

# NDCEE

National Defense Center for Environmental Excellence



**DoD Executive Agent**

Office of the  
Assistant Secretary  
of the Army  
(Installations and  
Environment)

## Addressing Buildings and Numbering Interior Areas

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## Tobyhanna Army Depot 2007

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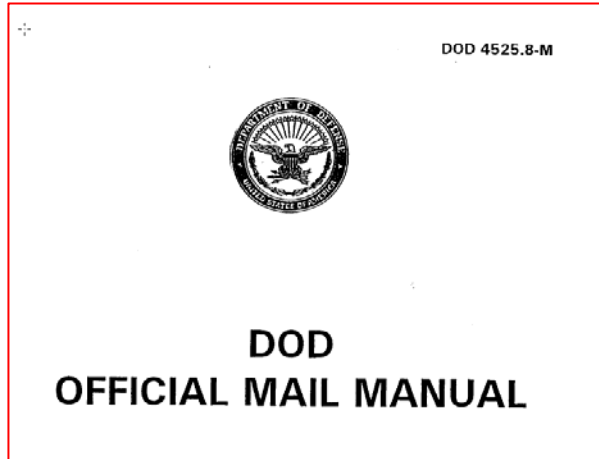
# Report Documentation Page

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# Why Re-Address?



- **DOD 4525-8 states** that installations shall not have one address and then building numbers, such as “44 Hap Arnold Blvd, Bldg 678,” but rather 44 7<sup>th</sup> Street, Tobyhanna, PA, 18466
- Follow USPS Street address standards.





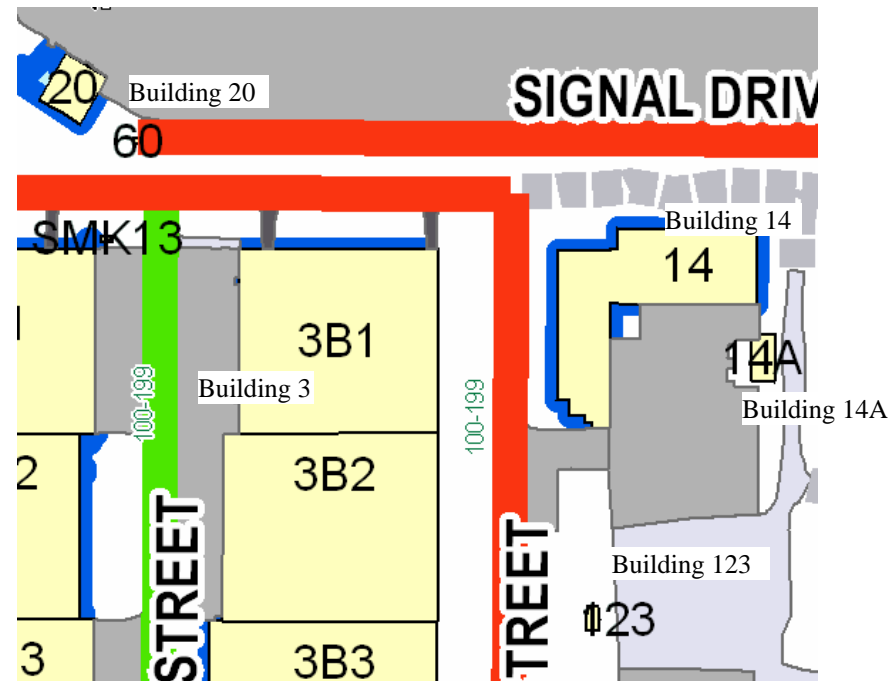
# What are some of the challenges on an old installation?

- Old drawings
- No drawings
- Inaccurate drawings
- Conflicting drawings
- Standard Operating Procedures do not address current requirements
- Lack of cooperation between divisions.



