

NORTH 33RD & CORNHUSKER

Alternatives Screening, Floodplain Summary and Environmental Red Flag Review

Prepared For:

Railroad Transportation Safety District
Lincoln, Nebraska

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1.0 EXECUTIVE SUMMARY

Cornhusker Highway (U.S. Highway 6 [US 6]), a critical east-west arterial in the roadway system, serves north Lincoln, Nebraska. Adams Street, a minor arterial, provides a direct east-west connection from Cornhusker Highway to the eastern city limits. Together, the Adams Street/Cornhusker Highway corridor provides the only east-west streets connecting Interstate 80 and Interstate 180 to N. 84th Street in northern Lincoln between O Street and Superior Street. This corridor contains three at-grade crossings with the BNSF Railway located at North 33rd Street south of Cornhusker Highway, Adams Street at approximately North 35th Street, and North 44th Street south of Cornhusker Highway. The BNSF Railway currently carries 65 trains per day (63 freight and 2 passenger trains) on the double-track mainline railroad through northeast Lincoln resulting in at least 3.5 hours per day that each of the at-grade railroad crossings is blocked to vehicular traffic. When considering the railroad crossings at North 33rd Street, at the intersection of North 35th and Adams streets and at North 44th Street, this equates to one of the highest exposure ratings in Nebraska.

Recognizing the safety, mobility, and congestion concerns caused by at-grade railroad crossings, the Railroad Transportation Safety District (RTSD) and the City of Lincoln undertook multiyear studies to evaluate and identify an appropriate transportation improvement project along the 1.8-mile BNSF rail corridor between North 27th and North 48th streets. The process began with a Planning and Environmental Linkages (PEL) study in 2015, which resulted in planning level roadway alignment concepts for the project area. Before making a major financial investment in the transportation infrastructure, the RTSD and City of Lincoln realized that improvements of this magnitude needed to be part of a larger vision to benefit a greater area. In early 2018, the City of Lincoln, with support from the RTSD, launched a subarea planning effort that will forever change the face of northeast Lincoln. The development of a subarea plan (SAP) will provide a broader framework for land use, new development, and redevelopment in the area with transportation playing a key role for users.

Through the PEL and SAP process, the RTSD and City of Lincoln have identified potential roadway alignments that would serve to eliminate the at-grade crossings in the North 33rd Street and Cornhusker Highway area. The proposed roadway alignments were developed as an operationally independent project to meet the purpose and need of the RTSD, while remaining compatible with the long-term vision for north Lincoln. Any proposed RTSD transportation projects would use federal funding, which requires the proposed transportation project to comply with the National Environmental Policy Act (NEPA).

This document presents a review of the alternative identification and screening process completed as a part of the PEL and SAP processes. The document also presents a high-level summary of potential environmental impacts to select environmental resources from alternatives identified through the Tier 0 and Tier 1 screening process. This analysis serves to identify potential resources that may result in elevated or significant impacts (i.e., red flags) as the result of the implementation of an identified alternative. The intent of this red flag review is to determine if a

proposed alternative may result in significant environmental impacts and determine if mitigation could reduce this level of significance.

The information presented in this report should be considered concept level in nature and is based on the best information available at this time. All material presented, and recommendations provided, in this report are subject to change as more detailed analysis occurs through future engineering phases of this project.

2.0 INTRODUCTION AND OBJECTIVE

The transportation alternative development and evaluation process documented with this project built off the framework established in the PEL study. The purpose and need and environmental study area for the project was identical to that in the PEL. However, the scope of the alternative development with this project had one major difference from the PEL. This alternative development process addressed the need for a long-term transportation network that is compatible with the vision for north Lincoln, in addition to addressing the removal of at-grade rail crossings at North 33rd Street and Cornhusker Highway, the intersection of North 35th and Adams streets with Cornhusker Highway and at North 44th Street and Cornhusker Highway. This process of defining what was often coined as the “Ultimate Roadway Network” throughout the project was done in conjunction with the development of the SAP. Modifications to the Tier 1 alternative screening matrix in the PEL were made with this project to incorporate this long-term transportation planning element into the screening process.

The purpose of this document is to summarize the alternative development process used for this project. It will not cover in detail items that were already thoroughly evaluated in the PEL such as existing traffic operations or crash analyses. However, it will take time to walk through the process followed to generate 29 additional transportation concepts beyond those included in the PEL document. Some of the 29 concepts have stark differences from the alternatives considered in the PEL while others looked at slight modifications to address just a few individual movements. With the SAP providing the framework and building from the PEL study findings, the project team (combination of RTSD / City of Lincoln staff and consultant team) began developing complementary transportation alternatives. Through a series of brainstorming sessions, the team took a creative look at how to not only resolve the issues with the at-grade railroad crossings but looked further into the future at the overall street network in this area.

In all, 29 transportation alternatives were developed – some brand new and others modified versions of previous concepts. Each of the alternatives were screened against Tier 0 and Tier 1 criteria, developed as part of the PEL. Those that passed the initial screening were subject to additional criteria such as cost, complexity, and alignment considerations. Ultimately, consensus was reached by the city and RTSD resulting in seven transportation alternatives plus the no-build alternative (eight total) that would be moved forward for the environmental review process (NEPA), and Tier 2 screening. The alternatives address both short-term and long-term transportation needs: the RTSD projects aimed at closing the three at-grade rail crossings as well

as the future network providing more connections to existing streets creating safe and efficient travel means for all modes of transportation.

The floodplains of Salt Creek and Deadman's Run, the Salt Creek Flood Reduction Project (SCFRP, Salt Creek levees) and the ongoing Deadman's Run Section 205 Project are all key resource issues affecting the development of alternatives for the RTSD project. The proposed RTSD transportation network is located primarily along the fringes of the Salt Creek floodplain. The RTSD project will have minimal impacts on flood storage volumes. Net Fill may be placed on individual properties. However, any losses of flood storage will be mitigated by excavating an equal amount of flood storage elsewhere in the project area. Proposed roadway crossings of the Salt Creek and Deadman's Run may affect the SCFRP or USACE Section 205 Deadman's Run Project, or even alter flood elevations. Careful coordination with the LPSNRD, the City of Lincoln, and the USACE will be required throughout the design and construction of the proposed RTSD Project to mitigate any impacts. The floodplains, levees, and federal projects are discussed in more detail in Chapter 5.

2.1 Purpose and Need

The purpose and need statement for a project describes the problem(s) that a particular project would solve if constructed. The purpose and need is used to develop, evaluate, and compare alternatives.

As detailed in the PEL, transportation improvements in north Lincoln are needed because of the high volume of vehicular and train traffic in the area along the rail corridor between North 27th and North 48th streets. While North 27th and North 48th streets provide grade-separated crossings of the rail corridor, there are three at-grade crossings within the 1.8-mile long corridor located at North 33rd, Adams, and North 44th streets. High volumes of vehicular and train traffic create undesirable conditions regarding safety, traffic congestion, traffic delay, and mobility within the environmental study area under consideration, which is bounded by North 27th, Superior, North 48th, and Holdrege streets as illustrated in Figure 1. In addition, facilities for walking, cycling, and public transit do not meet existing or future needs for the area (traffic analysis is generally required for the anticipated opening year and the long-range planning horizon year [Year 2040]). The PEL provides the supporting information for the needs statement above.

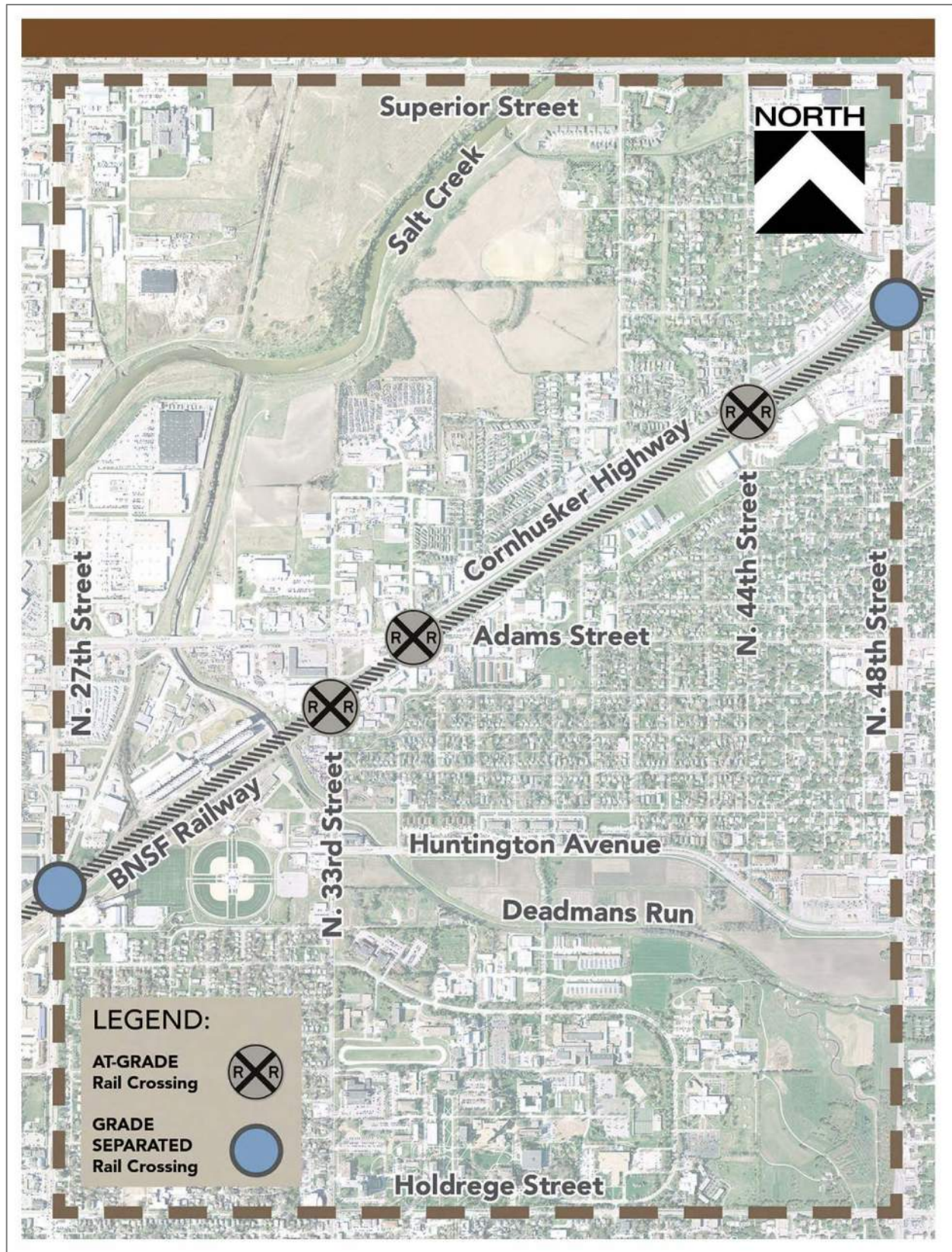


Figure 1. Study Area

As described in the PEL, the purpose of the proposed project is to accomplish the following:

1. Improve safety along the rail corridor between North 27th and North 48th streets by eliminating or reducing the potential conflict points between trains and other transportation modes (vehicles, pedestrians, and bicyclists)
2. Reduce delay for motorists, pedestrians, and bicyclists crossing the rail corridor, including rerouting emergency response vehicles due to crossings blocked by trains
3. Accommodate existing and future traffic (Year 2040) to reduce congestion along roadways crossing the rail corridor
4. Improve mobility across the rail corridor in north Lincoln, including public safety response times
5. Improve multimodal connectivity in north Lincoln for vehicles, pedestrians, bicyclists, and bus transit

2.2 Planning and Environmental Linkages (PEL) Study

Because of the high volume of conflicting vehicular and train traffic in the area along the rail corridor between North 27th and North 48th streets, the PEL study assessed existing conditions, determined multimodal transportation needs, developed and evaluated multimodal improvements, and engaged north Lincoln residents and business owners. The PEL study identified nine roadway alternatives consisting of overpasses or underpasses at or near the existing at-grade crossings of North 33rd Street and Adams Street with the BNSF railway. The proposed alternatives included grade-separated structures, and the closure of the at-grade crossings at North 33rd Street and at Adams Street. The PEL study developed the Tier 0 and Tier 1 screening criteria discussed in Section 4.0. The PEL used impacts to the environment, traffic data and analysis, safety, mobility, connectivity, and public participation to analyze and evaluate alternatives resulting in two preferred alternatives being identified. After the PEL Tier 2 screening, two alternatives, Alternative C and Alternative C3, were identified as Recommended Alternatives. These two alternatives were carried forward into the current screening process discussed in Section 4.0.

The PEL study followed federal guidelines and provides the framework to move forward with a more detailed NEPA study and Preliminary Engineering (PE).

2.3 Sub-Area Plan (SAP)

Following completion of the PEL in early 2017, the RTSD, in concert with the City of Lincoln, decided that a more comprehensive look at the future of northeast Lincoln was prudent. Moving forward with the NEPA process and PE would not only close multiple at-grade rail crossings, but it would also cost \$75 - \$80 million. The goal was to ensure that the proposed transportation investment would fit with a long-range transportation plan for northeast Lincoln. Thus, it was decided to include an SAP and Corridor Enhancement Planning (CEP) effort as part of the project.

The SAP process used a five-step program that included the following:

1. Assess existing conditions in and directly surrounding the subarea
2. Identify issues and opportunities facing the subarea to formulate a clear vision for the future of the subarea
3. Establish guiding principles
4. Develop and evaluate alternative plans and policies
5. Prepare the final SAP recommendations

The SAP included a Market Positioning Strategy in addition to the Public Engagement and Final SAP. The Market Position Strategy provides guidance on economic growth opportunities. The subarea, defined as Cornhusker Highway from North 27th Street to North 48th Street, features several large tracts of vacant land and underdeveloped properties that offer an opportunity to promote comprehensive planning and mixed-use development. The SAP Market Position Strategy identified seven prospective development sites and land use recommendations based on site and location characteristics, as well as competitive market conditions.

The SAP provided several opportunities for public engagement. Through public open houses, a Visioning Session, and a design charrette, the project team collaborated with the community on the ideas and priorities that became the recommendations put forth in the SAP.

The first public meeting was an open house format held in February 2018. The purpose was to reintroduce the public to the project, review the PEL study's findings, and introduce the process of developing an SAP, a corridor enhancement plan, and design guidelines. During the initial public open house, public comments and conversations indicated the subarea needed redevelopment and safety updates. Property owners questioned if they should invest in their properties in the coming years given the uncertainty of future roadway alignments. Questions arose regarding the project's overall timeline and specific roadway alternatives that were generated and presented during the PEL process.

During May 8-10, 2018, at Innovation Campus, the consultant team hosted a three-day Visioning Session and design charrette to begin creating concepts for the subarea. During the first two days, the project advisory committee and key stakeholders worked collaboratively with the project team to confirm the critical issues, opportunities, and success factors as well as their needs, wants, and desires for northeast Lincoln. Next, the group prioritized that list into what would eventually become the basis for the development of concept sketches that addressed their priorities.

The Visioning Session provided time for the project team to gauge the various perspectives of the community members invested in the success of the subarea such as residents, business owners, and community organizations. It allowed community members and stakeholders to set aside concerns of funding, timing, and coordination, and dream of what the subarea could become.

Outcomes of the Visioning Session identified success factors; prioritized needs, wants, and desires; and created “word clouds” that described the subarea, positive features of the subarea, and things to change about the subarea.

The Visioning Session further clarified the public’s desire to eliminate or change at-grade railroad crossings and improve the flow of traffic while improving safety and connectivity for all modes of transportation. The public indicated a strong want and desire for improved streetscape and building aesthetic enhancements, mixed-use economic investment, additional bike and pedestrian infrastructure along Cornhusker Highway, and green space and recreational additions and enhancements. The word clouds described the negative features of the subarea as underutilized, underdeveloped, industrial, and disconnected. The word clouds described the positive features of the subarea as open space and potential; while the things to change included railroad crossings, safety, aesthetics, and connectivity. At the end of the second day of the charrette the culmination of two days of planning was presented to the public for review and comment at an open house.

The design charrette process allowed the project team to engage the stakeholders and the public and clarify key issues and opportunities within the subarea, define a list of success factors, explore various SAP concepts and associated elements, and narrow concepts through prioritization exercises and consensus building. One of the guiding documents that resulted from the design charrette was a list of 17 goals, referred to as “The List,” that would guide the future planning of the SAP study limits. The List can be found as part of the May 30th, 2018 client update meeting documentation included in Appendix A. While every one of the five objectives listed above from the PEL were included in The List, there were new goals developed that were not part of the PEL process and would prove important as the consultant team looked at a long-range transportation plan for the study area. A few of these additional items included providing a connection between North 33rd Street and Superior Street, providing an easy connection to State Fair Park Drive / Salt Creek Roadway, the closure of the North 44th Street at-grade crossing of the BNSF Railway in conjunction with a grade separated pedestrian crossing and new access to North 48th Street, and ensuring a high benefit to cost ratio for transportation investments with the subarea. The SAP concepts were further refined based on public feedback and eventually one was selected as the preferred concept.

3.0 ALTERNATIVE DEVELOPMENT PROCESS

The alternatives development process began with the identification of nine alternatives in the PEL study. These alternatives included a broad range of ideas and improvements focused on the treatment of the North 33rd Street, Adams Street, and Cornhusker Highway intersection area. Each alternative included a grade-separated crossing of the rail corridor, as well as closure of the at-grade crossings of North 33rd Street and Adams Street with the rail corridor. Following each level of evaluation, the consultant team refined the alternatives and added conceptual level detail to consider concept line and grade and to develop interchange and intersection configurations as appropriate. The conceptual level of engineering design progressed through each evaluation level

to further quantify potential benefits and impacts of each alternative. After the alternatives screening process in the PEL, two alternatives, PEL C and PEL C3, were retained.

During the SAP process, 12 different roadway alternatives for the subarea were drawn and analyzed using PEL alternatives combined with SAP criteria and input from members of the public. Ten consensus transportation-related priorities were determined to guide roadway alignment decision making. They are as follows:

1. A new north-south roadway created by extending North 33rd Street from the existing intersection at Huntington Avenue to the intersection of North 33rd Street and Superior Street. (Note: This is contrary to a Salt Creek Roadway extension as shown in the current approved Lincoln Metropolitan Planning Organization (MPO) Long-Range Transportation Plan as of November 2018.)
2. An extension of Salt Creek Roadway to Cornhusker Highway, coupled with a realignment of Cornhusker Highway that prioritizes a direct connection, parallel to the railroad, between northeast Lincoln and Downtown.
3. The at-grade crossing of North 44th Street and the railroad should be permanently closed. Access to the industrial businesses south of Cornhusker Highway should come from a new extension of Fremont Street west of North 48th Street.
4. Minimize mobile home park impacts.
5. No urban interchanges.
6. Keep North 33rd Street open.
7. All existing vehicular movements do not need to remain.
8. A grade separation of North 33rd Street over the railroad is needed.
9. An improved and more direct connection between University of Nebraska - Lincoln (UNL) campuses should not be a driving force in the planning of the Ultimate Roadway Network.
10. The intersection of North 29th Street / State Fair Park Drive and Cornhusker Highway should be closed or modified with the Ultimate Roadway Network.

The alternative development process for this project occurred over a three-month period starting in early May with the SAP Design Charette and ending in late July with a joint meeting between the project team. The development process included six alternative brainstorming sessions with the RTSD / City of Lincoln where a collaborative approach resulted in the development of 29 new transportation alternatives. Meeting summaries from these six meetings can be found in Appendix A. The following sections summarize the major goals, discussion points and consensus items from these meetings and how they evolved throughout the alternative brainstorming process.

3.1 Brainstorming Meeting #1

At the first alternative brainstorming meeting with the RTSD / City of Lincoln on May 30, 2018, 12 transportation network alternatives (labeled Alternatives 1-12) were presented for consideration. A focus of this meeting was reviewing the SAP Design Charette process and “The List” of 17 goals and objectives (see Appendix A) and how they were used in concept development. Discussion amongst attendees on the following key project topics and decisions occurred at this meeting. Discussion points are as follows:

1. Consultant felt a Salt Creek Roadway connection to Superior Street should be prioritized over North 33rd Street.
2. The three priority vehicular movements through the study area are Adams Street to Cornhusker Highway, Salt Creek Roadway to Cornhusker Highway, Cornhusker Highway through traffic.
3. Ideally the North 44th Street crossing would close with the RTSD project and that the logical termini for this closure is a tie-in to North 48th Street. This improvement would include a grade separated pedestrian crossing.
4. Any connection between Cornhusker Highway and Superior Street is a separate stand-alone future project.
5. The elevators should not be viewed as a hindrance to future roadway network planning and could even be addressed with the RTSD project.
6. An improved connection between UNL campuses should not be a high priority.
7. Underpasses can be considered, specifically for stand-alone pedestrian grade separations, but are less preferred as a grade separation solution for vehicular traffic
8. The consultant team should further evaluate a direct Salt Creek Roadway to Cornhusker Highway future roadway network option.

The meeting concluded with a group brainstorming activity to review all 12 alternatives and score each as red (will not move forward), yellow (open for more consideration), or green (move forward). Any alternatives scored as red were still taken through Tier 0 and Tier 1 screening to verify the thoughts of the group were in line with the purpose and need and project goals.

3.2 Brainstorming Meeting #2

The second alternative brainstorming meeting with the RTSD / City of Lincoln occurred on June 13, 2018. At this meeting nine total concepts, including variants of alternatives 1, 9, 11, and 12, along with new alternatives 13 and 13A were presented for further consideration. The goal of this meeting was to leave with three or four defined alternatives to move forward into further engineering analysis. Key discussion topics and decisions from this meeting included the following:

1. Any Ultimate Roadway Network alternative that staged grain trucks on public streets near the elevator will not be considered.
2. Traffic model data is showing greater relief of North 27th Street congestion with a North 33rd Street connection to Superior Street than a Salt Creek Roadway connection. This North 33rd Street extension should be moved forward as the north/south connection in all alternatives.
3. A direct Adams Street connection to Cornhusker Highway, while providing superior east-west roadway network connectivity, results in challenging weaving movements and could result in driver confusion and decision points and should no longer be considered in alternatives.
4. Taking both North 33rd and Adams streets over the BNSF tracks should be a priority for any roadway alternative. The RTSD feels the neighborhoods will be more supportive of the alternative if this is the case.
5. The RTSD felt more evaluation should be given to the idea of a Cornhusker Highway realignment south of the strip mall on the southwestern corner of North 33rd Street and Cornhusker Highway to allow for a future direct connection between Salt Creek Roadway and east Cornhusker Highway. The group agreed this should be evaluated with components of other alternatives that address North 33rd Street and Adams Street.
6. All exhibits produced for the public moving forward need to clearly delineate the initial RTSD projects from the future roadway connections identified as part of the Lincoln MPO Long-Range Transportation Plan.

The meeting once again included a brainstorming activity to review all alternatives presented in the meeting. At the conclusion of the meeting the consultant team was directed to further evaluate modifications to the alternatives presented for future review. Based on the discussion it was expected that five or six new alternatives would be developed for future review.

3.3 Brainstorming Meeting #3

The third alternative brainstorming meeting with the RTSD / City of Lincoln occurred on June 25, 2018. Because of a conflict on that day, a separate meeting was held with David Cary on June 22, 2018. A total of six alternatives (1D, 11A, 12A, 12B, 14, and 14A) were presented to the group. The concepts presented in this meeting built off the discussion from the June 13 meeting and included key design considerations such as a future Salt Creek Roadway to Cornhusker Highway direction connection and a more simplified grid network that enhanced connectivity and grade separation of both North 33rd Street and Adams Street. The first four alternatives looked at two different methods, an elevated “T” Intersection near 39th and Cornhusker and a bridge that completely crossed both the BNSF tracks and Cornhusker Highway to connect Adams Street with Cornhusker Highway near North 40th Street. Alternatives 14 and 14A evaluated the idea of reintroducing a concept that took Adams Street on alignment over the tracks in combination with

a Cornhusker Highway realignment. Key discussion topics and decisions from this meeting included the following:

1. Could the elevators operate without rail access? RTSD believes prior conversations identified 70 percent of outbound business as retail.
2. A meeting with Nebraska Department of Transportation (NDOT) District 1 should be setup to discuss a potential Cornhusker Highway realignment and the topic of relinquishment.
3. City Traffic Engineering would prefer a three-quarter access at 29th Street / State Fair Drive and Cornhusker Highway with a backdoor retail connection off North 33rd Street, north of Cornhusker Highway at Cather Road. However, a public-to-private-to-public street transition was a concern of City Planning.
4. Discussion to reconsider deemphasizing Adams Street occurred. At this time, the RTSD is still not willing to consider this idea because of potential impacts on public support.
5. Consensus was reached on the Cornhusker realignment and Salt Creek Roadway alignment behind the elevators. It was agreed this strategy should be maintained in all future alternatives.
6. There is not strong support for an alignment that makes a raised “T” intersection near North 39th Street and Cornhusker Highway (as shown in Alignment 11A), or a bridge traversing over both the BNSF tracks and Cornhusker Highway to an improved intersection at the present day North 40th Street and Cornhusker Highway intersection (as shown in Alignment 1D)
7. At this time the RTSD / City Traffic is leaning toward taking Alternative 14 forward as the preliminary preferred alternative in the SAP while City Planning preferred 12B or 1D.

The meeting closed with an emphasis on the group to reach consensus on a preliminary preferred alternative soon in order to maintain the SAP schedule.

3.4 Brainstorming Meeting #4

The fourth alternative brainstorming meeting with the RTSD / City of Lincoln occurred on July 2, 2018. The sole purpose of this meeting was to present two new alternatives, 15 and 15A. These alternatives were developed after discussions with NDOT District 1 Engineer Tom Goodbarn and City of Lincoln Traffic Engineering staff.

The RTSD reported they also had one-on-one meetings with several City of Lincoln staff on these two alternatives and on an overall bigger picture approach to the future transportation network in the study area. It was determined a closing/deemphasizing of Adams Street should be considered. Key discussion topics and decisions from this meeting included the following:

1. The closing or deemphasis of Adams Street should now be open for consideration by the consultant team in concept development and screening.

2. Because of a change in the vision for Adams Street, reconsideration of alternatives previously dismissed may be necessary.
3. The consultant team stressed the need for a well-attended project team meeting that would use a logical and documented process to reach consensus amongst RTSD / City of Lincoln staff. The meeting would identify a preliminary preferred alternative so the SAP process could move forward.

3.5 Brainstorming Meeting #5

The fifth alternative brainstorming meeting with the RTSD / City of Lincoln occurred on July 5, 2018. The focus of this meeting was to discuss the roadway alternatives in relationship to the SAP. The conversation included discussion on impacts to residents, businesses, access, aesthetics, and modal connectivity. Key discussion topics and decisions from this meeting included the following:

1. Noting the cost of alternatives 15 and 15A would be a major hurdle to moving these alternatives forward, even though Alternative 15A works well with the SAP from a planner's perspective.
2. Ongoing discussion on whether the transportation network could endure the closing of Adams Street if planned improvements to North 48th Street and the North 33rd Street grade separation were constructed.
3. The preliminary order of magnitude costs for select alternatives were discussed and it was noted that costs are significantly higher than those noted in the PEL.
4. The importance of coordinating any RTSD improvements closely with the U.S. Army Corps of Engineers (USACE) Deadman's Run Improvements project was noted.

The RTSD and City would like to see travel model runs completed for the remaining alternatives and include alternate runs with each that look at the impacts of closing Adams Street.

3.6 Brainstorming Meeting #6

The sixth, and final, alternative brainstorming meeting with the RTSD / City of Lincoln occurred on July 31, 2018. The meeting was intended to serve as the culmination of three months of collaboration and evaluation as the project team worked toward their goal of gaining consensus on a preliminary preferred alternative for reference in the SAP and narrowing the total list of alternatives to carry into the NEPA process. There were 10 remaining alternatives still being considered for further evaluation: 1B, 1D, 12B, 12C, 14, 15 (one alternative with Adams Street, one alternative without Adams Street), 15A, PEL Alternative C, and PEL Alternative C3. All of these remaining alternatives addressed the items of consensus developed to date and are as follows:

1. Conforms with the SAP.

2. Includes a North 33rd Street extension to Superior Street in the Ultimate Roadway Network.
3. Includes a Salt Creek Roadway extension paralleling the BNSF railway with a direct connection to Cornhusker Highway in the Ultimate Roadway Network.
4. The North 44th Street at-grade rail crossing should be closed with the RTSD project and a connection from North 44th Street to North 48th Street should be constructed to provide access to local businesses south of the BNSF tracks. This would include a grade separated pedestrian crossing of the BNSF Railroad and Cornhusker Highway near North 44th Street.
5. Impacts to the mobile home park should be minimized.
6. Urban interchanges should not be considered.

To assist with the decision-making process, the consultant team developed and distributed an alternative decision matrix that addressed pros and cons of each alternative from both a transportation and SAP perspective. Travel demand model run outputs and intersection design hourly volume forecasts were also provided to meeting attendees to assist with high-level intersection capacity screening. Prior to the meeting the RTSD / City of Lincoln staff were sent an informal survey consisting of 17 items that they were asked to prioritize in order of importance. The results of this survey identified additional items of consensus beyond the six listed above. Those additional items included the following:

1. The intersection of North 29th Street / State Fair Park Drive and Cornhusker Highway should be closed or modified with the Ultimate Roadway Network.
2. It was not necessary to maintain all existing drives and roadway connections.
3. A phased RTSD project package that initially closed the North 33rd Street, Adams Street and North 44th Street at-grade crossings and constructed a 33rd Street grade separation but did not build an Adams Street connection over the railroad was open for consideration.
4. North 33rd Street must be taken over the railroad tracks.
5. An improved connection between UNL campuses is not a driving force for an alternative selection.

Items that were discussed but tabled for later discussion included the following:

1. Satisfying Access Management Policy for intersection spacing
2. Closing Adams Street permanently
3. Modifying the 29th Street / State Fair Park Drive and Cornhusker Highway intersection before the Salt Creek Roadway extension
4. Providing a back-door retail access to North 27th Street retail

The final task of this meeting was to narrow down the list of 10 alternatives. This was done by evaluating the consultant team's data and the updated list of consensus items, reviewing the projects purpose and need statement and ensuring project goals are satisfied by each alternative. The result was two separate lists, the first being a list of preliminary preferred finalists and the second being a list of remaining alternatives passing Tier 0 and Tier 1 screening.

Preliminary Preferred Finalists

- Alternative 1B
- Alternative 1D – Preliminary Preferred Alternative
- Alternative 1E
- PEL Alternative C (with revised North 33rd Street alignment)

Remaining Alternatives Passing Tier 0 and Tier 1 Screening

- Alternative 12B
- Alternative 14
- Alternative 15A

Altogether, 22 action alternatives were eliminated from further consideration and did not make it through Tier 0 and Tier 1 Screening. These eliminated alternatives are illustrated in Appendix B. All seven of the remaining action alternatives, plus a No Build Alternative, will be taken into the NEPA phase of the project and evaluated against the Tier 2 screening criteria. These seven alternatives and an accompanying fact sheet and decision matrix are included in Appendix C.

4.0 SUMMARY OF TIER 0 AND TIER 1 SCREENING PROCESS

A two-tiered screening process was developed to identify the recommended alternatives from the 29 alternatives identified in the SAP. Following each level of screening, the retained alternatives were refined and conceptual level detail was added to consider concept line and grade, and to develop interchange and intersection configurations as appropriate.

The PEL involved the RTSD, NDOT, Federal Highway Administration (FHWA), City of Lincoln, and the general public in a process that established criteria for developing and evaluating alternatives. These criteria would help guide selection of alternatives that met the following objectives: responsive to the projects purpose and need; have project goals consistent with the RTSD's mission and the LRTP; have potential for transportation benefits; and are in agreement with community and natural resources.

As described in the PEL, the consultant team developed criteria as appropriate for the evaluation level being conducted and the alternatives being considered. For each level, the consultant team applied the evaluation criteria and corresponding measures uniformly to each alternative. The responsiveness of each alternative to the criteria determined whether the alternative was advanced for further evaluation. The following sections summarize the evaluation criteria by

purpose and need, project goals, and community and natural resources and explains the tiered process to evaluate the action alternatives developed.

During the SAP process, additional screening criteria were added to the Tier 1 to compare the alternatives against the goals of the SAP as well as the future Deadman's Run USACE project.

4.1 Tier 0 Screening

Tier 0 screening evaluated whether an alternative met the purpose and need of the project. Alternatives found to conflict with the purpose and need were eliminated at Tier 0 screening. As described in the PEL, the following questions developed from the purpose and need were used to screen the alternatives at Tier 0:

1. Does the alternative improve safety by eliminating or reducing the potential conflicts between trains and other transportation modes (vehicles, pedestrians, and bicycles) along the rail corridor between North 27th and North 48th streets?
 - Goal: Reduce potential conflicts for vehicles by 80 percent, or more. Once alternatives have been screened, measures to reduce exposure for pedestrians and bicyclists would be identified.
2. Does the alternative reduce delay for motorists, pedestrians, and bicyclists crossing the rail corridor between North 27th and North 48th streets?
 - Goal: Combined reduction in delays at the at-grade crossings due to train blockages in the study area rail corridor from an average of 15 percent daily to 1 percent daily.
3. Does the alternative accommodate existing and future traffic (Year 2040) and reduce congestion along roadways crossing the rail corridor between North 27th and North 48th streets?
 - Goal: Minimized out-of-direction travel for major traffic movements (i.e., those existing peak hour movements with 400, or more, vehicles per hour).
4. Does the alternative improve mobility across the rail corridor in north Lincoln?
 - Goal: Maximized spacing (1/4 mile preferred) between signalized intersections resulting in peak hour left-turn volumes requiring no more than two left-turn lanes in any one direction.
5. Does the alternative improve multimodal connectivity in north Lincoln for vehicles, pedestrians, bicyclists, and transit?
 - Goal: Provisions provided for bicycle/pedestrian and transit crossing of the rail corridor at North 33rd Street, Adams Street, and North 44th Streets.

Three alternatives, alternative 5, 6, and 7, were dismissed at Tier 0 for failure to meet the project purpose and need. Alternatives 1, 1A, 1B, 1C, 1D, 1E, 2, 3, 4, 8, 9, 9A, 9B, 10, 11, 11A, 12, 12A, 12B, 13, 13A, 14, 14A, 15, 15A, PEL C3, and Modified PEL C were carried forward to Tier 1 screening.

4.2 Tier 1 Screening

Tier 1 screening evaluated the remaining alternatives based on comparative transportation effectiveness and environmental impact. Alternatives determined to be incompatible with transportation plans or considered to be unfeasible were eliminated at Tier 1 screening. Twenty alternatives were dismissed at Tier 1 for different issues. Table 1 describes each alternative and provides detail on whether each alternative was eliminated at Tier 0 or Tier 1 screening or if the alternative was carried forward for inclusion into the NEPA document for Tier 2 screening. Appendix D includes the detailed Tier 0 and Tier 1 screening sheets for each alternative and Appendix B includes figures illustrating each eliminated alternative.

As described in the PEL, the following criteria were used to evaluate the alternatives at Tier 1:

1. Improve safety by incorporating access management
 - Goal: Satisfy engineering design standards and practices including City of Lincoln and NDOT Access Management Policies and evaluate alternatives based on potential fatal flaws related to engineering design standards and criteria
2. Minimize delay at existing and proposed major intersections
 - Goal: Maintain or improve 2020 No-Action peak hour level of service (LOS) at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections
3. Improve vehicular mobility/connectivity across the roadway network and minimize out-of-direction travel
 - Goal: Minimize future out-of-direction travel for major movements as determined by 2040 travel demand forecasting model and select-link analysis
4. Improve multimodal connectivity in north Lincoln
 - Goal: Fill gaps in trails and sidewalk routes that traverse the rail corridor and improve efficiency of transit system by allowing more direct extension of transit routes
5. Does the alternative negatively affect vehicle operations during construction?
 - Maintain traffic along Cornhusker Highway during construction

6. Is the alternative “simple”?
 - Perceived complexity of an alternative and how intuitive travel routes are to motorists
7. Avoid/minimize direct and indirect impacts to community resources
 - Acquisition of residential and business properties (partial or full)
 - Business and resident displacements
 - Neighborhood integrity and cohesion
 - Compatibility with existing and future local land use
8. Avoid/minimize direct and indirect impacts to environmental resources
 - Floodways and floodplains
 - Parks and recreation areas
 - Historic resources
 - Sites with hazardous materials risk
 - Wetlands and Waters of the U.S.
 - Sensitive, threatened, and endangered species
 - Minority and low-income populations

After the SAP process the following criteria were added to the Tier 1 screening matrix:

1. Is the alternative compatible with the SAP?
 - Does the alternative accommodate the land uses proposed in the SAP?
 - Is the alternative compatible with access to existing and proposed land uses in the SAP?
 - Is the alternative compatible with access to/from primary corridors shown in the SAP?
 - Does the alternative support the parcel sizes shown in the SAP alternatives?
 - Can this alternative be constructed without negatively impacting the intent of the SAP goals?
2. Is the alternative compatible with the Dead Man's Run improvements?

Table 1. Tier 0 and Tier 1 Alternatives Screening Summary.

Alternative	Elimination Tier or Carried Forward*	Reason for Elimination
1	Tier 1	Impact to community resources and disruptive to community cohesion. Impacts to mobile home park.
1A	Tier 1	Incompatible with the SAP.
1B	Carried forward for inclusion in the NEPA document and Tier 2 screening.	
1C	Tier 1	Alternative is too circuitous. Incompatible with SAP.
1D	Carried forward for inclusion in the NEPA document and Tier 2 screening.	
1E	Carried forward for inclusion in the NEPA document and Tier 2 screening.	
2	Tier 1	Alternative does not minimize out-of-direction travel, alternative is too circuitous and nonintuitive.
3	Tier 1	Alternative does not minimize out-of-direction travel, alternative is too circuitous and nonintuitive. Disruptive to community cohesion.
4	Tier 1	Alternative does not incorporate adequate access management. Alternative does not minimize out-of-direction travel, alternative is too circuitous and nonintuitive. Impacts to mobile home park.
5	Tier 0	Does not meet purpose and need as it would not accommodate future traffic volumes or adequately reduce vehicular congestion at the railroad crossings.
6	Tier 0	Does not meet purpose and need as it would not accommodate future traffic volumes or adequately reduce vehicular congestion at the railroad crossings.
7	Tier 0	Does not meet purpose and need as it would not accommodate future traffic volumes or adequately reduce vehicular congestion at the railroad crossings.
8	Tier 1	Alternative does not minimize out-of-direction travel. Disruptive to community cohesion.
9	Tier 1	Alternative does not minimize out-of-direction travel. Incompatible with the SAP.
9A	Tier 1	Alternative does not minimize out-of-direction travel. Incompatible with the SAP.
9B	Tier 1	Alternative is too circuitous and nonintuitive. Incompatible with the SAP.

Alternative	Elimination Tier or Carried Forward*	Reason for Elimination
10	Tier 1	Alternative does not minimize out-of-direction travel, is too circuitous and nonintuitive, and does not maintain traffic along Cornhusker during construction. Incompatible with the SAP.
11	Tier 1	Alternative does not minimize out-of-direction travel and is too circuitous and nonintuitive. Incompatible with the SAP.
11A	Tier 1	Incompatible with the SAP.
12	Tier 1	Alternative does not minimize out-of-direction travel. Incompatible with the SAP.
12A	Tier 1	Alternative does not minimize out-of-direction travel.
12B	Carried forward for inclusion in the NEPA document and Tier 2 screening.	
13	Tier 1	Alternative does not minimize out-of-direction travel and is too circuitous and nonintuitive.
13A	Tier 1	Alternative does not minimize out-of-direction travel and is too circuitous and nonintuitive.
14	Carried forward for inclusion in the NEPA document and Tier 2 screening.	
14A	Tier 1	Incompatible with the SAP.
15	Tier 1	Alternative does not incorporate adequate access management and would not improve future level of service at major intersections.
15A	Carried forward for inclusion in the NEPA document and Tier 2 screening.	
PEL C3	Tier 1	Incompatible with the SAP. Disruptive to community cohesion. Impacts to mobile home park.
Modified PEL C	Carried forward for inclusion in the NEPA document and Tier 2 screening.	

* See Appendix D for the detailed Tier 0 and Tier 1 screening sheets.

4.3 Red Flag Analysis for the Recommended Alternatives

Detailed Tier 2 screening criteria will ultimately be developed as a part of the future NEPA process for the project. This red flag review makes assumptions regarding the make-up of the Tier 2 screening criteria that will be used during the NEPA process to provide preliminary guidance regarding the feasibility of the Recommended Alternatives. It is likely that the future NEPA Tier 2 screening criteria will include quantitative and qualitative comparisons related to the following:

- Construction costs
- Long-term maintenance and operations costs
- Safety and congestion benefits in relation to costs
- Public preference
- Community resource benefits/impacts
- Environmental resource benefits/impacts.

Specific environmental resources identified in the study area and applied to Tier 2 screening are discussed in Section 5.0.

Given these assumptions, this red flag analysis should be considered a high-level, pre-cursor to future Tier 2 screening. As discussed in Section 1.0, the intent of this red flag review is to determine if a proposed alternative may result in significant environmental impacts and determine if mitigation could reduce this level of significance.

The following Recommended Alternatives were carried forward for an environmental red flag review and will be carried forward to the Tier 2 screening during the NEPA process:

- Alternative 1B
- Alternative 1D
- Alternative 1E
- Alternative 12B
- Alternative 14
- Alternative 15A
- Alternative Modified PEL C

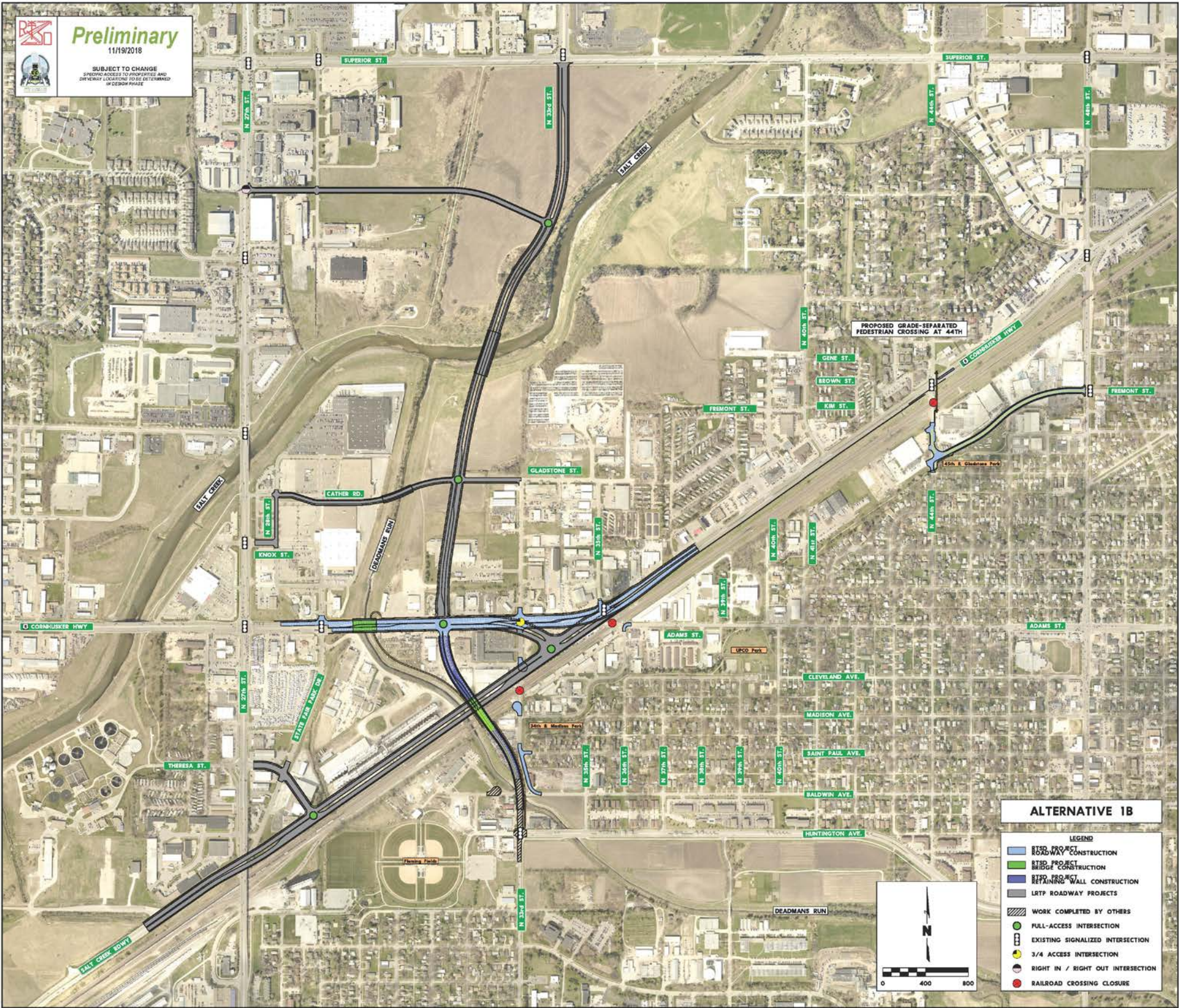
A brief description of each recommended alternative is provided below. Figures showing each recommended alternative are included as Figures 2-8.

Each Recommended Alternative implements a bridge over the railroad tracks on North 33rd Street, and the three at-grade railroad crossings at North 33rd Street, Adams Street, and North 44th Street would be closed.

4.3.1 Alternative 1B

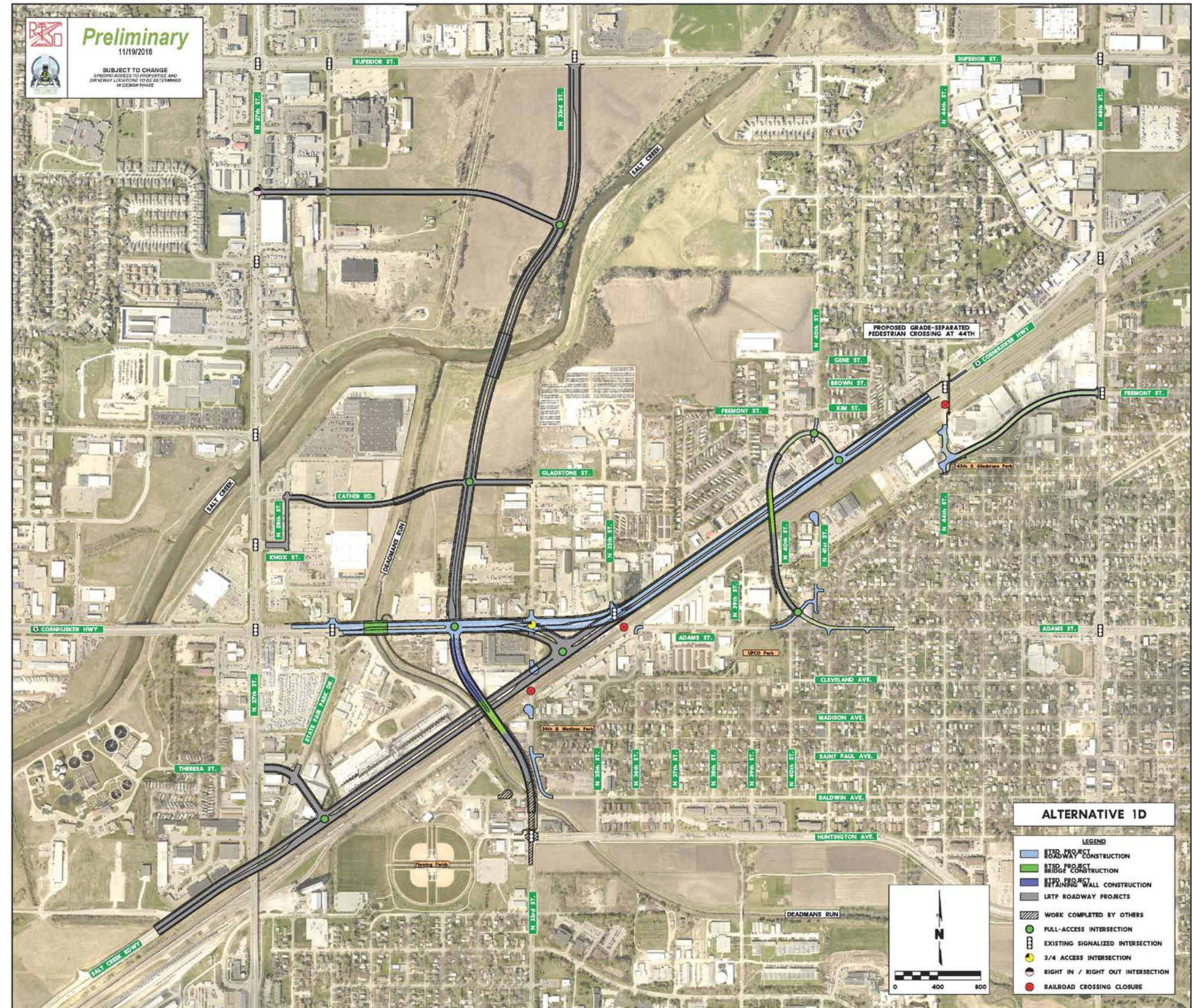
This alternative includes a full access intersection at North 33rd Street and Cornhusker Highway with traffic flow continuing as it does today. Access to the existing businesses on and south of Adams Street would be maintained on the existing roadway network. A new industrial connector road would connect from North 48th Street and Fremont Street toward the west to North 44th Street.

Figure 2. Alternative 1B
Preliminary – Subject to Change



4.3.2 Alternative 1D

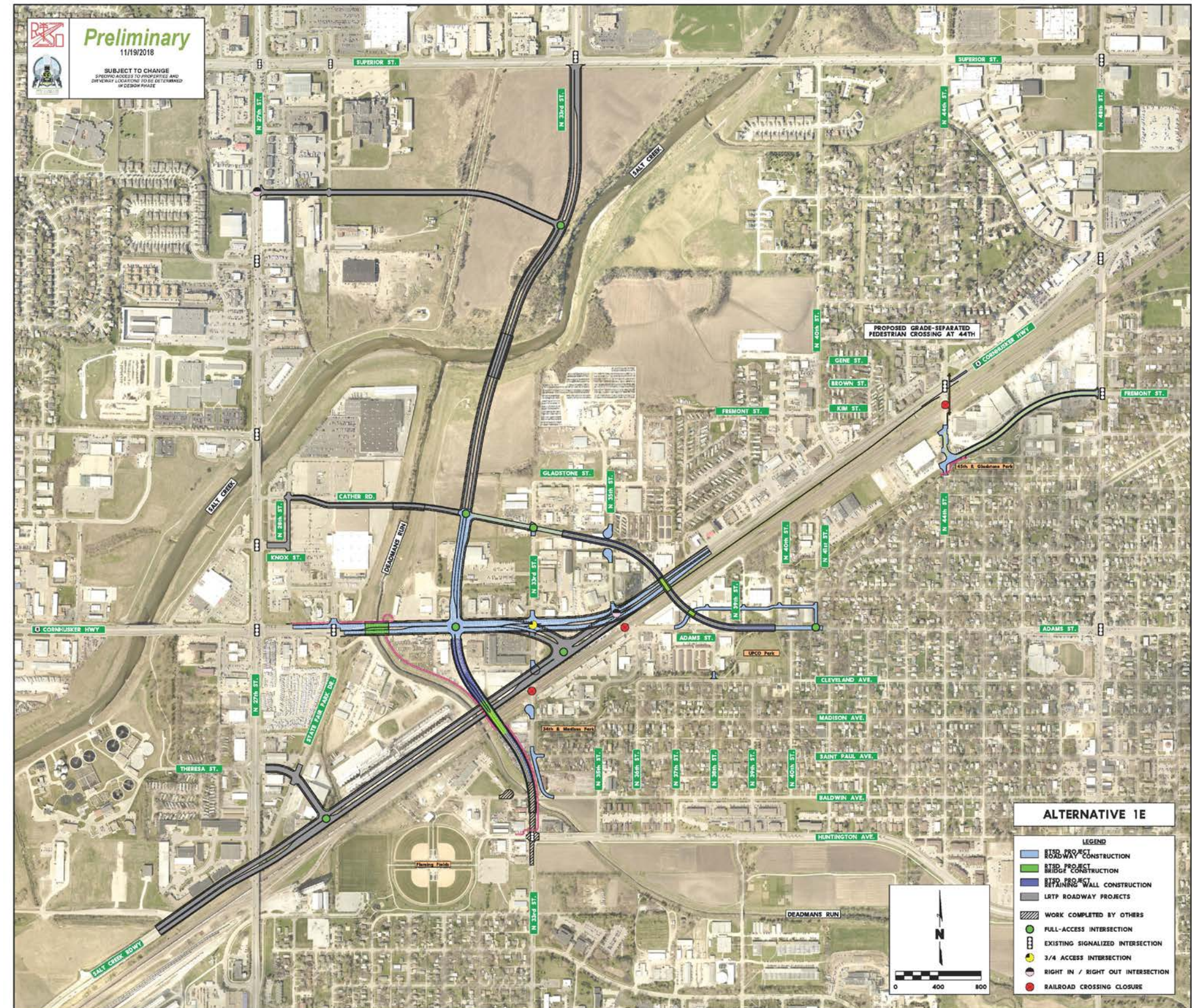
Alternative 1D is similar to Alternative 1B but includes a bridge over both the BNSF tracks and Cornhusker Highway to connect Adams Street with Cornhusker Highway near North 40th Street. Access to the existing businesses on and south of Adams Street would be maintained on the existing roadway network. A new industrial connector road would connect from North 48th Street and Fremont Street toward the west to North 44th Street.



4.3.3 Alternative 1E

Alternative 1E includes the same proposed improvements as Alternative 1D, but also introduces a new connection for Adams Street and Cornhusker Highway. An intersection of North 33rd Street and Adams Street north of Cornhusker Highway is part of the design of this Alternative. An Adams Street overpass would route traffic east and west without a direct connection to Cornhusker Highway. Access to the existing businesses on and south of Adams Street would be maintained on the existing roadway network. A new industrial connector road would connect from North 48th Street and Fremont Street toward the west to North 44th Street.

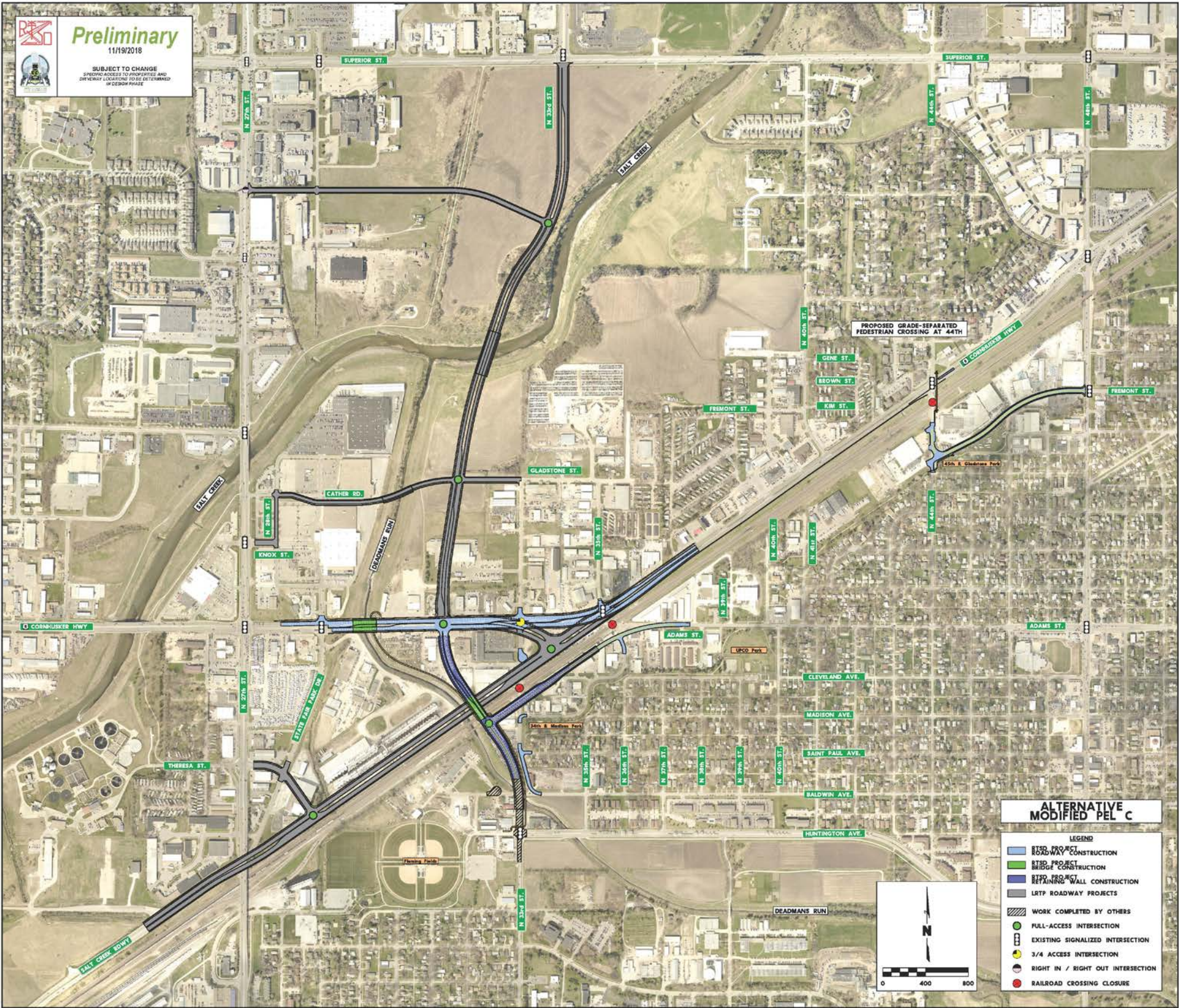
Figure 4. Alternative 1E
Preliminary – Subject to Change



4.3.4 Alternative Modified PEL C

This alternative keeps traffic flow on Cornhusker Highway as it is today, but a new access route is created for Adams Street, south of the BNSF tracks. With the addition of an eastbound leg on the North 33rd Street overpass, drivers can access Adams Street through a full access intersection on the bridge. A new industrial connector road would connect from North 48th Street and Fremont Street toward the west to North 44th Street. A version of this alternative was part of the PEL Report.

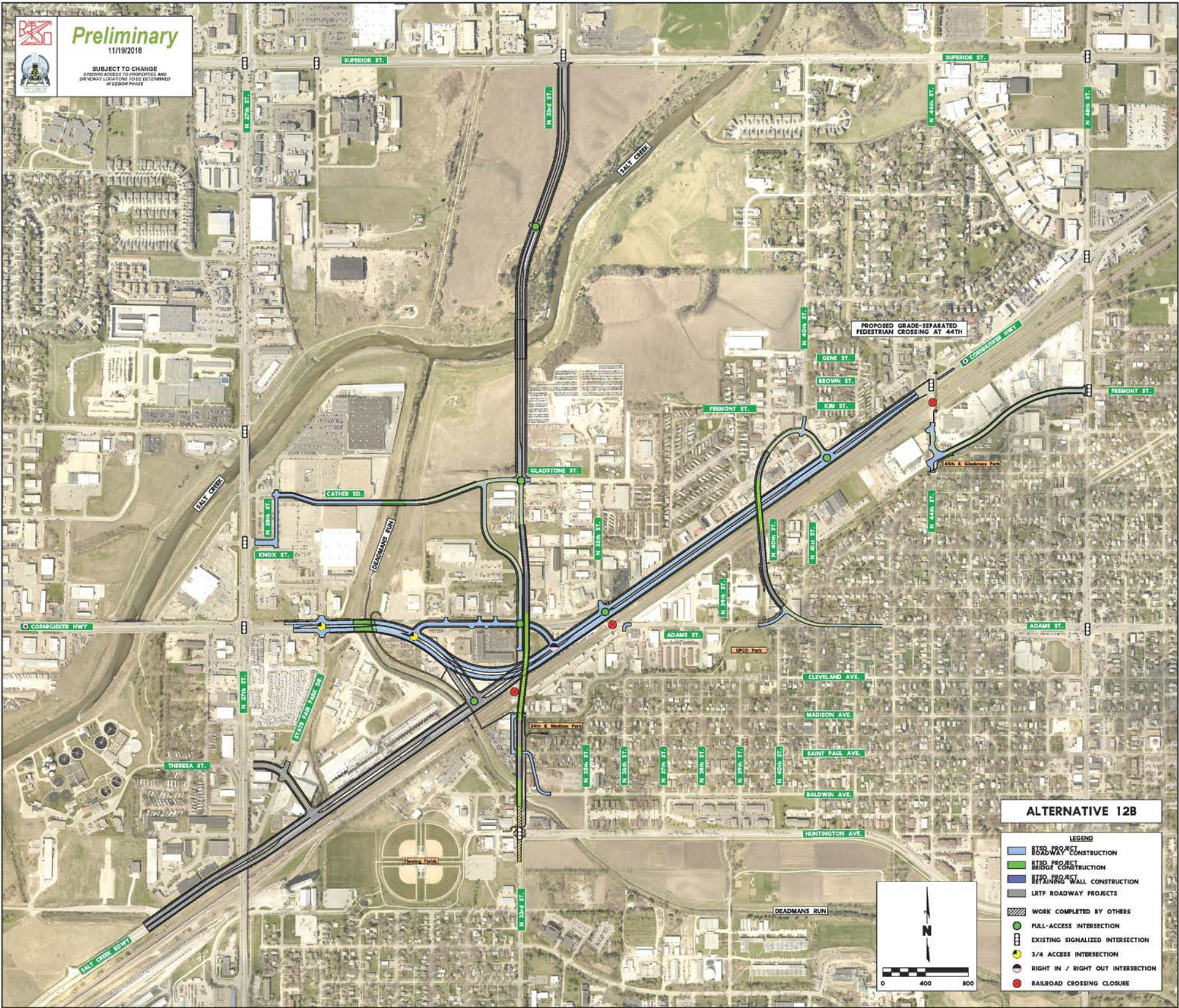
Figure 5. Alternative Modified PEL C
Preliminary – Subject to Change



4.3.5 Alternative 12B

This alternative introduces a new alignment for Cornhusker Highway, a new bridge design on North 33rd Street and reintroduces the bridge taking Adams Street over both the BNSF tracks and Cornhusker Highway to a connection with Cornhusker Highway near 40th Street from Alternative 1D. The new alignment of Cornhusker Highway would shift traffic south through a curve until the highway runs parallel with the railroad tracks. The new North 33rd Street bridge design takes traffic over the railroad tracks and the new Cornhusker Highway alignment to a full access intersection at North 33rd Street and Gladstone Street. From this intersection, drivers have access to go south and reach Cornhusker Highway. Access to the existing businesses on and south of Adams Street would be maintained on the existing roadway network. A new industrial connector road would connect from North 48th Street and Fremont Street toward the west to North 44th Street.

