

City of Sultan WWTP Upgrade Project Design Status

March 27, 2008

Presentation Outline

- Introductions
- No decisions or action required by Council
- Project Background
- Project Overview
- Architectural Concepts – Michael Willis Architects
- Funding status
- Schedule

How Did We Get To This Point?

- 2006: Engineering Report – Planning
 - Growth beyond 1997 upgrade
 - Higher peak hour flow peaking factors
- 2007: MBR Procurement and Preliminary Design
 - Enviroquip MBR selected
- 2008: Detailed Design
- February 2008: 30% Submittal (Preliminary Design)

Project Phasing

- Short Term Improvements
 - New effluent pumps (done 2006)
 - Relocate UV (done 2006)
 - New influent pumps (2008)

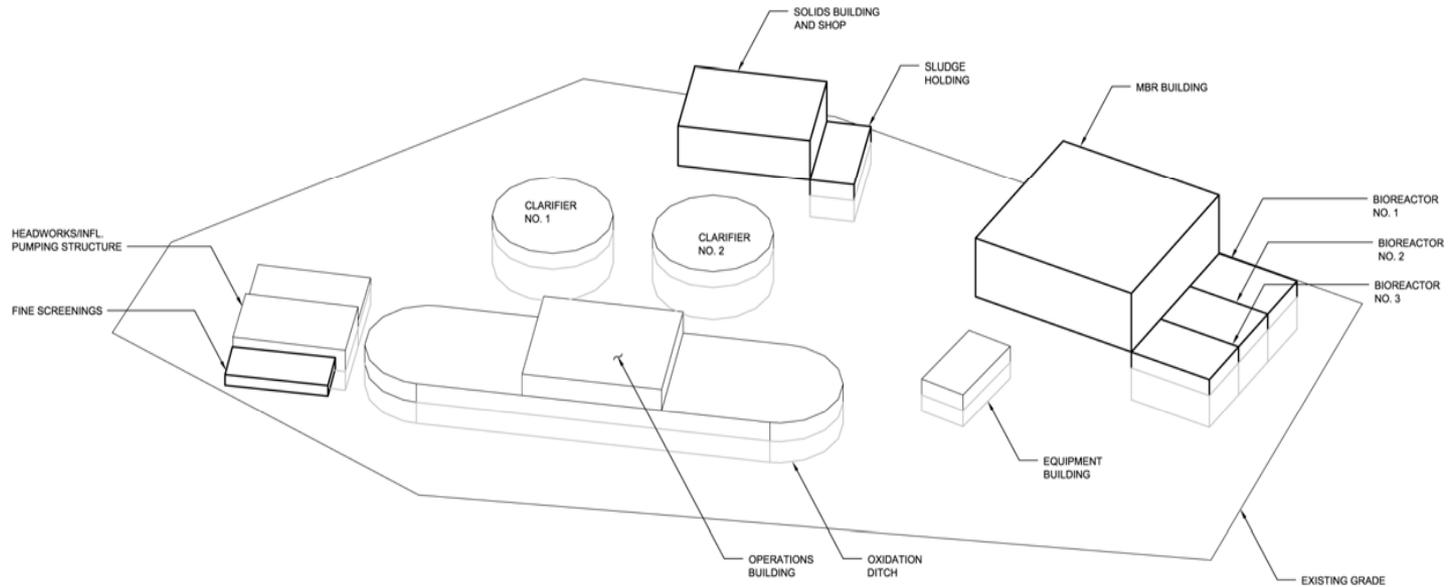
- WWTP Phase 1 (2010/2011)
 - New MBR
 - New Solids Handling

