



City of Northfield, Minnesota Biosolids Improvements Project

Council Presentation
January 8, 2019

Seth Peterson, P.E.
Bolton & Menk, Inc.

Presentation Outline

- Project Status
- Biosolids Building
- Biosolids Equipment Layout
- Biosolids Equipment Comparison
- Schwing BioSet
- Process Flow
- Building Codes
- Schedule



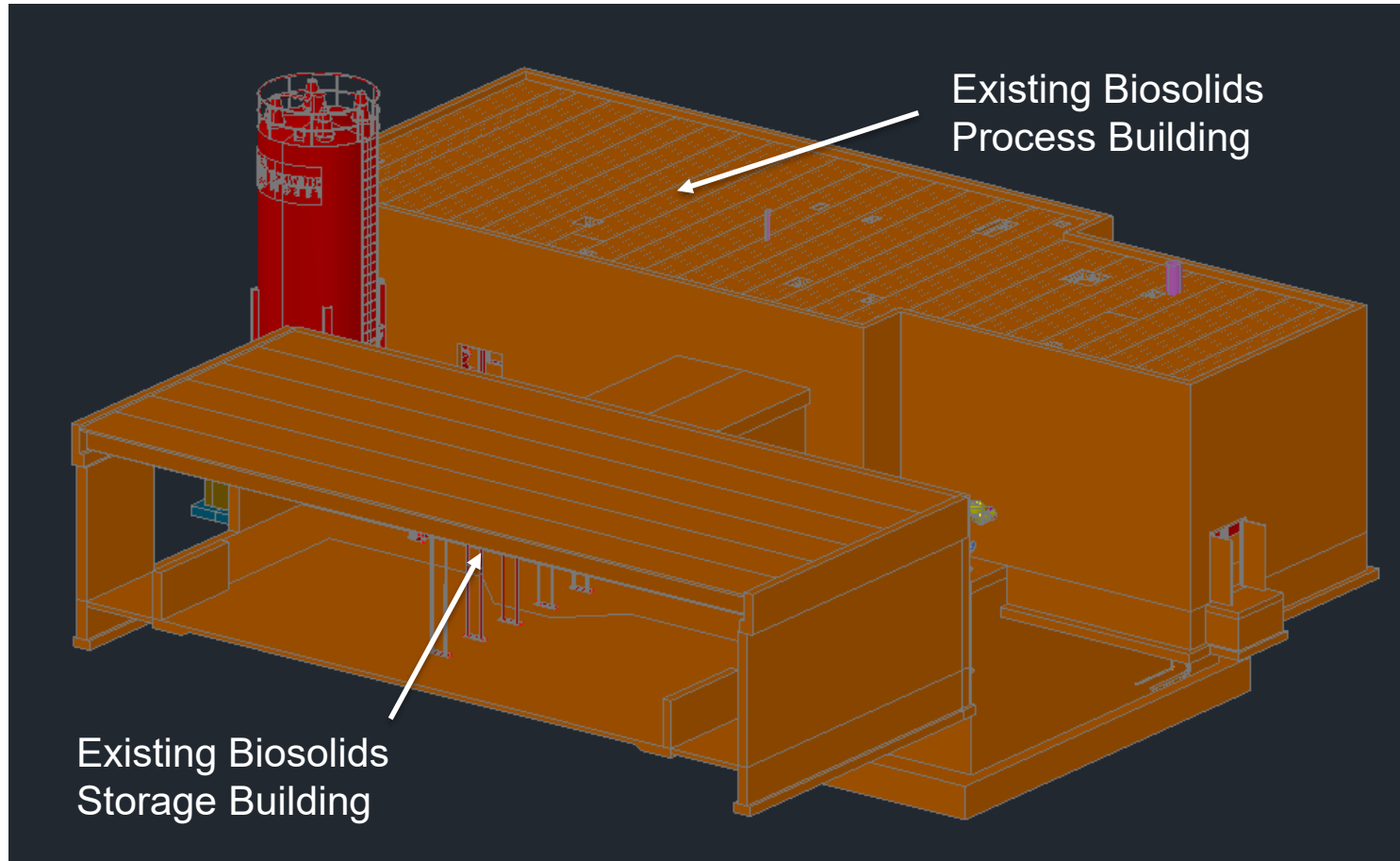
