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Chemistry and Metallurgy Research Replacement (CMRR) Project

CMRR Project Update

Los Alamos, New Mexico
June 10, 2010

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CMRR Division Leader



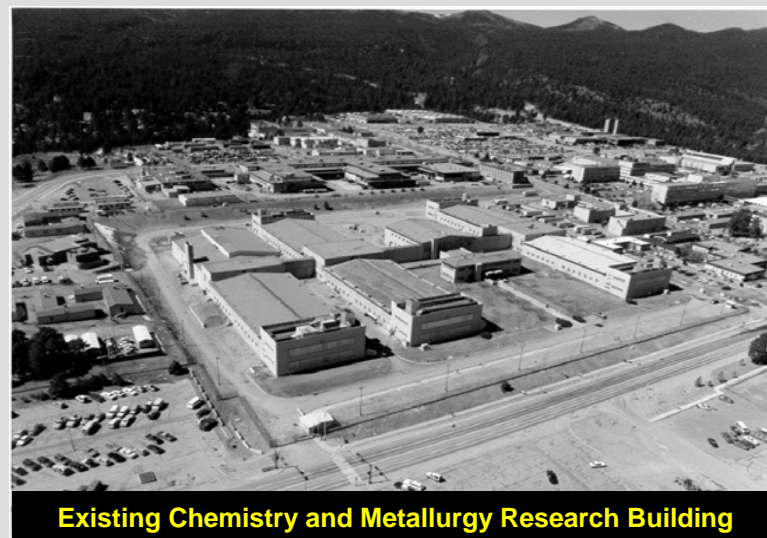
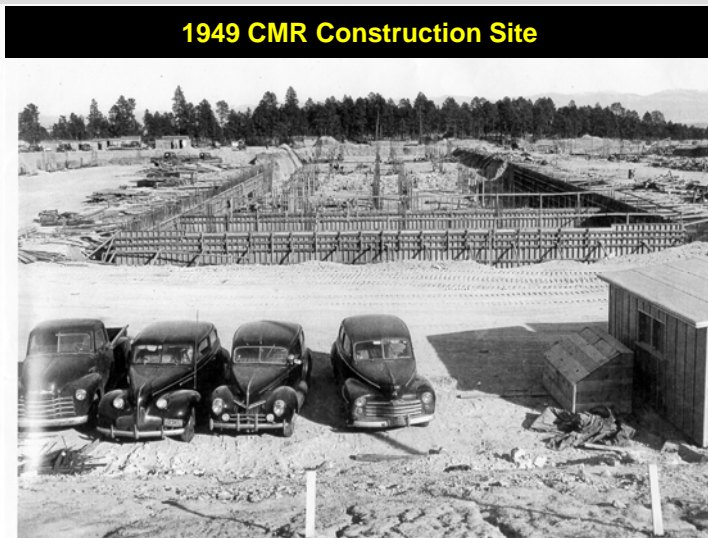
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CMRR Mission Need Statement

