

City of Ramsey
Agenda
Economic Development Authority (EDA)
Thursday, July 9, 2015
7:30 am
Lake Itasca Room, 7550 Sunwood Drive NW

- 1. Call to Order**
- 2. Approve Agenda**
- 3. Approve Minutes**
 1. Approve the Following Meeting Minutes:
 - 1) EDA Regular Meeting - June 4, 2015
- 4. EDA Business**
 1. Consider Multiple Actions Related to a Potential Life Fitness Expansion and Redevelopment Project
 2. Review Future Business Park Infrastructure Analysis Preliminary Report
 3. Business of the Year
 4. EDA Updates
- 5. Member/Staff Input**
- 6. Adjournment**

Economic Development Authority (EDA)

3. 1.

Meeting Date: 07/09/2015

By: Jo Thieling, Administrative Services

Title:

Approve the Following Meeting Minutes:

- 1) EDA Regular Meeting - June 4, 2015

Purpose/Background:

Purpose: The purpose is to approve the meeting minutes for the EDA meeting held the prior month.

Background: The meeting minutes are attached for review and approval.

Notification:

Observations/Alternatives:

Funding Source:

Recommendation:

Action:

Motion to approve the following EDA meeting minutes:

- 1) EDA Regular Meeting - June 4, 2015
-

Attachments

EDA Mts 060415

Form Review

Form Started By: Jo Thieling
Final Approval Date: 06/23/2015

Started On: 06/23/2015 01:02 PM

**ECONOMIC DEVELOPMENT AUTHORITY
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA**

The City of Ramsey Economic Development Authority (EDA) conducted a regular meeting on Thursday, June 4, 2015, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present: Chairperson Jim Steffen
 Member Brian Burandt
 Member Glen Hardin
 Member Chris Riley
 Member Wayne Skaff
 Member Kristine Williams

Members Absent: Member Philip Brunt

Also Present: Patrick Brama, Econ. Dev. Mgr/Assistant City Administrator
 Tim Gladhill, Development Services Manager
 Mark Riverblood, Parks and Assistant Public Works Superintendent
 Kurtis Ulrich, City Administrator

1. CALL TO ORDER

Chairperson Steffen called the Economic Development Authority meeting to order at 7:30 a.m.

2. APPROVE AGENDA

No changes made

Motion by Member Skaff, seconded by Member Riley, to approve the agenda.

Motion carried. Voting Yes: Chairperson Steffen, Members Skaff, Riley, Burandt, Hardin, and Williams. Voting No: None. Absent: Member Brunt.

3. APPROVE MINUTES

3.01: Approve Meeting Minutes Dated April 12, 2015

Motion by Member Riley, seconded by Member Skaff, to approve the April 12, 2015, minutes as presented.

Motion carried. Voting Yes: Chairperson Steffen, Members Riley, Skaff, Burandt, Hardin, and Williams. Voting No: None. Absent: Member Brunt

4. EDA BUSINESS

4.01: Consider Dominion Development & Acquisitions, LLC Letter of Intent

Econ. Dev. Mgr/Assistant City Administrator Brama presented the staff report and asked the Commission to consider the Letter of Intent from Dominion Development & Acquisitions, LLC. He noted this item could be discussed in a Closed Session if the Commission wished.

Ms. Stacie Kvilvang, Ehlers and Associates, outlined the threshold they put together regarding this item.

Econ. Dev. Mgr/Assistant City Administrator Brama stated they reviewed this document in detail with Ehlers and reviewed the LOI with Dominion and when they talk about a market comparable deal they would be looking at closer to \$10,000 per unit and a total of 4-6 percent of the total project as a subsidy from the City, over 15 years of TIF. Those are the types of thresholds they want to see as a maximum in LOI or at least have Dominion approach those market averages and then bring the LOI back to the City. This is what was discussed and what staff is recommending to go back with to Dominion.

Chairperson Steffen asked if the deferred development fee was \$1.9 million dollars and would they have that out of the project by the time the permitting and financing is done or is it deferred longer than that.

Ms. Kvilvang stated typically it is paid out of cash flow and depends on what the cash flow is. Sometimes it can take up to ten years to get the deferred development money back. It depends on how the project is performing.

Member Riley stated he would like to hear why Ms. Kvilvang was listed as a reference and what her relationship is with Dominion.

Ms. Kvilvang stated she was listed as a reference because she has worked with Dominion in so many cities on different projects and has looked at their projects for assistance. They know she understands the process of how tax credits are financed and also understands the public process of policy on the other end. She stated Dominion viewed her as a fair judge of their projects.

Chairperson Steffen asked what Ms. Kvilvang's experience is working with Dominion.

Ms. Kvilvang reviewed her work experience with the Commission.

Chairperson Steffen asked if the City had a counter offer in mind in terms of how they would respond to this.

Econ. Dev. Mgr/Assistant City Administrator Brama suggested staff would work with Ehlers and would discuss the 15 year maximum TIF rules and the maximums that are outlined in this document. Staff would provide feedback to Dominion that the City is looking for something

that would be within market and would work side by side with Ehlers to put that together. Staff is comfortable taking that and bringing back for consideration. That is one alternative, or the EDA and City Council can discuss a specific counter offer with specific thresholds.

Chairperson Steffen felt the PSD project was similar in size and he wondered how they can do it without a subsidy and Dominion says they are 2.6 million dollars short.

Econ. Dev. Mgr/Assistant City Administrator Brama stated there are restrictions through affordable independent senior housing projects so the rents are capped and the cash flows are capped. When cash flows are capped there is less money to work with so in order to make the project work, especially if it is going to be a high quality project, it needs to be made up somewhere. Often times it is made up through grants, tax credit programs or local assistance.

Ms. Kvilvang agreed and stated affordable housing rents are capped so they are at a dollar a square foot in rent compared to \$1.60 to \$2.00 a square foot. The difference is what the City is making up. If they came in and built at market they would probably need less assistance or none at all. In the metropolitan area, if the developer is not charging \$1.80 to \$2.00 a square foot for the quality of development people want to see, they will be providing assistance. There are very few markets where that happens.

Member Williams asked if this number of senior assisted housing is part of the Comprehensive Plan.

Development Services Manager Gladhill stated the County HRA did a senior housing study recently, which looked at senior housing needs for the area, including assisted living and senior independent. What is being proposed now is not assisted living but independent senior living with that affordability. To tie that with their Comprehensive Plan and Housing Assistance Policy, they try to rank at least the types of housing they would consider assistance for, their number one priority was senior independent.

Member Williams asked if they want it in that location because this type of residential development does not support the retail on that corner and will not drive more trips or improve the retail offerings or commercial viability of the rest of their development. Before the City even talks about whether or not assistance should be given, it should be decided if this is the right location for the senior assisted housing.

Econ. Dev. Mgr/Assistant City Administrator Brama stated, based on the feedback from Dominion, it is his understanding that there are income restrictions from the people that rent these units and many will be retired. What he has been told by Dominion is that the seniors do have disposable income and they will be putting money into the local economy.

Member Williams indicated that was not her issue; there could be luxury apartments there and she would ask the same question. She did not think it was driving additional trips or increasing the commercial offerings that are available in the COR. She stated this is a residential development, which may compliment but not in the same way that another retail offering would.

Ms. Kvilvang stated residential does drive commercial and if they do not have residential nearby, commercial businesses will not want to populate the area and it will be harder to build out.

Chairperson Steffen asked if they had a preference of senior living market rate versus senior living affordable, wouldn't they choose senior living market rate.

Member Skaff thought they had that already since there are seniors living in The Residence at the COR who can afford that rent structure and the same can be said of the PSD environment.

Chairperson Steffen stated with senior living market rate, the City would not be providing as much assistance. Staff indicated that was correct.

Chairperson Steffen stated he would be in favor of proceeding and see where this goes and agreed that they were not in the position to invest too many dollars.

Member Williams thought the Council would appreciate the thoughts of the EDA on how they feel this could fit into the subsidy policy as a whole and what this looks like in relation to other subsidies that have been offered for residential developments in the COR and thoughts around whether or not commercial is something they should debate.

Member Skaff agreed with Ms. Kvilvang that rooftops do make a difference when looking at trying to drive more retail across the street. He thought it would enhance the area and he was fine with the idea of retail across the street as planned and since they have two residences along that side already, this will fit in.

Member Riley stated he values what this group comes up with and he gets to discuss this item again at the City Council level. He stated the EDA has a slightly different process and a different angle. He thought if they could come up with a decision that makes sense from the EDA standpoint, that possibly the Planning Commission or Council may not agree with for other reasons. One other consideration is he did not think residents were excited about more apartments coming into this area. They want shopping and restaurants and residents wonder why the City is considering filling the area with more residential. If residents are not interested in more apartments, they would not be happy with the City providing subsidy to another apartment development. This is something that could be considered at the EDA level but will be discussed at a higher level also.

Chairperson Steffen stated he was struggling with the Master Plan and why it was designated to be commercial. He wondered if there was any rationale on why the Master Plan was created that way.

City Administrator Ulrich stated this is highway frontage and Highway 10 visibility is important to commercial so to a certain extent they started with the commercial corners as the most valuable pieces and the second most valuable is having the visibility and exposure to Highway 10.

Development Services Manager Gladhill stated the plan is more of a snapshot in time and meant to be flexible. It was an estimation of what it could look like.

Econ. Dev. Mgr/Assistant City Administrator Brama stated if there is a high level of interest in this project, staff plans on bringing it forward to the Planning Commission to do a full blown land use review, which would eventually make its way to the EDA and City Council. What they are proposing is if there is interest in this project, to move forward with the LOI and as soon as they receive it back they will go through a detailed review with the Planning Commission, the EDA and the City Council.

Member Riley stated he appreciated the work staff has done. He stated if the current ask was the final answer, he knew what his answer would be. If Dominion came down to a reasonable ask, then they can have a discussion. He did not want to see the developer try to find out how much the City is willing to subsidize and then have the developer figure out how little they would need to put in. He felt this was a backwards way to approach this. He wanted to figure out what is the most the developer can put into it and then if there is a real funding gap, the City would then consider this. He felt this was where the EDA could help the Council out a lot. He did not like the way Dominion went about doing this.

Chairperson Steffen did not think they were opposed to it at the concept level. He did not think they wanted to put a lot of time and effort into researching this but he thought they could go back to Dominion with a counter offer and leave it to staff and Ehlers to come up with the details and then have the Planning and Zoning Commission have a discussion.

The EDA Board Agreed.

4.02: Consider Purchase Agreement with WESTCO Properties LLC

Econ. Dev. Mgr/Assistant City Administrator Brama presented the staff report and asked the Commission to consider the Purchase Agreement with WESTCO Properties, LLC. He noted this item could be discussed in a Closed Session if the Commission wished.

Chairperson Member Steffen felt they should go into a Closed Session if they were going to discuss a counter offer.

Motion by Member Skaff, seconded by Member Hardin to move to a Closed Session.

Further discussion: Member Riley agreed there should be a discussion about a counter offer but he was not sure it should be discussed at this level because if they discuss it now it will potentially need to be discussed again at the City Council level. Chairperson Steffen asked if Council and staff are just looking for a recommendation from the EDA for the City Council to consider a counter offer. Econ. Dev. Mgr/Assistant City Administrator Brama stated that was up to the Board to decide and if the Board would like to discuss the specifics, staff would take that direction; however, if the Board is comfortable moving forward with that general direction staff would be happy to move it on to the City Council. Commissioner Skaff did not recall that the Board ever developed a counter offer in specific dollar terms.

The motion was withdrawn.

Chairperson Steffen thought the Board was unanimous a couple of months ago in thinking that this was a great project and he did not think that has changed but it stuck him that the price is now half of what it was two months ago and he did not know why they would be in agreement with that. It seems like a counter offer would make sense.

The Board directed staff to bring this item forward to the City Council for review and a possible counter offer.

4.03: Consider Recommending the City Council Authorize the City's Economic Development Manager to Complete the NDC EDFP Certification

Econ. Dev. Mgr/Assistant City Administrator Brama presented the staff report and requested the Commission consider recommending the City Council authorize him to complete the NDC EDFP Certification.

Administrator Ulrich thought this was a great certification program and a good investment. He suggested this was top notch training. He recommended they move forward and approve this.

Administrator Ulrich reviewed the tuition reimbursement plan with the Board.

Chairperson Steffen asked if Econ. Dev. Mgr/Assistant City Administrator Brama was in agreement to repay the tuition if he left the City within six months.

Administrator Ulrich stated that would be the agreement and he would suggest this be put in writing. They do not have it in their tuition policy but it would make sense to get that commitment in writing.

Member Skaff recommended the City move forward with this.

Motion by Member Skaff, seconded by Member Burandt, to recommend to City Council to authorize the City's Economic Development Manager to complete the National Development Council's (NDC) Economic Development Finance Professional (EDFP) Certification Program in 2016.

Further discussion: Member Riley thought this was a good idea; however, in one year Econ. Dev. Mgr/Assistant City Administrator Brama will be gone one month for the training. He asked if in one year, Mr. Brama's duties will be able to be covered by someone else. He stated the time is not covered in the cost. Econ. Dev. Mgr/Assistant City Administrator Brama stated there are several classes offered throughout the year and because of the flexibility for scheduling the classes, the calendar, events, projects and his workload would be considered and they would adjust accordingly. He thought they should cover the workload adequately. He would also plan to work on his duties in the evenings and respond to emails for hot items going on in the City. Chairperson Steffen asked if the program needed to be done in a 12 month period. Econ. Dev.

Mgr/Assistant City Administrator Brama stated it did not. Administrator Ulrich stated there is access during the day to check emails and work on City items while taking the courses but it would be a balancing act. Maybe after taking the first course, Econ. Dev. Mgr/Assistant City Administrator Brama's schedule would need to be adjusted but he felt they could monitor that as it goes along.

Motion carried. Voting Yes: Chairperson Steffen, Members Skaff, Burandt, Hardin, Riley, and Williams. Voting No: None. Absent: Member Brunt.

4.04: Review Relationship of Parks and Trails to Economic Development and Consider Concert Sponsorship

Parks and Assistant Public Works Superintendent Riverblood presented the staff report.

Chairperson Steffen thought sponsorship arrangements were a little different this year in terms of not sponsoring specific dates.

Mr. Riverblood agreed and stated they have attempted to provide more advertising for the sponsors at each event rather than trying to align a particular sponsor with a particular week. He passed out an event sheet with sponsor list to the Members.

Member Hardin asked if the annual budget is more than \$13,000 or are the performer fees \$13,000.

Mr. Riverblood stated each year they count the number of heads at each concert and it has gone up thirty percent each season. With that, it has provided the City the opportunity to step up the quality of the acts and bands and he thought the incline in participation has been due to the quality of the performers and how well they are running the concerts. They did not go into this with a budget in mind but rather lined up performers they thought the community would appreciate.

Member Hardin wondered what the overall cost to the City would be.

Mr. Riverblood stated the City Council looked at the actual costs for all of the community events and he was not sure what the full cost accounting was for the concerts. He did not think it was too high. He noted his time and his assistant's time is absorbed in the Park operating budget. \$13,000 will go to the performers and then some of the other organization is done by the foundation member's volunteers and the balance is handled within the parks operating budget.

Member Hardin asked what the shortfall is now for the amount they have been able to raise through sponsorship for the performers.

Mr. Riverblood stated it is under \$2,000, around \$1,500, which is assuming the EDA would contribute \$1,500. If the EDA chooses to not provide funding for the concerts the shortfall would be more than \$2,000 and closer to \$3,000 of the \$13,000 for the performers.

Motion by Member Steffen, seconded by Member Hardin, to approve \$1,500 for the Draw Summer Event Series, and direct staff to proceed with the program of Business of the Year for 2015.

Further discussion: Member Riley stated they are utilizing this as a business of the year and to recognize a business they decide to highlight. He suggested that is what makes it appropriate for the EDA to donate to and without that he thought it would seem more appropriate for another City Department.

Chairperson Steffen thought they could look at having the business of the year incorporated into one of the nights and maybe have their logo on the banner. He stated they will work with Mr. Riverblood to make that happen.

Motion carried. Voting Yes: Chairperson Steffen, Members Hardin, Burandt, Skaff, Riley, and Williams. Voting No: None. Absent: Member Brunt.

4.05: EDA Updates

Econ. Dev. Mgr/Assistant City Administrator Brama reviewed purchase agreements and prospects along with various other items with the Commission.

5. MEMBER / STAFF UPDATE

Ms. Nicole Wenberg updated the EDA on the status of the annual golf tournament.

The EDA reviewed the Staff Update.

Member Burandt wondered why they are not sending Econ. Dev. Mgr/Assistant City Administrator Brama to the EDEM and Minnesota Marketing Environment Meetings because he felt the networking was invaluable.

Chairperson Steffen indicated they are not a member and they would need to become a member in order to have Econ. Dev. Mgr/Assistant City Administrator Brama attend these meetings.

Econ. Dev. Mgr/Assistant City Administrator Brama thought that was a good idea and would be willing to look into this to figure out what the costs would be and bring this back to the next EDA meeting for review. He thought this was something they should start pursuing.

6. ADJOURNMENT

Motion by Member Steffen, seconded by Member Hardin, to adjourn the meeting.

Motion carried. Voting Yes: Chairperson Steffen, Members Burandt, Skaff, Hardin, Riley, and Williams. Voting No: None. Absent: Member Brunt.

The regular meeting of the Economic Development Authority adjourned at 9:07 a.m.

Respectfully submitted,

Kurtis G. Ulrich
City Administrator

ATTEST:

Patrick Brama
Econ. Dev. Mgr/Assistant City Administrator

Draft by Sue Osbeck
TimeSaver Off Site Secretarial, Inc.

Meeting Date: 07/09/2015

Submitted For: Patrick Brama, Administrative Services

By: Patrick Brama, Administrative Services

Title:

Consider Multiple Actions Related to a Potential Life Fitness Expansion and Redevelopment Project

Purpose/Background:

PURPOSE

Consider multiple actions related to a potential Life Fitness expansion and redevelopment project. In summary, the proposed project includes: (1) construction of a new \$4M - 48,325 square foot expansion on the existing Life Fitness property in Ramsey; and (2) \$585,000 acquisition and clean-up of the Health Quest property to prepare Life Fitness for their future second expansion in Ramsey.

Life Fitness has asked the City to investigate all financial incentives available for this project (see attached cover letter). Specifically, Life Fitness is interested in tools that will help overcome costs associated with the purchase and clean up the Health Quest property (redevelopment costs).

STEP 1 (this case): begin process to establish a new TIF district, apply for State funds and begin underwriting project. The purpose of this case is not to "award" any financial incentives to Life Fitness. However, this case begins the State required public process to "allow" the City to award financial incentives to Life Fitness in the future.

STEP 2 (future case): review underwriting of project, consider authorization to establish a new TIF district, consider awarding TIF agreement/ business subsidy agreement (which will include a specific amount of TIF), and consider awarding DEED program incentives.

BACKGROUND (proposed project)

This project includes three individual parcels. The first two parcels, totaling 17.12 acres are currently owned by Life Fitness (Brunswick Corporation). These two contiguous parcels are home to a 280,000 square foot state-of-the-art Life Fitness manufacturing facility. Life Fitness currently employs about 300 full-time and nearly 100 part-time people at their Ramsey facility. This facility is responsible for manufacturing Life Fitness (<http://www.lifefitness.com/index.html>) and Hammer Strength (<http://www.lifefitness.com/commercial/hammerstrength.html>) brand exercise equipment. Life Fitness is owned by Brunswick Corporation (<http://www.brunswick.com/>), a publicly traded company based out of Lake Forest, Illinois, with a market capitalization of \$4.88 billion and \$119M in world-wide sales for 2014 (NYSE: BC).

In addition to their primary facility in Ramsey, Life Fitness leases approximately 60,000 square feet of warehouse space in Coon Rapids. In order to improve their operations process and more effectively manufacture their products, Life Fitness would like to consolidate their Minnesota operations in into one facility—their Ramsey facility. This will require an expansion on their existing site in Ramsey. Currently, Life Fitness has space for a 48,325 square foot expansion on their existing Ramsey site. This proposed expansion is referred to as *Expansion #1* and would increase the size of the existing Life Fitness building in Ramsey from 280,000 square feet to 328,500 total square feet.

Life Fitness has indicated *Expansion #1* will result in the creation of 26 new full-time jobs paying a minimum \$16.85 per hour (with an additional \$7.08 of benefits per hour) over the course of two years. Life Fitness would like to begin construction on *Expansion #1* August 26, 2015. *Expansion #1* is anticipated to be completed by spring 2016.

In addition to *Expansion #1*, outlined above, Life Fitness would like to prepare for a second expansion of their Ramsey facility (*Expansion #2*). Because their existing site does not have sufficient space available for *Expansion #2*, additional land is required. Life Fitness has targeted a 3.0 acre, bank-owned, parcel located directly south, and adjacent to their existing Ramsey facility for *Expansion #2*. This property is currently home to a 20,000 square foot vacant/ blighted former health club known as Health Quest. It is estimated, acquiring the Health Quest property for *Expansion #2*, will allow for construction of a 50,000-60,000 square foot future expansion of the primary Life Fitness facility.

Securing the Health Quest property does result in significant redevelopment costs for Life Fitness; including property acquisition \$450,000, demolition and site clean-up \$85,000, and capping of nearly 90 geo-thermal wells \$50,000.

In summary, the proposed project includes: (1) construction of a new \$4M - 48,500 square foot expansion on the existing Life Fitness property in Ramsey; and (2) \$585,000 acquisition and clean-up of the Health Quest property to prepare Life Fitness for their future second expansion in Ramsey.

BACKGROUND (Why are incentives being requested?)

This project removes a 20,000 square foot, blighted, bank-owned, building that has sat vacant, and available for purchase, since 2004 (Health Quest property). In order to develop the Health Quest property, significant redevelopment costs need to be overcome; including: acquisition of a property that carries an existing building (\$425,000), demolition and site clean-up (\$71,000), and capping of 90 geo-thermal wells (\$46,000). Based on discussion with the current Health Quest property owner, and prospects previously interested in the Health Quest property, redevelopment costs outlined above have created a barrier to private market to reuse this property.

BACKGROUND (Tax Increment Financing)

Because of the significant redevelopment costs identified above, Staff (along with our professional advisors) have identified a "*Renovation & Renewal TIF District*" as an applicable incentive. This tool would allow the City to capture 15 years of tax increment from the construction of *Expansion #1* and redirect said dollars to the redevelopment of the Health Quest Property. It is estimated about \$350,000 could be captured over 15 years (\$220,000 present value based on 5.5% interest).

For more information on TIF, please see the attached LMC TIF Information document (Section E, pages 15-19). Also attached is State Statute related to a *Renovation & Renewal District*. The purpose of this case is to begin the legal public process, as guided by State Statute, to establish a TIF District. The purpose of this case is not to "award" TIF to Life Fitness. However, this case begins the process to "allow" the City to award TIF to Life Fitness in the future. Attached is a timeline for the establishment of a TIF District.

BACKGROUND (DEED, Job Creation Fund (JCF))

The State of Minnesota, Department of Employment and Economic Development, has indicated this proposed project would qualify for JCF dollars. JCF awards are provided based on two performance measurements: (1) job creation and (2) capital investment. Based on conversations with DEED Staff, it is anticipated this project could receive \$200,000+ from the State. The first step in this process is to apply--attached is an application.

It should be noted, private businesses cannot directly apply for DEED incentives. DEED requires a local municipality to apply on behalf of the benefiting business.

For more information on the State JCF program, please visit this link:
<http://mn.gov/deed/business/financing-business/deed-programs/job-creation-fund.jsp>.

BACKGROUND (Why would Ramsey consider incentives?)

This project enhances the City of Ramsey's economic base by securing the operation of a Fortune 500 company's manufacturing facility within Ramsey, Minnesota for the foreseeable future. The Life Fitness facility currently generates significant property taxes (about \$150,000 annually) and significant jobs (greatest number of jobs in Ramsey, about 300 FT and about 100 PT. Life Fitness is nearly out of space to grow on their existing site in Ramsey.

By completing the currently proposed project, the City of Ramsey will see significant tax base and job growth into the foreseeable future (*Expansion #1* and *Expansion #2*). Additionally, the City would see the removal of a blighted and vacant building located on highly visible intersection. This effort accomplishes the Ramsey EDA's three major goals: job creation (26+ plus jobs over two years), tax base creation (\$73,873 total property taxes, *Expansion #1 only*), and improvement to the quality-of-life within our community (removal of a blighted building).

By not completing this project, it would be logical for Life Fitness to consider a new, long-term, location for their manufacturing facility. Additionally, the Health Quest property would likely remain in its current state for the foreseeable future

Notification:

NA

Observations/Alternatives:

Attached:

Concept Map
Business Subsidy/TIF Application (City of Ramsey)
TIF Timeline (Ehlers)
TIF Information (League of Minnesota Cities)
TIF Information (State Statute)
TIF Run (Ehlers)
Job Creation Fund Application (DEED)
Cover Letter (Life Fitness)
Business Subsidy Policy
Business Subsidy Test
Resolution Calling for Public Hearing to Modify Development District 1, and Creation of TIF District 15
Resolution Supporting an Application to MN DEED on Behalf of Life Fitness for the JCF Program

Business Subsidy Policy Review:

Staff reviewed the proposed Life Fitness project in the context of the City's adopted "*Business Subsidy Policy*." Based on State Statute and the City's 2009 adopted Business Subsidy Policy, this project is considered a business subsidy. As a result, a public hearing and annual reporting are required by the State.

Funding Source:

EDA Professional Services Account
Life Fitness Application Fee (\$7,500 received)
Tax Increment Financing (future increment proceeds, pay-go)
State of Minnesota DEED (State allocation)

Recommendation:

STEP 1 (this case): begin process to establish a new TIF district, apply for State funds and begin underwriting project. The purpose of this case is not to "award" any financial incentives to Life Fitness. However, this case begins the State required public process to "allow" the City to award financial incentives to Life Fitness in the future.

STEP 2 (future case): review underwriting of project, consider authorization to establish a new TIF district, consider awarding TIF agreement/ business subsidy agreement (which will include a specific amount of TIF), and consider awarding DEED program incentives.

Action:

MOTION TO:

Recommend City Council adopt Resolution #15-07-171 to call for a public hearing on August 25, 2015 to modify development district 1, create TIF district 15, and award a business subsidy.

-and-

Recommend City Council adopt Resolution #15-07-172 declaring the City of Ramsey's support of applying to the State of Minnesota Department of Employment and Economic Development Job Creation Fund program.

-and-

Direct Staff to accept a business subsidy application from Life Fitness and begin underwriting.

-and-

Recommend the City Council execute attached LHB contract for State required TIF district analysis; subject to review and amendments by the City of Attorney.

Attachments

Resolution 15 07 172 Support of Business Applying to the Job Creation Fund

Resolution 15 07 171 Calling for a Public Hearing for Development District Modification and Creation of TIF District 15

Site Map

Project Budget

Life Fitness MEMO

TIF Application (preview draft)

TIF Information (State Statute)

TIF Information (League of MN Cities)

TIF Analysis Work Order

TIF RUN 07082015 Phase 1

TIF Schedule

Job Creation Fund Information (DEED)

Job Creation Fund Application (example)

Form Review

Inbox	Reviewed By	Date
Diana Lund	Diana Lund	07/06/2015 01:08 PM
Kurt Ulrich	Kathy Schmitz	07/06/2015 02:21 PM
Patrick Brama	Patrick Brama	07/06/2015 02:28 PM
Kurt Ulrich	Kurt Ulrich	07/06/2015 05:04 PM
Patrick Brama	Patrick Brama	07/08/2015 10:39 AM
Form Started By: Patrick Brama		Started On: 07/02/2015 08:24 AM
Final Approval Date: 07/08/2015		

Councilmember XXXXX introduced the following resolution and moved for its adoption:

**CITY OF RAMSEY
ANOKA COUNTY, STATE OF MINNESOTA**

RESOLUTION #15-07-172

**RESOLUTION DECLARING THE CITY OF RAMSEY’S SUPPORT OF APPLYING
TO THE STATE OF MINNESOTA DEPARTMENT OF EMPLOYMENT AND
ECONOMIC DEVELOPMENT JOB CREATION FUND PROGRAM**

WHEREAS, the City of Ramsey, Minnesota (the “City”), desires to assist Brunswick Corporation, a Publicly Traded Corporation, which is proposing to construct an expansion facility in the City; and,

WHEREAS, the City of Ramsey understands that Brunswick Corporation, through and with the support of the City, intends to submit to the Minnesota Department of Employment and Economic Development an application for an award and/or rebate from the Job Creation Fund Program; and,

WHEREAS, the City of Ramsey held a city council meeting on July 14, 2015 to consider this matter.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF RAMSEY, ANOKA COUNTY, STATE OF MINNESOTA, as follows:

After due consideration, the Mayor, City Council, and City Administrator of the City of Ramsey, Minnesota, hereby express their approval of the project proposed by Brunswick Corporation and its application for an award and/or rebate from the Job Creation Fund Program.

The motion for the adoption of the foregoing resolution was duly seconded by Councilmember XXXXXXXX and upon vote being taken thereon, the following voted in favor thereof:

XXXXXXX

and the following voted against the same:

XXXXXXX

and the following abstained:

XXXXXXX

and the following were absent:

Councilmember XXXXX introduced the following resolution and moved for its adoption:

XXXXXXXX

Whereupon said resolution was declared duly passed and adopted by the Ramsey City Council this the 14th day of July, 2015.

Sarah Strommen, Mayor

ATTEST:

Jo Ann M. Thieling, City Clerk

Councilmember XXXXX introduced the following resolution and moved for its adoption:

**CITY OF RAMSEY
ANOKA COUNTY, STATE OF MINNESOTA**

RESOLUTION #15-07-171

**RESOLUTION CALLING FOR A PUBLIC HEARING BY THE CITY COUNCIL
ON THE PROPOSED ADOPTION OF A MODIFICATION TO THE
DEVELOPMENT PROGRAM FOR DEVELOPMENT DISTRICT NO. 1, THE
PROPOSED ESTABLISHMENT OF TAX INCREMENT FINANCING DISTRICT
NO. 15 (LIFE FITNESS) THEREIN AND THE ADOPTION OF A TAX
INCREMENT FINANCING PLAN THEREFOR, AND THE PROPOSED
GRANTING OF A BUSINESS SUBSIDY.**

BE IT RESOLVED by the City Council (the "Council") for the City of Ramsey, Minnesota (the "City"), as follows:

Section 1. Public Hearing. This Council shall meet on August 25, 2015, at approximately 7:00 P.M., to hold a public hearing on the proposed adoption of a Modification to the Development Program for Development District No. 1 and the proposed establishment of Tax Increment Financing District No. 15 (Life Fitness) therein and the adoption of a Tax Increment Financing Plan therefor, (collectively the "Program and Plan"), and the proposed granting of a business subsidy, all pursuant to and in accordance with Minnesota Statutes, Sections 469.124 to 469.133 and Sections 469.174 to 469.1794, and Minnesota Statutes, Sections 116J.993 to 116J.995, inclusive, as amended, in an effort to encourage the development and redevelopment of certain designated areas within the City; and

Section 2. Notice of Public Hearing and Filing of the Program and Plan. City staff is authorized and directed to work with Ehlers & Associates, Inc., to prepare the Program and Plan and to forward documents to the appropriate taxing jurisdictions including Anoka County and Independent School District No. 11. The City Administrator is authorized and directed to cause notice of the hearing, together with an appropriate map as required by law, to be published at least once in the official newspaper of the City not later than 10, nor more than 30, days prior to August 25, 2015, and to place a copy of the Program and Plan on file in the City Administrator's office at City Hall and to make such copy available for inspection by the public.

The motion for the adoption of the foregoing resolution was duly seconded by Councilmember XXXXXXXX and upon vote being taken thereon, the following voted in favor thereof:

XXXXXX

and the following voted against the same:

XXXXXX

and the following abstained:

XXXXXXX

and the following were absent:

XXXXXXX

Councilmember XXXXX introduced the following resolution and moved for its adoption:

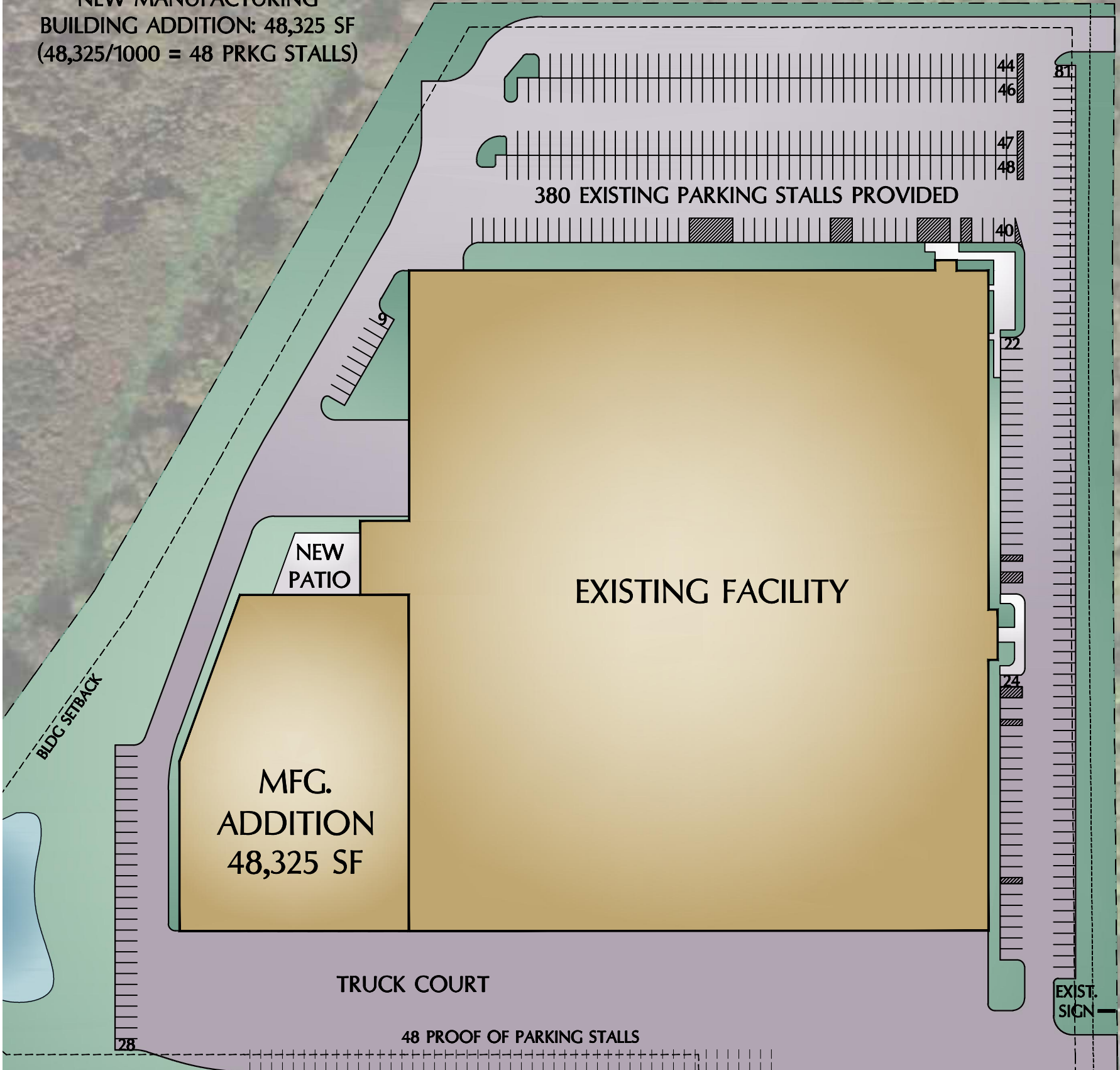
Whereupon said resolution was declared duly passed and adopted by the Ramsey City Council this the 14th day of July, 2015.

Sarah Strommen, Mayor

ATTEST:

Jo Ann M. Thieling, City Clerk

NEW MANUFACTURING
BUILDING ADDITION: 48,325 SF
(48,325/1000 = 48 PRKG STALLS)



LIFE FITNESS FACILITY EXPANSION

Life Fitness Project

Health Quest Property

Site Acquisition	\$ 450,000.00
Demolition and Clean Up	\$ 71,000.00
Thermal Wells Capping	\$ 46,000.00
Contingency/Other	\$ 75,000.00
<u>Sub Total</u>	<u>\$ 642,000.00</u>

Expansion #1

Construction Costs	\$ 4,000,000.00
Architect/Engineering/Legal/Permits	\$ 800,000.00
Contingency/Other (15%)	\$ 200,000.00
<u>Sub Total</u>	<u>\$ 5,000,000.00</u>



June 23, 2015

Patrick Brama
Economic Development Manger
City of Ramsey
7550 Sunwood Drive NW
Ramsey, MN 55303

Re: Life Fitness expansion project and potential purchase of the Health Quest property

Dear Mr. Brama:

The Life Fitness division of the Brunswick Corporation is proceeding with the planning required to expand our present facility located on Sunfish Lake Boulevard in addition to purchasing the adjacent Health Quest site. Our intention is to build onto our existing facility in the southwest corner with a 48,325 square foot expansion to be used for the manufacturing of our products. The property purchase of the Health Quest site is to acquire this land for future use.

Life Fitness would like to remove the existing Health Quest building and cap the geo thermal wells on the site after the purchase is complete. We would like to investigate all financial incentives that are available to help us finance this property purchase.

Currently, we are in the design phase of this project and expect corporate approval to proceed in mid-July.

Sincerely,

Scott Darsow
VP Global Manufacturing
Life Fitness

14150 SUNFISH LAKE BLVD
RAMSEY, MN 55303

LIFEFITNESS.COM | 763-323-4500

EXHIBIT A
BUSINESS ASSISTANCE APPLICATION

A. APPLICANT INFORMATION

Name of Corporation/Partnership Brunswick Corporation (Life Fitness)

Address 1 North Field Court, Lake Forest, Illinois 60045-4811 (14100 SUNFISH LAKE BLVD NW, RAMSEY, MN 55303)

Primary Contact Tom Howe, Senior Facilities Manager

Address 10601 West Belmont Avenue, Franklin Park, IL 60131

Phone 847-288-3564 Fax _____ E-mail Tom.howe@lifefitness.com

Type of business assistance requested (select one):

Tax Abatement Tax Increment Financing Revolving Loan Fund Other (checking with DEED)

Have you been, or are you currently, involved in any bankruptcy proceedings or lawsuits related to other development projects with which you have been involved? If yes, please provide an explanation.

Yes No

On a separate sheet, please provide the following:

Attorney Name ???

Address _____

Phone _____ Fax _____ E-mail _____

Contractor Name Bauer Design Build, LLC, Mike Bauer

Address 751 - 7th ST S Ste 100, Delano, MN 55328

Phone (612) 360-3209 Fax _____ E-mail mike.b@bauerdb.com

Engineer Name ???

Address _____

Phone _____ Fax _____ E-mail _____

Architect Name Mohagen/Hansen Architectural Group, Todd Mohagen

Address 1000 Twelve Oaks Center Drive, Suite 200, Wayzata, MN 55391

Phone 952.426.7401 Fax 952.426.7440 E-mail tmohagen@mohagenhansen.com

B. PROJECT INFORMATION

B.1, General

The project will be: (Check all that apply)

- Industrial: (New Construction Redevelopment/Rehab Expansion)
 Office/research facility: (New Construction Redevelopment/Rehab Expansion)
 Commercial: (New Construction Redevelopment/Rehab Expansion)
 Housing: (New Construction Redevelopment/Rehab Expansion)
 Other _____
-

The project will be: Owner Occupied Leased Space

- If leased space, please attach a list of names and addresses of future tenants and indicate the status of commitments or lease agreements. **Attach as Part 5.**

Project Address Life Fitness (existing site, two parcels)
 14100 SUNFISH LAKE BLVD NW, RAMSEY, MN 55303, 17.12 Acres
 Parcel #1: PID #27-32-25-44-0018, Legal N 486 FT OF LOT 1 BLOCK 1 BRUNSWICK ADDITION
 Parcel #2: PID #27-32-25-44-0019, Legal S 400.01 FT OF LOT 1 BLOCK 1 BRUNSWICK ADDITION

Life Fitness (new site/ current Health Quest)
 4100 SUNFISH LAKE BLVD NW, RAMSEY, MN 55303, 3.0 Acres
 PID #27-32-25-44-0012, LOT 1 BLK 1 GATEWAY NO IND PARK PLAT 3 SUBJ TO EASE OF REC

Include Legal Description and PID number(s). **Attach as Part 6.**
 (done, see above)

Site Plan Attached: Yes No

B.2, Project Narrative

This project includes three individual parcels. The first two parcels, totaling 17.12 acres are currently owned by Life Fitness (Brunswick Corporation). These two contiguous parcels are home to a 280,000 square foot state-of-the-art Life Fitness manufacturing facility. Life Fitness currently employs 300 full-time and nearly 100 part-time people at their Ramsey facility. This facility is responsible for manufacturing Life Fitness (<http://www.lifefitness.com/index.html>) and Hammer Strength (<http://www.lifefitness.com/commercial/hammerstrength.html>) brand exercise equipment. Life Fitness is owned by Brunswick Corporation (<http://www.brunswick.com/>), a publicly traded company based out of Lake Forest, Illinois, with a market capitalization of \$4.88 billion and \$119M in world-wide sales for 2014 (NYSE: BC).

In addition to their primary facility in Ramsey, Life Fitness leases approximately 60,000 square feet of warehouse space in Coon Rapids. In order to improve their operations process and more effectively manufacture their products, Life Fitness would like to consolidate their Minnesota operations in into one facility—their Ramsey facility. This will require an expansion on their existing site in Ramsey. Currently, Life Fitness has space for a 48,500 square foot expansion on their existing Ramsey site. This proposed expansion is referred to as *Expansion #1* and would increase the size of the existing Life Fitness building in Ramsey from 280,000 square feet to 328,500 total square feet.

Life Fitness has indicated *Expansion #1* will result in the creation of 26 new full-time jobs paying a minimum \$16.85 per hour (with an additional \$7.08 of benefits per hour) over the course of two years.

In addition to *Expansion #1* outlined above, Life Fitness would like to prepare for a second expansion of their Ramsey facility (*Expansion #2*). Because their existing site has no additional space available for an expansion, additional land is required. Life Fitness has targeted a 3.0 acre, bank-owned, parcel located directly south, and adjacent to their existing Ramsey facility for *Expansion #2*. This property is currently home to a 20,000 square foot vacant/ blighted former health club known as Health Quest. It is estimated, acquiring the Health Quest property for *Expansion #2*, will allow for construction of a 50,000-60,000 square foot expansion of the primary Life Fitness facility.

Securing the Health Quest property does result significant redevelopment costs for Life Fitness; including property acquisition \$450,000, demolition and site clean-up \$85,000, and capping of nearly 90 geo-thermal wells \$50,000.

In summary, the proposed project includes: (1) construction of a new \$4M 48,500 square foot expansion on the existing Life Fitness property in Ramsey; and (2) \$585,000 acquisition and clean-up of the Health Quest property to prepare Life Fitness for their future second expansion in Ramsey.

B.3, Property Taxes

Current Real Estate Taxes on Project Site:	\$7,966.700 Total Market Value
	\$157,834 Tax Capacity
	\$302,012 taxes

Estimated Real Estate Taxes Upon Completion:

Phase 1 (this project, 48,500 SF manufacturing):

	\$9,906.700 Total Market Value
	\$197,384 Tax Capacity
	\$375,885 taxes

Phase 2 (future project, 50,000 SF manufacturing):

	\$11,906,700 Total Market Value
	\$237,384 Tax Capacity
	\$452,042 taxes

Construction Start Date:	On or before, August 26, 2015
--------------------------	-------------------------------

Construction Completion Date	On or before, August 31, 2016
------------------------------	-------------------------------

C. PUBLIC PURPOSE OBJECTIVES

It is the policy of the City and EDA of Ramsey that the business assistance should result in a public benefit as identified in items 1-10 below. Please indicate how the proposed project will accomplish this by checking the appropriate boxes. **Attach additional narrative as Part 7.**

- 1. To encourage redevelopment.
- 2. To retain local jobs and/or increase the number and diversity of jobs that offer stable employment and/or attractive wages and benefits.
- 3. To enhance and/or diversify the City's economic base.
- 4. To encourage additional unsubsidized private (re)development.
- 5. To remove blight and/or encourage (re)development of commercial and industrial areas.
- 6. To create housing opportunities.
- 7. To provide a diversity of housing.
- 8. To provide a variety of family housing ownership alternatives and housing choices.
- 9. To promote neighborhood stabilization and revitalization by the removal of blight and the upgrading of existing housing stock in residential areas.
- 10. To accomplish other public policies which may be adopted such as the promotion of quality urban or architectural design, energy conservation, and decreasing capital and/or operating costs of local government.
 - Utilization of architectural and landscaping techniques that will enable the components of the project to blend with the natural environment.
 - Mitigation of project impact on the natural environment.

Public Purpose Narrative

This proposed project achieves four of the ten public purposes identified in the City of Ramsey's business subsidy application (#1, #2, #3, and #5). In summary, this project removes a blighted property, encourages redevelopment, and creates jobs.

This project removes a 20,000 square foot, blighted, bank-owned, building that has sat vacant, and available for purchase, since 2004 (Health Quest property). In order to develop the Health Quest property, significant redevelopment costs need to be overcome; including: acquisition of a property that carries an existing building (\$450,000), demolition and site clean-up (\$85,000), and capping of 90 geo-thermal wells (\$50,000). Based on discussion with the current Health Quest property owner, and prospects previously interested in the Health Quest property, redevelopment costs outlined above have created a barrier to private market to reuse this property.

Life Fitness has indicated this project will result in the creation of 26 new full-time jobs paying a minimum \$16.85 per hour (with an additional \$7.08 of benefits per hour) over the course of two years.

This project enhances the City of Ramsey's economic base by securing the operation of a Fortune 500 company's manufacturing facility within Ramsey, Minnesota for the foreseeable future (Life Fitness specifically). The Life Fitness facility currently generates significant tax base and jobs (greatest number of jobs and largest facility in Ramsey). Life Fitness is nearly out of space to grow on their existing site in Ramsey. By completing the currently proposed project, the City of Ramsey and Minnesota will see additional significant tax base and job growth into

the foreseeable future. By not completing this project, it would be logical for Life Fitness to consider a new, long-term, location for their manufacturing facility.

D. SOURCES & USES OF FUNDS
Attach additional information as Part 8

<u>SOURCES (Phase 1)</u>	<u>AMOUNT</u>
Bank Loan	\$ _____
Other Loans	\$ _____
Owner Equity	\$ _____
Fed Grant/Loan	\$ _____
State Grant/Loan	\$ _____
Industrial Development Bonds	\$ _____
Tax Increment Financing	\$ _____
Tax Abatement	\$ _____
Revolving Loan Fund	\$ _____
Other	\$ _____
TOTAL	\$ _____

<u>USES</u>	<u>AMOUNT</u>
Land Acquisition	\$ 450,000
Site Development (demo/ clean up)	\$ 135,000
Construction	\$ 4,000,000
Machinery & Equipment	\$???
Architectural/Engineering Fees	\$ _____
Debt Service Reserve	\$ _____
Contingencies	\$ _____
Other	\$ _____
TOTAL	\$ _____

Total Amount of business assistance requested (Revolving Loan Fund, Abatement, Tax Increment Financing or another source): \$??? (What is the financing GAP, or what are the abnormal development costs?) Simply asking for as much as possible will not suffice, a brief justification is requested.

Will this project be leased or owned by the applicant?: **Owned**

Will you be forming a separate, but affiliated LLC to own the new facility?: **No, it will be the same as the primary building—Brunswick Corporation**

BANK LOAN:**Source of loan(s):**

Name of bank: ????

Bank address: ????

Name of contact: ????

Phone number: ????

Email: ????

Terms:

Loan term (years): ????

Interest rate: ????

E. ADDITIONAL DOCUMENTATION AND CHECKLIST

Applicants will also be required to provide the following documentation.
All personal financial information will be kept private and confidential.

- 1. ~~Written business plan or a~~ description of the business/ corporation, ownership/ management, date established, products and services, and future plans.
- 2. Financial statements for past two years, including profit and loss statements and balance sheets.
- 3. Two year financial projections (brief overview of Ramsey facility).
- 4. ~~Personal financial statements of all major shareholders (principals) including the most recent 2 years of tax returns. (If requested.)~~
- 5. Letter of commitment from other sources of financing, stating terms and conditions of their participation in the project (only if third party bank used; if owner funded, statement from Life Fitness or Brunswick needed).
- 6. Application fee of \$7,500 (TIF Analysis, TIF Plan, But-for Analysis, Development Agreement). In addition to defraying the cost of staff time, the fee will be used to pay costs associated with processing this request for financial assistance such as legal, engineering and financial analysis. The City reserves the right to stop the processing of the request until additional fees are paid should the original amount be insufficient to pay such costs. That portion which remains unspent, if any, will be returned only if the project is denied approval.
- 7. Attach the following documentation:
 - _____ ~~Part 1— Corporation/Partnership Description~~
 - _____ ~~Part 2— List of Shareholders/Partners~~
 - _____ ~~Part 3— Description of Project~~ (City completed, in application)
 - _____ Part 4 – But For Analysis (City via Ehlers, future step, redevelopment costs)
 - _____ ~~Part 5— List of Prospective Lessees (If requested)~~
 - _____ ~~Part 6— Legal Description, Property Identification Numbers, maps of the project area, and project renderings~~ (City completed, in application)
 - _____ ~~Part 7— Public Purpose Narrative~~ (City completed, in application)
 - _____ ~~Part 8— Sources & Uses of Funds— Additional Information~~

The undersigned certifies that all information provided in this application is true and correct to the best of the undersigned’s knowledge. The undersigned authorizes the City and EDA of Ramsey to check credit references, verify financial and other information, and share this information with other political subdivisions as needed. The undersigned also agrees to provide any additional information as may be requested by the City after the filing of this application.

Applicant Name _____ Date _____

By _____

Its _____

2014 Minnesota Statutes

469.174 DEFINITIONS.

Subd. 10a. **Renewal and renovation district.**

(a) "Renewal and renovation district" means a type of tax increment financing district consisting of a project, or portions of a project, within which the authority finds by resolution that:

(1)(i) parcels consisting of 70 percent of the area of the district are occupied by buildings, streets, utilities, paved or gravel parking lots, or other similar structures; (ii) 20 percent of the buildings are structurally substandard; and (iii) 30 percent of the other buildings require substantial renovation or clearance to remove existing conditions such as: inadequate street layout, incompatible uses or land use relationships, overcrowding of buildings on the land, excessive dwelling unit density, obsolete buildings not suitable for improvement or conversion, or other identified hazards to the health, safety, and general well-being of the community; and

(2) the conditions described in clause (1) are reasonably distributed throughout the geographic area of the district.

(b) For purposes of determining whether a building is structurally substandard, whether parcels are occupied by buildings, streets, utilities, paved or gravel parking lots, or other similar structures, or whether noncontiguous areas qualify, the provisions of subdivision 10, paragraphs (b) through (f), apply.



HANDBOOK FOR MINNESOTA CITIES

**Chapter 15
Community Development and
Redevelopment**

Table of Contents

Community Development and Redevelopment.....1

Chapter 153

Community Development and Redevelopment.....3

I. Business subsidies or financial assistance.....3

 A. Business subsidies3

 B. Financial assistance4

II. City development tools.....5

 A. General city development powers5

 B. Housing and redevelopment authorities5

 1. Elements of an HRA.....5

 2. Area of operation for an HRA6

 3. HRA membership.....6

 4. HRA powers7

 5. HRA special assessment and levy authority.....7

 6. HRA contracting.....8

 7. HRA financing.....8

 8. HRA certifications to state9

 9. HRA federal certification9

 C. Economic development authorities9

 1. EDA levies.....9

 2. EDA loans10

 3. Other EDA powers10

 D. Port authorities11

 E. Municipal or area redevelopment agencies12

 F. City development districts.....12

 G. City industrial development13

III. Other development strategies14

 A. Housing bonds.....14

This material is provided as general information and is not a substitute for legal advice. Consult your attorney for advice concerning specific situations.

- B. Industrial parks 14
- C. Industrial revenue bonds..... 15
- D. Commercial rehabilitation..... 15
- E. Tax increment financing (TIF)..... 15
- F. Property tax abatement..... 19
- IV. State-sponsored development tools 20
 - A. Minnesota Housing Finance Agency..... 20
 - B. Department of Employment and Economic Development (DEED)..... 20
 - C. Enterprise Minnesota..... 22
 - D. Corporations 22
- V. Federal development tools..... 23
 - A. Community development block grants..... 23
 - B. Rural development grants..... 23
- VI. How this chapter applies to home rule charter cities..... 23



HANDBOOK FOR MINNESOTA CITIES

Chapter 15 Community Development and Redevelopment

Learn about the requirements for a city to establish criteria for awarding business subsidies and various development agencies cities may create. Find an overview of state and federally sponsored programs for encouraging development and redevelopment. Most economic development tools can be applied to any size city. These tools are interrelated, and a city may use several for one project.

RELEVANT LINKS:

[Minn. Stat. §§ 116J.993 to 116J.995.](#)
[Minn. Stat. § 116J.993, subd. 3.](#)

[Minn. Stat. § 116J.994, subds. 5, 11.](#)
[Minnesota Department of Employment and Economic Development \(DEED\).](#)

[Minn. Stat. § 116J.994, subd. 3.](#)

I. Business subsidies or financial assistance

A. Business subsidies

State law defines “business subsidy” or “subsidy.” It is a state or local government agency grant, contribution of personal property, real property, infrastructure, or the principal amount of a loan at rates below those commercially available to the recipient. In addition, a business subsidy is any reduction or deferral of any tax or any fee, any guarantee of any payment under any loan, lease, or other obligation, or any preferential use of government facilities given to a business in an amount greater than \$150,000.

Prior to awarding a business subsidy of more than \$150,000 (and as defined by law) to any business, a city and any Housing and Redevelopment Authority (HRA), Economic Development Authority (EDA), port authority, and nonprofit created by a local government must hold a public hearing and adopt criteria for awarding business subsidies. The public hearing notice must include a statement that either a resident or a city property owner may file a written complaint with the city if the city does not follow the business subsidy law. Written complaints must be filed within specified timelines. The criteria must include a policy regarding the wages to be paid for any jobs created. Copies of the criteria adopted by cities are found on the Minnesota Department of Employment and Economic Development (DEED) web site.

Once the criteria are established, the grantor and the recipient must enter into subsidy agreements that meet the statutory requirements. The agreement must include an obligation to repay part or the entire subsidy if the recipient does not meet its obligations.

This material is provided as general information and is not a substitute for legal advice. Consult your attorney for advice concerning specific situations.

RELEVANT LINKS:

[Minn. Stat. § 116J.993, subd. 3.](#)
[Minn. Stat. § 469.185.](#)

[Minn. Stat. § 116J.994, subd. 11.](#)

[Minn. Stat. § 116J.993, subd. 3.](#)

[Minn. Stat. § 116J.994, subds. 4, 7, 8.](#)

[Minn. Stat. § 116J.994, subd. 2.](#)
[Minn. Stat. § 116J.994, subd. 8.](#)

Types of assistance meeting the definition of a business subsidy include: grants; contributions of real or personal property or infrastructure; the principal amount of a loan at rates below those commercially available to the recipient; any reduction or deferral of any tax or any fee; any guarantee of any payment under any loan, lease or other obligation; or any preferential use of government facilities given to a business.

The law imposes a 180-day statute of limitations on actions to challenge a city after approval of a business subsidy agreement. Citizens or owners of taxable property in a city may bring a civil action against the city for failure to comply with the business subsidy laws. Cities should therefore consult closely with the city attorney before awarding a business subsidy.

There are several exceptions to this definition, including a subsidy of less than \$150,000; subsidies for redevelopment, pollution control and land clean up, housing, industrial revenue bonds, utility property tax abatements and other similar programs.

Recipients must provide grantors with information on their progress toward the goals outlined in the agreement. The goals for increasing jobs or retaining jobs must result in local job creation and job retention. Grantors must submit the annual Minnesota Business Assistance Form (MBAF) to the Department of Employment and Economic Development (DEED) by April 1 each year for each business subsidy agreement. Local government agencies in cities with a population of 2,500 or more must submit an MBAF, regardless of whether they have awarded business subsidies. Local government agencies in cities with a population of 2,500 or less are exempt from filing the MBAF if they have not awarded a subsidy in the past five years.

B. Financial assistance

Cities may offer “financial assistance” in the form of a business loan of more than \$25,000 or a guarantee of \$75,000 or more, but less than \$150,000 required to constitute a business subsidy. If a city offers such financial assistance it must develop criteria and set minimum wage floor levels as prescribed in business subsidy law. Cities granting such financial assistance must submit business assistance reports to the Department of Employment and Economic Development (DEED) within one year of granting the assistance.

RELEVANT LINKS:

[Minn. Stat. § 469.041.](#)

[Minn. Stat. § 469.192.](#)

[Judd Supply Co. v. Merchants & Mfgs. Ins. Co., 448 N.W.2d 895 \(Minn. Ct. App. 1989\).](#)

[Minn. Stat. §§ 469.001 to 469.047.](#)
[Minn. Stat. § 469.003.](#)

[Minn. Stat. § 469.003, subd. 1.](#)

II. City development tools

A. General city development powers

Cities have authority to aid and cooperate in the planning, construction, or operation of economic development, and housing and redevelopment projects. The following is a partial list of actions cities may take, with or without compensation:

- Dedicate, sell, convey, or lease any of its interests in any property or grant easements, licenses, or any other rights or privileges to an HRA.
- Furnish parks, playgrounds, recreational, community education, water, sewer, and drainage facilities or other works adjacent to or in connection with housing and redevelopment projects.

A statutory city, home rule charter city, economic development authority, housing and redevelopment authority, or port authority may make a loan to a business, a for-profit or nonprofit organization, or an individual for any purpose the entity is otherwise authorized to carry out under any of the laws cited.

Private development projects that receive public financial or other assistance will not necessarily become public projects that trigger competitive bidding or other state laws applicable to public works.

B. Housing and redevelopment authorities

The predominant method of delivering and administering housing and redevelopment programs in Minnesota is through a legal public agency, accountable to city government. A city may establish this public agency, which is often the HRA. There are more than 230 HRAs in Minnesota.

1. Elements of an HRA

An HRA is a public corporation with power to undertake certain types of housing and redevelopment or renewal activities. While state legislation conveys authority for housing and redevelopment in each city, it is up to the city council to formally establish an HRA before it can do business and use its powers. Once a council legally establishes an HRA, it may undertake certain types of planning and community development activities on its own with council approval.

To create a housing and redevelopment authority, the city council must, by resolution, make the following findings required by law:

RELEVANT LINKS:

[Minn. Stat. § 469.003, subds. 2, 4.](#)

[Minn. Stat. § 469.004, subds. 1, 2.](#)

[Minn. Stat. § 469.004, subd. 5.](#)

[Minn. Stat. § 469.003, subds. 5, 6.](#)

[24 C.F.R. 964.415.](#)

[Minn. Stat. § 469.003, subd. 7.](#)

[Minn. Stat. § 469.011, subd. 2.](#) [Minn. Stat. § 469.011, subd. 4.](#)

- Substandard, slum or blighted areas that cannot be redeveloped without governmental assistance; or
- A shortage of affordable, decent, safe, and sanitary dwelling accommodations available to low-income individuals and families.

The council must pass this resolution after a public hearing. A copy of this resolution must go to the commissioner of DEED.

2. Area of operation for an HRA

The area of operation of a city HRA is the corporate limits of the city. County and multi-county HRAs operate in areas that include all the political subdivisions within the county or counties, except they may not undertake any project within the boundaries of a city that has not adopted a resolution authorizing the county or multi-county HRA to exercise powers within that city.

