



**REGINA ROTH APPLIED AGRICULTURAL  
& FOOD STUDIES PROGRAM**  
*Ag Center Proposal*



The Morningside College experience cultivates a passion for lifelong learning and a dedication to ethical leadership and civic responsibility.

# AG CENTER PROPOSAL

## Regina Roth Applied Agricultural & Food Studies Program Fast Facts

- Program serves about 90 students each year; it is one of Morningside's fastest growing programs.
- Offers majors in Agricultural & Food Studies and Agricultural Teaching Education, as well as minors in Agricultural Studies, Agribusiness, Environmental Policy/Law, Agronomy, and Food Safety.
- Provides students the opportunity to become connected and involved in the ag industry as early as their first year through local, state, and national organizations, lectures, conferences, active learning, and an externship program.
- The Garden-to-Table experience on campus is an active learning opportunity that allows students from a multitude of programs to take part in growing, harvesting, marketing, selling, and other aspects of food production; it has also been a great community outreach program that offers educational programming to children and adults throughout Siouxland.

## Proposed Campus Greenhouse

Morningside is proposing a 3,300 square-foot greenhouse on the 2.5-acre site of the current Longfellow Elementary school located on campus (Figure 2). The greenhouse would provide laboratory and teaching space for students in the several curricular areas of the AAFS program. The location would become an experiential learning showpiece while at the same time beautifying the southwest corner of campus.

The proposed 110' X 30' greenhouse includes:

- a headhouse (preparation and storage area)
- aquaponics room (fish and other aquatic production)
- grow tower/leafy greens room (production of food quality greens)
- two production house rooms capable of producing crops with two separate climate requirements

Greenhouse specifications are provided in Appendix 1.

## Proposed Outdoor Classroom/Test Plot Area

The 2.5-acre site would provide space for outdoor, agricultural production, research, and demonstration classrooms that would further enhance agricultural courses provided in AAFS/AGED curricula.

Specifically, this area would provide much needed space for the following:

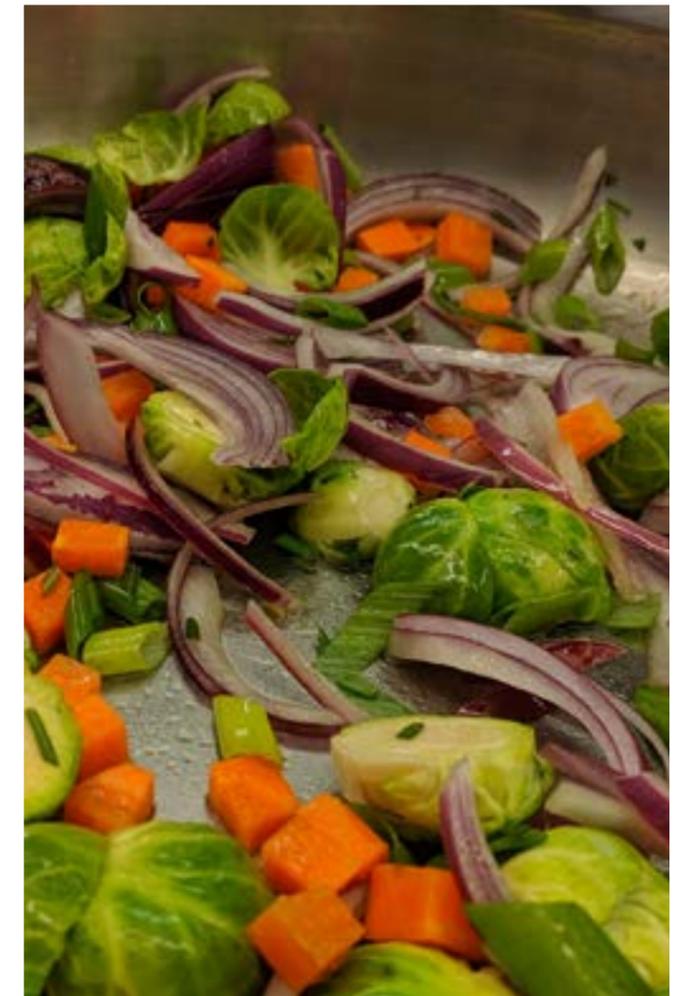
- agronomic research plots
- precision agricultural research plots
- additional in-ground garden demonstration and production plots for crops requiring larger space (sweet corn, pumpkins, squash, melons, etc.)
- tree and shrub nursery (for campus grounds)
- an edible forest plot (tree nuts)
- orchard
- edible landscapes
- vineyard
- apiary
- other outdoor ag and environmental science-related demonstration gardens and plots.

