



FRINGE ROAD MASTER PLAN

BISMARCK-MANDAN MPO



2014 FRINGE AREA ROAD MASTER PLAN

Burleigh County - Bismarck - Lincoln

Bismarck-Mandan 
METROPOLITAN PLANNING ORGANIZATION

Bismarck-Mandan Metropolitan Planning Organization
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2014 FRINGE AREA ROAD MASTER PLAN BURLEIGH COUNTY–BISMARCK–LINCOLN

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September 9, 2014

RESOLUTION OF ADOPTION

For the Bismarck-Mandan MPO Fringe Area Roadway Master Plan

WHEREAS the role of the Metropolitan Planning Organization includes comprehensive , coordinated, and continuous planning for transportation infrastructure in the region; and

WHEREAS, more than ten years have elapsed since the last full update of the Bismarck-Burleigh County Fringe Area Roadway Master Plan and the Mandan-Morton County Fringe Area Roadway Master Plan; and

WHEREAS, development in areas outside the city limits of Bismarck, Mandan, and Lincoln continues to occur; and

WHEREAS, the Planning and Zoning Commission for each of the five jurisdictions has reviewed and forwarded to their respective commission/council a favorable recommendation of the Bismarck-Lincoln-Burleigh County Fringe Area Roadway Master Plan and the Mandan-Morton County Fringe Area Roadway Master Plan; and

WHEREAS, all affected governing bodies (Bismarck, Mandan, Lincoln, Burleigh County and Morton County) have approved their respective Fringe Area Roadway Master Plan, and

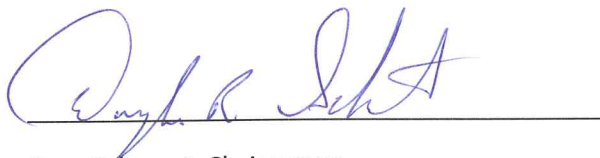
WHEREAS, cognizant state and federal agencies have reviewed the Bismarck-Lincoln-Burleigh County and Mandan-Morton County Fringe Area Roadway Master Plans and indicated their support;

NOW THEREFORE BE IT RESOLVED, by the Bismarck-Mandan Metropolitan Planning Organization Policy Board that it adopts the Bismarck-Lincoln-Burleigh County Fringe Area Roadway Master Plan and the Mandan-Morton County Fringe Area Roadway Master Plan and directs staff to publish the final documents and distribute copies as appropriate; and

BE IT FURTHER RESOLVED, that all jurisdictions and their elected officials and staff covered by the documents will cooperatively implement the Bismarck-Lincoln-Burleigh County Fringe Area Roadway Master Plan and the Mandan-Morton County Fringe Area Roadway Master Plan elements.

CERTIFICATE

The undersigned, duly elected, chairperson of the Bismarck-Mandan Metropolitan Planning Organization Policy Board certifies that the forgoing is true and correct copy of a Resolution, adopted at a legally convened meeting of the Policy Board held on September 16, 2014.



Doug Schonert, Chairperson



Date

Bismarck-Mandan Metropolitan Planning Organization Policy Board

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INTRODUCTION

The Bismarck-Mandan metropolitan area is experiencing a period of substantial economic growth that is bringing more families and new businesses to the region. In addition, the positive economic climate is providing current residents and businesses the means to afford new homes and/or to expand their existing business square footage. The future land use plans for the communities and counties in the region document the need for developable land outside the current city limits of Bismarck, Mandan and Lincoln. In most areas of the region development outside the cities will require extending the infrastructure, including a transportation network.

Through the 2014 Fringe Road Master Plan, the MPO and member jurisdictions are developing a forward-looking plan that identifies the arterial and collector roadway network to support and complement known and anticipated residential, commercial, industrial and public development of the area outside each of the communities. The preceding sentence embodies the vision of the plan to complement and support known and anticipated development outside the city limits of Bismarck, Mandan and Lincoln in Morton and Burleigh Counties.

The objectives of the planning effort are to accomplish the vision in a manner that:

- Reflects current and/or known changes to land ownership boundaries such that appropriate access is provided.
- Results in corridor alignments consistent with applicable local and state design guidelines.
- Provides transportation facilities that complement the adjacent land uses.
- Considers the financial capacity of the municipal, county and state transportation budgets.
- Promotes input by property owners and community officials.
- Provides opportunities for landowners and developers to propose logical modifications to the arterial and collector networks to address the fluid nature of development plans over time.

STUDY AREA

Portions of Burleigh County and Morton County covered in the Fringe Area Road Master Plan include areas outside the city limits of Bismarck and Lincoln in Burleigh County and outside Mandan in Morton County and inside the MPO boundaries. Figure 1 displays the Fringe Area Road Master Plan study area.

FUNCTIONAL CLASSIFICATION OF ROADS COVERED IN THE MASTER PLAN

Functional Classification Categories

- Principal Arterial:
 - Interstate
 - Other Freeway/Expressway
 - Other
- Minor Arterial
- Collector:
 - Major Collector
 - Minor Collector
- Local

In 2013 the Federal Highway Administration (FHWA) provided updated guidance and criteria for state, county and local jurisdictions to use in assigning a functional classification to roads within their jurisdiction. The original intent of creating a hierarchy of classifications in a region was to define a framework of roles routes would/should support in moving people and goods. Over time, the concept of assigning a functional classification to roadways has evolved to include expectations on the number of lanes, intersection control, speed, access control and available sources of funding. The 2013 guidance document acknowledges the changes that have taken place over time and incorporates in the procedural and technical tools for assigning classification a wider range of defining criteria that address current expectations.

One key update included in the 2013 guidance is re-aligning rural and urban classifications to be consistent in their categories. Prior to the 2013 revisions, roads in rural areas were divided into five categories (principal and minor arterials, major and minor collectors, and local streets), while urban areas used four sub-classifications across the arterial, collector and local categories (principal and minor arterials, collectors and locals).

The focus of the roadway network within Bismarck-Mandan MPO fringe area is on the collector and other principal arterial systems. Local streets were not included as they are internal to specific developments and as long as they connect to the collector roadway at acceptable locations, they have little impact outside the development. Interstate and other freeway/expressway routes are not included as their alignments are essentially defined throughout the region.

Table 1 documents the nominal scale characteristics for differentiating between the functional categories contained in the 2013 FHWA guidance document. Working with the project Steering Committee, additional defining/differentiating characteristics between collector and arterial roads were developed. Table 2 documents the Bismarck-Mandan area defining characteristics used in the Fringe Area Road Master Plan study.

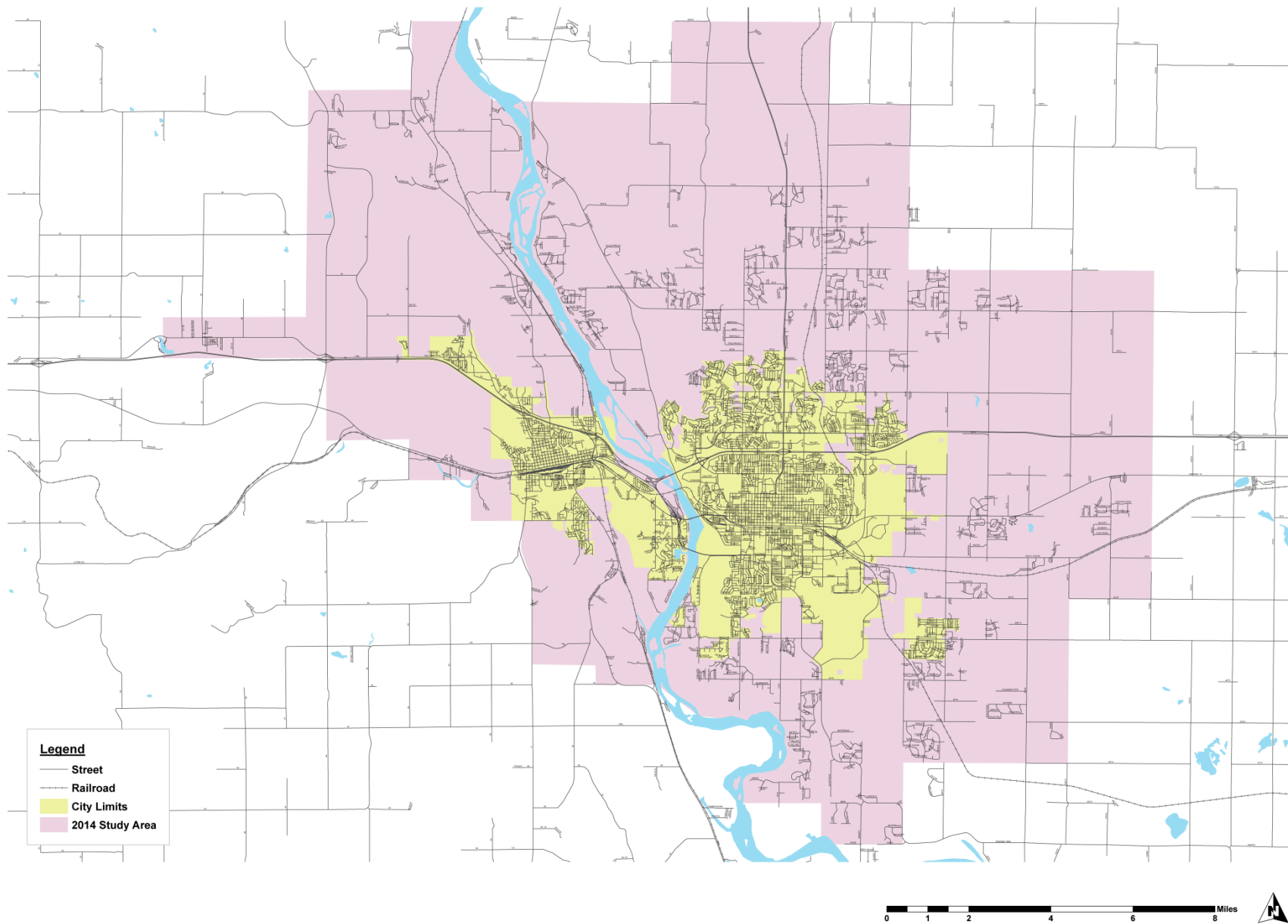


Figure 1: Fringe Area Study Limits

Table 1. Relationship between Functional Classification and Travel Characteristics

Functional Classification	Distance Served (and Length of Route)	Access Points	Speed Limit	Distance between Routes	Usage (AADT and DVMT)	Significance	Number of Travel Lanes
Arterial	Longest	Few	Highest	Longest	Highest	Statewide	More
Collector	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Local	Shortest	Many	Lowest	Shortest	Lowest	Local	Fewer

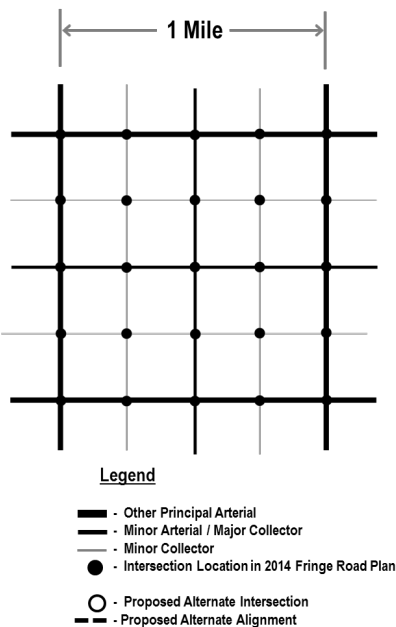
Source: Highway Functional Classification Concepts, Criteria and Procedures, 2013 Edition, Federal Highway Administration, US DOT

Table 2. Relationship between Functional Classification and Design Characteristics

Functional Classification	Distance Served (and Length of Route)	Access Points	Direct Land Access?	Right-of-way Width (Feet)
Other Principal Arterial	Multiple miles to across the region	5 per mile	No	150 Beltway Routes – 200
Major Collector	Multiple miles	9 per mile	No	120
Minor Collector	1 to 2 mile	Could provide direct land access	Allowed	80 to 120

Throughout the region the principal arterial network comprises section line roads on the one mile grid and the state and federal highway system roadways. Where terrain or other physical barriers have limited establishing a section line right-of-way, a limited mileage of alternate alignment arterials have been developed over time. Internal to the section, at half mile and quarter mile intervals are the collector and/or minor arterial routes. These internal-to-the-section routes serve as the collection and distribution system between local streets with specific developments and the arterial system.

Using section line roads and the state and federal system as the description creates a clear picture of what is defined as other principal arterial, however, differentiating between minor arterial and major collector routes is much more difficult. As this study creates only the framework plan for the future roadway network and does not include analysis of the appropriate cross section for a specific segment, routes internal to the section line roads (principal arterials) were defined as collector routes.



ANTICIPATED REGIONAL GROWTH (HOUSEHOLDS AND EMPLOYMENT)

The Bismarck-Mandan Metropolitan Planning Organization (MPO) has the responsibility of developing and maintaining a set of growth assumptions for the region. These assumptions include anticipated change in population, households and employment. One of the primary uses of the forecasts is as inputs to the regional travel demand model for generating daily person and vehicle trips. The latest future year projection of households and employment was completed in the spring of 2012 for a 2040 horizon year. While estimating future traffic is not a part of the update to the Fringe Area Road Master Plan, understanding the anticipated increment of growth and the locations where growth is expected is critical to the purpose and need for developing the plan.

Historically across the region, households and employment levels have expanded at a rate of slightly less than one percent per year. Over the last four to five years, the area has experienced a greatly elevated level of growth in both housing starts and new commercial/industrial businesses relative to the observed historical trend. The MPO Policy Board recognizes the accelerated level of growth/expansion in the region and has approved for use in regional planning studies a 2040 population and employment projection that assumes the accelerated growth rate will continue well into the future.

For the region, household and employment projections for the period through 2040 reflect the following assumptions:

- 2012 through 2025: Population and employment growth of approximately 3.5 percent per year.
- 2026 through 2040: Population and employment growth moderating to approximately 1.25 percent per year.
- A decline in the number of persons per household from an average of approximately 2.51 today to approximately 2.42 by 2040.
- Growth in employment will lag slightly behind population growth through 2040.

Population, employment and household growth levels highlighted above were developed as part of an effort that reviewed three alternate growth scenarios. These scenarios were:

- Continuation of historical (pre-2010) growth trend, also referred to as the Business as Usual growth alternative. This concept assumed that the historical population and employment growth rates of approximately one percent per year would continue throughout the planning period.
- Moderate increase in population and employment growth. The alternative assumed for the period from approximately 2010 through 2025 population and employment would grow at a rate of approximately 2.5 percent per year and then moderate to a level of

approximately 1.25 percent per year for the remainder of the planning period (through 2040).

- Aggressive increases in population and employment, reflective of a booming growth period. In this scenario population and employment are anticipated to increase by approximately 3.5 percent per year through 2025, followed by a moderated growth rate of 1.25 percent per year through the 2040 planning horizon.

The MPO Policy Board has supported the Aggressive Growth concept for use in developing regional planning documents.

Table 3 documents the base year (2010), intermediate year (2025), and 2040 horizon estimates of regional growth for population, households and employment.

Table 3. Change in Socioeconomic Data Estimates

Variable	2010	2025	2040	Change over Period	
				2010 to 2025	2025 to 2040
Population	108,600	159,000	191,600	50,400	32,600
Households	41,800	64,400	73,100	22,600	8,700
Employment	64,300	99,900	124,500	35,600	24,600

Source: Bismarck-Mandan MPO

FUTURE LAND USE PLANS

The most recent region-wide land use plan was developed through a 2007 study by the Bismarck-Mandan MPO. The Regional Future Land Use Plan covered all of the MPO area as it was defined at the time. This plan was used as a general guide for where and what type (residential/commercial/industrial) development is likely to occur over the 25 years following the plan development (through 2030).

Individually, each of the jurisdictions has recently or is currently updating the future land use concepts for their responsible areas. Burleigh County has recently (May 2014) updated their comprehensive plan and is initiating the steps to update the land use plan (2014 or 2015) in a joint effort with the MPO.

The City of Bismarck updated the land use plan for the area within the designated extraterritorial area as part of the 2014 Growth Management Plan. The City of Mandan is the process of updating the

future land use map for areas within the city limits and extended to the negotiated extraterritorial area.

Lincoln, as part of the 2012 Comprehensive Plan developed a future land use plan for areas within and adjacent to the current city limits where community leaders anticipate expanding over time.

Additionally, Morton County is planning on updating their future land use plan as part of a Comprehensive Plan Update anticipated to be initiated in late 2014.

Figure 2 displays the future land use plan map for the area included within the Bismarck extraterritorial area prepared as part of the 2014 Growth Management Plan. This planning effort assumed the Aggressive Growth scenario described earlier in this report.

Figure 3 displays the proposed future land use plan for Lincoln.

Areas of Burleigh County and Morton County outside the coverage of the 2014 planning efforts (Bismarck Growth Management Plan and the Mandan Comprehensive Plan) are assumed to be developed consistent to the 2007 Regional Land Use Plan.

PURPOSE AND NEED

The purpose of the 2014 Fringe Road Master Plan is to provide a process for developing and documenting the arterial and collector network needed to support and complement continued development in the region. Through preparation of the plan the following are provided:

- Design guidelines for the collector and arterial networks.
- Generalized alignments for the collector and arterial networks within the study limits. To enhance access convenience for landowners, developers and city/county officials, maps of the alignments are uploaded to Google Maps, the MPO websites and MPO member jurisdiction websites.
- A process for incorporating a review of development proposals relative to the fringe road plan alignments and a process for modifying alignments if necessary.
- The need for the plan is characterized by considering the potential for an undesirable future condition associated with an uncoordinated approach to addressing individual development proposals. Each jurisdiction in the MPO area supports establishing a coordinated and efficient transportation network over the next 25 or more years.

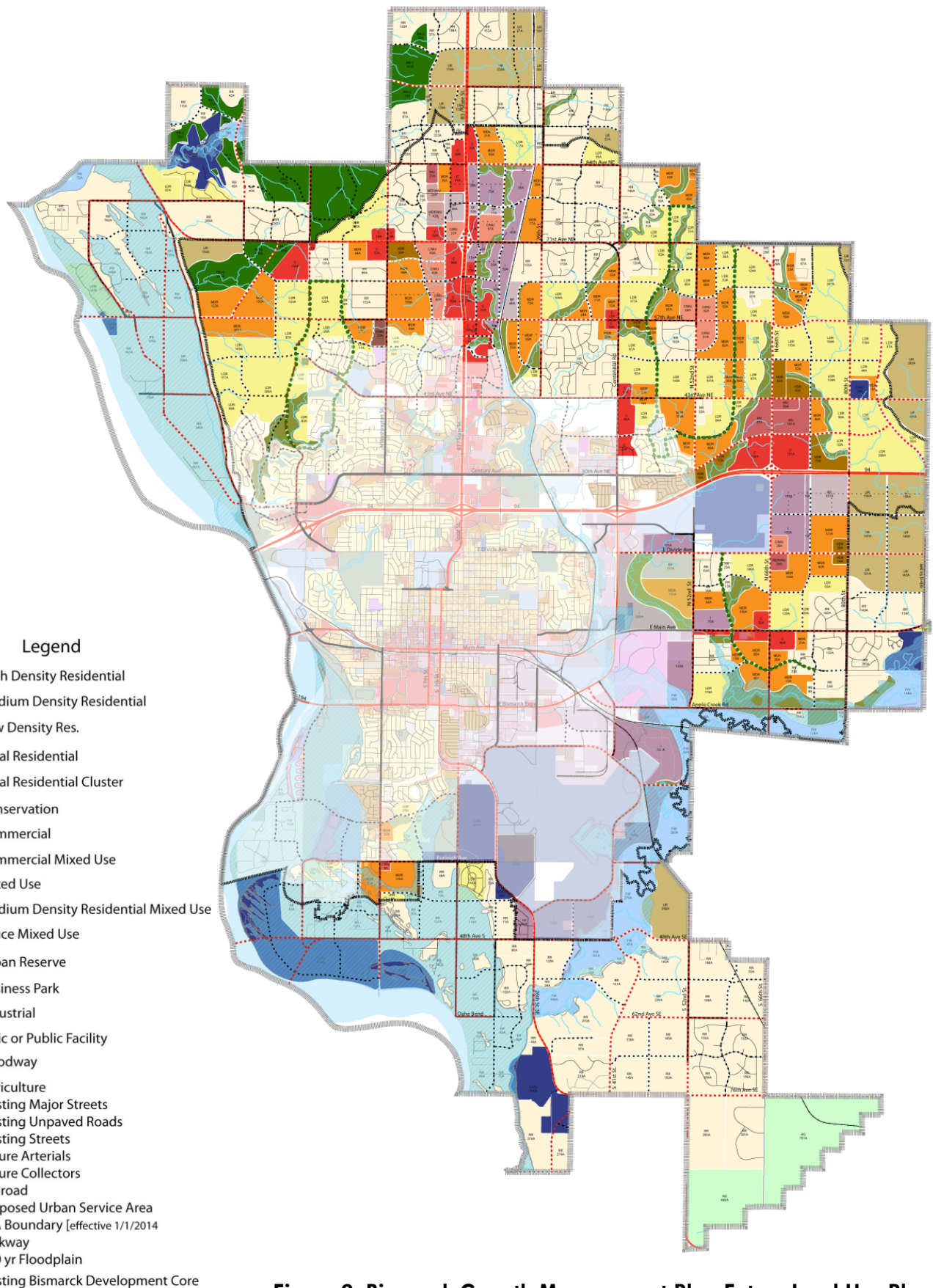
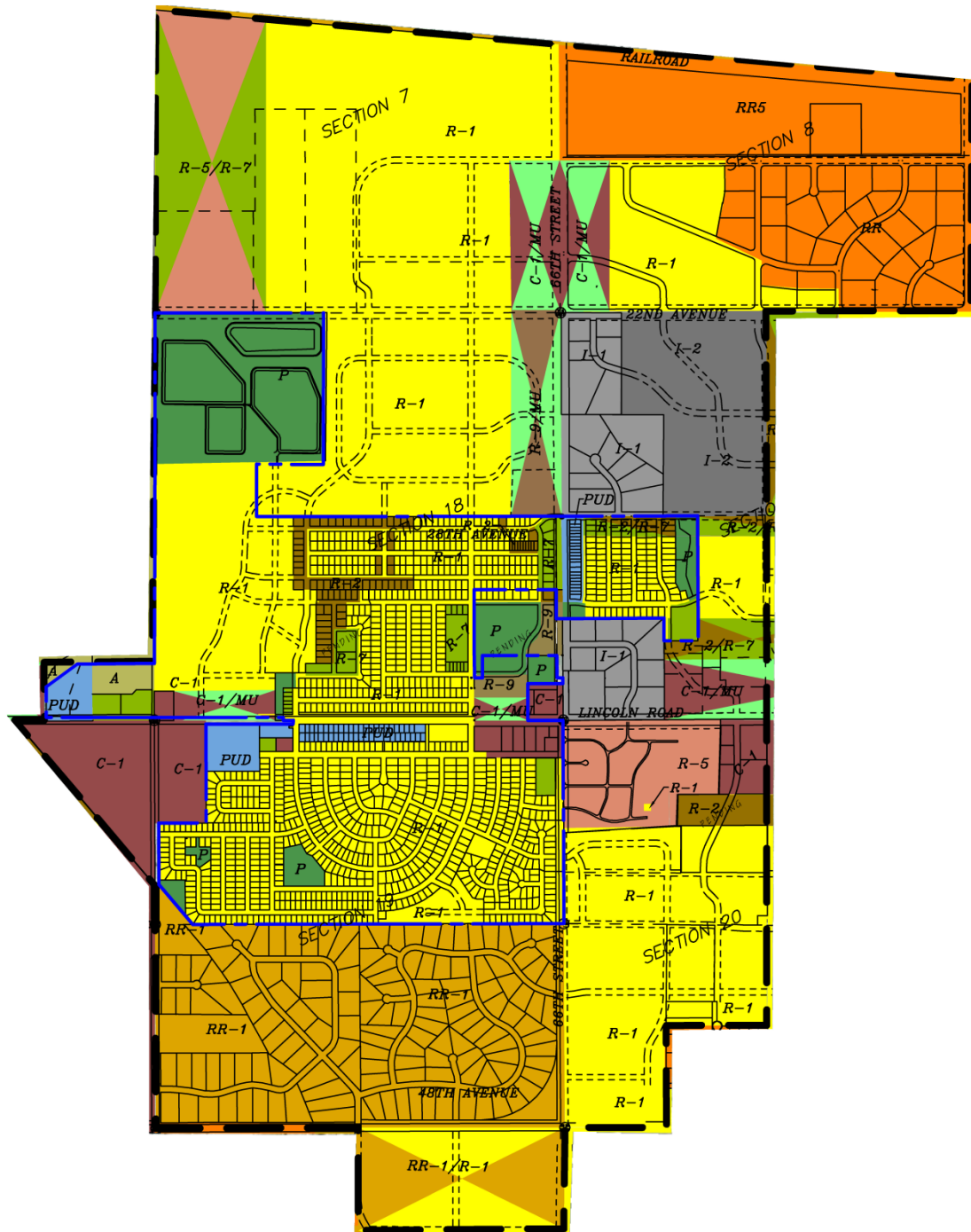
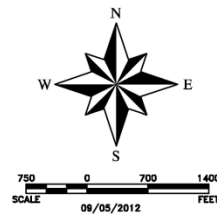


