

Primary Beamline Radio-Activated Water (RAW) Preliminary Design Review

Target Hall RAW - General Overview

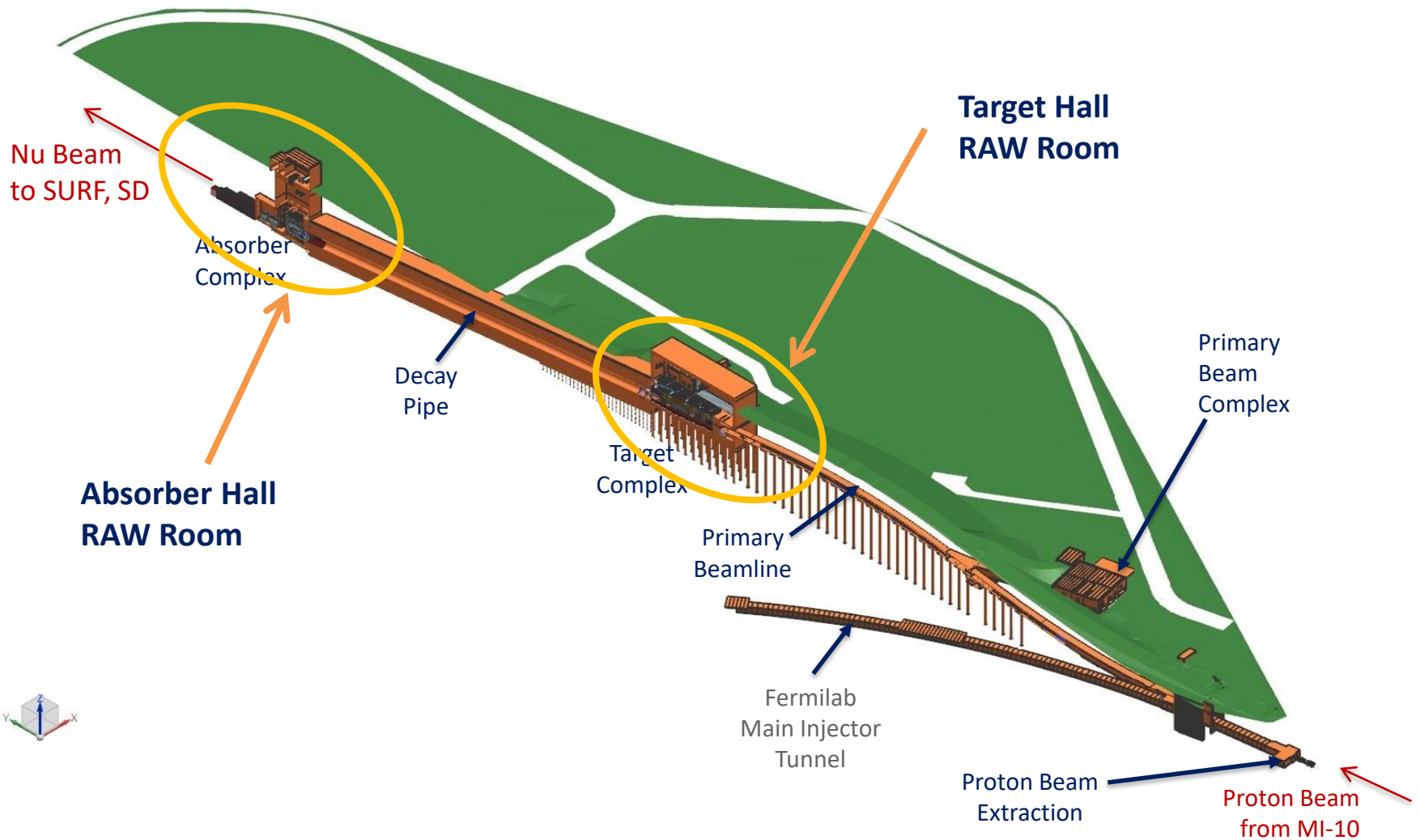
Karlon E. Williams, II

February 19 & 20, 2020



RAW System - Preliminary Design Review

ISO Section View of Near Site – MI-10 to LBNF-30 Absorber Complex



RAW System - Preliminary Design Review

Target Hall RAW Systems

Systems located within the Target Hall RAW Room

- Target RAW
- Horn A RAW
- Horn B RAW
- Horn C RAW
- Shielding Panel RAW
- TH RAW Exchange
- TH Intermediate
- H+OH System

