



# CITY OF ST PAUL

DEPARTMENT OF SAFETY AND INSPECTIONS  
 375 JACKSON STREET, SUITE 220  
 ST. PAUL, MINNESOTA 55101-1806  
 Phone: 651-266-8989 Fax: 651-266-9124  
 Visit our Web Site at [www.stpaul.gov/dsi](http://www.stpaul.gov/dsi)

## Site Plan Review Application



Application Date <b>9/6/2023</b>	Application Method Mail <input type="checkbox"/> Email <input checked="" type="checkbox"/> Walk-in <input type="checkbox"/> Fax <input type="checkbox"/>	Site Plan Review Meeting Date (STAFF ENTRY ONLY) <b>TBC - Oct 3, 2023</b>
-------------------------------------	---	--

Site Address(es) <b>2260 Summit Ave St. Paul MN 55105</b>	Property Identification Number (PIN) 052823420005
--	--

Project Name **Lee & Penny Anderson Multipurpose Arena**

Project Type: Multipurpose Arena

<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Parking Lot Only	<input type="checkbox"/> Other Site Work
--	-----------------------------------	---	--

Proposed Land Use: University Campus Building

<input type="checkbox"/> Commercial	<input type="checkbox"/> Mixed-Use	<input type="checkbox"/> Multi-Family Residential	<input type="checkbox"/> Industrial
-------------------------------------	------------------------------------	---	-------------------------------------

<input checked="" type="checkbox"/> Institutional	<input type="checkbox"/> Recreational	<input type="checkbox"/> Single-Family	<input type="checkbox"/> Duplex
---	---------------------------------------	--	---------------------------------

**Project Description:**

Multipurpose Arena for St. Thomas Hockey and Basketball programs with practice facilities, coaching offices, locker rooms, and student athlete support services that will also host other university events such as commencement ceremonies, academic convocations, speakers, and career fairs.

**Project Contacts:** Site Plans and documents shall be uploaded to the Electronic Plan Review system [planreview.stpaul.gov/ProjectDox](http://planreview.stpaul.gov/ProjectDox)

Applicant <b>Jim Brummer (University of St. Thomas)</b>	Address 2260 Summit Ave City State Zip St. Paul MN 55105	Email <b>jim.brummer@stthomas.edu</b>
		Phone <b>651-962-6595</b>

Responsible Party (Developer/Property Owner) <b>Jim Brummer (University of St. Thomas)</b>	Address 2260 Summit Ave City State Zip St. Paul MN 55105	Email <b>jim.brummer@stthomas.edu</b>
		Phone <b>651-962-6595</b>

Architect <b>Ben Bourgoin (Ryan Companies)</b>	Address 533 S Third St, Suite 100 City State Zip Minneapolis MN 55415	Email <b>ben.bourgoin@ryancompanies.com</b>
		Phone <b>206-914-7161</b>

Civil Engineer <b>Anthony Adams (Ryan Companies)</b>	Address 533 S Third St, Suite 100 City State Zip Minneapolis MN 55415	Email <b>anthony.adams@ryancompanies.com</b>
		Phone <b>612-492-4741</b>

**REQUIRED: Email to receive Electronic Plan Review document upload link:** [anthony.adams@ryancompanies.com](mailto:anthony.adams@ryancompanies.com)

**Project and Land Use Details:**

Est. Project Start/End Dates: <b>1/2/2024-8/28/2025</b>	Estimated Project Cost: \$ <b>150 Million</b>
Existing Use: <b>Institutional</b>	Proposed Use: <b>Institutional</b>
Parcel Area (square feet): <b>1195722</b>	Disturbed Land Area (square feet): <b>318500</b>
Building Gross Floor Area: <b>249,635 SF</b>	Floor Area Ratio: <b>0.19</b>
No. of Existing Off-Street Parking Spaces: <b>2496</b>	No. of Proposed Off-Street Parking Spaces: <b>0</b>
No. of Existing Residential Units: <b>90</b>	No. of Proposed Residential Units: <b>0</b>
No. of Affordable Residential Units: <b>0</b>	% AMI for Affordable Residential Units: <b>0</b>

<input type="checkbox"/> Flood Plain Property	<input checked="" type="checkbox"/> Historic District/Property	<input type="checkbox"/> Steep Slopes (>12%)	<input checked="" type="checkbox"/> Level Demand Mgmt. Plan
---	--	--	---

If you are a religious institution you may have certain rights under RLUIPA. Check this box if you identify as a religious institution.

Applicant certifies that all information provided herein is true and accurate.

APPLICANT NAME (PRINT) <b>Jim Brummer</b>	SPR File # (STAFF ENTRY ONLY) <b>23-079985</b>
---	--

APPLICANT SIGNATURE 	SPR Fee \$ (STAFF ENTRY ONLY) <b>TBC</b>
--	--

<input type="checkbox"/> Check	<input type="checkbox"/> Credit Card	<input type="checkbox"/> Online Payment
--------------------------------	--------------------------------------	---

**9/6/2023**



# CITY OF ST PAUL

DEPARTMENT OF SAFETY AND INSPECTIONS  
375 JACKSON STREET, SUITE 220  
ST. PAUL, MINNESOTA 55101-1806  
Phone: 651-266-8989 Fax: 651-266-9124  
Visit our Web Site at [www.stpaul.gov/dsi](http://www.stpaul.gov/dsi)

## Site Plan Review Application



### STAFF USE ONLY

City Agent <b>T. Anderson</b>	Date Application Received <b>Sept 7, 2023</b>
Zoning District <b>R2</b>	Overlay Zoning District <b>UST Campus CUP RC3</b>
District Council <b>MGCC - DC 14</b>	City Council Ward <b>Ward 4</b>
Watershed District <b>CRWD</b>	MnDOT or County ROW <b>n/a</b>

Entitlements Required: Variance, CUP, Rezoning, Plat  
**HPC approval** **EAW decision pending**

Current Building Permit(s) #

Parkland Dedication Fee Required, AMOUNT: \$ n/a

Previous SPR(s)



# CITY OF SAINT PAUL

DEPARTMENT OF SAFETY AND INSPECTIONS  
 375 JACKSON STREET, SUITE 220  
 ST. PAUL, MINNESOTA 55101-1806  
 Phone: 651-266-8989 Fax: 651-266-9124  
 Visit our Web Site at [www.stpaul.gov/dsi](http://www.stpaul.gov/dsi)

## Site Plan Review Application Submittal Requirements



Site Plan Review applications and application fees may be submitted to the City of Saint Paul Department of Safety and Inspections at 375 Jackson Street, Suite 220, St. Paul MN 55101, by email at [SitePlanReview@ci.stpaul.mn.us](mailto:SitePlanReview@ci.stpaul.mn.us) or by fax at 651-266-9124. Site Plan Review can be reached at 651-266-9008 from 7:30 am - 4:30 pm, Monday through Friday.