Figure 2: Bismarck Growth Management Plan Future Land Use Plan



LEGEND

R-1	P
R-2	A
R-5	PUD
R-7	RR5 (RURAL RESIDENTIAL - BURLEIGH COUNTY)
R-9	RR (RURAL RESIDENTIAL - BISMARCK)
C-1	MB (HEAVY INDUSTRIAL - BISMARCK)
MU	CG (HEAVY COMMERCIAL - BISMARCK)
I-1	PROPOSED FUTURE ROW
I-2	CORPORATE BOUNDARY
RR-1	CURRENT EXTRATERRITORIAL AREA (ETA)



Kadmas
Lee &
Jackson
Engineers Surveyors
Planners

Figure 3: Lincoln Future Extraterritorial Land Use Plan

While it is possible that an efficient and cost effective network could result without an active transportation planning process that lays out desired corridors, the likelihood is diminished in the absence of looking at the needs and conflicts of the range of development proposals likely to be presented to the cities and/or counties.

The need for the Fringe Area Road Master Plan can be established by the relative absence of credible responses to the following questions:

- How will the access and travel needs of one development proposal be evaluated relative to the needs of adjacent parcel plans/ideas?
- What is the appropriate collector and arterial network to support future development of the areas around Bismarck, Mandan and Lincoln?
- What areas of Burleigh County and Morton County are logical and cost effective to serve with arterial and collector roads?
- Where are the appropriate access points along arterial corridors in the areas adjacent to Bismarck, Mandan and Lincoln?

The 2014 Fringe Area Road Master Plan addresses each of these questions.

FRINGE ROAD DESIGN CRITERIA

OVERVIEW

Working with the project Steering Committee a planning level set of design criteria was developed for the collector and arterial roadway networks. Listed in the following bulletpoints are the critical elements that went into creating/establishing the routes included in the maps:

- All areas within the Fringe area would be developed at an urban density if/when the fringe system is developed.
- Follow Existing Routes: For both the arterial and collector routes, existing roads were followed when it was appropriate.
- Where individual jurisdictions have negotiated modifications to the 2003 Fringe Area Road Master Plan to accommodate specific developments, negotiated routes were followed.
- Follow Future Routes in Approved Studies: Arterial corridors recommended in the following studies were followed:
 - North-South Regional Beltway Study (MPO – 2007).
 - Northwest Bismarck Sub Area Study – Identified routes along Burnt Boat Drive, Golf Drive, and Century Avenue were followed. All of these are located within the Bismarck City Limit. Other

recommended corridors were considered, but not necessarily followed (MPO - 2011).

- North Mandan corridors outside Mandan (MPO – 2014)
- 43rd Avenue Corridor Study (MPO – 2013).
- With the exception of the I-94 interchange at 66th Street NE (North-South Regional Beltway Study), no new Interstate crossing/interchanges were identified.
- No new railroad crossings are likely to be negotiated with the railroads.
- All routes identified are OUTSIDE the current city limits of Bismarck, Mandan and Lincoln.
- Parcel lines, section lines, and existing road right-of-ways were followed when possible.
- Relocation and/or demolition of existing buildings was avoided. Isolated rural homes/buildings in areas immediately adjacent to Bismarck and/or Mandan are considered exceptions if it is logical to assume they would be removed as part of a future urban density development.
- Encroachment on wildlife management areas was minimized.
- A maximum of two stream, river, or ditch crossings per mile, unless additional were required to avoid undesirable routes.
- Minimum intersection spacing:
 - Arterial – 1,320 feet (1/4 mile)
 - Collector - 660 feet (1/8 mile).
- Horizontal alignments were adjusted to avoid greater than 8% effective grades, crossing lakes and/or obstacles (buildings/electrical towers/etc.). Figure 4 characterizes how the effective grade was calculated/estimated.

Effective Grade

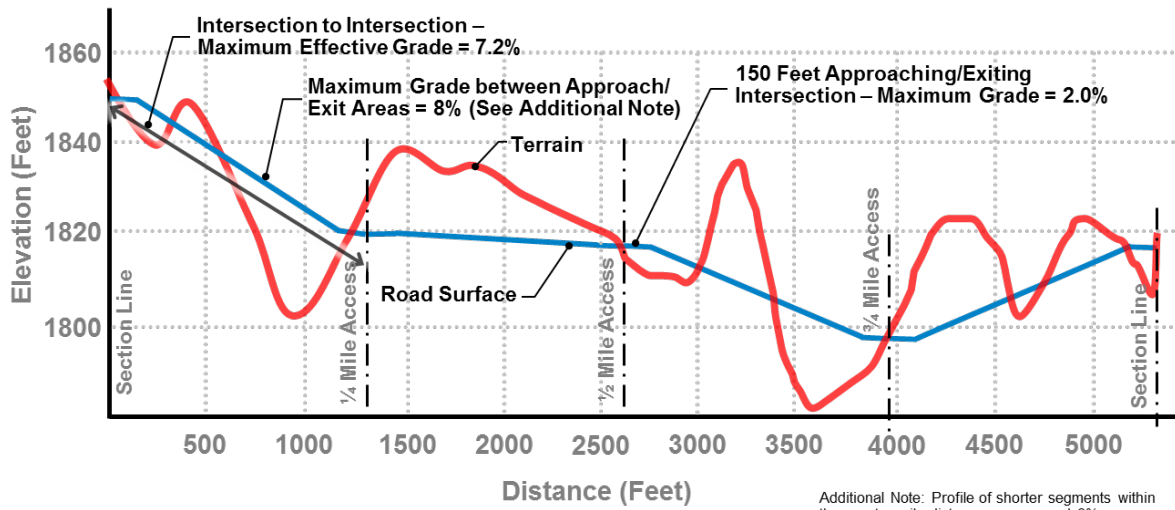
Represents the composite grade between quarter section access points taking into account:

- A 2% maximum grade along the 150 feet entering and exiting the intersection.
- The profile based on the current terrain between the quarter section intersections.

ACCESS LOCATIONS

As documented in Table 2, access points along arterial roadways would typically be allowed every quarter mile (five access points per mile allows an intersection every 1/4 mile). The grid network detailed in the alignment mapping addresses the section line roads and the half section minor arterial/major collector network. Note that the term grid network is used to describe the general concept of a roadway network laid out on north-south and east-west pattern forming a grid when terrain and limiting barriers allow. Severe terrain and physical/social barriers that limit the feasibility of reasonably providing a street can interrupt the grid concept. These conditions are much more prevalent in Morton County where severe terrain impacts the feasibility of providing straighter, more continuous north-south and east-west routes on the section and half section.

Figure 4. Profile Design Guidelines



Minor collector alignments that intersect major collectors at the $\frac{1}{4}$ and $\frac{1}{8}$ mile and/or arterial roadways at the $\frac{1}{4}$ mile will be determined by developers of the parcels as they prepare development concepts. While not displayed in the alignment mapping, the design criteria would allow an additional collector route access between the half section minor arterial/major collector and the section line/other principal arterial, relative to what is displayed in the alignments plates.

FRINGE AREA MASTER PLAN CORRIDOR ALIGNMENTS

Employing the design guidelines developed working with the Steering Committee, preliminary corridor alignments covering the collector and arterial systems throughout the study area were developed. The preliminary alignments were distributed to the Steering Committee (which includes representatives from each of the MPO participating jurisdictions) for their input and revision. Through a two-day workshop the Steering Committee discussed each of the corridors and identified potential revisions to the initial set of alignments. To aid in focusing the workshop discussion to the most critical locations, the consultant divided the preliminary concepts into two categories:

- Category A: Corridors where applying the design criteria and addressing future land use resulted in few, if any, potential areas of concern relative to meeting the criteria or adjacent impacts. Characteristics of these areas were:
 - Flat/Moderately rolling terrain.

- Few natural feature barriers such as streams, rivers, wetlands, etc.
- Limited current development.
- Land ownership that resulted in parcels that provided a potential right-of-way along a quarter or half section without segmentation of a parcel.
- Category B: Corridors where meeting the design criteria or purpose and need could be challenge. These corridors included:
 - Areas of more severe terrain, where meeting the profile guideline would be difficult or not feasible while maintaining the concept of a half-mile grid system.
 - Multiple stream crossings to provide a continuous corridor along the desired half-mile grid.
 - Parcel segmentation that left smaller strip parcels.
 - Encroachment on existing buildings that would not likely be considered for redevelopment as the surrounding area develops.

While alignments in each of the categories were discussed at length, much of the focus was on those corridors in Category B as they represent the potential future alignments that would:

- Generate the greater potential for impacts to persons already located in the future development areas or own property in the future development areas.
- Cost more per linear foot to construct. Thus, would be more difficult to justify on a cost versus benefit basis.
- Create the potential for significant adverse impacts to the environment.

Using the input provided by the Steering Committee leading up to, during and following the workshop, a draft fringe area road alignment concept was developed and presented for public comment. Residents and landowners were able to provide comment through the following:

- One-on-one discussion at public information meetings held on April 9, 2014 in Mandan and April 10, 2014 in Bismarck.
- Public hearings held as part of briefings at Planning and City/County Commission meetings.
- Emailed comments sent from the project website where people could view the draft alignments concept.

Revisions to address comments received were made to the draft alignments concept and a proposed concept for the 2014 Fringe Area Road Master Plan corridor alignments was established. Figure 5 displays the Burleigh County corridors. Detailed plates for each of the counties are included in the Appendix. The detail plates include the alignment and a shaded area representing the estimated right-of-way limits for the various corridors.

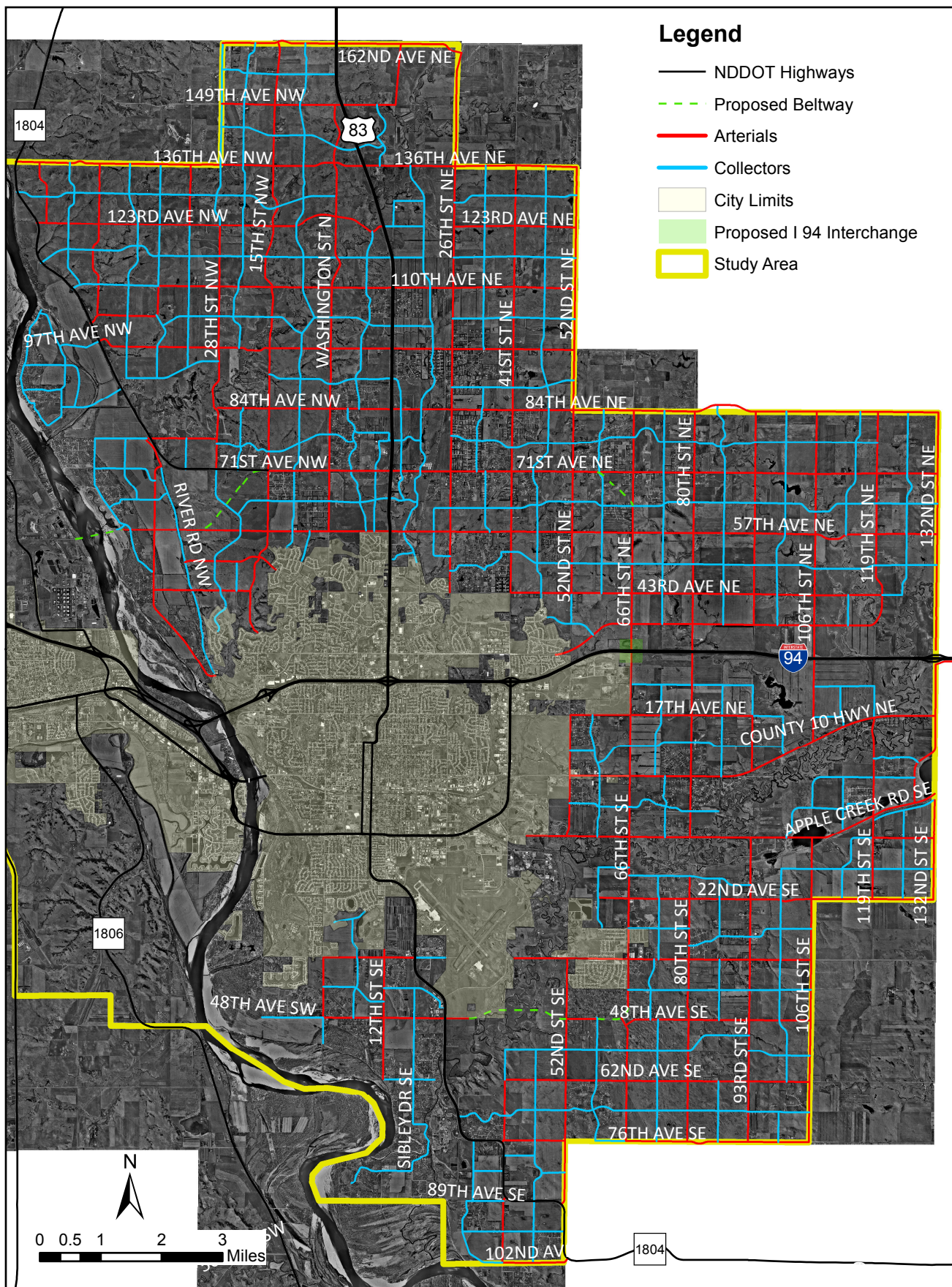


Figure #: Burleigh County Fringe Area Road Alignments

AMENDING THE 2014 FRINGE AREA ROAD MASTER PLAN ALIGNMENTS

PURPOSE OF THE AMENDMENT PROCESS

The intent of the Fringe Area Road Master Plan is that it provides a framework of the arterial and collector roadway network in future development areas of the region. As there are many landowners in the planning area there are going to be many ideas of what is the most appropriate use of parcels located within the study area. Individual parcel development ideas may change over time as economic conditions in the region change. As the Fringe Area Road Master Plan is management tool for the region, it must be adaptable to a changing environment. To be an effective growth management tool for a diverse region, the basic structure of the Fringe Area Road Master Plan routes and access locations needs to be rigid, but elements of the plan internal to the basic structure (defined by the Other Principal classified roads) must be flexible for the plan to be useful over a long period. The purpose of the amendment process/procedure is to lay out the flexibility limits and consistency/compliance criteria that developers would apply relative to development proposals.

AMENDMENT PROCESS

The intent of the Fringe Area Road Master Plan is to provide a framework of collector and arterial routes that support continued growth in the region. While the plan will be updated over time (the 2014 plan is an update of the 2003 plan) to reflect changes in regional growth plans/concepts, it is critical to provide a method for considering interim modifications to account for individual land development proposals that are inconsistent with the framework plan. By incorporating an amendment process the plan can also be a tool engineers, planners and administrators can use in managing the day-to-day activities associated with addressing development proposals.

The amendment process provides developers, landowners, elected officials, and staff a logical and consistent method for reviewing a roadway concept submitted as part of a preliminary plat and determining whether it is logical and reasonable to approve the plan or whether to require a change in the collector or arterial proposal.

Following adoption of the 2014 Fringe Area Road Master Plan by the MPO Policy Board, each of the five jurisdictions will incorporate into their respective preliminary plat review process comparison of an individual development arterial and collector roadway and access point concept to the currently approved Fringe Road Plan framework.

The alignment and access location amendment process divides revisions into two categories:

- Minor – Changes to alignments and/or intersection locations that staff have the authority to negotiate with a developer and do not require separate action by the appropriate Planning Commission and City/County Commission.
- Major – Changes to roadway alignments and/or intersection locations that are significant departures from the adopted alignments/ intersection locations and would require separate action (which can be incorporated into the preliminary plat review) by the appropriate Planning Commission and City/County Commission.

Completion of the review process will be a recommendation by the City Engineer or the County Engineer as to whether the individual development proposal is consistent with the intent of the Fringe Road Master Plan.

The following pages layout a series of conditions that aid in defining whether a requested alignment and/or intersection location change from the 2014 alignment (or future revised alignment) is a Minor or a Major revision.

The process also highlights the appropriate public hearing notice, adjacent landowner notice and protest procedures for each jurisdiction.

Part 1 – Consistency with Fringe Area Road Master Plan

Question 1: Are the arterial/collector alignment and access points for the proposed plat/site design consistent with the Fringe Area Road Master Plan?

Yes: No amendment is required – Conclude review.

No: Go to Question 2 for Minor Arterial and Major-Minor Collectors (See Note for Other Principal Arterial).

Question 2: Can the proposed plat/site design be modified to be consistent with Fringe Area Road Master Plan?

Yes: No amendment is required – Document the plat/site plan changes needed and conclude review.

No: Complete Part 2 (Intersection Location) AND Part 3 (Segment Alignment).

Part 2 – Review of a Requested Intersection/Access Location Modification

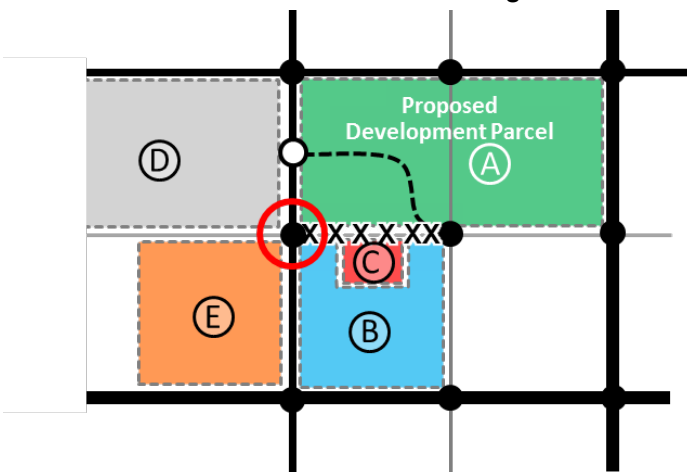
(Complete if the proposal includes moving or adding a Fringe Area Master Plan Intersection/Access)

Sample condition represents a typical section concept for the Fringe Area Road Master Plan. Other Principal Arterial roads frame the one mile. Internal to the section, a combination of Minor Arterial, Major Collector and Minor Collector routes make up the roadway grid.

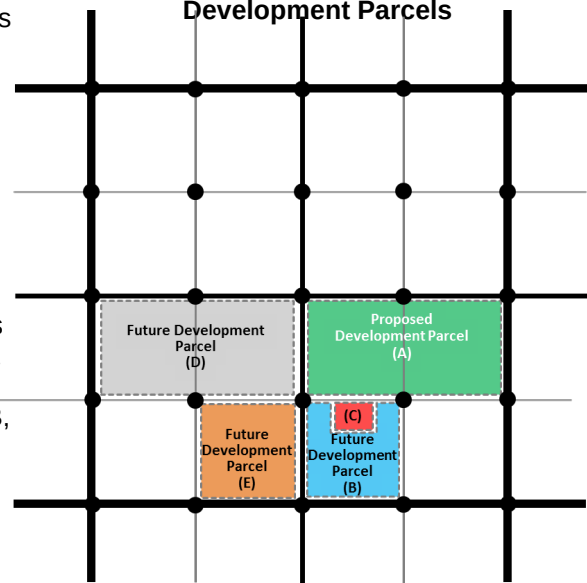
In sample (See Below), landowner/developer of Parcel A, in conjunction with a preliminary plat review, finds inconsistencies between the Fringe Area Road Master Plan and their proposed roadway/intersection location (○).

As Parcels A, B, and D (not yet developed) share an access point to the Minor Arterial / Major Collector (circled in red), a requested modification of the access location by Parcel A developer requires assessment of potential for impacts on B, D and E for the ability to maintain acceptable access.

