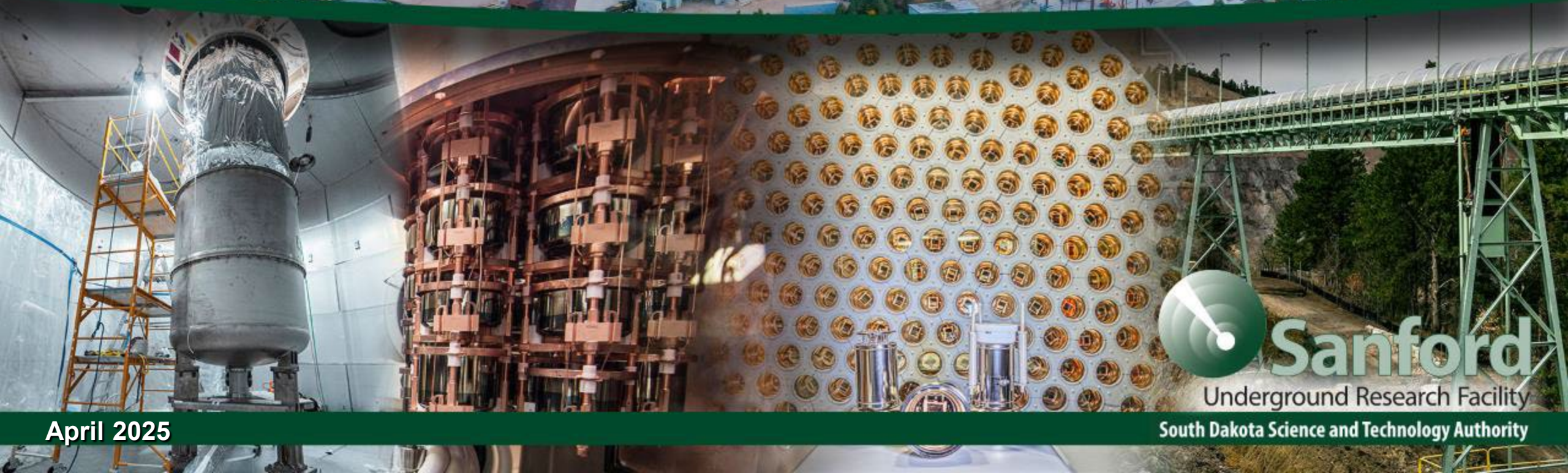


# Ross Campus Restrooms

## General information & Specifications

Andrew Brosnahan  
Facility Engineer



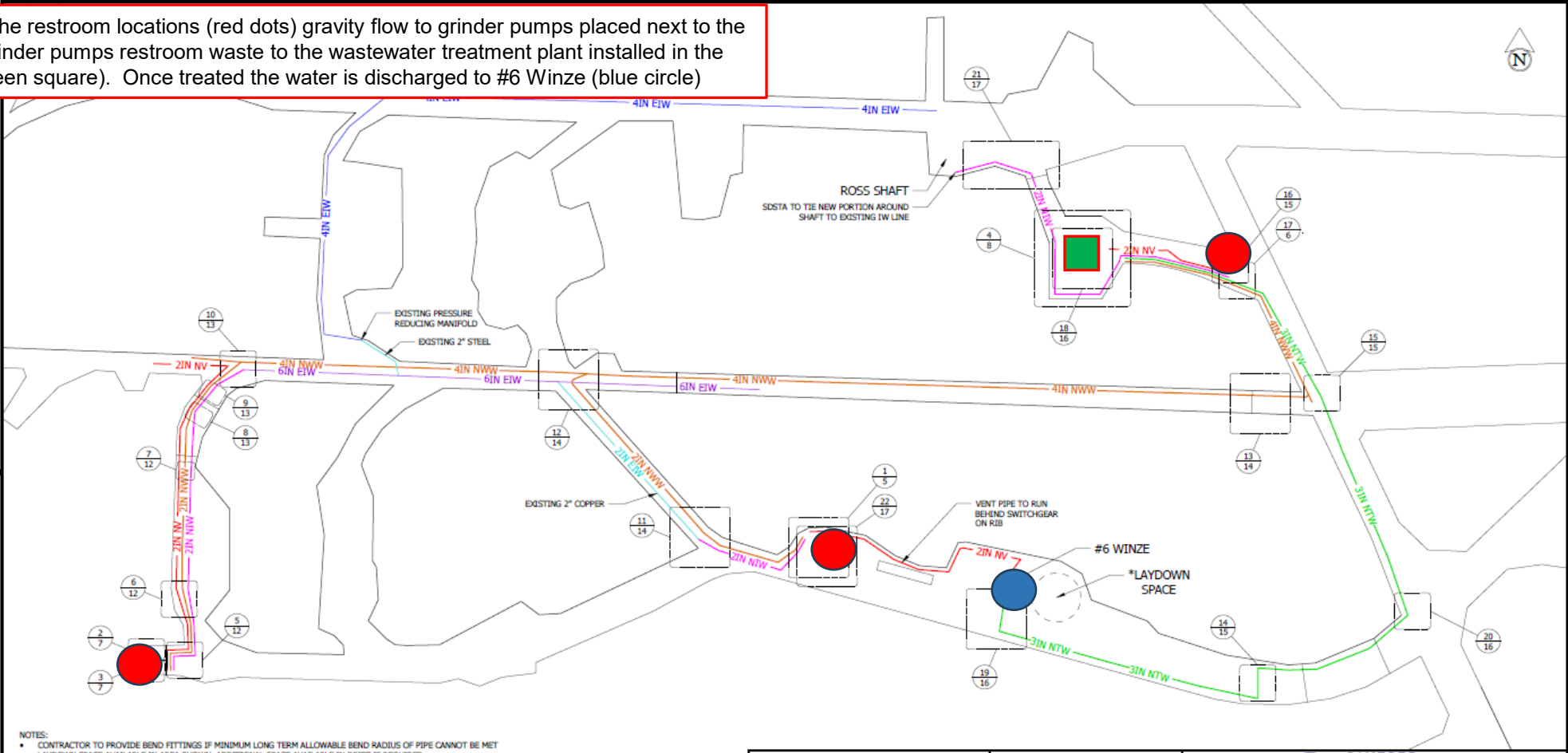
April 2025

 **Sanford**  
Underground Research Facility  
South Dakota Science and Technology Authority



# General Info – Restroom Locations & Piping Network

System Overview: The restroom locations (red dots) gravity flow to grinder pumps placed next to the restrooms. The grinder pumps restroom waste to the wastewater treatment plant installed in the Grizzly area (green square). Once treated the water is discharged to #6 Winze (blue circle)



- NOTES:
- CONTRACTOR TO PROVIDE BEND FITTINGS IF MINIMUM LONG TERM ALLOWABLE BEND RADIUS OF PIPE CANNOT BE MET
  - LAYDOWN SPACE AVAILABLE IN AREA SHOWN. ADDITIONAL SPACE AVAILABLE IN DRIFT IF REQUIRED

