



Memorandum

SRF No. 01710437

To: Bryan Murphy, Landscape Architect, ASLA
City of St. Paul

From: Matthew Pacyna, PE, Principal
Tom Sachi, PE, Senior Engineer

Date: January 25, 2018

Subject: Phalen Regional Park Multi-Modal Transportation Study, City of St. Paul

Introduction

SRF has completed a multi-modal transportation study for Phalen Regional Park in the City of Saint Paul (see Figure 1: Project Information). Phalen Regional Park is a 494 acre regional park in the northeast corner of the City, appreciated for its natural beauty, serves over 900,000 users annually. Walking and biking on trails that encircle the nearly 200 acre lake are the most popular activities of park users. Other park amenities include picnic facilities, a swimming beach and splash pad, fishing, wildlife viewing, and golfing. While a majority of the park amenities are located on the west of Lake Phalen, Arcade Street and the golf course can create challenges for access to these park amenities. Whereas, pedestrian and bicycle access to the east side of the park is simpler, there are very few amenities including a lack of restrooms and/or drinking fountains on the east side of the park.

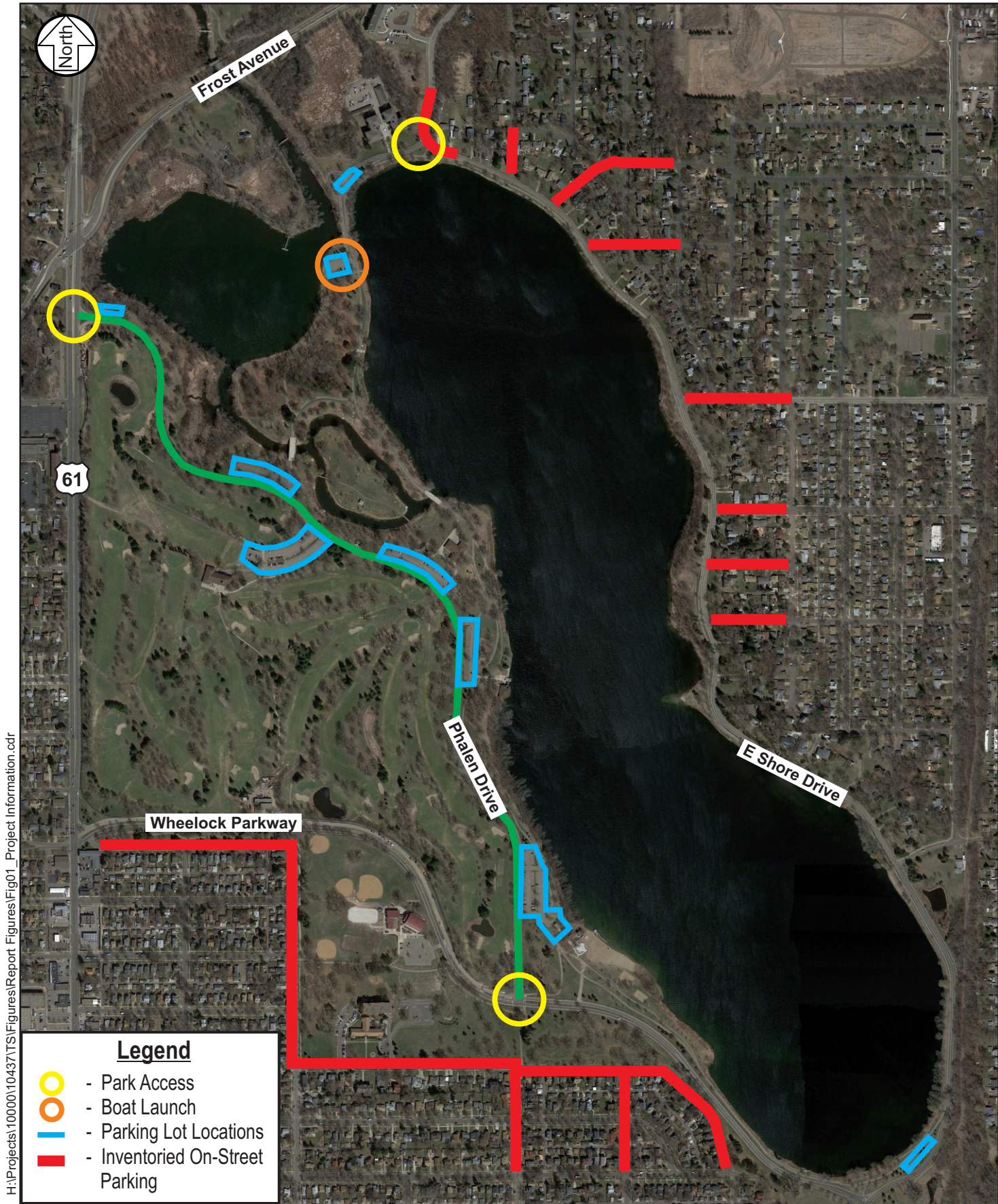
Various projects identified in the 2011 *Phalen-Keller Regional Park Master Plan* required additional study prior to implementation. The *Phalen Regional Park Multi-Modal Transportation Study* focuses on parking and access areas along Phalen Drive, as well as, the northern park access and boat launch area has the following goals:

- Minimize conflicts between vehicles/pedestrians/bicyclists,
- Eliminate confusing circulation patterns,
- Protect/complement the natural characteristics of the park,
- Promote trail connections.

The main tasks of this study are to review existing conditions within the study area through various site assessments and public engagement activities, develop concepts to improve access to all users of the park, and provide design and cost estimates for construction. The following provides the assumptions, methodology, findings, and recommendations offered for consideration.

Existing Conditions

Existing conditions were reviewed to establish a baseline to better understand access, transportation, and parking conditions. In addition to the various data collection efforts, multiple public engagement events provided valuable feedback with respect to area transportation issues. The following information summarizes the existing conditions assessment.



