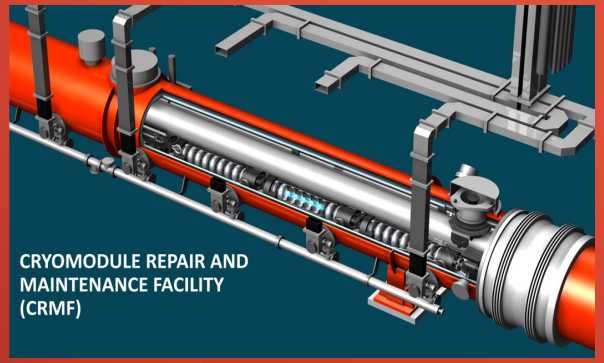
Welcome to CRMF Industry Day



January 30, 2025

9:00AM PT–11:00AM PT

SLAC NATIONAL ACCELERATOR LABORATORY

Stanford University | U.S. DEPARTMENT OF ENERGY

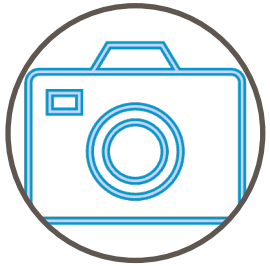
Today's Agenda

PST	Topic	Presenter
9:00 AM	Welcome and Safety Moment (5 mins) • Emergency route • Agenda • Reminders: Restrooms, Cell Phones, etc.	**Paul Abdallah**
9:05 AM	SLAC Mission and Vision (5 mins)	**Vitaly Yakimenko**
9:10AM	CRMF – Project Overview (15 mins) • Mission Needs • Overall Project • Timeline • Success Factors	**Martina Martinello**
9:25M	CRMF Conventional Building Design and Construction: Overview (30 mins) • Scope of Construction • Design Status w/Model Review • Site Planning: Temporary Logistics and Temporary Utilities; Excess Soils • Key Interfaces: Government Furnished Equipment and SLAC Site Preparations • Schedule Highlights and Constraints • Quality Assurance	**Paul Abdallah,** **Al Cook**
9:55M	CRMF Construction Subcontract – Procurement Overview (10 mins) • Rules of engagement related to RFP • Procurement timeline (RFP release, RFI due, SOQ due, Shortlist announced, Contract Award) • Selection Process • Evaluation Factors • T&Cs	**John Azevedo** (Sign-In Sheet)
10:05 AM	Q&A (15mins)	**Paul Abdallah (lead)**
10:20 AM	BREAK (15 mins)	
10:35AM	SLAC Safety and Work Planning Control (15 mins) • Working at SLAC • Work Planning and Control • COHE • Environmental Protection	**Kathleen Ratcliffe**
10:50 AM	Site Visit (60 mins) • PPE: No formal PPE – Closed toe shoes • Visit CRMF Site and Return	**Paul Abdallah** (Transportation & Badging)
12:00 PM	Q&A (15 Mins)	**Paul Abdallah (lead)**

Welcome | Rules of Engagement | Hybrid Participation

Question?

Please save questions for Q&A after Presentations



Camera

Turn off if you are not speaking

Microphone

Mute unless called on

AUDIENCE

Zoom meeting will be recorded to capture all questions

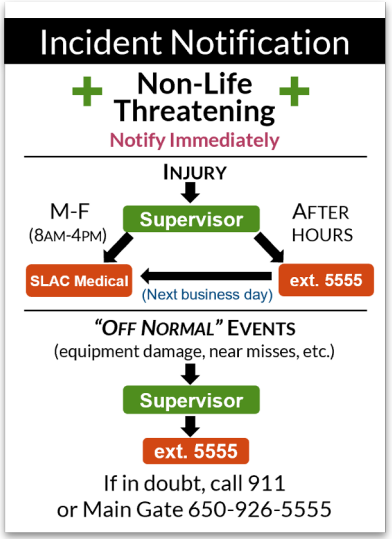
Emergency information

Fire

- Evacuate - Be aware of building exits
- Follow building residents to the assembly area
- Do not leave until you are accounted for, and have been instructed to do so

Earthquake

- Remain in building - duck, cover, and hold position
- When shaking stops, evacuate building via a safe route to the assembly area
- Do not leave until you are accounted for, and have been instructed to do so



Incident Notification

Dial **911** or **9-911** from any SLAC landline:

- Connects you to the dispatch center
- Activates an alarm at SLAC Main Gate

EMERGENCY EVACUATION PLAN

048 - Research Office Building — Ground Floor

FIRE

1. **REPORT THE FIRE**
   - Call 911 on a SLAC phone
   - Use a Fire Alarm Pull Station if available
2. **CONFINE THE FIRE**
   - Close doors to confine the fire
3. **EVACUATE IF SAFE (YOUR JUDGMENT)**
   - Feel upper part of door—if it is hot do not open it
   - Open door slowly if it is not warm
   - Use stairway—never use elevators
4. **GO TO THE EVACUATION ASSEMBLY AREA**
   - Report missing persons to the leader

EARTHQUAKE

1. **DUCK**
2. **FIND SAFE COVER AND HOLD**
   - Keep away from windows
   - Keep away from shelving
   - Keep away from heavy objects
   - Do not use the Fire Alarm Pull Station
3. **EVACUATE IF SAFE (YOUR JUDGMENT)**
   - Use stairway—never use elevators
4. **GO TO THE EVACUATION ASSEMBLY AREA**
   - Report missing persons to the leader

YOU ARE HERE

EXIT

FIRE EXTINGUISHER

AED — **AUTOMATED EXTERNAL DEFIBRILLATOR**

FACP — **FIRE ALARM CONTROL PANEL**

EVACUATION ASSEMBLY AREA

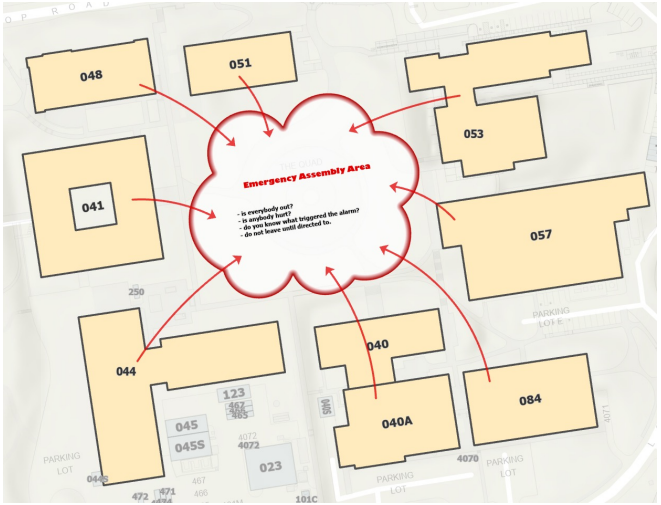
1. **GO TO YOUR EVACUATION ASSEMBLY AREA**
   - The evacuation assembly area for Bldg 048 is located SE of building 048 (ROB) in the grass "Quad" area
   - Report missing and injured persons to the assembly leader

11/20/18
L.Lougee / R.Kerwin / B.Fuss

Emergency Assembly Area

EXIT THE REDWOOD CONFERENCE ROOM

Exit the Redwood conference rooms and make you way out to the patio. Follow the path to the main quad.



GO TO YOUR EVACUATION ASSEMBLE AREA

- The evacuation assembly area for Bldg 048 is located NW of building 048 in the grass "Quad" area
- Report missing and injured persons to the assembly leader

Break Time

We will return at

10:35 AM PT

Cryomodule Repair & Maintenance Facility (CRMF)

SLAC Mission

Vitaly Yakimenko, Deputy Director of Projects and Infrastructure

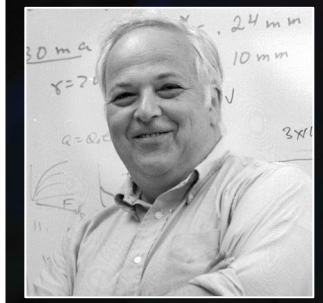
CRMF Industry Day
30 January 2025

SLAC NATIONAL ACCELERATOR LABORATORY

Stanford University | U.S. DEPARTMENT OF ENERGY

Research at SLAC has led to and enabled fundamental discoveries since the laboratory's founding in 1962

A History of Discovery and The Age of Colliders

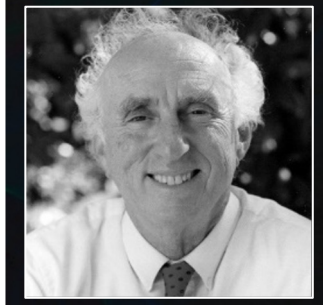


Burton Richter, 1976 Nobel Prize in Physics (joint) for discovery of the J/psi subatomic particle

Positron-Electron Project (**PEP**), 1980-1990

Richard Taylor, 1990 Nobel Prize in Physics (joint) for demonstrating the existence of quarks

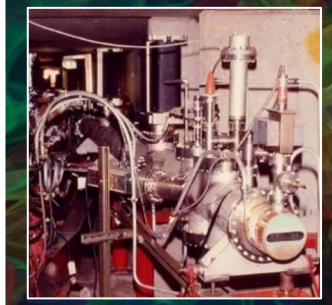
Stanford Linear Collider (**SLC**), 1987-1997



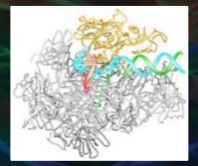
Martin Perl, 1995 Nobel Prize in Physics for discovery of the tau lepton elementary particle

PEP-II, 1998-2008

Synchrotron and X-ray Research



Stanford Synchrotron Radiation Project (now the Stanford Synchrotron Radiation Lightsource, SSRL), 1974



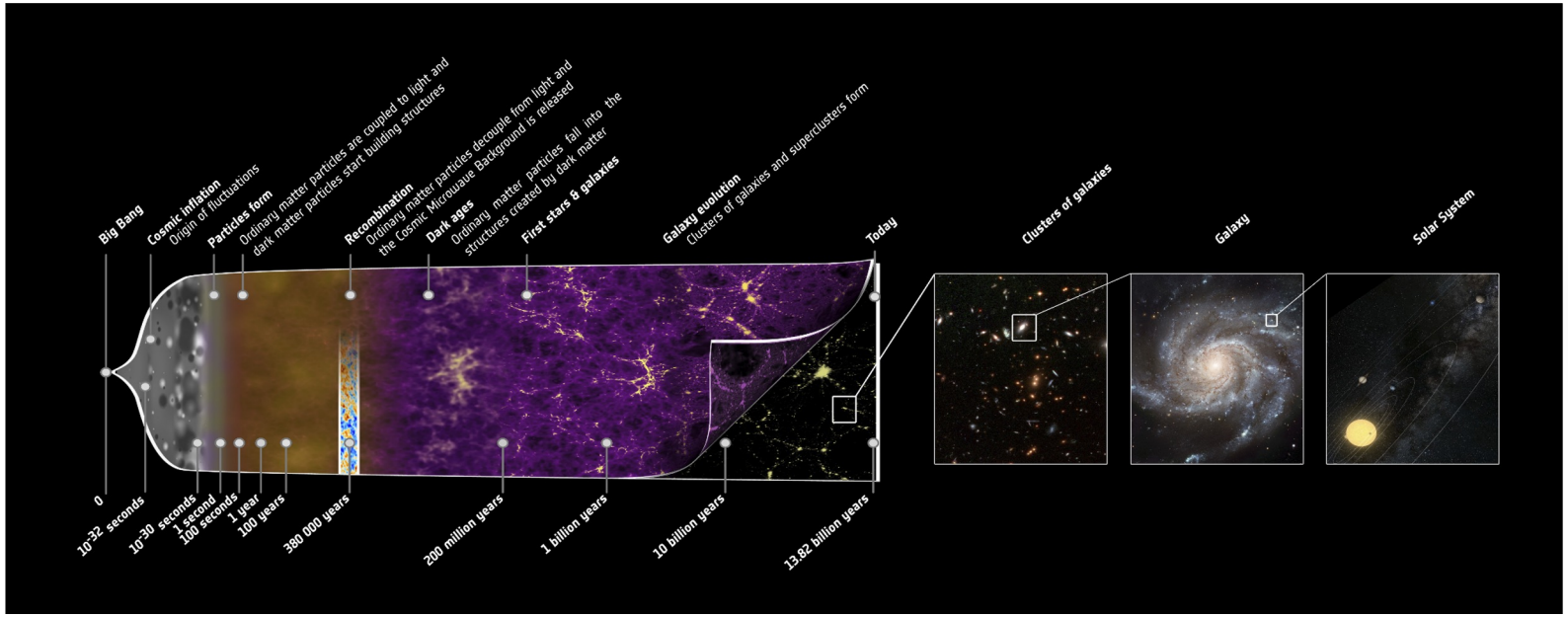
3D atomic images of RNA polymerase II

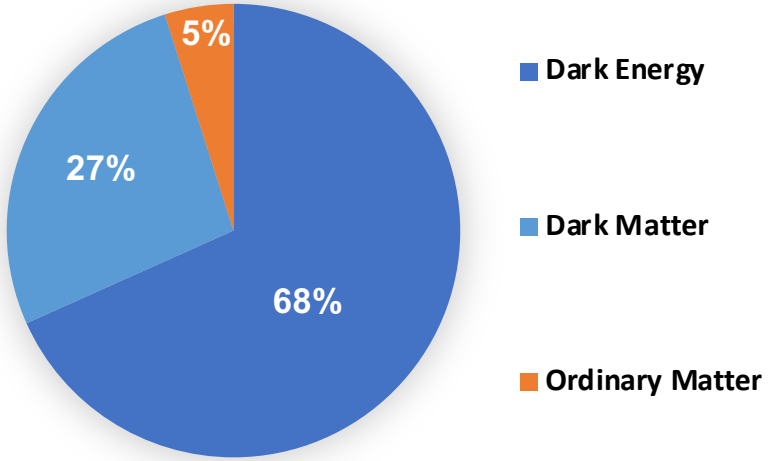
Roger Kornberg, 2006 Nobel Prize in Chemistry for determining how DNA's genetic blueprint is read & used to direct the process of protein manufacturing

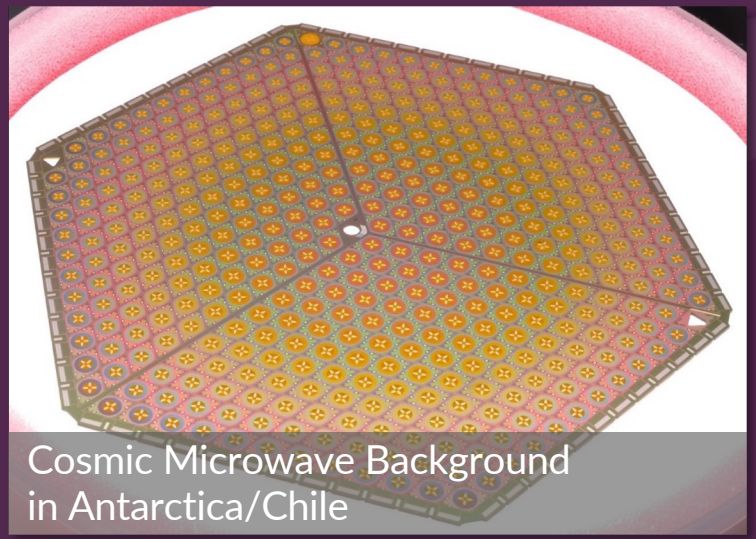
Brian Kobilka (Stanford), 2012 Nobel Prize in Chemistry for work on G-protein-coupled receptors

Frances Arnold (Caltech), 2018 Nobel Prize in Chemistry for inventing directed enzyme evolution

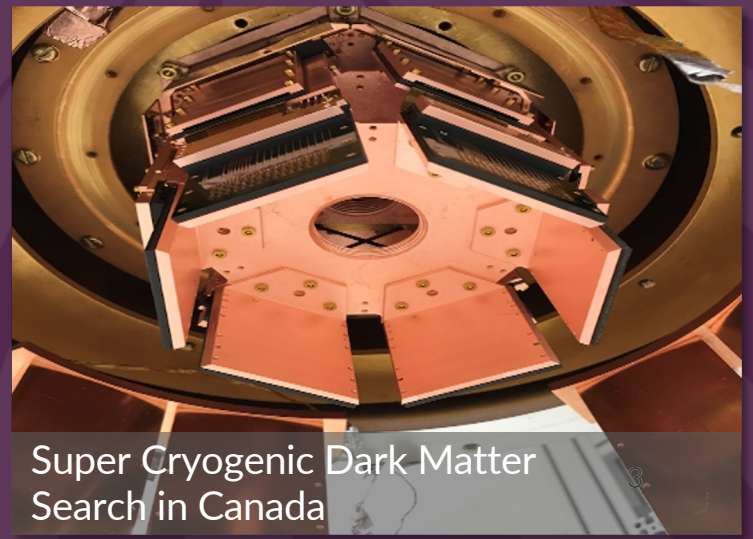
SLAC also designs, constructs, and operates large-scale instruments to explore beyond the known universe



