AGENDA
PLANNING COMMISSION OF THE CITY OF WHITE BEAR LAKE, MINNESOTA
MONDAY, MARCH 27TH, 2023
7:00 P.M. IN THE CITY HALL COUNCIL CHAMBERS

1. **CALL TO ORDER AND ATTENDANCE**

2. **APPROVAL OF AGENDA**

3. **APPROVAL OF THE MINUTES**
   A. Minutes of the Planning Commission meeting on February 27, 2023

4. **PUBLIC HEARING**
   A. Case No. 21-3-CUPa: A request by **White Bear Lake Area Schools** for a conditional use permit amendment, per code section 1303.245, Subd.2.c.4, in order to add bleachers at the athletic stadium for a maximum capacity of 5000 seats at the property located at 5045 Division Avenue.

   B. Case No. 23-10-V: A request by **McNeely Music Center** for a variance from the 10 foot property line setback, per sign code section 1202.040, subd.2.B.1, in order to construct a freestanding dynamic display sign 3 inches from the street side property line on the property located at 4910 Highway 61.

5. **DISCUSSION ITEMS**
   A. Case No. 23-8-C: A presentation by **WBL DigniSuites RE, LLC** of their Concept Plan proposing to redevelop the property located at 2687 County Road D East and construct an approximately 6,000 sq. ft. memory care and assisted living facility with 14 units.

   B. City Council Meeting Overview

6. **ADJOURNMENT**

Next Regular City Council Meeting ..... April 11, 2023

Next Regular Planning Commission Meeting ..... April 24, 2023

MINUTES
PLANNING COMMISSION MEETING
OF THE CITY OF WHITE BEAR LAKE, MINNESOTA
MONDAY, FEBRUARY 27, 2023
7:00 P.M. IN THE COUNCIL CHAMBERS

1. CALL TO ORDER AND ATTENDANCE

MEMBERS PRESENT:	Mike Amundsen, Ken Baltzer, Jim Berry, Pamela Enz, Mark Lynch, Erich Reinhardt, Andrea West
MEMBERS ABSENT:	None
STAFF PRESENT:	Jason Lindahl, Community Development Director; Ashton Miller, City Planner; Tracy Shimek, Housing and Economic Development Coordinator; Shea Lawrence, Planning Technician
OTHERS PRESENT:	Lee Branwall, Mark Bigalk, Susan Welles, Ryan McKilligan, Josi Heron, Elisheba Churchill, Julie Crawford, Frank Watson, Joy Erickson, Jan Johnson, Ben Triplett, Mark Newstrand, Ann Koves, Al Rivard, Chris Greene, Nick Davis, Henry Elgersma

2. APPROVAL OF AGENDA

It was moved by Member **Lynch** and seconded by Member **West** to approve the agenda as presented.

Motion carried, 7:0.

3. APPROVAL OF THE MINUTES

A. Minutes of January 30, 2023

It was moved by Member **West** and seconded by Member **Enz** to approve the minutes of January 30, 2023.

Motion carried, 7:0.

4. CASE ITEMS

A. Case No. 23-6-V: A request by **Tammy and Mike Hilliard** for a variance from the 15 foot side yard setback on both the north and south side, per code section 1303.040, subd.5.c.2, and a variance from the 40 foot rear yard setback, per section 1303.040, Subd.5.c.3, in order to tear down and rebuild a single family home on the property located at 4815 Lake Avenue.

Ashton Miller, City Planner, discussed the case. Staff recommended approval of the request as proposed.

Member Berry opened the public hearing. No public comments were made. Member Berry closed the public hearing.

Member Amundsen explained that he appreciates that the applicants tried to stay within the grandfathered in conditions on the lot.

It was moved by Member **Baltzer** to recommend approval of Case No. 23-6-V, seconded by Member **Enz**.

Motion carried, 7:0.

B. Case No. 23-7-CUP: A request by **A New Hope Preschool** for a conditional use permit, per code section 1302.140, in order to operate a day care facility on the property located at 955 Wildwood Road.

Miller discussed the case. Staff recommended approval of the request as proposed.

Member West asked City staff for details on the condition of approval regarding transporting children to and from the park. Miller responded that the City doesn't have specific requirements listed in the code. Miller explained that the State is responsible for licensing childcare facilities, so they may have more specific requirements to look in to.

Member West explained that she has concerns about the feasibility of transporting children of varying ages to the nearby park. Miller explained that the applicant is also exploring adding an outdoor play area in the rear of the property.

Member Lynch explained that he has similar concerns as Member West in regards to transporting the children. He continued that he recently drove around the back of the building and that it doesn't appear to be a very inviting place.

Member Lynch asked where the current location is. Miller responded they are on the County Rd E on the west side of the city. Member Berry added that it is located off Linden by the strip mall.

Member Berry mentioned that the fire department had concerns about the maintaining access to the back of this building during a previous case the commission considered at this strip mall, which may conflict with a potential play area. Member Berry asked if any of these concerns came up during the review process.

Miller responded that the City only received the play area plans earlier in the day and staff have not yet analyzed it and have not had the opportunity to send to the Fire Marshal.

Elisheba Churchill, the applicant, agreed that using the nearby park's playground is not ideal. She explained that she also has concerns about travel and she would hope to use the proposed play space in the rear of the building for the toddlers so that they would not have to bus them to a park. Churchill also explained that there are many childcare bus options nowadays that have good safety features. She added that there is plenty of play space inside the facility as well.

Chris Greene, 3587 Glen Oaks Ave, noted that the proposed daycare is located next to a nail salon which can have poor air quality and pose a health risk. He asked if the unit has their own separate HVAC system independent from the neighbors or if there is the intent to do air quality testing.

Churchill explained that their unit has a separate HVAC system from the nail salon and strip mall. The daycare site has 2 of their own HVAC systems. Churchill continued by explaining that she works with many different organizations during this process including the State of Minnesota for licensing, the Fire Marshal and City Inspectors. She explained that she was able to successfully turn an office building into a childcare facility at her current location.

Churchill discussed the need for daycare in general, and the particular need amongst the middle class for accessible child care. She explained that she wants to be able to provide quality care at low cost while also properly compensating her employees.

Al Rivard, 3590 Glen Oaks Ave, explained that the parking lot at the nearby park isn't close to the playground equipment.

Julie Crawford, 3596 Linden Ave, the Assistant Director for the New Hope Preschool, explained that when traveling with children it is standard that they provide an extra staff member for the trip. She also explained that they use a rope with handles for the children to hold on to while walking and they typically use brightly colored safety vests and a handheld stop sign on their trips.

Member Enz expressed that she agrees with the applicant about the need for childcare.

Member Lynch explained that he has fewer concerns now after hearing from Churchill.

It was moved by Member **Enz** to recommend approval of Case No. 23-7-CUP, seconded by Member **West**.

Motion carried, 7:0.

5. DISCUSSION ITEMS

A. **Case No. 23-8-C:** A presentation by **Element Design-Build** of their Concept Plan proposing to redevelop the 2502 County Rd. E site to build apartments and townhomes.

Jason Lindahl, Community Development Director, discussed the case. After discussing the case, Lindahl explained that because this is a concept review there will be no staff recommendation for approval or denial at this stage. He explained staff could take comments from the Commission or the public at this time.

Member West asked for clarification on the rear deviation listed as 96 feet on the map although it also lists a 25 foot setback. Lindahl explained that on a corner lot the shortest side of the lot is considered the front. He explains that measured from the back of the apartment build to the property line at Jansen Avenue is approximately 96 ft. Member Berry clarified that the 96 ft. is reflective of the apartment building's setback, not the townhomes. Lindahl responded yes, and that there is a table in the staff report that reflects the setbacks of both the apartments and townhomes. Lindahl explained it shows that the structure's rear and interior side yard meet the requirements for the R-6 district but the front and street facing side yard do not. Member Amundsen clarified that the apartment building is oriented north and the townhomes are oriented to the west.

Member Enz asked if staff foresees a problem for people trying to take a left turn when heading north on Bellaire Ave if the building is too close to the road. Member Berry responded that there is a sidewalk already there that won't be encroached, so sight lines will be retained.

Ryan McKilligan, the founder and project manager for Element Design-Build, explained that they originally became aware of the site through the County Rd E Corridor Action Plan Process. He explained they have done significant door knocking and visited nearby properties to hear from the local community and research the area. He noted that the following topics came up during their research: parking, concerns about number of units, and the long term management of the property.

McKilligan noted the uniqueness of the lot because the northwest corner would make sense for high density housing and would benefit the nearby businesses with the foot traffic, but the southwest corner of the lot is near a low density neighborhood. Because of this, their design focuses the greatest density housing with the 3 story apartment building closest to the County Rd E and Bellaire Ave intersection and then steps down to lower density 2 story townhomes towards the residential neighborhood. There will be a vegetative buffer space in the 25 ft. setback on the east side of the property. He explained that the design focuses on activating the street space on the first floor by locating communal spaces, such as the fitness area, reception and meeting spaces towards the street and then utilizes the rest of the ground floor for parking.

McKilligan discussed that the property is guided Neighborhood Mixed Use in the Comprehensive Plan which allows for a wide range of commercial uses. After talking to various developers and realtors, they determined other uses would not be economically

viable because the current building would need to be torn down for new construction.

McKilligan discussed that a lot of the feedback he received from the community was that they didn't want parking to overflow on to Bellaire or Jansen. He explained that they have a management plan to address the parking issue. Rather than assign stalls, each unit in the building will be permitted to park in any of the stalls. He explained that parking in the lot will not come at an additional cost. Each unit will be permitted the same number of parked cars as bedrooms. Based on the number of bedrooms and parking stalls, that would leave 6 extra stalls for guest parking.

McKilligan expressed that people want to see something done at this location and it's a shame this intersection hasn't been able to find a fitting use. He believes that having this residential anchor could help increase foot traffic and therefore viability for other potential businesses at the intersection.

Member Berry explained that he is the president of his townhome association, and he understands that parking can be an issue. He explained that he likes the concept for the lot. Member Berry then asked for more clarification on parking regulations, including what would happen if tenants have an extra, unregistered car parked in the lot. McKilligan explained that if an unregistered car is consistently in the lot they would be able to find out whose car it is and rectify the situation. Member Berry expressed that he knows that parking can be difficult to manage and that residents in the community probably don't want to see overflow parking on Jansen, considering it is a school bus route.

Member Lynch explained that he believes parking will be more of an issue on Bellaire than Jansen. He added that street parking occurs in all neighborhoods, both single family and high density areas, with visitors and families with children who drive. Member Lynch explained that he sees two main issues with the parking. One issue being that there could be couples who rent a one bedroom apartment who will have 2 cars but only be allowed one registered car. He also explained that it appears the covered parking area would not be easy to navigate. Member Lynch added that he doesn't think the apartments at the other end of Bellaire are comparable to this concept in regards to their parking situation. The Bellaire apartment's parking lot is farther away and so it's more convenient for the tenants to park on the street.

Member Lynch added that the developers should plan to plant a line of trees that grow both fast and trees that grow slow so the tree line develops quickly and lasts. He explained he likes the concept overall and that it tapers down towards residential.

Member Amundsen explained that he appreciates the design, and believes White Bear Lake needs a lot more projects like this. He explained that because White Bear Lake is a fully developed community, we should take these smaller opportunities when they come. Member Amundsen added that parking tends to figure itself out and that people

who have more parking needs may choose to live somewhere else. Member Amundsen also added that he thinks the project could even be greater density. He explained that he really likes the concept overall.

Member Enz explained that she appreciates that the largest part faces the busiest part and then tapers down so it blends into the neighborhood. She continued to say she agrees that the covered parking area may be tricky to navigate. She explained that she really liked the concept and that it could serve as an impetus for the other corners.

Member West explained that she agrees with Member Enz about the tapering down to the nearby neighborhood. She explained that it has been hard to see the gas station close and the lot to sit vacant and get worse over time. She added that she appreciates the proposed concept and that the developers are listening to the community, participated in the Corridor study and are addressing the concerns they heard at the community meeting.

Member Baltzer commented that he likes the concept.

Member Reinhardt echoed that he agrees it's a great concept and use of the space considering its current condition, but is concerned about the parking situation. He appreciates that they want to manage the parking but that in reality it may not be that easy.

Member Enz added that this is a step in the right direction for affordable housing options for the younger generation in White Bear Lake. She explained that they should focus more on this than on the parking situation. She added that she agrees with Member Amundsen that parking does tend to straighten itself out.

Lee Branwall of 3583 Glen Oaks Ave explained that he represents 12 people who live in the area who have discussed their concerns about the project. He noted that there would be a significant number of variances for the project. He explained they have concerns about the following things: building height, design compatibility, unit density, parking and increased traffic on Jansen. Branwall also added that there are not commercial buildings over 1 story on the south side of County Rd E. Member Berry noted that Level Up Academy is a multi-story building.

Branwall explained that there has not been any building like this on County Rd E. He explained he is concerned about increased storm water runoff and doesn't think the proposed underground tanks will be sufficient in the winter. He has concerns that the snow piles will melt into the neighbor's properties and there will be increased runoff into Peppertree Pond. Branwall asked if Ramsey County has been contacted in regards to storm water management. Member Berry explained that because there has not be an official proposal they have not been contacted, but if there is an official proposal, they will be contacted.

Branwall mentioned they have concerns about the trees on the lot being removed. He added that they would prefer a single story building on the lot and that they do want to see something developed on there. He explained that 2 story townhouses might be acceptable to them depending on the height of the roofs. He also suggested an office building for the lot. Member Berry explains that a 1 story commercial or office type building would likely involve even more asphalt parking.

Member Lynch asked City Staff about the City's tree preservation requirement. Miller responded that a tree survey would be required before tree removal and that the survey would guide the developer's to know how many trees they must replace on the lot.

Branwall suggested that the developers could trade their property for another to develop elsewhere. He also noted the proposed 6 ft. fence and added that a fence won't have much impact on preserving the privacy for the neighboring community. He also added that the anonymous comments the Community Development Department received should not be considered if they don't live in the area.

Member Lynch, noted that the plan doesn't show any windows on the east side of the building and asked the developer if there will be windows there. McKilligan explained that it is still in the design phase, so there is potential for more windows.

Branwall asked if the townhomes will be sold or rented. McKilligan answered that they are still deciding about that.

Al Rivard, of 3591 Glen Oaks Ave discussed concerns about water runoff for the site. Member Berry explained that storm water management will be assessed if there is an official application.

Rivard asked if the developers have received the results of the soil borings from the site and where they were taken from on the site. McKilligan responded that there were no issues with environmental concerns at this time and that they received a clean phase one report. He added that they do have some soil corrections that need to be made. McKilligan explained that 4 borings were taken from various locations on the site.

Rivard brought up concerns about long term pollution issues on the site because it is a former gas station. Member Berry mentioned that the State did a test on the site when they took the tanks out and the report was clean.

Rivard explained that Jansen is not a wide street. He also inquired if it would be difficult to make a right turn from Bellaire to County Rd E when there are cars parked there. He asked the developers what the dimensions on the parking stalls are. The architect for the project, Henry Elgersma, responded that he believes they are 9 feet by 18 or 20 feet

and that the drive aisle is 24 feet.

Chris Greene, 3587 Glen Oaks Ave, encouraged the Commissioners to visit the site and picture a 3 story building on that corner. He explained that he is hopeful something can be done in order to scale this project back.

Jan Johnson who owns the building at 2479 County Rd E. and used to live on Glen Oaks Ave, explained that when she opened her business in 1988 it was a viable business area. She explained she was involved in the Corridor E Project and appreciated the opportunity to better understand the issues and opportunities facing this area. She continued that she appreciates the comments and concerns regarding parking and height, but suggested that maybe it is time to consider something new and more attractive to a younger generation. She added that there are people who support something being done on this site.

Joy Erickson, who lives on the North Side of the White Bear Lake explained she is passionate about the development of this corridor and she that appreciates the approach the developers took with their concept. She also added that people with 3 cars probably won't want to live here so parking might not be such an issue.

Ben Triplett, 3596 Glen Oaks Ave, explained that he thinks it's a really nice design but that the lot is too small for it. He added that it will add too much traffic. He explained that he wants to see something go on that lot, but this should not be it. He suggested that they tear the existing building down and put some benches so people can enjoy it.

Mike Bigalk, 3594 Glen Oaks Ave, explained that a 3 story building would tower over all the nearby houses. He added that a 1 or 2 story building would be better and that the additional traffic would make it less safe for pedestrians. He encouraged the commissioners to visit the property.

Fred Watson, 3569 Glen Oaks Ave, mentioned that parking on the street is not illegal and that's where the overflow parking will park. He added that everyone on the pond would probably like to know how this apartment complex will impact them in regards to water runoff. He would like to see something built on the lot. He overall likes the design and the step down but would like to see something less dense.

Member Berry asked City staff if the storm water has been considered at this point in the process. Lindahl responded that the concept plan process does not require the developer to include storm water runoff details. If the applicant chooses to move forward with a formal application, they would be required to meet all the standards and regulations of the City and Watershed District.

In response to a question from Member Lynch, Lindahl confirmed that the applicant would be required to submit a storm water management plan for the City and

Watershed district to review prior to building permit approval.

Branwall mentioned runoff and that he believes the lot currently drains to the south and thinks that if this is constructed it will drain to the southeast. Member Berry explained that we cannot know where the water runoff will drain to because the storm water management plan has not been created yet.

McKilligan explained that through the geotechnical report, they will learn what methods they can use to manage the storm water. He added that the 25 foot setback area could potentially be used as a bio swale. He concluded that they will not be able to build on the lot without first addressing storm water management and that it would be an improvement from the current site that doesn't have much for storm water treatment in place.

Rivard asked about the size of the meeting space shown on the concept plan, and explained that it appears small. Member Berry explained that this is only a concept plan at this phase. Member Lynch added that not every tenant would use the communal spaces at the same time.

Lindahl added that there are certain zoning standards regarding the amount of open space related to unit count. These standards would be considered if and when the applicant chooses to submit a formal application.

Branwall asked if the building will be handicap accessible. Elgersma answers that it will meet all required standards and codes and that there will be designated handicap parking spots and an accessible unit. He explained that the building will not have an elevator, so the entire building is not accessible.

Member Lynch explained that he likes the proposal. He added that with some possible tweaks it is close to perfect.

Lindahl explained that this item will move on to the City Council Meeting on March 14. Member Enz asked if community will be invited to speak on this item at the City Council meeting. Lindahl responded yes.

B. City Council Meeting Overview

Lindahl provided an overview of last month's Planning Commission cases that went to City Council. He explained that all 6 items from last month received unanimous approval from the Planning Commission and that 5 were on the consent agenda. The application for a Conditional Use Permit for The Minnesotan was a discussion item. All 6 cases were approved by City Council. The Minnesotan's next step will be to acquire their liquor licensing.

Lindahl explained that City Council also approved an RFP for updating the City's Zoning Code. Staff are currently drafting the RFP to have it out by early March and open for 30 days so that proposals can be reviewed in April and staff can make recommendations to City Council and have a consultant selected by early May.

Member Lynch asked about the timeline for the zoning code update. Lindahl responded that there would be a few months of internal work with the consultant before the portion of the process that includes the community which would likely start in July or August. The process will be completed over the course of about a year, by the end of 2024. Lindahl added that once there is a consultant selected, staff will work with them to recommend a steering committee. The steering committee should include some City Council members, Planning Commissioners and some advisory people from the community. The City Council will be responsible for approving that committee.

Lindahl also discussed the Housing Work Session that the City Council held last week that looked back at the Housing Taskforce Report and the implementation strategies from it. Staff asked Council to identify a priority redevelopment site out of the eight city owned properties. Council identified the site located at the corner of County Rd E and Bellaire. Council would like staff to draft an RFP for Council to review. The timeline for this would be to have the RFP in place within the first half of the year.

Lindahl explained that part of the process for this site would include connecting with the neighboring sites.

Member Lynch asked if this lot is smaller than the lot owned by Element Design-Build. Tracy Shimek, Housing and Economic Development Coordinator responded that yes, the lot is slightly smaller.

Member Berry explained that he's heard it has been hard to get in touch with anybody about the sale of the Super America lot, 2491 County Road E. Shimek added that she has heard they have switched to a local realtor and that people have been touring the site. She explained that staff have also received multiple inquires about potential uses for the site.

6. ADJOURNMENT

There being no further business before the Commission, it was moved by Member **Lynch**, seconded by Member **Baltzer** to adjourn the meeting at 9:44 p.m.

Motion carried, 7:0.

City of White Bear Lake
Community Development Department

MEMORANDUM

TO: Planning Commission
FROM: Jason Lindahl AICP, Community Development Director
DATE: March 27, 2023
SUBJECT: **5045 Division Avenue Conditional Use Permit Amendment, White Bear Lake ISD #624 - Case No. 21-3-CUPa**

SUMMARY
The applicant, Wold Architects on behalf of the White Bear Lake Area Schools, requests an amendment to the conditional use permit for the North High School Campus expansion. The proposed conditional use permit amendment would allow expansion of the previously approved athletic stadium from 1,500 seats to a total of 5,000 seats. According to the applicant, this expansion is necessary to relocate varsity football games from South Campus to the remodeled and expanded North Campus. Based on the findings detailed in this report, staff finds the applicant has satisfied the conditional use permit review criteria in Section 1301.050 and recommends approval of this request, subject to conditions.

GENERAL INFORMATION

Applicant/Owner:	Wold Architects / Independent School District #624
Existing Land Use / Zoning:	School; Zoned P: Public Facilities
Surrounding Land Use / Zoning:	North: Single Family Residential, Railroad Tracks and City's Corporate Limits/R-1, Suburban Residential (White Bear Lake Township) South & East: Single Family Homes/R-4: Single Family – Two Family Residential West: Single Family Homes/R-3: Single Family Residential
Comprehensive Plan:	Public/Semi-Public
Lot Size & Width:	Code: None Site: 90 Acres & 890 feet

BACKGROUND INFORMATION
In 2021, the applicant sought and the city approved a conditional use permit (CUP) to allow an approximately 398,000 square foot addition to the North Campus of White Bear Lake High School that included the following components:

- A three-story classroom addition around the exiting two-story classroom wing;
- A two-level performing arts wing and new 845 seat auditorium; and
- A five-court fieldhouse with auxiliary gymnasium and athletic training facilities.

Other planned improvements to the campus include new internal access roads, parking lots, sidewalks, stormwater management features, athletic/activity fields and stadiums, and utility infrastructure to support the expanded high school. The project also includes extensive renovation throughout the existing building which will result in 123 individual classrooms clustered into learning studios, laboratories, and workshops designed to accommodate student learning in a wide variety of flexible environments.

As part of the city's original review process, the applicant conducted a mandatory Environmental Assessment Worksheet (EAW). The EAW analyzes a standard list of questions based on Minnesota Rule and guidance from the Minnesota Environmental Quality Board (EQB). The EQB is the State's organization that oversees the rules and implementation of Minnesota's environmental review process. The standard list of questions includes reviewing impacts to such topics as storm water quality and quantity, habitat, traffic, municipal infrastructure, soils, and land use. The EAW along with the City's zoning regulation served as the primary review documents for the original CUP. The original CUP was approved through Resolution 12750 which is attached for your reference. The original EAW project description stated "the proposed facilities will accommodate a variety of activities including, but not limited to, physical education classes and team sports such as football, soccer, lacrosse, tennis, track & field, etc. The centrally located track and field is proposed to include "stadium lighting" for evening events. At this time the seating capacity (bleachers) is being planned for approximately 1,000 spectators and larger events (e.g., varsity football) will continue to utilize the ISD 624 stadium facility located at South Campus."

The applicant's current application seeks to amend the original CUP to allow expansion of the previously approved athletic stadium from 1,500 seats to a total of 5,000 seats. As part of the review of the CUP amendment, the applicant was required to update the traffic study that was part of the original EAW (see attached). The EAW, updated traffic study and the City's zoning regulations serve as the primary review documents for the prposed CUP amendment.

Neighborhood Meeting. City Code requires any new or amended conditional use permit application that is either within or adjacent to a residential district is required to hold a neighborhood meeting. The intent of requiring neighborhood meetings is to expand and enhance the dissemination of information to the residents and to encourage greater involvement by the community in the planning process.

In this case, the applicant held their neighborhood meeting at the North Campus Union on Wednesday, March 15, 2023. A copy of the invitation to that meeting and a summary of the discussion is attached for your reference. Fourteen (14) people attended the neighborhood meeting. Of those in attendance, about half asked questioned and voiced concerns and opposition to the proposed bleacher expansion. Topics discussed during the meeting included: current traffic and congestion, findings from the original and updated traffic study, potential

traffic mitigation measures, size of the proposed bleachers and estimated event attendance, traffic and parking impacts on surrounding neighborhoods, the number of events that will use the PA and light systems, overall timing of the district improvements and city review process, and the future use of the existing South Campus athletic stadium. Specifics about these questions and the applicant's responses are detailed in the attached meeting summary.

Community Comments. Under state law and the City's zoning regulations, conditional use permit applications require a public hearing. Accordingly, the City published notice of this request and the public hearing in the White Bear Press and mailed notice directly to all property owners within at least 350 feet of the subject property. That notice directed all interest parties to send questions or comments to the Planning Department by mail, phone or email or to attend the public hearing before the Planning Commission where they could learn about the request, ask questions and provide feedback.

As of the writing of this report, the city has received one phone call and two emails (see attached) regarding this application. The phone came from Joe Kimball of 4930 Walnut Street. Mr. Kimball expressed overall support for the school but he had concerns about potential traffic and overflow parking into the surrounding neighborhoods. The city also received separate emails from Samantha Crosby of 4853 Division and George & Patricia Dutra of 5117 Wild Marsh Drive stating their opposition to the proposal and citing concerns with parking, current traffic conditions, additional future traffic from the stadium, noise, lighting and the impact of construction traffic on Division Avenue. During the public hearing, staff will provide an update on all public comments received prior to the Planning Commission meeting.

ANALYSIS

City review authority for conditional use permits is considered a Quasi-Judicial action. This means the city acts like a judge in evaluating the facts against the applicable review standards. The city's role is limited to applying the review standards to the facts presented by the application. Generally, if the application meets the review standards, it should be approved. The standards for reviewing conditional use permits are detailed in City Code Section 1301.050.

According to City Code Section 1301.050, the City shall consider possible adverse effects of a proposed conditional use. This review shall be based upon (but not limited to) the factors listed below. Based on the findings made in this review, staff recommend approval of the requested conditional use permit amendment. In addition to this information, the applicant's attached narrative responses to each of the six conditional use permit criteria.

1. The proposed action has been considered in relation to the specific policies and provisions of and has been found to be consistent with the official City Comprehensive Land Use Plan and all other plans and controls.

Finding: The 2040 Comprehensive Plan Future Land Use Map guides the subject property as Public/Semi-Public. According to the Comprehensive Plan, this designation is for properties which are owned by a public or non-profit entity and used for public services and uses other than parks and open space. It is also intended for semi-public uses such as recreation centers,

public schools, churches and cemeteries. The principal use of the site as a public high school and the associated accessory use of an athletic stadium are allowed uses in the Public/Semi-Public category.

2. The proposed use is or will be compatible with present and future land uses of the area.

Finding: The proposed use will be compatible with present and future land uses of the area. The site is surrounded by existing residential use. The Future Land Use Map within the 2040 Comprehensive Plan guides the subject property as Public/Semi Public and the surrounding area as Low Density Residential or Medium Density Residential.

The site has operated as a high school for several decades. As part of the original CUP, campus improvements incorporated specific design standards that help promote land use compatibility for schools within residential districts including such items as increased yard setbacks, appropriate screening from abutting uses, adequate off-street parking and loading facilities and several roadway/intersection improvements. The continued use of the site as a high school with an associated accessory use of an athletic stadium should continue to be compatible with present and future land uses.

3. The proposed use conforms with all performance standards contained herein.

The Public Facilities zoning district does not have specified development standards, rather the code states, "requirements as to lot size, setbacks, building, parking landscaping, screening, etc., shall be at least comparable to similar uses in other districts". As such, the original conditional use permit review relied on the EAW to evaluate the site. Consequently, city staff consulted the EAW for the proposed CUP amendment and required the developer to update the associated traffic impact study. The applicable EAW sections and zoning standards for the proposed bleacher expansion are reviewed below.

Parking. Staff finds the EAW and updated traffic study analyzed site parking and found the site should provide adequate off-street parking for a typical or large high school football event while a full capacity event could result in a parking shortage. According to the applicant, the parking available on site was increased in the original building additions and site reconstruction project and distributes parking and drop-off locations to the east and west sides of the site to separate traffic flows to help reduce the burden on surrounding streets.

The applicant's narrative further notes, the site offers a total of 1,344 marked parking spaces. As noted in the traffic study, this exceeds the number of spaces that would be anticipated being needed on site for a large event based on typical expectations for how many people would use other means of arriving at the site (i.e.: drop-off, walking, etc.). The consultant identified a large event as a typical Homecoming game with 3,800 attendees. Based on 3,800 attendees and 3 people per vehicle, the site would need be able to park 1,267 vehicles which is 77 less than the 1,344 stalls provided.

According to the applicant, even at the full capacity of 5,000 people, the available spots would

allow for about three people per car (5,000/1,344=3.7), which was used for the traffic study assumptions. Additionally, as a relevant local comparison, the quantity of parking spots available at the North Campus site is more than double what is currently available at South Campus which has 600 parking spots available on site with a capacity of 4,800 bleacher seats. Staff notes that at full capacity of 5,000 people and assuming 3 people per vehicle, the site would need to able to park 1,667 vehicles which is 323 more than the 1,344 stalls provided.

Based on the most applicable City code for a stadium (private stadium), the required onsite parking is one spot per eight people. Under this city standard, the site would require 625 stalls or less than half of the 1,344 stalls planned for the site.

EAW Standard 15 – Visual. Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.

Finding: The EAW found there were no scenic views or vistas located on or near the property, and substantial adverse effects on visual resources were not anticipated in conjunction with the project. The EAW went on to note "The proposed improvements to the athletic facilities will include field lighting for the centrally located football/soccer field and track facility. This site is planned as a long-term 'stadium field' for various activities, including varsity competitions, *except for varsity football games which are currently planned to remain at South Campus*. Installation of lighting will consider surrounding land uses and potential for light glare. Additional details of the field lighting will be provided as part of the City of White Bear Lake Land Use Application."

Resolution 12750 approving the original CUP included condition #12 which required the applicant to "Combine the two photometric plans into one comprehensive plan which incorporates the perimeter of the campus for staff review and approval. All new or relocated lights shall be shield so that the light source is not visible from surrounding residences." Previous staff reviewed the photometric plan as part of the overall building permit and approved the exterior lighting. The proposed exterior lighting is now in place and no changes are proposed as part of this application.

EAW Standard 17 – Noise. Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.

Finding: The EAW noise analysis found Noise levels will temporarily increase locally during project construction due to mobilization of heavy equipment, demolition activities, and construction of the proposed structures. Noise levels when the expanded school is fully operational are not anticipated to be substantial but are expected to rise slightly from existing levels due to increases in transportation noise, student activities, and heating/cooling systems at the school. Operations noise levels will increase from existing levels, though the facility will produce noise in-kind with current land use. Noise levels will fluctuate throughout the day, with

greater noise levels during the student drop-off and pick-up hours.

The EAW goes on to note noise levels on and adjacent to the project area will vary considerably during construction, depending on the amount of construction that occurs simultaneously, the time of operation, and the distance from construction equipment to noise receptors. The noise receptors nearest to the project are the homes located along Division Avenue and Bald Eagle Avenue. Noise generated by construction equipment and building construction and renovation will be limited primarily to daylight hours when noise is relatively common. The City of White Bear Lake regulates noise, including noise resulting from construction activities.

It should be noted that the EAW noise assessment did not include an analysis of the applicant's current proposal to expand the bleacher capacity of the athletic stadium. The City's noise standards include a general prohibition stating "No person shall make or cause to be made any distinctly and loudly audible noise that unreasonably annoys, disturbs, injures, or endangers the comfort, repose, health, peace, safety, or welfare of any person or precludes their enjoyment of property or affects their property's value."

More specifically related to land use activities, White Bear Lake (like many cities across Minnesota) relies on the Minnesota Pollution Control Agency NPC-2 Noise standards to address noise levels in residential areas. City Code Section 703.070, Subdivision 9.C states the City Council may require a noise impact statement in conjunction with rezoning or other permits or licenses. Should the city find it appropriate, the city's noise standards along with the noise section of the EAW could allow the city to require additional specific noise analysis for the proposed bleach expansion. While measuring ambient noise is complex and can be impacted by both the time of day and the season of the year, staff general experience would suggest high school football game events are unlikely to exceed the NPC-2 Noise standards.

4. The proposed use will not tend to or actually depreciate the area in which it is proposed.

Finding: Even with the current proposal to expand the athletic stadium's bleachers, staff maintains the city's finding related to area depreciation from the original 2021 conditional use permit review. In that case, the city found that high quality school districts play a large role in the vibrancy and appeal of the local community and the unified high school campus will enhance and contribute positively to the general vicinity. While the traffic study found the proposed additional bleacher seating will bring added traffic to the area, the City's Engineering staff believes planned intersection and road improvements should result in acceptable traffic conditions.

5. The proposed use can be accommodated with existing public services and will not overburden the City's service capacity.

Finding: As part of the approval for North Campus, existing and proposed sewer and water utility connections were designed to accommodate the expansion in the area, thus the utilities have the capacity to serve the proposed addition. It should be noted that additional bleacher seating will require the applicant to request a sewer and water access determination from the

Metropolitan Council prior to issuance of a building permit.

6. Traffic generation by the proposed use is within capabilities of streets serving the property.

Finding: The City Engineer has reviewed the proposal and associated traffic study and finds traffic generation by the proposed use is within the capabilities of the streets serving the property. According to the City Engineer, the roadway adjacent to the site appears to be capable of accommodating the additional traffic from the proposed improvements according to the traffic study prepared for the site. However, the necessary improvements indicated in the traffic study need to be in place including the improvement on 8th Street from Division Avenue to Hwy 61 and the signal and geometric improvements at 8th Street and Hwy 61. In addition, a condition of approval states traffic management strategies may be necessary during major events including restricting ingress and egress to parking lots, temporary parking restrictions, signal timing modifications at the proposed 8th Street and Hwy 61 signal, and use of hired traffic control at identified intersection or in the parking lots. The applicant will need to be able to react to situations arising during events adjust operations as necessary.

The applicant's narrative includes the schedule for the required intersection and street improvements. These improvements are list below. A condition of approval requires all intersection and street improvement shall be completed prior to issuance of a certificate of occupancy for the school and bleacher expansion.

<u>Bald Eagle Improvements Project</u>
- Project Bids: March-April 2023
- Construction Begins: Summer 2023
- Construction Complete: Start of School 2023

<u>8th Street & Division Avenue Improvements Project</u>
- Project Bids: Fall 2023
- Construction Begins: Spring 2024
- Construction Complete: Start of School 2024

The updated traffic study includes the following improvements to provide safe and efficient access to and from events at the proposed 5,000 seat stadium on the expanded White Bear Lake High School campus:

1. **Allow pick-up/drop-off only in the designated areas on-site that are separate from parking lots** – This improves and efficiency for vehicles parking, picking-up/dropping-off, and for people within the parking lot. Having good pick-up/drop-off areas on the High School and Middle School site will also prevent pick-up/drop-off activity on the public streets
2. **Allow vehicles to use each driveway to access the site** – the more driveways available to exit the site, the quicker the site will clear after the event. For a typical game, it is expected to take 10-15 minutes for the site to clear. For larger events (i.e. Homecoming or Max Capacity events) it may take 20-30 minutes for the site to clear.
3. **For larger events (i.e. Homecoming), provide a gate on the southeast corner of the stadium**

– This gate will encourage the use of the Middle School area for parking and pick-up/drop-off activities.

4. **Restrict parking to one side of nearby neighborhood streets if parking off-site parking is/becomes a concern** – Based on the trip generation, all vehicles should be able to park on site at either the High School or Middle School. However, based on our observations at the 2022 Homecoming football game, some people are likely to park on nearby city streets if possible, even if the available lots are not full in order to have a quicker exit after the game. Restricting parking to one side of the street would maintain two-way vehicle traffic and improve traffic operations when vehicles are exiting after an event.
5. **Signal timing adjustments along Highway 61 would improve traffic operations during the arrival and departure peak hours** – During the arrival peak hour, there are expected to be high northbound left turning movements at 7th and 8th Street, which could benefit from more green time within the cycle to ensure that vehicles do not spill beyond the available left turn store. During the dismissal peak hour, 7th Street, 8th Street, and Buffalo Street are expected to have high eastbound volumes, which could benefit from more green time within the cycle. However, none of the eastbound delays cause significant queuing issues.

Fire Department Review. The Fire Marshall evaluated the proposed bleacher expansion project at 5045 Division Avenue and offers the following comments:

1. Submit structural design documents for review. These documents shall include capacities, exiting, and specify if the area below the bleachers is intended for use. If the area below the seating structure will be occupied usable space, fire sprinklers may be required.
2. No additional gates shall be installed in the drive lanes or parking lots.
3. The neighborhoods surrounding North Campus shall remain accessible at all times. Additional items may be required to maintain access to these areas.

RECOMMENDATION

The standards outlined in the zoning ordinances have been met, therefore, staff recommend approval of the applicant's request, subject to the following conditions:

1. All application materials, maps, drawings, and descriptive information submitted in this application shall become part of the permit.
2. Per Section 1301.050, Subd.4, if within one (1) year after approving the Conditional Use Permit, the use as allowed by the permit shall not have been completed or utilized, the CUP shall become null and void unless a petition for an extension of time in which to complete or utilize the use has been granted by the City Council. Such petition shall be requested in writing and shall be submitted at least 30 days prior to expiration.
3. The Conditional Use Permit shall become effective upon the applicant tendering proof (i.e. a receipt) to the City of having filed a certified copy of the signed resolution of approval with the County Recorder pursuant to Minnesota State Statute 462.3595 to ensure the compliance of the herein-stated conditions.
4. Conformance with all terms and condition of the original conditional use permit as detailed in Resolution 12750.

5. A building permit shall be obtained before any work begins.
6. Implementation all recommendations from the updated traffic study as detailed in the White Bear Lake Area High School Event Analysis Traffic Study Memo SEH No. ISDWB 170554 dated February 10, 2023.

Prior to the issuance of a building permit, the applicant shall:

7. If the proposed project adds impervious surface, then the new impervious areas will need to be added to the impervious area summary(s) on the plan(s) and incorporated into the stormwater model to ensure that rate and volume control is still being met. Any changes to the plans and stormwater model shall be submitted for review.
8. Compliance with all requirements of the City Engineer, Fire Marshall, Building Official and all other applicable city standards and associated agencies (State, County, Watershed, etc.).
9. Provide a SAC determination from the Metropolitan Council.

Prior to the issuance of a certificate of occupancy the applicant shall:

10. Complete all required intersection and roadway improvements at detailed in the March 27, 2023 staff report and required by the City Engineer.

Attachments:
Draft Resolution Approving the Proposed CUP Amendment
Resolution 12750 Approving the Original CUP
Zoning Map
Neighborhood Meeting Summary
Comments from Samantha Crosby 4853 Division Avenue
Comments from George & Patricia Dutra 5117 Wild Marsh Drive
Applicant's Narrative
Traffic Study Update Memo from SHE
Plan Set

RESOLUTION NO.

RESOLUTION GRANTING AN AMENDMENT TO THE CONDITIONAL USE PERMIT FOR WHITE BEAR LAKE AREA ISD #624 SENIOR HIGH SCHOOL CAMPUS EXPANSION WITHIN THE CITY OF WHITE BEAR LAKE, MINNESOTA

WHEREAS, Independent School District #624 (Case No. 21-3-CUPa) has requested a conditional use permit amendment, per code section 1303.245, to allow expansion of the previously approved athletic stadium from 1,500 to 5,000 seats at the following location:

LOCATION: **5045 Division Avenue**

LEGAL DESCRIPTION: (To Be Inserted)

WHEREAS, the City Council of the City of White Bear Lake adopted Resolution 12750 approving a conditional use permit for White Bear Lake Area ISD #624 Senior High School Campus Expansion within the City of White Bear Lake, Minnesota on April 13, 2021; and

WHEREAS, the Planning Commission held a public hearing for the conditional use permit amendment application as required by the Zoning Code on March 27, 2023; and

WHEREAS, the City Council has considered the advice and recommendations of the Planning Commission regarding the effect of the proposed conditional use permit upon the health, safety, and welfare of the community and its Comprehensive Plan, as well as any concerns related to compatibility of uses, traffic, property values, light, air, danger of fire, and risk to public safety in the surrounding areas;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of White Bear Lake that the City Council accepts and adopts the following findings of the Planning Commission:

1. The proposal is consistent with the city's Comprehensive Plan.
2. The proposal is consistent with existing and future land uses in the area.
3. The proposal conforms to the Zoning Code requirements.
4. The proposal will not depreciate values in the area.
5. The proposal will not overburden the existing public services nor the capacity of the City to service the area.
6. The traffic generation will be within the capabilities of the streets serving the site.

BE IT FURTHER RESOLVED, that the City Council of the City of White Bear Lake hereby approves the requested conditional use permit amendment, subject to the following conditions:

1. All application materials, maps, drawings, and descriptive information submitted in this application shall become part of the permit.
2. Per Section 1301.050, Subd.4, if within one (1) year after approving the Conditional Use Permit, the use as allowed by the permit shall not have been completed or utilized, the CUP shall become null and void unless a petition for an extension of time in which to

complete or utilize the use has been granted by the City Council. Such petition shall be requested in writing and shall be submitted at least 30 days prior to expiration.

3. The Conditional Use Permit shall become effective upon the applicant tendering proof (i.e. a receipt) to the City of having filed a certified copy of the signed resolution of approval with the County Recorder pursuant to Minnesota State Statute 462.3595 to ensure the compliance of the herein-stated conditions.
4. Conformance with all terms and condition of the original conditional use permit as detailed in Resolution 12750.
5. A building permit shall be obtained before any work begins.
6. Implementation all recommendations from the updated traffic study as detailed in the White Bear Lake Area High School Event Analysis Traffic Study Memo SEH No. ISDWB 170554 dated February 10, 2023.

Prior to the issuance of a building permit, the applicant shall:

7. If the proposed project adds impervious surface, then the new impervious areas will need to be added to the impervious area summary(s) on the plan(s) and incorporated into the stormwater model to ensure that rate and volume control is still being met. Any changes to the plans and stormwater model shall be submitted for review.
8. Compliance with all requirements of the City Engineer, Fire Marshall, Building Official and all other applicable city standards and associated agencies (State, County, Watershed, etc.).
9. Provide a SAC determination from the Metropolitan Council.

Prior to the issuance of a certificate of occupancy the applicant shall:

10. Complete all required intersection and roadway improvements at detailed in the March 27, 2023 staff report and required by the City Engineer.

The foregoing resolution, offered by Councilmember _____ and supported by Councilmember _____, was declared carried on the following vote:

Ayes:
Nays:
Passed:

_____
Dan Louismet, Mayor

ATTEST:

_____
Caley Longendyke, City Clerk

****

Approval is contingent upon execution and return of this document to the City Planning Office.

RESOLUTION NO.

I have read and agree to the conditions of this resolution as outlined above.

_____

Applicant's Signature Date

EXHIBIT A
LEGAL DESCRIPTION

RESOLUTION NO. 12750

RESOLUTION APPROVING A CONDITIONAL USE PERMIT FOR WHITE BEAR LAKE AREA ISD #624 SENIOR HIGH SCHOOL CAMPUS AND EXPANSION WITHIN THE CITY OF WHITE BEAR LAKE, MINNESOTA

WHEREAS, a proposal (21-3-CUP) has been submitted by The White Bear Lake Area Public School District #624 to the City Council requesting approval of a conditional use permit for the following location:

LOCATION: 5045 Division Avenue

LEGAL DESCRIPTION: [to be inserted]

WHEREAS, THE APPLICANT SEEKS THE FOLLOWING PERMIT: A conditional use permit, per Code Section 1303.245, Subd.2.c.4, to allow a 398,000 square foot building addition; and

WHEREAS, the Planning Commission has held a public hearing as required by the city Zoning Code on March 29, 2021; and

WHEREAS, the City Council has considered the advice and recommendations of the Planning Commission regarding the effect of the proposed conditional use permit upon the health, safety, and welfare of the community and its Comprehensive Plan, as well as any concerns related to compatibility of uses, traffic, property values, light, air, danger of fire, and risk to public safety in the surrounding areas;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of White Bear Lake after reviewing the proposal, that the City Council accepts and adopts the following findings of the Planning Commission:

1. The proposal is consistent with the city's Comprehensive Plan.

2. The proposal is consistent with existing and future land uses in the area.

3. The proposal conforms to the Zoning Code requirements.

4. The proposal will not depreciate values in the area.

5. The proposal will not overburden the existing public services nor the capacity of the City to service the area.

6. The traffic generation will be within the capabilities of the streets serving the site.

7. The special conditions attached in the form of conditional use permits are hereby approved.

FURTHER, BE IT RESOLVED, that the City Council of the City of White Bear Lake hereby approves the conditional use permit, subject to the following conditions:

1. All application materials, maps, drawings, and descriptive information submitted with this application shall become part of the permit.

2. Per Section 1301.050, Subd.4, if within five (5) years after granting the conditional use permit, the use as allowed by the permit shall not have been completed or utilized, the permit shall become null and void unless a petition for an extension of time in which to complete or utilize the use has been granted by the City Council.

3. This conditional use permit shall become effective upon the applicant tendering proof (i.e. a receipt) to the City of having filed a certified copy of this permit with the County Recorder pursuant to Minnesota State Statute 462.3595 to ensure the compliance of the herein-stated conditions.

4. The applicant shall obtain any necessary building permits prior to beginning any work.

Prior to the issuance of a building permit, the applicant shall:

5. Provide additional information and calculations as required by the Engineering Department, detailed in the attached memo dated March 15, 2021.

6. Provide additional information and details as required by the Fire Marshal, detailed in the attached memo dated March 2, 2021.

7. A Construction Staging and Management Plan will be required prior to any site work begins.

8. Provide a SAC determination from the Metropolitan Council.

9. Revise the landscape plan to:
   a) provide interior landscape calculations for each individual parking lot;
   b) revise proposed screening on the outside perimeter of the parking lots to provide a minimum 50% evergreen trees (maximum 25' OC) to comply with year round screening requirement;
   c) provide details on screening proposed for parking lots and revise to ensure majority of shrubs are evergreen to provide year-round screening; and
   d) relocate some of the trees proposed along north edge of campus to more central and effective locations throughout the site.

10. Revise the Tree Preservation Plan to:
    a) provide totals to the bottom of each column on Sheet L1.014;
    b) include a key for the tree abbreviations;
    c) highlight the boulevard trees in table on Sheet L1.014;

d) highlight the non-significant trees retained and counted towards replacement inches in table on Sheet L1.014;
e) includes a Tree Protection Fencing Plan overlaid of the Grading Plan that encompasses all non-significant trees proposed to be retained and applied towards replacement inches; and,
f) resolve the discrepancy in Tree Replacement Calculation to demonstrate compliance with 2,227 required replacement inches.

11. Separate sign permits for exterior signage shall be secured prior to installation of any permanent exterior signage.

12. Combine the two photometric plans into one comprehensive plan which incorporates the perimeter of the campus for staff review and approval. All new or relocated lights shall be shielded so that the light source is not visible from surrounding residences.

13. Provide details and specifications on all lighting proposed for the athletic facilities (Musco Lighting Plans set).

Prior to the issuance of a Certificate of Occupancy, the applicant shall:

14. Enter into a Development Agreement for all off-site improvements.

15. Work to identify optimal locations and alignments for east-west cross-campus non-motorized connections on-site.

16. Submit a final plat for review and approval.

17. Any additional stadium bleacher capacity at this campus in the future shall require an amendment to this CUP.

The foregoing resolution, offered by Councilmember **Jones** and supported by Councilmember **Engstran**, was declared carried on the following vote:

Ayes:	Biehn, Edberg, Engstran, Jones, Walsh
Nays:	None
Passed:	April 13, 2021

Jo Emerson

Jo Emerson, Mayor

ATTEST:

Kara E. Coustry

Kara Coustry, City Clerk

****

Approval is contingent upon execution and return of this document to the City Planning Office.

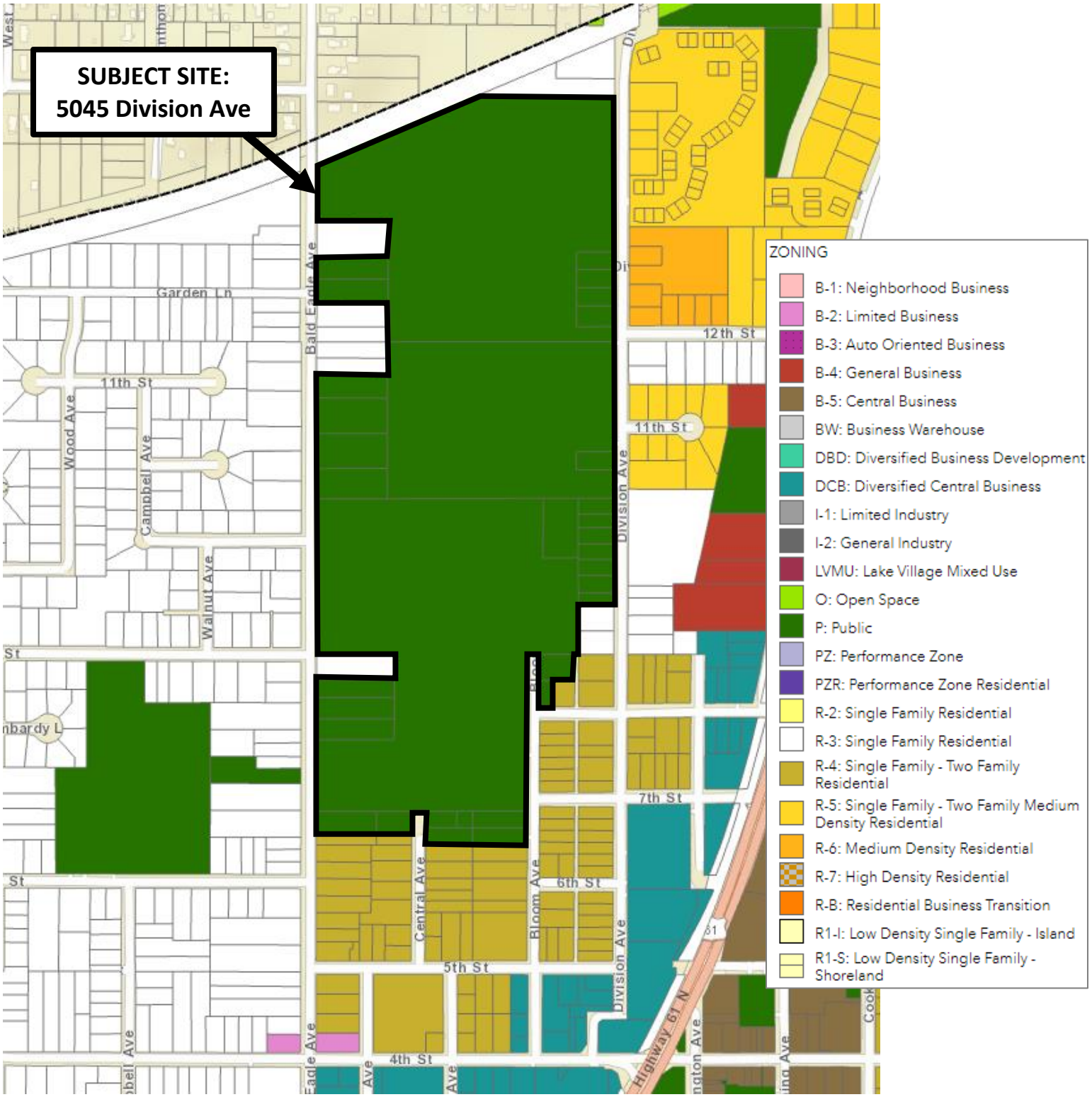
I have read and agree to the conditions of this resolution as outlined above.

