

# Assembly Project Findings



South West Vets



# About the Assembly Project

**Objective:** to assess biosecurity risk points at assembly facilities and design an exemplary facility to minimize these risks.

Previous presentations can be found on  
[www.swinehealthontario.ca/Communicaitons/Big-Bug-Day](http://www.swinehealthontario.ca/Communicaitons/Big-Bug-Day)

Funding for this project has been provided by the Government of Canada under the African Swine Fever Industry Preparedness Program



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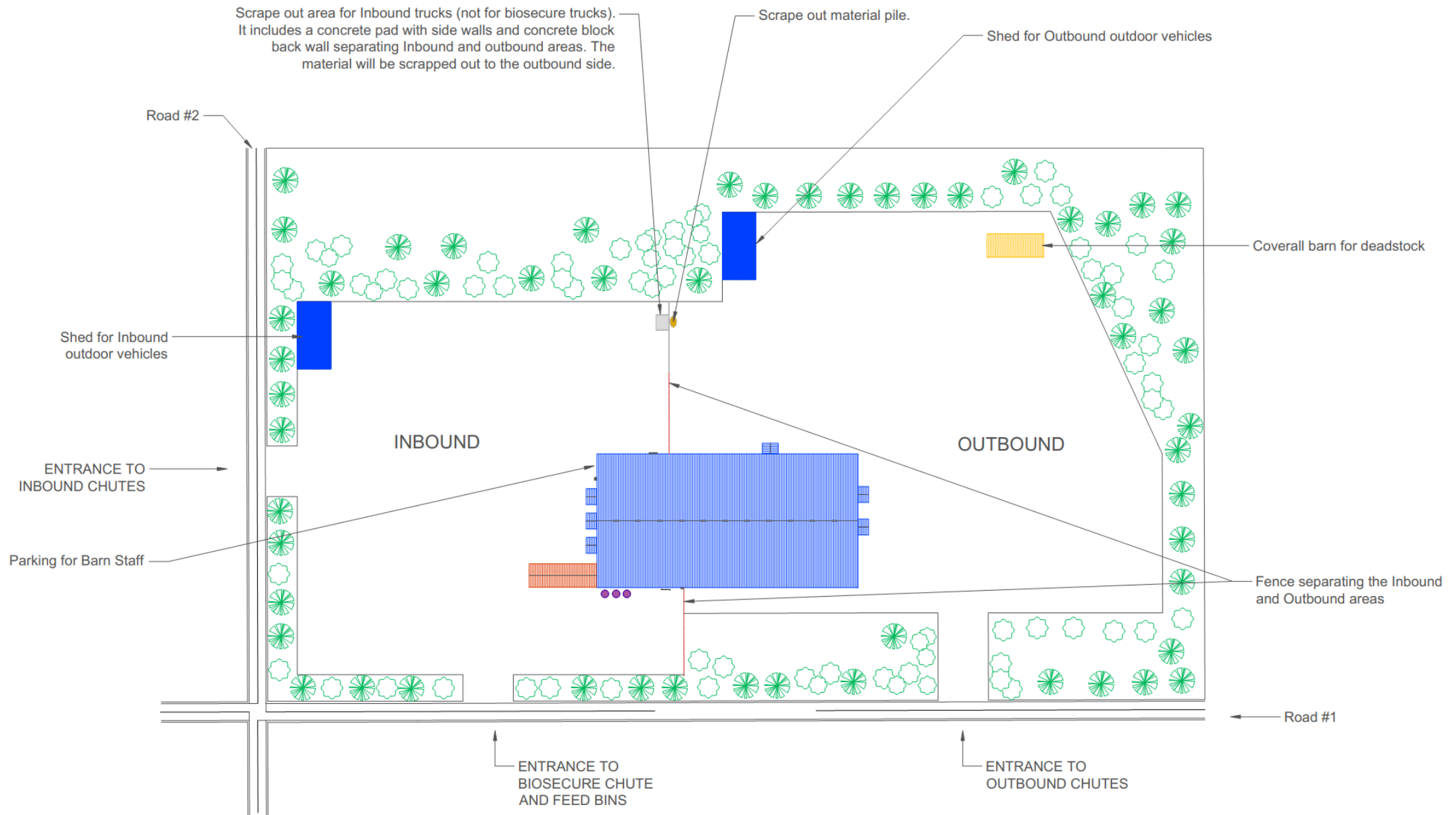
## Why focus on assembly facilities?



