COMPREHENSIVE FACILITIES PLAN

NORTHLAND COMMUNITY & TECHNICAL COLLEGE

100% DRAFT
8/30/2023

JLG architects

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NORTHLAND COMPREHENSIVE FACILITIES PLAN

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0.1 COVER LETTER FROM NORTHLAND

NORTHLAND
COMMUNITY & TECHNICAL COLLEGE

East Grand Forks Campus
2022 Central Avenue NE
East Grand Forks, MN 56721
Phone: 218.793.2800

Thief River Falls Campus
1101 Highway One East
Thief River Falls, MN 56701
Phone: 218.683.8800

August 7, 2023

Brian Yolitz, Associate Vice Chancellor for Facilities
Minnesota State Colleges and Universities
30 East 7th Street, Suite 350
St Paul, MN 55101-7804

Northland Community and Technical College has completed a comprehensive facility plan to guide long range planning to support our mission and vision for the college. Northland's mission is to transform the lives of students and our communities through a welcoming, supportive, and integrated learning environment. Our strategic plan has four priorities that align with the facilities plan:

- *Access*-Meet students where they are to ensure all have access to high-quality educational opportunities.
- *Student Success*-Improve outcomes, success, and completion through quality programs, advising and student development.
- *Partnerships*-Strengthen partnerships with school districts, institutions of higher education, employers, and community organizations.
- *Advancing Equity*-Create an inclusive culture where all can reach their full potential.

A key emphasis of the plan is to ensure the existing learning spaces provide students the experiences for success in and out of the classroom. This effort involves upgrading existing lab space, student space and allowing space for future programming aligned with local regional needs.

Another critical area of the plan is to incorporate sustainable principles into the plan to control costs, preserve the environment and lead the region as stewards of our resources. This plan involves consolidating spaces for partnerships to provide services on campus through lease agreements. Lastly the plan addresses the needed ongoing facility improvements to preserve our state assets.

The plan was developed in a collaborative manner, lead by JLG architects involving participation from a broad range of campus constituents. Input was collected from students, the community and faculty and staff.

Sandy Kiddoo, PhD
President

A MEMBER OF MINNESOTA STATE
1.800.959.6282 | northlandcollege.edu

NORTHLAND COMPREHENSIVE FACILITIES PLAN

0.2 COVER LETTER FROM JLG ARCHITECTS

JLG architects

July 14, 2023

President Sandy Kiddoo
Northland Community & Technical College
East Grand Forks Campus
2022 Central Avenue NE
East Grand Forks, MN 56721

Dear President Kiddoo,

We are pleased to submit the 2023 Comprehensive Facilities Plan (CFP) for Northland Community and Technical College (Northland). This new plan outlines an exciting vision for the future of Northland. It proposes development at the East Grand Forks campus, Thief River Falls campus, and Thief River Falls Aerospace site. The Northland sites in Roseau and Warroad were not included due to their small size.

JLG Architects met with the CFP steering committee over the past year. In addition, engagement was sought using the JLG Gateway™ Platform virtual town hall forum. Through this process 26 students and 54 faculty/staff members responded for a total of 80 others providing input. Our architectural team, as well as mechanical and electrical engineering team toured the buildings and grounds at the East Grand Forks and Thief River Falls locations and analyzed information related to facility renewal, space utilization and sustainability efforts.

The document, as reviewed and approved by Northland, meets the requirements of Minnesota State Colleges and Universities CFP Update Guidelines. The Committee created a long-range planning vision with short- and medium-term actions that can be pursued as they seek to fulfill their future vision for Northland Community and Technical College.

We want to thank the Northland steering committee for their diligence in providing the needed campus background information and thoughtful consideration of the future development proposed in this plan and look forward to seeing your plan implemented.

Sincerely,

Fawn Behrens-Smith, Project Manager, MN License #59149
JLG Architects

cc: Clinton Castle, Northland
Mike McLean, JLG

JLG Architects
323 Demers Avenue, 2nd Floor | Grand Forks, ND 58201
701.741.1727 | jlgarchitects.com

0.3EXECUTIVE SUMMARY

The Northland Community and Technical College master plan work is grouped into three key aspects shown in the diagram below.

THE FUTURE OF LEARNING

Trends preceding the pandemic and those induced by, or accelerated by, the pandemic have been examined. Changes in learning modalities and delivery evidenced by precedent studies of enhanced experiential learning.

BUSINESS OF EDUCATION

Demographic trends, enrollment current and future, current space utilization, facility condition and deferred maintenance

RESILIENCE OF FACILITIES

The team has documented available information on energy, water, carbon and other resilience criteria focused in the human experience, positive performance and total cost of ownership.

Each of these areas will be considered with social and climate justice considerations allowing Northland to chart a path to an inclusive learning future.

Downward pressure on enrollment is likely to continue making enrollment growth challenging. Population growth is not likely in the region.

KEY TRENDS AND FINDINGS

1. Enrollment is down. Since 2011 there has been a 30% decrease in FYE (full-year equivalent) student enrollment numbers, which equates to almost 900 students. Indications show enrollment will remain steady at the current numbers with the potential for a small amount of growth.

2. Northland plans to continue to focus on hyflex instruction - online/asynchronous/synchronous where teaching material allows but will always have on campus delivery for those who prefer to learn in person.

3. Utilization in most spaces is well below the MN State standards. This is a challenge especially for the hands on experiential based learning programs which require specialty labs.

4. While facilities have been well maintained, there are outstanding deferred maintenance items, and renovations are needed in some areas to keep up with the changing demands of several experiential learning programs.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
0.0 EXECUTIVE SUMMARY

This Comprehensive Facilities Plan document is for the 95% required submittal which includes the campus profile, existing site and building conditions, site and building plans, proposed site and building development projects, and an outline of the corresponding capital budget anticipated. JLG has been working with the Northland CFP Steering Committee to pull together and analyze the data provided. We have worked with Northland to produce a future plan for the campus that is actionable and realistic.

1.0 CAMPUS PROFILE

1.1 CAMPUS HISTORY AND CHARACTERISTICS

1.2 DEMOGRAPHICS - REGIONAL

1.3 DEMOGRAPHICS - CAMPUS

1.4 ACADEMIC GOALS

1.5 TECHNOLOGY PLANNING

1.1 CAMPUS HISTORY AND CHARACTERISTICS

Northland acknowledges that it occupies the ancestral land of the Anishinaabe (Ojibwe, Chippewa), Dakota (Sisseton, Wahpeton) and Yanktonai Dakota First Nations.

Excerpts taken from Northland College's History:
https://www.northlandcollege.edu/about-northland/northland-history/

THIEF RIVER FALLS

Northland Community and Technical College has been in existence in one form or other since 1949, when the Minnesota State Board of Education approved an area vocational school for Thief River Falls. Two pieces of federal legislation combined to make post-secondary vocational education more attractive in Minnesota.

One was the G.I. Bill of Rights, which provided tuition for veterans based on their years of service. Another piece of legislation was the George Barden Act, which not only provided an increase in the level of federal funding (from $14 million to $29 million), but also gave states more flexibility on how the funds could be spent.

Northland started humbly enough in 1949 as the Thief River Falls Area Vocational School, temporarily housed in Lincoln High School. Students could choose from four programs: carpentry, automotive mechanics, practical nursing or welding. In its first year of operation, the Thief River Falls Area Vocational School consisted of 18 students. Clarence W. Pope filled the position as first director of the school, which would see the first of many name changes, as it became, by state mandate, Thief River Falls Area Vocational Technical Institute.

An electronics program was added in 1954. Three years later, majors in business accounting, cosmetology and auto body joined the curriculum, followed by aviation mechanics in 1958 and sales and marketing in 1960. In 1964, the school board authorized the purchase of 57 acres for a permanent vocational school site, not far from the confluence of the Thief River and Red Lake rivers.

A dedication ceremony was held on September 27, 1968. The additional space would allow agricultural mechanics, agricultural business, farm operation and management, and radio and TV broadcasting programs to be added to the curriculum and attract even more students to the Thief River Falls Area Vocational School. It was impossible to move all of the programs at once, however, and it was not until 1979 that the last of the school's programs moved from Lincoln High School to the present location. By then, the school would be sharing space with its new neighbor and eventual partner, Northland Community College.

In 1989, the State Board of Technical Institutes became the State Board of Technical Colleges, so Thief River Falls Technical Institute became Thief River Falls Technical College. By 1992 Thief River Falls Technical College was prepared to embark on a partnership with technical colleges in Bemidji, Detroit Lakes, Moorhead, East Grand Forks,

and Wadena, creating Northwest Technical College. The "Six Pack," as the college came to be known, would be headed by its new president Dr. Ray Cross.

On June 30, 1995, the Thief River Falls campus formally withdrew from Northwest Technical College to partner with Northland Community College, also located in Thief River Falls. . On July 1, 1995, the merger between Northwest Technical College and Northland Community College was approved, establishing Northland Community and Technical College with Dr. Orley Gunderson serving as its first
president.

EAST GRAND FORKS

In 1969, the East Grand Forks School Board took its first step towards offering vocational education when it opened the Red River Valley High School Cooperative Center in a remodeled bowling facility. Shortly thereafter, in 1971, members of the school board requested that their school district be designated as a vocational site, in order to offer secondary and post-secondary education. The request was granted, and the school became the 33rd vocational site in the state of Minnesota.

In recognition of the need to provide education and training to students who were not planning to attend college, the East Grand Forks Public School Board decided to create a vocational center near the high school site. District employee Russ Beier was chosen to oversee the development of vocational classes for area high school students at a school that became known as the Red River Valley High School Cooperative Center.

With its new designation as an area vocational technical institute district, the East Grand Forks school board had to find a space to house its post-secondary students, and decision was made to offer post-secondary programs in welding, business and office, nurse assistant, and auto mechanics in the same building with secondary students and at other rented locations around the city. Although the new students attended classes at the Red River Valley Cooperative Center, their diplomas and certificates were issued under the name of the post-secondary institution: Area Vocational Technical Institute.

This institute continued in rented quarters until January 22, 1973, when faculty, staff, and students moved into their new building, an 80,000 square foot facility situated on over 100 acres, less than a mile down the road. Students in the mid-1970s could choose from over 25 programs, and they also had access to a part time psychologist and a social worker at the school.

By 1974 the school was operating over capacity, so a phase 2 addition was proposed. The Phase 2 addition proposed by Director Russ Beier would add over 17,000 square feet to the building, at an estimated cost of $500,000. The addition would house classrooms, laboratories, an expanded cafeteria, and a lounge. Beier and his administrative team made their case to the school board and the state, and in 1976, the addition was completed

During the flood fight in 1979, the AVTI served as the headquarters for firefighters, National Guard troops, and other emergency management officials. Classes were cancelled while students, faculty, and staff helped to fill sandbags and build

1.1 CAMPUS HISTORY AND CHARACTERISTICS

EAST GRAND FORKS (CONTINUED)

dikes. In a strange twist of fate, the school would serve much the same purpose in 1997, when the entire communities of East Grand Forks and Grand Forks, North Dakota were evacuated due to flooding.

In 1984, the school was enlarged again. The addition, dedicated to Russ Beier, included 32,000 square feet, added at a cost of $3.6 million. The college now had a mechanic shop, a library, and a commons area for students, with a separate truck-driving multi-purpose building.

In 1987 members of the state legislature moved to create vocational technical districts with distinct governing boards, which would have authority over operations, funding, construction, and contract negotiations with bargaining units. This effectively ended any local control over technical colleges by school boards, and the Area Vocational Technical Institute in East Grand Forks became East Grand Forks Technical Institute. In August 1989 the school changed its name again; the school officially became East Grand Forks Technical College.

By 1992 East Grand Forks Technical College was prepared to embark on a partnership with technical colleges in Bemidji, Detroit Lakes, Moorhead, Thief River Falls, and Wadena, creating Northwest Technical College. The “Six Pack,” as the college came to be known, would be headed by its new president Dr. Ray Cross.

July 1, 1995, all public higher education institutions in Minnesota that were not part of the University of Minnesota system became members of the Minnesota State Colleges and Universities system. Northwest Technical College was now governed by a 15-member MnSCU board of trustees, appointed by the governor.

On January 23, 2003, the Board of Trustees of the Minnesota State Colleges and Universities System approved the reorganization of Northwest Technical College’s five campuses into mergers with other closely located colleges. On July 1, 2003, the combined campuses in Thief River Falls and East Grand Forks began to operate as one college under the direction of Northland’s president, Dr. Orley Gunderson.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
1.0 CAMPUS PROFILE

OTHER SITES

AEROSPACE

Northland Aerospace site has been operating out of the Thief River Falls regional Airport since 1972. The AMT program has a 51-year history of producing talented, highly employable aircraft maintenance technicians. Northland has the best of both worlds for you. A program with a history of great placement in aviation jobs and the new and exciting UAS and Imagery Analysis programs, that are the first of their kind in the entire nation.

ROSEAU

Since 2001, Northland Community and Technical College has been represented in the Roseau, MN Area by a satellite office. Northland offers a combination of faculty on-site, interactive (ITV) courses, and support for online students at the site each semester.

WARROAD

Northland began to host its first classes in Warroad in January, 2022. At the Warroad, MN site Northland is partnered with the Advanced Resource Center to provide a state of the art Mechatronics program.

1.1.2 PRIOR COMPREHENSIVE FACILITIES PLANS

The previous 2018 Master Plan focused development on the Thief River Falls and East Grand Forks Campuses. The Thief River Falls Aerospace Site was referenced, but with the recent completion of a new hanger and in-fill project no future work was suggested at that location. In general, the work outlined at the two main campuses looked to 1) improve classrooms and labs for program development and 2) provide flexible classrooms for collaboration, group-based learning, distance learning and student-centered teaching methodologies. The work suggested sought to align with the campus core values and goals of the Academic Master Plan. They also looked to improve utilization by not proposing any additional square footage and address deferred maintenance with the projects suggested.

In the last few years, the Minnesota State System has seen a reduction in the capital bonding dollars received from the State. The campus has continued to seek HEAPR project funds to address campus needs. Since the 2018 Master Plan the following projects have been completed:

NORTHLAND COMPREHENSIVE FACILITIES PLAN
1.0 CAMPUS PROFILE

Northland has continued to work to enhance the user experience on campus as they have been able to by selectively updating finishes and furnishings, providing designated distance learning rooms at both Thief River Falls and East Grand Forks to facilitate classes combined across campuses, and creating multi-use wellness rooms.

A predesign has been completed for the Effective Teaching and Learning Lab project at the East Grand Forks campus and the project was fully funded in the 2023 bonding bill.

ROLE OF CAMPUS WITHIN MINNESOTA STATE SYSTEM

Minnesota State is the third largest system of state collage and universities in the United States with 26 colleges, 7 universities, and 54 campuses. The system serves more than 340,000 students each year. Of Minnesota resident students who are in an undergraduate program 64% are enrolled at a Minnesota State college or university.

> Minnesota State Core Commitments - to ensure access to an extraordinary education for all Minnesotans, be the partner of choice to meet Minnesota's workforce and community needs, and deliver students, employers, communities and taxpayers the highest value/most affordable higher education option.
>
> Minnesota State Core Value – to provide an opportunity for all Minnesotans to create a better future for themselves, for their families, and for their communities.

As part of the Minnesota State system Northland Community and Technical College is a regional public university within the thriving, close-knit communities of Thief River Falls and East Grand Forks. These communities serve as hubs for rural Northwest Minnesota providing higher education institutions that embrace and support 3,800+ college students every year. Northland stands proudly due to the high quality of education provided which shows in their 77.4% career placement rate. Both campus locations have always stayed at the forefront of classroom technologies; even before the pandemic they were increasing hybrid and online courses. With a regional economic impact of $85 million, it is easy to see that Northland invests in the communities it serves.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
1.0 CAMPUS PROFILE

VISION STATEMENT

Northland will be highly valued for providing exceptional education that transforms lives and strengthens the communities we serve.

MISSION STATEMENT

Northland is an innovative leader in higher education, preparing all learners with work and life skills that advance personal well-being and regional prosperity.

ABOUT NORTHLAND COMMUNITY AND TECHNICAL COLLEGE

- Total size of 3,896 students, 1,097 fulltime students
- 153 Faculty
  - 139 Full Time
  - 14 Part Time
- 40 Associate degrees, 27 Certificates, and 20 Diplomas
- 1,059,137 gross square feet of campus buildings
- NJCAA region 13 school and a member of the Minnesota College Athletic Conference (MCAC) with 10 varsity sports - 5 men's and 5 women's
- Most popular majors include elementary inclusive education, business administration and biology

CAMPUS PHYSICAL CHARACTERISTICS

Northland has many special features located on their campus. A few have been noted below with the additional background information for many of these coming from the Northland website.

THIEF RIVER TRAILS

Located on the west edge of the campus is a trail system that runs along the river. The modernized Northland Trail provides new options for bicyclists: a dirt trail, a paved trail, a combination of the two, and in the winter a fat-tire bike trail with access to the river. The trail can also be used for cross-country skiing in the winter.

THIEF RIVER CAMPUS THEATER

The theater at the Thief River Falls campus is beloved by the students and community. Both public and private events are held in the theater giving the community a chance to experience plays, live music, and guest speakers.

COURTYARD

The East Grand Forks campus has a centralized courtyard offering students and faculty a chance to study, teach outside, or enjoy an apple off the tree.

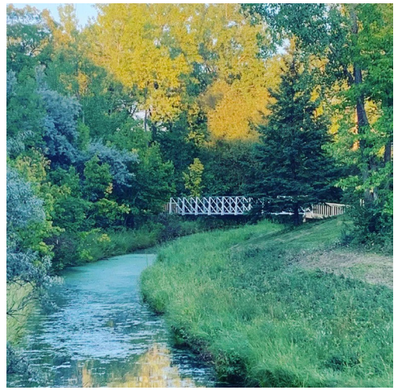
EAST GRAND FORKS MAIN ENTERANCE

The East Grand Forks campus has a grand overhang and outdoor seating marking the main entrance on the west side of the building. Outdoor seating softens the entrance and makes the building feel inviting while giving students and faculty a nice place to study for teaching outdoors.

THE NORTHERN LIGHTS AND BLUE WAVE SCULPTURE

Located in the Gunderson Commons this work of public art, designed by Kinji Akagawa, is accessible by the school and community and can be used for both gathering and educational purposes. This entry experience was inspired by the Red River Valley geographical histories and rich memories of the agricultural landscape and people of the Thie River Falls area.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
1.0 CAMPUS PROFILE



1.2 DEMOGRAPHICS - REGIONAL

REGIONAL HISTORY- THIEF RIVER FALLS

Excerpts taken from: https://visittrf.com/discover/about-trf

Thief River Falls marked the limit of navigation on the Red Lake River. The eponymous town site was established in 1887 and later incorporated as a city in 1896. Thief River Falls first developed as a lumber milling town. It is located in a major agriculture area because of the rich soil left by ancient, Glacial Lake Agassiz. The Great Northern and the Soo Line railroads brought prosperity when Thief River Falls became a center for shipping wheat.

REGIONAL HISTORY- EAST GRAND FORKS

Excerpts taken from: https://www.lakesnwoods.com/EastGrandForks.htm

East Grand Forks, a city in Grand Forks and Rhinehart Townships, incorporated as a city March 7, 1887, is on the east side of the Red River, opposite the city of Grand Forks, N.D., where the confluence of the large Red Lake River with the upper part of the Red River presents two navigable courses or forks for ascending boats. The city began after the Civil War as a trading center and stopping-off place for Red River cart teamsters going between St. Paul and Winnipeg; the St. Paul, Minneapolis and Manitoba Railroad came in 1880. Regular flooding of the rivers has caused difficulties for the community. After a devastating flood in 1997, the U.S. Army Corps of Engineers built levees along the Red River to protect the cities of Grand Forks and East Grand Forks.

NEAREST HIGHER EDUCATION INSTITUTIONS

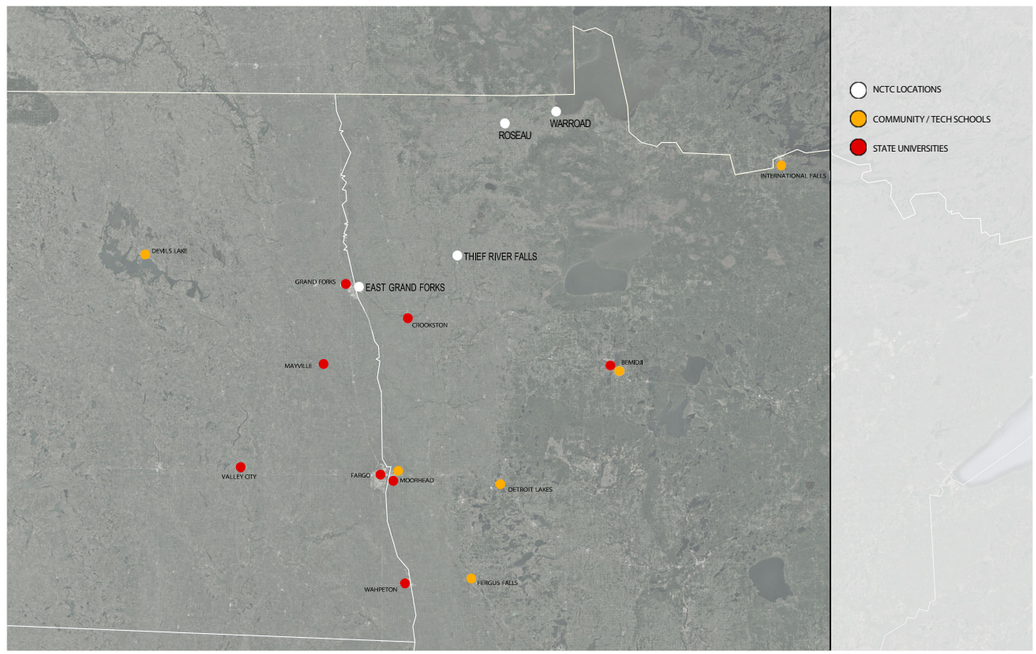
University of North Dakota, University of Minnesota - Crookston, Mayville State University

Ten county regional population analysis closest to Thief River Falls and East Grand Forks
-From https://mn.gov/admin/demography, https://www.northdakota-demographics.com/counties_by_population

- Polk County, MN - 2021 total population 30,835
- Red Lake County, MN - 2021 total population 3,944
- Pennington County, MN – 2021 total population 13,757
- Clearwater County, MN – 2021 total population 8,616
- Beltrami County, MN – 2021 total population 46,358
- Marshall County, MN - 2021 total population 9,012
- Roseau County, MN - 2021 total population 15,268
- Grand Forks County, ND - 2021 total population 73,101
- Walsh County, ND - 2021 total population 10,631
- Cass County, ND - 2021 total population 182,992

DRIVING DISTANCE FROM NORTHLAND COMMUNITY & TECHNICAL COLLEGE -THIEF RIVER FALLS

UNIVERSITY OF MINNESOTA - CROOKSTON	29 MILES
UNIVERSITY OF NORTH DAKOTA	43 MILES
MAYVILLE STATE UNIVERSITY	68 MILES
BEMIDJI STATE UNIVERSITY	75 MILES
NORTHWEST TECHNICAL COLLEGE	77 MILES
NORTH DAKOTA STATE UNIVERSITY	89 MILES
MINNESOTA STATE UNIVERSITY MOORHEAD	90 MILES
CONCORDIA COLLEGE	91 MILES
MSCTC- MOORHEAD	93 MILES
MSCTC- DETROIT LAKES	96 MILES
VALLEY CITY STATE UNIVERSITY	119 MILES
LAKE REGION STATE COLLEGE	124 MILES
MSCTC- FERGUS FALLS	126 MILES
NORTH DAKOTA STATE COLLEGE OF SCIENCE	129 MILES
RAINY RIVER COMMUNITY COLLEGE	131 MILES



REGIONAL POPULATION AND OCCUPATIONAL EMPLOYMENT- THIEF RIVER FALLS

Thief River Falls' population remains largely Norwegian and German, an homage to the people who settled the area in the 1890s. Today however, the number of new Americans from Mexico, Vietnam, Sub-Saharan Africa, and numerous European nations is steadily expanding, drawn by quality employment, education opportunities, and new technology businesses, which make it possible for a variety of cultures and ethnicities to find their niches in Thief River Falls.

The top four industry employers in the region in 2020 are Healthcare, Wholesalers, Retail, and Manufacturing.

Age

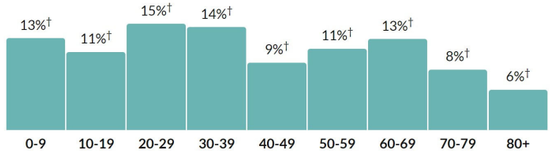
38.2

Median age

a little less than the figure in Pennington County: 39.5

about the same as the figure in Minnesota: 38.2

Population by age range



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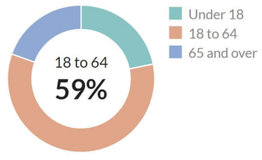
Population by age category



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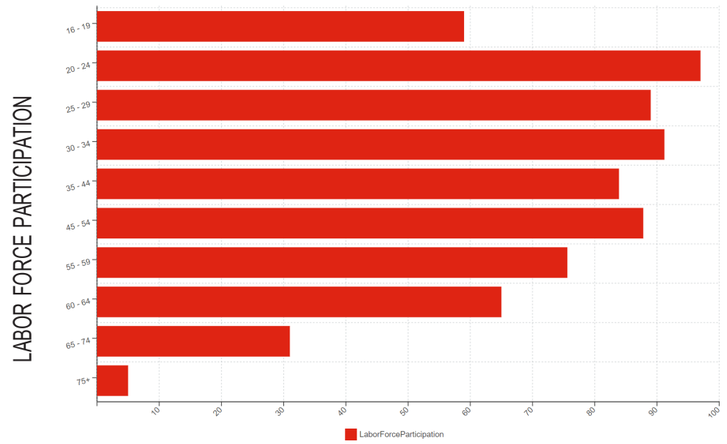
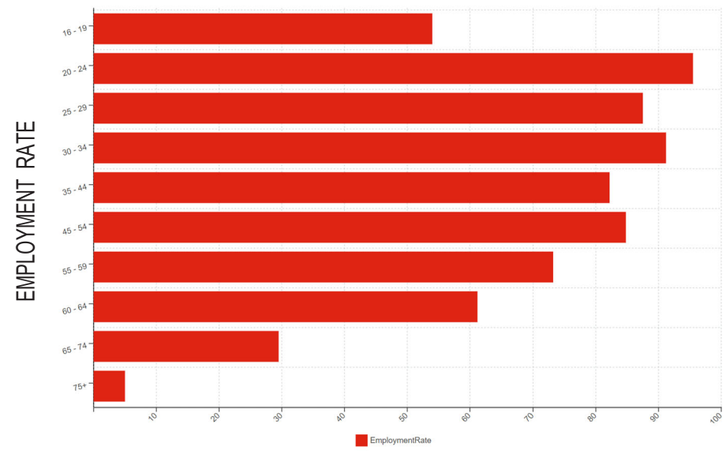
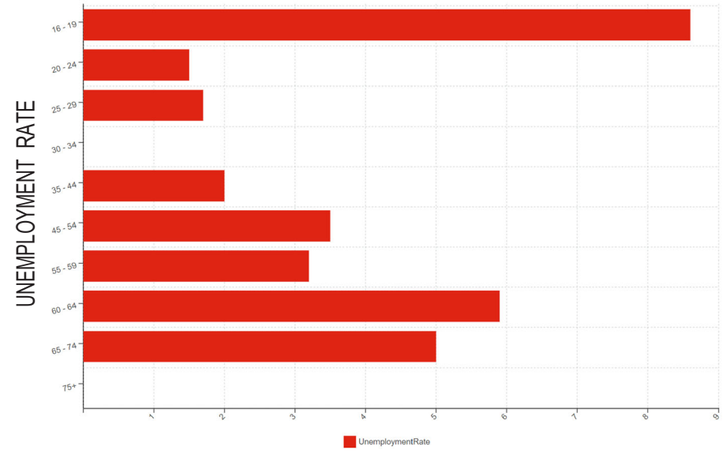
Population by age range (Table B01001) View table

Column	Thief River Falls				Pennington County				Minnesota			
0-9	12.8%†	±1.8%	1,122	±159.4	12.9%	±1%	1,816	±140.6	12.7%	±0.1%	717,813	±3,113.3
10-19	10.9%†	±1.4%	954	±123.8	12.2%	±0.9%	1,719	±119.9	13.2%	±0.1%	750,349	±3,248
20-29	14.8%†	±1.7%	1,297	±149.9	12.3%	±1.1%	1,735	±157.7	12.8%	±0.1%	726,054	±3,852.1
30-39	14.3%†	±1.5%	1,257	±129.3	13.4%	±0.8%	1,881	±114	13.7%	±0.1%	774,609	±3,169.1
40-49	9.4%†	±1.4%	824	±119.9	11%	±0.8%	1,547	±109.7	12%	±0.1%	682,071	±3,199.4
50-59	11.3%†	±1.3%	994	±114.6	12.6%	±0.8%	1,771	±115.1	13.2%	±0.1%	750,029	±3,028.7
60-69	12.7%†	±1.8%	1,113	±156.6	12.9%	±1.2%	1,818	±165.6	11.9%	±0.1%	674,598	±4,765.2
70-79	8.4%†	±1.3%	738	±117.3	7.9%†	±0.8%	1,108	±118.6	6.7%	±0.1%	377,835	±3,024.6
80+	5.6%†	±1.4%	492	±120	4.8%†	±0.9%	668	±122.2	3.8%	±0%	217,114	±2,469.5







REGIONAL POPULATION AND OCCUPATIONAL EMPLOYMENT- EAST GRAND FORKS

'The East Grand Forks population remains largely Norwegian and German, an homage to the people who settled the area in the 1880s. Today however, the number of new Americans from Mexico, Vietnam (Hmong), and numerous European and African nations is steadily expanding, drawn by quality employment, and education opportunities, which make it possible for a variety of cultures and ethnicities to find their niches in East Grand Forks.

The top four industry employers in the region in 2020 are Healthcare, Education, Retail, and Manufacturing.

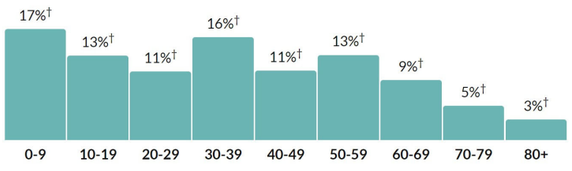
Age

35.1
Median age

about 10 percent higher than the figure in the Grand Forks, ND-MN Metro Area: 32.5

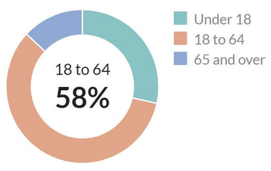
about 90 percent of the figure in Minnesota: 38.2

Population by age range



Show data / Embed

Population by age category



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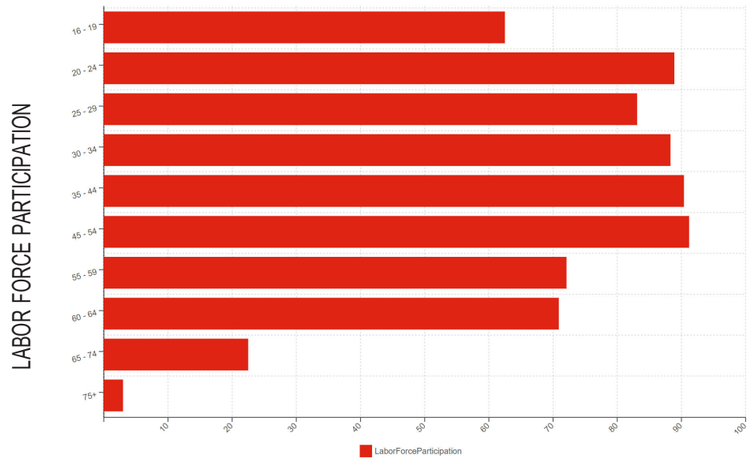
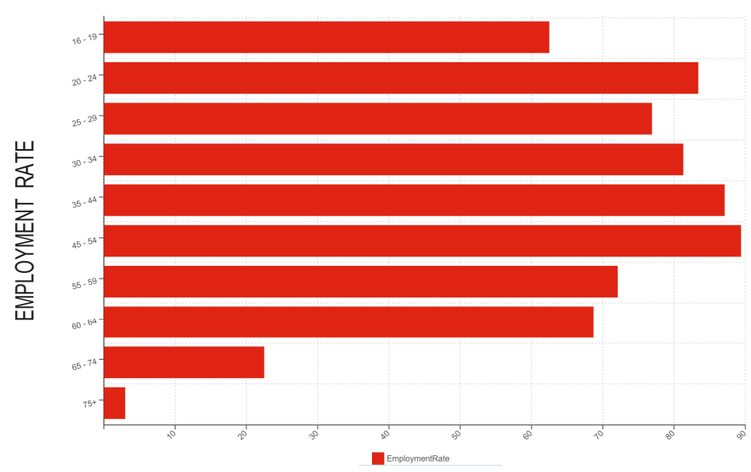
Population by age range (Table B01001) View table

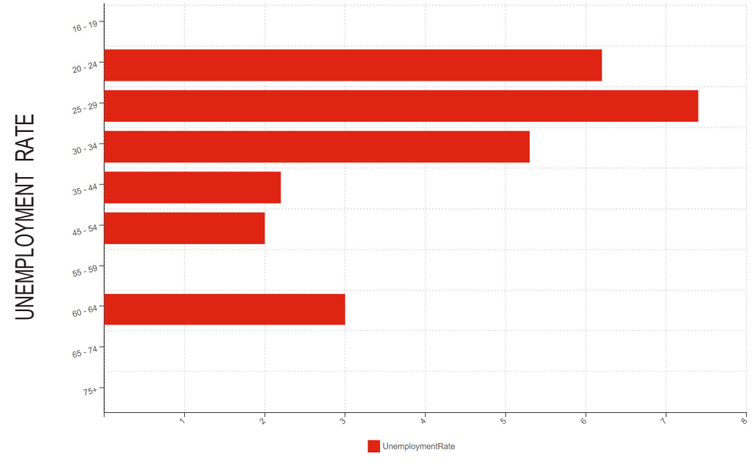
Column	East Grand Forks				Grand Forks, ND-MN Metro Area				Minnesota			
0-9	17.5%†	±2.8%	1,596	±257	12.7%	±0.5%	13,294	±465.1	12.7%	±0.1%	717,813	±3,113.3
10-19	13.3%†	±2.5%	1,215	±223.6	13.7%	±0.5%	14,266	±480.1	13.2%	±0.1%	750,349	±3,248
20-29	10.8%†	±2.3%	985	±208.3	19.9%	±0.8%	20,780	±862.5	12.8%	±0.1%	726,054	±3,852.1
30-39	16.2%†	±2.3%	1,479	±205.3	12.9%	±0.4%	13,503	±440.6	13.7%	±0.1%	774,609	±3,169.1
40-49	10.9%†	±1.9%	996	±172.1	9.6%	±0.4%	10,051	±415.6	12%	±0.1%	682,071	±3,199.4
50-59	13.4%†	±2.4%	1,223	±215.6	11%	±0.4%	11,516	±387.3	13.2%	±0.1%	750,029	±3,028.7
60-69	9.4%†	±1.8%	861	±165.9	10.5%	±0.6%	11,003	±616.4	11.9%	±0.1%	674,598	±4,765.2
70-79	5.4%†	±1.5%	490	±136.3	5.9%	±0.4%	6,105	±400.2	6.7%	±0.1%	377,835	±3,024.6
80+	3.2%†	±1.1%	295	±97.4	3.7%	±0.3%	3,886	±326.1	3.8%	±0%	217,114	±2,469.5





97.4% Employment Rate

3% Unemployment Rate



Industry

Percentage of the civilian employed population aged 16 and older.
Scope: population of Minnesota and Thief River Falls

Thief River Falls — Minnesota

	0% 5% 10% 15%	Count
Retail	19.4%	912
Manufacturing	17.5%	823
Wholesalers	16.6%	781
Healthcare[1]	13.7%	643
Education	5.6%	262
Construction	5.1%	239
Hospitality	4.5%	209
Transportation	3.3%	156
Other Services	3.1%	145
Administrative[2]	2.4%	114
Agriculture[3]	2.2%	103
Finance & Insurance	1.6%	76
Entertainment[4]	1.5%	70
Government[5]	1.2%	56
Information	1.1%	54
Professional[6]	0.5%	22
Oil & Gas, and Mi…	0.4%	19
Utilities	0.3%	12
Real estate	0.0%	0
Management[7]	0.0%	0

Count *number of people employed in given industry*
[1] *Healthcare and social assistance*
[2] *Administrative, support, and waste management services*
[3] *Agriculture, forestry, fishing, and hunting*
[4] *Entertainment, arts, and recreation*
[5] *Government not otherwise classified*
[6] *Professional, scientific, and technical services*
[7] *Management of companies*

Median Income by Industry

For the full-time year-round civilian employed population aged 16 and older.
Scope: population of Minnesota and Thief River Falls

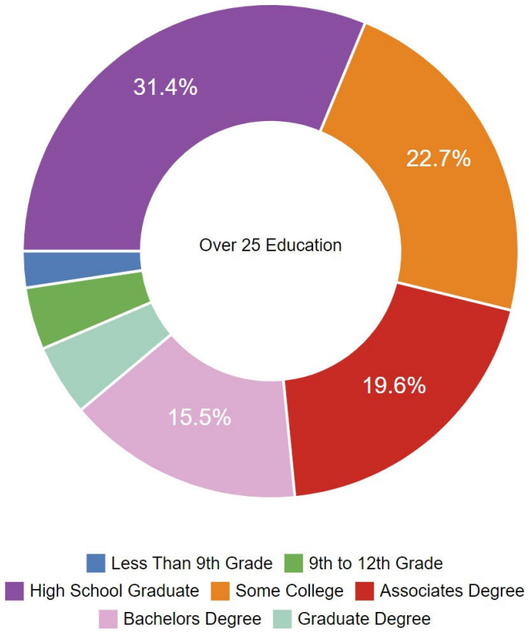
Thief River Falls — Minnesota

	$0k $20k $40k $60k	%	Count
Transportation	$56.1k	3.32%	156
Government[1]	$48.1k	1.19%	56
Construction	$41.9k	5.09%	239
Finance & Insurance	$41.1k	1.62%	76
Administrative[2]	$39.2k	2.43%	114
Wholesalers	$38.9k	16.6%	781
Education	$37.9k	5.58%	262
Manufacturing	$37.9k	17.5%	823
All Industries	$37.3k	100%	4,696
Agriculture[3]	$35.8k	2.19%	103
Retail	$32.4k	19.4%	912
Healthcare[4]	$32.3k	13.7%	643
Information	$32.1k	1.15%	54
Other Services	$26.6k	3.09%	145
Hospitality	$22.1k	4.45%	209

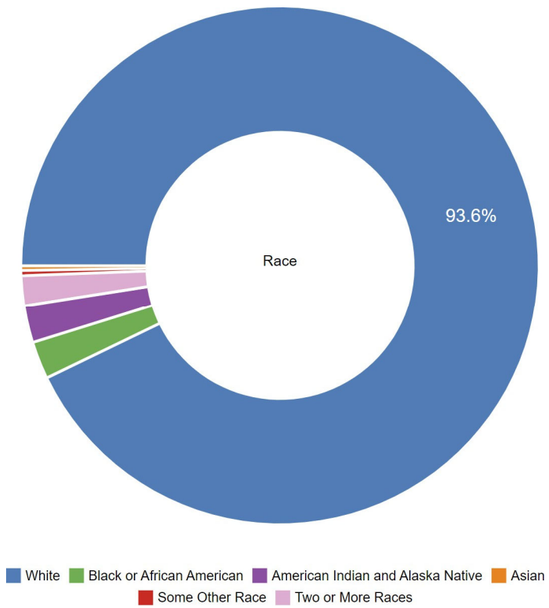
% *percent of the workforce employed in given industry*
Count *number of people employed in given industry*
[1] *Government not otherwise classified*
[2] *Administrative, support, and waste management services*
[3] *Agriculture, forestry, fishing, and hunting*
[4] *Healthcare and social assistance*
[5] *Professional, scientific, and technical services*
[6] *Management of companies* [7] *Entertainment, arts, and recreation*

Thief River Falls (and surrounding region) has been home to major industry including snowmobiles, farm machinery, and global electronics distribution. Some notable companies in the area consist of Digi-Key Electronics, Steiger Tractors, and Arctic Cat, Inc.

EDUCATION ATTAINED
THIEF RIVER FALLS



POPULATION BY RACE
THIEF RIVER FALLS



Industry

Percentage of the civilian employed population aged 16 and older.