T Wald 4-29-21

Applicant's Signature Date

Tim Wald Assistant Superintendent for Finance and Operations

Print Name Title



City of White Bear Lake Planning & Zoning 651-429-8561	**CASE NO.** : 21-3-CUPa
	CASE NAME : North Campus Bleachers
	DATE : 3-27-2023

MEMORANDUM

To: Attendees

From: Maria Kennedy | MK

Date: March 22, 2023

Comm. No: 192236

Subject: Independent School District #624 – White Bear Lake Area Schools
WBLHS Conditional Use Permit Amendment – Neighborhood Meeting
March 15, 2023 Meeting Minutes

Attendees:

Approximately Fourteen (14) White Bear Lake Residents

Jason Lindahl, City of White Bear Lake	jlindahl@whitebearlake.org
Tim Wald, Independent School District #624	tim.wald@isd624.org
Marisa Vette, Independent School District #624	marissa.vette@isd624.org
Wayne Kazmierczak, Independent School District #624	wayne.kazmierczak@isd624.org
Chris Hiniker, SEH Engineers	chiniker@sehinc.com
Chad Jorgensen, SEH Engineers	cjorgenson@sehinc.com
Justin Anibas, SEH Engineers	jdanibas@sehinc.com
Paul Aplikowski, Wold Architects and Engineers	paplikowski@woldae.com
Maria Kennedy, Wold Architects and Engineers	mkennedy@woldae.com

Independent School District #624 White Bear Lake Area Schools held a meeting to update area neighbors on the current projects ongoing at White Bear Lake Area Schools, as well as proposed expansion of bleacher capacity at the main stadium. The meeting is being held as a portion of the process of applying for an Amendment to the Conditional Use Permit, as required by the City of White Bear Lake.

Discussion Topics:

A. The group reviewed a presentation outlining the following topics:
   1. High School Project Planning Process.
   2. Project Scope and Schedule.
   3. Overview of Design of High School Project.
   4. Overview of Site Plan and items already approved by City and under construction.
   5. Information on the current and future phasing of the project.
   6. Scope of proposed additions onto the currently constructed North Campus Stadium.
   7. Presentation on traffic study covering the proposed stadium expansion.

Wold Architects and Engineers
332 Minnesota Street, Suite W2000
Saint Paul, MN 55101
woldae.com | 651 227 7773

PLANNERS
ARCHITECTS
ENGINEERS

B. The group discussed questions from neighbors, as well as any items that would benefit from additional clarification. The questions and clarifying responses in addition to what was discussed during the meeting are as follows:
   1. *Question: Congestion at stop sign at Bald Eagle Boulevard and Fourth Street is already bad. What are the plans for when the full school opens to address this area?*
      a. With all vehicles having to use the west side of the building to access the school right now, all of the traffic from south of the school likely uses the Bald Eagle/Fourth Street all-way stop, which is a lot of traffic to force to use one intersection. Upon completion of the school, most of the traffic from the south would be expected to try to park/drop-off/pick-up on the east side of the building and would use the signals at Seventh and Eighth Street. So while that intersection may be bad right now during construction, it should not be upon completion of the school. There may still be long queues at school arrival and dismissal just due to the large peaks in school traffic.
   2. *Question: The traffic report was prepared during COVID and daily traffic volumes were not representative of actual conditions. Does that change the traffic recommendations?*
      a. This is correct, our Phase 2 traffic study was completed during COVID, so SEH Engineering was not able to get counts during the school year. During Phase 1 of the study the traffic was counted in July due to the schedule of the project, so those counts also did not capture existing school traffic. However, traffic counts on Highway 61 that occurred during the school year that were completed in 2019 for a signal retiming project were used for the analysis, and the variations from this would not be assumed to be significant. Many of the minor (non Highway 61) intersection volumes did have to be estimated using the Highway 61 counts and StreetLight data. While it is not the most ideal, it should provide a decent representation of existing volumes. In addition, the minor street volumes during peak traffic times for the school are likely mostly school-related traffic right now, so non-school traffic on these roadways is likely fairly low during those times. SEH did collect a few new counts for the event analysis, and they matched fairly well with what was assumed for existing volumes for the previous studies.
   3. *Question: Would it be possible for speed bumps on Stillwater Avenue?*
      a. This is a decision for the City to make. Generally, cities try to avoid speed bumps on their streets due to maintenance concerns and snowplowing.
   4. *Question: Why is the bleacher capacity 5,000 when only 3,800 have attended past homecoming and regular games are 1,600?*
      a. Bleacher capacity is defined in the Building Code as 18" per person for bench seating. The current south campus bleacher capacity is approximately 4,800, so this total very closely mimics the amount at South Campus. In this proposal, about 1,500 bleachers are planned for visitors, which will likely rarely be filled even for large football events.

5. *Question: How many people per car are assumed? Is this a realistic expectation?*
    a. On paper that would be 5,000 / 1344 = 3.7 per car. The existing parking at South Campus is 600 stalls. The bleacher capacity will remain very similar (4,800 to 5,000) while doubling the available on-site parking (1344 versus 600). Additional gates into the stadium are recommended in the traffic report to improve the pedestrian circulation and encourage the dispersal of the parking onsite. I would add that not everyone that goes to the event comes in a vehicle that parks. Based on our counts at the 2022 homecoming game, it was estimated that about 5% of people walk and 15% are dropped-off/picked-up. For the 2022 homecoming game, there were approximately 3,050 people in attendance and we counted a total number of parked vehicles of 780 (including main lot, nearby streets in all directions, and the lot by the sheet metal training facility). Based on 80% of the people parking in those 780 vehicles we got just over three people per vehicle, which is similar to what is expected for events like this. The traffic study assumed the following ratios for large events: 5% walk, 15% are dropped-off/picked up (2.5 people/veh), and the remaining 80% parking (3 people/veh).
6. *Question: Will parking spill into the neighborhood? What consideration are taken to prevent that?*
    a. The school cannot enforce off-site activities. In discussions with the City Engineer, they are open to posting no parking signs prior to large events. Other options for full time 'permit only' on adjacent streets can be reviewed with the city (that is currently in place on streets around South Campus)
7. *Question: How many games will use the PA system and Sports Lights in a typical year?*
    a. The previously approved Conditional Use Permit included the function of various sporting events and activities for sports like Lacrosse, Track and Field, Soccer, JV football, and more. The number of events that can be accommodated with the already approved bleachers that use lights and the sounds system is approximately:
        1) Spring of 2023 and each spring:
            a) Six track meets (4:00 p.m. to approximately 8:00 p.m.).
            b) Thirteen days of boys and girls Lacrosse (double headers).
        2) Fall of each year:
            a) Soccer
            b) Boys and girls play on the same days – 5:00 and 7:00 p.m.
            c) Eight days, sixteen events (5:00 p.m. and 7:00 p.m.).
    b. The expansion of activities to include Varsity football will increase the number of events by only eight games. Up to ten if the football team makes the playoffs:
        1) Football:
            a) Four regular season, and up to two playoff games - Friday nights.
            b) Four regular season JV games on Saturday mornings.

8. *Question: Previous materials presented the relocation of the varsity fields as future. What is the reason for doing this now?*
    a. The unifying of the campus identified the need for having as many facilities on-site as possible. The site does not allow all possible events to be onsite; baseball and softball will remain offsite at South Campus, and there will be no school-owned pool or varsity hockey rink. The full stadium was anticipated as a Master Plan in the Environmental Assessment Worksheet (EAW) which had city, state, and public comments and feedback. At the time of the referendum it was not clear how many houses could be purchased to enlarge the high school site. Because the District was able to purchase so many of those houses, it became clear that enough site features and parking could be accommodated to allow the unification of the Football games with the new high school campus.
9. *Question: The projects and city approvals seem very piecemeal. Will there be more improvements/expansions and approvals in the near future?*
    a. The District-wide referendum work was intentionally phased across the multiple school sites. This allowed the design and construction to be sequenced into smaller projects instead of one full District-wide project. Upcoming projects remaining include street improvements to Bald Eagle Avenue (summer 2023 construction) and improvements to Division Avenue, Eighth Street, and Highway 61 (summer 2024 construction).
10. *Question: Can they host events with the lights and PA system this spring for neighbor feedback before submitting for the bleacher expansion?*
    a. Some lower-level events were hosted this past fall (2022). The PA system was not installed yet and the lights were not needed due to game times. The lighting and PA system were approved in the original CUP and are now installed. This proposal does not modify the previously approved lighting and sound systems.
11. *Question: What will happen to the existing stadium at South Campus?*
    a. The stadium at South Campus will remain for use at the converted middle school and possibly for special events.

cc: Sal Bagley, Wold sbagley@woldae.com

TD/ISD_624/192236/min/3.15.23

From:	Sam Crosby
To:	Jason Lindahl
Cc:	Ashton Miller; Tracy Shimek
Subject:	North Campus CUP Amendment - Stadium Expansion
Date:	Wednesday, March 22, 2023 10:14:51 AM

Dear Commission and Council,
First, thank you for your many hours and hard work in your roles with the City.
I am writing because I am concerned that the expansion of the north campus stadium to triple the current capacity could have a significant impact upon the surrounding neighborhood in regards to traffic, parking, light, & noise. Each of these areas should be carefully considered and properly mitigated if the proposal is to be approved.

Traffic. I am concerned by the methodology of SEH's traffic study. It utilized the past attendance at the south campus stadium as the baseline for the future attendance at the north campus stadium. Therefore, it was based upon 1,600 people attendance for a 5,000 seat stadium. We all know that "past performance is not necessarily indicative of future results". We also know that north campus plans to grow over the next several years. Why wasn't a forward-looking projection utilized? Comments from school district staff at the neighborhood meeting stated the 5,000 number is based on 18 inches per person, and that people don't actually sit that way. Do you remember attending high school football games? People typically sit shoulder to shoulder. And most of those people are students that are smaller in size. Even if the majority of attendees are full grown adults, taking up more space, they will squeeze themselves in. They're not going to say "gosh, this is too crowded, I'm going to leave". But let's agree that the 18 inch per person number is too slim for the current american person. Let's arbitrarily adjust it upward to 24 inches per person. That's still 3,750 attendees, not 1,600. To present such a gross disparity seems duplicitous. We all know, "if you build it, they will come". If the school really believes that 1,600 is the true attendance number, then the CUP should be limited to adding only 100 seats, since the current capacity is 1,500. The school has pointed out that homecoming is the one event that will draw around 3,800 people. (There's a more accurate number for us!). Without redoing the study, to accomodate homecoming, the CUP could be conditioned to limit the number of events in excess of 1,600 to not more than one per year and they could rent stadium bleachers for that one event. (The event could be ticketed to aid with enforcement.)
Or, they could redo the traffic study utilizing the industry accepted standard of 18 inches per person and implement all the recommendations associated therewith. That would insure that future growth can be accomodated, and isn't that what planning is supposed to do? Regardless of outcome, I ask that the Commission and Council consider a condition that precludes other events on these two properties when stadium events are occuring.

Parking. With 5,000 person capacity, that's 1,666 cars IF every car has 3 people in it. And that's only the people in the stands, it doesn't include the people on the field, in the concession stand, or in the media box. It was represented at the neighborhood meeting that there'll be 1,344 on site parking stalls between both north campus and the central middle property. There will very likely be overflow into the neighborhood. While the overflow of on-street parking is not a daily occurrence, the City will have the ability to change on-street parking rules in the future, as may be appropriate to help mitigate neighborhood impacts, so in my opinion, this is not as urgent a concern.

Lighting and Noise. My understanding of the situation is that the lighting and sound system are both already in place and are not proposed to change with this request. However, I believe

the neighborhood has yet to experience the them, particularly the PA system. I respectfully request that the school be asked to wait until an event that utilizes the lights and speakers system has taken place before asking for an approval that increases the frequency of their use. A notice should be sent to the neighborhood prior to the event, so that people can plan to be home on that day and time to experience the event. That would provide the information the neighborhood needs to be able to intelligently analyze the request.

I apologize I am not able to attend the Planning Commission meeting on the 24th. Thank you kindly for your critical review of this request.
Sincerely,
~ Sam Crosby
4853 Division Avenue

White Bear Lake MN.
March 20, 2023

Members of the White Bear Lake Planning Commission

In regards to the Conditional Use Permit request by the White Bear Lake Area School District:

I am George Dutra and my wife is Patricia Dutra.
We reside at 5117 Wild Marsh Drive directly across from what was called the North Campus soccer field.
We purchased our townhouse in this area for several reasons:

1. This is basically a quiet single family residential area
2. It is close to downtown White bear Lake
3. It is close to stores and restaurants
4. White Bear Lake is a well maintained city.

We considered the North Campus High School to be a drawback but not enough to override the above.

Our real concerns started with the high school consolidation at the North Campus:

1. There will be major bus and automobile traffic to and from Bald Eagle Avenue on the streets to access highway 61
2. There will be major automobile traffic on Division Avenue for student drop off and pickup. This has regularly resulted in both north and south lanes of Division blocked due to limited area on the school campus to accommodate cars waiting to pick up students
3. The stadium and field house will result in additional traffic.
4. The fields across from us have been upgraded and we expect to hear additional noise due to greater usage as well as from the stadium.
5. The noise and dirt from the construction has required extra cleaning efforts and costly duct cleaning.
6. The heavy construction truck traffic has really increased the deteriation of Division Avenue.

The school district has not been fully open and honest on its plans. Their original presentations have identified the new stadium as track and field. They stated the South Campus stadium would be used for football and other events. I assume their original submissions to the Planning Commission did not identify this latest proposal for stadium seating additions and the additional traffic and noise. Neither was it identified prior to citizen voting on the bonding proposal.

In summary we think the White Bear Lake Area School District has shown little to no concern for the residents in the vicinity of the North Campus. We have no reason to believe that the school district attitude toward us residents will improve.

We request that you deny the Conditional Use Permit.

Thank you for advising us and with detail seating capacity information.
Thank you again.
George and Patricia Dutra

MEMORANDUM

To: City of White Bear Lake

From: Wold Architects and Engineers

Date: February 13, 2023
Revised March 22, 2023

Comm. No: 192236

Subject: Independent School District #624 – White Bear Lake Area School District
White Bear Lake Area High School Addition and Remodel – Stadium Expansion

ISD #624 WHITE BEAR LAKE AREA HIGH SCHOOL ADDITION AND REMODEL – STADIUM EXPANSION

Conditional Use Permit Amendment

In November of 2019, the White Bear Lake Area School District passed a referendum for districtwide improvements and expansion of their facilities. A significant portion of this work was renovations and additions at the current North Campus High School building and site, with the ultimate goal of unifying the two high school campuses.

This project, as previously approved for permit, includes various site amenities in addition to the building expansion to support physical education and wellness for students as well as athletic activities and community events. The new athletic stadium will be surrounded by a ticketing entry and plaza, building housing concessions, restrooms, and storage for outdoor equipment. At the time of the original conditional use permit application and approval, this athletic stadium included 1500 bleacher seats on the home team side, with plans for future expansion of the seating as the needs and use of the stadium changes over time.

The current application for conditional use permit amendment includes expansion of the seating capacity at the new athletic stadium from the current 1,500 seats to a total of 5,000 seats. This includes the original 1,500 home-side seats, plus 2,000 additional seats on the home side, for a total of 3,500 capacity. Visitor seating for 1,500 is being proposed to be located on the east side of the stadium, for a total stadium capacity of 5,000. This capacity of seats will allow the unified high school site to serve the majority of athletic events and high school activities of various sizes, as well as large events like graduation. Additionally, this will allow the potential to host larger competition-style events like regional or state track meets, marching band festivals, etc. This bleacher capacity will allow for a truly unified experience at the high school site for students, staff, and the community, and will allow the other amenities that have been invested in on site (i.e.: site buildings, concessions, and indoor athletic spaces) to be utilized to their full capacity.

A traffic study was completed in January 2021 as part of the original conditional use permit and site design process, and the project includes expanded parking to serve the new site functions. A separate project incorporating recommended off-site improvements to surrounding roads and intersections, as coordinated with the City of White Bear Lake, will be completed by the fall of 2024 when the unified high school is fully operational, meaning that this site will serve all students in grades 9 through 12. The original previous *White Bear Lake High School Expansion Traffic Study – Traffic Study Findings* technical memorandum was amended by SEH Engineers with the attached event analysis for the expanded bleacher capacity and large events on site. Recommendations for some minor adjustments to signal timing on Highway 61 are summarized in the attached memorandum for consideration by the City and MnDOT for the largest capacity events (i.e.: Homecoming football game or an event with a full stadium). A typical home football game or similar activity is not expected to create any operational issues during the event arrival or departure times, based on the traffic study. A major takeaway is that the expected impacts to local streets and intersections for larger capacity bleacher events would be comparable to high school dismissal time traffic. However, an advantage of the stadium events is that these large capacity events occur at a time of the day when area streets have a lower traffic load, as compared to school dismissal time. A schedule of the additional road and off-site improvements that are underway is provided in the submittal documents for reference.

The original EAW for this site included an analysis of the impacts of the site improvements in several main areas, which included: traffic, air quality, sound, and light. This was reviewed by various regulatory agencies and public comment. In relation to this proposal, the traffic portion of this study was updated to understand the impacts of the additional bleacher capacity on site traffic flow, as mentioned above. This proposal does not modify the lighting and sound systems that were approved as part of the original Conditional Use Permit. Based on the fact the original EAW did not indicate issues with air quality standards at any local area intersections, this additional bleacher capacity is not expected to contribute to this metric in a significant way.

The site offers a total of 1,344 marked parking spaces. As noted in the traffic study, this exceeds the number of spaces that would be anticipated being needed on site for a large event based on typical expectations for how many people would use other means of arriving at the site (i.e.: drop-off, walking, etc.). A typical number of people per car for this type of event that would be planned around based on SEH Engineering data is three people per car. Even at the full capacity of 5000 people, the available spots would allow for about three people per car, which was used for the traffic study assumptions. Additionally, as a relevant local comparison, the quantity of parking spots available on the Unified High School site is more than double what is currently available at South Campus (which has 600 parking spots available on site with a capacity of 4800 bleacher seats). Based on the most applicable City code for parking that would be applicable to a stadium ('private stadium') the required onsite parking is one spot per eight people. The amount of parking available on site far exceeds this number.

This expansion of stadium bleacher seating does not modify the design intent and alignment with the nine design principles from the City as noted in the original conditional use permit application for the high school addition design and expansion. This work builds on the design principal of "Transformation" by providing additional future-readiness of the site amenities for both the school and White Bear Lake Area community and allows the site to holistically serve students and thrive as the heart of high school education and activities for many years to come.

Per 1301.050 Subd. 2.e Procedure of the City Code:

Item 1: The proposed action has been considered in relation to the specific policies and provisions of and has been found to be consistent with the official City Comprehensive Land Use Plan and all other plans and controls.

It is our intent that the proposed bleacher expansion meets all the specific requirements of the City Comprehensive Land Use Plan.

Item 2: The proposed use is or will be compatible with present and future land uses of the area.

The proposed bleacher expansion continues the present use of the site.
The inclusion of larger capacity stadium events to this site is being proposed due to the new information and circumstances of available surrounding areas that the District acquired in the time since the referendum planning process, as well as since the original Conditional Use Permit was approved in 2021. At the time of the referendum passing in 2019, based on the site space available at North Campus, the largest stadium events like Varsity football were planned to stay located at South for the time being, with the long-term plan to move to North Campus at some point in the future. The North campus stadium was designed for future expansion, sound, and lights for a full stadium. In the time since 2021, as various residential lots around the site became available and were consolidated into the site area available to the District, it became more feasible to host Varsity football games and other large events there due to the availability of parking spaces. Other amenities on this site like equipment storage, and a restroom and concessions building make bring additional value to co—locating larger athletic and activities events into one site. The consolidation of as many high school activities as possible onto one site also allows students and staff to be served and supported at one location, and provides a dedicated space for the majority of high school within the community.

Item 3: The proposed use conforms with all performance standards contained herein.

It is our intent that the proposed bleacher expansion meets all the City's standards.

Item 4: The proposed use will not tend to or actually depreciate the area in which it is proposed.

Typically schools appreciate land values and we believe this additional bleacher capacity would continue to enhance the investments already being made in the White Bear Lake Area High School site.

Item 5: The proposed use can be accommodated with existing public services and will not overburden the City's service capacity.

Utility connections for the main building and site expansion were designed in discussion with the city to be provided by the project and not overburden the City's service capacity, and the infrastructure needed for bleachers expansion was included in the previously approved Conditional Use Permit, and was limited to minimal power and data etc. This on-site infrastructure was planned for with open conduit in the original site design to minimize impact to the site once complete.

Other infrastructure within the City that could be impacted by this proposal are roadways and intersections. The traffic study and event analysis show that the previously recommended improvements to nearby roadways and intersections are expected to provide acceptable traffic operations. These improvements are in coordination with local agencies, and construction of these updates will be completed by Summer of 2024. The anticipated traffic impact to area infrastructure from larger stadium events will be intermittent and limited to a select number of dates per year. These dates can be coordinated between the District and the City for reducing conflict with other area events and planning around local traffic control measures on an as needed basis. Additionally, the traffic generated at high volume times for stadium events with increased bleacher capacity being proposed will generate similar traffic volumes to the high school dismissal traffic, but actually occurs at a less busy time of the day on area roads (occurring in the evening rather than late afternoon).

Item 6: Traffic generation by the proposed use is within capabilities of streets serving the property.

The parking available on site was increased in the original building additions and site and reconstruction project and distributes parking and drop-off locations to the east and west sides of the site to separate traffic flows and help reduce the burden on surrounding streets. Through a traffic study memorandum and recent (February 2023) amendment, the existing streets were analyzed for potential traffic impact for events. Off-site improvements consistent with the original traffic study are part of a separate project that will be completed along with the proposed project.

Based on the event analysis, the existing and planned (and previously approved) improvements to the nearby roadways/intersections are expected to provide acceptable traffic operations. There are expected to be increased traffic volumes in the area for an hour before events and for 15-30 minutes after an event. Especially after events, some intersections may have longer delays/queues during the 15-30 minutes it takes to clear the event. For comparison, the busiest of events at the stadium will generate similar traffic volumes to the dismissal of the high school except that it will occur at around 9:30 PM when other roadway traffic is generally low.

Additional recommendations as part of the CUP amendment memorandum will be coordinated with City and any other necessary agencies. Per conversations with City Engineering, the impacts of larger events on any given site can be difficult to predict, and the City recommends that the need for traffic mitigation measures be evaluated and considered as these events occur. The District has committed to working with the City on traffic mitigation measures that arise as the circumstances of these events are fully understood. These may include, but are not limited to, hiring traffic control personnel at site intersections and/or parking access routes, coordinating with local law enforcement for additional traffic control support, coordinating with the City on event schedules to limit parking on residential streets, and other measures deemed necessary.

MEMORANDUM

TO: Tim Wald
Assistant Superintendent for Finance & Building Operation
White Bear Lake Area Public Schools

FROM: Justin Anibas, PE (MN)
Chad Jorgenson, PE (MN), PTOE
Thomas A. Sohrweide, PE (MN), PTOE

DATE: February 10, 2023

RE: White Bear Lake Area High School Event Analysis Traffic Study
SEH No. ISDWB 170554

This technical memorandum provides the findings related to the traffic analysis of the proposed events held at the expanded White Bear Lake Area High School and Central Middle School site.

This study serves as an addition to the previous *White Bear Lake High School Expansion Traffic Study – Traffic Study Findings* technical memorandum, completed in January 2021. That study provided recommendations for roadway and site improvements to provide acceptable traffic operations during school arrival and dismissal peak periods.

INTRODUCTION

White Bear Lake Area Schools are proposing using the expanded High School and Middle School site to host various types of outdoor events in the proposed 5,000 seat stadium including football, soccer, track and field, lacrosse, etc.

Of these events, football games are the most highly attended and typically result in the greatest traffic impacts to the nearby roadways, therefore the event analysis for this study focuses on football games specifically.

Football games are generally held on Friday nights from September and October, with four to five games played at home each season. Based on discussions with the school, there is no plan to hold any other type of event on the school site at the same time as a football game.

For the event analysis, traffic operations analyses were completed for the year of opening (2024) for three different football event sizes at the proposed multi-sport stadium on the site on a Friday night. The traffic analyses were used to identify the impacts and needs for the surrounding roadways during events.

Figure 1 illustrates the immediate project area and highlights the high school and middle school sites as well as the study intersections. The findings of this analysis will be useful to understand the future impacts at the following intersections during events at the school site:

- Highway 61 at 4th Street
- Highway 61 at 7th Street
- Highway 61 at 8th Street
- Highway 61 at Highway 96
- Highway 61 at Buffalo Street
- Long Avenue at 8th Street
- Washington Avenue at 8th Street
- Division Avenue at 7th Street
- Division Avenue at 8th Street
- Division Avenue at both High School Accesses (Existing and Future locations)
- Bloom Avenue at 4th Street
- Bloom Avenue at 5th Street
- Bald Eagle Avenue at 4th Street
- Bald Eagle Avenue at 5th Street
- Bald Eagle Avenue at 9th Street
- Bald Eagle Avenue at Future High School Access
- Bald Eagle Avenue at 12th Street/High School Access
- Bald Eagle Avenue at Stillwater Street
- Bald Eagle Avenue at Bald Eagle Boulevard
- East Bald Eagle Blvd at Park Avenue/Beaver Street
- Division Street at Park Avenue
- Eagle Street at Park Avenue
- East Bald Eagle Boulevard at Buffalo Street
- Eagle Street at Buffalo Street
- Hugo Road at Buffalo Street

Path: X:\FJ\WSDWB\170554\5-final-dsgn\51-drawings\90-GIS\Figure 1_Project Location.mxd

Project: ISDWB 170554
Print Date: 1/23/2023

Map by: jdanibas
Projection: Ramsey Co. Coords.
Source: ESRI Online

Project Location

WBL School Event Analysis Study
White Bear Lake, MN

Figure 1

EXECUTIVE SUMMARY

The traffic operations of the study intersections during arrival and dismissal for the proposed 5,000 seat stadium on the expanded High School site were analyzed under 2024 conditions for three different event sizes. The event sizes were determined based on White Bear Lake football attendance data from 2019 through 2022. The current stadium has a capacity of around 4,800 people, however, no events over the past 4 years have had an attendance over 80% of the capacity.

- Maximum Capacity Event – 5,000 people
- Homecoming Football Game – 3,800 people
- Typical Football Game – 1,600 people

To better understand football game arrival, departure, and parking patterns for White Bear Lake football games, SEH staff observed the operations of the 2022 Homecoming football game, held on September 23, 2022. Driveway counts during arrival and departure were also conducted for the 2022 Homecoming football game. Below are the major findings from those observations/counts.

- Vehicles arrive steadily over the hour and a half before the game but 85% of vehicles attempt to leave the event as soon as possible after the event ends.
- There was significant pick-up/drop-off activity that occurred within the parking lot and on County Road E, both of which could present safety issues.
- With only one access point to exit the parking lot there were long queues observed within the parking lot after the game, which took approximately 35 minutes to clear after the game.

The traffic operations analysis for the events at the stadium included all the planned roadway/intersections improvements that were recommended in the White Bear Lake High School Expansion Traffic Study. These include providing turn lanes on Division Street and Bald Eagle Avenue at the school accesses, a signal at the Highway 61/8th Street intersection, all-way stop control at the Division Street/8th Street intersection, and improvements to the 8th Street cross section to improve traffic operations.

Trips were generated and arrival and dismissal rates were calculated for each event size using the data collected at the 2022 Homecoming football game. From the 2022 Homecoming football game counts, approximately 80% of vehicles enter the site during the hour before the game (with 20% entering before that) and 100% of vehicles exit the site during the departure peak hour. Trips were distributed for the event arrival and departure are based on the proposed site plan, traffic count data, and future housing information from the White Bear Lake School District's *Demographic, Housing, & Enrollment Analysis* report. The trip distribution to the surrounding roadway network for events is expected to closely match the distribution for the school related trips used in the White Bear Lake High School Expansion Traffic Study.

The site provides six access points to school parking lots on the high school site: three located on Bald Eagle Avenue, two located along Division Avenue, and one along Bloom Avenue. Pick up/drop off trips will be allowed on both the east and west side of the High School building. It is recommended that there are designated areas for pick-up/drop-off activities that are separate from the parking areas to improve safety and efficiency during event arrival and departure times. Additional parking and pick-up/drop-off locations at the Middle School are available and should likely be used for larger stadium events (such as Homecoming).

The proposed high school expansion includes 1,130 total parking spaces, with the Middle School just south of the stadium having 214 additional parking spaces. 569 spaces are located on the west side of the high school while the remaining 561 spaces are on the east side of the high school. Based on the analysis, it is expected that there would be enough capacity on site for all parking vehicles. However, based on our observations at the 2022 Homecoming football game, some people are likely to park on nearby city streets if possible, even if the available lots are not full in order to have a quicker exit after the game. If on-street, off-site parking is a concern of the City, parking could be restricted to one side of the street during events to maintain two-way vehicle traffic and improve operations when vehicles are exiting.

The main stadium gate is expected to be in the northwest corner of the stadium, near the parking lots on the west side of the High School. During larger events, the school will provide another gate at the southeast corner of the stadium near Central Middle School. The school is considering providing another gate at the northeast corner of the stadium to provide easy access from the parking lots on the east side of the site.

Traffic operations analysis concluded that for larger events (i.e. Homecoming) northbound left turns off of Highway 61 at 7th and 8th Street would have higher delays and maximum queues that would approach or spill out of the available storage, blocking Highway 61 through traffic. This issue can be eliminated with minor signal timing adjustments to provide sufficient green time for the northbound left turn phases while maintaining acceptable splits for through vehicles on Highway 61 based on MnDOT signal timing guidance.

During departure, there are not expected to be any significant issues at any of the study intersections. However, Buffalo Street/Hugo Road and 8th Street are expected to have long delays/queues at Highway 61 as vehicles leave the event. These issues would be improved with increased eastbound green time at the Highway 61 signals, but ultimately the queues do not cause major issues at other intersections and are not expected to last more than 20-30 minutes after the game ends and the school site clears.

For a typical football game, there are not expected to be any operational issues during event arrival or departure. Some intersections may have longer delays/queues briefly during the 15-minute peak demand directly after the game ends.

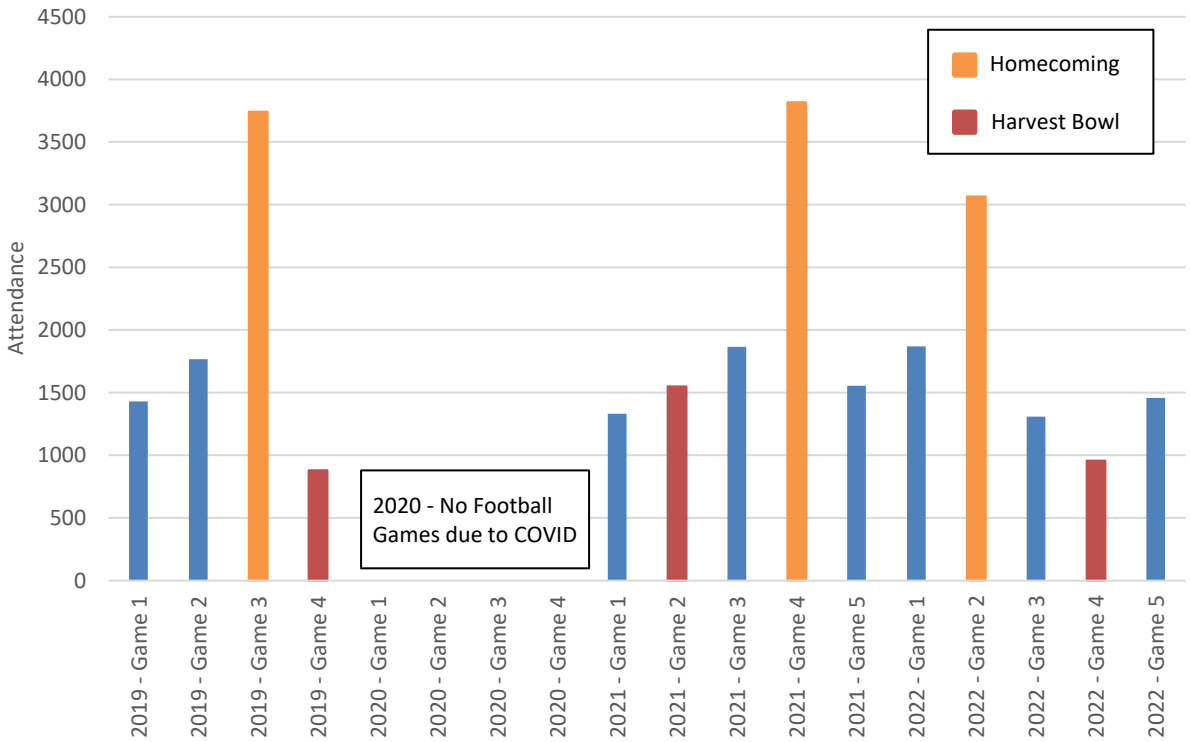
FOOTBALL ATTENDANCE DATA

To determine the typical attendance expected at future football events at the new stadium, the school provided football game attendance data from 2019 through 2022. The attendance includes online and in-person ticket purchases as well as student passes. The current stadium has a capacity of around 4,800 people, however, no events over the past 4 years have had an attendance over 80% of the capacity.

Each year, White Bear Lake Football hosts a Harvest Bowl, which includes free admission into the game with a donation to the White Bear Lake Food Shelf. The 2019 and 2022 Harvest Bowl games were removed when determining the typical game attendance due to the difficulty in estimating the exact attendance for these games.

Figure 2 shows the attendance for White Bear Lake home football games from 2019 through 2022. Based on the attendance information, approximately 1,600 people attend the typical football game, while the most highly attended event (2021 Homecoming) had an attendance of just over 3,800.

Figure 2 – White Bear Lake Football Attendance (2019-2022)



Based on the attendance information, the following three events were analyzed as part of this study.

- Maximum Capacity Event – 5,000 people
- Homecoming Football Game – 3,800 people
- Typical Football Game – 1,600 people

2022 HOMECOMING FOOTBAL GAME OBSERVATIONS

To better understand football game arrival, departure, and parking patterns for White Bear Lake football games, SEH staff observed the operations of the 2022 Homecoming football game, held on September 23, 2022. The Homecoming game was chosen because it is the most highly attended game of the year, and, therefore, represents the worst traffic operations/parking conditions of the season. Based on the attendance data provided by the school, there were approximately 3,065 people in attendance at the game. It should be noted that it began to rain during the game, which resulted in many fans leaving the game early.

In addition to observing the arrival and departure patterns for the game, entering and exiting traffic was counted between 5 and 10:30 PM at the entering and exiting driveways for the main parking lot. These counts were used to determine the time distribution of entering and exiting traffic during the hour(s) before and after the game. Below are the observations of arrival, parking, and departure patterns from the 2022 Homecoming Game.

Arrival – 7:00 PM Game Start

- There is only one entrance to the main lot (approximately 600 parking spaces) which resulted in some queuing on McKnight Road at times
- Vehicles arrived steadily between 5:30 and 7:00 PM
  - Busiest arrival time between 6:25 and 6:40 PM
- Vehicles began parking on off-site streets well before the parking lot was full, likely to make it quicker to leave after the game
  - Many vehicles parked on County Road E or in the neighborhoods north and south of the stadium
- There was significant drop-off activity that occurred within the parking lot.
  - Based on the counts, approximately 15% of attendees were picked-up/dropped-off
  - This could result in a safety issue as there was a mix of pedestrians exiting their parked cars, slow moving vehicles looking for a spot to park, and faster moving vehicles just looking to exit the lot after drop-off in the lot at times.
- There was significant drop-off activity that occurred on County Road E
  - Drop-off activities on a public roadway could present safety issues as many vehicles are just using the street to pass through the area

Departure – 9:30 PM Game End

- There is only one exit to the main lot at the end of games (approximately 600 parking spaces) which results in long queues and delays within the parking lot
  - The queue exiting the main parking lot cleared at 10:05, approximately 35 minutes after the game ended.
  - 10-15 vehicles used the enter only driveway to exit the parking lot.
- Due to the weather, many people left the game early so the parking lot was about two thirds full when the game ended.
- There was pick-up activity both in the main lot and on County Road E.
  - The pick-up activity blocked traffic moving along County Road E and through the main lot at times
- There we long queues on McKnight Road from the McKnight Road/County Road E signal at times that approached Elm Drive at times.

- The queues cleared quickly due to the short cycle lengths at the signal. The entire queue would generally clear each cycle.

Parking

- 780 total parked cars
  - 499 in the main lot
  - 53 along County Road E
  - 80 in the parking lot near the Sheet Metal Workers Training Center west of the stadium
  - 75 in the neighborhood south of the school (Elm Dr/Buckbee Rd/Alrick Pl)
  - 51 in the neighborhood north of the stadium (Christine Place, Dennis Lane, Spruce Place, etc.)
  - 22 in the neighborhood east of the stadium (Elm Drive/Emerald Drive)
- Many of the nearby neighborhood streets had vehicles parked on both sides, which created a narrow travel lane that was only passable by one direction of traffic at time.
- With an assumed 5% of people walking/biking and an estimated 15% of attendees being picked-up/dropped-off (assumed 2 people per vehicle), it was estimated that each parked vehicle averaged just over 3 people per vehicle.
- 41 of the parked vehicles (5%) remained in the lot approximately 1 hour after the game ended.

Time Distribution (from driveway counts)

- Before the game, vehicles steadily entered the parking lot between 5:30 and 7:00 PM, with a peak between 6:15 and 6:45 PM.
  - Approximately 80% of trips in/out of the site before the game occur in the hour before the game begins (6:00-7:00 PM)
- Due to weather conditions, a significant portion of vehicles left the game before the end. However, it is estimated that around 10% of vehicles typically leave before the game ends
- Based on the counts and observations approximately 85% of traffic attempts to leave the site as soon as they can when the game ends.
  - Based on the counts, approximately 150-200 vehicles can exit from a single driveway in 15 minutes, taking approximately 35 minutes to clear the parking lot. Both parked vehicles and pick-up vehicles both exit using the same driveway at South Campus after events.

DATA COLLECTION

For the event analysis study, current traffic turning movement volume counts were collected at two intersections in the study area from 6 PM to 12 AM on a Friday night in December 2023 when there was no football game or other major events at either White Bear Lake Area High School. The full traffic counts at the two intersections are attached.

- Highway 61 at 7th Street
- Bald Eagle Avenue at 9th Street

To estimate the existing traffic demands during future event times, the 2023 Friday night traffic volumes were compared to the previous traffic volumes used in the previous White Bear Lake High School Expansion Traffic Study. The Friday night traffic volumes vary between 75% to 150% of the previous weekday (Tuesday through Thursday) traffic volumes. For the most part, the Friday night traffic demands are fairly similar to other weekdays between 6 PM and 10 PM. After 10 PM, the Friday night traffic demands are higher than typical weekdays. Based on the difference between the Friday night and typical weekday night traffic volumes, the remaining Friday night traffic volumes for the remaining 23 study intersections were estimated for each 15-minute period between 6 PM and 11 PM.

Traffic volumes are generally low on the neighborhood streets within the study area between 6 PM and 10 PM, especially when compared to future event traffic. Highway 61 has decreasing traffic demands as the night goes on, which results in lower traffic volumes when football games typically end.

The 2022 Homecoming football game started at approximately 7 PM and ended at 9:30 PM, which is typical of high school football games. Based on the driveway counts from the 2022 Homecoming football game, the arrival peak hour was determined to be 6:00 to 7:00 PM and the departure peak hour was determined to be 9:15 to 10:15 PM.

BACKGROUND TRAFFIC GROWTH

Traffic forecasts for major roadway segments in the study area under were developed based upon historical AADT's provided by the Minnesota Department of Transportation. The resulting annual background growth rates used to determine the 2024 traffic volumes were 2% for Highway 61, 0.5% for Highway 96 and City streets. **Figure 3** shows the 2024 background traffic volumes for each study intersection; these are the forecasted volumes on the roadway without an event.

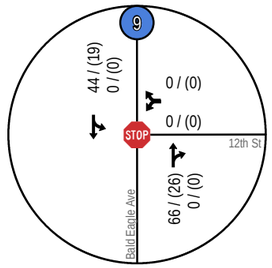
FUTURE CONDITIONS

As part of the previous White Bear Lake High School Expansion Traffic Study, several roadway/intersection improvements were recommended to provide acceptable traffic operations during the school arrival and dismissal peak hours. All of the improvements (listed below) are expected to be in place when the school and stadium open in 2024 and we included in all event traffic analyses.

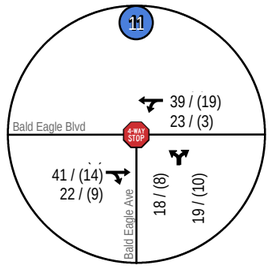
- Install a traffic signal at the intersection of Highway 61 at 8th Street.
- Convert the intersection of Division Avenue at 8th Street to an all-way stop controlled intersection.
- The cross-section of 8th Street between Highway 61 and Bloom Avenue will be modified to provide better traffic operations for two-way traffic by restricting parking on the north side of the street and providing a parking lane on the south side of the street
- Provide dedicated right and left turn lanes into the school site at the pick up/drop off access on Division Avenue and the main access on Bald Eagle Avenue. Provide a dedicated left turn lane into the student parking access on Division Avenue.

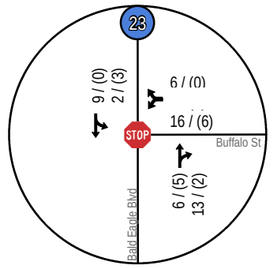
Path: X:\FJ\MSD\WB\170554\5-final-dsgn\51-drawings\90-GIS\Figure 3_2024 Background Traffic.mxd

Bald Eagle Ave

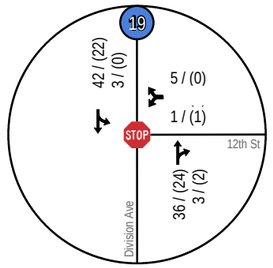


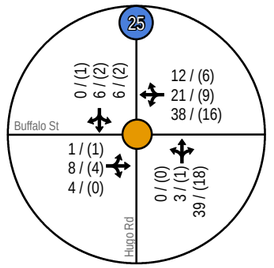
Bald Eagle Ave



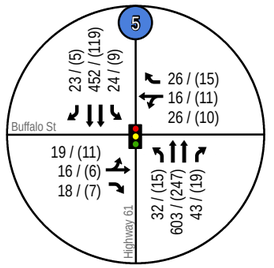


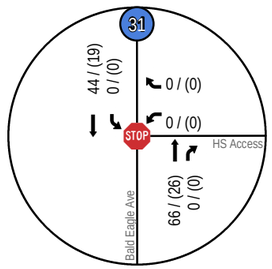
Division Ave

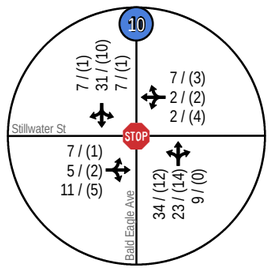


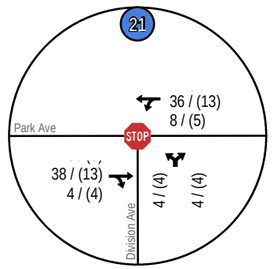


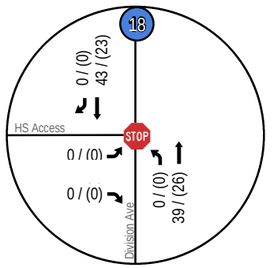
Highway 61

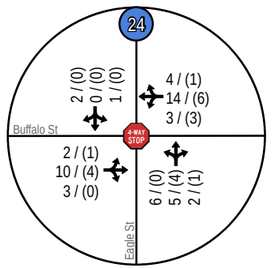


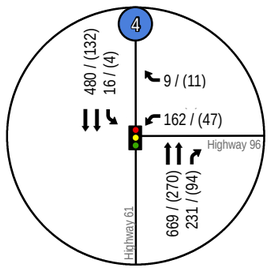


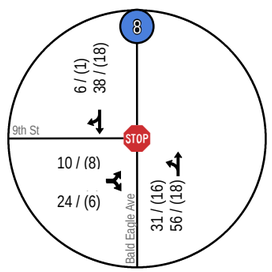


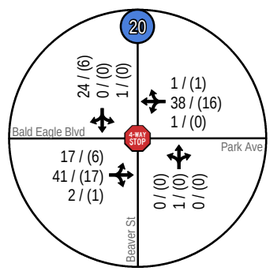


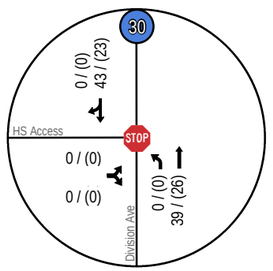


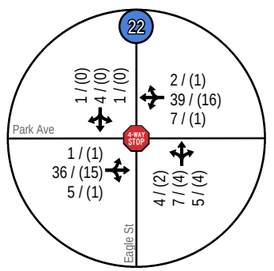


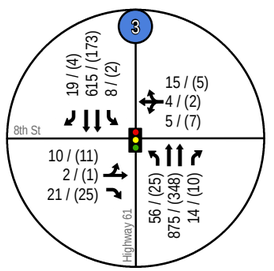




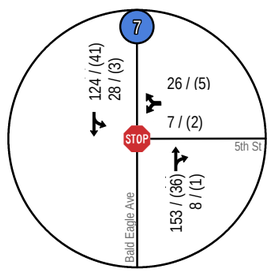


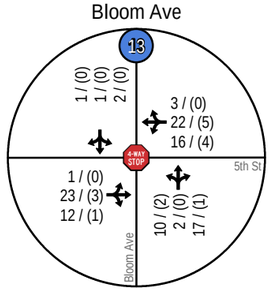


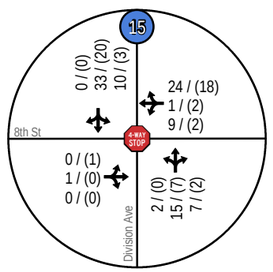


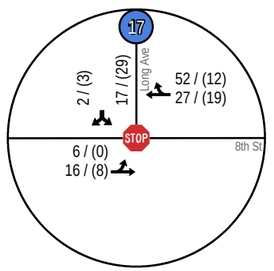


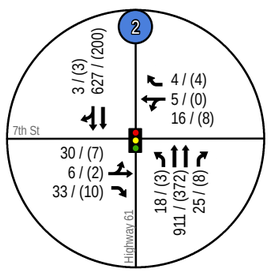
Bloom Ave

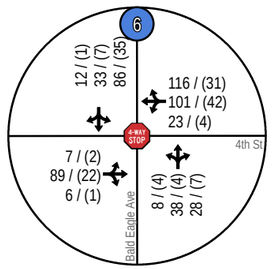


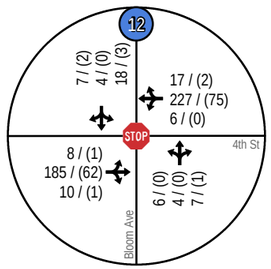


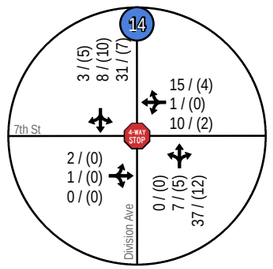


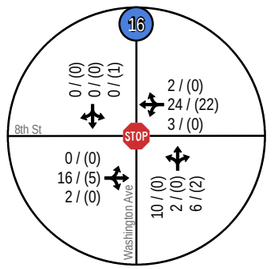


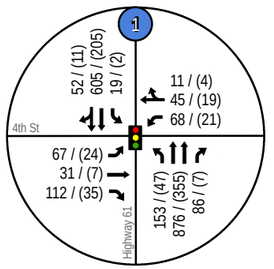












SEH

Existing/Planned Traffic Control (From School Expansion Study)

STOP Minor Street Stop Control

3-way Stop (WB Free)

4-WAY STOP All-way Stop Control

Traffic Signal

X Intersection ID

Existing/Planned Geometrics (from School Expansion Study)

XX / (XX) Event Arrival Peak Hour Volume (6:00-7:00 PM) / Event Depature Peak Hour Volume (9:15-10:15 PM)

Project: ISDWB 170554
Print Date: 1/25/2023

User Name: jdanibas
Projection: NAD 1983 HARN Adj MN Ramsey Feet
Source:

2024 Background Traffic Volumes

WBL School Event Analysis Study
White Bear Lake, MN

Figure 3

TRIP GENERATION

Trip generation estimates for each of the three event sizes were based on the existing driveway counts completed during the 2022 Homecoming football game. It was estimated that 5% of people would walk to the site from nearby neighborhoods/businesses and 15% would be dropped-off and picked-up. Using 2 people per pick-up/drop-off vehicle and 3 people/parked vehicle, pick-up/drop-off and parking trips were estimated for each of the three events sizes. From the 2022 Homecoming football game counts, approximately 80% of vehicles enter/exit the site during the arrival peak hour (with 20% entering/exiting before 6 PM) and 100% of vehicles enter/exit the site during the departure peak hour.

Table 1 summarizes the site trip generation estimates for the arrival and departure peak hours for each of the three event sizes analyzed.

Table 1 – Event Analysis Trip Generation

Event Size	Trip Type	Event Arrival Peak Hour			Event Departure Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Maximum Capacity (5,000 people)	Parking	1,069		1,069		1,334	1,334
	Pick-up/Drop-off	298	298	596	375	375	750
	Total	**1,367**	**298**	**1,665**	**375**	**1,709**	**2,084**
Homecoming Football Game (3,800 people)	Parking	812		812		1,014	1,014
	Pick-up/Drop-off	225	225	450	285	285	570
	Total	**1,037**	**225**	**1,262**	**285**	**1,299**	**1,584**
Typical Football Game (1,600 people)	Parking	341		341		427	427
	Pick-up/Drop-off	99	99	198	120	120	240
	Total	**440**	**99**	**539**	**120**	**547**	**667**

TRIP DISTRIBUTION

The trip distribution for the event arrival and departure are based on the proposed site plan, traffic count data, future housing information from the White Bear Lake School District's *Demographic, Housing, & Enrollment Analysis* report, and routing trends seen in the StreetLight data used in the White Bear Lake High School Expansion Traffic Study. The trip distribution for events is expected to closely match the distribution for the school used in the White Bear Lake High School Expansion Traffic Study.