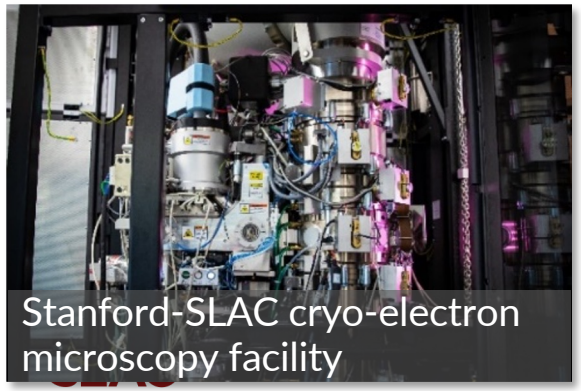


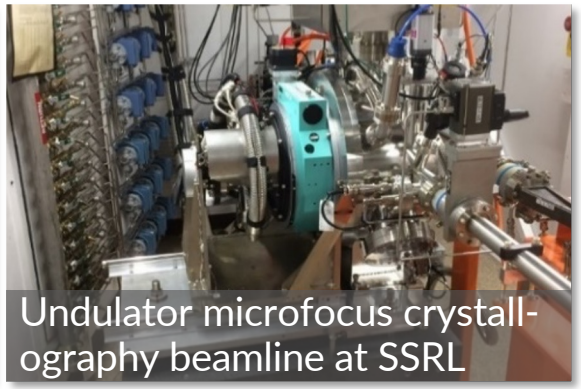

Cosmic Microwave Background in Antarctica/Chile


Legacy Survey of Space and Time Camera for the Rubin Observatory in Chile


Super Cryogenic Dark Matter Search in Canada

Significant investment from Stanford continues to transform the lab, providing new infrastructure and capabilities


Stanford-SLAC cryo-electron microscopy facility


Undulator microfocus crystallography beamline at SSRL

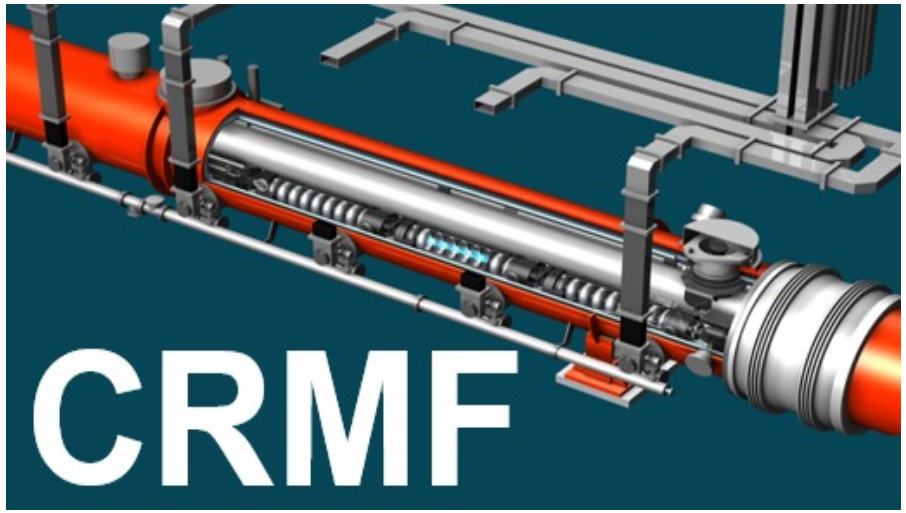

Stanford Research Computing Facility

Stanford Guest House

U.S. DEPARTMENT OF ENERGY

Stanford University

SLAC NATIONAL ACCELERATOR LABORATORY



CRMF Overview

Industry day

Martina Martinello | Project Director

January 30, 2025

Outline

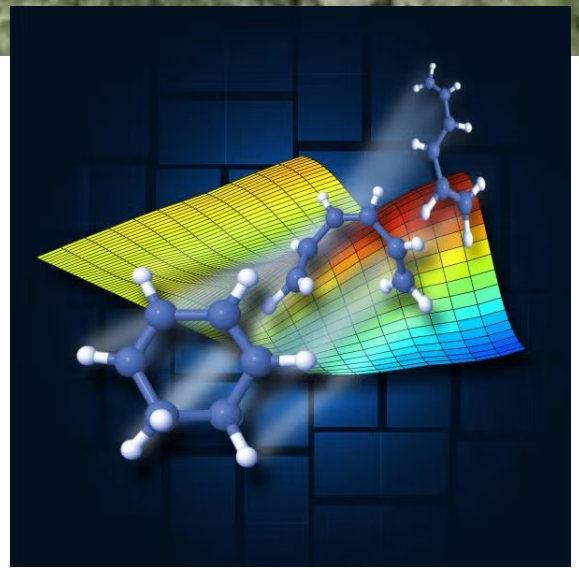
- Mission of CRMF
- Project scope & facility workflow
- Schedule
- Success Factors

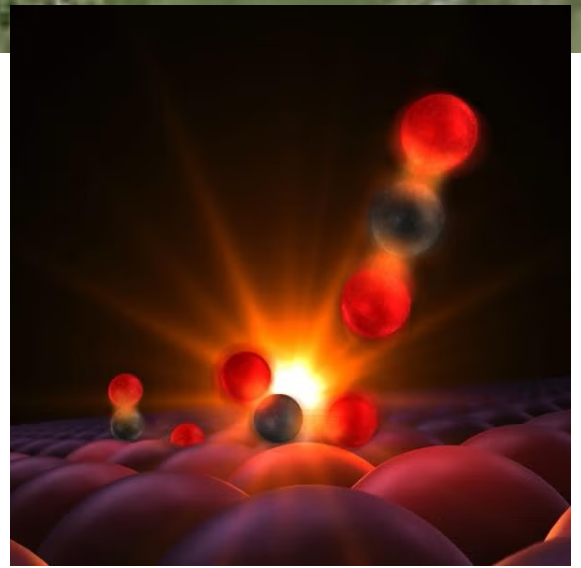
Outline

- **Mission of CRMF**
- Project scope & facility workflow
- Schedule
- Success Factors

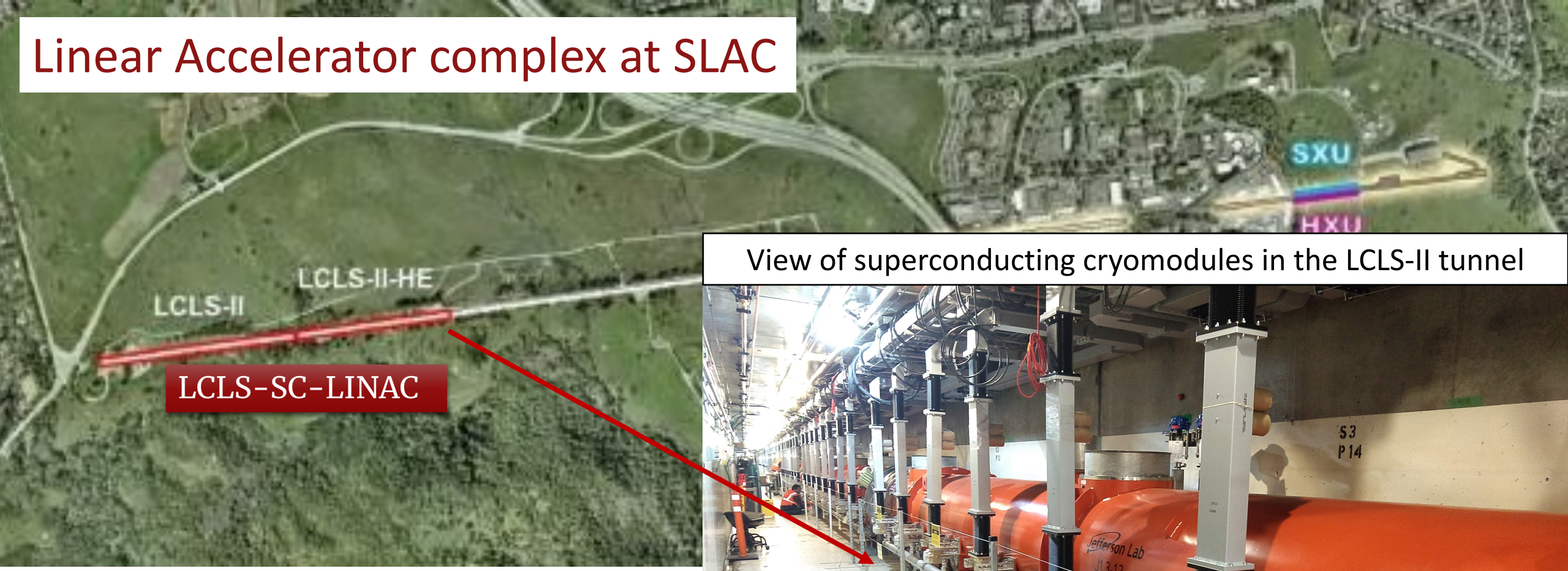
Linear Accelerator complex at SLAC

LCLS takes X-ray snapshots of atoms and molecules at work, providing atomic resolution detail on ultrafast timescales to reveal fundamental processes in materials, technology and living things.





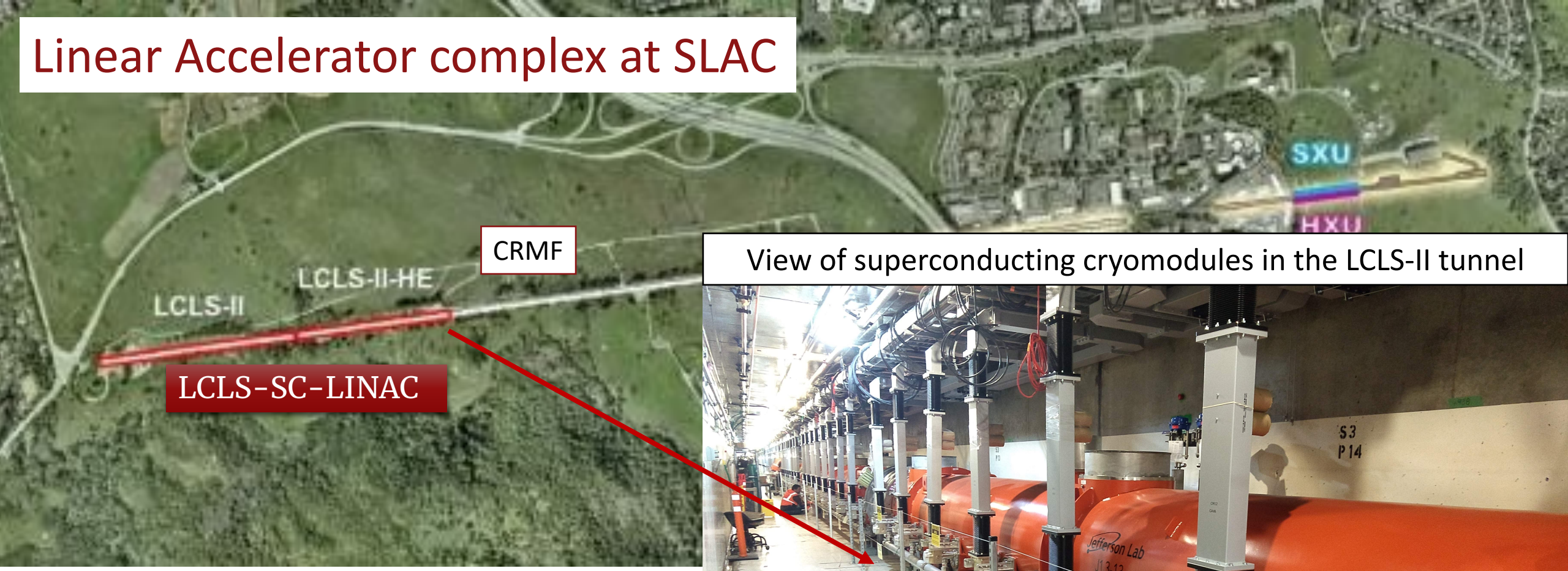
Linear Accelerator complex at SLAC



View of superconducting cryomodules in the LCLS-II tunnel

Superconducting Cryomodules are the building blocks of the LCLS-SC-LINAC

Linear Accelerator complex at SLAC



View of superconducting cryomodules in the LCLS-II tunnel

Superconducting Cryomodules are the building blocks of the LCLS-SC-LINAC

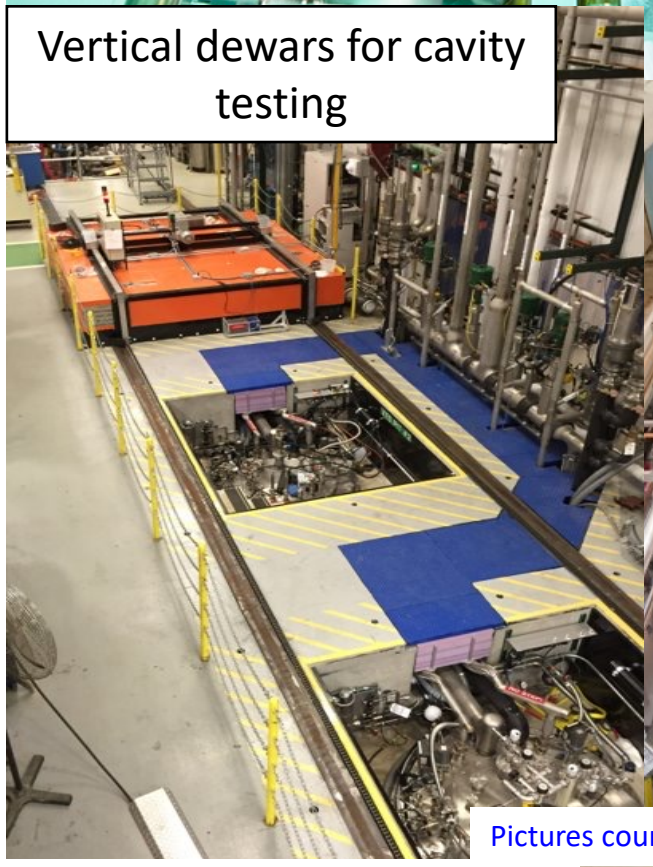
Mission of CRMF

CRMF: Cryomodule Repair and Maintenance Facility

- ~ 2-3 CMs/year expected to need to be repaired based on current data
- CRMF is needed to repair, test and maintain superconducting cryomodules at SLAC

CRMF needed at SLAC to ensure the performances of cryomodules are preserved over the lifetime of the accelerator