Other support equipment just outside the TH RAW Room

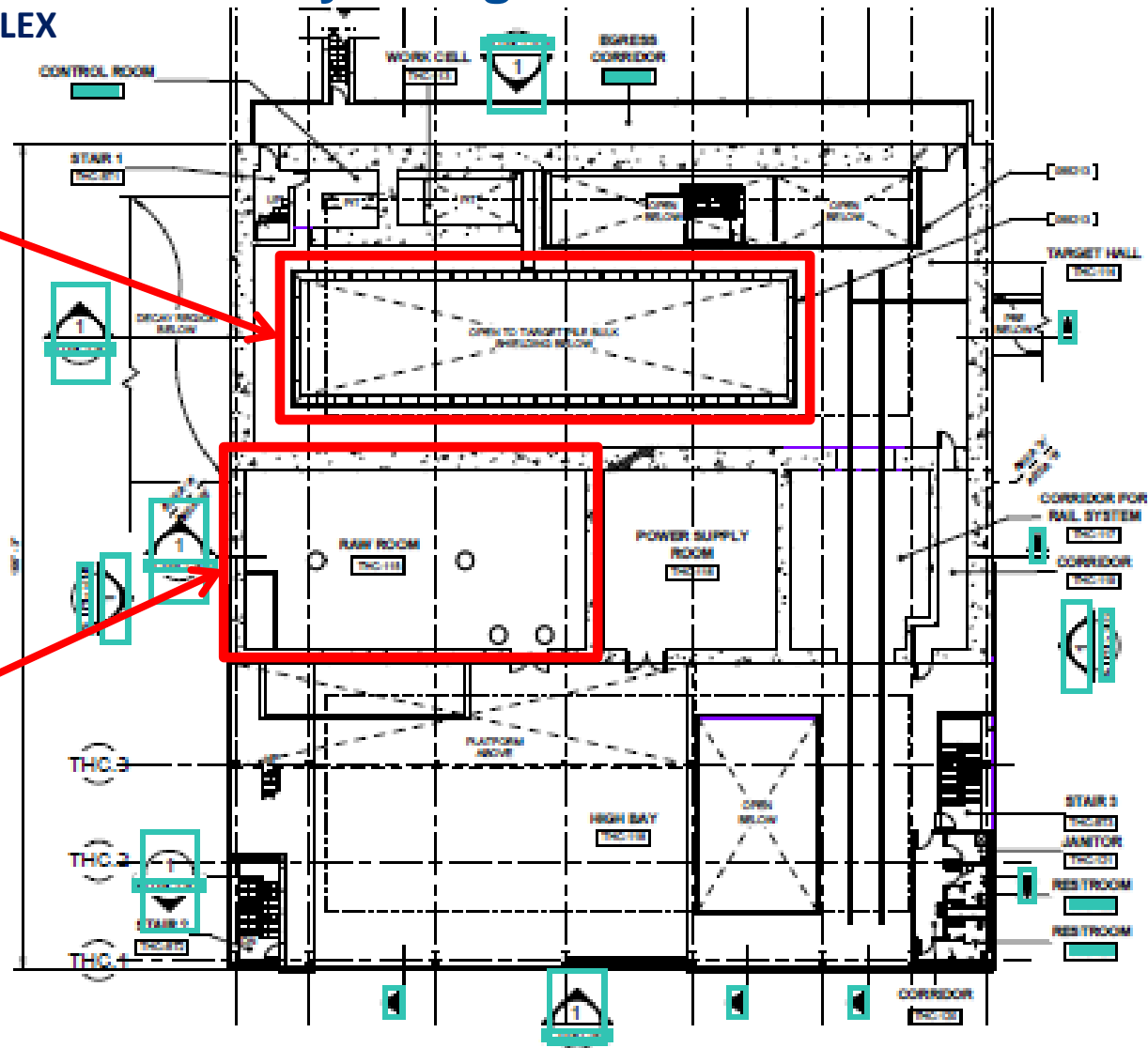
- RAW Capture Station
- Air Compressors
- Bottle Farm