- WWTP Phase 2 (2017)
 - Additional MBR train

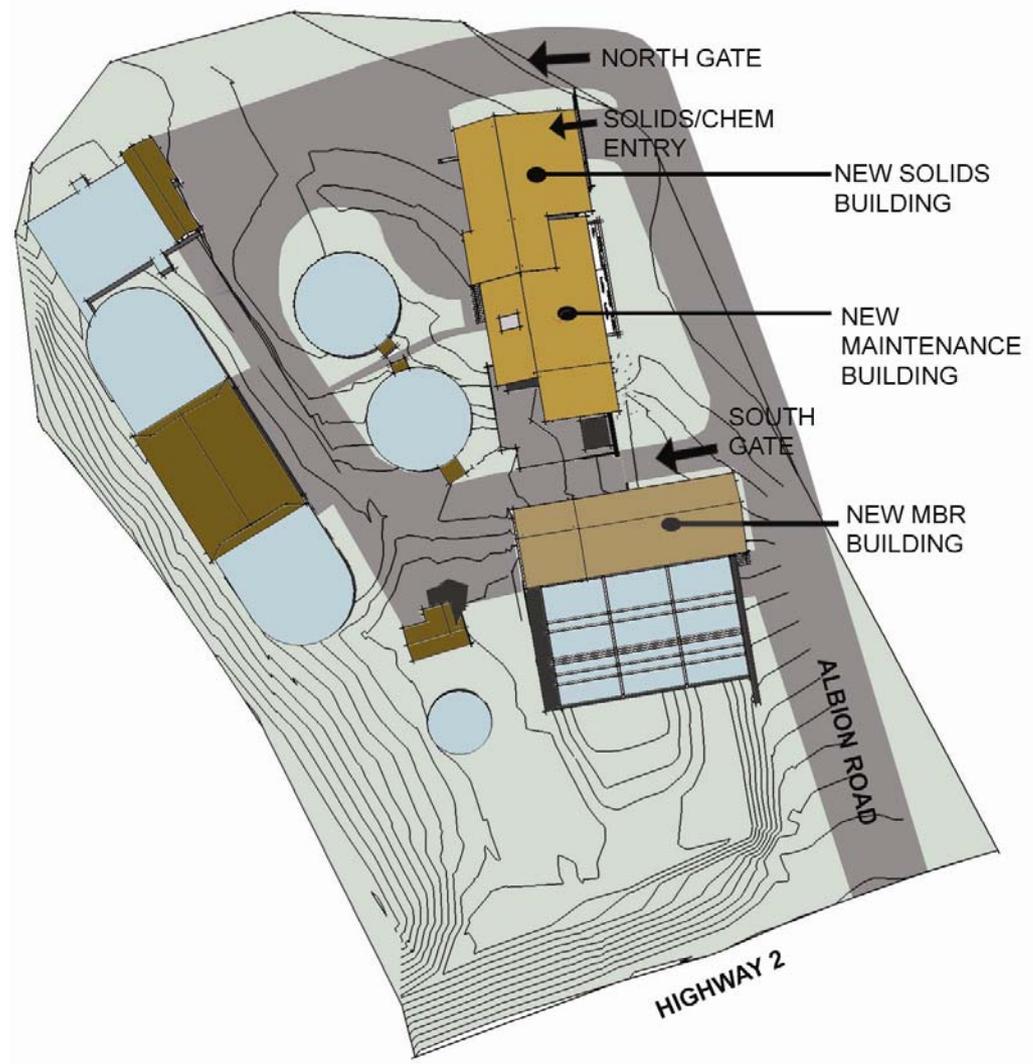
Treatment Description

- Liquid
 - New MBR Treatment
 - High quality “effluent” 2 mg/L BOD and TSS
 - Existing Oxidation Ditch Treatment
 - For peak flow treatment
- Solids
 - New centrifuge for dewatering
 - Solids concentration ~18% (vs. 9% currently)
 - ½ the number of truck trips
 - More disposal options (composting facilities, dryers)

