## EASt $3^{\text {RD }}$ Street Extension Alignment Study Report

Prepared for:


City of Meridian


Prepared by:
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## INTRODUCTION

The City of Meridian (City) and the Meridian Development Corporation (MDC) retained Six Mile Engineering to complete an alignment study for the extension of East $3^{\text {rd }}$ Street between Carlton Avenue and Fairview Avenue. The Ada County Highway District (ACHD) was a cooperating agency for the study.

The study area, shown in Figure 1, extends to Carlton Avenue on the south, Fairview Avenue on the north, Main Street on the west, and East $5{ }^{\text {th }}$ Street on the east.

## Study Objectives

The objective of this study is to identify an alignment for the extension of East $3^{\text {rd }}$ Street from Carlton Avenue north to Fairview Avenue. Identifying a roadway alignment will allow the City, MDC, ACHD, and the public to preserve the corridor and work toward implementation in conjunction with future development in the study area. Solidifying the alignment of this roadway will also provide certainty to property owners about what to expect in the future.

## Study Approach

This study reviewed the existing roadway network and operations to develop potential alignment alternatives for the roadway extension. Planning-level horizontal alignments and roadway crosssections were developed for each alternative and presented to stakeholders and the public for input. Based on comments received at these meetings, the alignments and cross-sections were further refined. An alternative analysis matrix was utilized to select the recommended alignment alternative.

## BACKGROUND CONDTIONS

## Existing Roadway Network

Within the study area there are several non-continuous streets that create a barrier to vehicular, pedestrian and bicycle mobility throughout downtown Meridian.


Figure 1. Study Area

## East $3^{\text {RD }}$ Street Extension Alignment Study Report

East $5^{\text {th }}$ Street north of Carlton Avenue becomes a private roadway as it enters the Creekside Arbor development. East $3^{\text {rd }}$ Street and East $4^{\text {th }}$ Street have intermittent roadway segments broken by undeveloped parcels. East $2 ½$ Street begins at Carlton and continues north to Fairview Avenue. East $2^{\text {nd }}$ Street terminates at Carlton Avenue.

The only existing railroad crossing between Main Street and Locust Grove Road is the East $3^{\text {rd }}$ Street crossing. As a result, extending East $3^{\text {rd }}$ Street north to Fairview Avenue, would create the only continuous north-south roadway segment from Franklin Road to Fairview Avenue between Main Street and Locust Grove Road.

Continuous east-west routes within the study area are limited to Carlton Avenue and Fairview Avenue. Washington Avenue and Badley Avenue are continuous between East $21 / 2$ Street and East $5^{\text {th }}$ Street; however, neither segment extends to Main Street. Gruber Avenue connects East $21 / 2$ Street with a non-continuous segment of East $3^{\text {rd }}$ Street.

## Existing Traffic Operations

Stop signs are currently utilized at the following intersections (please note that intersections are described below such that the first street listed is stop-controlled and the second street is uncontrolled):

- East $21 / 2$ Street and Carlton Avenue
- Washington Avenue and East $21 / 2$ Street
- Badley Avenue and East $21 / 2$ Street
- Gruber Avenue and East $21 / 2$ Street
- East $21 / 2$ Street and Fairview Avenue
- East $3^{\text {rd }}$ Street and Fairview Avenue


Figure 2. Existing $3^{\text {rd }}$ Street Termination at Carlton Avenue

All other intersections in the study area, with the exception of those on Main Street and East $5^{\text {th }}$ Street, are uncontrolled.

Most roadways in the study area have one lane in each direction and adequate right-of-way for onstreet parking. The two exceptions are Carlton Avenue and Washington Avenue between East $4^{\text {th }}$ Street and East $21 / 2$ Street. These segments of Carlton Avenue and Washington Avenue have narrow cross-sections that limit parking and slow two-way traffic progression.

## EVALUATION CRTERIA

The following evaluation criteria were used to determine the recommended alignment alternative. A summary of the evaluation criteria ranking for each alternative is included in the Alternative Analysis section of the report and supporting information is located in the Appendices.

## Public and Stakeholder Involvement

Public outreach for this study was led by the City and MDC with support from ACHD and Six Mile Engineering. It consisted of two stakeholder involvement meetings and one public involvement

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meeting. The City, MDC, and ACHD conducted the two stakeholder meetings on February 21 and 22, 2008. The City, MDC, ACHD, and Six Mile Engineering conducted the public involvement meeting on April 16, 2008. Input from the public involvement process was utilized to refine alternative alignments, develop planning-level cross-sections, and assist in selecting the preferred alternative.

The Idaho Northern and Pacific Railroad (INPRR) was contacted separate from the stakeholder interviews to discuss the rail crossing on East $3^{\text {rd }}$ Street south of the study area. The INPRR noted sight restrictions on both sides of the crossing and suggested improving the signing and pavement markings when the alignment is constructed. The INPRR indicated that a gated crossing could be installed at this location at a planning-level cost range of $\$ 300,000$ to $\$ 500,000$. However, due to the proximity to the Main Street crossing, overlaps in the actuation may be problematic. As a result, the only improvements INPRR recommended were correcting the sight restrictions and updating the signing and pavement markings. The crossing should be re-evaluated with INPRR during project design to determine if additional safety measures are needed.

## Right-of-Way Cost Estimates

Right-of-way costs were used as an evaluation criterion for the alternative analysis. Estimated areas of right-of-way acquisition for each of the alignment alternatives were shown on the public involvement meeting exhibits. These areas and exhibits were utilized by ACHD to estimate right-of-way costs and to identify parcels requiring total acquisition.

In addition to right-of-way needed for the East $3^{\text {rd }}$ Street extension, right-of-way will also be needed for portions of East $2 ½$ Street, Carlton Avenue and Washington Avenue, as shown in Figure 3, for future roadway improvements. The existing property lines are yellow in the figure, and the proposed right-of-way acquisition lines are blue. This area is included in the right-of-way cost estimates for each alternative. Supporting data for right-ofway cost estimates are located in Appendix B and should be re-evaluated periodically to account for fluctuations in market values.


Figure 3. Right-of-Way Needed for Future Extensions of Carlton and Washington Avenues

## Construction Cost Estimates

Planning-level construction cost estimates were developed for each of the alignment alternatives and are included in Appendix B. Construction costs should be re-evaluated periodically to account for market fluctuations.

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Costs do not include intersection treatments at the Fairview Avenue intersection, which should be the same for all alignment alternatives. Traffic signal warrants and the resulting signal costs should be considered when programming the project funding.

## Qualitative Review of Traffic Operations

A qualitative review of traffic operations was conducted for each of the alignment alternatives. The analysis and rankings are located in Appendix C and the Alternatives Analysis section of this report.

## Consideration of Adopted and Active Plans

The extension of East $3^{\text {rd }}$ Street was first contemplated in the Downtown Meridian Transportation Management Plan (DMTMP), which was adopted by the City on August 23, 2005 and by ACHD on November 2, 2005. According to the Plan, "East $3^{\text {rd }}$ Street is and will continue to be an important street for downtown circulation. It should be improved as a significant collector for local traffic between Franklin Road and Fairview Avenue." The primary output of the DMTMP was the mutual selection by the City and ACHD of the Split Corridor as the preferred configuration for Main Street and Meridian Road through downtown Meridian.

The Meridian Road and Main Street Split Corridor - Phase 2 Traffic Study Report, dated August 25, 2008 analyzed the traffic impacts of extending East $3^{\text {rd }}$ Street to Fairview Avenue. The alignment alternatives do not affect the design of the Meridian Split Corridor Phase 2 Project.

The Fairview Avenue Concept Design, which was in process at the time of the final revisions to this report, included the Fairview Avenue and East $3^{\text {rd }}$ Street intersection. The results of the East $3^{\text {rd }}$ Street Extension Alignment Study Report should be considered in the access management plan and subsequent concept design for Fairview Avenue.