Scope: population of Minnesota and East Grand Forks

East Grand Forks — Minnesota

	0% 5% 10% 15%	Count
Healthcare[1]	16.4%	725
Education	12.8%	566
Retail	12.2%	539
Manufacturing	11.0%	484
Construction	8.6%	381
Hospitality	5.9%	258
Transportation	4.8%	213
Other Services	4.6%	201
Government[2]	4.3%	189
Professional[3]	3.6%	157
Agriculture[4]	2.9%	127
Wholesalers	2.6%	115
Entertainment[5]	2.3%	103
Finance & Insurance	2.2%	98
Administrative[6]	1.9%	85
Utilities	1.9%	82
Information	1.3%	56
Real estate	0.5%	23
Oil & Gas, and Mi…	0.2%	8
Management[7]	0.0%	0

Count *number of people employed in given industry*

[1] *Healthcare and social assistance*
[2] *Government not otherwise classified*
[3] *Professional, scientific, and technical services*
[4] *Agriculture, forestry, fishing, and hunting*
[5] *Entertainment, arts, and recreation*
[6] *Administrative, support, and waste management services*
[7] *Management of companies*

Median Income by Industry

For the full-time year-round civilian employed population aged 16 and older.

Scope: population of Minnesota and East Grand Forks

East Grand Forks — Minnesota

	$0k $20k $40k $60k	%	Count
Professional[1]	$67.3k	3.56%	157
Agriculture[2]	$62.4k	2.88%	127
Transportation	$60.1k	4.83%	213
Government[3]	$60.0k	4.29%	189
Finance & Insurance	$51.8k	2.22%	98
Utilities	$50.7k	1.86%	82
Construction	$48.4k	8.64%	381
Other Services	$48.0k	4.56%	201
Wholesalers	$46.7k	2.61%	115
All Industries	$45.1k	100%	4,410
Information	$44.7k	1.27%	56
Education	$42.8k	12.8%	566
Healthcare[4]	$42.2k	16.4%	725
Manufacturing	$41.5k	11.0%	484
Retail	$33.4k	12.2%	539
Entertainment[5]	$31.1k	2.34%	103
Hospitality	$17.2k	5.85%	258

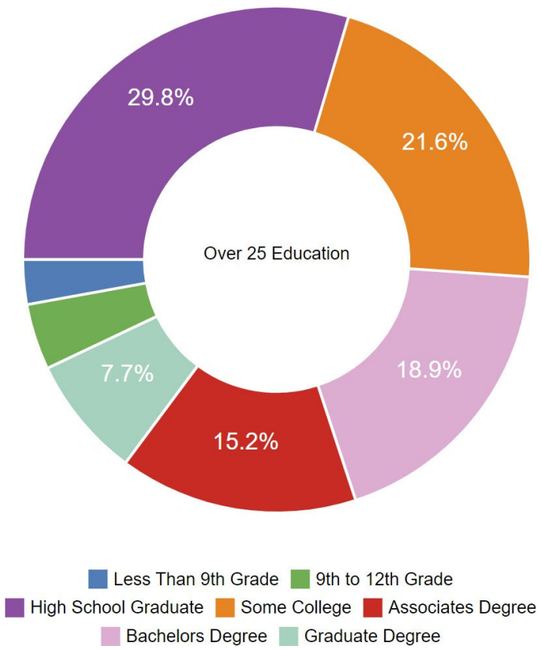
% *percent of the workforce employed in given industry*
Count *number of people employed in given industry*

[1] *Professional, scientific, and technical services*
[2] *Agriculture, forestry, fishing, and hunting*
[3] *Government not otherwise classified*
[4] *Healthcare and social assistance*
[5] *Entertainment, arts, and recreation*
[6] *Management of companies*
[7] *Administrative, support, and waste management services*

Three main industries drive the East Grand Forks area and Polk County -- agriculture, manufacturing, and wholesale trade. These industries account for 65 percent of total output in the region and 56 percent of all employment according to the Economic Impact Analysis of Northwest MN conducted by the University EDA Center at the University of Minnesota-Crookston. Agriculture continues to be a strong leader in northwest Minnesota's economy, and value-added agricultural processing and other industries are an important part of the East Grand Forks economy. East Grand Forks is fortunate to host many industries with regional, national, and international markets.

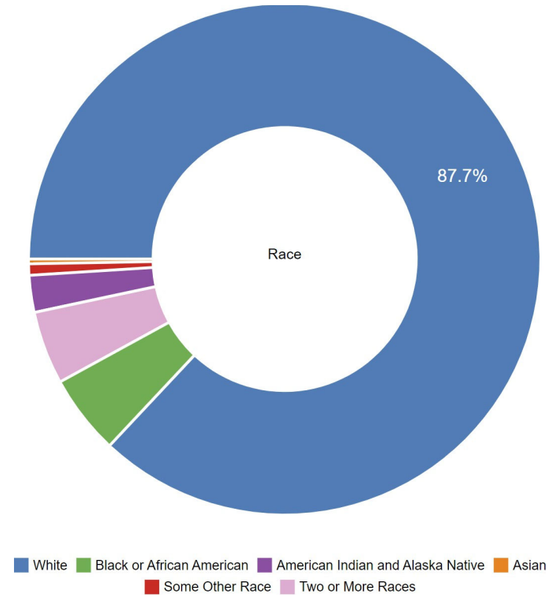
EDUCATION ATTAINED

EAST GRAND FORKS



POPULATION BY RACE

EAST GRAND FORKS



MINNESOTA COUNTY POPULATION PROJECTION

Key Findings from Minnesota State Demographic Center:
Statewide, Minnesota is anticipated to gain 1.1 million new residents between 2018 and 2070 - compared to 1.2 million in our previous set of projections. This slower rate of growth can be most generally attributed to changing assumptions for the impact of the various components of change—most importantly, declining rates of international migration.

Though births are projected to remain relatively constant throughout this series, as our population ages, increasing numbers of deaths will push Minnesota to a state of natural decrease—where deaths outnumber births—around 2040.

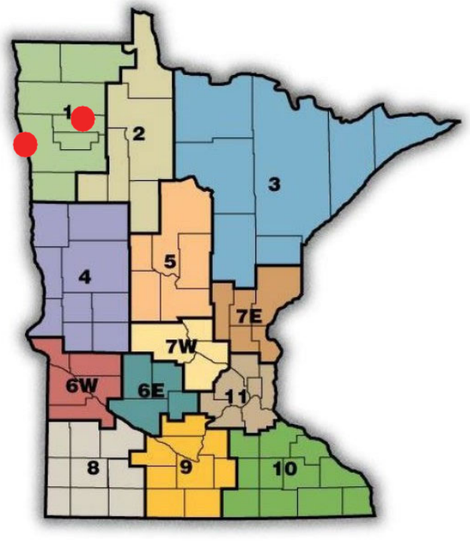
Steady urbanization will lead to a declining population in more than two-thirds of Minnesota's 87 counties.
The five counties with the largest declines in population by 2053 are Saint Louis (-28,238), Winona (-8,960), McLeod (-8,425), Freeborn (-7,078), and Martin (-6,541). Most shrinking counties are clustered in six Economic Development Regions (EDRs). The Arrowhead region (EDR 3) in the Northeast corner of the state will experience the greatest loss at -48,642 residents. It is followed by EDR 6 in central Minnesota (-39,865), EDR 8 in the southwest (-28,955), EDR 9 in the south central (-20,349), EDR 1 in the northwest (-14,701), and EDR 5 in the north central (-7,861). Combined, these Economic Development Regions are projected to lose over 160,000 residents by 2053.

Minnesota's oldest residents—those aged 85 and above—are expected to more than double in the next 35 years—from the current 120,000 to over 270,000.

In just the next decade, children aged 0 to 14 will be outnumbered by retirees aged 65 and above for the first time in Minnesota's history. In total, Minnesotans of retirement age and above numbered 889,511 in 2018—an increase of 136,492 in the short half-decade since 2013. This number is expected to roll over 1.26 million in the next 20 years.

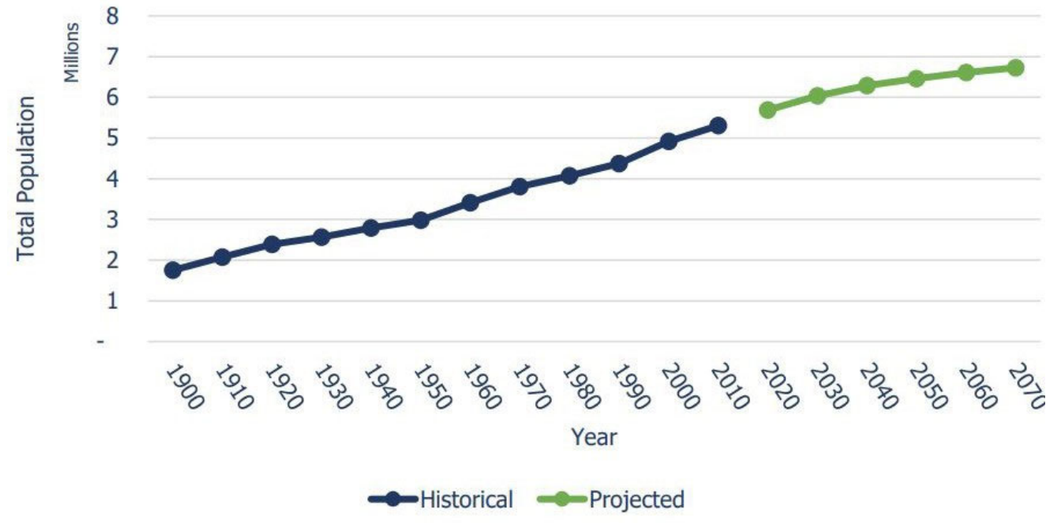
While Minnesota's total population is currently 79 percent non-Hispanic White, the racial and ethnic make-up of our population is changing rapidly. Between 2013 and 2018, the non-Hispanic White population grew by less than one percent, while minority populations grew by 18 percent—adding more than 167,000 people in just five years. These projections indicate that statewide, Minnesota's non-Hispanic White population will begin declining within the next decade. Conversely, populations of Color are expected to swell by more than one million residents between 2018 and 2053—exceeding one-third of the total population.

Communities of Color are driving our state's population growth and, as such, addressing these disparities will become imperative for the prosperity and quality of life for all Minnesotans.



ECONOMIC DEVELOPMENT REGIONS

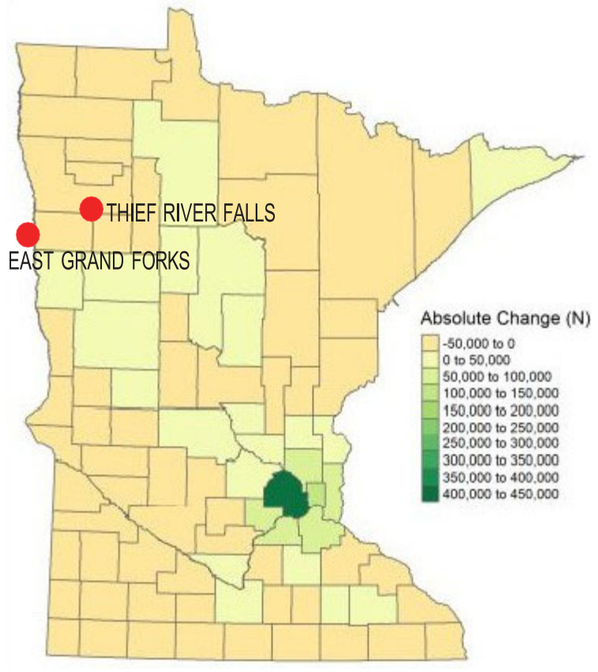
MINNESOTA STATEWIDE POPULATION PROJECTION



Source: U.S. Census Bureau; Minnesota State Demographic Center

POPULATION CHANGE BY COUNTY

The majority of counties in the northwest region of Minnesota are expected to see some population decrease. The Surrounding counties of Polk County, Lake County, Marshall County, and Clearwater County are all expected to see population decline. The counties along the Interstate 94 corridor toward the Fargo-Moorhead metropolitan area (Wright, Sherburne, Stearns, Benton, Douglas, Otter Tail, Becker, and Clay Counties) will all grow. Additionally, the counties near Mankato (Nicollet and Blue Earth Counties) and Rochester (Olmsted and Dodge Counties) will increase, possibly due to educational and economic opportunities in those areas. Several other counties in the vicinity of the Twin Cities metro (Rice, Isanti, Chisago Counties) will also increase. Finally, several counties that are rich in natural amenities—like lakes—are projected to grow, including those between Brainerd and Bemidji (Beltrami, Hubbard, Cass, and Crow Wing Counties) and one along the north shore of Lake Superior (Clay County).



MINNESOTA OCCUPATIONS IN DEMAND REQUIRING ASSOCIATE'S DEGREE

SOC Code	SOC Tittle	Current Demand Rank	Current Demand Indicator	25th Percentile Wage	Median Wage	MN Projected Growth Rate	MN Projected Openings	Education Requirements	On the Job Training Requirement
291141	Registered Nurses	1	★★★★★	$77,482/yr	$81,947/yr	6.6%	43,201	Associate's degree	Short term the job training
173026	Industrial Engineering Technologists and Technicians	53	★★★★★	$49,914/yr	$62,895/yr	4.4%	3,764	Associate's degree	Moderate term on the job training
292034	Radiologic Technologists and Technicians	60	★★★★★	$62,750/yr	$74,343/yr	7.1%	3,630	Associate's degree	Unavailable
292010	Clinical Laboratory Technologists and Technicians	98	★★★★★	$48,909/yr	$61,455/yr	6.3%	4,555	Associate's degree	Unavailable
292055	Surgical Technologists	123	★★★★☆	$60,823/yr	$62,968/yr	6.4%	1,854	Associate's degree	Short term on the job training
333051	Police and Sheriff's Patrol Officers	126	★★★★☆	$67,460/yr	$82,737/yr	5.9%	9,114	Associate's degree	Short term on the job training
291292	Dental Hygienists	129	★★★★☆	$79,875/yr	$80,611/yr	7.3%	3,152	Associate's degree	None
151231	Computer Network Support Specialists	170	★★★★☆	$50,712/yr	$64,708/yr	5%	4,161	Associate's degree	Moderate term on the job training
232011	Paralegals and Legal Assistants	172	★★★★☆	$48,930/yr	$62,159/yr	10.6%	6,746	Associate's degree	Short term on the job training
291126	Respiratory Therapists	180	★★★★☆	$63,869/yr	$77,699/yr	20.5%	1,336	Associate's degree	Short term on the job training
292056	Veterinary Technologists and Technicians	184	★★★★☆	$37,410/yr	$38,580/yr	11.6%	2,795	Associate's degree	Short term on the job training
173023	Electrical and Electronics Engineering Technologists and Technicians	185	★★★★☆	$51,986/yr	$64,252/yr	-1.2%	1,780	Associate's degree	Unavailable
312021	Physical Therapist Assistants	200	★★★★☆	$51,682/yr	$64,347/yr	21.2%	2,253	Associate's degree	Short term on the job training
173022	Civil Engineering Technologists and Technicians	204	★★★★☆	$62,854/yr	$69,929/yr	1.8%	2,480	Associate's degree	Longterm on the job training
292032	Diagnostic Medical Sonographers	216	★★★★☆	$80 331 yr	$82 682/yr	17.7%	1,199	Associate s degree	Short term on the job training
292031	Cardiovascular Technologists and Technicians	231	★★★☆☆	$50 411 yr	$77 347/yr	6.7%	1,124	Associate s degree	Short term on the job training
173011	Architecture and Civil Drafters	233	★★★☆☆	$50,453/yr	$62,823/yr	-0.6%	1,705	Associate's degree	Unavailable
319096	Veterinary Assistants and Laboratory Animal Caretakers	252	★★★☆☆	$31,225/yr	$37,994/yr	11.1%	1,775	Associate's degree	Short term on the job training
151257	Web Developers and Digital Interface Designers	258	★★★☆☆	$58,026/yr	$82,455/yr	7.9%	3,568	Associate's degree	Unavailable
499062	Medical Equipment Repairers	272	★★★☆☆	$49,287/yr	$62,378 yr	3.7%	1,531	Associate's degree	Short term on the job training
173013	Mechanical Drafters	275	★★★☆☆	$49,406/yr	$62,522 yr	-4.6%	1,385	Associate's degree	Short term on the job training
292035	Magnetic Resonance Imaging Technologists	280	★★★☆☆	$78,155 yr	$82,019 yr	11.4%	615	Associate's degree	Short term on the job training
211094	Community Health Workers	281	★★★☆☆	$38,684 yr	$48,661 yr	16.4%	1,524	Associate's degree	Short term on the job training
194042	Environmental Science and Protection Technicians, Including Health	286	★★★☆☆	$30,417/yr	$48,661 yr	5.6%	553	Associate's degree	Short term on the job training
173027	Mechanical Engineering Technologists and Technicians	290	★★★☆☆	$50,422/yr	$64,138 yr	4.1%	1,222	Associate s degree	Moderate term on the job training
254031	Library Technicians	308	★★★☆☆	$38,301/yr	$47,966 yr	-4.3%	1,912	Associate's degree	Short term on the job training
173098	Calibration Technologists and Technicians and Engineering Technologists and Technicians Except Drafters, All Other	325	★★★☆☆	$49,008/yr	$63,372 yr	6.9%	1,576	Associate's degree	Unavailable
312011	Occupational Therapy Assistants	326	★★★☆☆	$51,320/yr	$58,121 yr	24.4%	966	Associate's degree	Short term on the job training
194010	Agricultural and Food	329	★★★☆☆	$37,057/yr	$46,521 yr	3.1%	1,463	Associate's degree	Unavailable
194071	Forest and Conservation Technicians	330	★★★☆☆	$40,487/yr	$50,795Iyr	2.7%	1,216	Associate's degree	Longterm on the job training
291124	Radiation Therapists	336	★★★☆☆	$78,497/yr	$81,947Iyr	5.7%	245	Associate's degree	Longterm on the job training

NORTHLAND COMPREHENSIVE FACILITIES PLAN
1.0 CAMPUS PROFILE

173024	Electro-Mechanical and Mechatronics Technologists and Technicians	362	★★☆☆☆	$50,256Iyr	$63,952/yr	-3.5%	393	Associate's degree	Longterm on the job training
194021	Biological Technicians	373	★★☆☆☆	$39,181Iyr	$48,267/yr	6.7%	967	Associate's degree	Short term on the job training
292033	Nuclear Medicine Technologists	421	★★☆☆☆	$81,553Iyr	$95,498/yr	6.4%	233	Associate's degree	Short term on the job training
173025	Environmental Engineering Technologists and Technicians	474	★☆☆☆☆	$54,483Iyr	$63,206/yr	3.9%	403	Associate's degree	Short term on the job training
532021	Air Traffic Controllers	480	★☆☆☆☆	$116,982Iyr	$160,149/yr	2.2%	619	Associate's degree	Longterm on The job training
173012	Electrical and Electronics Drafters	482	★☆☆☆☆	$62,636Iyr	$69,546/yr		NA	Associate's degree	Unavailable
439031	Desktop Publishers	499	★☆☆☆☆	$49,130Iyr	$50,316/yr	-16.7%	380	Associate's degree	Short term on the job training
173021	Aerospace Engineering and Operations Technologists and Technicians	529	★☆☆☆☆	$59,859I	$76,228/yr		NA	Associate's degree	None
452011	Agricultural Inspectors	542	★☆☆☆☆	$36,382Iyr	$55,182/yr	2.6%	626	Associate's degree	Short term on the job training
492021	Radio, Cellular, and Tower Equipment Installers and Repairers	554	★☆☆☆☆	$62,585Iyr	$69,745/yr	-0.6%	176	Associate's degree	Short term on the jobt raining
332021	Fire Inspectors and Investigators	573	★☆☆☆☆	$82,385Iyr	$83,728/yr		NA	Associate's degree	Unavailable

1.3 DEMOGRAPHICS - CAMPUS

ACTUAL AND PROJECTED ENROLLMENT

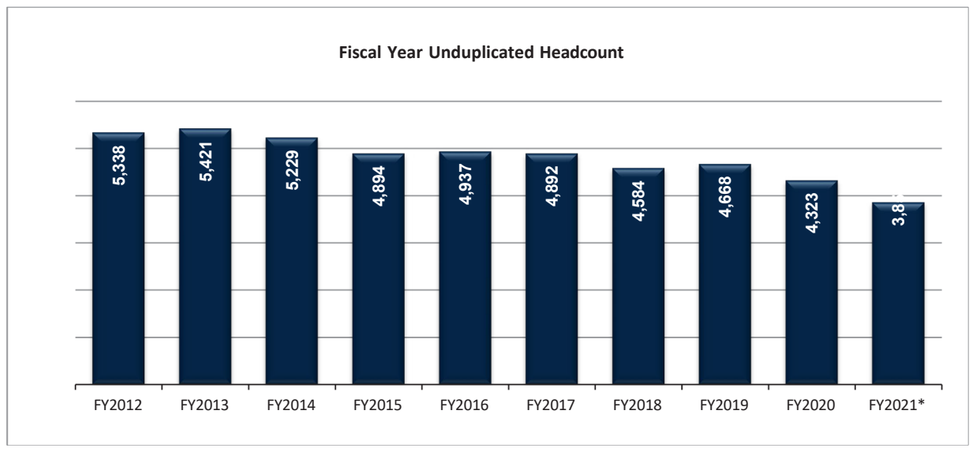
A gradual decrease in enrollment started in 2011and is predicted to continue through 2023. Actual enrollment as shown in the graph below shows a slight increase in 2017, but then decreased enrollment through 2022. Minnesota State system data shows an anticipated increase of 0.3% in 2024 and 1.5% in 2025.

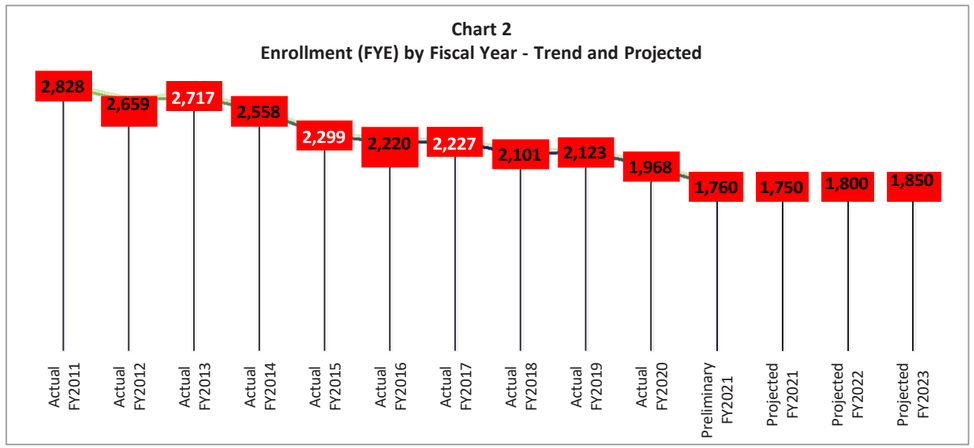
Enrollment Trends

Fiscal Year Headcounts 2012 to 2021

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021*
Summer I	840	767	811	710	704	742	701	718	**614**	**617**
Fall	4,017	4,106	3,833	3,683	3,619	3,629	3,444	3,522	**3,236**	**2,968**
Spring	4,044	4,110	3,959	3,581	3,632	3,467	3,343	3,314	**3,130**	**2,770**
FY Duplicated HC	8,901	8,983	8,603	7,974	7,955	7,838	7,488	7,554	**6,980**	**6,355**
FY Unduplicated HC	5,338	5,421	5,229	4,894	4,937	4,892	4,584	4,668	**4,323**	**3,896**

Source: MinnState ISRS Operational Data, CT_ST_MultiYr, *FY2020 Preliminary as of 5.11.2021





Source: MinnState Finance Division/Student Full-Year Equivalent (FYE) Actual & Projected, Feb. 2021; FY2021 as of 5.11.2021

Table 6: Enrollment Assumptions

System	FY2022 Fall 2021 ACTUAL	FY2023 Fall 2022 PROJECTED	FY2023 Fall 2022 ACTUAL	FY2024 Fall 2023 PROJECTED	FY2025 Fall 2024 PROJECTED
Minnesota State Colleges	-6.4%	-0.7%	-3.0%	0.3%	1.5%
Minnesota State Universities	-5.5%	-0.6%	-5.0%	-0.7%	0.0%
University of Minnesota Twin Cities	1.30%	-0.5%	0.2%	1.0% [i]	1.0% [i]
University of Minnesota Crookston, Duluth & Morris	-4.05%	1.8%	-5.7%	1.0% [i]	1.0% [i]
Private Not-for-Profit Institutions	-3.6%	0.0%	-3.4%	0.0%	0.0%
Private For-Profit Institutions	-6.0%	-2.0%	-20.0%	-2.0%	6.5%

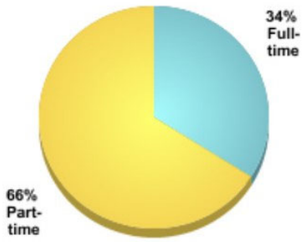
[i] *System-wide estimate*

Charts below from College Navigator (National Center for Education Statistics; nces.ed.gov/collegenavigator/) summarize enrollment patterns for Fall 2021, when the total student count was 2,716. These show profile of students: full time/part time; gender; race/ethnicity; age; where students come from; and distance education status.

FALL 2021

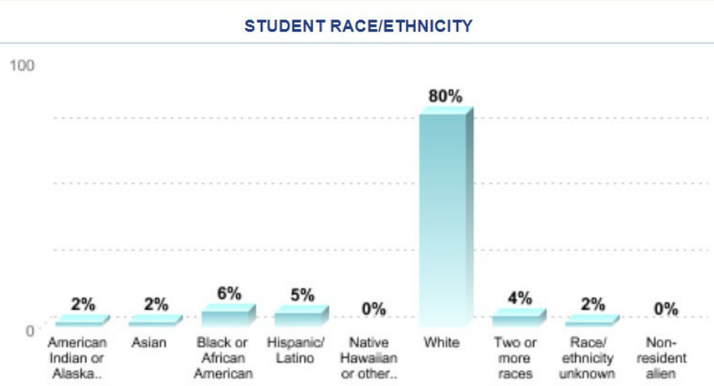
TOTAL ENROLLMENT (ALL UNDERGRADUATE)	2,716
Undergraduate transfer-in enrollment	236

ATTENDANCE STATUS



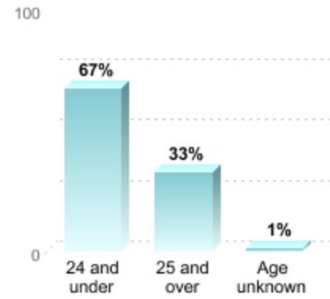
STUDENT GENDER

STUDENT RACE/ETHNICITY

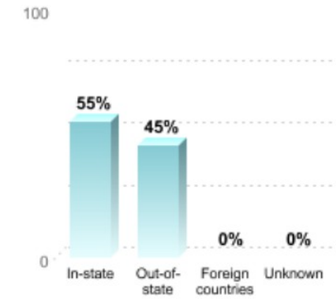


NORTHLAND COMPREHENSIVE FACILITIES PLAN
1.0 CAMPUS PROFILE

UNDERGRADUATE STUDENT AGE

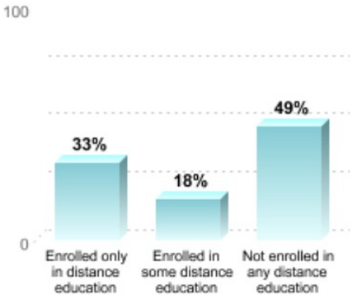


UNDERGRADUATE STUDENT RESIDENCE



- Residence data are reported for first-time degree/certificate-seeking undergraduates, Fall 2020.

UNDERGRADUATE DISTANCE EDUCATION STATUS



EFFECTS OF PROJECTED ONLINE ENROLLMENT

Northland has been making an effort to increase its online and hybrid class offerings over the last decade. With the covid pandemic these classes multiplied. In 2017, 208 class sections were online. In 2019 this number had risen to 336 and in 2021 it raised again to 464. While the campus is resuming more on-campus learning post-pandemic, they continue to offer a high number of online only and hybrid classes and are working to support faculty teaching online.

As online class offerings have increased so has the students taking them. In 2016 22% of undergraduates were online only with an additional 17% taking some online classes. In 2021 undergraduates online had increased to 31%; those with some online classes had risen to 20%.

In the past Northland has not found online class offerings to decrease on campus students. With the vast majority of undergraduate students still receiving at least some of their instruction in person on campus this is anticipated to continue to be the case.

Online Enrollment

	Fiscal Year					
	2017	2018	2019	2020	2021*	5 Yr % Change
Sections Offered	280	285	336	325	**464**	65.7%
FYE	510	521	559	554	**826**	62.1%
Duplicated Headcount	5901	5,792	6,187	6,088	**8,564**	45.1%

Source: Minn State ISRS Operational Data; ST06 Student by Course; Media *preliminary as of 5.5.2021
(98 & 99 temporary for Covid 19 pandemic (FY21); exclusively remote)

Online / Classroom Enrollment

		Fall 2016		Fall 2017		Fall 2018		Fall 2019		Fall 2020	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
NCTC	Totally Online	787	22%	820	25%	904	26%	859	27%	860	31%
	Mostly Online	186	5%	178	5%	188	5%	200	6%	225	8%
	Mostly Classroom	410	12%	346	11%	376	11%	387	12%	336	12%
	No Online	2,136	61%	1,949	59%	1,954	57%	1,744	55%	1,393	50%
Total		**3,519**		**3,293**		**3,422**		**3,190**		**2,814**	
System	Totally Online	23,652	13%	24,682	14%	25,595	15%	26,532	15%	54,635	33%
	Mostly Online	11,728	6%	12,085	7%	12,459	7%	13,144	8%	15,810	10%
	Mostly Classroom	28,737	16%	28,862	16%	30,318	17%	30,276	18%	26,867	16%
	No Online	116,919	65%	111,745	63%	106,201	61%	101,894	59%	65,868	40%
Total		**181,036**		**177,374**		**174,573**		**171,846**		**163,180**	

Source: Minn State ISRS Operational Data; ST06 Student by Course; Media Codes 03, 12, 13, 98, 99; 5.5.2021
(98 & 99 temporary for Covid 19 pandemic (FY21); exclusively remote)

FACULTY DEMOGRAPHICS

Faculty and Staff
Employee Headcount, FTE, and Diversity Measures
Northland Community and Technical College
Fiscal Years 2018, 2019, 2020

Employee Headcount

Employee Role	2018	2019	2020	1-yr. Change	% Change
Instructional Faculty	166	159	153	-6	-3.8%
Service and Support	49	52	49	-3	-5.8%
Professionals	34	34	36	2	5.9%
Managers and Supervisors	11	11	11	0	0.0%
Administrators	9	8	9	1	12.5%
Total	**269**	**264**	**258**	**-6**	**-2.3%**

Table 25

Employee Full-Time Equivalent (FTE)

Employee Role	2018	2019	2020	1-yr. Change	% Change
Instructional Faculty	143.5	141.7	139.1	-2.6	-1.9%
Service and Support	43.5	42.3	39.0	-3.3	-7.7%
Professionals	31.0	31.0	34.7	3.7	12.0%
Managers and Supervisors	11.0	11.0	10.9	-0.1	-1.1%
Administrators	9.0	8.0	8.6	0.6	6.9%
Total	**238.0**	**234.1**	**232.3**	**-1.7**	**-0.7%**

Employee Diversity (Headcount)

Employee Role	2018	2019	2020	1-yr. Change	% Change
Percent Employees of Color	6.3%	5.7%	7.0%	1%	
Number Employees of Color	17	15	18	3	20.0%
Percent Faculty of Color	5.4%	5.0%	6.5%	1.5%	
Number Faculty of Color	9	8	10	2	25.0%
Percent All Other Employees of Color	7.8%	6.7%	7.6%	1%	
Number All Other Employees of Color	8	7	8	1	14.3%

Source: Northland Community and Technical College HR Office / System Office of Human Resources
NCTC's 2018 HR FTE & HeadCount Folder/HR_HC_Private and HR_FTE_Private (Census Point: Y)

1.4 ACADEMIC GOALS

STRATEGIC PLAN

PHILOSOPHY STATEMENT

Northland's approach to strategic planning is based on the premise that a strategic plan is a living document, designed for effectiveness through adaptability and flexibility, and subject to continuous review. Our plan was developed with solicited input from both internal and external constituents along with guidance and facilitation from a third-party consulting firm. The primary focus of the strategic plan is to improve student success, increase our value to the communities we serve and further the institution's viability.

VISION STATEMENT

Northland will be the premier choice for providing exceptional education that transforms lives and strengthens the communities we serve.

MISSION STATEMENT

Northland transforms the lives of students and our communities through a welcoming, supportive, and integrated learning environment.

FOUNDATIONAL GOALS

Foster Student Success

- Improve institutional performance for student success as demonstrated by outcomes related to:
    - o Transfer, graduation, training certificates, job placement and career advancement.
    - o Communication skills, critical thinking skills, social engagement, information and applied technology, and personal development.

Advance the Development of the College

- Increase student enrollment.
- Cultivate high quality faculty and staff.

•Develop new programs and delivery methods to engage more effectively with learners and communities in the region.

- Increase revenues from entrepreneurial and philanthropic sources.

VALUES

- Student Focus
- Personalized Service
- Equity and Inclusion
- Creativity
- Continuous Improvement
- Economic and Workforce Development
- Stewardship

NORTHLAND COMPREHENSIVE FACILITIES PLAN
1.0 CAMPUS PROFILE

STRATEGIC PRIORITIES

Our strategic priorities are derived from the most pressing issues facing both the college and students. Strategic priorities must be aligned with our mission and vision and consistent with our institutional values. They are developed with the intent of employing a three year "rolling priority". This process requires that priorities are revisited each year, amending or adjusting priorities appropriately reflecting actual accomplishment and/or progress. New priorities are then established for year three, resulting in a continuous three-year strategic plan.

Specific action steps associated with each priority and corresponding areas of focus are developed by an ad-hoc work group that is best qualified to work on the specific priority. Implementation of action steps are the responsibility of all involved in the specific strategy with leadership and guidance provided by the institutions core leadership team.

PRIORITIES AND STRATEGIES

Priority 1 ACCESS

Strategy: Meet students where they are to ensure all have access to high-quality educational opportunities.

- 1.1 Expand recruitment to underserved populations.
- 1.2 Provide flexible learning opportunities.
- 1.3 Remove financial barriers for students.
- 1.4 Provide clear pathways for students.
- 1.5 Remove student enrollment barriers.
- 1.6 Streamline transition from pre-college services to programs.

Priority 2 STUDENT SUCCESS

Strategy: Improve outcomes, success, and completion through quality programs, advising, and student development.

- 2.1 Support students in achieving their educational goals.
- 2.2 Provide high-quality, relevant, engaging, and rigorous coursework.
- 2.3 Create a vibrant, supportive, and welcoming environment for students.
- 2.4 Provide exceptional student support services.
- 2.5 Provide individualized services to increase retention and support learning, education, and career goals.
- 2.6 Close equity gaps to improve success for all students.

Priority 3 PARTNERSHIPS

Strategy: Strengthen partnerships with school districts, institutions of higher education, employers, and community organizations.

- 3.1 Expand collaboration with education partners.
- 3.2 Increase community engagement.
- 3.3 Expand employer partnerships.
- 3.4 Respond and adapt to ever-changing market and partner needs.

Priority 4 ADVANCING EQUITY

Strategy: Create an inclusive culture where all can reach their full potential.

- 4.1 Embody a welcoming and inclusive environment for all.
- 4.2 Ensure equitable access to resources for historically underserved individuals.
- 4.3 Ensure our campus community represents a rich array of experiences and viewpoints.
- 4.4 Establish community bonds through an understanding of our common humanity.

STRATEGIC PLAN (CONTINUED)

FOUNDATIONAL PRINCIPLE

We are united as one college to increase educational access, support student success, strengthen partnerships, and advance equity in the communities we serve.

Northland is in the process of also developing metrics to measure the impact of their focused priorities and strategies such as: headcount-credit, headcount-noncredit, FYE, credentials awarded annually, percent of regional high school students attending Northland after graduation.

CATEGORY 1: PROGRAM DEVELOPMENT

CATEGORY 2: STUDENT ENGAGEMENT AND SUCCESS.

CATEGORY 3: PROFESSIONAL DEVELOPMENT AND TRAINING

CATEGORY 4: PROCESS FOR ANNUAL IDENTIFICATION OF STRATEGIC INITIATIVES

CATEGORY 5: RANKING AND SETTING OF STRATEGIC INITIATIVES

NORTHLAND COMPREHENSIVE FACILITIES PLAN
1.0 CAMPUS PROFILE

ACADEMIC MASTER PLAN

CONTEXT AND DEVELOPMENT

As stated in Northland Community and Technical College's Strategic Plan, strategic planning at Northland views the plan "as a living document, designed for effectiveness through adaptability and flexibility, and subject to continuous review." This philosophy of strategic planning is adopted for the 2020 Academic Master plan as well. Within the environment at Northland, we must recognize and balance the expectations and needs of our students, our regional business and industry, the Minnesota State College and University system, and our institutional resource base.

Northland must remain adaptive to shifts within this environmental context. To retain this adaptability, the plan is structured as a three-year rolling plan. The intent is to balance adaptability to needs as they arise (e.g., system initiatives requiring attention within a defined timeline) with the need to strategically identify and pursue long-term institutional initiatives (e.g., development of a new academic program).

The Academic Master Plan further needs to work in accordance with other planning efforts at Northland, including especially the Strategic Plan, the Equity and Inclusion Plan, and the Facilities Master Plan. In aligning with these plans, the Academic Master Plan will keep as its central focus and guide the following:

MISSION STATEMENT

Northland is an innovative leader in higher education, preparing all learners with work and life skills that advance personal well–being and regional prosperity.

VISION STATEMENT

Northland will be highly valued for providing exceptional education that transforms lives and strengthens the communities we serve.

FUNDAMENTAL GOALS

- Foster Student Success
- Advance the Development of the College

INSTITUTIONAL VALUES

- Meet students where they are at
- Focus on student success
- Provide a high value learning experience
- Work collaboratively and build relationships
- Advance diversity, equity and inclusion
- Promote global competency
- Encourage innovation and creativity
- Pursue quality and continuous improvement
- Meet community and workforce needs
- Practice financial stewardship

ACADEMIC MASTER PLAN (CONTINUED)

As a Minnesota state college, we have the advantage of system level planning that incorporates significant research and development. The strategic direction provided to Northland through Minnesota State is an asset as we strive to meet our mission and vision in serving our students and regional partners. Strategically incorporating this system level work into our regional work and experience is a key element of this Academic Master Plan framework.

Framework

1. The core of the framework is a rolling plan that prioritizes initiatives on a three-year horizon.

2. The number of initiatives in each year will depend on the size and depth of the specific projects. A range of 2-6 initiatives is typical.

3. An effort to balance initiatives, over time, across the following categories will be made. The categories include:

CATEGORY 1: PROGRAM DEVELOPMENT

CATEGORY 2: STUDENT ENGAGEMENT AND SUCCESS.

CATEGORY 3: PROFESSIONAL DEVELOPMENT AND TRAINING

The complete document further outlines the process and steps to be taken annually for Northland to identify potential strategic initiatives and how they will be reviewed and ranked before becoming part of current living document.

FY23 ACADEMIC MASTER PLAN INITIATIVES

Short-Term Credential Review and Development
Review existing CTE programs for development of additional and/or new stackable credentials and micro-credential

New Program Development
Research 2 new academic program offerings for viability and development at Northland, per Strategic Master Plan

Development Education Curriculum
Math Pathways Grant project developing co-curricular model in developmental math and specific college math courses. Continue to review and look at redesign developmental ed curriculum in English for a model that (1) better individaulizes learning, (2) better aligns with direction of the multiple measures of placement, and (3) reduces reliance on standardized tests like the Accuplacer.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
1.0 CAMPUS PROFILE

Program Communication and Recruitment Development
Provide training and supprot for faculty using new CRM (Customer Relationship Management) tools -- Salesforce Enrollment Services and Student Success Hub. 1: Enrollment Services-revamp and redevelop communication messaging and timing for prospects and admits in conjunction with admissions. 2: Student Success Hub - support faculty in learning and applying tool in communications with current students in programs and/or courses.

Competency Based Education
FY23 is ongoing project work in this area: Launch of Warroad site in partnership with Marvin. Ongoing support for Weld TRF, Mech EGF and launch of ETAS AVIA . Assessment of delivery mode for industry partnerships with CBE specific advisory group. Work with Digikey on ETAS and DKU 2.0 design.

Pathways
Examine use of educational pathways in partnership secondary and post-secondary schools, including existing CHS, OCHS, and PSEO partnerships as well as secondary school systems developing and/or implementing "academy models."

ACADEMICS

Northland offers 40 associate degrees, 27 undergraduate certificates, and 20 diploma recieving programs. A complete list undergraduate and graduate programs is available below.

