



Northwest Bismarck Sub-area Study

prepared for





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Northwest Bismarck Subarea Study
Bismarck-Mandan, North Dakota

Certification

I hereby certify that this report was prepared by me, or under my direct supervision, and that I am a duly registered professional engineer under the laws of the State of North Dakota.

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The contents of this document reflect the views of the authors, who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the policies of the State and Federal Departments of Transportation.

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Table of Contents

Table of Contents	i
List of Tables	iii
List of Figures	iii
List of Appendices	iii
I. Introduction and Background	1
A. Study Area	1
B. Study Objectives	3
C. Purpose and Need	3
D. Regional Context for Transportation Planning	4
E. Relevant Past Studies	4
II. Existing Conditions.....	9
A. Functional Classifications and Posted Speeds.....	9
B. Grades and Terrain.....	9
C. Known Cultural Resource Conditions	9
D. Sidewalks, Multi-Use Trails & Unpaved Paths	10
E. Traffic Volumes.....	10
F. Typical Sections	13
G. Land Use	13
H. Environmental Justice Populations.....	14
III. Issues.....	16
A. Access and Distribution of Traffic.....	17
B. Accommodation of Utilities	17
C. Barriers to Development.....	18
D. Corridor Preservation	18
E. Costs, Funding and Project Programming.....	19
F. Environmental Impacts.....	19
G. Harsh Terrain, Soil Conditions and High Water Table.....	19
H. Land Use and Timing for Development.....	20
I. Pedestrian and Bicycle Mobility	22
J. Property and Corridor Impacts	22
K. Truck Routes	22
IV. Transportation System Analysis	23
A. Roadway Network Needs	23
B. Bicycle and Pedestrian Network Needs	24
C. Freight Movement Needs	26
D. Transit Needs	26
E. Balanced Transportation Network Opportunities.....	26

V.	Proposed Corridor Alignments.....	30
A.	Ash Coulee Drive.....	35
B.	Century Avenue, Golf Drive, & Burnt Boat Drive Alignments	37
C.	Clairmont Road Extension	48
D.	Fernwood Drive Extension.....	49
E.	River Road	50
F.	Sandy River Drive Extension.....	51
G.	57 th Avenue North	52
H.	64 th Avenue North and Sonora Way	54
I.	Tyler Coulee Corridor.....	55
J.	Tyler Parkway Extension.....	57
K.	Corridor Profiles	58
L.	Pedestrian and Bicycle Facility Alignments	58
VI.	Traffic Analysis.....	59
A.	Purpose and Methodology.....	61
B.	Existing and Projected Traffic.....	62
C.	Signal Warrants and Level of Service	62
VII.	Typical Section Preferences and Policies	65
A.	Components of Typical Sections	65
B.	Configurations of Typical Sections	65
C.	Complete Streets Policy Development	66
D.	Roundabouts	66
VIII.	Public and Agency Involvement.....	67
A.	Public Input Meetings.....	67
B.	Developer and Landowner Meetings	67
C.	Study Review Committee.....	68
D.	NDDOT Management Presentation.....	68
E.	Coordination with City and County Officials	68
F.	MPO TAC and Policy Board Meetings.....	68
IX.	Northwest Subarea Recommendations.....	69
A.	Priority Corridors and Timing of Development	69
B.	Recommended City Actions	70

List of Tables

Table 1 – Functional Classifications and Posted Speeds	9
Table 2 – Context Zones	29

List of Figures

Figure 1 - Study Area.....	2
Figure 2 - Original Alignments	5
Figure 3 - Cultural Resources	11
Figure 4 - Existing Traffic Volumes*	12
Figure 5 - Environmental Justice.....	15
Figure 6 - Regional Future Land Use	21
Figure 7 - Urban Context Zones.....	29
Figure 8 - Urban Context Bike Lanes.....	30
Figure 9 - Suburban Context Bike Lanes.....	30
Figure 10 - Urban Roadway in Context	30
Figure 11 - Urban Roadway out of Context	30
Figure 12 - Proposed Corridor Alignments.....	32
Figure 13 - Proposed Corridor Alignments.....	34
Figure 14 - Bicycle and Pedestrian Facilities	59
Figure 15 - 30% Build Out Traffic Volumes.....	64

List of Appendices

Appendix A – Traffic Analysis	
Appendix B – Typical Sections and Profiles	
Appendix C – Utility Master Plans and Covenants	
Appendix D1 – Advertising and Public Involvement	
Appendix D2 – Commission Newsletters, Hearings and Minutes	
Appendix D3 – Communication Records	
Appendix D4 – Steering Committee Meetings	
Appendix E – Other Studied Concepts	
Appendix A – Traffic Analysis	
Appendix B – Typical Sections and Profiles	
Appendix C – Utility Master Plans and Covenants	
Appendix D1 – Advertising and Public Involvement	
Appendix D2 – Commission Newsletters, Hearings and Minutes	
Appendix D3 – Communication Records	
Appendix D4 – Steering Committee Meetings	
Appendix E – Other Studied Concepts	

I. Introduction and Background

Over the past few years, local staff and elected officials have been faced with numerous questions relative to development in and around northwest Bismarck. Among the questions raised are:

- What should be done to address traffic along Ash Coulee Drive, and how will future extension of the corridor and associated development be handled?
- Can River Road handle future growth in the area below the bluffs, and where, when and how can future connections be made from River Road to the top of the escarpment?
- Should Golf Drive or Burnt Boat Drive be extended? If so, should it serve as a collector street? Would it be better to extend Century Avenue west through the Fire Station?
- Should Tyler Parkway be extended to the north as suggested in past plans?
- Will Tyler Parkway's current configuration be able to handle future traffic?
- Do the corridor alignments proposed by past planning efforts adequately address the needs of the area? Some past plans only took a broad brush look at northwest Bismarck.

In response to these questions, the Bismarck Northwest Sub-Area Study was initiated by the City of Bismarck and the Bismarck-Mandan Metropolitan Planning Organization. Local staff and government officials desire to have a plan in place to effectively manage future development proposals so that important transportation corridors may be preserved. Their goal is to create a comprehensive plan for transportation facilities northwest of Bismarck.

This area has significant potential for future development. Yet, within the Study Area, the natural and built environment offers limited opportunity to extend or expand existing corridors. Therefore, it is critical that future corridors be planned to provide good connectivity to the existing transportation system.

A. Study Area

The Study Area, which is bounded by Washington Street, the Missouri River, Interstate 94 and ND Highway 1804, contains approximately five undeveloped sections of land and is shown in Figure 1. Most of the Study Area is undeveloped and is either vacant or is being used as agricultural pasture land or crop land. Developed property is mostly single family residential land use.

A number of geologic features will strongly influence the timing and locations for development to occur. Between the Missouri River and River Road, the land is flat and mostly lies within the 100 year floodplain.

There is a steep embankment long the east side of River Road that separates the Missouri River lowlands from the highlands. The highlands extend east to beyond

Washington Street. The highlands have a number of ravines that will influence placement of future transportation and non-transportation infrastructure.

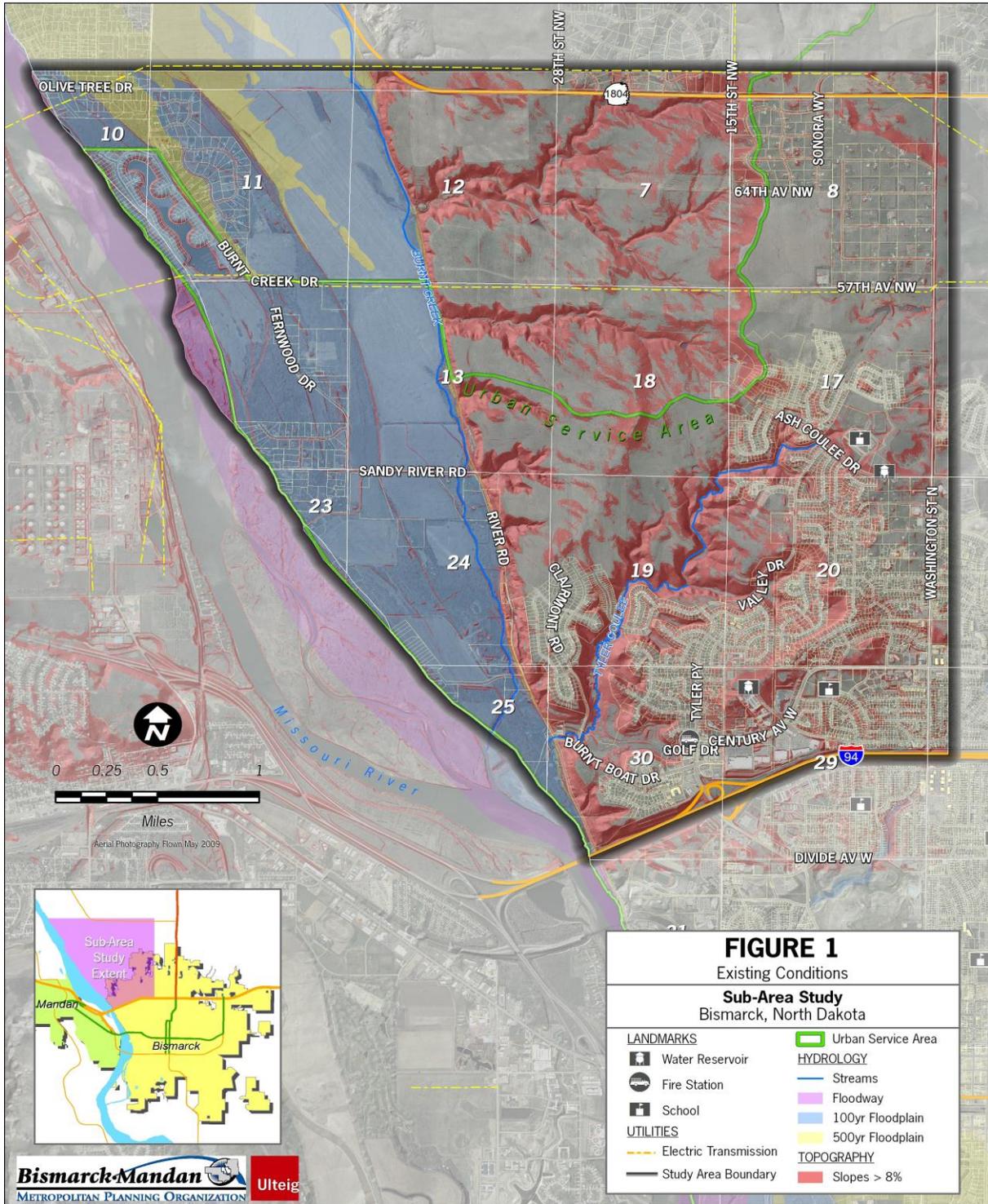


Figure 1 - Study Area

B. Study Objectives

The question has been asked, “Why do we need a plan for future collector and arterial corridors?” There are many reasons:

- Future vehicle, bicycle and pedestrian traffic will need to be able to travel into and out of the Study Area. Facilities that promote acceptable travel delays and a high degree of safety are desired.
- Harsh terrain and past development choices limit the ability to move traffic in and out of the Study Area. Without a plan in place to proactively address the access needs of future development, the ability to provide adequate transportation services may be lost.
- A plan is needed to preserve good connections from the highland to River Road, to ND Highway 1804, Washington Street and the Divide Avenue Interchange.

This study has the following objectives:

- To prepare an overall plan for development that provides for regional mobility.
- To consider how future land use decisions and context sensitive solutions should influence multi-modal facility needs within the Study Area. Context sensitive solutions and complete streets refer to planning corridors and building roadways that serve as an amenity that fits into the surrounding environment and benefits all users.
- To select the optimum alignments, facility needs, and right of way widths for future transportation collector and arterial corridors.
- To identify potential impacts and associated mitigation strategies.
- To facilitate stakeholder and decision maker involvement that informs, educates, receives and responds to their input.
- To seek jurisdictional concurrence on recommended alternatives and implementation strategies.

C. Purpose and Need

This Study investigated a number of potential future corridors. It looked at a number of environmental issues and technical analyses in order to provide local governments with guidance to be used in future decisions and project development efforts. Chapter V of this study discusses reasons why various corridor alignments should be further examined within the context of the National Environmental Policy Act. These “reasons to do it” explanations for each corridor correspond to a preliminary purpose and need statement for each of these corridor alignments.

D. Regional Context for Transportation Planning

The City of Bismarck and Burleigh County have been making great strides over the past number of years toward meeting the community's transportation needs. Transportation planners have realized that all of the region's transportation needs cannot be addressed by improving a single corridor or mode of travel. Also, the corridors in this region are not "stand alone" corridors. Rather, many corridors are needed to operate as a system and some have already been upgraded in order to meet the growing demand for transportation.

On Bismarck's north side alone, a number of corridors have been improved:

Century Avenue	Valley Drive
Centennial Road	Washington Street
Tyler Parkway	US Highway 83/State Street

The same planning vision applies to northwest Bismarck. Future development has the potential to generate high volumes of traffic. There are relatively few transportation corridors available to take this traffic from the undeveloped region and distribute it onto Bismarck's current transportation system. Over time, all of these available transportation corridors will be needed to move this future traffic.

Many other transportation planning studies have looked at future corridor improvements or corridor preservation as a means of taking a comprehensive approach to transportation facilities development. Some relevant transportation planning studies are discussed in the following section.

E. Relevant Past Studies

Past studies have formed an initial understanding of future land use and transportation corridor alignments in northwest Bismarck. These studies provided a starting point for preliminary concept alignments (See Figure 2) used within the Study Area.

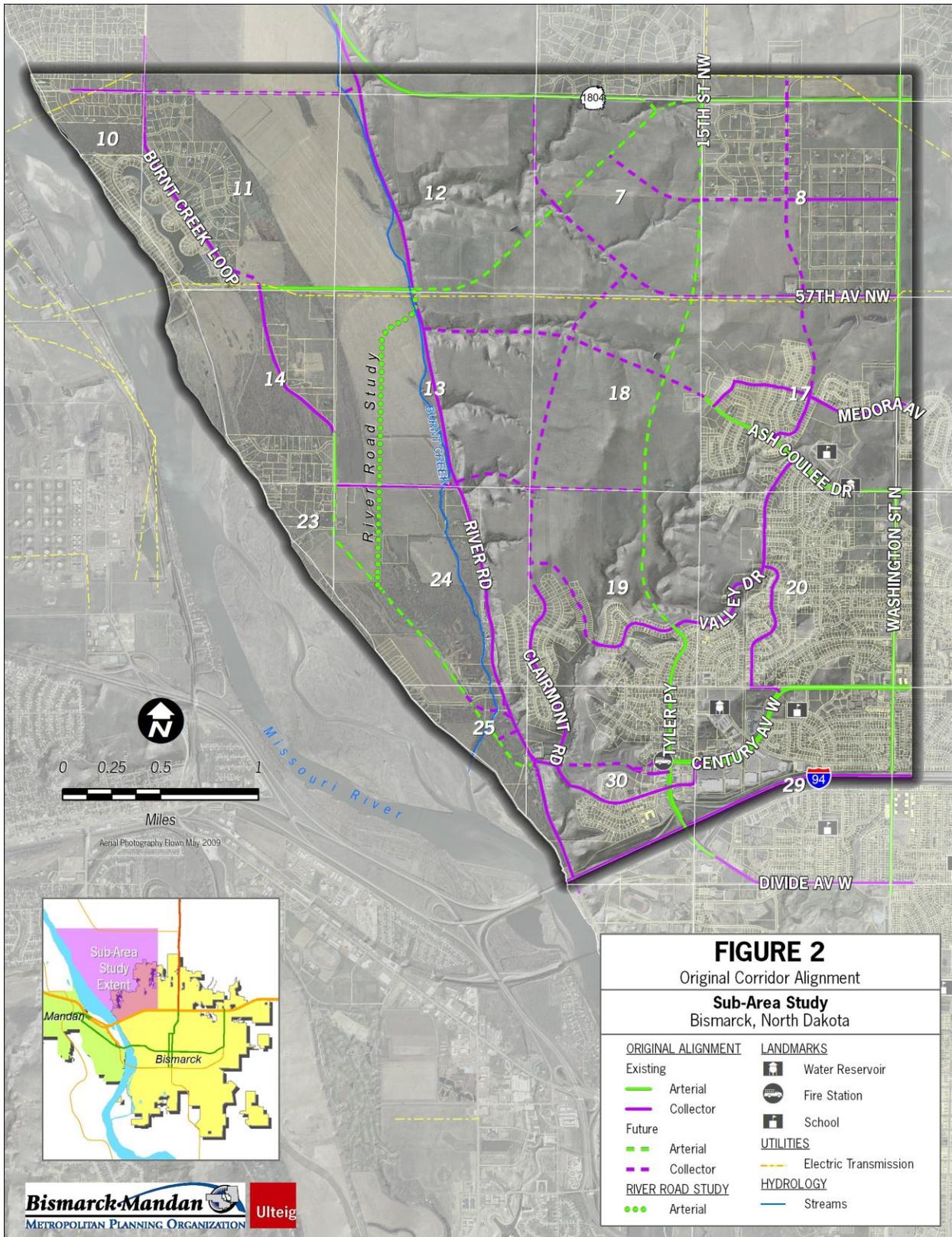


Figure 2 - Original Alignments

Past studies are briefly discussed in the following paragraphs. The process used for this Study is more comprehensive. This explains why many of the solutions proposed by this study differ from those of past studies.

1. Bismarck Fringe Area Road Master Plan

This study, completed in September 2003 identified preliminary alignments for collector and arterial roadways. The Study Area was very large and therefore the level of analysis provided for individual corridors was limited. For example, the Master Plan did not look at future projected traffic or multimodal needs.

However, many of the alignments found in the Report were used as a starting point for this Study and have been adjusted or improved through the course of this Study.

2. Northern Bridge Corridor Study

This study was completed in February 2005. It provided recommendations for a corridor alignment connecting a future Missouri River crossing “Northern Bridge” site to ND Highway 1804. Initial alignments proposed by the Northwest Bismarck Subarea Study preserved the recommended location for this corridor alignment.

Subsequent alignments proposed by the Northwest Bismarck Subarea Study maintained the potential for a Northern Bridge connection but adjusted the alignment of the roadway east of the proposed bridge site and River Road. Traffic projections for the Northwest Bismarck Subarea Study did not include the bridge in the analysis.

3. River Road Study Report

The River Road Study Report was completed in May 2005. It considered a number of alternative alignments for River Road. The context of the study was limited to the region below the bluffs and traffic volume analyses in the study were limited.

Furthermore, the alternatives from the River Road Study Report were developed from a viewpoint of solving the River Road alignment question, without consideration of the overall traffic needs associated with the Missouri River lowlands. However, recommended alignments were carried forward and analyzed as part of the Sub-Area Study.

4. Regional Future Land Use Plan

This study was completed in October 2007. It primarily recommended residential land use for the region covered by the Subarea Study. An exception to this is the commercial land use proposed south of ND Highway 1804 and West of 15th Street.

Time was spent early in the Subarea Study process to identify potential locations for schools and park land, which might influence development of transportation facilities. Later in the Subarea Study, this analysis was not completed since identification of specific sites was believed to be premature.

One of the primary uses for the Regional Future Land Use Plan was in the calculation of future traffic volumes within the subarea Study Area. The Land Use Plan identified not only residential and commercial land uses, but locations for probable green space as well.

5. Lockport Water Facility Planning

This study was completed in October 2008. It provided a master plan for future watermains within a Study Area that included the Northwest Bismarck Subarea. A map showing existing and proposed watermains proposed by that plan is found in Appendix C.

6. Bismarck Master Plan Update for Wastewater Collection and Conveyance Facilities

This study was completed in January 2001. It provided a master plan for future wastewater mains within a Study Area that included the Northwest Bismarck Subarea. A map showing existing and proposed sanitary sewer lines proposed by that plan is found in Appendix C.

7. Bismarck – Mandan Long Range Transportation Plan

This study was completed in December 2009. The Bismarck-Mandan Long Range Transportation Plan (LRTP) provides the blueprint for the area's transportation planning process over the next 25+ years. Since the planning process for the LRTP coincided with the planning process for the Northwest Bismarck Subarea Study, the LRTP deferred to this document for transportation recommendations in northwest Bismarck.

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II. Existing Conditions

A. Functional Classifications and Posted Speeds

The speed limits within the Study Area vary due to the urban/rural environment. The existing functional classifications and speed limits are shown in Table 1:

Table 1 – Functional Classifications and Posted Speeds

Roadway	Functional Classification	Current Speed Limit
Tyler Parkway (Interstate 94 to Century Avenue)	Minor Arterial	35 mph
Tyler Parkway (Century Avenue to Country West Rd)	Collector	25 mph
Valley Drive (Tyler Parkway to Ash Coulee Drive)	Local	25 mph
Washington Street (Century Avenue to 43 rd Avenue)	Minor Arterial	35 mph
Washington Street (43 rd Avenue to 57 th Avenue)	Minor Arterial	45 mph
River Road (Interstate 94 to Sandy River Drive)	Collector	35 mph
River Road (Sandy River Drive to ND Hwy 1804)	Major Collector	45 mph
Century Avenue	Principal Arterial	35 mph
Ash Coulee Drive	Minor Arterial	25 mph
Country West Road	Collector	30 mph
ND Highway 1804	Major Collector	55 mph

B. Grades and Terrain

Between the Missouri River and River Road, the land is flat and mostly lies within the 100 year floodplain. Along the east side of River Road, a steep incline separates the Missouri River lowlands from the highlands which extend to beyond Washington Street. The highlands have a number of ravines that will influence placement of future transportation and non-transportation infrastructure.

C. Known Cultural Resource Conditions

Beaver Creek Archaeology provided a Class I Cultural Resource Inventory for the Northwest Bismarck Subarea Study. The inventory, which took place on February 12, 2009, consisted of a file/records search of the project area. The inventory has been given to the Federal Highway Administration planning office at their request.

The project area is referred to as the Area of Potential Effect (APE). The APE is located on the northwest part of Bismarck, from Interstate 94 in the south to ND 1804/ Burnt

Creek Loop in the North, from Washington Avenue in the East to the Missouri River in the West.

The file search was performed at the North Dakota State Historic Preservation Office (NDSHPO). Twenty-four (24) inventories have been performed within the APE. Seventeen (17) manuscripts were found of inventories performed after 1985 within the APE. General inventory information is shown on Figure 3. The majority of the inventories performed within the APE relate to the current or planned Bismarck infrastructure: Water Pipeline, Cell Phone Towers, Transportation Corridors, and Road Improvements.

There are many archaeological, historic archaeological and architectural sites recorded within the APE. One site is listed on the National Register of Historic Places (NRHP).

Proposed corridor alignments were reviewed to determine whether they overlapped sites identified by the Cultural Resource Inventory. It appeared that all preliminary corridor alignments could be constructed without direct impacts to identified sites. However, the Cultural Resource Inventory suggested that for some locations, additional analysis in the field may be required to fully establish whether conflicts exist.

D. Sidewalks, Multi-Use Trails & Unpaved Paths

Sidewalks, multi-use trails and unpaved paths are in use within the Study Area. Sidewalks are intended primarily for use by pedestrians and are typically 6 feet in width or less. Multi-use trails are typically physically separated from a roadway, are paved and are 8 feet wide or greater in width. Unpaved paths are typically used for mountain biking or nature hiking activities.

There are existing sidewalks along most of the major transportation corridors and some of the local streets in the Study Area, with the exception of River Road and ND Highway 1804. There are a limited number of existing multi-use paths in the study area. They are adjacent to Century Avenue, Valley Drive, and portions of Washington Street and Ash Coulee Drive. Unpaved paths exist along the western section of Burnt Boat Drive and in the vicinity of Burnt Creek Drive and Fernwood Drive.

E. Traffic Volumes

The 2009 Average Annual Daily Traffic (AADT) information was taken from the 2009 Traffic Volume Map for the City of Bismarck. The AADT for the existing roadway network is shown on Figure 4.

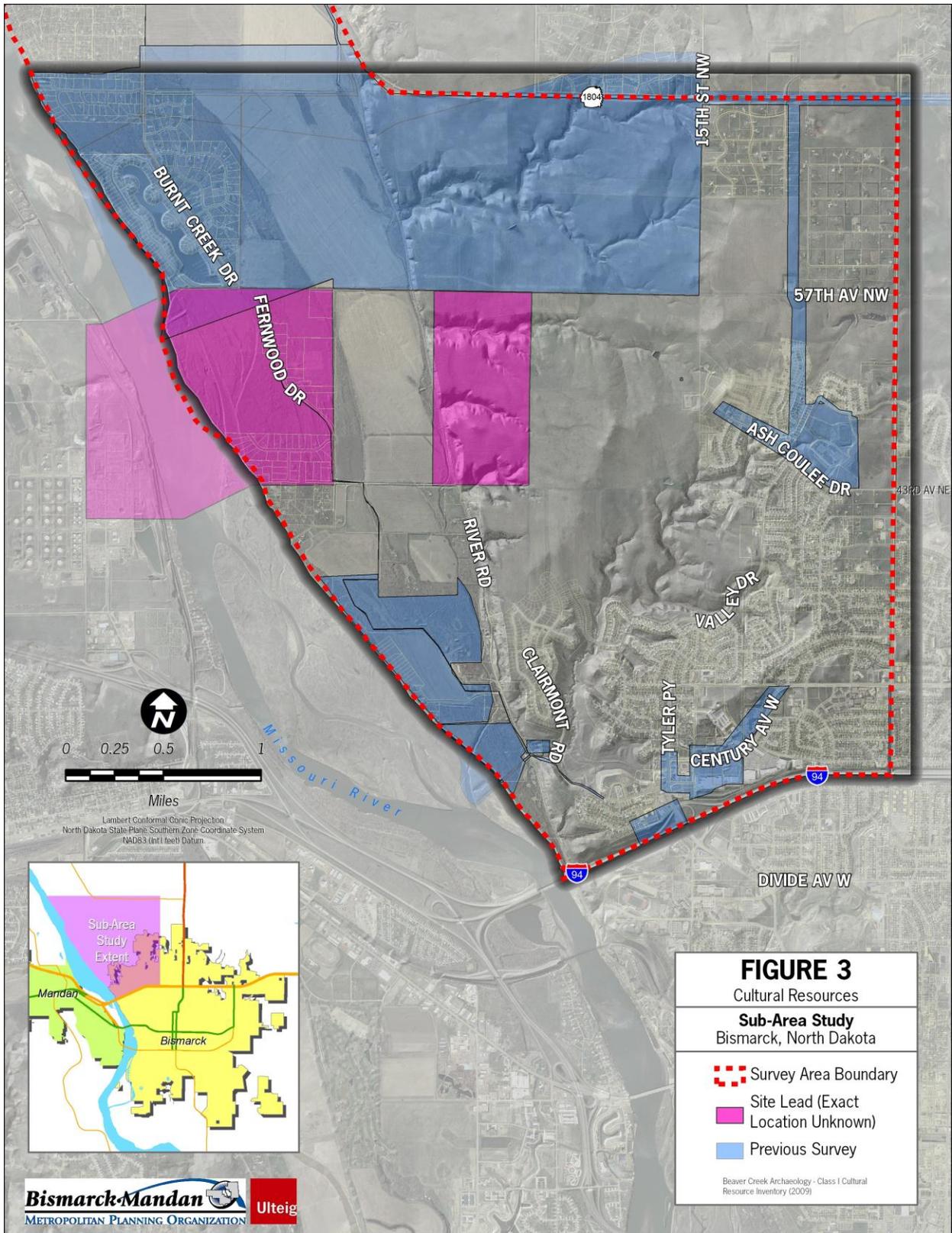


Figure 3 - Cultural Resources

F. Typical Sections

There is a mix of urban and rural roadway sections throughout the developed region of the Study Area. The existing and alternative typical sections for roads evaluated by this Study are shown in Appendix B and discussed in Chapter VII of this Report.

G. Land Use

The existing land use is largely agricultural. Much of the lowland to the west of River Road is under cultivation and some of the land is irrigated. The highland areas to the east contain a mixture of pasture and cultivated land. In both areas there are scattered rural subdivisions. The southeastern part of the Study Area contains urban and urbanizing development for the City of Bismarck.

Natural features and amenities within the Study Area include:

- Missouri River shoreland
- Groves of mature trees on the lowland
- A small creek (Burnt Creek) that meanders from northeast to southwest through the lowland
- Numerous deep and long coulees that serve as natural drainage ways from the upland to the Missouri River.
- High bluffs overlooking the lowland and the Missouri River
- Scattered groves of mature trees throughout the highlands
- Scattered wetlands in both the highland and the lowland

Constructed features of significance within the Study Area include:

- Scattered sites of potential archeological significance
- Section line roads in rural sections
- Divide Avenue/I-94 Interchange
- Drainage systems
- Scattered rural large lot subdivisions including some with direct frontage on the Missouri River
- Power transmission lines and other utilities
- Existing bicycle paths
- Horizon Middle School and Centennial Elementary School
- Tyler Parkway Fire Station
- A large commercial development adjacent to I-94
- The Waterford on West Century (Assisted living facilities)

H. Environmental Justice Populations

The locations and percentages of Census-defined non-white populations and populations in poverty within the Study Area are provided in the 2010-2035 Long Range Transportation Plan (LRTP) Report for the Bismarck-Mandan Metropolitan Planning Organization. In general, the non-white population in the Study Area is 5% or less, with the following exceptions where non-white populations are in the range of 5-15%:

- In the vicinity of Washington Street between I-94 and Ash Coulee Drive
- Along Country West Road
- North of Country West Road and west of Tyler Parkway

In general, the population in poverty in the Study Area is 5% or less, with the following exceptions where populations in poverty are in the range of 5-10%:

- In the vicinity of Washington Street between I-94 and Aspen Avenue
- Along Country West Road
- North of Country West Road and in the vicinity of Tyler Parkway
- Within the Burnt Boat Drive subdivision

More detailed locational information is shown in Figure 5 and is available in the LRTP. Since all available connections to the existing transportation system are proposed for future distribution of area traffic, no disproportionate impacts on environmental justice properties are anticipated.

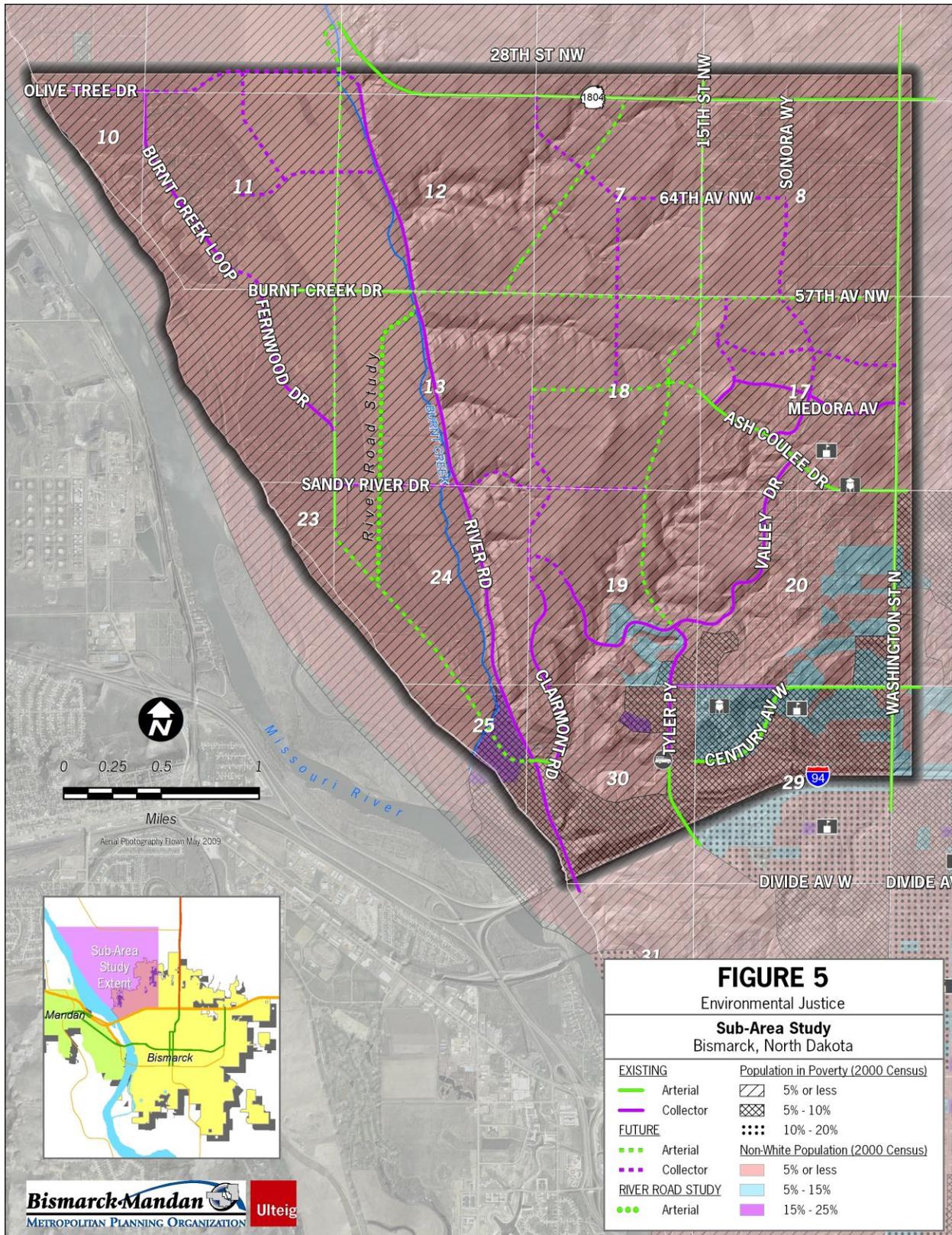


Figure 5 - Environmental Justice

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III. Issues

This section of the report provides a detailed discussion of the issues that were identified. The issues were identified in the following categories:

- Access and Distribution of Traffic
- Accommodation of utilities
- Barriers to development
- Corridor preservation
- Costs, funding and project programming
- Environmental impacts
- Harsh terrain
- Land use and timing for development
- Pedestrian and bicycle mobility
- Property and corridor impacts

A. Access and Distribution of Traffic

A central theme to the Northwest Bismarck Subarea Study deals with movement of traffic. Currently, there are no east-west corridors within the Study Area, other than I-94, that extend from Washington Street to properties along the Missouri River. From Ash Coulee Drive north, there are a number of corridors that could be extended west of Washington Street. South of Ash Coulee Drive, only the Century Avenue Corridor has the potential to be extended west to service properties in the Missouri River lowlands. This is due to terrain and developments that have blocked alternative locations.

A similar condition exists in the north-south direction. Currently, only River Road and Washington Street extend the entire length of the Study Area. One other corridor, Tyler Parkway, has the potential to extend the entire length of the Study Area.

It is important to have corridors that extend through and across the Study Area. These corridors typically function as arterial roadways where mobility, longer distance travel and safety take precedence. People rely on these corridors for access to destinations that are often miles from their property.

These types of corridors are typically spaced one mile apart. This keeps these corridors from becoming overly congested and gives users direct routes of travel.

B. Accommodation of Utilities

Much of the undeveloped region within the Study Area is not currently served by utilities. Utilities can be placed within the right of way acquired for roads. However,

much of the road right of way within the undeveloped region has yet to be platted or acquired.

Sanitary sewer will be serviced from the existing Pioneer Park sanitary sewer lift station, which has adequate capacity to serve the majority of the subarea Study Area. The City does have master plans for water and sanitary sewer for all of the area within the Study Area boundary. Some planning has been completed for storm drainage in the south end of the Study Area as well.

Some developers would like the City or County to acquire easements in advance of development for locations where future utilities were planned. Concerns have been raised that downstream developers can block future development from occurring.

C. Barriers to Development

In order for development to occur, adequate infrastructure and city or county services need to be provided. In some cases, a significant investment of public dollars may be necessary before an area will open up to development. This is not the manner in which infrastructure is typically funded by the City of Bismarck.

County and City investments on infrastructure often are applied to road projects and utilities where adjacent land can be assessed for the local costs. In order to serve the undeveloped region within the Study Area, the following efforts may need to occur:

- Extension of Tyler Parkway
- Extension of Century Avenue (Either directly, at Golf Dr., or at Burnt Boat Dr.)
- Extension of water and sanitary sewer utilities into undeveloped areas

Some areas will have difficulty developing without this infrastructure in place. Yet for developers to undertake these infrastructure improvements may be cost prohibitive. The current City policy calls for development to occur first and facilities to be provided during or after development. Generally, much of the cost is born by the development.

D. Corridor Preservation

The issue of corridor preservation in northwest Bismarck is multi-faceted. Unless transportation corridors are protected from adverse development, excessive access may result and the ability to provide safe and functional transportation facilities may be lost. Ideal new corridor alignments, right of way widths, and important transportation design elements need to be identified. These must interconnect with the existing transportation system and therefore they require sufficient technical analysis and community participation to define a well-planned, functional and multi-modal transportation network.

Corridor preservation by local governments requires commitment to the intent of the corridor preservation plan, as well as ongoing, cooperative dialog with area landowners and developers. Corridor preservation provides a sound basis for future platting by identifying approximate corridor alignments, right of way widths, access spacing and transportation design elements associated with planned or existing functionally classified roads.

Access to existing collector and arterial roadways located on the periphery of the Study Area is critical to the mobility needs of future developed land. Past development and corridor design has limited the choices for quality transportation facilities that are available. Century Avenue, Golf Drive, Burnt Boat Drive, Clairmont Road, Tyler Parkway, River Road, Ash Coulee Drive, and 57th Avenue provide the only viable remaining connections to the rest of the City's transportation system. Furthermore, more access from the highlands east of River Road to the lowlands west of River Road will be needed in the future.

E. Costs, Funding and Project Programming

When choosing between one corridor concept and another, the cost of improvements is often an important factor. The decision process should consider the availability of federal, state or local funding. Project programming is tied to funding availability and City or County priorities for using those funds. The timing and location of future development will also play a major role in project programming for construction.

F. Environmental Impacts

Many potential environmental impacts can be encountered when a new corridor is constructed. The National Environmental Policy Act (NEPA) identifies a broad array of potential environmental resources that must be considered when undertaking regional or federally funded projects. Examples include wetlands, cultural resources, threatened and endangered species, social and economic impacts, and many others.

While environmental impacts apply heavily to project implementation, it is not the intent of this Study to make any final decisions for or against projects based on available information. This Study will point out environmental issues that are identified so they may be factored into the alternative review process. It is assumed that further environmental review will come prior to most future corridor improvements.

G. Harsh Terrain, Soil Conditions and High Water Table

Steep grades may be an issue in locations where existing roadways are connected to proposed roadways in the Study Area. Locations where steep grades exist are shown in

reddish-brown color in Figure 1 on page 2. Poor soil conditions and a high water table may make these and other areas especially challenging both from a development standpoint and where bridge structures are needed. Furthermore, special care is required to assure that roads will withstand seepage and unstable soils.

There are numerous coulees and ravines that will have to be traversed or used for connections. Proper planning for storm water conveyance is essential. The north end of Tyler Parkway approaches a ravine that runs east-west. This ravine will have to be crossed if Tyler Parkway is extended to the north.

A steep escarpment along the east side of River Road is up to 120 feet high. Future roadways extending east of River Road will need to traverse the bluff. Sight distance and safety should be considered as the roadway connections are planned, designed and constructed.

H. Land Use and Timing for Development

As noted under the Relevant Studies Section of this report, a generalized land use plan has been developed for the entire Study Area. The limited detail of the Regional Future Land Use Plan (See Figure 6) leaves the land use in the Study Area open to future refinement.

It is likely that nodes of commercial and higher density residential development will occur at some points along the major corridors identified in this study. It should be noted that the demand on these major corridors may be reduced by encouraging a mixture of residential, commercial, and public uses at a neighborhood scale, and incorporating a well distributed local street network.

Some of the Regional Future Land Use Plan's proposed land use locations were based on assumptions about the locations of certain collector and arterial roadways. Because a number of significant changes to collector and arterial roadway alignments are being considered in this study, it may be appropriate to revise some of the land use locations and boundaries of the Regional Future Land Use Plan. Examples of such locations are:

- mixed use and commercial land use boundaries in Section 7 of Hay Creek Twp
- the commercial land use adjoining River Road in Section 13 of Hay Creek Twp

This project's Study Area is so large that it is unlikely to be fully developed in the next 30 or more years. While the ultimate land use for much of the Study Area is urban residential, it is prudent to encourage change from current land uses into urban residential in a pattern of contiguous urban growth.

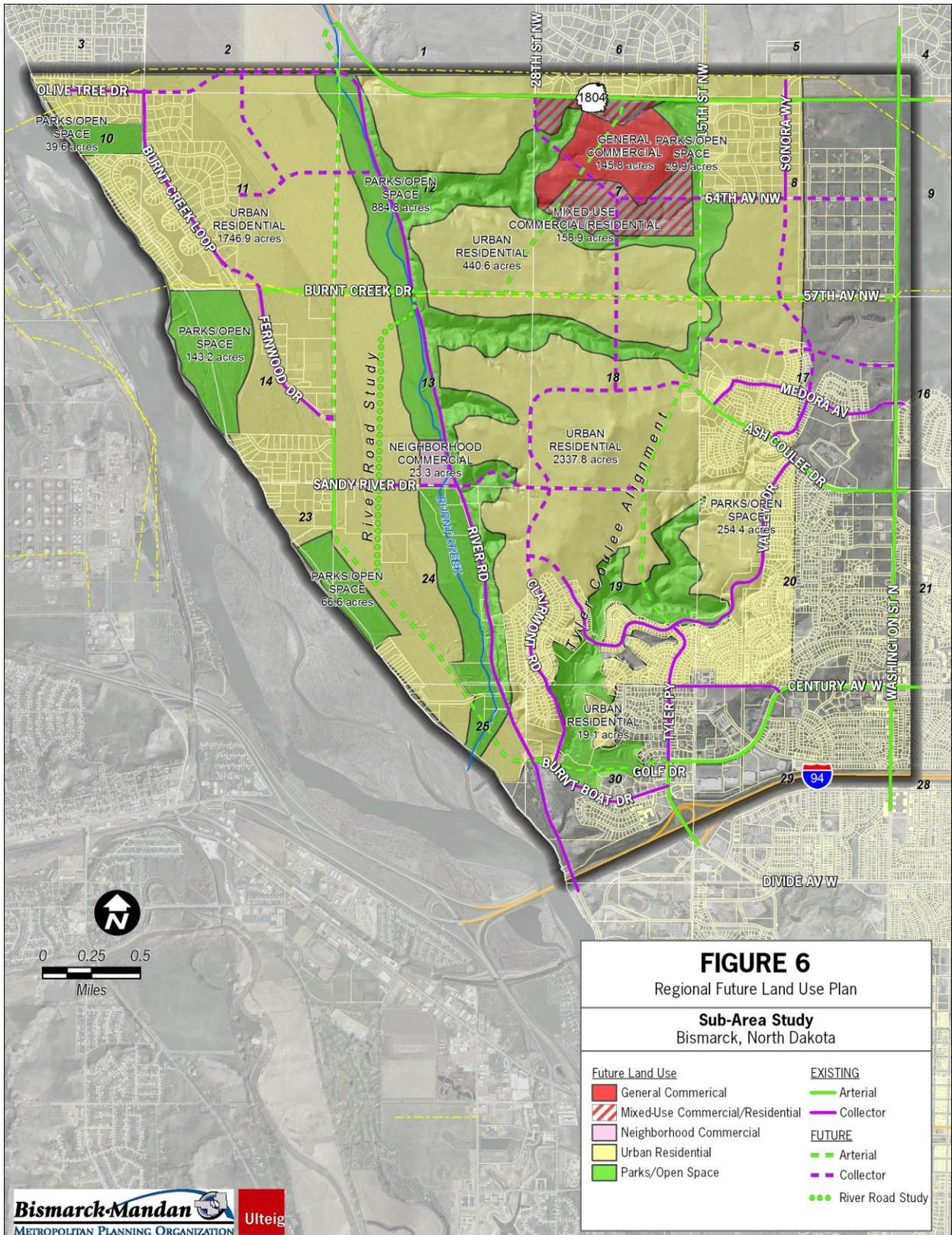


Figure 6 - Regional Future Land Use

There may be continuing demand for rural residential development. The City of Bismarck land development regulations allow rural residential development in the urban service area only in the case that the development is “ghost-platted” to facilitate the future transition to urban residential densities. Ghost-platting is a process of pre-dividing large lots for future division and sale when urban development reaches the subdivision. It may be appropriate to review the need for any additional land use management policies for that part of the study area outside the urban service area boundary.

When and where development occurs can impact when and where city services and corridor improvements are needed. Some areas may already be served by utilities and adequate roadway infrastructure, whereas for other areas, new services and infrastructure need to be provided. This issue can significantly impact the City or County’s budgeting and project programming processes.

I. Pedestrian and Bicycle Mobility

A network of future pedestrian and bicycle facilities within the Study Area needs to be planned so that future platting and right of way acquisitions account for them. Analysis should also consider on-road vs. off-road bicycle facilities.

J. Property and Corridor Impacts

Ongoing development will have impacts on surrounding properties and transportation corridors. Future development will result in visual impacts, increased traffic, possible changes to existing roadways affecting on-street parking and roadway width, and other possible impacts.

If or when corridors such as Ash Coulee Drive, Tyler Parkway and Clairmont Road are extended, there will be impacts to traffic on the existing corridors. Impacts to adjacent neighborhood street and other connecting roadways or driveways should be considered in the overall decision process.

Impacts to existing neighborhoods need to be considered. Impacts may include noise impacts and visual impacts and other potential impacts as well.

K. Truck Routes

Selection of corridors to serve as truck routes should precede platting and development especially in residential areas. Truck routes are needed to not only reduce truck activity on non-truck route roads, but also to guide engineers regarding acceptable vertical gradeline and other design criteria, including provision of a thicker pavement section.

IV. Transportation System Analysis

This section of the report discusses the transportation system needs of the study area. In summary, it recognizes the need to address all modes of travel and it highlights the opportunity to incorporate a Complete Streets/Context Sensitive Solutions approach to the development of both the transportation system and land use in the Study Area.

A. Roadway Network Needs

Most roadway networks in urbanized areas include arterial roadways at one mile spacing and collector roadways at one half mile spacing. Within the Study Area, this is generally possible except where steep terrain or other issues dictate otherwise.

Planning for the roadways in and adjacent to the Study Area follows the premise that all planned roadways will someday be constructed. Loss of one or more corridors due to adverse development can result in remaining corridors becoming inundated with traffic. In the Study Area this is certainly the case, since topography and existing development limits options for corridors to be planned and constructed in other locations.

1. East-West Corridor Facilities at Century Avenue

It is understood that future developments west of the Tyler Coulee and in the Missouri River lowlands will seek access to Tyler Parkway, Century Avenue and the I-94 Interchange. Much of this traffic will come from the north and, at some point, end up near the west end of Burnt Boat Drive.

Without a good connection from the west end of Burnt Boat Drive to Century Avenue and Tyler Parkway, regional traffic mobility and safety will be compromised.

2. North-South Corridor Facilities at Tyler Parkway

There are limited choices for north-south corridors within the northwest Bismarck subarea. Washington Street, Valley Drive, Clairmont Road and River Road are not capable of handling the projected north-south traffic increases that will occur as the area develops.

From a transportation system standpoint, development of at least one other north-south corridor can have a positive long range impact on all of these corridors. In addition, a Tyler Parkway extension could provide a direct connection from I-94 into the heart of the northwest Bismarck subarea.

B. Bicycle and Pedestrian Network Needs

It is generally assumed that development of future corridors will include, at a minimum, sidewalks and accessible curb ramps for pedestrians. Analysis of bicycle and pedestrian network needs was undertaken to address the following elements:

1. Locations for On-road and Off-road Bicycle Facilities

Decisions on whether to provide on-road (bike lanes) or off-road (bike trails or bike paths) bicycle facilities should be based on a number of factors:

- The age and experience of the bicyclist – more inexperienced bicyclists can be expected around schools and off-road facilities may be preferred.
- The speed and volume of traffic – it may be uncomfortable for some bicyclists to travel along roads that have higher traffic volumes and speeds. Added separation between the bicyclist and the motorist can increase the level of safety provided.
- The space available for the facilities – in some locations there may be insufficient space for either bike lanes or trails.
- The transitions between on-road and off-road bicycle facilities should be handled carefully.
- The cost to maintain bike lanes is less because they are easier to keep free of snow; however they cost more to construct due to the thickness of the roadway pavement section.

2. Connections to Other Bicycle and Pedestrian Facilities

Dead ends typically should be avoided. The Park District typically has planned looping routes to enhance the traveling experience and to give pedestrians and bicyclists better travel options and greater access within the region.

3. Connections to Bicycle and Pedestrian Destinations

Non-motorized transportation options are an important facet of optimal transportation and land use plans because they offer increased efficiency for some transportation functions as well as providing a number of additional benefits to communities. Bicycle and pedestrian systems are more effective when there is greater connectivity. Therefore it is beneficial to provide connectivity to a wide number of destinations such as schools, parks, and other urban activity centers such as commercial areas and public facilities.

It is beneficial to provide multi-use trails that are designed as interconnected loops which allow recreational users trip length options and multiple

destinations. It is also important to consider corridor design elements and development strategies that can improve the quality of the walking and bicycling experience. Some of these design elements and development strategies include:

- Appropriate lighting and route selection to enhance security
- Bicycle friendly choices in street design details such as storm sewer inlets and rumble strips
- Variety and detail in urban & natural landscapes to enhance visual interest
- Shade and windbreaks to reduce extreme environmental effects on users
- Consistent and appropriate maintenance
- Intermediate destinations which enhance social and economic benefits to the local and regional community

Until specific locations for parks, schools, and other urban activity centers are identified, exact locations for bicycle facilities cannot be determined. However, the connectivity between the land areas divided by the major roadways identified in this plan can be assumed, and therefore, a general network of bicycle facility locations can be established.

The future bicycle system should link into the existing bicycle system and should connect with the future bicycle system network identified in the 2009 Long Range Transportation Plan. Also, it is reasonable to assume that a multi-use trail system will be an integral part of the parks/greenway system identified in the Regional Future Land Use Plan.

4. Locations for Pedestrian/Bicycle Grade Separated Crossings

Grade separated crossings are expensive and should be planned where there is a physical barrier to cross or where conflicts between motorized and non-motorized traffic raise safety concerns. Future schools or regional parks near busy streets can produce high pedestrian and bicycle activity where a grade separated street crossing may be desirable.

The future Tyler Parkway corridor near Ash Coulee Drive is one example of a location where a grade separated crossing may be desirable.

C. Freight Movement Needs

Freight movement within the Study Area should be primarily needed for localized service and use of proposed corridors as through roads for trucks typically should not be necessary. The City of Bismarck should determine whether future use by trucks along each corridor will be allowed or prohibited.

As the northwest subarea develops, it will be important to consider the impact new alignments will have on agriculture. New transportation corridors may divide some fields and irrigation systems. Existing agricultural service routes and agricultural vehicle trip lengths may also be impacted.

D. Transit Needs

Given that the anticipated land use within the Study Area is predominately residential, there is significant potential for future transit needs. All of the future corridors should be considered as candidates for placement of bus shelters, bus pull-outs and other transit facilities.

Where bike lanes are provided, conflicts with bus stops may occur. Additional space should be provided for the bus stop so bicycle traffic can proceed unhindered and in a safe manner.

E. Balanced Transportation Network Opportunities

This Study includes a Context Sensitive Solutions (CSS) element. CSS is an approach to transportation planning, design and construction which works to combine transportation systems into the broader community fabric and values. Current City of Bismarck roadway Design Standards do not allow for this approach. The “core principles” of CSS¹ are:

- Strive towards a shared stakeholder vision to provide a basis for decisions.
- Demonstrate a comprehensive understanding of contexts.
- Foster continuing communication and collaboration to achieve consensus.
- Exercise flexibility and creativity to shape effective transportation solutions, while preserving and enhancing community and natural environments.

¹ Core Principles of CSS from http://www.contextsensitivesolutions.org/content/topics/what_is_css/core-principles/ May13, 2010.

Often, Context Sensitive Solutions seek to find a balance among competing interests for the use of available right of way. This concept is the cornerstone of the Complete Streets movement with which the Bismarck community is already familiar. Instead of being strictly focused on the mobility and safety of automobile drivers, Complete Streets and Context Sensitive Design give equal consideration to the needs of pedestrians, bicyclists, and other modes of travel. CSS also seeks to incorporate roadway design characteristics which are consistent with community values and environmental considerations. Two key aspects of CSS are the physical environment and the public involvement emphasis.

The physical environment element incorporates pedestrian and bicycle facility needs as an essential component of the transportation corridors instead of as an afterthought. The public involvement emphasis is intended to provide opportunities for the full spectrum of stakeholders to express their values on proposed transportation corridor development. To this end, CSS processes are expected to “understand the landscape, the community, valued resources, and the role of all appropriate modes of transportation in each unique context before developing engineering solutions.” CSS, therefore, begins with a conceptual plan and continues through each development phase and construction project undertaken within the Study Area.

The range of opportunities to proactively enhance the physical environment includes:

- Aligning transportation corridors to allow development to take advantage of scenic views overlooking ravines, the lowland and the Missouri River (instead of acting as a barrier to those views).
- Identifying reasonable extensions of pedestrian and bicycle routes and incorporating appropriate facilities into the planning, design and construction of new or improved roadways or other locations.
- Assuming the need for future transit operations in the Study Area and including transit friendly design elements in the planning, design and construction of new or improved roadways.
- Maximizing connectivity in the local street network for increased walkability in residential neighborhoods and reduced trip lengths for both motorized and non-motorized transportation.
- Considering the impacts of vertical alignment choices---reducing grades to allow longer approach visibility for at grade pedestrian and bicyclist crossings.

- Recognizing the benefits of alternative approaches to storm water management and incorporating alternative treatment systems that can save Bismarck citizens money during construction and ongoing maintenance.
- Preserving environmental, scenic, aesthetic, historic, and natural resources.

The Regional Future Land Use Plan provides a framework for future development within the Study Area. The proposed land use is largely urban residential development with linear areas of green space or parkland running through it. A large commercial and mixed use area is proposed along the south side of the ND Highway 1804 corridor.

The entire Study Area is under the lead zoning jurisdiction of the City of Bismarck and most of the Study Area is under its exclusive jurisdiction. Bismarck has taken the approach that as development proposals occur in the Study Area, appropriate zoning districts will be established for each development in a manner that is consistent with the generalized land use plan.

Some specific land use concepts for consideration in this plan include the following:

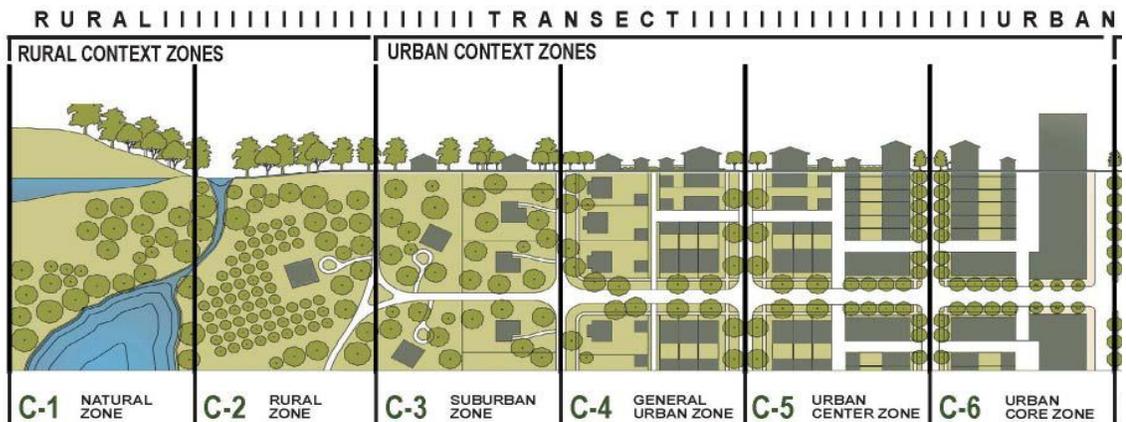
- Maintain the natural features bordering River Road and limit residential, commercial or industrial development within sight of its ROW.
- Develop a linear park system that enhances the existing and proposed off-road multi-use path system which adjoins River Road.
- Coordinate with the Bismarck Public School District to preserve site(s) for future school facilities. It is reasonable to anticipate two or more elementary schools could be located in the Study Area. It is especially important to preserve pedestrian and bicyclist system linkages that are efficient and safe for children in the vicinity of elementary school sites.
- Coordinate with the Bismarck Parks and Recreation District to preserve and develop a large, relatively flat area for a regional park adjoining one of the natural coulees located within the Study Area. Such a regional park is an appropriate land use within an urban area as large as the Study Area. The regional park location should be readily accessible by pedestrians, bicyclists, and transit users, as well as motorists.
- Continue efforts to preserve Missouri River frontage for public access and a public park at the three locations identified in the Regional Future Land Use Plan. These locations should be readily accessible by pedestrians, bicyclists, and transit users, as well as motorists.

- Require future development in the Study Area to provide land and facilities which allow efficient pedestrian access to neighborhood amenities and services.

The northwest Bismarck subarea benefits from the presence of large tracts of undeveloped land. Planners and designers have the opportunity to consider what is wanted, preserve adequate right of way to implement desired improvements, and provide guidance as development occurs.

Complete Streets and CSS provide different tools which can help ensure that opportunities to enhance the physical environment and incorporate land use concepts such as those mentioned above are integrated into future corridor and neighborhood development within the study area. While this study introduces the concept of Complete Streets and CSS, its real application must happen during future corridor studies and during the review of future development proposals. While Bismarck ordinances already address some aspects of development character, changes to existing City of Bismarck policies and ordinances may be needed in order to effectively incorporate Complete Streets and CSS concepts.

For corridor studies this means that careful consideration should be given to the desired future character of the area through which the corridor will pass. CSS introduces the concept of “context zones” to help define the area character. Context Zones represent a continuum of development patterns ranging from natural landscape (with virtually no development) to high density urban core (with high-rise commercial and residential uses) (See Figure 7). In this study, the term “context zones” refers to the full realm of possible uses and intensities of use. Even though it is presented as a continuum, the development patterns are more typically a mosaic – a patchwork of the various development intensities in varying sizes throughout a community or region. Corridor and land development planning for the traveled way, the roadside, and intersections should be consistent with the desired or anticipated character of the surrounding area.



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Figure 7 - Urban Context Zones

The ideal plan for each corridor should do more than plan a uniform roadway design and look for the entire corridor length. Rather, it actually should have different design elements depending on the character it is passing through (See Figures 8 and 9).



Figure 8 - Urban Context Bike Lanes

Figure 8 by Dan Burden - Sonoma, California



Figure 9 - Suburban Context Bike Lanes

Figure 9 by Judi Lawson Wallace - Frankfurt, Germany
All images from Pedbikeimages.org

Figures 10 illustrates an urban roadway which fits the context of its residential neighborhood while Figure 11 shows the same roadway two miles away still in a residential neighborhood but inherently less safe and comfortable for ped/bike users.



Figure 10 - Urban Roadway in Context



Figure 11 - Urban Roadway out of Context

Table 2 illustrates the various “context zones” which may exist or be developed in the study area.

There is a parallel application for future development. Often developers are required to provide a certain amount of road right of way for a proposed roadway based on its functional class, but no guidance or consideration is given to what the character of that roadway should be given the intended development context. By integrating the planned land use character with the preferred character of the roadway, a more balanced set of transportation facilities can be provided that will better serve the needs of any proposed development.

It should be noted that there are roadways where there is a high priority for vehicle mobility and this priority overrides the interests for a balanced transportation corridor. It is likely that such corridors will be needed in the study area, and it will be up to future corridor studies to recognize if such a priority exists.

Table 2 – Context Zones

Context Zone	Summary Character	Building Setback & Frontage	Building Height	Land Use Mix
Natural (CZ-1)	Characterized by natural landscape and general absence of buildings			
Rural (CZ-2)	Agricultural with scattered development			Agricultural, natural
Suburban (CZ-3)	Landscaped, few pedestrians, detached buildings widely separated	Deep yard setbacks dominant landscaped character (fence/hedge, yard, & porch)	1-2 story with some 3 story	Restricted, residential with “at-home” businesses and limited commercial, institutional/civic, and open space
General Urban (CZ-4)	Urban, pedestrians present, balanced landscape and predominantly detached buildings	Medium yard setbacks, balanced landscape and building character (fence/hedge, yard, & porch)	2-3 story with some 1 story and some above 3 story; and few taller work buildings	Limited, medium density residential with limited mix of other uses typically ground level – institutional/civic, commercial, and open space
Urban Center (CZ-5)	Urban, substantial pedestrian activity, predominantly built with attached buildings with most landscape within the thoroughfare ROW	Small or no setback, build to lines common, building character defining street wall (storefront, stoop, & forecourt)	3-5 story with some lower and few taller buildings	Open, higher density commercial, employment, and residential use with support institutional/civic and open space
Urban Core (CZ-6)	Urban, most pedestrian activity, predominantly built with attached buildings providing a strong sense of enclosure with some landscape within the thoroughfare ROW	Small or no setback, build to line at sidewalk/ROW, building character defining street wall (storefront, stoop, & forecourt)	4+ story with few lower buildings	Open, highest density commercial, employment, and residential use with support institutional/civic and open space

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V. Proposed Corridor Alignments

Corridor alignment alternatives that were initially considered and presented at the first public input meeting are shown in Figure 2 on page 5. Corridor alignment alternatives were derived from the technical analysis with input from the Study Review Committee. Proposed corridor alignments are shown in Figures 12, 12A and 13.

Profiles were prepared to illustrate the approximate grades that could be established for some of the individual corridors. Areas showing a significant amount of cut or fill are indicators of the need for drainage facilities, potential structures, and possibly additional right of way. These profiles are shown in Appendix B.

For every corridor alignment alternative, there are reasons to do it, and reasons not to do it. For those alignments that progress to an environmental analysis phase, the reasons to do it correspond with a preliminary statement of project purpose and need. For some corridors, issues remain that make it more difficult to identify a recommended alignment. These corridors should be further examined by future studies.

The following paragraphs in this section of the Report provide an overview of the pros and cons associated with individual alignments. Local technical staffs have given feedback on which alignments they support, and their positions are reflected in the narrative for each corridor that follows. The recommendations of the Study Review Committee for each corridor alignment are listed in the opening sentence under each corridor name, as well as by using the word, **“Recommended”** provided in the “Reasons to do it” or “Reasons not to do it” heading.

Issues such as corridor speed, type of turn lanes, access management, on-street parking, and use by trucks and other modes of travel are addressed through current city and county policy and ordinances. Further definition of corridor attributes may occur as each corridor develops and with input from public stakeholders. Specific discussion pertinent to the key corridor alignments within the Study Area is provided in the following sections:

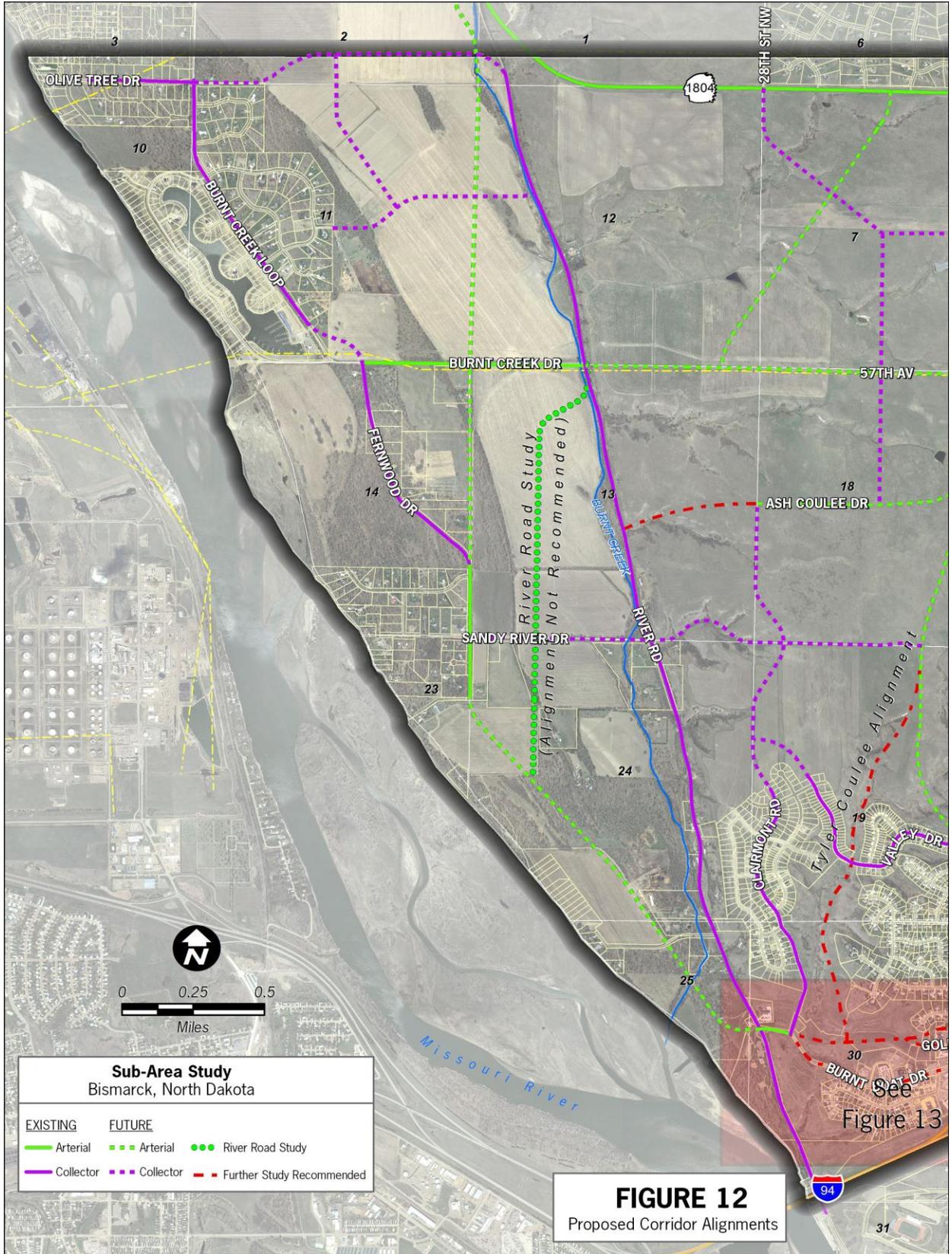


Figure 12 - Proposed Corridor Alignments

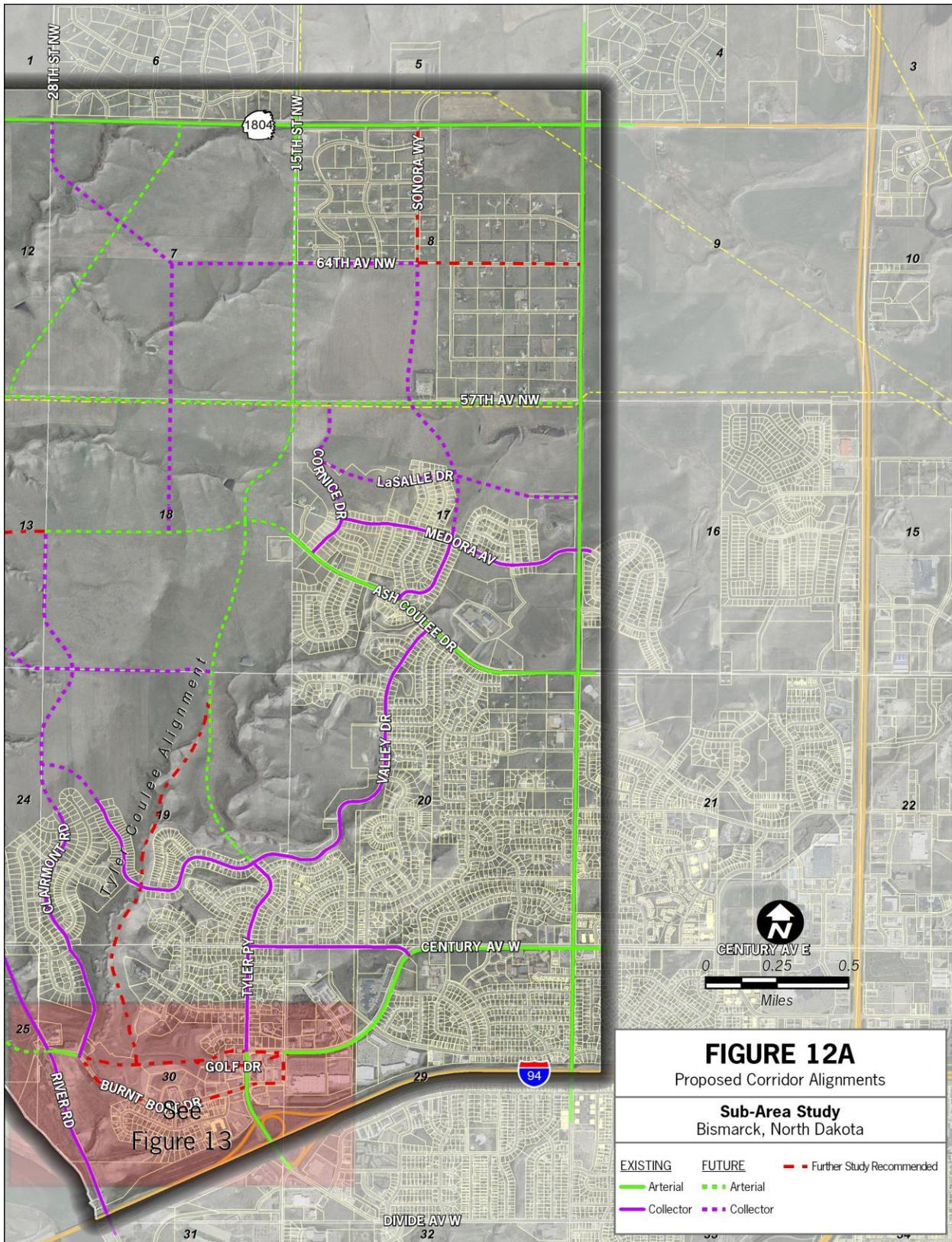


Figure 12A - Proposed Corridor Alignments

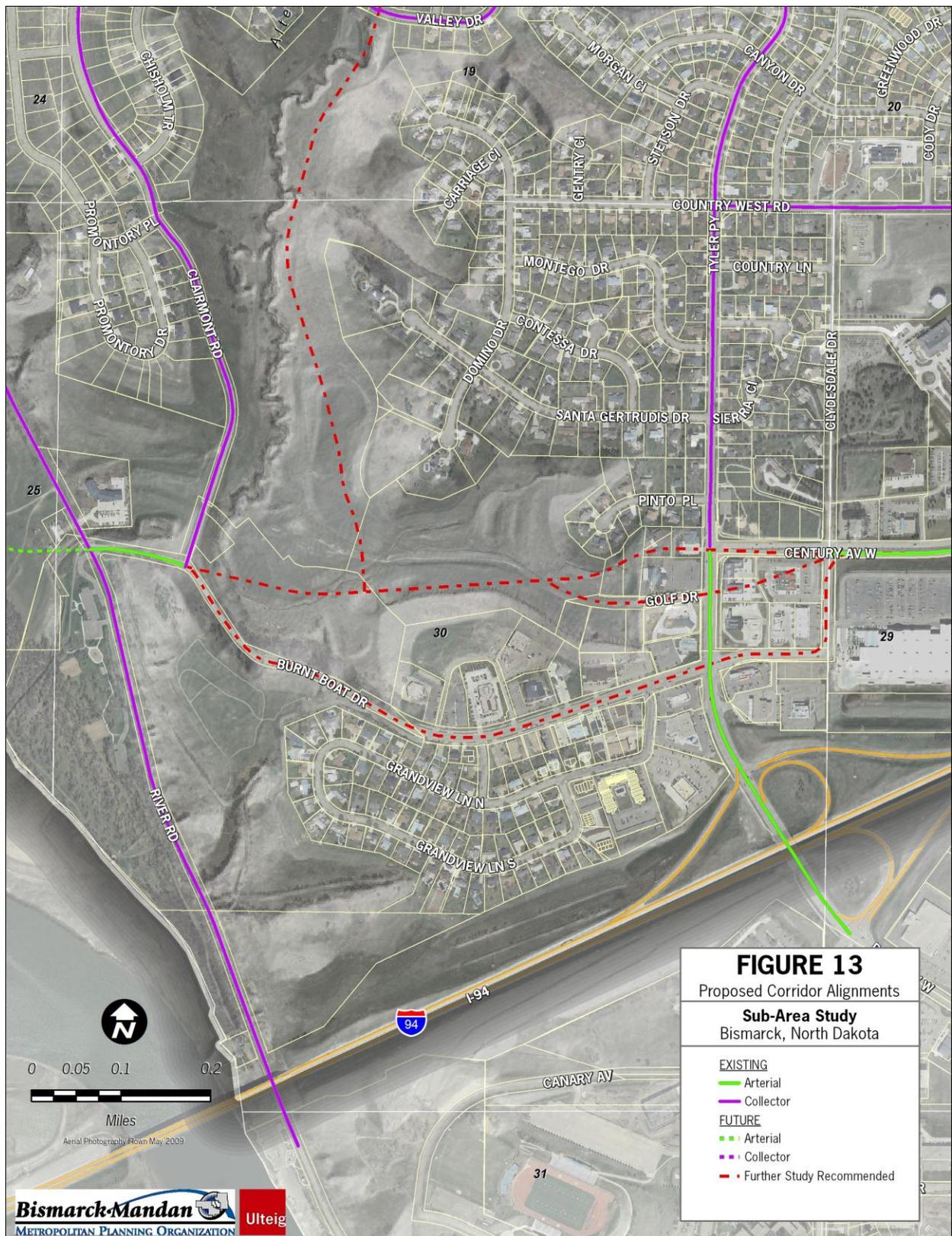


Figure 13 - Proposed Corridor Alignments

A. Ash Coulee Drive

This alternative is recommended. It consists of improving the existing segment of Ash Coulee Drive and extending Ash Coulee Drive from its current western terminus to the future extension of Clairmont Road or to a potential connection at River Road. The existing segment of Ash Coulee Drive is a minor arterial. Over time and as other arterials and access locations for Horizon Middle School are constructed, Ash Coulee Drive west of Washington Street may be converted, if preferred, to a collector route.

The recommended future minimum right of way width for this alternative is 100 feet to maintain the rural section. Access along the corridor should continue to be managed. See Figure 1 in Appendix B for a traditional typical section for this alternative. While the potential for on-street parking exists west of the future connection with 15th Street, on-street parking along the existing length of the corridor is not advised. Two options to extend Ash Coulee Drive were considered:

Option 1 – Extend to Clairmont Road

Option 2 – Extend to River Road

1. Option 1 – Extend to Clairmont Road

Option 1 would extend Ash Coulee Drive to Clairmont Road with no connection to River Road. This option would minimize future traffic growth along Ash Coulee Drive, resulting in lower future traffic volumes in front of Horizon Middle School than would occur if it were extended to River Road. At the time this study was prepared, technical staff recommended this option because of the lower cost and because analysis did not indicate that the corridor would carry enough traffic to justify its connection to River Road.

2. Option 2 – Extend to River Road

Option 2 would extend Ash Coulee Drive to River Road. The Option 2 alignment could extend along either the half mile line as shown or following the ravine as originally suggested. This option would result in better transportation system continuity than Option 1.

The half mile line alignment would provide much better corridor spacing than the alignment that follows the large ravine. (Half mile spacing instead of the ravine location, which is only about 700 feet from the proposed 57th Avenue corridor).

However, if an alignment following the half mile line were used, most people would prefer the 57th Avenue because it is a less obstructed route. Therefore, it is

very questionable whether the half mile line alignment would pull enough traffic to justify its construction.

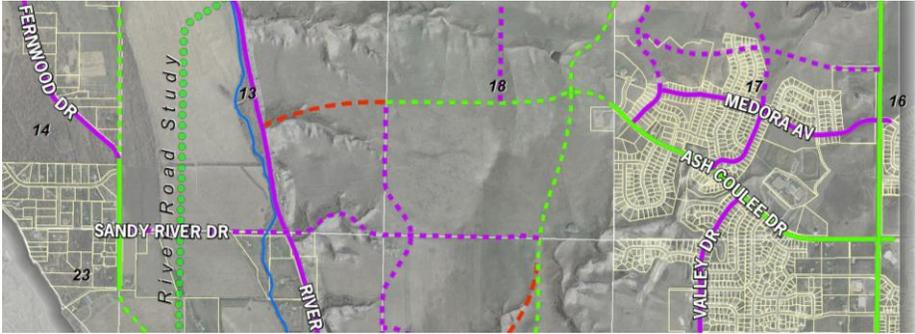
There is potential that if the alignment was completed through the large ravine to the north, significant traffic could be pulled off the proposed 57th Avenue corridor. The 57th Avenue corridor was recommended over the ravine alignment due to limited access, current congestion issues in front of Horizon Middle School, and concerns raised during the public involvement process.

3. Reasons To Do It (Recommended)

Selection of a preferred option for extending Ash Coulee Drive is pending further City and environmental analysis, to be undertaken following Study completion. Improvements to the existing segment of Ash Coulee Drive will alleviate traffic congestion and improve traffic safety in front of Horizon Middle School and at the Washington Street intersection. Improvements can also enhance pedestrian and bicycle crossing safety through changes in traffic control, addition of medians or increasing the visibility of crossings.

Ash Coulee Drive provides direct connectivity to Washington Street. East of Washington Street, Ash Coulee Drive becomes 43rd Avenue North, a functionally classified principal arterial, and facilitates east-west traffic movement to US Highway 83, Centennial Road and beyond. Extending the corridor into the undeveloped areas accomplishes the following:

- Enhances access into and out from the future developments within the Study Area
- Connects future residential developments to Horizon Middle School
- Increases the potential to use federal funding to improve Ash Coulee Drive by providing a more logical end point for the corridor.
- There are few other alternatives to move traffic east out of the Study Area



4. Reasons Not To Do It

The public has raised concern over the ability of Ash Coulee Drive to handle more traffic. There is current traffic congestion around Horizon Middle School, as well as at the Washington Street intersection. Some feedback has also been received concerning excessive traffic speeds along the corridor.

Although corridor extension has always been planned, extension of Ash Coulee Drive will result in more traffic. Additional traffic on Ash Coulee Drive could make it more difficult for pedestrians and bicyclists to cross the road and for vehicular traffic to enter onto Ash Coulee Drive. Therefore, if Ash Coulee Drive is extended, care should be given to address pedestrian and bicycle crossing safety, particularly in front of Horizon Middle School. Current facilities do allow for corridor improvements to address these issues.

5. Other Considerations

The City of Bismarck is aware that existing roadway operational issues remain along the corridor. While no operational improvements are slated, it is anticipated that turn lanes and roadway gradeline improvements will be added in the future.

B. Century Avenue, Golf Drive, & Burnt Boat Drive Alignments

Vehicles traveling from the Missouri River lowlands and Clairmont Road will need access to and from Century Avenue and the Divide Avenue/I-94 Interchange in the future. This access can only occur at Burnt Boat Drive, Golf Drive or Century Avenue.

This section of the Report discusses alternatives for east-west travel in the vicinity of Century Avenue between Tyler Parkway and River Road. The primary purposes for constructing one of these alignments are to provide access to Century Avenue and the Divide Avenue/I-94 interchange; and to avoid undesirable travel and traffic congestion on other corridors.

South of Ash Coulee Drive, most east-west traffic will prefer to travel east-west on either Century Avenue, I-94 or other corridors further south. Without proper access to Century Avenue and I-94 at Tyler Parkway, this future traffic will have to travel as far east as US Highway 83 for Interstate access, or will need to continue south on either River Road or Washington Street. Neither River Road nor Washington Street can be readily expanded to handle the additional traffic. Therefore, additional corridor capacity and access to Century Avenue and I-94 at Tyler Parkway are desired.

Since it is reasonable to assume that only one of these east-west alignments will be needed or constructed, the discussion for these alignments is addressed within this single section of the Report. Five options to improve east-west access and mobility by extending or realigning Century Avenue were considered:

Option A – Do Nothing

Option B – Extend West off Century Avenue Alignment

Option C – Extend West off Golf Drive Alignment

Option D – Extend West off Burnt Boat Drive Alignment

Option E – Conduct Additional Study of Alignment Alternatives

1. Option A - Do Nothing

While each alternative in the Study Area has a “Do Nothing” option, the Do Nothing alternative for improving east-west traffic flow at Century Avenue is discussed in detail because of the potential impacts it would have on the rest of the transportation system.

The implication of the Do Nothing option is that the traffic will go elsewhere. The question is, where? Answering this question requires one to consider which alternative routes would be available. It is likely that if the Tyler Parkway extension were available, much of this traffic would choose it for north-south travel. Projected traffic volumes along Tyler Parkway and north of Century Avenue would increase from 18,000 – 21,000 vehicles per day to 25,000 – 30,000 vehicles per day.