Figure 4 shows the proposed site plan that was used for determining the event trip distribution. The proposed site includes the proposed 5,000 seat stadium directly between the High School and Middle School in the center of the site.

The site provides six access points to school parking lots on the high school site: three along Bald Eagle Avenue, two along Division Avenue, and one along Bloom Avenue. Pick up/drop off trips will be allowed on both the east and west side of the High School building. Additional parking and pick-up/drop-off locations at the Middle School are available and will likely be used for larger stadium events (such as Homecoming).

The proposed high school expansion includes 1,130 total parking spaces, with the Middle School just south of the stadium having 214 additional parking spaces. 569 spaces are located on the west side of the high school while the remaining 561 spaces are on the east side of the high school.

The main stadium gate is expected to be in the northwest corner of the stadium, near the parking lots on the west side of the High School. During larger events, the school will provide at another gate at the

southeast corner of the stadium near Central Middle School. The school is considering providing another gate at the northeast corner of the stadium to provide easy access from the parking lots on the east side of the site.

Trips to/from the site were generally routed to each parking or pick-up/drop-off area based on whichever area is most convenient to them when entering/exiting the site. As a result, the trip distribution is slightly different for parking trips versus pick-up/drop off trips. **Figures 5 and 6** show the trip distribution for the event parking and pick-up/drop-off trips under each scenario. For the larger events (Maximum Capacity and Homecoming), the Middle School was utilized for both parking and pick-up/drop-off activities. However, for the typical football game it was assumed that all parking and pick-up/drop-off activity would occur on the High School site based on the location of the stadium gates.

The only difference between the distribution of the event trips and the proposed school site plan is that the analysis assumes only two high school accesses on Bald Eagle Avenue and the most recent site plan has three. However, the third access would only serve to improve traffic operations on Bald Eagle Avenue.

The time distribution of event trips throughout the event arrival and departure peak hours was based on the data collected at the 2022 Homecoming football game, which is expected to be similar to the future events in the new stadium. During the arrival peak hour, trips were spread over each 15-minute period to show the steady arrival of people to the event over the hour. During the departure peak hour, trips were spread over each 15-mintue period based on the capacity of exit driveways, which were estimated to be 150 to 200 vehicles per 15 minutes. This method allows for a more accurate analysis of the rate at which vehicles leave the site and impact the surrounding roadway network. As a result, the time distribution for exiting traffic during the departure peak hour was slightly different for each event size scenario.

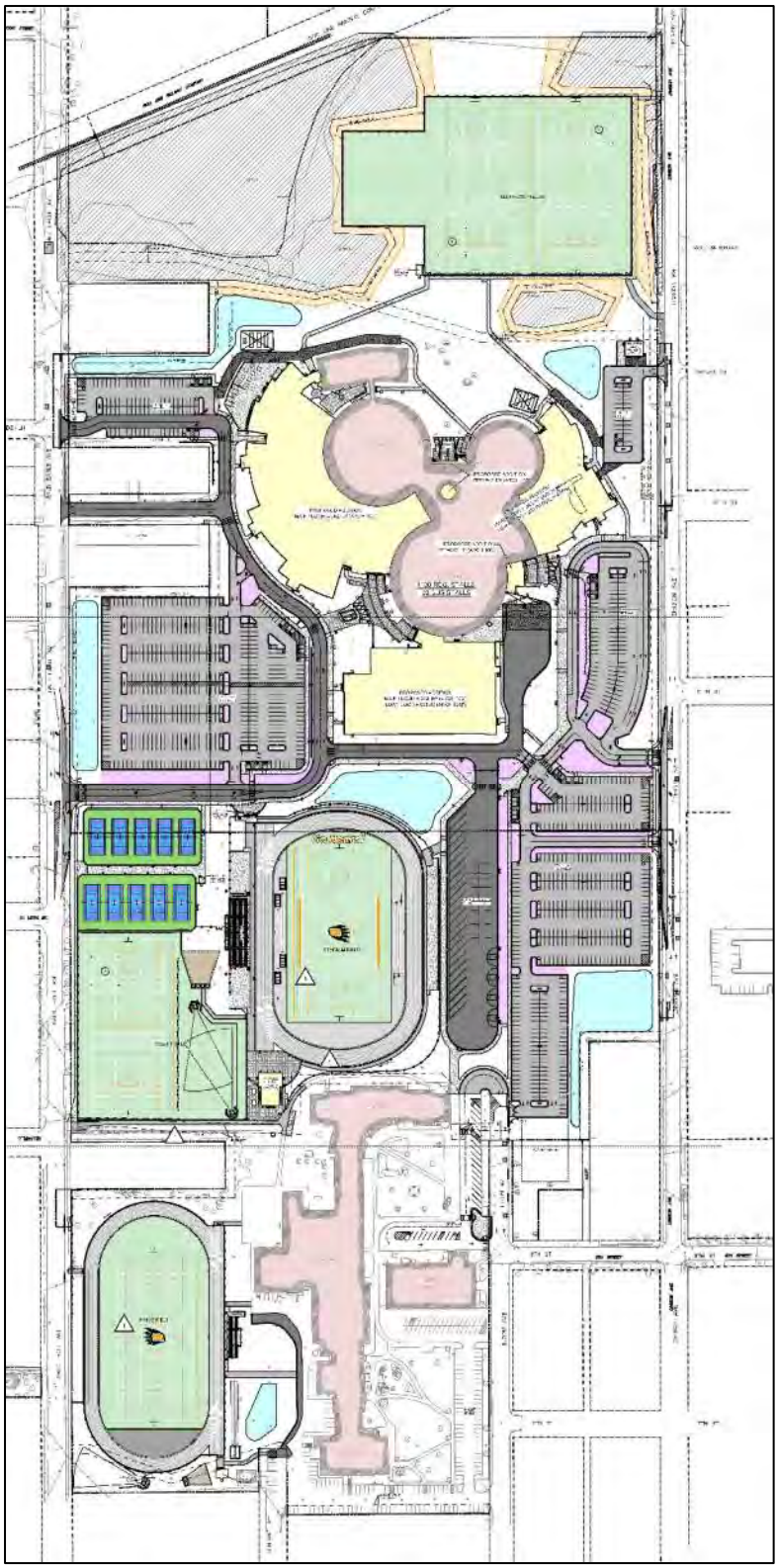
Figures 7 through 9 show the estimated traffic volumes during the arrival and departure peak hours for each of the three event size scenarios.

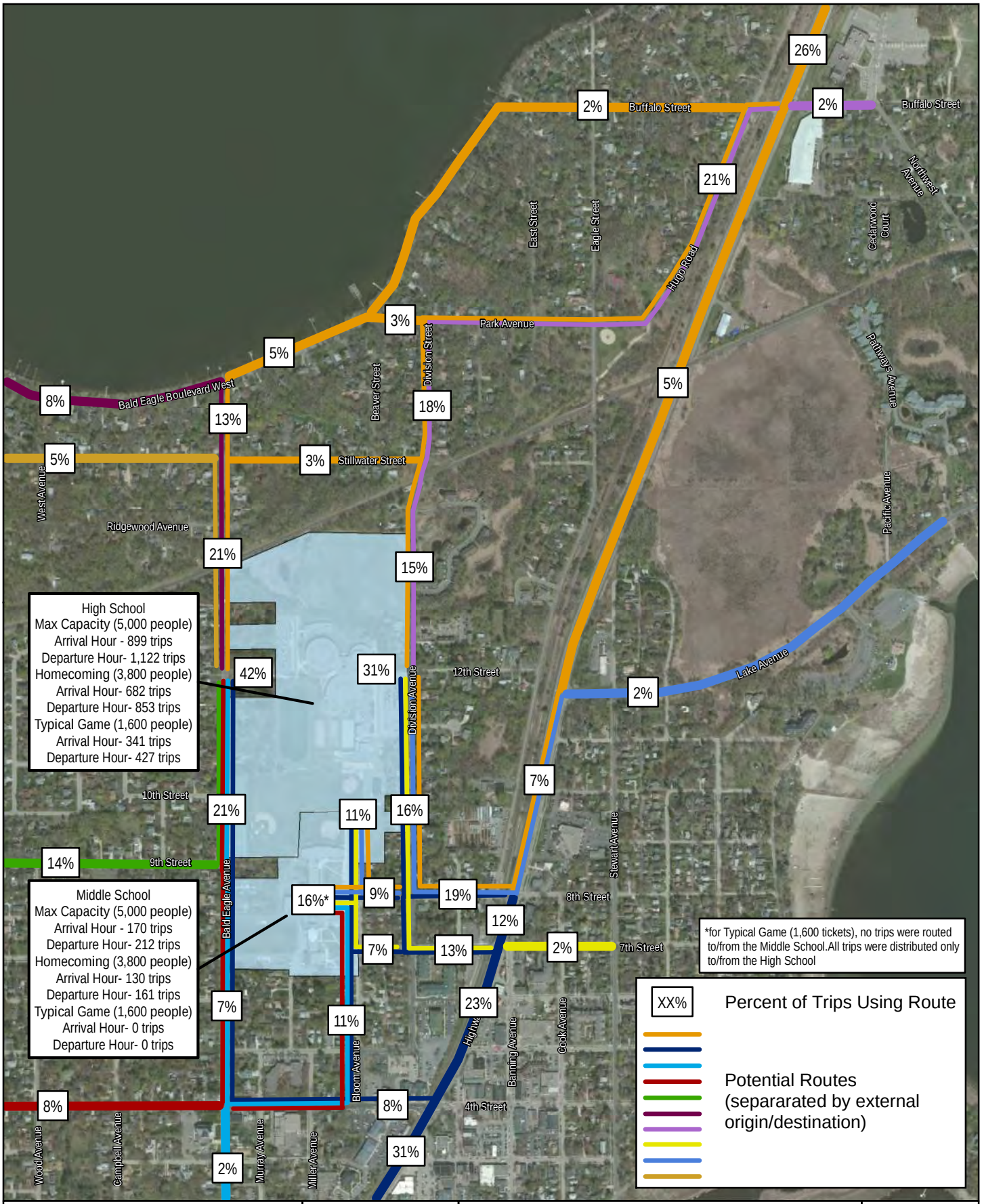
OFF SITE PARKING

It should be noted that all trips for the event analysis were routed into/out of either the High School or Middle School sites, and that no trips were routed to park on any of the nearby city streets. Based on the trip generation and parking availability, it is expected that there would be enough capacity on site for all parking vehicles. However, based on our observations at the 2022 Homecoming football game, some people are likely to park on nearby city streets if possible, even if the available lots are not full in order to have a quicker exit after the game.

If on-street, off-site parking is a concern of the City, parking could be restricted to one side of the street during events to maintain two-way vehicle traffic and improve operations when vehicles are exiting.

Figure 4 – Proposed Site Plan





Path: X:\FJ\MSDWB\170554\5-final-dsgn\51-drawings\90-GIS\Figure 5_Event Parking Trip Distribution.mxd

SEH

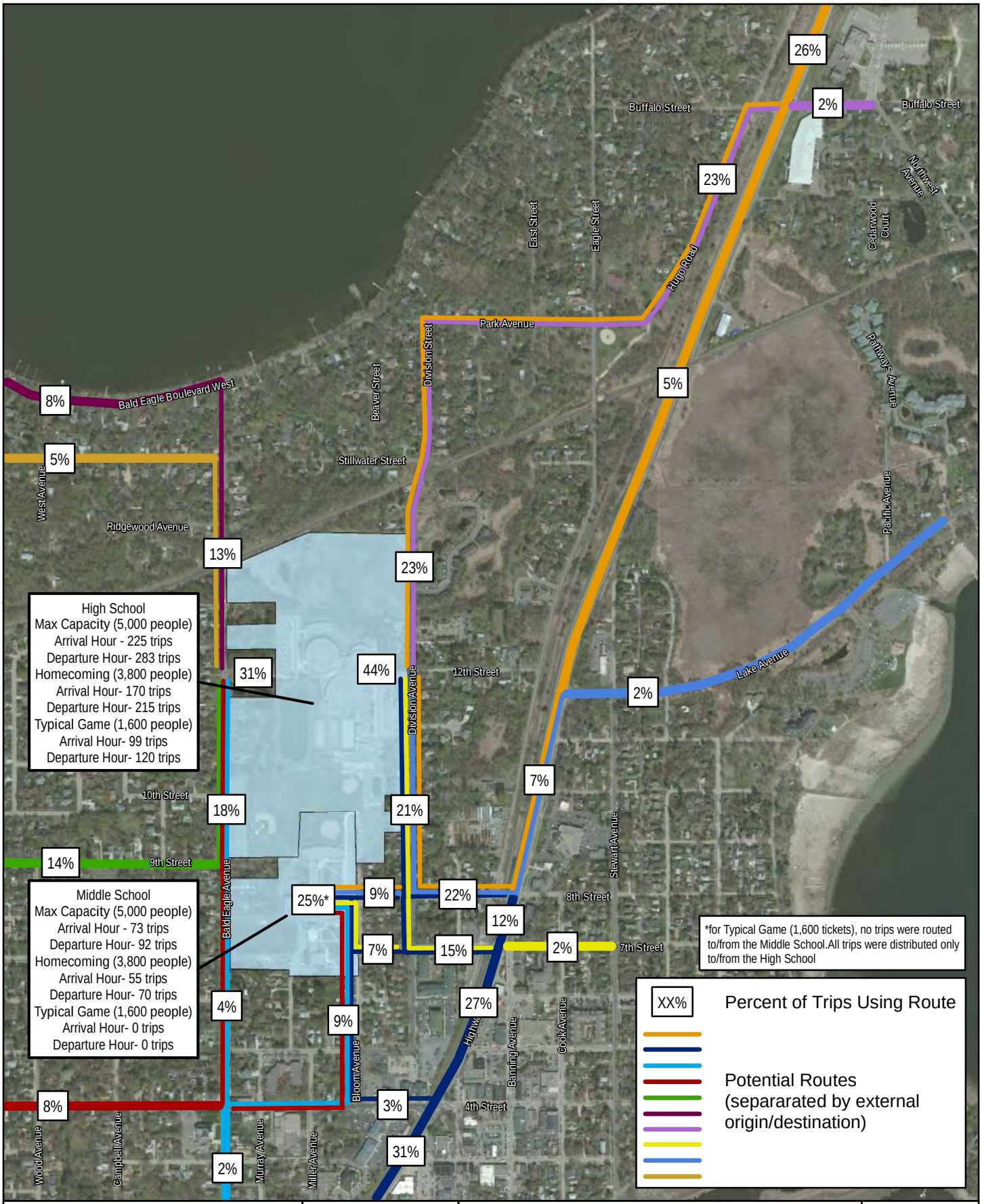
Project: ISDWB 170554
Print Date: 1/25/2023

Map by: jdanibas
Projection: Ramsey Co. Coords.
Source: ESRI Online

Event Parking Trip Distribution

WBL School Event Analysis Study
White Bear Lake, MN

Figure 5



Path: X:\FJ\MSDWB\170554\5-final-dsgn\51-drawings\90-GIS\Figure 6_Event Pick-Up & Drop Off Trip Distribution.mxd

Project: ISDWB 170554
Print Date: 1/25/2023

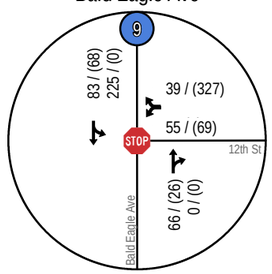
Map by: jdanibas
Projection: Ramsey Co. Coords.
Source: ESRI Online

Event Pick-up/Drop-off Trip Distribution
WBL School Event Analysis Study
White Bear Lake, MN

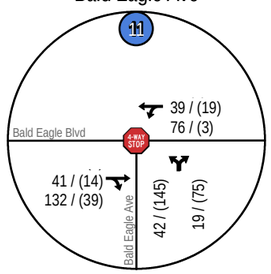
Figure 6

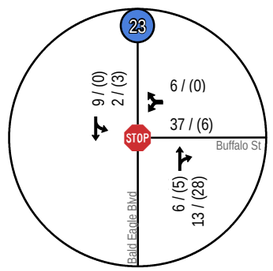
Path: X:\FJ\MSD\WB\170554\5-final-dsgn\51-drawings\90-GIS\Figure 7_2024 Max Capacity Volumes.mxd

Bald Eagle Ave

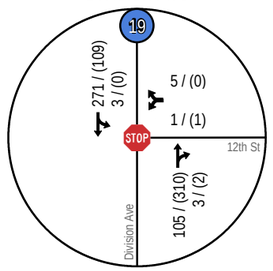


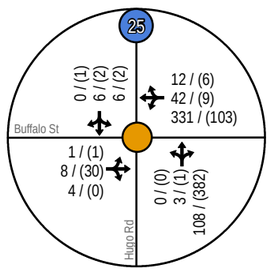
Bald Eagle Ave



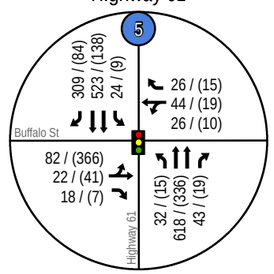


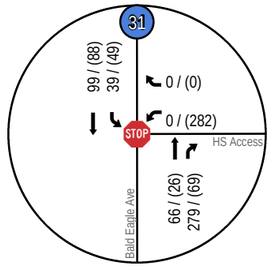
Division Ave

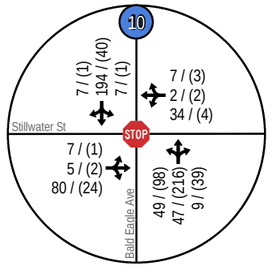


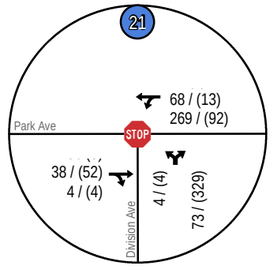


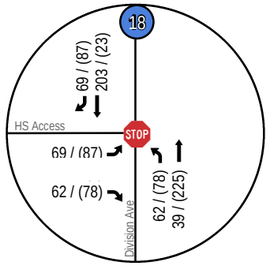
Highway 61

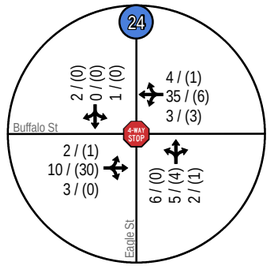


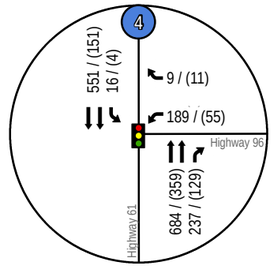


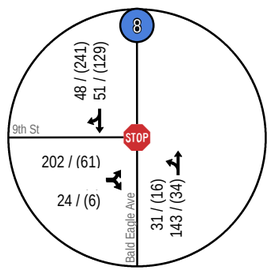


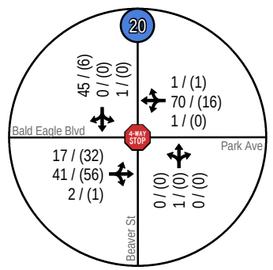


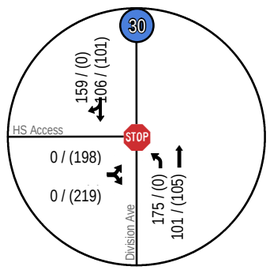


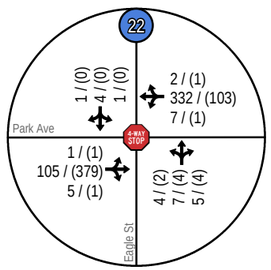


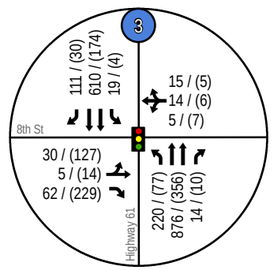




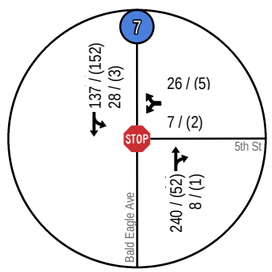


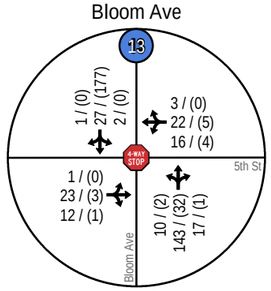


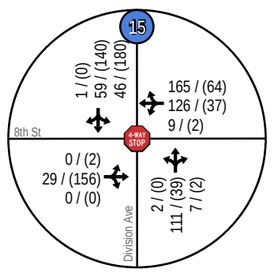


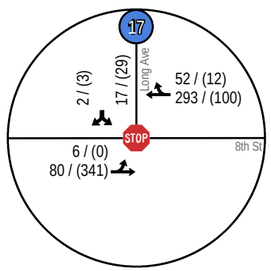


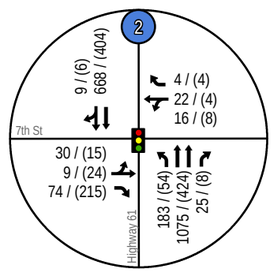
Bloom Ave

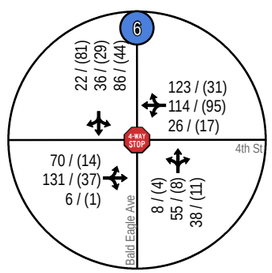


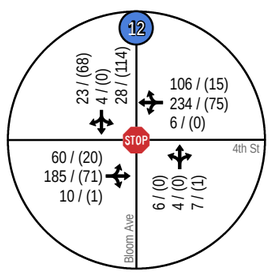


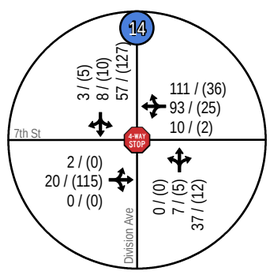


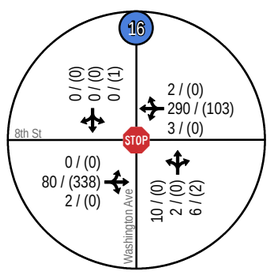


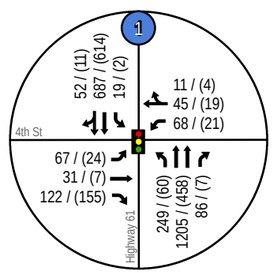












Existing/Planned Traffic Control (From School Expansion Study)

STOP Minor Street Stop Control

4-WAY STOP All-way Stop Control

3-way Stop (WB Free)

Traffic Signal

X Intersection ID

Existing/Planned Geometrics (from School Expansion Study)

XX / (XX) Event Arrival Peak Hour Volume (6:00-7:00 PM) / Event Departure Peak Hour Volume (9:15-10:15 PM)

Project: ISDWB 170554
Print Date: 1/25/2023

User Name: jdanibas
Projection: NAD 1983 HARN Adj MN Ramsey Feet
Source:

2024 Event Traffic Volumes (Maximum Capacity Event - 5,000 people)

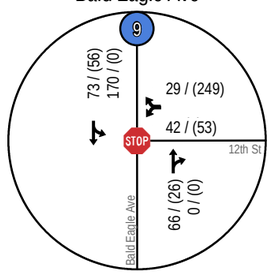
WBL School Event Analysis Study

White Bear Lake, MN

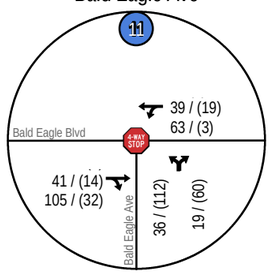
Figure 7

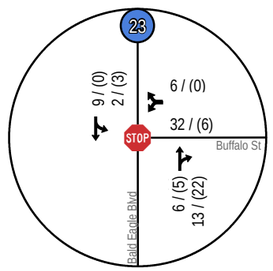
Path: X:\FJ\MSD\WB\170554\5-final-dsgn\51-drawings\90-GIS\Figure 8_2024 Homecoming Volumes.mxd

Bald Eagle Ave

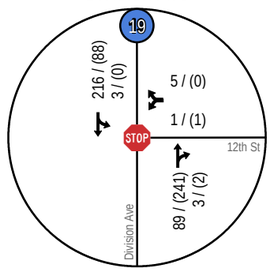


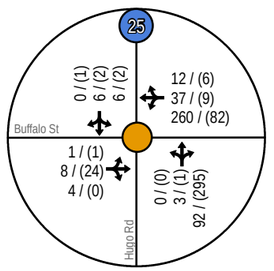
Bald Eagle Ave



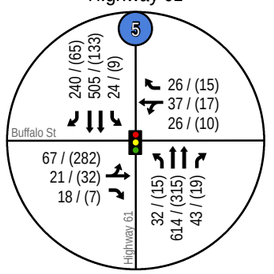


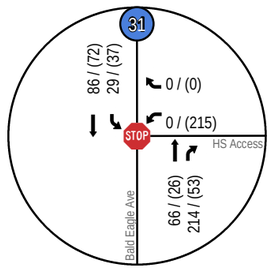
Division Ave

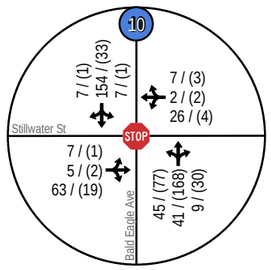


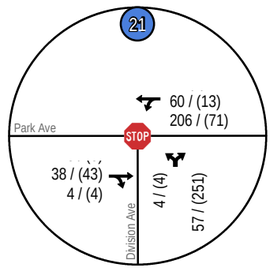


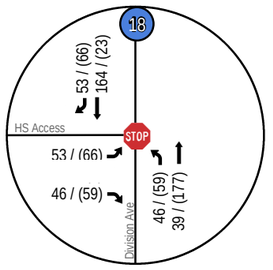
Highway 61

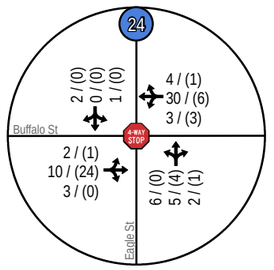


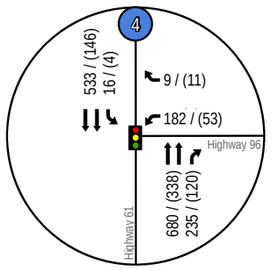


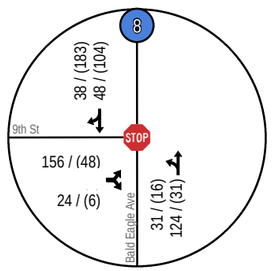


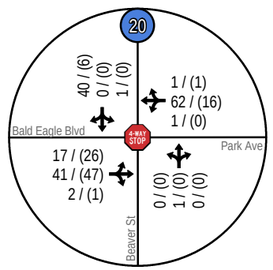


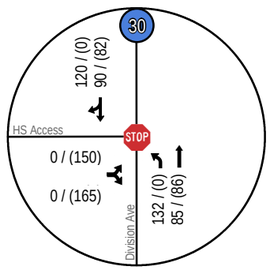


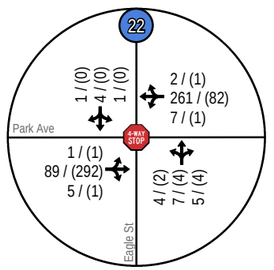


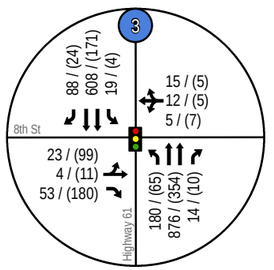




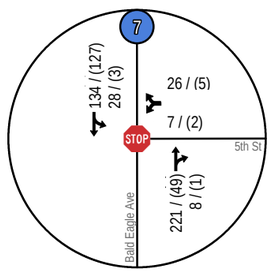


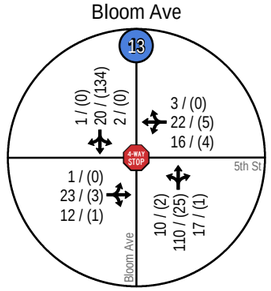


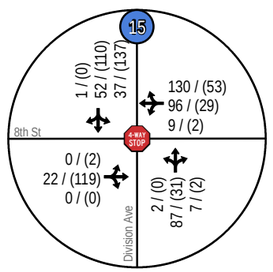


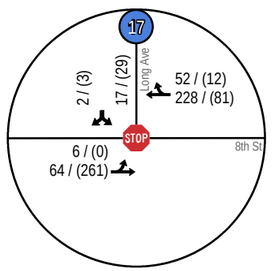


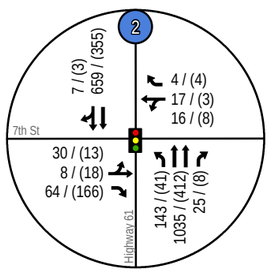
Bloom Ave

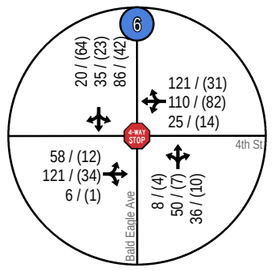


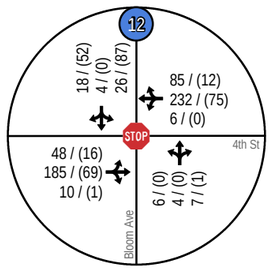


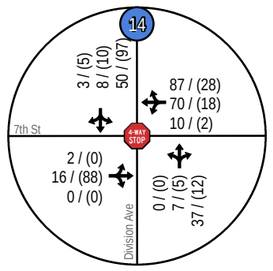


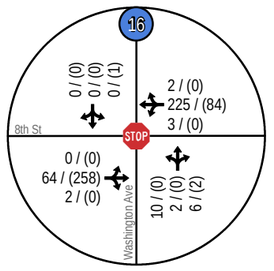


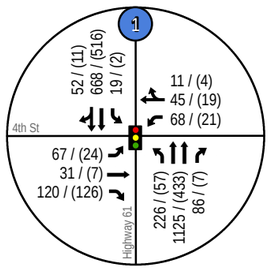












Existing/Planned Traffic Control (From School Expansion Study)

STOP Minor Street Stop Control

4-WAY STOP All-way Stop Control

3-way Stop (WB Free)

Traffic Signal

X Intersection ID

Existing/Planned Geometrics (from School Expansion Study)

XX / (XX) Event Arrival Peak Hour Volume (6:00-7:00 PM) / Event Departure Peak Hour Volume (9:15-10:15 PM)

Project: ISDWB 170554
Print Date: 1/25/2023

User Name: jdanibas
Projection: NAD 1983 HARN Adj MN Ramsey Feet
Source:

2024 Event Traffic Volumes (Homecoming Football Game - 3,800 people)

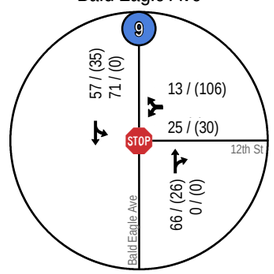
WBL School Event Analysis Study

White Bear Lake, MN

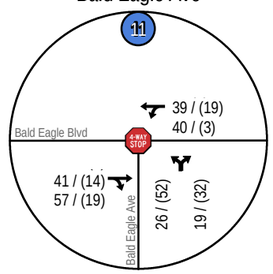
Figure 8

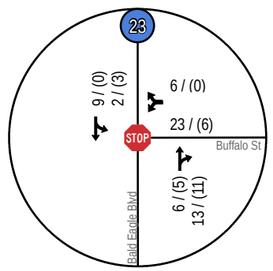
Path: X:\FJ\MSD\WB\170554\5-final-dsgn\51-drawings\90-GIS\Figure 9_2024 Typical Football Game Volumes.mxd

Bald Eagle Ave

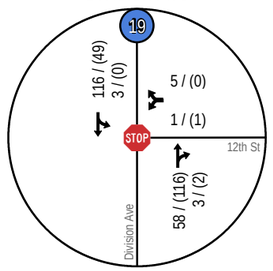


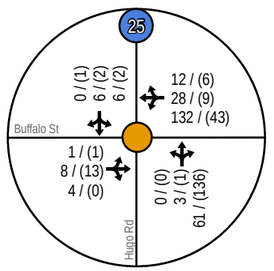
Bald Eagle Ave



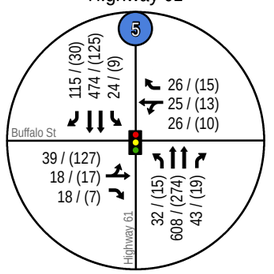


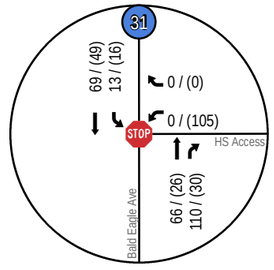
Division Ave

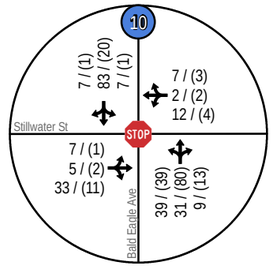


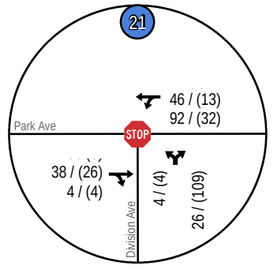


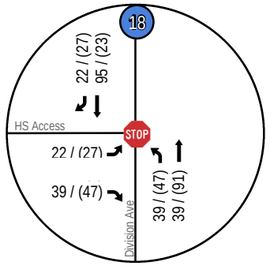
Highway 61

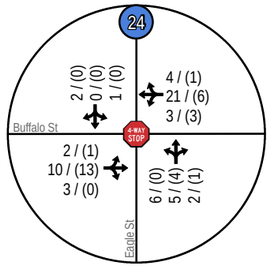


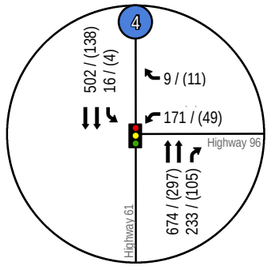


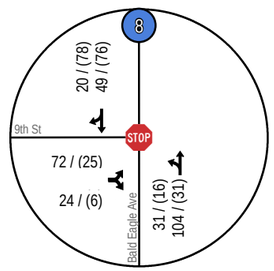


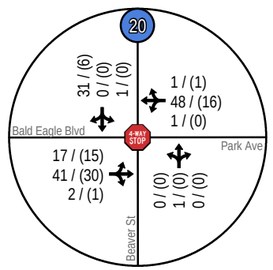


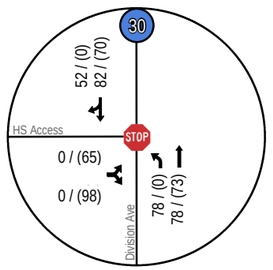


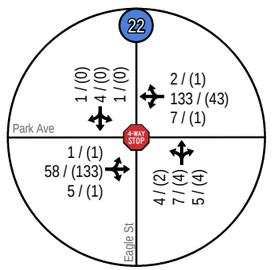


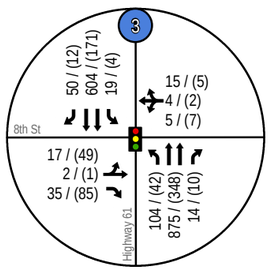




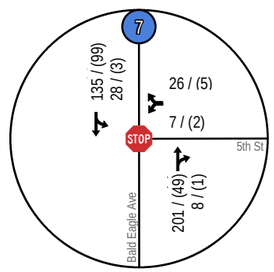


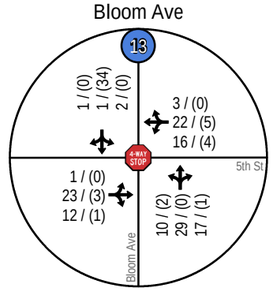


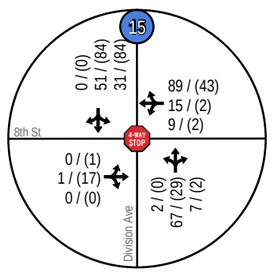


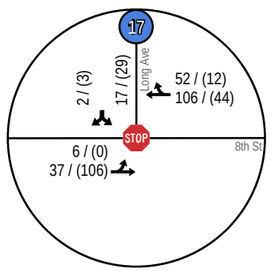


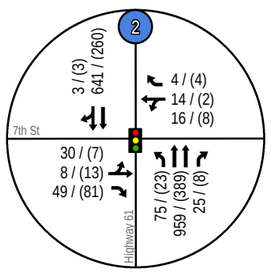
Bloom Ave

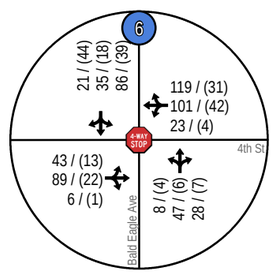


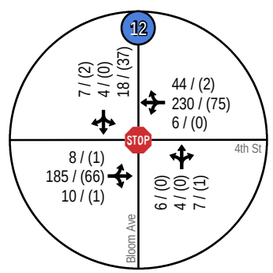


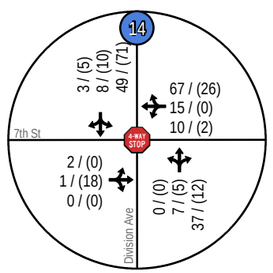


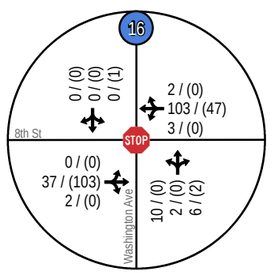


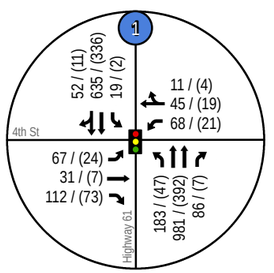












Existing/Planned Traffic Control (From School Expansion Study)

STOP Minor Street Stop Control

4-WAY STOP All-way Stop Control

3-way Stop (WB Free)

Traffic Signal

X Intersection ID

Existing/Planned Geometrics (from School Expansion Study)

XX / (XX) Event Arrival Peak Hour Volume (6:00-7:00 PM) / Event Departure Peak Hour Volume (9:15-10:15 PM)

Project: ISDWB 170554
Print Date: 1/25/2023

User Name: jdanibas
Projection: NAD 1983 HARN Adj MN Ramsey Feet
Source:

2024 Event Traffic Volumes (Typical Football Game - 1,600 people)

WBL School Event Analysis Study

White Bear Lake, MN

Figure 9

EVENT DEPARTURE PARKING LOT CLEAR TIME

Based on the data from the 2022 Homecoming football game, approximately 85% of the vehicles attempt to exit the parking lot as soon as possible, with 10% leaving before the end of the game and 5% staying until 30-45 minutes after the end of the game. However, only approximately 150-200 vehicles can exit from a single driveway in 15 minutes, which is why it takes longer for all of the vehicles to clear the site. Most of the parking in the site will be split between the two major parking lots, one on each side of the high school. The 150-200 vehicles per 15 minutes capacity was used along with the estimated trips using each access point to estimate the amount of time it would take after an event to clear the site. The estimated time to clear the site under each event size scenario is below.

- Existing Site (2022 Homecoming) – approximately 35 minutes
- Maximum Capacity Event (5,000 people) – approximately 25 to 35 minutes
- Homecoming Football Game (3,800 people) – approximately 20 to 30 minutes
- Typical Football Game (1,600 people) – approximately 10 to 15 minutes

It should be noted that these times are calculated from the time that the queue starts to build leaving the site, which may be 5+ minutes after the event ends. Based on the site clear times, the new site would clear in roughly the same amount of time or less than the existing site, even at maximum capacity. It is estimated that the impacts to the surrounding roadway network would clear approximately 5 minutes after the site clears.

OPERATIONAL ANALYSIS

Traffic operations analyses were conducted to determine the level of service (LOS), delay, and queueing information for the event arrival and departure peak hour conditions of each scenario.

The following scenarios were analyzed as part of this study:

- 2024 Maximum Capacity Event (5,000 people)
  - Volumes for the 2024 Maximum Capacity Event with 5,000 people (**Figure 7**)
  - Existing traffic signal timings along Highway 61
  - Existing intersection geometry and traffic control unless otherwise recommended as part of the White Bear High School Expansion Study
  - A second scenario was analyzed with any mitigations needed to provide acceptable traffic operations if necessary
- 2024 Homecoming Football Game (3,800 people)
  - Volumes for the 2024 Homecoming football game with 3,800 people (**Figure 8**)
  - Existing traffic signal timings along Highway 61
  - Existing intersection geometry and traffic control unless otherwise recommended as part of the White Bear High School Expansion Study
  - A second scenario was analyzed with any mitigations needed to provide acceptable traffic operations if necessary
- 2024 Typical Football Game (1,600 people)
  - Volumes for the 2024 Typical football game with 3,800 people (**Figure 9**)
  - Existing traffic signal timings along Highway 61

- Existing intersection geometry and traffic control unless otherwise recommended as part of the White Bear High School Expansion Study
- A second scenario was analyzed with any mitigations needed to provide acceptable traffic operations if necessary

LOS is a qualitative rating system used to describe the efficiency of traffic operations at an intersection. Six LOS are defined, designated by letters A through F. LOS A represents the best operating conditions (no congestion), and LOS F represents the worst operating conditions (severe congestion). For this project, LOS E or better for all approaches and intersections is considered to be acceptable traffic operations. Movements could be considered to operate acceptably at LOS F if the volume was relatively low (approximately 20 or less), if the signal cycle length was the cause for the LOS F, or if it is a movement exiting the site after the event.

LOS for intersections is determined by the average control delay per vehicle. The range of control delay for each LOS is different for signalized and unsignalized intersections. The expectation is that a signalized intersection is designed to carry higher traffic volumes and will experience greater delays than an unsignalized intersection. Driver tolerance for delay is greater at a signal than at a stop sign; therefore, the LOS thresholds for each LOS category are lower for unsignalized intersections than for signalized intersections. **Table 2** shows the LOS thresholds for signalized and unsignalized intersections.

Table 2 – Level of Service Thresholds

Level of Service	Average Vehicle Delay (sec/veh)	
	Signalized Intersection	Stop-Controlled Intersection
A	0 to 10	0 to 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Traffic operations analyses were performed using Synchro/SimTraffic (Version 11) software package for all scenarios. The results reported are an average of 10 SimTraffic simulation runs.

Due to the close spacing of Hugo Road to Highway 61 on Buffalo Street (approximately 115 ft), the three-way stop-controlled intersection at Buffalo Street and Hugo Road (westbound operates freely) does not operate like a typical three-way stop-controlled intersection. When the light is green for eastbound Buffalo Street at Highway 61, vehicles do not come to a complete stop at this intersection (especially after waiting in a queue) to make the green light. In this case, the intersection operates as more of a three-way yield-controlled intersection with a sort of zipper merge for vehicles heading east toward Highway 61. As a result, the intersection was analyzed with different control/geometry than what is there in order to try to duplicate how this intersection actually operates. No geometric changes are recommended at this intersection as part of this project.

2024 Maximum Capacity Event (5,000 people)

Based on the traffic operations analysis with existing signal timings, geometry, and traffic control (unless otherwise recommended by the White Bear Lake High School Expansion Study), the following operational issues are present during the event arrival and departure peak hours:

Event Arrival Peak Hour

- The northbound left turning movement at the intersection of Highway 61 at 7th Street operates at LOS E and has a maximum queue that gets close to spilling out into the Highway 61 through lanes
- The northbound left turning movement at the intersection of Highway 61 at 8th Street operates at LOS F and has a maximum queue that spills out of the available storage, blocking Highway 61 through traffic

Event Departure Peak Hour

- There are no significant issues during the event departure peak hour, however, there are several locations with longer delays/queues
  - Long delays/queues for eastbound traffic at the intersection of Highway 61 at Buffalo Street. These queues extend down Hugo Road, which is directly related to the amount of eastbound green time on Buffalo Street due to the close spacing between the intersections.
  - The maximum queue on 8th Street at Highway 61 approaches Division Street

All other approaches and intersections operate acceptably during the event arrival and departure peak hours. Some intersections may have longer delays/queues briefly during the 15-minute peak demand directly after the game ends.

Tables 3 and 4 show the 2024 Maximum Capacity Event (5,000 people) operations during the event arrival and departure peak hours. More detailed results are shown in the attached **Tables A1a and A1b**.

To improve traffic operations, traffic signal timings along Highway 61 could be adjusted to provide sufficient green time for the northbound left turn phases and eastbound phases to improve event traffic operations while maintaining acceptable splits for through vehicles on Highway 61 based on MnDOT signal timing guidance. The improved signal timing would improve traffic operations at the 7th Street and 8th Street intersections along Highway 61 during both event arrival and departure. There would still be long delays/queues on Hugo Road due to the Highway 61 at Buffalo Street signal during event departure even with the improvement. There would still be long delays/queues on Hugo Road due to the Highway 61 at Buffalo Street signal during event departure even with the improvement. However, the Hugo Road the queues would only last 25-35 minutes as the school site clears after the game.

Table 5 shows the improved traffic operations along Highway 61 and at the intersection of Hugo Road at Buffalo Street under the 2024 Maximum Capacity Event (5,000 people) traffic demands with improved signal timing. More detailed results are shown in the attached **Tables A2a and A2b**.

Table 3 – 2024 Maximum Capacity Event Traffic Operations – Event Arrival Peak Hour

Intersection	Control	Approach (Delay/LOS)				Intersection (Delay/LOS)
		NB	SB	EB	WB	
TH 61 at 4th St	Signal	9.8 / A	7.6 / A	20.7 / C	39.3 / D	11.5 / B
TH 61 at 7th St	Signal	17.2 / B	3.4 / A	22.3 / C	44.7 / D	13.7 / B
TH 61 at 8th St	Signal	26.0 / C	6.8 / A	21.7 / C	32.6 / C	18.7 / B
TH 61 at TH 96	Signal	4.0 / A	10.5 / B		42.0 / D	10.6 / B
TH 61 at Buffalo St	Signal	13.3 / B	4.5 / A	30.1 / C	24.4 / C	10.9 / B
Long Ave at 8th St	Thru/Stop		9.0 / A	1.3 / A	1.2 / A	1.5 / A
Washington Ave at 8th St	Thru/Stop	5.1 / A	0.0 / A*	1.3 / A	1.0 / A	1.2 / A
Division Ave at 7th St	All-way Stop	3.1 / A	6.6 / A	5.8 / A	9.5 / A	7.9 / A
Division Ave at 8th St	All-way Stop	7.3 / A	6.4 / A	6.1 / A	7.8 / A	7.3 / A
Division Ave at New HS Access	Thru/Stop	3.8 / A	0.8 / A	0.0 / A*		2.3 / A
Division Ave at New HS Pick Up/Drop Off Access	Thru/Stop	1.8 / A	0.7 / A	5.5 / A		2.2 / A
Division Ave at 12th St	Thru/Stop	0.6 / A	1.2 / A		2.6 / A	1.1 / A
Bloom Ave at 4th St	Thru/Stop	6.0 / A	8.1 / A	3.2 / A	2.1 / A	3.1 / A
Bloom Ave at 5th St	Thru/Stop	5.8 / A	5.7 / A	4.7 / A	5.2 / A	5.6 / A
Bald Eagle Ave at 4th St	All-way Stop	6.0 / A	5.6 / A	7.2 / A	6.6 / A	6.5 / A
Bald Eagle Ave at 5th St	Thru/Stop	1.1 / A	1.6 / A		5.8 / A	1.6 / A
Bald Eagle Ave at 9th St	Thru/Stop	1.1 / A	0.3 / A	7.5 / A		3.8 / A
Bald Eagle Ave at New HS Access	Thru/Stop	1.2 / A	1.8 / A		0.0 / A	1.4 / A
Bald Eagle Ave at 12th St/HS Access	Thru/Stop	0.2 / A	2.8 / A		6.6 / A	3.2 / A
Bald Eagle Ave at Stillwater St	Thru/Stop	1.9 / A	0.8 / A	4.7 / A	6.2 / A	2.4 / A
Bald Eagle Ave at Bald Eagle Blvd	All-way Stop	4.1 / A		4.5 / A	6.8 / A	5.2 / A
Bald Eagle Blvd at Park Ave/Beaver St	All-way Stop	5.1 / A	2.8 / A	6.7 / A	6.3 / A	5.5 / A
Division Ave at Park Ave	Thru/Stop	3.2 / A		2.3 / A	4.6 / A	4.1 / A
Eagle St at Park Ave	All-way Stop	4.7 / A	3.5 / A	6.0 / A	7.2 / A	6.8 / A
Bald Eagle Blvd at Buffalo St	Thru/Stop	4.1 / A	5.5 / A		5.8 / A	5.3 / A
Eagle St at Buffalo St	All-way Stop	5.9 / A	3.5 / A	4.6 / A	5.4 / A	5.3 / A
Hugo Rd at Buffalo St	3-way Stop	2.1 / A	8.3 / A	8.6 / A	0.7 / A	1.4 / A

*No volume during the event arrival peak hour

Table 4 – 2024 Maximum Capacity Event Traffic Operations – Event Departure Peak Hour

Intersection	Control	Approach (Delay/LOS)				Intersection (Delay/LOS)
		NB	SB	EB	WB	
TH 61 at 4th St	Signal	3.5 / A	3.3 / A	8.8 / A	35.0 / D	5.1 / A
TH 61 at 7th St	Signal	6.2 / A	5.7 / A	15.7 / B	35.3 / D	8.5 / A
TH 61 at 8th St	Signal	8.1 / A	7.5 / A	16.4 / B	28.5 / C	11.3 / B
TH 61 at TH 96	Signal	2.4 / A	6.0 / A		9.0 / A	3.8 / A
TH 61 at Buffalo St	Signal	12.9 / B	5.6 / A	22.4 / C	9.7 / A	14.7 / B
Long Ave at 8th St	Thru/Stop		**71.9 / F**	13.8 / B	1.2 / A	14.4 / B
Washington Ave at 8th St	Thru/Stop	2.5 / A	11.2 / B	5.0 / A	0.5 / A	3.9 / A
Division Ave at 7th St	All-way Stop	3.7 / A	7.2 / A	7.2 / A	6.5 / A	6.9 / A
Division Ave at 8th St	All-way Stop	7.6 / A	13.8 / B	11.0 / B	6.2 / A	11.4 / B
Division Ave at New HS Access	Thru/Stop	1.6 / A	0.5 / A	**57.4 / F**		**38.4 / E**
Division Ave at New HS Pick Up/Drop Off Access	Thru/Stop	1.2 / A	0.5 / A	6.2 / A		2.5 / A
Division Ave at 12th St	Thru/Stop	0.4 / A	0.6 / A		6.9 / A	0.5 / A
Bloom Ave at 4th St	Thru/Stop	2.4 / A	7.4 / A	2.0 / A	1.3 / A	4.4 / A
Bloom Ave at 5th St	Thru/Stop	5.6 / A	7.0 / A	4.8 / A	4.9 / A	6.7 / A
Bald Eagle Ave at 4th St	All-way Stop	4.2 / A	4.8 / A	5.8 / A	5.7 / A	5.2 / A
Bald Eagle Ave at 5th St	Thru/Stop	0.7 / A	0.4 / A		4.1 / A	0.6 / A
Bald Eagle Ave at 9th St	Thru/Stop	1.2 / A	1.9 / A	6.8 / A		2.5 / A
Bald Eagle Ave at New HS Access	Thru/Stop	0.7 / A	1.6 / A		11.9 / B	7.0 / A
Bald Eagle Ave at 12th St/HS Access	Thru/Stop	0.5 / A	0.3 / A		8.7 / A	7.1 / A
Bald Eagle Ave at Stillwater St	Thru/Stop	2.4 / A	0.3 / A	3.2 / A	5.2 / A	2.3 / A
Bald Eagle Ave at Bald Eagle Blvd	All-way Stop	5.1 / A		3.8 / A	7.1 / A	5.0 / A
Bald Eagle Blvd at Park Ave/Beaver St	All-way Stop	0.0 / A*	1.5 / A	5.9 / A	5.6 / A	5.5 / A
Division Ave at Park Ave	Thru/Stop	7.0 / A		2.8 / A	4.2 / A	5.9 / A
Eagle St at Park Ave	All-way Stop	4.4 / A	0.5 / A	8.7 / A	6.0 / A	8.0 / A
Bald Eagle Blvd at Buffalo St	Thru/Stop	3.7 / A	4.1 / A		6.3 / A	4.1 / A
Eagle St at Buffalo St	All-way Stop	5.3 / A	0.0 / A*	5.9 / A	4.5 / A	5.5 / A
Hugo Rd at Buffalo St	3-way Stop	**79.9 / F**	9.2 / A	12.2 / B	0.6 / A	**57.2 / F**

*No volume during the event departure peak hour

Table 5 – 2024 Maximum Capacity Event Traffic Operations – Improved Signal Timings

Peak Hour	Intersection	Control	Approach (Delay/LOS)				Intersection (Delay/LOS)
			NB	SB	EB	WB	
Event Arrival	TH 61 at 4th St	Signal	10.0 / B	5.3 / A	20.0 / C	40.9 / D	11.0 / B
	TH 61 at 7th St	Signal	8.6 / A	3.7 / A	23.3 / C	45.1 / D	8.6 / A
	TH 61 at 8th St	Signal	11.4 / B	9.5 / A	20.9 / C	31.2 / C	11.5 / B
	TH 61 at TH 96	Signal	4.0 / A	10.1 / B		42.4 / D	10.3 / B
	TH 61 at Buffalo St	Signal	13.4 / B	4.7 / A	30.7 / C	25.0 / C	11.2 / B
	Hugo Rd at Buffalo St	3-way Stop	2.2 / A	8.0 / A	8.8 / A	0.7 / A	1.4 / A
Event Departure	TH 61 at 4th St	Signal	3.5 / A	3.0 / A	8.0 / A	33.8 / C	4.8 / A
	TH 61 at 7th St	Signal	7.4 / A	6.5 / A	15.0 / B	29.7 / C	9.1 / A
	TH 61 at 8th St	Signal	10.0 / B	8.3 / A	12.6 / B	27.6 / C	10.9 / B
	TH 61 at TH 96	Signal	2.4 / A	5.7 / A		9.5 / A	3.8 / A
	TH 61 at Buffalo St	Signal	16.2 / B	7.3 / A	18.0 / B	9.0 / A	14.7 / B
	Hugo Rd at Buffalo St	3-way Stop	**64.5 / F**	6.5 / A	10.3 / B	0.6 / A	**46.8 / E**

2024 Homecoming Football Game (3,800 people)

Based on the traffic operations analysis with existing signal timings, geometry, and traffic control (unless otherwise recommended by the White Bear Lake High School Expansion Study), the following operational issues are present during the event arrival and departure peak hours:

Event Arrival Peak Hour

- The northbound left turning movement at the intersection of Highway 61 at 8th Street operates at LOS E and has a maximum queue that spills out of the available storage, blocking Highway 61 through traffic

Event Departure Peak Hour

- There are no significant issues during the event departure peak hour, however, there are several locations with longer delays/queues
  - Long delays/queues for eastbound traffic at the intersection of Highway 61 at Buffalo Street. These queues extend down Hugo Road, which is directly related to the amount of eastbound green time on Buffalo Street due to the close spacing between the intersections.
  - The maximum queue on 8th Street at Highway 61 goes past Washington Avenue but is still more than 150 feet from Division Street

All other approaches and intersections operate acceptably during the event arrival and departure peak hours. Some intersections may have longer delays/queues briefly during the 15-minute peak demand directly after the game ends.