## ALTERNATIVE ANALYSIS

Three initial north-south alignment alternatives were scoped for inclusion in this study. A fourth alignment alternative was developed based on stakeholder input. The four alignment alternatives are:

- East $2 ½$ Street Alignment Alternative
- East $3^{\text {rd }}$ Street Alignment Alternative
- East $4^{\text {th }}$ Street Alignment Alternative - A
- East $4^{\text {th }}$ Street Alignment Alternative - B


## Roadway Cross-Sections

The cross-sectional components for the alignment alternatives are based on the ACHD's Draft Livable Street Design Guide as requested by the City, MDC,


Figure 4. Draft Livable Street Design Guide and ACHD. The Town Center Collector
(2.6) and the Residential Collector (2.10) were utilized for this study and minor modifications were made to accommodate the alignment alternatives. The cross-sectional components consist of the following elements along each alignment:

- Center Turn Lane - 11 ' wide for left-turns onto Fairview Avenue
- Travel Lanes
o 11' wide in tangent roadway sections
o 13' wide on turning roadways to provide over-tracking for WB-50 design vehicles
- Bike Lane - 5 ' wide from edge of travel lane to lip of gutter
- Curb and Gutter - 2' wide standard vertical curb and gutter
- Buffer - $6^{\prime}$ wide landscaping strip between sidewalk and curb, with detached sidewalk
- Sidewalk
o 5' wide attached sidewalk to minimize right-of-way impacts in areas where redevelopment may potentially reconstruct sidewalk
0 7' wide attached sidewalk to minimize right-of-way impacts
0 5' wide detached sidewalk
- Right-of-Way/Utility Buffer

0 2' right-of-way/utility buffer where new right-of-way is required.
0 1.5' right-of-way/utility buffer in areas where existing property lines are retained
The following exhibits illustrate the proposed roadway cross-sections. A brief description of where the cross-section is utilized along the roadway alignments precedes each figure. The Recommended East $3^{\text {rd }}$ Street Extension Alignment exhibit on page 14 displays the cross-section locations along the length of roadway.

## Cross-Section No. 1

Cross-Section No. 1 is utilized on the S-curve potions of each alignment alternative. The travel lanes are widened to provide width for over-tracking of the WB-50 design vehicle.


Figure 5. Cross-Section No. 1

## Cross-Section No. 2

Cross-Section No. 2 is utilized on straight roadway sections for all alternatives between Washington Avenue and Badley Avenue, except for the East $3^{\text {rd }}$ Street Alternative witch uses this cross-section in the vicinity of Badley Avenue.


Figure 6. Cross-Section No. 2

## Cross-Section No. 3

Cross-Section No. 3 is exclusively used on the East $3^{\text {rd }}$ Street Alternative between Washington Avenue and Badley Avenue. Detached sidewalks are utilized to maximize the use of the remaining right-of-way available from the total acquisition of two parcels located north of Washington Avenue.


## CROSS-SECTION NO. 3

TYPICAL SECTION WIDTHS SHOWN ARE THE MINIMMMS REQUIRED AND SHALL BE RE-EVALUATED DURING DESIGN OR PARCEL REDEVELOPMENT TO MEET THE APPLICABLE STANDARDS AT THAT TIME.

Figure 7. Cross-Section No. 3

## Cross-Section No. 4

Cross-Section No. 4 is used for all of the alignment alternatives except the East $4^{\text {th }}$ Street Alternative - A. This cross-section provides a left-turn lane to Fairview Avenue while retaining the existing property lines.


Figure 8. Cross-Section No. 4

## Cross-Section No. 5

Cross-Section No. 5 is used exclusively by the East $4^{\text {th }}$ Street Alternative - A. This cross-section provides a left-turn lane to Fairview Avenue and requires additional right-of-way.


Figure 9. Cross-Section No. 5

## East 2½ Street Alternative

The East $21 / 2$ Street Alternative begins at East $3^{\text {rd }}$ Street south of Carlton Avenue and shifts west to East $21 / 2$ Street. At Badley Avenue the alignment shifts back to East $3^{\text {rd }}$ Street. East 212 Street is closed with a cul-de-sac between Badley Avenue and Grubber Avenue, and the street is closed between Carlton Avenue and Washington Avenue. The following plan view of the alignment shows the existing property lines in yellow and the proposed right-of-way acquisition lines in blue.


Figure 10. East $\mathbf{2 ¹}^{1 / 2}$ Street Alternative

| Table 1- East 2 $1 ⁄ 2$ Street Alignment Alternative |  |
| :--- | :--- |
| Stakeholder Input: |  |
| Favorable | None |
| Unfavorable | Impacts to Cole Valley Christian School |
|  | Concerns with increased traffic adjacent to a school pedestrian route |
|  | Right-of-way constraints along East 2 $1 / 2$ Street |
|  | Property impacts to East 2½ Street and crossover |
|  | Concerns over reversing curves to connect to East 3 ${ }^{\text {rd }}$ Street |
| Public Input | Public concerns regarding school and parking |
| Estimated Right-of-Way Cost | $\$ 1,341,000$ |
| Estimated Construction Cost | $\$ 1,636,000$ |
| Traffic Operations | Ranked 4 of 4 |
| Adopted and Active Plans | Conforms to current adopted and active plans |

## East $3^{\text {RD }}$ Street Alternative

The East $3^{\text {rd }}$ Street Alternative begins at East $3^{\text {rd }}$ Street south of Carlton Avenue and proceeds north to the existing East $3^{\text {rd }}$ Street Alignment south of Badley Avenue and continues north at that bearing to Fairview Avenue. The following plan view of the alignment shows the existing property lines in yellow and the proposed right-of-way acquisition lines in blue.


Figure 11. East $3^{\text {rd }}$ Street Alternative

| Table 2 - East 3 3 $^{\text {rd }}$ Street Alignment Alternative |  |
| :--- | :--- |
| Stakeholder Input: | Relative straight alignment compared to the other alignments |
| Favorable |  |
|  | Most impacted property owners acceptable to acquisitions |
| Unfavorable | Impacts to one property owner on East 3 ${ }^{\text {ld }}$ Street |
| Public Input | Public support of alignment |
| Estimated Right-of-Way Cost | $\$ 1,296,000$ |
| Estimated Construction Cost | $\$ 1,465,000$ |
| Traffic Operations | Ranked 1 of 4 |
| Adopted and Active Plans | Conforms to current adopted and active plans |

## East $4^{\text {th }}$ Street Alternative - A

The East $4^{\text {th }}$ Street Alternative $-A$ begins at East $3^{\text {rd }}$ Street south of Carlton Avenue and shifts east to East $4^{\text {th }}$ Street. At Badley Avenue the alignment shifts slightly to the west to avoid commercial buildings as it continues to Fairview Avenue. However, the trailer park located north of Gruber Avenue is impacted. The following plan view of the alignment shows the existing property lines in yellow and the proposed right-of-way acquisition lines in blue.


Figure 12. East $4^{\text {th }}$ Street Alternative - A

| Table 3 - East $4^{\text {th }}$ Street Alignment Alternative - A |  |
| :--- | :--- |
| Stakeholder Input: |  |
| Favorable | Provides more separation from Main Street |
|  | Potential reduction in cut-through traffic at Creekside Arbor |
|  | Impacts Elm Grove Trailer Park |
|  | Loss of parking for Fairview Avenue business |
|  | Concerns over reversing curves to connect to East 3rd Street |
| Public Input | Mixed public feedback on right-of-way and roadway locations |
| Estimated Right-of-Way Cost | $\$ 1,467,000$ |
| Estimated Construction Cost | $\$ 1,682,000$ |
| Traffic Operations | Ranked 2 of 4 |
| Adopted and Active Plans | Conforms to current adopted and active plans |

## East $4^{\text {th }}$ Street Alternative - B

The East $4^{\text {th }}$ Street Alternative $-B$ begins at East $3^{\text {rd }}$ Street south of Carlton Avenue and shifts east to East $4^{\text {th }}$ Street. At Badley Avenue the alignment shifts back to East $3^{\text {rd }}$ Street before intersecting with Fairview Avenue. This alternative impacts the trailer park located north of Gruber Avenue. The following plan view of the alignment shows the existing property lines in yellow and the proposed right-of-way acquisition lines are shown in blue.