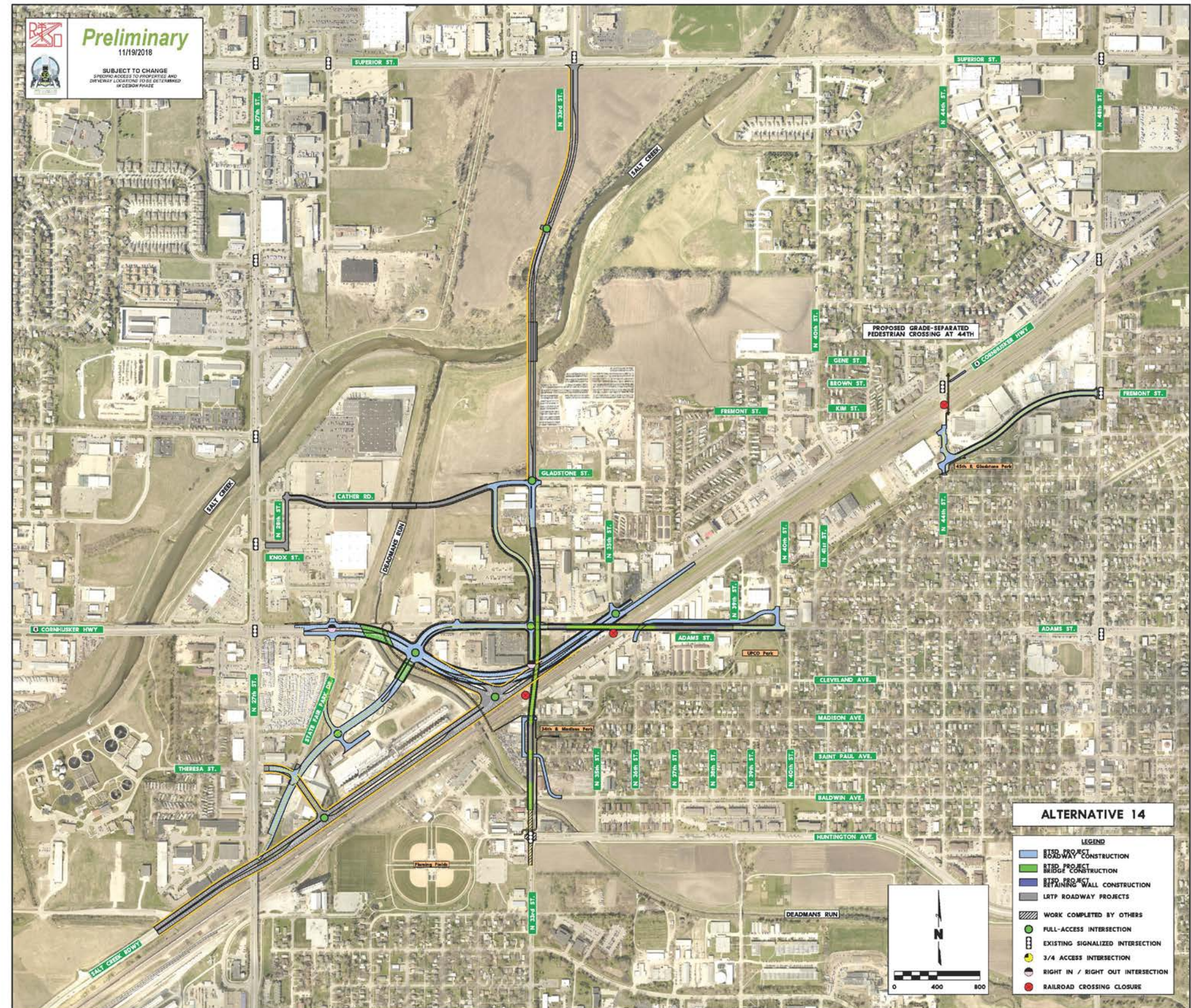
Figure 6. Alternative 12B
Preliminary – Subject to Change



4.3.6 Alternative 14

This alternative uses the new alignment of Cornhusker Highway and North 33rd Street bridge shown in Alternative 12B. This alternative also includes a new alignment of State Fair Park Drive, adding a new connection to Cornhusker Highway. The differentiating feature of this alternative is the redesign of Adams Street to include an overpass across the railroad tracks and the new Cornhusker Highway alignment. The Adams Street Bridge would connect to the new addition of State Fair Park Drive, eventually diverting traffic to a new full access intersection at State Fair Park Drive and Cornhusker Highway. Similar to Alternative 12B, North 33rd Street would continue to Gladstone Street to create a new intersection and provide access to Cornhusker Highway via North 35th Street. This North 33rd Street intersection with Gladstone Street would also provide a western connection to Cather Road.

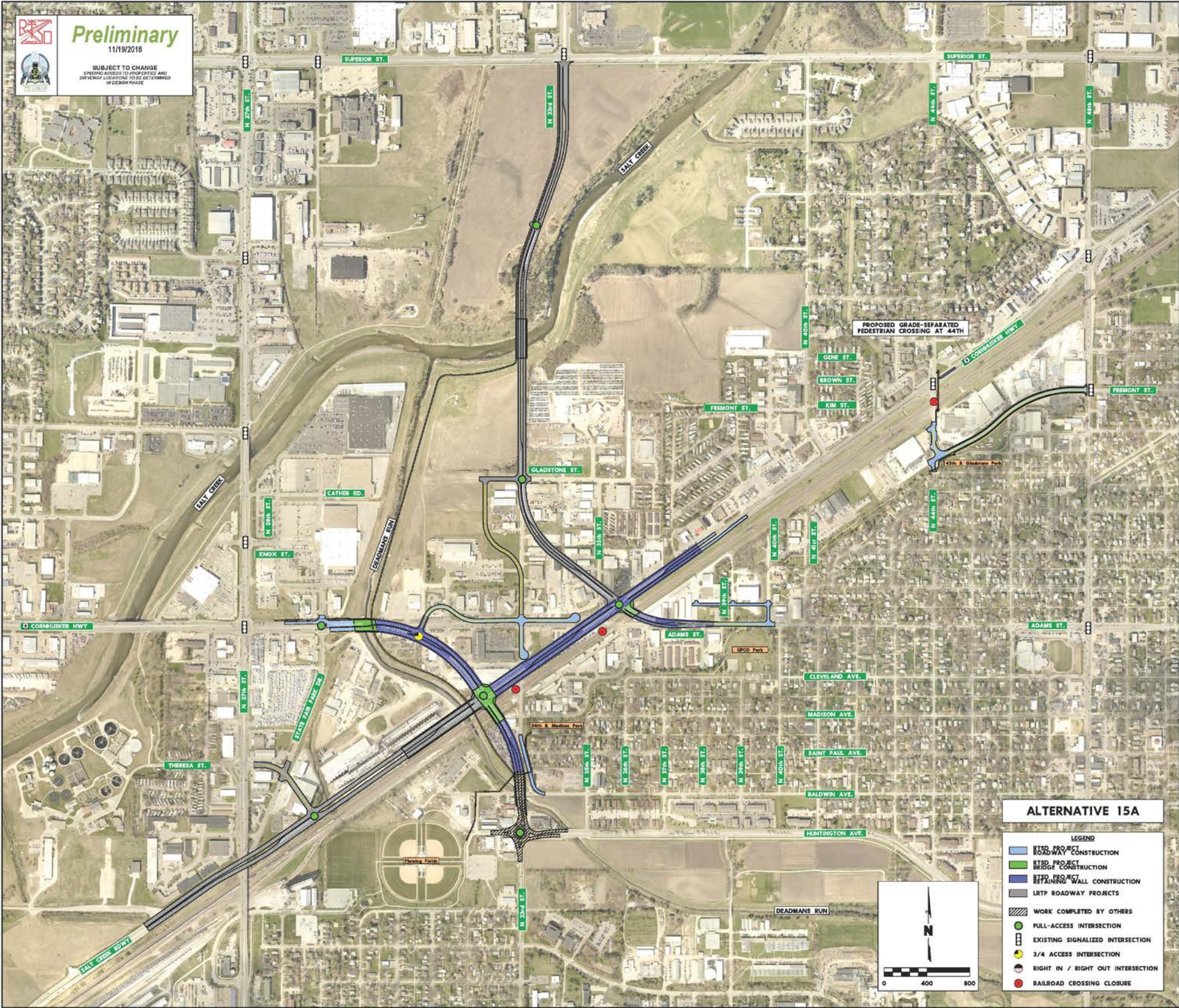
Figure 7. Alternative 14



4.3.7 Alternative 15A

Alternative 15A also includes a realignment of Cornhusker Highway to merge into North 33rd Street, but an access route to businesses along the original Cornhusker Highway alignment would be included. The North 33rd Street alignment would be shifted to the west, connecting with Cornhusker Highway at an elevated intersection. From this intersection, the realignment of Cornhusker Highway would parallel the railway heading northeast. A new overpass would be constructed over the railway at Adams Street. This would connect Adams Street to Cornhusker Highway with a full access intersection. This design also introduces a roundabout at North 33rd Street and Huntington Avenue, and includes the new industrial connector road from North 48th Street and Fremont Street toward the west to North 44th Street.

Figure 8. Alternative 15A
Preliminary – Subject to Change



5.0 ENVIRONMENTAL RESOURCES

The following section describes the environmental resources evaluated as a part of the red flag review.

5.1 Land Use

As described in the PEL, the area is heavily urbanized with land uses having developed along three major features:

1. The floodplains of Salt Creek and Deadman's Run, which, because of flooding, are primarily limited to industrial and agricultural land uses.
2. The BNSF railway corridor, established in 1870, and Cornhusker Highway, constructed along the north side of the railway, encouraged the development of industrial and commercial land uses. Only a few residences are located along the railway corridor, and the city discourages further residential development within 300 feet of railroad tracks.
3. The UNL-East Campus, surrounded by older single-family residential neighborhoods.

Other commercial corridors are established along three of the arterial streets that define the edge of the environmental study area: North 27th Street, North 48th Street, and Superior Street. In particular, North 27th Street has developed into a major commercial corridor with a direct connection to I-80.

The environmental study area contains some of the oldest sections of the city, including the UNL-East Campus, which was acquired to establish the College of Agriculture in 1874, seven years after the city of Lincoln was platted in 1867. The campus contains agricultural research facilities including test fields, orchards, and greenhouses; and other unique open spaces including UNL's arboretum, tractor test facility, and rodeo training area.

5.2 Environmental Justice

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, focuses the attention of federal agencies on human health and environmental conditions in minority communities and low-income communities. Further, FHWA Order 6640.23A establishes policies and procedures for FHWA to use in compliance with EO 12898 (FHWA 2012). Environmental justice analyses are performed to identify the potential for disproportionately high and adverse impacts on minority and low-income populations from proposed actions and to identify alternatives that might mitigate these impacts. As described in the PEL, according to 2010 census data, the City of Lincoln has a population of 258,379, a 13 percent increase from 2000. Caucasians make up approximately 86 percent of the population, while Hispanic/Latinos account for approximately 6.3 percent, African Americans and Asians account for approximately 3.8 percent each. Native Americans and Pacific Islanders

account for less than 1 percent, and the remainder of the population identifies with two or more races. The five-year median (2009–2013) household income is \$49,113, and the five-year median per capita income is \$26,188. The population is projected to grow approximately 47 percent (420,268 individuals) by 2060 (USCB 2016).

Of the total population in the City of Lincoln, approximately 55 percent is considered eligible to work. Of that population, 38.2 percent is in management/professional occupations, 24.9 percent in sales/insurance, 17.6 percent in service occupations, 11.7 percent in production and transportation, and 7.6 percent in construction/natural resources occupations (USCB 2016). Unemployment is approximately 3.0 percent (Bureau of Labor Statistics 2016).

5.3 Cultural Resources / Section 106

Section 106 of the National Historic Preservation Act, as amended, and implementing regulations found at 36 CFR Part 800, require that federal agencies consider any effect a proposed action may have on historic properties.

No properties listed on the National Register of Historic Places (NRHP) are located within the environmental study area. There are several sites that are potentially eligible for listing but are not currently listed located within the environmental study area.

5.4 Section 4(f) / Section 6(f) / Parks

Section 4(f) of the U.S. Department of Transportation Act of 1966, as amended, states that the FHWA "...may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of National, State, or local significance, or land of an historic site of National, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if...there is no prudent and feasible alternative to using that land; and...the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use" (49 USC 303[c]).

The following public parks and trails are located within the environmental study area:

- ECCO Park
- Helen Boosalis Park
- Nevin Park
- Pentzer Park
- 34th & Madison Park
- 45th & Gladstone Park
- University Park

- UPCO Park
- Fleming Field
- Salt Valley Greenway
- 33rd Street Trail
- John Dietrich Bikeway
- Holdrege Street Trail
- North 27th Street Trail
- Salt Creek Levee Trail
- Superior Street Trail

Also evaluated are recreational properties acquired or improved with funding assistance under the Land and Water Conservation Fund Act (16 USC 4601-4 et seq.). If such properties are identified, additional steps are required to comply with the requirements of 16 USC 4601-8(f)(3), or Section 6(f), and associated implementing regulations at 36 CFR 59, “Land and Water Conservation Fund Program of Assistance to States; Post-Completion Compliance Responsibilities” (NPS 2015). Section 6(f)(3) of the act requires that all fund-assisted property be used and retained for public outdoor recreation uses in perpetuity. Project sponsors are required to replace a fund-assisted property that is converted to other than public park uses, either during or after project completion.

Five 6(f) properties are located within the environmental study area:

- 34th & Madison Park
- 45th & Gladstone Park
- Fleming Field
- University Place Park
- UPCO Park

5.5 Biological Resources

As described in the PEL, the environmental study area is located within a highly developed urban area with residential neighborhoods; commercial and industrial businesses; parks, streams, and riparian areas; agricultural fields; and the UNL-East Campus. Many trees are present, including some forested areas. There are also small areas of open grassland and bridges. Urban tree-nesting and urban ledge-nesting bird and bat species are likely to be present throughout the environmental study area, with grassland ground-nesting bird species possible in certain locations.

In Lancaster County, the following six state- or federally listed species are known to occur: northern long-eared bat (*Myotis septentrionalis*), rufa red knot (*Calidris canutus rufa*), Salt Creek

tiger beetle (*Cicindela nevadica lincolniana*), saltwort (*Salicornia rubra*), western prairie fringed orchid (*Platanthera praeclara*), and whooping crane (*Grus americana*). The northern long-eared bat, Salt Creek tiger beetle, and saltwort may have suitable habitat within the environmental study area based on a desktop review.

In addition to direct effects from the construction of transportation improvements, indirect effects are also a concern. In particular, the environmental study area is located within the Lower Platte River basin where measures are in place regulating the use of borrow sites and detention/retention basins. These sites have the potential to deplete flows in the Platte River and, thereby, adversely affect habitat for endangered and threatened species of the Lower Platte River.

5.6 Wetlands and Waters

As described in the PEL, a desktop evaluation of wetlands located in the environmental study area was completed using the National Wetlands Inventory (NWI) Wetlands Mapper. Mapped wetlands in the environmental study area include the following:

- NWI-mapped riverine wetlands (R2UBGx and R2USCx) occur along Salt Creek. These mapped areas likely include emergent wetlands along the channel fringe, and more extensive emergent wetlands on the floodplain benches and terraces. Because of maintenance activities on the levees and frequent high flows, the location, size, and quality of these wetlands is typically highly variable. Sandbars within Salt Creek are generally bare from scouring flows. The Lower Platte South Natural Resources District (LPSNRD) owns or has easements along most of Salt Creek through the environmental study area.
- NWI-mapped palustrine emergent wetlands (PEMA and PEMC) are present in the northwestern corner of the environmental study area, along with some wetlands on Miller Seed Company property categorized as palustrine unconsolidated shore (PUSA). Several are located within an agricultural field in the historic floodplain of Salt Creek, east of the Salt Creek Trail and west of the creek. Saline and wet signatures are visible from aerial imagery in the area; and some of the wetlands occur on saline soils. In 1998, these areas were observed to contain primarily weedy upland species located within a soybean field (AVST 1999). More investigation would be needed to determine if these areas are wetlands, and if they are saline, how they should be categorized.
- Approximately 14 acres of PEMA/C wetlands are mapped in an undeveloped lot east of the industrial area along North 27th Street and west of the Salt Creek Trail (General Dynamics Armament property). This wetland was mapped as Category I saline wetland in 1990. Since the original categorization in 1990, characteristics of this wetland appear to have changed. In 1998, dominant vegetation was observed to be freshwater in character consisting of a monoculture of cattails (*Typha spp.*) surrounded by patchy sedge meadow and upland areas (AVST 1999). In August 2015, the area was observed to still contain a large cattail-dominated wetland, with additional areas dominated by prairie cordgrass (*Spartina pectinate*) and reed canary grass (*Phalaris arundinacea*). These species were

also present along both sides of the nearby Salt Creek Trail. From these observations, the site may more likely be considered a Category II degraded saline wetland or Category III freshwater wetland on saline soils.

- Urban development in the surrounding area and drainage ditches directed into the wetland appear to have increased surface flow to this wetland, likely diluting its salinity. To remain a Category I, there must be potential to restore a salt source to the wetland.
- Other areas of NWI-mapped PEMA and PEMC wetlands are mapped in the agricultural fields east of Salt Creek and west of North 44th Street; some occur in old channel scars on Schmieding Homebuilders LLC and Schneider Family Living Trust property.
- Palustrine forested (PFOA) and PEMC wetlands are mapped along an old channel scar contiguous with the wetlands in Helen Boosalis Park in the northeastern corner of the environmental study area west of North 44th Street on Li-Cor Inc. property. The wetland is mapped as a Category III saline wetland; no feasible restoration measures exist to reestablish the historic salt source and saline plant associations.

As described in the PEL, based on a desktop review using US Geological Survey (USGS) topographic maps, National Hydrology Dataset (NHD) maps, and Google Earth, the environmental study area contains the following Waters of the U.S.:

- Salt Creek, a perennial channel approximately 100 to 130 feet wide, generally flows from southwest to northeast through the northwestern quadrant of the environmental study area. It contains occasional sandbars within the active channel and vegetated terraces on the creek side of the levees.
- Deadman's Run, a perennial channel, generally flows from southeast to northwest to its confluence with Salt Creek. Within the environmental study area, most of Deadman's Run is concrete-lined; however, the final 0.4-mile stretch above Salt Creek has a mix of rip-rap and natural bed.
- An unnamed intermittent tributary to Deadman's Run is in the southeastern portion of the environmental study area.
- Another unnamed intermittent tributary to Deadman's Run is in the west-central portion of the environmental study area, near State Fair Park Drive.
- Two unnamed intermittent tributaries to Salt Creek are present in the northern half of the environmental study area.

5.7 Floodplain and Floodway

Detailed modeling performed by the USACE, as part of the 205 Project for Deadman's Run indicates many of the existing Deadman's Run bridges are expected to be overtopped during the 100-year flood event (a flood that statistically has a 1-percent chance of occurring in any given year), with some bridges potentially being overtopped during a 10-year (10 percent annual

chance) flood event; these include the Omaha, Lincoln & Beatrice Railway Company (OL&B) bridge for the siding track at Deadman's Run and the bridges at North 33rd Street, Huntington Avenue, North 38th Street, and North 48th Street. The USACE 205 Project included recommendations for channel widening and channel improvements, as well as replacements for the bridges listed above. The proposed bridges from the USACE 205 Project will result in reduced flood elevations along Deadman's Run. Upstream of 33rd Street the Deadman's Run regulatory floodplain will be confined to the channel. The proposed crossings from this RTSD project will be designed to span the improved channel proposed by the USACE and prevent increases to upstream flood elevations. The proposed RTSD project will be in conformance with "No-Rise" criteria, and will not affect the FEMA regulatory floodplain or flood elevations.

The overlap of the footprint of the proposed roadways and trails with the Salt Creek floodplain is small relative to the total area of the Salt Creek floodplain. The RTSD project does not include any proposed crossings of Salt Creek, either. The proposed RTSD project elements are all located in ineffective flow areas (areas that pond; but, don't have active flowing floodwater) of the Salt Creek floodplain, as well. Thus, all transportation alternatives evaluated will probably not have impacts on Salt Creek flood elevations and only small impacts on the Salt Creek floodplain storage.

The Salt Creek floodplain through Lincoln has been divided into subareas, called the Salt Creek Flood Storage Areas (SCFSA, see Figure 9). Each subarea has a designated allowable fill limit. South of Salt Creek, the project area is partially overlapped by two SCFSAs, SCFSA 18 and SCFSA 20, which have allowable fill limits of 40 percent and 35 percent, respectively. SCFSA 18 is approximately 290 acres in area and is bounded on the west by North 27th Street, extending east to approximately North 33rd Street and south, past the railroad, to Fleming Fields. SCFSA 20 is approximately 210 acres in area and extends from North 33rd Street on the west, east past North 40th Street, and north to Superior Street. North of Salt Creek, SCFSA 19 is approximately 120 acres in area and covers the area from North 27th Street on the west to Superior Street on the north. The RTSD elements are all located within SCFSA 18 and 20. Any fill beyond the allowable fill limits in SCFSA 18 and 20 will need to be mitigated in the same SCFSA. The flood storage volumes for the portions of the SCFSA that overlap the SAP are provided in Table 2.

The SCFSA guidelines define the maximum allowable fill. This project would seek to go beyond that and adhere to a No Adverse Impact philosophy that includes the No-Rise criteria described above and the No Net Fill criteria for floodplain storage. Proposed floodplain fill will be offset with proposed flood storage mitigation areas.

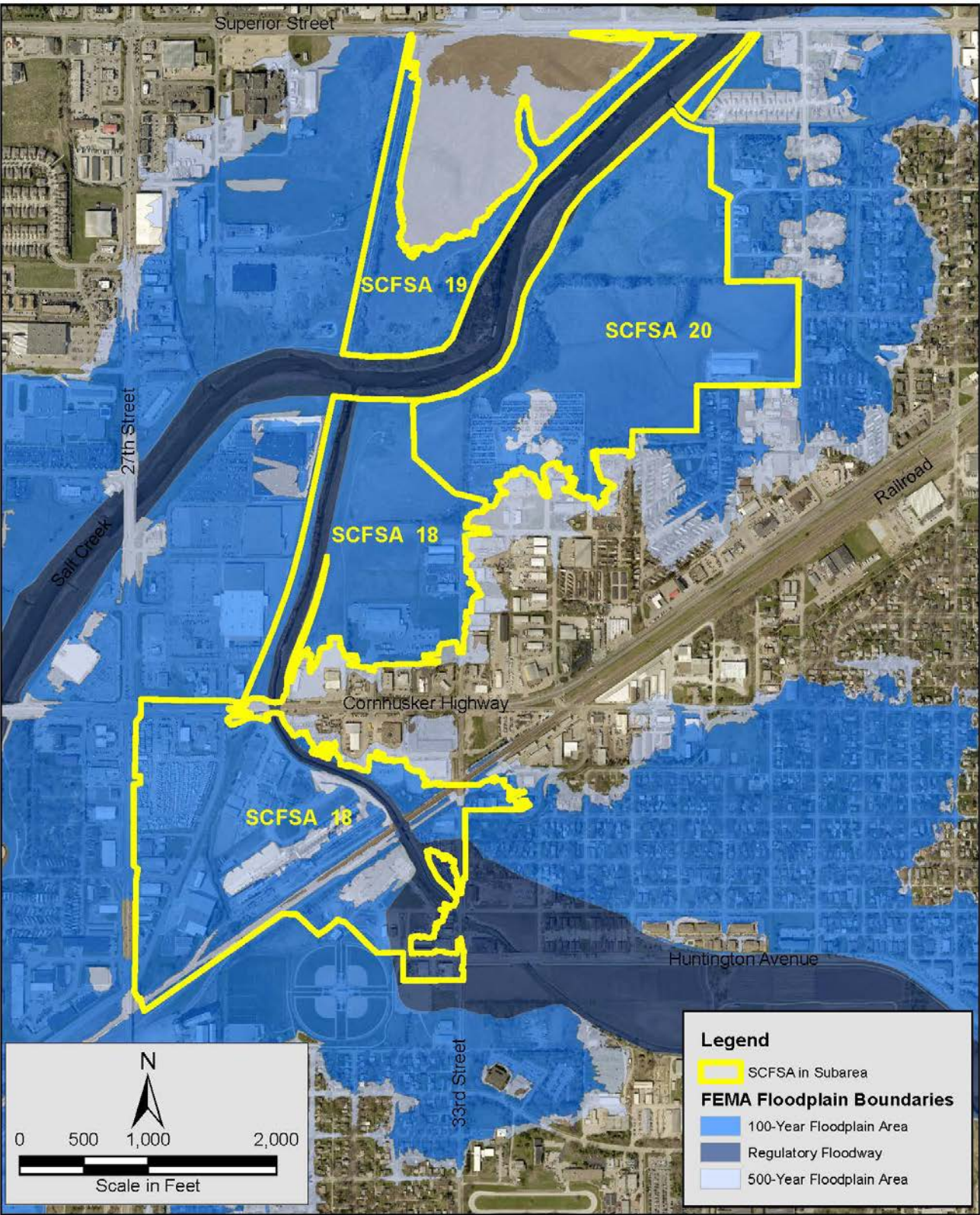


Figure 9. Salt Creek Flood Storage Areas

Table 2. Flood Storage Calculation for North 33rd and Cornhusker Subarea Plan Project Area.

Flood Storage Calculations for North 33 rd and Cornhusker Subarea Plan Project Area	
SCFSA 18	
Existing floodplain overlap area = 155 acres	Existing floodplain storage = 602 acre-feet
Allowable fill = 40 percent	Allowable fill = 241 acre-feet
Note: 98 acres (251 acre-feet of storage) south of Cornhusker Highway, 57 acres (350 acre-feet) north of Cornhusker Highway	
SCFSA 19	
Existing floodplain overlap area = 33 acres	Existing floodplain storage = 61 acre-feet
Allowable fill = 35 percent	Allowable fill = 21 acre-feet
SCFSA 20	
Existing floodplain overlap area = 105 acres	Existing floodplain storage = 246 acre-feet
Allowable fill = 35 percent	Allowable fill = 86 acre-feet

The RTSD project elements could impact the SCFRP levees or the ongoing Deadman's Run Section 205 Project. Both projects are federal projects. The USACE designed and constructed the SCFRP levees. Design of the 205 project is in progress and construction will follow. The RTSD project elements must be designed to avoid adverse impacts to these federal projects.

The SCFRP levees provide protection from flooding in the overbank areas of Salt Creek. The SCFRP was constructed in the 1960's. The levees have been continually maintained and upgraded since their construction. The most recent effort from the LPSNRD and the City of Lincoln is the Stormwater Integrated Framework (SWIF) project. The planning phase of the SWIF resulted in numerous recommendations to maintain and enhance the levee embankments of the SCFRP. Improvements to the east bank levee, north of Cornhusker Highway, are located within the extents of the proposed RTSD improvements for many of the alternatives evaluated. Because of the flood protection provided and the investment of resources made to maintain and enhance the levees, they are a critical resource within the project area and must be protected. The levee segments within the subarea plan limits are shown in Figure 10.

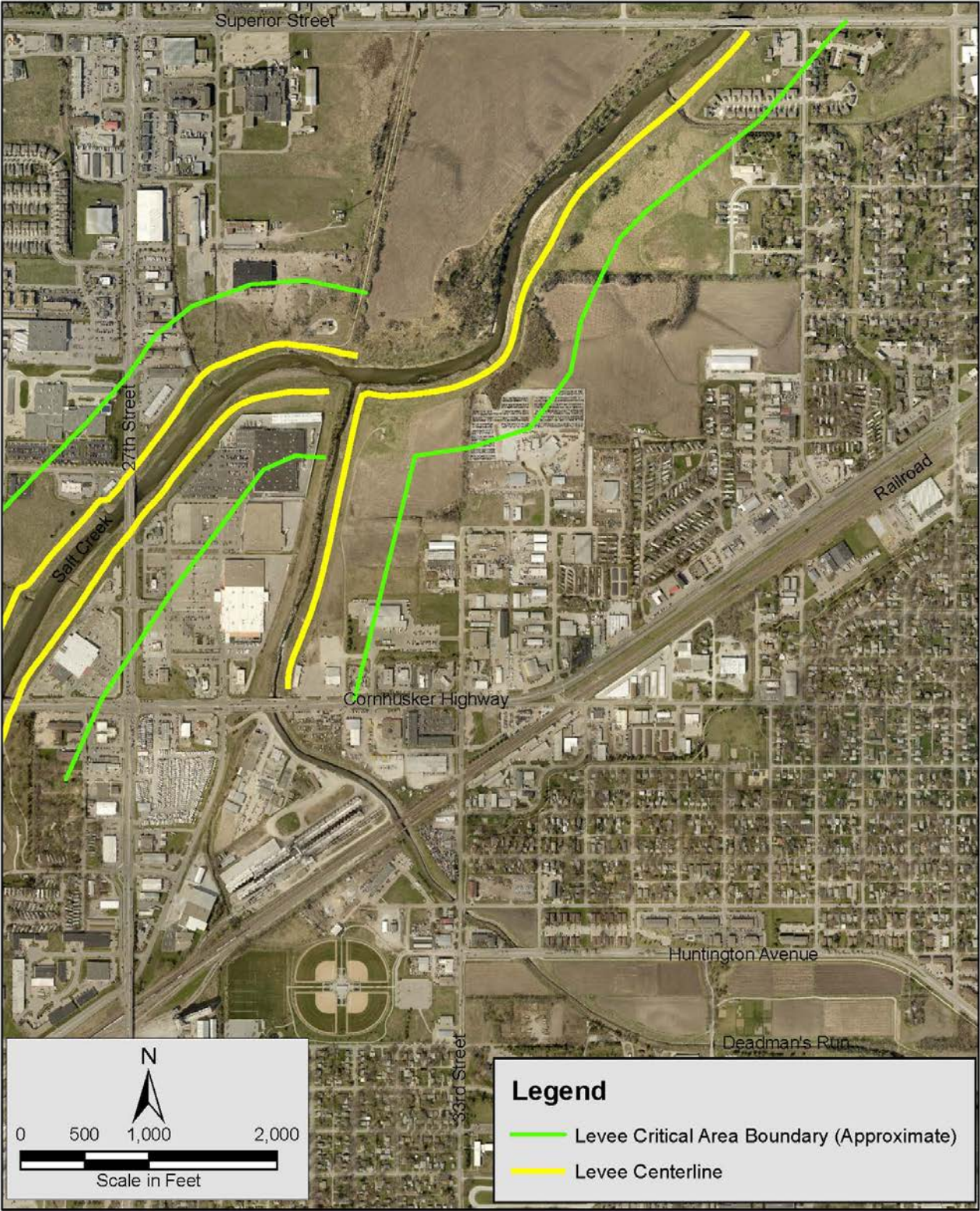


Figure 10. Salt Creek Flood Reduction Project Levee System

Based on recommendations from the 205 Study for Deadman's Run, the USACE is leading the design and construction effort for the channel improvements, that stretch from Cornhusker Highway, upstream, through the limits of the subarea plan. The LPSNRD and the City of Lincoln, project partners with the Corps, will complete the replacement of the North 33rd Street and Huntington Avenue Bridges over Deadman's Run. The goal of the project is to contain the Deadman's Run floodplain within the channel, upstream of the Salt Creek backwater extents (upstream of North 33rd Street). The proposed Deadman's Run channel and bridges will also be critical resources within the subarea limits. The proposed measures for the Deadman's Run Section 205 Project are shown in Figure 11.

Potential Impacts to the SCFRP and Deadman's Run 205 Project from the proposed roads and trails include proposed crossings of the levees or the Deadman's Run flood control channel, and proposed road alignments that are immediately adjacent to the levees or the Deadman's Run flood control channel. Potential crossings of Deadman's Run will require bridges. The bridges must be designed to allow flood flows to pass freely, preventing upstream increases in flood elevations. The bridges must also be designed to avoid adverse impacts from levee penetration, including adverse impacts to levee stability or seepage. The same is true for roadway embankments or trail embankments that are adjacent to the levees or the Deadman's Run flood control channel. Table 3 identifies the alternatives that have potential levee or flood control channel impacts. The matrix is based on full build-out conditions for each alternative. The figures in Appendix B and Appendix C show the alternatives and depict which construction measures are associated with the RTSD project and which are part of the subsequent SAP implementation (full build-out conditions).

The crossings associated with alternatives 11, 13, and 13A all include proposed crossings of Deadman's Run that are at an extreme skew to the channel. With a skew angle so large, the length of the proposed bridge would be very high, as would the cost. The potential for impacts to the levee along the right (east) bank of Deadman's Run, north of Cornhusker Highway, would be substantially increased as the proposed road/bridge would overlap a much longer segment of the levee. Crossings that are perpendicular to the levee or flood control channel, which includes the crossings in all the other alternatives, have much smaller potential impacts to those features.



Figure 11. Proposed Measures for Deadman's Run Section 205 Project

Table 3. Potential Impacts to Flood Storage, Levees, and Deadman’s Run 205 Project.

Alternative	Adjacent to DMR Levee	Adjacent to DMR 205 Reach	Potential for Adequate Flood Storage	New Crossings Salt Creek	Replacement Crossings Salt Creek	New Crossings DMR	Replacement Crossings DMR
1	Y	Y	Y	1		2	1
1A	Y	Y	Y	1		1	1
1B	Y	Y	Y	2		1	2
1D	Y	Y	Y	2		1	2
1E	Y	Y	Y	2		2	2
2	Y	N	Y	1		2	1
3	Y	N	Y	1		2	2
4	Y	Y	Y	1		2	1
5	N	N	Y	1		1	
6	Y	N	Y	1		1	1
7	Y	N	Y	1		1	1
8	Y	N	Y	1		2	1
9	Y	N	Y	1	1	1	1
9A	Y	N	Y	1		2	1
9B	Y	N	Y	1		2	1
10	Y	N	Y	1	1	2	1
11	Y	Y	Y	1		2	1
11A	Y	Y	Y	1		1	2
12	Y	N	Y	1		2	2
12A	N	Y	Y	1		2	2
12B	N	Y	Y	1		2	2
13	Y	N	Y	1		4	2
13A	Y	Y	Y	1		4	1
14	N	Y	Y	1		3	2
14A	N	Y	Y	1		4	2
15	N	N	Y	1		1	2
15A	Y	Y	Y	1		2	2
Modified PEL C	Y	Y	Y	2		2	2

As the planning and design efforts progress, we will continue to coordinate with the USACE, the LPSNRD and the City of Lincoln to identify potential levee or flood control project conflicts with the flood storage mitigation areas or with proposed crossings and determine appropriate ways to

address those potential conflicts, within the context of the design process. More detailed investigation will be required in future phases to take the proposed crossings and flood storage mitigation areas to concept, preliminary, and final design levels.

Project elements that include construction within the critical area of a federal project (SCFRP or USACE Section 205 Deadman's Run Project), will require submittal of a 408 package to the LPNSRD and the USACE. The 408 submittal process includes detailed technical evaluation of potential impacts to the federal project by the project owner (LPSNRD) and the USACE. The proposed project is reviewed for potential impacts to the geotechnical stability, structural stability, and functionality of the federal project. If the submitter adequately demonstrates the proposed project will not adversely impact the federal project, the proposed project is approved by the owner and the USACE.

5.8 Hazardous Materials and Wastes

The environmental study area consists predominately of a commercial/industrial mix along the railway and Cornhusker Highway, with the remaining environmental study area consisting primarily of residential neighborhoods and the UNL-East Campus. Consequently, the likelihood of encountering properties that might pose a hazardous materials risk is primarily along the commercial/industrial corridors. The residential areas would be considered low risk to the proposed improvements.

The PEL identified 143 sites with a potential risk to future projects within the environmental study area. A total of 91 sites were identified as having potential risks to impact transportation improvements.

Most of the potential hazardous material risk sites are linked to operating underground storage tanks and/or the use and/or storage of petroleum products and hazardous substances. There are 40 leaking underground storage tank (LUST) sites within the environmental study area. Thirteen of these LUST sites are listed as active, while the remaining 27 sites have been closed and/or are listed as inactive. However, residual contamination may still be present on sites considered closed to further regulatory action based on the relevant risk-based criteria applied to the site.

5.9 Summary or Red Flag Review

The environmental red flag review did not indicate significant adverse impacts to the resources described above. Table 4 provides a high-level summary of the Recommended Alternatives that were carried forward from the Tier 0 and Tier 1 screening process. As a result, all seven Recommended Alternatives should be carried forward for detailed Tier 2 screening in the NEPA document to further identify and compare potential impacts, public support, and project costs to identify a Preferred Alternative for the project.

Table 4. Environmental Resource Red Flag Review.

	Alternative 1b	Alternative 1d	Alternative 1e	Alternative 12b	Alternative 14	Alternative 15a	Alternative Modified PEL C
Land Use	Benefits: Compatible with land use plans in comp plan. Impacts: Beneficial impact on neighborhood integrity and cohesion. Integration into new future land use plan which may have a positive effect on future development, reuse, redevelopment, and infill.	Benefits: Compatible with land use plans in comp plan. Impacts: Beneficial impact on neighborhood integrity and cohesion. Integration into new future land use plan which may have a positive effect on future development, reuse, redevelopment, and infill.	Benefits: Compatible with land use plans in comp plan. Impacts: Beneficial impact on neighborhood integrity and cohesion. Integration into new future land use plan which may have a positive effect on future development, reuse, redevelopment, and infill.	Benefits: Compatible with land use plans in comp plan. Impacts: Beneficial impact on neighborhood integrity and cohesion. Integration into new future land use plan which may have a positive effect on future development, reuse, redevelopment, and infill.	Benefits: Compatible with land use plans in comp plan. Impacts: Beneficial impact on neighborhood integrity and cohesion. Integration into new future land use plan which may have a positive effect on future development, reuse, redevelopment, and infill.	Benefits: Compatible with land use plans in comp plan. Impacts: Beneficial impact on neighborhood integrity and cohesion. Integration into new future land use plan which may have a positive effect on future development, reuse, redevelopment, and infill.	Benefits: Compatible with land use plans in comp plan. Impacts: Beneficial impact on neighborhood integrity and cohesion. Integration into new future land use plan which may have a positive effect on future development, reuse, redevelopment, and infill.
Environmental Justice	Benefits: Alternative would benefit environmental justice populations by improving safety, reducing delays, improving mobility, and improving multimodal connectivity. Impacts: Relocation and acquisition of properties would occur throughout project area but would be mitigated through Uniform Relocation Assistance and Real Property Acquisition Act.	Benefits: Alternative would benefit environmental justice populations by improving safety, reducing delays, improving mobility, and improving multimodal connectivity. Impacts: Relocation and acquisition of properties would occur throughout project area but would be mitigated through Uniform Relocation Assistance and Real Property Acquisition Act.	Benefits: Alternative would benefit environmental justice populations by improving safety, reducing delays, improving mobility, and improving multimodal connectivity. Impacts: Relocation and acquisition of properties would occur throughout project area but would be mitigated through Uniform Relocation Assistance and Real Property Acquisition Act.	Benefits: Alternative would benefit environmental justice populations by improving safety, reducing delays, improving mobility, and improving multimodal connectivity. Impacts: Relocation and acquisition of properties would occur throughout project area but would be mitigated through Uniform Relocation Assistance and Real Property Acquisition Act.	Benefits: Alternative would benefit environmental justice populations by improving safety, reducing delays, improving mobility, and improving multimodal connectivity. Impacts: Relocation and acquisition of properties would occur throughout project area but would be mitigated through Uniform Relocation Assistance and Real Property Acquisition Act.	Benefits: Alternative would benefit environmental justice populations by improving safety, reducing delays, improving mobility, and improving multimodal connectivity. Impacts: Relocation and acquisition of properties would occur throughout project area but would be mitigated through Uniform Relocation Assistance and Real Property Acquisition Act.	Benefits: Alternative would benefit environmental justice populations by improving safety, reducing delays, improving mobility, and improving multimodal connectivity. Impacts: Relocation and acquisition of properties would occur throughout project area but would be mitigated through Uniform Relocation Assistance and Real Property Acquisition Act.
Cultural Resources/Section 106	Benefits: None Impacts: None, no known historic sites impacted. Several potentially eligible NRHP sites within the project footprint.	Benefits: None Impacts: None, no known historic sites impacted. Several potentially eligible NRHP sites within the project footprint.	Benefits: None Impacts: None, no known historic sites impacted. Several potentially eligible NRHP sites within the project footprint.	Benefits: None Impacts: None, no known historic sites impacted. Several potentially eligible NRHP sites within the project footprint.	Benefits: None Impacts: None, no known historic sites impacted. Several potentially eligible NRHP sites within the project footprint.	Benefits: None Impacts: None, no known historic sites impacted. Several potentially eligible NRHP sites within the project footprint.	Benefits: None Impacts: None, no known historic sites impacted. Several potentially eligible NRHP sites within the project footprint.
Section 4(f)/Section 6(f)	Benefits: Includes provisions for needs-based trails and closing gaps in sidewalks. Impacts: Potential impacts to park.	Benefits: Includes provisions for needs-based trails and closing gaps in sidewalks. Impacts: Abuts three properties which are both 4(f) and 6(f): 34th and Madison Park, 45th and Gladstone Park, and UPCO Park. Potential impacts to parks.	Benefits: Includes provisions for needs-based trails and closing gaps in sidewalks. Impacts: Abuts three properties which are both 4(f) and 6(f): 34th and Madison Park, 45th and Gladstone Park, and UPCO Park. Potential impacts to parks.	Benefits: Includes provisions for needs-based trails and closing gaps in sidewalks. Impacts: Abuts two properties which are both 4(f) and 6(f): 34th and Madison Park and 45th and Gladstone Park. Potential impacts to parks.	Benefits: Includes provisions for needs-based trails and closing gaps in sidewalks. Impacts: Abuts three properties which are both 4(f) and 6(f): 34th and Madison Park, 45th and Gladstone Park, and UPCO Park. Potential impacts to parks.	Benefits: Includes provisions for needs-based trails and closing gaps in sidewalks. Impacts: Abuts three properties which are both 4(f) and 6(f): 34th and Madison Park, 45th and Gladstone Park, and UPCO Park. Potential impacts to parks.	Benefits: Includes provisions for needs-based trails and closing gaps in sidewalks. Impacts: Abuts two properties which are both 4(f) and 6(f): 34th and Madison Park and 45th and Gladstone Park. Potential impacts to parks.

	Alternative 1b	Alternative 1d	Alternative 1e	Alternative 12b	Alternative 14	Alternative 15a	Alternative Modified PEL C
Biological Resources	Benefits: None Impacts: Potential impacts to northern long-eared bats and migratory birds mitigated via conservation conditions, likely no impact to other listed species.	Benefits: None Impacts: Potential impacts to northern long-eared bats and migratory birds mitigated via conservation conditions, likely no impact to other listed species.	Benefits: None Impacts: Potential impacts to northern long-eared bats and migratory birds mitigated via conservation conditions, likely no impact to other listed species.	Benefits: None Impacts: Potential impacts to northern long-eared bats and migratory birds mitigated via conservation conditions, likely no impact to other listed species.	Benefits: None Impacts: Potential impacts to northern long-eared bats and migratory birds mitigated via conservation conditions, likely no impact to other listed species.	Benefits: None Impacts: Potential impacts to northern long-eared bats and migratory birds mitigated via conservation conditions, likely no impact to other listed species.	Benefits: None Impacts: Potential impacts to northern long-eared bats and migratory birds mitigated via conservation conditions, likely no impact to other listed species.
Wetlands	Benefits: None Impacts: Potential wetland impacts possible at BNSF viaduct and along Deadmans Run.	Benefits: None Impacts: Potential wetland impacts possible at BNSF viaduct and along Deadmans Run.	Benefits: None Impacts: Potential wetland impacts possible at BNSF viaduct and along Deadmans Run.	Benefits: None Impacts: Potential wetland impacts possible at BNSF viaduct and along Deadmans Run.	Benefits: None Impacts: Potential wetland impacts possible at BNSF viaduct and along Deadmans Run.	Benefits: None Impacts: Potential wetland impacts possible at BNSF viaduct and along Deadmans Run.	Benefits: None Impacts: Potential wetland impacts possible at BNSF viaduct and along Deadmans Run.
Water Resources	Benefits: None Impacts: No channel reconstruction anticipated. Temporary channel impacts possible at two crossings over Deadmans Run.	Benefits: None Impacts: No channel reconstruction anticipated. Temporary channel impacts possible at two crossings over Deadmans Run.	Benefits: None Impacts: No channel reconstruction anticipated. Temporary channel impacts possible at two crossings over Deadmans Run.	Benefits: None Impacts: No channel reconstruction anticipated. Temporary channel impacts possible at three crossings over Deadmans Run.	Benefits: None Impacts: No channel reconstruction anticipated. Temporary channel impacts possible at four crossings over Deadmans Run.	Benefits: None Impacts: No channel reconstruction anticipated. Temporary channel impacts possible at two crossings over Deadmans Run.	Benefits: None Impacts: No channel reconstruction anticipated. Temporary channel impacts possible at two crossings over Deadmans Run.
Floodplains	Benefits: Layout complements USACE Section 205 Alternatives for Deadmans Run. Components can be designed to reduce area of floodplain. Impacts: Structural components can be designed to have "no rise" condition.	Benefits: Layout complements USACE Section 205 Alternatives for Deadmans Run. Components can be designed to reduce area of floodplain. Impacts: Structural components can be designed to have "no rise" condition.	Benefits: Layout complements USACE Section 205 Alternatives for Deadmans Run. Components can be designed to reduce area of floodplain. Impacts: Structural components can be designed to have "no rise" condition.	Benefits: Layout complements USACE Section 205 Alternatives for Deadmans Run. Components can be designed to reduce area of floodplain. Impacts: Structural components can be designed to have "no rise" condition.	Benefits: Layout complements USACE Section 205 Alternatives for Deadmans Run. Components can be designed to reduce area of floodplain. Impacts: Structural components can be designed to have "no rise" condition.	Benefits: Layout complements USACE Section 205 Alternatives for Deadmans Run. Components can be designed to reduce area of floodplain. Impacts: Structural components can be designed to have "no rise" condition.	Benefits: Layout complements USACE Section 205 Alternatives for Deadmans Run. Components can be designed to reduce area of floodplain. Impacts: Structural components can be designed to have "no rise" condition.
Hazardous Materials and Wastes	Benefits: Could result in site cleanup. Impacts: Identified sites in the project area may present a potential to impact project. Impacts could likely be mitigated.	Benefits: Could result in site cleanup. Impacts: Identified sites in the project area may present a potential to impact project. Impacts could likely be mitigated.	Benefits: Could result in site cleanup. Impacts: Identified sites in the project area may present a potential to impact project. Impacts could likely be mitigated.	Benefits: Could result in site cleanup. Impacts: Identified sites in the project area may present a potential to impact project. Impacts could likely be mitigated.	Benefits: Could result in site cleanup. Impacts: Identified sites in the project area may present a potential to impact project. Impacts could likely be mitigated.	Benefits: Could result in site cleanup. Impacts: Identified sites in the project area may present a potential to impact project. Impacts could likely be mitigated.	Benefits: Could result in site cleanup. Impacts: Identified sites in the project area may present a potential to impact project. Impacts could likely be mitigated.

6.0 CONCEPT LEVEL ENGINEERING ANALYSIS

Additional engineering analysis was completed for alternatives that passed Tier 0 and Tier 1 screening. This more in-depth evaluation looked at factors such as estimated traffic volumes and high-level intersection capacity reviews, roadway profile development, concept level construction cost estimates and right-of-way impacts. The purpose of this additional engineering review was to conduct fatal flaw analysis on alternatives that may not have been flagged during alternative screening and provide a more accurate range of costs for the alternatives for use in project programming and budgeting.

6.1 Traffic Review

The traffic analysis scope for this project was limited in nature. The existing conditions analysis, crash analysis, and needs assessment from the PEL were not updated as part of this project. However, the consultant team did complete additional travel demand modeling for select new alternatives and generated intersection design hourly volumes at major intersections in order to identify capacity constraints and make concept level decisions on an alternative's viability.

One of the first tasks the consultant team looked at was performing screenline analysis on the existing Lincoln MPO Travel Demand Model. While this was completed with the PEL, the consultant team wanted to expand on the original work to better define and rank the priority movements between numerous origin and destination points throughout the subarea. The output from this analysis is used for guidance only as it is based on travel demand model assignments and not actual driver behavior on the existing roadway network. The entry and exit nodes into our traffic analysis area include the following:

- Cornhusker Highway at North 26th Street ("West Cornhusker")
- Salt Creek Roadway west of North 27th Street
- North 27th Street at the BNSF Tracks ("South 27th")
- North 33rd Street south of Huntington Avenue
- Huntington Avenue east of North 33rd Street
- Adams Street at North 40th Street
- Cornhusker Highway at North 40th Street ("East Cornhusker")
- North 27th Street at Fairfield Street ("North 27th")

After the initial screenline cuts of the network and when looking from node to node, the highest priority movements were between (1) Adams and West Cornhusker, (2) Salt Creek Roadway and (3) through traffic on Cornhusker between the West Cornhusker and East Cornhusker as illustrated in Figure 12.

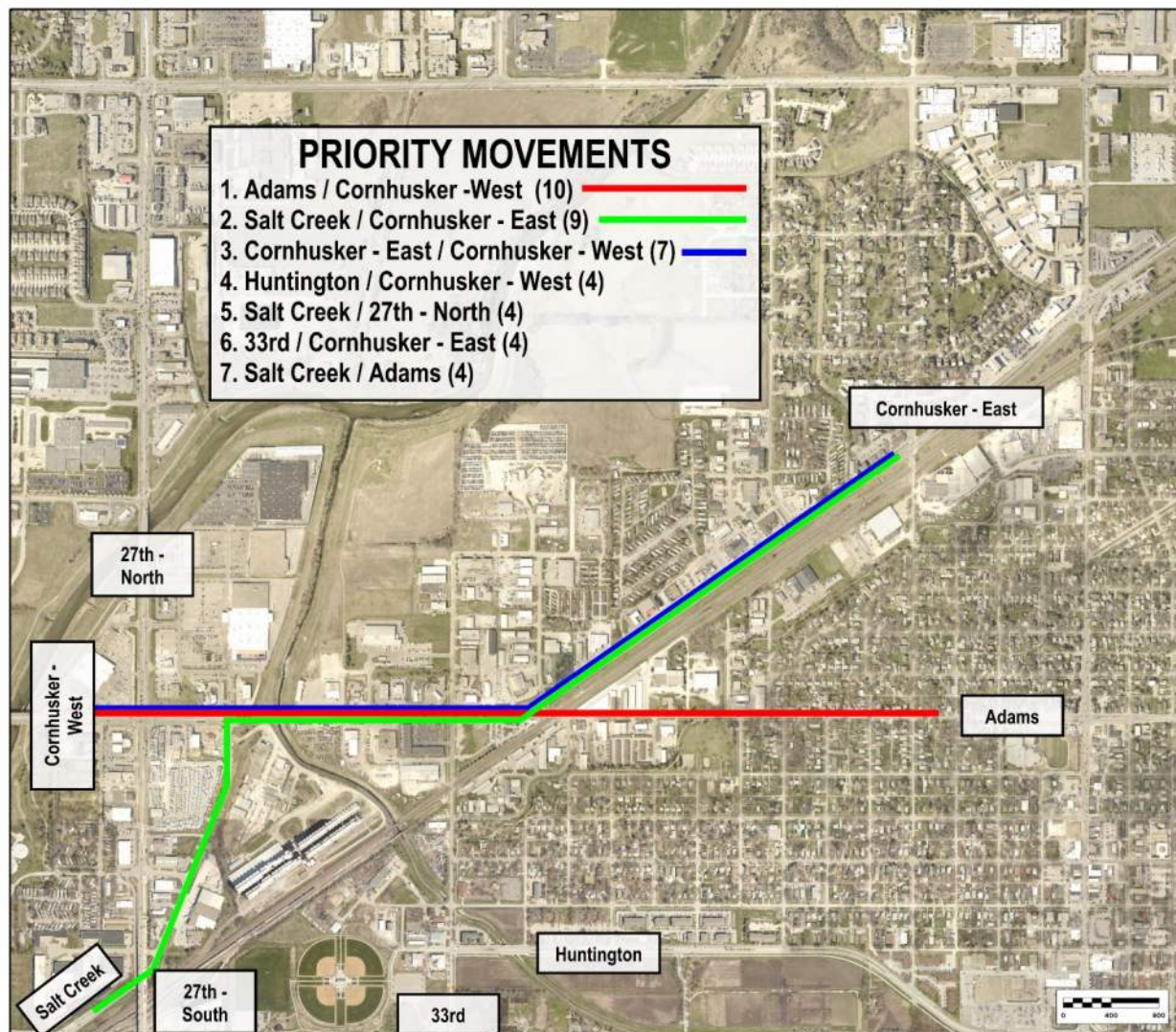


Figure 12. Priority Traffic Movements.

At the surface, this put the focus on providing access from east to west across the study area. However, upon further review of this early analysis we noticed three key points:

1. The combination of traffic volumes on the North 33rd Street and Huntington Avenue nodes travelling across the BNSF tracks, make it one of our Priority Movements
2. A more macro view of traffic origins and destinations show that there is a strong movement between the North 48th Street and O Street area toward North 27th Street and Superior Street. This traffic then uses Adams Street to cross the BNSF tracks.
3. More benefit could possibly be attained by making Salt Creek Roadway a direct connection to East Cornhusker Highway then an Adams Street grade separation over the BNSF Railway.

Further analysis of the traffic model found the most favorable path over the BNSF tracks for north Lincoln roadway users was a North 33rd Street grade separation. This would focus many of the southeast – northwest drivers onto Huntington Avenue, a four-lane facility with ample capacity, over the North 33rd Street bridge, and onto Cornhusker Highway. This finding supports the belief that the transportation system, with improvements to North 48th Street, has the capacity to operate efficiently if the RTSD day-one project did not include Adams Street.

With the critical artery over the railroad tracks as a primary movement, the connection of Adams Street to Cornhusker Highway became a secondary movement. The alternatives that came from the varying alignments of Adams Street include the following:

1. The bridge over both the BNSF tracks and Cornhusker Highway to connect Adams Street with Cornhusker Highway near 40th Street (as shown in Alternative 1D).
2. The “Gentle S,” connecting traffic from North 38th Street and Adams Street to North 31st Street and Cornhusker Highway via our subarea north of Cornhusker Highway (as shown in Alternative 1E).
3. The elevated intersection alternative, connecting Adams Street to an intersection with the North 33rd Street bridge just south of the BNSF tracks (as shown in Alternative Modified PEL C).
4. The elevated intersection alternative, connecting Adams Street to Cornhusker Highway via an elevated intersection just south of Virginia’s Café (as shown in Alternative 1C).
5. The “On Alignment” alternative, keeping Adams Street on an east-west alignment and elevated over the BNSF Railway and Cornhusker Highway to a touch down point west of Cornhusker Highway (as shown in Alternative 14).

In addition to these three alignment options for Adams Street, the traffic models suggest that a closure of Adams Street across the railroad tracks, diverting east-west traffic to Huntington Street, Holdrege Street, and North 48th Street to Cornhusker Highway is a plausible alternative as well.

Travel demand model outputs were generated for multiple alternatives but focused mainly on the alternatives that passed Tier 0 and Tier 1 screening. In addition to the 2040 model daily volume outputs for these alternatives, intersection design hourly volumes were generated for select intersections as well. While the 2040 daily outputs mainly allowed the consultant team to verify required segment capacity, the intersection volumes allowed for concept level intersection volume to capacity ratios to be developed and confirm lane geometry required to efficiently handle intersection volumes. At this concept level of analysis, the design team had to ensure that the alternatives being evaluated could be designed to provide Level of Service D or better intersection operations at new intersections. Detailed output of both 2040 daily and intersection projections for the multiple alternatives analyzed are included in Appendix E. While the traffic review with this project was very conceptual in nature to support concept development, much more detailed intersection level analysis will be completed as part of future NEPA documentation.

6.2 High Level Cost

A concept level cost estimate was completed for each of the seven alternatives that passed Tier 0 and Tier 1 screening. The estimate assigned costs across five main categories: roadway construction on mechanically stabilized earth (MSE) wall, bridge construction, general roadway construction, right-of-way, and soft costs (contingencies, engineering fees, and city administrative costs). Additionally, baseline construction costs were established at 2018 rates, then inflated at 4 percent per year to an assumed construction start year of 2026.

A summary of the high-level cost estimates is shown in Table 5 below. The total project cost ranges from \$96.4 million for Alternative 1B to \$162.3 million for Alternative 15A. It should be noted that significant differences were seen from the project cost shown for the common alternative between the PEL and this project, Alternative Modified PEL C.

This \$31.8 million difference is primarily the result of increased right-of-way costs, the addition of the North 44th Street to North 48th Street connection in conjunction with closure of the North 44th Street at-grade rail crossing, construction of the pedestrian grade separated crossing, and a more accurate snapshot of present-day construction costs based on recent bid tabulations. A more detailed cost breakdown for each of the eight alternatives can be found in Appendix F.

Table 5. Conceptual Cost Estimate.

Alternative	Roadway on MSE Walls	Bridge Construction	General Roadway Construction	Right-of-Way	Contingencies / Engineering / City Admin	Total (2026 dollars)
1B	\$6.1 M	\$12.7M	\$14.3M	\$18.1M	\$19.3M	\$96.4M
1D	\$8.7 M	\$16.2 M	\$15.5 M	\$20.9 M	\$23.6 M	\$116.1 M
1E	\$11.6 M	\$17.2 M	\$11.2 M	\$20.9 M	\$23.4 M	\$115.3 M
12B	\$6.2 M	\$24.4 M	\$16.2 M	\$22.8 M	\$27.4 M	\$132.8 M
14	\$6.4 M	\$33.8 M	\$15.8 M	\$27.0 M	\$32.7 M	\$158.4 M
15A	\$37.2 M	\$21.4 M	\$5.8 M	\$16.6 M	\$37.6 M	\$162.3 M
MOD PEL C	\$19.4 M	\$7.1 M	\$9.2 M	\$20.0 M	\$20.9 M	\$104.8 M

6.3 Right-of-Way Impacts

The impacts to right-of-way were reviewed at a high-level using record information within the City of Lincoln's geographic information system (GIS) parcel data. The acquisition of right-of-way and easements will be required to construct all final four alternatives. The least total impacts to right-

of-way, with 35, are expected with Alternative 1B while the most total impacts, 70, are expected with Alternative 1D. Table 6 summarizes the expected right-of-way impacts by impact (partial versus full) and property type (Commercial / Industrial / Multi-Use, or Residential).

Table 6. Right-of-Way Impacts.

Alternative	Commercial / Industrial / Multi-Use	Residential	Total Impacts
1B	24 Partial / 9 Full	1 Partial / 1 Full	25 Partial / 10 Full
1D	34 Partial / 25 Full	1 Partial / 10 Full	35 Partial / 35 Full
1E	21 Partial / 25 Full	2 Partial / 1 Full	23 Partial / 26 Full
12B	44 Partial / 24 Full	2 Partial / 10 Full	46 Partial / 34 Full
14	31 Partial / 36 Full	1 Partial / 2 Full	32 Partial / 38 Full
15A	32 Partial / 19 Full	2 Partial / 2 Full	34 Partial / 21 Full
MOD PEL C	24 Partial / 24 Full	1 Partial / 1 Full	25 Partial / 25 Full

More detailed right-of-way impact maps for all seven alternatives are illustrated in Appendix G. As part of the preliminary engineering phase, detailed basemap generation will be developed using aerial mapping technology so that more detailed right-of-way design can be completed.

In preparation for the right-of-way design process in this next phase of the project, the City of Lincoln has already begun the title research process for any properties anticipated to be impacted by the final four alternatives.

7.0 CONCLUSIONS

Based on the criteria evaluated to date including public support, right-of-way impacts, environmental impacts, project costs, constructability, and conformance with the SAP, the RTSD has selected Alternative 1D as the preliminary preferred alternative.

The North 33rd and Cornhusker Subarea Plan and the Corridor Enhancement Plan are scheduled for final approval in early 2019 as shown below.



Subarea & Corridor Plan Schedule

Briefings/Presentations (2018)
RTSD Board 09.11.18
MPO Officials & Tech Committee
Pedestrian/Bicycle Advisory Comm.
Project Advisory Committee
Urban Design Committee

Informational Open House

January 2019

Planning Commission

January 2019

City Council Action

February 2019

Figure 13. North 33rd and Cornhusker Subarea Plan and Corridor Enhancement Plan Schedule

After approval of the SAP, the next step in the process for the RTSD project includes completion and formalizing the Tier 2 screening analysis, a detailed environmental analysis conforming to NEPA, and preliminary design as necessary to appropriately identify and compare environmental impacts between alternatives that are carried forward. Seven action alternatives (1B, 1D, 1E, Modified PEL C, 12B, 14 and 15A) and the no-build alternative will be carried forward into the Tier 2 analysis. It is anticipated that this step will begin in early 2019 and take 3 years to complete and will result in a single and final preferred alternative. If the final preferred alternative is different than the preliminary preferred alternative an SAP modification will be required. Following the NEPA process preliminary design will be completed followed by final design and construction per the schedule shown below.



This timeline graphic illustrates the overall project development tasks through construction and is subject to change based on project priorities or funding constraints.

Figure 14. North 33rd and Cornhusker Project Schedule

8.0 REFERENCES

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- USGS. (undated). National Hydrography Dataset Maps.
- USGS. (various dates). 7.5-Minute Topographic Maps.
- Lincoln/Lancaster County Railroad Transportation Safety District. 2016. Planning and Environmental Linkages Study for 33rd and Cornhusker. August.

Appendix A

Alternative Development Brainstorming Meeting Summaries



CLIENT UPDATE MEETING

Location: Olsson Associates – Haymarket Conference Room

Date and Time: May 30, 2018 12:00 PM – 5:00 PM

ATTENDING: See Sign-in Sheet

The purpose of this meeting is to have focused discussion on the design considerations that will drive any additional roadway alternative development, review the Tier 0 and Tier 1 alternative screening criteria and review all new roadway concepts developed to date as part of the subarea plan process. A desired goal of the meeting is to reach consensus on modifications to the Tier 0 / Tier 1 screening and up to 4 new alternatives to include with PEL alternatives B, C, C3, E, F, H, J and No Build in a revised Screening Criteria process.

MEETING AGENDA

- **Lunch & Conversation (45 min)**
- **Review Meeting Purpose and Goals (15 min)**
 - ✓ Review the 12 different Roadway Alternatives that came out of the Subarea Design Charrette.
 - ✓ Rick would like to leave the meeting with at least 3 or 4 usable alternatives that might need some minor adjustments to fit the criteria and purpose and need.
 - ✓ Consensus on the 17 goals from the Design Charette and highlight the higher priority items from the client team.
 - ✓ Lutjeharms wanted to clarify to the group that opening this project up to the potential future connection to Superior Street is a major change in scope from the PEL project.
 - ✓ Mark Lutjeharms asked for opinion of Consultant, City and RTSD staff on status of the crossing at 44th Street
 - i. Goal of the RTSD is closure
 - ii. Important to define that the logical termini for a 44th Street closure is the 48th Street tie-in
- **Review Charrette Summary Report and “17” Goals (20 min)**
 - ✓ Once the summary has been reviewed and approved by the Client this can be a document that we can move forward with and use/share with the public.
 - ✓ Reviewed the summaries and narratives of what each day provided to the Advisory Committee members.
 - ✓ Findings – reviewed the summary of what was determined to be the needs/wants/desires. Top priority items.
 - ✓ The “list” was generated as a way for Ken & Taylor to go through what the community is wanting, both have gone through each comment independently to make sure they are hearing the same desires.