- Canada exports ~6.7 million live hogs annually<sup>1</sup>
  - 57% were weanlings,
  - 1.5 million market hogs
  - 340,000 cull sows and boars
- The majority of the 340,000 Canadian cull animals pass through assembly yards for sorting before slaughter in the U.S. (approx. 4,250 truck loads)
  - Most Eastern Canadian culls are assembled in Ontario
  - Manitoba also has two large assembly sites
- This cross-border transport increases the risk of disease movement between the two countries and cross contamination of Canadian facilities upon return of trailers following contact with U.S. packers.

<sup>1</sup>Kevin Grier Oct 2024 Market Report

# The Assembly Site



Staff entrance

15'-6" INBOUND CHUTE

Inbound loading chutes

12'

INBOUND CHUTE

INBOUND GOOSE NECK TRAILER CHUTE

14'-6"

24'-6"

Biosecure Inbound loading chute

BIOSECURE INBOUND WITH GOOSE NECK TRAILER CHUTE

The diagram illustrates a vertical cross-section of a biosecure facility's loading area. At the top, a 'Staff entrance' is shown with an arrow pointing right. Below this, a series of horizontal loading chutes are depicted. The first chute is labeled '15'-6" INBOUND CHUTE'. A bracket labeled 'Inbound loading chutes' spans the first two chutes. The second chute is labeled '12'' and 'INBOUND CHUTE'. Below the 12' chute is a '14'-6"' section labeled 'INBOUND GOOSE NECK TRAILER CHUTE'. At the bottom, a large rectangular area is labeled '24'-6"' and 'Biosecure Inbound loading chute'. An arrow points from this label to a specific section of the bottom chute, which is also labeled 'BIOSECURE INBOUND WITH GOOSE NECK TRAILER CHUTE'.

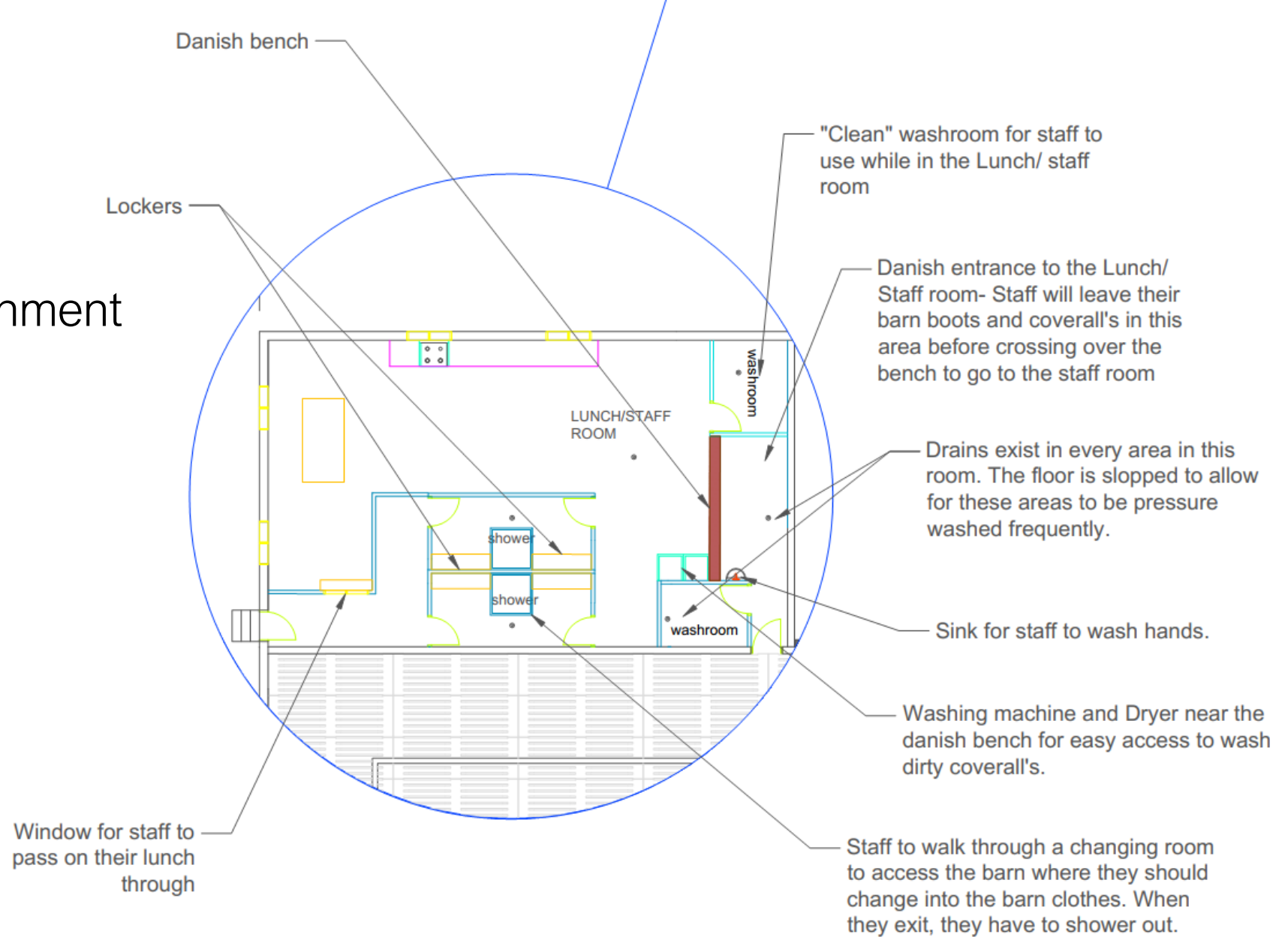
This detailed floor plan illustrates the layout of a barn facility, including various rooms, loading areas, and structural features. Key components include:

- Rooms and Areas:** Access to tool shop/ equipment room, LUNCH/STAFF ROOM, TOOL SHED/CLIP ROOM, DEADSTOCK ROOM, Holding pen #1, Holding pen #2, BBQ BARN (Capacity 350 bbq), Pen can hold 40 cows at 22.5 S/FT, SCALE, Scale room, Kitchen, OFFICE (Main office area, Private office), and FEED BINS.
- Loading and Unloading:** BBQ outbound loading chute, Roll up door to receive shavings, Outbound loading chutes, and Outbound Scale.
- Structural Features:** 311'-2" dimension, 10', 155'-8", 15'-6", 30'-6" dimensions, and a Fence dividing the Inbound and Outbound areas.
- Flow and Movement:** Arrows show the flow through the barn, indicating the path of movement for livestock and materials.



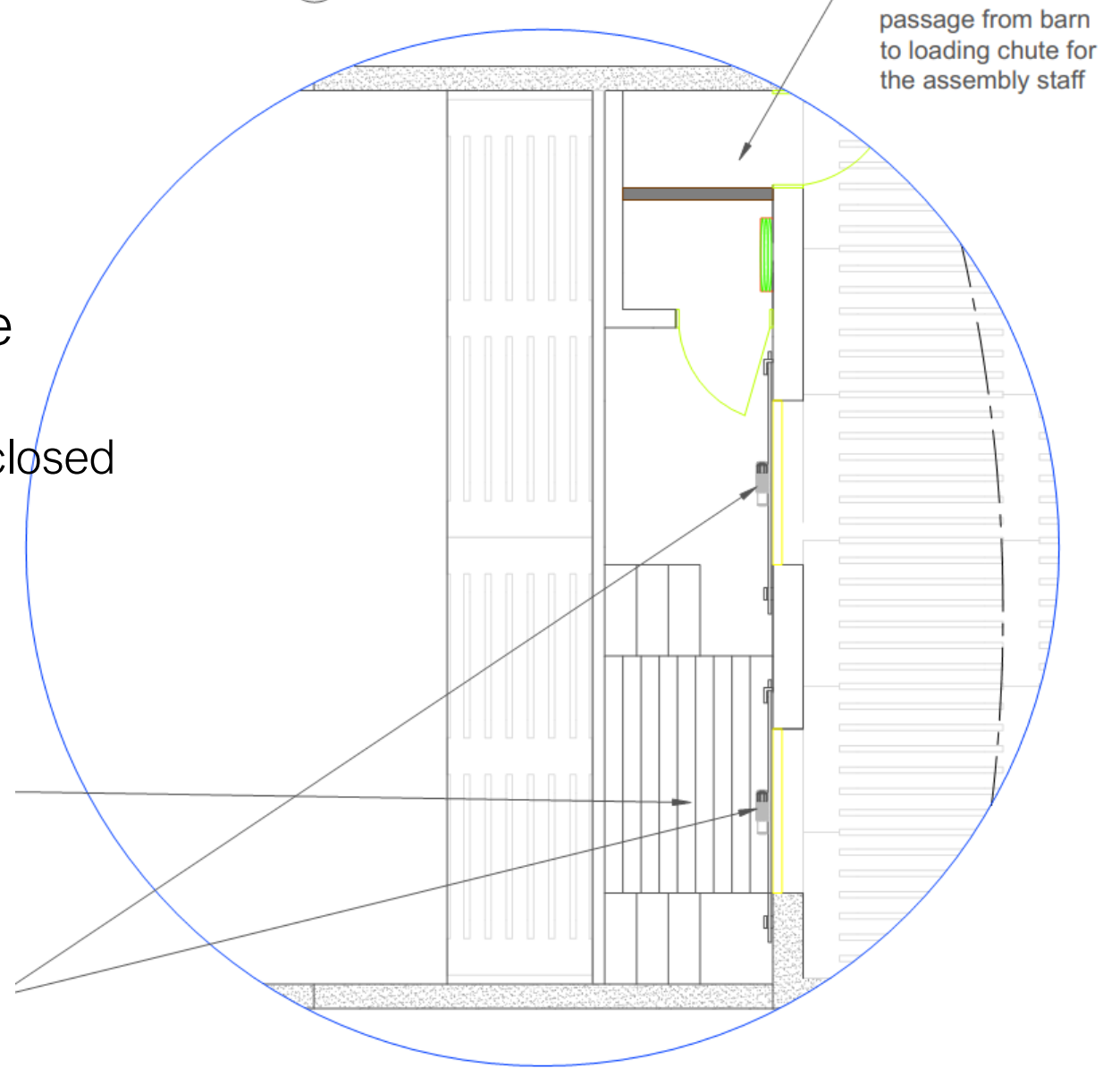
# Entrance and Office Area

- Focus is on biocontainment not bioexclusion



# Inbound Area

- Dedicated biosecure inbound chute
  - Appointment only
  - Extended chute, fully covered and enclosed
  - Heated concrete pad
- Remaining inbound chutes (3)
  - Pressure washer hose
  - Goose-neck trailer compatible
  - Slates with drainage