RAW System - Preliminary Design Review

TARGET HALL COMPLEX

Target Chase

Target Hall
RAW Room



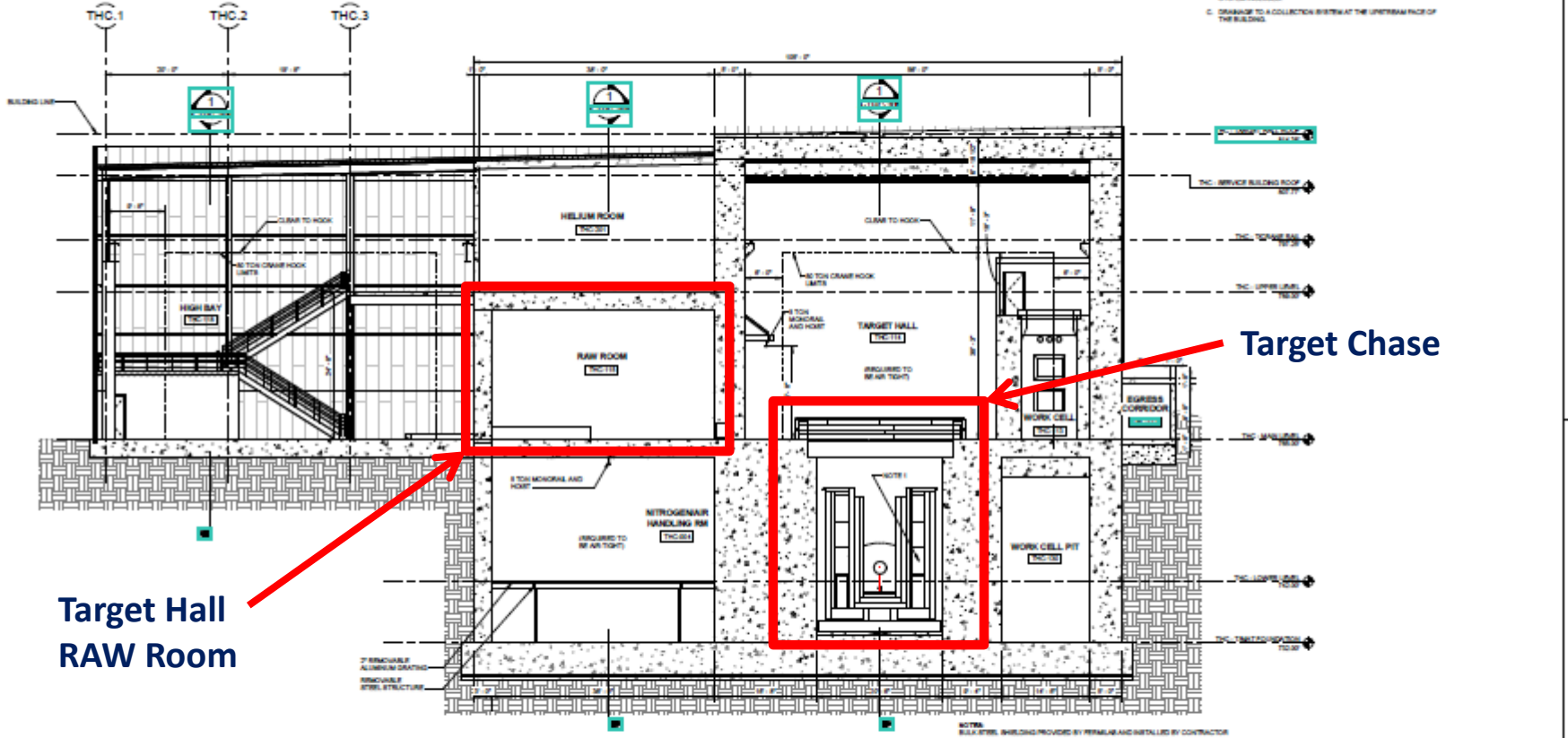
MAIN LEVEL OVERALL PLAN @ EL. 765.00'

SCALE: 1/8" = 1'-0"

A-THC-101

RAW System - Preliminary Design Review

TARGET HALL COMPLEX



SECTION

1
A-THC-302

NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	BY	CHKD.

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Fermilab
Long Neutron Institute Facility