Vertical dewars for cavity testing



Cryomodule test cave

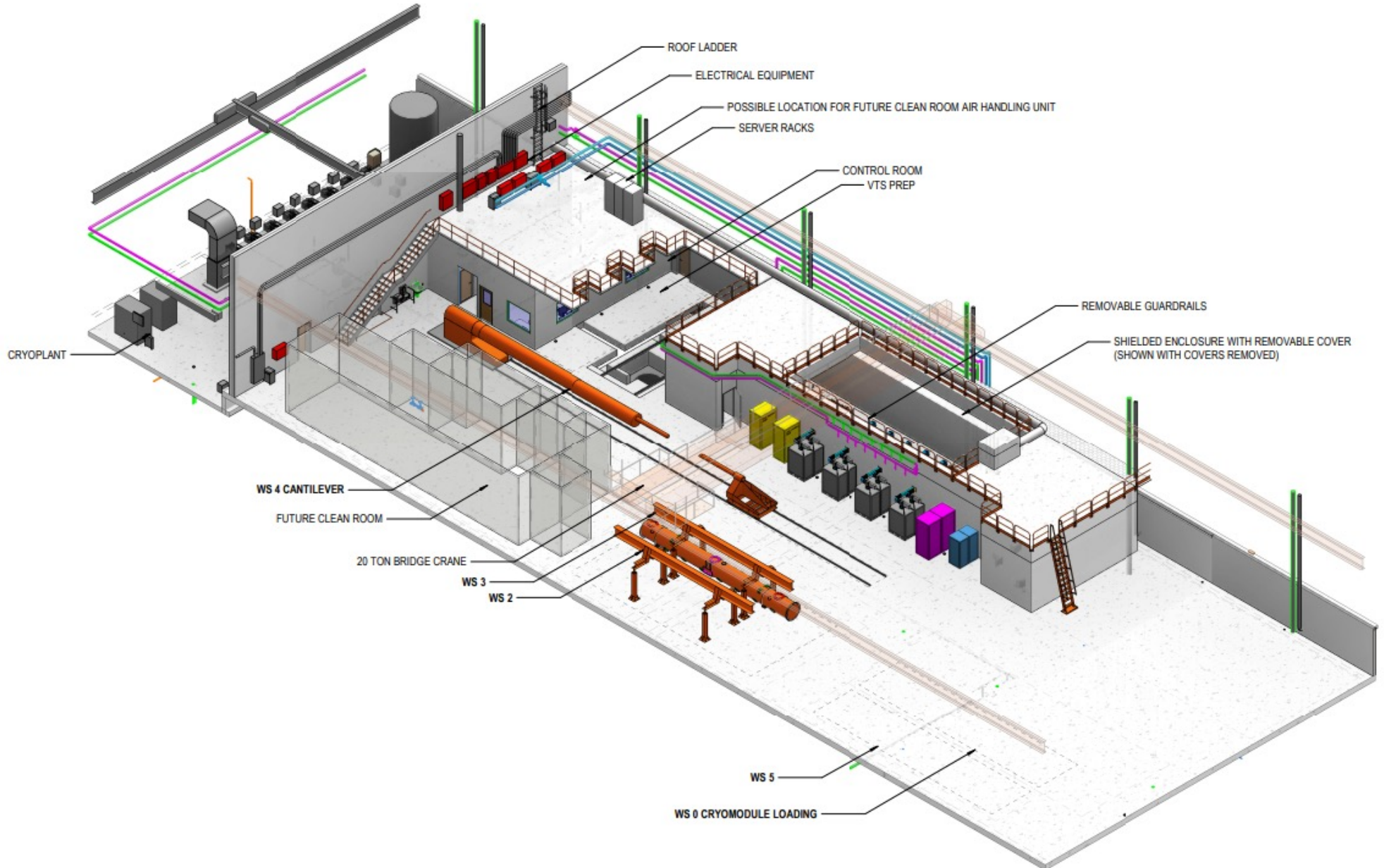
Pictures courtesy of FNAL

Outline

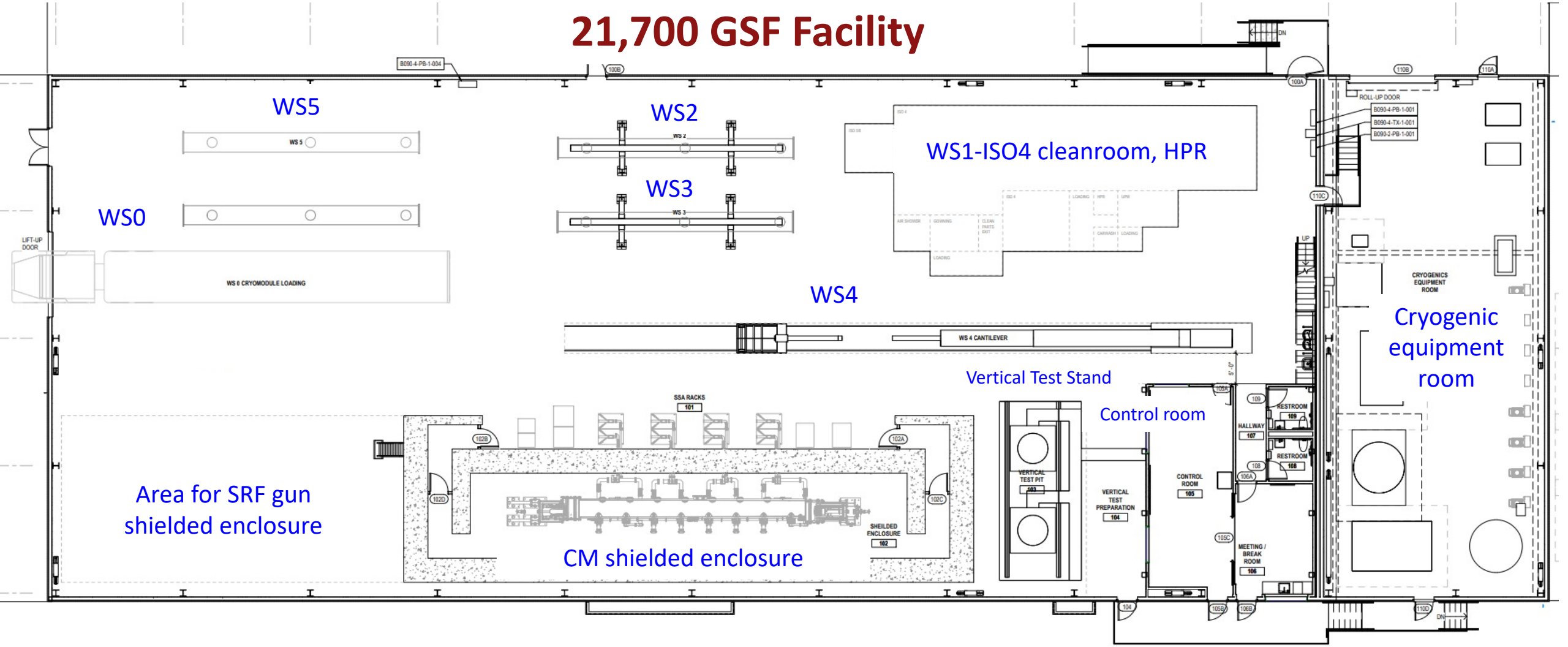
- Mission of CRMF
- **Project scope**
- Schedule
- Success Factors

Project Scope: New 21,000 GSF Building at SLAC

Isometric view of the facility (90% Detailed design)

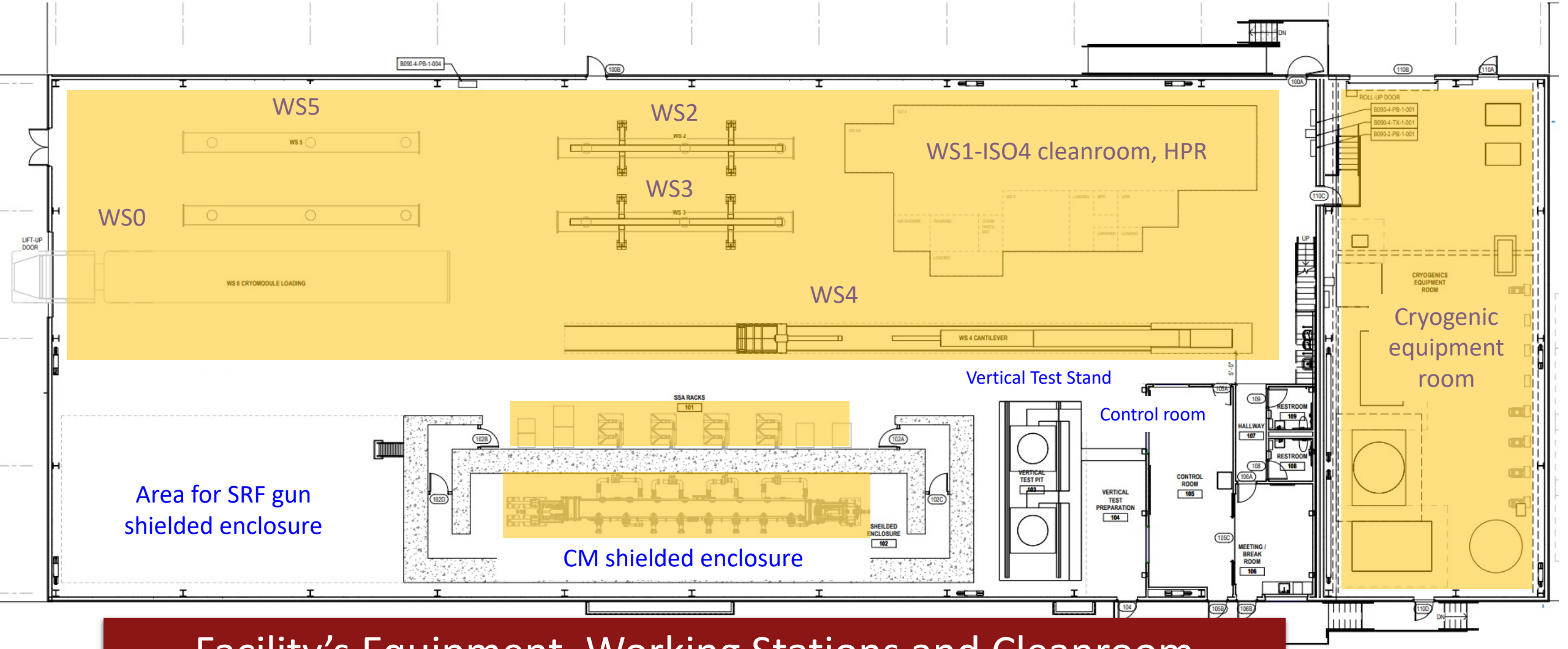


Project Scope: Buildouts for CM Repair and Testing



Optimized layout for complete set of SRF facilities for X-FELs under one roof

Project Scope: Buildouts for CM Repair and Testing

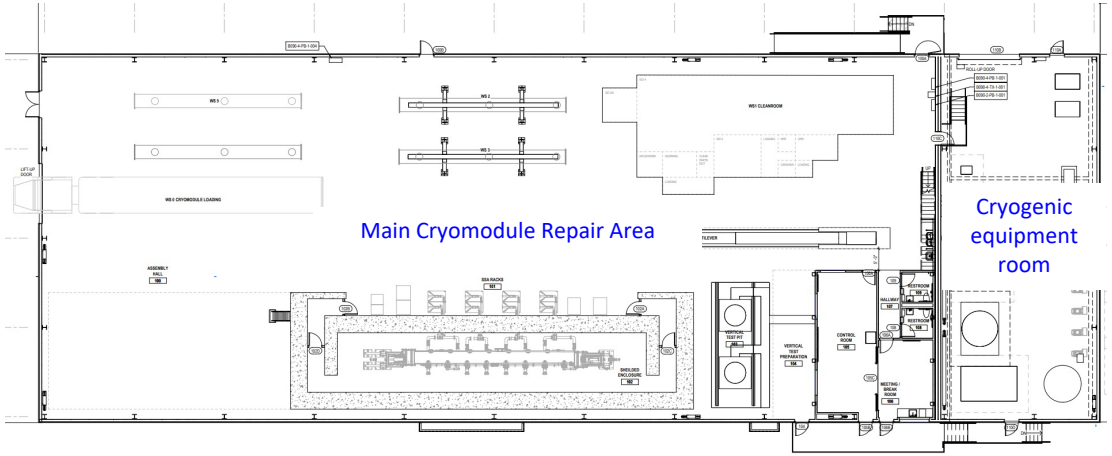


Facility's Equipment, Working Stations and Cleanroom Construction are not part of the GC Contract

GC Contract Scope of Work

Conventional Building and Site Infrastructure Construction Project

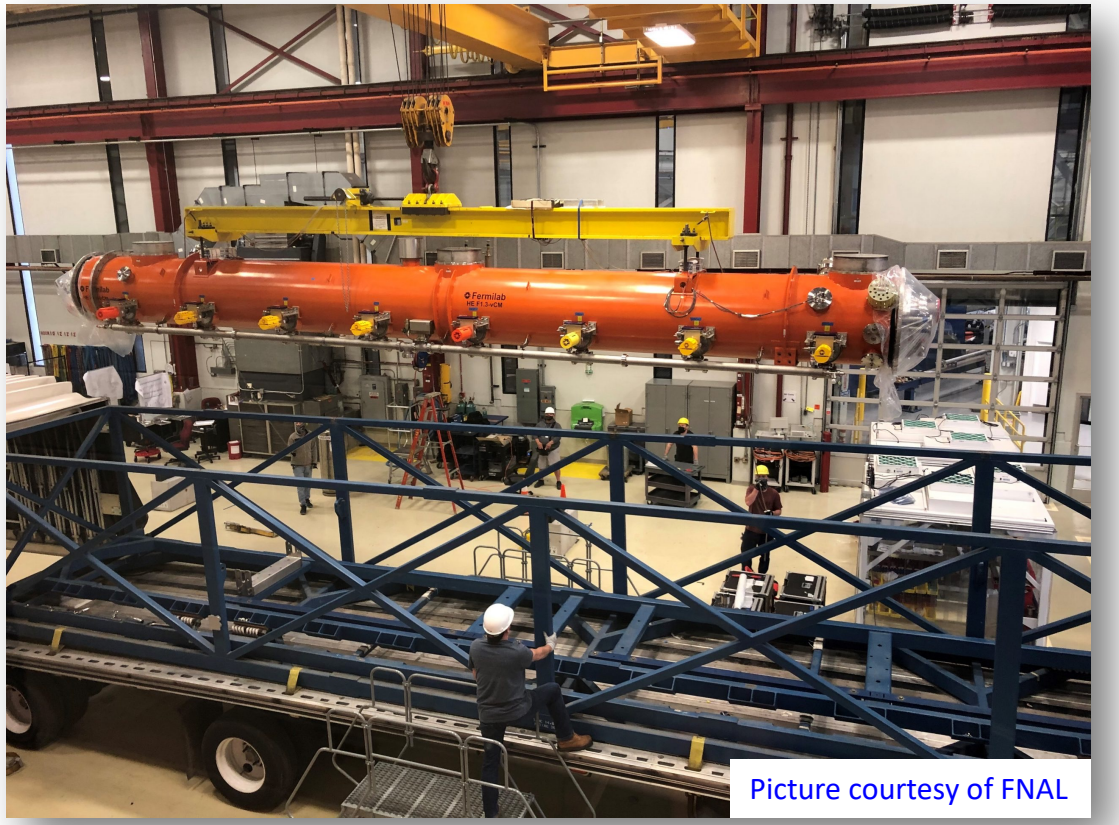
- 21,000 SF building divided in main cryomodule repair area and cryogenic equipment area through isolation walls



GC Contract Scope of Work

Conventional Building and Site Infrastructure Construction Project

- 21,000 SF building divided in main cryomodule repair area and cryogenic equipment area through isolation walls
- Overhead bridge cranes: 20-ton in main repair area and 3-ton in cryogenic equipment area

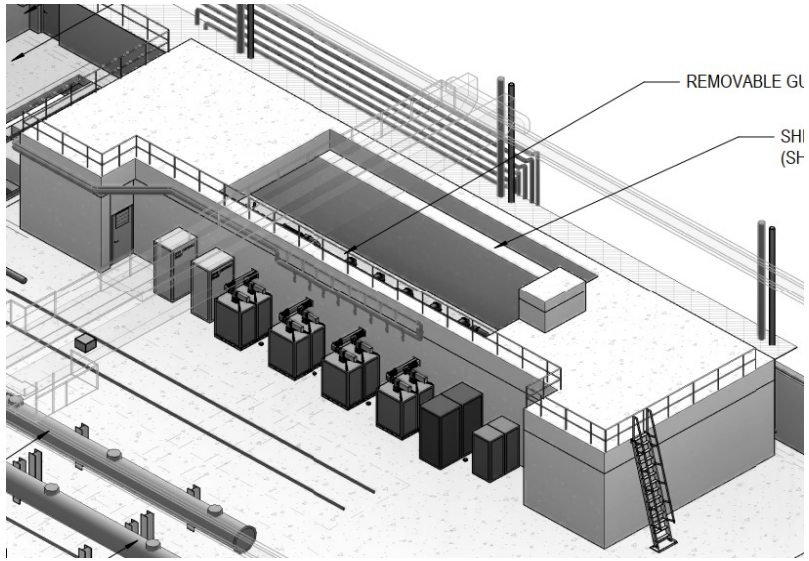


Picture courtesy of FNAL

GC Contract Scope of Work

Conventional Building and Site Infrastructure Construction Project

- 21,000 SF building divided in main cryomodule repair area and cryogenic equipment area through isolation walls
- Overhead bridge cranes: 20-ton in main repair area and 3-ton in cryogenic equipment area
- Concrete shielded enclosure for cryomodule testing, with 4 ft. thick poured-in-place concrete walls, 3ft thick concrete removeable roof blocks, and penetrations for a cryogenic feed line and waveguides



Picture courtesy of FNAL

GC Contract Scope of Work

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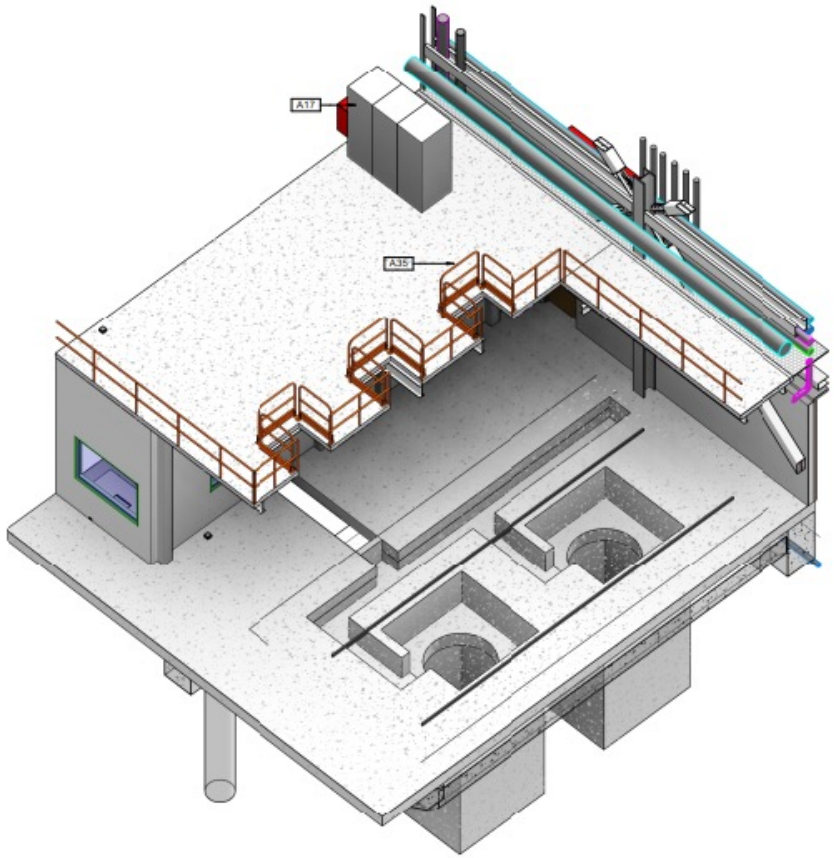
- Two 16’ deep, 60" diameter shafts will be pre-cast adjacent to the shielded enclosure



