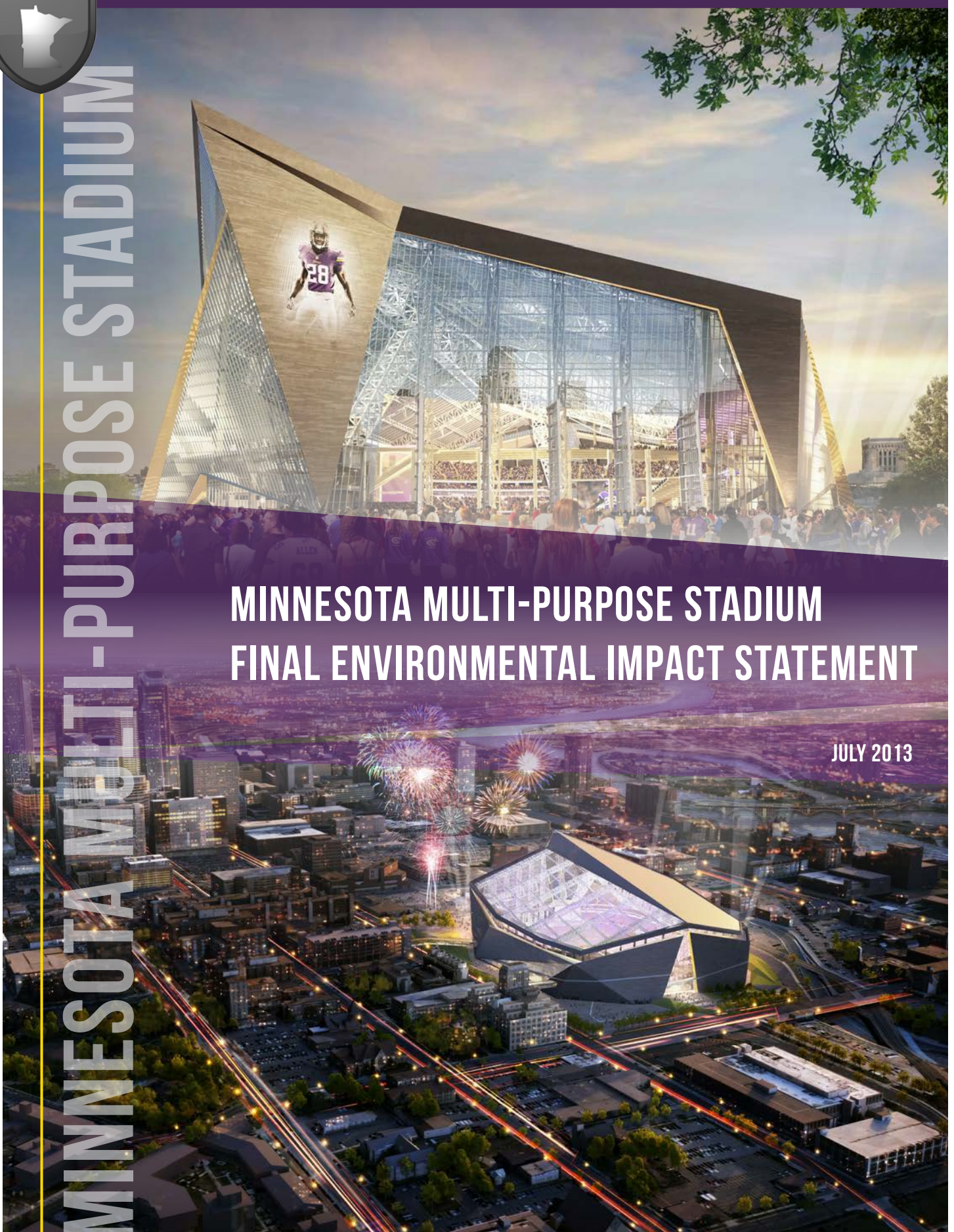




MINNESOTA MULTI-PURPOSE STADIUM

MINNESOTA MULTI-PURPOSE STADIUM FINAL ENVIRONMENTAL IMPACT STATEMENT

JULY 2013





FINAL ENVIRONMENTAL IMPACT STATEMENT

For

THE MINNESOTA MULTI-PURPOSE STADIUM

Downtown Minneapolis

Hennepin County, Minnesota

Responsible Governmental Unit (RGU) and Project Proposer: Minnesota Sports Facilities Authority (MSFA)