The net result of this traffic increase would either be significant traffic congestion or the need to expand Tyler Parkway from a 3 lane section to a 5 lane section. Without lane width reductions and/or loss of parking, there is insufficient room for a 5 lane section north of Country West Road. Expansion of Tyler Parkway to five lanes north of Country West Road poses significant challenges as more right of way could be needed. Short of relocating a row of homes away from Tyler Parkway, the added traffic congestion and associated safety issues may have no solution. Clearly, this is not an option.

With the added traffic congestion on Tyler Parkway north of Century Avenue, most private driveways and street approaches along Tyler Parkway could experience significant delays. In addition, parking activity along the corridor would become an increasing safety and traffic congestion issue.

Without a future extension or relocation of Century Avenue, existing and future traffic coming from Clairmont Road and the Missouri River lowlands will have Burnt Boat Drive as their only choice for access to Century Avenue and the

Divide Avenue Interchange; at least until the Tyler Parkway extension would be constructed. In its present condition, Burnt Boat Drive should not carry more traffic. Further analysis would be needed to determine whether Burnt Boat Drive can be adequately improved to handle the additional traffic. The analysis would also need to consider potential impacts to Tyler Parkway and the I-94 Interchange.

If neither an extension of Tyler Parkway nor an extension of Century Avenue were completed, traffic from a significant portion of the future developments would be required to back-track to Clairmont Road or Ash Coulee Drive to travel out of somewhat “land locked” regions. This would result in more traffic on these corridors, eventually exceeding their capacity. Further, emergency services would be hindered from serving these future properties.

East of Tyler Parkway, Century Avenue provides significant east-west capacity to carry high levels of traffic. It has connectivity to US Hwy 83, Centennial Road, and future connections to the east. It is anticipated that a fair amount of traffic from the Northwest Subarea will want access onto Century Avenue. Extension of Century Avenue, regardless of which option is chosen, keeps this traffic off Tyler Parkway and provides the safest and most efficient means for traffic coming from north and west of the current Century Avenue intersection to continue heading east.

2. Option B – Extend West off Century Avenue Alignment

Option B would extend Century Avenue directly west of Tyler Parkway from its current Tyler Parkway intersection location. The suggested right of way width for this option is 100-120 feet. See Figure 7 in Appendix B for the proposed typical section. Property acquisitions/relocations would include the fire station and the twin homes located directly west of the fire station.

Fire Department representatives have expressed willingness to relocate the Fire Station, if it can be relocated to the south side of the Divide Avenue Interchange. The estimated cost of this relocation is \$2.0 million.



Slight realignment of Century Avenue to miss the Fire Station was considered. It resulted in impacts to other developed properties, as well as a significantly skewed intersection at Tyler Parkway. The significant skew that would result was considered a safety hazard. Additional property impacts and right of way acquisition would occur at the funeral home.

The direct extension of Century Avenue with no skew at Tyler Parkway offers the following benefits:

- It provides the most direct route for east west traffic traveling on Century Avenue
- It was furthest from the I-94 Interchange and therefore would have the least impacts on Interchange traffic operations.
- It provided the greatest distance between signalized intersections, resulting in the best opportunity for traffic to progress through the Tyler Parkway corridor.

The Regional Future Land Use Plan indicates that the valley directly west of Tyler Parkway would become parks or green space. More recently, the land developer has proposed to build residential property in this valley. Extension of Century Avenue would impact the ability to develop some of the valley located west of Tyler Parkway.

3. Option C – Extend West off Golf Drive Alignment

Originally, this option was studied as an extension west of Tyler Parkway only, without realignment of Century Avenue. The close proximity of the Century Avenue and Burnt Boat Drive intersections would not allow sufficient distance for the development and effective use of turn lanes.

Traffic on Golf Drive would require a five lane facility and traffic signals at Tyler Parkway. Queues from Golf Drive would block the Century Avenue intersection at times. Challenges with signal coordination and vehicle turning movements would impact traffic safety and mobility along Tyler Parkway. Long queues, challenges in signal coordination, and lack of sufficient room for turn lanes were all seen as fatal flaws to selecting the Golf Drive alignment with no realignment of Century Avenue.

From input received at the second public meeting, a change to this option was made. Option C would realign Century Avenue to tie into Tyler Parkway at Golf Drive, and then extend Century Avenue west using the Golf Drive alignment. The suggested right of way width for this option is 100-120 feet. See Figure 7 in Appendix B for the proposed typical section.



Property acquisitions/relocations would include Corrino's Italian Grill and a number of businesses located directly east of the fire station. Additional access impacts, property impacts and right of way acquisitions would occur at the funeral home and the bank.

Extension of Golf Drive could be accomplished without relocation of the Fire Department or existing twin homes located west of the fire department. However, it is uncertain whether the fire station would operate adequately since southbound traffic queues would block its entrance at certain times of the day.

4. Option D – Extend West off Burnt Boat Drive Alignment

Option D would realign Century Avenue to tie into Tyler Parkway at Burnt Boat Drive and improve Burnt Boat Drive as an arterial roadway from Tyler Parkway to Clairmont Road (See Figure 12). Alternative alignments for the Century Avenue realignment east of Tyler Parkway are shown in Appendix E.

East-west traffic west of Tyler Parkway would travel along Burnt Boat Drive to get to and from their destinations. Currently, there is no existing road right of way where the road extends west down the escarpment. The suggested right of way width for this option is 100 feet (limited by existing conditions). See Figure 7 in Appendix B for the proposed typical section.

Property impacts related to this alternative primarily include right of way acquisition where the Century Avenue curves would be constructed, as well as access closures and revisions in the proximity of the Tyler Parkway/Burnt Boat Drive intersection.

If Burnt Boat Drive were expanded to 5 lanes, it could take future traffic from Clairmont Road, River Road and Fernwood Drive to Tyler Parkway and the Divide Avenue Interchange.

There is a major archaeological site (Chief Looking's Village) adjacent to Burnt Boat Drive that must be avoided if roadway expansion were to occur. Steep grades (8-11%) would also need to be addressed in order for the roadway to function as an arterial. Unless these steep grades were reduced, trucks and other traffic would have difficulty traversing the corridor. At this time it is uncertain whether these steep grades can be adequately addressed without impacting adjacent developments and/or Chief Looking's Village.

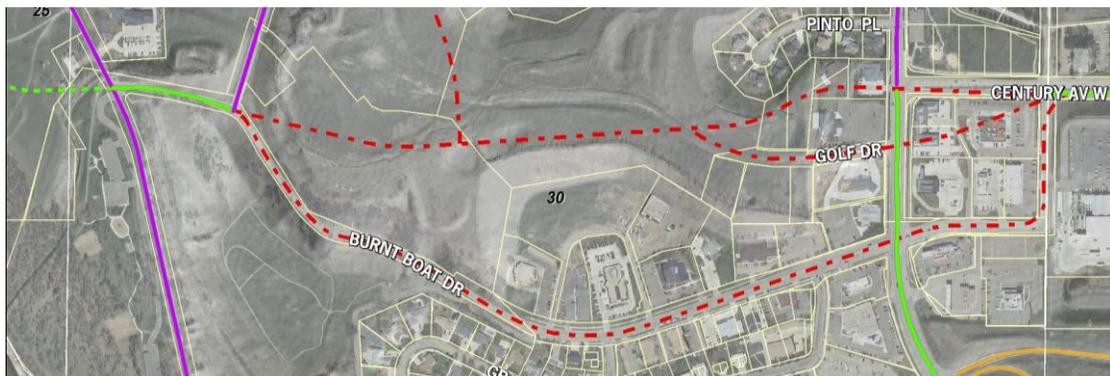
Burnt Boat Drive is a high access, collector roadway. If upgraded to an arterial, roadway safety and capacity issues may require a continuous left turn lane to be provided wherever private access has been allowed. Placement of more traffic onto Burnt Boat Drive would impact adjacent and nearby properties and add more traffic congestion at the Tyler Parkway intersection.

Due to grade and right of way issues, concerns have been raised by technical staff concerning the ability to add more lanes at this intersection. This intersection is close to the I-94 Interchange, and the additional traffic at this location would have detrimental impacts on traffic operations at the interchange.

Further study is needed to determine the viability and relative costs associated with this alternative. If known issues can be readily addressed, it appears that this option would also be the least expensive option to implement.

5. **Option E – Conduct Additional Study of Alignment Alternatives (Recommended)**

Option E recognizes that there are a number of unanswered questions concerning alignment alternatives. Concerns have been raised regarding potential archaeological site impacts, as well as ground water, visual and noise impacts. Efforts to answer these questions were beyond the scope of this study. Often, questions like these are answered during the environmental process for a proposed project. The environmental process can address potential social and environmental concerns while examining design alternatives in more detail.



6. Optional Alignment Comparisons and Evaluations

There are many factors to consider that pertain to benefits of one Century Avenue extension or relocation option compared to another. Some of these factors are objective, and some are subjective. When looking at some factors to evaluate the options, the answers are, “it depends” or are too complicated to describe in detail without significant narrative.

The options for extending Century Avenue will eventually need to be evaluated and compared within a planning process that follows the National Environmental Policy Act (NEPA) prior to selection of a preferred alternative. This report provides a discussion of traffic and socio-economic evaluations that provide a starting point for future NEPA documentation for the Century Avenue optional alignments

a. Traffic Evaluation Discussion

i. Intersection Level of Service

Intersection Level of Service pertains to the amount of vehicular traffic delay at a given intersection. It is influenced by a number of factors, but primarily it is influenced by the number of vehicles at an intersection, the number of lanes and whether the intersection is signalized. Another important factor to consider is the number of left turning vehicles, particularly those that don't have a designated left turn lane or those occurring at unsignalized intersections.

Based on the analysis, the Century Avenue and Golf Drive alignments performed equally well. The Burnt Boat Drive intersection operates poorly today, and the intersection delay will continue to increase unless substantial improvements are made. The ability to make these improvements is uncertain.

Future traffic levels along Burnt Boat Drive would be higher than along other optional alignments primarily because the roadway would carry more traffic from existing nearby developments. This would result in lower intersection performance than occurs with Options B or C. The Do Nothing option would place added pressure on a multitude of other intersections within the study area.

ii. Signal Progression

The ability of traffic to move through a number of signalized intersections along a corridor is influenced by a number of factors. These factors include the number and spacing of signalized intersections, as well as the turning movements by cars moving along the corridor.

Generally speaking, traffic will more easily progress along a corridor that has less traffic and has fewer signalized intersections that are well spaced, as opposed to more signalized intersections that are busier and more closely spaced.

Based on our analysis, the Do Nothing alternative performed the best in the immediate vicinity because poor access to Tyler Parkway would result in little change in traffic conditions along the corridor. An argument could be made that signal progression could be significantly impacted elsewhere, but this has not been studied.

The Century Avenue extension performed well because it maintains good spacing for the signalized intersections and does the best at spreading heavy volumes of traffic along the Tyler Parkway Corridor. The Golf Drive extension spreads the traffic but not as much. Plus it adds another signalized intersection along the Tyler Parkway corridor. The Burnt Boat Drive extension, because of heavier traffic at the intersection and its proximity to the interchange, has the potential to cause greater signal progression problems in the future.

iii. Vehicle Storage

Adequate vehicle storage is needed for traffic using through and turn lanes. When inadequate storage is available, left and right turning traffic can stack into the through traffic lanes, rendering those lanes inoperable. Similarly, through traffic can stack to block access to turn lanes, so those lanes become inoperable as well.

The need for vehicle storage is dependent upon the amount of traffic and whether the traffic is turning or going straight. Both storage needs and availability factored into our analysis.

There are storage tradeoffs with each of the alignment alternatives. For example, the direct extension of Century Avenue has ample storage room on the east, west and south approaches, but is limited by proximity to the Pinto Place intersection to the north.

The Golf Drive intersection is limited by proximity to the Burnt Boat Drive intersection and both the Fire Station and Pinto Place. The Burnt Boat Drive intersection is limited by proximity to the interchange and driveways on the east and west approaches. Given current vehicle storage issues at Burnt Boat Drive and the importance of the interchange, vehicle storage issues with this alternative may have greater impacts than other alternatives.

iv. Tyler Parkway Impacts

Our analysis assumed full build-out of traffic lanes along Tyler Parkway, and 30% of full build-out for area development. Under these conditions, each alignment alternative was modeled to perform relatively the same, with Tyler Parkway operating at near-capacity.

It is important to recognize that should area development exceed the 30% full build out scenario, or should localized high traffic generating development occur, higher traffic volumes would result in more pronounced differences in how well each of the alignment options perform.

Traffic impacts on the Tyler Parkway corridor are a function of each traffic analysis criterion. The Do Nothing option would perform the worst if the Tyler Parkway extension is made with no extension of Century Avenue. The heaviest impacts would occur in existing developed areas north of Century Avenue.

Traffic concerns with the Burnt Boat Drive alignment option relate to the high traffic volumes at the Burnt Boat Drive intersection and limitations on vehicle storage between Burnt Boat Drive and the I-94 Interchange.

v. Multimodal Opportunities

There are multimodal opportunities to provide or improve non-motorized travel within the study area. In this regard, the Do Nothing option would make no provision to extend existing bicycle or pedestrian facilities west of Tyler Parkway. The Century Avenue extension and Golf Drive extension alternatives would provide equal capabilities to extend these facilities, whereas the Burnt Boat corridor has right of way limitations that reduce the ability to adequately provide these amenities.

vi. Interchange Impacts

Analysis of the I-94 Interchange was not included within the scope of this Study. However, major intersections in close proximity to interchange ramps typically create queues at the interchange that are detrimental to interchange traffic operations. From this standpoint, traffic turning movements that are further from the interchange have fewer impacts. Therefore, the Burnt Boat Drive option raises the greatest concern.

vii. Traffic Capacity

Traffic capacity is influenced by many factors, including vehicle storage, intersection spacing and geometrics. Since the direct extension of Century

Avenue provides the best spacing for major intersections and therefore more room for vehicle storage, it offers the most corridor capacity for both Tyler Parkway and Century Avenue.

Golf Drive has more available lanes than the Burnt Boat Drive option and keeps Century Avenue traffic separate from Burnt Boat Drive traffic. Burnt Boat Drive may operate with less capacity since adjacent intersections are in close proximity to Burnt Boat Drive.

viii. Traffic Safety

There are a number of corridor design and intersection geometric features that influence traffic safety. They include curvilinear alignment, steep grades, skewed intersections, excess access, driver confusion, sight distances and regional safety impacts among others.

The options for extending Century Avenue were reviewed based on a number of traffic safety evaluation criteria. These criteria relate to all modes of travel. Overall, the direct extension of Century Avenue appeared to perform well because it is straight and it provides the greatest distance between intersections, thereby affording more time for drivers to maneuver and make decisions.

The Do Nothing option has safety concerns because of anticipated safety impacts on the overall transportation system. The Golf Drive option has sight distance concerns due to the vertical curve on Tyler Parkway and the Burnt Boat Drive option has safety concerns because it requires lane maneuvers and driver decisions to occur over shorter distances.

ix. Access Impacts

Access impacts have both traffic and socio-economic ramifications. From the traffic side, accesses located too close to major intersections can have a detrimental impact on intersection operations and safety. Furthermore, these accesses can become blocked and experience significant delays when the major intersection traffic gets backed up.

From the socio-economic standpoint, both residential and business property owners appreciate having driveways that are readily accessible. When their driveways (accesses) become blocked, drivers become frustrated and businesses can lose patrons.

The direct extension of Century Avenue has access impacts limited to Golf Drive and Pinto Place. The Golf Drive option would require closure of the east bank driveway and would impact business accesses east of Tyler Parkway through the

north-south connection to Century Avenue. Additionally, access to the fire station may become blocked by queues from the Golf Drive intersection.

With the Burnt Boat Drive option, accesses on the east, west and south approaches may become blocked during peak traffic periods. Also, adjacent businesses and Grand View Lane would have detrimental mobility and safety impacts on the Burnt Boat Drive intersection

b. Socio-Economic Evaluation Discussion

i. Visual Impacts

Comparisons of visual impacts are subjective and require some assumptions. From the perspective of the Pinto Place neighborhood, negative visual impacts from greatest to least impacting would be the Century Avenue extension, followed by the Golf Drive extension, with the Burnt Boat Drive extension being a distant third.

We believe these opinions are subjective because the assumption is made that the valley west of Tyler Parkway remains undeveloped, and the undeveloped look is considered more visually appealing than a developed alternative. If the valley is developed, it may be that land use and vegetation adjacent to the streets in the valley will be more influential on the area's visual appeal than choice of various alignment options.

ii. Noise Impacts

Noise impacts are proportional to the distance between a roadway and adjacent properties. In general terms, the closer the roadway the greater the potential for traffic noise. This study did not conduct noise analysis for the various alignment options.

Therefore, the level of noise impacts on Pinto Place residents and other corridor properties is not known. Given the distance principle, it is assumed that the Century Avenue option would have a greater noise impact than the Golf Drive option.

It is reasonable to conclude that the Burnt Boat Drive option, while resulting in little if any impact on Pinto Place, would have greater impacts on properties in the vicinity of Burnt Boat Drive. Since most of these properties are more commercial in nature, these impacts may in most cases be lower than the other two alignment options. A noise analysis would need to verify this conclusion.

iii. Residential Land Purchased

Only the direct extension of Century Avenue resulted in the purchase of residential land (two twin homes).

iv. Business Land Purchased / Impacted

Businesses may be impacted from changes in access, new traffic congestion, or buyouts. The Golf Drive option would result in a full half block of established businesses being bought out. This option also impacts the funeral home and the bank located west of Tyler Parkway. Queues from Golf Drive could also impact access to the Fire Station.

The Burnt Boat Drive option would result in at least two buyouts to address access issues on the east side of Tyler Parkway. Further study is needed to identify exactly which businesses would be impacted. In addition, business impacts associated with the realignment of Century Avenue would occur.

The direct extension of Century Avenue would result in relocation of the Fire Station and impacts to the funeral home. No other business impacts are anticipated.

v. Project Cost

It is difficult to establish detailed cost estimates for these alternatives given the uncertainty of property acquisition and the issues likely to be identified during further environmental and preliminary design analyses. The anticipated cost of each alignment option is currently ranked as follows:

Option A – Do Nothing	Lowest Cost
Option B – Century Avenue Extension	Second Highest Cost
Option C – Golf Drive Extension	Highest Cost
Option D – Burnt Boat Drive Extension	Second Lowest Cost

C. Clairmont Road Extension

This alternative is recommended. It consists of extending Clairmont Road as a collector roadway from its existing northern terminus to a future extension of Ash Coulee Drive. The recommended right of way width for this alternative is 80 feet. Access along the undeveloped segment of this corridor should be managed as the corridor develops. See Figures 1-3 in Appendix B for alternative traditional typical sections. Options to handle bicycle facility needs will need to be considered as the corridor is extended.

1. **Reasons To Do It (Recommended)**

Clairmont Road offers a north-south collector roadway on top of the bluffs bounding the west side of the developing region. Future development that lies between the east-west ravines will use Clairmont Road as the preferred corridor toward central parts of the City of Bismarck.

2. **Reasons Not To Do It**

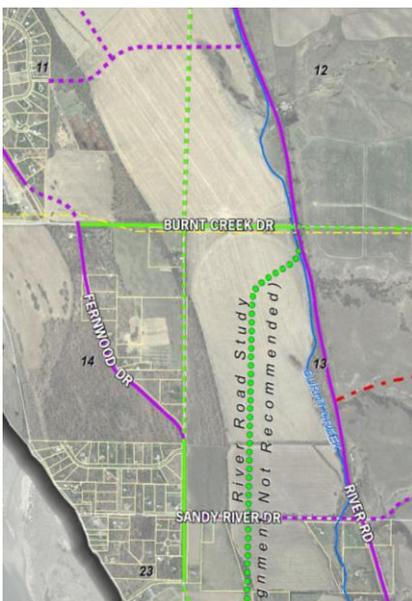
Clairmont Road has been developed with direct, private residential access onto the roadway. These conditions are not desirable for higher levels of traffic.

3. **Other Considerations**

Past plans and platting efforts reflect the proposed extension of Clairmont Road. At some point in the future, if Clairmont Road is extended it will be necessary to remove parking from one side of the roadway and stripe it as a three lane roadway with a continuous left turn lane.

D. **Fernwood Drive Extension**

This alternative is recommended. It consists of improving Fernwood Drive and extending it north along the Section Line. Fernwood Drive would function as a minor arterial roadway carrying north-south traffic in the Missouri River lowlands. The recommended right of way width for this alternative is 150 feet. See Figure 9 in Appendix B for the recommended typical section. Eventual construction of a 5 lane roadway, particularly near the southern end of the corridor is possible.



1. **Reasons To Do It (Recommended)**

Fernwood Drive exists today and it is centrally located for future development connections and it already serves as a corridor for existing utilities. It can also readily connect to a future corridor along the Section Line. The Section Line has a statutory 66 feet of dedicated right of way, thereby reducing the amount of additional right of way needed when compared with non-section line options.

2. Reasons Not To Do It

Current landowners adjacent to the Fernwood Drive alignment may not support providing the necessary right of way or making improvements to Fernwood Drive.

3. Other Considerations

The River Road Study Report completed in May 2005 proposed a different alignment to be used as a traffic reliever route for River Road. This Study focused more on the need to serve future development, with the result being a different alignment than one that follows the Section Line and a portion of Fernwood Drive. Use of the Section Line is desirable because there is already 66 feet of right of way available. If this new alignment is chosen, the alignment proposed by the River Road Study Report would be abandoned.

E. River Road

This alternative is not recommended. It consists of expanding the capacity of River Road by adding through and left turn lanes. River Road would function as a minor arterial roadway carrying north-south traffic in the Missouri River lowlands. The right of way width for this alternative is 150 feet. For a discussion of earlier River Road concepts, please see the section pertaining to Fernwood Drive. See Figure 9 in Appendix B for the traditional typical section that would be required for this alternative. Eventually, River Road would need to be expanded to 5 lanes to handle traffic from anticipated development.

1. Reasons To Do It

Expansion of existing roads is a common solution to the need for added traffic capacity in many areas. More north – south roadway capacity is needed to accommodate future development in the Missouri Valley lowlands.

2. Reasons Not To Do It (Recommended)

There are environmental and slope stability issues associated with expanding River Road, as was stated in the River Road Study Report. Expansion of River Road would potentially damage the existing wetland and woodland habitats, as well as the existing tree canopy. There is also insufficient space to expand the roadway between the steep embankment and Burnt Creek.



Even if River Road were expanded to add traffic capacity to the north, there is very limited opportunity to expand River Road through developed areas to the south. There is also little interest by residents in any plan to straighten or widen the roadway. See Section E in this chapter relative to the Fernwood Drive extension for a discussion on the recommended alternative.

F. Sandy River Drive Extension

This alternative is recommended. It consists of extending Sandy River Drive from River Road to an extension of Tyler Parkway or the Tyler Coulee Corridor. Sandy River Drive would function as a collector roadway providing system connectivity between the lowlands and the highlands.

The recommended right of way width for this alternative is 150 feet between Clairmont Road and River Road, and 100 feet elsewhere. At least 150 foot of right of way is needed to navigate the roadway in the vicinity of the ravine. See Figures 6 and 9 in Appendix B for the traditional typical sections.

1. Reasons To Do It (Recommended)

Sandy River Road is a section line corridor that exists between River Road and Fernwood Drive. Extension to the east would give future residents another choice for access out of the Missouri River valley and onto the bluffs, and vice versa. Without this connection, traffic would be concentrated on the other two proposed corridors that extend east of River Road (57th Avenue and the Century Avenue extension).



2. **Reasons Not To Do It**

There are environmental, constructability and cost concerns with the Sandy River Drive extension. Environmental concerns along a coulee channel are typically greater than along adjacent highlands. Construction of a roadway along the coulee channel could encounter many environmental issues, such as altering floodplains, wetland resources, cultural resources and other environmental concerns.

3. **Other Considerations**

The primary benefits of the Sandy River Road extension are the added connectivity between the Missouri River lowlands and land above the escarpment. Timing for this connection may likely follow extension of Tyler Parkway since otherwise it only provides added connectivity to Clairmont Road. Specific details of the alignment should consider efforts to avoid mature trees and may result in an alignment further north of the section line.

G. 57th Avenue North

This alternative is recommended. It consists of extending 57th Avenue North as a principal arterial roadway from Washington Street past River Road to Burnt Creek Loop. The recommended right of way width for this alternative is 150 feet. See Figure 9 in Appendix B for the traditional typical section.

1. **Reasons To Do It (Recommended)**

Construction of 57th Avenue North has many benefits:

- It is a section line corridor with at least 66 feet of existing right of way.
- It is a straight, east-west corridor with the potential for future connections

beyond Washington Street to US Hwy 83, Centennial Road and roads further east.

- An existing overhead power line parallels the proposed 57th Avenue corridor. This makes the corridor especially conducive for use by other utilities while limiting the value of existing adjacent south-side property.
- The western half of the corridor, including the connection north to Highway 1804, is part of the proposed Northern Bridge Corridor.
- Construction of 57th Avenue provides a good alternative for traffic that would otherwise travel down Ash Coulee Drive.

When decisions are made to further investigate potential extension of Ash Coulee Drive, the planned extension of 57th Avenue should be included in the analysis so that the possible impacts on traffic patterns can be properly assessed.

2. **Reasons Not To Do It**

There is a major drop in elevation from the highlands down to River Road. It could be more economical to align the corridor with the Ravine that parallels the south side of the corridor. However, the Ravine could be more challenging from drainage and environmental standpoints.



3. **Other Considerations**

The proposed 57th Avenue corridor was discussed with area developers. Their primary concern was with how 57th Avenue would connect with River Road. Three concepts for making this connection were prepared and are included in Appendix E. The choices for connecting to River Road include:

- Option 1 - Bridge River Road from the top of the bluff. This option would minimize impacts on available land at the top of the bluff, while placing the greatest visual impacts and “using up” more of the land at the bottom of the bluff. A looped connection to River Road at the bottom of the bluff could be made.

- Option 2 - Bridge River Road from about halfway up the bluff. This option would include cutting about 50 feet down from the top of the bluff to still cross over River Road but with a much smaller structure.
- Option 3 - Tie directly into River Road at the bottom of the bluff. This option would include cutting the bluff so that 57th Avenue could follow a slope down and intersect directly with River Road.

Once Burnt Creek Loop and improvements to the Fernwood Drive corridor are completed, the importance of River Road as a mover of traffic will diminish. Therefore, the long term need for a direct connection between 57th Avenue and River Road will also diminish. Flatter grades on 57th Avenue and reduced costs associated with Option 2 would seem to indicate that this option provides greater long term benefits than the others.

Additional right of way should be preserved at both ends of the road connecting 57th Avenue to Highway 1804. This would enable a smoother connection between 57th Avenue and Highway 1804 in the event that the Northern Bridge Corridor is constructed in the future.

H. 64th Avenue North and Sonora Way

This alternative is recommended by technical staff. 64th Avenue North would be extended west as a collector roadway from Washington Street to 21st Street NW. Sonora Way would extend south of Highway 1804, tying into Amberglow Drive and eventually to Ash Coulee Drive. The recommended right of way width for this alternative is 80 feet. See Figure 9 in Appendix B for the traditional typical section.

1. Reasons To Do It (Recommended for Further Study)

The 64th Avenue and Sonora Way corridors fall on half section lines. Strong consideration was given to the possibility of not making a 64th Avenue connection between Sonora Way and the existing segment located directly to the east. However, this is the only location for a collector road to be placed between 57th Avenue North and ND Highway 1804 located one mile to the north.

Traffic projections did not indicate a high level of use for these corridor sections in the future. Yet since there were no other options for collector roads in this vicinity, Bismarck staff believed it was prudent to preserve this corridor by maintaining the alignment as a recommended solution in this Plan. Further Study may be beneficial to identify whether other corridors can adequately address future traffic needs without this corridor in place.

2. Reasons Not To Do It

A number of residents attended both public input meetings in opposition of a connection between Sonora Way and Washington Street. They explained that this connection had been temporarily attempted in the past, resulting in significant cut-through traffic between ND Highway 1804 and Washington Street. Additionally, no right of way exists for this connection to be made.

3. Other Considerations

It is likely that a connection along 64th Avenue between Washington Street and Sonora Way will not be needed until sometime in the distant future, if at all. If this connection is made, various traffic calming design elements should be considered for implementation to discourage cut-through traffic.

I. Tyler Coulee Corridor

This alternative is not recommended by technical staff. It consists of constructing a minor arterial corridor along the Tyler Coulee from Burnt Boat Drive north to ND Highway 1804. The right of way width for this alternative would range from 100 feet to 150 feet or more. More right of way may be needed for road segments located in the Coulee. See Figure 8 in Appendix B for the traditional typical section.

1. Reasons To Do It

Adequate right of way and control of access may be obtained for the Tyler Coulee corridor, whereas the existing Tyler Parkway and Clairmont Road corridors have limited right of way and high levels of direct access from adjacent residential properties. Construction of the Tyler Coulee corridor would enable the City of Bismarck to have an access controlled, high traffic capacity, north-south roadway. It would also reduce future traffic on Tyler Parkway and Clairmont Road, assuming that both are extended in the future.

The feasibility of this corridor is uncertain. High costs due to drainage and other corridor needs, potential environmental issues and constructability may eliminate the opportunity to implement this alternative.

2. Reasons Not To Do It (Recommended)

There would be a high, left turn traffic movement coming from northbound Tyler Parkway to get to the Tyler Coulee corridor. This could become a source of traffic congestion along Tyler Parkway.

A Restrictive covenant associated with the Promontory Point Third Addition exists regarding motorized use in the Tyler Coulee Valley area. Further investigation as to the enforceability of this covenant should occur prior to development of roadways within the subject area.

There are environmental, constructability and cost concerns with the Tyler Coulee extension. Environmental concerns along a coulee channel are typically greater than along adjacent highlands. Construction of a roadway along the Tyler Coulee channel could encounter many environmental issues, such as altering floodplains, wetland resources, cultural resources and other environmental concerns.

Constructability is a concern because of the large amount of storm water that currently moves within the Coulee channel, as well as soil and slope stability concerns and underground seepage concerns. The cost of solving the storm water issues may be cost prohibitive. Over a mile of 12 foot by 12 foot double box culverts were estimated to be needed to handle the high storm water flows. Further, since there is no developable property along the Coulee channel, there is no mechanism in place to assist in paying the local cost of construction.



3. Other Considerations

While technical staffs agree on the traffic merits pertaining to this alignment, there is skepticism over the feasibility and high cost of implementation. The Bismarck and Burleigh County Planning Commissions and elected bodies were all opposed to this alignment alternative.

J. Tyler Parkway Extension

This alternative is recommended by technical staff and by the 2001 and 2005 Long Range Transportation Plans. It consists of extending Tyler Parkway as a minor arterial roadway from Country West Road north to ND Highway 1804. The recommended right of way width for this alternative in the currently undeveloped region is 150 feet or more from the north edge of the existing development to the Sandy River Road extension. North of Sandy River Road, 100-120 feet of right of way should be adequate.

Traffic projections indicate that a 3 lane roadway section would be adequate north of Century Avenue. Between Century Avenue and Valley Drive, this could be accomplished without any street widening by reducing traffic and parking lane widths, and/or by removing on-street parking from one side of the road. See Figure 1A in Appendix B for the traditional typical section.

Decisions to place bicycle facilities within the developed section of the corridor should be made following additional study to consider tradeoffs with on-street parking, landscaping, driveway safety and cross-slopes, and other possible social impacts.

1. Reasons To Do It (Recommended for Further Study)

Extension of Tyler Parkway would provide a direct, north-south connection from the Study Area to the Divide Avenue Interchange. The traffic analysis indicates that every available north-south corridor that can be developed should be used so that future traffic can be spread among many locations.

2. Reasons Not To Do It

Tyler Parkway north of Century Avenue is a two lane roadway with on-street parking allowed on both sides. There are also a high number of access points along the corridor. If Tyler Parkway were extended it should be changed to a three lane roadway having a continuous left turn lane. This would impact traffic lane widths or the availability of on-street parking.

Depending on the speed and location of north-side development, traffic along Tyler Parkway could become congested and might merit reconstruction as a five lane roadway. Further study is needed to determine whether sufficient right of way width is available for this to occur.

North of Century Avenue, the land use along Tyler Parkway is almost entirely residential. Impacts on residents may include increased noise, traffic congestion, visual impacts, reduced crossing safety for pedestrians and bicyclists, and loss of on-street parking, among other impacts.

Extension of Tyler Parkway would require crossing a large gorge located off the end of the existing roadway. This crossing has been included in the Tyler Coulee Watershed Masterplan. A stormwater conveyance structure of adequate size to pass a very large runoff event would be required so that the embankment did not function as a high hazard dam.

The embankment would be constructed with adequate width to allow ultimate pavement width without additional embankment. This would be an expensive undertaking, and National Environmental Policy Act (NEPA) environmental analysis would apply.

3. Other Considerations

The Tyler Parkway extension has many challenges that would need to be addressed if it is implemented over time. And while there are a number of unfavorable conditions along the corridor, it is not feasible to provide adequate transportation services to the large undeveloped area to the north without extending the Tyler Parkway corridor. Given the high cost of this project and the difficulty in developing adjacent land, a new funding mechanism may be needed to implement the Tyler Parkway extension.

K. Corridor Profiles

Profiles were prepared for many of the proposed corridors in order to illustrate how the proposed alignments could manage the existing terrain. Future corridor profiles also could impact corridor functionality and future right of way needs. Copies of these profiles are included at the end of Appendix B.

L. Pedestrian and Bicycle Facility Alignments

Existing and recommended pedestrian and bicycle facility alignments are shown in Figure 14. These alignments follow the roadway alignment locations shown and discussed earlier in this chapter. For sidewalks and multi-use trails, it is generally preferable to construct these along roadways because of available right of way. Further, street lighting and the presence of pass-by traffic provides a sense for added safety. These alignments may be considered candidates for construction of either bike trails or bike lanes. However, bike lanes should be considered where traffic volumes and speeds are lower and more experienced bike riders are anticipated. Examples of such corridors include Clairmont Road, Sandy River Road, Ash Coulee Drive and 21st Street NW. Bike paths may be considered more along ravines. Bike paths recommended in Figure 14 came from the Lewis & Clark Legacy Trails Master Plan.

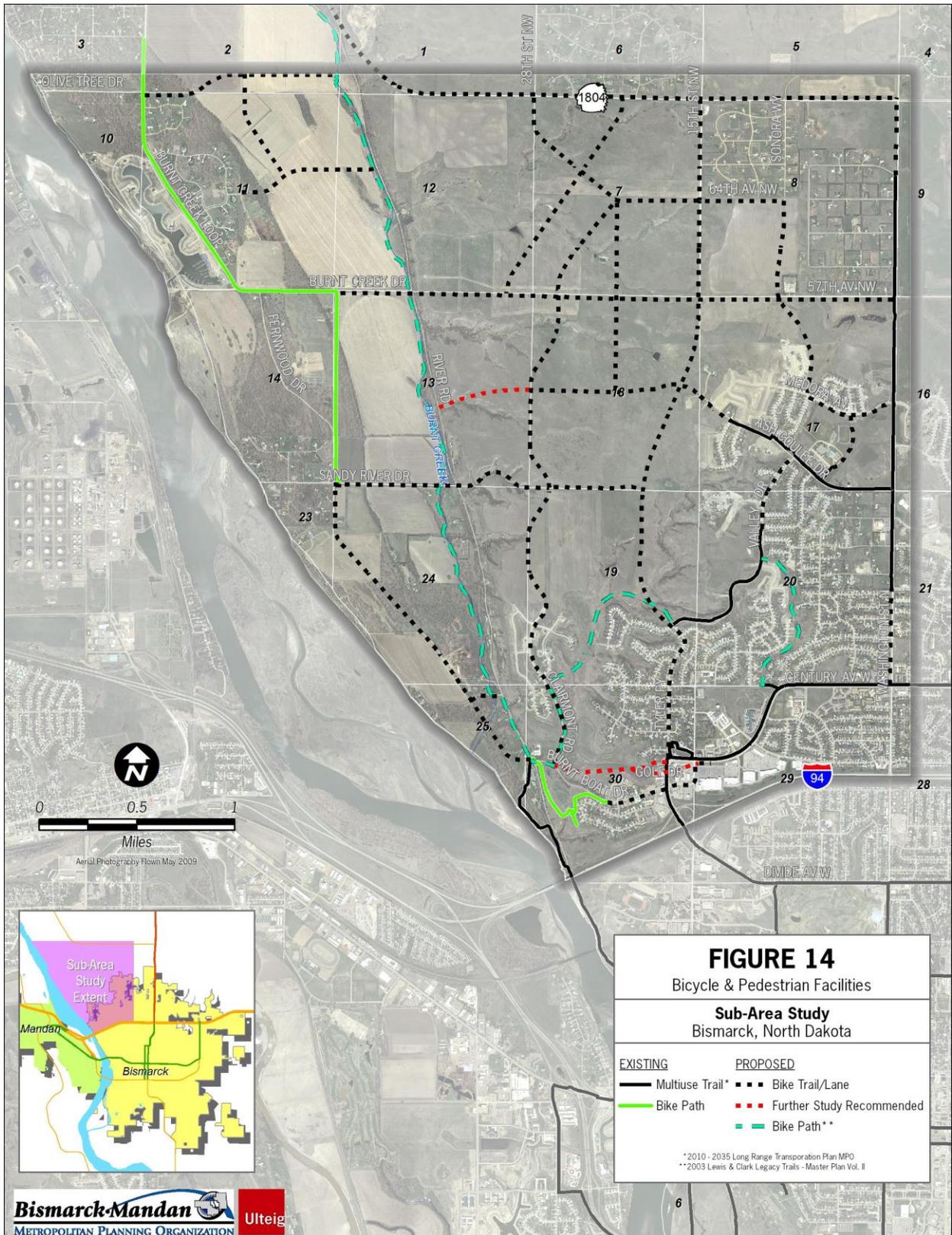


Figure 14 - Bicycle and Pedestrian Facilities

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VI. Traffic Analysis

An analysis of existing and future traffic was completed to determine the roadway capacity needs of future transportation corridors and to examine how traffic increases caused by future development would impact the existing transportation system.

A. Purpose and Methodology

1. Assumptions

Future residential and commercial land uses within the Study Area were based on the Regional Future Land Use Plan. The MPO calculated household and employment projections for each Traffic Analysis Zone (TAZ) based on the levels of existing development and remaining developable area. Assumptions are listed in Appendix B and included:

- Low Buildout – Urban Density: east of River Road & south of Hwy 1804; Rural Density: west of River Road & north of Hwy 1804
- Medium Buildout - Urban Density: current Urban Service Area; Rural Density: outside of current Urban Service Area
- Full Buildout – Urban Density: entire Study Area

Once the full buildout scenario was applied to corridor alignments, it was eventually determined that the full buildout scenario looked so far into the distant future (perhaps 50-100 years or more) that the results were not appropriate for planning purposes. A reduced development scenario (30% of full buildout) was prepared, assuming that 30% of the total potential future development in each zone would occur in a more reasonable planning horizon.

2. Traffic Projection Development Process

The Advanced Traffic Analysis Center (ATAC) developed model projections for the Study in June 2009. The projections were based on the low buildout, medium buildout and full buildout scenarios developed by the MPO.

After ATAC had run the three projection scenarios, the Study Review Committee and the general public requested that changes to the corridor alignments be made. The corridor alignments were revised and it became clear that new projections would be needed. The Bismarck-Mandan MPO determined that redrawing the Traffic Analysis Zones (TAZ's) should be done at some point, but decided that, for the purpose of this project, a manual revision of the traffic projections would be a more cost and time effective solution.

Traffic from the full-build scenario developed by ATAC was initially used since it was the worst case scenario. Once consensus of technical staff had been reached on the preferred corridor alignments, traffic projected for the 30% buildout scenario was used as a more reasonable time frame for growth within the Study Area.

Thirty percent of the total number of trips generated by each of the zones, according to ATAC's model, were divided up and assigned to smaller sub-zones. These sub-zones were broken out based on the land that is already developed, land that will be developed in the future, and land that will not be developed (green space) according to the projected land use map.

Starting in the northwest corner of the Study Area, the trips from each of the sub-zones were distributed onto the collectors and arterials. Some assumptions were made regarding the destination of the traffic. The majority was assumed to be heading southeast, towards Bismarck.

B. Existing and Projected Traffic

Existing (2009) traffic volume information is found in Figure 4. Projected (30% Full Build) traffic information is provided in Figure 15.

Based on the traffic volumes projected using the 30% growth scenario, a two lane roadway with turn lanes may be adequate for most of the roadways in the Study Area for what is estimated to be the next 20 years. Exceptions to this would include southern segments of Tyler Parkway and corridors serving high traffic generating land uses that have not been accounted for in the model. And although the model indicates that 2 or 3 lanes may suffice most corridors over the next 20 years, it may be prudent to acquire adequate right of way along most corridors to serve 5 lanes of traffic.

C. Signal Warrants and Level of Service

A signal warrant analysis was conducted for the Tyler Parkway and Century Avenue intersection to determine whether traffic signals were warranted either now or in the future. The analysis determined that while traffic signals are not warranted at this time, they will be warranted in the future if either Century Avenue or Tyler Parkway are extended.

A level of service analysis was conducted for intersections along the developed section of Tyler Parkway because traffic projections were highest in this region and there was concern over the ability of this corridor to operate effectively in the future. The results of that analysis are provided in Appendix A.

a. Traffic Analysis Findings

The traffic analysis indicates that all traffic movements would be able to operate at Level of Service D or better. The Golf Drive intersection is relatively close to the Burnt Boat Drive intersection. This limits the space available for left turn lanes between the two intersections. Eventually, this could limit traffic capacity at the two intersections as traffic may queue beyond the turn lanes into the through traffic lanes.

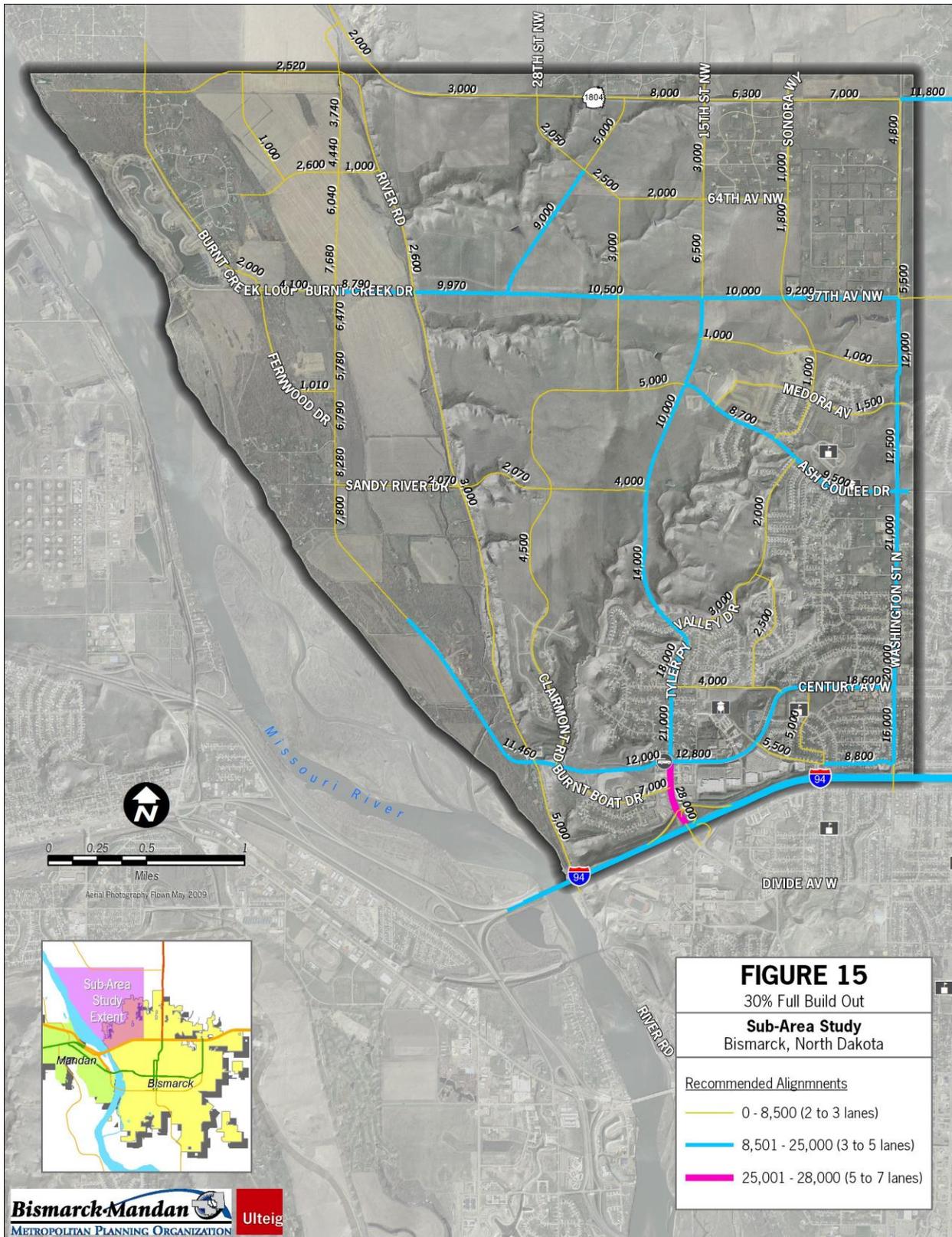


Figure 15 - 30% Build Out Traffic Volumes

VII. Typical Section Preferences and Policies

A. Components of Typical Sections

This chapter discusses typical sections for roadways in the study area. Potential components of typical sections include travel lanes, parking, landscaping buffers, transit facilities, and bike and pedestrian facilities. Typical sections usually define the space requirements and the configuration of these components.

Travel lanes can differ in their width and the degree of separation from traffic flowing in the opposite direction. Lane widths can vary from 9 to 14 feet depending on the type of roadway and design speed. Local collector and arterial streets have historically been designed with 12 foot lanes, although a few have been designed with 11 foot lanes. Narrower lanes require and produce lower speeds. Travel lanes separated by medians promote higher speeds than traffic going head to head.

Parking can be diagonal, reverse diagonal, or parallel. Parking can also be prohibited, allowed on one side or on both sides of a roadway.

Landscaping options include center medians, trees and plantings, furniture zones, shyway space, and boulevards.

Transit options may include a dedicated transit lane, transit boarding pullouts, boulevard space for transit shelters, and transit oriented development.

Bicycle facility options include wide shoulders, shared lanes, dedicated bike lanes, bike trails, shared use trails, bike paths, and bike parking facilities.

Pedestrian facility options may include separated walking trails, shared use trails, bulbouts, pedestrian boulevards or malls, textured surfaces, raised crosswalks, curb ramps, street furniture, standard sidewalks, and intersection pavement striping.

B. Configurations of Typical Sections

The standard approach to typical sections is to focus on the widths of the traveled way including parking, turning lanes, travel lanes, and center medians. As noted in Chapter IV, a Complete Streets approach provides transit, pedestrian, and bicycle facilities which equally consider their use in the corridor. When this happens, vehicle facilities may be different than in corridors which focus primarily on vehicle capacity.

An example of a complete street in a suburban residential context is one that provides a “bulbout” at intersections to increase pedestrian safety and shorten the time and distance a pedestrian is exposed to traffic. Another example of a complete street concept could be to include a dedicated bike lane in an urban commercial context. The bike lane provides a dedicated lane for bicyclists, which allows them great mobility while increasing safety over the shared lane option. Figures 7-10 shown earlier in this report demonstrate how complete street concepts can benefit a community. Examples of these differences are illustrated in Appendix B.

C. Complete Streets Policy Development

New policy is needed to incorporate these complete streets elements into the development of the future roadways identified in this study, and into the surrounding land development patterns. This policy should provide criteria which links Complete Streets to functional classified roads and Bismarck City ordinances.

D. Roundabouts

Roundabouts serve many purposes, including providing an aesthetically pleasing entrance to a new development, and providing a sustainable intersection with a high degree of safety and mobility. Developers and local officials should plan for roundabouts by setting aside adequate right of way during platting and then constructing the roundabouts when the roadway first goes in.

Single lane roundabouts generally provide a greater level of comfort for drivers than do multiple lane roundabouts. Single lane roundabouts may be considered for any of the collector/arterial intersections within the Study Area, with the possible exceptions of the southern intersections along Tyler Parkway and Washington Street.

Roundabouts typically have higher initial costs than simple 4 legged intersections. It may be desirable to plan for simple 4 legged intersections in most cases, and transition to roundabouts later. It is therefore recommended that adequate right of way be preserved to allow eventual construction of roundabouts at all collector and arterial street intersections.

VIII. Public and Agency Involvement

A. Public Input Meetings

The first public input meeting was held on June 30, 2009 at the Good Shepherd Lutheran Church. Seventy-five property owners and business representatives were in attendance.

The purpose of this meeting was to present and receive feedback on preliminary alignments and corridor issues. The meeting advertisements, materials and summary are included in Appendix D1.

A second public input meeting was held on September 16, 2010 at Horizon Middle School. The purpose of this meeting was to present the draft Northwest Bismarck Sub-Area Study Report and its recommendations. 119 property and business representatives were in attendance. Significant feedback was received in opposition to the direct extension of Century Avenue and the extension of 64th Avenue NW. The meeting advertisements, materials and summary are included in Appendix D1.

B. Developer and Landowner Meetings

Notices of the public input meetings were sent to area landowners and developers in advance of the meetings. Efforts were made to meet with some stakeholders with interest in large tracts of land in the Study Area. Communication Records from some of these meetings or discussions are included in Appendix D2. Their ideas and feedback were relayed to the Study Review Committee for further consideration.

Extensive feedback from area developers was received during individual meetings held with them. Some of the more prominent comments which were received include:

- It makes more sense to use Burnt Boat Drive or the Century Avenue extension than to use Golf Drive as a future traffic carrier.
- Perhaps Century Avenue should be realigned to intersect Tyler Parkway at Burnt Boat Drive.
- Construct a roadway corridor down Tyler Coulee.
- Make sure that utilities are extended that are adequate to serve future development in the Study Area. Acquire adequate right of way for these utilities now so that development can move forward.
- Coordinate with area developers now while the land is still in large tracts.
- One landowner expressed concern over the extension of Sandy River Road.

C. Study Review Committee

A Study Review Committee (SRC) was formed to guide the study process. The SRC was a technical committee having the task of reviewing study information and analysis, considering alternatives and study recommendations, and providing insight into City, County, State and Federal desires and expectations.

The roster for the SRC is included in the acknowledgements at the front of the Report. The SRC met on seven occasions through the course of the Study. Summaries from those meetings and other technical correspondence are included in Appendix D3.

D. NDDOT Management Presentation

An NDDOT Management Presentation (See Appendix D3) was held on August 16, 2010. The purpose of this presentation was to inform NDDOT management on the findings of the draft Report and to receive any feedback they wished to provide. It also informed them of study content so that they can respond to questions that may come out of the remaining public involvement process.

E. Coordination with City and County Officials

Two newsletters were distributed to City and County planning commissioners and elected officials. These newsletters were intended to give them an opportunity to become informed of project objectives and ongoing activities.

Presentations to City and County elected officials were provided throughout the study process. The first set was conducted early in the process to introduce them to the study and ask whether there were any initial concerns that the consultant should be aware of. Two additional presentations were provided to the Bismarck City Commission. These were held prior to and following the second public input meeting. Final presentations were provided and City and County planning commissions and elected bodies unanimously adopted the study recommendations. Commission newsletters and minutes from final Commission public hearings are found in Appendix D4

F. MPO TAC and Policy Board Meetings

Progress and status reports have been provided on a monthly basis to the MPO Technical Advisory Committee (TAC) and Policy Board. These meetings enabled local officials and technical staff to stay involved with ongoing study activities. The study also benefitted when local technical staffs used their knowledge and expertise to provide guidance to the consultant. Summaries of these meetings are available upon request from the MPO.

IX. Northwest Subarea Recommendations

A. Priority Corridors and Timing of Development

Burleigh County has identified the need to construct an east-west roadway from Washington Street west to River Road. This study has identified the 57th Avenue corridor as the recommended location for this alignment. Since this appears to be a high County priority, its construction may occur in advance of development.

The availability of roads and utilities, as well as the cost of infrastructure expansion, are factors that impact the cost of development. Therefore, these factors have a great influence on the timing of development. The timing of development is important because it will largely determine which roads get built first and which roads are available to serve the additional traffic.

The following observations were made concerning the timing of development and potential priority corridors:

- 57th Avenue will likely be constructed by Burleigh County within the next five years. This may lead to surrounding development.
- Developers are planning to extend Clairmont Road to the north to service new residential subdivisions. This will place added pressure on the Burnt Boat Drive/Tyler Parkway intersection, possibly heightening the need to extend Century Avenue, Tyler Parkway, or both corridors.
- The public perceives that congestion and safety issues exist at the Ash Coulee Drive and Washington Street intersection. Further analysis should be undertaken to determine whether these issues occur for more than brief periods during the day. Washington Street corridor upgrades have been programmed for the near future to address this intersection.
- Congestion along Ash Coulee Drive occurs during the morning student drop off at Horizon Middle School. This congestion can be attributed to only one access to the school. An additional access onto Medora Avenue should be developed. There has been a joint effort between the school board and city to improve access to the school.
- Extension of Tyler Parkway or a corridor in the vicinity of Century Avenue would be an expensive endeavor for the City of Bismarck. It may be many years before either or both corridors can be funded. Therefore, choice of which one comes first appears to be an important decision for the City to make.
- A corridor extension in the vicinity of Century Avenue would pay the greatest dividends toward improving access to the Missouri River lowlands, and may reduce congestion at Tyler Parkway and Burnt Boat

Drive. The Tyler Parkway extension would take the most traffic pressure off the Ash Coulee and Clairmont Road corridors.

B. Recommended City Actions

The City of Bismarck has the ability to use this Report as an important tool in responding to future development proposals in Northwest Bismarck. Yet, this alone does not adequately position the City to preserve future corridors and associated opportunities that exist today. There are a number of steps the City may consider in order to be more proactive in guiding optimum use of the undeveloped land in Northwest Bismarck:

1. Selection of Alternatives

This Report has recommended various corridor improvements for future implementation. It is understood that over time, minor changes to these recommended corridors may occur based on coordination with land owners, environmental analysis or other technical reasons.

A specific recommendation was not provided to select some alternatives alignments because selection could not be made without further analysis beyond the scope of the Study. Decisions for some corridor alignments will need to be made pending further analysis. These corridors include:

- Extension of Century Avenue (Burnt Boat Drive, Golf Drive and Direct Extension along current Century Avenue alignment remain options)
- Extension of 64th Avenue NW and Sonora Way
- Extension of Ash Coulee Drive west of the Clairmont Road extension to River Road

2. Access Management During Platting and Development

This Report discusses the need for corridor preservation, while acknowledging that the understanding of ideal corridor development is changing with the advent of Complete Streets philosophy. Still, the existing north end of the Tyler Parkway corridor serves as a vivid reminder that unless access is managed, the ability for collector and arterial roads to safely and efficiently move future traffic can be left in doubt.

Until we know how additional access can be allowed in a complete streets context without significantly impeding the safety and mobility of vehicular traffic, current City ordinances pertaining to access control should be followed.

3. Complete Environmental Documentation for Century Avenue and Tyler Parkway Corridors

Environmental documentation activities for the Century Avenue and Tyler Parkway corridors should be undertaken to ascertain that these corridors are viable and that the NEPA environmental process is followed.

4. Consider Policies that Promote a Mix of Employment Centers within Planned Residential Land Use

If current plans to develop the Northwest Subarea as primarily residential land become a reality, a high amount of future commuter traffic may result in traffic congestion on much of Bismarck's north side. Ideally, more people would have the opportunity to find work without having to leave northwest Bismarck when traveling to their work place.

Changes in policies and/or modifications in land use plans can be adopted to promote more mixed use development northwest of Bismarck. This could reduce traffic growth and result in less future traffic pressure on the entire transportation system.

5. Consider Policies and New Design Standards that Promote Context Sensitive Solutions and Complete Streets

Current City of Bismarck roadway Design Standards and policies do not specifically address context sensitive solutions and complete streets practices. Design elements including right of way needs, lane widths, placement of multimodal facilities and other design elements could be reassessed in relation to future land use and environmental characteristics.

Establishment of new standards and policies requires careful consideration and stakeholder involvement that was beyond the scope of this study. Therefore, it is recommended that the City of Bismarck review current standards and policies to improve the ability for future developments to incorporate context sensitive solutions and complete streets strategies.

6. Acquire Land for Fire Station Relocation (If Applicable)

This study considers an alternative that would extend Century Avenue directly west of Tyler Parkway (with no realignment). In order for this to occur, the City would need to relocate the fire station from the west side of Tyler Parkway. Fire Department personnel stated that the Fire Department's optimum service area would benefit by relocating to south of the Divide Avenue Interchange.

Available vacant land is limited, and unless the City acts in the near future, the cost of acquiring land may increase significantly. Therefore, it might be in the City's best interest to undertake the environmental process soon so that decisions on land acquisition can be made.

7. Acquire Land for Century Avenue Extension (If Applicable)

Corridor right of way is often acquired through the platting process. In the case of the Century Avenue extension (directly or at Golf Drive), the corridor would have limited developable property on either side of the extension. Thus it is unlikely that the land would be dedicated as street right of way through the platting process.

Therefore, if the Century Avenue extension is to be constructed, the City may need to purchase the needed right of way in advance of possible platting.

8. Identify Special Transportation Funding Mechanisms

There are limited financial resources available to construct new transportation facilities. Most often, available funding is spent to improve existing infrastructure rather than to build new roads. Therefore, it is common for new roads, roadway extensions, and other new transportation facility improvements to be made when land develops. This allows adjacent landowners to bear some (or all) of the cost for the improvements.

For future corridor improvement projects such as the extension or realignment of Century Avenue or the extension of Tyler Parkway, the City's current funding mechanisms may not work. In order for the City to fund these improvements, there may need to be new funding resources and/or mechanisms identified.

9. Plan for Orderly Extension of Utilities

Proposed new corridor alignments may influence the desired locations for future utility extensions into northwest Bismarck (See Appendix C). Therefore, it would be prudent to revisit existing master plans and determine whether proposed future utility alignments should be modified to be more consistent with this Study's recommended transportation corridor alignments.

10. Plan and/or Acquire Land for Future Parks and Schools

If northwest Bismarck ever completely fills in with urban residential development, there is potential for as many as 50,000 people to reside there. The 2007 Regional Future Land Use Plan has identified green space within northwest

Bismarck that could be used for parks. However, almost all of this land is located in ravines, where grades are not conducive to certain types of park amenities, such as ball fields.

Ideally, there should be a regional park located in northwest Bismarck at some time in the future. This park should have 120 acres or more set aside with adequate flat land available to serve various desirable park functions. This regional park could use some of the flat land that overlooks ravines where additional green space and possible cultural resources are located.

Additionally, future schools will be needed to accommodate the students located within the new developments. Bismarck School District representatives should consider the need for future schools in this area and incorporate site acquisitions in their school development plans.

11. Prepare a Policy for Roundabout Implementation

Arterial and collector street intersections can be ideal locations for placement of a roundabout. Currently, there is no City or County policy to suggest if or where roundabouts should be considered, and what steps should be taken if a roundabout becomes the preferred method for traffic control.

Without a policy in place, it is likely that developers will choose to prepare plats with insufficient right of way and to implement traffic control that has lower initial costs. This could all occur to the detriment of traffic safety and mobility, as well as reduced aesthetics and sustainability for the region.

Some municipalities and state governments have adopted policies that require roundabouts to be considered along with other forms of traffic control. Some entities have even gone as far as to require that other forms of traffic control must be proven more effective than roundabouts.

It is recommended that a new City/County policy be adopted that lays out the steps for roundabout consideration, as well as right of way requirements and how future plats will accommodate them.

12. Context Sensitive Corridor Recommendations

This study recommends that future corridor studies and development proposals incorporate a Complete Streets/Context Sensitive Solutions based approach to more effectively integrate a multi-modal transportation system into the study area. Prime corridors and locations benefitting from this approach include:

- River Road, where strong consideration should be given to maintaining a two lane, limited access scenic route. Land use policies should be implemented to preserve this scenic resource by limiting development within eyesight of the roadway in wooded areas.
- Clairmont Road and Ash Coulee Drive, where the development pattern is likely to remain largely residential. The City may create residential avenues which function as collector roadways that enhance or establish a strong neighborhood character similar to a Historic Cathedral District.
- Functionally classified intersections in the Study Area where there is a strong opportunity to create effective neighborhood service centers that enhance or define the character of their neighborhoods.
- The recommended roadways located between 57th Avenue, Highway 1804, 15th Street NW and 28th Street NW (in Section 12 in Hay Creek Township) where a future commercial and mixed use center is identified in the Regional Future Land Use Plan.

13. Corridor Preservation Recommendation and Summary

This study recommends that future corridors be preserved through the platting and development processes. The following matrix summarizes corridor alignment recommendations:

NORTHWEST SUBAREA ALIGNMENT RECOMMENDATION MATRIX				
Corridor Alignment	Key Element	Recommended	Not Recommended	Further Study
Ash Coulee Drive	Optional extension to Clairmont Drive	√		
Ash Coulee Drive*	Optional extension to River Road			√
Burnt Boat Drive *	Proximity to Interchange and Business Impacts			√
Clydesdale Drive Alternative *	Variation on Burnt Boat Drive Alternative			√
Golf Drive Extension *	Business Impacts East of Tyler Parkway			√
Century Avenue Extension *	Fire Station and Pinto Place Impacts			√
Fernwood Drive Extension	Existing Alignment is Central / Parallels River	√		
River Road Expansion	Environmental & Physical Constraints		√	
Sandy River Road Extension	Need a Second Connection from Valley	√		
57th Avenue North	Section Line / Limited Existing Development	√		
64th Avenue North*	Connection Need is Uncertain			√
Clairmont Road	Planned North-South Traffic Carrier	√		
Tyler Coulee	Cost / Environmental / Constructability Concerns		√	
Tyler Parkway Extension	Direct Connection to Interchange / Limited Options	√		

KEY

* = The Do Nothing Alternative remains an option

Appendix A - Traffic Analysis

I. Crash Analysis

Crash data was obtained from the City of Bismarck/NDDOT for the 2-year period between June 1, 2007 and May 31, 2009 for the following locations:

- Century Avenue & Tyler Parkway (7 reported crashes)
- Washington Street & Ash Coulee (5 reported crashes)
- Ash Coulee from Washington Street to Mustang Drive (0 reported crashes)

This crash data was sorted by a variety of measures to identify potential causes:

Location	Light	# of Crashes	Light	Dark
Washington Street & Ash Coulee		5		
	Dark	2		2
	Light	3	3	
Century Avenue & Tyler Parkway		7		
	Light	7	7	
Grand Total		12	10	2

Actual Percent **83%** **17%**

Location	Surface	# of Crashes	Dry	Ice	Wet	Snow/Slush	Other
Washington Street & Ash Coulee		5					
	Dry	3	3				
	Ice	2		2			
Century Avenue & Tyler Parkway		7					
	Dry	3	3				
	Ice	3		3			
	Snow/Slush	1				1	
Grand Total		12	6	5	0	1	0

Actual Percent **50%** **42%** **0%** **8%** **0%**
Expected Percent* **68%** **9%** **14%** **7%** **2%**

*From MNDOT 2008 Traffic Safety Fundamental Handbook – p. A-12

Location	Type	# of Crashes	Expected Distribution*
Washington Street & Ash Coulee		5	
	<i>Other</i>	2	1.7
	<i>Rear End</i>	1	1.6
	<i>Angle</i>	2	1.3
Century Avenue & Tyler Parkway		7	
	<i>Left Turn</i>	1	0.5
	<i>Other</i>	5	1.6
	<i>Rear End</i>	1	3.6
Grand Total		12	

*From MNDOT's 2008 Traffic Safety Fundamental Handbook - page A-17

II. Intersection Crash Rate

To determine whether those intersections had a statistically significant safety hazard, a Critical Crash Rate was calculated for each intersection. The intersection crash rates are expressed as the number of crashes per million entering vehicles (MEV). The Critical Crash Rate accounts for the key variables that effect safety, including the following:

- Intersection control (2-way stop, 4-way stop or signalized)
- Actual intersection exposure (sum of entering traffic for all approaches)
- Speed of the facility (< or > 45 mph)
- Random nature of crashes

Intersection Crash Rates				
Intersection	Avg. Crashes Per Year	Crash Rate (Crash/MEV)	Critical Crash Rate (Crash/MEV)	Critical Crash Rate Exceeded
Ash Coulee & Washington Street	2.5	0.84	0.75	Yes
Tyler Parkway & Century Avenue	3.5	0.74	1.07	No

The Ash Coulee/Washington Street intersection did have a crash rate that exceeded the calculated critical crash rate. This intersection should be closely monitored to determine when traffic signals or other geometric improvements may be made.

III. Intersection Crash Severity

In addition to the rate of crashes, the severity of crashes was also studied to identify whether more severe crashes than expected are being experienced. An expected severity rate was calculated for each intersection based on the following factors:

- Intersection control (2-way stop, 4-way stop or signalized)
- Amount of exposure (< or > 15,000 MEV)
- Speed of the facility (< or > 45 mph)

The expected severity rate is based on the following percentages:

	<u>Fatalities</u>	<u>Injury</u>	<u>Property Damage</u>
Two-Way Stop Controlled	1.2%	35.8%	63.0%
Signalized (Low Speed, Low Volume)	0.1%	29.1%	70.8%

Intersection Crash Severity Rates			
Intersection	% of Fatalities	% of Injuries	% of Prop. Damage
Ash Coulee & Washington Street	0%	20%	80%
Tyler Parkway & Century Avenue	0%	29%	71%

Based on reported crash information, neither of the intersections studied seem to have crash severity concerns.

IV. Crash Costs to Society

One of the most complex and sensitive measures in safety analysis is determining the monetary cost to society of crashes. However, by monetizing the impacts of each crash, it allows roadway agencies to best allocate resources as to provide the greatest benefit. For this procedure, unit costs were used for each property damage, injury, and fatal crash.

- Property Damage Only - \$12,000 per crash
- Injury Crashes - \$256,000 per crash
- Fatal Crashes - \$6,800,000 per crash

Intersection	Approximate Annual Crash Costs
Ash Coulee & Washington Street	\$152,000
Tyler Parkway & Century Avenue	\$286,000
Total	\$438,000

V. Crash Analysis Summary

Based on the crash analysis conducted, the following conclusions are provided:

- Historical crash data does not indicate the presence of any existing major safety deficiencies.
- Improved geometrics and/or traffic control at the Ash Coulee & Washington Street intersection may be warranted in the future.

VI. Intersection and Corridor Analysis

The intersection and corridor analysis concentrated on existing roadways and intersections along certain corridors. Tyler Parkway was analyzed because it has multiple challenges including high traffic volumes, residential land use, and vertical alignment that limits available sight distances. It is also the only roadway within the study area that has an interchange with Interstate 94.

A. Existing Traffic Volumes

For the majority of the Study Area, the existing traffic is not an issue because the area is largely undeveloped. Due to the Interstate 94 interchange and recent nearby commercial and residential development, Tyler Parkway has seen a significant increase in traffic. Current daily traffic volumes range from 20,000 (at the south end of the corridor) to 2,000 (at the north end of the corridor). The existing traffic on the southern portion of Tyler Parkway was analyzed to determine if there are traffic capacity deficiencies.

Turning movement counts were provided by the City of Bismarck for key intersections.

Intersection	Count Type	Date of Count
Tyler Parkway & Century	16 Hr	February 26 th , 2009
Tyler Parkway & Burnt Boat Drive	16 Hr	December 13 th , 2007
Tyler Parkway & Country Road	16 Hr	April 2 nd , 2008
Washington Street & Century	16 Hr	November 21, 2007
Century & Country Road	16 Hr	January 6 th , 2009

B. Level of Service Analysis

The intersection of Tyler Parkway and Burnt Boat Drive is just north of the Interstate 94 interchange and is heavily used. The following table shows the existing lane configuration, 2007 PM peak hour traffic volumes, PM peak hour Level of Service (LOS) and delay. Synchro was used to perform the signalized and unsignalized level of service analysis for the Tyler Parkway corridor. The Synchro reports are included at the end of this Appendix.

Table 1

Tyler Parkway & Burnt Boat Drive (Signalized)												
	N approach			E approach			S approach			W approach		
EXISTING CONDITIONS	L	T	R	L	T	R	L	T	R	L	T	R
Lane Configuration	1	2	-	1	2	-	1	2	-	1	2	-
2007 PM Peak Hour Volumes	13	503	102	220	41	7	253	675	217	101	58	101
Approach LOS (Delay, sec/veh)	C (29.7)			C (34.0)			B (15.8)			B (15.4)		
Intersection LOS (Delay, sec/veh)	C (21.7)											

The intersection of Tyler Parkway and Century Avenue is a T-intersection that is currently not signalized. The traffic control consists of stop signs on the north and south approaches, and a free movement for the east approach. This was done because it allows the movements with the highest volumes (westbound left turn and northbound right turn) to flow freely, but this is not typical traffic control for a T-intersection and may confuse some drivers that are not familiar with this intersection.

Due to the irregular traffic control conditions, a LOS analysis for Tyler Parkway and Century Avenue could not be completed. However, observations at this intersection did not indicate a capacity issue currently exists.

C. Signal Warrant Analysis

The intersection of Tyler Parkway and Century Avenue is currently a 3-way unsignalized intersection. The existing traffic control consists of stop signs for the southbound and northbound traffic, allowing the westbound traffic to move freely. This is not typical for a 3-way intersection, but the westbound left turn and northbound right turn volumes are significantly higher than is present for the other turning movements.

Using the 2009 turning movement count data, a signal warrant analysis was conducted. The intersection currently does not meet any of the warrants, but it is very close. Four hours of the day meet the eight hour warrant, and two hours meet the four hour warrant.

If the traffic volume on Tyler Parkway increases by about 20% (about 120 vehicles per hour), or if both roadways increase by about 10%, signal warrants may be met. The Average Annual Daily Traffic (AADT) on Tyler Parkway increased by 16% from 2006 to 2009, so signals may be warranted at this intersection within the next five years. Supporting documentation for this signal warrant analysis can be found at the end of this Appendix.

VII. Future Analysis

A. Future Traffic Volumes

The Advanced Traffic Analysis Center (ATAC) developed model projections for the Bismarck Sub-Area Study in June 2009. The projections included low-build, medium-build and full build scenarios. The results of the full-build modeled scenario are shown on Figure 1. The figure does not show all of the links and volumes.

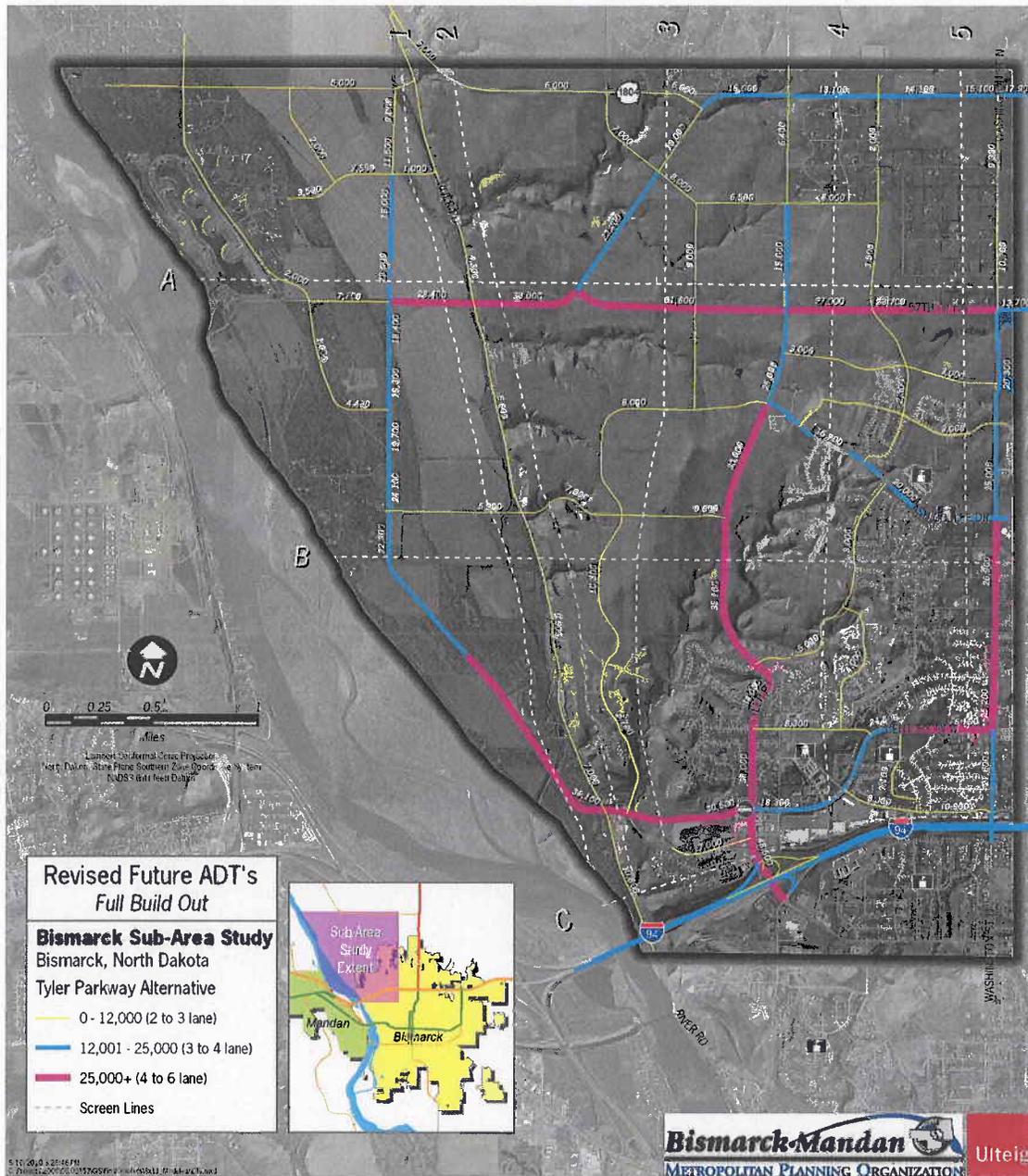


Figure 1

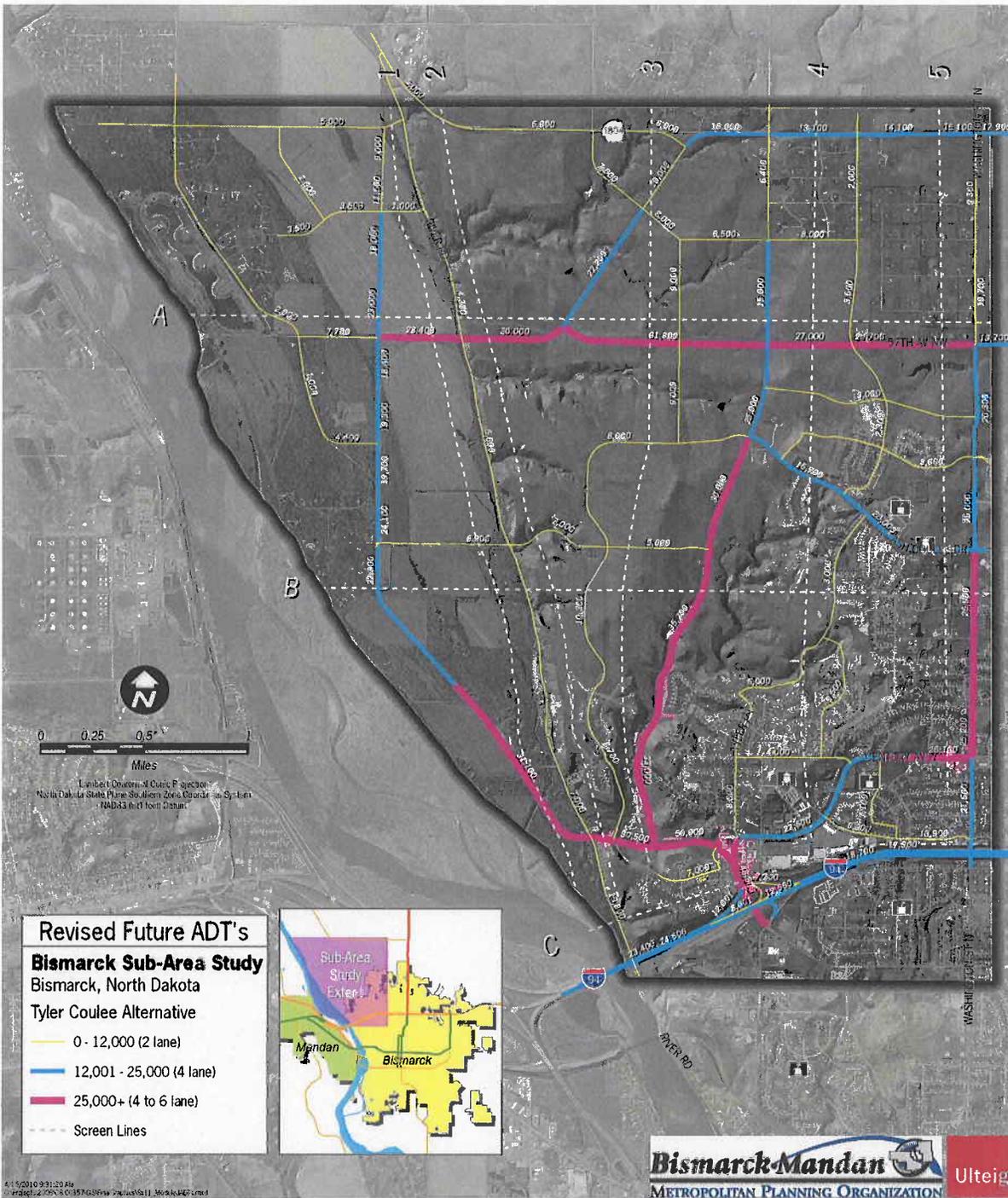


Figure 2

Using the volumes determined by the ATAC model, four different concepts for the Tyler Parkway corridor were evaluated. The four concepts included:

- Concept #1 – Century Avenue Extension
- Concept #2 – Burnt Boat Drive Extension
- Concept #3 – Burnt Boat Drive Extension w/ Century Avenue Realignment
- Concept #4 – Golf Drive Extension

B. Full Build Out Traffic Volumes

Because of some revisions to the proposed roadway network since June 2009, new projections were needed. After reviewing the traffic projections it was determined that the accuracy of the model results was impacted by the Traffic Analysis Zone (TAZ) layout. For the majority of the study area, the existing TAZ's are very large and do not correspond well with the proposed future roadway network.

C. 30% Full Build Out Traffic Volumes

Since the full build out scenario may not happen in the next 20 years, a 30% full build out scenario was developed to determine what impacts may occur closer to the 20 year horizon. A 30% factor was used for all of the undeveloped areas. For the majority of the study area, 2 to 3 lane roadways are expected to adequately carry the traffic, with the exception of a few corridors. Based on the information presented in the previous sections, the following conclusions can be made:

D. Level of Service Analysis

The south portion of the Tyler Parkway and Tyler Coulee corridors were analyzed due to the high concentration of traffic in this area. The intersections with Burnt Boat, Century Avenue and Golf Drive were evaluated to determine the optimal layout for traffic operations.

E. Tyler Parkway

The analysis of the Tyler Parkway concept consisted of two intersections. The main issues with this concept are the closely spaced major intersections and the high volume of traffic going north through an existing residential area.

Tables 2 and 3 show the proposed lane configuration, Full Build Out PM peak hour projected traffic volumes, 95th percentile queue lengths, PM peak hour Level of Service (LOS) and delay for the intersections. WinTurns was used to convert the AADT volumes into turning movements for the analysis.

Table 2

Tyler Parkway & Burnt Boat Drive (Signalized)												
	N approach			E approach			S approach			W approach		
FUTURE CONDITIONS	L	T	R	L	T	R	L	T	R	L	T	R
Lane Configuration	1	3	1	1	1	1	1	3	1	1	1	1
2035 PM Peak Hour Volumes	71	1947	83	220	10	71	258	1947	220	83	10	258
Projected Max Queues (ft)	70	630	30	220	30	30	310	480	40	100	30	70
Approach LOS (Delay, sec/veh)	C (33.1)			D (39.1)			C (23.7)			C (23.2)		
Intersection LOS (Delay, sec/veh)	C (28.4)											

Table 3

Tyler Parkway & Century Avenue (Signalized)												
	N approach			E approach			S approach			W approach		
FUTURE CONDITIONS	L	T	R	L	T	R	L	T	R	L	T	R
Lane Configuration	2	3	1	2	2	1	2	3	1	2	3	1
2035 PM Peak Hour Volumes	282	935	533	403	230	282	762	935	403	533	230	762
Projected Max Queues (ft)	140	310	380	210	120	90	380	150	70	300	280	60
Approach LOS (Delay, sec/veh)	D (45.1)			D (38.9)			C (22.3)			C (31.3)		
Intersection LOS (Delay, sec/veh)	C (33.2)											

F. Tyler Coulee Analysis

The analysis of the Tyler Coulee concept consisted of four intersections as shown on Figure 7. The main issues with this concept was the high volume of turning movements, specifically the northbound left turns from Tyler Parkway to Century Avenue and the southbound left turns from Tyler Coulee to Century Avenue. The northbound problem was fixed by curving Tyler Parkway and making the left turn into a through movement. The southbound Tyler Coulee traffic will have to turn at Century Avenue, but with no south approach at this intersection, there are no opposing movements.