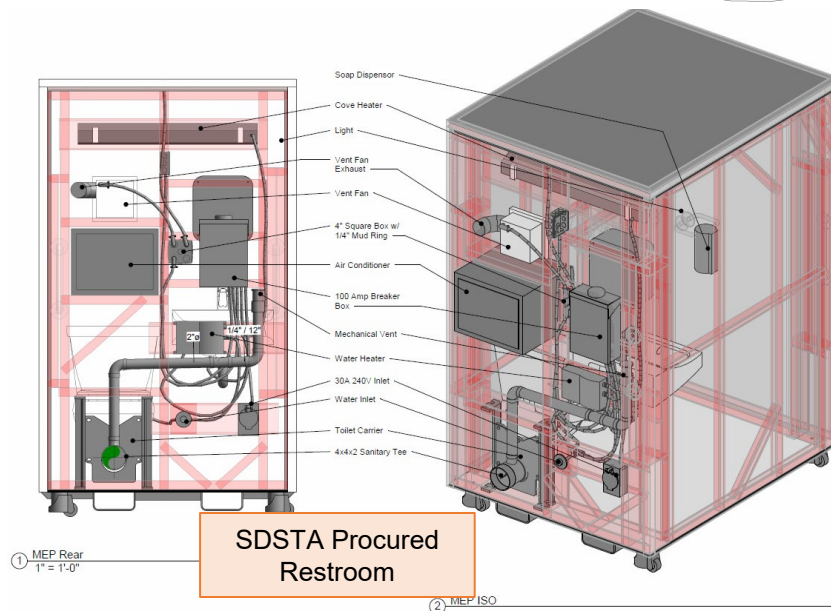
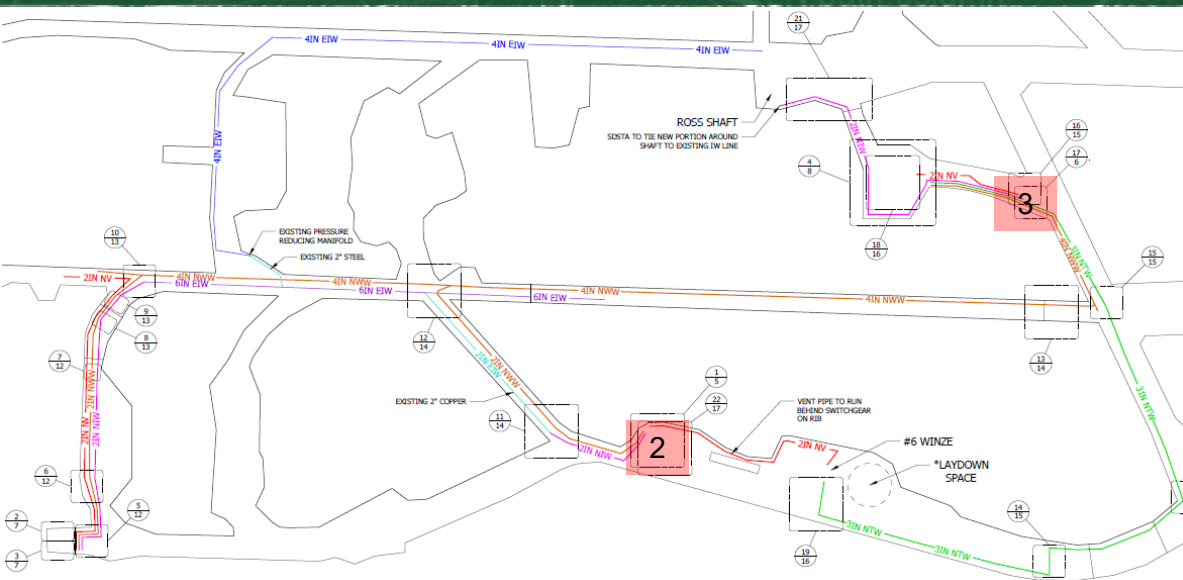
PIPE IDENTIFICATION				
SIZE	MATERIAL	FUNCTION	APPROX. LENGTH (FT)	IDENTIFIER
2	DR11 HDPE	NEW INDUSTRIAL WATER	350	2IN NTW
2	DR11 HDPE	NEW VENT	200	2IN NV
2	DR11 HDPE	NEW WASTE	280	2IN NWW
2	STEEL/COPPER	EXISTING INDUSTRIAL WATER	NA	2IN EIW
3	DR13.5 HDPE	NEW TREATED	450	3IN NTW
4	DR13.5 HDPE	NEW WASTE	600	4IN NWW
4	HDPE	EXISTING INDUSTRIAL WATER	NA	4IN EIW
6	STEEL	EXISTING INDUSTRIAL WATER	NA	6IN EIW

Offeror's scope is for the procurement and installation of all "new" plumbing lines and associated equipment called out in the drawing package. The pipe network will connect SDSTA procured and placed equipment noted on the drawings to the SDSTA procured and placed wastewater treatment plant. Existing lines are shown for tie in locations and information purposes.