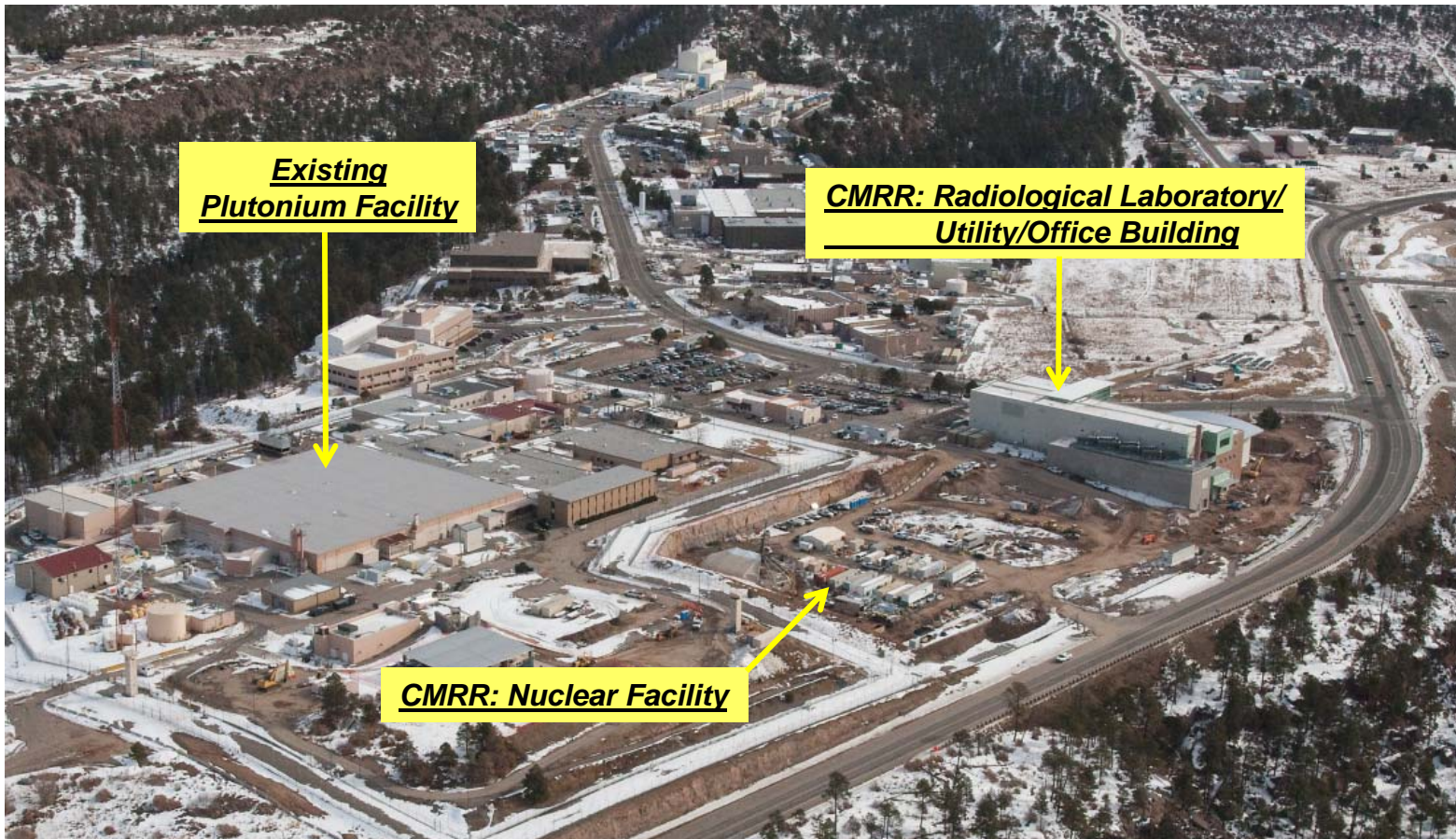
“The CMR Replacement (CMRR) Project seeks to relocate and consolidate mission-critical CMR capabilities at LANL to ensure continuous support of NNSA stockpile stewardship and management strategic objectives; these capabilities are necessary to support the current and directed stockpile work and campaign activities at LANL beyond 2010.”

1949 CMR Construction Site



Existing Chemistry and Metallurgy Research Building

CMRR at Technical Area-55



Project Overview

- Budget Authority – \$97M for FY10
- President's Request – \$225M for FY11
- NNSA Headquarters Program Direction
 - Complete RLUOB within approved performance baseline – **Complete**
 - Complete REI according to performance baseline – **Ongoing/Ahead of schedule**
 - Plan for CMRR NF completion by 2020 with operations in 2022
- NF Final Design
 - Technical Safety Strategy ready for Definitive Design
 - **NNSA and DNFSB validation of nuclear safety approach**
 - Executive and Congressional support
 - Nuclear Posture Review – Published

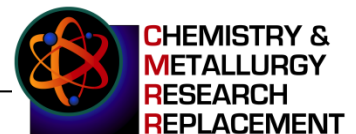
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Radiological Laboratory/Utility/Office Building (RLUOB)



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Radiological Laboratory Utility Office Building (RLUOB) and RLUOB Equipment Installation (REI)

Radiological Laboratory/Utility/Office Building (RLUOB)



Building Shell

- Facility Performance Baseline (\$164M TPC):
- 19,500 NSF radiological lab space (<8.4g 239 Pu equivalent)
- Centralized utilities/services for all CMRR facility elements
- Office space for 350 CMRR workers
- Consolidated training facility
- Facility incident command; emergency response capabilities

Status: Substantially Complete – Sept 2009
Closeout (CD-4) – Feb 2010

Equipment

- RLUOB Equipment and Installation (REI)
- Operational equipment to complete functionality of RLUOB