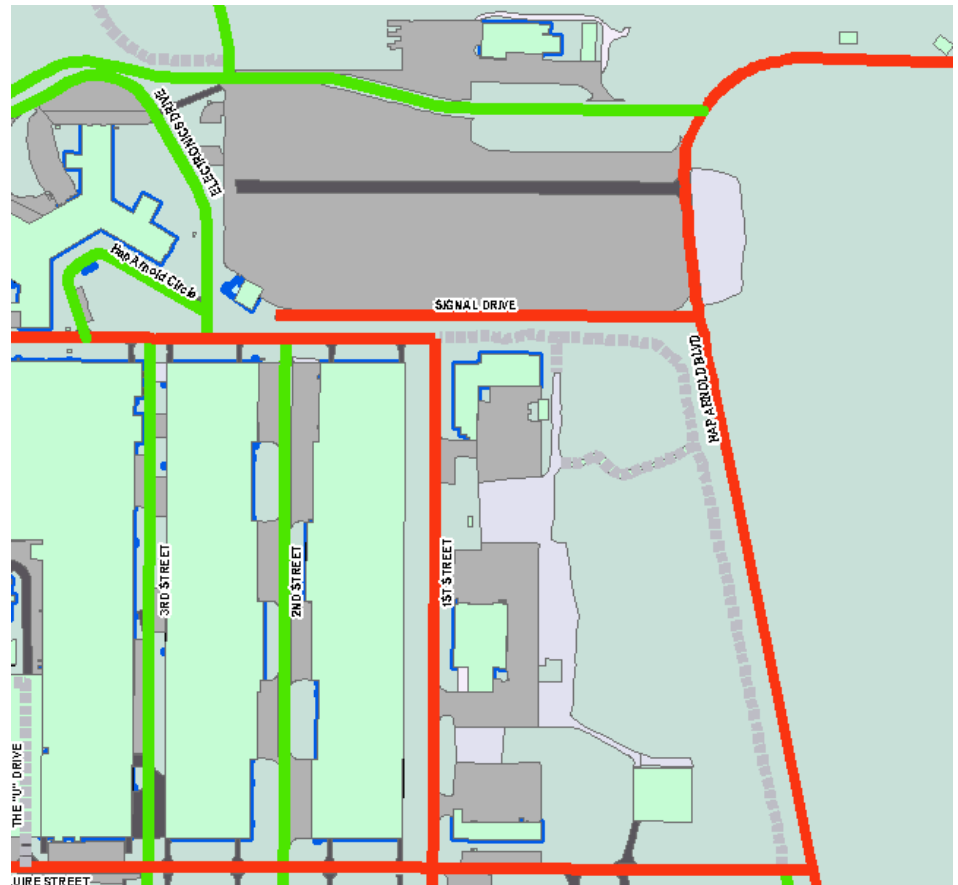
# Addressing vs. Building Numbers

- Building numbers were assigned randomly
- Only the master planner knew for sure
- Moving around the depot became difficult and incomprehensible (numbers made no sense).



# Some of the Challenges with Addressing

- Road naming
- Roads cannot go in two directions
- Road names cannot be duplicated within a township
- Streets must be named according to names and functions associated with the Depot.



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# New Address System by Street Number

- Challenges ~
  - Many entrances per building
  - Depot would like to keep same address for Headquarters building



- Benefits ~ In sync with county 911 system  
Frontage interval system follows established guidelines (i.e., 52.8 feet increment yields maximum 200 address numbers per mile).



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# Some of the Challenges with Tobyhanna Depot

