



# Foothills Hydrovac Facility

## Design and Construction

Stan Reimer, P.Eng.

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# Introduction

## Owner

FOOTHILLS  
REGIONAL  
SERVICES  
COMMISSION



Joe Angevine –  
*Foothills Landfill  
Manager*

## Design Consultant

NLR/AE  
CONSULTANTS



Stan Reimer –  
*Project Manger/  
Engineer of Record*

Bob Jardine –  
*Designer/  
Landfill Specialist*

## Geotechnical Consultant

THURBER  
ENGINEERING  
LTD.



David Gorling –  
*Project Manger*

## Contractor

BLACKIE SITE  
WORKS LTD.



Harvey Leslie –  
*Project Manger/  
Owner*



# Design and Approvals

# Key Design Criteria / Challenges / Goals

Design  
Criteria

Facility  
Location

Simplistic yet  
Versatile

Access &  
Operations

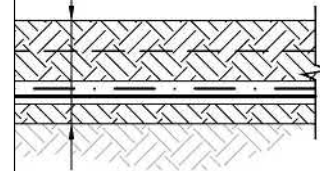


# Key Design Criteria

- 2 Hydro-vac Retention Cells
  - Each can be operated independently
  - Approx. 8,000 m<sup>3</sup> per retention cell
- Decanting Pond
- Facility Access
- Facility Location
- Containment Structure



**TYPICAL FLOOR STRUCTURE:**  
\*600 COMMON PROTECTION LAYER  
\*SNOW FENCE INDICATOR LAYER 300 FROM GCL  
\*GEOSYNTHETIC CLAY LINER (GCL)  
\*60 mil HDPE LINER (2-SIDED TEXTURED)  
\*PREPARED SUBGRADE



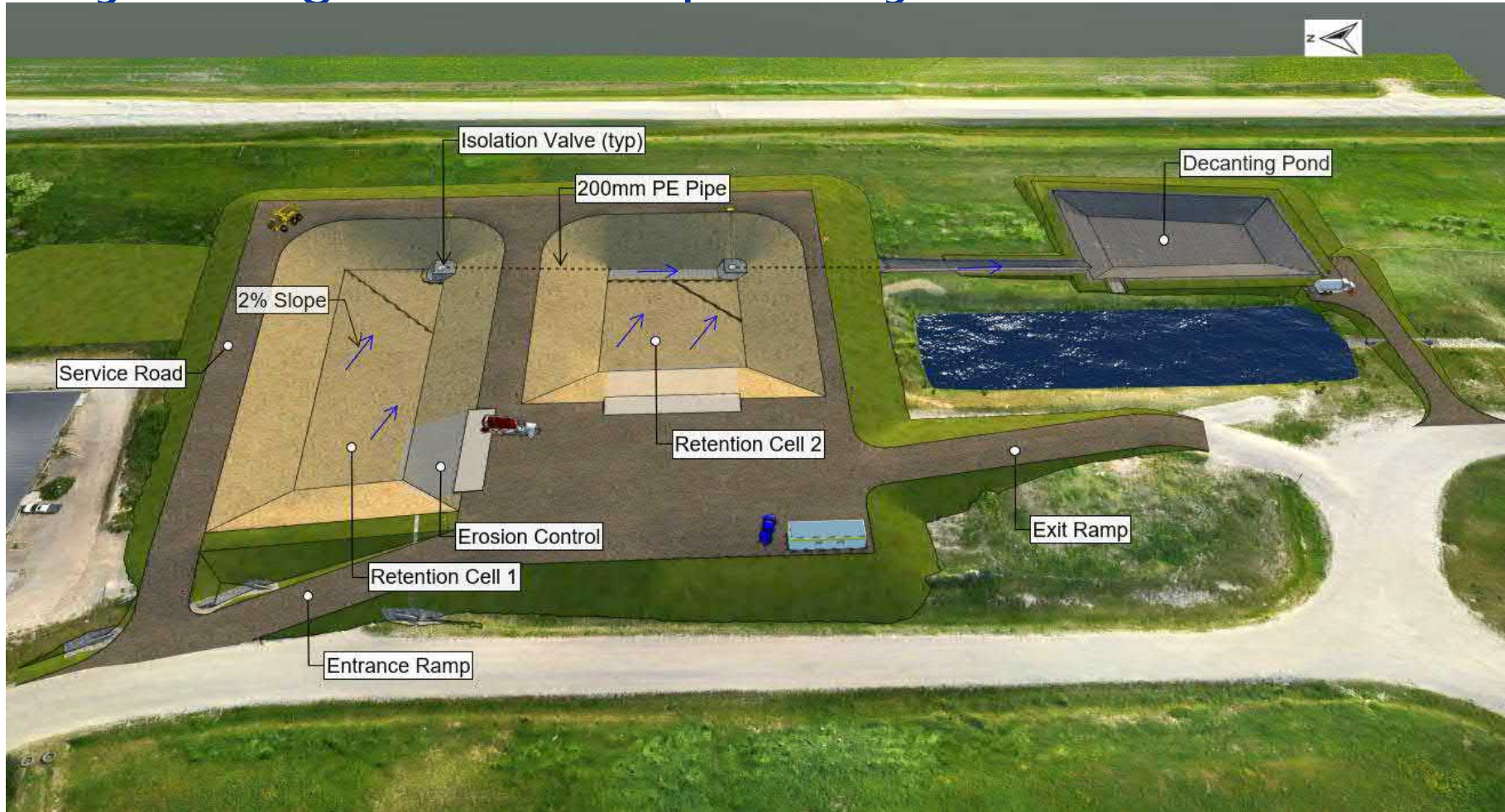


# Key Design Challenge Location





# Key Design Goal Simplistic yet Versatile





# Key Design Goal Access / Operations





# Construction and Operation

# Key Factors For Success

- Material Selection
- Frequent Inspections
- Local Contractor
- Focus of Quality
- Team Mentality



# Operation






# Operation



## ACKNOWLEDGEMENTS





Special thanks to  **LRRRC**  
LANDFILL & RESOURCE  
RECOVERY CENTRE

Contact Stan Reimer, P. Eng., [reimers@ae.ca](mailto:reimers@ae.ca)