The following tables show the proposed lane configuration, 2035 PM peak hour projected traffic volumes, 95th percentile queue lengths, PM peak hour Level of Service (LOS) and delay for the intersections. WinTurns was used to convert the AADT volumes into turning movements for the analysis.

Table 4

Tyler Parkway & Burnt Boat Drive (Signalized)									
	N approach			E approach			S approach		
FUTURE CONDITIONS	L	T	R	L	T	R	L	T	R
Lane Configuration	1	3	-	1	-	1	-	3	1
2035 PM Peak Hour Volumes	63	2188	-	238	-	63	-	2188	238
Projected Max Queues (ft)	70	50	-	290	-	40	-	640	80
Approach LOS (Delay, sec/veh)	A (2.9)			E (56.2)			B (17.3)		
Intersection LOS (Delay, sec/veh)	B (13.1)								

Table 5

Tyler Parkway & Century Avenue (Signalized)												
	N approach			E approach			S approach			W approach		
FUTURE CONDITIONS	L	T	R	L	T	R	L	T	R	L	T	R
Lane Configuration	2	1	2	1	3	2	1	1	1	2	3	1
2035 PM Peak Hour Volumes	590	63	797	122	1538	590	165	63	122	797	1538	165
Projected Max Queues (ft)	400	90	190	170	650	80	280	100	60	510	461	30
Approach LOS (Delay, sec/veh)	D (45.7)			D (53.6)			E (55.1)			D (44.9)		
Intersection LOS (Delay, sec/veh)	D (48.6)											

Table 6

Century Avenue & Tyler Coulee (Signalized)										
	N approach			E approach			W approach			
FUTURE CONDITIONS	L	T	R	L	T	R	L	T	R	
Lane Configuration	2	-	1	-	3	2	1	3	-	
2035 PM Peak Hour Volumes	1393	-	258	-	1108	1393	258	1108	-	
Projected Max Queues (ft)	760	-	90	-	320	490	310	310	-	
Approach LOS (Delay, sec/veh)	D (37.0)			B (19.7)			C (32.0)			
Intersection LOS (Delay, sec/veh)	C (27.9)									

Table 7

Tyler Parkway & Century Avenue (Unsignalized)									
	N approach			E approach			W approach		
FUTURE CONDITIONS	L	T	R	L	T	R	L	T	R
Lane Configuration	1	-	1	-	2	1	1	2	-
2035 PM Peak Hour Volumes	40	-	360	-	1090	40	360	1090	-
Projected Max Queues (ft)	70	-	30	-	0	0	140	0	-
Approach LOS (Delay, sec/veh)	F (88.5)			A (0)			Left - C (24.7)		
Intersection LOS (Delay, sec/veh)	NA								

G. Queue Analysis

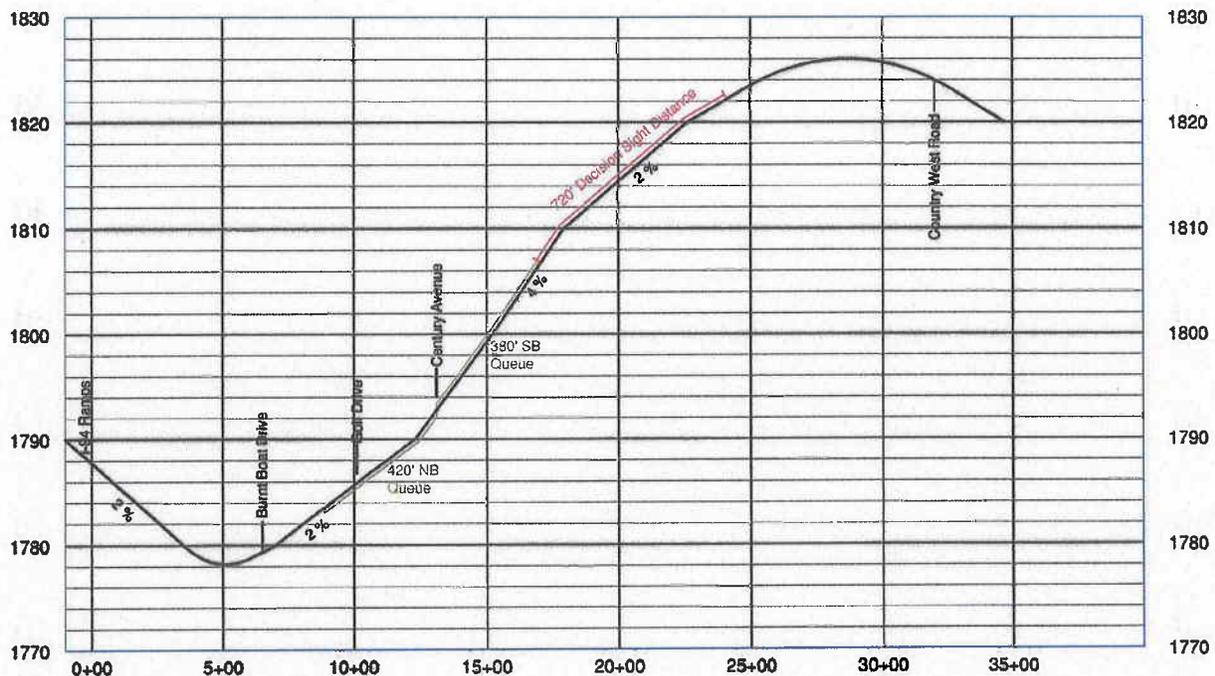
Due to the close proximity of the intersections on Tyler Parkway, the queue analysis was used to identify a fatal flaw for the future concepts. If expected queues are long enough to block adjacent intersections the corridor will not operate as it should. This is the case for Concept #4. The queue lengths for the first three concepts seem to be acceptable.

The queue analysis was also used to verify that sight distances are adequate.

H. Sight Distance

The vertical alignment of Tyler Parkway was also evaluated to determine whether adequate sight distance exists. According to the AASHTO Policy on Geometric Design of Highways and Streets, the recommended decision sight distance is 720-feet. Figure 6 shows how a 380-foot SB queue at Century Avenue would all be stacked on a 4% grade, but the sight distance to the crest is sufficient. As long as the SB queues from the Century Avenue intersection are less than 500-feet, the sight distance should not be an issue.

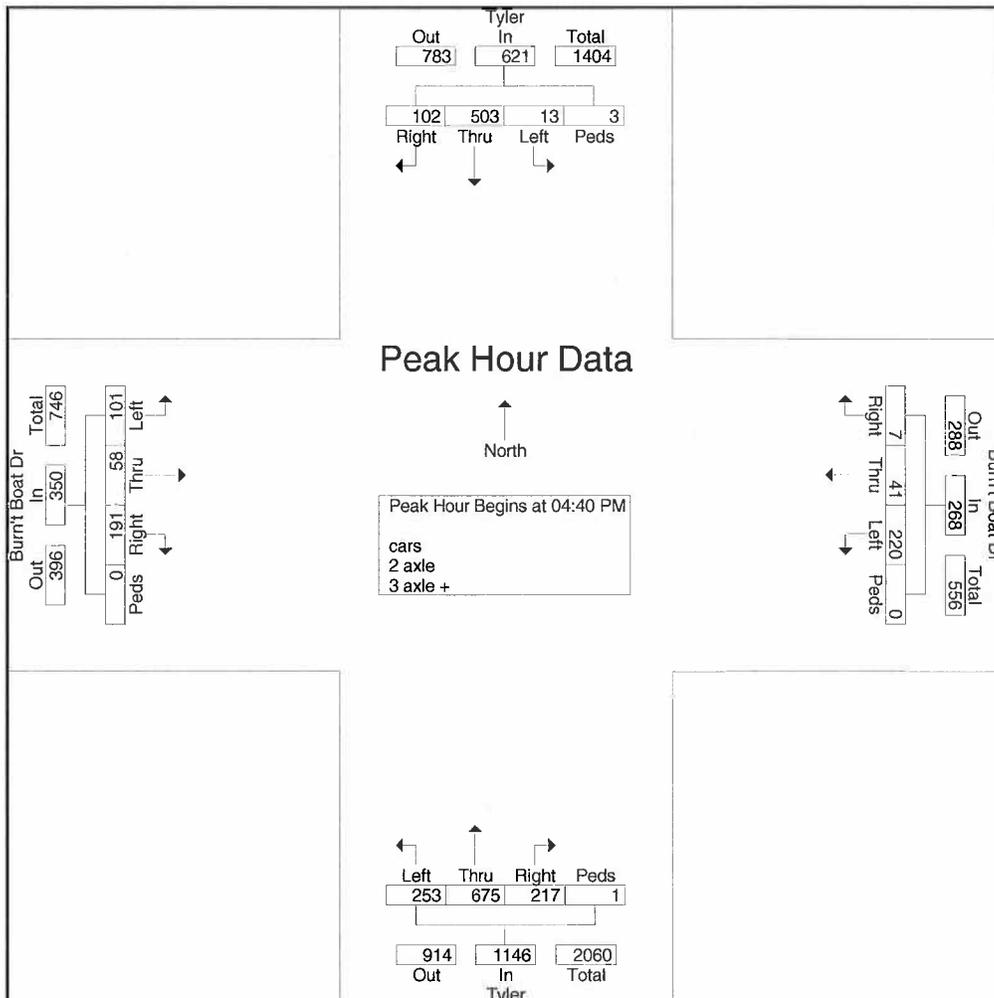
Figure 6



TYLER & BURN'T BOAT
~~42nd Street & University~~
~~Eastbound Approach~~
~~Grand Forks, ND~~

File Name : Burntboat_Tyler
 Site Code : 12131124
 Start Date : 12/13/2007
 Page No : 1

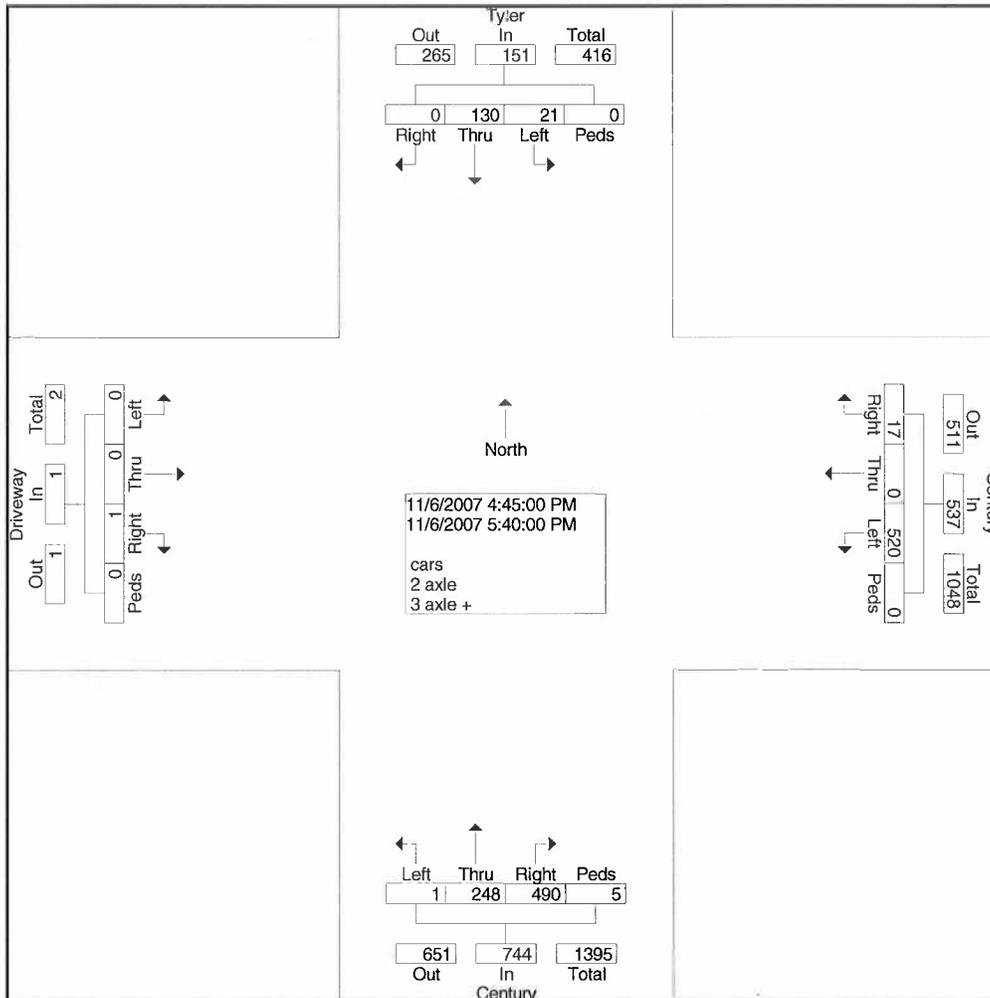
Start Time	Tyler From North					Burn't Boat Dr From East					Tyler From South					Burn't Boat Dr From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 02:00 PM to 09:55 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:40 PM																					
04:40 PM	6	39	2	0	47	1	3	23	0	27	24	46	27	0	97	14	2	9	0	25	196
04:45 PM	8	35	1	0	44	1	0	19	0	20	15	59	22	1	97	13	5	6	0	24	185
04:50 PM	7	38	0	0	45	0	2	12	0	14	23	58	12	0	93	12	7	8	0	27	179
04:55 PM	10	42	2	0	54	0	2	15	0	17	20	47	22	0	89	12	11	7	0	30	190
05:00 PM	7	48	1	0	56	0	2	28	0	30	18	46	27	0	91	25	4	15	0	44	221
05:05 PM	9	61	2	0	72	0	10	20	0	30	13	70	20	0	103	14	1	7	0	22	227
05:10 PM	9	33	1	0	43	0	7	17	0	24	16	55	16	0	87	26	5	13	0	44	198
05:15 PM	11	49	0	0	60	1	1	16	0	18	16	59	27	0	102	15	5	9	0	29	209
05:20 PM	11	48	0	0	59	0	3	13	0	16	22	65	27	0	114	13	5	4	0	22	211
05:25 PM	7	35	2	3	47	2	1	20	0	23	14	46	22	0	82	20	4	13	0	37	189
05:30 PM	9	39	0	0	48	1	5	13	0	19	16	67	15	0	98	17	5	8	0	30	195
05:35 PM	8	36	2	0	46	1	5	24	0	30	20	57	16	0	93	10	4	2	0	16	185
Total Volume	102	503	13	3	621	7	41	220	0	268	217	675	253	1	1146	191	58	101	0	350	2385
% App. Total	16.4	81	2.1	0.5		2.6	15.3	82.1	0		18.9	58.9	22.1	0.1		54.6	16.6	28.9	0		
PHF	.773	.687	.542	.083	.719	.292	.342	.655	.000	.744	.753	.804	.781	.083	.838	.612	.439	.561	.000	.663	.876



CENTURY & TYLER
Columbia Approach Delay Data
After Optimization
Grand Forks, North Dakota

File Name : CENT_T~1
 Site Code : 12771006
 Start Date : 11/6/2007
 Page No : 1

Start Time	Tyler From North					Century From East					Century From South					Driveway From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Peak Hour From 02:00 PM to 10:00 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	0	130	21	0	151	17	0	520	0	537	490	248	1	5	744	1	0	0	0	1	1433
Percent	0.0	86.1	13.9	0.0		3.2	0.0	96.8	0.0		65.9	33.3	0.1	0.7		100.0	0.0	0.0	0.0		
05:15 Volume	0	11	1	0	12	2	0	49	0	51	49	29	0	0	78	0	0	0	0	0	141
Peak Factor	0.847																				
High Int.	05:25 PM																				
Volume	0	14	3	0	17	1	0	60	0	61	49	29	0	0	78	1	0	0	0	1	
Peak Factor	0.740					0.734					0.795					0.083					

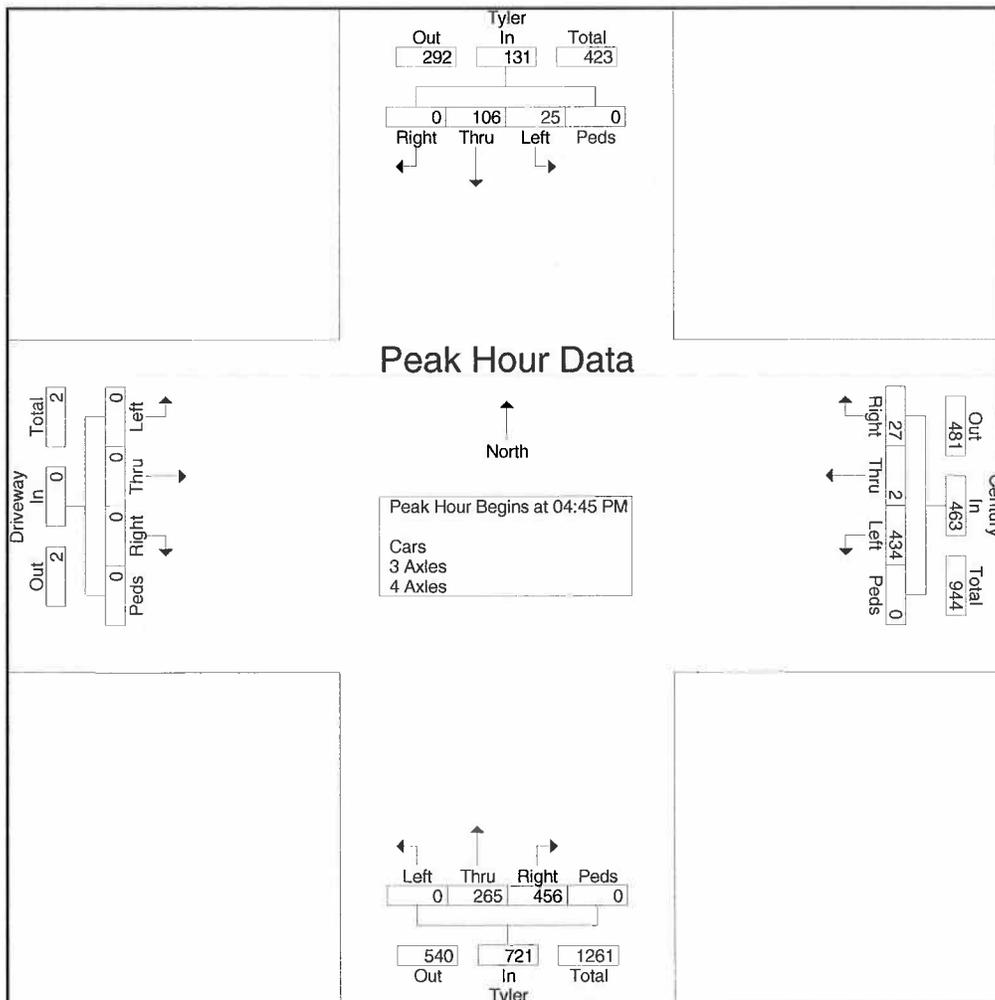


TYLER & CENTURY

~~42nd Street & University~~
~~Eastbound Approach~~
 Grand Forks, ND

File Name : Century_Tyler
 Site Code : 22571277
 Start Date : 2/26/2009
 Page No : 1

Start Time	Tyler From North					Century From East					Tyler From South					Driveway From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 02:00 PM to 09:55 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	4	5	0	9	1	1	35	0	37	32	20	0	0	52	0	0	0	0	0	98
04:50 PM	0	10	4	0	14	1	0	34	0	35	45	23	0	0	68	0	0	0	0	0	117
04:55 PM	0	6	0	0	6	2	0	30	0	32	33	20	0	0	53	0	0	0	0	0	91
05:00 PM	0	13	4	0	17	3	0	42	0	45	44	19	0	0	63	0	0	0	0	0	125
05:05 PM	0	14	1	0	15	4	0	45	0	49	44	23	0	0	67	0	0	0	0	0	131
05:10 PM	0	8	0	0	8	3	0	32	0	35	38	24	0	0	62	0	0	0	0	0	105
05:15 PM	0	13	1	0	14	2	0	48	0	50	45	24	0	0	69	0	0	0	0	0	133
05:20 PM	0	4	1	0	5	2	0	52	0	54	35	24	0	0	59	0	0	0	0	0	118
05:25 PM	0	8	0	0	8	2	1	30	0	33	35	23	0	0	58	0	0	0	0	0	99
05:30 PM	0	7	1	0	8	2	0	31	0	33	45	23	0	0	68	0	0	0	0	0	109
05:35 PM	0	11	5	0	16	4	0	25	0	29	28	23	0	0	51	0	0	0	0	0	96
05:40 PM	0	8	3	0	11	1	0	30	0	31	32	19	0	0	51	0	0	0	0	0	93
Total Volume	0	106	25	0	131	27	2	434	0	463	456	265	0	0	721	0	0	0	0	0	1315
% App. Total	0	80.9	19.1	0		5.8	0.4	93.7	0		63.2	36.8	0	0		0	0	0	0		
PHF	.000	.631	.417	.000	.642	.563	.167	.696	.000	.715	.844	.920	.000	.000	.871	.000	.000	.000	.000	.000	.824



WARRANT NO. 1: Eight Hour Vehicular Volume

Requirements: The criteria in either of the following two conditions are met:

Condition A - Minimum Vehicular Volume

Major Street 600 V.P.H. for each of any 8 hours of an average day (total of both approaches).
Minor Street 200 V.P.H. on higher volume (one direction only) approach.
Major and minor street volumes shall be for same 8 hours.

3/8 Hours (MAJOR)
8/8 Hours (MINOR)

Condition A is not satisfied.

Condition B - Interruption of Continuous Traffic

Major Street 900 V.P.H. for each of any 8 hours of an average day (total of both approaches).
Minor Street 100 V.P.H. on higher volume (one direction only) approach.
Major and minor street volumes shall be for same 8 hours.

0/8 Hours (MAJOR)
8/8 Hours (MINOR)

Condition B is not satisfied.

Evaluation: Warrant No. 1 is **not satisfied**.

WARRANT NO. 2: Four-Hour Vehicular Volume

Requirements: Major Street 700 V.P.H. for each of any 4 hours of an average day (total of both approaches).
Minor Street 330 V.P.H. on higher volume (one direction only) approach.
Major and minor street volumes shall be for same 4 hours.

2/4 Hours

Evaluation: Warrant No. 2 is **not satisfied**.

WARRANT NO. 3: Peak Hour

Requirements: The criteria in either of the following two categories are met:

Category A

The total stopped time delay on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one lane approach or 5 vehicle-hours for a two lane approach **and**
The volume on the same minor-street approach (one direction only) equals or exceeds 100 V.P.H. for one moving lane of traffic or 150 V.P.H. for two moving lanes **and**
The total entering volume serviced equals or exceeds 650 V.P.H. for intersections with three approaches or 800 V.P.H. for intersections with four or more approaches.

These conditions exist for the same 1 hour (any four consecutive 15-minute periods.)

Category A is not satisfied.

Category B

Major Street 820 V.P.H. for any one hour of an average day (total of both approaches).
Minor Street 470 V.P.H. on higher volume approach (one direction only).

These conditions exist for the same 1 hour (any four consecutive 15-minute periods.)

Category B is not satisfied.

Evaluation: Warrant No. 3 is **not satisfied**.

SIGNAL WARRANT VOLUMES
BY: MARIE R. BAKER, PE
ULTEIG ENGINEERS

DATE: October 9, 2009
PROJECTION YEAR: 2009

PROJECT LOCATION: Tyler Parkway/Century Ave, Bismarck, ND **INTERSECTION TYPE:** 3-way
MAJOR STREET: Tyler Parkway (North-South) **LANE USAGE:** 1 Thru, 1 RT (NB); 2 Thru, 1 LT (SB)
MINOR STREET: Century Avenue (East) **LANE USAGE:** 2 LT, 1 RT (WB)
PRESENT INTERSECTION CONTROL: Two-way stop **SPEED LIMIT:** 35 mph

DETERMINATION OF TRAFFIC VOLUMES: 16 Hr on-site traffic count performed on 2-26-2009

VEHICLES PER HOUR	AM HOURS						PM HOURS									
	6-7	7-8	8-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10
BOTH APPROACHES - MAJOR STREET																
Tyler Parkway (North-South)	191	726	545	365	365	484	568	465	423	597	656	813	547	339	259	199
ONE APPROACH - MINOR STREET																
Coney Street (East Approach)	108	331	278	190	177	300	343	289	224	297	330	431	278	205	119	95
ONE APPROACH - MINOR STREET																

COMMENTS: Right Turns Excluded for Minor Approach

COLLISION EXPERIENCE: _____

18-A

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1.....	1.....	500	400	350	280	150	120	105	84
2 or more...	1.....	600	480	420	336	150	120	105	84
2 or more...	2 or more...	600	480	420	336	200	160	140	112
1.....	2 or more....	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1.....	1.....	750	600	525	420	75	60	53	42
2 or more...	1.....	900	720	630	504	75	60	53	42
2 or more...	2 or more...	900	720	630	504	100	80	70	56
1.....	2 or more....	750	600	525	420	100	80	70	56

^a Basic minimum hourly volume.
^b Used for combination of Conditions A and B after adequate trial of other remedial measures.
^c May be used when the major-street speed exceeds 70 km/h or exceeds 40 mph or in an isolated community with a population of less than 10,000.
^d May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 70 km/h or exceeds 40 mph or in an isolated community with a population of less than 10,000.

Standard:

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:

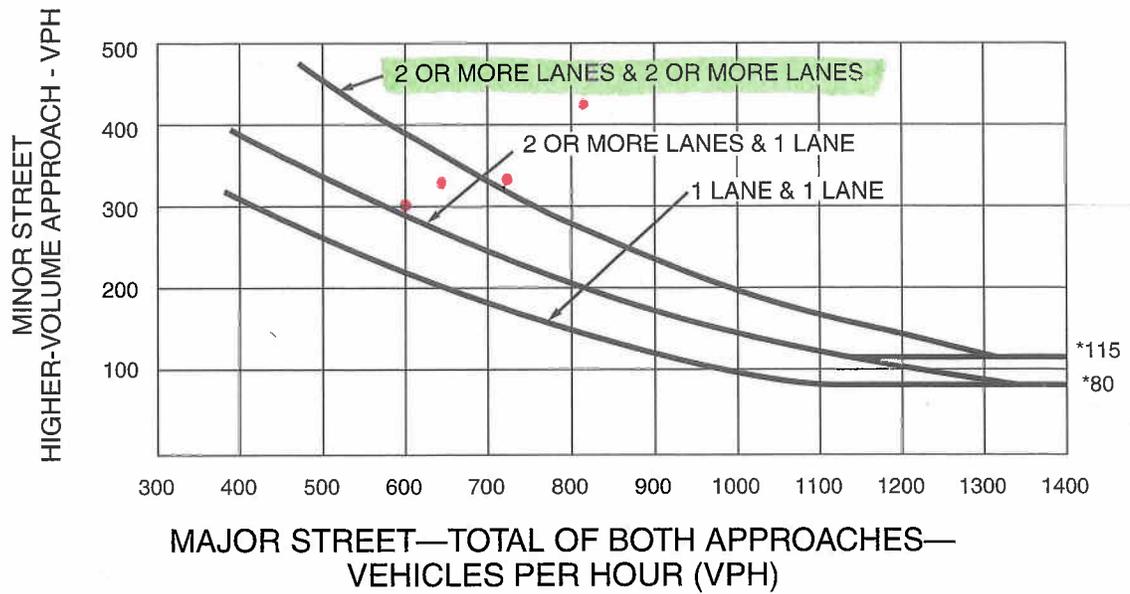
- A. The vehicles per hour given in both of the 100 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or
- B. The vehicles per hour given in both of the 100 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.

Option:

If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 70 km/h or exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 70 percent columns in Table 4C-1 may be used in place of the 100 percent columns.

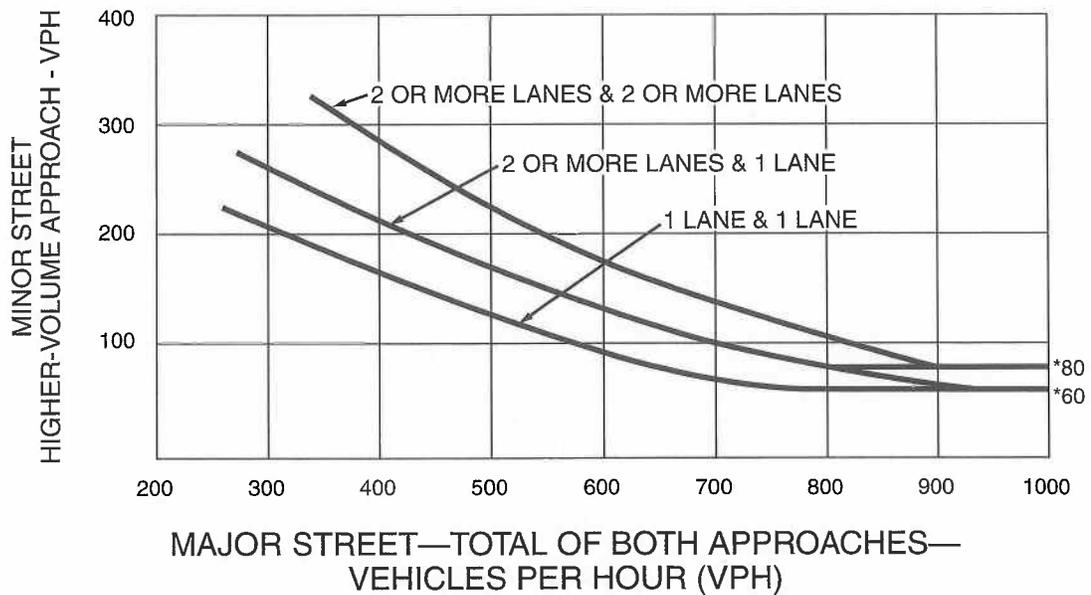
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

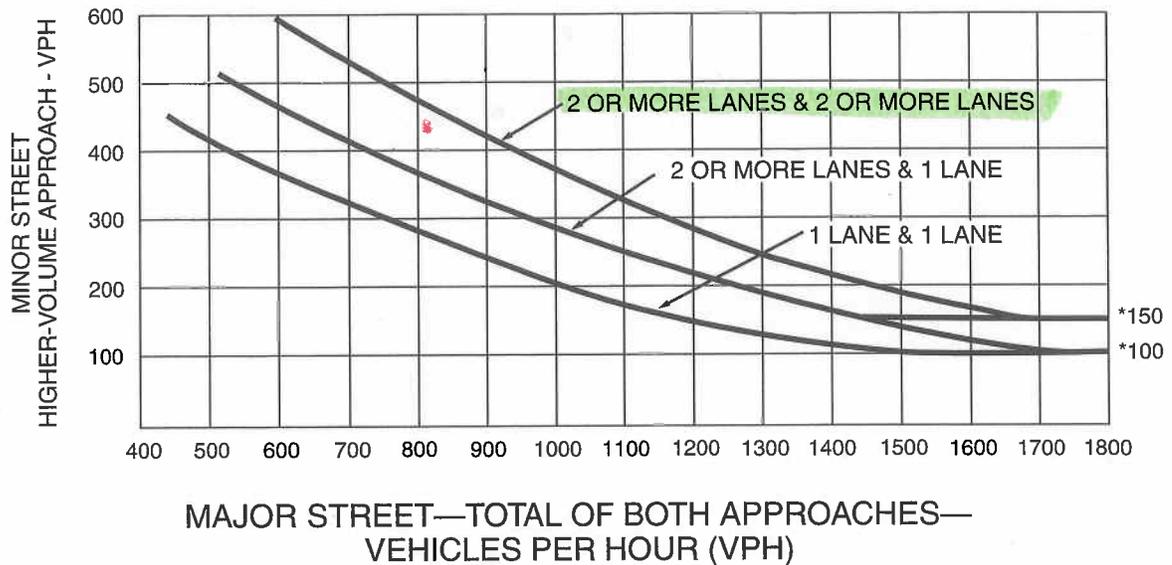
Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

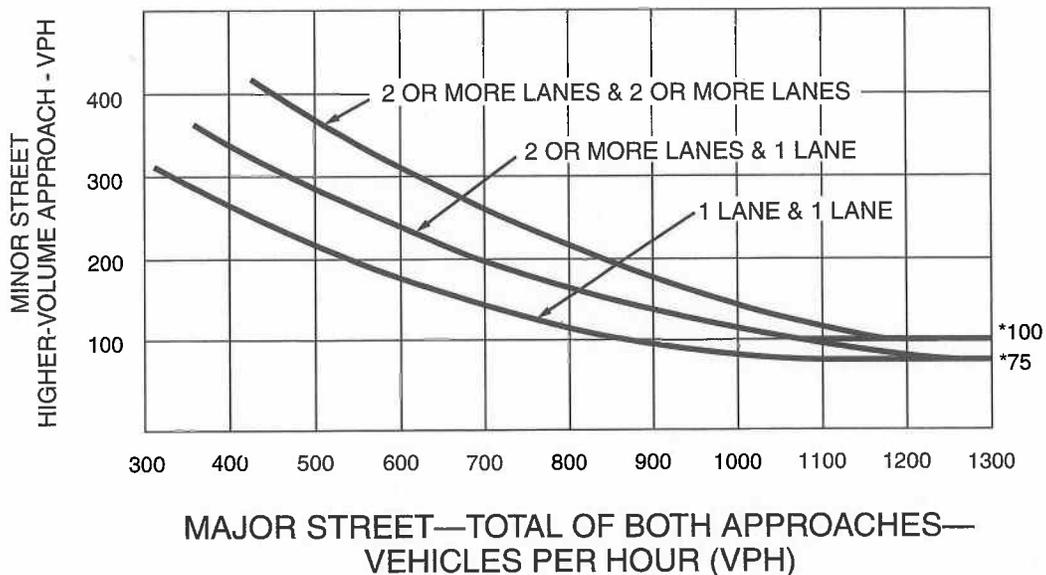
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Steve Grabill

From: Mike Zimney
Sent: Tuesday, August 04, 2009 10:15 AM
To: Steve Grabill
Cc: Mike Schnetzer; Jon Tonneson; Steve Windish
Subject: 08.00357 - Land Use Acreage

Steve G.,

I put a hard copy on your desk with the acreages for each of the individual land use areas within the project area.

Below are the totals

Total Future Land Use: 6290.92 acres

LANDUSE	Cnt_LANDUS	Sum_ACRES
GENERAL COMMERCIAL	1	145.8185
MIXED-USE COMMERCIAL/RESIDENTIAL	1	158.8959
NEIGHBORHOOD COMMERCIAL	1	23.2533
PARKS/OPEN SPACE	6	1418.4723
URBAN RESIDENTIAL	4	4544.4845
TOTAL		6290.92

Here's the updated PDF map: O:\Projects\2008\08.00357\GIS\Data\PDFMaps\30x30_Land_Use.pdf

Mike Zimney
Lead GIS Analyst / Planner
Tel 701.280.8684
Fax 701.237.3191
Cell 701.306.6684
mike.zimney@Ulteig.com

www.ulteig.com



Steve Grabill

From: Ben Ehreth <bjehreth@nd.gov>
Sent: Friday, April 24, 2009 9:57 AM
To: Steve Grabill; 'Diomo Motuba'
Cc: ssauder@nd.gov
Subject: Northwest Bismarck Subarea Transportation Study - Fullbuild Out Socio Economic Data
Attachments: NW_Bismarck_Subarea_TAZ_FullBuildOut.shx;
NW_Bismarck_Subarea_TAZ_FullBuildOut.dbf;
NW_Bismarck_Subarea_TAZ_FullBuildOut.sbn;
NW_Bismarck_Subarea_TAZ_FullBuildOut.sbx;
NW_Bismarck_Subarea_TAZ_FullBuildOut.shp;
NW_Bismarck_Subarea_TAZ_FullBuildOut.shp.xml

Categories: Filed by Newforma

Greetings,

Please find attached the full build-out household and employment GIS data for the Northwest Bismarck Subarea Transportation Study. Within the attribute data 3 Household full build-out scenarios (HHFullBld1, HHFullBld3, and HHFullBld4) were included. The following represents a description of the new data which was added to the attribute table of the TAZ's associated with the study area:

- HHFullBld1 – Entire Study Area considered at *Urban Density*.
- HHFullBld3 – Areas East of River Road and South of Highway 1804 considered at *Urban Density*. Areas West of River Road and North of Highway 1804 considered at *Rural Density*.
- HHFullBld4 – Areas within the current Urban Service Area considered at *Urban Density*. Areas outside of current Urban Service Area considered at *Rural Density*.
- RETFulBld – Retail Employment.
- SRVFullBld – Service Employment.
- OTHFullBld – Other Employment.

Urban Density = 6.32 Households per acre

Rural Density = 2.14 Households per acre

Multi-Family Density = 8 Households per acre

Service Employment = 8.85 Workers per acre

Retail Employment = 4.01 Workers per acre

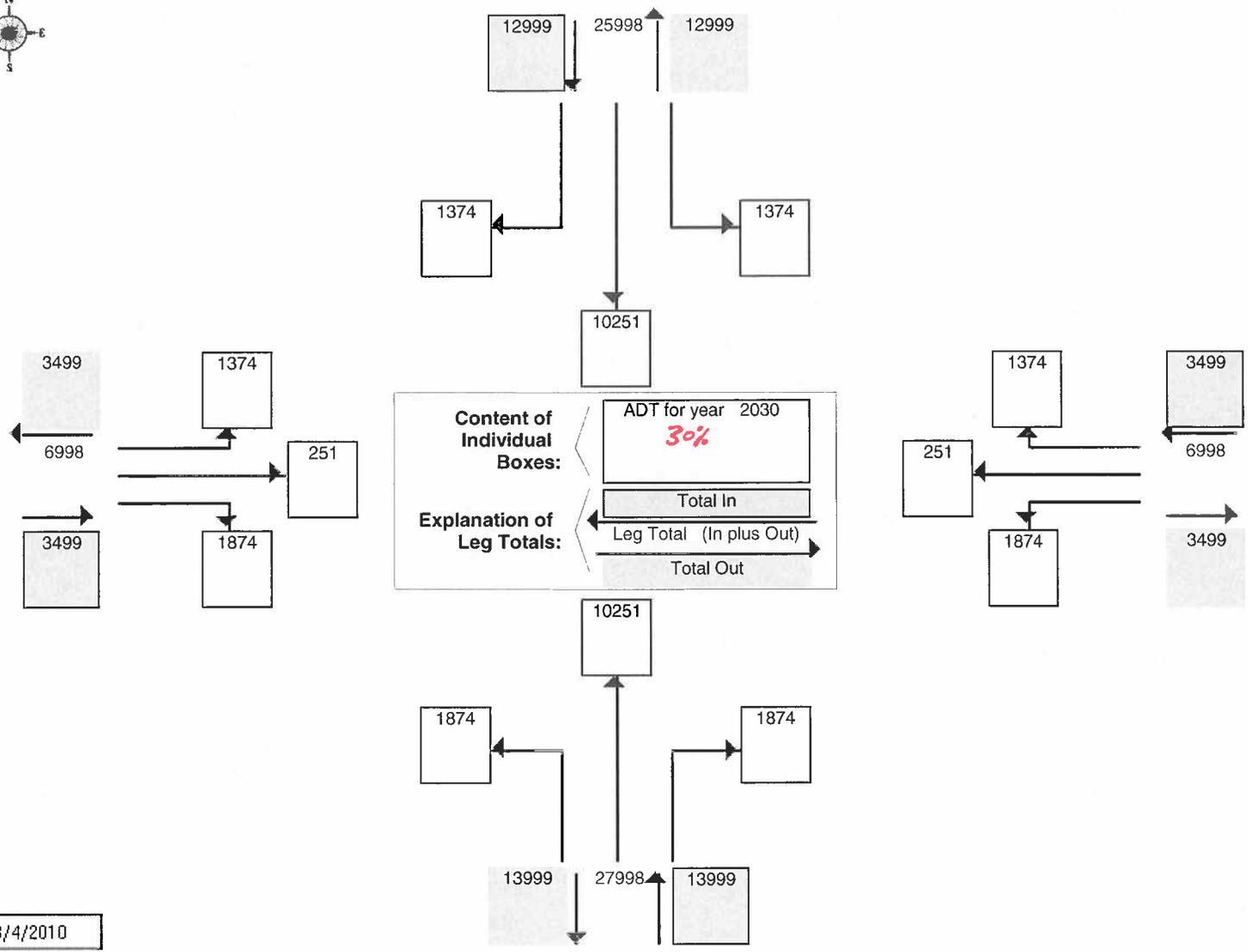
Other Employment = 3.33 Workers per acre

The household and employment locations were based on the Future Land Use Plan and the US Highway 83 Study (land use component).

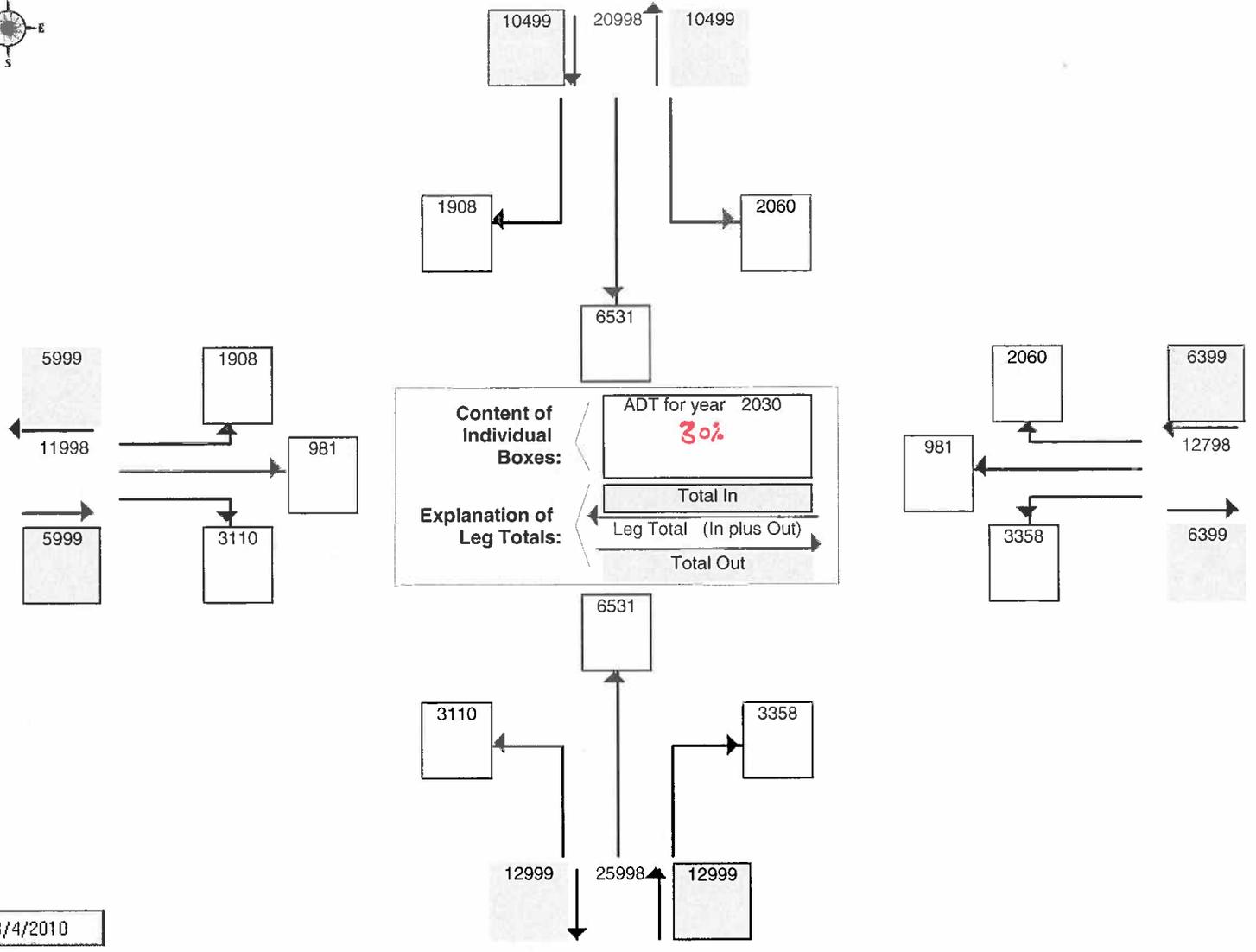
Please let me know if you have any questions or issues with the attached data.

Thanks,
Ben

Ben Ehreth, AICP
Planner
Bismarck-Mandan, Metropolitan Planning Organization



8/4/2010



8/4/2010

Lanes, Volumes, Timings
2: Golf Drive & Tyler Parkway

9/28/2010

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	98	311	336	98	206	311	653	336	206	653	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	200		200	250		200	200		200
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	100		100	100		100	100		100	100		100
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.688			0.473			0.195			0.325		
Satd. Flow (perm)	1282	1863	1583	881	1863	1583	363	3539	1583	605	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			332			224			365			208
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1162			1175			707			893	
Travel Time (s)		22.6			22.9			13.8			17.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	208	107	338	365	107	224	338	710	365	224	710	208
Turn Type	pm+pt		Perm									
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	21.0	21.0	21.0	21.0	21.0	9.0	21.0	21.0	9.0	21.0	21.0
Total Split (s)	15.0	21.0	21.0	20.0	26.0	26.0	21.0	34.0	34.0	15.0	28.0	28.0
Total Split (%)	16.7%	23.3%	23.3%	22.2%	28.9%	28.9%	23.3%	37.8%	37.8%	16.7%	31.1%	31.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag									
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max						
Act Effct Green (s)	20.8	11.0	11.0	30.8	16.1	16.1	48.9	33.8	33.8	38.5	28.2	28.2
Actuated g/C Ratio	0.23	0.12	0.12	0.34	0.18	0.18	0.54	0.38	0.38	0.43	0.31	0.31
v/c Ratio	0.60	0.47	0.70	0.81	0.32	0.48	0.75	0.53	0.44	0.57	0.64	0.33
Control Delay	29.9	42.7	12.8	39.8	33.8	8.0	35.3	14.3	1.9	19.2	31.2	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	42.7	12.8	39.8	33.8	8.0	35.3	14.3	1.9	19.2	31.2	5.6
LOS	C	D	B	D	C	A	D	B	A	B	C	A
Approach Delay		23.1			28.6			16.1			24.2	
Approach LOS		C			C			B			C	
Queue Length 50th (ft)	88	58	3	171	54	0	99	97	1	61	188	0
Queue Length 95th (ft)	131	102	78	#244	95	56	#246	117	8	118	264	52
Internal Link Dist (ft)		1082			1095			627			813	
Turn Bay Length (ft)	200		200	200		200	250		200	200		200
Base Capacity (vph)	353	331	554	450	435	541	466	1328	822	403	1107	638
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0

Lanes, Volumes, Timings
 2: Golf Drive & Tyler Parkway

9/28/2010

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.32	0.61	0.81	0.25	0.41	0.73	0.53	0.44	0.56	0.64	0.33

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 21.9
 Intersection LOS: C
 Intersection Capacity Utilization 73.1%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Golf Drive & Tyler Parkway

ø1 15 s	ø2 34 s	ø3 20 s	ø4 21 s
ø5 21 s	ø6 28 s	ø7 15 s	ø8 26 s

Lanes, Volumes, Timings
1: Burnt Boat & Tyler Parkway

9/30/2010

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	137	25	187	187	25	137	187	1025	187	137	1025	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	200		200	200		200	200		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	100		100	100		100	100		100	100		100
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
It Permitted	0.740			0.740			0.219			0.219		
Satd. Flow (perm)	1378	1863	1583	1378	1863	1583	408	3539	1583	408	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104			104			203			149
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		700			687			600			707	
Travel Time (s)		15.9			15.6			11.7			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	27	203	203	27	149	203	1114	203	149	1114	149
Turn Type	Perm		Perm									
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	12.0	12.0	12.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	49.0	49.0	49.0	49.0	49.0	49.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)	14.0	14.0	14.0	14.0	14.0	14.0	46.0	46.0	46.0	46.0	46.0	46.0
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.66	0.66	0.66	0.66	0.66	0.66
v/c Ratio	0.54	0.07	0.51	0.74	0.07	0.37	0.76	0.48	0.18	0.56	0.48	0.14
Control Delay	32.4	22.0	16.9	43.0	22.0	11.6	32.1	7.2	1.3	17.6	7.2	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.4	22.0	16.9	43.0	22.0	11.6	32.1	7.2	1.3	17.6	7.2	1.4
LOS	C	C	B	D	C	B	C	A	A	B	A	A
Approach Delay		23.4			29.2			9.7			7.7	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)	56	9	36	80	9	16	55	116	0	32	116	0
Queue Length 95th (ft)	109	27	92	#162	27	59	#189	161	20	#113	161	17
Internal Link Dist (ft)		620			607			520			627	
Turn Bay Length (ft)	200		200	200		200	200		200	200		200
Base Capacity (vph)	315	426	442	315	426	442	268	2328	1110	268	2328	1092
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0

Lanes, Volumes, Timings
 1: Burnt Boat & Tyler Parkway

9/30/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.06	0.46	0.64	0.06	0.34	0.76	0.48	0.18	0.56	0.48	0.14

Intersection Summary

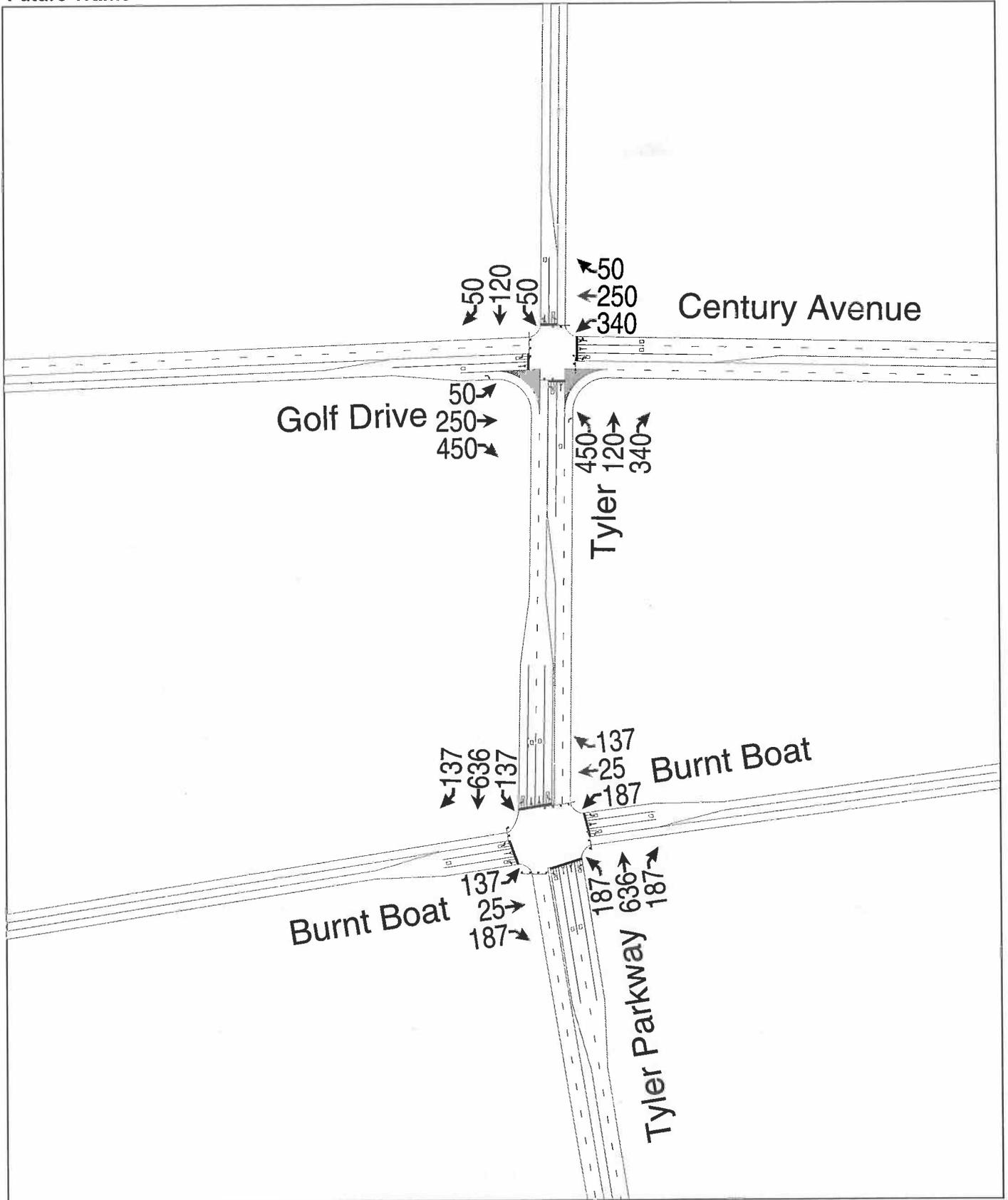
Area Type: Other
 Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 12.4 Intersection LOS: B
 Intersection Capacity Utilization 68.2% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Burnt Boat & Tyler Parkway

ø2	ø4
49 s	21 s
ø6	ø8
49 s	21 s

CENTURY AVENUE EXTENSION
W/ OUT TYLER PARKWAY EXTENSION

Map - O:\Projects\2008\08.00357\Planning\Traffic Analysis\Synchro\08.00357 Century Ave Ext w/out Tyler Parkway - 30% s
Future Traffic



Lanes, Volumes, Timings
18: Golf Drive &

9/29/2010

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	250	450	340	250	50	450	120	340	50	120	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		100	200		0	200		100	100		100
Storage Lanes	1		1	1		0	2		1	1		0
Taper Length (ft)	100		100	100		100	100		100	100		100
Satd. Flow (prot)	1770	1863	1583	1770	3451	0	1770	1863	1583	1770	1781	0
Flt Permitted	0.555			0.236			0.429			0.674		
Satd. Flow (perm)	1034	1863	1583	440	3451	0	799	1863	1583	1255	1781	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			489		37				370		23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		968			1175			707			893	
Travel Time (s)		22.0			26.7			16.1			20.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	272	489	370	326	0	489	130	370	54	184	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	pm+pt		pm+pt		Perm	Perm			
Protected Phases		4		3	8		5	2			6	
Permitted Phases	4		4	8		2		2	6			
Total Split (s)	20.0	20.0	20.0	20.0	40.0	0.0	20.0	40.0	40.0	20.0	20.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.2	15.2	15.2	34.5	34.5		37.5	37.5	37.5	17.6	17.6	
Actuated g/C Ratio	0.19	0.19	0.19	0.43	0.43		0.47	0.47	0.47	0.22	0.22	
v/c Ratio	0.28	0.77	0.70	0.83	0.22		0.86	0.15	0.39	0.20	0.45	
Control Delay	31.3	46.5	9.1	34.5	12.6		34.6	13.4	3.0	29.0	28.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	31.3	46.5	9.1	34.5	12.6		34.6	13.4	3.0	29.0	28.6	
LOS	C	D	A	C	B		C	B	A	C	C	
Approach Delay		23.1			24.2			20.0			28.7	
Approach LOS		C			C			B			C	
Queue Length 50th (ft)	23	128	0	123	43		178	37	0	23	71	
Queue Length 95th (ft)	56	#235	84	#249	69		#360	69	45	54	134	
Internal Link Dist (ft)		888			1095			627			813	
Turn Bay Length (ft)	200		100	200			200		100	100		
Base Capacity (vph)	208	375	709	456	1573		569	874	939	275	409	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.26	0.73	0.69	0.81	0.21		0.86	0.15	0.39	0.20	0.45	

Intersection Summary

10/5/2009 Future Traffic

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 22.7 Intersection LOS: C
 Intersection Capacity Utilization 79.6% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 18: Golf Drive &

ø2 40 s		ø3 20 s		ø4 20 s	
ø5 20 s		ø6 20 s		ø8 40 s	

Lanes, Volumes, Timings
18: Golf Drive &

9/29/2010

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	250	450	340	250	50	450	120	340	50	120	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		100	200		0	200		100	100		100
Storage Lanes	1		1	1		0	2		1	1		0
Taper Length (ft)	100		100	100		100	100		100	100		100
Satd. Flow (prot)	1770	1863	1583	1770	3451	0	3433	1863	1583	1770	1781	0
Fit Permitted	0.555			0.236			0.950			0.674		
Satd. Flow (perm)	1034	1863	1583	440	3451	0	3433	1863	1583	1255	1781	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			489		37				370		23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		968			1175			707			893	
Travel Time (s)		22.0			26.7			16.1			20.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	272	489	370	326	0	489	130	370	54	184	0
Enter Blocked Intersection	No	No	No									
Lane Alignment	Left	Left	Right									
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	pm+pt		Prot		Perm	Perm			
Protected Phases		4		3	8		5	2			6	
Permitted Phases	4		4	8				2		6		
Total Split (s)	20.0	20.0	20.0	20.0	40.0	0.0	22.0	40.0	40.0	18.0	18.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	15.2	15.2	15.2	34.5	34.5		15.9	37.5	37.5	17.6	17.6	
Actuated g/C Ratio	0.19	0.19	0.19	0.43	0.43		0.20	0.47	0.47	0.22	0.22	
v/c Ratio	0.28	0.77	0.70	0.83	0.22		0.72	0.15	0.39	0.19	0.45	
Control Delay	31.3	46.5	9.1	34.5	12.6		36.2	13.4	3.0	30.2	29.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	31.3	46.5	9.1	34.5	12.6		36.2	13.4	3.0	30.2	29.4	
LOS	C	D	A	C	B		D	B	A	C	C	
Approach Delay		23.1			24.2			20.8			29.6	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	23	128	0	123	43		117	37	0	23	72	
Queue Length 95th (ft)	56	#235	84	#249	69		163	69	45	56	138	
Internal Link Dist (ft)		888			1095			627			813	
Turn Bay Length (ft)	200		100	200			200		100	100		
Base Capacity (vph)	208	375	709	456	1573		772	874	939	277	411	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.26	0.73	0.69	0.81	0.21		0.63	0.15	0.39	0.19	0.45	

Intersection Summary

10/5/2009 Future Traffic

Lanes, Volumes, Timings

9/29/2010

18: Golf Drive &

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 23.1 Intersection LOS: C
 Intersection Capacity Utilization 67.5% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 18: Golf Drive &

ø2 40 s		ø3 20 s		ø4 20 s	
ø5 22 s		ø6 18 s		ø8 40 s	

CENTURY AVENUE EXTENSION
W/O/TYLER PARKWAY EXTENSION

Lanes, Volumes, Timings
6: Burnt Boat & Tyler Parkway

9/30/2010

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	137	25	187	187	25	137	187	636	187	137	636	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	100		100	200		200	200		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	100		100	100		100	100		100	100		100
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.740			0.740			0.374			0.374		
Satd. Flow (perm)	1378	1863	1583	1378	1863	1583	697	3539	1583	697	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			191			149			203			149
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		861			687			600			707	
Travel Time (s)		19.6			15.6			13.6			16.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	27	203	203	27	149	203	691	203	149	691	149
Turn Type	Perm		Perm									
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	30.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	12.3	12.3	12.3	12.3	12.3	12.3	29.7	29.7	29.7	29.7	29.7	29.7
Actuated g/C Ratio	0.25	0.25	0.25	0.25	0.25	0.25	0.59	0.59	0.59	0.59	0.59	0.59
v/c Ratio	0.44	0.06	0.38	0.60	0.06	0.30	0.49	0.33	0.20	0.36	0.33	0.15
Control Delay	19.2	12.8	5.3	23.7	12.8	4.7	12.5	6.3	1.8	9.8	6.3	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	12.8	5.3	23.7	12.8	4.7	12.5	6.3	1.8	9.8	6.3	1.9
LOS	B	B	A	C	B	A	B	A	A	A	A	A
Approach Delay		11.3			15.4			6.6			6.2	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	37	6	3	52	6	0	29	45	0	19	45	0
Queue Length 95th (ft)	70	18	37	96	18	29	94	85	22	61	85	19
Internal Link Dist (ft)		781			607			520			627	
Turn Bay Length (ft)	100		100	100		100	200		200	200		200
Base Capacity (vph)	441	596	636	441	596	608	415	2105	1024	415	2105	1002
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0

Lanes, Volumes, Timings

6: Burnt Boat & Tyler Parkway

9/30/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.05	0.32	0.46	0.05	0.25	0.49	0.33	0.20	0.36	0.33	0.15

Intersection Summary

Area Type: Other
 Cycle Length: 50
 Actuated Cycle Length: 50
 Offs: 0 (0%), Referenced to phase 2:NB L and 6:SBTL, Start of Green
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 8.3
 Intersection Capacity Utilization 55.0%
 Analysis Period (min) 15

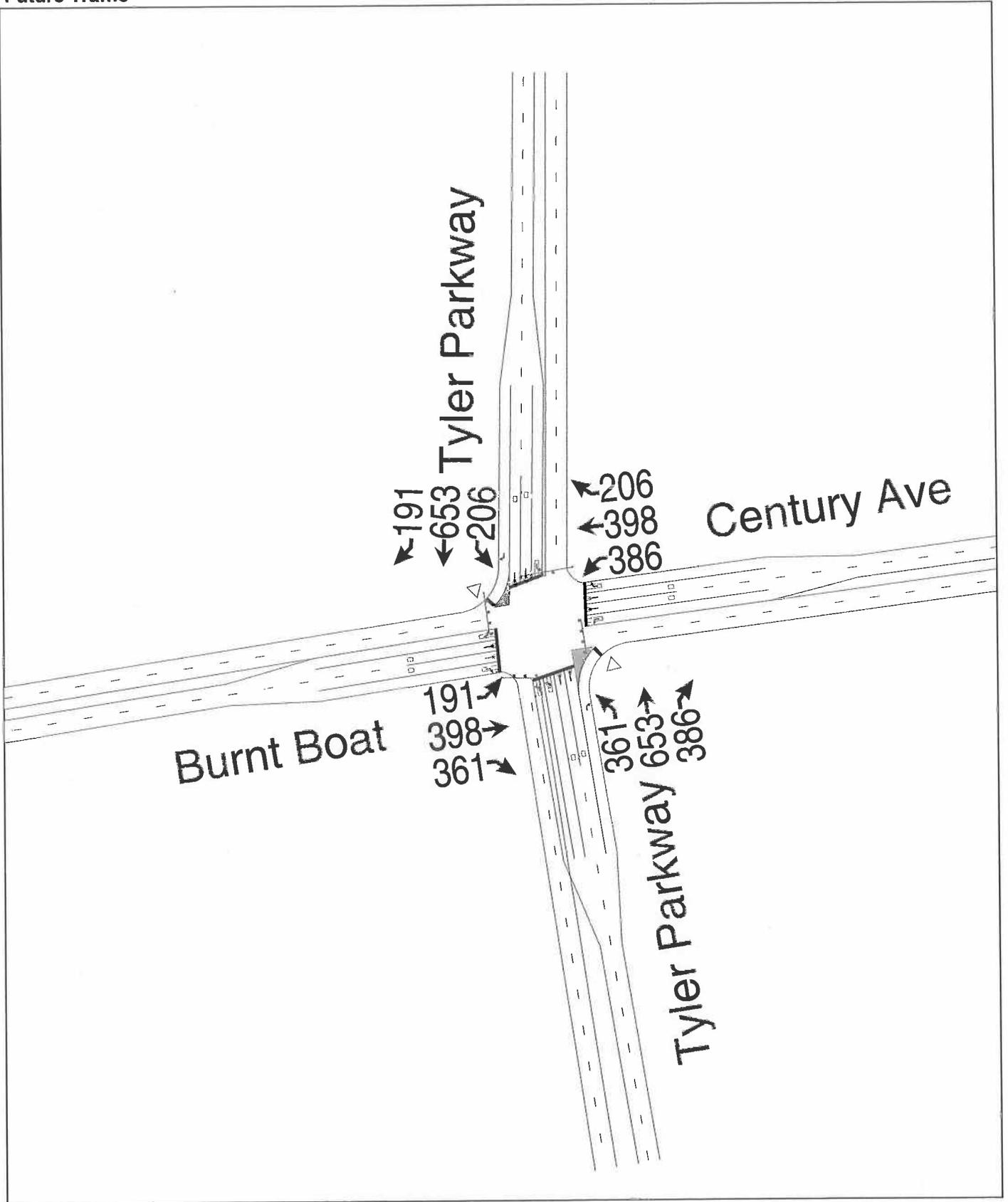
Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 6: Burnt Boat & Tyler Parkway

ø2	ø4
30 s	20 s
ø6	ø8
30 s	20 s

CENTURY AVENUE REALIGNMENT
W/ TYLER PARKWAY EXTENSION

Map - O:\Projects\2008\08.00357\Planning\Traffic Analysis\Synchro\08.00357 Burnt Boat_Century - 9/20/10
Future Traffic



Lanes, Volumes, Timings
6: Burnt Boat & Tyler Parkway

9/30/2010

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	398	361	386	398	206	361	653	386	206	653	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	200		200	200		200	200		200
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	100		100	100		100	100		100	100		100
Satd. Flow (prot)	1593	3185	1425	1593	3185	1425	3090	3185	1425	1593	3185	1425
Flt Permitted	0.500			0.225			0.950			0.245		
Satd. Flow (perm)	838	3185	1425	377	3185	1425	3090	3185	1425	411	3185	1425
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			283			224			420			208
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		861			687			600			611	
Travel Time (s)		19.6			15.6			13.6			13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	208	433	392	420	433	224	392	710	420	224	710	208
Turn Type	pm+pt		Perm	pm+pt		Perm	Prot		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8			2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	8.0	12.0	12.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	25.0	25.0	25.0	18.0	31.0	31.0	14.0	27.0	27.0
Total Split (%)	22.2%	22.2%	22.2%	27.8%	27.8%	27.8%	20.0%	34.4%	34.4%	15.6%	30.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag									
Lead/Lag Optimize?												
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max						
Act Effct Green (s)	28.2	15.6	15.6	40.3	23.7	23.7	13.7	27.7	27.7	33.9	24.0	24.0
Actuated g/C Ratio	0.31	0.17	0.17	0.45	0.26	0.26	0.15	0.31	0.31	0.38	0.27	0.27
v/c Ratio	0.56	0.79	0.81	0.94	0.52	0.41	0.83	0.72	0.58	0.78	0.84	0.39
Control Delay	23.0	46.9	25.8	52.2	31.3	6.7	53.7	33.0	6.1	38.1	42.0	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.0	46.9	25.8	52.2	31.3	6.7	53.7	33.0	6.1	38.1	42.0	6.5
LOS	C	D	C	D	C	A	D	C	A	D	D	A
Approach Delay		34.1			34.4			30.9			34.8	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	71	124	56	178	109	0	112	190	0	78	203	0
Queue Length 95th (ft)	121	#189	#209	#360	164	56	#183	256	70	#173	#302	53
Internal Link Dist (ft)		781			607			520			531	
Turn Bay Length (ft)	200		200	200		200	200		200	200		200
Base Capacity (vph)	428	566	486	452	839	540	481	981	730	286	849	532
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0

Lanes, Volumes, Timings
 6: Burnt Boat & Tyler Parkway

9/30/2010

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.77	0.81	0.93	0.52	0.41	0.81	0.72	0.58	0.78	0.84	0.39

Intersection Summary

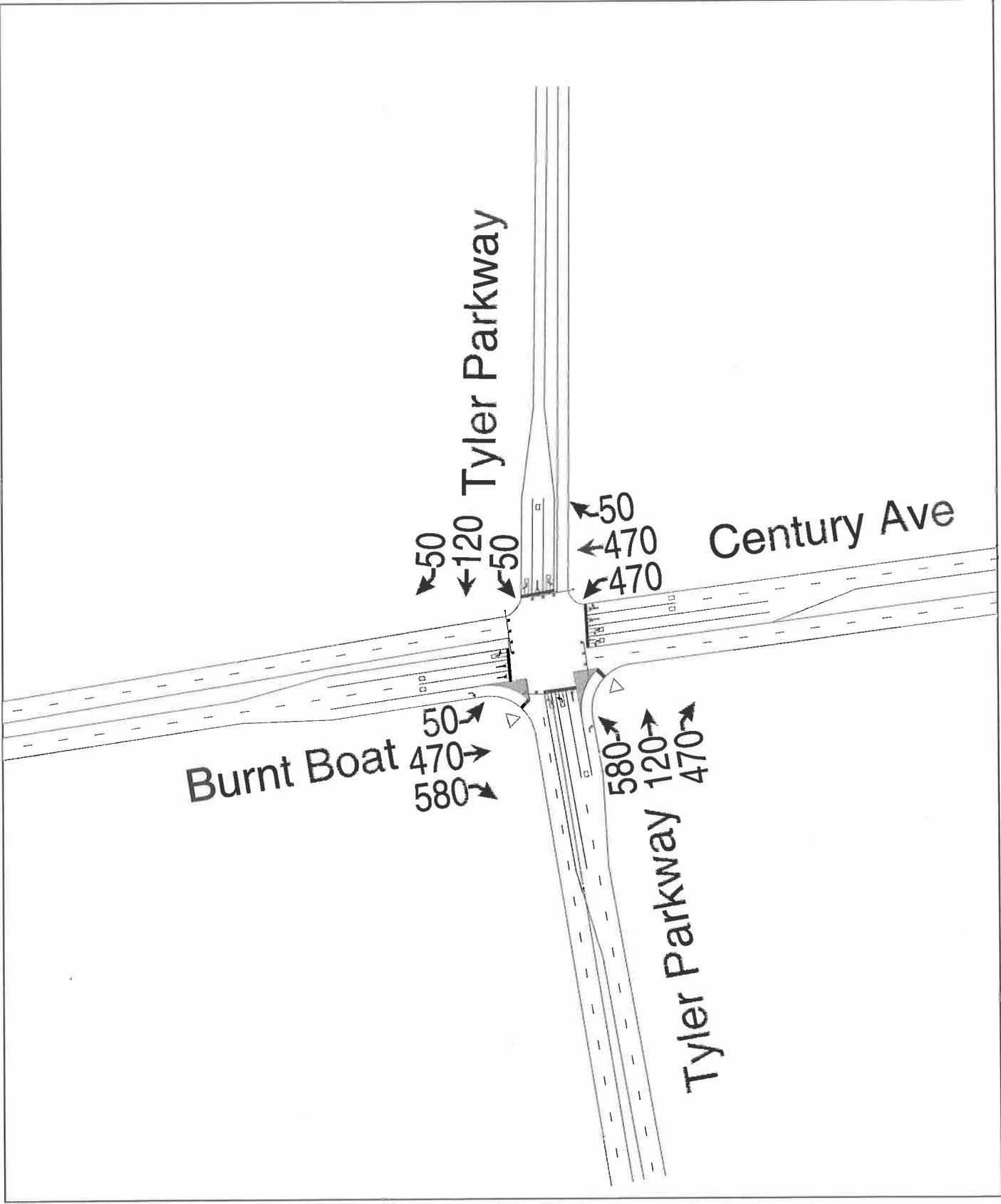
Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2,NBT and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 33.3
 Intersection LOS: C
 Intersection Capacity Utilization 82.1%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: Burnt Boat & Tyler Parkway

ø1 14 s	ø2 31 s	ø3 25 s	ø4 20 s
ø5 18 s	ø6 27 s	ø7 20 s	ø8 25 s

CENTURY AVENUE REALIGNMENT
WITHOUT TYLER PARKWAY EXTENSION

Map - O:\Projects\2008\08.00357\Planning\Traffic Analysis\Synchro\08.00357 Century Ave Realign 6/30/10 Tyler Ext - 3
Future Traffic



Lanes, Volumes, Timings
 6: Burnt Boat & Tyler Parkway

9/30/2010

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	470	580	470	470	50	580	120	470	50	120	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	200		0	200		100	100		100
Storage Lanes	1		1	2		1	1		1	1		1
Taper Length (ft)	100		100	100		100	100		100	100		100
Satd. Flow (prot)	1770	3539	1583	3433	3490	0	3433	1863	1583	1770	1863	1583
Flt Permitted	0.440			0.950			0.950			0.674		
Satd. Flow (perm)	820	3539	1583	3433	3490	0	3433	1863	1583	1255	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			559		19				511			54
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		861			687			600			611	
Travel Time (s)		19.6			15.6			13.6			13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	511	630	511	565	0	630	130	511	54	130	54
Turn Type	Perm		Perm	Prot			Prot		Perm	Perm		Perm
Protected Phases		4		3	8		5	2			6	
Permitted Phases	4		4						2	6		6
Detector Phase	4	4	4	3	8		5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	8.0	12.0		8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	19.0	19.0	19.0	17.0	36.0	0.0	19.0	39.0	39.0	20.0	20.0	20.0
Total Split (%)	25.3%	25.3%	25.3%	22.7%	48.0%	0.0%	25.3%	52.0%	52.0%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lag	Lead			Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	14.7	14.7	14.7	13.0	31.7		15.1	35.3	35.3	16.2	16.2	16.2
Actuated g/C Ratio	0.20	0.20	0.20	0.17	0.42		0.20	0.47	0.47	0.22	0.22	0.22
v/c Ratio	0.34	0.74	0.83	0.86	0.38		0.91	0.15	0.50	0.20	0.32	0.14
Control Delay	32.4	35.4	15.8	46.7	15.2		49.4	12.0	3.2	26.6	27.6	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.4	35.4	15.8	46.7	15.2		49.4	12.0	3.2	26.6	27.6	8.6
LOS	C	D	B	D	B		D	B	A	C	C	A
Approach Delay		25.0			30.2			27.0			23.0	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	22	117	28	120	87		148	33	0	21	52	0
Queue Length 95th (ft)	55	170	#205	#200	126		#244	63	48	51	98	27
Internal Link Dist (ft)		781			607			520			531	
Turn Bay Length (ft)	200		200	200			200		100	100		100
Base Capacity (vph)	164	708	764	595	1500		691	877	1016	272	403	385
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0

Lanes, Volumes, Timings
 6: Burnt Boat & Tyler Parkway

9/30/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.72	0.82	0.86	0.38		0.91	0.15	0.50	0.20	0.32	0.14

Intersection Summary

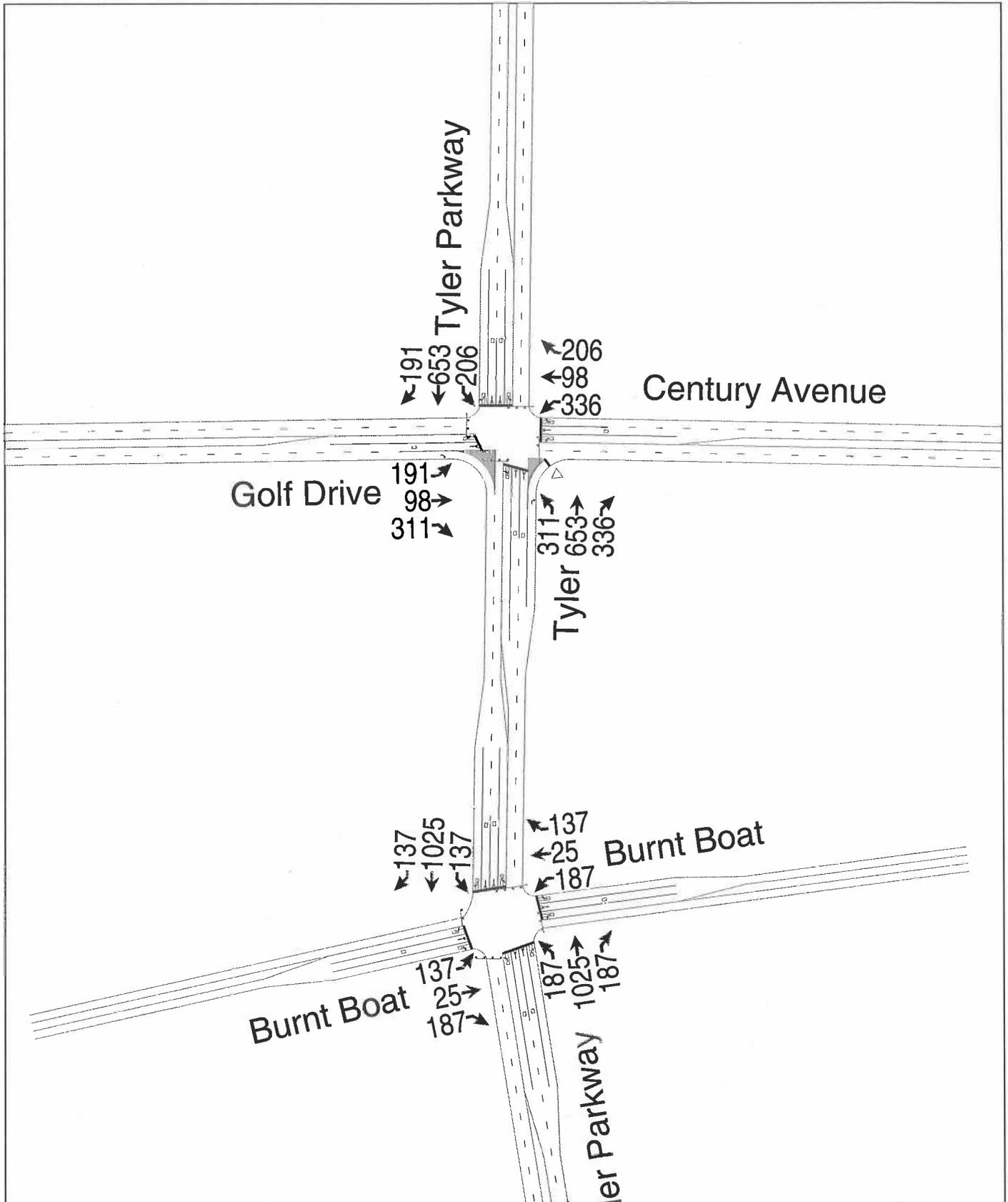
Area Type: Other
 Cycle Length: 75
 Actuated Cycle Length: 75
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay 27.0
 Intersection LOS: C
 Intersection Capacity Utilization 65.6%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: Burnt Boat & Tyler Parkway

↑ ø2 39 s		↖ ø3 17 s	↗ ø4 19 s
↙ ø5 19 s	↓ ø6 20 s	← ø8 36 s	

CENTURY AVENUE EXTENSION
W/ TYLER PARKWAY EXTENSION

Map - O:\Projects\2008\08.00357\Planning\Traffic Analysis\Synchro\08.00357 Century Ave Ext- 30% Build Out
Future Traffic - 30% Build Out



Modeled ADT's

Low Growth

-  0 - 4,000
-  4,001 - 8,000
-  8,001 - 12,000
-  12,001 - 20,000
-  20,001 - 30,000
-  30,001+

Modeled ADT's

Medium Growth

- 0 - 4,000
- 4,001 - 8,000
- 8,001 - 12,000
- 12,001 - 20,000
- 20,001 - 30,000
- 30,001+

45-A

Modeled ADT's

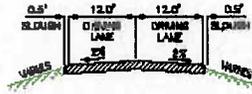
Full Growth

- 0 - 4,000
- 4,001 - 8,000
- 8,001 - 12,000
- 12,001 - 20,000
- 20,001 - 30,000
- 30,001+

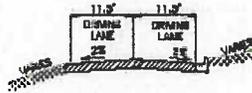
46-A

Appendix B – Typical Sections and Profiles

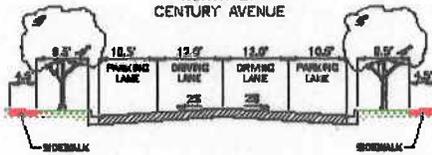
RIVER ROAD
NORTH OF
BURNT BOAT ROAD



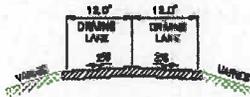
RIVER ROAD
SOUTH OF
BURNT BOAT ROAD



TYLER PARKWAY
NORTH OF
CENTURY AVENUE



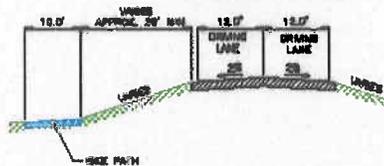
ASH COULEE DRIVE
BY
CORINCE DRIVE
(END OF PAVEMENT)

