Flower Lane would have access via a new local street connection between Flower Lane and Pansy Lane. From all four directions, this intersection would have a combined through and right-turn lane and a left-turn-only lane. Stop signs would be placed on the Pansy Lane and Redwood Avenue access sides of the intersection .
- The existing signal at the intersection of Redwood Avenue and Highway 199 would be removed and access to Redwood Avenue from westbound Highway 199 would be from the two right-turn-only lanes at the Allen Creek Road intersection.
- The existing separated bicycle and pedestrian shared use path along the south side of Highway 199, which begins at the Rogue Community College entrance, would continue east to Nebraska Avenue.
- A bike lane would be added along the north side of Highway 199 between Allen Creek Road and the Fairgrounds entrance, and continuing east to Tussey Lane, it would be striped on the roadway shoulder.

- A bike lane would be added along the south side of Highway 199 between Allen Creek Road and Ringuette Street and would be striped on the roadway shoulder.
- Sidewalk, separated by a planter strip, would be added to the north side of Highway 199 from Allen Creek Road to Tussey Lane. A sidewalk would be added to the south side of Highway 199 from Allen Creek Road to Ringuette Street.

Josephine County Fairgrounds Entrance to Tussey Lane

This section of Alternative C has the same design features as Alternative A.

Project Limits Description

Right-of-way estimates were prepared based on mapping and spreadsheets provided by Parsons Brinckerhoff Quade and Douglas, Inc. (PB) dated August 28, 2006, and revised assumptions resulting from a meeting with the Area Manager, Project Leader, Environmental Project Manager, and ODOT Designer on September 27, 2006, when it was decided that the access road to the Fairgrounds would be eliminated from both Alternatives A and C.. Project limits addressed in this report extend from Tussey Lane to Midway Avenue in Grants Pass and Josephine County.

Right-of-Way Methodology

Standard ODOT Right-of-Way liaison procedures for estimating impacts were used for this project report. The report is prepared from general information since final design work has not been done at this phase of the project. The conclusions within this report have been made using PB prepared spreadsheets and concept design footprints on aerial mapping as well as county assessor taxlot, zoning, and comprehensive plan maps. The potential project effects on the various parcels have been considered after a field review of each of the properties that would be impacted. No relevant information about septic systems, wells or other private water systems were indicated on the information provided by PB, and none were noted during the field work. Any septic systems or wells that are found to be in the acquisition area will be dealt with during the appraisal and acquisition process. Other utilities will be relocated as necessary during construction.

When the project proceeds to the acquisition phase, property owners will be offered Just Compensation for the required rights-of-way. Just compensation is based on the valuation of the needed property and an estimation of the compensable economic damages to the remaining property and improvements. The valuation process will be conducted either by an experienced and qualified employee of ODOT or by an independent fee appraiser under contract with ODOT. Department procedures, guided by Federal Regulations and Oregon law, have been designed to protect both owners of properties needed for highway rights-of-way as well as other taxpayers.

This project will be affecting access to many properties. Reasonable access would be provided to each property or damages, if compensable, would be determined by the appraisal process. A landlocked property owner would be offered the appraised value for the loss of access. In some cases, access would be eliminated from an existing location for safety or traffic control reasons. If there is alternate, reasonable access to the remainder, there may be no compensable damage.

Median barriers would be added to some sections of the highway thereby changing full ingress/egress to the highway to right-in/right-out movements. This restriction of access is within ODOT's regulatory powers, and no compensable damages can be appraised.

Properties that have access reservations at locations where the approach to the highway would be closed would be compensated for the transfer of the reservation property right based on an appraisal of the property before and after acquisition of the reservation.

When an ODOT permitted approach to the highway is closed, the property owner may be eligible for a discretionary remedy to correct internal circulation issues. The remedy consideration is required by SB 86, but it is offered at the discretion of ODOT. If a remedy is considered appropriate, the offer would be determined by a qualified ODOT employee based on contractor bids, but the remedy determination is neither negotiable nor can it be appealed.