Figure 13. East $4^{\text {th }}$ Street Alternative - B

| Table 4 - East $4^{\text {th }}$ Street Alignment Alternative - B |  |
| :--- | :--- |
| Stakeholder Input: | Recommended by stakeholders, but not evaluated by all <br> stakeholders to the same extent as the other alignments |
| Favorable | Recommended by stakeholders, but not evaluated by all <br> stakeholders to the same extent as the other alignments |
| Unfavorable | Mixed public feedback on right-of-way and roadway locations |
| Public Input | $\$ 1,310,000$ |
| Estimated Right-of-Way Cost | $\$ 1,713,000$ |
| Estimated Construction Cost | Ranked 3 of 4 |
| Traffic Operations | Conforms to current adopted and active plans |
| Adopted and Active Plans |  |

## Analysis Matrix

The following table summarizes the alternative analysis and identifies a preferred alternative based on each of the evaluation criteria.

| Table 5 - Analysis Matrix |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Alignment Alternatives |  |  |  |  | Preferred Alternative |
|  | E. $211 / 2$ Street | E. $3^{\text {rd }}$ Street | E. $4^{\text {th }}$ Street -A | E. $4^{\text {th }}$ Street $-B$ |  |
| Stakeholder Input |  |  |  |  | E. 3 rd Street |
| Favorable | None | Relative straight alignment | Separation from Main Street | Not evaluated |  |
|  |  | Impacted property owners acceptable to acquisitions | Potential reduction in cut-through traffic |  |  |
| Unfavorable | Impacts to school | Impacts to one property owner | Impacts trailer park | Not evaluated |  |
|  | Right-of-way constraints |  | Loss of business parking |  |  |
|  | Property impacts |  | Reversing curves |  |  |
|  | Reversing curves |  |  |  |  |
| Public Input | Impacts to school and parking | Support of alignment | Mixed feedback on right-of-way and alignment | Mixed feedback on right-of-way and alignment | E. $3^{\text {rd }}$ Street |
| Estimated Right-of-Way Cost | \$1,341,000 | \$1,296,000 | \$1,467,000 | \$1,310,000 | E. $3^{\text {rd }}$ Street |
| Estimated Construction Cost | \$1,636,000 | \$1,465,000 | \$1,682,000 | \$1,713,000 | E. $3^{\text {rd }}$ Street |
| Traffic Operations | Ranked 4 of 4 | Ranked 1 of 4 | Ranked 2 of 4 | Ranked 3 of 4 | E. $3^{\text {rd }}$ Street |
| Adopted and Active Plans | Conforms | Conforms | Conforms | Conforms | Any |

## CONCLUSIONS AND RECOMMENDATIONS

## Recommended Alternative

The East $3^{\text {rd }}$ Street Extension Alignment Study evaluated a broad spectrum of alignment alternatives to extend East $3^{\text {rd }}$ Street from Carlton Avenue north to Fairview Avenue. Based on public and stakeholder comment, estimated right-of-way and construction costs, and anticipated traffic operations, the East $3^{\text {rd }}$ Street Alignment Alternative is the recommended alignment for the corridor.

The City and ACHD held several meetings regarding selection of a preferred alignment alternative for the East $3^{\text {rd }}$ Street Extension Alignment Study. Resolutions from the meetings include:

- August 13, 2008 - During an ACHD Commission meeting, the Commission was asked to select a preferred alignment for the study. A version of the Alternative Analysis Matrix on the previous page was presented. The ACHD Commission indicated their preferred option to be the East $3^{\text {rd }}$ Street Alignment Alternative. However, the Commission also expressed concern regarding how the right-of-way for this alignment would be acquired. This acquisition, if not
done correctly and quickly, when opportunities present themselves, could change the favorable alignment option indicated above.
- September 16, 2008 - During a Meridian City Council meeting, the City Council approved the East $3^{\text {rd }}$ Street Alignment Alternative.
- October 6, 2008 - At the joint ACHD Commission/City of Meridian Mayor and City Council meeting, the ACHD Commission commented on their need to select an alignment and their support of the East $3^{\text {rd }}$ Street Alignment Alternative.
- November 5, 2008 - During an ACHD Commission Meeting, the Commission voted to accept the East $3^{\text {rd }}$ Street Alignment alternative as the preferred alignment.

The recommended East $3^{\text {rd }}$ Street extension alignment with cross-sections is shown on the following page. The coordinate based geometry for the alignment is located in Appendix D. The geometry was based on state plane coordinates utilizing GIS property line information. A field survey will be needed prior to preliminary design to confirm property line and centerline locations. The coordinate geometry within this study may need to be modified to fit the surveyed property boundaries.

## Recommendation for Future East-West Connection

There is currently no east-west connection between the proposed East $3^{\text {rd }}$ Street Extension and Main Street or Meridian Road between Carlton Avenue and Fairview Avenue. The distance between Carlton Avenue and Fairview Avenue is approximately 2,000 feet, which creates a barrier to both vehicular and pedestrian mobility in downtown Meridian. A future east-west roadway connection, possibly extending Gruber Avenue to the west, would address this deficiency and increase connectivity in the area. We recommend consideration of an east-west connection with future transportation planning efforts in Meridian.


## APPENDIX A PUBLIC INVOLVEMENT

Following are the Stakeholder Meeting Summary and Public Information Summary provided by the City of Meridian and the Contact Reports between Idaho Northern and Pacific Railroad and Six Mile Engineering.

# East $3^{\text {rd }}$ Street Extension \& Alignment Study Stakeholder Meeting Summary 

## Introduction

The project team conducted targeted stakeholder interviews for the East $3^{\text {rd }}$ Street Extension and Alignment Study on Thursday, February 21, 2008. Stakeholders were notified by direct mail with a letter dated February 8, 2008. Of forty three letters mailed, twenty three stakeholders attended the interviews. Three separate group discussions occurred over the course of the day. Project team attendees included representatives from the Meridian City Planning Department, Meridian Development Corporation, and Ada County Highway District - Planning \& Programming Division.

The purpose of the interviews was to gather input about the three alignments currently under consideration, and identify roadway elements that stakeholders feel are appropriate for the future corridor. The project team provided the attached aerial photograph (Attachment 1) and list of questions (Attachment 2) to guide the discussions, but conversations did not adhere to any formal structure or format.

An additional discussion occurred on Friday, February 22, 2008, with representatives of organizations in the project area. Representatives from the Meridian Downtown Business Association, Cole Valley Christian School, and United Methodist Church attended.

After the group stakeholder interviews, the project team discussed the project with four additional stakeholders who were not available to attend the interviews on February 21. Meridian City staff spoke to three individuals over the phone and one in person to recap stakeholder responses and gather additional input.

## Extension Option Responses

Stakeholder responses to each alignment under consideration are as follows:
Extension Option 1 - E. $3^{\text {rd }}$ Street from Carlton Avenue to E. $21 / 2$ Street, and back to E. $3^{\text {rd }}$ Street north of Badley Avenue.