RGU Contact: Steve Maki
MSFA
900 South 5th Street
Minneapolis, Minnesota 55415
612-335-3313
steve.maki@msfa.com

Abstract: The MSFA has prepared a Final Environmental Impact Statement (Final EIS) under the Minnesota Environmental Policy Act for the proposed construction of the Minnesota Multi-Purpose Stadium. The Stadium will seat approximately 65,500 persons, with expansion up to 73,000 (maximum), and is for use by the Minnesota Vikings as well as other civic and community uses. The Proposed Project includes the Stadium structure and associated infrastructure improvements surrounding the Stadium site. The Stadium site is located from Park Avenue to 11th Avenue and 3rd Street to 6th Street on the current Hubert H. Humphrey Metrodome site.

Final EIS Comment Deadline:

August 19, 2013

Approved for Issuance for Public Comment:

7-29-13
Date


Michele Kelm-Helgen, Chair
Minnesota Sports Facilities Authority



List of Tables

Table 2.3-1. Preferred Alternative Summary
Table 3.4-1. Stormwater Runoff Summary Before/After Project
Table 3.4-2. Stormwater Management Criteria
Table 3.4-3. Required Water Quality Volumes for 1.25-inch Rainfall
Table 3.7-1. Non-Event Analysis Assumptions
Table 3.7-2. Event Analysis Assumptions
Table 3.7-3. 2017 Weekday Non-Event Analysis Results – AM Peak
Table 3.7-4. 2017 Weekday Non-Event Analysis Results – PM Peak
Table 3.7-5. 2030 Weekday Non-Event Analysis Results – AM Peak
Table 3.7-6. 2030 Weekday Non-Event Analysis Results – PM Peak
Table 3.7-7. Proposed Reserved Parking Plans
Table 3.7-8. Weekend Event Analysis Results – Arrival Peak
Table 3.7-9. Weekend Event Analysis Results – Departure Peak
Table 3.7-10. 2017 Weekend Event Park/Portland Closure Analysis Results – Arrival Peak
Table 3.7-11. Weekend Event Analysis Results – Arrival Peak
Table 3.7-12. 2017 No Action Event Freeway Analysis – Capacity Results
Table 3.7-13. 2017 Proposed Project Event Freeway Analysis – Capacity Results
Table 3.7-14. 2030 No Action Event Freeway Analysis – Capacity Results
Table 3.7-15. 2030 Proposed Project Event Freeway Analysis – Capacity Results
Table 3.7-16. Stadium Non-NFL Events
Table 3.7-17. Current Parking Use and Availability
Table 3.7-18. Estimated Parking Use and Availability 2017 Sunday No Action Event
Table 3.7-19. Estimated Parking Use and Availability 2017 Sunday Proposed Project Event – Reserved Parking Plan A
Table 3.7-20. Estimated Parking Use and Availability 2017 Sunday Proposed Project Event – Reserved Parking Plan B
Table 3.7-21. Estimated Parking Use and Availability 2017 Weekday Evening No Action Event
Table 3.7-22. Estimated Parking Use and Availability 2017 Weekday Evening Proposed Project Event – Reserved Parking Plan A
Table 3.7-23. Estimated Parking Use and Availability 2017 Weekday Evening Proposed Project Event – Reserved Parking Plan B
Table 3.7-24. Estimated Parking Use and Availability Weekday Non-Event No Action
Table 3.8-1. Background Carbon Monoxide Concentrations
Table 3.8-2. Project-Level MOVES2010 Input Data Sources



Table 3.8-3. MOVES2010 Carbon Monoxide Emissions Factors for Year 2017 Conditions