The property appraisals for Just Compensation include determining if there is compensation due for impacts to the remainder and the amount of that compensation. As a result of acquisition for needed project right-of-way, parcels may be left, in some cases, with uneconomic remnants. An uneconomic remnant is the remaining part of a property not needed by the project that is determined to have little or no utility or value to the current owner. If the acquisition of only a portion of property would leave the owner with an uneconomic remnant, ODOT would offer to acquire the uneconomic remnant along with the portion of the property needed for the project.

Acquired property rights will be appraised at fair market value. Easements and encumbrances affecting the use and development of the property being appraised will be considered. The property will be appraised at its highest and best use, considering its legal and economic utility and desirability. The appraiser will disregard any increase or decrease in the fair market value of real property that is caused by the public improvement for which the property is to be acquired, or by the likelihood that the property would be acquired for such improvement. Value decrease due to physical deterioration within the reasonable control of the owner must be considered in determining the compensation for the property.

For those displaced by the project, ODOT provides a relocation assistance program. The "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" and the "Uniform Relocation Act Amendments of 1987" insure the fair and equitable relocation and re-establishment of persons, businesses, farms and nonprofit organizations displaced as a result of federal or federally assisted programs. This is done so that displaced persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. No project shall be advertised for construction until all eligible residential displaces have either obtained or have the right of possession to comparable replacement housing, or have been offered comparable replacement housing which is within their financial means and available for immediate occupancy. Eligible businesses and nonprofit organizations displaced by the project will also be offered relocation benefits. Replacement housing will be open to all persons regardless of race, color, religion, sex, or national origin, in conformance to Title VIII of the U.S. Civil Rights Act of 1968.

Eligible residential owners and renters displaced by the project may qualify for benefits which may include, but are not limited to, a Rent Supplement, a Housing Additive, including some incidental closing costs, cost to move personal property, and temporary storage of personal property.

Eligible displaced businesses may qualify for relocation benefits, including moving cost reimbursement in addition to limited reimbursements for business reestablishment, which is capped at \$10,000, and site-search expenses. Alternatively a “fixed payment” amount, which is capped at \$20,000, would also be available for qualifying businesses displaced by the project.

Off-premise signs (billboards) that are impacted may be eligible to be moved with relocation benefits.

Lawful occupants shall not be required to move unless they have received at least 90-days advance written notice of the earliest date by which they may be required.

An appeal process has been established for any relocates disputing any relocation eligibility or claim rulings.

Additional general information about ODOT’s acquisition process and relocation assistance program can be found in two pamphlets available through the department: *Acquiring Land for Highways* and *Public Projects* and *Moving Because of the Highway or Public Projects?*. Information is also available on the ODOT home page on the internet.

Project Impacts

The proposed right-of-way for the two build alternatives, Alternative A and Alternative C, will be examined in terms of the estimated number of parcels affected, the total project areas required, the types of affected properties, and the property impacts.

Estimated Number of Parcels Affected

Mapping and spreadsheets from PB includes 129 numbered properties, but some of those properties appear to have no impacts. The number of impacted properties as judged from the aerial mapping, a field inspection, and revised assumptions based on 9/27/06 meeting are as follows:

| | |
|----------------------|----------------------|
| <u>Alternative A</u> | <u>Alternative C</u> |
| 120 | 116 |

Estimated Total Area Required

The following areas were based on the original mapping and spreadsheets provided by Parsons Brinckerhoff Quade and Douglas, Inc. (PB) dated August 28, 2006, and eliminating the fee take and permanent easement areas for the portion of the access road from Pansy Lane to the Fairgrounds.

| | <u>Alternative A</u> | <u>Alternative C</u> |
|----------------------------|-----------------------|-----------------------|
| Fee Acquisition - | 506,388 sf (11.63 ac) | 465,245 sf (10.68 ac) |
| Slope & Utility Easement - | 33,835 sf (0.78 ac) | 32,685 sf (0.75 ac) |
| *Temporary Easement - | 22,637 sf (0.52 ac) | 36,886 sf (0.85 ac) |

*Temporary easement areas to reconnect access to Property Numbers 23B, 24, 25, 26, and 27 were assumed based on the fee areas shown on the spreadsheets for those properties.