Example: Alternative Minor Arterial / Major Collector Access and Alignment



Fringe Grid Relative to Future Development Parcels



Legend

- - Arterial
- - Major Collector
- - Minor Collector
- - Intersection Location in 2014 Fringe Road Plan
- - Proposed Alternate Intersection
- - - Proposed Alternate Alignment
- X-X - Eliminated Fringe Road Segment

Part 2 – Review of a Requested Intersection/Access Location Modification

(Complete if the proposal includes moving or adding a Fringe Area Master Plan Intersection/Access)

Access Coordination Review – Can the west side approach road to B (Original from Fringe Road Plan) be relocated to connect with A (requested access location) and; retain appropriate access to the surrounding parcels; meet design criteria; obtain concurrence from adjacent parcel owners?

Yes – Go to Test 1.

No – Would require hearings and action by appropriate Planning/ Zoning Commission and City/County Commission.

Test 1 – In the situation where A is requested as an access in addition to B, can an acceptable offset between intersections A and B be established (1/8 mile)?

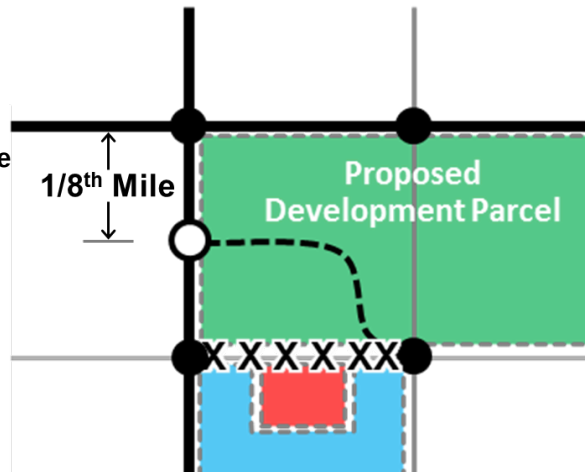
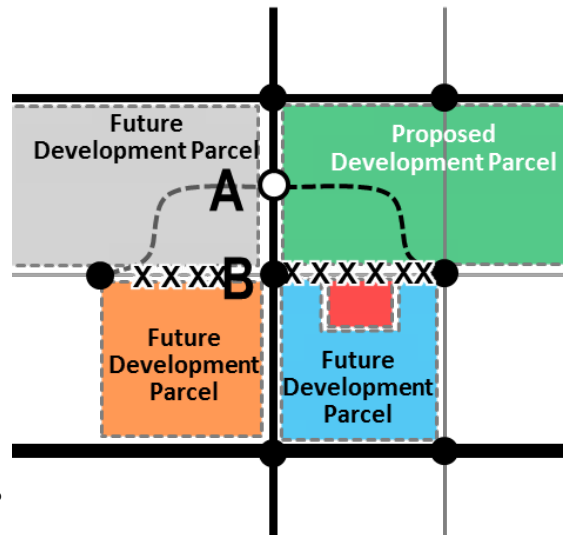
Yes – Go to Test 2.

No – Would require hearings and action by appropriate Planning/ Zoning Commission and City/County Commission.

Test 2 – Can an appropriate offset (Minimum 1/8 mile) be provided between the relocated intersection and an adjacent identified or established Collector or Arterial intersection?

Yes – Go to Test 3.

No – Would require hearings and action by appropriate Planning/ Zoning Commission and City/County Commission.

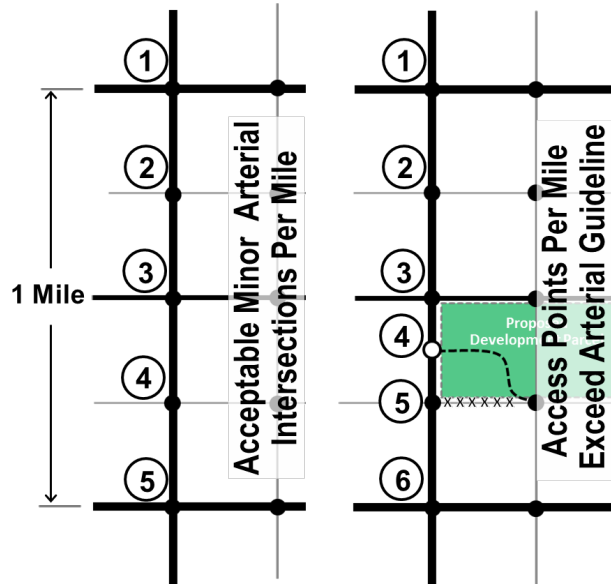


Part 2 – Intersection/Access Location Modification Review (CONT.)

Test 3 – Can the relocated access and the Fringe Area Road Master Plan proposed access location both be provided and meet the acceptable access points per mile guideline (5 for Minor Arterial and 9 for Major Collector) as mapped and/or in policy statement?

Yes – Go to Part 3 (Segment review).

No – Would require hearings by appropriate Planning/ Zoning Commission and City/County Commission.



Part 3 – Minor Arterial or Major Collector Segment Alignment

Test 4 – Is acceptable access still provided to future development parcels (Parcel C in example) adjacent to the Collector proposed to be changed?

Yes – Go to Question Test 5.

No – Would require hearings and action by appropriate Planning/ Zoning Commission and City/County Commission.

Test 5 – Is an acceptable ROW available along the proposed Collector alignment?

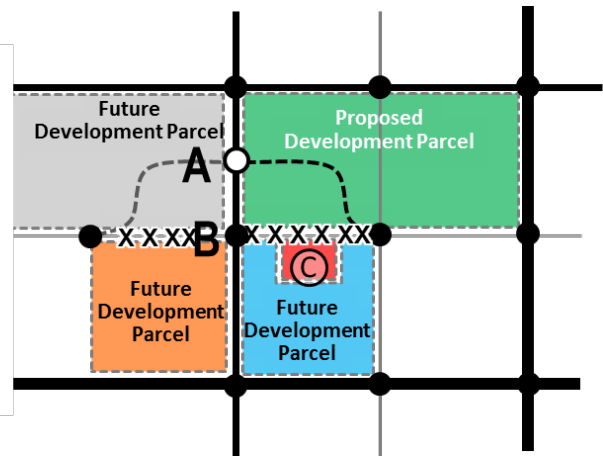
Yes – Go to Test 6.

No – Would require hearings and action by appropriate Planning/ Zoning Commission and City/County Commission.

Test 6 – Can the critical design criteria be met (road profile, intersection sight distance)?

Yes – Change is considered a minor amendment and can be addressed administratively by Planning/ Development Department.

No – Would require hearings and action by appropriate Planning/ Zoning Commission and City/County Commission.



Legend

- - Arterial
- - Major Collector
- - Minor Collector
- - Intersection Location in 2014 Fringe Road Plan
- - Proposed Alternate Intersection
- - Proposed Alternate Alignment
- X-X- - Eliminated Fringe Road Segment

In example, Parcel C would no longer have access to the east-west Collector. Not acceptable.

Part 4 – Coordinate Mapping Update With MPO

The Fringe Area Master Plan is a document/product approved by the MPO Policy Board and the MPO office maintains current mapping of the Approved/Accepted arterial and collector alignments. Thus, following action by the appropriate jurisdiction that results in a change in the adopted/accepted alignments and/or intersection locations, MPO staff will be informed of the changes so mapping/datasets can be updated.

PUBLIC ENGAGEMENT OPPORTUNITIES

Public input was solicited throughout each step of developing the 2014 Fringe Area Road Master Plan, including:

- Development of the purpose and need. Comments were requested through the project website, from the presentation at the initial public information meeting and from briefings to the Planning Commissions and City/County Commissions.
- Draft alignment alternatives. Maps of the draft alignments were uploaded to the project website and Facebook page where residents and landowners could access them. Through the website people could also provide comments via email or a post.
- 2014 Proposed Alignments. The final public meeting and commission briefings focused on the proposed alignments. Maps of the alignments were uploaded to the website and Facebook and to Google maps. The public was able to respond/comment on the alignments through email and Facebook comment postings.
- Amendment Process. The process for amending the 2014 Proposed Alignments was included in discussion at the final public information meeting, commission briefings, and was posted to the website and Facebook page. Thus, comments could be provided through one-on-one discussions, responses to questions at public hearings during commission briefings, and email or postings from electronic sites.

Material presented at the public information meetings is included in the report appendix.

APPENDIX

NORTH MANDAN SUBAREA STUDY – TECHNICALLY FEASIBLE ALTERNATIVES

Roadway Network – Technically Feasible Alternatives

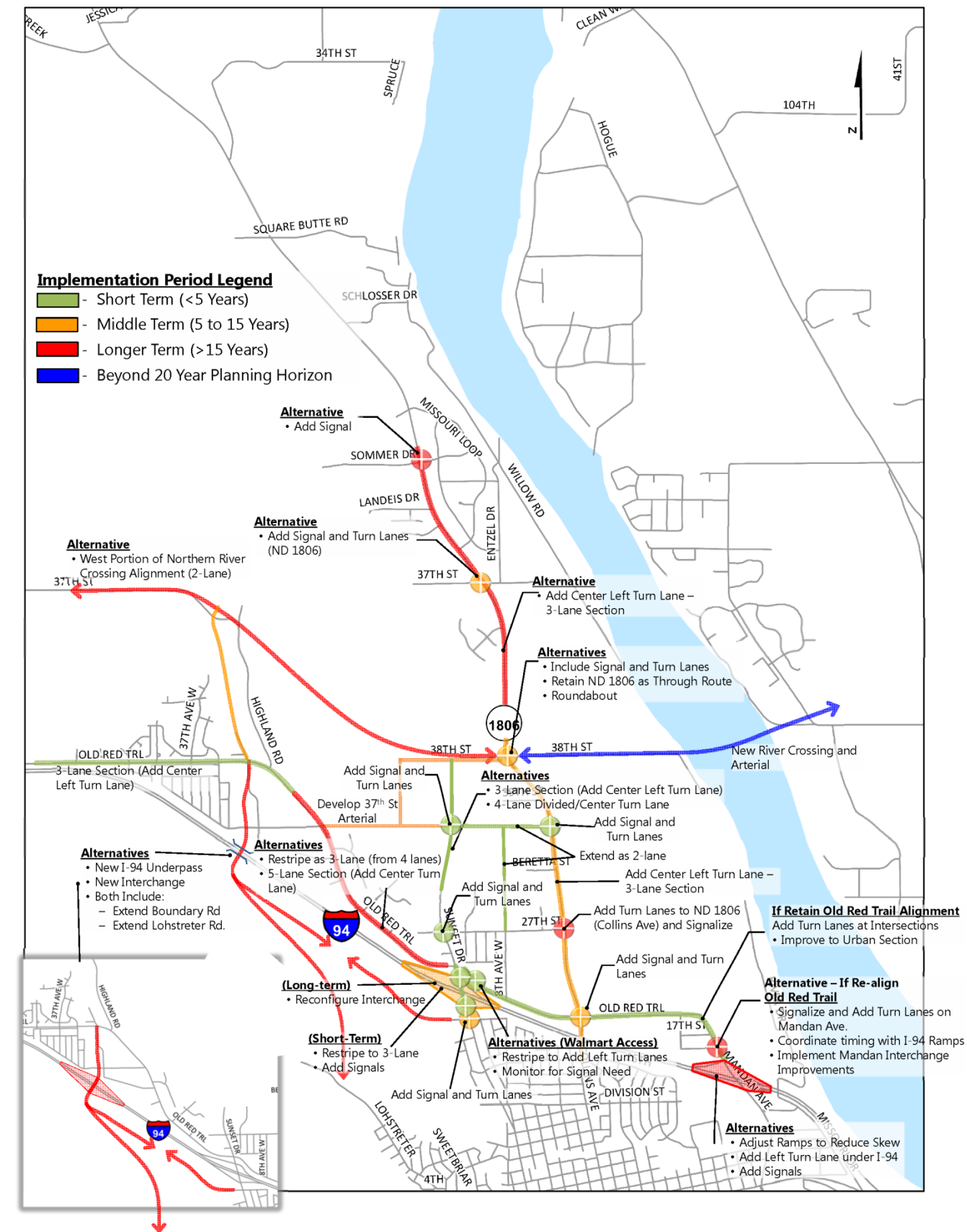
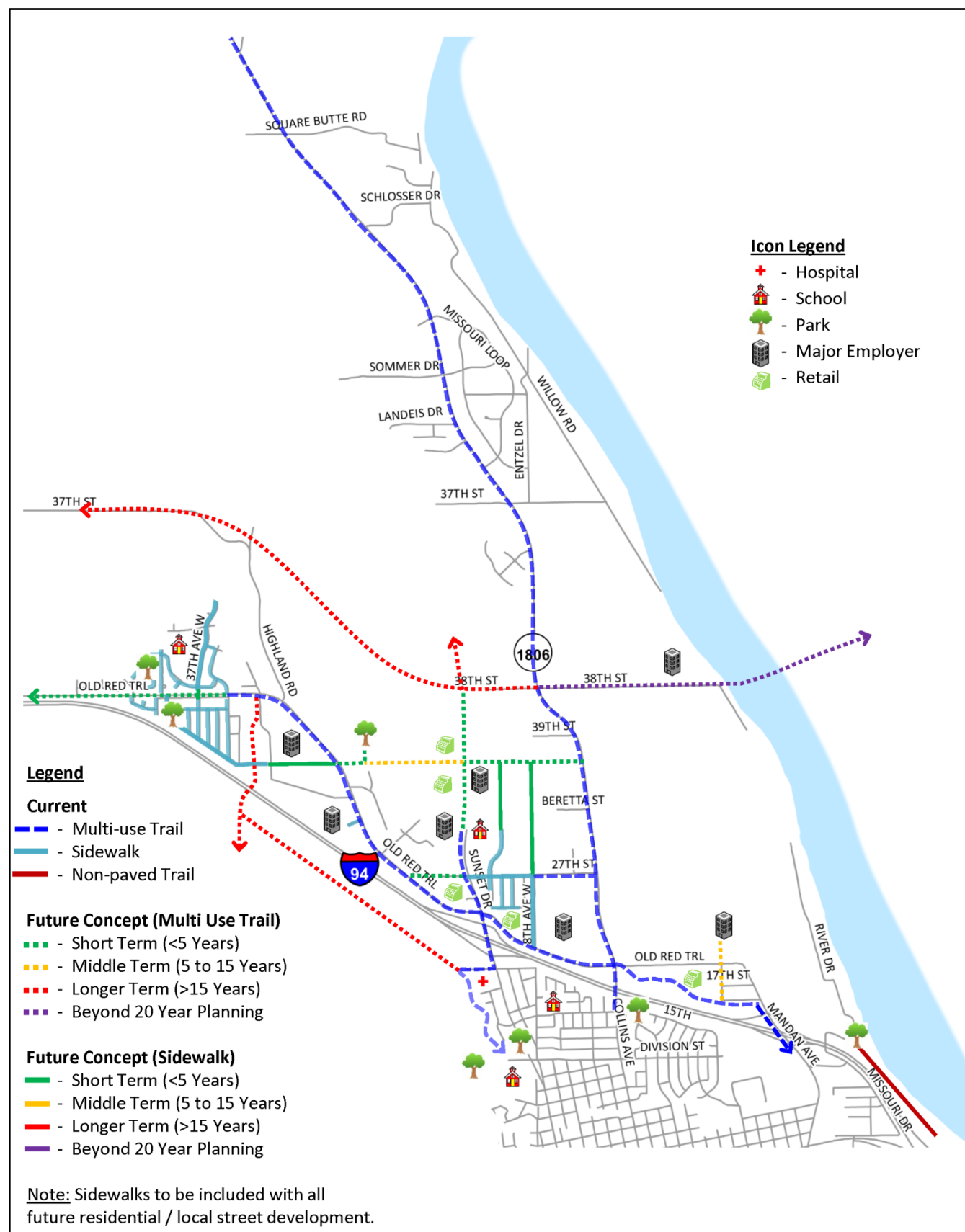
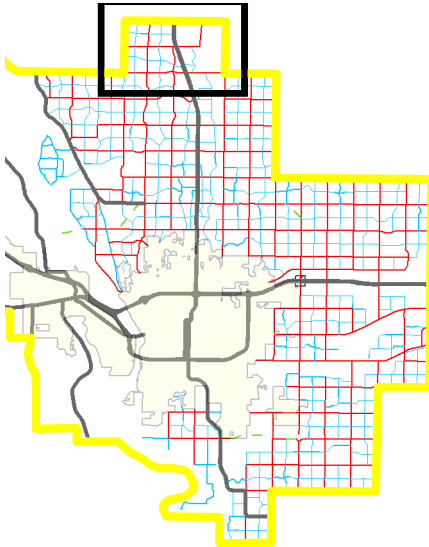


Figure 6 Technically Feasible Roadway and Non-Motorized System Improvements

BURLEIGH COUNTY DETAIL PLATES

Plate Key



Legend

- NDDOT Highways
- - - Proposed Beltway
- Arterials
- Collectors
- City Limits
- I 94 Interchange with Beltway
- Study Area



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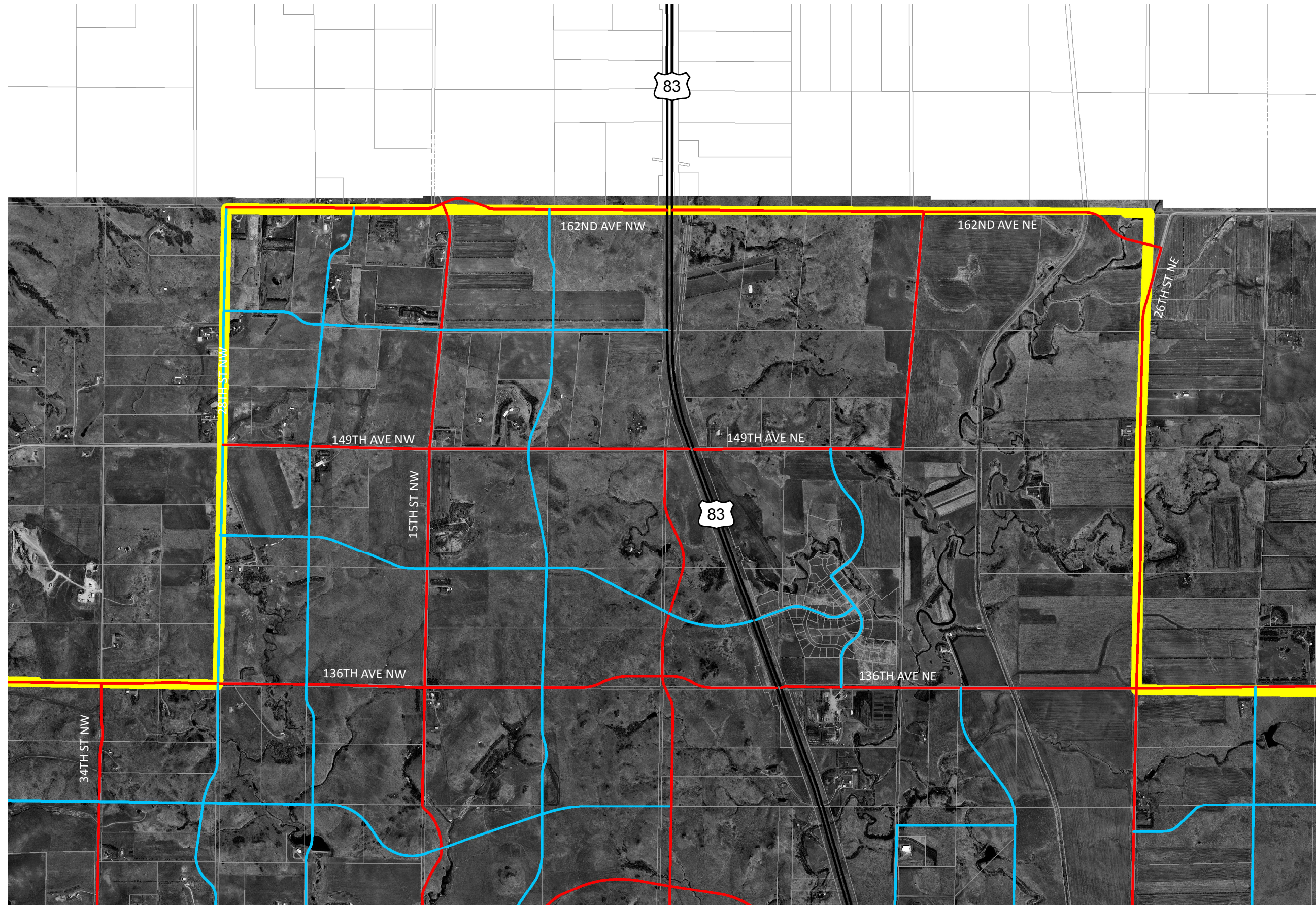
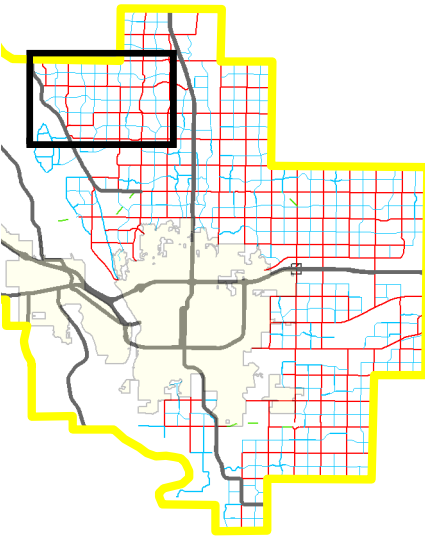


Plate Key



Legend

- NDDOT Highways
- Proposed Beltway
- Arterials
- Collectors
- City Limits
- I 94 Interchange with Beltway
- Study Area