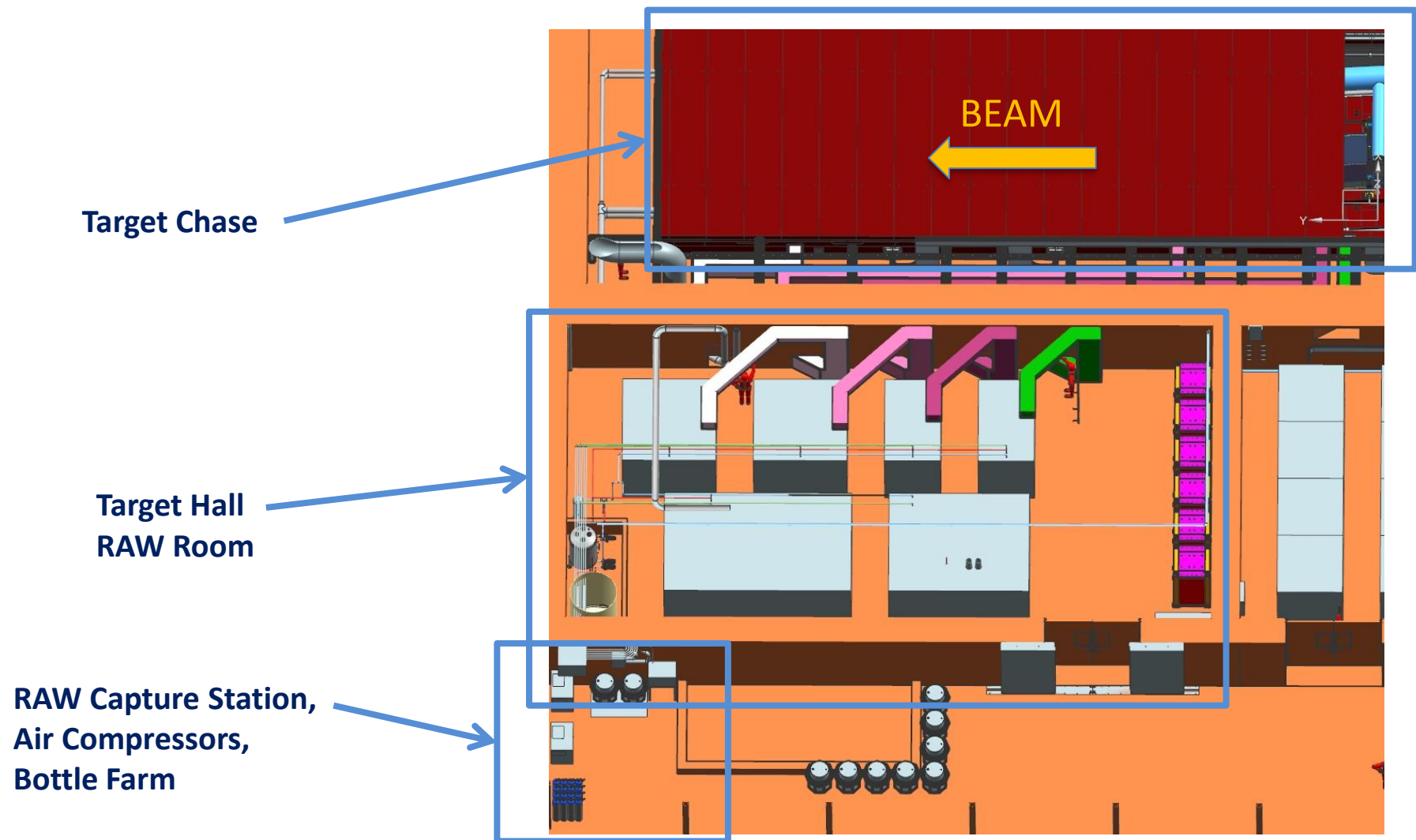
LBNF NEAR SITE CONVENTIONAL FACILITIES
TARGET HALL COMPLEX
BUILDING SECTIONS

DESIGNED BY	G. GELDIS	AECOM
DRAWN BY	M. BENEY, Z. ZHANG	AECOM
CHECKED BY	P. GARNEY	AECOM

PROJECT NO. 6-15-10 A-THC-302 REV. 00