Site Plan Review is required for multi-family residential, commercial, industrial, institutional, or recreational new construction, additions, or parking lots, as well as land disturbances greater than 10,000 feet square, construction on slopes 12% or greater, or one and two-family residential properties over one acre or located in a tree preservation district.

*Identify the items below that are included with the submittal of your Site Plan Review application package. Provide an explanation for any item indicated as Not Included or Not Applicable. Failure to provide required documentation may result in your Site Plan Review application being rejected.*

Upload this completed document and the following required Site Plan materials to your Electronic Plan Review project.

Item	Yes	No	N/A	Comments:
<b>Site Plan Review Application</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Application Fee (check or credit card)—</b> \$525 for first 10,000 sf of disturbance, plus \$210 for each additional 10,000 sf increment of disturbance for expansions or parcel area for new construction. Additional fees may apply, e.g. TDMP, Flood Plain, Steep Slopes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Application fee will be paid once project is set up in PDox and invoice is distributed to project team
<b>Project Description/Overview—</b> Narrative description of the project, project contacts and design professionals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Location Map—</b> Map of the proposed development within the City	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Certified Survey—</b> Including existing conditions such as property lines, easements, buildings, utilities, parking, sidewalks, driveways, landscaping, wetland, park land	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Demolition Plan—</b> Including private property and public realm removals, utility cuts, tree protection measures	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Erosion Control Plan—</b> Including measures such as silt fences, inlet protection, rock construction entrance and street cleaning, stormwater pollution prevention plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Site Layout and Paving Plan—</b> Including proposed buildings, dimensions, and other appropriate labels. Consider Zoning design and dimensional standards.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<b>Grading Plan—</b> Including existing and proposed conditions, 1' contours and elevation points, ponding areas for storm water detention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Utility Plan—</b> Including water lines, hydrants, fire department connections for sprinklers, catch basins with rim and invert elevations, sanitary and storm lines	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Landscaping and Site Improvements—</b> Existing and proposed conditions including planting schedule and details, streetscape features (e.g. lighting, fences, sidewalks, poles)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Architectural Plans—</b> Building elevations, basic floor and parking level plans, roof plans including drainage and mechanical screening	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Exhibits—</b> As needed, e.g., vehicle turning movements, site triangles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>HydroCAD and Drainage Maps—</b> As needed to meet stormwater rate control requirements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Travel Demand Management Plan (TDMP)—</b> For development of 100+ off-street parking spaces, or 100+ spaces existing and increase of 25% or 50 parking spaces	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There are no parking spaces being added for this project, therefore no TDMP provided.
<b>Traffic Memo or Traffic Impact Study—</b> As requested by Public Works Transportation Planning and Safety	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Traffic analysis completed as a part of the Environmental Assessment Worksheet (EAW) process and included for reference
<b>Floodplain Application—</b> Flood Response Plan required for development within the River Corridor Critical Area or flood plain	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



# LEE AND PENNY ANDERSON MULTIPURPOSE ARENA



# MAIN ENTRY APPROACH FROM NORTH CAMPUS

DRAFT AND SUBJECT TO CHANGE



# NORTH QUADRANGLE

DRAFT AND SUBJECT TO CHANGE



# MAIN ENTRY APPROACH FROM STEAM

DRAFT AND SUBJECT TO CHANGE





# MAIN ENTRY

DRAFT AND SUBJECT TO CHANGE



# NORTHWEST CORNER

DRAFT AND SUBJECT TO CHANGE



# APPROACH FROM SEMINARY

DRAFT AND SUBJECT TO CHANGE



# APPROACH FROM GROTTO

DRAFT AND SUBJECT TO CHANGE



# APPROACH FROM SOUTHWEST CORNER

DRAFT AND SUBJECT TO CHANGE



# SOUTH ATHLETIC FIELDS

DRAFT AND SUBJECT TO CHANGE



**CITY OF ST. PAUL**

**UNIVERSITY OF ST. THOMAS**

*Lee & Penny Anderson Multipurpose Arena*

**Ryan Companies US, Inc.**

SITE PLAN REVIEW NARRATIVE

~~September 8, 2023~~

~~November 6, 2023~~

~~January 19, 2024~~

**March 1, 2024**

## Contents

Project Contacts and Design Professionals: .....	1
Project Overview .....	2
Zoning.....	2
Building .....	3
Transportation.....	7
Utilities .....	13
Stormwater Management.....	17
Landscaping.....	17

<b><u>Exhibits</u></b>
Exhibit 1: Multipurpose Arena EAW
Exhibit 2: CUP Setbacks & Heights
Exhibit 3: Conceptual Renderings
Exhibit 4: Vehicle Movements
Exhibit 5: Stormwater Report
Exhibit 6: TDM Form
Exhibit 7: Pedestrian Access
Exhibit 8: Hydrant Coverage
Exhibit 9: Stormwater Management Plan Summary
Exhibit 10: NPDES Permit
Exhibit 11: APF Access Addendum
Exhibit 12: APF Access Letter
Exhibit 13: APF Improvements
Exhibit 14: Temporary Construction License Agreement

## Project Contacts and Design Professionals:

Jim Brummer  
 University of St. Thomas  
 VP for Facilities Management  
 651-962-6595  
[jim.brummer@stthomas.edu](mailto:jim.brummer@stthomas.edu)

Ben Bourgoin  
 Ryan A+E, Inc.  
 Senior Project Architect  
 206-914-7161  
[Ben.Bourgoin@RyanCompanies.com](mailto:Ben.Bourgoin@RyanCompanies.com)

Anthony Adams  
 Ryan A+E, Inc.  
 Senior Civil Engineer  
 612-492-4741  
[Anthony.Adams@RyanCompanies.com](mailto:Anthony.Adams@RyanCompanies.com)



## Project Overview

The Lee & Penny Anderson Multipurpose Arena Project (Project) is a proposed redevelopment of an approximately six-acre portion of the University of St. Thomas (St. Thomas) South Campus bordered by Summit Ave to the north, Cretin Ave to the east, Goodrich Ave to the south, and Mississippi River Blvd to the west. The Project will include a multipurpose competition venue for St. Thomas' hockey and basketball programs with capacity for approximately 4,000 to 5,500 spectators. The Project also includes practice facilities, coaching offices, locker rooms, and student athlete support services and will host other university events such as commencement ceremonies, academic convocations, speakers, and career fairs.