APPROVED DATE:	THIRD ANGLE PROJECTION	12477
COMMENTS:		
SHEET NUMBER: 1 OF 17	SIZE B	SCALE: 1"= 40'
REV 0		

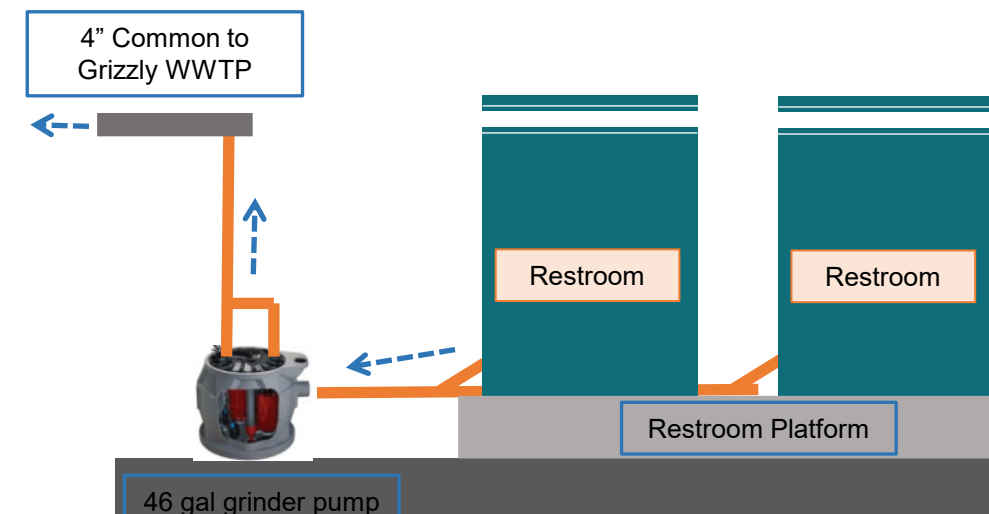


# General Info – Restrooms (Grizzly Area and #6 Winze)



## Restrooms (Grizzly Area and #6 Winze)

- 3 preassembled restrooms and a grinder pump basin will be placed near the Grizzly by SDSTA before contractor mobilization
- 2 preassembled restrooms and a grinder pump basin will be placed at #6 Winze by SDSTA before contractor mobilization
- The contractor will be responsible for the procurement and installation of:
  - Piping network shown on the drawings
  - Connection plumbing between the restrooms and booster pump shown on the drawings







# General Info – Photos Ross Shaft Area



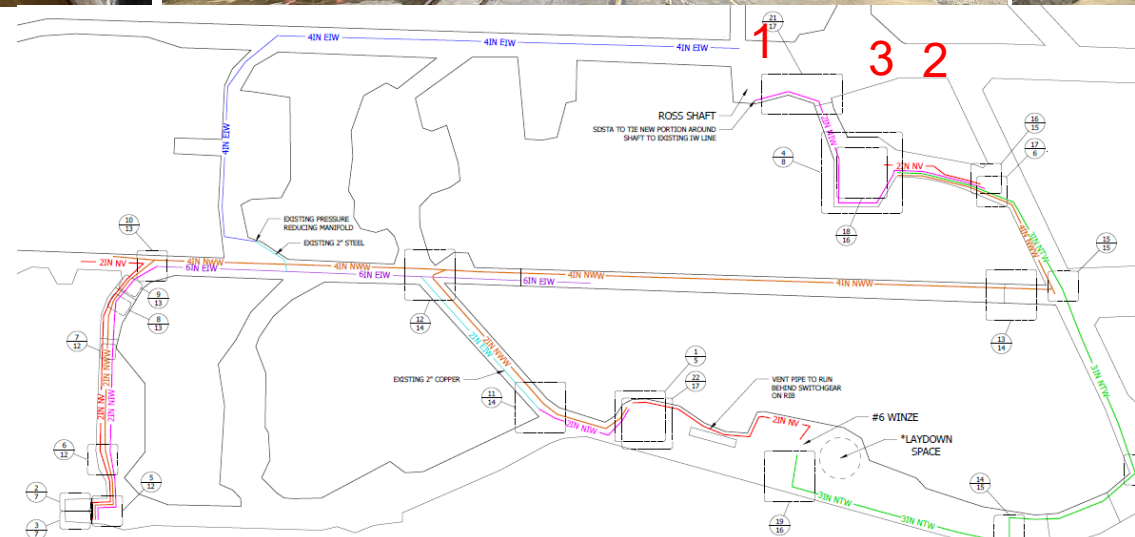
Ross Shaft Station at the 4850L (1)