- ✓ Reviewed the summary and high points of the 2nd open house, the high points were generated to make it easier to brief during meetings held or conversations.
 - ✓ Connection between Cornhusker and Superior, is it worth incorporating into the alternatives as a separate stand-alone future project
 - ✓ Discussion to be able to close all 3 rail crossings
 - i. All agree this is ideal but it would be essential to find a good solution for the community and the neighborhoods and keep the industrial traffic out of the neighborhoods.
 - ii. Craft a positive message to the public about the closing of the 3rd at grade crossings.
 - ✓ Next Steps of the project.
- **Sacred Cows / Hot Buttons Review (20 min)**
 - ✓ Most of the comments that came across for these were all negative.
 - ✓ Grain elevators were brought up the most as a sacred cow.
 - **Subarea Plan Update (15 min)**
 - ✓ Need a locally preferred transportation alternative for the Subarea Plan (SAP) by the end June to stay on schedule.
 - ✓ Where is the relationship between the SAP and the Transportation Alternative?
 - i. Need to understand that the Subarea Plan must set the tone but doesn't solve all the transportation issues
 - ii. Community buy-in to plan is the key that helps the city sell/fund the future N/S roadway
 - iii. Even if the team was to walk away today with one preferred alternative that may not be the one that gets built. NEPA will determine the final alternative.
 - ✓ Draft Subarea Plan has been in progress and several sections (chapters 1, 2 and 3) are in draft form and will be ready for review soon.
 - ✓ The Advisory Committee members had pulled together 12 subarea plan alternatives, those were presented to the public at the 2nd public meeting on May 9th. Comments from the public were then considered to develop 3 refined alternatives. Additional alternatives are being considered to meet the overall goals.
 - ✓ Message coming from the planning department must be sent correctly to the public for the bridges, roadway, rail crossing, the community buy in is going to be a big step in order to get City funding to make this area beautiful.
 - ✓ The connection to Superior would need to be listed as an unfunded project, because it is currently not listed in the 2040 fiscally constrained CIP.
 - **Priority Traffic Movements (15 min)**
 - ✓ 2015 & 2040 traffic models were studied recently internally.
 - ✓ 3 priority movements (see priority attachment)
 - ✓ These are daily models
 - ✓ What are the major movements the community is trying to accomplish?



- **Floodplain Discussion & Deadman's Run Update (20 min)**

- Impacted by 2 floodplains in the study area. The DMR floodplain primarily impacts the area south of the railroad. DMR flows north through the project area and the confluence with Salt Creek is east of 27th and north of Cornhusker Highway. The Salt Creek floodplain overlaps most of the study area north of the railroad. Salt Creek flows northeasterly through the project area, roughly parallel with the railroad.
- ✓ Once the DMR/Channel project is completed most of the area south of the railroad should be out of the floodplain (excluding some areas west of 33rd Street). Some of the alternatives that have been sketched up show widening of the channel and realignment of the levee's along the east bank of DMR, north of Cornhusker, or, along the south bank of Salt Creek, downstream of the confluence with DMR. Some show widening of DMR south of Cornhusker, in the USACE DMR project (yet to be constructed) reach. The NRD will not accept realignment of levees. Any work proposed in the DMR federal project reach will require substantial coordination with the NRD and the Corps.
- ✓ 27th & Cornhusker is all currently regulatory Floodplain, the area is within a Salt Creek Flood Storage Area (SCFSA) with an allowable fill limit of 40%. In order to make that area buildable, the area would have to be elevated on fill. In order to minimize fill required, only fill building pads and leave parking lots and open spaces lower. In order to achieve no net fill, still need flood storage mitigation, on-site or elsewhere.
- ✓ Goal for this project would be a NO NET FILL. May have net fill in an individual SCFSA; but, overall, achieve no net fill. Important to note that flood elevations are not reduced by virtue of this project. Thus, any existing areas to be removed must be elevated by fill. That fill is what we offset with flood storage mitigation.

- **NEPA and Alternative Screening Evaluation (30 min)**

- ✓ 3 tier screening process
- ✓ Tier 0, these are yes or no questions, if you answer no to any, that concept is pretty much off the table, this is the purpose & need screening and hasn't been altered from what was used in the PEL.
- ✓ Tier 1, are yes or no questions, but have a little more flexibility but still need to stay within the regulations, federal aid process, and funding process.
- ✓ What is LEDPA? (Least Environmental Damaging Practical Alternative)

- **Alternative Review & Brainstorming Activity (2 hrs)**

- ✓ Consultant feels Salt Creek Roadway should be prioritized over 33rd Street for a future connection to Superior.
- ✓ Consultant feels the elevators should not be viewed as something that will be addressed as part of the RTSD project but, long term roadway network planning should consider them as something that can go away. Roger Figard disagreed and said they should not be considered off limits necessarily with the RTSD project.
- ✓ On a 1 to 5 scale (1 being high, 5 being low), improving the campus connections for UNL was rated by the RTSD/City as a 4
- ✓ Underpasses can be considered but likely less for vehicles and more for pedestrians
- ✓ RTSD/City preference is to close 44th as well but look to maintain a pedestrian crossing in this area.



○ **ALTERNATIVES:**

1. **DISCUSSION: MAYBE – Scored Yellow and Open for more consideration.**
 - Concerns with grades on 33rd, 27th, Kris would like Olsson to shoot for closer to 3% rather than push 5%.
 - Huntington connection not liked.
 - Slide Adams north to Gladstone after it crosses Cornhusker.
 - Significant concerns with the trailer park impacts with the current Adams redesign.
2. **DISCUSSION: NO – Scored as a Red and will not move forward**
 - Parks land impacts at Fleming Field
 - **General Comment for any alternative from Mark L:** if we go $\frac{3}{4}$ access at 29th/State Fair & Cornhusker than we need to build a backdoor connection to 33rd north of Cornhusker with the Day 1 RTSD project.
 - Like the Adams direct approach but the weaving is an issue.
3. **DISCUSSION: NO – Scored as a Red and will not move forward**
 - Circuitous movements
 - Lot of money going into 33rd Street for a low priority movement
4. **DISCUSSION: MAYBE – Scored as a Yellow and Open for more consideration**
 - Will have to raise Cornhusker
 - Takes elevators ultimately
 - Can we make EB Cornhusker to EB Adams straight?
5. **DISCUSSION: NO – Scored as a Red and will not move Forward**
 - Concern with all Adams/Cornhusker traffic through at grade intersection at Cornhusker
 - Impacts on Baldwin Park
 - Pedestrian traffic on 33rd would be impacted greatly but could be accommodated with DMR project
 - Going out of way as driver
6. **DISCUSSION: NO – Scored as a Red and will not move forward**
 - Disconnects Fleming Field Park (4F)
 - Kills the piece of property east of Salt Creek and south of Cornhusker
 - Tough multimodal connections
7. **DISCUSSION: NO – Scored as a Red and will not move forward**
 - Same reasons as 6
8. **DISCUSSION: NO – Scored as a Red and will not move forward**
 - Adams Street weaving
9. **DISCUSSION: NO – Scored as a Red and will not move forward**
 - Remove businesses from US-6 (impacts)
 - Hard to develop independent utility
10. **DISCUSSION: NO – Scored as a Red and will not move forward**
 - Same reasons as 9

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11. DISCUSSION: MAYBE – Scored as a Yellow and Open for more consideration.

- Future triple track through here could be a problem.
- WB Cornhusker to WB Adams connection important if 44th closes.
- Add loop under to improve peds.

12. DISCUSSION: MAYBE – Scored as a Yellow and open for more consideration.

- Like the Salt Creek Roadway alignment (realign Salt Creek north of Cornhusker per Ken)
- Add pedestrian underpass
- Same discussion as 11

○ **Other Alternative Discussion:**

- ✓ Look more into a Salt Creek Roadway to Cornhusker option similar to Ken/Lonnie's vision and present at next meeting to the group

○ **Upcoming Progress Meeting Agenda for June 13th**

Attachments:

Sign-in Sheet

17 Goals

Priority Movements

Alternatives Evaluation

Internal - Meeting Attendance List

Meeting: Alternative Brainstorming Meeting

Date: 05/30/2018		RTSD BU No. 5919			
Time: 12:00pm 5:00pm		City Project No. 702614		Control No. 12394	
Name	Meeting Attendance		Firm	Email	Olsson Project No. 017 3604 Phone #
	Invited	Attended			
Kris Humphrey	X	X	RTSD	khumphrey@lincoln.ne.gov	402.326.1176
Roger Figard	X	X	RTSD	rfigard@lincoln.ne.gov	402-525-5620
Thomas Shafer	X				
Jeff McKerrow	X	X	Olsson	jmcckerrow@olssonassociates.com	816.442.6097
Mark Lutjeharms	X	X	City of Lincoln	mlutjeharms@lincoln.ne.gov	402-416-9925
David Cary	X	X	City of Lincoln	dcary@lincoln.ne.gov	402-441-7491
Nick Weander	X	X	Olsson	nweander@olssonassociates.com	402.341.1116
John Coburn	X	X	Olsson	jcoburn@olssonassociates.com	402.458.5996
John Diediker	X	X	Olsson	jdiediker@olssonassociates.com	402.458.5006
Jon Olsen	X		Olsson	jolsen@olssonassociates.com	402.458.5614
Tom Leikam	X	X	Olsson	tleikam@olssonassociates.com	402.458.5619
Shane King	X		Olsson	sking@olssonassociates.com	402.458.5011
Rick Herrick	X	X	Olsson	rherrick@olssonassociates.com	402-318-9215
Brittany Hillis	X	X	Olsson	bhillis@olssonassociates.com	402-458-5945
Ken Boone	X	X	Olsson	kboone@olssonassociates.com	816-591-0349
Stacey Roach	X		Olsson	sroach@olssonassociates.com	402-430-0109
Taylor Plummer	X		Olsson	tplummer@olssonassociates.com	913-948-1164
Justin Petersen	X	X	Olsson	jpetersen@olssonassociates.com	402-202-8393
Carter Hubbard	X	X	Olsson	chubbard@olssonassociates.com	402-458-5948
Brian Osborn	X	X	Olsson	bosborn@olssonassociates.com	402-429-2545
Tony Dirks	X		Benesch	adirks@benesch.com	402-429-5578

Lonnie Bucklund
Miki Espinoza

"The List"

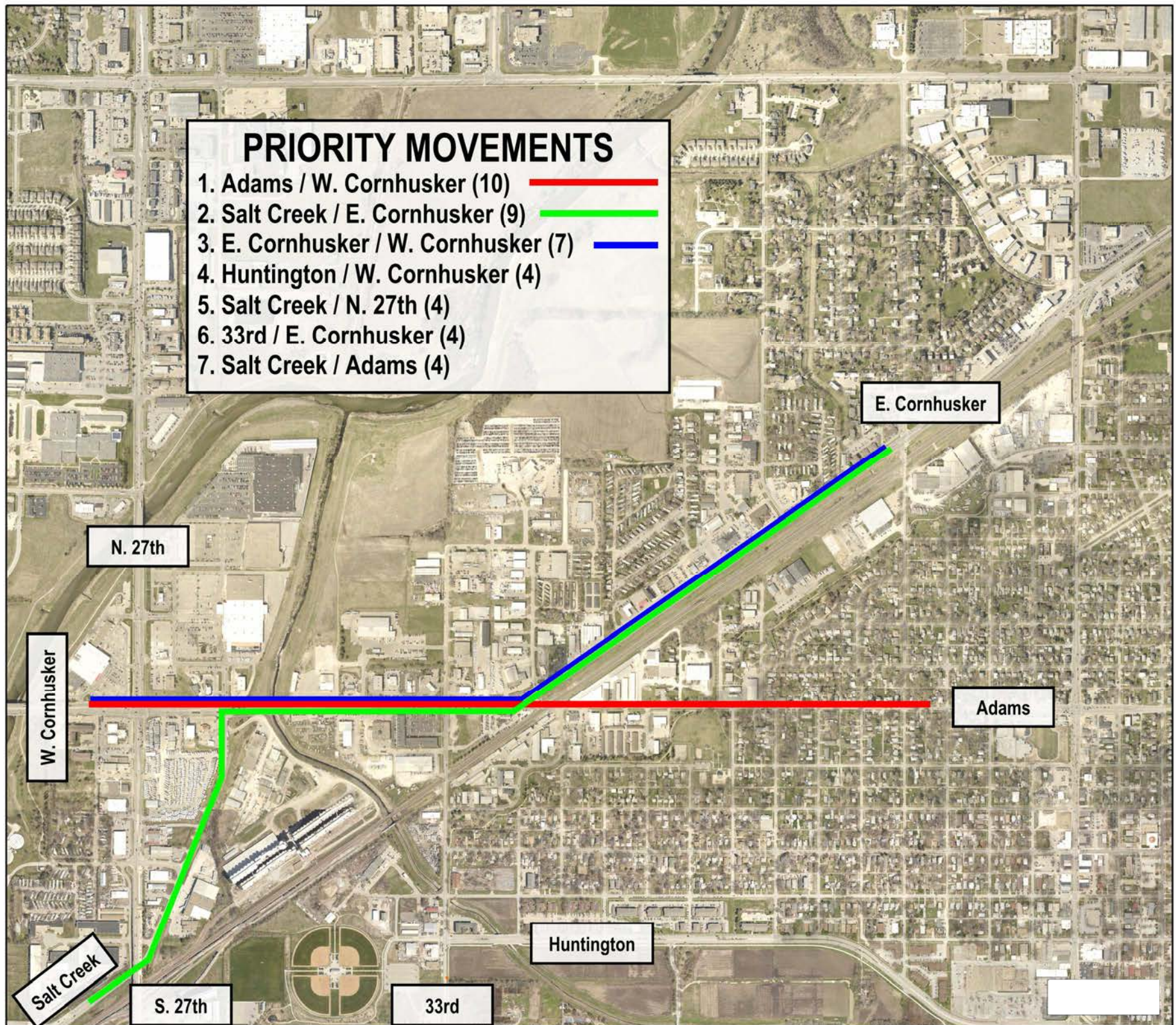
As previously mentioned, the planning team prepared "The List," which functioned as the program during concept exploration, narrowing, and evaluation. This compiled list is made up of the key success factors as determined by the success factors (from the Visioning Session), prioritized needs, wants, and desires (from the Visioning Session), and prioritized issues and opportunities (from day one of the charrette). "The List" is not in order of importance, nor weighted. It simply serves as a check list when creating and evaluating concepts, ensuring that the solutions are in line with the Advisory Committee's vision and priorities.

Table 2.4 "The List"

- ☒ Eliminate at-grade railroad crossings.
- ☒ Improve safety for all modes of transportation within the subarea.
- ☒ Improve traffic flow and decrease traffic congestion within the subarea.
- ☒ Increase connectivity to other areas of Lincoln (UNL East Campus, Nebraska Wesleyan University, Downtown, Antelope Valley, etc.)
- ☒ Provide a connection between North 33rd Street and Superior Street.
- ☒ Provide an easy connection to State Fair Park Drive / Salt Creek Roadway.
- ☒ The following land uses should be developed in the existing undeveloped areas (largely north of Cornhusker Highway):
 - Parks
 - Recreation
 - Green space / open space
 - Light industrial (larger development sites)
 - Business park
 - Mixed use
- ☒ Organize land uses cohesively and appropriately.
- ☒ Identify key development and redevelopment opportunities aligned with market potential.
- ☒ Maintain commercial and industrial land uses along Cornhusker Highway to support and/or enhance the tax base.
- ☒ Balance the need to be sensitive to current businesses and properties with greater Lincoln's need for efficient and safe transportation through the subarea.
- ☒ Increase parks and recreation opportunities and open space within the subarea to serve subarea residents and the entire Lincoln community.
- ☒ Capitalize on Salt Creek as an amenity, while balancing the need to responsibly manage environmental resources and stormwater management.
- ☒ Develop a clear and safe pedestrian and bicycle network through trails, sidewalks, and bike routes (including over the railroad crossings). Provide connections to the existing trails, sidewalks, and bike routes outside of the subarea.
- ☒ Improve the aesthetics of the subarea—on private property (buildings and sites) and within the public right-of-way.
- ☒ Create and define a sense of character within the subarea (i.e., increase the "warmth" and vibrancy). Give people a reason to come to the subarea.
- ☒ Ensure a high benefit to cost ratio for transportation investments within the subarea.

PRIORITY MOVEMENTS

1. Adams / W. Cornhusker (10) —
2. Salt Creek / E. Cornhusker (9) —
3. E. Cornhusker / W. Cornhusker (7) —
4. Huntington / W. Cornhusker (4)
5. Salt Creek / N. 27th (4)
6. 33rd / E. Cornhusker (4)
7. Salt Creek / Adams (4)



33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation		Yes	No
Alternative:			
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?		
	Does the alternative reduce delays for users crossing the rail corridor?		
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		
	Does the alternative improve mobility across the rail corridor in north Lincoln?		
	Does the alternative improved multimodal connectivity in north Lincoln for all users?		
Retained or Dismissed? _____			
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?		
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		
	Does the alternative maintain traffic along Cornhusker during construction?		
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		
	Does the alternative avoid/minimize impacts to community resources?		
	Acquisition of businesses or residences? Affect neighborhood cohesion?		
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains		
	Parks and recreation areas		
	Historic resources		
	Hazardous materials sites		
	Wetlands and waters of the U.S.		
	Sensitive, threatened, or endangered species		
	Minority or low-income populations		
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?		
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		
	Is the alternative compatible with the Dead Man's Run improvements?		
Retained or Dismissed? _____			



CLIENT UPDATE MEETING

Alternative Evaluation Meeting #2

Location: Olsson Associates – Haymarket Conference Room

Date and Time: June 13, 2018 8:00 AM – 10:00 AM

ATTENDING: Rick Herrick, Justin Petersen, John Coburn, Brian Osborn, Jeff McKerrow, Kris Humphrey, David Cary, Mark Lutjeharms, Tony Dirks,

At the May 30th Brainstorming Meeting #1 Olsson presented 12 different alternatives for consideration that addressed the grade separations of 33rd and Adams Street over the BNSF tracks. These alternatives also presented several different future roadway network options for consideration. Several of these alternatives were eliminated from further consideration after group discussion but there was consensus among the group that variants of alternatives 1, 11 and 12 should be further evaluated with modifications. A modification to alternative 9 and a new alternative 13 was also brought forward for further consideration by the group. The goal of this meeting was to leave the meeting with 3 or 4 defined alternatives to move forward with.

MEETING NOTES

○ Review Meeting Purpose

- ✓ Review roadway alternatives that came out of brainstorming session #1.
- ✓ Rick would like to leave the meeting with at least 3 or 4 more defined alternatives to move forward with.
- ✓ Olsson team brought back Alternative 9 (in Alternative 9A and 9B), so an alternative would show Salt Creek roadway directly connecting to the new North-South roadway.
- ✓ Olsson has also created Alternative 13 and Alternative 13A, showing an elevated roadway above Cornhusker that would handle Salt Creek Roadway, N-S Roadway, 33rd Street, and Adams Street Traffic.
- ✓ Olsson has started preliminary travel demand model runs on the alternatives to see ballpark traffic 2040 traffic numbers.
- ✓ Public comments that came from the 2nd Public Meeting was that they wanted to see something different done with the access for the grain elevators.
- ✓ Mark Lutjeharms wanted to note – that the team needs to not forget, the staging of the grain trucks on public streets shall not be condoned.
- ✓ The RTSD project needs to be sensitive of the Grain Elevators and not pre-determine the fate of the business in Phase 1 of this project.
- ✓ Do not build turn-lanes for private industry.

○ Alternative Review

- ✓ Alternative 1 - was dismissed, due to the impacts to the Mobile Home Park north of Cornhusker, as well as the impacts to the Clinton neighborhood along Leighton Ave.
- ✓ Alternative 1A – was dismissed, due to the impacts to the Mobile Home Park north of Cornhusker.

- ✓ Alternative 1B – was dismissed, as it was advised that we need to maintain some connectivity from Adams east of the railroad tracks to Cornhusker
 - ✓ Alternative 9A – was dismissed, as the preliminary traffic models show that the North-South road results in greater relief for 27th Street than connecting Salt Creek Roadway up to N. 33rd (as shown in this Alternative). In addition, there were concerns that this Day One alternative for the RTSD project would immediately impact the Grain Elevator's Operations.
 - ✓ Alternative 9B – was dismissed, as it was advised that we need to maintain some connectivity from Adams east of the railroad tracks to Cornhusker. In addition, 9B had the same concerns as Alternative 9A.
 - ✓ Alternative 11 – was dismissed due to the unnecessary movement of Salt Creek Roadway traffic to cross Cornhusker Highway, only to return towards the South.
 - ✓ Alternative 12 – was dismissed, as the City and the RTSD would like to connect the North-South roadway more directly to the 33rd Street bridge over the Railroad Tracks and Cornhusker Highway
 - ✓ Alternative 13 – was dismissed due to high potential structure cost and future maintenance concerns
 - ✓ Alternative 13A – was dismissed due to high potential structure cost and future maintenance concerns
- **New Alternatives to Investigate:**
 - ✓ Alternative 1C – This alternative will be developed as a variant to Alternative 1A, bringing "Virginia's T" to the East to avoid the businesses west of 40th.
 - ✓ Alternative 1D – This alternative will be developed as a variant to Alternative 1A, creating a loop (similar as to what was seen in PEL Concept C3) to bring Adams Street traffic to Cornhusker near 40th Street.
 - ✓ Alternative 11A – This alternative will be developed as a variant to Alternative 11, removing the overpass at Cornhusker Highway
 - ✓ Alternative 12A – This alternative will be developed to look at a realignment of Cornhusker south of the strip mall on the southwest corner of 33rd and Cornhusker, using a set of reverse curves. This would allow the opportunity to create a future straight alignment from Salt Creek Roadway to Cornhusker towards the East, with a "T" Intersection at Cornhusker and Salt Creek. This alternative would also keep "Virginia's T"
 - ✓ Alternative 12B – This alternative would realign Cornhusker similar to Alternative 12A but would keep 33rd straighter as it gets closer to Gladstone Street combined with the fishhook concept for Adams Street
 - **General Discussion:**
 - ✓ Before the end of June, the team needs to have 4 or less identified alternatives to take through Tier 1 screening and 1 locally preferred alternative to move forward with in the Subarea Plan.
 - ✓ Taking both 33rd and Adams Streets over the BNSF tracks should be a priority for any roadway alternative. The Client feels the neighborhoods will be more supportive of the alternative if this is the case.
 - ✓ Brian stated that once we go public with alternatives the future roadway network connections be left out of the exhibits for NEPA purposes. Only focus on the initial project with independent utility that address the grade separations of 33rd and Adams Streets.

Next Meeting: June 25, 2018 2:00 PM – 4:00 PM



CLIENT UPDATE MEETING

Alternatives Evaluation Meeting No.3

Location: Olsson Associates – Haymarket Conference Room

Date and Time: June 25, 2018 2:00 PM – 5:00 PM

ATTENDING: See Sign-In Sheet

The purpose of this meeting is to discuss any new or refined alternatives since the Brainstorm Meeting #2 on June 13 to ultimately select a locally preferred alternative to bring forward in the subarea plan as well as 4 or fewer concepts to move forward into Tier 1 screening. Six alternatives (1D, 11A, 12A, 12B, 14 and 14A) were reviewed and discussed. Note: A similar meeting was held with David Cary on June 22 as he is on vacation and could not attend today. Notes from the June 22 meeting are attached.

MEETING NOTES

- **Keys to Remember from Last Meeting**

- ✓ Maintain idea of future connection of Salt Creek Roadway to Cornhusker Highway
- ✓ Keep the grid network
- ✓ Desire to take both Adams and 33rd Streets over the BNSF tracks

- **Alternative Review**

- ✓ Alternative 1C – This was to look at moving Virginia's T further east. Didn't take concept further because it impacted the neighborhood south of Cornhusker significantly. – **this alternative was dismissed**
- ✓ Alternative 1D – moved the loop to the East on Adams, combine with ped crossing, keep looking for alternative that will stay out of trailer park; most didn't like the "fish hook" – **this alternative was dismissed**
- ✓ Alternative 11A – Virginia's T, would have to widen Cornhusker and as a result we can no longer have a signal at 35th Street. A lot of the other access points are the same as 1D; could do an intersection underneath the structure on Cornhusker to serve future redevelopment north of Cornhusker. Are the redevelopment opportunities the same or different as 1D at new 30th Street intersection? May still have to purchase some right-of-way but avoids getting in to other properties north of Cornhusker. Future Salt Creek Roadway is not possible with this alternative because of ramps – **this alternative was dismissed**.
- ✓ Alternative 12A – Keeps 33rd on alignment and could straddle roadway underneath of structure. Problem with this alternative is the same as with 11A and Virginia's T, no way to get 33rd traffic east on Cornhusker. Does a good job of providing access to existing properties on the old Cornhusker alignment. Future construction of Salt Creek Roadway is a little closer to Deadman's Run; Making 29th & Cornhusker a ¾ access will likely still require a signal here as there is a very heavy westbound to southbound left turn movement. Due to this heavy left turn movement the additional ¾ access to serve businesses on old Cornhusker will likely not be possible. Is the alternative backdoor access into shopping center required if a ¾ access is maintained here? – **this alternative was dismissed**

- ✓ Alternative 12B – Same concept as 12A for the most part but with a “fish hook” concept for Adams Street. Would have signals at the future Cornhusker/Salt Creek Roadway intersection, then at 35th with right in right out between them to serve businesses on the old Cornhusker. Due to the lack of support of the fish hook concept on Adams and challenging access management both day one and ultimately this concept was dismissed. – **this alternative was dismissed**
 - ✓ Alternative 14 – This was a new alternative developed for today’s meeting. It keeps Adams on alignment over the tracks and then touches down at grade just before 33rd Street north of Cornhusker. Concept is simple and best maintains a grid network of any concept looked at to date. This concept realigns Salt Creek Roadway from day 1. By staying on grid, impacts to properties are minimized. This concept doesn’t provide a direct 33rd Street to Cornhusker movement. Discussion occurred on the possibility of making 33rd & Adams an elevated intersection with this concept but there are concerns with the resulting volumes and capacity needs? Though of the group is that we would likely then have to buy properties because access would no longer be maintained to businesses underneath intersection. This concept does have the second most bridge square footage of all the alternatives. It was questioned if we could run access underneath Adams to access businesses north of cornhusker via a frontage road from 35th but initial thought is that there wouldn’t be enough vertical clearance. Adams has higher traffic volume today and in the future. Client questioned if the realigned Salt Creek Roadway would be throw away ultimately? Only Theresa Street would likely be throw away with the remainder serving long-term as an internal road for retail. Client questioned if the Consultant Team understood if this relocated Salt Creek Roadway would allow for elevator operations/traffic to be maintained.
 - ✓ Alternative 14a – This concept is a tweak of Alternative 14 to look at what happens if we provide access to both Salt Creek Roadway and 33rd going north. Still brings Adams in the same way as Alt 14. Same discussion as 14 regarding if State Fair Park Roadway would be realigned day 1. Client likes State Fair Park Roadway connecting to Cornhusker as the ultimate roadway network. Is it possible to connect 33rd & Cornhusker at elevated T (similar to 1D)?; 33rd Street would come into Cornhusker at a T (not desired because it’s hard to tell when the rest will be constructed.) With this Adams alignment, concerned that the public perception will be that they can’t get to 27th & Cornhusker. What if 33rd & Huntington came together and made 4th leg of elevated intersection? Client would like input from Ken Boone on what how this alternative would work with redevelopment?
 - ✓ Elevator discussion - Many elevators don’t have rail access? Could this elevator still operate at this location if only operating by truck? Client believes in past conversations with them that they have stated 70% of their outbound business is by rail.
- **General Discussion:**
- ✓ Has anyone had a conversation with NDOT about realigning Cornhusker Highway? No, Rick will set up a meeting. The State will likely be interested in relinquishing.
 - ✓ Traffic folks say they would prefer every alternative provide $\frac{3}{4}$ access at the 29th & Cornhusker intersection with a backdoor connection at Cather utilizing as much existing pavement as possible and avoiding buildings. Public to private to public street access is a concern.
 - ✓ Mark asked what the process is to take over a private street.
 - Roger said run it back through Planning Commission and City Council. Owner will have to vacate right-of-way and City will likely need to upgrade the street to current standards.
 - ✓ Do any alternatives address the staging concerns at the elevator? With Alt 14, they’re getting moved off Salt Creek Roadway.

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- ✓ In the elevated 33rd & Cornhusker concept, what would happen long term at 29th? Is traffic expected to be low enough at this new intersection to have a multilane roundabout?
- ✓ Can't do anything to deemphasize Adams.
- ✓ Discussion on whether we should reconsider deemphasizing Adams Street. Many feel protective of east/west Adams but do we need full access on Adams? Less concerned about the west to east and east to west traffic. If we feel strongly about maintaining neighborhood, why aren't we looking at alternatives that show that? Would minimize right of way.
- ✓ Need to make cleaner connection at 33rd; reduces amount of bridge on 33rd, makes it one route
- ✓ Group all likes the realigned Cornhusker. Maintain in future alternatives
- ✓ Group doesn't like Virginia's T or fish hook – need straight connection to Adams
- ✓ Salt Creek Roadway behind the elevators is still a priority
- ✓ At this time the client is leaning toward staking alternative 14 forward in the SAP minus the Salt Creek Roadway connection. On Adams west of Cornhusker, put frontage road under overpass on 33rd and remove Cornhusker frontage road between 44th and Adams
- ✓ What's the mindset for adding an alternative to the SAP, knowing that it will likely change? Need to talk to NDOT before including in SAP.

Action Items:

- ✓ Rick schedule meeting with NDOT

Next Meeting: July 2, 2018 3:30 PM – 4:30 PM

Attachments: Notes from June 22nd meeting with David Cary & Sign in Sheet



CLIENT UPDATE MEETING

Location: Olsson Associates – Havelock Conference Room

Date and Time: June 22, 2018 8:30 PM – 9:30 PM

ATTENDING: Rick Herrick, Justin Petersen, Tom Leikam, Jon Olsen, John Coburn

The purpose of this meeting is to discuss the roadway alternatives in relationship to subarea plan as a follow-up to the June 13 Brainstorm Meeting #2 and to narrow the alternatives based on client feedback. This meeting was scheduled with just David and the project team as he is going to be on vacation during the June 25th Brainstorm Meeting #3. Although this meeting is with David Cary a similar meeting is scheduled for June 25 with other client members.

MEETING NOTES

On alternative 1D David commented that the backside access into the shopping center was not required as part of the RTSD project and that the public to private to public roadway connection was not desirable.

He thought the RTSD project should be straight forward.

1D had long term property impacts but he was not overly concerned.

1D may need additional construction along Cornhusker and this construction needed to be shown

On 11A he questioned the need to have both accesses to 44th Street and suggested to show the 48th street connection only. Noted that the future Salt Creek Roadway connection was not possible with the Virginia T.

Need to show the ped crossings

With the Virginia's T he suggests acquiring the property and not building the frontage road. Olsson thinks they have a modified Virginia's T alternative that avoids the need for building the new frontage road.

12A is probably out as it does not accommodate the large northbound 33rd the eastbound Cornhusker traffic

Other discussion occurred. David indicated that based on these alternatives that 12B or similar was his first choice and that 1D or similar was his second choice.

We indicated that we would share his comments at the June 25th meeting.

Meeting Attendance List

Meeting: Progress Meeting No.

Date:

RTSD BU No. 5919

Time:

City Project No. 702614

Firm

Control No. 12394

Email

Olsson Project No. 017 3604

Phone #

Name	Meeting Attendance	Invited	Attended	City	Firm	Control No.	Email	Olsson Project No.
Roger Figard			X	RTSD			rfigard@lincoln.ne.gov	402-526-5620
Kris Humphrey			X	RTSD			khumphrey@lincoln.ne.gov	402-326-1176
Deb Schorr				RTSD			dschorr@lancaster.ne.gov	402-441-7447
Cyndi Lamm				RTSD			clamm@lincoln.ne.gov	402-432-9770
David Cary				City of Lincoln			dcary@lincoln.ne.gov	402-441-7491
Andrew Thierolf				City of Lincoln			AThierolf@lincoln.ne.gov	402-441-6371
Paul Barnes				City of Lincoln			PBarnes@lincoln.ne.gov	
Lonnie Burkland			X	City of Lincoln			lburkland@lincoln.ne.gov	402-441-7711
Wynn Hjermstad				City of Lincoln			whjermstad@lincoln.ne.gov	402-441-8211
Sara Hartzell				City of Lincoln			shartzell@lincoln.ne.gov	402-441-8261
Ben Higgins				City of Lincoln			watershed@lincoln.ne.gov	402-441-7589
Mark Lutjeharms			X	City of Lincoln			mlutjeharms@lincoln.ne.gov	402-416-9925
Jared Rockemann				City of Lincoln			jared.rockemann@nebraska.gov	402-479-3843
Daniel Rea				NDOT			daniel.rea@nebraska.gov	402-479-4738
Luke Pitts				NDOT			luke.pitts@nebraska.gov	
Jodi Gibson				NDOT			jodi.gibson@nebraska.gov	
Taylor Peters				FHWA			taylor.peters@dot.gov	
Melissa Maieski				FHWA			Melissa.maieski@dot.gov	402-742-8464
Justin Luther				FHWA			justin.luther@dot.gov	402-742-8462
Doug Atkin				FHWA			doug.atkin@dot.gov	
Mary Burroughs				FHWA			Mary.Burroughs@dot.gov	
Scott Stapp				FHWA			scott.stapp@dot.gov	
Rick Herrick			X	Olsson			rherick@olssonassociates.com	402-318-9215
Brittany Hillis				Olsson			bhillis@olssonassociates.com	402-458-5945
Ken Boone				Olsson			kboone@olssonassociates.com	816-591-0349
Emily Bausch				Olsson			ebausch@olssonassociates.com	402-660-7429
Stacey Roach			X	Olsson			sroach@olssonassociates.com	402-430-0109
Taylor Plummer				Olsson			tplummer@olssonassociates.com	913-948-1164
Amy Cherko				Olsson			acherko@olssonassociates.com	402-215-5238
Justin Petersen			X	Olsson			jpetersen@olssonassociates.com	402-202-8393
Carter Hubbard				Olsson			chubbard@olssonassociates.com	402-458-5948
Brian Osborn				Olsson			bosborn@olssonassociates.com	402-429-2645
Emily Molloy				Olsson			emolloy@benesch.com	402-479-2282
Tony Dicks			X	Benesch			adicks@benesch.com	402-429-5578
Devin Biesecker			X	LPSNRD			dbiesecker@lpsnr.org	402-476-2729
Tom Olsson			X					
Tom Latham								



CLIENT UPDATE MEETING

Alternative Evaluation Meeting No.4

Location: Olsson Associates – Woods Park Conference Room

Date and Time: July 2, 2018 3:30 PM – 4:30 PM

ATTENDING: Kris Humphrey, Roger Figard, Rick Herrick, Tom Leikam, Jon Olsen, John Coburn, Brian Osborne, Paul Barnes

The purpose of this meeting is to discuss the roadway alternatives as a follow-up to the June 25th meeting, to present drawings of alternative 15 and 15A, get general comments regarding environmental concerns, solicit feedback from the client and to determine the next steps.

MEETING NOTES

Note that an additional meeting is scheduled for July 5 to receive feedback from the Olsson Design Studio group regarding the applicability of alternatives to the subarea plan from a development, existing business and community view point.

Alternatives 15 and 15A were created based on discussions at the June 27th meeting with Tom Goodbarn and subsequent discussions at another “On-Going Projects Meeting” held with City of Lincoln staff.

Kris Humphrey shared those discussions and additional discussions with other City transportation officials and suggested that when one looks at the larger picture; and considers other adjacent and planned improvements along 48th Street that maintaining the east/west direction with Adams Street may not need to be a priority. Kris further suggested that closing Adams should be considered.

Rick reminded the group that this “new thinking” was contrary to previous thinking and that re-consideration of other previously dismissed alternatives may be necessary as some alternatives had been dismissed because they did not provide a direct connection to serve the east/west movement along Adams Street.

We discussed the need for a more logical and documented process to bring the Client team to consensus on a locally preferred alternative to be reflected in the subarea plan.

Questions were raised about allowing 11-foot lanes to reduce right-of-way impacts. Additional question raised about the length of time that the City could live with a less than desirable interim construction before the longer-term solution became a critical need. These questions would be addressed in a follow-up meeting.

Getting feedback from the design studio folks will assist in narrowing down to the final potential alternatives.

Rick is to schedule a follow-up meeting with the client group. Kris will email the client group indicating the importance of this upcoming meeting.



CLIENT UPDATE MEETING

Alternative Evaluation Meeting No.5

Location: Olsson Associates – Havelock Conference Room

Date and Time: July 5, 2018 3:00 PM – 5:00 PM

ATTENDING: Kris Humphrey, Roger Figard, David Cary, Rick Herrick, Tom Leikam, Jon Olsen, John Coburn, Emily Bausch, Jeff McKerrow, Stacey Roach, Ken Boone (via phone), Justin Petersen (via phone), Lonnie Burkland (via phone)

The purpose of this meeting is to discuss the roadway alternatives in relationship to the subarea plan, share feedback from client visits, and plan for the next steps to select a preferred alternative for the subarea plan.

MEETING AGENDA

- Ken commented on alternatives 1D, 12B, 14, 14A, 15 and 15A from a development/subarea plan view point (pluses/minuses/comparison etc.)
 - a. Olsson met with David Cary (on June 22nd) and he liked 1D and 12B
 - b. Ken keeps coming back to the list, which can be simplified into:
 - i. How does this impact residents, existing businesses, the corridor as a through route?
 - ii. How much visual obstruction/clutter are we creating?
 - iii. Connectivity with other modes
 - c. How does the team make value judgements and balance these issues to solve the problems?
 - d. Careful thought has been given to impacts to properties, and redevelopment may happen over time
 - e. MSE/high walls isolate properties, elevated roadways diminish value of being next to the roadways
 - f. Will existing drive access points along Cornhusker be allowed to remain? Would look for some to consolidate but if redeveloped, yes, they would be eliminated. Try to improve the situation but may not completely eliminate.
 - g. 1D – pros: T-ing into Cornhusker and tying into downtown is important; has least amount of high wall adjacent to and fewer impacts to current property as some other alternatives; cons: elevated roadway changes access to properties and businesses; makes it hard for those businesses to function; those properties will start to function differently or redevelop to reorient to the frontage; 2-foot elevation may be manageable, 6-feet or more begins to be problematic
 - h. 12B – pros: connect network back to Cornhusker, all roadways are at grade aside from the 33rd connection; second tier properties that don't need frontage, just need access to major routes that are not being impacted, island in the middle as a redevelopment area; cons: awkward Adams connection, more costly due to more bridge structure; may not need to not show as much light blue roadway (if existing streets are useable as is) when taking to the public
 - i. 14 – pros: likes that it gets Adams over; would T it in; not huge impact to second tier properties, functions well for existing properties; has full access into businesses; State Fair Park Road continuing south is positive, allows good access points for redevelopment; cons: increased cost with more structure, will impact first tier businesses needing frontage but not bad

- j. 14A – pros - allows for flexibility going north to Superior based on best redevelopment opportunities, similar to Alt 14 but different way to go north; must meet flood storage needs and likely does; cons – driver frustration
- k. 15 – pros: business park area will fit fine in the area of 29th & Cornhusker; cons: high walls will have impact to adjacent properties; nature of area will change when frontage is removed
- l. 15A (preferred by Ken over 15) – pros: it's not as enclosed as Alt 15, more flexible from a redevelopment standpoint; ties two fully signalized intersections on to rerouted Cornhusker; could be preferable by the residents, easy to understand; rerouting Cornhusker is a positive thing; bigger area, feels more open; could provide easier accommodations for bikes/peds than other alternatives with access points back into larger system; future north connection could include MSE wall; main business park potential in this area; forces change in development more quickly; cons: $\frac{3}{4}$ intersection is problematic; (Gladstone to 27th needs to happen to address $\frac{3}{4}$ intersection at 29th & Cornhusker; having to go to Gladstone is not a critical issue)
 - i. Does eastbound left turn at $\frac{3}{4}$ access to Old Cornhusker meet sight distance requirements? Likely no; would have to signalize.
 - ii. Does realigned Cornhusker drive out adjacent businesses day one? Redevelopment would reorient to the new access over time.
 - iii. Still need to run numbers on traffic on segment from 27th, Salt Creek Roadway, Cornhusker intersection. Could the City live with this day one? Probably.
 - iv. Balance to solve the safety/traffic issues with neighborhood and redevelopment
 - v. If we improve the 33rd & Cornhusker and 48th Street improvements are made, what are the impacts in terms of redevelopment. As shown in 15A, many issues are cleaned up related to north/south movements. Property issues still remain because of the existing conditions – small, narrow parcels, no frontage. south of Cornhusker seems to be functioning pretty well, continue to separate neighborhood and industrial. Adams Street underpass could be a good idea if it works from an engineering standpoint. Very few impacts to existing businesses on the south side of Cornhusker.
- Kris to summarize recent discussions with Deb, Cyndi, Lonnie, Thomas and Mark.
 - a. Mark: brief conversation during OA ongoing projects meeting on Alt 15, suggested keeping Adams above grade which is now Alt 15A;
 - b. Deb: showed her 15/15A concepts; concerned with relocating Hwy 6 and the impacts to business access;
 - c. Cyndi: concerns about ROW, has received calls re: more industrial needs; asked her about closing Adams; will have to explain process of alternative development including merits and drawbacks when it's taken to the public
 - d. Lonnie/Thomas: similar conversation to what's been discussed today; also questioned if Adams needs to be connected if keeping 33rd & 48th?
 - e. Layer alternatives and peel them back as pros/cons are addressed to reveal the preferred alternative
- Review the List from the subarea planning charrette. (attached)
- Review proposed Survey Monkey questions for alternatives decision making. (attached)
 - a. Likely need locally preferred alternative by July 11 or the schedule will be impacted
 - b. Decided not to send the survey now or priority statements now, but they will be discussed at the July 31 meeting.
- Review transportation plan priority statements list for decision making. (attached)
 - a. See b. above
- Who gets the survey? Not applicable, will discuss questions at the July 31 meeting.
- Set agenda for the progress meeting on July 11th.
 - a. Meeting will be cancelled.

Other Discussion

- Order of magnitude was shared – note that project totals column does not include engineering but does include ROW
 - Why are the new alternatives \$30 million more than PEL alternatives? How does it operate better?
 - PEL assumed elevators were off the table
 - Future connection of Salt Creek Roadway to Cornhusker
 - Provides connectivity for multiple modes
 - Considered redevelopment and subarea plan
 - What does increased cost do to timeline?
 - Would be difficult for RTSD to come up with entire \$30M, other partners would have to chip in to make up the difference
 - Team will update estimates to total project costs
- Connecting Salt Creek Roadway to Cornhusker would bring immediate conversation re: relinquishment of Hwy 6. What other impacts would there be to the City if this is considered? Would the County have to be involved?
 - Any change of through movement on Cornhusker indicates that it could be relinquished
 - Roadways must be improved to acceptable condition before it's relinquished
 - Does that include surfacing and structures only? Or signals too? Not sure.
 - Should not let relinquishment be deal breaker on project
- Khalil likely needs to be consulted for fatal flaws – schedule meeting
- RTSD wants to support the best plan in the opinions of the City (Planning/PW),
- Does removing Adams connection on Alt 15A reduce the cost? Considering independent utility and other factors, does it make sense to add Adams project to 48th Street project?
- What happens if 33rd is closed and Adams is kept open? Still have ROW issues, and keeping 33rd open provides clean connections to destinations
- Should the 48th St. intersection be included in the EIS? Need to ask Brian. If the “network” works, does closing Adams matter?
- 48th Street improvements tied to this project, and does Adams Street connection become a future phase? Would be built as need arises; would likely build something like Alt 15 to be able to connect over Adams in the future; would change intersections and signals; not including Adams could save \$15-20M.
- The alternatives that we are down to accomplish the goals of the subarea plan
- Citizens seem to not like signalized intersections and we don't want to add a “stress corridor” to the network by creating more intersections with signals. Is it worth \$20M to accommodate 10K vehicles on Adams? Likely not.
- The USACE project will construct the DMR bridge on 33rd before the RTSD project so that intersection will need to be tied in.
- Elevated intersection needs to operate at level of service of D, will be tough to hit that goal. Would a roundabout work better? Yes. Then should west leg be constructed day one?
- Take out fish hook including frontage road from 1D, closing Adams
- Action Items:
 - Set meeting with client team July 31st 10:00 AM -1:00 PM – Lonnie, Mark, Thomas, David (Paul as back up), Roger, Kris, Taylor, Rick, Justin Petersen
 - model numbers, cost numbers and operation screening criteria will be provided
 - Cancel meeting July 11
 - Schedule meeting with Khalil and Tom Goodbarn after alternative is selected.

"The List"

As previously mentioned, the planning team prepared "The List," which functioned as the program during concept exploration, narrowing, and evaluation. This compiled list is made up of the key success factors as determined by the success factors (from the Visioning Session), prioritized needs, wants, and desires (from the Visioning Session), and prioritized issues and opportunities (from day one of the charrette). "The List" is not in order of importance, nor weighted. It simply serves as a check list when creating and evaluating concepts, ensuring that the solutions are in line with the Advisory Committee's vision and priorities.

Table 2.4 "The List"

- ✓ Eliminate at-grade railroad crossings.
- ✓ Improve safety for all modes of transportation within the subarea.
- ✓ Improve traffic flow and decrease traffic congestion within the subarea.
- ✓ Increase connectivity to other areas of Lincoln (UNL East Campus, Nebraska Wesleyan University, Downtown, Antelope Valley, etc.)
- * * ✓ Provide a connection between North 33rd Street and Superior Street.
- * * ✓ Provide an easy connection to State Fair Park Drive / Salt Creek Roadway.
- ✓ The following land uses should be developed in the existing undeveloped areas (largely north of Cornhusker Highway):
 - Parks
 - Recreation
 - Green space / open space
 - Light industrial (larger development sites)
 - Business park
 - Mixed use
- ✓ Organize land uses cohesively and appropriately.
- ✓ Identify key development and redevelopment opportunities aligned with market potential.
- ✓ Maintain commercial and industrial land uses along Cornhusker Highway to support and/or enhance the tax base.
- ✓ Balance the need to be sensitive to current businesses and properties with greater Lincoln's need for efficient and safe transportation through the subarea.
- ✓ Increase parks and recreation opportunities and open space within the subarea to serve subarea residents and the entire Lincoln community.
- ✓ Capitalize on Salt Creek as an amenity, while balancing the need to responsibly manage environmental resources and stormwater management.
- ✓ Develop a clear and safe pedestrian and bicycle network through trails, sidewalks, and bike routes (including over the railroad crossings). Provide connections to the existing trails, sidewalks, and bike routes outside of the subarea.
- ✓ Improve the aesthetics of the subarea—on private property (buildings and sites) and within the public right-of-way.
- ✓ Create and define a sense of character within the subarea (i.e., increase the "warmth" and vibrancy). Give people a reason to come to the subarea.
- ✓ Ensure a high benefit to cost ratio for transportation investments within the subarea.

N. 33rd & Cornhusker Priorities

* 1. What is the best long-term design for Salt Creek Roadway?

- ☐ Continuation of Salt Creek Roadway north of and parallel to the railroad tracks to a merger with Cornhusker Highway
- ☐ Extension of Salt Creek Roadway to Superior Street
- ☐ Leave as is

* 2. What is the best option for an additional north/south arterial constructed south of Superior Street between 27th and 48th streets, if one is desired?

- ☐ An extension of 33rd Street to Superior Street
- ☐ An extension of Salt Creek Roadway to Superior Street
- ☐ Both 33rd Street and Salt Creek Roadway can access the long-term connection to Superior Street

* 3. When you think of the future roadway network in northeast Lincoln, please rank the following in order of importance.

A connection of Adams Street to Cornhusker Highway

A connection of 33rd Street to Cornhusker Highway

Improved connection from Downtown UNL Campus/Innovation Campus to East Campus

Maintaining all existing movements and connections

* 4. When you think of the most appropriate roadway design for the project area, what do you view as most important?

- ☐ Need to maintain existing movements and direct driveway access to Cornhusker Highway for existing businesses
- ☐ A transportation network and access management that supports/enhances long term economic growth as defined in the Subarea Plan

* 5. Should the RTSD and City of Lincoln invest in acquiring the elevator property Day One to more quickly build a desired "Ultimate" roadway network?

- ☐ Yes
- ☐ No

* 6. Understanding that cost could have an impact on final design, please rank the following in order of importance to you

Keeping Adams Street open west of the railroad tracks

Keeping 33rd Street open across the railroad tracks

Construct the "Ultimate" roadway network with the initial project

Only address the at-grade rail crossing now and address the long term roadway network at a later time

* 7. Should the closing of the 44th Street at-grade crossing happen with this project on Day One?

- ☐ Yes
- ☐ No

8. If yes, is a new separated pedestrian crossing connecting neighborhoods along Cornhusker Highway between 40th and 48th streets important to you?

- ☐ Yes
- ☐ No

DONE

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0 of 8 answered

PRIORITIZE THE FOLLOWING STATEMENTS REGARDING 33RD AND CORNHUSKER

Number them from 1 (highest priority) to 24 (lowest priority)

OR, maybe we add this as the last question to the Survey Monkey Questions

- Extension of Salt Creek Roadway parallel to railroad tracks to connect Cornhusker
- Some other relocation of Salt Creek roadway to connect to Cornhusker or 33rd Street
- Close or modify the existing 29th Street connection to Cornhusker.
- A connection of 33rd Street to Cornhusker
- A 33rd Street Corridor extended to Superior
- A Salt Creek Corridor extended to Superior
- Both Salt Creek Roadway and 33rd Street can access an extension to Superior
- A connection of Adams Street to Cornhusker
- Maintain all existing movements and connections
- Maintain direct driveway access to Cornhusker for existing businesses
- Closing Adams Street connection to Cornhusker
- Closing 33rd Street connection to Cornhusker
- A Sub-area plan and transportation network that supports/enhances long term economic growth
- Improved connection from Downtown UNL Campus & innovation Campus to East Campus
- Construct the “Long-Term” now
- Open to spending more money Day One for a better Long Term Solution
- Only construct to close the rail crossings now (the RTSD project); construct long-term later
- Invest in acquiring the elevator property day one
- We can live with a less than desirable interim condition for 10 years or more.
- Meet Access Management Policy intersection spacing criteria with Long Term Road Network
- Meet Access Management Policy intersection spacing criteria with Day One Road Network
- Provide relief access to 27th & Cornhusker retail from new N/S roadway north of Cornhusker
- Close 44th Street at-grade crossing with project
- Provide additional pedestrian crossing between neighborhoods across Cornhusker east of 40th Street



CLIENT UPDATE MEETING

Alternative Evaluation Meeting No.6

Location: Olsson Associates – Grand Conference Room

Date and Time: July 31, 2018 10:00 AM – 1:00 PM

MEETING NOTES

ATTENDEES: Roger Figard, Kris Humphrey, David Cary, Mark Lutjeharms, Thomas Shafer, Lonnie Burklund, Rick Herrick, Justin Petersen, Jeff McKerrow, Stacey Roach, Brittany Hillis, Brian Osborn, Taylor Plummer and Ken Boone (on phone)

- Stacey Roach moderated the meeting and provided a review of the meeting goals: Purpose of this meeting is to continue discussion of transportation alternatives, to reduce the number of alternatives being considered for additional evaluation, and to select a preliminary preferred alternative to show in the subarea plan.
- Justin Petersen reviewed the history of the alternatives discussion

Our team started with the PEL that looked at multiple alternatives to close two at-grade railroad crossings and to improve safety, mobility, and connectivity for multiple modes of transportation in the study area. The PEL recommended two alternatives to move forward for consideration in the range of 75 to 80 million dollars. The RTSD in concert with the City of Lincoln determined that before making that level of investment in the study area it would be prudent to take a more global look at the area to make certain that a transportation investment would fit with a long-range plan for northeast Lincoln. It was determined that a subarea plan (SAP) coupled with a long-range transportation plan for the area would be developed. The RTSD rail-crossing closure projects would then be identified from within the SAP and long range transportation plan and that those projects would conform with and support the subarea plan. Other differences from the PEL study that were noted which led to the development of new and different alternatives were the fact the grain elevators were no longer considered a constraint leading to a more direct and in-line connection of Salt Creek Roadway to Cornhusker Highway. The possibility of relocating Cornhusker Highway also led to new alternatives being developed. There was consensus that N 33rd Street should remain the north-south roadway (not Salt Creek Parkway). And it was determined that a “back-door” access into the shopping area at the northeast corner of 27th and Cornhusker may be required with modifications to the existing intersection at 29th and Cornhusker. And lastly consideration that Adams Street could be closed (not connected to Cornhusker but remain a local street) created opportunity for additional and different transportation alternatives.

- Stacey then reviewed the items where we have heard consensus regarding the transportation alternatives
 - Must conform with the subarea plan
 - Public, advisory and client group agree that there should be a 33rd Street extension to Superior Street.
 - Ultimately the preferred long-range plan should have Salt Creek Roadway extending northeast parallel to the railroad and connect in-line with Cornhusker Highway to the becoming the predominant east/west roadway.
 - That 44th Street at grade rail crossing should be closed with the RTSD project, and a connection from 44th to 48th Street be constructed and that a grade separated pedestrian crossing of the railroad and Cornhusker Highway be constructed at or near 44th
 - Minimize impacts to the mobile home park
 - No urban interchange should be considered (does not “fit” with the area)
- Review the remaining roadway alternatives
 - The 10 remaining roadway alternatives as of this meeting are as follows:
 - 1D, 1B (1D with no Adams), 12B, 12C (12B with no Adams), 14, 15, 15B (15 with no Adams), 15A, PEL C, and PEL C3
 - See the attached maps.
 - Each alternative was described.
- Review new information and key unknown information
 - An alternative decision matrix was distributed (as per previous meeting) indicating the pluses and minuses of the various alternatives. New information included on the matrix includes 2026 total roadway project costs and traffic information. See attached alternative matrix.
 - Project cost ranges are defined as follows:
 - \$ 95 -110 million (one dollar sign)
 - \$\$ 110-135 million (two dollar signs)
 - \$\$\$ over 135 million (three dollar signs)
 - Ran 2040 travel demand model for these alternatives and then developed design hourly volumes at key intersections to do a high-level review of capacity and required intersection geometrics
 - Bringing 33rd down to an at-grade intersection with Cornhusker requires Cornhusker to be raised at least 2 to 3 feet and ultimately widened to 6 lanes to provide capacity.
 - What is not shown is the no build, this is in comparison with the no build, Goals established in the PEL include 2040 new intersection operation at level of service D or better, and existing intersections at a level of service no worse than 2020 no-build condition.
 - Unknown information is related to the actual impacts to the grain elevator property which will not be determined until the USACE Deadmans Run Project is in final design. Also unknown is the actual final design grading limit along the east side of Deadmans run between 33rd Street and Cornhusker Highway. This information could impact final roadway alignments, right-of-way acquisition, and phasing.
 - Kris has a meeting with the NRD on Friday, she will bring up the 33rd project and ask about the progress of the DMR's project.
 - The DMR feasibility study does not go into that level of detail required to determine limits of construction.

- How does the impact and relocation of the elevators access road impact their operation and potential stacking of vehicles on public roads?
- Review results of prioritization survey.
 - An informal survey consisting of 17 items to be prioritized in terms of importance as a goal related to the transportation alternatives was distributed and completed by the client group prior to the meeting. The survey results summary is attached. Key items of note from the survey discussion are:
 - Extension of Salt Creek Roadway parallel to railroad tracks to connect to Cornhusker was the top priority consistent with consensus items.
 - Construct pedestrian crossing at or near 44th Street was priority 2.
 - Other consensus items resulting from the survey discussion include:
 - Some other relocation of Salt Creek roadway to connect to 33rd or onto superior does not make sense.
 - Ultimately (long-range) 29th at Cornhusker should be modified or closed
 - Extend 33rd to Superior
 - Do not extend Salt Creek Roadway to Superior
 - Connection of both 33rd and Salt Creek Roadway in some manner to Superior is not important
 - Maintaining all existing connections is not important
 - Closing Adams could be considered if we also had an option connecting Adams; would like to get public and Advisory Committee to weigh-in on this discussion
 - Closing 33rd is not an option.
 - Improved connection between UNL campuses is not a driving force for alternative selection.
 - The following items were discussed but tabled for further discussion
 - Meet Access Management Policy for intersection spacing
 - Closing Adams (day one versus ultimate)
 - Modify 29th St intersection before Salt Creek Roadway extension
 - Back door access to retail at 27th & Cornhusker
- Based on the above discussion and consensus items the following decisions were reached regarding the alternatives:
 - Take the Adams s-curve connection from 15, add it to 1D, call it 1E and make it a “finalist” for a preliminary preferred.
 - 1D with the fish hook is a “finalist” and the preliminary preferred alternative
 - Discussion was that some preferred 1B with no Adams Street connection. It was agreed to show the fish hook 1D option as the preferred only if the Adams connection was described as a future Phase 2 project and the shopping center access as a Phase 3 project
 - 1B with no Adams connection is also considered a preliminary preferred finalist
 - PEL C with modified 33rd Street is a preliminary preferred finalist
 - All other alternatives were eliminated due to their complexity, not meeting the consensus goals, and/or impractical cost estimates but will be verified through the tier 0, 1 and 2 screening process as well as through the environmental impact statement process.

North 33rd and Cornhusker

PLANNING PHASE

www.33rdcornhusker.com

- We will move forward with 1D as the preliminary preferred alternative but continued discussion on how to show and present the Adams Street connection needs to occur. If it is shown as part of the alternative it will be federalized.
- It is understood that the final preferred alternative will be the result of the Tier 0, 1 and 2 screening process and the results of the Environmental Impact Statement.

