Area 1: I-90/TH 63 Interchange Evaluation Matrix Comments

Note: A No-Build Alternative will be carried into the environmental document. However, this discussion is meant to be the beginning of the framework used to support the need for improvements in this area.

1-2. LOCAL ROAD SYSTEM
Access was measured as the ability to get on TH 63 during the a.m. and p.m. peak hour. Access was ranked as "poor" for the No-Build Alternative because the operational analysis showed that access to TH 63 at the existing at-grade ramp terminal intersections will be difficult during the a.m. and p.m. peak periods due to long delays. The Full Cloverleaf Build Alternative was ranked as "fair" since the at-grade ramp terminal intersections along TH 63 will be replaced with either free-flow ramps/loops. The existing local road access located immediately south of the I-90/TH 63 interchange will be redirected to an adjacent intersection. These adjacent access closures are consistent with Stewartville’s future road network for the area.

3. SYSTEM CONTINUITY
System continuity, connectivity, and local trip distribution were measured as the ability to get from "point A to point B" (e.g., directness). While the Build Alternative provides slightly better connectivity, both Alternatives rank in the "good" category.

4. INTERSECTION OPERATIONS
The No-Build Alternative was ranked as "poor" since only one of the two existing key at-grade intersections will operate at acceptable LOS "D" or better under the year 2040 No-Build conditions. The full cloverleaf Build Alternative was ranked as "N/A" since the Build Alternative eliminates all at-grade intersections within the I-90/TH 63 Interchange.

5. ROAD/INTERCHANGE CAPACITY
Both alternatives were ranked as "good" since the forecast year 2040 volumes within the I-90/TH 63 Interchange area are "under capacity" (or equal to or greater than 10 percent below the capacity of the roadway).

6. RAMP CAPACITY
Both alternatives were ranked as "good" since the forecast year 2040 volumes within the I-90/TH 63 Interchange area fall within the capacity of the proposed ramps.

7. EXISTING SAFETY CONCERNS
The No-Build Alternative was given a "no" since it does not propose any safety improvements. The Full Cloverleaf Build Alternative was given a "yes" since the Build Alternative eliminates all at-grade intersections within the I-90/TH 63 Interchange.

8. RESERVE CAPACITY
The No-Build Alternative was ranked as "poor" since one ramp terminal at the I-90/TH 63 Interchange is over capacity.
9. IRC Speed Performance
The No-Build Alternative was ranked as "poor" since it will not likely be within 2 mph of the IRC speed performance goal of 55.9 mph in 2040 (the modeled year for the current study). Under No Build conditions, speed performance was forecasted to be 54.0 mph by 2028 in the Minnesota Statewide Transportation Plan. It can be reasonably assumed that speed performance will fall from 54.0 in 2028 to below 53.9 mph by 2040 due to increased traffic and access issues, thus TH 63 will no longer be considered in the "near category" for its speed performance goal.

10. Access
The No-Build Alternative was ranked as "poor" since the existing private TH 63 access immediately south of the I-90/TH 63 Interchange is not consistent with the Mn/DOT Access Management Manual. It is also not consistent with the goal of transitioning the corridor to a freeway facility as documented in various studies.

11. Interchange Spacing (Mainline)
The No-Build Alternative was ranked as "fair" since there are existing TH 63 accesses just south of the I-90/TH 63 Interchange. In addition, there are several existing TH 63 accesses within the minimum one-half mile spacing between the merge point of the closest interchange ramp and an at-grade intersection as stated in the Mn/DOT Access Management Manual guidelines. The Build Alternative was ranked as "good" since it eliminates the first at-grade private intersection on TH 63 south of the I-90/TH 63 Interchange.

12. Interchange Spacing (Side Street)
Interchange ramp to first intersection spacing on the side street was given a "N/A" for both alternatives.

13-14. Design Standards
The full cloverleaf design of the Build Alternative, which was ranked as "good," provides a better design for truck traffic than the No-Build interchange configuration, which was ranked as "fair". The Build Alternative also removes at-grade access to TH 63 near the interchange, which provides a better design for trucks. Both Alternatives were given a "N/A" in regard to meeting CSAH/MSAS design standards.

15. Intercity and/or Light Rail Connections
No specific light rail or intercity passenger rail alignments that would connect to the Airport are known. It is assumed that any future passenger rail alignments would take into account and be compatible with future planned roadway improvements. However, there is a conceptual Southern Rail Corridor alignment near the southbound TH 63 to westbound I-90 on-ramp (northwest quadrant) for the Build Alternative. The Southern Rail Corridor alignment is still conceptual in nature, but it should be considered as the project moves forward.