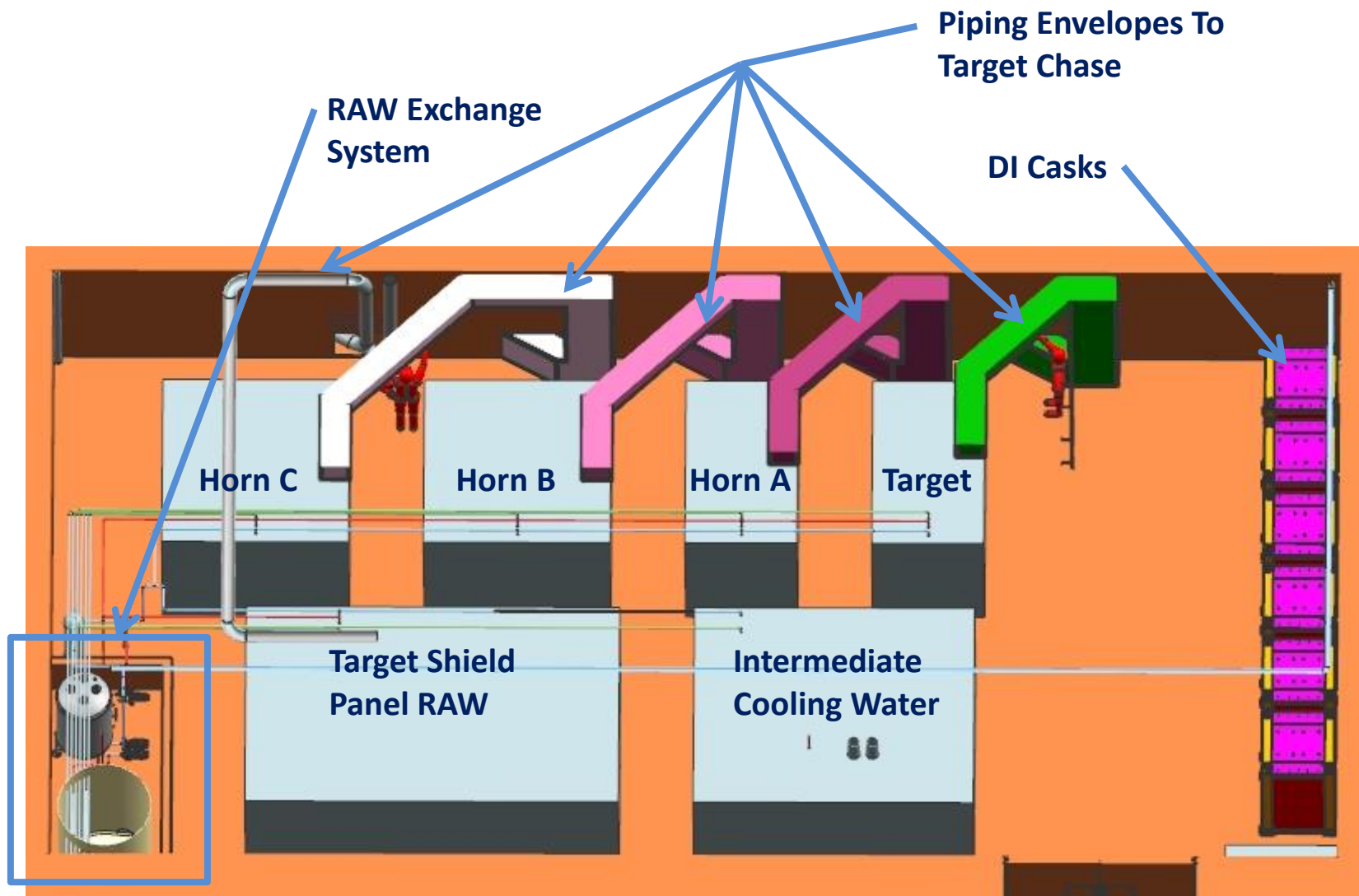
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Target Hall RAW Room Arrangement



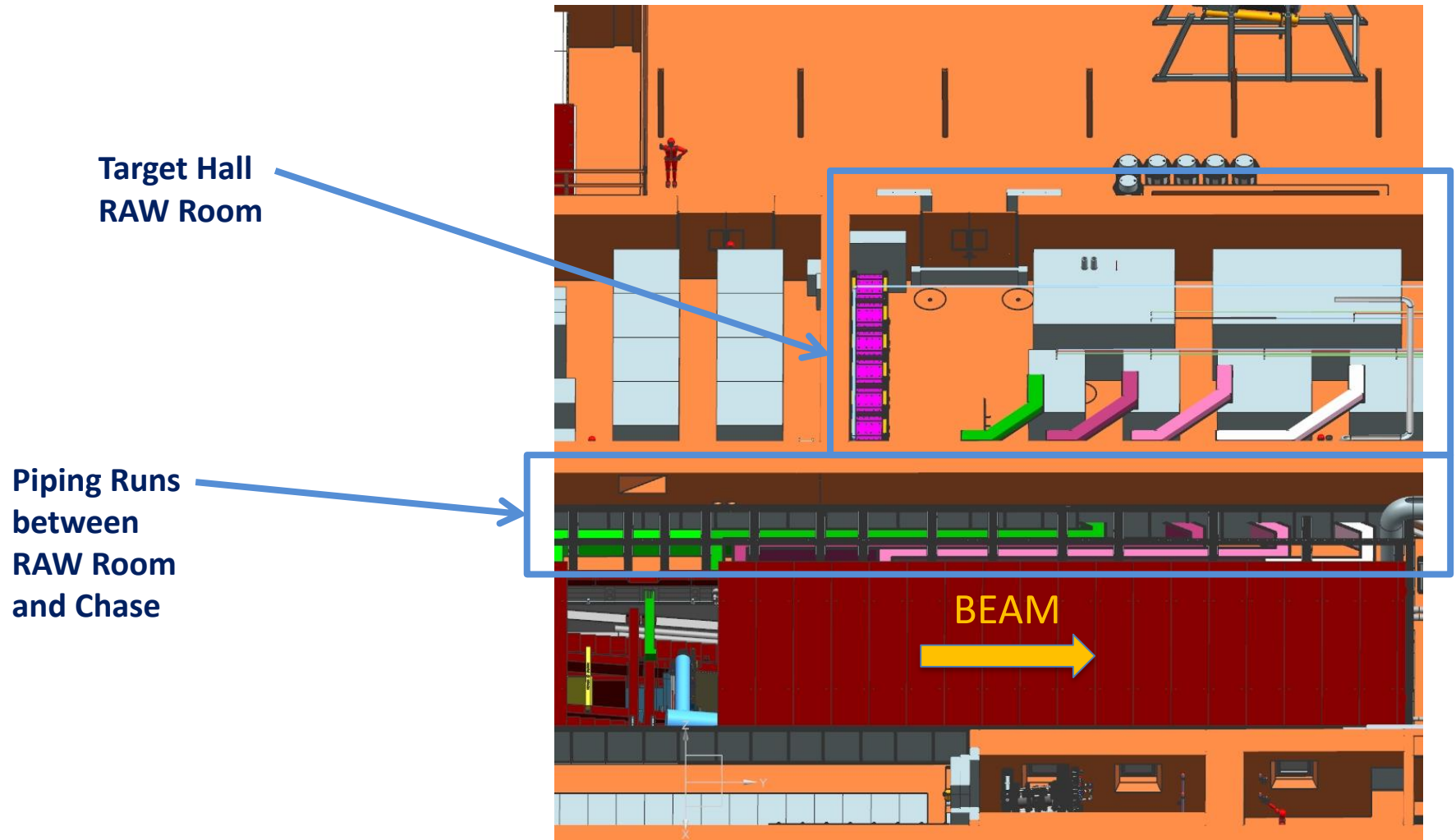
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Target Hall RAW Room Arrangement, cont.