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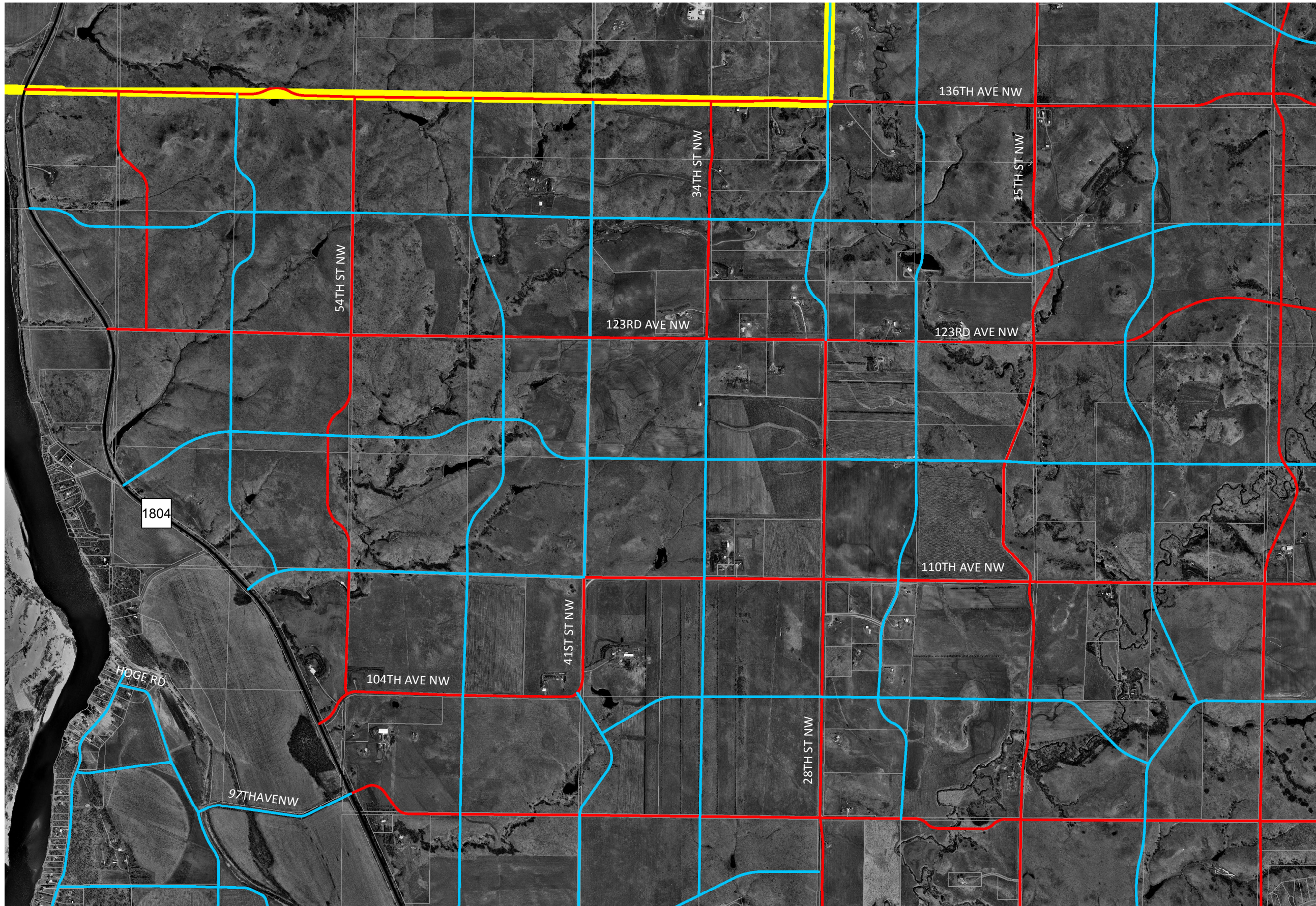
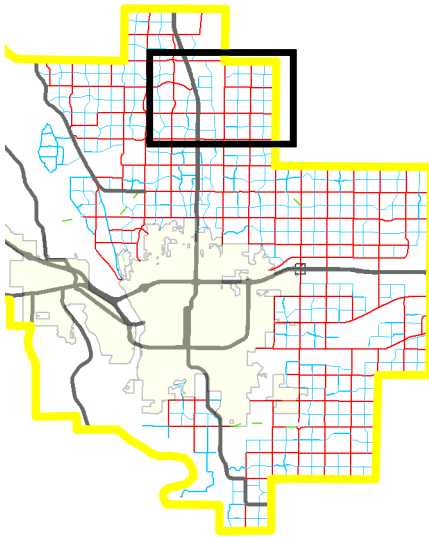


Plate Key



Legend

- NDDOT Highways
- - - Proposed Beltway
- Arterials
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- City Limits
- I 94 Interchange with Beltway
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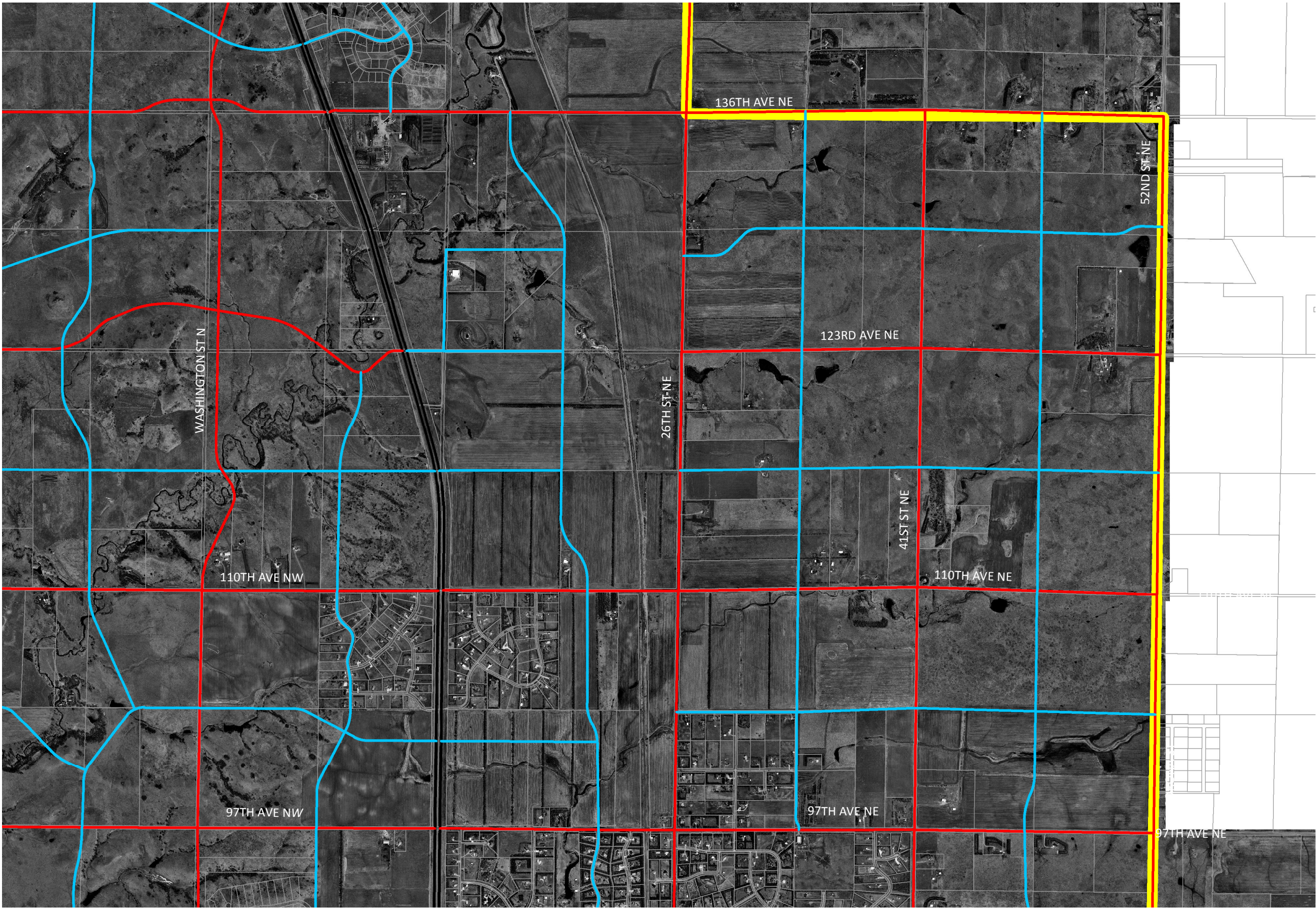
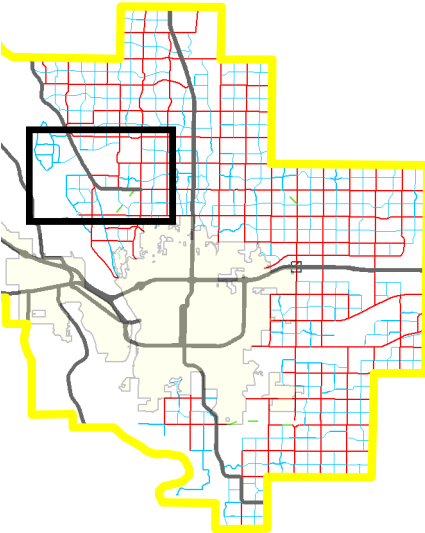


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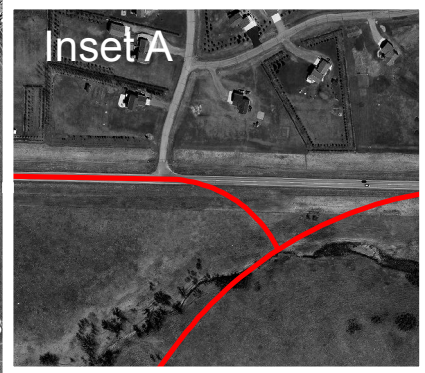
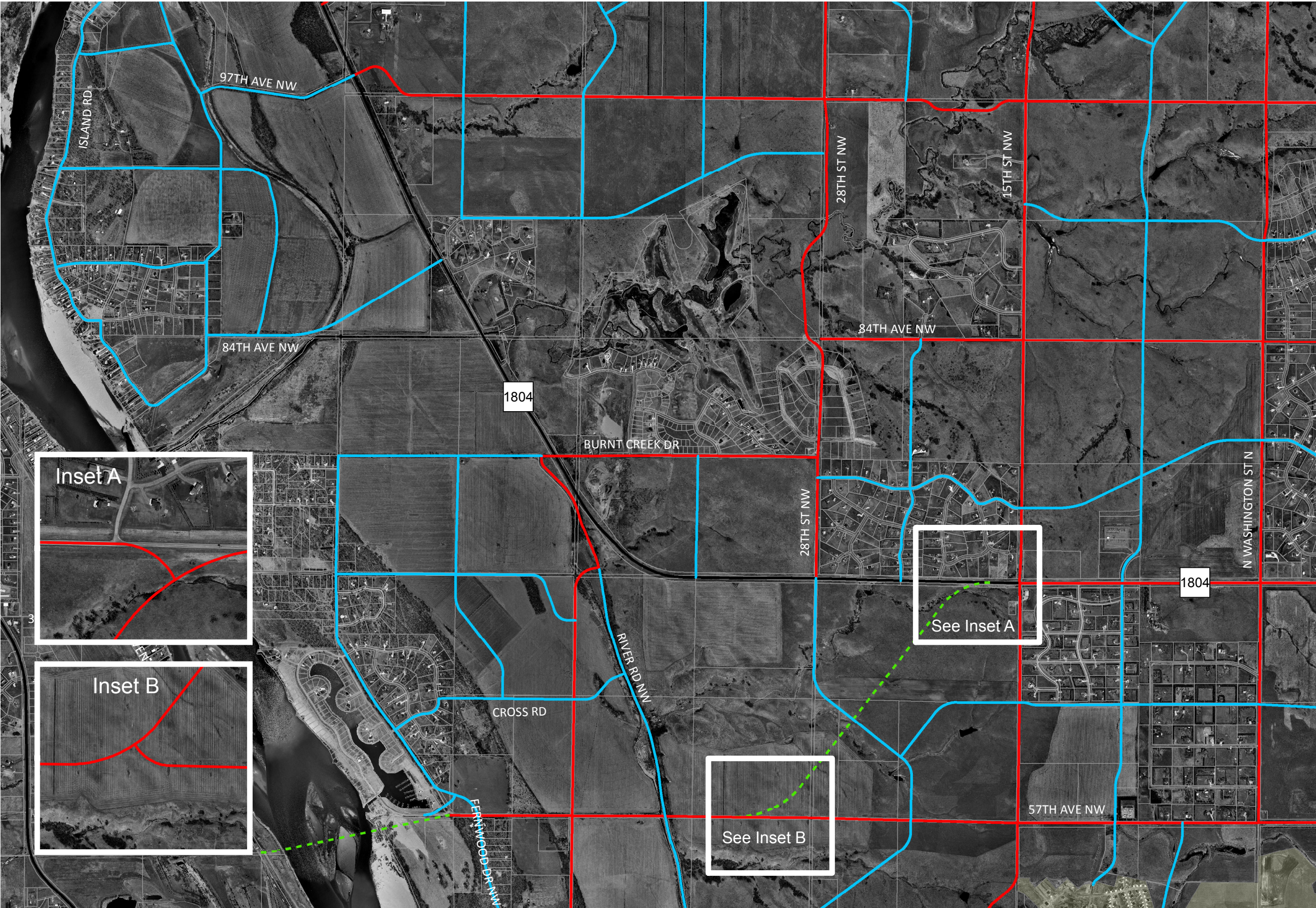


Legend

-  NDDOT Highways
-  Proposed Beltway
-  Arterials
-  Collectors
-  City Limits
-  I 94 Interchange with Beltway
-  Study Area



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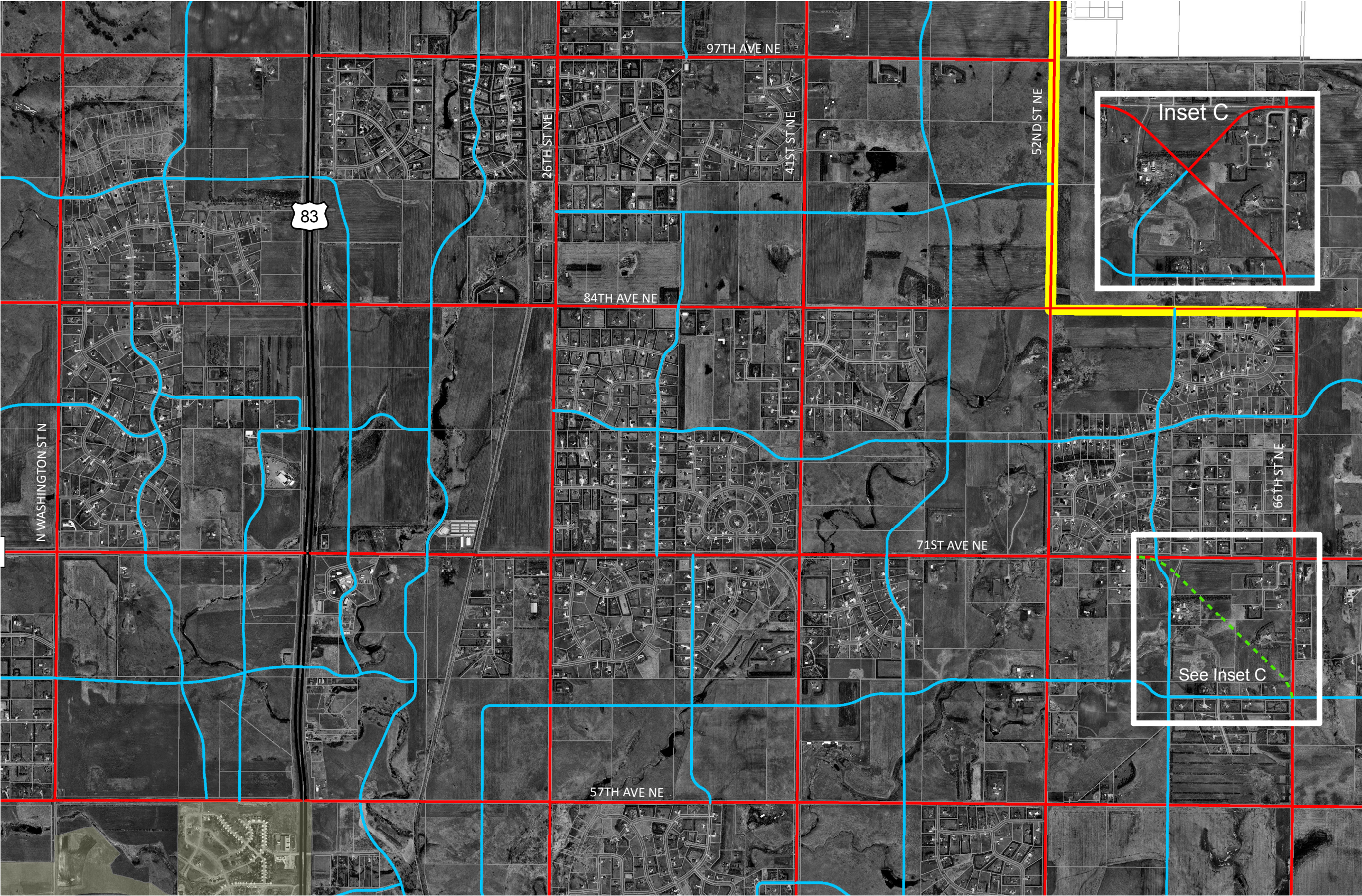
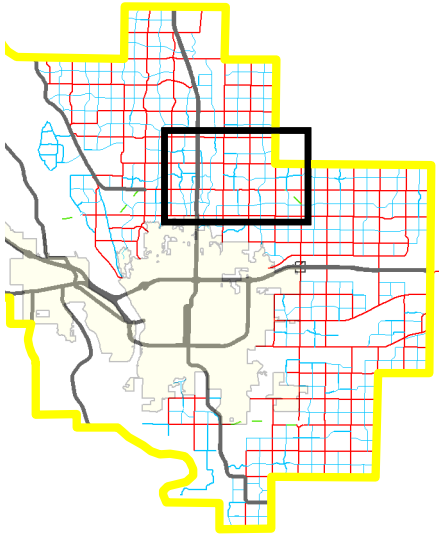


Plate Key



Legend

- NDDOT Highways
- Proposed Beltway
- Arterials
- Collectors
- City Limits
- I 94 Interchange with Beltway
- Study Area



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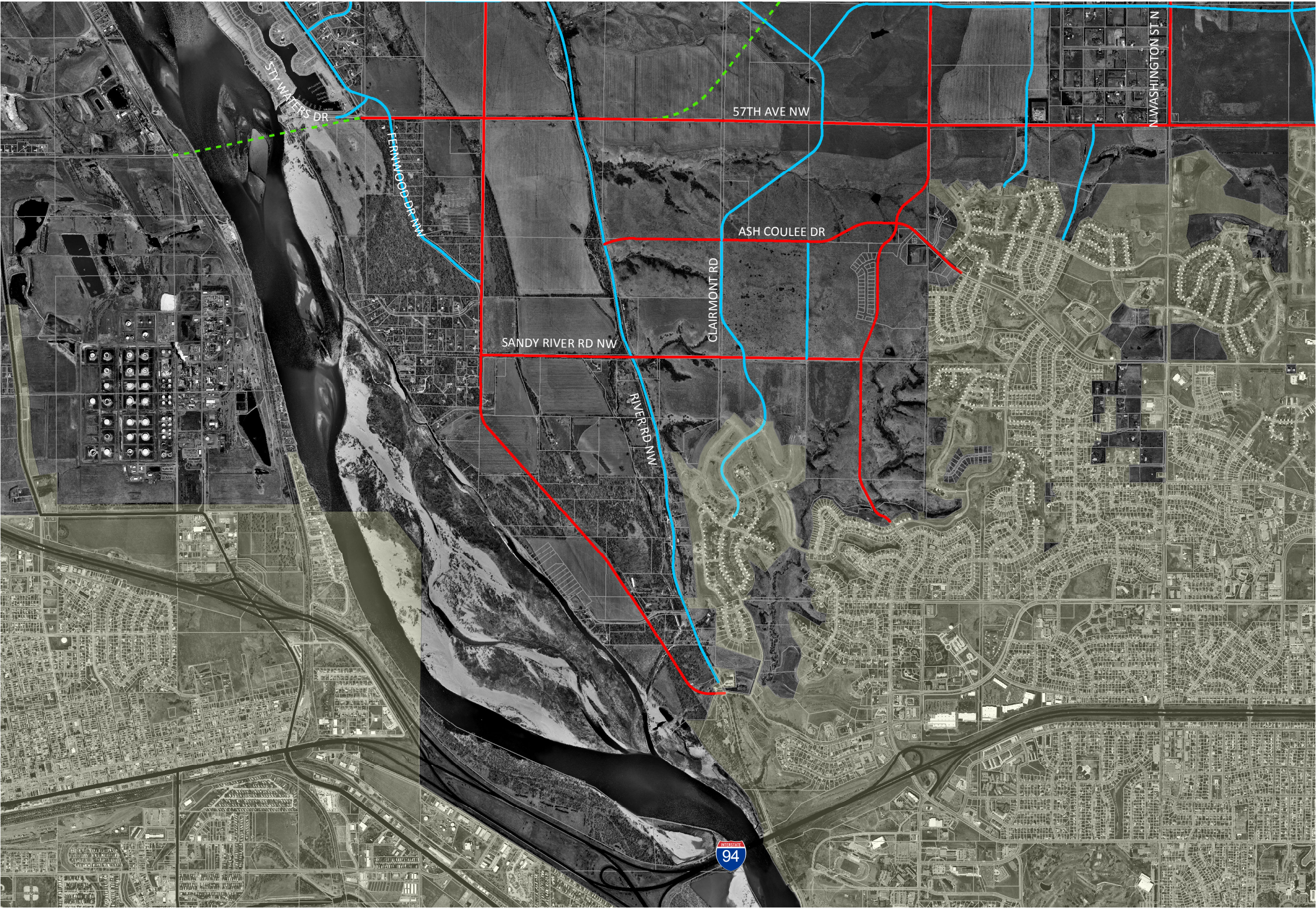
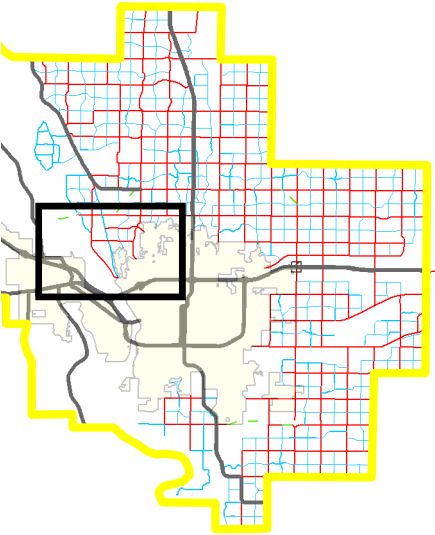


Plate Key



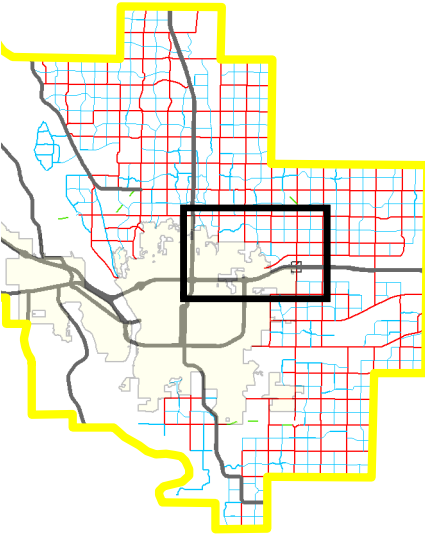
Legend

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- - - Proposed Beltway
- Arterials
- Collectors
- City Limits
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Plate Key