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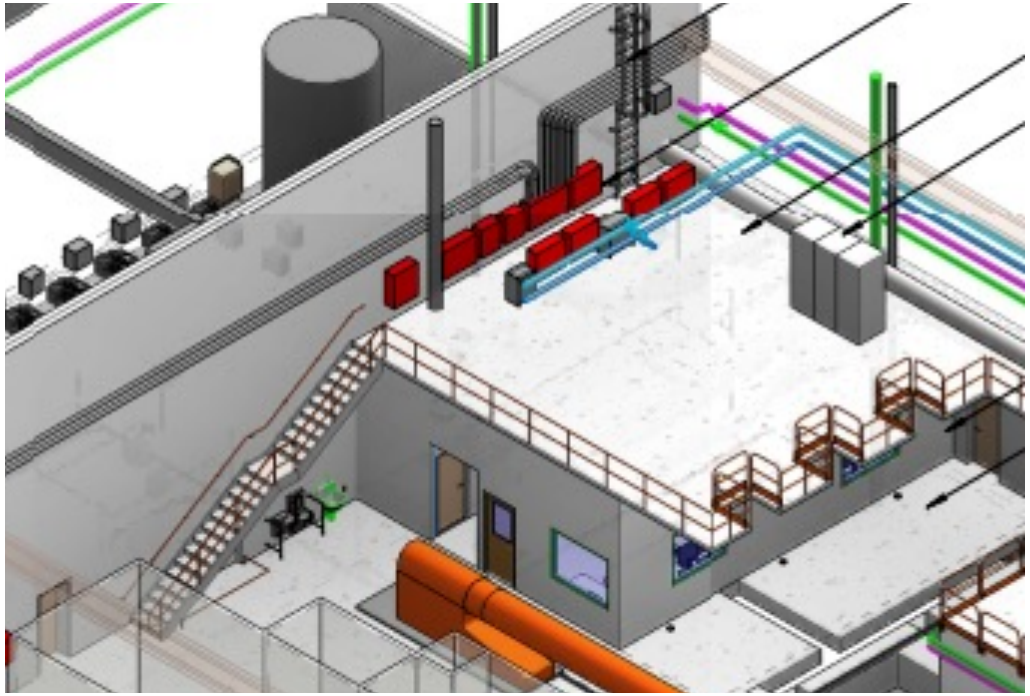
- Equipment platform, above the control room, supports key electrical and mechanical equipment



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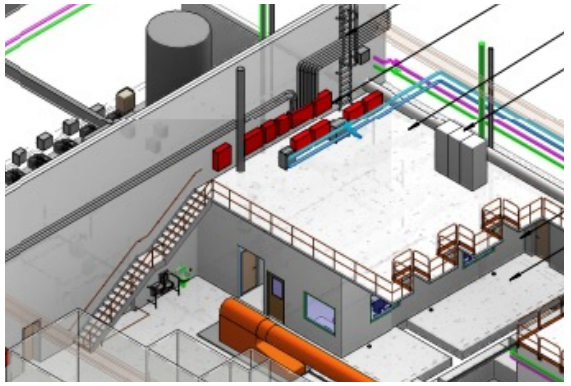
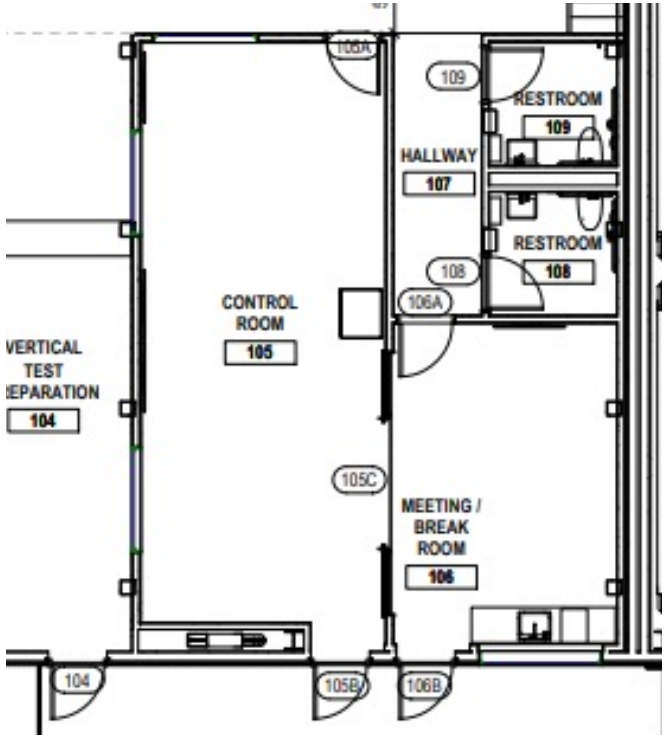
- Two 16’ deep, 60" diameter shafts will be pre-cast adjacent to the shielded enclosure
- Equipment platform, above the control room, supports key electrical and mechanical equipment
- Control room area, meeting/break room and restrooms





GC Contract Scope of Work

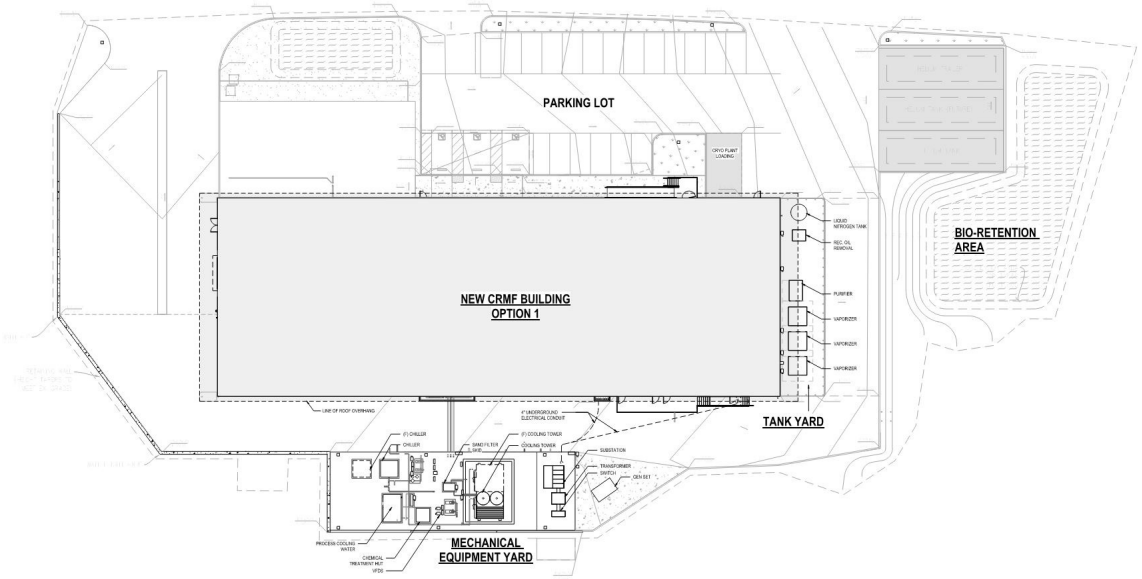
Conventional Building and Site Infrastructure Construction Project

- Outdoor concrete pad areas to accommodate cryogenic system Helium storage tanks and other cryogenic equipment

GC Contract Scope of Work

Conventional Building and Site Infrastructure Construction Project

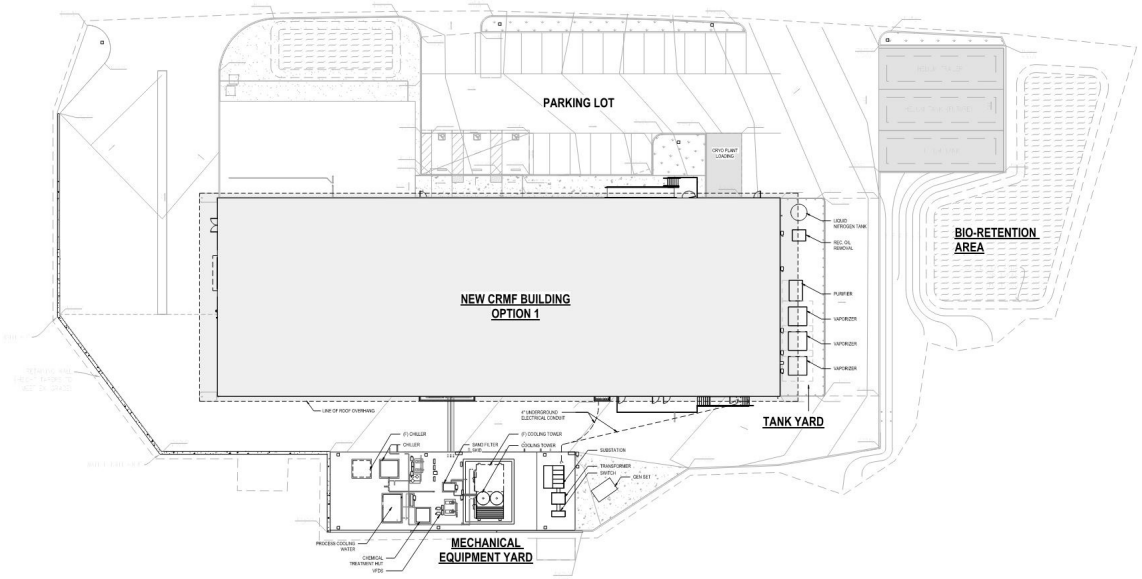
- Outdoor concrete pad areas to accommodate cryogenic system Helium storage tanks and other cryogenic equipment
- Exterior Central Utility Plant (CUP)



GC Contract Scope of Work

Conventional Building and Site Infrastructure Construction Project

- Outdoor concrete pad areas to accommodate cryogenic system Helium storage tanks and other cryogenic equipment
- Exterior Central Utility Plant (CUP)
- Exterior improvements (asphalt, parking, etc)



Outline

- Mission of CRMF
- Project scope
- **Schedule**
- Success Factors

Timeline Overview

Activity Name	Finish Date
DRAFT RFP	8-Nov-24
Vendor Outreach Day	30-Jan-25
A/E Detailed Design Completed	Apr-25
RFP Documents Prep and Approval	Jun-25
Release RFP	Jun-25
General Contractor Proposal Effort	Aug-25
Director's Review - CD-2/3	Aug-25
IPR Review - CD-2/3	Sep-25
Award Documents Prep and Approval	Nov-25
AWARD	Nov-25

Project's reviews needed for construction approval

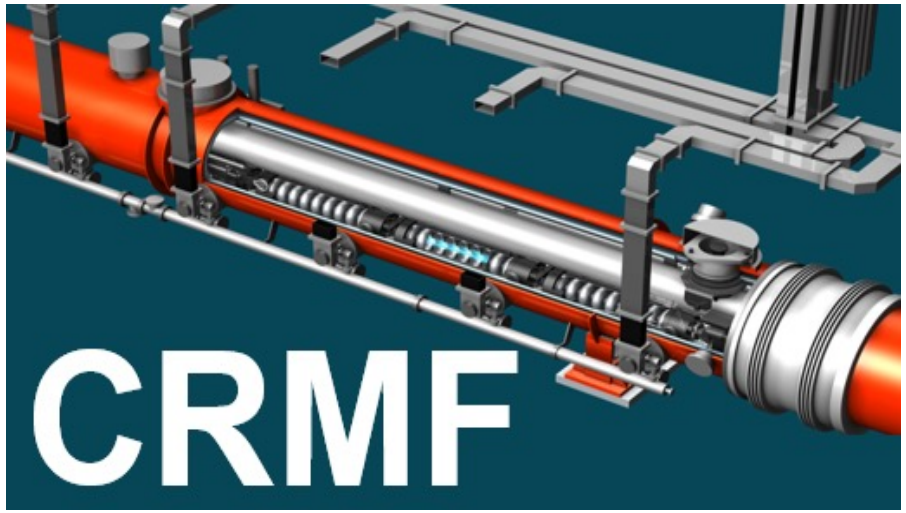
Outline

- Mission of CRMF
- Project scope
- Schedule
- **Success Factors**

Success Factors

- **Safety**
  - Safety is the priority at SLAC – only safe work is acceptable
  - Safety considerations must be part of work planning and schedule development
  - Safety cannot be compromised to meet schedule
- **Schedule**
  - Complete construction activities as per the performance period defined in the RFP, in the most expedience manner and in compliance with SLAC safety requirements
  - Schedule should be realistic and take into account safety considerations
- **Teamwork**
  - Construction activities should minimize impact to on-going SLAC operations and other construction projects
  - Honest and transparent communication among team members
  - Achieving success together!


Thank you



Conventional Infrastructure: Building Design and Construction

CRMF Industry Day

Paul Abdallah | Conventional Infrastructure System Manager

January 30, 2025

Outline

- Scope of Conventional Infrastructure
- Conventional Building – SLAC Site Reference
- Design Development: Details and Status
- Assumptions and Off-Project Dependencies
- Construction Planning
- Look Ahead Schedule
- Quality Assurance

Conventional Infrastructure: Scope of Work

Design and Construction of the Cryomodule Repair and Testing Facility: Design-Bid-Build

- Technical Requirements: Cryomodule Handling, Assembly and Testing
- Meets DOE and SLAC - BIO (CA) building standards:
  - Meet Accessibility and High-Performance Sustainability (HPSB)
- Maintains flexibility for future expansion:
  - Site prepared for 25K GSF Building (3700 GSF addition)
  - Utility System sized to full build-out and support future Tech Equip

EXTERIOR DESIGN

Rendering 21,743 GSF – Southwest View

Collaboration with A/E: HDR: (Greg Hadsell; Scott Brady)

- Partnership with HDR from Conceptual Design through Detailed Design
- Completed optimization studies for Facility Size and Equipment Layout
- Architecture and Engineering: Sandis: Civil; R+C: Geotech/Structural; IPS: M.E.P.
  - Prepare Issue for Bid (IFB) Construction Request For Proposal

CRMF Site Location @ SLAC Campus

Scope: 21,743 GSF Conventional Building - Key Design Aspects

Rendering Northeast View

Rendering: Southeast View

- Site Development - Utilities, Access, Foundation:
  - Green Field Building Site
  - Central Utility Plant (CUP): M.E.P. Equipment and Utilities designed to support future expansion
  - Perimeter Roadway and Entry access for Cryomodule (CM) delivery; and support M&O
  - Geotech Study - Foundation: Elevated concrete floor supported from drilled piers
  - Structural Steel – Braced Frame structure

- High Performance Sustainable Design
  - Insulated metal exterior wall panel system
  - Insulated Membrane Roof – Supports future PV Panels

CRMF Building Sizes: Design Options

Rendering ~21K GSF Building: Basis of Construction Proposal

- Optimal Size: Supports full operations
- Allows space for Future Gun Shield Enclosure
- Basis of Final RFP