View getting off cage (2)

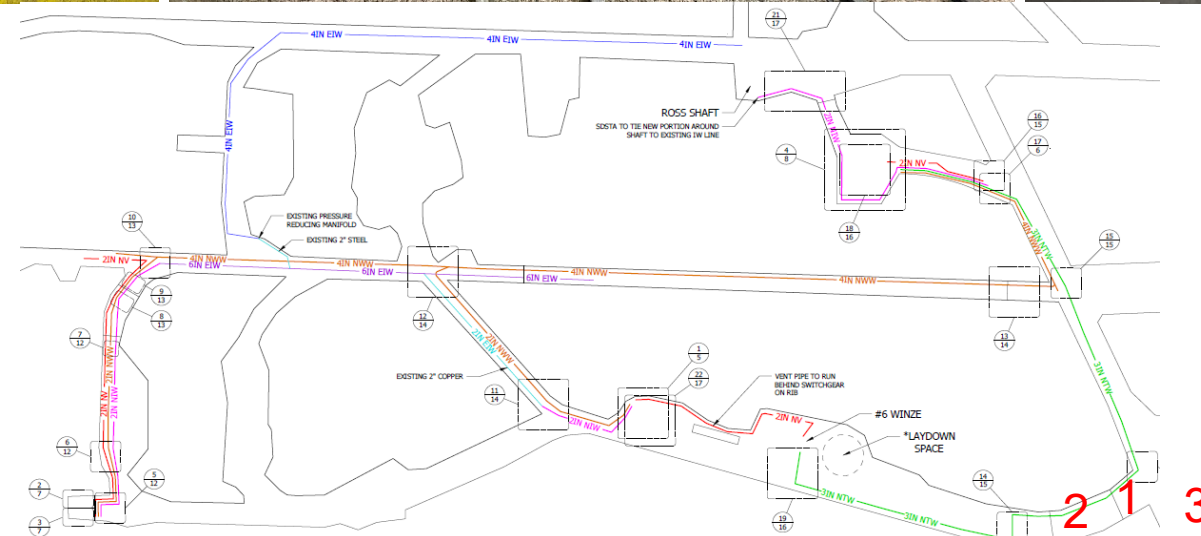


View looking at Ross Shaft (3)