DEPARTMENTS AND PROGRAMS

AEROSPACE

Aviation Maintenance Technician Plus
- Certificate - TRF

Aviation Maintenance Technology
- A.A.S. or Diploma - TRF

Small Unmanned Aircraft Systems Field Service Tech
- Diploma - TRF

UAS & Geospatial Applications
- Certificate - TRF

Unmanned Aircraft Systems Maintenance Technician
- Certificate - TRF

AGRICULTURE

Animal Science
- A.A.S. - TRF

Farm Operations & Management
- Diploma - EGF

Advanced General Agriculture
- Certificate - TRF

Agriculture Education
- A.S. - TRF

General Agriculture
- Certificate- TRF

AUTOMOTIVE & TRANSPORTATION

Automotive Electronics and Drivability
- Certificate - TRF

Automotive Engine Repair, Suspension, and Brakes
- Certificate - TRF

Automotive Service Technology
- A.A.S. or Diploma - TRF

Auto Body Collision Technology
- A.A.S. or Diploma - TRF

Collision & Refinishing Technician
- Certificate -TFR

Sheet Metal Repair Technician
- Certificate - TRF

BUILDING TRADES

Architectural Technology & Design
- A.A.S. or Diploma - EGF

Intro Architectural Technology & Design
- Diploma - EGF

Carpentry - Residential
- Diploma - EGF

Construction Electricity
- Diploma - EGF

Construction Plumbing
- Diploma - EGF

Heating, Ventilation, & Air Conditioning/Construction Plumbing
- A.A.S. - EGF

Heating, Ventilation, & Air conditioning
- Diploma - EGF

BUSINESS, MANAGMENT, & MARKETING

Accounting
- A.A.S. - EGF, TRF, & Online

Accounting Clerk - Microcomputer Applications Emphasis
- Diploma - EGF & Online

Accounting Transfer Pathway
- A.S. - EGF, TRF, & Online

Administrative Office Specialist
- Diploma - EGF & Online

Administrative Professional
- A.A.S. - EGF & Online

Business Transfer Pathway
- A.S. - EGF, TRF, & Online

Customer Service
- Certificate - EGF, TRF, & Online

Digital Marketing
- A.A.S or Certificate - Online

Marketing & Management
- A.A.S - EGF & Online

Supervisory Leadership
- Certificate - EGF, TRF, & Online

EDUCATION

Early Childhood & Paraprofessional
- A.A.S. or Certificate - EGF & Online

HEALTH & HUMAN SERVICES

Dietetic Technician
- A.A.S. - Online

Health Sciences Broad Feild
- A.S. - EGF, TRF, & Online

Medical Administrative Assistant
- A.A.S. - Online

Medical Office Specialist
- Diploma - Online

Patient Access Specialist
- Certificate - Online

Medical Coding Specialist
- A.A.S - Online

Nursing
- A.S. - EGF & TRF

Nursing Assistant
- Certificate - EGF & TRF

Practical Nursing
- Diploma - EGF, TRF, & Online

Occupational Therapy Assistant
- A.A.S - EGF

Paramedic
- A.A.S. or Diploma - EGF

Pharmacy Technology
- A.A.S. or Diploma - EGF

Phlebotomy
- Certificate - EGF

Physical Therapist Assistant
- A.A.S - EGF

Radiologic Technology
- A.A.S. - EGF

Respiratory Therapy
- A.A.S. - EGF & Online

Surgical Technology
- A.A.S. - EGF

INFORMATION TECHNOLOGY

Cisco Networking
- Certificate - EGF

Computer & Network Technology
- A.A.S. - EGF

IT Cybersecurity
- A.A.S. - EGF

LAW & PUBLIC SAFETY

Criminal Justice- Law Enforcement
- A.A.S., Certificate, & Diploma - TRF

Fire Technology
- A.A.S. - EGF

MANUFACTURING & INDUSTRY

Electrical Engineering Technician
- A.A.S. - TRF

Industrial Automation Control Technician
- A.A.S. - TRF

Automation
- Certificate - TRF

Certified Production Technician
- Certificate - EGF & TRF

Mechanical
- Certificate - EGF

Mechatronics
- A.A.S. - EGF & Warroad

Production Technologies
- Certificate - Online

Welding Technology
- Certificate - Online

Welding Process Technology
- Diploma - TRF

Welding Process Technology GMAW
- Certificate - TRF

Welding Process Technology GTAW
- Certificate - TRF

Welding Process Technology SMAW
- Certificate - TRF

Welding Technology
- Diploma - EGF

RECRUITMENT STRATEGIES

Northland recognizes the majority of their students continue to be under 24 years old. As such they have included priorities in their strategic plan to maintain and grow recruitment of high school students. This is especially seen in Priority 3 to strengthen their partnerships with regional school districts. Strategic plan priority 1 will also directly impact recruitment as it focuses on ensuring all students feel they will be able to access the high-quality educational experiences found at Northland. This will be done through their goals to 1) expand recruitment to traditionally underserved populations, 2) provide flexible learning opportunities, 3) remove financial barriers, 4) provide clear pathways, 5) remove enrollment barriers, and 6) streamline the transition from pre-college services to programs. The campus is looking to track the success of these measures with the anticipated metrics included in the living strategic planning.

Northland is also a great resource for students who are not able or ready to enroll in higher education full-time and see about two-thirds of their students enrolled part-time. Along with many of the previous strategies noted above, the campus continues to increase its class offerings by providing several variations of in person or remote and live or recorded instruction to expand the flexibility needed by these students to promote their success at Northland.

COURSE DELIVERY

Since the previous CFP the campus has updated numerous classrooms to improve their technology and allow for multiple course delivery methods. These were valuable as the campus looked to provide more remote and hybid classes due to the covid pandemic. Course delivery continues to become more flexible, allowing the ability for an instructor to teach simultaneously to students in classrooms on both main campuses. This flexability also allows students to take most classes with the course delivery method that works best for them. Where able the campus is providing flexible furnishings that can be reconfigured during class and increase wireless internet access for the ever growing use of technology in teaching.

Northland is also working to increase the number of student collaborative areas across campus for group work to not only happen in classrooms or the library. Students are being given the ability to study together in small enclosed rooms or open lounge-like spaces with flexible furniture. Flexibiity in these spaces will continue to be vital for student success. The campus should look to continue to expand and provide them throughout.

Face-to-Face
Traditional on-campus classes that meet in-person

Blended/Hybrid
Mix of scheduled times with a precentage of online components. Your class meetings will be on your schedule.

Hyflex
Flexible options, you can choose to attend scheduled class meetings, or attend online or both.

Completely Online Synchronous
Meet online at scheduled times with instructor and classmates.

Completely Online Asynchronous
Complete on your own time within deadlines set by your instructor.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
1.0 CAMPUS PROFILE

1.5 TECHNOLOGY PLANNING

TECHNOLOGY MASTER PLAN

Northland's current Technology Master Plan is Fiscal Year 2021 - 2026. The following are excerpts from the plan:

TECHNOLOGY PLANNING

The purpose of this technology plan is to evaluate Northland Community and Technology College's existing technology services, infrastructure usage, and make recommendations for future planning and direction.

The growth and expansion of technology brings continuous change. Planning for technology is difficult when the landscape changes every day. The success of the technology master plan is dependent on numerous factors such as sufficient financial resources and staffing.

Members of the Facilities-Technology Committee, comprised of faculty, staff, and students work together to create and update the technology plan. Future technology planning will be aligned with the Facilities Master Plan and Academic Strategic Plan.

The student technology budget and recycling plan is reviewed annually with the Facilities-Technology Committee and members of Student Senate.

FACILITIES-TECHNOLOGY COMMITTEE

The primary purpose of the Facilities-Technology Committee is to provide recommendations for the continuous improvement and future direction of the facilities and technology infrastructure and services. The committee will seek input from employees and students through annual surveys. Survey results of needs and ideas are reviewed by the committee in the spring of each year, and recommendations carried forward for budget planning purposes. Survey results are also shared with numerous other committees and groups to encourage feedback and input.

FACILITIES-TECHNOLOGY COMMITTEE MODEL - ADOPTED 2013

Northland Community and Technical College offers an array of technology resources and infrastructure dedicated to student learning. Students and faculty play an active role in the committee and make recommendations regarding expenditures of student technology fees.

GUIDING PRINCIPLES

- Let all deliberations be guided by Northland's mission and vision statements.
- Be inclusive, seek and include input from the college community.
- Frequently share information with colleagues regarding your work on a technology team.
- Share information to all employees from meetings via college e-mail and website.
- Address both short and long-term technology needs of the college community.
- Make recommendations to the college-wide Technology Committee regarding future planning initiatives and investments.

INFORMATION TECHNOLOGY SERVICES (ITS) DEPARTMENT

The Information Technology Services department provides students and employees with computer and technology services necessary to support and enhance the educational learning environment. ITS is the first point of contact for all technology-related services for support. To better serve students, faculty and staff, an ITS Department is offered on both the East Grand Forks and the Thief River Falls campuses of Northland Community and Technology College.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
1.0 CAMPUS PROFILE

Information Technology Services Mission and Vision

Our Mission is "To provide Technology Solutions and Creative Services" with a Vision "To be the group that links the college community to future possibilities."

INFORMATION TECHNOLOGY SERVICES GOALS

Goal 1 – Provide an atmosphere of customer service.

Goal 2 – Research and establish technology standards to improve the delivery of technical support and services.

Goal 3 – Provide and research innovative ways to utilize uses of technology.

Goal 4 – Establish and maintain technology infrastructure.

Goal 5 – Work as a college-wide IT team that capitalizes on each other's strengths and compensates for each other's weaknesses.

OVERVIEW

Minnesota B3 guidelines and SB 2030 requires carbon neutral design by 2030. This Comprehensive Facilities Plan helps Northland respond to that requirement and provides a framework for action and the potential to become a carbon neutral campus.

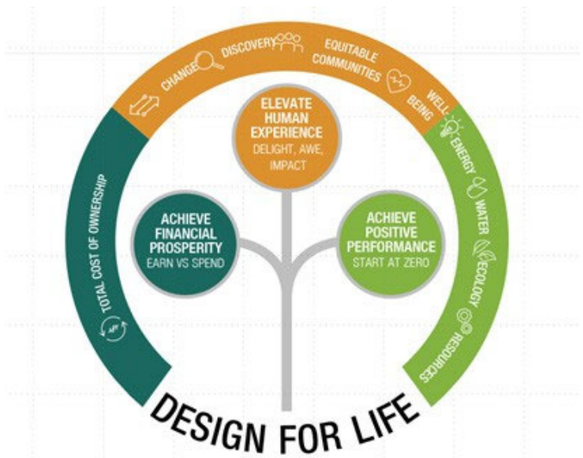
The next generation of college students have expectations for positive environmental impact. This plan considers new ways of thinking and acting with potential for better outcomes.

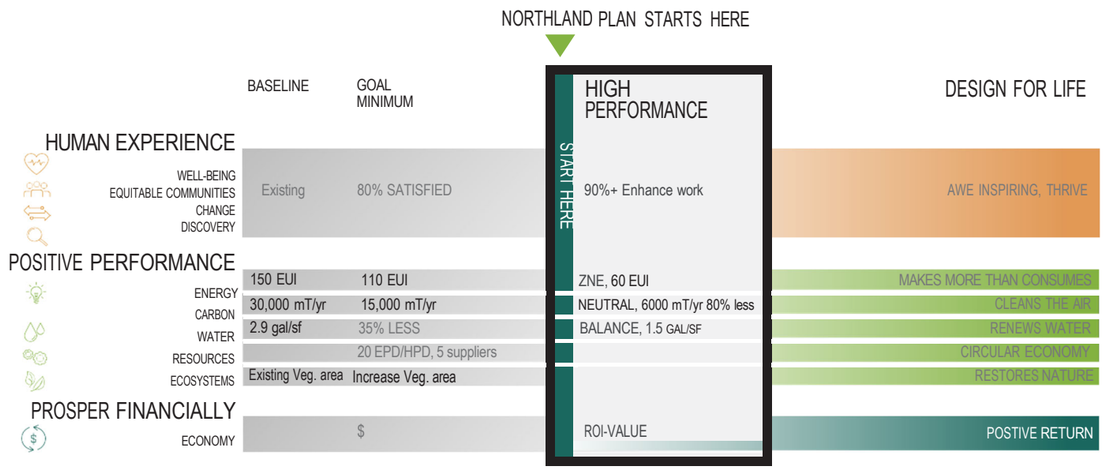
The comprehensive plan considers this future state and seeks to elevate the human experience rather than simply continue current or past conditions.

This is a transformative time. This Northland CFP has the opportunity to accelerate the transformation to the clean, carbon neutral, renewable energy future that promotes individual and community health and wellness enhancing the learning experience

and result in a better business case for Northland.

The following diagram and chart illustrate a forward thinking approach based on a Design for Life vision and value.





ELEVATE HUMAN EXPERIENCE

The built environment can greatly impact the health and well-being of those who use it. This CFP considers:

- Awe-inspiring, in a way that creates a culture of connecting
- Supportive of regenerative health, wellness, and resilience
- Interactive learning approaches, new teaching styles, supports learning flexibility
- Typologies based on the site and nearby living organisms and land forms
- Connect people to nature and advance the future of science learning

ACHIEVE POSITIVE PERFORMANCE

The Northland CFP starts at zero by:

- Produce more than they consume with low EUI and renewable energy
- Clean the air by being carbon positive
- Water systems that renew natural water shed health and achieves water balance
- Waste systems that limited or eliminate waste
- Material approaches that are sourced locally and promote a circular economy
- Healthy natural ecology that is strengthened and invites human connection and learning

ACHIEVE FINANCIAL PROSPERITY

Financial health is an important piece of total sustainability. For Northland a thriving business case is

Intertwined in the plan. The best business case for financial well-being has been integrated into the CFP and includes:

- Total cost of ownership that balances first cost and life cycle cost
- Right-sized the plan resulting in a better business case
- Operations considerations
- A plan that seeks to improve Northland's ability to thrive financially

TENANT OCCUPANT BEHAVIORS REQUIRED TO ACHIEVE EUI GOAL

1. Equipment: Install only energy-efficient equipment: Laptop computers, energy efficient computer monitors, Energy Star office equipment

2. “Normal Off” behaviors – lighting, equipment, etc.

3. Plug Load Reduction: behavior modifications to reduce plug loads. (Plug Loads = equipment plugged into an outlet and consuming energy)

4. Temperature: Consider interior temperatures range of: 68 deg F to 75 deg F.

Solar PV systems, wind and ground source systems are recommended. Feasibility studies with power purchase agreement providers should be explored. It is intended the renewable systems will be connected to a local utility system using a net metering approach. Consider an area in the building to be reserved for battery storage as part of the resiliency and ZNE plan for the building.

BEST PRACTICES FOR LOW EUI

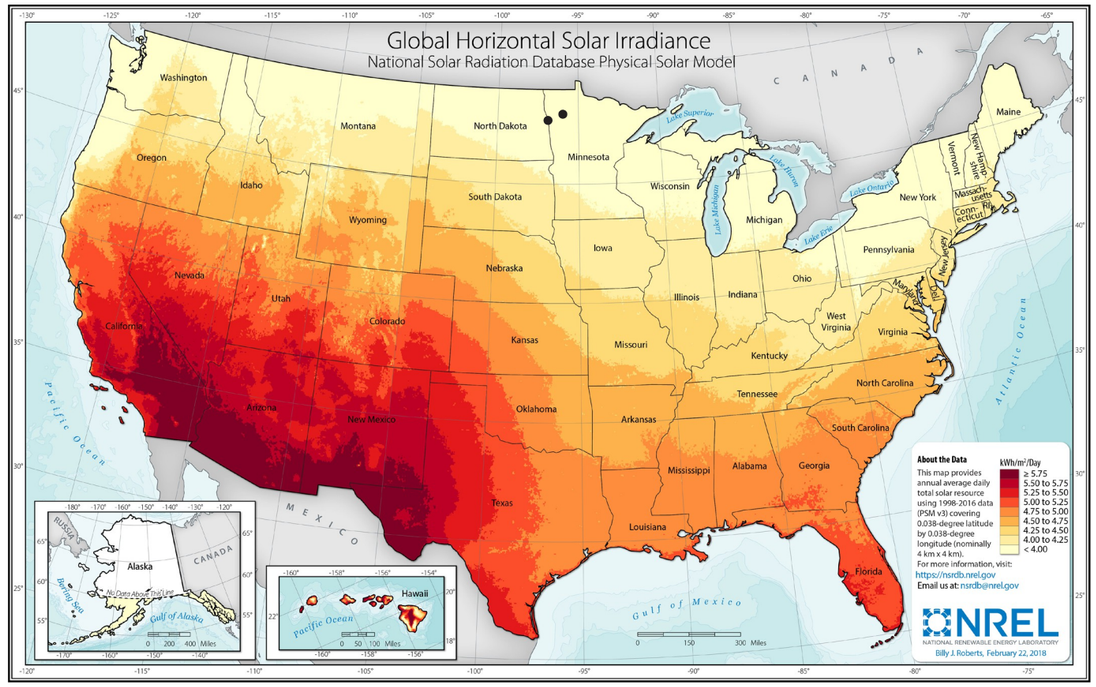
Above are examples of the systems intended to support the ZNE design. An integrated approach involving building massing and orientation, envelope design, window to wall ratio and product performance, lighting and controls, efficient plug loads and management, metering and monitoring with verification of performance, user education and behavior change, efficient heating and cooling systems including radiant systems with underfloor systems for outside air distribution. As an example daylighting design was maximized. After that efficient lighting was provided using LED lighting. Instead of the assumed default of lights on the new assumed default is “lights are off” whenever possible during the day. An action is needed to turn the lights on and then after use the lights automatically default to off.

RESOURCE ANALYSIS

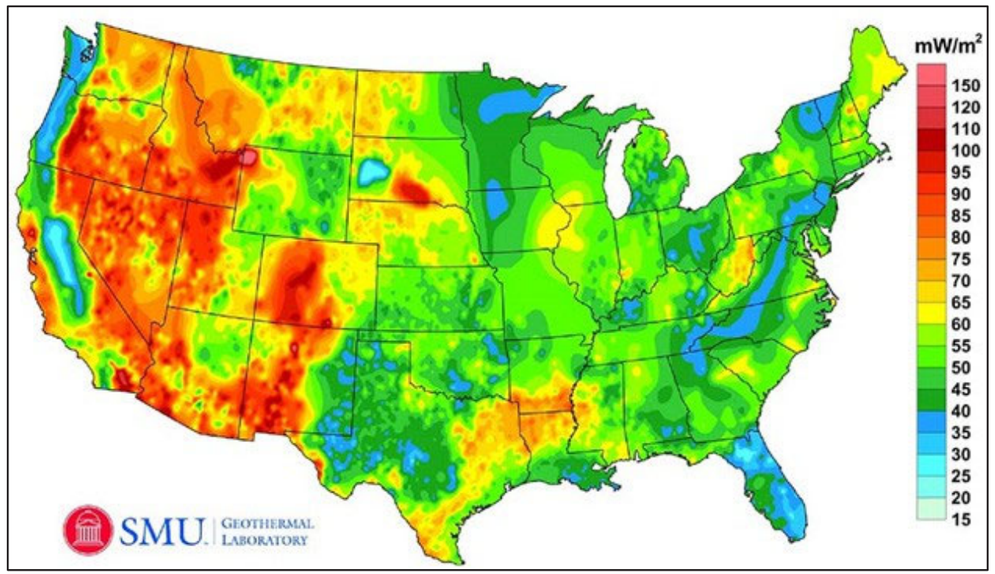
The project site has abundant natural resources. Information is included here about sun, wind and water.

SUN

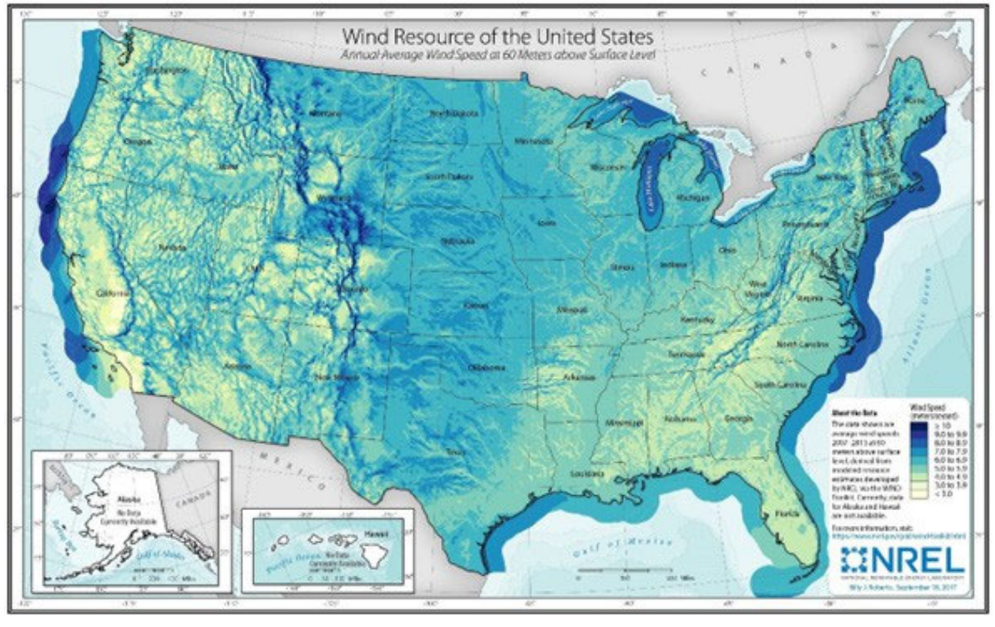
The sun provides an abundant resource for solar PV electricity generation. In addition, the sun provides outside daylight of about 5000 foot candles (fc) at the highest during the summer and a low of about 3,000 foot candles during the winter. Building space lighting needs require only about 1% to 2% of this daylight to be harvested and used to daylight spaces at about 30 fc to 80 fc. Proving natural light helps improve user satisfaction and lowers energy use by allowing artificial lights to be off during daylight hours if daylight controls are installed and operated correctly. The buildings should be designed to optimize daylight harvesting with the default for lighting controls to have all lights off unless daylight is inadequate during the day and during night operating hours. Optimizing insulation and glazing helps reduce solar heat gain during the hot summers. Solar electricity generation potential according to NREL maps is 4.0 to 4.5 Kwh/sq m/day.



GROUND SOURCE HEATING AND COOLING



WIND ENERGY POTENTIAL



WIND

The wind offers an opportunity for natural ventilation. Wind electricity generation should be evaluated further and is represented in the plan with bladeless technology that is emerging. U of M Morris campus in the region has installed two large wind generators as part of its strategy to be net zero energy and carbon neutral. This local case example can provide an important reference for implementing this plan.

CODE COMPARISON TO ZNE OPTIONS

	Code Baseline	**ZNE Options**
Walls	• R-11 batt in stud	• Optimize with continuous insulation and whole building R value
Roof	• R-25 Continuous • Cool roof (SRI = 75)	• Optimize Roof Assembly, R40 to 50 • White roof SRI about 100
Windows	• High perf, w/thermal break o U=0.42 (assembly) o SHGC=0.25 (assembly) o VT=0.47 (assembly)	• Viracon VNE1-63 o U=0.63 (assembly) o SHGC=0.29 9 (glass) o VT=0.63 (glass)
Lighting Power Density	• 0.8 to 1.2 w/sf (Whole building average)	• 0.3 to 0.6 w/sf (Whole building average)
Daylight controls	• None in Baseline – exceptions apply to rooms with <24 sf of glazing or <120W installed in daylit area	• Automatic daylight controls • Default off for electric lights, vacancy sensors keep lights off whenever possible.
Occupancy sensors	• Mandatory in Conference Rms, Office spaces <250sf, Multipurpose <1000sf	• Vacancy sensors
Misc Loads	• Plug load management	• Expanded plug load management - CEC study estimates that plug load management can reduce plug load energy by up to 40% in office buildings. Plug load management can be a combination of hardware, software, and occupant behavior measures.

- Measurement & Verification (M&V) will be crucial to maintaining Net Zero Energy operations.
- Detailed occupancy profiles in the energy model are available upon request.

OPERATIONS, MONITORING AND REPORTING

A critical part of achieving net zero energy is ongoing operations. How the people use the building and monitoring the performance of the building are essential in achieving ZNE goals. Design by itself can only give an owner the potential for ZNE. The achievement of the goal comes in operating and human behavior. To accomplish this monitoring systems are needed beyond a simple building energy meter. Each building should be separately metered but within each building major sub systems need to be monitored. At a minimum lights, heating and cooling and plug loads should be separately reported to allow monitoring progress toward ZNE.

RECOMMENDED ZNE VERIFICATION ACTIONS

1. How to calculate
2. When to perform validation?
3. When to perform validating
4. How to validate?
5. Who does the validates?
6. How long to monitor – panel life 25 years?

   Panel degradation. 0.45% per year to 0.2% per year.

Verifying actual achievement of ZNE performance has several steps, starting during design and continuing through actual operations:

1. Metrics: Choose a primary metric for measuring energy consumption and production: site kBtu/sf-yr. With energy modeling assistance from this team or a third party both can be tracked.

2. Design: Optimize the design, providing the potential for reduced annual electric (energy) consumption.

3. In addition to the building sub-meter, also separately monitor the plug loads and the HVAC units. Other uses can be subtracted from the total use shown by the sub-meter.

4. Renewable Energy: Provide renewable energy to offset the annual energy consumption. Determine quantity of contingency renewable energy to accommodate variations in annual energy use to assure ZNE performance year to year.

5. M & V: Develop a Measurement and Verification Plan (M&V) during construction documents phase. The M&V Plan identifies the approach and controls for monitoring discrete end uses and total energy relative the energy use predicted during design. It will also identify tasks needed during the first year of operations, when they should be done, and who will be doing which tasks. The plan should be consistent with the International Performance Measurement and Verification Protocol.

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6. Commissioning: Include ZNE criteria into the Commissioning Plan. Consider retro commissioning for existing buildings every 5 years to maintain optimal performance.

7. After two months of occupancy, remodel the building with the as-built plans, installed plug loads, updated occupancy profile, and chosen HVAC set-points. Calibrate the model to actual weather. This updated energy model predicts the energy uses for the first year of M&V.

8. Energy Management: identify energy consumption and energy production by whole building and major sub-systems for building operators to manage energy use.

9. Energy Dashboard and Occupant Behavior: Display energy consumption and production for building occupants to see and engage occupants in achieving energy goals.

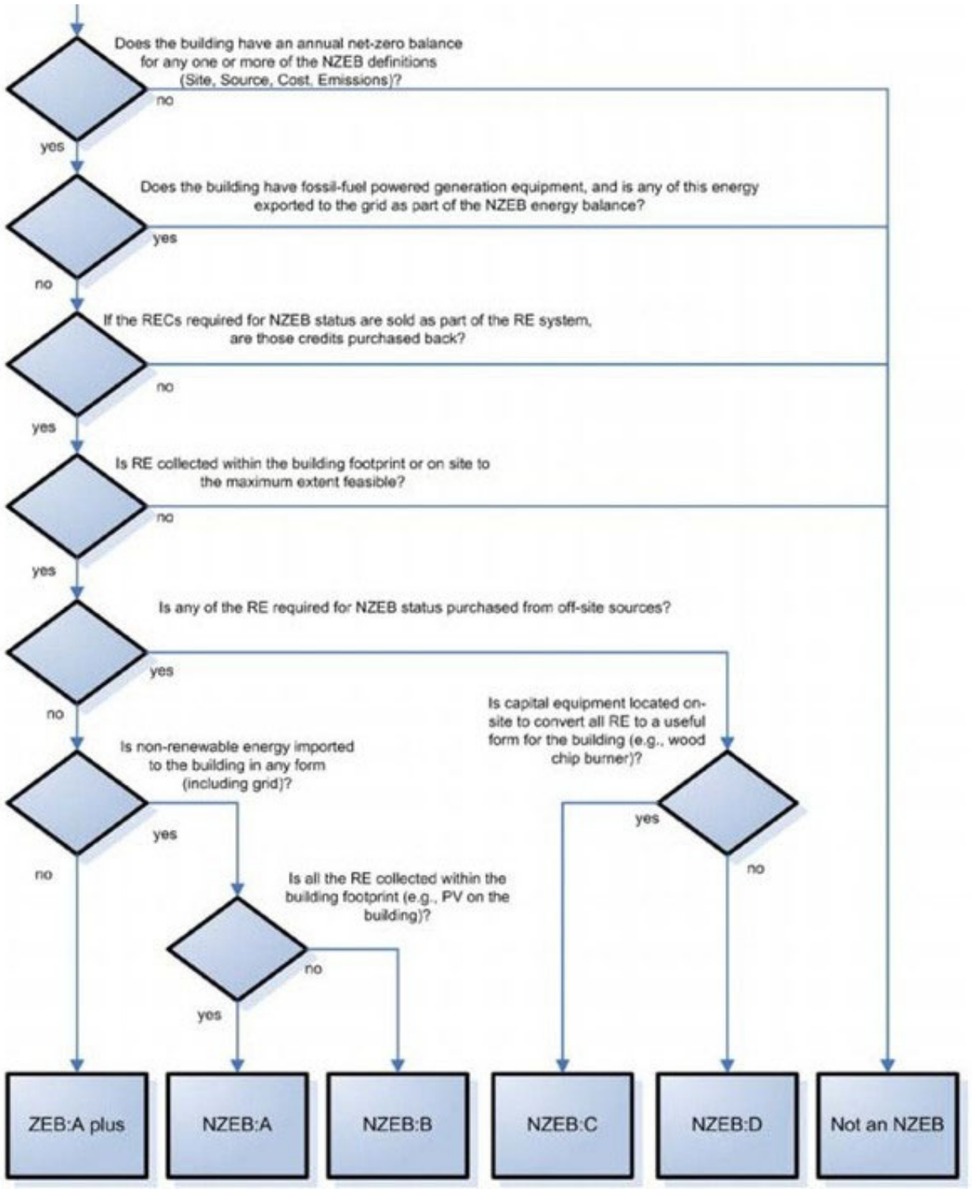
10. First Year of ZNE Operation (usually months 3 through 14): Follow through on monitoring and troubleshooting the project during with special emphasis on the first year start-up and tuning phase. Year one of any building requires some period for adjusting and tuning, learning and understanding the new building. This is especially true for a ZNE building. Allow time for the use of the building to stabilize and for user and operators to understand how to operate the new building.

11. Celebrate: After one continuous year (12 consecutive months) of ZNE operations, celebrate the success achieved!

12. Ongoing Operations: Once you achieve the first 12 months of ZNE it's not over. Continuous operation monitoring and occupant behaviors need to be maintained. Ongoing monitoring and continuing the M&V plan for the life of the project is essential to continued ZNE performance.

NET ZERO ENERGY CLASSIFICATION FLOW CHART

The NREL classification in the table below identifies options for the type of ZNe building.



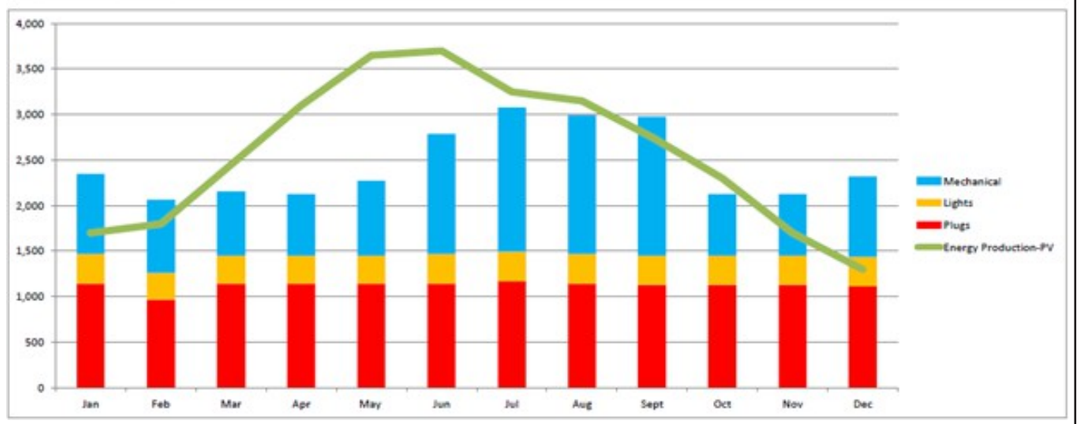
DATA COLLECTION FOR ZNE VERIFICATION

Below is an example of the type of data needed to self-verify ZNE performance.

Below is an example of an energy dash board for building occupants to see the ZNE performance.

Net Zero Energy Verification Kwh

2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual Total
Energy Production-PV	1,700	1,800	2,450	3,100	3,650	3,700	3,250	3,150	2,750	2,300	1,700	1,300	30,850
Energy Use													
Plugs	1,144	968	1,144	1,144	1,144	1,144	1,170	1,144	1,129	1,129	1,129	1,114	13,501
Lights	323	293	308	308	308	323	323	323	323	323	323	323	3,798
Mechanical	880	806	704	674	821	1,320	1,584	1,525	1,525	674	674	880	12,067
Total	2,346	2,067	2,155	2,126	2,273	2,786	3,076	2,991	2,977	2,126	2,126	2,317	29,367
NZE Verification	-646	-267	295	974	1,377	914	174	159	-227	174	-426	-1,017	1,483
Energy Use Intensity kbtu/sf/year													36



OCCUPANT BEHAVIOR SUMMARY OVERVIEW

The marketplace expects that high performance buildings will inherently use less energy, be healthier, and create less waste than a standard code-built building, but this expectation overlooks the critical impact that the people who occupy a building have on environmental performance.

Organizations who invest in zero net energy buildings are often surprised when they don't meet their anticipated outcomes, largely because, as actual data indicates, occupancy is a core driver of building performance.

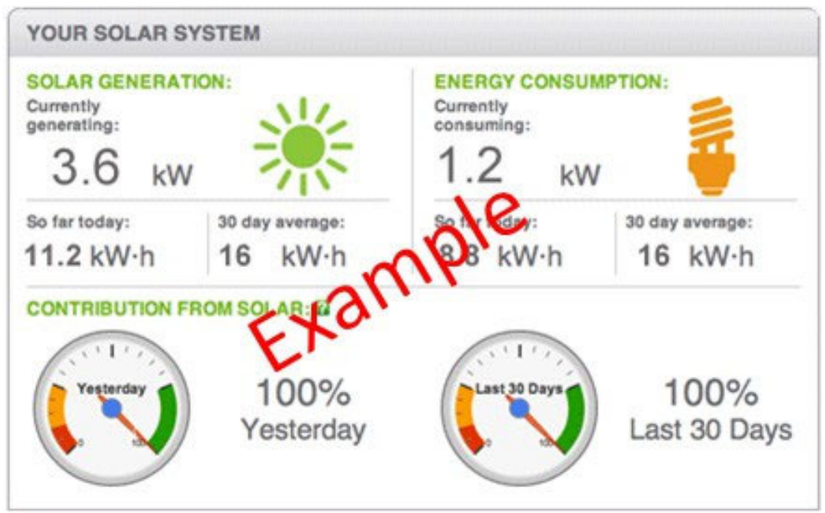
Therefore, occupant engagement strategies around high performance building are a key element in meeting operating goals. Behavior change is the result of many simultaneous efforts that are each individually focused on generating a culture of conservation. While the core value of any high performance project is energy use reduction, experience suggests that this cannot be achieved without consideration for the larger spectrum of sustainability. What's more, individual motivations vary widely. It follows that a well-rounded and complete set of services are required.

Required Services

- Education & awareness delivered in a consistent manner designed for busy people
- Meaningful "calls for action" that deliver the desired outcomes such as lower EUI
- Gamification to incentivize and socialize the user experience
- Measurable Results at utility meters

Delivered on a platform that is accessible on any device, anyplace, at any time

- Cloud-based portals
- Smart Phone Apps



CARBON – CLEAN THE AIR

Many colleges and universities across the country have signed the College President's Climate Commitment.

The state of MN SB 2030 law applies to Northland with a goal for carbon neutrality by 2030. 1. Baseline: A separate carbon footprint study is recommended.

2. Goal: Carbon avoided due to energy efficiency and low EUI compared to baseline

3. Stretch Goal: Carbon Neutral.

This plan recommends a basic framework for becoming carbon neutral. Additional actions are needed including:

1. Carbon Footprint of campus

2. A tracking method

3. Detailed carbon neutral plans

U of M Morris Campus has made significant progress toward the 2030 carbon neutral goal. This is one regional example showing carbon neutral performance is achievable.

A recent report published by the New Buildings Institute shows a significant increase in zero energy buildings around the country.

WATER – RENEW WATER RESOURCES

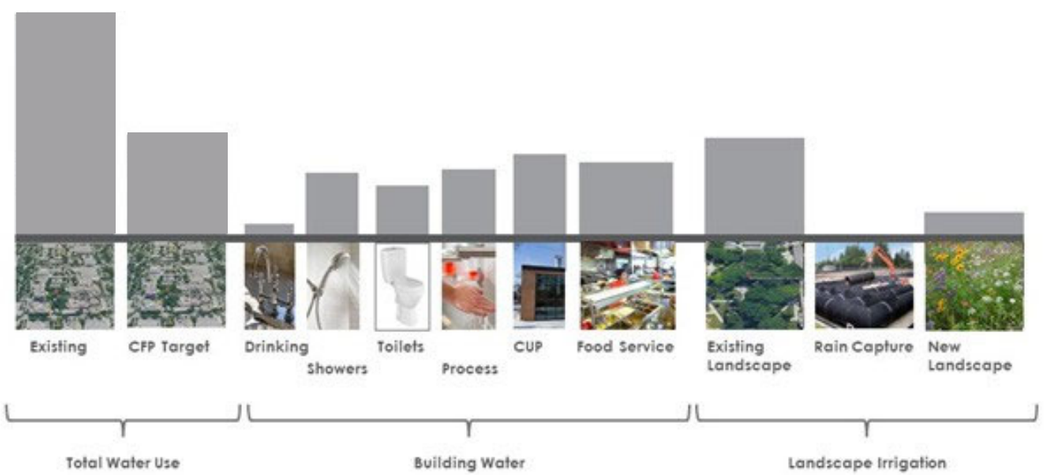
Achieving a balance between on-site resources and reduction of consumption is a is urgently needed. Conserving water is an important related priority as part of the plan. To achieve water balance, water use should be less than or equal to the average annual rain in gallons that falls on the site area.

Water use reduction is an important issue for the community. The area experience challenges with water supply. Water balance planning is the intent of this goal. The diagram below shows Northland can reduce total water use and be net positive water compared to annual rainwater that falls on the core campus area.

1. Water Budget: 3.3 gallons per person per day. Calculated based on gallons of annual rain water that falls on the area of the site.
2. Landscape Water Use:
    a. Baseline: Calculated
    b. Goal: No potable water for irrigation system.
3. Building Water Use:
    a. Baseline: Calculated
    b. Goal: 30% less building water use.
    c. Daily allowance: 2 urinals uses/day male x 0.125
    d. 1 WC/male, 3 WC/female x 1.28.
    e. Drinking - 0.5, Lavatory – 0.3,
    f. Stretch Goal: Water balance.

Annual rainwater calculated based on site area. Rain fall in inches was converted to gallons per year using the following website.

https://water.usgs.gov/edu/activity-howmuchrain.html



NORTHLAND COMPREHENSIVE FACILITIES PLAN
1.0 CAMPUS PROFILE

WASTE – ZERO WASTE

Eliminating waste should be the primary goal followed by waste recovery and recycling to divert solid waste from landfill. Developing policies regarding waste are tasks for subsequent phases and implementation by Owner. Significantly reducing solid waste can save money in disposal costs, avoids carbon from hauling and landfill gases generated and land area used for disposal.

1. Construction and Demolition Waste Diversion from Landfill:
    a. Baseline: 75% diversion is the minimum.
    b. Goal: 95% + diversion
    c. Stretch Goal: Zero Waste.
2. Operational Waste Reduction: It is recommended to prepare a separate zero waste plan for MSUM operations.

