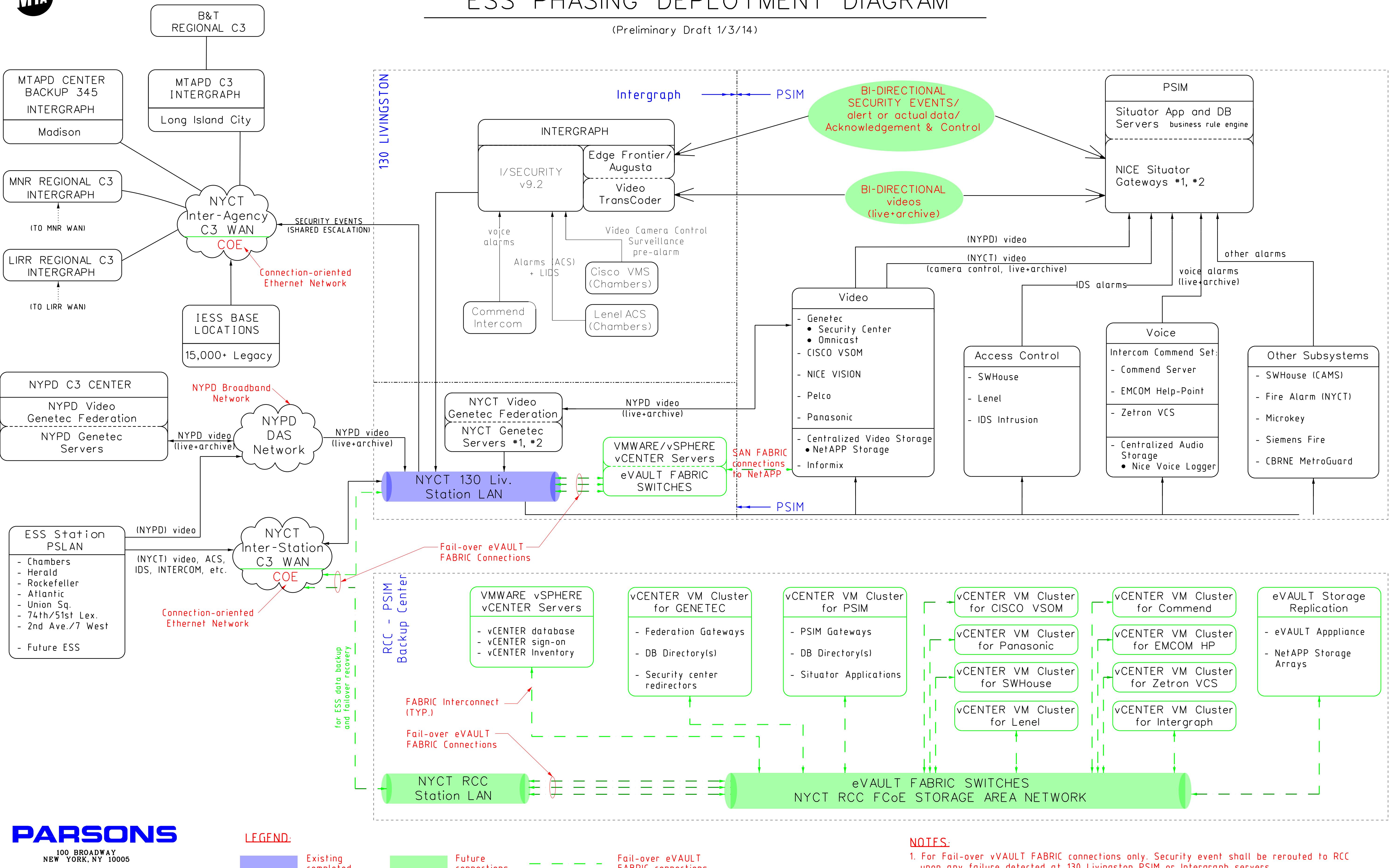




ESS PHASING DEPLOYMENT DIAGRAM

(Preliminary Draft 1/3/14)

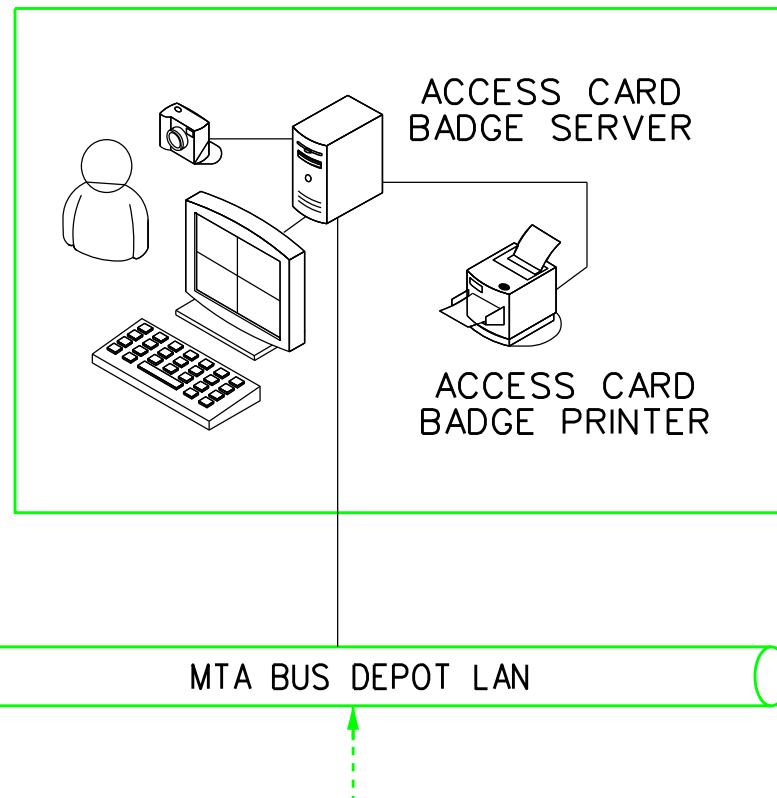