The Project is expected to begin construction in January of 2024 with project completion in August of 2025 so the venue can be utilized for the 2025-2026 hockey and basketball seasons. There are three existing buildings (McCarthy Gymnasium, Service Center, and Cretin Residence Hall) with adjacent surface parking lots that will be demolished on site with early utility infrastructure work required at the start of the project before the existing buildings can be removed. The Facilities and Design Center will adjoin the proposed building directly to the north and there will be some minor improvements to the Anderson Parking Facility for electrical and parking circulation needs. No new parking stalls will be added as a part of the project and the building will be designed to meet a LEED Silver rating.

Based on the proposed capacity of the Project and Minnesota Rules, part 4410.4300, subpart 34 (sports or entertainment facilities), an Environmental Assessment Worksheet (EAW) process was undertaken and was completed on September 26, 2023. This document is included as Exhibit 1 to the site plan review application. Exhibit 1 has been updated from the original SPR submittal to include the Findings of Fact and the EAW Mitigation measures that are required for the project.

## Zoning

### Site

The approximately 28-acre site is located southwest of the intersection of Summit Ave and Cretin Ave with a parcel ID number of 052823420005. The existing zoning of the parcel is R2 One-Family Residential which provides for an environment of predominantly low-density, one-family dwellings along with civic and institutional uses. Colleges and universities are a conditional use within the zoning district requiring a conditional use permit. The site is within a student housing neighborhood overlay district which is set up to improve the conditions of student housing near the area and preserve the character of the predominantly one- and two-family dwelling neighborhoods. The site is currently located within the Mississippi River Corridor Critical Area (MRCCA) Overlay District, specifically the RC3 River Corridor Urban

Open Overlay District. The City of St. Paul (City) is in the process of adopting new MRCCA zoning regulations which would put the site in the CA-RTC River Towns and Crossings District.

### **Conditional Use Permit**

St. Thomas currently has a conditional use permit, initially established in 1990, revised in 1995, and again in 2004 with the purpose of campus boundary expansion. The permit establishes certain setback and maximum height requirements which are shown in Exhibit 2. For the proposed Project location, all building setbacks are met since the building location is towards the center of the south campus parcel. The building crosses within two height limitations of 75' towards the middle of the site and 60' towards the eastern edge of the site, which the Project complies with in both locations. The heights of the various portions of the building are shown in the architectural elevation plans sheets.

## **Building**

### **Building Programming**

The multipurpose arena building is proposed as a four-story structure with an underground service level. The primary uses are for St. Thomas' men's and women's hockey and basketball programs but also have support services for their men's and women's soccer as well as their women's softball programs who utilize the South Athletic Fields to the southeast of the arena location.

The service level, or basement level, of the building is approximately 14' below the event level and includes mechanical and maintenance rooms set off a utility tunnel. The utility tunnel connects to an existing utility tunnel near the west side of the Facilities and Design Center, which stretches to Owen's Science Hall and the Schoenecker Center, and is set up to extend south of the arena for potential utility extensions in the future. There is an area well, accessed from above through a hatch in the loading court, at the southern end of the utility tunnel to move equipment in and out of the service level.

The event level is considered the main floor level of the building and is broken up into two distinct halves. The western portion of the event level includes the main entry for visitors, reflected with a north entrance vestibule and lobby, large stairs up to the concourse level, and the main arena floor south of the stairs. Surrounding the main arena floor at the north end, on the west side are the visiting team entrance and locker rooms and on the east side is a club lounge. To the west of the main arena floor are the shared athletic team facilities such as cardio, strength training, equipment storage and athletic training/rehabilitation rooms. To the east of the main arena floor are hockey team lounges, locker rooms, and shared team spaces. To the south of the main arena floor are operations support spaces including event storage, loading dock and ice support. The eastern portion of the event level of the building includes a north team entry and

administration offices. Further south is the double height basketball practice court, basketball locker room, and shared team space. To the east of this practice court are the women's softball team and locker room spaces. Continuing to the east are operations support for recycling and trash, as well as an entry vestibule for the auxiliary ice rink. The auxiliary ice rink lies to the south of the basketball practice court and includes pro shop retail, skate rental, and locker rooms to support the auxiliary ice rink space.

The next level above the service level is the concourse level. The western portion of the concourse level of the building includes an extension of the lobby space below and main circulation space around the arena. There is a main retail area in the northeast corner, four main concession spaces in each corner, with numerous restrooms around the arena bowl. At center court (or center ice), on the west is a broadcast booth and on the east side is a concourse lounge space. The eastern portion of the concourse level of the building includes additional restrooms, basketball team offices, and shared spaces. To the east of the open to below basketball practice court are the men's and women's soccer shared team and locker room spaces. To the south of the open to below basketball practice court is seating for the auxiliary ice rink with dedicated restrooms and concessions, as well as the open to below auxiliary ice rink.

The next level above the concourse level is the club level. The western portion of the club level of the building includes club lounge spaces at the north end of the arena bowl. At the west side of the arena bowl are hockey administrative and office spaces. To the south of the arena bowl are media, press and broadcasting support spaces. A production kitchen to the southeast of the arena bowl serves the suites on the east side of the arena bowl, with a center court club lounge space. The eastern portion of the club level of the building includes a second double height basketball practice court with basketball team offices and shared spaces. To the east of this basketball practice court are shared team and administrative spaces for the soccer and softball teams.

The next level above the club level is the upper level. The western portion of the upper level of the building is a catwalk platform for the arena operations. The eastern portion of the upper level of the building includes offices and shared team spaces for a second basketball team.

### **Building Presentation**

The proposed four-story multipurpose arena terminates the visual axis of Grand Ave with a prominent gable end centered on its path. The limestone mass of the north façade faces the newly established South Campus quadrangle and presents two symmetrical stone tower elements surrounding a central glass entry volume that stretches from the ground up to the third floor. At the base of the north towers, cast stone accents and buttresses tie the architecture surrounding the contemporary glass entry piece back to the collegiate gothic legacy of the site and context. Just inside the main entry a two-story lobby draws occupants up flanking terrazzo stairs to the concourse level with views into the arena bowl. At the eastern edge of the north façade the

building steps back to connect to the existing Facilities and Design Center – here a two-story glass atrium provides an athlete entry and a counterpoint to the connection between the new Schoenecker Center and O’Shaughnessy Science Hall that occurs directly to the north on the same South Campus quadrangle.