# General Info – Photos #6 Winze Entrance





# General Info — #6 Winze Area



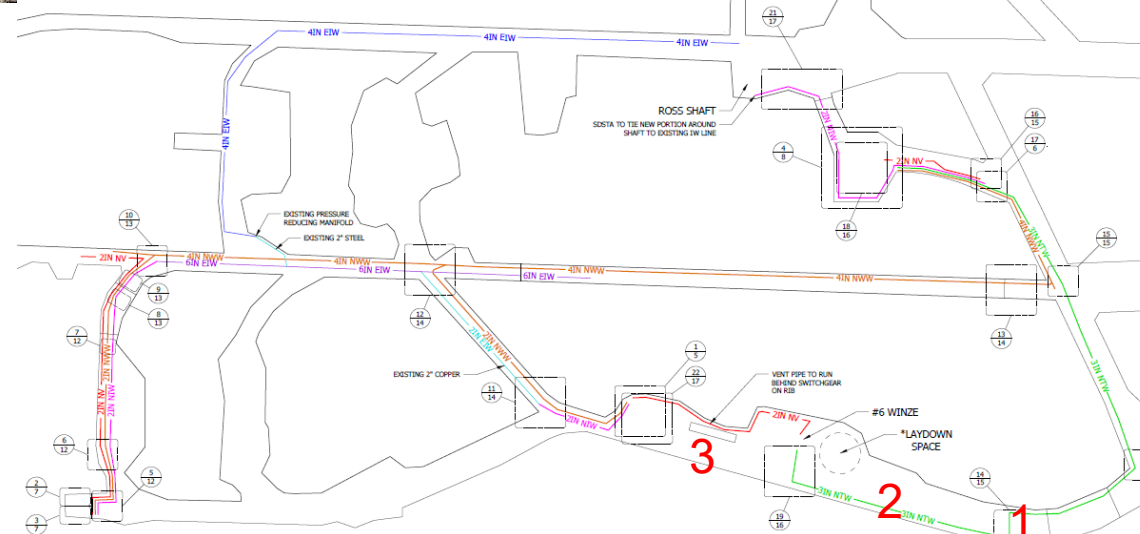
Looking at #6 Winze (1)



Looking at # 6 Winze (2)



#6 Winze restroom location (3)





# General Info – Photos Refuge Chamber Area and Restroom



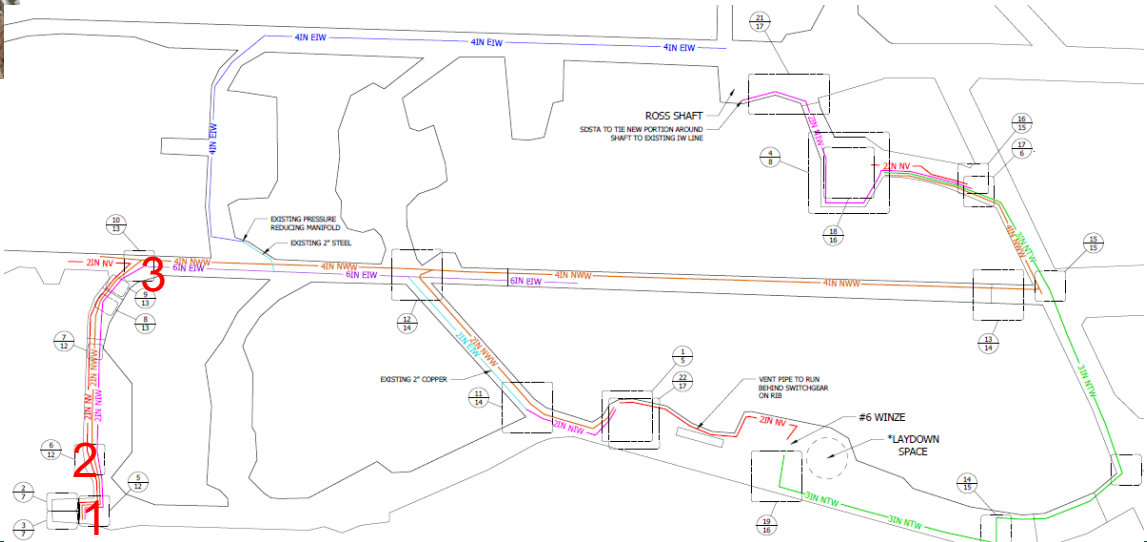
Restroom block wall (1)



Inside refuge chamber(2)



Refuge chamber entrance (3)