Table 3.8-4. Carbon Monoxide Modeling Results

Table 3.8-5. Background Carbon Monoxide Concentrations

Table 3.8-6. MOVES2010 Carbon Monoxide Emission Factors for Year 2014 Conditions

Table 3.8-7. Carbon Monoxide Modeling Results

Table 3.9-1. Decibel Levels of Common Noise Sources

Table 3.9-2. Minnesota State Noise Standards

Table 3.9-3. Field Measurement Summary Table

Table 3.9-4. Field Measurements and Predicted Noise Levels

Table 3.9-5. Traffic Noise Analysis Model Results (Weekday) – Receptors A-I

Table 3.9-6. Traffic Noise Analysis Model Results (Weekday) – Receptors J-Z

Table 3.9-7. Traffic Noise Analysis Model Results (Weekday) – Receptors AA-FF

Table 3.9-8. Traffic Noise Analysis Model Results (Weekend) – Receptors A-I

Table 3.9-9. Traffic Noise Analysis Model Results (Weekend) – Receptors J-Z

Table 3.9-10. Traffic Noise Analysis Model Results (Weekend) – Receptors AA-FF

Table 3.9-11. Measured Ambient Sound Levels

Table 3.9-12. Proposed Project-Generated Event Noise Levels

Table 5.1-1. Permits and Approvals Required



List of Figures^{*}

- Figure 1.1-1. Project Study Area
- Figure 2.2-1. Site Plan
- Figure 2.2-2. ADA Route Plans
- Figure 3.1-1. Blocks with Potential Contaminant Impacts
- Figure 3.2-1. Existing Utilities
- Figure 3.4-1. Existing Drainage
- Figure 3.4-2. Proposed Drainage
- Figure 3.7-1. Proposed Trip Distribution
- Figure 3.7-2. Proposed Weekday AM/PM Peak Analysis
- Figure 3.7-3. Proposed Option 1 Geometrics
- Figure 3.7-4. Proposed Option 2 Geometrics
- Figure 3.7-5. Proposed Weekend Event Arrival Analysis
- Figure 3.7-6. Proposed Weekend Event Departure Analysis
- Figure 3.7-7. Proposed Weekday Event Arrival Analysis
- Figure 3.7-8. Proposed Park/Portland Weekend Event Arrival Analysis
- Figure 3.7-9. Proposed Reserved Parking Plans
- Figure 3.7-10. 2017 No Action Event Freeway Traffic Issues
- Figure 3.7-11. 2017 Proposed Project Event Freeway Traffic Issues
- Figure 3.7-12. 2030 No Action Event Freeway Traffic Issues
- Figure 3.7-13. 2030 Proposed Project Event Freeway Traffic Issues
- Figure 3.7-14. Parking Zones
- Figure 3.7-15. Primary Pedestrian Routes
- Figure 3.7-16. 2017 Event Spectator Pedestrian Distribution
- Figure 3.7-17. 2030 Event Spectator Pedestrian Distribution
- Figure 3.7-18. Grade-Separated Pedestrian Access from Reserved Parking Areas
- Figure 3.7-19. Existing Bicycle Facilities
- Figure 3.7-20. Primary Bicycle Routes and Parking Routes
- Figure 3.7-21. TCF Bank Stadium Parking Zones
- Figure 3.8-1. National MSAT Emission Trends 1999-2050 for Vehicles Operating on Roadways Using EPA's MOVES2010b Model[†]
- Figure 3.9-1. Traffic Noise Analysis
- Figure 3.9-2. Noise Measurements and Noise Sensitive Areas

^{*} Unless otherwise noted, figures are at the end of the respective chapters.

[†] Figure is located in-text.



Figure 3.9-3. Stadium Event Noise Levels (dBA L₁₀)