16. Non-Motorized Travel
Neither I-90 nor TH 63 (as it transitions to a freeway facility) are appropriate locations for non-motorized travel, so "N/A" was written for both alternatives.
17-22. AIRDPORT SAFETY REQUIREMENTS
Both the Build and No-Build Alternatives have no impact on airport navigational aides or runway operations during construction; therefore, they are identified as "N/A" and meet state and federal aviation requirements.

23. COMPREHENSIVE PLANS
The No-Build Alternative was ranked as "poor" since it is inconsistent with ROCOG 2035 Long Range Transportation Plan's goal to upgrade the I-90/TH 63 Interchange.
Environmental Impacts

24-25. NWI Wetlands/FEMA Floodplains
Category #24 has three separate acreage amounts: National Wetlands Inventory (NWI) acres impacted, floodplain soils acres impacted (does not include FEMA floodplains), and hydric soils acres impacted (the Soil Survey Geographic (SSURGO) database for Olmsted County is the data source for floodplain and hydric soils). The ranked categories/color shading of the cell in the matrix correspond to the NWI acres impacted. Ranked categories were determined by examining the natural breaks in the data set. The rankings for NWI wetlands include:
- 0-10 acres = least impact
- 11-20 acres = more impact
- 21+ acres = most impact

For category #25, there were no FEMA floodplains impacted.

26. Biodiversity Areas/DNR Protected Areas
Potential biodiversity areas/DNR protected areas impacted include the High Forest Fen area just east of TH 63 between 80th Street and 85th Street. Alternatives running through the High Forest Fen would be ranked as "most impact," new roadways running near the Fen would be ranked as "more impact," and those not directly impacting the High Forest Fen area would be ranked as "least impact."

27-28. Woodlands and Drainage Area Crossings
For acres of woodlands impacted, the rankings were:
- 0-10 acres = least impact
- 11-20 = more impact
- 21+ = most impact

For the number of streams/rivers, the rankings were:
- 0-10 streams/rivers impacted = least impact
- 11-20 = more impact
- 21+ = most impact

29-30. Historic Properties and Archaeological Sites
No previously studied archaeological or historical sites are in the proximity of either alternative. Impacts of the project on these and other potential sites will be studied under the Section 106 review as part of the Environmental Assessment process. The Environmental Assessment process will be completed later in project development.

31-33. Parks, Trail Systems, and Minority or Low Income Populations
No parks are impacted by either alternative, nor are any minority or low income populations. Neither I-90 nor TH 63 (as it transitions to a freeway facility) are appropriate locations for trails, so "N/A" was written for both alternatives.
**Social Impacts**

**34. PARTIAL AND FULL ACQUISITIONS**
Numerical values are shown in each cell, but no rankings are given due to the subjectivity that would be involved with assigning rankings to acquired parcels. Values were determined both within and outside of the Ultimate Airport Boundary.

**35. PUBLIC AT-GRADE ACCESS POINTS**
No public roadways will be closed around the I-90/TH 63 Interchange area. However, one private commercial access will be redirected (also planned in Stewartville's long-term roadway network) resulting in a slightly longer distance traveled to reach the highway.

**36. ACRES OF ROW (TOTAL)**
Numerical values are shown in each cell, but no rankings are given due to the subjectivity that would be involved with assigning rankings to acquired parcels. Values were determined both within and outside of the Ultimate Airport Boundary.
ECONOMIC

37. **Estimated Cost (Total)**

Construction cost estimates include:

- TH 63 mainline = $5M/mile
- Standard ramps/loops less than 2,000 ft = $0.5M/ramp
- Long ramps/loops 2,000 ft or greater = $1M/ramp
- CSAH 16 (3-lane with median) = $3M/mile
- TH 30 designation (2-lane rural) = $1.5M/mile
- Local 2-lane urban roadways = $2.5M/mile
- Local 2-lane rural roadways = $1.5M/mile
- Bridges = $150/sq. ft.

Design and construction administration costs are estimated at 20 percent of construction cost.