Legend

- NDDOT Highways
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- Arterials
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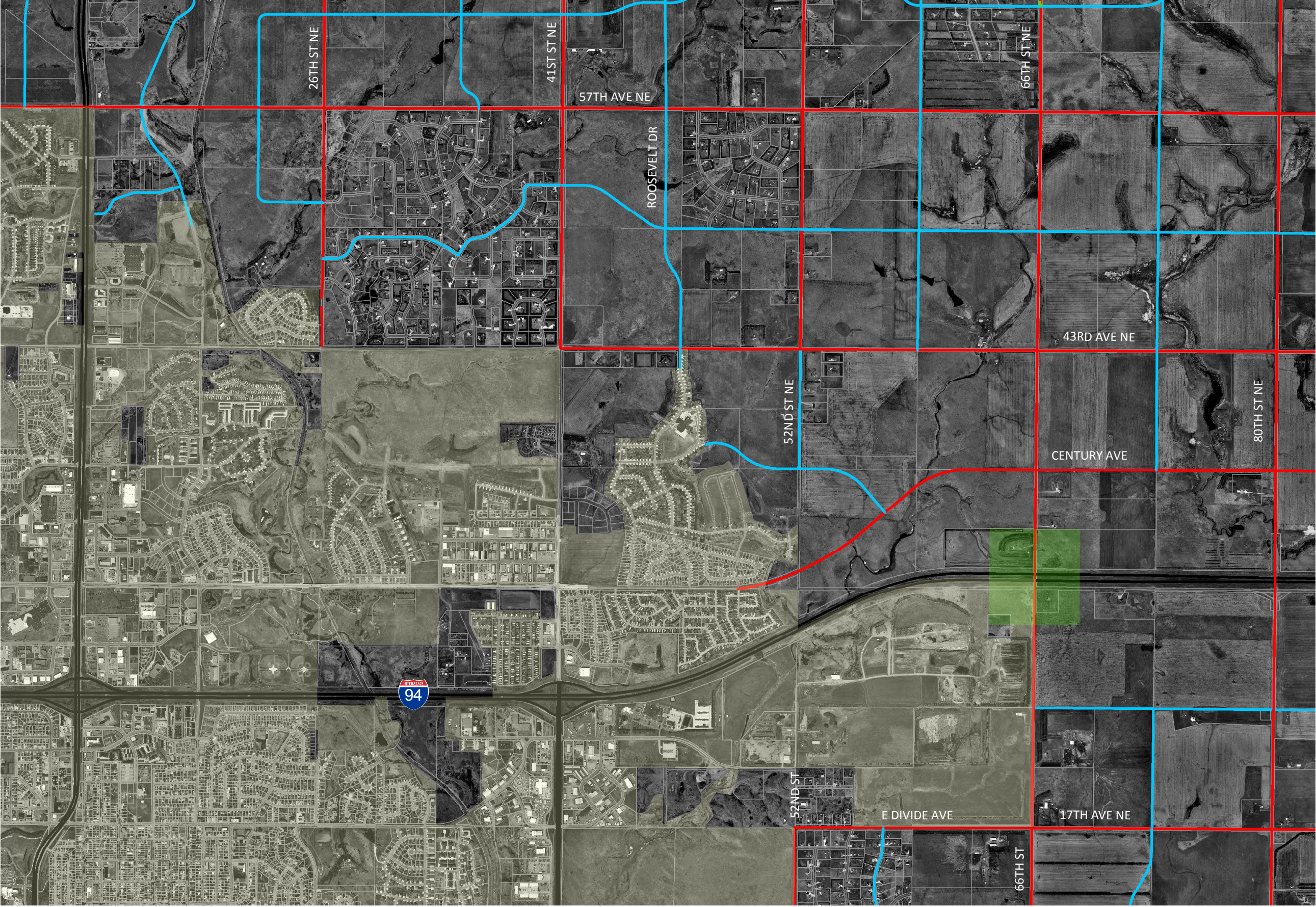
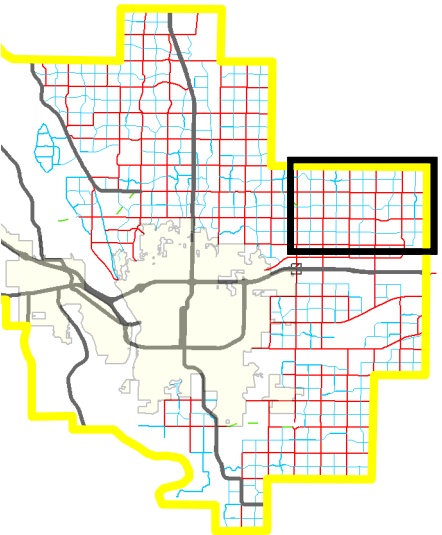


Plate Key



Legend

- NDDOT Highways
- Proposed Beltway
- Arterials
- Collectors
- City Limits
- I 94 Interchange with Beltway
- Study Area

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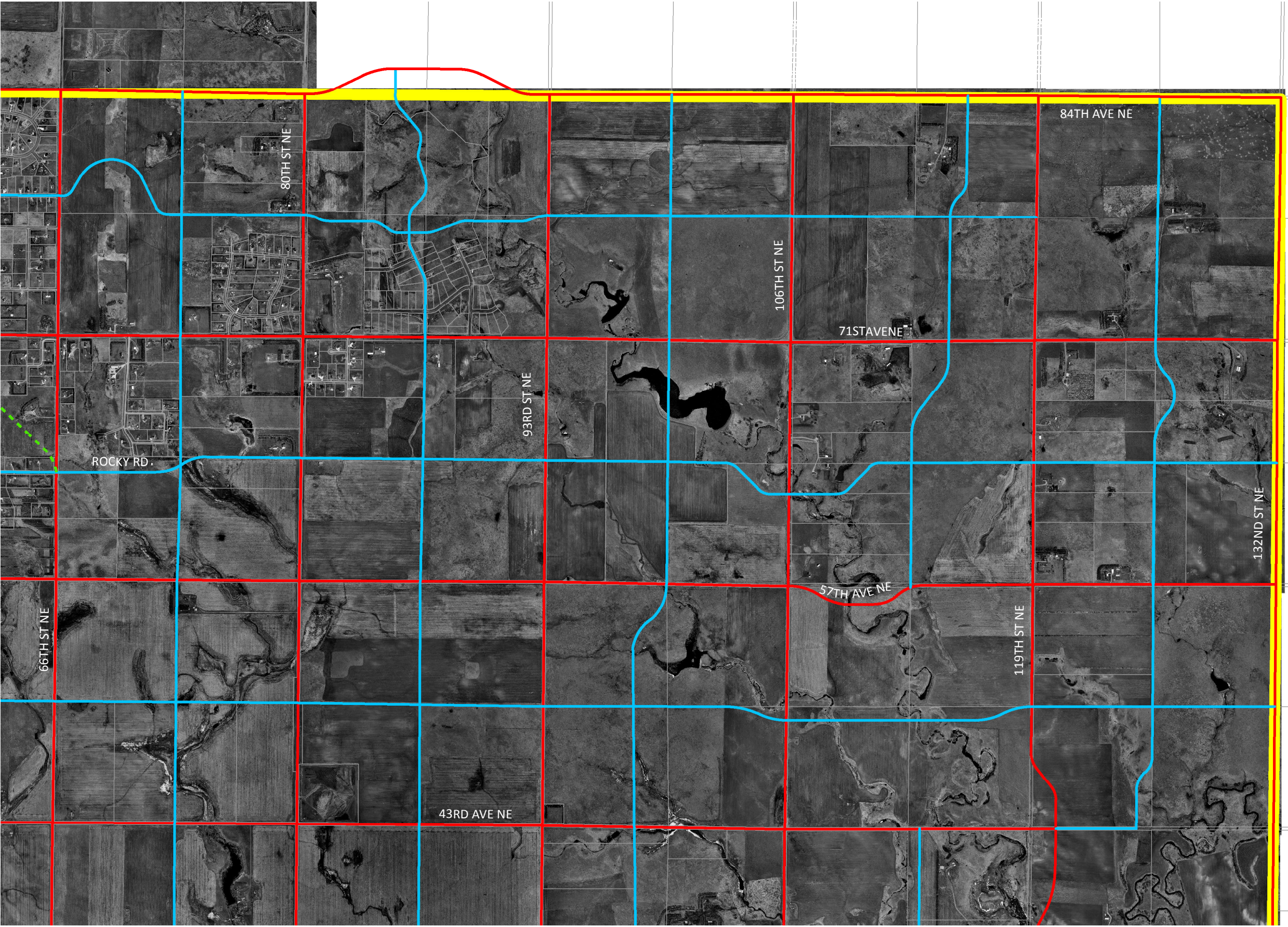
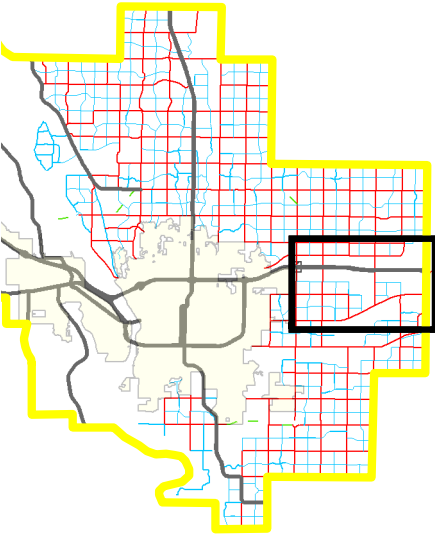


Plate Key



Legend

- NDDOT Highways
- - - Proposed Beltway
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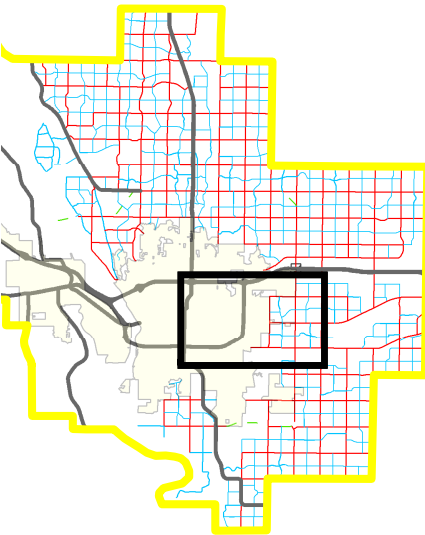
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Plate Key



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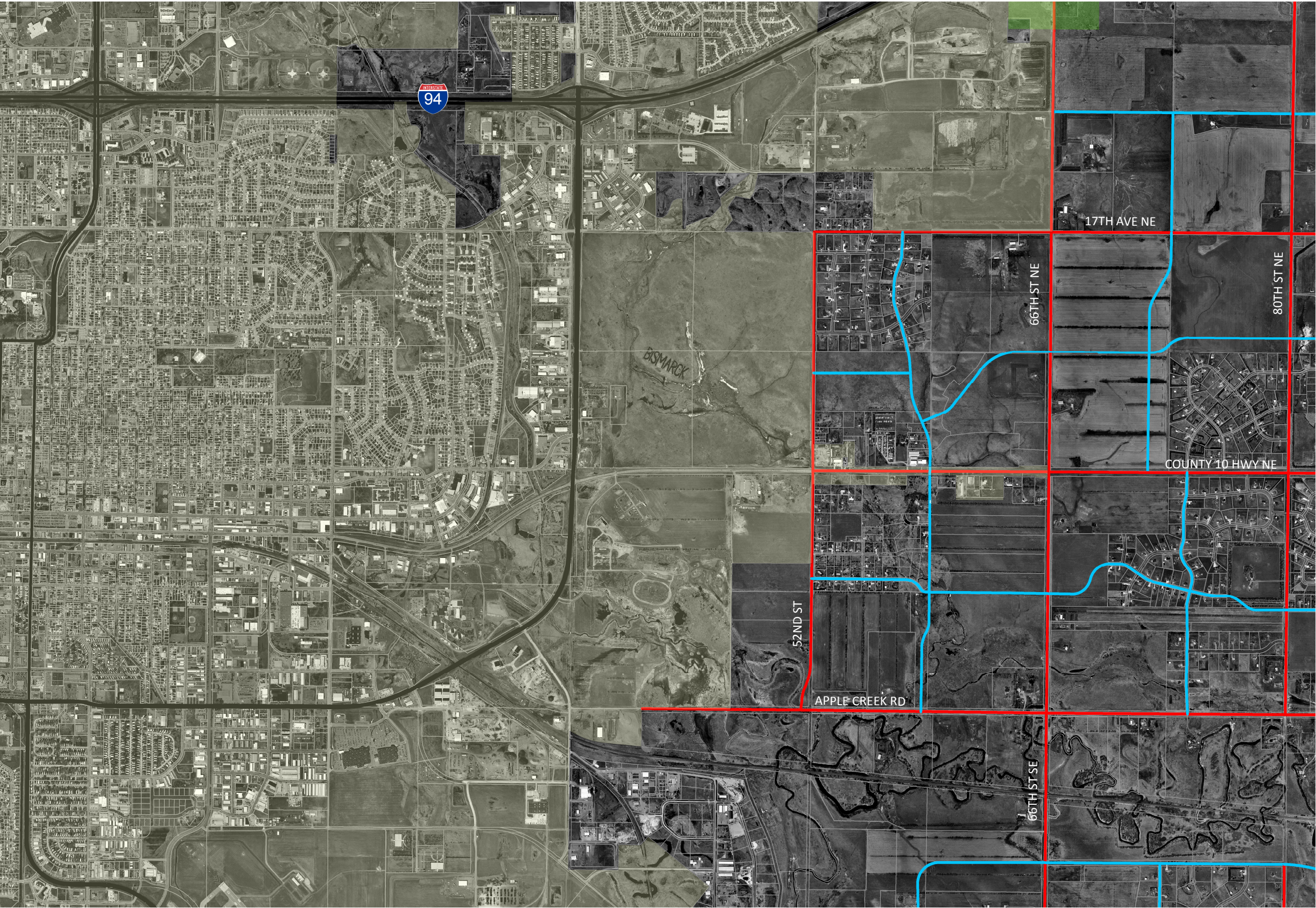
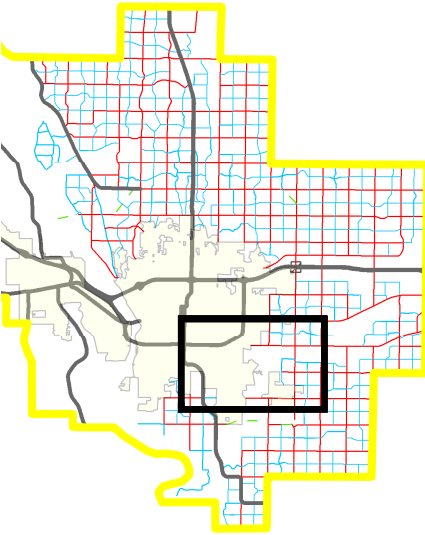


Plate Key



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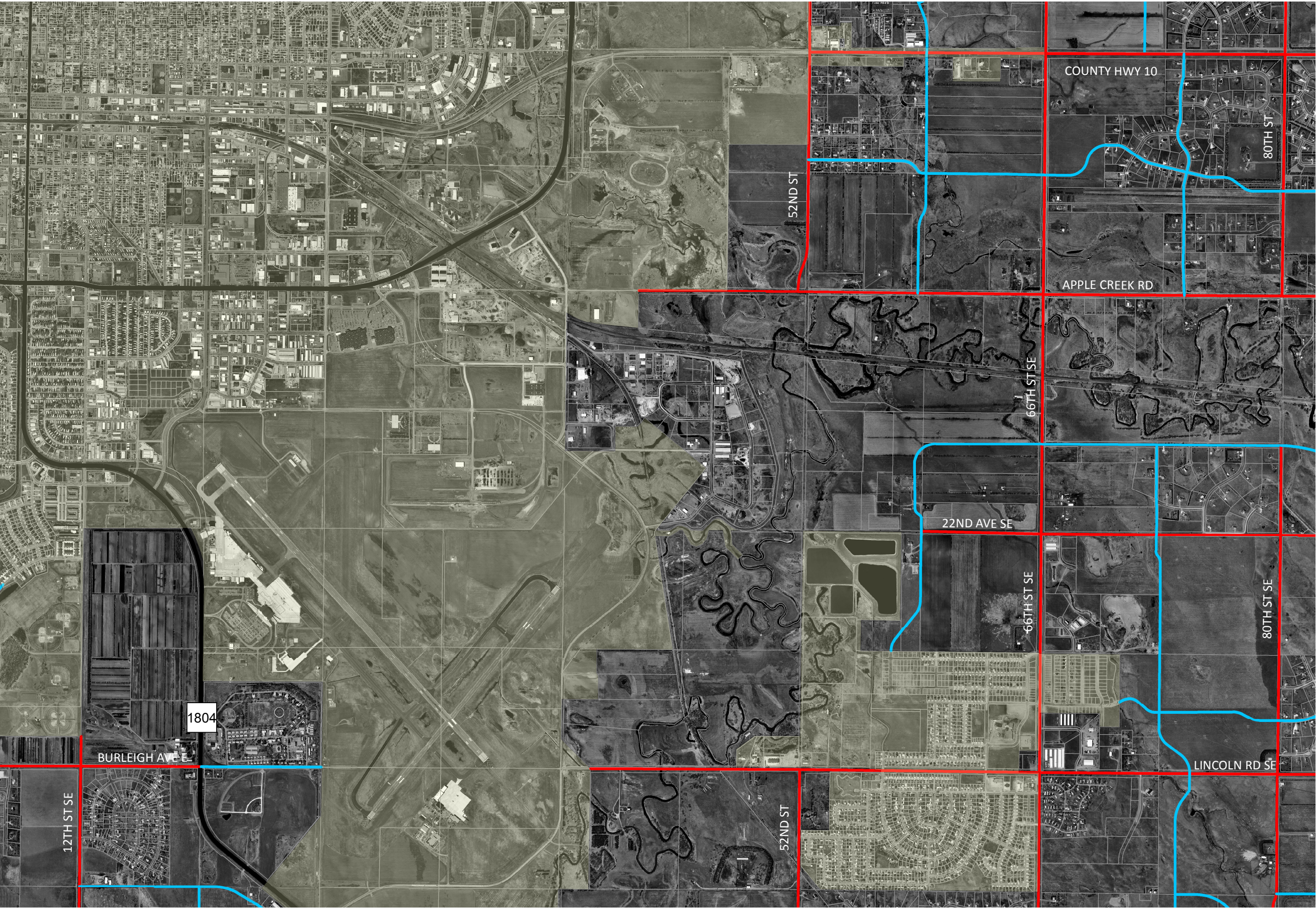
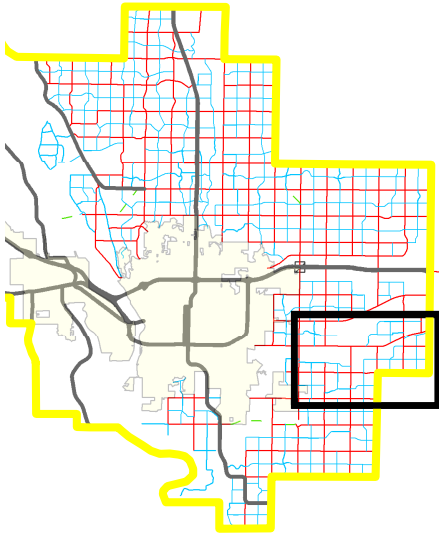


Plate Key



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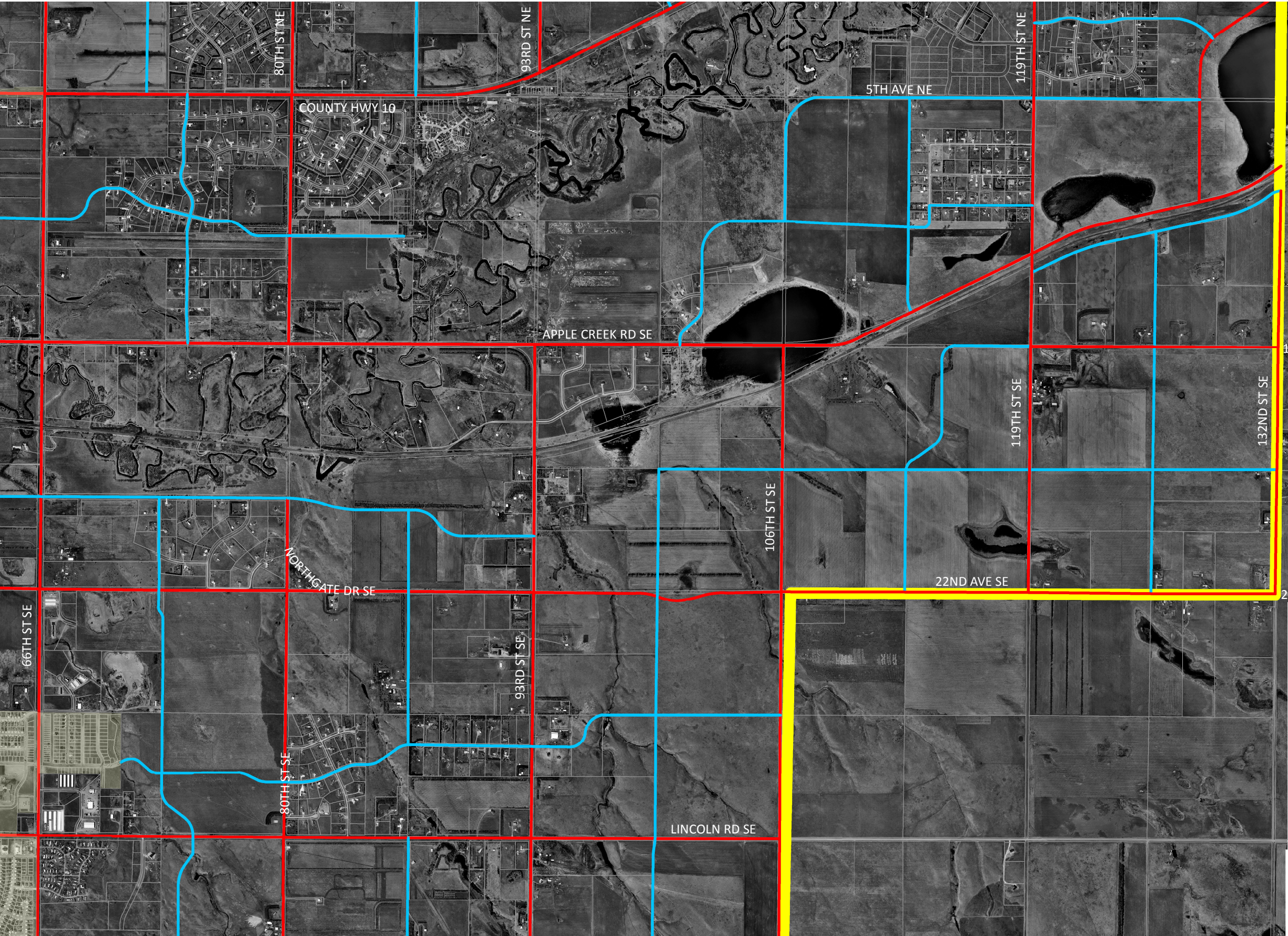
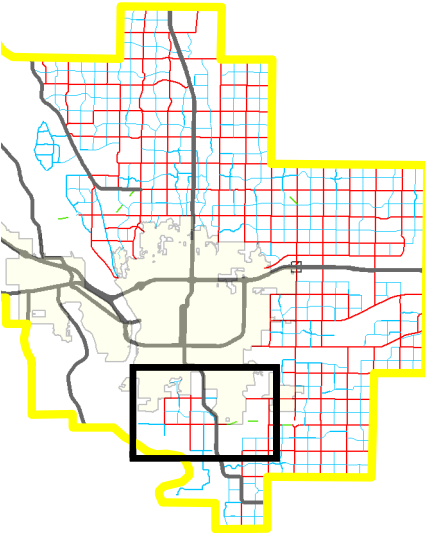