Establishment of a county or multi-county HRA precludes the formation of city HRAs, unless the county or multi-county HRA and the commissioner of DEED agree to let the city form one.

3. HRA membership

An HRA consists of up to seven commissioners who are residents of the city. The mayor appoints and the council approves the members who serve five-year, staggered terms. City councilmembers often serve on the HRA. The entire membership of an HRA may consist of councilmembers.

Federal regulations require that at least one eligible resident be a member of a public housing agency board, which may be the HRA, an EDA or other public housing authority (PHA). This rule applies to any public housing agency that holds a public housing annual contributions contract with HUD or that administers Section 8 tenant-based rental assistance. The rule does not apply to state-financed public housing projects or Section 8 project-based assistance. A “small PHA exception” also exists.

The city clerk must file a certificate of appointment for each commissioner of a city HRA and send a certified copy to the commissioner of DEED.

State law allows the HRA to adopt bylaws. Commissioners may accept compensation of up to \$75 for each meeting they attend. Commissioners who are elected officials may receive daily payment for a particular day only if they do not receive any other daily payment for public service on that day. Commissioners who are public employees may not receive daily payment, but may not suffer loss in compensation or benefits as a result of their service.

RELEVANT LINKS:

[Minn. Stat. § 469.012, subd. 1.](#)

[Minn. Stat. § 469.001 – 469.047.](#)
[Minn. Stat. § 469.033, subd. 6.](#)

[Minn. Stat. § 275.70 to 275.74.](#)

[Minn. Stat. § 275.066.](#)

4. HRA powers

An HRA is primarily responsible for the planning and implementation of redevelopment and/or low-rent housing assistance programs within its area of operation. An HRA has all the powers necessary to carry out the state HRA Act, including but not limited to the following powers:

- To sue and be sued.
- To employ staff and an executive director.
- To undertake projects within its area of operation and to provide for the construction, reconstruction, improvement, extension, alteration, or repair of any project or part of a project.
- To sell, buy, own, and lease property by any means necessary, including the power of eminent domain.
- To cooperate with and use state and federal financial assistance programs.
- To develop rehabilitation and code enforcement techniques.
- To issue bonds for any of its corporate purposes backed by the pledge of revenues, grants or other contributions.
- To implement renewal or redevelopment programs using tax increment financing.
- To own, hold, improve, lease, sell or dispose of real or personal property.
- To designate substandard, slum or deteriorating areas needing redevelopment, and unsafe, unsanitary, and overcrowded housing.
- To make necessary expenditures to carry out the purposes of the HRA law.
- To develop and administer an interest reduction program to assist the financing of the construction, rehabilitation, or purchase of low- or moderate-income housing.

5. HRA special assessment and levy authority

HRA power to levy and collect taxes or special assessments is limited to the power provided in state law. Subject to a resolution of consent from the city council an HRA may levy a tax upon all taxable property within the city. (The council may give a consent that covers a series of years if they so choose or council may pass a resolution authorizing an HRA levy for a set amount of time, for example, the entire term of the bonds secured in part by an HRA levy and in part by a city levy.) State law recognizes the distinct nature of HRAs and designates them as “special taxing districts.” The maximum general allowable operational levy of HRAs is 0.0185 percent of the previous year’s estimated market value of all property in the city.

RELEVANT LINKS:

[Minn. Stat. § 469.107.](#)
[Minn. Stat. § 275.066.](#)

[Minn. Stat. § 469.012, subd. 4.](#)
[Minn. Stat. § 469.028.](#)

[Minn. Stat. § 469.015.](#)
[Minn. Stat. § 469.015, subd. 1a.](#)

[Minn. Stat. § 469.033.](#)
[Minn. Stat. § 469.034.](#)

[Minn. Stat. § 469.034, subd. 1.](#)

The city’s estimated market value is available from the county assessor. An HRA raises its own levy because it is a separate political subdivision and not a “local governmental unit.” Therefore, an HRA levy is not subject to levy limits but is subject to the 0.0185 percent market value limit. Levies collected by an HRA must be used only for purposes listed in the HRA Act.

There is crossover between HRA and EDA levies that can be confusing. Typically, EDAs are not authorized to levy taxes under state law. However, many city EDA-enabling resolutions adopt all the powers of an HRA, and then the EDA functions as a special taxing district under state law. If the enabling resolution so allows, the EDA levies a separate tax or “HRA levy” not subject to levy limits or city debt limits—but again subject to the 0.0185 percent of total city market value limit in state law. The city attorney may verify the structure and levy authority of each city’s HRA and/or EDA.

While HRAs have the legal authority to “do whatever is necessary and convenient” to implement redevelopment, they are subject to the ordinances and laws of the city. The city council must approve HRA plans before the housing and redevelopment authority may begin implementation.

6. HRA contracting

All HRA construction work and purchases of equipment, supplies or materials that involve expenditure of more than \$100,000 must be competitively bid. An HRA (and a city) may also use the “best value alternative.” There are limited exceptions to these requirements for emergencies and certain projects, such as parking ramps.

7. HRA financing

Operating funds, capital improvements, and debt retirement expenses for HRA projects may be financed by any one, or combination of, the following methods:

- Federal grants.
- Revenue bonds the HRA or local governing body sells.
- General obligation bonds the local governing body sells.
- Tax increments from redevelopment projects.
- A limited levy for redevelopment projects and planning activities.

When an HRA issues bonds, the revenue generated must be used for the projects financed, or bond costs must be paid from income generated by designated projects.

RELEVANT LINKS:

[Minn. Stat. § 469.003, subs. 4, 6.](#)
[Minn. Stat. § 469.003, subd. 7.](#)

[Minn. Stat. § 469.013.](#)

[Minn. Stat. §§ 469.090 to 469.1082.](#)
[Minn. Stat. § 469.1082, subd. 5.](#)
Minnesota Department of Employment and Economic Development: [The Economic Development Authorities Handbook.](#)

The law states that the principal and interest on bonds are payable exclusively from the income and revenues of the project financed with the proceeds of the bonds, or exclusively from the income and revenues of certain designated projects, whether or not they are financed in whole or in part with the proceeds of the bonds.

8. HRA certifications to state

The following documents relating to the establishment and activities of local HRAs must go to the DEED commissioner:

- Resolution of need.
- Certificates of appointment or reappointment of HRA commissioners.
- Project reports.
- Applications for federal assistance.
- Contracts with federal agencies.
- Redevelopment plans.
- Low rent public housing project and management plans.

In addition, annual financial reports must go to the state auditor.

9. HRA federal certification

In order for a local HRA to use federal Department of Housing and Urban Development (HUD) assistance programs, it must submit a transcript of organizational documents to the HUD area office.

C. Economic development authorities

All cities and townships have authority from the state Legislature to create economic development authorities. The city may consolidate the economic development authority (EDA) with an existing HRA or the city may grant the authority HRA powers. The city council may create an EDA by passing an enabling resolution. Before adopting the enabling resolution, the city must first conduct a public hearing. The enabling resolution establishes a board of commissioners for the EDA. The city council can choose to serve as the EDA board of commissioners or create a board composed of community members. The mayor, with approval of the council, appoints the commissioners. The board may consist of three, five or seven members who serve six-year terms. The board is subject to the open meeting law.

1. EDA levies

RELEVANT LINKS:

[Minn. Stat. § 275.70.](#)

[Minn. Stat. § 275.066.](#)

[Minn. Stat. § 469.192.](#)
[Minn. Stat. §§ 469.090 to 469.1082.](#)
[Minn. Stat. § 469.098.](#)

[Minn. Stat. § 469.101, subs 1, 2.](#)
[Minn. Stat. § 469.101, subd. 1.](#)
[Minn. Stat. § 469.102.](#)

The typical EDA levy is different from the HRA levy discussed above. It is not a levy raised by the EDA—it is a levy set by a city at the request of the EDA.

Basically, the city simply appropriates part of the money the city collects in the general city levy to the EDA. Because the EDA levy is part of the city levy, it is not a “special levy” under state law and thus the EDA levy is subject to the city’s overall levy limit. However, as noted above, many EDA-enabling resolutions adopt all the powers of an HRA. If so, the EDA may levy a separate tax or “HRA levy,” and then the EDA functions as a special taxing district as if it were an HRA and that levy is not subject to levy limits or to city debt limits. An EDA using the levy powers of an HRA is still limited to a levy no more than 0.0185 percent of the total taxable market value in the city.

2. EDA loans

An EDA is authorized to make a loan to a business, a for-profit or nonprofit organization, or an individual. Before taking an action or making a decision which could substantially affect an EDA commissioner's or an employee's financial interests or those of an organization with which the commissioner or an employee is associated, a commissioner or employee of an authority must comply with specific requirements to disclose the conflict and obtain prior approval. Failure to do so may result in criminal charges.

Loans must be for a purpose the EDA is authorized to carry out under the law. An authorized purpose must deal with or contribute to economic or industrial development. EDAs have the ability to use pooled bond reserving. In most development programs, each bond issue is independent of any other bond issue with a separate service or sinking fund account. EDAs, however, may create a single common bond reserve fund. Under this arrangement, each project’s revenues go into a common fund, which in turn pays the bondholders on all projects.

Through this pooling mechanism, the security of each project’s bond increases and borrowing costs decrease as long as the pool has the necessary volume and diversity of cash flow.

3. Other EDA powers

EDAs can acquire property and facilities but cannot issue debt without an election. The city must authorize the issuance of debt in the resolution creating the EDA. In addition, EDAs can create economic development districts but the districts must be contiguous.

RELEVANT LINKS:

[Minn. Stat. §§ 469.048-469.068](#), [Minn. Stat. § 469.053](#).

[Minn. Stat. § 469.050](#),
[Minn. Stat. § 469.051](#).

[Minn. Stat. § 469.051, subd. 2](#).

Current law eliminates the requirements that economic development districts established by EDAs meet the “blight test” under tax increment financing law for redevelopment districts.

EDAs may exercise powers under the housing and redevelopment authority (HRA) law (if a particular EDA enabling resolution includes HRA power) to create a redevelopment project, housing development, or housing project under which a restrictive blight test does not apply. These projects can be used for similar purposes to those of an economic development district under the EDA law.

D. Port authorities

The state Legislature authorizes city creation of port authorities. A port authority is a separate political entity with the right to sue and be sued in its own name and is generally organized to increase commerce in a city. Unlike EDAs and HRAs, a port authority may issue general obligation bonds without holding an election.

Cities establish a port authority by passing an enabling resolution. It may have from three to seven commissioners (two of whom must be on the city council) appointed by the mayor and approved by the city council, unless a different number or procedure is set out in the enabling law. State law governs commissioner pay, vacancies, duties, and port authority by-laws.

A port authority shall annually elect a president or chair, vice-president or vice-chair, treasurer, secretary, and assistant treasurer. A commissioner may not serve as president or chair and vice-president or vice-chair at the same time. The other offices may be held by one commissioner. The offices of secretary and assistant treasurer need not be held by a commissioner.

The treasurer of a port authority must be bonded to faithfully perform these duties:

- Receive and be responsible for port authority money.
- Be responsible for the acts of the assistant treasurer, if appointed.
- Disburse port authority money by check or electronic procedures.
- Keep an account of the source of all receipts, and the nature, purpose, and authority of all disbursements.
- File the authority’s detailed financial statement with its secretary at least once a year at times set by the authority.

RELEVANT LINKS:

[Minn. Stat. § 469.051, subd. 9.](#)

[Minn. Stat. §§ 469.048–469.068.](#)

[Minn. Stat. §§ 469.109 to 469.123.](#)

[Minn. Stat. § 469.110, subd. 11.](#) [Minn. Stat. § 469.111.](#)

[Minn. Stat. § 469.111.](#)
[Minn. Stat. § 469.115.](#)

[Minn. Stat. §§ 469.124 to 469.134.](#)

The port authority’s annual detailed financial statement must show all receipts and disbursements, their nature, the money on hand, the purposes to which the money on hand is to be applied, the authority’s credits and assets, and its outstanding liabilities. The authority must examine the statement together with the treasurer’s vouchers. If the authority finds the statement and vouchers correct, it shall approve them by resolution and record the resolution.

State law governs many other aspects of port authorities, including but not limited to use of city property by a port authority, employees, contracts, and audits. The city attorney also acts as the port authority’s attorney.

E. Municipal or area redevelopment agencies

Any rural municipality or group of municipalities may establish a public body, known as a municipal or area redevelopment agency, in and for the area the municipality covers. This law defines municipalities as home rule charter or statutory cities, counties, towns or school districts.

The law includes only rural areas, which generally means all areas that are not within the boundary of any city having a population of 50,000 or more, and not immediately adjacent to urbanized and urbanizing areas with a population density of more than 100 persons per square mile—or areas with an unemployment rate of 6 percent or more. The restrictions limit applicability of the law to rural areas and to the Iron Range.

The establishment of the municipal or area redevelopment agency is similar to the establishment of an HRA. A municipal or area redevelopment agency has similar powers to an HRA.

F. City development districts

Any home rule charter or statutory city may designate development districts within the boundaries of the city. Within these districts, cities may:

- Adopt a development program to acquire, construct, reconstruct, improve, alter, extend, operate, maintain or promote developments aimed at improving the physical facilities, quality of life, and quality of transportation.
- Promote pedestrian skyway systems.
- Install special lighting systems, street signs and street furniture, landscaping of streets and public property, and snow removal systems.

RELEVANT LINKS:

[Minn. Stat. § 469.127.](#)

[Minn. Stat. §§ 469.152 to 469.1655.](#)
[Minn. Stat. § 469.152.](#)

[Minn. Stat. § 469.155, subd. 4.](#)

[Minn. Stat. § 469.153, subd. 2.](#)

[Minn. Stat. § 469.1655.](#)

[Minn. Stat. § 469.155, subd. 14.](#)

The law encourages pedestrian skyway systems, underground pedestrian concourses, people-mover systems, and publicly owned parking structures. It exempts these structures from taxation even when they are attached to privately owned buildings.

G. City industrial development

For the purpose of attracting industrial and commercial development and encouraging local governments to prevent economic deterioration, any home rule charter or statutory city or its redevelopment agency has the power to promote industrial development by:

- Acquiring, constructing, and holding lands, buildings, easements, improvements to lands and buildings, capital equipment, and inventory for industrial projects.
- Issuing revenue bonds and entering into revenue agreements to finance these activities to promote industrial projects.
- Refinancing health care and other facilities.

Under the legislation, cities assist industries in starting operations and use generated revenues to repay the costs. This law is the basis for issuing most industrial revenue bonds.

Industrial projects eligible for assistance include any revenue-producing enterprises engaged in assembling, fabricating, manufacturing, mixing, processing, storing, warehousing, or distributing any products of agriculture, forestry, mining, or manufacturing; or in research and development activity in these fields; or in the manufacturing, creation, or production of intangible property, including any patent, copyright, formula, process, design, know how, format, or other similar item. “Project” also includes any properties designated as a qualified green building and sustainable design project under state law. Eligible projects may include costs related to dewatering activities.

The law prohibits a city from operating any of these projects as a business or in any other manner.

RELEVANT LINKS:

[Minn. Stat. ch. 462C.](#)

[Minn. Stat. § 469.185.](#)
[Minn. Stat. § 465.035.](#)
[A.G. Op. 476-B-2 \(Mar. 2, 1961\).](#)
[City of Pipestone v. Madsen,](#)
287 Minn. 357, 178 N.W.2d
594 (1970).

III. Other development strategies

A. Housing bonds

Cities may use revenue bonds for financing single- and multi-family housing, primarily for the benefit of low- and moderate-income families. The law contains single- and multi-family housing criteria and the specific actions cities must take to comply with the law. Federal law limits the issuance of housing revenue bonds. Bonding authority is allocated by a state formula.

B. Industrial parks

An industrial park is a tract of land suitable for industrial use because of location, topography, proper zoning, availability to utilities, and accessibility to transportation. A single body has administrative control of the tract. In some cities, an industrial park may be little more than a tract of unimproved land, while in other cities it may be totally served by city services and have restrictive building requirements. An industrial park's purpose is to attract industrial development.

Property a city holds for later sale for economic development purposes remains tax exempt for a period of eight years, or until buildings or other improvements that are constructed after acquisition reach one-half occupancy.

Currently, private enterprise creates most new industrial park development by establishing a for-profit community development corporation. A city can cooperate with that corporation through its land-use controls and methods of financing public improvements. Many cities have also established industrial parks complete with streets, water, and sewer, in spite of the possible tax ramifications. The city then sells or leases a portion of the park to a business needing a location for its building.

The law authorizes any city owning lands that are not restricted by deed to convey the lands for nominal consideration, to encourage and promote industry, and to provide employment for citizens. In finding that a conveyance of land for an indoor arena was not within the statute, the attorney general concluded the conveyance must encourage and promote industry and provide employment for citizens. A more direct promotion of industry is necessary, beyond the fact that more potential customers might be in town as a result of athletic contests. However, the courts have upheld the municipal industrial development revenue bond law, discussed subsequently, against the same objection. The city's attorney can best advise the city concerning the legality of a purchase of land for resale.

RELEVANT LINKS:

[Minn. Stat. §§ 469.152 to 469.1655.](#)

For more information, contact [DEED](#) 651.259.7114, 800.657.3858. Main Office: 1st National Bank Building 332 Minnesota Street, Suite E200 Saint Paul, MN 55101-1351.

[Minn. Stat. § 469.184.](#)

[Minn. Stat. §§ 469.174 to 469.1794.](#)

C. Industrial revenue bonds

The municipal industrial development laws help cities attract new commercial and industrial development, and keep existing businesses in the city. The law authorizes the council to issue revenue bonds, and use the proceeds to acquire and construct industrial sites and facilities. The city then leases these facilities to private industry and uses the rental fee proceeds to retire the bonds.

A city may issue industrial revenue bonds, also known as municipal revenue bonds, without public referendum. It cannot pledge the full faith and credit of a community as security for these bonds. Thus, the city may not tax property owners to pay principal and interest on the bonds.

If a city decides to investigate the use of industrial bond financing, it should contact the Department of Employment and Economic Development. The department provides the city with information, advice, and technical assistance. This assistance is important, due to the adoption of federal and state laws allocating issuance authority among the states and their political subdivisions. The commissioner of Securities must approve the project.

D. Commercial rehabilitation

Cities have authority to carry out programs for the rehabilitation of small- and medium-sized commercial buildings. The city must adopt a program ordinance that provides for the adoption of program regulations, including a definition of small- and medium-sized commercial buildings. Loans under the program may be for amounts up to \$200,000. The city may finance the program through the sale of revenue bonds.

E. Tax increment financing (TIF)

Tax increment financing authority is available to most cities. Cities with housing and redevelopment authorities, economic development authorities, port authorities, redevelopment agencies, those cities administering development districts or development projects, or cities exercising port authority powers under a general or special law may use tax increment financing. Amendments to the law, however, may make the use of this development tool more complicated.

RELEVANT LINKS:

Tax increment financing is a funding technique that takes advantage of the increases in tax capacity and property taxes from development or redevelopment to pay upfront public development or redevelopment costs. The difference in the tax capacity and the tax revenues the property generates after new construction has occurred, compared with the tax capacity and tax revenues it generated before the construction, is the captured value. The taxes paid on the captured value are called “increments.” Unlike property taxes, increments are not used to pay for the general costs of cities, counties, and schools. Instead, increments go to the development authority and are used to repay public indebtedness or current costs the city incurred in acquiring the property, removing existing structures or installing public services.

Thus, the property owner in a TIF district continues to pay the full amount of property taxes. TIF involves only the increased property taxes generated within the district. It does not change the amount of property taxes currently derived from the redevelopment area, nor does it directly affect the amount or rate of general ad valorem taxes the city levies. The result of a TIF project is an increased tax base that will benefit all local taxing jurisdictions. Additionally, TIF districts usually spur economic development and redevelopment through creating jobs, removing blight, and providing more affordable housing.

[Minn. Stat. § 469.177, subd. 1.](#)

Amendments to TIF law in 2012, address changes caused by the market value exclusion program. If the market value of a homestead property within a TIF district reduces the homestead market value in the district, the original tax capacity of the TIF district will be reduced by the same amount.

Thus, the tax increment collected by the city will remain the same. If your city has a TIF district with townhouses or condominiums, you may want to verify that valuations are properly adjusted by the county auditor.

[State v. Wicklund, 589 N.W.2d 793 \(Minn. 1999\).](#)

TIF is used to encourage four general types of private development: redevelopment, renovation and renewal, growth in low- to moderate-income housing, and economic development. Public financing using TIF funding for a privately owned facility does not make public space in the facility a public forum for free speech purposes.

A TIF district may involve compact development. Two major conditions must be satisfied:

RELEVANT LINKS:

Minn. Stat. § 469.174. Minn. Stat. § 469.175 subd. 2a. Minn. Stat. § 469.176, subd. 1b. Minn. Stat. § 469.176, subd. 1i. Minn. Stat. § 469.176, subd. 4c. Minn. Stat. § 273.13, subd. 24.

Minn. Stat. § 469.176, subd. 7.

Minn. Stat. § 469.176, subd. 4c.

Minn. Stat. § 469.1761, subd. 2 or 3.

Minn. Stat. § 469.176, subd. 4m.

Minn. Stat. § 469.176, subd. 4m (d).

- Parcels consisting of 70 percent of the area of the district are occupied by buildings or similar structures that are classified as class 3a property under state law. and
- The planned redevelopment or development of the district, when completed, will increase the total square footage of buildings, classified as class 3a under state law, occupying the district by three times or more relative to the square footage of similar buildings occupying the district when the resolution is approved.

In some specific situations, a TIF authority may request inclusion in a tax increment financing district and the county auditor may certify the original tax capacity of a parcel or a part of the following property types:

- Agricultural.
- Private outdoor recreational, open space and park land.
- Rural preserve property.
- Metropolitan agricultural preserves.

The authority to establish or approve a compact development district expired on June 30, 2012.

TIF economic development districts must:

- Request certification of the district no later than June 30, 2012.
- Must begin construction before Jan. 1, 2012, for development of housing.

These districts may not be used to assist housing that is developed to qualify for owner-occupied or rental housing, or similar requirements of other law, if construction of the project begins later than July 1, 2011.

Cities have temporary authority to spend TIF funds to stimulate construction using economic development districts for any type of project if three conditions are met:

- The municipality funds projects that will create new jobs in the state, including construction jobs, and the project otherwise would not have begun before July 1, 2012, without assistance.
- Construction of the project begins no later than July 1, 2012.
- The request for certification is made by June 30, 2012.

For a development consisting of housing, the authority to spend tax increments expires Dec. 31, 2011, and construction must commence before July 1, 2011, except the authority to spend tax increments on market rate housing developments expires July 31, 2012, and construction must commence before Jan. 1, 2012. This temporary authority to spend the tax increment expires Dec. 31, 2012.

RELEVANT LINKS:

[Minn. Stat. § 469.175, subd. 5.](#)

[Minn. Stat. § 469.1771, subds. 1, 2b.](#)

[Minn. Stat. § 469.177, subd. 8. *Lake Superior Paper Indus. v. State*, 624 N.W.2d 254 \(Minn. 2001\). *Brookfield Trade Center, Inc. v. County of Ramsey*, 609 N.W.2d 868 \(Minn. 1998\).](#)

[See Minn. Stat. §§ 469.177, subds. 1b, 11. Minn. Stat. § 469.1771, subd. 1. Minn. Stat. § 469.1793. Minn. Stat. § 469.1814.](#)

[Minn. Stat. § 469.174.](#)

[Minn. Stat. § 469.175.](#)

The city using TIF must report annually to the county board, the county auditor, the school board, and the state auditor as to the status of the TIF district or districts and publish the report. The state auditor has established a uniform system of accounting and financial reporting for TIF districts. The city must annually submit to the state auditor a financial report in compliance with these standards.

The state auditor may audit TIF districts. If the state auditor notifies a TIF authority of an alleged violation, a copy of the notice is also forwarded to the county attorney. If no corrective action is brought within one year, the county attorney must notify the state auditor, who then notifies the attorney general. If the attorney general finds a substantial violation, the attorney general will petition the state tax court to suspend the authority's power to use TIF for a period of up to five years.

The TIF agreement with the developer is a complex document. Assistance from a financial advisor and the city attorney is necessary in order to anticipate the many potential problems. An agreement can establish a minimum market value for tax increment assessment purposes, as well as provide that the developer pay a certain level of taxes regardless of any classification rate changes or levy decreases. The agreement should be entered into before the assembly and acquisition of the land on which the completed improvements are to be located.

The 2001 tax reform legislation, which reduced class rates and provided for the state takeover of the general education levy, resulted in several changes to various statutes to accommodate the changes. These changes considerably reduce the continued viability of TIF in the future.

The law imposes a 180-day statute of limitations on actions to challenge the creation or modification of a TIF district. The law is complex including a "but-for" finding before a city approves a TIF plan and the creation of a TIF district.

Cities must follow statutory requirements including but not limited to administrative expenses, plan modifications, reporting requirements, use of increment in pre-1979 districts, excess increments, pooling, decertification, and use of funds outside the district.

Before a district can be created, the law requires a detailed estimate of the impact of a proposed district on city-provided services, such as police and fire protection, public infrastructure, and borrowing costs attributable to the district, in addition to other complex estimations that must be prepared.

RELEVANT LINKS:

Walser Auto Sales, Inc. v. City of Richfield, 635 N.W.2d 391 (Minn. Ct. App. 2001); aff'd, 644 N.W.2d 425 (Minn. 2002).

Chenoweth v. City of New Brighton, 655 N.W.2d 821 (Minn. Ct. App. 2003).

Minn. Stat. §§ 469.1812 to 469.1815.

Cities should use extreme care in establishing a TIF district and should follow all procedural requirements; otherwise, a court may find the district was not properly established. In one case, a TIF district was not properly established where minimal effort was made to ensure the thorough inspection of the properties, inaccurate methodology was used to establish the condition of the buildings, and the buildings found structurally substandard were not reasonably distributed throughout the district.

In another case, a cause of action for inverse condemnation does not arise where a city's involvement with an adjacent property owner's development consists of establishing a TIF district, entering into a contract with a private developer specifying the size and value of structures to be built, and providing for substantial city assistance to facilitate development.

Given the complexity of the laws governing the use of TIF, cities or HRAs should not undertake this method of financing community development projects without the advice of an attorney and professional consultants.

F. Property tax abatement

A city may use this development tool to segregate some or all of the taxes (or the increase in taxes) it imposes on a parcel of property if the city expects the benefits of the proposed abatement agreement at least to equal the costs of the proposed development. The term "abatement" is somewhat misleading, as in most cases the tax is not forgiven; it is paid normally, but the amount of property tax levied by the city is used to pay for the bonds. The city must determine that the agreement is in the public interest because it will increase or preserve tax base, provide employment opportunities, provide or help acquire or construct public facilities, help redevelop or renew blighted areas, or help provide access to services for residents of the city. Property taxes in a TIF district cannot be abated unless the period of the abatement will not occur until after the district is decertified.

A resolution must be adopted after notice and public hearing, specifying the terms of the abatement.

RELEVANT LINKS:

[Minn. Stat. ch. 462A](#). For more information about [MHFA](#) programs, contact MHFA at 400 Sibley Street Suite 300, St. Paul, MN 55101-1998 (651) 296-7608 or (800) 657-3769.

[Minn. Stat. § 462A.073](#) et seq.
MHFA: [Minnesota City Participation Program](#).

[Minn. Stat. ch. 116J](#).
[Minnesota Department of Employment and Economic Development](#).

A city may issue bonds or other obligations to provide an amount equal to the sum of the abatements granted for a specific property. The maximum principal amount of these bonds may not exceed the estimated sum of the abatements for the property for the years authorized. The bonds may be general obligations of the city if the city council chooses to pledge the full faith and credit of the city in the resolution issuing the bonds. The law limits property tax abatements to 15 years. School districts and counties have similar abatement powers. A city, county, and school district can agree to abate their taxes on the same property.

IV. State-sponsored development tools

A. Minnesota Housing Finance Agency

The goals of the Minnesota Housing Finance Agency (MHFA) are to provide decent, affordable housing to low- and moderate-income people; preserve the existing housing stock in Minnesota; preserve existing neighborhoods and prevent them from deteriorating; and prevent mortgage foreclosures while promoting energy conservation in residential housing.

The Minnesota Legislature created the MHFA in response to a shortage of affordable housing for low- and moderate-income people. Private enterprise and private investment were unable, without public assistance, to provide an adequate supply of safe, sanitary, and decent housing at affordable prices and rents.

The sale of state tax-exempt bonds is the primary financing for MFHA programs. Through the Minnesota City Participation Program, Minnesota Housing sells mortgage revenue bonds on behalf of cities to meet locally identified housing needs. The proceeds of these bonds provide below-market interest rate home mortgage loans for low- and moderate-income, first-time homebuyers, or for the construction or rehabilitation of single- and multi-family housing. Appropriations from the Legislature provide additional funding for programs, including the promotion of energy conservation; an increase in home ownership opportunities for first time homebuyers; home improvement grants to very low-income homeowners; and programs to improve the housing available to Native Americans, large families, and people with disabilities.

B. Department of Employment and Economic Development (DEED)

The Minnesota Department of Employment and Economic Development is the primary development agency for Minnesota.

RELEVANT LINKS:

[Minn. Stat. §§ 116J.411 to 116J.424.](#)
[Minn. Stat. § 116J.575.](#)
See, [Minnesota Department of Employment and Economic Development for Local Government.](#)
[The USDA Development.](#)

[Minn. Stat. § 116J.431.](#)
[Greater Minnesota Business Development Infrastructure Grant Program.](#)

[Minn. Stat. § 116J.431, subd. 2.](#)

[Minn. Stat. § 116J.435.](#)

[Department of Employment and Economic Development: Innovative Business Development Program.](#)

[Minn. Stat. § 116J.435.](#)

DEED staff is responsible for a wide range of grant and loan programs, as well as for providing technical assistance to businesses and communities.

DEED also provides grants for contamination cleanup and redevelopment. A redevelopment account allows DEED to make grants to local units of government up to 50 percent of the cost of redeveloping blighted industrial, residential, or commercial property. DEED administers the rural development program; makes challenge grants to regional organizations to encourage private investment in rural areas; and administers a revolving loan fund to provide loans to new and expanding business in rural Minnesota. Local government units, including cities, may receive these loans if the community has established a local revolving loan fund and can provide at least an equal match to the loan received.

Cities outside the seven-county metropolitan area may receive grants from DEED for up to 50 percent of the capital costs of public infrastructure necessary for certain specified economic development projects, excluding retail and office space. For this program, “public infrastructure” means publicly owned physical infrastructure necessary to support economic development projects, including but not limited to sewers, water supply systems, utility extensions, streets, wastewater treatment systems, stormwater management systems, and facilities for pretreatment of wastewater to remove phosphorus.

Under this law, an “economic development project” for which a county or city may be eligible to receive a grant under this section includes manufacturing; technology; warehousing and distribution; research and development; agricultural processing or industrial park development that would be used by any one of these businesses.

DEED runs the Innovative Business Development Public Infrastructure (BDPI) program that provides grants to local governmental units on a competitive basis statewide for up to 50 percent of the capital cost of the public infrastructure necessary to expand or retain jobs.

"Innovative business" means a business that is engaged in, or is committed to engage in, innovation in Minnesota in one of the following:

- Using proprietary technology to add value to a product, process, or service in a high technology field.
- Researching or developing a proprietary product, process, or service in a high technology field.
- Researching, developing, or producing a new proprietary technology for use in the fields of tourism, forestry, mining, transportation, or green manufacturing.

RELEVANT LINKS:

[Minn. Stat. § 272.02, subd. 64.](#)

[Minn. Stat. ch. 116O.](#)

[Enterprise Minnesota](#) 612-373-2900 or 800-325-3073.
[Minn. Stat. § 116O.061.](#)

[Minn. Stat. § 465.717. Minn. Stat. § 471.59.](#)
LMC information memo,
Liability Coverage for Joint Powers Agreements.

"Proprietary technology" means the technical innovations that are unique and legally owned or licensed by a business and includes, without limitation, those innovations that are patented, patent pending, a subject of trade secrets, or copyrighted. "Eligible project" means an innovative business development capital improvement project in this state, including:

- Manufacturing; technology; warehousing and distribution; research and development.
- Innovative business incubator.
- Agricultural processing; or industrial, office. or
- Research park development that would be used by an innovative business.

DEED administers "tax-free" job opportunity building zones (JOBZ). In each of these zones, businesses will be eligible for a broad range of tax incentives for a period of 12 years. Under the program, local units of government, including cities, must submit applications to DEED and follow all statutory requirements related to JOBZ.

C. Enterprise Minnesota

Enterprise Minnesota is a nonprofit business consulting organization, set up by the Legislature that helps small and medium-sized manufacturing companies, education services, and government entities in Minnesota. Enterprise Minnesota operates as a fee-for-services 501(c) (3) nonprofit.

Enterprise Minnesota focuses on applied research and technology transfer and early stage funding. It may provide financial assistance, including loan guarantees, direct loans, interest subsidies, or equity investments, to sole proprietorships, corporations, other entities, nonprofit organizations, or joint ventures. Financial assistance includes but is not limited to assisting a qualified company or organization with business services and products that will enhance the operations of the entity.

D. Corporations

Cities must not create nonprofit corporations unless authorized to do so by special legislation. The law allows incorporation of a joint powers entity, but these must comply with all applicable public sector laws (open meeting, gift law, conflicts of interest, competitive bidding, etc.) and must be separately insured.

RELEVANT LINKS:

More information is available on the [HUD](#) web site.

For more information, contact [Rural Development State Office](#) 410 Farm Credit Service Building 375 Jackson Street St. Paul, MN 55101-1853, (651) 602-7800; See also, [Handbook, Chapter 25](#).

V. Federal development tools

A. Community development block grants

The Community Development Block Grant (CDBG) program, under the U.S. Department of Housing and Urban Development (HUD), provides cities with federal funding to initiate and continue a diverse array of housing and community development projects.

B. Rural development grants

A variety of grants and loans to encourage economic development are available to cities from the U. S. Department of Agriculture, rural development program. Sewer, water, rural enterprise, housing, and other types of grants and loans are available.

VI. How this chapter applies to home rule charter cities

All of the tools this chapter lists are available to charter cities. The general discussions also apply to all cities.



250 Third Avenue North
Minneapolis, Minnesota 55401
612.338.2029
Fax 612.338.2088
www.LHBcorp.com

June 15, 2015

Patrick J. Brama
Economic Development Manager
City of Ramsey
7550 Sunwood Drive NW
Ramsey, MN 55303

**PROPOSAL FOR INVESTIGATIVE SERVICES
LIFE FITNESS RENEWAL AND RENOVATION TIF ANALYSIS**

Dear Patrick:

Thank you for the opportunity to submit a proposal for the Life Fitness Renewal and Renovation TIF analysis in Ramsey, Minnesota. LHB is a full-service architecture, planning and engineering firm with 250 employees in our Minneapolis, Duluth and Superior, Wisconsin offices.

Our Government studio has extensive experience working with local governments on their planning, design, architectural and engineering needs. Having been personally involved as a City Council President and Planning Commission Chair, I understand how cities function and the importance of maintaining the support of your appointed and elected officials and community throughout the process.

PREVIOUS EXPERIENCE

LHB has significant experience with a variety of inspection and facility assessment projects, including the analysis of over 100 TIF Districts in the past seven years. Examples include:

- City of Columbia Heights TIF inspection services
- City of St. Paul TIF inspection services
- City of St. Anthony Village, NW Quadrant TIF inspection services
- City of St. Louis Park TIF District inspection services
- City of Mound TIF District “1-2” inspection services
- City of Osseo TIF inspection services
- City of New Richmond, WI TIF inspection services
- Minnesota State Colleges and Universities system facility assessments
- State of Minnesota Facility Assessments
- Property Condition Assessments for the St. Paul Department of Planning and Economic Development (Franklin/Emerald Neighborhood)
- Condition surveys for every DNR facility in the State of Minnesota, 2014

TEAM CREDENTIALS

Michael A. Fischer, AIA, LEED AP - Project Principal/TIF Analyst

Michael has twenty-four years of architectural experience as project principal, project manager, project designer and project architect on municipal planning, educational, commercial and governmental projects. He is a Senior Vice President at LHB and currently leads the Minneapolis office. Michael completed a two-year Bush Fellowship at the Massachusetts Institute of Technology in 1999, earning Masters Degrees in City Planning and Real Estate Development. Michael has served on over 35 committees, boards and community task forces, including a term as a City Council President, Chair of a Metropolitan Planning organization, and most recently, Chair of the Planning Commission in Edina, Minnesota. He was one of four architects in the country to receive the National "Young Architects Citation" from the American Institute of Architects in 1997.

Phil Waugh – Project Manager/TIF Analyst

Phil is a project manager with 13 years of experience in historic preservation, building investigations, material research, and construction methods. He previously worked as a historic preservationist and also served as the preservation specialist at the St. Paul Heritage Preservation Commission. Currently, Phil sits on the Board of Directors for the Preservation Alliance of Minnesota. His current responsibilities include project management of historic preservation projects, performing building condition surveys and analysis, TIF analysis, writing preservation specifications, historic design reviews, writing Historic Preservation Tax Credit applications, preservation planning, and grant writing.

Jonathan Pettigrew, AIA – Inspector

Jonathan Pettigrew has worked in architecture and construction for the last twenty years in Minnesota, California and Washington. His experience includes a variety of commercial and residential project types and scales, from single-family homes to a 300,000 square foot multi-building office complex. He has significant experience in code reviews and building systems inspections and analysis. Jonathan received his Minnesota architect's license in 2004. He brings a strong interest in sustainability and an eye for detail to his work. He enjoys working with clients, consultants and contractors to bring projects together successfully.

Phil Fisher – Inspector

For 35 years, Phil Fisher worked in the field of Building Operations in Minnesota including White Bear Lake Area Schools. At the University of Minnesota he earned his Bachelor of Science in Industrial Technology. He is a Certified Playground Safety Inspector, Certified Plant Engineer, and is trained in Minnesota Enterprise Real Properties (MERP) Facility Condition Assessment (FCA). His FCA training was recently applied to the Minnesota Department of Natural Resources Facilities Condition Assessment project involving over 2,000 buildings.

SCOPE OF SERVICES

LHB will provide the following services based upon the terms and conditions described below.

- 1. Survey the TIF District to determine if it meets applicable coverage test.**
 - A. To meet the coverage test, parcels consisting of 70 percent of the area of the district must be “occupied” by buildings, streets, utilities, or paved or gravel parking lots.
 - B. A parcel is not considered “occupied” unless at least 15% of its total area contains improvements.

- 2. Conduct a visual review of building(s) interior and exterior:**
 - A. Obtain property owner’s consent for inspection.
 - B. Document property conditions relative to Minnesota Statutes Section 469.174 Subdivision 10.

- 3. Estimate building(s) replacement cost:**
 - A. Replacement cost is the cost of constructing a new structure of the same square footage and type on the site.
 - B. A base cost will be calculated by establishing the building class, type and construction quality.
 - C. Identify amenities, which increase the value of the building over the standard construction quality level.
 - D. Review building permits for each parcel.
 - E. The base cost and cost of amenities will be totaled to determine the replacement cost for the property.

- 4. Evaluate building(s) existing condition:**
 - A. “Structurally substandard shall mean containing defects in structural elements or a combination of deficiencies in essential utilities and facilities, light and ventilation, fire protection including adequate egress, layout and condition of interior partitions, or similar factors, which defects or deficiencies are of sufficient total significance to justify substantial renovation or clearance.”

- 5. Determine Building(s) Code Deficiencies:**
 - A. Determine technical conditions, which are not in compliance with current building code applicable to new buildings.
 - B. Provide opinion of probable cost to correct identified deficiencies.
 - C. Compare cost of deficiency corrections to replacement value of building.

- 6. Prepare and deliver report:**
 - A. Prepare a written narrative analysis of the District describing why the property within the District does or does not meet the criteria as “structurally substandard” as established in Minnesota Statutes Section 469.174, subdivision 10.
 - B. Deliver final reports via email PDF.

ASSUMPTIONS

1. LHB will inspect one building on the interior and an exterior analysis of the larger Life Fitness facility. We will evaluate the coverage of three separate parcels. The Client will provide the following:
 - A scalable parcel map and/or aerial photo of the area to be inspected, including GIS information with specific parcel data, including parcel area measured in square feet.
 - A list of all parcels affected including name of owner, current known business or resident name and address.
 - Available information regarding the condition of the structures, including past building permit information, and known code violations.

STANDARD OF CARE

LHB shall perform services consistent with the professional skill and care ordinarily provided by other professionals practicing in the same or similar locality under the same or similar circumstances.

Any report prepared by LHB represents a professional opinion based upon information available and arrived at in accordance with generally accepted professional standards. Other than as contained in the report, LHB makes no express or implied warranty.

Short of complete deconstruction to examine every element at every location, no assessment can reveal all conditions which may exist. Additional testing, assessment, or demolition, may uncover conditions which would make it necessary to modify LHB's conclusions or recommendations.

Any report prepared for the purpose described in this Agreement is for the exclusive use by those to whom the report is addressed. LHB will not and cannot be held liable for the unauthorized reliance upon this report by any third party.

COMPENSATION

We propose to work on an hourly basis with the following key staff:

Project Principal, Michael Fischer (TIF analysis)	\$242/hour
Project Manager	\$140/hour
Project Architect/Inspector	\$120/hour
Project Administrator	\$80/hour

We will work on an hourly basis not to exceed \$3,400 plus reimbursable expenses for a full report outlining the findings for the proposed TIF District.

Payments are due and payable upon receipt of our invoice. Unpaid balances 60-days after invoice date shall bear interest at the rate of 8% annually.

Failure to make timely payment to LHB is a material breach of this Agreement and may, at LHB's sole discretion, result in a suspension or termination of services, and may, at LHB's sole discretion, result in the termination of the Client's limited license authorization to use LHB's copyrighted Instruments of Service.

ADDITIONAL SERVICES

If there is a material change in the circumstances or conditions that affect the scope of work, schedule, allocation of risks or other material terms, LHB shall notify the Client. The Client and LHB shall promptly and in good faith enter into negotiation to address the changed conditions including equitable adjustment to compensation. The fees and costs for any additional services will be based upon LHB's Standard Hourly Rates and Standard Reimbursable Schedule.

SCHEDULE

Normally, the final report will require 30-45 days to complete from the time we are authorized to start. At this time, we should be able to make special arrangements if a more aggressive schedule is required.

CONSEQUENTIAL DAMAGES

LHB and Client waive consequential damages for claims, disputes or other matters in question arising out of or relating to this Agreement.

LIMIT OF LIABILITY

To the maximum extent permitted by law, the Client agrees to limit LHB's liability for the Client's damages to the sum of Ten Thousand Dollars (\$10,000) or the amount of fee paid to LHB, whichever is greater. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.

USE OF LHB'S DOCUMENTS

The documents prepared by LHB are solely for use with respect to this project. All documents prepared by LHB pursuant to this Agreement are the instruments of services to the Project and LHB shall retain all common law, statutory and other reserved rights, including copyright. LHB grants to Client a nonexclusive limited license solely for the purposes of evaluating and executing the Project. The Client shall not assign, delegate, sublicense, or otherwise transfer any license granted herein to another party.

To the extent the documents are transferred or are modified, supplemented or otherwise altered by the Client, subsequent design professional, or any other party, the Client agrees to indemnify, defend and hold LHB harmless for any claims, demands, damages or causes of action arising out of such transfer or modification, supplementation or alteration.

OTHER CONDITIONS

The laws of the State of Minnesota shall govern this Agreement. Any provision of this agreement later held to violate a law or regulation shall be deemed void. All remaining provisions shall continue in force.

The Client recognizes that materials prepared by others may be subject to copyright protection and warrants to LHB that any documents provided by the Client do not infringe upon the copyright held by another.

Unless the parties mutually agree otherwise, the parties shall endeavor to settle disputes by mediation. A demand for mediation shall be filed, in writing, within a reasonable period of time after a claim, dispute or other matter in question has arisen.

LHB and the Client, acting through the Client's legal representative, will, to the fullest reasonable extent, cooperate and coordinate efforts in preparing necessary responses to any third party challenges to the inspections. The Client agrees to pay LHB its regular hourly rates for time spent as a result of a third party legal challenge

If the terms and conditions of this Agreement are acceptable, please sign and return a copy to LHB.

CLIENT NAME

LHB, INC.

By: _____
(Signature)

By:  _____
(Signature)

Its: _____
(Title)

Its: Senior Vice President _____
(Title)

Name: _____
(Printed Name)

Name: Michael A. Fischer, AIA _____
(Printed Name)



Life Fitness
City of Ramsey

48,325 sq. ft. Manufacturing / Warehouse Expansion

ASSUMPTIONS AND RATES

DistrictType:	Renewal and Renovation	
District Name/Number:		
County District #:		
First Year Construction or Inflation on Value	2015	
Existing District - Specify No. Years Remaining		
Inflation Rate - Every Year:	0.00%	
Interest Rate:	5.50%	
Present Value Date:	1-Aug-16	
First Period Ending	1-Feb-17	
Tax Year District was Certified:	Pay 2016	
Cashflow Assumes First Tax Increment For Development:	2017	
Years of Tax Increment	16	
Assumes Last Year of Tax Increment	2032	
Fiscal Disparities Election [Outside (A), Inside (B), or NA]	Inside(B)	
Incremental or Total Fiscal Disparities	Incremental	
Fiscal Disparities Contribution Ratio	38.5419%	Pay 2015
Fiscal Disparities Metro-Wide Tax Rate	161.6250%	Pay 2015
Maximum/Frozen Local Tax Rate:	108.410%	Pay 2015
Current Local Tax Rate: (Use lesser of Current or Max.)	108.410%	Pay 2015
State-wide Tax Rate (Comm./Ind. only used for total taxes)	50.8400%	Pay 2015
Market Value Tax Rate (Used for total taxes)	0.21266%	Pay 2015

Tax Rates		
Exempt Class Rate (Exempt)		0.00%
Commercial Industrial Preferred Class Rate (C/I Pref.)		
First \$150,000		1.50%
Over \$150,000		2.00%
Commercial Industrial Class Rate (C/I)		2.00%
Rental Housing Class Rate (Rental)		1.25%
Affordable Rental Housing Class Rate (Aff. Rental)		
First \$100,000		0.75%
Over \$100,000		0.25%
Non-Homestead Residential (Non-H Res. 1 Unit)		
First \$500,000		1.00%
Over \$500,000		1.25%
Homestead Residential Class Rate (Hmstd. Res.)		
First \$500,000		1.00%
Over \$500,000		1.25%
Agricultural Non-Homestead		1.00%

BASE VALUE INFORMATION (Original Tax Capacity)

Map #	PID	Owner	Address	Land Market Value	Building Market Value	Total Market Value	Percentage Of Value Used for District	Original Market Value	Tax Year Original Market Value	Property Tax Class	Current Original Tax Capacity	Class After Conversion	After Conversion Orig. Tax Cap.	Area/Phase
	27-32-25-44-0018	Brunswick		666,900	0	666,900	100%	666,900	Pay 2016	C/I	13,338	C/I	13,338	
	27-32-25-44-0019	Brunswick		788,800	5,882,300	6,671,100	100%	6,671,100	Pay 2016	C/I Pref.	132,672	C/I Pref.	132,672	
	27-32-25-44-0012	1st MN Bank		310,300	318,400	628,700	100%	628,700	Pay 2016	C/I Pref.	11,824	C/I	12,574	
				1,766,000	6,200,700	7,966,700		7,966,700			157,834		158,584	

Note:

1. Base values are for pay 2016 and based upon review of County website on 6-1-15.



Life Fitness

City of Ramsey

48,325 sq. ft. Manufacturing / Warehouse Expansion

PROJECT INFORMATION (Project Tax Capacity)														
Area/Phase	New Use	Estimated Market Value Per Sq. Ft./Unit	Taxable Market Value Per Sq. Ft./Unit	Total Sq. Ft./Units	Total Taxable Market Value	Property Tax Class	Project Tax Capacity	Project Tax Capacity/Unit	Percentage Completed 2015	Percentage Completed 2016	Percentage Completed 2017	Percentage Completed 2018	First Year Full Taxes Payable	
	Expansion #1	40	40	48,325	1,933,000	C/I	38,660	1	20%	100%	100%	100%	2018	
27-32-25-44-0018	Existing	666,900	666,900	1	666,900	C/I	13,338	13,338	100%	100%	100%	100%	2017	
27-32-25-44-0019	Existing	6,671,100	6,671,100	1	6,671,100	C/I Pref.	132,672	132,672	100%	100%	100%	100%	2017	
27-32-25-44-0012	Existing	628,700	628,700	1	628,700	C/I	12,574	12,574	100%	100%	100%	100%	2017	
TOTAL					9,899,700		197,244							
Subtotal Residential					0		0							
Subtotal Commercial/Ind.					48,328		9,899,700							

Note:

1. Market values are based upon estimates from the county assessor.

TAX CALCULATIONS									
New Use	Total Tax Capacity	Fiscal Disparities Tax Capacity	Local Tax Capacity	Local Property Taxes	Fiscal Disparities Taxes	State-wide Property Taxes	Market Value Taxes	Total Taxes	Taxes Per Sq. Ft./Unit
Expansion #1	38,660	14,900	23,760	25,758	24,083	19,655	4,111	73,606	1.52
Existing	13,338	5,141	8,197	8,887	8,309	6,781	1,418	25,395	25,394.63
Existing	132,672	51,134	81,538	88,395	82,646	67,450	14,187	252,678	252,678.04
Existing	12,574	4,846	7,728	8,378	7,833	6,393	1,337	23,940	23,940.02
TOTAL	197,244	76,022	121,222	131,417	122,870	100,279	21,053	375,619	

Note:

1. Taxes and tax increment will vary significantly from year to year depending upon values, rates, state law, fiscal disparities and other factors which cannot be predicted.

WHAT IS EXCLUDED FROM TIF?	
Total Property Taxes	375,619
less State-wide Taxes	(100,279)
less Fiscal Disp. Adj.	(122,870)
less Market Value Taxes	(21,053)
less Base Value Taxes	(105,659)
Annual Gross TIF	25,758



**Life Fitness
City of Ramsey**

48,325 sq. ft. Manufacturing / Warehouse Expansion

TAX INCREMENT CASH FLOW														
% of OTC	Project Tax Capacity	Original Tax Capacity	Fiscal Disparities Incremental	Captured Tax Capacity	Local Tax Rate	Annual Gross Tax Increment	Semi-Annual Gross Tax Increment	State Auditor 0.36%	Admin. at 10%	Semi-Annual Net Tax Increment	Semi-Annual Present Value	PERIOD ENDING Yrs.	Tax Year	Payment Date
100%	166,316	(158,584)	(2,980)	4,752	108.410%	5,152	2,576	(9)	(257)	2,310	2,188	0.5	2017	02/01/17
							2,576	(9)	(257)	2,310	4,317	1	2017	02/01/18
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	14,679	1.5	2018	08/01/18
							12,879	(46)	(1,283)	11,549	24,763	2	2018	02/01/19
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	34,578	2.5	2019	08/01/19
							12,879	(46)	(1,283)	11,549	44,129	3	2019	02/01/20
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	53,426	3.5	2020	08/01/20
							12,879	(46)	(1,283)	11,549	62,473	4	2020	02/01/21
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	71,278	4.5	2021	08/01/21
							12,879	(46)	(1,283)	11,549	79,848	5	2021	02/01/22
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	88,188	5.5	2022	08/01/22
							12,879	(46)	(1,283)	11,549	96,305	6	2022	02/01/23
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	104,204	6.5	2023	08/01/23
							12,879	(46)	(1,283)	11,549	111,893	7	2023	02/01/24
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	119,375	7.5	2024	08/01/24
							12,879	(46)	(1,283)	11,549	126,657	8	2024	02/01/25
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	133,745	8.5	2025	08/01/25
							12,879	(46)	(1,283)	11,549	140,642	9	2025	02/01/26
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	147,355	9.5	2026	08/01/26
							12,879	(46)	(1,283)	11,549	153,889	10	2026	02/01/27
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	160,247	10.5	2027	08/01/27
							12,879	(46)	(1,283)	11,549	166,436	11	2027	02/01/28
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	172,458	11.5	2028	08/01/28
							12,879	(46)	(1,283)	11,549	178,320	12	2028	02/01/29
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	184,025	12.5	2029	08/01/29
							12,879	(46)	(1,283)	11,549	189,577	13	2029	02/01/30
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	194,980	13.5	2030	08/01/30
							12,879	(46)	(1,283)	11,549	200,239	14	2030	02/01/31
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	205,357	14.5	2031	08/01/31
							12,879	(46)	(1,283)	11,549	210,338	15	2031	02/01/32
100%	197,244	(158,584)	(14,900)	23,760	108.410%	25,758	12,879	(46)	(1,283)	11,549	215,185	15.5	2032	08/01/32
							12,879	(46)	(1,283)	11,549	219,903	16	2032	02/01/33
Total							391,520	(1,409)	(39,011)	351,099				
Present Value From 08/01/2016 Present Value Rate 5.50%							245,220	(883)	(24,434)	219,903				

SCHEDULE OF EVENTS

RAMSEY ECONOMIC DEVELOPMENT AUTHORITY AND THE CITY OF RAMSEY ANOKA COUNTY, MINNESOTA

FOR THE MODIFICATION TO THE DEVELOPMENT PROGRAM FOR DEVELOPMENT DISTRICT NO. 1

AND FOR THE ESTABLISHMENT OF TAX INCREMENT FINANCING DISTRICT NO. 15 (LIFE FITNESS) (a renewal and renovation district)

AND THE AWARDING OF A BUSINESS SUBSIDY

Draft as of June 12, 2015

- | | |
|----------------|--|
| July 6, 2015 | Project information (property identification numbers and legal descriptions, detailed project description, maps, but/for statement, and list of sources and uses of funds) for drafting necessary documentation sent to Ehlers. Ehlers confirms with the City whether building permits have been issued on the property to be included in the TIF District. |
| July 13, 2015 | Ehlers confirms with the City whether building permits have been issued on the property to be included in TIF District No. 15 (Life Fitness). |
| July 14, 2015 | City Council calls for a public hearing on the proposed modification to the Development Program for Development District No. 1, the proposed establishment of TIF District No. 15 (Life Fitness), and the granting of a business subsidies agreement. |
| N/A | Project information submitted to the County Board for review of county road impacts (at least 45 days prior to public hearing). <i>*The County Board, by law, has 45 days to review the TIF Plan to determine if any county roads will be impacted by the development. Because the City staff believes that the proposed tax increment financing district will not require unplanned county road improvements, the TIF Plan will not be forwarded to the County Board 45 days prior to the public hearing. Please be aware that the County Board could claim that tax increment should be used for county roads, even after the public hearing</i> |
| July 24, 2015 | Fiscal/economic implications received by School Board Clerk and County Auditor (at least 30 days prior to public hearing). <i>[Ehlers will fax & mail on or before July 24, 2015]</i> |
| August 3, 2015 | Ehlers conducts internal review of the Program Modification and TIF Plan. |
| August 6, 2015 | Planning Commission reviews the Program Modification and TIF Plan to determine if they are in compliance with City's comprehensive plan and adopts a resolution approving the Program and Plan. |
| August 7, 2015 | Date of publication of TIF public hearing notice with map and hearing notice concerning a business subsidies agreement (at least 10 days but not more than 30 days prior to hearing). <i>[Ehlers will e-mail notice & map to the Anoka County Union on or before August 3, 2015 to publicnotice@ecm-inc.com]</i> |

SCHEDULE OF EVENTS – PAGE TWO

RAMSEY ECONOMIC DEVELOPMENT AUTHORITY AND THE CITY OF RAMSEY ANOKA COUNTY, MINNESOTA

FOR THE MODIFICATION TO THE DEVELOPMENT PROGRAM FOR DEVELOPMENT DISTRICT NO. 1

AND FOR THE ESTABLISHMENT OF TAX INCREMENT FINANCING DISTRICT NO. 15 (LIFE FITNESS) (a renewal and renovation district)

AND THE AWARDING OF A BUSINESS SUBSIDY

- August 13, 2015 EDA adopts a resolution recommending the Program Modification, the TIF Plan, and the granting of a business subsidies agreement.
- August 25, 2015 City Council opens public hearing at 7:00 p.m. on the modification to the Development Program for Development District No. 1 and the establishment of Tax Increment Financing District No. 15 (Life Fitness). *[Ehlers will email Council packet information to the City on or before August 18, 2015.]*
- City Council passes a resolution approving the Program Modification and TIF Plan.
- City Council passes a resolution authorizing an interfund loan in connection with TIF District No. 15 (Life Fitness).
- City Council approves a business subsidies agreement.
- August 26, 2015 City can issue building permits.
- _____, 2015 Ehlers files Program Modification and TIF Plan with the MN Department of Revenue, OSA and Anoka County.

Job Creation Fund Benefits Explained

If you are considering Minnesota for expansion, the Minnesota Job Creation Fund Program (JCF) can provide financial benefits to facilitate the project. JCF is a pay-for-performance program that provides financial benefits after job creation **and** capital investment thresholds have been met. Once a business is approved as a JCF business, it receives an Award Letter from DEED noting the projected award benefit which is based on the best case scenario as defined in the application. This scenario considers only the eligible capital investment and job creation that occurred on or after the date the business is approved as a JCF business.

Once a business meets the \$500,000 capital investment **and** 10 full-time job creation thresholds, it is eligible to request JCF benefits using a *JCF Report Form*. This document will help businesses understand the information needed to receive the JCF benefits. If the project is considered a retention project or a Mega Project, please contact JCF program staff due to the unique project requirements.

Capital Investment Rebate

What costs are eligible for a Capital Investment Rebate?

A qualified Minnesota JCF Business is eligible for a capital investment rebate on the purchases and services used for real property (i.e., fixed property and generally not furniture, fixtures or equipment) improvements. The rebate applies to purchases made by the qualified Minnesota JCF business or a contractor hired to perform work or services at the project location.

Expenditures made by a third-party business (e.g. tenant improvements) are eligible only if expenditures are reimbursed directly by the qualified JCF business as they are paid. The capital investment rebate **does not** include costs associated with acquiring real property.

Eligible costs are construction materials, services, and supplies used for or consumed in the project generally include:

- A. Building construction costs
- B. Construction labor & materials
- C. External Site Preparation when property is owned by the JCF business, related parent company or lease to own.
- D. Real property tenant improvements in leasing scenarios
- E. Rehabilitation / Remodel
- F. Eligible soft costs directly related to construction like architect and engineering fees

Depending on the ownership of the property and JCF business, actual eligible costs may vary and other requirements may apply:

- For businesses that have a **related parent company that will own 100% of the building**, the business must provide a long-term lease in addition to other legal documents noting the related relationship between the lessor and lessee.
- For businesses with **lease to own agreements**, the transfer of ownership to the JCF business must occur within one (1) year following the issuance of the final certificate of occupancy is obtained on the project. Situations that transfer ownership after this date will be considered a lease scenario.
- For businesses **leasing an entire building** from an unrelated party, a copy of the executed lease demonstrating the real property improvements associated with the recipient's occupancy as a paid line item within the lease agreement. Only the real property improvements paid by the JCF business within the JCF contract term will be eligible for rebate. The building shell and external site improvements are not eligible.
- For businesses **leasing a portion of a building** from a related or unrelated party, a copy of the executed lease demonstrating the real property improvements associated with the recipient's occupancy as a line item within the lease agreement. Only the real property improvements paid by the JCF business the JCF contract term will be eligible for rebate. Common areas used by multiple tenants are ineligible for capital investment rebate.
- For leasing scenarios, expenditures related to the JCF occupancy are eligible once they are paid by the JCF business as an upfront expense or periodically through such contractual documents as a lease. Any costs paid by the JCF business after the JCF term is complete are ineligible for a rebate.