Stakeholders did not generally support this alignment option. Specific reasons cited by the group included:

- Existing conditions on E. $21 / 2$ Street: Many stakeholders felt that, due to existing congestion associated with Cole Valley Christian School (especially in the morning, and when school lets out) this alignment may fail to serve its desired function. Also, many participants felt that pedestrian traffic in the area (mostly children walking to and from the school) is not conducive to increased automobile traffic.
- Corridor constraints: Stakeholders noted that there are serious right-of-way constraints along this corridor. There may not be enough room to construct the roadway that is desired.
- Property owner impacts: Stakeholders were concerned about property owner impacts associated with this alignment, both up and down E. $21 / 2$ Street, and in the cross-over to E. $3^{\text {rd }}$ Street between Badley Avenue and Gruber Avenue.
- Meandering alignment: Many stakeholders felt that if a road has to go through, an effort should be made to keep it as straight as possible.

A single property owner indicated that this alignment would increase access to his parcel. He therefore would support it if it gains traction. However, he also said that he understands the concerns of others in the group, and stands to loose nothing with extension options 2 or 3.

One group stated that, regardless of which extension option is chosen, sidewalks are a must on E. $21 / 2$ Street, especially around Cole Valley Christian School.

Extension Option 2-E. $3^{\text {rd }}$ Street north along existing alignment, bearing from Carlton Avenue to Fairview Avenue.

Many stakeholders supported Extension Option 2 due to its relatively straight alignment. They felt that, regardless of cost, if a new connection is necessary, then it should be done right.

The owners of the two structures that would be significantly impacted by this extension option (parcels R5518460060, R5518460070, and S1107244500) were impartial between the three options under consideration. They indicated that, if Extension Option 2 is chosen, they would like the process to move forward expeditiously (i.e. if Option 2 is the identified alignment, they are ready to enter into right-of-way discussions).

One property owner indicated that Extension Option 2 would have the greatest negative impact to his parcel (R5739800050), but noted that any of the three options under consideration will negatively impact someone. Another stakeholder was concerned about decreases in property values that may result from Extension Option 2.

One group felt that, regardless of which extension option is chosen, extending E. $3^{\text {rd }}$ Street from Gruber Avenue to Badley Avenue is a logical and relatively inexpensive "quick-fix" to increase connectivity in the area. This near-term improvement would require the acquisition of right-ofway from a parcel that is currently vacant (S1107212705), and it would not disrupt any existing structures.

Extension Option 3 - E. $3^{\text {rd }}$ Street from Carlton Avenue to $4^{\text {th }}$ Street, then north to Fairview Avenue.

Extension Option 3 generated mixed responses from stakeholders. Those in favor of this option gave the following reasons for their response:

- It makes sense to locate the new connection to Fairview as far away from the Main Street Intersection as possible.
- Pending redevelopment of Elm Grove Trailer Park (S1107212705), Option 3 would impact relatively few developed parcels.
- It could increase privacy in residential areas by creating a natural barrier between land uses.
- Option 3 would decrease cut-through traffic in nearby residential areas (Creekside Arbor).

Stakeholders who opposed Extension Option 3 gave the following reasons:

- Impacts to/displacement of residents in Elm Grove Trailer Park.
- Possible impacts to landscaping south of Carlton Avenue.
- Negative impacts to businesses fronting Fairview Avenue, which would loose parking or have it moved from its current location.
- Alignment would divide parcels that are currently vacant and that hold potential for redevelopment.
- This intersection with Fairview would be too close to E. $3^{\text {rd }}$ Street Intersection.
- Cost to purchase right-of-way on commercial land (fronting Fairview) makes this option too expensive.

One group of stakeholders proposed a modified Extension Option 3 for consideration. The modification was between Badley Avenue and Fairview Avenue. The group suggested bringing the extension west from $4^{\text {th }}$ and Badley Avenue to connect with E. $3^{\text {rd }}$ Street at Gruber Avenue. Stakeholders felt that this modification would make better use of existing right-of-way, avoid the costly purchase of commercial land on Fairview Avenue, and allow the continuation of existing residential uses south of Fairview Avenue between E. $3^{\text {rd }}$ Street and $4^{\text {th }}$ Street (i.e. it would not disrupt the trailer park).

Note: Stakeholders did not identify any environmental, historical, or cultural issues in the project area, although they encouraged the project team to research and be aware of flood zones in determining which extension option is appropriate.

## Desired Roadway Elements

A. Pedestrian Elements

With one exception, participants stated that this corridor should accommodate a wide spectrum of users and incorporate multi-modal options (one stakeholder felt that it should be auto-oriented). Stakeholders felt that sidewalks are an essential roadway element to incorporate into this future extension. Some indicated a preference for detached sidewalks while others were impartial between attached and detached sidewalks. Most stakeholders said that bikelanes should be incorporated into the roadway as well, although there was not total agreement among all participants (some felt that bikelanes would create safety issues and increase right-of-way requirements). A few stakeholders said that lighting is important and should be a part of the project. One stakeholder said that lanes should be as narrow as ACHD will allow to calm traffic and increase ease of pedestrian movement.
B. Traffic/Auto-Elements

Stakeholders agreed that speed is a major concern on this future extension. They felt that traffic calming elements (speed bumps, stop signs, etc.) should be designed into the project. One stakeholder stated that landscaped medians would be nice, but are not
necessary. An additional stakeholder encouraged the project team to analyze the need for more than two through travel lanes. Other participants stated that roundabouts should be considered at appropriate intersections.

There was some disagreement among participants about on-street parking. Some stakeholders were very much in favor of on-street parking for this corridor while others were strongly against it. Those in favor felt that on-street parking (1) is an important component of an urban environment, (2) will increase activity and vibrancy on the street, (3) will provide increased ease of access to adjacent residents and businesses, and (4) will calm traffic. Participants who oppose on-street parking felt that it will (1) increase right-of-way requirements when parking should be provided on-site, project by project, and (2) create conflicts between pedestrians and automobiles.

## East/West Connection Responses

Stakeholders agreed that creating an additional east/west connection from Main to the E. $3^{\text {rd }}$ Street Extension between Carlton Avenue and Fairview Avenue is a good idea. One stakeholder said that the project team should look into extending Gruber Avenue behind the Subway building in addition to the two alignments (extending Badley Avenue) shown on the aerial.

# $3^{\text {RD }}$ Street Extension \& Alignment Study Public Information Meeting Summary April 16, 2008 <br> 4:00-6:30 <br> Meridian Police Department Conference Room 

## Project Team Attendance

Craig Herndon
Studies Coordinator, Ada County Highway District
Jeff W. Jones, P.E.
Six Mile Engineering, PA
Larry J. White, P.E.
Six Mile Engineering, PA
Matt Ellsworth
Associate City Planner, City of Meridian
Shaun Wardle
Administrator, Meridian Development Corporation

## Meeting Attendance

A total of eighteen (18) people signed in at the meeting.

## Meeting Overview

The City of Meridian and Meridian Development Corporation (MDC) held a public meeting on April 16, 2008 to discuss the East $3^{\text {rd }}$ Street Extension \& Alignment Study. The purpose of the meeting was to present the four conceptual extension alignments that are currently under review, and to discuss those alignments with interested citizens, residents, and stakeholders. Conceptual roadway cross-sections for each alignment alternative were presented, and attendees were encouraged to provide feedback about desired roadway elements. Information about a future east/west connection from Main Street to the future E. $3^{\text {rd }}$ Street Extension was also provided, and attendees were asked to provide input.

Meeting handouts included:

- Project Overview
- Comment Sheet

Meeting displays included:

- East $3^{\text {rd }}$ Street Extension Alternatives
- Extension Option 1
- Extension Option 2
- Extension Option 3.a
- Extension Option 3.b
- East/West Conceptual Alignments

The meeting was conducted in an open house format. Attendees were encouraged to browse the meeting materials and engage the project team in discussions about the future roadway.