ROW costs assumptions were based on a February 1, 2010, memorandum from Charlie Reiter. The figures include acres within and outside of the Ultimate Airport Boundary. ROW costs assume market rate for the various parcels. Land within the Airport Ultimate Boundary was given a range of 0 to 100 percent of the market value due to the uncertainty of how much, if any, would need to be paid back to various agencies contributing to the original land purchase. ROW cost assumptions include:

- Class A: Agricultural ($4,500/acre)
- Class B1: Urban commercial/industrial with city sewer/water available ($130,000/acre)
- Class B2: Suburban commercial/industrial - developed, but without city services ($65,000/acre)
- Class B3: Urban commercial/industrial undeveloped with airport zoning restrictions ($40,000/acre)
- Class C: Suburban residential without city sewer/water ($40,000/acre)
- Class D1: Transitional residential/agricultural (future urban services likely) ($15,000/acre)
- Class D2: Transitional agricultural/commercial (future urban services unlikely, but location advantaged) ($8,000/acre)

 Miscellaneous costs include items such as relocation costs for full takings, wetland mitigation, rock cuts, mitigation of impacts to airport navigation lights, etc. At this time, the only miscellaneous costs identified include relocation costs for full takings, which were assumed to be two times fair market value.
Note: A No-Build Alternative will be carried into the environmental document. However, this discussion is meant to be the beginning of the framework used to support the need for improvements in this area.

1-2. LOCAL ROAD SYSTEM
Access was measured as the ability to get on TH 63 during the a.m. and p.m. peak hours. A "poor" ranking was given to the No-Build Alternative because the operational analysis showed that access to TH 63 at the existing at-grade intersections will be difficult during the a.m. and p.m. peak periods due to long delays. Each of the West and East Frontage Road Alternatives was ranked as "fair" since the at-grade intersections along TH 63 will be replaced with local roads that will direct the TH 63-destined traffic to an adjacent interchange. The 87th Street Interchange was ranked as "good" since it provides a frontage connection to adjacent interchanges, adds another interchange access to TH 63, and it provides better access than the existing TH 63/TH 30 intersection.

3. SYSTEM CONTINUITY
System continuity, connectivity, and local trip distribution were measured as the ability to get from "point A to point B" (e.g., directness) focusing on TH 30 with consideration given to appropriate distribution of local trips. While the No-Build Alternative provides direct connections to TH 63, it was ranked as "poor" since the ability to get from "point A to point B" is severely limited at the at-grade intersections during the peak periods as a result of insufficient gaps in traffic along TH 63. At-grade access to TH 63 is eliminated under all Build Alternatives. The T-intersection West Frontage Road Alternative provides a frontage road connection; however, the connectivity is impacted by the T-intersection and was therefore given a "fair/poor" rating. The remaining Build Alternatives, with the exception of the 87th Street Interchange were ranked as "fair" because they provide direct frontage or backage road connections in order to get "from point A to point B". The 87th Street Interchange was ranked as "good" due to the connectivity provided by another TH 63 Interchange.

4. INTERSECTION OPERATIONS
The No-Build Alternative was ranked as "poor" since only one of the three existing key at-grade intersections will operate at acceptable LOS "D" or better under the year 2040 No-Build conditions. The Build Alternatives were ranked as "good" since they eliminate all at-grade intersections on TH 63 between the I-90/TH 63 Interchange and CSAH 16.

5. ROAD/INTERCHANGE CAPACITY
Each of the alternatives were ranked as "good" since the forecast year 2040 volumes are "under capacity" (or equal to or greater than 10 percent below the capacity of the roadway).

6. RAMP CAPACITY
Both alternatives were ranked as "good" since the forecast year 2040 volumes within the TH 63/CSAH 16 Interchange area fall within the capacity of the proposed ramps.
7. **Existing Safety Concerns**
The No-Build Alternative was given a "no" since it does not propose any safety improvements. Each of the Build alternatives were given a "yes" since they eliminate all at-grade intersections between the I-90/TH 63 Interchange and CSAH 16.

8. **Reserve Capacity**
All alternatives were ranked as "good" since all ramp terminals are under capacity.

9. **IRC Speed Performance**
The No-Build Alternative was ranked as "poor" since it will not likely be within 2 mph of the IRC speed performance goal of 55.9 mph in 2040 (the modeled year for the current study). Under No Build conditions, speed performance was forecasted to be 54.0 mph by 2028 in the Minnesota Statewide Transportation Plan. It can be reasonably assumed that speed performance will fall from 54.0 in 2028 to below 53.9 mph by 2040 due to increased traffic and access issues, thus TH 63 will no longer be considered in the "near category" for its speed performance goal.