RAW System - Preliminary Design Review

Target Hall RAW Room Arrangement, cont.



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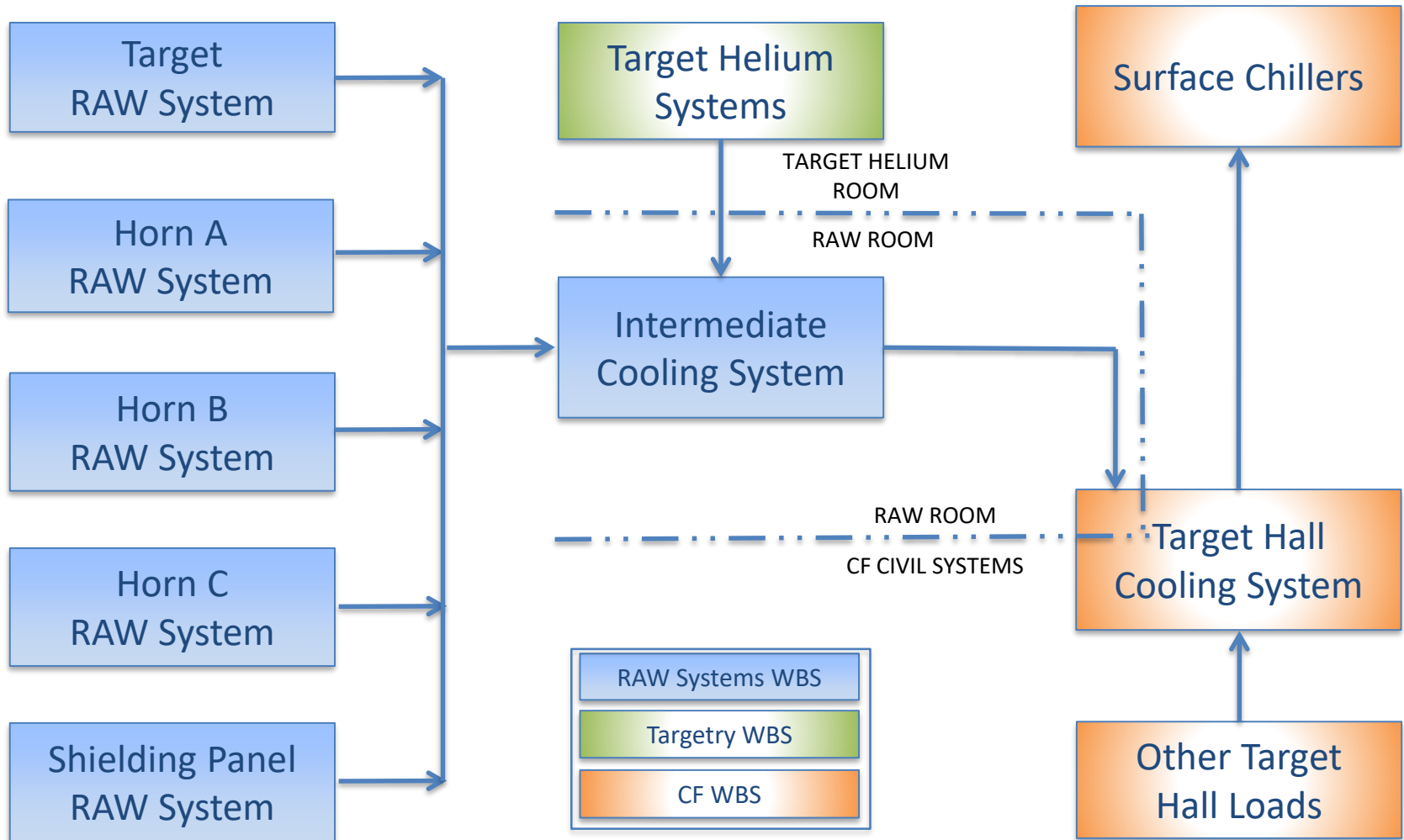
TH RAW Room - General Notes