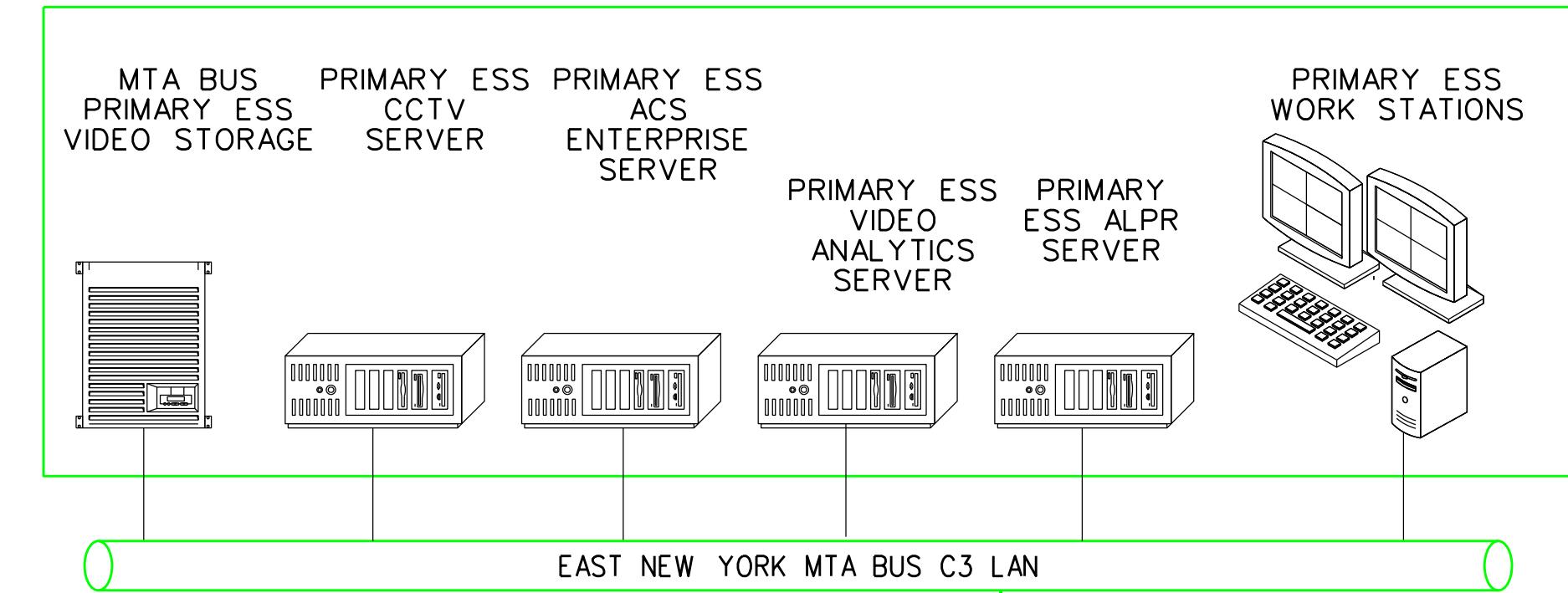
MTA BUS ESS OVERVIEW DIAGRAM

(Preliminary Draft 1/9/14)

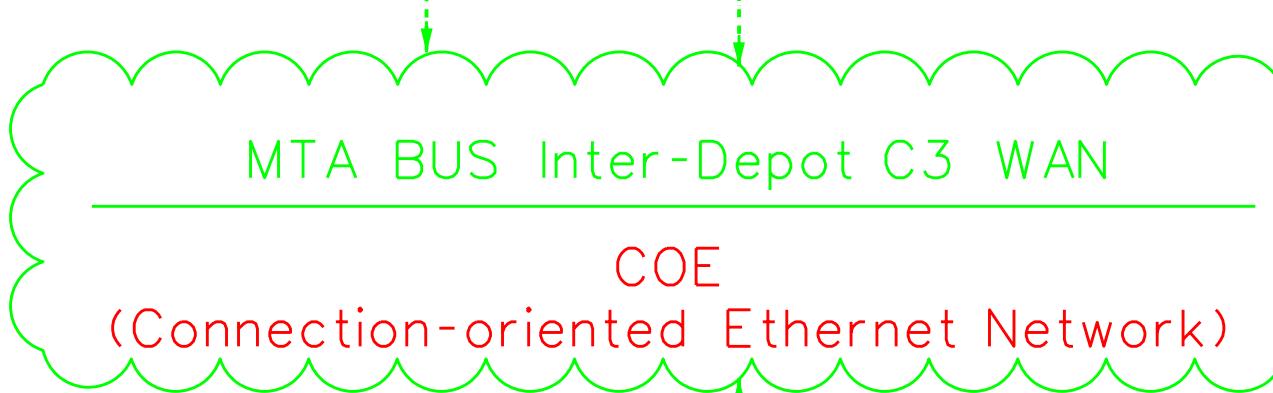