MATERIALS – CIRCULAR ECONOMY

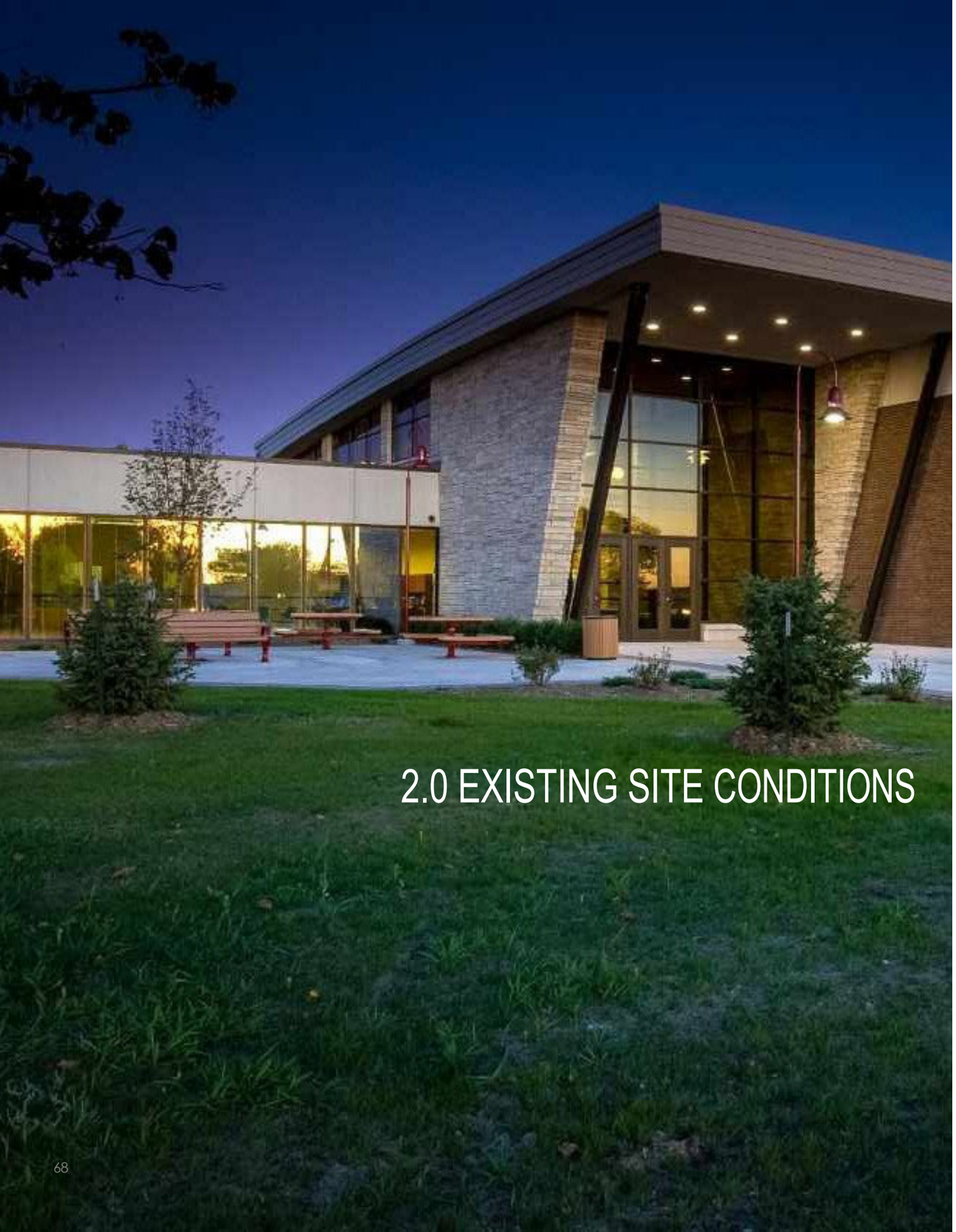
There are many items that contribute to sustainability with materials and site features

1. Recycled Content
    a. Baseline: 10%
    b. Goal: 20%
    c. Stretch Goal: 30%
2. Local Supply
    a. Baseline: 10%
    b. Goal: 20%
    c. Stretch Goal: 30%
3. Strive to avoid use of products that contain red list chemicals and require submittal of Environmental Product Declarations, Health Product Declarations and establish an embodied carbon standard.
4. FSC Certified wood
5. Cradle to cradle – circular economy
6. Biomimicry based products

The “Red List” is published by International Living Futures Institute. This list includes both chemicals and chemical groups. A detailed list expands chemical groups into the individual chemicals of which they are composed. There are over 815 individual chemicals.

1. Alkylphenols
2. Asbestos
3. Bisphenol A
4. Cadmium
5. Chlorinated polyethylene and chlorosulfonated polyethlene (CSPE); HDPE and LDPE are excluded from the Red List.
6. Chlorofluorocarbons (CFCs)
7. Chlorobenzenes
8. Chloroprene (neoprene)
9. Chromium VI
10. Chlorinated polyvinyl chloride
11. Formaldehyde (added)
12. Halogenated flame retardants (HFRs)
13. Hydrochlorofluorocarbons (HCFCs)
14. Lead (added)
15. Mercury
16. Polychlorinated biphenyls
17. Perfluorinated compound
18. Phthalates
19. Polyvinyl chloride
20. Polyvinylidene chloride
21. Short Chain Chlorinated paraffins
22. Wood treatments containing creosote, arsenic or pentachlorophenol
23. Volatile organic compounds (VOCs) in wet applied products
24. Petrochemical fertilizers and pesticides

NORTHLAND COMPREHENSIVE FACILITIES PLAN
1.0 CAMPUS PROFILE



2.0 EXISTING SITE CONDITIONS

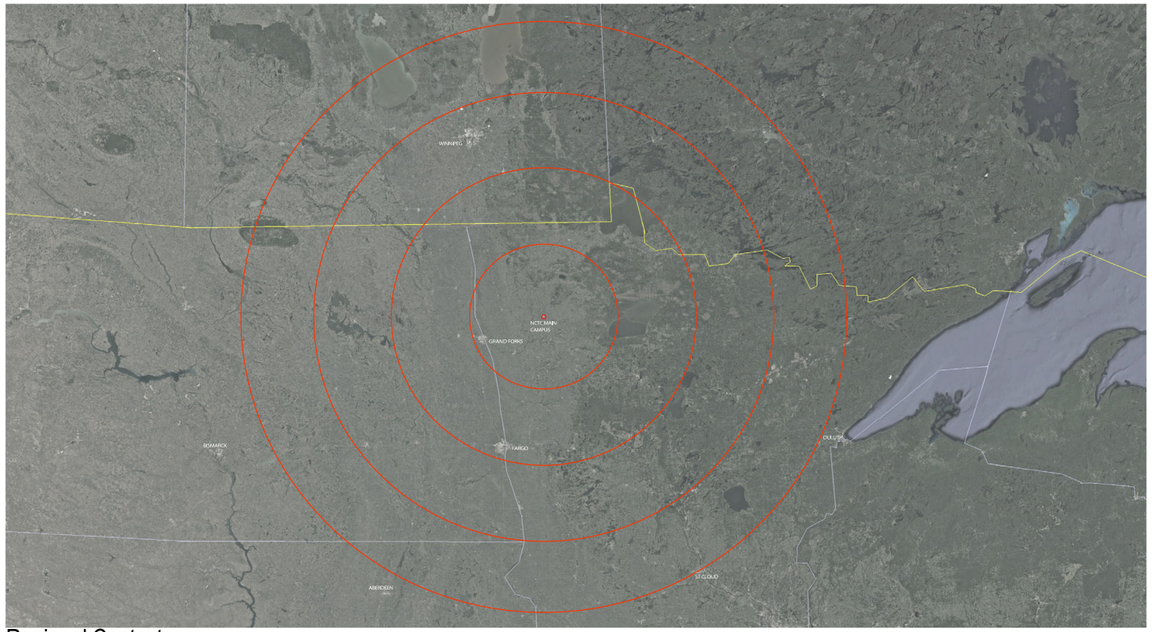
2.1 LAND MANAGEMENT

2.1.2 REGIONAL/COMMUNITY RELATIONSHIP

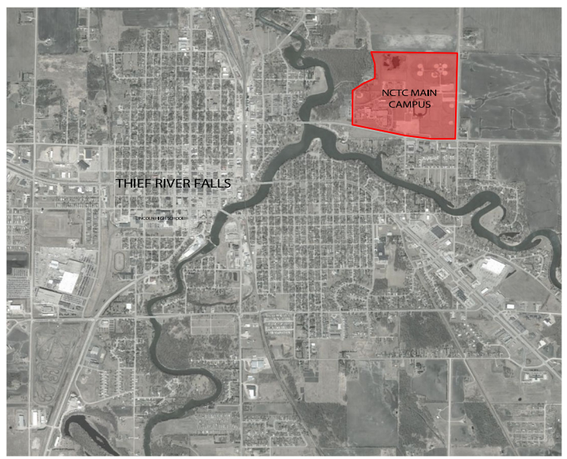
2.1.3 ZONING AND LAND USE

2.1.4 PROPERTY LEASES

2.1.5 PROPOSED PROPERTY ACQUISITIONS



Regional Context



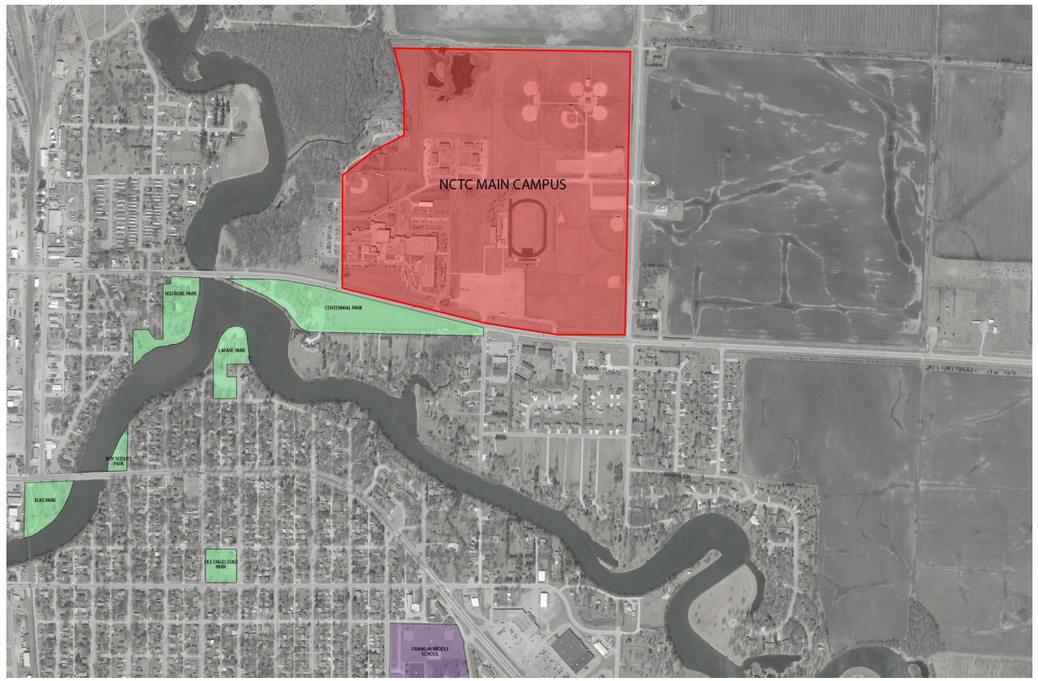
City Context

2.1.1 REGIONAL/COMMUNITY RELATIONSHIP

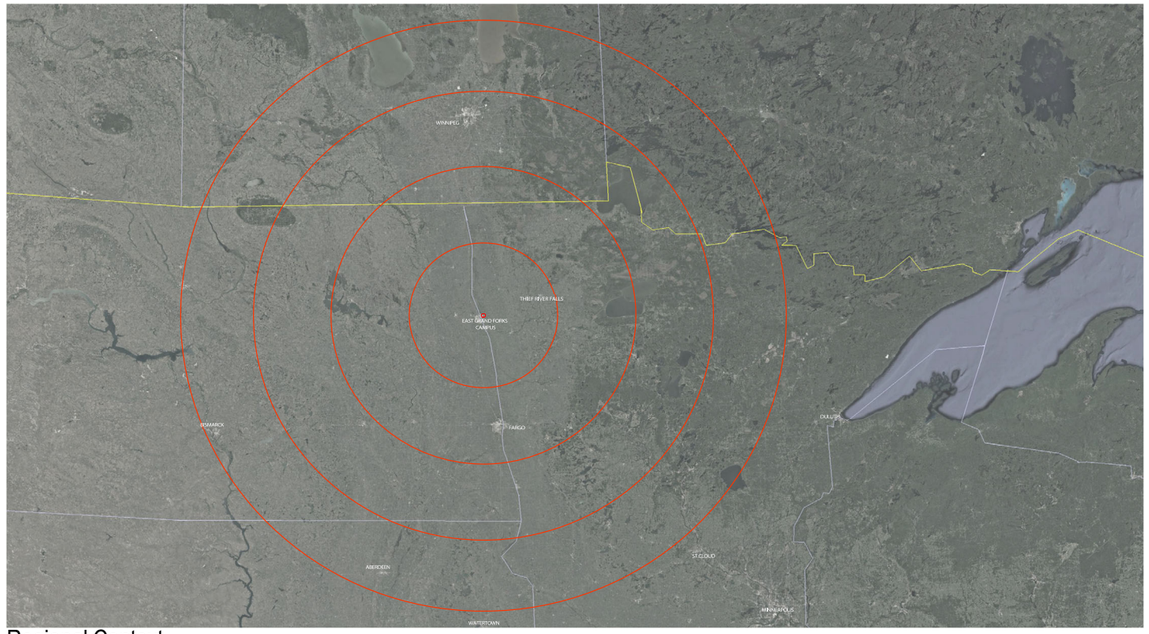
THIEF RIVER FALLS

Northland Community and Technical College's city context places it near the northeastern edge of Thief River Falls, mere blocks from the Red Lake River. Zooming out to a regional view, we see that the main campus anchors the eastern edge of Thief River Falls metro area. As we look at the neighborhood context, we can see the campus sits about one mile Northeast of downtown. The main campus also sits off Highway 1E - a main artery to Thief River Falls and the connector across the Red Lake River. Highway 1E and 150th Ave, which form the campus edges, offer excellent access from the South and East.

The Northland Aerospace site sits about four miles south of the main campus at the Thief River Falls Regional Airport. 140th Ave borders the east edge of the Aerospace campus offering easy access to the campus's east side.



Neighborhood Context



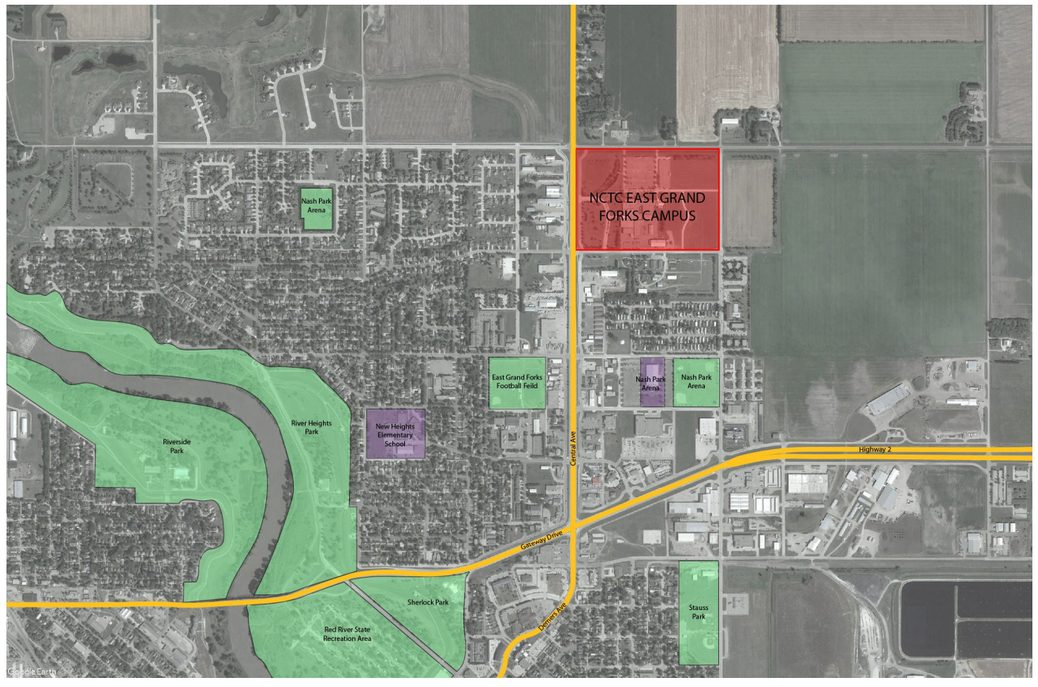
Regional Context

City Context

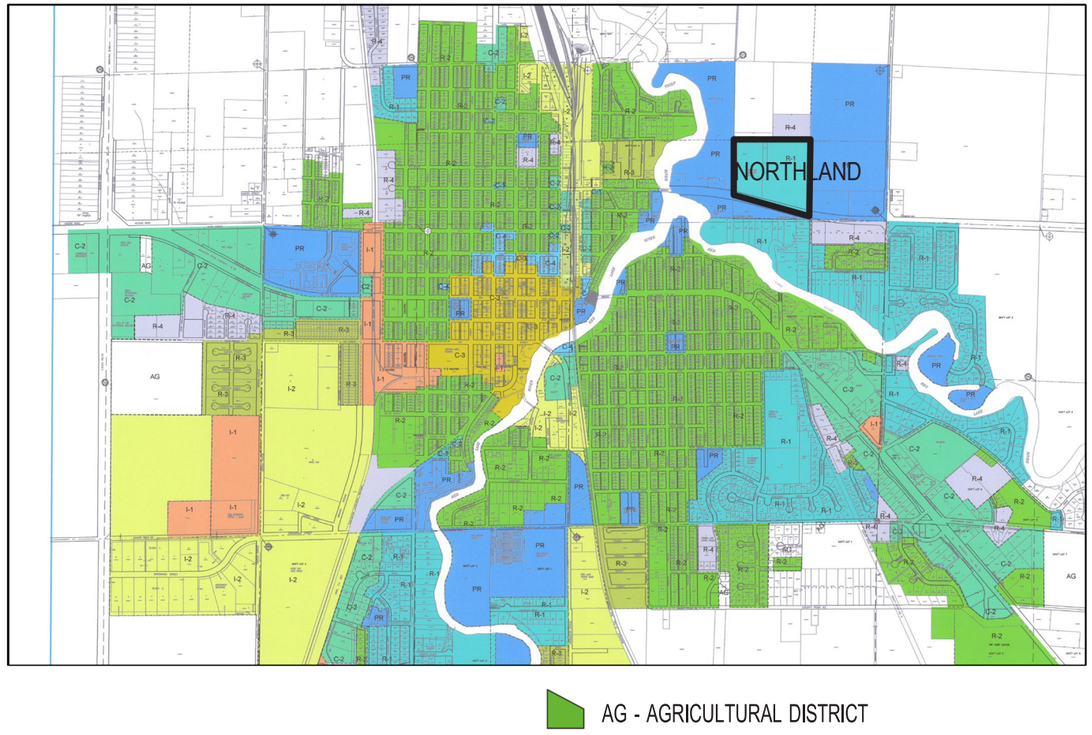
2.1.1 REGIONAL/COMMUNITY RELATIONSHIP

EAST GRAND FORKS

The Northland East Grand Forks campus's city context places it at the far northeastern corner of the City and abuts farmland to the north and east. As we look at the neighborhood context, we see the Heritage Village to the south just across 20th Street NE. The campus is bordered by Central Avenue/Highway 220 - a main North-South artery through town, which separates it from commercial businesses to the West. 23rd Street NE and 5th Avenue NE form the North and East campus edges. The campus is less then a mile from US Highway 2. This is a major highway across the northern United States.



Neighborhood Context



TOWN OF THIEF RIVER FALLS ZONING MAP

AG - AGRICULTURAL DISTRICT
PR - PARK AND RECREATION DISTRICT
C1 - NEIGHBORHOOD BUSINESS DISTRICT
C2 - GENERAL BUSINESS DISTRICT
C3 - CENTRAL BUSINESS DISTRICT
C4 - DOWNTOWN FRINGE DISTRICT
I1 - LIGHT INDUSTRIAL DISTRICT
I2 - GENERAL INDUSTRIAL DISTRICT
R1 - SUBURBAN RESIDENTIAL DISTRICT
R2 - GENERAL RESIDENTIAL DISTRICT
R3 - HIGH DENSITY RESIDENTIAL DISTRICT
R4 - MULTI-FAMILY RESIDENTIAL DISTRICT

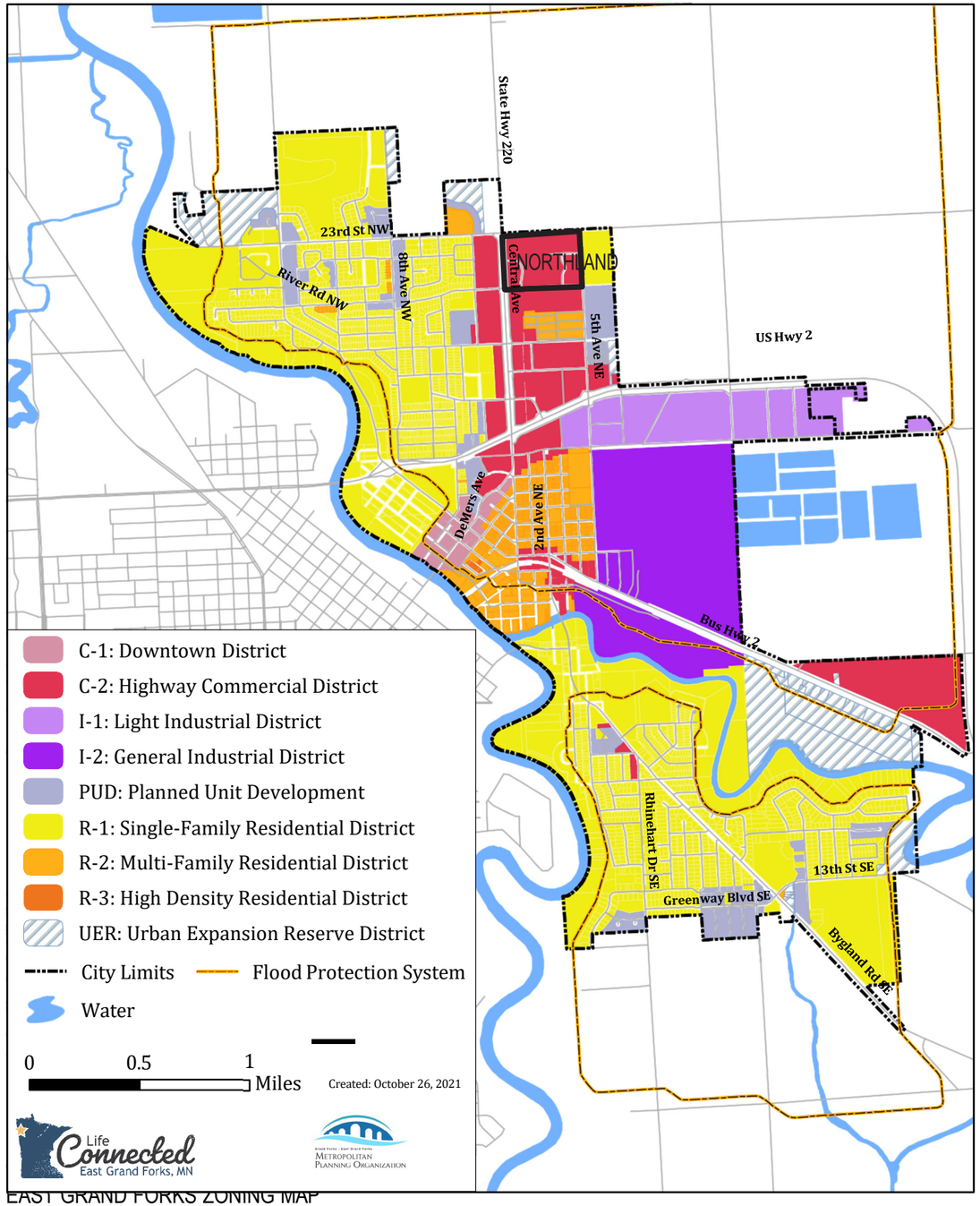
2.1.2 ZONING AND LAND USE

THIEF RIVER FALLS

The local zoning authority is the Town of Thief River Falls. Within the town's zoning code, Northland Community and Technical Colleges's zoning designation is R-1: Suburban Residential, R-4: Multi-family Residential, and PR: Parks and Recreation. The INS institutional district is intended to accommodate facilities capable of providing services to large groups in a campus like setting. The district encourages institutions to plan long range for geographical expansion, providing surrounding property owners with information as to those plans.

The surrounding neighborhood is predominantly R-1: Suburban Residential. The R-1 district is intended to provide Low-density development as an extension of existing residential area; and, allow low-density development of two to four dwelling units per acre. The permited uses allowed in the R-1 district include: Cultural and educational (nursery schools and day care facilities of up to 12 persons), Recreational (publicly-owned recreational uses and historic sites), and Residential: single-family dwellings and home occupations. conditional uses for the R1 district include Cultural and educational: colleges, day care facilities for 13 or more persons, dormitories, libraries, public and private schools, and public museums

The Aerospace site is outside of the Thief River Falls city limits.

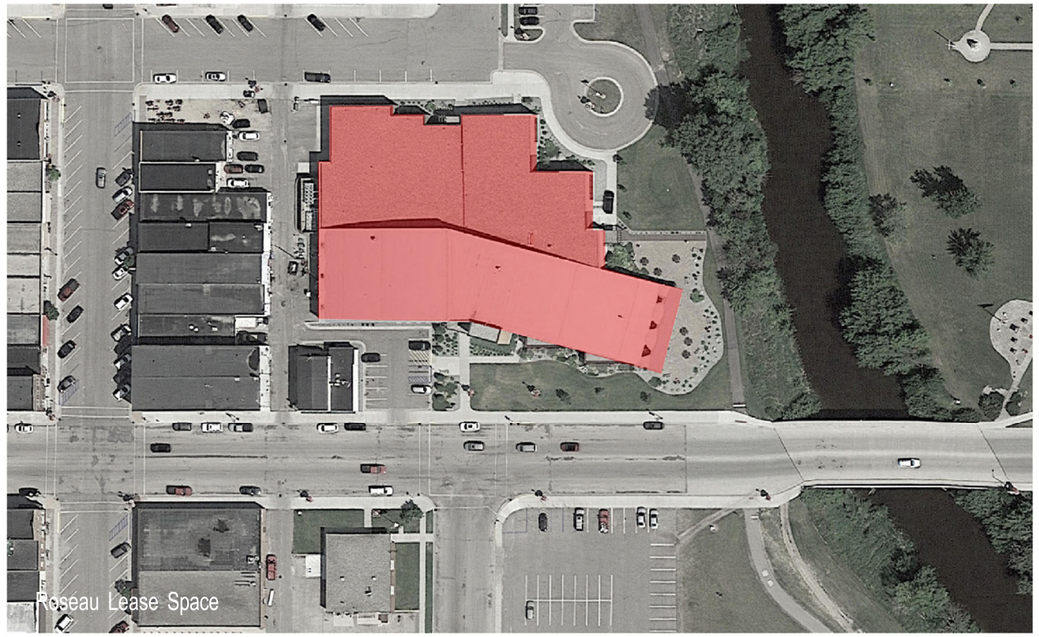


EAST GRAND FORKS ZONING MAP

2.1.2 ZONING AND LAND USE

EAST GRAND FORKS

The local zoning authority is the City of East Grand Forks. Within the zoning code Northland Community and Technical College's zoning designation is C-2: Highway Commercial District. Northland is an allowed use as a 'business, technical or professional school'. The campus sits at the north edge of the city limits and is adjacent to an R-1: Single-Family Residential District to the East.



NORTHLAND COMPREHENSIVE FACILITIES PLAN
2.0 EXISTING SITE CONDITIONS

2.1.3 BUILDING LEASES

Northland Community and Technical College leases space for its Roseau site in a shared used building with city service departments at 121 Center St. East, Suite 200 in Roseau, MN.

For its Northland Warroad site store front space is leased at 201 Lake Street NE in Warroad, MN. This site was opened in the spring of 2022.

Spaces are leased in the main campus building at Thief River Falls to CareerForce, Headstart, and the Northwest Minnesota Arts Council. Public Radio also leases space from Northland at both the Thief River Falls and East Grand Forks campus locations.

In Thief River Falls Northland is also a member of a joint powers agreement between the college, City and school district. The county was an original member, but is no longer. This group manages a Multi-Event Center building and sports complex commonly referred to as the MEC, which is on Northland property. The MEC hosts football and track athletic competitions as well as other community events.

Additional lease information pending from campus.

2.1.4 PROPOSED PROPERTY ACQUISITIONS

Northland currently has no property acquisitions planned.

2.2 LANDSCAPE/CIVIL

2.2.1 NATURAL RESOURCES

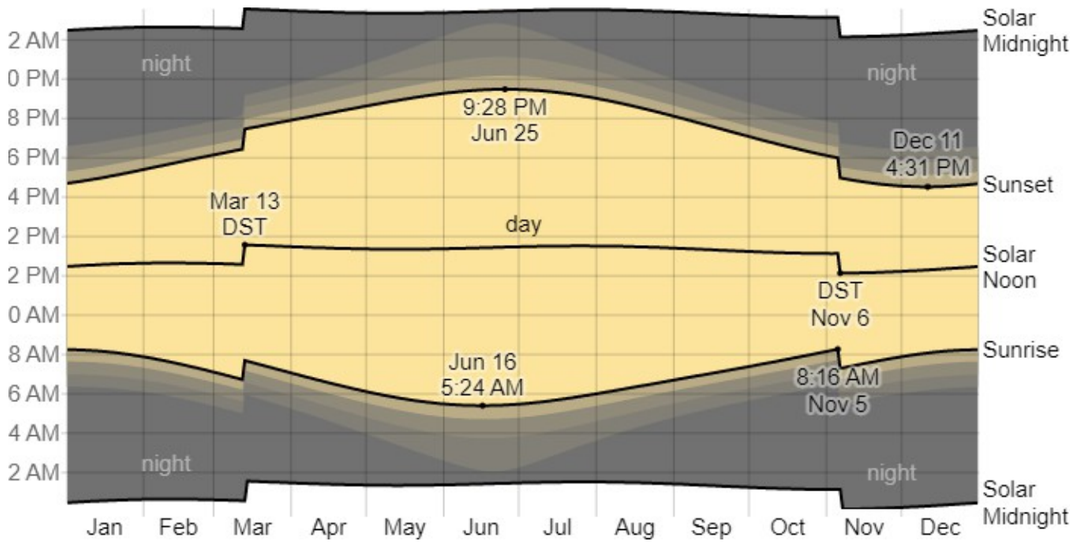
2.2.2 HARDSCAPE

2.2.3 CAMPUS TOPOGRAPHY

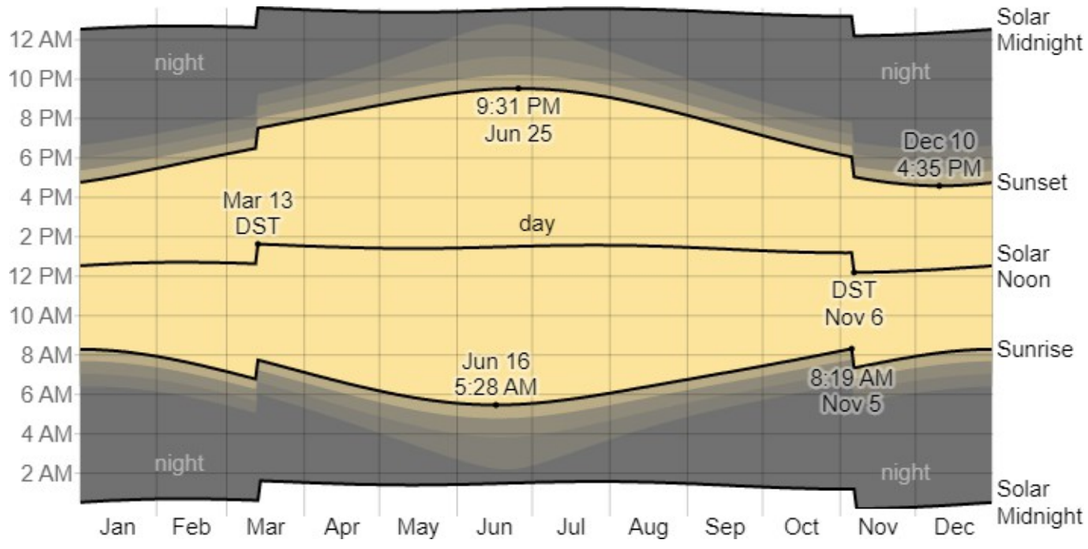
2.2.4 HAZARDOUS CONDITIONS

2.2.5 CAMPUS UTILITY INFASTRUCTURE

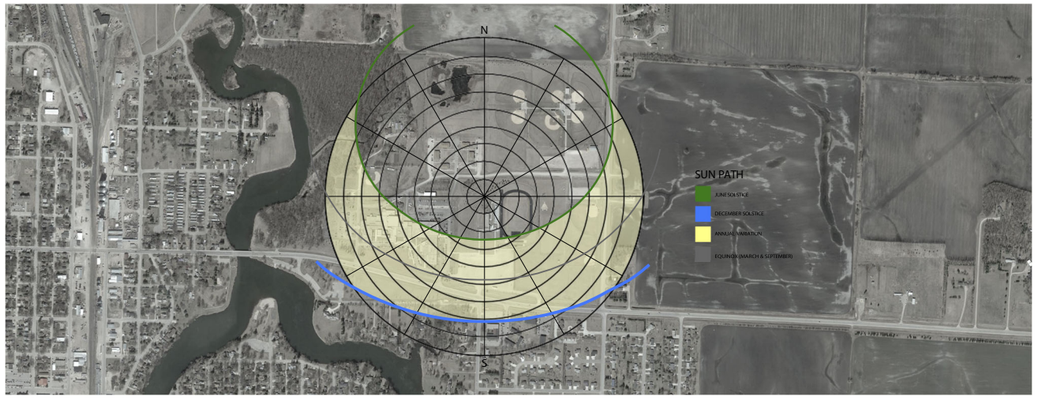
2.2.1 NATURAL RESOURCES



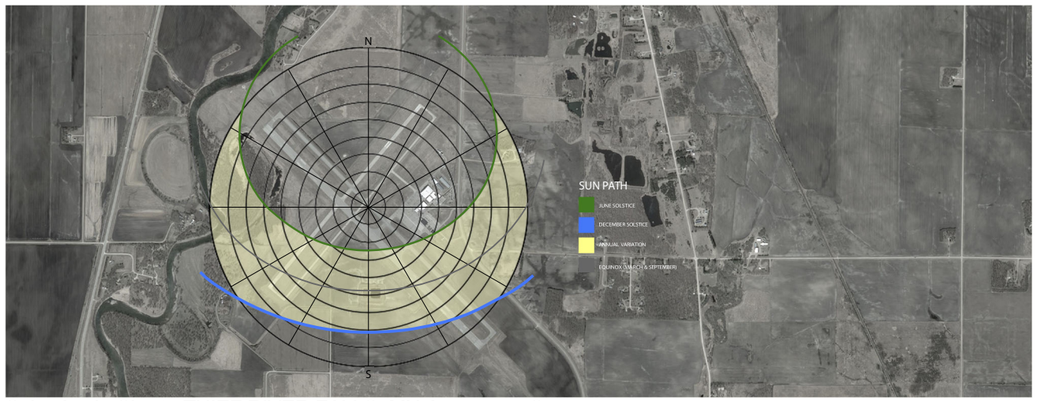
Daylight Graph - THIEF RIVER FALLS, MN



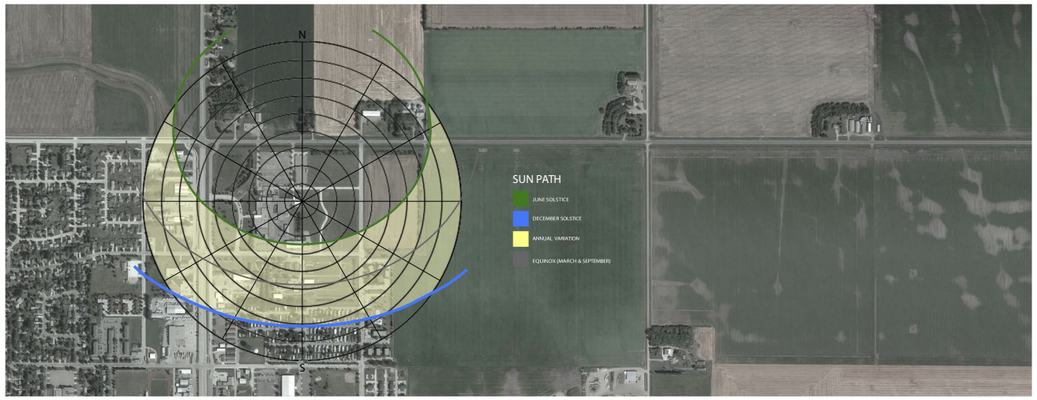
Daylight Graph - EAST GRAND FORKS, MN



Solar Angle Chart - THIEF RIVER FALLS, MN Main Campus



Solar Angle Chart - THIEF RIVER FALLS, MN Aerospace Campus



Solar Angle Chart - EAST GRAND FORKS, MN Main Campus

2.2.2 HARDSCAPE

While buildings are often the focus of much discussion on a campus, it is also important to remember the impact the spaces between and around the buildings have on one's campus experience and impression of place.

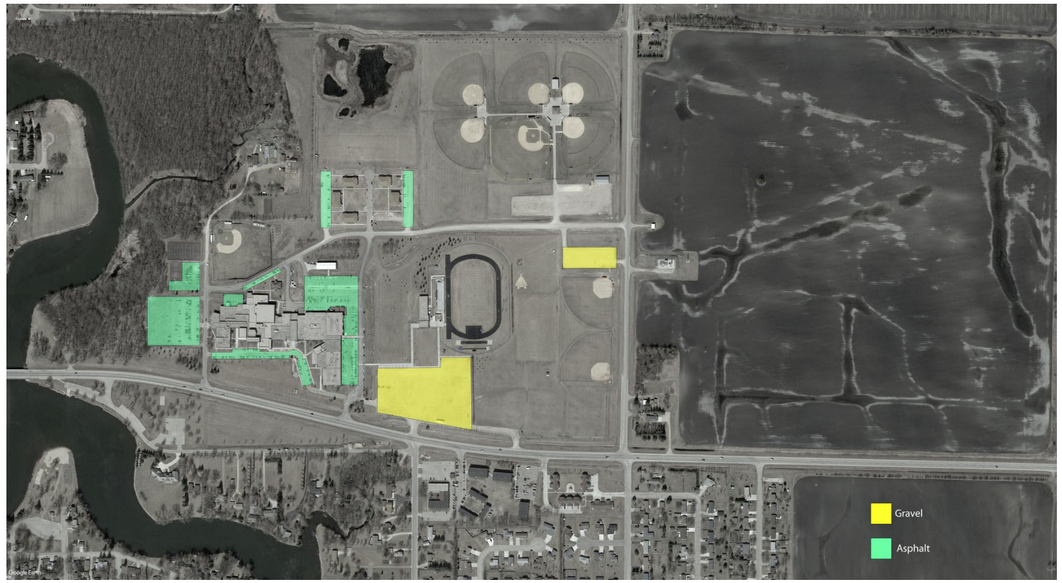
Thief River Falls Campus: A paver patio area at the main entrance was replaced the summer of 2022. Overall campus sidewalks are in good condition and have been updated to provide handicap accessibility to building entrances. The large western parking lot provides an area for driver and motorcycle training. Large gravel lots on the east side of campus provide event parking for sporting events.

Thief River Falls Aerospace Site: The sidewalk to the main building entry was replaced in the summer of 2022 to address handicap accessibility concerns. Overall the limited sidewalks on site are in good condition. The County provides assistance with maintenance of MEC gravel parking lot by annually re-grading in the fall and spring.

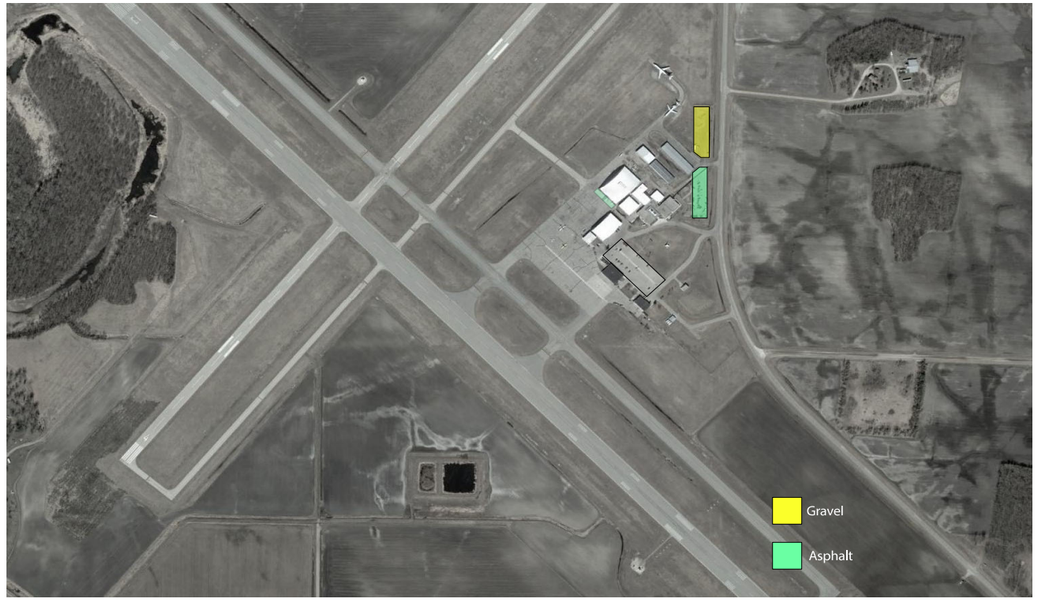
East Grand Forks Campus: Overall campus sidewalks are in good condition. This location does have a small courtyard space which is well maintained with a producing apple tree. Unfortunately the area has limited use due to it often being too hot with no breeze or too cold.