Tables 6 and 7 show the 2024 Homecoming Football Game (3,800 people) operations during the event arrival and departure peak hours. More detailed results are shown in the attached **Tables A3a and A3b**.

To improve traffic operations, traffic signal timings along Highway 61 could be adjusted to provide sufficient green time for the northbound left turn phases and eastbound phases to improve event traffic operations while maintaining acceptable splits for through vehicles on Highway 61 based on MnDOT signal timing guidance. The improved signal timing would improve traffic operations at the 7th Street and 8th Street intersections along Highway 61 during both event arrival and departure. There would still be long delays/queues on Hugo Road due to the Highway 61 at Buffalo Street signal during event departure even with the improvement. However, the Hugo Road the queues would only last 20-30 minutes as the school site clears after the game.

Table 8 shows the improved traffic operations along Highway 61 and at the intersection of Hugo Road at Buffalo Street under the 2024 Maximum Capacity Event (5,000 people) traffic demands with improved signal timing. More detailed results are shown in the attached **Tables A4a and A4b**.

Table 6 – 2024 Homecoming Football Game Traffic Operations – Event Arrival Peak Hour

Intersection	Control	Approach (Delay/LOS)				Intersection (Delay/LOS)
		NB	SB	EB	WB	
TH 61 at 4th St	Signal	8.9 / A	6.3 / A	21.6 / C	41.8 / D	10.8 / B
TH 61 at 7th St	Signal	9.1 / A	3.6 / A	23.2 / C	45.9 / D	8.6 / A
TH 61 at 8th St	Signal	14.1 / B	7.3 / A	22.1 / C	31.3 / C	12.1 / B
TH 61 at TH 96	Signal	3.2 / A	9.8 / A		41.3 / D	9.8 / A
TH 61 at Buffalo St	Signal	12.2 / B	4.3 / A	28.8 / C	26.1 / C	10.4 / B
Long Ave at 8th St	Thru/Stop		6.0 / A	1.4 / A	1.2 / A	1.5 / A
Washington Ave at 8th St	Thru/Stop	4.6 / A	0.0 / A*	1.2 / A	1.0 / A	1.2 / A
Division Ave at 7th St	All-way Stop	3.4 / A	6.6 / A	5.7 / A	8.8 / A	7.3 / A
Division Ave at 8th St	All-way Stop	7.1 / A	6.2 / A	6.1 / A	7.2 / A	6.9 / A
Division Ave at New HS Access	Thru/Stop	3.5 / A	0.7 / A	0.0 / A*		2.1 / A
Division Ave at New HS Pick Up/Drop Off Access	Thru/Stop	1.4 / A	0.6 / A	5.0 / A		1.9 / A
Division Ave at 12th St	Thru/Stop	0.5 / A	1.0 / A		2.8 / A	0.9 / A
Bloom Ave at 4th St	Thru/Stop	6.1 / A	7.4 / A	2.8 / A	1.9 / A	2.8 / A
Bloom Ave at 5th St	Thru/Stop	5.7 / A	5.3 / A	4.9 / A	5.1 / A	5.4 / A
Bald Eagle Ave at 4th St	All-way Stop	5.5 / A	5.5 / A	7.0 / A	6.5 / A	6.3 / A
Bald Eagle Ave at 5th St	Thru/Stop	1.0 / A	1.5 / A		4.9 / A	1.5 / A
Bald Eagle Ave at 9th St	Thru/Stop	1.0 / A	0.3 / A	6.7 / A		3.3 / A
Bald Eagle Ave at New HS Access	Thru/Stop	1.0 / A	1.4 / A		0.0 / A	1.1 / A
Bald Eagle Ave at 12th St/HS Access	Thru/Stop	0.2 / A	2.6 / A		5.3 / A	2.7 / A
Bald Eagle Ave at Stillwater St	Thru/Stop	1.7 / A	0.8 / A	4.1 / A	5.0 / A	2.1 / A
Bald Eagle Ave at Bald Eagle Blvd	All-way Stop	3.8 / A		4.4 / A	6.8 / A	5.1 / A
Bald Eagle Blvd at Park Ave/Beaver St	All-way Stop	4.5 / A	2.9 / A	6.8 / A	6.0 / A	5.5 / A
Division Ave at Park Ave	Thru/Stop	3.4 / A		2.3 / A	4.4 / A	4.0 / A
Eagle St at Park Ave	All-way Stop	4.3 / A	3.0 / A	6.2 / A	6.8 / A	6.4 / A
Bald Eagle Blvd at Buffalo St	Thru/Stop	4.1 / A	5.2 / A		5.5 / A	5.1 / A
Eagle St at Buffalo St	All-way Stop	5.8 / A	3.4 / A	4.5 / A	5.4 / A	5.2 / A
Hugo Rd at Buffalo St	3-way Stop	2.2 / A	6.7 / A	8.1 / A	0.7 / A	1.4 / A

*No volume during the event arrival peak hour

Table 7 – 2024 Homecoming Football Game Traffic Operations – Event Departure Peak Hour

Intersection	Control	Approach (Delay/LOS)				Intersection (Delay/LOS)
		NB	SB	EB	WB	
TH 61 at 4th St	Signal	3.1 / A	2.8 / A	9.1 / A	34.8 / C	4.9 / A
TH 61 at 7th St	Signal	5.7 / A	4.6 / A	15.9 / B	36.2 / D	7.8 / A
TH 61 at 8th St	Signal	7.9 / A	6.5 / A	16.1 / B	31.1 / C	10.5 / B
TH 61 at TH 96	Signal	2.2 / A	5.5 / A		9.6 / A	3.7 / A
TH 61 at Buffalo St	Signal	11.0 / B	5.1 / A	19.4 / B	9.5 / A	12.5 / B
Long Ave at 8th St	Thru/Stop		**36.4 / E**	10.4 / B	1.3 / A	10.7 / B
Washington Ave at 8th St	Thru/Stop	2.9 / A	3.8 / A	3.6 / A	0.4 / A	2.8 / A
Division Ave at 7th St	All-way Stop	4.1 / A	7.2 / A	7.1 / A	6.0 / A	6.8 / A
Division Ave at 8th St	All-way Stop	7.3 / A	8.7 / A	8.9 / A	5.5 / A	8.1 / A
Division Ave at New HS Access	Thru/Stop	1.5 / A	0.5 / A	19.9 / C		13.3 / B
Division Ave at New HS Pick Up/Drop Off Access	Thru/Stop	1.1 / A	0.4 / A	5.0 / A		2.1 / A
Division Ave at 12th St	Thru/Stop	0.4 / A	0.6 / A		4.2 / A	0.5 / A
Bloom Ave at 4th St	Thru/Stop	1.7 / A	7.2 / A	1.8 / A	1.2 / A	4.0 / A
Bloom Ave at 5th St	Thru/Stop	4.9 / A	7.1 / A	5.5 / A	4.6 / A	6.6 / A
Bald Eagle Ave at 4th St	All-way Stop	3.9 / A	4.7 / A	5.6 / A	5.5 / A	5.1 / A
Bald Eagle Ave at 5th St	Thru/Stop	0.6 / A	0.4 / A		4.4 / A	0.6 / A
Bald Eagle Ave at 9th St	Thru/Stop	1.0 / A	1.6 / A	5.6 / A		2.1 / A
Bald Eagle Ave at New HS Access	Thru/Stop	0.6 / A	1.3 / A		9.2 / A	5.3 / A
Bald Eagle Ave at 12th St/HS Access	Thru/Stop	0.3 / A	0.4 / A		7.6 / A	6.0 / A
Bald Eagle Ave at Stillwater St	Thru/Stop	2.1 / A	0.5 / A	3.0 / A	6.0 / A	2.1 / A
Bald Eagle Ave at Bald Eagle Blvd	All-way Stop	4.7 / A		3.8 / A	7.3 / A	4.7 / A
Bald Eagle Blvd at Park Ave/Beaver St	All-way Stop	0.0 / A*	1.6 / A	5.7 / A	5.6 / A	5.4 / A
Division Ave at Park Ave	Thru/Stop	6.6 / A		2.6 / A	4.2 / A	5.6 / A
Eagle St at Park Ave	All-way Stop	4.5 / A	0.6 / A	8.5 / A	5.8 / A	7.8 / A
Bald Eagle Blvd at Buffalo St	Thru/Stop	3.6 / A	5.2 / A		5.9 / A	4.1 / A
Eagle St at Buffalo St	All-way Stop	4.4 / A	0.0 / A*	5.7 / A	4.7 / A	5.2 / A
Hugo Rd at Buffalo St	3-way Stop	**46.2 / E**	6.2 / A	10.2 / B	0.6 / A	33.9 / D

*No volume during the event departure peak hour

Table 8 – 2024 Homecoming Football Game Traffic Operations – Improved Signal Timings

Peak Hour	Intersection	Control	Approach (Delay/LOS)				Intersection (Delay/LOS)
			NB	SB	EB	WB	
Event Arrival	TH 61 at 4th St	Signal	9.0 / A	5.6 / A	20.5 / C	39.3 / D	10.5 / B
	TH 61 at 7th St	Signal	7.6 / A	3.6 / A	22.8 / C	46.3 / D	7.7 / A
	TH 61 at 8th St	Signal	9.6 / A	8.0 / A	20.1 / C	35.8 / D	9.8 / A
	TH 61 at TH 96	Signal	3.9 / A	9.9 / A		41.4 / D	10.2 / B
	TH 61 at Buffalo St	Signal	12.8 / B	4.2 / A	28.1 / C	25.4 / C	10.6 / B
	Hugo Rd at Buffalo St	3-way Stop	2.2 / A	6.7 / A	7.5 / A	0.6 / A	1.4 / A
Event Departure	TH 61 at 4th St	Signal	3.4 / A	2.8 / A	9.6 / A	37.1 / D	5.1 / A
	TH 61 at 7th St	Signal	6.1 / A	4.7 / A	14.7 / B	32.5 / C	7.6 / A
	TH 61 at 8th St	Signal	9.2 / A	7.1 / A	13.0 / B	32.9 / C	10.4 / B
	TH 61 at TH 96	Signal	2.2 / A	5.3 / A		8.7 / A	3.5 / A
	TH 61 at Buffalo St	Signal	13.0 / B	6.6 / A	17.5 / B	9.6 / A	12.9 / B
	Hugo Rd at Buffalo St	3-way Stop	**36.2 / E**	5.2 / A	9.1 / A	0.6 / A	26.1 / D

2024 Typical Football Game (1,600 people)

Based on the traffic operations analysis with existing signal timings, geometry, and traffic control (unless otherwise recommended by the White Bear Lake High School Expansion Study), there are no operational issues expected at any of the study intersections during either the event arrival or departure peak hour. Some intersections may have longer delays/queues briefly during the 15-minute peak demand directly after the game ends.

Tables 9 and 10 show the 2024 Typical Football Game (1,600 people) operations during the event arrival and departure peak hours. More detailed results are shown in the attached **Tables A5a and A5b**.

Table 9 – 2024 Typical Football Game Traffic Operations – Event Arrival Peak Hour

Intersection	Control	Approach (Delay/LOS)				Intersection (Delay/LOS)
		NB	SB	EB	WB	
TH 61 at 4th St	Signal	7.6 / A	5.1 / A	21.6 / C	41.1 / D	9.9 / A
TH 61 at 7th St	Signal	5.6 / A	3.6 / A	26.7 / C	48.5 / D	6.8 / A
TH 61 at 8th St	Signal	7.4 / A	6.7 / A	23.3 / C	24.1 / C	7.8 / A
TH 61 at TH 96	Signal	3.1 / A	10.1 / B		41.9 / D	9.6 / A
TH 61 at Buffalo St	Signal	12.2 / B	4.0 / A	28.3 / C	26.2 / C	10.3 / B
Long Ave at 8th St	Thru/Stop		5.2 / A	1.6 / A	1.3 / A	1.7 / A
Washington Ave at 8th St	Thru/Stop	4.2 / A	0.0 / A*	0.6 / A	0.9 / A	1.2 / A
Division Ave at 7th St	All-way Stop	3.2 / A	6.4 / A	4.5 / A	6.3 / A	5.6 / A
Division Ave at 8th St	All-way Stop	6.2 / A	5.5 / A	5.2 / A	4.3 / A	5.2 / A
Division Ave at New HS Access	Thru/Stop	2.5 / A	0.4 / A	0.0 / A*		1.5 / A
Division Ave at New HS Pick Up/Drop Off Access	Thru/Stop	1.1 / A	0.3 / A	3.5 / A		1.3 / A
Division Ave at 12th St	Thru/Stop	0.3 / A	0.5 / A		2.9 / A	0.5 / A
Bloom Ave at 4th St	Thru/Stop	5.0 / A	6.5 / A	1.8 / A	1.6 / A	2.0 / A
Bloom Ave at 5th St	Thru/Stop	4.7 / A	4.0 / A	4.7 / A	4.9 / A	4.7 / A
Bald Eagle Ave at 4th St	All-way Stop	5.4 / A	5.3 / A	6.4 / A	6.0 / A	5.8 / A
Bald Eagle Ave at 5th St	Thru/Stop	1.0 / A	1.5 / A		5.5 / A	1.6 / A
Bald Eagle Ave at 9th St	Thru/Stop	0.9 / A	0.2 / A	5.4 / A		2.2 / A
Bald Eagle Ave at New HS Access	Thru/Stop	0.6 / A	0.8 / A		0.0 / A	0.7 / A
Bald Eagle Ave at 12th St/HS Access	Thru/Stop	0.2 / A	1.7 / A		4.3 / A	1.7 / A
Bald Eagle Ave at Stillwater St	Thru/Stop	1.4 / A	0.7 / A	3.6 / A	4.2 / A	1.8 / A
Bald Eagle Ave at Bald Eagle Blvd	All-way Stop	3.4 / A		4.5 / A	6.8 / A	5.1 / A
Bald Eagle Blvd at Park Ave/Beaver St	All-way Stop	3.9 / A	2.7 / A	6.7 / A	5.8 / A	5.6 / A
Division Ave at Park Ave	Thru/Stop	3.0 / A		2.2 / A	3.7 / A	3.3 / A
Eagle St at Park Ave	All-way Stop	4.2 / A	3.7 / A	5.6 / A	6.0 / A	5.7 / A
Bald Eagle Blvd at Buffalo St	Thru/Stop	4.0 / A	5.2 / A		5.3 / A	4.8 / A
Eagle St at Buffalo St	All-way Stop	5.3 / A	3.2 / A	4.5 / A	4.6 / A	4.6 / A
Hugo Rd at Buffalo St	3-way Stop	2.0 / A	6.2 / A	6.0 / A	0.7 / A	1.5 / A

*No volume during the event arrival peak hour

Table 10 – 2024 Typical Football Game Traffic Operations – Event Departure Peak Hour

Intersection	Control	Approach (Delay/LOS)				Intersection (Delay/LOS)
		NB	SB	EB	WB	
TH 61 at 4th St	Signal	2.8 / A	2.3 / A	11.8 / B	32.3 / C	5.1 / A
TH 61 at 7th St	Signal	4.6 / A	3.1 / A	15.3 / B	37.7 / D	6.1 / A
TH 61 at 8th St	Signal	6.5 / A	5.4 / A	17.4 / B	27.7 / C	8.7 / A
TH 61 at TH 96	Signal	2.0 / A	5.1 / A		8.9 / A	3.4 / A
TH 61 at Buffalo St	Signal	8.1 / A	4.3 / A	14.3 / B	9.2 / A	8.6 / A
Long Ave at 8th St	Thru/Stop		6.1 / A	2.5 / A	1.1 / A	2.7 / A
Washington Ave at 8th St	Thru/Stop	1.9 / A	3.3 / A	1.0 / A	0.4 / A	0.9 / A
Division Ave at 7th St	All-way Stop	3.5 / A	6.6 / A	5.9 / A	4.5 / A	5.8 / A
Division Ave at 8th St	All-way Stop	6.2 / A	6.1 / A	6.1 / A	3.4 / A	5.6 / A
Division Ave at New HS Access	Thru/Stop	1.3 / A	0.3 / A	7.3 / A		4.2 / A
Division Ave at New HS Pick Up/Drop Off Access	Thru/Stop	0.9 / A	0.2 / A	3.4 / A		1.5 / A
Division Ave at 12th St	Thru/Stop	0.3 / A	0.2 / A		4.2 / A	0.3 / A
Bloom Ave at 4th St	Thru/Stop	1.9 / A	6.4 / A	1.1 / A	1.1 / A	2.2 / A
Bloom Ave at 5th St	Thru/Stop	4.5 / A	6.1 / A	4.7 / A	4.9 / A	5.7 / A
Bald Eagle Ave at 4th St	All-way Stop	3.8 / A	4.1 / A	5.4 / A	4.7 / A	4.5 / A
Bald Eagle Ave at 5th St	Thru/Stop	0.6 / A	0.6 / A		4.5 / A	0.8 / A
Bald Eagle Ave at 9th St	Thru/Stop	0.8 / A	1.1 / A	4.8 / A		1.5 / A
Bald Eagle Ave at New HS Access	Thru/Stop	0.4 / A	0.9 / A		6.0 / A	3.1 / A
Bald Eagle Ave at 12th St/HS Access	Thru/Stop	0.1 / A	0.3 / A		4.4 / A	3.1 / A
Bald Eagle Ave at Stillwater St	Thru/Stop	1.5 / A	0.4 / A	2.8 / A	4.3 / A	1.6 / A
Bald Eagle Ave at Bald Eagle Blvd	All-way Stop	3.8 / A		4.1 / A	7.2 / A	4.5 / A
Bald Eagle Blvd at Park Ave/Beaver St	All-way Stop	0.0 / A*	1.6 / A	6.0 / A	5.5 / A	5.4 / A
Division Ave at Park Ave	Thru/Stop	4.2 / A		2.5 / A	3.5 / A	3.8 / A
Eagle St at Park Ave	All-way Stop	3.8 / A	0.5 / A	6.8 / A	5.6 / A	6.3 / A
Bald Eagle Blvd at Buffalo St	Thru/Stop	3.9 / A	5.1 / A		6.0 / A	4.5 / A
Eagle St at Buffalo St	All-way Stop	4.8 / A	0.0 / A*	5.5 / A	5.0 / A	5.2 / A
Hugo Rd at Buffalo St	3-way Stop	3.9 / A	4.2 / A	8.3 / A	0.7 / A	3.2 / A

*No volume during the event departure peak hour

RECOMMENDATIONS

The following improvements are recommended to provide safe and efficient access to and from events at the proposed 5,000 seat stadium on the expanded White Bear Lake High School campus:

1. **Allow pick-up/drop-off only in the designated areas on-site that are separate from parking lots** – This improves and efficiency for vehicles parking, picking-up/dropping-off, and for people within the parking lot. Having good pick-up/drop-off areas on the High School and Middle School site will also prevent pick-up/drop-off activity on the public streets
2. **Allow vehicles to use each driveway to access the site** – the more driveways available to exit the site, the quicker the site will clear after the event. For a typical game, it is expected to take 10-15 minutes for the site to clear. For larger events (i.e. Homecoming or Max Capacity events) it may take 20-30 minutes for the site to clear.
3. **For larger events (i.e. Homecoming), provide a gate on the southeast corner of the stadium** – This gate will encourage the use of the Middle School area for parking and pick-up/drop-off activities.
4. **Restrict parking to one side of nearby neighborhood streets if parking is off-site parking is/becomes a concern** – Based on the trip generation, all vehicles should be able to park on site at either the High School or Middle School. However, based on our observations at the 2022 Homecoming football game, some people are likely to park on nearby city streets if possible, even if the available lots are not full in order to have a quicker exit after the game. Restricting parking to one side of the street would maintain two-way vehicle traffic and improve traffic operations when vehicles are exiting after an event.
5. **Signal timing adjustments along Highway 61 would improve traffic operations during the arrival and departure peak hours** – During the arrival peak hour, there are expected to be high northbound left turning movements at 7th and 8th Street, which could benefit from more green time within the cycle to ensure that vehicles do not spill beyond the available left turn store. During the dismissal peak hour, 7th Street, 8th Street, and Buffalo Street are expected to have high eastbound volumes, which could benefit from more green time within the cycle. However, none of the eastbound delays cause significant queuing issues.

Attachments
December 2023 Traffic Turning Movement Counts
Operational Analysis Tables A1a through A5b

x:\fj\i\isdwb\170554\8-planning\87-rpt-stud\wblahs event analysis memo 02102023.docx

Location: Highway 61 at 7th Street
Count Date: 12/9/2022
Counted By: CountCloud

TURNING MOVEMENT COUNT DATA

All Vehicles

	Highway 61				7th Street				Highway 61				7th Street				
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
14:00	5	224	3	0	11	1	2	1	3	243	8	0	6	0	10	0	516
14:15	6	167	2	0	9	1	1	1	4	280	11	0	7	2	14	0	504
14:30	3	180	1	1	7	0	5	1	8	285	6	1	6	2	6	0	509
14:45	6	186	6	0	5	2	4	0	12	293	4	0	3	3	13	0	537
15:00	8	174	4	1	6	3	4	0	19	313	8	0	12	2	13	0	566
15:15	6	258	4	1	5	2	5	0	10	323	13	0	25	1	59	0	711
15:30	4	194	3	0	7	1	4	0	16	309	11	0	12	1	28	0	590
15:45	3	198	13	0	8	1	4	0	22	367	13	1	8	4	8	1	649
16:00	3	193	3	0	14	4	4	0	10	365	9	0	25	1	27	0	658
16:15	1	238	1	0	7	0	1	2	5	362	9	0	36	3	22	0	685
16:30	9	205	6	0	9	1	7	1	5	331	4	0	16	3	10	0	606
16:45	6	238	2	1	8	0	1	1	6	300	4	0	10	2	11	0	588
17:00	8	183	2	0	8	2	0	0	8	319	9	0	8	2	10	0	559
17:15	5	198	3	0	12	0	5	0	7	266	2	0	11	5	9	0	523
17:30	2	187	7	0	13	2	0	0	6	267	3	0	12	0	12	0	511
17:45	2	155	3	0	7	1	1	1	10	259	8	0	9	4	17	0	476
18:00	1	168	1	2	3	3	1	0	4	263	10	0	4	3	7	0	468
18:15	7	154	1	0	7	1	1	0	3	204	6	0	19	2	8	0	413
18:30	2	134	0	0	3	0	1	0	5	200	4	1	4	1	7	1	361
18:45	1	114	1	1	3	1	1	1	6	161	4	0	2	0	10	0	304
19:00	2	117	0	2	1	1	4	2	2	155	3	0	5	0	6	0	296
19:15	5	127	0	0	2	2	3	0	6	138	6	0	8	4	5	0	306
19:30	5	74	0	0	2	1	1	0	7	120	4	0	4	2	14	0	234
19:45	2	86	1	0	1	0	2	0	2	122	5	0	3	2	4	0	230
20:00	1	90	0	0	3	0	1	2	3	111	2	0	3	1	3	0	218
20:15	0	79	1	0	4	0	0	0	3	122	4	0	6	2	5	0	226
20:30	2	110	1	0	7	0	0	0	3	126	1	0	2	1	9	0	262
20:45	0	75	0	0	1	0	0	0	3	113	3	0	2	1	3	0	201
21:00	1	68	1	0	0	0	1	0	0	85	5	0	2	0	2	0	165
21:15	0	43	0	0	0	0	0	0	0	85	4	0	2	0	1	0	135
21:30	1	45	3	0	4	0	1	0	2	80	0	1	2	1	4	0	143
21:45	0	42	0	0	2	0	3	1	1	87	3	1	2	0	3	0	143
22:00	1	52	0	0	2	0	0	0	0	86	1	0	1	1	2	0	146
22:15	0	79	0	0	1	0	1	0	1	71	3	0	1	1	1	0	159
22:30	1	53	0	0	0	0	0	0	0	68	0	0	0	0	3	1	125
22:45	1	33	2	0	0	0	0	1	1	61	0	0	0	0	5	0	103
23:00	1	40	0	0	3	0	2	2	0	58	1	2	4	1	3	0	113
23:15	0	36	0	0	4	0	0	0	0	33	1	0	0	1	3	0	78
23:30	0	32	0	4	0	0	0	7	0	22	2	2	1	0	0	1	57
23:45	0	16	1	0	0	0	0	0	0	34	2	0	3	0	1	0	57
Total	111	5045	76	13	189	30	71	24	203	7487	196	9	286	59	378	4	10734
Cars+	111	4998	76	13	185	29	70	23	193	7417	194	8	285	58	361	3	13977
Trucks	0	47	0	0	4	1	1	1	10	70	2	1	1	1	17	1	154
% Trucks	0.0	0.9	0.0	0.0	2.1	3.3	1.4	4.2	4.9	0.9	1.0	11.1	0.3	1.7	4.5	25.0	
	0.9				2.1				1.0				2.6				1.4

Location: Bald Eagle Avenue at 9th Street
Count Date: 12/9/2022
Counted By: CountCloud

TURNING MOVEMENT COUNT DATA

All Vehicles

	Bald Eagle Avenue				N/A				Bald Eagle Avenue				9th Street				
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
14:00	0	37	8	0	0	0	0	0	7	17	0	0	3	0	13	0	85
14:15	0	33	10	0	0	0	0	0	13	36	0	0	16	0	13	0	121
14:30	0	10	8	0	0	0	0	0	12	24	0	0	7	0	26	0	87
14:45	0	26	7	0	0	0	0	0	17	16	0	0	7	0	16	0	89
15:00	0	23	5	1	0	0	0	0	11	29	0	0	14	0	15	0	97
15:15	0	28	7	5	0	0	0	0	26	25	0	0	4	0	12	1	102
15:30	0	12	5	2	0	0	0	0	16	27	0	0	7	0	15	0	82
15:45	0	17	3	0	0	0	0	0	13	23	0	0	6	0	19	0	81
16:00	0	38	8	25	0	0	0	0	25	34	0	0	4	0	38	1	147
16:15	0	18	2	1	0	0	0	0	21	31	0	0	8	0	15	0	95
16:30	0	19	4	0	0	0	0	0	13	31	0	0	5	0	17	0	89
16:45	0	19	4	0	0	0	0	0	16	23	0	0	2	0	12	0	76
17:00	0	15	3	0	0	0	0	0	11	16	0	0	3	0	6	0	54
17:15	0	21	4	0	0	0	0	0	8	16	0	0	5	0	10	0	64
17:30	0	14	2	0	0	0	0	0	13	17	0	0	3	0	10	0	59
17:45	0	4	4	0	0	0	0	0	7	14	0	0	1	0	7	0	37
18:00	0	7	1	0	0	0	0	0	9	13	0	0	4	0	5	0	39
18:15	0	13	2	0	0	0	0	0	8	10	0	0	0	0	11	0	44
18:30	0	7	2	0	0	0	0	0	9	17	0	0	5	0	5	0	45
18:45	0	10	1	0	0	0	0	0	4	15	0	0	1	0	2	0	33
19:00	0	6	0	0	0	0	0	0	6	10	0	0	0	0	10	0	32
19:15	0	8	2	0	0	0	0	0	4	14	0	0	1	0	7	0	36
19:30	0	5	0	0	0	0	0	0	7	4	0	0	3	0	5	0	24
19:45	0	4	0	0	0	0	0	0	5	7	0	0	4	0	7	0	27
20:00	0	4	2	0	0	0	0	0	9	11	0	0	1	0	2	0	29
20:15	0	4	0	0	0	0	0	0	7	8	0	0	4	0	2	0	25
20:30	0	2	1	0	0	0	0	0	5	9	0	0	1	0	2	0	20
20:45	0	5	1	0	0	0	0	0	9	10	0	0	0	0	2	0	27
21:00	0	5	1	0	0	0	0	0	1	6	0	0	0	0	2	0	15
21:15	0	6	0	0	0	0	0	0	5	6	0	0	1	0	1	0	19
21:30	0	2	0	0	0	0	0	0	2	1	0	0	0	0	3	0	8
21:45	0	7	1	0	0	0	0	0	3	8	0	0	1	0	1	0	21
22:00	0	3	0	0	0	0	0	0	6	3	0	0	6	0	1	0	19
22:15	0	3	0	0	0	0	0	0	3	4	0	0	2	0	3	0	15
22:30	0	4	0	0	0	0	0	0	9	9	0	0	1	0	3	0	26
22:45	0	2	1	0	0	0	0	0	7	5	0	0	3	0	1	0	19
23:00	0	0	1	0	0	0	0	0	1	2	0	0	1	0	6	0	11
23:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
23:30	0	2	0	0	0	0	0	0	2	2	0	0	2	0	3	0	11
23:45	0	0	0	0	0	0	0	0	2	1	0	0	0	0	2	0	5
Total	0	444	100	34	0	0	0	0	352	554	0	0	136	0	331	2	1526
Cars+	0	437	98	32	0	0	0	0	349	554	0	0	130	0	320	2	1888
Trucks	0	7	2	2	0	0	0	0	3	0	0	0	6	0	11	0	29
% Trucks	0.0	1.6	2.0	5.9	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	4.4	0.0	3.3	0.0	
	1.7				0.0				0.3				3.6				1.9

Table A1a
White Bear Lake High School Event Analysis Study
2024 Maximum Capacity Event Conditions (5,000 tickets)
Event Arrival Peak Hour (6:00-7:00 PM)

AM Peak Hour

Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Vehicle Queing Information (feet)													
																Left Turn Lane				Through Lane (s)					Right Turn Lane				
		L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Thru [2] ---->	% Block Left [2] <----	Link Length (feet)	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Right [2] ---->	% Block Thru [2] <----	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]
Hwy 61 at 4th St (Signal)	NB	249	1205	86	1,540	17.8	B	8.7	A	2.7	A	9.8	A	11.5	B	190	58	174		1 %	1374	97	238	1 %		170	20	43
	SB	19	687	52	758	15.2	B	7.6	A	4.6	A	7.6	A			250	20	45			329	34	130					
	EB	67	31	122	220	44.9	D	38.0	D	2.6	A	20.7	C			100	44	111		7 %	424	24	96	7 %		50	20	86
	WB	68	45	11	124	42.2	D	40.5	D	18.9	B	39.3	D			100	47	126		1 %	1201	47	135					
Hwy 61 at 7th St (Signal)	NB	183	1075	25	1,283	65.2	E	9.9	A	1.0	A	17.2	B	13.7	B	290	137	281		5 %	654	93	295			300		20
	SB		668	9	677			3.4	A	2.6	A	3.4	A								272	20	113					
	EB	30	9	74	113	47.7	D	39.2	D	7.4	A	22.3	C								507	32	121			235	30	76
	WB	16	22	4	42	52.1	D	47.3	D	13.8	B	44.7	D								1490	36	99			120	20	34
Hwy 61 at 8th St (Signal) (Planned Signal)	NB	220	876	14	1,110	118.4	F	4.6	A	1.2	A	26.0	C	18.7	B	230	195	268		2 %	272	135	302			130		20
	SB	19	610	111	740	52.9	D	5.7	A	3.5	A	6.8	A			375	20	67			1031	42	126			270	20	52
	EB	30	5	62	97	50.8	D	36.8	D	6.6	A	21.7	C								39	30	70			20	29	72
	WB	5	14	15	34	47.3	D	46.9	D	15.6	B	32.6	C								1363	27	70					
Hwy 61 at Hwy 96 (Signal)	NB		684	237	921			4.7	A	1.8	A	4.0	A	10.6	B						291	54	154			250	20	28
	SB	16	551		567	57.6	E	9.1	A			10.5	B			250	20	67			4312	51	150					
	EB											0.0	A															
	WB	189		9	198	43.6	D			3.0	A	42.0	D			1745	124	250										
Hwy 61 at Buffalo St (Signal)	NB	32	618	43	693	13.3	B	13.8	B	6.5	A	13.3	B	10.9	B	250	20	36			4312	60	227			225		20
	SB	24	523	309	856	11.5	B	5.5	A	2.3	A	4.5	A			240	20	22			750	24	85			175	20	80
	EB	82	22	18	122	33.7	C	35.3	D	6.8	A	30.1	C								113	62	153			55	20	32
	WB	26	44	26	96	30.5	C	32.2	C	5.6	A	24.4	C								1342	44	110	2 %		80	20	46
Long Ave at 8th St	NB											0.0	A	1.5	A													
	SB	17		2	19	9.7	A			3.3	A	9.0	A								423	20	34					
	EB	6	80		86	3.2	A	1.2	A			1.3	A								208	20	28					
	WB		293	52	345			1.3	A	0.8	A	1.2	A								39	20	26					
Washington Ave at 8th St	NB	10	2	6	18	6.3	A	6.7	A	2.7	A	5.1	A	1.2	A						275	20	33					
	SB											0.0	A															
	EB		80	2	82			1.3	A	0.5	A	1.3	A															
	WB	3	290	2	295	2.7	A	1.0	A	0.8	A	1.0	A								208	20	20					
Division Ave at 7th St	NB		7	37	44			5.7	A	2.8	A	3.1	A	7.9	A						589	24	53					
	SB	57	8	3	68	6.4	A	7.8	A	7.3	A	6.6	A								290	29	50					
	EB	2	20		22	4.4	A	5.9	A			5.8	A								812	20	36					
	WB	10	93	111	214	9.0	A	11.0	B	8.2	A	9.5	A								507	71	117					
Division Ave at 8th St (All-way Stop)	NB	2	111	7	120	6.1	A	7.5	A	4.3	A	7.3	A	7.3	A						290	39	78					
	SB	46	59	1	106	5.7	A	6.8	A	0.0	A	6.4	A								894	38	64					
	EB		29		29			6.1	A			6.1	A								595	20	47					
	WB	9	126	165	300	8.1	A	9.4	A	6.5	A	7.8	A								258	72	122					
Division Ave at New HS Access	NB	175	101		276	5.1	A	1.6	A			3.8	A	2.3	A	200	32	82										
	SB		106	159	265			1.2	A	0.5	A	0.8	A								133	20	24					
	EB											0.0	A															
	WB											0.0	A															
Divison St at Pick Up/Drop Off Access	NB	62	39		101	3.0	A	0.1	A			1.8	A	2.2	A	100	20	51										
	SB		203	69	272			0.7	A	0.6	A	0.7	A													200		20
	EB	69		62	131	7.3	A			3.5	A	5.5	A			1200	28	60								150	21	61
	WB											0.0	A															
Divison St at 12th St	NB		105	3	108			0.6	A	0.5	A	0.6	A															
	SB	3	271		274	2.3	A	1.2	A			1.2	A	1.1	A						1049		20					
	EB											0.0	A															
	WB	1		5	6	4.1	A			2.4	A	2.6	A								727	20	31					
Bloom Ave at 4th St	NB	6	4	7	17	6.6	A	9.1	A	3.3	A	6.0	A	3.1	A						257	20	38					
	SB	28	4	23	55	10.2	B	8.7	A	5.4	A	8.1	A								327	29	63					
	EB	60	185	10	255	5.6	A	2.5	A	2.1	A	3.2	A								899	21	76					
	WB	6	234	106	346	3.9	A	2.3	A	1.6	A	2.1	A								424	20	42					
Bloom Ave at 5th St	NB	10	143	17	170	4.9	A	6.2	A	3.7	A	5.8	A	5.6	A						327	35	61					
	SB	2	27	1	30	3.9	A	5.9	A	2.8	A	5.7	A								655	20	44					
	EB	1	23	12	36	3.5	A	5.9	A	2.8	A	4.7	A								902	22	38					
	WB	16	22	3	41	4.6	A	6.0	A	2.4	A	5.2	A								312	23	43					
Bald Eagle Ave at 4th St	NB	8	55	38	101	6.0	A	7.3	A	3.9	A	6.0	A	6.5	A						709	36	61					
	SB	86	36	22	144	5.5	A	6.8	A	3.9	A	5.6	A								338	39	80					
	EB	70	131	6	207	6.5	A	7.7	A	4.2	A	7.2	A								730	49	90					
	WB	26	114	123	263	7.0	A	8.0	A	5.3	A	6.6	A								899	56	110					
Bald Eagle Ave at 5th St	NB		240	8	248			1.1	A	0.9	A	1.1	A	1.6	A													
	SB	28	137		165	3.4	A	1.2	A			1.6	A								312	20	48					
	EB											0.0	A															
	WB	7		26	33	8.5	A			5.1	A	5.8	A								902	21	44					
Bald Eagle Ave at 9th St	NB	31	143		174	2.6	A	0.7	A			1.1	A	3.8	A						899	20	42					
	SB		51	48	99			0.5	A	0.2	A	0.3	A															
	EB	202		24	226	7.8	A			5.3	A	7.5	A								2107	56	104					
	WB											0.0	A															
Bald Eagle Ave at New HS Access	NB		66	279	345			0.7	A	1.3	A	1.2	A	1.4	A											100	20	29
	SB	39	99		138	4.9	A	0.7	A			1.8	A			100	20	48										
	EB											0.0	A															
	WB											0.0	A															
Bald Eagle Ave at 12th St/HS Access	NB		66		66			0.2	A			0.2	A	3.2	A													
	SB	225	83		308	3.1	A	2.1	A			2.8	A								1454	20	63					
	EB											0.0	A															
	WB	55		39	94	8.6	A			3.9	A	6.6	A								1219	36	76					
Bald Eagle Ave at Stillwater St	NB	49	47	9	105	2.9	A	1.1	A	0.5	A	1.9	A	2.4	A						1454	20	59					
	SB	7	194	7	208	2.3	A	0.8	A	0.6	A	0.8	A								457	20	20					
	EB	7	5	80	92	7.0	A	8.1	A	4.3	A	4.7	A								1459	35	78					
	WB	34	2	7	43	7.0	A	8.0	A	3.0	A	6.2	A								650	25	54					
Bald Eagle Ave at Bald Eagle Blvd	NB	42		19	61	4.7	A			2.7	A	4.1	A	5.2	A						457	22	51					
	SB											0.0	A															
	EB		41	132	173			6.8	A	3.8	A	4.5	A								760	41	74					
	WB	76	39		115	6.4	A	7.4	A			6.8	A								981	37	68					
Bald Eagle Blvd at Park Ave/Beaver St	NB		1		1			5.1	A			5.1	A	5.5	A						842	20	20					
	SB	1		45	46	3.1	A	0.0	A	2.8	A	2.8	A								1740	20	35					
	EB	17	41	2	60	5.7	A	7.1	A	4.9	A	6.7	A								981	23	46					
	WB	1	70	1	72	5.1	A	6.3	A	0.0	A	6.3	A								396	27	60					
Divison St at Park Ave	NB	4		73	77	6.5	A			3.1	A	3.2	A	4.1	A						905	31	63					
	SB											0.0	A															
	EB		38	4	42			2.3	A	2.4	A	2.3	A															
	WB	269	68		337	4.8	A	4.0	A			4.6	A								1111	20	64					
Eagle St at Park Ave	NB	4	7	5	16	4.9	A	6.8	A	2.8	A	4.7	A	6.8	A						575	20	35					
	SB	1	4	1	6	0.0	A	3.5	A	3.1	A	3.5	A								1456	20	31					
	EB	1	105	5	111	4.4	A	6.2	A	3.3	A	6.0	A								1111	36	60					
	WB	7	332	2	341	5.7	A	7.3	A	3.0	A	7.2	A								321	58	99					
Bald Eagle Blvd at Buffalo St	NB		6	13	19			6.4	A	3.0	A	4.1	A	5.3	A						1740	20	43					
	SB	2	9		11	5.7	A	5.5	A			5.5	A								424	20	31					
	EB											0.0	A															
	WB	37		6	43	6.0	A			4.3	A	5.8	A								570	20	41					
Eagle St at Buffalo St	NB	6	5	2	13	5.6	A	7.0	A	4.1	A	5.9	A	5.3	A						1456	20	32					
	SB	1		2	3	4.7	A			2.9	A	3.5	A								554	20	28					
	EB	2	10	3	15	4.4	A	5.4	A	2.5	A	4.6	A								570	20	32					
	WB	3	35	4	42	5.0	A	5.9	A	2.5	A	5.4	A								1039	24	54					
Hugo Rd at Buffalo St	NB		3	108	111			7.8	A	1.9	A	2.1	A	1.4	A						1621	20	26			300	20	40
	SB	6	6		12	7.5	A	8.9	A			8.3	A								856	20	26					
	EB	1	8	4	13	4.2	A	10.1	B	6.0	A	8.6	A								1039	20	29					
	WB	331	42	12	385	0.7	A	0.9	A	0.6	A	0.7	A								113		20					

NOTES:

NOTES
1. If the reported queue is greater than zero (0), but less than 20 ft, a minimum of 20 ft is reported.
2. Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.
3. Multiple storage lanes of different length are averaged together to show the "Effective Storage Length" per lane.

Table A1b
White Bear Lake High School Event Analysis Study
2024 Maximum Capacity Event Conditions (5,000 tickets)
Event Departure Peak Hour (9:15-10:15 PM)

School Dismissal Peak Hour

Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Vehicle Queing Information (feet)													
																Left Turn Lane				Through Lane (s)					Right Turn Lane				
		L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Thru [2] ---->	% Block Left [2] <----	Link Length (feet)	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Right [2] ---->	% Block Thru [2] <----	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]
Hwy 61 at 4th St (Signal)	NB	60	458	7	525	8.6	A	2.9	A	1.0	A	3.5	A	5.1	A	190	20	41			1374	20	77					
	SB	2	614	11	627	5.9	A	3.3	A	1.3	A	3.3	A			250		20			329	20	65					
	EB	24	7	155	186	39.1	D	29.4	C	2.7	A	8.8	A			100	20	51			424	20	37			50	20	68
	WB	21	19	4	44	36.7	D	38.8	D	7.0	A	35.0	D			100	20	55			1201	21	65					
Hwy 61 at 7th St (Signal)	NB	54	424	8	486	45.9	D	1.8	A	0.4	A	6.2	A	8.5	A	290	29	104			654	20	48					
	SB		404	6	410			5.7	A	3.6	A	5.7	A								272	20	90					
	EB	15	24	215	254	48.3	D	40.8	D	11.0	B	15.7	B								507	23	83			235	55	149
	WB	8	4	4	16	46.3	D	43.0	D	3.8	A	35.3	D								1490	20	60			120	20	27
Hwy 61 at 8th St (Signal) (Planned Signal)	NB	77	356	10	443	36.0	D	2.4	A	0.6	A	8.1	A	11.3	B	230	42	110			272	20	47			130		
	SB	4	174	30	208	47.7	D	7.6	A	1.7	A	7.5	A			375	20	20			1031	20	59			270	20	29
	EB	127	14	229	370	33.8	C	36.1	D	5.3	A	16.4	B								39	58	79			20	47	80
	WB	7	6	5	18	35.8	D	36.0	D	6.2	A	28.5	C								1363	20	63					
Hwy 61 at Hwy 96 (Signal)	NB		359	129	488			2.8	A	1.4	A	2.4	A	3.8	A						291	25	82					
	SB	4	151		155	15.6	B	5.8	A			6.0	A			250	20	33			4312	20	57					
	EB											0.0	A															
	WB	55		11	66	11.0	B			1.5	A	9.0	A			1745	28	69										
Hwy 61 at Buffalo St (Signal)	NB	15	336	19	370	13.3	B	13.3	B	4.3	A	12.9	B	14.7	B	250	20	20			4312	32	116					
	SB	9	138	84	231	10.2	B	8.0	A	1.3	A	5.6	A			240	20	20			750	20	51			175	20	20
	EB	366	41	7	414	22.7	C	23.5	C	5.5	A	22.4	C								113	135	220			55	20	30
	WB	10	19	15	44	13.1	B	12.7	B	3.9	A	9.7	A								1342	20	48			80	20	41
Long Ave at 8th St	NB											0.0	A	14.4	B													
	SB	29		3	32	71.6	F			74.0	F	71.9	F								423	30	119					
	EB		341		341			13.8	B			13.8	B							4 %	208	61	218	17 %				
	WB		100	12	112			1.3	A	0.8	A	1.2	A								39	20	31					
Washington Ave at 8th St	NB			2	2					2.5	A	2.5	A	3.9	A						275	20	24					
	SB	1			1	11.2	B					11.2	B								358	20	20					
	EB		338		338			5.0	A			5.0	A								258	20	158					
	WB		103		103			0.5	A			0.5	A															
Division Ave at 7th St	NB		5	12	17			5.8	A	2.9	A	3.7	A	6.9	A						589	20	40					
	SB	127	10	5	142	7.1	A	8.2	A	8.2	A	7.2	A								290	33	70					
	EB		115		115			7.2	A			7.2	A								812	35	82					
	WB	2	25	36	63	8.0	A	8.2	A	5.2	A	6.5	A								507	28	69					
Division Ave at 8th St (All-way Stop)	NB		39	2	41			7.7	A	6.7	A	7.6	A	11.4	B						290	23	63					
	SB	180	140		320	12.8	B	15.1	C			13.8	B								894	71	231					
	EB	2	156		158	5.3	A	11.1	B			11.0	B								595	47	137					
	WB	2	37	64	103	11.0	B	8.3	A	4.8	A	6.2	A								258	42	97					
Division Ave at New HS Access	NB		105		105			1.6	A			1.6	A	38.4	E													
	SB		101		101			0.5	A			0.5	A								133		20					
	EB	198		219	417	58.5	F			56.4	F	57.4	F								1222	249	922					
	WB											0.0	A															
Divison St at Pick Up/Drop Off Access	NB	78	225		303	2.6	A	0.7	A			1.2	A	2.5	A	100	20	50										
	SB		23	87	110			0.3	A	0.6	A	0.5	A													200	20	20
	EB	87		78	165	8.9	A			3.2	A	6.2	A			1200	30	87								150	23	60
	WB											0.0	A															
Divison St at 12th St	NB		310	2	312			0.4	A	0.6	A	0.4	A	0.5	A													
	SB		109		109			0.6	A			0.6	A															
	EB											0.0	A															
	WB	1			1	6.9	A					6.9	A								727	20	21					
Bloom Ave at 4th St	NB			1	1					2.4	A	2.4	A	4.4	A						257	20	20					
	SB	114		68	182	8.3	A	1.7	A	6.1	A	7.4	A								327	39	93					
	EB	20	71	1	92	3.4	A	1.6	A	1.1	A	2.0	A								899	20	36					
	WB		75	15	90			1.3	A	1.2	A	1.3	A															
Bloom Ave at 5th St	NB	2	32	1	35	5.4	A	5.7	A	3.4	A	5.6	A	6.7	A						327	20	49					
	SB		177		177			7.0	A			7.0	A								655	40	86					
	EB		3	1	4			5.9	A	1.6	A	4.8	A								902	20	31					
	WB	4	5		9	4.0	A	5.7	A			4.9	A								312	20	31					
Bald Eagle Ave at 4th St	NB	4	8	11	23	4.2	A	6.2	A	2.8	A	4.2	A	5.2	A						709	20	40					
	SB	44	29	81	154	5.2	A	6.6	A	3.9	A	4.8	A								338	41	78					
	EB	14	37	1	52	5.0	A	6.1	A	3.5	A	5.8	A								730	29	62					
	WB	17	95	31	143	5.4	A	6.5	A	3.4	A	5.7	A								899	38	70					
Bald Eagle Ave at 5th St	NB		52	1	53			0.7	A	0.4	A	0.7	A	0.6	A													
	SB	3	152		155	2.8	A	0.4	A			0.4	A								312	20	20					
	EB											0.0	A															
	WB	2		5	7	5.0	A			3.8	A	4.1	A								902	20	31					
Bald Eagle Ave at 9th St	NB	16	34		50	3.7	A	0.2	A			1.2	A	2.5	A						899	20	32					
	SB		129	241	370			2.6	A	1.5	A	1.9	A								449		20					
	EB	61		6	67	7.0	A			4.6	A	6.8	A								2107	33	82					
	WB											0.0	A															
Bald Eagle Ave at New HS Access	NB		26	69	95			0.5	A	0.8	A	0.7	A	7.0	A											100	20	20
	SB	49	88		137	3.0	A	0.8	A			1.6	A			100	20	42										
	EB											0.0	A															
	WB	282			282	11.9	B					11.9	B			150	65	204								605	20	95
Bald Eagle Ave at 12th St/HS Access	NB		26		26			0.5	A			0.5	A	7.1	A													
	SB		68		68			0.3	A			0.3	A															
	EB											0.0	A															
	WB	69		327	396	9.0	A			8.6	A	8.7	A								1219	73	214					
Bald Eagle Ave at Stillwater St	NB	98	216	39	353	3.1	A	2.2	A	1.5	A	2.4	A	2.3	A						1454	20	43					
	SB	1	40	1	42	0.0	A	0.3	A	0.4	A	0.3	A															
	EB	1	2	24	27	7.0	A	7.9	A	2.6	A	3.2	A								1459	20	42					
	WB	4	2	3	9	6.5	A	5.2	A	3.4	A	5.2	A								650	20	34					
Bald Eagle Ave at Bald Eagle Blvd	NB	145		75	220	5.8	A	0.3	A	3.8	A	5.1	A	5.0	A						457	38	79					
	SB											0.0	A															
	EB		14	39	53			6.4	A	2.9	A	3.8	A								760	23	52					
	WB	3	19		22	6.6	A	7.2	A			7.1	A								981	20	40					
Bald Eagle Blvd at Park Ave/Beaver St	NB											0.0	A	5.5	A													
	SB			6	6			0.5	A	1.8	A	1.5	A								1740	20	20					
	EB	32	56	1	89	4.8	A	6.5	A	5.7	A	5.9	A								981	25	59					
	WB		16	1	17			5.7	A	3.7	A	5.6	A								396	20	31					
Divison St at Park Ave	NB	4		329	333	9.9	A	0.0	A	7.0	A	7.0	A	5.9	A						905	62	144					
	SB											0.0	A															
	EB		52	4	56			2.9	A	2.0	A	2.8	A															
	WB	92	13		105	4.5	A	2.7	A			4.2	A								1111	20	52					
Eagle St at Park Ave	NB	2	4	4	10	4.2	A	6.0	A	2.9	A	4.4	A	8.0	A						575	20	31					
	SB							0.5	A			0.5	A															
	EB	1	379	1	381	0.0	A	8.7	A	4.2	A	8.7	A								1111	52	89					
	WB	1	103	1	105	4.6	A	6.0	A	0.0	A	6.0	A								321	35	59					
Bald Eagle Blvd at Buffalo St	NB		5	28	33			5.6	A	3.4	A	3.7	A	4.1	A						1740	20	53					
	SB	3			3	4.1	A					4.1	A								424	20	31					
	EB											0.0	A															
	WB	6			6	6.3	A					6.3	A								570	20	23					
Eagle St at Buffalo St	NB		4	1	5			5.5	A	4.3	A	5.3	A	5.5	A						1456	20	31					
	SB											0.0	A															
	EB	1	30		31	3.5	A	6.0	A			5.9	A								570	20	41					
	WB	3	6	1	10	3.8	A	5.2	A	2.7	A	4.5	A								1039	20	33					
Hugo Rd at Buffalo St	NB		1	382	383			33.0	D	80.0	F	79.9	F	57.2	F						1621	190	774		28 %	300	187	449
	SB	2	2	1	5	11.7	B	6.6	A	0.0	A	9.2	A								856	20	20					
	EB	1	30		31	11.0	B	12.2	B			12.2	B								1039	20	56					
	WB	103	9	6	118	0.6	A	0.8	A	0.7	A	0.6	A								113		20					

NOTES:

NOTES
1. If the reported queue is greater than zero (0), but less than 20 ft, a minimum of 20 ft is reported.
2. Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.
3. Multiple storage lanes of different length are averaged together to show the "Effective Storage Length" per lane.