# General Info — Photos Connecting Drifts



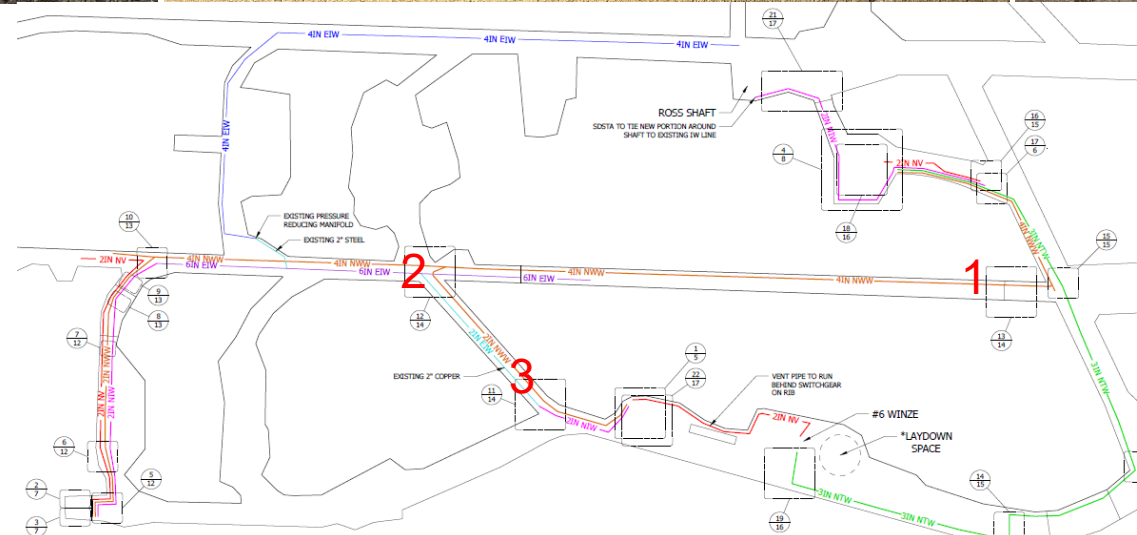
Ross Shaft Station at the 4850L (1)



Drift Accessing the Grizzly (2)



Entrance to the Grizzly (3)





# General Info – Photos Grizzly Area



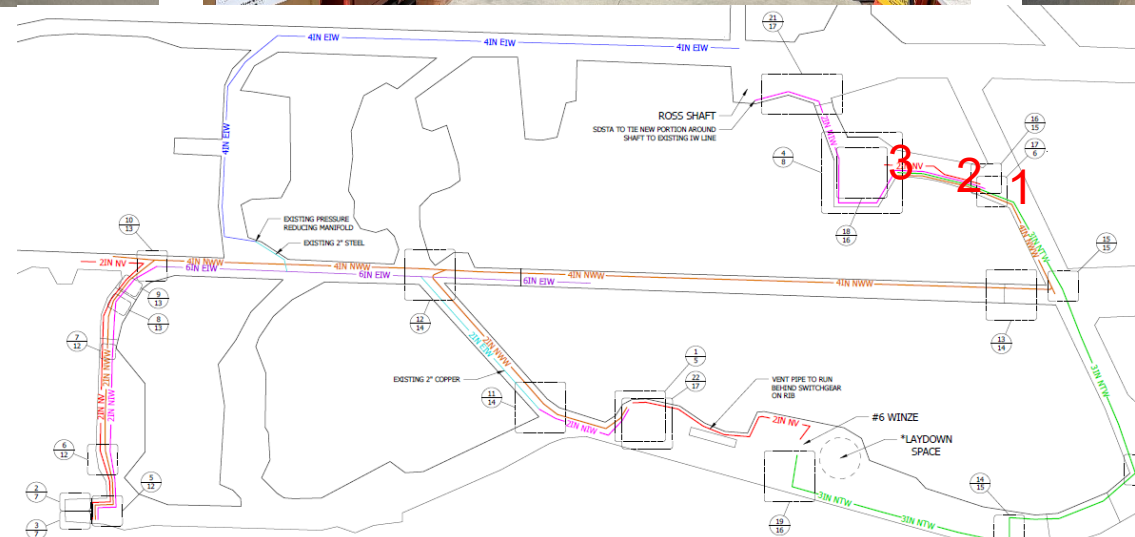
Grizzly Entrance (1)



## Drift Accessing the Grizzly (2)



Grizzly Area (3)