How to Document Capital Investment?

To access JCF capital investment benefits, the JCF business must submit the proper documentation to DEED including the *JCF Report Form* and supporting documents. The business must provide:

- A. Sworn Construction Statement
- B. Copies of invoices for "Eligible Soft Costs"
- C. AIA Certificate of Substantial Completion (Form G704)
- D. Certificate of Occupancy issued by the local municipality
- E. Other documents may be necessary depending on the nature of the project and documents submitted.

Job Creation Award

What jobs are eligible for an award?

A qualified Minnesota JCF Business is eligible for an **annual** award for each new job **created** and **maintained** by the business at the project site. For a NEW full-time Employee position to be considered **eligible** for a payment in a given 12-month period, it **must** meet the following:

- A. The NEW full-time Permanent position did not exist prior to the JCF award and is filled by an employee who began work in the position at the Project Site on or after the Benefit Date (i.e., not a contracted employee) and is scheduled to work at least 2,080 hours.
- B. Full-time Employees may include NEW positions that are filled by staff that worked:
 - 1,040 or fewer hours annually for the JCF business prior to full-time employment, or
 - full-time for the JCF business outside Minnesota but the position was transferred to the JCF site. Jobs relocated to the site from other JCF business Minnesota locations are not eligible.
- C. The JCF business must maintain the NEW full-time permanent position for a minimum period of not less than one (1) year to receive the annual award. Any NEW full-time permanent position vacant for more than 90 days during the reporting year is not eligible for a rebate.
- D. Employee must be paid total compensation of at least \$12.61 per hour, adjusted annually on January 1 as of the reporting date (\$12.82 in 2016). This number equates to 110% of the federal poverty level of a family of four as determined by the U.S. Health and Human Services Department. The benefits in addition to wages that include statutory required benefits as FICA, unemployment insurance and workers' compensation.
- E. All new jobs generally must be in addition to existing job totals in Minnesota. New job creation will be compared to pre-JCF base employment levels noted in the Business Subsidy Agreement.

What are the wage requirements for the different award levels?

As of January 1, 2015, the award schedule for these NEW full-time employee positions is as follows:

2015 Annual Total Cash Wage	2014 Annual Total Cash Wage	Award Schedule
\$26,335 - \$35,450	\$26,000 - \$35,000	\$1,000
\$35,450 - \$45,579	\$35,000 - \$45,000	\$2,000
\$45,579 +	\$45,000 +	\$3,000

*Cash Wage means the hourly cash wage the employee is paid.

How to Document the Job Creation?

JCF businesses need to submit the *JCF Report Form* and necessary company payroll records to document timing and compensation of the NEW full-time employee positions to receive an award. Each job has been in place and filled for at least one (1) year since the business received Minnesota JCF designation. DEED may also request additional information as deemed necessary by DEED.

Thank you for expanding in Minnesota. Please call Emily Johnson (651-259-7450) or Tom Washa (651-259-7483) if you have any questions about the Job Creation Fund program.

Job Creation Fund (JCF) Program Application

APPLICATION PROCEDURES

The Job Creation Fund (JCF) Program provides job creation awards and capital investment rebates to designated businesses that retain or create high-paying, full-time permanent jobs and invest in real property improvements. The program is available statewide for manufacturing, distribution, warehousing, and other eligible business activities.

Applications are accepted on a year-round basis as funds are available.

To become a designated JCF business and receive benefits, a business must work in conjunction with the local government where the JCF business will be located. A JCF application must be completed and submitted to the Department of Employment and Economic Development (DEED) by the local government. Step-by-step instructions are listed below and applications may be submitted by mail or email to:

Emily Johnson
Program Manager – Job Creation Fund
332 Minnesota Street, Suite E200
St. Paul, MN 55101
Emily.a.johnson@state.mn.us

Completing the Job Creation Fund (JCF) Program Application: Step-by-Step Instructions

In consultation with DEED, the local government will make a preliminary determination about whether a business meets the minimum program requirements. Use the Job Creation Fund Eligibility and Application Checklist on the program website for guidance. If a business is potentially eligible, the following steps are completed:

1. The business provides the information to the local government needed to complete JCF Application. A local government resolution in support of the project must be included. Local officials must submit the application to DEED.
2. DEED evaluates the application and notifies the local government and business of approval or denial. If approved, DEED will formally designate the business as a JCF business and determine a job creation award and/or capital investment rebate amount. Awards and/or rebates of \$500,000 or more require DEED to hold a public hearing.
3. Jobs created and/or capital investment expenditures may be counted after the business is formally notified by DEED that it has been designated as a JCF business.
4. DEED will draft a business subsidy agreement specifying the award and/or rebate to be provided after required job creation and capital investment goals are met. The JCF business and the DEED commissioner sign the business subsidy agreement.
5. The local government will assist the business with submitting required annual progress reports, payment request documentation, and other information requested by DEED. The local government will also provide information on annual changes in wage requirements.

JOB CREATION FUND PROGRAM APPLICATION

SECTION 1 - LOCAL GOVERNMENT AND BUSINESS APPLICANT INFORMATION

Local Government Project Sponsor:	Local Government Contact Name and Title:
Email:	Telephone:
Address:	City/State/Zip:

Business Legal Name:	Parent Company Name (if applicable):
Mailing Address:	City/State/Zip:
Street Address for Project Applying for JCF (JCF Project):	City/State/Zip for JCF Project:
Primary Business Contact and Title:	E-mail:
Website:	Telephone:
Minnesota Tax ID:	FEIN:
NAICS Code:	Primary Business Activity for Proposed Project:

SECTION 2 - PROJECT OVERVIEW

<p>Project Type:</p> <input type="checkbox"/> New business with no parent company or current operations <input type="checkbox"/> Expansion of existing facility or Minnesota company <input type="checkbox"/> Expansion to Minnesota by a company with existing operations outside Minnesota												
<p>Project will involve:</p> <input type="checkbox"/> Leasing an existing facility where leasehold improvements will be made <input type="checkbox"/> Leasing a facility to be constructed <input type="checkbox"/> Ownership of an existing facility and making improvements <input type="checkbox"/> Construction and ownership of a new facility												
<p>Are there facility or land limitations that do not allow the business to expand at an existing Minnesota facility?</p> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable												
<p>Could this project be located outside of Minnesota and serve the same customers?</p> <input type="checkbox"/> Yes <input type="checkbox"/> No												
<p>Project Timeframe:</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Task:</th> <th>Estimated Completion Date: (mm/dd)</th> </tr> </thead> <tbody> <tr> <td>Commitment of all funds</td> <td></td> </tr> <tr> <td>Start of construction</td> <td></td> </tr> <tr> <td>Purchase equipment</td> <td></td> </tr> <tr> <td>Complete construction</td> <td></td> </tr> <tr> <td>Begin operations</td> <td></td> </tr> </tbody> </table>	Task:	Estimated Completion Date: (mm/dd)	Commitment of all funds		Start of construction		Purchase equipment		Complete construction		Begin operations	
Task:	Estimated Completion Date: (mm/dd)											
Commitment of all funds												
Start of construction												
Purchase equipment												
Complete construction												
Begin operations												

Current number of permanent, full-time employees company-wide:

Current number of permanent, full-time employees in Minnesota:

Current number of permanent, full-time employees at proposed JCF site:

Will any jobs be relocated from another Minnesota site to the proposed JCF site? Yes No
 If yes, which location(s) will the employees be relocated from?
***for jobs relocated from another Minnesota location, a letter in support of the move from the city where the job will be moving from must be attached**

Average wage for retained and/or new permanent, full-time employees:

Projected number of new full-time permanent jobs at proposed JCF project site:

	To be created in Year 1	To be created in Year 2	To be created in Year 3
# new FT, permanent jobs:			

***full-time permanent jobs means positions with expected work hours of 2080 annually**

Sources & Uses:
***since JCF funds are pay-for-performance, they should not be included as a source or use of funds**

	Bank(s)	Equity	State	Local Gov't	Other ()	Total
Property Acquisition						
Site Improvement						
New Construction						
Renovation of an Existing Building						
Purchase of Machinery & Equipment						
Infrastructure						
Other:						
Other:						
Total Project Cost						

Does the property or the business have any outstanding local, state or federal tax liabilities? Yes No
 If yes, describe:

Have state environmental review requirements been met for the project, if applicable? Yes No

Are there current or unsatisfied judgments or injunctions against the business or owners? Yes No
 If Yes, describe:

Is there current or pending litigation involving the business? Yes No
 If yes, attach summary and disposition.

Within the past five years, has there been any violation(s), citation(s), or complaint(s) of discrimination filed against the company in a state or federal court or before any state, federal or local government agency?
 Yes No If Yes, attach a copy of the violation(s), citation(s), or complaint(s) and the disposition of each.

SECTION 3 - REQUIRED INFORMATION

**Information from the items listed below will be used to evaluate potential awards and rebates for a business requesting JCF designation. Please be thorough in addressing the requested information and clearly identify responses to each item separately by number.*

PART A – Business Description. Describe the business and its major activities. Please include the following information:

1. Business overview and company history and ownership - include organizational structure, parent company and any affiliates
2. Product or industry outlook for the JCF project
3. Total projected sales for the JCF project both inside and outside of Minnesota
4. Estimated sales to Minnesota customers that replace purchases from outside Minnesota
5. Markets (local, statewide, national, international) along with their respective percentage to total sales and the customers served
6. Philanthropic or other ways in which the business contributes or will contribute to Minnesota
7. Attach two years of historical financials (Profit & Loss/Balance Sheets/Income Statement/Cash Flow Statement) and financial projections

PART B – Project Description. Describe the project for which JCF funds are being requested. Please include the following information:

8. Provide details for the project for which JCF funds are being requested. Discuss topics such as square footage increase, lease vs ownership, new construction vs renovation or leasehold improvements, etc.
9. Describe how the JCF project will strengthen and/or diversify the local or Minnesota economy
10. Describe any local government assistance for the JCF project (e.g., city loan, abatement, TIF, etc.) and comment on dollar amounts and/or general information on any city projects related to this project.
11. Attach line-item construction cost estimates for real property improvements for the JCF project
12. If available, attach a commitment letter from each financing source (ie Financial Institutions), including a letter of commitment for any business equity

PART C – Business Competitors. Identify the competitors of the business within local community (city and county), the adjacent counties, and in the state of Minnesota. Include:

13. The name of each major competitor and the location of each competitor by city
14. How the products or services are different than the JCF business'
15. How the markets are different from the JCF business'

PART D – Detailed job & wage information.

16. If applicable, provide quarterly payroll reports from the last year for current permanent full-time employees who will be located at the JCF project site
17. For new full-time permanent employees, complete the form on Page 5 of this application or attach a listing of jobs that includes the information from the form on Page 5.

SECTION 4 - BUSINESS ACKNOWLEDGMENT AND CERTIFICATION

DATA PRIVACY ACKNOWLEDGMENT:

Tennessen Warning Notice: per MN Statutes 13.04, Subd.2, this data is being requested from you to determine if you are eligible for an award under the Job Creation Fund program. You are not required to provide the requested information, but failure to do so may result in the department’s inability to determine your eligibility for an award pursuant to the criteria developed under the program’s enabling legislation and rules. The data you provide is classified as private or non-public and cannot be shared without your permission except as specified in statute.

Data Privacy Notice: per MN Statutes 13.591, Subdivision 1, certain data provided in this application is private or non-public data; this includes financial information about the business, including credit reports, financial statements, net worth calculations, business plans; income and expense projections; balance sheets; customer lists; income tax returns; and design, market, and feasibility studies not paid for with public funds. Per MN Statutes 116J.401, Subd. 3., certain data provided in this application is private data; this includes data collected on individuals pursuant to the operation of the Job Creation Fund Program.

BUSINESS CERTIFICATION:

Financial Assistance Certification: I hereby certify that the Job Creation Fund program is necessary to my business start-up or expansion and that without the Job Creation Fund my business start-up or expansion project would not happen to the extent outlined in the Job Creation Fund Application. I certify that I will not count any existing positions or employees moved or relocated from another of Minnesota facility where my business conducts operations as new permanent full-time employees for the purposes of fulfilling requirements of the Job Creation Fund Program. I certify I will not terminate, lay-off, or reduce the working hours of an employee for the purpose of hiring an individual to fulfill the requirements of the Job Creation Fund Program. I certify that I will pay prevailing wages as required under the laws of the State of Minnesota if applicable. I certify I will enlist the services of the Workforce Center Business Services and will sign a Job Listing Agreement as a condition to receiving funds in excess of \$200,000 from the MN Department of Employment and Economic Development.

I have read the above statements and I agree to supply the information requested to the MN Department of Employment and Economic Development, Office of Business Finance with full knowledge of the information provided herein. I certify that all information provided herein is true and accurate and that the official signing this form has authorization to do so.

Name/Title of Business Official: _____

Signature of Business Official: _____ Date: _____

LOCAL GOVERNMENT CERTIFICATION:

I hereby certify that as the local government contact for the proposed Job Creation Fund project, I have reviewed the application and business information. I agree to work with the Job Creation Fund Program business applicant to supply information requested by the MN Department of Employment and Economic Development, Division of Business and Community Development.

Name/Title of Local Government Contact: _____

Signature of Local Government Contact: _____ Date _____

Economic Development Authority (EDA)

4. 2.

Meeting Date: 07/09/2015

Submitted For: Patrick Brama, Administrative Services

By: Patrick Brama, Administrative Services

Title:

Review Future Business Park Infrastructure Analysis Preliminary Report

Purpose/Background:

PURPOSE:

The purpose of this case is to review a preliminary report from Bolton & Menk on required infrastructure improvements to the City's future business park.

Due to the complexity and length of this report, Staff would like to provide an opportunity for Bolton & Menk to present this report to the EDA from a preliminary perspective. This will allow for face-to-face dialogue, Q&A and EDA suggested edits/ changes to be made before Bolton & Menk finalizes this report in August (this case will be brought back to the EDA and Council in August for adoption).

Staff has already reviewed and revised this document. Staff is not looking for a specific motion or direction from the EDA at this point.

Staff Note:

It is Staff's perspective, the "Project Financing" portion of this report is the last major outstanding item (page 11). Bolton & Menk would like to receive comments/ amendments to this preliminary report before the "Project Financing" section is completed. Staff intends to direct Bolton & Menk to develop multiple financing options (per acre, per lineal foot, per phase, etc.). Staff will also connect with other City's and private developers to identify alternative strategies for assigning costs/ project financing.

Notification:

NA

Observations/Alternatives:

NA

Funding Source:

TIF 1

Recommendation:

NA

Action:

Staff has already reviewed and revised this document. Staff is not looking for a specific motion or direction from the EDA at this point. Staff is looking for general comments/ questions/ suggested amendments to the report. Staff will bring forward a case to the EDA and Council in August; at which time, the EDA will be asked to adopt this report (that report will also include a set of cost/ financing alternatives).

After the final Bolton & Menk report is adopted in August, Staff will bring forward a detailed discussion related to the cost-benefit of a future business park in September; including the City's policy stance on several items (i.e. adopt a strategy for funding infrastructure, adopt a stance on incentives, and various other policy items).

Attachments

Ramsey Business Park 07022015

Request For Qualifications (RFQ) Future Business Park Bunker and Puma Improvements 11 19 2014

Form Review

Inbox

Kurt Ulrich

Form Started By: Patrick Brama

Final Approval Date: 07/06/2015

Reviewed By

Kurt Ulrich

Date

07/06/2015 04:25 PM

Started On: 07/05/2015 08:59 AM



Preliminary Report

for

Future Business Park

City of Ramsey



TABLE OF CONTENTS

INTRODUCTION.....	1
STUDY CONTENT.....	1
INITIAL INFORMATION	2
GENERAL DISCUSSION.....	2
UNDERSTANDING PREVIOUS IMPROVEMENTS	4
ADDITIONAL ANALYSIS.....	6
COST CONSIDERATIONS.....	10
PROJECT FINANCING.....	11

APPENDICES

- APPENDIX A – FIGURES**
- APPENDIX B – TRAFFIC STUDY**
- APPENDIX C – STORM WATER ANALYSIS**

INTRODUCTION

The Ramsey City Council and Ramsey Economic Development Authority (EDA) have identified the need to prepare for the development of a new business park within the City. The City is targeting a large area of privately owned green-field space located on the north side of Trunk Highway 10, west of Armstrong Boulevard, for a future Ramsey Business Park. Currently, the City is in the process of rezoning this area to meet future land use goals. Figure 1 in Appendix A depicts the general area of the business park and study area.

The future business park is one component (about 92 acres) of a larger green-field area ready for development (about 350 acres). This larger green-field area includes areas for single-family residential development (about 118 acres), medium-density residential (about 31 acres) and room for a future private school campus (about 90 acres). In addition to green-field development, the City expects a portion of existing adjoining light-industrial space to be redeveloped into a traditional retail/commercial area (about 42 acres). See Figure 2 in Appendix A for future land use goals.

The City's future business park, and larger developable green-field area, will be served by the future Trunk Highway 10/Armstrong Boulevard (CSAH 83) interchange. Construction of this interchange began in the spring of 2015 and is expected for completion in the spring of 2017. The City expects the construction of this major interchange to increase the demand for development of this green-field area; and the future Ramsey Business Park.

The primary roadway system serving this developable area is Bunker Lake Boulevard and Puma Street. These roadways are both Municipal State-Aid (MSA) streets. This analysis includes studying traffic impacts resulting from the future business park (along with other users), examining the feasibility of constructing supporting infrastructure, and developing preliminary design layout plans and specifications.

STUDY CONTENT

The primary purpose of this analysis is to determine minimum required infrastructure needs and costs associated with developing the green-field area. Roadways and intersections included in the study are as follows:

- Bunker Lake Boulevard from Armstrong Boulevard to Puma Street,
- Puma Street from Bunker Lake Boulevard to Alpine Drive,
- The Bunker Lake Boulevard/ Armstrong Boulevard intersection,
- The Bunker Lake Boulevard/ Puma Street intersection,
- The Puma Street/ Alpine Drive intersection, and

-
- The Armstrong Boulevard/ Alpine Drive intersection.

Figure 3 in Appendix A depicts the roadways and intersections included in this analysis.

Our analysis consists of four separate components that, when tied together, provide an overview of the corridor needs:

- **Traffic Impact Study** – Defines the needs of the roadways and intersections in the study area,
- **Regional Storm Water Analysis** – Defines conceptual storm water ponding needs,
- **Preliminary Design Layout** – Provides a graphical depiction of the roadways and intersections, and
- **Final Report** – Describes required infrastructure improvements, layouts and costs.

INITIAL INFORMATION

Prior to the study, the City of Ramsey provided the following information and guidance for the study area.

- The City is not master-planning this entire developable area. It is unknown where internal driveways, roadways and curb-cuts will be needed. Therefore, the design of Bunker Lake Boulevard and Puma Street should not include any new curb-cut locations.
- Stubbing of sewer and water utilities along Bunker Lake Boulevard and Puma Street should be completed at regular intervals based on future land use needs.
- Cost estimations and design should include: roadway, trails/sidewalks, storm water management, street lighting, trunk water service and trunk sewer service.
- The intersection of Bunker Lake Boulevard and Armstrong Boulevard was constructed in 2011. Verification that this intersection was constructed to accommodate traffic demands must be completed.
- The City has adopted Comprehensive Sanitary Sewer and Water Plans. These plans should be reviewed and consulted as forecasting and design work is completed.
- Regional storm water considerations and solutions should be included in the study.

GENERAL DISCUSSION

While the primary focus of the analysis is related to providing infrastructure to serve development, additional considerations can influence decision-making. The following items were considered throughout the course of the analysis.

Right-of-Way Requirements

While it is anticipated that most of the improvements will be development driven, and Right of Way will be secured through the platting process, understanding and documenting the potential needs will allow the City to plan in advance for acquisitions. The City can then provide that documentation to developers as they begin to consider options within the study area.

Phased Improvements

While there is a general understanding of the improvements required to ultimately serve the area, sequencing of the improvements will allow for planning and fiscal responsibility. Our understanding of the most logical phasing sequence includes:

- **Phase 1** – Complete construction of Bunker Lake Boulevard from Armstrong Boulevard to the westerly school property driveway. Sanitary sewer and water have already been extended to this point.
- **Phase 2** – Construction of Bunker Lake Boulevard from the Phase 1 limits to Puma Street. Construction of Puma Street from Bunker Lake Boulevard to the north. The northerly limits along Puma Street will be the approximate location of a lift station required to serve areas further to the north and west.
- **Phase 3** – Completion of improvements along Puma Street.
- **Future Phases** – We verified the improvements considered can service areas beyond Phase 3. For instance, the gravity sanitary sewer can serve areas west of Puma Street. No further work was completed beyond Phase 3 other these verifications.

Costs for each phase were developed to allow for the City to plan for the sequenced implementation of the improvements. The anticipated phasing is depicted on Figure 4 in Appendix A.

Jurisdictional Authority/Approvals/Permits

As the project moves from the planning stages to design and construction, permits will be required from various agencies. Understanding and planning for requirements associated with obtaining permits and approvals at this time will be critical to the ultimate success of the process. The following agencies will be permitting entities for considered improvements:

- Minnesota Department of Transportation State Aid: Bunker Lake Boulevard and Puma Street are State Aid routes,
- Minnesota Pollution Control Agency: NPDES Storm Water Permit,
- Minnesota Pollution Control Agency: Sanitary Sewer Extension Permit,
- Minnesota Department of Health (MDH): Watermain Extension and Dewatering,

-
- Anoka County: Work in Right of Way, and
 - Lower Rum River Watershed Management Organization: Storm Water.

Recent Improvements

Improvements to the area were completed in 2011. The street and utility improvements completed at that time included:

- Extension of sanitary sewer along the west side of Armstrong Boulevard from just north of Sunwood Drive to Bunker Lake Boulevard,
- Extension of watermain from the east side of Armstrong Boulevard to the west side of Bunker Lake Boulevard,
- Extension of sanitary sewer and watermain in newly platted Bunker Lake Boulevard right-of-way,
- Development of a storm sewer system to service the street and right-of-way requirements,
- Extension of Bunker Lake Boulevard roadway,
- Paving of Puma Street, and
- Extension of a bituminous trail along Puma Street from Bunker Lake Boulevard to Alpine Drive.

All of the improvements completed at that time were consistent with the City's Comprehensive Plans.

UNDERSTANDING PREVIOUS IMPROVEMENTS

Significant consideration and planning was completed prior to completion of the improvements constructed in 2011. Understanding the thoughts behind previous improvements can help avoid omissions when considering future improvements.

Street and Trail Improvements

Bunker Lake Boulevard

The previous improvements provided a two-lane roadway from Armstrong Boulevard to Puma Street. The roadway was designed to allow for future widening and expansion as development and other potential transportation improvements surrounding the area increased traffic on this roadway. It was anticipated that ultimate expansion of Bunker Lake Boulevard to two lanes in each direction with center turn lane would be required for future development along Bunker Lake Boulevard.

The Comprehensive Plan indicates that projected traffic on this roadway could be 11,000 ADT if the street is part of a future Mississippi River crossing. Without being part of a River crossing, the Comprehensive Plan provides 20-year projections of 5,000 ADT.

The roadway was located within the right-of-way to provide future flexibility in roadway expansion with minimal modifications to what will be constructed.

Puma Street

Improvements to Puma Street were evaluated because of the need to extend Bunker Lake Boulevard to Puma Street, a distance of about one-half mile.

Puma Street received only minimal improvements, being widened from 18 feet width to 24 feet and paved with 2 inches of bituminous over 6 inches of aggregate base. More significant upgrades to the roadway were anticipated, but not completed at that time.

The anticipated future requirements included a 32 foot wide street with curb and gutter with full base and pavement improvement.

Bituminous Trails

A 10-foot wide bituminous trail was constructed along the north side of the Bunker Lake Boulevard from Armstrong Boulevard to Puma Street and on the west side of Puma Street from Bunker to Alpine Drive.

Intersections

Bunker Lake Boulevard and Armstrong Boulevard was reconstructed to include turn lanes and signalization.

Sanitary Sewer Improvements

Sanitary sewer was extended north along the west side of Armstrong Boulevard from 146th Avenue/Sunwood Drive NW to Bunker Lake Boulevard. To meet the Comprehensive Sanitary Sewer Plan and serve additional areas beyond the study area, a 21-inch sewer main was constructed. It was intended to extend the 21-inch trunk sewer further to the north to service Fire Station No. 1 and the proposed future location of the water treatment plant.

In accordance with the Comprehensive Plan, an 18-inch sanitary sewer was extended westward along Bunker Lake Boulevard. This line will provide service to the study area, as well as future development that may occur on the south side of Bunker Lake Boulevard, and could be further extended in accordance with the Comprehensive Plan.

Water Distribution and Supply Improvements

Watermain was extended across Armstrong Boulevard from the main on the east side of Armstrong Boulevard. From there, the watermain was further extended westward in Bunker Lake Boulevard.

It was planned to extend this trunk watermain west to Puma Street and north to Alpine Drive via

Puma Street to provide future looping and provide water to unserved areas and future developments. Loops within future development would be utilized to promote reliability and functional flexibility as well as promoting fresh water moving throughout the system.

It was previously determined that the elevated storage for the City of Ramsey is adequate to provide fire flow to the study area. The distribution system was also found to be adequate to move the water from the City's three towers to the study area.

Additional Consideration:

The right-of-way of Bunker Lake Boulevard could be utilized for a future route of a 30-inch raw watermain from a future intake on the Mississippi River to the proposed site of the water treatment plant, just south of Fire Station No. 1. Because the exact location of the intake and raw watermain alignment had not yet been determined, no provisions were made during the previous improvements.

Storm Water Management

Drainage for the study area is essentially sheet flow to the center of the site to existing wetlands, and then easterly through the wetlands and through a culvert under Armstrong Boulevard. Runoff continues to flow into the actively developing COR area.

A storm sewer system was installed in Bunker Lake Boulevard to manage the storm water runoff within the right-of-way. We anticipate that this included considerations for the future widening and extension of Bunker Lake Boulevard as well.

Extensive hydraulic modeling was refined and detail added to represent preliminary storm water management conditions for future development scenarios.

ADDITIONAL ANALYSIS

As a portion of this analysis, we completed traffic and storm water studies and reviewed City Comprehensive Plans for sanitary sewer and water main needs for the study area. The traffic study is included as Appendix B and the storm water study is included as Appendix C to this report. The following is a summary of results for the various analyses and reviews.

Traffic Analysis

The traffic analysis was completed to determine required lane geometry for Bunker Lake Boulevard and Puma Street, along with turn lane requirements at four intersections in the study area.

The Future Business Park development is proposed north of Trunk Highway (T.H. 10) and west of Armstrong Boulevard. Armstrong Boulevard is a critical north-south corridor for the City of Ramsey, Anoka County, and the region carrying traffic from T.H. 10 to surrounding areas. The Business Park development includes residential, business park, commercial, and institutional land uses. These land uses result in an increase of 18,500 to 23,300 trips per day into and out of the area at full build.

The traffic increase from both the background growth and the development results in a need for capacity improvements at individual roadways and intersections in the study area. The following concise summary of improvements should be completed based on the mitigation necessary to achieve acceptable operations. For the 2040 Full-Build scenario, operations can be improved, but will still be considered unacceptable at many of the intersections. This is due to the large amount of traffic entering and exiting on Bunker Lake Boulevard and Armstrong Boulevard. Short term improvements are intended to mitigate current safety or operations problems, mid-term improvements are needed to accommodate both development and background traffic growth, and long-term improvements are needed to handle the overall development to year 2040.

Exact timing for improvements will be based upon the actual development timing and background traffic growth. Short Term improvements can be considered as the minimum requirements based on projected traffic growth. Mid Term and Long Term improvements are considerations and may ultimately be required to serve the area.

Short Term Improvements

- Bunker Lake Boulevard (west of Armstrong Boulevard): Expand to a four lane section for development.
 - The eastbound approach should include two 300 foot left turn lanes, two through lanes, and one right turn lane.
 - A full median should be provided to the west end of the commercial area.
 - A full access should be at least 845 feet from Armstrong Boulevard and a right in/right out access should be at least 470 feet from Armstrong Boulevard.
- Bunker Lake Boulevard (west of commercial section): Expand to a three lane section for development (two through lanes and one center left turn lane).
 - Right turn lanes (locations and lengths) will be determined based on development type.
- Puma Street: Expand to a three lane section for development (two through lanes and one center left turn lane).
 - Right turn lanes (locations and lengths) will be determined based on development type.
- Bunker Lake Boulevard & Puma Street: An all-way stop, two-way stop, or roundabout will operate adequately at this intersection for the 2040 Full-Build conditions. The roundabout option may offer better operations than the other two options at 2040 Full-Build.

Mid-Term Improvements

- Armstrong Boulevard & Alpine Drive: Add northbound and southbound left turn lanes. Modify eastbound and westbound lanes to include a thru/left and a right turn lane.
- Alpine Drive & Puma Street: Add a westbound left turn lane and eastbound right turn lane.
- Armstrong Boulevard & Bunker Lake Boulevard: Re-stripe southbound lanes to include a dual southbound left turn lane. A southbound double left turn lane will help reduce queues entering the COR development. Improvements were done in 2011 to this intersection and a future southbound left turn lane was designed, but not striped.

Long-Term Improvements

- Armstrong Boulevard & Bunker Lake Boulevard: Modify the southerly eastbound through lane to a through-right lane. Another option would be to keep the two through lanes and modify the right turn lane into a free right with an add lane that runs south to T.H. 10.

Alternative Improvements

At several locations along the corridor, opportunities exist for implementation of alternative alignments. These are depicted as options to consider based on development concepts.

Alternative concepts are depicted at the intersection of Bunker Lake Boulevard and Puma Street (Figure 10) and the intersection of Puma Street and Alpine Drive (Figure 12). The alternatives are provided for future discussion and will not significantly impact project costs.

Figures 5 through 12 in Appendix A depict future roadway and intersection improvements in the study area.

Sanitary Sewer and Water Main

An 18-inch sanitary sewer main was extended west along Bunker Lake Boulevard as a portion of the 2011 improvements. Based on information contained in the Comprehensive Plan, The 18-inch line will be extended along Bunker Lake Boulevard and north along Puma Street. North of the Puma Street/Bunker Lake Boulevard intersection, grade becomes an issue and a sanitary sewer lift station is required to serve areas further north and west. North of the lift station, the Comprehensive plan indicates a 12-inch gravity main will be adequate to convey sanitary sewer flows from the area.

A 16-inch water main was extended west along Bunker Lake Boulevard as a portion of the 2011 improvements. The Comprehensive plan indicated that either a 12-inch or a 16-inch water main would be required along Bunker Lake Boulevard and Puma Street, depending on the final selected location of a future water treatment plant to be constructed in this area. For our analysis, we assumed a 16-inch water main would be constructed.

Figures 13 through 15 in Appendix A depict sanitary sewer and water main improvements.

Storm Water Management

Storm water management concepts were developed to maintain existing drainage patterns and preserve the conveyance and flood storage capacity of the primary wetland corridor that bisects the area. This will restrict development along the wetland corridor and retain the pre-development flood capacity, thereby maintaining existing flow rates into the COR.

The study area can be segmented into three drainage districts, generally delineated by future land use. Figure 16 in Appendix A displays the drainage area breakdown and a general regional pond layout. The drainage area consists of a multi-use site (Area 1), residential area (Area 2), and commercial and industrial sites (Area 3). The watersheds were modeled under future land use conditions to generally size retention ponds to meet existing flow rates. The ponds were also located with respect to potential storm sewer depths, reductions in wetland impacts, maximization of developable area and potential aesthetic function.

The ponds depicted on Figure 16 in Appendix A depict areas that are best suited for regional rate control basins only. Additional design parameters and regional storm water management planning should be further refined as the areas begin to develop.

Cost estimates were not developed for the regional pond construction or internal site storm sewer conveyance. It is anticipated that costs associated with pond construction will be completed by the developer as a portion of the site grading. Also, it is assumed that internal site drainage will be accommodated by dry swales and ditch systems to reduce storm sewer costs.

Street Lighting

Street lighting was included in the project costs to the level provided along Riverdale Drive, east of Armstrong Boulevard. This includes both street level lighting and pedestrian lighting along the corridors.

Trails/Sidewalks

Existing trails were previously constructed along the north side of Bunker Lake Boulevard and the west side of Puma Street. Project costs were prepared which include trails along the south side of Bunker Lake Boulevard and the east side of Puma Street.

Phase Transitions

There is the potential for portions of the roadways to be constructed to wider sections than currently exist. If this occurs, the new roadways will need to taper to meet the existing roadway widths. The tapered sections will then be removed as the next phase of improvements is completed. Costs were included in each phase for these tapering sections.

Right Turn Lane Additions

The roadways depicted in the exhibits depict through lanes and left turn lanes. Right turn lanes will be required at each access off of Bunker Lake Boulevard and Puma Street. Individual access locations were not considered in this study, and so the locations and lengths of right turn lanes were not considered at

this time. The actual access locations will be dependent upon the type of land use and internal site characteristics. We included allowances for the right turn lanes in each phase for budgeting purposes.

Landscaping

The base project includes a very utilitarian approach to the area. Bituminous trails and lighting were included, but other features, such as trees, shrubs, decorative features and monuments are not included in the estimated project costs.

Right of Way and Easements

Locations of right of way needs are depicted on the exhibits based on roadway and trail needs. The exact areas will need to be determined during the platting process. We assumed that the rights of way would be dedicated as a portion of the development process and no costs are included in the project costs for acquisitions.

COST CONSIDERATIONS

Costs were developed based upon phased implementation. The phasing is as depicted on Figure 4 in Appendix A.

<u>Improvement Type</u>	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>
Roadway	\$ 1,153,000	\$ 920,000	\$ 1,160,000
Trails/Sidewalks	\$ 172,000	\$ 126,000	\$ 151,000
Storm Water Management	\$ 0	\$ 0	\$ 64,000
Street Lighting	\$ 154,000	\$ 112,000	\$ 136,000
Trunk Water	\$ 7,000	\$ 272,000	\$ 283,000
Trunk Sanitary Sewer	\$ 0	\$ 185,000	\$ 620,000
Phase Transition	\$ 120,000	\$ 120,000	\$ 80,000
Right Turn Lane Additions	<u>\$ 200,000</u>	<u>\$ 200,000</u>	<u>\$ 200,000</u>
Improvements Costs/Phase	\$ 1,806,000	\$ 1,935,000	\$ 2,694,000

The above costs are considered project costs and include 30% contingencies and project development costs.

The Phase Transition amounts are costs associated with tapering pavements sections to match in-place sections where required.

Right turn lanes are not depicted on the graphics, but will be required. The actual right turn lane locations and lengths will be determined by the entrance locations, land use and associated traffic impacts. Costs included for right turn lanes in the estimate are considered average amounts based on anticipated accesses for the area.

Street lighting costs are based upon recent installations within the City of Ramsey.

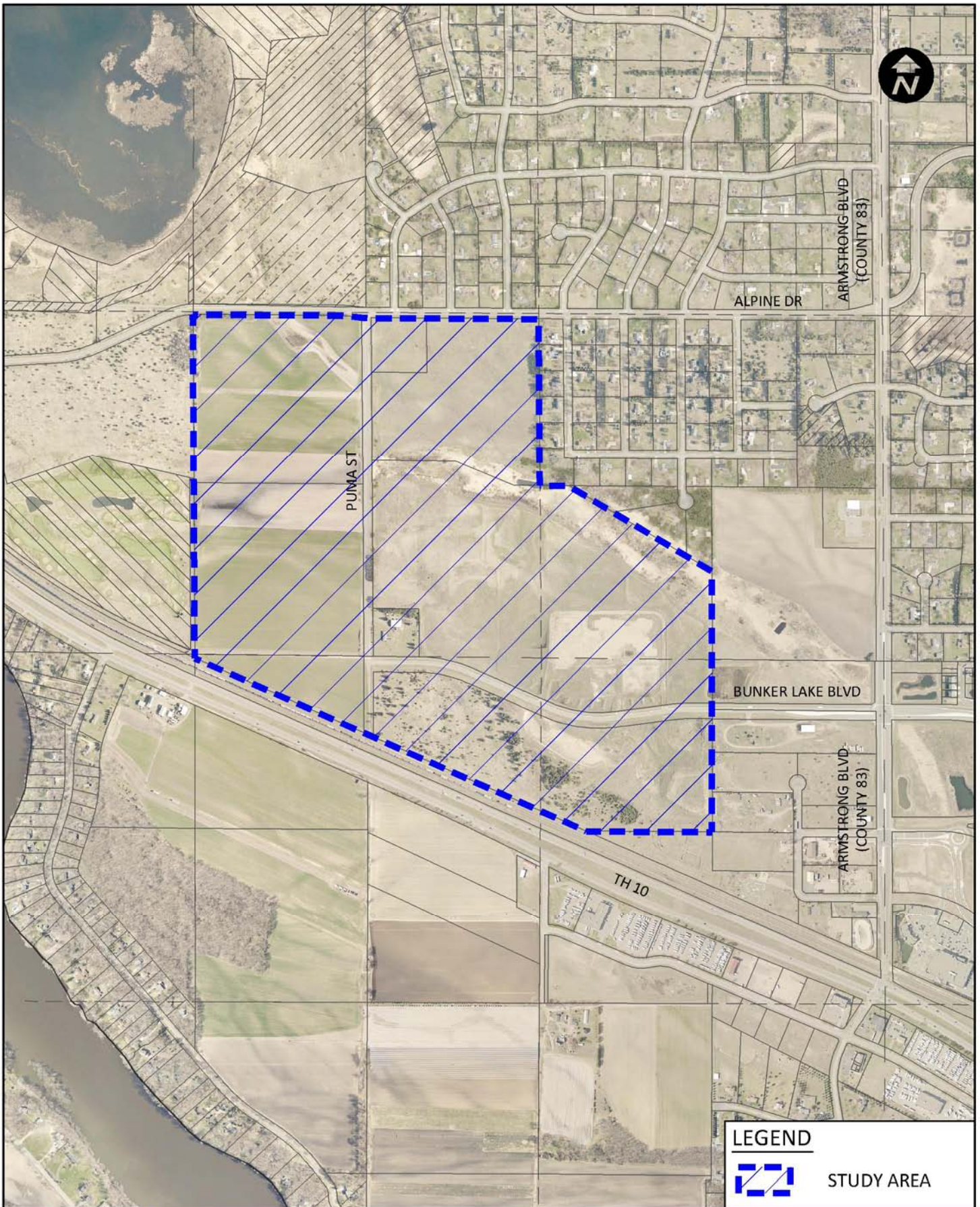
For storm water management, costs were included for manholes, catch basins, and pipe within the street sections. No costs for ponding were included for Phases 1, 2 and 4. For Phase 3, ponding costs were included for excavation related activities. We assumed a ponding area would be acquired through the platting process, and ponding within a development site would be expanded to include volume for roadway drainage.

The Phase 2 limits are based upon the area that can be served by a gravity sanitary sewer system. The Phase 3 sanitary sewer costs include a lift station and forcemain.


PROJECT FINANCING

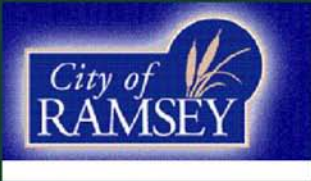


APPENDIX A - FIGURES



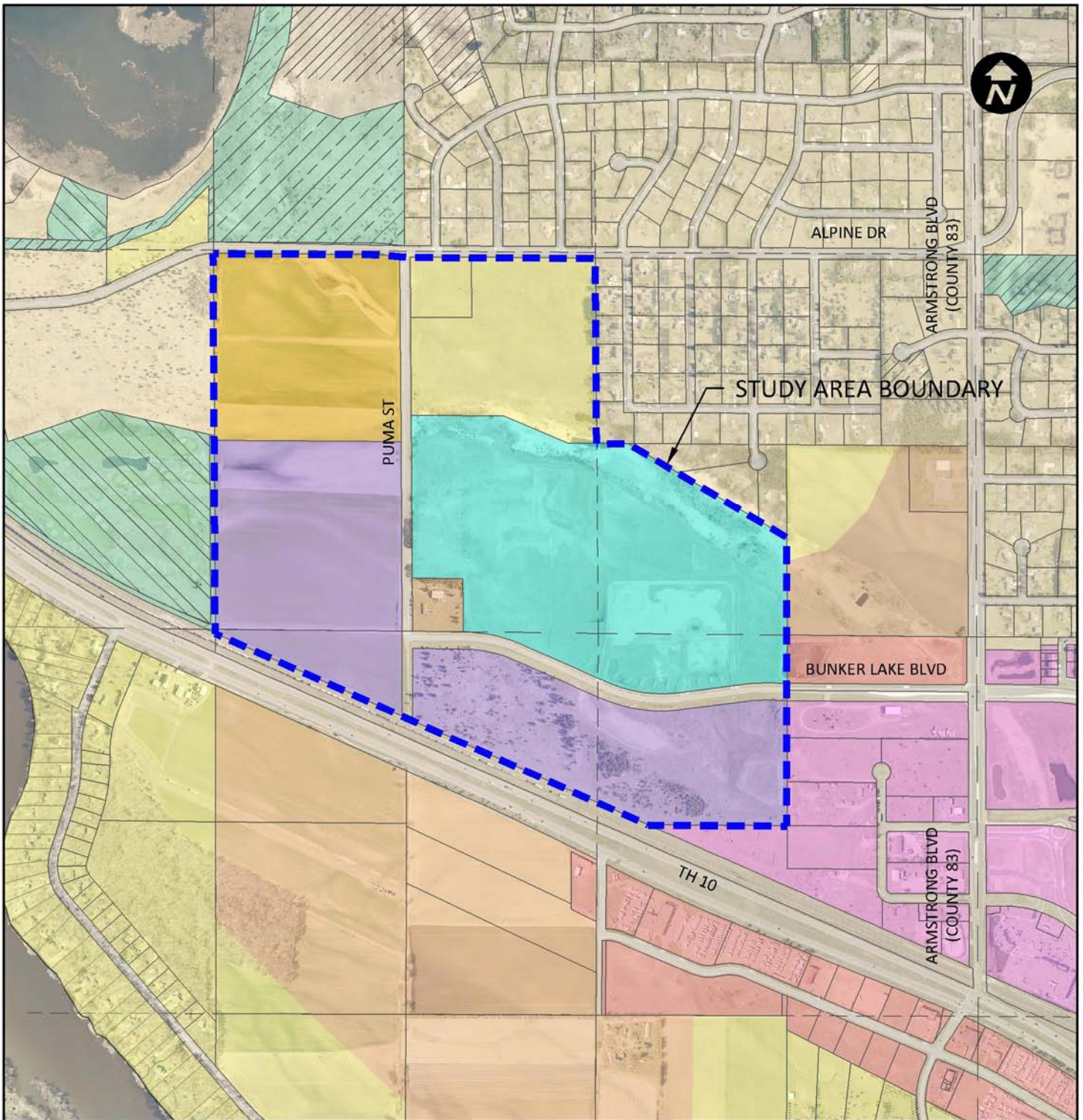
LEGEND

 STUDY AREA



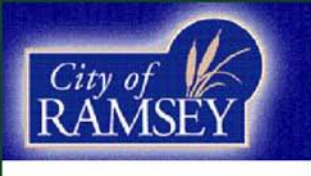
FUTURE BUSINESS PARK CITY OF RAMSEY, MINNESOTA

FIGURE 1 - STUDY AREA
Date, 2015



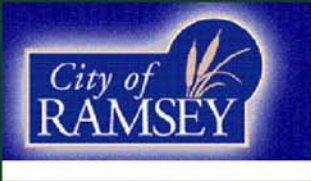
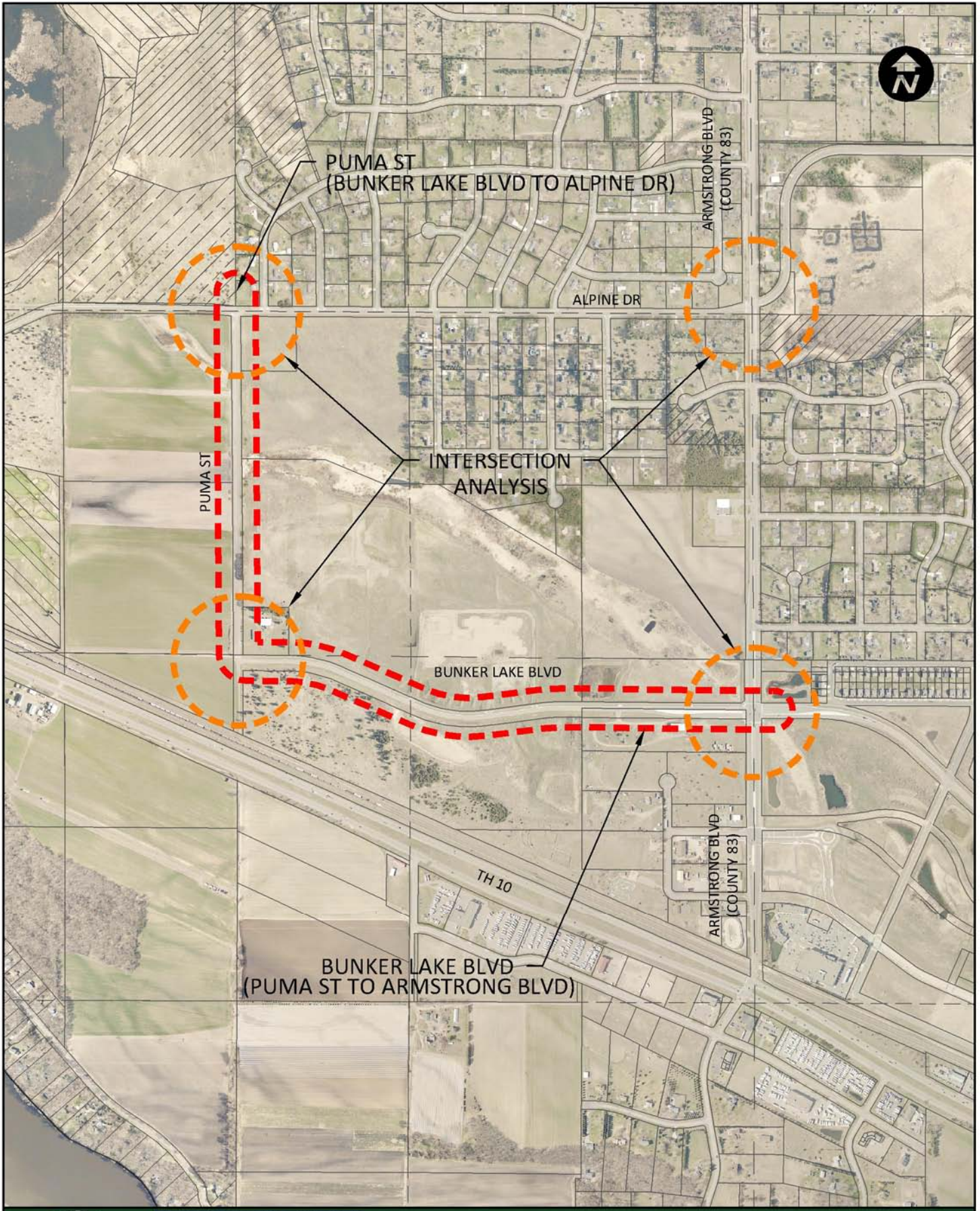
LEGEND

	LOW DENSITY RESIDENTIAL		OFFICE PARK		BUSINESS PARK		RURAL PRESERVE
	MEDIUM DENSITY RESIDENTIAL		COMMERCIAL		PUBLIC		PARK
	HIGH DENSITY RESIDENTIAL		MU		RURAL DEVELOPING		



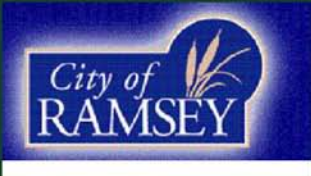
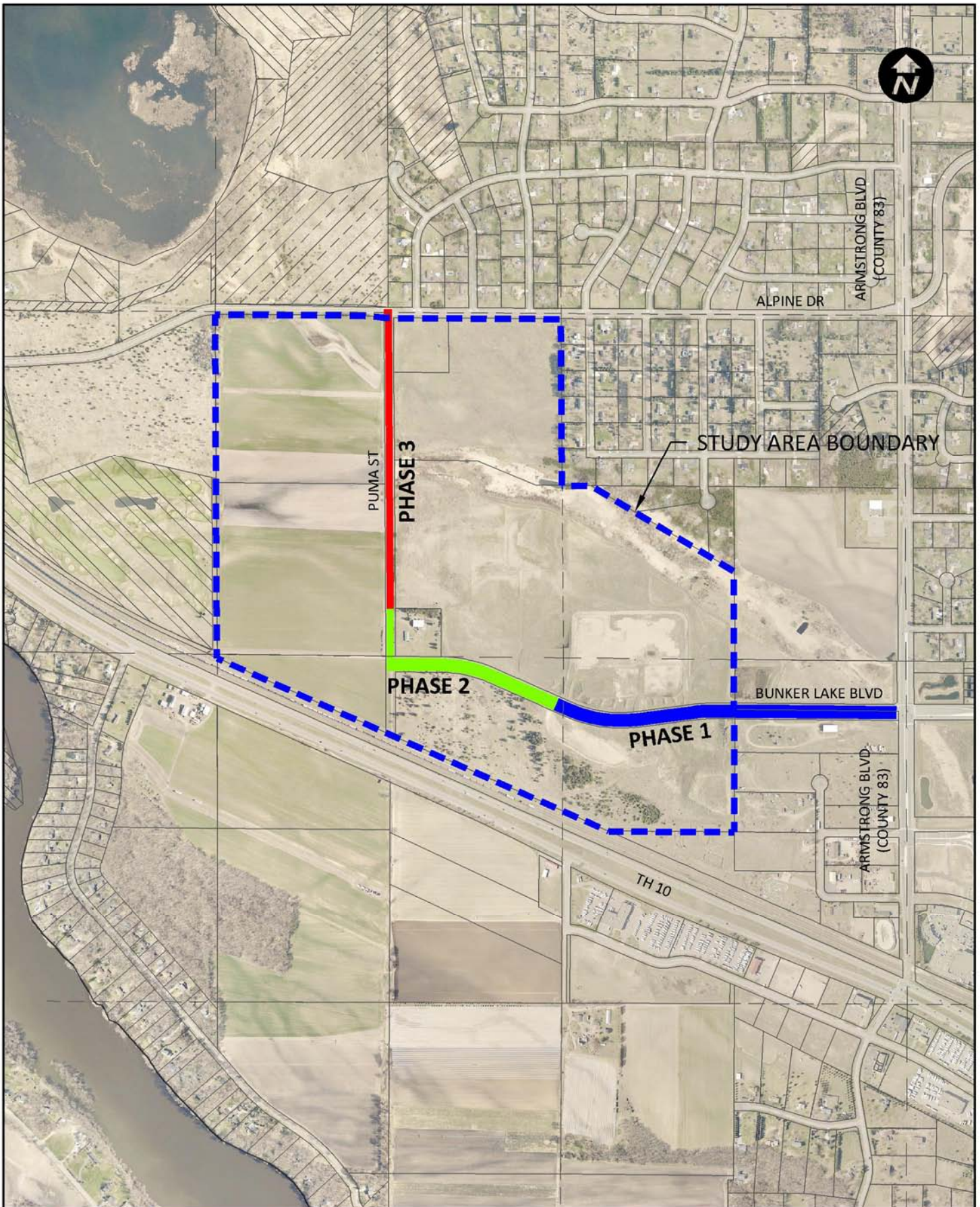
**FUTURE BUSINESS PARK
CITY OF RAMSEY, MINNESOTA**

FIGURE 2 - LAND USE
Date, 2015



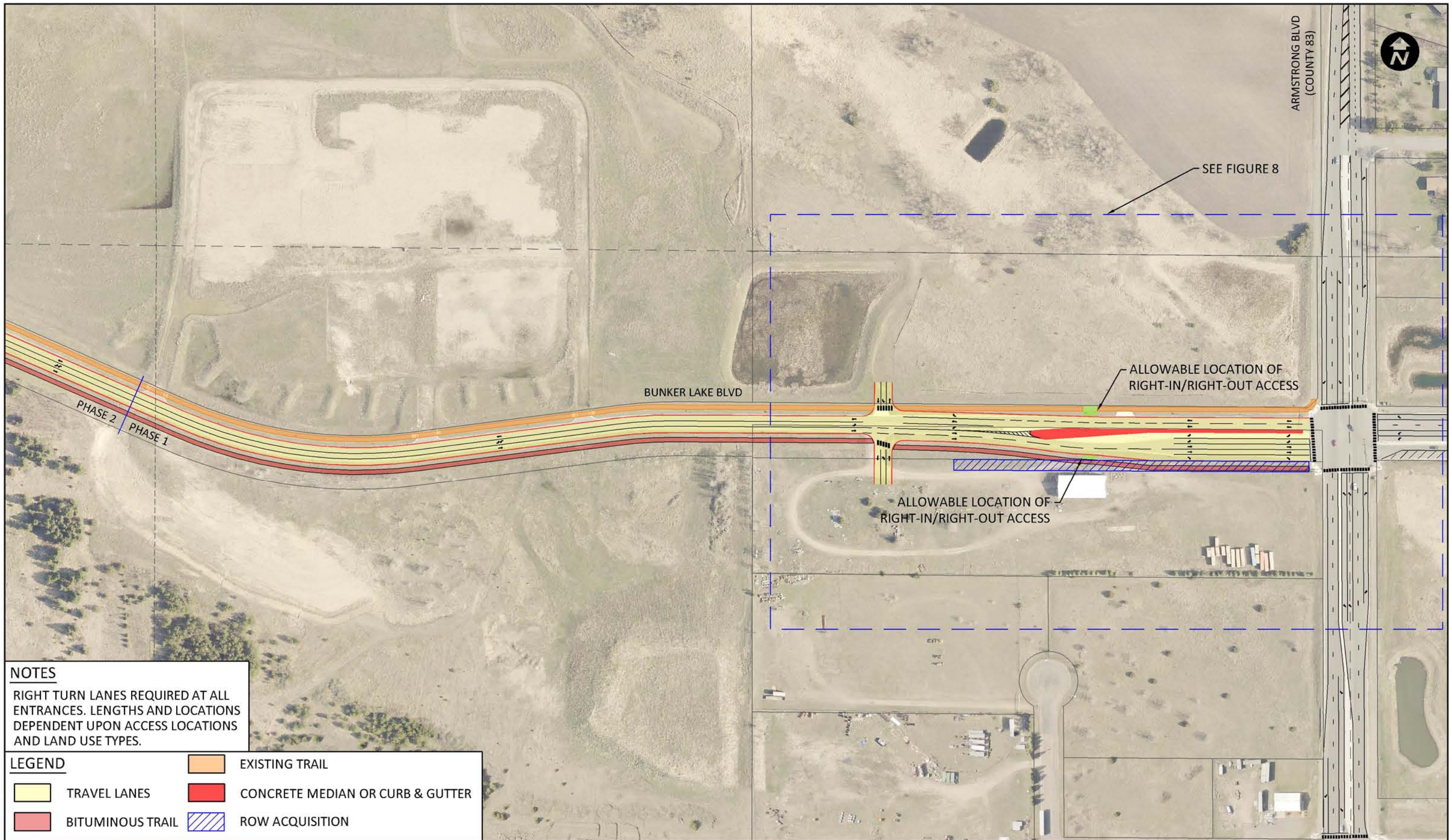
FUTURE BUSINESS PARK CITY OF RAMSEY, MINNESOTA

FIGURE 3 - INFRASTRUCTURE ANALYSIS
Date, 2015



FUTURE BUSINESS PARK CITY OF RAMSEY, MINNESOTA






FIGURE 4 - PHASING
Date, 2015



NOTES

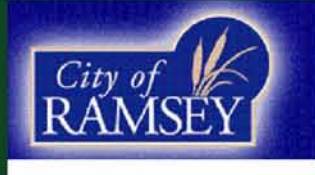
RIGHT TURN LANES REQUIRED AT ALL ENTRANCES. LENGTHS AND LOCATIONS DEPENDENT UPON ACCESS LOCATIONS AND LAND USE TYPES.

LEGEND

	EXISTING TRAIL
	TRAVEL LANES
	CONCRETE MEDIAN OR CURB & GUTTER
	BITUMINOUS TRAIL
	ROW ACQUISITION

**FUTURE BUSINESS PARK
CITY OF RAMSEY, MINNESOTA**

FIGURE 5 - GEOMETRICS
Date, 2015





PUMA ST

PHASE 3
PHASE 2

SEE FIGURES 9 & 10

BUNKER LAKE BLVD

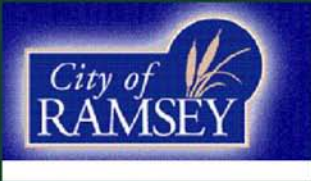
PHASE 2
PHASE 1

NOTES

RIGHT TURN LANES REQUIRED AT ALL ENTRANCES. LENGTHS AND LOCATIONS DEPENDENT UPON ACCESS LOCATIONS AND LAND USE TYPES.

LEGEND

- TRAVEL LANES
- CONCRETE MEDIAN OR CURB & GUTTER
- EXISTING TRAIL
- ROW ACQUISITION
- BITUMINOUS TRAIL



**FUTURE BUSINESS PARK
CITY OF RAMSEY, MINNESOTA**

FIGURE 6 - GEOMETRICS
Date, 2015



ALPINE DR

SEE FIGURES 11 & 12






PUMA ST

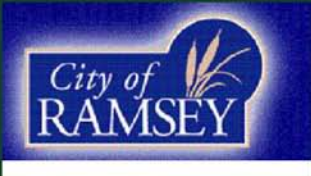
PHASE 3

NOTES

RIGHT TURN LANES REQUIRED AT ALL ENTRANCES. LENGTHS AND LOCATIONS DEPENDENT UPON ACCESS LOCATIONS AND LAND USE TYPES.