Along the west side of the main arena body an arcade of tall cast stone pointed arches frame the views to the St. Paul Seminary property and the Grotto in a field of ashlar Kasota limestone. The arcade steps out from the façade above, creating a more pedestrian scale along this edge that addresses the smaller scale of the adjacent St. Paul Seminary site while alluding to the single-story aisles projecting from at the sides of St. Mary’s chapel. Above the arcade the concourse and club level façade at the west side steps back 20 feet to reveal alternating stone buttresses and punched two-story windows that look out to the Mississippi River corridor and Minneapolis beyond. At the center of this elevation, a double gable breaks down the massing into three distinct parts and highlights the interior premium spaces at center ice and center court.

The southwest corner of the new arena is chamfered to create relief from the existing contemplative campus space of the Grotto and provides a tower element that negotiates between the long linear west façade and the more undulating mass of the south façade. Three two-story cast stone pointed arches anchor the center of the south arena elevation and step back at the third and fourth floor to help break down the scale of this elevation to match heights of adjacent buildings. The limestone and cast stone accents continue along the south elevation and terminate in a tower that abuts the lower auxiliary ice rink on the southeast corner of the arena complex. The auxiliary ice and basketball practice courts rising above it to the north are comprised of architectural precast panels with shallow relief, which are tinted to match the adjacent Kasota limestone field colors. Chamfered precast piers create a rhythm of column bays between the precast panels on the exterior that is book ended on the east by a Kasota limestone end bay with a cast stone pointed arch set within it.

The east façade of the arena complex marches along the alley facing the existing Anderson Parking Facility and is composed of a mix of tinted precast panels along the auxiliary ice rink, transitioning to vertical standing seam metal panel at the three-story mass that abuts the stacked basketball practice courts. This standing seam metal façade is punctuated by storefront windows and attaches at the north end to the metal panel façade of the existing Facilities and Design Center along Grand Ave.

Exhibit 3 includes conceptual renderings reflecting the proposed building design.

## Building Exterior Materials

In keeping with the collegiate gothic style and traditional building materials of the surrounding campus and neighborhood, the exterior building materials will include:

- Ashlar Kasota limestone cladding in a running bond pattern of repeating courses.
- Cast limestone parapet caps, window surrounds, watertable, and architectural accents.
- Precast architectural concrete panels tinted to match Kasota limestone field color.
- Aluminum composite profiles and accents.
- Vertical standing seam metal wall panel.
- Aluminum Curtainwall & Storefront with clear, low-iron double glazing.
- Slate colored clay tile sloped roof at north façade.

## Square Footage Breakdown

<u>Approximate Square Footage</u>		
<b>Service Level Total:</b>	<b>10,550</b>	<b>SF</b>
<b>Event Level Total:</b>	<b>125,813</b>	<b>SF</b>
<b>Concourse Level Total:</b>	<b>58,937</b>	<b>SF</b>
<b>Club Level Total:</b>	<b>49,573</b>	<b>SF</b>
<b>Upper Level Total:</b>	<b>3,313</b>	<b>SF</b>
<b>Total GROSS SF:</b>	<b>248,186</b>	<b>SF</b>

## Transportation

### EAW Transportation Study

A detailed transportation study was completed within the Multipurpose Arena EAW which included analysis of existing conditions, proposed conditions for both non-event and event periods, and strategies and considerations for improvements to parking and operations of the arena. See Exhibit 1, Appendix A June 2023 EAW, and Appendix D Traffic Impact Analysis within. The existing conditions analysis included collecting traffic data at key study intersections, analyzing the existing roadway characteristics from an operations and safety perspective, and existing parking analysis. The proposed conditions analysis included collecting data on anticipated event dates and times, operational analysis during event periods, and proposed parking analysis during both non-event and event conditions.

Mitigation measures were recommended within the EAW Findings of Fact and are listed in the early pages of Exhibit 1. The mitigation measures related to transportation, required prior to the issuance of certificate of occupancy for the arena, are copied here for reference and include:

- St. Thomas has agreed to monitor event attendance, traffic, and parking for no less than two operational years after the Multipurpose Arena is occupied.
- Event Traffic Management: St. Thomas has agreed to develop, in consultation with Saint Paul PD and Public Works, an Event Traffic Management Plan, including strategies for

traffic control. The plan will tie specific strategies to event size and timing. In addition to collegiate hockey and basketball, the plan will also cover any other planned/potential events at the Multipurpose Arena.

- **Parking Management:** St. Thomas has agreed to establish incentives for the use of public transportation and/or rideshare when attending events at the Multipurpose Arena. St. Thomas will also implement reasonable parking system applications to inform patrons what lots are sold out/full for major events to encourage the use of transit, rideshare or carpool, and will provide off-site parking and shuttle service to provide alternatives to on-campus parking when large events occur at the Multipurpose Arena.
- **Non-sporting Events.** St. Thomas has agreed to maintain a list of potential events other collegiate sports to be held at the arena, including the type, number, frequency, and timing of such events.
- **Community Engagement.** St. Thomas will work to keep the community informed of upcoming events through the neighborhood relations website <http://www.stthomas.edu/neighbors> as well as provide regular communications from the email list-serve. A dedicated email can also be used for neighbor concerns at: [neighbors@stthomas.edu](mailto:neighbors@stthomas.edu).

Since completion of the transportation study, pedestrian access assumptions to and from the Anderson Parking Facility (APF) have changed. Exhibit 11 includes the APF Access Addendum which evaluates the event operations expected with the current APF access assumptions and recommend mitigation improvement/strategies to address any issues, if necessary. Mitigation measures recommended from the APF Access Addendum include crossing pedestrians at the Cretin/Grand Ave intersection by closing the sidewalk on the south side of Grand Ave, widening the existing pedestrian facilities and crossings on the west side of the Cretin/Grand Ave intersection, and providing incentives to arrive early or stay late before and after an event.

Widening of the existing pedestrian facilities and crossings on the west side of the Cretin/Grand Ave have been incorporated into the project plans and Exhibit 12, which is a letter from UST stating a commitment to APF modifications in the future if arena operations become problematic, has been included as well. A graphic at the end of the letter shows how a skyway connection from the arena to the APF ramp could be constructed in the future if operational problems occur. Further refinement of the potential mitigation strategies is expected during the Event Traffic Management plan process mentioned in the EAW mitigation section above.

Further information related to the transportation elements of the arena project can be found in the sections below.