Status: CD-2/3 Approved – July 2009
TPC = \$199.4M
Completion – 2013

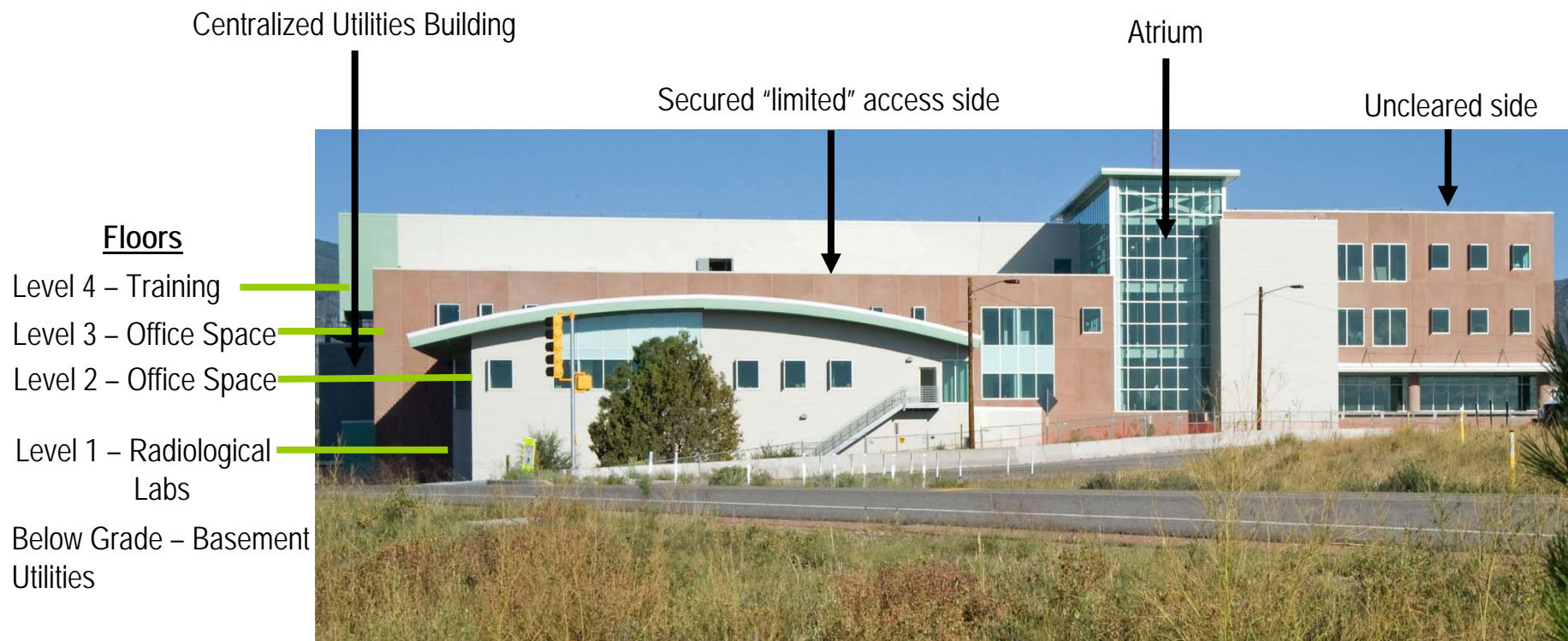
RLUOB Highlights

- **CD-4 (tailored) Closeout Submitted to NA-1**
 - Complete within baseline
- **Claims Process Continues**
- **Sustainable Design:**
 - *FY10 NNSA Best in Class:*
Sustainable Design – Green Buildings
 - *FY10 DOE EStar:*
Sustainable Design - Green Buildings
 - *LEED Silver/Gold applicant*
(summer 2010 review)

RLUOB Equipment Installation

- Working Ahead of Plan
- Laboratory walls construction complete
- NDC coating underway
- Construction Subcontracts (mechanical/electrical/piping) Awarded this Summer

Radiological Laboratory/Utility/Office Building



- Over two million man-hours worked with no lost time accidents
- Leadership in Energy and Environmental Design (LEED) – "Silver" certification award anticipated
- FY10 NNSA Pollution Prevention Award, Best in Class for Sustainable Building
- Highest Quality Standards – Nuclear Quality Assurance (NQA-1)