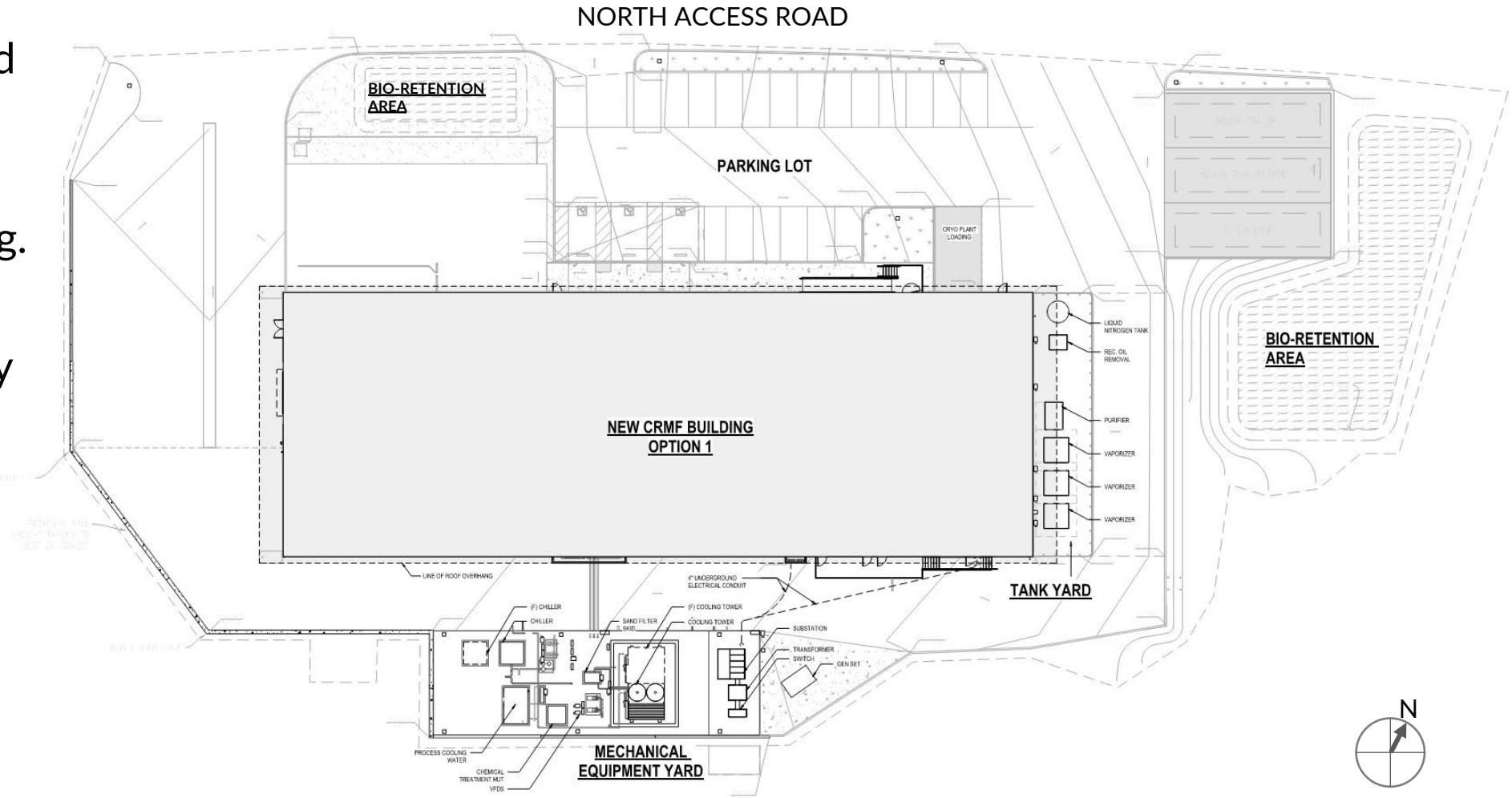
Rendering ~18,068 GSF Building:

- Option was included in draft RFP
- Not included in final RFP

25K GSF Design – Potential Future Expansion

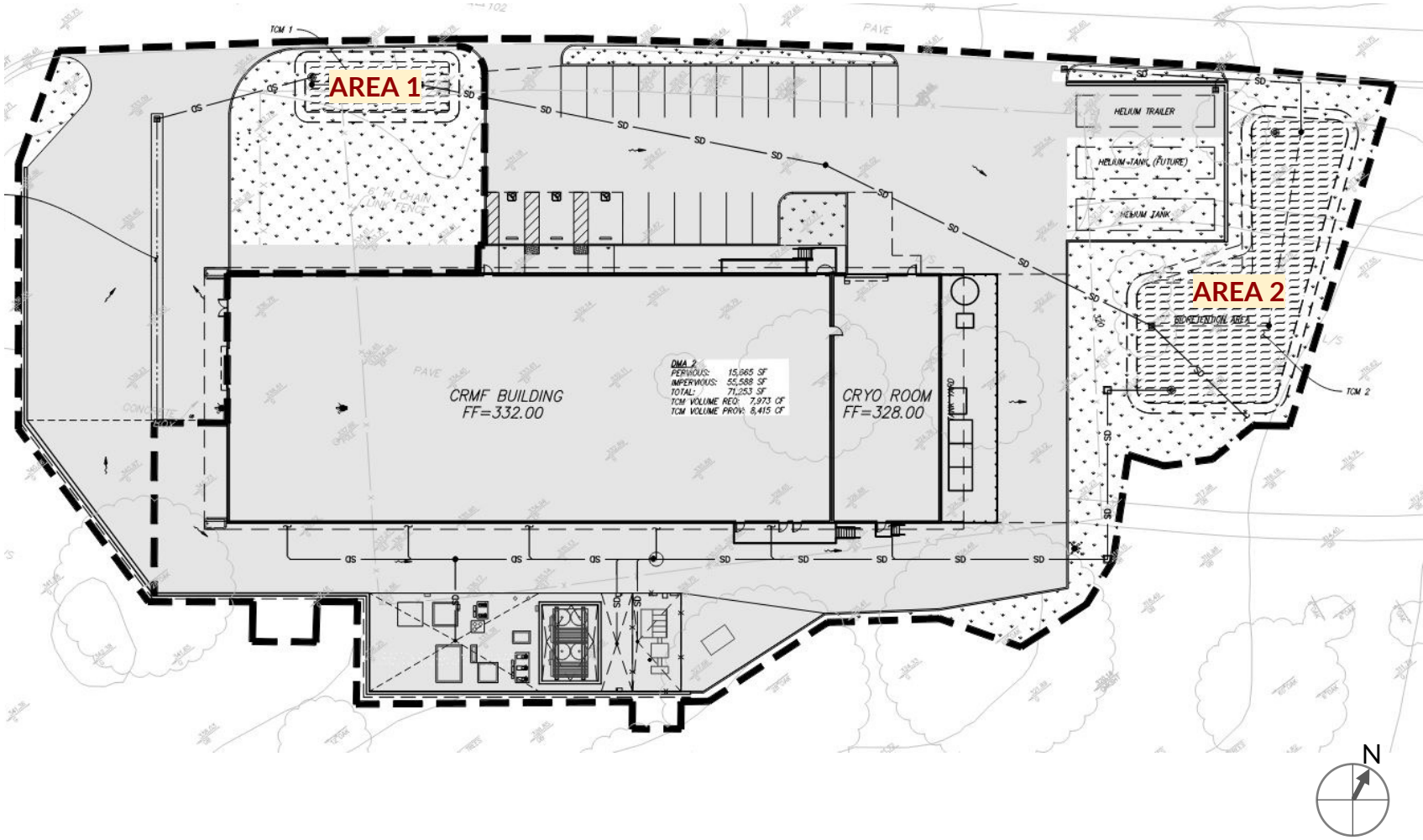
Requirements incorporated into Site Design

- Central Utility Plant (CUP): mechanical and electrical equipment yard.
- Bio-retention planning.
- Ensure perimeter site access for: Emergency Vehicle, Cryomodule, Maintenance, and delivery trucks.



Civil - Stormwater Management

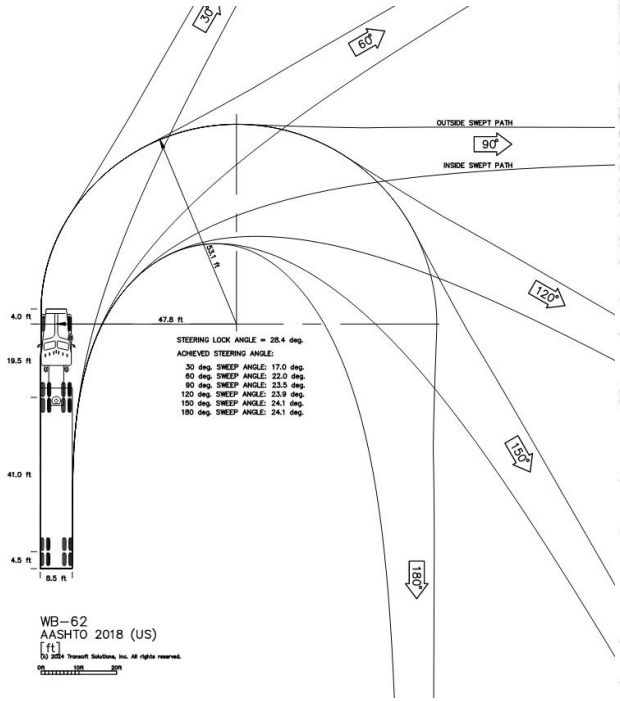
- Stormwater treatment design has been updated.
- Treatment Area 1: at the Northwest corner, 874 sqft
- Treatment Area 2: to the East, 3,782 sqft
- Complies with EISA #438

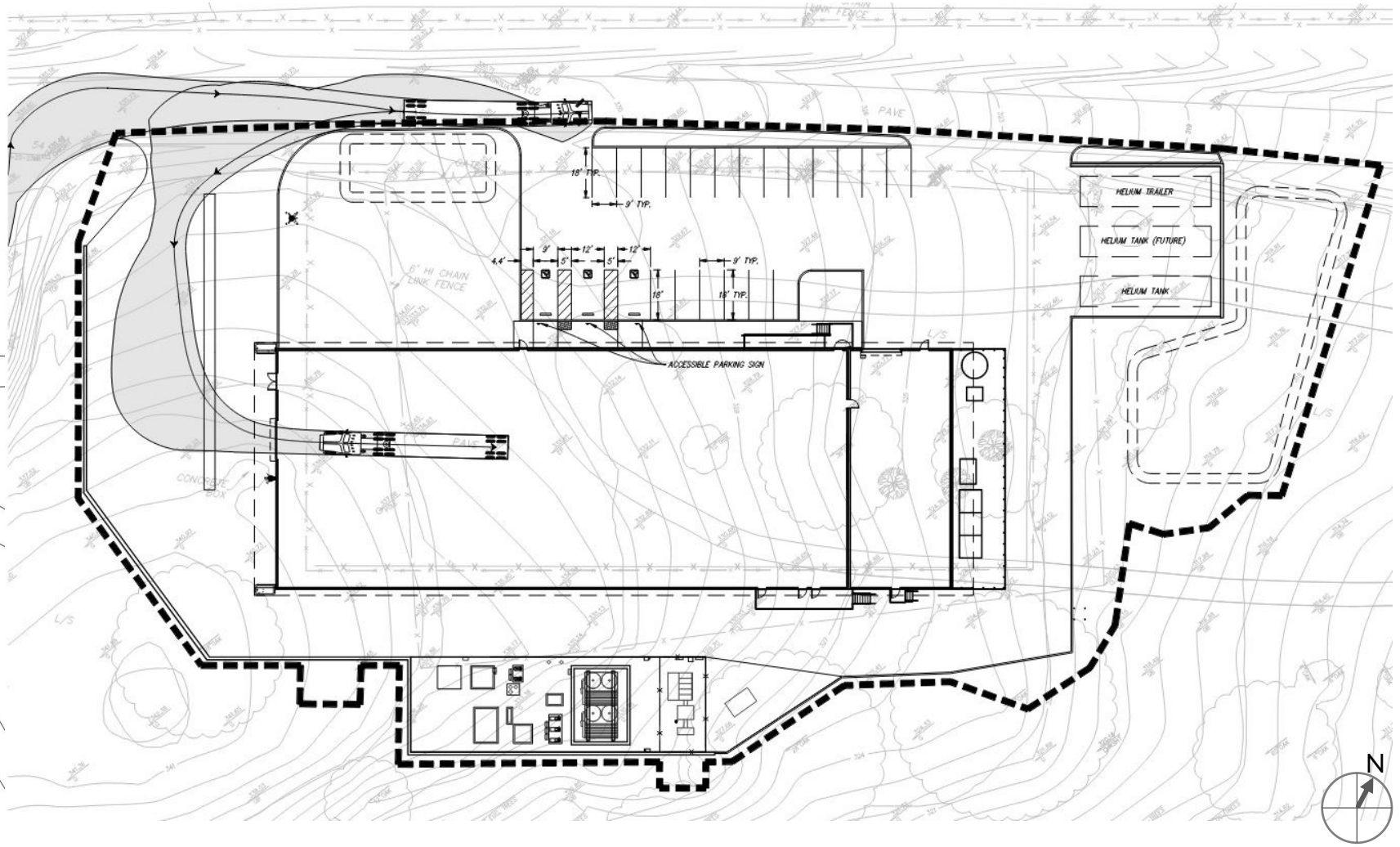


Stormwater Management Plan Revised to Reflect New Site Design

Civil - Cryomodule Delivery

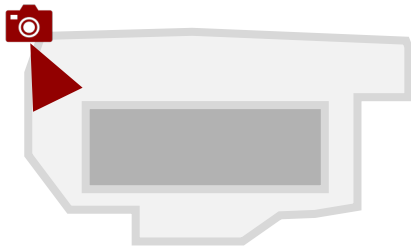
- Site plan shows cryomodule delivery truck path, with WB-62 truck.





Site Design – Entry for Cryomodule and Materials Deliveries

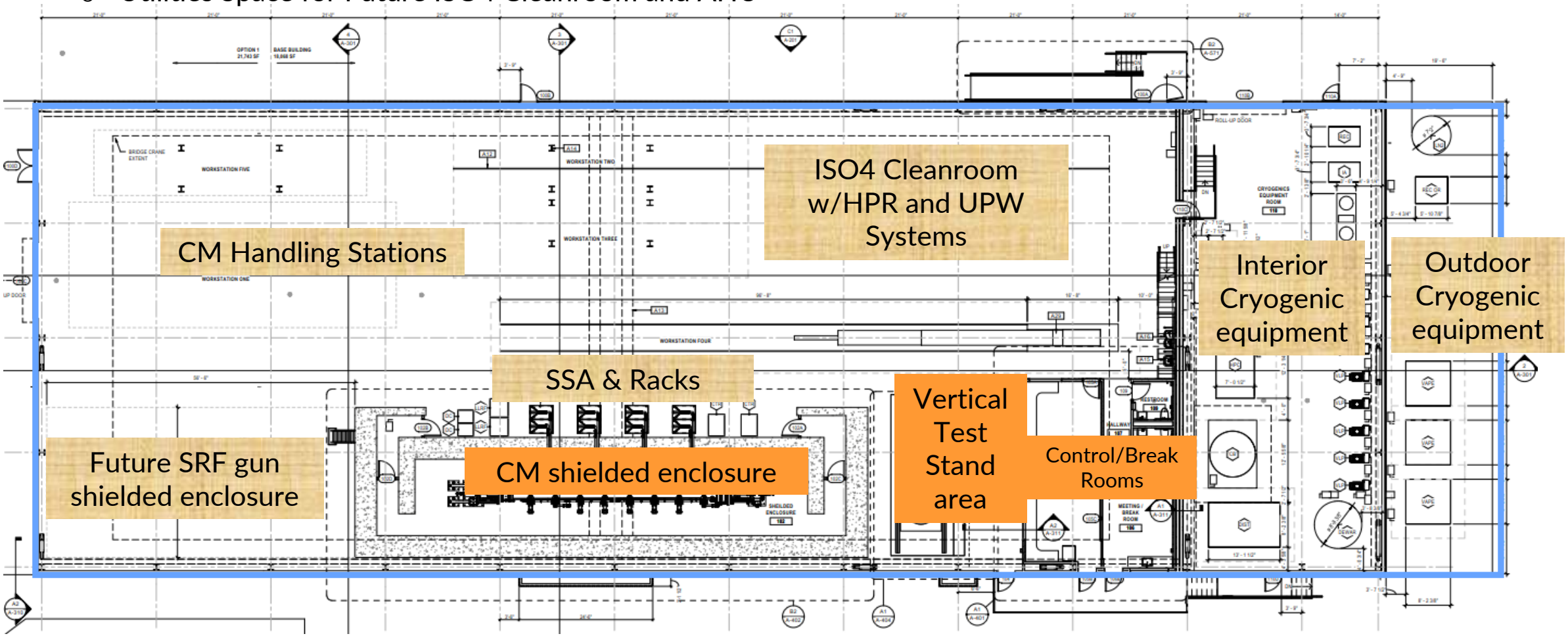
- West access road designed for Cryomodule trucks
- Large roll-up entry door accommodates full truck access into building and large equipment/materials



Rendering View from Northwest

Conventional Building: Supports all Technical Testing

- Building Interior - Supports CM Handling and Testing
  - Shielded Concrete Enclosure; Accommodates CM workstations; Control Room; and VTS Infrastructure
  - Utilities Space for Future ISO4 Cleanroom and AHU