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Project Information
 Phalen Regional Park Multi-Modal Transportation Study
 City of St. Paul

Figure 1

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 December 2017

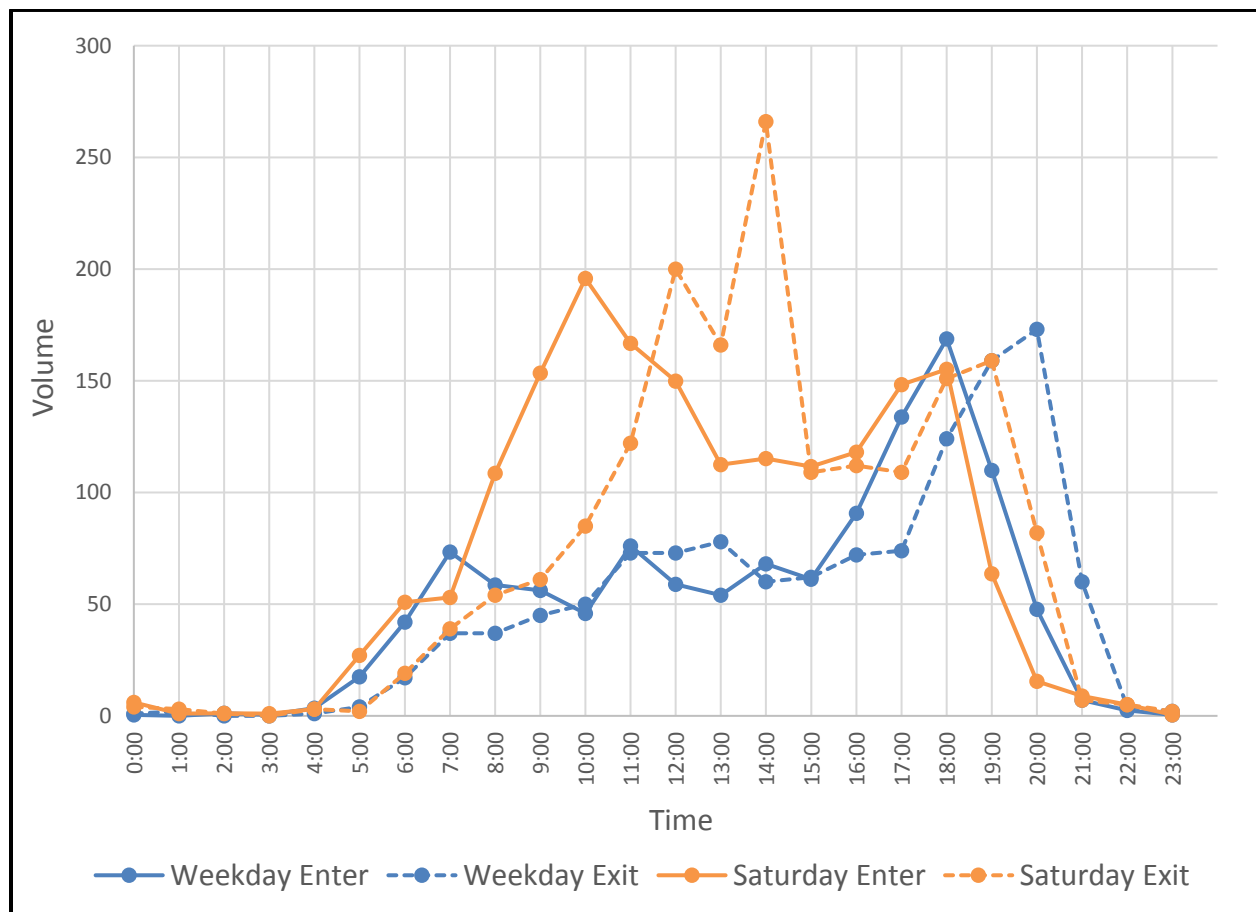
Access

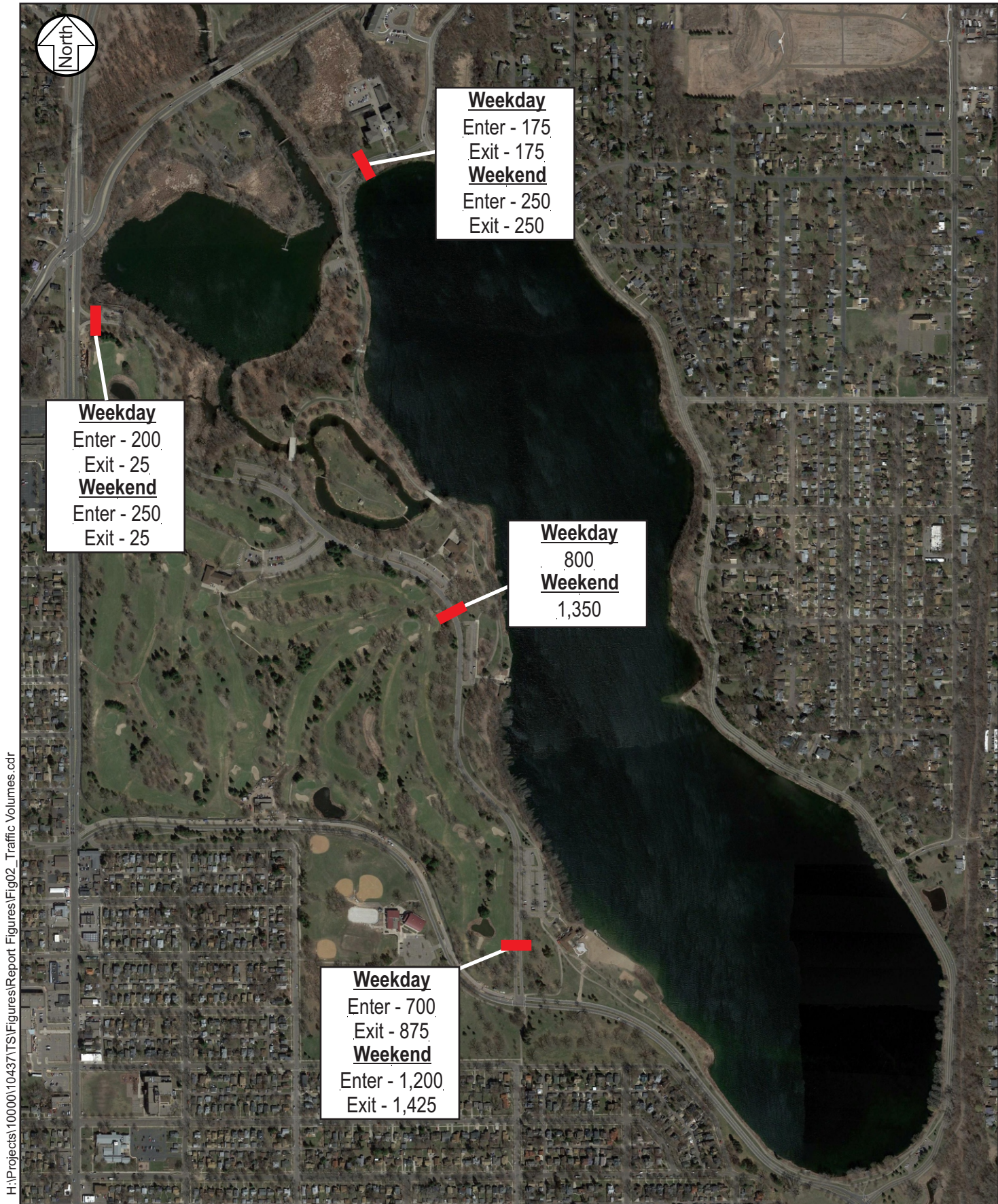
Access to Phalen Regional Park is provided at multiple locations. The main park roadway, Phalen Drive, which provides a route through the high use area of the park, is accessible from MN Highway 61 (Arcade Street) and Wheelock Parkway. East Shore Drive provides access to small parking areas at only the very north and south ends of the Lake, as well as, a boat ramp at the north end of Lake Phalen. Metro Transit bus routes 61, 64, and 74 have stops within a few blocks of the park. The future Rush Line will have stops at the north and south ends of the park.