- NSCF reasonably certain about current layout, changes should be minimal
- On main level of THC, same as high bay
- Accessible only when beam is off
- Large room, 36' x 69' x 22' ceiling
 - Room for a mezzanine if expansion upward is required
- System outline boxes as shown are for area approximation only, not set in stone
- Has containment for each system, containment at the door, and floor drains to contained & controlled sump
- Fill for all systems is by 2" line from PB LCW

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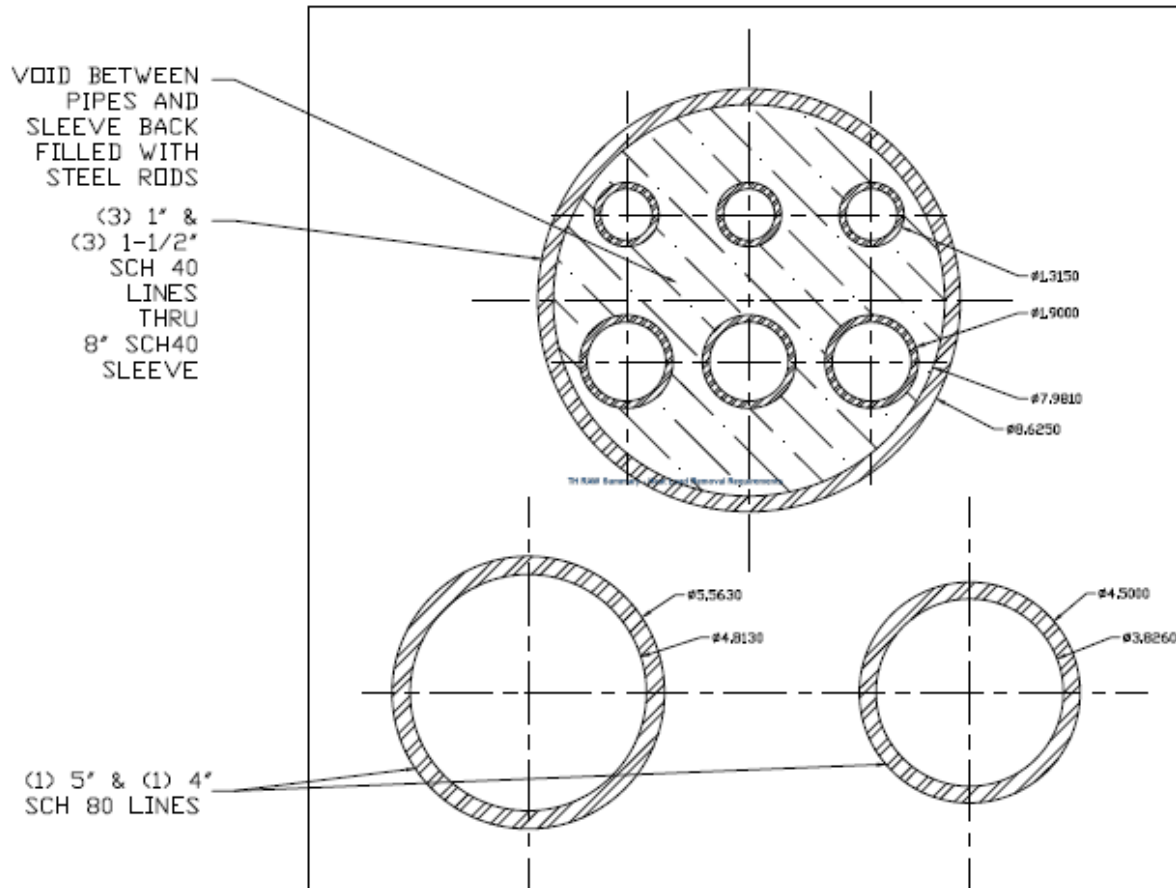
Target Hall RAW Systems Block Diagram