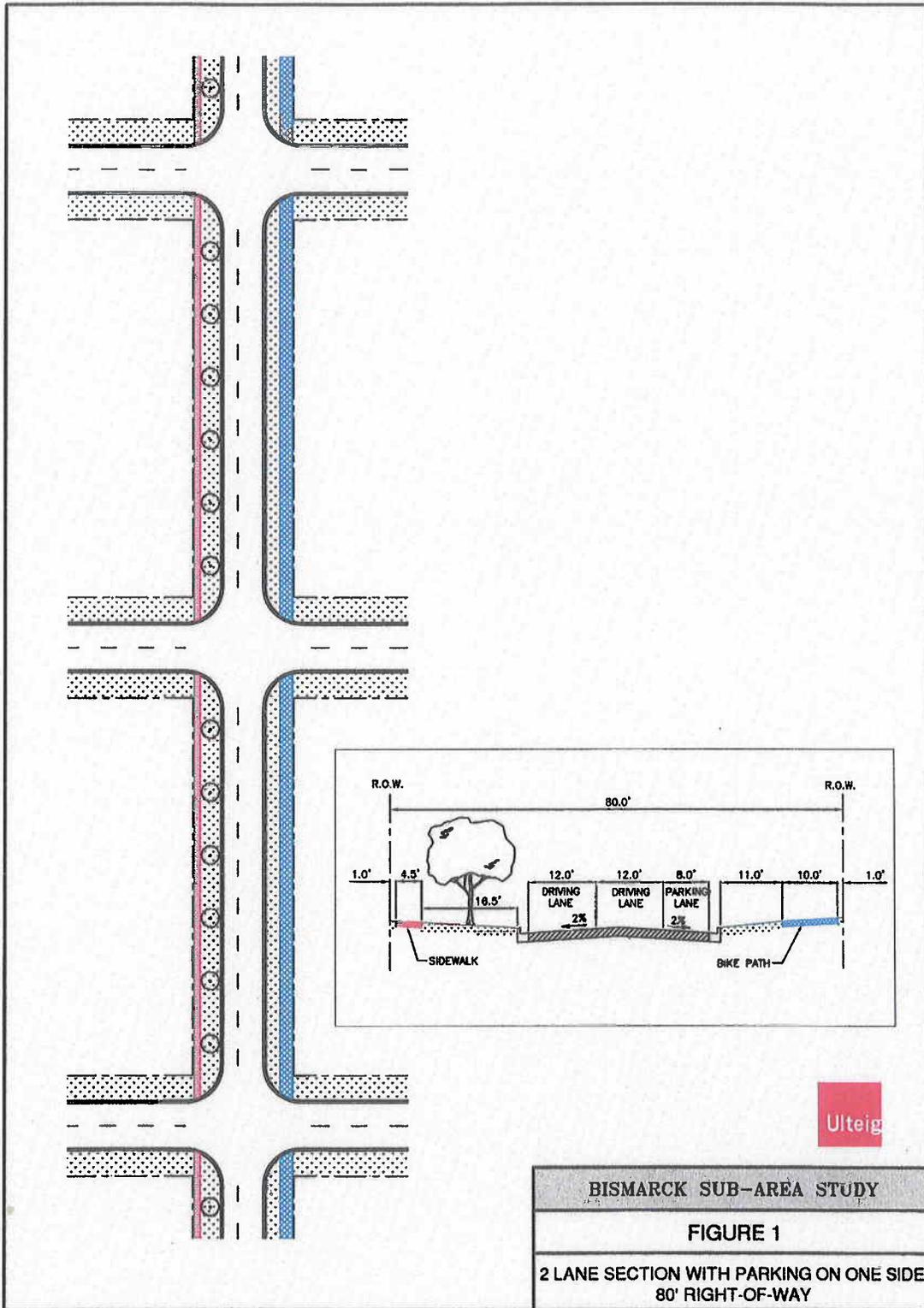


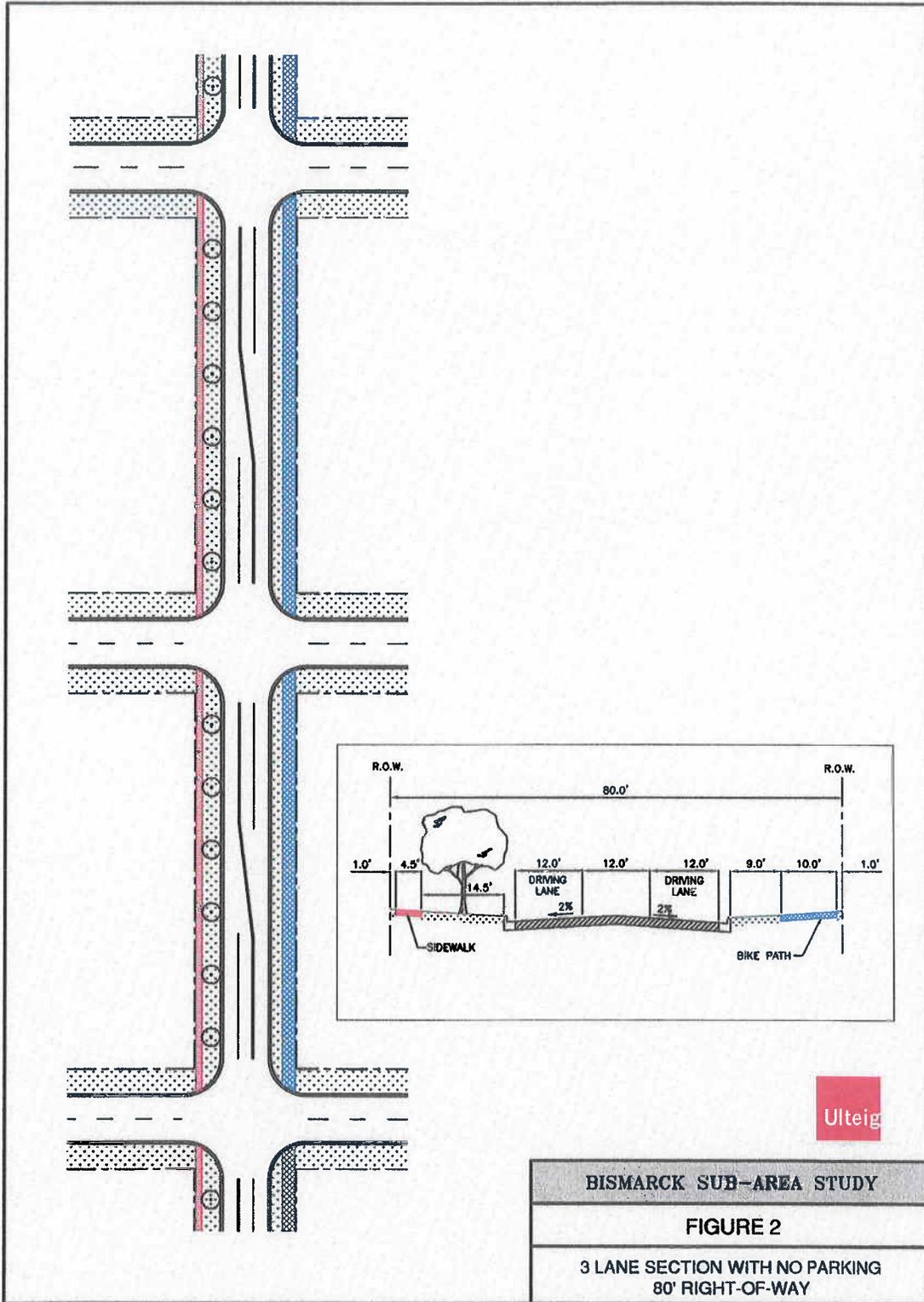
ASH COULEE DRIVE
(N. WASHINGTON STREET
TO AMBERGLOW DRIVE)



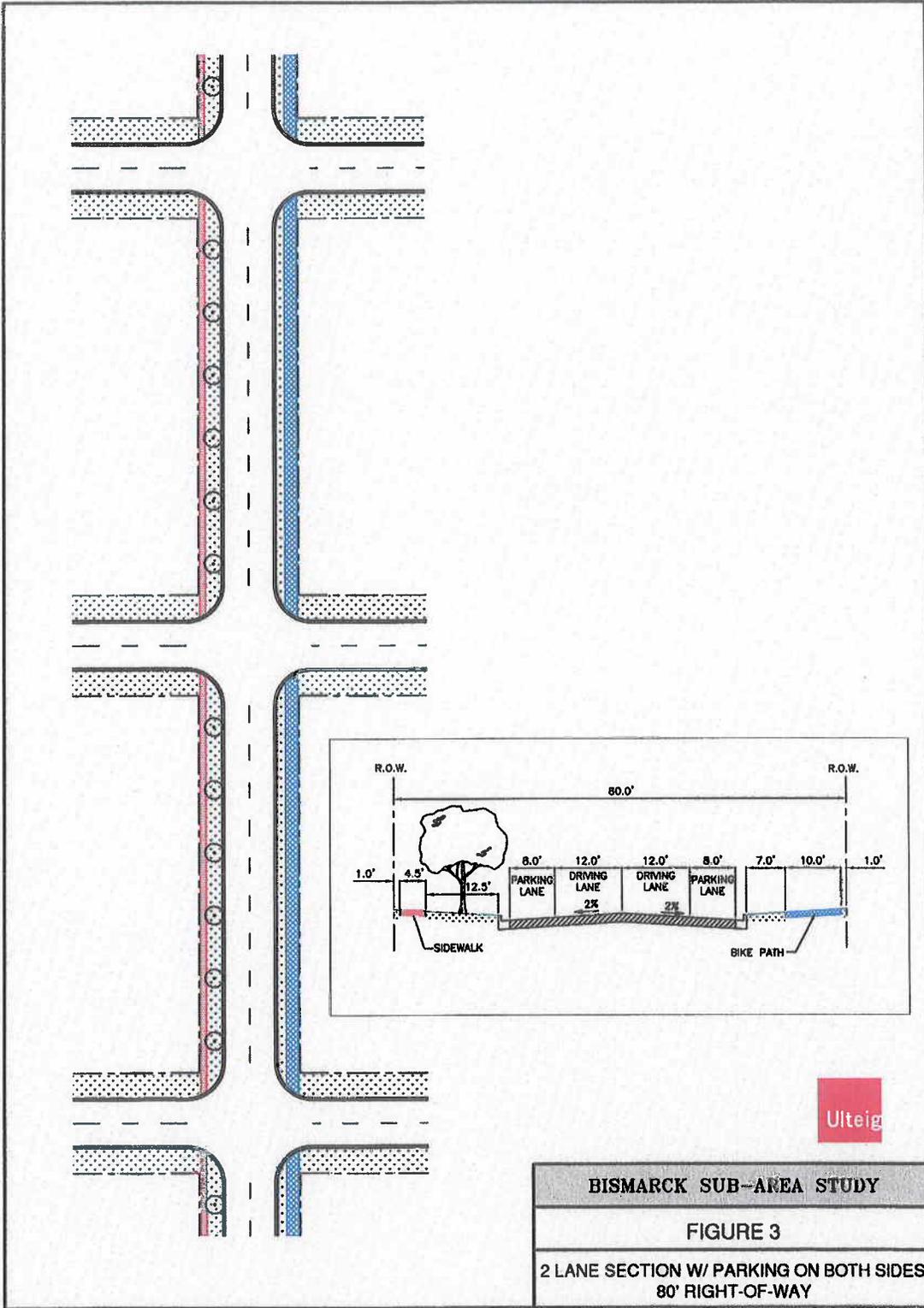
ASH COULEE DRIVE
(AMBERGLOW DRIVE TO
GOLDEN EAGLE LANE)







O:\Projects\2008\08_30357\Planning\Graphics\Concepts\80 FOOT-NO PARKING.dwg-Layout1-2/25/2009 1:22 PM

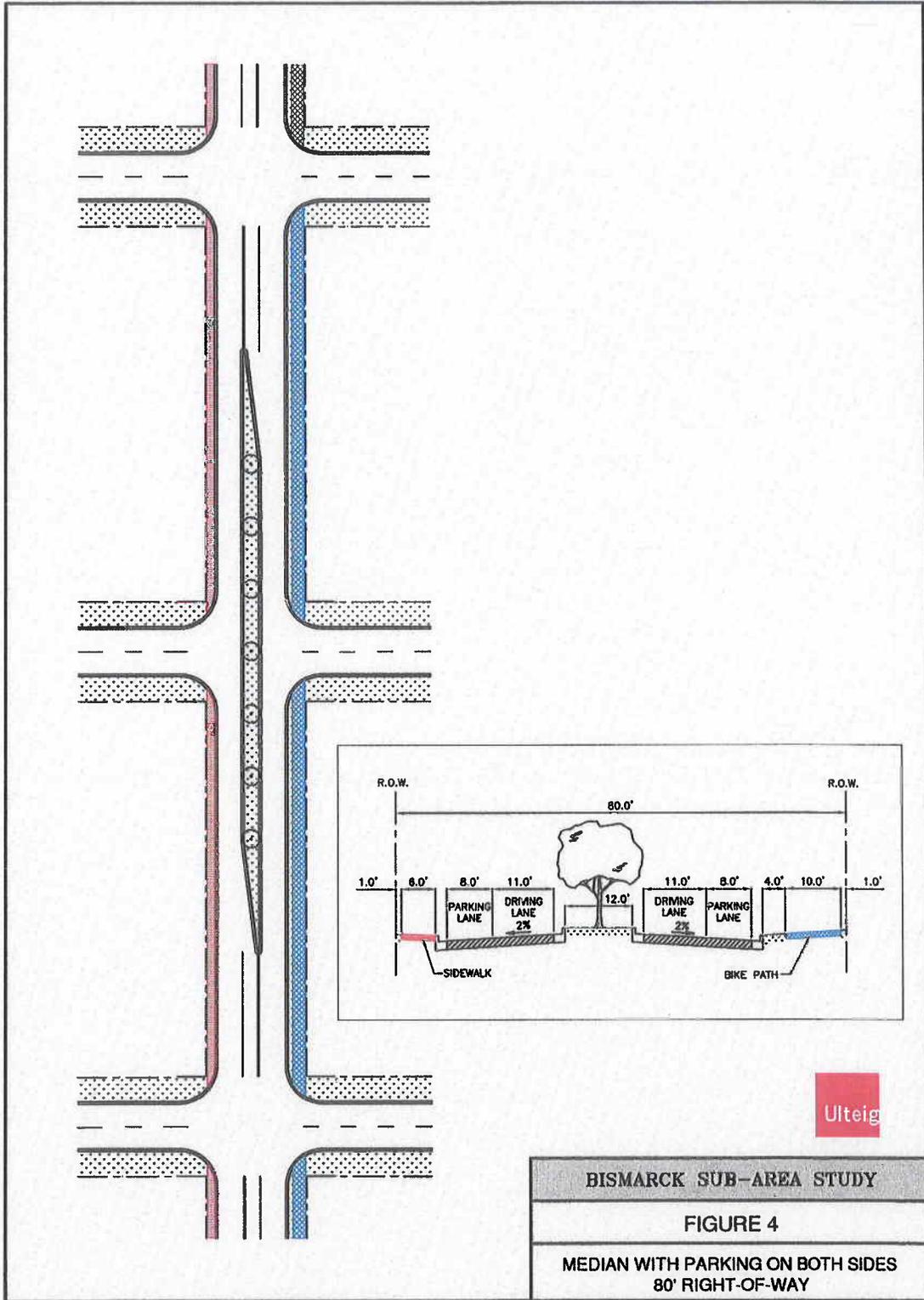


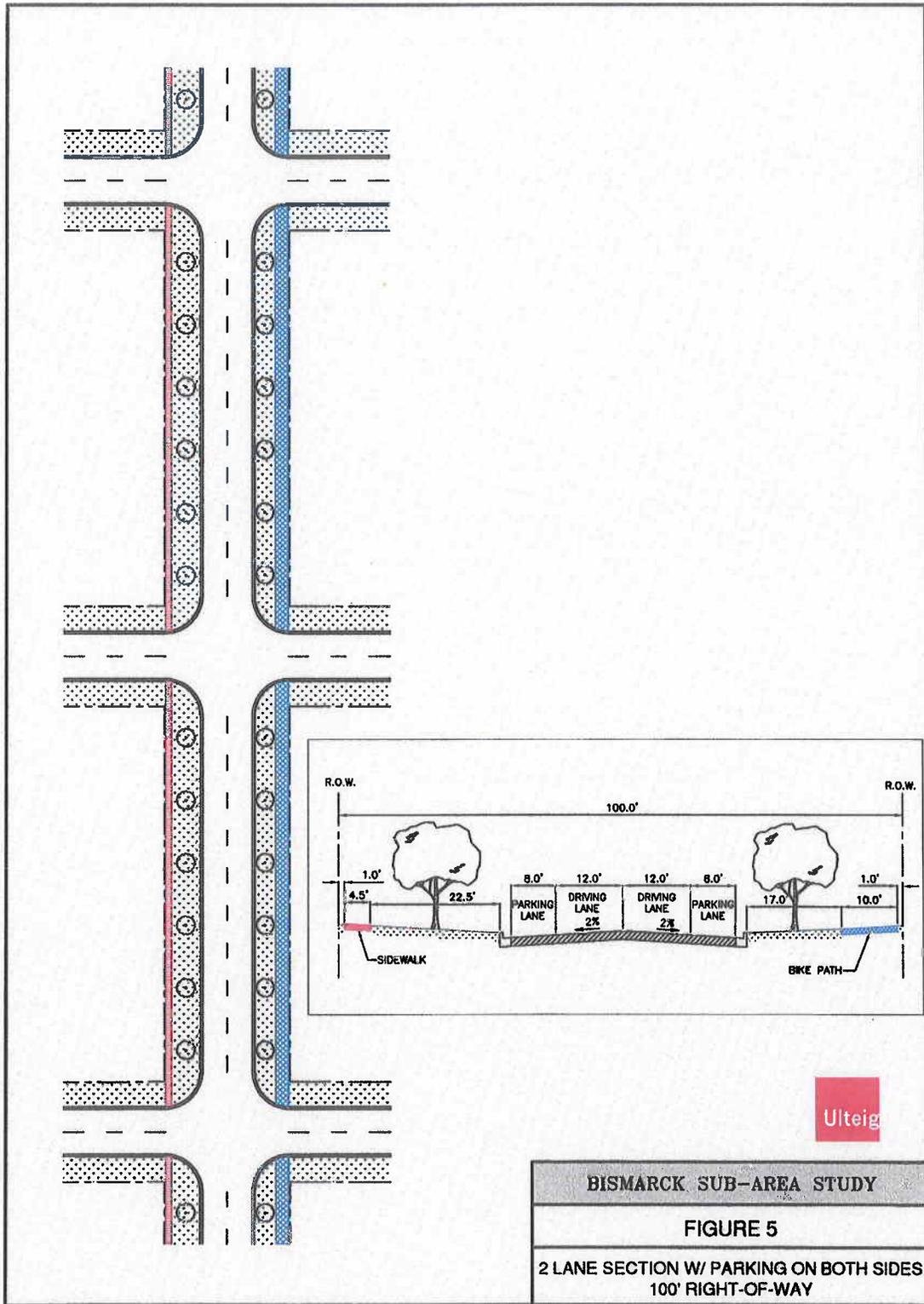
BISMARCK SUB-AREA STUDY

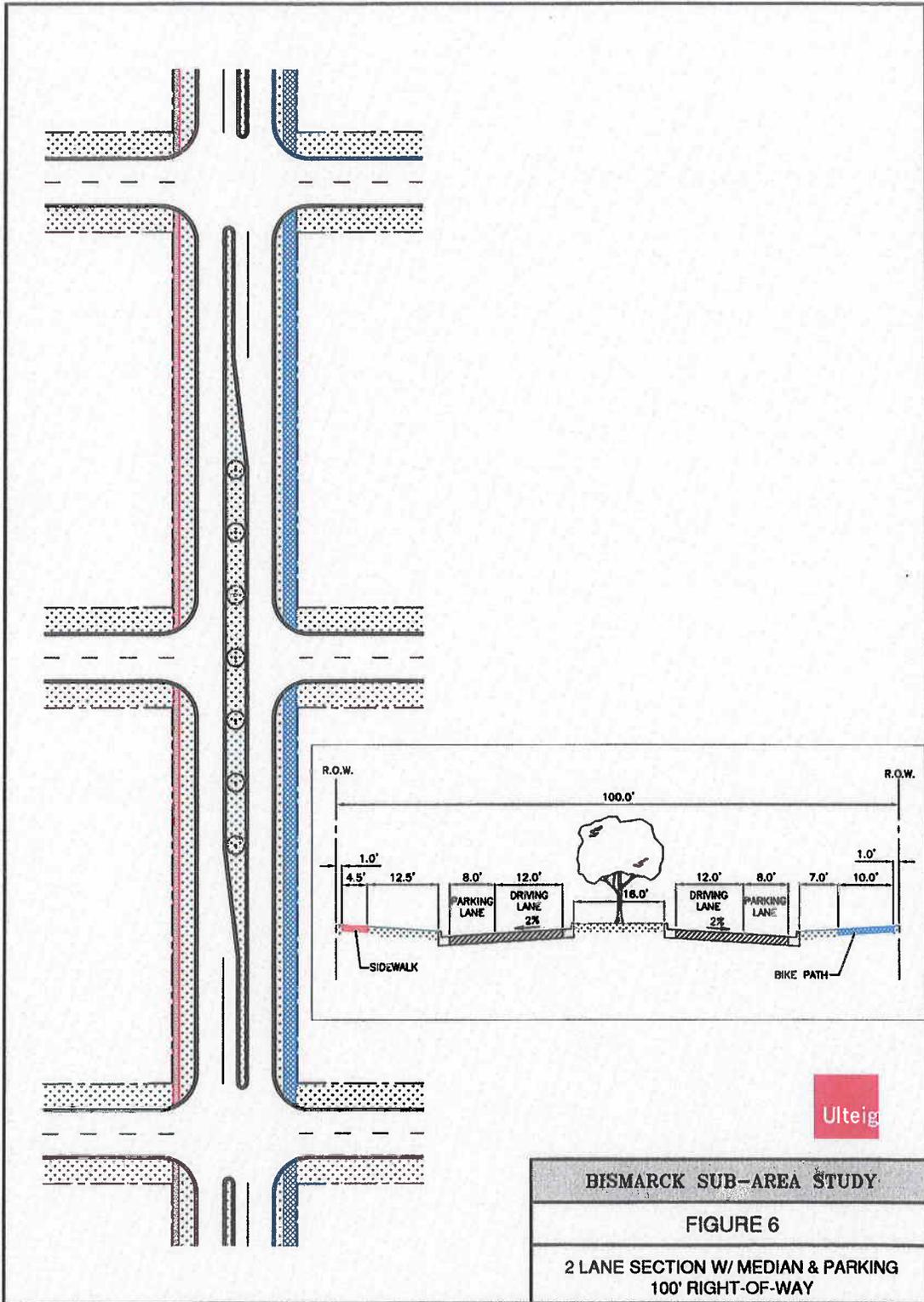
FIGURE 3

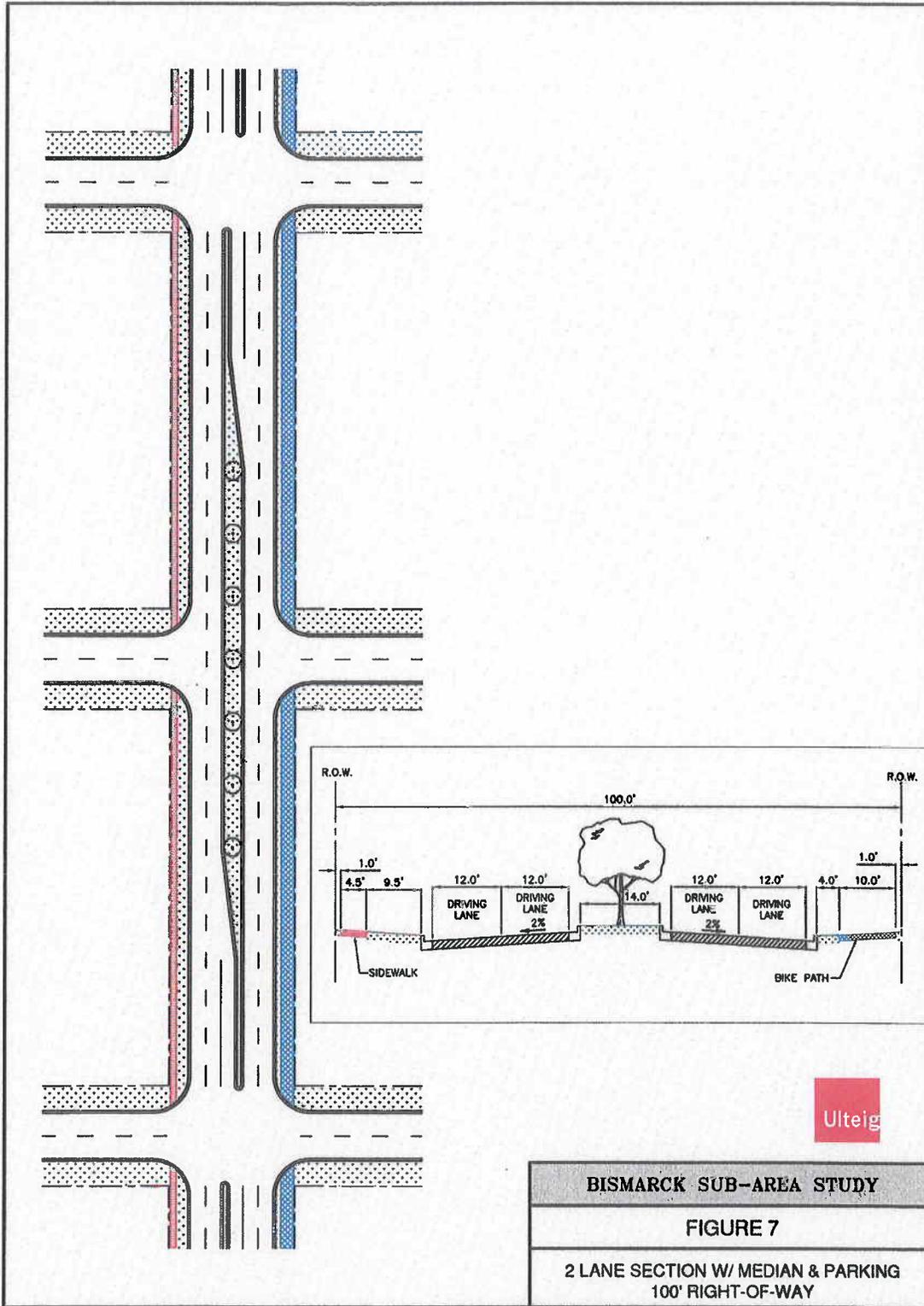
**2 LANE SECTION W/ PARKING ON BOTH SIDES
80' RIGHT-OF-WAY**

O:\Projects\200808.00\7\Planning\Graphics\Concept\Fig 3-80 FOOT PARKING.dwg - Layout1-2/25/2009 1:25 PM







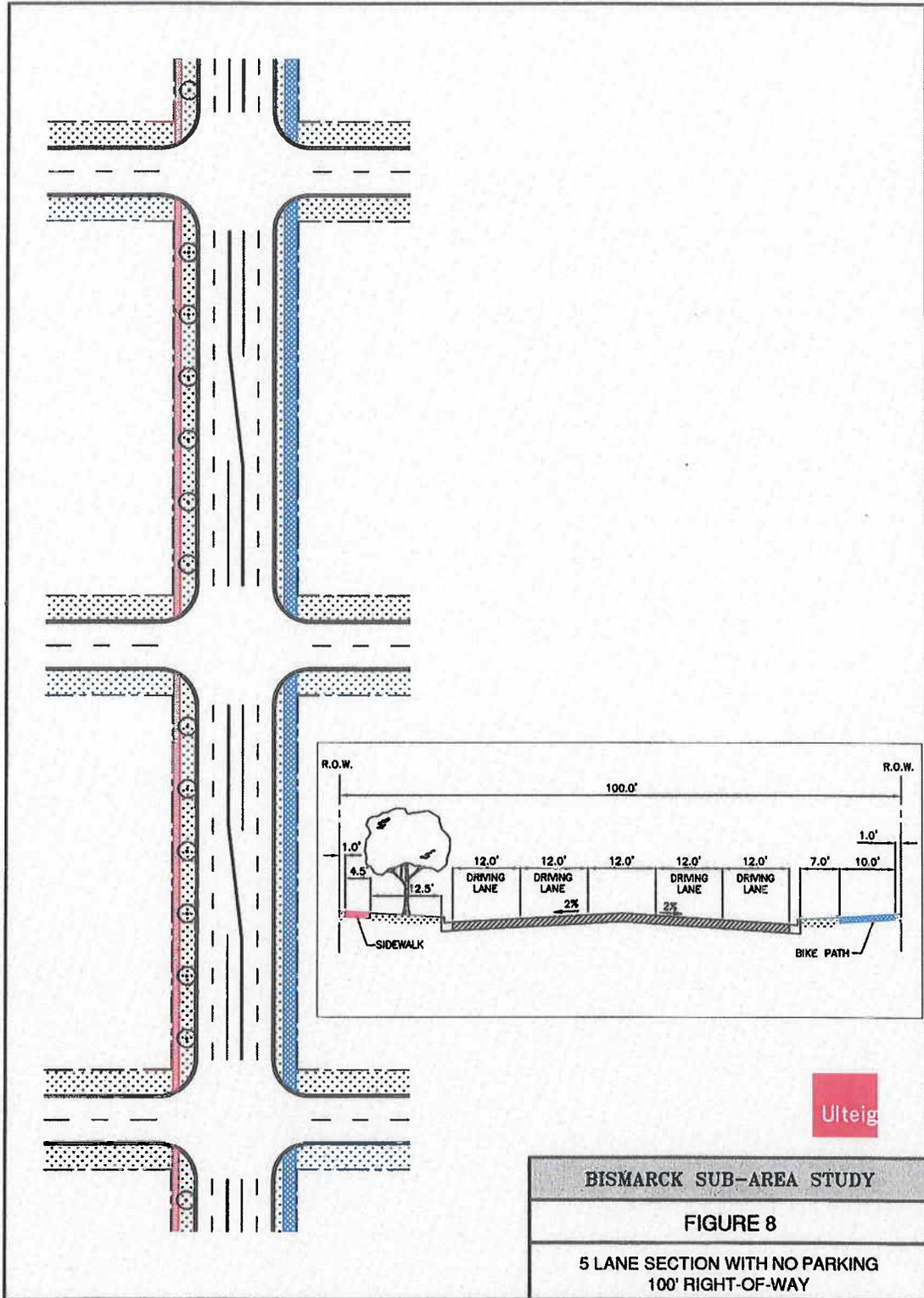


BISMARCK SUB-AREA STUDY

FIGURE 7

2 LANE SECTION W/ MEDIAN & PARKING
100' RIGHT-OF-WAY

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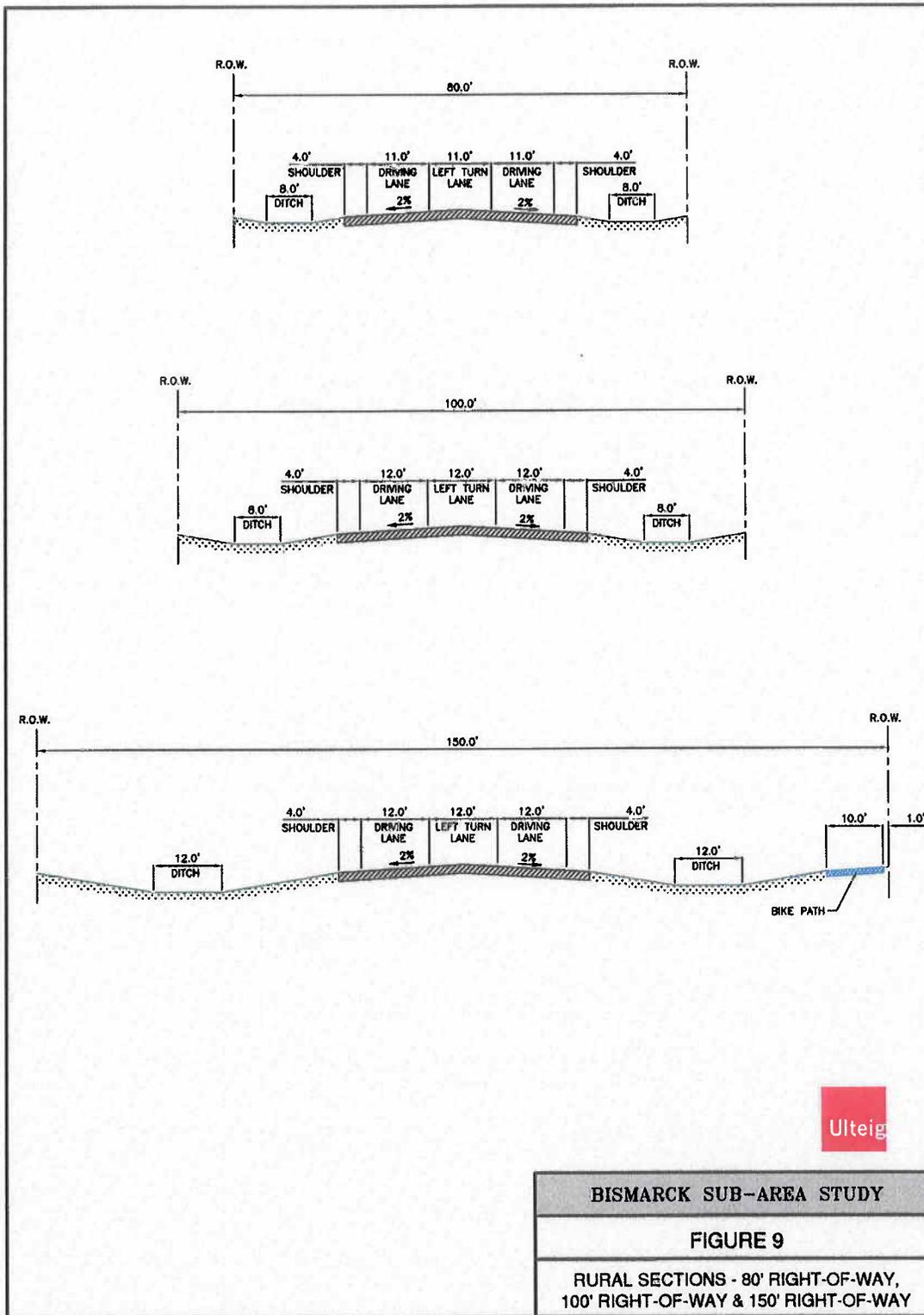


BISMARCK SUB-AREA STUDY

FIGURE 8

5 LANE SECTION WITH NO PARKING
100' RIGHT-OF-WAY

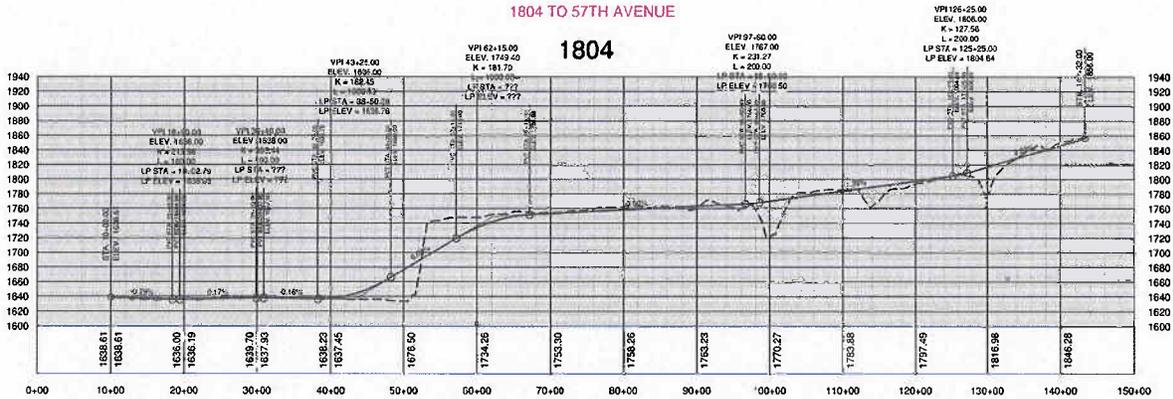
O:\Projects\2009\08.00357\Planning\Graphics\Concepts\FIG 8-100 FOOT NO PARKING.dwg-Layout1-2/25/2009 2:03 PM



O:\Projects\2009\08.00357\Planning\Graphics\Concepts\Fig 9 - RURAL_SECTIONS - Copy.dwg-Layout1-8/30/2009 11:24 AM

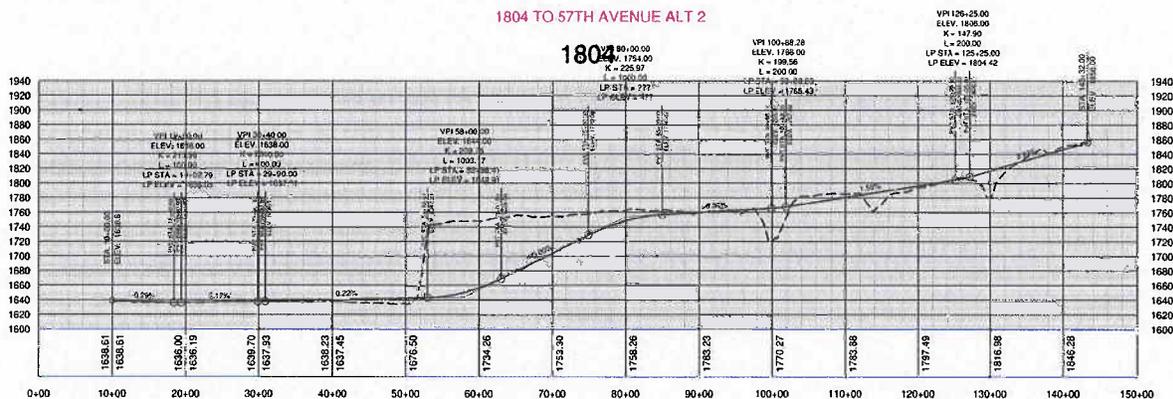
1804 TO 57TH AVENUE

1804



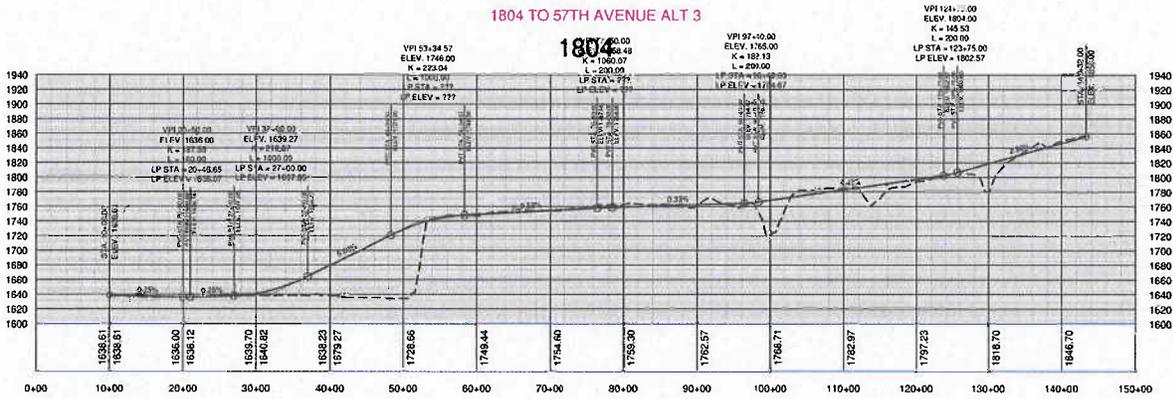
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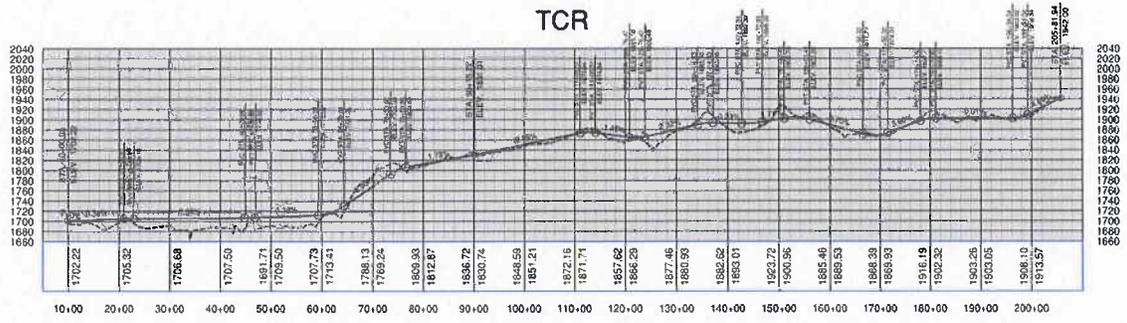
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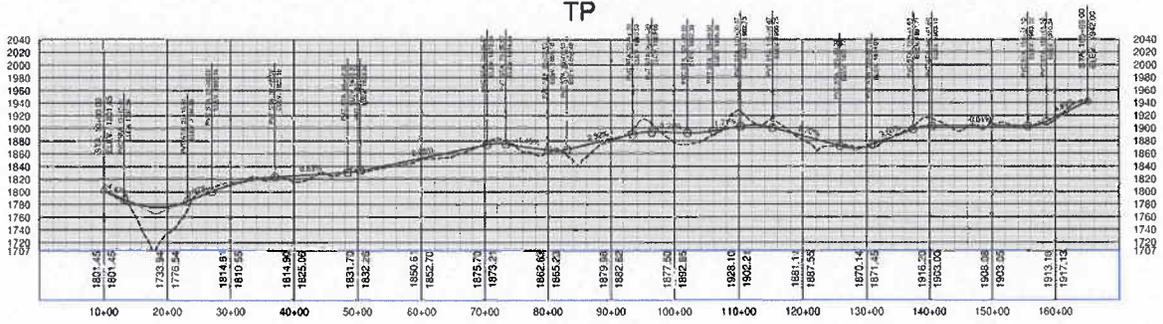
TYLER COULLEE ROAD

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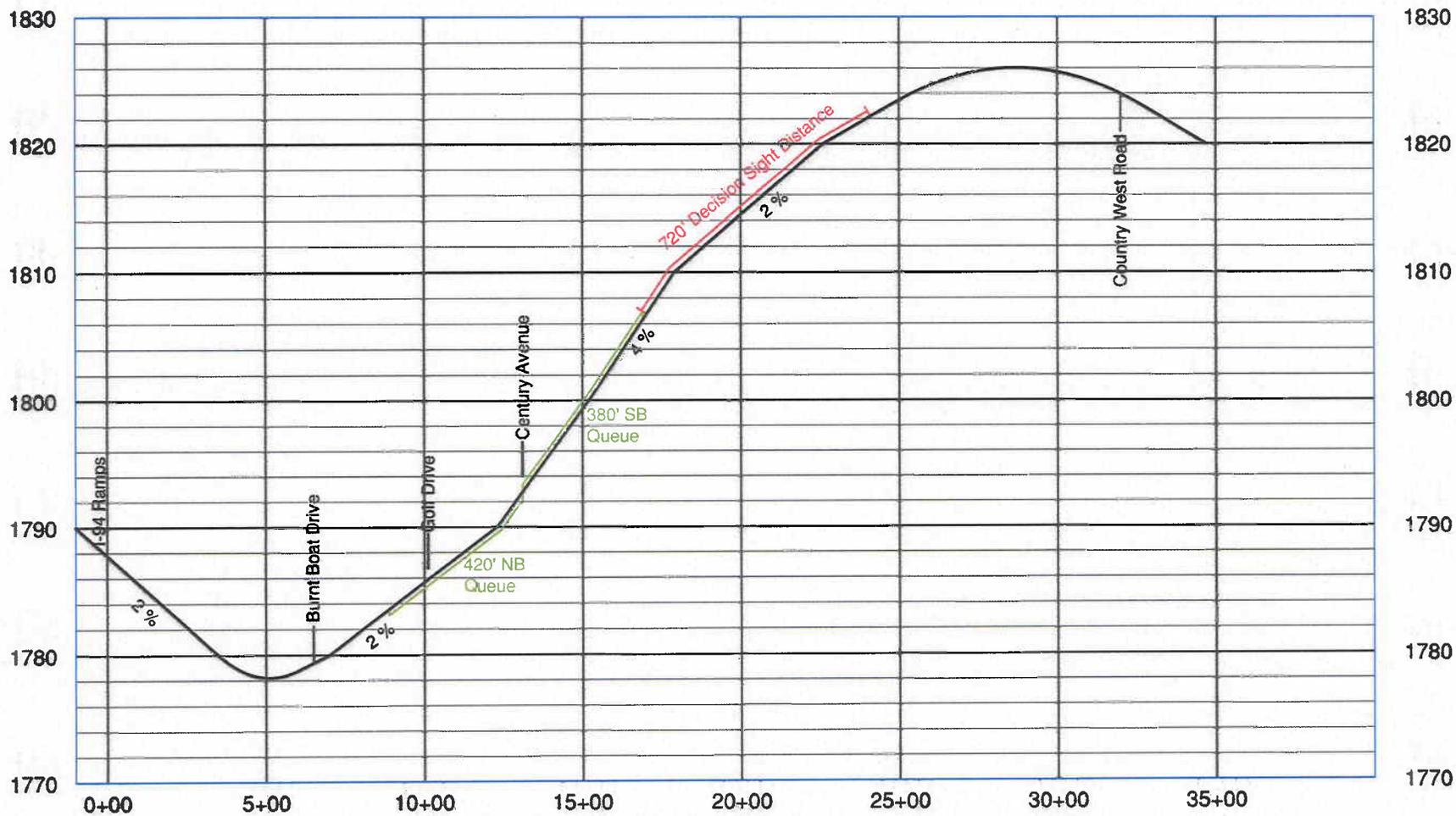


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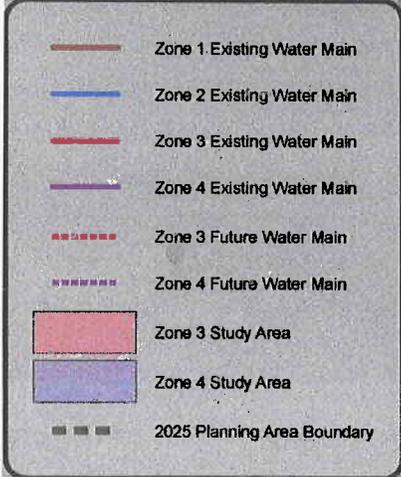
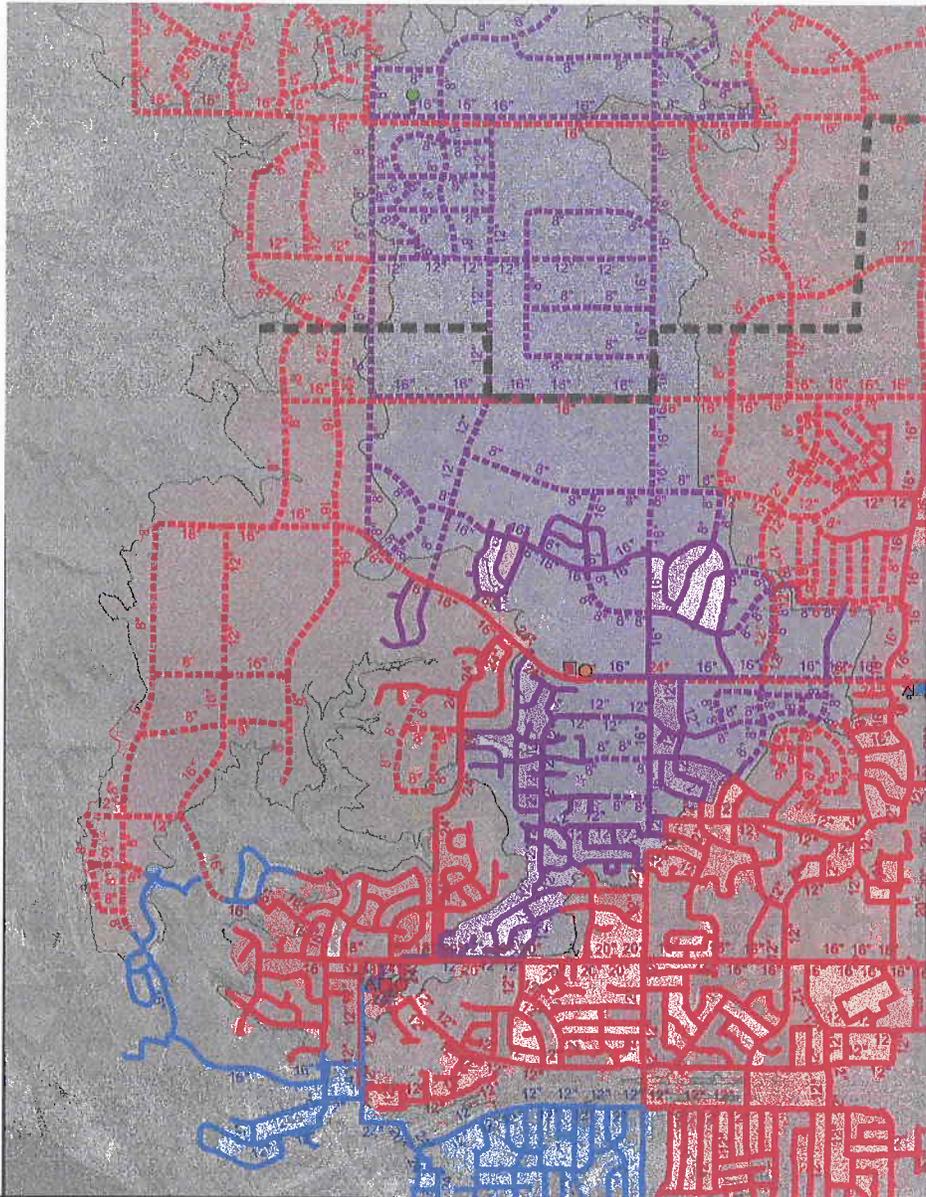
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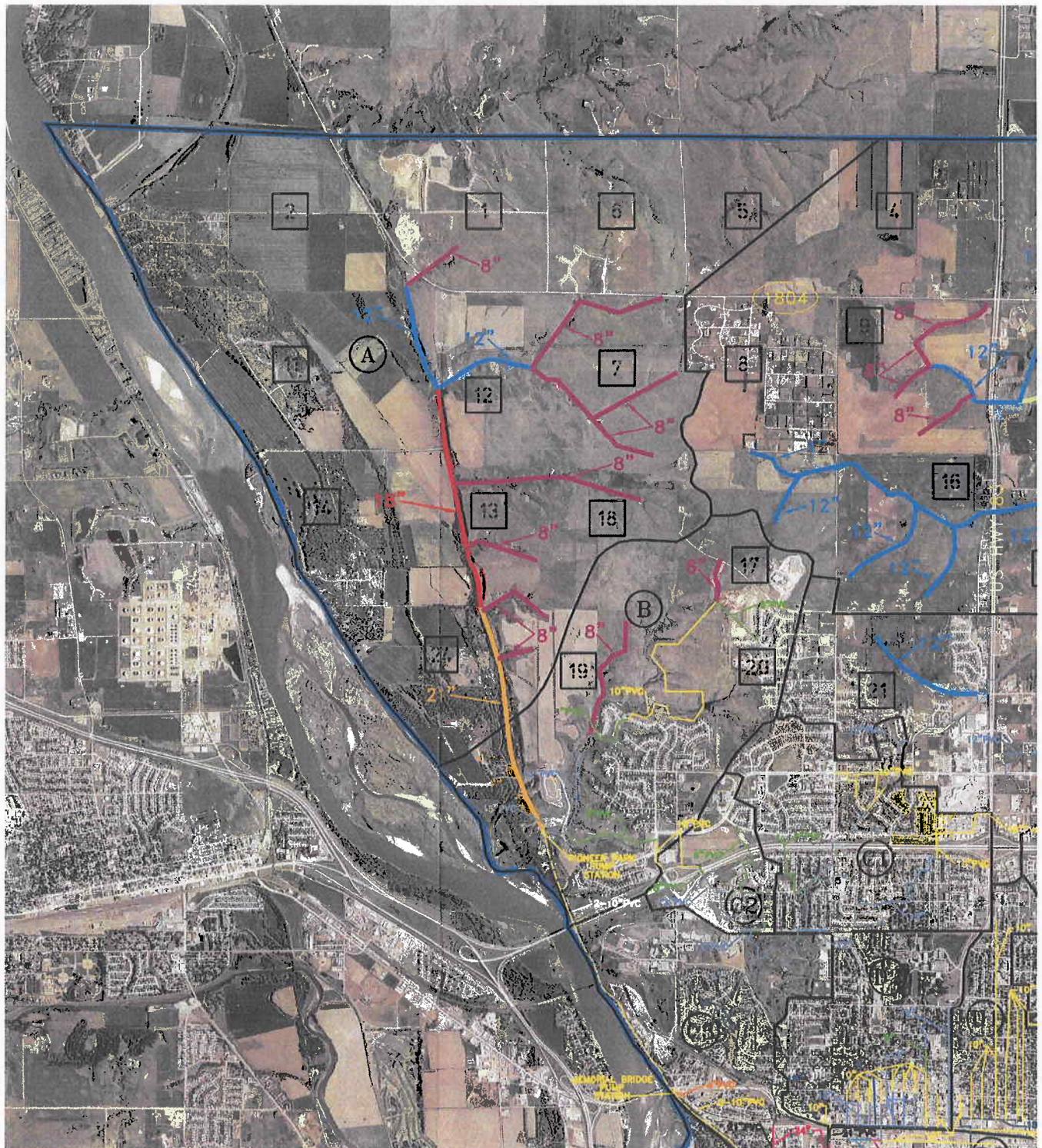
Tyler Parkway Profile - Concept 1
Future 2035 Max Queues &
 Recommended Sight Distance



Appendix C – Utility Master Plans and Covenants



Lockport Water Facility Plan



**Bismarck Master Plan
Update for Wastewater Collection and Conveyance Facilities**



BUILDING COVENANTS AND RESTRICTIONS

The owners and developers of Lots 1-18, Block 1, Lots 1-8, Block 2, and Lot 1, Block 3, Promontory Point III Addition to the City of Bismarck, Burleigh County, North Dakota, wish to establish and secure the enforcement of uniform restrictive covenants upon the usage and development of lots within the aforesaid addition.

THEREFORE, there are created, declared and established in Promontory Point III Addition to the City of Bismarck, North Dakota, the following restrictive covenants, easements, reservations and requirements upon the lands within such subdivision which shall run with the land and remain in full force and effect upon all parties and all persons claiming under them from the date these covenants are recorded, unless an instrument signed by two-thirds of the then owners of the lots(each lot having one vote) has been recorded agreeing to change said covenants in whole or in part. Any violation, attempt to violate, or omission to perform any of the conditions and restrictions as hereinafter set forth shall entitle, and it shall be lawful for, any person owning real estate in said addition, which is subject to the same restriction or condition in respect to which the default is made, to institute and prosecute appropriate proceedings at law or in equity for the wrong done or attempted.

THEREFORE, the reservations and conditions to which the aforesaid covenants and restrictions apply and to which they are subject, are as follows:

1. No house or other building may be moved into any lot or tract in this addition. It is the intent of this covenant that all structures must be newly constructed on site in this addition.

2. All building construction shall be of new material and no building shall be erected or substantially altered until the construction plans and specifications and a plan showing the location of the structure have been approved by the architectural review committee as to quality of workmanship and materials, harmony (including color) of external design with existing structures, and as to location with respect to topography and finished grade elevation. No fence or wall shall be erected, placed or altered on any lot nearer to any street than the minimum building set-back line unless similarly approved. Approval shall be obtained from the architectural review committee consisting of three persons to be designated as follows: a) one representative shall be elected from the residents of Promontory Point III Addition and by the owners and residents thereof and as may be required from time to time to fill any vacancy which may exist from such residents: b) two representatives to be designated by the Developer. At the developer's discretion, the architectural review committee's responsibilities may be turned over completely to the lot owners if there are enough interested lot owners.

In order to maintain the architectural character of the area as originally intended, it is necessary that construction and development with future modifications as may be desired from time to time be made consistent with the intended design and that materials and colors used in construction and development or with modifications be comparable to those improvements presently existing in the area. The architectural review committee desires to assure the continuity of design and maintain exterior appearance so as to enhance the value of the lots, tracts, and improvements of all owners.

- a) No building having a single level on or above ground, in lots 1 through 5, Block 1 of this addition, shall be constructed unless the same shall have above street level floor area of at least one thousand five hundred (1,500) square feet exclusive of garages and open porches. No building having a single level on or above ground, in lots 1 through 7, Block 2 of this addition, shall be constructed unless the same shall have above street level floor area of at least one thousand two hundred-fifty (1,250) square feet exclusive of garages and open porches. No building having more than a single level above ground shall be constructed on lots 1 through 5, Block 1 and lots 1 through 7, Block 2 of this addition.

On lots 7 through 17, Block 1, of this addition, no building having a single level on or above ground shall be constructed in said addition unless the same shall have ground floor area of at least two thousand (2,000) square feet, exclusive of garages and open porches. No building having multiple levels on or above ground, other than a two story building, shall be constructed in the lots described above unless the same shall have a minimum of two thousand (2,000) square feet of finished space on or above ground level, exclusive of garages and open porches. No building commonly referred to as a two story building shall be constructed unless the same shall have a minimum of two thousand five hundred (2,500) square feet of finished space which includes a minimum of one thousand six hundred (1,600) square feet on the ground level, exclusive of garages and open porches, and under the condition that the second story finished square footage can not exceed 90% of the ground level finished square footage. No building commonly referred to as a "split entry" or "bi-level" shall be constructed unless the same shall have a minimum of two thousand five hundred (2,500) square feet of finished space of which a minimum of one thousand six hundred (1,600) square feet must be on or above ground level. All houses constructed on lots 6 through 18, Block 1, lot 8, Block 2, and Lot 1, Block 3 must have a minimum of a three-stall attached garage of not less than seven hundred four (704) square feet. On all houses on lots 6 through 18, Block 1, lot 8, Block 2, and lot 1, Block 3, which have a single level above ground, roof pitches must be a minimum of a 5/12 slope. All houses constructed on lots 1 through 5, Block 1 and lots 1 through 7, Block 2 of this addition must have a minimum of a two stall attached garage of not less than five hundred twenty eight (528) square feet.

On lots 6 and 18, Block 1 and on lot 8, Block 2 and lot 1, Block 3 the requirements for the minimum square footage of finished space for the various styles of houses to be constructed are as follows: Houses with a single level above ground must have a minimum ground floor area of one thousand eight hundred (1,800) square feet exclusive of garages and open porches. Houses having multiple levels above ground other than a 2 story building must have a minimum of one thousand eight hundred (1,800) square feet of finished space above ground exclusive of garages and open porches. 2 story houses must have a minimum of two thousand (2,000) square feet of finished space above ground which includes a minimum of one thousand four hundred (1,400) square feet on the ground level, exclusive of garages and open porches. Those houses commonly referred to as "split entry" or "bi-level" must have a minimum of two thousand square feet (2,000) of finished space which includes a minimum of one thousand five hundred (1,500) square feet at or above ground level. The exterior on of all houses constructed on Lots 6 through 18, Block 1, Lot 8, Block 2, and Lot 1, Block 3, must be of stucco, brick, stone, fibre cement board, dryvit, or a combination thereof.



- b) A sprinkler system must be installed on each lot in this addition within 15 months of the start of construction of the building on the lot.
- c) There shall be an initial submission of proposed plans, including lighting, colors and construction as to location, topography, finish grade elevation and exterior design to the review committee before commencement of any development or improvements.
- d) It is the intent of this covenant that a landscaping plan will be adopted and will include trees, shrubs, hedges, etc. similar to the landscaping on the properties in the Country West XVIII and Country West XX Additions. All purchasers, owners, and contractors must adhere to the landscaping plan as adopted
- e) Materials such as brick, stone, fibre cement board, stucco, dryvit (or other EFIS systems products) must be used on the exterior of all buildings constructed on lots 1 through 5, Block 1 and lots 1 through 7, Block 2. If fibre cement board is used it must either be of natural color or factory painted. The predominant exterior color of buildings in lots 1 through 5, Block 1 and lots 1 through 7, Block 2, must be tan like or similar to the predominant color used on the exterior of the buildings in the Country West XVIII and Country West XX additions. Shingles must be a minimum of 325 pounds weight and in colors approved by the architectural review committee. Metal roofs may also be used in colors approved by the architectural review committee.

It is the intent of this covenant that the exterior colors of the buildings on lots 1 through 5, Block 1 and lots 1 through 7, Block 2, in this addition be tan and present an appearance much like the appearance of similar buildings constructed in the Country west XVIII and Country West XX additions on Mesquite Loop.

- f) After consideration of the proposed plans and conference with the committee as may be required, there shall be a submission of the formal and complete plans to the said review committee for final determination.
- g) The entire building shall be completed in accordance with those plans accepted by the architectural review committee within twelve months after commencement of construction, unless for good cause the same shall be extended by the committee in writing.

The architectural review committee shall have the power and authority to set standards relative to construction, substantial alterations and location of structures with plans and specifications as will adequately cover the proposals to be submitted and it shall have the right of access during all phases of construction or improvement to the project to determine compliance with its rules, regulations, and building code of the applicable governmental subdivision.

No building, fence, wall, walk, drive or other structure shall be erected, placed, altered or permitted to remain on any residential lot or other building plot in this subdivision without the approval of the architectural review committee, its designated agents or successors, until the plans, specifications and plot plan showing the location of such items have been presented for approval by the committee. Such items must be in conformity with the external design of the existing structures in the subdivision as to quality of materials and construction or improvement plans and as to location with respect to topography and finished ground elevation.

3. No motor homes, dual wheel pickup trucks, campers, trailers of any type, boats, buses, pickup trucks or other trucks larger than three-quarter ton rated capacity will be allowed to be parked on any lot or on any street in this addition. It is the intent of this covenant that all such items be housed in the house garage or stored in other locations not in this development. No dual wheel commercial vehicles or tandem axle trucks may be parked on any lot, any street, or in any garage in this addition. No 4 wheel all terrain vehicles or snowmobiles with internal combustion engines may be operated on any lot in this addition or in the valley adjacent to any of the lots in this addition. It is the intent of this covenant that no vehicles with internal combustion engines be operated anywhere in the valley adjacent to this addition except those necessary for the construction, operation, or maintenance of utilities or use by the owner of the land in the valley.

4. No dumping of trash or garbage, old lumber or unsightly materials of any kind is to be permitted on any lot or tract at any time.

5. No fences of any type may be constructed without the approval of the architectural review committee. In the event that an owners' association is formed after the sale of all of the lots, then, and in such event, the owners' associations must give prior approval to the construction of any fence in this addition.

6. No structure shall be erected, substantially altered, placed or permitted to remain on any residential lot other than one detached single family dwelling not to exceed two stories in height on any elevation in lots 6 through 18, Block 1, or on lot 8, Block 2, or on lot 1, Block 3 of this addition, except that this provision does not preclude the erection, location or maintenance of other customary or necessary structures accessory to the dwelling and its residential use if approved by the architectural review committee. Similarly, no structure(s) which exceeds residence for more than 2 families can be erected or placed on lots 1 through 5, Block 1 or on lots 1 through 7, Block 2 of this addition

7. No basement or tent shall at any time be used as a residence, temporarily or permanently, nor shall any residence of temporary character be permitted.

8. No one owning or occupying any portion of the premises above described shall create, permit or maintain any nuisance on the premises, including but not limited to unsightly signs, refuse piles, unkept yards, poultry, livestock and unsightly fences, landscaping, and exterior paint color. Further, no noxious or offensive trade or activity shall be carried out upon any lot nor shall anything be done thereon which may be or become an annoyance or a nuisance to the neighborhood.

9. No dirt may be pushed over the rear of the lots such that the dirt is on any portion of the slope of the lot without the written approval of the architectural review committee and if so approved, under the direction of a qualified engineer approved by the architectural review committee.



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Burleigh County

7-C

10. These covenants herein shall and are to run with the land and be binding on all of the parties hereto, and on all owners of any portion of the premises and all persons claiming under them. Any transfer of title deed or otherwise, or of possession by lease or otherwise, shall subject the owner or occupant to the easements and protective covenants or restrictions herein contained and contained in the Plat of said subdivision, and each person receiving title or possession to the premises, or any part thereof, shall covenant for himself, his heirs and assigns, that he, his heirs and assigns, for the period of time provided for the existence of said covenants will faithfully observe said several covenants, and each of them; and if said parties, or any person claiming under them, shall at any time violate or attempt to violate or shall omit to perform or observe any of the foregoing restrictions, it shall be lawful for any person owning a lot within the subdivision which is subject to the same restriction and with respect to which the default is made, to institute and prosecute appropriate proceedings at law or in equity for the wrong done or attempted to be done.

IN WITNESS WHEREOF, the owner/developer has caused these presents to be executed in its name by its Trustee this 3RD day of APRIL, 2006.

Clairmont Development Co.
 By *William Clairmont*
 William Clairmont, Its President

State of North Dakota)
) ss.
 County of Burleigh)

On this 3RD day of APRIL, 2006 before me personally appeared William Clairmont to me known to be the president of the corporation that is described in, and who executed the foregoing instrument, and acknowledged to me that he executed the same.

Fay G. Connell

Fay G. Connell Notary Public
 Burleigh County, North Dakota
 My Commission Expires: 12-4-2011



FAY G. CONNELL
 Notary Public
 State of North Dakota
 My Commission Expires Dec. 4, 2011

 **652815**
 Page: 5 of 5
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 CLAIMONT DEVLQPM COVEN 22.00 Burleigh County

William Clairmont

Appendix D1 - Advertising and Public Involvement

PUBLIC INPUT MEETING

CONDUCTED BY ULTEIG ENGINEERS

on behalf of the
**Bismarck-Mandan Metropolitan
Planning Organization**

6/23/09

WHEN?

Tuesday, June 30, 5:30 – 7:00 p.m.
Open House at 5:30 p.m.
Formal presentation at 5:40 p.m.

WHERE?

Good Shepherd Lutheran Church –
North Campus
4916 North Washington Street
Bismarck, ND

WHY?

To discuss the Northwest Bismarck
SubArea Study

This Study addresses the region bounded by Washington Street, the Missouri River, Interstate 94 and ND Highway 804 in Burleigh County. The Study will prepare a plan for a transportation system (including collector and arterial roadways, pedestrian and bicycle facilities, and fixed route transit) that will meet the area's need for mobility while enhancing the opportunity for this land to develop.

The public is invited to attend the meeting, review initial future roadway alignments, and comment on needs and issues within the Study Area. Information pertaining to the study is available on the project website <http://subareastudy.com>. Representatives from the City, County and Ulteig Engineers will be on hand to discuss the study and to receive your input.

Issues: The vision for this region, right of way needs and impacts, property and environmental impacts, traffic impacts, non-motorized needs, constructability, access needs and impacts on existing and future development, including developments along Golf Drive, Ash Coulee and River Road will be discussed.

Requests for special facilities to assist persons with disabilities in the meeting should be received by June 25, 2009. **WRITTEN STATEMENTS** or comments about this project may be sent by July 15 to J. Steven Windish, PE, Ulteig Engineers, 1412 Basin Avenue, Bismarck, ND 58503, phone 701-355-2333, email Steve.Windish@Ulteig.com.

Public input meeting on Tuesday

By LEANN ECKROTH
Bismarck Tribune

A public input meeting on the Northwest Bismarck Sub-Area Study will be held at 5:30 p.m. Tuesday at Good Shepherd Lutheran Church.

The study focuses on future infrastructure needs for a mostly undeveloped area between north of Interstate 94 and south of N.D. Highway 1804, between Washington Street and Missouri Avenue.

Ulteig, a consultant firm, is completing its research for the Bismarck-Mandan Metropolitan Planning Organization. It is believed future transportation and infrastructure need to be outlined to prepare when it is developed.

City and county officials are expected to attend Tuesday's meeting.

The study aims:

- To identify solutions that accommodate development and the need for mobility
- To establish a system of transportation collector and arterial corridors to meet the mobility needs of the studied region.
- To select the short- and long-range optimum alignment for these corridors.
- To identify potential impacts and associated mitigation strategies.
- To facilitate stakeholder and decision-maker involvement that informs, educates, receives and responds to their input.
- To secure jurisdiction buy-in on preferred alterna-

"We're trying to look at future collector and arterial routes, future bike paths, the aesthetic look of the corridor."

Steve Grabill, transportation engineer for Ulteig

tives and implementation strategies.

Ulteig will appear before elected officials at least twice to discuss key project activities and strategic times of the study process.

"We're trying to look at future collector and arterial routes, future bike paths, the aesthetic look of the corridor," said Steve Grabill, the transportation engineer for Ulteig.

He said a majority of the area is undeveloped, consisting of mostly fields and farmland, but it is expected the area will become a developed part of Bismarck in the future.

"We will be presenting some preliminary alignments," Grabill said. "We want to hear what issues we should be considering."

The study began Feb. 17 and is scheduled to be completed by Dec. 1, 2010. A steering committee has been named and met in April to identify preliminary and arterial collector street alignments.

According to an Ulteig

newsletter, most of the region included in the Northwest Bismarck Sub-Area Study is planned for urban residential development. Because of that, the article states it is important the transportation system complement neighborhood development.

It cites important features for neighborhoods as:

- Provisions of quality pedestrian, bicycle and transit facilities.
- Development of roadways that discourage high travel speeds.
- Establishment of aesthetically pleasing corridors that support the neighborhood environment.
- Provision of features that sustain development.

After Tuesday's assembly, Ulteig will contact area developers and major landowners and offer to meet with them individually.

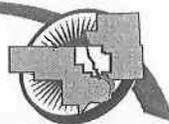
Ulteig representatives met with the Advanced Traffic Analysis Center to discuss the roadway network and desired traffic projection. The ATAC is based with

North Dakota State University and develops projected traffic models. Grabill said it will help Ulteig estimate what traffic counts will be once the study area is developed.

In July and August, Ulteig will meet with the steering committee to fine-tune recommended corridor alignments and continue building a vision for the study area.

A map of the study area can be viewed at <http://sub-areastudy.com>.

(Reach reporter LeAnn Eckroth at 250-8264 or leann.eckroth@bismarcktribune.com.)



METROPOLITAN PLANNING ORGANIZATION MEMORANDUM

TO: Resident or Business Owner

FROM: J. Steven Windish, PE - Ulteig Engineers

DATE: Wednesday, June 17, 2009

SUBJECT: **Public Input Meeting**
Northwest Bismarck Subarea Study
Location: Good Shepherd Lutheran Church – North Campus
4916 North Washington Street
Bismarck, ND
Date: Tuesday, June 30, 2009 **Time:** 5:30 p.m.

Dear Resident or Business Owner:

The Bismarck-Mandan Metropolitan Planning Organization (MPO) and Ulteig Engineers invite you to attend a public input meeting which will be held at the Good Shepherd Lutheran Church -- North Campus in Bismarck, North Dakota.

All interested persons are invited to participate in this meeting. The meeting will begin at 5:30 p.m. with an open house and end at 7:00 p.m. on Tuesday, June 30, 2009. A formal presentation will be given at 5:40 p.m. with opportunities to review project materials before and after the presentation.

Meeting Purpose: This Study addresses the region bounded by Washington Street, the Missouri River, Interstate 94 and ND Highway 1804 in Burleigh County. The Study will prepare a plan for a transportation system (including collector and arterial roadways, pedestrian and bicycle facilities, and fixed route transit) that will meet the area's need for mobility while enhancing the opportunity for this land to develop.

The public is invited to attend the meeting, review initial future roadway alignments, and comment on needs and issues within the Study Area.

Issues: Right of way needs and impacts, property and environmental impacts, traffic impacts, non-motorized needs, constructability, access needs and impacts on existing and future developments, including those along Golf Drive, Ash Coulee and River Road will be discussed.

Additional Information: Additional information regarding the beltway study will be available after June 22 on the project website: <http://subareastudy.ulteig.biz>

Requests for special facilities to assist persons with disabilities in the meeting should be submitted by June 25, 2009. Written statements or comments about this project may be sent by Wednesday, July 15, 2009 to J. Steven Windish at 1412 Basin Avenue, Bismarck, ND 58504; email Steve.Windish@Ulteig.com or by phone at 701-355-2333.



AGENDA

Northwest Bismarck Sub-Area Study

***Bismarck-Mandan
Metropolitan Planning Organization
Public Input Meeting
5:30 PM, June 30, 2009
Good Shepherd Lutheran Church***

1. Open House
2. Introductions (5:40)
3. Discuss Meeting Format
 - a. Housekeeping Issues
 - b. Meeting Purpose
4. Formal Presentation
 - a. Why Conduct This Study?
 - b. What Do We Know So Far?
 - c. Key Issues
 - d. Factors of Analysis
 - e. Study Review Committee
 - f. Preliminary Typical Sections
 - g. Preliminary Corridor Alignments
5. Discuss Public Participation Process and Schedule
 - a. Comment Forms (On Table as You Entered). Fill one out tonight and return it to the table or take it with you and mail it to:
Steve Windish
Ulteig Engineers
1412 Basin Avenue
Bismarck, ND 58504
(email Steve.Windish@Ulteig.com.)
6. Visit our Website at <http://subareastudy.com>
7. Receive Public Input
8. Closing/Open House

PLEASE PRINT

ATTENDANCE ROSTER

PROJECT: Northwest Bismarck Sub-Area Study

MEETING LOCATION: Good Shepherd Lutheran Church, Bismarck, North Dakota

DATE/TIME: Tuesday, June 30, 2009 @ 5:30 PM

Name	Address	Phone	Email
Maelyp Ward	5550 Fernwood Dr	258-6794	
Date Sandstrom	POB 144	223-7074	
Kerri Fisher	1901 Oregon PR	391-8945	
Cindy Spindenberg	3705 Sandy River Dr.	222-4098	
BARNEY HALLDORSON	5018 DRIFTWOOD LN	224-0533	bhalldorson@bis.midco.net
Louie Weigel	1541 Country West Rd.	527-1773	Louie.Weigel@misc.coor
Neil Modin	685 Deere woodlwy Bis	223-3033	
R Perez, J.R. Pish	370 W Wash	2552431	PEREZ@btinternet.com
Mark Moberg	3718 Kingston Dr.	255-2015	memoberg@bis.midco.net
Darrel Seafield	1433 Ash Coulee Dr.	355-0328	DVS12-@Hotmail.com

RON ROEHRICH 6514 Deere wood LANE
 KEVIN & Nancy Willis 735 Saddle Ridge Rd 224 OPPA knewill@bis.midco.net

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Name	Address	Phone	Email
Teresa & Connie Roberts	P.O. Box 175 Bio 58502	258-7555	1 Kohrer & extendedwireless.net
Bill Nairmont	0-000	255-0803	
HATFIELD JONES	4380 WILDLWOOD ST	700-7129	
Ken Brigewick mail: 1509 N 33rd St #2 new: 1414 Eagle Crest Loop		333-9007	rentrrt@yaho.com
GOTT ZACHOTSKY	810 MERRA AVE.	751-1408	CASEDZ@BI.MED.CO.NET
GARY NELSON	230 CRISTOFIELD LN	701-258 0147	NALS FAY f@HOTMAIL.COM
Tom & Diane Jones	6145 MIDDLEFIELD RD	258-1746	dujones@bt.net.net
JASON FETCH	5304 MELLOWSON DR	258-6938	
ROBERT SCHAFF	250 BUCKSKIN AVE	258-9894	
Pss Hoffman	1352 Golden Eagle Lane	258-2442	shoffman@bss.mrlco.net
Mark Berg	7501 Northwood Dr	222 BRU	Msborg@nd.gov
Chad Orr	4386 Overland Rd B5 58503	250-7029	Orn76@hotmail.com
Shirley Keeler	1732 Golf Dr	223-502	⊕

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Name	Address	Phone	Email
Russell J Loreny	1924 N. Grandview	223 3421	casperstony@bis.midco.net
LINDA L. AYTMAN	6340 WESTED BUTTE	223 2402	
Lynne Beach	7120 Olive Tree Place	258-0452	
Tammy Delzer	1154 W Divide Ave	220-2830	Davidd686@AOL.com
Tom Bold	2028 N. Bell St.	255-4764	tabold54@gmail.com
Richard Wannor	3321 Thunderbird Lane	222-1543	Wannor2@Bis.Midco.Net
Al Luker	1749 Pinto Pl.	221-0502	LUKERAC@BIS.MIDCO.NET
Scott Allen	301 Bucksaid Ave	751-2017	SALEN@PUBLIC-CHRYSLER.COM
Low Romseas	1301 LARAMIE DR	223-2600	—
Kevin Scherbenske	4201 River Road	223-4972	KScherbenske@yahoo.com
Doug DeB Haefner	515 Restful Dr.	258-8910	D-HAEFNER@YAHOO.COM
Randy MARZOLF	4907 DRIFTWOOD LN	527-5024	Line ^B Line 475@ yahoo.com
Charles Anne M. Cullen	301 Oakfield Dr	222-189	

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Name	Address	Phone	Email
Curt WALSH	3040 Tyler Parkway	222-1580	
Code Torgensen	5667 Baltic Dr.		
LEE SENSEN	2947 TYLER PRK	2551027	
Connie Martini	640-64 th ave. NW	255-3914	
Curt Martin	" "	" "	
JERRY KESSEL	200 ARABIAN AVE	222-3479	
Matt Reichert	3712 Lockport St., SUTEC	223-2450	
Jill YRI	4829 DRIFTWOOD LN	425-3182	jmyri@hotmail.com
Josh Yri	4829 Driftwood Ln.	799-8854	
Nancy Huether	801 Saddle Ridge Rd	255-6818	whuether@bis.midea.net
Al Frank	1801 Santa Gertrude Dr.	255-1437	leucha@bis.midea.net
Joe Kalvoda	2912 Homestead Dr.	258-6314	
Chuck Herber	4205 Burnt Creek Ln	222-2255	chuck@bismarkrealty.com

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Name	Address	Phone	Email
Ken Nysether	610 Browning Ave	255-9145	Ken.nysether@bertwest.com
Pam Smokay	500 Huron	222-4368	pkherron@bis.midco.net
Matt Burthold	4815 Fountainblue	224-1687	
Dave Farnsworth	1705 Santa Gertrudis Drive	217-9744	dfarnsworth@greenergy.com
Ridge + Nancy Baumester	7050 Burnt Creek Loop	426-0846	yellowflash@bis.midco.net
Shannon Bakke	1850 Bonn Blvd	223-3096	SLBakke@Bis.Midco.net
Matt Perry	1822 N. Washington St.		felipe922@hotmail.com
Tim Ding	2631 Springfield St	258-5818	dingding@bis.midco.net
Bill Townsend	4470 Sandy River Dr	223-1911	wrtown@bt.net.net
John Fog	602 Mustang Dr		
Mel Mortvedt (representing Etzel Mortvedt)	2700 River Road		
MEL BULLINGER	1634 Cologne Drive	355-1505	mbullinger@nd.gov
Kurt Mosher	2801 River Road	400-2662	megakurt93rr@yahoo.com

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Name	Address	Phone	Email
RYAN NELSON	1602 CANYON DR.	701-224-9707	ryan.g.nelson@gmail.com
SID Beckman	3678 HACKBERRY	701-223-7599	
Madene Beckman	3678 Hackberry St	701-223-7599	
CLARK J. BURMANN	2510 CLYDESDALE DR	701-250-8968	



To: Project File – UEI Project No. 08.00357
From: Marie R. Baker, PE
CC: File
Date: July 2, 2009
Re: Northwest Bismarck Sub-Area Study
Summary of Public Input Meeting
June 30, 2009

A public input meeting was held on June 30, 2009 at the Good Shepherd Lutheran Church - North Campus. The meeting began at 5:30 pm with an open house. Attendees reviewed project displays and discussed project issues with staff. Seventy-five property owners and business representatives were in attendance.

The formal presentation began at 5:40 pm. Steve Saunders opened the meeting with introductions. Steve Windish went over some housekeeping items and stated the meeting purpose. The purpose of this first public input meeting was to discuss preliminary alignments and corridor issues.