Types of Affected Properties

The alternatives primarily affect properties zoned and improved as both commercial and residential. There are a few impacted vacant commercial and residential parcels.

Property Impacts and Assumptions

A large portion of the project involves strip takings along existing street and highway frontages with impacts to only landscaping, fencing, asphalt, parking, and signs on improved properties as well as relocation of personal property. However, in some cases property owners have been utilizing existing public right-of-way for parking or display, and no compensation nor relocation benefits are available when those uses are eliminated. On one property near the Hubbard Lane intersection, access cannot be reconnected to the parcel, and the resident would be displaced.

In the Allen Creek Road area north of the Redwood Highway and Redwood Avenue, there are greater impacts to both businesses and some residences. Both alternatives in the Allen Creek area have several displacements of businesses and some residences. A few properties would be entire takings from a combination of the roadway impacts and water quality treatment requirements.

The road originally proposed to provide access to the Josephine County Fairgrounds was eliminated from the alternatives based on the 9/27/06 meeting referenced previously. Some reconnection construction may be required to provide continued access to the YMCA and other small taxlots between the YMCA and the Fairgrounds main gate. It is assumed that the fee take areas shown on the original mapping would be a temporary easement for work area for any reconnection work necessary.

Based on the 9/27/06 meeting, it is assumed that a retaining wall would be constructed, if necessary, to prevent impact to the Dutch Bros. drive aisle on the southwest side of the building. Based on the 9/27/06 meeting, it is assumed that the Chevron station at the northwest corner of Redwood Highway and Ringuette would have room for adequate circulation on the site after construction as shown by the modeling done by Jason Sheadel.

Based on the 9/27/06 meeting, it is assumed that the connector road between Redwood Circle and Daisy Lane on Alternative C would impact only the driveway of the Stork's Nest Womens Healthcare property, and the parking will not be impacted.

Displacement –Relocations

The following are potential displacement-relocations of residents and businesses by the two proposed alternatives. Final determination of displacement impacts on some sites will not be possible until a full appraisal can be completed on the individual properties at the time of right-of-way acquisition. There are two potential low-income residential tenant displacement-relocations that could include "Housing of Last Resort". Housing of Last Resort refers to a special category of residential relocations requiring utilization of atypical alternatives. There were a few vacant commercial buildings, which if occupied at the time of acquisition, would require business

displacements, but for purposes of this report, they were assumed to be vacant and not requiring relocation. Two businesses located on the Josephine County property on Redwood Avenue that was purchased with gas tax money became tenants after the county purchased the property in 1991, and their leases state that they can be terminated with six-month notice, so those two businesses, if impacted, would not be eligible for relocation benefits. The third business on the property, Bear Distributors, has occupied the property since 1985. Since they were tenants when the county purchased the property, they are eligible for relocation benefits as required by Oregon law and Federal regulations.

| | <u>Alternative A</u> | <u>Alternative C</u> |
|--------------------------------------|--|--|
| <u>Midway- Dowell -</u> | 1 residential relocation | 1 residential relocation |
| <u>Dowell-Fairgrounds Entrance -</u> | 4 residential relocations 6 business relocations | 2 residential relocations 7 business relocations |
| <u>Fairgrounds Entrance-Tussey -</u> | 0 residential relocations <u>2 business relocations</u> | 0 residential relocations <u>2 business relocations</u> |
| Total Potential Relocations - | 5 residential relocations 8 business relocations | 3 residential relocations 9 business relocations |

Displacement-Relocation Projections

Grants Pass has an active real estate market. There is some perception that commercial land is getting scarce, but conversation with the Grants Pass Planning Director indicated that there may be an adequate supply. Currently, some new business developments are remodeling older buildings and demolishing outdated improvements to redevelop. This redevelopment could be an option for displaced businesses. The city is beginning an anticipated three-year process to quantify the existing buildable land inventory, analyze the data, and potentially expand the Urban Growth Boundary. The city has a BP zone, which allows some commercial uses to be developed, thereby increasing the availability of market replacement options for displaced businesses. A brief review of the housing market in the Grants Pass/Josephine County area indicates that there is currently an adequate supply of replacement single-family housing available. The right-of-way relocation program would assure that comparable or better housing is available to the displaced.