→ Arrow indicates direction of heat removal



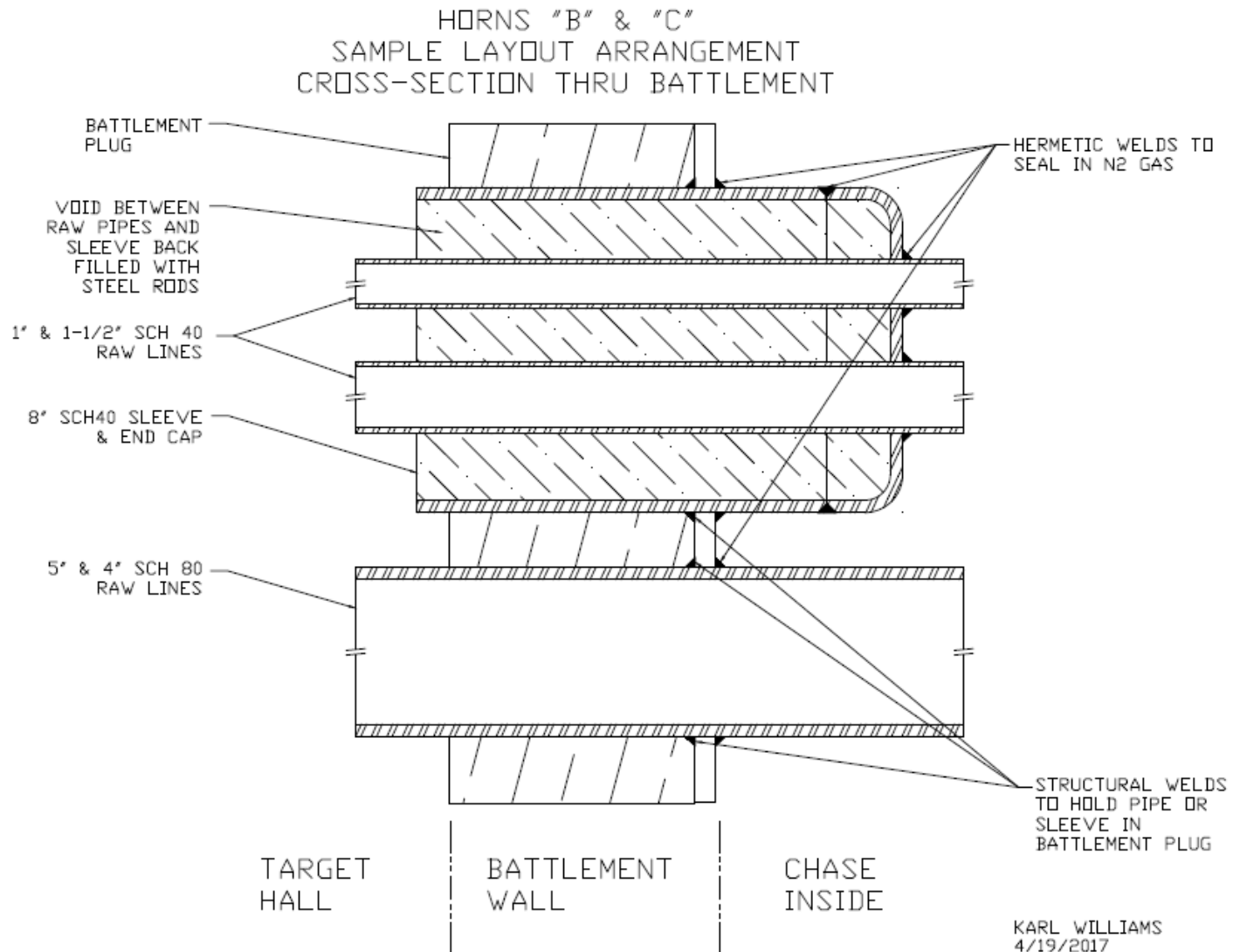
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HORNS "B" & "C"
SAMPLE LAYOUT ARRANGEMENT THRU BATTLEMENT
18" X 18" SQUARE



KARL WILLIAMS
4/17/2017

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Slide Title

- Click to edit Master text styles
 - Second level
 - Third level
 - Fourth level
 - Fifth level

Caption text for image.