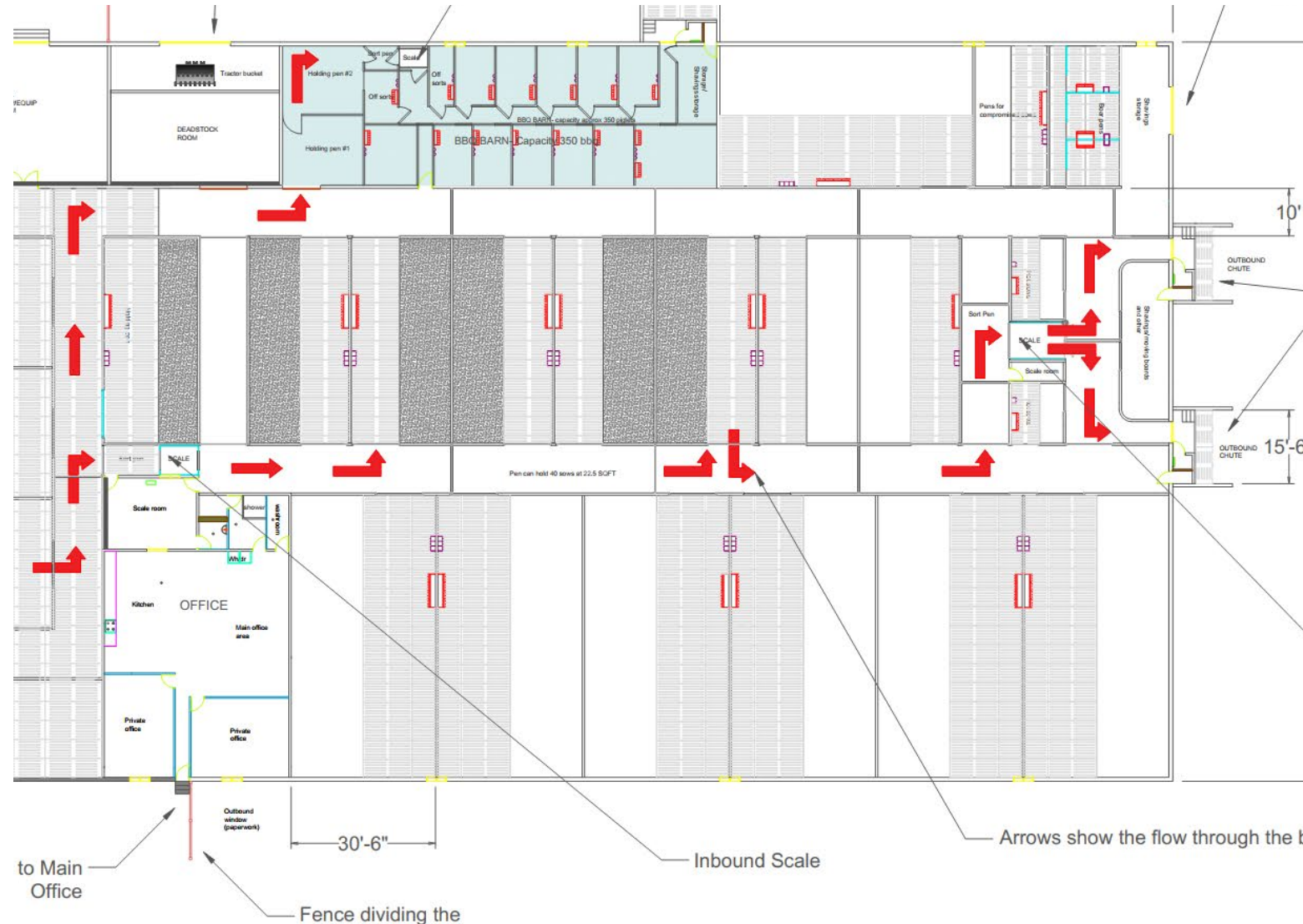


# Receiving area



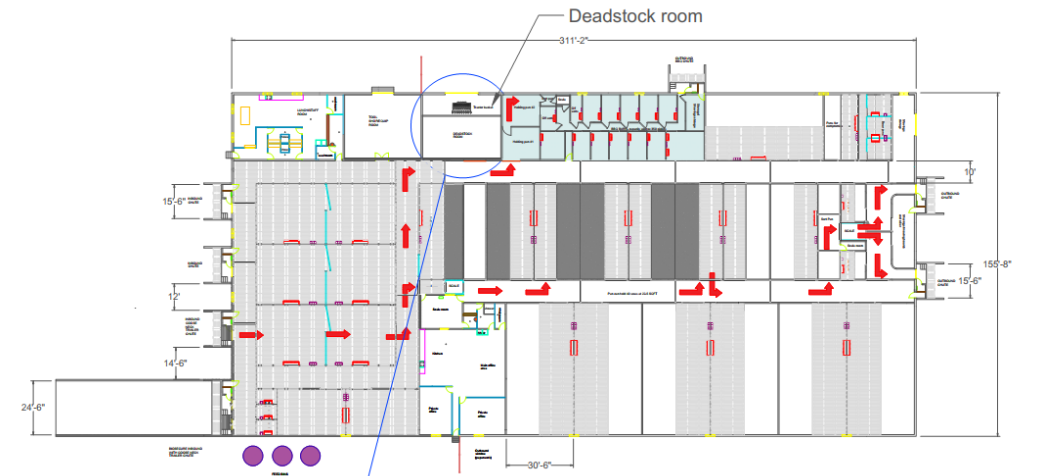
# The campground – comfort for short turn around