Vehicular Traffic Volumes

Vehicular traffic volumes were collected along Phalen Drive for a one-week period beginning July 17, 2017 to illustrate park activity throughout the week. This information was reviewed and processed to highlight the hourly traffic volume profile throughout the day for entering and exiting vehicles for a typical weekday and Saturday (see Figure 2). This information shows that during a typical weekday, peak park activity occurs between 5:00 and 8:00 p.m., while during a Saturday, peak park activity occurs between 10:00 a.m. and 2:00 p.m. A summary of the daily traffic volumes collected is shown in Figure 3.

Figure 2. Phalen Drive Hourly Traffic Volume Profile





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Daily Traffic Volumes

Phalen Regional Park Multi-Modal Transportation Study
City of St. Paul

Figure 3

Parking

Parking utilization surveys were collected in July and August 2017 during several time periods on both weekday and Saturday conditions to understand peak usage throughout the park and adjacent area. This information was utilized to assess with “right-sizing” the amount of parking with the study area. The parking surveys were completed at all surface parking lots within Phalen Regional Park, as well as adjacent roadways generally within one-block of the park. Weekday parking surveys were conducted at 1:00 and 5:00 p.m., while the Saturday counts were conducted at 11:00 a.m. and 1:00 and 3:00 p.m.

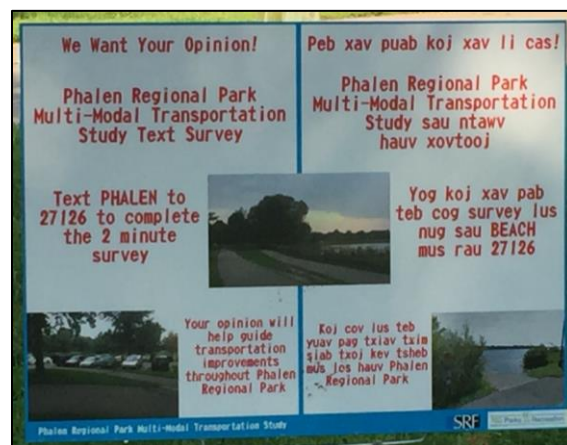
The peak parking demand varied for each individual parking lot within the study area. However, the peak parking demand generally occurred during the 1:00 p.m. hour on a Saturday. This timeframe is consistent with large picnic celebrations that are typically scheduled during this time at the Picnic Pavilion. A summary of the peak parking demand for each parking lot or adjacent roadway within the study area is illustrated in Figure 4. The individual parking demand for each timeframe, by location, is provided in Appendix A.

Review of the peak parking demand indicates that many the lots were observed to be over 85 percent utilized during the peak periods, except the Beach and NW Entrance lots, which were approximately 75 percent and 10 percent occupied, respectively. In a few locations, park users were observed parking in non-designated areas. This resulted in the observed demand exceeding the current supply. Adequate on-street parking was available along the adjacent roadways within the study area. It was found that on street parking on the east side of the park can be convenient for trail users, but on street parking on the west side of the park is less convenient due to its distance to activity areas. Lastly, a maximum of three (3) boat trailer parking spaces were utilized during the periods reviewed.

It should be noted that parking levels were not observed during this study at a major event such as the Dragon Boat Festival or Waterfest. For major events, organizers are required to provide a shuttle/bussing plan as part of their permit.

Information Surveys

Multiple public engagement efforts were completed to gather information directly from Phalen Park users with respect to their experiences and desires with the park. Both text and in-person surveys were completed during August and September 2017. The in-person surveys took place on both a weekday evening and weekend afternoon. Questions were asked regarding park use, transportation mode choice, and desired improvement areas. The text survey, which followed the same question format, was advertised using strategically placed signs (see the picture to the right) and the City’s website. The survey was provided in both English and Hmong versions. Nearly 200 surveys were completed between the two survey approaches.





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Results of the surveys indicate that the majority of participants utilize Phalen Regional Park multiple times per week. The most common activity identified was utilizing the trail system around the lake, either walking or biking. Approximately half of the park users walk/bike to the park versus drive. Additionally, most responders lived within one-mile of the park and did not identify any issues getting to the park. However, several participants did express interest in upgrading the parking and trail facilities. Additional feedback identified during the engagement activities include:

- 1) Additional lighting to improve perception of safety and security
- 2) Improvements to trail paving
- 3) Improved markings that direct one way direction for bicycle paths
- 4) Bicycle parking
- 5) Separated trails
- 6) Permanent restroom facilities
- 7) Additional litter receptacles
- 8) Additional drinking fountains
- 9) Pedestrian improvements at Arcade Street