## Comments Received

The comment sheets asked the following questions:

1. Provide input on the desired roadway characteristics below:
a. Do you prefer standard travel lane widths or narrow lanes?
b. Do you envision on-street parking?
c. Are bike lanes important?
d. Do you prefer sidewalks attached to the roadway or setback by a buffer/planter strip?
2. Provide input on each of the proposed north/south alternatives:
a. $21 / 2$ Street -Extend $3^{\text {rd }}$ Street northwest from Carlton Avenue to $21 / 2$ Street and then northeast back to $3^{\text {rd }}$ Street north of Badley Avenue, possibly closing $21 / 2$ Street.
b. $\quad 3^{\text {rd }}$ Street - Extend $3^{\text {rd }}$ Street north along the existing $3^{\text {rd }}$ Street bearing from Carlon Avenue to Fairview Avenue.
c. $4^{\text {th }}$ Street A - Extend $3^{\text {rd }}$ Street northeast from Carlton Avenue to $4^{\text {th }}$ Street at Washington Avenue and then continue north to Fairview Avenue.
d. $4^{\text {th }}$ Street B - Extend $3^{\text {rd }}$ Street north from Carlton Avenue to $4^{\text {th }}$ Street at Washington Avenue; continue northwest from $4^{\text {th }}$ Street and Badley Avenue to $3^{\text {rd }}$ Street and Gruber and veer north to Fairview Avenue.
3. Provide input on each of the proposed east/west alternatives:
a. South Connection A - From the Badley and $21 / 2$ St intersection curve to the north to connect to Main Street.
b. South Connection B - From the Badley and $21 / 2$ St intersection curve to the north to connect to Main Street.
c. North Connection - From Gruber and $21 / 2$ St intersection curve to connect to Main Street.

Three comment sheets were received at the meeting. Attendees indicated the following in response to the questions presented:

1. Roadway Characteristics:
a. Lane Widths: All three respondents prefer standard lane widths.
b. On-Street Parking: One respondent prefers on-street parking; two do not.
c. Bike Lanes: One respondent feels that bike lanes are important; two do not.
d. Sidewalks: Two respondents favor attached sidewalks; one favors buffers/planter strips separating sidewalks from curb.
2. Proposed North/South Alternatives: Two respondents prefer the $3^{\text {rd }}$ Street Alignment (Option 2); one indicates no preference.
3. Proposed East/West Alternatives: One respondent prefers "South Connection A" (Badley and $21 / 2$, curve south to Main) and one respondent prefers "North Connection" (Gruber and $21 / 2$, curve south to Main); one indicates no preference.

One attendee provided written comments via email after the meeting. The respondent owns two parcels that are on the edge of the proposed "North Connection" of East $3^{\text {rd }}$

Street to Main Street. The attendee indicates that he opposes any east/west connection that will impact either of his parcels.

In general, feedback provided at the meeting indicated support for the East $3^{\text {rd }}$ Street Alignment (Option 2). Several attendees voiced concerns over the $21 / 2$ Street Alignment (Option 1), and feedback was given both in favor and in opposition of the $4^{\text {th }}$ Street Alignments (Options 3.a and 3.b).

## Next Steps

In the next few weeks, the project team will continue refining the conceptual roadway alignments and cross sections in light of information gleaned from stakeholder interviews and the public information meeting. The project team will develop a recommended alignment option and cross section by this summer, and the recommendation will go forward to the Meridian Development Corporation Board and City Council for their consideration.

## CONTACT REPORT

PROJECT: $\quad 3^{\text {rd }}$ Street Extension Alignment Study
Six Mile Project No. 200704
DATE:
April 25, 2008
CONTACT: Bob Adams
AFFILIATION: Idaho Northern and Pacific Railroad
PHONE NUMBER: (208) 365-6353
PREPARED BY: Jeff Jones
SUBJECT: Railroad Crossing Coordination

I talked with Bob again this afternoon about the impacts of the 3 ${ }^{\text {rd }}$ Street Extension Alignment Study on the $3^{\text {rd }}$ Street Railroad Crossing.

He noted that there are site restrictions at the crossing by a propane tank on the east and a building on the west. Bob noted that improvements should be made to the pavement markings and signing if additional traffic will be utilizing the crossing.

## CONTACT REPORT

| PROJECT: | $3^{\text {rd }}$ Street Extension Alignment Study <br> Six Mile Project No. 200704 |
| :--- | :--- |
| DATE: | January 3, 2008 |
| CONTACT: | Bob Adams |
| AFFILIATION: | Idaho Northern and Pacific Railroad |
| PHONE NUMBER: | (208) 365-6353 |
| PREPARED BY: | Jeff Jones |
| SUBJECT: | Railroad Crossing Coordination |

Bob Adams
Idaho Northern and Pacific Railroad
119 Commercial Ave.
PO Box 715
Emmett, ID 83617
I talked with Bob this afternoon about the impacts of the $3^{\text {rd }}$ Street Extension Alignment Study on the $3{ }^{\text {rd }}$ Street Railroad Crossing.

We talked about vehicle volume thresholds for railroad crossing configurations and Bob said that there were no hard numbers to use when determining crossing upgrades based on traffic volumes rather; priority indexes were used in determining upgrades.

Bob's initial recommendation for the 4-track crossing would be to increase the crossing signage size and clean up some of the sight restrictions, especially the southbound movement. He said that they follow MUTCD codes for rail crossings and that their agency can not mandate certain applications but they can strongly suggest options.

Bob said that if a gated crossing was required for this location it would likely cost $\$ 300,000$ to $\$ 500,000$. Due to the proximity to the Main Street crossing actuation overlap may cause a problem between the two crossings.

A review of ITD's Railroad Manual, Section 215.00, notes that a diagnostic review should be completed to evaluate railroad crossings as to deficiencies, and document recommended improvements. This review may be needed during the design of the project.

According to ITD Traffic Manual, Section 853.03, this location may be a viable location for postmounted flashing signals if crossing AADT exceeds 2,501 .

## APPENDIX B COST ESTIMATES

## Jeff Jones

| From: | Craig Herndon [chemdon@achd.ada.id.us] |
| :--- | :--- |
| Sent: | Thursday, May 29, 2008 7:34 AM |
| To: | Jeff Jones; Lamy White |
| Cc: | Craig Herndon; ellsworm@meridiancity.org; Peter Friedman; Shaun Wardle |
| Subject: | FW: COSTS FOR RIGHT OF WAY TAKES FOR 3RD STREET.docx |
| Attachments: COSTS FOR RIGHT OF WAY TAKES FOR 3RD STREET.docx |  |

Jeff:
Here is the information from my Right of Way department. Please take a look and let me know if you have further questions or need other information. Have a great day.

Craig E. Herndon
Studies Coordinator
cherndon@achd.ada.id.us
208-387-6118


From: Michele White
Sent: Friday, May 23, 2008 10:40 AM
To: Craig Herndon
Subject: COSTS FOR RIGHT OF WAY TAKES FOR 3RD STREET.docx
Craig,
The attachment should clarify the full takes and the partials. The 326 k was for a 2 parcel take not for the 5 parcel take. The 5 parcel take was $1+$ million.
If you have any more questions please let me know.
Michele

| COSTS FOR RIGHT OF WAY TAKES FOR $3^{\text {RD }}$ STREET ALIGNMENT |
| :---: |
| ALTERNATIVES |
| $21 / 2$ Street Alternative |
| Total Take Parcels........................... \$1,229,700 (5 parcels) |
| Partial Take Parcels......................... \$8 per square foot (13848 sq. ft. x \$8=\$110,784) |
| Total costs................................................................. \$1,340,484.00 |
| $3{ }^{\text {rd }}$ Street Alternative |
| One parcel that is affected is not mentioned in the memo. Parcel \# R5518460090. |
| Total Take Parcels...................... \$326,000 (2 parcels including \# R5518460090) |
| Partial Take Parcels.................... \$8 per square foot (99494 sq. ft. x \$8 = \$795,952) |
| Total costs................................................................. \$ 1,121,952.00 |
| $4^{\text {th }}$ Street Alternative - $A$ |
| Total Take Parcels...................... \$241,400 (1 parcel) |
| Partial Take Parcels................... \$8 per square foot (153,098 sq. ft. x $\$ 8=\$ 1,224,784)$ |
| Total costs.................................................................. \$1,466,184.00 |

$$
\frac{4^{\text {th }} \text { Street Alternative }-B}{}
$$

Total Take Parcels....................... $\$ 241,400$ (1 parcel)
Partial Take Parcels...................... \$8 per square foot (133,525 sq. ft. x $\$ 8=\$ 1,068,200$ )
Total costs......................................................................... \$1,309,600.00