Steve Grabill conducted the rest of the meeting. The items that were discussed include the following:

- Why Conduct This Study?
- What Do We Know So Far?
- Key Issues
- Factors of Analysis
- Study Review Committee
- Preliminary Typical Sections
- Preliminary Corridor Alignments

The meeting was then opened to questions and comments from the public. The following questions or comments were made:

1. What type of transit is being planned for in this area? *The same transit services that exist in the city today.*
2. Dave Farnsworth – The intersection of Century Avenue and Tyler Parkway is already confusing for drivers. How are you going to deal with the additional traffic? *We are considering realigning Golf Drive to tie it into this intersection. After comments from this meeting are received and the traffic projections are analyzed, we will have a better idea of what the options are.*
3. Resident – Where was the northern bridge going to cross the river? *Straight west of 57th Avenue NW.*

4. Resident - How can the capacity of River Road be increased? *We are looking at parallel alternatives that will help alleviate the heavy traffic on River Road. If the traffic is still heavy enough to warrant widening River Road, the options will be evaluated at that point.*
5. Resident – There is a bottleneck at Ducks Unlimited. *This is a known issue. There are other bottlenecks that exist in the study area also. An improved network of roadways will help alleviate these situations.*
6. Linda Axtman – Is additional commercial area linked to the northern bridge plan? *No, there is only a small area of neighborhood commercial planned for along Hwy 1804.*
7. Resident – Ash Coulee sometimes backs up for blocks at the Horizon School when kids are getting picked up and dropped off. Will the access to the school be improved? *This study will look at the future traffic and analyze a few critical intersections like Ash Coulee and Washington Street. A more detailed study may be needed for Ash Coulee and the school access issues.*
8. Matt Perry – What will happen with Washington Street? *This study will look at what the future development of this area means to the Washington Street corridor.*
9. Resident – Will the Bismarck city limits be expanding to cover this area? *As the area develops the City will annex it and provide services.*
10. Resident – What is going to happen with the bike trail to nowhere? *It is the City's desire to have looping trail systems. This study will look at the overall trail system, but the continuity depends on when the areas are developed.*
11. Resident – Is it really possible to construct the connection of Hwy 1804 to River Road with that cliff? *A preliminary analysis of the roadway profile will be looked at as part of this study.*
12. Resident – Are you looking at realigning the west end of Century Avenue? *Not at this time, but we could consider it.*
13. Resident – Will River Road be widened? *After analyzing the projected traffic volumes, we will know more about the future capacity of River Road and if it may need to be widened.*
14. Resident – Will you explain the process of traffic projections and economic development? *We usually look 20 years out. The land areas for green space are subtracted out and the remaining area is considered developable. The traffic projections can include different density scenarios.*
15. Resident – Does the residential planning account for apartment complexes? They seem to generate more traffic. *Yes, some multi-family units are taken into account. The majority of the area is planned for single family units.*

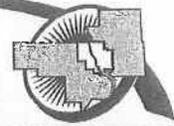
16. Resident – Do the blue lines through existing neighborhoods mean that the road will be widened? *Not necessarily. The roadways are part of the main transportation system in this area and their capacity will be evaluated. It is possible that some two lane roads may need to be widened.*
17. Resident – It would be nice to have aerial photos for a handout at the next meeting. *We will keep that in mind.*
18. Resident – How are you going to deal with the intersection of Tyler Parkway and Century Avenue? This intersection is very critical. *We agree. It is still early in the process, but the future traffic projections will be a main factor when considering improvements at this intersection.*
19. Resident – Are these images available on the website? *They are not right now. They will be on the website after they are updated to incorporate comments from this meeting.*
20. Jerry Kessel – There is a lot more commercial development along Washington than residential. *The residential area covers the majority of the study area, but there is commercial development planned along Washington.*

After the presentation the attendees were invited to review project displays again and discuss project issues with staff.

The meeting was adjourned at 7:15 pm.



Bismarck-Mandan



METROPOLITAN PLANNING ORGANIZATION

RECEIVED BY

(Please return by July 15, 2009)

JUL 02 2009

June 30, 2009

COMMENT CARD

PUBLIC INPUT MEETING: Northwest Bismarck Sub-Area Study

NAME (please print): Brian Scherr ULTEIG ENGINEERS

ADDRESS (please print): 641 64th Ave NW, Bis ND 58503

(Comments may also be submitted by email to: Steve.Windish@ulteig.com)

I wish to offer the following comments: We don't want 64th Ave extended because of more traffic and the fact that will divide a lot in half that we have our horses on and if one lot gets divided it will start others to want to sub divide their lots. We have kids & dogs and traffic is bad enough.

Please do not extend 64th Ave.

Thank you!

Brian & Tami

Scherr

Please leave your comment sheet with us tonight or mail your comments by July 15, 2009 to:

J. Steven Windish, P.E.
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504



Bismarck-Mandan

METROPOLITAN PLANNING ORGANIZATION

June 30, 2009

COMMENT CARD

(Please return by July 15, 2009)

PUBLIC INPUT MEETING: Northwest Bismarck Sub-Area Study

NAME (please print): _____



Ms. Shirley Keller / Edward Keller
1732 Golf Dr.
Bismarck, ND 58503

RECEIVED BY

JUL 06 2009

ADDRESS (please print): _____

(Comments may also be submitted by email to: Steve.Windish@ulteig.com) ULTEIG ENGINEERS

I wish to offer the following comments:

My husband & I live in a twin home (North) on Golf Dr. Currently our mail box + garbage collection is collected on our driveway. We are elderly + handicapped, would this change?

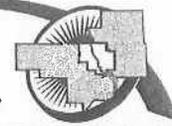
We live behind Parkway Funeral Service and use their alley to drive up to our yard.

Please leave your comment sheet with us tonight or mail your comments by July 15, 2009 to:

J. Steven Windish, P.E.
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504



Bismarck-Mandan



METROPOLITAN PLANNING ORGANIZATION

June 30, 2009

COMMENT CARD

(Please return by July 15, 2009)

PUBLIC INPUT MEETING: Northwest Bismarck Sub-Area Study

RECEIVED BY

NAME (please print): Ren & Kelly Obrigewitch

JUL 08 2009

ADDRESS (please print): 1414 Eagle Crest Loop (under construction)

1509 N 33rd St #2, Bismarck (mailing)

ULTEIG ENGINEERS

(Comments may also be submitted by email to: Steve.Windish@ulteig.com)

I wish to offer the following comments: We've recently moved to ND, and have been generally pleased w/ how Bismarck handles its growth. Our primary concern involves how to improve the attractiveness of the city. It is our opinion that all city roads should be lined w/ trees on both sides (like Valley Drive) and biking/ walking trails always be a consideration. These improvements improve both the appearance of the city and is a major contributor to improving the quality of people's lives and neighborhood.

We also do not like the idea of extending Century to River Road. A beautiful valley would be destroyed and it is difficult to believe congestion on River Road would be improved by this.

Please leave your comment sheet with us tonight or mail your comments by July 15, 2009 to:

J. Steven Windish, P.E.
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504



Bismarck-Mandan

METROPOLITAN PLANNING ORGANIZATION

June 30, 2009

COMMENT CARD

(Please return by July 15, 2009)

PUBLIC INPUT MEETING: Northwest Bismarck Sub-Area Study

NAME (please print): SID Beckman

ADDRESS (please print): 3678 HACKBERRY

(Comments may also be submitted by email to: Steve.Windish@ulteig.com)

I wish to offer the following comments: PUT A LARGE SHOPPING
CENTER ON THE NORTH SIDE & YOU WON'T
HAVE A TRAFFIC PROBLEM

Please leave your comment sheet with us tonight or mail your comments by July 15, 2009 to:

J. Steven Windish, P.E.
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504



Bismarck-Mandan



METROPOLITAN PLANNING ORGANIZATION

June 30, 2009

COMMENT CARD

(Please return by July 15, 2009)

PUBLIC INPUT MEETING: Northwest Bismarck Sub-Area Study

NAME (please print): Tina Ding

ADDRESS (please print): 2631 Springfield St

(Comments may also be submitted by email to: Steve.Windish@ulteig.com)

I wish to offer the following comments: Could there, perhaps be a change to the west end of century - rather than turning southerly below the waterford - what about climbing the hill, taking country west road & moving straight west thru the residential -? to join River Road?

Also - the (2) southerly routes from Horizon seem to be: Washington OR down valley to either valley or winding toward Juniper via Hackberry. - And since it is a total mess - can the city intervene to help alleviate homeowner costs on the breakdown of those roads due to the extra traffic - directly related to the horizon traffic block-up. even for those w/out children - traveling to work - the route of choice is

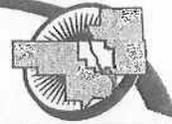
Please leave your comment sheet with us tonight or mail your comments by July 15, 2009 to:

that which is quickest - sometimes overlook to Hackberry & that road (please go drive on it) is wrecked!! - a potential homeowner in that neighborhood - it's unfortunate to see the

**J. Steven Windish, P.E.
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504**

as very focused

financial burden -



June 30, 2009

COMMENT CARD

(Please return by July 15, 2009)

PUBLIC INPUT MEETING: Northwest Bismarck Sub-Area Study

NAME (please print): Curtis W. Martin

ADDRESS (please print): 640 64th Ave. NW, Bismarck, ND 58503

RECEIVED BY

JUL 09 2009

ULTEIG ENGINEERS

(Comments may also be submitted by email to: Steve.Windish@ulteig.com)

I wish to offer the following comments: I oppose the westward extension of 64th

Ave NW for the following reasons: If 64th Ave were extended
W, virtually all of the residents of the Crested Butte development
would use it, greatly increasing the traffic load thru Green Acres.

As a 29 yr resident, I have planted & nursed trees & shrubs ^(2450 feet) along 64th
and do NOT want them obliterated by having to widen 64th Ave. ^(on my property) due
to increased traffic. Many other homeowners along 64th have minimal

setbacks for their homes, and a massive increase in traffic would be very
aggravating, since their homes & yards were designed around minimal
traffic flow. The Green Acres Homeowners Assn. has legal covenants

prohibiting the subdividing of the 5 acre lots, so if 64th were to be
extended W, it would mean splitting a private 5 acre lot in 2 halves.
That would certainly be met with a forceful legal challenge. Conclusion:

there must be a better way to provide adequate traffic flow than to
sacrifice the peace and tranquility of a mature, fully developed neighborhood.

Please leave your comment sheet with us tonight or mail your comments by July 15, 2009 to:

**J. Steven Windish, P.E.
 Ulteig Engineers, Inc.
 1412 Basin Avenue
 Bismarck, ND 58504**

Thank you, Steve. This is a follow up to our conversation after your presentation on June 30th.

Respectfully,
 Curtis W. Martin



Bismarck-Mandan

METROPOLITAN PLANNING ORGANIZATION

June 30, 2009

COMMENT CARD

(Please return by July 15, 2009)

PUBLIC INPUT MEETING: Northwest Bismarck Sub-Area Study

NAME (please print): Rodney + Mary Anne Ekren

ADDRESS (please print): 255 64th Ave. NW

RECEIVED BY
JUL 14 2009
ULTEIG ENGINEERS

(Comments may also be submitted by email to: Steve.Windish@ulteig.com)

I wish to offer the following comments: The intersection of 64 Ave and Washington is extremely dangerous when entering or exiting because of the hill top and the speed on Washington.

We bought out here for the peace and quiet of country living. Washington has already taken away the peace and quiet we used to know. Making 64 Ave. a thru street will add to the noise.

I don't want a two lane street right at our front door. It will be very unsafe for pets and children as well as adults. Just mowing the edge of the street will be scary, because of the speed vehicles will be traveling. Presently, our speed limit is 25 mph but it is not heeded, even the school bus comes tearing by each school day. People just don't drive the speed limit. We could have traffic traveling 45 to 55 mph right in our front yard.

Extending 64 Ave. will mean we will lose many trees. We just paved our driveway this spring, we would lose much of it.

Please leave your comment sheet with us tonight or mail your comments by July 15, 2009 to:

J. Steven Windish, P.E.
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504

Who compensates us for loss of property, peace and quiet, and the devaluation of our property?

We just paved 64 Ave. about a year ago; do we get compensated?

The residents in the addition to the west, bought property there knowing they would have to exit the area by using 1804.

We are against making 64 Ave. a thru street. It will not be safe to live here.



Bismarck-Mandan

METROPOLITAN PLANNING ORGANIZATION

June 30, 2009

COMMENT CARD

(Please return by July 15, 2009)

PUBLIC INPUT MEETING: Northwest Bismarck Sub-Area Study

NAME (please print): Pam Smokey

RECEIVED BY

ADDRESS (please print): 500 Huron Drive

JUL 16 2009

(Comments may also be submitted by email to: Steve.Windish@ulteig.com)

ULTEIG ENGINEERS

I wish to offer the following comments: Even with 4 lanes, Ash Coulee is

not the ideal corridor because of existing problems
which are not being addressed regarding
too limited access to Horizon Middle School, I
invite planners to observe the backup of traffic -
sometimes blocklong, especially in the winter -
to get a realistic view of the problems in this area.

It will not work to increase traffic with
morning commuters when it is the only access
to the school. Perhaps there should be school
access from North of the school,

Ash Coulee can't be the sole road for
both commuters and the school, please
research tentatively planned alternate routes.

Please leave your comment sheet with us tonight or mail your comments by July 15, 2009 to:

J. Steven Windish, P.E.
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504

C-Family Trust

P.O. Box 1074 — Bismarck, North Dakota 58502 — Phone: (701) 255-0803

TO: J. Steven Windish, PE, Ulteig Engineers

DATE: June 29, 2009

SUBJECT: Northwest Bismarck Subarea Study

Steve, we understand that the study you are facilitating is considering identifying future Golf Drive as a collector or arterial street.

One consideration in your study is land acquisition.

C-Family Trust is in favor of Burnt Boat Drive not Golf Drive as the collector/arterial street and is only interested in developing Golf Drive as a local street with a maximum 66 foot width of right-of-way and full access to the future street.

If the City wants to develop Golf Drive as a collector/arterial street, the City will need to acquire the right-of-way by purchase. As indicated earlier, C-Family Trust would not be interested in developing the adjacent property to Golf Drive if it is anything other than a local street. Therefore, the purchase would need to include the entire Golf Drive coulee area. In the west area of future Golf Drive, where the property adjoins Tyler Coulee to the north, arrangement could be made to limit the purchase if provisions are made to provide access to a future cul de sac to the north up Tyler Coulee.

In addition to the land costs, C-Family Trust would also seek reimbursement for development costs that have been incurred in the Golf Drive area. Those costs would include the cost incurred to install the sanitary sewers, water main and gas line and costs incurred for improvements to maintain the storm drainage ditch plus previous platting costs, etc. C-Family Trust will provide a cost breakdown at your request if you are still considering designating Golf Drive as anything other than a local street.

To make you fully aware of the considerations in developing Golf Drive, the City has a commitment to make storm sewer improvements for the runoff of the 72 inch storm sewer that dumps into the upstream area of Golf Drive. By the City purchasing the Golf Drive valley, the options to manage the storm water runoff could result in some savings to the City.

C-Family Trust

P.O. Box 1074 — Bismarck, North Dakota 58502 — Phone: (701) 255-0803

In conclusion, we feel that the added traffic, limited access, narrow depth of lots and the wasted land use around the west intersection, would all result in poor development. If Golf Drive is designated as anything other than a local street it would make the development unattractive and not desirable for residential use. We have met with the City several times and they know of the problems we have with their plans for Golf Drive. If the city acquires Golf Drive, then C-Family Trust is not opposed to the City using any of the proposed acquired property for proper development to be able to recoup some of their expenses.

Sincerely,



William Clairmont
Trustee, C-Family Trust

Marie Baker

From: Steve Windish
Sent: Wednesday, July 01, 2009 3:23 PM
To: Steve Grabil; Marie Baker
Subject: FW: Northwest Subarea Study

Public input

Please call me to discuss

J. Steven Windish PE
Ass't Vice President
Surface Transportation & Infrastructure
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504
Phone: 701.355.2333
Cell: 701.471.5621
Fax: 701.224.1163
Steve.Windish@Ulteig.com
<http://www.ulteig.com>

-----Original Message-----

From: Kevin Scherbenske [mailto:kscherbenske@yahoo.com]
Sent: Wednesday, July 01, 2009 3:16 PM
To: Steve Windish
Subject: Northwest Subarea Study

I spoke with you last evening at the public meeting.

Most of my concern would be if any of your 'proposed' plans end up changing resulting in a decision to take Sandy River Drive further east and connect to the north/south corridor roads (Clairmont, Tyler Parkway, etc.).

Our address is 4201 River Road and our driveway starts at the bottom of the coulee just south of Sandy River Drive. If the section line is followed up the the east, it would end up quite close to our garage.

You sounded like this idea had been discussed and taken off the table for some reason. If it again becomes a possibility, I would like to be informed and have a chance to discuss with you exactly where you would see the proposed road coming and what right-of-way easements would be required.

Thanks you for your proposal last evening.

Kevin Scherbenske
4201 River Road
223-4972

Marie Baker

From: Steve Windish
Sent: Wednesday, July 01, 2009 3:36 PM
To: Steve Grabill; Marie Baker
Subject: FW: Northwest Bismarck Sub-area study

Public input

J. Steven Windish PE
Ass't Vice President
Surface Transportation & Infrastructure
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504
Phone: 701.355.2333
Cell: 701.471.5621
Fax: 701.224.1163

Steve.Windish@Ulteig.com

<http://www.ulteig.com>

From: Al/Jane Frank [mailto:franka@bis.midco.net]
Sent: Wednesday, July 01, 2009 3:31 PM
To: Steve Windish
Cc: franka@bis.midco.net
Subject: Northwest Bismarck Sub-area study

Hi, I attended the meeting on June 30 on the subject above. I want to identify two area that I judge important in designing a good plan for NW Bis. First, the Tyler Century interchange is currently not a viable situation-this includes the section of Tyler from Century to I-94. The problem is confounded by the north 2 lanes of Tyler going down to one lane when turning onto Century and the closeness of the control lights on Tyler at I-94 and Burnt Boat Rd. Before any extra traffic is directed onto Tyler from the north into the Tyler-Century intersection as currently designed would be creating just another unworkable situation. The Golf Dr seems not to be a viable option for several reasons, rather Burnt Boat Rd seems more appropriate as an extension of Century.

I attended the meeting that gathered public input to the design of the current Tyler-Century intersection. Several option were presented to those in attendance. As I recall almost nobody except the Bismarck engineering and traffic folks wanted the current plan-the public input was ignored. I hope you see better to take the public input seriously.

Secondly, the current bike trail that is suppose to run from Pioneer Park to Double Ditch is a JOKE. I think it was build with Federal money that Senator Conrad obtained. I suggest the bike trail be completed and put in a condition that is useable.

Al Frank
1801 Santa Gertrudis Dr
255-1437

Marie Baker

From: Steve Windish
Sent: Wednesday, July 01, 2009 9:03 AM
To: Steve Grabill; Marie Baker
Subject: FW: Northwest Bismarck Sub-Area Study ; Public input meeting of 6/10/2009

Public input

J. Steven Windish PE

Ass't Vice President
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Phone: 701.355.2333
Cell: 701.471.5621
Fax: 701.224.1163

Steve.Windish@Ulteig.com

<http://www.ulteig.com>

From: Alan Lukes [mailto:lukeac@bis.midco.net]
Sent: Wednesday, July 01, 2009 8:50 AM
To: Steve Windish
Subject: Northwest Bismarck Sub-Area Study ; Public input meeting of 6/10/2009

Dear Steve,

My wife and I attended the meeting last night at Good Shepherd Lutheran Church, and want to thank you for describing to us residents what's being contemplated in our future as Bismarck residents. No doubt that as the city grows there will be need for continued change to accommodate the growing traffic congestion.

I was one of the several residents who stayed with you, Bill Clairmont, Dave Farnsworth, and a couple others to further discuss your preliminary proposals at the end of the meeting. Since we live on Pinto Place and are most directly affected by the present confusion and congestion at the intersection of Tyler Parkway and Century Avenue, I strongly urge you to further consider the alternative proposed by Dave Farnsworth as sketched on your easel last night. I'm referring to the option of extending Century through the corner of Lowes' parking lot and merging Century with Burnt Boat Drive somewhere near Taco Johns restaurant. This option, though very obvious when you see it, wasn't initially considered in your tentative matrix of "blue lines" on the maps. Mr. Farnsworth's option contains several further benefits over the alternative of extending Century through the Fire Station, razing a residence, and building a road in the quagmire at the base of Golf Drive and westward. This latter option would also require significant investment in a 'noise barrier' to insulate the residences to the north of the proposed extension. Without such a noise barrier, the homes on Pinto Place (particularly on the south side of Pinto) would become "ear plug required homes".

A very significant immediate benefit of the Farnsworth proposal is that it appears to have the potential of remedying the existing traffic confusion at the intersection of Tyler and Century. AND, this option would allow you to more easily convert Tyler to a useful north-south traffic artery (realizing there are some issues at the north end of Tyler as well - namely a steep hill and some interfering residences).

We look forward to your more detailed updates later this year in a follow-on community meeting.

Sincerely,

Al Lukes
1749 Pinto Place

Marie Baker

From: Steve Windish
Sent: Wednesday, July 01, 2009 7:40 AM
To: Steve Grabil; Marie Baker
Subject: FW: Northwest Bismarck Sub-Area Study

Public comment

J. Steven Windish PE
Ass't Vice President
Surface Transportation & Infrastructure
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504
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Steve.Windish@Ulteig.com

<http://www.ulteig.com>

From: Brad Mann [mailto:bmann@bis.midco.net]
Sent: Tuesday, June 30, 2009 9:37 PM
To: Steve Windish
Subject: Northwest Bismarck Sub-Area Study

Hello J.,

I wanted to let you know that I bought my lot on 64th Avenue NW because it is a quiet and peaceful area that I plan to build on someday soon. I do not want the street extended to the west because this would greatly increase the traffic through our development.

Please come up with a better plan to address future traffic flow.

Sincerely,

Brad Mann
258-0500

Marie Baker

From: Steve Windish
Sent: Friday, July 03, 2009 2:29 PM
To: Steve Grabill; Marie Baker
Subject: FW: Norhtwest Bismarck Sub-Area Study

Public input

J. Steven Windish PE
Ass't Vice President
Surface Transportation & Infrastructure
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504
Phone: 701.355.2333
Cell: 701.471.5621
Fax: 701.224.1163

Steve.Windish@Ulteig.com

<http://www.ulteig.com>

From: wanner@bis.midco.net [mailto:wanner2@bis.midco.net]
Sent: Thursday, July 02, 2009 2:54 PM
To: Steve Windish
Subject: Norhtwest Bismarck Sub-Area Study

Steve

I would like to make the following comments

Extend Daytona south of Country West Road on the west side of Waterford and east side of the water tower to connect into Interstate av. This would assist with the usage of the traffic control light at that intersection already.

Place Golf Drive along the exsisting water main that is already in place from Tyler Parkway to Clairmont Road and continue to River Road. At present the developer wants to place Golf Drive next to the toe of the hills along Burnt Boat Drive, which will only cause a problem like we now have on river road south of the I-94 bridge.

Get water main and street completed as soon as possible to connect Valley Drive to allow for second access to the area of Promontory Point and areas north and west in the new development.

Thank you

Richard Wanner

Marie Baker

From: Steve Windish
Sent: Monday, July 06, 2009 7:01 AM
To: Steve Grabill; Marie Baker
Subject: FW: Northwest Bismarck Sub-Area Study Comments

Public input

J. Steven Windish PE

Ass't Vice President
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Steve.Windish@Ulteig.com

<http://www.ulteig.com>

From: C M JORGENSON [mailto:cmjorgenson68@msn.com]
Sent: Friday, July 03, 2009 2:35 PM
To: Steve Windish
Subject: Northwest Bismarck Sub-Area Study Comments

I wish to offer the following comments regarding a potential extension of Ash Coulee to River Road:

- I echo the concern/comment expressed by one of the participants at the 6/30/09 public input meeting regarding an Ash Coulee/North Washington intersection and additional River Road traffic. The observation was made that the intersection is currently an extreme bottleneck, is overloaded via Horizon Middle School traffic, has hazards given its current grade plus several hills, and is already a problem area for traffic accidents. The response was that the participant question was a very complicated question and the solution/answer is also very complicated and really unable to be explained at the forum. The answer leaves me with the conclusion that the complicated solution really is no adequate solution at all for the intersection. If too complicated/complex, it is likely not a preferable or perhaps even workable alternative.
- I understand there needs to be traffic flow from river road over to North Washington or Tyler Parkway. However, given Ash Coulee's current build, grade, multiple residential approaches, middle school traffic, etc., the Ash Coulee extension is likely not a viable alternative. It's too late to remove the school or the problems that will always be inherent with the school traffic onto Ash Coulee and at the Ash Coulee/North Washington intersection.
- Even with an Ash Coulee to River Road extension, there is still about a two-mile gap southward before River Road extends over again to the east. Any connection should not be made this far

north at Ash Coulee, but at a location further south for better spacing. Extending Tyler Parkway north and then tying into to Tyler Parkway somewhere south of Ash Coulee is a better alternative. Currently there is no development obstructing this alternative, allowing for less disruption and no residential encumbrances.

Thank you. I will remain an interested and involved resident regarding this study. I will also appreciate the eventual maps to be posted on your website, allowing for more detailed analysis.

Cade Jorgenson

Marie Baker

From: Steve Windish
Sent: Tuesday, July 07, 2009 8:40 PM
To: Steve Grabill; Marie Baker
Subject: FW: NorthWest Bismarck Sub-Area Study

Public input

J. Steven Windish PE
Ass't Vice President
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Phone: 701.355.2333
Cell: 701.471.5621
Fax: 701.224.1163

Steve.Windish@Ulteig.com

<http://www.ulteig.com>

From: Jay Wheeler [mailto:jtwheeler@bis.midco.net]
Sent: Tuesday, July 07, 2009 6:37 PM
To: Steve Windish
Cc: jwheeler@uttc.edu
Subject: NorthWest Bismarck Sub-Area Study

Hello Steve,

I am emailing you pertaining to the Northwest Bismarck Sub-Area Study. I was unable to make the June 30th meeting to see what this was about and would like the information provided at the meeting. I went to the website and it really didn't say what you all were proposing or the different options that we should comment on. In the letter I received it said I should have written statements or comments about the project in by July 15th and without knowing what you are proposing I am unable to comment on this. I have spoke with some of my neighbors to see what this is about since I thought they would have attended the meeting and found out they did receive a letter like mine. If it is easier for you if I come in and meet with you I can drop by to pick up the material. I will be available at different times this week. Thank you for your assistance.

Jay Wheeler

Marie Baker

From: Steve Windish
Sent: Tuesday, July 07, 2009 8:39 PM
To: Steve Grabill; Marie Baker
Subject: FW: Northwest Bismarck Sub-area Study

Public input

J. Steven Windish PE
Ass't Vice President
Surface Transportation & Infrastructure
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504
Phone: 701.355.2333
Cell: 701.471.5621
Fax: 701.224.1163
Steve.Windish@Ulteig.com
<http://www.ulteig.com>

-----Original Message-----

From: hbohlken@yahoo.com [mailto:hbohlken@yahoo.com]
Sent: Tuesday, July 07, 2009 6:17 PM
To: Steve Windish
Subject: Northwest Bismarck Sub-area Study

My name is G. Harold Bohlken and reside at 510 - 64th Avenue NW (Green Acres Subdivision) and I would like to have some in-put on this proposed plan.

First, I do not believe that the existing streets of our sub-division should be bothered in order to give a later sub-division access--let their east or west north/south road be opened south to the section line that is only partially open (only to MDU station).

Second, I believe that 57th Avenue should be opened NOW to accommodate the influx of Horizon Middle School traffic so that those wishing to go into Bismarck could avoid the deadly intersection of 43rd and Washington when parents are taking their students to school. If this were done, some traffic on Washington could be taken off 1/2 or 1 mile west of Washington.

By opening the section lines, some traffic could be alleviated by allowing another route to US 83. Fifty-Seventh Avenue should have opened many years ago! What are section lines for, anyway?

Thank you for allowing me to give my opinion on this matter.

Harold Bohlken

Marie Baker

From: Steve Windish
Sent: Tuesday, July 07, 2009 7:48 AM
To: Steve Grabill; Marie Baker
Subject: FW: Requesting More Information

Public input

J. Steven Windish PE
Ass't Vice President
Surface Transportation & Infrastructure
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504
Phone: 701.355.2333
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Fax: 701.224.1163

Steve.Windish@Ulteig.com

<http://www.ulteig.com>

From: Duchscherer [mailto:duchscherer@bis.midco.net]
Sent: Monday, July 06, 2009 7:06 PM
To: Steve Windish
Subject: Requesting More Information

Steve,

I live at 2501 Powder Ridge Cir and was unable to attend the meeting you had last week.

Do you have any additional information that you can provide regarding roads, trails etc that are planned in this area. Since this area of Bismarck is undeveloped and in our neighborhood I want to be aware of any future plans near our residence.

Thank you,

Harold Duchscherer

Marie Baker

From: Steve Windish
Sent: Friday, July 10, 2009 4:40 PM
To: Steve Grabill; Marie Baker
Subject: FW: Northwest Bismarck Subarea Study,

Public input

J. Steven Windish PE

Ass't Vice President
Surface Transportation & Infrastructure
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504
Phone: 701.355.2333
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Fax: 701.224.1163

Steve.Windish@Ulteig.com

<http://www.ulteig.com>

From: Karen daSilva [mailto:kdasilva@bis.midco.net]
Sent: Friday, July 10, 2009 4:08 PM
To: Steve Windish
Subject: Northwest Bismarck Subarea Study,

Greetings Steve, I was unable to attend the public input meeting on June 30th. I visited the website and did not find any new information. Will there be any document or update as a result of that meeting?
I don't have any specific concerns, however my property's east end is on Washington. When the bike path was installed I was caught unaware of the plans specific to my property. I called the county engineer who informed me that only about 6 feet of our property would be involved. They ended up taking more like 20 feet. I love the bike path but now after choosing a property that we had thought was "in the country" (we moved here 17 years ago) we now have a lot of traffic. People also assume that our fields are for their use with snow mobiles and horses. It doesn't happen often but my dogs go wild when it does. Now we're going to have to put up a fence or line of trees. Ah progress.
I would appreciate being put on a list serve with any updates regarding this project so that I receive future notices and documentation. Many thanks. Karen daSilva
200 Oakfield Drive. 471-2204

Marie Baker

From: Steve Windish
Sent: Friday, July 10, 2009 1:18 PM
To: Steve Grabill; Marie Baker
Subject: FW: Comments from Subareastudy Page

Public input

J. Steven Windish PE
Ass't Vice President
Surface Transportation & Infrastructure
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504
Phone: 701.355.2333
Cell: 701.471.5621
Fax: 701.224.1163
Steve.Windish@Ulteig.com
<http://www.ulteig.com>

-----Original Message-----

From: program4u@bis.midco.net [mailto:program4u@bis.midco.net]
Sent: Friday, July 10, 2009 1:11 PM
To: Steve Windish
Subject: Comments from Subareastudy Page

Hello,

I have a few questions about changes that are in the planning stages for NW Bismarck. I live in the development just east of Waste Management and would like to know how these changes could affect us.

If you are not the one to answer these, would you know who is?

Questions:

- 1) What is the time frame for these changes to actually start and complete?
- 2) Is there a chance this area will attempt to be annexed into the city?
- 3) If yes to question 2, what would this mean? I am certain a substantial increase in taxes? How about things like city sewer, keeping horses on our property, being able to ride 4 wheelers in the area and shooting off fireworks on the 4th?
- 4) We currently have dirt roads in the area but there is research being done to pave these roads. If this were done, would these roads have to be ripped up for this project and who would incur that expense?
- 5) Would all the residential areas North of 1804 also be annexed? If not, why since they would basically be using all the new developed roads, bike paths etc.?

Thank you for your time!
Terry

Steve Grabill

From: Halvorson, Lyle [LHalvorson@aarp.org]
Sent: Friday, July 17, 2009 2:38 PM
To: Steve Windish; Steve Grabill
Cc: Cheney, Janis S.; bjehreth@nd.gov
Subject: Comments from Subareastudy Page

Steve and Steve –

Since we worked together when I was at Odney, I hope you'll take a few minutes to read my e-mail and give it some consideration.

We were not able to attend the public input meeting you held on June 30; however, we wanted to call your attention to an AARP report on livable communities. A link to the report is below. I think it contains information pertinent to your goal of meeting people's mobility needs, especially our growing older population.

The report was prepared in 2005, but is still as relevant today as it was then. It presents a new agenda for examining, building and retrofitting our communities to support successful aging. Specifically, it...

- explores how people age 50 and older can continue to be independent and able to exercise choice and control in ways that are beneficial to and affordable for them and society.
- demonstrates the connections among community engagement, housing, transportation, and successful aging.
- highlights the consequences of community features that fail to account for the diversity of, and continual change in, residents' needs.
- illustrates how persons age 50 and older contribute to, and benefit from, well-designed communities that promote community engagement.

When you click on the link you will also find a community evaluation guide that you may find interesting / useful. We have hard copies of the evaluation guide at our office and I'd be more than happy to deliver one or more to your office.

Thanks for your attention. Livable communities is one of our major interest areas and we would welcome opportunities to become more engaged / involved in the work being done here in Bismarck as well as other communities across the state.

http://www.aarp.org/research/housing-mobility/indliving/beyond_50_communities2.html

Lyle Halvorson | AARP North Dakota | ASD - Communications
107 W. Main Avenue | Suite 125 | Bismarck, ND 58501
Office: 701-355-3653 | Cell: 701-220-5613
Fax: 701-255-2242 | www.aarp.org/nd



*AARP believes Congress must enact comprehensive health reform now.
Visit www.HealthActionNow.org to find out how you can get involved.*

Marie Baker

From: Steve Windish
Sent: Wednesday, July 15, 2009 7:54 AM
To: Steve Grabil; Marie Baker
Subject: FW: Comments on N.W. Bismarck Sub-Area Study

Public input

J. Steven Windish PE

Ass't Vice President
Surface Transportation & Infrastructure
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504
Phone: 701.355.2333
Cell: 701.471.5621
Fax: 701.224.1163

Steve.Windish@Ulteig.com

<http://www.ulteig.com>

From: Darrel Scofield [mailto:dvs12_@hotmail.com]
Sent: Tuesday, July 14, 2009 8:57 PM
To: Steve Windish
Subject: Comments on N.W. Bismarck Sub-Area Study

Dear Mr. Windish,

I have three concerns at this time for the west extension of Ash Coulee Drive.

1. I am concerned a speed of 35 mph or above will make the hill in front of my place very dangerous. Because of the reduced visibility coming over the hill.
2. I am very concerned as to the amount of right away that is to be used. If the 100' option is used I will have little to no yard left.
I realize that is my problem and not yours but why are local contractors allowed to build so close to the right of way. These people know far better than the general public as to what may happen when an area is developed. There wasn't even a school in the area when we bought. How were we to know how much property could be used in the future?
3. I still do not understand how putting more traffic in front of Horizon Middle School from river road will help solve any traffic problems. I believe it will just add to the problem unless some other north south road is added at the same time.

Well I thank you for listening to my concerns! I hope that you come up with some good answers to not only my concerns but to all of the problems in the sub-area study. I wish you the best of luck!

Sincerely,
Darrel Scofield
1433 Ash Coulee Drive
Bismarck, ND 58503

From: Kathleen Jones [mailto:Kathleenathome@bis.midco.net]
Sent: Tuesday, July 21, 2009 10:35 AM
To: 'cpb'
Subject: Metropolitan Planning Organization

To Whom It May Concern:

After much research, discussion with neighbors, driving some of the suggested planned roads. This plan is NOT addressing the problems of the community. It is only creating much larger ones at River Road/ Brunt Boat and 43rd and Washington Street.

Instead of worrying about Gold or Century go east and west, someone SHOULD be looking into 43rd or Ash Cooley Road would meet into River Road. (The bluffs are not that high. After all James Hill made it over the Rocks so with today's equipment and knowledge – one would think cutting into a bluff should not be that big of thing.) There is more than enough room to make River Road a four Lane BUT the bottle neck at Brunt Boat Road needs to be addressed. No one is doing that.

As for Fern wood becoming the major road for north & south traffic – the bottle neck would be much worse. The really problem is that there are several developments in Hay Creek Township which are NOT being build according projections. Building in the state is down 3% and has been continuing the drop over the last couple of years.

The developers have one area in which should have never been allowed to be developed due to the problems with sewage. Now everyone wants to plan and put panic into people about the future when NO ONE has answers to the current problems.

Needless to say, I think your planning is not planning at all, but development for those who seek to make the community something.

As for green spaces, we have them NOW! The city and the county think they have a better plan which in 50 years in this community has never happened. 4th street stops, Washington stops. Century, which less than 15 years ago, could have gone to River Road – stops! I believe it is called Traffic control. It is not called PLANNING.

You need to meet with a lot more of the population not just the developers. And the battle may have been lost regarding the 4 mile extra territorial zone but the war is not over.

Kathleen Jones 400-7129 or 258-1477

Disclaimer and Notice: This electronic mail submission is intended solely for the recipient named in the subject line. If you are not that person and have received this message in error, please be advised that all content, information, and attachments (if any) are associated with a legal case and may not be used, duplicated, disclosed, or otherwise transmitted to any person or entity whatsoever. You are requested to immediately contact Kathleen Jones at 701-400-7129 or 701-258-1477 and make arrangements for the prompt return of any inadvertently delivered content or materials at no expense to you. Should you

Steve Grabill

From: Steve Saunders [ssaunder@nd.gov]
Sent: Friday, July 24, 2009 9:51 AM
To: Steve Grabill; Steve Windish
Subject: FW: Bismarck's Sub Area Study

Importance: High

I just received this from Kim Lee.
Could you address and possibly alleviate this lady's concerns?
Thanks

Steve

-----Original Message-----

From: Kim Lee [mailto:kllee@state.nd.us]
Sent: Friday, July 24, 2009 9:20 AM
To: Steve Saunders; Ben Ehreth
Subject: FW: Bismarck's Sub Area Study
Importance: High

This relates to the Northwest Subarea Study. Can you get back to her regarding the meeting on June 30th?

Let me know if you need anything from me.

Thanks -

Kim L. Lee, AICP
Planning Division
Community Development Department
701.355.1846
www.bismarck.org

-----Original Message-----

From: program4u@bis.midco.net [mailto:program4u@bis.midco.net]
Sent: Friday, July 24, 2009 7:22 AM
To: kllee@nd.gov
Subject: Bismarck's Sub Area Study
Importance: High

Hello,

I live on Restfull Drive just south of 1804 in North Bismarck. On June 30th, there was a meeting concerning future development in this area. Due to being out of state at this time, I was not able to attend this meeting but have several questions I would like answered. If you would be able to answer any of these that would be great or if you could let me know who could answer them if you can't I would appreciate it. I have already emailed one of the guys from Ulteig Engineers but he never responded.

1) Will the city try annexing the area I live in into city limits? If

so, what would this mean? Right now, to me it would just mean more taxes and possibly specials which we would not be able to afford.

Also, I assume we would no longer be able to own horses, drive 4wheelers around the neighborhood and so forth.

2) If Yes to #1, what would be the time frame for this?

3) If Yes to #1, what is the process for this? Can the city just do it or does it go to some kind of vote? If voted on, who would be allowed to vote on this issue?

4) If Yes to #1, will the annexation just include properties south of 1804 or will properties north be considered as well?

5) How far north does the city boundaries go right now?

6) Does the city need to purchase the land for this before these plans

can be carried out? Has this already been done or are negotiations still going on?

7) Are the streets that are planned up for negotiation? I am very disturbed because our development will be ruined by these changes.

Right now, it is a very peaceful area but this will all change if the planned development is carried out.

Thank you for your response.

Terry Sailer

Steve Grabill

From: William White <ruffnnit@msn.com>
Sent: Saturday, October 10, 2009 8:57 AM
To: Steve Grabill
Subject: RE: Northwest Bismarck Subarea Study - Century Avenue & Tyler Parkway Safety

Categories: Filed by Newforma

Thank you for listening!!!

Yes, I am frustrated with the situation at Tyler Parkway and Century Avenue. It is very dangerous.

I talked to Mark Berg shortly after I talked to you.

I will persue this matter.

Judy White

From: Steve.Grabill@ulteig.com
To: ruffnnit@msn.com
CC: maberg@nd.gov; Steve.Windish@ulteig.com; ssaunder@nd.gov; bjehreth@nd.gov
Date: Fri, 9 Oct 2009 11:11:16 -0500
Subject: Northwest Bismarck Subarea Study - Century Avenue & Tyler Parkway Safety

Hello Judy White,

Thank you for contacting me and expressing your concerns. Per our discussion, please put your concerns regarding intersection safety in writing so we may make sure our planners, engineers and City personnel understand the issues as you see them. In the meantime, I have given you Mark Berg's contact information so that you may learn of any pending intersection improvements that may be in the works. Good luck!

Also, you can keep abreast of our study's progress at: <http://subareastudy.com/>.

Steve Grabill

Traffic Operations and Transportation Planning
Ulteig Engineers, Inc.
3350 38th Avenue S.
Fargo, ND 58104-7079
Phone: 701-237-3211
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Update provided on northwest Bismarck study

- Story
- Discussion

By LEANN ECKROTH Bismarck Tribune | Posted: Saturday, October 17, 2009 2:00 am | (0) Comments

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Steve Grabill of Ulteig Engineers briefed the Bismarck City Commission this week about the Bismarck Northwest Subarea Study.

Its goal is to find future transportation corridors in northwest Bismarck to improve travel. Boundaries of the study are the Missouri River, Washington Street, I-94 and Highway 1804.

The study involves input from a steering committee of city and county planning officials, parks and recreation officials, developers, landowners and the public.

The steering committee for the study hopes to guide future developments and preserve optimal transportation for all travel.

Grabill said Ulteig held one public meeting in June.

"Some of the key issues include traffic safety and mobility needs along Ash Coulee Drive, Tyler Parkway, Washington Street and River Road," he told commissioners.

"We are taking these issues into consideration to develop core improvement concepts," Grabill said. He said the concepts could be applied to Golf Drive to the west.

Other objectives are to:

- n Identify solutions that accommodate development and the need for mobility.
- n Establish a system of transportation collector and arterial corridors to meet the mobility needs of a studied region.
- n Select the short and long-range optimum alignments for these corridors.
- n Identify potential impacts and associated mitigation strategies.
- n Facilitate stakeholder and decision-maker involvement that informs, educates receives and responds to their input.
- n Secure jurisdictional buy-in on preferred alternatives and implementation strategies.

A steering committee was formed to guide planning during the study. It first met April 20. It discussed study goals, desired

outcomes, and alignment options. A file search of archaeological records within the study area also has been completed.

Grabill said it is hoped the plan will allow future developers to work together with the city. "When they come forward with their plans it will be consistent with this new plan," Grabill said.

Grabill said he would update commissioners about the study in early 2010.

To view a scope of the study, go to the Web at subareastudy.com.

(Reach reporter LeAnn Eckroth at 250-8264 or leann.eckroth@bismarcktribune.com)

Posted in Govt-and-politics on *Saturday, October 17, 2009 2:00 am*

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10/19/09

Ulteig updates subarea study

By LEANN ECKROTH
Bismarck Tribune

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"Some of the key issues include traffic safety and mobility needs along Ash Coulee Drive, Tyler Parkway, Washington Street and River Road," he told commissioners.

COMMENTS AND SUGGESTIONS

Steve Grabill of Ulteig Engineers, said public comments about the Bismarck Northwest Subarea Study have included:

- Do not extend 64th Avenue.
- Extend and not extend Century Avenue.
- Extend Daytona into Interstate Avenue.
- Extend Golf Drive along a water main to Clairmont Road/River Road.
- Use Burnt Boat Road, not Golf Drive.
- Use Burnt Boat Road, not Century Avenue.
- Concerns over impacts if Sandy River Drive is extended east from River Road.
- Access to Horizon Middle School is limited.
- Not increasing traffic on Ash Coulee without plans to fix it.
- Right-of-way needs.
- Timeline for annexation and improvements requested.
- Need for bike and pedestrian facilities.
- Concern about the Ash Coulee/Washington Street Intersection bottleneck.
- Washington Street and 64th Avenue intersection is dangerous.

"We are taking these issues into consideration to develop core improvement concepts," Grabill said. He said the concepts could be applied to Golf Drive to the west.

Other objectives are to:

- Identify solutions that accommodate development and the need for mobility.
- Establish a system of

transportation collector and arterial corridors to meet the mobility needs of a studied region.

■ Select the short- and long-range optimum alignments for these corridors.

■ Identify potential impacts and associated mitigation strategies.

■ Facilitate stakeholder and decision-maker

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Grabill said he would update commissioners about the study in early 2010.

To view a scope of the study, go to the Web at www.subareastudy.com.

(Reach reporter LeAnn Eckroth at 250-8264 or leann.eckroth@bismarcktribune.com.)

Minn. pigs may have tested positive for H1N1

MINNEAPOLIS (AP) — Preliminary tests show three pigs in Minnesota may have contracted the H1N1 virus, making them the first potential U.S. cases in swine, agricultural officials said Friday. They stressed the finding does not threaten food safety.

The samples were taken from pigs shown at the Min-

nesota State Fair between Aug. 26 and Sept. 1 as part of a university research project. Officials expect results next week to confirm whether the pigs were infected with the H1N1 virus.

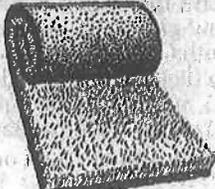
The pigs did not show signs of sickness, and officials said they likely contracted the H1N1 virus from some of the nearly 1.8 mil-

lion people who visited the state fair.

In a conference call with reporters Friday, Minnesota Agriculture Commissioner Gene Hugoson said officials

don't know what happened to the three pigs, but that they probably were sent to slaughter soon after they were shown at the fair, which ended on Labor Day.

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Mr. Steve Grabill, P.E.
Ulteig Engineering

Feb 17, 2010

Subject: Northwest Bismarck Sub-Area Study dated January 2011

After reading the subject study, I would like to submit the following comments:

1. The study identifies 2 alignments that are considered unacceptable because of fatal flaws. There is no definition of what a fatal flaw is or the criteria that were used to determine what are fatal flaws. I would recommend that a discussion be added to the study that defines the criteria or reason for identifying any alignment as a fatal flaw.
2. I did not see any discussion on using one way streets as a solution to traffic problems. In particular, the traffic problems associated with the W Century Ave extension to the west could have a better transition by using one way streets. As an example, Golf Drive could be converted to a one way street west bound, and Burnt Boat Drive could be converted to a one way street east bound. I would recommend considering having Burnt Boat Drive be a one way street all the way up to W Century Ave. By using one way streets, the width of the roadway is less, and potentially, there could be adequate room to construct a portion of Burn Boat Drive between the Bismarck Chamber of Commerce and the Visitor Center. I realize that one way traffic is not an ideal situation due to potential confusion by drivers, but in the case of these intersections, the existing infrastructure is posing a unique challenge on the development of the road ways.

If you have any questions, feel free to contact me at 701-340-9600

Thomas Atkinson
3056 Greenwood Drive

Joel Quanbeck

From: Luanna Fisketjon <luanna77@hotmail.com>
Sent: Tuesday, September 14, 2010 1:58 PM
To: Steve Windish
Subject: RE: Holst property/Fernwood Drive

Categories: Filed by Newforma

Steve, In figure 5 of the study there is a large portion of land set aside for a park. Could you tell me how this was determined to be an open space? I don't know that I am in favor of selling my land for a park, would like to keep my options open for a residential/marina. Thank you for checking on this for me. Luanna (Holst) Fisketjon

From: Steve.Windish@ulteig.com
To: luanna77@hotmail.com
CC: Steve.Grabill@ulteig.com
Date: Tue, 14 Sep 2010 12:01:02 -0500
Subject: RE: Holst property/Fernwood Drive

Ms. Fisketjon

Sorry to hear that you will not be able to attend.

The draft report can be found by clicking the following link. The report link is on the left hand side of the web page.

<http://subareastudy.com/>

If you have a questions or comments, please let us know.

J. Steven Windish, PE
Associate Vice President
1412 Basin Avenue • Bismarck, ND 58504
Direct: (701)355-2333 • Mobile: (701)333-8794
Steve.Windish@Ulteig.com
<http://www.ulteig.com>

From: Luanna Fisketjon [mailto:luanna77@hotmail.com]
Sent: Tuesday, September 14, 2010 11:50 AM
To: Steve Windish
Subject: Holst property/Fernwood Drive

Hello Steve: I am unable to attend the meeting on Thursday. Received my letter yesterday (Monday) and have other plans that can't be set aside. I am very interested in the proposed plans for the area. Are the plans on the internet any where? How could/should I see the plans in order to give my input and/or objections.
Luanna (Holst) Fisketjon

Joel Quanbeck

From: Joel Quanbeck
Sent: Tuesday, September 14, 2010 4:44 PM
To: Luanna Fisketjon
Cc: Steve Grabill; Steve Windish; ssaunder@nd.gov; chokenst@nd.gov; klee@nd.gov; bjehreth@nd.gov
Subject: RE: Follow up on inquiry regarding land use designation in the Bismarck Mandan Regional Future Land Use Plan

Categories: Filed by Newforma

Luanna,

Since I don't know all the details of your conversations with Steve Windish I want to give you some background information to hopefully clear up a few points.

The current study which is in the draft report review and comment stage is the Northwest Bismarck Sub-Area Study. This is primarily a transportation planning study. It uses assumptions about future land use which come primarily from the Regional Future Land Use Plan which was completed in the Fall of 2007. The Northwest Bismarck Sub-Area Study is expected to be completed by the end of 2010.

The Regional Future Land Use Study is a finished study and is a resource already in effect and being used by the City of Bismarck and Burleigh County to guide future development in the area. It is a plan, and not a regulation. Think about the difference between plans and regulations sort of like a roadmap and driving regulations. The roadmap helps you understand where you want to go, but the driving regulations tell you how you have to act to get there. The Regional Future Land Use Plan provides general guidelines about future development in the area, but it anticipates that additional more detailed planning would take place during or before the review of development proposals.

Please contact the Bismarck Community Development and Planning Department to learn what regulations are currently in place which govern the land you own. Since they administer the regulations, they are better able to answer your questions than I am.

It seems like your questions relate more to the Regional Future Land Use Plan than to the Northwest Bismarck Sub-Area Study. If that is the case, options relating to the development of your land are probably more the bailiwick of the land use regulations.

If you have further questions, I would be happy to discuss them with you.

Sincerely,

Joel Quanbeck

From: Luanna Fisketjon [mailto:luanna77@hotmail.com]
Sent: Tuesday, September 14, 2010 3:24 PM
To: Joel Quanbeck
Cc: Steve Grabill; Steve Windish; ssaunder@nd.gov; chokenst@nd.gov; klee@nd.gov; bjehreth@nd.gov
Subject: RE: Follow up on inquiry regarding land use designation in the Bismarck Mandan Regional Future Land Use Plan

Joel,

I can understand why it was looked at for it's purpose; there aren't very many large areas of land which are close to Bismarck and the river. It's one of the few natural tracts that size. My concern is how it limits the value of the property. Regulation is a huge concern to me as the land wasn't given to me, I purchased it as an investment, nice or not, that's the way I'm looking at it. The potential could be huge there as an additional marina, residential, or even as a small commercial area. If the development south is used as an indicator, this land could be used much the same way.

I have three questions: How do you see the regulations affecting me, considering I'm being pretty clear about how I feel? When is the plan going to take effect tentatively? Do I have options in how to handle this before then and who would I take them to?

I appreciate your time and the time of the other folks to whom you cc'd your e-mail.

Luanna (Holst) Fisketjon

From: Joel.Quanbeck@ulteig.com

To: luanna77@hotmail.com

CC: Steve.Grabill@ulteig.com; Steve.Windish@ulteig.com; ssaunder@nd.gov; chokenst@nd.gov; klee@nd.gov; bjehreth@nd.gov

Date: Tue, 14 Sep 2010 14:58:55 -0500

Subject: Follow up on inquiry regarding land use designation in the Bismarck Mandan Regional Future Land Use Plan

Hello Luanna,

You recently visited with Steve Windish about Figure 5 in the Northwest Bismarck Sub-Area Study draft report.

I am the primary author of the Bismarck Mandan Regional Future Land Use Plan which is the source for much of the information portrayed in Figure 5 of the Northwest Bismarck Sub-Area Study draft report. I would be happy to give you some background information on how the Regional Future Land Use Plan ended up designating the various land uses and what that means about future development.

I would also recommend that you visit with the City of Bismarck planning staff, since they will be able to give you more accurate details regarding how land development is regulated in this area.

Please feel free to call me at 701-280-8579 or email me back at this email address.

Regards,



Joel Quanbeck, AICP, CFM

Senior Planner

3350 38th Avenue South • Fargo, ND 58104

Direct: (701)280-8579

www.ulteig.com

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From: Terry [mailto:program4u@bis.midco.net]
Sent: Monday, September 13, 2010 9:33 PM
To: Steve Windish
Subject: Northwest Bismarck Subarea Study

Hello,

I am a resident in the Crested Butte addition, just south of 1804, and have several questions about the subarea study that you are in charge of. I will be at the meeting Thursday also but thought I could get some questions answered before the meeting. My questions are:

We love the view and peace and quiet which we currently have. There are not many views like this left in Bismarck. After reading through the plans for this area, it sounds like this will go away. What other affects will this development have on the development where I live? I was already told there are no plans to annex our development into the city, is this true?

Does the city already own the land they plan on developing? What if the owner doesn't want to sell?

How will the rolling hills to the west of our development be developed? Will they be flattened? Is there any reason why some of these lots can't be left as rural so at least some of the view would be maintained?

There are also plans of new biking paths. How will existing paths be maintained. Most of the current ones are cracking and have weeds coming through. The weeds along the sides of the path aren't mowed very well now and they aren't cleaned very well during the winter either.

Have you considered closing the entry onto 1804 from Sonora? This would leave one entry from the north, one from the west and one from the south instead of having Sonora as a through street? If Sonora is a through street, it will open the door for more traffic through our development which will again take away of one of the things we like out here. Our kids are able to run and play without fears of a lot of traffic.

Will the concerns of existing residents in the area have any bearing on what actually happens or will the City of Bismarck just do what they want anyway?

Thank you,
Terry Sailer

A resident who currently loves where he lives but feels that could all change if these plans are carried out as is ☺

Joel Quanbeck

From: Steve Grabill
Sent: Tuesday, September 14, 2010 3:19 PM
To: program4u@bis.midco.net
Cc: Steve Windish; Steve Saunders
Subject: Northwest Bismarck Subarea Study

Categories: Filed by Newforma

Dear Mr. Sailer,

Thank you for your feedback on the Northwest Bismarck Subarea Study. We have responded to your comments in blue text provided below. We look forward to any further comments you may have.

From: Terry [mailto:program4u@bis.midco.net]
Sent: Monday, September 13, 2010 9:33 PM
To: Steve Windish
Subject: Northwest Bismarck Subarea Study

Hello,

I am a resident in the Crested Butte addition, just south of 1804, and have several questions about the subarea study that you are in charge of. I will be at the meeting Thursday also but thought I could get some questions answered before the meeting. My questions are:

We love the view and peace and quiet which we currently have. There are not many views like this left in Bismarck. After reading through the plans for this area, it sounds like this will go away. What other affects will this development have on the development where I live? I was already told there are no plans to annex our development into the city, is this true? As far as we know, there are no current plans to annex your development into the city. Additionally, we are not aware of any plans to develop the land in your vicinity at this time. The purpose of the Study is primarily to identify the locations for future roads, pedestrian and bicycle facilities so that when future platting occurs, there will be an overall plan showing how everything will tie together.

Does the city already own the land they plan on developing? What if the owner doesn't want to sell? The city does not own this land and they are not planning to develop it. If the current owner, or some future owner wants to develop, the city needs a plan to facilitate future platting and development.

How will the rolling hills to the west of our development be developed? Will they be flattened? Is there any reason why some of these lots can't be left as rural so at least some of the view would be maintained? We do not know how the hills to the west of you will be developed, though we suspect that it is unlikely they would be flattened. It will be up to the discretion of future land developers whether some lots or areas are left as rural and how the view is maintained.

There are also plans of new biking paths. How will existing paths be maintained. Most of the current ones are cracking and have weeds coming through. The weeds along the sides of the path aren't mowed very well now and they aren't cleaned very well during the winter either. These comments have been passed on to city engineering.

Have you considered closing the entry onto 1804 from Sonora? This would leave one entry from the north, one from the west and one from the south instead of having Sonora as a through street? If Sonora is a through street, it will open the door for more traffic through our development which will again take away of one of the things we like out here. Our kids are able to run and play without fears of a lot of traffic. Similar concerns have been raised pertaining to 64th Avenue NW. These are intended to, some day, function as collector roads for future traffic. Our plan generally recommends arterials that follow section lines and collector roads that follow 1/2 section lines. Sonora Way is closest to the half

section line and makes the most sense for placement of a collector road facility. Additional traffic may be expected along Sonora Drive in the future as the area develops. Longer, drive through trips are intended to be handled by 15th Street NW/Tyler Parkway and Washington Street, which are designated as arterial roads.

Will the concerns of existing residents in the area have any bearing on what actually happens or will the City of Bismarck just do what they want anyway? We do appreciate your concerns. Many of the recommendations that are in the draft Report came as a result of public input received last year. The draft Report also reflects significant input from a Steering Committee comprised of local technical staff and stakeholders.

Many of the people that currently live in the area would probably prefer that none of the existing grass lands ever develop. And while residents can still have an impact on the plan, the City of Bismarck has asked us to provide recommendations that are in the best interests of the overall future transportation system.

We believe that most of the proposed transportation recommendations are long range, perhaps 20 to 50 years out or longer. Many current residents may never see traffic impacts on their developments. Yet the city is being prudent to prepare for long range growth to the best of its ability. The feedback you wish to provide will be given to the City Commission during the study adoption phase. Requests from the public may or may not become part of the final recommendations.

Thank you,
Terry Sailer

A resident who currently loves where he lives but feels that could all change if these plans are carried out as is ☹

Steve Grabill

Traffic Operations and Transportation Planning

Ulteig Engineers, Inc.

3350 38th Avenue S.

Fargo, ND 58104-7079

Phone: 701-237-3211

Direct: 701-280-8533

PUBLIC INPUT MEETING

8/30/2010 Tribune

Northwest Bismarck SubArea Study on behalf of the Bismarck-Mandan Metropolitan Planning Organization

WHEN?

Thursday, September 16, 5:30 – 7:00 p.m.
Open House at 5:30 p.m.
Formal presentation at 5:45 p.m.

WHERE?

Horizon Middle School
500 Ash Coulee Drive
Bismarck, ND

WHY?

To receive comments on the
Draft Northwest Bismarck SubArea Study Report

This Study addresses the region bounded by Washington Street, the Missouri River, Interstate 94 and ND Highway 1804 in Burleigh County. The Study provides a plan for a transportation system (including collector and arterial roadways, pedestrian and bicycle facilities) that will meet the area's need for mobility while enhancing the opportunity for this land to develop.

The public is invited to attend the meeting and discuss the study with representatives from the MPO, City, County and Ulteig Engineers. Attendees will have an opportunity to review recommended future corridor alignments and comment on the draft Report. Information pertaining to the study is available on the project website: <http://subareastudy.com/>

Issues: Future corridor plans, right of way needs, property and environmental impacts, traffic and parking impacts, non-motorized needs, constructability, access needs and impacts on existing and future development, including developments along Golf Drive, Burnt Boat Drive, Tyler Parkway, Ash Coulee Drive, Fernwood Drive and River Road will be discussed.

Draft Report Viewing: The draft Report will be available for viewing after September 8 at the Bismarck Public Library, the Bismarck Planning Dept., and on the project website: <http://subareastudy.com/>.

Requests for special facilities to assist persons with disabilities in the meeting should be received by September 13, 2010. WRITTEN STATEMENTS or comments about this study may be sent by September 30 to J. Steven Windish, PE, Ulteig Engineers, 1412 Basin Avenue, Bismarck, ND 58504, phone 701-355-2333, email: Steve.Windish@Ulteig.com.

AGENDA

Northwest Bismarck Sub-Area Study

Bismarck-Mandan Metropolitan Planning Organization

Public Input Meeting

5:30 PM, September 16, 2010

Horizon Middle School

1. Open House
2. Introductions (5:45)
3. Discuss Meeting Format
 - a. Housekeeping Issues
 - b. Meeting Purpose
4. Formal PowerPoint Presentation (*Public feedback during presentation is encouraged*)
 - a. Study Objectives and Major Issues
 - b. Corridors that are Available
 - c. Alignment Analyses
 - d. Technical Responses to Past Input
 - e. Corridor Evaluations
 - f. Future Pedestrian and Bicycle Facilities
 - g. Priority Corridors and Timing
 - h. Recommended City Actions
5. Discuss Public Participation Process and Schedule
 - a. Comment Forms (On Table as You Entered). Fill one out tonight and return it to the table or take it with you and mail it to:
Steve Windish
Ulteig Engineers
1412 Basin Avenue
Bismarck, ND 58504
(email Steve.Windish@Ulteig.com.)
6. Visit our Website at <http://subareastudy.com>
7. Receive Remaining Public Input
8. Closing/Open House

Ulteig

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ATTENDANCE ROSTER

PROJECT: Northwest Bismarck Sub-Area StudyMEETING LOCATION: Horizon Middle School, Bismarck, North DakotaDATE/TIME: Thursday, September 16, 2010 @ 5:30 PM

Name	Address
Roger Hagen	1932 North Grandview Lane
Bill Clairmont	1938 Santa Gertrudis Dr.
Dale Sandstrom	POB 144, B.S.
Cory & Lisa Ziegler	4210 Briarwood Pl Bis
Neil Madin	6815 Deerwood Ln Bes 58503
Russell Lorenz	1924 N Andrew Lane
David Farnsworth	1705 Santa Gertrudis Drive
Robert Tavel	3113 Jaytona Drive
Dennis Fried	511 64 Ave NW
Daniel A. Polk	1345 Territory Dr., BSMK

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Name	Address
Barb Rauhauser	1737 Pinto Place - Bis.
Bob Rauhauser	1737 Pinto Place - Bis
Kirk Pandolfo	921 Ash Coulee Pl. Bis
Arita & Chip Thomas	700 Mustang Dr. Bis
Lawrence & Rita Klemm	1709 Montego Dr. Bis
Phil Support	1240 Ash Coulee Dr. Bis
Mike & Laci Chamberlain	600 57 TH AVE NW Bis
Matt Burrethod	4815 Fountainblee Bis
Stephan Allen	2811 Domingo Dr. Bis
BEN EHRETH	BESMAREL - MANDAN MPO
WILLIAM BANDY	6375 CRESTED BUTTE BIS.
John Beck	4108 River Rd.
Kelly Jordan	618 W Interstate Bis

Please mail
material
58503
Thank



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Name	Address
Ron & Candy Riffey	519 Weatherby Way
Kevin Christ	6501 Deerwood Lane
Arnold Ritchie	6777 Sonora Way
James & Susan Jensen	626 Bearfield Lane
Scott Olson	513 Cottonwood Loop
Ingrid & Roger Bailey	4051 Sandy River Drive
GREG HUFFERMATH	2913 Kensters Dr.
Myra - Kyle Jensen	250 64 th Ave NW
Edo Bowers	200 Wilburss Guts Rd
Terry Sailer	1313 Restful Dr.
Mr. & Mrs. Ann C. Fisher	1949 Park Place
Dennis & Judy Durson	6331 SONORA WAY
George Keiser	422 Toronto Dr

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Name	Address
R W Robinson	2220 W HARBOR DR, BD
Lynn Glock	4814 Amberglow Dr
SCOTT Rising	905 DODGE Circle
ALAN WIKES	1749 PINTO PLACE
Darrel & Joan Scofield	1433 Ash Coulee Drive
Tom & Diane Jones	6145 Middlefield Rd, 58503
Jerry & Cindy Kemmet	2709 PROMONTARY DR. 58503
John Des Roches	624 Regina Lane
Luis VILELLA	1819 SANTA BERTRUDIS DR.
William Friedman	2840 Promontory Drive
Nancy Pandolfo	921 Ash Coulee Place
Jerry OLAFSON	2911 Remuda Dr.
Jerry & Deb Davis	1400 Territory Dr.

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Name	Address
Bob Rausch	1944 Mesquite Loop
Candee Christensen	3105 Morgan Circle
Chris Conley	3105 Morgan Circle
Byron Lannoye	1045 Restful Drive.
Xixi Burch	4210 Crestwood Dr.
Kandy Hauck	929 Mustang Dr
Steve Kahl	1734 Pinto Pl
Jerry Coleman	1729 Pinto PL
GARY Hoffa	6370 Prested Butte PL
Jason Doerr	1802 Hanford Ave.
James Hoffa	1420 E. Calgary Ave -
Keshleen Jones	Crestwood -
Don Jura	3425 Overlook Drive

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Name	Address
Lisa Cagle	1765 Pinto Pl
Greg Cagle	1765 Pinto Pl
Leonard Berger	130 64th Ave NW
Lang Hanson	1762 Pinto Pl
Myron ATKINSON	P.O. Box 1176, Bismarck
Doug + Kayla Mahowald	1910 Territory Dr.
Ed + Shirley Keller	1732 Golf Dr
Marcus J. Hill	Burleigh County
Meirva Engelhardt	4144 Selkirk rd
Red + Mary Anne Olsen	255 64 Ave NW Bra
Mary (Ginger) Siverson	1919 Assumption Dr Bismarck
Eric Thompson	4110 Chestwood Dr. Bismarck
Garnie Martin	640-64 / Ave NW Bismarck 58503

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Name	Address
DRAKE CARTER	537 JUNIPER DRIVE
HINDA AXTMAN	6340 CRESTED BUTTE RD
Mike PATTON	4807 Fernwood DR
DAVE PEARCE	5001 Fernwood Drive
DAN HANSENSON	300 Bucks. #2
CVNT WALSH	3040 Tyler Parkway
Bob Eastgate	2330 Tyler Parkway
Mark Liebig	3238 Impala Lane
Bill Gunnerson	811 Stagecoach Crde
Kevin Scherbenske	4201 River Road
Curtis Martin	640 64th Ave NW Bis
Cynthia Sandenberger	3705 Sandy River Dr.
David Kleppe	1309 Eagle Crest Loop.

PLEASE PRINT

Name	Address
Charles Justice	618 - W. Del Norte Ave
Casie Seaver	3620 Mountain St
Michelle Grunfelder	1707 Pinto Place
Bob Rauhauser	1737 Pinto Place
Philip Gentry	1757 PINTO PLACE.
Robert Schlaf f f	250 Buckskin Ave
Mark A Berg	7501 Northwood Dr
Scott Walker	6409 VALLEY VISTA LN
Arden Johnson	812 STAGE COACH BIS
Penny Fleckenstein	1300 Adode Dr.
SUSAN BOYCE	4345 WILDWOOD ST
Tim Bock	4413 Overland Road
LaDawn Fulk	6350 Crested Butte PL

64-D

PLEASE PRINT

Name	Address
Jerry & Joan Coleman	1729 Pinto Place



To: Project File – UEI Project No. 08.00357
From: Steve Windish, PE
CC: File
Date: October 5, 2010
Re: Northwest Bismarck Sub-Area Study
Summary of Public Input Meeting
September 16, 2010

A public input meeting was held on September 16, 2010 at Horizon Middle School. The meeting began at 5:30 pm with an open house. Attendees reviewed project displays and discussed project issues with staff. 119 property owners and business representatives were in attendance.

The formal presentation began at 5:45 pm. Steve Windish opened the meeting with introductions. Steve Windish went over some housekeeping items and stated the meeting purpose. The purpose of this public input meeting was to discuss review and receive public feedback on the draft Report.

Steve Grabill conducted the rest of the meeting. A PowerPoint presentation was used to present the following:

- a. Study Objectives and Major Issues
- b. Corridors that are Available
- c. Alignment Analyses
- d. Technical Responses to Past Input
- e. Corridor Evaluations
- f. Future Pedestrian and Bicycle Facilities
- g. Priority Corridors and Timing
- h. Recommended City Actions

The meeting was then opened to questions and comments from the public. The following questions or comments were made:

1. What is meant by “traffic calming”? More concerned about volume than speed.

Traffic calming includes various items including:

- *Traffic control*
- *Narrow intersections*
- *Speed bumps*

2. How wide will the road be? Concerned that it would get into their yards.

Don't want to preclude development due to roadway widths nor the opposite. The study did not take property limits into concern; a wider road may not be feasible at a later date.

3. Similar to the recent Washington Street reconstruction?

Yes, at such a time & need

4. Why is the corridor needed when existing 2 to 5 acres?

Legitimate question. The study does not state the roads are at this time. The Steering Committee recommended these alignments be maintained as they could be needed in the future if density increase enough to demand the roadways.

5. Zoning – is there a plan to change from the current zoning?

*Not at this time. Zoning doesn't change until there is a platting proposal.
Kim Lee – no plan in the next 20 years*

6. Traffic projections – are they posted?

These will discussed later in the presentation

7. Do we consider why people moved to the rural developments for the peace & quiet?

This is always a concern. Development changes things. The question is where the roads should go?

8. Is there a plan to move Horizon School?

No

9. Why not build the roads through the coulees?

There are issues of going through the ravines, including drainage, archeological resources, etc.

10. Are the roadways intended primarily for commercial or for overall?

The study did not distinguish between the two. Hard to know what will develop first. We can't foresee what will develop first, however, the roadways are designed to handle overall traffic types.

11. Could the commercial be moved or is it set?

This is a guideline, future development proposals will determine the actual location.

12. Who put the future commercial on the map?

A variety of groups were included in that study including city and county staff. The study included several sections of land in the extraterritorial area. Unlikely it will be entirely residential. There will likely be strip malls, neighborhood stores, etc.

13. Why not secure row on Highway 1804, Washington Street, they will need to be 4 lane in the future.

Agree

14. Have we considered proper sequence of traffic as it develops? Controlling the order of development is proactive when building roads.

It was discussed with Steering committee. City policy – start with a plat so there is someone to take the cost of the road construction. This policy may not always work in the study area. Developing funding mechanisms is part of the study.

15. Is the main objective of the study to find a way to service the floodplain area? Can't develop the floodplain until it is serviced.

Partly, we recognize there are a lot of areas that will need to be developed in the future. This study takes in the big picture.

16. What is r-o-w?

Typically 40' from centerline for collectors and 60' from centerline arterials. Some areas may need more due to grading needs.

17. Will the trees be taken?

If inside right of way the trees are typically removed. If outside existing right of way the trees are part of the negotiation.

18. Will there be annexation of Green Acres in the next 20 years?

We don't know.

Kim Lee – City doesn't forcibly annex. Annexation is usually requested by the residents.

19. What are the costs associated with annexation?

Desire to annex is usually to obtain city services. The lots are quite large in this area so the cost for specials for city services, i.e. water, sewer, streets, will be quite large. Property owners may want to consider sub divide the lots to reduce specials per lot.

20. Was state engineer involved? Will there be no future development along the river due to flooding.

Kim Lee – this is not to her understanding. The city just passed a new flood plain ordinance – 2' above BFE. There has been no direct conversation with the state water commission. The city did not receive comments on the new flood plain ordinance.

21. Impacting fire station and a house. Shift the alignment south would move it away from residential.

Any roadway crossing at Tyler Parkway must be relatively straight across, not too skewed. One concern would be if the stacking queues would make the fire station unusable. Another is the constructability of Burnt Boat near Chief Looking's village. We will take this to the steering committee

22. A lot of decisions have been made by people saying this is the way it's going to be based due to businesses and who owns what property. Are there engineering solutions like a bridge on piling, etc. for Burnt Boat issue at the Indian village?

Yes – anything can be engineered, but is it feasible?

23. There are other legitimate costs such as devaluation of the homes, etc. that will be expensive. Quality of life is missing as well as the social impact of Century Ave. extension. The homeowners cannot be assessed to pay for the project when the solutions have negative impacts.

Due to the costs of construction, a new way of paying for these projects will have to be developed by the City. Doing nothing is not a solution. All concepts have negatives, the study is to compare the alternatives try to make recommendations with the least impact.

24. Why was the fire station built there?

Do not know, coverage area may have been an issue. Coverage to central Bismarck could improve if it is move.

25. How far away from the backyards of Pinto Place will the new roadway be constructed?

Road would be about at the bottom of the slope

26. Both residences are unaware that the plan would be to take their homes, why were they not contacted? What is wrong with the Tyler Coulee alignment?

- *A group of people would be involved with the decision to contact the landowners. The decision is not final. It is never easy to discuss a possible project's impacts with specifics when the report is not complete.*
- *One primary issue is the cost is double 12x12 box culvert needed for most of the length of the corridor. FHWA will require this alternative to be brought forward.*

27. There are constructability issues on Tyler Parkway also. Recommend Tyler Coulee to receive additional review?

Yes, it will.

28. What is the bracket of time for future development?

There is no timeline for development. We do not know which areas are going to develop first. The City wants a plan to be prepared for when the area does develop.

29. What is the value of this study if there is no time?

We need to have a plan so the city can respond proactively. It is the intent that the entire are function as a whole, not piece meal like in the past.

30. It appears the decisions are predetermined.

31. Will there be parks and schools?

- *Yes, the Park Department is planning some kind of regional park. Problem is where to locate and how big.*

32. What is the projected traffic at Century extension?

- *12,000 ADT*

33. Is it reasonable?

- *Yes*

34. Years ago the State Water Commission said they couldn't develop behind the fire station and there was a need for an elaborate storm system for the drainage of Tyler Coulee – what happened?

Drainage is an issue as will also need to be study when the development occurs.

Who is going to pay for it?

If it is on the development, it would be the developer's cost. If it is a regional improvement, it is usually split to all in the watershed.

35. Century Ave. extension is intolerable, 12,000 vehicles in my backyard is unreal.

Please provide written comments so that we can forward to the City Commission and the steering committee. Also come to city council meeting at which time input will also be received.

36. There are currently two cars a day and you say there will be 7,000 cars a day.

The area will develop, and when it does, the model predicts that volume.

37. We don't want them on our road. In the end they (City Commission) will do what they (City Commission) want to do.

38. What is the timeline on Tyler Parkway/Century Avenue improvements?

No time line

39. Will the future planning and city commission meetings be posted in the newspaper?

They will be published as per the policy

40. Can you give us a list of developers Ulteig has worked for in the past 8 – 10 years in this area?

None

41. Is the Northern Bridge still a possibility?

Still a possibility but our study does not include that for traffic volumes.

42. Tyler Coulee/Tyler Parkway; either or both?

Recommendation in the study is to complete an environmental document. That document will decide either or none.

43. This report recommends what?

Tyler Parkway

44. Why is someone from Fargo completing this study, not someone from Bismarck?

- *Traffic engineer for over 20 years*
- *Performed many studies in the Bismarck/Mandan area*

Comments – fill out & submit today or send in via email or website by end of the month

After the presentation the attendees were invited to review project displays again and discuss project issues with staff.

The meeting was adjourned at 8:30 pm.

Joel Quanbeck

From: Shane A. Hanson <shanson@crowleyfleck.com>
Sent: Thursday, September 16, 2010 2:31 PM
To: Steve Grabill; Steve Windish
Subject: Comments from Subareastudy page

Categories: Filed by Newforma

Hello,

My name is Shane Hanson. I live at 1762 Pinto Place. Unfortunately, I am unable to attend the public meeting tonight to discuss the Draft Northwest Bismarck Sub-area Study ("Draft") due to prior commitments. I hope that you will allow this e-mail to be my public input on the Draft.

First off, I want to note that earlier this week, I talked with Steve Windish about the proposed changes to Century Avenue and Tyler Parkway. Steve was very informative, and I appreciated all of his help and answers. Even so, I still have significant concerns about the suggested changes to the Century Avenue/Tyler Parkway interchange. I realize the purpose of the study was to address current and future traffic needs including access to River Road. However, I feel the suggestion to extend Century Avenue to River Road is an overreaction and not needed (or at least not the easiest solution).

I have lived in my current home for 18 months. During that time, I have heard considerable moaning and groaning about traffic conditions around the Century Ave. /Tyler Parkway and the Burnt Boat Road/Tyler Parkway interchanges. However, here are my observations from driving it daily:

1. Traffic backs up going north on Tyler Parkway/Divide every week day at about 5:00 p.m. in the turn lane to Burnt Boat Road to the point that the turn lane is overfull at times and backs up the other lanes of traffic;
2. Traffic occasionally backs up on Tyler Parkway at the Tyler Parkway/Burnt Boat Road interchange from people going south on Tyler Parkway and turning right on to Burnt Boat Road (as they slow down to turn, traffic backs up);
3. Traffic backs up going north on Tyler Parkway every week day at about 5:00 p.m. at the intersection of Tyler Parkway and Century Avenue at the stop sign to the point of almost affecting the Tyler Parkway/Burnt Boat Road interchange;
4. It is often difficult during high traffic periods to turn left from Tyler Parkway on to Century Avenue.

Obviously, most of these observations occur during peak traffic times. Outside of peak times, traffic flow is generally not a problem at either interchange.

I realize that I am not an engineer, but rather than extending Century Ave., I would recommend the following to address current traffic flow issues:

1. Install a traffic light at the Century Ave./Tyler Parkway interchange (This would prevent backups on Tyler Parkway and would allow some control over the flow of traffic at the Tyler Parkway/Burnt Boat Road interchange);
2. Increase the length of the turn lane on Tyler Parkway/Divide for turning on to Burnt Boat Road (This would alleviate the issue of traffic backing up and affecting the northbound lanes and should be able to be accomplished as a wide median exists);
3. Install a turn lane on the southbound side of Tyler Parkway for turning right on to Burnt Boat Road.

I realize that these fixes are simply band-aids as the flow of traffic will increase as northwest Bismarck develops. However, these changes would have to be accompanied by the establishment of more roads in northwest Bismarck (to me, the purpose of the study).

The Draft suggests that Tyler Parkway be extended to Highway 1804. The Future Roads – Alt. #1 Map also suggests an east/west collector road to River Road along the north line of Section 24. Additionally, the Draft suggests an east/west arterial road along the north line of Section 13. These east/west roads connect the existing subdivisions along the river and when complete, would presumptively reduce the current traffic load on Burnt Boat Drive as property owners would have additional options. I don't think that the Draft fully factors in the effect of these roads on the future use of Burnt Boat Road. Regardless, I think that the Draft needs to include additional east/west roads to increase traffic options. I realize that terrain can be an issue, but the City/County should do what it can now to establish an east/west road just north of the existing Tyler Parkway and Clairmont developments from the extended Tyler Parkway to River Road – essentially add an east/west road. This road, by itself, would alleviate the need for extending Century Ave. Drivers would have two options on each side of the developments to drive to River Road. Further, the road would connect Tyler Parkway to Clairmont Road on the north side of the developments (this could also possibly be accomplished by extending Valley Drive to River Road). I hope that these options were also fully investigated.

Obviously, living at 1762 Pinto Place, the proposed extension of Century Avenue would directly affect me as I would literally have a road in my backyard (or real close). As stated in the Draft, the valley, (as we call it), is a beautiful addition to the city of Bismarck and identified as a green space/park in the Regional Future Land Use Plan. The Draft does, only in passing, address the effect placing a road in such a beautiful area. Also, the Draft does not fully factor in the effect of demolishing the fire station and the twin home. In passing, the Draft mentions the bottom line cost for the move. However, the fire station is fairly new, and the Draft does not take into account that taxpayers recently paid for the existing fire station. I don't think that the taxpayers should have to bear the burden of paying for the same fire station twice in a 20 year span. Additionally, the Draft clearly does not fully factor in the effect of displacing the resident(s) of the twin home. Finally, the Draft does not take into account the effect on the remaining homeowners. The owners on the south side of Pinto Place will be severely impacted by the road. Our cul-de-sac was developed in the early 1990's. The owners have peacefully existed for 25-30 years. However, the suggested extension of Century Avenue will destroy that peace as traffic will literally be yards away from many homes. The Draft does not take into account the loss in value of these homes, nor does it take into account aesthetics. It is my understanding that fences cannot even be built because of restrictive covenants (which is not addressed in the Draft). Will the city compensate the owners for loss in value?

Additionally, I have a problem with the process. I did not attend the public meeting last summer, but I read the minutes. The minutes indicate that no changes were contemplated for the Century Ave./Tyler Parkway at this time. Steve explained to me that initial plans were aimed at Burnt Boat Dr., so I have no problem with the public meeting minutes. However, it appears to me that, after the public meeting, Bill Clairmont (in what appears to be a private meeting) suggested using his land to extend Century Avenue. I firmly believe that if Bill Clairmont could have developed the valley, he would have developed the valley in the last 25-30 years. As a generally axiom, good business people don't let business opportunities go to waste, and they don't suggest changes unless they benefit. In my opinion, Bill Clairmont is a good business person. From my observations, the water table in the valley is very high, and the valley may even contain springs. To me, Mr. Clairmont's proposal was self serving as he will now be compensated for land that he, at a minimum, has been unable to develop in the past. Also, he will likely financially benefit because his Clairmont subdivision will have better access making the sale of lots more attractive. Further, it simply troubles me that, at least in part, Mr. Clairmont is responsible for traffic problems as he developed much of the area west of Tyler Parkway.

Finally, from the Draft, it is unclear if the committee adequately investigated the possibility of connecting Century Avenue to Burnt Boat Drive. The City has the authority to take properties for road purposes. Most of the commercial properties between Century Avenue and Burnt Boat Drive were recently built. Instead of taking these recently developed commercial properties, it appears that the committee felt that it was better to damage a 25-30 year old housing development. I don't really like the idea of taking any properties to fix road problems that have existed for years (and should have been dealt with in the development stage), but I don't know why the committee did not fully

investigate the possibility and cost of moving Century Avenue south to line up with Burnt Boat Drive or moving Burnt Boat Drive a little north (the funeral home, Bis-Man visitors center, bank, etc.) and move Century Avenue a little south. On this point, Steve indicated to me that Burnt Boat Drive is not a viable road project because it cannot be expanded due to the existence of Native American artifacts. However, I don't understand why Burnt Boat Drive needs to be expanded. The only two turns are Clairmont Road and River Road. With only two turns, two lane traffic should be adequate. Further, it is my understanding that necessary turn lanes and traffic lights could be added as long as the Native American artifacts are not disturbed (Otherwise, a road could not go through the suggested route in the valley as Native American artifacts have been found in the valley.) Also, the additional suggested east/west roads will presumptively ease traffic on Burnt Boat Drive.

