

# **APS SITE OPERATIONS**

## ***CNM and LOM 437 Overview***

*June 30, 2004*

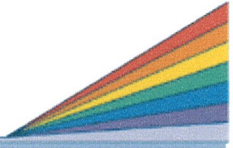
**Richard Janik**  
*Conventional Facilities Manager*





# Construction Readiness Overview

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## Center for Nanoscale Materials (CNM) Overview

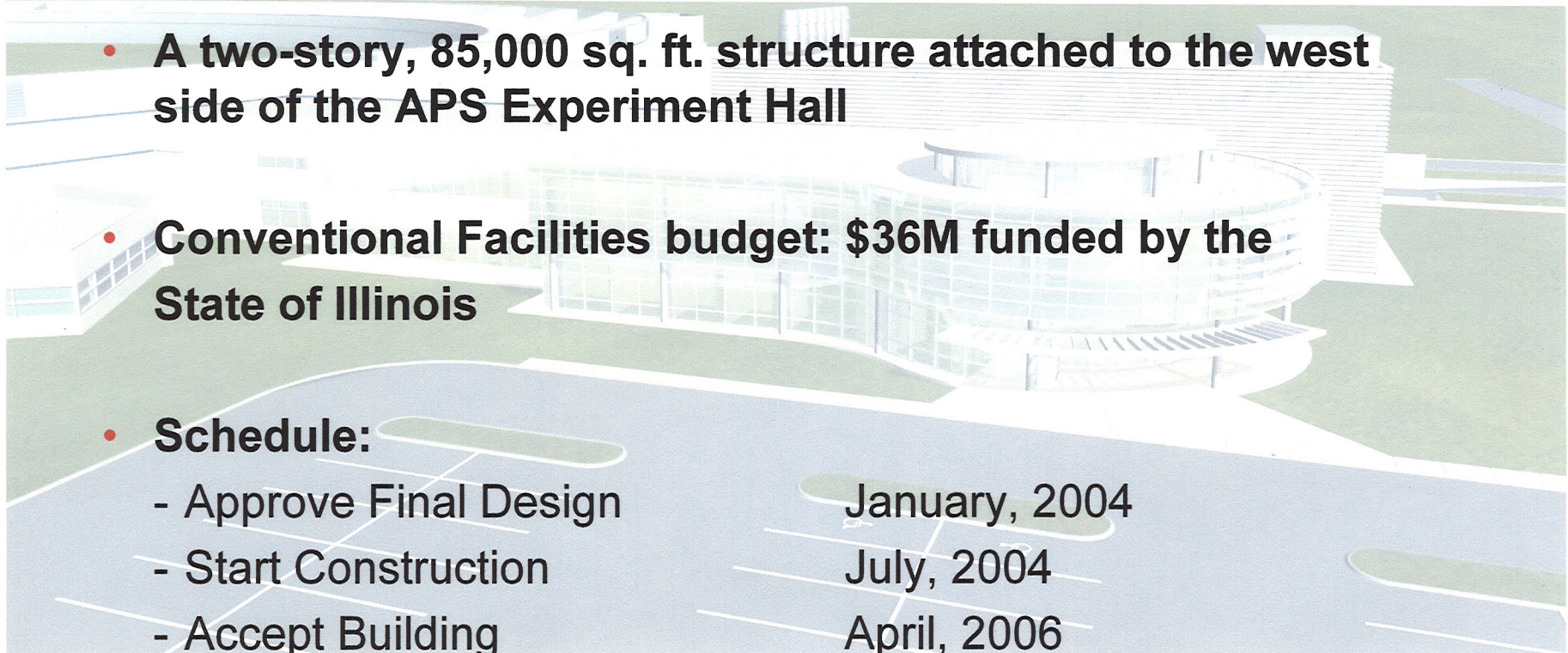
- Purpose is to create, characterize and understand the behavior of new functional materials on the nanoscale

- A two-story, 85,000 sq. ft. structure attached to the west side of the APS Experiment Hall