Attachments

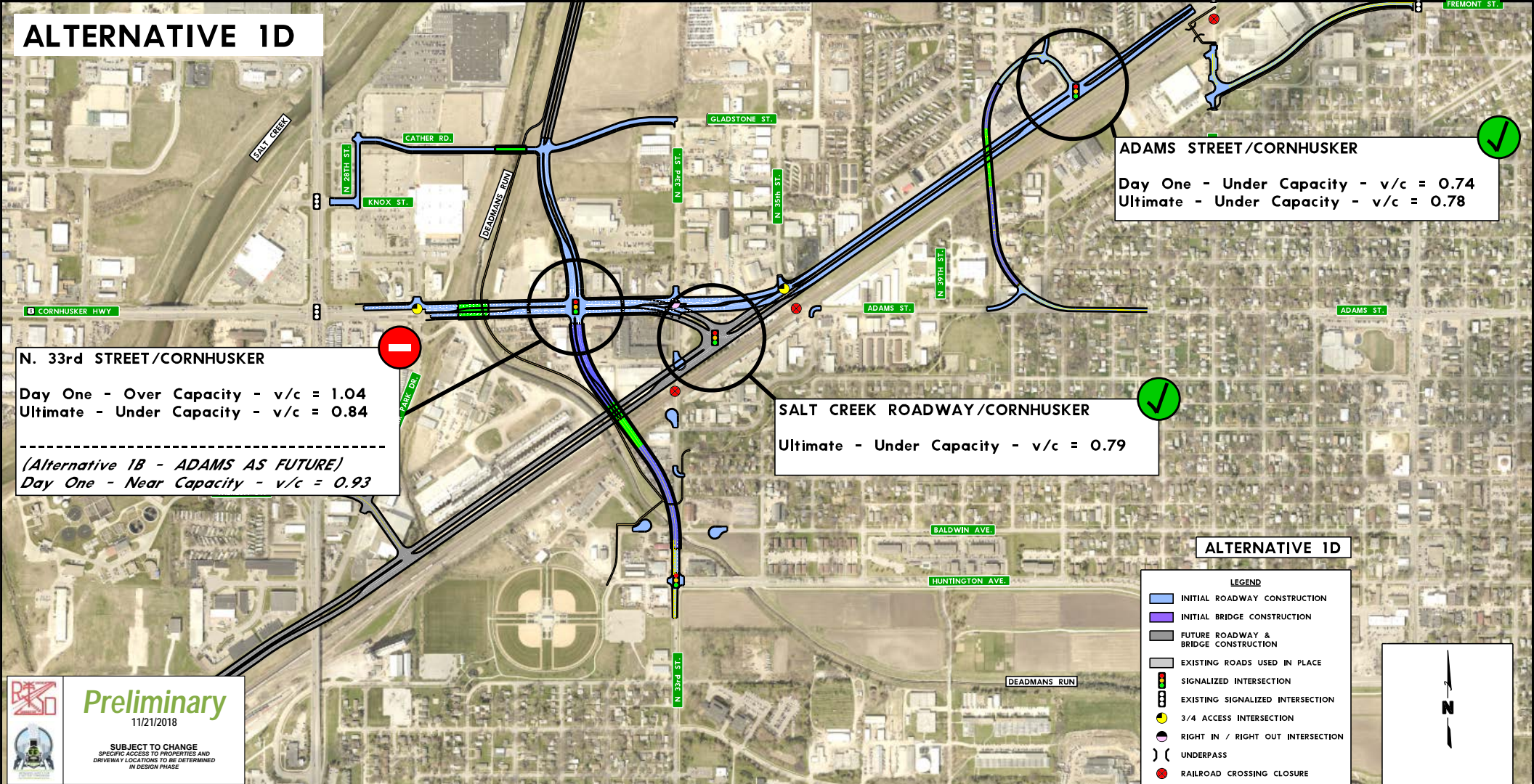
Alternative Matrix
Cornhusker Priorities
Alternative Maps

Discussion	Alternative 1B (1D - No Adams)	Alternative 1D	Alternative 12B	Alternative 12C (12B - No Adams)	Alternative 14	Alternative 15	Alternative 15A	Alternative 15B (15 - No Adams)	Alternative C	Alternative C3
Salt Creek Roadway to Cornhusker Connection	Parallel to Tracks - Cornhusker <u>At-Grade</u> Intersection	Parallel to Tracks - Cornhusker <u>At-Grade</u> Intersection	Parallel to Tracks - Cornhusker <u>At-Grade</u> Intersection	Parallel to Tracks - Cornhusker <u>At-Grade</u> Intersection	Parallel to Tracks - Cornhusker <u>At-Grade</u> Intersection	Parallel to Tracks - Cornhusker <u>Elevated</u> Intersection	Parallel to Tracks - Cornhusker <u>Elevated</u> Intersection	Parallel to Tracks - Cornhusker <u>Elevated</u> Intersection		
33rd Street	West Alignment Shift <i>Overpass touches down at Huntington and 31st & Cornhusker</i>	West Alignment Shift <i>Overpass touches down at Huntington and 31st & Cornhusker</i>	On Alignment <i>Overpass touches down at Huntington and Gladstone</i>	On Alignment <i>Overpass touches down at Huntington and Gladstone</i>	On Alignment <i>Overpass touches down at Huntington and Gladstone</i>	West Alignment Shift <i>Elevated Intersection with Cornhusker adjacent to tracks</i>	West Alignment Shift <i>Elevated Intersection with Cornhusker adjacent to tracks</i>	West Alignment Shift <i>Elevated Intersection with Cornhusker adjacent to tracks</i>		
N/S Roadway Cornhusker to Superior Connection	Day One: Construct to Gladstone <i>Future: Gladstone to Superior</i>	Day One: Construct to Gladstone <i>Future: Gladstone to Superior</i>	Day One: Construct to Gladstone <i>Future: Gladstone to Superior</i>	Day One: Construct to Gladstone <i>Future: Gladstone to Superior</i>	Day One: Construct to Gladstone <i>Future: Gladstone to Superior</i>	Day One: Construct to Adams Extension <i>Future: Adams Extension to Superior</i>	Day One: No Construction <i>Future: Adams & Cornhusker to Superior</i>	Day One: No Construction <i>Future: Adams & Cornhusker to Superior</i>		
Adams Street	Direction Connection to Cornhusker Closed	Direct Connection via "Fish Hook" at 40th & Cornhusker	Direct Connection via "Fish Hook" at 40th & Cornhusker	Direction Connection to Cornhusker Closed	Overpass over BNSF and Cornhusker Highway, Old 33rd and continues to Cornhusker	Overpass over BNSF and Cornhusker Highway, Connects to N/S Roadway	Elevated Intersection with Cornhusker	Direction Connection to Cornhusker Closed		
48th Street	Program Widening and Intersection Improvements for 48th Street	48th Project is Prioritized Independently	48th Project is Prioritized Independently	Program Widening and Intersection Improvements for 48th Street	48th Project is Prioritized Independently	48th Project is Prioritized Independently	48th Project is Prioritized Independently	Program Widening and Intersection Improvements for 48th Street		
44th Street	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>		
Conceptual Cost Estimate (Including ROW Impacts), 2026 Dollars	\$	\$\$	\$\$	\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$	\$\$
"Simple" Alignment?	(+) Yes	(+) Yes	(-) No	(-) No	(-) No	(-) No	(+) Yes	(+) Yes		
US-6 Stays on Existing Alignment?	(+) Yes	(+) Yes	(-) No	(-) No	(-) No	(-) No	(-) No	(-) No		
NDOT Relinquishment Discussion?	(+) No	(+) No	(-) Yes	(-) Yes	(-) Yes	(-) Yes	(-) Yes	(-) Yes		
Concerns	(-) Adams Traffic Impacts (-) 3 Heavy Signalized Intersections within 2000 ft (27/CH, 29/CH, 33/CH) (- <i>FUTURE</i>) 3 Heavy Signalized Intersections within 3000 ft (27/CH, 33/CH, CH/SCR)	(-) 3 Heavy Signalized Intersections within 2000 ft (27/CH, 29/CH, 33/CH) (- <i>FUTURE</i>) 3 Heavy Signalized Intersections within 3000 ft (27/CH, 33/CH, CH/SCR)	(-) Change of traffic flow to businesses - no direct front-door access from Highway	(-) Adams Traffic Impacts (-) Change of traffic flow to businesses - no direct front-door access from Highway	(-) Change of traffic flow to businesses - no direct front-door access from Highway (- <i>FUTURE</i>) Close intersection spacing of industrial access connection to future SCR & CH Intersection	(-) Change of traffic flow to businesses - no direct front-door access from Highway (-) 4 Heavy Signalized Intersections within 2500 ft (27/CH, 29/CH, 31/CH, 33/CH) (-) Heavy volumes of turning traffic at elevated intersections (-) Change of traffic flow to businesses - no direct front-door access from Highway	(-) Close intersection spacing of industrial access connection to elevated intersection (-) 4 Heavy Signalized Intersections within 2500 ft (27/CH, 29/CH, 31/CH, 33/CH) (-) Heavy volumes of turning traffic at elevated intersection (-) Access to/from industrial area Day One (-) Change of traffic flow to businesses - no direct front-door access from Highway (- Future) Adams to 33rd / Superior connection is expensive with high ROW costs	(-) Traffic impacts if Adams closed south of tracks (-) Close intersection spacing of industrial access connection to elevated intersection (-) Heavy volumes of turning traffic at elevated intersections (-) Access to and from industrial area (-) Change of traffic flow to businesses - no direct front-door access from Highway		
Positive Elements	(+) Little disruption to "Front-door" businesses (+) Good access to Gladstone industrial area	(+) Little disruption to "Front-door" businesses (+) Good access to Gladstone industrial area	(+) Good access to Gladstone industrial area	(+) Good access to Gladstone industrial area	(+) Good access to Gladstone industrial area	(+ <i>FUTURE</i>) Great Downtown / UNL Campuses / University Place Connection	(+) Opens Up Redevelopment Space (+ <i>FUTURE</i>) Great Downtown / UNL Campuses / University Place Connection	(+ <i>FUTURE</i>) Great Downtown / UNL Campuses / University Place Connection		

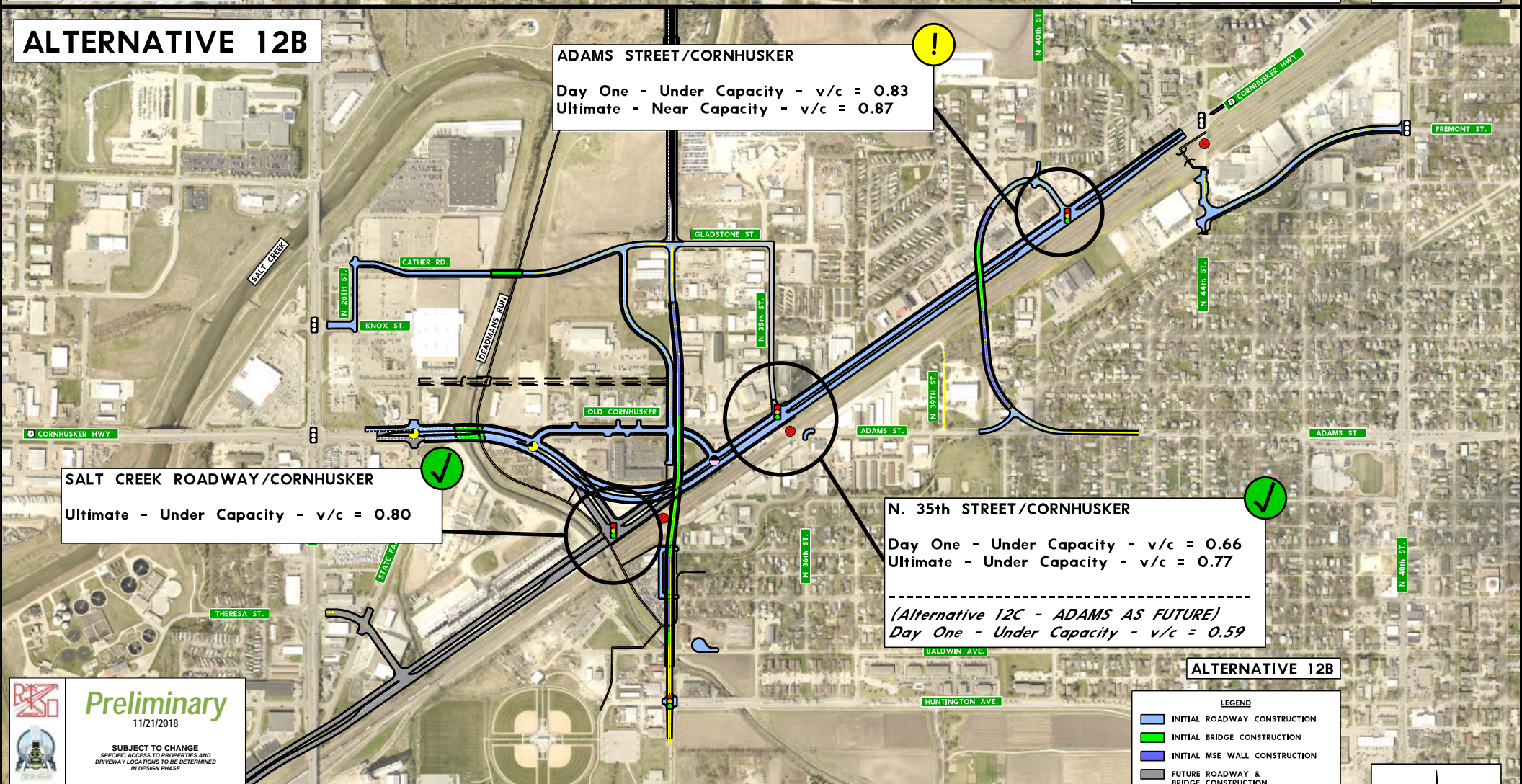
Discussion	Alternative 1B (1D - No Adams)	Alternative 1D	Alternative 12B	Alternative 12C (12B - No Adams)	Alternative 14	Alternative 15	Alternative 15A	Alternative 15B (15 - No Adams)	Alternative C	Alternative C3
Residential Impacts	(+) Minimal neighborhood impacts south of Cornhusker Hwy.; least visually intrusive into south neighborhood (-) Noise and visual obstruction concerns with bridge west of neighborhood south of Cornhusker Hwy and near mobile home park	(+) Minimal neighborhood impacts south of Cornhusker Hwy.; least visually intrusive into south neighborhood (-) Adams St. bridge close to mobile home park north of Cornhusker Hwy, creating possible environmental justice concern (-) Noise and visual obstruction concerns with bridge west of neighborhood south of Cornhusker Hwy and near mobile home park	(-) Bridge close to neighborhood south of Cornhusker Hwy. on western edge (-) Adams St. bridge close to mobile home park north of Cornhusker Hwy, creating possible environmental justice concern (-) Noise and visual obstruction concerns with bridge just west of neighborhood south of Cornhusker Hwy.	(-) Bridge close to neighborhood south of Cornhusker Hwy. on western edge (-) Noise and visual obstruction concerns with bridge just west of neighborhood south of Cornhusker Hwy.	(+) Minimizes intrusion into mobile home park north of Cornhusker Hwy. (-) Noise and visual obstruction concerns with bridge just west of neighborhood south of Cornhusker Hwy.	(-) MSE wall close to mobile home park north of Cornhusker Hwy, creating visual obstruction (-) MSE wall limits accessibility to mobile home park north of Cornhusker Hwy. (-) MSE wall/bridge close to western edge of neighborhood south of Cornhusker Hwy., creating slight visual obstruction (-) Noise and visual obstruction concerns with bridge just west of neighborhood south of Cornhusker Hwy.	(+) Least residential impact overall (-) MSE wall/bridge close to western edge of neighborhood south of Cornhusker Hwy., creating slight visual obstruction (-) Noise and visual obstruction concerns with bridge just west of neighborhood south of Cornhusker Hwy.	(-) MSE wall/bridge close to western edge of neighborhood south of Cornhusker Hwy., creating slight visual obstruction (-) Noise and visual obstruction concerns with bridge just west of neighborhood south of Cornhusker Hwy.		
Frontage Commercial Impacts (First Tier Properties)	(+) Most existing Cornhusker Hwy. frontage commercial can remain with current access drives (-) May slow redevelopment	(+) Most existing Cornhusker Hwy. frontage commercial can remain with current access drives (-) May slow redevelopment	(+) Creates new commercial frontage properties between Old Cornhusker Hwy. and new Cornhusker Hwy. (-) Eliminates Cornhusker Hwy. frontage for commercial properties between Deadman's Run and N. 35th St. (-) Creates awkward island between Old Cornhusker Hwy. and new Cornhusker Hwy. (-) Compared to 14, provides less desired commercial frontage sites along Old Cornhusker with no fluid connection to realigned State Fair Park Dr. (Sites seem secondary in nature.)	(+) Creates new commercial frontage properties between Old Cornhusker Hwy. and new Cornhusker Hwy. (-) Eliminates Cornhusker Hwy. frontage for commercial properties between Deadman's Run and N. 35th St. (-) Creates awkward island between Old Cornhusker Hwy. and new Cornhusker Hwy. (-) Compared to 14, provides less desired commercial frontage sites along Old Cornhusker with no fluid connection to realigned State Fair Park Dr. (Sites seem secondary in nature.)	(+) Creates new commercial frontage properties between Old Cornhusker Hwy. and new Cornhusker Hwy. (+) Compared to 12B, provides more highly desired commercial frontage sites along Old Cornhusker Hwy./Adams St. with fluid connection to realigned State Fair Park Dr. (-) Eliminates Cornhusker Hwy. frontage for commercial properties between Deadman's Run and N. 35th St. (-) No quick connection for existing frontage commercial properties back to larger network; limited visibility and accessibility due to MSE wall (-) Creates awkward island between Old Cornhusker Hwy. and new Cornhusker Hwy.	(+) May accelerate redevelopment of dated commercial frontage properties west of N. 35th St. (-) Eliminates Cornhusker Hwy. frontage for commercial properties between Deadman's Run and N. 35th St. (-) No quick connection for existing frontage commercial properties back to larger network; limited visibility and accessibility due to MSE wall	(+) May accelerate redevelopment of dated commercial frontage properties west of N. 37th St. (-) Eliminates Cornhusker Hwy. frontage for commercial properties between Deadman's Run and just east of N. 37th St. (-) Limited visibility and accessibility for existing frontage commercial properties due to MSE wall	(+) May accelerate redevelopment of dated commercial frontage properties west of N. 35th St. (-) Eliminates Cornhusker Hwy. frontage for commercial properties between Deadman's Run and N. 35th St. (-) No quick connection for existing frontage commercial properties back to larger network; limited visibility and accessibility due to MSE wall		
Business Impacts (Non-Frontage/Second Tier Properties)	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (-) N. 33rd St. bridge cuts through industrial and commercial uses south of Cornhusker	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (-) Adams St. bridge cuts through industrial uses south of Cornhusker and commercial uses north of Cornhusker (-) N. 33rd St. bridge cuts through industrial and commercial uses south of Cornhusker	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (-) Adams St. bridge cuts through industrial uses south of Cornhusker and commercial uses north of Cornhusker	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.)	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (+) Largely avoids existing industrial uses north and south of Cornhusker Hwy.; allows existing uses to continue (+) Creates redevelopment potential in industrial area east of N. 27th St./south of Cornhusker Hwy./west of Deadman's Run (-) Cuts through industrial area east of State Fair Park Dr.	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (-) Decreases visibility and accessibility to industrial and commercial areas north of Cornhusker Hwy. (-) Cuts through industrial business at southwest intersection of railroad and N. 33rd St. and north and south of Cornhusker between N. 35th St. and N. 41st St.	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (-) Decreases visibility and accessibility to industrial and commercial areas north of Cornhusker Hwy. (-) Cuts through industrial business at southwest intersection of railroad and N. 33rd St.	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (-) Decreases visibility and accessibility to industrial and commercial areas north of Cornhusker Hwy. (-) Cuts through industrial business at southwest intersection of railroad and N. 33rd St. and north and south of Cornhusker between N. 35th St. and N. 41st St.		
Visual Clutter / Obstructions Impacts	(+) No MSE wall to block all views (-) "Spreads out" roadway network , instead of concentrating improvements around N. 33rd St. and Cornhusker Hwy.	(+) No MSE wall to block all views (-) "Spreads out" roadway network , instead of concentrating improvements around N. 33rd St. and Cornhusker Hwy.	(+) No MSE wall to block all views (-) "Spreads out" roadway network , instead of concentrating improvements around N. 33rd St. and Cornhusker Hwy. (-) Large N. 33rd St. bridge structure (-) "Busy" road network with old/new Cornhusker Hwy.	(+) No MSE wall to block all views (-) "Spreads out" roadway network , instead of concentrating improvements around N. 33rd St. and Cornhusker Hwy. (-) Large N. 33rd St. bridge structure (-) "Busy" road network with old/new Cornhusker Hwy.	(+) No MSE wall to block all views (-) "Spreads out" roadway network , instead of concentrating improvements around N. 33rd St. and Cornhusker Hwy. (-) Large N. 33rd St. bridge structure (-) Large Adams St. bridge structure	(+) Concentrates road network improvements around N. 33rd St. and Cornhusker Hwy. (-) Large expanses of MSE wall divide north subarea from south subarea	(+) Concentrates road network improvements around N. 33rd St. and Cornhusker Hwy. (-) Largest expanses of MSE wall divide north subarea from south subarea	(+) Concentrates road network improvements around N. 33rd St. and Cornhusker Hwy. (-) Large expanses of MSE wall divide north subarea from south subarea		
Connectivity Impacts (Pedestrian / Bicycle / Transit)	(+) Entire Cornhusker alignment is at-grade and adjacent to existing businesses (+) Road network is the least confusing and most consistent with existing alignments (+) Users on N. 33rd St. are not forced to back track when accessing Cornhusker (-) No direct access between Cornhusker and Adams	(+) Entire Cornhusker alignment is at-grade and adjacent to existing businesses (+) Road network is the least confusing and most consistent with existing alignments (+) Users on N. 33rd St. are not forced to back track when accessing Cornhusker (-) Adams St. access ramp is awkward and steep for all users	(+) Cornhusker alignment is altered but maintained at-grade (+) Intuitive east/west connection between Cornhusker and area businesses west of N. 33rd St. (+) Consistent alignment of N. 33rd St. supports bus operations (-) Adams St. access ramp is awkward and steep for all users (-) No direct access between Cornhusker and N. 33rd St.	(+) Cornhusker alignment is altered but maintained at-grade (+) Intuitive east/west connection between Cornhusker and area businesses west of N. 33rd St. (+) Consistent alignment of N. 33rd St. supports bus operations (-) No direct access between Cornhusker and N. 33rd St., and Cornhusker and Adams	(+) Cornhusker alignment is altered but maintained at-grade . (+) Consistent alignment of N. 33rd St. supports bus operations (-) Fragmented connection from Cornhusker to N. 33rd St. (-) No direct access between Cornhusker and N. 33rd St. (-) Less intuitive east/west connection between Cornhusker and area businesses west of N. 33rd St. (-) Unattractive access from Adams St. bridge to north of Cornhusker.	(+) Adams St. bridge is oriented more towards Cornhusker and existing businesses than (15A), but does not compromise ease of movement to Superior St. (-) No access to N. 27th St. retail center (-) Additional bike/ped facilities needed below elevated Cornhusker alignment east of N. 33rd St. (-) Intimidating path to travel across N. 33rd St. and Cornhusker	(-) No access to N. 27th St. retail center (-) Adams St. bridge is oriented less towards Cornhusker and existing businesses than (15) (-) Additional bike/ped facilities needed below elevated Cornhusker alignment east of N. 33rd St. (-) Intimidating path to travel across N. 33rd St. and Cornhusker	(-) No access to N. 27th St. retail center (-) Additional bike/ped facilities needed below elevated Cornhusker alignment east of N. 33rd St. (-) Intimidating path to travel across N. 33rd St. and Cornhusker		

CLIENT SURVEY RESULTS									
SURVEY STATEMENT	Extension of Salt Creek Roadway parallel to railroad tracks to connect Cornhusker	Some other relocation of Salt Creek Roadway to connect to Cornhusker or 33rd Street	Close or modify the existing 29th Street connection to Cornhusker.	A direct connection of 33rd Street to Cornhusker	A 33rd Street Corridor extended to Superior	A Salt Creek Corridor extended to Superior	Both Salt Creek Roadway and 33rd Street can access an extension to Superior	A direct connection of Adams Street to Cornhusker	
INDIVIDUAL RANKINGS	2	10	11	13	9	8	3	4	
	1	8	3	12	13	11	10	2	
	6	4	3	1	11	10	13	5	
	7	15	16	1	5	8	3	14	
	1	15	13	11	5	6	3	12	
AVERAGE	3.4	10.4	9.2	7.6	8.6	8.6	6.4	7.4	
AVERAGE RANK	1.0	13.0	11.0	7.0	9.0	10.0	4.0	6.0	
SURVEY STATEMENT	Maintain all existing movements and connections	Maintain direct driveway access to Cornhusker for existing businesses	Closing Adams Street at railroad crossing (no connection to Cornhusker)	Closing 33rd Street at railroad crossing (remain open north of Cornhusker)	Improved connection from Downtown UNL Campus & Innovation Campus to East Campus	Meet Access Management Policy intersection spacing criteria (1/4 mile minimum full access breaks)	Provide relief access to 27th & Cornhusker retail from new N/S roadway north of Cornhusker	Close 44th Street at-grade crossing with project	Provide additional pedestrian crossing between neighborhoods across Cornhusker east of 40th Street
INDIVIDUAL RANKINGS	16	17	15	14	7	12	6	1	5
	14	17	16	15	7	4	5	6	9
	12	15	16	17	14	2	9	7	8
	10	9	6	17	12	11	2	13	4
	16	7	9	14	10	2	17	8	4
AVERAGE	13.6	13.0	12.4	15.4	10.0	6.2	7.8	7.0	6.0
AVERAGE RANK	16.0	15.0	14.0	17.0	12.0	3.0	8.0	5.0	2.0

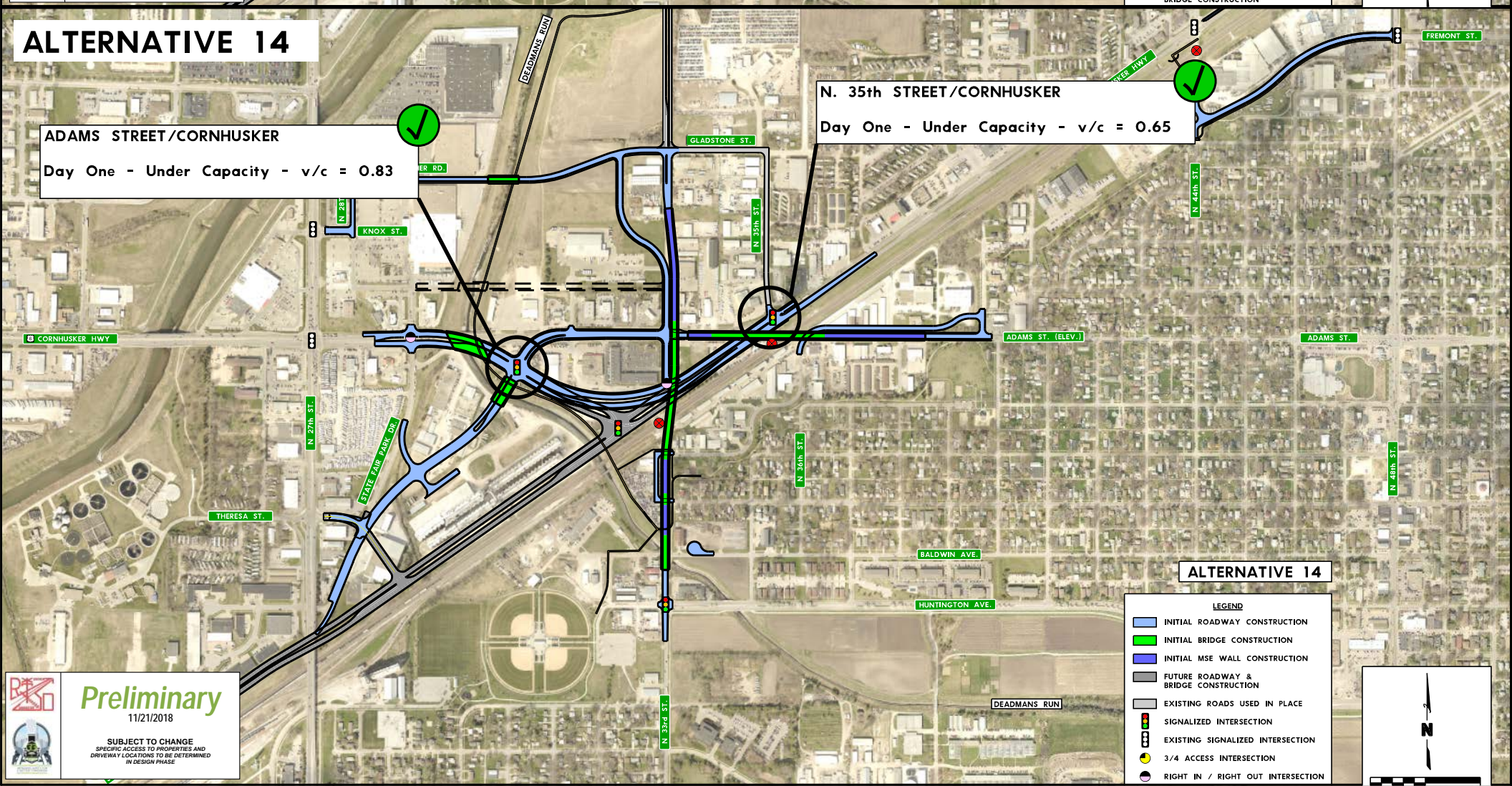
ALTERNATIVE 1D



ALTERNATIVE 12B



ALTERNATIVE 14

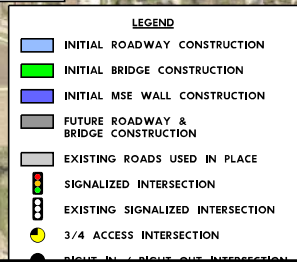




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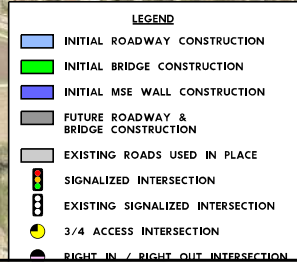
SUBJECT TO CHANGE
*SPECIFIC ACCESS TO PROPERTIES AND
 DRIVEWAY LOCATIONS TO BE DETERMINED
 IN DESIGN PHASE*

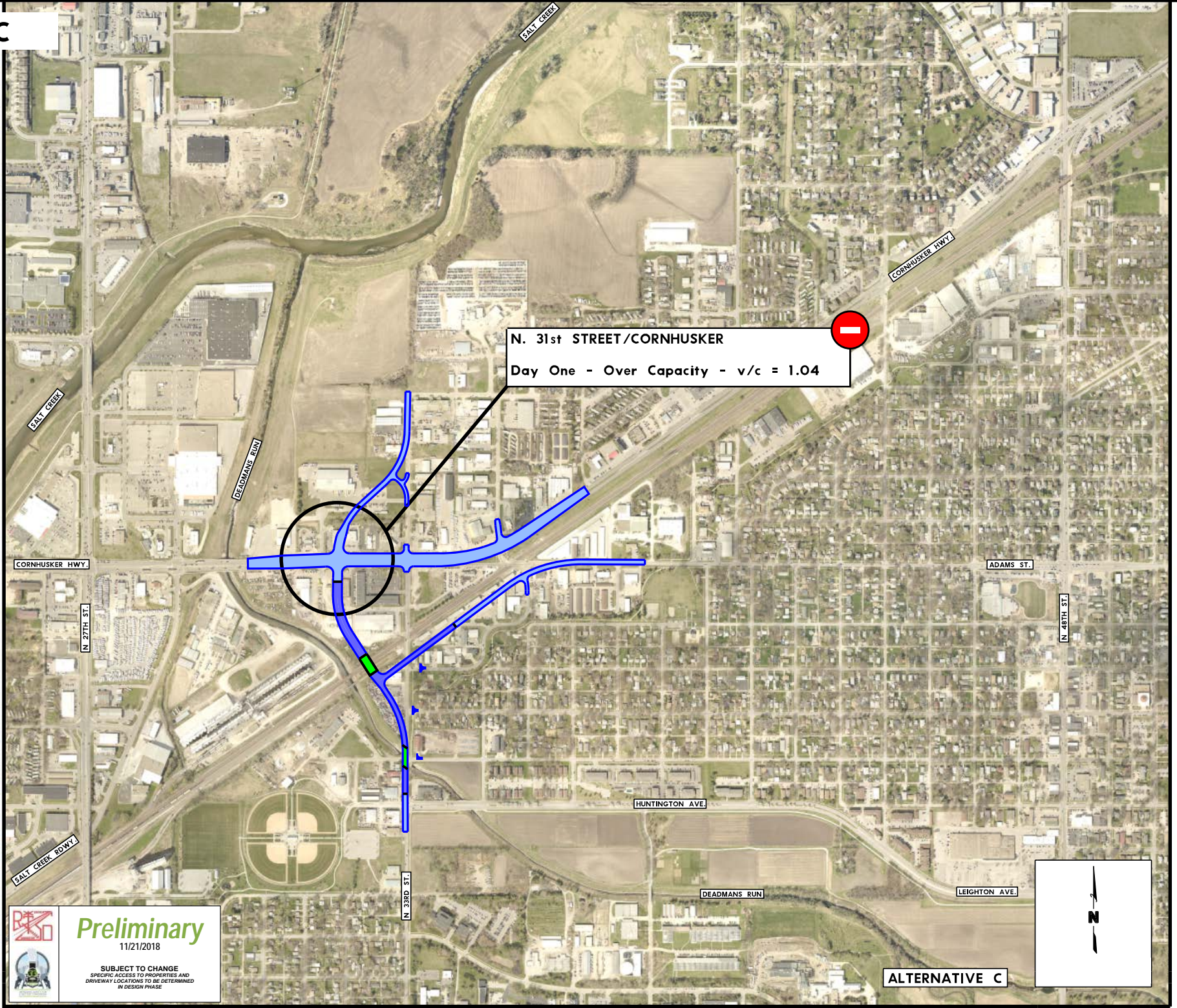


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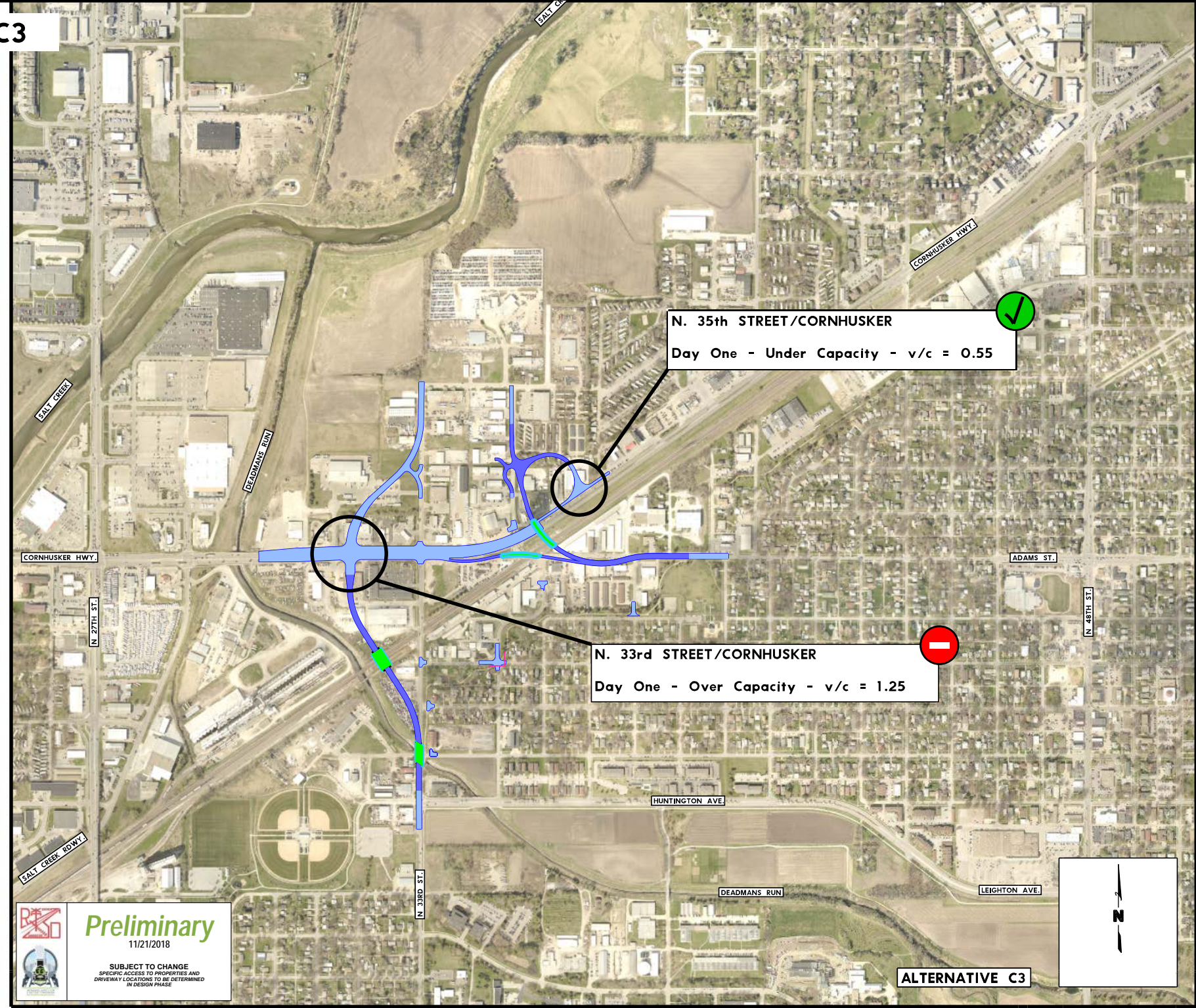
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*SPECIFIC ACCESS TO PROPERTIES AND
 DRIVEWAY LOCATIONS TO BE DETERMINED
 IN DESIGN PHASE*





C3



Appendix B

Eliminated Alternatives



Preliminary

11/21/2018

SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

SUPERIOR ST.

N 27th ST.

N 33rd ST.

SUPERIOR ST.

N 48th ST.

SALT CREEK

CORNHUSKER HWY

CATHER ST.

DEADMANS RUN

HIGGARD ST.

LEWIS ST.

N 44th ST.

CORNHUSKER HWY

N 27th ST.

ADAMS ST.

N 40th ST.

HUNTINGTON AVE.

DEADMANS RUN

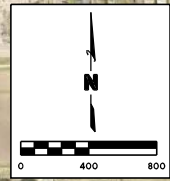
SALT CREEK HWY

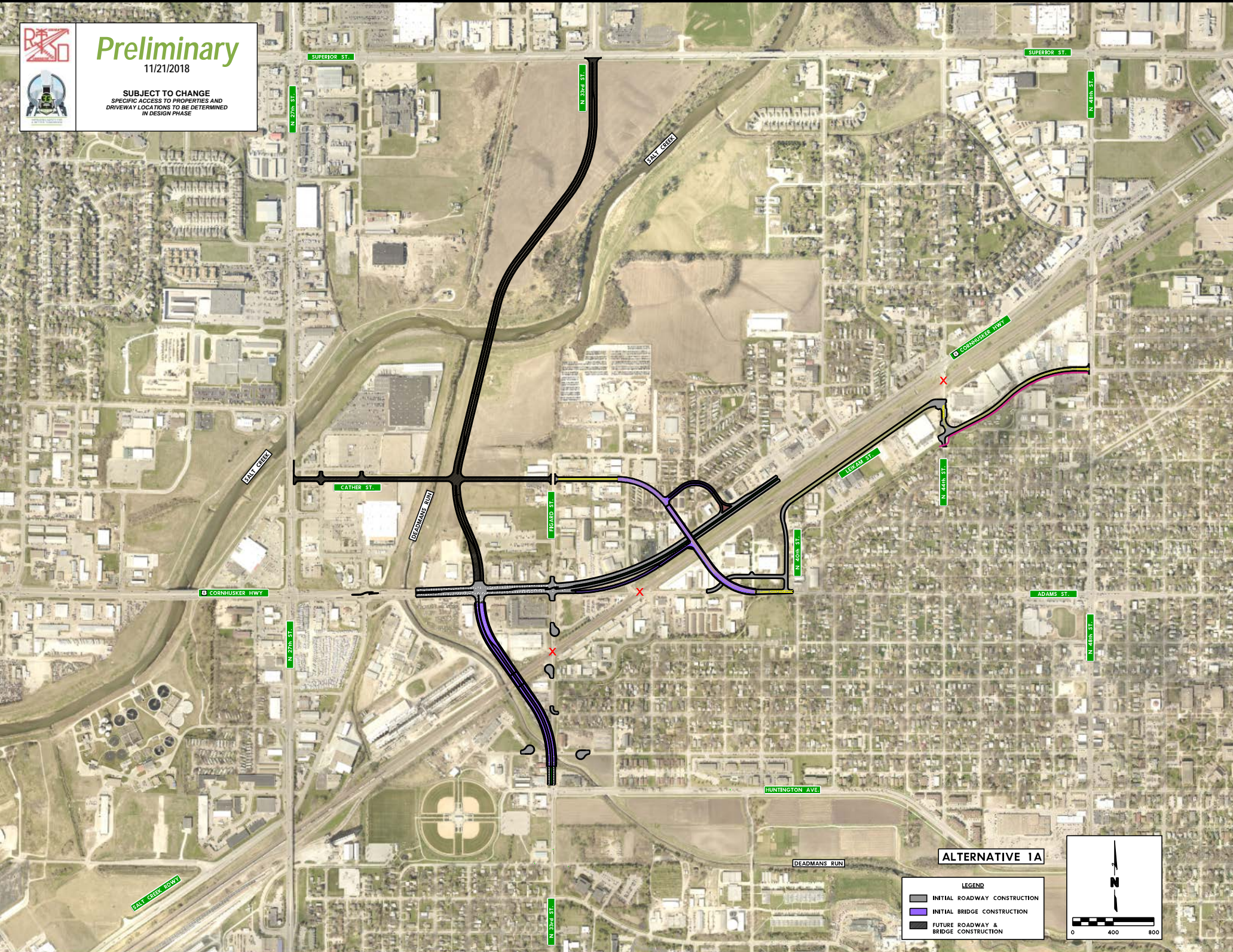
N 23rd ST.

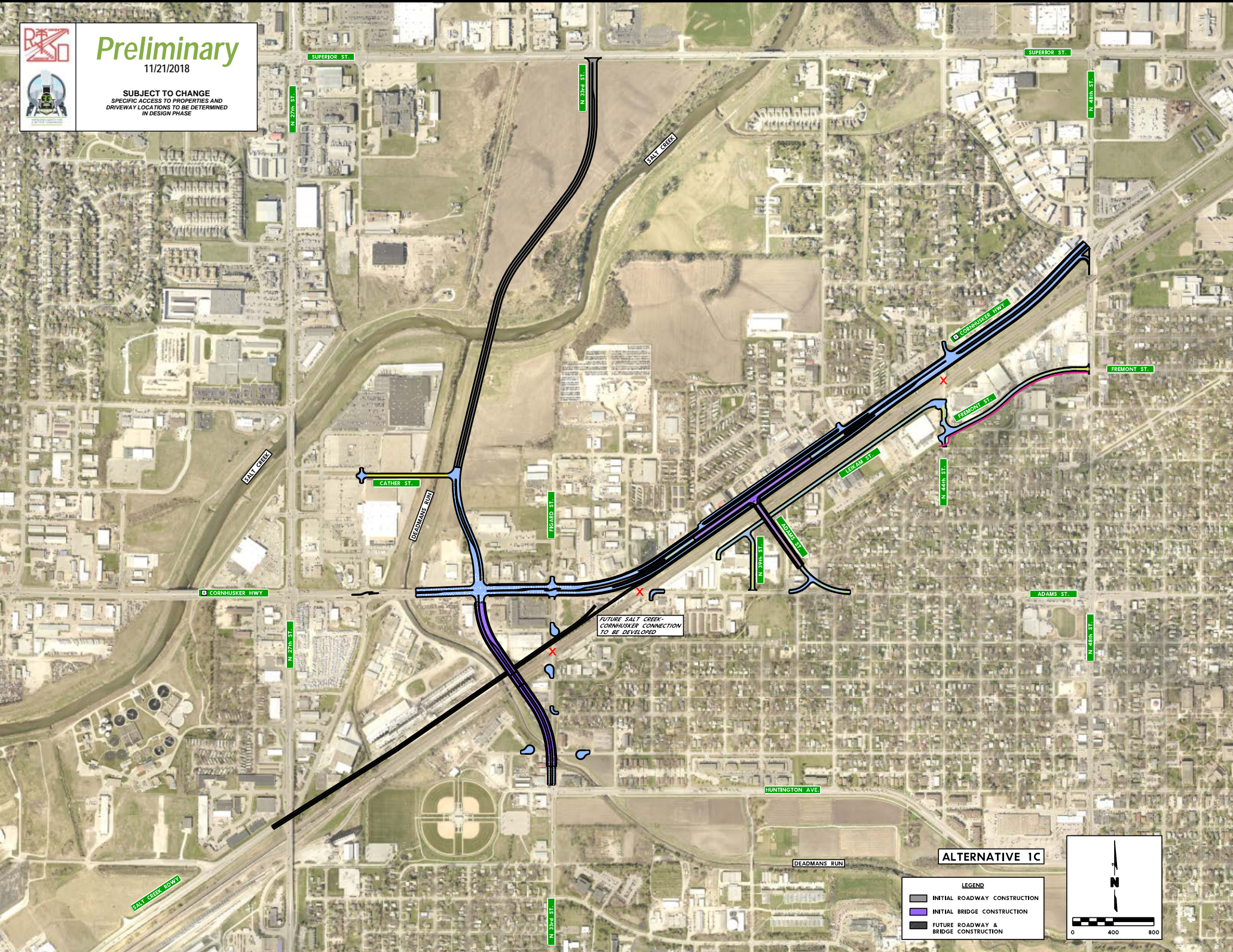
ALTERNATIVE 1

LEGEND

- INITIAL ROADWAY CONSTRUCTION
- INITIAL BRIDGE CONSTRUCTION
- FUTURE ROADWAY & BRIDGE CONSTRUCTION





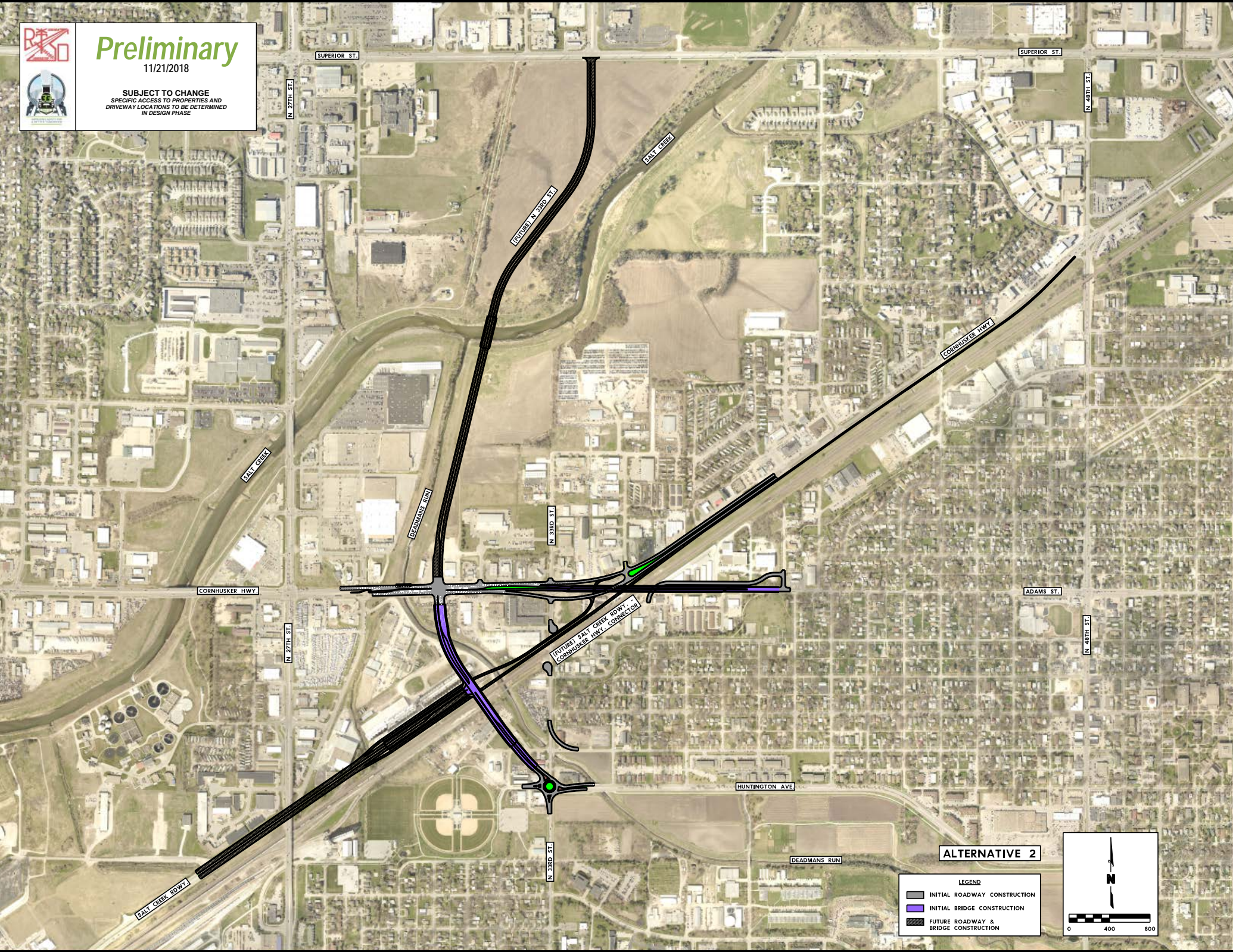




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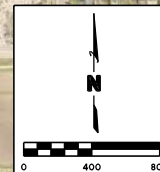
SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE



ALTERNATIVE 2

LEGEND

- INITIAL ROADWAY CONSTRUCTION
- INITIAL BRIDGE CONSTRUCTION
- FUTURE ROADWAY & BRIDGE CONSTRUCTION





Preliminary

11/21/2018

SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

N 27TH ST

SUPERIOR ST

SUPERIOR ST

N 48TH ST

SALT CREEK

CORNHUSKER HWY

SALT CREEK

CORNHUSKER HWY

DEADMANS RUN

N 38D ST

ADAMS ST

N 48TH ST

FUTURE SALT CREEK ROWY
CORNHUSKER HWY CONNECTOR

HUNTINGTON AVE

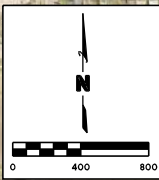
DEADMANS RUN

SALT CREEK ROWY

N 38D ST

ALTERNATIVE 3

- LEGEND
- INITIAL ROADWAY CONSTRUCTION
 - INITIAL BRIDGE CONSTRUCTION
 - FUTURE ROADWAY & BRIDGE CONSTRUCTION

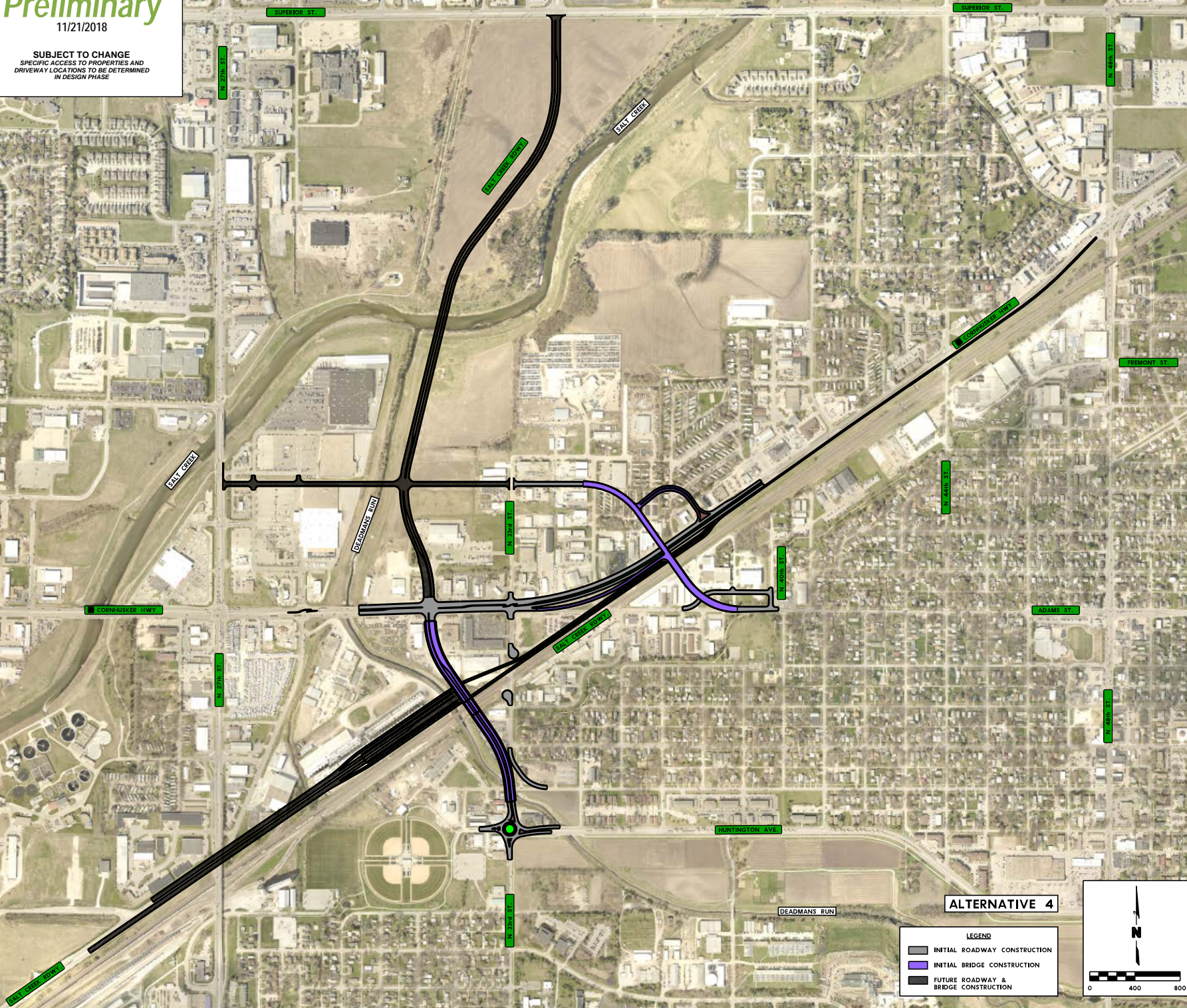




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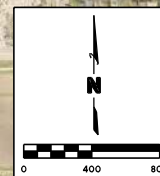
SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE



ALTERNATIVE 4

LEGEND

- INITIAL ROADWAY CONSTRUCTION
- INITIAL BRIDGE CONSTRUCTION
- FUTURE ROADWAY & BRIDGE CONSTRUCTION





Preliminary

11/21/2018

SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

SUPERIOR ST.

N 27TH ST.

SUPERIOR ST.

N 48TH ST.

SALT CREEK

CORNHUSKER HWY

SALT CREEK

DEADMANS RUN

N 33RD ST.

CORNHUSKER HWY

N 27TH ST.

ADAMS ST.

N 48TH ST.

HUNTINGTON AVE

DEADMANS RUN

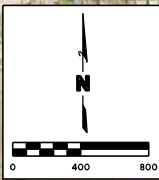
SALT CREEK HWY

N 33RD ST.

ALTERNATIVE 5

LEGEND

- INITIAL ROADWAY CONSTRUCTION
- INITIAL BRIDGE CONSTRUCTION
- FUTURE ROADWAY & BRIDGE CONSTRUCTION





Preliminary

11/21/2018

SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

SUPERIOR ST.

N 27TH ST.

SUPERIOR ST.

N 48TH ST.

SALT CREEK

CORNHUSKER HWY

SALT CREEK

DEADMANS RUN

N 3RD ST.

CORNHUSKER HWY

N 27TH ST.

ADAMS ST.

N 48TH ST.

HUNTINGTON AVE

DEADMANS RUN

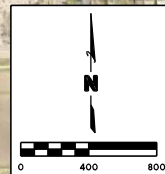
SALT CREEK HWY

N 3RD ST.

ALTERNATIVE 6

LEGEND

- INITIAL ROADWAY CONSTRUCTION
- INITIAL BRIDGE CONSTRUCTION
- FUTURE ROADWAY & BRIDGE CONSTRUCTION





Preliminary

11/21/2018

SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

SUPERIOR ST.

N 27TH ST.

SUPERIOR ST.

N 48TH ST.

SALT CREEK

CORNHUSKER HWY

SALT CREEK

DEADMANS RUN

N 3RD ST.

CORNHUSKER HWY

N 27TH ST.

ADAMS ST.

N 48TH ST.

HUNTINGTON AVE

DEADMANS RUN

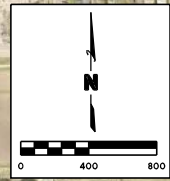
SALT CREEK HWY

N 3RD ST.

ALTERNATIVE 7

LEGEND

- INITIAL ROADWAY CONSTRUCTION
- INITIAL BRIDGE CONSTRUCTION
- FUTURE ROADWAY & BRIDGE CONSTRUCTION

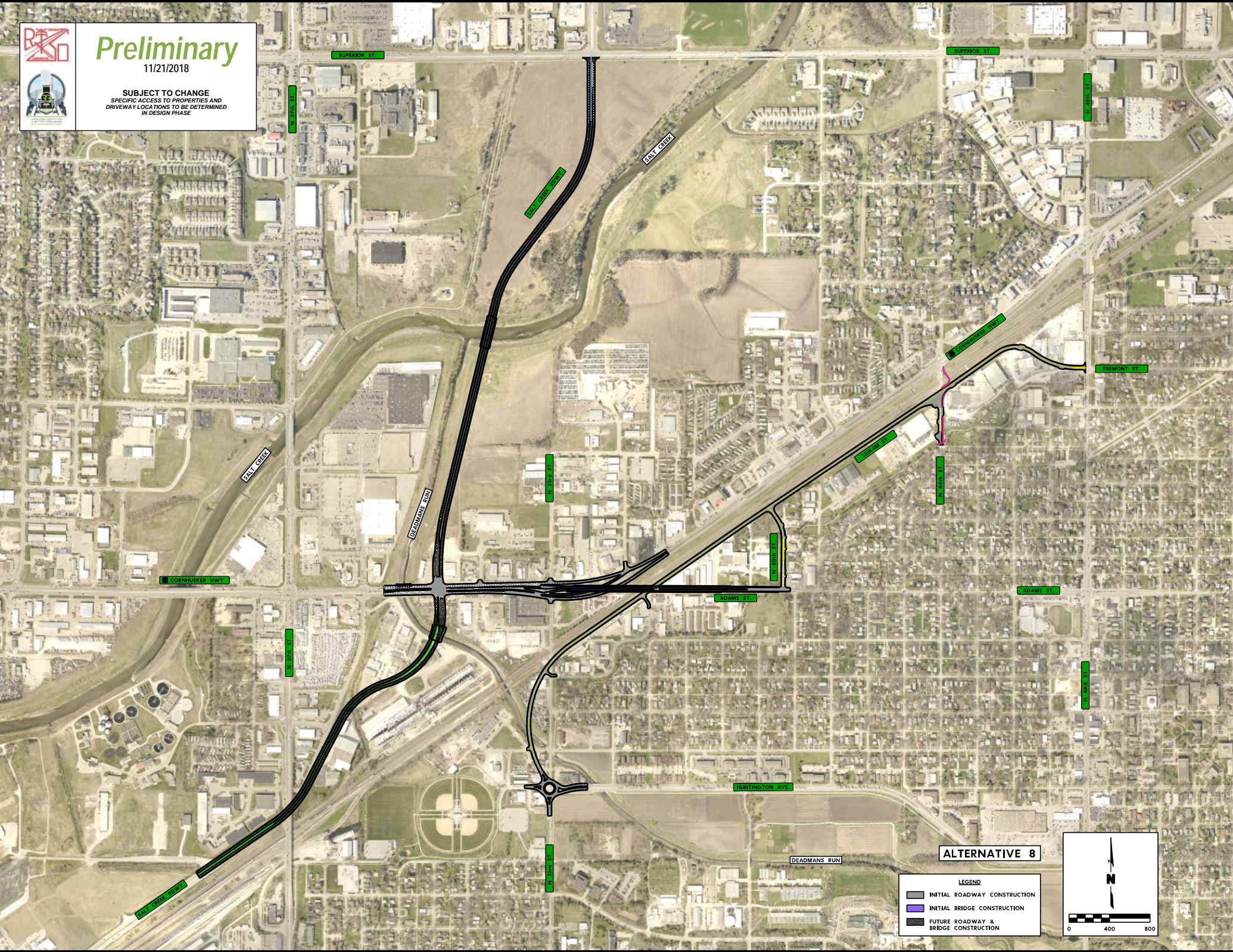




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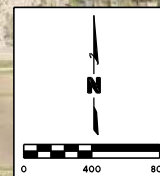
11/21/2018

SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE



ALTERNATIVE 8

LEGEND	
	INITIAL ROADWAY CONSTRUCTION
	INITIAL BRIDGE CONSTRUCTION
	FUTURE ROADWAY & BRIDGE CONSTRUCTION

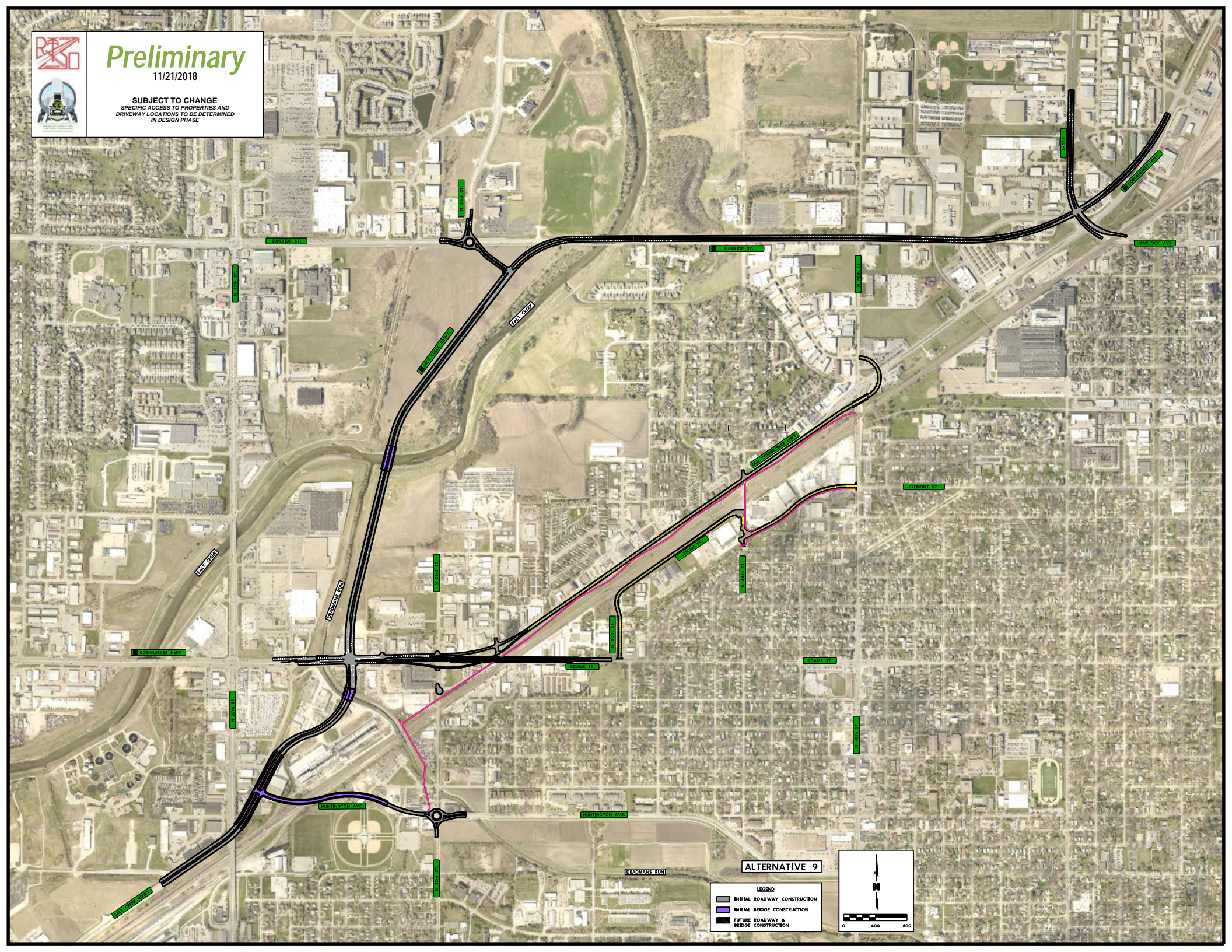




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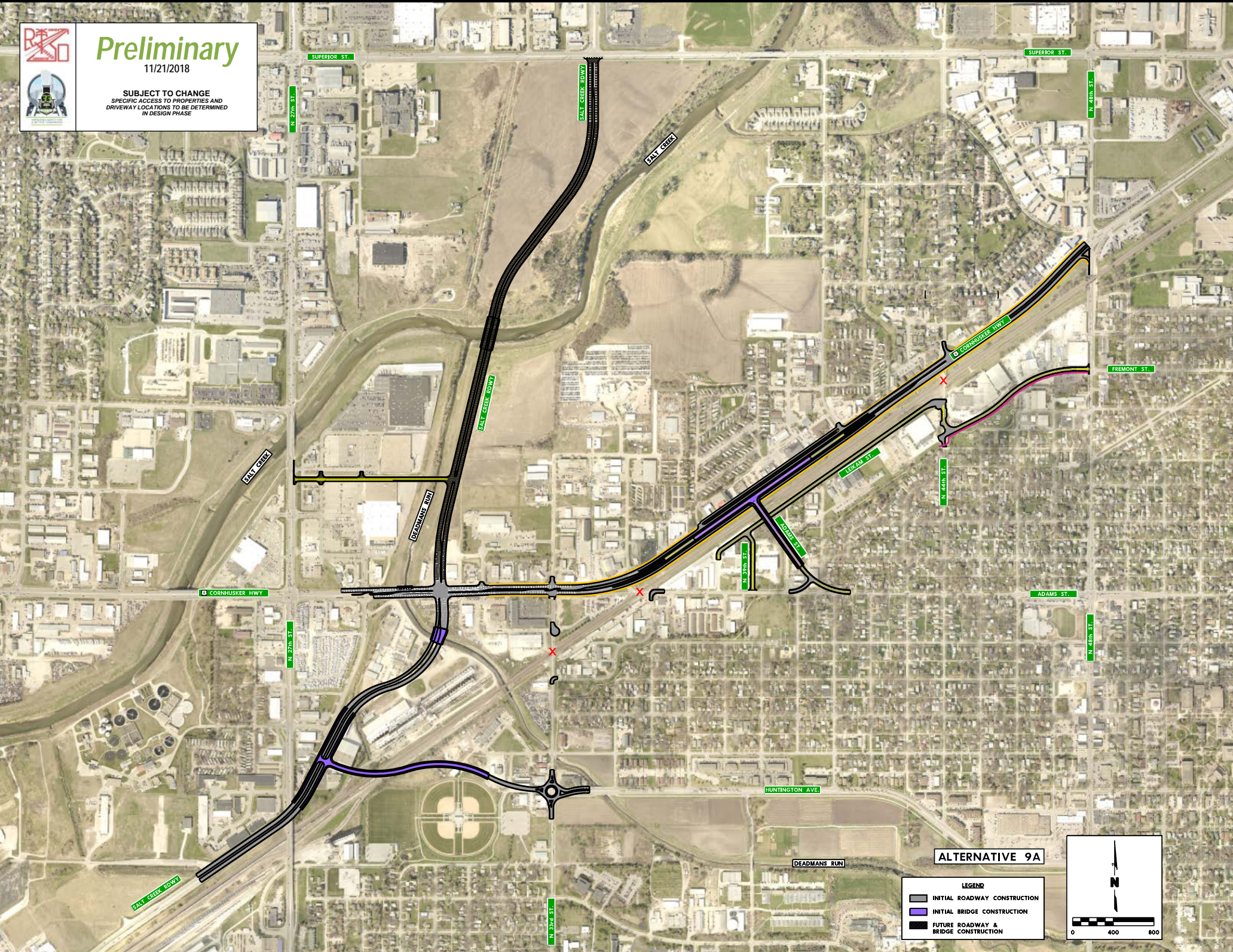
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SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