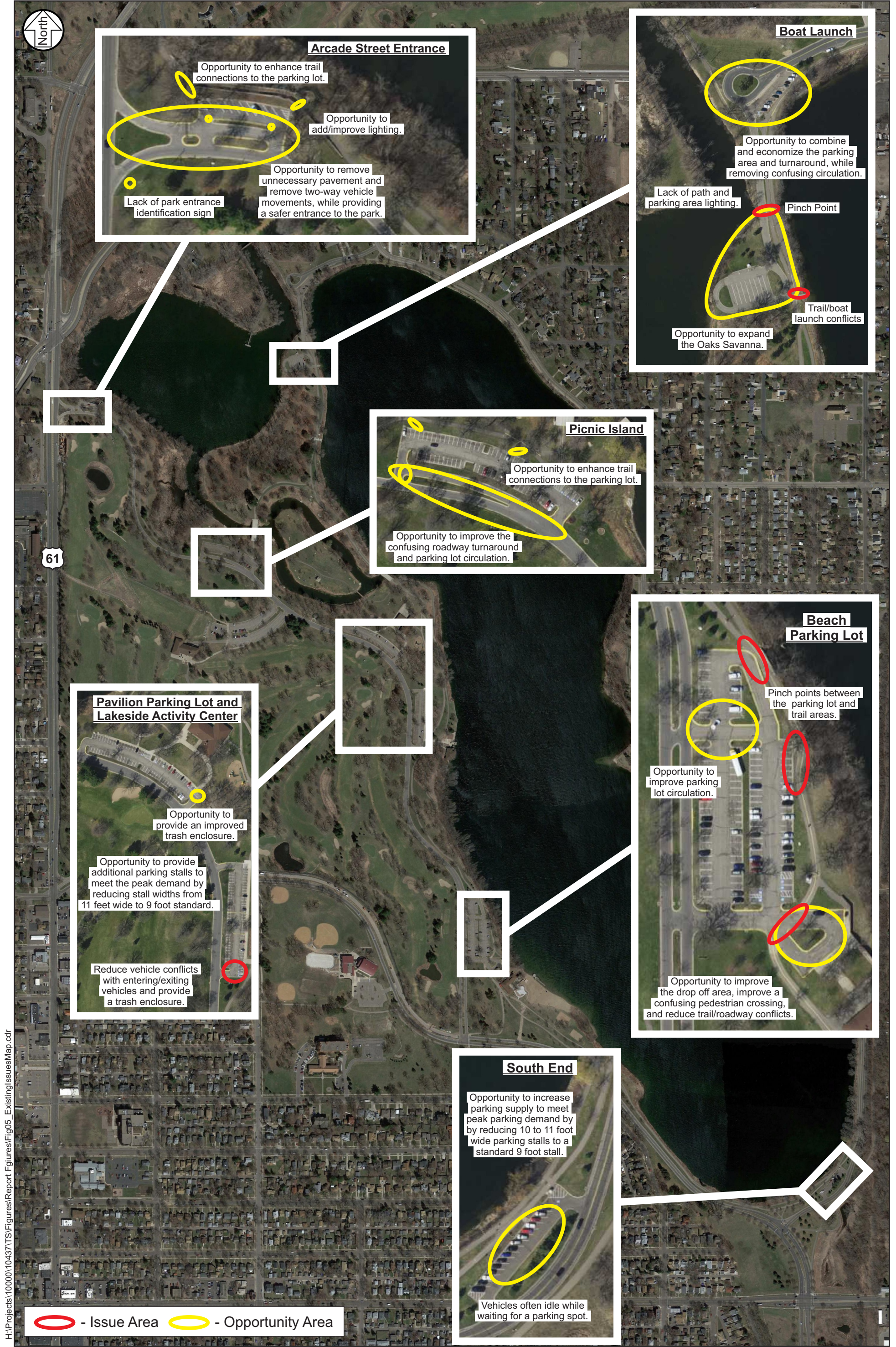
Additional feedback, along with the full survey results and graphs, is provided in Appendix B.

Project Advisory Group

A project advisor group (PAG) was formed to help guide the study process, provide input with respect to study area issues/opportunities, and help refine and prioritize potential improvements. The PAG was comprised of individuals from Saint Paul Parks and Recreation, Saint Paul Public Works, Maplewood Community Development, Ramsey County Parks, MnDOT, the Payne-Phalen District Five Planning Council, and SRF. Two PAG meetings were held during the study. The first meeting was held on August 30, 2017 and covered PAG roles/responsibilities, study goals/objectives, known issue areas/opportunities, and the study schedule. The second meeting was held on October 24, 2017 and covered the survey results, identified issue areas, and focus area concepts.

Issue Summary

Based on the survey results, site observations, and input from project stakeholders throughout the study process, seven (7) key issue areas were identified with a focus on parking, access, and circulation. These issue areas, as well as potential opportunities, are illustrated in Figure 5. In addition to specific improvement areas, the following general issue themes were identified that apply to multiple focus areas within the study area.



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- 1) Inconsistent and/or unnecessarily wide parking spaces, which vary between 10 and 11 feet, where the standard is nine (9) feet.
- 2) Inconsistent and/or a lack of sidewalk on the back of curb to provide better access to park trails and limit pedestrian exposure/conflicts within the parking lots.
- 3) Inconsistent connections from the parking lots to the trails.
- 4) Lack of trash enclosures.
- 5) Lack of separation between pedestrian and bicyclist areas.