- Conventional Facilities budget: \$36M funded by the State of Illinois

- **Schedule:**

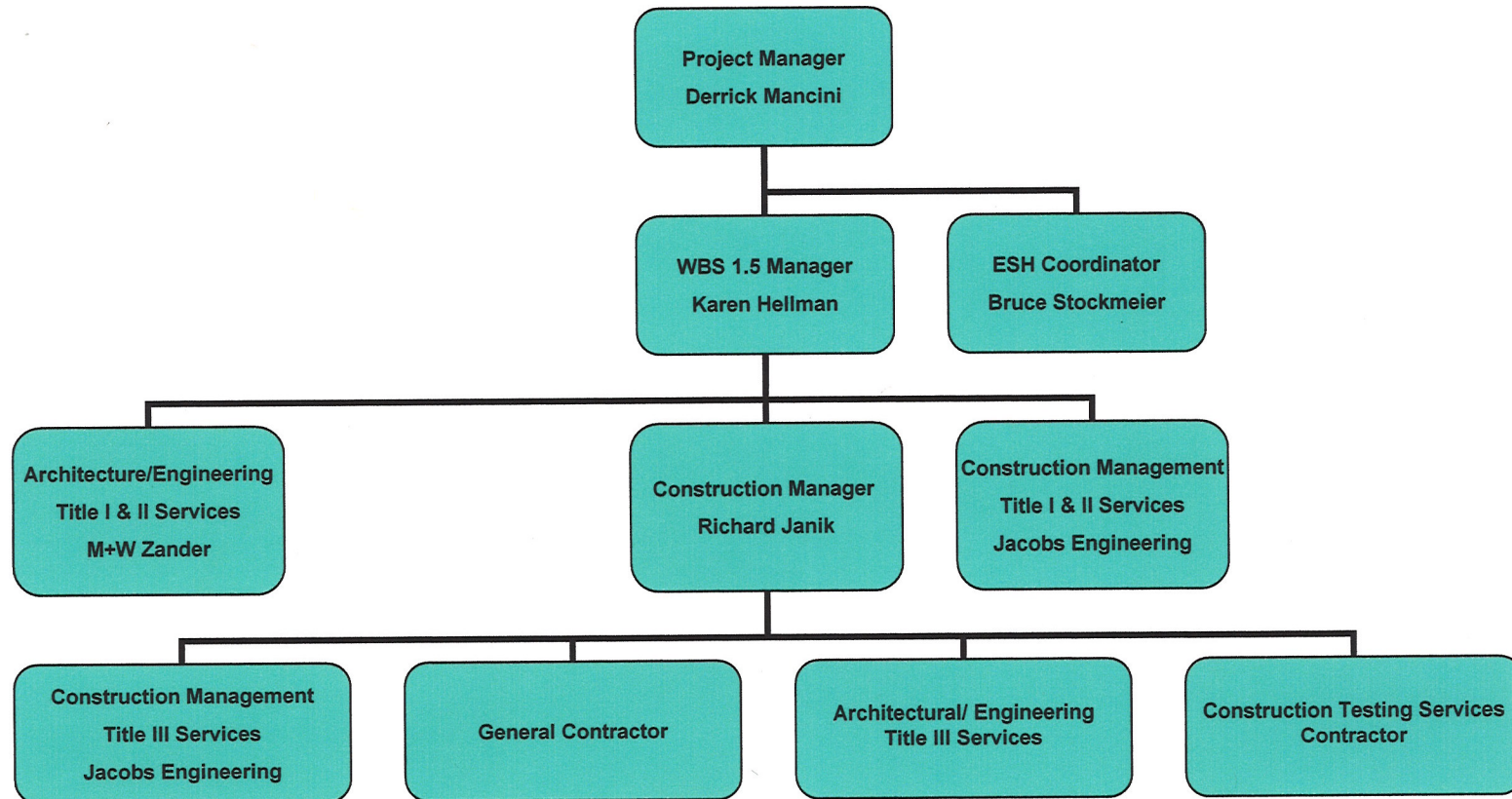
- |                        |               |
|------------------------|---------------|
| - Approve Final Design | January, 2004 |
| - Start Construction   | July, 2004    |
| - Accept Building      | April, 2006   |