Overall parking and vehicular access paved areas for instructional shops and deliveries are the majority of the hardscape at all Northland campus and site locations. Additional information regarding parking is included in section 2.3.2.

THIEF RIVER FALLS CAMPUS



THIEF RIVER FALLS AEROSPACE SITE



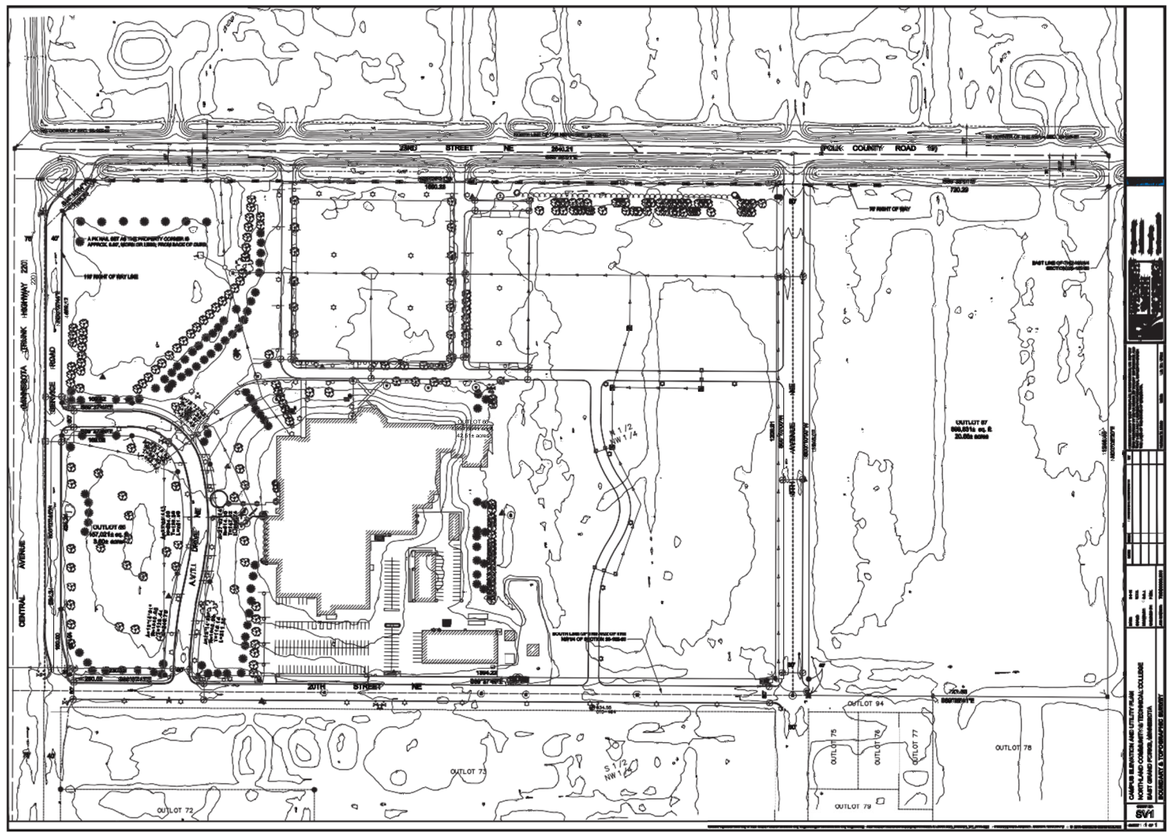
EAST GRAND FORKS CAMPUS

2.2.3 CAMPUS TOPOGRAPHY

THIEF RIVER FALLS

CAMPUS TOPOGRAPHY NOT AVAILABLE.

EAST GRAND FORKS



1-foot Contour Intervals shown

Like most of East Grand Forks area, the Northland campus is basically flat with some limited contours being man-made to promote controlled drainage.

2.2.4 HAZARDOUS CONDITIONS

There are no known hazardous conditions on campus at this time.

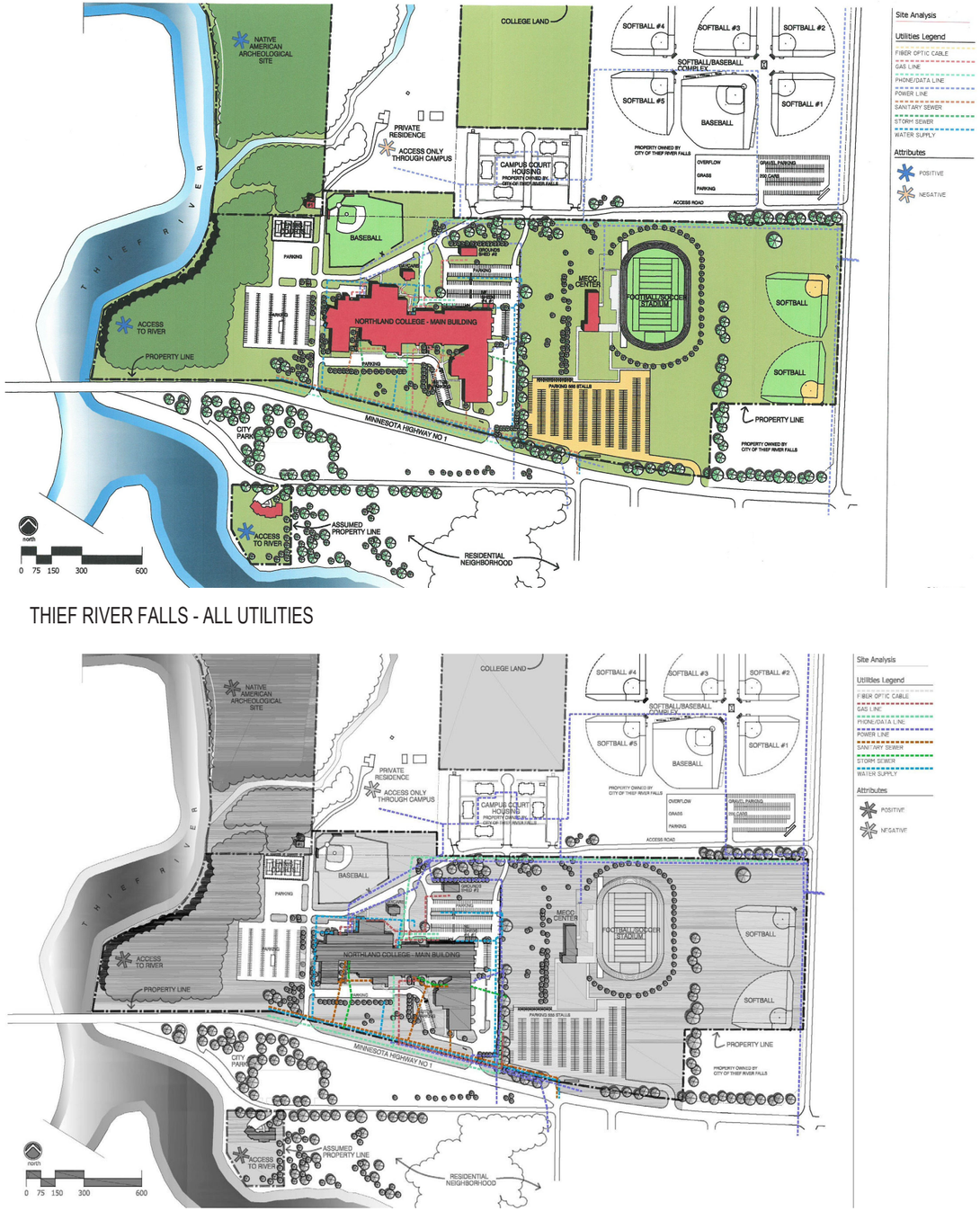
2.2.5 CAMPUS UTILITY INFRASTRUCTURE

The following maps show the utility infrastructure at the Thief River Falls and East Grand Forks campus locations. There are currently no projects planned to update campus utility infrastructure.

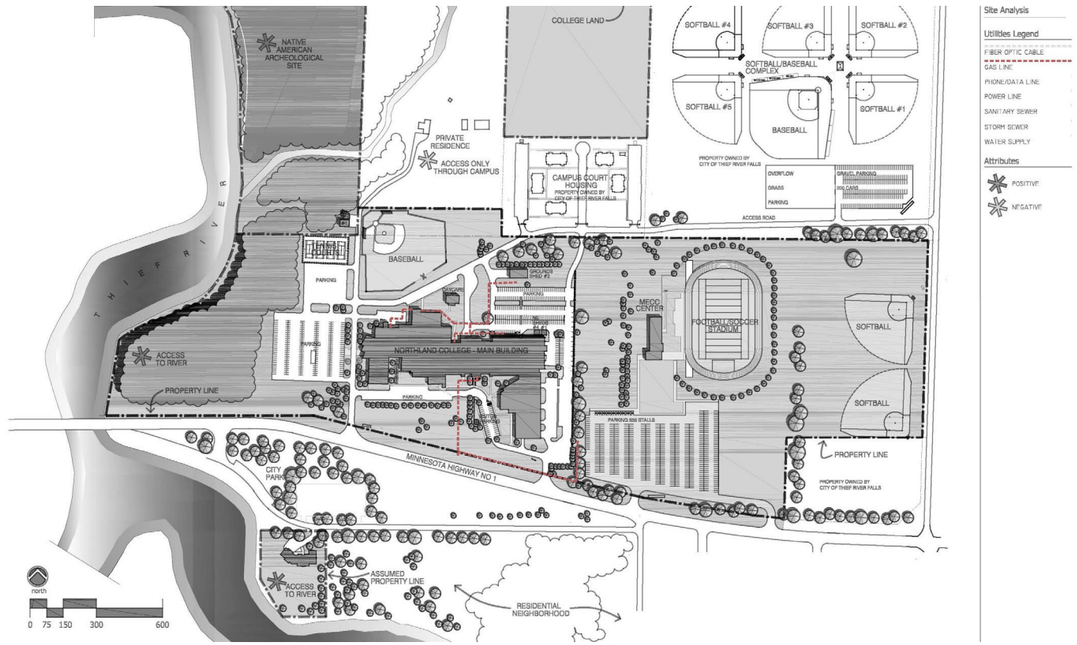
Thief River Falls Campus:
- Gas Lines
- Phone/Data Lines
- Power Lines
- Sanitary Sewer
- Storm Sewer
- Water Supply

East Grand Forks Campus:
- Hot Water
- Communications
- Storm + Sanitary Sewer
- Sprinklers
- Electrical
- Gas

THIEF RIVER FALLS - ALL UTILITIES



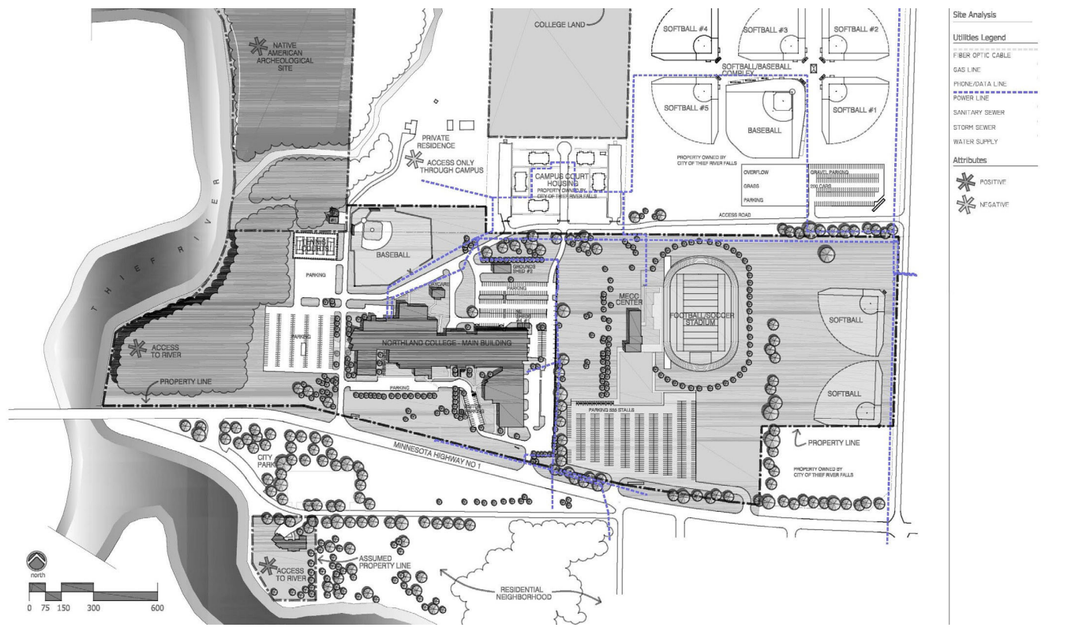
THIEF RIVER FALLS - GAS LINE



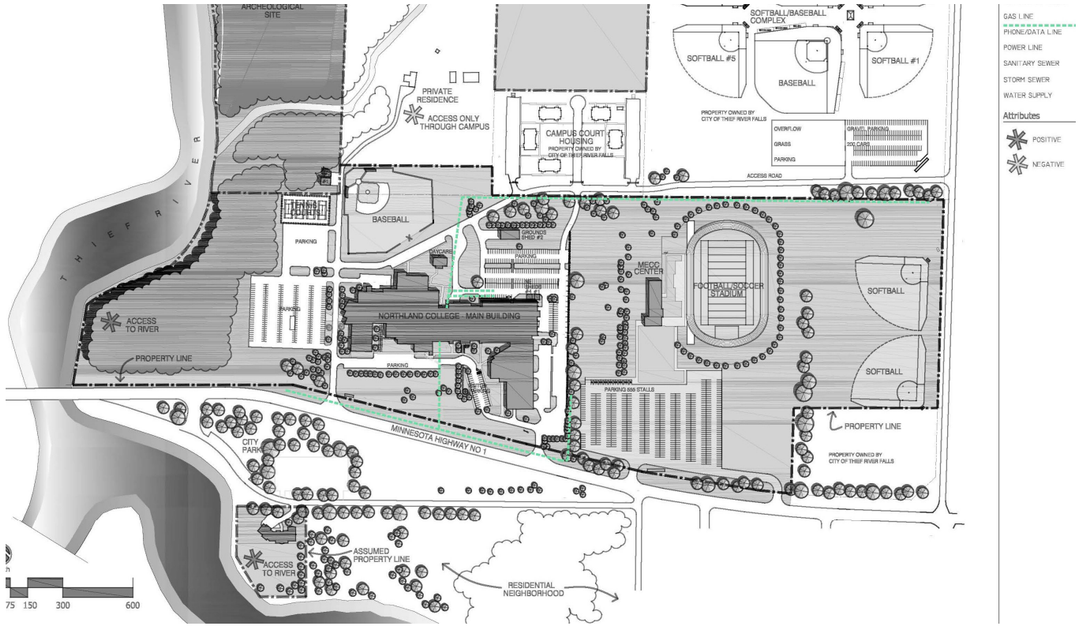
NORTHLAND COMPREHENSIVE FACILITIES PLAN
2.0 EXISTING SITE CONDITIONS

THIEF RIVER FALLS - ALL UTILITIES

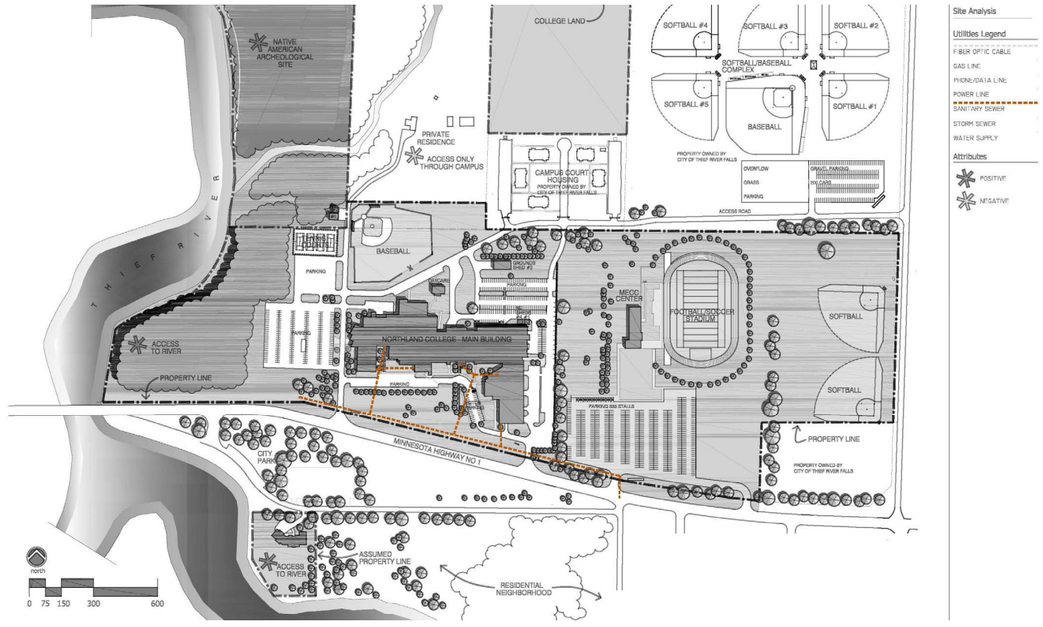
THIEF RIVER FALLS - POWER LINE



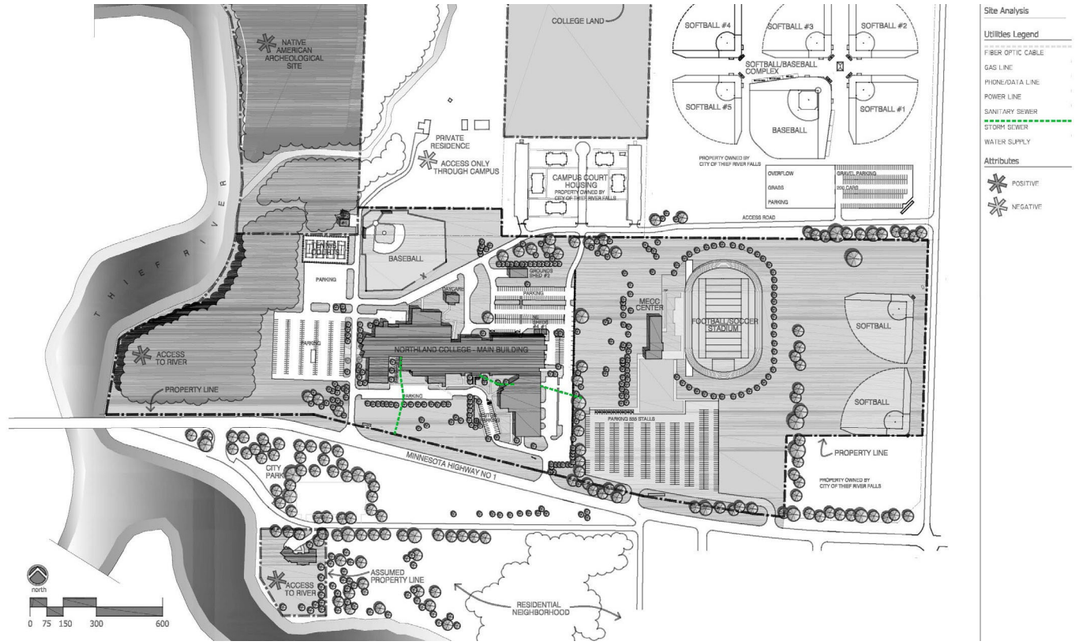
THIEF RIVER FALLS - PHONE/DATA LINE



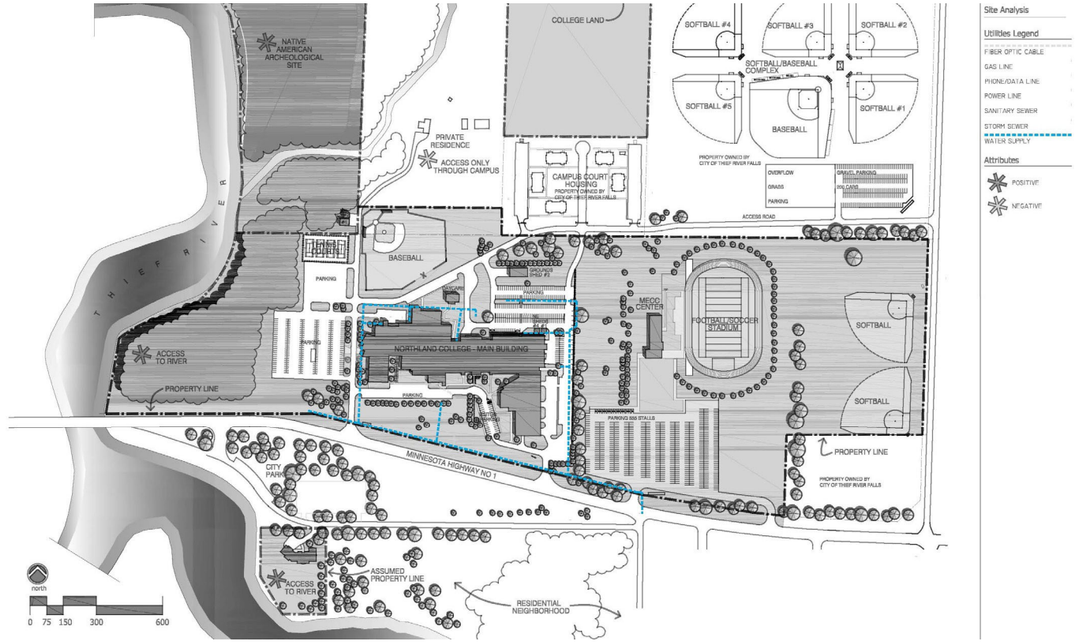
THIEF RIVER FALLS - SANITARY SEWER



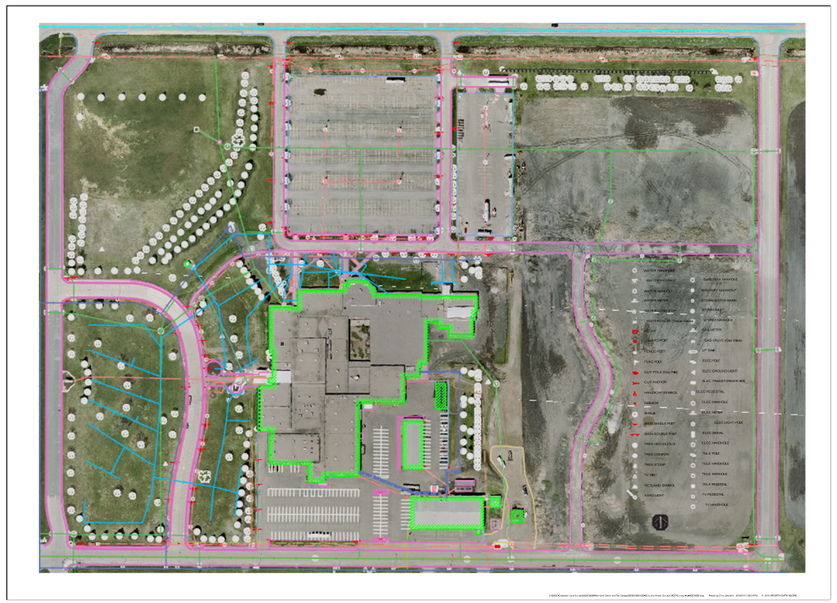
THIEF RIVER FALLS - STORM SEWER



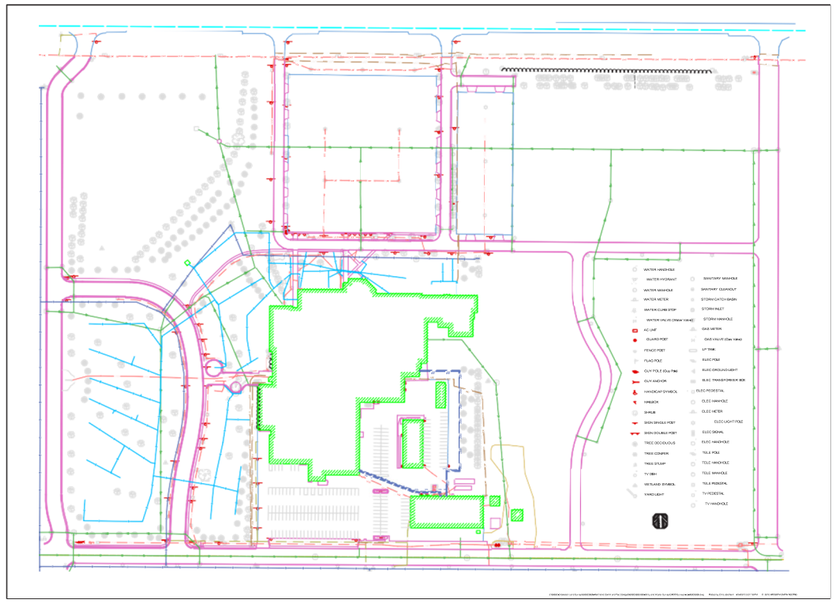
THIEF RIVER FALLS - WATER SUPPLY



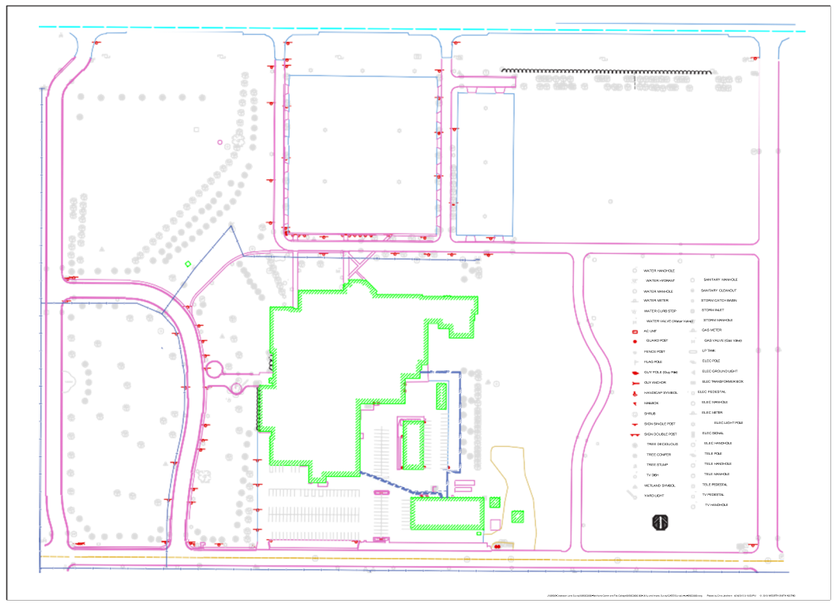
EAST GRAND FORKS- ALL UTILITIES



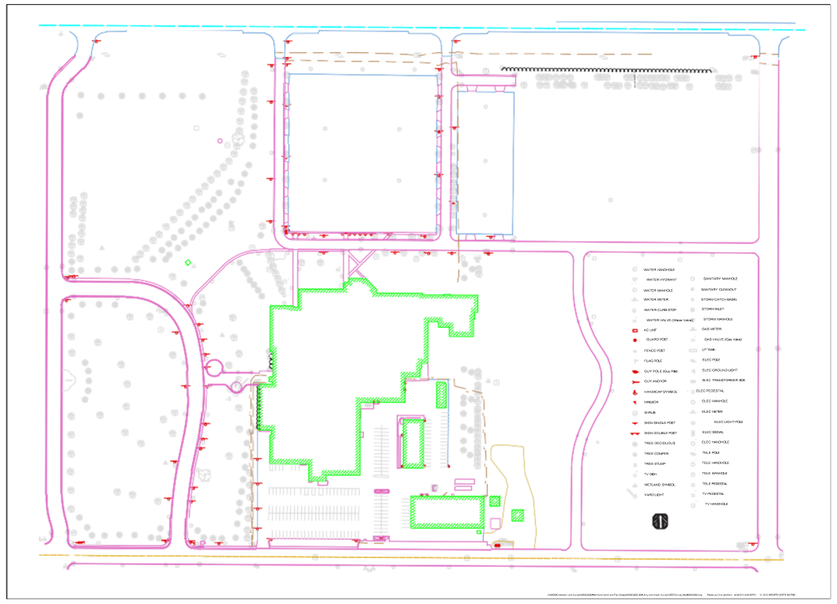
EAST GRAND FORKS- ALL UTILITIES



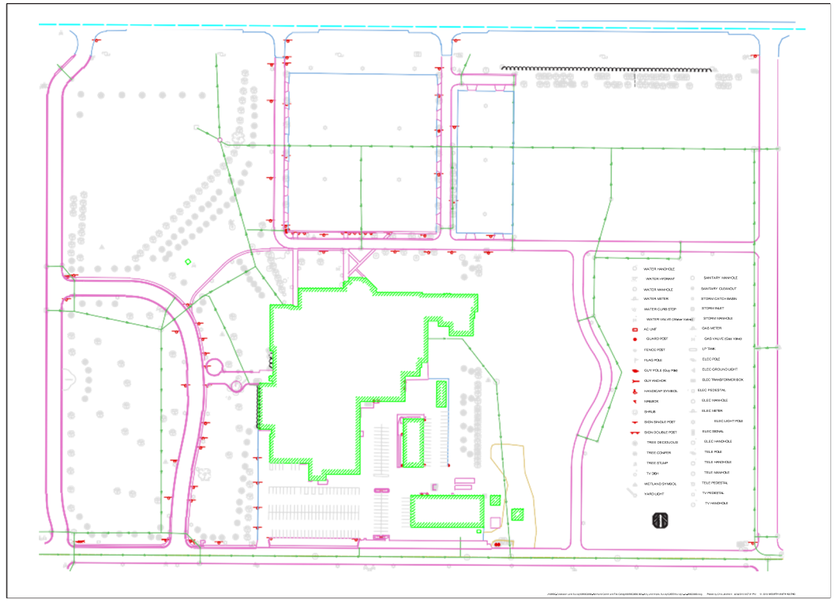
EAST GRAND FORKS- HOT WATER



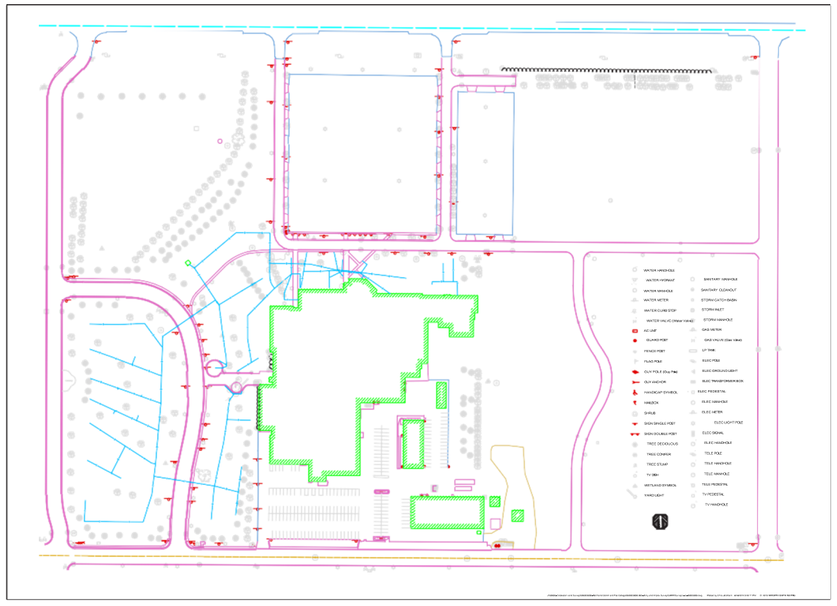
EAST GRAND FORKS- COMMUNICATIONS



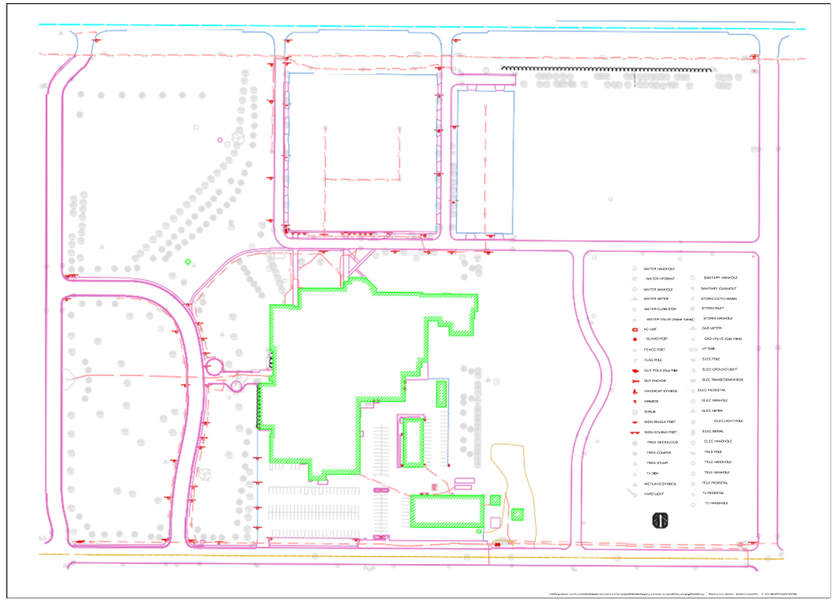
EAST GRAND FORKS- STORM + SANITARY SEWER



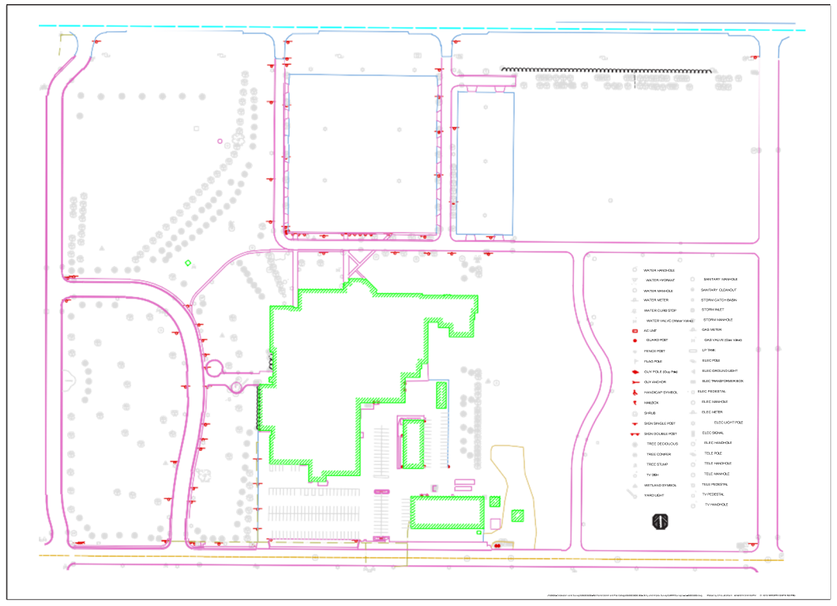
EAST GRAND FORKS- SPRINKLER



EAST GRAND FORKS- ELECTRIC



EAST GRAND FORKS- GAS



2.3 CAMPUS USE

2.3.1 CIRCULATION: PEDESTRIAN AND VEHICULAR

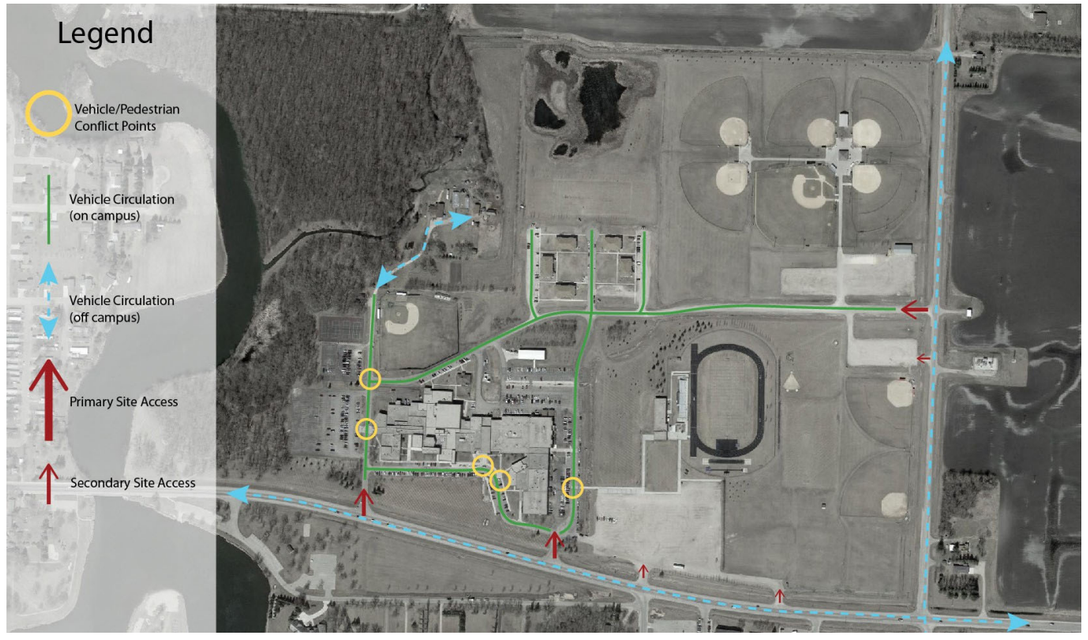
2.3.2 PARKING ANALYSIS

2.3.4 WAYFINDING AND SIGNAGE

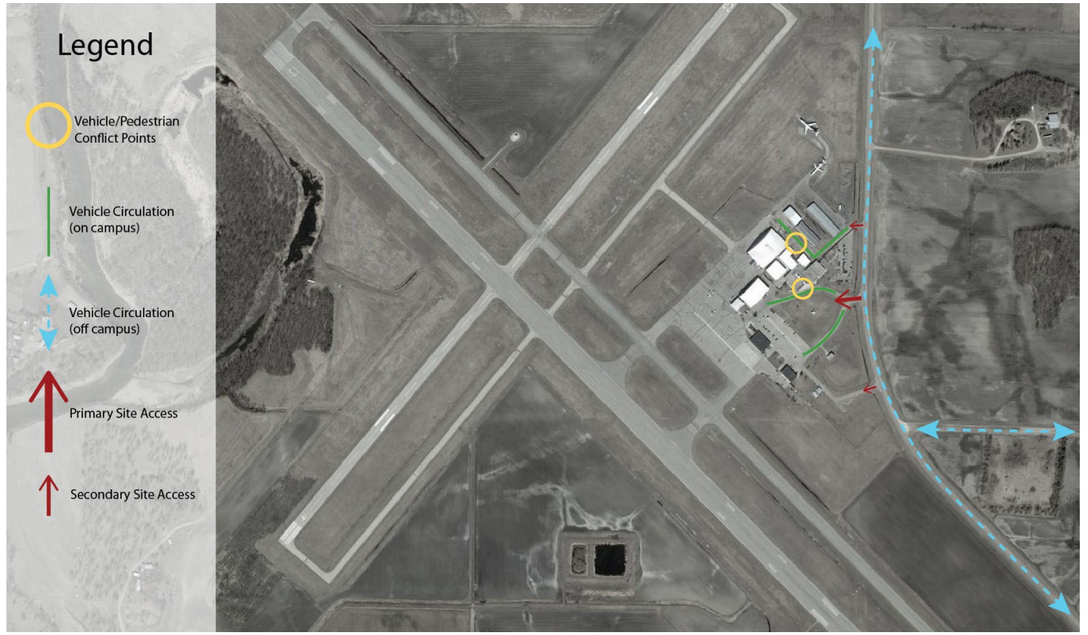
2.3.1 CIRCULATION - PEDESTRIAN AND VEHICULAR

Overall there is good pedestrian and vehicular circulation at all locations. Some conflicts do however occur where pedestrians are required to cross roads to reach sidewalks to buildings. Fortunately these roads are internal and used by campus traffic. Busy city streets with general community vehicular traffic do not pass through the campuses.