Figure 3.10-1. Historic Districts and Buildings

Figure 3.12-1. Views of the Metrodome from Street Level

Figure 3.12-2. Views of the Metrodome and Minneapolis Skyline



List of Preparers

Agency/Organization	Environmental Impact Statement Responsibility
Minnesota Sports Facilities Authority	
Steve Maki	Project Manager
Minnesota Vikings	
James Cima	Senior Project Manager, Stadium Development
Hammes Group	
Scott Stenman	Project Director
Kimley-Horn and Associates, Inc.	
Dan Coyle, PE, LEED AP	Utilities and Infrastructure
Gary Ehret, PE	Senior Advisor
Jeff Fuller, INCE, REHS	Event Noise
Jeremy Gruzd	Event Lighting
Rachel Haase	Editor/Project Coordination
JoNette Kuhnau, PE, PTOE	Traffic, Parking
Beth Kunkel, PWS	Document Quality Control
Jessica Laabs, AICP	Scoping Document/Technical Editor
Tom Lincoln, PE	Utilities and Infrastructure
Jeanne Witzig, AICP	Project Manager
SRF Consulting Group, Inc.	
Beth Bartz, AICP	Senior Advisor
Patrick Corkle, PE, PTOE	Network Traffic and Parking
Brett Danner	Traffic Noise
Nancy Frick, AICP	Cumulative Effects, Social/Cultural, and Parkland Analyses
Lisa Goddard, PE, LEED AP	Stormwater
Paul Morris, PE	Air Quality
ZAN	
Kristin Petersen	Public Involvement/Social Analysis
Charleen Zimmer, AICP	Public Involvement/Social Analysis
AET	
Robert Kaiser	Soils and Contamination
Charles Tiller, PG, LEED AP BD&C	Soils and Contamination
Jeffrey Voyer, PE	Soils and Contamination
HKS	
Kevin Taylor, AIA	Project Manager
EVS	
Richard Koppy, PE	Stormwater
Dan Bowar, PE, LEED-AP	Stormwater



Glossary

Affected environment: the social, natural, and economic character of the area potentially affected by a proposed action

Air toxics: hazardous air pollutants that are known or suspected to cause serious health effects or adverse environmental effects

Alternative Urban Areawide Review (AUAR): An AUAR is an alternative environmental review that can replace an Environmental Assessment Worksheet or Environmental Impact Statement. Its subject is a development scenario for an entire geographical area rather than a specific project. However, it is permissible to review specific development projects through the AUAR process. See Minnesota Rules 4410.3600 and 4610.3610.

Alternatives: a set of options to achieve a desired outcome

Contraflow lane: A contraflow lane is a lane in which traffic flows in the opposite direction of the surrounding lanes.

Cumulative effect: the impact on the environment which results from the incremental impact of a proposed action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions

dBA: The symbol for a sound level measured on an A-weighted scale. The A-weighted scale gives more weight to those frequencies that are audible to the human ear and discounts those frequencies outside of the band of frequencies audible by the human ear.

Effects: Effects include direct and indirect effects. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable.

Environmental Impact Statement (EIS): A review process mandated in Minnesota law to assess the potential for significant environmental effects of a proposed action. The EIS provides information about the extent of the potential environmental impacts and how they may be avoided or minimized. An EIS is comprised of Draft and Final documents intended for government decision-makers who must approve the project, as well as the project proposer and the public.

US Environmental Protection Agency (EPA): The EPA leads the nation's environmental science, research, education, assessment, and regulation efforts.

Groundwater: subsurface water that fills available openings in rock or soil materials

L₁₀ noise level: a sound level that exceeds Minnesota State Noise Standards for 10 percent of the time for a one-hour period

L₅₀ noise level: a sound level that exceeds Minnesota State Noise Standards for 50 percent of the time for a one-hour period

Metrodome: the existing stadium located between 4th and 5th Streets and Chicago and 11th Avenues in downtown Minneapolis, Minnesota

Minnesota Environmental Review Program: The program is authorized by the Minnesota Environmental Policy Act (MEPA) and the rules promulgated pursuant to MEPA. Its purpose is to avoid and minimize damage to Minnesota's environmental resources caused by public and private actions. The program requires certain types of proposed projects to undergo special permits otherwise needed.



Minnesota Environmental Quality Board (EQB): State agency that adopts environmental review rules, monitors their effectiveness, and revises rules/regulations as appropriate. The EQB provides technical assistance to interpret and apply these rules.

Minnesota Pollution Control Agency (MPCA): A state agency whose purpose is to protect Minnesota's environment through monitoring environmental quality and enforcing environmental regulations.