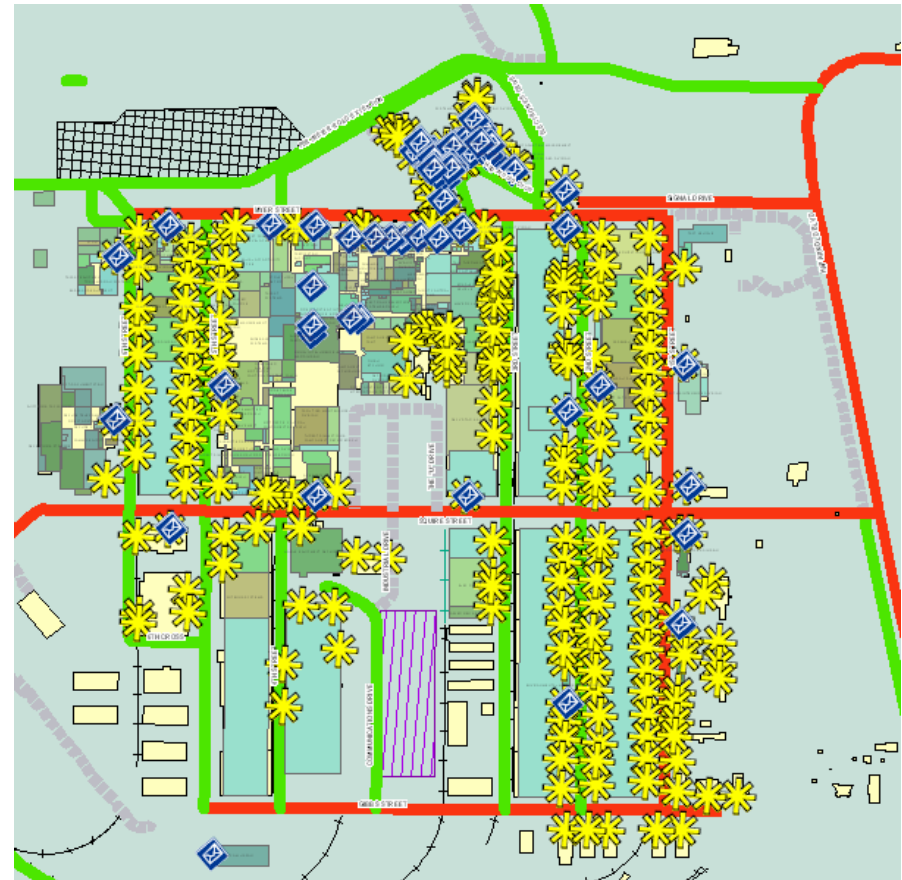
- Many entrances per building
- Many mail stops per building
- Many cost centers per building.



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# Entrances per Building

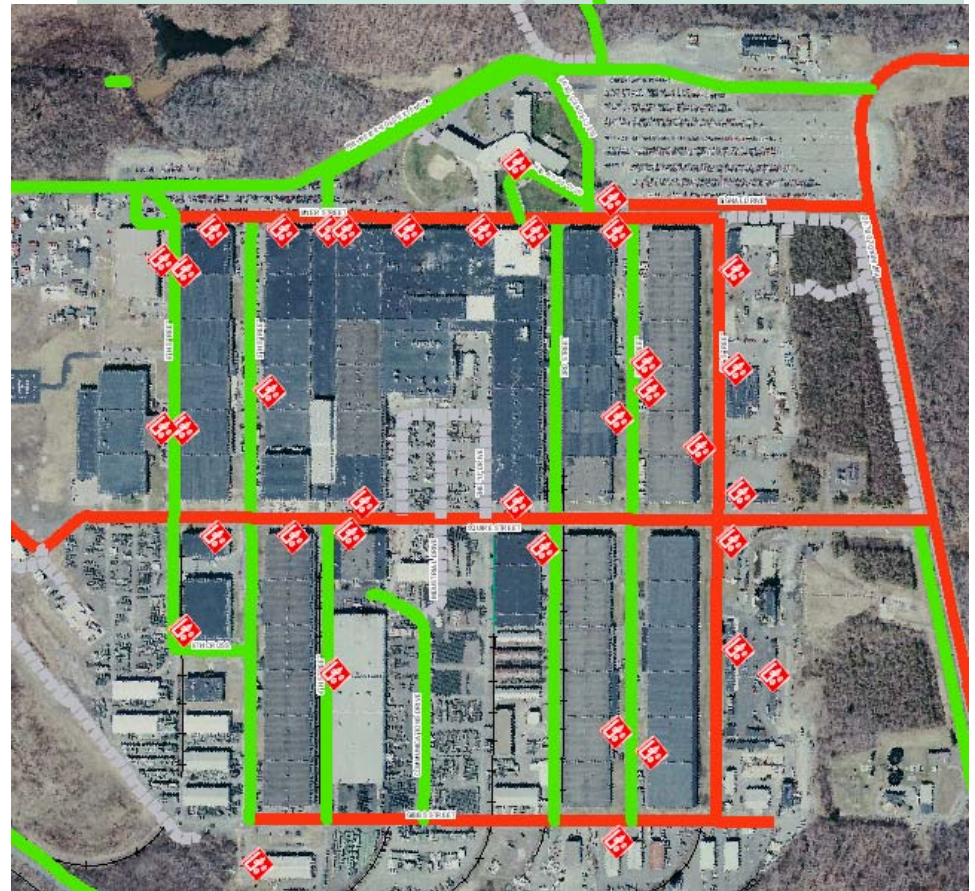
- Became a large issue with cost centers, tenants, and directorates
- Usually addressing involves one address per building
- Mail stop locations became primary.