### **Travel Demand Management Plan**

The proposed project meets the thresholds requiring a Travel Demand Management Plan (TDMP) with 20,000 square feet or more of new construction proposed. The TDM Form was filled out with the project information and can be viewed in Exhibit 6. No TDM strategies are required based on the applicable point target and the parking provided by the arena project, since the arena project is not adding any new parking stalls. However, St. Thomas does enact many strategies across their campus already that will benefit the arena project, such as subsidizing metro transit bus passes for their employees and will have more than the required bike parking for the project adjacent to the arena project.

### **Grand Ave Access**

There is an existing South Campus site access at the intersection of Cretin Ave and Grand Ave consisting of a stop light-controlled intersection. This access is the primary vehicular entry into South Campus and extends west into the site to connect with an access drive extending north to Summit Ave. As a part of the Project, the Grand Ave access point is proposed to culminate internal to the site with a vehicular turnaround adjacent to a new plaza to continue vehicular access for critical campus needs, but to prioritize pedestrian travel near the main arena entry and the south edge of the South Campus quadrangle. Vehicular access will be maintained to the Anderson Parking Facility entry on the north face of the ramp, to the reconstructed alley west of the ramp that will continue to house the university's recycling operations, to the Facilities and Design Center loading doors on both the east and west sides of the building, and to the Owen's Science Hall loading dock on the south side of the building. Surmountable curb is proposed along the edge and center of the turnaround to provide flexibility for accessing the plaza with maintenance/grounds vehicles, vehicles that infrequently need to access the west Facilities and Design Center loading door, and fire truck access.

Providing traffic control officers and/or constructing an eastbound left turn signal at the Cretin Ave and Grand Ave intersection was identified as a potential mitigation measure in the EAW Transportation Study to help manage post event traffic conditions. City Staff has communicated that signal improvements are required at this intersection and the project team is coordinating with staff on scope and timing of the signal improvements. Note that St. Thomas has committed to utilizing traffic control officers for all men's hockey and men's basketball events, which are the events anticipated to draw the highest attendance.

### **Southeast Cretin Access**

A new site access to South Campus is proposed near the southeast corner of the Anderson Parking Facility connecting out to Cretin Ave. This access will be used temporarily as a construction access during construction of the Project but will remain as a service access only for vehicles accessing the multipurpose arena and Grace Residence Hall. Buses and shuttles for arena operations may use this access point for entering and/or exiting, with specific routes to be

identified through the Event Traffic Management Plan process required for the project. All other arena vehicles will utilize either the Grand Ave access point or Summit Ave access point to access the site. Service vehicles leaving the Schoenecker Center project will utilize the new southeast Cretin Ave access, but vehicles driving to the Schoenecker Center will continue to use the Summit Ave entrance as previously designed and approved. Service access to Brady Education Center and Binz Refectory will continue to operate from Goodrich Ave to the south through an existing access point. Reconstruction of the north edge of the South Athletic Fields and the softball bullpens was previously proposed, but the design moving forward is to leave the existing fence and bullpens in place.

The southeast Cretin Ave access point is offset from the Cretin Ave and Lincoln Ave intersection, however due to existing site elements including the existing softball and soccer fields, the access point is not able to be shifted any further to the south at the present time. The university has purchased land elsewhere within St. Paul to improve their softball facilities, which may allow them to modify the current softball field layout, but a project is not yet funded on that land. Realignment of the southeast Cretin Ave access point may be possible in the future to align with Lincoln Ave, but that is to be determined based on future campus improvements. With the infrequent use of this access point and controlling it for service vehicles only, the project team believes this offset is acceptable. The width of the access point was reduced to 30' in the latest design to reduce the width as it connects to Cretin Ave and surmountable curb is proposed where it meets Cretin Ave so that it doesn't feel like a typical driveway apron but still allows for service vehicle access. The alignment was also straightened out to adjoin Cretin Ave at a more perpendicular nature than what was previously in the design. The size of the access point is based on a WB-40 vehicle to turn into the access point traveling southbound on Cretin Ave and staying within its own lane. See Exhibit 4 for updated turning movements and the Deliveries section below for more information on size and frequency of loading vehicles.

The access point is proposed to be managed through signage and a new gate arm located at the southeast corner of the Anderson Parking Facility. St. Thomas plans to restrict the use of the southern parking lot for loading from approximately 7-9am (may be a smaller window of time) and for general campus parking from 9am-11pm. On event days, the lot will be closed from two hours before the event to two hours after the event for event staff only. Note there is a second gate arm in the northwest corner of the southern lot to help control access from that side during loading hours (so that other campus vehicles don't enter the lot during loading periods). The gate arm near Cretin Ave will always be down to deter normal vehicular traffic from utilizing the access point. Service vehicles will be able to pull up to a card reader and intercom system to either raise the gate arm up themselves (via a badge for reoccurring scheduled deliveries) or to connect via phone with campus security to be allowed in (for special loading occurrences). Leaving the loading area, the same procedure will be followed. Signage will be placed internal to the site adjacent to the access point to identify access for service vehicles only. The stacking



distance in front of the gate arm allows for a WB-40 vehicle to be parked fully within the UST site without blocking any component of the right of way.

### **Summit Ave Access**

There is an existing site access that connects to Summit Ave along the split property line of St. Thomas' South Campus and the St. Paul Seminary property. This access is proposed to extend along the western edge of the arena project to connect with the south arena loading area and continue out to Cretin Ave through the new southeast Cretin access point. A turnaround is provided at the southern end of this access drive in the southwest corner of the arena for shuttles and visiting team buses to utilize the proposed drop off area along the western edge of the building, which is adjacent to the visiting team locker rooms. As mentioned in the Southeast Cretin Access section above, specific routes for buses and shuttles will be determined through the event management plan process, **but this the western drop off is anticipated to be the location for drop off and pick up with space for 10 buses to queue post-game.** This turnaround will also be used by vehicles looking to access the southern lot during hours that it is closed, such as loading hours or event hours **when the gate arm is down**, so they have a way of returning up to Summit Ave. Existing Seminary parking stalls will either remain or be reconstructed as a part of the Project along that western drive.