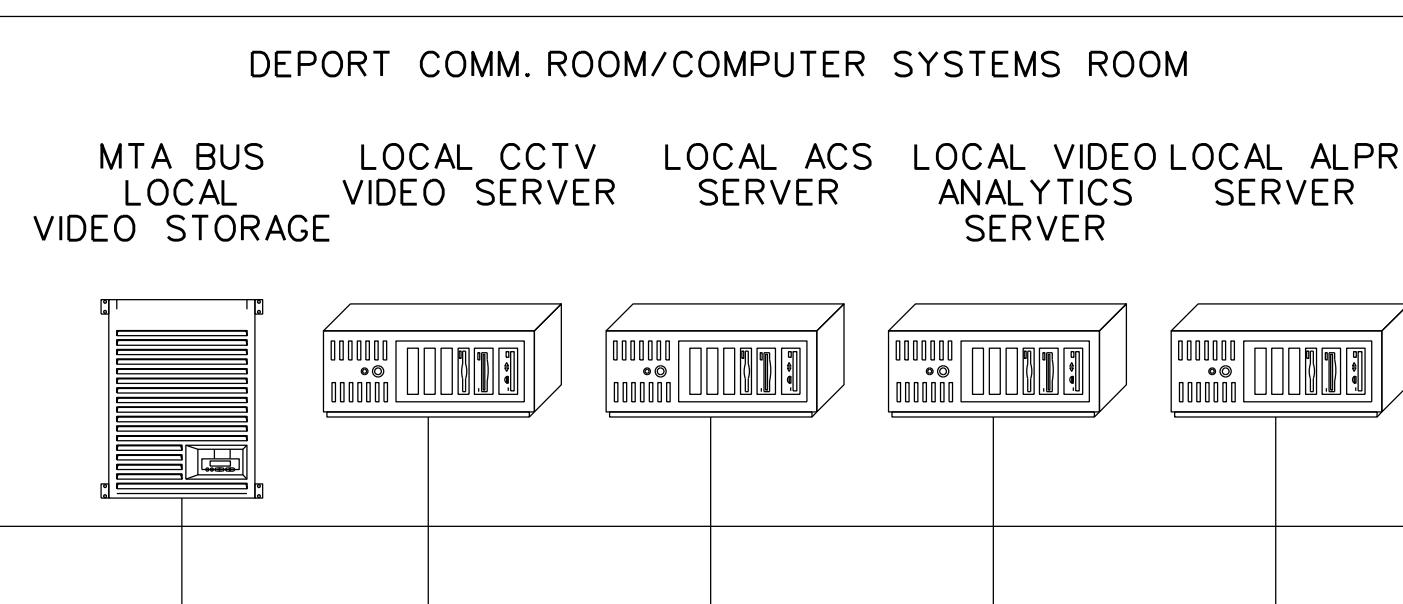
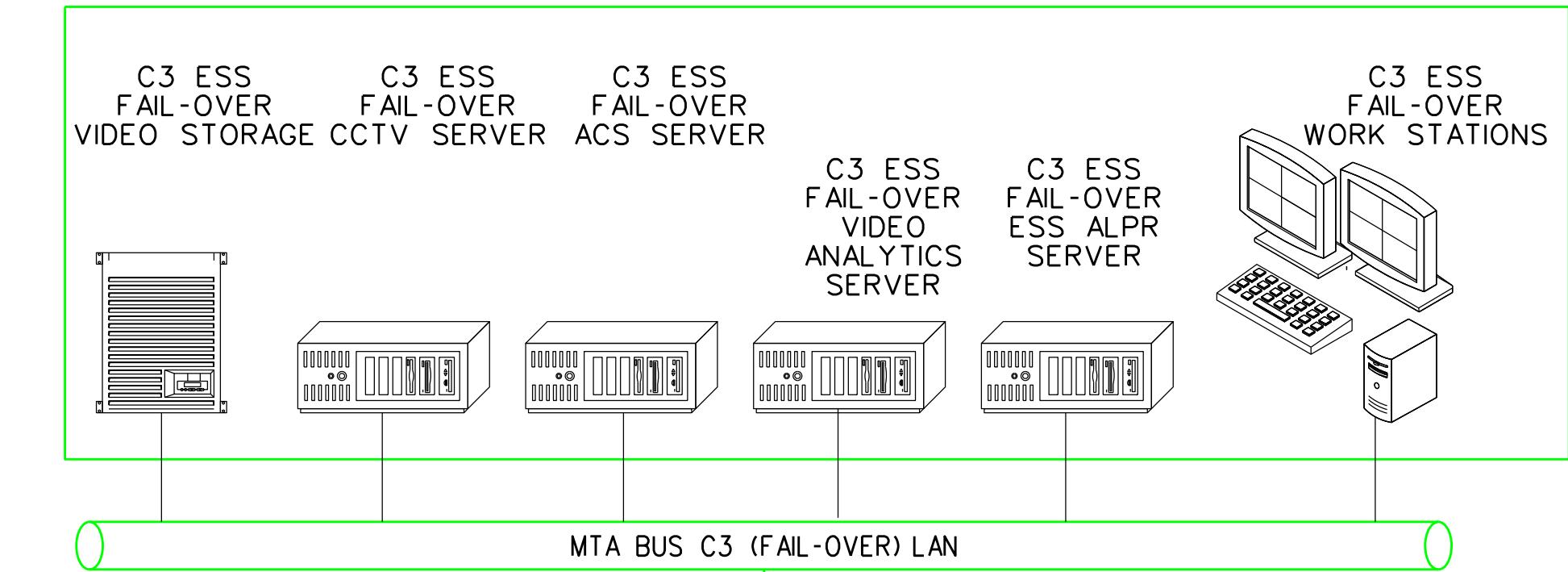
MTA BUS ENROLLMENT STATION
AT DESIGNATED MTA BUS DEPOT