10. **Access**
The No-Build Alternative was ranked as "poor" since the existing private TH 63 accesses between CSAH 16 and the I-90/TH 63 Interchange are not consistent with the Mn/DOT Access Management Manual. It is also not consistent with the goal of transitioning the corridor to a freeway facility as documented in various studies.

11. **Interchange Spacing (Mainline)**
With the exception of the 87th Street Interchange Alternative, all of the alternatives provide adequate ramp to ramp spacing and received "good" rankings. The 87th Street Interchange Alternative adds a new Interchange between the existing CSAH 16 and I-90/TH 63 Interchanges. While preliminary weave analyses shows that the spacing between the proposed 87th Street Interchange and the existing I-90/TH 63 Interchange will perform acceptably under year 2040 build traffic conditions, the ramp to ramp spacing is less than ideal for rural freeway conditions. Therefore, the 87th Street Build Alternative received a "fair" ranking.

12. **Interchange Spacing (Side Street)**
The No-Build Alternative was ranked as "poor" due to the spacing between the CSAH 16 south ramps and 11th Avenue. The Build Alternatives were ranked as "good" because the CSAH 16/11th Avenue intersection is closed.

13-14. **Design Standards**
The No-Build Alternative was ranked as "fair" in regard to design adequacy for truck traffic. The Build Alternatives were ranked as "good" since they include an upgraded CSAH 16 Interchange and closed TH 63 at-grade accesses that will be better for trucks. Segments of existing roads that would provide truck access to local businesses may need to be upgraded to meet standards. In addition, the No-Build Alternative does not meet CSAH/MSAS design standards.
15. Intercity and/or Light Rail Connections
No specific light rail or intercity passenger rail alignments that would connect to the Airport are known. It is assumed that any future passenger rail alignments would take into account and be compatible with future planned roadway improvements. However, there is a conceptual Southern Rail Corridor alignment that runs just south of the East Frontage Road, East Backage Road, and 87th Street alignments. The Southern Rail Corridor alignment is still conceptual in nature, but it should be considered moving forward. The West Frontage Road and No-Build Alternatives would not be impacted by the freight alignment.

16. Non-Motorized Travel
The No-Build Alternative was ranked as "poor" since it does not provide options for non-motorized travel (the CSAH 16 Interchange Bridge is too narrow to accommodate a trail and there are safety concerns with at-grade crossings of TH 63). The Build Alternatives were ranked as “good” since they would provide opportunities for developing non-motorized options along lower speed roadways to all properties along the TH 63.

17-19. Airport Safety Zone A & B Requirements
Both the Build and No-Build Alternatives meet Safety Zone A and B, and Runway Protection Zone requirements.

20. Object Free Area Requirements
A letter was written to Mn/DOT Aeronautics and FAA about the West Frontage Road's potential encroachment on the runway's Object Free Area. Initial response to the letter indicates that the West Frontage Road Alternatives will not encroach further on the Object Free Area and the alignment would be acceptable.

21. Airport Navigation Aides
There may be impacts to airport navigational aids with the East Frontage Road Alternative (ranked as "more impact"). The magnitude of the impacts will be determined and accounted for during preliminary design, including slight modifications to alignment.

22. Airport Runway Operations During Construction
There may be impacts to runway operations during roadway construction (ranked as "more impact") with the East Frontage Road Alternative. The impacts will be mitigated by modifying the hours of construction, minimizing the height of construction equipment, etc.
The No-Build Alternative was ranked as "poor" since it is inconsistent with transitioning TH 63 to a freeway facility as described in the *ROCOG 2035 Long Range Transportation Plan*. Other relevant text in the Plan includes:

- "Frontage or backage roads should be provided in conjunction with all new commercial or industrial development along freeway or expressway corridors and should be provided where possible in areas undergoing redevelopment" (Chapter 4A Freeways and Expressways).
- "Objective 6: Provide efficient access management along regionally significant transportation corridors."
  - Goal 6.1: Provide adequate accessibility through development of local access roads for non-residential land uses whose primary market access is from a limited access highway facility" (Chapter 2, Policy Direction 4: System Function and Structure).