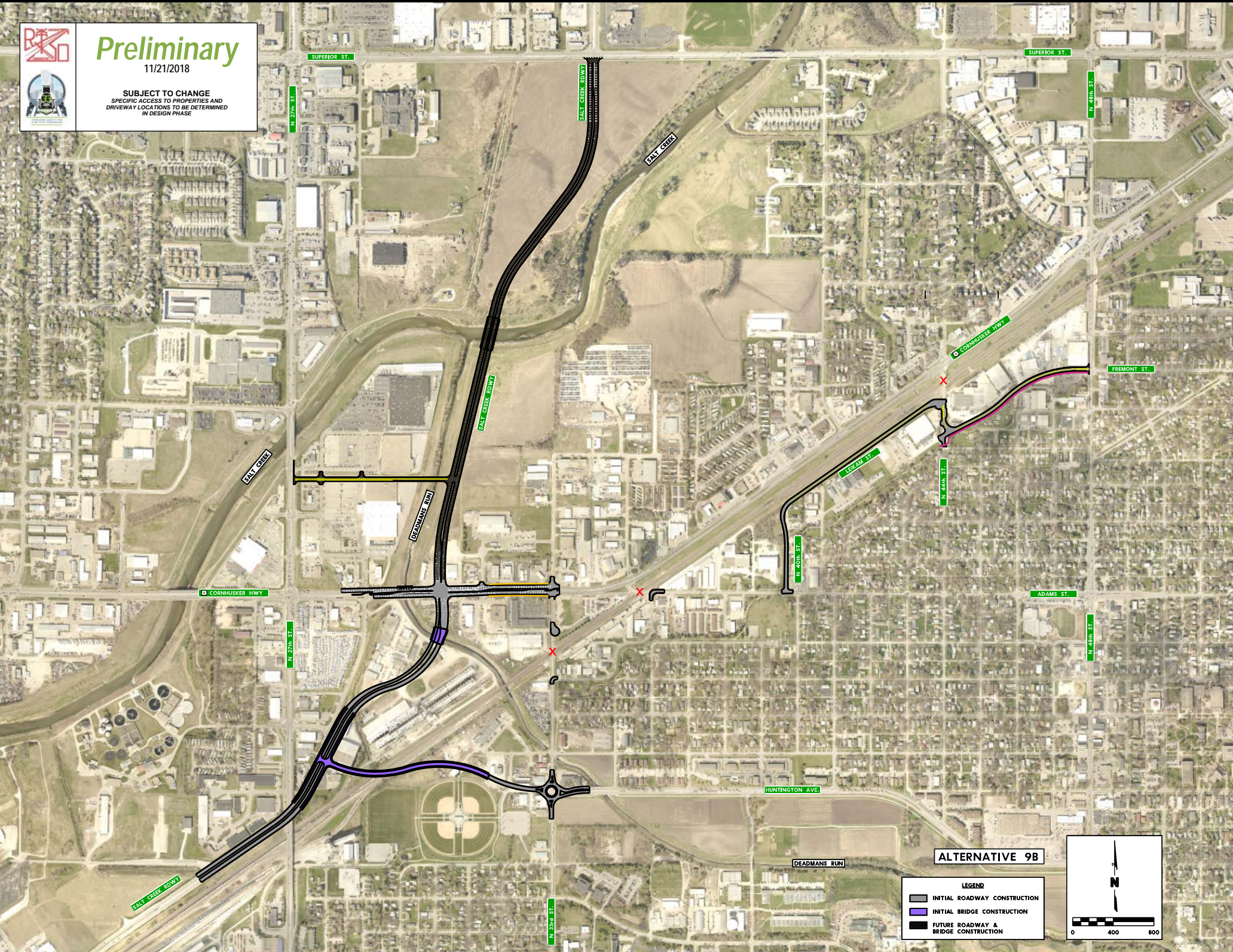


ALTERNATIVE 9

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	INITIAL BRIDGE CONSTRUCTION
	FUTURE ROADWAY & BRIDGE CONSTRUCTION





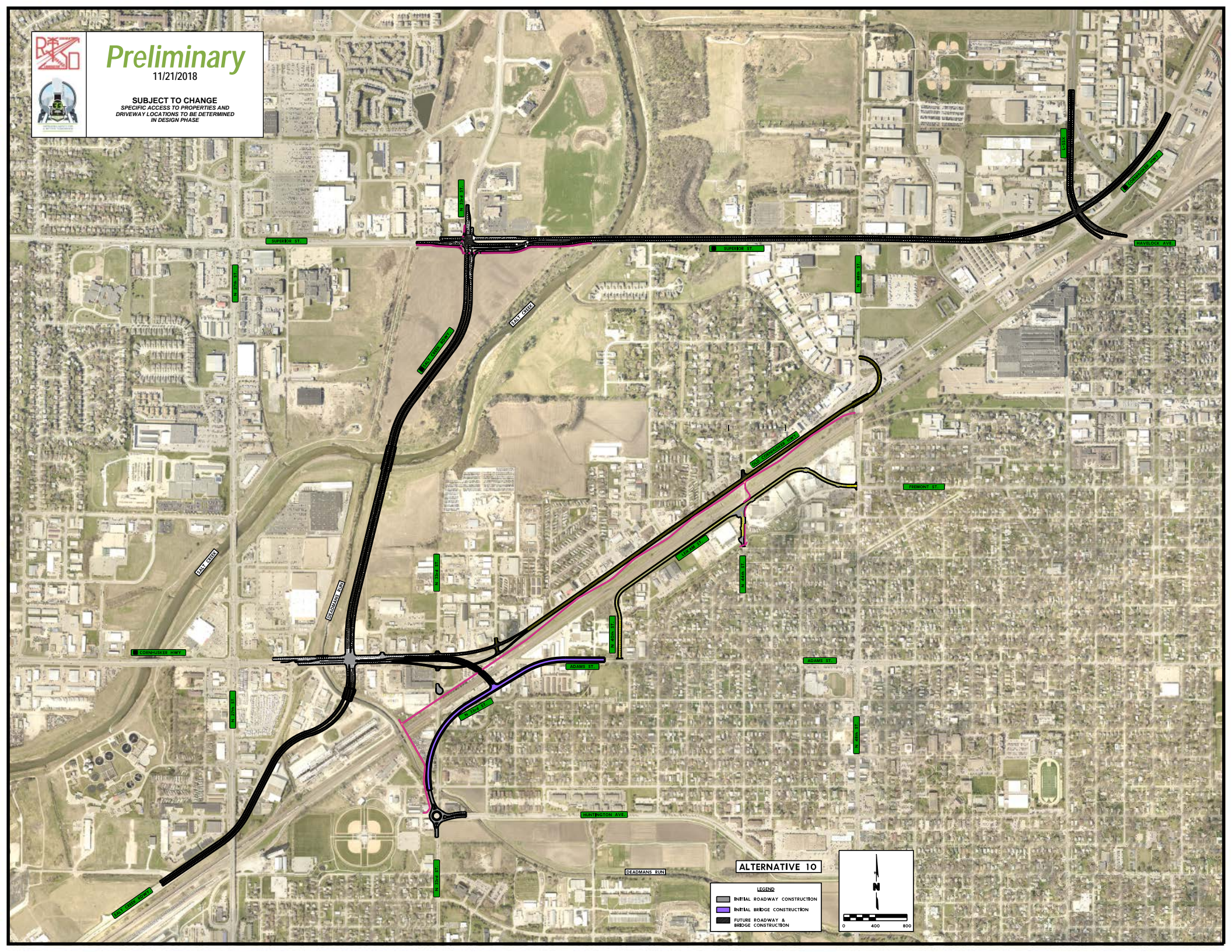




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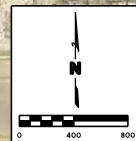
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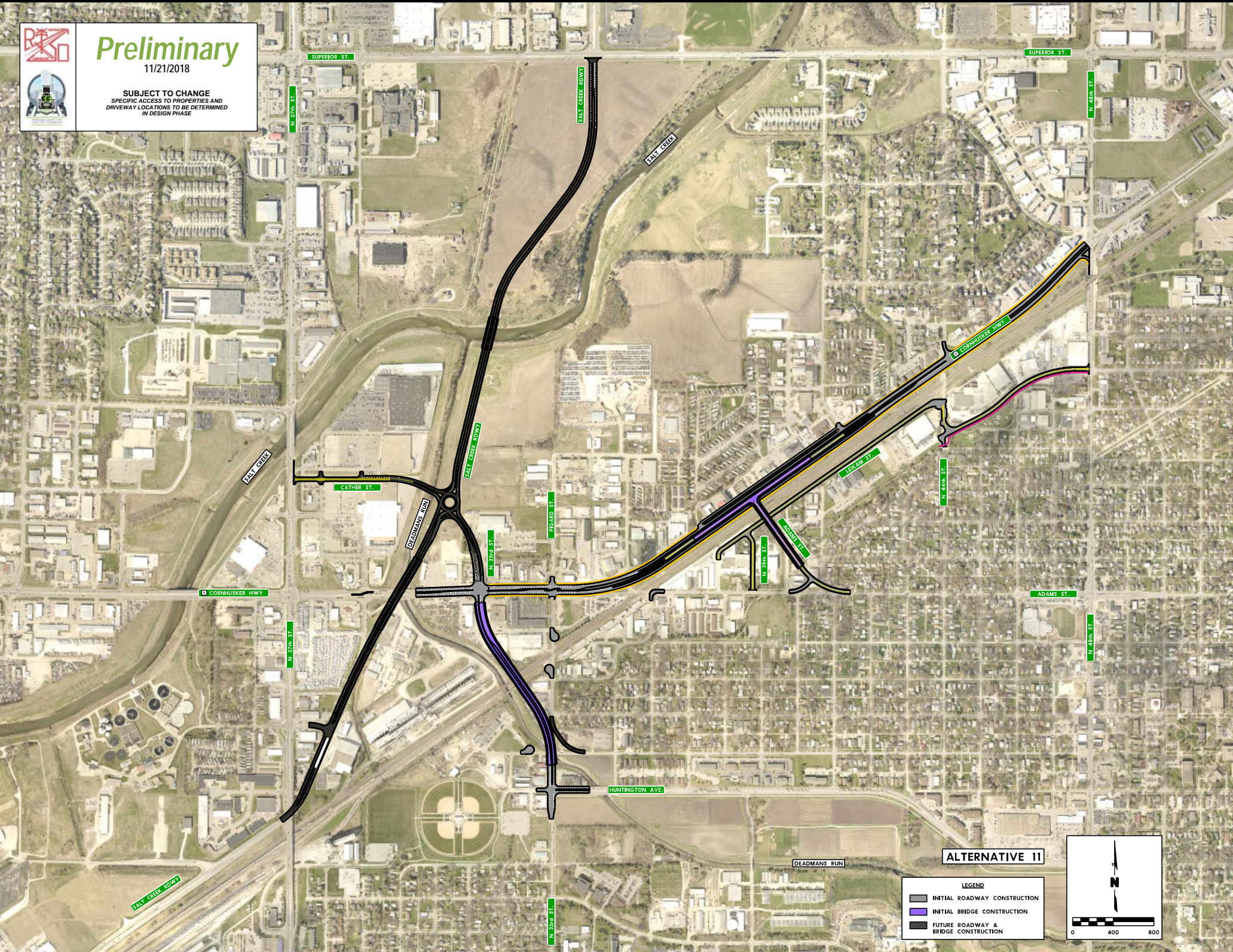
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SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE



ALTERNATIVE 10

- LEGEND
- INITIAL ROADWAY CONSTRUCTION
 - INITIAL BRIDGE CONSTRUCTION
 - FUTURE ROADWAY & BRIDGE CONSTRUCTION







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SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

CORNHUSKER HWY

SALT CREEK HWY

SUPERIOR ST

N 27th ST

N 37th ST

SUPERIOR ST

N 44th ST

N 48th ST

N 28th ST

N 37th ST

GLADSTONE ST

N 35th ST

N 40th ST

N 44th ST

FREMONT ST

STATE PARK DR

THERESA ST

N 36th ST

ADAMS ST

N 39th ST

ADAMS ST

ADAMS ST

N 48th ST

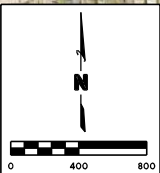
BALDWIN AVE

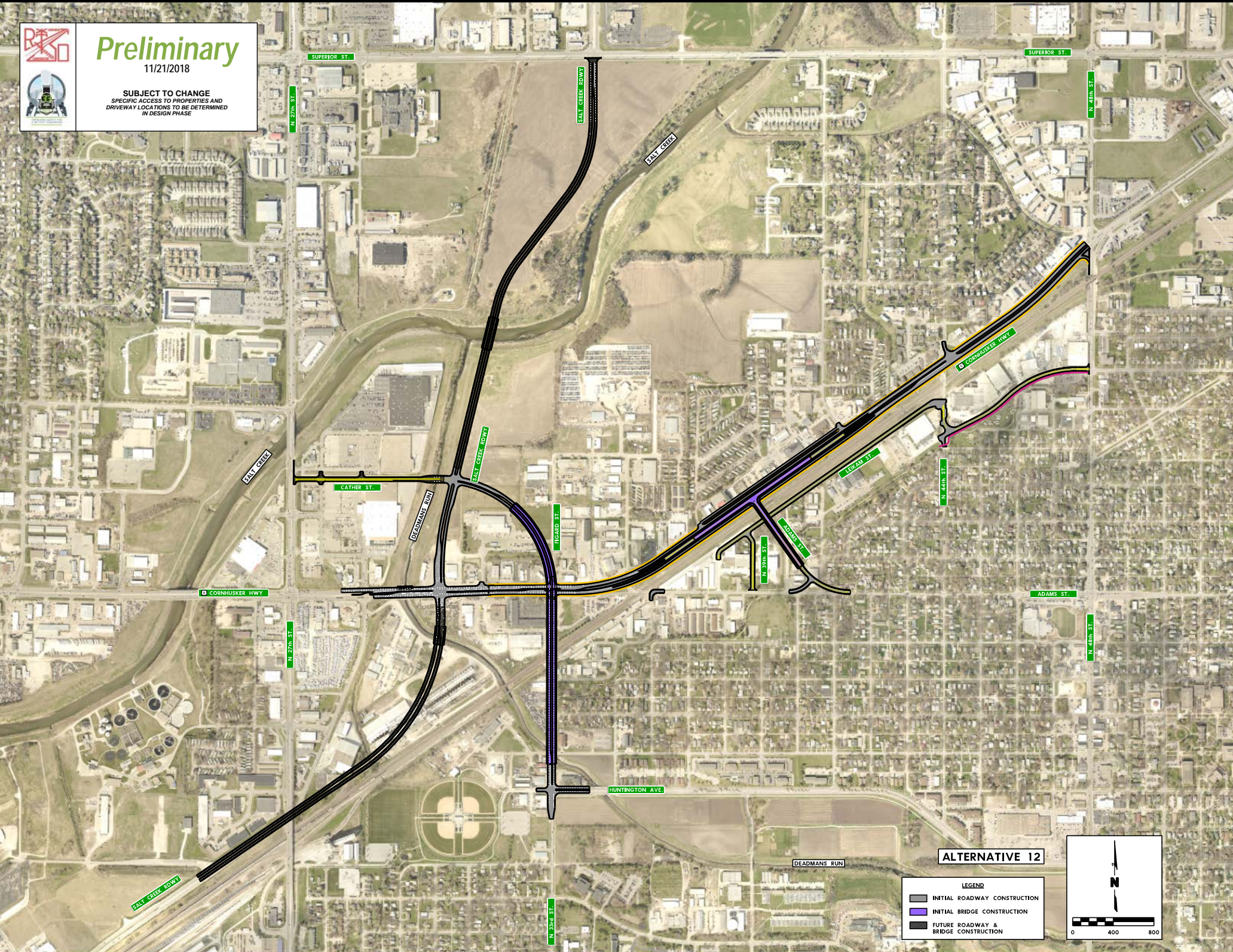
HUNTINGTON AVE

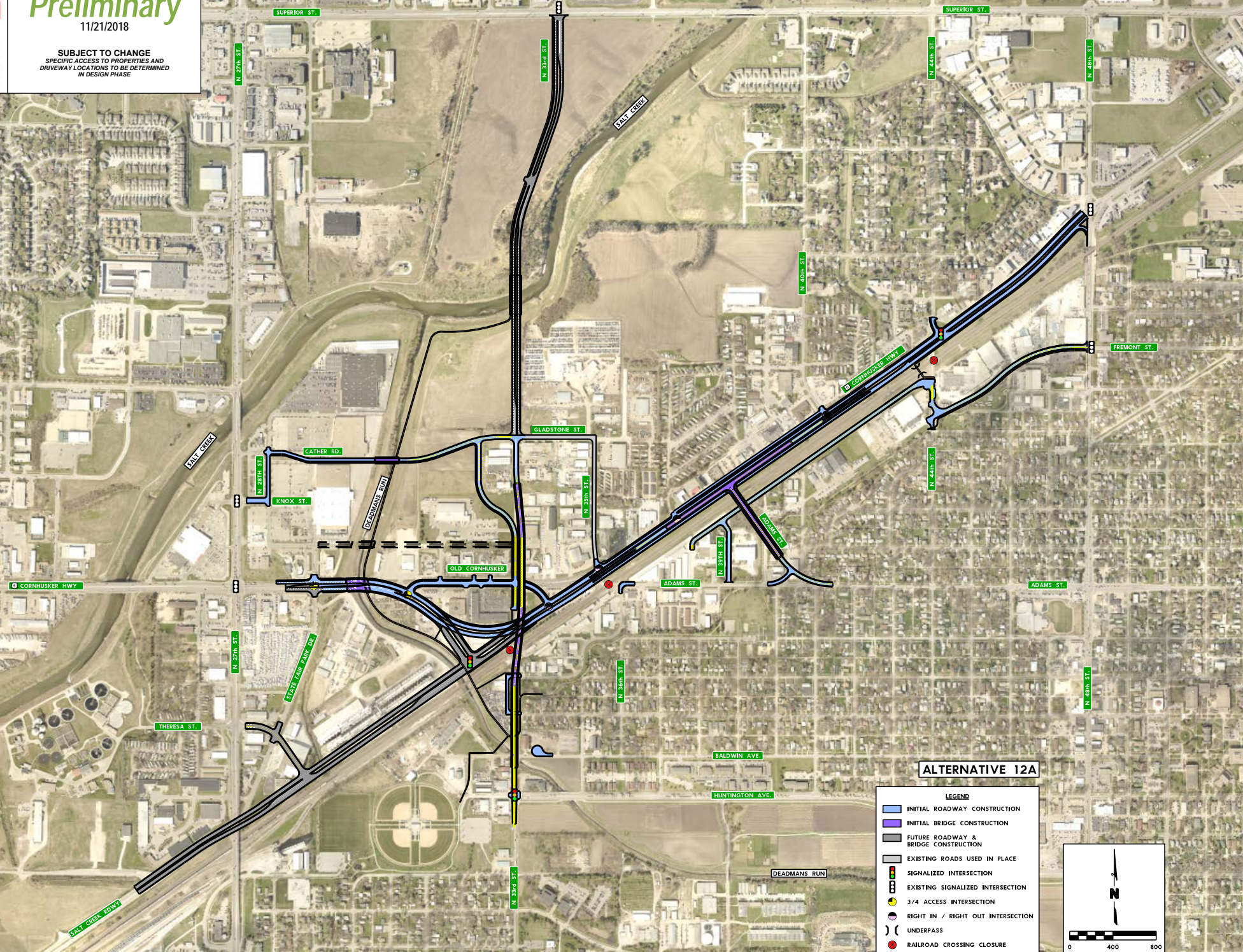
DEADMAN'S RUN

ALTERNATIVE 11A

- LEGEND**
- INITIAL ROADWAY CONSTRUCTION
 - INITIAL BRIDGE CONSTRUCTION
 - FUTURE ROADWAY & BRIDGE CONSTRUCTION
 - EXISTING ROADS USED IN PLACE
 - SIGNALIZED INTERSECTION
 - EXISTING SIGNALIZED INTERSECTION
 - 3/4 ACCESS INTERSECTION
 - RIGHT IN / RIGHT OUT INTERSECTION
 - UNDERPASS
 - RAILROAD CROSSING CLOSURE





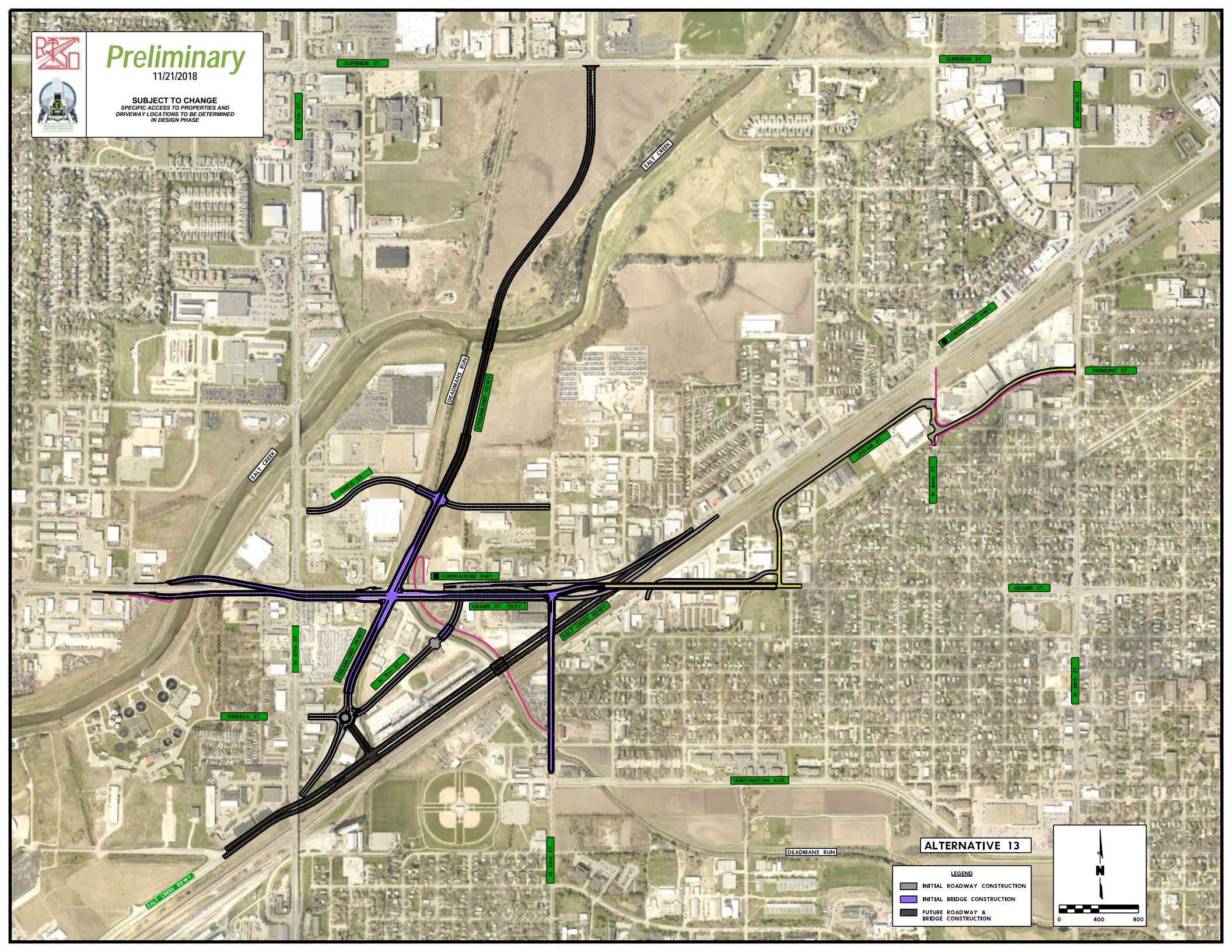




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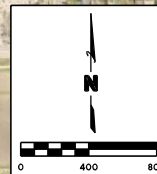
SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE



ALTERNATIVE 13

LEGEND

- INITIAL ROADWAY CONSTRUCTION
- INITIAL BRIDGE CONSTRUCTION
- FUTURE ROADWAY & BRIDGE CONSTRUCTION

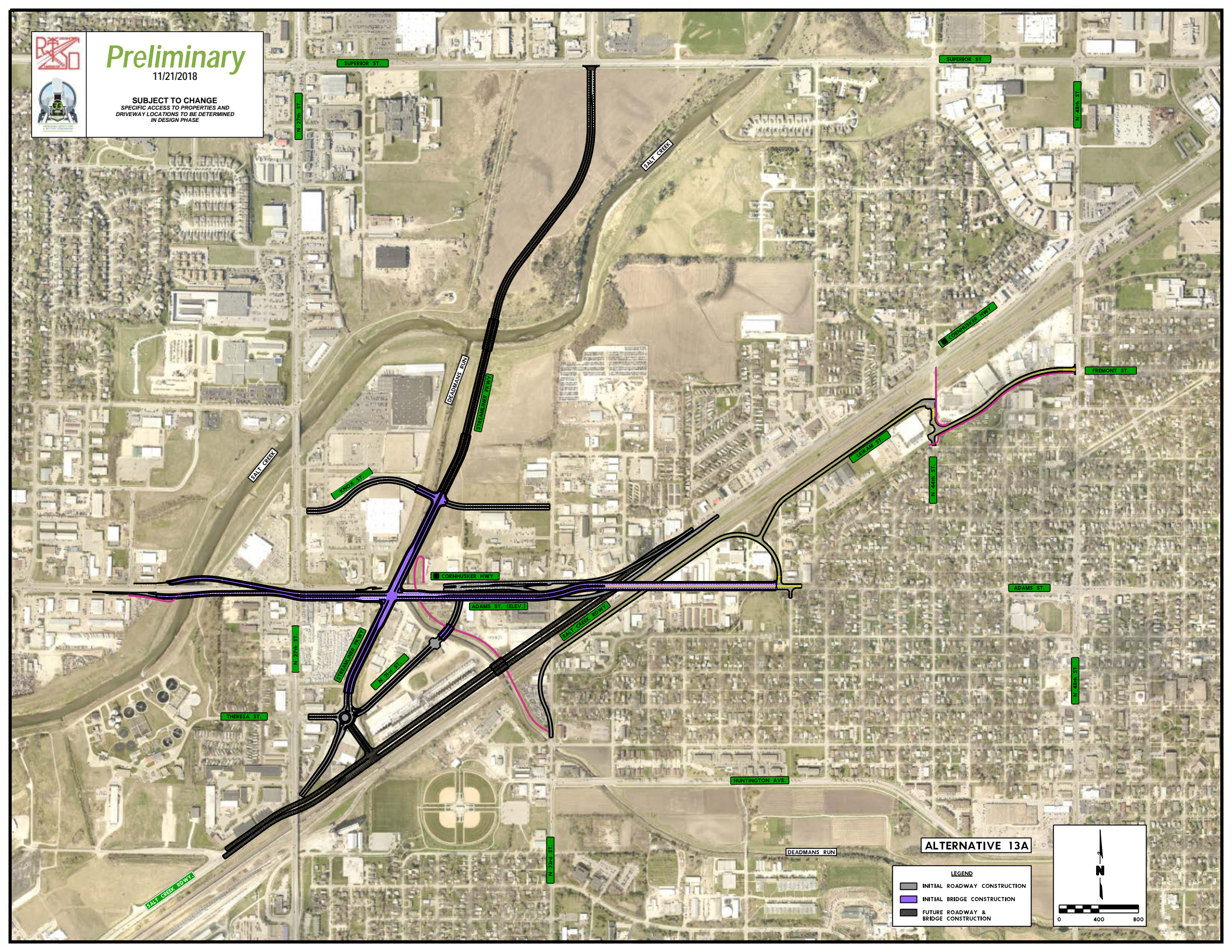




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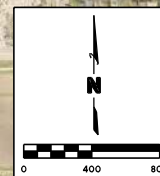
SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE



ALTERNATIVE 13A

LEGEND

- INITIAL ROADWAY CONSTRUCTION
- INITIAL BRIDGE CONSTRUCTION
- FUTURE ROADWAY & BRIDGE CONSTRUCTION



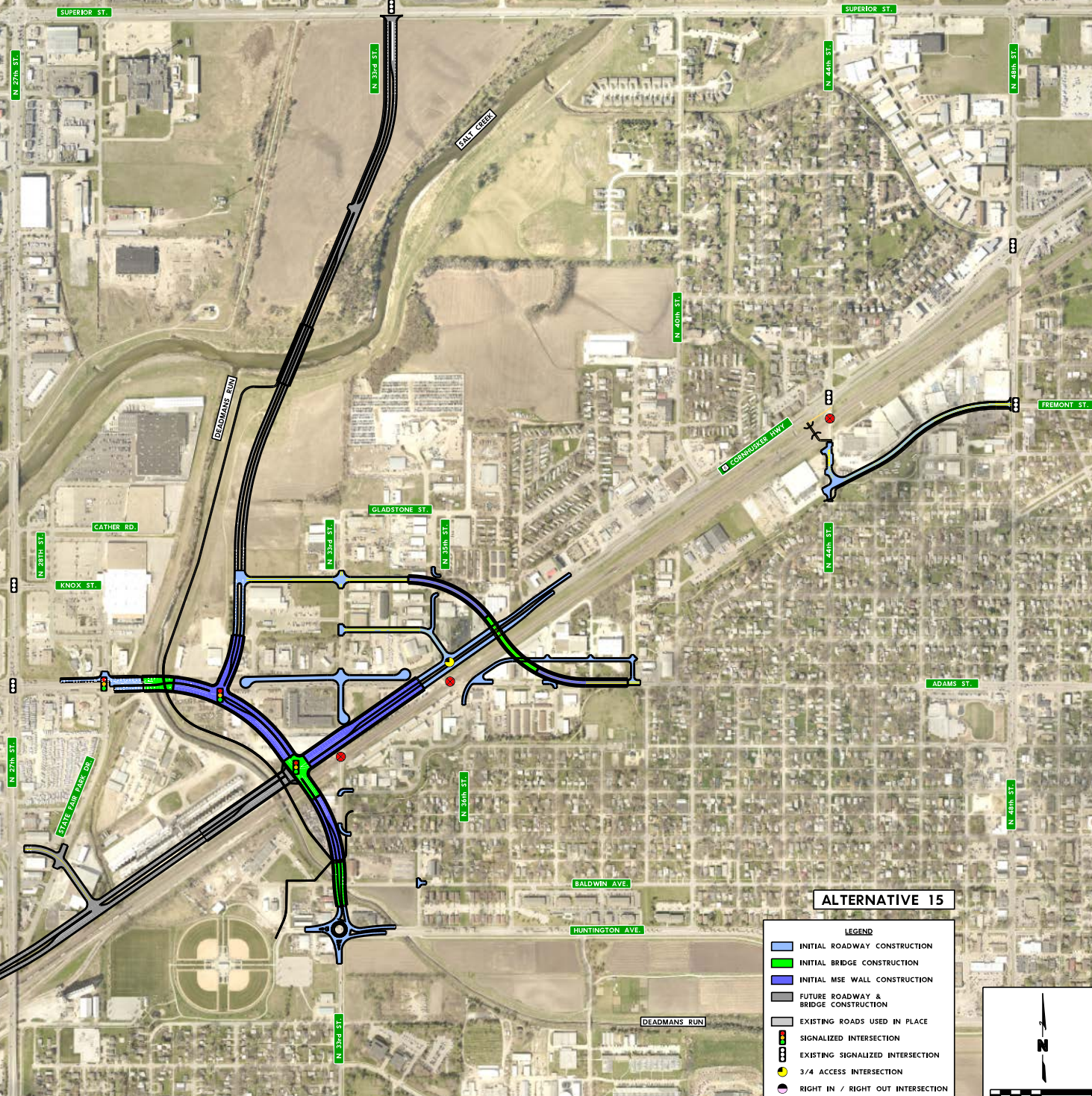




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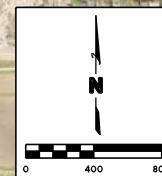
11/21/2018

SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE



ALTERNATIVE 15

- LEGEND**
- INITIAL ROADWAY CONSTRUCTION
 - INITIAL BRIDGE CONSTRUCTION
 - INITIAL MSE WALL CONSTRUCTION
 - FUTURE ROADWAY & BRIDGE CONSTRUCTION
 - EXISTING ROADS USED IN PLACE
 - SIGNALIZED INTERSECTION
 - EXISTING SIGNALIZED INTERSECTION
 - 3/4 ACCESS INTERSECTION
 - RIGHT IN / RIGHT OUT INTERSECTION
 - UNDERPASS
 - RAILROAD CROSSING CLOSURE



Appendix C

Remaining Alternatives

Discussion	Alternative 1B	Alternative 1D	Alternative 1E	Alternative Modified C	Alternative 12B	Alternative 14	Alternative 15A	No-Build Alternative
<i>Salt Creek Roadway to Cornhusker Connection</i>	Parallel to Tracks - Cornhusker <u>At-Grade</u> Intersection	Parallel to Tracks - Cornhusker <u>At-Grade</u> Intersection	Parallel to Tracks - Cornhusker <u>At-Grade</u> Intersection	Parallel to Tracks - Cornhusker <u>At-Grade</u> Intersection	Parallel to Tracks - Cornhusker <u>At-Grade</u> Intersection	Parallel to Tracks - Cornhusker <u>At-Grade</u> Intersection	Parallel to Tracks - Cornhusker <u>Elevated</u> Intersection	Parallel to Tracks - Cornhusker <u>At-Grade</u> Intersection
33rd Street	West Alignment Shift <i>Overpass touches down at Huntington and 31st & Cornhusker</i>	West Alignment Shift <i>Overpass touches down at Huntington and 31st & Cornhusker</i>	West Alignment Shift <i>Overpass touches down at Huntington and 31st & Cornhusker</i>	West Alignment Shift <i>Overpass touches down at Huntington and 31st & Cornhusker</i>	On Alignment <i>Overpass touches down at Huntington and Gladstone</i>	On Alignment <i>Overpass touches down at Huntington and Gladstone</i>	West Alignment Shift <i>Elevated Intersection with Cornhusker adjacent to tracks</i>	Closed at Railroad Tracks
<i>N/S Roadway Cornhusker to Superior Connection</i>	Day One: No Construction <i>Future: Cornhusker to Superior</i>	Day One: No Construction <i>Future: Cornhusker to Superior</i>	Day One: Construct to New Adams <i>Future: Adams to Superior</i>	Day One: No Construction <i>Future: Cornhusker to Superior</i>	Day One: Construct to Gladstone <i>Future: Gladstone to Superior</i>	Day One: Construct to Gladstone <i>Future: Gladstone to Superior</i>	Day One: No Construction <i>Future: Adams & Cornhusker to Superior</i>	Day One: No Construction <i>Future: Cornhusker to Superior</i>
Adams Street	Direction Connection to Cornhusker Closed	Direct Connection via "Fish Hook" at 40th & Cornhusker	Connection via "Gentle S Curve" near 35th & Cornhusker	Connection via Elevated Intersection with N. 33rd Street south of the Railroad Tracks	Direct Connection via "Fish Hook" at 40th & Cornhusker	Overpass over BNSF and Cornhusker Highway, Old 33rd and continues to Cornhusker	Elevated Intersection with Cornhusker	Closed at Railroad Tracks
48th Street	48th Project is Prioritized Independently	48th Project is Prioritized Independently	48th Project is Prioritized Independently	48th Project is Prioritized Independently	48th Project is Prioritized Independently	48th Project is Prioritized Independently	48th Project is Prioritized Independently	48th Project is Prioritized Independently
44th Street	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>	Close 44th Street Crossing <i>Industrial Connector to 48th</i>
<i>Conceptual Cost Estimate (Including ROW Impacts), 2026 Dollars</i>	\$	\$\$	\$\$	\$	\$\$	\$\$\$	\$\$\$	\$
<i>"Simple" Alignment?</i>	(+) Yes	(+) Yes	(+) Yes	(+) Yes	(-) No	(-) No	(+) Yes	(+) Yes
<i>US-6 Stays on Existing Alignment?</i>	(+) Yes	(+) Yes	(+) Yes	(+) Yes	(-) No	(-) No	(-) No	(+) Yes
<i>NDOT Relinquishment Discussion?</i>	(+) No	(+) No	(+) No	(+) No	(-) Yes	(-) Yes	(-) Yes	(+) No
Concerns	(-) Adams Traffic Impacts (-) 3 Heavy Signalized Intersections within 2000 ft (27/CH, 29/CH, 33/CH) (- <i>FUTURE</i>) 3 Heavy Signalized Intersections within 3000 ft (27/CH, 33/CH, CH/SCR)	(-) 3 Heavy Signalized Intersections within 2000 ft (27/CH, 29/CH, 33/CH) (- <i>FUTURE</i>) 3 Heavy Signalized Intersections within 3000 ft (27/CH, 33/CH, CH/SCR)	(-) 3 Heavy Signalized Intersections within 2000 ft (27/CH, 29/CH, 33/CH) (- <i>FUTURE</i>) 3 Heavy Signalized Intersections within 3000 ft (27/CH, 33/CH, CH/SCR)	(-) 3 Heavy Signalized Intersections within 2000 ft (27/CH, 29/CH, 33/CH) (- <i>FUTURE</i>) 3 Heavy Signalized Intersections within 3000 ft (27/CH, 33/CH, CH/SCR)	(-) Change of traffic flow to businesses - no direct front-door access from Highway	(-) Change of traffic flow to businesses - no direct front-door access from Highway (- <i>FUTURE</i>) Close intersection spacing of industrial access connection to future SCR & CH Intersection	(-) Close intersection spacing of industrial access connection to elevated intersection (-) 4 Heavy Signalized Intersections within 2500 ft (27/CH, 29/CH, 31/CH, 33/CH) (-) Heavy volumes of turning traffic at elevated intersection (-) Access to/from industrial area Day One (-) Change of traffic flow to businesses - no direct front-door access from Highway (- <i>Future</i>) Adams to 33rd / Superior connection is expensive with high ROW costs	(-) Adams Traffic Impacts (-) 33rd Traffic Impacts
Positive Elements	(+) Little disruption to "Front-door" businesses (+) Good access to Gladstone industrial area	(+) Little disruption to "Front-door" businesses (+) Good access to Gladstone industrial area	(+) Opens Up Redevelopment Space (+) Little disruption to "Front-door" businesses (+) Good access to Gladstone industrial area	(+) Little disruption to "Front-door" businesses (+) Good access to Gladstone industrial area	(+) Good access to Gladstone industrial area	(+) Good access to Gladstone industrial area	(+) Opens Up Redevelopment Space (+ <i>FUTURE</i>) Great Downtown / UNL Campuses / University Place Connection	(+) Little disruption to "Front-door" businesses (+) Good access to Gladstone industrial area

Discussion	Alternative 1B	Alternative 1D	Alternative 1E	Alternative Modified C	Alternative 12B	Alternative 14	Alternative 15A	No-Build Alternative
Residential Impacts	(+) Minimal neighborhood impacts south of Cornhusker Hwy.; least visually intrusive into south neighborhood (-) Noise and visual obstruction concerns with bridge west of neighborhood south of Cornhusker Hwy and near mobile home park	(+) Minimal neighborhood impacts south of Cornhusker Hwy.; least visually intrusive into south neighborhood (-) Adams St. bridge close to mobile home park north of Cornhusker Hwy, creating possible environmental justice concern (-) Noise and visual obstruction concerns with bridge west of neighborhood south of Cornhusker Hwy and near mobile home park	(+) Minimal neighborhood impacts south of Cornhusker Hwy.; least visually intrusive into south neighborhood (-) Adams St. bridge close to mobile home park north of Cornhusker Hwy, creating possible environmental justice concern (-) Noise and visual obstruction concerns with bridge west of neighborhood south of Cornhusker Hwy and near mobile home park	(-) Bridge close to neighborhood south of Cornhusker Hwy. on western edge (-) Noise and visual obstruction concerns with bridge just west of neighborhood south of Cornhusker Hwy.	(-) Bridge close to neighborhood south of Cornhusker Hwy. on western edge (-) Adams St. bridge close to mobile home park north of Cornhusker Hwy, creating possible environmental justice concern (-) Noise and visual obstruction concerns with bridge just west of neighborhood south of Cornhusker Hwy.	(+) Minimizes intrusion into mobile home park north of Cornhusker Hwy. (-) Noise and visual obstruction concerns with bridge just west of neighborhood south of Cornhusker Hwy.	(+) Least residential impact overall (-) MSE wall/bridge close to western edge of neighborhood south of Cornhusker Hwy., creating slight visual obstruction (-) Noise and visual obstruction concerns with bridge just west of neighborhood south of Cornhusker Hwy.	(+) Minimizes Residential Impacts
Frontage Commercial Impacts (First Tier Properties)	(+) Most existing Cornhusker Hwy. frontage commercial can remain with current access drives (-) May slow redevelopment	(+) Most existing Cornhusker Hwy. frontage commercial can remain with current access drives (-) May slow redevelopment	(+) Most existing Cornhusker Hwy. frontage commercial can remain with current access drives (-) May slow redevelopment	(+) Most existing Cornhusker Hwy. frontage commercial can remain with current access drives (-) May slow redevelopment	(+) Creates new commercial frontage properties between Old Cornhusker Hwy. and new Cornhusker Hwy. (-) Eliminates Cornhusker Hwy. frontage for commercial properties between Deadman's Run and N. 35th St. (-) Creates awkward island between Old Cornhusker Hwy. and new Cornhusker Hwy. (-) Compared to 14, provides less desired commercial frontage sites along Old Cornhusker with no fluid connection to realigned State Fair Park Dr. (Sites seem secondary in nature.)	(+) Creates new commercial frontage properties between Old Cornhusker Hwy. and new Cornhusker Hwy. (+) Compared to 12B, provides more highly desired commercial frontage sites along Old Cornhusker Hwy./Adams St. with fluid connection to realigned State Fair Park Dr. (-) Eliminates Cornhusker Hwy. frontage for commercial properties between Deadman's Run and N. 35th St. (-) Creates awkward island between Old Cornhusker Hwy. and new Cornhusker Hwy.	(+) May accelerate redevelopment of dated commercial frontage properties west of N. 37th St. (-) Eliminates Cornhusker Hwy. frontage for commercial properties between Deadman's Run and just east of N. 37th St. (-) Limited visibility and accessibility for existing frontage commercial properties due to MSE wall	(+) Most existing Cornhusker Hwy. frontage commercial can remain with current access drives (-) May slow redevelopment
Business Impacts (Non-Frontage/Second Tier Properties)	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (-) N. 33rd St. bridge cuts through industrial and commercial uses south of Cornhusker	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (-) Adams St. bridge cuts through industrial uses south of Cornhusker and commercial uses north of Cornhusker (-) N. 33rd St. bridge cuts through industrial and commercial uses south of Cornhusker	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (-) Adams St. bridge cuts through industrial uses north of Cornhusker (-) N. 33rd St. bridge cuts through industrial and commercial uses south of Cornhusker	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (-) Adams St. bridge cuts through industrial uses south of Cornhusker (-) N. 33rd St. bridge cuts through industrial and commercial uses south of Cornhusker	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (-) Adams St. bridge cuts through industrial uses south of Cornhusker and commercial uses north of Cornhusker	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (+) Largely avoids existing industrial uses north and south of Cornhusker Hwy.; allows existing uses to continue (+) Creates redevelopment potential in industrial area east of N. 27th St./south of Cornhusker Hwy./west of Deadman's Run (-) Cuts through industrial area east of State Fair Park Dr.	(+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (+) Clear access for Fremont Street industrial properties from 48th (south of Cornhusker, east of N. 39th St.) (-) Decreases visibility and accessibility to industrial and commercial areas north of Cornhusker Hwy. (-) Cuts through industrial business at southwest intersection of railroad and N. 33rd St.	(+) No Industrial Impacts
Visual Clutter / Obstructions Impacts	(+) No MSE wall to block all views (-) "Spreads out" roadway network , instead of concentrating improvements around N. 33rd St. and Cornhusker Hwy.	(+) No MSE wall to block all views (-) "Spreads out" roadway network , instead of concentrating improvements around N. 33rd St. and Cornhusker Hwy.	(+) No MSE wall to block all views (-) "Spreads out" roadway network , instead of concentrating improvements around N. 33rd St. and Cornhusker Hwy.	(+) No MSE wall to block all views (-) "Spreads out" roadway network , instead of concentrating improvements around N. 33rd St. and Cornhusker Hwy. (-) Large Adams St. bridge structure	(+) No MSE wall to block all views (-) "Spreads out" roadway network , instead of concentrating improvements around N. 33rd St. and Cornhusker Hwy. (-) Large N. 33rd St. bridge structure (-) "Busy" road network with old/new Cornhusker Hwy.	(+) No MSE wall to block all views (-) "Spreads out" roadway network, instead of concentrating improvements around N. 33rd St. and Cornhusker Hwy. (-) Large N. 33rd St. bridge structure (-) Large Adams St. bridge structure	(+) Concentrates road network improvements around N. 33rd St. and Cornhusker Hwy. (-) Largest expanses of MSE wall divide north subarea from south subarea	(+) No Visual Clutter
Connectivity Impacts (Pedestrian / Bicycle / Transit)	(+) Entire Cornhusker alignment is at-grade and adjacent to existing businesses (+) Road network is the least confusing and most consistent with existing alignments (+) Users on N. 33rd St. are not forced to back track when accessing Cornhusker (-) No direct access between Cornhusker and Adams	(+) Entire Cornhusker alignment is at-grade and adjacent to existing businesses (+) Road network is the least confusing and most consistent with existing alignments (+) Users on N. 33rd St. are not forced to back track when accessing Cornhusker (-) Adams St. access ramp is awkward and steep for all users	(+) Entire Cornhusker alignment is at-grade and adjacent to existing businesses (+) Entire Cornhusker alignment is at-grade and adjacent to existing businesses (+) Users on N. 33rd St. are not forced to back track when accessing Cornhusker	(+) Entire Cornhusker alignment is at-grade and adjacent to existing businesses (+) Entire Cornhusker alignment is at-grade and adjacent to existing businesses (+) Users on N. 33rd St. are not forced to back track when accessing Cornhusker	(+) Cornhusker alignment is altered but maintained at-grade (+) Intuitive east/west connection between Cornhusker and area businesses west of N. 33rd St. (+) Consistent alignment of N. 33rd St. supports bus operations (-) Adams St. access ramp is awkward and steep for all users (-) No direct access between Cornhusker and N. 33rd St.	(+) Cornhusker alignment is altered but maintained at-grade . (+) Consistent alignment of N. 33rd St. supports bus operations (-) Fragmented connection from Cornhusker to N. 33rd St. (-) No direct access between Cornhusker and N. 33rd St. (-) Less intuitive east/west connection between Cornhusker and area businesses west of N. 33rd St. (-) Unattractive access from Adams St. bridge to north of Cornhusker.	(-) No access to N. 27th St. retail center (-) Adams St. bridge is oriented less towards Cornhusker and existing businesses than (15) (-) Additional bike/ped facilities needed below elevated Cornhusker alignment east of N. 33rd St. (-) Intimidating path to travel across N. 33rd St. and Cornhusker	(-) No Pedestrian Improvements



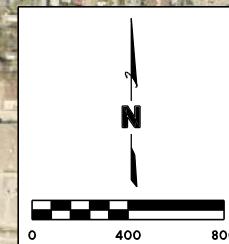
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SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

ALTERNATIVE 1B

- LEGEND**
- INITIAL ROADWAY CONSTRUCTION
 - INITIAL BRIDGE CONSTRUCTION
 - INITIAL RETAINING WALL CONSTRUCTION
 - FUTURE ROADWAY & BRIDGE CONSTRUCTION
 - WORK COMPLETED BY OTHERS
 - FULL-ACCESS INTERSECTION
 - EXISTING SIGNALIZED INTERSECTION
 - 3/4 ACCESS INTERSECTION
 - RIGHT IN / RIGHT OUT INTERSECTION
 - RAILROAD CROSSING CLOSURE





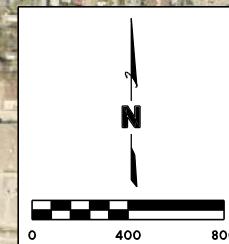
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SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

ALTERNATIVE 1D

- LEGEND**
- INITIAL ROADWAY CONSTRUCTION
 - INITIAL BRIDGE CONSTRUCTION
 - INITIAL RETAINING WALL CONSTRUCTION
 - FUTURE ROADWAY & BRIDGE CONSTRUCTION
 - WORK COMPLETED BY OTHERS
 - FULL-ACCESS INTERSECTION
 - EXISTING SIGNALIZED INTERSECTION
 - 3/4 ACCESS INTERSECTION
 - RIGHT IN / RIGHT OUT INTERSECTION
 - RAILROAD CROSSING CLOSURE





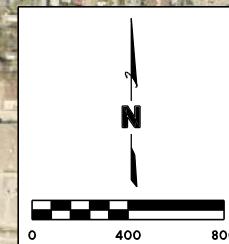
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SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

ALTERNATIVE 1E

- LEGEND**
- INITIAL ROADWAY CONSTRUCTION
 - INITIAL BRIDGE CONSTRUCTION
 - INITIAL RETAINING WALL CONSTRUCTION
 - FUTURE ROADWAY & BRIDGE CONSTRUCTION
 - WORK COMPLETED BY OTHERS
 - FULL-ACCESS INTERSECTION
 - EXISTING SIGNALIZED INTERSECTION
 - 3/4 ACCESS INTERSECTION
 - RIGHT IN / RIGHT OUT INTERSECTION
 - RAILROAD CROSSING CLOSURE



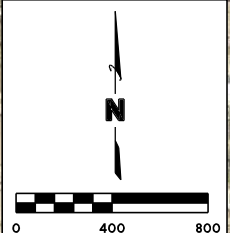


Preliminary
11/19/2018

SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

ALTERNATIVE 12B

- LEGEND
- INITIAL ROADWAY CONSTRUCTION
 - INITIAL BRIDGE CONSTRUCTION
 - INITIAL RETAINING WALL CONSTRUCTION
 - FUTURE ROADWAY & BRIDGE CONSTRUCTION
 - WORK COMPLETED BY OTHERS
 - FULL-ACCESS INTERSECTION
 - EXISTING SIGNALIZED INTERSECTION
 - 3/4 ACCESS INTERSECTION
 - RIGHT IN / RIGHT OUT INTERSECTION
 - RAILROAD CROSSING CLOSURE



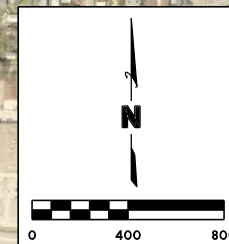


Preliminary
11/19/2018

SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

ALTERNATIVE 14

- LEGEND**
- INITIAL ROADWAY CONSTRUCTION
 - INITIAL BRIDGE CONSTRUCTION
 - INITIAL RETAINING WALL CONSTRUCTION
 - FUTURE ROADWAY & BRIDGE CONSTRUCTION
 - WORK COMPLETED BY OTHERS
 - FULL-ACCESS INTERSECTION
 - EXISTING SIGNALIZED INTERSECTION
 - 3/4 ACCESS INTERSECTION
 - RIGHT IN / RIGHT OUT INTERSECTION
 - RAILROAD CROSSING CLOSURE



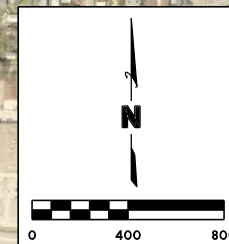


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SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

ALTERNATIVE 15A

- LEGEND**
- INITIAL ROADWAY CONSTRUCTION
 - INITIAL BRIDGE CONSTRUCTION
 - INITIAL RETAINING WALL CONSTRUCTION
 - FUTURE ROADWAY & BRIDGE CONSTRUCTION
 - WORK COMPLETED BY OTHERS
 - FULL-ACCESS INTERSECTION
 - EXISTING SIGNALIZED INTERSECTION
 - 3/4 ACCESS INTERSECTION
 - RIGHT IN / RIGHT OUT INTERSECTION
 - RAILROAD CROSSING CLOSURE





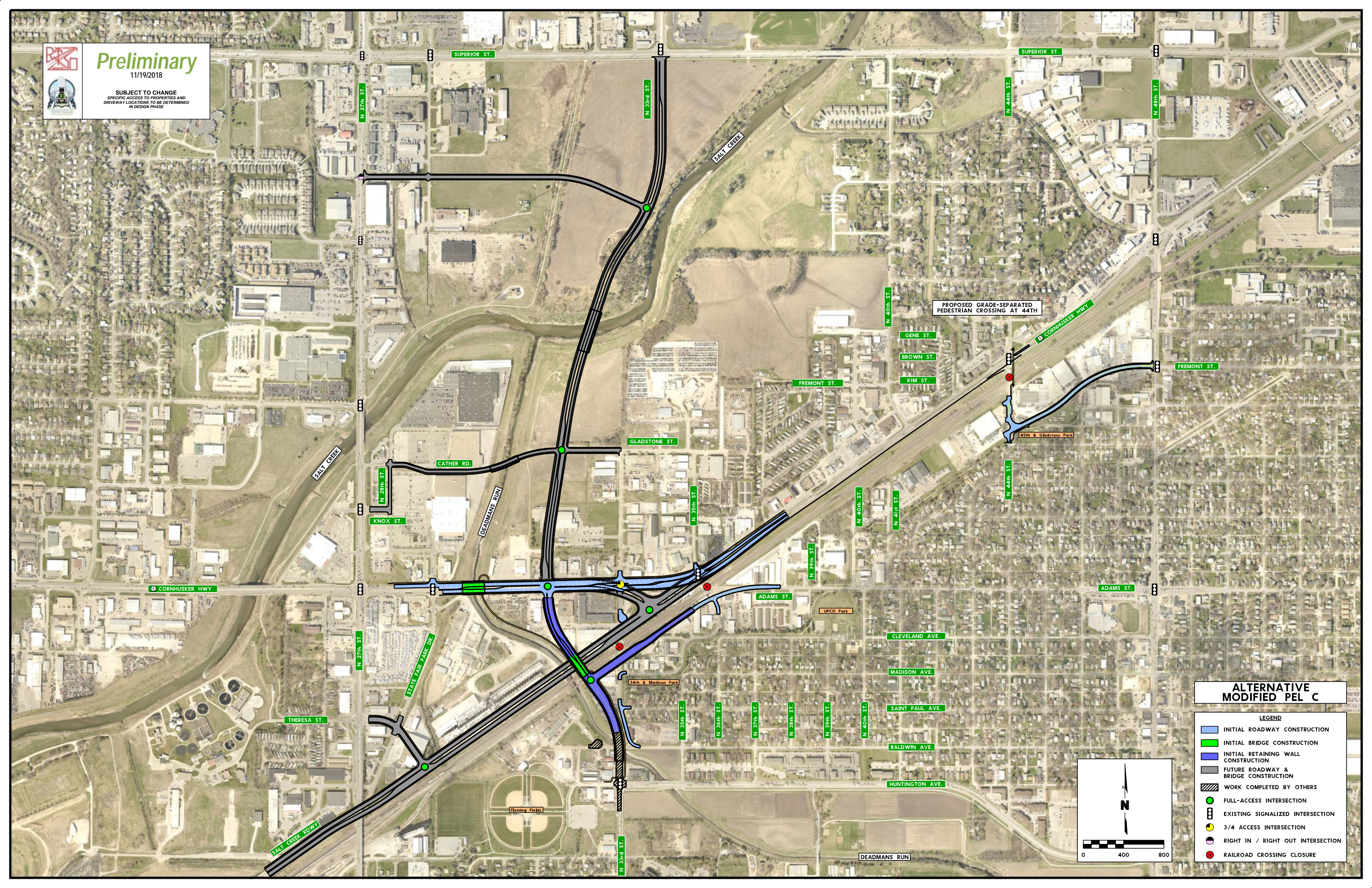
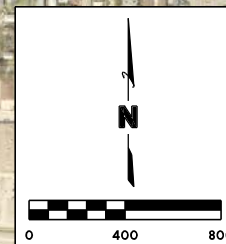
Preliminary
11/19/2018

SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

ALTERNATIVE MODIFIED PEL C

LEGEND

- INITIAL ROADWAY CONSTRUCTION
- INITIAL BRIDGE CONSTRUCTION
- INITIAL RETAINING WALL CONSTRUCTION
- FUTURE ROADWAY & BRIDGE CONSTRUCTION
- WORK COMPLETED BY OTHERS
- FULL-ACCESS INTERSECTION
- EXISTING SIGNALIZED INTERSECTION
- 3/4 ACCESS INTERSECTION
- RIGHT IN / RIGHT OUT INTERSECTION
- RAILROAD CROSSING CLOSURE



Appendix D

Tier 0 and Tier 1 Screening Sheets

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			Yes	No
Alternative: 1				
Tier 0 - Purpose and Need Screening				
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?		x	
	Does the alternative reduce delays for users crossing the rail corridor?		x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?		x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?		x	
Retained or Dismissed?			RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation				
	Does the alternative improve safety by incorporating access management?		x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		x	
	Does the alternative maintain traffic along Cornhusker during construction?		x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?			x
	Does the alternative avoid/minimize impacts to community resources?			x
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?			x
	Does the alternative minimize or avoid impacts to:			
	Floodways and Floodplains		x	
	Parks and recreation areas		x	
	Historic resources		x	
	Hazardous materials sites		x	
	Wetlands and waters of the U.S.		x	
	Sensitive, threatened, or endangered species		x	
	Minority or low-income populations			x
	Is the alternative compatible with the sub-area plan?			x
	Does the alternative accommodate the land uses proposed in the subarea plan?			x
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?			x
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?			x
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?			x
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?			x
	Is the alternative compatible with the Dead Man's Run improvements?		x	
Retained or Dismissed?			DISMISSED	
Reason for Elimination: Impact to community resources and disruptive to community cohesion. Impacts to mobile home park.				

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			Yes	No
Alternative: 1a				
Tier 0 - Purpose and Need Screening				
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?		x	
	Does the alternative reduce delays for users crossing the rail corridor?		x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?		x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?		x	
Retained or Dismissed?			RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation				
	Does the alternative improve safety by incorporating access management?		x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		x	
	Does the alternative maintain traffic along Cornhusker during construction?		x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x	
	Does the alternative avoid/minimize impacts to community resources?		x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		x	
	Does the alternative minimize or avoid impacts to:		x	
	Floodways and Floodplains		x	
	Parks and recreation areas		x	
	Historic resources		x	
	Hazardous materials sites		x	
	Wetlands and waters of the U.S.		x	
	Sensitive, threatened, or endangered species		x	
	Minority or low-income populations			x
	Is the alternative compatible with the sub-area plan?			x
	Does the alternative accommodate the land uses proposed in the subarea plan?			x
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?			x
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?			x
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?			x
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?			x
	Is the alternative compatible with the Dead Man's Run improvements?		x	
Retained or Dismissed?			DISMISSED	
Reason for Elimination: Incompatible with the SAP.				

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			Yes	No
Alternative: 1b				
Tier 0 - Purpose and Need Screening				
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?		x	
	Does the alternative reduce delays for users crossing the rail corridor?		x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?		x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?		x	
Retained or Dismissed?			RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation				
	Does the alternative improve safety by incorporating access management?		x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		x	
	Does the alternative maintain traffic along Cornhusker during construction?		x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x	
	Does the alternative avoid/minimize impacts to community resources?		x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		x	
	Does the alternative minimize or avoid impacts to:		x	
	Floodways and Floodplains		x	
	Parks and recreation areas		x	
	Historic resources		x	
	Hazardous materials sites		x	
	Wetlands and waters of the U.S.		x	
	Sensitive, threatened, or endangered species		x	
	Minority or low-income populations		x	
	Is the alternative compatible with the sub-area plan?		x	
	Does the alternative accommodate the land uses proposed in the subarea plan?		x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		x	
	Is the alternative compatible with the Dead Man's Run improvements?		x	
Retained or Dismissed?			RETAINED	

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			Yes	No
Alternative: 1c				
Tier 0 - Purpose and Need Screening			x	
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?		x	
	Does the alternative reduce delays for users crossing the rail corridor?		x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?		x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?		x	
Retained or Dismissed?			RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation				
	Does the alternative improve safety by incorporating access management?		x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		x	
	Does the alternative maintain traffic along Cornhusker during construction?		x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?			x
	Does the alternative avoid/minimize impacts to community resources?		x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		x	
	Does the alternative minimize or avoid impacts to:		x	
	Floodways and Floodplains		x	
	Parks and recreation areas		x	
	Historic resources		x	
	Hazardous materials sites		x	
	Wetlands and waters of the U.S.		x	
	Sensitive, threatened, or endangered species		x	
	Minority or low-income populations		x	
	Is the alternative compatible with the sub-area plan?			x
	Does the alternative accommodate the land uses proposed in the subarea plan?			x
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?			x
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?			x
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?			x
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?			x
	Is the alternative compatible with the Dead Man's Run improvements?		x	
Retained or Dismissed?			DISMISSED	
Reason for Elimination: Alternative is too circuitous. Incompatible with SAP.				

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			Yes	No
Alternative: 1d				
Tier 0 - Purpose and Need Screening				
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?		x	
	Does the alternative reduce delays for users crossing the rail corridor?		x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?		x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?		x	
Retained or Dismissed?			RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation				
	Does the alternative improve safety by incorporating access management?		x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		x	
	Does the alternative maintain traffic along Cornhusker during construction?		x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x	
	Does the alternative avoid/minimize impacts to community resources?		x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		x	
	Does the alternative minimize or avoid impacts to:			
	Floodways and Floodplains		x	
	Parks and recreation areas		x	
	Historic resources		x	
	Hazardous materials sites		x	
	Wetlands and waters of the U.S.		x	
	Sensitive, threatened, or endangered species		x	
	Minority or low-income populations		x	
	Is the alternative compatible with the sub-area plan?		x	
	Does the alternative accommodate the land uses proposed in the subarea plan?		x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		x	
	Is the alternative compatible with the Dead Man's Run improvements?		x	
Retained or Dismissed?			RETAINED	

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			Yes	No
Alternative: 1e				
Tier 0 - Purpose and Need Screening				
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?		x	
	Does the alternative reduce delays for users crossing the rail corridor?		x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?		x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?		x	
Retained or Dismissed?			RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation				
	Does the alternative improve safety by incorporating access management?		x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		x	
	Does the alternative maintain traffic along Cornhusker during construction?		x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x	
	Does the alternative avoid/minimize impacts to community resources?		x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		x	
	Does the alternative minimize or avoid impacts to:		x	
	Floodways and Floodplains		x	
	Parks and recreation areas		x	
	Historic resources		x	
	Hazardous materials sites		x	
	Wetlands and waters of the U.S.		x	
	Sensitive, threatened, or endangered species		x	
	Minority or low-income populations		x	
	Is the alternative compatible with the sub-area plan?		x	
	Does the alternative accommodate the land uses proposed in the subarea plan?		x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		x	
	Is the alternative compatible with the Dead Man's Run improvements?		x	
Retained or Dismissed?			RETAINED	

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 2		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?	x	
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?	x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?	x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?	x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?	x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?	x	
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Alternative does not minimize out-of-direction travel, alternative is too circuitous and nonintuitive.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 3		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		x
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?	x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?	x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?	x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?	x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?	x	
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Alternative does not minimize out-of-direction travel, alternative is too circuitous and nonintuitive. Disruptive to community cohesion.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 4		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?		x
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?	x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x
	Does the alternative avoid/minimize impacts to community resources?		x
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		x
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations		x
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?	x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?	x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?	x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?	x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?	x	
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Alternative does not incorporate adequate access management. Alternative does not minimize out-of-direction travel, alternative is too circuitous and nonintuitive. Impacts to mobile home park.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 5		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		x
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Does not meet purpose and need as it would not accommodate future traffic volumes or adequately reduce vehicular congestion at the railroad crossings.			
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?		
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		
	Does the alternative maintain traffic along Cornhusker during construction?		
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		
	Does the alternative avoid/minimize impacts to community resources?		
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains		
	Parks and recreation areas		
	Historic resources		
	Hazardous materials sites		
	Wetlands and waters of the U.S.		
	Sensitive, threatened, or endangered species		
	Minority or low-income populations		
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?		
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		
	Is the alternative compatible with the Dead Man's Run improvements?		
Retained or Dismissed?			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 6		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		x
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Does not meet purpose and need as it would not accommodate future traffic volumes or adequately reduce vehicular congestion at the railroad crossings.			
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?		
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		
	Does the alternative maintain traffic along Cornhusker during construction?		
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		
	Does the alternative avoid/minimize impacts to community resources?		
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains		
	Parks and recreation areas		
	Historic resources		
	Hazardous materials sites		
	Wetlands and waters of the U.S.		
	Sensitive, threatened, or endangered species		
	Minority or low-income populations		
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?		
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		
	Is the alternative compatible with the Dead Man's Run improvements?		
Retained or Dismissed?			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 7		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		x
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Does not meet purpose and need as it would not accommodate future traffic volumes or adequately reduce vehicular congestion at the railroad crossings.			
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?		
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		
	Does the alternative maintain traffic along Cornhusker during construction?		
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		
	Does the alternative avoid/minimize impacts to community resources?		
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains		
	Parks and recreation areas		
	Historic resources		
	Hazardous materials sites		
	Wetlands and waters of the U.S.		
	Sensitive, threatened, or endangered species		
	Minority or low-income populations		
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?		
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		
	Is the alternative compatible with the Dead Man's Run improvements?		
Retained or Dismissed?			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 8		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?	x	
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		x
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations		x
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?	x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?	x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?	x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?	x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?	x	
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Alternative does not minimize out-of-direction travel. Disruptive to community cohesion.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 9		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?	x	
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?	x	
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?		x
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		x
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		x
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		x
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		x
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Alternative does not minimize out-of-direction travel. Incompatible with the SAP.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			Yes	No
Alternative: 9a				
Tier 0 - Purpose and Need Screening				
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?		x	
	Does the alternative reduce delays for users crossing the rail corridor?		x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?		x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?		x	
Retained or Dismissed?			RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation				
	Does the alternative improve safety by incorporating access management?		x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?			x
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		x	
	Does the alternative maintain traffic along Cornhusker during construction?		x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x	
	Does the alternative avoid/minimize impacts to community resources?		x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		x	
	Does the alternative minimize or avoid impacts to:			
	Floodways and Floodplains		x	
	Parks and recreation areas		x	
	Historic resources		x	
	Hazardous materials sites		x	
	Wetlands and waters of the U.S.		x	
	Sensitive, threatened, or endangered species		x	
	Minority or low-income populations		x	
	Is the alternative compatible with the sub-area plan?			
	Does the alternative accommodate the land uses proposed in the subarea plan?			x
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?			x
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?			x
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?			x
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?			x
	Is the alternative compatible with the Dead Man's Run improvements?		x	
Retained or Dismissed?			DISMISSED	
Reason for Elimination: Alternative does not minimize out-of-direction travel. Incompatible with the SAP.				