Engineering Report Preferred Alternative – MBR and Oxidation Ditch

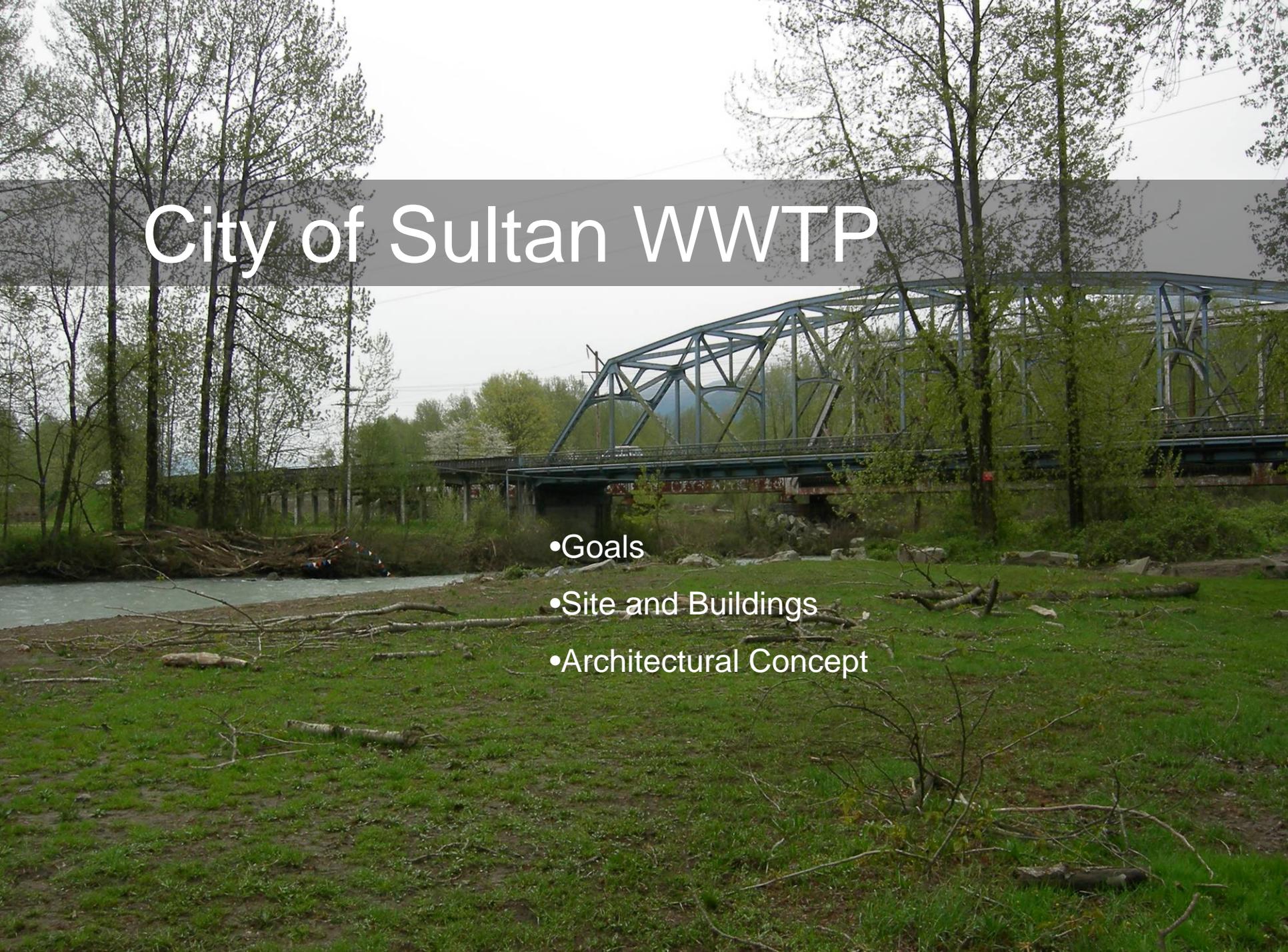


Current Upgraded Site Plan



Michael Willis Architects - Architectural Concepts Presentation

City of Sultan WWTP

A photograph of a steel truss bridge spanning a river. The bridge has a complex lattice of steel beams. The river is in the foreground, with a grassy bank and several fallen logs. The background is filled with tall, thin trees. The sky is overcast.

- Goals
- Site and Buildings
- Architectural Concept

Meeting Goals

- Share sub-committee project goals
- Share site and building information
- Share architectural concept progress
- Share materials considered