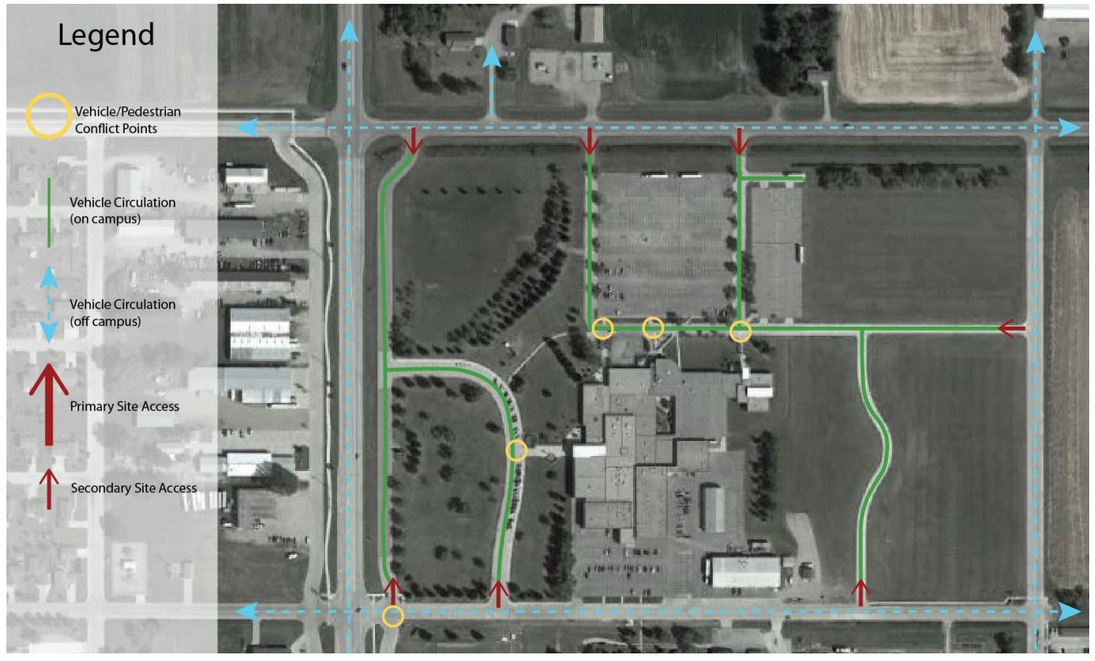
THIEF RIVER FALLS CAMPUS



THIEF RIVER FALLS AEROSPACE SITE

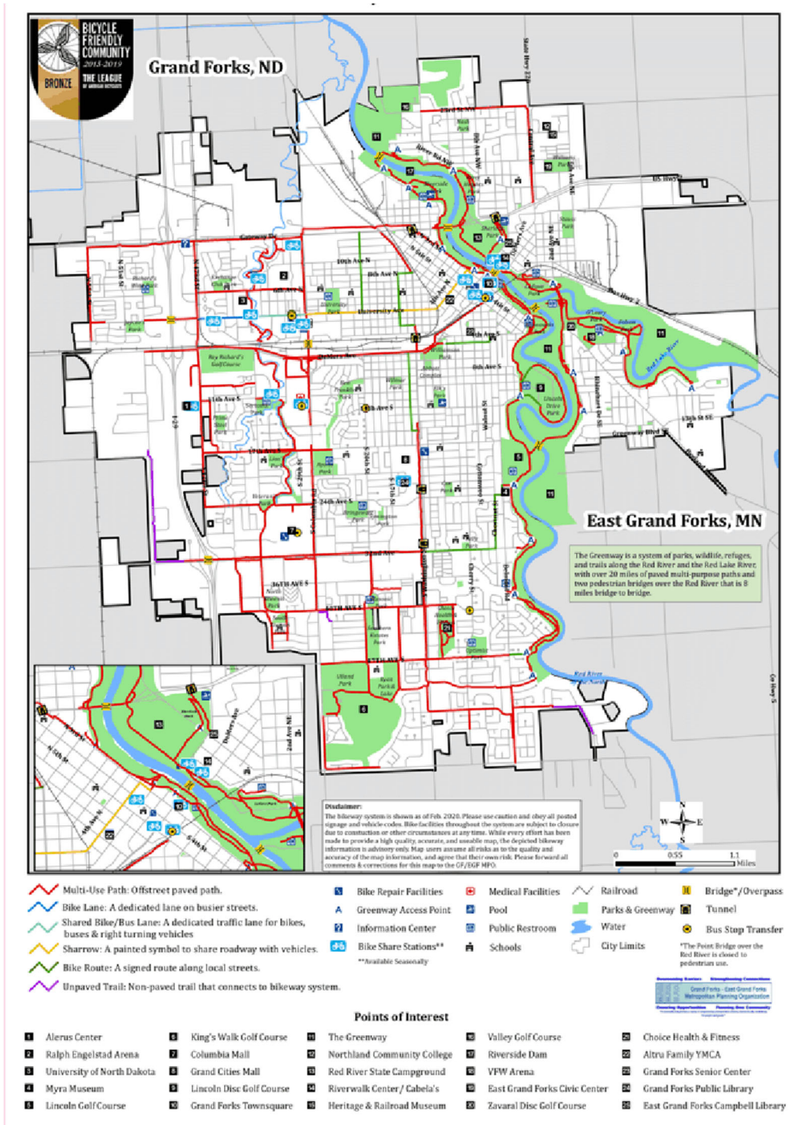


EAST GRAND FORKS CAMPUS



2.3.2 PUBLIC TRANSIT, WALKING AND BIKING TRAILS- EAST GRAND FORKS

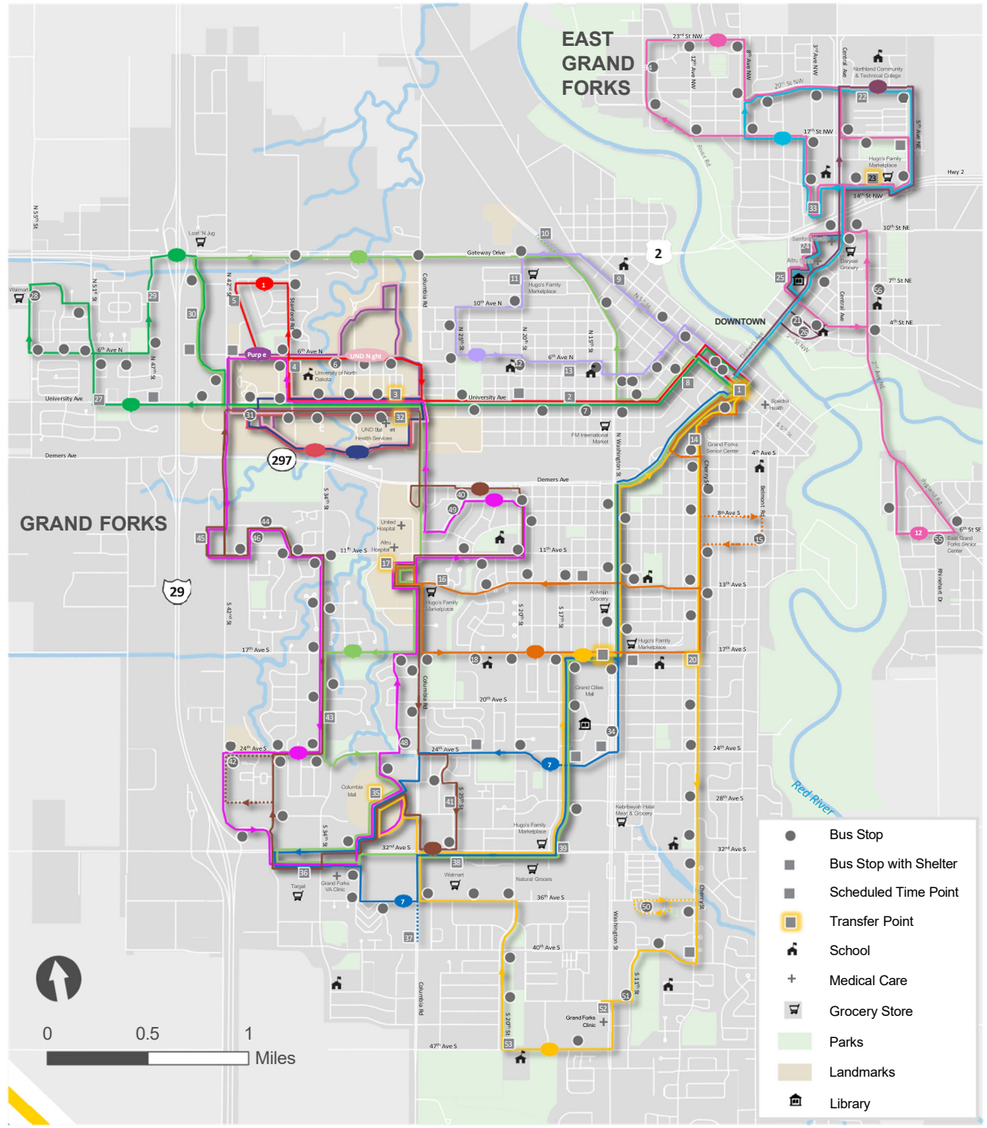
The sister cities of East Grand Forks, MN and Grand Forks, ND have an extensive system of bike trails which extend to the Northland campus for easy use.



Public bus service is provided to the East Grand Forks Northland campus by Cities Area Transit (CAT), which services both East Grand Forks, MN and Grand Forks, ND. Northland students may ride all routes for free by picking up a bus pass at the College Information Desk.

Route 4 runs through campus every hour from 6:15 am to 5:15 pm during the week and from 8:15 am to 5:15 pm on Saturday.

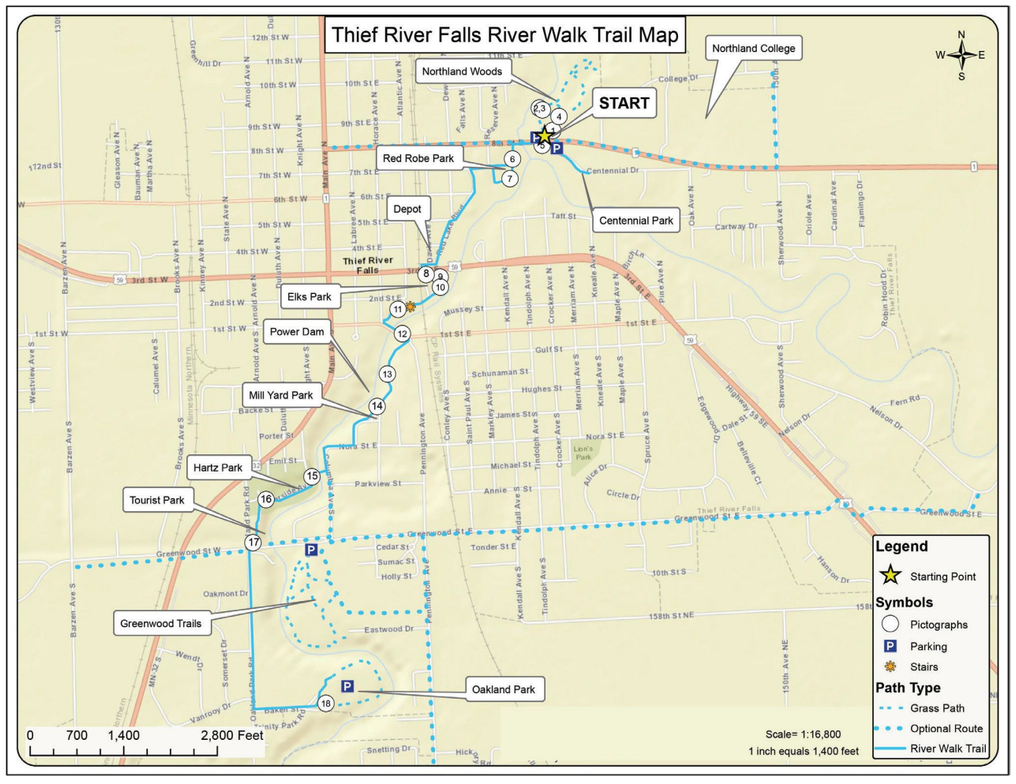
Route 6 runs through campus every hour from 6:45 am to 9:45 pm during the week and from 8:45 am to 5:15 pm on Saturday.



2.3.2 PUBLIC TRANSIT, WALKING AND BIKING TRAILS- THIEF RIVER FALLS

The City of Thief River Falls has more than 20 miles of bike lanes, multi-use trails, and streets designated as bike routes, with connections to countryside routes that total over 100 miles. See the TRF Bike Routes map below.

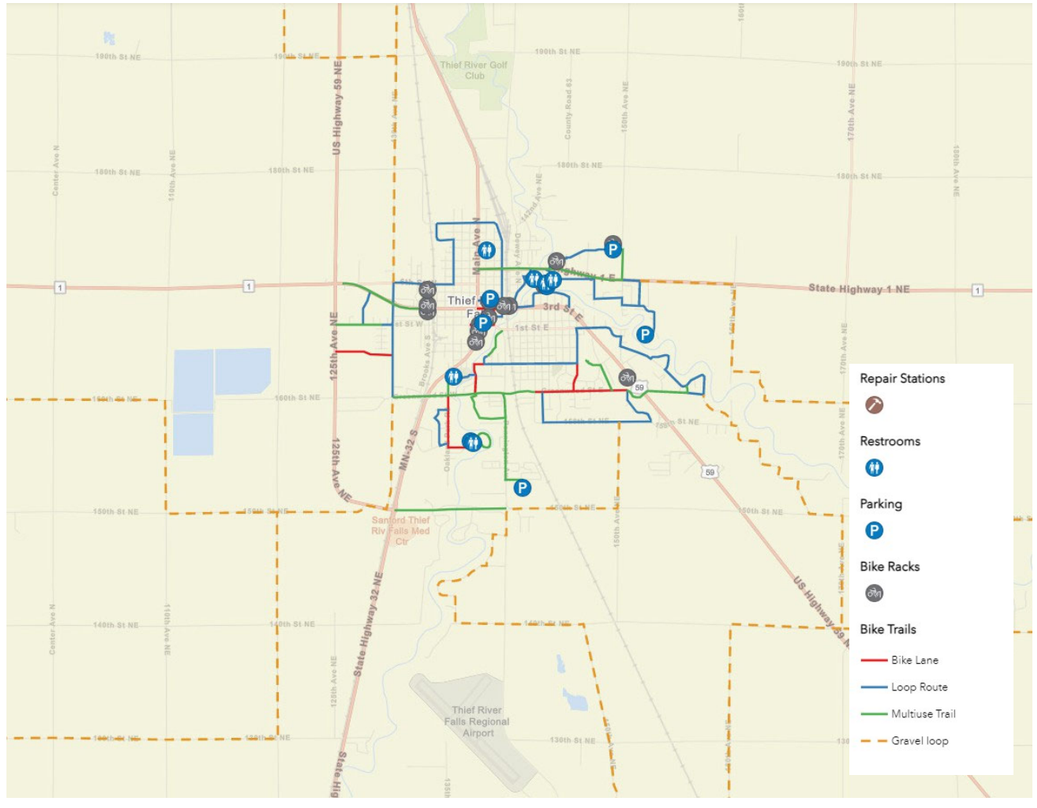
There is also an extensive walking trail that runs the entire length of the City and includes grass paths and other optional routes.



2.3.2 TRANSIT ROUTES AND STOPS

Public bus service is provided in the City of Thief River Falls by T.H.E. Bus which is a service provided by Tri-Valley Opportunity Council, Inc. Riders are required to call to receive a ride. There are no routes. Within the City same day rides are $3.00 to destination plus $2.00 to return. If schedule at least one business day in advance a ride is $2.00 to destination plus $2.00 to return. On Saturday and Sunday rides are $2.00 to destination plus $2.00 to return. See the schedule below for hours of operation.

Service in Thief River Falls:
Monday - Friday 7:00 am - 6:00 pm
Saturday 10:00 am to 4:00 pm
Sunday 8:30 am - 1:30 pm (must call for a ride ahead of time - no dispatcher available)

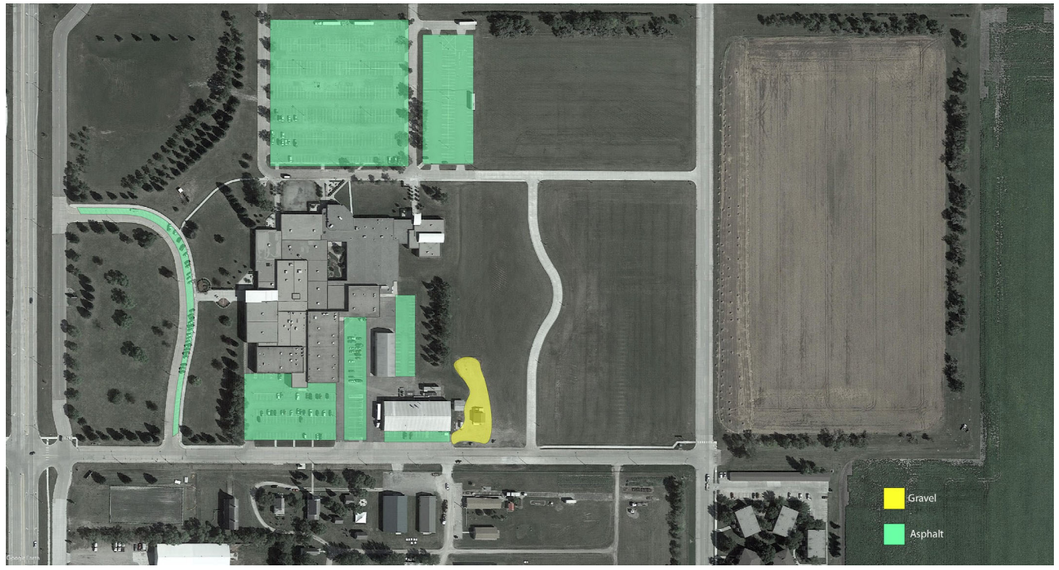


2.3.3 PARKING ANALYSIS

The East Grand Forks campus is served by three primary parking lots, three smaller lots and additional parking stalls along the main college entry drive. These provide access to parking which is easily accessible to users mainly to the north and south of the building. The south lot has a 'sink hole' which needs to be fixed. A project which looked to address it was over budget, so a temporary fix was completed for the short-term. Due to the reduction seen over time in enrollment there is more parking than currently needed. It is suggested that the campus look to right-size the parking provided to reduce the on-going maintenance and operational costs required.

All students, faculty and staff are required to pay a flat parking fee. Lots are not designated by user group so all parking on campus is available to everyone.

EAST GRAND FORKS CAMPUS



The Thief River Falls campus is served by three primary parking lots, one of which is gravel and used by MEC visitors. Additional smaller lots supplement these, and additional parking stalls can be found along the main college entry drive. Overall parking on campus is easily accessible to users on all sides of the building. Due to the reduction seen over time in enrollment there is more parking than currently needed. It is suggested that the campus look to right-size the parking provided to reduce the on-going maintenance and operational costs required.

All students, faculty and staff are required to pay a flat parking fee. Lots are not designated by user group so all parking on campus is available to everyone.

A survey of the existing parking is being done by another consultant to determine priority needs and potential cost to do repairs.

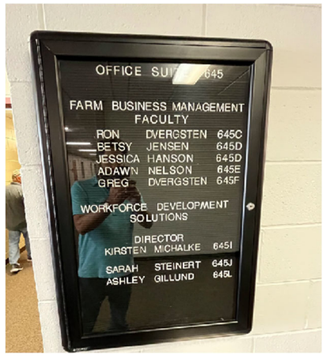
THIEF RIVER FALLS CAMPUS

2.3.4 WAYFINDING AND SIGNAGE

Ground monument signs have been installed at visible locations near primary access roads at both the Thief River Falls and East Grand Forks campuses. At the interior while there are some inconsistencies, in general Northland uses a similar design for room identification signs and projecting wall signs at the TRF campus, EGF campus and Aerospace site. This plan recommends this sign design types be expanded and used to replace signs that are different as they are able to help the buildings feel more cohesive.

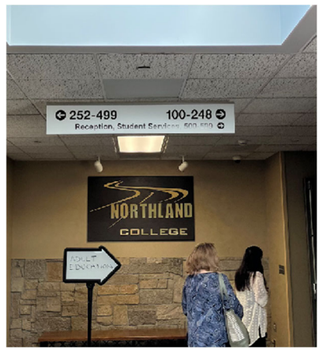
NORTHLAND COMPREHENSIVE FACILITIES PLAN
2.0 EXISTING SITE CONDITIONS

THIEF RIVER FALLS CAMPUS



AEROSPACE SITE

EAST GRAND FORKS CAMPUS



3.0 EXISTING BUILDING CONDITIONS

3.1 BUILDING ANALYSIS AND SUMMARY

3.1.1 MAJOR CONSTRUCTION PROJECTS SINCE LAST MASTER PLAN

3.1.2 CAMPUS PLAN

3.1.3 EXISTING BUILDING CONDITIONS FCI

3.1.4 GENERAL BUILDING TOPICS

3.1.5 SUSTAINABILITY AND ENERGY EFFICIENCY

3.1.6 ACADEMIC SPACE UTILIZATION

3.1.1 CONSTRUCTION PROJECTS SINCE LAST MASTER PLAN

Major Construction Projects:
- TRF Precision Machining Lab Renovation
- TRF Aerospace Renovation
- EGF Science Labs Renovation
- EGF Occupational Therapist Assistant Lab Renovation
- EGF Roof Replacement

Predesigns:
- EGF Effective Teaching and Learning Labs
  - fully funded in 2023 bonding bill
- EGF HVAC Updates
  - resubmitting HEAPR request for 2024
- TRF Aerospace Roof Replacement of Classroom Addition
  - resubmitting HEAPR request for 2024

Smaller Projects:
- TRF Locks and ADA Updates (in progress)

NORTHLAND COMPREHENSIVE FACILITIES PLAN
3.0 EXISTING BUILDING CONDITIONS

NORTHLAND COMPREHENSIVE FACILITIES PLAN
3.0 EXISTING BUILDING CONDITIONS

3.1.2 EXISTING BUILDING KEY

EAST GRAND FORKS CAMPUS

NORTHLAND
COMMUNITY & TECHNICAL COLLEGE

ROOM NUMBER COLOR KEY:

- 100-199
- 200-299
- 300-399
- 400-499
- 500-599
- 700-799

DIRECTORY:

1. Academic Success Center 578-580
2. Administrative Offices
3. Admissions 106
4. Adult Basic Education 560
5. Business Office 130
6. Cafeteria
7. Counseling 110
8. Financial Aid 117-118
9. Fire Tech./Paramedicine
10. Fitness Center 299
11. IT Services 205
12. Library
13. Northland Store
14. Nursing
15. Reception
16. Receiving 546
17. Registrar 111-112
18. Student Services
19. Testing Center
20. Veterans Center 540
21. Workforce Development Solutions

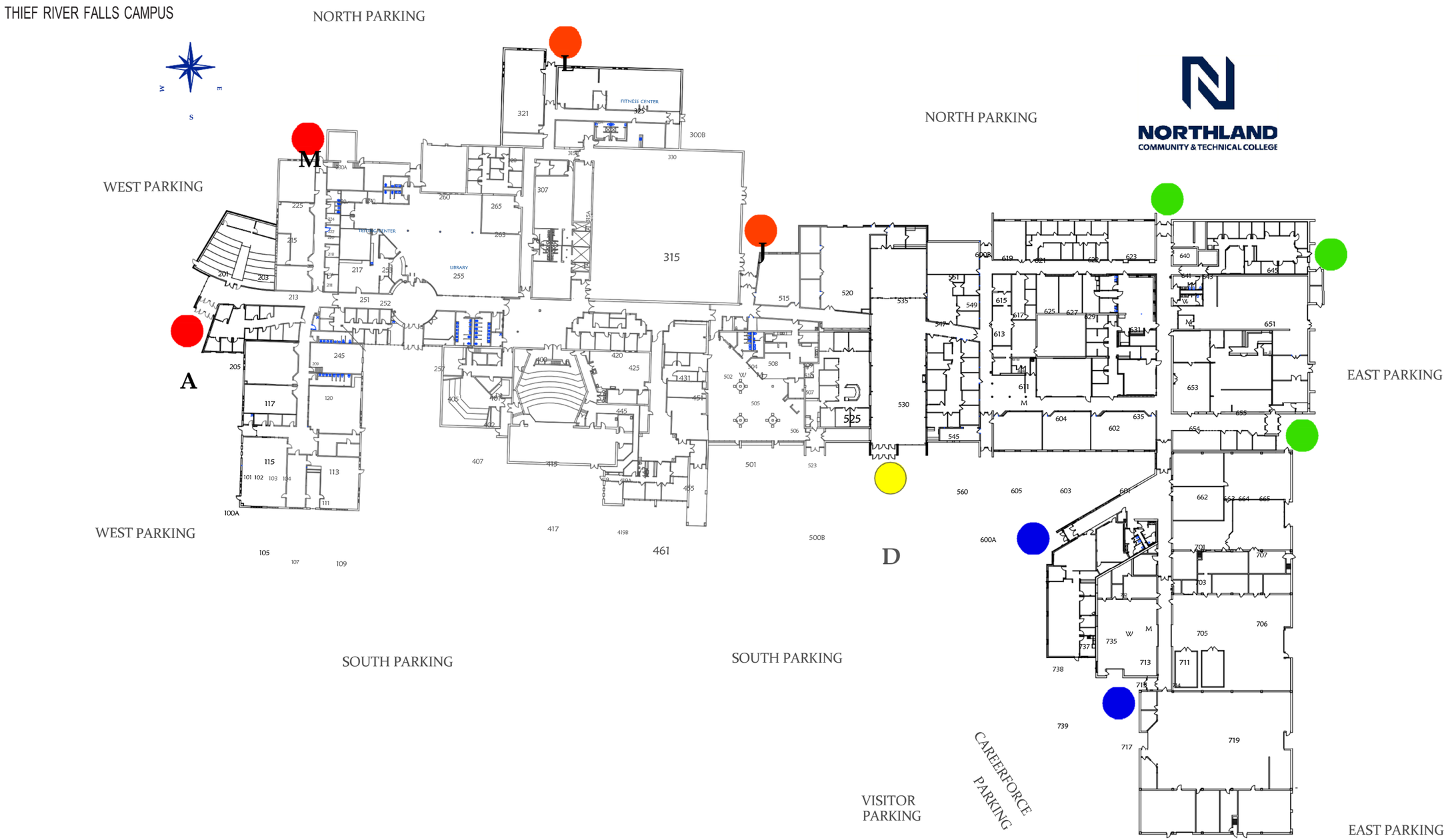
AED Defibrillator

First Aid Kit

Restrooms

NORTHLAND COMPREHENSIVE FACILITIES PLAN
3.0 EXISTING BUILDING CONDITIONS

3.1.2 EXISTING BUILDING KEY



NORTHLAND COMPREHENSIVE FACILITIES PLAN

721

723 725 727 729

DRAWN BY: CORY FELLER

3.1.2 EXISTING BUILDING KEY

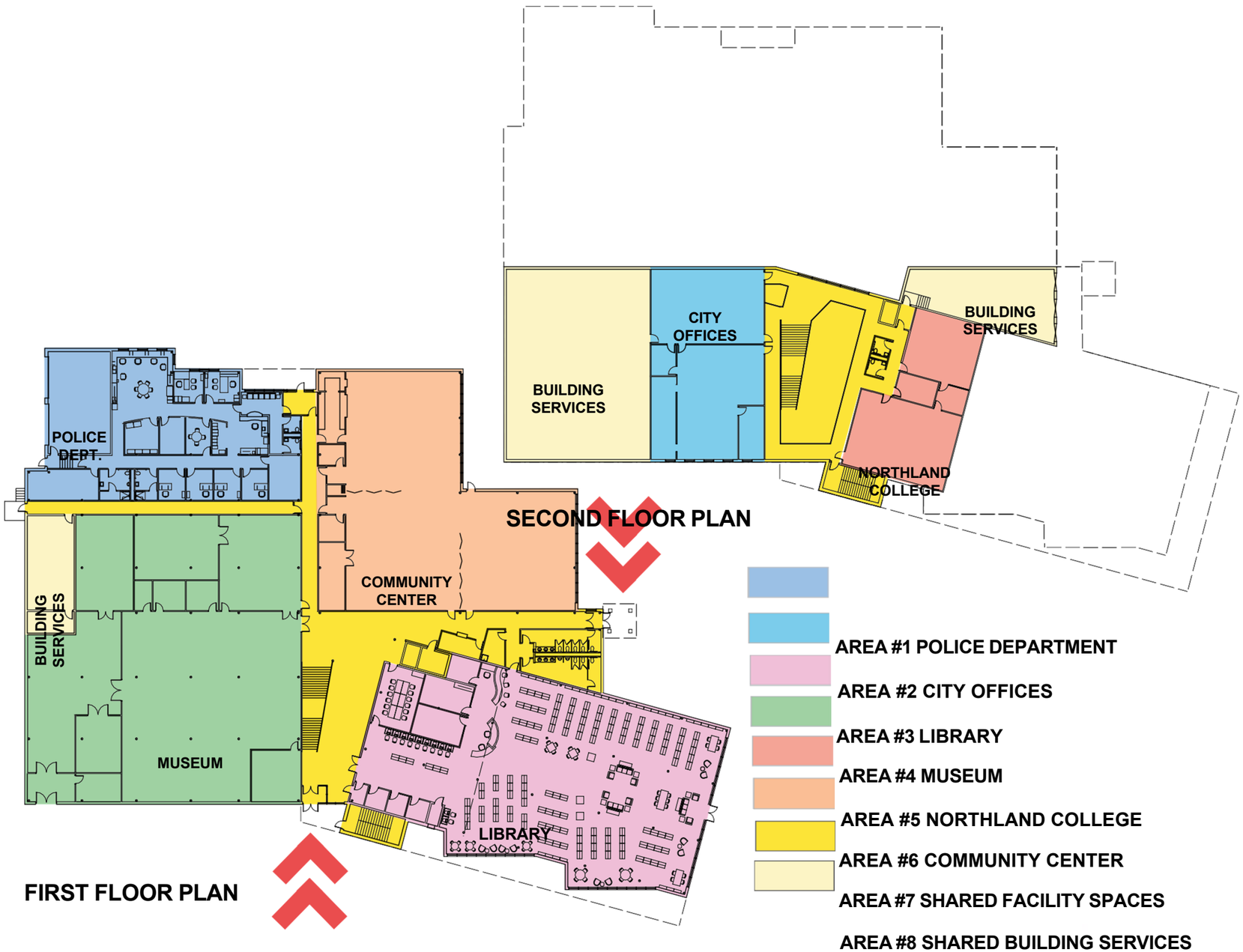
AEROSPACE SITE

PARKING

NORTHLAND COMPREHENSIVE FACILITIES PLAN
3.0 EXISTING BUILDING CONDITIONS

3.1.2 EXISTING BUILDING KEY

ROSEAU SITE



3.1.3 GENERAL BUILDING TOPICS

PROGRAM NEEDS

In general the buildings across the Northland locations are in good physical condition and most provide good teaching spaces for the education of students. There are some outdated classrooms and labs which the college is looking to address. Northland plans to continue to focus on hyflex instruction - online/asynchronous/synchronous with on-cam-pus delivery. Which will allow students to take advantage of classes at any location with out traveling between them if they do not care to.

A Predesign for Effective Teaching and Learning Labs has been completed for the reno-vation of space on the East Grand Forks campus. It will improve space for the following programs: Early Childhood and Education, Pharmacy Technology, Respiratory Therapy, Radiology Technology, and Computer and Networking Technology.

SOCIAL / COLLABORATIVE SPACES

There are some social and collaborative student spaces, but Northland is currently look-ing to increase the number of these spaces throughout their locations. They see students increasing need to attend hyflex classes virtually while on campus as well as their need to have spaces to do collaborative group work.

At both the Thief River Falls and East Grand Forks campuses there appears to be the po-tential for low-use rooms across the building to be dedicated for additional collaborative student spaces. Libraries at both locations also have areas which can be re-imagined for student needs to supplement their learning outside of the classroom.

Plus, with the continuation of learning which happens outside of the classroom, it will be important to continue to update and increase the number of social and collaborative spaces with the modern needs of 21st century learning.

ACCESSIBILITY

Overall accessibility is good at all locations with all classroom and lab teaching spaces being on grade. Updates have been done to continue to address insufficient clearances as entrances, limited accessible toilet rooms, and accommodations needed inside teach-ing spaces.

SECURITY / SAFETY

The campus has a unified electronic access system which is used at all interior and exte-rior doors. With a few exceptions, this system is used at all campus and site locations to increase overall control and ease management.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
3.0 EXISTING BUILDING CONDITIONS

3.1.4 SUSTAINABILITY AND ENERGY EFFICIENCY

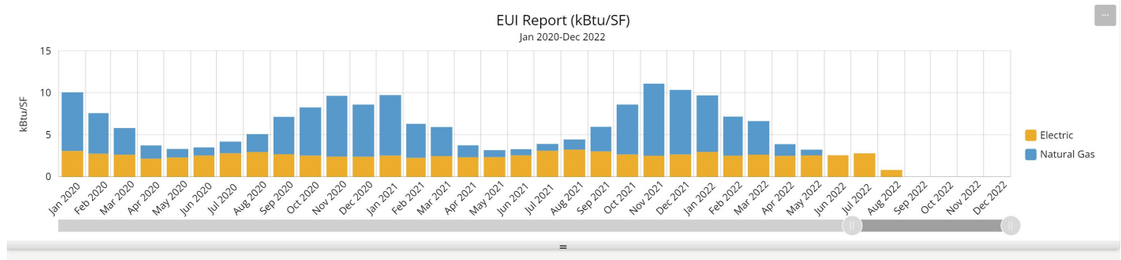
THIEF RIVER FALLS CAMPUS

Measured EUI: 2019 Summary		
Year of Measure		2019
Gross Square Footage:		218937
kWh Generated		0.00
kWh		381209.40
Therms		0.00
EUI		6
Cost of Operation		
Elec. Rate ($/kWh)	$	0.1174
Gas Rate ($/Therm)		#DIV/0!
Annual kWh		381209.40
Annual Therms		0.00
Annual Elec. Cost	$	44,760.71
Annual Gas Cost		#DIV/0!
Total Annual operation Cost		#DIV/0!
$ per Square Foot		#DIV/0!
Annual Gas kWh		0
$ per kWh Gas		#DIV/0!
$ per kWh Elec		$0.12

Measured EUI: 2020 Summary		
Year of Measure		2020
Gross Square Footage:		218937
kWh Generated		0.00
kWh		320688.60
Therms		0.00
EUI		5
Cost of Operation		
Elec. Rate ($/kWh)	$	0.1231
Gas Rate ($/Therm)		#DIV/0!
Annual kWh		320688.60
Annual Therms		0.00
Annual Elec. Cost	$	39,490.77
Annual Gas Cost		#DIV/0!
Total Annual operation Cost		#DIV/0!
$ per Square Foot		#DIV/0!
Annual Gas kWh		0
$ per kWh Gas		#DIV/0!
$ per kWh Elec		$0.12

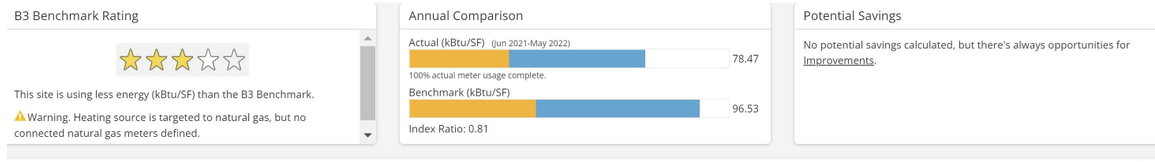
Measured EUI: 2021 Summary		
Year of Measure		2021
Gross Square Footage:		218937
kWh Generated		0.00
kWh		320688.60
Therms		0.00
EUI		5
Cost of Operation		
Elec. Rate ($/kWh)	$	0.0983
Gas Rate ($/Therm)	$	-
Annual kWh		323260.00
Annual Therms		0.00
Annual Elec. Cost		31768.98253
Annual Gas Cost	$	-
Total Annual operation Cost		31769
$ per Square Foot		$0.15
Annual Gas kWh		0
$ per kWh Gas		#DIV/0!
$ per kWh Elec		$0.10

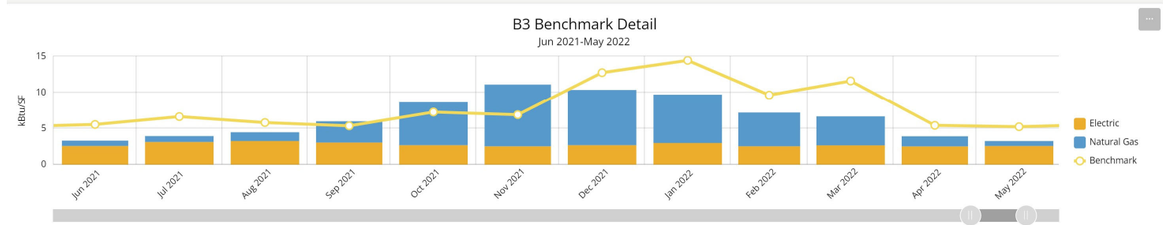
Measured EUI: 2022 Summary		
Year of Measure		2022
Gross Square Footage:		218937
kWh Generated		0.00
kWh		168700.00
Therms		0.00
EUI		3
Cost of Operation		
Elec. Rate ($/kWh)	$	0.1367
Gas Rate ($/Therm)		#DIV/0!
Annual kWh		168700.00
Annual Therms		0.00
Annual Elec. Cost	$	23,065.77
Annual Gas Cost		#DIV/0!
Total Annual operation Cost		#DIV/0!
$ per Square Foot		#DIV/0!
Annual Gas kWh		0
$ per kWh Gas		#DIV/0!
$ per kWh Elec		$0.14



Annual Summary

Period	Days	% Complete	SF	Actual (kBtu/SF)	Total Cost ($/SF)
Jan 2020-Dec 2020	366	100%	218,937	77.13	$1.30
Jan 2021-Dec 2021	365	100%	218,937	76.75	$1.45
Jan 2022-Dec 2022	365	47.1%	218,937	36.93	$0.86





AEROSPACE SITE

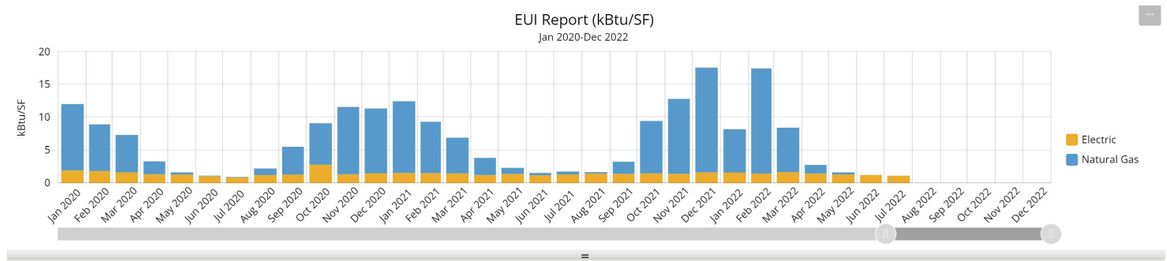
Measured EUI: 2019 Summary			
Year of Measure		2019	
Gross Square Footage:		67000	
kWh Generated		0.00	
kWh		71920.00	
Therms		0.00	
EUI		4	
Cost of Operation			
Elec. Rate ($/kWh)	$		.1150
Gas Rate ($/Therm)		#DIV/0!	
Annual kWh			71920.00
Annual Therms			0.00
Annual Elec. Cost	$		70.80
Annual Gas Cost		#DIV/0!	
Total Annual operation Cost	0	#DIV/0!	
$ per Square Foot		#DIV/0!	
Annual Gas kWh		0	
$ per kWh Gas		#DIV/0!	
$ per kWh Elec	8,2	$0.12	

Measured EUI: 2020 Summary			
Year of Measure		2020	
Gross Square Footage:		67000	
kWh Generated		0.00	
kWh		75142.24	
Therms		0.00	
EUI		4	
Cost of Operation			
Elec. Rate ($/kWh)	$		.1200
Gas Rate ($/Therm)		#DIV/0!	
Annual kWh			75142.24
Annual Therms			0.00
Annual Elec. Cost	$		17.07
Annual Gas Cost		#DIV/0!	
Total Annual operation Cost	0	#DIV/0!	
$ per Square Foot		#DIV/0!	
Annual Gas kWh		0	
$ per kWh Gas		#DIV/0!	
$ per kWh Elec	9,0	$0.12	

Measured EUI: 2021 Summary			
Year of Measure		2021	
Gross Square Footage:		67000	
kWh Generated		0.00	
kWh		80240.00	
Therms		0.00	
EUI		4	
Cost of Operation			
Elec. Rate ($/kWh)	$		.1130
Gas Rate ($/Therm)		#DIV/0!	
Annual kWh			80240.00
Annual Therms			0.00
Annual Elec. Cost	$		67.12
Annual Gas Cost		#DIV/0!	
Total Annual operation Cost	0	#DIV/0!	
$ per Square Foot		#DIV/0!	
Annual Gas kWh		0	
$ per kWh Gas		#DIV/0!	
$ per kWh Elec	9,0	$0.11	