RLUOB Progress Photos



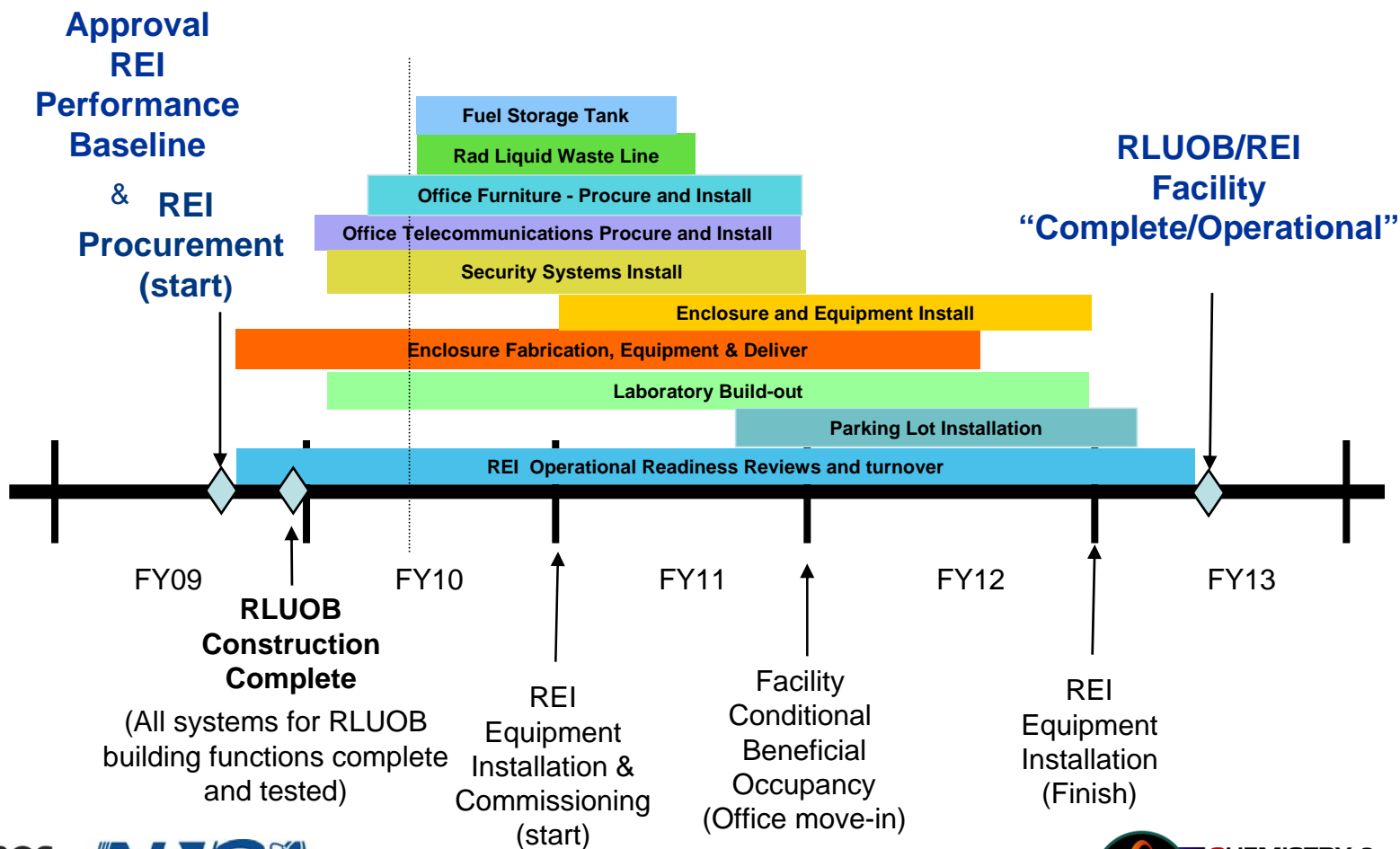
RLUOB Progress Photos



RLUOB Equipment Installation (REI)

RLUOB Equipment Installation Plan

Total Project Cost = \$199.4M



Nuclear Facility (NF)

Program Requirements

NF shall include laboratory and research capabilities for:

- Missions assigned to LANL for Analytical Chemistry and Materials Characterization
- Special Nuclear Material long-term storage
- Capability to handle Large Vessel Handling Mission in future
- Mission support operations necessary to perform the above including, material handling, short-term storage, waste management, sample management, and sample preparation

Additional NF Design Requirements

- Laboratory spaces shall be designed to be flexible and modular to accommodate changes in mission
- Service life shall be 50 years
- Gloveboxes, hoods, and other nuclear specialty equipment shall utilize standard design platforms as much as practical

Nuclear Facility (NF) – Status

Nuclear Facility (NF)

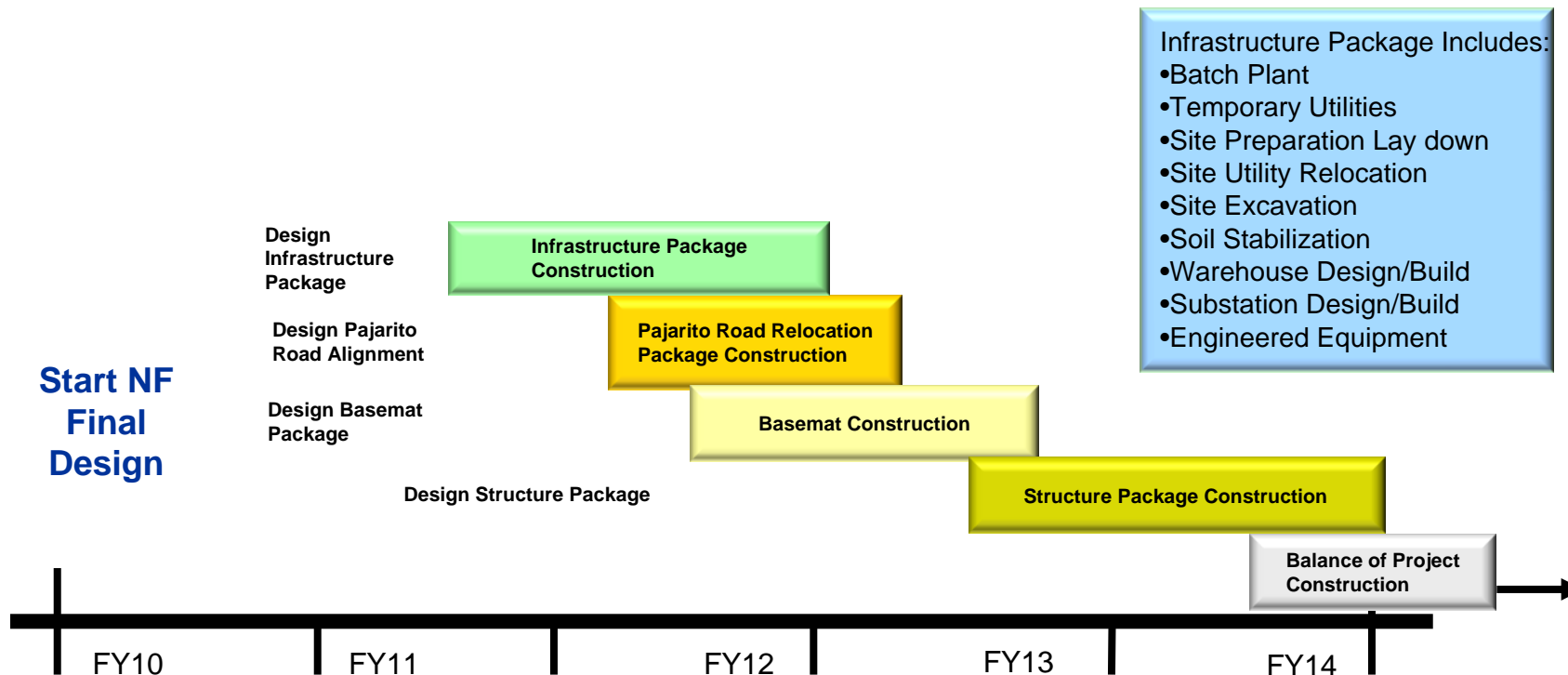


- Baseline under Development:
- CMR Laboratory Replacement Capability
- Nuclear “Hazard Category 2” Facility
- 22,500 Net Square Feet Lab Space
- Special Nuclear Material storage (6M tons)
- Special Facility Equipment
- Robust “Security Category 1”