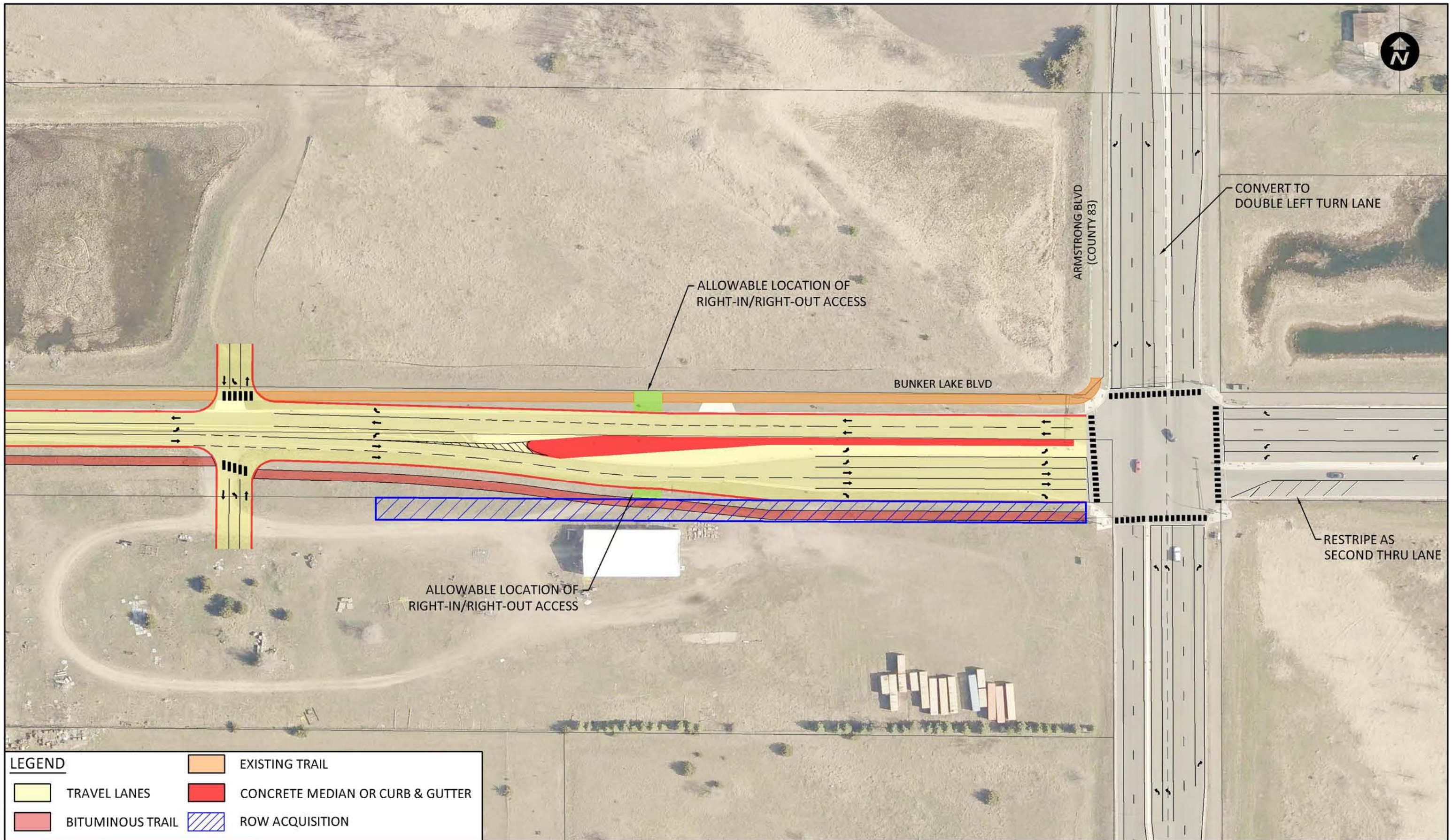
LEGEND

	EXISTING TRAIL		CONCRETE MEDIAN OR CURB & GUTTER
	TRAVEL LANES		ROW ACQUISITION
	BITUMINOUS TRAIL		



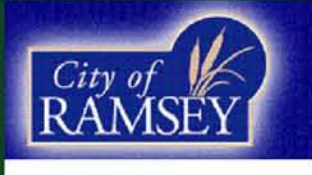
**FUTURE BUSINESS PARK
CITY OF RAMSEY, MINNESOTA**

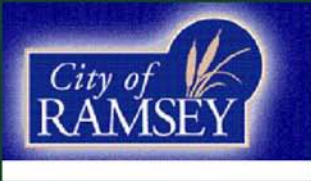
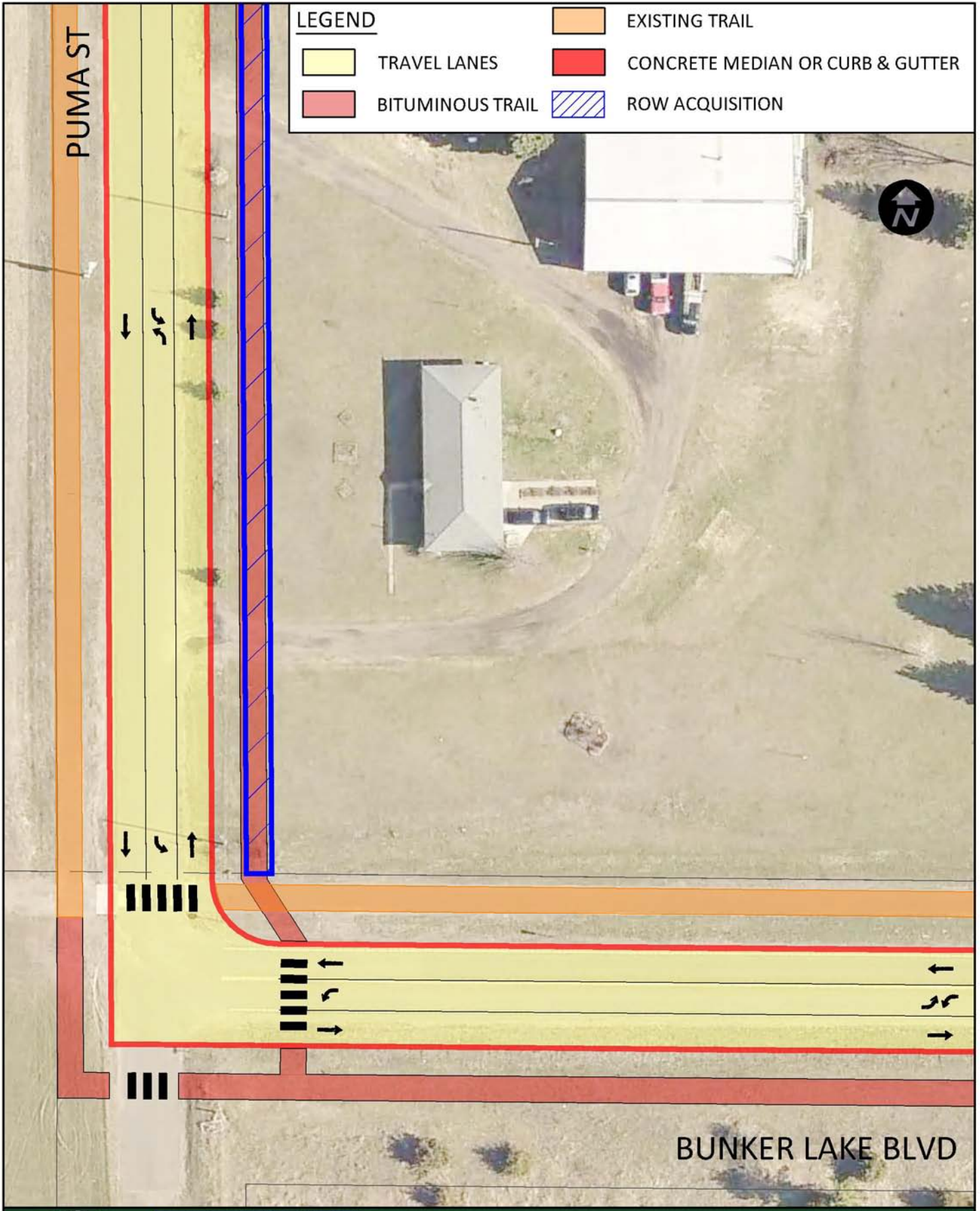
FIGURE 7 - GEOMETRICS
Date, 2015



FUTURE BUSINESS PARK
CITY OF RAMSEY, MINNESOTA

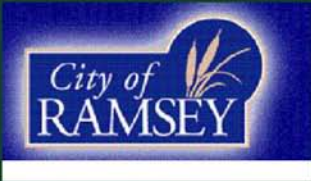
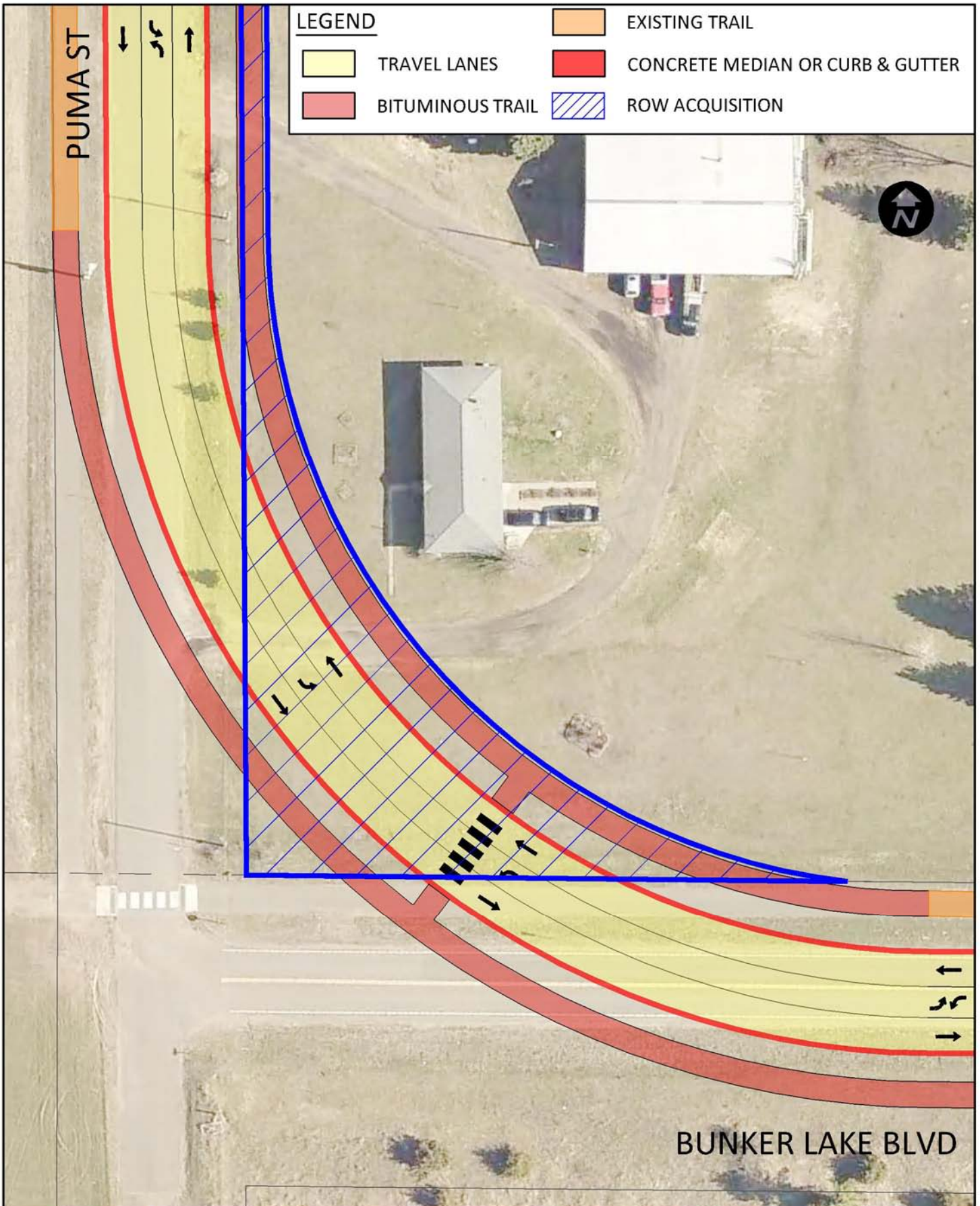
FIGURE 8 - BUNKER LAKE BOULEVARD AT ARMSTRONG BOULEVARD
Date, 2015





**FUTURE BUSINESS PARK
CITY OF RAMSEY, MINNESOTA**

FIGURE 9 - BUNKER LAKE BOULEVARD & PUMA STREET
Date, 2015



**FUTURE BUSINESS PARK
CITY OF RAMSEY, MINNESOTA**
 FIGURE 10 - BUNKER LAKE BOULEVARD & PUMA STREET
 ALTERNATIVE CONCEPT

Date, 2015

LEGEND



TRAVEL LANES



BITUMINOUS TRAIL



EXISTING TRAIL



CONCRETE MEDIAN OR CURB & GUTTER

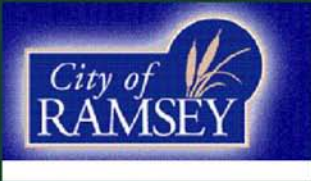
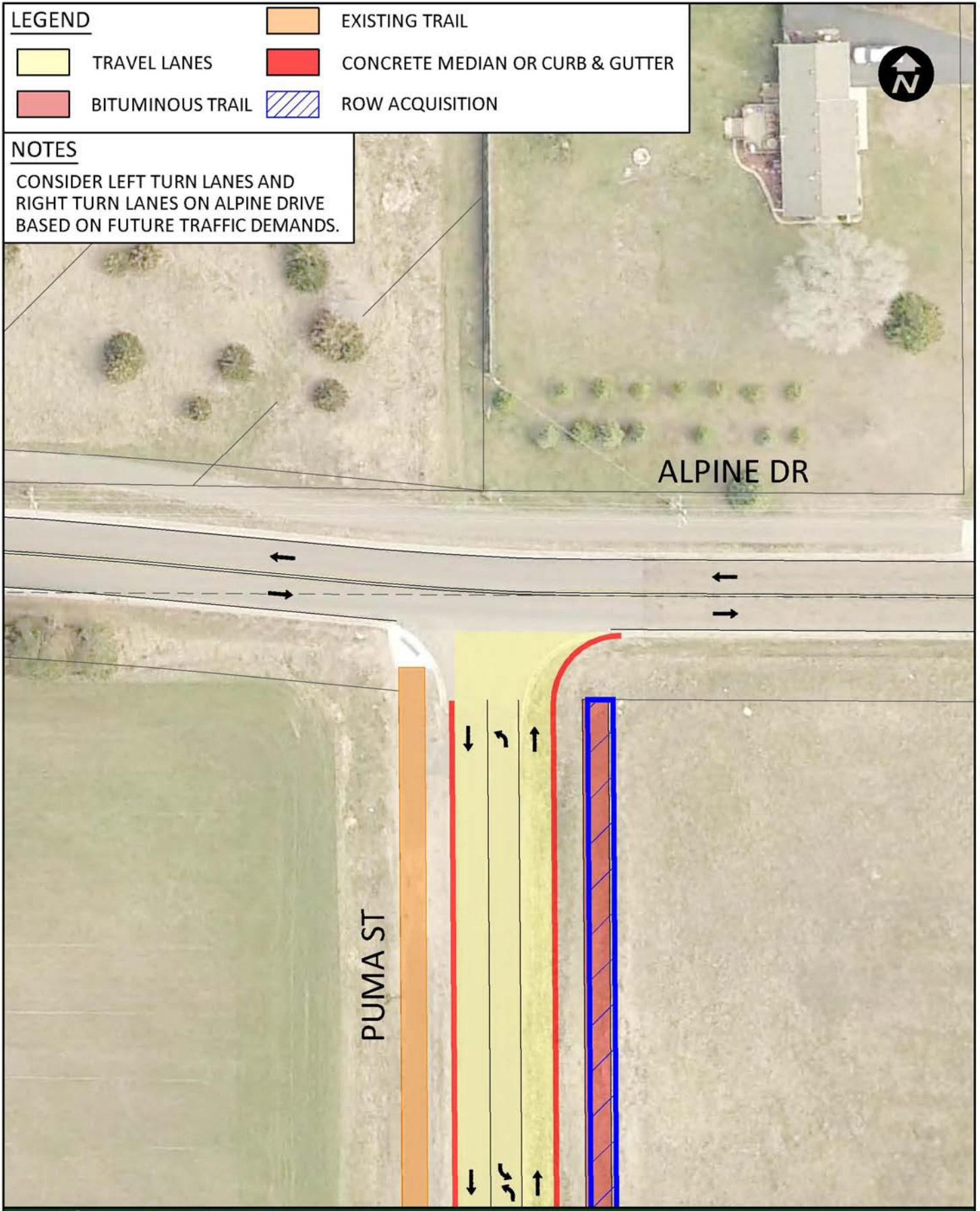


ROW ACQUISITION



NOTES

CONSIDER LEFT TURN LANES AND RIGHT TURN LANES ON ALPINE DRIVE BASED ON FUTURE TRAFFIC DEMANDS.



**FUTURE BUSINESS PARK
CITY OF RAMSEY, MINNESOTA**

FIGURE 11 - PUMA STREET & ALPINE DRIVE

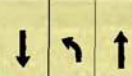
Date, 2015

ALPINE DR



PUMA ST

POTENTIAL ROW VACATION



NOTES

CONSIDER LEFT TURN LANES AND RIGHT TURN LANES ON ALPINE DRIVE BASED ON FUTURE TRAFFIC DEMANDS.

LEGEND



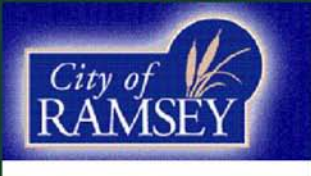
TRAVEL LANES



CONCRETE MEDIAN OR CURB & GUTTER

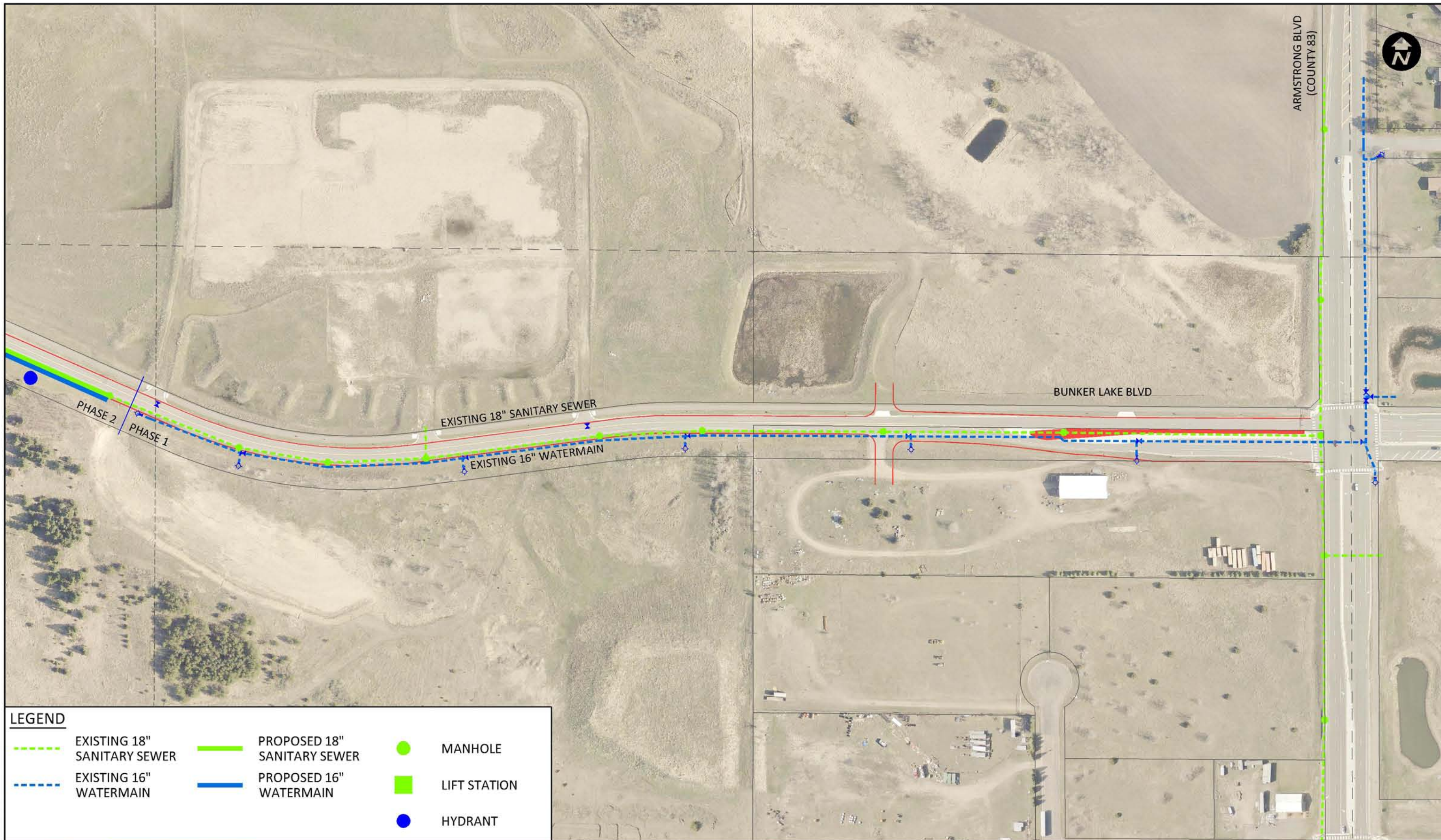









BITUMINOUS TRAIL

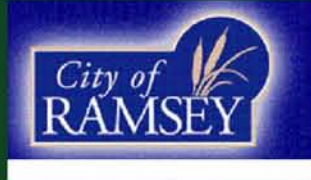


FUTURE BUSINESS PARK
CITY OF RAMSEY, MINNESOTA
FIGURE 12 - PUMA STREET & ALPINE DRIVE
ALTERNATIVE CONCEPT

Date, 2015



LEGEND					
	EXISTING 18" SANITARY SEWER		PROPOSED 18" SANITARY SEWER		MANHOLE
	EXISTING 16" WATERMAIN		PROPOSED 16" WATERMAIN		LIFT STATION
					HYDRANT



FUTURE BUSINESS PARK
 CITY OF RAMSEY, MINNESOTA
 FIGURE 13 - SANITARY SEWER AND WATER
 Date, 2015



PUMA ST

PROPOSED SANITARY SEWER LIFT STATION

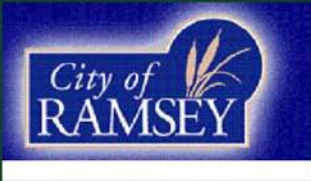
PHASE 3
PHASE 2

BUNKER LAKE BLVD

PHASE 2
PHASE 1

LEGEND

- | | | | | | |
|---|-----------------------------|---|-----------------------------|--|--------------|
|  | EXISTING 18" SANITARY SEWER |  | PROPOSED 18" SANITARY SEWER |  | MANHOLE |
|  | EXISTING 16" WATERMAIN |  | PROPOSED 16" WATERMAIN |  | LIFT STATION |
| | | | |  | HYDRANT |



**FUTURE BUSINESS PARK
CITY OF RAMSEY, MINNESOTA**

FIGURE 14 - SANITARY SEWER AND WATER
Date, 2015



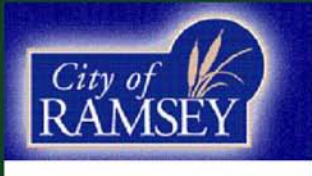
ALPINE DR

PUMA ST

PHASE 3

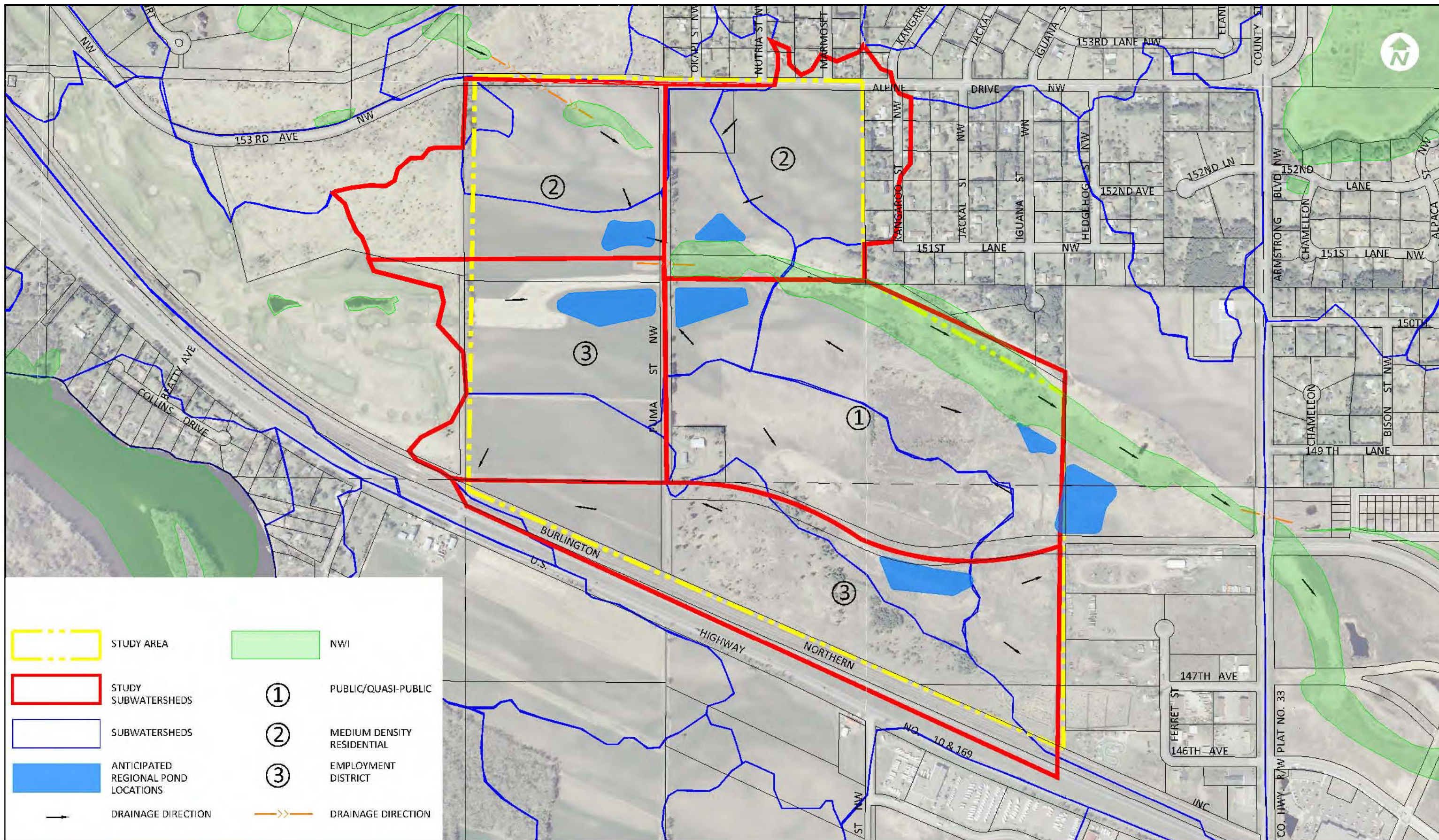
LEGEND





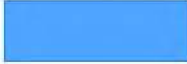


- | | | | | | |
|---|-----------------------------|---|-----------------------------|--|--------------|
|  | EXISTING 18" SANITARY SEWER |  | PROPOSED 18" SANITARY SEWER |  | MANHOLE |
|  | EXISTING 16" WATERMAIN |  | PROPOSED 16" WATERMAIN |  | LIFT STATION |
| | | | |  | HYDRANT |

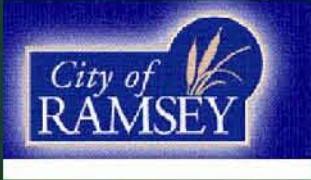


**FUTURE BUSINESS PARK
CITY OF RAMSEY, MINNESOTA**

FIGURE 15 - SANITARY SEWER AND WATER
Date, 2015



- | | | | |
|---|-------------------------------------|---|----------------------------|
|  | STUDY AREA |  | NWI |
|  | STUDY SUBWATERSHEDS | 1 | PUBLIC/QUASI-PUBLIC |
|  | SUBWATERSHEDS | 2 | MEDIUM DENSITY RESIDENTIAL |
|  | ANTICIPATED REGIONAL POND LOCATIONS | 3 | EMPLOYMENT DISTRICT |
|  | DRAINAGE DIRECTION |  | DRAINAGE DIRECTION |



**FUTURE BUSINESS PARK
CITY OF RAMSEY, MINNESOTA**

FIGURE 16 - Regional Stormwater Considerations
June, 2015



APPENDIX B - TRAFFIC STUDY

Traffic Impact Study for

Future Business Park

City of Ramsey, MN

June 24, 2015

Project Number R16.109828

DRAFT

Submitted by:

Bolton & Menk, Inc.
12224 Nicollet Avenue
Burnsville, MN 55337
P: 952-890-0509
F: 952-890-8065



CERTIFICATION

DRAFT

Traffic Impact Study

for

Future Business Park

Ramsey, MN

I hereby certify that this plan, specification 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.

By: _____

Bryan T. Nemeth, P.E., PTOE

License No. 43354

Date: 6/25/2015



TABLE OF CONTENTS

Executive Summary	1
A. Short Term.....	1
B. Mid-Term	1
C. Long-Term.....	2
I. Introduction.....	3
II. Background	3
A. Proposed Development.....	3
III. Measures of Effectiveness	4
A. Level of Service and Delay	4
IV. Existing Conditions.....	5
A. Data Collection.....	5
B. Operations.....	8
C. Safety.....	9
V. No-Build Conditions	11
A. 2040 No-Build Operations.....	11
B. No-Build Mitigation	14
VI. Build Conditions	15
A. Traffic Forecasts	15
B. 2040 Build Operations.....	22
C. Proposed Mitigation	26
D. Additional Operations Analysis (50% Development Completion)	27
Appendix A- TH 10 & Armstrong Boulevard Overpass Layout	28
Appendix B- Traffic Volumes.....	29
Appendix C- Crash Reports	30
Appendix D- Trip Generation For Future Business Park Development	31
Appendix E- Trip Generation For COR Development	32
Appendix F- Operations Analysis (Available Upon Request).....	33



FIGURES

Figure 1: Proposed Future Business Park Development Location	3
Figure 2.1: Existing Traffic Volumes.....	6
Figure 2.2: Existing Traffic Volumes (with Overpass).....	7
Figure 3: 2040 No-Build Traffic Volumes.....	13
Figure 4: Trip Generation Zones.....	16
Figure 5: Trip Distribution Map	17
Figure 6.1: 2040 Build Traffic Volumes (Alternative 1A: High School)	18
Figure 6.2: 2040 Build Traffic Volumes (Alternative 1B: K-12 Schools).....	19
Figure 6.3: 2040 Build Traffic Volumes (Alternative 2: Business Park).....	20
Figure 6.4: 2040 Build Traffic Volumes (Alternative 3: Low Density Residential).21	

TABLES

Table 1: Level of Service Criteria.....	4
Table 2: 2015 Existing Traffic Operations Analysis.....	8
Table 3: 2015 Existing Traffic Operations Analysis (with Overpass).....	8
Table 4: 2040 No-Build Future Traffic Operations Analysis	11
Table 8: 2040 Build Operations Analysis (Alternative 1A: High School)	22
Table 9: 2040 Build Operations Analysis (Alternative 1B: K-12 Schools).....	22
Table 10: 2040 Traffic Operations Analysis (Alternative 2: Business Park)	23
Table 11: 2040 Build Operations Analysis (Alternative 3: LD Residential)	23
Table 12: Development Intersection Operations Analysis	24
Table 13: Operations Analysis with River Crossing	25
Table 14: 2030 (50% Development) Operations Analysis	27

APPENDIX

Appendix A- TH 10 & Armstrong Boulevard Overpass Layout	28
Appendix B- Traffic Volumes.....	29
Appendix C- Crash Reports	30
Appendix D- Trip Generation For Future Business Park Development	31
Appendix E- Trip Generation For COR Development	32
Appendix F- Operations Analysis (Available Upon Request).....	33

EXECUTIVE SUMMARY

The Future Business Park development is proposed north of T.H. 10 and west of Armstrong Boulevard. Armstrong Boulevard is a critical north-south corridor for the City of Ramsey, Anoka County, and the region carrying traffic from Trunk Highway (T.H.) 10 to surrounding areas. The Business Park development includes residential, business park, commercial, and institutional land uses. These land uses result in an increase of approximately 18,500 to 23,300 trips per day into and out of the area at full build.

The traffic increase from both the background growth and the development results in a need for capacity improvements at individual intersections in the study area. The following concise summary of improvements should be completed based on the mitigation necessary to achieve acceptable operations. For the 2040 Full-Build scenario, operations can be improved, but are still considered unacceptable at many of the intersections. This is due to the large amount of traffic entering and exiting on Bunker Lake Boulevard and Armstrong Boulevard. Short term improvements are intended to mitigate current safety or operations problems, mid-term improvements are needed to accommodate both development and background traffic growth, and long-term improvements are needed to handle the overall development out to 2040. Exact timing for improvements should be based upon the actual development timing and background traffic growth.

A. Short Term

- Bunker Lake Boulevard (west of Armstrong Blvd): Expand to a four lane section for development.
 - The eastbound approach should include two 300 ft left turn lanes, two through lanes, and one right turn lane.
 - A full median should be provided to the west end of the commercial area.
 - A full access should be at least 845 ft from Armstrong Boulevard and a right in/right out access should be at least 470 ft from Armstrong Boulevard.
- Bunker Lake Boulevard (west of commercial section): Expand to a three lane section for development (two through lanes and one center left turn lane).
 - Right turn lanes (locations and lengths) are to be dictated by development type.
- Puma Street: Expand to a three lane section for development (two through lanes and one center left turn lane).
 - Right turn lanes (locations and lengths) are to be dictated by development type.
- Bunker Lake Boulevard & Puma Street: An all-way stop, two-way stop, or roundabout will operate adequately at this intersection for the 2040 Full-Build conditions. The roundabout option may offer better operations than the other two options at 2040 Full-Build.

B. Mid-Term

- Armstrong Boulevard & Alpine Drive: Add northbound and southbound left turn lanes. Modify eastbound and westbound lanes to include a thru/left and a right turn lane.
- Alpine Drive & Puma Street: Add a westbound left turn lane and eastbound right turn lane.
- Armstrong Boulevard & Bunker Lake Boulevard: Re-stripe southbound lanes to include

a dual southbound left turn lane. A southbound double left turn lane will help reduce queues entering the COR development. Improvements were done in 2011 to this intersection and a future southbound left turn lane was designed, but not striped.

C. Long-Term

- Armstrong Boulevard & Bunker Lake Boulevard: Modify the southerly eastbound through lane to a through-right lane. Another option would be to keep the two through lanes and modify the right turn lane into a free right with an add lane that runs south to T.H. 10.

I. INTRODUCTION

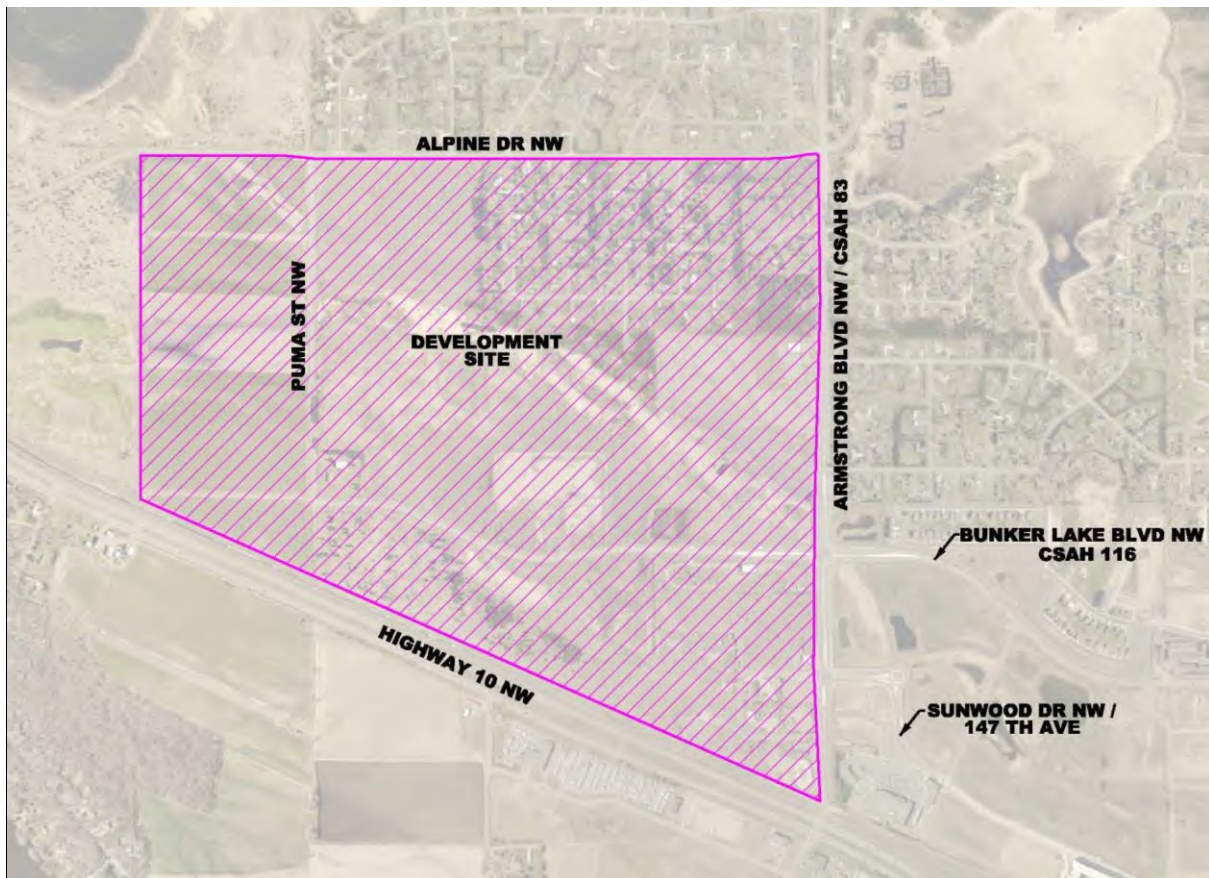
The proposed Future Business Park development is located on the southwest side of the City of Ramsey, north of T.H. 10 and just west of Armstrong Boulevard (CSAH 83). The future development is anticipated to impact the traffic on the public roadway system and surrounding area. Consequently, the traffic control and roadway geometry in the area may need to be modified to accommodate the increased traffic to maintain safety and adequate operations. This study analyzes the anticipated impacts of the Future Business Park development on the surrounding area.

II. BACKGROUND

A. Proposed Development

The proposed Future Business Park development is located just west of Armstrong Boulevard, between T.H. 10 and Alpine Drive. The development will have two main access points: the north entrance at Alpine Drive and Puma Street, and the east entrance at Bunker Lake Boulevard and Armstrong Boulevard. **Figure 1** below outlines the proposed development site. The development is anticipated to include residential, commercial, business park, and institutional land uses.

Figure 1: Proposed Future Business Park Development Location



III. MEASURES OF EFFECTIVENESS

The traffic operations analysis for the intersections consider the following measures to determine the adequacy of the intersection design to meet acceptable operations: intersection delay/Level of Service (LOS) and volume-to-capacity ratios. An explanation of each of these measures is provided below:

A. Level of Service and Delay

The operational analysis results are described as a Level of Service (LOS) ranging from A to F. These letters serve to describe a range of operating conditions for different types of facilities. Levels of Service are calculated based on the 2010 Highway Capacity Manual, which defines the level of service, based on control delay. Control delay is the delay experienced by vehicles slowing down as they are approaching the intersection, the wait time at the intersection, and the time for the vehicle to speed up through the intersection and enter into the traffic stream. The average intersection control delay is a volume weighted average of delay experienced by all motorists entering the intersection on all intersection approaches. The control delay is modeled within the analysis software, Trafficware Synchro/SimTraffic. Level of Service D is commonly taken as an acceptable design year LOS. The level of service and its associated intersection delay for a signalized and unsignalized intersection is presented below. The delay threshold for unsignalized intersections is lower for each LOS compared to signalized intersections, which accounts for the fact that people expect a higher level of service when at a stop-controlled intersection.

Table 1: Level of Service Criteria

	Signalized Intersection	Unsignalized Intersection
LOS	Control Delay per Vehicle (sec.)	Control Delay per Vehicle (sec.)
A	≤ 10	≤ 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

IV. EXISTING CONDITIONS

There are a total of four signalized intersections and three unsignalized intersections that will be evaluated in this study. The interchange on T.H. 10 & Armstrong Boulevard is currently being built, so the analysis will include a scenario with and without the new overpass. Based on MnDOT's Traffic Data Mapping Application, Armstrong Boulevard carries a range of 4,500 vehicles per day near the north end of the study area and 6,200 vehicles per day near the south end of the study area. Armstrong Boulevard will be a 4 lane divided roadway at the south end of the study area converting to a 2 lane undivided roadway at the north end of the study area. The posted speed limit is 55 mph through the study area along Armstrong Boulevard.

A. Data Collection

1. Traffic Counts

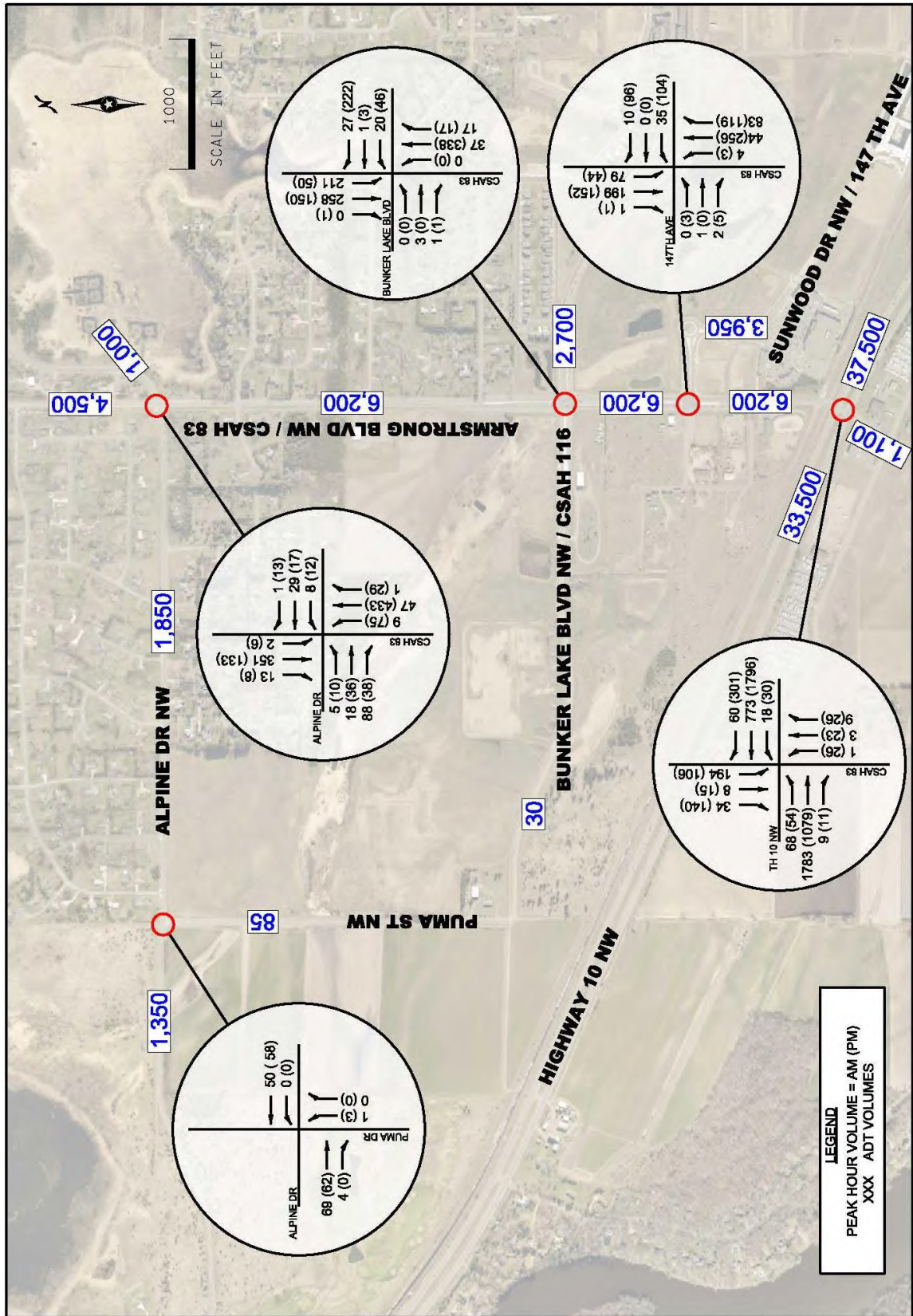
Traffic data was collected in April 2015. This includes 13 hour traffic volumes at the following intersections.

- Armstrong Boulevard & 147th Ave - Signalized
- Armstrong Boulevard & Bunker Lake Boulevard – Signalized
- Armstrong Boulevard & Alpine Drive - Unsignalized
- Alpine Drive & Puma Street – Unsignalized

Traffic data at T.H. 10 & Armstrong Boulevard was pulled from a previous study conducted in 2013.

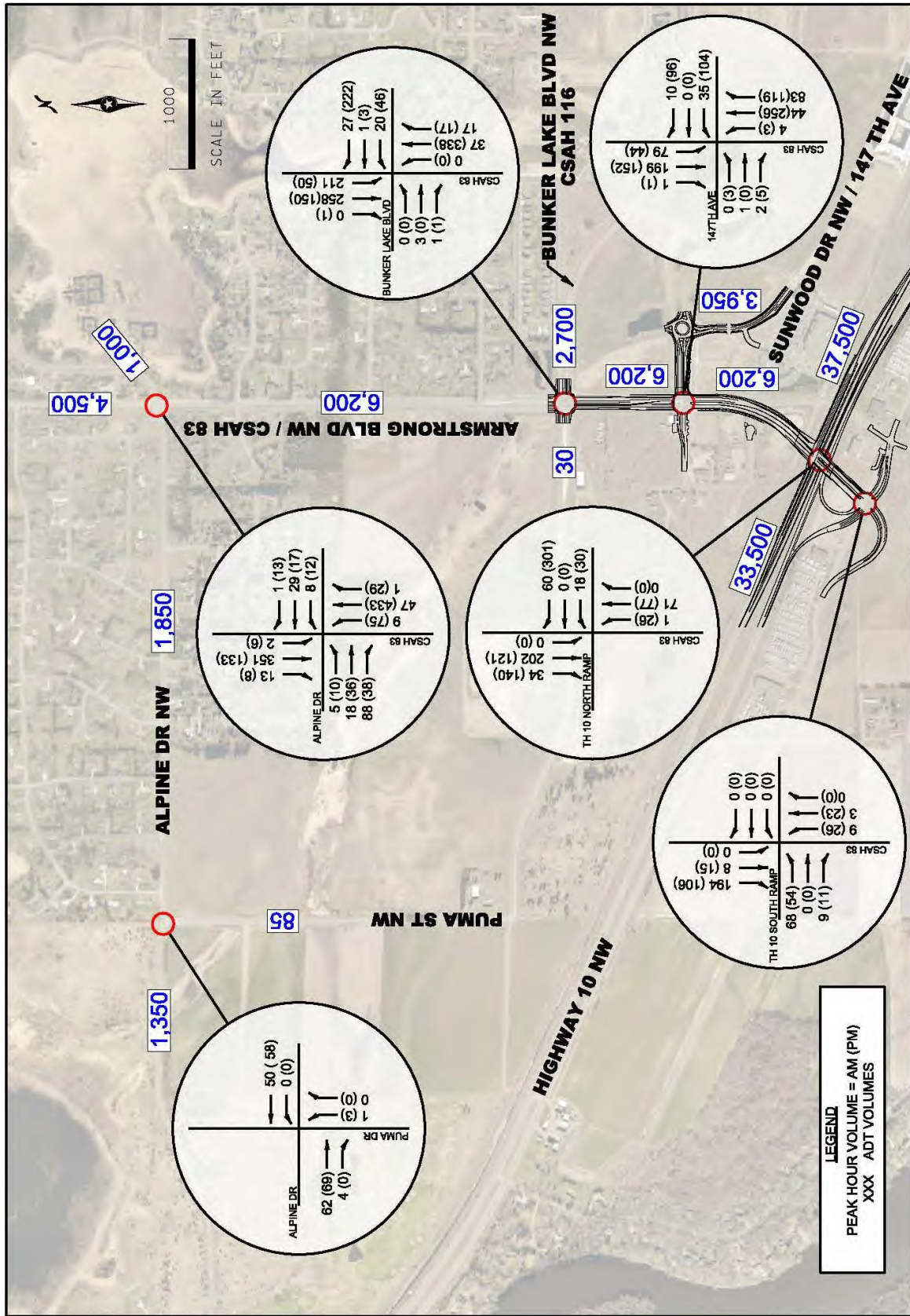
Figures 2.1 and 2.2 show the existing intersection traffic counts.

Figure 2.1: Existing Traffic Volumes



H:\RAMS\R16109828\CAD\MS\Figures\109828-Figure-1.Exr.tif 10:47:17 AM 6/19/2015 bmt.tbl pdf-color-plotter

Figure 2.2: Existing Traffic Volumes (with Overpass)



B. Operations

The existing operations analysis was completed for the five intersections within the study area and is shown in **Table 2**. The new interchange between T.H. 10 and Armstrong Boulevard was analyzed at the two exit ramps and is shown in **Table 3**.

Table 2: 2015 Existing Traffic Operations Analysis

Traffic Control Scenario	Peak Hour	Intersection Delay*- LOS		Maximum Delay-LOS**	Limiting Movement ***	Max Approach Queue			
						Direction	Average Queue (ft)	Max Queue (ft) ****	
Existing 2015									
TH 10/169 & CSAH 83 (Armstrong Blvd) <i>Signal</i>	AM	46	D	107	F	EBL	EBT	644	1048
	PM	40	D	88	F	WBL	WBT	496	524
CSAH 83 (Armstrong Blvd & 147th Avenue) <i>Signal</i>	AM	9	A	35	C	NBL	SBL	53	101
	PM	9	A	33	C	EBL	NBT	39	73
CSAH 83 (Armstrong Blvd & CSAH 116 (Bunker Lake Blvd)) <i>Signal</i>	AM	10	A	33	C	EBT	SBL	83	143
	PM	9	A	21	C	WBL	NBT	52	87
CSAH 83 (Armstrong Blvd) & Alpine Drive NW <i>TWSC</i>	AM	2	A	9	A	EBT	EBR	32	52
	PM	4	A	13	B	WBL	EBL/T	27	54
Alpine Drive NW & Puma Street NW <i>TWSC</i>	AM	1	A	4	A	NBL	NBL/R	2	14
	PM	1	A	5	A	NBL	NBL/R	3	18

*Delay in seconds per vehicle

**Maximum delay and LOS on any approach and/or movement

***Limiting Movement is the highest delay movement.

****Max Queue refers to the 95% Queue (Passenger car stored length = 25 ft, Heavy vehicle stored length = 45 ft)

Table 3: 2015 Existing Traffic Operations Analysis (with Overpass)

Traffic Control Scenario	Peak Hour	Intersection Delay*- LOS		Maximum Delay-LOS**	Limiting Movement ***	Max Approach Queue			
						Direction	Average Queue (ft)	Max Queue (ft) ****	
Existing 2015 (With Overpass)									
TH 10/169 South Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	AM	5	A	14	B	NBL	EBL	33	59
	PM	5	A	12	B	EBL	EBL	23	53
TH 10/169 North Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	AM	9	A	20	B	WBL	SBT	50	96
	PM	8	A	20	B	WBL	SBT	41	79
CSAH 83 (Armstrong Blvd & 147th Avenue) <i>Signal</i>	AM	7	A	27	C	NBL	SBL	43	90
	PM	9	A	31	C	EBL	SBT	30	65
CSAH 83 (Armstrong Blvd & CSAH 116 (Bunker Lake Blvd)) <i>Signal</i>	AM	11	B	31	C	WBL	SBL	86	153
	PM	9	A	20	B	SBL	NBT	59	105
CSAH 83 (Armstrong Blvd) & Alpine Drive NW <i>TWSC</i>	AM	2	A	9	A	WBL	EBR	34	57
	PM	4	A	12	B	EBL	EBL/T	30	59
Alpine Drive NW & Puma Street NW <i>TWSC</i>	AM	1	A	6	A	NBL	NBL/R	1	8
	PM	1	A	4	A	NBL	NBL/R	3	17

*Delay in seconds per vehicle

**Maximum delay and LOS on any approach and/or movement

***Limiting Movement is the highest delay movement.

****Max Queue refers to the 95% Queue (Passenger car stored length = 25 ft, Heavy vehicle stored length = 45 ft)

Overall, all intersections within the study area operate within acceptable service levels with a LOS of C or better. The T.H 10 & Armstrong Boulevard interchange will alleviate the delays that were caused at the previous signalized intersection. Currently, there is no need for operational mitigation.

C. Safety

1. Safety/Crash Analysis

Beyond the operational analysis, the crash history of the studied intersections was completed using the crash data pulled from Minnesota Crash Mapping Analysis Tool (MnCMAT). The Armstrong Boulevard corridor from 147th Ave to Alpine has had a total of 25 crashes over the 5 year period (2010-2014) with the majority being property damage only crashes. The individual intersection crash reports are shown in **Appendix C**.

Most of the intersections had very few crashes over the last 5 years. The T.H. 10 & Armstrong Boulevard intersection was not analyzed for crashes because it is currently being modified into an interchange. The following is a summary of crashes per intersection:

Armstrong Boulevard at 147th Ave

- 3 crashes (2 rear end, 1 right angle)

Armstrong Boulevard at Bunker Lake Boulevard

- 1 crash (rear end)

Armstrong Boulevard at Alpine Drive

- 14 crashes (8 right angle, 2 rear end, 2 left turn, 1 sideswipe, 1 other)
- The majority of the right angle crashes are caused by westbound vehicles failing to yield to right of way. The existing skew of the east leg may contribute to these right angle crashes by preventing adequate sight distances.
- There has also been an incapacitating injury at this intersection in 2013 (southbound rear end) and a non-incapacitating injury at this intersection in 2014 (northbound left turn into traffic)

Alpine Drive at Puma Street

- 0 crashes

2. Mitigation Recommendations

Mitigation due to safety concerns includes the following:

Bunker Lake Boulevard (west of commercial section)

- Three lane section is recommended (two through lanes & a center two-way-left-turn-lane) once the development is constructed. (short-term)
- Right turn lanes (locations and lengths) are to be dictated by development type. (short-term)

Armstrong Boulevard & Alpine Drive

- Add northbound and southbound left turn lanes. (mid-term)

Alpine Drive & Puma Street

- Add westbound left turn lane. (mid-term)
- Add eastbound right turn lane. (mid-term)

Puma Street

- Three lane section is recommended (two through lanes & a center two-way-left-turn-lane) once the development is constructed. (short-term)
- Right turn lanes (locations and lengths) are to be dictated by development type. (short-term)

V. NO-BUILD CONDITIONS

Historic daily traffic volumes from 2000 to 2013 were used to formulate a 20 year background growth rate of 1.8% for Armstrong Boulevard. Therefore, background traffic was projected to grow by 43% along Armstrong Boulevard. No-Build conditions includes the background growth along with the traffic generated from the COR development. It is assumed that the COR development, east of Armstrong Boulevard, is fully built out for this scenario. The Future Business Park development, the focus of this study, is assumed to generate no traffic for this no-build scenario.

Parts of the COR development have already been built out, so only the portions that haven't been built out were analyzed for potential trips. The total new COR development is projected to generate 37,500 daily trips (6,150 peak hour trips). It was assumed that 1/3 of the traffic generated by the COR development will enter/exit on Bunker Lake Boulevard & Armstrong Boulevard. The COR development trips are included in **Appendix B**.

Assumptions made for all future scenarios include that the signals are uncoordinated, which is what they operate as currently. Signal timings are optimized for each scenario. Left turn movements at signals are all protected except for the westbound left turn at the T.H.10 North Ramp.

A. 2040 No-Build Operations

Future traffic volumes for 2040 were forecasted for the study area without any additional development. Historic growth rates were used to calculate the 20 year growth rate of 1%. This growth rate was applied to Armstrong Boulevard to account for background traffic along the roadway. No-Build 2040 traffic volumes are shown in **Figures 3**.

Table 4: 2040 No-Build Future Traffic Operations Analysis

Traffic Control Scenario	Peak Hour	Intersection Delay* - LOS		Maximum Delay-LOS**	Limiting Movement***	Max Approach Queue			
						Direction	Average Queue (ft)	Max Queue (ft)****	
Design Year 2040 No-Build									
TH 10/169 South Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	AM	8	A	19	B	NBL	EBL/T	68	106
	PM	8	A	17	B	NBL	EBL/T	68	107
TH 10/169 North Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	AM	10	A	22	C	WBL	WBT	117	198
	PM	12	B	25	C	NBL	SBT	125	217
CSAH 83 (Armstrong Blvd & 147th Avenue) <i>Signal</i>	AM	8	A	27	C	NBL	WBT	72	164
	PM	12	B	33	C	NBL	SBT	136	248
CSAH 83 (Armstrong Blvd & CSAH 116 (Bunker Lake Blvd)) <i>Signal</i>	AM	15	B	36	D	EBT	NBR	92	165
	PM	18	B	31	C	WBL	WBL	178	251
CSAH 83 (Armstrong Blvd) & Alpine Drive NW <i>TWSC</i>	AM	4	A	15	B	WBL	EBL/T	30	75
	PM	7	A	38	E	EBL	NBL/T	56	130
Alpine Drive NW & Puma Street NW <i>TWSC</i>	AM	1	A	4	A	NBL	NBL/R	1	10
	PM	1	A	5	A	NBL	NBL/R	3	17

No Build Scenario assumes the east (COR) development is built out, but the west development has not been built out

*Delay in seconds per vehicle

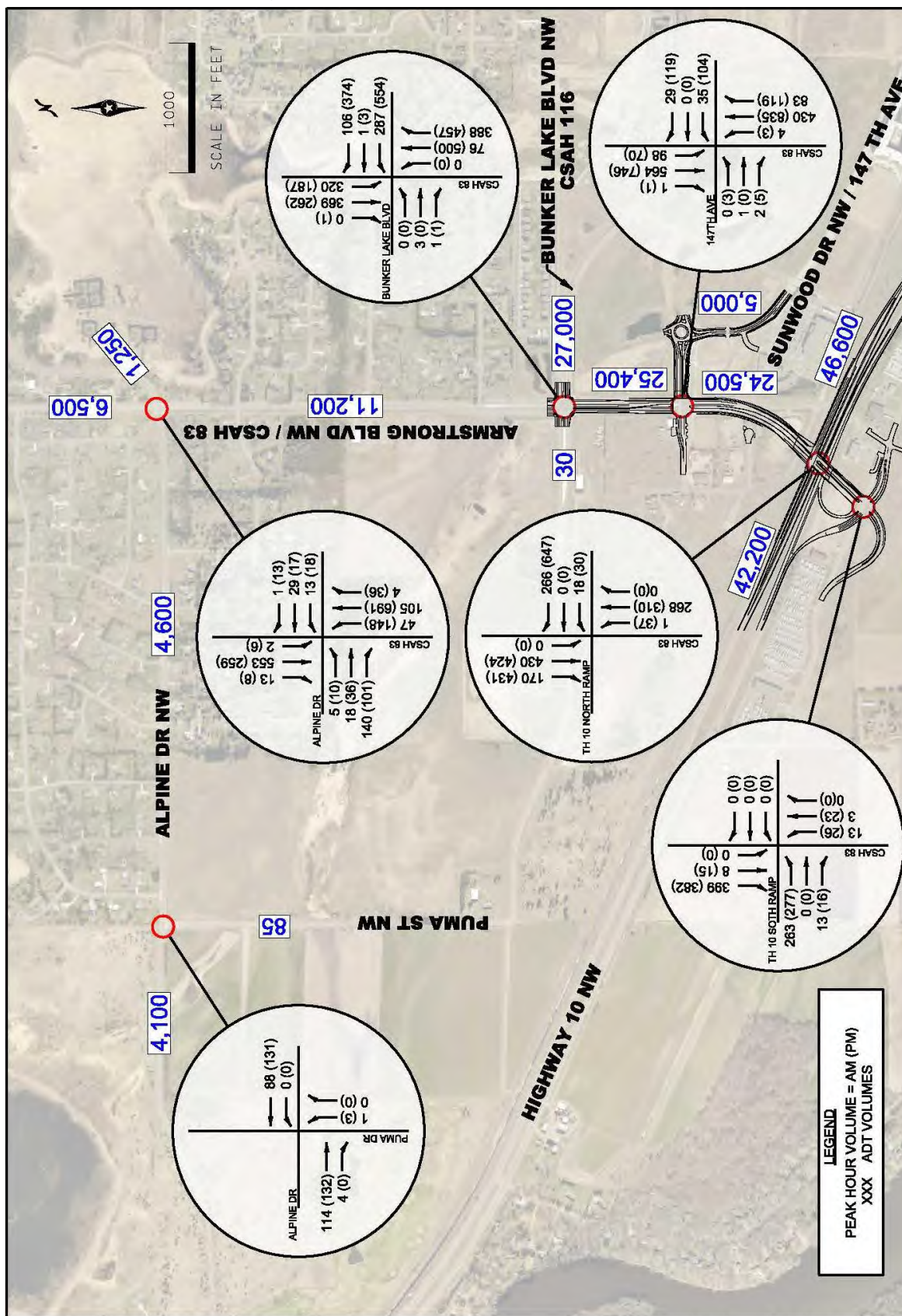
**Maximum delay and LOS on any approach and/or movement

***Limiting Movement is the highest delay movement.

****Max Queue refers to the 95% Queue (Passenger car stored length = 25 ft, Heavy vehicle stored length = 45 ft)

Based on the expected growth in the area, the corridor is anticipated to experience acceptable operations at most of the intersections. All intersections operate at an overall level of service of B or higher. Level of Service D is commonly taken as an acceptable design year LOS. The only intersection experiencing significant delay at an individual movement is the eastbound left turn at Armstrong Boulevard & Alpine Drive. This movement experiences 38 seconds of delay (LOS E) during the PM peak hour.