Also, the No-Build Alternative does not upgrade the CSAH 16 Interchange as noted in the *2008-2030 Southeastern Minnesota Long Range Transportation Plan*. 
Environmental Impacts

24-25. NWI Wetlands/FEMA Floodplains
Category #24 has three separate acreage amounts: National Wetlands Inventory (NWI) acres impacted, floodplain soils acres impacted (does not include FEMA floodplains), and hydric soils acres impacted (the Soil Survey Geographic (SSURGO) database for Olmsted County is the data source for floodplain and hydric soils). The ranked categories/color shading of the cell in the matrix corresponds to the NWI acres impacted. Ranked categories were determined by examining the natural breaks in the data set. The rankings for NWI wetlands include:

- 0-10 acres = least impact
- 11-20 acres = more impact
- 21+ acres = most impact

For category #25, there were no FEMA floodplains impacted.

26. Biodiversity Areas/DNR Protected Areas
Potential biodiversity areas/DNR protected areas impacted include the Fen area just east of TH 63 between 80th Street and 85th Street. Alternatives running through the Fen would be ranked as "most impact," new roadways running near the High Forest Fen would be ranked as "more impact" (the East Frontage Road), and those not directly impacting the High Forest Fen area would be ranked as "least impact." The 87th Street Interchange Alternative (which includes the East Frontage Road) could be realigned in order to mitigate impacts to the High Forest Fen area.

27-28. Woodlands and Drainage Area Crossings
For acres of woodlands impacted, the rankings were:

- 0-10 acres = least impact
- 11-20 = more impact
- 21+ = most impact

For the number of streams/rivers, the rankings were:

- 0-10 streams/rivers impacted = least impact
- 11-20 = more impact
- 21+ = most impact

29-30. Historic Properties and Archaeological Sites
There is a previously identified archaeological site (burial mounds) under runway 02/20 north of existing TH 30. However, no proposed roadways run through the site, so ranking of "least impact" was given. Impacts of the project on these and other potential sites will be studied under the Section 106 review as part of the Environmental Assessment process. The Environmental Assessment process will be completed later in project development.

31-33. Parks, Trail Systems, and Minority or Low Income Populations
No parks are impacted by either alternative, nor are any minority or low income populations. Oak Summit Golf Course is a privately-owned course located on CSAH 16, but it is situated west of the
improvements and is not impacted. The *ROCOG 2035 Transportation Plan's Urban Area Bikeway Map* identifies a trail on the west side of TH 63 from CSAH 16 to 48th Street. The Build Alternatives would provide an opportunity for part of this desired trail where it connects to CSAH 16. There is also the desire to have a trail connecting Rochester and Stewartville near TH 63. The No-Build Alternative was assessed as "poor" because it does not further the *ROCOG 2035 Transportation Plan's Urban Area Bikeway Map*. 
Social Impacts

34. Partial and Full Acquisitions
Numerical values are shown in each cell, but no rankings are given due to the subjectivity that would be involved with assigning rankings to acquired parcels. Values were determined both within and outside of the Ultimate Airport Boundary. All Build Alternatives have one full acquisition in the northeast quadrant of the TH 63/CSAH 16 Interchange. The East Frontage Road and East Backage Road Alternatives also have a second full acquisition in this same quadrant resulting from the folded diamond interchange configuration that is paired with these alternatives.

35. Public At-Grade Access Points
Public at-grade accesses to TH 63 provide access to three commercial/industrial uses adjacent to the roadway between CSAH 16 and the I-90/TH 63 Interchange. These accesses will be closed as TH 63 transitions to a freeway in the Build Alternative resulting in longer distances traveled to reach the highway.

36. Acres of ROW (Total)
Numerical values are shown in each cell, but no rankings are given due to the subjectivity that would be involved with assigning rankings to acquired parcels. Values were determined both within and outside of the Ultimate Airport Boundary.
Economic

37. Estimated cost (TOTAL)
Construction cost estimates include:

- TH 63 mainline = $5M/mile
- Standard ramps/loops less than 2,000 ft = $0.5M/ramp
- Long ramps/loops 2,000 ft or greater = $1M/ramp
- CSAH 16 (3-lane with median) = $3M/mile
- TH 30 designation (2-lane rural) = $1.5M/mile
- Local 2-lane urban roadways = $2.5M/mile
- Local 2-lane rural roadways = $1.5M/mile
- Bridges = $150/sq. ft.

Design and construction administration costs are estimated at 20 percent of construction cost.