Project Goals

What we heard from the WTP Sub-committee

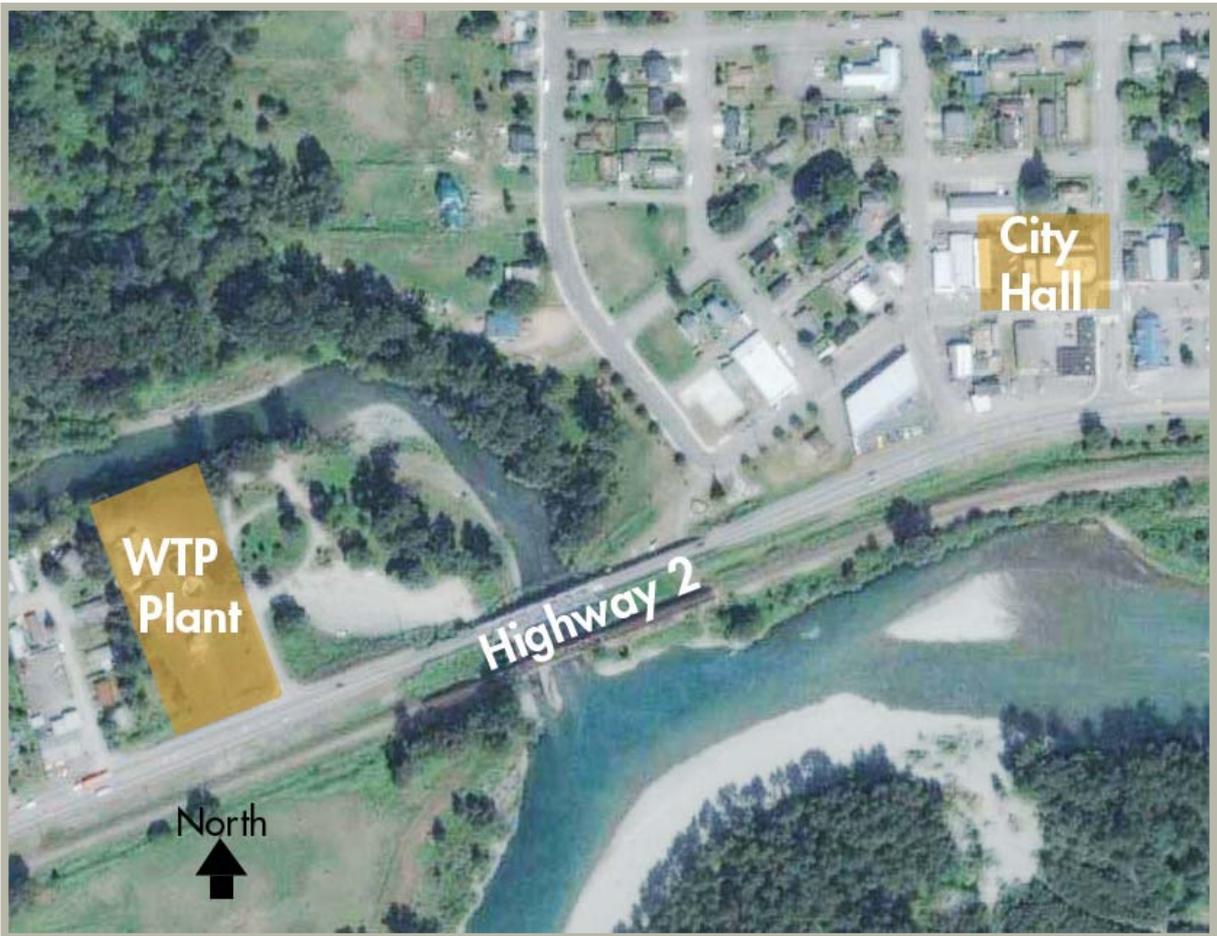
Aesthetics	Interesting from the park
	Interesting from Highway 2
	A practical, modest facility
	Identify art opportunities
Function	Aids staff activity needs
	Identify signage opportunities
Operations/Maintenance	Easy to maintain and operate
	Secure and vandal-resistant