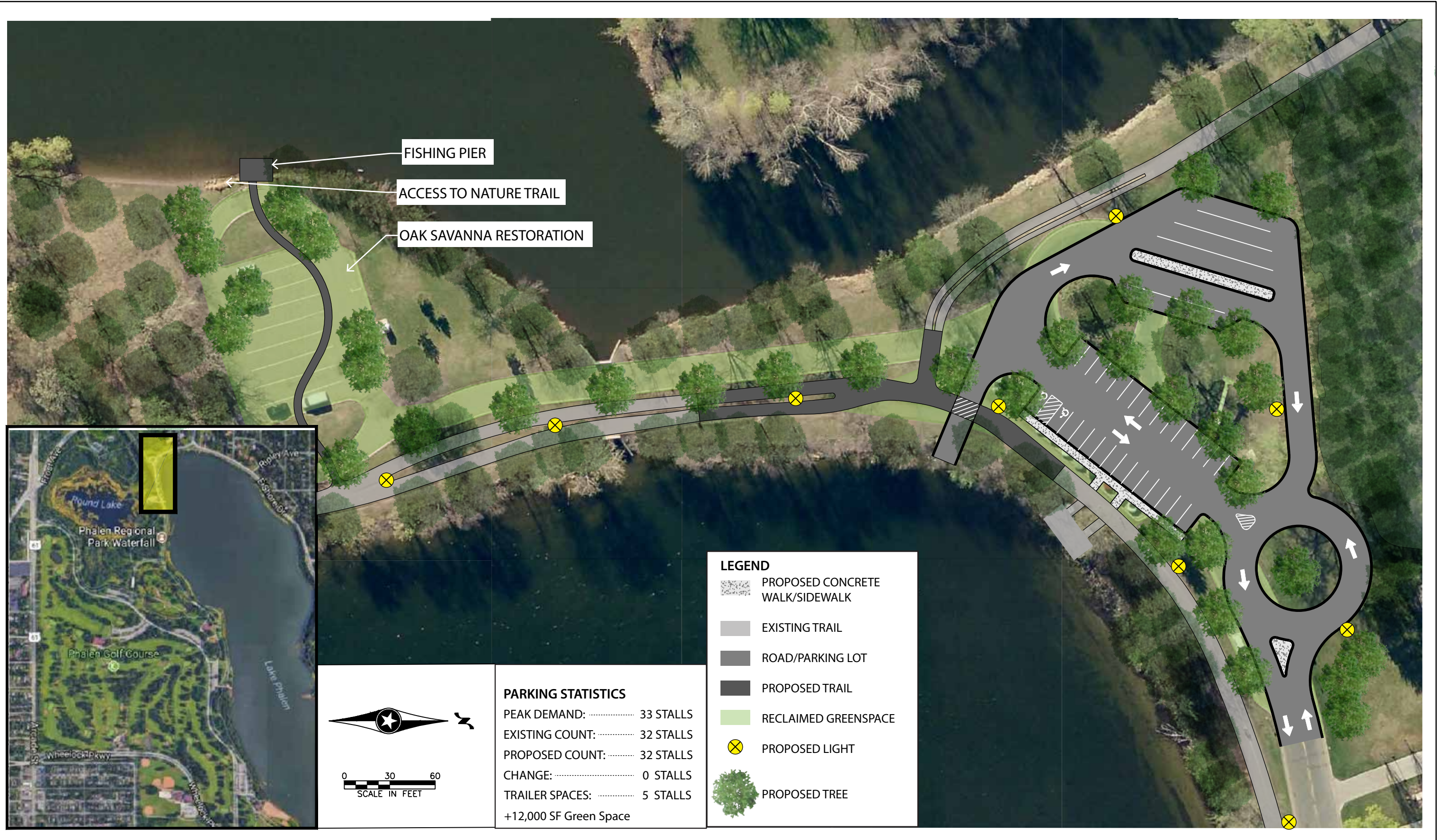
Preliminary Concepts

Based on discussions with City staff, a range of preliminary concepts were developed to improve the issue areas identified throughout the study process. The intent of these concepts was to improve access and circulation for all park users, as well as to right-size the parking areas to meet the area demand. In addition, another key theme associated with the various preliminary concepts is to develop a more cohesive look/feel amongst the various focus areas. The preliminary concepts developed for each area are shown in Figures 6 through 12. It should be noted that mature trees and topography limit the expansion of many of the parking areas. Although on street parking could be accommodated in a few areas along Phalen Drive, it is preferred to not introduce on street parking on Phalen Drive.