Table A2a
White Bear Lake High School Event Analysis Study
2024 Maximum Capacity Event Conditions (5,000 tickets) - with Improved Signal Timing on Hwy 61
Event Arrival Peak Hour (6:00-7:00 PM)

AM Peak Hour

Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Vehicle Queing Information (feet)													
																Left Turn Lane				Through Lane (s)					Right Turn Lane				
		L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Thru [2] <----	% Block Left [2] <----	Link Length (feet)	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Right [2] ---->	% Block Thru [2] <----	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]
Hwy 61 at 4th St (Signal)	NB	249	1205	86	1,540	18.3	B	8.8	A	2.7	A	10.0	B	11.0	B	190	66	196		1 %	1374	98	268	1 %		170	20	45
	SB	19	687	52	758	16.8	B	5.1	A	2.4	A	5.3	A			250	20	37			329	20	86					
	EB	67	31	122	220	43.1	D	39.7	D	2.8	A	20.0	C			100	43	108		8 %	424	30	126	8 %		50	20	79
	WB	68	45	11	124	46.2	D	38.9	D	21.7	C	40.9	D			100	49	112		2 %	1201	45	121					
Hwy 61 at 7th St (Signal)	NB	183	1075	25	1,283	43.1	D	3.2	A	0.9	A	8.6	A	8.6	A	290	109	220			654	36	142			300		20
	SB		668	9	677			3.7	A	2.6	A	3.7	A								272	21	132					
	EB	30	9	74	113	52.1	D	40.7	D	7.4	A	23.3	C								507	29	109			235	29	69
	WB	16	22	4	42	46.9	D	51.4	D	12.0	B	45.1	D								1490	35	95			120	20	40
Hwy 61 at 8th St (Signal) (Planned Signal)	NB	220	876	14	1,110	43.6	D	3.8	A	1.1	A	11.4	B	11.5	B	230	128	237			272	43	214			130		
	SB	19	610	111	740	52.0	D	8.9	A	4.8	A	9.5	A			375	20	61			1031	59	153			270	20	64
	EB	30	5	62	97	50.4	D	37.2	D	5.7	A	20.9	C								39	30	72			20	28	60
	WB	5	14	15	34	44.7	D	46.0	D	14.1	B	31.2	C								1363	27	78					
Hwy 61 at Hwy 96 (Signal)	NB		684	237	921			4.8	A	1.8	A	4.0	A	10.3	B						291	54	152					
	SB	16	551		567	58.5	E	8.5	A			10.1	B			250	20	64			4312	48	134					
	EB											0.0	A															
	WB	189		9	198	44.3	D			2.7	A	42.4	D			1745	124	230										
Hwy 61 at Buffalo St (Signal)	NB	32	618	43	693	15.8	B	13.8	B	6.0	A	13.4	B	11.2	B	250	20	44			4312	60	223			225		20
	SB	24	523	309	856	12.0	B	5.9	A	2.3	A	4.7	A			240	20	28			750	27	97			175	20	63
	EB	82	22	18	122	34.9	C	33.6	C	6.7	A	30.7	C								113	66	153			55	20	41
	WB	26	44	26	96	31.9	C	33.3	C	5.3	A	25.0	C								1342	43	120	2 %		80	20	52
Long Ave at 8th St	NB											0.0	A	1.5	A													
	SB	17		2	19	7.5	A			3.5	A	6.9	A								423	20	26					
	EB	6	80		86	4.0	A	1.3	A			1.5	A								208	20	35					
	WB		293	52	345			1.3	A	0.9	A	1.2	A								39	20	26					
Washington Ave at 8th St	NB	10	2	6	18	6.1	A	6.3	A	2.4	A	4.7	A	1.3	A						275	20	39					
	SB											0.0	A															
	EB		80	2	82			1.3	A	0.6	A	1.3	A															
	WB	3	290	2	295	2.9	A	1.1	A	0.7	A	1.1	A															
Division Ave at 7th St	NB		7	37	44			6.3	A	2.9	A	3.5	A	8.0	A						589	25	51					
	SB	57	8	3	68	6.4	A	7.6	A	6.7	A	6.6	A								290	28	50					
	EB	2	20		22	7.1	A	5.8	A			5.9	A								812	20	41					
	WB	10	93	111	214	9.6	A	11.2	B	8.6	A	9.7	A								507	74	131					
Division Ave at 8th St (All-way Stop)	NB	2	111	7	120	6.7	A	7.6	A	4.0	A	7.4	A	7.8	A						290	41	77					
	SB	46	59	1	106	5.8	A	7.0	A	5.5	A	6.5	A								894	37	71					
	EB		29		29			6.2	A			6.2	A								595	20	54					
	WB	9	126	165	300	8.5	A	10.1	B	7.2	A	8.5	A								258	74	149					
Division Ave at New HS Access	NB	175	101		276	5.5	A	1.6	A			4.0	A	2.5	A	200	33	83										
	SB		106	159	265			1.3	A	0.6	A	0.9	A								133	20	32					
	EB											0.0	A															
	WB											0.0	A															
Divison St at Pick Up/Drop Off Access	NB	62	39		101	3.2	A	0.1	A			1.8	A	2.1	A	100	20	60										
	SB		203	69	272			0.7	A	0.5	A	0.6	A													200		20
	EB	69		62	131	7.2	A			3.7	A	5.6	A			1200	27	64								150	21	59
	WB											0.0	A															
Divison St at 12th St	NB		105	3	108			0.6	A	0.4	A	0.6	A	1.1	A													
	SB	3	271		274	2.6	A	1.2	A			1.2	A								1049		20					
	EB											0.0	A															
	WB	1		5	6	4.0	A			2.7	A	2.9	A								727	20	31					
Bloom Ave at 4th St	NB	6	4	7	17	6.3	A	10.0	B	3.0	A	5.7	A	3.1	A						257	20	43					
	SB	28	4	23	55	9.4	A	7.4	A	5.5	A	7.6	A								327	29	61					
	EB	60	185	10	255	5.3	A	2.5	A	2.0	A	3.1	A								899	21	72					
	WB	6	234	106	346	3.7	A	2.3	A	1.7	A	2.1	A								424	20	29					
Bloom Ave at 5th St	NB	10	143	17	170	5.0	A	6.2	A	3.5	A	5.8	A	5.6	A						327	37	64					
	SB	2	27	1	30	3.8	A	5.8	A	3.1	A	5.6	A								655	21	48					
	EB	1	23	12	36	5.5	A	6.0	A	2.8	A	5.0	A								902	22	38					
	WB	16	22	3	41	4.6	A	6.1	A	2.6	A	5.2	A								312	24	48					
Bald Eagle Ave at 4th St	NB	8	55	38	101	5.5	A	7.2	A	4.2	A	5.9	A	6.5	A						709	36	69					
	SB	86	36	22	144	5.6	A	6.6	A	3.8	A	5.6	A								338	38	72					
	EB	70	131	6	207	6.7	A	7.7	A	5.0	A	7.3	A								730	50	104					
	WB	26	114	123	263	6.7	A	8.1	A	5.2	A	6.6	A								899	55	104					
Bald Eagle Ave at 5th St	NB		240	8	248			1.1	A	0.8	A	1.1	A	1.6	A													
	SB	28	137		165	3.5	A	1.1	A			1.5	A								312	20	42					
	EB											0.0	A															
	WB	7		26	33	8.6	A			4.9	A	5.7	A								902	21	46					
Bald Eagle Ave at 9th St	NB	31	143		174	2.4	A	0.7	A			1.0	A	3.9	A						899	20	32					
	SB		51	48	99			0.5	A	0.2	A	0.4	A								449		20					
	EB	202		24	226	8.0	A			5.3	A	7.7	A								2107	55	112					
	WB											0.0	A															
Bald Eagle Ave at New HS Access	NB		66	279	345			0.7	A	1.3	A	1.2	A	1.4	A											100	20	27
	SB	39	99		138	5.6	A	0.7	A			2.1	A			100	20	46										
	EB											0.0	A															
	WB											0.0	A															
Bald Eagle Ave at 12th St/HS Access	NB		66		66			0.2	A			0.2	A	3.1	A													
	SB	225	83		308	3.0	A	2.1	A			2.8	A								1454	20	56					
	EB											0.0	A															
	WB	55		39	94	7.6	A			4.0	A	6.0	A								1219	36	68					
Bald Eagle Ave at Stillwater St	NB	49	47	9	105	2.9	A	0.9	A	0.6	A	1.8	A	2.3	A						1454	20	45					
	SB	7	194	7	208	2.6	A	0.8	A	0.6	A	0.9	A								457	20	20					
	EB	7	5	80	92	6.3	A	8.0	A	4.2	A	4.6	A								1459	36	74					
	WB	34	2	7	43	6.1	A	8.2	A	2.9	A	5.6	A								650	23	49					
Bald Eagle Ave at Bald Eagle Blvd	NB	42		19	61	4.5	A			2.5	A	3.8	A	5.3	A						457	20	48					
	SB											0.0	A															
	EB		41	132	173			6.9	A	4.0	A	4.7	A								760	42	74					
	WB	76	39		115	6.5	A	7.6	A			6.9	A								981	36	66					
Bald Eagle Blvd at Park Ave/Beaver St	NB		1		1			4.1	A			4.1	A	5.7	A						842		20					
	SB	1		45	46	3.9	A	0.0	A	2.9	A	2.9	A								1740	20	39					
	EB	17	41	2	60	6.0	A	7.1	A	4.4	A	6.7	A								981	24	46					
	WB	1	70	1	72	0.0	A	6.3	A	3.5	A	6.3	A								396	28	55					
Divison St at Park Ave	NB	4		73	77	10.6	B			3.3	A	3.6	A	4.3	A						905	31	58					
	SB											0.0	A															
	EB		38	4	42			2.3	A	2.2	A	2.3	A															
	WB	269	68		337	4.9	A	4.0	A			4.7	A								1111	20	56					
Eagle St at Park Ave	NB	4	7	5	16	4.4	A	6.5	A	2.6	A	4.4	A	6.9	A						575	20	34					
	SB	1	4	1	6	0.0	A	4.1	A	4.1	A	4.1	A								1456	20	34					
	EB	1	105	5	111	6.7	A	6.2	A	3.0	A	6.1	A								1111	36	56					
	WB	7	332	2	341	6.2	A	7.3	A	4.3	A	7.3	A								321	59	104					
Bald Eagle Blvd at Buffalo St	NB		6	13	19			6.4	A	3.1	A	4.3	A	5.2	A						1740	20	36					
	SB	2	9		11	3.7	A	5.5	A			5.2	A								424	20	33					
	EB											0.0	A															
	WB	37		6	43	6.1	A			4.1	A	5.7	A								570	20	46					
Eagle St at Buffalo St	NB	6	5	2	13	5.6	A	7.2	A	3.6	A	6.0	A	5.3	A						1456	20	31					
	SB	1		2	3	2.3	A			2.0	A	2.0	A								554	20	28					
	EB	2	10	3	15	3.8	A	5.4	A	2.4	A	4.5	A								570	20	31					
	WB	3	35	4	42	4.9	A	6.0	A	3.0	A	5.6	A								1039	26	54					
Hugo Rd at Buffalo St	NB		3	108	111			10.2	B	2.1	A	2.2	A	1.4	A						1621	20	24			300	20	44
	SB	6	6		12	6.8	A	8.8	A			8.0	A								856	20	22					
	EB	1	8	4	13	4.1	A	10.8	B	6.4	A	8.8	A								1039	20	31					
	WB	331	42	12	385	0.7	A	1.0	A	0.5	A	0.7	A								113		20					

NOTES:

NOTES
1. If the reported queue is greater than zero (0), but less than 20 ft, a minimum of 20 ft is reported.
2. Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.
3. Multiple storage lanes of different length are averaged together to show the "Effective Storage Length" per lane.

Table A2b
White Bear Lake High School Event Analysis Study
2024 Maximum Capacity Event Conditions (5,000 tickets) - with Improved Signal Timing on Hwy 61
Event Departure Peak Hour (9:15-10:15 PM)

School Dismissal Peak Hour

Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Vehicle Queing Information (feet)															
																Left Turn Lane				Through Lane (s)					Right Turn Lane						
		L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Thru [2] ---->	% Block Left [2] <----	Link Length (feet)	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Right [2] ---->	% Block Thru [2] <----	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]				
Hwy 61 at 4th St (Signal)	NB	60	458	7	525	8.1	A	3.0	A	0.7	A	3.5	A	4.8	A	190	20	36			1374	20	76								
	SB	2	614	11	627	5.8	A	3.0	A	1.2	A	3.0	A			250		20			329	20	67								
	EB	24	7	155	186	37.3	D	25.9	C	2.7	A	8.0	A			100	20	48			424	20	29			50	20	75			
	WB	21	19	4	44	37.1	D	37.1	D	10.1	B	33.8	C			100	20	54			1201	20	59								
Hwy 61 at 7th St (Signal)	NB	54	424	8	486	46.0	D	2.5	A	0.4	A	7.4	A	9.1	A	290	32	106			654	20	76								
	SB		404	6	410			6.5	A	4.6	A	6.5	A								272	26	106								
	EB	15	24	215	254	43.7	D	36.7	D	10.5	B	15.0	B								507	25	74			235	54	145			
	WB	8	4	4	16	39.8	D	36.4	D	5.4	A	29.7	C								1490	20	44			120	20	29			
Hwy 61 at 8th St (Signal) (Planned Signal)	NB	77	356	10	443	43.9	D	3.2	A	0.6	A	10.0	B	10.9	B	230	45	139			272	20	66			130					
	SB	4	174	30	208	57.3	E	8.6	A	1.6	A	8.3	A			375	20	24			1031	20	63			270	20	20			
	EB	127	14	229	370	25.8	C	24.2	C	4.3	A	12.6	B								39	55	82			20	45	77			
	WB	7	6	5	18	36.2	D	33.0	C	6.7	A	27.6	C								1363	20	53								
Hwy 61 at Hwy 96 (Signal)	NB		359	129	488			2.7	A	1.4	A	2.4	A	3.8	A						291	24	81								
	SB	4	151		155	18.0	B	5.5	A			5.7	A			250	20	29			4312	20	53								
	EB											0.0	A																		
	WB	55		11	66	11.6	B			1.6	A	9.5	A			1745	28	65													
Hwy 61 at Buffalo St (Signal)	NB	15	336	19	370	16.9	B	16.9	B	3.7	A	16.2	B	14.7	B	250	20	20			4312	38	130								
	SB	9	138	84	231	11.5	B	10.7	B	1.3	A	7.3	A			240	20	20			750	20	57			175		20			
	EB	366	41	7	414	18.2	B	18.6	B	5.8	A	18.0	B								113	129	222			55	20	34			
	WB	10	19	15	44	13.4	B	11.9	B	3.1	A	9.0	A								1342	20	44			80	20	37			
Long Ave at 8th St	NB											0.0	A	5.3	A															
	SB	29		3	32	18.1	C			10.5	B	17.2	C								423	20	61								
	EB		341		341							5.5	A							1 %	208	34	163	7 %							
	WB		100	12	112			1.1	A	0.8	A	1.1	A								39		20								
Washington Ave at 8th St	NB			2	2					2.5	A	2.5	A	1.6	A						275	20	30								
	SB	1			1	8.6	A					8.6	A								358	20	20								
	EB		338		338			1.9	A			1.9	A								258	20	34								
	WB		103		103			0.4	A			0.4	A																		
Division Ave at 7th St	NB		5	12	17			5.3	A	2.9	A	3.6	A	6.8	A						589	20	34								
	SB	127	10	5	142	7.0	A	7.9	A	7.9	A	7.1	A								290	32	56								
	EB		115		115			7.0	A			7.0	A								812	35	75								
	WB	2	25	36	63	7.4	A	8.0	A	5.2	A	6.4	A								507	29	71								
Division Ave at 8th St (All-way Stop)	NB		39	2	41			7.8	A	4.0	A	7.6	A	8.9	A						290	24	60								
	SB	180	140		320	9.8	A	10.3	B			10.0	B								894	61	173								
	EB	2	156		158	6.7	A	9.0	A			9.0	A								595	44	119								
	WB	2	37	64	103	6.0	A	7.5	A	4.6	A	5.7	A								258	37	90								
Division Ave at New HS Access	NB		105		105			1.6	A			1.6	A	30.4	D															
	SB		101		101			0.5	A			0.5	A								133		20								
	EB	198		219	417	47.0	E			44.3	E	45.6	E								1222	209	786								
	WB											0.0	A																		
Divison St at Pick Up/Drop Off Access	NB	78	225		303	2.5	A	0.7	A			1.2	A	2.5	A	100	20	49													
	SB		23	87	110			0.3	A	0.7	A	0.6	A													200	20	20			
	EB	87		78	165	8.6	A			3.0	A	5.9	A			1200	31	76								150	22	55			
	WB											0.0	A																		
Divison St at 12th St	NB		310	2	312			0.5	A	0.2	A	0.5	A	0.5	A																
	SB		109		109			0.6	A			0.6	A																		
	EB											0.0	A																		
	WB	1			1	3.7	A					3.7	A								727	20	20								
Bloom Ave at 4th St	NB			1	1					2.0	A	2.0	A	4.5	A						257		20								
	SB	114		68	182	8.3	A	2.8	A	6.0	A	7.4	A								327	39	98								
	EB	20	71	1	92	3.4	A	1.6	A	0.5	A	2.0	A								899	20	27								
	WB		75	15	90			1.3	A	1.2	A	1.3	A																		
Bloom Ave at 5th St	NB	2	32	1	35	5.5	A	5.6	A	3.9	A	5.5	A	6.6	A						327	20	44								
	SB		177		177			6.9	A			6.9	A								655	40	83								
	EB		3	1	4			5.7	A	1.0	A	5.7	A								902	20	31								
	WB	4	5		9	4.3	A	6.2	A			5.6	A								312	20	34								
Bald Eagle Ave at 4th St	NB	4	8	11	23	4.1	A	5.7	A	2.6	A	4.0	A	5.1	A						709	20	39								
	SB	44	29	81	154	5.2	A	6.3	A	3.8	A	4.7	A								338	42	79								
	EB	14	37	1	52	4.8	A	6.2	A	2.5	A	5.7	A								730	27	57								
	WB	17	95	31	143	5.2	A	6.4	A	3.3	A	5.6	A								899	37	66								
Bald Eagle Ave at 5th St	NB		52	1	53			0.7	A	0.9	A	0.7	A	0.7	A																
	SB	3	152		155	2.2	A	0.4	A			0.4	A								312		20								
	EB											0.0	A																		
	WB	2		5	7	8.1	A			3.8	A	4.8	A								902	20	34								
Bald Eagle Ave at 9th St	NB	16	34		50	3.9	A	0.4	A			1.5	A	2.6	A						899	20	43								
	SB		129	241	370			2.7	A	1.6	A	2.0	A								449		20								
	EB	61		6	67	6.6	A			4.7	A	6.4	A								2107	33	68								
	WB											0.0	A																		
Bald Eagle Ave at New HS Access	NB		26	69	95			0.5	A	0.8	A	0.7	A	8.6	A											100		20			
	SB	49	88		137	3.0	A	0.9	A			1.6	A			100	20	40													
	EB											0.0	A																		
	WB	282			282	14.7	B					14.7	B			150	73	232								605	20	158			
Bald Eagle Ave at 12th St/HS Access	NB		26		26			0.4	A			0.4	A	7.3	A																
	SB		68		68			0.4	A			0.4	A																		
	EB											0.0	A																		
	WB	69		327	396	9.7	A			8.9	A	9.0	A								1219	74	231								
Bald Eagle Ave at Stillwater St	NB	98	216	39	353	3.1	A	2.1	A	1.6	A	2.3	A	2.2	A						1454	20	43								
	SB	1	40	1	42	2.2	A	0.4	A	0.3	A	0.4	A								457		20								
	EB	1	2	24	27	6.6	A	6.3	A	2.8	A	3.2	A								1459	20	46								
	WB	4	2	3	9	6.8	A	4.8	A	2.4	A	4.7	A								650	20	31								
Bald Eagle Ave at Bald Eagle Blvd	NB	145		75	220	5.6	A	0.3	A	3.7	A	4.9	A	4.8	A						457	37	78								
	SB											0.0	A																		
	EB		14	39	53			6.4	A	2.9	A	3.8	A								760	26	65								
	WB	3	19		22	7.4	A	6.7	A			6.8	A								981	20	34								
Bald Eagle Blvd at Park Ave/Beaver St	NB											0.0	A	5.5	A																
	SB			6	6			0.8	A	2.0	A	1.7	A								1740	20	20								
	EB	32	56	1	89	5.1	A	6.4	A	4.2	A	5.9	A								981	25	57								
	WB		16	1	17			5.7	A	3.4	A	5.5	A								396	20	26								
Divison St at Park Ave	NB	4		329	333	10.7	B	0.0	A	7.3	A	7.3	A	6.1	A						905	62	174								
	SB											0.0	A																		
	EB		52	4	56			2.9	A	2.0	A	2.8	A																		
	WB	92	13		105	4.4	A	2.8	A			4.2	A								1111	20	49								
Eagle St at Park Ave	NB	2	4	4	10	5.1	A	5.7	A	2.9	A	4.2	A	8.0	A						575	20	36								
	SB							0.6	A			0.6	A																		
	EB	1	379	1	381	6.8	A	8.8	A	8.6	A	8.8	A								1111	53	100								
	WB	1	103	1	105	2.4	A	6.0	A	2.7	A	5.9	A								321	35	68								
Bald Eagle Blvd at Buffalo St	NB		5	28	33			6.7	A	3.2	A	3.8	A	4.3	A						1740	20	49								
	SB	3			3	4.4	A					4.4	A								424	20	31								
	EB											0.0	A																		
	WB	6			6	6.8	A					6.8	A								570	20	25								
Eagle St at Buffalo St	NB		4	1	5			5.9	A	4.3	A	5.6	A	5.8	A						1456	20	30								
	SB											0.0	A																		
	EB	1	30		31	4.9	A	6.0	A			6.0	A								570	20	36								
	WB	3	6	1	10	4.1	A	6.2	A	1.8	A	5.2	A								1039	20	33								
Hugo Rd at Buffalo St	NB		1	382	383			25.4	D	64.7	F	64.5	F	46.8	E						1621	152	736		24 %	300	165	448			
	SB	2	2	1	5	12.7	B	6.2	A	1.1	A	6.5	A								856	20	20								
	EB	1	30		31	6.6	A	10.4	B			10.3	B								1039	20	46								
	WB	103	9	6	118	0.6	A	0.9	A	0.6	A	0.6	A																		

NOTES:

NOTES
1. If the reported queue is greater than zero (0), but less than 20 ft, a minimum of 20 ft is reported.
2. Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.
3. Multiple storage lanes of different length are averaged together to show the "Effective Storage Length" per lane.

Table A3a
White Bear Lake High School Event Analysis Study
2024 Homecoming Game Event Conditions (3,800 tickets)
Event Arrival Peak Hour (6:00-7:00 PM)

AM Peak Hour

Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Vehicle Queing Information (feet)													
																Left Turn Lane				Through Lane (s)						Right Turn Lane			
		L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Thru [2] ---->	% Block Left [2] <----	Link Length (feet)	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Right [2] ---->	% Block Thru [2] <----	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]
Hwy 61 at 4th St (Signal)	NB	226	1125	86	1,437	15.8	B	8.0	A	2.6	A	8.9	A	10.8	B	190	54	158		1 %	1374	83	262	1 %		170	20	67
	SB	19	668	52	739	15.5	B	6.2	A	3.7	A	6.3	A			250	20	32			329	28	162					
	EB	67	31	120	218	45.3	D	35.3	D	2.7	A	21.6	C			100	47	**119**		7 %	424	28	121	7 %		50	20	**74**
	WB	68	45	11	124	47.6	D	39.9	D	17.7	B	41.8	D			100	48	**115**			1201	39	100					
Hwy 61 at 7th St (Signal)	NB	143	1035	25	1,203	51.6	D	3.4	A	0.9	A	9.1	A	8.6	A	290	97	207			654	36	158			300		20
	SB		659	7	666			3.6	A	1.0	A	3.6	A								272	21	121					
	EB	30	8	64	102	49.5	D	42.7	D	7.1	A	23.2	C								507	27	97			235	27	65
	WB	16	17	4	37	49.7	D	51.9	D	10.3	B	45.9	D								1490	28	73			120	20	30
Hwy 61 at 8th St (Signal) (Planned Signal)	NB	180	876	14	1,070	67.7	**E**	3.8	A	0.9	A	14.1	B	12.1	B	230	126	**235**			272	48	**224**			130		
	SB	19	608	88	715	51.9	D	6.4	A	3.5	A	7.3	A			375	20	59			1031	46	143			270	20	57
	EB	23	4	53	80	54.4	D	42.6	D	6.2	A	22.1	C								39	25	**67**			20	**26**	**58**
	WB	5	12	15	32	46.9	D	49.3	D	13.9	B	31.3	C								1363	22	75					
Hwy 61 at Hwy 96 (Signal)	NB		680	235	915			3.7	A	1.8	A	3.2	A	9.8	A						291	43	116					
	SB	16	533		549	50.3	D	8.7	A			9.8	A			250	20	62			4312	50	131					
	EB											0.0	A															
	WB	182		9	191	43.4	D			2.6	A	41.3	D			1745	121	240										
Hwy 61 at Buffalo St (Signal)	NB	32	614	43	689	13.0	B	12.6	B	6.2	A	12.2	B	10.4	B	250	20	38			4312	51	208			225		20
	SB	24	505	240	769	9.7	A	5.3	A	1.7	A	4.3	A			240	20	29			750	23	94			175	20	49
	EB	67	21	18	106	33.6	C	32.3	C	6.4	A	28.8	C								113	54	**143**			55	20	38
	WB	26	37	26	89	33.9	C	34.2	C	5.5	A	26.1	C								1342	40	110	2 %		80	20	43
Long Ave at 8th St	NB											0.0	A	1.5	A													
	SB	17		2	19	6.4	A			2.8	A	6.0	A								423	20	30					
	EB	6	64		70	3.3	A	1.2	A			1.4	A								208	20	28					
	WB		228	52	280			1.3	A	0.7	A	1.2	A								39	20	26					
Washington Ave at 8th St	NB	10	2	6	18	5.6	A	6.0	A	2.8	A	4.6	A	1.2	A						275	20	30					
	SB											0.0	A															
	EB		64	2	66			1.2	A	1.1	A	1.2	A															
	WB	3	225	2	230	2.1	A	1.0	A	0.5	A	1.0	A															
Division Ave at 7th St	NB		7	37	44			5.8	A	2.9	A	3.4	A	7.3	A						589	24	52					
	SB	50	8	3	61	6.3	A	7.7	A	8.0	A	6.6	A								290	28	44					
	EB	2	16		18	5.2	A	5.8	A			5.7	A								812	20	38					
	WB	10	70	87	167	9.2	A	10.3	B	7.7	A	8.8	A								507	64	105					
Division Ave at 8th St (All-way Stop)	NB	2	87	7	96	6.0	A	7.3	A	4.5	A	7.1	A	6.9	A						290	37	75					
	SB	37	52	1	90	5.7	A	6.6	A	2.8	A	6.2	A								894	35	65					
	EB		22		22			6.1	A			6.1	A								595	20	37					
	WB	9	96	130	235	7.2	A	8.8	A	5.9	A	7.2	A								258	62	107					
Division Ave at New HS Access	NB	132	85		217	4.9	A	1.5	A			3.5	A	2.1	A	200	22	72										
	SB		90	120	210			1.0	A	0.4	A	0.7	A								133	20	20					
	EB											0.0	A															
	WB											0.0	A															
Divison St at Pick Up/Drop Off Access	NB	46	39		85	2.7	A	0.1	A			1.4	A	1.9	A	100	20	40										
	SB		164	53	217			0.6	A	0.5	A	0.6	A													200		20
	EB	53		46	99	6.6	A			3.3	A	5.0	A			1200	22	57								150	20	46
	WB											0.0	A															
Divison St at 12th St	NB		89	3	92			0.5	A	0.3	A	0.5	A	0.9	A													
	SB	3	216		219	2.1	A	1.0	A			1.0	A								1049		20					
	EB											0.0	A															
	WB	1		5	6	4.9	A			2.5	A	2.8	A								727	20	31					
Bloom Ave at 4th St	NB	6	4	7	17	6.7	A	8.6	A	3.4	A	6.1	A	2.8	A						257	20	33					
	SB	26	4	18	48	9.1	A	6.3	A	5.5	A	7.4	A								327	28	60					
	EB	48	185	10	243	5.4	A	2.3	A	1.6	A	2.8	A								899	20	62					
	WB	6	232	85	323	3.7	A	2.0	A	1.6	A	1.9	A								424	20	20					
Bloom Ave at 5th St	NB	10	110	17	137	4.9	A	6.1	A	3.6	A	5.7	A	5.4	A						327	34	63					
	SB	2	20	1	23	4.0	A	5.7	A	2.1	A	5.3	A								655	20	36					
	EB	1	23	12	36	4.7	A	6.0	A	2.7	A	4.9	A								902	22	45					
	WB	16	22	3	41	4.6	A	5.9	A	2.8	A	5.1	A								312	23	49					
Bald Eagle Ave at 4th St	NB	8	50	36	94	5.9	A	6.8	A	3.6	A	5.5	A	6.3	A						709	35	64					
	SB	86	35	20	141	5.5	A	6.6	A	3.6	A	5.5	A								338	38	71					
	EB	58	121	6	185	6.4	A	7.3	A	4.8	A	7.0	A								730	46	92					
	WB	25	110	121	256	6.9	A	7.8	A	5.1	A	6.5	A								899	54	104					
Bald Eagle Ave at 5th St	NB		221	8	229			1.0	A	1.0	A	1.0	A	1.5	A													
	SB	28	134		162	3.4	A	1.1	A			1.5	A								312	20	50					
	EB											0.0	A															
	WB	7		26	33	7.5	A			4.5	A	4.9	A								902	22	42					
Bald Eagle Ave at 9th St	NB	31	124		155	2.3	A	0.6	A			1.0	A	3.3	A						899	20	33					
	SB		48	38	86			0.5	A	0.1	A	0.3	A															
	EB	156		24	180	7.0	A			4.7	A	6.7	A								2107	48	96					
	WB											0.0	A															
Bald Eagle Ave at New HS Access	NB		66	214	280			0.7	A	1.1	A	1.0	A	1.1	A											100	20	20
	SB	29	86		115	4.0	A	0.6	A			1.4	A			100	20	36										
	EB											0.0	A															
	WB											0.0	A															
Bald Eagle Ave at 12th St/HS Access	NB		66		66			0.2	A			0.2	A	2.7	A													
	SB	170	73		243	2.9	A	1.8	A			2.6	A								1454	20	66					
	EB											0.0	A															
	WB	42		29	71	6.5	A			3.5	A	5.3	A								1219	32	75					
Bald Eagle Ave at Stillwater St	NB	45	41	9	95	2.7	A	0.9	A	0.7	A	1.7	A	2.1	A						1454	20	45					
	SB	7	154	7	168	2.5	A	0.7	A	0.5	A	0.8	A								457	20	20					
	EB	7	5	63	75	6.7	A	6.3	A	3.7	A	4.1	A								1459	32	63					
	WB	26	2	7	35	5.7	A	5.3	A	2.8	A	5.0	A								650	21	52					
Bald Eagle Ave at Bald Eagle Blvd	NB	36		19	55	4.6	A			2.4	A	3.8	A	5.1	A						457	20	45					
	SB											0.0	A															
	EB		41	105	146			6.7	A	3.6	A	4.4	A								760	39	70					
	WB	63	39		102	6.4	A	7.4	A			6.8	A								981	35	72					
Bald Eagle Blvd at Park Ave/Beaver St	NB		1		1			4.5	A			4.5	A	5.5	A						842	20	20					
	SB	1		40	41	5.2	A	0.0	A	2.8	A	2.9	A								1740	20	40					
	EB	17	41	2	60	5.9	A	7.3	A	4.7	A	6.8	A								981	24	47					
	WB	1	62	1	64	3.4	A	6.1	A	4.2	A	6.0	A								396	26	57					
Divison St at Park Ave	NB	4		57	61	6.8	A	0.0	A	3.1	A	3.4	A	4.0	A						905	27	60					
	SB											0.0	A															
	EB		38	4	42			2.3	A	2.1	A	2.3	A								396		20					
	WB	206	60		266	4.7	A	3.5	A			4.4	A								1111	20	50					
Eagle St at Park Ave	NB	4	7	5	16	4.8	A	5.9	A	2.2	A	4.3	A	6.4	A						575	20	36					
	SB	1	4	1	6	2.8	A	3.0	A	3.2	A	3.0	A								1456	20	33					
	EB	1	89	5	95	5.1	A	6.3	A	3.2	A	6.2	A								1111	34	60					
	WB	7	261	2	270	5.6	A	6.8	A	4.9	A	6.8	A								321	53	84					
Bald Eagle Blvd at Buffalo St	NB		6	13	19			6.6	A	3.0	A	4.1	A	5.1	A						1740	20	38					
	SB	2	9		11	4.2	A	5.4	A			5.2	A								424	20	31					
	EB											0.0	A															
	WB	32		6	38	5.9	A	1.6	A	4.3	A	5.5	A								570	20	50					
Eagle St at Buffalo St	NB	6	5	2	13	6.0	A	7.1	A	3.2	A	5.8	A	5.2	A						1456	20	34					
	SB	1		2	3	4.2	A			3.0	A	3.4	A								554	20	31					
	EB	2	10	3	15	5.4	A	5.4	A	2.6	A	4.5	A								570	20	34					
	WB	3	30	4	37	5.4	A	5.8	A	2.5	A	5.4	A								1039	24	54					
Hugo Rd at Buffalo St	NB		3	92	95			6.8	A	2.0	A	2.2	A	1.4	A						1621	20	28			300	20	41
	SB	6	6		12	5.9	A	7.5	A			6.7	A								856	20	20					
	EB	1	8	4	13	6.8	A	9.7	A	4.4	A	8.1	A								1039	20	31					
	WB	260	37	12	309	0.7	A	0.9	A	0.6	A	0.7	A								113		20					

NOTES:

NOTES
1. If the reported queue is greater than zero (0), but less than 20 ft, a minimum of 20 ft is reported.
2. Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.
3. Multiple storage lanes of different length are averaged together to show the "Effective Storage Length" per lane.

Table A3b
White Bear Lake High School Event Analysis Study
2024 Homecoming Game Event Conditions (3,800 tickets)
Event Departure Peak Hour (9:15-10:15 PM)

School Dismissal Peak Hour

Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Vehicle Queing Information (feet)													
																Left Turn Lane				Through Lane (s)					Right Turn Lane				
		L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Thru [2] ---->	% Block Left [2] <----	Link Length (feet)	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Right [2] ---->	% Block Thru [2] <----	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]
Hwy 61 at 4th St (Signal)	NB	57	433	7	497	7.0	A	2.6	A	0.9	A	3.1	A	4.9	A	190	20	33			1374	20	67					
	SB	2	516	11	529	3.3	A	2.8	A	1.4	A	2.8	A			250		20			329	20	60					
	EB	24	7	126	157	38.9	D	34.2	C	2.7	A	9.1	A			100	20	46			424	20	38			50	20	75
	WB	21	19	4	44	38.4	D	35.6	D	9.5	A	34.8	C			100	20	61			1201	20	67					
Hwy 61 at 7th St (Signal)	NB	41	412	8	461	51.6	D	1.7	A	0.5	A	5.7	A	7.8	A	290	22	89			654	20	47					
	SB		355	3	358			4.6	A	2.9	A	4.6	A								272	20	82					
	EB	13	18	166	197	51.5	D	40.2	D	10.2	B	15.9	B								507	22	84			235	45	147
	WB	8	3	4	15	48.8	D	50.6	D	4.9	A	36.2	D								1490	20	56			120	20	32
Hwy 61 at 8th St (Signal) (Planned Signal)	NB	65	354	10	429	42.3	D	2.3	A	0.5	A	7.9	A	10.5	B	230	35	112			272	20	59			130		
	SB	4	171	24	199	42.2	D	6.4	A	1.8	A	6.5	A			375	20	25			1031	20	53			270	20	20
	EB	99	11	180	290	34.8	C	31.0	C	5.1	A	16.1	B								39	50	82			20	44	82
	WB	7	5	5	17	35.7	D	45.2	D	6.4	A	31.1	C								1363	20	54					
Hwy 61 at Hwy 96 (Signal)	NB		338	120	458			2.5	A	1.4	A	2.2	A	3.7	A						291	21	81					
	SB	4	146		150	10.7	B	5.4	A			5.5	A			250	20	26			4312	20	56					
	EB											0.0	A															
	WB	53		11	64	11.1	B			1.6	A	9.6	A			1745	28	74										
Hwy 61 at Buffalo St (Signal)	NB	15	315	19	349	10.4	B	11.5	B	3.3	A	11.0	B	12.5	B	250	20	20			4312	22	86					
	SB	9	133	65	207	8.7	A	6.8	A	1.1	A	5.1	A			240	20	20			750	20	37			175	20	20
	EB	282	32	7	321	19.8	B	20.0	C	5.6	A	19.4	B								113	105	220			55	20	32
	WB	10	17	15	42	11.7	B	14.2	B	3.0	A	9.5	A								1342	20	49			80	20	31
Long Ave at 8th St	NB											0.0	A	10.7	B													
	SB	29		3	32	31.8	D			73.4	F	36.4	E								423	25	79					
	EB		261		261			10.4	B			10.4	B							2 %	208	38	197	10 %				
	WB		81	12	93			1.4	A	0.8	A	1.3	A								39	20	35					
Washington Ave at 8th St	NB			2	2					2.9	A	2.9	A	2.8	A						275	20	24					
	SB	1			1	3.8	A					3.8	A								358	20	21					
	EB		258		258			3.6	A			3.6	A								258	20	71					
	WB		84		84			0.4	A			0.4	A															
Division Ave at 7th St	NB		5	12	17			6.4	A	2.9	A	4.1	A	6.8	A						589	20	33					
	SB	97	10	5	112	7.0	A	8.2	A	7.5	A	7.2	A								290	30	62					
	EB		88		88			7.1	A			7.1	A								812	31	80					
	WB	2	18	28	48	6.9	A	7.4	A	5.0	A	6.0	A								507	23	74					
Division Ave at 8th St (All-way Stop)	NB		31	2	33			7.4	A	5.4	A	7.3	A	8.1	A						290	20	61					
	SB	137	110		247	8.3	A	9.1	A			8.7	A								894	50	122					
	EB	2	119		121	5.5	A	9.0	A			8.9	A								595	37	101					
	WB	2	29	53	84	6.6	A	7.9	A	4.1	A	5.5	A								258	35	87					
Division Ave at New HS Access	NB		86		86			1.5	A			1.5	A	13.3	B													
	SB		82		82			0.5	A			0.5	A															
	EB	150		165	315	20.6	C			19.2	C	19.9	C								1222	100	408					
	WB											0.0	A															
Divison St at Pick Up/Drop Off Access	NB	59	177		236	2.2	A	0.7	A			1.1	A	2.1	A	100	20	44			133		20					
	SB		23	66	89			0.3	A	0.5	A	0.4	A													200		20
	EB	66		59	125	6.8	A			2.9	A	5.0	A			1200	25	71								150	20	50
	WB											0.0	A															
Divison St at 12th St	NB		241	2	243			0.4	A	0.5	A	0.4	A	0.5	A													
	SB		88		88			0.6	A			0.6	A															
	EB											0.0	A															
	WB	1			1	4.2	A					4.2	A								727	20	20					
Bloom Ave at 4th St	NB			1	1					1.7	A	1.7	A	4.0	A						257	20	20					
	SB	87		52	139	7.9	A	2.3	A	6.0	A	7.2	A								327	33	79					
	EB	16	69	1	86	3.2	A	1.5	A	1.1	A	1.8	A								899	20	25					
	WB		75	12	87			1.2	A	1.0	A	1.2	A															
Bloom Ave at 5th St	NB	2	25	1	28	3.4	A	5.1	A	1.9	A	4.9	A	6.6	A						327	20	39					
	SB		134		134			7.1	A			7.1	A								655	34	76					
	EB		3	1	4			7.4	A	1.7	A	5.5	A								902	20	28					
	WB	4	5		9	3.8	A	5.3	A			4.6	A								312	20	31					
Bald Eagle Ave at 4th St	NB	4	7	10	21	4.0	A	6.0	A	2.7	A	3.9	A	5.1	A						709	20	31					
	SB	42	23	64	129	5.2	A	6.2	A	3.7	A	4.7	A								338	37	76					
	EB	12	34	1	47	4.9	A	6.0	A	2.0	A	5.6	A								730	27	58					
	WB	14	82	31	127	5.2	A	6.5	A	3.2	A	5.5	A								899	38	70					
Bald Eagle Ave at 5th St	NB		49	1	50			0.6	A	0.2	A	0.6	A	0.6	A													
	SB	3	127		130	3.0	A	0.4	A			0.4	A								312		20					
	EB											0.0	A															
	WB	2		5	7	5.0	A			4.2	A	4.4	A								902	20	31					
Bald Eagle Ave at 9th St	NB	16	31		47	2.7	A	0.3	A			1.0	A	2.1	A						899	20	37					
	SB		104	183	287			2.1	A	1.3	A	1.6	A								449		20					
	EB	48		6	54	5.8	A			3.8	A	5.6	A								2107	29	58					
	WB											0.0	A															
Bald Eagle Ave at New HS Access	NB		26	53	79			0.5	A	0.7	A	0.6	A	5.3	A											100		20
	SB	37	72		109	2.7	A	0.7	A			1.3	A			100	20	33										
	EB											0.0	A															
	WB	215			215	9.2	A					9.2	A			150	46	145										
Bald Eagle Ave at 12th St/HS Access	NB		26		26			0.3	A			0.3	A	6.0	A													
	SB		56		56			0.4	A			0.4	A															
	EB											0.0	A															
	WB	53		249	302	7.9	A			7.5	A	7.6	A								1219	60	192					
Bald Eagle Ave at Stillwater St	NB	77	168	30	275	2.8	A	1.9	A	1.4	A	2.1	A	2.1	A						1454	20	42					
	SB	1	33	1	35	3.3	A	0.4	A	0.3	A	0.5	A								457		20					
	EB	1	2	19	22	4.2	A	6.2	A	2.6	A	3.0	A								1459	20	36					
	WB	4	2	3	9	6.6	A	7.6	A	4.1	A	6.0	A								650	20	33					
Bald Eagle Ave at Bald Eagle Blvd	NB	112		60	172	5.4	A	0.0	A	3.5	A	4.7	A	4.7	A						457	30	64					
	SB											0.0	A															
	EB		14	32	46			6.0	A	2.8	A	3.8	A								760	24	55					
	WB	3	19		22	6.1	A	7.5	A			7.3	A								981	20	40					
Bald Eagle Blvd at Park Ave/Beaver St	NB											0.0	A	5.4	A													
	SB			6	6			0.6	A	2.4	A	1.6	A								1740	20	20					
	EB	26	47	1	74	4.7	A	6.3	A	3.0	A	5.7	A								981	23	50					
	WB		16	1	17			5.8	A	3.0	A	5.6	A								396	20	31					
Divison St at Park Ave	NB	4		251	255	7.1	A	0.3	A	6.6	A	6.6	A	5.6	A						905	54	134					
	SB											0.0	A															
	EB		43	4	47			2.7	A	2.0	A	2.6	A															
	WB	71	13		84	4.5	A	2.3	A			4.2	A								1111	20	40					
Eagle St at Park Ave	NB	2	4	4	10	4.5	A	6.0	A	3.0	A	4.5	A	7.8	A						575	20	36					
	SB							0.6	A			0.6	A															
	EB	1	292	1	294	6.2	A	8.5	A	2.8	A	8.5	A								1111	48	89					
	WB	1	82	1	84	2.9	A	5.9	A	2.2	A	5.8	A								321	32	67					
Bald Eagle Blvd at Buffalo St	NB		5	22	27			6.0	A	3.0	A	3.6	A	4.1	A						1740	20	45					
	SB	3			3	5.2	A					5.2	A								424	20	28					
	EB											0.0	A															
	WB	6			6	5.9	A					5.9	A								570	20	25					
Eagle St at Buffalo St	NB		4	1	5			4.7	A	2.5	A	4.4	A	5.2	A						1456	20	31					
	SB											0.0	A															
	EB	1	24		25	4.6	A	5.8	A			5.7	A								570	20	44					
	WB	3	6	1	10	3.8	A	5.4	A	2.7	A	4.7	A								1039	20	33					
Hugo Rd at Buffalo St	NB		1	295	296			16.1	C	46.4	E	46.2	E	33.9	D						1621	75	508		14 %	300	114	393
	SB	2	2	1	5	8.6	A	6.6	A	1.1	A	6.2	A								856	20	20					
	EB	1	24		25	0.0	A	10.2	B			10.2	B								1039	20	40					
	WB	82	9	6	97	0.6	A	0.8	A	0.8	A	0.6	A															

NOTES:

NOTES
1. If the reported queue is greater than zero (0), but less than 20 ft, a minimum of 20 ft is reported.
2. Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.
3. Multiple storage lanes of different length are averaged together to show the "Effective Storage Length" per lane.