Figure 3: 2040 No-Build Traffic Volumes



B. No-Build Mitigation

There are few mitigation recommendations due to the adequate level of service at most intersections. The following suggestions are anticipated to provide adequate service for the 2040 No-Build conditions.

1. Geometric Improvements

It is recommended that the following changes be made with regard to the intersection geometry in the study area to provide acceptable operations in 2040:

Armstrong Boulevard & Alpine Drive

- Add eastbound and westbound thru/left and right turn lanes (mid-term)

Armstrong Boulevard & Bunker Lake Boulevard

- Re-stripe southbound lanes to include a dual southbound left turn lane. A southbound double left turn lane will help reduce queues entering the COR development. Improvements were done in 2011 to this intersection and a future southbound left turn lane was designed, but not striped. (mid-term)

The proposed 2040 no-build mitigation should provide a LOS of D or better for all intersection movements. A more thorough investigation should be conducted for a possible re-alignment of the east leg of Armstrong Boulevard & Alpine Drive.

VI. BUILD CONDITIONS

A. Traffic Forecasts

The full build traffic forecast was calculated by combining the anticipated growth (2040 No-build volumes) with the expected amount of trips the proposed development will generate. Trip forecasts were generated using the information within the Institute of Transportation Engineers (ITE) Trip Generation Manual. ITE provides codes that correlate a land use with the anticipated traffic based on previous studies.

Figure 4 shows different trip generation zones within the development along with the land use in each zone. These zones are based on where traffic will enter/exit the development. Zone 1 will be evaluated with four alternatives in the north quadrant; a high school, K-12 schools, Business Park, and low density residential. The business park option is expected to generate the most traffic in Zone 1 (2,000 peak hour trips, 7,050 daily trips), while the low density residential option is expected generate the least amount of traffic in Zone 1 (1,150 peak hour trips, 4,900 daily trips). The total development (Zones 1-5) is projected to generate anywhere from 18,500 to 23,300 new daily trips. More detailed information regarding trip generations for each scenario is included in **Appendix B**.

The following access assumptions were made for each zone:

Access off of Bunker Lake Boulevard:

- Zone 1 & 3

Access off of Armstrong Boulevard:

- Zone 2

Access off of Puma Street

- Zone 4

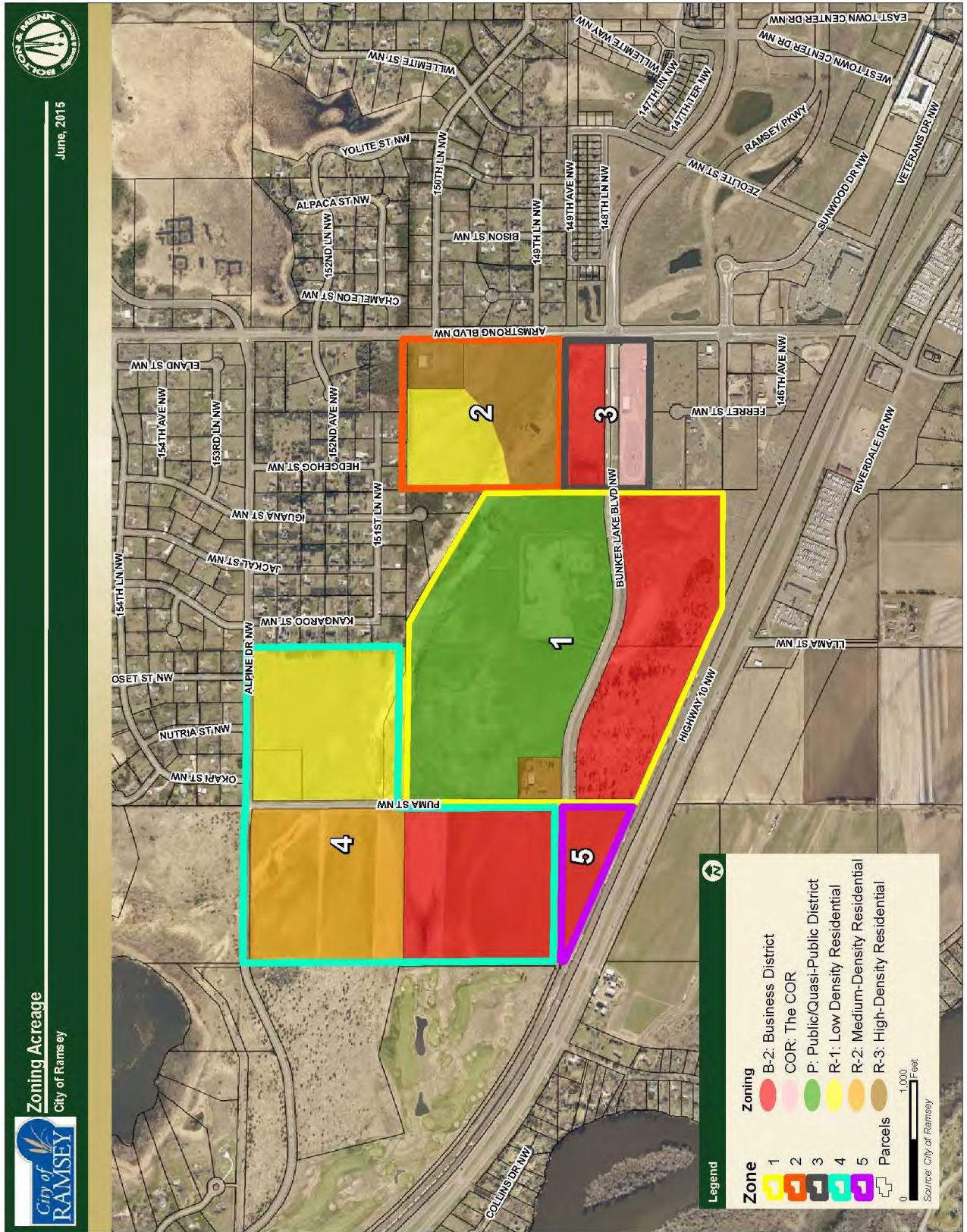
Accesses off of Bunker Lake Boulevard and Puma Street

- Zone 5

Trips to and from the development area are generally directed to the south to T.H. 10. The trips were distributed to the roadway using existing trip distribution as a basis. The generated trips from the proposed development were added to the 2040 No-Build forecasted volumes to develop the 2040 Build conditions. The trip distribution to and from the development is shown in **Figure 5**. The 2040 Build traffic volumes can be seen in **Figure 6.1** through **6.4**.

The different alternatives correspond to the land use on the north side of Zone 1. Alternative 1A assumes a high school is built, Alternative 1B assumes K-12 schools are built, Alternative 2 assumes a business park is built, and Alternative 3 assumes low density residential homes are built.

Figure 4: Trip Generation Zones



June, 2015

Zoning Acreage
City of Ramsey



Figure 5: Trip Distribution Map

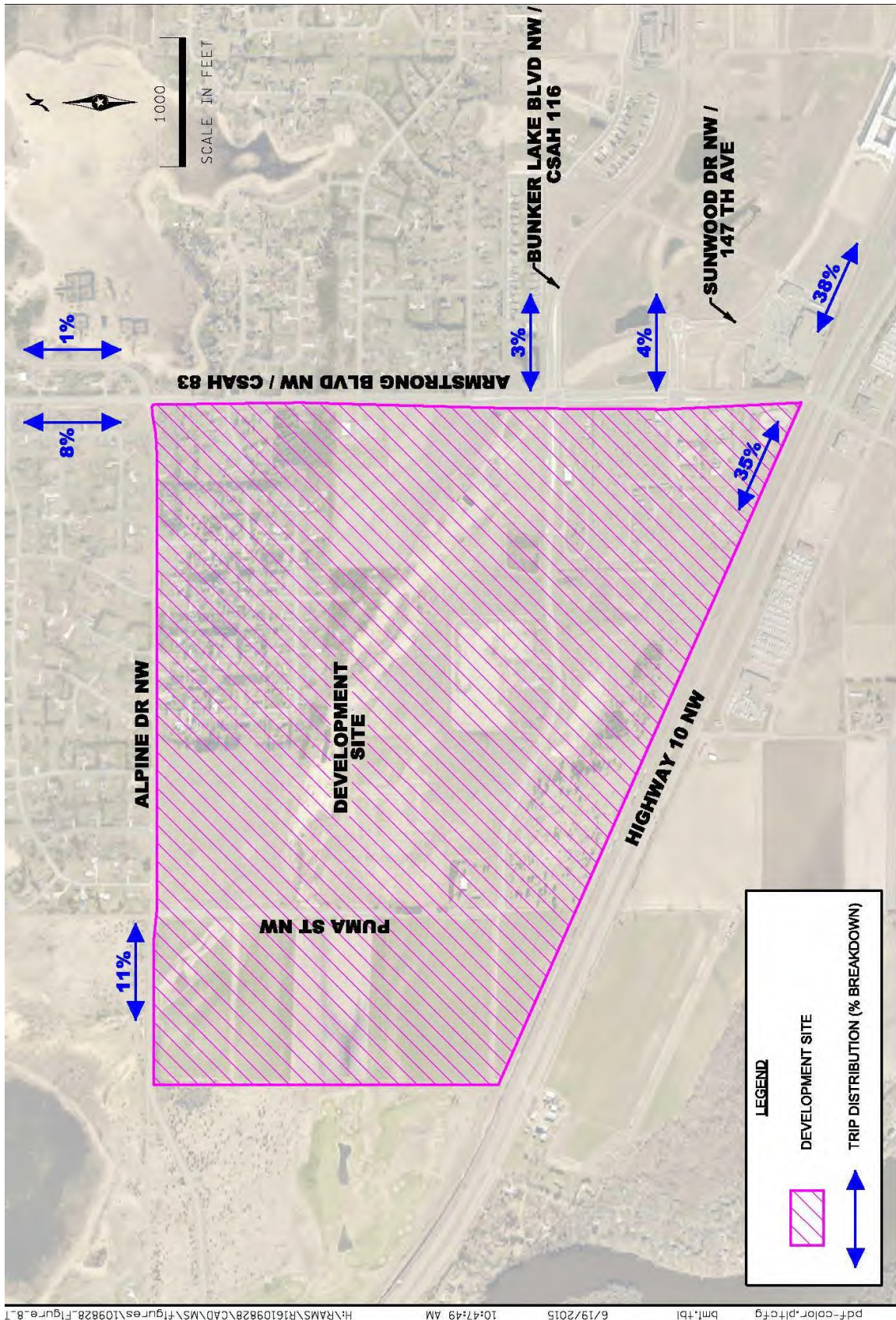


Figure 6.1: 2040 Build Traffic Volumes (Alternative 1A: High School)

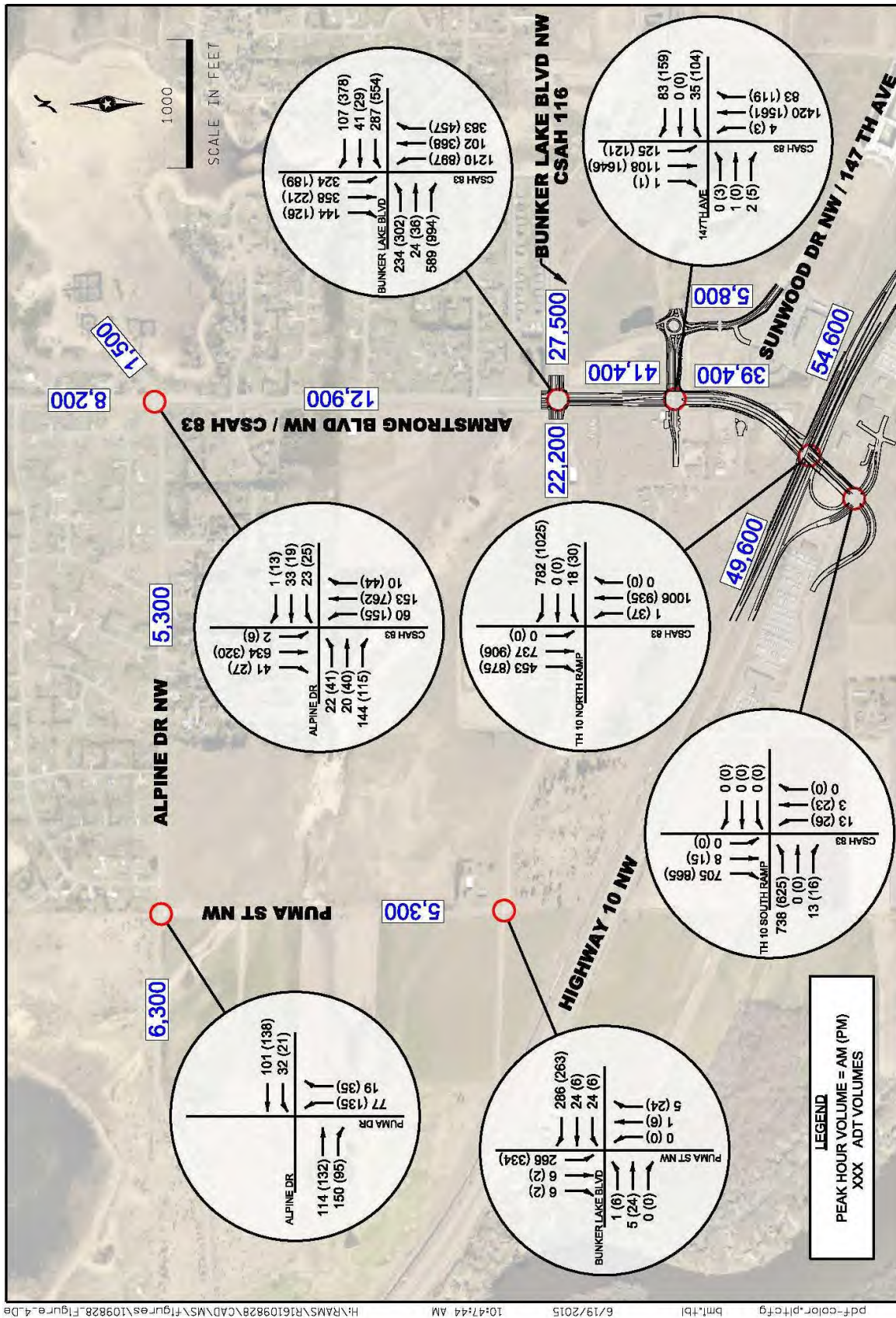


Figure 6.2: 2040 Build Traffic Volumes (Alternative 1B: K-12 Schools)

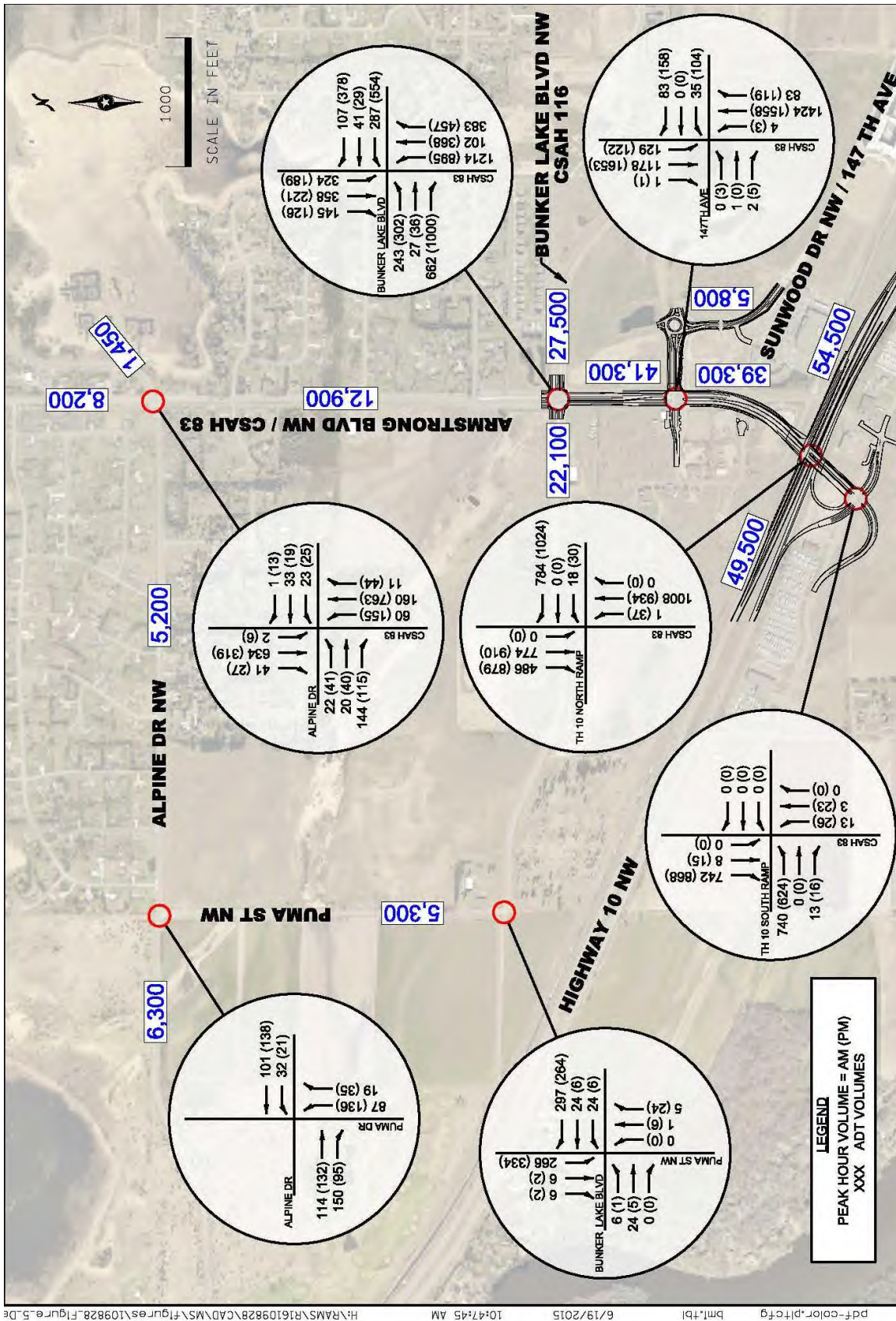


Figure 6.3: 2040 Build Traffic Volumes (Alternative 2: Business Park)

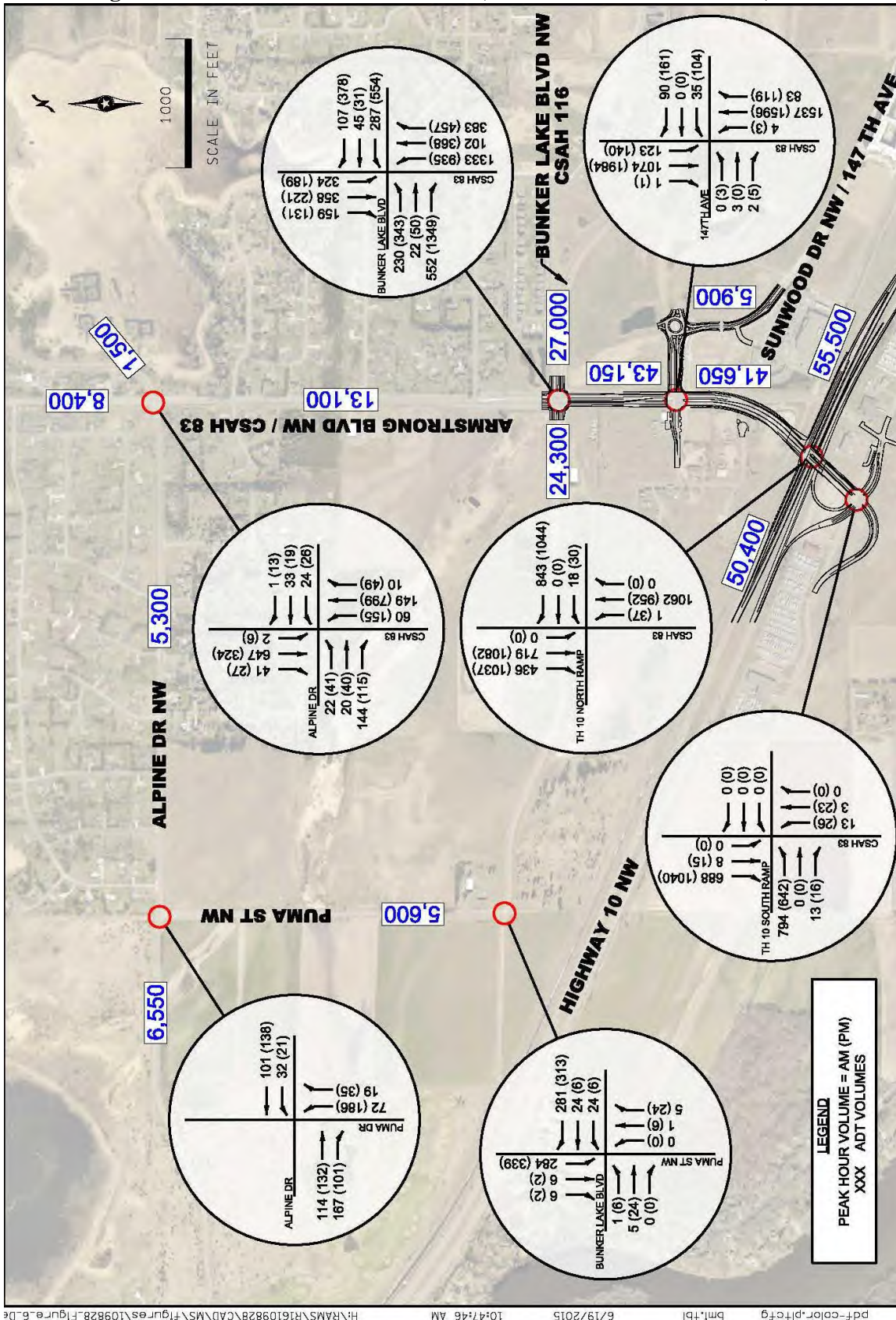
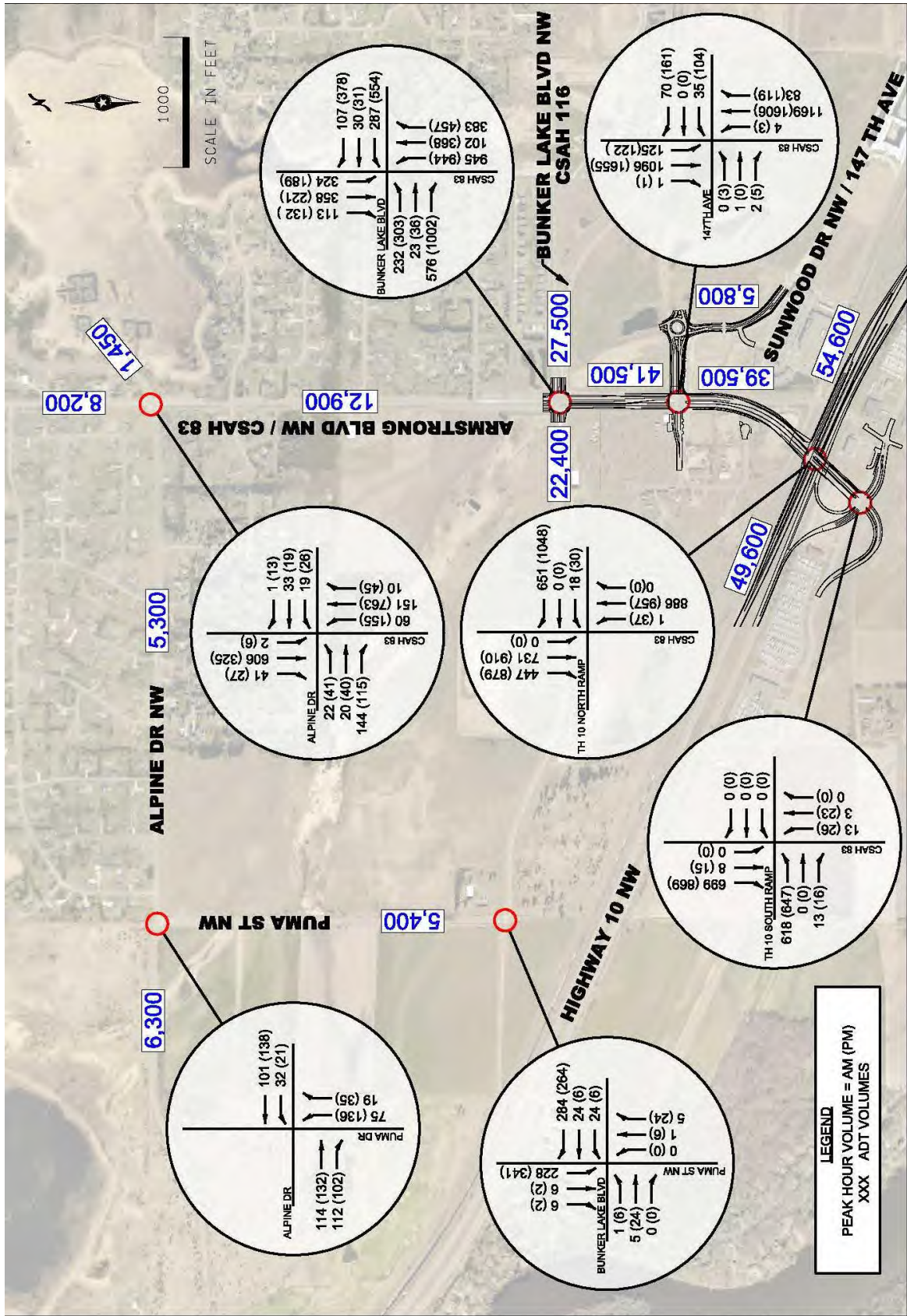


Figure 6.4: 2040 Build Traffic Volumes (Alternative 3: Low Density Residential)



B. 2040 Build Operations

1. Operations Analysis

The traffic operations results for the 2040 Build is included in Tables 8-11.

Table 8: 2040 Build Operations Analysis (Alternative 1A: High School)

Traffic Control Scenario	Peak Hour	Intersection Delay*- LOS		Maximum Delay-LOS**	Limiting Movement***	Max Approach Queue			
						Direction	Average Queue (ft)	Max Queue (ft)****	
Design Year 2040 Alternative 1A									
TH 10/169 South Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	AM	47	D	86	F	EBL	EBT	149	734
	PM	18	B	29	C	NBL	EBL	130	241
TH 10/169 North Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	AM	131	F	326	F	WBR	WBT/R	1106	2034
	PM	112	F	280	F	WBR	WBT/R	1104	2061
CSAH 83 (Armstrong Blvd & 147th Avenue) <i>Signal</i>	AM	67	E	175	F	NBL	NBT	894	1276
	PM	60	E	114	F	NBT	NBT	873	1262
CSAH 83 (Armstrong Blvd & CSAH 116 (Bunker Lake Blvd) <i>Signal (Added EB through-right, left, and SB left turn lanes)</i>	AM	66	E	162	F	WBL	NBT	793	990
	PM	74	E	182	F	NBL	NBT	821	1014
CSAH 83 (Armstrong Blvd) & Alpine Drive NW <i>TWSC</i>	AM	4	A	25	C	WBR	EBL/T	36	88
	PM	9	A	54	F	EBL	EBL/T	76	171
Alpine Drive NW & Puma Street NW <i>TWSC</i>	AM	2	A	7	A	NBL	NBL/T	36	58
	PM	3	A	8	A	NBL	NBL/R	47	74
Puma Street NW & Bunker Lake Blvd <i>Option 1: AWSC</i>	AM	4	A	9	A	SBT	SBL/T/R	56	84
	PM	4	A	9	A	WBL	SBLR/E	59	86
Puma Street NW & Bunker Lake Blvd <i>Option 2: 3 Legged intersection (with curve)</i>	AM	1	A	11	B	EBL	NBT/L	14	49
	PM	1	A	8	A	EBL	EBL/T	23	43
Puma Street NW & Bunker Lake Blvd <i>Option 3: Roundabout</i>	AM	3	A	4	A	SBT	SBL/T/R	18	57
	PM	3	A	4	A	SBT	WBL/T/R	25	64

*Delay in seconds per vehicle

**Maximum delay and LOS on any approach and/or movement

***Limiting Movement is the highest delay movement.

****Max Queue refers to the 95% Queue (Passenger car stored length = 25 ft, Heavy vehicle stored length = 45 ft)

Table 9: 2040 Build Operations Analysis (Alternative 1B: K-12 Schools)

Traffic Control Scenario	Peak Hour	Intersection Delay*- LOS		Maximum Delay-LOS**	Limiting Movement***	Max Approach Queue			
						Direction	Average Queue (ft)	Max Queue (ft)****	
Design Year 2040 Alternative 1B									
TH 10/169 South Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	AM	32	C	56	E	EBL	EBL	225	446
	PM	20	B	34	C	EBL	EBL	140	277
TH 10/169 North Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	AM	137	F	322	F	WBR	WBT/R	1064	1975
	PM	104	F	243	F	WBR	WBT/R	1037	2033
CSAH 83 (Armstrong Blvd & 147th Avenue) <i>Signal</i>	AM	90	F	166	F	NBL	NBT	920	1217
	PM	86	F	237	F	NBL	NBT	822	1330
CSAH 83 (Armstrong Blvd & CSAH 116 (Bunker Lake Blvd) <i>Signal (Added EB through-right, left, and SB left turn lanes)</i>	AM	85	F	322	F	WBL	NBT	802	994
	PM	100	F	296	F	WBL	NBT	797	1074
CSAH 83 (Armstrong Blvd) & Alpine Drive NW <i>TWSC</i>	AM	4	A	19	C	EBT	EBL/T	36	80
	PM	7	A	29	D	WBL	EBL/T	52	106
Alpine Drive NW & Puma Street NW <i>TWSC</i>	AM	2	A	8	A	NBL	NBL/T	38	60
	PM	3	A	9	A	NBL	NBL/T	49	79
Puma Street NW & Bunker Lake Blvd <i>Option 1: AWSC</i>	AM	4	A	9	A	SBT	SBL/T/R	54	77
	PM	4	A	10	A	SBT	SBL/T/R	59	87
Puma Street NW & Bunker Lake Blvd <i>Option 2: 3 Legged intersection (with curve)</i>	AM	1	A	8	A	EBL	NBL/R	13	43
	PM	1	A	8	A	EBL	EBL/R	24	46
Puma Street NW & Bunker Lake Blvd <i>Option 3: Roundabout</i>	AM	3	A	3	A	SBL	SBL/T/R	18	53
	PM	3	A	5	A	NBT	SBL/T/R	19	58

*Delay in seconds per vehicle

**Maximum delay and LOS on any approach and/or movement

***Limiting Movement is the highest delay movement.

****Max Queue refers to the 95% Queue (Passenger car stored length = 25 ft, Heavy vehicle stored length = 45 ft)

Table 10: 2040 Traffic Operations Analysis (Alternative 2: Business Park)

Traffic Control Scenario	Peak Hour	Intersection Delay*- LOS		Maximum Delay-LOS**	Limiting Movement ***	Max Approach Queue			
						Direction	Average Queue (ft)	Max Queue (ft) ****	
Design Year 2040 Alternative 2									
TH 10/169 South Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	AM	81	F	147	F	EBL	EBT	434	1574
	PM	48	D	95	F	EBL	EBT	174	815
TH 10/169 North Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	AM	118	F	312	F	WBR	WBT/R	1134	2008
	PM	115	F	347	F	WBR	WBT/R	1212	2070
CSAH 83 (Armstrong Blvd & 147th Avenue) <i>Signal</i>	AM	62	E	189	F	NBL	NBT	948	1183
	PM	86	F	140	F	EBL	NBT	893	1263
CSAH 83 (Armstrong Blvd & CSAH 116 (Bunker Lake Blvd) <i>Signal (Added EB through-right, left, and SB left turn lanes)</i>	AM	73	E	228	F	WBL	NBT	798	996
	PM	100	F	293	F	WBL	NBT	841	959
CSAH 83 (Armstrong Blvd) & Alpine Drive NW <i>TWSC</i>	AM	4	A	19	C	WBL	EBL/T	35	82
	PM	6	A	27	D	EBT	NBL/T	47	123
Alpine Drive NW & Puma Street NW <i>TWSC</i>	AM	2	A	7	A	NBL	NBL/R	33	52
	PM	3	A	9	A	NBL	NBL/T	51	79
Puma Street NW & Bunker Lake Blvd <i>Option 1: AWSC</i>	AM	4	A	10	A	SBT	SBL/T/R	60	91
	PM	5	A	10	A	WBL	SBL/T/R	59	90
Puma Street NW & Bunker Lake Blvd <i>Option 2: 3 Legged intersection (with curve)</i>	AM	1	A	11	B	EBL	NBL/T	14	45
	PM	1	A	8	A	EBL	EBL/R	23	47
Puma Street NW & Bunker Lake Blvd <i>Option 3: Roundabout</i>	AM	3	A	4	A	SBT	SBL/T/R	20	57
	PM	3	A	4	A	EBT	SBL/T/R	20	64

*Delay in seconds per vehicle

**Maximum delay and LOS on any approach and/or movement

***Limiting Movement is the highest delay movement.

****Max Queue refers to the 95% Queue (Passenger car stored length = 25 ft, Heavy vehicle stored length = 45 ft)

Table 11: 2040 Build Operations Analysis (Alternative 3: LD Residential)

Traffic Control Scenario	Peak Hour	Intersection Delay*- LOS		Maximum Delay-LOS**	Limiting Movement ***	Max Approach Queue			
						Direction	Average Queue (ft)	Max Queue (ft) ****	
Design Year 2040 Alternative 3									
TH 10/169 South Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	AM	13	B	24	C	NBL	EBL/R	101	176
	PM	28	C	52	D	EBL	EBL/R	190	417
TH 10/169 North Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	AM	85	F	225	F	WBR	WBT/R	694	1628
	PM	109	F	285	F	WBR	WBT/R	1143	2056
CSAH 83 (Armstrong Blvd & 147th Avenue) <i>Signal</i>	AM	62	E	272	F	NBL	NBT	824	1289
	PM	87	F	163	F	NBL	NBT	887	1282
CSAH 83 (Armstrong Blvd & CSAH 116 (Bunker Lake Blvd) <i>Signal (Added EB through-right, left, and SB left turn lanes)</i>	AM	72	E	189	F	NBL	NBT	812	1025
	PM	98	F	307	F	WBL	NBT	817	1026
CSAH 83 (Armstrong Blvd) & Alpine Drive NW <i>TWSC</i>	AM	4	A	18	C	EBL	NBL/T	32	86
	PM	7	A	33	D	EBL	EBL/T	59	131
Alpine Drive NW & Puma Street NW <i>TWSC</i>	AM	2	A	7	A	NBL	NBL/R	32	55
	PM	3	A	8	A	NBL	NBL/T	45	72
Puma Street NW & Bunker Lake Blvd <i>Option 1: AWSC</i>	AM	4	A	7	A	WBL	SBL/T/R	52	80
	PM	4	A	9	A	SBT	SBL/T/R	62	95
Puma Street NW & Bunker Lake Blvd <i>Option 2: 3 Legged intersection (with curve)</i>	AM	1	A	8	A	EBL	NBL/T	12	45
	PM	1	A	8	A	EBL	EBL/R	23	41
Puma Street NW & Bunker Lake Blvd <i>Option 3: Roundabout</i>	AM	3	A	4	A	EBT	SBL/T/R	16	51
	PM	3	A	4	A	NBT	SBL/T/R	26	71

*Delay in seconds per vehicle

**Maximum delay and LOS on any approach and/or movement

***Limiting Movement is the highest delay movement.

****Max Queue refers to the 95% Queue (Passenger car stored length = 25 ft, Heavy vehicle stored length = 45 ft)

Based on the expected growth in the area, and the generated trips from the proposed development, the study area is anticipated to have unacceptable operations at multiple intersections. Three of the signalized intersections have an overall LOS of E or worse in all of the alternative scenarios. The other signalized intersection, T.H. 10 South Ramp, is projected to have an acceptable overall LOS in Alternative 1A, 1B, and 3. The alternative 2 scenario shows the T.H. 10 South Ramp intersection having a LOS F during the AM peak hour. All signalized intersections have at least one movement with a LOS of D or worse in all of the scenarios. The unsignalized intersections are projected to operate adequately with the exception of Armstrong Boulevard & Alpine Drive. The eastbound and westbound approaches are experiencing excessive delays at this intersection for all alternatives. Alternative 2 will be used to determine what mitigation is necessary in the study area because it generated the most traffic out of the four alternatives. Overall, the operations can be improved, but are still considered unacceptable at many of the intersections. This is due to the large amount of traffic entering and exiting on Bunker Lake Boulevard and Armstrong Boulevard.

2. Additional Analysis

Additional operations analysis was completed to determine what intersection control would be adequate for the first development entrance west of Armstrong Boulevard on Bunker Lake Boulevard. Because of the heavy traffic along Bunker Lake Boulevard, it was assumed that stop control would not be suitable for this intersection. A roundabout and signal were modeled for the 2040 PM Build Alternative 2 scenario and the results are shown below.

Table 12: Development Intersection Operations Analysis

Traffic Control Scenario	Peak Hour	Intersection Delay*- LOS	Maximum Delay-LOS**	Limiting Movement ***	Max Approach Queue				
					Direction	Average Queue (ft)	Max Queue (ft) ****		
First Development Entrance on Bunker Lake Road (West of Armstrong Boulevard)									
Signal <i>Lanes: (EB/WB: L, T, T, R. NB/SB: L/T,R)</i>	PM	30 C	58 E	WBL	SBT	152	310		
Roundabout <i>Lanes: (EB/WB: L/T, T/R. NB/SB: L/T,R)</i>	PM	27 D	46 E	EB	EBT/R	150	300		

*Delay in seconds per vehicle

**Maximum delay and LOS on any approach and/or movement

***Limiting Movement is the highest delay movement.

****Max Queue refers to the 95% Queue (Passenger car stored length = 25 ft, Heavy vehicle stored length = 45 ft)

The signal or roundabout options both operate with an adequate overall level of service if the lanes shown are constructed. There will be at least one movement that has a LOS E or worse in both of the options.

Analysis was also completed to model the intersections if a river crossing was constructed along Armstrong Boulevard. It was assumed that the largest change in traffic due to the addition of the river crossing would be on T.H. 10. Therefore, the T.H. 10 ramp intersections were evaluated for operations. Intersections north of T.H. 10 were assumed to operate similarly to the scenarios without the river crossing.

Table 13: Operations Analysis with River Crossing

Traffic Control Scenario	Peak Hour	Intersection Delay*- LOS		Maximum Delay-LOS**		Limiting Movement ***	Max Approach Queue		
							Direction	Average Queue (ft)	Max Queue (ft) ****
2040 Build Alt 2 (With River Crossing)									
T.H. 10 South Ramp <i>Signal</i>	PM	151	F	475	F	EBL	EBT	1621	2762
T.H. 10 North Ramp <i>Signal</i>	PM	98	F	205	F	SBT	WBT/R	667	1550

*Delay in seconds per vehicle

**Maximum delay and LOS on any approach and/or movement

***Limiting Movement is the highest delay movement.

****Max Queue refers to the 95% Queue (Passenger car stored length = 25 ft, Heavy vehicle stored length = 45 ft)

The delays at these intersections get worse with the river crossing because additional vehicles are using these ramps to access the river crossing from T.H. 10. A more thorough investigation should be conducted in the future to determine countermeasures if a river crossing is to be constructed.

C. Proposed Mitigation

1. Mitigation

The proposed No-Build mitigations identified under the No-Build Conditions should be considered as well as the following to improve operations for the 2040 Build condition. Although these changes will improve operations, many of the intersections will still be considered unacceptable. This is due to the large amount of traffic entering and exiting on Bunker Lake Boulevard and Armstrong Boulevard.

a) Traffic Control

It is recommended that the following changes be made with regard to the traffic control in the study area:

Bunker Lake Boulevard & Puma Street

- All-way stop control, a 3 legged intersection with two-way stop control, and a roundabout were evaluated at this intersection. Each option operated with adequate levels of service. (short-term)

b) Geometric Improvements

It is recommended that the following changes be made with regard to the intersection geometry of the study area:

Armstrong Boulevard & Bunker Lake Boulevard

- Add a second eastbound left turn lane (short-term)
- Convert the southerly eastbound through lane into a through-right lane (long-term)
- Another option would be an eastbound free-right with an add lane that can be extended to the T.H. 10 North Ramp (long-term)

It is recommended that free-rights only be constructed when actually needed due the impact they have on pedestrian movements. Another option may be to signalize the right turn movement and provide an overlap phase to provide more green time to the right turn.

D. Additional Operations Analysis (50% Development Completion)

A 2030 analysis was also completed to determine when the study area would start experiencing significant delays. This analysis assumes 50% of the Future Business Park development is complete and 50% of the COR development is complete.

Table 14: 2030 (50% Development) Operations Analysis

Traffic Control Scenario	Peak Hour	Intersection Delay*- LOS		Maximum Delay-LOS**		Limiting Movement ***	Max Approach Queue		
							Direction	Average Queue (ft)	Max Queue (ft) ****
Design Year 2030 Build Alternative Alternative 2 (50% Development)									
TH 10/169 South Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	PM	9	A	17	B	NBL	EBL	64	100
TH 10/169 North Ramp & CSAH 83 (Armstrong Blvd) <i>Signal</i>	PM	12	B	22	C	NBL	SBT	178	330
CSAH 83 (Armstrong Blvd & 147th Avenue) <i>Signal (Added EB through, right, left, and SB left turn lanes)</i>	PM	11	B	37	D	EBL	NBT	130	203
CSAH 83 (Armstrong Blvd & CSAH 116 (Bunker Lake Blvd) <i>Signal</i>	PM	37	D	72	E	WBL	EBT	146	561
CSAH 83 (Armstrong Blvd) & Alpine Drive NW <i>TWSC</i>	PM	5	A	22	C	EBL	NBL/T	40	126
Alpine Drive NW & Puma Street NW <i>TWSC</i>	PM	3	A	6	A	NBR	NBL/T	41	66

Assumes the east (COR) development and west development are 50% built out

*Delay in seconds per vehicle

**Maximum delay and LOS on any approach and/or movement

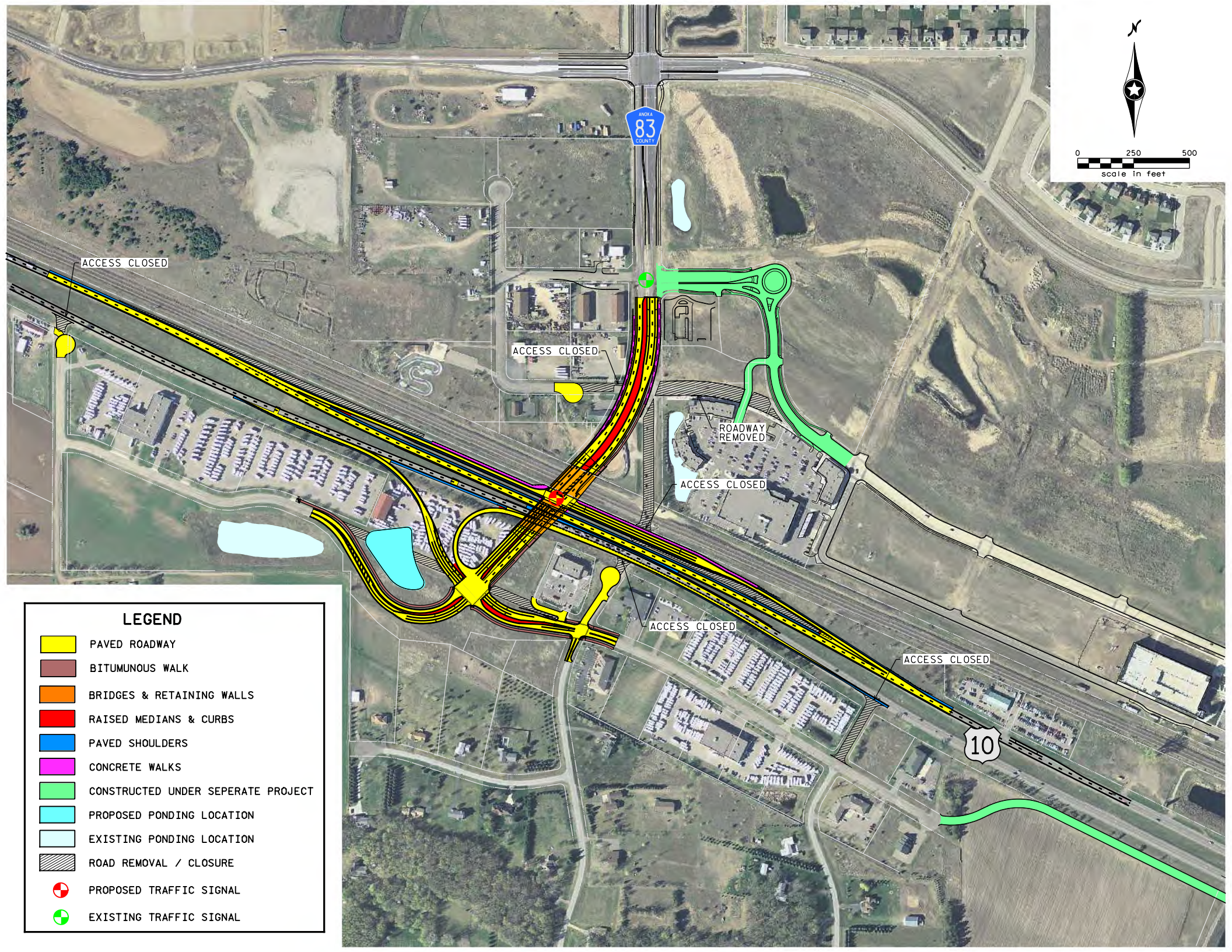
***Limiting Movement is the highest delay movement.

****Max Queue refers to the 95% Queue (Passenger car stored length = 25 ft, Heavy vehicle stored length = 45 ft)

At 50% development, the intersections are anticipated to operate with adequate delays. Therefore, it is projected that the intersections will start to experience excessive delays anywhere from 50% to 100% completion of the development.



APPENDIX A-
TH 10 & ARMSTRONG BOULEVARD
OVERPASS LAYOUT



LEGEND

- PAVED ROADWAY
- BITUMINOUS WALK
- BRIDGES & RETAINING WALLS
- RAISED MEDIANS & CURBS
- PAVED SHOULDERS
- CONCRETE WALKS
- CONSTRUCTED UNDER SEPERATE PROJECT
- PROPOSED PONDING LOCATION
- EXISTING PONDING LOCATION
- ROAD REMOVAL / CLOSURE
- + PROPOSED TRAFFIC SIGNAL
- EXISTING TRAFFIC SIGNAL



APPENDIX B- TRAFFIC VOLUMES



Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

File Name : 1 - Alpine Dr & Puma St NW, 4-8-15, 6am-7pm

Site Code : 1

Start Date : 4/8/2015

Page No : 1

Alpine Dr and Puma St NW
Ramsey, MN

Groups Printed- Cars + - Trucks

Start Time	Southbound						Alpine Dr Westbound						Puma St NW Northbound						Alpine Dr Eastbound						Int. Total						
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total							
06:00 AM	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	10
06:15 AM	0	0	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	18
06:30 AM	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	13	1	0	14	0	0	0	0	0	0	21
06:45 AM	0	0	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	21
Total	0	0	0	0	0	0	0	0	38	0	0	38	0	0	0	0	0	0	0	0	31	1	0	32	0	0	0	0	0	0	70
07:00 AM	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	19
07:15 AM	0	0	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	0	0	14	1	0	15	0	0	0	0	0	0	30
07:30 AM	0	0	0	0	0	0	0	0	19	0	0	19	0	1	0	0	0	1	0	0	19	2	0	21	0	0	0	0	0	0	41
07:45 AM	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	0	0	17	1	0	18	0	0	0	0	0	0	27
Total	0	0	0	0	0	0	0	0	50	0	0	50	0	1	0	0	0	1	0	0	62	4	0	66	0	0	0	0	0	0	117
08:00 AM	0	0	0	0	0	0	0	0	14	0	0	14	0	1	0	0	0	1	0	0	11	2	0	13	0	0	0	0	0	0	28
08:15 AM	0	0	0	0	0	0	0	0	11	0	0	11	0	1	0	0	0	1	0	0	15	0	0	15	0	0	0	0	0	0	27
08:30 AM	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	19
08:45 AM	0	0	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	20
Total	0	0	0	0	0	0	0	1	44	0	0	45	0	2	0	0	0	2	0	0	44	3	0	47	0	0	0	0	0	0	94
09:00 AM	0	0	0	0	0	0	0	1	10	0	0	11	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	16
09:15 AM	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	16
09:30 AM	0	0	0	0	0	0	0	0	7	0	0	7	0	1	0	0	0	1	0	0	5	0	0	5	0	0	0	0	0	0	13
09:45 AM	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	10
Total	0	0	0	0	0	0	0	1	31	0	0	32	0	1	0	0	0	1	0	0	22	0	0	22	0	0	0	0	0	0	55
10:00 AM	0	0	0	0	0	0	0	0	8	0	0	8	0	1	0	0	0	1	0	0	7	0	0	7	0	0	0	0	0	0	16
10:15 AM	0	0	0	0	0	0	0	0	4	0	0	4	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5
10:30 AM	0	0	0	0	0	0	0	0	6	0	0	6	0	1	0	3	0	4	0	0	5	1	0	6	0	0	0	0	0	0	16
10:45 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	17
Total	0	0	0	0	0	0	0	0	21	0	0	21	0	3	0	3	0	6	0	0	26	1	0	27	0	0	0	0	0	0	54
11:00 AM	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	11
11:15 AM	0	0	0	0	0	0	0	0	10	0	0	10	0	1	0	0	0	1	0	0	7	1	0	8	0	0	0	0	0	0	19
11:30 AM	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	17
11:45 AM	0	0	0	0	0	0	0	0	8	0	0	8	0	1	0	0	0	1	0	0	6	0	0	6	0	0	0	0	0	0	15
Total	0	0	0	0	0	0	0	0	35	0	0	35	0	2	0	0	0	2	0	0	24	1	0	25	0	0	0	0	0	0	62
12:00 PM	0	0	0	0	0	0	0	0	8	0	0	8	0	1	0	0	0	1	0	0	21	1	0	22	0	0	0	0	0	0	31
12:15 PM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	11
12:30 PM	0	0	0	0	0	0	0	0	6	0	0	6	0	2	0	0	0	2	0	0	8	0	1	9	0	0	0	0	0	0	17
12:45 PM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	15
Total	0	0	0	0	0	0	0	0	21	0	0	21	0	3	0	0	0	3	0	0	48	1	1	50	0	0	0	0	0	0	74
01:00 PM	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	22
01:15 PM	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	19
01:30 PM	0	0	0	0	0	0	0	1	9	0	0	10	0	0	0	1	0	1	0	0	4	1	0	5	0	0	0	0	0	0	16
01:45 PM	0	0	0	0	0	0	0	0	11	0	0	11	0	2	0	0	0	2	0	0	7	0	0	7	0	0	0	0	0	0	20
Total	0	0	0	0	0	0	0	1	42	0	0	43	0	2	0	1	0	3	0	0	29	2	0	31	0	0	0	0	0	0	77



Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

File Name : 1 - Alpine Dr & Puma St NW, 4-8-15, 6am-7pm

Site Code : 1

Start Date : 4/8/2015

Page No : 2

Alpine Dr and Puma St NW
Ramsey, MN

Groups Printed- Cars + - Trucks

Start Time	Southbound						Alpine Dr Westbound						Puma St NW Northbound						Alpine Dr Eastbound						Int. Total	
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total		
02:00 PM	0	0	0	0	0	0	0	0	14	0	1	15	0	0	0	0	0	0	0	0	0	7	0	0	7	22
02:15 PM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	11	0	0	11	16	
02:30 PM	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	0	0	10	0	1	11	20	
02:45 PM	0	0	0	0	0	0	0	0	16	0	0	16	0	3	0	0	0	3	0	0	7	0	0	7	26	
Total	0	0	0	0	0	0	0	0	44	0	1	45	0	3	0	0	0	3	0	0	35	0	1	36	84	
03:00 PM	0	0	0	0	0	0	0	1	12	0	0	13	0	0	0	0	0	0	0	0	13	0	0	13	26	
03:15 PM	0	0	0	0	0	0	0	1	16	0	0	17	0	2	0	1	0	3	0	0	9	0	0	9	29	
03:30 PM	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	0	0	12	0	0	12	23	
03:45 PM	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	1	0	1	0	0	21	0	2	23	32	
Total	0	0	0	0	0	0	0	2	47	0	0	49	0	2	0	2	0	4	0	0	55	0	2	57	110	
04:00 PM	0	0	0	0	0	0	0	0	16	0	2	18	0	0	0	0	0	0	0	0	18	1	0	19	37	
04:15 PM	0	0	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	1	0	17	0	0	18	32	
04:30 PM	0	0	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	0	0	0	19	0	0	19	41	
04:45 PM	0	0	0	0	0	0	0	0	8	0	0	8	0	2	0	0	0	2	0	0	20	0	1	21	31	
Total	0	0	0	0	0	0	0	0	60	0	2	62	0	2	0	0	0	2	1	0	74	1	1	77	141	
05:00 PM	0	0	0	0	0	0	0	0	14	0	1	15	0	1	0	0	0	1	0	0	13	0	0	13	29	
05:15 PM	0	0	0	0	0	0	0	0	14	0	1	15	0	2	0	0	0	2	0	0	28	0	0	28	45	
05:30 PM	0	0	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	0	0	24	0	0	24	38	
05:45 PM	0	0	0	0	0	0	0	0	15	0	0	15	0	1	0	0	0	1	0	0	13	0	0	13	29	
Total	0	0	0	0	0	0	0	0	57	0	2	59	0	4	0	0	0	4	0	0	78	0	0	78	141	
06:00 PM	0	0	0	0	0	0	0	0	10	0	0	10	0	2	0	0	0	2	0	0	10	0	0	10	22	
06:15 PM	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	1	4	5	0	0	12	0	2	14	30	
06:30 PM	0	0	0	0	0	0	0	0	11	0	1	12	0	0	0	0	1	1	0	0	7	1	0	8	21	
06:45 PM	0	0	0	0	0	0	0	0	10	0	1	11	0	0	0	0	4	4	0	0	6	0	3	9	24	
Total	0	0	0	0	0	0	0	0	42	0	2	44	0	2	0	1	9	12	0	0	35	1	5	41	97	
Grand Total	0	0	0	0	0	0	0	5	532	0	7	544	0	27	0	7	9	43	1	0	563	15	10	589	1176	
Apprch %	0	0	0	0	0	0	0	0.9	97.8	0	1.3		0	62.8	0	16.3	20.9		0.2	0	95.6	2.5	1.7			
Total %	0	0	0	0	0	0	0	0.4	45.2	0	0.6	46.3	0	2.3	0	0.6	0.8	3.7	0.1	0	47.9	1.3	0.9	50.1		
Cars +	0	0	0	0	0	0	0	4	506	0	6	516	0	26	0	7	8	41	1	0	532	15	10	558	1115	
% Cars +	0	0	0	0	0	0	0	80	95.1	0	85.7	94.9	0	96.3	0	100	88.9	95.3	100	0	94.5	100	100	94.7	94.8	
Trucks	0	0	0	0	0	0	0	1	26	0	1	28	0	1	0	0	1	2	0	0	31	0	0	31	61	
% Trucks	0	0	0	0	0	0	0	20	4.9	0	14.3	5.1	0	3.7	0	0	11.1	4.7	0	0	5.5	0	0	5.3	5.2	



Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

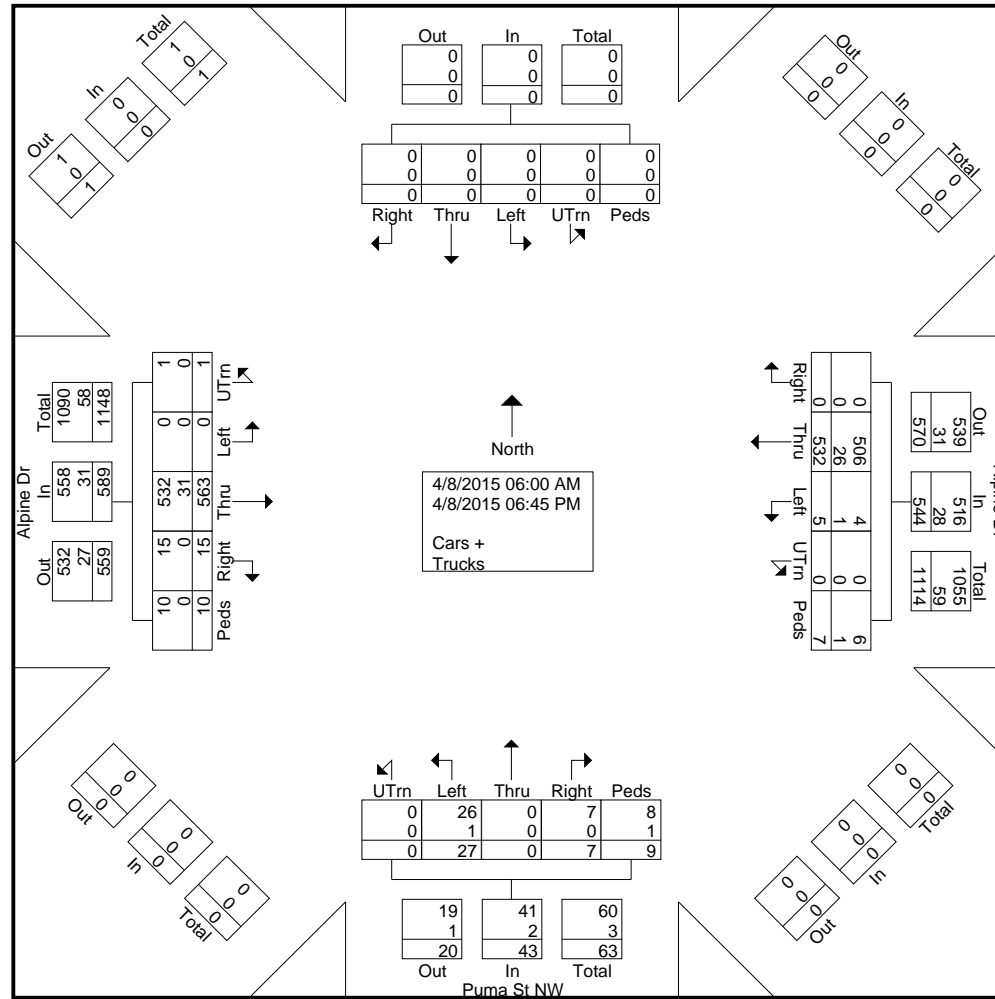
File Name : 1 - Alpine Dr & Puma St NW, 4-8-15, 6am-7pm