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# Entrances per Building

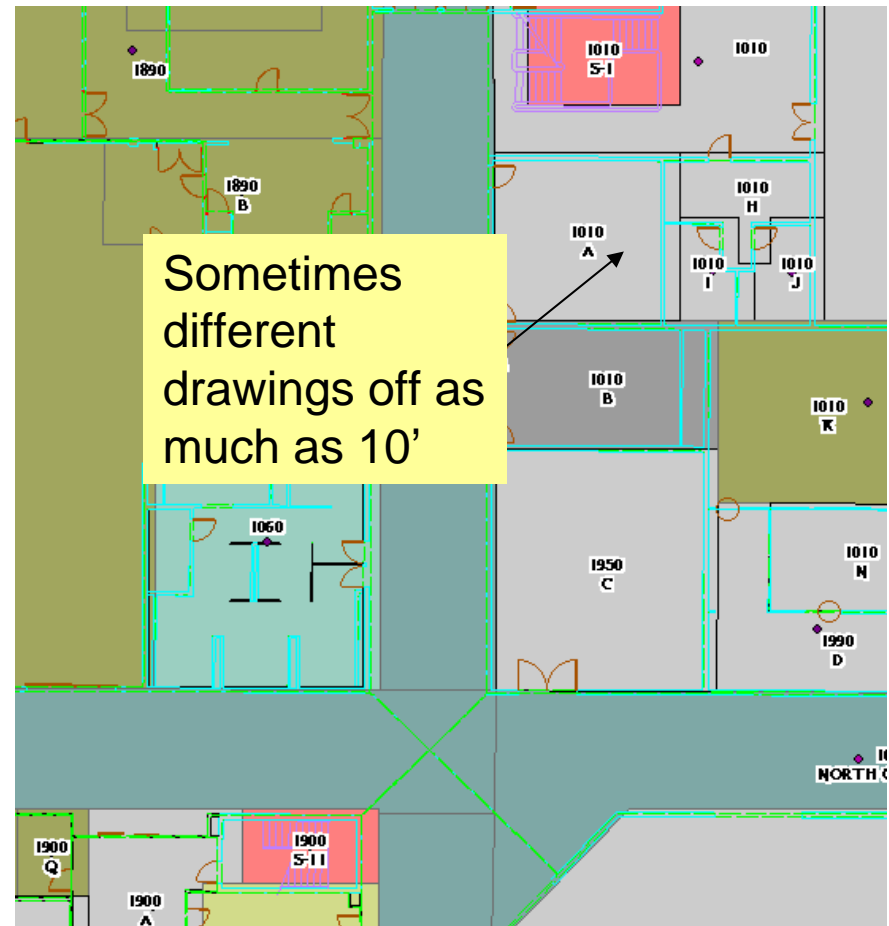
- Find all entrances to building
- Locate all mail stops
- Locate primary personnel door
- Place address label at primary entrance.



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# Interior Addressing Information and Attributes

- How accurate are your areas?
- Is it easier to bring in AutoCAD® interiors and georeference them, or to create new polygon features?
- Technical challenges with copying data from one source (inaccurate polys/accurate data) to another (accurate CAD or polys/null data).



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# Room Numbering Considerations



## Flow

- Clockwise/Counterclockwise
- Main “traffic patterns”
- Entrance/exits
- Door swing

## Distinct floor plans require different schemas

- Wings
- Corridor shape
- Rooms.