Business Displacement-Relocation Projections

The following is a list of potential business displacements based on the current project mapping and spreadsheets:

Alternative A

Midway to Dowell Road

- None

Dowell to Fairgrounds

- O' Aces & Between the Buns, 1320 Redwood Ave.
- Auto Wheel Corp., 1258 Redwood Ave.
- Bear Distributors
- Redwood Market, 1201 Redwood Ave.
- River City BMX, 1202 Redwood Ave.

Fairgrounds to Tussey

- Moser Paving Office, 650 Redwood Hwy
- Dan'l Boones Trading Post, 470 Redwood Hwy

Alternative C

Midway to Dowell Road

- None

Dowell to Fairgrounds

- O' Aces, Between the Buns & Stone County USA, 1320 Redwood Ave.
- Auto Wheel Corp, 1258 Redwood Ave.
- Hasl Independent Living Center, 1252 Redwood Ave.
- Redwood Market, 1201 Redwood Ave.
- River City BMX, 1202 Redwood Ave.

Fairgrounds to Tussey

- Moser Paving Office, 650 Redwood Hwy
- Dan'l Boones Trading Post, 470 Redwood Hwy

Right-of-Way Cost Estimates

Potential project impacts and revised assumptions from the 9/27/06 meeting referenced previously were assessed based on aerial mapping and spreadsheets dated 8/28/06 that were provided by PB. Right-of-way land costs were estimated using local real estate market data and assessor's records. A visual inspection was completed in the field to aid in determination of project impacts on individual parcels. The numbers given include not only a preliminary estimate of costs for real estate acquisition compensation, but also rough estimates of relocation, demolition, personnel and legal and incidental expenses. All estimates of real estate value have been prepared based on the premise that the property being purchased is free of contamination. If the project proceeds to right-of-way acquisition, and contamination is discovered on any of the properties, it would be dealt with at that time.

It is assumed that the proposed improvements would be constructed in phases over an unidentified period of time in the future. Due to unknowns regarding future market prices and inflation factors, all values are estimated in terms of today's dollar value. No attempt will be made to adjust for unknown future market inflation or deflation rates.

The estimates are based on the assumption that the City of Grants Pass will not require businesses to replace impacted landscaping that had been required at the time of development if replacement would cause additional damage to the property.

Right-of-way impacts due to utility and drainage impacts were not addressed as design is not yet at that level. Additional impacts to properties as a result of utility or drainage issues would necessarily increase projected estimated costs. The estimated costs do not include any specific acquisition for wetland mitigation or water quality treatments.

Projected Right-of-Way Cost Estimates

Alternative A

| | |
|------------------------------|----------------|
| <i>Midway to Dowell Road</i> | - \$ 2,623,640 |
| <i>Dowell to Fairgrounds</i> | - 11,200,803 |
| <i>Fairgrounds to Tussey</i> | - 1,356,936 |
| Total | \$15,181,379 |

Alternative C

| | |
|------------------------------|----------------|
| <i>Midway to Dowell Road</i> | - \$ 2,623,640 |
| <i>Dowell to Fairgrounds</i> | - 11,401,197 |
| <i>Fairgrounds to Tussey</i> | - 1,356,936 |
| Total | \$15,381,773 |

Conclusions and Recommendations

On a project of this size and complexity, a minimum of two years should be allowed for right-of-way acquisition for each phase. The time frame should start when the acquisition descriptions are provided to the right-of-way staff as time consuming appraisal and relocation work is involved.

Utility work phasing would rely on right-of-way acquisitions and relocations being completed prior to utilities being able to relocate their facilities in advance of the construction work. It is recommended that a project timeline be laid out, reviewed and coordinated with all technical resources prior to selection of a let date. A poor early estimate of timeline and coordination of phasing for right-of-way and utilities could easily cost millions and cause lengthy delays in project letting.

Any Intergovernmental Agreement with local government agencies should also be in place prior to the commencement of the project.