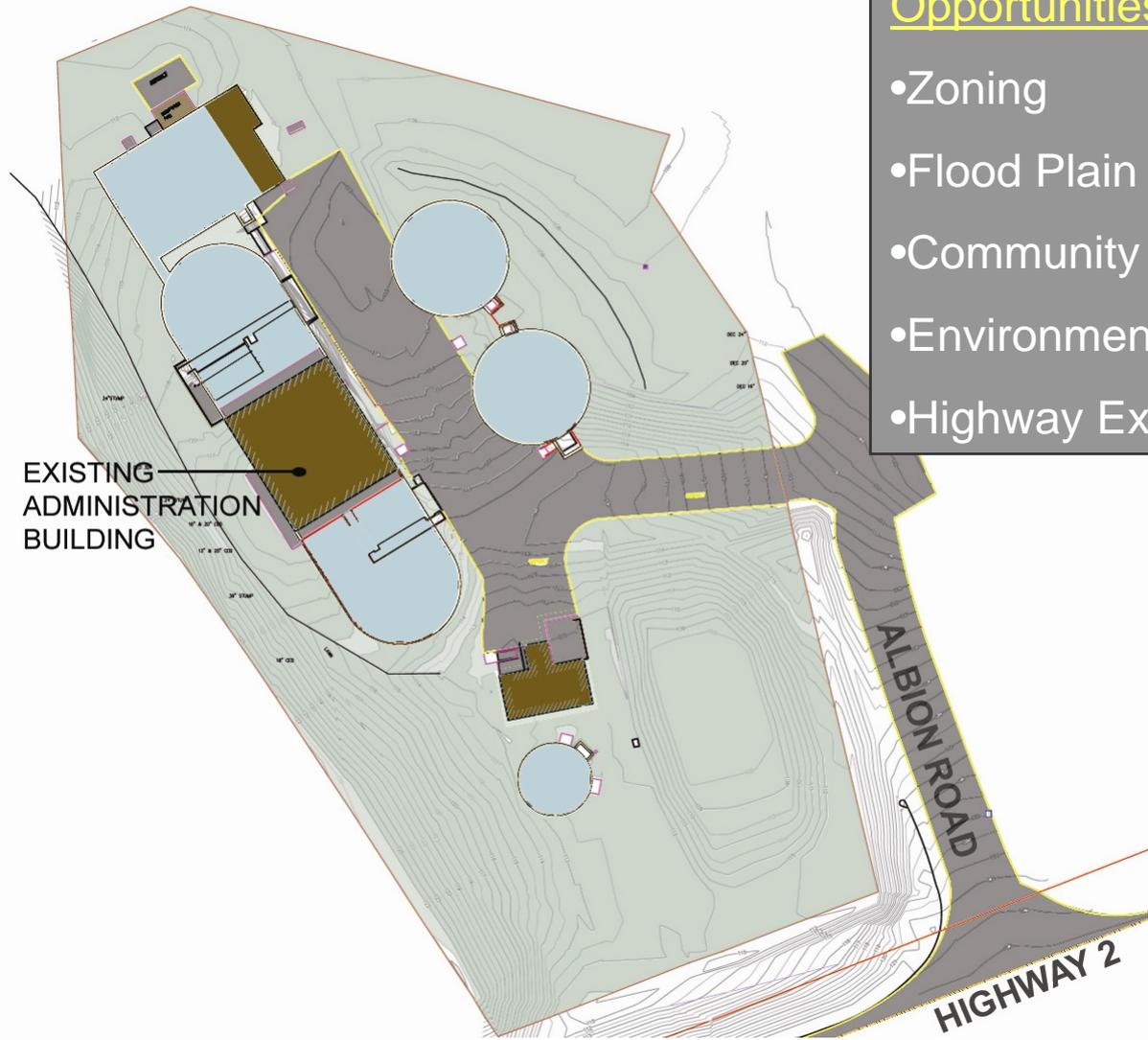
Site and Buildings



Area Plan



Existing Site



- Opportunities/Constraints
- Zoning
 - Flood Plain
 - Community Development
 - Environmental Concerns
 - Highway Expansion