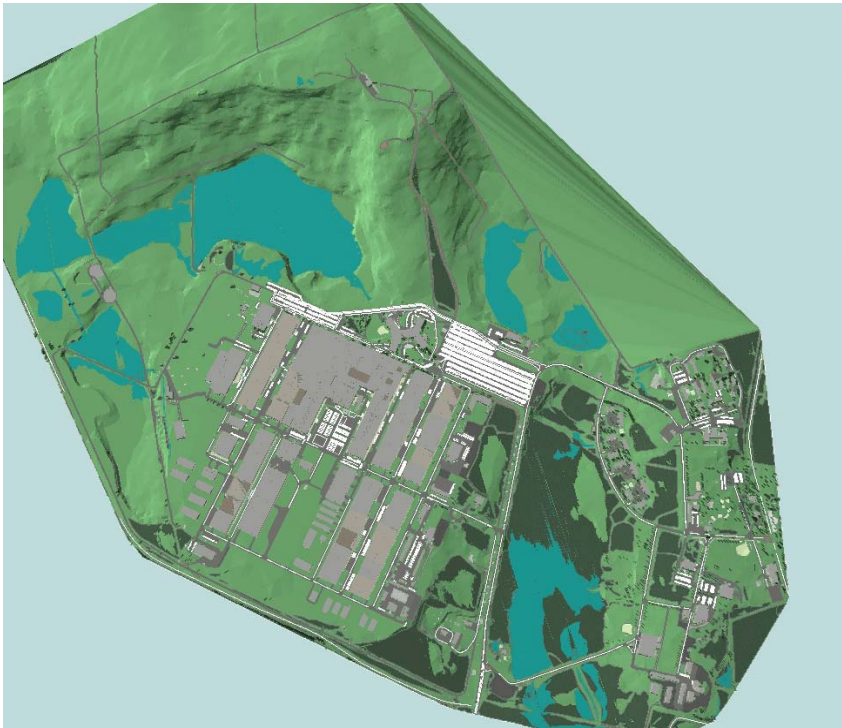
## Consistency

- Between buildings on the depot
- Between floors of buildings
- Signage



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# Exterior Areas to be Addressed



- Overhead and cargo doors
- Driveways
- Parking spaces
- Bus Stops
- Route numbers
- Mail stops.



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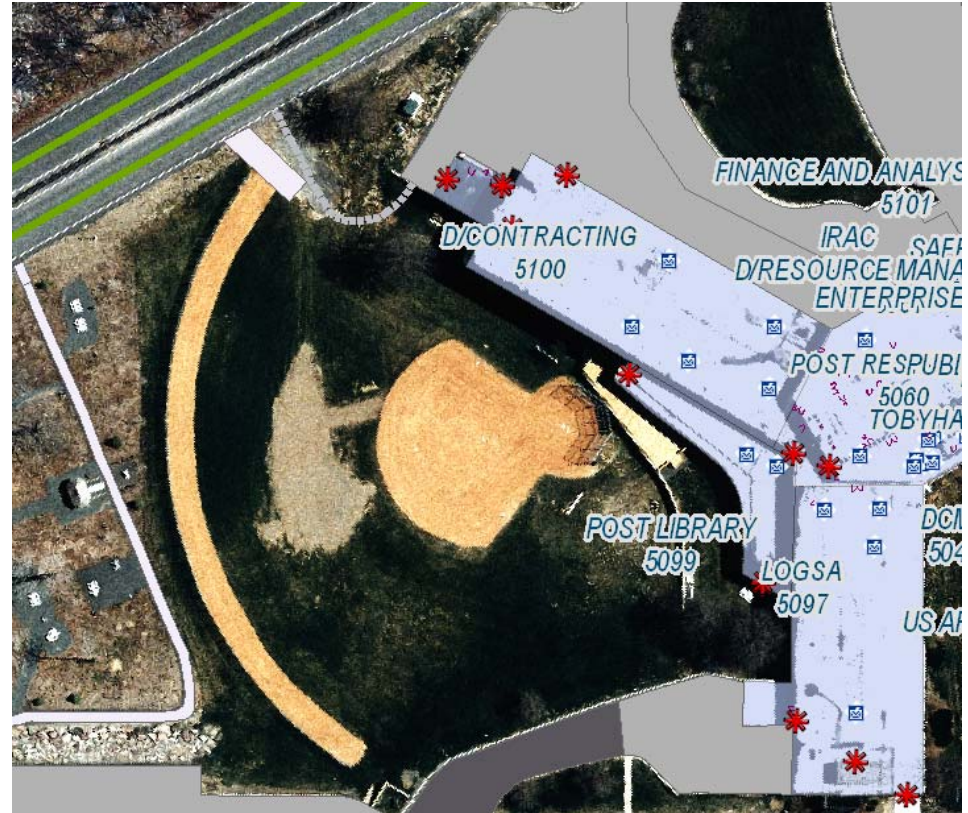
# Data Integration