# General Info – Ross Cage Limits

Max Load Weight With Work Deck

**8,000 LBs**

Max Load Weight Without Work Deck

**13,500 LBs**

Cage Width

**53"**

Cage Length

**12'**

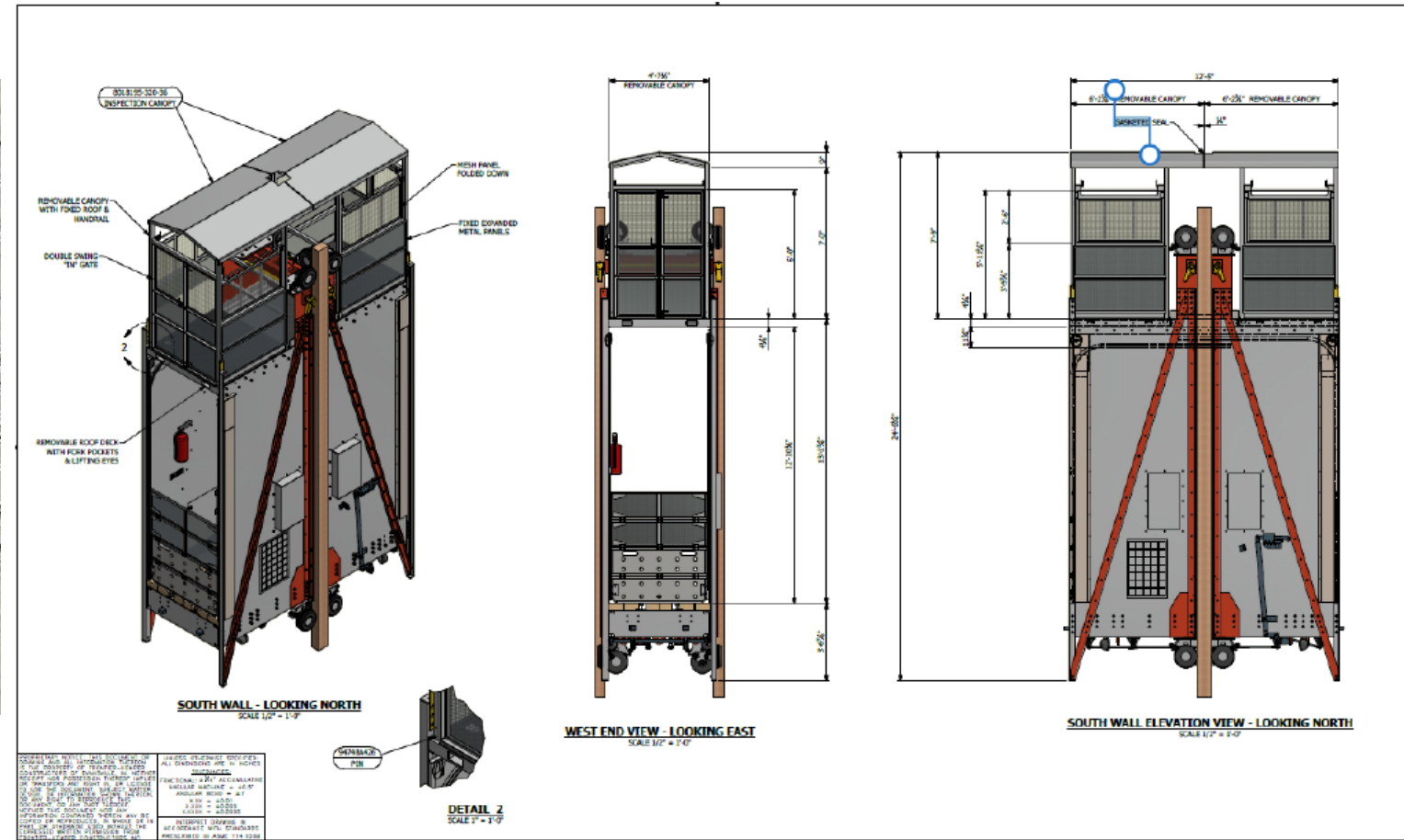


Figure 4: Ross Shaft single deck cage with inspection platform on top



# General Info – Offeror Parking / Shuttle Graphic