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			Yes	No
Alternative: 9b				
Tier 0 - Purpose and Need Screening				
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?		x	
	Does the alternative reduce delays for users crossing the rail corridor?		x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?		x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?		x	
Retained or Dismissed?			RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation				
	Does the alternative improve safety by incorporating access management?		x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		x	
	Does the alternative maintain traffic along Cornhusker during construction?		x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?			x
	Does the alternative avoid/minimize impacts to community resources?		x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		x	
	Does the alternative minimize or avoid impacts to:			
	Floodways and Floodplains		x	
	Parks and recreation areas		x	
	Historic resources		x	
	Hazardous materials sites		x	
	Wetlands and waters of the U.S.		x	
	Sensitive, threatened, or endangered species		x	
	Minority or low-income populations		x	
	Is the alternative compatible with the sub-area plan?			
	Does the alternative accommodate the land uses proposed in the subarea plan?			x
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?			x
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?			x
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?			x
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?			x
	Is the alternative compatible with the Dead Man's Run improvements?		x	
Retained or Dismissed?			DISMISSED	
Reason for Elimination: Alternative is too circuitous and nonintuitive. Incompatible with the SAP.				

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 10		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?		x
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?	x	
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?		x
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		x
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		x
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		x
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		x
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Alternative does not minimize out-of-direction travel, is too circuitous and nonintuitive, and does not maintain traffic along Cornhusker during construction. Incompatible with the SAP.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative:	11	Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?	x	
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?		x
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		x
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		x
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		x
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		x
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Alternative does not minimize out-of-direction travel and is too circuitous and nonintuitive. Incompatible with the SAP.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 11a		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?	x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?	x	
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?	x	
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?		x
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		x
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		x
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		x
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		x
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Incompatible with the SAP.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative:	12	Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?	x	
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?	x	
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?		x
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		x
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		x
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		x
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		x
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Alternative does not minimize out-of-direction travel. Incompatible with the SAP.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 12a		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?	x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?	x	
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?	x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?	x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?	x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?	x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?	x	
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Alternative does not minimize out-of-direction travel.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 12b		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?	x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?	x	
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?	x	
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?	x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?	x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?	x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?	x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?	x	
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		RETAINED	

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative:	13	Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?	x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?	x	
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?	x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?	x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?	x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?	x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?	x	
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Alternative does not minimize out-of-direction travel and is too circuitous and nonintuitive.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 13a		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?	x	
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?	x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?	x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?	x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?	x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?	x	
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Alternative does not minimize out-of-direction travel and is too circuitous and nonintuitive.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 14		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?	x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?	x	
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?	x	
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?	x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?	x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?	x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?	x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?	x	
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		RETAINED	

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: 14a		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?	x	
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?		x
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		x
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		x
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		x
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		x
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Incompatible with the SAP.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative:	15	Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?		x
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		x
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?	x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?	x	
	Does the alternative avoid/minimize impacts to community resources?	x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?	x	
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?	x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?	x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?	x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?	x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?	x	
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Alternative does not incorporate adequate access management and would not improve future level of service at major intersections.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			Yes	No
Alternative: 15a				
Tier 0 - Purpose and Need Screening				
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?		x	
	Does the alternative reduce delays for users crossing the rail corridor?		x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?		x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?		x	
Retained or Dismissed?			RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation				
	Does the alternative improve safety by incorporating access management?		x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		x	
	Does the alternative maintain traffic along Cornhusker during construction?		x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x	
	Does the alternative avoid/minimize impacts to community resources?		x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		x	
	Does the alternative minimize or avoid impacts to:			
	Floodways and Floodplains		x	
	Parks and recreation areas		x	
	Historic resources		x	
	Hazardous materials sites		x	
	Wetlands and waters of the U.S.		x	
	Sensitive, threatened, or endangered species		x	
	Minority or low-income populations		x	
	Is the alternative compatible with the sub-area plan?			
	Does the alternative accommodate the land uses proposed in the subarea plan?		x	
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		x	
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		x	
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		x	
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		x	
	Is the alternative compatible with the Dead Man's Run improvements?			
Retained or Dismissed?			RETAINED	

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation			
Alternative: PEL C3		Yes	No
Tier 0 - Purpose and Need Screening			
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?	x	
	Does the alternative reduce delays for users crossing the rail corridor?	x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?	x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?	x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?	x	
Retained or Dismissed?		RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation			
	Does the alternative improve safety by incorporating access management?	x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?	x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?	x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?	x	
	Does the alternative maintain traffic along Cornhusker during construction?	x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?	x	
	Does the alternative avoid/minimize impacts to community resources?		x
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		x
	Does the alternative minimize or avoid impacts to:		
	Floodways and Floodplains	x	
	Parks and recreation areas	x	
	Historic resources	x	
	Hazardous materials sites	x	
	Wetlands and waters of the U.S.	x	
	Sensitive, threatened, or endangered species	x	
	Minority or low-income populations		x
	Is the alternative compatible with the sub-area plan?		
	Does the alternative accommodate the land uses proposed in the subarea plan?		x
	Is alternative compatible with access to existing and proposed land uses in the subarea plan?		x
	Is the alternative compatible with access to/from primary corridors shown in the subarea plan?		x
	Does the alternative support the parcel sizes shown in the subarea plan alternatives?		x
	Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?		x
	Is the alternative compatible with the Dead Man's Run improvements?	x	
Retained or Dismissed?		DISMISSED	
Reason for Elimination: Incompatible with the SAP. Disruptive to community cohesion. Impacts to mobile home park.			

33rd and Cornhusker Alternatives Evaluation

Screening Criteria Evaluation				
Alternative: Modified PEL C			Yes	No
Tier 0 - Purpose and Need Screening				
	Does the alternative improve safety by eliminating or reducing conflicts between trains and other modes of transportation?		x	
	Does the alternative reduce delays for users crossing the rail corridor?		x	
	Does the alternative accommodate existing and future (2040) traffic and reduce congestion along roadways crossing the railroad corridor?		x	
	Does the alternative improve mobility across the rail corridor in north Lincoln?		x	
	Does the alternative improved multimodal connectivity in north Lincoln for all users?		x	
Retained or Dismissed?			RETAINED	
Tier 1 - Comparative Transportation Effectiveness and Environmental Impact Evaluation				
	Does the alternative improve safety by incorporating access management?		x	
	Does the alternative maintain or improve 2020 peak hour LOS at existing major study area intersections and achieve peak hour LOS D or better for all newly created major intersections?		x	
	Does the alternative minimize future out-of-direction travel for major movements by 2040 model?		x	
	Does the alternative fill in gaps for trails and sidewalks that traverse rail corridors and improve efficiency of transit?		x	
	Does the alternative maintain traffic along Cornhusker during construction?		x	
	Is the alternative "simple"? Will the traveling public feel the movements are intuitive?		x	
	Does the alternative avoid/minimize impacts to community resources?		x	
	Does the alternative maintain neighborhood cohesion and minimize acquisitions of businesses and residences?		x	
	Does the alternative minimize or avoid impacts to:			
		Floodways and Floodplains	x	
		Parks and recreation areas	x	
		Historic resources	x	
		Hazardous materials sites	x	
		Wetlands and waters of the U.S.	x	
		Sensitive, threatened, or endangered species	x	
		Minority or low-income populations	x	
	Is the alternative compatible with the sub-area plan?			
		Does the alternative accommodate the land uses proposed in the subarea plan?	x	
		Is alternative compatible with access to existing and proposed land uses in the subarea plan?	x	
		Is the alternative compatible with access to/from primary corridors shown in the subarea plan?	x	
		Does the alternative support the parcel sizes shown in the subarea plan alternatives?	x	
		Can this alternative be constructed without negatively impacting the intent of the subarea plan goals?	x	
	Is the alternative compatible with the Dead Man's Run improvements?		x	
Retained or Dismissed?			RETAINED	

Appendix E

Traffic Data

33rd and Cornhusker Alternative Evaluation
Projected Daily Traffic Volumes

Roadway	Location	Existing	2040	Change from Existing		Change from No-Build	
			Projection	Volume	Percentage	Volume	Percentage
No-Build Conditions							
Cornhusker	W/O 33rd Street	34,700	42,000	7,300	121%		
Cornhusker	W/O Adams	30,000	44,800	14,800	149%		
Cornhusker	W/O 48th Street	21,100	27,300	6,200	129%		
Adams	W/O 48th Street	10,900	13,400	2,500	123%		
Huntington	E/O 33rd Street	10,700	11,900	1,200	111%		
27th Street	N/O Cornhusker	32,600	41,000	8,400	126%		
27th Sreet	S/O Cornhusker	31,000	20,200	(10,800)	65%		
33rd Street	S/O Cornhusker	9,300	20,300	11,000	218%		
48th Street	N/O Cornhusker	10,700	11,800	1,100	110%		
48th Street	S/O Cornhusker	17,700	20,800	3,100	118%		
Alternative 1D Ultimate w/ Adams							
Cornhusker	W/O 33rd Street	34,700	32,100	(2,600)	93%	(9,900)	-24%
Cornhusker	W/O Adams	30,000	33,700	3,700	112%	(11,100)	-25%
Cornhusker	W/O 48th Street	21,100	31,100	10,000	147%	3,800	14%
Adams	W/O 48th Street	10,900	2,100	(8,800)	19%	(11,300)	-84%
Huntington	E/O 33rd Street	10,700	23,600	12,900	221%	11,700	98%
27th Street	N/O Cornhusker	32,600	37,200	4,600	114%	(3,800)	-9%
27th Sreet	S/O Cornhusker	31,000	25,700	(5,300)	83%	5,500	27%
33rd Street	S/O Cornhusker	9,300	41,700	32,400	448%	21,400	105%
48th Street	N/O Cornhusker	10,700	9,900	(800)	93%	(1,900)	-16%
48th Street	S/O Cornhusker	17,700	26,600	8,900	150%	5,800	28%
Alternative 12B Ultimate w/ Adams							
Cornhusker	W/O 33rd Street	34,700	2,100	(32,600)	6%	(39,900)	-95%
Salt Creek Parkway	W/O 33rd Street		11,800				
Cornhusker	W/O Adams	30,000	36,100	6,100	120%	(8,700)	-19%
Cornhusker	W/O 48th Street	21,100	30,200	9,100	143%	2,900	11%
Adams	W/O 48th Street	10,900	4,400	(6,500)	40%	(9,000)	-67%
Huntington	E/O 33rd Street	10,700	12,900	2,200	121%	1,000	8%
27th Street	N/O Cornhusker	32,600	34,200	1,600	105%	(6,800)	-17%
27th Sreet	S/O Cornhusker	31,000	32,100	1,100	104%	11,900	59%
33rd Street	S/O Cornhusker	9,300	8,900	(400)	96%	(11,400)	-56%
48th Street	N/O Cornhusker	10,700	10,900	200	102%	(900)	-8%
48th Street	S/O Cornhusker	17,700	28,100	10,400	159%	7,300	35%
Alternative 14							
Cornhusker	W/O 33rd Street	34,700	14,800	(19,900)	43%	(27,200)	-65%
Salt Creek Parkway	W/O 33rd Street		19,700				
Cornhusker	W/O Adams	30,000	25,700	(4,300)	86%	(19,100)	-43%
Cornhusker	W/O 48th Street	21,100	27,900	6,800	132%	600	2%
Adams	W/O 48th Street	10,900	6,500	(4,400)	60%	(6,900)	-51%
Huntington	E/O 33rd Street	10,700	5,200	(5,500)	49%	(6,700)	-56%
27th Street	N/O Cornhusker	32,600	42,000	9,400	129%	1,000	2%
27th Sreet	S/O Cornhusker	31,000	38,800	7,800	125%	18,600	92%
33rd Street	S/O Cornhusker	9,300	8,200	(1,100)	88%	(12,100)	-60%
48th Street	N/O Cornhusker	10,700	16,600	5,900	155%	4,800	41%
48th Street	S/O Cornhusker	17,700	33,600	15,900	190%	12,800	62%

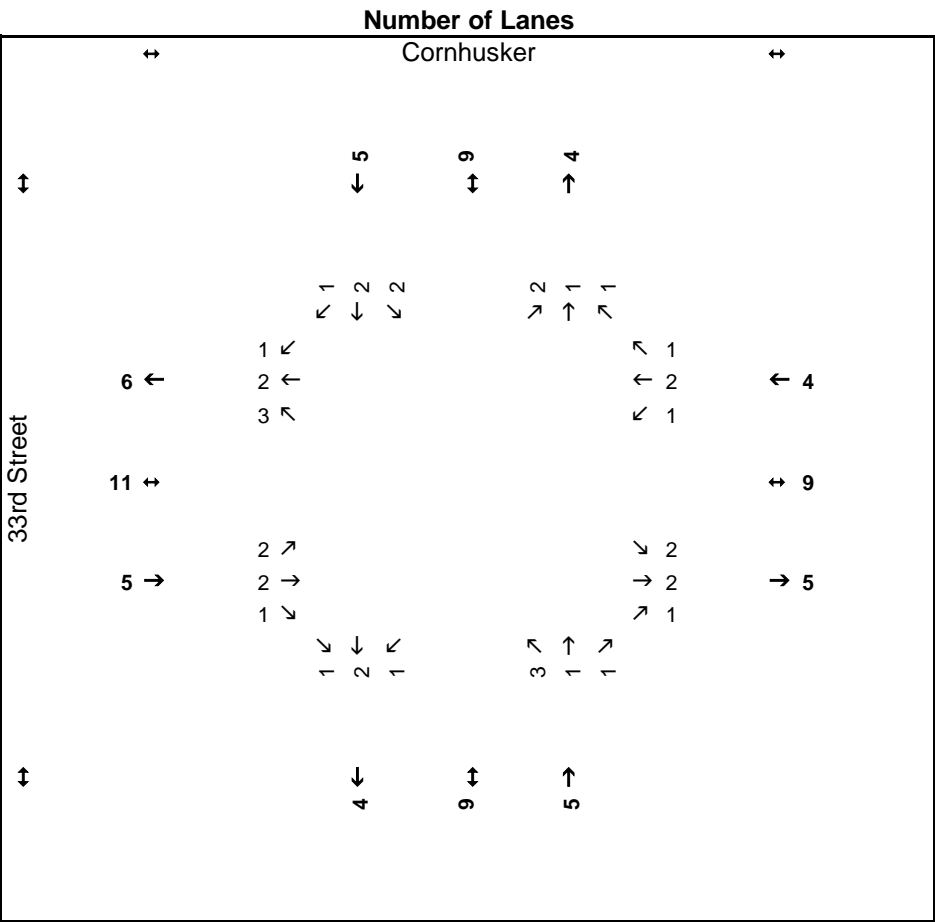
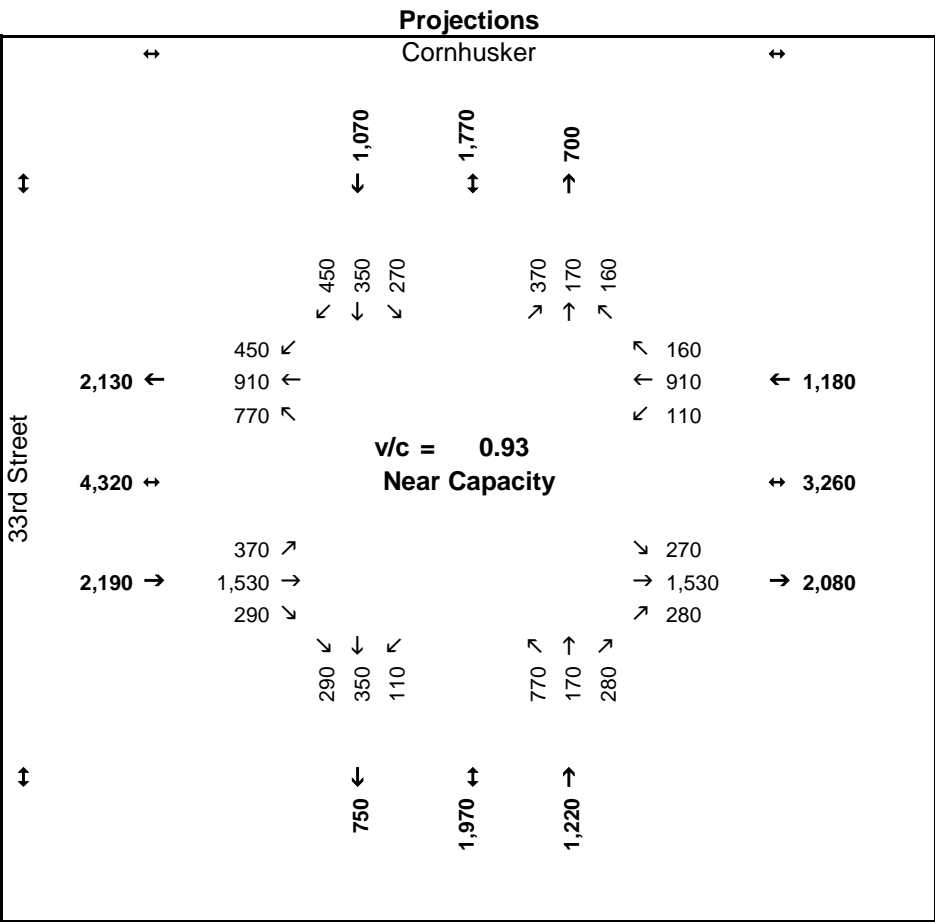
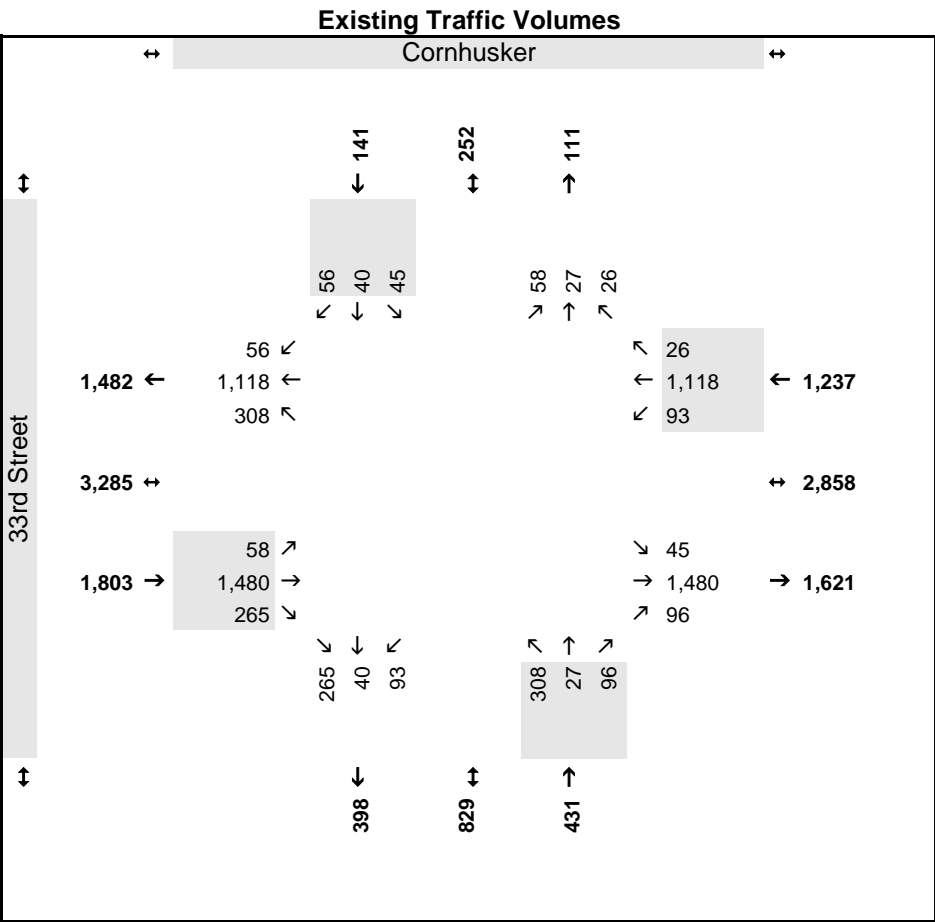
33rd and Cornhusker Alternative Evaluation
Projected Daily Traffic Volumes

Roadway	Location	Existing	2040	Change from Existing		Change from No-Build	
			Projection	Volume	Percentage	Volume	Percentage
Alternative 15 w/ Adams Ultimate							
Cornhusker	W/O 33rd Street	34,700	32,900	(1,800)	95%	(9,100)	-22%
Salt Creek Parkway	W/O 33rd Street		27,700				
Cornhusker	W/O Adams	30,000	28,800	(1,200)	96%	(16,000)	-36%
Cornhusker	W/O 48th Street	21,100	28,800	7,700	136%	1,500	5%
Adams	W/O 48th Street	10,900	7,000	(3,900)	64%	(6,400)	-48%
Huntington	E/O 33rd Street	10,700	22,900	12,200	214%	11,000	92%
27th Street	N/O Cornhusker	32,600	34,600	2,000	106%	(6,400)	-16%
27th Sreet	S/O Cornhusker	31,000	28,000	(3,000)	90%	7,800	39%
33rd Street	S/O Cornhusker	9,300	36,800	27,500	396%	16,500	81%
48th Street	N/O Cornhusker	10,700	11,800	1,100	110%	-	0%
48th Street	S/O Cornhusker	17,700	26,700	9,000	151%	5,900	28%
Alternative 15A w/ Adams Ultimate							
Cornhusker	W/O 33rd Street	34,700	27,900	(6,800)	80%	(14,100)	-34%
Salt Creek Parkway	W/O 33rd Street		27,700				
Cornhusker	W/O Adams	30,000	45,600	15,600	152%	800	2%
Cornhusker	W/O 48th Street	21,100	27,900	6,800	132%	600	2%
Adams	W/O 48th Street	10,900	14,500	3,600	133%	1,100	8%
Huntington	E/O 33rd Street	10,700	22,000	11,300	206%	10,100	85%
27th Street	N/O Cornhusker	32,600	36,800	4,200	113%	(4,200)	-10%
27th Sreet	S/O Cornhusker	31,000	26,500	(4,500)	85%	6,300	31%
33rd Street	S/O Cornhusker	9,300	36,700	27,400	395%	16,400	81%
48th Street	N/O Cornhusker	10,700	9,200	(1,500)	86%	(2,600)	-22%
48th Street	S/O Cornhusker	17,700	21,000	3,300	119%	200	1%
Alternative C - PEL							
Cornhusker	W/O 33rd Street	34,700	51,900	17,200	150%	9,900	24%
Cornhusker	W/O Adams	30,000	27,100	(2,900)	90%	(17,700)	-40%
Cornhusker	W/O 48th Street	21,100	27,100	6,000	128%	(200)	-1%
Adams	W/O 48th Street	10,900	9,300	(1,600)	85%	(4,100)	-31%
Huntington	E/O 33rd Street	10,700	18,900	8,200	177%	7,000	59%
27th Street	N/O Cornhusker	32,600	45,600	13,000	140%	4,600	11%
27th Sreet	S/O Cornhusker	31,000	32,800	1,800	106%	12,600	62%
33rd Street	S/O Cornhusker	9,300	45,900	36,600	494%	25,600	126%
48th Street	N/O Cornhusker	10,700	13,400	2,700	125%	1,600	14%
48th Street	S/O Cornhusker	17,700	26,200	8,500	148%	5,400	26%
Alternative C - PEL							
Cornhusker	W/O 33rd Street	34,700	52,600	17,900	152%	10,600	25%
Cornhusker	W/O Adams	30,000	38,500	8,500	128%	(6,300)	-14%
Cornhusker	W/O 48th Street	21,100	28,900	7,800	137%	1,600	6%
Adams	W/O 48th Street	10,900	7,500	(3,400)	69%	(5,900)	-44%
Huntington	E/O 33rd Street	10,700	8,700	(2,000)	81%	(3,200)	-27%
27th Street	N/O Cornhusker	32,600	45,700	13,100	140%	4,700	11%
27th Sreet	S/O Cornhusker	31,000	32,900	1,900	106%	12,700	63%
33rd Street	S/O Cornhusker	9,300	36,000	26,700	387%	15,700	77%
48th Street	N/O Cornhusker	10,700	13,400	2,700	125%	1,600	14%
48th Street	S/O Cornhusker	17,700	27,400	9,700	155%	6,600	32%

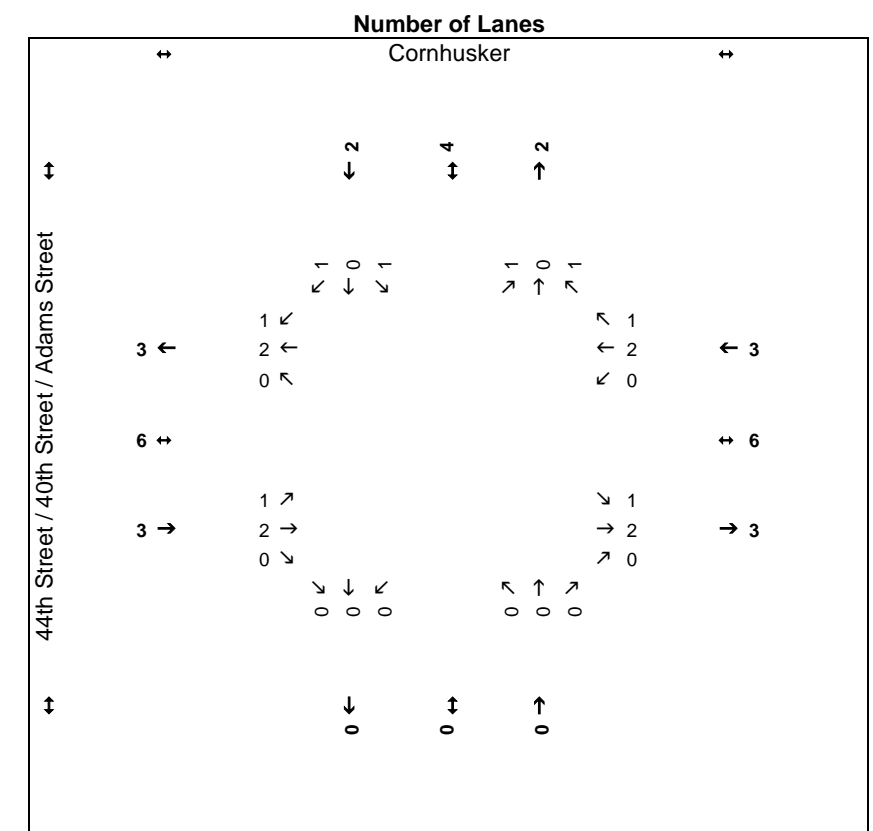
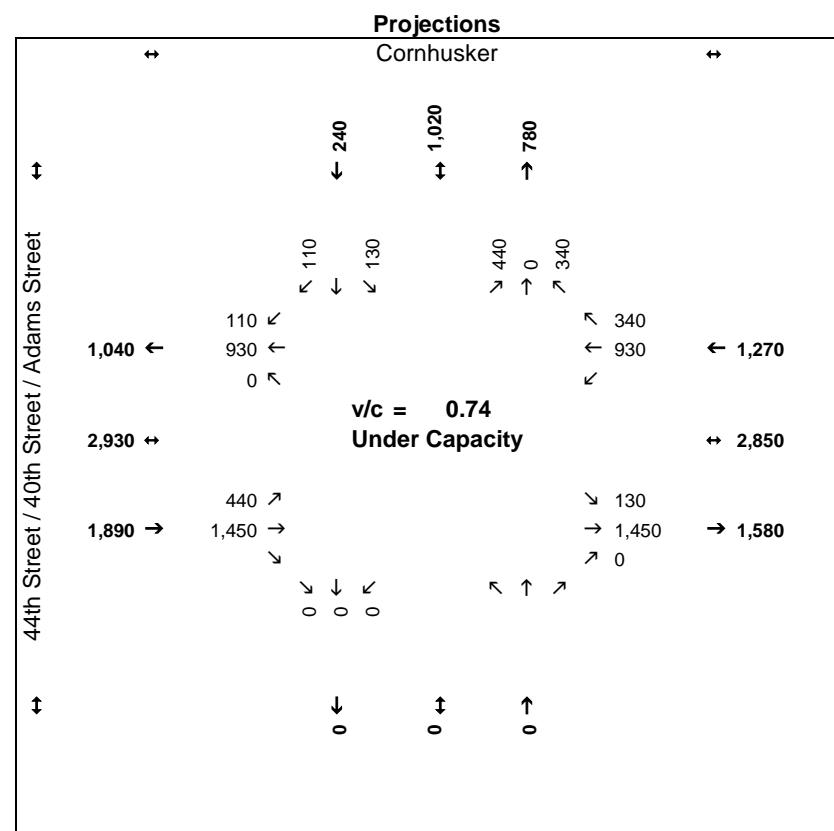
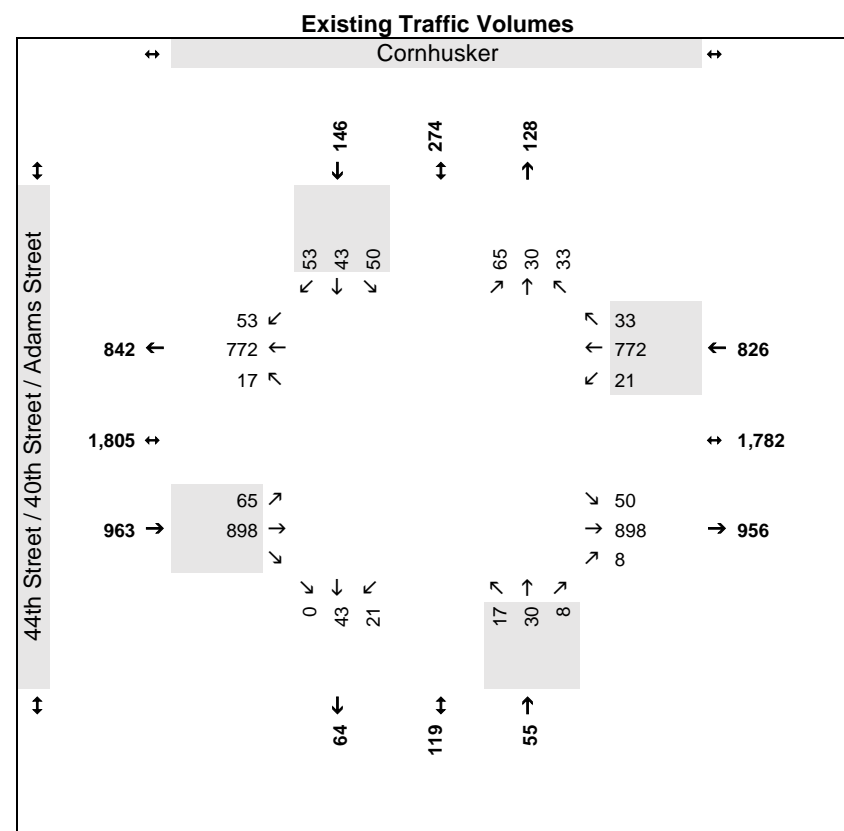
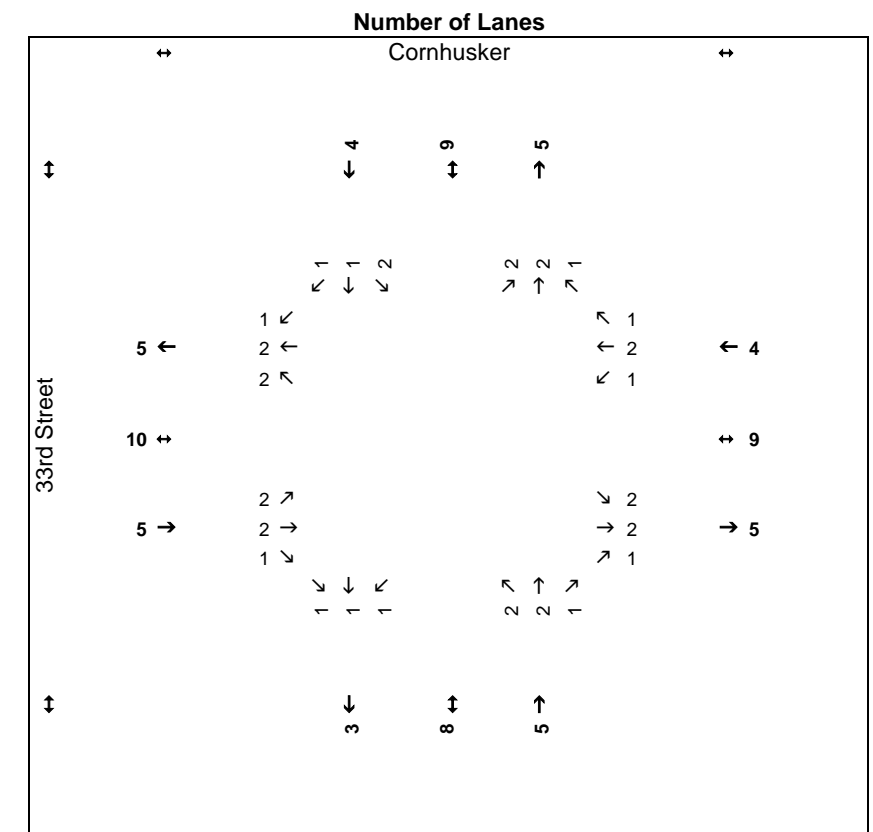
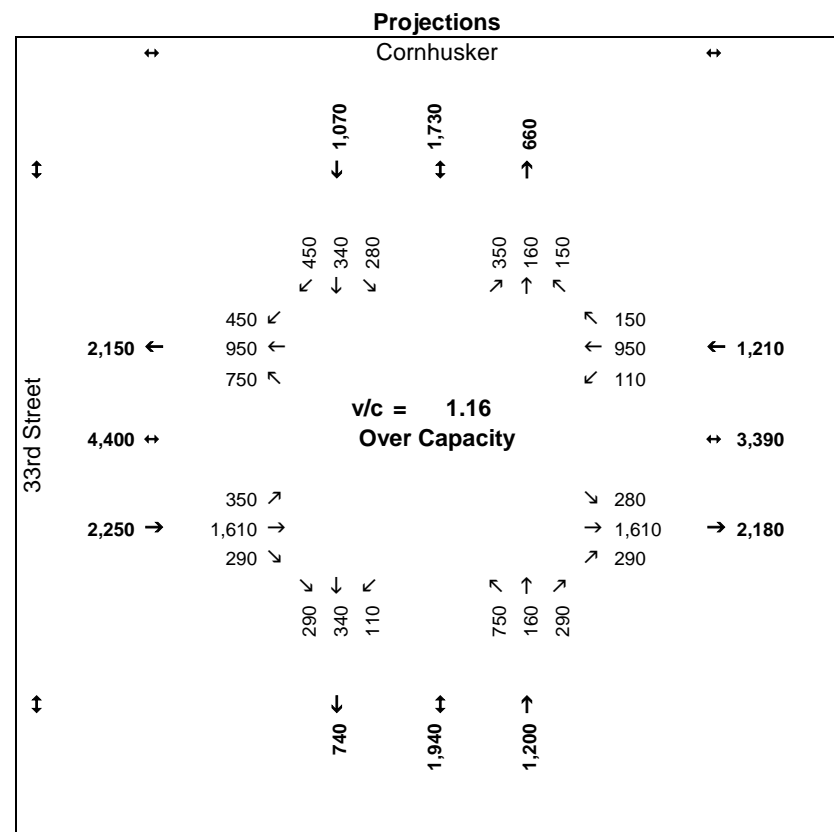
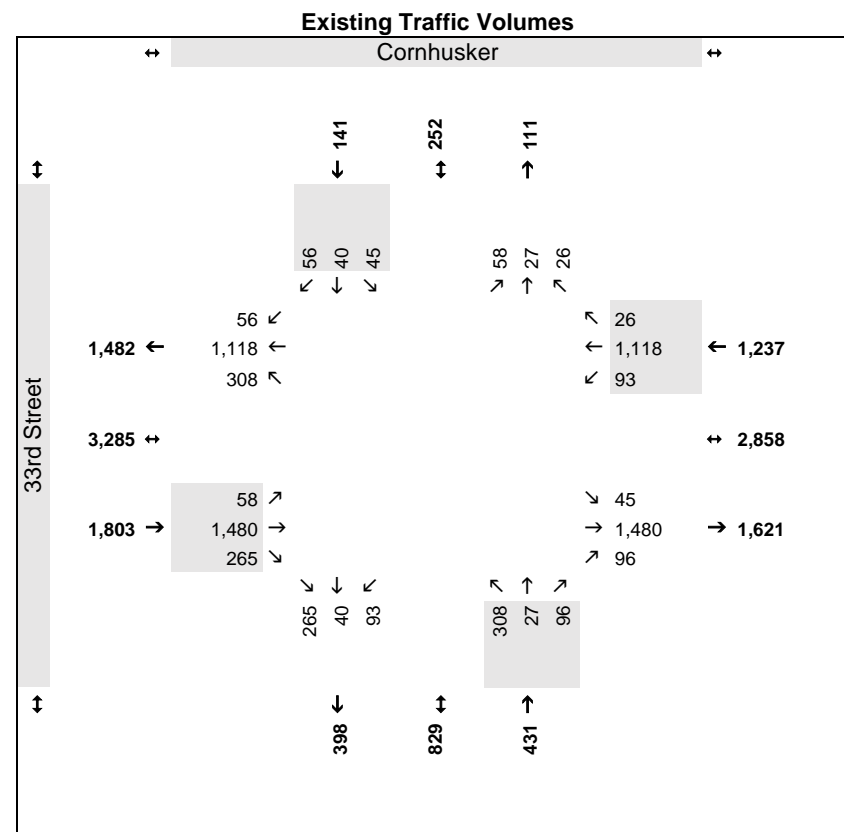
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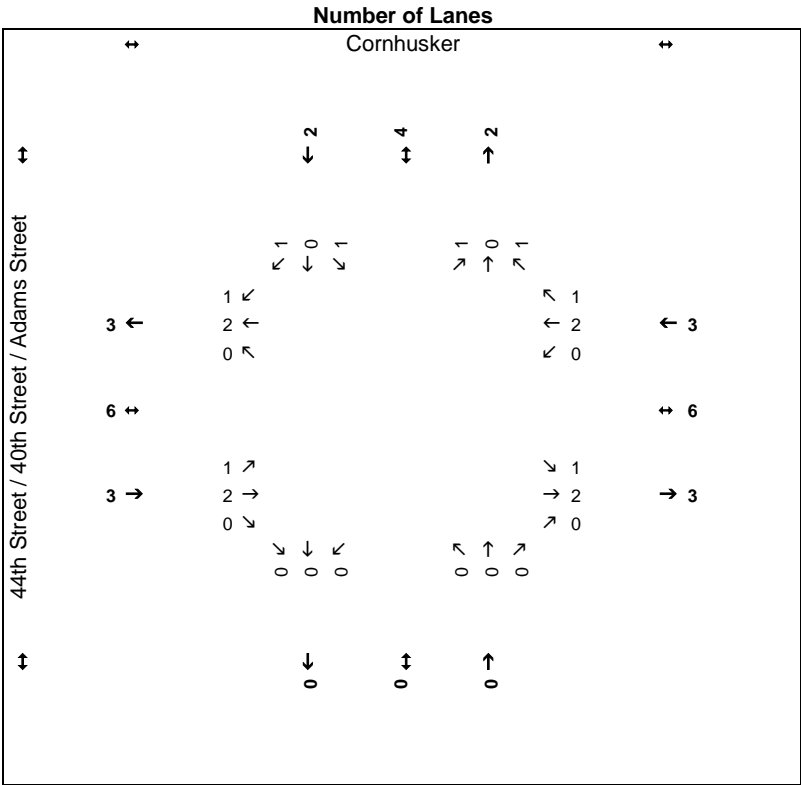
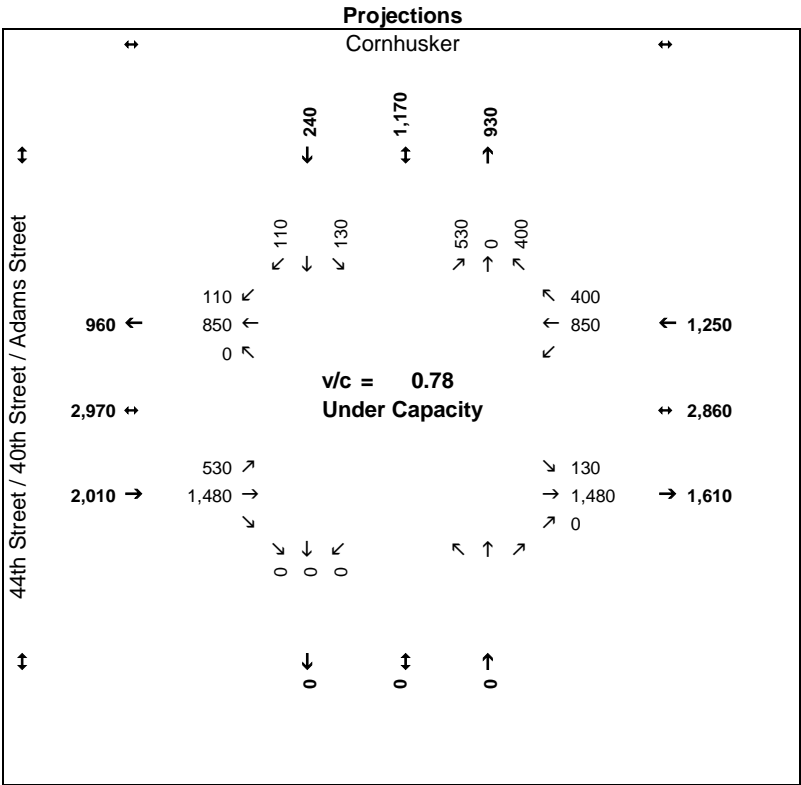
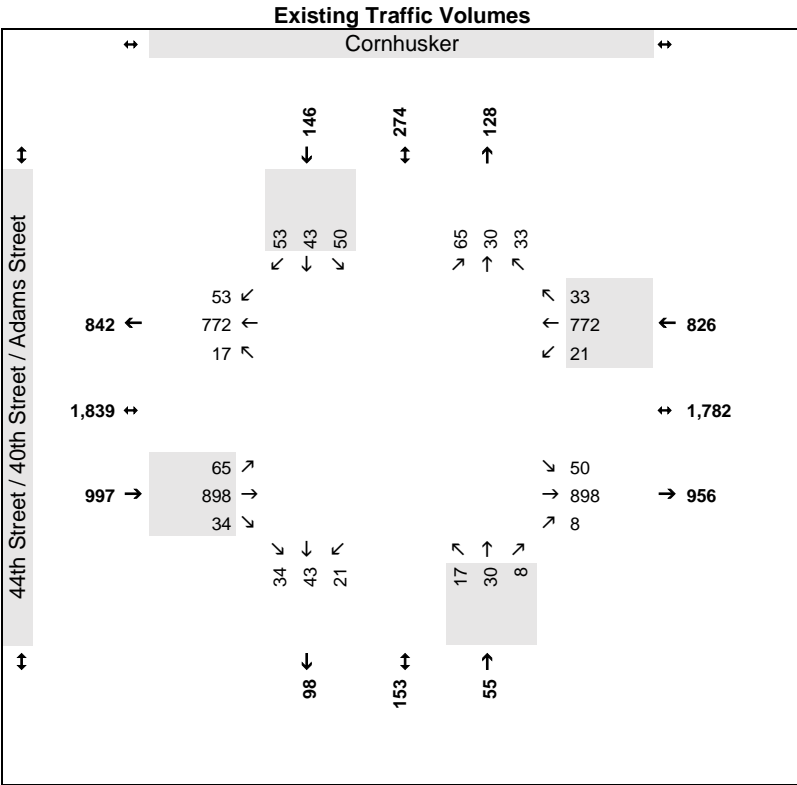
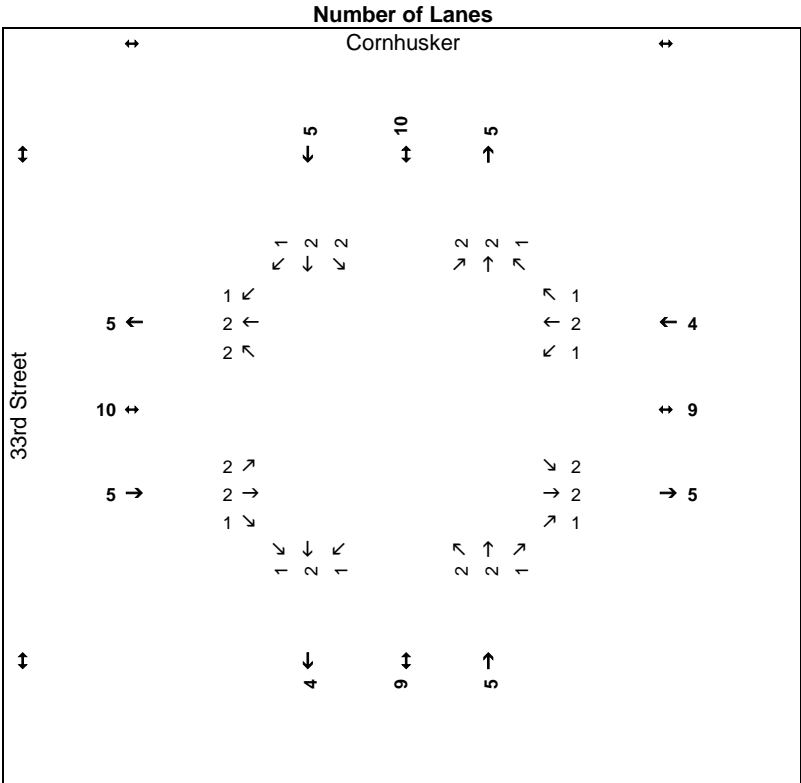
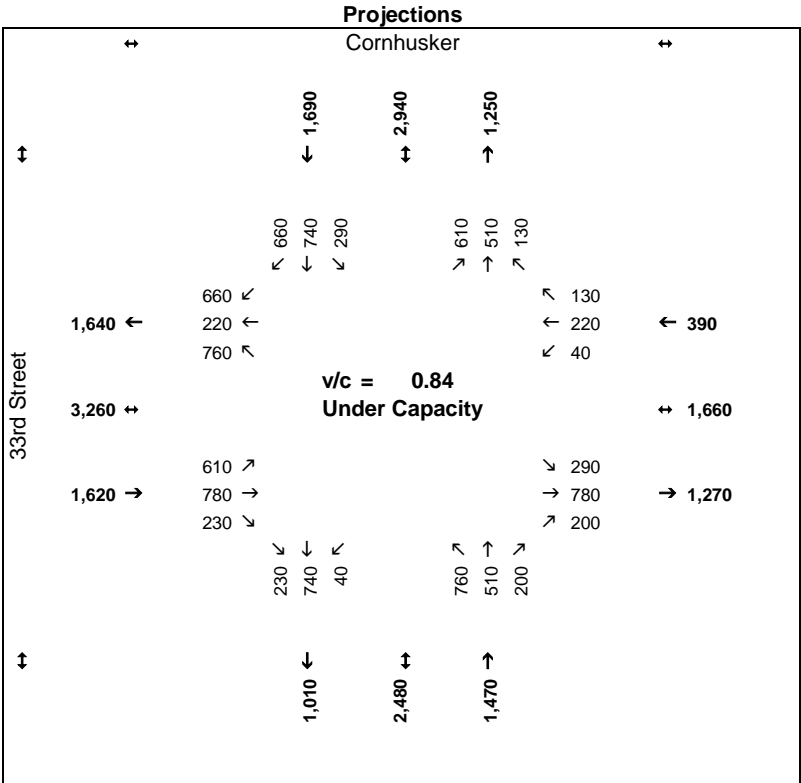
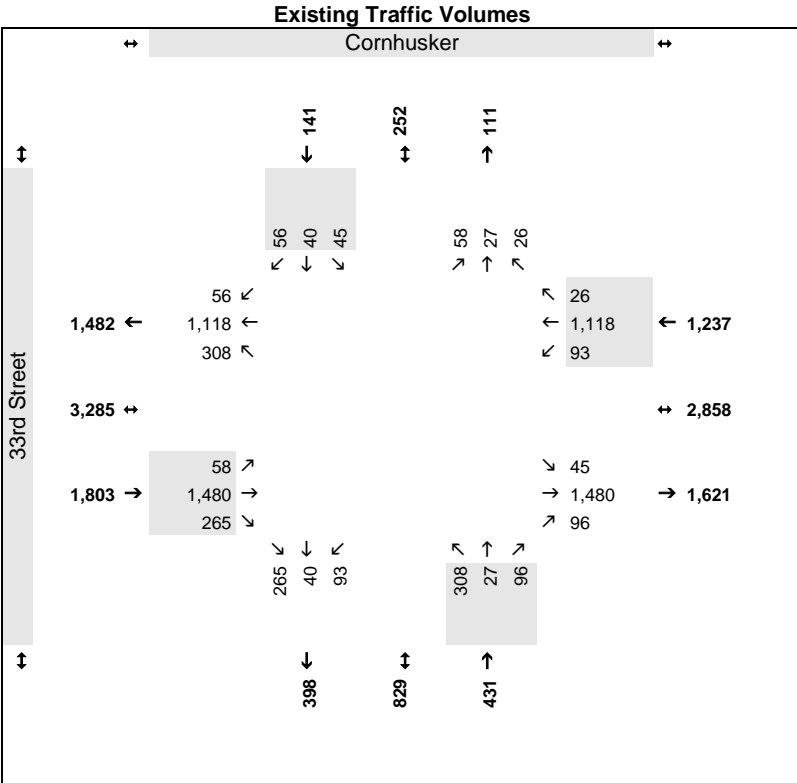
Alt 1D w.o Adams



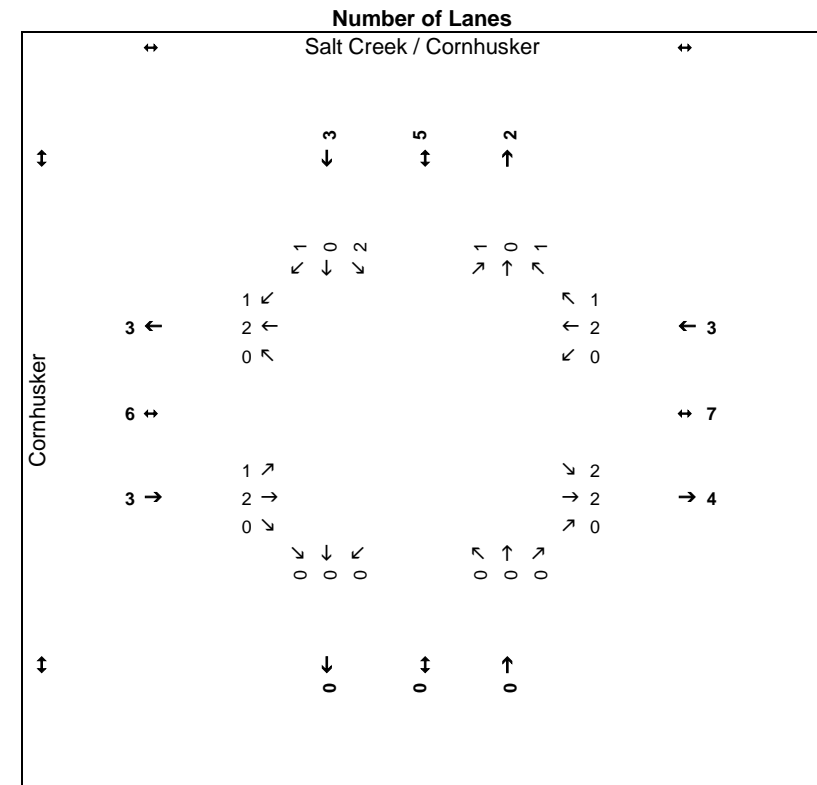
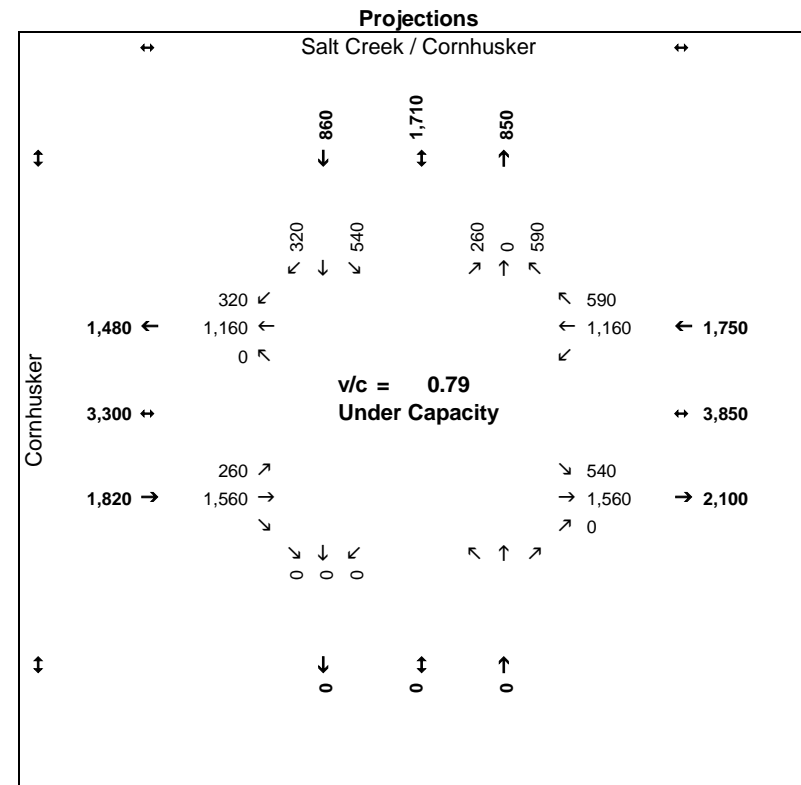
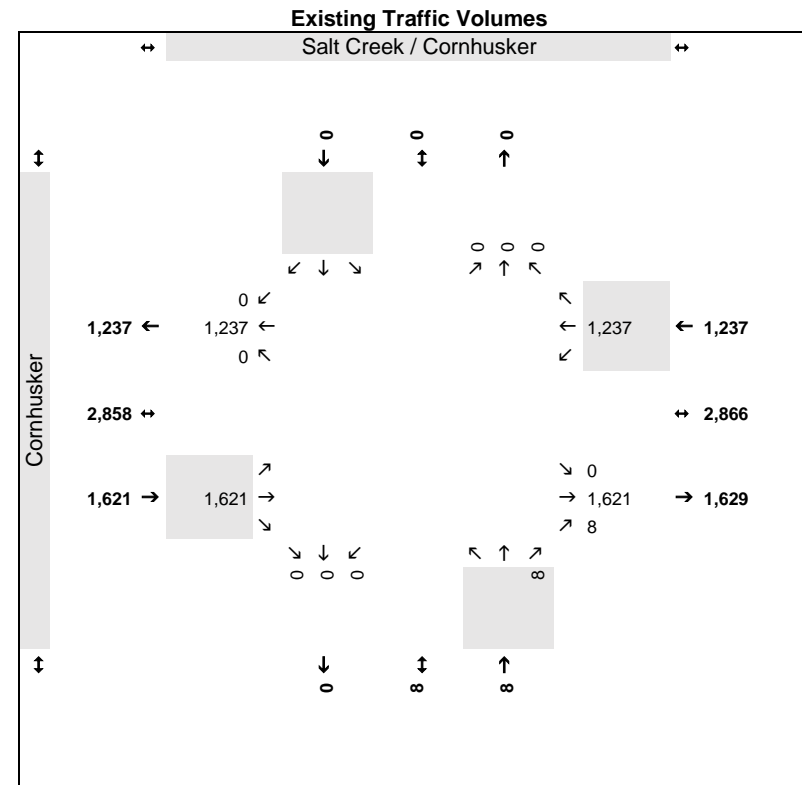
Alt 1D w. Adams



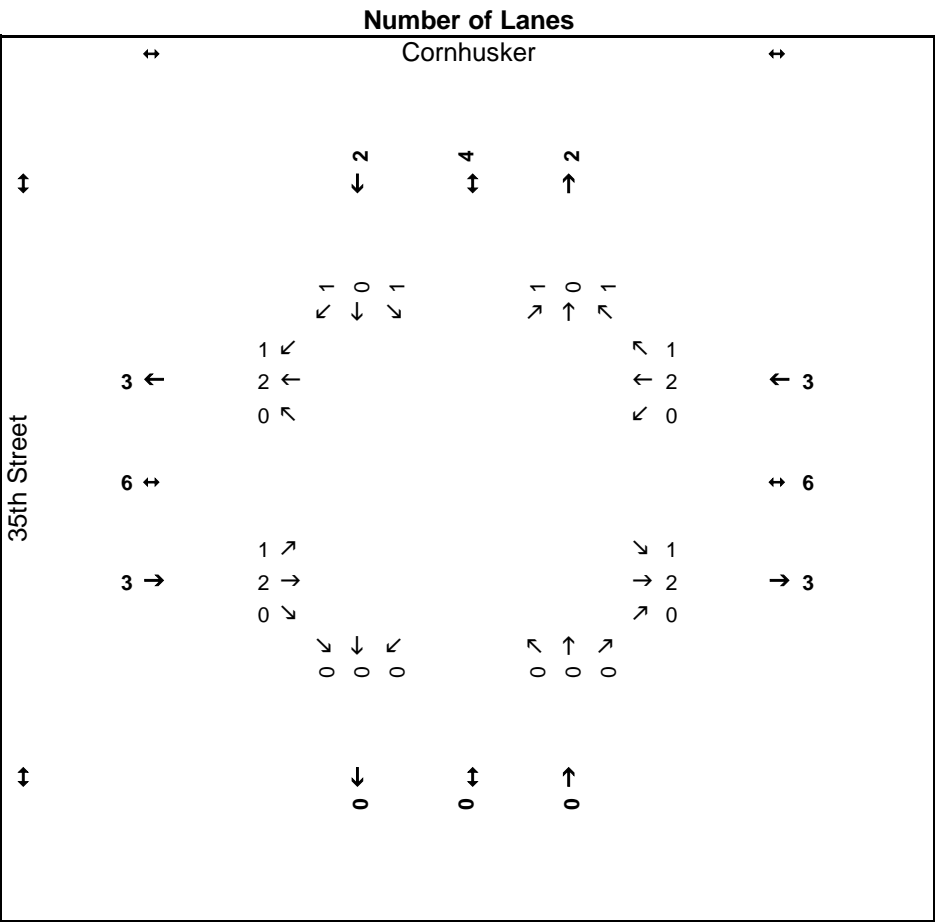
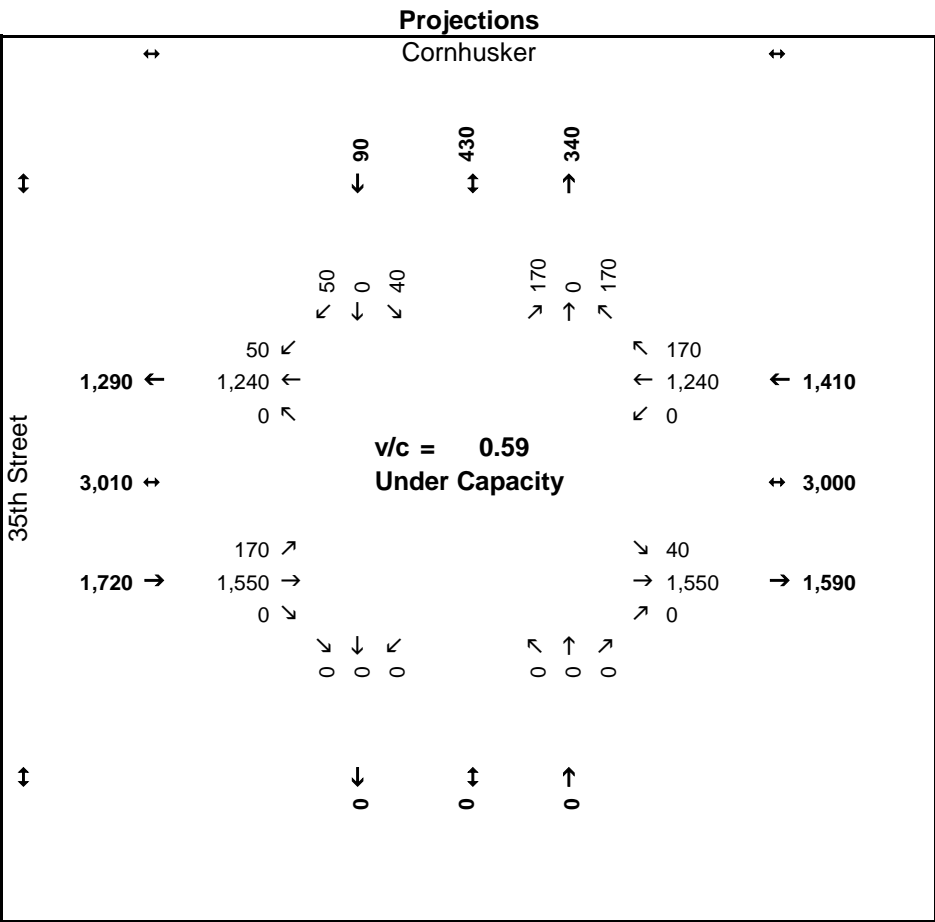
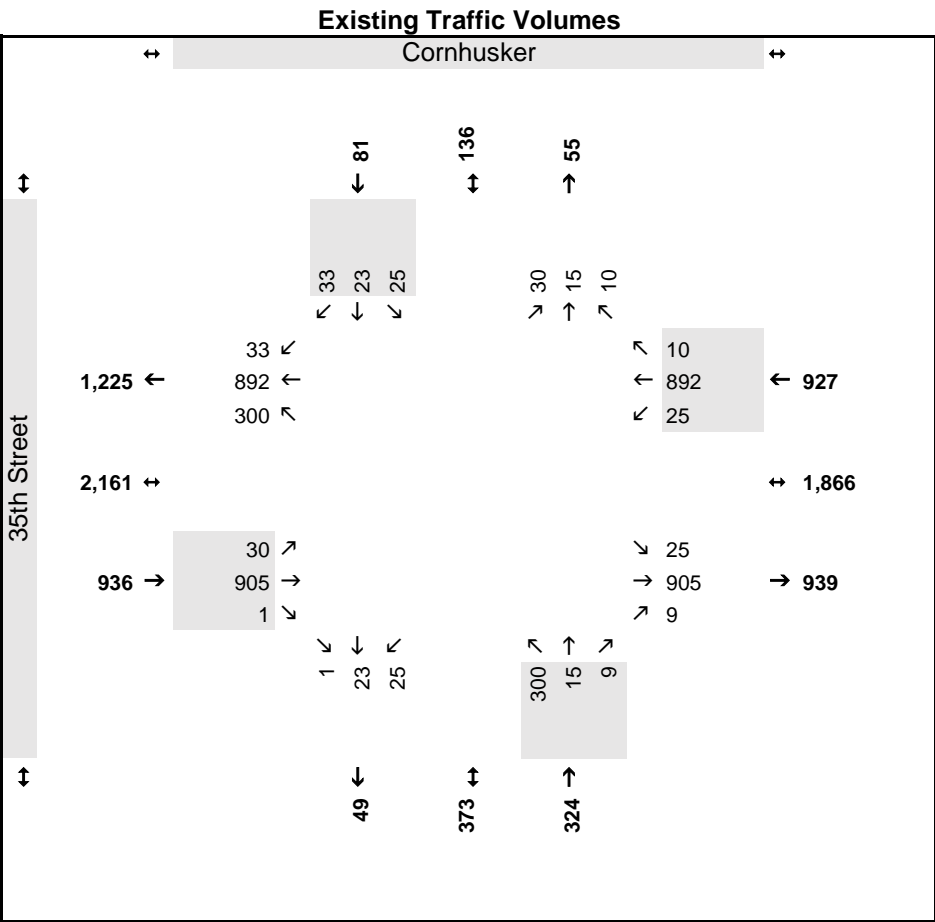
Alt 1D ULT w. Adams