ROW costs assumptions were based on a February 1, 2010, memorandum from Charlie Reiter. The figures include acres within and outside of the Ultimate Airport Boundary. ROW costs assume market rate for the various parcels. Land within the Airport Ultimate Boundary was given a range of 0 to 100 percent of the market value due to the uncertainty of how much, if any, would need to be paid back to various agencies contributing to the original land purchase. ROW cost assumptions include:

- Class A: Agricultural ($4,500/acre)
- Class B1: Urban commercial/industrial with city sewer/water available ($130,000/acre)
- Class B2: Suburban commercial/industrial - developed, but without city services ($65,000/acre)
- Class B3: Urban commercial/industrial undeveloped with airport zoning restrictions ($40,000/acre)
- Class C: Suburban residential without city sewer/water ($40,000/acre)
- Class D1: Transitional residential/agricultural (future urban services likely) ($15,000/acre)
- Class D2: Transitional agricultural/commercial (future urban services unlikely, but location advantaged) ($8,000/acre)

Miscellaneous costs include items such as relocation costs for full takings, wetland mitigation, rock cuts, mitigation of impacts to airport navigation lights, etc. At this time, the only miscellaneous costs identified include relocation costs for full takings, which were assumed to be two times fair market value.
Area 3: North of CSAH 16  
Evaluation Matrix Comments

Note: A No-Build Alternative will be carried into the environmental document. However, this discussion is meant to be the beginning of the framework used to support the need for improvements in this area.

1-2. LOCAL ROAD SYSTEM
Access was measured as the ability to get on TH 63 during the a.m. and p.m. peak hour. Access was ranked as "poor" for the No-Build Alternative because the operational analysis showed that access to TH 63 at the existing at-grade intersections will be difficult during the a.m. and p.m. peak periods due to long delays. Also, as traffic volumes on the mainline increase, and the availability of gaps decrease, or as the demand for gaps increase, drivers will take more risks when entering mainline traffic (e.g., willing to accept smaller gaps), thereby increasing the risk of a crash and affecting safety along TH 63 under the No-Build Alternative. The Build Alternative was ranked as "fair" since the at-grade intersections along TH 63 will be replaced with local roads that will direct the TH 63-destined traffic to an adjacent interchange.

3. SYSTEM CONTINUITY
System continuity, connectivity, and local trip distribution were measured as the ability to get from "point A to point B" (e.g., directness) with consideration given to appropriate distribution of local trips. While the No-Build Alternative provides direct connections to TH 63, it was ranked as "poor" since the ability to get from "point A to point B" is severely limited at the at-grade intersections during the peak periods as a result of insufficient gaps in traffic along TH 63. The Build Alternative was ranked as "fair" because the local improvements improve connectivity when compared to the No-Build Alternative.

4. INTERSECTION OPERATIONS
The No-Build Alternative was ranked as "poor" since none of the existing key at-grade intersections will operate at acceptable LOS "D" or better under the year 2040 No-Build conditions. The local road Build Alternative was ranked as "good" since it eliminates all at-grade intersections on TH 63 from CSAH 16 to 48th Street.

5. ROAD/INTERCHANGE CAPACITY
The No-Build Alternative was ranked as "fair" since the year 2040 No-Build volume on TH 63 between CSAH 16 and 48th Street is "near capacity" (or within 10 percent of the planning-level capacity of a four-lane rural roadway or 38,000 vpd). The local road build alternative was ranked as "good" since the year 2040 volumes between CSAH 16 and 48th Street are "under capacity" (or equal to or greater than 10 percent below the capacity of the roadway).

6. RAMP CAPACITY
Both alternatives were ranked as "good" since the forecast year 2040 volumes within the TH 63/48th Street Interchange area fall within the capacity of the proposed ramps.
7. Existing Safety Concerns
The No-Build Alternative was given a "no" since it does not propose any safety improvements. As traffic volumes on TH 63 increase, and the availability of gaps decrease, or as the demand for gaps increase, drivers will take more risks when entering mainline traffic (e.g., willing to accept smaller gaps), thereby increasing the risk of a crash and affecting safety along TH 63 under the No-Build Alternative. The local road Build Alternative was given a "yes" since it eliminates all at-grade intersections along TH 63 from CSAH 16 to 48th Street.

8. Reserve Capacity
The Build and No-Build Alternatives were ranked as "good" since the ramp nodes will be under capacity. The No-Build Alternative assumes the recent improvements to the 48th Street Interchange including: installation of a traffic signal at the East Ramps, installation of a dual left-turn lane on the southbound approach at the West Ramps, and the optimization of the traffic signal timing within the interchange area.