I apologize for the rambling nature of my e-mail. As with most government issues, I initially did not want to be involved. I always hope that my duly elected officials will act wisely in their representative capacity and protect the interests of all of the citizens. However, when my neighbors knocked on my door last weekend to discuss the proposed road, suddenly I wanted to be involved (at the eleventh hour) and now have numerous suggestions. I hope that, at a minimum, my e-mail is shared with the committee and the city commission and, at the very least, my thoughts considered.

Please feel free to call or e-mail if you have any questions or concerns.

Thank you very much,

Shane A. Hanson
400 East Broadway, Suite 600
Bismarck, ND 58502
voice 701.223.6585 fax 701.222.4853

From: Charrier, Janna R. <jacharrier@nd.gov>
To: Steve Windish
Sent: Thu Sep 16 16:22:02 2010
Subject: Comments from Subareastudy Page

To whom it may concern:

My husband and I both STRONGLY oppose the roads that are being proposed for our development. They would bring a great deal more traffic and we'd become the "shortcut" between Highway 1804 and Washington Street. There would also be lots of traffic on the other roads that are being proposed in our development as well, which would greatly impact the lifestyle we have chosen in our area.

One of the reasons we chose to live out of the city limits is the seclusion that our neighborhood offers. It's peaceful without the noise and hassles of additional traffic. Children can play in the neighborhood without fear of being hit by a car. Right now, everyone who drives into our development either lives there or is going to visit someone who lives there. People drive very slowly because they know that kids will be playing outdoors in this area. They know these kids as well as their parents and drive slowly to protect them. If the proposed roads were built, we would lose all of that. In other areas of the city, drivers drive way too fast, especially on main arteries or "shortcuts". Additional police monitoring can only do so much, and drivers continue to speed dangerously fast. This would be extremely dangerous for kids and the large numbers of adults who go walking in our development.

We have a small-town feel to our development. People know each other and are familiar with who drives what kind of vehicle. If there's a strange vehicle in the neighborhood, our neighbors all watch out for each other by monitoring where that vehicle is going and if they seem to be in the area for legitimate reasons. With the proposed new roads, we would lose that as well. None of us can monitor all of the cars that would be coming through on a daily basis. Looking out for each other would no longer be possible on the same level.

When we bought our house, we bought peace, quiet, solitude, and seclusion in the development that we chose. That is what we continue to want for our area. We don't want our development to be linked with other developments or main artery roads. We don't want ANY additional roads in our area. The minute or two that it might take off of our drive into town is NOT worth what we will be forced to give up if these roads are built.

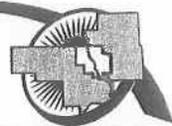
Please do not build these proposed roads. While I certainly understand the need to manage traffic, putting children and adults in danger from that additional traffic would completely defeat that goal. Again, I cannot not overstate this, my husband and I STRONGLY and VEHEMENTLY OPPOSE this project and hope these roads are not built.

Thank you for the ability to comment on this issue.

Janna Ronsberg
1209 Restful Drive
Bismarck, ND



Bismarck-Mandan



METROPOLITAN PLANNING ORGANIZATION

September 16, 2010

COMMENT CARD

(Please return by September 30, 2010)

PUBLIC INPUT MEETING: Northwest Bismarck Sub-Area Study

NAME (please print): Lisa Cagle

ADDRESS (please print): 1765 Pinto Pl

(Comments may also be submitted by email to: Steve.Windish@ulteig.com)

I wish to offer the following comments: In an effort to affect as few residential houses and businesses as possible, I would suggest bringing Century through the North end of the Lowe's parking lot (since their lot is big enough to handle a reduction in size) and coming down the road past McDonald's (I'm not familiar with the name of this road). This would affect the current cell phone store, but that would be the only majorly affected business. From here, I suggest that Burnt Boat Drive be built up on the north side to make it a larger road. This would be building up the road away from the Indian chef's Park and avoid building close to existing houses and even removing houses. This would close off, or limit, the traffic

Please leave your comment sheet with us tonight or mail your comments by September 16, 2010 to:

over.

J. Steven Windish, P.E.
 Ulteig Engineers, Inc.
 1412 Basin Avenue
 Bismarck, ND 58504

problems at the light railway / utility inter station.

By not sending Century Ave through the backyards of
Rite place, it would avoid lowering property values
of those houses. Also, since creating a Century Ave

extension would require great drainage and land preparat
costs, I feel that building up Burnt Boat Road would
be equal if not less than in terms of cost, engineering,
and land preparation.

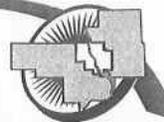
Finally, I would like to say that, as a home
owner on Rite place, there's seems to be a double

usurp on us, so to say. We would have reduced
property values and increased taxes in the form of specials.
I would greatly appreciate if those on the planning and

steering committees would consider some alternatives to
their current proposals.



Bismarck-Mandan



METROPOLITAN PLANNING ORGANIZATION

September 16, 2010

COMMENT CARD

(Please return by September 30, 2010)

PUBLIC INPUT MEETING: Northwest Bismarck Sub-Area Study

NAME (please print): Barb + Bob Rauhauser

ADDRESS (please print): 1737 Pinto Place Bis. ND 58503

(Comments may also be submitted by email to: Steve.Windish@ulteig.com)

I wish to offer the following comments: For the record we HATE the idea of a

busy road in our backyard! We live in a great,

safe, relatively quiet neighborhood! We are concerned about

property values, safety, privacy! Just because its good for

Bill Cloumont doesnt mean its good for everyone ~

We hope you would think of the people of kids in our

neighborhood, our houses + property! We actually care

about those things unlike Cloumont who is just

thinking about development to profit himself + his

family - Whos daughter actually lives on over

District!!

Remember there is water on our side of the

Coulee too!! Basically your minds are made up

and that stinks!! Why the meetings? Word is you

already have a new location for the firestation!!

Please leave your comment sheet with us tonight or mail your comments by September 16, 2010 to:

J. Steven Windish, P.E.
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504

From: Alan Lukes [mailto:lukesac@bis.midco.net]
Sent: Friday, September 17, 2010 8:19 AM
To: Steve Windish
Subject: Comments: Public Hearing - Northwest Bismarck Sub-Area Study
Importance: High

September 17, 2010

Mr. J. Steven Windish, P.E.
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504

Dear Mr. Windish:

Last night was my second opportunity to participate in a public hearing on the referenced study. It was evident that Ulteig Engineering was surprised by the very large audience turnout and by the overwhelming audience opposition to your draft plan for traffic flow-pattern improvements in NW Bismarck. Disturbingly, it was also evident that you and your firm have almost totally disregarded the socio-economic impact of the proposed "improvements" on the residents affected by your new street routing layout. In addition, and disturbingly, you made numerous technically (and economically) unsubstantiated assertions on what "can and can't" be done to improve traffic flow on existing streets such as Burnt Boat Drive. Furthermore, you have completely failed to consider the huge negative impact on both quality of life and property value of your proposal to extend Century Avenue across what is now a Bismarck Fire Station and down into the valley below. The estimated 12,000 vehicles you cite who would use this new road each day would make living next to such a street virtually a nightmare. This new extension of Century would pass directly behind the back yards of six Pinto Place residences (including mine), and would call for the demolition of a "double" residence behind the fire station.

Were you to factually consider the diminished real estate value of the Pinto Place homes who would now be abutting against the new road, together with relocating a fire station and razing the existing "double" home, and considering the high cost and technical challenges of building anything through the marshy wetland you propose, your findings would doubtless show that a lot of money could be spent on widening Burnt Boat Drive and still come out economically ahead for the City of Bismarck taxpayer.

To add insult to injury, the residents of Pinto Place would now have to share the burden of increased taxes to pay for the improved Century Avenue – all this while their property value and resalability is vastly diminished – not to mention the resulting noise, dust, and scenic destruction created by the new street extension.

I realize you have responded to some sort of Study Goals Request from the City of Bismarck. Nevertheless, your draft work product (as shown online at <http://subareastudy.com>, and as you presented it last night at Horizon School), is not an engineering work product you should be proud of. It is amateurish – at best. I truly hope that our City Commission will nix a large majority of your firm's

study and consider reletting a new traffic study of NW Bismarck – definitely to another firm who would exhibit more competency in their work.

Sincerely,

Alan Lukes
1749 Pinto Place
Bismarck, ND 58503

701-221-0502
701-220-2615 (cell)

cc: Mayor Warford/Bismarck City Commission

From: Mike Patton [mailto:mike.patton@mmeinc.com]

Sent: Friday, September 17, 2010 8:51 AM

To: Steve Windish

Cc: YESATS@aol.com

Subject: proposed road change on Fernwood

was thinking about this on the way home lat night it should be real easy for you to check seeing as you guys Uiteig did all the land platting and plotting so that should be in your archives somewhere ? approx 7 or 8 years ago ?

From: Cagle, Greg [mailto:gcagle@primecare.org]
Sent: Monday, September 20, 2010 8:02 AM
To: Steve Windish
Subject: Century Ave Ext Recommendation

Dear Sirs or Madam:

Growth is immanent, new roads will eventually be built, and cities will expand. After attending the meeting last night on the engineering report (9-16-10) at Horizon Middle School, I was very upset, dismayed, and felt betrayed by Ulteig Engineering.

I moved back to Bismarck to get away from a large city and the excessive noise of traffic. I knew that if I bought in a developed area I would not see much change and the noise patterns would not change much. My home is 20 years old and the neighborhood is established with parks, a fire station, stores, and basically a gulley / water run-off area behind my home. In my wildest dreams I never thought there would be consideration of placing a major arterial down behind the Pinto Place homes.

Now there is an Engineering company that wants to put a large arterial just feet from my back property line; of course I reference extending Century Ave through an existing, already paid for fire station. Of course you don't care what I paid for my property, or what that will do for our neighborhood. I am extremely disappointed and saddened at the fact that the city would allow a major street to come so close to our homes, considering the neighborhood is already developed. I want to know what type of engineering school would teach such poor concepts. I hope you can sleep well at night with your recommendations. How would you feel if you owned a home in a developed neighborhood and I ran a road next to your back yard?

My second concern is that by bringing more traffic down Tyler Parkway, and more traffic up Century and placing a four-way stop light at Tyler Pkwy and Century the back-up will likely make it extremely challenging to get out of our land locked cul-de-sac as we are only a half a block off the intersection corner. Is there any consideration of the implications of traffic being backed up at this light?

Third Concern: The CC&R's do not allow for fences on our properties. Thus blocking the sound is of concern, but even a greater concern is the kids we have that slide down these hills to play. I count at least 6 kids that regularly play back in the cul-de-sac and no fences along the ridge mean danger below with higher speed traffic and no fences.

Fourth Concern: The water run off down in this area is large. The owner of the land below Pinto Place has dug a massive trench to try to manage the water run-off. Ice and water run off in this natural run-off / natural spring area will be of significant concern for people trying to drive up this hill in the winter.

Truth be known, who wants a road at their back door, much less a busy road? I am extremely disappointed in the recommendations of Ulteig Engineering.

The current traffic patterns don't seem to justify a major artery extension of Century Ave, much less the associated expense. The sentiments up and down the area are the same. No one wants the noise or the expense associated with such a large invasion.

Respectfully,
Greg Cagle, Concerned Owner / Citizen

From: Tom Jones <tjones@cdln.info>
To: Steve Windish
Sent: Mon Sep 20 11:38:14 2010
Subject: Comments from Subareastudy Page

From: Tom and Diane Jones
6145 Middlefield Road
(Green Acres)
Bismarck, North Dakota 58503-8242
(701) 258-1776

Please attach to the public record from the September 16, 2010, meeting at Horizon Middle School. We appreciated the meeting and the opportunity for public input. THANK YOU.

As long-term residents of this subdivision, we too are NOT IN FAVOR of extending 64th Avenue west of Middlefield Road. We are in agreement with the several speakers who voiced this concern. However, if at some future point, this connection should be deemed necessary for public safety reasons, etc, we will support it with TRAFFIC CALMING FEATURES being incorporated to reduce cut-through traffic flow.

We are not in favor of any general commercial development west of Crested Butte subdivision; it would seem highly out of character with the residential flavor of the area. It would be much preferable to open land . . . as at present.

We DO FAVOR ACTION to install a traffic signal at Washington and 43rd. This seems an unnecessary hazard and aggravation to area residents traversing the intersection and daily Horizon Middle School traffic. This has been UNDER DISCUSSION far too long.



Bismarck-Mandan

METROPOLITAN PLANNING ORGANIZATION

September 16, 2010

COMMENT CARD

(Please return by September 30, 2010)

PUBLIC INPUT MEETING: Northwest Bismarck Sub-Area Study

NAME (please print): Kelly + Dee Bertch

ADDRESS (please print): 6675 Sonora Way, BB

REC 001
SEP 1 2010

(Comments may also be submitted by email to: Steve.Windish@ulteig.com)

I wish to offer the following comments: We are new to our home + purchased out here for the low traffic + peace + quiet of a rural area.

Please reconsider giving public access to our development from the east + south. At this time there is sufficient access from Washington St + Hwy 83. (via 1804)

We do not want to be annexed to Bismarck because another reason we moved out here is for lower property taxes. Thank you for your consideration of keeping Crested Butte subdivision quiet + traffic free.

Dee + Kelly Bertch

Please leave your comment sheet with us tonight or mail your comments by September 16, 2010 to:

J. Steven Windish, P.E.
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504



Bismarck-Mandan

METROPOLITAN PLANNING ORGANIZATION

September 16, 2010

COMMENT CARD

(Please return by September 30, 2010)

PUBLIC INPUT MEETING: Northwest Bismarck Sub-Area Study

NAME (please print): _____

ADDRESS (please print): _____

(Comments may also be submitted by email to: Steve.Windish@ulteig.com)

I wish to offer the following comments: We are against the ~~to~~ Tyler Coulee Alignment option. Traffic would come very close to the backs of existing housing near Valley Drive at the bottom of the coulee. The cost would be substantial due to water issues.

The hillsides already show signs of sliding. Clairmont Road already is meant to serve much of the area - why the need for two such closely placed roads for major traffic?

William Riedman

721-391-5054

2840 Promontory Drive

Please leave your comment sheet with us tonight or mail your comments by September 16, 2010 to:

J. Steven Windish, P.E.
Ulteig Engineers, Inc.
1412 Basin Avenue
Bismarck, ND 58504

From: Ardie Poppe <apoppe@weareamerican.com>
To: Steve Windish
Sent: Mon Sep 20 12:10:26 2010
Subject: Northwest Bismarck Sub-Area Study

Steve,
Attached please find our comments regarding this project!

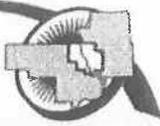
Ardie M. Poppe
Trust Officer
American Trust Center
320 North 4th Street
Bismarck, ND 58502-2197
Ph # 701-355-4828
Fax # 701-355-4822
apoppe@weareamerican.com
www.weareamerican.com

Please be aware that I can not process any trade requests communicated via email.

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Bismarck-Mandan



METROPOLITAN PLANNING ORGANIZATION

September 16, 2010

COMMENT CARD

(Please return by September 30, 2010)

PUBLIC INPUT MEETING: Northwest Bismarck Sub-Area Study

NAME (please print): Ardie & Jerry Poppe

ADDRESS (please print): 16809 SONORA WAY BISMARCK, ND 58503

(Comments may also be submitted by email to: Steve.Windish@ulteig.com)

I wish to offer the following comments: We see no reason to have Sonora way used as a collector road when there is Washington street and the proposed 15th St NW as arterial roads. Why would you need another road between these two roads? Especially putting it through a subdivision. Our subdivision is a nice quiet "safe" place where adults, children + pets can walk, run, bike or cross the street without the worry of being hit by fast moving traffic. We live out here to avoid town traffic.

Please leave your comment sheet with us tonight or mail your comments by September 16, 2010 to:

J. Steven Windish, P.E.
 Ulteig Engineers, Inc.
 1412 Basin Avenue
 Bismarck, ND 58504

From: Papaspumpkins@aol.com [mailto:Papaspumpkins@aol.com]
Sent: Sunday, September 19, 2010 10:55 AM
To: Steve Windish
Subject: Northwest Area Sub Area Study

Steve:

Regarding recommended alignments:

.....specific to Fernwood Drive (section between Burnt Boat and Sandy River Drive)

What please is the rationale for abandoning the current and established Fernwood Drive and proposing the 90 degree turn east at my southern boundary? Why would you not connect at what would become the new intersection?

Property owners Michael Patton and I agree this is not acceptable.

Thank you,

David Pearce

Joel Quanbeck

From: Steve Windish
Sent: Wednesday, September 22, 2010 8:28 AM
To: Papaspumpkins@aol.com; mike.patton@mmeinc.com
Cc: Steve Grabill
Subject: RE: (no subject)

Categories: Filed by Newforma

We do our best to make sure that graphics accurately represent the details of each concept that is being portrayed. Sometimes, things can slip through the cracks and errors are caught during the review process. This is one of the reasons we provide extensive opportunities for many people to review the draft Report. We appreciate your input and make every effort to quickly respond to identified errors when they are found.

J. Steven Windish, PE
Associate Vice President
1412 Basin Avenue • Bismarck, ND 58504
Direct: (701)355-2333 • Mobile: (701)333-8794
Steve.Windish@Ulteig.com
<http://www.ulteig.com>

From: Papaspumpkins@aol.com [mailto:Papaspumpkins@aol.com]
Sent: Tuesday, September 21, 2010 4:58 PM
To: Steve Windish; mike.patton@mmeinc.com
Cc: Steve Grabill
Subject: Re: (no subject)

Thanking you for your letter.
How does/did such a mistake come to be?

In a message dated 9/21/2010 3:40:21 P.M. Central Daylight Time, Steve.Windish@ulteig.com writes:

Mr. Pearce and Mr. Patton

In follow-up to our conversations at the public input meeting on Thursday September 16, 2010, and emails received since then, we reviewed the plat for Double P Subdivision. The location we indicate Fernwood Drive turning east to the section line is not a platted roadway, as you had stated. We have revised the drawing with Fernwood Drive continuing south and making the perpendicular intersection with the section line near the southerly point of Lot 4. Please see the attached drawing.

If you have any other questions or concerns, please don't hesitate to contact our office.

From: linda axtman [mailto:lindaaxt@yahoo.com]
Sent: Thursday, September 23, 2010 4:36 PM
To: Steve Windish
Subject: Northwest Bismarck Sub-Area Study

Steve

My comments on the Northwest Bismarck Sub-Area Study.

1. Widen Highway 1804 from River Road to Highway 83----4 lanes.
2. Widen Washington Street from Calgary to Highway 1804----4 lanes.
3. Do not put a collector road on 64th Avenue NW. The road would be right into peoples front doors. Also this would be a cut off from 1804 to Washington Street and bring a lot of traffic into this residential area. Use rather 57th Avenue NW. These lots are larger and would hopefully not be as intrusive to home owners. Put this road in now so that future homeowners would know what to expect as they buy lots to the west.
4. On the proposed commercial area on Highway 1804.
 - a. Highway 1804 is a scenic route so adds value to the area with it's openness and beauty. Not ugly strip mall please.
 - b. If a commercial area is coming then make it really attractive to residents....something like Arrowhead Plaza. A drug store, a pharmacy, a bank, a dry cleaners, a grocery store, a post office, a branch library etc. People in this area could then walk to this Plaza.
 - c. Even better, make the Tyler Parkway, Clairmont Road go north to the 21 Street NW and where they meet 57 Avenue NW (or a little north or south of this) put the Plaza there. Away from 1804.....maybe add an outdoor amphitheater and green spaces or a park so that this corridor fits with the natural topography. Start planting trees and making this roadway now so that people know when they buy what's coming. Make a underground bike/walk access under 1804 to connect so that people north of this highway can walk to the Plaza.

Thank you for your consideration.

Linda Axtman
701.223.2402

Joel Quanbeck

From: Steve Windish
Sent: Monday, October 04, 2010 11:03 AM
To: linda axtman
Cc: Steve Grabill
Subject: RE: Northwest Bismarck Sub-Area Study

Categories: Filed by Newforma

Ms. Axtman

Regarding your request for a schedule of when the study will be presented to the various city and county commissions, we would like to hold our response for a short while. Ulteig will be meeting with City and MPO staff near the end of the week to discuss input received at and since the Public Input meeting. There may be a chance that additional analysis will be completed, which may result in a change in the project schedule.

If you have any additional questions or concerns, please don't hesitate to contact our office.

J. Steven Windish, PE
Associate Vice President
1412 Basin Avenue • Bismarck, ND 58504
Direct: (701)355-2333 • Mobile: (701)333-8794
Steve.Windish@Ulteig.com
<http://www.ulteig.com>

From: Lon Romsaas [mailto:lromsaas@swensonhagen.com]
Sent: Tuesday, September 28, 2010 1:56 PM
To: Steve Windish
Cc: Bill Clairmont
Subject: Northwest BismarckSub-area Study Traffic recommendations

Steve

Good afternoon Steve.

Bill Clairmont asked me to contact you to see if we could set up a meeting within the next 2 to 3 weeks to review some of the recommendations in the draft report.

In particular, the Tyler Coulee Corridor. Apparently, Steve Grabill, did not have a total grasp on what we had suggested as an alternate route.

The statement regarding the over one mile of 12 foot by 12 foot double box culvert leads us to believe that he envisioned a different route.

Can you get back to Bill and I on what would be a good time to meet. If Steve Grabill is scheduled to be in town that would work also.

Lon

--

Lon Romsaas
Swenson, Hagen & Co.
909 Basin Avenue
Bismarck, ND 58504
Ph: (701) 223-2600
Fx: (701) 223-2606

From: Joan Coleman <jcoleman38@bis.midco.net>
To: Steve Windish
Sent: Thu Sep 30 07:32:20 2010
Subject: Northwest Bismarck Sub-Area Study

Jerry and Joan Coleman
1729 Pinto Pl
Bismarck, ND 58503

We wish to offer the following comments:

- While we can see the need for managing the traffic flow in the Northwest sub-area, we are not at all in favor of the Century Avenue Extension.
 - The fire station and twin home directly borders our backyard. Replacing them with a through street directly impacts our quiet, safe environment and devalues our property. It displaces our twin home neighbors and eliminates the opportunity to enjoy our back yard.
- The Tyler Parkway expansion and Century Avenue extension will dramatically increase the speed and quantity of traffic through a residential area. We hope that solutions considered will remain focused redirecting traffic flow to areas that were designed to handle it.

From: sandstrom@bis.midco.net <sandstrom@bis.midco.net>
To: Steve Windish
Sent: Thu Sep 30 16:44:46 2010
Subject: Northwest Bismarck Sub-Area Study

Here are my comments.

Ulteig / Bismarck-Mandan / Metropolitan Planning Organization
Follow-up to September 12, 2010, Public Input Meeting:

Northwest Bismarck Sub-Area Study

Comments

Name: Dale Sandstrom

Address: P.O. Box 144, Bismarck, N.D. 58502

I live in the area of the proposed Century Avenue extension and offer the following comments:

The Northwest Bismarck Sub-Area Study plan presented at the September 16, 2010, Public Input Meeting is seriously flawed and should be returned for further work. The proposal is inconsistent with good urban planning, and the options have not been sufficiently considered.

The Problems

1. The process has been too much of an insider's game. At the public meeting, it was asserted that all the "key stakeholders" have been consulted. But no one had contacted the people whose homes are to be torn down. No one had consulted the people on Pinto Place who are to have an expressway running through their back yards. No one had consulted Parkway Funeral Service, whose mourners will be assaulted by the noise of the planned expressway.
2. A principle of good urban planning is that people know where the major streets and roads are going so they can decide where to build or buy homes. The proposed Century Avenue extension violates this principle. It is unreasonable to locate a major expressway through the back yards of those living on the south side of Pinto Place. It is unreasonable to tear down people's homes. It is unreasonable to tear down the almost new Northwest Fire Station.
3. The proposed extension of Century Avenue will run through a quagmire. There are huge water problems heading down in the bottomland. There are places where there should not be construction. This is one of them. It is not reasonable to spend at least \$20 million to build a road through this area. (The would-be developer of this land previously had a

proposal to assess all the people in the area to pay for water-control costs so this land could be developed. The proposal met with overwhelming public resistance. This proposal looks like it could be a Trojan horse to accomplish this goal.)

4. The proposed extension of Century Avenue will make ingress to and egress from Pinto Place a virtual impossibility. There is just not enough distance between Pinto Place and the proposed extension of Century Avenue.
5. The proposed abandonment of completion of the Ash Coulee Drive arterial will make problems worse. The approved May 2005 River Road Study Report established the planned Ash Coulee arterial. Construction along Ash Coulee, Washington, 43rd Avenue and State Street has all been predicated on this arterial. The 57th Avenue arterial should be built. But the proposal presented would have no arterial between Century Avenue/Burnt Boat Drive and 57th Avenue. This would be approximately two miles between arterials. This is vastly too far apart in a developing part of town. This will have the effect of forcing even more traffic onto other roads and streets. People who want to take their children to middle school, who want to go to the churches along north Washington Street, or who want to get to Highway 83/State Street will be forced into bottlenecks instead of the solid urban planning design of providing multiple and more direct routes to dissipate traffic.
6. The plan will create a major bottleneck, particularly near the current intersection of River Road, Burnt Boat Drive, and Clairmont Road. Not everyone who wants to go east from the area near the river wants to go to the Interstate, but the plan will force them onto the planned bottleneck.
7. I understand that Todd Sando, the State Engineer, State Water Commission, told the Bismarck Lions Club a few weeks ago that the major flooding of the Missouri River experienced by the City of Bismarck in 2009 is not an anomaly and that such flooding is going to be common and more serious in the future because of the sedimenting out of Lake Oahe. I understand he said there should not be further building along the river. The potential of huge governmental costs to defend against flooding has not been considered in the Northwest Area Study.

What Can be Done?

1. All options must be considered with **all** the “stakeholders” involved.
2. Enhance Burnt Boat Drive to better handle the traffic. Although Chief Looking Village is located above, the construction of the original Burnt Boat Road ended the archaeological integrity of the terrain above and below it. (The City Planning office was unable to provide any documentation about the alleged impossibility of this option.)
3. Connect Burnt Boat to the existing Century Avenue by expanding and making the turns more gradual using the current 15th Street.
4. Complete, not abandon, the approved Ash Coulee arterial. This will help dissipate traffic and minimize the huge bottleneck.
5. The traffic problem at Horizon Middle School needs to be dealt with. Completing the approved Ash Coulee arterial will actually help by providing additional and more direct routes to the school. The traffic at Horizon should be less than that by Century High School, and can be effectively dealt with in the same manner: turning lanes and a traffic signal that will “platoon” traffic, making left turns possible. If the traffic numbers do not justify “full-time” traffic control signals, the signals could operate during morning and afternoon rush hours and could be turned to flashing red one way and flashing yellow the other way for the rest of the time. In addition, the City’s proposed connection to Medora Avenue from the east side of the school property has merit in providing an additional direction of travel.
6. Although much less desirable than the Burnt Boat connection and upgrade, the connection of Century Avenue to Golf Drive, as proposed at the public input hearing by engineer Steven Kahl, would be far superior to the proposed extension of Century Avenue through the Fire Station and the twin homes. It would provide a buffer from the yards of the families who live on the south side of Pinto Place. It would permit ingress and egress to Pinto Place. It would not require tearing down the Northwest Fire Station, and it would not require tearing down people’s homes.
7. The proposed Northwest Bismarck Sub-Area Study proposal should not be approved. It should be sent back for additional broad-based public input and further study by this or another group.

September 30, 2010

From: Serina Kinzler [mailto:skinzler@btinet.net]
Sent: Thursday, September 30, 2010 10:14 PM
To: Steve Windish
Subject: NW Bismarck subarea study

September 30, 2010

Mr. Windish, I am emailing you to let you know my opinion on the road proposal in the NW Bismarck subarea study; I am very opposed to our subdivision being drawn into future city limits. I realize road planning is important and infrastructure as well but if this proposal would increase the likelihood of Crested Butte area becoming part of Bismarck city I am opposed. Thank you for taking my comments.
Serina Kinzler 6355 Valley Vista Lane 701-226-2214

Poor planning hurts Bismarck

By PHILIP GATTEY Bismarck | Posted: Sunday, October 3, 2010 2:00 am | [\(3\) Comments](#)

The public meeting at Bismarck's Horizon Middle School recently came up short, not enough handout copies, no microphone for the public, but lots of platitudes — a fine speech but a faulty premise.

Ulteig Engineering and the developers behind them want to build a road to carry 12,000 vehicles per day 50 yards from our back lawns, down a steep slope to River Road, with a roundabout on top. We will lose our fire hall and probably the funeral home and the homes in the coulee, for an icy winter arterial to the flood plain. But why?

Because they want to develop the flood plain, from the Interstate 94 bridge to Double Ditch, and no one thought of that before all access was developed and sold in the highlands to the north.

Someday, there will be a new bridge, from Highway 1806 north of Green Acres to the highway west of Mandan, that will serve the people who choose to live on a flood plain. (Remember the ice jams and floods?) but in the meantime, our neighborhood and our peace are threatened by the haste and the imprudence of developers who just didn't think.

From: Al/Jane Frank [mailto:franka@bis.midco.net]
Sent: Monday, October 04, 2010 9:01 PM
To: Steve Windish
Cc: franka@bis.midco.net
Subject: Northwest Bis subarea study

To: J. Steven Windish, PE-Ulteig Engineers

From: Al Frank
1801 Santa Gertrudis Dr
Bismarck, ND 58503
255-1437

Subject: Public Input Meeting
Northwest Bismarck Subarea Study

I was out of town on the Sept 16, 2010 meeting. I called you today and you said I could provide my thoughts on the study yet this week. Thank You for that. I am a long time resident of the area and have attended all public meetings starting with the 1992 meeting at Centennial School. I also have been active with the Tyler watershed Study. The following are my thoughts:

1. The Tyler-Century-Divide system is a very small area that has created bottlenecks in traffic flows. The factors creating problems are obvious-simply put the current layout is just a bad design. Given that I suggest that trying to change the Century-Tyler alignment will only create more problems. Such as-there is not sufficient space between traffic lights, stop signs, and accesses to realign Tyler-Century. Thus eliminate the Tyler-Century interchange and move Century in-some-way directly onto Burnt Boat. That will result in ONLY ONE traffic light and major intersection, save the expense of removing the fire station, part of the funeral home, and a residence. I hope moving Century to Burnt Boat is given much consideration.
2. It seems that most of the buildup of the river valley will be north of Sandy Lane, thus why not move that traffic east to either Washington or all the way to State St. Dumping it into the Tyler-Century-Divide-Burnt Boat area could bottle neck that area even more in the next 20-40 years. Extending Golf Dr may only decrease the flow of traffic from the river bottom, seems that Golf-Tyler and Burnt Boat-Tyler intersection would be to close to move traffic efficiently.
3. Your report suggested making Tyler a 3 lane road. This seems unreasonable as Tyler-after the intersection with Century-goes through only residential areas. Making it 3 lanes would not be fair to those now living on Tyler. I suggest that Tyler be terminated at Tyler Coulee to reduce some traffic on the Tyler-Century area. What I'm trying to say is that the Century-Tyler-Divide, etc area was never designed to handle high traffic numbers and I see little chance to redesign it to do so in the future.
4. Solving the Century-Tyler-Burnt boat-Divide will be complex. Your report is a good starting point. After my rambling above my final suggestion is to leave the fire station as is, forget about extending Golf Dr., think seriously about the Century-Burnt Boat possibility, and find a way to move some of the north river bottom traffic to Washington or State St.

Joel Quanbeck

From: Steve Windish
Sent: Thursday, October 07, 2010 10:45 AM
To: dmattern@nd.gov
Cc: Steve Grabill
Subject: RE: Comments from Subareastudy Page

Categories: Filed by Newforma

Mr. Mattern

We are still processing the summary report. It will be completed in the near future.

J. Steven Windish, PE

Associate Vice President

1412 Basin Avenue • Bismarck, ND 58504

Direct: (701)355-2333 • Mobile: (701)333-8794

Steve.Windish@Ulteig.com

<http://www.ulteig.com>

From: Dan Mattern [mailto:dmattern@nd.gov]
Sent: Thursday, October 07, 2010 9:07 AM
To: Steve Windish
Subject: Comments from Subareastudy Page

Is there a summary report of the Sep 16 2010 public meeting?

From: Lon Romsaas [mailto:lromsaas@swensonhagen.com]
Sent: Thursday, October 07, 2010 1:00 PM
To: Steve Windish; Bill Clairmont
Subject: Bismarck traffic study Northwest area.

Steve

Could we arrange for the meeting on Thursday, October 21 at 1:30 pm? If not please suggest a date.

Bill would like to review the following-

A) can we see the route that required a mile of the box culverts for the Tyler coulee alternative.

B) can we see the proposed road connection for golf Drive;Clairmont Road and Burnt Boat Drive along with how the storm water piping would be adjusted in that area We appreciate any time and information that you can give us.

Lon

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Lon Romsaas
Swenson, Hagen & Co.
909 Basin Avenue
Bismarck, ND 58504
Ph: (701) 223-2600
Fx: (701) 223-2606

October 8, 2010

Bismarck City Commission
221 N. 5th Street
P.O. Box 5503
Bismarck, ND 58506

RE: Northwest Bismarck Subarea Study by Ulteig Engineering, Inc.

On September 16th, we heard the most recent update of the referenced study at a public hearing at Horizon Middle School. The stated purpose of this study is ***"to identify future transportation corridors in Northwestern Bismarck that will enhance connectivity and the movement of people in the area. Moreover, this Study will provide a vision for the region that will strive to bring the ideas of planning, parks and recreation, developers and landowners, and the general public together. This vision will serve to guide future development proposals and preserve optimal transportation facility locations to serve the region."*** (ref: <http://subareastudy.com>).

In our view, the outcome of implementing the plan being proposed will do little to achieve its stated objectives. Quite to the contrary, moving forward with the approach being espoused by Ulteig will severely impact in a very negative way a large group of NW Bismarck homeowners who will find their property taxes raised to pay for the new streets, expensive associated water runoff issues created by the new street installation, and many will additionally suffer the consequences of having high-traffic volume traffic arteries running directly behind or very near their homes.

It was evident that Ulteig Engineering was surprised by the large audience turnout and by the overwhelming opposition to the latest draft plan for traffic flow-pattern improvements in northwest Bismarck. Disturbingly, it was also evident that Ulteig almost totally disregarded the socio-economic impact of the proposed "improvements" on the residents who would be affected by revised street routing in the area. Throughout the evening, Ulteig made numerous technical (and economic) assertions with no supportive documentation as to what "can and can't" be done to improve traffic flow on streets such as Burnt Boat Drive and Ash Coulee Drive. Furthermore, and most importantly to us, they completely failed to consider the huge negative impact on both quality of life and property values of making changes like extending Century Avenue across what is now the NW Bismarck Fire Station and down into the valley below. The projected 12,000 vehicle per day on the extended Century Avenue would make living next to such a street virtually a nightmare. This new extension of Century would pass directly behind the back yards of six Pinto Place residences, and would call for the demolition of the Northwest Fire Station and of a "twin" residence behind the fire station.

And there are other examples in the study of similar situations being created by the new expanded/extended streets.

In the specific case of the Century Avenue extension, were a detailed factual assessment to be conducted on diminished real estate value of the Pinto Place homes which would now be abutting against the new road; together with relocating a fire station and razing the existing twin home to the west of the fire station; and considering the high cost and technical challenges of building a road through the marshy wetland below the fire station, it is our opinion that such an evaluation would show that the option of widening Burnt Boat Drive to the north (thus providing the enlarged desired east-west corridor and avoiding the Native American cultural site to the south of the road) would be an economically desirable choice.

Furthermore, implementing the revised street routing as proposed by Ulteig, with the indicated high traffic volume, would subject the residents in the vicinity of that road to a vastly diminished quality of life in their homes. The resulting noise, dust, and scenic destruction created by the new street extension would be nightmarish.

We the undersigned respectfully ask the Bismarck City Commission to reject the latest Ulteig Engineering Sub Area Study for NW Bismarck as being not in the best interest of the community. We realize that as the city grows, the future will bring change; but the proposed rendition of changing our city streets in northwest Bismarck is not in either our best interest or that of Bismarck as a whole.

Sincerely,

The Undersigned residents of NW Bismarck
(signature pages attached)

Signature Pages for NW Bismarck Substudy Area Letter to Bismarck City Commission

Name	Address
Dr Edward Keller	1732 Golf Drive Bismarck ND
Sherley M. Keller	1732 Golf Dr. Bismarck, ND 58503
A. F. Tussaint	1730 GOLF DR. BISMARCK, ND 58503
Steve Kahl	1734 Pinto Pl Bismarck, ND 58503
Thomas J Swanson	1726 Pinto Place Bismarck ND 58503
Barb ... Rautausen	1737 Pinto Place Bismarck ND 58503
Greg & Lisa Cagle	1765 Pinto Pl, Bismarck, ND 58503
Gene R. Ringelman	1756 Pinto Place, Bismarck, ND 58503
Ellen M. Luker	1749 Pinto Place, Bismarck, ND 58503
Alan Luker	1749 Pinto Pl, Bismarck, ND 58503
Sandra Hanson	1762 Pinto Pl. Bismarck, ND 58503
Michelle Grunefelder	1707 Pinto Place Bismarck, ND 58503
James Brunefelder	1707 Pinto Place Bismarck ND 58503
Joan Coleman	1729 Pinto Place Bismarck ND 58503
Jerry Coleman	1729 Pinto Place Bismarck, ND 58503
Paula Stewart	1732 N. 30 ST, Bismarck, ND 58501
Philip GAUCH.	P.O. Box 144 Bismarck ND 58502
Karen Swanson	1726 Pinto Place, Bismarck, ND 58503

Signature Pages for NW Bismarck Substudy Area Letter to Bismarck City Commission

Name

Address

Peggy Winkauer
~~5855 A. Winkauer~~

3142 Morgan Cir. Bis ND
 3142 Morgan Cir Bis ND

Beta Budget

4908 Fountainblue Dr Bis ND

 (Mike Riopl)

613 Brunswick Dr. Bis, ND.

Lubie A Riopl

" " " " "

Jason B. With

4908 Fountainblue Dr Bis ND

Gene Attmoughles
 Michael Dwyer

2040 Henry Street Bis. ND

Fatty Dwyer

1754 Santa Gertrudis
 1754 Santa Gertrudis

Kara Rubin

1755 SANTA GERTRUDIS DR.

Michael KRALICEK

1755 SANTA GERTRUDIS DR

Kralicek

1876 Santa Gertrudis Dr.
 1831 SANTA GERTRUDIS DR

S. Bachner

1834 Santa Gertrudis Dr.

Charles Stahl

1834 Santa Gertrudis Dr.

Jerry E. Richter

1858 SANTA GERTRUDIS DR

Jarvaine Dichter

1858 Santa Gertrudis

Melodie Zimmerman

1857 Santa Gertrudis Dr.

Dale Zimmerman
 Cynthia Illusmiter

1857 Santa Gertrudis Drive.
 2816 Domino Dr Bismarck.

Todd Clausen

2816 Domino Dr. Bis.

Tyler Hanson
 Jason DeHornbacher

2630 Henry St. Bis
 3220 Tupelo Ln Bis

TESS HANSON

2630 Henry St Bis. 58503

Bonnie Dehne

3120 Tyler Parkway Bismarck.

Greg Dehne
 Nick Dehne

3120 Tyler Parkway Bismarck.
 " " " "

Pat Dehne

3120 Tyler Parkway Bismarck

Signature Pages for NW Bismarck Substudy Area Letter to Bismarck City Commission

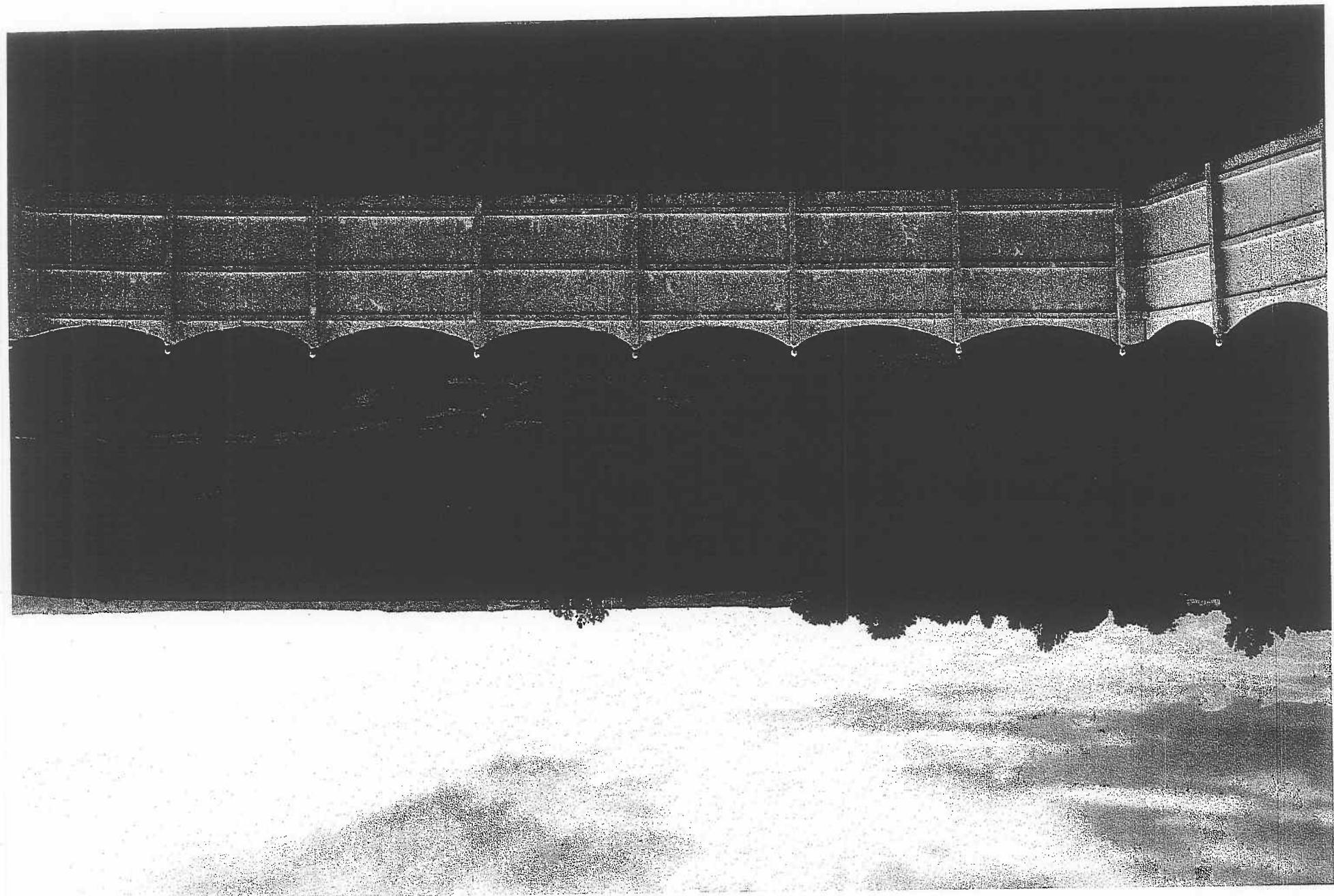
Name	Address
Robert C. Eastgate	1833 Wood Moor Pl. Bis. ND
John Brown	7500 Curtland Crossing Bis. ND
Melina Miller	2929 Roosevelt Dr. Bis. ND
P. J. Heston	4731 British Dr. Bismarck ND 58503
Charles Eastgate	225 W. AVE. B - BISMARCK, N.D. 58501
John D. Dyer	2500 Centennial Rd #205, Bismarck ND 58503
Ira B. Birkle	2702 Tyler Parkway Bismarck ND 58502
Elizabeth Birkle	2702 Tyler Parkway, Bismarck, ND 58502
Larry P. Hoge	2714 TYLER PARKWAY BISMARCK, ND 58502
Wing M. Hoge Sr	2810 Tyler Parkway Bis 58503
Bernice G. Dyer	2501 Domino Drive. Bismarck ND 58502
Robert Karkner	1737 Pent House Bismarck ND 58503

Hi Mayor Warford~

These are a couple of pictures that Bill Daniel took after a big rainstorm recently. As you can see there is a lot of water problems in the area.

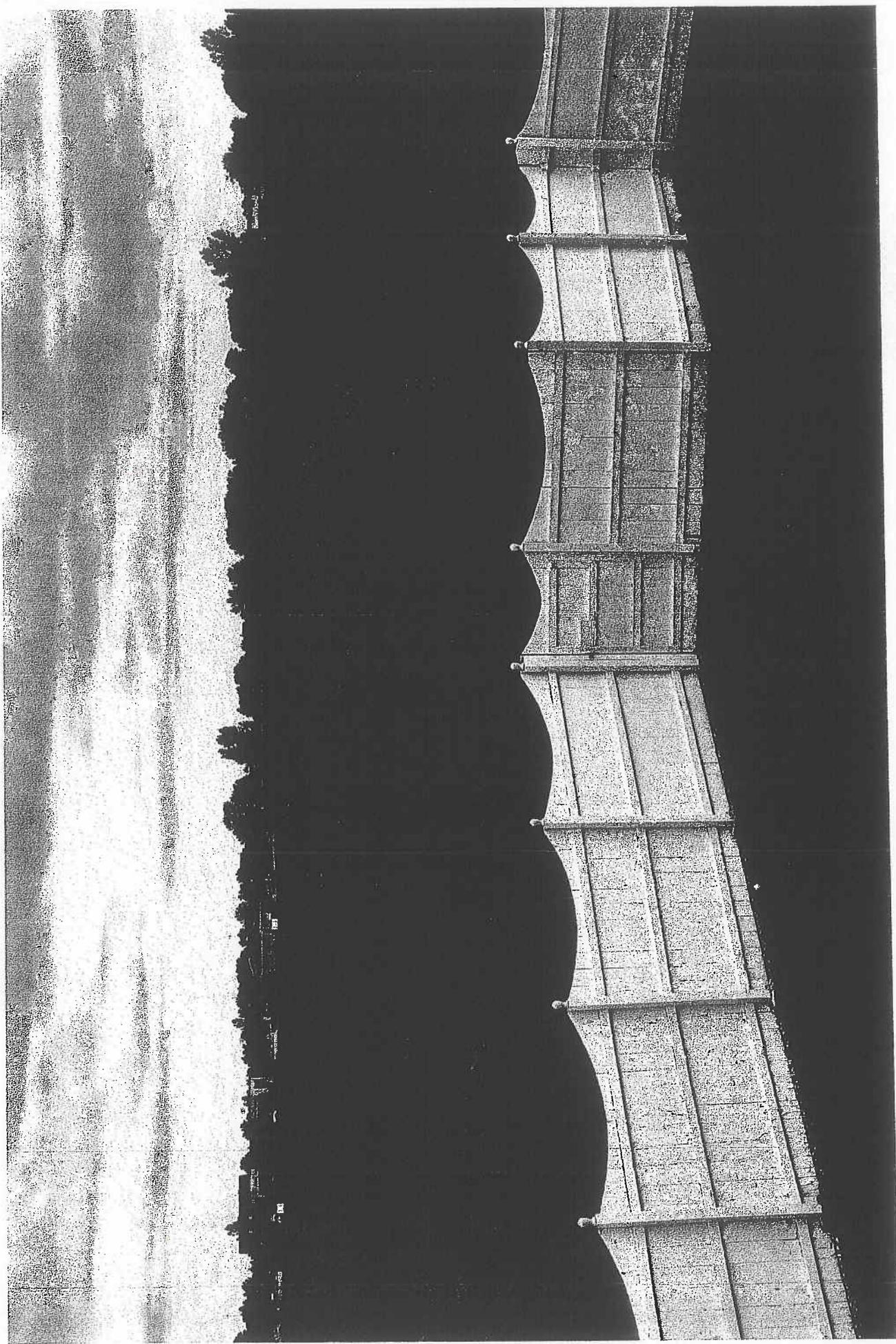
Thanks so much for listening and reading our letter. We are still getting more signatures that we will submit later.

Garb Rauhauser
1737 1st Ave





110-D



Joel Quanbeck

From: Shane A. Hanson <shanson@crowleyfleck.com>
Sent: Wednesday, October 13, 2010 4:10 PM
To: Steve Windish
Cc: Steve Grabill
Subject: Comments from Subareastudy Page

Categories: Filed by Newforma

Steve,

I read the most recent post to the Northwest Subarea Study, and I am very confused and quite honestly troubled. My wife and I live on Pinto Pl., and she attended the September meeting along with other members of our neighborhood. Although I have not reviewed the correspondence that has been received by the MPO from the public, the recent website post concerns me in that it implies that Golf Drive was recommended by the public at the meeting. It was not. Further, the post portrays Golf Drive as a new alternative. The Golf Drive alternative was clearly part of the existing study as it is analyzed in the draft report. In fact you and I discussed the Golf Drive alternative on the phone prior to the September meeting. You indicated that it had been analyzed and deemed not ideal.

My wife and I are unsure what is going on with this process. If the post would have simply stated that the MPO is going to do further research on the Golf Drive alternative because of public concerns with the proposed Century Ave. extension, we not would have even batted an eye as it would have represented the public sentiment about the proposed Century Ave. extension at the September meeting. As written, the post seems more political than objective and quite simply posturing.

Our neighborhood's consensus of the meeting was that the public urged the MPO to relook at the Burnt Boat Dr. option. The website post does not even mention Burnt Boat Dr., and the draft report does not seem to fully analyze the option. The analysis seemed to begin and end with the Native American artifact issue. We are unsure if the MPO even considered other alternatives in expanding Burnt Boat Dr. For example could Burnt Boat Dr. be expanded to four (or more) lanes until just west of the existing commercial development and then split into an east and west road with the existing road being made into an east bound one-way and with a west bound one-way being constructed going down into the valley? An expanded Burnt Boat Dr., and a better designed intersection at Tyler Parkway/Divide and Burnt Boat Dr. (similar to expressway and Washington) would seem to be a viable option to handle the future traffic flow estimates. Further, this option would seem less expensive than constructing a new road the entire length of the valley (Bill Clairmont estimated such a road to cost \$20 million in previous public filings). The proposed report does not consider this, nor look at other Burnt Boat Dr. alternatives.

Our neighborhood is very frustrated by this lack of analysis (whether real or perceived). It feels like the MPO had an agenda and that the study was a pretext. The recent website post does nothing to alleviate our concerns.

Please feel free to call or e-mail if you have any questions or concerns.

Shane A. Hanson
400 East Broadway, Suite 600
Bismarck, ND 58502
voice 701.223.6585 fax 701.222.4853

November 2, 2010

Brenda Smith
City Commissioner

We read the recent article in the Tribune titled "Bismarck Looks At Roads". Roger went to the planning meeting and when he left was under the impression that Burnt Board road would be the least desirable.

The article indicates some residents in the Pinto Place neighborhood opposed extending the Century Avenue West and favored the realignment with the Burnt Board intersection. Why would they think the property owners in Grandview would not oppose that route. Certainly any alternative is disruptive to any neighborhood. Why do they chose to go through any neighborhood? Isn't there more to consider with Burnt Board then the steep embankment? To quote the mayor, "We have to look at the human side before any recommendations". Do they not think there are humans living in the Grandview addition? At one time in the past Bill Wocken apologetically said it was never the city's intent to put two roads behind a neighborhood. We're already contending with the park road behind our development. Why are some neighborhoods protected? The road behind Highland acres has also been considered to be extended but their residents objected because they walk their dogs there.

The only one on the commission who seems to understand is Commissioner Grossman who said, "I'm not excited about the first alternative - something that would destroy people's homes, disrupt the peace and quiet of the neighborhood and cause the city magnificent financial expense.

We're appealing to you - as a resident of Grandview to represent our view. As a realtor what does this do to our property values?

Roger and Marilyn Hagen
1932 N. Grandview



From: Lon Romsaas [mailto:lromsaas@swensonhagen.com]
Sent: Tuesday, January 25, 2011 9:53 AM
To: Steve Windish
Cc: Bill Clairmont
Subject: Northwest Bismarck Sub Area Study Report

Good Morning Steve

Steve, Bill Clairmont and I would like to meet with you next week prior to the Feb 8th City Commission Meeting to discuss the report.

Bill is out of town or at Board meetings the rest of this week.

Could you let us know when you will be available.

Our primary focus will be on questions relating to the Golf Drive valley.

Lon

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Lon Romsaas
Swenson, Hagen & Co.
909 Basin Avenue
Bismarck, ND 58504
Ph: (701) 223-2600
Fx: (701) 223-2606

Joel Quanbeck

From: Lon Romsaas <lromsaas@swensonhagen.com>
Sent: Tuesday, January 25, 2011 2:26 PM
To: Steve Windish
Cc: Bill Clairmont; Mel Bullinger
Subject: Northwest Bismarck Sub Area Study Report.

Categories: Filed by Newforma

Steve

I remember meeting with the city officials on the balcony of the Funeral Home on Golf Drive and Connie Spryznack commenting that the MPO may need to do a study on whether Burnt Boat Drive or Golf Drive should be the collector/arterial street.

It appears that the recommendation is for a third alternative which we are not necessarily opposed to. What we are concerned about is will this report stop or seriously slow down any development in the Golf Drive valley or the cul-de-sac to the north up Tyler Coulee.

Can or will this report provide information to the City so that they know what to plan for?

- 1) I could not find the appendix B on the web site. I would like to see figure 7 if it is available. Could you please send me that figure.
- 2) Do you have additional information on how the intersection of Burnt Boat Road-Clairmont Road-Century Ave extended west would look like. Do you have preliminary grades on this intersection. How and where will Century Avenue cross the storm sewer systems in that area?
- 3) Do you have any preliminary grades for Century Ave through the golf drive valley ? we are interested if due to grades that access to surrounding property will be affected.
- 4) Do you have a suggestion on how exiting Golf Drive will be terminated? a cul-de-sac or connection to extended Century Avenue. The property owner still has platted lots west of the Bank and Funeral Home that have sewer and water available but need to have the street extended or terminated.
- 5) does your report recommend no driveways on either side of Century Avenue between Clairmont Road and Tyler Parkway, or is there an option to develop one side of the street as the valley widens out (just a reminder that there is existing sanitary sewer and water located in the middle of the valley that would have to be relocated)

Thank you for any information that you can share with us regarding this valley and its projected development.

Lon

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Lon Romsaas
Swenson, Hagen & Co.
909 Basin Avenue
Bismarck, ND 58504
Ph: (701) 223-2600
Fx: (701) 223-2606

Joel Quanbeck

From: Lon Romsaas <lromsaas@swensonhagen.com>
Sent: Friday, January 28, 2011 10:27 AM
To: Steve Grabill
Subject: Tyler Coulee proposed roadway alingment
Attachments: 20110128093459347.pdf

Categories: Filed by Newforma

Steve

I am sorry that I have not corrected this earlier.

Bill Clairmont's and my suggestion for a limited access road up the Tyler Coulee is different than what you have shown on your drawings (maybe you intended it to be different.) What we had envisioned was the road going north of golf drive coulee up to Valley Drive and then crossing the coulee and going northwest up the hill on the area that Bill had already graded (extension of Valley Drive to the west) This area was originally designed for duplex but maybe should be purchased from Wachters and limit any access as that road continues north.

I have attached a sketch that shows that road going up the hill where Valley Drive was going to extend.

I am mulling over the alternative to not have Tyler Parkway extend across the valley to the north and putting more money and effort into the Tyler Coulee Road option. This would also reduce the traffic at the intersection of Tyler Parkway and Century. I see in the appendix that you have run that scenrio once.

Again, the primary reason for this email is to suggest the road relocation for the Tyler Coulee option. This revised location would greatly reduce the cost of storm water piping and the wetland issues.

Lon

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Lon Romsaas
Swenson, Hagen & Co.
909 Basin Avenue
Bismarck, ND 58504
Ph: (701) 223-2600
Fx: (701) 223-2606

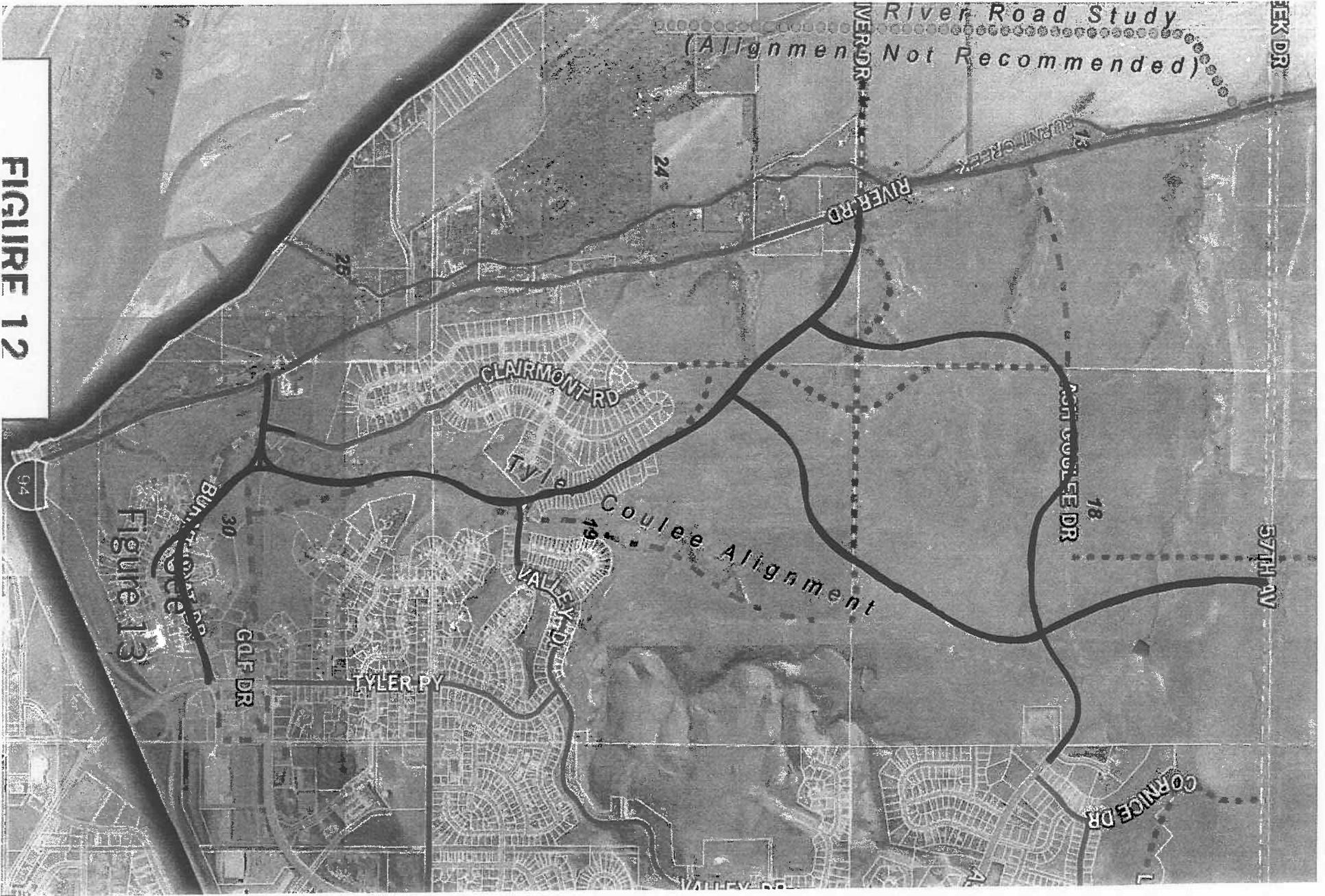


FIGURE 12

Steve Grabill

From: Steve Saunders <ssaunder@nd.gov>
Sent: Tuesday, February 08, 2011 10:07 AM
To: Steve Grabill
Cc: Steve Windish
Subject: RE: Northwest Bismarck Subarea Study

Categories: Filed by Newforma

Hi Steve.

Your e-mail looks good to me.

Here are the ad dates that I have for the Community Development (Planning) office and MPO office.

1. Public hearing ad from MPO – date run was 1/11/2011 – legal ad
2. Public hearing ad from Community Development Dept. – date run was 1/14/2011 - legal ad
3. Public hearing ad from Community Development Dept. – date run was 1/21/2011 - legal ad
4. Public hearing ad from MPO – date run was 1/26/2011 – BLOCK ad

Also, I sent the following e-mail on January 24, 2011 to interested members of the public that had given me their e-mail with an attachment of the January 26th ad, in case they had missed it.

Good afternoon.

The Northwest Sub Area Study final report has been reworked and is available at the Ulteig website, <http://subareastudy.com> for review. A study hard copy will also be at the Bismarck Public Library and the Bismarck Community Development office at 221 N. 5th St , second floor. A you may have noticed the Study will be an agenda item on the Bismarck Planning Commission agenda for January 26, 2011 as an advertised public hearing at 5:00 PM in the Tom Baker Room, also at 221 N. 5th St.

The study will also be part of a Bismarck City Commission public hearing agenda item on February 8, 2011 in the Tom Baker Room, at 5:15 PM.

A copy of the advertisement in today's Bismarck Tribune is also attached.

Thank you for your interest in the study.

Steve Saunders
Transportation Planner for the MPO

From: Steve Grabill [mailto:Steve.Grabill@ulteig.com]
Sent: Tuesday, February 08, 2011 9:33 AM

To: Steve Saunders (ssaunder@nd.gov); Steve Windish
Subject: Northwest Bismarck Subarea Study

Gents,

Please let me know if you can think of anything to modify or add. I've prepared two PowerPoint slides:

Public Notification

- Two Study Area Mailings – 3200 Addresses Each
 - MPO Letterhead for Added Emphasis
- 2 Public Input Block Ads (1/4 Page) in Tribune
- 4 Public Hearing Ads in Tribune
- Promoted Media Coverage
- Website Opportunities
 - Maintained Schedule Information

Public Activity

- Well Attended Public Meetings
 - 75 Attendees at 1st Meeting
 - 119 Attendees at 2nd Meeting
 - Jan. 26 Planning Commission Well Attended
- Commission Newsletters and Updates
- Responded to Numerous Phone Calls
- Received Numerous Written Comments
- Conversations with Residents & Developers



Steve Grabill, PE, PTOE

Associate Vice President

3350 38th Avenue South • Fargo, ND 58104

Direct: (701)280-8533 • Mobile: (701)799-7018

www.ulteig.com

Energy • Water • Built-Environment

Find Ulteig on: [Facebook](#) | [Twitter](#) | [LinkedIn](#) | [YouTube](#)

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Steve Grabill

From: Steve Grabill
Sent: Thursday, February 17, 2011 1:23 PM
To: 'Thomas Atkinson'
Subject: RE: Comments from Subareastudy Page

Hi Thomas,

In response to your comments, the following paragraphs on page 40 of the document provides a good explanation of how we derived a fatal flaw. Essentially, a fatal flaw is an un-workable solution:

8. Option C - Extend West off Golf Drive Alignment

Originally, this option was studied as an extension west of Tyler Parkway only, without realignment of Century Avenue. The close proximity of the Century Avenue and Burnt Boat Drive intersections would not allow sufficient distance for the development and effective use of turn lanes.

Traffic on Golf Drive would require a five lane facility and traffic signals at Tyler Parkway. Queues from Golf Drive would block the Century Avenue intersection at times. Challenges with signal coordination and vehicle turning movements would impact traffic safety and mobility along Tyler Parkway. Long queues, challenges in signal coordination, and lack of sufficient room for turn lanes were all seen as fatal flaws to selecting the Golf Drive alignment with no realignment of Century Avenue.

Regarding your suggestions concerning one way roads, we will include your idea among the comments included within the Report appendix. It will be part of the future study to consider whether alternatives other than the ones explored in this report should be further investigated.

My initial reaction to the one-way corridors idea are that a number of problems would require resolution:

1. If Burnt Boat Drive were an eastbound one-way, how would residents and businesses along Burnt Boat Drive have access to their properties from Tyler Parkway?
2. Some of the Burnt Boat Drive issues would still need to be addressed: steep grades, potential archaeological issues, and proximity to the I-94 interchange
3. One way corridors over short distances are typically frowned upon in the traffic engineering world, as well as in the public arena. They are very difficult to implement, deal with transitions between one way and two way traffic, adequately sign, etc.
4. It might be difficult, given proximity to the interchange, to adequately provide advance warning to drivers that they cannot head east on Burnt Boat Drive. The one ways would probably operate better from the standpoint of Tyler Parkway, so I can see why you like the alternative.

Thank you for your feedback and we will add your comment letter to the final document.

From: Thomas Atkinson [mailto:dakrat@midco.net]
Sent: Thursday, February 17, 2011 12:20 PM
To: Steve Grabill
Subject: Comments from Subareastudy Page

Steve: Attached are my comments on the study. If you have any questions, feel free to contact me.

Tom Atkinson

Warford adds conditions to study

By LEANN ECKROTH/ Bismarck Tribune | Posted: Thursday, February 24, 2011 5:23 pm

The Bismarck Planning Commission this week recommended accepting the Northwest Sub Area study, but with stiff conditions set by Mayor John Warford, including more study.

The planning commission continued its public hearing from January after residents complained that study results became available online only shortly before the start of the first hearing.

The study's intent is to prevent traffic in the northwest part of the city from congesting in the next 50 years due to new housing developments below 57th Avenue.

The study suggested possible north-south thoroughfares could be improved or added at Clairmont Road to Ash Coulee; adding a road through Tyler Coulee; developing roads through Tyler Parkway; or building a new road west of River Road.

Possible east-west routes or thoroughways listed are to extend roads west off west Century Avenue; add turn lanes and widen shoulders at Ash Coulee Drive; align or extend traffic west off the Burnt Boat Drive; and/or extend 57th Avenue.

Going directly west on Century Avenue would require the fire hall and homes there be removed.

Using Century Avenue through Burnt Boat Drive might mean disturbing archaeological items there.

The Ulteig firm completed the study that was funded by the Metropolitan Planning Organization and the city.

The study also lists do nothing as an option.

Warford asked the planning commission receive the study if:

n It strikes all references to "preferred alternatives" on Century Avenue options.

n The Tyler Coulee Road plan be strongly opposed. "It should be green space," Warford said. He believes building and maintaining that option was too expensive and would pose water issues.

n There would be further studies on environmental, Native American artifacts, storm water issues, traffic counts and alternative cost issues. An artifact study is particularly needed along the option that moves Century Avenue to Burnt Boat Road, Warford said.

n There is further study on 57th Avenue, 64th Avenue and Ash Coulee Drive. Warford said he was disappointed that the Ash Coulee was less of a preferred option to be extended to River Road.

n Add an option mentioned by one resident that goes from Century Avenue west, crosses to the northwest corner of Lowe's parking lot and intersects with Burnt Boat Drive. Warford said that alternative wouldn't require removing the fire hall, homes or businesses.

n Have the city traffic engineer look at adding a traffic light at Tyler Parkway and Century Avenue as a short-term solution to existing traffic problems. He wants the traffic engineer to see if the signal would meet state criteria.

"The study fell short. We have no conclusions," Warford said. "There is not enough in the study to make a decision."

The Bismarck City Commission will hold another hearing on the study in March.

(Reach reporter LeAnn Eckroth at 250-8264 or leann.eckroth@bismarcktribune.com)

Recommendation conditional

Planning commission brings study closer to acceptance

By LEANN ECKROTH

Bismarck Tribune

2/25/11

The Bismarck Planning Commission this week recommended accepting the Northwest Sub Area study, but with stiff conditions set by Mayor John Warford, including more study.

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The Bismarck City Commission will hold another hearing on the study in March.

(Reach reporter LeAnn Eckroth at 250-8264 or leann.eckroth@bismarcktribune.com.)

Steve Grabill

From: Steve Saunders <ssaunder@nd.gov>
Sent: Wednesday, March 02, 2011 4:35 PM
To: Steve Grabill
Cc: Steve Windish
Subject: FW: Century Roadway Concept.
Attachments: road-Model.pdf

I forgot to forward this to you last week.
This is an idea from Swenson Hagen, who are
also Engineers for Bill Clairmont.

From: Kim Lee [mailto:kllee@nd.gov]
Sent: Friday, February 25, 2011 9:37 AM
To: 'Steve Saunders'
Subject: FW: Century Roadway Concept.

Did you get this?

Kim L. Lee, AICP
Planning Division
Community Development Department
701.355.1846
www.bismarck.org

From: Dave Patience [mailto:patience@swensonhagen.com]
Sent: Thursday, February 24, 2011 4:31 PM
To: Bismarck, City - Kim Lee
Subject: Fwd: Century Roadway Concept.

I trust you will forward this to Mayor John Warford and others who may be interested. Sometimes when problems like the Century Avenue, Tyler Parkway & Burnt Boat Drive schematics have us deadlocked it may be interesting to consider alternatives from outside sources. Attached is such an option. Of course all of us that have been involved in the development of northwest Bismarck have ideas relating to roadways, traffic flows and possible alternatives.

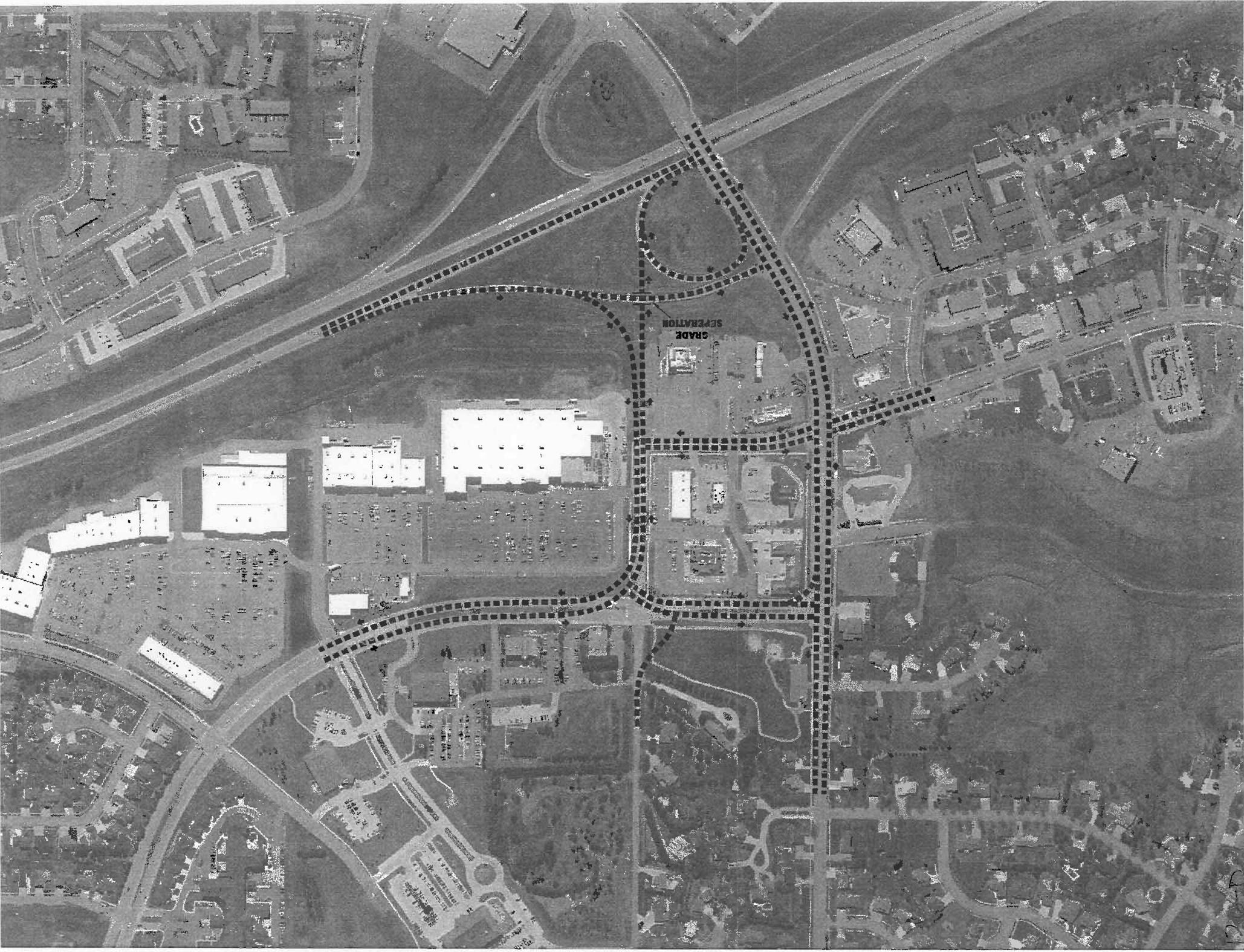
----- Original Message -----

Subject: Century Roadway Concept.

Date: Thu, 24 Feb 2011 15:43:53 -0600

From: Jake Axtman <jaxtman@swensonhagen.com>

To: Patience, David <patience@swensonhagen.com>, Romsaas, Lon <lromsaas@swensonhagen.com>



GRADE SEPERATION

10-1

Appendix D2 – Commission Newsletters, Hearings and Minutes



AGENDA

*Bismarck Northwest Sub-Area Study
Bismarck-Mandan
Metropolitan Planning Organization*

*Project Steering Committee
Kickoff Meeting & Design Workshop
1:00 PM, April 20, 2009
Bismarck Transit*

1. Introductions
2. Discuss Key Project Goals and Desired Outcomes
3. Review Study Area History & Past Studies
 - a. Regional Land Use
 - b. Corridor Alignment Overlaps
4. Discuss Traffic Data and Projections
5. Consider a Vision for Parks, Green Space and Complete Streets
 - a. Sustainable Streets and Traffic Taming
 - b. Types of Collector and Arterial Streets
 - i. Low Traffic Residential
 - ii. High Traffic Residential
6. Review Results of Class I Cultural Resources Inventory
7. Consider Potential Preliminary Corridor Alignments
8. Review Scope of Services and Timeline
 - a. Plan for Developer/Landowner Involvement
9. Other Business
10. Adjourn

BISMARCK NORTHWEST SUB-AREA STUDY

APRIL 20, 2009

<u>NAME</u>	<u>ORGANIZATION</u>
Stacey Hanson	NDDOT
Gary Stockert	Bismarck Emergency Management
BREN EHRERT	BISMARCK-MANDAN MPO
Steve Saunders	MPO
Marcus J. Hall	Burleigh County
MARIE BAKER	ULTEIG ENGINEERS
Steve Grabill	Ulteig Engineers
Kim Lee	City of Bismarck
Mark A Berg	City of Bismarck - Engineering Dept

Steering Committee Meeting Summary
Bismarck Mandan MPO
Bismarck Northwest Sub-Area Study
April 20, 2009
1:00 p.m.

Attendees

Steve Saunders and Ben Ehreth, Bismarck-Mandan MPO
Kim Lee, Bismarck-Burleigh Planning
Stacey Hanson, NDDOT
Marcus Hall, Burleigh County
Mark Berg, City of Bismarck
Gary Stockert, Bismarck Emergency Management
Steve Grabill and Marie Baker, Ulteig Engineers

Meeting Summary

1. Introductions
2. Discuss Key Project Goals and Desired Outcomes
 - The project needs to establish the network of future arterials and collectors to serve the study area which is mostly zoned for urban residential.
 - The project should identify existing roadway alignments which are not ideal.
 - The project may include amendments to the Fringe Area Master Plan.
3. Review Study Area History & Past Studies
 - The River Road study identified two possible alignments for a future roadway running parallel to River Road. The City would like to look at using Fern Wood Drive as a parallel route. A portion of this road already exists.
 - There is a sanitary sewer easement in the Fern Wood Drive area which could possibly be used.
4. Discuss Traffic Data and Projections
 - There will be a "Do Nothing" scenario and a full build out scenario modeled.
 - Ulteig will set up a meeting with ATAC to get the model set up.
 - The long range traffic projections should not include the Northern Bridge

5. Consider a Vision for Parks, Green Space and Complete Streets
 - Smart Growth is being considered
 - For Section 18, the closest arterial street is 1 mile away. There may need to be another 48' wide arterial in this area – similar to Century Avenue.
 - Roundabouts will be considered at section corners.
 - Tyler Parkway is a 48' wide street with direct residential access.

6. Review Results of Class I Cultural Resources Inventory
 - The areas in the Report highlighted in red need a Class 3 pedestrian survey.
 - Most of the sites mentioned in the report are west of River Road.
 - Some of the areas around the Horizon school should be reclassified.
 - Chief Looking Village is classified as a previously studied area (purple).
 - A hard copy of the report was given to the MPO. If the report is available on CD, the City would like a copy.

7. Consider Potential Preliminary Corridor Alignments
 - The following alignments may be modified:
 - The alignment south of Ash Coulee Drive tying into River Drive should be taken out as an arterial/collector option due to grade issues. The roadways connecting into River Drive from the east are Burnt Boat Drive, Ash Coulee Drive extension and
 - Golf Drive - Ulteig will contact Rod Hickcox from the Fire Department to inquire about relocating their station so that Golf Drive can tie into the Century Avenue intersection.
 - Amberglow Drive & Sonora Way connection - There are two open lots to the east of the sanitary lift station. These lots probably will not be built on due to the noise that the sanitary lift station creates. There is also a pipe line running in this vicinity (it will be located on the City GIS map).
 - Tyler Parkway at Golf Drive and Century Avenue needs to be aesthetically pleasing since they are the entryway into the new development

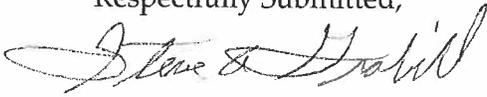
8. Review Scope of Services and Timeline
 - The project is slightly behind schedule, but Ulteig did not ask for a time extension. Hopefully some time will be made up in the next few months.
 - Ulteig will set up meetings with the developers prior to the general public input meeting.
 - Preliminary drawings will be shown to the public at the first input meeting.

9. Other Business
 - Additional comments

- The local bike commuters like bike lanes. A wider gutter pan may be considered.
- Rural sections should be developed as an option along with the ultimate urban sections. These may be used as interim sections or transition segments.
- 150' of Right of Way is typically acquired by the City along section lines.

10. Adjourn

Respectfully Submitted,

A handwritten signature in cursive script, appearing to read "Steve Grabill".

Steve Grabill, PE
Project Manager

Steve Grabill

From: Ben Ehreth [bjehreth@nd.gov]
Sent: Friday, April 24, 2009 9:57 AM
To: Steve Grabill; 'Diomo Motuba'
Cc: ssaunder@nd.gov
Subject: Northwest Bismarck Subarea Transportation Study - Fullbuild Out Socio Economic Data
Attachments: NW_Bismarck_Subarea_TAZ_FullBuildOut.shx;
NW_Bismarck_Subarea_TAZ_FullBuildOut.dbf;
NW_Bismarck_Subarea_TAZ_FullBuildOut.sbn;
NW_Bismarck_Subarea_TAZ_FullBuildOut.sbx;
NW_Bismarck_Subarea_TAZ_FullBuildOut.shp;
NW_Bismarck_Subarea_TAZ_FullBuildOut.shp.xml

Greetings,

Please find attached the full build-out household and employment GIS data for the Northwest Bismarck Subarea Transportation Study. Within the attribute data 3 Household full build-out scenarios (HHFullBld1, HHFullBld3, and HHFullBld4) were included. The following represents a description of the new data which was added to the attribute table of the TAZ's associated with the study area:

- HHFullBld1 – Entire Study Area considered at *Urban Density*.
- HHFullBld3 – Areas East of River Road and South of Highway 1804 considered at *Urban Density*. Areas West of River Road and North of Highway 1804 considered at *Rural Density*.
- HHFullBld4 – Areas within the current Urban Service Area considered at *Urban Density*. Areas outside of current Urban Service Area considered at *Rural Density*.
- RETFullBld – Retail Employment.
- SRVFullBld – Service Employment.
- OTHFullBld – Other Employment.

Urban Density = 6.32 Households per acre
Rural Density = 2.14 Households per acre
Multi-Family Density = 8 Households per acre
Service Employment = 8.85 Workers per acre
Retail Employment = 4.01 Workers per acre
Other Employment = 3.33 Workers per acre

The household and employment locations were based on the Future Land Use Plan and the US Highway 83 Study (land use component).

Please let me know if you have any questions or issues with the attached data.