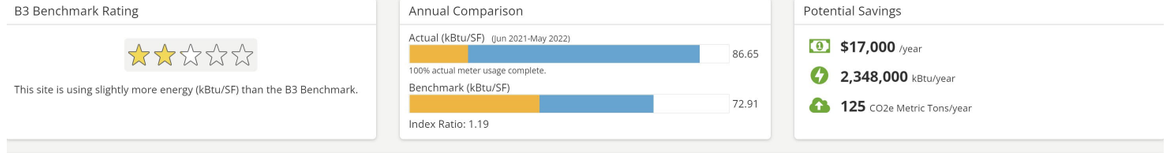
Measured EUI: 2022 Summary			
Year of Measure		2022	
Gross Square Footage:		67000	
kWh Generated		0.00	
kWh		37600.00	
Therms		0.00	
EUI		2	
Cost of Operation			
Elec. Rate ($/kWh)	$		.1090
Gas Rate ($/Therm)		#DIV/0!	
Annual kWh			37600.00
Annual Therms			0.00
Annual Elec. Cost	$		99.27
Annual Gas Cost		#DIV/0!	
Total Annual operation Cost	0	#DIV/0!	
$ per Square Foot		#DIV/0!	
Annual Gas kWh		0	
$ per kWh Gas		#DIV/0!	
$ per kWh Elec	4,0	$0.11	

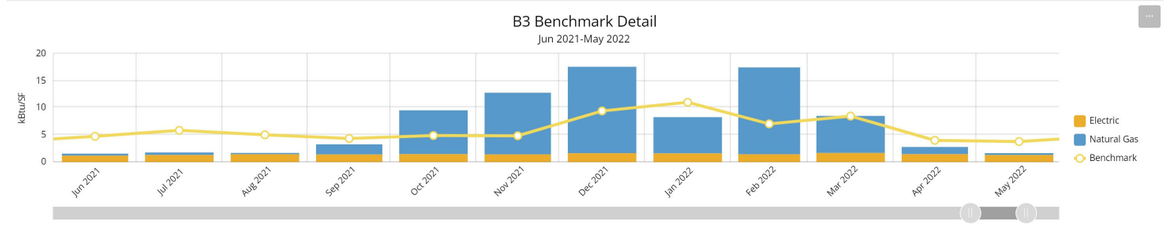
Additional information about Natural Gas and Fuel Oil is needed for accurate calculations



Annual Summary

Period	Days	% Complete	SF	Actual (kBtu/SF)	Total Cost ($/SF)
Jan 2020-Dec 2020	366	100%	67,000	75.20	$0.86
Jan 2021-Dec 2021	365	100%	67,000	83.01	$0.98
Jan 2022-Dec 2022	365	49.5%	67,000	40.89	$0.59





EAST GRAND FORKS

Measured EUI: 2019 Summary		
Year of Measure		2019
Gross Square Footage:		171244
kWh Generated		0.00
kWh		773200.00
Therms		0.00
EUI		15
Cost of Operation		
Elec. Rate ($/kWh)	$	0.0675
Gas Rate ($/Therm)		#DIV/0!
Annual kWh		773200.00
Annual Therms		0.00
Annual Elec. Cost	$	52,171.07
Annual Gas Cost		#DIV/0!
Total Annual operation Cost		#DIV/0!
$ per Square Foot		#DIV/0!
Annual Gas kWh		0
$ per kWh Gas		#DIV/0!
$ per kWh Elec		$0.07

Measured EUI: 2020 Summary		
Year of Measure		2020
Gross Square Footage:		171244
kWh Generated		0.00
kWh		1278600.00
Therms		0.00
EUI		25
Cost of Operation		
Elec. Rate ($/kWh)	$	0.0663
Gas Rate ($/Therm)		#DIV/0!
Annual kWh		1278600.00
Annual Therms		0.00
Annual Elec. Cost	$	84,716.21
Annual Gas Cost		#DIV/0!
Total Annual operation Cost		#DIV/0!
$ per Square Foot		#DIV/0!
Annual Gas kWh		0
$ per kWh Gas		#DIV/0!
$ per kWh Elec		$0.07

Measured EUI: 2021 Summary		
Year of Measure		2021
Gross Square Footage:		171244
kWh Generated		0.00
kWh		1354600.00
Therms		0.00
EUI		27
Cost of Operation		
Elec. Rate ($/kWh)	$	0.0700
Gas Rate ($/Therm)	$	0.4679
Annual kWh		1354600.00
Annual Therms		0.00
Annual Elec. Cost	$	94,780.17
Annual Gas Cost	$	-
Total Annual operation Cost		94780
$ per Square Foot		$0.55
Annual Gas kWh		0
$ per kWh Gas		#DIV/0!
$ per kWh Elec		$0.07

Measured EUI: 2022 Summary		
Year of Measure		2022
Gross Square Footage:		171244
kWh Generated		0.00
kWh		616400.00
Therms		0.00
EUI		12
Cost of Operation		
Elec. Rate ($/kWh)	$	0.0752
Gas Rate ($/Therm)	$	0.4679
Annual kWh		616400.00
Annual Therms		0.00
Annual Elec. Cost	$	46,360.32
Annual Gas Cost	$	-
Total Annual operation Cost		46360
$ per Square Foot		$0.27
Annual Gas kWh		0
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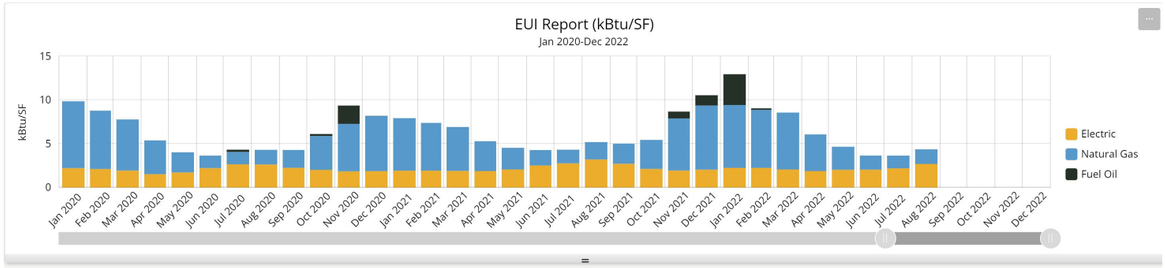
$ per kWh Elec		$0.08



Annual Summary

Period	Days	% Complete	SF	Actual (kBtu/SF)	Total Cost ($/SF)
Jan 2020-Dec 2020	366	100%	171,244	76.17	$0.69
Jan 2021-Dec 2021	365	100%	171,244	75.63	$1.04
Jan 2022-Dec 2022	365	66.8%	171,244	53.02	$0.76

3.1.5 ACADEMIC SPACE UTILIZATION

Current average space utilization for classroom and lab teaching spaces at all locations is significantly below the system target of 85% when based on a 32-hour week. Overall utilization is as follows:

Thief River Falls campus

Summer 2021	0.00
Fall 2021	35.27
Spring 2022	36.14

East Grand Forks campus

Summer 2021	0.64
Fall 2021	30.33
Spring 2022	33.48

Aerospace site

Summer 2021	4.89
Fall 2021	30.12
Spring 2022	26.47

The request was made to break down utilization reporting by semesters to more accurately see the utilization in some program areas over the entire school year. It was noted by the College that some programs have students out obtaining real-world experience some semesters. While this may be happening, the utilization numbers are not showing the large change anticipated.

The data indicates there is more teaching space than needed at the current enrollment. The challenge seen for Northland is the large number of specialized teaching spaces for certification and associate degree programs which look to give students a high degree of hands on learning experiences.

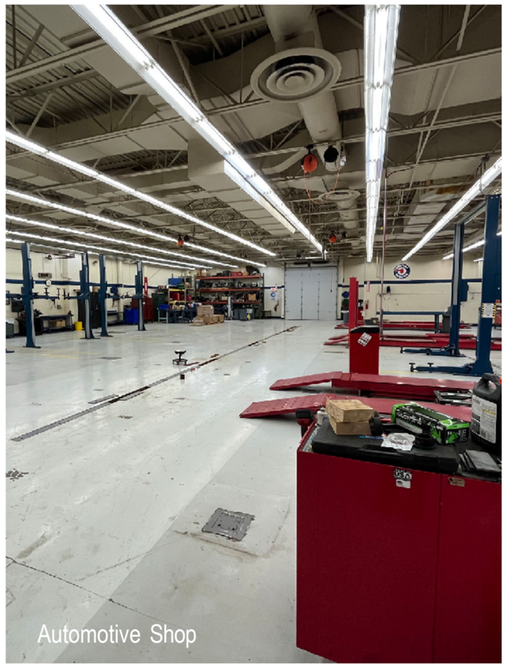
Since the last Comprehensive Facilities Plan done in 2018 enrollment has decrease 15% from 4,584 to 3,896. Low to no growth is anticipated over the next few years, so providing high demand programs, right-sizing teaching spaces, and reducing operating costs will be important keys to a sustainable future.

Additional information about Natural Gas and Fuel Oil is needed for accurate calculations

3.2 BUILDING DATA SHEETS CONTENTS

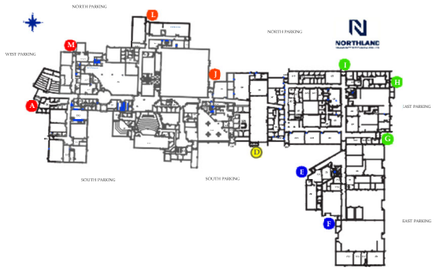
THIEF RIVER FALLS CAMPUS 104
AEROSPACE SITE 110
EAST GRAND FORKS CAMPUS 114

Classroom

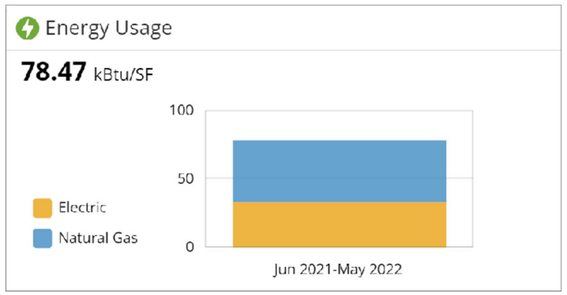


Automotive Shop

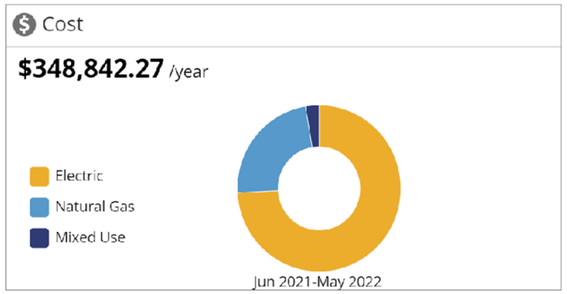
Lab Room



THIEF RIVER FALLS



**Energy use figures represent entire Main Campus metering group.*



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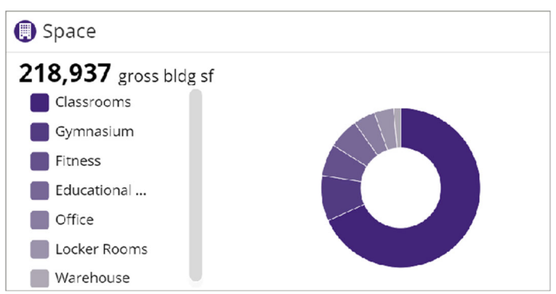
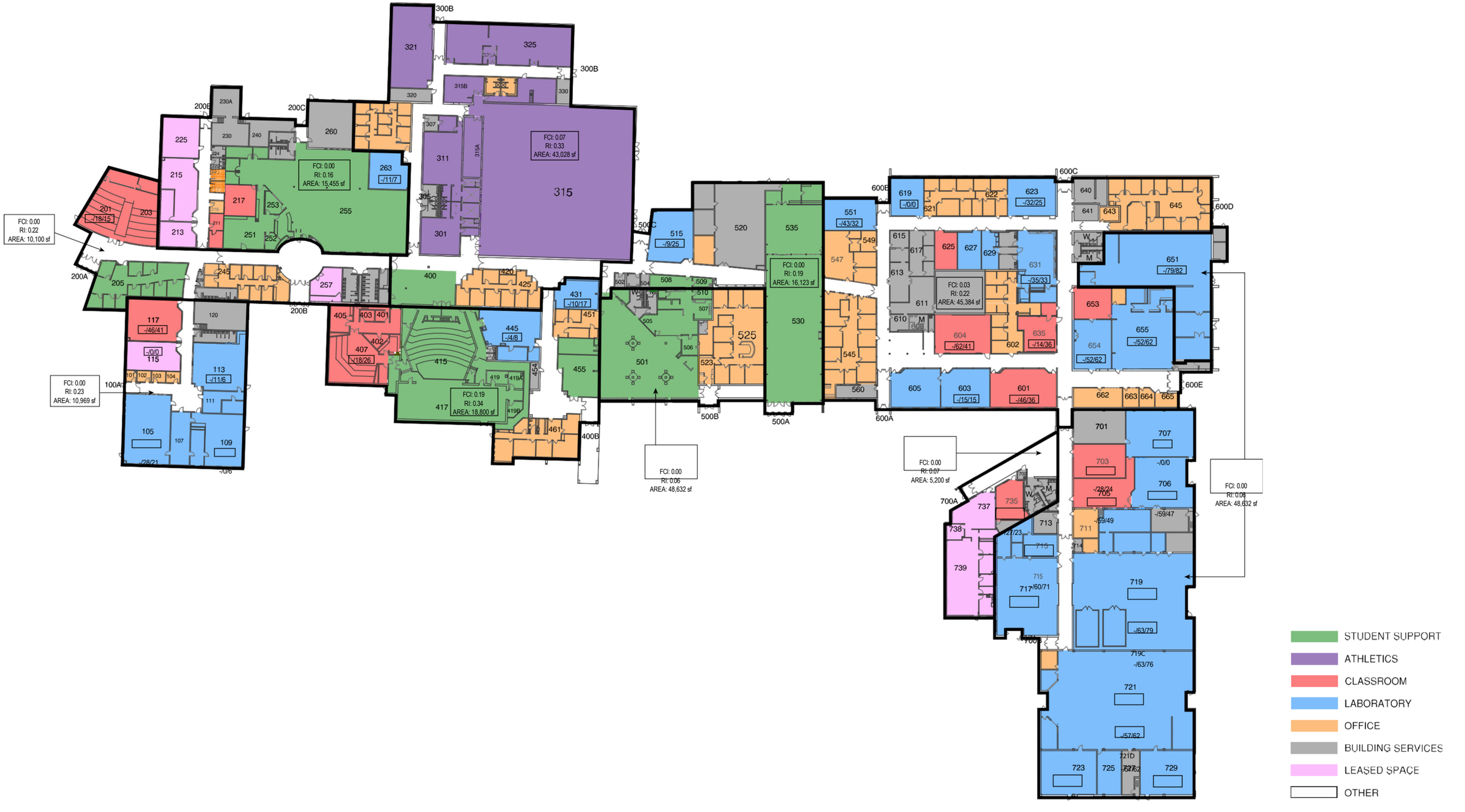
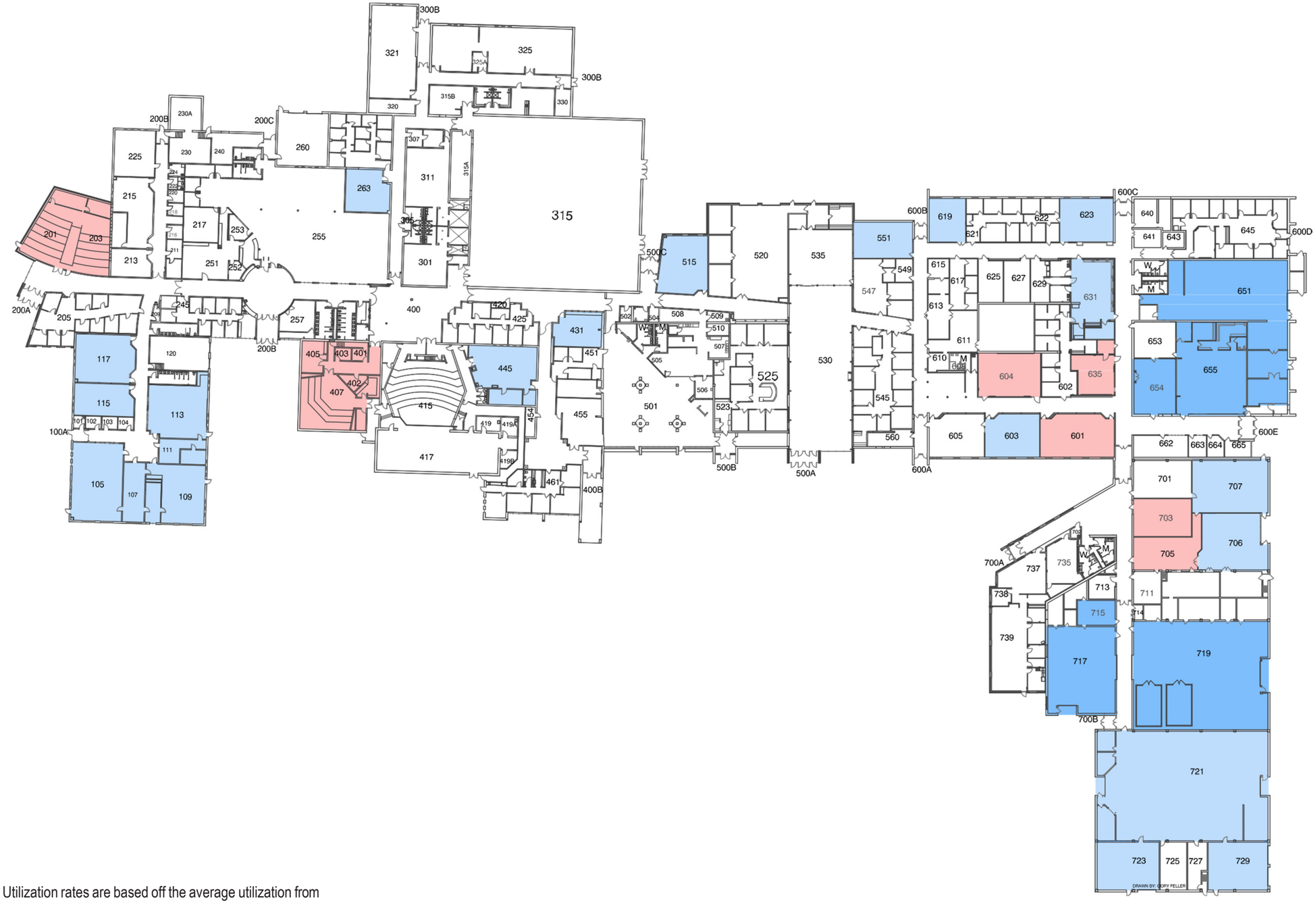


NORTHLAND COMPREHENSIVE FACILITIES PLAN
3.0 EXISTING BUILDING CONDITIONS



NORTHLAND COMPREHENSIVE FACILITIES PLAN
3.0 EXISTING BUILDING CONDITIONS



Utilization rates are based off the average utilization from fall 2021 and spring 2022

CLASSROOMS

- 0-60% = EXTRA LOW
- 60-85% = LOW
- 85-100% = NORMAL
- >100% = HIGH

LABS

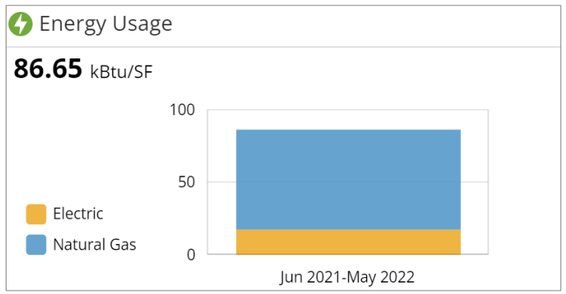
- 0-60% = EXTRA LOW
- 60-85% = LOW
- 85-100% = NORMAL
- >100% = HIGH

Classroom

Commons Area

Airplane Hanger

AEROSPACE SITE



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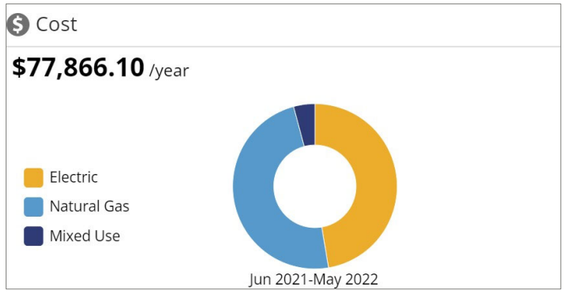

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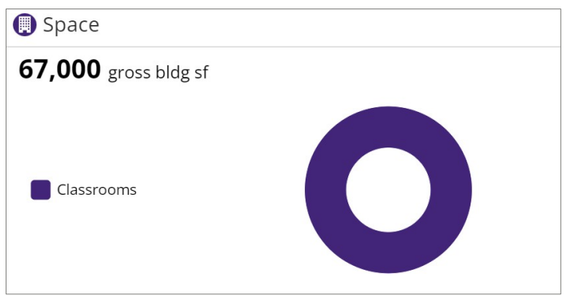
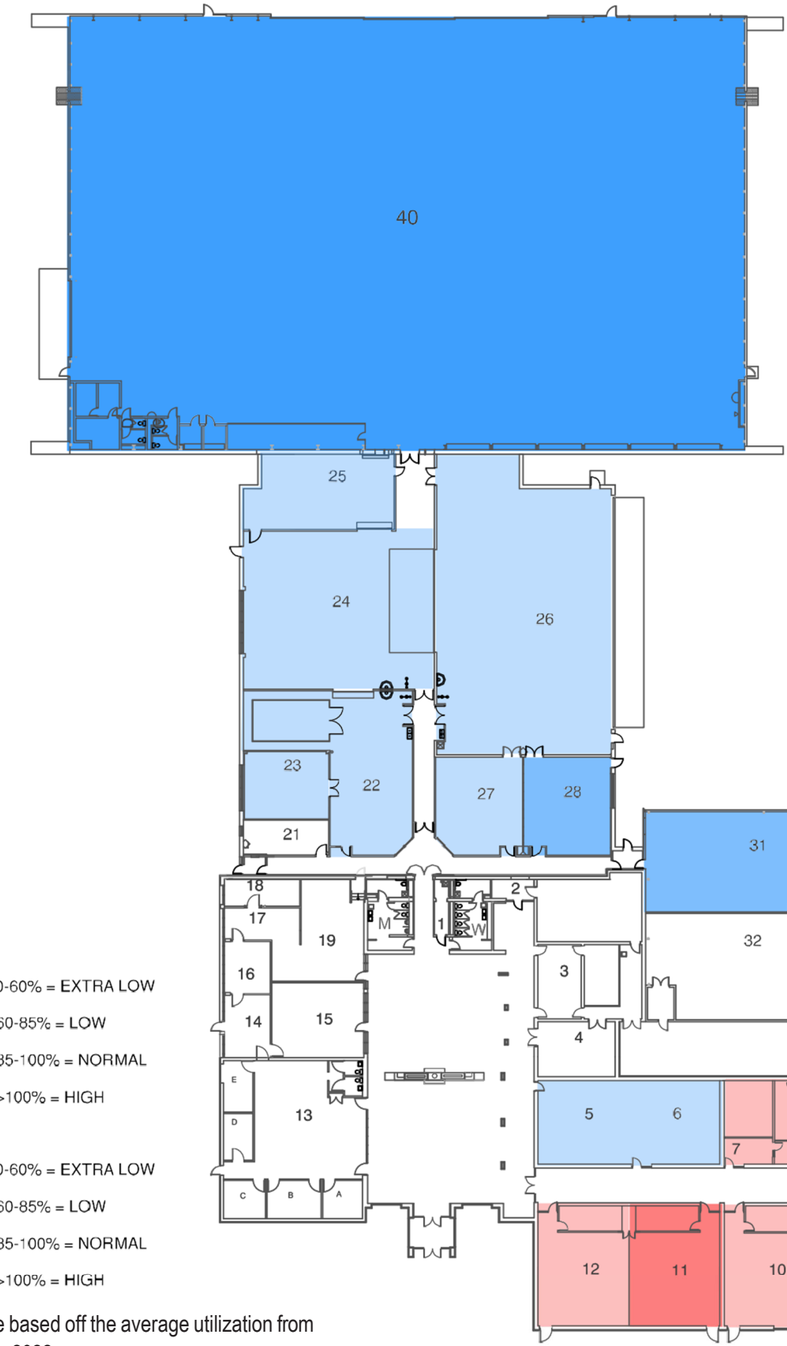
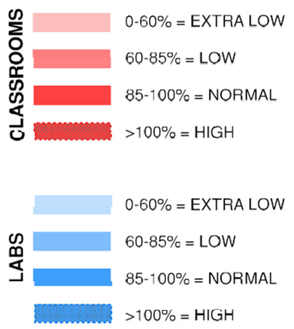
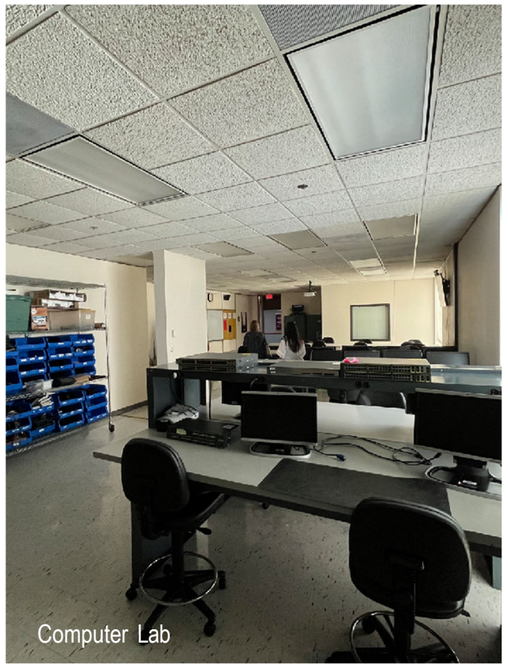






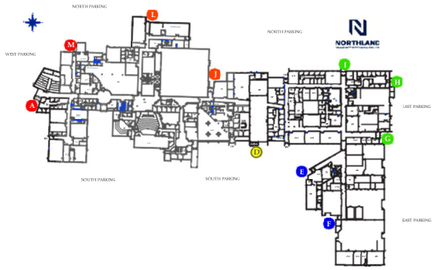
Utilization rates are based off the average utilization from fall 2021 and spring 2022

Classroom

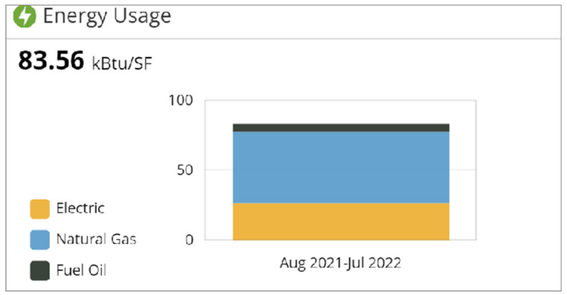


Computer Lab

Medical Training Room



EAST GRAND FORKS



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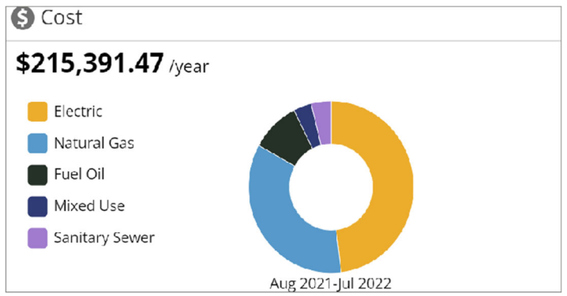

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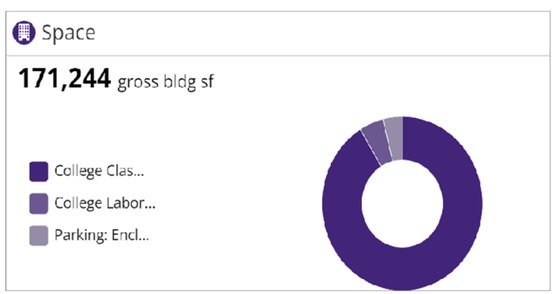

NORTHLAND COMPREHENSIVE FACILITIES PLAN
3.0 EXISTING BUILDING CONDITIONS

NORTHLAND COMPREHENSIVE FACILITIES PLAN
3.0 EXISTING BUILDING CONDITIONS

Utilization rates are based off the average utilization from fall 2021 and spring 2022

CLASSROOMS
- 0-60% = EXTRA LOW
- 60-85% = LOW
- 85-100% = NORMAL
- >100% = HIGH

LABS
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- 60-85% = LOW
- 85-100% = NORMAL
- >100% = HIGH

4.0 PROPOSED FRAMEWORK FOR SITE DEVELOPMENT

4.0 PROPOSED FRAMEWORK FOR SITE DEVELOPMENT

4.1 CAMPUS GOALS AND OVERALL STRATEGY FOR SITE DEVELOPMENT

4.2 PROPOSED SITE PROJECTS & PLANS

4.1 CAMPUS GOALS AND OVERALL STRATEGY FOR SITE DEVELOPMENT

CAMPUS GOALS

- Visually enhance the overall quality of the campus to provide a memorable environment for students, staff, and visitors
- Attract and retain students
- Define outdoor rooms that support learning, activities, and gathering
- Enhance the campus sustainable initiatives

OVERALL STRATEGY

The overall strategy approach looks to enhance the Northland campuses from two perspectives, as seen from the outside primarily by the community and visitors and as viewed and experienced by students, faculty and staff. Also, with the increased importance of sustainability the overall landscape plan outlines initiatives that can be incorporated to create change through small moves as the campus sees building and use changes.

KEY POINTS

- Support exterior space-making by revitalizing the East Grand Forks courtyard and creating expanded gathering area adjacent to cafeteria at the Thief River Falls Campus.
- Create designated space at both campuses for food truck use.
- Restore native vegetation plantings where parking lots are removed, to reduce mowed lawn areas, and visibly demonstrate sustainability.
- Retain and reuse site runoff water
- Decarbonization Site Strategies:
    - Consolidate and remove unused surface parking, restore to natural areas
    - Integrate bladless wind turbines as a visual display of sustainability
    - At parking lots to remain: introduce solar panels

NORTHLAND COMPREHENSIVE FACILITIES PLAN
4.0 PROPOSED FRAMEWORK FOR SITE DEVELOPMENT

4.2 PROPOSED PROJECTS & PLANS

The proposed projects to meet these campus goals have been broken down by short-term (1 to 5 years), medium-term (6 to 15 years) and long-term (16 to 20+ years). Graphic campus maps have been included which note their locations and relationships to demonstrate support of the overall campus development strategy.

GENERAL PROJECTS

SHORT - TERM

1A COMPLETE LANDSCAPE MASTER PLANS

Northland is encouraged to seek the professional services of a landscape architect to complete landscape master plans for the Thief River Falls and East Grand Forks campuses.

At Thief River Falls it is suggested that parking nearest to the new outdoor cafeteria seating on the south side of the building be revised as needed to occasionally be used by food trucks to diversify food options, active the outdoor space, and increase engagement with the local community.

At East Grand Forks, the campus would like to increase the number of people using the west facing primary entrance. A central collaborative hub is located just inside which will help provide a stronger sense of community and identity for campus users. As such this plan encourages additional parking at the west entry. It is also suggested that space be considered for food trucks to expand the diversity of food options and increase engagement with the local community. Due to current limitations on vehicle circulation a direct connection between the north and west parking lots should be analyzed.

These plans will help guide the development of sustainability projects and other site modifications noted, providing an overall unifying look and feel between the two campus locations.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
4.0 PROPOSED FRAMEWORK FOR SITE DEVELOPMENT

THIEF RIVER FALLS

- 1A Add Composting and Recycling
- 1B Remove Parking, Plant Prairie Grass & Pollinator Garden
- 1C Add Prairie Grass & Pollinator Gardens
- 1D Add Community Gardens
- 2A Create Outdoor Seating
- 2B Add Storm Water Retention
- 3A Add Geothermal Well Field.
- 3B Add Wind Energy

4.2 PROPOSED SITE PROJECTS - THIEF RIVER FALLS CAMPUS

SHORT - TERM

1A ADD COMPOSTING AND RECYCLING

The addition of sorted bins for composting and recycling is an easy first step for the college to make a visible display of its sustainability initiative. This will allow coffee grounds and food scraps from the campus kitchen to be composted for use in community gardens. The visibility of sorted recycling bins will reduce the amount of waste going to the landfill and get people thinking more about the waste they produce and its life cycle. Recycling on campus in the past has been limited by what is offered by the City of Thief River Fals. Northland will continue to work with the City and encourage the expansion of their program.

1B REMOVE PARKING, PLANT PRAIRIE GRASS & POLLINATOR GARDEN

The campus currently has more parking around the building than is needed so the site has been reviewed with the Committee and Facilities to determine where it would be best for reductions to occur as the campus looks to decrease its operational maintenance costs. This small area of paved parking is currently used for fleet and maintenance vehicle parking, as well as overnight parking for student athletes during team travel. It was felt that these uses could be relocated and this entire paved parking lot be removed. In order to not increase mowing on campus we suggest that native prairie grass and pollinator garden species be planted. When done these plants will also help the campus move toward carbon neutrality.

1C ADD PRAIRIE GRASS AND POLLINATOR GARDENS

With sustainability being important at Northland, it is suggested that areas of prairie grass and pollinator gardens be added as space on site can be converted. These will help with reducing emissions from maintenance equipment such as mowers and trimmers, decrease the campus carbon footprint with their carbon capture, and reduce storm water runoff with their deep roots. Planting in highly visible areas flanking Highway 1 will also highlight the importance of sustainability on campus.

1D ADD COMMUNITY GARDENS

The addition of community gardens will allow students and community members to grow food for themselves and reduce the emis-sion from food transportation. It will also promote the importance of sustainability on campus and bring community members to the campus. Allowing them to engage and increase their awareness of Northland.

2A CREATE OUTDOOR SEATING

This project will create an outdoor seating area adjacent to the cafeteria which will provide a multi-use space that can serve as ex-tended seating for the cafeteria, an outdoor classroom, and study area. Including furniture with solar umbrellas that provide charging stations and extending the building WIFI for users is encourages to make using the space more desirable.

2B ADD STORM WATER RETENTION

Storm water retention into a rainwater garden will reduce and collect water runoff from the site. Landscaping, seating, and plantings can be incorporated around the low water retention pond to create an aesthetically pleasing natural feature on campus. The reten-tion pond will serve as habitat for the flora and fauna of the area and the water collected can be reused to water the landscaping on campus through the inclusion of an underground storage system which will also assist in the overflow of large rain events. The retention pond will further Northland's sustainability initiative functionally and visually.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
4.0 PROPOSED FRAMEWORK FOR SITE DEVELOPMENT

MEDIUM - TERM

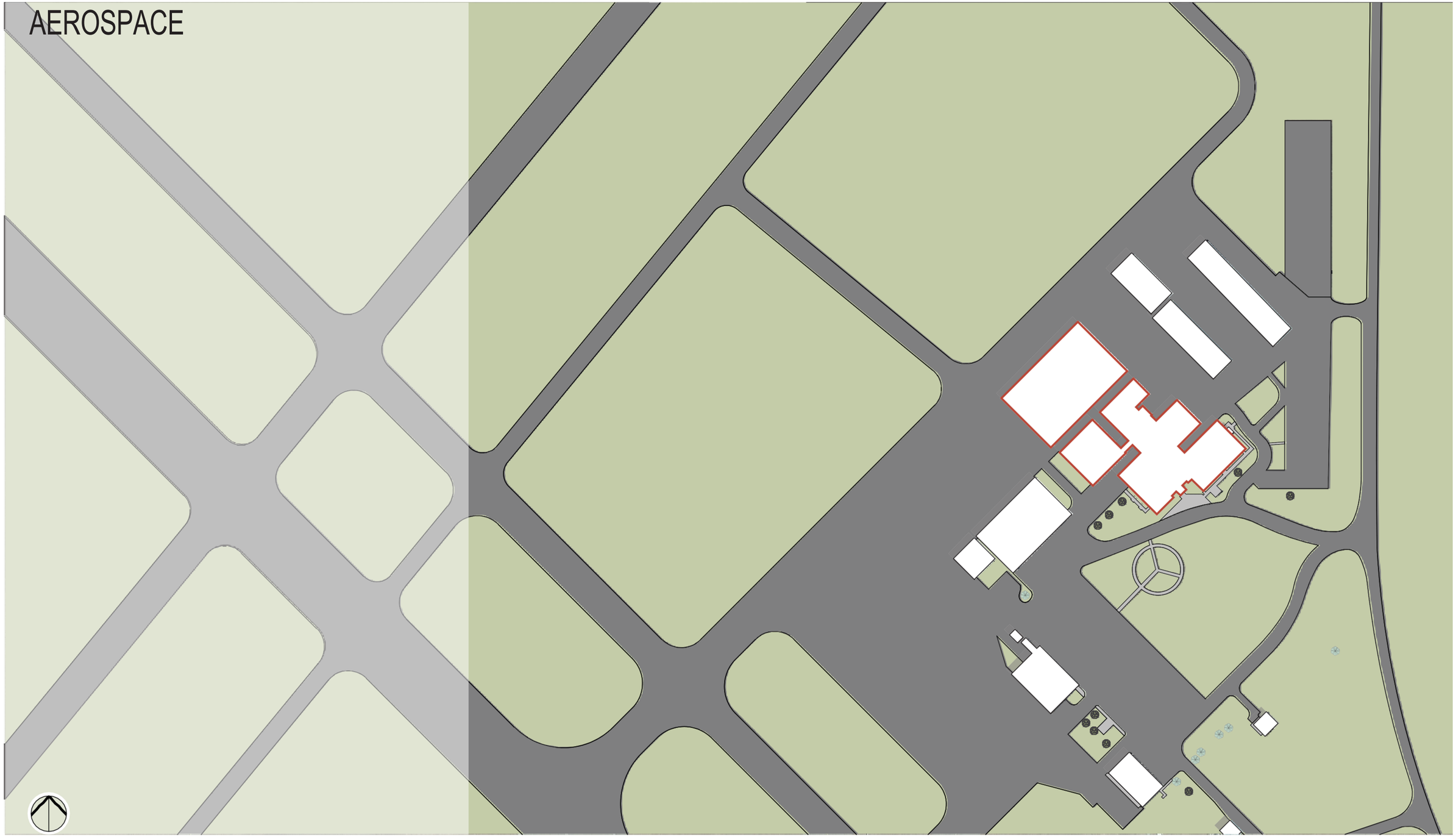
3A ADD GEOTHERMAL WELL FIELD

An area for a geothermal well field has been identified between the main building and MECC for the campus to continue to work toward carbon neutrality. In the future as hvac systems are updated as part of a building construction project it is encouraged that ground source heat pumps be incorporated.