Table A4a
White Bear Lake High School Event Analysis Study
2024 Homecoming Game Event Conditions (3,800 tickets) - with Improved Signal Timing on Hwy 61
Event Arrival Peak Hour (6:00-7:00 PM)

AM Peak Hour

Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Vehicle Queing Information (feet)													
																Left Turn Lane				Through Lane (s)					Right Turn Lane				
		L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Thru [2] ---->	% Block Left [2] <----	Link Length (feet)	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Right [2] ---->	% Block Thru [2] <----	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]
Hwy 61 at 4th St (Signal)	NB	226	1125	86	1,437	16.1	B	8.0	A	2.9	A	9.0	A	10.5	B	190	54	152		1 %	1374	83	235	1 %		170	20	69
	SB	19	668	52	739	13.1	B	5.6	A	2.6	A	5.6	A			250	20	36			329	23	121					
	EB	67	31	120	218	43.9	D	38.8	D	2.6	A	20.5	C			100	42	**117**		7 %	424	29	121	7 %		50	20	**94**
	WB	68	45	11	124	42.8	D	40.6	D	18.3	B	39.3	D			100	49	**108**		1 %	1201	45	115					
Hwy 61 at 7th St (Signal)	NB	143	1035	25	1,203	44.4	D	3.0	A	1.0	A	7.6	A	7.7	A	290	85	204			654	34	151			300		20
	SB		659	7	666			3.6	A	2.6	A	3.6	A								272	23	123					
	EB	30	8	64	102	49.3	D	34.6	C	7.2	A	22.8	C								507	28	118			235	27	65
	WB	16	17	4	37	53.7	D	50.0	D	10.9	B	46.3	D								1490	31	90			120	20	30
Hwy 61 at 8th St (Signal) (Planned Signal)	NB	180	876	14	1,070	42.3	D	3.5	A	1.0	A	9.6	A	9.8	A	230	104	**204**			272	36	169			130		20
	SB	19	608	88	715	50.4	D	7.2	A	4.0	A	8.0	A			375	20	67			1031	52	147			270	20	54
	EB	23	4	53	80	49.4	D	40.9	D	6.0	A	20.1	C								39	23	**67**			20	**27**	**59**
	WB	5	12	15	32	47.1	D	55.7	**E**	15.5	B	35.8	D								1363	23	67					
Hwy 61 at Hwy 96 (Signal)	NB		680	235	915			4.6	A	1.8	A	3.9	A	10.2	B						291	53	144					
	SB	16	533		549	55.4	**E**	8.6	A			9.9	A			250	20	58			4312	48	133					
	EB											0.0	A															
	WB	182		9	191	43.3	D			3.2	A	41.4	D			1745	125	228										
Hwy 61 at Buffalo St (Signal)	NB	32	614	43	689	13.5	B	13.2	B	6.4	A	12.8	B	10.6	B	250	20	26			4312	56	205			225		20
	SB	24	505	240	769	11.1	B	5.0	A	1.7	A	4.2	A			240	20	24			750	22	80			175	20	48
	EB	67	21	18	106	32.8	C	32.4	C	7.0	A	28.1	C								113	50	**139**			55	20	41
	WB	26	37	26	89	32.9	C	33.2	C	5.5	A	25.4	C								1342	41	109	2 %		80	20	42
Long Ave at 8th St	NB											0.0	A	1.6	A													
	SB	17		2	19	7.2	A			3.7	A	6.9	A								423	20	32					
	EB	6	64		70	3.2	A	1.2	A			1.4	A								208	20	27					
	WB		228	52	280			1.3	A	0.8	A	1.2	A								39	20	**30**					
Washington Ave at 8th St	NB	10	2	6	18	4.8	A	5.8	A	2.8	A	4.2	A	1.2	A						275	20	33					
	SB											0.0	A															
	EB		64	2	66			1.2	A	1.3	A	1.2	A															
	WB	3	225	2	230	2.2	A	1.0	A	0.3	A	1.0	A								208		20					
Division Ave at 7th St	NB		7	37	44			6.1	A	2.8	A	3.3	A	7.3	A						589	23	55					
	SB	50	8	3	61	6.4	A	8.0	A	9.0	A	6.7	A								290	27	50					
	EB	2	16		18	4.4	A	5.7	A			5.6	A								812	20	34					
	WB	10	70	87	167	8.5	A	10.6	B	7.3	A	8.8	A								507	60	109					
Division Ave at 8th St (All-way Stop)	NB	2	87	7	96	4.7	A	7.0	A	3.8	A	6.7	A	6.6	A						290	34	68					
	SB	37	52	1	90	5.2	A	6.7	A	1.4	A	6.1	A								894	35	62					
	EB		22		22			5.8	A			5.8	A								595	20	38					
	WB	9	96	130	235	6.9	A	8.3	A	5.6	A	6.8	A								258	59	119					
Division Ave at New HS Access	NB	132	85		217	4.4	A	1.5	A			3.2	A	2.0	A	200	20	71										
	SB		90	120	210			1.0	A	0.4	A	0.7	A								133	20	20					
	EB											0.0	A															
	WB											0.0	A															
Divison St at Pick Up/Drop Off Access	NB	46	39		85	2.7	A	0.1	A			1.4	A	1.8	A	100	20	50										
	SB		164	53	217			0.5	A	0.4	A	0.5	A													200		20
	EB	53		46	99	6.6	A			2.9	A	4.9	A			1200	22	54								150	20	53
	WB											0.0	A															
Divison St at 12th St	NB		89	3	92			0.5	A	0.4	A	0.5	A															
	SB	3	216		219	2.8	A	0.9	A			0.9	A	0.8	A						1049		20					
	EB											0.0	A															
	WB	1		5	6	4.6	A			2.3	A	2.8	A								727	20	31					
Bloom Ave at 4th St	NB	6	4	7	17	8.3	A	7.8	A	3.3	A	6.0	A	2.8	A						257	20	38					
	SB	26	4	18	48	8.1	A	5.5	A	4.6	A	6.5	A								327	26	62					
	EB	48	185	10	243	5.3	A	2.3	A	1.7	A	2.9	A								899	20	68					
	WB	6	232	85	323	3.3	A	2.1	A	1.6	A	2.0	A								424	20	26					
Bloom Ave at 5th St	NB	10	110	17	137	4.8	A	6.1	A	3.4	A	5.6	A	5.3	A						327	34	63					
	SB	2	20	1	23	3.4	A	5.7	A	2.7	A	5.4	A								655	20	34					
	EB	1	23	12	36	3.4	A	5.8	A	2.7	A	4.6	A								902	21	39					
	WB	16	22	3	41	4.6	A	5.9	A	2.6	A	5.1	A								312	22	47					
Bald Eagle Ave at 4th St	NB	8	50	36	94	5.6	A	7.2	A	4.0	A	5.8	A	6.2	A						709	36	71					
	SB	86	35	20	141	5.4	A	6.5	A	3.8	A	5.4	A								338	38	77					
	EB	58	121	6	185	6.2	A	7.4	A	3.9	A	6.9	A								730	45	86					
	WB	25	110	121	256	6.6	A	7.9	A	5.0	A	6.4	A								899	53	93					
Bald Eagle Ave at 5th St	NB		221	8	229			1.1	A	1.0	A	1.1	A	1.6	A													
	SB	28	134		162	3.1	A	1.1	A			1.5	A								312	20	39					
	EB											0.0	A															
	WB	7		26	33	7.6	A	0.0	A	4.7	A	5.3	A								902	22	42					
Bald Eagle Ave at 9th St	NB	31	124		155	2.3	A	0.5	A			0.8	A	3.2	A						899	20	34					
	SB		48	38	86			0.4	A	0.2	A	0.3	A															
	EB	156		24	180	7.1	A			5.7	A	6.9	A								2107	50	103					
	WB											0.0	A															
Bald Eagle Ave at New HS Access	NB		66	214	280			0.6	A	1.0	A	0.9	A	1.0	A											100	20	20
	SB	29	86		115	4.0	A	0.6	A			1.4	A			100	20	42										
	EB											0.0	A															
	WB											0.0	A															
Bald Eagle Ave at 12th St/HS Access	NB		66		66			0.2	A			0.2	A	2.7	A													
	SB	170	73		243	2.9	A	1.6	A			2.5	A								1454	20	54					
	EB											0.0	A															
	WB	42		29	71	6.9	A			3.6	A	5.5	A								1219	31	65					
Bald Eagle Ave at Stillwater St	NB	45	41	9	95	2.7	A	0.8	A	0.4	A	1.7	A	2.1	A						1454	20	40					
	SB	7	154	7	168	2.3	A	0.7	A	0.5	A	0.8	A								457		20					
	EB	7	5	63	75	5.9	A	7.0	A	3.8	A	4.2	A								1459	32	64					
	WB	26	2	7	35	5.8	A	7.5	A	2.9	A	5.3	A								650	20	46					
Bald Eagle Ave at Bald Eagle Blvd	NB	36		19	55	4.6	A	0.0	A	2.5	A	3.9	A	5.2	A						457	20	42					
	SB											0.0	A															
	EB		41	105	146			6.8	A	3.7	A	4.5	A								760	39	70					
	WB	63	39		102	6.3	A	7.5	A			6.8	A								981	34	64					
Bald Eagle Blvd at Park Ave/Beaver St	NB		1		1			4.8	A			4.8	A	5.4	A						842	20	20					
	SB	1		40	41	3.3	A	0.0	A	2.7	A	2.7	A								1740	20	32					
	EB	17	41	2	60	6.0	A	7.1	A	4.1	A	6.6	A								981	23	47					
	WB	1	62	1	64	3.1	A	6.2	A	1.7	A	6.1	A								396	26	62					
Divison St at Park Ave	NB	4		57	61	7.2	A	0.0	A	3.0	A	3.2	A	4.0	A						905	28	66					
	SB											0.0	A															
	EB		38	4	42			2.2	A	2.0	A	2.2	A															
	WB	206	60		266	4.6	A	3.8	A			4.4	A								1111	20	44					
Eagle St at Park Ave	NB	4	7	5	16	4.5	A	6.0	A	2.2	A	4.3	A	6.4	A						575	20	33					
	SB	1	4	1	6	2.5	A	3.1	A	3.2	A	3.1	A								1456	20	34					
	EB	1	89	5	95	3.9	A	6.2	A	3.8	A	6.1	A								1111	34	62					
	WB	7	261	2	270	5.3	A	6.8	A	3.2	A	6.7	A								321	52	83					
Bald Eagle Blvd at Buffalo St	NB		6	13	19			6.7	A	3.0	A	4.0	A	5.1	A						1740	20	31					
	SB	2	9		11	4.6	A	5.5	A			5.3	A								424	20	31					
	EB											0.0	A															
	WB	32		6	38	5.9	A	2.3	A	4.5	A	5.6	A								570	20	34					
Eagle St at Buffalo St	NB	6	5	2	13	5.9	A	6.9	A	4.4	A	6.1	A	5.2	A						1456	20	32					
	SB	1		2	3	5.1	A			2.6	A	3.4	A								554	20	31					
	EB	2	10	3	15	4.8	A	5.5	A	2.8	A	4.8	A								570	20	34					
	WB	3	30	4	37	5.5	A	5.7	A	2.7	A	5.2	A								1039	24	50					
Hugo Rd at Buffalo St	NB		3	92	95			6.3	A	2.0	A	2.2	A	1.4	A						1621	20	26			300	20	46
	SB	6	6		12	5.2	A	8.2	A			6.7	A								856	20	20					
	EB	1	8	4	13	5.4	A	9.2	A	5.3	A	7.5	A								1039	20	28					
	WB	260	37	12	309	0.6	A	0.9	A	0.5	A	0.6	A								113		20					

NOTES:

NOTES
1. If the reported queue is greater than zero (0), but less than 20 ft, a minimum of 20 ft is reported.
2. Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.
3. Multiple storage lanes of different length are averaged together to show the "Effective Storage Length" per lane.

Table A4b
White Bear Lake High School Event Analysis Study
2024 Homecoming Game Event Conditions (3,800 tickets) - with Improved Signal Timing on Hwy 61
Event Departure Peak Hour (9:15-10:15 PM)

School Dismissal Peak Hour

Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Vehicle Queing Information (feet)															
																Left Turn Lane				Through Lane (s)							Right Turn Lane				
		L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Thru [2] <----	% Block Left [2] <----	Link Length (feet)	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Right [2] ---->	% Block Thru [2] <----	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]		
Hwy 61 at 4th St (Signal)	NB	57	433	7	497	7.6	A	2.9	A	0.9	A	3.4	A	5.1	A	190	20	48			1374	20	63								
	SB	2	516	11	529	3.8	A	2.8	A	1.2	A	2.8	A			250		20			329	20	59								
	EB	24	7	126	157	39.8	D	26.3	C	2.5	A	9.6	A			100	20	53		1 %	424	20	40	1 %		50	20	58			
	WB	21	19	4	44	39.9	D	41.0	D	11.5	B	37.1	D			100	20	52			1201	21	66								
Hwy 61 at 7th St (Signal)	NB	41	412	8	461	48.5	D	1.9	A	0.4	A	6.1	A	7.6	A	290	23	91			654	20	60								
	SB		355	3	358			4.7	A	4.4	A	4.7	A								272	20	89								
	EB	13	18	166	197	47.4	D	39.6	D	9.6	A	14.7	B								507	20	90			235	45	138			
	WB	8	3	4	15	41.3	D	45.3	D	5.3	A	32.5	C								1490	20	52			120	20	30			
Hwy 61 at 8th St (Signal) (Planned Signal)	NB	65	354	10	429	43.3	D	3.0	A	0.7	A	9.2	A	10.4	B	230	40	125			272	20	52			130					
	SB	4	171	24	199	44.0	D	7.1	A	1.4	A	7.1	A			375	20	21			1031	20	58			270	20	22			
	EB	99	11	180	290	27.6	C	25.9	C	4.2	A	13.0	B								39	47	77			20	40	77			
	WB	7	5	5	17	41.3	D	41.7	D	10.7	B	32.9	C								1363	20	50								
Hwy 61 at Hwy 96 (Signal)	NB		338	120	458			2.5	A	1.3	A	2.2	A	3.5	A						291	20	68								
	SB	4	146		150	14.0	B	5.1	A			5.3	A			250	20	26			4312	20	55								
	EB											0.0	A																		
	WB	53		11	64	10.7	B			1.5	A	8.7	A			1745	27	56													
Hwy 61 at Buffalo St (Signal)	NB	15	315	19	349	13.6	B	13.6	B	3.3	A	13.0	B	12.9	B	250	20	20			4312	31	110			225		20			
	SB	9	133	65	207	11.2	B	8.8	A	1.3	A	6.6	A			240	20	20			750	20	53			175		20			
	EB	282	32	7	321	17.7	B	18.6	B	4.8	A	17.5	B								113	107	225			55	20	30			
	WB	10	17	15	42	11.6	B	15.3	B	2.9	A	9.6	A								1342	20	52			80	20	32			
Long Ave at 8th St	NB											0.0	A	4.7	A															
	SB	29		3	32	14.2	B			4.7	A	13.3	B								423	20	57								
	EB		261		261			5.0	A			5.0	A								208	24	152	5 %							
	WB		81	12	93			1.0	A	1.0	A	1.0	A								39		20								
Washington Ave at 8th St	NB			2	2					2.3	A	2.3	A	1.5	A						275	20	30								
	SB	1			1	3.8	A					3.8	A								358	20	21								
	EB		258		258			1.9	A			1.9	A								258	20	24								
	WB		84		84			0.4	A			0.4	A																		
Division Ave at 7th St	NB		5	12	17			5.1	A	2.7	A	3.3	A	6.5	A						589	20	31								
	SB	97	10	5	112	6.9	A	7.1	A	8.2	A	7.0	A								290	29	58								
	EB		88		88			6.7	A			6.7	A								812	28	68								
	WB	2	18	28	48	7.4	A	7.8	A	5.2	A	6.3	A								507	26	76								
Division Ave at 8th St (All-way Stop)	NB		31	2	33			7.3	A	4.7	A	7.1	A	7.6	A						290	20	63								
	SB	137	110		247	7.6	A	8.6	A			8.0	A								894	48	119								
	EB	2	119		121	8.1	A	8.8	A			8.8	A								595	36	100								
	WB	2	29	53	84	6.2	A	7.5	A	3.9	A	5.1	A								258	36	74								
Division Ave at New HS Access	NB		86		86			1.4	A			1.4	A	16.8	C																
	SB		82		82			0.4	A			0.4	A								133		20								
	EB	150		165	315	26.9	D			24.6	C	25.7	D								1222	110	466								
	WB											0.0	A																		
Divison St at Pick Up/Drop Off Access	NB	59	177		236	2.4	A	0.7	A			1.1	A	2.1	A	100	20	44													
	SB		23	66	89			0.3	A	0.4	A	0.4	A													200		20			
	EB	66		59	125	7.3	A			2.8	A	5.1	A			1200	24	66								150	20	52			
	WB											0.0	A																		
Divison St at 12th St	NB		241	2	243			0.4	A	0.3	A	0.4	A	0.4	A																
	SB		88		88			0.5	A			0.5	A																		
	EB											0.0	A																		
	WB	1			1	3.7	A					3.7	A								727	20	20								
Bloom Ave at 4th St	NB			1	1					2.0	A	2.0	A	3.9	A						257	20	29								
	SB	87		52	139	7.7	A	1.5	A	5.9	A	6.9	A								327	32	74								
	EB	16	69	1	86	3.6	A	1.6	A	1.2	A	2.0	A								899	20	27								
	WB		75	12	87			1.2	A	1.2	A	1.2	A																		
Bloom Ave at 5th St	NB	2	25	1	28	6.3	A	5.4	A	3.1	A	5.4	A	6.6	A						327	20	43								
	SB		134		134			7.0	A			7.0	A								655	37	80								
	EB		3	1	4			6.6	A	1.6	A	5.4	A								902	20	28								
	WB	4	5		9	3.7	A	6.2	A			5.0	A								312	20	34								
Bald Eagle Ave at 4th St	NB	4	7	10	21	4.0	A	6.0	A	2.8	A	4.0	A	5.0	A						709	20	38								
	SB	42	23	64	129	5.0	A	6.1	A	3.6	A	4.5	A								338	38	71								
	EB	12	34	1	47	4.8	A	6.1	A	2.9	A	5.7	A								730	27	55								
	WB	14	82	31	127	5.2	A	6.4	A	3.2	A	5.5	A								899	37	67								
Bald Eagle Ave at 5th St	NB		49	1	50			0.6	A	0.8	A	0.6	A	0.6	A																
	SB	3	127		130	1.9	A	0.4	A			0.4	A								312		20								
	EB											0.0	A																		
	WB	2		5	7	5.5	A			4.1	A	4.6	A								902	20	31								
Bald Eagle Ave at 9th St	NB	16	31		47	3.3	A	0.3	A			1.2	A	2.3	A						899	20	33								
	SB		104	183	287			2.4	A	1.4	A	1.8	A								449		20								
	EB	48		6	54	6.1	A			4.0	A	5.8	A								2107	29	62								
	WB											0.0	A																		
Bald Eagle Ave at New HS Access	NB		26	53	79			0.5	A	0.8	A	0.7	A	6.0	A											100		20			
	SB	37	72		109	2.7	A	0.7	A			1.4	A			100	20	40													
	EB											0.0	A																		
	WB	215			215	10.4	B					10.4	B			150	52	202													
Bald Eagle Ave at 12th St/HS Access	NB		26		26			0.3	A			0.3	A	5.7	A																
	SB		56		56			0.3	A			0.3	A																		
	EB											0.0	A																		
	WB	53		249	302	7.7	A			7.1	A	7.2	A								1219	56	157								
Bald Eagle Ave at Stillwater St	NB	77	168	30	275	3.0	A	1.9	A	1.3	A	2.1	A	2.1	A						1454	20	55								
	SB	1	33	1	35	1.9	A	0.3	A	0.3	A	0.3	A																		
	EB	1	2	19	22	4.0	A	6.5	A	2.6	A	3.0	A								1459	20	38								
	WB	4	2	3	9	7.1	A	5.0	A	3.9	A	5.5	A								650	20	33								
Bald Eagle Ave at Bald Eagle Blvd	NB	112		60	172	5.6	A	0.2	A	3.6	A	4.8	A	4.8	A						457	32	73								
	SB											0.0	A																		
	EB		14	32	46			6.3	A	2.9	A	3.9	A								760	24	59								
	WB	3	19		22	7.1	A	7.2	A			7.2	A								981	20	40								
Bald Eagle Blvd at Park Ave/Beaver St	NB											0.0	A	5.5	A																
	SB			6	6			0.7	A	1.8	A	1.5	A								1740	20	20								
	EB	26	47	1	74	5.1	A	6.4	A	2.1	A	5.9	A								981	25	61								
	WB		16	1	17			5.7	A	2.1	A	5.3	A								396	20	31								
Divison St at Park Ave	NB	4		251	255	7.8	A	0.6	A	6.4	A	6.4	A	5.4	A						905	52	135								
	SB											0.0	A																		
	EB		43	4	47			2.9	A	2.3	A	2.9	A																		
	WB	71	13		84	4.3	A	2.5	A			4.0	A								1111	20	33								
Eagle St at Park Ave	NB	2	4	4	10	4.3	A	6.2	A	2.6	A	4.2	A	7.8	A						575	20	31								
	SB							0.8	A			0.8	A																		
	EB	1	292	1	294	10.2	B	8.5	A	7.4	A	8.5	A								1111	48	94								
	WB	1	82	1	84	4.4	A	5.9	A	2.0	A	5.8	A								321	32	71								
Bald Eagle Blvd at Buffalo St	NB		5	22	27			7.2	A	3.0	A	3.6	A	4.1	A						1740	20	40								
	SB	3			3	4.4	A					4.4	A								424	20	28								
	EB											0.0	A																		
	WB	6			6	6.3	A					6.3	A								570	20	25								
Eagle St at Buffalo St	NB		4	1	5			5.4	A	2.8	A	4.8	A	5.3	A						1456	20	31								
	SB											0.0	A																		
	EB	1	24		25	6.0	A	5.6	A			5.6	A								570	20	32								
	WB	3	6	1	10	5.3	A	5.0	A	1.4	A	4.7	A								1039	20	31								
Hugo Rd at Buffalo St	NB		1	295	296			8.6	A	36.3	E	36.2	E	26.1	D						1621	49	397		10 %	300	105	409			
	SB	2	2	1	5	3.7	A	7.7	A	3.1	A	5.2	A								856	20	20								
	EB	1	24		25	4.9	A	9.3	A			9.1	A								1039	20	39								
	WB	82	9	6	97	0.6	A	0.8	A	0.5	A	0.6	A																		

NOTES:

NOTES
1. If the reported queue is greater than zero (0), but less than 20 ft, a minimum of 20 ft is reported.
2. Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.
3. Multiple storage lanes of different length are averaged together to show the "Effective Storage Length" per lane.

Table A5a
White Bear Lake High School Event Analysis Study
2024 Typical Football Game Event Conditions (1,600 tickets)
Event Arrival Peak Hour (6:00-7:00 PM)

AM Peak Hour

Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Vehicle Queing Information (feet)													
																Left Turn Lane				Through Lane (s)						Right Turn Lane			
		L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Thru [2] ---->	% Block Left [2] <----	Link Length (feet)	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Right [2] ---->	% Block Thru [2] <----	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]
Hwy 61 at 4th St (Signal)	NB	183	981	86	1,250	13.3	B	7.0	A	2.5	A	7.6	A	9.9	A	190	39	113			1374	66	191			170	20	20
	SB	19	635	52	706	12.3	B	5.0	A	2.8	A	5.1	A			250	20	34			329	21	117					
	EB	67	31	112	210	43.3	D	39.4	D	2.6	A	21.6	C			100	46	**116**		8 %	424	30	138	8 %		50	20	**91**
	WB	68	45	11	124	46.8	D	40.0	D	17.9	B	41.1	D			100	49	**115**		1 %	1201	42	112					
Hwy 61 at 7th St (Signal)	NB	75	959	25	1,059	45.7	D	2.8	A	0.8	A	5.6	A	6.8	A	290	44	118			654	31	155					
	SB		641	3	644			3.6	A	2.9	A	3.6	A								272	23	119					
	EB	30	8	49	87	52.9	D	44.7	D	6.7	A	26.7	C								507	31	115			235	24	59
	WB	16	14	4	34	52.0	D	54.5	D	12.0	B	48.5	D								1490	29	78			120	20	33
Hwy 61 at 8th St (Signal) (Planned Signal)	NB	104	875	14	993	45.2	D	3.2	A	0.9	A	7.4	A	7.8	A	230	63	144			272	30	137			130	20	25
	SB	19	604	50	673	54.4	D	5.6	A	2.4	A	6.7	A			375	20	61			1031	42	166			270	20	33
	EB	17	2	35	54	56.2	**E**	54.7	D	6.0	A	23.3	C								39	20	**63**			20	**21**	**54**
	WB	5	4	15	24	52.3	D	45.2	D	11.2	B	24.1	C								1363	20	61					
Hwy 61 at Hwy 96 (Signal)	NB		674	233	907			3.6	A	1.8	A	3.1	A	9.6	A						291	42	119					
	SB	16	502		518	57.7	**E**	8.3	A			10.1	B			250	20	66			4312	46	144					
	EB											0.0	A															
	WB	171		9	180	43.9	D			3.0	A	41.9	D			1745	116	223										
Hwy 61 at Buffalo St (Signal)	NB	32	608	43	683	12.0	B	12.6	B	6.3	A	12.2	B	10.3	B	250	20	33			4312	50	208			225		20
	SB	24	474	115	613	9.1	A	4.4	A	1.0	A	4.0	A			240	20	26			750	20	89			175	20	20
	EB	39	18	18	75	34.5	C	33.2	C	6.9	A	28.3	C								113	37	**99**			55	20	36
	WB	26	25	26	77	37.6	D	34.9	C	5.8	A	26.2	C								1342	34	94	1 %		80	20	50
Long Ave at 8th St	NB											0.0	A	1.7	A													
	SB	17		2	19	5.5	A			2.8	A	5.2	A								423	20	32					
	EB	6	37		43	2.1	A	1.5	A			1.6	A								208	20	23					
	WB		106	52	158			1.4	A	1.0	A	1.3	A								39		20					
Washington Ave at 8th St	NB	10	2	6	18	4.6	A	9.5	A	2.7	A	4.2	A	1.2	A						275	20	35					
	SB											0.0	A															
	EB		37	2	39			0.6	A	0.4	A	0.6	A															
	WB	3	103	2	108	3.3	A	0.9	A	0.3	A	0.9	A								208		20					
Division Ave at 7th St	NB		7	37	44			5.5	A	2.8	A	3.2	A	5.6	A						589	22	51					
	SB	49	8	3	60	6.1	A	7.7	A	7.8	A	6.4	A								290	27	49					
	EB	2	1		3	3.5	A	6.6	A			4.5	A								812	20	31					
	WB	10	15	67	92	7.1	A	7.9	A	5.7	A	6.3	A								507	40	74					
Division Ave at 8th St (All-way Stop)	NB	2	67	7	76	4.3	A	6.5	A	3.9	A	6.2	A	5.2	A						290	29	57					
	SB	31	51		82	4.8	A	5.9	A			5.5	A								894	33	61					
	EB		1		1			5.2	A			5.2	A								595	20	21					
	WB	9	15	89	113	5.4	A	6.0	A	3.9	A	4.3	A								258	40	76					
Division Ave at New HS Access	NB	78	78		156	3.8	A	1.3	A			2.5	A	1.5	A	200	20	55										
	SB		82	52	134			0.5	A	0.2	A	0.4	A								133		20					
	EB											0.0	A															
	WB											0.0	A															
Divison St at Pick Up/Drop Off Access	NB	39	39		78	2.2	A	0.1	A			1.1	A	1.3	A	100	20	37										
	SB		95	22	117			0.3	A	0.2	A	0.3	A													200		20
	EB	22		39	61	5.3	A			2.5	A	3.5	A			1200	20	41								150	20	39
	WB											0.0	A															
Divison St at 12th St	NB		58	3	61			0.3	A	0.2	A	0.3	A	0.5	A													
	SB	3	116		119	1.9	A	0.5	A			0.5	A								1049		20					
	EB											0.0	A															
	WB	1		5	6	4.4	A			2.6	A	2.9	A								727	20	33					
Bloom Ave at 4th St	NB	6	4	7	17	5.8	A	7.8	A	3.2	A	5.0	A	2.0	A						257	20	42					
	SB	18	4	7	29	7.3	A	8.3	A	3.9	A	6.5	A								327	20	39					
	EB	8	185	10	203	4.5	A	1.7	A	1.5	A	1.8	A								899	20	42					
	WB	6	230	44	280	3.5	A	1.6	A	1.3	A	1.6	A								424	20	22					
Bloom Ave at 5th St	NB	10	29	17	56	4.6	A	5.7	A	3.0	A	4.7	A	4.7	A						327	27	48					
	SB	2	1	1	4	4.9	A	6.0	A	2.2	A	4.0	A								655	20	31					
	EB	1	23	12	36	5.8	A	5.8	A	2.6	A	4.7	A								902	23	46					
	WB	16	22	3	41	4.3	A	5.6	A	2.5	A	4.9	A								312	24	48					
Bald Eagle Ave at 4th St	NB	8	47	28	83	4.8	A	6.9	A	3.4	A	5.4	A	5.8	A						709	33	64					
	SB	86	35	21	142	5.2	A	6.6	A	3.6	A	5.3	A								338	38	77					
	EB	43	89	6	138	5.7	A	6.9	A	4.2	A	6.4	A								730	39	71					
	WB	23	101	119	243	6.2	A	7.5	A	4.8	A	6.0	A								899	53	105					
Bald Eagle Ave at 5th St	NB		201	8	209			1.0	A	1.0	A	1.0	A	1.6	A													
	SB	28	135		163	3.2	A	1.1	A			1.5	A								312	20	40					
	EB											0.0	A															
	WB	7		26	33	7.4	A			4.9	A	5.5	A								902	21	48					
Bald Eagle Ave at 9th St	NB	31	104		135	2.3	A	0.5	A			0.9	A	2.2	A						899	20	25					
	SB		49	20	69			0.2	A	0.1	A	0.2	A															
	EB	72		24	96	6.0	A			3.7	A	5.4	A								2107	37	68					
	WB											0.0	A															
Bald Eagle Ave at New HS Access	NB		66	110	176			0.5	A	0.7	A	0.6	A	0.7	A											100		20
	SB	13	69		82	2.9	A	0.4	A			0.8	A			100	20	26										
	EB											0.0	A															
	WB											0.0	A															
Bald Eagle Ave at 12th St/HS Access	NB		66		66			0.2	A			0.2	A	1.7	A													
	SB	71	57		128	2.4	A	0.9	A			1.7	A								1454	20	45					
	EB											0.0	A															
	WB	25		13	38	5.1	A			2.9	A	4.3	A								1219	23	46					
Bald Eagle Ave at Stillwater St	NB	39	31	9	79	2.4	A	0.5	A	0.5	A	1.4	A	1.8	A						1454	20	37					
	SB	7	83	7	97	2.3	A	0.6	A	0.4	A	0.7	A								457		20					
	EB	7	5	33	45	5.1	A	5.9	A	3.1	A	3.6	A								1459	25	54					
	WB	12	2	7	21	4.9	A	5.2	A	2.6	A	4.2	A								650	20	38					
Bald Eagle Ave at Bald Eagle Blvd	NB	26		19	45	4.2	A	0.3	A	2.5	A	3.4	A	5.1	A						457	20	36					
	SB											0.0	A															
	EB		41	57	98			6.2	A	3.2	A	4.5	A								760	34	67					
	WB	40	39		79	6.1	A	7.4	A			6.8	A								981	32	60					
Bald Eagle Blvd at Park Ave/Beaver St	NB		1		1			3.9	A			3.9	A	5.6	A						842	20	20					
	SB	1		31	32	0.0	A	1.3	A	2.7	A	2.7	A								1740	20	36					
	EB	17	41	2	60	6.0	A	7.2	A	4.4	A	6.7	A								981	24	48					
	WB	1	48	1	50	0.0	A	5.9	A	1.9	A	5.8	A								396	24	52					
Divison St at Park Ave	NB	4		26	30	5.4	A			2.6	A	3.0	A	3.3	A						905	20	42					
	SB											0.0	A															
	EB		38	4	42			2.2	A	2.1	A	2.2	A								396		20					
	WB	92	46		138	4.2	A	2.8	A			3.7	A								1111	20	42					
Eagle St at Park Ave	NB	4	7	5	16	4.1	A	5.6	A	2.6	A	4.2	A	5.7	A						575	20	38					
	SB	1	4	1	6	4.4	A	3.7	A	3.1	A	3.7	A								1456	20	31					
	EB	1	58	5	64	2.8	A	5.9	A	2.9	A	5.6	A								1111	27	54					
	WB	7	133	2	142	4.9	A	6.1	A	3.0	A	6.0	A								321	40	72					
Bald Eagle Blvd at Buffalo St	NB		6	13	19			7.0	A	3.0	A	4.0	A	4.8	A						1740	20	34					
	SB	2	9		11	3.4	A	5.6	A			5.2	A								424	20	34					
	EB											0.0	A															
	WB	23		6	29	5.8	A	0.0	A	3.4	A	5.3	A								570	20	27					
Eagle St at Buffalo St	NB	6	5	2	13	5.4	A	6.1	A	3.9	A	5.3	A	4.6	A						1456	20	42					
	SB	1		2	3	3.9	A			2.4	A	3.2	A								554	20	31					
	EB	2	10	3	15	4.0	A	5.4	A	2.5	A	4.5	A								570	20	31					
	WB	3	21	4	28	4.3	A	5.2	A	2.7	A	4.6	A								1039	20	35					
Hugo Rd at Buffalo St	NB		3	61	64			7.3	A	1.7	A	2.0	A	1.5	A						1621	20	24			300	20	29
	SB	6	6		12	6.0	A	6.3	A			6.2	A								856	20	20					
	EB	1	8	4	13	6.0	A	7.6	A	3.9	A	6.0	A								1039	20	26					
	WB	132	28	12	172	0.7	A	0.9	A	0.5	A	0.7	A								113		20					

NOTES:

NOTES
1. If the reported queue is greater than zero (0), but less than 20 ft, a minimum of 20 ft is reported.
2. Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.
3. Multiple storage lanes of different length are averaged together to show the "Effective Storage Length" per lane.

Table A5b
White Bear Lake High School Event Analysis Study
2024 Typical Football Game Event Conditions (1,600 tickets)
Event Departure Peak Hour (9:15-10:15 PM)

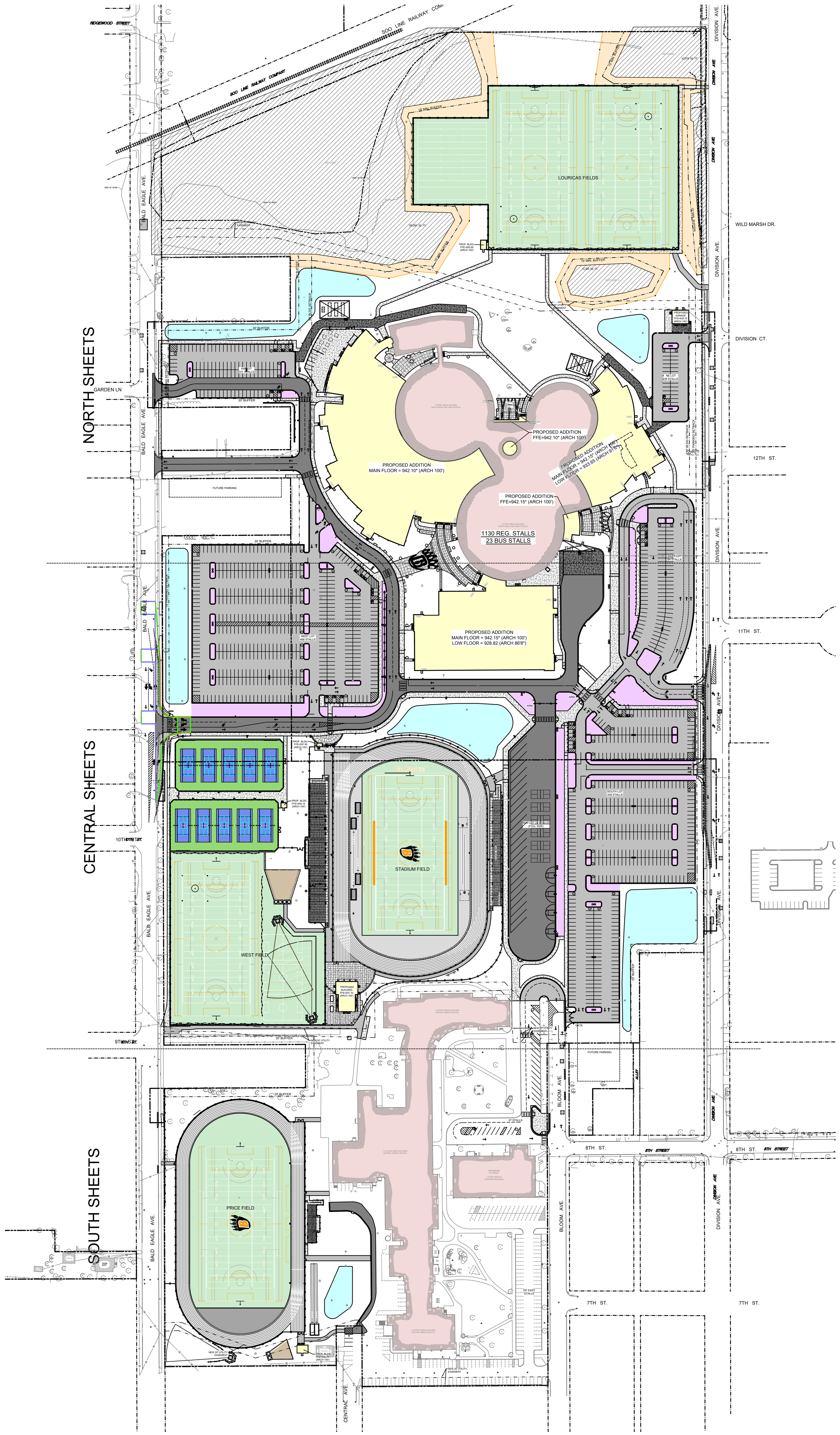
School Dismissal Peak Hour

Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Vehicle Queing Information (feet)													
																Left Turn Lane					Through Lane (s)					Right Turn Lane			
		L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Thru [2] ---->	% Block Left [2] <----	Link Length (feet)	Avg. Queue (feet) [1]	Max Queue (feet) [1]	% Block Right [2] ---->	% Block Thru [2] <----	Storage (feet) [3]	Avg. Queue (feet) [1]	Max Queue (feet) [1]
Hwy 61 at 4th St (Signal)	NB	47	392	7	446	6.0	A	2.5	A	0.8	A	2.8	A	5.1	A	190	20	42			1374	20	50					
	SB	2	336	11	349	5.0	A	2.3	A	0.6	A	2.3	A			250		20			329	20	37					
	EB	24	7	73	104	38.6	D	28.3	C	2.1	A	11.8	B			100	20	50			424	20	31			50	20	32
	WB	21	19	4	44	37.4	D	34.8	C	10.1	B	32.3	C			100	20	51			1201	21	67					
Hwy 61 at 7th St (Signal)	NB	23	389	8	420	59.0	E	1.3	A	0.3	A	4.6	A	6.1	A	290	20	65			654	20	43					
	SB		260	3	263			3.1	A	1.4	A	3.1	A								272	20	53					
	EB	7	13	81	101	54.1	D	53.0	D	5.8	A	15.3	B								507	20	65			235	26	70
	WB	8	2	4	14	46.1	D	75.2	E	4.4	A	37.7	D								1490	20	45			120	20	31
Hwy 61 at 8th St (Signal) (Planned Signal)	NB	42	348	10	400	45.4	D	2.0	A	0.7	A	6.5	A	8.7	A	230	26	86			272	20	51			130		
	SB	4	171	12	187	48.6	D	4.7	A	1.1	A	5.4	A			375	20	23			1031	20	50			270	20	20
	EB	49	1	85	135	41.1	D	17.1	B	4.1	A	17.4	B								39	33	74			20	31	58
	WB	7	2	5	14	37.2	D	58.2	E	6.5	A	27.7	C								1363	20	48					
Hwy 61 at Hwy 96 (Signal)	NB		297	105	402			2.3	A	1.3	A	2.0	A	3.4	A						291	20	79					
	SB	4	138		142	13.7	B	4.8	A			5.1	A			250	20	30			4312	20	59					
	EB											0.0	A															
	WB	49		11	60	10.7	B			1.3	A	8.9	A			1745	24	60										
Hwy 61 at Buffalo St (Signal)	NB	15	274	19	308	9.7	A	8.3	A	3.2	A	8.1	A	8.6	A	250	20	20			4312	20	72			225		20
	SB	9	125	30	164	8.3	A	4.9	A	0.9	A	4.3	A			240	20	20			750	20	34			175		20
	EB	127	17	7	151	14.6	B	15.3	B	5.5	A	14.3	B								113	52	175			55	20	34
	WB	10	13	15	38	13.7	B	13.9	B	3.2	A	9.2	A								1342	20	43			80	20	32
Long Ave at 8th St	NB											0.0	A	2.7	A													
	SB	29		3	32	6.6	A			2.5	A	6.1	A								423	20	46					
	EB		106		106			2.5	A			2.5	A								208	20	69	1 %				
	WB		44	12	56			1.1	A	0.9	A	1.1	A								39		20					
Washington Ave at 8th St	NB			2	2					1.9	A	1.9	A	0.9	A						275	20	23					
	SB	1			1	3.3	A					3.3	A								358	20	24					
	EB		103		103			1.0	A			1.0	A															
	WB		47		47			0.4	A			0.4	A															
Division Ave at 7th St	NB		5	12	17			5.4	A	2.6	A	3.5	A	5.8	A						589	20	36					
	SB	71	10	5	86	6.4	A	7.8	A	6.8	A	6.6	A								290	28	49					
	EB		18		18			5.9	A			5.9	A								812	20	38					
	WB	2		26	28	7.5	A	1.3	A	4.5	A	4.5	A								507	20	62					
Division Ave at 8th St (All-way Stop)	NB		29	2	31			6.4	A	3.8	A	6.2	A	5.6	A						290	20	50					
	SB	84	84		168	5.7	A	6.5	A			6.1	A								894	36	77					
	EB	1	17		18	4.8	A	6.2	A			6.1	A								595	20	43					
	WB	2	2	43	47	5.4	A	4.2	A	3.2	A	3.4	A								258	25	62					
Division Ave at New HS Access	NB		73		73			1.3	A			1.3	A	4.2	A													
	SB		70		70			0.3	A			0.3	A															
	EB	65		98	163	8.7	A			6.4	A	7.3	A								1222	43	136					
	WB											0.0	A															
Divison St at Pick Up/Drop Off Access	NB	47	91		138	1.9	A	0.4	A			0.9	A	1.5	A	100	20	30										
	SB		23	27	50			0.2	A	0.2	A	0.2	A													200		20
	EB	27		47	74	5.4	A			2.3	A	3.4	A			1200	20	43								150	20	50
	WB											0.0	A															
Divison St at 12th St	NB		116	2	118			0.3	A	0.3	A	0.3	A	0.3	A													
	SB		49		49			0.2	A			0.2	A															
	EB											0.0	A															
	WB	1			1	4.2	A					4.2	A								727	20	24					
Bloom Ave at 4th St	NB			1	1					1.9	A	1.9	A	2.2	A						257	20	20					
	SB	37		2	39	6.6	A			3.6	A	6.4	A								327	20	41					
	EB	1	66	1	68	3.0	A	1.1	A	1.5	A	1.1	A								899		20					
	WB		75	2	77			1.1	A	1.6	A	1.1	A															
Bloom Ave at 5th St	NB	2		1	3	5.0	A			3.4	A	4.5	A	5.7	A						327	20	31					
	SB		34		34			6.1	A			6.1	A								655	20	51					
	EB		3	1	4			6.4	A	1.4	A	4.7	A								902	20	28					
	WB	4	5		9	4.3	A	5.4	A			4.9	A								312	20	31					
Bald Eagle Ave at 4th St	NB	4	6	7	17	3.9	A	6.0	A	2.4	A	3.8	A	4.5	A						709	20	33					
	SB	39	18	44	101	4.6	A	5.5	A	3.2	A	4.1	A								338	33	59					
	EB	13	22	1	36	4.4	A	5.9	A	0.0	A	5.4	A								730	21	38					
	WB	4	42	31	77	4.4	A	6.0	A	2.9	A	4.7	A								899	31	66					
Bald Eagle Ave at 5th St	NB		49	1	50			0.6	A	0.0	A	0.6	A	0.8	A													
	SB	3	99		102	3.1	A	0.5	A			0.6	A								312		20					
	EB											0.0	A															
	WB	2		5	7	9.1	A			3.7	A	4.5	A								902	20	31					
Bald Eagle Ave at 9th St	NB	16	31		47	2.3	A	0.1	A			0.8	A	1.5	A						899	20	25					
	SB		76	78	154			1.4	A	0.9	A	1.1	A															
	EB	25		6	31	5.2	A			2.6	A	4.8	A								2107	20	55					
	WB											0.0	A															
Bald Eagle Ave at New HS Access	NB		26	30	56			0.3	A	0.4	A	0.4	A	3.1	A											100		20
	SB	16	49		65	2.4	A	0.5	A			0.9	A			100	20	20										
	EB											0.0	A															
	WB	105			105	6.0	A					6.0	A			150	27	78										
Bald Eagle Ave at 12th St/HS Access	NB		26		26			0.1	A			0.1	A	3.1	A													
	SB		35		35			0.3	A			0.3	A															
	EB											0.0	A															
	WB	30		106	136	5.2	A			4.2	A	4.4	A								1219	36	71					
Bald Eagle Ave at Stillwater St	NB	39	80	13	132	2.4	A	1.1	A	0.8	A	1.5	A	1.6	A						1454	20	20					
	SB	1	20	1	22	1.9	A	0.3	A	0.3	A	0.4	A								457		20					
	EB	1	2	11	14	3.7	A	5.0	A	2.4	A	2.8	A								1459	20	34					
	WB	4	2	3	9	4.6	A	6.3	A	2.5	A	4.3	A								650	20	33					
Bald Eagle Ave at Bald Eagle Blvd	NB	52		32	84	4.6	A	0.3	A	2.7	A	3.8	A	4.5	A						457	22	55					
	SB											0.0	A															
	EB		14	19	33			6.2	A	2.7	A	4.1	A								760	20	38					
	WB	3	19		22	6.0	A	7.4	A			7.2	A								981	20	40					
Bald Eagle Blvd at Park Ave/Beaver St	NB											0.0	A	5.4	A													
	SB			6	6			0.6	A	2.0	A	1.6	A								1740	20	20					
	EB	15	30	1	46	5.1	A	6.5	A	3.9	A	6.0	A								981	20	46					
	WB		16	1	17			5.8	A	2.2	A	5.5	A								396	20	35					
Divison St at Park Ave	NB	4		109	113	5.5	A	0.0	A	4.2	A	4.2	A	3.8	A						905	34	93					
	SB											0.0	A															
	EB		26	4	30			2.5	A	2.3	A	2.5	A															
	WB	32	13		45	4.1	A	2.3	A			3.5	A								1111	20	27					
Eagle St at Park Ave	NB	2	4	4	10	3.3	A	5.4	A	2.5	A	3.8	A	6.3	A						575	20	31					
	SB							0.5	A			0.5	A															
	EB	1	133	1	135	5.2	A	6.9	A	2.2	A	6.8	A								1111	35	65					
	WB	1	43	1	45	0.0	A	5.7	A	2.7	A	5.6	A								321	27	59					
Bald Eagle Blvd at Buffalo St	NB		5	11	16			5.9	A	3.0	A	3.9	A	4.5	A						1740	20	38					
	SB	3			3	5.1	A					5.1	A								424	20	28					
	EB											0.0	A															
	WB	6			6	6.0	A					6.0	A								570	20	26					
Eagle St at Buffalo St	NB		4	1	5			4.8	A	4.5	A	4.8	A	5.2	A						1456	20	31					
	SB											0.0	A															
	EB	1	13		14	3.4	A	5.8	A			5.5	A								570	20	33					
	WB	3	6	1	10	3.7	A	5.8	A	3.6	A	5.0	A								1039	20	31					
Hugo Rd at Buffalo St	NB		1	136	137			5.5	A	3.9	A	3.9	A	3.2	A						1621	20	20			300	20	82
	SB	2	2	1	5	5.1	A	4.5	A	1.8	A	4.2	A								856	20	20					
	EB	1	13		14	4.6	A	8.6	A			8.3	A								1039	20	32					
	WB	43	9	6	58	0.7	A	1.0	A	0.6	A	0.7	A															

NOTES:

NOTES
1. If the reported queue is greater than zero (0), but less than 20 ft, a minimum of 20 ft is reported.
2. Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.
3. Multiple storage lanes of different length are averaged together to show the "Effective Storage Length" per lane.