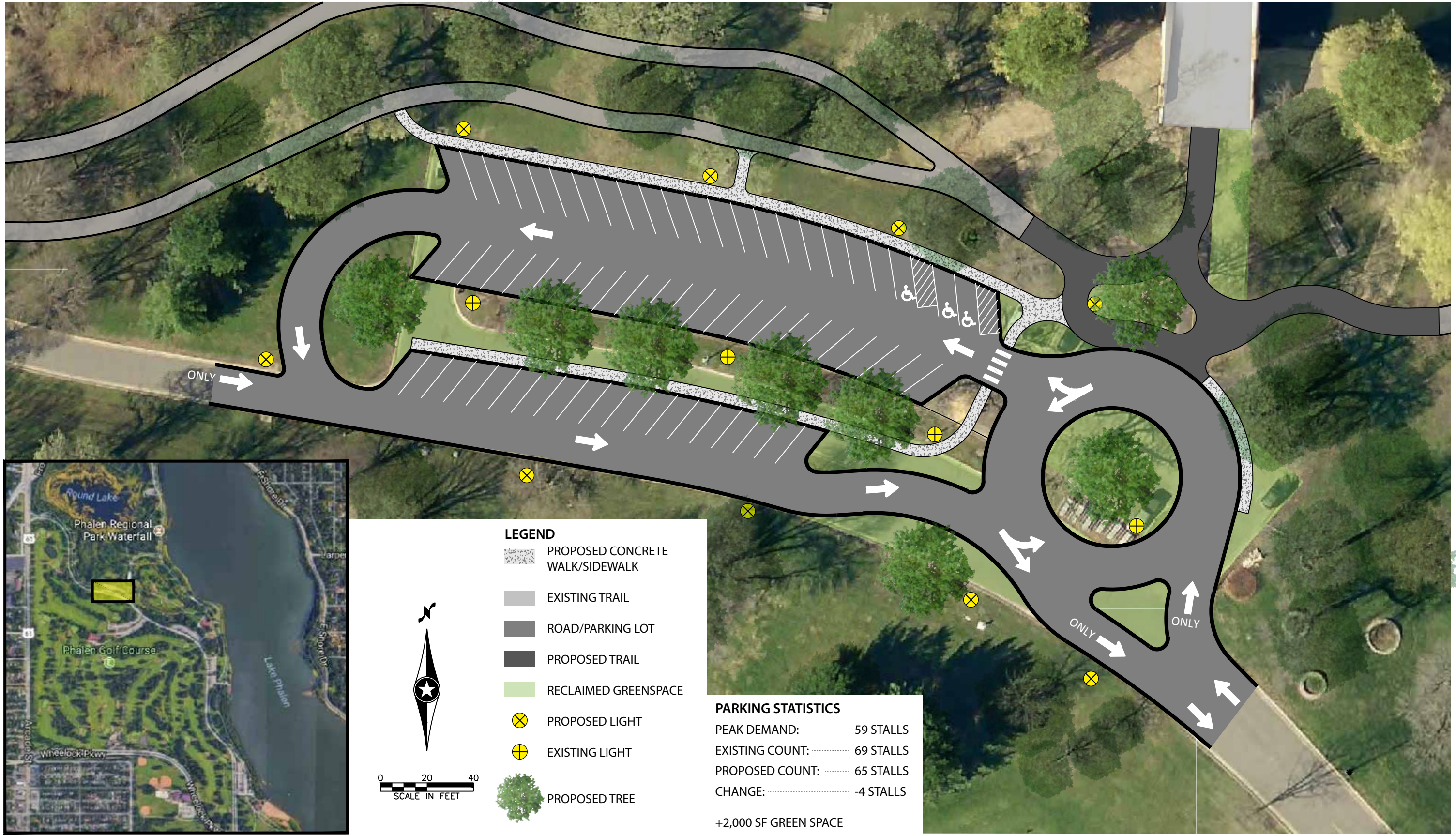
Feedback

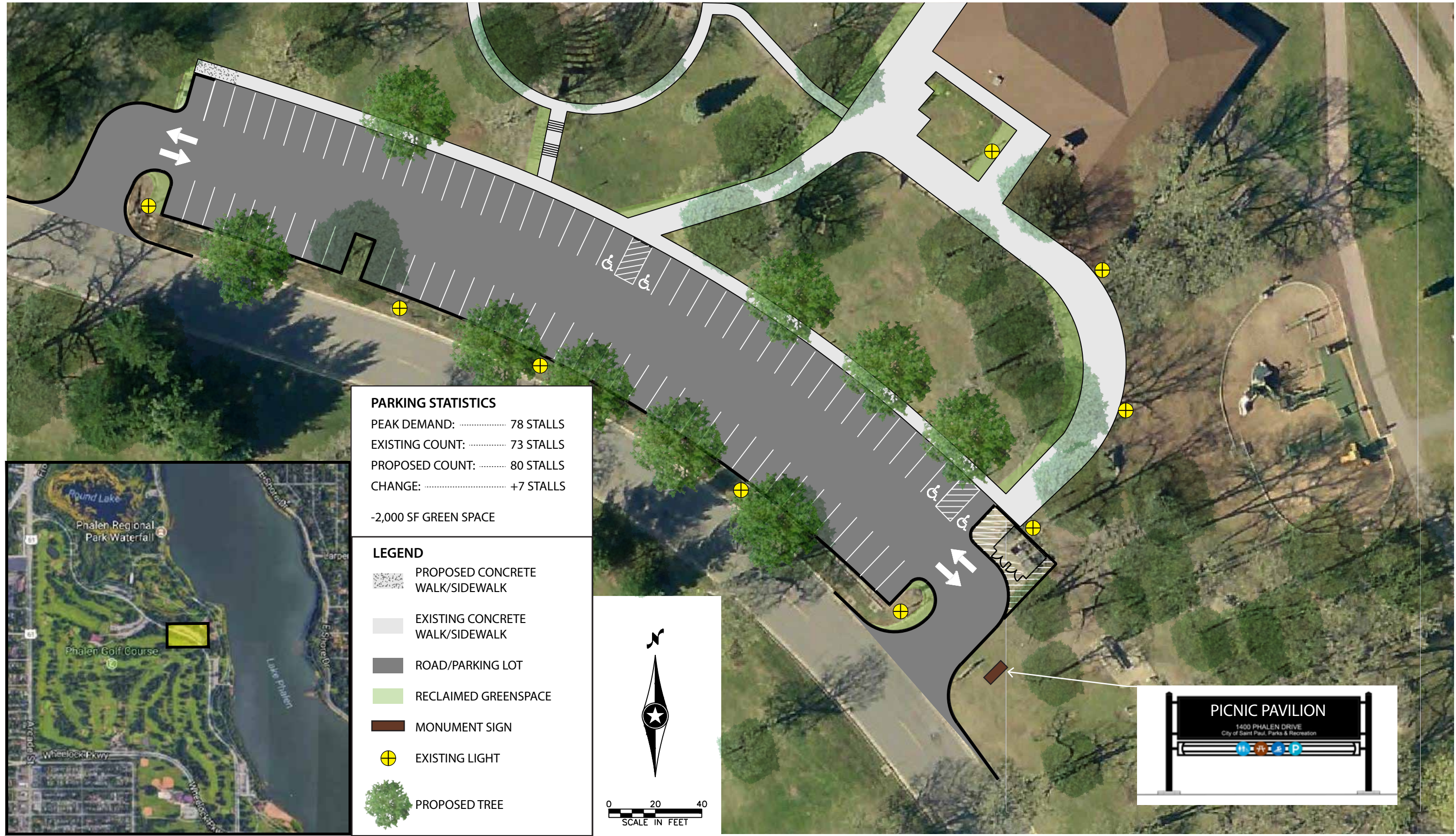
A public open house was held on November 16, 2017 at the Phalen Golf Course Clubhouse. The open house provided an opportunity for the community to provide additional insight into the overall study, including issue areas/opportunities, as well as comment on potential improvements identified throughout the park. The public also had the opportunity to list their preference with respect to which areas were most important to improve first. Approximately 10 individuals were in attendance. Additionally, the City of St. Paul Transportation Committee reviewed the concepts during a meeting on December 4, 2017. The following feedback was received from these meetings:

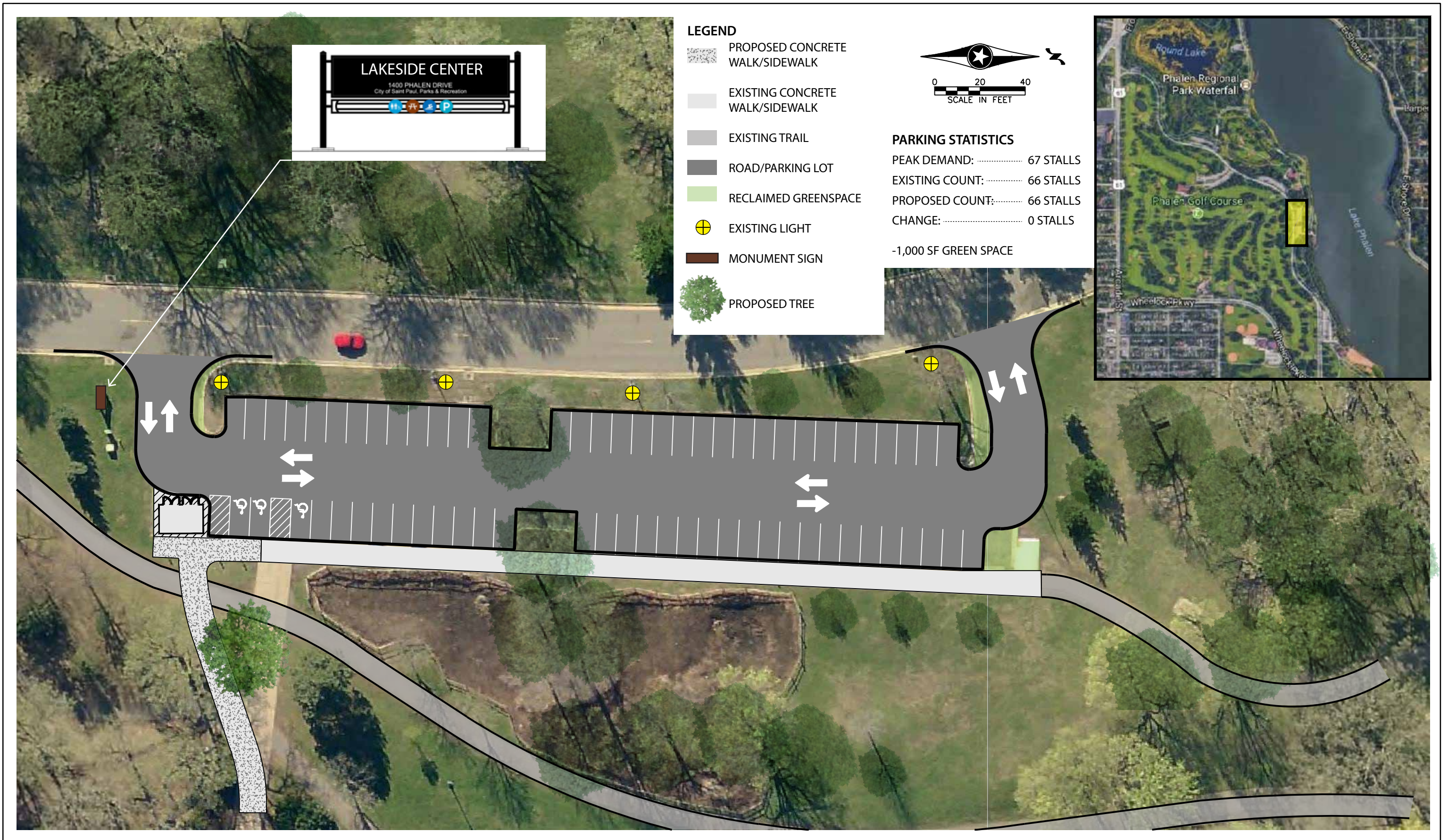
- 1) There is a need for two-way bike trails.
- 2) Consider how the future Rush Line factors into the plan.
- 3) Potential need for more parking at the Picnic Island parking lot due to the opening of the Chinese Garden.
- 4) There is a need for additional bike racks.
- 5) Bike and pedestrian trails on the east side of the park could use improvements to their width, separation, and proximity to East Shore Drive for safety but will require changes to East Shore Drive. This will require assistance from Saint Paul and Ramsey County Public Works departments.