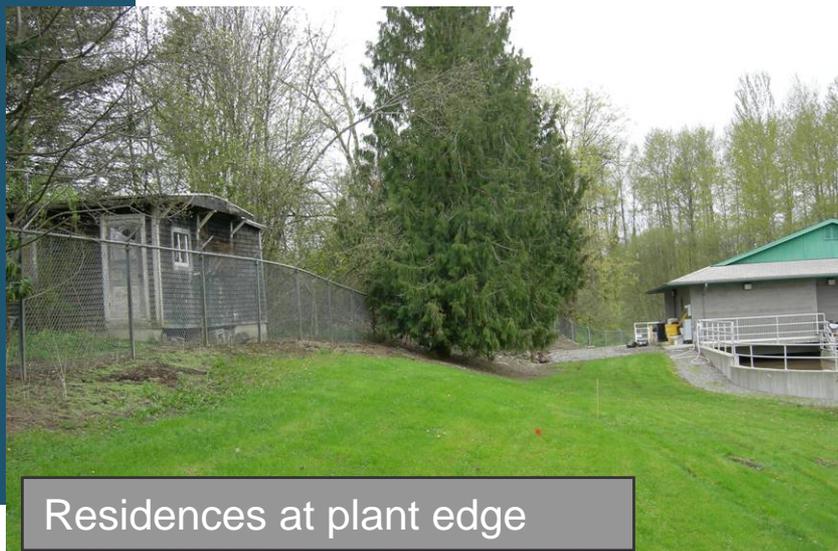
Existing Site



View out of Albion Road



View into plant from Highway 2



Residences at plant edge



Highway 2 at plant property line

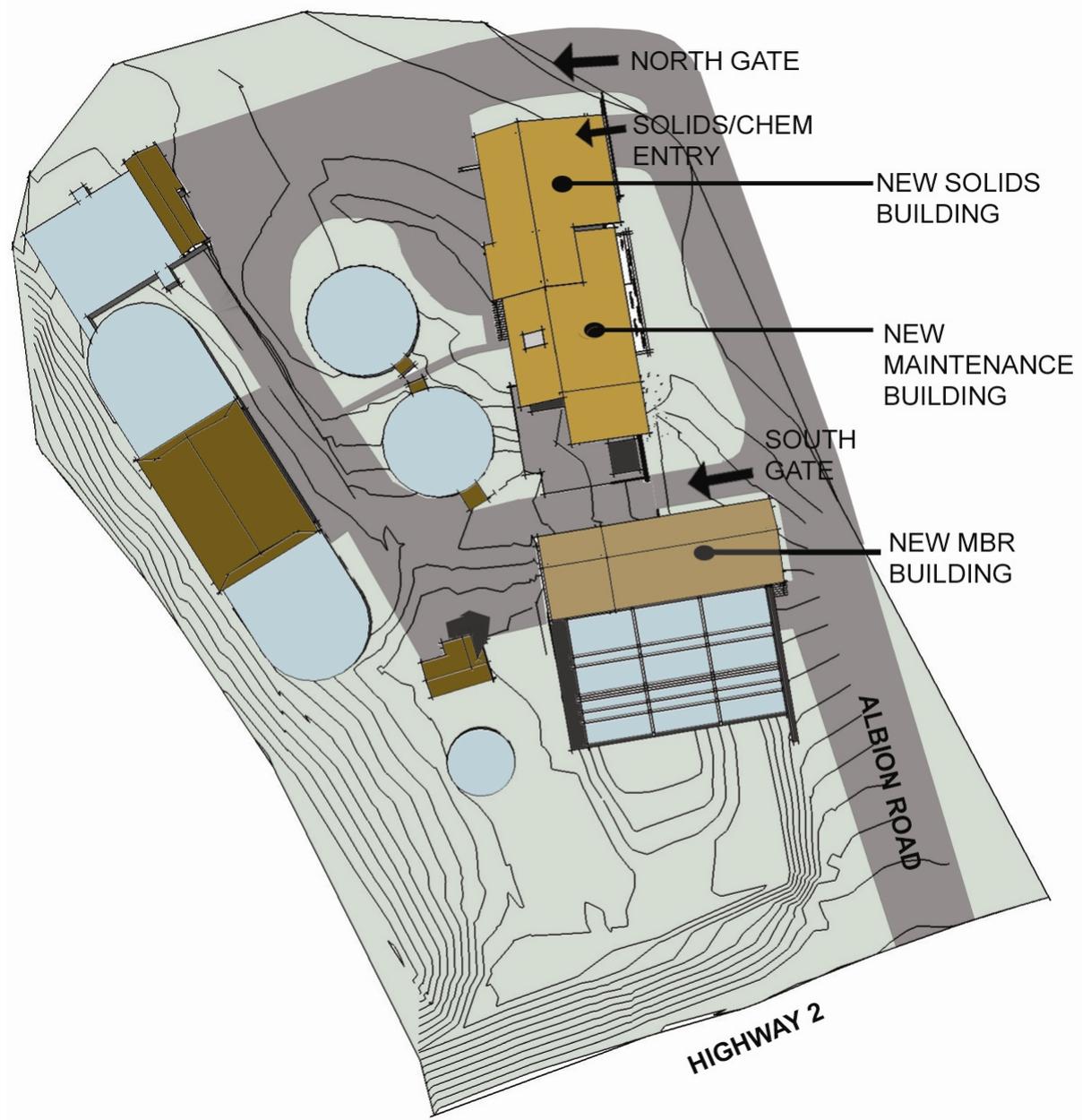


Building Types

MBR Building	
Purpose	Supports MBR equipment and treatment process
<i>Aesthetics Challenges</i>	Main face of plant to highway
Maintenance Building / Solids Building (Hybrid Building)	
Purpose of Maintenance Building	Workshop space/storage for maintenance
Purpose of Solids Building	Process support and loading bay for solids
<i>Aesthetics Challenges</i>	Maintenance Building is occupied by staff
	Hybrid building faces park and river