9. IRC Speed Performance
The No-Build Alternative was ranked as "poor" since it will not likely be within 2 mph of the IRC speed performance goal of 55.9 mph in 2040 (the modeled year for the current study). Under No Build conditions, speed performance was forecasted to be 54.0 mph by 2028 in the Minnesota Statewide Transportation Plan. It can be reasonably assumed that speed performance will fall from 54.0 in 2028 to below 53.9 mph by 2040 due to increased traffic and access issues, thus TH 63 will no longer be considered in the "near category" for its speed performance goal.

10. Access
The No-Build Alternative was ranked as "poor" since the existing private TH 63 accesses between 48th Street and CSAH 16 are not consistent with the Mn/DOT Access Management Manual. It is also not consistent with the goal of transitioning the corridor to a freeway facility as documented in various studies.

11. Interchange Spacing (Mainline)
The No-Build Alternative was ranked as "poor" due to the fact that several existing TH 63 accesses between 48th Street and CSAH 16 fall within the minimum one-half mile spacing between the merge point of the closest interchange ramp and an at-grade intersection as stated in the Mn/DOT Access Management Manual guidelines. The Build Alternative was ranked as "good" since it eliminates all at-grade intersections on TH 63 from CSAH 16 to 48th Street.

12. Interchange Spacing (Side Street)
Interchange ramp to first intersection spacing (48th Street) was given a "good" for both Alternatives.
13-14. DESIGN STANDARDS
The No-Build Alternative was ranked as "fair" in regard to design adequacy for truck traffic. The Build Alternative was ranked as "good" since it includes access closures that make TH 63 safer and new roadways to improve local connectivity. Segments of existing roads that would provide truck access to local businesses may need to be upgraded to meet standards.

15. INTERCITY AND/OR LIGHT RAIL CONNECTIONS
All No-Build and Build Alternatives were given a "N/A" since no specific light rail or intercity passenger rail alignments that would connect to the Airport are known. It is assumed that any future passenger rail alignments would take into account and be compatible with future planned roadway improvements. Potential Southern Rail Corridor alignments will run parallel to I-90 and are not in the area of the improvements north of CSAH 16.

16. NON-MOTORIZED TRAVEL
The Build Alternative was ranked as "good" since it will provide new roadways/opportunities to include non-motorized travel options within the right-of-way compared to the No-Build Alternative, which was ranked as "fair." In addition, the Build Alternative would provide opportunities for developing non-motorized options along lower speed roadways to all properties along the TH 63.

17-22. AIRPORT SAFETY REQUIREMENTS
Both the Build and No-Build Alternatives have no impact on airport navigational aides or runway operations during construction; therefore, they are identified as N/A and meet state and federal aviation requirements.

23. COMPREHENSIVE PLANS
The No-Build Alternative was ranked as "poor" since it is inconsistent with transitioning TH 63 to a freeway facility as described in the ROCOG 2035 Long Range Transportation Plan and the Highway 63 South Corridor Study. Other relevant text in the ROCOG 2035 Long Range Transportation Plan includes:

- “Frontage or backage roads should be provided in conjunction with all new commercial or industrial development along freeway or expressway corridors and should be provided where possible in areas undergoing redevelopment” (Chapter 4A Freeways and Expressways).
- “Objective 6: Provide efficient access management along regionally significant transportation corridors.
  o Goal 6.1: Provide adequate accessibility through development of local access roads for non-residential land uses whose primary market access is from a limited access highway facility” (Chapter 2, Policy Direction 4: System Function and Structure).
Environmental Impacts

24-25. NWI Wetlands/FEMA Floodplains
Category #24 has three separate acreage amounts: National Wetlands Inventory (NWI) acres impacted, floodplain soils acres impacted (does not include FEMA floodplains), and hydric soils acres impacted (the Soil Survey Geographic (SSURGO) database for Olmsted County is the data source for floodplain and hydric soils). The ranked categories/color shading of the cell in the matrix correspond to the NWI acres impacted. Ranked categories were determined by examining the natural breaks in the data set. The rankings for NWI wetlands include:

- 0-10 acres = least impact
- 11-20 acres = more impact
- 21+ acres = most impact

For category #25, there were no FEMA floodplains impacted.