Site Code : 1

Start Date : 4/8/2015

Page No : 3

Alpine Dr and Puma St NW
Ramsey, MN





Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

File Name : 1 - Alpine Dr & Puma St NW, 4-8-15, 6am-7pm

Site Code : 1

Start Date : 4/8/2015

Page No : 4

Alpine Dr and Puma St NW Ramsey, MN

Start Time	Southbound						Alpine Dr Westbound					Puma St NW Northbound					Alpine Dr Eastbound					Int. Total			
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru		Right	Peds	App. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:15 AM																									
07:15 AM	0	0	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	0	0	14	1	0	15	30
07:30 AM	0	0	0	0	0	0	0	0	19	0	0	19	0	1	0	0	0	1	0	0	19	2	0	21	41
07:45 AM	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	0	0	17	1	0	18	27
08:00 AM	0	0	0	0	0	0	0	0	14	0	0	14	0	1	0	0	0	1	0	0	11	2	0	13	28
Total Volume	0	0	0	0	0	0	0	0	57	0	0	57	0	2	0	0	0	2	0	0	61	6	0	67	126
% App. Total	0	0	0	0	0	0	0	0	100	0	0	100	0	100	0	0	0	0	0	0	91	9	0	100	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.750	.000	.000	.750	.000	.500	.000	.000	.000	.500	.000	.000	.803	.750	.000	.798	.768
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:15 AM																									
11:15 AM	0	0	0	0	0	0	0	0	10	0	0	10	0	1	0	0	0	1	0	0	7	1	0	8	19
11:30 AM	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	0	0	6	0	0	6	17
11:45 AM	0	0	0	0	0	0	0	0	8	0	0	8	0	1	0	0	0	1	0	0	6	0	0	6	15
12:00 PM	0	0	0	0	0	0	0	0	8	0	0	8	0	1	0	0	0	1	0	0	21	1	0	22	31
Total Volume	0	0	0	0	0	0	0	0	37	0	0	37	0	3	0	0	0	3	0	0	40	2	0	42	82
% App. Total	0	0	0	0	0	0	0	0	100	0	0	100	0	100	0	0	0	0	0	0	95.2	4.8	0	100	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.841	.000	.000	.841	.000	.750	.000	.000	.000	.750	.000	.000	.476	.500	.000	.477	.661
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:30 PM																									
04:30 PM	0	0	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	0	0	0	19	0	0	19	41
04:45 PM	0	0	0	0	0	0	0	0	8	0	0	8	0	2	0	0	0	2	0	0	20	0	1	21	31
05:00 PM	0	0	0	0	0	0	0	0	14	0	1	15	0	1	0	0	0	1	0	0	13	0	0	13	29
05:15 PM	0	0	0	0	0	0	0	0	14	0	1	15	0	2	0	0	0	2	0	0	28	0	0	28	45
Total Volume	0	0	0	0	0	0	0	0	58	0	2	60	0	5	0	0	0	5	0	0	80	0	1	81	146
% App. Total	0	0	0	0	0	0	0	0	96.7	0	3.3	100	0	100	0	0	0	0	0	0	98.8	0	1.2	100	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.659	.000	.500	.682	.000	.625	.000	.000	.000	.625	.000	.000	.714	.000	.250	.723	.811



Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

File Name : 2 - Armstrong Blvd NW & Alpine Dr, 4-8-15, 6am-7pm

Site Code : 2

Start Date : 4/8/2015

Page No : 1

Armstrong Blvd NW and Alpine Dr
Ramsey, MN

Groups Printed- Cars + - Trucks

Start Time	Armstrong Blvd NW Southbound						Alpine Dr Westbound						Armstrong Blvd NW Northbound						Alpine Dr Eastbound						Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	
06:00 AM	0	0	58	0	0	58	0	2	3	0	0	5	0	0	6	0	0	6	0	0	1	10	0	11	80
06:15 AM	0	3	73	2	0	78	0	3	4	0	0	7	0	4	12	0	0	16	0	0	1	7	0	8	109
06:30 AM	0	2	82	0	0	84	0	1	4	0	0	5	0	1	8	0	0	9	0	4	2	15	0	21	119
06:45 AM	0	3	87	0	0	90	0	0	8	0	0	8	0	1	6	0	0	7	0	1	3	21	0	25	130
Total	0	8	300	2	0	310	0	6	19	0	0	25	0	6	32	0	0	38	0	5	7	53	0	65	438
07:00 AM	0	2	89	3	0	94	0	0	4	0	0	4	0	4	9	0	0	13	0	1	4	21	0	26	137
07:15 AM	0	0	90	2	0	92	0	2	9	0	0	11	0	1	10	0	0	11	0	0	4	23	0	27	141
07:30 AM	0	0	107	6	0	113	0	1	13	1	0	15	0	2	11	1	0	14	0	3	4	27	0	34	176
07:45 AM	0	0	65	2	0	67	0	5	3	0	0	8	0	2	17	0	0	19	0	1	6	17	0	24	118
Total	0	2	351	13	0	366	0	8	29	1	0	38	0	9	47	1	0	57	0	5	18	88	0	111	572
08:00 AM	0	0	63	1	0	64	0	7	8	1	0	16	0	9	14	0	0	23	0	4	1	12	0	17	120
08:15 AM	0	1	43	1	0	45	0	2	5	0	0	7	0	6	9	2	0	17	0	2	5	19	0	26	95
08:30 AM	0	1	56	2	0	59	0	4	5	2	1	12	0	3	15	1	0	19	0	1	2	11	0	14	104
08:45 AM	0	1	36	4	0	41	0	0	2	0	0	2	0	6	14	1	0	21	0	2	4	9	0	15	79
Total	0	3	198	8	0	209	0	13	20	3	1	37	0	24	52	4	0	80	0	9	12	51	0	72	398
09:00 AM	0	2	53	2	0	57	0	0	3	1	0	4	0	5	12	3	0	20	0	0	2	7	0	9	90
09:15 AM	0	0	43	1	0	44	0	1	4	1	0	6	0	5	24	1	0	30	0	0	3	7	0	10	90
09:30 AM	0	1	28	0	0	29	0	0	3	1	0	4	0	4	17	0	0	21	0	0	3	11	0	14	68
09:45 AM	0	0	23	0	0	23	0	1	3	1	0	5	0	7	25	2	0	34	0	0	0	7	0	7	69
Total	0	3	147	3	0	153	0	2	13	4	0	19	0	21	78	6	0	105	0	0	8	32	0	40	317
10:00 AM	0	1	28	1	0	30	0	1	3	0	0	4	0	3	26	4	0	33	0	1	1	7	0	9	76
10:15 AM	0	0	25	1	0	26	0	1	1	2	0	4	0	6	19	3	0	28	0	0	2	3	1	6	64
10:30 AM	0	3	25	1	0	29	0	3	2	1	0	6	0	3	25	1	0	29	0	0	2	3	0	5	69
10:45 AM	0	2	25	1	0	28	0	4	1	2	0	7	0	2	23	0	0	25	0	2	5	9	0	16	76
Total	0	6	103	4	0	113	0	9	7	5	0	21	0	14	93	8	0	115	0	3	10	22	1	36	285
11:00 AM	0	0	33	1	0	34	0	2	3	0	0	5	0	7	26	1	0	34	0	1	0	7	0	8	81
11:15 AM	0	0	33	1	0	34	0	0	3	2	0	5	0	13	55	3	0	71	0	1	2	5	0	8	118
11:30 AM	0	2	28	0	0	30	0	2	1	0	0	3	0	9	29	1	1	40	0	0	4	7	1	12	85
11:45 AM	0	2	26	0	0	28	0	2	1	0	0	3	0	10	28	2	0	40	0	2	1	6	0	9	80
Total	0	4	120	2	0	126	0	6	8	2	0	16	0	39	138	7	1	185	0	4	7	25	1	37	364
12:00 PM	0	2	33	0	0	35	0	3	6	2	0	11	0	2	25	2	0	29	0	2	3	13	0	18	93
12:15 PM	0	1	20	0	0	21	1	0	5	0	0	6	0	4	29	1	0	34	0	1	2	9	0	12	73
12:30 PM	0	1	27	0	0	28	0	1	1	1	0	3	0	3	21	4	0	28	0	1	3	7	0	11	70
12:45 PM	0	1	30	0	0	31	0	1	2	2	1	6	0	12	33	0	1	46	0	2	4	10	0	16	99
Total	0	5	110	0	0	115	1	5	14	5	1	26	0	21	108	7	1	137	0	6	12	39	0	57	335
01:00 PM	0	0	30	2	0	32	0	1	4	0	0	5	0	8	26	2	0	36	0	0	2	10	0	12	85
01:15 PM	0	0	21	0	0	21	0	2	5	0	0	7	0	10	25	3	0	38	0	1	0	9	1	11	77
01:30 PM	0	1	31	0	0	32	0	3	1	0	0	4	0	8	31	1	0	40	0	0	0	5	0	5	81
01:45 PM	0	0	26	3	0	29	0	1	1	2	0	4	0	8	35	1	0	44	0	1	5	7	0	13	90
Total	0	1	108	5	0	114	0	7	11	2	0	20	0	34	117	7	0	158	0	2	7	31	1	41	333



Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

File Name : 2 - Armstrong Blvd NW & Alpine Dr, 4-8-15, 6am-7pm

Site Code : 2

Start Date : 4/8/2015

Page No : 2

Armstrong Blvd NW and Alpine Dr
Ramsey, MN

Groups Printed- Cars + - Trucks

Start Time	Armstrong Blvd NW Southbound						Alpine Dr Westbound						Armstrong Blvd NW Northbound						Alpine Dr Eastbound						Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	
02:00 PM	0	0	28	0	0	28	0	4	5	1	0	10	0	8	41	5	1	55	0	1	0	12	1	14	107
02:15 PM	0	1	31	1	0	33	0	2	3	1	0	6	0	8	52	2	0	62	0	0	2	11	0	13	114
02:30 PM	0	3	31	0	0	34	0	1	0	1	0	2	0	16	52	1	0	69	0	0	4	8	0	12	117
02:45 PM	0	2	25	2	0	29	0	1	4	3	0	8	0	14	68	1	0	83	0	2	3	7	0	12	132
Total	0	6	115	3	0	124	0	8	12	6	0	26	0	46	213	9	1	269	0	3	9	38	1	51	470
03:00 PM	0	3	23	1	0	27	0	1	4	2	0	7	0	20	71	2	0	93	0	0	6	8	0	14	141
03:15 PM	0	2	29	2	0	33	0	1	3	0	0	4	0	12	66	4	0	82	0	5	2	8	3	18	137
03:30 PM	0	3	34	2	0	39	0	1	6	3	0	10	0	13	79	2	0	94	0	1	6	8	0	15	158
03:45 PM	0	0	37	0	0	37	0	3	2	1	0	6	0	9	78	7	1	95	0	3	11	8	1	23	161
Total	0	8	123	5	0	136	0	6	15	6	0	27	0	54	294	15	1	364	0	9	25	32	4	70	597
04:00 PM	0	0	37	2	0	39	0	1	6	1	0	8	0	22	85	2	0	109	0	1	8	13	2	24	180
04:15 PM	0	1	35	0	0	36	0	2	5	6	0	13	0	16	96	11	1	124	0	3	10	6	1	20	193
04:30 PM	0	2	37	2	0	41	0	3	5	4	0	12	0	28	126	11	0	165	0	1	7	15	1	24	242
04:45 PM	0	3	32	6	0	41	0	3	3	3	0	9	0	9	102	4	0	115	0	4	11	12	1	28	193
Total	0	6	141	10	0	157	0	9	19	14	0	42	0	75	409	28	1	513	0	9	36	46	5	96	808
05:00 PM	0	0	29	0	0	29	0	4	4	0	1	9	0	22	109	3	1	135	0	2	8	5	0	15	188
05:15 PM	0	0	27	2	0	29	0	1	7	1	0	9	0	19	81	5	0	105	0	4	12	11	0	27	170
05:30 PM	0	1	38	4	0	43	0	2	5	1	0	8	0	24	84	2	1	111	0	3	10	15	1	29	191
05:45 PM	0	0	39	0	0	39	0	0	1	2	0	3	0	17	76	6	0	99	0	1	7	4	0	12	153
Total	0	1	133	6	0	140	0	7	17	4	1	29	0	82	350	16	2	450	0	10	37	35	1	83	702
06:00 PM	0	2	23	1	0	26	0	1	2	1	0	4	0	19	76	3	0	98	0	2	5	7	1	15	143
06:15 PM	0	1	35	2	0	38	0	1	5	2	0	8	0	16	54	6	0	76	0	1	5	8	1	15	137
06:30 PM	0	3	37	3	0	43	0	9	5	1	0	15	0	10	36	4	0	50	0	1	2	9	0	12	120
06:45 PM	0	2	39	2	0	43	0	6	8	0	0	14	0	11	56	1	0	68	0	0	4	6	0	10	135
Total	0	8	134	8	0	150	0	17	20	4	0	41	0	56	222	14	0	292	0	4	16	30	2	52	535
Grand Total	0	61	2083	69	0	2213	1	103	204	56	3	367	0	481	2153	122	7	2763	0	69	204	522	16	811	6154
Apprch %	0	2.8	94.1	3.1	0		0.3	28.1	55.6	15.3	0.8		0	17.4	77.9	4.4	0.3		0	8.5	25.2	64.4	2		
Total %	0	1	33.8	1.1	0	36	0	1.7	3.3	0.9	0	6	0	7.8	35	2	0.1	44.9	0	1.1	3.3	8.5	0.3	13.2	
Cars +	0	56	2039	67	0	2162	1	101	196	52	2	352	0	459	2089	118	3	2669	0	64	196	506	9	775	5958
% Cars +	0	91.8	97.9	97.1	0	97.7	100	98.1	96.1	92.9	66.7	95.9	0	95.4	97	96.7	42.9	96.6	0	92.8	96.1	96.9	56.2	95.6	96.8
Trucks	0	5	44	2	0	51	0	2	8	4	1	15	0	22	64	4	4	94	0	5	8	16	7	36	196
% Trucks	0	8.2	2.1	2.9	0	2.3	0	1.9	3.9	7.1	33.3	4.1	0	4.6	3	3.3	57.1	3.4	0	7.2	3.9	3.1	43.8	4.4	3.2



Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

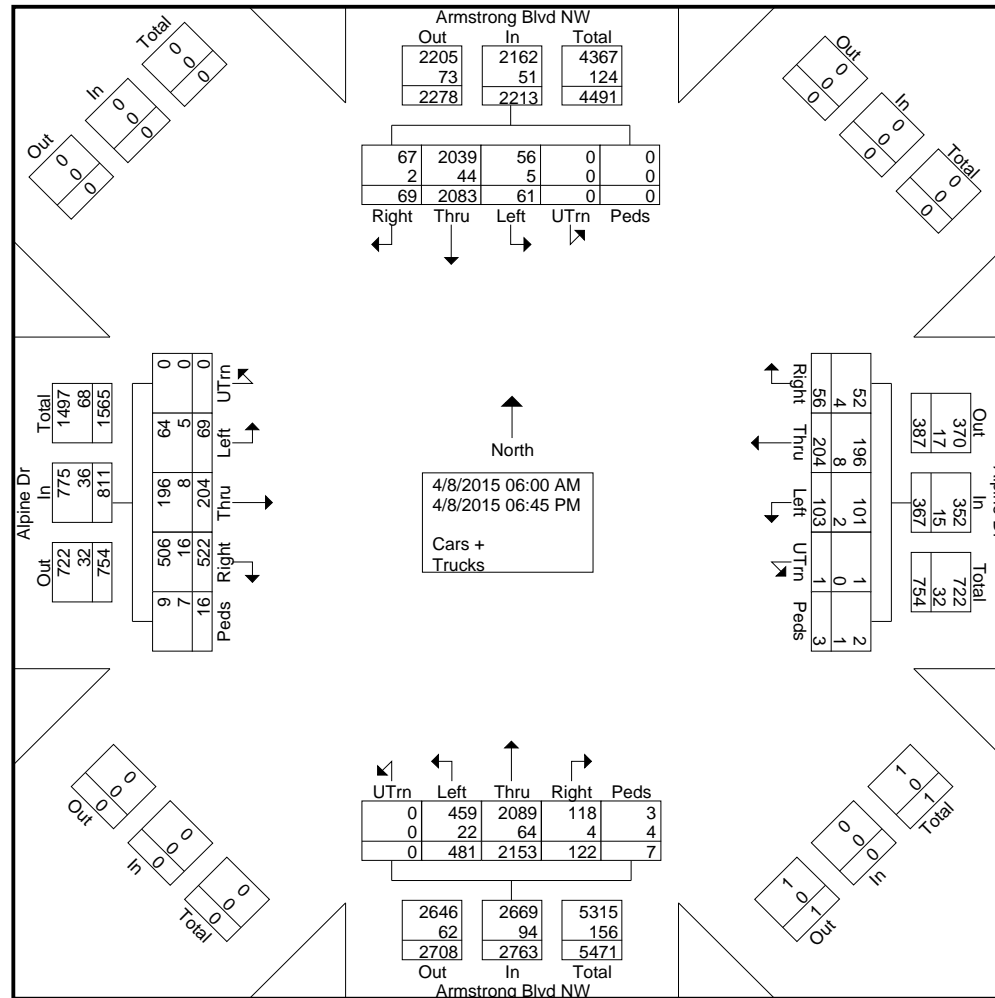
File Name : 2 - Armstrong Blvd NW & Alpine Dr, 4-8-15, 6am-7pm

Site Code : 2

Start Date : 4/8/2015

Page No : 3

Armstrong Blvd NW and Alpine Dr
Ramsey, MN





Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

File Name : 2 - Armstrong Blvd NW & Alpine Dr, 4-8-15, 6am-7pm

Site Code : 2

Start Date : 4/8/2015

Page No : 4

Armstrong Blvd NW and Alpine Dr Ramsey, MN

Start Time	Armstrong Blvd NW Southbound						Alpine Dr Westbound					Armstrong Blvd NW Northbound						Alpine Dr Eastbound					Int. Total		
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right		Peds	App. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 06:45 AM																									
06:45 AM	0	3	87	0	0	90	0	0	8	0	0	8	0	1	6	0	0	7	0	1	3	21	0	25	130
07:00 AM	0	2	89	3	0	94	0	0	4	0	0	4	0	4	9	0	0	13	0	1	4	21	0	26	137
07:15 AM	0	0	90	2	0	92	0	2	9	0	0	11	0	1	10	0	0	11	0	0	4	23	0	27	141
07:30 AM	0	0	107	6	0	113	0	1	13	1	0	15	0	2	11	1	0	14	0	3	4	27	0	34	176
Total Volume	0	5	373	11	0	389	0	3	34	1	0	38	0	8	36	1	0	45	0	5	15	92	0	112	584
% App. Total	0	1.3	95.9	2.8	0		0	7.9	89.5	2.6	0		0	17.8	80	2.2	0		0	4.5	13.4	82.1	0		
PHF	.000	.417	.871	.458	.000	.861	.000	.375	.654	.250	.000	.633	.000	.500	.818	.250	.000	.804	.000	.417	.938	.852	.000	.824	.830
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:15 AM																									
11:15 AM	0	0	33	1	0	34	0	0	3	2	0	5	0	13	55	3	0	71	0	1	2	5	0	8	118
11:30 AM	0	2	28	0	0	30	0	2	1	0	0	3	0	9	29	1	1	40	0	0	4	7	1	12	85
11:45 AM	0	2	26	0	0	28	0	2	1	0	0	3	0	10	28	2	0	40	0	2	1	6	0	9	80
12:00 PM	0	2	33	0	0	35	0	3	6	2	0	11	0	2	25	2	0	29	0	2	3	13	0	18	93
Total Volume	0	6	120	1	0	127	0	7	11	4	0	22	0	34	137	8	1	180	0	5	10	31	1	47	376
% App. Total	0	4.7	94.5	0.8	0		0	31.8	50	18.2	0		0	18.9	76.1	4.4	0.6		0	10.6	21.3	66	2.1		
PHF	.000	.750	.909	.250	.000	.907	.000	.583	.458	.500	.000	.500	.000	.654	.623	.667	.250	.634	.000	.625	.625	.596	.250	.653	.797
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:15 PM																									
04:15 PM	0	1	35	0	0	36	0	2	5	6	0	13	0	16	96	11	1	124	0	3	10	6	1	20	193
04:30 PM	0	2	37	2	0	41	0	3	5	4	0	12	0	28	126	11	0	165	0	1	7	15	1	24	242
04:45 PM	0	3	32	6	0	41	0	3	3	3	0	9	0	9	102	4	0	115	0	4	11	12	1	28	193
05:00 PM	0	0	29	0	0	29	0	4	4	0	1	9	0	22	109	3	1	135	0	2	8	5	0	15	188
Total Volume	0	6	133	8	0	147	0	12	17	13	1	43	0	75	433	29	2	539	0	10	36	38	3	87	816
% App. Total	0	4.1	90.5	5.4	0		0	27.9	39.5	30.2	2.3		0	13.9	80.3	5.4	0.4		0	11.5	41.4	43.7	3.4		
PHF	.000	.500	.899	.333	.000	.896	.000	.750	.850	.542	.250	.827	.000	.670	.859	.659	.500	.817	.000	.625	.818	.633	.750	.777	.843



Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

File Name : 3 - Armstrong Blvd NW & Bunker Lake Blvd, 4-8-15, 6am-7pm

Site Code : 3

Start Date : 4/8/2015

Page No : 1

Armstrong Blvd NW and Bunker Lake Blvd
Ramsey, MN

Groups Printed- Cars + - Trucks

Start Time	Armstrong Blvd NW Southbound						Bunker Lake Blvd Westbound						Armstrong Blvd NW Northbound						Bunker Lake Blvd Eastbound						Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	
06:00 AM	0	12	59	0	0	71	0	1	0	5	0	6	0	0	4	2	0	6	0	0	0	0	0	0	83
06:15 AM	0	24	61	0	0	85	0	0	0	3	0	3	0	0	12	1	0	13	0	0	0	0	0	0	101
06:30 AM	0	37	66	0	2	105	0	3	0	5	2	10	0	0	4	4	0	8	0	0	0	1	0	1	124
06:45 AM	0	50	63	0	0	113	0	1	0	4	0	5	0	0	4	4	0	8	0	0	0	0	0	0	126
Total	0	123	249	0	2	374	0	5	0	17	2	24	0	0	24	11	0	35	0	0	0	1	0	1	434
07:00 AM	0	42	66	0	0	108	0	3	0	7	0	10	0	0	7	1	0	8	0	0	0	0	0	0	126
07:15 AM	0	50	66	0	0	116	0	4	0	7	0	11	0	0	5	2	0	7	0	0	1	0	0	1	135
07:30 AM	0	71	74	0	0	145	0	7	1	6	0	14	0	0	10	7	0	17	0	0	1	1	0	2	178
07:45 AM	0	48	52	0	0	100	0	6	0	7	0	13	0	0	15	7	0	22	0	0	1	0	0	1	136
Total	0	211	258	0	0	469	0	20	1	27	0	48	0	0	37	17	0	54	0	0	3	1	0	4	575
08:00 AM	0	22	60	0	0	82	0	1	1	13	0	15	0	0	10	3	0	13	0	0	1	0	0	1	111
08:15 AM	0	21	49	0	0	70	0	3	1	11	0	15	0	0	16	6	0	22	0	0	1	0	0	1	108
08:30 AM	0	32	55	0	0	87	0	1	0	5	0	6	0	0	16	0	0	16	0	0	0	1	0	1	110
08:45 AM	0	7	44	0	0	51	0	6	0	14	0	20	1	0	11	1	0	13	0	0	1	0	0	1	85
Total	0	82	208	0	0	290	0	11	2	43	0	56	1	0	53	10	0	64	0	0	3	1	0	4	414
09:00 AM	0	17	44	0	0	61	0	4	0	5	0	9	0	0	17	1	0	18	0	0	1	0	0	1	89
09:15 AM	0	5	43	0	0	48	0	2	0	15	0	17	0	0	18	1	0	19	0	0	0	0	0	0	84
09:30 AM	0	11	38	0	0	49	0	5	1	7	0	13	0	0	19	2	0	21	0	0	0	0	0	0	83
09:45 AM	0	10	31	0	0	41	0	3	0	8	0	11	0	0	26	1	0	27	0	0	0	0	0	0	79
Total	0	43	156	0	0	199	0	14	1	35	0	50	0	0	80	5	0	85	0	0	1	0	0	1	335
10:00 AM	0	7	36	0	0	43	0	2	1	12	0	15	0	0	19	1	0	20	0	0	0	0	0	0	78
10:15 AM	0	8	24	0	0	32	1	3	1	5	1	11	0	0	23	2	0	25	0	0	0	0	0	0	68
10:30 AM	0	5	32	2	0	39	0	4	0	11	0	15	0	2	17	3	0	22	0	0	0	1	0	1	77
10:45 AM	0	10	30	0	0	40	0	6	0	11	0	17	0	0	14	0	0	14	0	0	0	0	0	0	71
Total	0	30	122	2	0	154	1	15	2	39	1	58	0	2	73	6	0	81	0	0	0	1	0	1	294
11:00 AM	0	11	38	0	1	50	1	4	0	11	1	17	0	0	27	2	1	30	0	0	0	0	1	1	98
11:15 AM	0	13	29	0	0	42	0	5	1	12	1	19	0	0	28	2	0	30	0	0	0	1	0	1	92
11:30 AM	0	6	34	0	0	40	0	7	0	15	0	22	0	1	32	2	0	35	0	0	0	0	0	0	97
11:45 AM	0	3	37	0	0	40	0	3	0	11	1	15	0	0	36	3	0	39	0	0	0	0	0	0	94
Total	0	33	138	0	1	172	1	19	1	49	3	73	0	1	123	9	1	134	0	0	0	1	1	2	381
12:00 PM	1	10	30	0	0	41	0	1	0	6	0	7	0	1	25	6	0	32	0	0	0	2	0	2	82
12:15 PM	0	8	28	0	0	36	0	4	0	16	0	20	1	0	22	2	0	25	0	0	0	0	0	0	81
12:30 PM	0	9	33	0	0	42	0	4	0	9	0	13	0	1	23	2	0	26	0	0	0	0	0	0	81
12:45 PM	0	12	29	0	1	42	0	5	0	18	1	24	0	0	30	7	1	38	0	0	0	0	0	0	104
Total	1	39	120	0	1	161	0	14	0	49	1	64	1	2	100	17	1	121	0	0	0	2	0	2	348
01:00 PM	0	10	27	0	0	37	0	4	0	11	0	15	0	0	27	5	0	32	0	0	0	0	0	0	84
01:15 PM	0	11	28	0	1	40	0	4	0	12	2	18	0	3	30	1	1	35	0	0	0	2	1	3	96
01:30 PM	0	10	26	0	0	36	0	3	1	9	0	13	0	0	31	2	0	33	0	0	2	0	0	2	84
01:45 PM	0	4	31	0	0	35	0	2	1	14	1	18	1	0	32	2	1	36	0	0	0	0	0	0	89
Total	0	35	112	0	1	148	0	13	2	46	3	64	1	3	120	10	2	136	0	0	2	2	1	5	353



Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

File Name : 3 - Armstrong Blvd NW & Bunker Lake Blvd, 4-8-15, 6am-7pm

Site Code : 3

Start Date : 4/8/2015

Page No : 2

Armstrong Blvd NW and Bunker Lake Blvd
Ramsey, MN

Groups Printed- Cars + - Trucks

Start Time	Armstrong Blvd NW Southbound						Bunker Lake Blvd Westbound						Armstrong Blvd NW Northbound						Bunker Lake Blvd Eastbound						Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	
02:00 PM	0	10	30	0	0	40	0	5	0	18	0	23	0	0	40	3	0	43	0	0	0	0	0	0	106
02:15 PM	0	11	31	0	0	42	0	6	0	13	0	19	0	0	45	10	0	55	0	0	0	1	0	1	117
02:30 PM	0	8	39	0	0	47	0	4	0	28	0	32	0	1	41	5	0	47	0	1	0	0	0	0	127
02:45 PM	0	13	19	0	0	32	0	4	3	26	0	33	0	0	58	5	0	63	0	0	0	0	0	0	128
Total	0	42	119	0	0	161	0	19	3	85	0	107	0	1	184	23	0	208	0	1	0	1	0	2	478
03:00 PM	0	13	23	0	0	36	0	7	0	49	0	56	0	0	50	7	0	57	0	0	0	0	0	0	149
03:15 PM	0	9	33	0	0	42	0	5	1	38	0	44	0	0	49	3	0	52	0	0	0	0	0	0	138
03:30 PM	0	13	34	0	3	50	0	16	1	46	0	63	0	0	53	5	0	58	0	0	0	0	2	2	173
03:45 PM	0	15	36	0	0	51	0	6	0	37	0	43	2	0	63	5	0	70	0	0	0	0	0	0	164
Total	0	50	126	0	3	179	0	34	2	170	0	206	2	0	215	20	0	237	0	0	0	0	2	2	624
04:00 PM	0	17	27	0	0	44	0	5	0	45	1	51	0	0	65	4	0	69	0	0	1	0	0	1	165
04:15 PM	0	12	37	0	0	49	0	14	0	50	0	64	0	0	80	2	1	83	0	0	0	0	1	1	197
04:30 PM	0	15	43	0	1	59	0	17	0	77	2	96	1	0	90	6	0	97	0	0	0	1	1	2	254
04:45 PM	0	14	38	0	1	53	0	8	2	39	1	50	0	0	82	5	2	89	0	0	0	0	2	2	194
Total	0	58	145	0	2	205	0	44	2	211	4	261	1	0	317	17	3	338	0	0	1	1	4	6	810
05:00 PM	0	9	31	1	0	41	0	7	1	56	0	64	0	0	86	4	0	90	0	0	0	0	0	0	195
05:15 PM	0	8	32	0	0	40	0	9	2	27	2	40	0	0	87	7	0	94	0	0	0	0	0	0	174
05:30 PM	0	14	43	0	1	58	0	4	0	42	0	46	0	0	81	3	1	85	0	0	0	0	1	1	190
05:45 PM	1	14	33	0	0	48	0	1	2	20	0	23	0	1	77	5	1	84	0	1	0	0	0	1	156
Total	1	45	139	1	1	187	0	21	5	145	2	173	0	1	331	19	2	353	0	1	0	0	1	2	715
06:00 PM	0	10	28	0	2	40	0	5	1	33	2	41	0	0	68	3	1	72	0	0	1	0	1	2	155
06:15 PM	0	13	33	1	1	48	0	5	0	24	2	31	0	0	56	3	6	65	0	0	0	0	5	5	149
06:30 PM	0	9	36	0	0	45	0	4	0	17	0	21	0	0	37	4	0	41	0	0	0	0	0	0	107
06:45 PM	0	9	38	0	0	47	0	1	0	17	0	18	0	0	58	2	0	60	0	0	1	0	0	1	126
Total	0	41	135	1	3	180	0	15	1	91	4	111	0	0	219	12	7	238	0	0	2	0	6	8	537
Grand Total	2	832	2027	4	14	2879	2	244	22	1007	20	1295	6	10	1876	176	16	2084	0	2	12	11	15	40	6298
Apprch %	0.1	28.9	70.4	0.1	0.5		0.2	18.8	1.7	77.8	1.5		0.3	0.5	90	8.4	0.8		0	5	30	27.5	37.5		
Total %	0	13.2	32.2	0.1	0.2	45.7	0	3.9	0.3	16	0.3	20.6	0.1	0.2	29.8	2.8	0.3	33.1	0	0	0.2	0.2	0.2	0.6	
Cars +	2	807	1984	4	13	2810	2	231	21	972	15	1241	6	10	1838	168	13	2035	0	2	12	11	9	34	6120
% Cars +	100	97	97.9	100	92.9	97.6	100	94.7	95.5	96.5	75	95.8	100	100	98	95.5	81.2	97.6	0	100	100	100	60	85	97.2
Trucks	0	25	43	0	1	69	0	13	1	35	5	54	0	0	38	8	3	49	0	0	0	0	6	6	178
% Trucks	0	3	2.1	0	7.1	2.4	0	5.3	4.5	3.5	25	4.2	0	0	2	4.5	18.8	2.4	0	0	0	0	40	15	2.8



Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

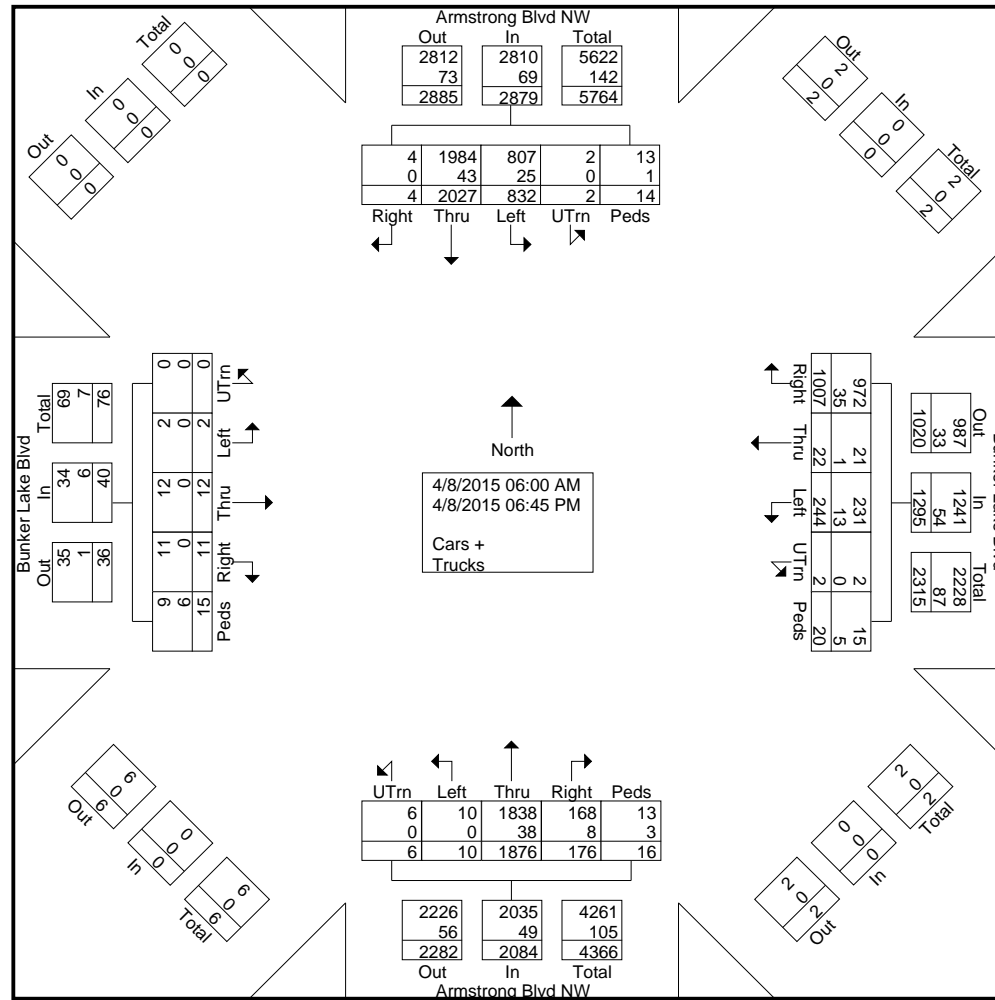
File Name : 3 - Armstrong Blvd NW & Bunker Lake Blvd, 4-8-15, 6am-7pm

Site Code : 3

Start Date : 4/8/2015

Page No : 3

Armstrong Blvd NW and Bunker Lake Blvd
Ramsey, MN





Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

File Name : 3 - Armstrong Blvd NW & Bunker Lake Blvd, 4-8-15, 6am-7pm

Site Code : 3

Start Date : 4/8/2015

Page No : 4

Armstrong Blvd NW and Bunker Lake Blvd Ramsey, MN

Start Time	Armstrong Blvd NW Southbound						Bunker Lake Blvd Westbound					Armstrong Blvd NW Northbound						Bunker Lake Blvd Eastbound					Int. Total		
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right		Peds	App. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:00 AM																									
07:00 AM	0	42	66	0	0	108	0	3	0	7	0	10	0	0	7	1	0	8	0	0	0	0	0	0	126
07:15 AM	0	50	66	0	0	116	0	4	0	7	0	11	0	0	5	2	0	7	0	0	1	0	0	1	135
07:30 AM	0	71	74	0	0	145	0	7	1	6	0	14	0	0	10	7	0	17	0	0	1	1	0	2	178
07:45 AM	0	48	52	0	0	100	0	6	0	7	0	13	0	0	15	7	0	22	0	0	1	0	0	1	136
Total Volume	0	211	258	0	0	469	0	20	1	27	0	48	0	0	37	17	0	54	0	0	3	1	0	4	575
% App. Total	0	45	55	0	0		0	41.7	2.1	56.2	0		0	0	68.5	31.5	0		0	0	75	25	0		
PHF	.000	.743	.872	.000	.000	.809	.000	.714	.250	.964	.000	.857	.000	.000	.617	.607	.000	.614	.000	.000	.750	.250	.000	.500	.808
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:00 AM																									
11:00 AM	0	11	38	0	1	50	1	4	0	11	1	17	0	0	27	2	1	30	0	0	0	0	1	1	98
11:15 AM	0	13	29	0	0	42	0	5	1	12	1	19	0	0	28	2	0	30	0	0	0	1	0	1	92
11:30 AM	0	6	34	0	0	40	0	7	0	15	0	22	0	1	32	2	0	35	0	0	0	0	0	0	97
11:45 AM	0	3	37	0	0	40	0	3	0	11	1	15	0	0	36	3	0	39	0	0	0	0	0	0	94
Total Volume	0	33	138	0	1	172	1	19	1	49	3	73	0	1	123	9	1	134	0	0	0	1	1	2	381
% App. Total	0	19.2	80.2	0	0.6		1.4	26	1.4	67.1	4.1		0	0.7	91.8	6.7	0.7		0	0	0	50	50		
PHF	.000	.635	.908	.000	.250	.860	.250	.679	.250	.817	.750	.830	.000	.250	.854	.750	.250	.859	.000	.000	.000	.250	.250	.500	.972
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:15 PM																									
04:15 PM	0	12	37	0	0	49	0	14	0	50	0	64	0	0	80	2	1	83	0	0	0	0	1	1	197
04:30 PM	0	15	43	0	1	59	0	17	0	77	2	96	1	0	90	6	0	97	0	0	0	1	1	2	254
04:45 PM	0	14	38	0	1	53	0	8	2	39	1	50	0	0	82	5	2	89	0	0	0	0	2	2	194
05:00 PM	0	9	31	1	0	41	0	7	1	56	0	64	0	0	86	4	0	90	0	0	0	0	0	0	195
Total Volume	0	50	149	1	2	202	0	46	3	222	3	274	1	0	338	17	3	359	0	0	0	1	4	5	840
% App. Total	0	24.8	73.8	0.5	1		0	16.8	1.1	81	1.1		0.3	0	94.2	4.7	0.8		0	0	0	20	80		
PHF	.000	.833	.866	.250	.500	.856	.000	.676	.375	.721	.375	.714	.250	.000	.939	.708	.375	.925	.000	.000	.000	.250	.500	.625	.827



Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

File Name : 4 - Armstrong Blvd NW & 147th Ave NW, 4-8-15, 6am-7pm

Site Code : 4

Start Date : 4/8/2015

Page No : 1

Armstrong Blvd NW and 147th Ave NW
Ramsey, MN

Groups Printed- Cars + - Trucks

Start Time	Armstrong Blvd NW Southbound						147th Ave NW Westbound						Armstrong Blvd NW Northbound						147th Ave NW Eastbound						Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	
06:00 AM	0	10	53	0	0	63	0	3	0	1	0	4	0	0	7	7	0	14	0	0	0	0	0	0	81
06:15 AM	0	10	51	0	0	61	0	6	0	1	1	8	0	0	12	9	0	21	0	0	0	0	0	0	90
06:30 AM	0	8	61	1	0	70	0	8	1	0	0	9	0	1	9	13	0	23	0	0	1	0	0	0	103
06:45 AM	0	13	50	0	0	63	0	8	1	1	0	10	0	3	7	14	0	24	0	0	0	0	0	0	97
Total	0	41	215	1	0	257	0	25	2	3	1	31	0	4	35	43	0	82	0	0	1	0	0	0	371
07:00 AM	0	13	57	0	0	70	0	4	0	2	0	6	0	2	6	8	0	16	0	0	0	0	0	0	92
07:15 AM	0	29	43	0	0	72	0	6	0	1	0	7	0	0	6	26	0	32	0	0	0	0	0	0	111
07:30 AM	0	20	60	0	0	80	0	18	0	4	0	22	0	1	12	27	0	40	0	0	1	2	0	0	145
07:45 AM	1	17	39	1	0	58	0	7	0	3	0	10	0	1	18	22	0	41	0	0	0	0	0	0	109
Total	1	79	199	1	0	280	0	35	0	10	0	45	0	4	42	83	0	129	0	0	1	2	0	0	457
08:00 AM	0	13	45	4	0	62	0	7	1	4	0	12	0	0	9	17	0	26	0	0	1	0	0	0	101
08:15 AM	0	9	37	1	0	47	0	7	1	5	0	13	0	1	20	16	0	37	0	0	0	2	0	0	99
08:30 AM	0	14	42	0	0	56	0	8	0	5	0	13	0	0	8	12	0	20	0	1	0	1	0	0	91
08:45 AM	0	13	38	0	0	51	0	7	1	6	0	14	0	2	8	20	0	30	0	0	1	0	0	0	96
Total	0	49	162	5	0	216	0	29	3	20	0	52	0	3	45	65	0	113	0	1	2	3	0	0	387
09:00 AM	0	14	34	1	0	49	0	5	0	4	0	9	0	2	12	6	0	20	0	1	0	2	0	0	81
09:15 AM	0	10	36	0	0	46	0	4	0	7	0	11	0	0	13	17	0	30	0	0	0	1	0	0	88
09:30 AM	0	6	35	1	0	42	0	15	0	9	0	24	0	0	11	19	0	30	0	0	0	4	0	0	100
09:45 AM	0	7	26	0	0	33	0	10	0	7	0	17	0	1	22	12	0	35	0	0	0	0	0	0	85
Total	0	37	131	2	0	170	0	34	0	27	0	61	0	3	58	54	0	115	0	1	0	7	0	0	354
10:00 AM	0	13	25	1	0	39	0	6	0	5	0	11	0	0	14	19	0	33	0	0	0	0	0	0	83
10:15 AM	0	3	24	0	0	27	0	12	2	7	0	21	0	0	19	17	0	36	0	0	2	1	0	0	87
10:30 AM	0	12	24	0	0	36	0	13	1	6	0	20	0	0	17	12	0	29	0	0	0	0	0	0	85
10:45 AM	0	9	26	0	0	35	0	15	1	0	0	16	0	0	14	17	0	31	0	0	0	1	0	0	83
Total	0	37	99	1	0	137	0	46	4	18	0	68	0	0	64	65	0	129	0	0	2	2	0	0	338
11:00 AM	0	16	27	0	0	43	0	10	2	9	1	22	0	0	20	22	0	42	0	0	0	0	0	0	107
11:15 AM	0	10	26	0	0	36	0	10	1	10	1	22	0	2	21	22	0	45	0	0	3	0	0	0	106
11:30 AM	1	14	24	1	0	40	0	10	1	12	0	23	0	2	19	20	0	41	0	0	1	2	0	0	107
11:45 AM	0	14	21	1	0	36	0	17	0	9	0	26	0	1	29	27	0	57	0	1	0	1	0	0	121
Total	1	54	98	2	0	155	0	47	4	40	2	93	0	5	89	91	0	185	0	1	4	3	0	0	441
12:00 PM	0	12	23	1	0	36	0	15	0	8	0	23	0	1	22	27	0	50	0	1	0	2	0	0	112
12:15 PM	0	6	26	0	0	32	0	16	0	8	0	24	0	1	20	24	0	45	0	0	1	1	0	0	103
12:30 PM	0	14	24	0	0	38	0	17	1	8	0	26	0	0	16	21	0	37	0	0	0	0	0	0	101
12:45 PM	0	10	23	0	0	33	0	14	1	10	0	25	0	0	28	23	0	51	0	0	0	2	0	0	111
Total	0	42	96	1	0	139	0	62	2	34	0	98	0	2	86	95	0	183	0	1	1	5	0	0	427
01:00 PM	0	7	24	1	0	32	1	12	0	7	0	20	0	0	25	16	0	41	0	0	0	0	0	0	93
01:15 PM	0	14	18	1	0	33	0	8	0	9	0	17	0	2	23	21	0	46	0	1	0	1	0	0	98
01:30 PM	0	7	23	0	0	30	0	14	0	12	0	26	0	0	21	25	0	46	0	0	0	1	0	0	103
01:45 PM	0	12	22	0	0	34	0	22	0	16	1	39	0	0	18	35	0	53	0	0	2	1	0	0	129
Total	0	40	87	2	0	129	1	56	0	44	1	102	0	2	87	97	0	186	0	1	2	3	0	0	423



Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

File Name : 4 - Armstrong Blvd NW & 147th Ave NW, 4-8-15, 6am-7pm

Site Code : 4

Start Date : 4/8/2015

Page No : 2

Armstrong Blvd NW and 147th Ave NW
Ramsey, MN

Groups Printed- Cars + - Trucks

Start Time	Armstrong Blvd NW Southbound						147th Ave NW Westbound						Armstrong Blvd NW Northbound						147th Ave NW Eastbound						Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	
02:00 PM	0	8	26	0	0	34	0	17	1	13	0	31	0	2	29	26	0	57	0	0	0	2	0	2	124
02:15 PM	0	13	25	1	0	39	0	9	1	15	0	25	0	0	44	26	0	70	0	0	0	0	0	0	134
02:30 PM	0	12	31	0	0	43	0	13	0	7	0	20	0	1	37	28	0	66	0	0	0	0	0	0	129
02:45 PM	0	8	13	1	0	22	0	10	0	18	0	28	0	0	45	27	0	72	0	1	0	0	0	1	123
Total	0	41	95	2	0	138	0	49	2	53	0	104	0	3	155	107	0	265	0	1	0	2	0	3	510
03:00 PM	0	4	26	0	0	30	0	20	0	16	0	36	0	0	42	37	0	79	0	1	0	0	0	1	146
03:15 PM	0	12	25	0	0	37	0	19	0	12	0	31	0	1	37	28	0	66	0	1	0	1	0	2	136
03:30 PM	0	20	31	1	2	54	0	13	1	12	0	26	0	1	50	29	0	80	0	0	1	0	0	1	161
03:45 PM	0	15	27	0	0	42	0	20	0	20	0	40	0	0	50	34	0	84	0	0	0	1	0	1	167
Total	0	51	109	1	2	163	0	72	1	60	0	133	0	2	179	128	0	309	0	2	1	2	0	5	610
04:00 PM	0	11	24	0	0	35	0	12	0	22	0	34	0	2	49	28	0	79	0	0	0	1	0	1	149
04:15 PM	0	13	36	0	0	49	0	29	0	28	0	57	0	0	55	31	0	86	0	0	0	1	1	2	194
04:30 PM	0	11	49	1	1	62	0	26	0	30	1	57	0	1	70	25	0	96	0	3	0	0	0	3	218
04:45 PM	0	9	40	0	0	49	0	24	0	19	2	45	0	0	61	36	0	97	0	0	0	0	0	0	191
Total	0	44	149	1	1	195	0	91	0	99	3	193	0	3	235	120	0	358	0	3	0	2	1	6	752
05:00 PM	0	11	27	0	0	38	0	25	0	19	0	44	0	2	68	27	0	97	0	0	0	4	0	4	183
05:15 PM	0	11	31	0	2	44	0	15	0	28	0	43	0	2	71	41	0	114	0	1	0	2	0	3	204
05:30 PM	1	17	27	0	0	45	0	21	0	22	0	43	0	0	59	28	0	87	0	0	0	0	0	0	175
05:45 PM	0	10	26	0	0	36	0	16	0	26	1	43	0	0	51	38	0	89	0	1	0	3	0	4	172
Total	1	49	111	0	2	163	0	77	0	95	1	173	0	4	249	134	0	387	0	2	0	9	0	11	734
06:00 PM	0	9	22	0	0	31	0	20	0	18	1	39	0	0	59	35	0	94	0	0	0	0	0	0	164
06:15 PM	0	14	27	0	0	41	0	20	0	21	1	42	0	0	38	27	0	65	0	0	0	0	5	5	153
06:30 PM	0	10	30	0	0	40	0	14	0	10	1	25	0	0	28	23	0	51	0	0	0	0	0	0	116
06:45 PM	0	13	26	0	0	39	0	10	0	19	0	29	0	0	46	19	0	65	0	0	0	0	0	0	133
Total	0	46	105	0	0	151	0	64	0	68	3	135	0	0	171	104	0	275	0	0	0	0	5	5	566
Grand Total	3	610	1656	19	5	2293	1	687	18	571	11	1288	0	35	1495	1186	0	2716	0	13	14	40	6	73	6370
Apprch %	0.1	26.6	72.2	0.8	0.2		0.1	53.3	1.4	44.3	0.9		0	1.3	55	43.7	0		0	17.8	19.2	54.8	8.2		
Total %	0	9.6	26	0.3	0.1	36	0	10.8	0.3	9	0.2	20.2	0	0.5	23.5	18.6	0	42.6	0	0.2	0.2	0.6	0.1	1.1	
Cars +	3	605	1619	15	2	2244	1	672	17	568	8	1266	0	31	1449	1167	0	2647	0	11	14	36	1	62	6219
% Cars +	100	99.2	97.8	78.9	40	97.9	100	97.8	94.4	99.5	72.7	98.3	0	88.6	96.9	98.4	0	97.5	0	84.6	100	90	16.7	84.9	97.6
Trucks	0	5	37	4	3	49	0	15	1	3	3	22	0	4	46	19	0	69	0	2	0	4	5	11	151
% Trucks	0	0.8	2.2	21.1	60	2.1	0	2.2	5.6	0.5	27.3	1.7	0	11.4	3.1	1.6	0	2.5	0	15.4	0	10	83.3	15.1	2.4



Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

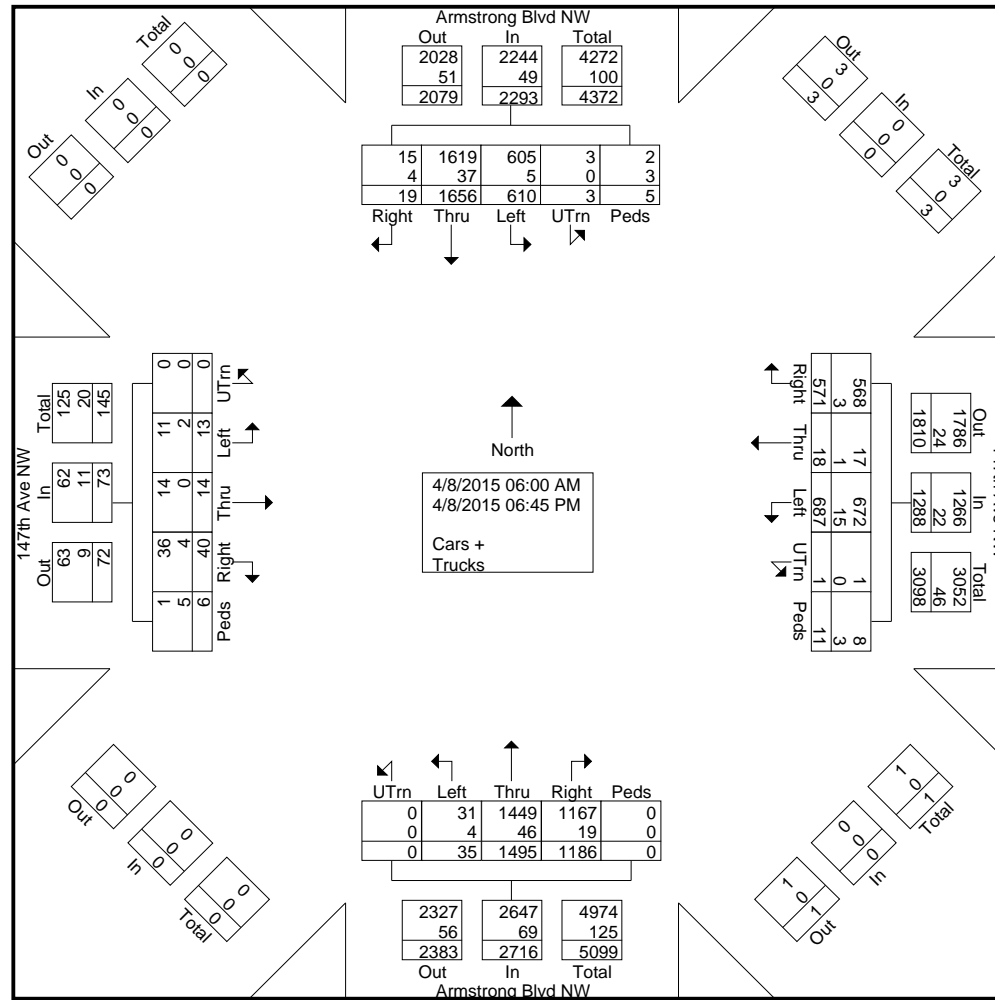
File Name : 4 - Armstrong Blvd NW & 147th Ave NW, 4-8-15, 6am-7pm

Site Code : 4

Start Date : 4/8/2015

Page No : 3

Armstrong Blvd NW and 147th Ave NW
Ramsey, MN





Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

File Name : 4 - Armstrong Blvd NW & 147th Ave NW, 4-8-15, 6am-7pm

Site Code : 4

Start Date : 4/8/2015

Page No : 4

Armstrong Blvd NW and 147th Ave NW
Ramsey, MN

Start Time	Armstrong Blvd NW Southbound						147th Ave NW Westbound					Armstrong Blvd NW Northbound					147th Ave NW Eastbound					Int. Total				
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru		Right	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:15 AM																										
07:15 AM	0	29	43	0	0	72	0	6	0	1	0	7	0	0	6	26	0	32	0	0	0	0	0	0	0	111
07:30 AM	0	20	60	0	0	80	0	18	0	4	0	22	0	1	12	27	0	40	0	0	1	2	0	0	3	145
07:45 AM	1	17	39	1	0	58	0	7	0	3	0	10	0	1	18	22	0	41	0	0	0	0	0	0	0	109
08:00 AM	0	13	45	4	0	62	0	7	1	4	0	12	0	0	9	17	0	26	0	0	1	0	0	0	1	101
Total Volume	1	79	187	5	0	272	0	38	1	12	0	51	0	2	45	92	0	139	0	0	2	2	0	0	4	466
% App. Total	0.4	29	68.8	1.8	0		0	74.5	2	23.5	0		0	1.4	32.4	66.2	0		0	0	50	50	0			
PHF	.250	.681	.779	.313	.000	.850	.000	.528	.250	.750	.000	.580	.000	.500	.625	.852	.000	.848	.000	.000	.500	.250	.000		.333	.803
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 11:15 AM																										
11:15 AM	0	10	26	0	0	36	0	10	1	10	1	22	0	2	21	22	0	45	0	0	3	0	0	0	3	106
11:30 AM	1	14	24	1	0	40	0	10	1	12	0	23	0	2	19	20	0	41	0	0	1	2	0	0	3	107
11:45 AM	0	14	21	1	0	36	0	17	0	9	0	26	0	1	29	27	0	57	0	1	0	1	0	0	2	121
12:00 PM	0	12	23	1	0	36	0	15	0	8	0	23	0	1	22	27	0	50	0	1	0	2	0	0	3	112
Total Volume	1	50	94	3	0	148	0	52	2	39	1	94	0	6	91	96	0	193	0	2	4	5	0	0	11	446
% App. Total	0.7	33.8	63.5	2	0		0	55.3	2.1	41.5	1.1		0	3.1	47.2	49.7	0		0	18.2	36.4	45.5	0			
PHF	.250	.893	.904	.750	.000	.925	.000	.765	.500	.813	.250	.904	.000	.750	.784	.889	.000	.846	.000	.500	.333	.625	.000		.917	.921
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:30 PM																										
04:30 PM	0	11	49	1	1	62	0	26	0	30	1	57	0	1	70	25	0	96	0	3	0	0	0	0	3	218
04:45 PM	0	9	40	0	0	49	0	24	0	19	2	45	0	0	61	36	0	97	0	0	0	0	0	0	0	191
05:00 PM	0	11	27	0	0	38	0	25	0	19	0	44	0	2	68	27	0	97	0	0	0	4	0	0	4	183
05:15 PM	0	11	31	0	2	44	0	15	0	28	0	43	0	2	71	41	0	114	0	1	0	2	0	0	3	204
Total Volume	0	42	147	1	3	193	0	90	0	96	3	189	0	5	270	129	0	404	0	4	0	6	0	0	10	796
% App. Total	0	21.8	76.2	0.5	1.6		0	47.6	0	50.8	1.6		0	1.2	66.8	31.9	0		0	40	0	60	0			
PHF	.000	.955	.750	.250	.375	.778	.000	.865	.000	.800	.375	.829	.000	.625	.951	.787	.000	.886	.000	.333	.000	.375	.000		.625	.913



APPENDIX C- CRASH REPORTS



Crash Detail Report

Alpine St & Armstrong (2010-2015)

Report Version 1.0 March 2010

Crash ID: 102370213	Date: 08/25/2010	Time: 1806	Sys: 04-CSAH
County: ANOKA	City: RAMSEY		Route: 02000083 001+00.001

Severity: PROPERTY DAMAGE Road Type: 2 LANES UNDIV 2_WAY Road Char: STRAIGHT AND LEVEL Crash Type: COLL W/MV IN TRANSPORT Surf Cond: DRY Light Cond: DAYLIGHT Weather 1: CLEAR Weather 2: CLEAR	First Event: ON ROADWAY To Junction: INTERSECTION-RELATED Traffic Device: STOP SIGN OTHER Speed Limit: 55 Diagram: OTHER Officer: Reliability: CONFIDENT # of Vehicles: 2.00
--	---

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th style="background-color: #cccccc;">Unit 1</th></tr> <tr><td>Trav Dir: W</td></tr> <tr><td>Veh Act: STRAIGHT AHEAD</td></tr> <tr><td>Veh Type: PASSENGER CAR</td></tr> <tr><td>Age: 44</td></tr> <tr><td>Gender: M</td></tr> <tr><td>Cond: NORMAL</td></tr> <tr><td>Cont Fact: FAIL TO YIELD ROW</td></tr> <tr><td>Cont Fact: DISREGARD TRAFFIC DEVICE</td></tr> </table>	Unit 1	Trav Dir: W	Veh Act: STRAIGHT AHEAD	Veh Type: PASSENGER CAR	Age: 44	Gender: M	Cond: NORMAL	Cont Fact: FAIL TO YIELD ROW	Cont Fact: DISREGARD TRAFFIC DEVICE	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th style="background-color: #cccccc;">Unit 2</th></tr> <tr><td>Trav Dir: N</td></tr> <tr><td>Veh Act: STRAIGHT AHEAD</td></tr> <tr><td>Veh Type: VAN OR MINIVAN</td></tr> <tr><td>Age: 27</td></tr> <tr><td>Gender: M</td></tr> <tr><td>Cond: NORMAL</td></tr> <tr><td>Cont Fact: NO IMPROPER DRIVING</td></tr> <tr><td>Cont Fact: UNKNOWN</td></tr> </table>	Unit 2	Trav Dir: N	Veh Act: STRAIGHT AHEAD	Veh Type: VAN OR MINIVAN	Age: 27	Gender: M	Cond: NORMAL	Cont Fact: NO IMPROPER DRIVING	Cont Fact: UNKNOWN	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th style="background-color: #cccccc;">Unit 3</th></tr> <tr><td> </td></tr> </table>	Unit 3	
Unit 1																						
Trav Dir: W																						
Veh Act: STRAIGHT AHEAD																						
Veh Type: PASSENGER CAR																						
Age: 44																						
Gender: M																						
Cond: NORMAL																						
Cont Fact: FAIL TO YIELD ROW																						
Cont Fact: DISREGARD TRAFFIC DEVICE																						
Unit 2																						
Trav Dir: N																						
Veh Act: STRAIGHT AHEAD																						
Veh Type: VAN OR MINIVAN																						
Age: 27																						
Gender: M																						
Cond: NORMAL																						
Cont Fact: NO IMPROPER DRIVING																						
Cont Fact: UNKNOWN																						
Unit 3																						