Status: Interim design

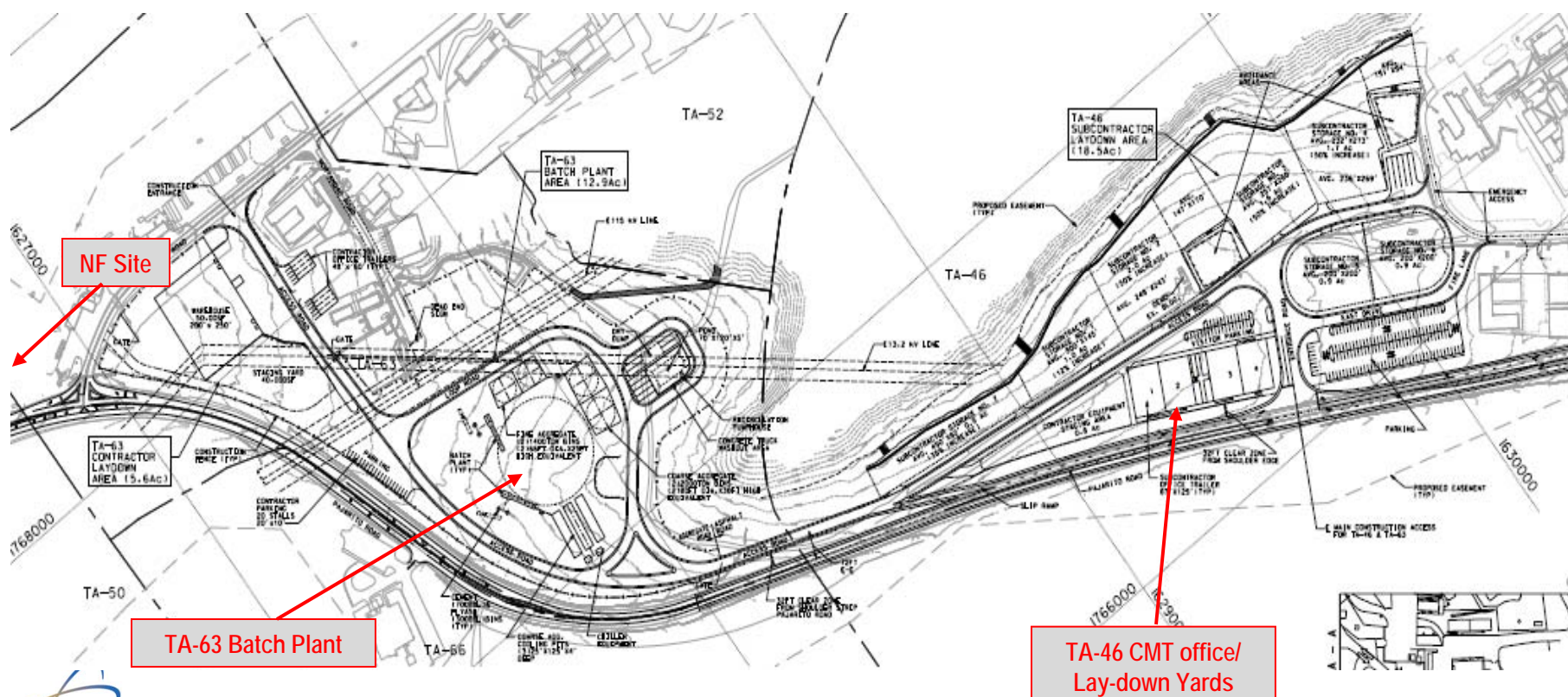
- Rev 0 Preliminary Documented Safety Analysis – published in April
- Preliminary Safety Analysis Report: Review Underway
- Maintain active, continuous dialog w/DNFSB – sustain certification
- User Validation and Optimization of Lab layouts
- Engineering publishing technical baseline documents – complete this Summer
- Issue Final Design Contracts – preserve current design teams
- Supported NNSA HQ TPC Cost range Review (two scenarios) - April
- Execute Acquisition approach
 - Baseline/Execution Chunks
 - Non-Nuclear Infrastructure start FY11
- NF Completion will be to NQA-1 (2008/2009 addenda)

Planned Nuclear Facility Baselines



Construction Site Infrastructure

Lay-down/fabrication yards offices will be established approximately 1 mile from the NF construction site at TA-63 and TA-46 due to lack of available space at the NF construction site.



Closing Comments/Questions