3B ADD WIND ENERGY

As Northland works toward carbon neutrality they are encouraged to include wind energy in their solutions. Given the highly visible location shown blade-less (such as vortexbladeless.com) is encouraged to demonstrate the campus dedica-tion to sustainability and contribute to campus identity.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
4.0 PROPOSED FRAMEWORK FOR SITE DEVELOPMENT



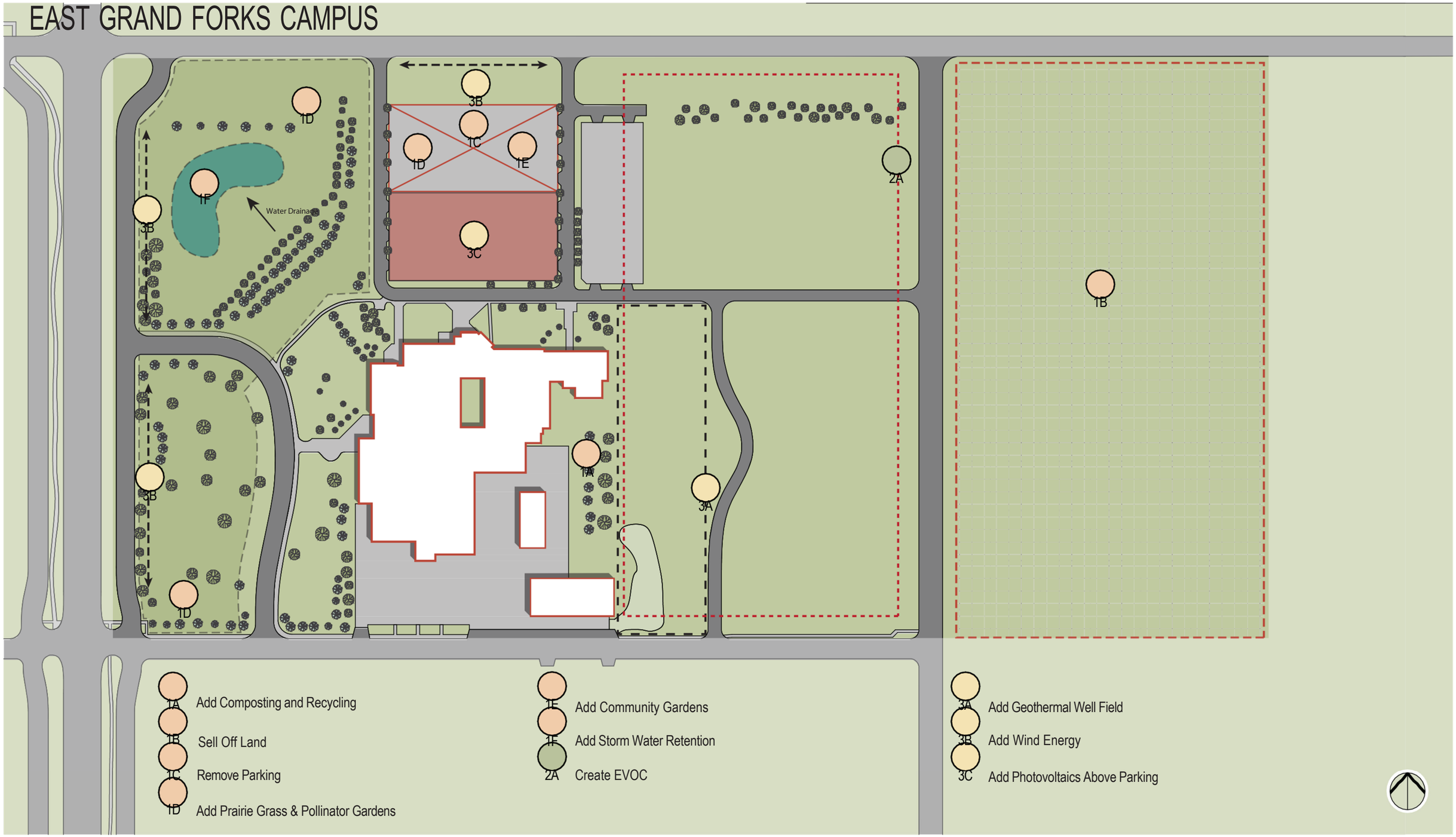
4.2 PROPOSED SITE PROJECTS - AEROSPACE SITE

No development projects proposed at this site

NORTHLAND COMPREHENSIVE FACILITIES PLAN
4.0 PROPOSED FRAMEWORK FOR SITE DEVELOPMENT

NORTHLAND COMPREHENSIVE FACILITIES PLAN
4.0 PROPOSED FRAMEWORK FOR SITE DEVELOPMENT

EAST GRAND FORKS CAMPUS



4.2 PROPOSED SITE PROJECTS - EAST GRAND FORKS

SHORT - TERM

1A ADD COMPOSTING AND RECYCLING

The addition of sorted bins for composting and recycling is an easy first step for the college to make a visible display of its sustainability initiative. This will allow coffee grounds and food scraps from the campus kitchen to be composted for use in community gardens. The visibility of sorted recycling bins will reduce the amount of waste going to the landfill and get people thinking more about the waste they produce and its life cycle.

1B SELL OFF LAND

It is recommended that Northland sell land east of the campus building site that could potentially be used for the continued development of this area of the City. This would reduce property maintenance demands and generate funds which could be used for future campus projects.

1C REMOVE PARKING

The campus currently has more parking around the building than is needed so the site has been reviewed with the Committee and Facilities to determine where it would be best for reductions to occur as the campus looks to decrease its operational maintenance costs. This area of parking is more remote from the building and sees less use so it was determined to be a place where paved parking could be removed.

1D ADD PRAIRIE GRASS & POLLINATOR GARDENS

With sustainability being important at Northland, it is suggested that areas of prairie grass and pollinator gardens be added as space on site can be converted. These will help with reducing maintenance and decrease emissions from maintenance equipment such as mowers and trimmers, lowering the campus carbon footprint with their carbon capture, and reduce storm water runoff with their deep roots. Planting in highly visible areas flanking Central Avenue will also highlight the importance of sustainability on campus.

1E ADD COMMUNITY GARDENS

The addition of community gardens will allow students and community members to grow food for themselves and reduce the emis-sion from food transportation. It will also promote the importance of sustainability on campus and bring community members to the campus. Allowing them to engage and increase their awareness of Northland.

1F ADD STORM WATER RETENTION

Storm water retention into a rainwater garden will reduce and collect water runoff from the site. Landscaping, seating, and plantings can be incorporated around the low water retention pond to create an aesthetically pleasing natural feature on campus. The reten-tion pond will serve as habitat for the flora and fauna of the area and the water collected can be reused to water the landscaping on campus through the inclusion of an underground storage system which will also assist in the overflow of large rain events. The retention pond will further Northland's sustainability initiative functionally and visually.

2A CREATE EVOC

Northlland Administration would like convert some of the access land available into an Emergency Vehicle Operator Course (EVOC). This will allow the expansion of protective services course offerings on campus and provide a new source of revenue to the campus as regional emergency teams come to also use it to train. Currently Northland sends students to experience this critical training to the nearest course in St. Cloud, MN.

MEDIUM - TERM

3A ADD GEOTHERMAL WELL FIELD

An area for a geothermal well field has been identified for the campus to continue to work toward carbon neutrality. In the future as hvac systems are updated as part of a building construction project it is encouraged that ground source heat pumps be incorporated.

3B ADD WIND ENERGY

As Northland works toward carbon neutrality they are encouraged to include wind energy in their solutions. Given the highly visible location shown along Central Avenue and 150th Street SW blade-less (such as vortexbladeless.com) is encouraged to demonstrate the campus dedication to sustainability and contribute to campus identity. Bladeless wind energy will also give Northland the chance to incorporate knowledge of new technologies into their programs.

3C ADD PHOTOVOLTAICS ABOVE PARKING

To promote sustainability and reduce Northland's carbon footprint it is suggested that photovoltaics be added over existing areas of parking and electric vehicle charging stations be included. Solar energy also gives Northland the chance to incorporate knowledge of new technologies into their programs.

5.0 PROPOSED FRAMEWORK FOR BUILDING DEVELOPMENT

5.1 CAMPUS GOALS AND OVERALL STRATEGY FOR BUILDING DEVELOPMENT

5.2 PROPOSED BUILDING PROJECTS & PLANS

5.1 CAMPUS GOALS AND OVERALL STRATEGY FOR BUILDING DEVELOPMENT

GOALS

The goals noted below for this Comprehensive Facilities Plan have informed the Steering Committee's work and leadership in identifying the following proposed building projects.

1. DEVELOP PROJECTS FOR A CAPITAL BUDGET REQUEST TO RESPOND TO CHANGING ACADEMIC PROGRAMMING AND MISSION

- Address building physical short-falls in meeting the needs of current and future programs
- Reduce campus operational costs by eliminating deferred maintenance and incorporating energy efficient systems

2. EVALUATE AND IMPROVE SPACE UTILIZATION TO LEVERAGE AND UPGRADE EXISTING SPACE, AS NEEDED, WITH STRATEGIC INTEGRATION OF TECHNOLOGY

- Continuing to upgrade teaching classroom and lab spaces to support in-person, remote and hybrid teaching needs
- Re-locating departmental spaces to bring college spaces together and increase utilization of existing teaching classrooms and labs, and to share support spaces more broadly

3. PRIORITIZE REPAIR AND REPLACEMENT NEEDS TO TAKE CARE OF WHAT YOU HAVE AND INTEGRATE SUSTAINABILITY PRINCIPLES INTO OVERALL CAMPUS DEVELOPMENT

- Adding a ground source heat pump fields to reduce carbon dependency
- Adding photovoltaics and electric vehicle charging stations to parking lots
- Consider Power Purchasing Agreement for potential funding resource
- Adding prairie and pollinator gardens across campus to reduce mowing of turf grass and its carbon footprint impact
- Address through capital budget or revenue bond requests
- Address through R & R or HEAPR project funds
- Discuss options for City provided power to be "cleaner". Continue to work toward becoming carbon neutral campus.

4. SELL REAL ESTATE

- Selling East Grand Forks campus property East of 5th Avenue NE and Thief River Falls main campus property to the North of College Drive to provide additional funds for campus needs, compress campus footprint, and reduce operational cost.

5. IDENTIFY OBSOLETE SPACE TO BE REMOVED

- Reviewing areas & additions regarding space utilization and deferred maintenance to determine value
  -See Building Matrix in executive summary and Appendix.

Consideration was given to these goals through the lens of the key priorities seen on higher educational campuses: the Future of Learning, Business of Education, and Resilience of Facilities as described in the executive summary.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
5.0 PROPOSED FRAMEWORK FOR BUILDING DEVELOPMENT

It is known that enrollment has been a challenge system-wide with little to no growth anticipated over the next few years. Northland is experiencing this as a campus and seeing a slow continued decrease in undergraduate numbers, but steady small growth in part-time & certifications enrollment. It is also understood that space utilization and energy use will play a greater role in obtaining capital bonding requests.

The goals also look to align with and further Northlands's Strategic Priorities (see Framework in appendix) focused on providing a distinctive student experience that makes the Northland academic experience standout, provides equity and inclusion in the changing world environment, and incorporates community engagement for the benefit of both the student and community.

OVERALL STRATEGY

The overall strategy approach used looks to more efficiently used space at the Northland campuses without over responding to the decreased enrollments and retaining what is best at Northlnad. The Steering Committee worked toward this end by isolating variables to consider them more deeply through the review of four extreme schemes: 1) Culture of Connection, 2) Carbon Neutral Campus, 3) Best Business Case, and 4) Technology of Tomorrow.

SOME HIGHLIGHTS OF THIS WORK WERE THE FOLLOWING:

- Decrease the physical size of campuses and use proceeds from land sales to fund future projects
- Clarify entry points & wayfinding to create a more welcoming & accommodating campus for students, faculty, and community visitors
- Decrease campus square footage to reduce operational costs and focus the available resources
- Seek to increase sustainability and energy efficiency on campus through a variety of ways

OPERATIONAL STRATEGIES

Since the last CFP update, Northland has worked on several operational strategies: new locks/controls have been added to many doors for access control, HVAC controls continue to be updated to increase efficiency, and as lights are replaced LED fixtures have been used to decrease energy use. These items help to reduce the operational costs to run the campus and the campus is working to advance these not only to newly renovated areas, but throughout other buildings were possible.

5.2 PROPOSED PROJECTS & PLANS

The proposed projects to meet these campus goals have been broken down by short-term (1 to 5 years), medium-term (6 to 15 years) and long-term (16 to 20+ years). Graphic campus maps have been included which note their locations and relationships to demonstrate support of the overall campus development strategy.

Section 6 outlines the potential funding resources for the proposed development.

GENERAL PROJECTS

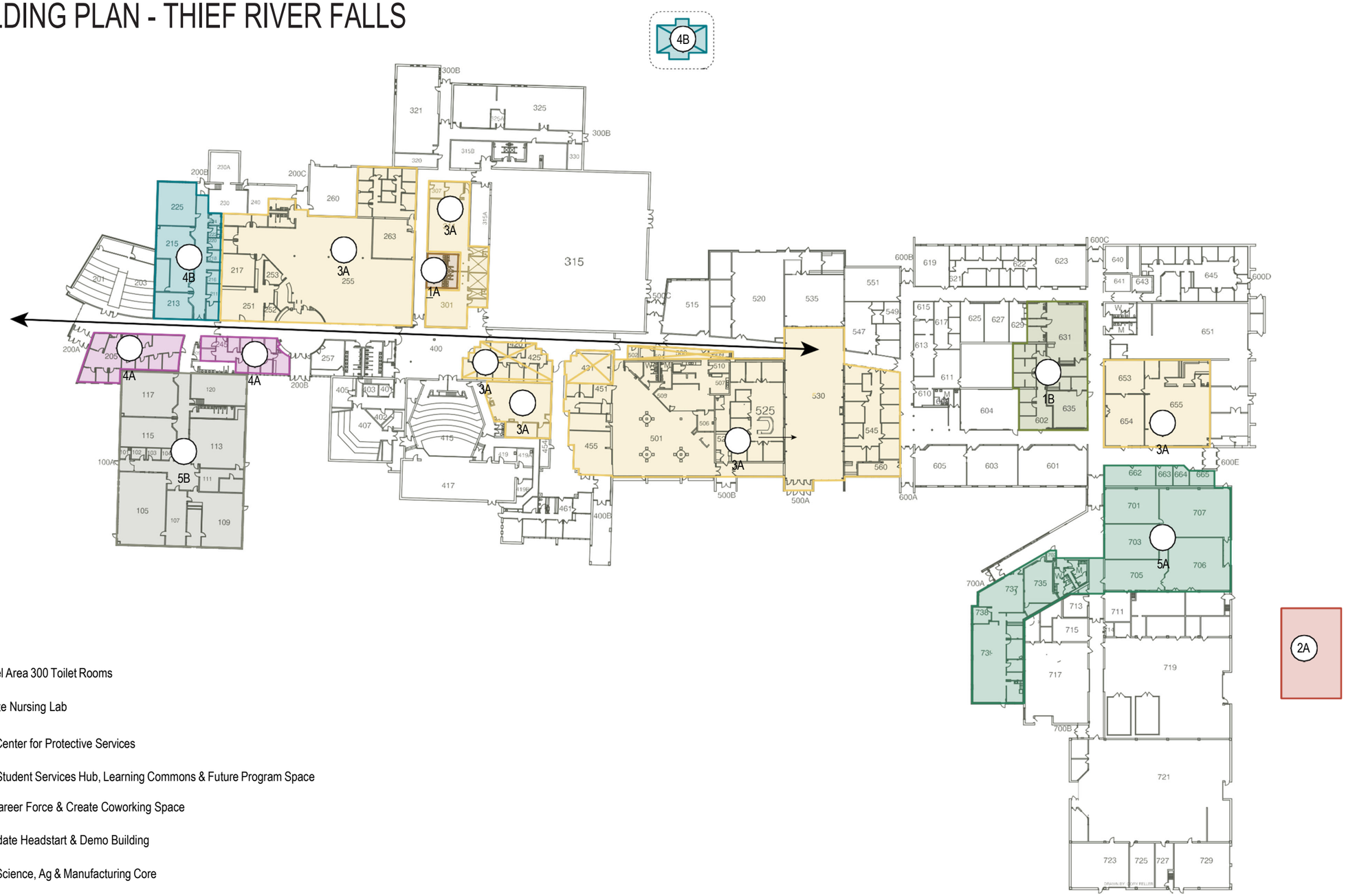
SHORT - TERM

1A DEVELOP CAMPUS STANDARDS

Northland is planning to hire a consultant to help them establish campus standards to strengthen their campus brand and unify the interior finish materials used at both campus locations and other sites.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
5.0 PROPOSED FRAMEWORK FOR BUILDING DEVELOPMENT

5.2 BUILDING PLAN - THIEF RIVER FALLS



1A Remodel Area 300 Toilet Rooms

1B Renovate Nursing Lab

2A Create Center for Protective Services

3A Create Student Services Hub, Learning Commons & Future Program Space

4A Move Career Force & Create Coworking Space

4B Consolidate Headstart & Demo Building

5A Create Science, Ag & Manufacturing Core

5B Create Community Service Hub

5.2 PROPOSED BUILDING PROJECTS - THIEF RIVER FALLS

SHORT - TERM

1A REMODEL AREA 300 TOILET ROOMS
This project will remodel the existing toilet rooms in area 300 which need accessibility updates and old existing finishes to be refreshed.

1B PREDESIGN: RENOVATE NURSING LAB
The nursing lab will be renovated during this project to provide a much-needed update to this key space for a growing program.

2A PREDESIGN: CENTER FOR PROTECTIVE SERVICES
This project looks to provide new space for the criminal justice programs and to expand protective services skills to include things such as an indoor shooting range. Northland Administration has considered shifting these course offerings to the East Grand Forks campus, but the wooded area north of this campus is frequently used for training so there are advantages to keeping some training at the Thief River Falls campus. The administration is seeking potential locations on and off campus for this program to fulfill its mission.

2B HEAPR: REPLACE HVAC CONTROLS

3A PREDESIGN: STUDENT SERVICES HUB, LEARNING COMMONS & FUTURE PROGRAM SPACE
This project will shift the cafeteria to be adjacent to the south main entrance lobby. The pairing of these two large spaces will create an open centralized area which should have a variety of seating options for students to eat, gather, collaborate, or study inde-pendently. It will also provide more flexibility when events are held here. This will create a vibrant open student hub.

The student service offices currently open to the entrance lobby will be relocated to the current cafeteria area. This will allow them to still be easily accessible. Some of the surrounding space should also be developed into small group study rooms and a storage room for furniture used to support the multipurpose use of these spaces. This furniture is currently stored in 701 which is needed for academic program space.

Room 445 will be renovated for the art lab in 431 to be relocated. This will allow 431 and office space 502, 504, 508, and 509 to be removed and their areas to be added to the corridor in the development of a spine between the west primary community entrance to the center of the building.

Campus administration feels it would be highly beneficial to co-locate services and spaces which focus on providing assistance to students for them to flourish regardless of their chosen program. This project would relocate the academic success center, which is located in suite 205 into the central library. The area would be reorganized to provide formal areas with staffed assistance, testing rooms, small group study rooms, as well as informal areas for students to collaborate and study independently. New furniture will be an important part of revitalizing this important space.

The overall reorganization of this area of the building should also consider the relocation of athletic offices in suite 425 into classroom 263 and the future consolidation of head start in proposed project 4B to potentially need classroom 217. To further develop the spine between the west primary community entrance and the center of the building, the now empty office suite 425 will be removed and the area added to the corridor. This will allow for enhanced branding and provide surge space for the athletic and arts events happening in this area of the building.
While working in this area of the building it is also suggested that locker rooms 301 and 311 have accessibility shortcomings addressed and their finishes refreshed since they are becoming old and worn.

Northland administration is also looking to add a new program or re-start Cosmetology. Cosmetology was previously located in 653, 654, and 655. The needed plumbing and infrastructure items still existing in the area, so it would save project costs to reuse this space. A study will be done of regional workforce needs to identify other possible programs.

1B DESIGN & CONSTRUCTION: RENOVATE NURSING LAB
With the completion of the predesign funds will be requested for the design and construction needed to complete this project.

MEDIUM - TERM

2A DESIGN & CONSTRUCTION: CENTER FOR PROTECTIVE SERVICES
With the completion of the predesign funds will be requested for the design and construction needed to complete this project.

3A DESIGN & CONSTRUCTION: CREATE STUDENT SERVICES HUB, LEARNING COMMONS & FUTURE PROGRAM SPACE
With the completion of the predesign funds will be requested for the design and construction needed to complete this project.

4A MOVE CAREER FORCE & CREATE COWORKING SPACE
With the creation of the learning commons and move of the academic success center from suite 205 the space will be available to shift the Career Force offices currently in 737 and 739 into this area. Office suite 245 has very low utilization by the academic faculty it was originally planned for. It is suggested that the few remaining faculty be transitioned into offices available on the east side of the building. Based on conversations with the committee, we would recommend a coworking space be created in office suite 245. Given it's current configuration minimal work would be required for this change. It was shared that there has been requests for this entrepreneurial support space from faculty and the community, so a need is seen.

These two items support the campus's reorganization to focus community-based service and interaction to the west side of the campus at the primary community entrance being established. This allows users access to convenient parking and simplifies wayfinding once in the building.

5.2 PROPOSED BUILDING PROJECTS - THIEF RIVER FALLS

4B CONSOLIDATE HEADSTART & DEMO BUILDING

Headstart is currently split between room 215 and a few adjacent spaces and the small stand-alone building north of the main campus building. This project looks to consolidate all of the headstart space needed in the main building in rooms near 215 – such as 213, 217, and 225. This will also strengthen the west primary community entrance reorganization of the main campus building.

The stand-alone building will be demolished with this project reducing overall maintenance and operational costs.

4C HEAPR: TUCKPOINTING EXTERIOR WALLS AND REPLACE WINDOWS

4D HEAPR: REPLACE COMBUSTIBLE INTERIOR

LONG - TERM

5A PREDESIGN: SCIENCE, AG & MANUFACTURING CORE

It is recommended that all academic program and teaching lab spaces be placed on the east side of the building. This project suggests that previously emptied space in 737 and 739 be renovated for use as science labs. With the anticipated need for more dedicated agriculture and manufacturing lab program space a reorganization and renovation of high-bay rooms 701, 703, 705, 706, and 707 should be done to simplify access to these program spaces and provide support for equipment needed. 662 should be considered for office and other support spaces for these programs.

5A DESIGN & CONSTRUCTION: SCIENCE, AG & MANUFACTURING CORE

With the completion of the predesign funds will be requested for the design and construction needed to complete this project.

5B CREATE COMMUNITY SERVICES HUB

Adult education currently uses room 117 in the southwest wing of the building. With the focus of community services in this area of the building the campus is encouraged to keep adult education in place and look to offer the remaining space in this wing for lease to other community service providers. This lease space will help increase utilization and increase financial support the campus.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
5.0 PROPOSED FRAMEWORK FOR BUILDING DEVELOPMENT

5.2 BUILDING PLAN - AEROSPACE SITE

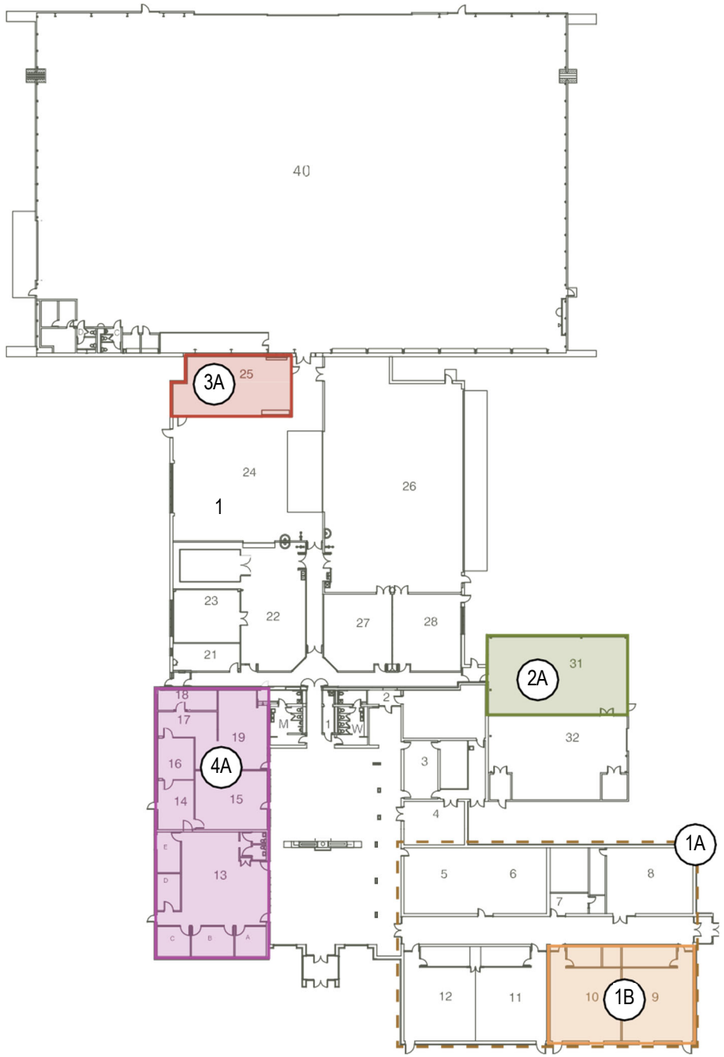
1A Classroom Addition Roof Replacment

1B Create Workforce Solutions Space

2A Update Robotics lab

3A Create Non-Destructive Testing Room

4A Reconfigure and Remodel Office Area



NORTHLAND COMPREHENSIVE FACILITIES PLAN
5.0 PROPOSED FRAMEWORK FOR BUILDING DEVELOPMENT

5.2 PROPOSED BUILDING PROJECTS - AEROSPACE

SHORT - TERM

1A CLASSROOM ADDITION ROOF REPLACEMENT
The campus has received HEAPR funds to replace this section of roof.

1B CREATE WORKFORCE SOLUTIONS SPACE
Workforce Solutions a local business partner has requested space at Northland. Classrooms 9 and 10 are currently under-utilized and administration feels they would meet their needs with minimal changes needed to the space. This lease space will help increase utilization and increase financial support the campus.

2A UPDATE ROBOTICS LAB
The renovation of room 31 has been started, but further work is required to update the space to meet the needs of the robotics lab intended for the space. It is anticipated that when these updates have been completed utilization of the lab will increase.

3A PREDESIGN NON-DESTRUCTIVE TESTING ROOM
A non-destructive testing room is needed by the aerospace program. Faculty at the site have suggested that room 25 currently used as storage to support lab 24 would be a good location. The campus will look to address these storage needs elsewhere to allow the creation of the testing room in this space. This space could be shared with manufactruing programs.

3B HEAPR: REPAIR AND REPLACE SPRINKLER SYSTEM

MEDIUM - TERM

3A DESIGN & CONSTRUCTION: NON-DESTRUCTIVE TESTING ROOM
With the completion of the predesign , funds will be requested for the design and construction needed to complete this project.

3C HEAPR: BOILER ROOM/CLASSROOM VENTILATION

4A PREDESIGN: RECONFIGURE AND REMODEL OFFICE AREA
This project looks to reconfigure the existing office area and remodel it into space which the faculty will use and promotes engagement. Currently most faculty assigned work areas do not use them because they are open work stations made of old systems furniture and do not provide them what they need. We encourage conversations with faculty to better understand their needs for the reconfiguration of the space which should also include not only offices but other critical support rooms. New furniture will be important to complete this remodel.

Hoteling space should be included for faculty and staff visiting from other Northland campuses in support of the students who call this site home base.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
5.0 PROPOSED FRAMEWORK FOR BUILDING DEVELOPMENT

LONG - TERM

4A DESIGN & CONSTRUCTION: RECONFIGURE OFFICE AREA
With the completion of the predesign funds will be requested for the design and construction needed to complete this project.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
5.0 PROPOSED FRAMEWORK FOR BUILDING DEVELOPMENT

5.2 BUILDING PLAN - EAST GRAND FORKS

- 1A Refresh Finishes and Furniture
- 1B Effective Teaching & Learning Lab Renovations
- 2A Renovate Courtyard
- 3A Renovate Construction Services Labs & Future Programming Space
- 4A Refresh Exterior & Consolidate Storage
- 5A Create Learning Commons
- 6A Reorganize and Refresh Admin Offices

5.2 PROPOSED BUILDING PROJECTS - EAST GRAND FORKS

SHORT - TERM

1A REFRESH FINISHES AND FURNITURE

The campus has refreshed conference room 106 in the administrative office area, commonly reffered to as the meet and greet room since it is used for student recruitment family visits. The bookstore is another area receiving new finishes, so it more strongly reflects the current campus branding. Finishes will also be updated in the open student collaborative area adjacent to the bookstore and the student seating area to the north of the courtyard. These areas are highly used and have become worn. New furniture will be included to ensure it continues to be busy with students studying.

1B DESIGN & CONSTRUCTION: EFFECTIVE TEACHING & LEARNING LABS RENOVATION

The predesign for this project has been completed and was fully funded in 2023. This project renovates outdated Classroom and Lab spaces to provide contemporary teaching and learning environments including appropriate active learning technologies. It addresses student and faculty safety, accreditation needs and requirements through providing “real world” simulation and provides adequate space for students, bench top work, and equipment. The project also provides sound attenuation between classrooms and a new children’s toilet room for the Early Childhood Program to promote child safety. The existing shared student multi-use Wellness Room will be expanded and include foot washing. A roof canopy will be added to an east side building egress where drifting snow has been a concern. Needed improvements to mechanical/HVAC, electrical, lighting systems and technology in the classroom and lab areas will be done with the project.

2A RENOVATE COURTYARD

The existing enclosed courtyard is a campus feature which currently sees very low use. It is suggested to increase usage that seating, power and WIFI coverage be added. To mitigate the effects of summer sun and heat shade should be added in the form of fabric canopies and solar umbrella covered picnic tables which provide power. Cooling could be added by with a water feature, misting system, or fans. As the weather cools gas fire pits and infrared heaters will extend seasonal use. Decorative lighting and art will also increase the vibrancy of the courtyard. Also of note is the existing apple tree enjoyed by the campus community.

2B HEAPR: REPAIRS, RECOMMISSION HVAC

2C HEAPR: REPAIR AND REPLACE HVAC

MEDIUM - TERM

3A PREDESIGN: RENOVATE CONSTRUCTION SERVICES LABS & FUTURE PROGRAM SPACE

This project is multi-faceted and will impact several programs in the south side of the main building. It is felt that the current high-bay large room 502 used as shared lab space for the heating ventilation and air conditioning (HVAC), plumbing and construction programs is larger than what is needed. The space needs to be reorganized and refreshed. This will allow for the carpentry program to be relocated and expanded from the small area it currently uses in 570.

With general campus storage having been moved and the carpentry program relocated from high-bay lab room 570 there will be the space available for the manufacturing lab to expand and a formal mechatronics program space to be established on this campus.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
5.0 PROPOSED FRAMEWORK FOR BUILDING DEVELOPMENT

Nearby the outdated electronics lab in 556 will also be refreshed. Area 525 are offices to be used by adjacent lab faculty, but the current room layout and mezzanine are not liked and see low utilization. This area should be reorganized and refreshed to provide faculty proper office space to increase its use and encourage collaboration among these construction trades affiliated programs.

Northland is looking to add a new program and has given consideration to culinary arts. They have identified room 510 as a good fit due to its size and location near the campus dining service kitchen. A study will be done of regional workforce needs to identify other possible programs. Once a determination has been made the space will need to be renovated to provide students the experiential learning required by the new program.

4A REFRESH EXTERIOR & CONSOLIDATE STORAGE

To allow for program expansion in high-bay space in the existing main campus building, general campus storage currently placed in room 570 will be moved to the existing adjacent 700 and 800 stand-alone buildings to be consolidated with other facilities department storage. With the continued need for the 700 and 800 pre-engineered metal buildings, Northland administration is looking to refresh the exterior to visually tie to the main building and enhance the campus.

4B HEAPR: TUCKPOINTING EXTERIOR WALLS, REPLACE WINDOWS AND REPAIR DOORS

4C HEAPR: ADA DOOR HARDWARE AND LOCKS

3A DESIGN & CONSTRUCTION: RENOVATE CONSTRUCTION SERVICES LABS & FUTURE PROGRAM SPACE

With the completion of the predesign funds will be requested for the design and construction needed to complete this project.

LONG - TERM

5A PREDESIGN: CREATE LEARNING COMMONS

Campus administration feels it would be highly beneficial to co-locate services and spaces which focus on providing assistance to students for them to flourish regardless of their chosen program. This project would relocate the academic success center, which is remotely located in 578, 579 and 580 into the central library. The area would be reorganized to provide formal areas with staffed assistance, testing rooms, small group study rooms, as well as informal areas for students to collaborate and study independently. New furniture will be an important part of revitalizing this important space.

5A DESIGN & CONSTRUCTION: CREATE LEARNING COMMONS

With the completion of the predesign funds will be requested for the design and construction needed to complete this project.

6A PREDESIGN REORGANIZE AND REFRESH ADMIN OFFICES

The administrative office area has seen small adjustments over time to facilitate the changes in function, staffing and their associated needs. The human resources area is currently being studied for such a small adjustment. It is anticipated that at this time the area will need to be reorganized to better address the administrative needs of the campus and refreshed to provide a professional and welcoming first impression to visiting guests and potential students.

6A DESIGN & CONSTRUCTION: REORGANIZE AND REFRESH ADMIN OFFICES

With the completion of the predesign, funds will be requested for the design and construction needed to complete this project.

6.0 CAPITAL BUDGET INCREMENTAL DEVELOPMENT PROGRAM

6.0 CAPITAL BUDGET INCREMENTAL DEVELOPMENT PROGRAM

6.1 INTRODUCTION

6.2 MATRIX

6.0 INTRODUCTION

This section outlines the costs of projects proposed in the short, medium, and long-term phases of this comprehensive facilities plan. Anticipated funding resources are noted based on discussion with the Northland Steering Committee.

Funding sources include: Capital Budget Bonds, Higher Education Asset Preservation Renewal (HEAPR), Fundraising, Grants, Proceeds from Sold Property, Local Campus Funds, Power Purchase Agreement (PPA), and Public Private Partnerships.

The proposed projects include:
•Projects that are already in planning
•Major capital projects
•Building improvements and removals
•Site improvements and sale of property
•Asset preservation projects

Capacity to take on Debt: Northland will be able to take on new debt service obligations through the combination of reallocation of existing resources as well as from reduction in future years' debt service obligations from existing projects.

Asset Preservation Projects
The HEAPR projects included align with and support larger campus improvement projects. As major capital projects happen, they will also continue to be used to address needs. This will allow more funds to be available for other items on the Facilities list, such as roof and equipment replacements.

Local Campus Funds
In general these funds will be continue to be used as they have in the past - for small building remodels, site improvements, and studies. Several of the items included in the list align and support larger campus improvement projects which look to relocate occupants to co-locate college programs, free up existing areas to be re-purposed, or for space reductions.

6.0 CAPITAL BUDGET INCREMENTAL DEVELOPMENT PROGRAM

The Steering Committee understands the importance of work being done with these funds and encourages campus administrators to set aside larger amounts yearly for the continued implementation of the plan.

The following information summarizes the proposed timeline for proposed projects and their projected costs for Short (1 – 5 years), Medium (6 – 15 years) and Long-Term (16 – 20+ years) time frames. Estimates are anticipated construction costs in April 2023 dollars. Soft costs and escalation should be considered for total project costs when moving forward with the projects. These probable costs are based on previous study information, square footage assumptions, and comparable projects.

The Appendix contains a combined sequential list of projects by phase with more detailed information regarding anticipated costs, funding resources, and financial benefits.

NORTHLAND COMPREHENSIVE FACILITIES PLAN
NORTHLAND COMPREHENSIVE FACILITIES PLAN
6.0 CAPITAL BUDGET INCREMENTAL DEVELOPMENT PROGRAM

Plan Ref #	*ALL COSTS ARE IN MARCH 2023 DOLLARS*	Work Starts (calendar yr)	Estimated Cost/ Construction	Capital Budget Bonds	HEAPR	Revenue Fund Reserves	Fundraising	Grants	Local Campus Funds	Power Purchase Agreement (PPA)	Public Private Partnership	
Short-Term Projects (1-5 years) 2023 - 2027												
GENb 1A	Develop Campus Standards - design only	2023	$30,000						X			
EGFs 0A	South Parking Lot Resurface	2023	$460,000			X			X			complete, 60% Revenue + 40% Local
EGFb 0A	Refresh Finishes and Furniture	2023	$100,000						X			complete, Student Senate funding
AERObs 1A	**HEAPR**: Classroom Addition Roof Replacement	2023	$2,004,000		X							funding received in 2023
EGFs 1A	Add Composting and Recycling	2024	$250,000						X			Branded visible containers, exterior enclosure on pad
TRFs 1A	Add Composting and Recycling	2024	$250,000						X			Branded visible containers, exterior enclosure on pad; work with City to expand
EGFb 1B	Design & Construction: Effective Teaching & Learning Labs Renovation	2024	$3,282,000	X								funding received in 2023 capital budget request
EGFb 2A	Renovate Courtyard	2024	$60,000					X	X			
EGFb 2B	**HEAPR**: Repairs, Recommission HVAC	2024	$1,203,058		X							
TRFb 1A	Remodel Area 300 Toilet Rooms	2024	$200,000						X			
TRFb 1B	**Predesign**: Renovate Nursing Lab	2024	$40,000						X			
TRFb 2A	**Predesign**: Center for Protective Services	2024	$40,000						X			
GENs 1A	Complete Landscape Master Plans - design only	2025	$30,000						X			
EGFs 1B	Sell Off Land	2025							$$			
EGFs 1C	Remove Parking	2025	$500,000					X	X			
EGFs 1D	Add Prairie Grass & Pollinator Gardens	2025	$300,000				X	X	X			
EGFs 1E	Add Community Gardens	2025	$100,000				X	X	X			
EGFs 1F	Add Storm Water Retention	2025	$1,000,000					X	X			
TRFs 1B	Remove Parking, Plant Prairie Grass & Pollinator Garden	2025	$250,000					X	X			
TRFs 1C	Add Prairie Grass & Pollinator Gardens	2025	$300,000				X	X	X			
TRFs 1D	Add Community Gardens	2025	$100,000				X	X	X			
AERObs 1B	Create Workforce Solutions Space	2025	$750,000				X				X	
EGFb 2C	**HEAPR**: Repair and Replace HVAC	2025	$1,203,059		X							
			$5,000,000					X	X		X	
EGFb 3A	**Predesign**: Renovate Construction Services Labs & Future Program	2026	$40,000						X			
TRFb 2B	**HEAPR**: Replace HVAC Controls		$562,500		X							
			$40,000						X			
			$2,000,000	X								
AERObs 2A	Update Robotics Lab	2026	$600,000				X		X		X	
AERObs 3A	**Predesign**: Non-destructive Testing Room	2026	$40,000						X			
TRFs 2A	Create Outdoor Seating	2027	$100,000				X		X			
TRFs 2B	Add Storm Water Retention	2027	$1,000,000					X	X			
AERObs 3B	**HEAPR**: Repair and Replace Sprinkler System	2027	$562,500		X							
Medium-Term Projects (6-10 years) 2028 - 2032												
TRFb 2A	Design & Construction: Center for Protective Services	2028	$9,000,000					X	X		X	New 25,000 sf building
EGFb 4A	Refresh Exterior & Consolidate Storage	2028	$4,000,000						X			
EGFb 4B	**HEAPR**: Tuckpointing Exterior Walls, Replace Windows and Repair Doors	2028	$211,250		X							
EGFb 4C	**HEAPR**: ADA Door Hardware and Locks	2029	$402,187		X							
EGFs 2A	Design & Construction: Emergency Vehicle Operations Course (EVOC)	2030	$5,000,000					X	X		X	
TRFb 3A	Design & Construction: Student Services Hub, Learning Commons & Future Program	2030	$7,500,000	X								
TRFb 4A	Move Career Force & Create Coworking Space	2030	$1,400,000						X		X	
TRFb 4B	Consolidate Headstart & Demo Building	2030	$1,750,000						X		X	
TRFb 4C	**HEAPR**: Tuckpointing Exterior Walls and Replace Windows	2030	$298,782		X							
AERObs 3A	Design & Construction: Non-destructive Testing Room	2030	$450,000				X		X		X	
AERObs 3C	**HEAPR**: Boiler Room/Classroom Ventilation	2031	$91,381		X							
EGFs 3A	Add Geothermal Well Field	2032	$2,750,000	X						X		Consider including in larger building project
EGFs 3B	Add Wind Energy	2032	$1,500,000					X		X		
EGFs 3C	Add Photovoltaics Above Parking	2032	$1,500,000					X		X		
TRFs 3A	Add Geothermal Well Field	2032	$5,000,000	X						X		Consider including in larger building project
TRFs 3B	Add Wind Energy	2032	$400,000					X		X		
EGFb 3A	Design & Construction: Construction Services Labs & Future Program	2032	$4,250,000	X								
TRFb 4D	**HEAPR**: Replace Combustible Interior	2032	$336,326		X							
AERObs 4A	**Predesign**: Reconfigure and Remodel Office Area	2032	$40,000						X			

6.0 CAPITAL BUDGET INCREMENTAL DEVELOPMENT PROGRAM

Plan Ref #	*ALL COSTS ARE IN MARCH 2023 DOLLARS*	Work Starts (calendar yr)	Estimated Cost/ Construction	Capital Budget Bonds	HEAPR	Revenue Fund Reserves	Fundraising	Grants	Local Campus Funds	Power Purchase Agreement (PPA)	Public Private Partnership	
Long-Term Projects (11-20 years) 2033 - 2042												
TRFb 5A	**Predesign**: Science, Ag & Manufacturing Core	2034	**$40,000**						X			
AERObb 4A	Design & Construction: Reconfigure and Remodel Office Area	2034	**$1,650,000**	X								
EGFb 5A	**Predesign**: Create Learning Commons	2036	**$40,000**						X			
TRFb 5A	Design & Construction: Science and Ag & Manufacturing Core	2036	**$3,550,000**	X								
TRFb 5B	Create Community Services Hub	2037	**$800,000**					X	X		X	
EGFb 5A	Design & Construction: Create Learning Commons	2038	**$3,600,000**	X								Co-located accouting and bookstore for One-Stop Shop
EGFb 6A	**Predesign**: Reorganize and Refresh Admin Offices	2040	**$40,000**						X			
EGFb 6A	Design & Construction: Reorganize and Refresh Admin Offices	2040	**$2,400,000**	X								

7.0 APPENDIX