Thanks,
Ben

Ben Ehreth, AICP
Planner
Bismarck-Mandan, Metropolitan Planning Organization
221 North 5th Street
P.O. Box 5503
Bismarck, ND 58506-5503
Phone: 701-355-1850



AGENDA

*Bismarck Northwest Sub-Area Study
Bismarck-Mandan
Metropolitan Planning Organization*

*Steering Committee Meeting
9:00 – 11:00 AM, October 14, 2009
Parks and Recreation Conference Room*

1. Introductions
2. Discuss Issues Pertaining to Original Alignment Alternatives
3. Present Analysis Results
 - a. Alignment Profiles Analyses
 - b. Traffic Projection Analyses
 - i. Traffic Operations Along Tyler Parkway
 - c. Parks, Schools and other Land Use Considerations
4. Review Preliminary Subarea Study Concept
 - a. Modify Concept for Further Analysis
5. Public Involvement and Next Steps
6. Review Scope of Services and Timeline
7. Other Business
8. Adjourn



PLEASE PRINT

ATTENDANCE ROSTER

PROJECT Bismarck Northwest Sub-Area Study – Steering Committee Meeting

MEETING LOCATION Parks and Recreation Conference Room, Bismarck North Dakota

DATE/TIME Wednesday, October 14, 2009 9:00 AM

Name	Representing		
Steve Grabid	Ulteig Engineers		
Joel Quarbeck	ULTEIG		
BEN ENGETA	BISMARCK-MINNEAPOLIS MPO		
DARIN SCHERR	BISMARCK Public Schools		
Mark A Berg	City of Bismarck		
Gary Stockert	Bismarck Emerg. Mgmt		
Steve Saunders	MPO		
Marcus J. Hall	Bismarck Butleigh County		
Kim Lee	City of Bismarck		

ULTEIG ENGINEERS

Bismarck and Fargo, ND
 Detroit Lakes and Minneapolis, MN
 Sioux Falls, SD



PLEASE PRINT

ATTENDANCE ROSTER

PROJECT Bismarck Northwest Sub-Area Study - Steering Committee Meeting

MEETING LOCATION Parks and Recreation Conference Room, Bismarck North Dakota

DATE/TIME Wednesday, October 14, 2009 9:00 AM

Table with columns: Name, Representing, and two empty columns. Rows include: Roo Hickcox (Bismarck Fire Dept.), Steve Windish (Ulteig), and several empty rows.

ULTEIG ENGINEERS

Bismarck and Fargo, ND
Detroit Lakes and Minneapolis, MN
Sioux Falls, SD

9-102

Steering Committee Meeting Summary
Bismarck Mandan MPO
Bismarck Northwest Sub-Area Study
October 14, 2009
9:00 a.m.

Attendees

Steve Saunders and Ben Ehreth, Bismarck-Mandan MPO
Kim Lee, Bismarck-Burleigh Planning
Marcus Hall, Burleigh County
Darin Scherr, Bismarck Public Schools
Rod Hickcox, Bismarck Fire Department
Mark Berg, City of Bismarck
Gary Stockert, Bismarck Emergency Management
Steve Grabill, Steve Windish and Joel Quanbeck, Ulteig Engineers

Meeting Summary

1. Introductions were made
2. Discuss Issues Pertaining to Original Alignment Alternatives

Following introductions, Steve Grabill stated that about 30 comments had been received via email and website responses after the June meeting. Most of the comments related to four areas of concern:

- Do not extend 64th Avenue
- Concerns raised regarding the Ash Coulee/Horizon Middle School area. Issues included speed, traffic volume, safety and proposed connection to River Road.
- Tyler Parkway/Golf Drive/Burnt Boat Drive/Century Avenue region – Various alternatives were suggested
- One individual raised concerns over potential extension of Sandy River Drive

Grabill presented a map highlighting the responses, as well as Ulteig's identified issues pertinent to the original alignment alternatives. Ulteig suggested that analysis needed to address the following technical issues:

- Collector/arterial road development in the NW region of the study area
- Burnt Creek is a crossing barrier
- North-south arterial needs in the "lowlands"

- River Road maintenance and capacity
- Parallel routes in close proximity in the southern end of the "lowlands"
- Development considerations north and west of Burnt Boat Drive
- Traffic projections and capacity analysis, particularly in the Tyler Parkway area
- Future land use relationships
- Possible de-emphasis of Ash Coulee Drive

3. Present Analysis Results

Grabill presented a map of preliminary new alignments for collector and arterial streets within the study area. He also distributed a handout that included:

- Traffic projection results
- Turn lane and queue analysis for the Tyler Parkway corridor
- Profile and sight distance analysis for the Tyler Parkway corridor
- Alternative advantages and disadvantages
- Preliminary conclusions and recommendations pertaining to 4 Tyler Parkway region alternatives

Mark Berg stated that SHPO had indicated a couple of years ago that changes along Burnt Boat Drive were not possible. He also pointed to the fact that if it became the primary east-west corridor, it would need to carry high volumes of trucks and cars. Further, constructability was a concern.

Mark Berg suggested that Ash Coulee Drive should be developed as an arterial corridor and not as a collector road as was shown in the concepts prepared by Ulteig. Further discussion ensued regarding the new alignments and their probably function in the future. Mark said the current position of engineering is to not place elementary schools adjacent to arterial roadways.

Steve Saunders asked whether new traffic projections would be needed, given the significant changes made to corridor alignments. Grabill responded that it would be ideal to obtain new projections and that he would work with Steve Saunders and ATAC to identify scope and level of effort.

Rod Hickcox stated he liked the alignments shown for the "lowlands". That was also the general consensus of the rest of the Steering Committee. Discussion pertaining to River Road was limited and it was agreed that the southerly sections of River Road and Fernwood Drive needed further review.

Marcus Hall raised concern over the cost of the proposed north-south arterial near River Road and how it would be paid for. It was suggested this would occur during platting and be built as development proceeds.

4. Review Preliminary Subarea Study Concept

Joel Quanbeck reviewed a preliminary land use map that proposed future locations for schools and regional parks. Kim Lee stated that it was probable that most of the study area would develop with urban density residential development. Joel will continue the land use analysis with further input from Kim.

Kim Lee suggested another possible alignment of Ash Coulee Drive connecting to Sandy River Drive. The Steering Committee thought this was a viable option.

Darin Scherr asked that the acreages for schools relate to coverage areas that address potential school populations of 500 students for K-5, 750 students for middle schools and 1200 students for high schools. He preferred to see the future high school located directly adjacent to the proposed future regional park.

Ben Ehreth pointed out that there was no anticipated timeframe for this to occur and that it was a full build-out scenario. Since a representative of Parks and Recreation was not able to attend the meeting, Grabill agreed to set up a meeting with them for sometime next week.

Mark Berg asked why the extension of 57th Avenue didn't extend down the ravine to River Road. Grabill responded that the current alignment was established by the Northern Bridge Corridor Study. Various opinions were offered regarding whether the alignment should be adjusted. Grabill agreed to contract Bob Shannon and ask whether there was any reason why the alignment didn't or couldn't use the ravine.

Grabill recommended that in the vicinity of Tyler Parkway, alternatives 1 (extend Century Avenue) and 2 (extend Burnt Boat Drive) should proceed to higher levels of analysis. Extension of Golf Drive had a fatal flaw pertaining to Tyler Parkway traffic operations. Realignment of Century Avenue did not appear to offer and benefits and actually had traffic disadvantages, so it was also eliminated from further consideration. The Steering Committee gave consensus to proceed with Alternatives 1 and 2.

5. Public Involvement and Next Steps

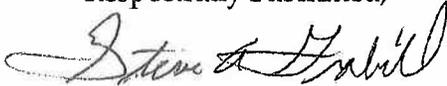
Grabill said that he wanted to put the new alignments onto the website for public review, and then send notices of the website updates to people who had sent in comments. The Steering Committee wanted to meet again prior to this occurring. Grabill thought the next meeting could be held in November or

December. In the meantime, Ulteig will continue efforts to communicate with developers and landowners in the study area.

6. Review Scope of Services and Timeline

Grabill said Ulteig would complete a review of project status, scope, budget and timeline within the next two weeks. He said any proposed changes would be brought before the MPO TAC and Policy Board in November.

Respectfully Submitted,

A handwritten signature in cursive script, appearing to read "Steve Grabill".

Steve Grabill, PE
Project Manager



AGENDA

Bismarck Northwest Sub-Area Study
Bismarck-Mandan
Metropolitan Planning Organization

Steering Committee Meeting
10:30 – 11:30 AM, November 18, 2009
Transit Conference Room

1. Introductions
2. Review Corridor Alignment Alternatives
 - a. Parks, Schools and other Land Use Considerations
3. Public Involvement and Next Steps
 - a. Information on Website
 - b. Letters to Landowners
 - c. ATAC Analysis
 - d. Corridor Concepts and Comparisons
 - i. Steering Committee Review
 - e. Draft Report
 - f. Public Meeting
4. Other Business
5. Adjourn



Steering Committee Meeting Summary
Bismarck Mandan MPO
Bismarck Northwest Sub-Area Study
November 18, 2009
10:30 a.m.

Attendees

Steve Saunders and Ben Ehreth, Bismarck-Mandan MPO
Carl Hokenstad and Kim Lee, Bismarck-Burleigh Planning
Marcus Hall, Burleigh County
Darin Scherr, Bismarck Public Schools
Rod Hickcox, Bismarck Fire Department
Mark Berg, City of Bismarck
Stacey Hanson and Denny Johnson, NDDOT
Kevin Levi, NDDOT Bismarck District
Jeffrey Forster, FHWA
Gary Stockert, Bismarck Emergency Management
Steve Grabill, Steve Windish and Matt Yavarow, Ulteig Engineers

Meeting Summary

1. Introductions were made
2. Review Corridor Alignment Alternative

Discussion of alignment alternatives began with 57th Avenue. The easterly segment of 57th Avenue is currently planned to be between the WAPA transmission line and the section line. This allows separation between a major arterial roadway and homes that were constructed many years ago. The western segment (west of River Road) will be on the section line.

The central portion garnered the most conversation. Two alignment alternatives were presented. One alternative meandered down a ravine to River Road. The other continued on the section line, following a reasonable close proximity to the Northern Bridge Corridor Study (NBC) alignment.

Comments/discussion included

- The ravine alignment is contrary to the NBC and other beltway corridor studies
- Choosing the ravine alignment shuts the door on NBC

- There is a potential elementary school planned near 57th Avenue and Washington Street. Concern about a major corridor near an elementary school.
- Timing issues of Burleigh County purchasing right of way. The current process is to purchase based upon previous studies.

Discussion turned to Clairmont Road, in particular the north end through undeveloped properties. Alternatives include Clairmont Road meandering near the west section line of Section 18 then proceeding northeasterly to intersect with 57th Avenue. A second north-south collector was presented that went from the middle of Section 18 to the middle of Section 7.

Tyler Parkway will continue to be a major north-south arterial. During recent discussions with Mr. Clairmont, an alternative alignment was presented by him and his consultant. This alignment follows Tyler Coulee starting at a possible intersection with Century Avenue extension and then proceeding northerly. Upon exiting the ravine the roadway could either continue along the current proposed Tyler Parkway alignment to continue northerly near the north-south quarter line of Sections 18 and 7. Discussions included:

- The Tyler Coulee Storm Water Master Plan requires high hazard dam design parameter. (The roadway could be constructed with adequate conveyance to pass the required runoff event, thus not retaining runoff).
- How is the land to be acquired?
- How will the project be funded?
- Currently planned as green space on the future land use plan. How will the neighbors react to an arterial roadway in their backyards?
- Socio-economic issues with Tyler Parkway extension. Numerous homes (driveways) fronting the street.
- Close proximity of Clairmont Road and Tyler Coulee Road intersections along Century Avenue extension.

3. General Consensus

- 57th Avenue to remain on the section line, do not meander through the ravine.
- Extend Clairmont Road to the quarter line of Section 18.
- Keep the Northern Bridge Corridor across Section 7 intact.
- Extend Tyler Coulee Road northeasterly to the Tyler Parkway alignment.

- Continue analysis for both Tyler Parkway and Tyler Coulee Road.
- Ash Coulee Road will be an arterial just due to the location of the roadway. Best to plan for the traffic volumes early, prior to further development.
- River Road should not have a direct connection to 57th Avenue. River Road should continue as a scenic collector type roadway.
- Tyler Coulee Road alternative – Realign the south end of Clairmont Road to intersect Tyler Coulee Road, not Century Avenue.
- North-South arterial in the river bottom should follow section line.

4. Other Discussion Points

Future school locations. With full build out, at least one elementary school and one secondary school will be needed within the study area. The location of the schools will not be determined within the scope of this study.

5. Next Steps and Public Involvement

Ulteig will forward layout maps with the alignments agreed to by general consensus.

Public involvement meetings will be scheduled for later as the study becomes closer to final draft form. It was discussed that the Tyler Parkway/Tyler Coulee Road alternatives could be contentious and should be presented to the public prior to the final draft of the report.

Respectfully Submitted,



Steve Grabill, PE
Project Manager



Memo

3350 38th Ave. S.
Fargo, North Dakota 58104
Phone: (701) 280-8500
Fax: (701) 237-3191

Date: December 31, 2009

**To: Steve Saunders
Bismarck Mandan Metropolitan Planning Organization**

From: Steve Grabill, PE, PTOE

Subject: Northwest Bismarck Sub-Area Study

Project #: R08.00357

Dear Steve,

Per our discussion, the new alignments for proposed corridors in the study area have been significantly altered from those that were modeled by ATAC earlier in the study process. Also, addition of the Tyler Coulee ravine corridor as a studied alignment signifies the need for a new set of traffic projections.

We have reviewed the previous projection information and have concluded that there are two options for the MPO to consider in obtaining new projections for the Study Area:

Option 1 – Have ATAC and Ulteig prepare new traffic projections based on the adjustments to the existing computer model

Implications:

The existing Traffic Analysis Zone (TAZ) sizes are very large and without creating smaller TAZ's, the model would be unable to provide meaningful results. To address this issue, the following tasks would need to be completed:

1. Ulteig would assist ATAC in developing new TAZ's. ATAC would incorporate these into the computer model. MPO staff would be asked to assist in developing socio-economic data to be included within each TAZ.
2. ATAC would add the new alignments into the computer network. New TAZ centroids and connectors would be needed for the model to work effectively.
3. ATAC would provide new Year 2035 projections and additional projections for at least one full build out scenario. Ulteig would then need to complete an analysis of the new projections and present them to the Steering Committee for feedback.

Option 1 would require at least 3 months to complete development and analysis of the projections. It is difficult to predict the level of satisfaction that would result from initial modifications made to the computer model, and therefore additional iterations of the effort may be needed.

Given the potential for an iterative modeling development process, and the complexity of changing TAZ boundaries, it would take a fair amount of effort to estimate the cost of this option. A rough estimate of cost suggests that the total cost for this effort could be in the range of \$20,000-\$40,000.

Option 2 – Have Ulteig prepare new traffic projections based on the previous TAZ projections provided by ATAC.

Implications:

This is a more subjective approach to assigning the traffic from the existing TAZ's onto the proposed street network. While it may produce results that are less accurate than those provided in Option 1, the costs and amount of time needed to obtain the results would be significantly reduced.

To prepare traffic projections for Option 2, the following tasks would need to be completed:

1. Ulteig would use ATAC's previous TAZ trip generation information and spread the traffic manually while accounting for corridor location, area geography and other factors. This effort would be documented so that the process and results are defensible. Feedback from the project Steering Committee would help ensure that the process and results make sense.
2. Ulteig would conduct the traffic operations analysis once the new projections have been approved by the project Steering Committee.

One advantage to Option 2 is that further coordination and cost associated with ATAC are eliminated. Demands on MPO staff time would also be reduced. This, however, does not eliminate the need for eventual changes to the model to address issues that have been identified. Further, accurate projections that a model can provide may be needed for future corridor studies undertaken within the Study Area. MPO staff is suggesting that this be completed at a later date if this option is selected.

We estimate that Option 2 adds 4-6 weeks to the project timeline. Given that there is still a significant amount of time left in the contract, no contract time amendment is being proposed at this time. The cost to develop new traffic projections, analyze traffic operations associated with them, document and complete reviews on them is estimated to be about \$10,000. It is possible that the current contract can absorb this additional cost and we therefore propose to wait on any contract amendment until later in the project.

Recommendations:

MPO staff is recommending that we proceed with Option 2. Changes to the computer model would be made at a later date, perhaps when the peer review of the model takes place.

If we are given notice to proceed on Option 2, we will track our time and expenses separately and proceed with carrying out the associated tasks. Our goal would be to have much of the effort completed in time for the February TAC and Policy Board meetings.

We will be in attendance at the January TAC and Policy Board meetings to answer any questions they may have pertaining to these two options.



Steering Committee Meeting Summary
Bismarck Mandan MPO
Bismarck Northwest Sub-Area Study
January 19, 2010
11:00 a.m.

Attendees

Steve Saunders and Ben Ehreth, Bismarck-Mandan MPO
Marcus Hall, Burleigh County
Mark Berg, City of Bismarck
Stephanie Hickman, FHWA
Steve Windish, Ulteig Engineers

Meeting Summary

Review Corridor Typical Section Alternatives

The reason for the short Steering Committee immediately after the MPO TAC meeting was to determine what typical section to use for the various roadway alignments for cost estimating purposes.

Consensus:

- a) 5-Lane Urban
 - i) Century Avenue Extension
 - ii) Tyler Coulee Road from Century Avenue to Sandy River Road
 - iii) Tyler Parkway from project start to Sandy River Road
- b) 3-Lane Urban
 - i) Clairmont Road
 - ii) Ash Coulee Road
 - iii) Sandy River Road from Clairmont Road to Tyler Parkway
 - iv) Tyler Parkway from Sandy River Road to Ash Coulee Road
- c) 3-Lane Rural
 - i) All other roadways

Respectfully Submitted,

Steve Windish, PE
Project Engineer

Impromptu Steering Committee Meeting Summary
Bismarck Mandan MPO
Bismarck Northwest Sub-Area Study
April 19, 2010
11:00 a.m.

Attendees

Steve Saunders and Ben Ehreth, Bismarck-Mandan MPO
Marcus Hall, Burleigh County Highway Dept.
Mark Berg, City of Bismarck Engineering
Mel Bullinger, City of Bismarck Engineering
Stephanie Hickman, FHWA
Stacy Hanson, NDDOT
Seng Marohl, NDDOT
Steve Grabill, Ulteig Engineers

Meeting Summary

An impromptu meeting of the Steering Committee was held following the MPO TAC meeting. Steve Grabill opened the meeting by raising two issues for discussion: Tyler Coulee Corridor Alignment and Traffic Projections.

1. Tyler Coulee Corridor Alignment

It was recognized that there are challenges to overcome in the future if this alignment is to have a reasonable chance for implementation. Among these challenges include environmental issues, storm drainage, overall cost and sources for funding.

The group discussed whether the alignment should be brought through the entire study process. Stephanie Hickman said that the concept should not be eliminated outside the NEPA environmental process. It was the consensus of the group that the concept would be presented in the report as a potentially viable alternative.

2. Traffic Projections

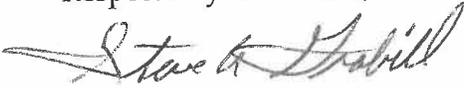
Steve Grabill provided a handout which summarized the traffic projection process and findings. He said they represented a full development scenario which, in the public arena, may send people the wrong message. He said full development may be 50 years or further in the future and that most traffic projections are made to reflect a time frame closer to 20 years.

Steve Grabill said the full development scenario provides benefit primarily from a ROW preservation standpoint. He suggested using a 30% full development approximation to represent a planning timeframe closer to 20 years. He said that even using those numbers, the projected traffic will probably be greater than is expected by the year 2030. There was consensus to use this approach.

Mark Berg stated that he would like to see the projections do a better job of distributing the traffic to other alternate routes. Steve Grabill said he would work with Mark to address his comments.

With no further business, the meeting adjourned at 11:40 p.m.

Respectfully Submitted,

A handwritten signature in cursive script that reads "Steve A. Grabill". The signature is written in dark ink and is positioned above the printed name.

Steve A. Grabill, PE, PTOE
Project Manager

4/20/10

NW Subarea Study

Steve Gribbill
Mark A Berg

Marcus J. Hall

Steve Windish

Steve Saunders

Mel Bullinger

Keith Demke

DALE HEINERT, PE

BOB HEINERT
Mickel Gaur

Elizabeth Ward

Dary Kramlich

Bismarck Engineering

Burleigh County

Utterig

Bismarck - Mandan MPO

City of Bismarck Engineering

City of Bismarck - Public Works

CITY OF BISMARCK ENGR.

BISMARCK - MANDAN MPO

Confused Owner

land
owner

Watne Realtors, inc

Steering Committee/Landowner Meeting Summary
Bismarck Mandan MPO
Bismarck Northwest Sub-Area Study
April 20, 2010
10:00 a.m.

Attendees

Steve Saunders and Ben Ehreth, Bismarck-Mandan MPO
Marcus Hall, Burleigh County Highway Dept.
Mark Berg, City of Bismarck Engineering
Keith Demke, City of Bismarck Public Works
Dale Heinert, City of Bismarck Engineering
Mel Bullinger, City of Bismarck Engineering
Michael & Elizabeth Ward, Landowners
Gary Kramlich, Watne Realtors, Inc.
Steve Windish, Ulteig Engineers
Steve Grabill, Ulteig Engineers

Meeting Summary

Steve Grabill opened the meeting with introductions. He then summarized the purpose for the study, the transportation focus of the MPO, and the efforts that had been completed to date. He recalled his meeting with Ward family representatives earlier in the year and that questions pertaining to future utilities had precipitated the meeting. He then opened the meeting up for discussion.

Michael Ward said that the City and County has an excellent opportunity to establish plans for and develop utilities now. He said that there are few developers and landowners to work with now. He pointed out that some of the landowners are aging and have a number of children who may inherit the properties. He said that issues pertaining to utilities will only get more complicated as more landowners get involved with the land located in the study area.

Gary Kramlich said he was initially surprised by the proposed changes in alignments relative to past plans. He questioned how land can be developed without having a plan for future utilities.

Marcus Hall discussed roles of the City and County. He said the County only constructs roads outside the City limits. The County looks to acquire major road ROW's and may construct some roads in the area in the foreseeable future. Mel Bullinger and Mark Berg said the City will often improve rural, 2 lane roads to urban standards. He pointed out that sometimes the needs outstrip available dollars.

Michael Ward said he wanted to see utilities developed so he can develop along the eastern edge within the Study Area. He said existing sanitary sewer is too small for much additional flow. He also raised concerns regarding the need to handle future storm water within the study area. Gary Kramlich asked how sanitary sewer in the study area would be serviced.

Mark Berg responded that sanitary sewer was serviced from the existing Pioneer Park sanitary sewer lift station, which has adequate capacity to serve the majority of the subarea study area. Keith Demke added that the City does have master plans for water and sewer for all of the area within the study area boundary. Some planning has been completed for storm drainage in the south end of the study area as well.

Michael Ward said he would like the City or County to acquire easements in advance of development for locations where future utilities were planned. He is concerned that downstream developers can block future development from occurring.

Marcus Hall responded that the County does not acquire easements for utilities; however, utilities can be placed within the right of way acquired for roads. He said the County was focused on roadway needs, and he estimated a timeline for completing 57th Avenue North sometime in the next 5-10 years.

Gary Kramlich recognized that River Road was unlikely to change much over time. He liked the concept that extends Ash Coulee Drive to River Road, as was proposed in past planning studies. It seemed more logical a solution to him than extending 57th Avenue either into River Road or over it. He asked whether the City could provide copies of current master plans.

City staff agreed to provide copies of current utility master plans.

Michael Ward stated he was much more concerned about utilities than proposed alignments of the roads. Neither Michael nor Elizabeth stated any objections to the proposed alignments. Steve Windish told them that if they wished to share positions regarding the proposed alignments, they should provide them in writing.

With no further business, the meeting adjourned at 12:10 p.m.

Respectfully Submitted,



Steve A. Grabill, PE, PTOE
Project Manager

AGENDA

Bismarck Northwest Sub-Area Study
Bismarck-Mandan
Metropolitan Planning Organization

Steering Committee Meeting
2:15 – 3:30 PM, June 15, 2010
BisMan Transit Conference Room

1. Introductions
2. Discuss Analysis Status
 - a. Alignment Analyses
 - b. Traffic Projection Analyses
 - i. 30% Build-out Traffic Projections
 - c. Land Use Considerations
 - d. Context Sensitive Solutions
3. Discuss Recent Public Involvement
 - a. Meetings with Developers and City Officials
4. Review Draft Report Status
5. Review Scope of Services, Timeline and Next Steps
6. Other Business
7. Adjourn

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ATTENDANCE ROSTER

PROJECT Bismarck Northwest Sub-Area Study - Steering Committee Meeting

MEETING LOCATION BisMan Transit Conference Room, Bismarck North Dakota

DATE/TIME Tuesday, June 15, 2010 2:15 PM

Name	Representing		
Steve Grabill	Ulteig		
Mark A Berg	City of Bismarck		
[Signature]	"		
Gary Stockert	City of Bismarck		
Kim Lee	City-County Planning		
Marcus S. Hall	Burleigh County		
Stacey Hanson	NDDOT		
Steve Saunders	MPO		
Gary Goff	FHWA		



Steering Committee Summary
Bismarck Mandan MPO
Bismarck Northwest Sub-Area Study
June 15, 2010
2:15 p.m.

Attendees

Steve Saunders and Ben Ehreth, Bismarck-Mandan MPO
Marcus Hall, Burleigh County Highway Dept.
Mark Berg, City of Bismarck Engineering
Kim Lee, City-County Planning
Stacey Hanson, NDDOT
Gary Goff, FHWA
Stephanie Hickman, FHWA
Rod Hickcox, City of Bismarck
Gary Stockert, City of Bismarck
Steve Windish, Ulteig Engineers
Steve Grabill, Ulteig Engineers

Meeting Summary

Steve Grabill opened the meeting with introductions. He then summarized the analysis activities and results that had been completed since the last Committee meeting. He distributed a map showing the new proposed roadway alignments and the 30% build out traffic projections.

Steve Grabill discussed how analysis and feedback from developers, City and County representatives had lead to other roadway alignments being developed and analyzed. He discussed the Tyler Coulee alignment alternative, and said that while City engineering had misgivings about it, the alternative shouldn't be eliminated without going through the NEPA process. He also pointed out that the looping alignment for Ash Coulee Drive was based on public input to de-emphasize the corridor to keep traffic volumes lower.

He stated that full urban build out traffic projections did not give realistic planning results because the timeframe was too far into the future. Grabill said it was the decision of City and County staffs to instead use a 30% build out scenario because it more closely resembled a 20-30 year traffic projection.

Grabill stated that projections did not include a northern bridge corridor since the northern bridge was not expected to be constructed within the next 20 years. He added

that the proposed alignments maintained the possibility for a future northern bridge connection.

Mark Berg asked whether the traffic projection for the east leg of the Washington Street/57th Avenue intersection was too low. Grabill responded that traffic volumes east of Washington Street came from ATAC's model, which had been found to be projecting traffic very low in areas on Bismarck's north side. He said he would review the issue and get back to Mark on the matter.

Rod Hickcox asked for a more detailed explanation of why the full build-out scenario was not chosen as the best scenario from a planning standpoint. Grabill said that it looks perhaps 100 years into the future and the use of cars, telecommuting, and other factors of growth and activity are impossible to predict. He also said that by that time, additional commercial growth on the north side could completely change travel patterns which again, is impossible to predict.

Ben Ehreth pointed out that full build-out equated to roughly 50,000 to 60,000 growth in Bismarck's population.

Stephanie Hickman asked whether the zoning was in place within the Study Area. Mark Berg responded that it wasn't but that the City and County would likely use the study to control how right of way was preserved. Stephanie Hickman asked whether the study was addressing the potential for future schools in the Study Area. Mark Berg responded that while plans for a new high school in the Study Area appear to have been abandoned, there is still another elementary school being planned.

Mark Berg said the new high school is being planned east of Centennial Road. Typically, the elementary schools have been housing from 400-500 students, whereas the optimum number of students for a high school is 750 students.

Marcus Hall requested that the drawings be modified to show 57th Avenue as a straight corridor with the diagonal road curving into it. Grabill agreed this would be done.

Grabill said the Report will address Context Sensitive Design and land use planning. Updates to the proposed land use will be sent to Kim Lee for feedback.

Grabill mentioned recent meetings with the Ward family, McCormick's, Wachter's and Bill Clairmont. He said he has not heard any significant frustration from the developers over current proposed alignments. He stated that he would continue to work with Bill Wocken and Marcus Hall to provide them information that can be shared with their commissioners once the draft Report becomes available.

Mark Berg discussed how the order of development might impact decisions on which roadways get improved first, and vice versa. He mentioned the need to improve Ash Coulee Drive, the extensions of Clairmont Road, and Valley Drive. He said the draft Report will need to discuss implications on the timing of road construction and development.

Tradeoffs between constructing the Tyler Parkway extension and the Century Avenue extension were discussed by the Committee. With either choice, it appeared that the City would be challenged to find a funding mechanism beyond normal development activity. It was suggested that the City can influence where development occurs first by choosing which corridors to spend money on.

Rod Hickcox said that developments sometimes go in and provide problems in providing adequate emergency services. He discussed the issue of fire response time and that there are other costs to consider besides development costs. There was considerable discussion regarding roadway funding.

Marcus Hall said the County Board is interested in building the 57th Avenue connection to River Road soon. Kim Lee said that Valley Drive should be completed soon as well.

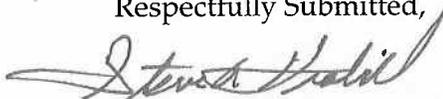
Grabill discussed a concept requested by Bill Wocken. The concept realigned the Century Avenue extension to miss the fire station. Grabill said that the concept resulted in a sharply skewed intersection at Tyler Parkway, as well as impacts to other adjacent buildings.

Grabill stated that the draft Report was not as far along as he had hoped at this point. He reviewed the project schedule which indicated the draft Report would be completed by the end of July. He said that prior to that, it was likely that individuals on the Committee would be contacted for information and feedback needed to complete the draft Report. Stephanie Hickman said that FHWA would need a 30 day review period on the draft Report.

Grabill said there had been some changes in scope that would be brought forward for a contract amendment in the coming weeks.

With no further business, the meeting adjourned at 4:10 p.m.

Respectfully Submitted,



Steve A. Grabill, PE, PTOE
Project Manager



AGENDA

Bismarck Northwest Sub-Area Study
Bismarck-Mandan
Metropolitan Planning Organization

NDDOT Management Presentation
2:00 PM, August 16, 2010
NDDOT Conference Room 330

1. Introductions
2. PowerPoint Presentation
3. Questions and Answers
4. Other Business
5. Adjourn

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ATTENDANCE ROSTER

PROJECT Bismarck Northwest Sub-Area Study – Management Presentation

MEETING LOCATION NDDOT Room 330, Bismarck North Dakota

DATE/TIME Monday, August 16, 2010 2:00 PM

Name	Representing
Steve Steve Saunders	MPO
Ben Ferrara	BISMARCK-MANDAN MPO
Dave Leftwich	NDDOT
Mel Bullinger	City of Bismarck Engineering Dept.
DENNY JOHNSON	NDDOT
Paul Benning	NDDOT
Stephanie Hickman	FHWA
Steve Salvei	NDDOT
Darcy Rosendahl	NDDOT
Grant Levi	NDDOT
Wendall Meyer	FHWA
Scott J. ZAWHORSKY	NDDOT
Stacey Hanson	NDDOT
SENG MAROHL	NDDOT
Kirk Hoff	"
Kevin J. Leo	"

NDDOT Management Presentation
Bismarck Mandan MPO
Bismarck Northwest Sub-Area Study
August 16, 2010
2:00 p.m.

Attendees

See attached attendee sheet

Meeting Summary

Steve Grabill opened the meeting with introductions.

Stacey Hanson, NDDOT Local Government Division, summarized the analysis activities and results that had been completed to-date. The study has been on-going for approximately 18 months. There has been one public input meeting, several Steering Review Committee Meetings, and presentations to the Bismarck Mandan MPO TAC and Policy Board.

Steve Grabill presented a PowerPoint, see attached.

After the PowerPoint presentation, the meeting was opened for questions and comments.

What is the intended use of the final document? *It is anticipated that the final document will be used as a tool for planning and zoning, future area development guidelines, and right of way recommendations for either direct acquisition or through the platting process.*

Full development could be approximately 50,000 people. It appears that the number of major corridors has been reduced, and the report focuses on primarily section line roadways. *The study focuses on arterials and collectors, which are typically on section lines. Some of the previous alignments that were in close proximity to each other have been combined/eliminated. Some collector roadways were actually added where previous study layouts were lacking.*

Was a soils analysis completed near the escarpment on the 57th Avenue alignment? *No.*

Was the traffic generated by the future river crossing considered when developing traffic projects on 57th Avenue? *The current plan is to carry traffic generated on the east side of the river on 57th Avenue. When the Northern Bridge is constructed, the curves will be constructed forcing the primary movement to be the Northern Bridge Corridor, i.e. Highway 1804. 57th Avenue will become the minor roadway at that intersection.*

Why was it decided not to extend 64th Avenue to Washington Street? *Future traffic conditions may require this. Currently the residents are opposed as it was once open and traffic used it as a cut across from Highway 1804 to Washington Street. Also, there currently is not a platted roadway in that location.*

Regarding the north-south extension of Fernwood Drive, would bicycle traffic use River Road rather than Fernwood Drive. *There are two possible bicycle users, each with their preference. Long distance riders may prefer River Road; local riders may prefer Fernwood Drive. There is also a planned bicycle path adjacent to Burnt Creek. Also placement of bike routes is an issue. If they are on the roadway, at least one parking lane would be eliminated. If they are off the roadway, considerable more right of way may be required.*

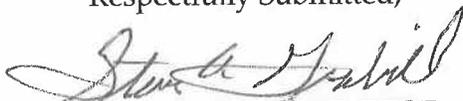
Does the City have a master plan for bicycle routes? *The Long Range Transportation Plan has included this, as well as Bismarck Parks and Recreation's master plan.*

Why not use the full build out scenario for transportation facility planning. Does the report adequately provide for this future traffic needs? *Full buildout alternatives are not realistic to plan. With the full build out traffic projects several left turn lanes would be required at Tyler Parkway/Century Avenue intersection. This would also require the acquisition of all the businesses along the westerly side of Tyler Parkway north of Interstate 94. Also, will traffic patterns, modes of transportation, etc. be the same in the future as today?*

Will land use planning take into account full build out scenario? Bismarck could possibly grow faster than the report anticipates. *The report includes right of way recommendations that could handle a large majority of the future roadway width. However, the decision must also be made regarding context sensitive solutions by the local elected bodies.*

With no further business, the meeting adjourned at 3:20 p.m.

Respectfully Submitted,


Steve A. Grabill, PE, PTOE
Project Manager



AGENDA

*Bismarck Northwest Sub-Area Study
Bismarck-Mandan
Metropolitan Planning Organization*

*Study Review Committee Meeting
10:00 AM – 12:00 PM, August 17, 2010
Bismarck Planning Conference Room*

- | | |
|--|-------|
| 1. Introductions – | 10:00 |
| 2. Draft Study Presentation | 10:05 |
| 3. Receive Comments on Draft Report | 10:15 |
| a. Chapters I, II & III | |
| i. Regional Future Land Use Plan | |
| ii. “Ghost-platting” | |
| b. Chapter IV | 10:25 |
| i. Land Use & CSS Considerations | |
| 1. Role of CSS in this Study | |
| a. Recommendations vs Opportunities? | |
| 2. “Context Zones” (Handout) | |
| 3. Bismarck Policy Ramifications? | |
| ii. Roadway, Bicycle, Pedestrian & Freight (& Transit) | |
| c. Chapter V | 10:55 |
| d. Chapters VI & VII | 11:15 |
| e. Chapters VIII & IX | 11:30 |
| f. Appendices | 11:45 |
| 4. Other Business | 11:55 |
| 5. Adjourn | 12:00 |


 Ulteig

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ATTENDANCE ROSTER

PROJECT Bismarck Northwest Sub-Area Study – Study Review Committee Meeting

MEETING LOCATION Bismarck Planning Conference Room, Bismarck North Dakota

DATE/TIME Tuesday, August 17, 2010 10:00 AM

Name	Representing
Steve Grabill	Ulteig
Joel Quanbeck	Ulteig
Steve Windish	Ulteig
Marcus J. Hall	Burleigh County
Red Hickey	Bismarck Fire Dept.
Stacey Hanson	NDDOT
Stephanie Hickman	FHWA
Steve Saunders	MPO
Kim Lee	Bismarck/Burleigh Co. Planning



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ATTENDANCE ROSTER

PROJECT Bismarck Northwest Sub-Area Study - Study Review Committee Meeting

MEETING LOCATION Bismarck Planning Conference Room, Bismarck North Dakota

DATE/TIME Tuesday, August 17, 2010 10:00 AM

Table with 2 columns: Name, Representing. Handwritten entries include Mark A Berg and Ben Everett.

**Steering Committee Meeting Summary
Bismarck Mandan MPO
Bismarck Northwest Sub-Area Study
August 17, 2010
10:00 a.m.
Planning Conference Room**

Attendees

Steve Saunders and Ben Ehreth, Bismarck-Mandan MPO
Marcus Hall, Burleigh County Highway Dept.
Rod Hickcox, Bismarck Fire Department
Mark Berg, City of Bismarck Engineering
Kim Lee, City of Bismarck Planning
Stephanie Hickman, FHWA
Stacy Hanson, NDDOT
Steve Grabill Ulteig Engineers
Steve Windish, Ulteig Engineers
Joel Quanbeck, Ulteig Engineers

Meeting Summary

Steve Grabill opened the meeting with introductions. Steve Grabill provided a PowerPoint presentation that reviewed the study and its findings. Mark Berg commented that he liked the graphics in the PowerPoint and wanted to see more similar graphics in the Report. The SRC discussed each of the figures in the report and they provided comments to amend or improve clarity to the graphics. An enlarged version of Figure 5 (Proposed Corridor Alignments) was specifically requested. Grabill agreed that the requested changes would be made.

Steve Grabill reviewed comments received at the NDDOT Management Presentation. Grant Levi had asked why the 30% buildout traffic volume was being used instead of the full buildout traffic volume. Grabill said it was explained that right of way corridor needs more closely aligned with the full buildout scenario.

Grand Levi also questioned whether the full buildout was reviewed with the Northern Bridge in mind. Grabill responded that it was not realistic to plan for full buildout and that the Northern Bridge crossing was not included in the analysis.

Mel Bullinger asked at the meeting whether 64th Avenue should be extended as a collector route to Washington Street as called for in the Fringe Area Road Master Plan. Grabill said the traffic projections are not seeing the volume of traffic and in the past it was a cut-through route for traffic.

Traffic volume map – 57th/Northern Bridge fix graphic so the alignments are the same as throughout the report

Mark Berg said that from reading the public comments in the draft Report that the public doesn't understand the time frame, seems like it will happen "tomorrow". Stephanie Hickman asked whether we can we give them a timeline? Berg responded no, however the "Evolution of a corridor" should be presented. State the improvements will be development driven and will need to follow NEPA with purpose and need.

Hickman said the introduction should include "help us manage the growth" with most occurring at least 10 years out. Other comments offered by the SRC include the following:

1. Switch colors for arterials and collectors to match NDDOT
2. Show functional classifications on Figure 2
3. Print back to back
4. Correct speed limits
 - a. Ash Coulee – 25 mph
5. Add to improved corridor list on Page 3, Tyler Parkway and Washington Street
6. Remove sites and keep map on Pages 8 & 9
7. Reference the source on Page 10, existing traffic volumes (2009)
8. Eliminate on Page 11 the reference to Grimsrud (South of the interstate)
9. Add The Waterford Assisted Living on Page 11
10. Remove study area shading for region south of I-94
11. Additional issues need to be discussed including connection from highland to lowland and access management
12. Introduce the idea for future planning and zoning plat reviews.
13. Expand the narrative to give examples of environmental impacts
14. On Page 14, under harsh terrain, address the issue of storm water conveyance
15. Need to address freight movements. City is having difficulty after development roads breaking up due to construction traffic

Grabill asked whether Tyler Parkway should be added as a truck route. Steve Saunders responded that the Report should introduce the idea that arterials are truck routes

MB Freight movement needs didn't identify in the past. MB & SG to discuss later

SH Expansive area, are we looking at other commercial areas in the northern portion?

MB Building materials are destroying the roadways

SG Transit will be more thoroughly addressed in the final report

- SS Land use – in appendix include the current land use study map
- KL Have in body of document
- Joel Quanbeck (JQ) Ghost platting is an unknown term that should be explained
- KL Will provide wording
- 3.B. JQ Explanation of Chapter 4. C.S.S. in detail is beyond the scope of this study.
Page 16 last sentence “Physical environment more involved, public much more involved throughout entire process”
Table 2 on page 19, Joel’s handout: Add text and graphic to help illustrate table 2
- KL Going to pure form based at this time. Would be difficult to meld with what we have now
- BE Is this in conflict with the existing plan – traffic volume
- JQ No
- KL The North commercial development is anticipated to be a smaller neighborhood commercial Gateway Mall or Pinehurst
- JQ Development occurring at this time appears to be zero
- KL It is zoned commercial at 43rd and Washington Street
- BE Natural – residential first then neighborhood commercial
- SG Asking for Kim & Ben to help modify this chapter so it works with current planning & zoning thoughts
- MB Is the intent of this study to bring in “complete streets” rather than Context Sensitive Solutions? Politicians are more familiar with the complete streets term.
- SG In Appendix A, the typical sections are more traditional in nature and do not reflect CSS. CSS calls for narrower lane width in some cases. CSS promotes on-street parking. Tradeoffs between current parking conditions & CSS
- SH Parking provides traffic calming, but can also be a safety issue. Concerned with on-street parking near schools

RH Could get deep, but is this report the appropriate document? Small cars – acceptable, large pickups etc. Road is too narrow in this area of the country with this culture of larger vehicles.

SG Please provide individuals thoughts. Don't want to put the city in a position of conflict with developers

BE Provide pro's & con's of each. Let public & city weigh

KL Discussion possible ordinance changes

JQ Residential collector, could be a good thing

3.C. SG Reasons to & reasons not to by corridor

SH Can we distinguish between existing & future on figure 5?
Dashed = proposed
Solid = existing

SH Larger graphics

KL One small scale/then 2 larger

SH Page 24 – why parking lane figure 1 Ash Coulee
Figure 1 appendix B
Connection to Horizon
Parking
Washington Street/Ash Coulee intersection – what congestion?

MB Ash Coulee – include access control

Marcus Hall (MH) Page 24 – presentation is wishy-washy, not definitive
Use the word recommended

SG We see both sides, need to talk about how the recommendations were developed

SH "Recommended" but if it isn't chosen why recommended

RH Layout case for what is chosen

SH Page 26 – slight alignment to miss, explain why this is bad

- RH Page 26 – fire dept. expressed willingness
- SH Page 44 – north should be south
- BE Ash Coulee collector and arterial
- SG Figure 5 – should it be down graded?
- MB “2” Century Avenue
Appendix – label graphics
Future reclassification, currently needs to remain arterial until 57th becomes the route of choice

- SG Narrative “Future roadway network”
- SH Narrower streets, need to make sure emergency services can get through
- MB Eliminate parking
Eliminate curvilinear, need grid pattern

3.D.

- SG NDDOT asked if future needs are being adequately addressed. Boils down to right of way preservation. 5-lane even though 3-lane with parking is being proposed.
- SS Grant’s question was fair. Alternatives for Tyler Coulee: Alternatives to stay on the books
- MB Page 44 – add 66’
- SH Is the purpose for narrower streets to put the rein on development to slow development
- SG No. Will not make a recommendation for narrow streets
- MB CSS – evolution of corridor acquire ROW, build for need, but can expand as needed in distant future, but don’t limit future
- SH Consider bike lanes, could be larger lanes
- RH Bike lanes make good snow storage

- SH Bike lanes OR parking
- BE Why?
- SH Safety – open car doors
- Stacey Hanson If bike lane – must be maintained all year
- JQ Is this something that needs to be discussed?
- SS & MB No
- SH City policy to be developed
- 3.E. SH Page 44 – South
Page 46 – does public know where section 12 is, add a map
- SG Will clarify
- MB Page 43 – 3rd bullet
Disagree, Ash Coulee has brief periods of congestion in the area.
Improvements – joint effort with the school district & city
- KL Page 44
- SG Take out that sentence
- MB Page 45 – add school planning & trails
- SS Future parkland – can we get a copy
- KL Park district doesn't like to get this out
- SH Roundabout? Is there support?
- SG Was mentioned at last city commission, did not receive negative vibes
- SS People are cautious. MPO – need to be successful
- SG If there is no policy, developer will not volunteer

- 3.F. RH Memo to file in app. D
\$2.7 million for station included equipment and truck
\$2 for building without land
\$2.3 with land
- KL Private info – emails, phone, block out
- SH Concur for this study
- MB June 15 – steering committee meeting summary
New high school – west of centennial
- SH App. A – MNDOT fundamental
Is there something similar in NDDOT?
- SG No
- SH Fed. Doc.
- SG NDDOT ok with this
- MB Safety division may have something
Mark Nelson

Respectfully Submitted,



Steve A. Grabill, PE, PTOE

Project Manager



North Dakota Department of Transportation

Francis G. Ziegler, P.E.
Director

John Hoeven
Governor

September 17, 2010

Mr. Carl Hokenstad
Executive Director
Bismarck/Mandan MPO
PO Box 5503
Bismarck, ND 58506

ATTN: Ben Ehreth

COMMENTS ON DRAFT NORTHWEST BISMARCK SUB-AREA STUDY

Enclosed are the North Dakota Department of Transportation (NDDOT) comments on the draft Northwest Bismarck Sub-area Study.

NDDOT Comments

1. If the purpose of the study is for future planning and zoning/development of the NW area of Bismarck, why use a 30% build-out scenario instead of full build-out? NDDOT would like to make sure that the 30% build-out scenario is not too short-sighted to adequately plan for the new corridors and their preservation.
2. The proposed corridors shown seem to be spaced fairly far apart. Would a further breakdown of proposed corridors be helpful as the area develops?
3. The study doesn't address how the existing transportation system will be affected by traffic when these new corridors are developed. Since traffic from the NW area will feed into existing routes (such as Washington Street), how will the extra traffic affect those routes?
4. The location of Clairmont Rd, Fernwood Dr, Golf Dr, and Sandy River Dr may not be common knowledge to all readers and was not described well in the report. Could these street names either be added to Figure 5 (page 23) or could the street locations be described better in the study text?
5. Page 26 - We support extending Century Avenue to the west. This would allow for a smoother east-west traffic flow in the area—taking some congestion away from Tyler/Burnt Boat intersection. Currently the intersection of Century/Tyler is quite awkward with stop control on the north-south approaches while WB lefts are free-flowing. Extending Century to

- the west would allow for a conventional intersection to be constructed. If nothing is done now this intersection is only going to get more congested as the NW area continues to grow.
6. Page 32 - V.I.3 (57th Ave N), last paragraph, first sentence. Should the first word be "once" rather than "over"?
 7. Page 40 - Last paragraph – We disagree that it may be desirable to plan for simple 4 legged intersections and transition to roundabouts later. We recommend planning for roundabouts initially.
 8. Page 43 - 4th bullet - Provide a recommendation to the City on which extension should be pursued first. Since Century Ave carries more traffic now and has more lanes adjacent to where it would be extended, it makes sense that this be worked on first.
 9. Page 44 - There is a recommendation to purchase fire department land north of the Divide Ave interchange, but page 26 says Fire Department personnel would like to relocate to the south side of the Divide Ave interchange. Which is correct?
 10. Appendix B Figure 7 - The figure description says 2-lane section with median and parking, but the layout shows a 5-lane section with no parking? Should the description be revised?
 11. We think this study needs a large exhibit showing the roadway alignments and labels showing the recommendations, street names. Shouldn't the study provide a little more detail on the recommended roadway alignments so that the city can preserve right-of-way as the area develops?

If you have any comments or questions, please contact me at (701) 328-4469 or Denny Johnson at (701) 328-2194.



STACEY M. HANSON, P.E. – INTERIM ASSISTANT LOCAL GOVERNMENT ENGINEER

38/smh

c: Stephanie Hickman – FHWA
Kevin Levi – Bismarck District Engineer

Joel Quanbeck

From: Steve Windish
Sent: Monday, October 04, 2010 11:27 AM
To: Stacey Hanson
Cc: Steve Grabill
Subject: Bismarck Northwest Subarea Study
Attachments: 4488_001.pdf

Categories: Filed by Newforma

Stacey

We have a copy of a letter from Merl Paaverud to Mark Berg dated November 19, 2007 regarding impacts to Chief Looking's Village if Burnt Boat Road was developed. (See Attached) It basically says that Class III CRI must be performed prior to planning any work.

Does NDDOT Cultural Resources section have any input on something like this?

Can the road be constructed with local (or private funds) without a Class III?

Should we contact SHPO for additional information?



J. Steven Windish, PE
Associate Vice President
1412 Basin Avenue • Bismarck, ND 58504
Direct: (701)355-2333 • Mobile: (701)333-8794
www.ulteig.com

Energy • Water • Built-Environment

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**STATE
HISTORICAL
SOCIETY
OF NORTH DAKOTA**

NOV. 20 2007

John Hoeven
Governor of North Dakota

November 19, 2007

North Dakota
State Historical Board

Mr. Mark Berg
Bismarck City Traffic Engineer
PO Box 5503
Bismarck, ND 58506-5503

Albert I. Berger
Grand Forks - President

Chester E. Nelson, Jr.
Bismarck - Vice President

**NDSHPO REF: 08-0136 City of Bismarck
Burnt Boat Creek Road Development
[T139N R 80W Section 30, SW1/4, Burleigh County]**

Gerald Gemtholz
Valley City - Secretary

A. Ruric Todd III
Jamestown

Dear Mark:

Diane K. Larson
Bismarck

Marvin L. Kaiser
Williston

We have completed review of: **08-0136 City of Bismarck, Burnt Boat Creek Road Development, [T139N R 80W Section 30, SW1/4, Burleigh County]**. Attached is a Class I CRI (file and records search) of the parcel in question. As indicated, 32BL3 is a significant National Register site.

Richard Kloubec
Fargo

We strongly encourage that a Class III CRI (pedestrian survey) be completed for the area of potential effect. As such, it provides the information necessary and also aids in the consideration of alternatives early in the planning process.

Sara Otte Coleman
*Director
Tourism Division*

Kelly Schmidt
State Treasurer

Alvin A. Jaeger
Secretary of State

Thank you for the opportunity to review the project, and we would appreciate continued consultation on it as the project develops. If you have questions please contact either Paul Picha at (701) 328-3574 or Susan Quinell at (701) 328-3576.

Douglass Prchal
*Director
Parks and Recreation
Department*

Francis Ziegler
*Director
Department of Transportation*

Sincerely,

Merlan E. Paaverud, Jr.
Director

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and
Director, State Historical Society of North Dakota

enc. as stated

*Accredited by the
American Association
of Museums*



AGENDA

*Bismarck Northwest Sub-Area Study
Bismarck-Mandan
Metropolitan Planning Organization*

MPO Staff Meeting

**9:00 AM – 10:00 AM, October 7, 2010
Ulteig Conference Room A**

1. Review Public Feedback
2. Discuss Recent Concept Development Efforts
 - a. New Graphics
3. Review Draft Report Status
 - a. New Narrative
4. Consider Possible Next Steps / Schedule

a. SRC Meeting Invites	Oct. 9
b. SRC Meeting	Oct. 18 - pm
c. Mtg w/Wocken & Mayor Warford	Oct. 19 - am
d. <u>Oct TAC & PB</u>	<u>Oct. 18,19</u>
e. Neighborhood Meeting Invites	Oct. 20
f. Conduct Neighborhood Meeting	Oct. 28
g. Follow-up SRC Meeting	Oct. 29
h. <u>Optional Story to Media</u>	<u>Nov. 12</u>
i. End 2 nd Comment Period	Nov. 15
j. <u>Nov TAC & PB</u>	<u>Nov. 15,16</u>
k. 3 rd Draft Report	Dec. 31
l. Burleigh County PC	Jan. 12
m. <u>Jan TAC & PB</u>	<u>Jan. 17</u>
n. Bismarck PC	Jan. 26
o. Burleigh County Commission	Feb. 21
p. Bismarck City Commission	Feb. 8
q. MPO TAC / PB	Feb. 21,22
5. Review Scope & Timeline Changes / Future Contract Amendment
6. Other Business
7. Adjourn

**MPO Strategy Meeting Summary
Bismarck Mandan MPO
Bismarck Northwest Sub-Area Study
October 7, 2010
9:00 a.m.
Ulteig Conference Room A**

Attendees

Steve Saunders, Bismarck-Mandan MPO
Carl Hokenstad, Bismarck & Burleigh County Planning
Steve Windish, Ulteig Engineers
Steve Grabill, Ulteig Engineers

Meeting Summary

Mr. Grabill opened the meeting at 9:00 a.m. The following items were discussed.

1. Review Public Feedback

Mr. Windish summarized the public feedback, noting that most comments were from the 64th Avenue and Pinto Place neighborhoods. A comment was received indicating there were some subdivision covenants prohibiting motorized vehicle traffic from the Tyler Coulee corridor. Ulteig has been unable to identify the individual or to locate this information, despite numerous attempts.

2. Discuss Recent Concept Development Efforts

Graphics have been completed to provide greater detail to the concepts in the vicinity of Tyler Parkway and Century Avenue. The group discussed issues with each concept. Regarding the Burnt Boat Drive concept, Ulteig was asked to check with NDDOT's cultural resources to determine whether they will take a position on potential impacts to Chief Looking's Village. Ulteig will also ask whether NDDOT will take a position on the Burnt Boat Drive/Century Avenue realignment concept. It is possible that NDDOT will want to send a representative to the proposed Pinto Place neighborhood meeting.

The concept that realigns Century Avenue to Golf Drive was discussed. It appears this concept is feasible and has positives from the standpoint of Pinto Place. Concerns over fire department access impacts were discussed and Ulteig was asked to review the detailed concept drawings with fire department officials. Ulteig will list pros and cons for this alternative and compare it with other alternatives. Carl suggested a matrix be provided and the group concurred this was a good idea.

3. Review Draft Report Status

The draft Report is still being modified to encompass a more separate and detailed discussion of the alternatives. Mr. Hokenstad will check with Mr. Wocken on whether a Decisions Document should

be prepared and submitted for City Commission consideration.

4. Consider Possible Next Steps / Schedule

The group considered new tasks that should be undertaken prior to completing the study. The group considered whether Ulteig should conduct neighborhood meetings, and if so, to whom? It was determined that Ulteig should meet with people directly affected by any of the Century Avenue extension alternatives. A boundary for mail-outs was drawn up. Other groups would not be met with again since there was no additional concept development or information to provide to other groups. The project website should be updated to note that the presentation schedule provided at the last public input meeting will change.

Mr. Grabill said that the estimate to provide 3-D visuals for the valley was approximately \$5000. He asked whether these visuals were still wanted. Ulteig was asked to include them in the proposed contract amendment and the task could be eliminated later if so desired. There may be up to four versions requested. Two versions would include commercial development and the other two would include no development and only green space.

Ulteig will prepare a contract amendment for consideration of approval (pending City approval) at the October TAC and PB meetings. It was also determined that Ulteig should give another update to the City Commission. A proposed contract amendment would be reviewed at that time.

Mr. Wocken has indicated that he will try to attend future Study Review Committee meetings. The following tentative meeting schedule resulted.

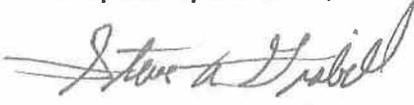
a. SRC Meeting Invites	Oct. 9
b. SRC Meeting	Oct. 18 - pm
c. <u>Oct TAC & PB</u>	<u>Oct. 18,19</u>
d. City Commission Update	October 26
e. Neighborhood Meeting Invites	Nov. 4
f. Conduct Neighborhood Meeting	Nov. 11
g. Follow-up SRC Meeting	Nov. 12
h. <u>Nov TAC & PB</u>	<u>Nov. 15,16</u>
i. Optional Story to Media	Nov. 18
j. End 2 nd Comment Period	Nov. 30
k. 3 rd Draft Report	Dec. 31
l. Burleigh County PC	Jan. 12
m. <u>Jan TAC & PB</u>	<u>Jan. 17</u>
n. Bismarck PC	Jan. 26
o. Burleigh County Commission	Feb. 21
p. Bismarck City Commission	Feb. 8
q. MPO TAC / PB	Feb. 21,22

This schedule assumes that there are no conflicts with the schedules of other individuals throughout the review process. It might be a good idea to extend the contract through the end of March.

5. Other Business

With no other business, the meeting adjourned at 10:30 a.m.

Respectfully Submitted,

A handwritten signature in cursive script, appearing to read "Steve A. Grabill".

Steve A. Grabill, PE, PTOE

Project Manager

Appendix D3 - Communication Records

Time: 9:58 am	Date: June 22, 2009
---------------	---------------------

I, *Steve Windish*, talked with *Dan Polk*

Of Home owner, 1345 Territory Drive.

Phone Number 701-224-9444

- I Called
 - Party Called
 - I Visited
 - I Returned
 - Party Returned
 - Party Visited
 - Conference Call
- Others on Line *By Name and Company if other than UEI*

UEI Job No. 308.357 Subject Bismarck – Mandan MPO Northwest Subarea Study

Mr. Polk wanted to voice some issues and concerns prior to the public input meeting. He is concerned that construction of new arterial roadways will increase the noise level. There are many children in the area, and a middle school. There will be safety concerns. He is concerned that his taxes will be increased to help fund the road construction projects. Outlets to these roadways must be constructed, there are numerous dead ends currently. The fire station should not have been constructed at the Century Avenue intersection. It is a mismanaged intersection, very unsafe. Adding traffic will add to the safety issues.

Action Needed

--

Copied To: Steve Grabill, ,

MEMO

TO: File

CC: Steve Grabill

FROM: Steve Windish

SUBJECT: Bismarck Mandan MPO, Bismarck Northwest Subarea Study
UEI #08.00357

DATE: August 6, 2009

A meeting was held on June 22, 2009 with Bismarck Parks and Recreation regarding the Bismarck Northwest Subarea Study. The purpose of the meetings was to inform them of the study, including the preliminary typical section and roadway alignment alternatives. Additionally, their input was sought to advance alternative development efforts.

Those in attendance were Steve Neu, Bismarck Parks and Recreation, and Steve Grabill & Steve Windish, Ulteig Engineers.

Aerial photos with several possible roadway alignments were displayed to facilitate the discussion.

The study area is enclosed by Interstate 94, Washington Street, Highway 1804, and the Missouri. The intent of the study is to develop a system of collector and arterial roadways of sufficient capacity for full build-out. Most studied look into the future approximately 20 years, this study does not. The study will also include considerations for pedestrian facilities, green space, utility corridors, potential schools, and emergency services.

The following narrative summarizes the feedback received from Bismarck Parks and Recreation (BPR). BPR has completed a comprehensive plan as well as a trail plan. The goal is to have trails spaced so that the maximum walk to a trail is one half mile. A trail has been constructed in the river bottom up to Double Ditch; however there is still one link near town not completed due to lack of easements. BPR has laid our services zones throughout the Bismarck area. Their goal is to provide 40 acres of facilities for

every 1000 population. Funding is available from RTP, TEU, and local funding, though all are limited.

BPR will provide copies of the comprehensive plan as well as other information as needed.

This memo was written based on notes taken during the meeting. If you have any questions, comments, or feel revisions are needed to any of the above, please contact our office.

MEMO

TO: File

CC: Steve Grabill

FROM: Steve Windish

SUBJECT: Bismarck Mandan MPO, Bismarck Northwest Subarea Study
UEI #08.00357

DATE: August 6, 2009

A meeting was held on June 22, 2009 with Bismarck Fire Department regarding the Bismarck Northwest Subarea Study. The purpose of the meetings was to inform them of the study, including the preliminary typical section and roadway alignment alternatives. Additionally, their input was sought to advance alternative development efforts.

Those in attendance were Chief Joel Boesflug, Asst Chief Rod Hickcox, Asst Chief Kermit Schaefer and Fire Marshal Ron Kunda, and Steve Grabill & Steve Windish, Ulteig Engineers.

Aerial photos with several possible roadway alignments were displayed to facilitate the discussion.

The study area is enclosed by Interstate 94, Washington Street, Highway 1804, and the Missouri. The intent of the study is to develop a system of collector and arterial roadways of sufficient capacity for full build-out. Most studied look into the future approximately 20 years, this study does not. The study will also include considerations for pedestrian facilities, green space, utility corridors, potential schools, and emergency services. One possible route that will be included in the study is the extension of Century Avenue through the fire station to River Road.

The following narrative summarizes the feedback received from Bismarck Fire Department. The Fire Department has completed a comprehensive plan which includes emergency control zones throughout the Bismarck area. The station located at the intersection of Tyler Parkway and Century Avenue works well for them, although

traffic is a concern. If the station is relocated north the response time to the city core will be too great. Moving to the southeast along West Divide Avenue may be an option. The cost of the new fire station currently under construction is \$2.7 million without land. A good possible future location will be in the vicinity of the intersection of Clairmont Road and Ash Coulee Drive.

This memo was written based on notes taken during the meeting. If you have any questions, comments, or feel revisions are needed to any of the above, please contact our office.

MEMO

TO: File

CC: Steve Grabill

FROM: Steve Windish

SUBJECT: Bismarck Mandan MPO, Bismarck Northwest Subarea Study
UEI #08.00357

DATE: August 6, 2009

A meeting was held on July 29, 2009 with Bill Clairmont and Lon Romsaas of Swenson and Hagen (S&W) regarding the Bismarck Northwest Subarea Study. The purpose of the meetings was to inform the Mr. Clairmont of the project, including the preliminary typical section and roadway alignment alternatives. Additionally, input was sought to advance alternative development efforts.

Those also in attendance were Steve Grabill and Steve Windish, Ulteig Engineers.

Aerial photos with several possible roadway alignments were displayed to facilitate the discussion. The primary focus of the discussion was the connection of Tyler Parkway and River Road. Three alternatives were presented:

1. Extend Century Avenue west to River Road
2. Realign Century Avenue at Clydesdale Street to Burnt Boat Drive, reconstruct Burnt Boat Drive
3. Realign Century Avenue at Clydesdale Street to Burnt Boat Drive, realign Burnt Boat Drive west of Tyler Parkway to the Century Avenue Extension.

The important issue is to provide a roadway facility to carry the projected traffic between River road and Tyler Parkway.

S&W have been working with Mr. Clairmont to develop this property for some time. The reconstruction of Burnt Boat Drive has been presented to the City of Bismarck. The City's concerns include slope instability, cultural resources, etc. S&W have contacted SHPO regarding the potential project. They have responded saying that no soil can be disturbed due to construction.

The Century Avenue extension was considered by Mr. Clairmont. He requested the alignment be shifted southerly to the toe of the escarpment, following the proposed storm sewer easement. Their concern regarding this alignment is the crossing of Jackman Coulee. The current stormwater masterplan requires all roadway crossings to be designed and constructed to "High Hazard" dam standards. They have a street masterplan including Clairmont Road connections. Construction of the Century Avenue extension must have minimal negative impact of this plan.

This memo was written based on notes taken during the meeting.



Communication Record

Time: 2:00 pm	Date: October 26, 2009
---------------	------------------------

I, *Steve Windish*, talked with *Dan Cimarosti*

Of *US Army Corps of Engineers*.

Phone Number *(701) 255-0015*

- I Called Party Called I Visited
 - I Returned Party Returned Party Visited
 - Conference Call
- Others on Line *By Name and Company if other than UEI*

UEI Job No. *R08.00357* Subject *Bismarck Northwest Subarea Study*

I met with Mr. Cimarosti to discuss the NW Subarea in regard to the alternative alignment proposed by Bill Clairmont. This alternative alignment includes constructing an arterial roadway adjacent to and over Tyler Coulee between Tyler Parkway and Clairmont Road. This alternative may impact up to 4000 feet of Tyler Coulee, including installation of storm water conveyance pipe, roadway fill, and channel armoring downstream.

Mr. Cimarosti stated that the proposed alternative would probably fall under an "Individual Permit" application. The affected wetlands would have to be mitigated. As they are a stream bed and associated overbank wetlands mitigation will be difficult. Out-of-kind mitigation is allowed, however he did not elaborate. The alternative would have to be shown to be the least damaging, most practicable solution.

Other alternatives to be considered should include:

1. Tyler Parkway
2. Clairmont Road
3. Tyler Coulee/West Valley Drive combination

Action Needed

Continue to analyze the alternative alignments, including engineering and construction costs. Environmental documentation for Urban Federal Funding should also be considered.

Copied To: , , ,
, ,

Time: 8:30 am	Date: November 3, 2009
---------------	------------------------

I, *Steve Windish*, talked with *Marcus Hall*

Of *Burleigh County Engineer*.

Phone Number (701) 221-6870

- I Called Party Called I Visited
 I Returned Party Returned Party Visited
 Conference Call
 Others on Line *By Name and Company if other than UEI*

UEI Job No. R08.00357 Subject *Bismarck Northwest Subarea Study*

I met with Mr. Hall to discuss the various alignments of the arterial and collector system within the study area. Mr. Hall had provided concepts previous to the meeting. The various alignments were all shown on one area photo with contour line underlain.

Mr. Hall requested 57th Avenue be redrawn between the section line and the power transmission line. Discussion of the alternative connections to River Road and the bottom land ensued. If the alignment stays on the section line, Mr. Hall would like a grade separation structure of some sort to be considered at River Road. It is not physically possible to construct an at-grade intersection. Mr. Hall would like River Road to continue as a through roadway for its entire length. The alignment alternative with the roadway traversing down the ravine is acceptable, if the grades and drainage can be maintained.

Mr. Hall would like to see the intersection of River Road and Burnt Boat Drive remain as is, with the future "Fernwood Drive" alignment coming into this intersection as well creating a typical 4-legged intersection. He would like River Road to remain a through roadway for its entire length, which would facilitate traffic movements as well as snow removal and other maintenance.

Mr. Hall had no objection to the proposed Tyler Coulee alignment if grades and drainage can be maintained.

Action Needed

Continue to analyze the alternative alignments, including engineering and construction costs.

Copied To: , , ,
 , ,



Communication Record

Time:	Date: February 11, 2010
-------	-------------------------

I, *Steve Windish*, talked with *Roger Bailey*

Of

Phone Number

- I Called
- Party Called
- I Visited
- I Returned
- Party Returned
- Party Visited
- Conference Call
- Others on Line *By Name and Company if other than UEI*

UEI Job No. R08.00357 Subject Bismarck Northwest Subarea Study

Mr. Bailey requested a meeting to discuss the impacts of the proposed roadway alignments to his property. He first met with representatives of the MPO who asked him to contact Ulteig for detailed information. Mr. Bailey owns approximately 80 acres in the SW 1/4 of Scetion 13, north of Sandy River Road and west of River Road. Their home is located in the nortwest 1/4 of section 23, at the end of the current Fernwood Drive alignment. They also own a small parcel in the northwest 1/4 of section 23. He stated that in his opinion Fernwood Drive is not constructed on the section line. There are two section corner monuments at the corner of Fernwood Drive and Sandy River Road, which are several feet apart. If Fernwood Drive is widened in its present location, his garage would be less than 10 feet from the roadway. The proposed alignment of the River Road Relief route that was proposed in the River Road Study was discussed. This alignment separates approximately 10 acres from the remaining 70 acres. The Subarea Study is recommending following section lines and quarter lines to the extent possible in an attempt to reduce this division of property. They also have a permitted irrigation canal from the Missouri River, crossing the future Fernwood Drive alignment, and then north to their 80 acres. Mr. Bailey asked how this will be maintained when Fernwood Drive is extended. The irrigation canal will be maintained by installation of a box culvert or bridge, depending on the capacity that is permitted. Or, the governing agency and the landowner could negotiate the purchase of the water rights and eliminate the canal. Mr. Bailey was told that these proposed routes will not be constructed untill there is a demand for them. The local governmental agencies cannot afford to construct roadways without residential demand. Most likely, the developers will be required to construct the roadways as part of their initial development, and expansion of the roadways when the need arises will be the responsibility of the governing agency. The results of the study will be a proposed layout of collector and arterial routes with capacity for full build out. Full build out for this study is urban residential density in the entire study area. Mr. Bailey stated that the "word on the street" from his neighbors is Fernwood Drive will be constructed to a 4-lane roadway by 2016. He was informed that we have not heard this from any governmental agency or that this will be a recommendation in the report.

Action Needed

none



Communication Record

Time: 2:00-4:10 p.m.	Date: February 15, 2010
----------------------	-------------------------

I, *Steve Grabill*, talked with *Gary Kramlich, Mike and Elizabeth Ward*

Of Watne Inc. Realtors, and Representatives of the Ward Family .

Phone Number *701-852-1156*

- I Called
- Party Called
- I Visited
- I Returned
- Party Returned
- Party Visited
- Conference Call
- Others on Line

UEI Job No. R08.00357 Subject Bismarck Northwest Subarea Study

I presented the current corridor alignments being considered for the Northwest Subarea Study. I explained why the alignments had changed so much from previous studies. I said that most corridors would probably be developed as needed when development occurs. I said that in some cases, corridors may be 20 or more years in the future before they are needed.

I said an exception may be 57th Avenue and that the County has indicated an interest to acquire that right of way and maybe built it sooner. Mr. Kramlich and the Wards were disappointed that they had not received notification of the earlier public meeting. I said I didn't know why they didn't receive the notice. I said letters were sent out to all property owners in the region.

They feel that the process is much less effective when utilities aren't considered from a planning standpoint. I explained that the federal funding may not allow for a detailed investigation of utility needs and that a detailed analysis of utilities was not in the current Scope of Services. I said I would relay to the MPO their feeling that more consideration of the utility needs should be studied now. I also said we would try to show existing utilities on our future drawings.

They provided no suggestions for changing the proposed alignments. They did, however, want to meet with the City and County staff to discuss their needs from a development standpoint. I said I would try to arrange a meeting in the near future.

We discussed the various ravines within the Study area. They felt it made more sense to use the ravines when extending 57th Avenue across River Road. I agreed to send them drawings showing the concepts developed for 57th Avenue to extend from the high land to the low land.

They also felt that if the ravines were not going to be used by future roads, they would want to develop within the ravines. The Regional Future Land Use Study identified these areas as potential future green space. They wanted that switched to reflect residential development. I pointed out that in at least one case, there was archaeological finds that might make it difficult to develop or use for roads. I agreed to send them that information.



Communication Record

Action Needed

Show utilities on drawings Send archaeological drawings Send maps showing concepts for extending 57 th Avenue across River Road.

Copied To: Steve Windish, Joel Quanbeck, Marie Baker,
Study Review Committee Members, ,



Memo

3350 38th Ave. S.
Fargo, North Dakota 58104
Phone: (701) 280-8500
Fax: (701) 237-3191

Date: June 23, 2010

To: Steve Saunders (Bismarck Mandan MPO)

From: Steve Grabill, PE, PTOE

Subject: Northwest Bismarck Sub-Area Study

Project #: R08.00357

Dear Steve,

On June 14, 2010 we met with Bill Wocken to report on the status of the Northwest Bismarck Sub-Area Study. At that meeting, he requested that we develop a new alignment concept for the extension of Century Avenue west of Tyler Parkway. It was hoped that this concept would allow Century Avenue to be extended without impacting the Fire Station and other surrounding buildings.

The attached drawing reflects how this concept would look, based on a minimum design speed of 30 mph through the Tyler Parkway intersection. Based on this concept, we have concluded that it is not feasible to fit an adequate design roadway through this area without impacting at least one building. Further, it appears that placement of curves in the immediate vicinity of Tyler Parkway would result in a skewed intersection, resulting in reduced visibility and safety.

Please contact me if you have any questions or wish to discuss this concept in more detail. We would also appreciate your assistance in forwarding this information to Bill Wocken at your convenience. Thank you!

Joel Quanbeck

From: Steve Windish
Sent: Friday, October 08, 2010 7:44 AM
To: Steve Saunders
Cc: Steve Grabill
Subject: Northwest Subarea Study

Categories: Filed by Newforma

Steve

Justice Sandstrom visited our office late in the day yesterday, October 7, 2010. We will be providing a record of communications later today.

However, there are 5 items that need more immediate attention. Justice Sandstrom requested the following:

1. A copy of public input received to-date.
2. Copy of the Public Meeting Summary. Ulteig has not completed this and would like MPO review and approval prior to it being released.
3. A copy of (or at least a review of) the Class 1 Cultural Resource Inventory completed for this project. As a reminder, FHWA is concerned that due to the detail in the report, that it only be released to the public in general terms.
4. Backup files for previous steering committee meetings. The majority of this information is in our Fargo office.
5. Invitation to attend future steering committee meetings.

Justice Sandstrom will be returning to Ulteig's office on Monday to review the documents. Please let us know how you would like to proceed.

Thank you



Steve Windish, PE

Associate Vice President

1412 Basin Avenue • Bismarck, ND 58504

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www.ulteig.com

Energy • Water • Built-Environment

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Communication Record

Time: 2:00 PM	Date: October 14, 2010
---------------	------------------------

I, *Steve Windish*, talked with *Dr. Edward and Shirley Keller*

Of *1732 Golf Drive*.

Phone Number

- I Called
- Party Called
- I Visited
- I Returned
- Party Returned
- Party Visited
- Conference Call
- Others on Line *By Name and Company if other than UEI*

UEI Job No. R08.00357 Subject Bismarck Northwest Subarea Study

Keller's own the north half of the twin home that would be impacted by the Century Avenue Extension. Upon my arrival Mrs. Keller toured me around their yard and the inside of their home.

I provided a brief history of the study, we were hired by the MPO to develop a transportation corridor system to safely and efficiently move traffic within the study area throughout development. The City of Bismarck initiated the study, through the MPO.

We briefly discussed the analysis completed to develop the draft Study, also used for the Public Input Meeting.

Golf Drive, as a tee intersection between Century Avenue and Burnt Boat Dr, does not provide adequate distance for all three intersections to function properly.

Burnt Boat Dr alignment, results in traffic congestion into the interchange, cultural resource issues on the west end, and impacts to businesses adjacent to Clydesdale Dr.

Century Avenue extension, best from a traffic operations stand, except for the Pinto Place entrance, it does impact the firestation and the twin homes.

Several months of analysis and discussion prior to making the recommendation.

Comments received at and since the public input meeting have led us to much greater detailed analysis of the three alternatives.

Golf Drive alignment, Century Avenue realigned to cross Tyler Coulee at Golf Drive, relocation of two businesses, impacts the entrance to the fire station, and could impact the operations of Burnt Boat Drive.

Burnt Boat, traffic impacts to the interchange are being re-examined, additional impacts to businesses compared with original analysis.

Century Avenue extension, additional analysis is being performed.

The three alternatives, with positives and negatives, will be presented in the study and to the various commissions. The final determination of which route will be made by the Bismarck City Commission.

I left a copy of Figure 12 from the draft study. They are still opposed to the Century Avenue Extension alternative, which is understandable.

They asked if we were planning to meet with the Pinto Place residents. A group meeting of this nature would be considered a public meeting and the entire study area would need to be included. However, if individual residents would like to discuss, we can meet with them.

The estimated time line was discussed. At this time it is anticipated that potential construction is more than 10 years away, maybe in the 15 to 20 year range. Capacity issue will be the reason to complete the roadway between Tyler Parkway and River Road. Also funding sources will need to be determined.

Relocation and acquisition was discussed. Current Federal requirements for fair market value, the right to a second appraisal of their choosing, negotiations, etc. Also relocation to a home of similar handicap accessabililty, layout, etc.

Action Needed

none

Copied To: , , ,

, ,

Joel Quanbeck

From: Don Mastel <Don.Mastel@nisc.coop>
Sent: Thursday, October 21, 2010 9:58 AM
To: Steve Grabill
Subject: Comments from Subareastudy Page

Categories: Filed by Newforma

Hi Steve,

Wanted to visit with you in regards to the sub area study that is taking place in NW Bismarck. Could you please call me at 226-1220. Your time would be greatly appreciated!

Thanks,
Don Mastel



Communication Record

Time: 3:50 PM	Date: October 21, 2010
---------------	------------------------

I, *Steve Grabill*, talked with *Don Mastel*

Of

Phone Number 701-226-1220

- I Called
- Party Called
- I Visited
- I Returned
- Party Returned
- Party Visited
- Conference Call
Others on Line

UEI Job No. R08.00357 Subject Bismarck Northwest Subarea Study

I called Mr. Mastel in response to his request received via email. He is looking at possibly purchasing a house in the vicinity of LaSalle Drive northwest of Horizon School. He asked about the future collector roads in the area and was concerned about the potential of double frontage for one of the lots he was looking at.

I suggested he talk to City Planning. I told him that the area was currently being planned for residential development. I said that from the traffic perspective, we prefer the future collector roads have limited access, which could result in some double frontage lots. I said that those decisions are typically made during the platting process and suggested that he should also talk to the developer.

Action Needed

Copied To: , Steve Windish, Steve Saunders,
 , Carl Hockenstad,



Communication Record

Time: 2:00 PM	Date: December 28, 2010
---------------	-------------------------

I, *Steve Grabill*, talked with *Mark Berg*

Of *Bismarck Traffic Division*.

Phone Number *355-1529*

- I Called
- Party Called
- I Visited
- I Returned
- Party Returned
- Party Visited
- Conference Call
Others on Line

UEI Job No. R08.00357 Subject Bismarck Northwest Subarea Study

All mile line roads should be referred to as Principal Arterial Roadways, with some exceptions.
 Ash Coulee - Keep as arterial if extended to River Road, as collector if extended to Clairmont only.
 Burnt Boat Drive - Discuss the impact of steep grades on use by trucks. Discuss how Burnt Boat Drive impacts corridor and intersection performance within the Tyler Parkway vicinity.
 Table 3 - Note ranking addresses system level comparisons more than corridor or intersection level comparisons. Adjust some rankings, showing Golf Drive as having the largest Business impacts.
 Other, more minor wordsmything and changes were requested and addressed.

Action Needed

Revise draft Report as requested.

Copied To: , , ,
, ,

Appendix D4 - Steering Committee Meetings

NORTHWEST BISMARCK SUB-AREA STUDY commission newsletter

Report 1 • July 2009

Special Interest:

- This is the 1st planned status report
- Over the course of the Study, 2 public-input meetings will be held
- Prior Status Reports: None

Next Status Report:
Fall 2009

Inside This Issue:

Background

What's Been Done?

Commission Food
for Thought

What's Next?

Project:

1st Public Input
Meeting -
June 30, 2009

Background

The Bismarck-Mandan Metropolitan Planning Organization (MPO) initiated the Northwest Bismarck Sub-area Study on February 17, 2009. This study, scheduled to be completed by December 1, 2010, has the following objectives:

- To identify solutions that accommodate development and the need for mobility
- To establish a system of transportation collector and arterial corridors to meet the mobility needs of the studied region
- To select the short and long range optimum alignments for these corridors
- To identify potential impacts and associated mitigation strategies
- To facilitate stakeholder and decision maker involvement that informs, educates, receives and responds to their input
- To secure jurisdictional buy-in on preferred alternatives and implementation strategies

Ulteig, as the MPO's consultant, will be providing newsletters to keep you informed of the Study's progress.

We will appear before elected officials on at least 2 occasions to discuss key project activities at strategic times in the Study process.

What's Been Done?

The Steering Committee met in January for the Study kick-off meeting to confirm the project understanding and approach.

Project tasks and the levels of effort were reviewed and the Steering Committee roster was also finalized at the kick-off meeting.

The Steering Committee met in April to identify preliminary arterial and collector street alignments. Issues such as access, grade, and aesthetics were discussed.

Ulteig presented some urban typical sections developed for the residential arterials in other regions.

ATAC has been involved with the modeling efforts. Ulteig met with them to discuss the roadway network and desired traffic projection model inputs.

The archaeological file search has been conducted by Beaver Creek Archaeology for the Study Area. Results were presented to the Steering Committee.

Ulteig

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Contact Person:
Steve Windish
Project Liaison

Phone:
701-355-2333
Email:
steve.windish@ulteig.com

Project Website:
subareastudy.com

Steering Committee Members

Mark Berg
Steve Saunders
Ben Ehreth
Carl Hokenstad
Marcus Hall
Stacy Hanson
Rod Hickox
Kim Lee
Kevin Levi
Steve Neu
Mary Senger
Gary Stockert
Steve Grabill
Steve Windish

Ulteig

Commission Food for Thought

Most of the region included in the Northwest Bismarck Sub-area Study is planned for urban residential development. It is therefore important to plan for a transportation system that compliments neighborhood development.

Transportation system features that are consistent with neighborhood development include:

- Provision of quality pedestrian, bicycle and transit facilities
- Development of roadways that discourage high travel speeds
- Establishment of aesthetically-pleasing corridors that support the neighborhood environment
- Provision of features that promote sustainable development

What's Next?