Project Status

- Demolition
- Cleaning
- City is running a temporary biosolids unit



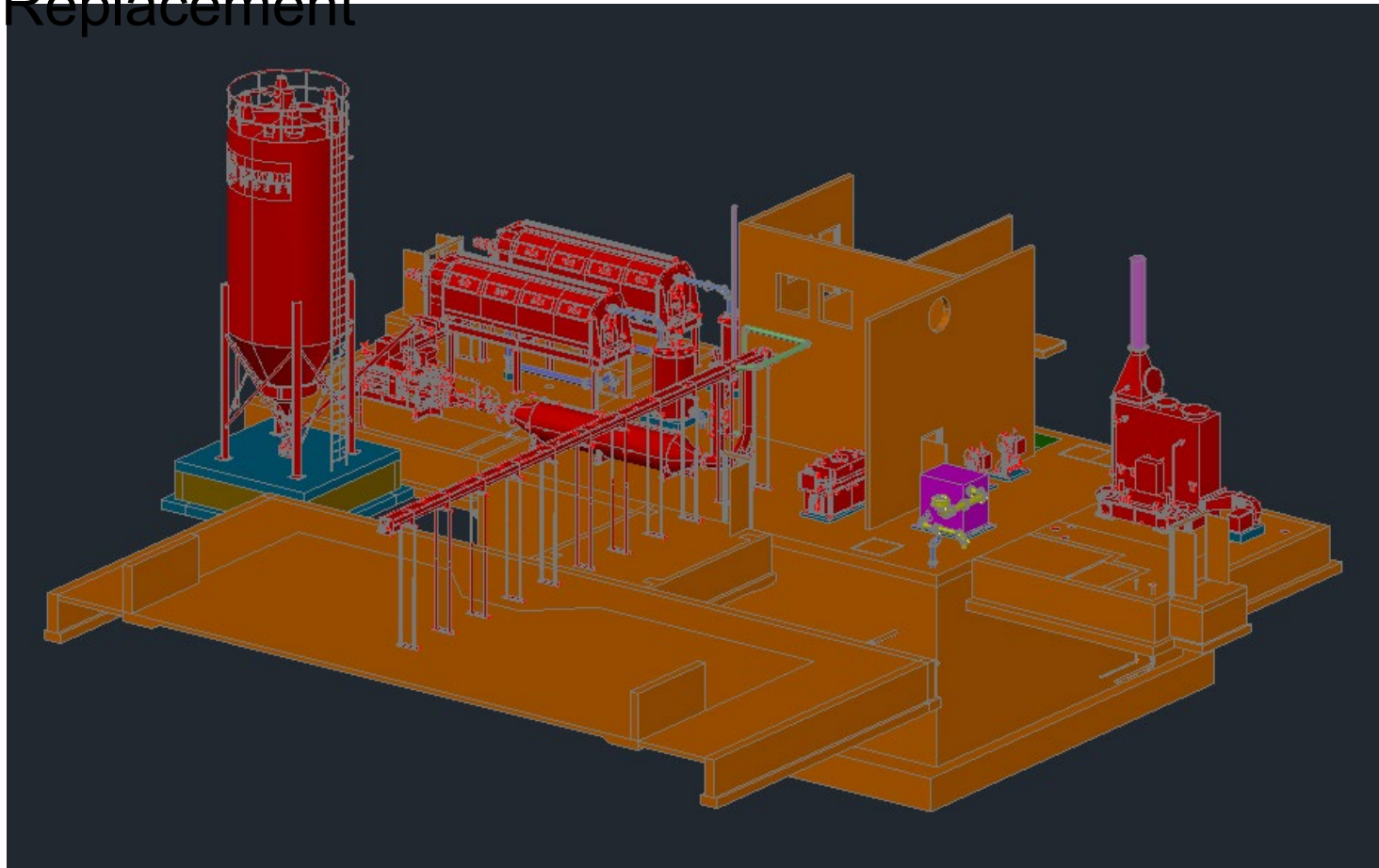
Biosolids Building

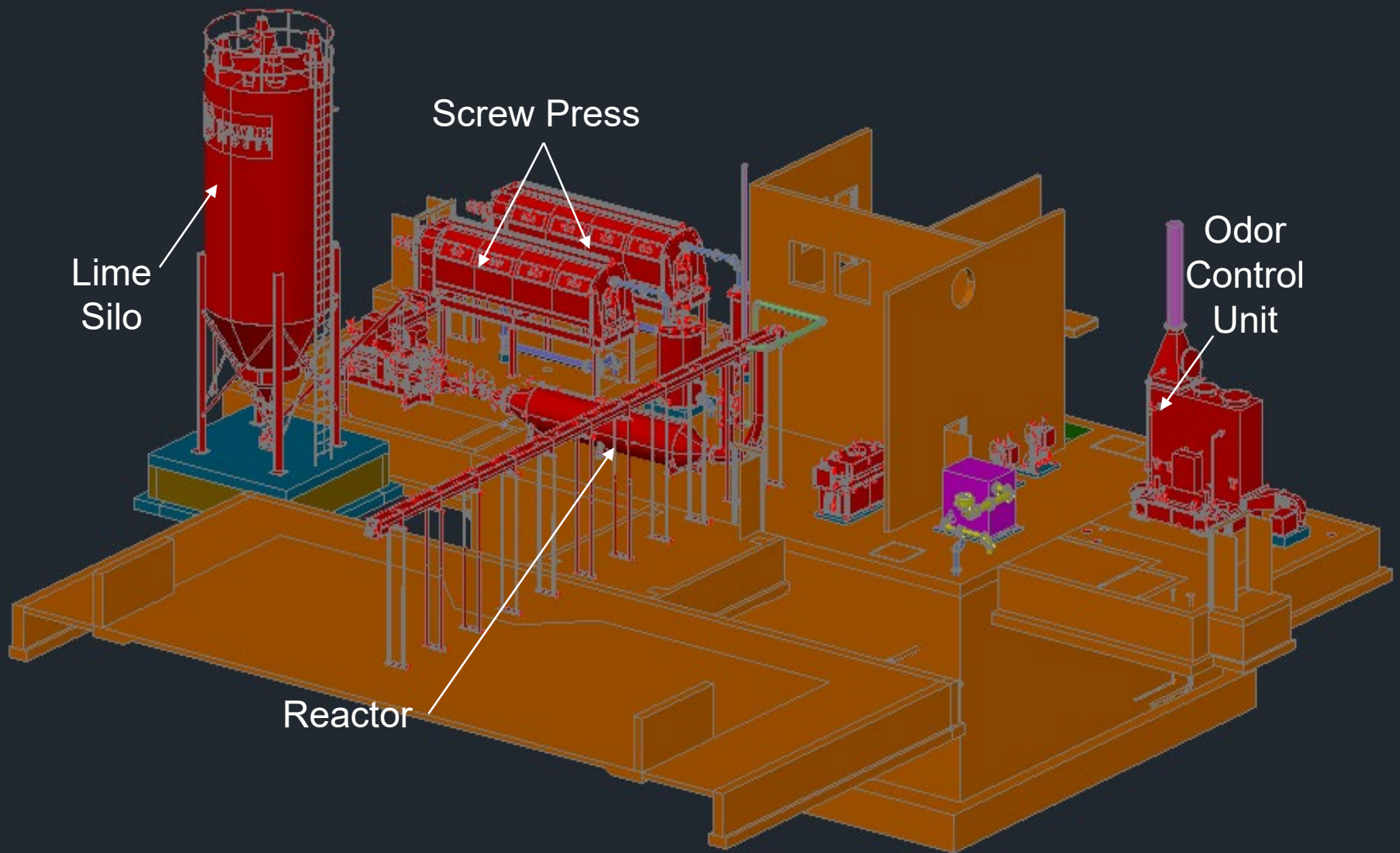
- Reuse the existing structure



Biosolids Equipment Layout

- Equipment Replacement





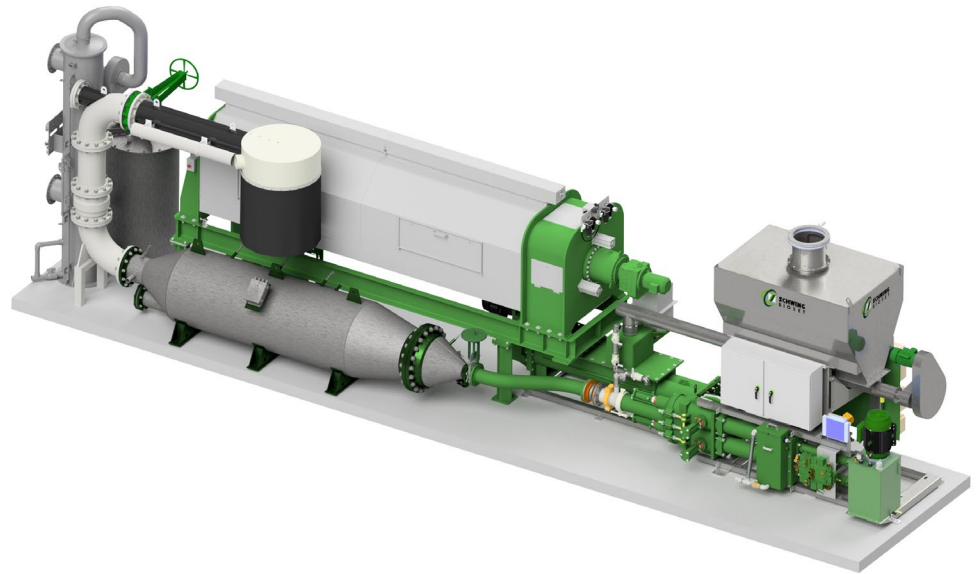
Biosolids Equipment Comparison

- Class A Biosolids
 - Schwing Bioaset system meets the Class A requirement
 - Previous RDP system met the Class A requirement
- Lower temperature with Schwing system
 - 40 minutes at 131°F (55°C)
 - Previous RDP system was at 158°F (70°C)
- Schwing system produces 'wetter' product
 - Product from Schwing equipment is not as dry
 - Schwing system 30-40%
 - Previous RDP system 40+%