## Jeff Jones

From: Craig Herndon [cherndon@achd.ada.id.us]
Sent: Wednesday, June 04, 2008 3:25 PM
To: Jeff Jones
Cc: Craig Herndon
Subject: FW: 3rd Street Extension - Right-of-Way Cost Estimates
Jeff:
Please take a look at this information and let me know if this takes care of your question. Thanks a bunch.
Craig

Looked at the Assessor's values for the 5 parcels on the $3^{\text {rd }}$ Street Alternative. Originally only 3 parcels were included in the cost estimate for the buyouts. Now with the five parcels called out as indicated below, the estimate would be closer to $\$ 500,000$ for the buyouts. The estimate for the partial takes is fine unless there are additional parcels that were not originally included.

Thanks! ©
Midge

## From: Chanon Romo

Sent: Friday, May 23, 2008 7:05 AM
To: Midge Kline
Cc: Craig Herndon
Subject: FW: 3rd Street Extension - Right-of-Way Cost Estimates
Midge:

Would you look at this and confirm with Criag....thanks

From: Craig Herndon
Sent: Tuesday, May 20, 2008 2:53 PM
To: Chanon Romo
Cc: Craig Herndon
Subject: FW: 3rd Street Extension - Right-of-Way Cost Estimates
Chanon:
Can you confirm the information that Six Mile Engineering is asking about? Thanks for all the help on this project. Hope you have a great day.

Craig E. Herndon
Studies Coordinator
cherndon@achd.ada.id.us
208-387-6118

From: Jeff Jones [mailto:jeff.jones@sixmile.com]
Sent: Monday, May 19, 2008 10:53 AM
To: Craig Herndon
Cc: ellsworm@meridiancity.org; Larry White; Jeff Jones
Subject: 3rd Street Extension - Right-of-Way Cost Estimates
Craig,
We wanted to do a quick confirmation on the right-of-way costs estimate for the $3^{\text {rd }}$ Street Extension Alignment Study. Looking at the Ada County Assessors web site we will have the following full takes for the $3^{\text {rd }}$ Street alignment alternative:

- S1104244500
- R5518460060
- R5518460070
- R5518460080
- R5518460090

Would the $\$ 326,000$ constitute the 5 full takes ( 1 four unit condo and one residential property) for this alternative?

Thank You,
Jeff W. Jones, P.E.
Six Mile Engineering, PA
10448 W. Garverdale Court, Suite 606
Boise, ID 83704
Office: (208) 378-0654
Fax: (208) 378-0598
Email: jeff.jones@sixmile.com

## EAST 3RD STREET EXTENSION ALIGNMENT STUDY EAST 2 1/2 STREET ALIGNMENT ALTERNATIVE

MARCH 12, 2009
ALIGNMENT STUDY REPORT ENX MULE

| ITEM NO. | ITEM DESCRIPTION | ESTIMATED | UNIT |
| :--- | :--- | :---: | :---: |
| ITEM | QUANTITY | UNIT | PRICE |


| 201.4.1.X.X | REMOVAL OF OBS. AND CLEARING AND GRUBBING | 1 | JOB | LUMP SUM | \$40,000 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 201.4.1.F. 1 | REMOVAL OF TREE ( $6^{\prime \prime}+$ ) | 14 | EA | \$300.00 | \$4,200 |
| 202.4.1.A. 1 | EXCAVATION (PLAN QUANTITY) | 9,500 | CY | \$15.00 | \$142,500 |
| 601.4.1.X.X | IRRIGATION PIPE AND BOXES | 1 | JOB | LUMP SUM | \$24,000 |
| 601.4.1.A.5.A | $12^{\prime \prime}$ STORM DRAIN PIPE, SDR 35 PVC | 630 | LF | \$30.00 | \$18,900 |
| 601.4.1.A.5.E | 24 " STORM DRAIN PIPE, SDR 35 PVC | 2,450 | LF | \$60.00 | \$147,000 |
| 602.4.1.A.1.A | STORM DRAIN CATCH MANHOLE - TYPE A | 9 | EA | \$2,000.00 | \$18,000 |
| 602.4.1.F. 1 | CATCH BASIN - TYPE I | 21 | EA | \$1,000.00 | \$21,000 |
| 706.4.1.A. 5 | STANDARD 6" VERTICAL CURB AND GUTTER | 5,047 | LF | \$15.00 | \$75,711 |
| 706.4.1.E. 1 | CONCRETE SIDEWALK, 4" THICKNESS | 3,343 | SY | \$28.00 | \$93,610 |
| 801.4.1.B. 1 | $6^{\prime \prime}$ MINUS UNCRUSHED AGGREGATE BASE | 9,930 | TON | \$15.00 | \$148,950 |
| 802.4.1.B. 1 | CRUSHED AGGREGATE FOR BASE TYPEI | 4,460 | TON | \$20.00 | \$89,200 |
| 810.4.1.A.1. ${ }^{\text {a }}$ | PLANT MIX PAVEMENT | 2,600 | TON | \$80.00 | \$208,000 |
| 1003.4.1.X.X | EROSION AND SEDIMENT CONTROL | 1 | JOB | LUMP SUM | \$10,000 |
| 1103.4.1.X.X | TRAFFIC CONTROL | 1 | JOB | LUMP SUM | \$20,000 |
| 1134.03.18 | PAVEMENT MARKINGS (PAINT) | 4,510 | SF | \$1.50 | \$6,765 |
| 1134.05.18 | PAVEMENT MARKINGS (THERMOPLASTIC) | 510 | SF | \$9.00 | \$4,590 |
| 1135.01.01 | ROADSIDE TRAFFIC SIGN INSTALLATION (ONE METAL POST) | 25 | EA | \$100.00 | \$2,500 |
| 1135.01 .06 | REMOVE AND SALVAGE ROADSIDE SIGN | 10 | EA | \$75.00 | \$750 |
| 2010.4.1.A. 1 | MOBILIZATION | 1 | JOB | LUMP SUM | \$87,800 |
| SP-7011 | PEDESTRIAN RAMP | 18 | EA | \$1,000.00 | \$18,000 |
| SP-29065 | SOD REPAIR | 852 | SY | \$10.00 | \$8,523 |
| SP-29067 | LANDSCAPE REPAIR | 1,055 | SY | \$35.00 | \$36,921 |
| SP-29105 | ADJUST/RELOCATE SPRINKLER | 2,070 | LF | \$15.00 | \$31,050 |


|  | TOTAL ESTIMATED CONSTRUCTION COSTS |  |  |
| :--- | :--- | :--- | :--- |
|  | TOTAL ESTIMATED RIGHT-OF-WAY |  |  |
|  |  |  | $\$ 1,257,970$ |
|  |  |  | $\$ 1,340,484$ |