### **Pedestrians**

Pedestrian access to the multipurpose arena is expected to occur mostly from the northeast towards North Campus (crossing at the Cretin Ave and Summit Ave intersection), from the east towards the West and East blocks of campus (crossing at the Cretin Ave and Summit Ave intersection or the Cretin Ave and Grand Ave intersection, depending on where they have parked), or from the Anderson Parking Facility directly to the east of the arena. The route from North Campus will utilize existing sidewalk infrastructure in place running between Owen's Science Hall and O'Shaughnessy Science Hall which connects into the South Campus quadrangle leading right up to the main entry of the arena on the north side of the building through a reconstructed sidewalk to align with the main arena entry doors. The route from the West and East blocks will utilize existing sidewalk infrastructure in place as described above (if coming from the Cretin Ave and Summit Ave intersection) or running along the north edge of the private Grand Ave extension (if coming from the Cretin Ave and Grand Ave intersection) connecting into the new north arena plaza leading up to the front door of the arena. The route from the Anderson Parking Facility will be through the northeast stair tower routing, crossing Grand Ave along the western side of the Cretin & Grand intersection, and utilizing **expanded** sidewalk infrastructure along the north edge of the private Grand Ave extension to enter the north arena plaza. A future pedestrian bridge is contemplated in the design between the Anderson Parking Facility and the arena building but is not proposed to be constructed at this time. **Exhibit 12 includes a graphic of how the skyway connection could be constructed in the future.** All routes will also serve as access to the athlete entry just west of the Facilities and

Design Center as well. Exhibit 7 has been added to show the intended pedestrian access to and from the arena pre and post event.

The sidewalk infrastructure in place for the pedestrian routes described above is of sufficient size for the expected number of pedestrians for both pre and post event, ranging in size from 8'-12' in width. This was investigated for a 10-minute window post event, as that will have the highest volume of pedestrians at one time, for the key pedestrian locations but will continue to be analyzed through the Event Traffic Management Plan process as well. If pedestrian routes change through the Event Traffic Management Plan process, the project team will recheck the calculations to ensure the sidewalk widths are adequate for the intended pedestrian volumes. Sidewalk infrastructure internal to the site is proposed to be adjusted from existing conditions to make connections west to the St. Paul Seminary site, southwest to the existing Grotto, south to Brady Education Center, Grace Residence Hall, and Binz Refectory, and southeast to the South Athletic Fields.

The EAW Transportation Study recommended to monitor the pedestrian crossing at the Cretin Ave and Goodrich Ave intersection for heavy usage, safety issues, or yielding issues during pre and post event conditions. City Staff has communicated that pedestrian bumpouts are required at the intersection along the east side of Cretin Ave, both north and south of Goodrich Ave. The project team has incorporated bumpouts in the latest version of the design.

### **Bicycles**

Bike parking exists within the South Campus near the arena building in the following locations: near the northeast and northwest corners of the South Campus quadrangle (installed through the recently constructed Schoenecker Center project), within the southwest corner of the Anderson Parking Facility, along the east and west sides of Grace Residence Hall, and near the north side of Binz Refectory. Overall, there are over 1,200 bike parking spaces within St. Thomas' campus.

The northwest South Campus quadrangle bike parking is proposed to be relocated to the western edge of the southern quadrangle and the quantity increased to account for added arena bike parking (24 added stalls). Bike parking is proposed to be added near the southeast corner of the quadrangle, or northeast arena plaza, near the Owen's Science Hall loading dock (30 stalls) as well for a total of 54 proposed bike stalls.

Bike lanes exist on Mississippi River Blvd to the west, Summit Ave to the north, and Cleveland Ave a few blocks to the east of the proposed arena project. Bike traffic is expected to use the Summit Ave bike lanes and the diagonal sidewalk infrastructure that exists running from the Cretin Ave and Summit Ave intersection down to the main entry to the arena on the north side. Bicyclists can then decide to use the proposed bike racks north of the main arena entry or the

bike racks near the northeast arena plaza depending on if they are attending an event or traveling to the arena for practice/training. Bicycle use is not anticipated to be a large volume during the winter months when many of the events are occurring.

## **Parking**

In summary the Project is proposing to lose approximately 265 surface parking spaces. From a non-event perspective the loss in surface parking spaces is still expected to provide a surplus of parking within the broader St. Thomas campus at the peak period. Parking operation considerations and strategies to help decrease parking demand were further outlined in the EAW Transportation Study. From an event perspective, the loss in surface parking spaces in addition to the high-volume parking uses that events require, there is expected to be a deficit of parking spaces during high attendance events with a parking surplus during typical events. These conditions vary depending on the day and time of the event, as there is generally more parking available closer to the weekend and in the evenings when regular classes are not occurring on campus. These high attendance events are also anticipated to occur infrequently. Potential mitigation strategies and improvements focused on event periods were further outlined in the EAW Transportation Study.

Lot O, which is the existing parking lot north of Binz Refectory and east of Grace and Cretin Residence Halls, is partially to remain in a reconfigured striping to allow for arena loading movements but still provide some parking directly adjacent to the southern campus uses. Approximately 50 parking spaces will be restriped for permanent parking use. A gate arm is proposed on the western side of the lot to mirror the one proposed at the southeast corner of the Anderson Parking Facility as explained in the Southeast Cretin Access section above. Operations of this parking lot on non-event days is anticipated to be restricted for loading use between approximately 7-9am, general parking for campus staff/student use from 9am-11pm, and closed from 11pm-7am. These restrictions will be communicated through signage and St. Thomas' parking webpage and is representative to how most parking lots on campus are operated. Operations on event days would remain the same, except the parking lot would be reserved two hours prior to the event through two hours after the event for arena specific uses such as coaches, arena staff, media, etc

There are six existing St. Paul Seminary parking stalls along the western access drive that are proposed to be reconstructed into seven parking stalls due to grading and utility impacts. The existing Seminary monument needed to be removed for utility installation, so it is going to be relocated elsewhere on the Seminary property (final location to be determined) and seven additional stalls will be constructed for a total of 14 stalls in this area.

## **Deliveries**

The loading dock for the multipurpose arena is proposed on the southern edge of the building and includes one drive-in door and one standard loading dock door. Access to the loading area is proposed to and from the new southeast Cretin Ave access. The design vehicle for this access drive is a WB-40 semi-truck with an expectation that SU-30 and SU-40 box trucks will use the access as well. It is anticipated the above vehicles will service the arena approximately three times per week. Any larger semi-truck vehicles (WB-50, WB-67), if needed, could utilize other loading areas on campus such as the Anderson Student Center or will utilize the Grand Ave access point on a special basis. Deliveries for those large vehicles are expected infrequently and can be accommodated on an as-needed basis. Trash and recycling trucks are expected approximately one time per week. Refer to Exhibit 4 for proposed truck turning movements.