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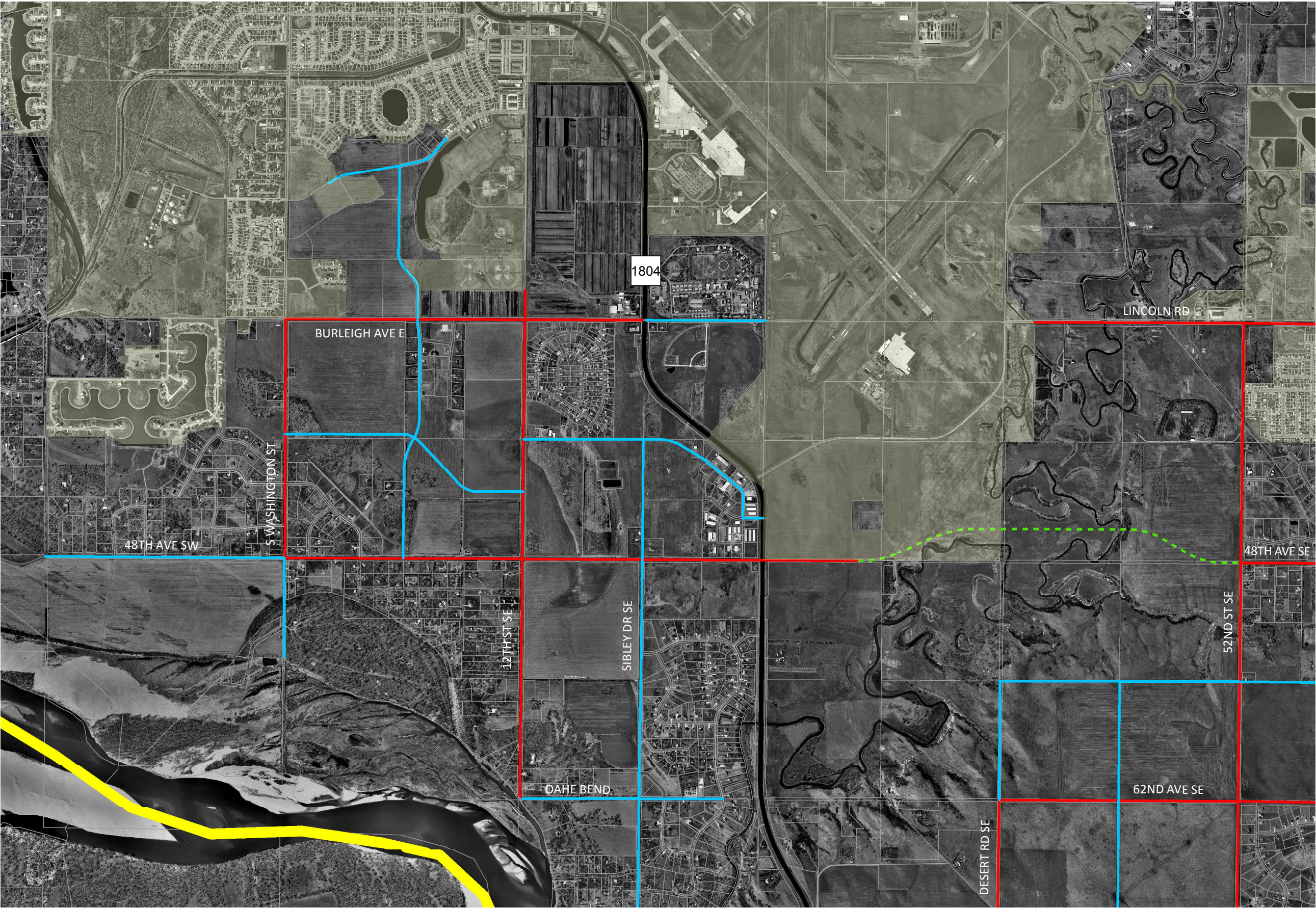
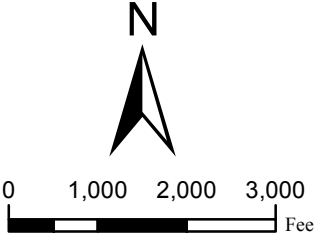
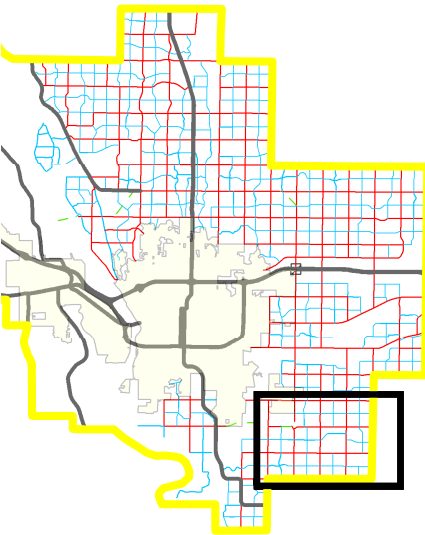


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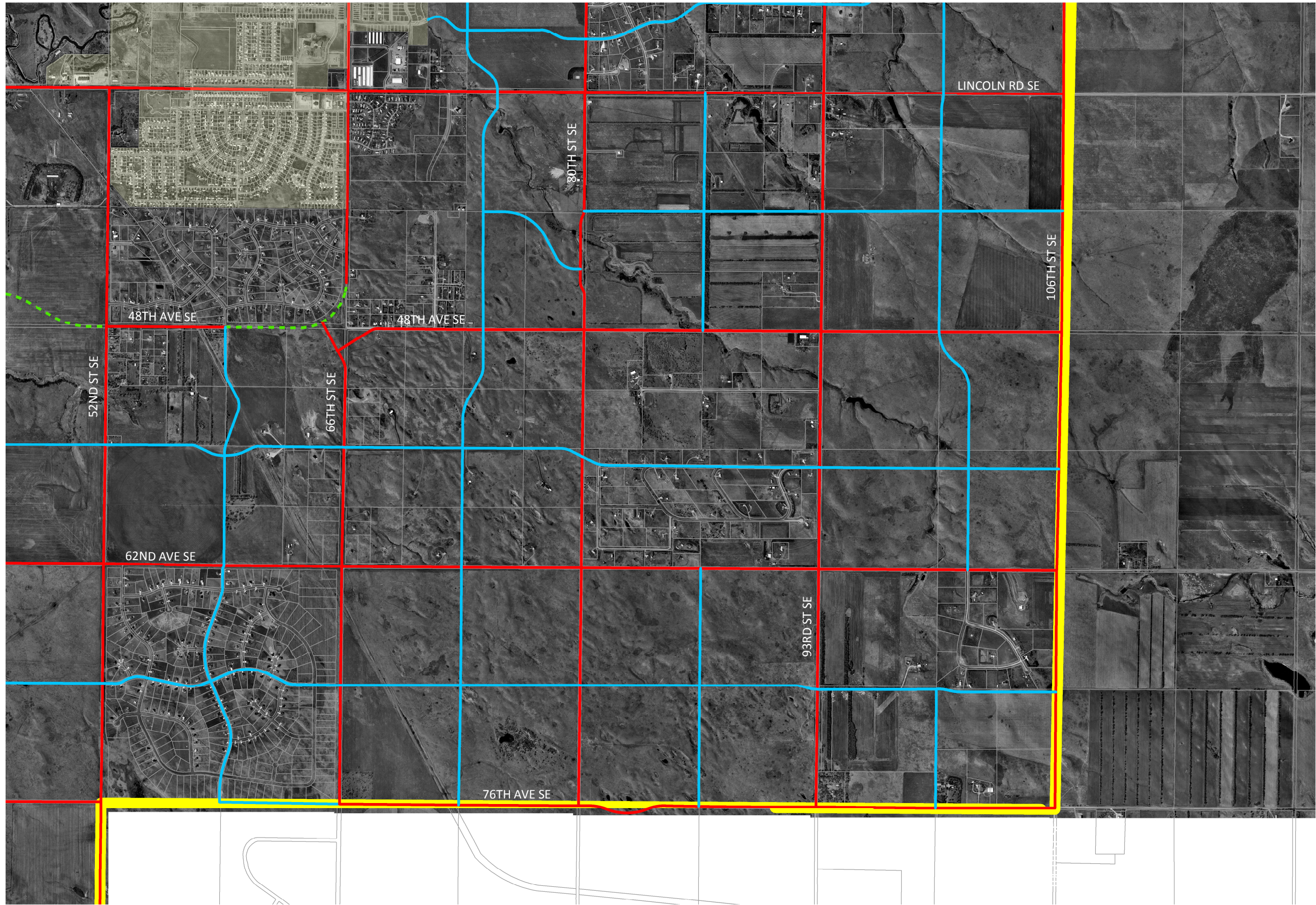
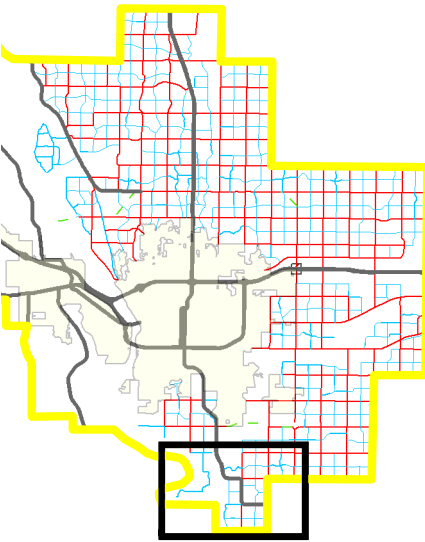


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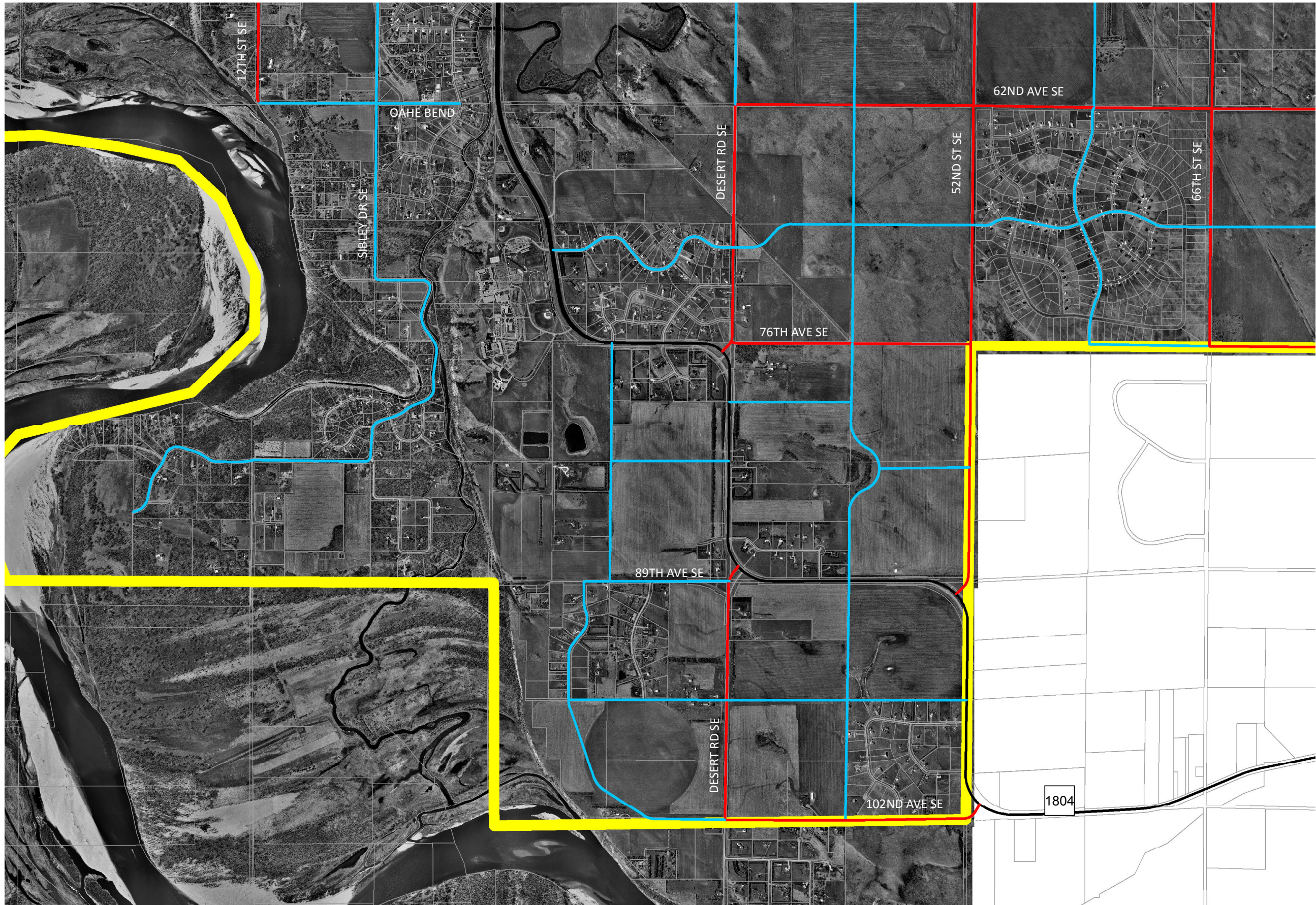


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JURISDICTION RECOMMENDATION AND ACTION SCHEDULE

Jurisdiction	Action Date
Bismarck	
Planning Commission	August 27, 2014
Commission	September 9, 2014
Mandan	
Planning Commission	August 25, 2014
Commission	September 2, 2014
Lincoln	
Planning Commission	September 2, 2014
City Council	September 4, 2014
Burleigh County	
Planning Commission	August 13, 2014
Commission	September 3, 2014
Morton County	
Planning Commission	August 28, 2014
Commission	September 8, 2014

**RESOLUTION OF ADOPTION
for the
2014 FRINGE AREA ROAD MASTER PLAN**

WHEREAS, the Metropolitan Planning Organization and its member jurisdictions, including the City of Bismarck, initiated the development of a 2014 Fringe Area Road Master Plan for the metropolitan area; and

WHEREAS, the Metropolitan Planning Organization and its member jurisdictions, after multiple public involvement meetings and substantial consultation with local planning and engineering staff, have prepared the 2014 Fringe Area Road Master Plan; and

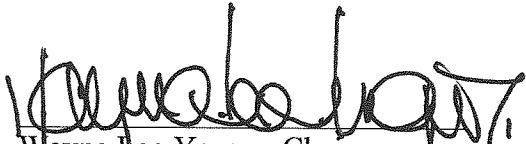
WHEREAS, the 2014 Fringe Area Road Master Plan will be used as a policy tool to promote the orderly growth and development of Bismarck and its fringe area, and will be used in conjunction with the 2014 Growth Management Plan and the Bismarck Comprehensive Policy Plan; and

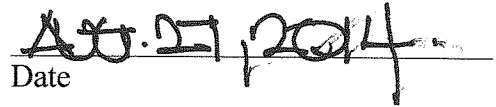
WHEREAS, notices were published in the official newspaper for the City of Bismarck for a public hearing before the Bismarck Planning & Zoning Commission in accordance with state law; and

WHEREAS, the Bismarck Planning and Zoning Commission has reviewed the 2014 Fringe Area Road Master Plan and held a public hearing on said plan on August 27, 2014;

NOW, THEREFORE BE IT RESOLVED, by the Bismarck Planning & Zoning Commission, that it hereby adopts the 2014 Fringe Area Road Master Plan, as presented at the August 27, 2014 public hearing; and

BE IT FURTHER RESOLVED, that the Bismarck Planning & Zoning Commission recommends the adoption of the 2014 Fringe Area Road Master Plan by the Bismarck Board of City Commissioners.


Wayne Lee Yeager, Chairman
Bismarck Planning & Zoning Commission


Date

ATTEST:


Carl D. Hokenstad, Secretary
Bismarck Planning & Zoning Commission


Date

MORTON COUNTY PLANNING AND ZONING COMMISSION

RESOLUTION NO. PZ14-10

A RESOLUTION OF THE PLANNING AND ZONING COMMISSION OF MORTON COUNTY, NORTH DAKOTA TO ADOPT THE FRINGE AREA ROAD MASTER PLAN.

WHEREAS, the Bismarck-Mandan Metropolitan Planning Organization (MPO) and its member jurisdictions: the Cities of Bismarck, Mandan, and Lincoln, and counties of Morton and Burleigh have initiated the development of a Fringe Area Road Master Plan; and

WHEREAS, the 2014 Fringe Area Road Master Plan is an update to the 2003 Fringe Area Road Master Plan that was previously adopted by the Morton County Planning and Zoning Commission on August 28, 2003; and

WHEREAS, notices were published in the official newspapers of each jurisdiction for Planning Commission public hearings in accordance with state law, and the planning commissions of each jurisdiction have held, or will hold, public hearings on the Fringe Area Road Master Plan; and

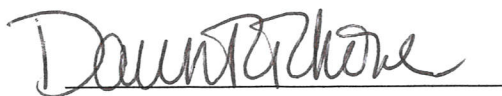
WHEREAS, the Fringe Area Road Master Plan will be used as a policy tool in conjunction with the Morton County Comprehensive Plan, the Bismarck-Mandan Regional Future Land Use Plan, and the Bismarck-Mandan Long Range Transportation Plan;

NOW, THEREFORE BE IT RESOLVED, by the Morton County Planning and Zoning Commission that it adopts the 2014 Fringe Area Road Master Plan and recommends it to the Morton County Board of Commissioners.

BE IT FURTHER RESOLVED, that staff be directed to implement the policies and plans of the 2014 Fringe Area Road Master Plan upon its adoption by the Morton County Board of Commissioners.

ADOPTED AND RESOLVED this 28th day of August 2014.