- Graphical Data sources:
  - CAD Files – Interior Layouts, Site Maps, Project Drawings/Plans/As-builts
  - Base Map From Flyover – CAD files in (originally) tiled layers
  - Environmental Coverages (asbestos project coverages)
  
- Non-graphical (tabular) Data sources:
  - Building Evaluation database
  - IFS (Integrated Facility System) Real Property Records
  - Asbestos testing and inspection data.

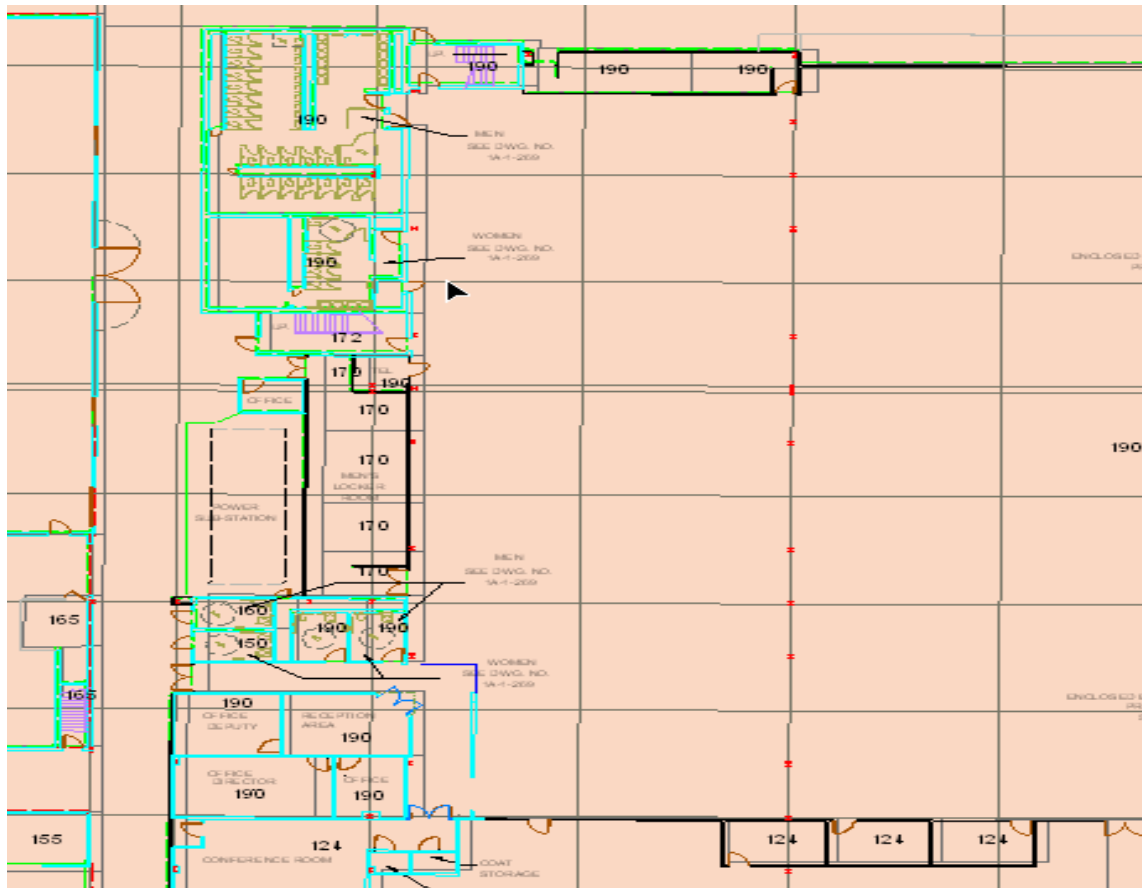


# External Addressing Features

- Addressing will include:
  - Mail stops
  - Emergency exits
  - Room and suite numbers
  - Elevators and stair locations
  - Corridors and hallways
  - Fire extinguishers and sprinkler pits
  - Telephones
  - Substations and electrical rooms.



# Publicize and Standardize



- Data will utilize both GIS and CAD sources
- Updates must be provided to Department of Public Works (DPW).



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# Future Use of Room Numbering and Addressing

- Standardized numbering and addressing will enable the integration of business practice functionality in IFS and job order tracking