## **Trash, Recycling, and Compost Operations**

Trash, recycling, and compost from the arena will be stored within the arena building and picked up through the primary loading area off the south edge of the arena through the standard loading dock door. The university currently has their own trash, recycling, and compost operations (referenced here as the recycling center) within the alley between the Anderson Parking Facility and McCarthy Gymnasium. This recycling center is proposed to be reconstructed as a part of the project and will continue to operate in the same approximate location. Trash, recycling, and compost from the arena will be picked up at the southern loading dock door with the university's Kubota vehicles with a trailer and brought to this reconstructed recycling center as is done for the other buildings on campus, utilizing internal roadways and access drives. Access to and from the recycling center is expected to be from the Grand Ave entrance and down the alley to the recycling center location. It is estimated these trash, recycling, and compost compactors will need to be emptied approximately once per week.

## **Auxiliary Ice Sheet Access**

Access to the auxiliary ice sheet for external users, such as smaller varsity sport events or community use, will be through the doors on the east side of the building within the alley adjacent to the Anderson Parking Facility. A drop off area internal to the Anderson Parking Facility will be striped in place of existing parking stalls to allow drop offs specific to the auxiliary ice sheet use. See Exhibit 13 for this proposed drop off striping. There will also be short term parking adjacent to the drop off area as well in case users of the auxiliary ice sheet need help unloading equipment, specific stall locations to be determined. A small external stair and ramp are proposed to be added to the exterior of the Anderson Parking Facility to accommodate the grade difference between the Anderson Parking Facility first floor and the arena first floor elevations.

For external users of the auxiliary ice sheet arriving by vehicle, St. Thomas will communicate where visitors are expected to park and drop off within the Anderson Parking Facility to ensure

this access is utilized. For external users not arriving by vehicle to the auxiliary ice sheet, such as people walking, biking, or taking transit, they will enter campus through one of the pedestrian pathways described in the Pedestrian section above and walk through the first level of the Anderson Parking Facility to access the eastern door. This communication will be sent out through correspondence to the entity renting or using the auxiliary ice sheet space in advance of the event. External use of the auxiliary ice sheet will not be available during events in the main arena to ensure the Anderson Parking Facility is accessible for external users. For university users of the auxiliary ice sheet, such as players or coaches that are walking from other parts of campus, access will be provided through the player's entry on the north side of the arena and routed through the arena building.

## Utilities

### **Phasing**

Historically utilities for South Campus were brought into either the Service Center building or McCarthy Gymnasium and then were routed to the surrounding buildings within the site. The recently constructed buildings north of the Grand Ave access have been constructed to be less reliant on those two buildings, but the existing buildings south of the Grand Ave access and west of the Summit Ave access drive generally maintain reliance on those two buildings for services. For the Service Center and McCarthy Gymnasium to be removed for construction of the multipurpose arena building, utility reconnections need to occur which has led the project team to start with an early utility phase of the project.

The early utility phase of the project is expected to start in early Jan 2024 and will primarily consist of watermain, steam and condensate, and electrical utility installations to maintain service to the adjacent South Campus buildings while the Service Center and McCarthy Gymnasium are getting demolished. Other infrastructure required to service the arena building or caused to be rerouted because of the arena building which conflict with the watermain, steam and condensate, or electrical infrastructure will also be constructed in the early utility phase so that the project team is not negatively impacting recently installed utilities in later phases of the project.

### **Watermain**

The existing watermain for South Campus has three connection points to exterior water infrastructure. The first is to an 8" DIP watermain within Goodrich Ave south of the Binz Refectory. A service extends north to the Binz Refectory, routes between Binz and the South Athletic Fields, and runs along the east side of Grace and Cretin Residence Halls eventually tying into the Service Center. The second is to a 16" cast iron pipe within Cretin Ave. A service extends under the access at Grand Ave north of the Anderson Parking Facility and the Facilities and Design Center eventually tying into the Service Center. The third is to an 8" cast iron pipe within Summit Ave. A service extends into the St. Paul Seminary property running along the

east side of the School of Divinity and turning east to tie into the service coming from Goodrich Ave before entering the Service Center.

For the Service Center to be removed for the multipurpose arena project, a watermain loop is proposed to connect the service from Cretin Ave to the service from Goodrich Ave around the north, west, and south sides of the new arena footprint. This is proposed as an 8" DIP line which the majority will be installed in the early utility phase. The portion connecting to the Cretin Ave service around the north and west sides and tying into Brady Education Center will be installed in the early utility phase, with the connection from Brady Education Center to the existing Goodrich Ave service occurring later in the project to allow for an existing steam service to remain for a temporary period. A small modification to the Schoenecker Center service will be required for this reroute as well. Connection to the line extending up to Summit Ave will be severed to separate the university service from the St. Paul Seminary service.

The proposed arena project will have an 8" fire service and an 8" domestic service entering the building on the south side of the arena at different locations. Two fire hydrants are proposed around the site to provide coverage for the new arena and the surrounding buildings. The fire department connection is proposed along the northeastern face of the building for convenient access to the primary South Campus entry at the Grand Ave intersection. Fire truck access is provided around the north, west, and south sides of the building with access from Cretin Ave at two locations and the Summit Ave site access. Exhibit 8 has been provided to show hydrant coverage, the fire truck access around the site, and the fire truck information that was used for running the turning movement.

### **Low Pressure Steam and Condensate**

The existing low-pressure steam and condensate for South Campus originates in Owen's Science Hall and is distributed to the Schoenecker Center building and south to the existing Service Center building through underground utility tunnels. At the Service Center, the steam branches off to the west and the south. These branches are routed in existing utility tunnels to serve the existing School of Divinity, Ireland Library, and Cretin Residence Hall to the west, and Brady Education Center, Binz Refectory, and Grace Residence Hall to the south. Condensate pumps are in each of these buildings and pump condensate back to the Service Center where it is ultimately pumped backed to the Owen's Science Hall steam boilers.

For the Service Center to be removed for the multipurpose arena project, low pressure steam and pumped condensate pipes will need to connect the existing steam pipes within the utility tunnel system from Owen's Science Hall around the north, west, and south sides of the new arena footprint. This is proposed as insulated, double steel wall pipe with an HDPE coating, similar to a Perma Pipe Multi Therm piping system or equal product. The majority will be installed in the early utility phase. The portion connecting to the existing utility tunnel from Owen's Science

Hall will route around the north, west, and south sides of the arena footprint, tying into a new manhole set within a separate existing utility tunnel east of Grace Residence Hall. This 8” steam and 2” pumped condensate piping run will be constructed in the early utility phase. This includes connection to the existing School of Divinity Bunker underneath the west access drive. An existing steam line stretching from Brady Education Center to the existing utility tunnel east of Grace Residence Hall will remain. Steam manholes are typically 4’ diameter manholes that open to 8’x8’ concrete bunkers where the steam piping and traps can be accessed for servicing. There are approximately 3 of these manholes for the steam system.