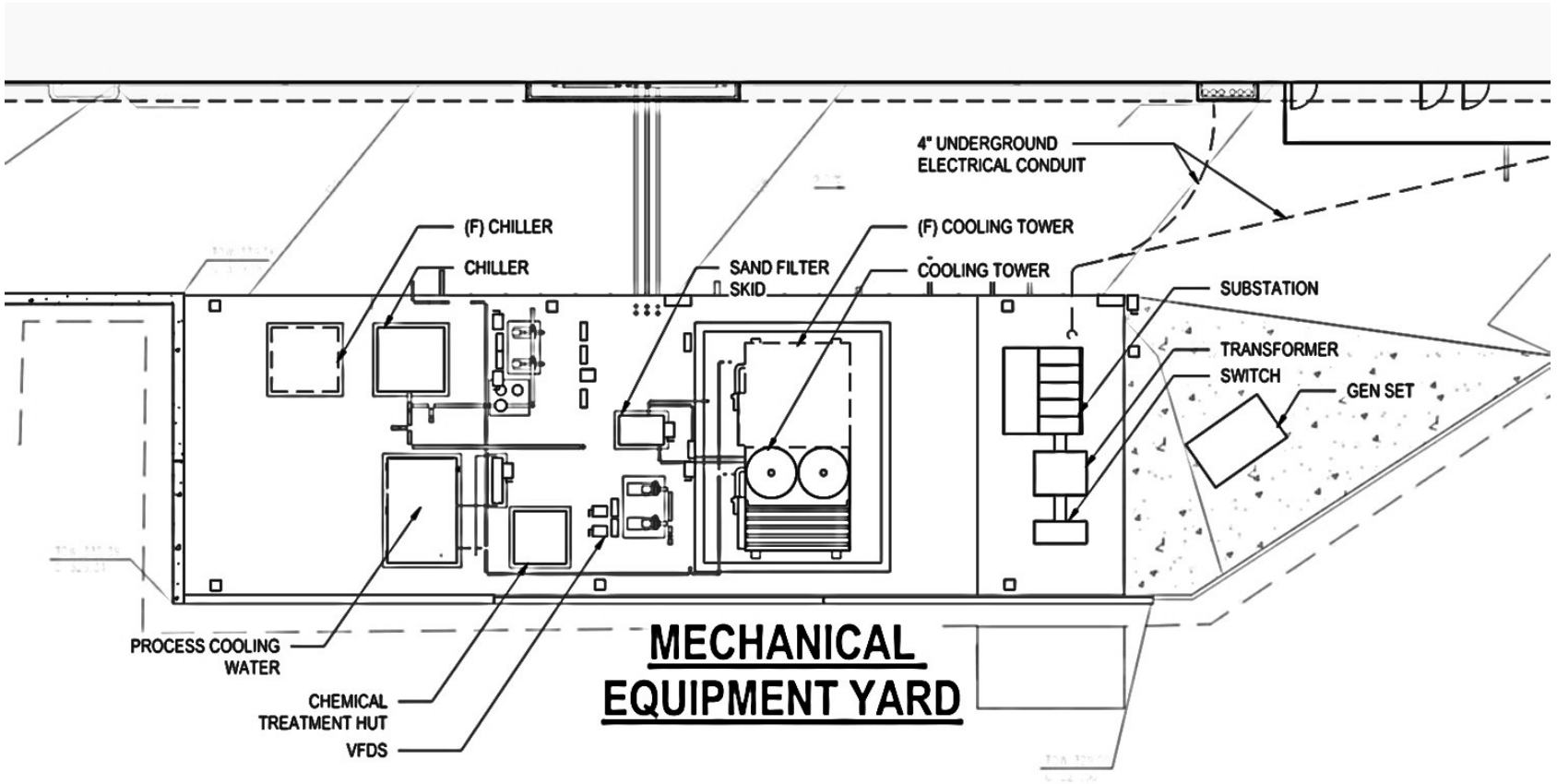


Denotes Part of Base Building Scope

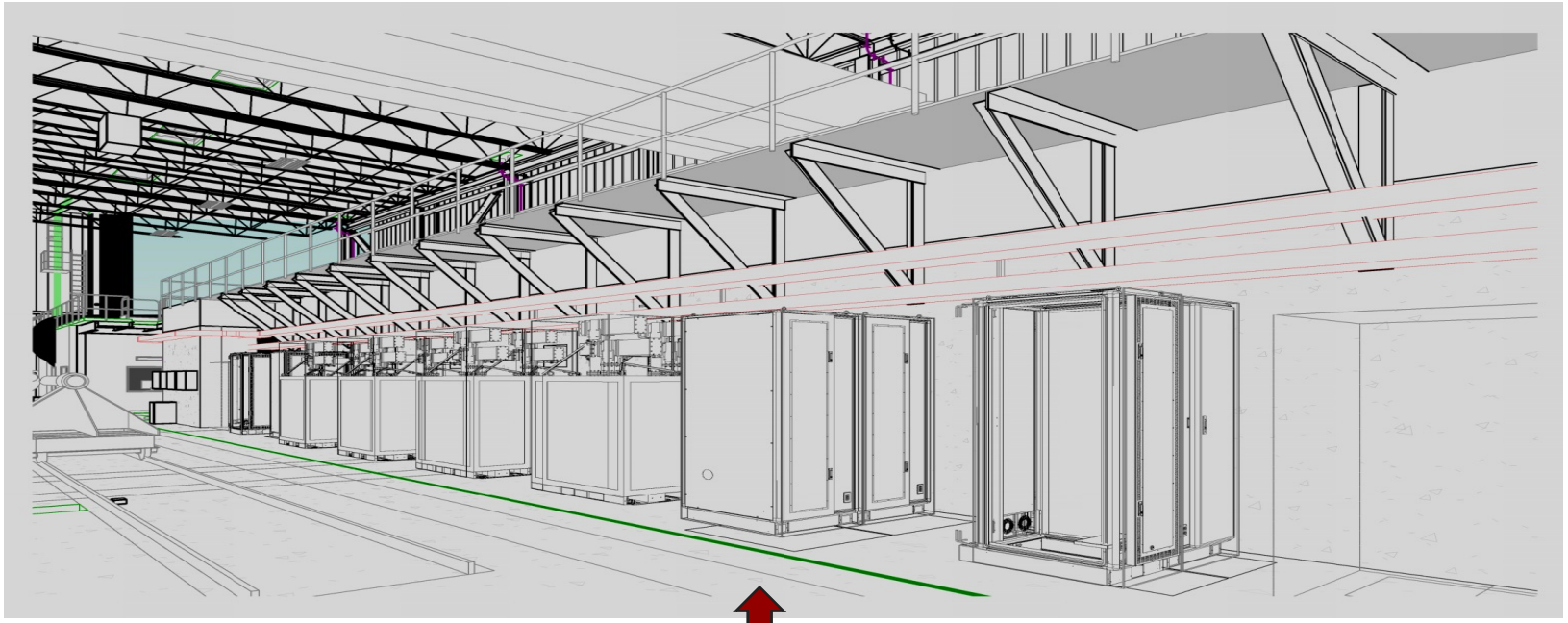
Floor Plan 21,743 GSF

Site Design - Equipment Yard

- Utility infrastructure designed to meet future 25K GSF full building.
- Cooling Tower Water and PCW Systems sized to meet Cryo and RF Equipment Requirements
- Chiller to support future Cleanroom HVAC System
- Space for Redundant CT and Chiller.
- Designated space for E-Power: emergency generator and transfer switch connections (Future permanent Generator)
- 12.47kV Substation (SLAC supply to GC for installation)

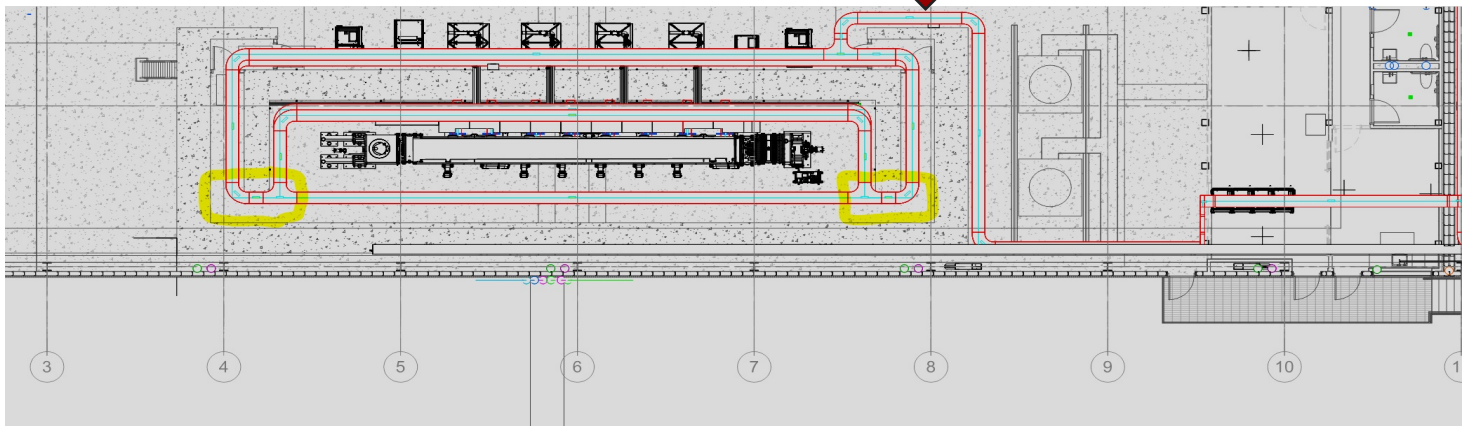


Building Modeling: Conventional Utilities and Technical Systems (Not Part of Construction)



HDR Model: Cable Tray Layout: Shown for Reference only – Not Part of Construction

CRMF Cable Tray Layout: Plan View at Shield Enclosure Area



Off-Project Scope: SLAC Site Restoration

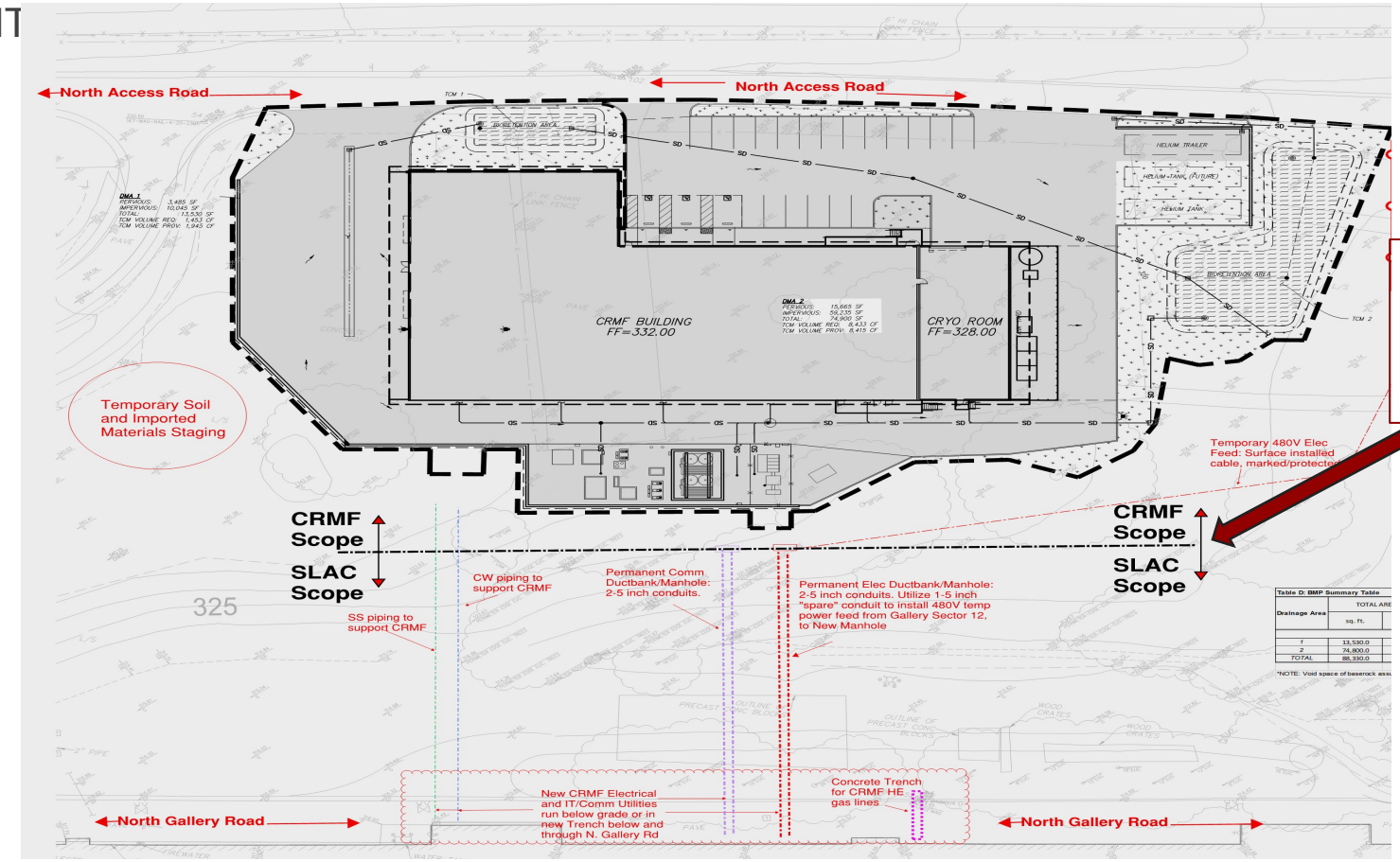
- SLAC will complete Sector 11 Site Restoration prior to turnover to construction:
  - Remove stored materials; Remove trees
  - Rough Grade and Temporary Stabilization

2023 View of Sector 11 Site: SLAC Material Staging/Storage

2025 Sector 11 Site: Current View with Equipment Removed

Off-Project Scope: Utility Improvements and GFE

- SLAC will complete installation of Utilities prior to construction:
  - Civil underground utilities: CW/FW, SS
  - Electrical Utilities 12.47kV Elec (Duct bank/MH &Feeders)
  - Supply the Electrical Substation -12.47kV to 480V Switch and Transformer
  - Comm/IT



Utility points of connection (Hand-off to CRMF)

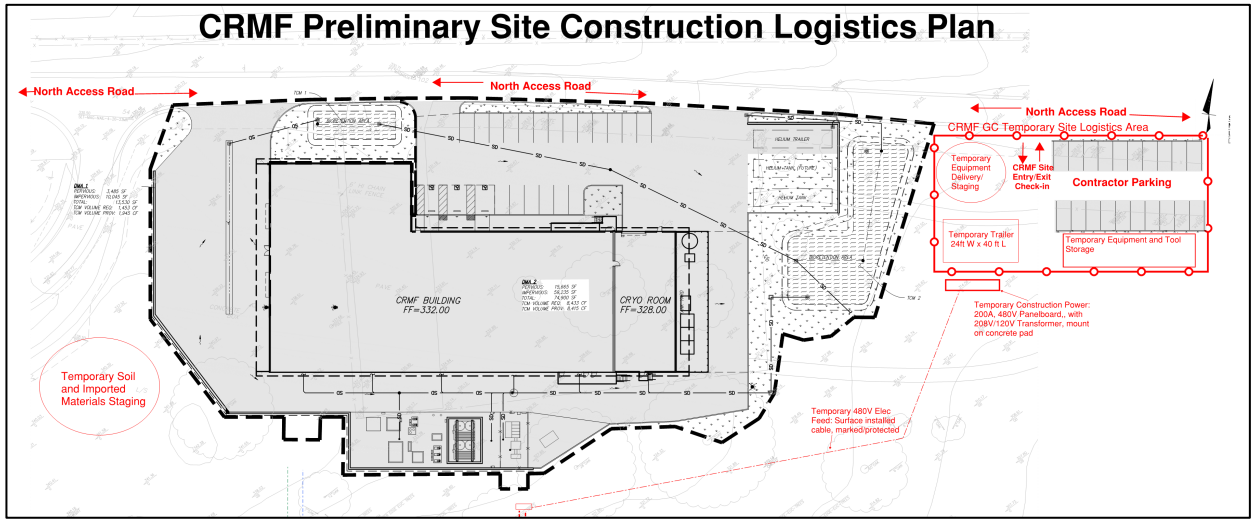
Preliminary Construction Planning: Support Future GC

Construction Site Logistics:

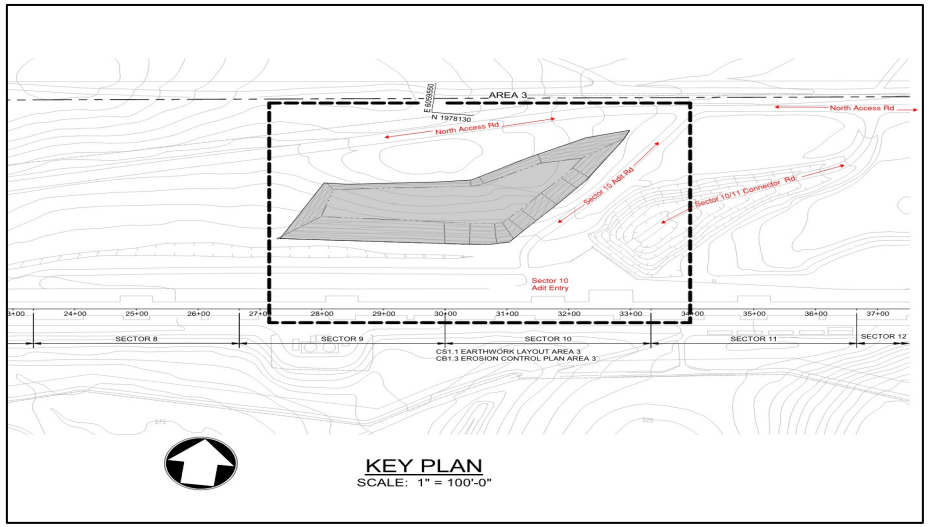
- Contractor Trailer, Parking, Laydown & Staging
  - Temporary Power: 480V Panel for Contractor
  - Temporary Power Distribution to site by Contractor

Excess Soil Management:

- Clean Excess Spoils move to Stockpile Area: Sector 9
- Site Soils: GC Management Plan: SWPPP & BMP's



Construction Planning: Trailer, Parking, Laydown



SLAC Approved Soil Stockpile at Sector 9

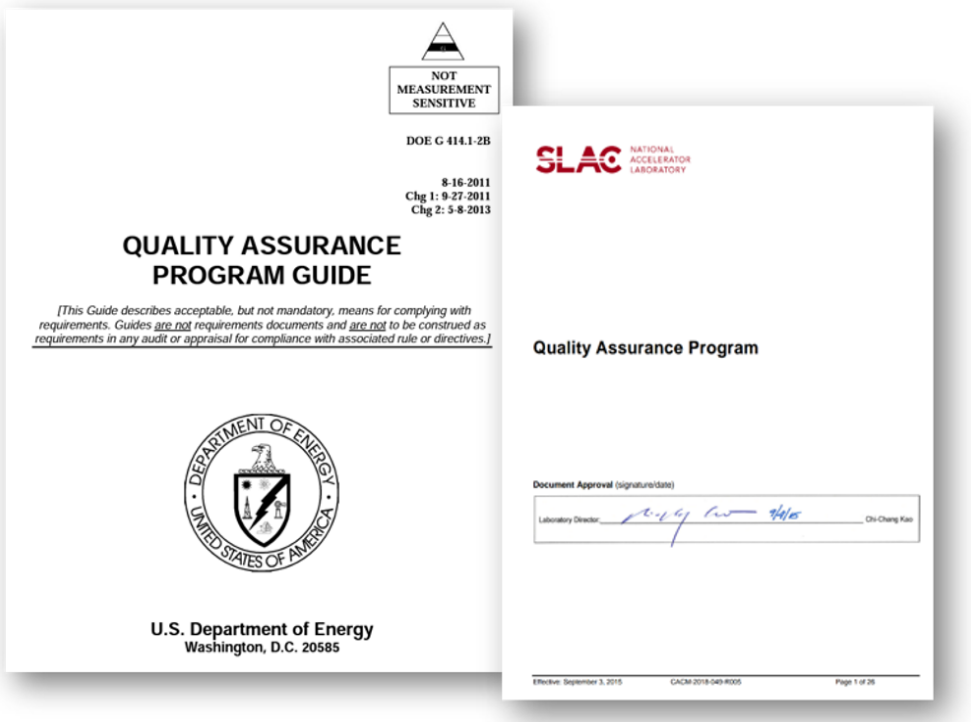
Early Planning to address the coordination of GC Construction with ongoing SLAC Projects

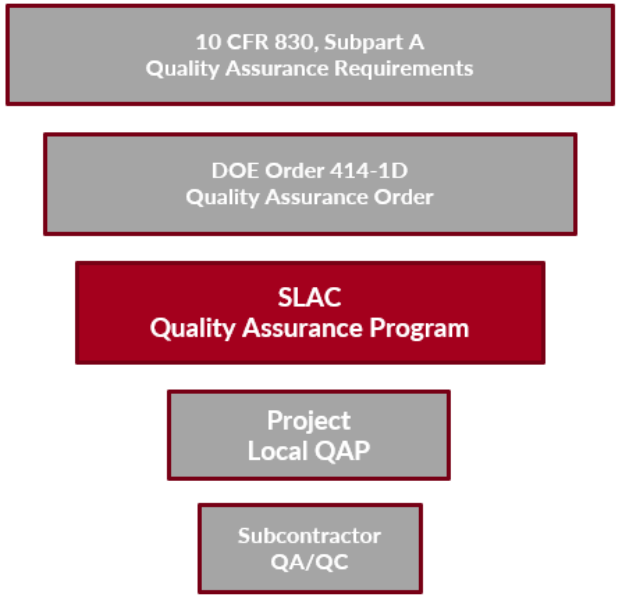
Conventional Infrastructure: Look Ahead Schedule

Milestone	Date	Notes
Complete Design - BIO Approval IFB Documents	April 2025	Final Construction SOW to Procurement
SLAC Complete Site Restoration	May 2025	Materials removal, rough grading, stabilize
Request for Proposal (RFP) Issued to GC's	June 2025	DOE and Procurement Approve RFP
GC Bid Preparation and Submit	July 2025	Fixed Price Proposal (180day Proposal)
Bid Evaluations/Interviews	Aug/Sept 2025	Contract Proposals reviewed and ranking
SLAC Support Utility Installations	Sept - Jan 2025	Underground work complete prior to CRMF start
Award Construction Subcontract	November 2025	DOE and SLAC Procurement Approvals
GC Construction: Mobilization through Beneficial Occupancy	Dec 2025 - May 2027	18-month Construction Duration
Cryogenic Equipment Room – Co-Occupancy	January 2027	Start of Cryo installation of large equipment

Project Quality Assurance (QA) – High Level Considerations

- DOE O 414.1D QUALITY ASSURANCE and SLAC Quality Assurance Plan provides guidance for CRMF
  - CRMF-1.1-PM-005, *CRMF Quality Assurance Plan (QAP)*
  - Appropriate QA requirements will flow through the contractual documents





DOE and CRMF Quality Assurance requirements flow through the Contract

Project Quality Assurance (QA) – High Level Considerations

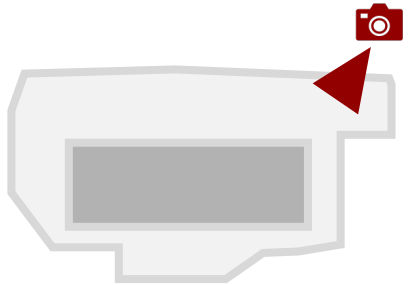
- Construction Management and Construction Quality Control
  - Contractor and SLAC Construction Manager interfaces directly for Site/Work Level QA & QC
  - CRMF Quality Assurance Manager provides an escalation process for quality related issues

- General Contractor Quality Management System Considerations:
  - Contractor maintains a Contractor Quality Management System (QMS) compliant with Industry Standards
  - Contractor's Quality Management System "Manual" will be requested (ISO 9000 or other Industry Standards – compliance vs. certification)
  - Potential Supplier Surveillance Activities
    - Verification and or Validation of products or services
    - Surveillance as requested by CRMF Management or Contractor to address Issues/Nonconformance
    - Transfer of Work process surveillance for high-risk deliverables
  - Escalation of Issues and Nonconforming Requirements pertaining to the Quality Management System

Quality Assurance Requirements flow from Regulatory and Industry Standards

Thank you!

Building rendering view towards Klystron Gallery



Aerial Rendering from
Northeast Corner

CRMF Building Site Dimensional Reference with Existing Linac

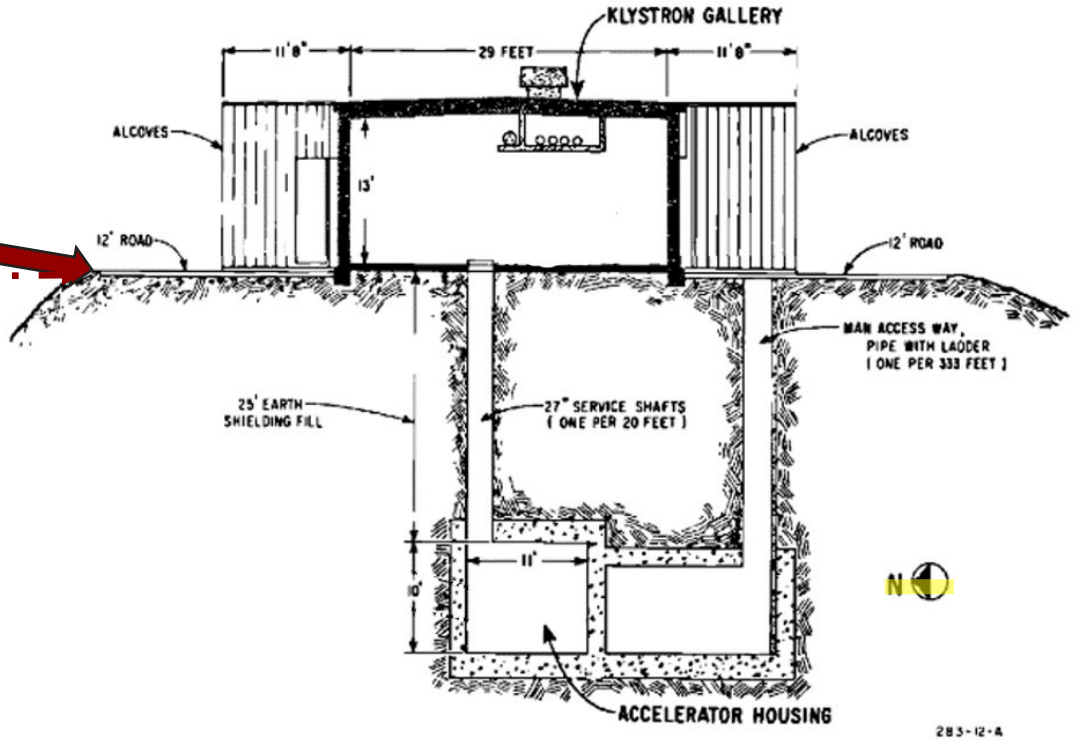
Cross Section Distance N.T.S.

Sectors 0-30 Linac Basic Dimensions (Sector = 100 m):

Klystron Gallery 29ft W x 13ft H, FF Elevation = 316 ft

Accelerator Housing: 11ft W x 10ft H, FF Elevation = 281 ft (FF Approx. 35ft below Gallery)

Cross section of accelerator housing and klystron gallery.



Conventional Facility Basic Dimensions:

Building 250ft W x 85ft W x 40 ft H (approx.)

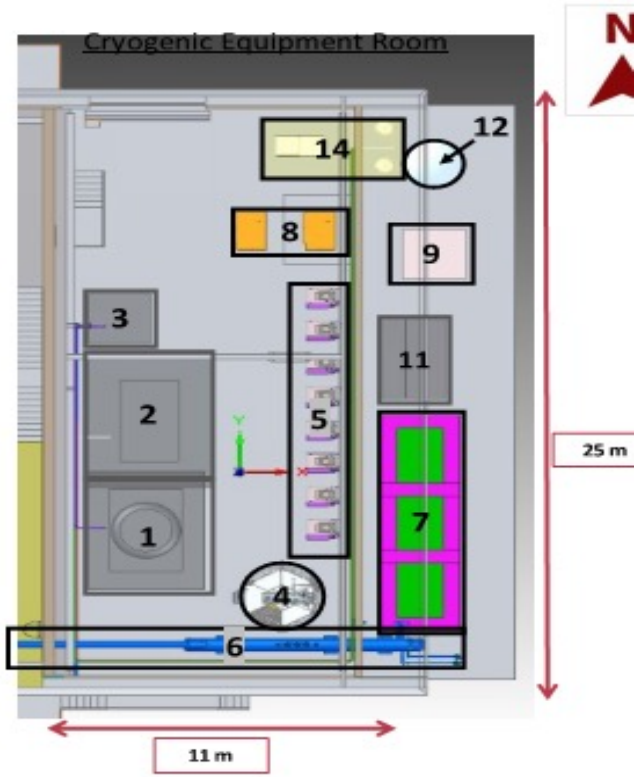
Main Assembly Area FF Elevation = 332 ft

Cryogenic Equipment Room FF Elevation = 328 ft

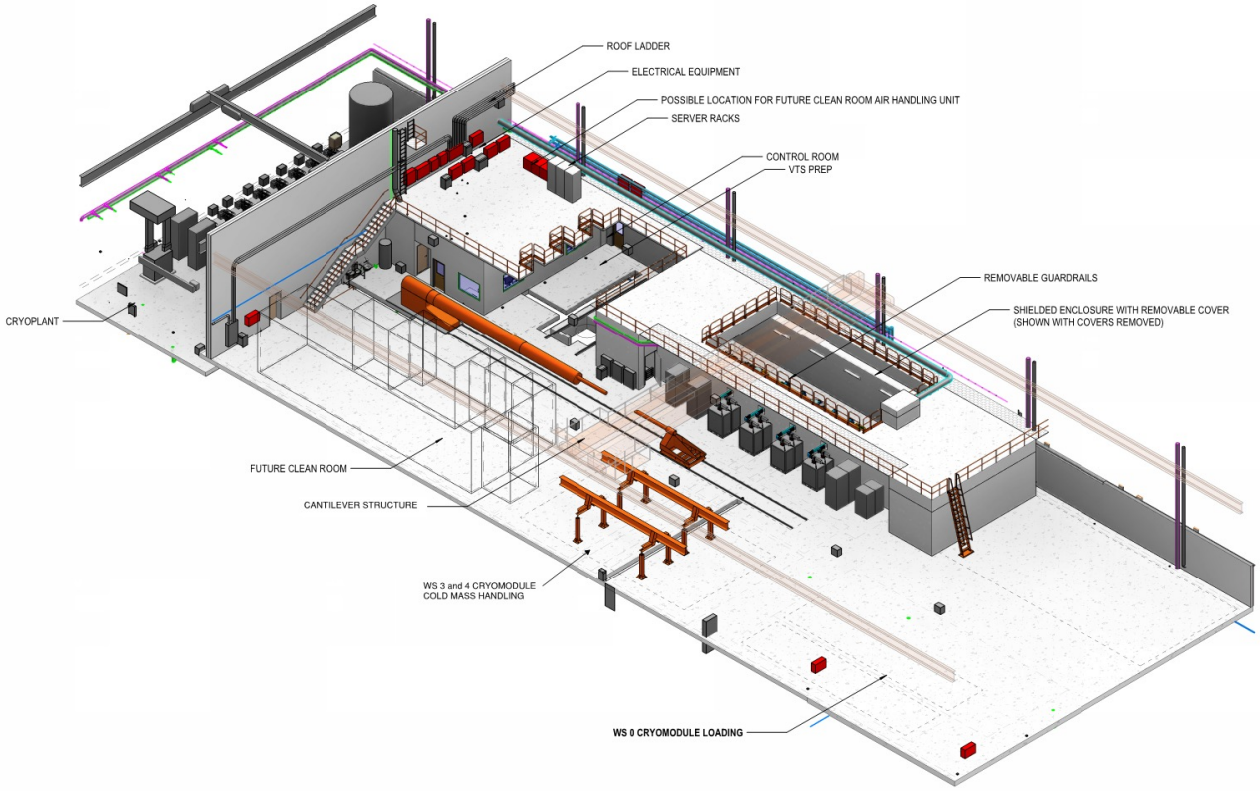
Site Design - Central Utility Plant & East Tank Yard

Rendering View from Southeast

- Central Utility Plant (CUP) M&O access
- Cryogenic Exterior (and Interior) equipment locations (RE: Engineering Note: CRMF-1.2-EN-070)