Crash ID: 102370225	Date: 08/25/2010	Time: 1942	Sys: 04-CSAH
County: ANOKA	City: RAMSEY		Route: 02000083 001+00.001

Severity: PROPERTY DAMAGE Road Type: 2 LANES UNDIV 2_WAY Road Char: STRAIGHT AND LEVEL Crash Type: COLL W/MV IN TRANSPORT Surf Cond: DRY Light Cond: DAYLIGHT Weather 1: CLEAR Weather 2: NOT SPECIFIED	First Event: ON ROADWAY To Junction: 4-LEGGED INTERSECTION Traffic Device: STOP SIGN OTHER Speed Limit: 55 Diagram: REAR END Officer: Reliability: CONFIDENT # of Vehicles: 2.00
--	---

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th style="background-color: #cccccc;">Unit 1</th></tr> <tr><td>Trav Dir: N</td></tr> <tr><td>Veh Act: STRAIGHT AHEAD</td></tr> <tr><td>Veh Type: PASSENGER CAR</td></tr> <tr><td>Age: 17</td></tr> <tr><td>Gender: F</td></tr> <tr><td>Cond: NORMAL</td></tr> <tr><td>Cont Fact: IMPROPER PASSING</td></tr> <tr><td>Cont Fact: NOT SPECIFIED</td></tr> </table>	Unit 1	Trav Dir: N	Veh Act: STRAIGHT AHEAD	Veh Type: PASSENGER CAR	Age: 17	Gender: F	Cond: NORMAL	Cont Fact: IMPROPER PASSING	Cont Fact: NOT SPECIFIED	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th style="background-color: #cccccc;">Unit 2</th></tr> <tr><td>Trav Dir: N</td></tr> <tr><td>Veh Act: LEFT TURN</td></tr> <tr><td>Veh Type: PASSENGER CAR</td></tr> <tr><td>Age: 22</td></tr> <tr><td>Gender: M</td></tr> <tr><td>Cond: NORMAL</td></tr> <tr><td>Cont Fact: OTHER</td></tr> <tr><td>Cont Fact: NOT SPECIFIED</td></tr> </table>	Unit 2	Trav Dir: N	Veh Act: LEFT TURN	Veh Type: PASSENGER CAR	Age: 22	Gender: M	Cond: NORMAL	Cont Fact: OTHER	Cont Fact: NOT SPECIFIED	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th style="background-color: #cccccc;">Unit 3</th></tr> <tr><td> </td></tr> </table>	Unit 3	
Unit 1																						
Trav Dir: N																						
Veh Act: STRAIGHT AHEAD																						
Veh Type: PASSENGER CAR																						
Age: 17																						
Gender: F																						
Cond: NORMAL																						
Cont Fact: IMPROPER PASSING																						
Cont Fact: NOT SPECIFIED																						
Unit 2																						
Trav Dir: N																						
Veh Act: LEFT TURN																						
Veh Type: PASSENGER CAR																						
Age: 22																						
Gender: M																						
Cond: NORMAL																						
Cont Fact: OTHER																						
Cont Fact: NOT SPECIFIED																						
Unit 3																						

Crash ID: 102800070 **Date:** 10/01/2010 **Time:** 1402
County: ANOKA **City:** RAMSEY

Sys: 04-CSAH
Route: 02000083 001+00.001

Severity: PROPERTY DAMAGE	First Event: ON ROADWAY
Road Type: 2 LANES UNDIV 2_WAY	To Junction: 4-LEGGED INTERSECTION
Road Char: STRAIGHT AND LEVEL	Traffic Device: STOP SIGN OTHER
Crash Type: COLL W/MV IN TRANSPORT	Speed Limit: 55
Surf Cond: DRY	Diagram: RIGHT ANGLE
Light Cond: DAYLIGHT	Officer:
Weather 1: CLEAR	Reliability: CONFIDENT
Weather 2: NOT SPECIFIED	# of Vehicles: 2.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	W	S	
Veh Act:	START TRAFFIC	STRAIGHT AHEAD	
Veh Type:	PASSENGER CAR	PASSENGER CAR	
Age:	50	37	
Gender:	M	F	
Cond:	NORMAL	NORMAL	
Cont Fact	FAIL TO YIELD ROW	NO IMPROPER DRIVING	
Cont Fact	NOT SPECIFIED	NOT SPECIFIED	

Crash ID: 102940180 **Date:** 10/21/2010 **Time:** 1624
County: ANOKA **City:** RAMSEY

Sys: 04-CSAH
Route: 02000083 001+00.001

Severity: POSSIBLE INJURY	First Event: ON ROADWAY
Road Type: 2 LANES UNDIV 2_WAY	To Junction: 4-LEGGED INTERSECTION
Road Char: STRAIGHT AND LEVEL	Traffic Device: NOT APPLICABLE
Crash Type: COLL W/MV IN TRANSPORT	Speed Limit: 55
Surf Cond: DRY	Diagram: RIGHT ANGLE
Light Cond: DAYLIGHT	Officer:
Weather 1: CLEAR	Reliability: CONFIDENT
Weather 2: NOT SPECIFIED	# of Vehicles: 2.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	W	S	
Veh Act:	STRAIGHT AHEAD	STRAIGHT AHEAD	
Veh Type:	PASSENGER CAR	PASSENGER CAR	
Age:	27	23	
Gender:	M	F	
Cond:	NORMAL	NORMAL	
Cont Fact	FAIL TO YIELD ROW	NO IMPROPER DRIVING	
Cont Fact	NOT SPECIFIED	NOT SPECIFIED	

Crash ID: 110860009 **Date:** 03/26/2011 **Time:** 2233
County: ANOKA **City:** RAMSEY

Sys: 05-MSAS
Route: 31480112 002+00.177

Severity: PROPERTY DAMAGE	First Event: ON ROADWAY
Road Type: 2 LANES UNDIV 2_WAY	To Junction: NON-JUNCTION
Road Char: STRAIGHT AND LEVEL	Traffic Device: NOT APPLICABLE
Crash Type: COLL UNDERRIDE SIDE	Speed Limit: 45
Surf Cond: ICE/PACKED SNOW	Diagram: UNKNOWN
Light Cond: DARK - UNKNOWN LIGHTING	Officer:
Weather 1: CLEAR	Reliability: LESS CONFIDENT
Weather 2: NOT SPECIFIED	# of Vehicles: 1.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	EAST		
Veh Act:	STRAIGHT AHEAD		
Veh Type:	PICKUP TRUCK		
Age:	20		
Gender:	M		
Cond:	NORMAL		
Cont Fact	WEATHER		
Cont Fact	NOT SPECIFIED		

Crash ID: 123020017 **Date:** 10/27/2012 **Time:** 2256
County: ANOKA **City:** RAMSEY

Sys: 04-CSAH
Route: 02000083 001+00.001

Severity: PROPERTY DAMAGE	First Event: ON ROADWAY
Road Type: 2 LANES UNDIV 2_WAY	To Junction: 4-LEGGED INTERSECTION
Road Char: STRAIGHT AND LEVEL	Traffic Device: STOP SIGN OTHER
Crash Type: COLL W/MV IN TRANSPORT	Speed Limit: 55
Surf Cond: DRY	Diagram: RIGHT ANGLE
Light Cond: DARK - STREET LIGHTS ON	Officer:
Weather 1: CLEAR	Reliability: CONFIDENT
Weather 2: NOT SPECIFIED	# of Vehicles: 2.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	S	W	
Veh Act:	STRAIGHT AHEAD	PED. FAIL TO YIELD R/W TO T	
Veh Type:	SPORT UTILITY VEHICLE	PASSENGER CAR	
Age:	54	17	
Gender:	F	M	
Cond:	NORMAL	NORMAL	
Cont Fact	NO IMPROPER DRIVING	DISTRACTION	
Cont Fact	NOT SPECIFIED	FAIL TO YIELD ROW	

Crash ID: 130860106 **Date:** 03/27/2013 **Time:** 1404
County: ANOKA **City:** RAMSEY

Sys: 04-CSAH
Route: 02000083 001+00.001

Severity: INCAPACITATING INJURY	First Event: ON ROADWAY
Road Type: 2 LANES UNDIV 2_WAY	To Junction: 4-LEGGED INTERSECTION
Road Char: STRAIGHT AND LEVEL	Traffic Device: NOT APPLICABLE
Crash Type: COLL W/MV IN TRANSPORT	Speed Limit: 55
Surf Cond: DRY	Diagram: REAR END
Light Cond: DAYLIGHT	Officer:
Weather 1: CLEAR	Reliability: CONFIDENT
Weather 2: NOT SPECIFIED	# of Vehicles: 2.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	S	S	
Veh Act:	LEFT TURN	STRAIGHT AHEAD	
Veh Type:	PASSENGER CAR	PASSENGER CAR	
Age:	20	21	
Gender:	M	M	
Cond:	UNKNOWN	NORMAL	
Cont Fact	NO IMPROPER DRIVING	FAIL TO YIELD ROW	
Cont Fact	NOT SPECIFIED	NOT SPECIFIED	

Crash ID: 131930115 **Date:** 07/12/2013 **Time:** 0906
County: ANOKA **City:** RAMSEY

Sys: 04-CSAH
Route: 02000083 001+00.001

Severity: POSSIBLE INJURY	First Event: ON ROADWAY
Road Type: 2 LANES UNDIV 2_WAY	To Junction: INTERSECTION-RELATED
Road Char: STRAIGHT AND GRADE	Traffic Device: STOP SIGN OTHER
Crash Type: COLL W/MV IN TRANSPORT	Speed Limit: 55
Surf Cond: DRY	Diagram: RIGHT ANGLE
Light Cond: DAYLIGHT	Officer:
Weather 1: CLEAR	Reliability: CONFIDENT
Weather 2: NOT SPECIFIED	# of Vehicles: 2.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	W	S	
Veh Act:	STRAIGHT AHEAD	STRAIGHT AHEAD	
Veh Type:	PASSENGER CAR	SPORT UTILITY VEHICLE	
Age:	16	39	
Gender:	F	F	
Cond:	NORMAL	NORMAL	
Cont Fact	FAIL TO YIELD ROW	NO IMPROPER DRIVING	
Cont Fact	NOT SPECIFIED	NOT SPECIFIED	

Crash ID: 132210084 **Date:** 08/09/2013 **Time:** 1316
County: ANOKA **City:** RAMSEY

Sys: 04-CSAH
Route: 02000083 001+00.001

Severity: PROPERTY DAMAGE	First Event: ON ROADWAY
Road Type: 2 LANES UNDIV 2_WAY	To Junction: 4-LEGGED INTERSECTION
Road Char: STRAIGHT AND LEVEL	Traffic Device: STOP SIGN OTHER
Crash Type: COLL W/MV IN TRANSPORT	Speed Limit: 55
Surf Cond: DRY	Diagram: RIGHT ANGLE
Light Cond: DAYLIGHT	Officer:
Weather 1: CLEAR	Reliability: CONFIDENT
Weather 2: NOT SPECIFIED	# of Vehicles: 2.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	N	W	
Veh Act:	00	PED. FAIL TO YIELD R/W TO T	
Veh Type:	VAN OR MINIVAN	SPORT UNTILITY VEHICLE	
Age:	47	70	
Gender:	F	M	
Cond:	NORMAL	NORMAL	
Cont Fact	NO IMPROPER DRIVING	FAIL TO YIELD ROW	
Cont Fact	NOT SPECIFIED	NOT SPECIFIED	

Crash ID: 140370338 **Date:** 02/05/2014 **Time:** 1818
County: ANOKA **City:** RAMSEY

Sys: 04-CSAH
Route: 02000083 001+00.001

Severity: PROPERTY DAMAGE	First Event: ON ROADWAY
Road Type: 2 LANES UNDIV 2_WAY	To Junction: 4-LEGGED INTERSECTION
Road Char: STRAIGHT AND LEVEL	Traffic Device: STOP SIGN OTHER
Crash Type: COLL W/MV IN TRANSPORT	Speed Limit: 55
Surf Cond: ICE/PACKED SNOW	Diagram: RIGHT ANGLE
Light Cond: DARK - NO STREET LIGHTS	Officer:
Weather 1: CLEAR	Reliability: CONFIDENT
Weather 2: NOT SPECIFIED	# of Vehicles: 2.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	EAST	N	
Veh Act:	PED. FAIL TO YIELD R/W TO	STRAIGHT AHEAD	
Veh Type:	PASSENGER CAR	VAN OR MINIVAN	
Age:	49	50	
Gender:	F	F	
Cond:	NORMAL	NORMAL	
Cont Fact	FAIL TO YIELD ROW	NO IMPROPER DRIVING	
Cont Fact	NOT SPECIFIED	NOT SPECIFIED	

Crash ID: 141050144 **Date:** 04/15/2014 **Time:** 1639
County: ANOKA **City:** RAMSEY

Sys: 04-CSAH
Route: 02000083 001+00.001

Severity: PROPERTY DAMAGE	First Event: ON ROADWAY
Road Type: 2 LANES UNDIV 2_WAY	To Junction: 4-LEGGED INTERSECTION
Road Char: STRAIGHT AND LEVEL	Traffic Device: STOP SIGN OTHER
Crash Type: COLL W/MV IN TRANSPORT	Speed Limit: 55
Surf Cond: DRY	Diagram: RIGHT ANGLE
Light Cond: DAYLIGHT	Officer:
Weather 1: CLEAR	Reliability: CONFIDENT
Weather 2: NOT SPECIFIED	# of Vehicles: 2.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	N	W	
Veh Act:	STRAIGHT AHEAD	STRAIGHT AHEAD	
Veh Type:	SPORT UTILITY VEHICLE	PASSENGER CAR	
Age:	32	32	
Gender:	F	F	
Cond:	NORMAL	NORMAL	
Cont Fact	NO IMPROPER DRIVING	FAIL TO YIELD ROW	
Cont Fact	NOT SPECIFIED	NOT SPECIFIED	

Crash ID: 141440014 **Date:** 05/22/2014 **Time:** 1806
County: ANOKA **City:** RAMSEY

Sys: 04-CSAH
Route: 02000083 001+00.001

Severity: NON-INCAPACITATING INJURY	First Event: ON ROADWAY
Road Type: 2 LANES UNDIV 2_WAY	To Junction: 4-LEGGED INTERSECTION
Road Char: STRAIGHT AND GRADE	Traffic Device: NOT APPLICABLE
Crash Type: COLL W/MV IN TRANSPORT	Speed Limit: 55
Surf Cond: DRY	Diagram: LEFT TURN INTO TRAFFIC
Light Cond: DAYLIGHT	Officer:
Weather 1: CLEAR	Reliability: CONFIDENT
Weather 2: NOT SPECIFIED	# of Vehicles: 2.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	N	S	
Veh Act:	LEFT TURN	STRAIGHT AHEAD	
Veh Type:	PASSENGER CAR	PASSENGER CAR	
Age:	40	33	
Gender:	F	M	
Cond:	NORMAL	NORMAL	
Cont Fact	FAIL TO YIELD ROW	NO IMPROPER DRIVING	
Cont Fact	VISION OBSCURED - SUN OR H	NOT SPECIFIED	

Crash ID: 141980169 **Date:** 07/17/2014 **Time:** 1709
County: ANOKA **City:** RAMSEY

Sys: 04-CSAH
Route: 02000083 001+00.001

Severity: POSSIBLE INJURY	First Event: ON ROADWAY
Road Type: 2 LANES UNDIV 2_WAY	To Junction: INTERSECTION-RELATED
Road Char: STRAIGHT AND LEVEL	Traffic Device: STOP SIGN OTHER
Crash Type: COLL W/MV IN TRANSPORT	Speed Limit: 55
Surf Cond: DRY	Diagram: SIDESWIPE OPPOSING
Light Cond: DAYLIGHT	Officer:
Weather 1: CLEAR	Reliability: CONFIDENT
Weather 2: NOT SPECIFIED	# of Vehicles: 2.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	W	N	
Veh Act:	PED. FAIL TO YIELD R/W TO	STRAIGHT AHEAD	
Veh Type:	SPORT UNTILITY VEHICLE	TRUCK W/ SEMI TRAILER	
Age:	37	60	
Gender:	F	M	
Cond:	NORMAL	NORMAL	
Cont Fact	FAIL TO YIELD ROW	NO IMPROPER DRIVING	
Cont Fact	NOT SPECIFIED	NOT SPECIFIED	

Crash ID: 143000098 **Date:** 10/27/2014 **Time:** 1150
County: ANOKA **City:** RAMSEY

Sys: 04-CSAH
Route: 02000083 001+00.001

Severity: PROPERTY DAMAGE	First Event: ON ROADWAY
Road Type: 2 LANES UNDIV 2_WAY	To Junction: 4-LEGGED INTERSECTION
Road Char: STRAIGHT AND GRADE	Traffic Device: STOP SIGN OTHER
Crash Type: COLL W/MV IN TRANSPORT	Speed Limit: 55
Surf Cond: DRY	Diagram: RIGHT ANGLE
Light Cond: DAYLIGHT	Officer:
Weather 1: CLOUDY	Reliability: CONFIDENT
Weather 2: CLOUDY	# of Vehicles: 2.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	S	N	
Veh Act:	STRAIGHT AHEAD	LEFT TURN	
Veh Type:	PASSENGER CAR	TRUCK WITH 1 TRAILER	
Age:	25	30	
Gender:	F	M	
Cond:	NORMAL	NORMAL	
Cont Fact	NO IMPROPER DRIVING	FAIL TO YIELD ROW	
Cont Fact	NO IMPROPER DRIVING	DISTRACTION	

Selection Filter:

WORK AREA: COUNTY_CODE('02') - FILTER: CRASH_YEAR('2010','2011','2012','2013','2014','2015') - SPATIAL FILTER APPLIED

Analyst:

Jeremy Melquist

Notes:



Crash Detail Report

Armstrong Blvd & 147th Ave (2010-2015)

Report Version 1.0 March 2010

Crash ID: 101570144	Date: 06/06/2010	Time: 1439	Sys: 04-CSAH
County: ANOKA	City: RAMSEY		Route: 02000083 000+00.137

Severity: PROPERTY DAMAGE Road Type: 2 LANES UNDIV 2_WAY Road Char: STRAIGHT AND LEVEL Crash Type: COLL W/MV IN TRANSPORT Surf Cond: WET Light Cond: DAYLIGHT Weather 1: RAIN Weather 2: CLOUDY	First Event: ON ROADWAY To Junction: NON-JUNCTION Traffic Device: NOT APPLICABLE Speed Limit: 55 Diagram: REAR END Officer: Reliability: CONFIDENT # of Vehicles: 2.00
--	---

	Unit 1	Unit 2	Unit 3
Trav Dir:	S	S	
Veh Act:	STRAIGHT AHEAD	STRAIGHT AHEAD	
Veh Type:	PASSENGER CAR	PASSENGER CAR	
Age:	24	53	
Gender:	F	M	
Cond:	NORMAL	UNDER THE INFLUENCE	
Cont Fact	NO IMPROPER DRIVING	CHEMICAL IMPAIRMENT	
Cont Fact	NOT SPECIFIED	NOT SPECIFIED	

Crash ID: 102180091	Date: 08/06/2010	Time: 0904	Sys: 04-CSAH
County: ANOKA	City: RAMSEY		Route: 02000083 000+00.147

Severity: POSSIBLE INJURY Road Type: 2 LANES UNDIV 2_WAY Road Char: STRAIGHT AND LEVEL Crash Type: COLL W/MV IN TRANSPORT Surf Cond: DRY Light Cond: DAYLIGHT Weather 1: CLEAR Weather 2: NOT SPECIFIED	First Event: ON ROADWAY To Junction: 4-LEGGED INTERSECTION Traffic Device: NOT APPLICABLE Speed Limit: 55 Diagram: REAR END Officer: Reliability: CONFIDENT # of Vehicles: 2.00
--	--

	Unit 1	Unit 2	Unit 3
Trav Dir:	S	S	
Veh Act:	STOPPED TRAFFIC	STRAIGHT AHEAD	
Veh Type:	MOTORCYCLE	PASSENGER CAR	
Age:	30	22	
Gender:	F	F	
Cond:	NORMAL	NORMAL	
Cont Fact	NO IMPROPER DRIVING	DISTRACTION	
Cont Fact	NOT SPECIFIED	FOLLOWING TOO CLOSELY	

Crash ID: 102250199 **Date:** 08/13/2010 **Time:** 1827
County: ANOKA **City:** RAMSEY

Sys: 04-CSAH
Route: 02000083 000+00.147

Severity: PROPERTY DAMAGE	First Event: ON ROADWAY
Road Type: 4_6 LANES UNDIV 2_WAY	To Junction: 4-LEGGED INTERSECTION
Road Char: STRAIGHT AND LEVEL	Traffic Device: STOP SIGN OTHER
Crash Type: COLL W/MV IN TRANSPORT	Speed Limit: 55
Surf Cond: DRY	Diagram: RIGHT ANGLE
Light Cond: DAYLIGHT	Officer:
Weather 1: CLOUDY	Reliability: CONFIDENT
Weather 2: CLOUDY	# of Vehicles: 2.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	S	W	
Veh Act:	OVERTAKING/PASSING	STRAIGHT AHEAD	
Veh Type:	PASSENGER CAR	SPORT UNTILITY VEHICLE	
Age:	16	21	
Gender:	F	F	
Cond:	NORMAL	NORMAL	
Cont Fact	IMPROPER LANE	NO IMPROPER DRIVING	
Cont Fact	INEXPERIENCE	NO IMPROPER DRIVING	

Crash ID: 150060294 **Date:** 01/06/2015 **Time:** 1120
County: ANOKA **City:** RAMSEY

Sys: 05-MSAS
Route: 31480104 000+00.900

Severity: PROPERTY DAMAGE	First Event: OTHER
Road Type: OTHER	To Junction: TRF CIRCLE OR ROUNDABOUT
Road Char: STRAIGHT AND LEVEL	Traffic Device: NOT APPLICABLE
Crash Type: COLL W/LIGHT POLE	Speed Limit: 30
Surf Cond: ICE/PACKED SNOW	Diagram: HEAD ON
Light Cond: DAYLIGHT	Officer:
Weather 1: CLEAR	Reliability: CONFIDENT
Weather 2: CLEAR	# of Vehicles: 1.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	EAST		
Veh Act:	RIGHT TURN		
Veh Type:	PASSENGER CAR		
Age:	45		
Gender:	F		
Cond:	NORMAL		
Cont Fact	WEATHER		
Cont Fact	UNKNOWN		

Selection Filter:

WORK AREA: COUNTY_CODE('02') - FILTER: CRASH_YEAR('2010','2011','2012','2013','2014','2015') - SPATIAL FILTER APPLIED

Analyst:

Jeremy Melquist

Notes:



Crash Detail Report

Armstrong Blvd & Bunker Lake Blvd (2010-2015)

Report Version 1.0 March 2010

Crash ID: 140950029	Date: 04/04/2014	Time: 0832	Sys: 04-CSAH
County: ANOKA	City: RAMSEY	Route: 02000116	000+00.017

Severity: PROPERTY DAMAGE	First Event: ON ROADWAY
Road Type: 2 LANES UNDIV 2_WAY	To Junction: 4-LEGGED INTERSECTION
Road Char: STRAIGHT AND LEVEL	Traffic Device: TRAFFIC SIGNALS
Crash Type: COLL W/MV IN TRANSPORT	Speed Limit: 55
Surf Cond: ICE/PACKED SNOW	Diagram: REAR END
Light Cond: DAYLIGHT	Officer:
Weather 1: SNOW	Reliability: CONFIDENT
Weather 2: NOT SPECIFIED	# of Vehicles: 2.00

	Unit 1	Unit 2	Unit 3
Trav Dir:	W	W	
Veh Act:	RIGHT TURN	RIGHT TURN	
Veh Type:	PASSENGER CAR	BUS (16+ SEATS)	
Age:	20	58	
Gender:	M	F	
Cond:	NORMAL	NORMAL	
Cont Fact	FAIL TO YIELD ROW	NO IMPROPER DRIVING	
Cont Fact	ILLEGAL SPEED	NOT SPECIFIED	

Selection Filter:

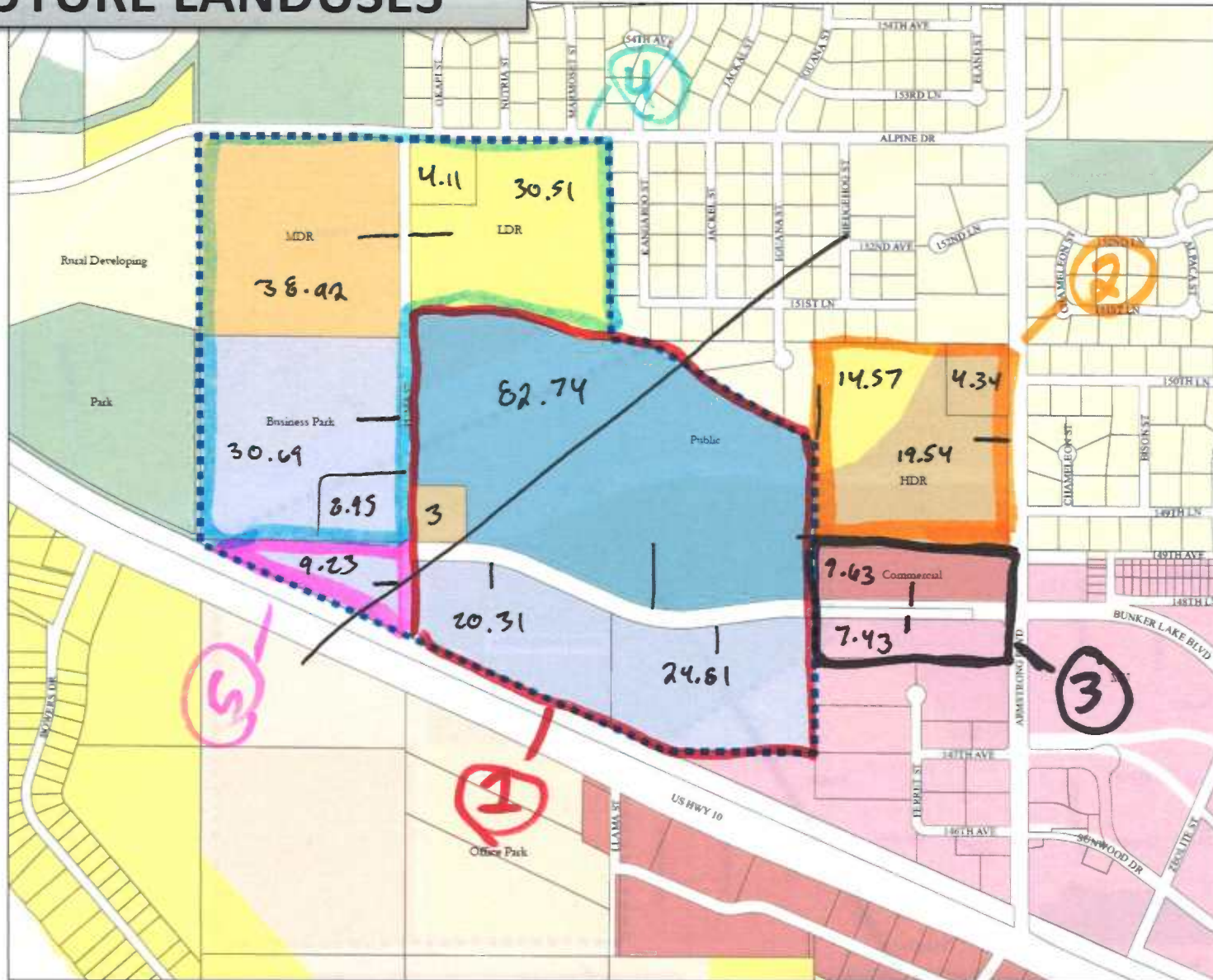
WORK AREA: COUNTY_CODE('02') - FILTER: CRASH_YEAR('2010','2011','2012','2013','2014','2015') - SPATIAL FILTER APPLIED

Analyst: Jeremy Melquist	Notes:
------------------------------------	---------------



APPENDIX D-
TRIP GENERATION FOR FUTURE
BUSINESS PARK DEVELOPMENT

FUTURE LANDUSES



2030 Comprehensive Plan Future Land Use Map PENDING

- Study Area
- Future Land Use**
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Office Park
- Commercial
- MU
- Business Park
- Public
- Rural Developing
- Rural Preserve
- Park



0 300 600 Feet
1 inch = 600 ft on 11 x 17

This map has been prepared using information generated from various governmental offices and other sources and is to be used for reference purposes only. It is neither a legally recorded map nor a survey and is not intended for use as one. The Geographic Information System (GIS) data used to develop this map is not accompanied by the City as being erroneous.

The City does not represent that this GIS data can be used for exact measurement of distance or direction or precision in the location of geographic features. If errors or discrepancies are found, please contact (763) 427-0465.

The City of Ramsey disclaims any responsibility for or liability for the accuracy of the information on any form of data created with a GIS in which the public has general access. The preceding disclaimer is provided pursuant to Minnesota Statute 462.02, Sub. 2 (2006) and the user of this map acknowledges that the City of Ramsey is immune from any and all claims brought by the user, its employees or agents, or third parties and in any case out of the user's access of the data.

Ramsey EDA Traffic Assumptions
Zone 1 Alternative A: High School

Ramsey EDA Traffic Assumptions
Zone 1 Alternative 1A: High School

High School

		180 K ft ²	86.42 Acres		ITE Code 530		Internal-to-Internal Reduction			
Based on Square Feet		#	% enter	% exit	entering	exiting	entering	exiting		
Average Rate										
AM	3.06	551	71	29	391	160	0%	392	160	0%
Afternoon	2.12	382	31	69	118	264	0%	119	264	0%
PM	0.97	175	54	46	95	81	0%	95	81	0%
Weekday	12.89	2321	50	50	1161	1161	0%	1161	1161	0%

Pass-by		New Trips	
entering	exiting	entering	exiting
0	0	392	160
0	0	119	264
0	0	95	81
0	0	1161	1161

Business Park

		45.12 Acres	ITE Code 130		Internal-to-Internal Reduction					
Based on Acres		#	% enter	% exit	entering	exiting	entering	exiting		
Average Rate										
AM	8.55	386	83	17	320	66	10%	289	60	0%
Afternoon	4.42	200	50	50	100	100	10%	90	90	0%
PM	8.84	399	21	79	84	315	10%	76	284	0%
Weekday	63.11	2848	50	50	1424	1424	15%	1211	1211	0%

Pass-by		New Trips	
entering	exiting	entering	exiting
0	0	289	60
0	0	90	90
0	0	76	284
0	0	1211	1211

AM	937	712	225
Afternoon	582	218	364
PM	574	178	396
Weekday	5169	2585	2585

Pass-by		New Trips		
entering	exiting	entering	exiting	
AM	0	0	681	220
Afternoon	0	0	209	354
PM	0	0	171	365
Weekday	0	0	2372	2372

Ramsey EDA Traffic Assumptions

Zone 1 Alternative 1B: K-12 School

86.42 Acres

Elementary School

50 K ft²

ITE Code

520

Internal-to-Internal Reduction

Based on Square Feet

	Average Rate	#	% enter	% exit	entering	exiting		entering	exiting	
AM	5.2	260	56	44	146	114	10%	132	103	0%
Afternoon	3.11	156	44	56	69	87	10%	62	79	0%
PM	1.21	61	45	55	27	34	10%	25	31	0%
Weekday	15.43	772	50	50	386	386	10%	348	348	0%

Pass-by		New Trips	
entering	exiting	entering	exiting
0	0	132	103
0	0	62	79
0	0	25	31
0	0	348	348

Middle School

50 K ft²

ITE Code

522

Internal-to-Internal Reduction

Based on Square Feet

	Average Rate	#	% enter	% exit	entering	exiting		entering	exiting	
AM	4.35	218	55	45	120	98	10%	108	89	0%
Afternoon	2.52	126	45	55	57	69	10%	52	63	0%
PM	1.19	60	52	48	31	29	10%	29	26	0%
Weekday	13.78	689	50	50	345	345	10%	311	311	0%

Pass-by		New Trips	
entering	exiting	entering	exiting
0	0	108	89
0	0	52	63
0	0	29	26
0	0	311	311

High School

80 K ft²

ITE Code

530

Internal-to-Internal Reduction

Based on Square Feet

	Average Rate	#	% enter	% exit	entering	exiting		entering	exiting	
AM	3.06	245	71	29	174	71	10%	157	64	0%
Afternoon	2.12	170	31	69	53	117	10%	48	106	0%
PM	0.97	78	54	46	42	36	10%	38	33	0%
Weekday	12.89	1032	50	50	516	516	10%	465	465	0%

Pass-by		New Trips	
entering	exiting	entering	exiting
0	0	157	64
0	0	48	106
0	0	38	33
0	0	465	465

Business Park

45.12 Acres

ITE Code

130

Internal-to-Internal Reduction

Based on Acres

	Average Rate	#	% enter	% exit	entering	exiting		entering	exiting	
AM	8.55	386	83	17	320	66	10%	289	60	0%
Afternoon	4.42	200	50	50	100	100	10%	90	90	0%
PM	8.84	399	21	79	84	315	10%	76	284	0%
Weekday	63.11	2848	50	50	1424	1424	15%	1211	1211	0%

Pass-by		New Trips	
entering	exiting	entering	exiting
0	0	289	60
0	0	90	90
0	0	76	284
0	0	1211	1211

AM	1109	760	349
Afternoon	652	278	374
PM	598	185	413
Weekday	5341	2671	2671

	Pass-by		New Trips	
	entering	exiting	entering	exiting
AM	0	0	686	316
Afternoon	0	0	252	338
PM	0	0	168	374
Weekday	0	0	2335	2335

Ramsey EDA Traffic Assumptions
 Zone 1 Alternative 2: Business Park

Business Park	Based on Acres	131.54 Acres		ITE Code		130		Internal-to-Internal Reduction			Pass-by		New Trips	
		Average Rate	#	% enter	% exit	entering	exiting	entering	exiting	%	entering	exiting	entering	exiting
AM	8.55	1125	83	17	934	191	10%	841	173	0%	0	0	841	173
Afternoon	4.42	582	50	50	291	291	10%	262	262	0%	0	0	262	262
PM	8.84	1163	21	79	244	919	10%	220	827	0%	0	0	220	827
Weekday	63.11	8302	50	50	4151	4151	15%	3529	3529	0%	0	0	3529	3529

AM	1125	934	191
Afternoon	582	291	291
PM	1163	244	919
Weekday	8302	4151	4151

	Pass-by		New Trips	
	entering	exiting	entering	exiting
AM	0	0	841	173
Afternoon	0	0	262	262
PM	0	0	220	827
Weekday	0	0	3529	3529

Ramsey EDA Traffic Assumptions

Zone 1 Alternative 3: Low Density Residential

Single Family Detached Housing		260 units	ITE Code		210	86.42 Acres		3 Units per Acre		New Trips	
Based on Dwelling Units		rate	#	% enter	% exit	entering	exiting	entering	exiting	entering	exiting
AM	0.75	192	25	75	48	144			48	144	
Afternoon	0.51	0	31	69	0	0			0	0	
PM	1.01	249	63	37	157	92			157	92	
Weekday	9.57	2505	50	50	1253	1253			1253	1253	

Business Park		45.12 Acres	ITE Code		130	Internal-to-Internal Reduction		Pass-by		New Trips				
Based on Acres		Average Rate	#	% enter	% exit	entering	exiting	entering	exiting	entering	exiting			
AM	8.55	386	83	17	320	66	10%	289	60	0%	0	0	289	60
Afternoon	4.42	200	50	50	100	100	10%	90	90	0%	0	0	90	90
PM	8.84	399	21	79	84	315	10%	76	284	0%	0	0	76	284
Weekday	63.11	2848	50	50	1424	1424	15%	1211	1211	0%	0	0	1211	1211

AM	578	368	210
Afternoon	200	100	100
PM	648	241	407
Weekday	5353	2677	2677

	Pass-by		New Trips	
	entering	exiting	entering	exiting
AM	0	0	337	204
Afternoon	0	0	90	90
PM	0	0	233	376
Weekday	0	0	2464	2464

Ramsey EDA Traffic Assumptions

Zone 2 off of Armstrong

Single Family Detached Housing

44 units

ITE Code 210

14.57 Acres

3 Units per Acre

Based on Dwelling Units

	rate	#	% enter	% exit	entering	exiting
AM	0.75	41	25	75	10	31
Afternoon	0.51	23	31	69	7	16
PM	1.01	51	63	37	32	19
Weekday	9.57	489	50	50	245	245

New Trips	
entering	exiting
10	31
7	16
32	19
245	245

Low Rise Apartment

235 units

ITE Code 221

19.54 Acres

7 to 15 Units per Acre

Assume 12 Units per Acre

Based on Dwelling Units

	Average Rate	#	% enter	% exit	entering	exiting
AM	0.46	111	21	79	23	88
Afternoon	0.29	69	31	69	21	48
PM	0.58	144	65	35	94	50
Weekday	6.59	1591	50	50	796	796

New Trips	
entering	exiting
23	88
21	48
94	50
796	796

AM	152	34	118
Afternoon	92	29	63
PM	195	126	69
Weekday	2080	1040	1040

	Pass-by		New Trips	
	entering	exiting	entering	exiting
AM	0	0	34	118
Afternoon	0	0	29	63
PM	0	0	126	69
Weekday	0	0	1040	1040

Ramsey EDA Traffic Assumptions
 Zone 3: Off of Bunker Lake Blvd

Retail/Commercial	Based on Square Feet Average Rate	170.9 K ft ²		17.06 Acres		ITE Code	X	Internal-to-Internal Reduction			Pass-by		New Trips	
		#	% enter	% exit	entering			exiting	entering	exiting	%	entering	exiting	entering
AM	7.41	1267	53	47	672	595	20%	538	477	46%	248	220	290	257
Afternoon	5.46	934	50	50	467	467	20%	374	374	40%	150	150	224	224
PM	10.91	1865	51	49	951	914	20%	761	732	39%	297	286	464	446
Weekday	124.59	21296	50	50	10648	10648	30%	7454	7454	39%	2908	2908	4546	4546

AM	1267	672	595
Afternoon	934	467	467
PM	1865	951	914
Weekday	21296	10648	10648

	Pass-by		New Trips	
	entering	exiting	entering	exiting
AM	248	220	290	257
Afternoon	150	150	224	224
PM	297	286	464	446
Weekday	2908	2908	4546	4546

Ramsey EDA Traffic Assumptions

Zone 4: Off of Puma St

Business Park		39.64 Acres			ITE Code 130		Internal-to-Internal Reduction				Pass-by		New Trips		
Based on Acres		#	% enter	% exit	entering	exiting	entering	exiting	%	entering	exiting	entering	exiting	entering	exiting
Average Rate	entering											exiting			
AM	8.55	339	83	17	281	58	10%	254	52	0%	0	0	254	52	
Afternoon	4.42	176	50	50	88	88	10%	80	80	0%	0	0	80	80	
PM	8.84	351	21	79	74	277	10%	67	250	0%	0	0	67	250	
Weekday	63.11	2502	50	50	1251	1251	15%	1064	1064	0%	0	0	1064	1064	

Single Family Detached Housing		104 units			ITE Code 210		34.62 Acres 3 Units per Acre				New Trips		
Based on Dwelling Units		#	% enter	% exit	entering	exiting	entering	exiting	%	entering	exiting	entering	exiting
rate	entering											exiting	
AM	0.75	83	25	75	21	62						21	62
Afternoon	0.51	53	31	69	16	37						16	37
PM	1.01	109	63	37	69	40						69	40
Weekday	9.57	1078	50	50	539	539						539	539

Residential Townhouse		234 units			ITE Code 230		38.92 Acres 3 to 7 Units per Acre Assume 6 Units per Acre				New Trips		
Based on Dwelling Units		#	% enter	% exit	entering	exiting	entering	exiting	%	entering	exiting	entering	exiting
Average Rate	entering											exiting	
AM	0.44	102	17	83	17	85						17	85
Afternoon	0.26	61	31	69	19	42						19	42
PM	0.52	121	67	33	81	40						81	40
Weekday	5.81	1348	50	50	674	674						674	674

		Pass-by		New Trips	
		entering	exiting	entering	exiting
AM	524	0	0	292	199
Afternoon	290	0	0	115	159
PM	581	0	0	217	330
Weekday	4928	0	0	2277	2277

Ramsey EDA Traffic Assumptions

Zone 5: Off of Ruma EB & NB (Split 50/50)

Business Park	9.23 Acres		ITE Code 130		Internal-to-Internal Reduction				Pass-by		New Trips			
	Based on Acres	Average Rate	#	% enter	% exit	entering	exiting	entering	exiting	entering	exiting	entering	exiting	
AM	8.55	79	83	17	66	13	10%	60	13	0%	0	0	60	13
Afternoon	4.42	41	50	50	21	21	10%	19	19	0%	0	0	19	19
PM	8.84	82	21	79	17	65	10%	16	59	0%	0	0	16	59
Weekday	63.11	583	50	50	292	292	15%	248	248	0%	0	0	248	248

AM	79	66	13
Afternoon	41	21	21
PM	82	17	65
Weekday	583	292	292

	Pass-by		New Trips	
	entering	exiting	entering	exiting
AM	0	0	60	13
Afternoon	0	0	19	19
PM	0	0	16	59
Weekday	0	0	248	248

Ramsey EDA Traffic Assumptions

Alternative 1: High School

High School		180 K ft ²	ITE Code		530	Internal-to-Internal Reduction				Pass-by		New Trips		
Based on Square Feet		86.42 Acres												
	Average Rate	#	% enter	% exit	entering	exiting		entering	exiting		entering	exiting		
AM	3.06	551	71	29	391	160	0%	392	160	0%	0	0	392	160
Afternoon	2.12	382	31	69	118	264	0%	119	264	0%	0	0	119	264
PM	0.97	175	54	46	95	81	0%	95	81	0%	0	0	95	81
Weekday	12.89	2321	50	50	1161	1161	0%	1161	1161	0%	0	0	1161	1161

Business Park		93.99 Acres	ITE Code		130	Internal-to-Internal Reduction				Pass-by		New Trips		
Based on Acres														
	Average Rate	#	% enter	% exit	entering	exiting		entering	exiting		entering	exiting		
AM	8.55	804	83	17	667	137	10%	601	124	0%	0	0	601	124
Afternoon	4.42	416	50	50	208	208	10%	188	188	0%	0	0	188	188
PM	8.84	831	21	79	175	656	10%	158	591	0%	0	0	158	591
Weekday	63.11	5932	50	50	2966	2966	15%	2522	2522	0%	0	0	2522	2522

Retail/Commercial		170.9 K ft ²	ITE Code		X	Internal-to-Internal Reduction				Pass-by		New Trips		
Based on Square Feet		17.06 Acres												
	Average Rate	#	% enter	% exit	entering	exiting		entering	exiting		entering	exiting		
AM	7.41	1267	53	47	672	595	20%	538	477	46%	248	220	290	257
Afternoon	5.46	934	50	50	467	467	20%	374	374	40%	150	150	224	224
PM	10.91	1865	51	49	951	914	20%	761	732	39%	297	286	464	446
Weekday	124.59	21296	50	50	10648	10648	30%	7454	7454	39%	2908	2908	4546	4546

Single Family Detached Housing		104 units	ITE Code		210	34.62 Acres				New Trips	
Based on Dwelling Units						3 Units per Acre					
	rate	#	% enter	% exit	entering	exiting					
AM	0.75	83	25	75	21	62					
Afternoon	0.51	53	31	69	16	37					
PM	1.01	109	63	37	69	40					
Weekday	9.57	1078	50	50	539	539					

Single Family Detached Housing		44 units	ITE Code		210	14.57 Acres				New Trips	
Based on Dwelling Units						3 Units per Acre					
	rate	#	% enter	% exit	entering	exiting					
AM	0.75	41	25	75	10	31					
Afternoon	0.51	53	31	69	16	37					
PM	1.01	51	63	37	32	19					
Weekday	9.57	489	50	50	245	245					

Residential Townhouse		234 units	ITE Code		230	38.92 Acres				New Trips	
Based on Dwelling Units						3 to 7 Units per Acre					
	Average Rate	#	% enter	% exit	entering	exiting	Assume 6 Units per Acre				
AM	0.44	102	17	83	17	85					
Afternoon	0.26	61	31	69	19	42					
PM	0.52	121	67	33	81	40					
Weekday	5.81	1348	50	50	674	674					

Low Rise Apartment		235 units	ITE Code		221	19.54 Acres				New Trips	
Based on Dwelling Units						7 to 15 Units per Acre					
	Average Rate	#	% enter	% exit	entering	exiting	Assume 12 Units per Acre				
AM	0.46	111	21	79	23	88					
Afternoon	0.29	69	31	69	21	48					
PM	0.58	144	65	35	94	50					
Weekday	6.59	1591	50	50	796	796					

	Pass-by	New Trips		
	entering	exiting	entering	exiting
AM	248	220	1355	806
Afternoon	150	150	604	839
PM	297	286	992	1268
Weekday	2908	2908	10482	10482

West of Commercial Area

	Pass-by	New Trips		
	entering	exiting	entering	exiting
AM	0	0	1031	431
Afternoon	0	0	342	531
PM	0	0	403	752
Weekday	0	0	4896	4896

Ramsey EDA Traffic Assumptions

Alternative 1B: K-12 School

86.42 Acres

Elementary School		50 K ft ²	ITE Code	520	Internal-to-Internal Reduction					Pass-by		New Trips		
Based on Square Feet		Average Rate	#	% enter	% exit	entering	exiting	entering	exiting	%	entering	exiting	entering	exiting
AM	5.2	260	56	44	146	114	10%	132	103	0%	0	0	132	103
Afternoon	3.11	156	44	56	69	87	10%	62	79	0%	0	0	62	79
PM	1.21	61	45	55	27	34	10%	25	31	0%	0	0	25	31
Weekday	15.43	772	50	50	386	386	10%	348	348	0%	0	0	348	348

Middle School		50 K ft ²	ITE Code	522	Internal-to-Internal Reduction					Pass-by		New Trips		
Based on Square Feet		Average Rate	#	% enter	% exit	entering	exiting	entering	exiting	%	entering	exiting	entering	exiting
AM	4.35	218	55	45	120	98	10%	108	89	0%	0	0	108	89
Afternoon	2.52	126	45	55	57	69	10%	52	63	0%	0	0	52	63
PM	1.19	60	52	48	31	29	10%	29	26	0%	0	0	29	26
Weekday	13.78	689	50	50	345	345	10%	311	311	0%	0	0	311	311

High School		80 K ft ²	ITE Code	530	Internal-to-Internal Reduction					Pass-by		New Trips		
Based on Square Feet		Average Rate	#	% enter	% exit	entering	exiting	entering	exiting	%	entering	exiting	entering	exiting
AM	3.06	245	71	29	174	71	10%	157	64	0%	0	0	157	64
Afternoon	2.12	170	31	69	53	117	10%	48	106	0%	0	0	48	106
PM	0.97	78	54	46	42	36	10%	38	33	0%	0	0	38	33
Weekday	12.89	1032	50	50	516	516	10%	465	465	0%	0	0	465	465

Business Park		93.99 Acres	ITE Code	130	Internal-to-Internal Reduction					Pass-by		New Trips		
Based on Acres		Average Rate	#	% enter	% exit	entering	exiting	entering	exiting	%	entering	exiting	entering	exiting
AM	8.55	428	83	17	355	73	10%	320	66	0%	0	0	320	66
Afternoon	4.42	221	50	50	111	111	10%	100	100	0%	0	0	100	100
PM	8.84	442	21	79	93	349	10%	84	315	0%	0	0	84	315
Weekday	63.11	3156	50	50	1578	1578	15%	1342	1342	0%	0	0	1342	1342

Retail/Commercial		170.9 K ft ²	17.06 Acres	ITE Code	X	Internal-to-Internal Reduction					Pass-by		New Trips	
Based on Square Feet		Average Rate	#	% enter	% exit	entering	exiting	entering	exiting	%	entering	exiting	entering	exiting
AM	7.41	1267	53	47	672	595	20%	538	477	46%	248	220	290	257
Afternoon	5.46	934	50	50	467	467	20%	374	374	40%	150	150	224	224
PM	10.91	1865	51	49	951	914	20%	761	732	39%	297	286	464	446
Weekday	124.59	21296	50	50	10648	10648	30%	7454	7454	39%	2908	2908	4546	4546

Single Family Detached Housing		104 units	ITE Code	210	34.62 Acres					New Trips	
Based on Dwelling Units		rate	#	% enter	% exit	entering	exiting	3 Units per Acre		entering	exiting
AM	0.75	83	25	75	21	62			21	62	
Afternoon	0.51	48	31	69	15	33			15	33	
PM	1.01	109	63	37	69	40			69	40	
Weekday	9.57	1078	50	50	539	539			539	539	

Single Family Detached Housing		44 units	ITE Code	210	14.57 Acres					New Trips	
Based on Dwelling Units		rate	#	% enter	% exit	entering	exiting	3 Units per Acre		entering	exiting
AM	0.75	41	25	75	10	31			10	31	
Afternoon	0.51	48	31	69	15	33			15	33	
PM	1.01	51	63	37	32	19			32	19	
Weekday	9.57	489	50	50	245	245			245	245	

Residential Townhouse		234 units	ITE Code	230	38.92 Acres					New Trips	
Based on Dwelling Units		Average Rate	#	% enter	% exit	entering	exiting	3 to 7 Units per Acre		entering	exiting
Assume 6 Units per Acre											
AM	0.44	102	17	83	17	85			17	85	
Afternoon	0.26	61	31	69	19	42			19	42	
PM	0.52	121	67	33	81	40			81	40	
Weekday	5.81	1348	50	50	674	674			674	674	

Low Rise Apartment		235 units	ITE Code	221	19.54 Acres					New Trips	
Based on Dwelling Units		Average Rate	#	% enter	% exit	entering	exiting	7 to 15 Units per Acre		entering	exiting
Assume 12 Units per Acre											
AM	0.46	111	21	79	23	88			23	88	
Afternoon	0.29	69	31	69	21	48			21	48	
PM	0.58	144	65	35	94	50			94	50	
Weekday	6.59	1591	50	50	796	796			796	796	

		Pass-by		New Trips	
		entering	exiting	entering	exiting
AM	2714	248	220	1079	844
Afternoon	1785	150	150	556	728
PM	2880	297	286	915	1001
Weekday	30962	2908	2908	9265	9265

West of Commercial Area

		Pass-by		New Trips	
		entering	exiting	entering	exiting
AM		0	0	755	469
Afternoon		0	0	296	423
PM		0	0	326	485
Weekday		0	0	3679	3679

Ramsey EDA Traffic Assumptions

Alternative 2: Business Park

High School	Based on Square Feet	0 K ft ²			ITE Code	530	Internal-to-Internal Reduction				Pass-by		New Trips	
		Average Rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting	entering
AM	3.06	0	71	29	0	0	0%	0	0	0%	0	0	0	0
Afternoon	2.12	0	31	69	0	0	0%	0	0	0%	0	0	0	0
PM	0.97	0	54	46	0	0	0%	0	0	0%	0	0	0	0
Weekday	12.89	0	50	50	0	0	0%	0	0	0%	0	0	0	0

Business Park	Based on Acres	180.41 Acres			ITE Code	130	Internal-to-Internal Reduction				Pass-by		New Trips	
		Average Rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting	entering
AM	8.55	1543	83	17	1281	262	10%	1153	237	0%	0	0	1153	237
Afternoon	4.42	798	50	50	399	399	10%	360	360	0%	0	0	360	360
PM	8.84	1595	21	79	335	1260	10%	302	1135	0%	0	0	302	1135
Weekday	63.11	11386	50	50	5693	5693	15%	4840	4840	0%	0	0	4840	4840

Retail/Commercial	Based on Square Feet	170.9 K ft ²			ITE Code	X	Internal-to-Internal Reduction				Pass-by		New Trips	
		Average Rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting	entering
AM	7.41	1267	53	47	672	595	20%	538	477	46%	248	220	290	257
Afternoon	5.46	934	50	50	467	467	20%	374	374	40%	150	150	224	224
PM	10.91	1865	51	49	951	914	20%	761	732	39%	297	286	464	446
Weekday	124.59	21296	50	50	10648	10648	30%	7454	7454	39%	2908	2908	4546	4546

Single Family Detached Housing	Based on Dwelling Units	104 units			ITE Code	210	34.62 Acres				New Trips		
		rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting
AM	0.75	83	25	75	21	62						21	62
Afternoon	0.51	53	31	69	16	37						16	37
PM	1.01	109	63	37	69	40						69	40
Weekday	9.57	1078	50	50	539	539						539	539

Single Family Detached Housing	Based on Dwelling Units	44 units			ITE Code	210	14.57 Acres				New Trips		
		rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting
AM	0.75	41	25	75	10	31						10	31
Afternoon	0.51	53	31	69	16	37						16	37
PM	1.01	51	63	37	32	19						32	19
Weekday	9.57	489	50	50	245	245						245	245

Residential Townhouse	Based on Dwelling Units	234 units			ITE Code	230	38.92 Acres				New Trips		
		Average Rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting
AM	0.44	102	17	83	17	85						17	85
Afternoon	0.26	61	31	69	19	42						19	42
PM	0.52	121	67	33	81	40						81	40
Weekday	5.81	1348	50	50	674	674						674	674

Low Rise Apartment	Based on Dwelling Units	235 units			ITE Code	221	19.54 Acres				New Trips		
		Average Rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting
AM	0.46	111	21	79	23	88						23	88
Afternoon	0.29	69	31	69	21	48						21	48
PM	0.58	144	65	35	94	50						94	50
Weekday	6.59	1591	50	50	796	796						796	796

	Pass-by		New Trips	
	entering	exiting	entering	exiting
AM	248	220	1515	759
Afternoon	150	150	657	747
PM	297	286	1041	1731
Weekday	2908	2908	11639	11639

West of Commercial Area

	Pass-by		New Trips	
	entering	exiting	entering	exiting
AM	0	0	1191	384
Afternoon	0	0	395	439
PM	0	0	452	1215
Weekday	0	0	6053	6053

Ramsey EDA Traffic Assumptions
Alternative 3: Low Density Residential

High School	Based on Square Feet	0 K ft ²			ITE Code	530	Internal-to-Internal Reduction				Pass-by		New Trips	
		Average Rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting	entering
AM	3.06	0	71	29	0	0	0%	0	0	0%	0	0	0	0
Afternoon	2.12	0	31	69	0	0	0%	0	0	0%	0	0	0	0
PM	0.97	0	54	46	0	0	0%	0	0	0%	0	0	0	0
Weekday	12.89	0	50	50	0	0	0%	0	0	0%	0	0	0	0

Business Park	Based on Acres	93.99 Acres			ITE Code	130	Internal-to-Internal Reduction				Pass-by		New Trips	
		Average Rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting	entering
AM	8.55	804	83	17	667	137	10%	601	124	0%	0	0	601	124
Afternoon	4.42	416	50	50	208	208	10%	188	188	0%	0	0	188	188
PM	8.84	831	21	79	175	656	10%	158	591	0%	0	0	158	591
Weekday	63.11	5932	50	50	2966	2966	15%	2522	2522	0%	0	0	2522	2522

Retail/Commercial	Based on Square Feet	170.9 K ft ²			ITE Code	X	Internal-to-Internal Reduction				Pass-by		New Trips	
		Average Rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting	entering
AM	7.41	1267	53	47	672	595	20%	538	477	46%	248	220	290	257
Afternoon	5.46	934	50	50	467	467	20%	374	374	40%	150	150	224	224
PM	10.91	1865	51	49	951	914	20%	761	732	39%	297	286	464	446
Weekday	124.59	21296	50	50	10648	10648	30%	7454	7454	39%	2908	2908	4546	4546

Single Family Detached Housing	Based on Dwelling Units	364 units			ITE Code	210	121.04 Acres				New Trips		
		rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting
AM	0.75	265	25	75	66	199						66	199
Afternoon	0.51	184	31	69	57	127						57	127
PM	1.01	337	63	37	212	125						212	125
Weekday	9.57	3414	50	50	1707	1707						1707	1707

Single Family Detached Housing	Based on Dwelling Units	44 units			ITE Code	210	14.57 Acres				New Trips		
		rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting
AM	0.75	41	25	75	10	31						10	31
Afternoon	0.51	184	31	69	57	127						57	127
PM	1.01	51	63	37	32	19						32	19
Weekday	9.57	489	50	50	245	245						245	245

Residential Townhouse	Based on Dwelling Units	234 units			ITE Code	230	38.92 Acres				New Trips		
		Average Rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting
AM	0.44	102	17	83	17	85						17	85
Afternoon	0.26	61	31	69	19	42						19	42
PM	0.52	121	67	33	81	40						81	40
Weekday	5.81	1348	50	50	674	674						674	674

Low Rise Apartment	Based on Dwelling Units	235 units			ITE Code	221	19.54 Acres				New Trips		
		Average Rate	#	% enter			% exit	entering	exiting	entering	exiting	entering	exiting
AM	0.46	111	21	79	23	88						23	88
Afternoon	0.29	69	31	69	21	48						21	48
PM	0.58	144	65	35	94	50						94	50
Weekday	6.59	1591	50	50	796	796						796	796

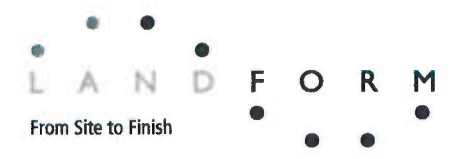
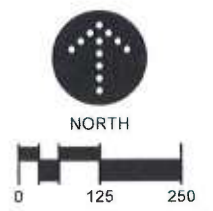
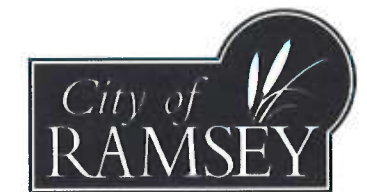
	Pass-by		New Trips	
	entering	exiting	entering	exiting
AM	248	220	1008	783
Afternoon	150	150	566	756
PM	297	286	1041	1271
Weekday	2908	2908	10489	10489

West of Commercial Area

	Pass-by		New Trips	
	entering	exiting	entering	exiting
AM	0	0	685	407
Afternoon	0	0	264	357
PM	0	0	451	756
Weekday	0	0	4903	4903



APPENDIX E-
TRIP GENERATION FOR COR
DEVELOPMENT



**EXHIBIT 5
TAZ MAP**

05.21.2012
Landform™ and Site to Finish™ are service marks of Landform Professional Services, LLC.

Table 1 - Land Uses and Traffic Generation

Zone/Block	Code	Land Use	Dwelling Units	Sq. ft.	Park Area ¹ (sq. ft.)	ITE Code ²	AM Peak			PM Peak			Daily Total
							Total	In	Out	Total	In	Out	
1a	3	Retail		11,882		820	10	6	4	35	17	18	408
1b	3	Retail		9,022		820	7	4	3	27	13	14	310
1c	3	Supermarket		62,396		850	179	109	70	524	267	257	5103
1d	3	Retail		13,283		820	11	6	4	40	19	20	456
1e	3	Retail		7,300		820	6	4	2	22	11	11	251
2a	3	Retail		5,248		820	4	3	2	16	8	8	180
2b	3	Retail		39,000		820	31	19	12	116	57	59	1340
2c	2	Daycare Center		10,320		565	101	54	48	103	48	55	654
2d	1	Senior Housing - Assisted Living	84			254	9	6	3	15	7	8	179
3a	1	Luxury Apartments / Townhomes	230			220	94	19	75	114	74	40	1224
3a	3	Retail		67,085		820	54	33	21	200	98	102	2305
3b	2	Government Office Building		49,107		730	231	194	37	48	15	33	2708
3c	0	Park & Ride (Northstar) ³											
4a	2	Clinic		50,092		720	92	73	19	139	37	101	1448
4b	3	Sit Down Restaurant		9,037		931	6	3	3	54	36	18	650
4c	3	Hotel ⁴		24,900		310	14	9	6	15	8	7	209
4d	2	Office Park		110,000		770	136	120	16	131	22	109	969
5a	2	Mortuary ⁵		17,598		710	3	2	1	17	6	11	139
5b	2	Business Park		93,871		770	107	90	17	97	22	75	958
6a	2	Office Park		44,827		770	56	49	7	53	9	44	395
6b	3	Retail		13,070		820	10	6	4	39	19	20	449
6c	2	General Office		17,987		710	22	20	3	21	4	18	158
6d	2	General Office		17,987		710	22	20	3	21	4	18	158
7a	2	Charter School ⁶		50,511		534	468	258	211	264	129	135	1405
7b	2	Medical Office		33,374		720	61	49	13	92	25	67	965
7c	3	Retail		24,780		820	20	12	8	74	36	38	851
8a	0	City Park w/ Lake			430,000								
8b	2	General Office		43,584		710	54	48	6	52	9	43	384
8c	2	General Office		43,584		710	54	48	6	52	9	43	384
9a	0	City Park w/ Lake			171,445								
9b	1	Apartments	95			220	39	8	31	47	31	16	505
9c	1	Apartments	200			220	82	16	65	99	64	35	1064
9d	2	General Office		59,696		710	74	65	9	71	12	59	526
9e	2	General Office		42,765		710	53	47	6	51	9	42	377
9f	2	General Office		59,208		710	73	65	9	71	12	59	522
10a	2	General Office		8,400		710	10	9	1	10	2	8	74
10a	1	Apartments	20			220	8	2	7	10	6	3	106
10b	2	General Office		8,400		710	10	9	1	10	2	8	74
10b	3	Specialty Retail		4,200		820	3	2	1	13	6	6	144
10b	1	Apartments	30			220	12	2	10	15	10	5	160
10c	1	Apartments - Senior	90			220	9	3	6	12	7	5	251
10c	1	Apartments	90			220	37	7	29	45	29	16	479
10d	2	General Office		11,500		710	14	13	2	14	2	11	101
10d	3	Specialty Retail		11,500		820	9	6	4	34	17	18	395
10e	2	General Office		8,500		710	11	9	1	10	2	8	75
10e	3	Specialty Retail		4,250		820	3	2	1	13	6	6	146
10f	2	General Office		11,900		710	15	13	2	14	2	12	105
10f	3	Specialty Retail		8,500		820	7	4	3	25	12	13	292
10f	1	Apartments	14			220	6	1	5	7	5	2	74
10g	3	Specialty Retail		7,600		820	6	4	2	23	11	12	261
10g	2	General Office		7,600		710	9	8	1	9	2	8	67
10g	1	Apartments	36			220	15	3	12	18	12	6	192
10h	3	Specialty Retail		6,300		820	5	3	2	19	9	10	216
10i	3	Specialty Retail		6,100		820	5	3	2	18	9	9	210
10i	2	General Office		6,100		710	8	7	1	7	1	6	54
10i	1	Apartments	26			220	11	2	8	13	8	5	138
11a	3	Specialty Retail		17,000		820	14	8	5	51	25	26	584
11a	1	Apartments	118			220	48	10	39	59	38	20	628
11b	2	General Office		11,000		710	14	12	2	13	2	11	97
11b	1	Apartments	26			220	11	2	8	13	8	5	138
11c	2	General Office		20,700		710	26	23	3	25	4	20	182
11c	1	Apartments	50			220	20	4	16	25	16	9	266
11d	2	General Office		10,700		710	13	12	2	13	2	11	94
11d	3	Specialty Retail		10,700		820	9	5	3	32	16	16	368
11d	1	Apartments	26			220	11	2	8	13	8	5	138
11e	2	General Office		5,900		710	7	6	1	7	1	6	52
11e	3	Specialty Retail		11,800		820	9	6	4	35	17	18	405
11e	1	Apartments	44			220	18	4	14	22	14	8	234
11f	3	Specialty Retail		11,800		820	9	6	4	35	17	18	405
11f	2	General Office		5,900		710	7	6	1	7	1	6	52
11f	1	Apartments	44			220	18	4	14	22	14	8	234
11g	0	City Park			82,804								
12a	3	Sit Down Restaurant		12,000		931	8	4	4	72	48	24	864
12b	3	Community Center		160,000		310	207	126	81	186	69	117	2929
13a	3	Retail		19,200		820	15	9	6	57	28	29	660
13b	3	Retail		16,664		820	13	8	5	50	24	25	572
14a	3	Gas Station w/Convenience Store ⁷		5,000		945	317	162	155	388	194	194	1563
14b	3	Retail		10,628		820	9	5	3	32	16	16	365

Table 1 - Land Uses and Traffic Generation

Zone/Block	Code	Land Use	Dwelling Units	Sq. ft.	Park Area ¹ (sq. ft.)	ITE Code ²	AM Peak			PM Peak			Daily
							Total	In	Out	Total	In	Out	Total
14c	3	Fast Food Restaurant w/Drive-Through		4,800		934	190	97	93	129	67	62	1905
15	3	Shopping Center		135,986		820	109	66	42	406	199	207	4671
16	3	Retail		94,960		820	76	46	30	283	139	145	3262
17a	3	Sit Down Restaurant		6,000		931	4	2	2	36	24	12	432
17b	3	Sit Down Restaurant		5,470		931	4	2	2	33	22	11	394
17c	3	Sit Down Restaurant		5,470		931	4	2	2	33	22	11	394
17d	0	City Park w/ Lake			480,000								
18a	1	Condos	80			230	28	5	23	33	22	11	372
18b	1	Condos	69			230	24	4	20	29	19	9	321
18c	1	Condos	48			230	17	3	14	20	13	7	223
18d	1	Townhomes	32			230	11	2	9	13	9	4	149
19a	1	Townhomes	52			230	18	3	15	22	14	7	242
19b	1	Single Family - Detached	14			210	8	2	6	11	7	4	107
19c	1	Townhomes	31			230	11	2	9	13	9	4	144
20a	1	Townhomes	42			230	15	3	12	17	12	6	195
20b	1	Single Family - Detached	14			210	8	2	6	11	7	4	107
20c	1	Townhomes	28			230	10	2	8	12	8	4	130
21a	1	Townhomes	77			230	27	5	22	32	21	11	358
21b	1	Townhomes	90			230	32	5	26	37	25	12	418
22a	1	Single Family - Detached	23			210	14	3	10	19	12	7	176
22b	1	Townhomes	72			230	25	4	21	30	20	10	335
23a	1	Single Family - Detached	44			210	26	7	20	36	22	13	337
23b	1	Single Family - Detached	19			210	11	3	9	15	10	6	145
24a	1	Single Family - Detached	7			210	4	1	3	6	4	2	54
24b	0	City Park w/ Lake & Amphitheater			320,000								
24c	1	Single Family - Detached	17			210	10	3	8	14	9	5	130
Total			1,982	1,724,042	1,484,249		3,889	2,272	1,618	5,502	2,578	2,924	57,079
Residential Total (Code 1)			1,982	0			748	153	595	916	595	322	9,953
Office Total (Code 2)			0	861,111			1,755	1,326	429	1,422	395	1,027	13,177
Retail Total (Code 3)			0	862,931			1,386	792	594	3,164	1,588	1,576	33,949
			1,982	1,724,042			3,889	2,272	1,618	5,502	2,578	2,924	57,079

Notes:

¹ Due to the minimal amount of traffic generated by parks, they were not considered traffic generators in the original study. Likewise, parks are not considered traffic generators in this forecast.