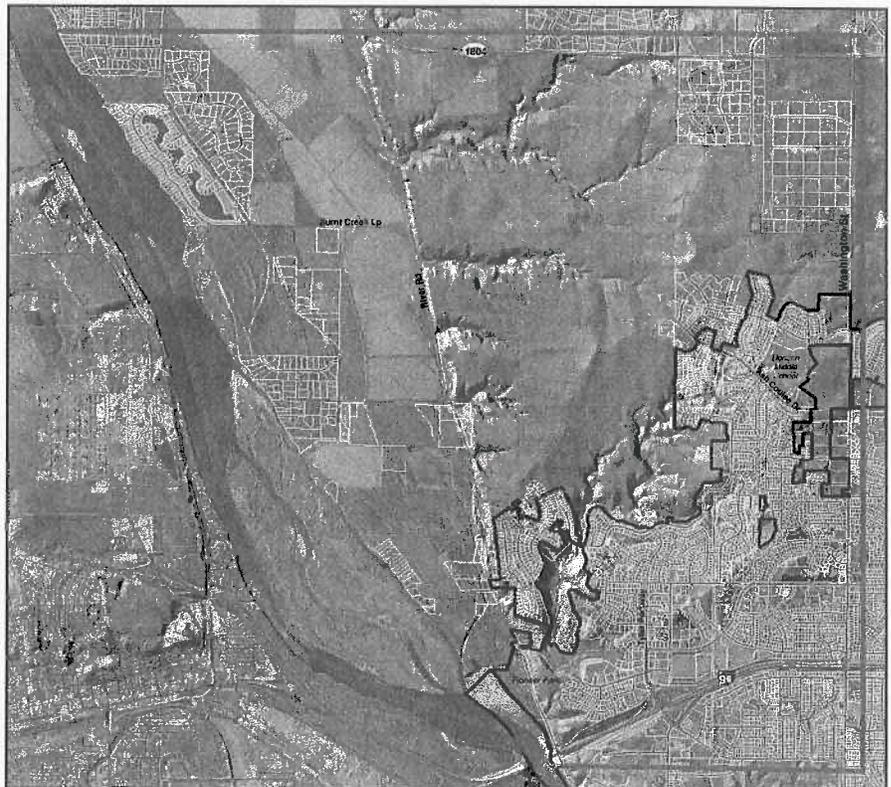
Ulteig will conduct the first public input meeting on June 30. Prior to the general public input meeting, Ulteig will contact area developers & major landowners and offer to meet with them one-on-one.

Preliminary corridor alignments will be developed for the public to comment on. Comments will be received and inserted into an appendix of the final report.

The model projections developed by ATAC will be reviewed. Ulteig can then verify how many lanes will be needed to move the projected traffic. This will be useful in establishing a vision for the region consistent with travel needs and the intended types of development.

During July and August, Ulteig will meet with the Steering Committee to fine-tune recommended corridor alignments and continue building a vision for the study area.

Study Area Map



NORTHWEST BISMARCK SUB-AREA STUDY commission newsletter

Report 2 • September 2009

Special Interest:

- This is the 2nd planned status report
- Over the course of the Study, 2 public-input meetings will be held
- Prior Status Reports: July 2009

Next Status Report:
Winter 2009

Inside This Issue:

Background

What's Been Done?

Commission Food
for Thought

What's Next?

Project:

1st Public
Input Meeting:
June 30, 2009

2nd Public
Input Meeting:
1st Quarter 2010

Commission Update
Presentations:
October 2009

Background

The Bismarck-Mandan Metropolitan Planning Organization (MPO) initiated the Northwest Bismarck Sub-area Study on February 17, 2009. This study, scheduled to be completed by December 1, 2010, has the following objectives:

- To identify solutions that accommodate development and the need for mobility
- To establish a system of transportation collector and arterial corridors to meet the mobility needs of the studied region
- To select the short and long range optimum alignments for these corridors
- To identify potential impacts and associated mitigation strategies
- To facilitate stakeholder and decision maker involvement that informs, educates, receives and responds to their input
- To secure jurisdictional buy-in on preferred alternatives and implementation strategies

Ulteig, as the MPO's consultant, will be providing newsletters to keep you informed of the Study's progress.

We will appear before elected officials on at least 2 occasions to discuss key project activities at strategic times in the Study process.

What's Been Done?

A public input meeting was held on June 30, 2009 at the Good Shepherd Lutheran Church - North Campus. The meeting began at 5:30 pm with an open house. Attendees reviewed project displays and discussed project issues with staff. Seventy-five property owners and business representatives were in attendance.

A formal presentation was given at the meeting that discussed the study, what has been learned so far, and issues that have been identified. Preliminary corridor alignments and typical sections were also presented.

Meeting attendees were given the opportunity to ask questions and provide comments to the project team. Several people emailed in and contacted us through our website to provide further input.

Since that time, we have been gathering more feedback from major landowners and developers, the fire department, parks and recreation and the school district. We are looking at a more detailed land use assessment than what was created in the Regional Land Use Plan. Traffic projections are also being evaluated to identify corridor needs.

Ulteig

1412 Basin Avenue
Bismarck, ND 58504

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Phone:
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701-224-1163

Contact Person:
Steve Windish
Project Liason

Phone:
701-355-2333
Email:
steve.windish@ulteig.com

Project Website:
subareastudy.com

Steering Committee Members

Mark Berg
Steve Saunders
Ben Ehreth
Carl Hokenstad
Marcus Hall
Stacy Hanson
Rod Hickox
Kim Lee
Kevin Levi
Steve Neu
Mary Senger
Cary Stockert
Steve Grabill
Steve Windish

Ulteig

Commission Food for Thought

The following comments have been received from residents and concerned citizens about the study (number of comments received):

- Do not extend 64th Avenue (5)
- Extend Century Avenue (2)
- Do not extend Century Avenue (3)
- Want to be kept informed (3)
- Extend Daytona into Interstate Avenue
- Extend Golf Drive along water main to Clairmont Road/River Road
- Building shopping center on north side
- Use Burnt Boat Drive, not Golf Drive
- Use Burnt Boat Drive, not Century Avenue
- Concerned with impacts if Sandy River Drive is extended east from River Road
- Access to Horizon is limited
- Do not increase traffic on Ash Coulee without plans to fix it
- Right-of-Way needs
- Timeline for annexation and improvements requested
- Need for bike and pedestrian facilities
- Concern about the Ash Coulee/Washington Street intersection bottleneck
- Washington Street and 64th Avenue intersection is dangerous

One challenging issue appears to exist regarding a roadway connecting River Road to Tyler Parkway at either Burnt Boat Drive or Golf Drive. The Study is considering various alternatives and plans to offer objective comparisons for these alternatives.

Another challenging issue relates to the use of Ash Coulee Road in the vicinity of Horizon Middle School. Alternatives are being explored to calm traffic in the region and potentially even minimize traffic increases in the future.

What's Next?

The Steering Committee will be meeting in early October to review land use implications relative to corridor alignments. We intend to incorporate the desires of the landowners and developers into the technical/community oriented needs of the study area. The draft Report is expected to be available sometime after the first of the year.

Study Area Map



PUBLIC HEARINGS

CONDUCTED on behalf of the
Bismarck-Mandan
Metropolitan Planning Organization

WHEN?

Bismarck Planning Commission – 5:00 p.m. on 1/26/11
Bismarck City Commission – 5:15 p.m. on 2/8/11

WHERE?

Tom Baker Room
City/County Building
221 N. 5th Street
Bismarck, ND

WHY?

To receive final comments on the
Northwest Bismarck Sub Area Study Report

This Study addresses the region bounded by Washington Street, the Missouri River, Interstate 94 and ND Highway 1804 in the City of Bismarck and Burleigh County. The Study provides a plan for a transportation system (including collector and arterial roadways, pedestrian and bicycle facilities) that will meet the areas need for mobility while enhancing the opportunity for this land to develop. The public is invited to attend the hearings and provide their comments to the Commissioners.

Issues: Future corridor plans, right of way needs, property and environmental impacts, traffic and parking impacts, non-motorized needs, constructability, access needs and impacts on existing and future development, including developments along Golf Drive, Burnt Boat Drive, Century Avenue, Tyler Parkway, Ash Coulee Drive, 64th Avenue North, Fernwood Drive and River Road will be discussed.

Final Report Viewing: The Final Report is available for viewing at the Bismarck Public Library, the Bismarck Community Development Dept., and on the project website: <http://subareastudy.com/>.

Requests for special facilities to assist persons with disabilities in the hearings should be received at least 3 working days prior to the meeting. **WRITTEN STATEMENTS** or comments about this study must be sent by January 31 to J. Steven Windish, PE, Ulteig Engineers, 1412 Basin Avenue, Bismarck, ND 58504, phone 701-355-2333, email Steve.Windish@Ulteig.com.

**CITY PLANNING & ZONING COMMISSION
MEETING MINUTES
January 26, 2011**

The Bismarck Planning & Zoning Commission met on January 26, 2011, at 5:00 p.m. in the Tom Baker Meeting Room in the City-County Office Building, 221 North 5th Street. Vice Chairman Armstrong presided.

Commissioners present were Mark Armstrong, Tom Atkinson, Mel Bullinger, Jack Hegedus, Curt Juhala, Vernon Laning, Lisa Waldoch and John Warford.

Commissioners Jo Conmy, Ken Selzer and Wayne Yeager were absent.

Staff members present were Carl Hokenstad – Community Development Director, Kim Lee – Planning Manager, Gregg Greenquist – Planner, Jason Tomanek – Planner, Kimberley Gaffrey– Office Assistant III, Steve Saunders – MPO Planner, Ben Ehreth – MPO Planner, Ray Ziegler – Building Official and Charlie Whitman – City Attorney.

Others present were Steve Windish and Steve Grabill – Ulteig Engineers, Marcus Hall – Burleigh County Engineer, Brent Erickson – 128 Soo Line Drive, Jake Axtman – 909 Basin Avenue, Randy Hellman – 1704 Valley Drive, AJ Wallevand – Ulteig Engineers, Tim Atkinson - Burleigh County Planning Commission Chairman, James Small – Burleigh County Planning Commissioner, Brian Bitner – Board of County Commissioner, Kathy Fortney – 618 West Interstate Avenue, Harvey Schneider – Toman Engineering, Stacy Tschider – 8606 Island Road, Jeff Jonson – 1825 Harbor Drive, Matt Thompson – 928 Arthur Drive, Jeff Hinz – 3301 Hackberry Street, Don Ronsberg – 1209 Restful Drive, Terry Sailer – 1313 Restful Drive, Evelyn & Mark Orth – 3725 Promontory Drive, Dave & Colleen Pearce – 5001 Fernwood Drive, Kathleen Jones – 4380 Wildwood Street, Ingrid & Roger Bailey – 4051 Sandy River Drive, Steve Kahl – 1734 Pinto Place, Dale Sandstrom – 1748 Pinto Place, Ellen & Allen Lukes – 1749 Pinto Place, Jim Grunefelder – 1707 Pinto Place, Lana Hanson – 1762 Pinto Place, Bonnie Staiger – 419 East Brandon Drive, Lon Romsaas – 1301 Laramie Drive, Dave Patience – 909 Basin Avenue, Roger Hagen – 1932 North Grandview Lane, RW Robinson – 2220 West Harbor Drive, Emil Kirschenmann – 5401 Fernwood Drive, Shirley Keller – 1732 Golf Drive, Dr. Ed Keller – 1732 Golf Drive, C Peterson – 200 Ridge Land Loop, Marcia Kilzer – 1982 Mesquite Loop and LeAnn Eckroth – Bismarck Tribune.

MINUTES

Vice Chairman Armstrong called for consideration of the minutes of the December 15, 2010 meeting.

MOTION: Commissioner Warford made a motion to approve the minutes of the December 15, 2010 meeting as received. Commissioner Atkinson seconded the motion and it was unanimously approved with Commissioners Armstrong, Atkinson, Bullinger, Hegedus, Juhala, Laning, Waldoch and Warford voting in favor of the motion.

PUBLIC HEARING – MPO NORTHWEST BISMARCK SUB-AREA STUDY

Steve Grabill with Ulteig Engineers presented the Northwest Bismarck Sub-area Study. The executive summary is attached as Exhibit A.

Vice Chairman Armstrong opened the public hearing for the Northwest Bismarck Sub-area Study.

Terry Sailer said he is not in favor of the 64th Avenue NW and Sonora Way extensions.

Shirley Keller commented that she is the owner of one of the twin homes and 19 trees that would have to be destroyed if Century Avenue is extended west.

Steve Kahl stated that he is disappointed in the outcome of the Northwest Bismarck Sub-area Study because at the last public input meeting suggestions were made to move back the diversion of Century Avenue to meet Burnt Boat Drive and they were ignored. Mr. Kahl finished by saying there are problems with the study itself and also how it has been conducted.

Don Ronsberg said that he is also concerned with the 64th Avenue NW and Sonora Way extensions because he foresees a majority of the traffic being driven on that road will be high school students trying to gain access to Horizon Middle School and become a real issue.

Randy Hellman stated that he would like to see more about the Tyler P Coulee option, rather than running on Tyler Parkway, because it is all residential north of Century Avenue and there is already a lot of traffic.

Dale Sandstrom expressed a concern regarding the process. He went on to say that at the public input hearings he requested to be notified of any meetings of the technical group or sub groups, if there were any new recommendations and was assured he would be notified. Mr. Sandstrom continued by saying he was not given any notice and was told by Steve Grabill there were no meetings during that period. He said that even though the notice of this meeting and the ad that was in Monday's newspaper stated that the documents would be available online and at the public library, they were not. Mr. Sandstrom added that he called the telephone number listed in the newspaper ad and only got voicemail so he emailed the members of the Board of City Commissioners pointing out the lack of information. He continued by saying he then received a telephone call from Steve Grabill on Monday afternoon and was told that report was not finished and it should be available pretty soon. Mr. Sandstrom added that the 88 page report was finally available online, late Monday afternoon and the process is not reasonable.

Steve Grabill explained that Mr. Sandstrom is correct; the report was not available online until late Monday afternoon because he was waiting on last minute comments from the Federal Highway Administrations.

Tim Atkinson said that he would like to see more dedicated bicycle lanes on the streets, like they are doing in a much smaller community like Dickinson.

Marsha Kilzer asked for further explanation regarding the extension of a roadway in Tyler Coulee.

Steve Grabill responded by saying that the Tyler Coulee extension would essentially start at Burnt Boat Drive or some other extension of Century Avenue and would extend north through the coulee east of Clairmont Road, cross Valley Drive, connecting Tyler and Ash Coulee. Mr. Grabill said that there are concerns of constructability and restrictive covenants in the area.

Roger Bailey said he has attended several of these public hearings and would like to know how much the public matters.

Vice Chairman Armstrong answered by saying that public input is a very important part of the process and the Commissioners want to hear from the public.

Lana Hanson stated that she would be affected by the Golf Drive, Burnt Boat Drive and the River Road corridors and does not think they offer viable solutions.

Bonnie Staiger commented that the part of the city that is being discussed with the study holds a very special aura and it is so important that everyone take the time develop that area respectfully.

Vice Chairman Armstrong closed the public hearing.

After some discussion it was the general consensus of the Bismarck Planning & Zoning Commission to continue the public hearing on the Northwest Bismarck Sub-area Study to the next meeting.

MOTION: Commissioner Hegedus made a motion to continue the public hearing on the Northwest Bismarck Subarea Study to the February 23, 2011 Bismarck Planning & Zoning Commission. Commissioner Juhala seconded the motion and it was unanimously approved with Commissioners Armstrong, Atkinson, Bullinger, Hegedus, Juhala, Laning, Waldoch and Warford voting in favor of the motion.

CONSIDERATIONS –

ZONING CHANGE FROM R10 TO R10, RM30, RMH AND CG AND PRELIMINARY PLAT – STONECREST SECOND ADDITION

ZONING CHANGE FROM R10, RM15, & P TO R10, RM15 AND P AND PRELIMINARY PLAT – EDGEWOOD VILLAGE FOURTH ADDITION

ZONING CHANGE FROM A & PUD TO RT & CG - LOT 1, BLOCK 1, KOCH CREEK SUBDIVISION

ZONING ORDINANCE TEXT AMENDMENT – FP-FLOODPLAIN DISTRICT

ZONING ORDINANCE TEXT AMENDMENT – DC-DOWNTOWN CORE & DF-DOWNTOWN FRINGE DISTRICTS

Vice Chairman Armstrong called for consideration of the following consent agenda items:

- A. A zoning change from the R10-Residential zoning district to the R10-Residential, RM30-Residential, RMH-Residential and CG-Commercial zoning districts and preliminary plat for Stonecrest Second Addition. The property is 19 lots in 7 block on 37.61 acres located In northeast Bismarck, less than ½ mile north of Century Avenue on the west side of Centennial Avenue (part of the N½ of the SE¼ of Section 23, T139N-R80W/ Hay Creek Township).

Burleigh County Commission 2011 Meeting Minutes

February 7, 2011
5:00 P.M.

The Burleigh County Commission convened a regular meeting with all members present.

Chairman Bitner called the meeting to order with the first item of business the approval of the January minutes and vouchers.

Motion by Comm. Woodcox, 2nd by Comm. Armstrong, to approve the January meeting minutes as presented. All members voted "AYE." Motion carried.

Comm. Woodcox stated that he reviewed the vouchers and recommended approval of the same.

Motion by Comm. Woodcox, 2nd by Comm. Armstrong, to approve payment of the vouchers, journal vouchers, and filing fee reports as presented. All members voted "AYE." Motion carried.

Deputy Auditor/Tax Director Vietmeier appeared with the following abatements for the Board's consideration:

Motion by Comm. Armstrong, 2nd by Comm. Schonert, to approve the Easton, Hegel, Dockter, Hansen, Gunderson, Wolf, Hornbacher, Diede, and Neigum abatements as requested. All members voted "AYE." Motion carried.

Steve Grabill, Ulteig Engineers on behalf of the Bismarck-Mandan MPO, appeared to update the Commission, and receive questions and comments regarding the Bismarck Northwest Subarea Study. Grabill noted the Study addresses the region bounded by North Washington Street, the Missouri River, Interstate 94, and ND Highway 1804. Grabill reviewed the executive summary with the Commission noting the public comments from the previous public hearings have been incorporated into the study final document. Grabill highly recommended 57th Ave NW as a corridor between the low lands (River Road) and the highlands (Washington St).

Chairman Bitner questioned where the improvement of 57th Ave NW is on our priority list.

County Engineer Hall appeared and complimented Grabill on the study. Hall noted the issue of moving traffic usually revolves around whether you build a road to encourage development or build roads to follow development. Hall continued transportation planning requires a delicate balance between the two. Hall stated the 2011 road project priority list includes right of way acquisition for 57th Ave and 15th St in this area. Hall noted his short-term plans would be for the construction of smaller 2-lane roadways with expansion of the roads as the need arises. Hall stated generally he expects to need 150' of right of way with more necessary along the bluff to account for the terrain.

Linda Axtman, Al Lukes, and Marsha Kilzer all appeared and presented comments regarding the study and area traffic.

The Commission, by consensus, requested the Axtman, Lukes and Kilzer comments be noted by Grabill and made a part of the study. No further action was taken.

Engineer Hall appeared and presented his monthly report, a complete copy of which is on file and available for inspection in the office of the county auditor/treasurer. Hall presented the results of the bid opening held February 2nd for furnishing concrete and metal culverts.

Motion by Comm. Armstrong, 2nd by Comm. Woodcox, to accept the low bids from Cretex Concrete Products West for furnishing concrete culverts and Johnston Fargo Culvert for furnishing metal culverts. All members voted "AYE." Motion carried.

Motion by Comm. Woodcox, 2nd by Comm. Peluso, to approve the amended Township Road Mileage Certification and submission of the same to the ND State Treasurer. All members voted "AYE." Motion carried.

Auditor/Treasurer Glatt then presented a Burleigh County Snow & Flood Declaration on behalf of Emergency Manager Senger. Glatt stated the requested declaration reaffirms a previous declaration signed on January 31, 2011.

Commissioner Grossman made a motion to approve Item F on consent agenda relating to authorization for additional and limited master planning at the Northern Plains Commerce Centre (NPCC). Commissioner Askvig seconded the motion. Upon roll call, the commissioners voted as follows: Ayes: Commissioners Smith, Askvig, Grossman and President Warford. Nays: None, the motion carried. Commissioner Seminary was absent and not voting.

Commissioner Seminary rejoined the table.

REGULAR AGENDA

The Board of City Commissioners considered the following relating to the Bismarck Northwest Sub-Area Study, sponsored by the Metropolitan Planning Organization (MPO) and the City of Bismarck:

- Appearance by Steve Grabill with Ulteig Engineering to provide an update to the Board.

Mr. Grabill said this was a complex study because of the area it covers: Borders of the study run between the Missouri River, Highway 1804, Washington Street and Interstate 94. The study addresses very complex issues. Based on the comments and feedback since October 2010, major portions of this document have been rewritten. This study will serve as a guide for decision making. Construction is not imminent: construction of most of these corridors could be 20 or more years in the future. This plan doesn't dictate future land use. Additional public involvement is anticipated prior to future construction.

The study objectives were to prepare a comprehensive transportation plan and to facilitate stakeholder involvement. The major issues are broken down into two groups: barriers to development and corridor alignments. Some of the barriers to development include utility extensions, harsh terrain, and future costs and funding mechanisms. Included in the corridor alignment issues were environment concerns, pedestrian and bicycle mobility and property and corridor impacts.

One of the challenges to this study is that there are few corridors available. To the south, there is River Road, Washington Street and the I-94 Interchange. North-south opportunities include Tyler Parkway (Golf Drive, Burnt Boat Drive, Century Avenue) and Clairmont Road. To the east, Highway 1804 and Interstate 94. East-west opportunities include 57th Avenue NW, Ash Coulee Drive and Century Avenue.

Comments were passed on to this Board that were received at the County Commission meeting held yesterday, February 7th. One comment was regarding inadequate public notification. Mr. Grabill indicated that there were two study area mailing done to 3200 addresses each, two public input block ads (1/4 page in Bismarck Tribune), four public hearing ads in Bismarck Tribune (three legal ads and one block ad), promoted media coverage and maintained schedule information on website.

Mr. Grabill said there was plenty of activity. There were 75 attendees at the first public meeting and 119 attendees at the second public meeting. The January 26, 2011 Planning Commission meeting was well attended. There were updates to this Commission as well as newsletters. Mr. Grabill said they responded to numerous calls and received numerous written comments. They've also had conversations with residents and developers. He said major concerns received indicated they should not extend 64th Avenue and shouldn't increase traffic on Ash Coulee. He said those concerns will require further study.

Options studied were the direct extension of Century Avenue, the realignment to Golf Drive and realignment to Burnt Boat Drive. The options were compared using traffic evaluation criteria as well as socio-economic criteria.

Recommended actions by the city include:

- considering new policies (mixed land use in northwest Bismarck, complete streets and new design standards, roundabout implementation)
- promoting context sensitive solutions (River Road, Clairmont Road and Ash Coulee Drive, neighborhood service centers, future commercial and mixed use centers).
- Complete planning activities (environmental documents, access management, identify special funding mechanisms, orderly extension of utilities)
- acquire land, if applicable (fire station relocation, century avenue extension and future parks and schools)
- Promote complete streets

Recommended further studies include the extension of Century Avenue (Burnt Boat Drive, Golf drive and direct extension options), extension of 64th Avenue NW and Sonora Way, construction of Tyler Coulee Corridor and extension of Ash Coulee Drive (west of the Clairmont Road extension to River Road). Most corridors will be constructed long range (10-20 or more years). 57th Avenue extension might be the first one in one to five years. Extension on Clairmont Road and Ash Coulee Drive could be sooner since those roads are currently being developed and platting occurs. Century Avenue or Tyler Parkway Extension are major projects that require further study.

Mr. Grabill said the City Planning Commission has continued their hearing to February 23, 2011. He suggested that this Board could continue their hearing until the March 8, 2011 meeting. He said the MPO TAC (March 14?) and MPO Policy Board (March 15?) meetings would follow any final action by the city.

Commissioner Askvig asked if the study looked at developing in rough terrain and how that might impact the decisions about how to do some of that developing. Mr. Grabill asked Askvig to clarify if he is speaking about grades. Askvig said grades and areas that can develop water issues, were they considered. Mr. Grabill said some of the alignment profiles that looked at the slopes of the road, for example, Burnt Boat Drive. Those would have to be addressed and a lot of dirt work would be required for any of those extension alternatives. The water issues and soil conditions weren't studied. They are issues as well as the archaeological issues that would require further study for some extensions. Askvig said he liked the part of the study that included future land

use plans. Mr. Grabill said they looked at a full development scenario during this study and saw a level of traffic that would be difficult to manage under any circumstance. If you end up with all residential development up there, there will be huge a.m. and p.m. traffic going through a limited few corridors. By adding attractions (parks, ball fields, etc.) and mixing land use, it will alleviate overuse by people just commuting to and from work.

Commissioner Seminary said no one is at fault but he doesn't understand the thinking behind past decisions. With any option that's made, someone will not be happy, even if the option is to do nothing. How do we avoid the "what were they thinking" issues 20-30 years from now? He asked Mr. Grabill if he is confident we are close to that point. Mr. Grabill is confident they are close to the point but it will require a lot of change because we can't continue to do things the way we've always done them. One of the other recommendations in the study is access management. He is confident that in a 20 year timeline, if we can get these corridors and don't lose one or two of them further, the system can handle the traffic that would be generated.

Commissioner Grossman asked ultimately what will be the role of the North Dakota Department of Transportation (NDDOT). He is assuming they will have a recommendation and foot a portion of the bill. He also wonders if one alternative that is reasonable is substantially less expensive than another if that won't have an impact on NDDOT's preference would be. Mr. Grabill said there was representation from NDDOT on the steering committee as well as Federal Highway and the big concern that they have is the Tyler Parkway interchange. They voiced concern about the Burnt Boat Drive alternative for that reason. Mr. Grabill said he spoke to someone from NDDOT that was part of the process 15-20 years ago when they were first developing improvements for the Tyler Parkway interchange. That person told him at the time there was some kind of agreement in place that Tyler Parkway would be extended in part of the long range plan going further to the north. The funding will be one of the biggest challenges with most of these corridors because these are some major projects and federal funding is declining. The study recommends that funding itself needs to be looked at for some of these improvements to move forward.

President Warford supports the need for planning for this area. Most of the public input has been about the extension of Century Avenue and how to do that. He asked about the traffic flow versus the socio-economic impacts and how do those balances occur in the recommendations. The Century Avenue extension for example would require removal of an existing fire station on Tyler Parkway as well as surrounding homes, which might make sense traffic wise but not to the socio-economic side. The Burnt Boat extension wouldn't be the best traffic wise but would make more socio-economic wise. He asked Mr. Grabill to explain his thinking as an engineer behind traffic versus socio-economic because the decision makers will have to balance that in their decision.

Mr. Grabill said especially for the Century Avenue extension it really depends on whose point of view is being listened to. They have received some feedback from residents along Burnt Boat Drive area wondering why Burnt Boat Drive is all of a sudden getting more focus in the study than it was before. He thinks looking at the impacts, whether it be socio-economic or traffic, it will have to come down to levels of impact and levels of

benefit. From a traffic standpoint, right now the study kind of outlines some of the major issues but really a future study can explore that more and give better idea of how well or poorly each of these alignment alternatives operate in more detail. Similarly, they may find that some of the alternatives drop off the table especially as the study looks at archaeological issues, drainage issues, etc. The rationale behind getting deeper into this is valid because had we chose an alternative, we may find as we get into it that it wouldn't have been feasible. If there's not a lot of difference between the alternatives on the traffic/engineering side, then the socio-economic side would carry more weight.

President Warford said ultimately when decisions are made, there will be no recommended alternative made because further study is necessary. So it important to the citizens involved in this that further study occurs sooner rather than later. Commissioner Seminary said generally speaking this study is for moving traffic north to south, is there a reference to the proposed future bridge. Mr. Grabill said there is a brief reference; the model for looking at traffic projections does not include a northern bridge primarily because they look at a 20 year projection and that bridge wouldn't fall into that 20 year projection. Seminary said we will probably have that "what were we thinking" moment 20 years from now because of this narrow corridor with few options, limited money, which may become all locally generated at some point, increasing population, more vehicles. So he's struggling with what does this really solve? Mr. Grabill said from their standpoint, when you have a large area that is generating traffic, the best solution is to spread in as many directions as possible, for obvious reasons. The study looked at what are the options, which were limited, and it promotes taking advantage of every option we have.

Commissioner Smith asked since this study is almost over, how many studies are we away from making a final decision. Mr. Grabill said regardless if this study would've chosen a location, there is always an environmental study that is required in order to meet federal requirements for funding. The next logical step would be the environmental study that can bring in these other issues. Instead of looking at four and a half square miles of land, it is focused on just the corridors we are talking about. He feels the next study would provide answers and would make a corridor available for funding, if those funds are there.

- The President of the Board of City Commissioners announced the hour had arrived for the PUBLIC HEARING to receive questions and comments on the Northwest Sub-Area Study.

The following persons appeared and the substance of their views were:

PERSONS APPEARING	REMARKS
Al Lukes, Pinto Place resident	Brought up issue of intersection of Century Ave and Tyler Parkway; suggested city to consider road that crossed from near Montana-Dakota Utilities across a corner of Lowe's parking lot to the west on Burnt Boat Drive to ease Century Avenue traffic risks; believes this would be immediate fix while other issues are resolved
Steve Kahl, Pinto Place resident	Mr. Lukes' suggestion was made at Horizon meeting and it should've been mentioned in the report and he doesn't believe it was; thinks city should've fixed Century before Lowes and the strip mall were built; flawed input process for this study because public input came too late and most of it was ignored; information not available to residents in a timely manner; thinks this study is worthless and should start over
Al Frank, Santa Gertrudis Drive	Attended the 1992 meeting regarding Century Ave; said city should've taken the design the citizens recommended at that same meeting and they wouldn't have the problems they have now; residents of the area should be on basic committee that is doing the planning because they drive it every day; with Century Ave extension to River Road why not have them go all the way down River Road to Main Ave; Cost shouldn't prevent a road from being built when equipment makes it possible; believes there are other options to the ones being presented; why can't all the information be made available to citizens in a timely manner so they can review it before the meeting – be more transparent
Ralph Kilzer, Mesquite Loop resident	Goes through Tyler Pky/Century Ave intersection two to three times a day; since 1997, large cities, like Bismarck, have had ability to plan four miles beyond the city limit and hopes future planning will take advantage of that; talks about embankment of Tyler Coulee and what issues would be to put a road through that area; is fearful of intersection of Tyler Pkwy/Century Ave because traffic increases every month

PERSONS APPEARING	REMARKS
Dale Sandstrom	Significant concerns about the process; after September 2010 public hearing he asked he be given notice of any future steering committee meetings; issue with lack of information available after seeing notice of public hearing in newspaper; encourage Ash Coulee arterial should be maintained; turning lanes and signals would help to deal with issues; significant water problems where they are proposing extending Century Ave and Golf Drive; what is proposed now doesn't seem reasonable and they need to look at better solutions
Linda Axtman, Crested Butte Rd resident	More familiar with NE section of this study; checked urban growth boundary and bridge plans before she purchased her property; suggests 15 th Street for north-south corridor; thinks 57 th would be good east-west corridor; beautiful area; citizens should telecommute to lessen traffic, suggested light rail to connect Bismarck-Mandan, airport, downtown, colleges, etc.

Commissioner Askvig made a motion to continue the hearing until the March 8, 2011 City Commission meeting. Commissioner Smith seconded the motion. Upon roll call, the commissioners voted as follows: Ayes: Commissioners Seminary, Smith, Askvig, Grossman and President Warford. Nays: None, the motion carried.

The Board of City Commissioners considered request from Mr. Shannon Sailer and Ms. Vicki Ingalls for a Market Value Reduction by an abatement for 2033 N Washington St Unit 2 (Lot E of Lot 1 Washington Court Condominiums Building 2033 Unit 2 & Garage 9).

This property was purchased by Mr. Herbert Sailer on June 30, 2004 for \$63,500. Mr. Shannon Sailer and Ms. Vicki Ingalls received title to the property on October 30, 2007 from their father through an estate. They currently have the property listed with a local realtor for \$63,500. The Assessing Division's 2010 market value on the property is \$59,200 and Mr. Sailer asks that the market value be reduced to \$52,400.

The Assessing Division did an inspection of the property as well as reviewing comparable sales for this type of property. Staff feels the market value price is reasonable with other properties that have been selling and therefore recommends the application for abatement be denied. Neither Mr. Shannon Sailer nor Ms. Vicki Ingalls appeared before the board.

CITY PLANNING & ZONING COMMISSION
MEETING MINUTES
February 23, 2011

The Bismarck Planning & Zoning Commission met on February 23, 2011, at 5:00 p.m. in the Tom Baker Meeting Room in the City-County Office Building, 221 North 5th Street. Chairman Yeager presided.

Commissioners present were Tom Atkinson, Mel Bullinger, Jack Hegedus, Curt Juhala, Vernon Laning, John Warford and Wayne Yeager.

Commissioners Mark Armstrong, Jo Conmy, Ken Selzer and Lisa Waldoch were absent.

Staff members present were Carl Hokenstad – Community Development Director, Kim Lee – Planning Manager, Gregg Greenquist – Planner, Jason Tomanek – Planner, Kimberley Gaffrey – Office Assistant III, Steve Saunders – MPO Planner, Ben Ehreth – MPO Planner, Ray Ziegler – Building Official, Charlie Whitman – City Attorney and Jackson Bird – City Forester.

Others present were Steve Windish and Steve Grabill – Ulteig Engineers, Marcus Hall – Burleigh County Engineer, Evelyn & Mark Orth – 2725 Promontory Drive, James Devine – 521 East Main Avenue Suite 125, Kate Herzog and Dawn Kopp – 204 North 4th Street, Marcia Kilzer – 1982 Mesquite Loop, Harold Duchscherer – 2501 Powder Ridge Circle, Al Frank – 1801 Santa Gertrudis Drive, Stacy Tschider – 8606 Island Road, Jeff Jonson – 1825 Harbor Drive, Matt Thompson – 928 Arthur Drive, Jeff Hinz – 3301 Hackberry Street, Dave Patience – 909 Basin Avenue, Gary Allard – 2109 Valley Drive, Joan & Jerry Coleman – 1729 Pinto Place, Connie & Curtis Martin – 640 64th Avenue NW, Rodney & Mary Ann Ekren – 255 64th Avenue NW, Dave Tschider – 418 East Rosser Avenue, Dale Zimmerman – 1857 Santa Gertrudis Drive, Loran Galpin – 501 East Main Street, Kathleen Jones – 4380 Wildwood Street, Dale Sandstrom – 1748 Pinto Place, Rick Spratt – 1966 Mesquite Loop and Ellen & Allen Lukes – 1749 Pinto Place.

MINUTES

Chairman Yeager called for consideration of the minutes of the January 26, 2011 meeting.

MOTION: Commissioner Warford made a motion to approve the minutes of the January 26, 2011 meeting as received. Commissioner Atkinson seconded the motion and it was unanimously approved with Commissioners Atkinson, Bullinger, Hegedus, Juhala, Laning, Warford and Yeager voting in favor of the motion.

CONTINUED PUBLIC HEARING – MPO NORTHWEST BISMARCK SUB-AREA STUDY

Chairman Yeager re-opened the public hearing for the Northwest Bismarck Sub-area Study.

Al Lukes suggested that Century Avenue be extended through the northwest edge of the Lowes parking lot to connect with Burnt Boat Drive. He said that it would not affect any of the already

established business and makes the most sense. Mr. Lukes went on to say his suggestion would solve the problems with safety, existing property destruction and traffic flow.

Rick Spratt indicated that he is checking with the proper entities to whether or not the Tyler Coulee area is considered wetlands and if it is, that it would not be an appropriate place for a road.

Gary Allard said that the Tyler Coulee extension would affect his property to a great extent and is opposed to it.

Dale Sandstrom expressed his concern with the current study and putting in a high traffic thoroughfare by extending Century Avenue. He continued by saying there are also water issues in this area. Mr. Sandstrom stated the extension of Burnt Boat Drive is the best option and likes Mr. Luke's suggestion. He concluded by saying that the Ash Coulee Drive extension to River Road should be completed as planned.

Kathleen Jones suggested that 57th Avenue be developed right away because that is a natural east-west corridor. She also suggested that a north-south corridor be built on River Road.

Al Frank said that he is concerned about the proposed extension of Tyler Parkway up to Highway 1804 because that would be too much traffic for that area. He also expressed concern with the intersection at Burnt Boat Road and Tyler Parkway.

Chairman Yeager closed the public hearing.

MOTION: Commissioner Warford made a motion to forward the Northwest Bismarck Sub-area Study to the Board of City Commissioners, with the following conditions: 1) Remove all references to the Century Avenue extension as a "preferred" alternative out of the study, including the Steering Committee's recommendation; 2) the Century Avenue extension be further studied, including Mr. Lukes' suggested connection though the Lowes parking lot; 3) the Bismarck Planning & Zoning Commission is strongly opposed to the Tyler Coulee extension; 4) the 64th, 57th and Ash Coulee extensions be further studied; and 5) the Century/Tyler intersection be further studied and investigate improvement. Commissioner Hegedus seconded the motion and it was unanimously approved with Commissioners Atkinson, Bullinger, Hegedus, Juhala, Laning, Yeager and Warford voting in favor of the motion.

CONSIDERATIONS –

ZONING CHANGE FROM A AND R5 TO R5 AND PRELIMINARY PLAT – EAGLE CREST FOURTH ADDITION

ZONING CHANGE FROM RM30 TO R10 – LOT 13, BLOCK 1 AND LOT 12, BLOCK 2, JENNINGS FIRST ADDITION

PUD AMENDMENT – SOUTHPORT PHASE II

ZONING ORDINANCE TEXT AMENDMENT – SPECIAL USE PERMITS (ROADWAY MAINTENANCE FACILITIES)

ZONING ORDINANCE TEXT AMENDMENT – SUBDIVISION REGULATIONS (LOT MODIFICATIONS)

Bismarck City Commission
3/8/11

PERSONS APPEARING	REMARKS
Dale Sandstrom	Significant concerns about the process; after September 2010 public hearing he asked he be given notice of any future steering committee meetings; issue with lack of information available after seeing notice of public hearing in newspaper; encourage Ash Coulee arterial should be maintained; turning lanes and signals would help to deal with issues; significant water problems where they are proposing extending Century Ave and Golf Drive; what is proposed now doesn't seem reasonable and they need to look at better solutions
Linda Axtman, Crested Butte Rd resident	More familiar with NE section of this study; checked urban growth boundary and bridge plans before she purchased her property; suggests 15 th Street for north-south corridor; thinks 57 th would be good east-west corridor; beautiful area; citizens should telecommute to lessen traffic, suggested light rail to connect Bismarck-Mandan, airport, downtown, colleges, etc.

Commissioner Askvig made a motion to continue the hearing until the March 8, 2011 City Commission meeting. Commissioner Smith seconded the motion. Upon roll call, the commissioners voted as follows: Ayes: Commissioners Seminary, Smith, Askvig, Grossman and President Warford. Nays: None, the motion carried.

The Board of City Commissioners considered request from Mr. Shannon Sailer and Ms. Vicki Ingalls for a Market Value Reduction by an abatement for 2033 N Washington St Unit 2 (Lot E of Lot 1 Washington Court Condominiums Building 2033 Unit 2 & Garage 9).

This property was purchased by Mr. Herbert Sailer on June 30, 2004 for \$63,500. Mr. Shannon Sailer and Ms. Vicki Ingalls received title to the property on October 30, 2007 from their father through an estate. They currently have the property listed with a local realtor for \$63,500. The Assessing Division's 2010 market value on the property is \$59,200 and Mr. Sailer asks that the market value be reduced to \$52,400.

The Assessing Division did an inspection of the property as well as reviewing comparable sales for this type of property. Staff feels the market value price is reasonable with other properties that have been selling and therefore recommends the application for abatement be denied. Neither Mr. Shannon Sailer nor Ms. Vicki Ingalls appeared before the board.

- Reappointment of Mr. Kevin Magstadt to Renaissance Zone Authority for a three year term ending in December 2013.

President Warford requested that Item E regarding Street Improvement District 434 be pulled for consideration.

Commissioner Grossman made a motion to approve the remaining items on the consent agenda. Commissioner Seminary seconded the motion. Upon roll call, the commissioners voted as follows: Ayes: Commissioners Seminary, Smith, Askvig, Grossman and President Warford. Nays: None, the motion carried.

Item E - Street Improvement District 434

President Warford indicated that Street Improvement District Number 434 now has a different boundary. Mel Bullinger, City Engineer, said the southern boundary of the map that appeared in the agenda packet was drawn just to include the properties on the south side of Canada Avenue. To be consistent with what they have done in the past, staff requests to extend the southern boundary to include the parcels along Madison Lane, which is a private street, which eventually comes out onto Canada.

Commissioner Seminary made a motion to approve the amended boundaries for Street Improvement District Number 434. Commissioner Askvig seconded the motion. Upon roll call, the commissioners voted as follows: Ayes: Commissioners Seminary, Smith, Askvig, Grossman and President Warford. Nays: None, the motion carried.

REGULAR AGENDA

3. The President of the Board of City Commissioners announced the hour had arrived for the continuation of the PUBLIC HEARING to receive questions and comments on the Bismarck Northwest Sub-Area Study, sponsored by the Metropolitan Planning Organization (MPO) and the City of Bismarck.

President Warford called Steve Grabill, Ulteig Engineers, forward to appear before the Board. Mr. Grabill said on February 23, 2011, the Bismarck Planning and Zoning Commission recommended acceptance of the report with the following conditions: 1) Remove all references to the Century Avenue as a "preferred" alternative out of the study, including the steering committees recommendation; 2) The Century Avenue extension be further studied, including Mr. Lukes suggestion connection though Lowes parking lot; 3) The Bismarck Planning & Zoning Commission is strongly opposed to the Tyler Coulee extension; 4) The 64th, 57th and Ash Coulee extensions be further studied and 5) The Century/Tyler intersection be further studied and investigate improvement.

Mr. Grabill asked for clarifications from this Board if they accept the Planning Commission's recommendations. In the report, there are three matrixes. One evaluates the various Century Avenue extension alternatives and ranks them. The second one gives a second ranking regarding safety. It is Mr. Grabill's understanding

that with the Planning Commission's recommendation that those two matrixes would be removed. There is a third matrix at the end of the report that provides corridor alignment recommendations. Based on the Planning Commission's feedback, the recommendations from the study review committee would be removed relating to the corridor alignments associated with the Century Avenue extension. In addition, the Al Lukes alternative would be added and the do nothing alternative should show up as a further study concept.

Commissioner Askvig asked Mr. Grabill to walk this Board through what will be removed regarding Tyler Coulee and the matrix on Page 19 of the study provided to the Board dated January 2010. Mr. Grabill said the Tyler Coulee extension was an alternative that was not recommended by the study review committee. At the time that the draft report was prepared, it was their understanding from Federal Highway Administration that to eliminate it as an alternative would jeopardize the environmental process. Over the last week the MPO has asked Federal Highway for clarification. It is the understanding now that the city could remove the Tyler Coulee extension alternatives if Board desires without the concern of federal funding. Askvig said that was part of the Planning and Zoning Commission recommendation. President Warford said correct.

President Warford brought up the matrix on page 19 of the report. He said on Burnt Boat Drive, the study review committee said that it was not recommended but Warford recommended it be move to the "further study" column. Golf Drive Extension was not recommended by the study review committee either but Warford recommended it be moved over for further study as well. The study review committee recommended the Century Avenue extension as the preferred alternative and Warford recommended that it be removed and moved over to further study. In addition, the Mr. Lukes' alternative and the do nothing.

President Warford said the fifth Planning Commission recommendation was to look at the Tyler Parkway and Century Avenue intersection with regards to whether a traffic light is warranted there. He said it's close to warrants but it's not at warrants currently. Mr. Grabill said the warrants when they studied it were very close. He said it would not surprise him today if a signal would meet warrants. Warford explained that warrants means is whether there is enough traffic going in all directions meets the NDDOT guidelines. If it does meet the warrants, then the city can apply for funding to install a traffic signal there so it doesn't have to fund the signal completely by itself.

PERSONS APPEARING	REMARKS
Rod Eckman, 64 th Avenue resident	If Coulee Ridge were chosen, traffic would be going through the backyard for some people but if 64 th Avenue was extended, then traffic would be driving through his front yard; what would extension do to the value of his land; 64 th and Washington is a dangerous area; speeding is a problem; if extension is done they should get a compensation for the value of their land; thinks they should go down to 57 th Avenue; Hwy 1804 should be a four lane road; North Washington needs turning lanes to get into residential areas.

Commissioner Seminary commended Steve Grabill on the excellent job he did on providing the information he was tasked to provide which was a tough task. Seminary said he did a lot of background research and spoke to many people on this issue. He believes this decision is one of the most significant that this commission will make. He read the 1993 document regarding this process; at that NDDOT used an open forum public hearing for the first time. This will impact people's lives and will involve change. Two significant, different decisions must be made about this document. On the south end of the study area (Century, Golf Drive, Burnt Boat), that is purely an engineering decision at this point. There is little to do with planning in that area. The most important decision is north of that, how is the city going to properly plan so when the south area is addressed, it will fit the planning to be made in future. There must be changes: decision making at all different levels: department head, staff, administration and citizen. Roundabouts and cul-de-sacs will have to be embraced because of the terrain. Having streets that cannot be parked on to move traffic and accommodate emergency vehicles. Funding is a huge issue that will have to be addressed over time. There also needs to be land preservation in this area. Land development should be city department staff led, not developer led.

President Warford asked to clarify that the Tyler Coulee extension recommendation can be removed from the report because it is not mandated by Federal Highway. Mr. Grabill said that was correct; that discussion happened after the last Planning and Zoning Commission meeting. Warford suggested that Tyler Coulee extension be removed completely from the study. Commissioners Seminary and Askvig said they believed this Board had already removed it from the study earlier this meeting. Mr. Grabill asked to clarify if they mean not recommended or remove the discussion in the report. Commissioners Seminary and Grossman said they interpreted it to mean not recommended. Warford said you could leave the discussion in but add to the report that after further investigation Federal Highway said the city is not mandated to put it in and the Planning and City Commissions both chose to not have the option recommended. Mr. Grabill said they can do that. Askvig asked if they leave it in the report as not recommended does that leave it as an option on the table; could a future

commission still decide to do even though this commission says they don't recommend it. Charlie Whitman, City Attorney, said yes, a future commission could.

Commissioner Seminary said the city can't grow south and east so we are limited to growing in the northwest and a little bit to the northeast. If Bismarck continues to grow, the city will have to incorporate many changes that are recommended in the report. President Warford asked about the recommendation of the Planning Commission that suggested to this Board that the decision include an environmental study for artifacts, storm water issues in the lower area, and cost study. One of the strong arguments against the Century Avenue extension through the Fire Station and Pinto Place, was the cost to tear down the fire station and build a new one. Seminary said what he meant for down by Century, Golf Drive, Burnt Boat was the planning to move lots of traffic must now be up north first to decide where roads should or shouldn't go, where homes will be built, where a school might go. That type of planning will help the city make those engineering and related decisions because of information based on the planning we decide. Commissioner Grossman said he understood the big picture of the motion but said that it doesn't exclude considering anything proposed by Planning Commission.

Commissioner Askvig said he doesn't think putting a road through a fire station is a good idea. He also doesn't think it's a good idea to put a road up a coulee that runs wet in the spring and the fall. As long as we continue to do further study, we are in good shape. The quality of life issue is important, especially to those who gave their opinions at the meetings. Commissioner Grossman said he agreed with those concerns but said he doesn't think the decision has to be made tonight at this meeting. No one likes those particular options but he doesn't feel you can take anything off of the table until the study is completed. Askvig then asked doesn't this close out the study. He said if we pass the motion tonight then we are done with this study. Commissioner Grossman said he's not sure how you can close out the study and have further study at the same time.

Commissioner Seminary said it doesn't close out anything. When the Board accepts the study, the Board also accepts the paragraph on page 15 of the study. He said according to the report it says the City of Bismarck has the ability to use this Report as an important tool in responding to future development proposals in Northwest Bismarck. He said we need to keep in mind that there are developers that are already leading some change. He continued to read from the report by saying yet, this alone does not adequately position the City to preserve future corridors and associated opportunities that exist today. There are a number of steps the City may consider in order to be more proactive in guiding optimum use of the undeveloped land in Northwest Bismarck. He said that following that is a list of things for the city to consider. That's why he said the plan up north must come first to make this study work.

Commissioner Smith said she's very concerned with the Burnt Boat Drive option and the Native American artifacts. She said she knows there were artifacts discovered several years ago during a geological study. She said if Burnt Boat Drive is extended then we're going to have to cut into that hill so you won't be able to go up to Chief

Looking's Village or overlook the river. It's also a safety issue because that road is very narrow and along a ravine. Commissioner Grossman said in the end it may be the do nothing. That's why we have all of these options and this Board or a future commission may decide that none of these options work.

Commissioner Seminary made a motion to 1) accept the January 2010 report as written; 2) incorporation of the recommendations from Planning and Zoning Commission along with any subsequent changes made to those; 3) priority moving forward must be move north first and decide how to plan moving traffic west to east, north, and 4) then how, or if, any significant engineering changes to existing infrastructure in the south part of the study area. Commissioner Grossman seconded the motion. Upon roll call, the commissioners voted as follows: Ayes: Commissioners Seminary, Smith, Askvig, Grossman and President Warford. Nays: None, the motion carried.

4. The Board of City Commissioners considered the request from the Metropolitan Planning Organization that Robin Werre appear to receive and consider disposition of bids for the Bis-Man Transit Bus Garage Expansion.

Ms. Werre, Bis-Man Transit Executive Director, presented the following bids received:

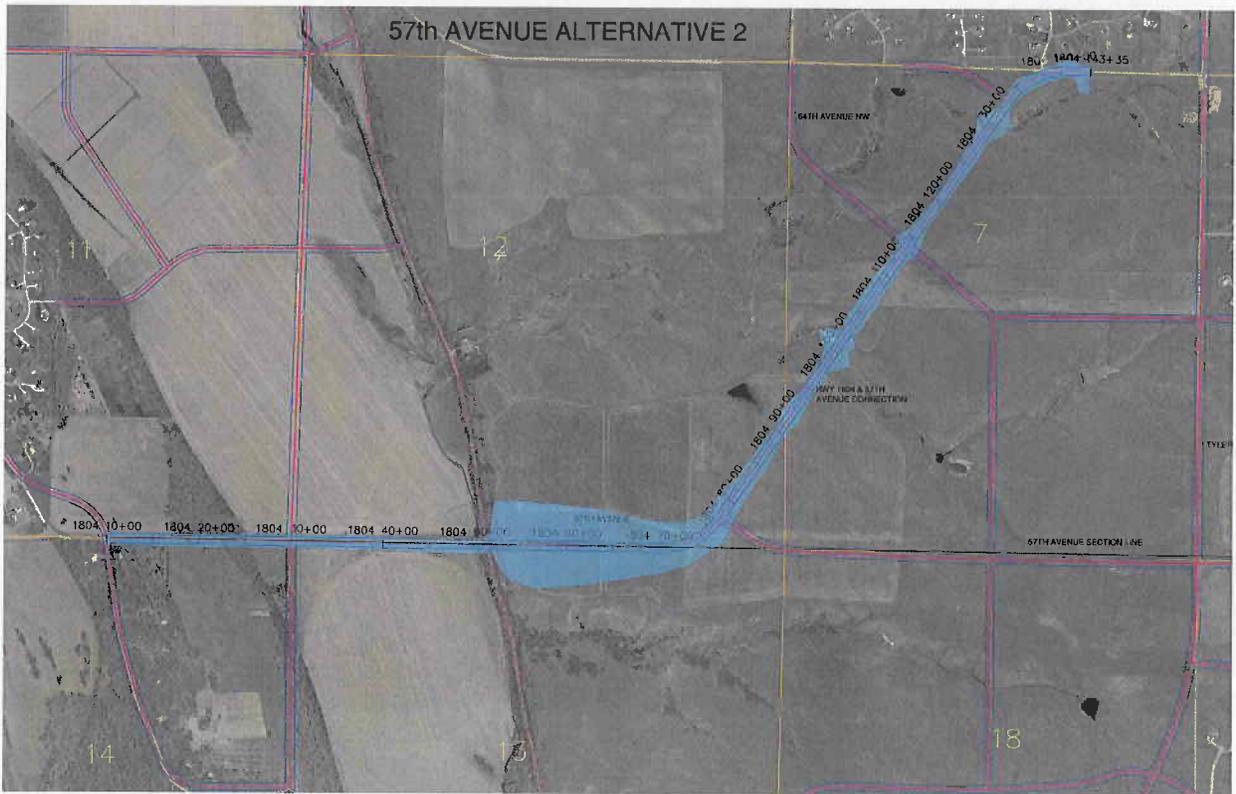
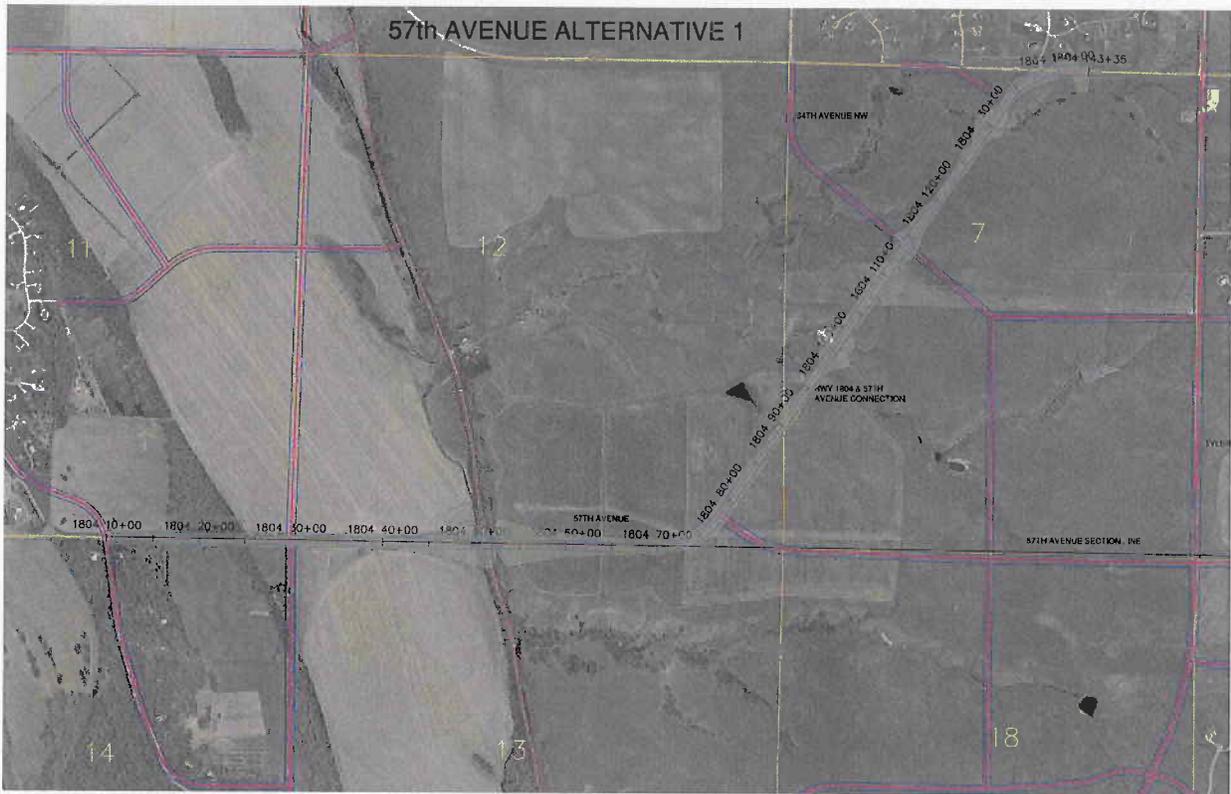
General Contractor	Base Bid
Northwest Contracting	1,268,600
Professional Contractors Inc	1,198,000
Capital City Construction	1,112,000
Industrial Enterprises	1,231,700

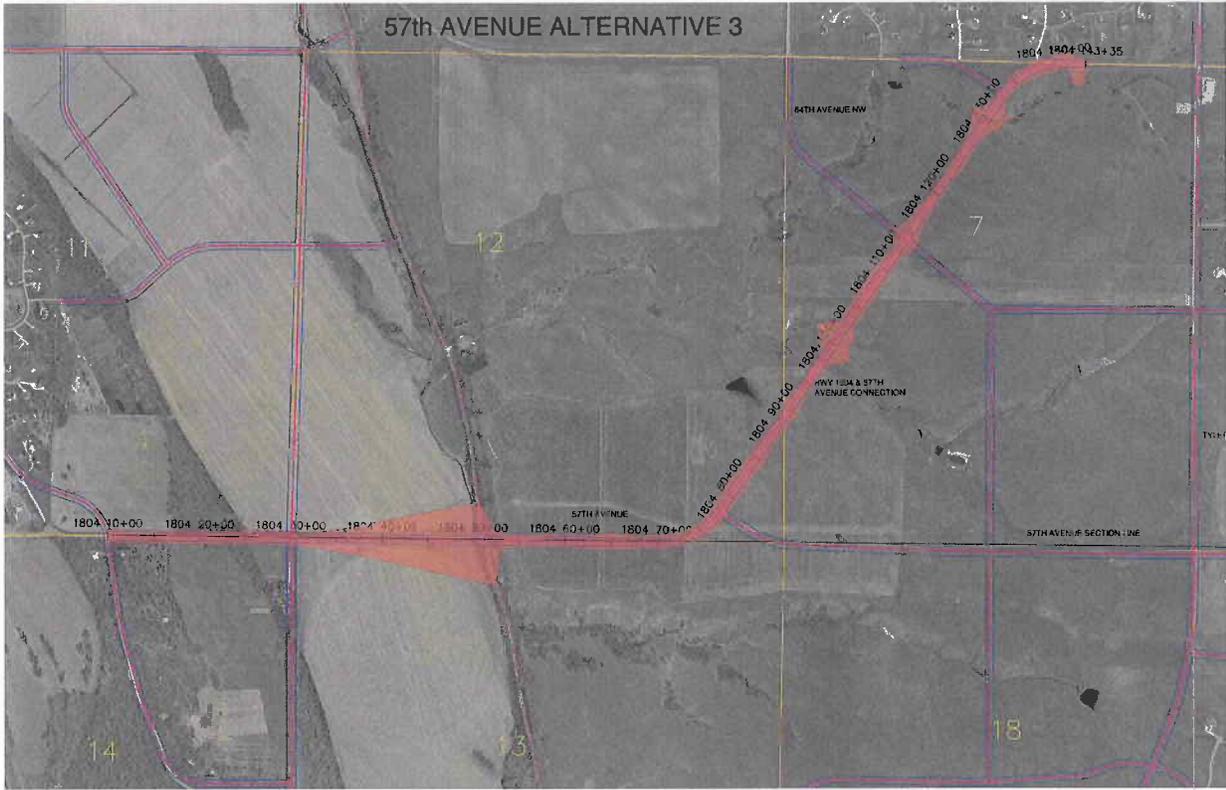
Mechanical Contractor	Base Bid
Advanced Mechanical	694,125
Cofells Plumbing & Heating	670,400
Northern Plains Plumbing & Heating	605,600

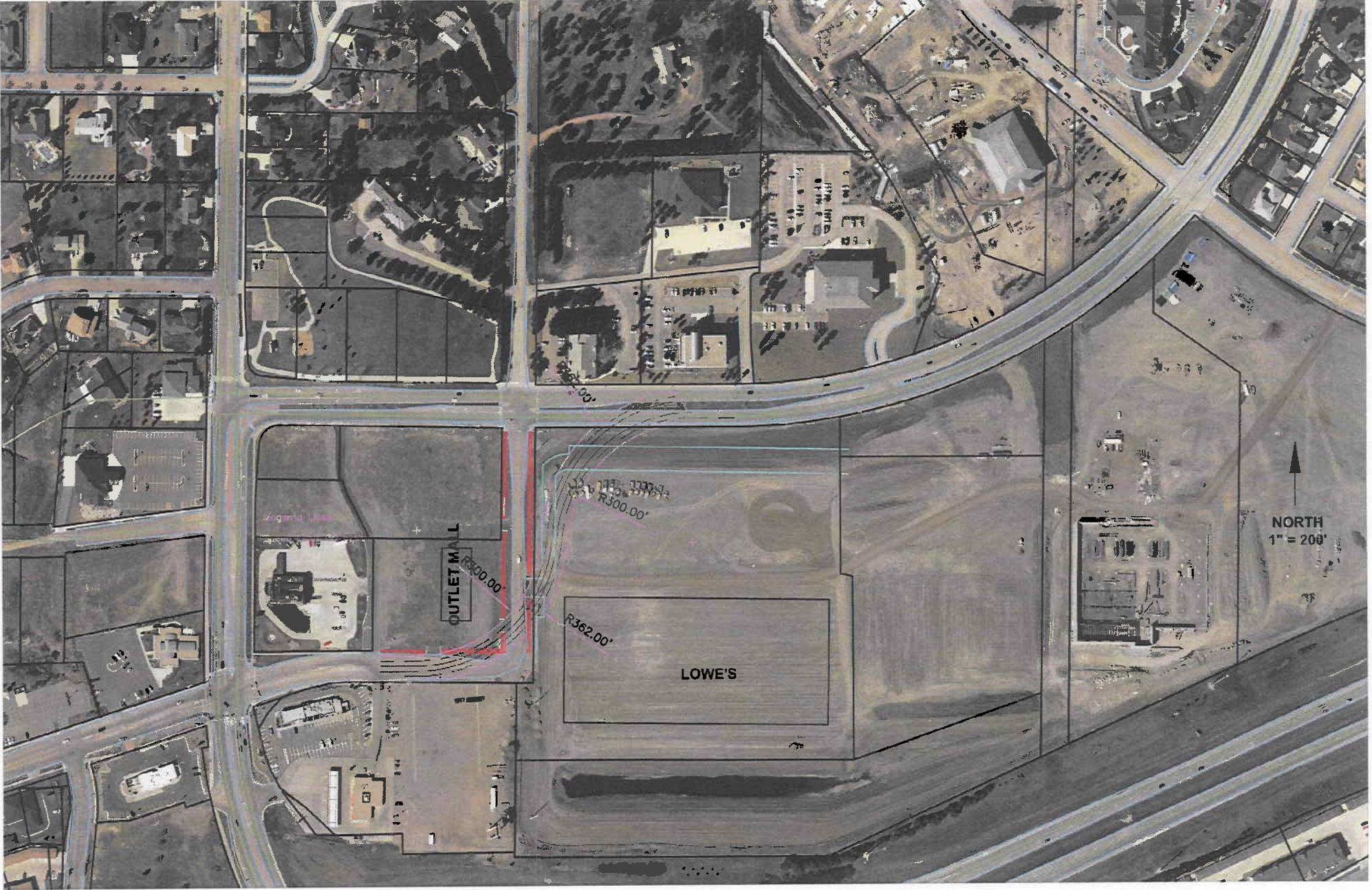
Electrical Contractor	Base Bid
Skeels Electric	189,990
RBB Electric	244,645
Mayer Electric	184,500
Bergstrom Electric	195,775

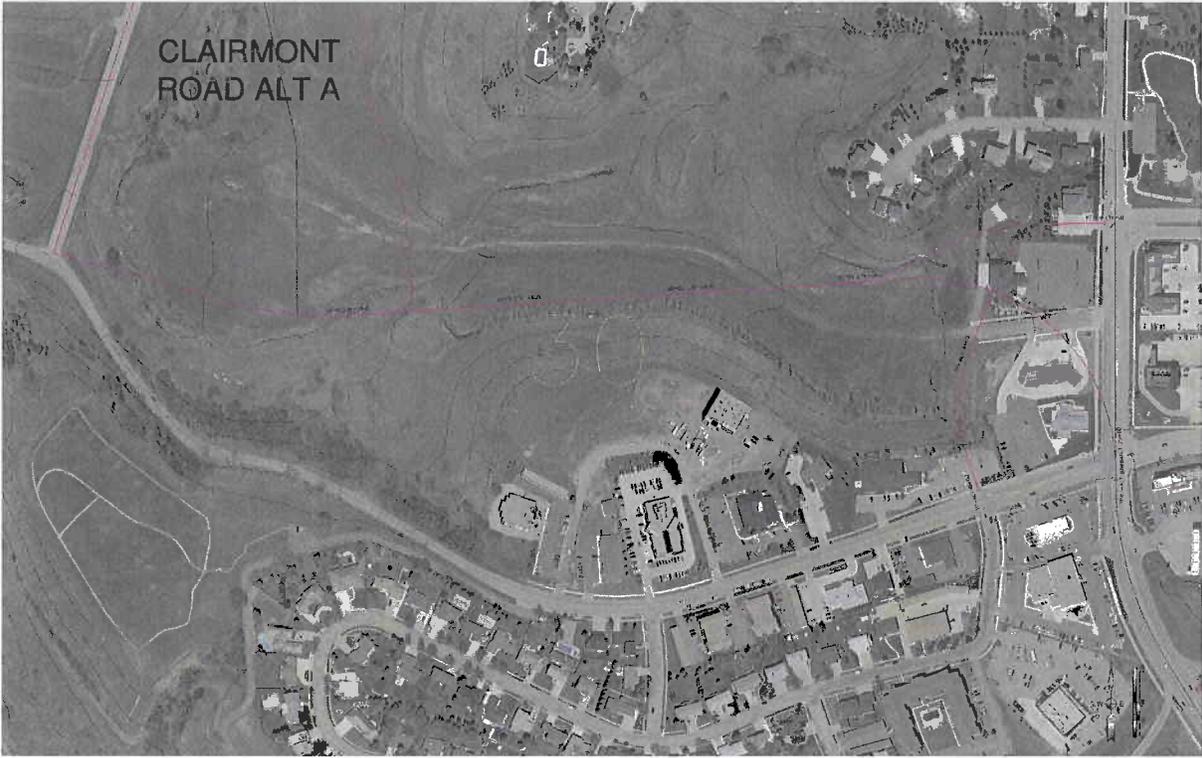
Ms. Werre asked the Board to accept approval of the low bidders: General Contractor – Capital City Construction for \$1,112,000; Mechanical Contractor - Northern Plains Plumbing & Heating for \$605,600; and Electrical Contractor – Mayer Electric for \$184,500. She said they had \$2.5 million to spend on this project. The total project cost is \$2,056,032.65 which includes the architect plus all of the contract work. The total project cost will be decreased additionally due to some changes in the landscaping due to safety concerns on Channel Drive and Rosser Avenue. She is working with Jackson Bird, the City Forrester, so there will be a change order for the project later on.

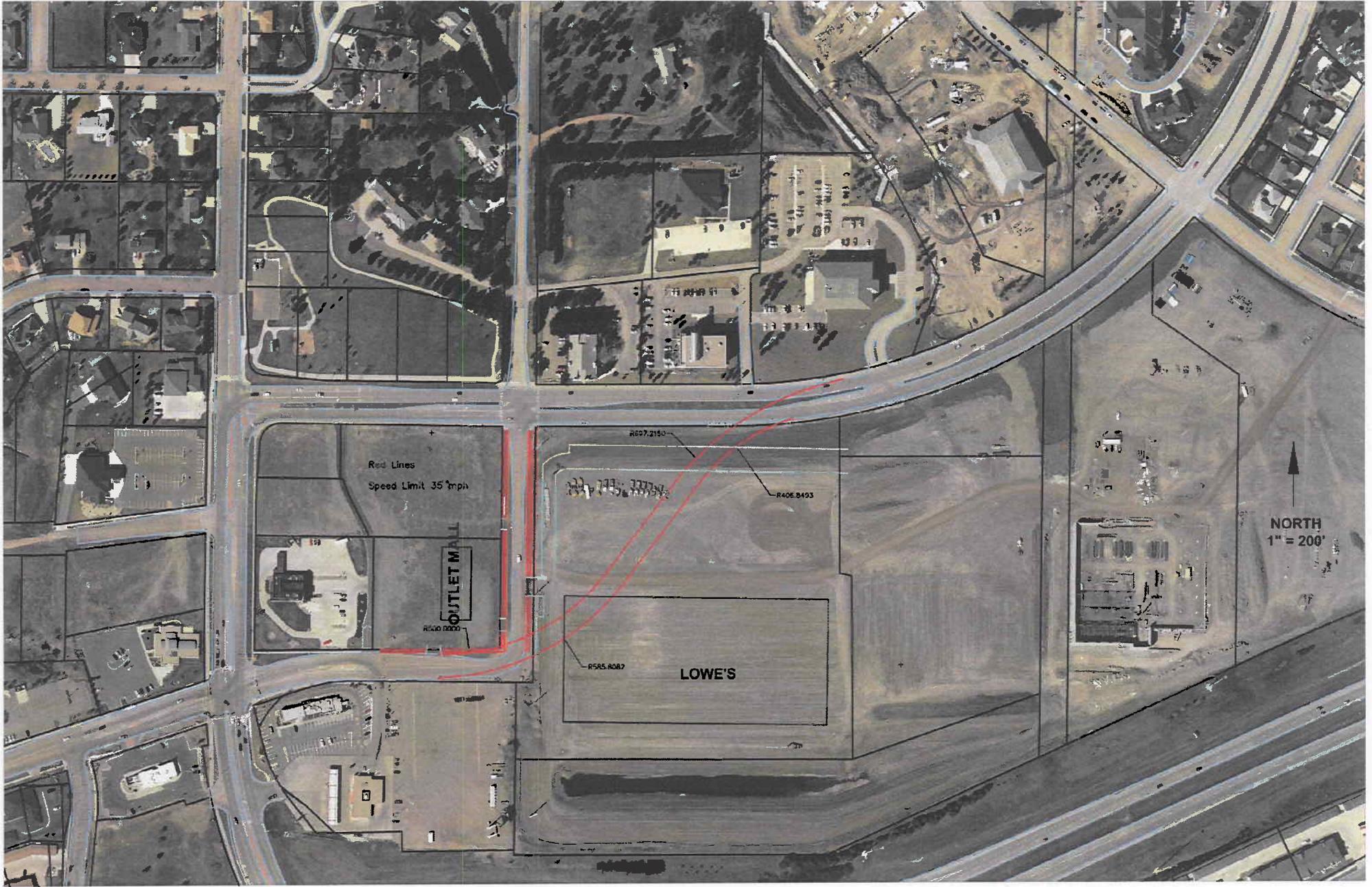
Appendix E - Other Studied Concepts



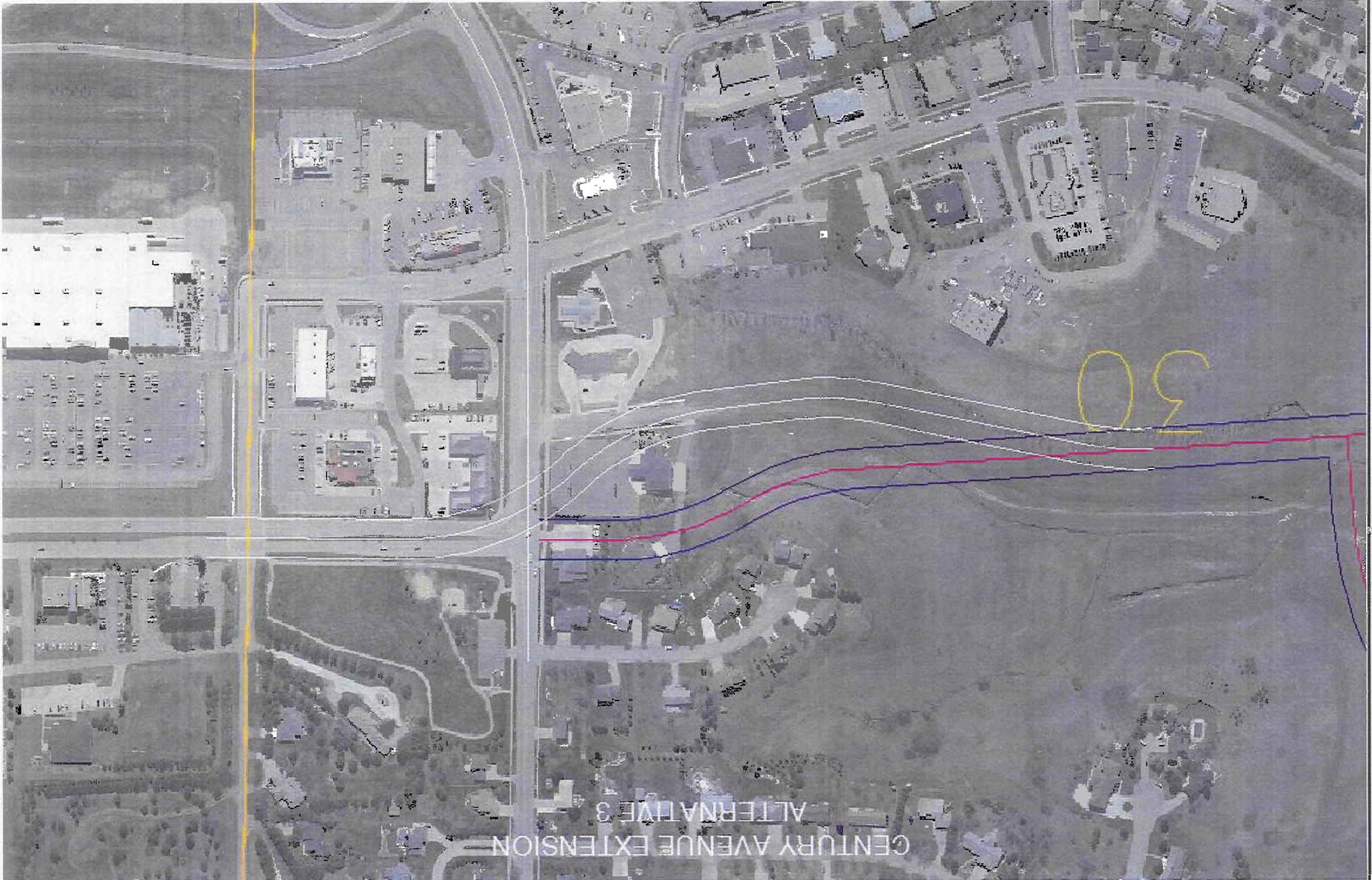






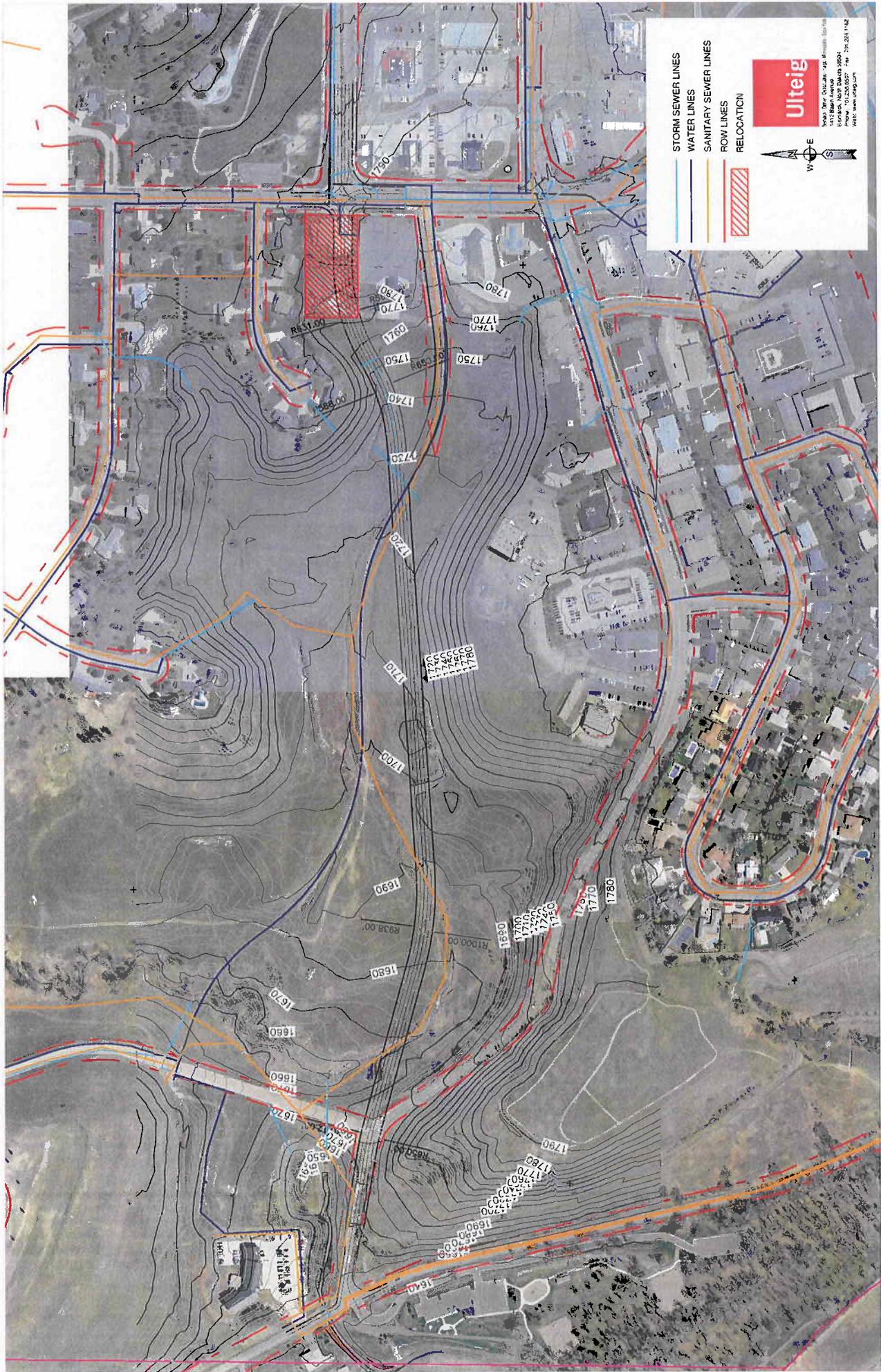


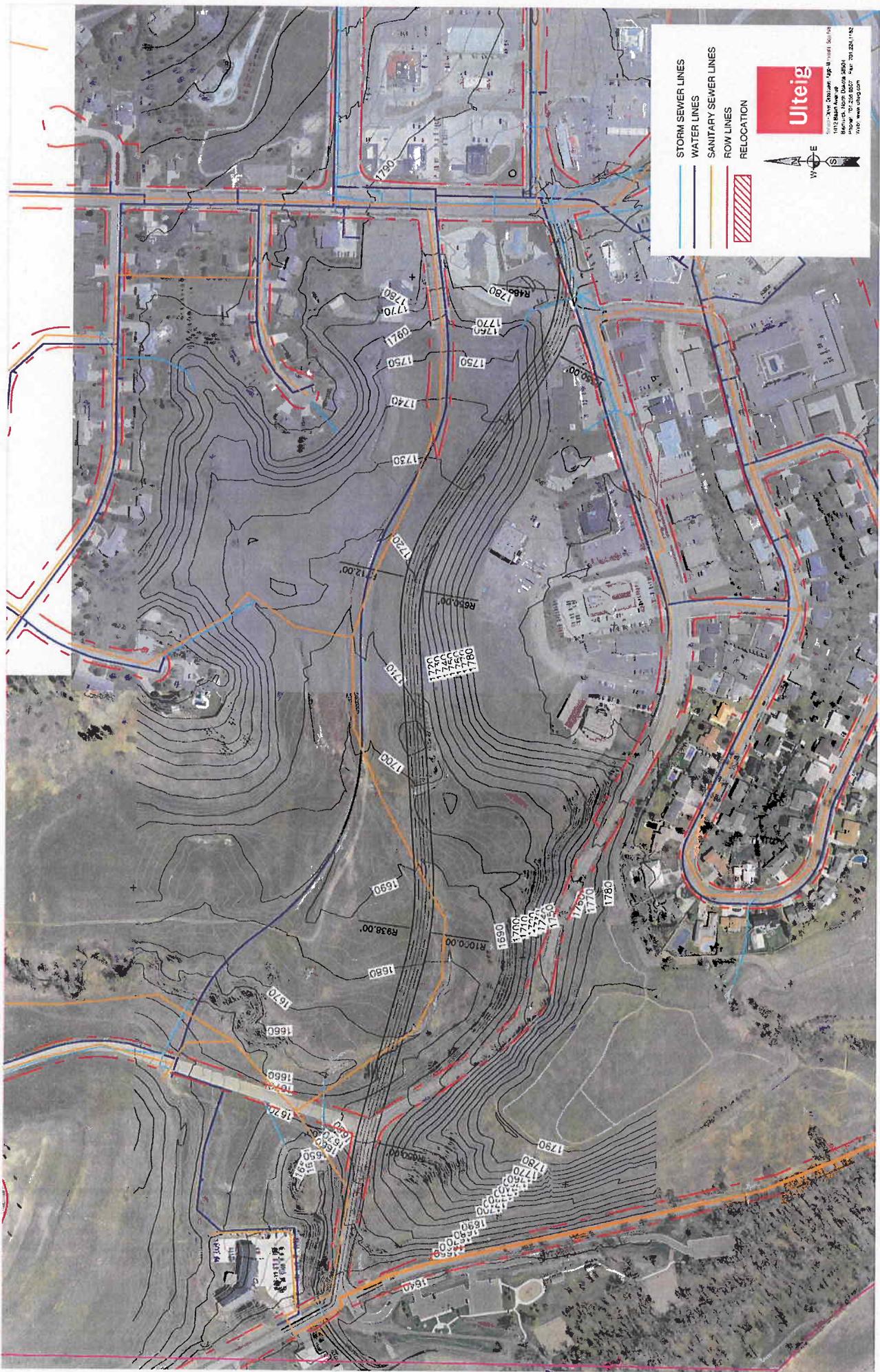
6-E



CENTURY AVENUE EXTENSION
ALTERNATIVE 3

30





9-E