- Safety Applications – Enhanced 911 response, phone schematic, automatic alarm triggers to interior room numbers, emergency lights mapped and tracked
- Ease of personnel location – Room numbering and cost center areas.



# Building Usability Throughout the Depot

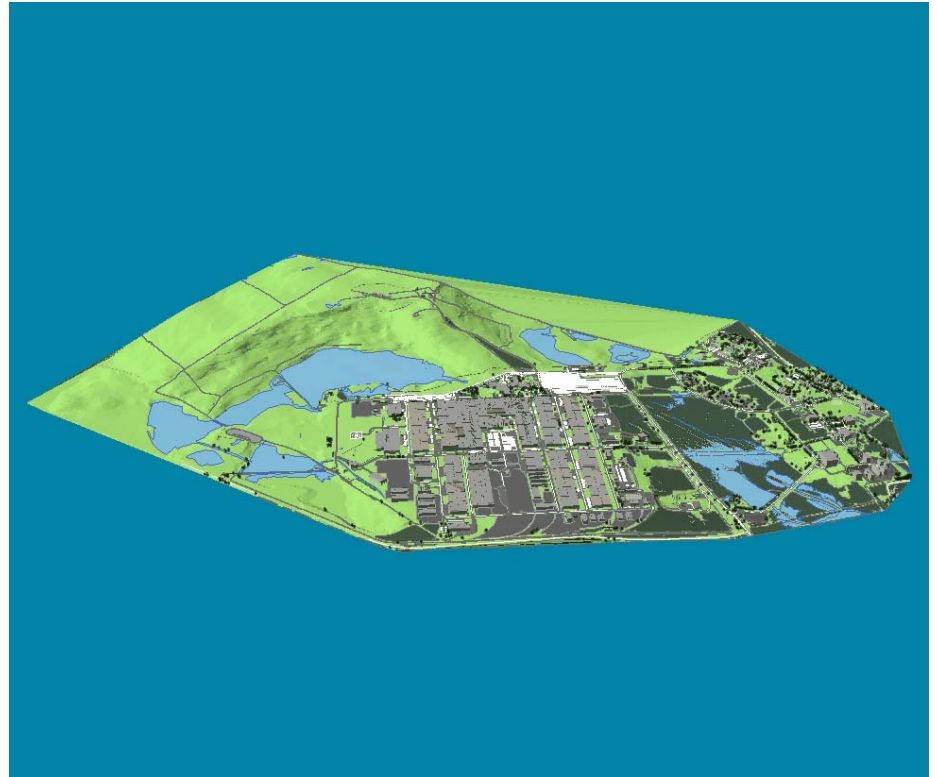
- Standard Operating Procedures
- Plant Engineering Department (PED), Environmental Management Division (EMD), and Department of Public Works (DPW) coordination
- Specialized training
- Server-side applications for business processes.



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## Future of GIS at TYAD

- GIS visibility is growing
- Ease of use promoted throughout the installation
- Shared methodology and simplified Graphical User Interfaces (GUIs) for location purposes.



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# Increased Use of Several Extensions

- 3D Analyst
- Spatial Analyst
- Data Interoperability
- Survey Analyst



- Development Using ArcIMS™ – ArcGIS™ Server.



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