# CNM Construction Task Organization Chart

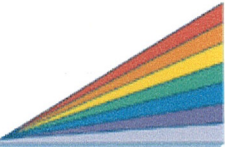
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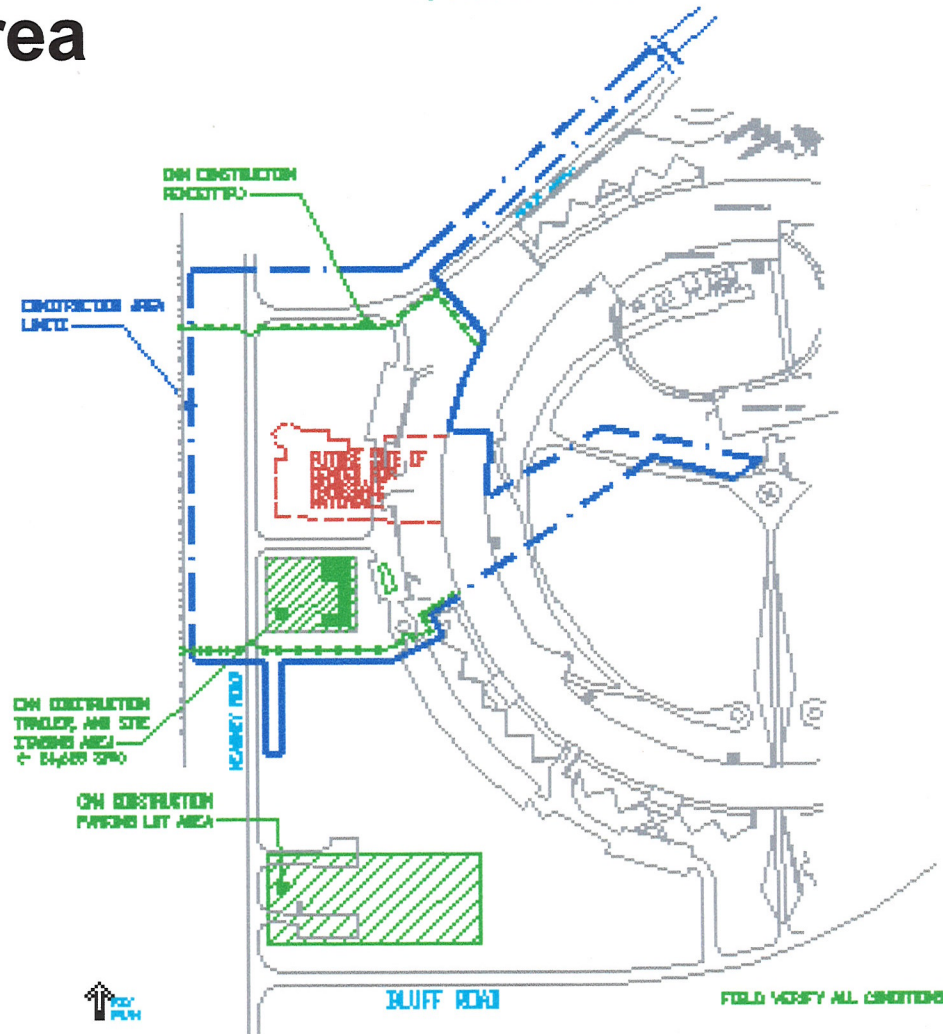


# Conventional Facilities



## CNM Construction Area

- Main CNM construction site will be enclosed and gated
- Kearney Road to be closed during construction
- Construction staff to use existing parking area south of CNM site

