Problem

- Omaha North has two rapidly expanding programs:
  - PLTW and Biotech

- Lots of students, little space
  - Engineering has 3 rooms
  - Biotech has 1 room

- Classes are spread out around school
  - Travel time takes away from learning
Possible Solution

- Cap enrollment in programs
  - Reduce space problems
  - Limit opportunities
  - Stagnate growth
- This is not the solution
Gene R. Haynes
Engineering and Biotechnology Wing

- New wing over rear parking lot.
  - 1st floor: engineering
  - 2nd floor: biotech
  - Parking lot remains

- Consolidates programs
  - More accessible
  - More space
  - More organized
Start-up

- 3 years ago, another group attempted this project
  - Received their original plans and Revit drawings
  - Gave us ideas
- However, we completely redesigned, using only a small portion of the original
Light Corridors?

- To get more natural light into existing building, “light corridors” were designed
- Reflects light into windows in adjacent classrooms and library using mirrors
- Allow more light into Wing using partial-glass roof and glass façade
Alternate Solution: Light tubes

- Easy way to provide same light as in corridors
- Compact system, less expensive
- Gives light to stained-glass windows in library
- 240s windows will be blocked off.
Support Structure: Columns

- Redesigned position/number of structural columns to improve support and parking layout
- Columns aren’t intrusive in classrooms
No Bathrooms

- Bathrooms are unnecessary in new Wing
- Others are right outside in main hallway of existing building
Stairs and Elevator

- Not in original plan
- Easier access
  - Parking lot and between floors
Screenshots
Problems Solved...

- Allows biotech and PLTW programs to expand
- Opens up PLTW and biotech to more students
- Classrooms are consolidated, reducing commute time between classrooms
Future

- Businesses are invited to partner
  - Conference rooms on both floors
  - Students can gain contacts, opportunities
  - Businesses will invest in programs, leading to more growth

- Programs will have latest technology and best opportunities for students
Acknowledgments

- **SAME team 3 years ago**
  - Gave initial idea, basis for our design

- **Dr. Kallstrom**
  - Providing us with previous group’s materials

- **Mr. Kammerer**
  - Fire Safety book, proving exits complied with regulations

- **Dylan White**
  - Revit expertise
Conclusion

- Viable solution to logistical problem
- Much-needed addition to engineering and biotechnology
- Innovative, unique appearance
  - Make North stand out as technology-related fields grow