MN



SYMBOL LEGEND

- EXISTING BUILDING
- PROPOSED BUILDING/ADDITION
- NEW BITUMINOUS PAVING
- NEW CONCRETE PAVING
- NEW SYNTHETIC TURF
- NEW ATHLETIC TRACK SURFACING
- NEW STORMWATER INFILTRATION BASIN
- NEW PARKING LOT INTERIOR LANDSCAPING
- NEW WETLAND BUFFER
- DELINEATED WETLAND

SITE SETBACKS

PER 1303.130 Subd.4 and Subd.5 & 1302.050 Subd.17

Building Setbacks:
Front Yard = 30'
Side Yard = 10' or 30' abutting street
Rear Yard = 30'

Abutting residentially zoned land:
Building & Loading Dock = 50'
Screening/Buffer Zone = 20'

Parking Setbacks:
From Right-of-Way = 15'
From Residential Lot = 20'

Wetland Buffer:
Minimum = 15'
Average = 30'
To be planted with native vegetation and delineated with signs

Wetland Buffer Calculation:
Required Buffer Area = (Adjacent Wetland Perimeter) * 30'

Wetland 1:
Required Buffer Area = 1149 LF * 30' = 34,470 SF
Provided Buffer Area = 35,181 SF

Wetland 2:
Required Buffer Area = 726 LF * 30' = 21,780 SF
Provided Buffer Area = 22,953 SF

Wetland 3:
Required Buffer Area = 478 LF * 30' = 14,340 SF
Provided Buffer Area = 15,913 SF

PARKING LOT LANDSCAPING

TOTAL PARKING = 1130 STALLS

INTERIOR LANDSCAPING REQUIRED:
1130 STALLS @ 144 SF / 10 STALLS = *16,272 SQUARE FEET*

INTERIOR SHADE TREES REQUIRED:
16,272 SF / 144 = *113 SHADE TREES*

NORTHWEST LOT = 101 STALLS
INTERIOR LANDSCAPE REQUIRED = 1,454 SQUARE FEET
INTERIOR LANDSCAPE PROVIDED = 1,287 SQUARE FEET
INTERIOR SHADE REQUIRED = 10 SHADE TREES

WEST LOT = 468 STALLS
INTERIOR LANDSCAPE REQUIRED = 6,739 SQUARE FEET
INTERIOR LANDSCAPE PROVIDED = 21,873 SQUARE FEET
INTERIOR SHADE REQUIRED = 47 SHADE TREES

SOUTH LOT = 438 STALLS
INTERIOR LANDSCAPE REQUIRED = 6,307 SQUARE FEET
INTERIOR LANDSCAPE PROVIDED = 26,610 SQUARE FEET
INTERIOR SHADE REQUIRED = 44 SHADE TREES

EAST LOT = 94 STALLS
INTERIOR LANDSCAPE REQUIRED = 1,353 SQUARE FEET
INTERIOR LANDSCAPE PROVIDED = 14,095 SQUARE FEET
INTERIOR SHADE REQUIRED = 9 SHADE TREES

NORTHEAST LOT = 29 STALLS
INTERIOR LANDSCAPE REQUIRED = 417 SQUARE FEET
INTERIOR LANDSCAPE PROVIDED = 727 SQUARE FEET
INTERIOR SHADE REQUIRED = 3 SHADE TREES

SITE SUMMARY

White Bear High School and Central Middle School
Site Summary

PARKING CALCULATIONS				
HIGH SCHOOL				
Required:	3200 students	@ 1 per 3	1067 stalls	
	123 classrooms	@ 1 per 3	41 stalls	
	Total Required =		1,108 stalls	
Provided:	Northwest Lot		101 stalls	5 ADA
	West Lot		468 stalls	9 ADA
	South Lot		438 stalls	9 ADA
	East Lot		94 stalls	4 ADA
	Northeast Lot		29 stalls	2 ADA
	Total Provided =		1130 stalls	29 ADA
Assigned:	Staff	280 stalls		
	Visitor	25 stalls		
	Student	825 stalls		
MIDDLE SCHOOL				
Required:	1356 students	@ 1 per 50	28 stalls	
	57 classrooms	@ 1 per 1	57 stalls	
	Total Required =		85 stalls	
Provided:	East Drop Off		27 stalls	2 ADA
	Existing Lots		187 stalls	7 ADA
			214 stalls	9 ADA
SHARED BUS LOT				
Provided:	Bus Lot		23 stalls	

LOT AREAS		
LOT 1 HIGH SCHOOL	1,769,653 square feet	40.63 acres
LOT 2 MIDDLE SCHOOL	1,453,316 square feet	33.36 acres
LOT 3	158,271 square feet	3.63 acres
Total Area	3,381,240 square feet	77.62 acres
LOT COVERAGE		
BUILDINGS		
Existing Middle School	115,871 square feet	
Existing Hippodrome	19,774 square feet	
Existing Lions Storage	1,051 square feet	
Existing High School	151,150 square feet	
High School Addition	190,484 square feet	
Maintenance Garage	1,307 square feet	
Concessions	3,300 square feet	
Ticketing	125 square feet	
Storage sheds (4)	1,112 square feet	
Total Buildings	484,174 square feet	14%
IMPERVIOUS		
Parking, Drives, Walks	798,813 square feet	
Existing pavement to remain	174,162 square feet	
Future Impervious	62,931 square feet	
Grandstands	11,274 square feet	
Future Grandstands	15,332 square feet	
Tennis Courts	61,351 square feet	
Athletic Track and Field	154,040 square feet	
Total Impervious	1,277,903 square feet	38%
LANDSCAPING		
Wetland (post mitigation)	273,744 square feet	
Wetland Buffer	74,049 square feet	
Parking Lot Interior/Islands (8' min)	64,373 square feet	
Stormwater Infiltration Basin	105,607 square feet	
Synthetic Turf	516,133 square feet	
Grass/Plantings (balance)	585,257 square feet	
Total Landscaped	1,619,163	48%

NORTH
0 60 120 240

WBLAHS ADDITION & RENOVATIONS

5045 Division Avenue
White Bear Lake, MN 55110

ISD #624 WHITE BEAR LAKE AREA SCHOOLS
4855 Bloom Avenue
White Bear Lake, MN 55110

WOLD ARCHITECTS AND ENGINEERS
332 Minnesota Street, Suite W2000
Saint Paul, MN 55101
woldae.com | 651 227 7773

KRAUS-ANDERSON®

Larson Engineering, Inc.
3524 Labore Road
White Bear Lake, MN 55110
651.481.9120 (f) 651.481.9201
www.larsonengr.com

I hereby certify that this plan, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the state of Minnesota.

Greg A. Buchal, P.E.

Date: 04.12.2021 Lic. No.: 23793

Revisions		
Description	Date	Num
PR #23	8/23/2021	4
PR #25	9/22/2021	5
PR #37	10/27/2021	6
PR #48	12/16/2021	7
PR #86	4/8/2022	8
PR #102	5/10/2022	9
PR #86R	5/18/2022	8R
PR #110	6/02/2022	10
PR #103	6/20/2022	11
PR #125	7/8/2022	12
PR #126	7/12/2022	13
SI #29	9/1/2022	14
PR #159	9/19/2022	15

Comm: **12196196**
Date: **04.12.2021**
Drawn: **MTH**
Check: **GAB**

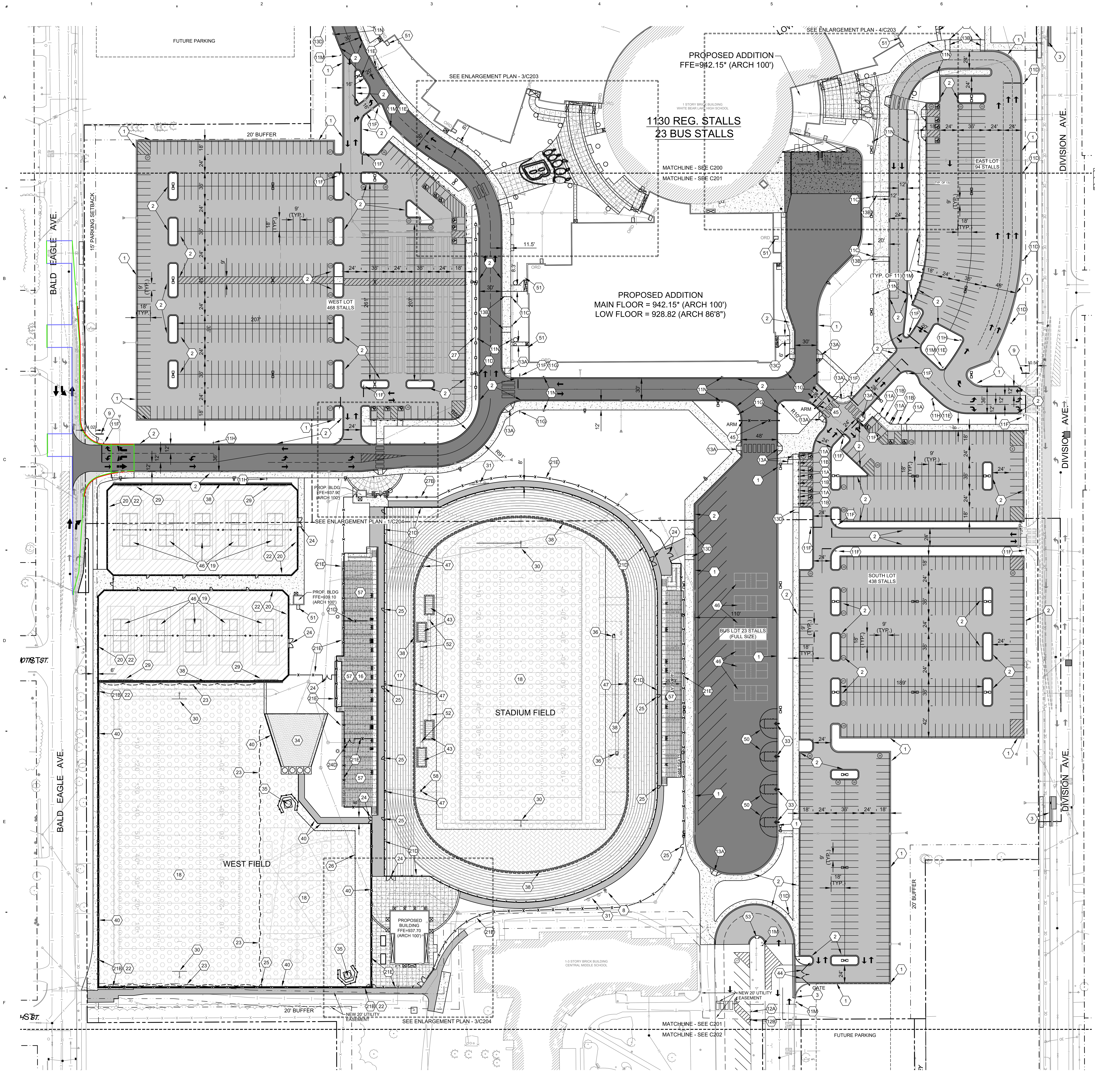
North

OVERALL PLAN

Scale: See scale bar

C000

MN



SYMBOL LEGEND

- NEW LIGHT-DUTY BITUMINOUS PAVEMENT SEE DETAIL 1/C600
- NEW HEAVY-DUTY BITUMINOUS PAVEMENT SEE DETAIL 2/C600
- NEW ATHLETIC TRACK BITUMINOUS PAVEMENT SEE DETAIL 3/C603
- NEW TENNIS COURT BITUMINOUS PAVEMENT SEE DETAIL 12/C600
- NEW ATHLETIC TRACK CONCRETE PAVEMENT SEE DETAIL 14/C600
- NEW LIGHT-DUTY CONCRETE PAVEMENT SEE DETAIL 4/C600
- NEW HEAVY-DUTY CONCRETE PAVEMENT SEE DETAIL 5/C600
- NEW ARTIFICIAL TURF SECTION SEE DETAIL 13/600
- NEW STOOP, APRON, COLUMN BASE, ETC. SEE ARCH/STRL.
- NEW AG-LIME
- NO PARKING — PAVEMENT MARKINGS

KEY NOTES

1. NEW SURMOUNTABLE CURB, SEE DETAIL 8/C600
2. NEW B612 CONCRETE CURB, SEE DETAIL 6/C600
3. NEW B618 CONCRETE CURB, SEE DETAIL 7/C600
4. NEW TRENCH DRAIN, SEE DETAIL 11/C601
5. NEW CONCRETE RETAINING WALL, SEE STRUCTURAL DETAIL 9/S5.202.
6. SEE ELECTRICAL.
7. NEW BOLLARD, SEE DETAIL 6/C603
8. NEW FLAGPOLE, SEE DETAIL 1/C603
9. NEW MONUMENT SIGN.
10. NEW DRIVEWAY, SEE DETAIL 9/C600
11. NEW PARKING SIGN AND POST, SEE DETAIL 3/C603
    - _A: ADA PARKING
    - _B: ADA ACCESS AISLE
    - _C: ADA LOADING ZONE
    - _D: DROP OFF KEEP RIGHT
    - _E: DO NOT ENTER
    - _F: STOP
    - _G: SERVICE VEHICLES ONLY
    - _H: LANE USE SIGN
    - _J: PEDESTRIAN CROSSING
    - _K: WETLAND BUFFER
    - _L: VISITOR PARKING
    - _M: DIRECTIONAL SIGN
    - _N: NO PARKING FIRE LANE
12. NEW PARKING SIGN, POST, AND BOLLARD, SEE DETAIL 2/C603
    - _A: ADA PARKING
    - _B: ADA ACCESS AISLE
13. NEW ACCESSIBLE CURB RAMP
    - _A: TYPE 1, SEE DETAIL 10A/C600
    - _B: TYPE 2, SEE DETAIL 10B/C600
    - _C: TYPE 3, SEE DETAIL 10C/C600
    - _D: TYPE 4, SEE DETAIL 10D/C600
14. NEW GAS METER, SEE MECH.
15. SEE ARCHITECTURAL/STRUCTURAL FOR UPPER LOADING DOCK SLAB INCLUDING WALLS, STAIRS, & RAMP.
16. NEW GRANDSTANDS AND PRESSBOX, SEE SHEET C607 AND C608
17. NEW ATHLETIC TRACK
18. NEW ARTIFICIAL TURF FIELD, SEE DETAIL 13/C600
19. NEW TENNIS COURTS STRIPING, SEE DETAIL 7/C605
20. NEW TENNIS COURT FENCING, SEE DETAIL 6/C605
21. NEW CHAINLINK FENCING, SEE DETAIL 1/C605
    - _A: 3.5' TALL
    - _B: 6' TALL
    - _C: 8' TALL
    - _D: 3.5' TALL, BLACK VINYL
    - _E: 8' TALL, BLACK VINYL
22. NEW CONCRETE MAINTENCE STRIP, SEE DETAIL 11/C605
23. NEW 20' TALL NETTING SYSTEM.
24. NEW FENCE DOUBLE GATE (MATCH ADJACENT FENCE TYPE)
25. NEW FENCE SINGLE GATE, SEE DETAIL 8/C605
26. NEW PORTABLE NETTING
27. NEW ORNAMENTAL FENCING, SEE DETAIL 9/C605
    - _A: 3.5' TALL, SEE DETAIL
    - _B: 8' TALL, SEE DETAIL
28. NEW SCREENING FENCING, SEE DETAIL 3/C606
29. NEW/SALVAGED TENNIS BACKBOARD
30. NEW GOALPOST, SEE DETAIL 4/C603
31. NEW SCOREBOARD, BY OWNER.
32. NEW BIKE RACK (SEE LANDSCAPE)
33. NEW BASKETBALL GOAL, SEE DETAIL 5/C603
34. NEW SHOT PUT EVENT, SEE DETAIL 1/C604
35. NEW DISCUS EVENT, SEE DETAIL 7/C603
36. NEW POLE VAULT BOX, SEE DETAIL 3/C604
37. NEW LONG/TRIPLE JUMP EVENT, SEE DETAIL 2/C604
38. NEW ATHLETIC TRENCH DRAIN, SEE DETAIL 8/C603
39. SLIDE GATE, SEE DETAIL 4/C606
40. TURF NAILER CURB, SEE DETAIL 11/C600
41. RELOCATED SHED
42. COLORED CONCRETE
43. SAND PIT SYSTEM, SEE DETAIL 12/C603
44. TRAFFIC GATE, SEE DETAIL 6/C606
45. LIFT ARM GATE, SEE DETAIL 5/C606
46. PICKLEBALL MARKINGS, SEE DETAIL 10/C603
47. COMMUNICATIONS BOX, SEE DETAIL 9/C603
48. NEW CONCRETE STEPS, SEE DETAIL 5/C602
49. NEW BLOCK RETAINING WALL SEE DETAIL 7/C602
50. NEW BASKETBALL STRIPING
51. NEW SPLASH BLOCK
52. LONG JUMP TRAY/BOARD, SEE DETAIL 5/C604
53. NEW CURB CUT, SEE DETAIL 10/C602
54. NEW CONCRETE STAIRS, SEE DETAIL 11/C603
55. SEE ARCHITECTURAL
56. SEE MECHANICAL
57. NEW GRANDSTAND SLAB, SEE DETAIL 13/C603
58. NEW CAMERA POLE, SEE DETAIL 7/C606

NORTH

WBLAHS ADDITION & RENOVATIONS

5045 Division Avenue
White Bear Lake, MN 55110

ISD #624 WHITE BEAR LAKE AREA SCHOOLS
4855 Bloom Avenue
White Bear Lake, MN 55110

WOLD ARCHITECTS AND ENGINEERS
332 Minnesota Street, Suite W2000
Saint Paul, MN 55101
woldae.com | 651 227 7773

KRAUS-ANDERSON®

Larson Engineering, Inc.
3524 Labore Road
White Bear Lake, MN 55110
651.481.9120 (f) 651.481.9201
www.larsonengr.com

I hereby certify that this plan, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the state of Minnesota.

Greg A. Buchal, P.E.

Date: 04.12.2021 Lic. No.: 23793

Revisions		
Description	Date	Num
PR #23	8/23/2021	4
PR #25	9/22/2021	5
PR #37	10/27/2021	6
PR #48	12/16/2021	7
PR #86	4/8/2022	8
PR #102	5/10/2022	9
PR #86R	5/18/2022	8R
PR #110	6/02/2022	10
PR #103	6/20/2022	11
PR #125	7/8/2022	12
PR #126	7/12/2022	13
SI #29	9/1/2022	14
PR #159	9/19/2022	15

Comm: 12196196
Date: 04.12.2021
Drawn: MTH
Check: GAB

North

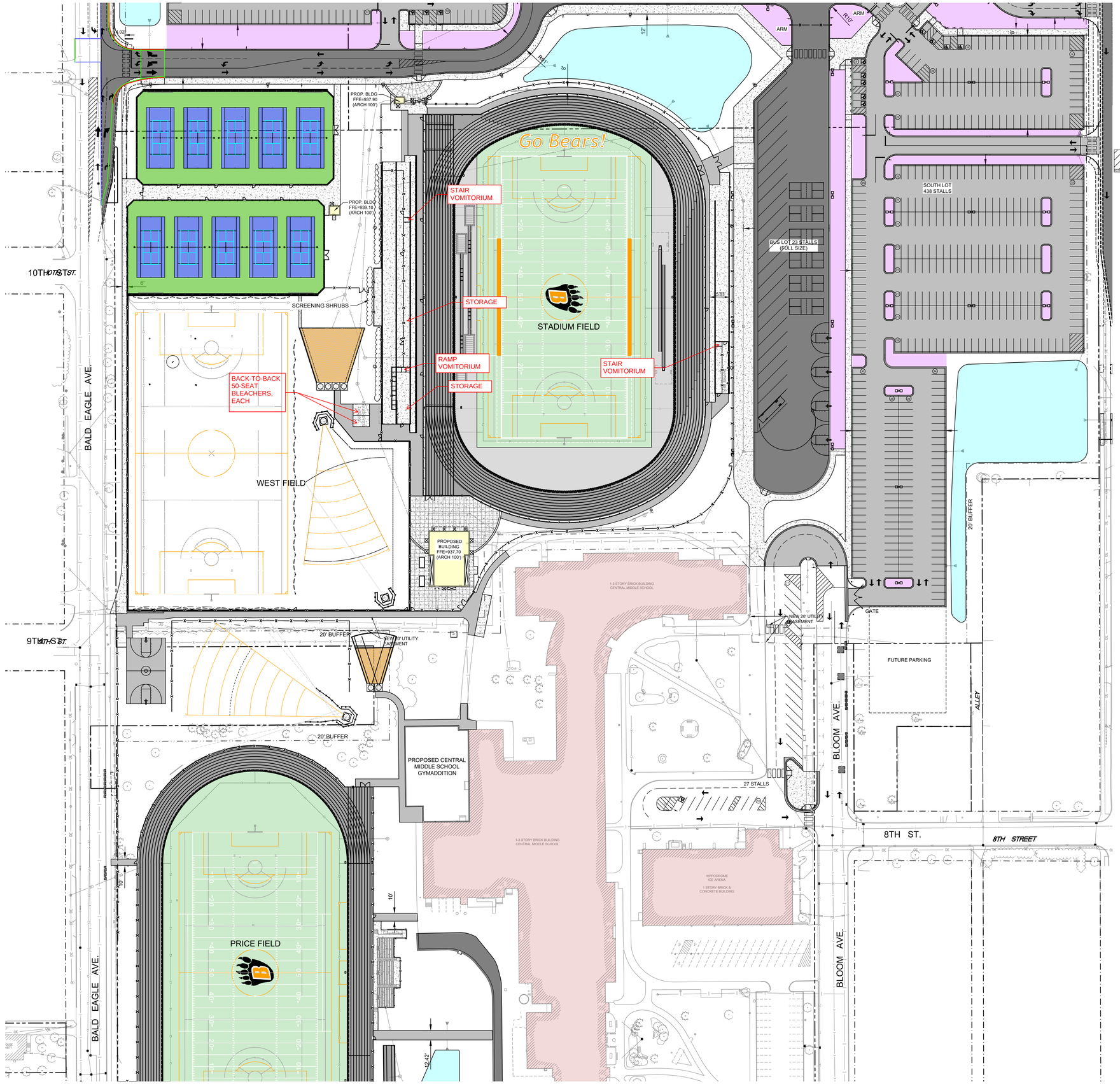
PAVING PLAN - CENTRAL

Scale: See scale bar

0 25 50 100

C201

MN



SYMBOL LEGEND

- NEW LIGHT-DUTY BITUMINOUS PAVEMENT SEE DETAIL 1/C600
- NEW LIGHT-DUTY CONCRETE PAVEMENT SEE DETAIL 4/C600
- NEW HEAVY-DUTY BITUMINOUS PAVEMENT SEE DETAIL 2/C600
- NEW HEAVY-DUTY CONCRETE PAVEMENT SEE DETAIL 5/C600
- NEW ATHLETIC TRACK BITUMINOUS PAVEMENT SEE DETAIL 3/C603
- NEW ARTIFICIAL TURF SECTION SEE DETAIL 13/600
- NEW TENNIS COURT BITUMINOUS PAVEMENT SEE DETAIL 12/C600
- NEW STOOP, APRON, COLUMN BASE, ETC. SEE ARCH/STRL.
- NEW ATHLETIC TRACK CONCRETE PAVEMENT SEE DETAIL 14/C600
- NEW AG-LIME
- PAVEMENT MARKINGS

KEY NOTES

1. NEW SURMOUNTABLE CURB, SEE DETAIL 8/C600
2. NEW B612 CONCRETE CURB, SEE DETAIL 6/C600
3. NEW B618 CONCRETE CURB, SEE DETAIL 7/C600
4. NEW TRENCH DRAIN, SEE DETAIL 11/C601
5. NEW CONCRETE RETAINING WALL, SEE STRUCTURAL DETAIL 9/S5.202.
6. SEE ELECTRICAL.
7. NEW BOLLARD, SEE DETAIL 6/C603
8. NEW FLAGPOLE, SEE DETAIL 1/C603
9. NEW MONUMENT SIGN.
10. NEW DRIVEWAY, SEE DETAIL 9/C600
11. NEW PARKING SIGN AND POST, SEE DETAIL 3/C603
    - _A: ADA PARKING
    - _B: ADA ACCESS AISLE
    - _C: ADA LOADING ZONE
    - _D: DROP OFF KEEP RIGHT
    - _E: DO NOT ENTER
    - _F: STOP
    - _G: SERVICE VEHICLES ONLY
    - _H: LANE USE SIGN
    - _J: PEDESTRIAN CROSSING
    - _K: WETLAND BUFFER
    - _L: VISITOR PARKING
    - _M: DIRECTIONAL SIGN
    - _N: NO PARKING FIRE LANE
12. NEW PARKING SIGN, POST, AND BOLLARD, SEE DETAIL 2/C603
    - _A: ADA PARKING
    - _B: ADA ACCESS AISLE
13. NEW ACCESSIBLE CURB RAMP
    - _A: TYPE 1, SEE DETAIL 10A/C600
    - _B: TYPE 2, SEE DETAIL 10B/C600
    - _C: TYPE 3, SEE DETAIL 10C/C600
    - _D: TYPE 4, SEE DETAIL 10D/C600
14. NEW GAS METER, SEE MECH.
15. SEE ARCHITECTURAL/STRUCTURAL FOR UPPER LOADING DOCK SLAB INCLUDING WALLS, STAIRS, & RAMP.
16. NEW GRANDSTANDS AND PRESSBOX, SEE SHEET C607 AND C608
17. NEW ATHLETIC TRACK
18. NEW ARTIFICIAL TURF FIELD, SEE DETAIL 13/C600
19. NEW TENNIS COURTS STRIPING, SEE DETAIL 7/C605
20. NEW TENNIS COURT FENCING, SEE DETAIL 6/C605
21. NEW CHAINLINK FENCING, SEE DETAIL 1/C605
    - _A: 3.5' TALL
    - _B: 6' TALL
    - _C: 8' TALL
    - _D: 3.5' TALL, BLACK VINYL
    - _E: 8' TALL, BLACK VINYL
22. NEW CONCRETE MAINTENCE STRIP, SEE DETAIL 11/C605
23. NEW 20' TALL NETTING SYSTEM.
24. NEW FENCE DOUBLE GATE (MATCH ADJACENT FENCE TYPE)
25. NEW FENCE SINGLE GATE, SEE DETAIL 8/C605
26. NEW PORTABLE NETTING
27. NEW ORNAMENTAL FENCING, SEE DETAIL 9/C605
    - _A: 3.5' TALL, SEE DETAIL
    - _B: 8' TALL, SEE DETAIL
28. NEW SCREENING FENCING, SEE DETAIL 3/C606
29. NEW/SALVAGED TENNIS BACKBOARD
30. NEW GOALPOST, SEE DETAIL 4/C603
31. NEW SCOREBOARD, BY OWNER.
32. NEW BIKE RACK (SEE LANDSCAPE)
33. NEW BASKETBALL GOAL, SEE DETAIL 5/C603
34. NEW SHOT PUT EVENT, SEE DETAIL 1/C604
35. NEW DISCUS EVENT, SEE DETAIL 7/C603
36. NEW POLE VAULT BOX, SEE DETAIL 3/C604
37. NEW LONG/TRIPLE JUMP EVENT, SEE DETAIL 2/C604
38. NEW ATHLETIC TRENCH DRAIN, SEE DETAIL 8/C603
39. SLIDE GATE, SEE DETAIL 4/C606
40. TURF NAILER CURB, SEE DETAIL 11/C600
41. RELOCATED SHED
42. COLORED CONCRETE
43. SAND PIT SYSTEM, SEE DETAIL 12/C603
44. TRAFFIC GATE, SEE DETAIL 6/C606
45. LIFT ARM GATE, SEE DETAIL 5/C606
46. PICKLEBALL MARKINGS, SEE DETAIL 10/C603
47. COMMUNICATIONS BOX, SEE DETAIL 9/C603
48. NEW CONCRETE STEPS, SEE DETAIL 5/C602
49. NEW BLOCK RETAINING WALL SEE DETAIL 7/C602
50. NEW BASKETBALL STRIPING
51. NEW SPLASH BLOCK
52. LONG JUMP TRAY/BOARD, SEE DETAIL 5/C604
53. NEW CURB CUT, SEE DETAIL 10/C602
54. NEW CONCRETE STAIRS, SEE DETAIL 11/C603
55. SEE ARCHITECTURAL
56. SEE MECHANICAL
57. NEW GRANDSTAND SLAB, SEE DETAIL 13/C603
58. NEW CAMERA POLE, SEE DETAIL 7/C606

NORTH
0 25 50 100

WBLAHS ADDITION & RENOVATIONS

5045 Division Avenue
White Bear Lake, MN 55110

ISD #624 WHITE BEAR LAKE AREA SCHOOLS
4855 Bloom Avenue
White Bear Lake, MN 55110

Wold

WOLD ARCHITECTS AND ENGINEERS
332 Minnesota Street, Suite W2000
Saint Paul, MN 55101
woldac.com | 651 227 7773

KRAUS-ANDERSON®

Larson Engineering, Inc.
3524 Labore Road
White Bear Lake, MN 55110
651.481.9120 (f) 651.481.9201
www.larsonengr.com

I hereby certify that this plan, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the state of Minnesota.

Greg A. Buchal, P.E.

Date: 04.12.2021 Lic. No.: 23793

Revisions		
Description	Date	Num
PR #23	8/23/2021	4
PR #25	9/22/2021	5
PR #37	10/27/2021	6
PR #48	12/16/2021	7
PR #86	4/8/2022	8
PR #102	5/10/2022	9
PR #86R	5/18/2022	8R
PR #110	6/02/2022	10
PR #103	6/20/2022	11
PR #125	7/8/2022	12
PR #126	7/12/2022	13
SI #29	9/1/2022	14
PR #159	9/19/2022	15

Comm: 12196196
Date: 04.12.2021
Drawn: MTH
Check: GAB

North

LAYOUT REVISIONS EXHIBIT

Scale: See scale bar

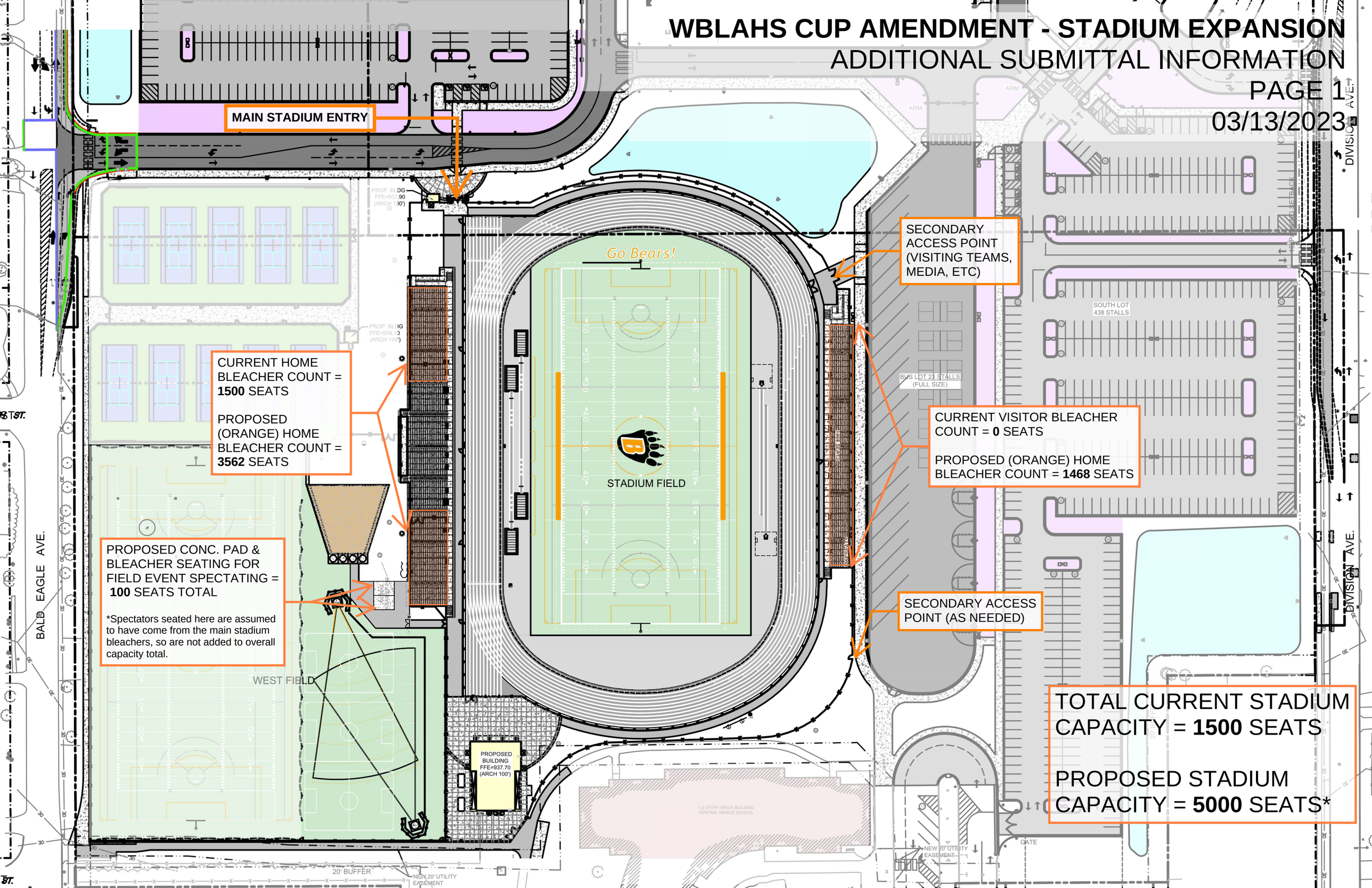
P:\Projects\Projects - 2015\12196196 - WBL Schools North Campus & Expansion\C_Design\Drawing Files\12196196 -Site Layout Revs.dwg
10/18/2022 3:53:57 PM

WBLAHS CUP AMENDMENT - STADIUM EXPANSION

ADDITIONAL SUBMITTAL INFORMATION

PAGE 1

03/13/2023



HOME BLEACHER PROPOSED EXPANSION AREAS
- HEIGHT AND DESIGN TO MATCH EXISTING (19 ROWS HIGH)
- MINOR MODIFICATIONS TO AISLES
- TOTAL HOME BLEACHER SEATS = 3562

VISITOR BLEACHERS PROPOSED
- 10 ROWS HIGH
- DESIGN AND STYLE TO MATCH EXISTING
- NO CHANGE TO LIGHTING, SOUND, SCOREBOARD SYSTEMS
- TOTAL VISITOR BLEACHER SEATS = 1468


APPROX.
100'-0"
NEW PROPOSED HOME BLEACHERS
(+1031 SEATS)
APPROX.
100'-0"
NEW PROPOSED HOME BLEACHERS
(+1031 SEATS)

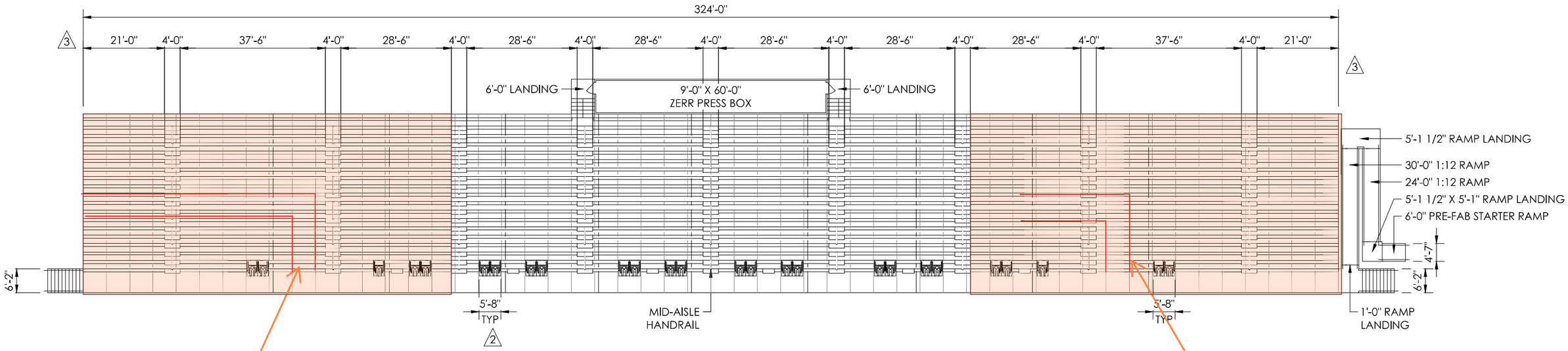
WBLAHS CUP AMENDMENT - STADIUM EXPANSION

ADDITIONAL SUBMITTAL INFORMATION

PAGE 4

03/13/2023

BLEACHER CAPACITY - HOME SIDE:
CURRENT COUNT = **1500** SEATS
AMENDED COUNT = **3562** SEATS



POSSIBLE EGRESS VOMITORIUM

POSSIBLE EGRESS VOMITORIUM

FUTURE SEATING LAYOUT - CENTRAL TRACK WEST (HOME) SIDE

SCALE:1/16"=1'-0"

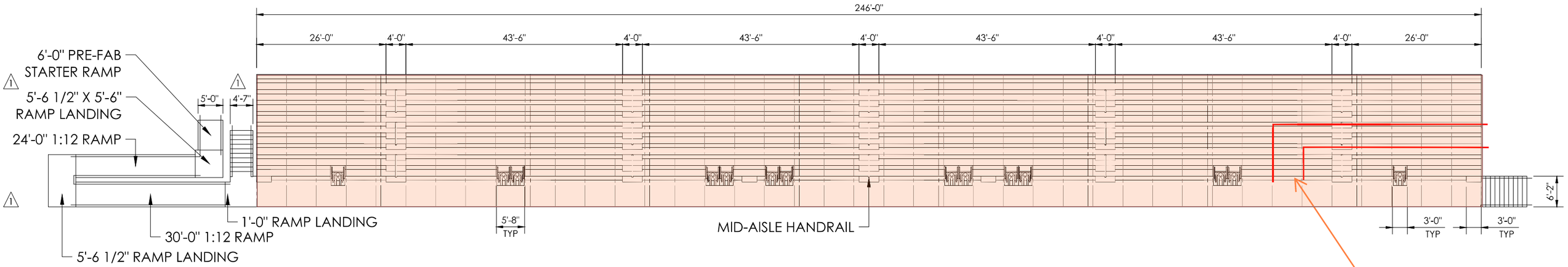
WBLAHS CUP AMENDMENT - STADIUM EXPANSION

ADDITIONAL SUBMITTAL INFORMATION

PAGE 5

03/13/2023

BLEACHER CAPACITY - VISITOR SIDE:
CURRENT : **0** SEATS
PROPOSED: **1468** SEATS



1 FUTURE SEATING LAYOUT - CENTRAL TRACK EAST (AWAY) SIDE 1

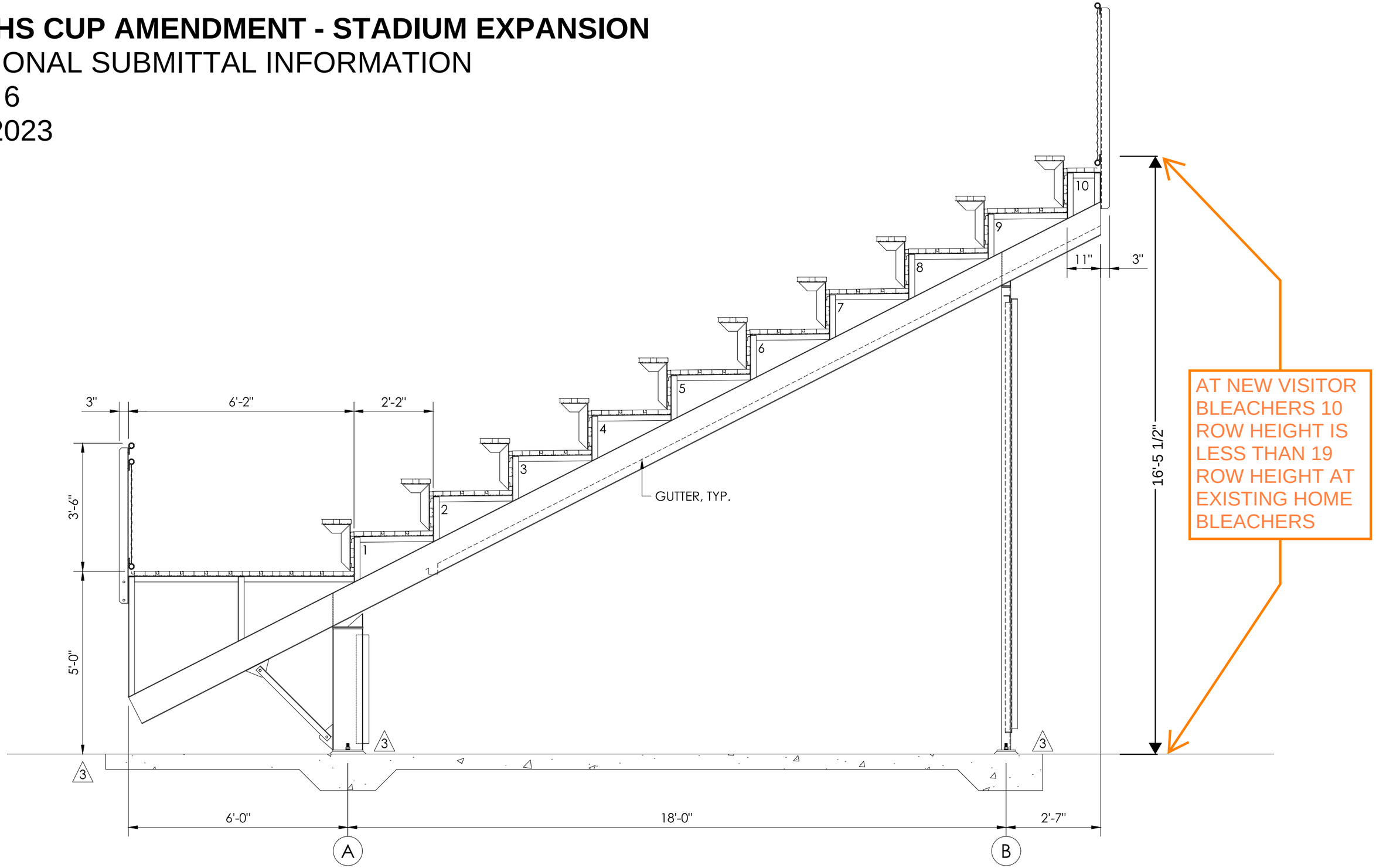
SCALE:3/32"=1'-0"

WBLAHS CUP AMENDMENT - STADIUM EXPANSION

ADDITIONAL SUBMITTAL INFORMATION

PAGE 6

03/13/2023

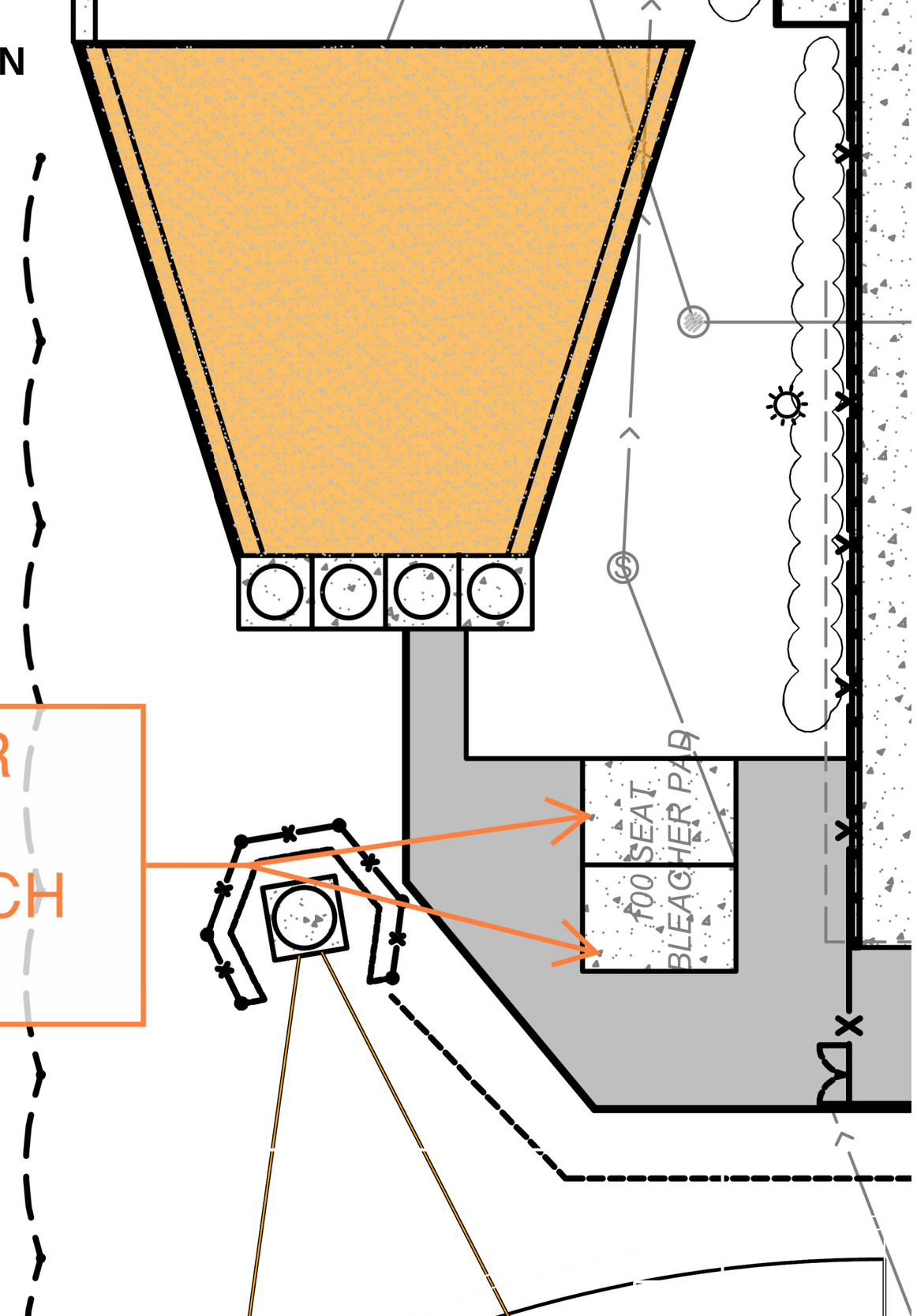


VISITOR BLEACHERS SECTION VIEW

SCALE:1/2"=1'-0"

WBLAHS CUP AMENDMENT - STADIUM EXPANSION
ADDITIONAL SUBMITTAL INFORMATION
PAGE 7
03/13/2023

FIELD EVENT SPECTATOR BLEACHERS:
50-SEAT BLEACHERS, EACH
100 BLEACHERS TOTAL



HIGH SCHOOL
UPCOMING SITE IMPROVEMENTS TIMELINES

WBLAHS Additions
- Unified Campus & All Site Amenities Open: Start of School / Fall 2024
- Auditorium Construction Complete: October 2024

Bald Eagle Improvements Project
- Project Bids: March-April 2023
- Construction Begins: Summer 2023
- Construction Complete: Start of School 2023

8th Street Improvements Project
- Project Bids: Fall 2023
- Construction Begins: Spring 2024
- Construction Complete: Start of School 2024

City of White Bear Lake
Community Development Department

MEMORANDUM

TO: The Planning Commission
FROM: Ashton Miller, City Planner
DATE: March 27, 2023
SUBJECT: **4910 Highway 61 Monument Sign Variance, McNeely Music Center, Case No. 23-10-V**

SUMMARY
The applicant, MSR Design, on behalf of McNeely Music Center, is requesting a sign setback variance from the required ten (10) feet to three (3) inches to allow replacement of their exiting monument sign on the property located at 4910 Highway 61. Based on the findings made in this report, staff finds that the applicant has not demonstrated a practical difficulty with meeting the City's zoning regulations as required by Minnesota Statute 462.357, Subd.6 and recommends denial of this request.

GENERAL INFORMATION

Applicant/Owner:	MSR Design / Manitou Fund MMC LLC
Existing Land Use / Zoning:	Vacant; zoned B-4: General Business
Surrounding Land Use / Zoning:	North: Dental Clinic; zoned B-4: General Business South: Office; zoned B-4: General Business East: Parking Lot; zoned B-4: General Business West: Retail; zoned DCB: Diversified Central
Comprehensive Plan:	Downtown
Lot Size & Width:	Code: none; 100 feet Site: 13,295 sq. ft.; Highway 61 side: 160 feet; 8th Street side: 65 feet

BACKGROUND
In 2022, the applicant received approval of five variance to reconstruct the McNeely Music Center while maintaining the existing building, access and parking lot layout. Those variances included the following:

- A five (5) foot variance from the ten (10) foot side yard setback requirement;
- A six (6) foot variance from the thirty (30) foot setback requirement from a side abutting a public right-of-way;

- A six (6) foot variance from the front yard setback;
- A parking variance to allow eighteen (18) parking stalls; and
- A variance from the 50% limit on the use of metal panels as an exterior building material to allow 69%.

The office building was demolished in the spring of 2022 and construction of the new building began later that summer. There was a pause over the winter due to necessary design changes after discovering a high-water table, but construction is again underway and the applicant is now considering options for signage at the property.

Prior to receiving the five variances noted above to reconstruct the site, the property also received a sign setback variance in 1998. That variance allowed a 32 square foot monument sign to be setback two (2) feet from the property's western property line along Highway 61, rather than the required ten (10) feet.

The applicant states the current sign setback variance request down to a three (3) inches is necessary to reorient the sign and increase its visibility along Highway 61. With the previous variance, the site had a 32 square foot monument sign that was positioned parallel to Highway 61. Should the City approve the requested sign setback variance, the applicant plans to install a new 7.6 foot high, 19 square foot dynamic (electronic) sign three (3) inches from the site's western property line along Highway 61.

Community Comment

Under state law and the City's zoning regulations, variance applications require a public hearing. Accordingly, the City published notice of this request in the White Bear Press and mailed notice directly to property owners within 350 feet of the subject site. That notice directed all interested parties to send questions or comments to the Planning Department by mail, phone, or email or to attend the public hearing where they could learn about the request, ask questions, and provide feedback. As of the writing of this report, city staff has not received any comments regarding the request. During the public hearing, staff will provide an update if any public comments are received prior to the Planning Commission meeting. The city also sent notice to MNDOT. The state has not provided comment yet, but the city anticipates a response before the City Council meeting.

ANALYSIS

Review Authority

City review authority for variance applications is considered a Quasi-Judicial action. This means the city acts like a judge in evaluating the facts against the legal standard. The city's role is limited to applying the legal standard of practical difficulties to the facts presented by the application. Generally, if the application meets the review standards, the variance should be approved.

Variance Review

The standards for reviewing variances are detailed in Minnesota State Statute 462.357, Subdivision 6. In summary, variances may be granted when the applicant establishes there are

"practical difficulties" in complying with the zoning regulations. A practical difficulty is defined by the five questions listed below. Economic considerations alone do not constitute a practical difficulty. In addition, under the statute the City may choose to add conditions of approval that are directly related to and bear a rough proportionality on the impact created by the variance.

Staff has reviewed the variance request against the standards detailed in Minnesota State Statute 462.357, Subdivision 6 and finds the applicant has not demonstrated a practical difficulty. The standards for reviewing a variance application and staff's findings for each are provided below.

1. Is the variance in harmony with the purposes and intent of the ordinance?

Finding: The variance is not in harmony with the purposed and intent of the ordinance. The purpose and intent of the sign code is to "regulate the number, location, size, type, illumination and other physical characteristics of signs within the city in order to promote the public health, safety and welfare; maintain, enhance and improve the aesthetic environment of the city by preventing visual clutter that is harmful to the appearance of the community; improve the visual appearance of the city while providing for effective means of communication, consistent with constitutional guarantees and the city's goals of public safety and aesthetics." The requested setback variance to allow a monument sign three (3) inches from the site's western property line along Highway 61 essentially results in no setback completely circumventing propose and intent of the sign regulations noted above.

2. Is the variance consistent with the comprehensive plan?

Finding: The requested setback variance to allow a monument sign three (3) inches from the site's western property line along Highway 61 is not consistent with the comprehensive plan. The comprehensive plan does not speak specifically to sign setback but does contain general goals and policies related to land use, transportation and public safety relevant to this request. These standards and staff findings for each are detailed below.

Land Use. The 2040 Comprehensive Plan guides the subject property as Downtown. According to the Comprehensive Plan, the downtown area should encompass a broad range of uses and intensities, including residential, commercial, and institutional. It is intended that development contribute to the pedestrian-scale, walkable environment that is already present in Downtown. The mix is anticipated to be approximately 70% commercial, 20% residential, and 10% institutional. While the music center use fits within this description, the proposed sign variance will not contribute to the existing pedestrian-scale and walkable built environment. Rather, it will likely inhibit pedestrian safety.

Transportation. The transportation section of the 2040 Comprehensive Plan identifies Highway 61 as a potential future road project due to the "ongoing concern regarding vehicle speed and pedestrian safety." The Plan also calls for improvements at the intersection of 8th Street and Highway 61 so that it is safer and more accessible to pedestrians. A 7.6 foot tall, 19 square foot

sign with a three (3) inch setback from the property line along Highway 61 increases safety concerns in the area.

3. Does the proposal put the property to use in a reasonable manner?

Finding: The proposal would not put the subject property to use in a reasonable manner. The applicant has reasonable use of the property as a commercial music center. The city acknowledges the applicant's desire for associated accessory signage for wayfinding and site identification. However, given the extreme nature of the request (3 inch setback), and the inconsistencies with the spirit and intent of both the zoning regulations and the 2040 Comprehensive Plan, staff finds the applicant has reasonable ability to construct accessory freestanding signage with the previously approved monument sign setback of two (2) feet, coupled with the fact that the sign code also entitles the site up to 80 square feet of wall signage.