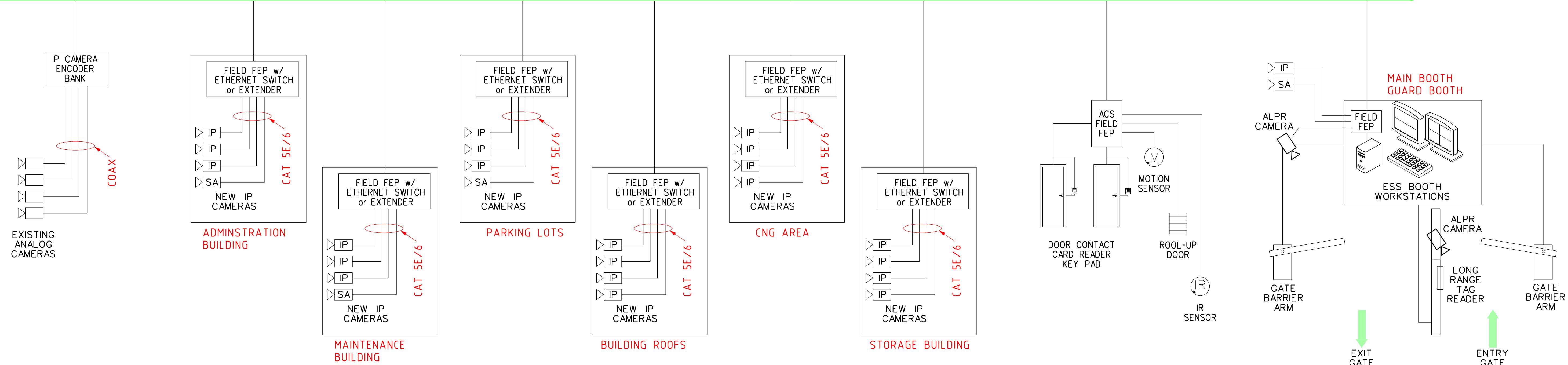
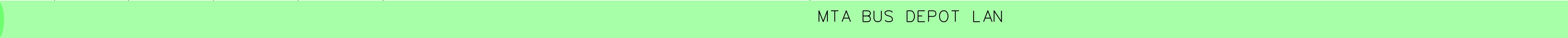
MTA BUS PRIMARY C3 COMMAND CENTER