TOTAL \$ 2,975,854

## EAST 3RD STREET EXTENSION ALIGNMENT STUDY EAST 3RD STREET ALIGNMENT ALTERNATIVE

MARCH 12, 2009

|  | ALIGNMENT STUDY REPORT |  |  |  | silx M Mul ENGINEERING |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ITEM NO. | ITEM DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT <br> PRICE | ITEM <br> TOTAL |
| 201.4.1.X.X | REMOVAL OF OBS. AND CLEARING AND GRUBBING | 1 | JOB | LUMP SUM | \$40,000 |
| 201.4.1.F.1 | REMOVAL OF TREE ( $6^{\prime \prime}+$ ) | 10 | EA | \$300.00 | \$3,000 |
| 202.4.1.A.1 | EXCAVATION (PLAN QUANTITY) | 7,940 | CY | \$15.00 | \$119,100 |
| 601.4.1.X.X | IRRIGATION PIPE AND BOXES | 1 | JOB | LUMP SUM | \$24,000 |
| 601.4.1.A.5.A | $12^{\prime \prime}$ STORM DRAIN PIPE, SDR 35 PVC | 620 | LF | \$30.00 | \$18,600 |
| 601.4.1.A.5.E | 24" STORM DRAIN PIPE, SDR 35 PVC | 2,350 | LF | \$60.00 | \$141,000 |
| 602.4.1.A.1.A | STORM DRAIN CATCH MANHOLE - TYPE A | 9 | EA | \$2,000.00 | \$18,000 |
| 602.4.1.F. 1 | CATCH BASIN - TYPE I | 21 | EA | \$1,000.00 | \$21,000 |
| 706.4.1.A. 5 | STANDARD 6" VERTICAL CURB AND GUTTER | 4,057 | LF | \$15.00 | \$60,848 |
| 706.4.1.E. 1 | CONCRETE SIDEWALK, 4" THICKNESS | 2,581 | SY | \$28.00 | \$72,272 |
| 801.4.1.B.1 | 6" MINUS UNCRUSHED AGGREGATE BASE | 8,350 | TON | \$15.00 | \$125,250 |
| 802.4.1.B. 1 | CRUSHED AGGREGATE FOR BASE TYPEI | 3,720 | TON | \$20.00 | \$74,400 |
| 810.4.1.A.1. | PLANT MIX PAVEMENT | 2,250 | TON | \$80.00 | \$180,000 |
| 1003.4.1.X.X | EROSION AND SEDIMENT CONTROL | 1 | JOB | LUMP SUM | \$10,000 |
| 1103.4.1.X.X | TRAFFIC CONTROL | 1 | JOB | LUMP SUM | \$20,000 |
| 1134.03 .18 | PAVEMENT MARKINGS (PAINT) | 4,050 | SF | \$1.50 | \$6,075 |
| 1134.05 .18 | PAVEMENT MARKINGS (THERMOPLASTIC) | 700 | SF | \$9.00 | \$6,300 |
| 1135.01.01 | ROADSIDE TRAFFIC SIGN INSTALLATION (ONE METAL POST) | 25 | EA | \$100.00 | \$2,500 |
| 1135.01 .06 | REMOVE AND SALVAGE ROADSIDE SIGN | 10 | EA | \$75.00 | \$750 |
| 2010.4.1.A. 1 | MOBILIZATION | 1 | JOB | LUMP SUM | \$78,600 |
| SP-7011 | PEDESTRIAN RAMP | 26 | EA | \$1,000.00 | \$26,000 |
| SP-29065 | SOD REPAIR | 1,040 | SY | \$10.00 | \$10,400 |
| SP-29067 | LANDSCAPE REPAIR | 968 | SY | \$35.00 | \$33,876 |
| SP-29105 | ADJUST/RELOCATE SPRINKLER | 2,290 | LF | \$15.00 | \$34,350 |
|  |  |  |  |  |  |
|  | TOTAL ESTIMATED CONSTRUCTION COSTS |  |  |  | \$1,126,321 |
|  | TOTAL ESTIMATED RIGHT-OF-WAY |  |  |  | \$1,295,952 |
|  | 30\% CONTINGENCY ON CONSTRUCTION COSTS |  |  |  | \$337,900 |
|  |  |  |  | TOTAL | \$ 2,760,173 |

## EAST 3RD STREET EXTENSION ALIGNMENT STUDY EAST 4TH STREET ALIGNMENT ALTERNATIVE - A

MARCH 12, 2009

|  | ALIGNMENT STUDY REPORT |  |  |  | BIIX MIILE <br> ENGINEERING <br> ITEM <br> TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ITEM NO. | ITEM DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE |  |
| 201.4.1.X.X | REMOVAL OF OBS. AND CLEARING AND GRUBBING | 1 | JOB | LUMP SUM | \$40,000 |
| 201.4.1.F. 1 | REMOVAL OF TREE ( $6^{\prime \prime}+$ ) | 14 | EA | \$300.00 | \$4,200 |
| 202.4.1.A.1 | EXCAVATION (PLAN QUANTITY) | 9,260 | CY | \$15.00 | \$138,900 |
| 601.4.1.X.X | IRRIGATION PIPE AND BOXES | 1 | JOB | LUMP SUM | \$24,000 |
| 601.4.1.A.5.A | $12^{\prime \prime}$ STORM DRAIN PIPE, SDR 35 PVC | 680 | LF | \$30.00 | \$20,400 |
| 601.4.1.A.5.E | 24" STORM DRAIN PIPE, SDR 35 PVC | 2,650 | LF | \$60.00 | \$159,000 |
| 602.4.1.A.1.A | STORM DRAIN CATCH MANHOLE - TYPE A | 8 | EA | \$2,000.00 | \$16,000 |
| 602.4.1.F. 1 | CATCH BASIN - TYPE I | 20 | EA | \$1,000.00 | \$20,000 |
| 706.4.1.A. 5 | ISTANDARD 6" VERTICAL CURB AND GUTTER | 4,728 | LF | \$15.00 | \$70,924 |
| 706.4.1.E. 1 | CONCRETE SIDEWALK, 4" THICKNESS | 3,301 | SY | \$28.00 | \$92,422 |
| 801.4.1.B. 1 | 6" MINUS UNCRUSHED AGGREGATE BASE | 9,670 | TON | \$15.00 | \$145,050 |
| 802.4.1.B. 1 | CRUSHED AGGREGATE FOR BASE TYPE I | 4,510 | TON | \$20.00 | \$90,200 |
| 810.4.1.A.1.A | PLANT MIX PAVEMENT | 2,540 | TON | \$80.00 | \$203,200 |
| 1003.4.1.X.X | EROSION AND SEDIMENT CONTROL | 1 | JOB | LUMP SUM | \$10,000 |
| 1103.4.1.X.X | TRAFFIC CONTROL | 1 | JOB | LUMP SUM | \$20,000 |
| 1134.03 .18 | PAVEMENT MARKINGS (PAINT) | 4,500 | SF | \$1.50 | \$6,750 |
| 1134.05 .18 | PAVEMENT MARKINGS (THERMOPLASTIC) | 930 | SF | \$9.00 | \$8,370 |
| 1135.01.01 | ROADSIDE TRAFFIC SIGN INSTALLATION (ONE METAL POST) | 25 | EA | \$100.00 | \$2,500 |
| 1135.01 .06 | REMOVE AND SALVAGE ROADSIDE SIGN | 10 | EA | \$75.00 | \$750 |
| 2010.4.1.A. 1 | MOBILIZATION | 1 | JOB | LUMP SUM | \$90,200 |
| SP-7011 | PEDESTRIAN RAMP | 28 | EA | \$1,000.00 | \$28,000 |
| SP-29065 | SOD REPAIR | 1,192 | SY | \$10.00 | \$11,917 |
| SP-29067 | LANDSCAPE REPAIR | 1,363 | SY | \$35.00 | \$47,717 |
| SP-29105 | ADJUST/RELOCATE SPRINKLER | 2,850 | LF | \$15.00 | \$42,750 |
|  |  |  |  |  |  |
|  | TOTAL ESTIMATED CONSTRUCTION COSTS |  |  |  | \$1,293,250 |
|  | TOTAL ESTIMATED RIGHT-OF-WAY |  |  |  | \$1,466,184 |
|  | 30\% CONTINGENCY ON CONSTRUCTION COSTS |  |  |  | \$388,000 |

TOTAL \$ 3,147,434

## EAST 3RD STREET EXTENSION ALIGNMENT STUDY EAST 4TH STREET ALIGNMENT ALTERNATIVE - B

MARCH 12, 2009
ALIGNMENT STUDY REPORT

TOTAL \$ 3,021,992

## APPENDIX C QUALITATIVE REVEW OF TRAFFIC OPERATIONS

## Qualitative Review of Traffic Operations

The following information is a summary of the qualitative review of potential traffic operations for each of the alignment alternatives.