4. Are there unique circumstances to the property not created by the landowner?

Finding: There are not unique circumstances to the property that were not created by the landowner. As noted in the background section above, the applicant sought and the city approved five site related variances to allow reconstruction of the McNeely Music Center while maintaining the property's existing building position, access and parking lot layout. This site design included a monument sign with a two (2) foot setback from the site's western property line along Highway 61. Staff finds the previously approved variances sought by the applicant and approved by the city created the very site conditions the applicant now cites as creating the need for an additional sign setback variance.

5. Will the variance, if granted, alter the essential character of the locality?

Finding: Granting the requested variance will alter the essential character of the neighborhood. While deviations from the setback requirement for freestanding signs have been granted to surrounding properties in the past, the majority of those resulted in setbacks of one (1) to seven (7) feet. Of the sign setback variances granted to surrounding properties, only one (4940 Highway 61 – White Bear Country Inn), granted a zero-foot setback. However, it should be noted that the reasoning for granting the variance was that the MNDOT right-of-way for Highway 61 is substantially larger in that area, so the sign is still setback almost 45 feet from the sidewalk and 60 feet from the edge of the street. The proposed sign at the subject site would be about 11 feet from the sidewalk and 30 feet back from the curb. Granting the variance would allow greater encroachment than what has historically been permitted in the neighborhood, changing the character of the area.

RECOMMENDATION

Staff recommends denial of the request based on the following findings and determinations:

1. The variance is not in harmony with the purposed and intent of the ordinance.
2. The variance is not consistent with the comprehensive plan.
3. The variance has not been proven necessary for the reasonable use of the land or

building; alternative design options exist.

4. There are not unique circumstances to the property not created by the landowner.
5. Deviation from the code without reasonable justification will slowly alter the City's essential character.

Attachments:
Draft Resolution of Denial
Zoning/Location Map
Applicant's Narrative (2 Pages) & Plans (1 page)

RESOLUTION NO.

RESOLUTION DENYING A MONUMENT SIGN VARIANCE FOR THE PROPERTY LOCATED AT 4910 HIGHWAY 61

WHEREAS, MSR Design, on behalf of McNeely Music Center, ("Applicant") submitted an application to the City of White Bear Lake ("City") seeking a variance for a monument sign to be located on the property at 4910 Highway 61 in the City and legally described as follows ("Property"):

LEGAL DESCRIPTION: That part of Lots 1, 2 and 3, in Block 23, White Bear, lying North of the Northern Pacific Railroad Company right-of-way and Easterly of Trunk Highway No. 61, all of which lies Southerly of the following described line: Commencing at the Southwest corner of the Northeast Quarter of the Northeast Quarter of Section 14, Township 30 North, Range 22 West; thence South 89 degrees 49 minutes West (assumed bearing) along the South line of said Quarter Quarter a distance of 466.28 feet to the Easterly Highway right-of-way of Trunk Highway No. 61 as monumented; thence South 14 degrees 24 minutes 42 seconds West 44.25 feet along said Easterly right-of-wayline to the point of beginning of the line be herein described; thence South 73 degrees 29 minutes 09 seconds East 120.88 feet to the Northwesterly right-of-way line of said railroad and there terminating. (PID: 143022140008); and

WHEREAS, in 1998, the City approved a variance for the Property to allow a 32 square foot monument sign to be setback two feet from the western property line along Highway 61, which constituted an eight foot variance from the 10 foot setback required by the Municipal Code; and

WHEREAS, the Applicant is now seeking a further variance to reduce the setback from the current two feet down to three inches, which would be a combined nine foot, nine inch variance from required 10 foot setback; and

WHEREAS, if approved, the Applicant intends to install a new 7.6 foot high, 19 square foot dynamic (electronic) sign three inches from the site's western property line along Highway 61; and

WHEREAS, the City Planner prepared a memo dated March 27, 2023 ("Planner's Report") regarding the proposed variance in which the City Planner set out background information, analysis, proposed findings, and recommended the Planning Commission recommend denial of the requested variance; and

WHEREAS, the Planning Commission, after due notice having been provided, conducted a public hearing at its meeting on March 27, 2023 at which is provided an opportunity for the Applicant and the public to be heard regarding the requested variance; and

WHEREAS, after consideration, the Planning Commission voted to forward the application to the City Council with a recommendation that it deny the variance.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of White Bear Lake, Minnesota that it hereby finds and determines as follows regarding the requested variance:

a. The procedure to process and act on a variance request is set out in Section 1301.060 of the Municipal Code and is subject to the requirements in Minnesota Statutes, section 462.357, subdivision 6(2).

b. The Applicant has the burden of demonstrating that the strict application of the zoning regulations in the Municipal Code would result in practical difficulties as defined in the statute and as further explained in the Planner's Report.

c. The Planner's Report, which is incorporated herein by reference, sets out findings indicating the Applicant has not sufficiently demonstrated the existence of practical difficulties to allow the City to issue the requested variance.

d. The Planning Commission agreed with the findings in the Planner's Report and recommended denial of the requested variance.

e. The City Council also agrees with the findings in the Planner's Report and adopts them as part of its findings on this matter.

f. The City has already granted a variance to the Property to allow placement of a monument sign at only 1/5 of the required setback. The sign was placed and was used in that location for several years.

g. Now the Applicant proposes what is effectively a zero setback for a sign on the Property. There are valid policy reasons for imposing setback requirements for structures placed on properties and the Applicant has not provided a sufficient reason to forgo those policy reasons to authorize a sign to be placed a mere 3 inches from the Property line. The sign location allowed under the previously issued variance is sufficient for its intended purpose. Desiring to place a sign on the Property line with the hope it may have greater visibility from the highway does not constitute a practical difficulty. Absent the finding of a practical difficulty, the City Council cannot issue the requested variance.

NOW, THEREFORE, BE IT FINALLY RESOLVED, by the City Council of the City of White Bear Lake, Minnesota that, based on the Planner's Report, the Planning Commission's recommendation, the findings contained herein, and the record of this matter, the requested variance is hereby denied.

RESOLUTION NO.

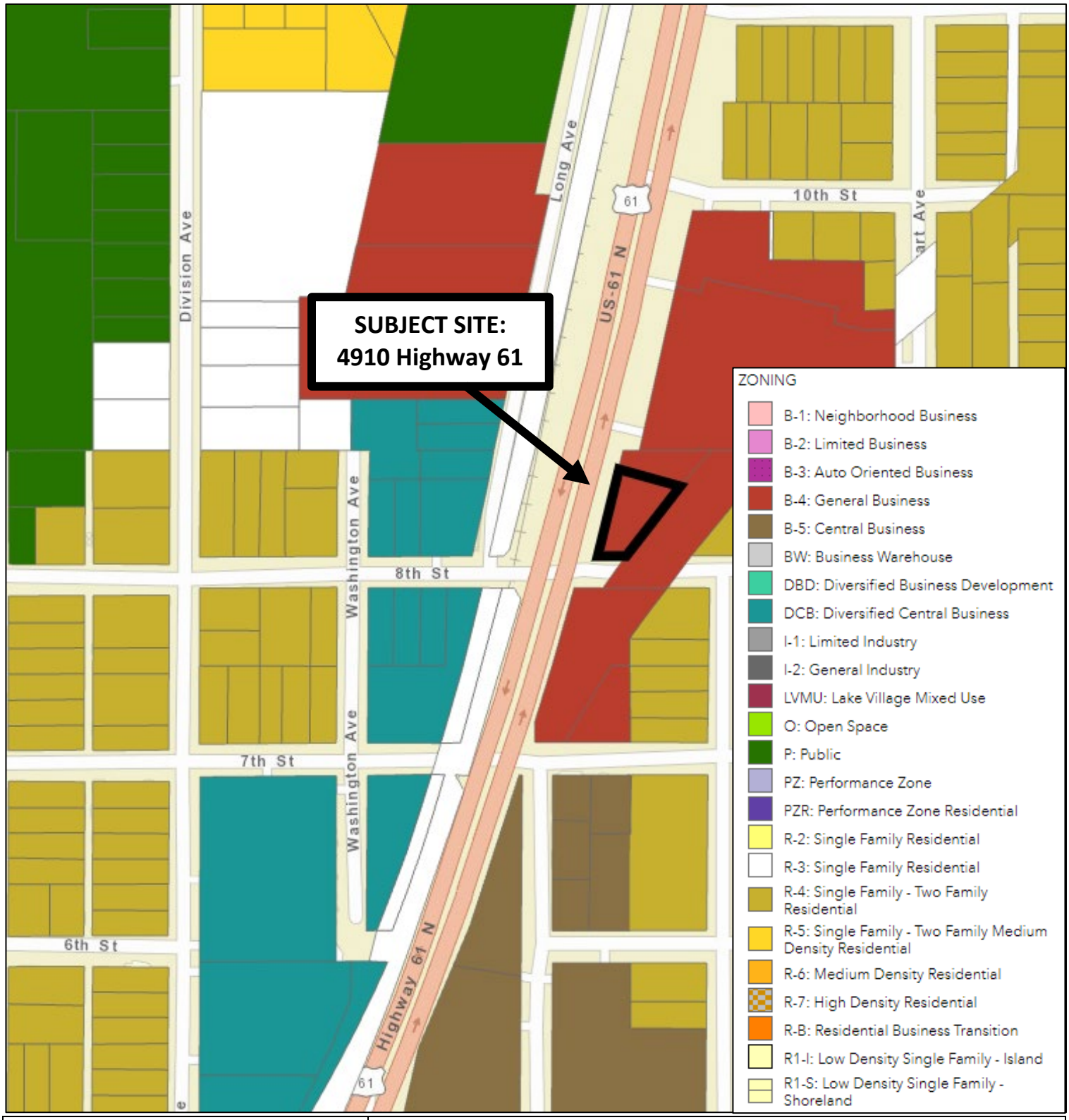
The foregoing resolution, offered by Councilmember _____ and supported by Councilmember _____, was declared carried on the following vote:

Ayes:
Nays:
Passed:

_____
Dan Louismet, Mayor

ATTEST:

_____
Caley Longendyke, City Clerk



City of
White Bear Lake
Planning & Zoning
651-429-8561

CASE NO. : 23-10-V

CASE NAME : McNeely Music Center Sign

DATE : 3-27-2023

Memorandum

Date	2/13/2023
Project Name	McNeely Music Center
Project Number	2021021WBL
To	City of White Bear Lake Planning Commission
From	**MSR Design** 510 Marquette Avenue South, Suite 200 Minneapolis, MN 55402
Cc:	Ashton Miller

Re: Variance Request Application

Zoning for "B-4", General Business District
Item 1: Setbacks
Numeric Deviation: 1202.040 Subd. 2. Commercial and Industrial Districts

Reference text:
B. Freestanding Monument Signs.
"... The sign shall be architecturally compatible with the principal building, with a brick, masonry or similar base, and shall be a maximum of ten (10) feet high and shall be set back from all property lines and driveways a minimum of ten (10) feet."

Variance Request
We are demolishing the existing monument sign, and replacing with a sign architecturally compatible with the new building. The existing building originally received a variance setback variance, allowing for setback of 24" from the front property line.

We seek a variance here because there are practical difficulties posed by the setback requirements to properly address traffic traveling along HWY 61. The current setback only allows for a sign to sit parallel to HWY 61, which creates an issue of legibility for motorists looking for our site signage.

We are proposing the sign setback be reduced to 3", to allow for a sign to face perpendicular to the flow of traffic, allowing for greater legibility of the long face of the sign for motorists. This distance is specifically proposed because it allow for 2'-6" wide sign to locate between the proposed setback and the existing curb line of the entry drive without compromising construction of the sign foundation or encroachment of the property line, while allowing for sufficient sign area.

Sean Higgins, AIA
612.615.7225 | sean@msrdesign.com

Memorandum

Date	3/17/2023
Project Name	McNeely Music Center
Project Number	2021021WBL

To	City of White Bear Lake Planning Commission
From	**MSR Design** 510 Marquette Avenue South, Suite 200 Minneapolis, MN 55402
Cc:	Ashton Miller

Re: Variance Request Application

5 Questions regarding Variance Request

1. Is the variance in harmony and proposes and intent of the ordinance;

   MSR Response:

   Intent of the zoning code is to produce signage consistent with the zoning corridor in which it resides. HWY 61 corridor is a mix of commercial businesses and semi-public entities. Each entity has monument signage to advertise the primary use of the building for passing motorists.. Signage is predominantly perpendicular to the flow of traffic. Our proposed signage is consistent with existing signage along this corridor.

2. Is the variance consistent with the comprehensive plan;

   MSR Response:

   Section 4, "Economic Competitiveness", specifically references the arts district along Hwy 61. This facility would enhance the "flourishing and sophisticated arts culture", by adding a complementary program to the existing performing arts center on the west side of HWY 61, across from the property.

   Additionally, as stated in the Comprehensive Plan: A thriving arts culture can positively impact the economic health of a city. In recognition of this, White Bear Lake plans to leverage state and local funds to strengthen its arts district and establish more recognition for the district through signage, road improvements, district beautification, and encouraging art-related community events.

   Our programming is intended to reduce barriers to music education while providing access to high quality technology.

3. Does the proposal put the property to use in a reasonable manner;

   MSR Response:

   We see this proposal as utilizing the property in a reasonable manner, given the intent of the comprehensive plan, the occupancy type of the building and the type of arts and culture this building will support.

4. Are there unique circumstances to the property not created by the landowner;

   The property is platted in such a way that there is limited buildable area within the given setbacks. As a precedent, a variance for building footprint setbacks was granted due to the practical difficulties posed by the setback requirements and the challenging shape of the site. The variance approval allowed for

enhanced workability of the site layout and allow for the expanded site access for the entry drive to meet accessibility requirements and requests made by the City of White bear Lake Fire Marshal.

Additionally, due to the nature of the property lines for the property immediately south of our site, their monument sign is substantially closer to the path of traffic. Our site is impeded by a "jog" in the public sidewalk, forcing our sign further back into our property. We seek to have a sign which is not obscured from view by our neighboring property's monument sign.

Our intent is to create a safe and visible sign for passing motorists. We are proposing the sign setback be reduced to 3", to allow for a sign to face perpendicular to the flow of traffic, allowing for greater legibility of the long face of the sign for motorists. This distance is specifically proposed because it allows for a 2'-6" wide sign to locate between the proposed setback and the existing curb line of the entry drive without compromising construction of the sign foundation or encroachment of the property line, while allowing for sufficient sign area.

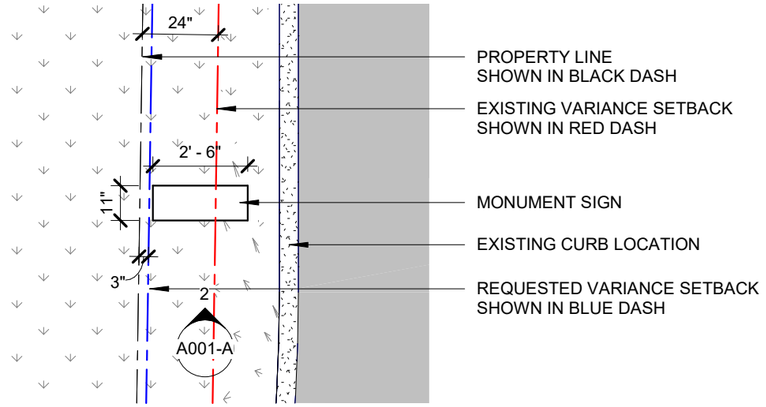
This new variance request falls in line with the precedent set by the previous variance, acknowledging the challenging nature of the site.

5. Does she variance, if granted, alter the essential character of the locality?

   MSR Response:

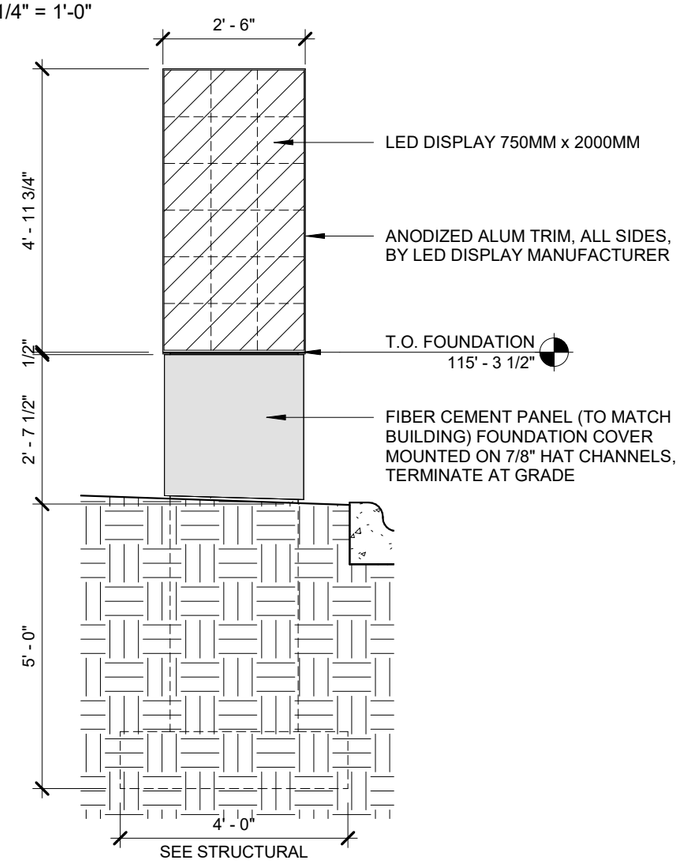
   Monument signs are the primary method of addressing motorists along this stretch of HWY 61. Properties adjacent to our property all use monument signs to advertise their locations name, address, or business type. We are consistent in size and location of site signage with our immediate locality.

Sean Higgins, AIA
612.615.7225 | sean@msrdesign.com



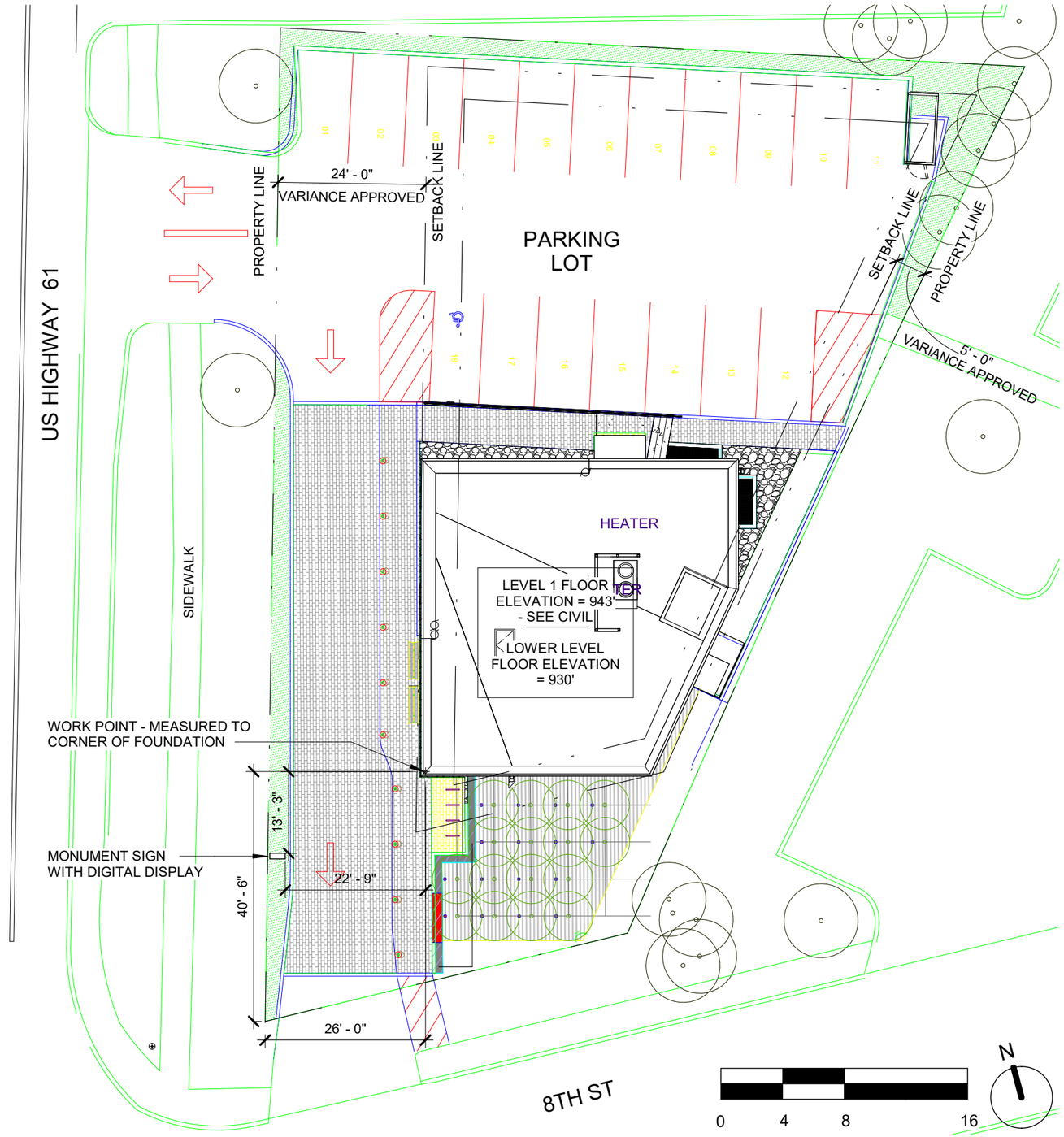
1 ENLARGED MONUMENT SIGN PLAN

A001-A 1/4" = 1'-0"



2 MONUMENT SIGN - ELEVATION

A001-A 3/8" = 1'-0"



MSR Design | MCNEELY MUSIC CENTER
4910 US-61
White Bear Lake, MN 55110

A001-A
DATE:02/13/2023

City of White Bear Lake
Community Development Department

MEMORANDUM

TO: The Planning Commission
FROM: Ashton Miller, City Planner
DATE: March 27, 2023
SUBJECT: **2687 County Road D Concept Plan Review - Case No. 23-9-C**

SUMMARY
The Planning Commission will review and comment on the concept plan for 2687 County Road D. This concept proposes to develop the vacant parcel into a fourteen unit assisted living and memory care facility. Following the Planning Commission meeting, this item is scheduled for review and comment by the City Council on April 11th.

As a concept review, this process does not require formal action to approve or deny the project. Rather, the applicant requests feedback on the proposals so they can work toward preparing a future, formal submittal. While the applicant has already held a neighborhood meeting and this item does not require a public hearing, the public is invited to offer comment during the Planning Commission meeting. Any comments provided are for guidance only and not be considered binding upon the City regarding any future, formal application.

GENERAL INFORMATION

Applicant/Owner:	Brian Winges / Paul Bruggeman
Existing Land Use / Zoning:	Vacant / B-2: Limited Business
Surrounding Land Use /Zoning:	North: Vacant / R-6: Medium Density Residential South: Vacant / B-2: Limited Business East: Office Condos / B-2: Limited Business West: Apartment / R-6: Medium Density Residential
Comprehensive Plan:	Commercial
Lot Size & Width:	Current B-2 zoning: None & 100 feet Anticipated R-B zoning: None & 100 feet

BACKGROUND INFORMATION
Concept Plan Process. The purpose of the pre-application concept plan review is to help inform and involve the public in the planning process and allow developers to gain feedback directly from the

public, Planning Commission and City Council prior to preparing a full formal application. Feedback and opinions expressed by the city as part of a concept plan review are for guidance only and are not to be considered binding. Comments provided during the concept plan review may help inform and influence future plans if the developer chooses to proceed with a formal development application. Concept Plan review is a required step for all applications that may include a rezoning or Planned Unit Development. The concept plan review process follows the schedule outlined below.

1. **Neighborhood Meeting**. The developer hosts a neighborhood meeting to review a concept plan and solicit community feedback. These meetings shall follow the Neighborhood Meeting requirements contained in Section 1301.110. City officials and/or staff may attend the neighborhood meeting, but only to observe the dialog between the developer and neighborhood and answer "procedure" questions.

2. **Planning Commission**. The Planning Commission review is intended as a follow-up to the neighborhood meeting. The objective of this meeting is to identify major issues and challenges in order to inform subsequent review and discussion. The meeting includes a presentation by the developer of conceptual sketches and ideas, but not detailed engineering or architectural drawings. No staff recommendations are provided, the public is invited to offer comments, and planning commissioners are afforded the opportunity to ask questions and provide feedback without any formal motions or votes.

3. **City Council**. The City Council review is intended as a follow-up to the neighborhood meeting and Planning Commission review and would follow the same format as the Planning Commission review. No staff recommendations are provided, the public is invited to offer comments, and city council members are afforded the opportunity to ask questions and provide feedback without any formal motions or votes.

Current Site Description. The subject property is located on both sides of County Road D, west of Century Avenue. As a whole, the property is 1.58 acres, or roughly 68,825 square feet. The proposal is only for the southern portion of the property, which is approximately 31,250 square feet in size. The property has been split zoned since 1974 when it was first identified on the city's zoning map. The northern portion was originally zoned R-3: Single Family Residential and the southern portion was zoned LB: Limited Business. The zoning code was amended in 1983 and the LB district was renamed B-2: Limited Business. The northern portion of the lot was rezoned in 2019 to R-6: Medium Density Residential. The northern portion was granted a setback variance for a triplex in 2019, but that project was not completed and approvals have expired. The southern portion contained a single family home that was demolished in 2019.

Concept Proposal. The applicant's concept plan proposes to redevelop the vacant property into a fourteen unit nursing home with ten parking stalls. The building will be one story in height and approximately 7600 square feet in size. Each unit will be a private suite.

Neighborhood Meeting. The applicant held their neighborhood meeting on March 15, 2023 at Lakewood Place Apartments, located at 3100 Glen Oaks Avenue, directly west of the subject site. No one other than City Councilmember Kevin Edberg and City Planner Ashton Miller attended the

meeting. A summary of the meeting and the applicant's other interactions with the neighboring properties is attached.

ANALYSIS

Based on the concept plan, staff anticipates the applicant will request rezoning the subject property from the current B-2: Limited Business classification to R-B: Residential-Business Transition. The 2040 Comprehensive Plan designates the property as Commercial and that is not anticipated to change. As a result, the following analysis compares the proposed concept plan with the Commercial land use category and R-B: Residential-Business Transition zoning district.

Land Use. The 2040 Comprehensive Plan Future Land Use Map guides the subject property as Commercial. According to the Comprehensive Plan, commercial include a wide range of general commercial uses, such as retail, office, automobile-oriented businesses, and personal service establishments. While an assisted living facility is a residence, it is still a business that has staff coming and going and regular deliveries that make it more commercial in nature. The proposed concept plan of an assisted living facility meets the use standards of the commercial future land use category.

Zoning. The subject property is currently zoned B-2: Limited Business, which does not allow nursing homes as either a permitted or conditional use. Therefore, the applicant anticipates requesting a rezoning of the property to R-B: Residential-Business Transition. The purpose of the R-B zoning district is to provide for high-density residential uses and for the transition in land use from residential to low intensity business allowing for the intermixing of such uses. There are commercial properties to the east and medium density residential to the north and west, so the rezoning appears to achieve the district's purpose as a transitional area between the two uses.

Use. The concept plan conforms to the allowable uses in the R-B district. The R-B district permits nursing homes or similar group housing through a conditional use permit.

Height. The maximum height in the R-B district is 45 feet. The applicants did not provide an exact height of the building in the concept, but the proposed facility will be one story tall, so will be well under what is permitted by code.

Setback. The required setbacks in the R-B zoning district are 30 feet from the front, 15 feet from the side, and 30 feet from the rear. However, the zoning district requires the side yard setback to be doubled when the property is used as a nursing home, so 30 feet is required. The proposed building meets the front and rear setback, but does not meet the larger side yard setback.

Parking lots are required to be set back 15 feet from the right-of-way and maintain a five foot setback from any interior lot line. The proposed parking lot meets the required setbacks, but is proposed to encroach into the easement along the south side of the property. There are no city utilities in the easement, but there is a Metropolitan Council sewer line. The applicant would need to obtain permission from the Met Council in order to build the parking lot in the easement.

Parking. Nursing homes are required to have four parking stalls plus one stall for every three beds. The proposal includes fourteen beds, so nine stalls are required. Ten stalls are proposed, so the parking

requirements are fulfilled. However, this analysis includes three stalls within the Met Council easement as noted above. Should the applicant be unable to receive approval from the Met Council, the site would be short two stalls.

Exterior Materials. The R-B district does not have specific exterior material standards. According to the applicant, exterior materials on the building would include a mix of vinyl siding with brick and stone. The surrounding residential and commercial uses are more dominantly fiber cement siding with a brick or stone base. Staff recommends the applicant provide enhanced architectural design and exterior materials that are at least consistent with the surrounding uses.

Potential Review Process. Based on the applicant's concept plan, staff anticipates this project will need the approvals listed below. The next step for the applicant would be to use feedback from the concept plan review process to prepare these applications.

- Rezoning from B-2: Limited Business to R-B: Residential- Business Transition.
- Planned Unit Development (PUD)
- Execution of a Planned Unit Development (PUD) Agreement
- Approvals from the Valley Branch Watershed District

Planned Unit Development. The purpose of a planned unit development (PUD) is to allow flexibility from traditional development standards in return for a higher quality development. Use of a PUD in this case would be necessary if the applicant cannot meet all of the development standards of the R-B zoning district.

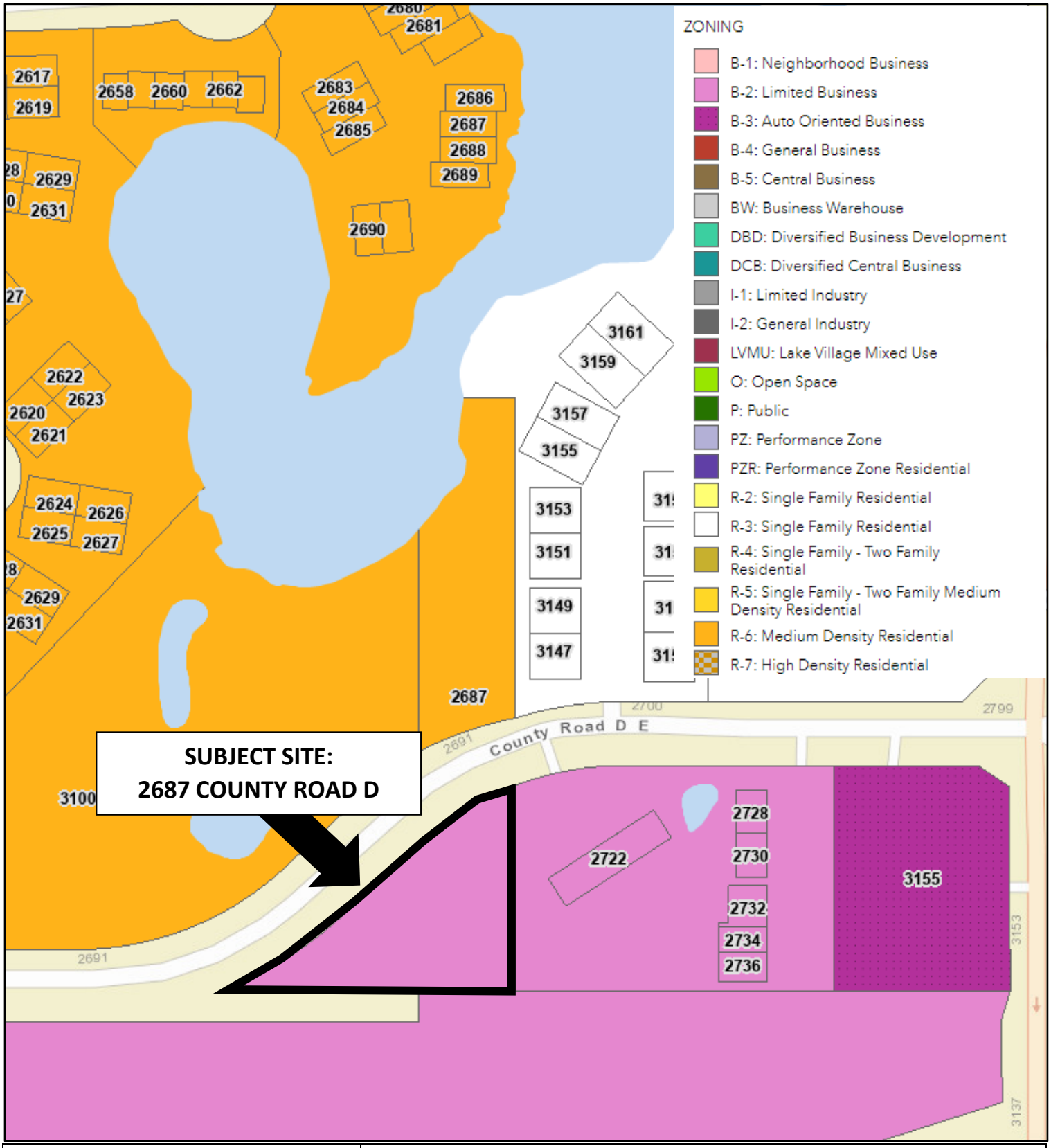
Typically, the city looks for a developer to exceed other zoning standards, building code requirements or Comprehensive Plan goals. In exchange for the flexibility offered by the planned unit development, the applicant is expected to detail how they intend to provide a higher quality development or meet other City goals. A list of items to consider when evaluating the use of a planned unit development for this site could include, but are not limited to, the items listed below.

- Enhanced architectural design and building materials
- Natural resource protection and storm water management
- Pedestrian and bicycle facilities
- Affordable housing
- Enhance sustainability or livability elements
- Energy conservation and renewable energy
- Open space preservation
- Enhanced landscaping, streetscape or buffering
- Public art

RECOMMENDATION

Concept review applications allow for applicants to solicit direct feedback from neighbors, the Planning Commission and City Council without a formal recommendation or approvals. As a result, the Planning Commission should review proposed concept plan for 2687 County Road D and provide feedback to the developer.

Attachments:
Site Map
Applicant's Narrative
Concept Plans
Neighborhood Meeting Invitation/Meeting Summary



City of White Bear Lake
Planning & Zoning
651-429-8561

CASE NO. : 23-9-C

CASE NAME : Dignisuites

DATE : March 27, 2023

DIGNISITES SENIOR CHRONIC CARE
DIGNISUITES RE, LLC
855 Village Center Drive
St. Paul, MN 55127

REZONING APPLICATION: City of WHITE BEAR LAKE, Minnesota
Date: February 13, 2023

PROJECT NAME: DigniSuites of White Bear Lake

PROPERTY ADDRESS: 2687 County Road D
White Bear Lake, Minnesota, 55110

APPLICANT: **WBL DigniSuites RE, LLC**
855 Village Center Drive
St. Paul, Minnesota, 55127
Brian R Winges 651-366-2097
Brianwdignicare@gmail.com

DESCRIPTION OF PROPOSED DEVELOPMENT:

DJR Architecture , Built4SaferLiving LLC, and Dignicare Senior Development is proposing to develop a memory care and assisted living CARE HOME to serve the care needs of the elderly citizens of WHITE BEAR LAKE and those with elderly family members in need of memory care and assisted living services. The NEWLY DESIGNED CARE HOME building with touch-free clean electrical and plumbing technology coupled with prewired remote monitoring and telehealth suites shows careful consideration for today's healthcare environment and realities. The DIGNISUITES Memory Care and Assisted Living of WHITE BEAR community CARE HOME will feature a total of 14 private suites providing chronic care assisted living services and memory care services. The residents will be able to enjoy a home-like atmosphere in a setting that allows them the freedom to participate in many amenities that not only help assist them in their daily care needs but also provide them with a higher quality of life than that offered in a more institutional setting. The residents are provided with their own secured area within the secure building that has amenities like a congregate dining room, sunroom, activity/craft area and a secure outdoor porch. These residents benefit from a life enrichment program that is specially designed for residents with Alzheimer's and Dementia. At DIGNISUITES Memory Care and Assisted Living of WHITE BEAR our goal is to provide our residents with the right care at the right time.

Building Description: Total Land Size: .75 Acres (31,250 sq ft)
Building Size: Approx. 7690 Sq. Ft.
Occupancy: 14 Private Suites
Floor 1: 14 High-Care Assisted Living Units and Memory Care Units

Proposed Rezoning: The proposed rezoning is expected to have a positive impact on the surrounding property and land uses. Zoning Change Request from Commercial to R-B Residential Business Transition District –

The R-B Residential Business transition district zoning classification allows for nursing homes under which the project would be allowed using a conditional use permit .

“The purpose of R-B Residential Business transition district zoning classification is to provide for high density residential uses and for the transition in land use from residential to low intensity business allowing for the intermixing of such uses.”

The subject parcel is currently zoned commercial in an area containing both low intensity business and residential land uses.

The subject property and proposed use would best be used in the proposed use as a high-density residential care community in a high residential, low intensity business area .

The appropriate zoning for care facilities Can be achieved by rezoning to the R-B residential Business transition district and allowing the use of a conditional use permit which allows for assisted livings and nursing facilities in these zoning districts. We believe this serves well as a transition between the nearby businesses and multifamily properties . Other properties along County rd. D and Century Avenue are both residential and low impact business and fit into the R-B zoning district as well taking advantage of exposure to traffic along the roads. The proposed DigniSuites facility can make use of this exposure, and in fact is key to the success of this care model.

The proposed use will make better use of the land as few commercial enterprises can fit on the pad after setbacks, ROW, green space and parking are taken into consideration. Thus, the density-tax base and use per sq ft are maximized while actual stress to city services or surrounding area are minimized. In fact, parking and traffic impacts are far less since the residents do not operate vehicles. Parking requirements are limited to daily staff and the occasional visitors and thus are less than traditional multifamily housing projects. DigniSuites will also continue to contact and work with White Bear Lake and nearby local Emergency services in maintaining our shared goal of reducing unnecessary emergency calls and assuring that our staff always has a complete resident chart ready for EMT’s when services are needed.

Impact on Property: Minimum disruption to traffic and local business is anticipated during construction or operation of the day-to-day operation of the DigniSuites business .

CONCLUSION:

Thank you for your time to review our proposal. DIGNISUITES Memory Care and Assisted Living of WHITE BEAR LAKE will provide great economic benefits to the city and community with 14 assisted living and memory care suites, 16 plus full and part time jobs with annual payroll of $550,000 and a significant contribution to the tax rolls for this property while providing services to the residents of the City and surrounding area. The opportunity for the city to provide senior care options in a very demanding market well into the future is a compelling reason to approve this application.

The Conditional Use Permit is designed and intended to accommodate the needs of development for benefit to the community, as DIGNICARE’s high level of care, access to hospice and respite will bring.

Great care has been taken to make the building attractive both as a city and neighborhood friendly addition, utilizing high quality finishes like LP smart siding, colored hard shingle in the staggered edge notched panels, smoked glass in the fake dormers, cultured stone and brick accents and wainscoting, an extensive landscape plan with special attention to maintaining the existing buffer between the neighbors and the building.

The project will be designed exceeding the "required" landscaping and other basic requirements of code to upgrade the appearance of the building. The project will work to maintain the required setbacks from the building to lot line front along the road and will work with staff to maximize setbacks to the back and side because of the unique shape of the lot. Landscaping is for decorative purposes and can be moved when and if needed but provides a buffer and ornamental screening to the existing traffic and anticipated residential housing on County Rd D and a fenced in and screened and buffered rear yard abutting the office space to the rear. As well, great care is being taken to address the topography to the side and rear property line neighboring the drainage area and natural grass area towards the freeway . Great care is being taken to maintain the maximum density of forestation buffer between the neighboring development and the new DigniSuites Community.

As we work thru the grading plan, special attention will be paid to the drainage and excavation plan to assure that the drainage of this site disturbs the least amount of natural habitat as possible. A wetlands determination will be provided to confirm this does not impact the site.

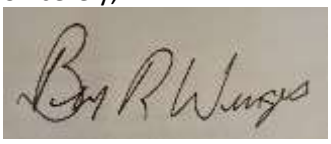
By granting the Application, the city is gaining an attractive, tax-paying member to the community in an otherwise idle property. The building and occupants are secure, noise is not an issue, and the neighbors should appreciate a relatively peaceful co-existence with the new project. The project will bring many benefits to the community of White Bear Lake.

Such benefits will include:

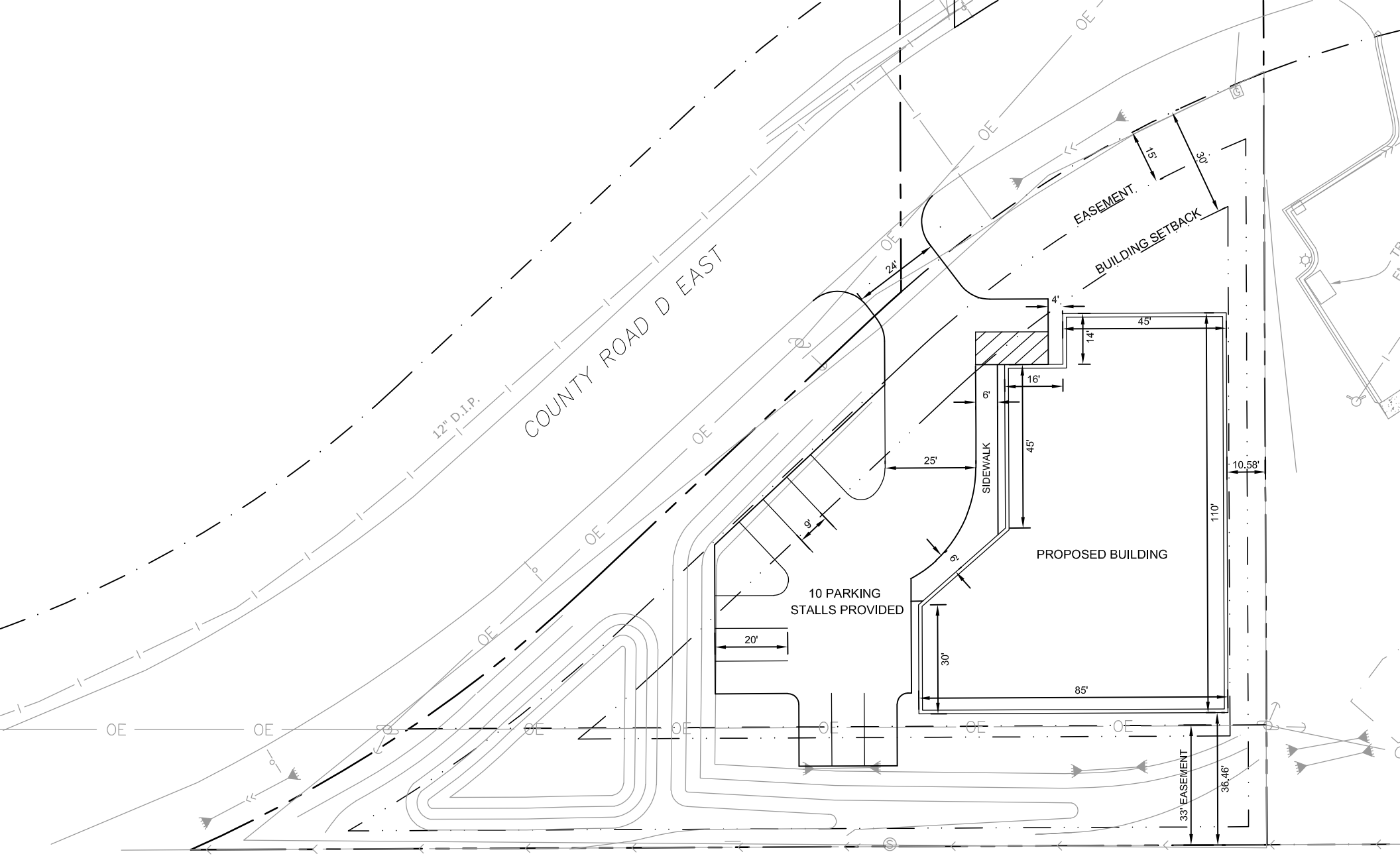
- Local Chamber of Commerce Membership
- Meeting room space including use for business, choir practice, piano recitals, girl/boy scouts, book clubs, churches etc.
- Be a host to community events.
- Offer wellness clinics
- Charity drop off site for food and clothing
- Partnerships with local daycare centers
- Internship options for nursing students
- Volunteer opportunities
- Promotion of local businesses

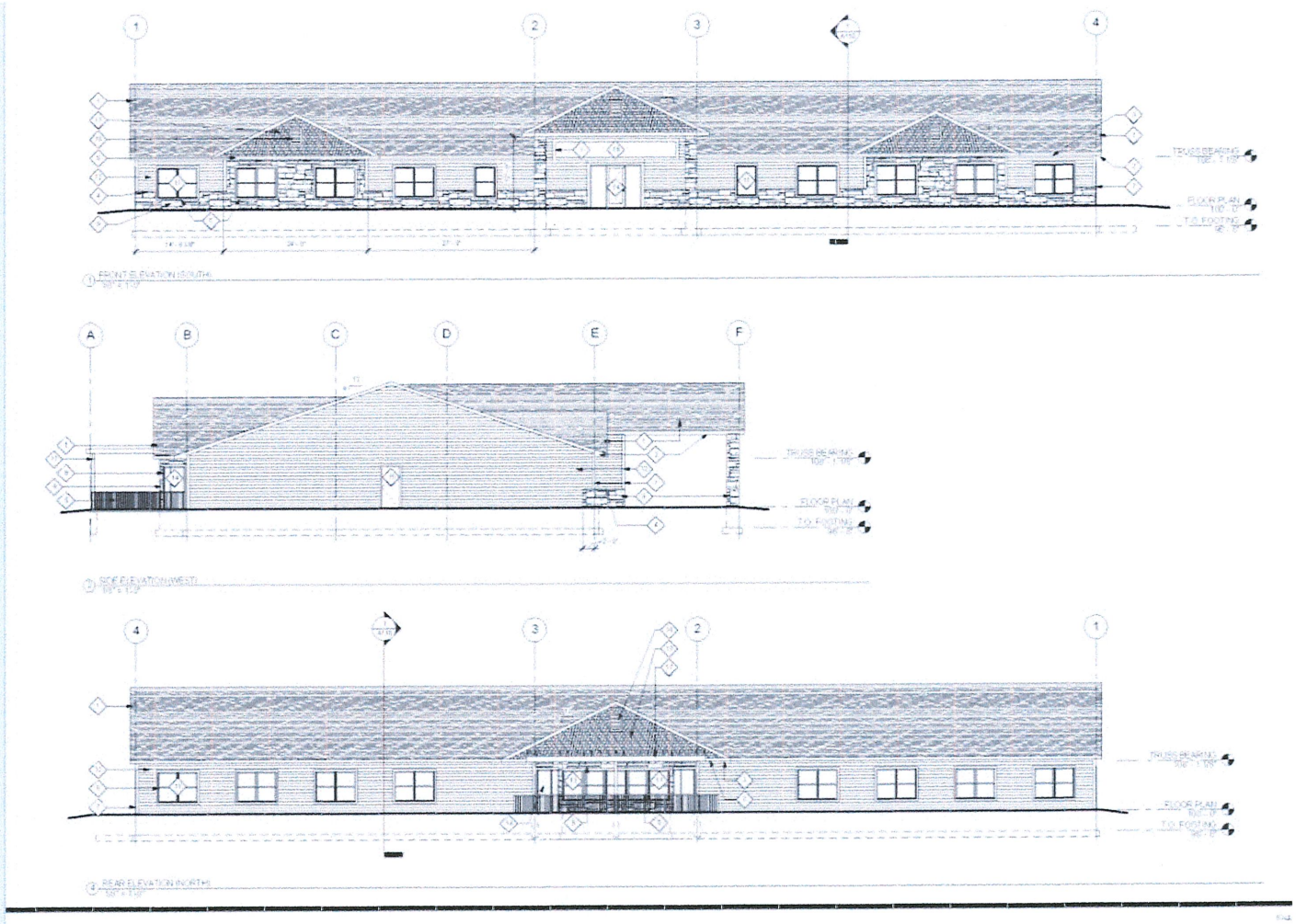
We look forward to continuing to work with the City of White Bear Lake during the review and approval process for this application. Please contact me with any questions you have on any item as I would be more than happy to discuss it in further detail.

Sincerely,



Brian Winges
DigniCare Development


COUNTY ROAD D EAST
12" D.I.P.
OE
EASEMENT
BUILDING SETBACK
15'
30'
24'
4'
45'
14'
16'
6'
45'
SIDEWALK
25'
10.58'
110'
9'
6'
PROPOSED BUILDING
10 PARKING
STALLS PROVIDED
20'
30'
85'
33' EASEMENT
36.46'


1
2
3
4
TRUSS BEARING
FLOOR PLAN
T.O. FOOTING
A
B
C
D
E
F
TRUSS BEARING
FLOOR PLAN
T.O. FOOTING
4
3
2
1
TRUSS BEARING
FLOOR PLAN
T.O. FOOTING

Jason Lindahl, AICP

Community Development Director

City of White Bear Lake

4701 Highway 61 N.

White Bear Lake, MN 55110

Jason,

I am writing to complete the Neighborhood meeting requirement and process and inform you and the city of the results not only of the neighborhood meeting but also of my efforts to meet individually one-on-one with those neighbors immediately adjacent to the subject parcel (2687 County Rd D).

The invite letters were mailed out between the 2nd and the 4th of March . The meeting was held as scheduled on March 15 at 6:30 pm at the Lakewood place Apartment meeting room at 3100 Glen Oaks Ave per the invitation . Present for DigniSuites were Brian Winges and Paul Bruggeman available to answer questions with 11X 17 printouts of the rough estimate of the site plan and elevation as shown in the initial review application as well as a color elevation of a similar 1 story 24 unit Suite Living community recently developed by the developers to give some idea of past finishes used in past projects.

No neighbors showed up for the meeting , however Ms. Ashton Miller (city planner) and Mr. Kevin Edberg (Council member ward 4) did attend and mainly had no negative comments to share. Mr. Edberg looked forward to further review of the project.

During the days preceding the meeting I personally visited the following neighbors and received no negative feedback and in fact was met with generally positive reactions for the use we are proposing for the site.

John Belisle Belisle Development	2735 County Rd D
Mathew Wagner	3150 Hidden Lake Pointe Dr.
Eustolio Benavides	3147 Hidden Lake Pointe Dr.
Ron and Cynthia Domin	3162 Hidden Lake Pointe Dr. (also resent invite to Hidden lake association members)
William Chapman	3149 Hidden Lake Pointe Dr.
Intn'l Union Operating Engineers	2722 County Rd D

I met with all but one of the owner/tenants in the office park encompassing 2728,2730,2732,2734,2736 Co Rd D and all had positive comments about the project as a good use for the site.

I did not request signatures at the meeting nor as I met with the neighbors yet if necessary, several offered their support if we needed it.

Thank you for your time and consideration ,

Brian Winges

CC: Ashton Miller – City Planner