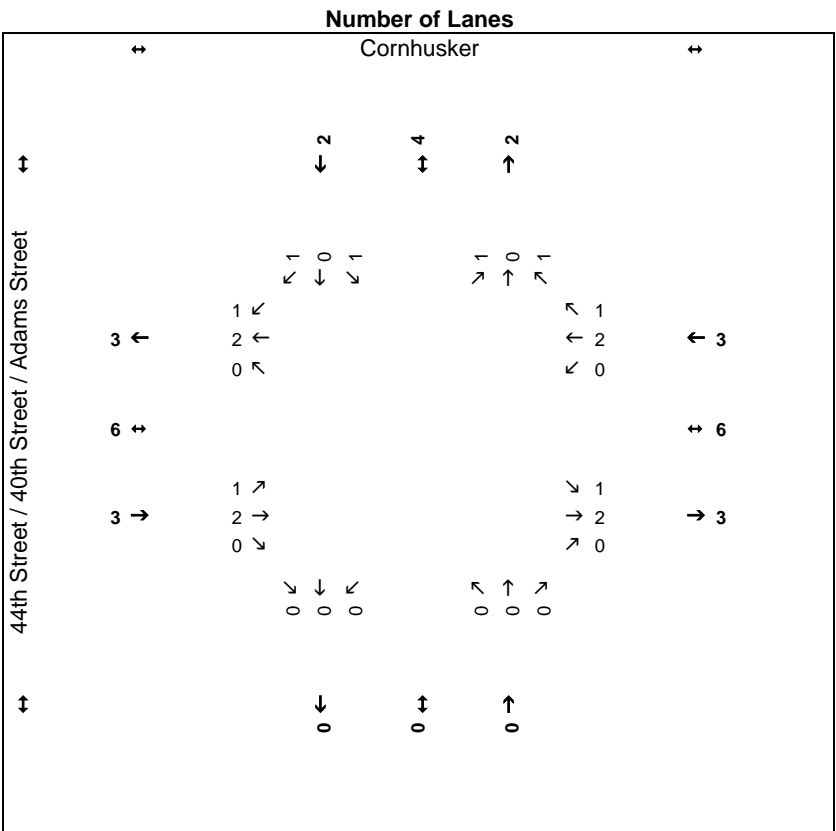
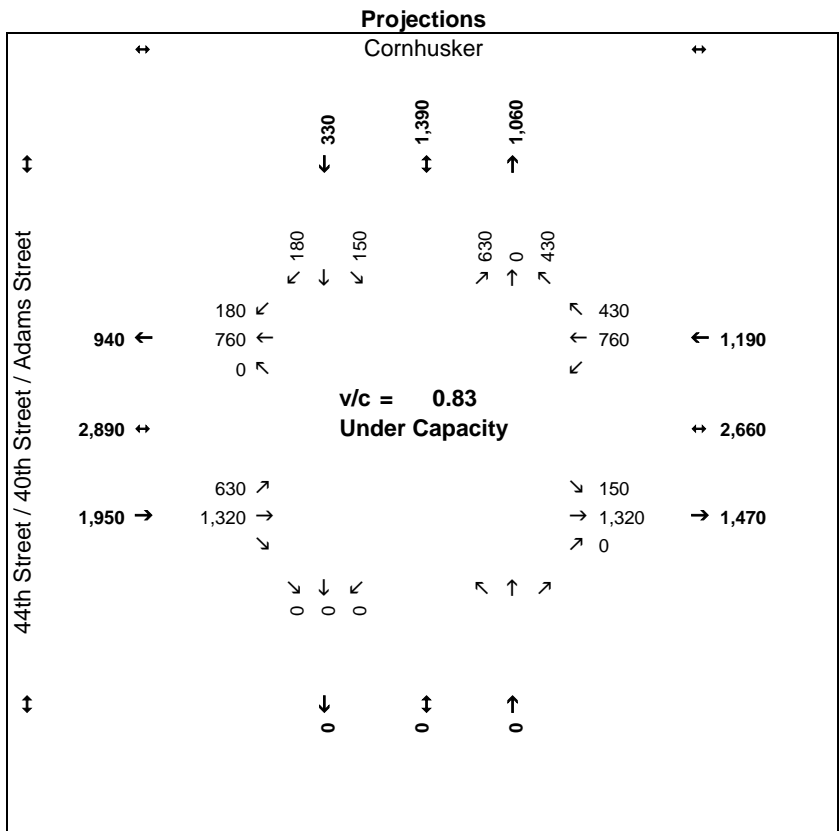
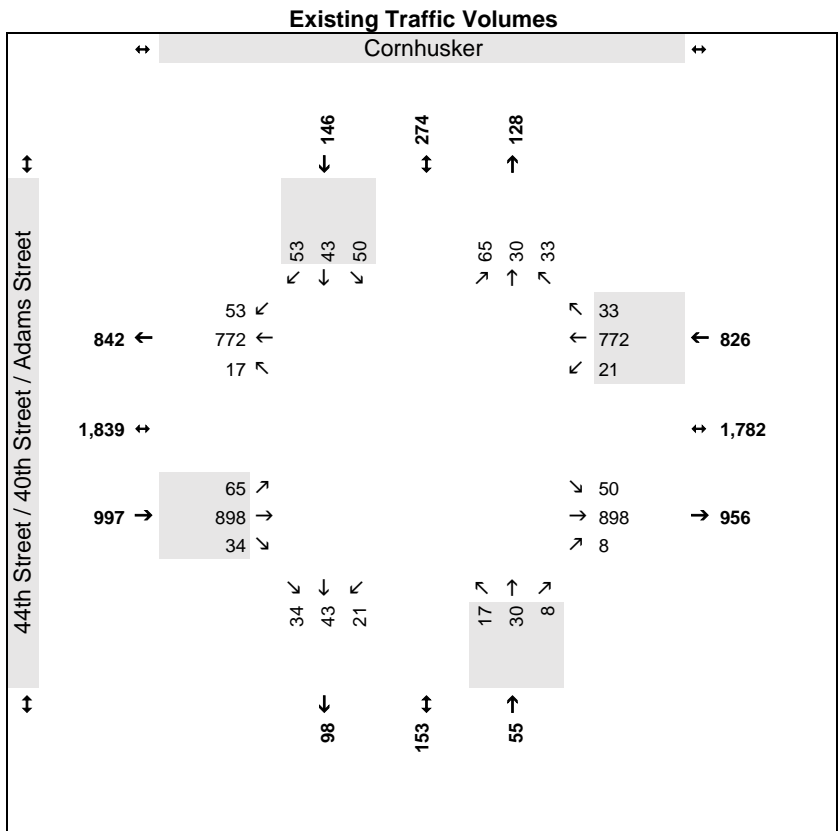
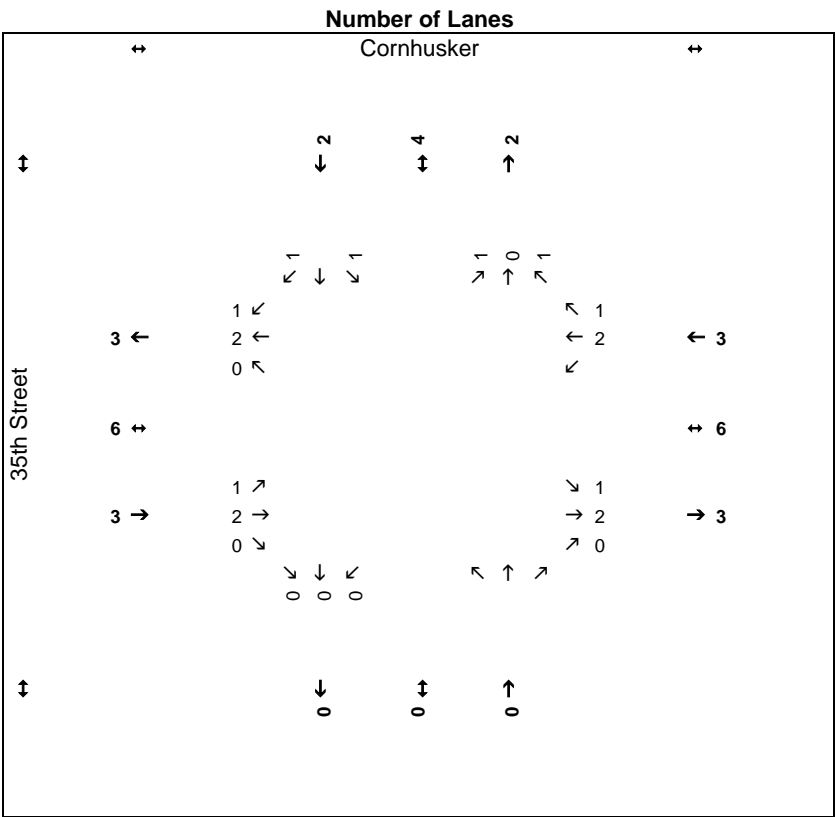
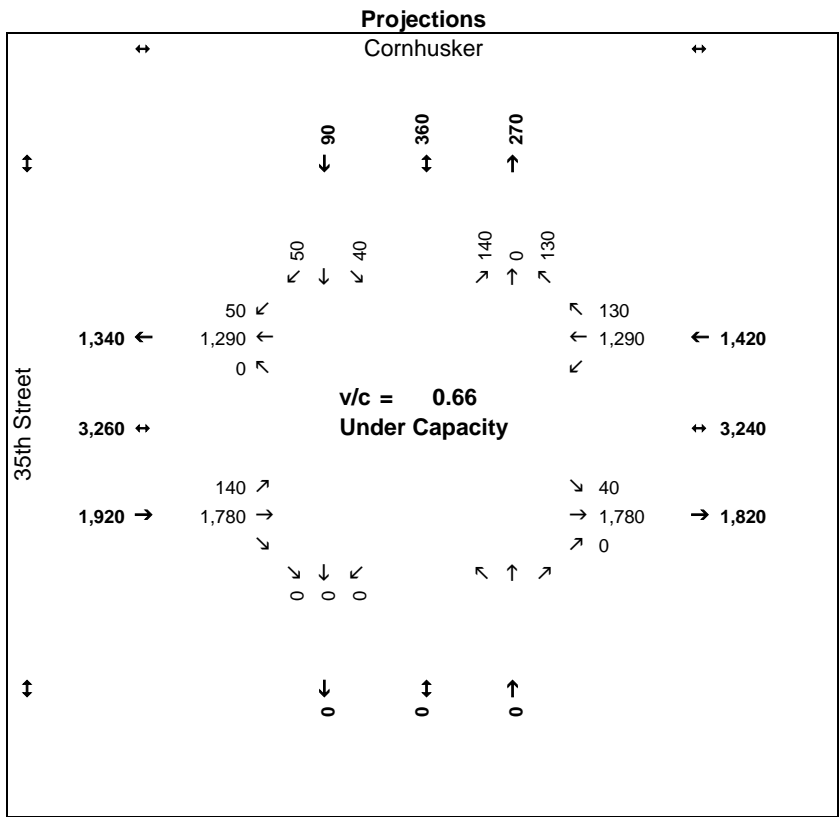
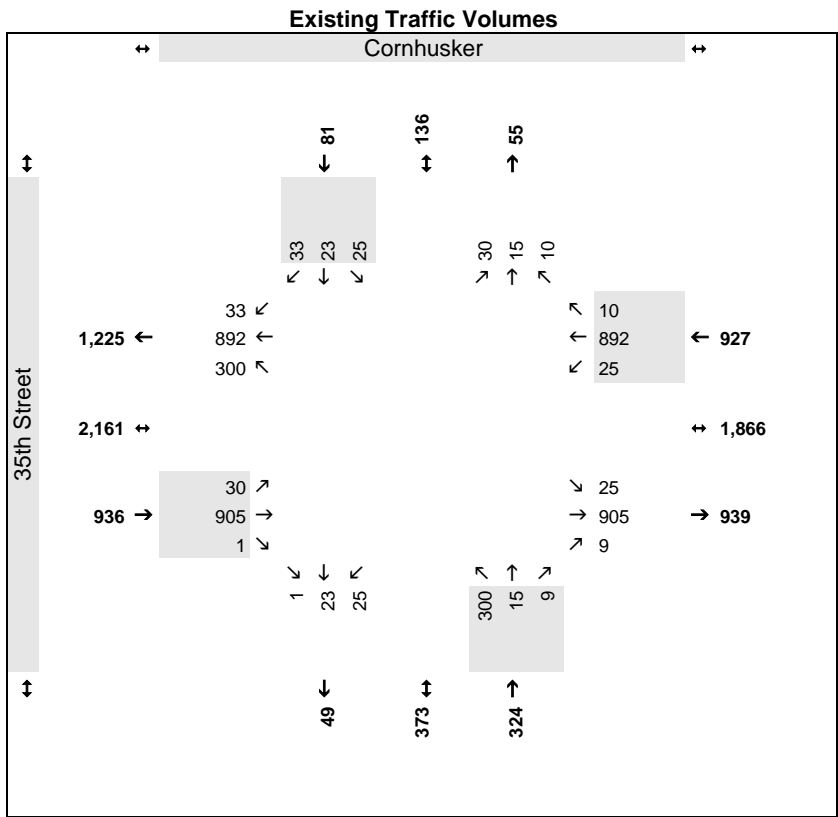
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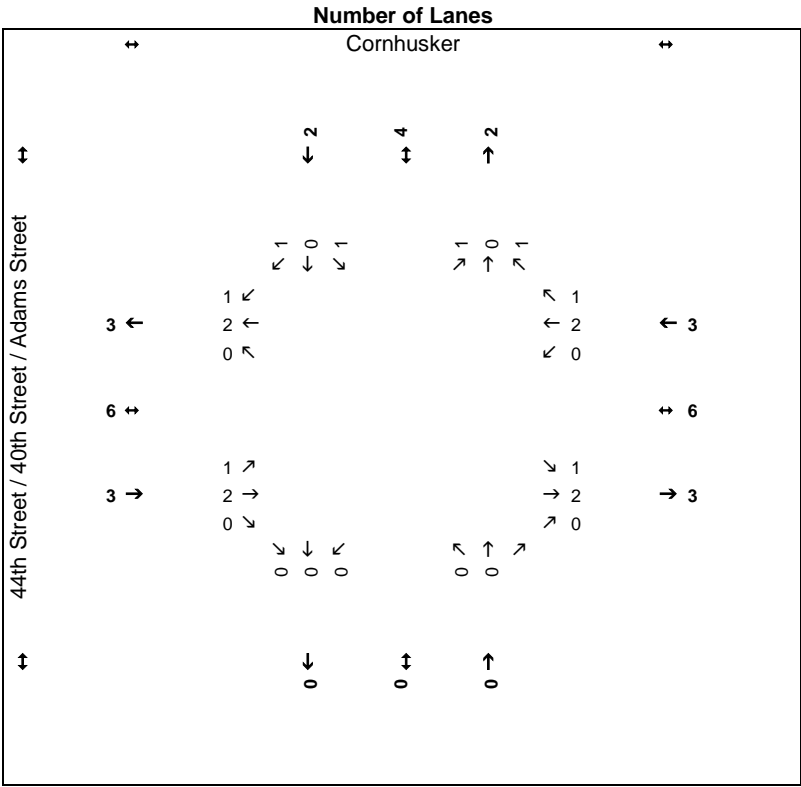
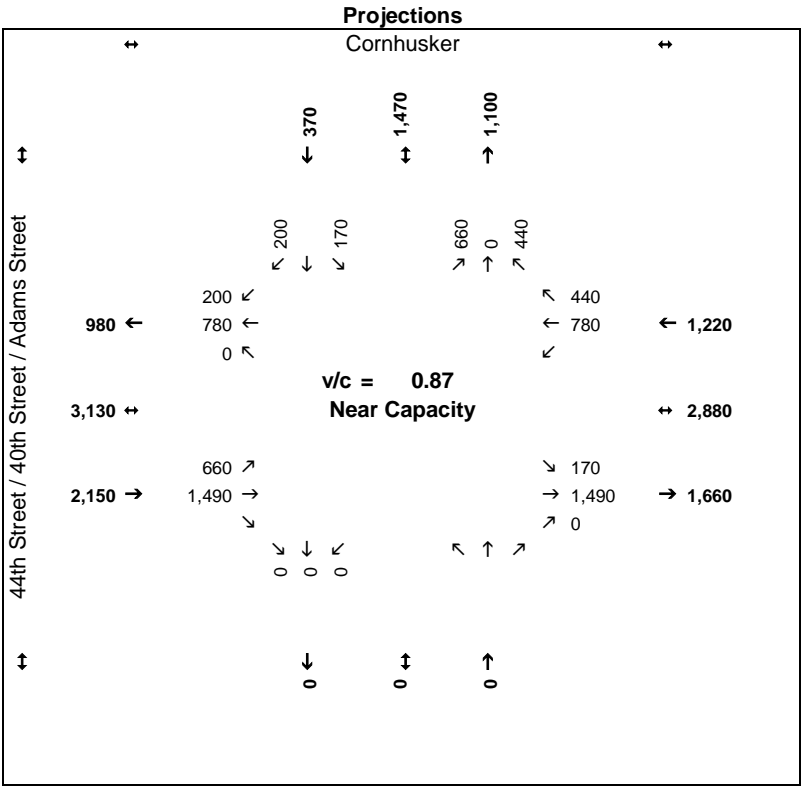
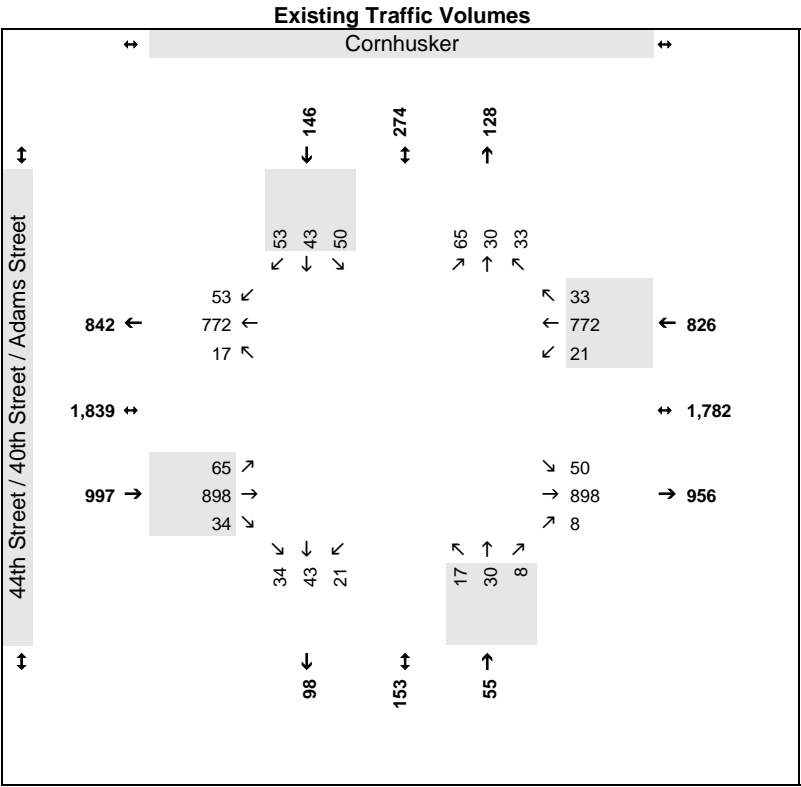
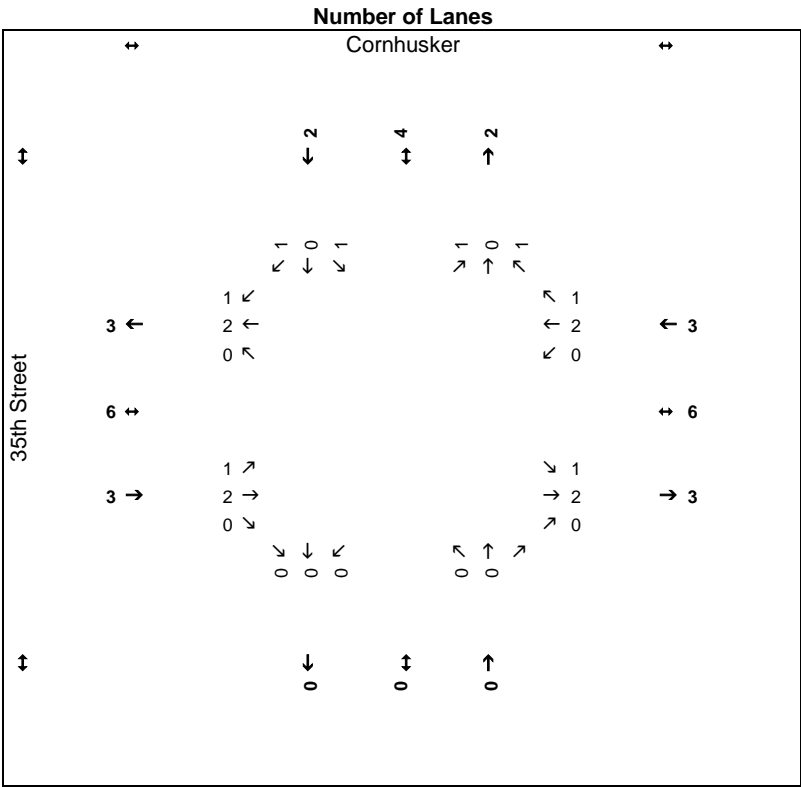
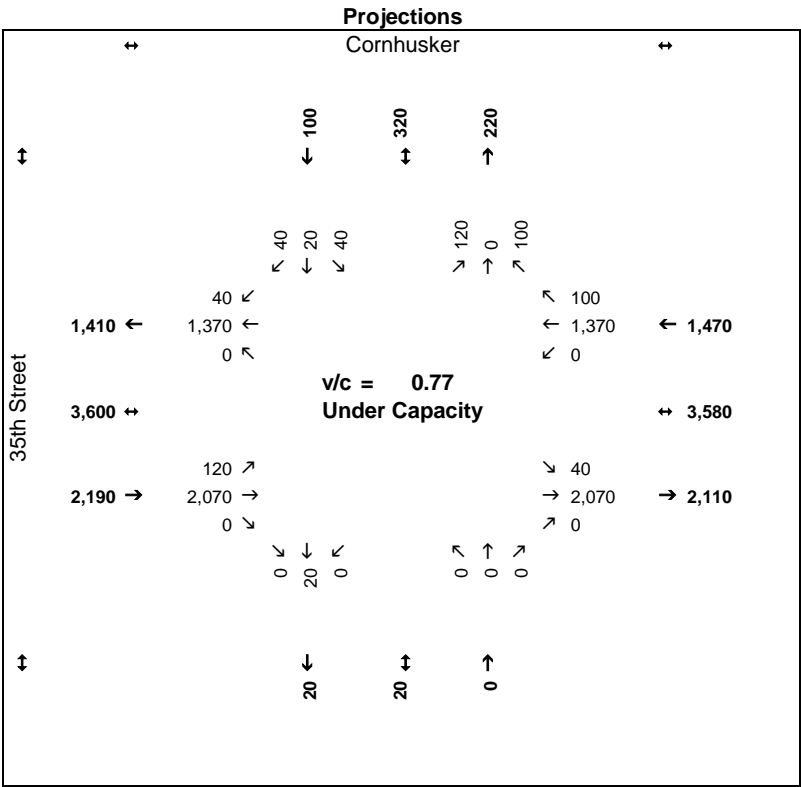
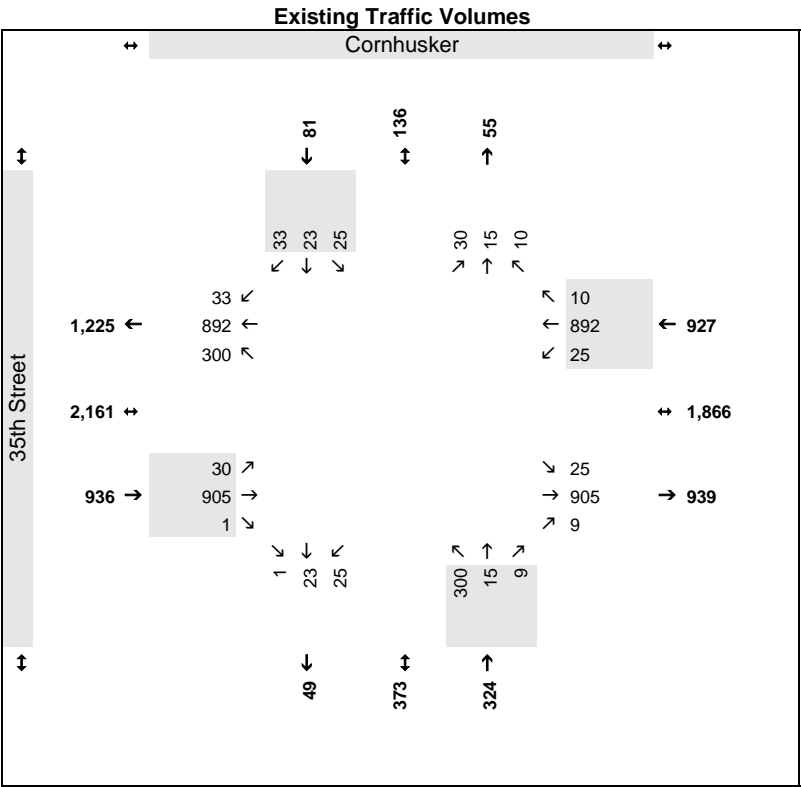
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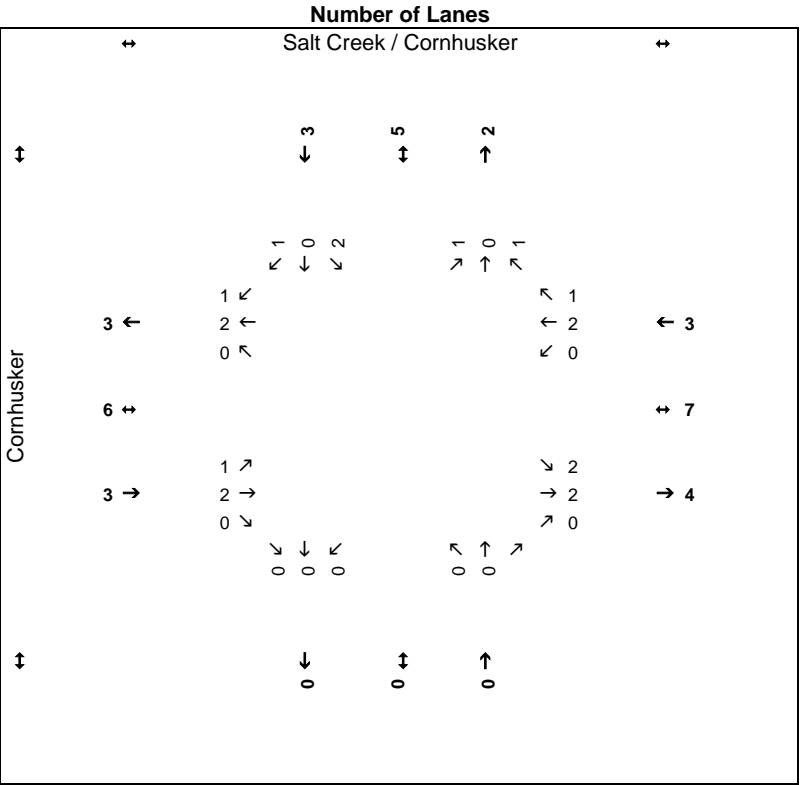
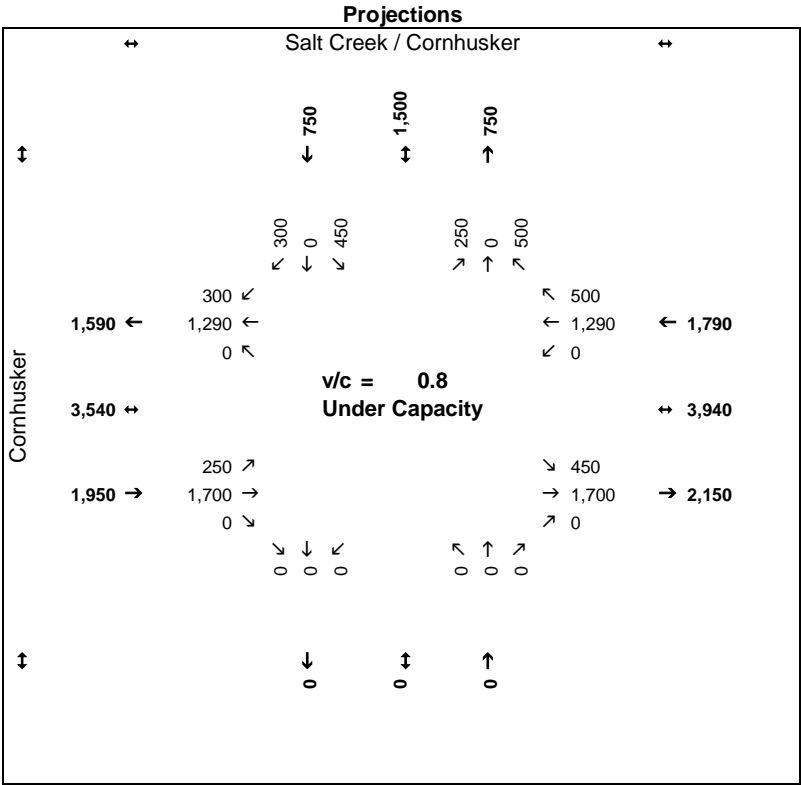
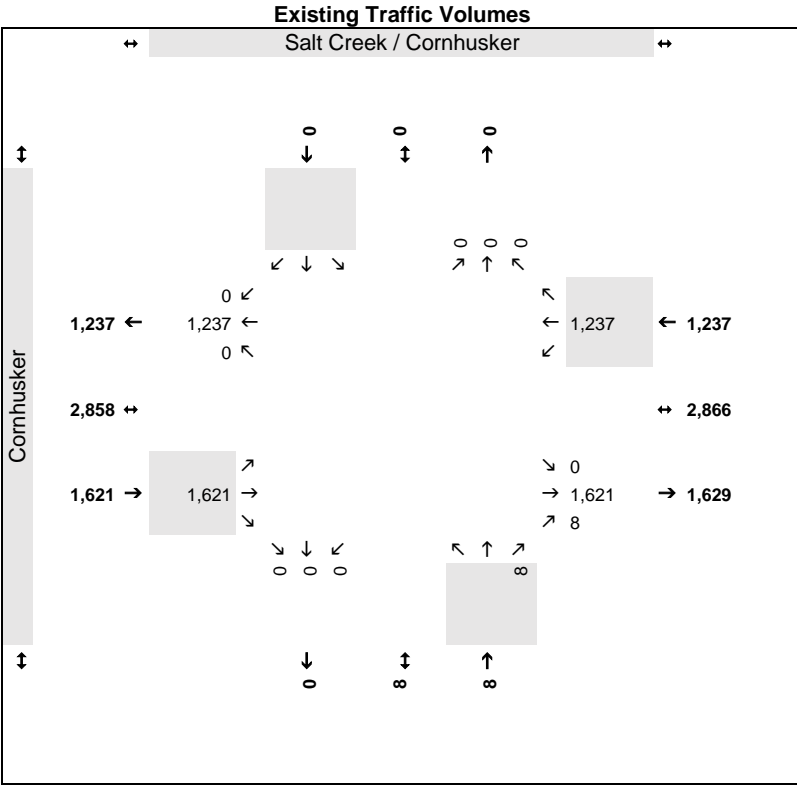
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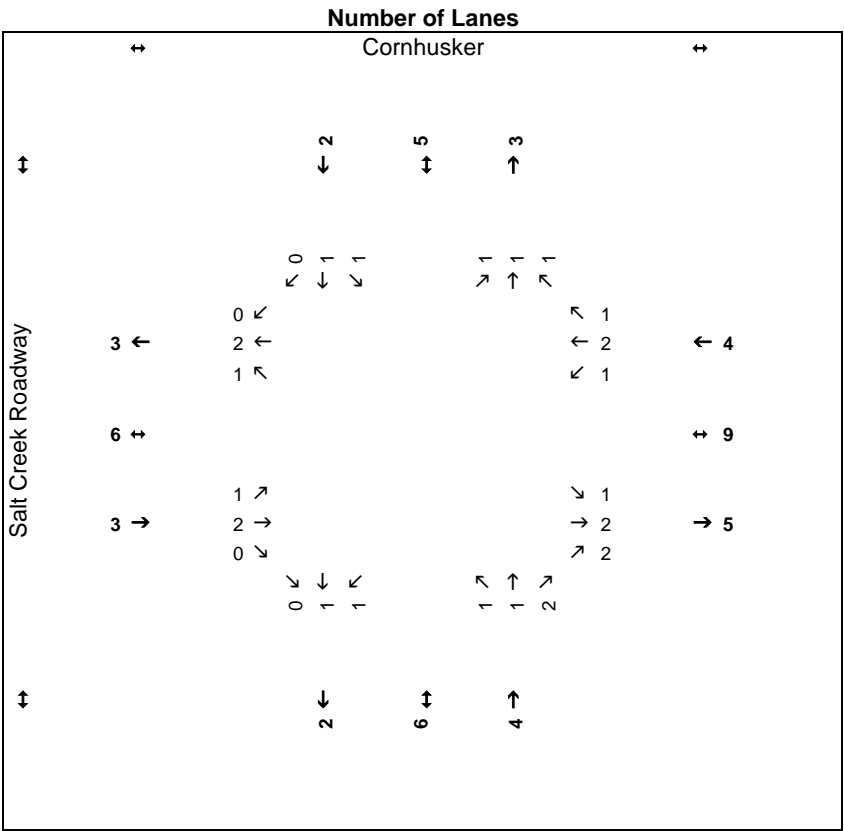
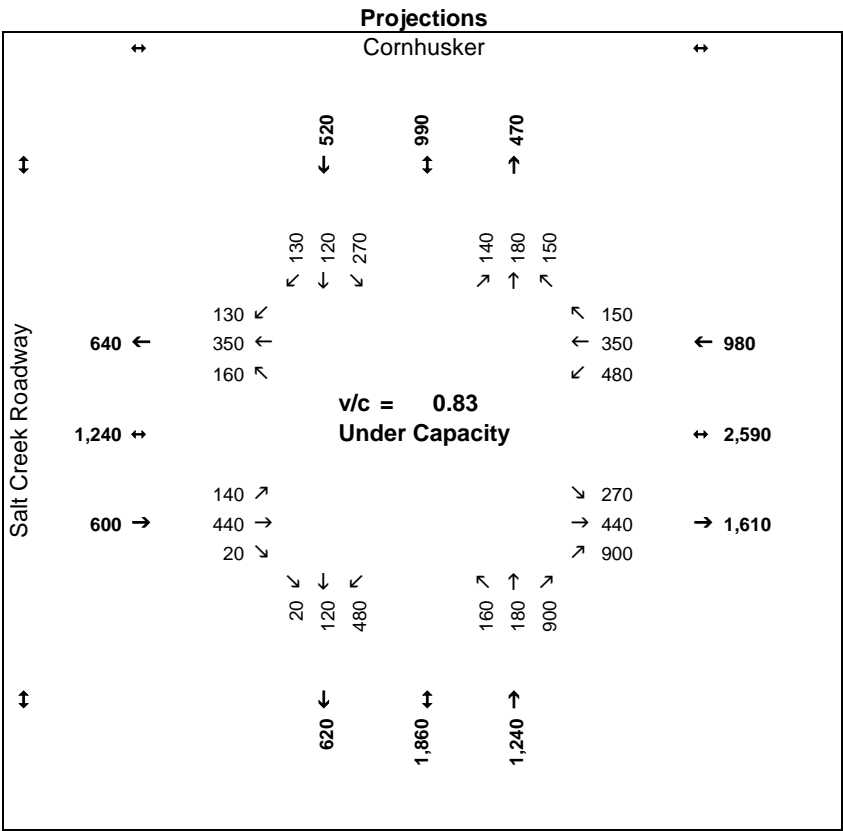
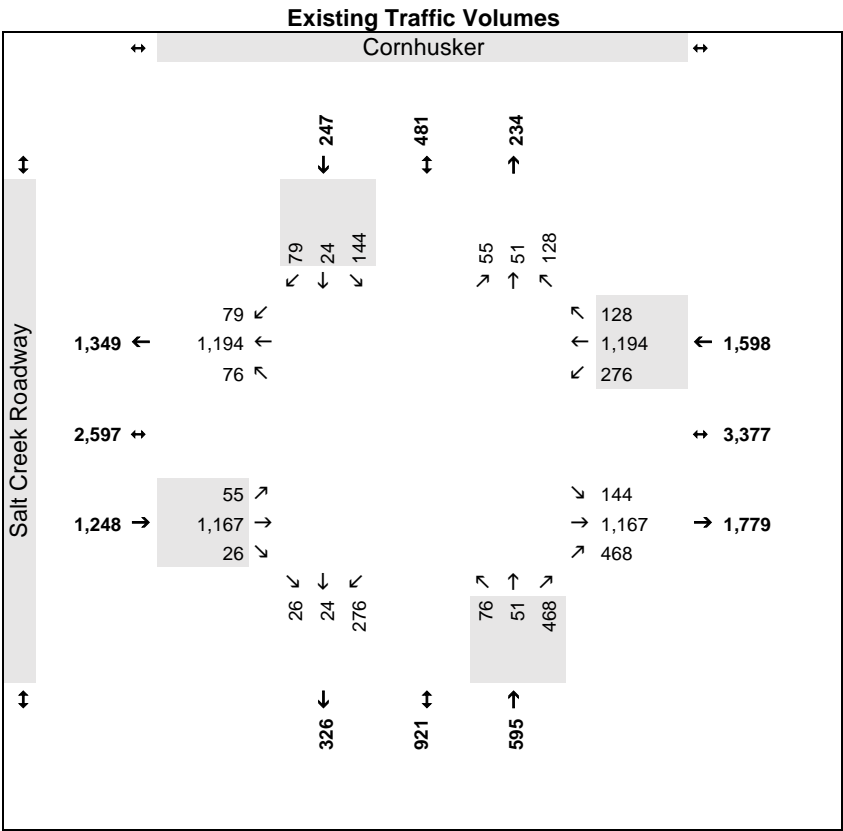
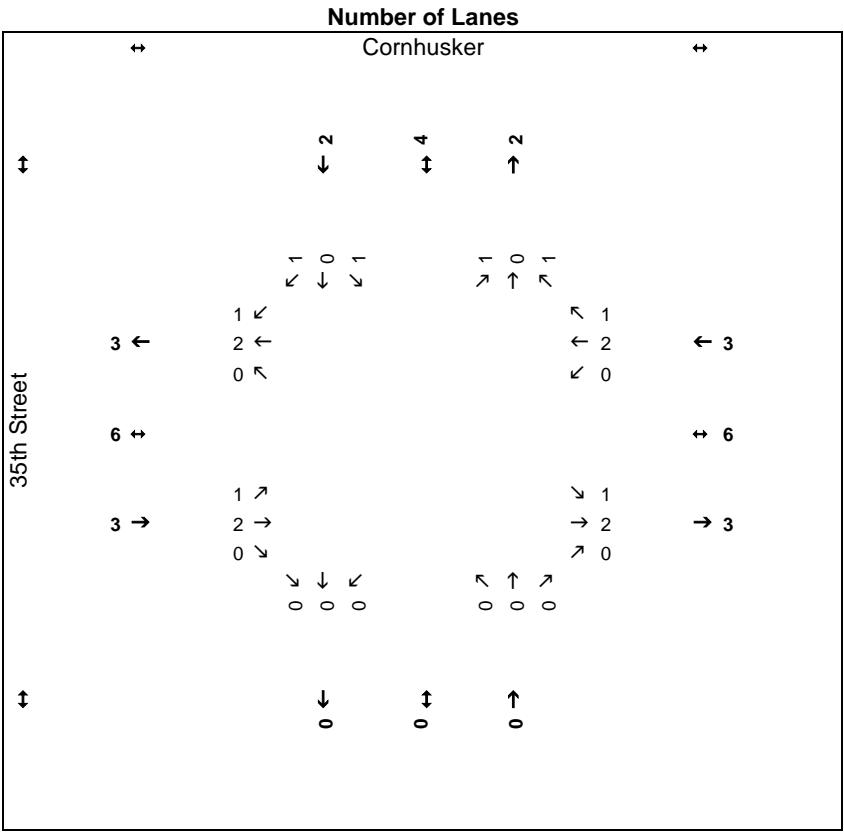
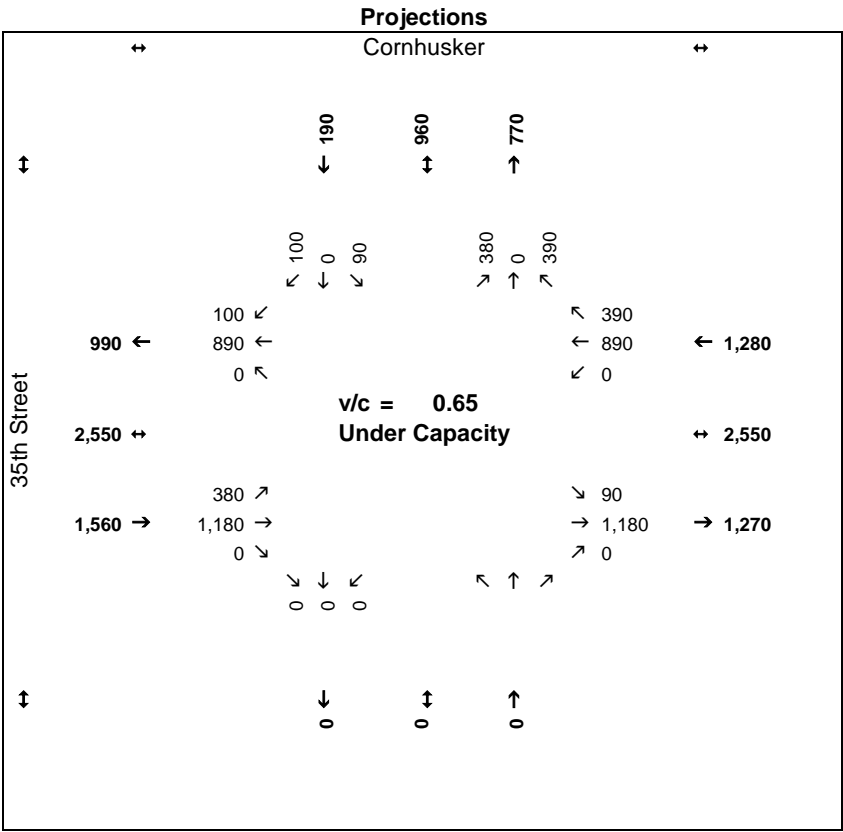
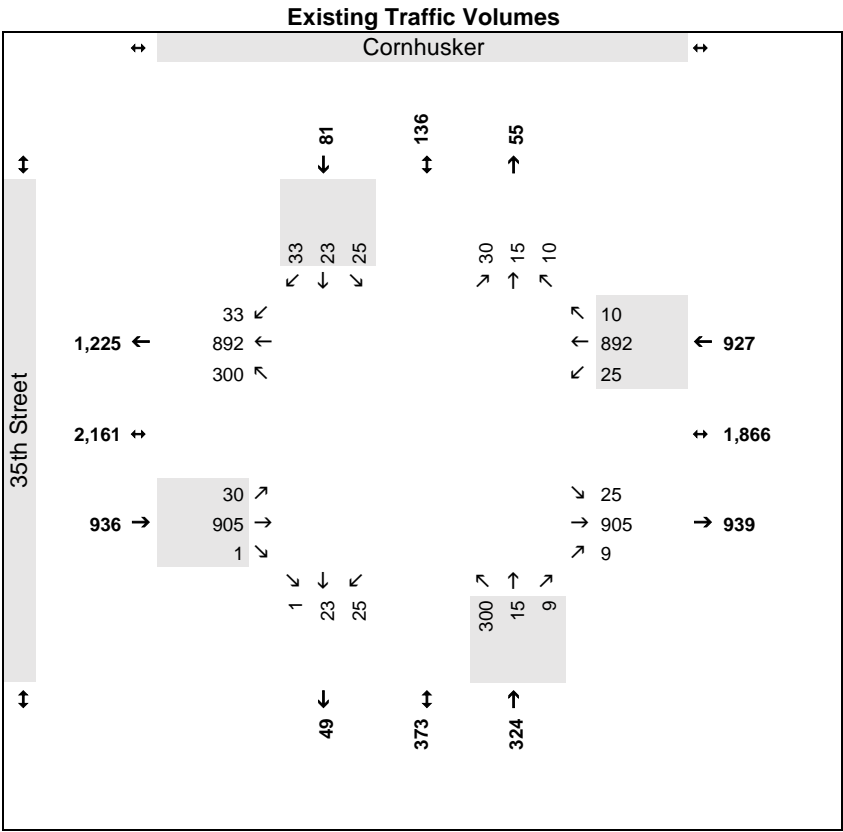


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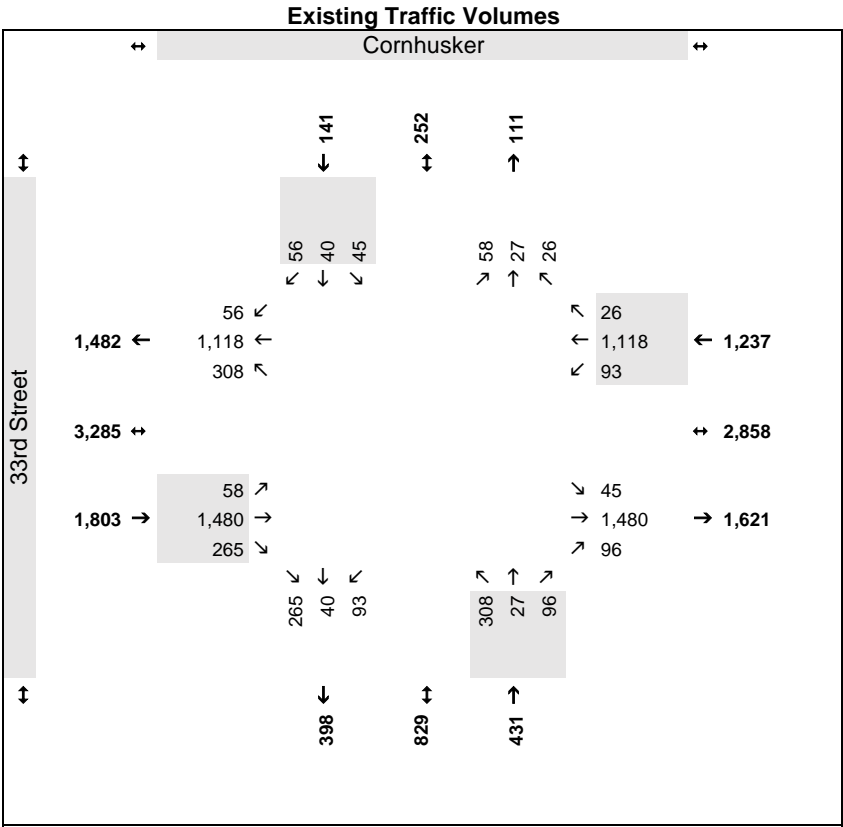
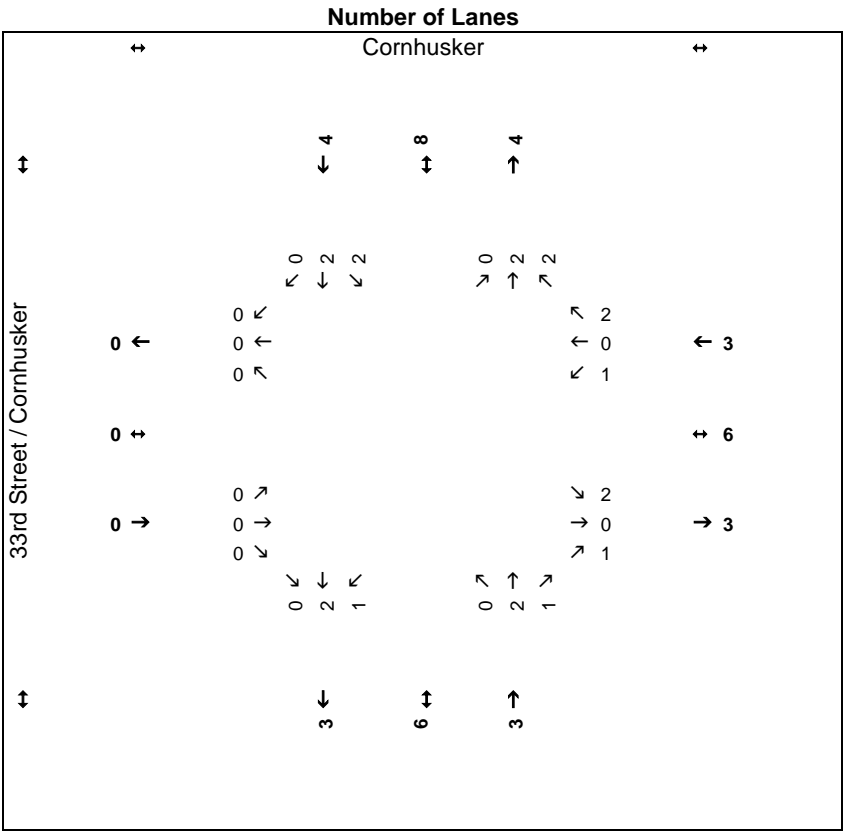
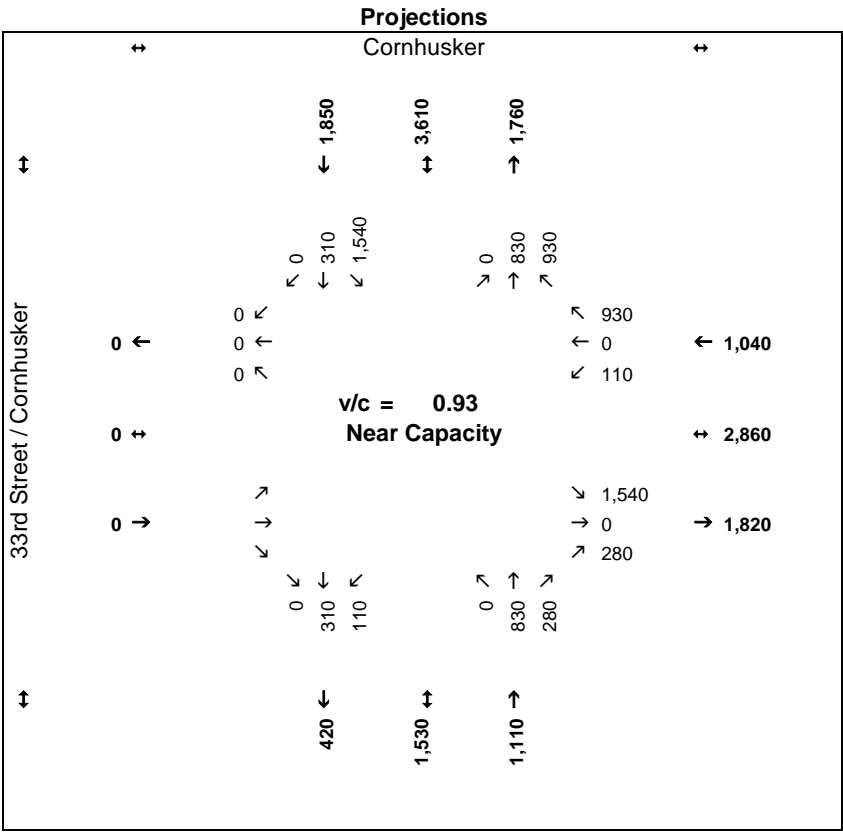
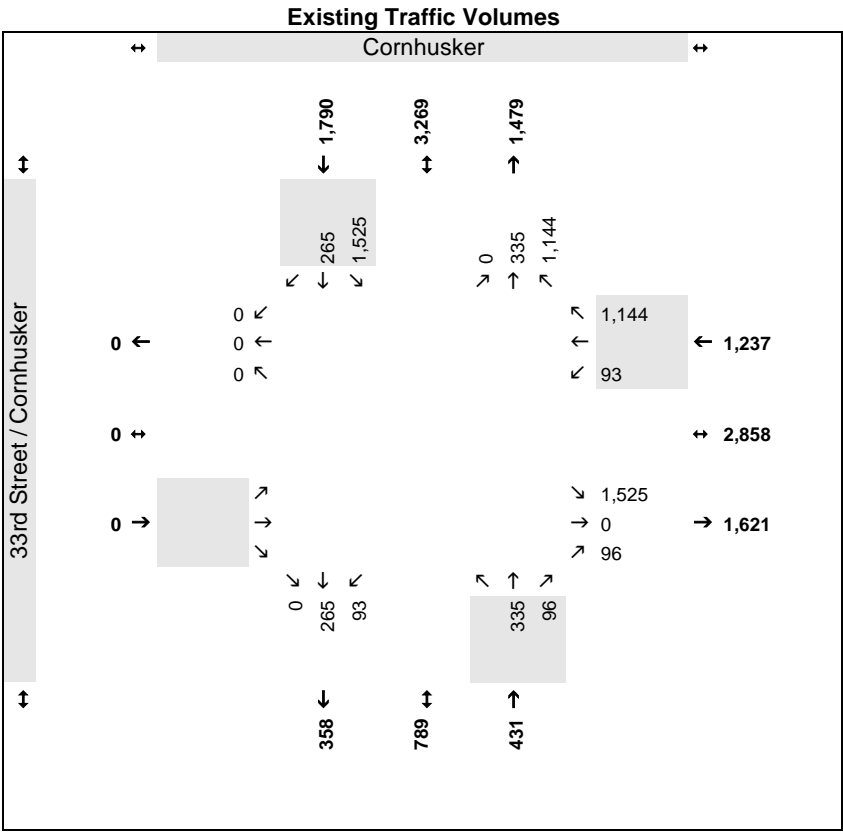


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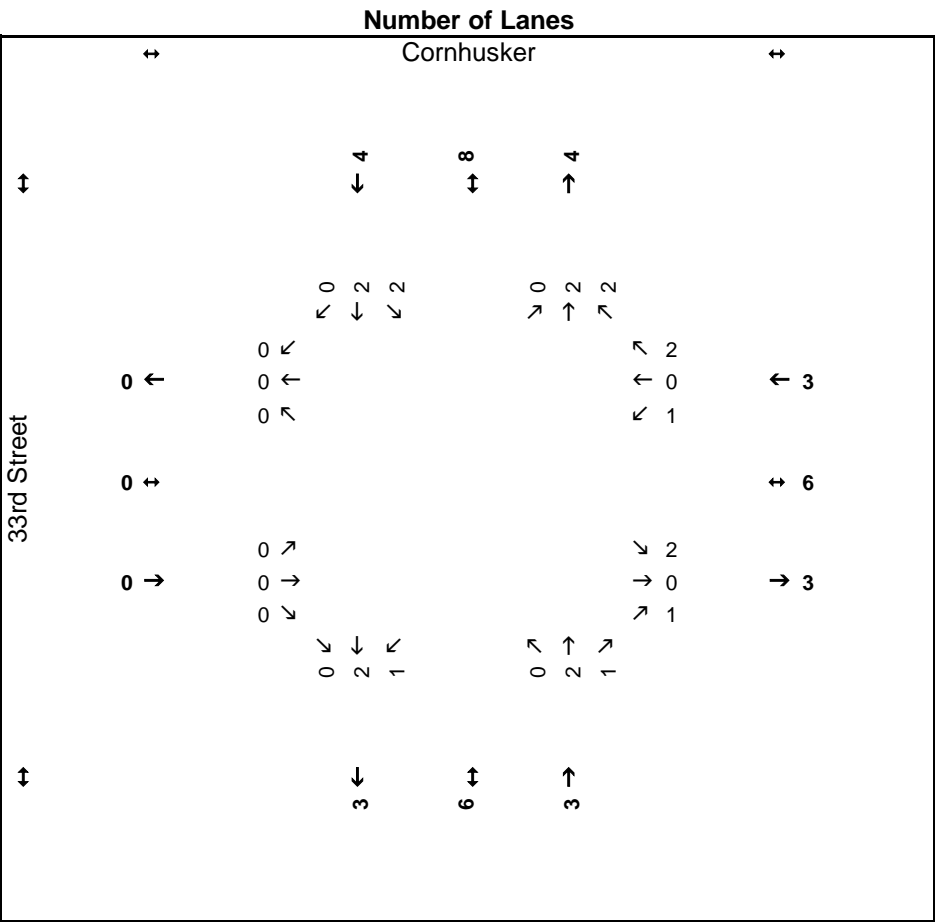
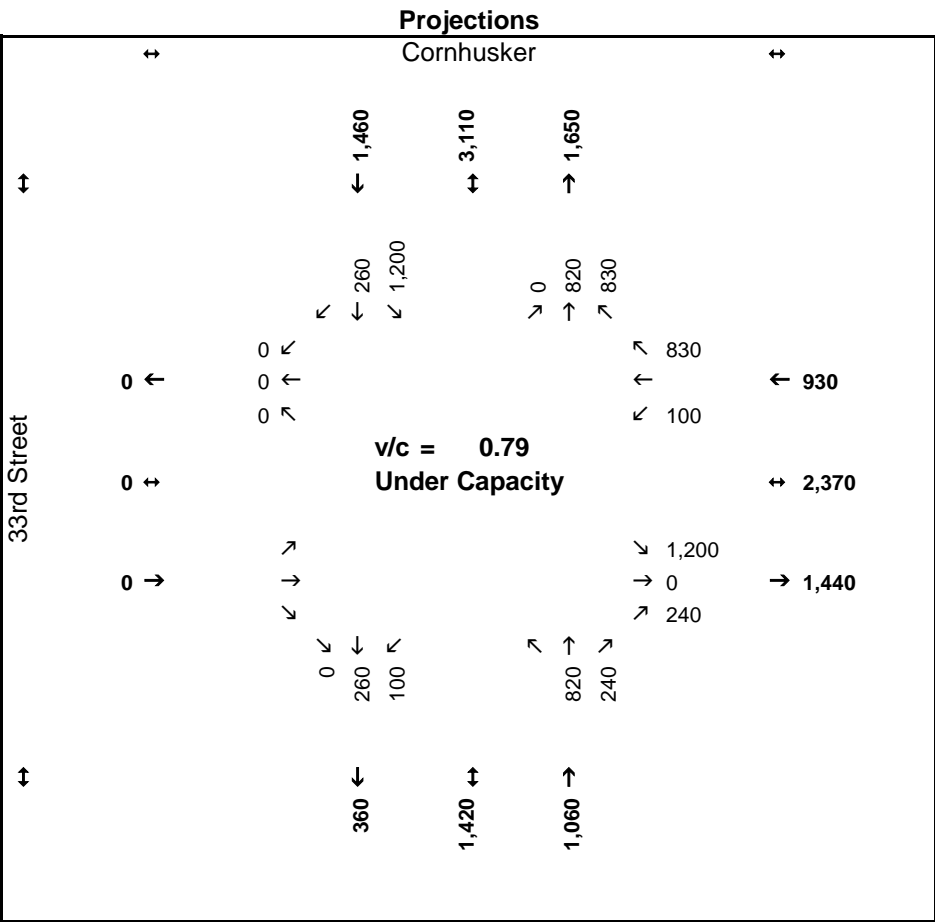
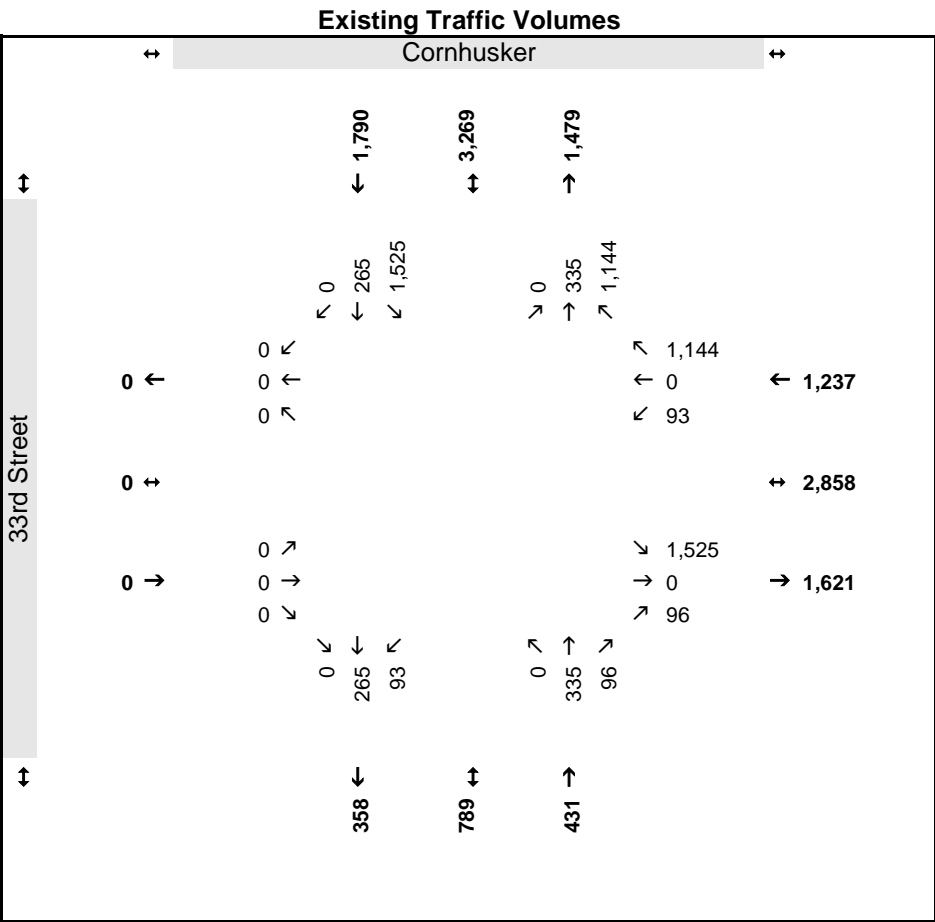