1. East $2 ½$ Street impacts to traffic operations:
a. Positive traffic operations
i. Connects East $3^{\text {rd }}$ Street to Fairview Avenue
b. Negative traffic operations
i. Increases traffic adjacent to the Cole Valley Christian School
ii. Removes existing on-street parking currently used by the school, businesses and residents
iii. Adds reversing curves and skewed intersections at Carlton Avenue, Washington Avenue, Badley Avenue and Grubber Avenue
iv. Cul-de-sacs existing East $2 ½$ Street between Badley Avenue and Gruber Avenue
v. Requires eastbound Carlton Avenue traffic to bypass existing East $21 / 2$ Street to access the new East $3^{\text {rd }}$ Street extension which then curves back over to East $21 / 2$ Street
2. East $3^{\text {rd }}$ Street impacts to traffic operations:
a. Positive traffic operations
i. Connects East $3^{\text {rd }}$ Street to Fairview Avenue
ii. Decreases traffic on East $21 / 2$ Street
iii. Reversing curves more gradual then other alignment alternatives
iv. Tangent roadway between Washington Avenue and Fairview Avenue
b. Negative traffic operations
i. Does not provide on-street parking
c. Adds reversing curves between Carlton Avenue and Washington Avenue
3. East $4^{\text {th }}$ Street $-A$ impacts to traffic operations:
a. Positive traffic operations
i. Connects East $3^{\text {rd }}$ Street to Fairview Avenue
ii. Decreases traffic on East $21 / 2$ Street
iii. Centers new Fairview Avenue connection between Main Street and Lakes Place
b. Negative traffic operations
i. Does not provide on-street parking
ii. Adds reversing curves and skewed intersections at Carlton Avenue and Washington Avenue
iii. Adds reversing curves north of Badley Avenue
iv. Adds another intersection to Fairview Avenue between Main Street and Lakes Place
4. East $4^{\text {th }}$ Street $-B$ impacts to traffic operations:
a. Positive traffic operations
i. Connects East $3^{\text {rd }}$ Street to Fairview Avenue
ii. Decreases traffic on East $21 / 2$ Street
b. Negative traffic operations
i. Does not provide on-street parking
ii. Adds reversing curves and skewed intersections at Carlton Avenue, Washington Avenue, Badley Avenue and Gruber Avenue

Each of the alignment alternatives can be ranked based on the above positive and negative traffic operation impacts. The rankings are as follows:

- East $3^{\text {rd }}$ Street 1 of 4
- East $4^{\text {th }}$ Street $-A \quad 2$ of 4
- East $4^{\text {th }}$ Street $-B \quad 3$ of 4
- East $2 ½$ Street 4 of 4


## APPENDIX D RECOMMENDED ALIGNMENT GEOMETRY

## Recommended Alternative Alignment Geometry

Following is the centerline alignment for the recommended alternative. Coordinates are based on Ada County's state plane coordinate system and centerline alignment was based on GIS property lines. Field survey will be required during preliminary design to verify property line and centerline coordinates.

|  | STATION | NORTHING | EASTING |
| :---: | :---: | :---: | :--- |
| Element: Linear |  |  |  |
| POB | $100+00.00$ | 710045.690 | 2455969.750 |
| PC | $102+78.89$ | 710324.560 | 2455972.812 |
| Tangent Direction: | N $0^{\circ} 377^{\prime} 45.011^{\prime \prime} \mathrm{E}$ |  |  |
| Tangent Length: | 278.89 |  |  |

Element: Circular
$\begin{array}{llll}\text { PC } & 102+78.89 & 710324.560 & 2455972.812\end{array}$
$\begin{array}{llll}\mathrm{Pl} & 103+81.76 & 710427.422 & 2455973.942\end{array}$
CC $710319.069 \quad 2456472.782$
$\begin{array}{llll}\text { PT } & 104+81.79 & 710521.484 & 2456015.586\end{array}$
Radius: 500.00
Delta: $\quad 23^{\circ} 15^{\prime} 04.50^{\prime \prime}$ Right
Degree of Curvature(Arc): $\quad 11^{\circ} 27^{\prime} 32.96{ }^{\prime \prime}$
Length: 202.91
Tangent: 102.87
Element: Linear
$\begin{array}{llll}\text { PT } & 104+81.79 & 710521.484 & 2456015.586\end{array}$
$\begin{array}{llll}P C & 104+81.79 & 710521.484 & 2456015.586\end{array}$
Tangent Direction: $\quad$ N $23^{\circ} 52^{\prime} 49.80^{\prime \prime} \mathrm{E}$
Tangent Length: 0.00
Element: Circular

| PC | 104+81.79 | 710521.484 | 2456015.586 |
| :---: | :---: | :---: | :---: |
| PI | 105+85.49 | 710616.300 | 2456057.564 |
| CC |  | 710723.895 | 2455558.399 |
| PT | $\begin{gathered} 106+86.28710719 .989 \\ 500.00 \end{gathered}$ |  | 2456058.374 |
| Radius: |  |  |  |
| Delta: | ( ${ }^{500.00} 23^{\circ} 25^{\prime 58.39 " ~ L e f t ~}$ |  |  |
| e of Curvature | (Arc): $11^{\circ} 27^{\prime} 33.79{ }^{\prime \prime}$ |  |  |
| Length: | 204.49 |  |  |
| Tangent: | 103.69 |  |  |

Element: Linear

| PT | $106+86.28$ | 710719.989 | 2456058.374 |
| :--- | :--- | :--- | :--- |

$\begin{array}{llll}\text { PI } & 113+74.56 & 711408.250 & 2456063.750\end{array}$

$$
\begin{aligned}
\text { Tangent Direction: } & \mathrm{N} 0^{\circ} 26^{\prime} 51.12{ }^{\prime \prime} \mathrm{E} \\
\text { Tangent Length: } & 688.28
\end{aligned}
$$

| Element: Linear |  |  |  |
| :--- | :--- | :--- | :--- |
| PI | $113+74.56$ | 711408.250 | 2456063.750 |
| PI | $117+20.76$ | 711754.440 | 2456066.500 |
| Tangent Direction: | N | $0^{\circ} 27^{\prime} 18.45 " \mathrm{E}$ |  |
| Tangent Length: | 346.20 |  |  |
| Element: Linear |  |  |  |
| PI | $117+20.76$ | 711754.440 | 2456066.500 |
| POE | $123+52.09$ | 712385.750 | 2456071.500 |
| Tangent Direction: | $\mathrm{N} 0^{\circ} 27^{\prime} 13.59 " \mathrm{E}$ |  |  |
| Tangent Length: | 631.33 |  |  |

## APPENDIX E RECOMMENDED ALIGNMENT RIGHT-OF-WAY IMPACTS

Following are the approximate right-of-way acquisition areas for each parcel along the recommended East $3^{\text {rd }}$ Street alignment.

The existing property lines and proposed right-of-way lines were obtained from Ada County's GIS database. They should be considered approximate and must be verified by field survey prior to design and/or right-of-way acquisition.

EXISTING PROPERTY LINES AND PROPOSED RIGHT-OF-WAY LINES WERE OBTAINED FROM ADA COUNTY'S GIS DATABASE. THEY SHOULD BE CONSIDERED APPROXIMATE AND MUST BE VERIFIED BY FIELD SURVEY PRIOR TO DESIGN AND/OR RIGHT-OF-WAY ACQUISITION.