AT EAST NEW YORK



MTA BUS FUTURE C3
FAIL-OVER LOCATION



MTA BUS DEPOT LAN

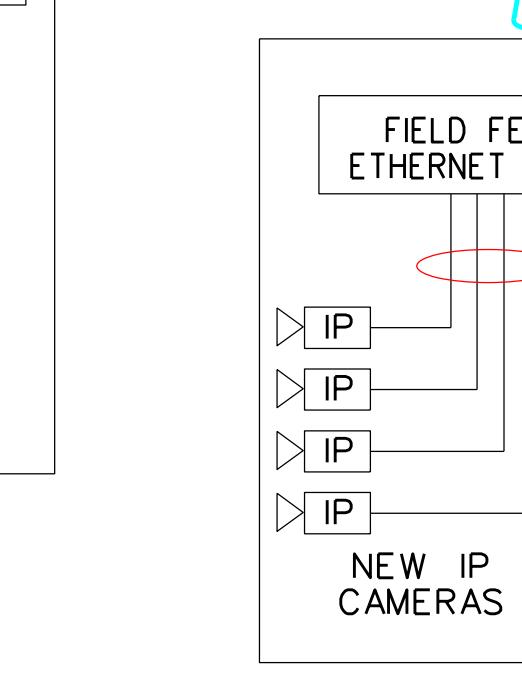
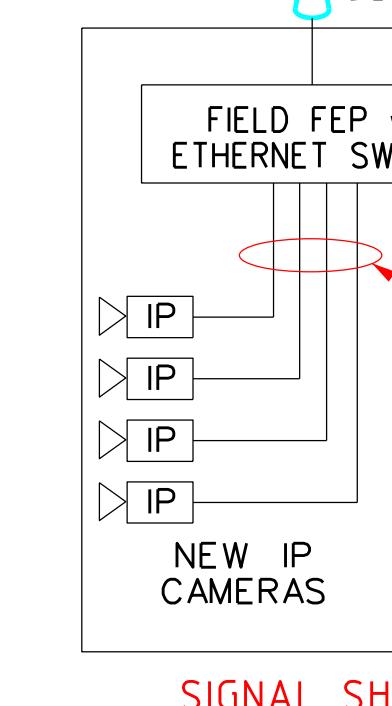