26. Biodiversity Areas/DNR Protected Areas
Potential biodiversity areas/DNR protected areas impacted include the High Forest Fen area just east of TH 63 between 80th Street and 85th Street. Alternatives running through the Fen would be ranked as "most impact," new roadways running near the High Forest Fen would be ranked as "more impact," and those not directly impacting the High Forest Fen area would be ranked as "least impact."

27-28. Woodlands and Drainage Area Crossings
For acres of woodlands impacted, the rankings were:

- 0-10 acres = least impact
- 11-20 = more impact
- 21+ = most impact

For the number of streams/rivers, the rankings were:

- 0-10 streams/rivers impacted = least impact
- 11-20 = more impact
- 21+ = most impact

29-30. Historic Properties and Archaeological Sites
There are two previously identified archaeological sites in the proximity of both alternatives, resulting in a ranking of "more impact" for the Build and No-Build Alternatives. Impacts of the project on these and other potential sites will be studied under the Section 106 review as part of the Environmental Assessment process. The Environmental Assessment process will be completed later in project development.
31-33. PARKS, TRAIL SYSTEMS, AND MINORITY OR LOW INCOME POPULATIONS

No parks are impacted by either alternative, nor are any minority or low income populations. Oak Summit Golf Course is a privately-owned course located on CSAH 16, but it is situated west of the improvements and is not impacted. The ROCOG 2035 Transportation Plan’s Urban Area Bikeway Map identifies a trail on the west side of TH 63 from CSAH 16 to 48th Street. The Build Alternatives would provide an opportunity for part of this desired trail where it connects to CSAH 16. There is also the desire to have a trail connecting Rochester and Stewartville near TH 63. The No-Build Alternative was assessed as "poor" because it does not further the ROCOG 2035 Transportation Plan’s Urban Area Bikeway Map.
Social Impacts

34. Partial and Full Acquisitions
Numerical values are shown in each cell, but no rankings are given due to the subjectivity that would be involved with assigning rankings to acquired parcels. Values were determined both within and outside of the Ultimate Airport Boundary.

35. Public At-Grade Access Points
Public at-grade accesses to TH 63 provide access to six commercial/industrial uses adjacent to the roadway between 48th Street and CSAH 16. These accesses will be closed as TH 63 transitions to a freeway in the Build Alternative resulting in longer distances traveled to reach the highway.

36. Acres of ROW (Total)
Numerical values are shown in each cell, but no rankings are given due to the subjectivity that would be involved with assigning rankings to acquired parcels. Values were determined both within and outside of the Ultimate Airport Boundary.
37. **Estimated cost (TOTAL)**

Construction cost estimates include:

- TH 63 mainline = $5M/mile
- Standard ramps/loops less than 2,000 ft = $0.5M/ramp
- Long ramps/loops 2,000 ft or greater = $1M/ramp
- CSAH 16 (3-lane with median) = $3M/mile
- MN 30 designation (2-lane rural) = $1.5M/mile
- Local 2-lane urban roadways = $2.5M/mile
- Local 2-lane rural roadways = $1.5M/mile
- Bridges = $150/sq. ft.

Design and construction administration costs are estimated at 20 percent of construction cost.

ROW costs assumptions were based on a February 1, 2010, memorandum from Charlie Reiter, ROCOG. The figures include acres within and outside of the Ultimate Airport Boundary. ROW costs assume market rate for the various parcels. Land within the Airport Ultimate Boundary was given a range of 0 to 100 percent of the market value due to the uncertainty of how much, if any, would need to be paid back to various agencies contributing to the original land purchase. ROW cost assumptions include:

- Class A: Agricultural ($4,500/acre)
- Class B1: Urban commercial/industrial with city sewer/water available ($130,000/acre)
- Class B2: Suburban commercial/industrial - developed, but without city services ($65,000/acre)
- Class B3: Urban commercial/industrial undeveloped with airport zoning restrictions ($40,000/acre)
- Class C: Suburban residential without city sewer/water ($40,000/acre)
- Class D1: Transitional residential/agricultural (future urban services likely) ($15,000/acre)
- Class D2: Transitional agricultural/commercial (future urban services unlikely, but location advantaged) ($8,000/acre)

Miscellaneous costs include items such as relocation costs for full takings, wetland mitigation, rock cuts, mitigation of impacts to airport navigation lights, etc. At this time, the only miscellaneous costs identified include relocation costs for full takings, which were assumed to be two times fair market value.