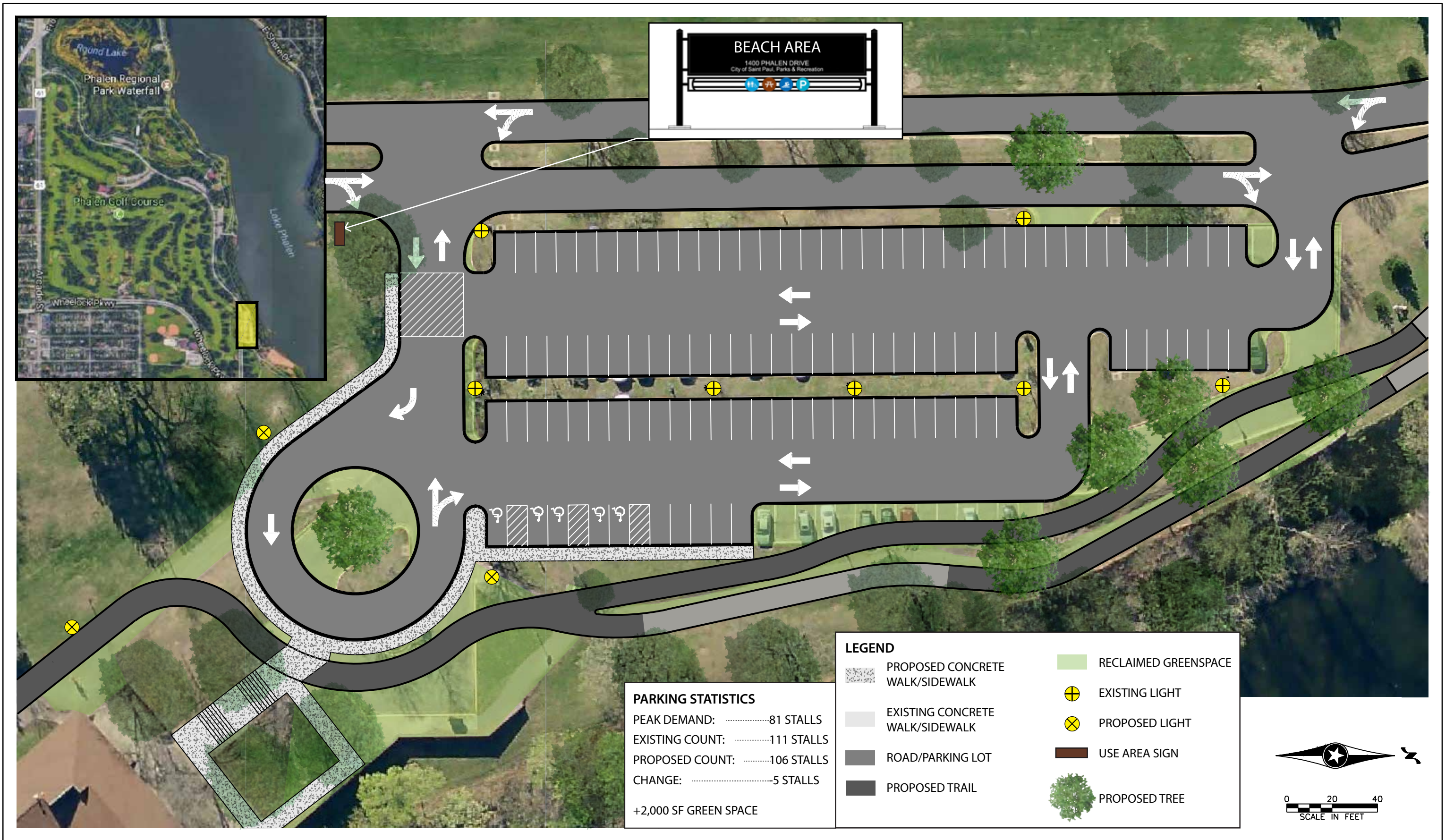














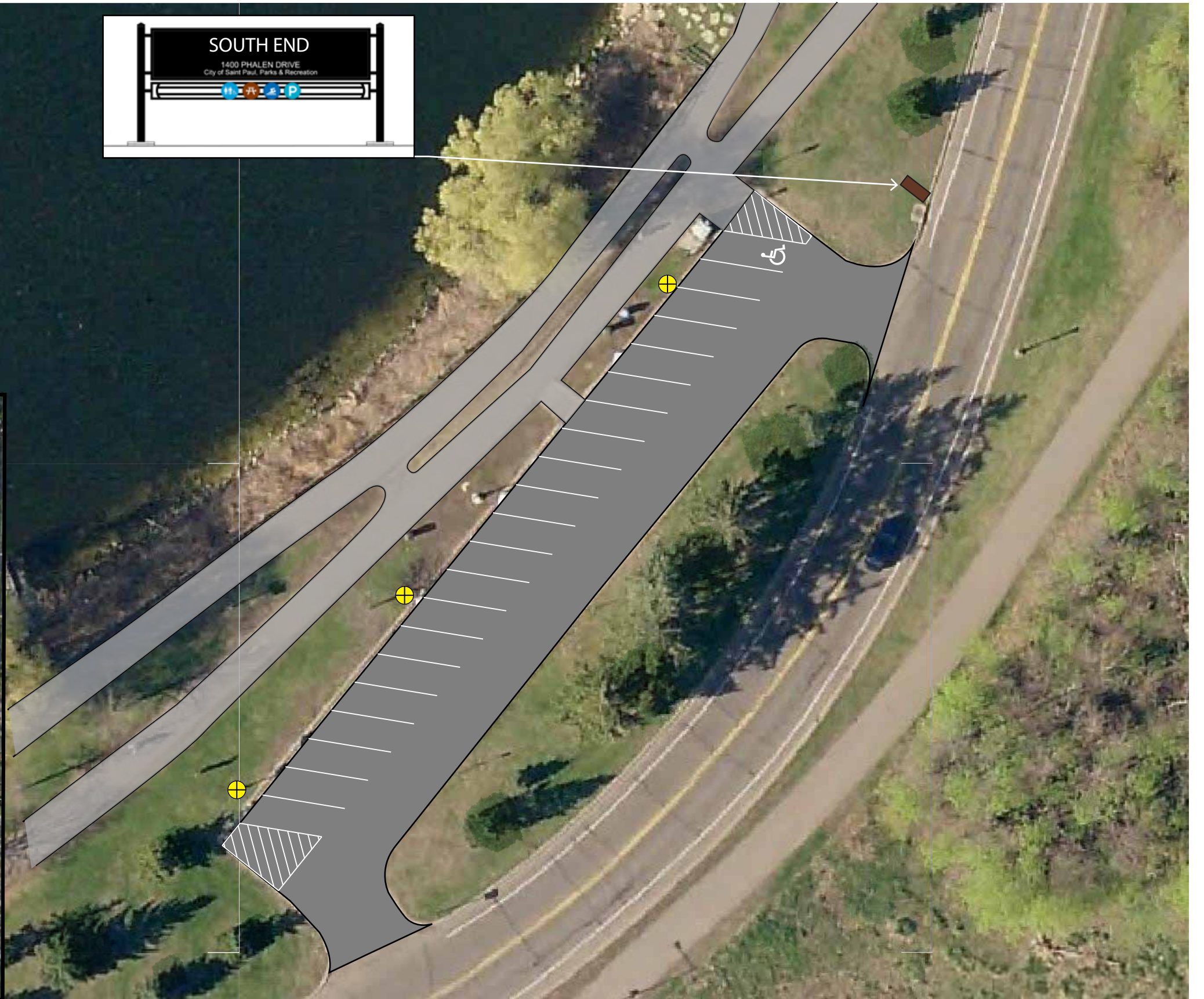
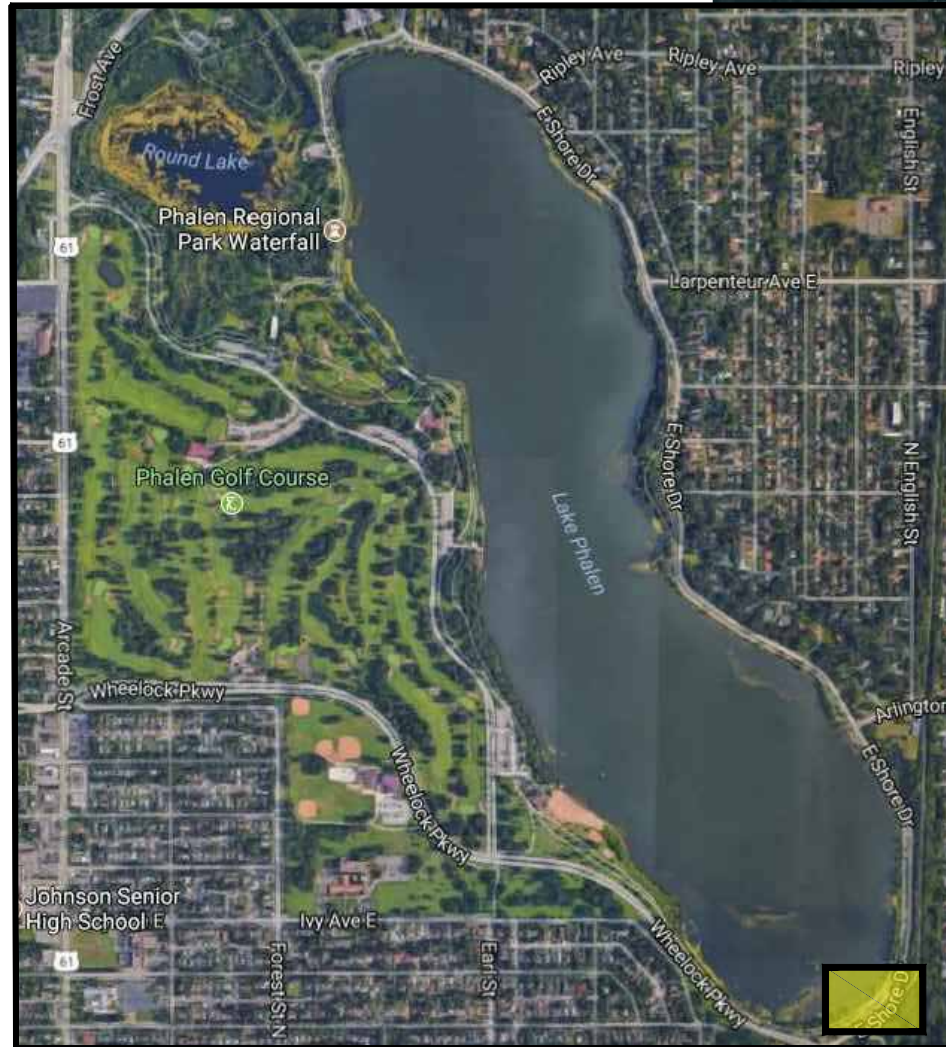
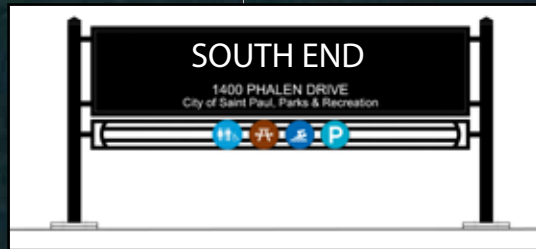
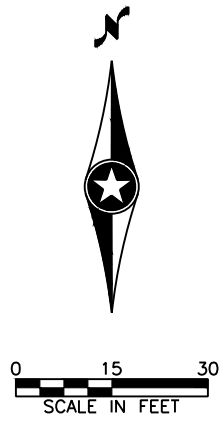


LEGEND

-  EXISTING TRAIL
-  ROAD/PARKING LOT
-  EXISTING LIGHT
-  USE AREA SIGN

PARKING STATISTICS

- PEAK DEMAND: 16 STALLS
- EXISTING COUNT: 16 STALLS
- PROPOSED COUNT: 21 STALLS
- CHANGE: +5 STALLS
- +/- 0 SF GREEN SPACE



Cost Estimates

Cost estimates were developed for each focus area preliminary concept to assist with future planning and prioritization. The cost estimates include a 30 percent contingency, since the concepts were developed with limited survey information. A detailed survey, utility locates, soil borings, and pavement conditions are a few items that are needed to prepare construction documents. The following information provides an overview of the cost estimates developed for each focus area. Cost estimates for each focus area is included in Appendix C.

- 1) Boat Launch Area: \$560,100
- 2) Arcade Street Entrance: \$250,800
- 3) Picnic Island: \$470,300
- 4) Picnic Pavilion: \$180,500
- 5) Lakeside Activity Center: \$206,600
- 6) Beach House Lot: \$510,400
- 7) South End: \$15,400