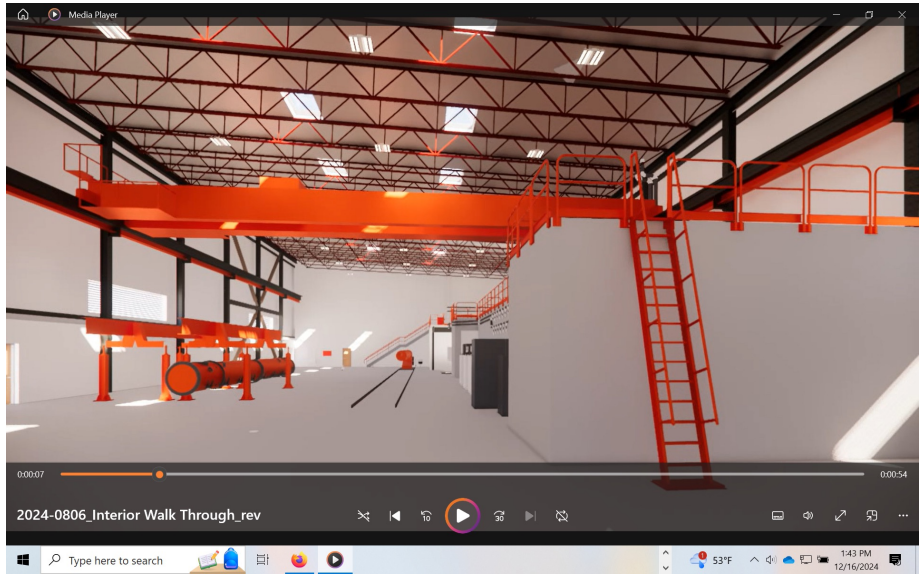


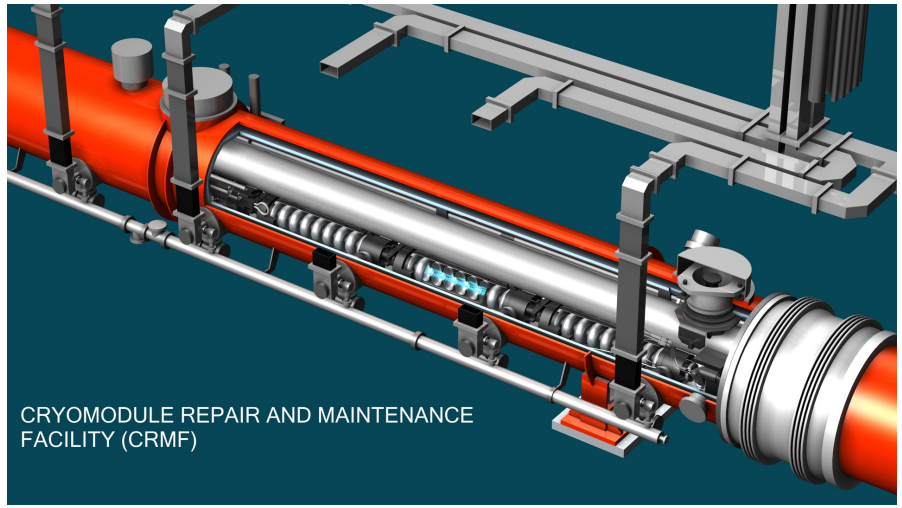
3D Modeling Incorporating Technical Work Areas



D5 BUILDING INTERIOR ISOMETRIC, NORTHWEST, 21,743 SF

Interior ISO View Main Assembly Area- 21,700 GSF Building





Safety and Work Planning Control

CRMF Industry Day

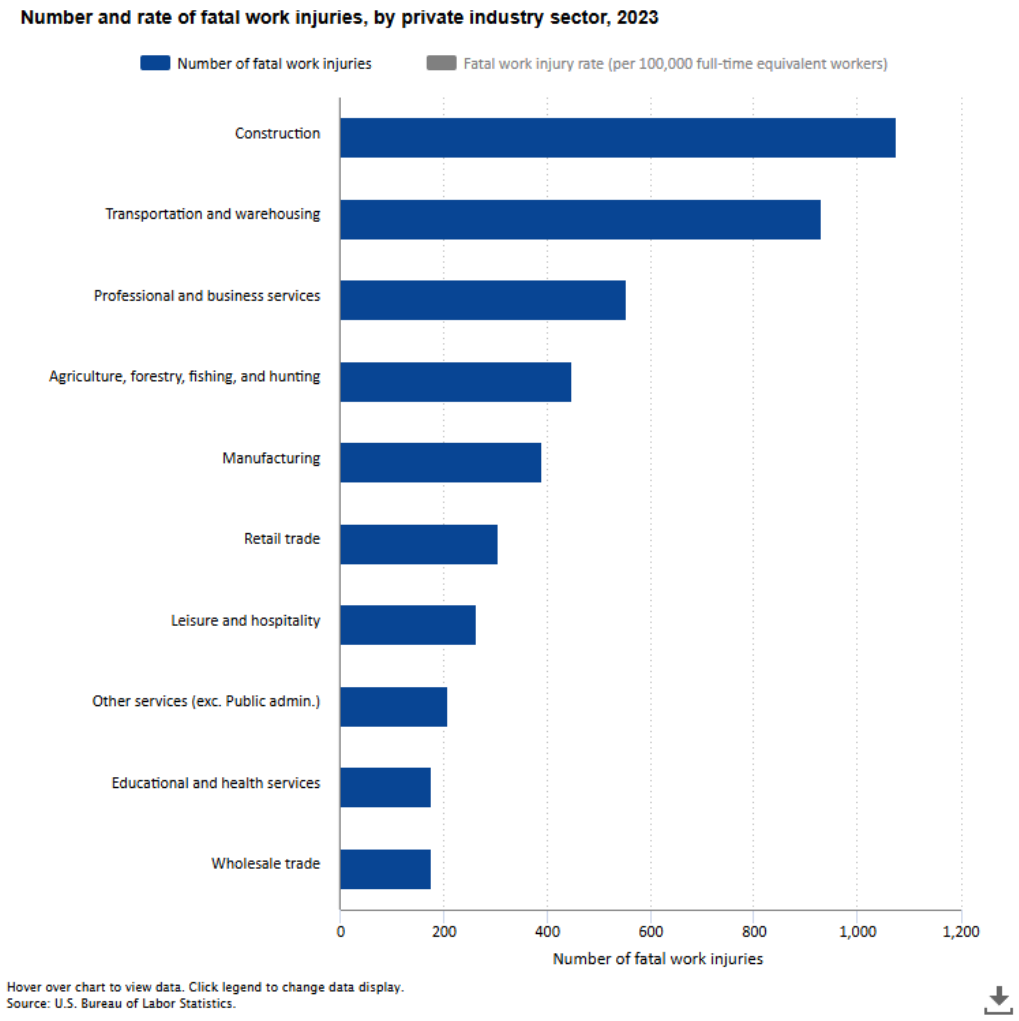
Kathleen Ratcliffe | ES&H Manager

30 January 2025

Overview

- Working at SLAC
- Work Planning and Control
- COHE
- Environmental Protection

Working at SLAC



Show table

Zero Accidents

Zero Injuries

- ✓ **Is Possible.**
- ✓ **Is Expected.**

Integrated Safety Management

SLAC ES&H Manual

- Defines general policy and responsibilities
- Flows down requirements and defines roles and responsibilities
- Establishes expectations that need to be followed to ensure Project ES&H risks are addressed, including sub-contracted work on-site

Contractors

- Construction Safety Requirements Manual SLAC-I-730-0A23L-003-R004
- Chapter 42 Subcontractor Safety
- General Contractor develop and maintain Site Specific Safety Plan (SSSP)

Chapter 42 – Subcontractor Safety

Work Planning and Control (WPC)

- WPC is the use of formal, documented processes for identifying and mitigating risks when planning, authorizing, releasing, and performing work
- Supports the execution of SLAC's mission and applies to all activity level work and all persons, including SLAC employees, subcontractors, and users
- All work must first be planned, then authorized, and finally released
  - Work is authorized by Subcontractor (GC) Supervisor
  - Work is released by SLAC Construction Manager
- Project Construction Manager (CM) with support of ES&H Field Safety engage SLAC Subject Matter Experts (SMEs) to review work plans throughout the various phases of the project
  - CM's also review and coordinate SLAC specific requirements for High Hazard Work (i.e., Elevated Surface Work Plans, Lift Plans, Excavation Permits, Electrical Work Plans, etc.)

...if it's not planned, we don't do it...

Stop Activity due to Imminent Safety-Based Risk

- Everyone has the authority and responsibility to stop any activity if there is a reasonable belief that a task poses an imminent risk of death or serious injury
- Only Procurement can issue a formal Stop Work letter to Sub-Contractor

Work Planning and Control: COHE (high level)

- 10 CFR § 851.23 Safety and Health Standards:
  - Contractors must comply with the following safety and health standards that are applicable to the hazards at their covered workplace:
    - 29 CFR 1910, Occupational Safety and Health Standards
    - NFPA 70, National Electrical Code
    - NFPA 70E, Electrical Safety in the Workplace
- We do not work on live electrical equipment
- Temporary Power:
  - Shall be installed per NEC Article 590. Installation plans for temporary trailers, including temporary power hookup, require BIO review. Physical work requires BIO inspection prior to energization
- ONLY SLAC personnel may operate energized equipment (breakers, valves, etc.)

Environmental Protection

- Stormwater
  - SA project-specific SWPPP and construction monitoring plan, developed by a qualified SWPPP developer (QSD) and implemented by a qualified SWPPP practitioner (QSP)
  - Prevent pollutants from entering stormwater
  - Protect storm drains
- Waste Minimization and Pollution Prevention
  - Reduce, Reuse, Recycle
- Approval and Handling of Materials
  - Prior to receipt of materials on site, submit all material safety data sheets or safety data sheets (MSDS/SDSs) and hazardous material inventory or all chemicals, oils, solvents, paints, epoxies, adhesives, petrochemical, or similar materials to be used on-site to the SLAC Air Quality Program Manager for approval.

Product Assurance & Safety

- Following safety documents are required prior to construction
  - Work authorization approval
  - Building Inspection Office (BIO) approval
  - Penetration Permit
  - Hot Work Permit
  - Elevated Surface Work Plan
  - Pressure Test Plan
  - Traffic Control Plan
  - Hoisting & Rigging Plan
  - Lock Out & Tag Out (LOTO) Plan
  - Silica Controls

All permits, procedures and controls are in place prior to commencing work

Summary

- Safety at SLAC is a top priority
- If its not planned, we don’t do it
- We look forward to working with you

Zero Incidents – Zero Accidents Is Possible


Thank you

Cryomodule Repair & Maintenance Facility (CRMF) Conventional Bldg & Site Infrastructure Project

Design-Bid-Build Subcontract – Procurement Overview

John Azevedo, Procurement Specialist

CRMF Industry Day
30 January 2025

SLAC NATIONAL ACCELERATOR LABORATORY
Stanford University | U.S. DEPARTMENT OF ENERGY

Procurement Outline

- Industry Day Objectives
- Overview of Procurement Effort
- Procurement Process Timeline (RFP through Award)
- Selection Process & Evaluation Factors (Technical & Business/Process Proposals)
- Rules of Engagement
- Conclusion

Procurement Outline

- **Industry Day Objectives**
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Industry Day Objectives

- Procurement delivery system & subcontract timeline
- Better understanding of the project scope
- The procurement effort for the RFP/Award of the CRMF Construction Project

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Overview of Procurement Effort

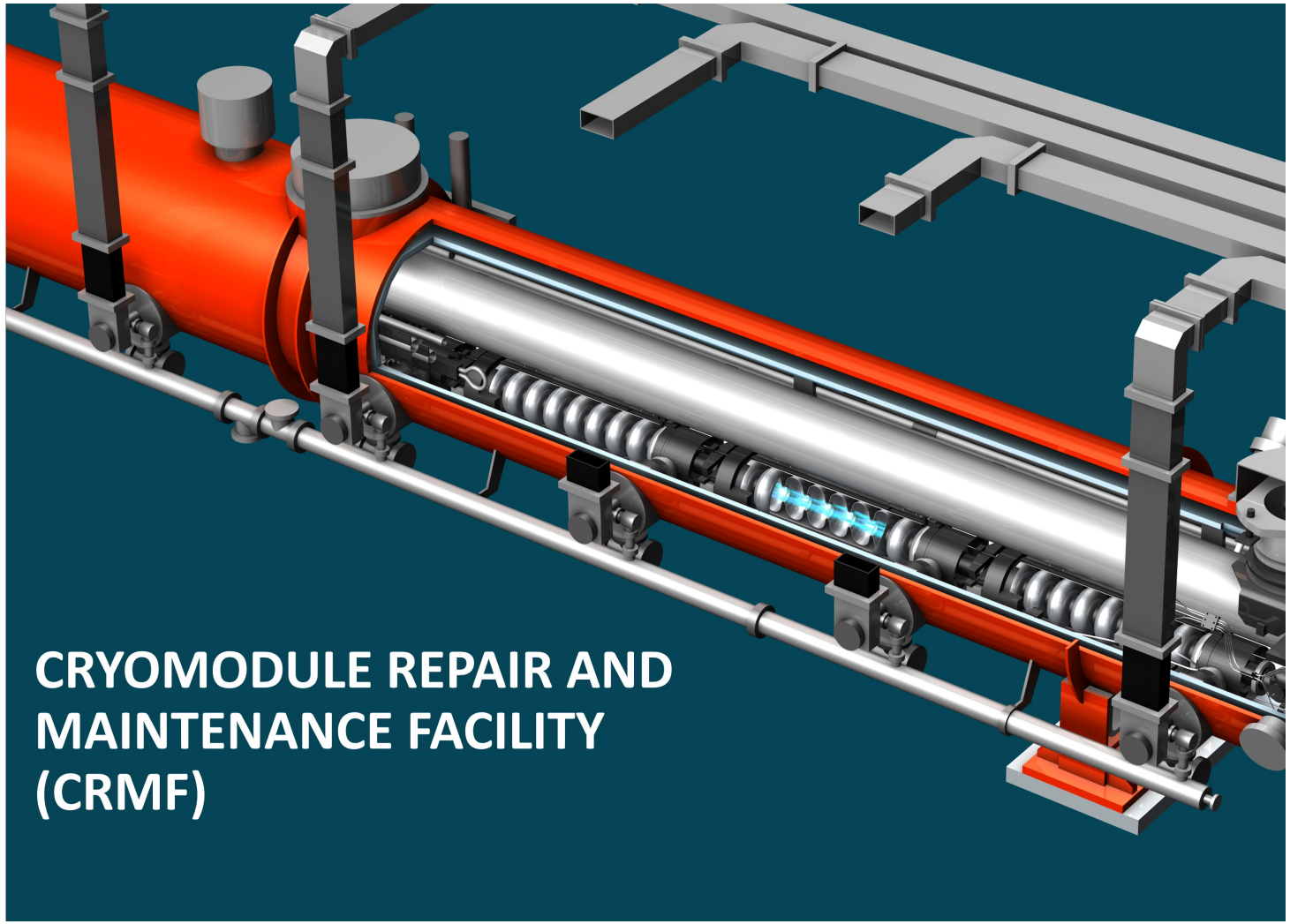
General Requirements

- Davis-Bacon Prevailing Wages/Certified Payrolls apply
- Buy American Act
- Performance/Payment bonds
- Must be registered and in good standing in SAM.gov

Funding

- Federal Fiscal Year is October - September
- Project is Federally Funded
- Project will be 100% fully funded at Award
- Projected cost range ($30M to $37M)

Overview of Procurement Effort (continued)



Specifics of the CRMF Procurement

- Design-Bid-Build, Firm-Fixed-Price Subcontract
- One-Step Sourcing Method, **Best Value Trade-Off (**Technical & Business/Price)
- Section L and M contains the Instruction to Offerors and Evaluation Criteria

Procurement Outline

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Procurement Process Timeline – RFP through Award:

RFP Release Date	Jun 2025
Site Visit	Jun 2025
RFI Submittals from GCs Due Date	Jul 2025
Technical & Price Proposals Due Date	Aug 2025
Interviews	Aug/Sep 2025
Negotiations	Sep 2025
Evaluations & Source Selection Reviews	Sep-Oct 2025
Project Award	**Nov 2025**

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Selection Process & Evaluation Factors

- Single-Step Best Value/Trade Off Method

Technical Proposal:

- **Volume 1 - Technical Proposal Evaluation Factors**
  - Factor 1: Technical Approach
  - Factor 2: Safety
  - Factor 3: Project Management
  - Factor 4: Experience
  - Factor 5: Past Performance (emailed directly to Procurement)
  - Factor 6: Interviews
  - Factor 7: Statement of Qualifications

Selection Process & Evaluation Factors

Business/Price Proposals:

- **Volume 2 – Price Proposal Evaluation Factors**
  - Factor 1: Business Financials
  - Factor 2: Price and Contract Documentation
    - Small Business Contracting Plan

Unrealistic Price Proposals may be rejected (reflects a lack of competence or failure to comprehend the complexity and risks).

Procurement Outline

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- **Rules of Engagement**
- Conclusion

Rules of Engagement

- Procurement is the single point of contact before and during the RFP release
- Direct communication with the Project team during the RFP process can be grounds for disqualification
- All questions must be submitted in writing to Procurement
  - John Azevedo - tigger@slac.Stanford.edu
  - AJ Vandermeyden - amiravan@slac.Stanford.edu

Procurement Outline

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- **Conclusion**

Conclusion

- SLAC welcomes all Subcontractors & their sub-tiers interested in doing work on-site
- Subcontractors need to understand and support construction and safety culture at SLAC (non-negotiable)
- Appreciate all in attendance and value your time and interest
- RFP will be released after DOE review is completed (June)

Questions?

U.S. DEPARTMENT OF ENERGY

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