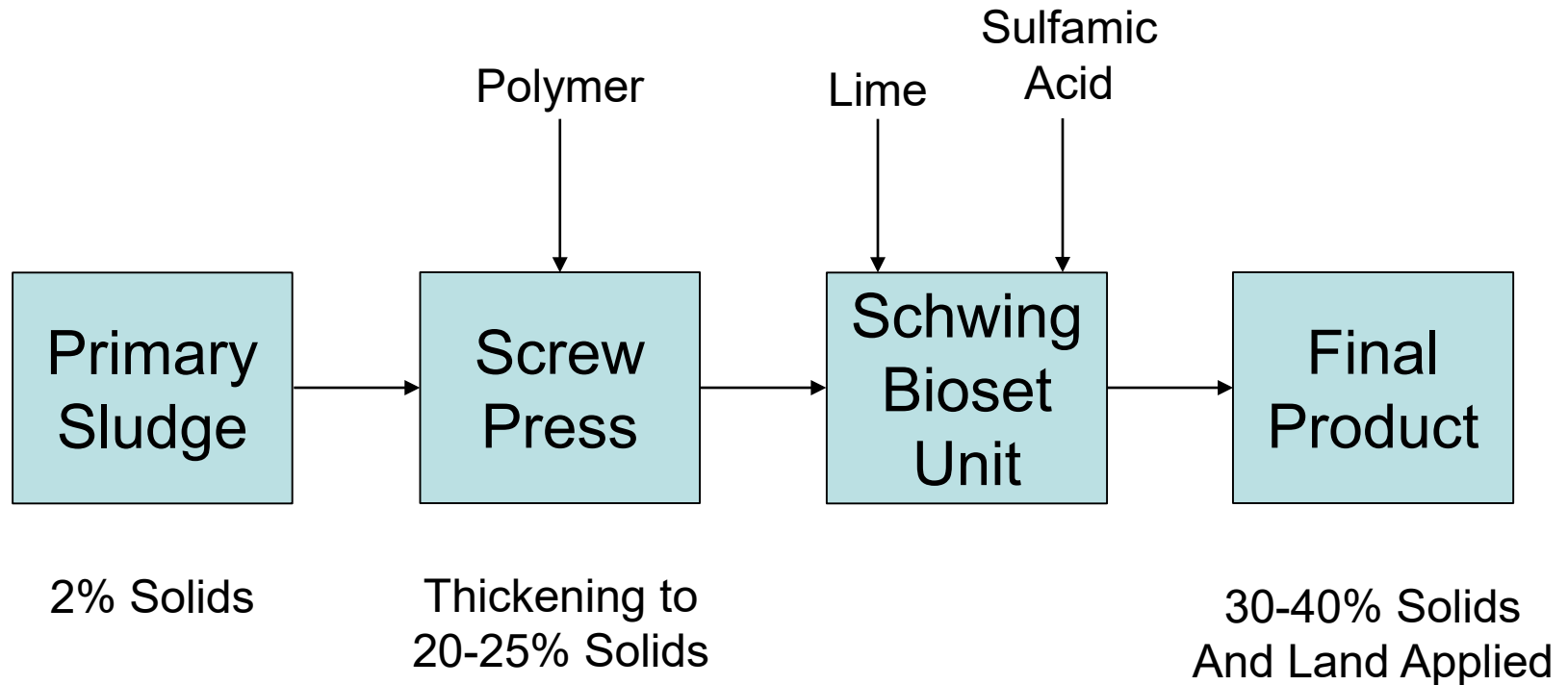


New Equipment - Schwing Bioset

- Greener/more efficient process
- Cleaner
 - Thickening process fully enclosed
- Less operator time
- Less energy required
- No external heat
 - Lime addition only



Process Flow



Building Codes

- Fire sprinkling is not required by city code
- Met with building official
- F2 classification
- Fire detection provided in building
- No external heat on new unit
- Lower temperature on new unit



Project Schedule

Date	Action
January 8, 2019	Council Authorize Bidding
February 7, 2019	Bid Opening
February 19, 2019	Council Consider/Award Bid
July - August 2019	Equipment Arrives Onsite
August – October 2019	Equipment Installation
November – December 2019	Substantial Completion
February 2020	Final Completion



Future Plant Layout Concept

Liquid Storage

Tertiary Treatment

Finished Biosolids Storage



Questions?

Seth Peterson, P.E.

Seth.Peterson@bolton-menk.com

(612) 803-5223