### **Electrical**

The existing electrical service for South Campus has five connection points to exterior electrical infrastructure, all of which connect to existing overhead electrical poles along the west side of Cretin Ave. The services include a service that enters McCarthy Gymnasium (Service #1), a service that enters the Anderson Parking Facility (Service #2), a service that enters Owen’s Science Hall (Service #3), a service for the MicroGrid (Service #4), and a service for the Schoenecker Center (Service #5).

For McCarthy Gymnasium to be removed for the multipurpose arena project, Service #1 must be rerouted to connect to the southeast corner of the Anderson Parking Facility within a separate electrical room than Service #2. From the new electrical room within the Anderson Parking Facility, the electrical service will extend west along the south edge of the arena and then north along the west edge of the arena to refeed all the buildings south of the Grand Ave connection and the St. Paul Seminary buildings. The electrical service is proposed to be run within a concrete encased duct bank with two, four, or six conduits depending on location. Existing conduit running down to the Binz Refectory and Grace Residence Hall will be reused as well as existing conduit running towards the St. Paul Seminary buildings. Electrical manholes are typically 8’x8’ in size with an 8’ depth, with one manhole deeper in elevation due to the crossing of an existing tunnel.

### **Sanitary Sewer**

The existing sanitary sewer for South Campus has multiple connection points to exterior sanitary infrastructure. The services that are relevant to the multipurpose arena project include an 8” connection from Cretin Residence Hall that runs through the Seminary property up to Summit Ave and a 6” connection from the Facilities and Design Center that leads into an 8” connection from McCarthy Gymnasium that connects out to Cretin Ave. The existing sewer line within Summit Ave is an 18” vitrified clay pipe (pipe was lined back in 2007) and the existing sewer line in Cretin Ave is 20” pipe.

The proposed arena project will have three sanitary sewer service connections to the building, all 8” in size. The first is in the northwest corner of the arena that will run under the western access

drive up to Summit Ave to separate the sewer service of the building from the St. Paul Seminary utilities. The connection to the existing Summit Ave pipe will be through a new manhole connection. The second is on the southern end of the arena that will run east under a portion of the new southeast Cretin access drive connecting to the existing private stub that exists within the site. The third is on the eastern end of the arena that will connect with the existing Facilities and Design Center service and run south to connect with the service that runs out to Cretin Ave. All sanitary pipe will either be SDR 35, SDR 26, C900 or SCH 40 depending on location.

The existing sanitary service to Cretin Residence Hall will need to remain during the early utility phase as Cretin Residence Hall will remain open longer than the Service Center and McCarthy Gymnasium. Select sanitary sewer pipe to service the arena will be installed in the early utility phase in order to avoid future impacts of recently constructed utilities.

### **Storm Sewer**

The existing storm sewer for South Campus has three major connection points to exterior storm infrastructure. There are two connections to an existing 5'x5' horseshoe shaped storm drain tunnel which extends under the project site from Cretin Ave to the Mississippi River, roughly 130' below the surface elevation. The first connection to the storm tunnel is southeast of the Anderson Parking Facility and receives discharge from Cretin Ave and Lincoln Ave as well as from the Anderson Parking Facility stormwater treatment system. The second connection to the storm tunnel is north of the Binz Refectory and receives discharge from the Binz Refectory, Grace Residence Hall, and most of the buildings to the north stretching up to Owen's Science Hall and O'Shaughnessy Hall. The third major connection point from South Campus is through an existing pipe discharge to the Grotto area on the western side of the site which daylights to a natural ravine which eventually flows to the Mississippi River.

The proposed arena project will have six storm sewer service connections to the building. There are three along the western side of the building, two along the southern side of the building, and one along the eastern side of the building. The northwest stub is proposed as 16" size with the remaining at 12" size, all to be SCH 40 PVC pipe. These services will tie into the proposed storm sewer network that will collect site runoff and direct water to either an existing stormwater treatment system on site, the existing Grotto ravine, or the proposed arena stormwater treatment system. The storm sewer network is generally RCP pipe with a small amount of HDPE pipe. See Stormwater Management section below for more detail on the proposed treatment of stormwater from the site.

### **Other**

Other utilities proposed to be added as a part of the project include new gas service for the Seminary buildings running from an existing gas line on the Seminary property towards the Seminary Residence building, new gas service for the arena building entering in from Grand Ave



and running down the alley east of the arena building, and low voltage conduits generally running from the existing utility tunnels south of the quadrangle around the west side of the building to feed existing buildings south of the arena.

## Stormwater Management

The existing South Campus parcel includes three stormwater treatment systems. One is for the Schoenecker Center project, which includes an underground cistern (96” pipe gallery) with water reuse for irrigation purposes. One is for the Anderson Parking Facility, which includes an underground cistern (48” pipe gallery) with filter cartridges. The last one is for the South Athletic Fields, which includes surface filtration (sand and rock section below entirety of artificial turf system) with chambers for storage.

The proposed arena project is proposing to utilize some of the capacity of the existing stormwater treatment systems and two new arena treatment system which includes underground cisterns (north one is an 108” pipe gallery, south one is a 120” pipe gallery) with filter cartridges. A stormwater management report is included as Exhibit 5 which contains a more comprehensive stormwater narrative, stormwater analysis calculations and models, and some standard details for the proposed system. Exhibit 9 has been added as required to show the standard stormwater management plan summary required by the City. The NPDES Permit is uploaded as Exhibit 10.

## Landscaping

The overall site landscape will primarily consist of perimeter plantings along building foundations and adjacent road parkways. General landscaping will provide visual, multi-seasonal color and will include a diverse and balanced pallet of campus approved trees, shrubs, perennials, grasses, and ground covers. They will also provide an aesthetically pleasing experience while also blending into the existing landscape conditions to create a cohesive planting treatment.

Outside of the proposed building, sidewalks, and adjacent hardscape elements, the remainder of the site, where appropriate to promote the overall health and well-being of planting material, will be sustainably landscaped and irrigated. Turf lawn areas will be limited. The irrigation system will include high-efficiency components to reduce cost of water resources while delivering healthy landscape plantings. The proposed plantings will consist of native shrubs and low-impact pollinating perennials and grasses commonly found in Minnesota that will vary in height, shape, color and texture to complete a quality landscape treatment of the site.