Minnesota Sports Facilities Authority (MSFA): the project proposer and Responsible Governmental Unit (RGU) for the Minnesota Multi-Purpose Stadium

Mitigation: Mitigation includes a) avoiding the impacts altogether by not taking a certain action or parts of an action; b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; c) rectifying the impacts by repairing, rehabilitating, or restoring the affected environment; d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and e) compensating for the impact by replacing or providing substitute resources or environments.

National Ambient Air Quality Standards (NAAQS): As part of the Clean Air Act, amended in 1990, the EPA is required to set NAAQS for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards: primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly; and secondary standards set limits to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

National Pollutant Discharge Elimination System (NPDES): The NPDES is part of a national program for issuing, modifying, revoking, reissuing, terminating, monitoring, and enforcing water discharge permits and imposing and enforcing pretreatment requirements, in accordance with the Clean Water Act.

New Stadium: "Stadium" means the stadium suitable for professional football to be designed, constructed, and financed under this chapter (Minn. Stat. § 473J.03, subd. 8).

No Action Alternative: The option of taking no action. The No Action serves as a baseline for assessing the relative effects of the Build Alternative(s).

Noise Sensitive Areas: represents a potentially sensitive land use (residential property, park, school, hospital) where existing and/or forecast noise levels are monitored or modeled

Noise Area Classification (NAC): a classification system based on the land use activity at the location of a noise receptor and sets the noise standards application to that land use activity

Noise receptor: represents a potentially sensitive land use (residential property, park, school, hospital) where existing and/or forecast noise levels are monitored or modeled

Peak hour: one hour period of the day when traffic volumes are at their highest level

Potholing: Potholing means excavating to determine the location and depth of underground utilities. This is typically done with a vacuum truck hose and pneumatically removing soil.

Proposed Project: all elements of the project, including the new Stadium, stadium plazas, stadium infrastructure, demolition of the Metrodome, and temporary use of TCF Bank Stadium

Response Action Plan: A document that discusses the environmental conditions at the project site and the plan for appropriate handling of contaminated soil excavated at the project site. The RAP will be submitted to the MPCA for approval.



Responsible Governmental Unit (RGU): the governmental unit responsible for conducting the environmental review process, usually the unit with the greatest authority over the project as a whole

Runoff: the portion of the rainfall that is not absorbed by the ground, vegetation, or lost by evaporation, or that may find its way into receiving water bodies by surface flow

Scoping: the process of identifying a full range of actions, alternatives, and impacts to be considered in an EIS

Scoping Decision Document (SDD): This document identifies the alternatives dismissed from further consideration and the alternatives to be carried forward in the EIS. The SDD also helps to clarify and focus on the potentially significant environmental issues which will be analyzed in the EIS.

Stadium Implementation Committee: The Stadium legislation (473J.17, subd. 6) established a Stadium Implementation Committee and special procedure for all land use and development reviews and approvals by the City of Minneapolis for the new Stadium and related stadium infrastructure. The purpose of the Stadium Implementation Committee is to make recommendations on the design plans and issue these recommendations to the City of Minneapolis Planning Commission, which then makes an advisory recommendation to the city council for final action. According to the legislation, the MSFA shall provide no less than 60 days for the Stadium Implementation Committee's review. Members of the committee include eight appointees by the Minneapolis City Council and 17 community member appointees.

Stadium infrastructure: "Stadium infrastructure" means plazas, parking structures, rights of way, connectors, skyways and tunnels, and other such property, facilities, and improvements, owned by the MSFA or determined by the MSFA to facilitate the use and development of the stadium (Minn. Stat. § 473J.03, subd. 10).

Stadium plaza: "Stadium plaza" means the open air portion of the stadium adjacent to the stadium (Minn. Stat. § 473J.03, subd. 11).

Stadium site: "Stadium site" means all or portions of the current site of the existing football stadium and adjacent areas, bounded generally by Park and 11th Avenues and 3rd and 6th Streets in the city of Minneapolis, the definitive boundaries of which shall be determined by the MSFA and agreed to by the NFL team (Minn. Stat. § 473J.03, subd. 12).