ATTEST:



Auditor's Office,

Morton County Planning and Zoning Commission



Chairman,
John Schafer

PUBLIC INFORMATION MEETINGS MATERIAL

SIGN-IN SHEET

North Dakota Department of Transportation, Civil Rights Division
SFN 59531 (Rev. 03-2012)

Page 1 of 4

Division/District/Consultant

Meeting Location <i>Mandan City Building (City Hall)</i>	Meeting Type <i>Public Input</i>	Meeting Date <i>4/9/2014</i>
Project Number		PCN
Project Description <i>MPD Fringe Area Road Plan</i>		

Name (Please print) <i>Grace Uhler</i>		Title/Representing	
Address <i>4360 Hwy 6</i>			
City <i>Mandan</i>	State <i>ND</i>	Zip code <i>58554</i>	Email

Name (Please print) <i>ERIC B FLANGER</i>		Title/Representing	
Address <i>812 MONICA DR</i>			
City <i>BISMARCK</i>	State	Zip code <i>58504</i>	Email <i>ERICBELCASTLE@GMAIL.COM</i>

Name (Please print) <i>Dennis Renner</i>		Title/Representing <i>Self</i>	
Address <i>4530 Hwy 6</i>			
City <i>MANDAN</i>	State <i>ND</i>	Zip code <i>58554</i>	Email <i>DENNISRENNER49@GMAIL.COM</i>

Name (Please print) <i>KEWOOD "WOODY" BARTH</i>		Title/Representing <i>SELF</i>	
Address <i>2599 C.R. 135</i>			
City <i>SOLEN</i>	State <i>ND</i>	Zip code <i>58570</i>	Email <i>wcbarth@westren.com</i>

Name (Please print) <i>Keith Suchy</i>		Title/Representing <i>Self</i>	
Address <i>4750 Hwy 1806</i>			
City <i>Mandan</i>	State <i>ND</i>	Zip code <i>58551</i>	Email <i>Suchy 58554@gmail.com</i>

Name (Please print) <i>Bob Docker</i>		Title/Representing <i>Planner city of Mandan</i>	
Address			
City	State	Zip code	Email

Name (Please print) <i>Allen Schwartzbauer</i>		Title/Representing	
Address <i>2340 46th St</i>			
City <i>Mandan</i>	State <i>ND</i>	Zip code <i>58554</i>	Email

SIGN-IN SHEETNorth Dakota Department of Transportation, Civil Rights Division
SFN 59531 (Rev. 03-2012)Page 2 of 4

Division/District/Consultant

Meeting Location <i>Mandan City Building (City Hall)</i>	Meeting Type <i>Public Input</i>	Meeting Date <i>4/9/2014</i>
Project Number		PCN
Project Description <i>MPO Fringe Area Plan</i>		

Name (Please print) <i>E. C. Kalvoda</i>		Title/Representing	
Address <i>4405 24th Ave</i>			
City <i>MANDAN</i>	State <i>ND</i>	Zip code <i>58554</i>	Email

Name (Please print) <i>Chuck Mork</i>		Title/Representing	
Address <i>3360 22nd Ave</i>			
City <i>MANDAN</i>	State <i>ND</i>	Zip code <i>58554</i>	Email

Name (Please print) <i>Steve Koppy</i>		Title/Representing <i>Self/Home Owner/Rural/Cty</i>	
Address <i>4536 23rd Ave</i>			
City <i>Mandan</i>	State <i>ND</i>	Zip code <i>58554</i>	Email

Name (Please print) <i>Lois Kalvoda</i>		Title/Representing	
Address <i>4405 24th Ave</i>			
City <i>MANDAN</i>	State <i>ND</i>	Zip code <i>58554</i>	Email

Name (Please print) <i>Larry Gref</i>		Title/Representing	
Address <i>3370 25th Ave</i>			
City <i>Mandan</i>	State <i>ND</i>	Zip code <i>58554</i>	Email

Name (Please print) <i>Bob Shannon</i>		Title/Representing <i>RJT</i>	
Address <i>5964 Lariat Loop</i>			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58503</i>	Email

Name (Please print) <i>EDWIN LANDEIS</i>		Title/Representing	
Address <i>1701 36th St. NW.</i>			
City <i>MANDAN</i>	State <i>ND</i>	Zip code <i>58554</i>	Email

SIGN-IN SHEETNorth Dakota Department of Transportation, Civil Rights Division
SFN 59531 (Rev. 03-2012)Page 4 of 4

Division/District/Consultant

Meeting Location <i>Mandan City Hall Building</i>	Meeting Type <i>Public Input</i>	Meeting Date <i>4/9/2014</i>
Project Number		PCN
Project Description <i>NPD Fringe Area Pl.</i>		

Name (Please print) <i>ERIC MILBERT</i>		Title/Representing <i>MFRA, Inc.</i>	
Address <i>2401 46 Ave SE Ste. 202</i>			
City <i>Mandan</i>	State <i>ND</i>	Zip code <i>58554</i>	Email <i>Emilbert@mfra.com</i>

Name (Please print) <i>Miles Meh/hoff</i>		Title/Representing <i>MFRA INC.</i>	
Address <i>2401 46th Ave SE</i>			
City <i>Mandan</i>	State <i>ND</i>	Zip code <i>58554</i>	Email <i>mmehhoff@mfra.com</i>

Name (Please print)		Title/Representing	
Address			
City	State	Zip code	Email

Name (Please print)		Title/Representing	
Address			
City	State	Zip code	Email

Name (Please print)		Title/Representing	
Address			
City	State	Zip code	Email

Name (Please print)		Title/Representing	
Address			
City	State	Zip code	Email

Name (Please print)		Title/Representing	
Address			
City	State	Zip code	Email

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Division/District/Consultant		
Meeting Location <i>Mandan City Hall Building</i>	Meeting Type <i>Public Input Meeting</i>	Meeting Date <i>4/9/2014</i>
Project Number		PCN
Project Description <i>MPO Fringe Area Plan</i>		

Name (Please print) <i>Kevin Fishbeck</i>		Title/Representing	
Address <i>2010 Westview Place</i>			
City <i>Mandan</i>	State <i>ND</i>	Zip code <i>58554</i>	Email <i>Kfishbeck@bis-mandan.net</i>

Name (Please print) <i>Todd Rueher</i>		Title/Representing	
Address <i>2262 County Rd 138</i>			
City <i>Mandan</i>	State <i>ND</i>	Zip code <i>58554</i>	Email <i>bach7@riverwood.us</i>

Name (Please print) <i>Paul E. Trauger</i>		Title/Representing <i>S&L</i>	
Address <i>2399 Business Loop 1-94</i>			
City <i>Mandan</i>	State <i>ND</i>	Zip code <i>58554</i>	Email

Name (Please print) <i>Kim Fettig</i>		Title/Representing <i>City of Mandan Project Manager</i>	
Address <i>205 2nd Ave NW</i>			
City <i>Mandan</i>	State <i>ND</i>	Zip code <i>58554</i>	Email <i>Kfettig@cityofmandan.com</i>

Name (Please print) <i>Jim Lawler</i>		Title/Representing <i>Manager Mandan Municipal Airport</i>	
Address <i>P.O. Box 250</i>			
City <i>Mandan</i>	State <i>ND</i>	Zip code <i>58554</i>	Email <i>manager@mandanairport.com</i>

Name (Please print) <i>Esther Vogel</i>		Title/Representing <i>Vogel Trust</i>	
Address <i>PO Box 484</i>			
City <i>Mandan</i>	State <i>ND</i>	Zip code <i>58554</i>	Email

Name (Please print) <i>Anton Kalvoda Jr.</i>		Title/Representing	
Address <i>4610 23rd Ave</i>			
City <i>MANDAN</i>	State <i>ND</i>	Zip code <i>58554</i>	Email

SIGN-IN SHEETNorth Dakota Department of Transportation, Civil Rights Division
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Division/District/Consultant		
Meeting Location <i>Bismarck City/County Bldg</i>	Meeting Type <i>Public</i>	Meeting Date <i>4/10/2019</i>
Project Number		PCN
Project Description <i>Fringe Arco Road P/L</i>		

Name (Please print) <i>Ryan Deichert</i>		Title/Representing	
Address <i>414 N 22nd St</i>			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58501</i>	Email

Name (Please print) <i>Gene Taix</i>		Title/Representing <i>SPH</i>	
Address <i>5601 12th St SE</i>			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58504</i>	Email

Name (Please print) <i>HERO BARTH</i>		Title/Representing <i>self</i>	
Address <i>3510 80th St NE</i>			
City <i>BISMARCK</i>	State <i>ND</i>	Zip code <i>58503</i>	Email

Name (Please print) <i>Brian Ritter</i>		Title/Representing <i>BMDA</i>	
Address <i>400 E Broadway Ave Suite 417</i>			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58501</i>	Email <i>britter @ bmda.org</i>

Name (Please print) <i>JIM BONNET</i>		Title/Representing	
Address <i>10110 62ND ST NE</i>			
City <i>BIS</i>	State	Zip code <i>58503</i>	Email

Name (Please print) <i>Bob Shannon</i>		Title/Representing <i>KLS</i>	
Address			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58503</i>	Email

Name (Please print)		Title/Representing	
Address			
City	State	Zip code	Email

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Division/District/Consultant

Meeting Location <i>Bismarck/Burleigh City/County Bldg</i>	Meeting Type <i>Public</i>	Meeting Date <i>4/10/2014</i>
Project Number	PCN	
Project Description <i>Fringe Area Road Plan</i>		

Name (Please print) <i>RANDY LAMBERTH</i>		Title/Representing <i>UNITED TRIBES TECH COLLEGE</i>	
Address <i>3315 UNIVERSITY DR</i>			
City <i>BISMARCK</i>	State <i>ND</i>	Zip code <i>58504</i>	Email <i>rlambert@uttc.edu</i>

Name (Please print) <i>Sam W. Turnbow</i>		Title/Representing	
Address <i>3715 CRAWFORD RD</i>			
City <i>Bis.</i>	State <i>ND</i>	Zip code <i>58503</i>	Email

Name (Please print) <i>Curt Meynard</i>		Title/Representing <i>Executive Manager UTTC</i>	
Address <i>3315 University Dr</i>			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58504</i>	Email <i>Cmeynard@uttc.edu</i>

Name (Please print) <i>Derek Shaffer</i>		Title/Representing	
Address <i>3505 66th St. N.E.</i>			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58503</i>	Email <i>DShaffer@bektel.com</i>

Name (Please print) <i>Revin. Hornbacher</i>		Title/Representing	
Address <i>3429- 66th St. N.E.</i>			
City <i>Bismarck,</i>	State <i>ND</i>	Zip code <i>58503</i>	Email

Name (Please print) <i>Russ Swaggar</i>		Title/Representing <i>VP Student & Campus Services</i>	
Address <i>3315 University Drive</i>			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58501</i>	Email <i>rswaggar@uttc.edu</i>

Name (Please print) <i>JOAN MILLNER</i>		Title/Representing	
Address <i>1315 N 3RD ST</i>			
City <i>BISMARCK</i>	State <i>ND</i>	Zip code <i>58501</i>	Email

SIGN-IN SHEETNorth Dakota Department of Transportation, Civil Rights Division
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Division/District/Consultant

Meeting Location <i>Bismarck Tom Baker Room</i>	Meeting Type <i>Public</i>	Meeting Date <i>4/10/2014</i>
Project Number		PCN
Project Description <i>Fringe Area Road Plan</i>		

Name (Please print) <i>Ron Koch</i>		Title/Representing <i>Self</i>	
Address <i>600 48th Ave SE</i>			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58504</i>	Email <i>RKoch14992@aol.com</i>

Name (Please print) <i>Peggy Kopp</i>		Title/Representing <i>Self</i>	
Address <i>1948 Jackson Ave</i>			
City <i>Bis</i>	State <i>ND</i>	Zip code <i>58501</i>	Email

Name (Please print) <i>Ron Haugom</i>		Title/Representing <i>Self</i>	
Address <i>1942 Jackson Ave</i>			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58501</i>	Email

Name (Please print)		Title/Representing	
Address			
City	State	Zip code	Email

Name (Please print)		Title/Representing	
Address			
City	State	Zip code	Email

Name (Please print)		Title/Representing	
Address			
City	State	Zip code	Email

Name (Please print)		Title/Representing	
Address			
City	State	Zip code	Email

Fringe Area Road Master Plan

Public Meeting Presentation

April 9/10, 2014

Call In: 226 – 9931

Email Comments/Questions: Tsmith@srfconsulting.com



Public Meetings

**Tonight: Mandan City Commission Room
5:30 PM to 7:00 PM**

**Tomorrow: Bismarck – Tom Baker Room
5:30 PM to 7:00 PM**

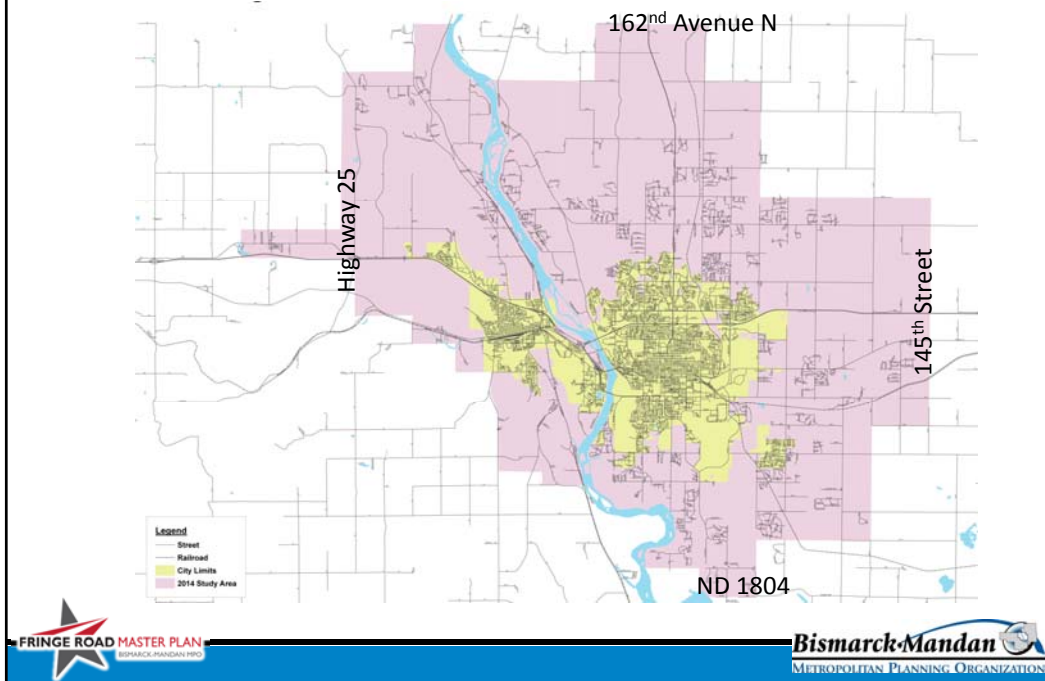
**Broadcast on Channel 2
People at Home Can Call or Email**

226 – 9931

TSmith@srfconsulting.com



Study Area



Goal and Purpose/Need

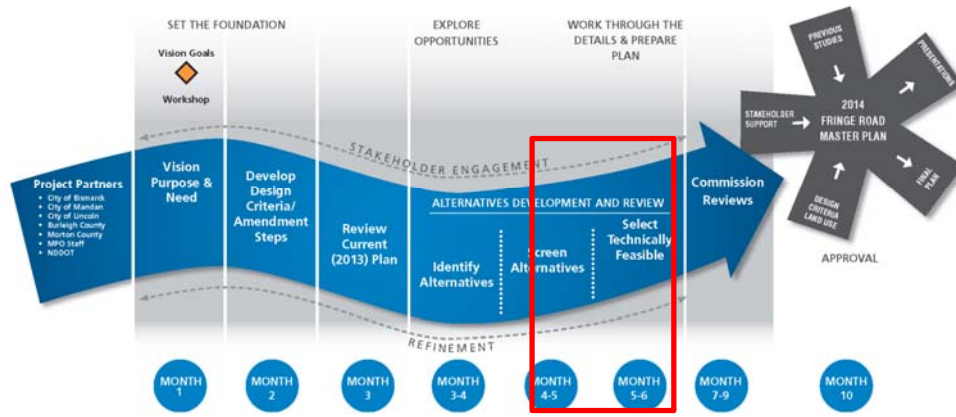
- Develop a forward-looking plan that identifies the arterial and collector roadway network to support and complement known and anticipated development
- Need: Consider the potential for the undesirable condition associated with an uncoordinated approach to addressing individual development proposals

Call In: 226 – 9931

Email Comments/Questions: Tsmith@srfconsulting.com

Study Process

STUDY PROCESS



Call In: 226 – 9931

Email Comments/Questions: Tsmith@srfconsulting.com



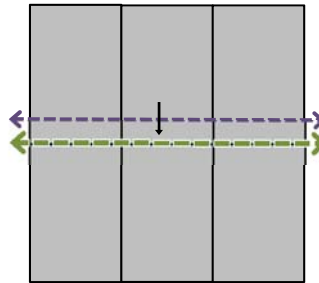
Determining Route Alignments

- Arterial – One Mile, Section Line Roads
- Collector – ½ Section Lines and ¼ Section Lines
- Desire is for Continuous Corridors
 - Arterial and Major Collectors – Across Miles
 - Minor Collector – Within Miles



Determining Route Alignments

- Follow Property Lines
- Follow Contours
- Avoid Steep Terrain
- Barriers:
 - Rivers/Streams
 - Railroad
 - I-94
- Follow Adopted Beltway
- Avoid:
 - Buildings
 - Environmental Features
 - Segmenting Properties



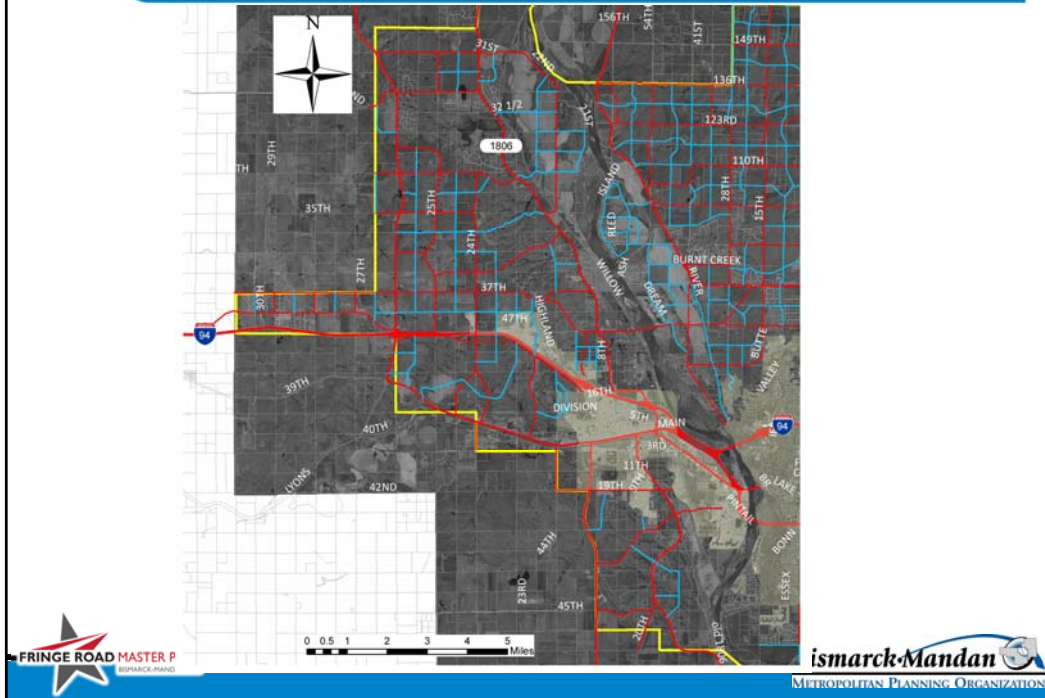
Determining Route Alignments

- Minimum Intersection Spacing:
 - Arterial: ¼ mile
 - Collector: 1/8 Mile
- Avoid:
 - Parks
 - Schools

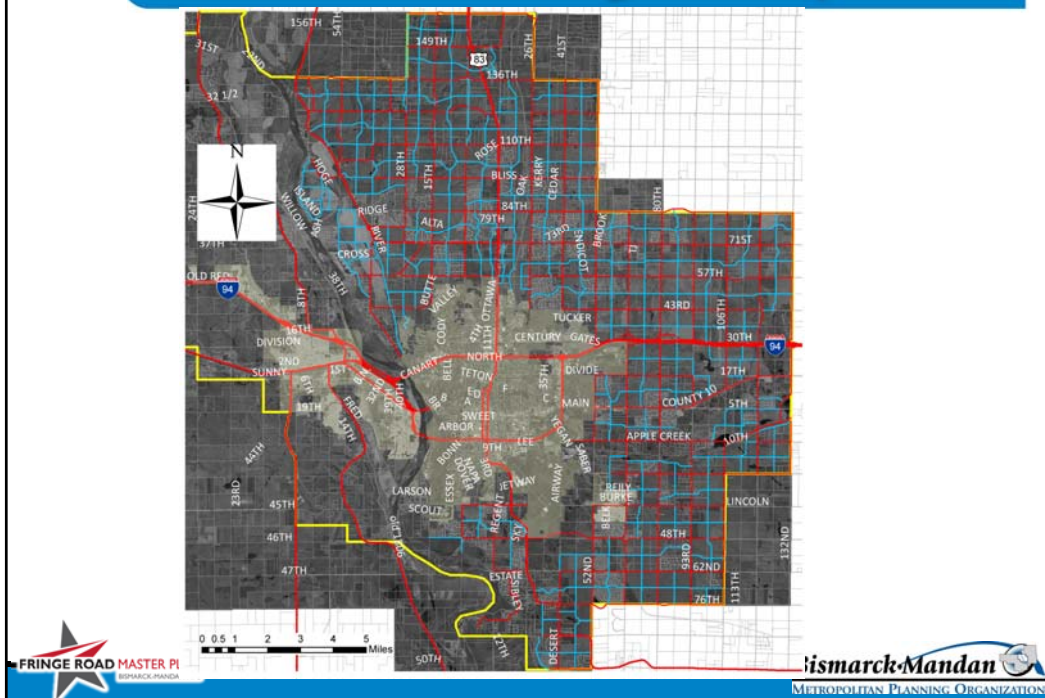
Call In: 226 – 9931

Email Comments/Questions: Tsmith@srfconsulting.com

Morton County Routes



Burleigh County Routes



When Changes Occur

- **Routes Implemented ONLY when Properties are Developed**
- **Establishing Process for:**
 - Incorporating “Check” into Development Review
 - Method to Modify Routes:
 - Access spacing
 - Retain Design Guidelines
 - Minimize Impacts to Adjacent Activities (Today/Future)



Comments/Questions

Bill Troe
SRF Consulting, Inc.
354-2400
btroe@srfconsulting.com

www.fringeroadplan.com

Call In: 226 – 9931
Email Comments/Questions: Tsmith@srfconsulting.com



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Division/District/Consultant <u>SRF</u>		
Meeting Location <u>Mandan City Hall</u>	Meeting Type <u>Public Meeting</u>	Meeting Date <u>7-14-14</u>
Project Number		PCN
Project Description		

Name (Please print) <u>Rachel Drewlow</u>		Title/Representing <u>MPO</u>	
Address			
City <u>Bismarck</u>	State <u>ND</u>	Zip code <u>58506</u>	Email <u>rdrewlow@bismarcknd.gov</u>

Name (Please print) <u>Rick Stoppelmaier</u>		Title/Representing <u>HR</u>	
Address <u>4503 Cleman Dr. Suite 105</u>			
City <u>Bismarck</u>	State <u>ND</u>	Zip code <u>58503</u>	Email <u>rick.stoppelmaier@hrinc.com</u>

Name (Please print) <u>B.S. Decker</u>		Title/Representing <u>Mandan</u>	
Address			
City	State	Zip code	Email

Name (Please print) <u>JUSTIN FROSTH</u>		Title/Representing <u>CITY OF MANDAN</u>	
Address <u>205 2ND AVE NW</u>			
City <u>MANDAN</u>	State <u>ND</u>	Zip code <u>58554</u>	Email <u>jfrosth@cityofmandan.com</u>

Name (Please print) <u>Brian Ritter</u>		Title/Representing <u>BMDA</u>	
Address <u>PO Box 2615</u>			
City <u>Bismarck</u>	State <u>ND</u>	Zip code <u>58502</u>	Email <u>britter@bmda.org</u>

Name (Please print) <u>Jim Newbuck</u>		Title/Representing <u>City Mandan</u>	
Address			
City	State	Zip code	Email

Name (Please print) <u>Blaine Engelstad</u>		Title/Representing <u>self</u>	
Address <u>5305 Highland R.d. N.W.</u>			
City <u>Mandan</u>	State <u>N.D</u>	Zip code <u>58554</u>	Email <u>bfengelstad@live.com</u>

SIGN-IN SHEETNorth Dakota Department of Transportation, Civil Rights Division
SFN 59531 (Rev. 03-2012)Page 2 of 2

Division/District/Consultant		
Meeting Location	Meeting Type	Meeting Date
Project Number		PCN
Project Description		

Name (Please print) <u>Bernice Hilfer</u>		Title/Representing <u>Citizen</u>	
Address <u>104 12th St NW</u>			
City <u>Mandan</u>	State <u>ND</u>	Zip code <u>58554</u>	Email <u>burnshilf@yahoo.com</u>

Name (Please print) <u>Ander Hagerott</u>		Title/Representing <u>Citizen</u>	
Address <u>3191 3191 33rd</u>			
City <u>Mandan</u>	State <u>ND</u>	Zip code <u>58554</u>	Email