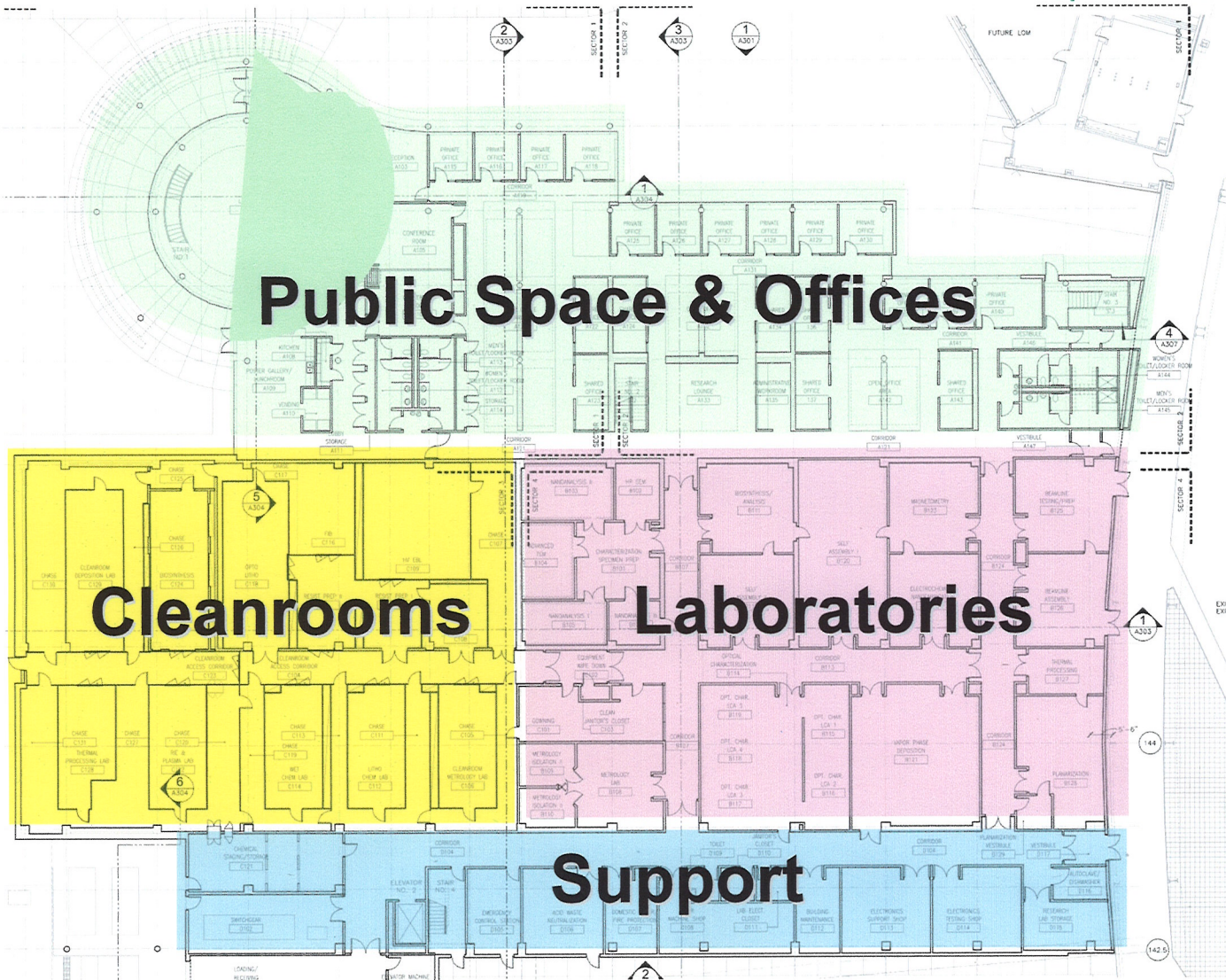




# CNM Building Program

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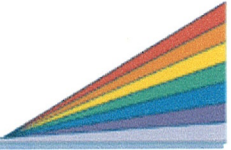
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## Building Program

The CNM building has been programmed into four major functional areas. These areas are segregated by security access devices that will be controlled by personnel type, e.g., employee, user, visitor, support staff, etc. The areas are further developed by the scientific research themes being utilized with the MIE portion of this project.

X-ray  
Nanoprobe  
Beamline

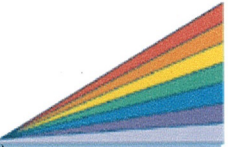


## **LOM 437 Overview**

- **After completion of the CNM construction project, vibration-sensitive experiments will take place in the CNM building.**
- **Because of the proximity of LOM 437 to the CNM, it is necessary to install LOM 437 vibration-causing construction activities before they affect these experiments.**
- **Thus far, \$2.5M is available for Phase I, which includes site work, excavation, foundation and slab on grade.**

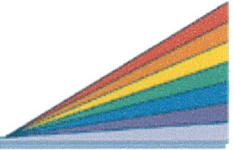


# Conventional Facilities



- **LOM 437**
  - **22,000 sq. ft. single-story laboratory / office building with second-floor mechanical mezzanine**
  - **Located between CNM and LOM 438 and attached to the northwest quadrant of the APS Experiment Hall**
  - **Last of 8 LOMs envisioned for APS**
  - **Provides office and lab work area for APS users operating experimental beamlines**
  - **Scheduled for construction in the summer of FY05**





## **LOM 437 Construction Strategy**

### **Phased Project Implementation Approach**

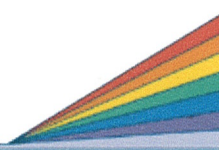
- **Due to uncertain funding for LOM 437 (sources, amounts, and time frame), a phased approach will allow the APS to incrementally construct the final LOM as funding becomes available.**
- **Eight separate work packages will be put together.**
- **Each work package will be a separate procurement complete with scope of work, drawings and specs.**
- **Greater economy and faster completion could be achieved as more packages are combined together.**



# Conventional Facilities

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## LOM 437 Estimate

<b>Proposal #</b>	<b>Project Proposal Packages</b>	<b>Total Bldg. Cost (\$k)</b>
P-0	Engineering Design	150
P-1	Work Inside Bldg. 400/Exp. Hall	220
P-2	Building Slab and U/G Work	850
P-3	Site Work	220
P-4	Prepurchase MEP Equipment	175
P-5	Prepurchase Proprietary Controls	110
P-6	Structural Framing	850
P-7	Phase I Building Shell	2900
P-8	Phase II Building Completion	2700
	TOTAL	8175