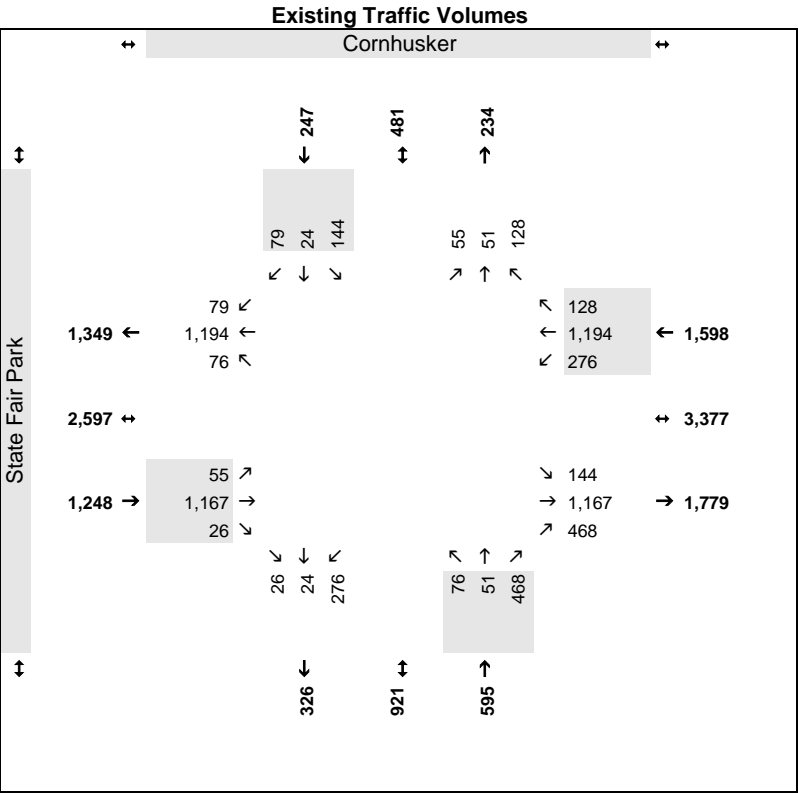
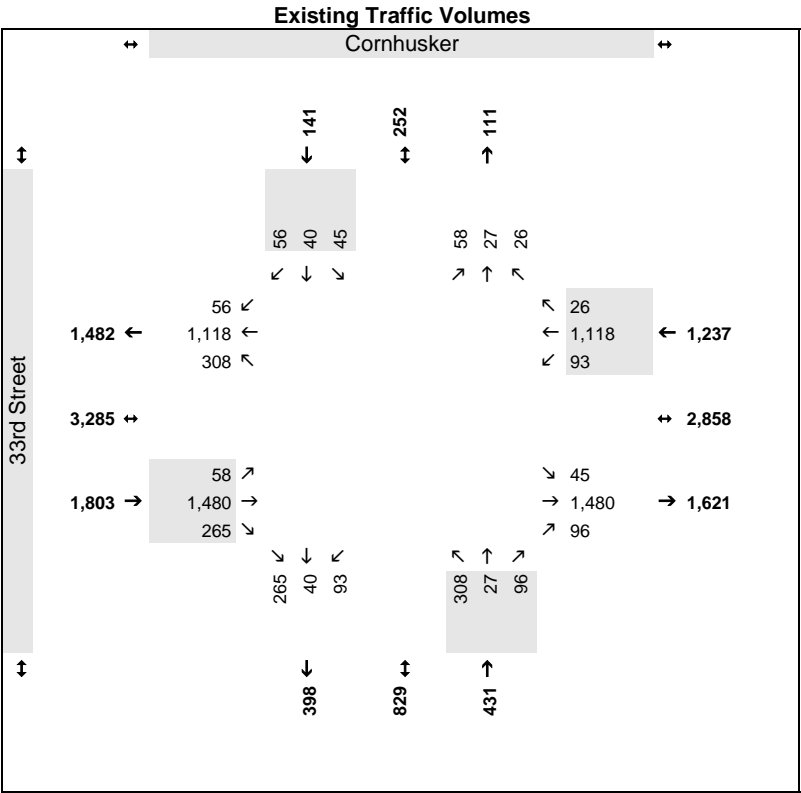
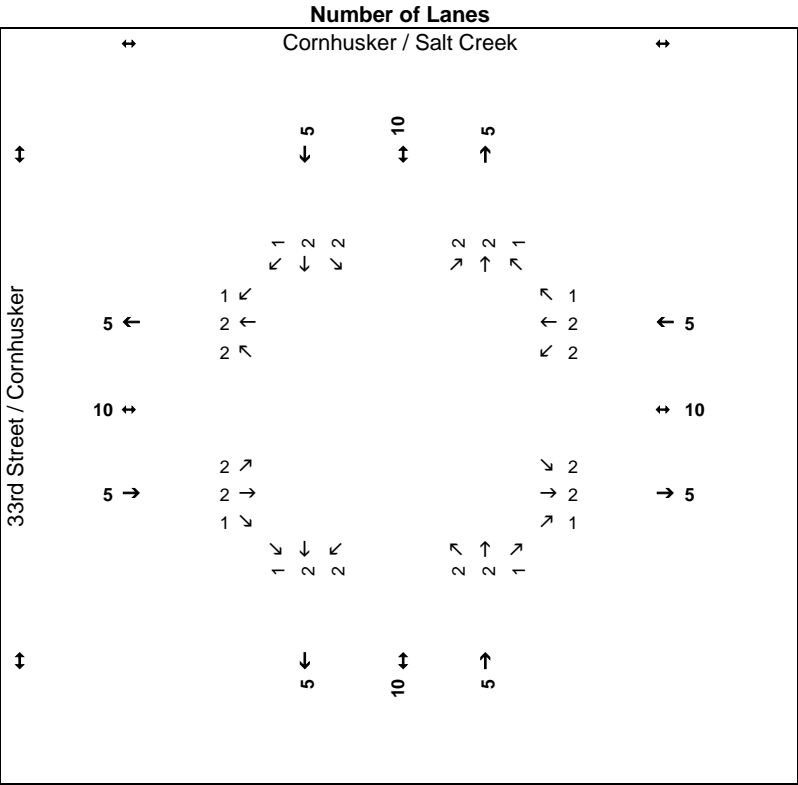
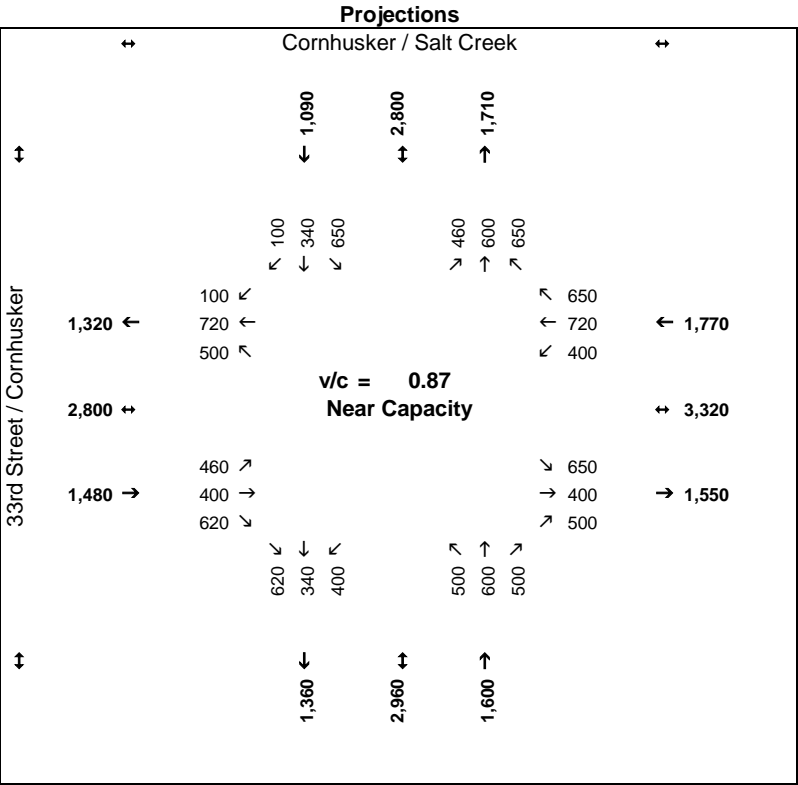
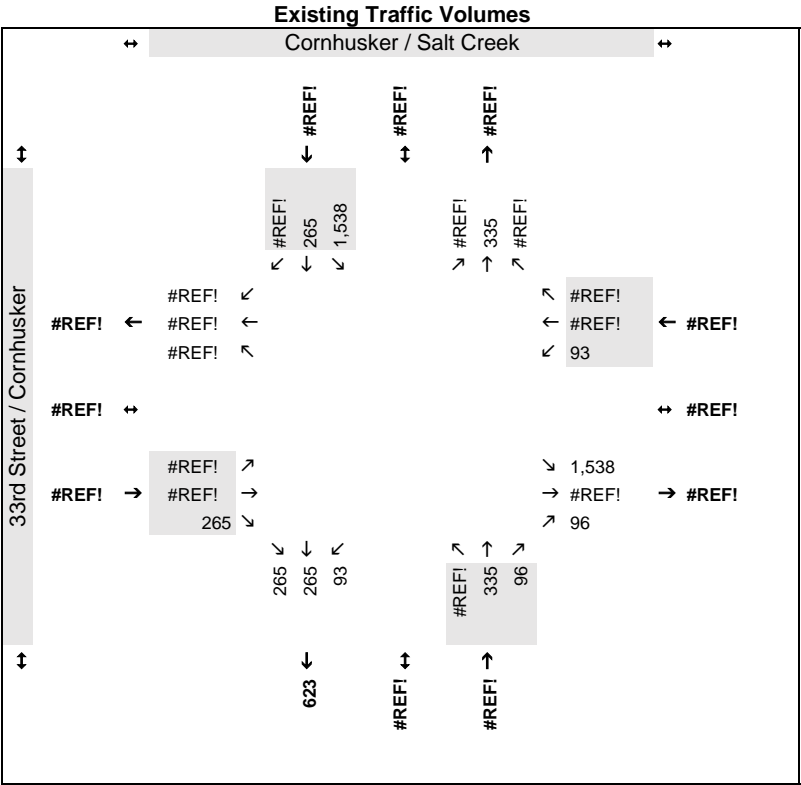
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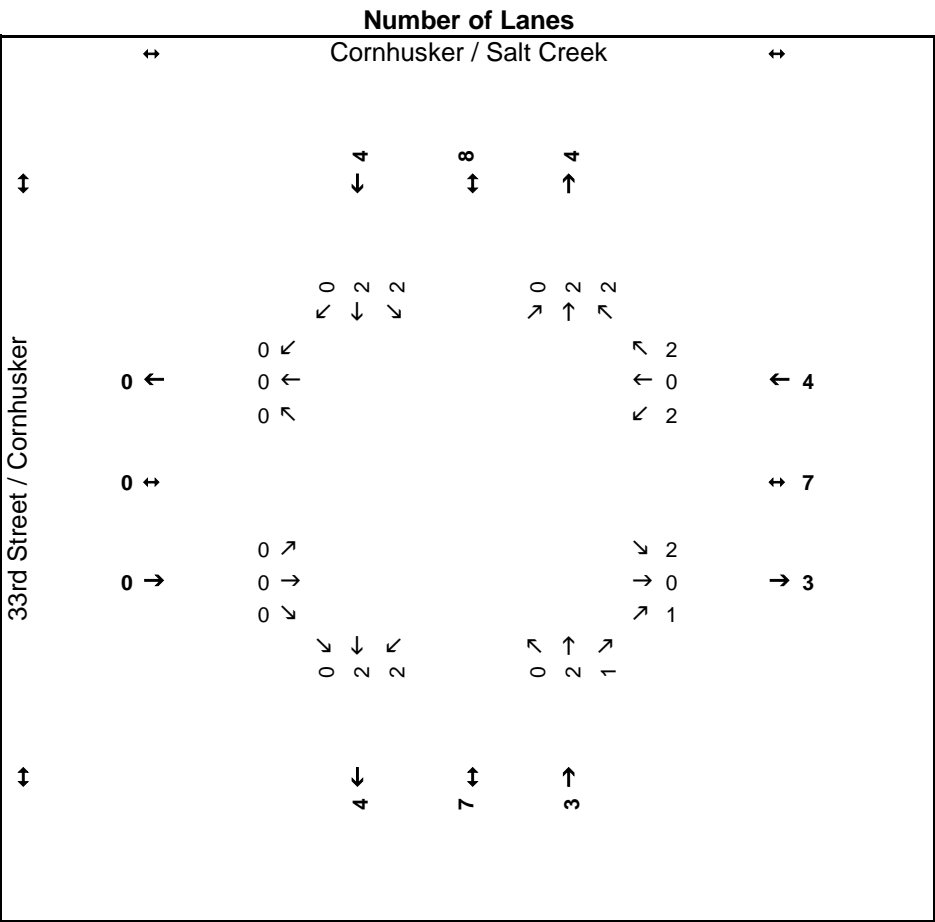
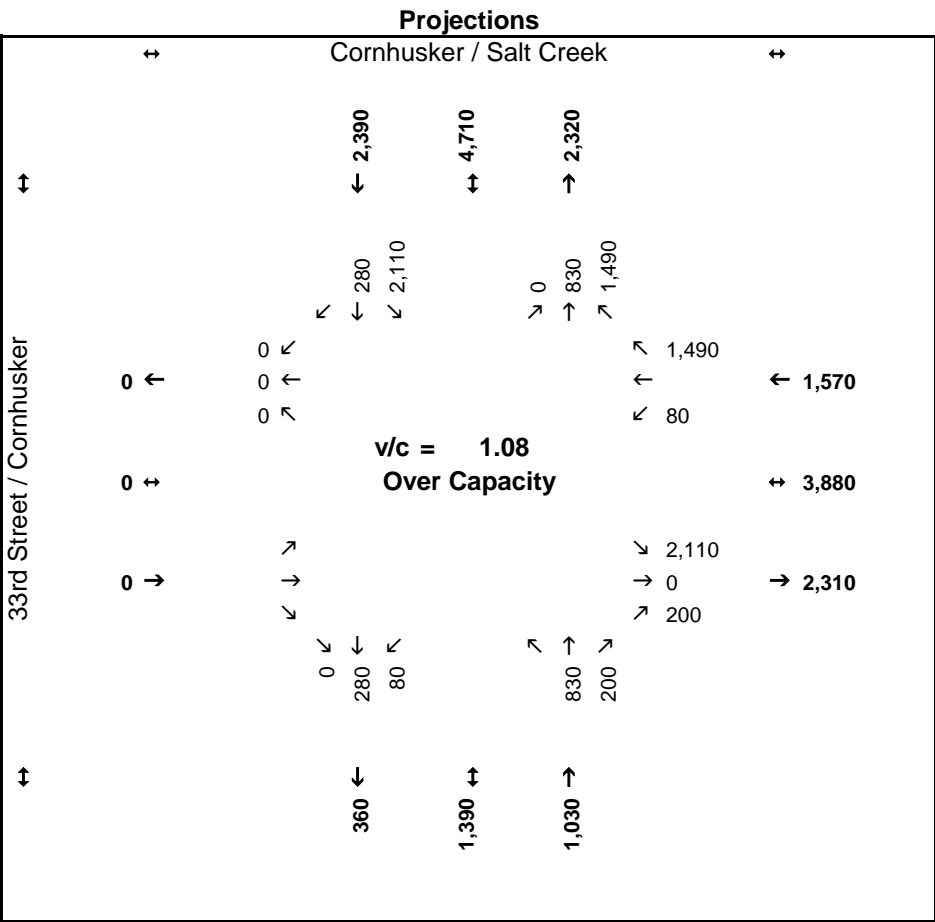
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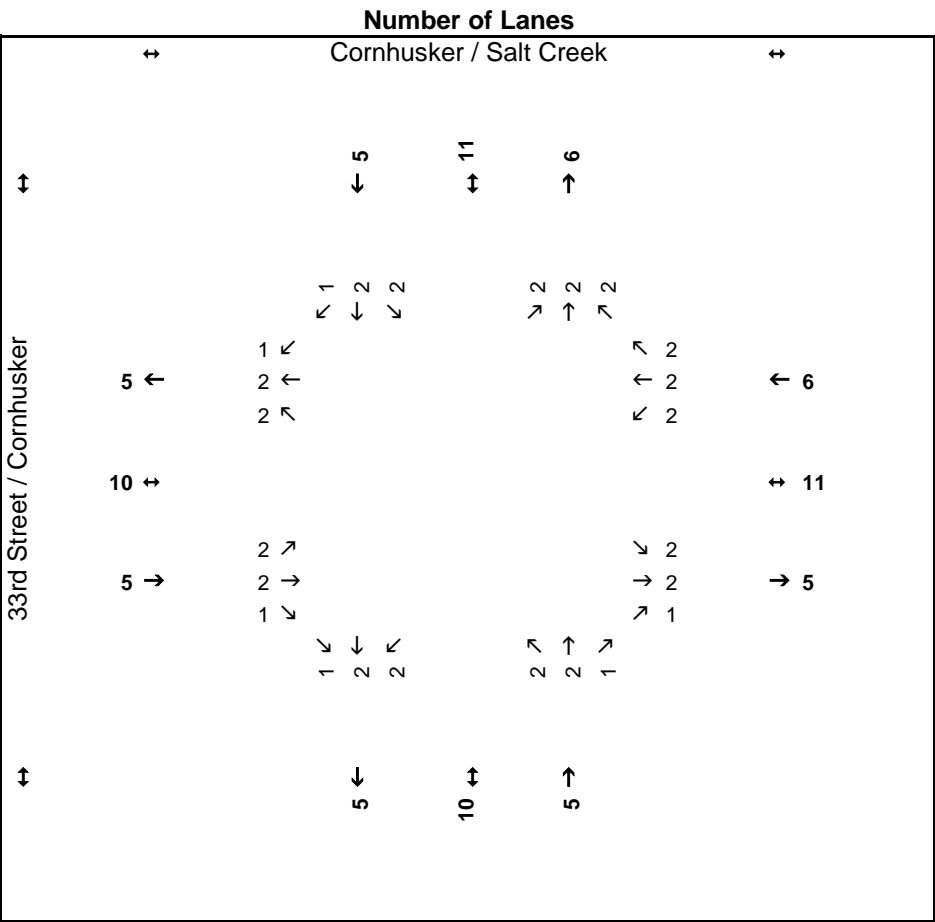
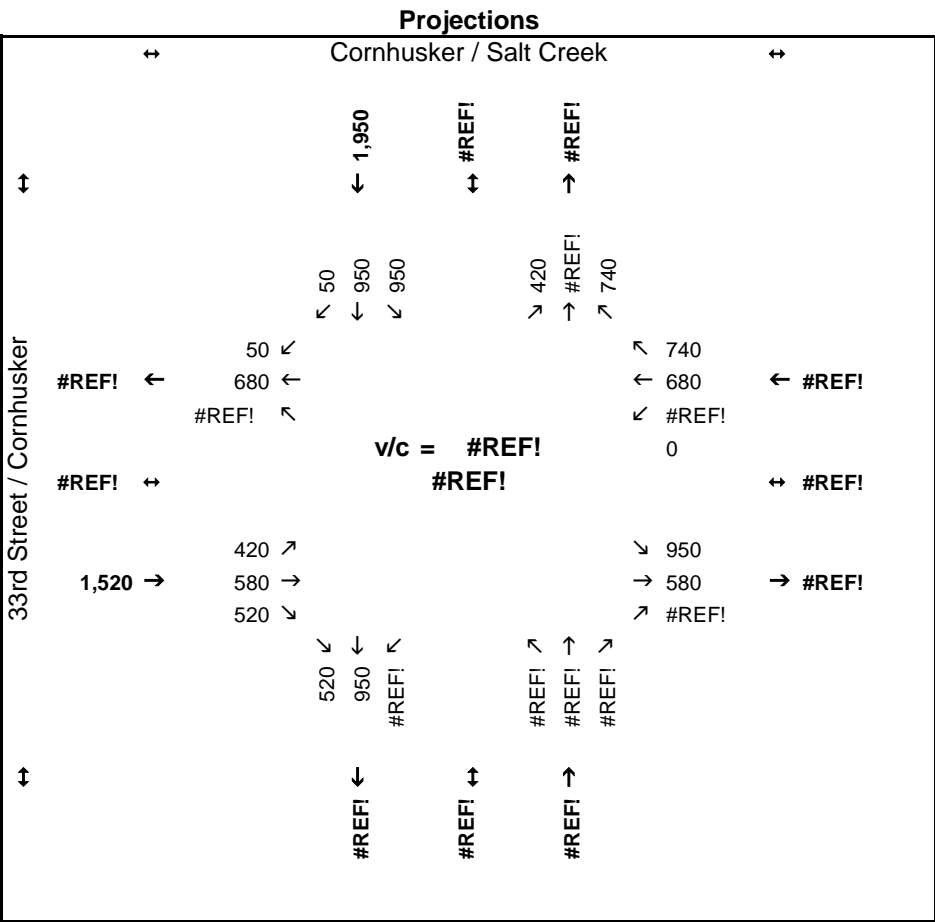
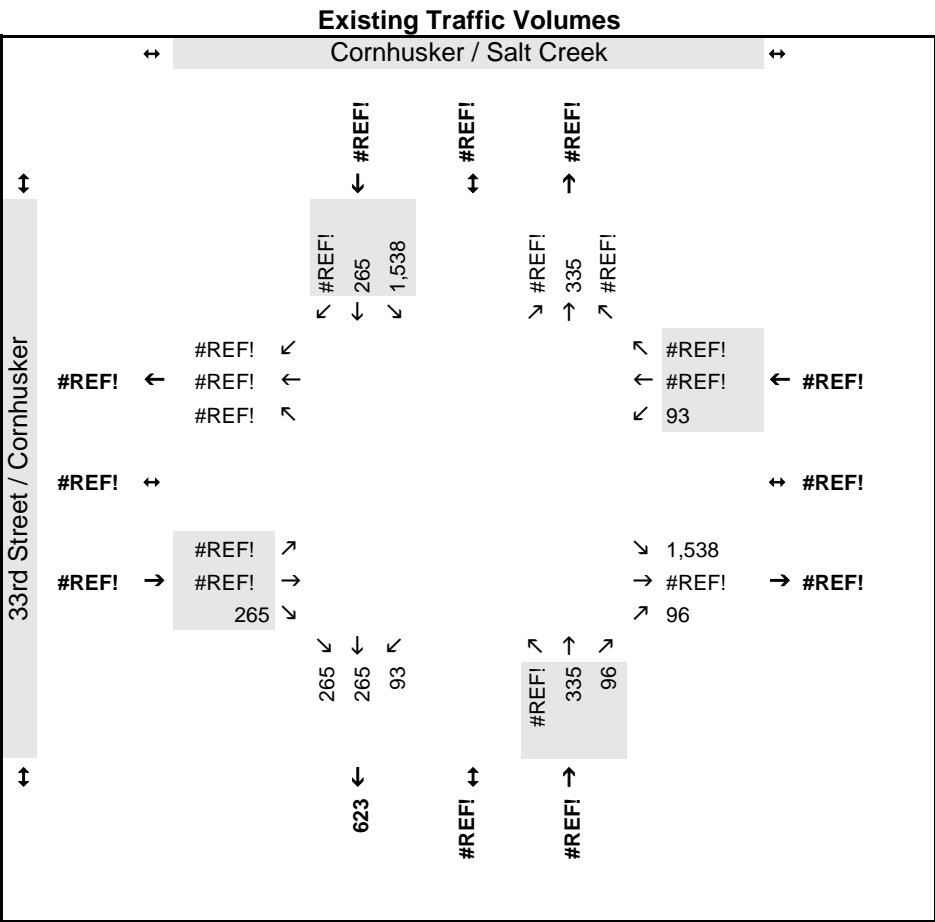
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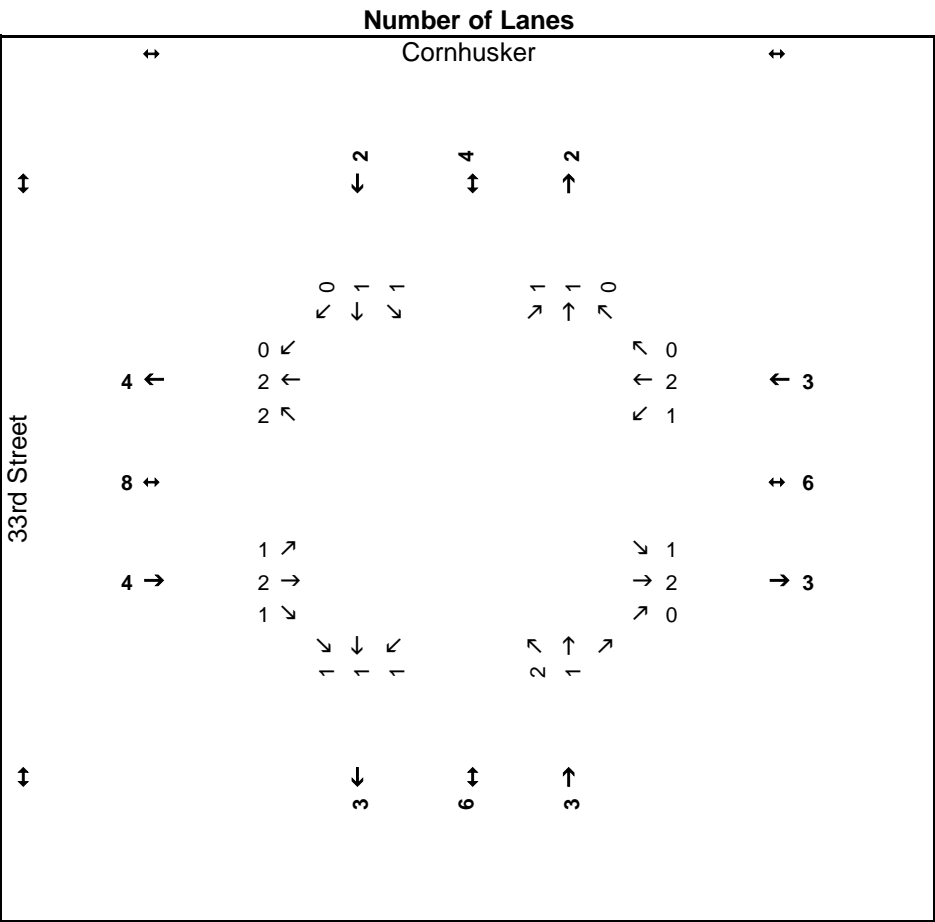
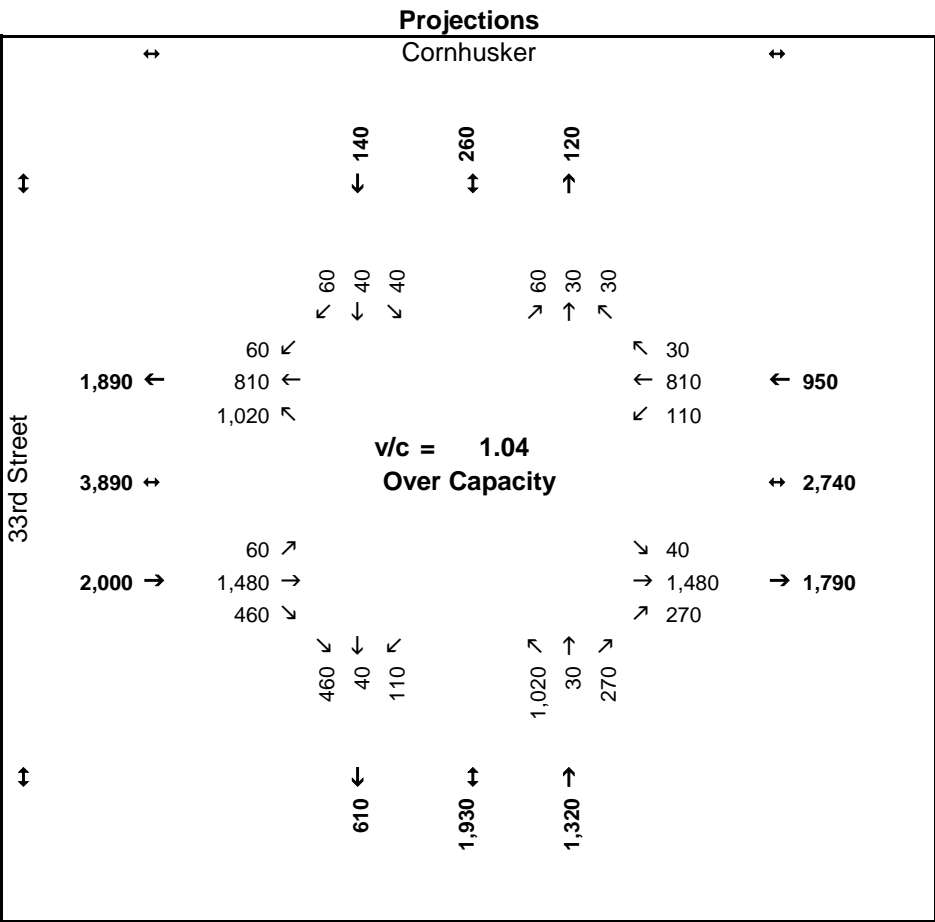
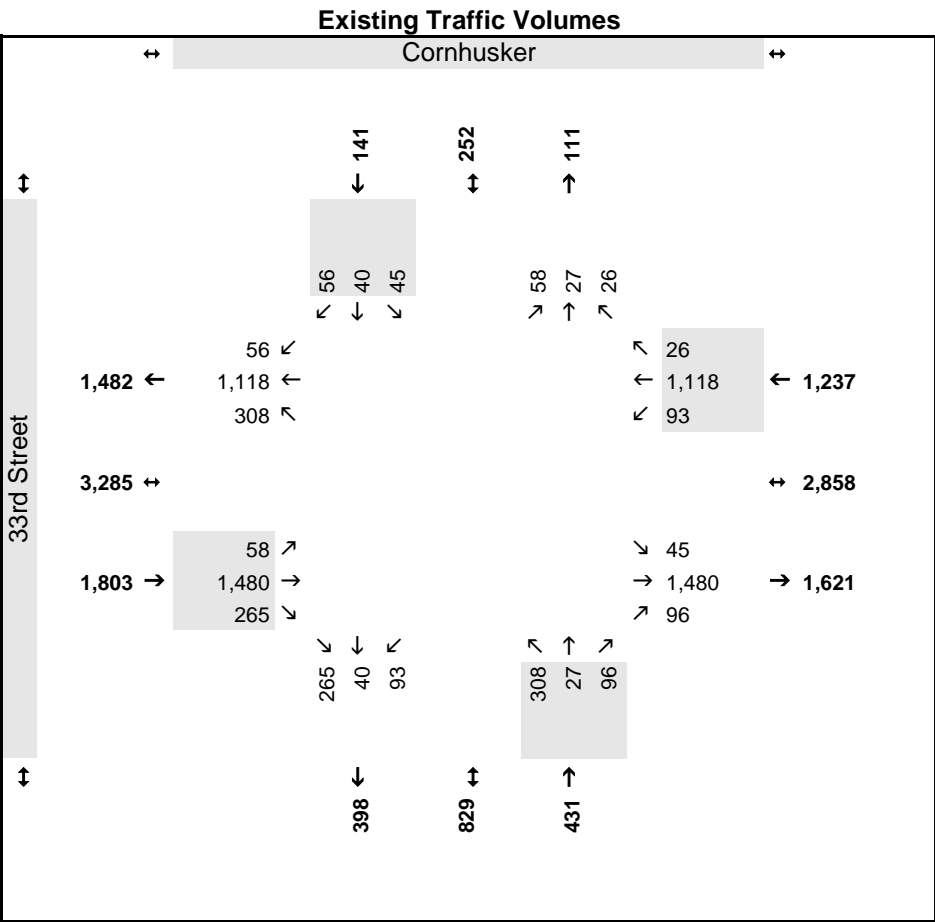
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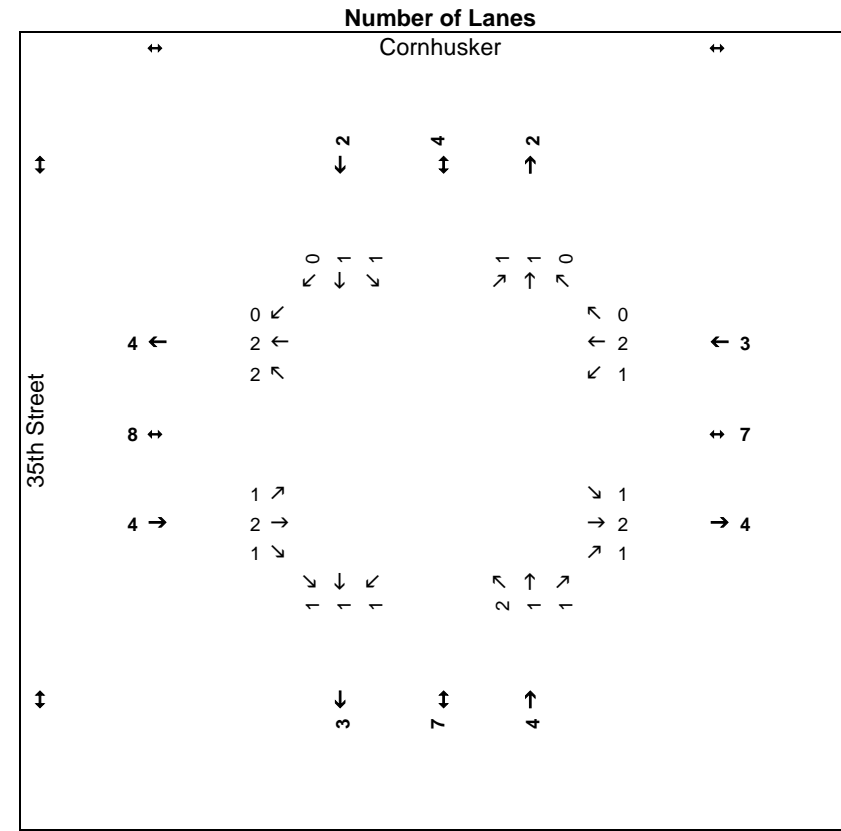
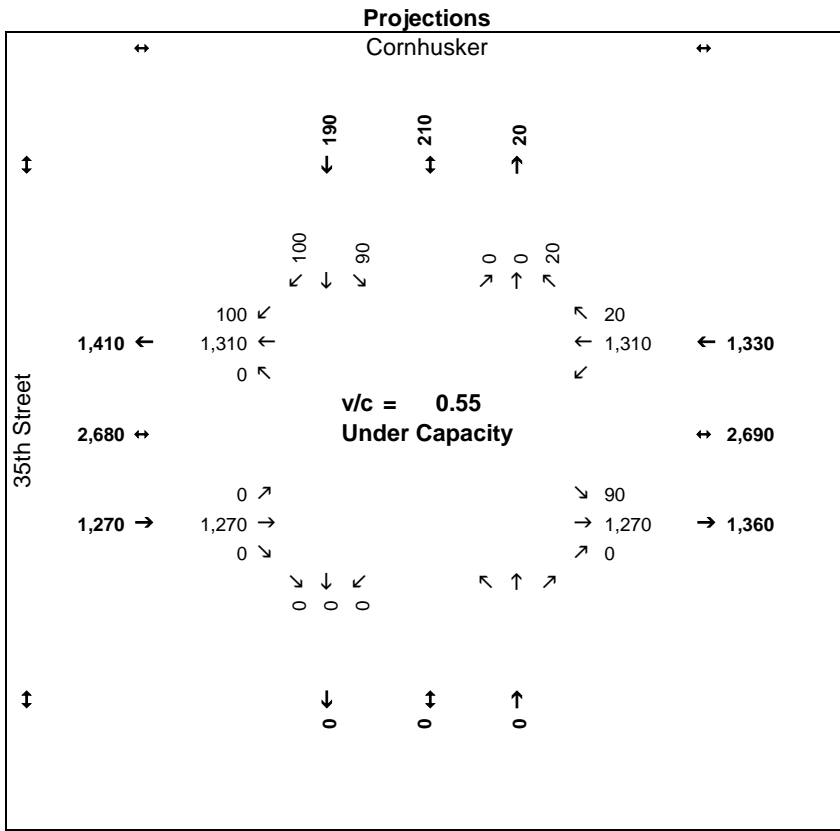
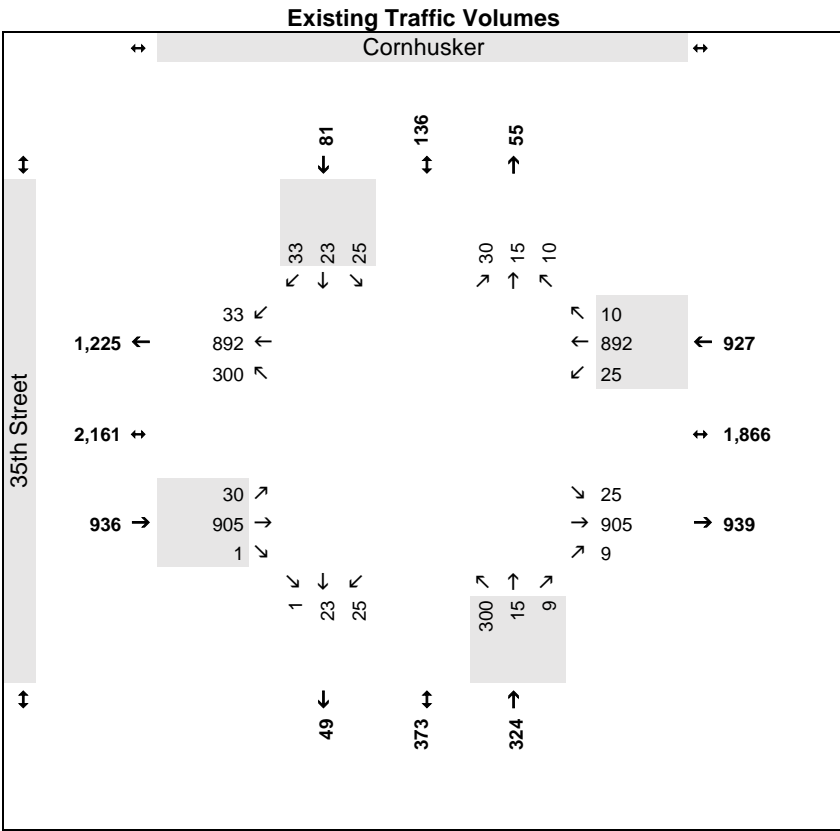
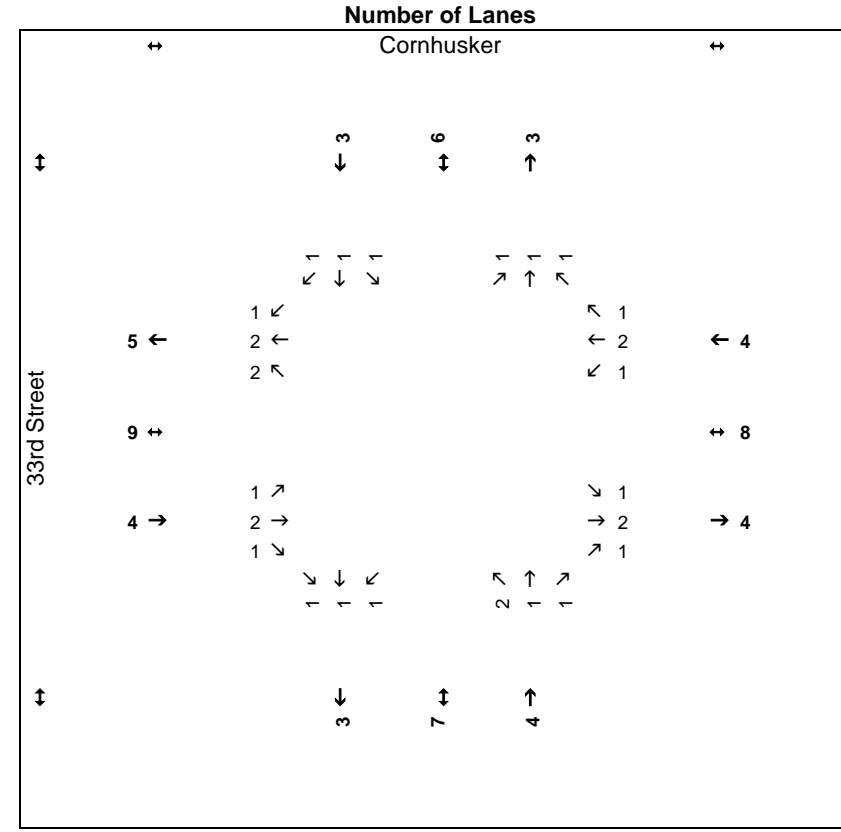
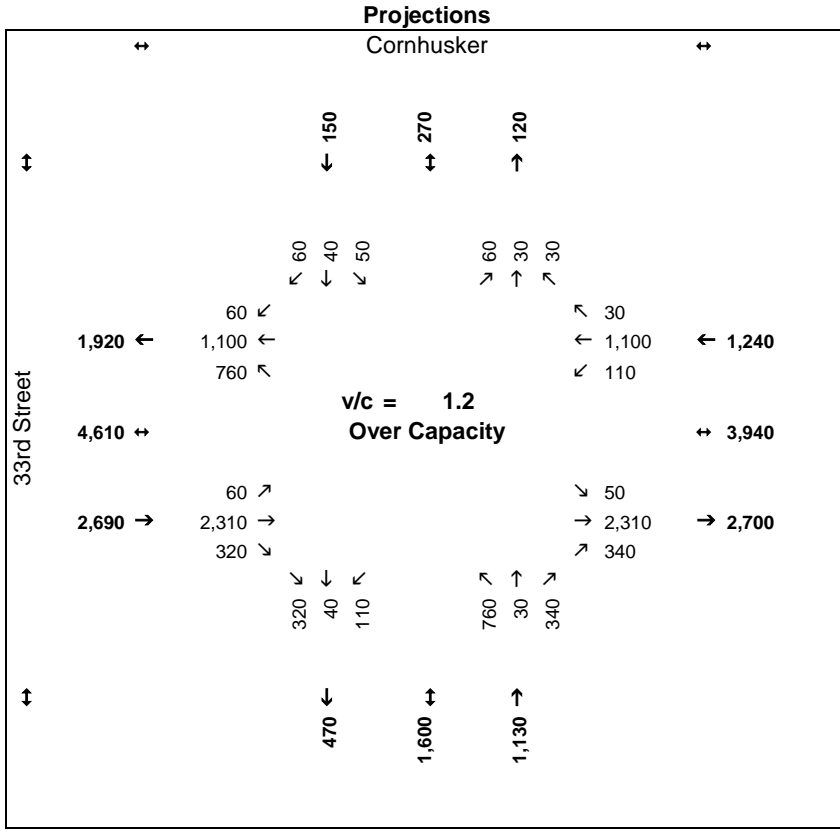
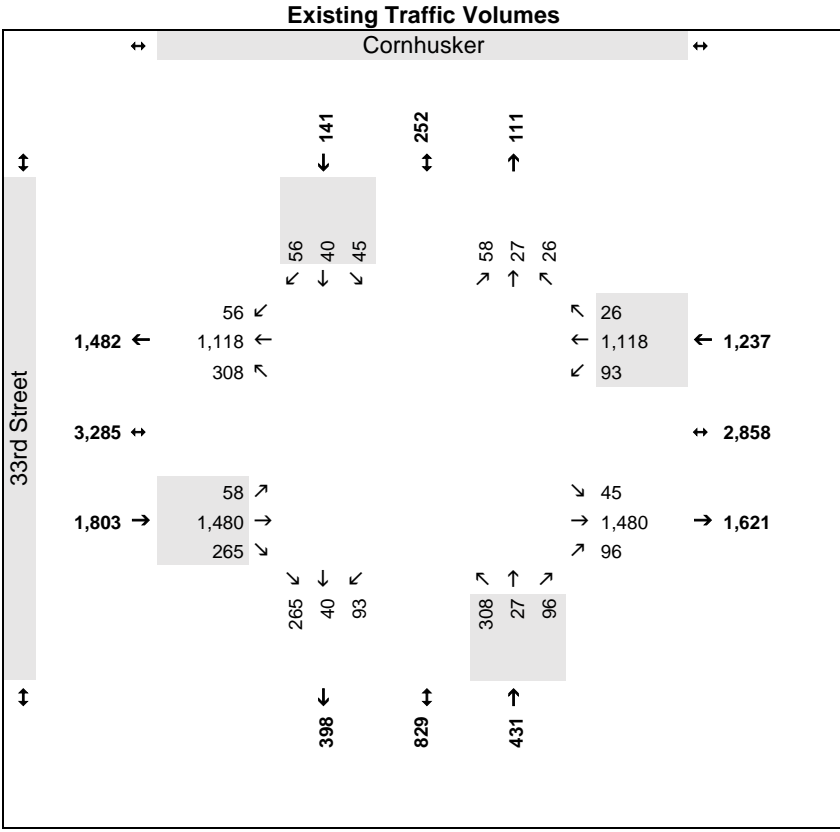
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Appendix F

High Level Cost Estimates

Conceptual Cost Estimate

33RD & CORNHUSKER ALTERNATIVES

10/30/2018

PRELIMINARY! NOT FINAL!

<i>Alt.</i>	Roadway Construction on MSE Walls	Bridge Construction	General Roadway Construction	ROW Assessed Values, No Multiplier, Total Take	Other Costs Contingencies, Final Engineering, Construction Engineering, City Admin, Testing	Total \$ <i>(2026, 4% Inflation)</i>
IB	\$6.1 M	\$12.7 M	\$14.3 M	\$18.1 M	\$19.3 M	\$96.4 M
ID	\$8.7 M	\$16.2 M	\$15.5 M	\$20.9 M	\$23.6 M	\$116.1 M
IE	\$11.6 M	\$17.2 M	\$11.2 M	\$20.9 M	\$23.4 M	\$115.3 M
I2B	\$6.2 M	\$24.4 M	\$16.2 M	\$22.8 M	\$27.4 M	\$132.8 M
I4	\$6.4 M	\$33.8 M	\$15.8 M	\$27.0 M	\$32.7 M	\$158.4 M
I5A	\$37.2 M	\$21.4 M	\$5.8 M	\$16.6 M	\$37.6 M	\$162.3 M
MOD C	\$19.4 M	\$7.1 M	\$9.2 M	\$20.0 M	\$20.9 M	\$104.8 M

33rd and Cornhusker Project - Lincoln
Roadway Improvements - Alternative 1B (*Alternative 1D with no Adams Flyover*)
Opinion of Probable Cost

Roadway, Grading and Drainage Items

Item Description	Unit	Quantity	Unit Price	Extension
Roadway Construction on MSE Walls	Sq. Yd.	13,474	450.00	6,063,100
Bridge Construction	Sq. Ft.	72,514	175.00	12,689,950
Roadway Construction	Sq. Yd.	95,265	150.00	14,289,817

Subtotal Construction = 33,042,867

Contingencies (20%) = 6,608,573

Total Estimated Construction Cost = 39,651,440

Estimated Right-of-Way Cost = 18,070,000

Estimated Final Engineering Design Costs (15% of Construction) = 5,947,716

Estimated City Administrative Costs (2% of Construction) = 793,029

Construction Engineering, Testing & CO Allowance (15% of Construction) = 5,947,716

Total Opinion of Cost for Capital Improvement Program (2018 Dollars) = 70,409,901

Total Opinion of Cost for Capital Improvement Program (2026 Dollars) = **96,360,811**

4.0% Inflation

33rd and Cornhusker Project - Lincoln
Roadway Improvements - Alternative 1D
Opinion of Probable Cost

Roadway, Grading and Drainage Items

Item Description	Unit	Quantity	Unit Price	Extension
Roadway Construction on MSE Walls	Sq. Yd.	19,290	450.00	8,680,400
Bridge Construction	Sq. Ft.	92,554	175.00	16,196,950
Roadway Construction	Sq. Yd.	103,263	150.00	15,489,417

Subtotal Construction = 40,366,767

Contingencies (20%) = 8,073,353

Total Estimated Construction Cost = 48,440,120

Estimated Right-of-Way Cost = 20,870,000

Estimated Final Engineering Design Costs (15% of Construction) = 7,266,018

Estimated City Administrative Costs (2% of Construction) = 968,802

Construction Engineering, Testing & CO Allowance (15% of Construction) = 7,266,018

Total Opinion of Cost for Capital Improvement Program (2018 Dollars) = 84,810,958

Total Opinion of Cost for Capital Improvement Program (2026 Dollars) = **116,069,653**

4.0% Inflation

33rd and Cornhusker Project - Lincoln
Roadway Improvements - Alternative 1E
Opinion of Probable Cost

Roadway, Grading and Drainage Items

Item Description	Unit	Quantity	Unit Price	Extension
Roadway Construction on MSE Walls	Sq. Yd.	25,749	450.00	11,587,200
Bridge Construction	Sq. Ft.	98,347	175.00	17,210,725
Roadway Construction	Sq. Yd.	74,786	150.00	11,217,917

Subtotal Construction = 40,015,842

Contingencies (20%) = 8,003,168

Total Estimated Construction Cost = 48,019,010

Estimated Right-of-Way Cost = 20,870,000

Estimated Final Engineering Design Costs (15% of Construction) = 7,202,852

Estimated City Administrative Costs (2% of Construction) = 960,380

Construction Engineering, Testing & CO Allowance (15% of Construction) = 7,202,852

Total Opinion of Cost for Capital Improvement Program (2018 Dollars) = 84,255,093

Total Opinion of Cost for Capital Improvement Program (2026 Dollars) = **115,308,913**

4.0% Inflation

33rd and Cornhusker Project - Lincoln
Roadway Improvements - Alternative 12B
Opinion of Probable Cost

Roadway, Grading and Drainage Items

Item Description	Unit	Quantity	Unit Price	Extension
Roadway Construction on MSE Walls	Sq. Yd.	13,735	450.00	6,180,550
Bridge Construction	Sq. Ft.	139,699	175.00	24,447,325
Roadway Construction	Sq. Yd.	108,126	150.00	16,218,933

Subtotal Construction = 46,846,808

Contingencies (20%) = 9,369,362

Total Estimated Construction Cost = 56,216,170

Estimated Right-of-Way Cost = 22,830,000

Estimated Final Engineering Design Costs (15% of Construction) = 8,432,426

Estimated City Administrative Costs (2% of Construction) = 1,124,323

Construction Engineering, Testing & CO Allowance (15% of Construction) = 8,432,426

Total Opinion of Cost for Capital Improvement Program (2018 Dollars) = 97,035,344

Total Opinion of Cost for Capital Improvement Program (2026 Dollars) = **132,799,569**

4.0% Inflation

33rd and Cornhusker Project - Lincoln
Roadway Improvements - Alternative 14
Opinion of Probable Cost

Roadway, Grading and Drainage Items

Item Description	Unit	Quantity	Unit Price	Extension
Roadway Construction on MSE Walls	Sq. Yd.	14,204	450.00	6,391,950
Bridge Construction	Sq. Ft.	193,235	175.00	33,816,125
Roadway Construction	Sq. Yd.	105,358	150.00	15,803,667

Subtotal Construction = 56,011,742

Contingencies (20%) = 11,202,348

Total Estimated Construction Cost = 67,214,090

Estimated Right-of-Way Cost = 27,040,000

Estimated Final Engineering Design Costs (15% of Construction) = 10,082,114

Estimated City Administrative Costs (2% of Construction) = 1,344,282

Construction Engineering, Testing & CO Allowance (15% of Construction) = 10,082,114

Total Opinion of Cost for Capital Improvement Program (2018 Dollars) = 115,762,599

Total Opinion of Cost for Capital Improvement Program (2026 Dollars) = **158,429,110**

4.0% Inflation

33rd and Cornhusker Project - Lincoln
Roadway Improvements - Alternative 15A
Opinion of Probable Cost

Roadway, Grading and Drainage Items

Item Description	Unit	Quantity	Unit Price	Extension
Roadway Construction on MSE Walls	Sq. Yd.	82,561	450.00	37,152,450
Bridge Construction	Sq. Ft.	122,395	175.00	21,419,123
Roadway Construction	Sq. Yd.	38,993	150.00	5,848,933

Subtotal Construction = 64,420,506

Contingencies (20%) = 12,884,101

Total Estimated Construction Cost = 77,304,608

Estimated Right-of-Way Cost = 16,560,000

Estimated Final Engineering Design Costs (15% of Construction) = 11,595,691

Estimated City Administrative Costs (2% of Construction) = 1,546,092

Construction Engineering, Testing & CO Allowance (15% of Construction) = 11,595,691

Total Opinion of Cost for Capital Improvement Program (2018 Dollars) = 118,602,082

Total Opinion of Cost for Capital Improvement Program (2026 Dollars) = **162,315,139**

4.0% Inflation

33rd and Cornhusker Project - Lincoln
Roadway Improvements - Alternative MOD C
Opinion of Probable Cost

Roadway, Grading and Drainage Items

Item Description	Unit	Quantity	Unit Price	Extension
Roadway Construction on MSE Walls	Sq. Yd.	43,143	450.00	19,414,400
Bridge Construction	Sq. Ft.	40,849	175.00	7,148,575
Roadway Construction	Sq. Yd.	61,058	150.00	9,158,750

Subtotal Construction = 35,721,725

Contingencies (20%) = 7,144,345

Total Estimated Construction Cost = 42,866,070

Estimated Right-of-Way Cost = 20,000,000

Estimated Final Engineering Design Costs (15% of Construction) = 6,429,911

Estimated City Administrative Costs (2% of Construction) = 857,321

Construction Engineering, Testing & CO Allowance (15% of Construction) = 6,429,911

Total Opinion of Cost for Capital Improvement Program (2018 Dollars) = 76,583,212

Total Opinion of Cost for Capital Improvement Program (2026 Dollars) = **104,809,414**

4.0% Inflation

Appendix G

Right-of-Way



Preliminary

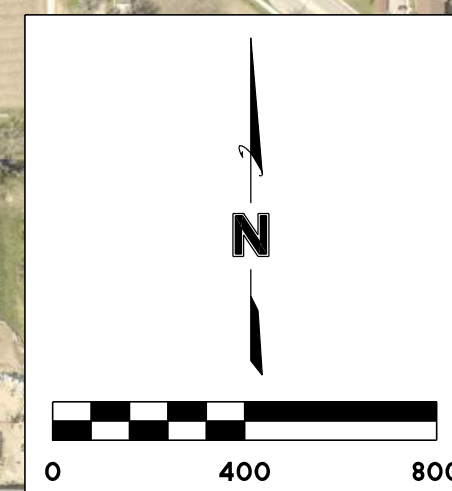
11/19/2018

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SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

IMPACT LEGEND	
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	RESIDENTIAL FULL ACQUISITION
	BUSINESS PARTIAL ACQUISITION
	BUSINESS FULL ACQUISITION
	PARK IMPACT

ALTERNATIVE 1B R.O.W. IMPACTS

LEGEND	
	RTSD PROJECT ROADWAY CONSTRUCTION
	RTSD PROJECT BRIDGE CONSTRUCTION
	RTSD PROJECT RETAINING WALL CONSTRUCTION
	WORK COMPLETED BY OTHERS
	FULL-ACCESS INTERSECTION
	EXISTING SIGNALIZED INTERSECTION
	3/4 ACCESS INTERSECTION
	RIGHT IN / RIGHT OUT INTERSECTION
	RAILROAD CROSSING CLOSURE





Preliminary

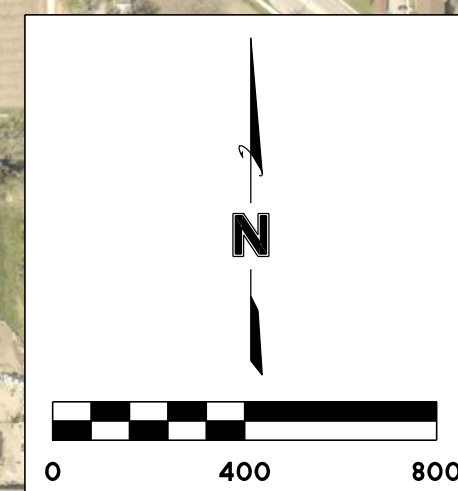
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IN DESIGN PHASE

IMPACT LEGEND	
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	BUSINESS PARTIAL ACQUISITION
	BUSINESS FULL ACQUISITION
	PARK IMPACT

ALTERNATIVE 1D R.O.W. IMPACTS

LEGEND	
	RTSD PROJECT ROADWAY CONSTRUCTION
	RTSD PROJECT BRIDGE CONSTRUCTION
	RTSD PROJECT RETAINING WALL CONSTRUCTION
	WORK COMPLETED BY OTHERS
	FULL-ACCESS INTERSECTION
	EXISTING SIGNALIZED INTERSECTION
	3/4 ACCESS INTERSECTION
	RIGHT IN / RIGHT OUT INTERSECTION
	RAILROAD CROSSING CLOSURE





Preliminary

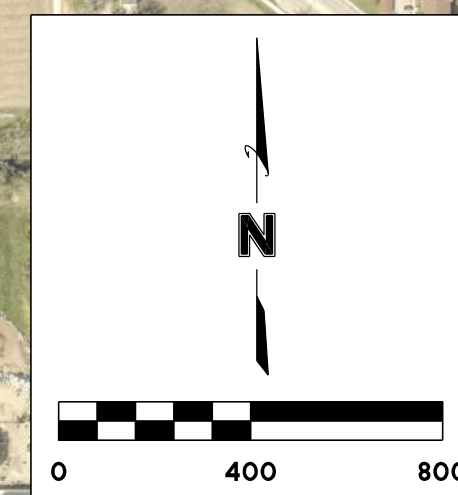
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SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

IMPACT LEGEND	
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	RESIDENTIAL FULL ACQUISITION
	BUSINESS PARTIAL ACQUISITION
	BUSINESS FULL ACQUISITION
	PARK IMPACT

ALTERNATIVE 1E R.O.W. IMPACTS

LEGEND	
	RTSD PROJECT ROADWAY CONSTRUCTION
	RTSD PROJECT BRIDGE CONSTRUCTION
	RTSD PROJECT RETAINING WALL CONSTRUCTION
	WORK COMPLETED BY OTHERS
	FULL-ACCESS INTERSECTION
	EXISTING SIGNALIZED INTERSECTION
	3/4 ACCESS INTERSECTION
	RIGHT IN / RIGHT OUT INTERSECTION
	RAILROAD CROSSING CLOSURE





Preliminary

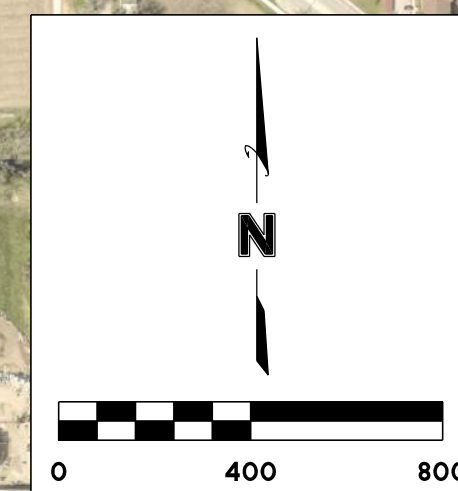
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	BUSINESS PARTIAL ACQUISITION
	BUSINESS FULL ACQUISITION
	PARK IMPACT

ALTERNATIVE 12B R.O.W. IMPACTS

LEGEND	
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	RTSD PROJECT BRIDGE CONSTRUCTION
	RTSD PROJECT RETAINING WALL CONSTRUCTION
	WORK COMPLETED BY OTHERS
	FULL-ACCESS INTERSECTION
	EXISTING SIGNALIZED INTERSECTION
	3/4 ACCESS INTERSECTION
	RIGHT IN / RIGHT OUT INTERSECTION
	RAILROAD CROSSING CLOSURE





Preliminary

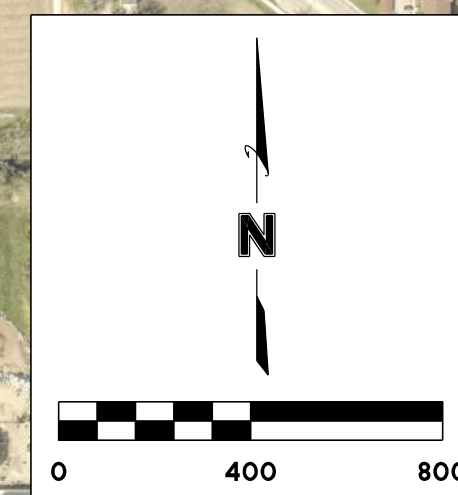
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SUBJECT TO CHANGE
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	BUSINESS FULL ACQUISITION
	PARK IMPACT

ALTERNATIVE 14 R.O.W. IMPACTS

LEGEND	
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	RTSD PROJECT RETAINING WALL CONSTRUCTION
	WORK COMPLETED BY OTHERS
	FULL-ACCESS INTERSECTION
	EXISTING SIGNALIZED INTERSECTION
	3/4 ACCESS INTERSECTION
	RIGHT IN / RIGHT OUT INTERSECTION
	RAILROAD CROSSING CLOSURE





Preliminary

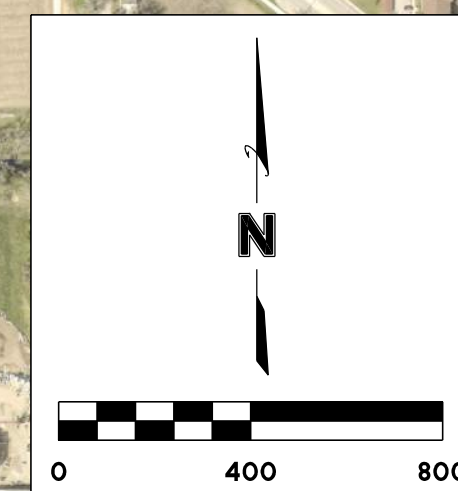
11/19/2018

SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
DRIVEWAY LOCATIONS TO BE DETERMINED
IN DESIGN PHASE

IMPACT LEGEND	
	RESIDENTIAL PARTIAL ACQUISITION
	RESIDENTIAL FULL ACQUISITION
	BUSINESS PARTIAL ACQUISITION
	BUSINESS FULL ACQUISITION
	PARK IMPACT

ALTERNATIVE 15A R.O.W. IMPACTS

LEGEND	
	RTSD PROJECT ROADWAY CONSTRUCTION
	RTSD PROJECT BRIDGE CONSTRUCTION
	RTSD PROJECT RETAINING WALL CONSTRUCTION
	WORK COMPLETED BY OTHERS
	FULL-ACCESS INTERSECTION
	EXISTING SIGNALIZED INTERSECTION
	3/4 ACCESS INTERSECTION
	RIGHT IN / RIGHT OUT INTERSECTION
	RAILROAD CROSSING CLOSURE





Preliminary

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SUBJECT TO CHANGE
SPECIFIC ACCESS TO PROPERTIES AND
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IMPACT LEGEND	
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	RESIDENTIAL FULL ACQUISITION
	BUSINESS PARTIAL ACQUISITION
	BUSINESS FULL ACQUISITION
	PARK IMPACT

ALTERNATIVE MODIFIED PEL C-R.O.W. IMPACTS

LEGEND	
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	RTSD PROJECT BRIDGE CONSTRUCTION
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