Name (Please print) <u>Shelley Wolf</u>		Title/Representing <u>Self</u>	
Address <u>2123 Morgan Circle</u>			
City <u>Mandan</u>	State <u>ND</u>	Zip code <u>58554</u>	Email <u>MDNWOLF@TIAI.COM</u>

Name (Please print) <u>Steve Saunders</u>		Title/Representing <u>MA</u>	
Address			
City <u>Bismarck</u>	State <u>ND</u>	Zip code <u>58506</u>	Email <u>ssaunders@bismarcknd.org</u>

Name (Please print) <u>Bill TROE</u>		Title/Representing <u>SRF</u>	
Address			
City	State	Zip code	Email <u>BTROE@SRFCONSULTING.COM</u>

Name (Please print)		Title/Representing	
Address			
City	State	Zip code	Email

Name (Please print)		Title/Representing	
Address			
City	State	Zip code	Email

SIGN-IN SHEETNorth Dakota Department of Transportation, Civil Rights Division
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Division/District/Consultant <u>SRF</u>		
Meeting Location	Meeting Type <u>Public Meeting</u>	Meeting Date <u>7-15-15</u>
Project Number	PCN	
Project Description		

Name (Please print)	<u>MEL BULLINGER</u>			Title/Representing	<u>CITY OF BISMARCK ENGINEERING</u>
Address <u>P.O. BOX 5503</u>					
City	<u>BISMARCK</u>	State	<u>ND</u>	Zip code	<u>58506-5503</u>

Name (Please print)	<u>Bob Shannon</u>			Title/Representing	<u>KLJ</u>
Address <u>PO Box 1157</u>					
City	<u>Bismarck</u>	State	<u>ND</u>	Zip code	<u>58502</u>
				Email	<u>bob.shannon@kljeng.com</u>

Name (Please print)	<u>Nathan A. Dalzell</u>			Title/Representing	
Address <u>PO Box 29</u>					
City	<u>Bismarck</u>	State	<u>ND</u>	Zip code	<u>58502</u>
				Email	

Name (Please print)	<u>Datell Baisch</u>			Title/Representing	
Address <u>6010 62ND ST NE</u>					
City	<u>BISMARCK</u>	State	<u>ND</u>	Zip code	<u>58503</u>
				Email	<u>sd@baisch</u> <u>sd@baisch@MSN.COM</u>

Name (Please print)	<u>LOREN DEWITZ</u>			Title/Representing	
Address <u>5300 STREAM PL</u>					
City	<u>BISMARCK</u>	State	<u>ND</u>	Zip code	<u>58503</u>
				Email	

Name (Please print)	<u>RON HAUGOM</u>			Title/Representing	<u>SELF</u>
Address <u>1942 JACKSON AVE</u>					
City	<u>Bismarck</u>	State	<u>ND</u>	Zip code	<u>58501</u>
				Email	

Name (Please print)	<u>BOB JOHNSTON</u>			Title/Representing	<u>CITY OF LINCOLN</u>
Address <u>21 CARLIN DRIVE</u>					
City	<u>LINCOLN</u>	State	<u>ND</u>	Zip code	<u>58504</u>
				Email	<u>MCOL@BIS.MIDCO.NET</u>

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Division/District/Consultant		
Meeting Location <i>Public Works</i>	Meeting Type	Meeting Date
Project Number		PCN
Project Description		

Name (Please print) <i>Nancy Guy</i>		Title/Representing <i>City Commissioner</i>	
Address <i>3423 Crocus Ave</i>			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58501</i>	Email <i>nguy@bismarcknd.gov</i>

Name (Please print) <i>Judy DeWitz</i>		Title/Representing	
Address <i>5300 Stream Place</i>			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58503</i>	Email <i>jdwitz@bektel.com</i>

Name (Please print) <i>Jill Bourgeois</i>		Title/Representing <i>self</i>	
Address <i>5400 104th Ave NW</i>			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58503</i>	Email <i>bourgeois.jill@gmail.com</i>

Name (Please print) <i>Doob Prchal</i>		Title/Representing <i>Public Interest</i>	
Address <i>3605 Pebbleview Pl</i>			
City <i>BIS</i>	State <i>ND</i>	Zip code <i>58503</i>	Email

Name (Please print) <i>Zac Smith</i>		Title/Representing <i>Bismarck - Mountain Chapter</i>	
Address <i>3302 overlook Dr</i>			
City <i>Bismarck</i>	State <i>ND</i>	Zip code <i>58503</i>	Email

Name (Please print) <i>RICK STOPPELMOR</i>		Title/Representing <i>HDR</i>	
Address <i>4503 COLEMAN ST SUITE 105</i>			
City <i>BISMARCK</i>	State <i>ND</i>	Zip code <i>58503</i>	Email <i>RICK.STOPPELMOR@HDRINC.COM</i>

Name (Please print) <i>BILL TROE</i>		Title/Representing <i>SRF CONSULTING GROUP</i>	
Address			
City	State	Zip code	Email <i>BTROE@SRFCONSULTING.COM</i>

Fringe Area Road Master Plan

Public Meeting Presentation

July 14/15, 2014



Public Meetings

**Tonight: Mandan City Hall
5:30 PM to 7:00 PM**

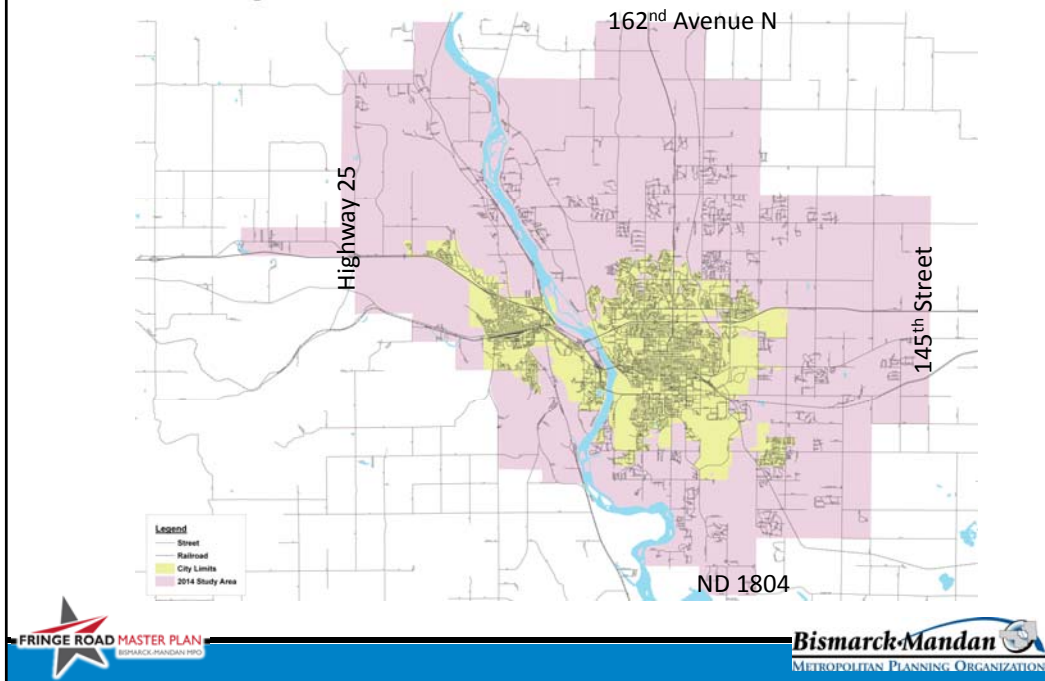
**Tomorrow: Bismarck – Bismarck Public
Works
5:30 PM to 7:00 PM**

Presentation Rebroadcast on Channel 2

www.fringeroadplan.com

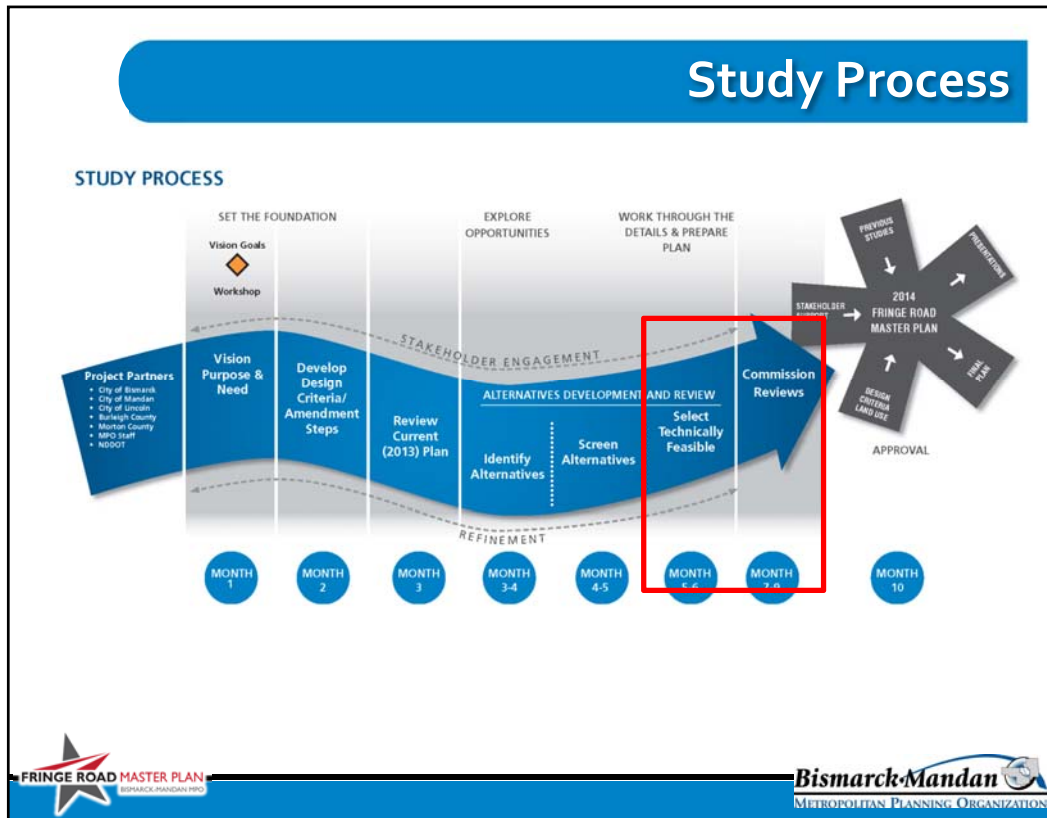


Study Area



Goal and Purpose/Need

- Develop a forward-looking plan that identifies the arterial and collector roadway network to support and complement known and anticipated development
- Need: Consider the potential for the undesirable condition associated with an uncoordinated approach to addressing individual development proposals

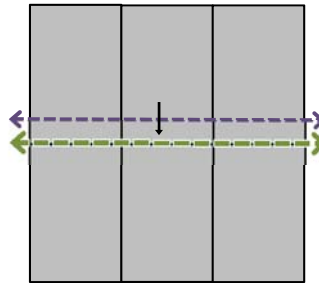


Determining Route Alignments

- **Arterial – One Mile, Section Line Roads**
- **Collector – ½ Section Lines and ¼ Section Lines**
- **Desire is for Continuous Corridors**
 - Arterial and Major Collectors – Across Miles
 - Minor Collector – Within Miles

Determining Route Alignments

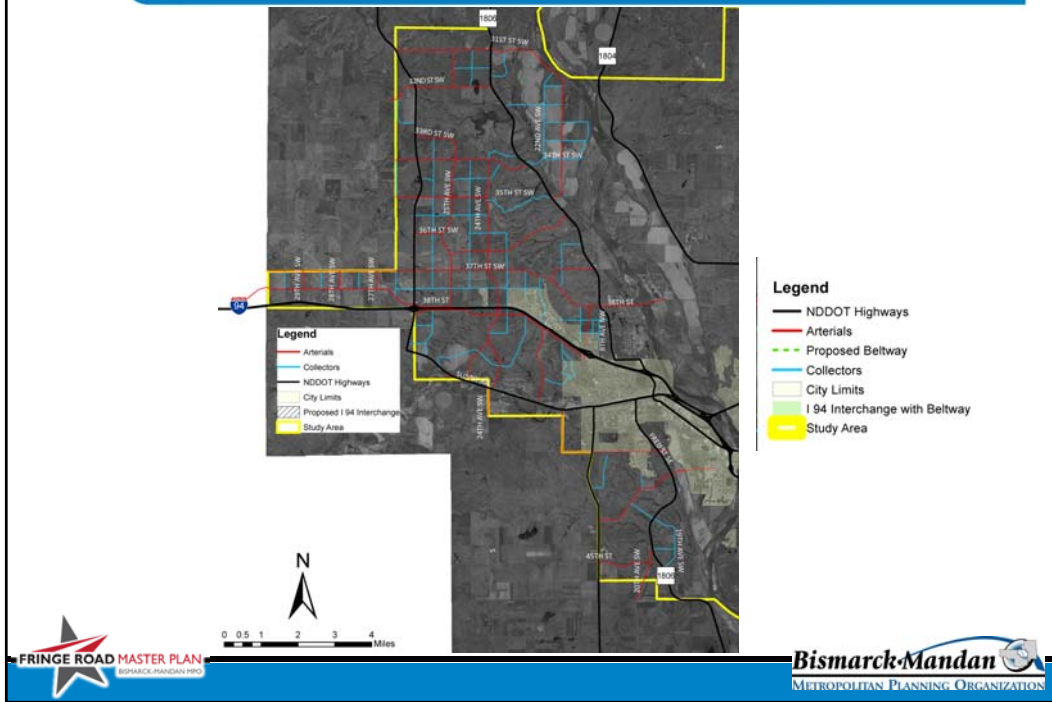
- Follow Property Lines
- Follow Contours
- Avoid Steep Terrain
- Barriers:
 - Rivers/Streams
 - Railroad
 - I-94
- Follow Adopted Beltway
- Avoid:
 - Buildings
 - Environmental Features
 - Segmenting Properties



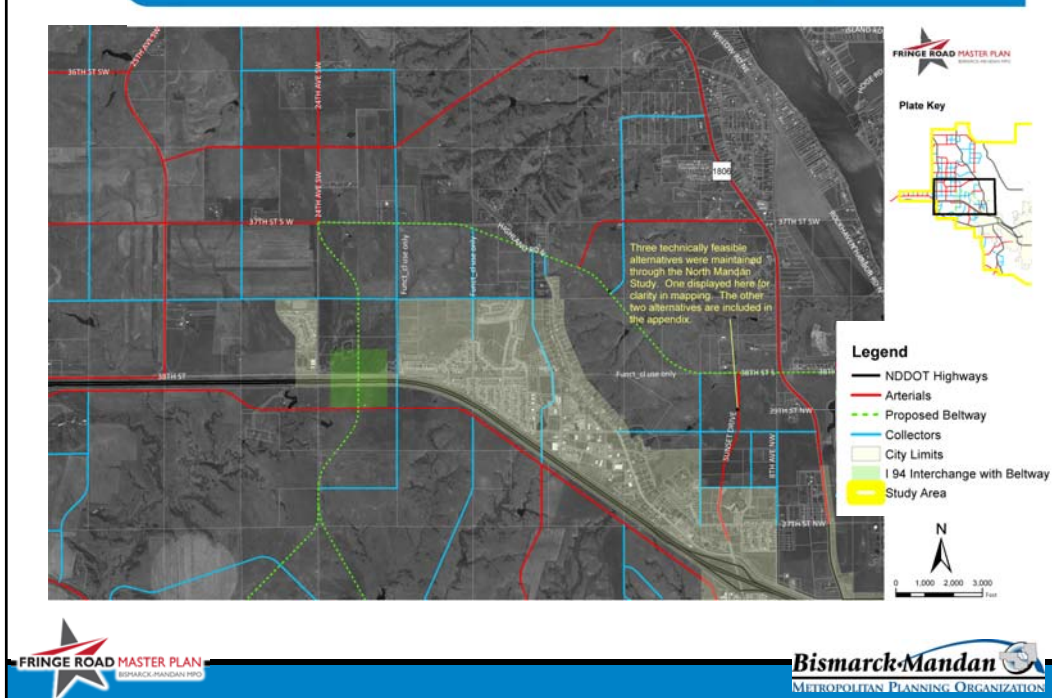
Determining Route Alignments

- Minimum Intersection Spacing:
 - Arterial: ¼ mile
 - Collector: 1/8 Mile
- Avoid:
 - Parks
 - Schools
- Reviews:
 - Staff from each Jurisdiction
 - NDDOT
 - Public in April

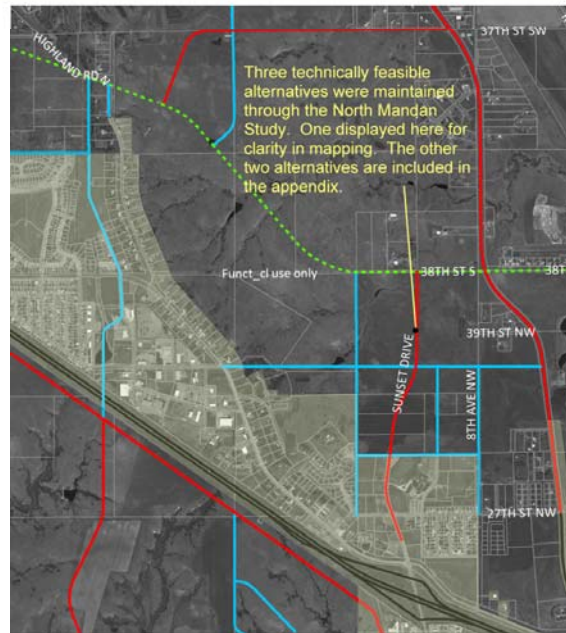
Morton County Routes



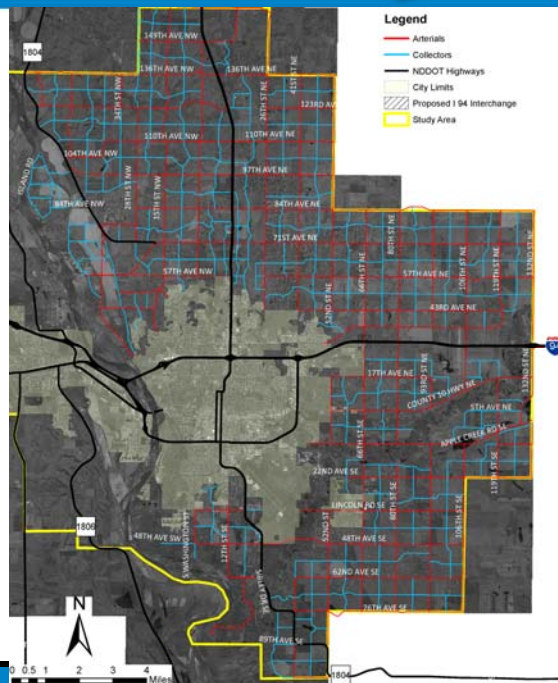
Morton County Routes



Morton County Routes



Burleigh County Routes



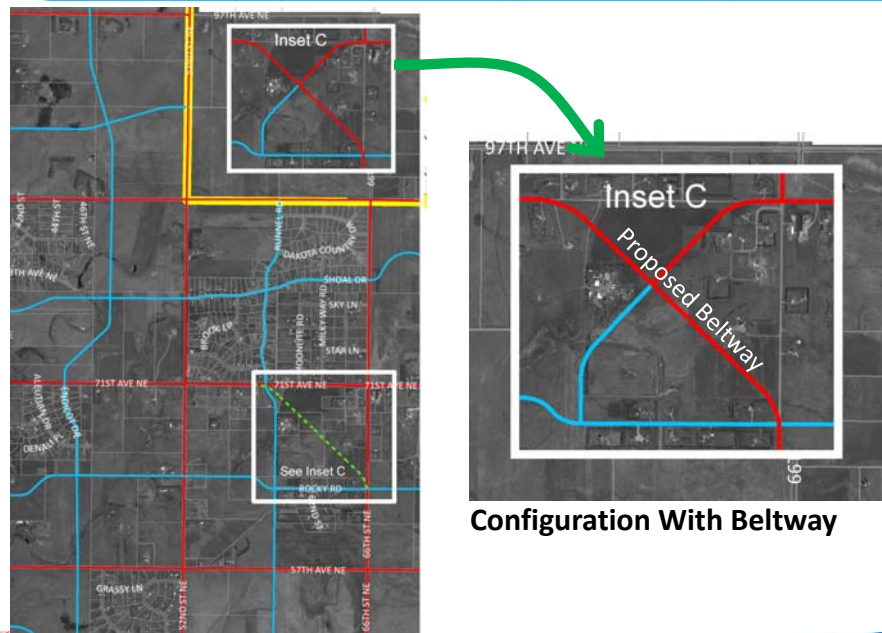
Burleigh County Routes



Burleigh County Routes



Burleigh County Routes

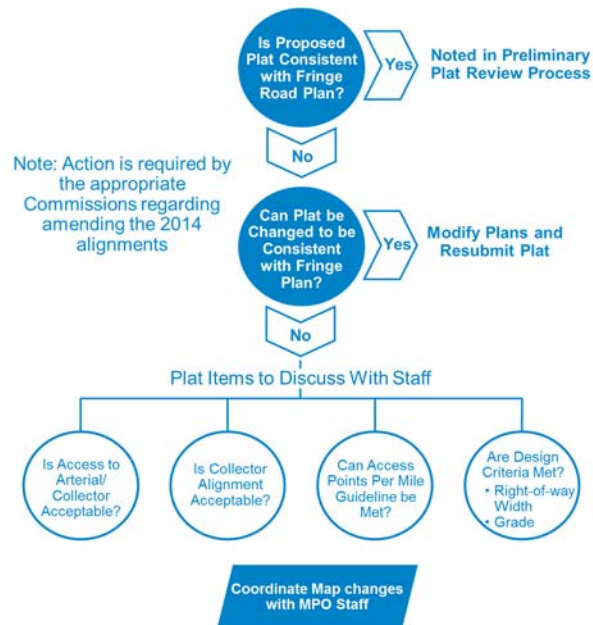


Configuration With Beltway

When Changes Occur

- Routes Implemented **ONLY** when Properties are Developed
- Establishing Process for:
 - Incorporating Preliminary Plat Review Process
 - Method to Modify Routes:
 - Access spacing
 - Retain Design Guidelines
 - Minimize Impacts to Adjacent Activities (Today/Future)

Fringe Road Amendment Process



Comments/Questions

Bill Troe
SRF Consulting, Inc.
354-2400
btroe@srfconsulting.com
www.fringeroadplan.com