Site Concept



Architectural Concept



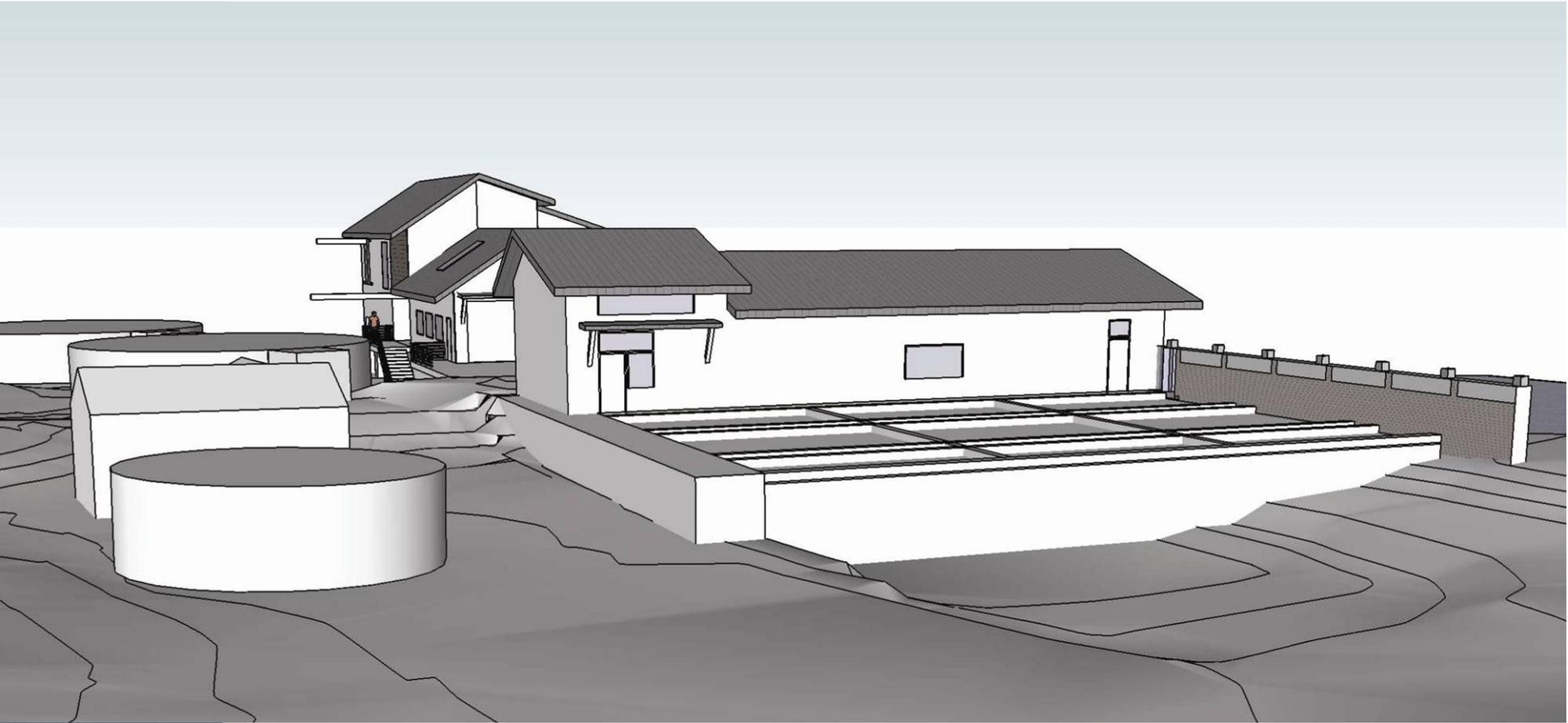
Architectural Concept

View along Albion Road



Architectural Concept

View from Highway 2



Architectural Concept

View from park



Architectural Concept

View from plant side



Estimated Costs Update

- Construction
 - Phase 1 Construction Cost Estimate: \$16.8 - \$17.4M
 - SRF funding (Facility Plan required)

- Design
 - \$500,000 legislative line-item allocation
 - Line-of-credit to supplement allocation
 - Design budget status (Attachment A)

Attachment A - Design

Anticipated Schedule

- 60% design – May 2008
- 90% design – August 2008
- Final design – November/December 2008
- Phase 1 construction – 2009 through 2010

Questions?