- Partially slatted; partially solid flooring with in-floor heating
- Maximize comfort, locomotor stability and cleanability
- Animal comfort at a wide range of facility stocking densities/temperatures
- Wide aisles and large gates for small machine access

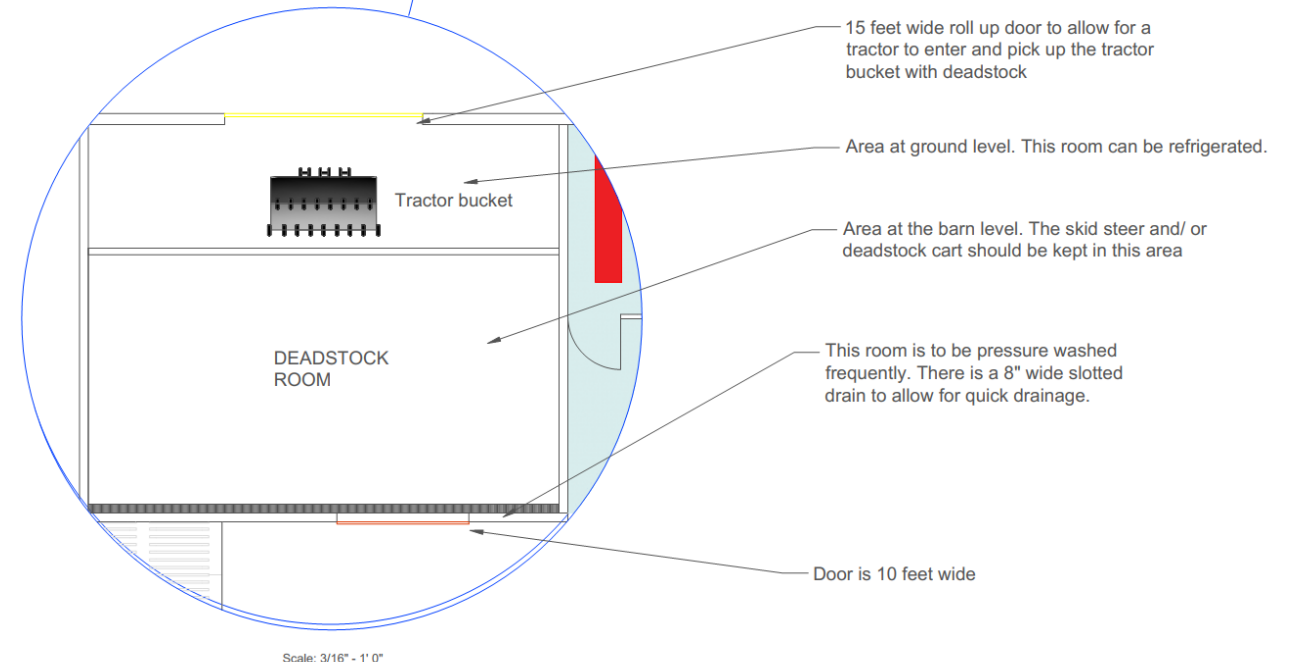


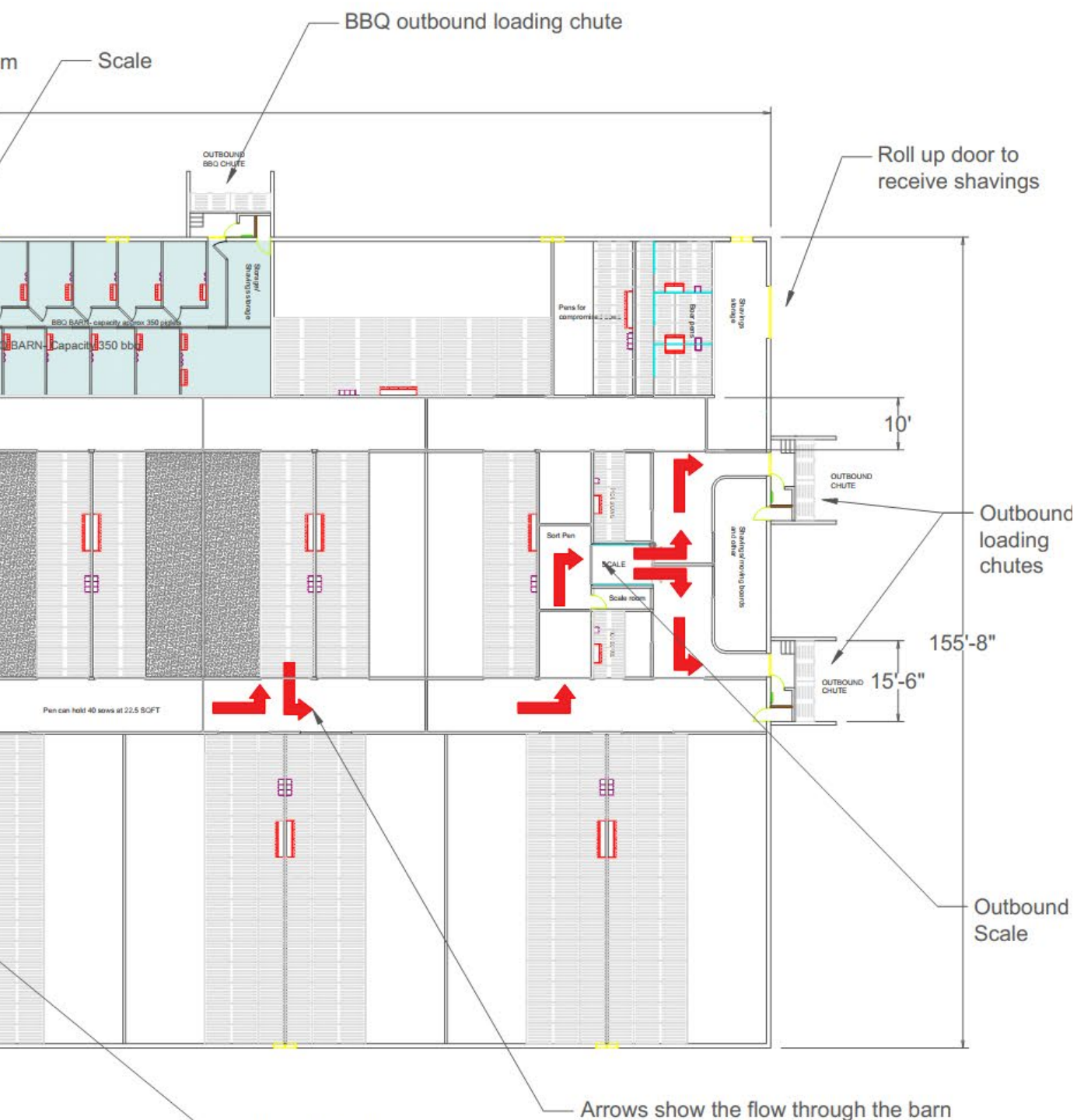
# Deadstock

- Large throughput facility means larger volume of deadstock
- Efficiently accessible to all areas of the facility
- Exits into outbound (dirty) side of the yard
- Designated bins to the assembly site from rendering



17 FLOOR PLAN LAYOUT- DEADSTOCK ROOM DETAILS  
Scale: 1/32" = 1' 0"





# Outbound Area

- Designed for marketing
  - Includes a scale and 2 chutes
  - Rest pens immediately adjacent to the loading area
- Same chute design as inbound for easy cleaning/disinfection
- Major USA contact point

# Take home messages

The biosecurity improvements recommended were targeted to meet these four primary goals:

to allow delivery of cull animals at the facility in a biosecure fashion to minimize the risk of contaminating the incoming vehicle with a pathogen from the facility

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to contain any pathogens present within the facility

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to minimize the risk of bringing a new pathogen into Canada through cross-border trade with assembly contact

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to consider modifications which could allow for cleaning and disinfection of an assembly facility should that become necessary

# Thank you!

## Assembly Project Team Members

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