## Potential Benefits of Greenhouse & Test Plot Area

- *Enhances active learning opportunities* for students and faculty in the AAFS program, as well as provides new opportunities for partnerships and cross-collaboration with active learning programs at Morningside.
- *Opens the door to partnership opportunities with other education organizations*, from K-12, area two-year colleges, and other nonprofits, as no one in the area currently has access to a greenhouse or test plots.
- *Creates opportunity for innovation in curriculum*, including but not limited to hydroponics, campus composting, turfgrass management, turfgrass irrigation, aquaculture production and more.
- *Generate efficiencies and experiences*, such as using the greenhouse to produce annual, perennials, trees, shrubs, etc. to be used on campus grounds.
- *Further solidifies Morningside College's position as a regional resource* through curricular collaboration, curricular enhancement, and outreach opportunities.
- *Expands outreach efforts with nonprofits and community organizations* to enjoy educational programming hosted by AAFS faculty and students.

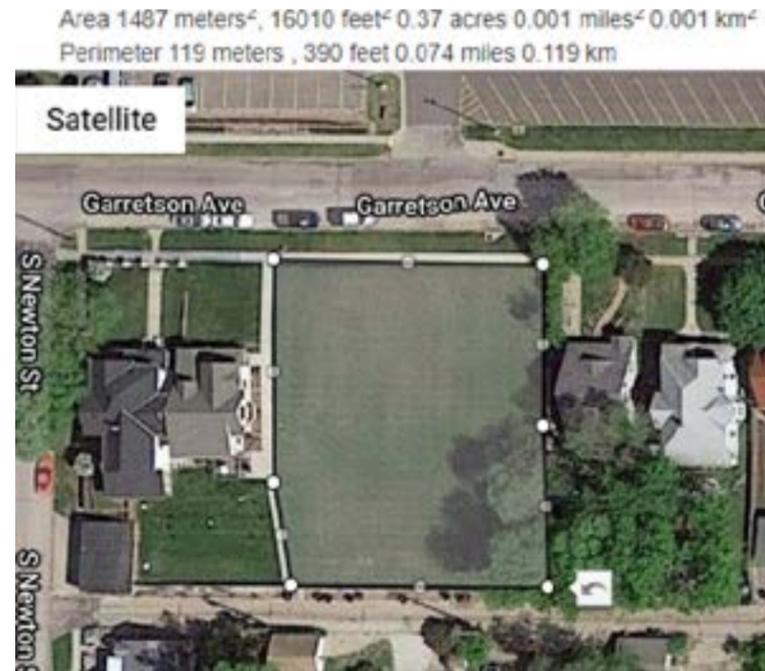


*Ag faculty and students currently host several hundred adults and individuals in the campus garden during spring, fall, and summer for educational programming. The addition of test plots and a greenhouse would expand such offerings to year-round and with more subject matter variety.*



*Food produced by the ag program in the garden is used by campus food service to provide fresh, locally grown options to students. Produce is also provided to the local food bank and other community organizations. These efforts would be expanded with the construction of a green house and test plots.*

**Figure 1: Current Garden-to-Table Location**



**Figure 2: Proposed Longfellow Location**



**Project Phases and Costs**

**Phase I: Site Work Preparation**

Demolition of Longfellow Elementary	\$350,000
Site Preparation	\$150,000

**TOTAL COST: \$500,000**

**Phase II: Greenhouse**

3,300 sq. ft. greenhouse	\$263,326
<i>Headhouse (preparation and storage area); Aquaponics room (fish and other aquatic production; Grow tower/leafy greens room (production of food quality greens); Two production rooms capable of producing crops with two separate climate requirements</i>	
Micro Grow Control System	\$99,757
Concrete pad, electrical, natural gas	\$105,330
Grow Towers	\$32,500
Startup Supplies	\$97,649

**TOTAL COST: \$598,562**

**Phase III: Outdoor Classroom/Test Plot Area**

*Agronomic Research Plots, Precision Agricultural Research Plots, Tree and Shrub Nursery, Edible Forest Plot (tree nuts), Orchard, Edible Landscapes, Vineyard, Apiary*

**TOTAL COST: \$100,000**

**GRAND TOTAL: \$1,200,000**



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