² The trip generation was based on the methods and average rates published in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 8th Edition*.

³ The traffic generated by the park and ride was included in the analysis of the original study, however the unspecified volumes were added directly to the intersection traffic assignment instead of being listed with the other trip generation numbers. Accordingly, the traffic volumes generated by the park and ride facility are not considered with the rest of the generated traffic in this forecast.

⁴ The number of dwelling units (DU) for the hotel was obtained by proportioning the proposed hotel to the hotel in the original study via their respective footprints. The hotel was modeled as having 32 rooms.

⁵ Mortuary is assumed to operate similarly to a cemetery with 3 employees (ITE Land Use Code 566).

⁶ Currently, there is no data for daily traffic volumes generated by 534 - Private School (K-8). For public elementary, junior high, and high schools, the ratio of the total daily traffic to the A.M. peak hour traffic is approximately 3.0. The total daily traffic generated by the charter school was calculated by multiplying the A.M. peak hour traffic by a factor of 3.0.

⁷ Due to the lack of data for total weekday trips generated by 945 - Gas Station w/Convenience Store using square footage, the total weekday trips were calculated using the number of fueling positions. Based on the typical size of gas stations currently being constructed, it was assumed that new gas station will have 12 fueling positions.

The forecasts reflect a 20% internal capture rate consistent with the original AUAR's traffic impact study.



APPENDIX F-
OPERATIONS ANALYSIS (AVAILABLE
UPON REQUEST)



- Civil & Municipal Engineering
- Water & Wastewater Treatment
- Transportation Planning & Engineering Services
 - Aviation Services
- Water Resources Engineering
 - Landscape Architecture
- Environmental Review Services
- Cultural Resource Management
 - Land Surveying
- Geographic Information System Services
 - Project Funding & Financing



APPENDIX C- STORM WATER ANALYSIS



BOLTON & MENK, INC.

Consulting Engineers & Surveyors

2035 County Road D East • Suite B • Maplewood, MN 55109-5314

Phone (651) 704-9970 • Fax (651) 704-9971

www.bolton-menk.com

June 25, 2015

Patrick Brama
Economic Development Manager
City of Ramsey
7550 Sunwood Drive NW
Ramsey, Minnesota 550303

RE: Future Business Park
City of Ramsey
Project No.: R16.109828

Dear Mr. Brama,

Project Background

The city of Ramsey is considering the area west of Armstrong Boulevard, East of Plum Street, north of T.H. 10 and south of Alpine Drive, for future development. Storm water retention ponds will ultimately be required to control the runoff from the study area into the COR in accordance with the City's Surface Water Management Plan requirements. The following report summarizes the existing conditions and proposed pond layout options.

The site is situated in the Lower Rum River WMO (LRRWMO). Therefore, hydraulics, water quality, rate control, and volume reduction will be considered based on WMO and City requires. For the purposes of this study, preliminary regional stormwater management facilities were design based on assumed land uses and specific design requirements defined by LRRWMO.

Hydrologic and Hydraulic Modeling

For this study, Bolton & Menk analyzed the existing and proposed conditions using Storm and Sanitary Analysis (SSA) developed by Autodesk, Inc. which utilizes NRCS TR-20 hydrology methodologies to hydrodynamically route stormwater through the drainage system. For this study, the 2-year, 10-year, and 100-year rainfall return intervals were analyzed using Atlas 14 rainfall depths and the US Soils Conservation Services (SCS) Type II 24-hour standard rainfall distribution. The corresponding rainfall depths are 2.86", 4.26", and 7.11", respectively. Modeling for future development was tied into existing regional modeling provided by the city.

Existing Conditions

Drainage from the Lake Itasca outfall is directed toward the study area upstream of Alpine Dr. Overland flow passes through a series of culverts under Alpine Dr., Puma St. NW, and Armstrong Blvd. Flow at the Armstrong crossing is particularly critical as discharge enters the COR area. New development and stormwater management has been designed and constructed around the total contributing flow rate from

H:\RAMS\R16109828\3_Design\C_Reports\Drainage\HydroSubmittal_06262015.docx

DESIGNING FOR A BETTER TOMORROW

Bolton & Menk is an equal opportunity employer



the areas upstream of Armstrong Blvd.

It is our understanding that a storm sewer system installed in Bunker Lake Boulevard to manage the stormwater runoff within the right of way.

The City's regional hydrology and hydraulics model for the WMISS watershed was utilized to develop the existing peak flow rates into the COR area. Table 1 summarizes the peak inflow for a variety of rainfall return intervals.

Table 1: Summary of Peak Flow Under Armstrong Blvd.

Rainfall Event	Rainfall Depth	Peak Flow Through Armstrong Blvd.
	(in)	(cfs)
2-Year	2.86	10.1
10-Year	4.26	19.1
100-Year	7.1	22.1

Proposed Conditions

The study area can was delineated three main areas based on land use as defined in Figure 1. These areas are further described below.

Potential regional pond locations were identified (Figure 1). Initially, ponds are assumed to be wet basins with dead storage sized equal to the runoff volume from a 2.5" rainfall event per LRRWMO. Therefore, volume reduction and water quality would be accommodated on site by the developer. These parameters may be changed as final land uses are established and as stormwater management goals are confirmed. For example:

- The basins could be converted to dry ponds and accommodate volume control.
- Ground water elevations should be confirmed to ensure that 3' separation from the water table can be achieved.
- The basins may be used as regional rate control, water quality, and volume reduction thereby eliminating the need for additional stormwater management on site.

Area 1: Public/Quasi-Public Area

This area is defined as Public/Quasi-Public. Currently, the site has been proposed to house the Legacy Christian Academy campus. However, development may change. Therefore we have determined the total inflow and approximate sizing requirements per Lower Rum River WMO (LRRWMO) for each assumed rate of impervious area construction including the school site, single family residential, and employment district. Table 2 summarizes required dead storage and volume reduction for each land use option based on LRRWMO requirements.

Suggested areas for ponding include the northwest corner of the site, and the existing pond on the



southeast portion of the site. If development plans change, these ponds can easily be relocated. Also, sizing requirements may change if the area becomes multi-use.

Table 2: Summary of Pond Volume Requirements for Multiple Uses in the Public/Quasi-Public Area.

Future Land Use	Assumed Impervious Area	Dead Storage	1" Volume
	(ac)	(ft ³)	(ft ³)
School	40.5	500339	146979
Residential	34.2	434558	124110
Employment District	76.5	632759	277586

Area 2: Residential Area

North of the 150th Ln NW and on both east and west sides of Puma Street, the land use is proposed as single family residential. East of Puma, the proposed site is approximately 49 acres of which about 38% will be impervious. Pond volume requirements for dead storage and volume reduction are, 88,200 cubic feet and 67,590 cubic feet respectively. Proposed ponding for this site is in the south west corner of the proposed development.

West of Puma, the proposed site is approximately 47 acres of which about 38% will be impervious. Pond volume requirements for dead and live storage are, 84,600 cubic feet and 64,832 cubic feet respectively.

The proposed area for ponding is in the southeast corner of the site. The proposed ponds would overflow into the existing wetland, maintaining the existing flow paths through the downstream corridor.

Employment District Area (Area 3)

South of 150th Ln NW and west of Puma Street, the city is proposing to use this land for future industrial/commercial development. This area totals 51 acres, of which 85% will be new impervious, resulting in pond volumes of 91,800 cubic feet for dead storage and 157,361 cubic feet for volume reduction.

South of Bunker Lake Boulevard, the city plans to use the 79 acres for further commercial/industrial development, 85% of which will be new impervious area. This will require 142,400 cubic feet and 243,210 cubic feet of dead storage and volume reduction, respectively. Drainage from this area will ultimately connect into the storm sewer system along Bunker Lake and discharge into the pond in the southeast corner of the school property.

Recommendations



The ponds as laid out in this report indicate areas that are best suited for regional rate control basins only. It is recommended that additional design parameters and regional stormwater management planning be further refined as the areas begin to develop. These may include the following.

- Create regional facilities that accommodate rate control, water quality, and volume reduction and assess property owners to alleviate the City's upfront investment.
- Develop drainage and utility easements for the required pond foot print for ultimate build-out and require the developer to increase the size of the basin based on a percentage of developed area and/or impervious surface.
- Establish maximum rates of impervious surface construction per land use. Anything above those rates would have to accommodate rate control, water quality, and volume reduction on site.
- Trunk storm sewer lines should also be preliminarily sized to serve future development, routed to regional pond locations, and dedicated to drainage and utility easement.

Cost estimates have not been developed for the regional pond construction or internal site storm sewer conveyance. It is anticipated that costs associated with pond construction will be determined by the developer as site grading. Also, it is assumed that internal drainage will be accommodated by dry swales and ditch systems to reduce storm sewer costs.

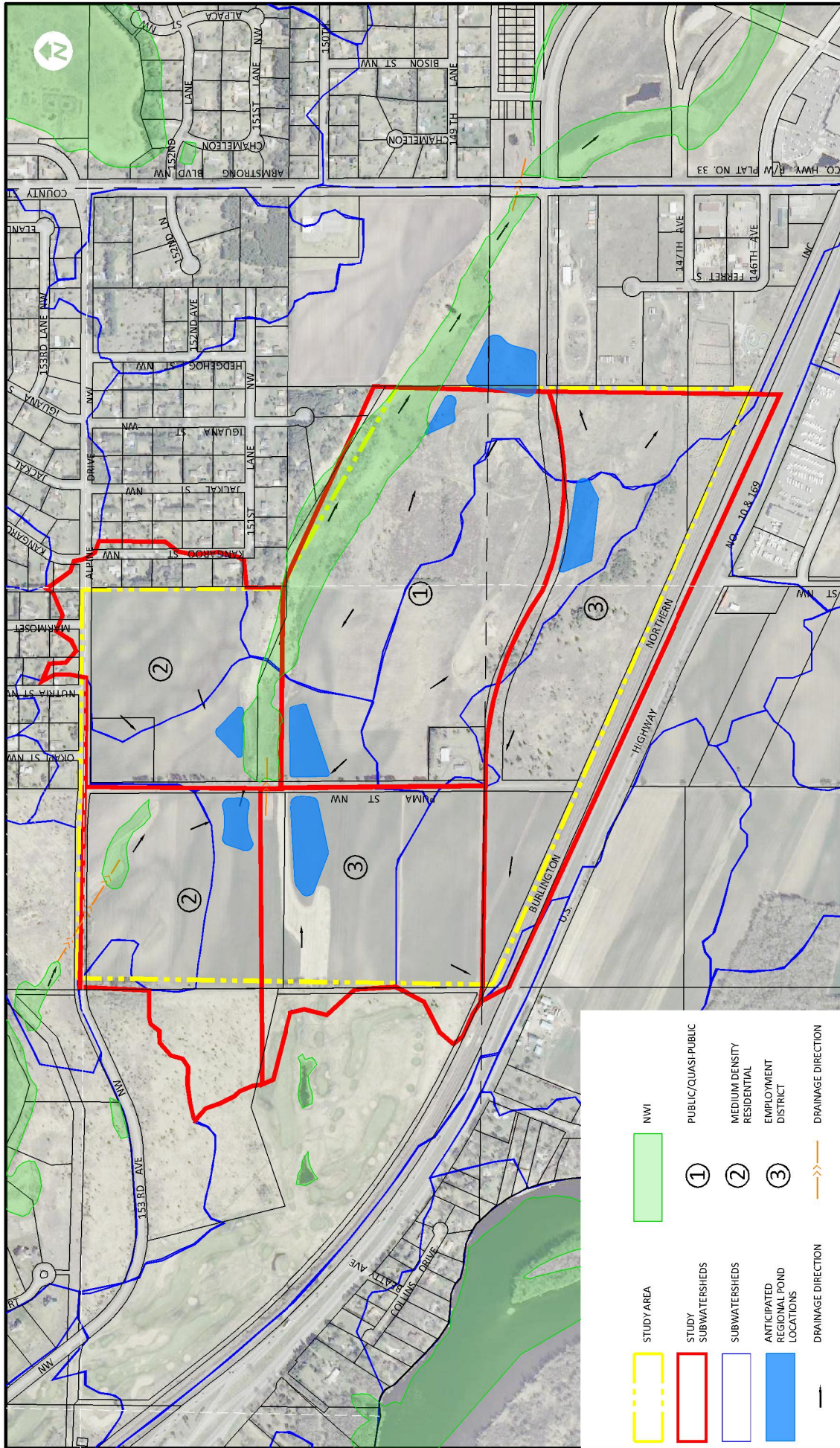
We appreciate the opportunity to present this preliminary report of findings. If you have any questions, please contact me at 651-704-9970 or timol@bolton-menk.com at your convenience.

Sincerely,

BOLTON & MENK, INC.

A handwritten signature in black ink that reads "Timothy J. Olson". The signature is written in a cursive, flowing style.

Timothy J. Olson, PE, CFM
Water Resources Project Manager



**FUTURE BUSINESS PARK
CITY OF RAMSEY, MINNESOTA**
 FIGURE 16 - Regional Stormwater Considerations
 June 2015



REQUEST FOR QUOTES

Traffic Impact Study, Feasibility Report and Preliminary Design Layout:
Improving Bunker Lake Boulevard and Puma Street in the City of Ramsey, Minnesota

SECTION 1: OVERVIEW

The City of Ramsey is seeking quotes for the completion of a traffic impact study, feasibility report, and preliminary design layout of infrastructure improvements associated with the City's future business park. Improvements would be limited to (1) Bunker Lake Boulevard, between Armstrong Boulevard and Puma Street; and, (2) Puma Street, between Bunker Lake Boulevard and Alpine Drive; see Appendix for details.

It is the intent of this Request for Quotes (RFQ) to have the successful proposer enter into a professional services contract with the City of Ramsey.

SECTION 2: BACKGROUND

City of Ramsey

Located in the northwest Twin Cities Metro, the City of Ramsey is the fastest growing City in Anoka County. U.S. Highway 10, Minnesota Highway 169, Minnesota Trunk Highway 47 and the Northstar Commuter Rail connect the City of Ramsey to the Twin Cities and Greater Minnesota. Ramsey has an estimated population of 23,835, a median household income of \$76,560, is home to a significant manufacturing industry and is bordered by the Rum and Mississippi Rivers.

Future Business Park & Green-Field Development

The Ramsey City Council and Ramsey Economic Development Authority (EDA) have identified the need to prepare for the development of a new business park within the City. The City is targeting a large area of privately owned green-field space located on the north side of U.S. Highway 10, west of Armstrong Boulevard, for a future Ramsey business park. Currently, the City is in the process of rezoning this area to meet future landuse goals.

The future business park is one component (about 92 acres) of a larger green-field area ready for development (about 350 acres). This larger green-field area includes areas for single-family residential development (about 118 acres), medium-density residential (about 31 acres) and room for a future private school campus (about 90 acres). In addition to green-field development, the City expects a portion of existing adjoining light-industrial space to be redeveloped into a traditional retail/commercial area (about 42 acres). See Appendix for a snapshot of future landuse goals.

The primary roadway system serving this developable area is Bunker Lake Boulevard and Puma Street. These roadways are both Municipal State-Aid (MSA) streets. The purpose of this RFQ is to study traffic impacts resulting from the future business park (along with other users), examine the feasibility of constructing supporting infrastructure, and developing preliminary design layout plans and specifications.

The City's future business park, and larger developable green-field area, will be served by the future U.S. Highway 10/Armstrong Boulevard (CSAH 83) interchange. Construction of this interchange will begin spring of 2015 and is expected for completion in the spring of 2017. The City expects the construction of this major interchange to increase the demand for development of this green-field area; and the future Ramsey business park.

Request for Qualifications

The primary purpose of this RFQ is to understand minimum required infrastructure specifications and infrastructure costs associated with developing this green-field area. This RFQ is specifically limited to Bunker Lake Boulevard, Puma Street and four intersections: (1) Bunker Lake Boulevard/ Armstrong Boulevard, (2) Bunker Lake Boulevard/ Puma Street, (3) Puma Street/ Alpine Drive (4) Armstrong Boulevard/ Alpine Drive. See Appendix A for details.

The City is seeking three deliverables:

1. Traffic Impact Study
2. Feasibility Report
3. Preliminary Design Layout

Please see Scope of Services section for additional details. Cost estimations and design should include design and construction costs for site grading, roadway, sidewalks, stormwater management, trails, landscaping, street lighting, trunk water service and trunk sewer service improvements.

SECTION 3: SUPPLEMENTAL INFORMATION

1. The City is not master planning this entire developable area. It is unknown where internal driveways, roadways and curb-cuts will be needed. Therefore, the design of Bunker Lake Boulevard and Puma Street should not include any new curb-cuts.
2. Stubbing of sewer and water utilities along Bunker Lake Boulevard and Puma Street should be completed at regular intervals; based on future landuse needs per the recommendation of the firm awarded this work. This recommendation should be made with a balance of cost implications and market demand in mind (or experience with other business parks).
3. Cost estimations and design should include: roadway, sidewalks, stormwater management, trails, street lighting, trunk water service and trunk sewer service.
4. The intersection at Armstrong Boulevard was constructed in 2011. The City would like to confirm this intersection was constructed to accommodate traffic demands outlined in the Appendix landuse maps. This confirmation may be a simple narrative.
5. As-built of existing infrastructure is available upon request (e.g. Bunker Lake Boulevard was recently, partially, improved in anticipation of a new private school development).
6. The City has adopted Comprehensive Sanitary Sewer and Water Plans. These plans should be reviewed and consulted as forecasting and design work is completed.

SECTION 4: QUALIFICATIONS

The following information is required and must accompany your response:

1. COVER LETTER/BACKGROUND INFORMATION: indicate your interest in providing professional services. Provide general background information on your firm. What is your experience with designing infrastructure for business parks? Do you have experience working with the City of Ramsey or nearby/similar communities?
2. FEE SCHEDULE: please describe required compensation for the proposed work. Based on the three deliverables outlined in the background section above, please breakdown required compensation into separate line items (phases).
3. CONFLICT OF INTEREST: In order to avoid a conflict of interest, or the appearance of a conflict of interest, your firm should not engage in any outside activities that are inconsistent, incompatible, or appear to conflict with your ability to exercise independent/objective judgment in the best interest of the City. Please outline all conflicts of interest that may exist for your firm in relation to providing professional services for the City.
4. GOOD STANDING: Your firm must be in compliance with Federal, State, County and Local units of government; which specifically includes good tax payment status and good corporate registration status. Please indicate your firm's tax and corporate registration status.
5. RECOMMENDATIONS: It is the City's goal to plan for a cost-effective and market-relevant business park. The City is interested in your professional recommendations regarding the proposed scope of work and project. Additionally, the City is looking for a recommendation related for the need/effectiveness of planning for a potential regional stormwater pond(s) to support the new business park locations identified in the appendix (add-on to scope of services).

SECTION 5: SCOPE OF SERVICES

- A. TRAFFIC IMPACT STUDY: Based on future landuses indicated in the Appendix, the City would like a traffic impact study conducted to determine traffic forecasts on Bunker Lake Boulevard and Puma Street. The purpose of this information is to determine minimum roadway design specifications for future improvements to Bunker Lake Boulevard and Puma Street.

- B. FEASIBILITY REPORT: Based on a completed traffic impact study, the City would like a feasibility report completed with a preliminary cost estimate for any required improvements to Bunker Lake Boulevard and Puma Street. The purpose of this report is to establish the feasibility and estimated design and construction costs for completing the required site grading, roadway, sidewalks, stormwater management, trails, landscaping, street lighting, trunk water service and trunk sewer service improvements to support the future business park; and provide a foundation for budgeting discussions among City officials. This report will be based off of the design developed within the preliminary design layout (see step below). Easement and/or right-of-way impacts/needs must also be addressed in the report.

NOTE: It is likely, the proposed improvements will be constructed in stages, depending on market demand. Therefore, the feasibility report identified above shall also include costs for individual phases. The City anticipates three development phases. However, this decision will be made with input from the selected engineering firm.

- C. PRELIMINARY DESIGN LAYOUT: Develop preliminary roadway and intersection design layout based on Municipal State-Aid minimum standards and City of Ramsey development standards. This layout should include preliminary profiles and typical sections for Bunker Lake Boulevard and Puma Street, and show all proposed site grading, roadway, sidewalks, stormwater management, trails, landscaping, street lighting, and trunk water and sewer service improvements, as well as any proposed easement or right-of-way impacts/needs.

- D. Work with (and advise) City on strategies for infrastructure design.

- E. Work with (and advise) City on strategies for assessing/paying for required infrastructure.

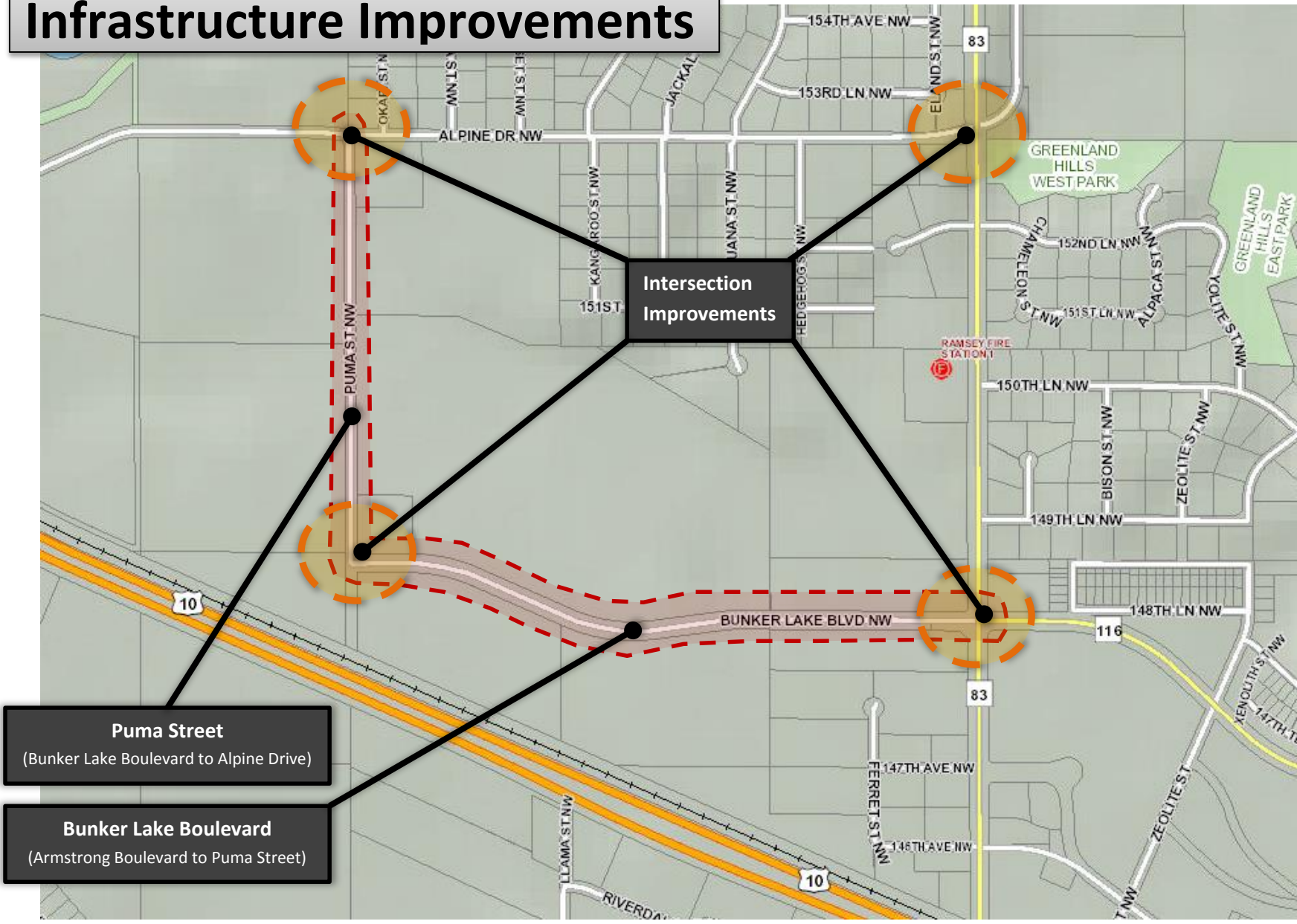
- F. Provide regular activity updates, verbally, to the City's development team, a minimum two times per month

- G. Completion dates:
 - a. Traffic Impact Study February 28, 2015
 - b. Feasibility Report February 28, 2015
 - c. Layout/Plans & Specifications for Preliminary Design March 31, 2015

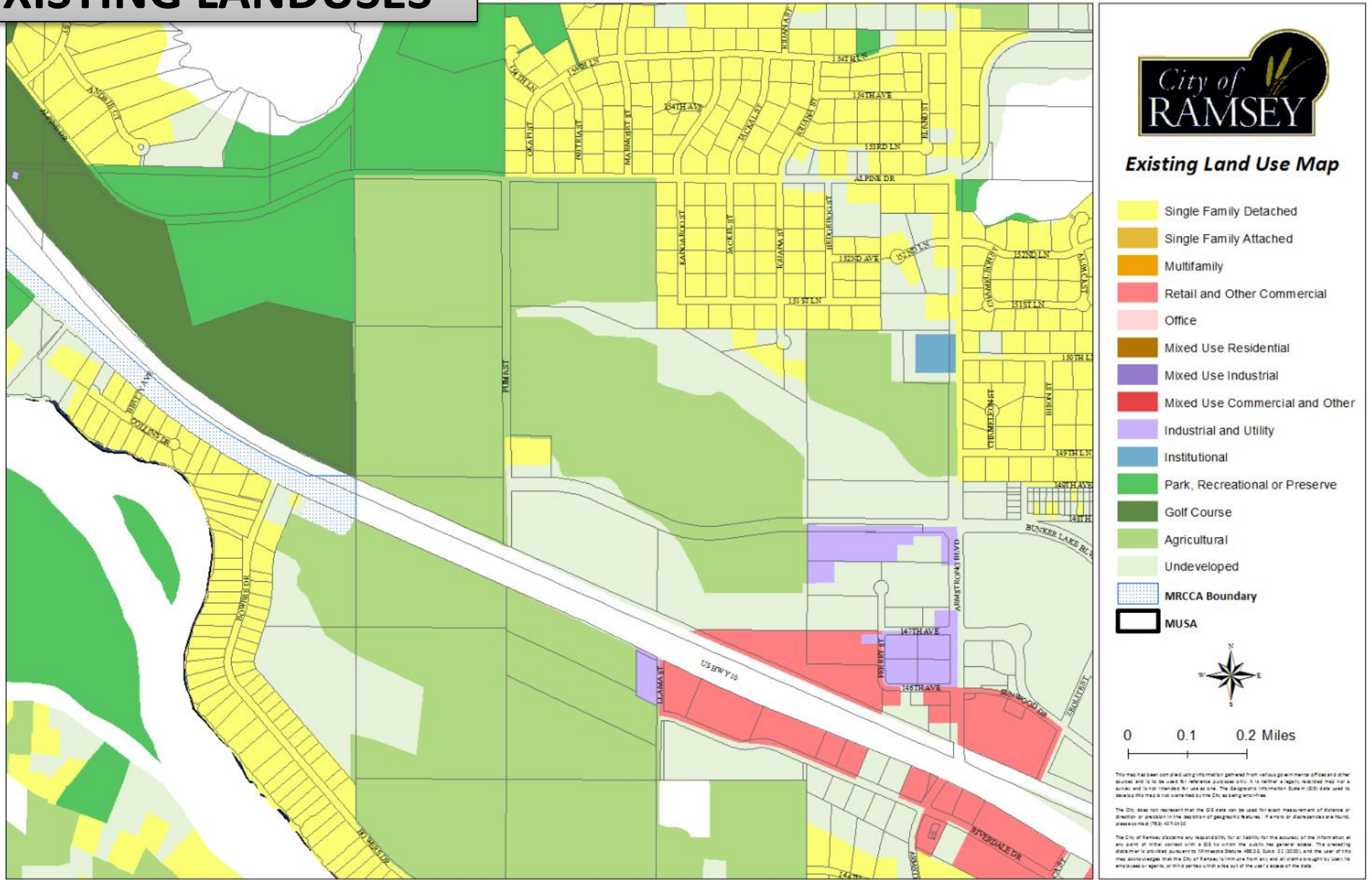
SECTION 6: APPLICATION PROCESS

1. Responses must be submitted in a sealed envelope marked “Future Business Park RFQ” to the City Clerk’s office, 7550 Sunwood Drive NW, Ramsey, Minnesota 55303 before 3:00 p.m. on **January 05, 2015**, at which time they will be publically opened and read.
2. Responses will be forwarded to a selection committee. At the discretion of the City, if needed, a list of finalists may be selected for interviews. Interviews would take place on one of the following dates: **January 7th or 8th, 2015** (depending on schedules).
3. A recommendation will be crafted by the selection committee and presented to the Ramsey EDA for direction on **January 15, 2015**.
4. All proposals, plans, and other documents submitted shall become the property of the City. Responses to this RFQ are considered public information and are subject to discovery under the Freedom of Information Act.
5. To be considered, firms must submit a complete response to the RFQ in the form requested. Firms not responding to items requested in the RFQ or indicating exceptions to such items may have their submittals rejected. Issuance of this RFQ and receipt of proposals does not commit the City of Ramsey to award a contract. The City of Ramsey reserves the right to postpone receipt date, accepting or rejecting any or all proposals received in response to this RFQ, or to negotiate with any of the proposers submitting an RFQ, or to cancel all or part of this RFQ. The City reserves the right to award work in phases; rather than one single project.
6. Questions/Contact:
 - Patrick Brama, Economic Development Manager, 763-433-9868, pbrama@cityoframsey.com
 - Bruce Westby, City Engineer, 763-433-9825, bwestby@cityoframsey.com
 - Kurt Ulrich, City Administrator, (763) 433-9845, kulrich@cityoframsey.com

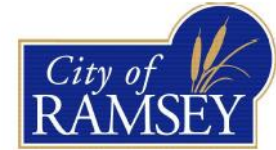
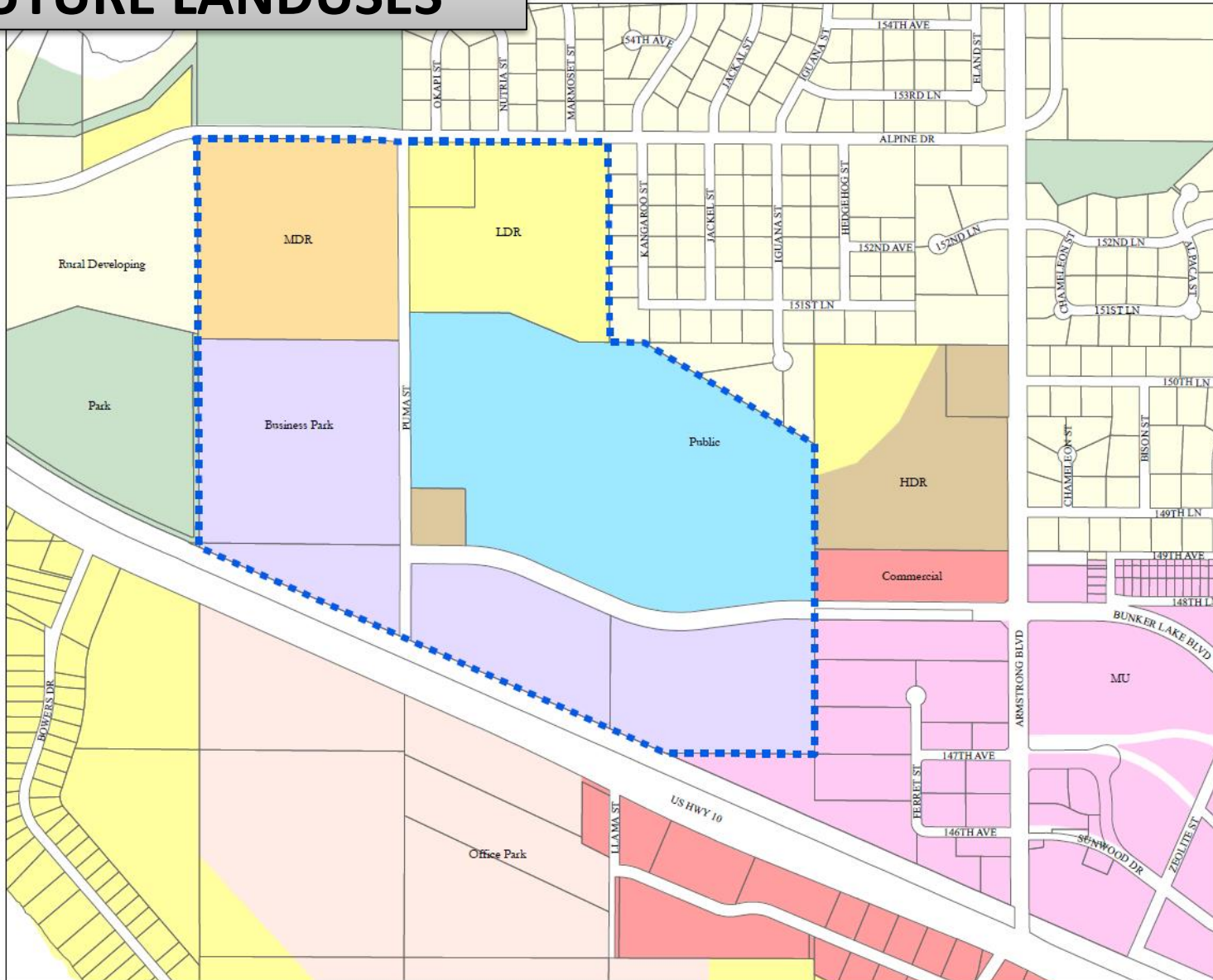
Infrastructure Improvements



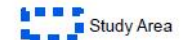
EXISTING LANDUSES



FUTURE LANDUSES



**2030 Comprehensive Plan
Future Land Use Map
PENDING**



Study Area

Future Land Use

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Office Park
- Commercial
- MU
- Business Park
- Public
- Rural Developing
- Rural Preserve
- Park



0 300 600 Feet
1 inch = 600 ft on 11 x 17

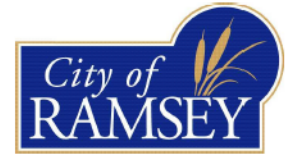
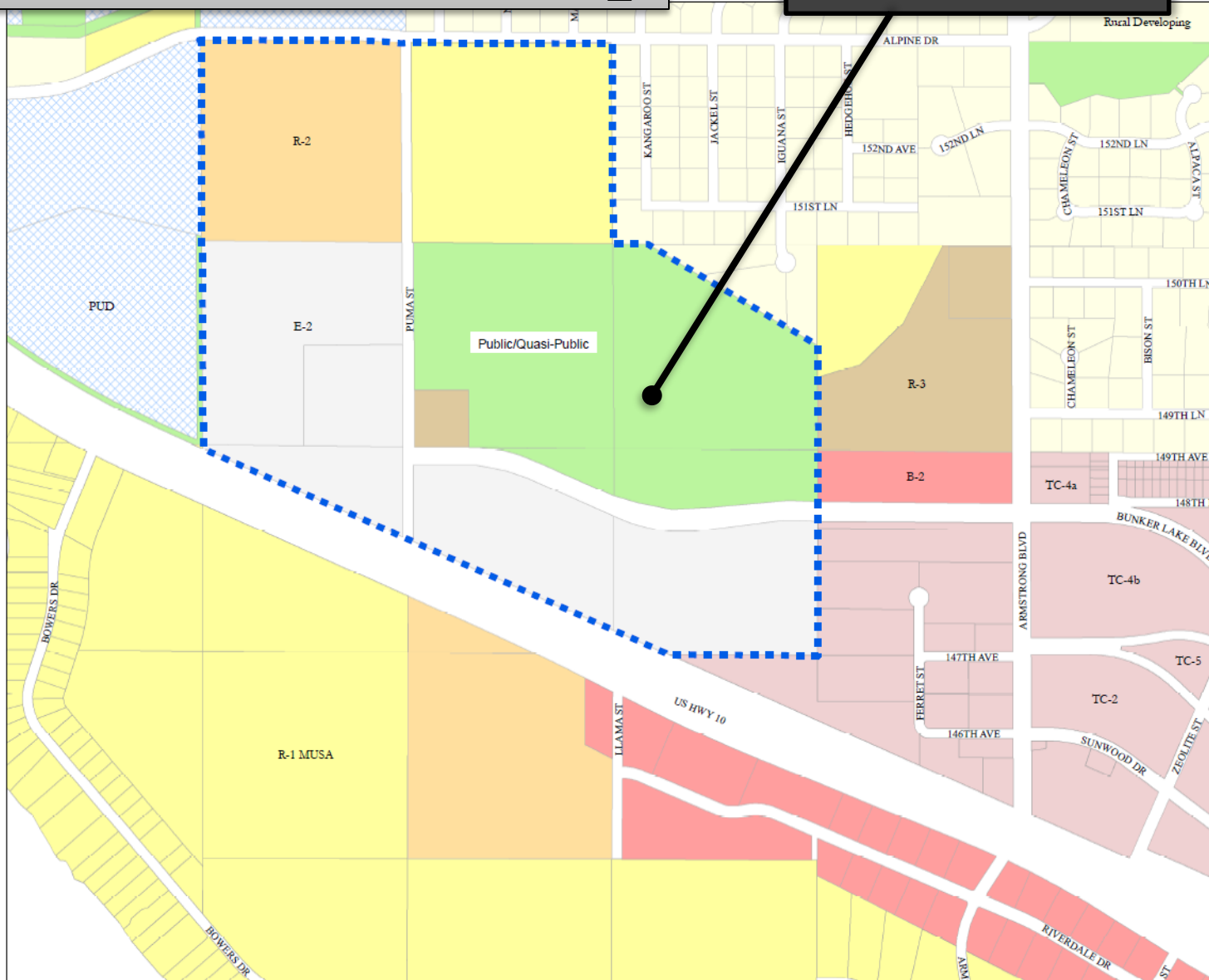
This map has been compiled using information gathered from various governmental offices and other sources and is to be used for reference purposes only. It is neither a legally recorded map nor a survey and is not intended for use as one. The Geographic Information System (GIS) data used to develop this map is not warranted by the City as being error-free.

The City does not represent that the GIS data can be used for exact measurement of distance or direction or precision in the location of geographic features. If errors or discrepancies are found, please contact (763) 474-4650.

The City of Ramsey disclaims any responsibility for or liability for the accuracy of the information at any point of initial contact with a GIS to which the public has general access. The preceding disclaimer is provided pursuant to Minnesota Statute 466.03, Subd. 21 (2002), and the user of this map acknowledges that the City of Ramsey is immune from any and all claims brought by, to, employees or agents, or third parties which arise out of the user's access of the data.

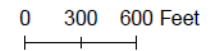
FUTURE LANDUSES: Zoning

Proposed Private School Campus
(currently green space)



Zoning Map PROPOSED/PENDING

- Study Area
- Zoning District**
- R-1: Rural Developing (outside MUSA)
- R-1: MUSA
- R-2: Medium-Density Residential
- R-3: High-Density Residential
- B-1: Business District
- B-2: Business District
- H-1: Business District
- E-1: Employment District
- E-2: Employment District
- MU-PUD: Mixed-Use, Planned Unit Development
- PUD: Planned Unit Development
- COR: The COR
- P: Public/Quasi-Public District



This map has been compiled using information gathered from various governmental offices and other sources and is to be used for reference purposes only. It is neither a legally recorded map nor a survey and is not intended for use as one. The Geographic Information System (GIS) data used to develop this map is not warranted by the City as being accurate.

The City does not represent that the GIS data can be used for exact measurement of distance or direction or precision in the depiction of geographic features. If errors or discrepancies are found, please contact (763) 427-1416.

The City of Ramsey disclaims any responsibility for or liability for the accuracy of the information at any point of time contained with a GIS in which the public has general access. The following disclaimer is provided pursuant to Minnesota Statute 466.03, Subd. 21 (2005), and the user of this map acknowledges that the City of Ramsey is immune from any and all claims brought by User, its employees or agents, or third parties which arise out of the user's access of the data.

Meeting Date: 07/09/2015

Title:

Business of the Year

Purpose/Background:

The purpose of this case is to nominate the *2015 Business Ramsey of the Year*, an annual nomination made by the EDA.

The *Ramsey Business of the Year* is selected from a list of 3-5 candidates (known as the "*small list*"). The purpose of the *small list* is to narrow down the voting/ analysis process to a small pool of candidates. Said candidates are asked to answer a set of questions. The *small list* makes for a more efficient and effective process for the EDA.

The *small list* of candidates is derived from a "*large list*." The *large list* was selected by the EDA in 2011. Both lists are attached to this case. Staff believes the larger list should be updated in 2016.

It should be noted, staff is waiting for responses from Diamond Graphics and Zero Zone. As soon as responses to questions are available, they will be forwarded to the EDA.

Notification:

NA

Observations/Alternatives:

NA

Funding Source:

EDA misc. operating supply

Recommendation:

NA

Action:

Motion to select _____ as the 2015 EDA Business of the Year.

-and-

Direct staff to bring back a case to refresh the larger nomination pool.

Attachments

Biz of the Year Overview

2011 Large Nomination List

Small Nomination List (purpose of case)

Form Review

Inbox

Kurt Ulrich

Form Started By: Patrick Brama

Final Approval Date: 07/06/2015

Reviewed By

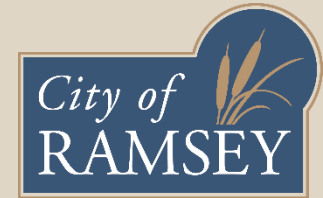
Kurt Ulrich

Date

07/06/2015 04:23 PM

Started On: 07/06/2015 03:12 PM

RAMSEY EDA 2015 BUSINESS OF THE YEAR AWARD



Benefits Received

- Recognition as a sponsor of The Draw Summer Event Series, gifted by the Ramsey EDA.
- Presence & recognition at a Thursday night concert at The Draw Summer Event Series
- An honorary plaque
- Business of the Year banner
- Recognition on the City of Ramsey website and Facebook page.
- Business Spotlight article in The Ramsey Resident-Ramsey's bimonthly newsletter.
- Grand Marshal of annual Happy Days Parade
- Recognition and Award presentation at the Annual EDA Business Appreciation Golf Tournament
- Recognition at EDA events

Please contact us to coordinate your presence at the above:

Nichole Wenberg
Public Information & Event
Specialist
nwenberg@cityoframsey.com
763-433-9831

CONGRATULATIONS _____

On behalf of the City of Ramsey and the Ramsey Economic Development Authority (EDA), congratulations for being awarded the 2015 City of Ramsey Business of the Year!

Nominees for the Ramsey Business of the Year are selected based on four criteria: (1) length of tenure (2) number of employees (3) community involvement (4) uniqueness. You have been chosen to receive this award for your exemplary standing in each of these categories.

As Ramsey's business of the year you will receive the benefits listed as recognition for your accomplishments and to promote title within the community.



TOP TEN LIST OF NOMINEES FOR 2011 BUSINESS OF THE YEAR

Nominee	Job Creation/ Retention	Added Tax Base	Local Participation	Innovation/ Other
1 Allina Medical Clinic (60 employees?; \$10.0M)	A	A	—	—
2 Acapulco Mexican Restaurant (45 employees--new; \$800K)	A	B	—	—
3 Links at Northfork (25 employees? \$3.2+M)	B	A	—	—
4 MultiSource Manufacturing (80 employees--new; \$2.5M)	A	A	N/A	—
5 Diamond Graphics (85 employees; \$3.4M)	B	A	—	—
6 Access America Transport (56 employees)	A	C	—	—
7 Green Valley Greenhouse (75 employees; \$650+K)	B	B	—	—
8 Jimmy John's (18 employees)	C	C	—	—
9 Hanson Building Materials (13 employees)	C	C	—	—
10 RM Golf Carts (4 employees)	C	C	—	—

Selection Criteria is based on the following criteria. These four elements are ranked A, B, C or N/A (not applicable):

1. Expanded or retained jobs that enhance the employment base of the community.
2. Created tax base through a new commercial/industrial business venture or the retention/expansion of an existing business.
3. Acted as a positive influence to the community, such as volunteered or participated in activities that build the community.
4. Developed an innovative business model or an innovative product/service; Or has brought other benefits to the community.

WHEN DID YOU BECOME A PHYSICALLY ESTABLISHED BUSINESS IN RAMSEY?

ZERO ZONE: XXXXXXXX

DIAMOND GRAPHICS: XXXXXXXX

BOLTON & MENK: The Ramsey office of Bolton & Menk was opened in 2006. The business initially opened in the NAU building until construction of the Ramsey Office Plaza was completed in late 2006.

ALLINA MEDICAL CLINIC of RAMSEY: The original Ramsey clinic opened in 1979. The new location, located at the intersection of Ramsey Blvd NW and Sunwood Dr. NW was opened in June of 2011. This location was designed for patients, by patients.

WHAT IS YOUR ESTIMATED NUMBER OF EMPLOYEES/FTE?

ZERO ZONE: XXXXXXXX

DIAMOND GRAPHICS: XXXXXXXX

BOLTON & MENK: Bolton & Menk currently has 265 full-time employees companywide. The Ramsey office of Bolton & Menk currently has 16 full-time employees.

ALLINA MEDICAL CLINIC of RAMSEY: There are 65 employees in Ramsey

HOW DOES YOUR BUSINESS POSITIVELY AFFECT THE COMMUNITY, BESIDES JOB CREATION (I.E. COMMUNITY INVOLVEMENT, DONATIONS, SPONSORSHIPS, MEMBERSHIPS, ETC.)?

ZERO ZONE: XXXXXXXX

DIAMOND GRAPHICS: XXXXXXXX

BOLTON & MENK:

Bolton & Menk has been an active participant in the community. We have sponsored the Main Stage of the annual Happy Days event for six years. The Office Manager is a member of the Ramsey Foundation Board. We have provided event sponsorships for Ramsey Business Appreciation days, Anoka Area Chamber of Commerce, Youth First Community of Promise and Trott Brook Benefit Bash.

ALLINA MEDICAL CLINIC of RAMSEY:

At Allina Health, we believe health care is more than just treating people when they are sick. We are committed to improving community health and helping people to live healthier lives. As a

trusted and compassionate partner, Allina Health ensures community benefit and engagement is an integral part of our culture and strategic plan. We invest in these efforts, not because we have to, but because we believe in them.

As a not-for profit health system, we partner and give back to the community in many different ways — all focused on improving the health of those we serve.

Every October, Allina Health partners with [Free Bikes 4 Kidz](#), a non-profit organization geared toward helping all kids ride into a happier, healthier childhood by providing bikes to those most in need. Kenneth H. Paulus, CEO of Allina Health, says, "Biking can be a life-long pastime. Many of our employees are avid cyclists, and we want to help make it possible for every child to participate in this healthy, fun and environmentally-friendly activity."

[Health Powered Kids™](#) is a free community education program created by Allina Health and designed with a singular focus: to empower kids to make healthier choices about what to eat, how to stay active, staying clean and managing stress. At healthpoweredkids.org, you can access more than 50 on-and-offline lessons and activities for children and teens to be used at school, home, after-school programs, daycare and community groups (such as Girl Scouts and the YMCA).

Neighborhood Health Connection improves the health of communities through social connections, healthy eating and physical activity through grants. We know that being active and eating healthy foods are good for us. Plus, research shows that we are more likely to stick with healthy activities if we do them with other people. Social connections are the relationships we have with others, either individually or through groups. These competitive grants support activities that promote social connections, healthy eating and physical activity. Any group of neighbors or organization can apply. Learn more at neighborhoodhealthconnection.org

Volunteers at 28 Allina Health locations, helped fit and distribute over 10,000 new athletic shoes and socks to kids at the New Shoes, Healthy Kids event. Shoes are a basic necessity that many kids in our communities lack. Giving kids in need a pair of shoes that fit eliminates these concerns and also protects their feet.

Mission Matters helps Allina Health employees get involved in their communities through volunteering and gives employee input on where Allina Health charitable contributions are made.

Allina Health Ramsey Clinic has also been a sponsor of The Draw Summer Event Series, sponsors clinic staff volunteers at Feed My Starving Children, and supports the local food shelf through food drives.

WHAT IS UNIQUE ABOUT YOUR BUSINESS, WHAT IS NOTEWORTHY OR WHAT MAKES YOUR BUSINESS DIFFERENT THAN YOUR COMPETITORS (I.E. INNOVATIVE PRODUCT/BUILDING, SIGNIFICANT JOB RETENTION/CREATION, OVERCOMING A SIGNIFICANT OBSTACLE, ETC.)?

ZERO ZONE: XXXXXXXX

DIAMOND GRAPHICS: XXXXXXXX

BOLTON & MENK:

Our Ramsey office opened shortly before the significant economic downturn of 2008 and, despite the challenges, has continued to grow the Ramsey office as well as adding four new office locations throughout Minnesota and Iowa within the past two years. The integration of a wide area network and successfully utilizing various communication technologies to balance and distribute workload across our twelve office locations has helped to maintain employment through the economic fluctuations. This has ultimately helped us to continue achieving our goal of providing professional engineering services in the most efficient and effective manner.

ALLINA MEDICAL CLINIC of RAMSEY:

A solar energy panel near the front entrance will provide power for the clinic's exterior lighting. In the future, the solar panel will power a charging station in the parking area for electric vehicles. A monitor in the lobby will display energy savings from the solar panel. The clinic was built according to the Green Guide for Health Care, which parallels the Leadership in Energy and Environmental Design (LEED) construction guidelines for sustainable health care design. Some of the green accommodations include a smaller parking lot for less storm water runoff, low-flow plumbing fixtures, occupancy sensor controls on lighting and even chargers for electric cars.

ADDITIONAL/EXTRA MATERIAL SUBMITTED:

BOLTON & MENK:

At Bolton & Menk, our staff is trained to consider new and innovative technologies in designing, planning and building for tomorrow. Ever since John Bolton and Martin Menk founded the company over six decades ago, we have been committed to improving quality of life through engineering excellence and client service.

Bolton & Menk, Inc. was founded in 1949, incorporated in 1960, and is owned and operated exclusively by the professionals and technicians on the staff. Today, Bolton & Menk, Inc. has 265 employees including a professional staff of over 100 engineers, planners and licensed surveyors. The firm has provided a broad range of engineering, planning, environmental and surveying services to more than 225 communities and agencies in Minnesota and Iowa.

Bolton & Menk, Inc. is focused on providing professional engineering services to meet the needs of municipalities. Over the past 60 years, the firm has continued to grow and expand its expertise based on the needs and challenges facing Minnesota cities. In addition to engineering in support of basic community services such as reconstruction, expansion and maintenance of public infrastructure, we offer specialized expertise in many practice areas. This complete range of municipal services enables our firm to readily accommodate the diverse needs of our many clients.

Economic Development Authority (EDA)

4. 4.

Meeting Date: 07/09/2015

Submitted For: Patrick Brama, Administrative Services

By: Patrick Brama, Administrative Services

Title:

EDA Updates

Purpose/Background:

EDA Updates

- PAs
 - Casey's
 - PSD LLC
 - GS Land
 - Common Bond
 - 24 Restore
- Prospects
 - Dominion Development
 - Life Fitness
 - 24 Restore
 - Dedicated Networks
- Annual Golf Tournament
- Highway 10 Business Advocacy Group, Emmer Visit
- RALF Requests
- COR Signs
- CBRE, multiple items
- EDA Performance Measurements

Notification:

NA

Observations/Alternatives:

NA

Funding Source:

NA

Recommendation:

NA

Action:

NA

Attachments

No file(s) attached.

Form Review

Inbox

Kurt Ulrich

Form Started By: Patrick Brama

Final Approval Date: 07/06/2015

Reviewed By

Kurt Ulrich

Date

07/06/2015 04:52 PM

Started On: 07/06/2015 04:21 PM