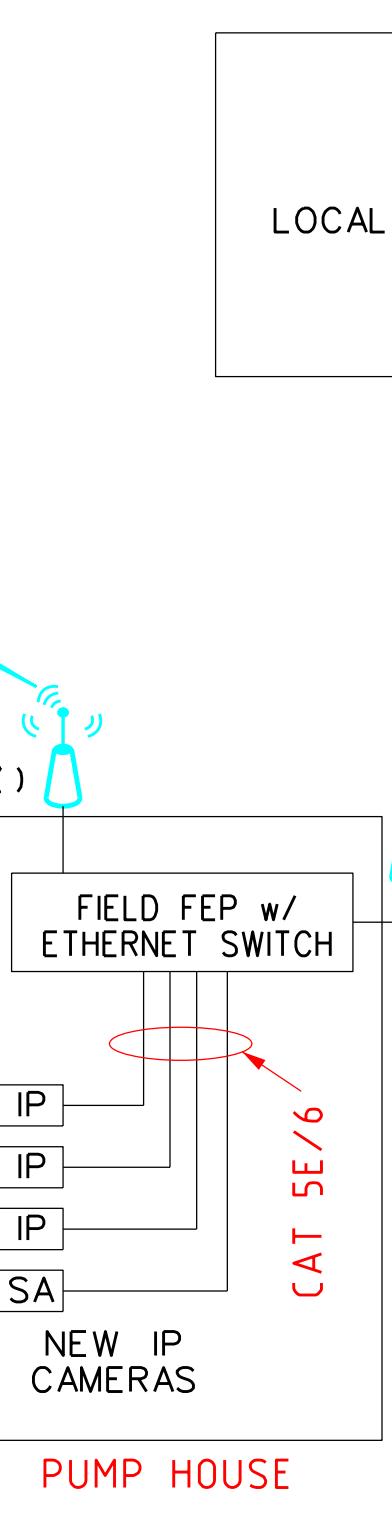
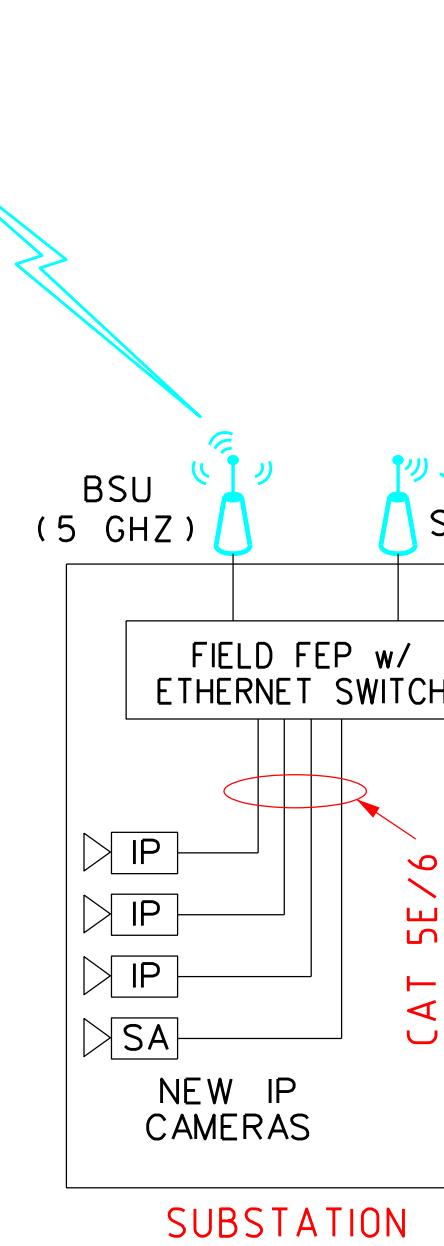
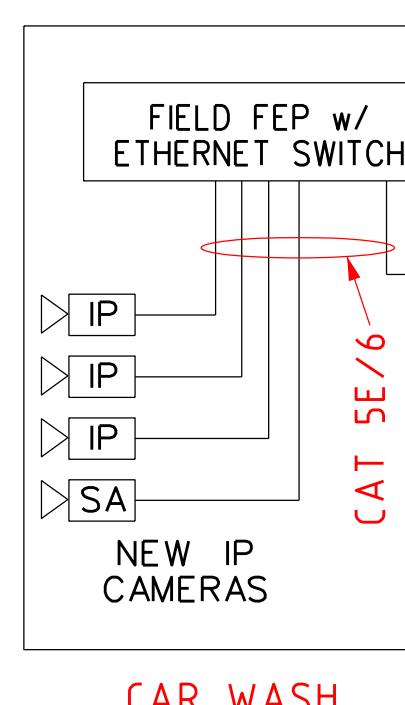
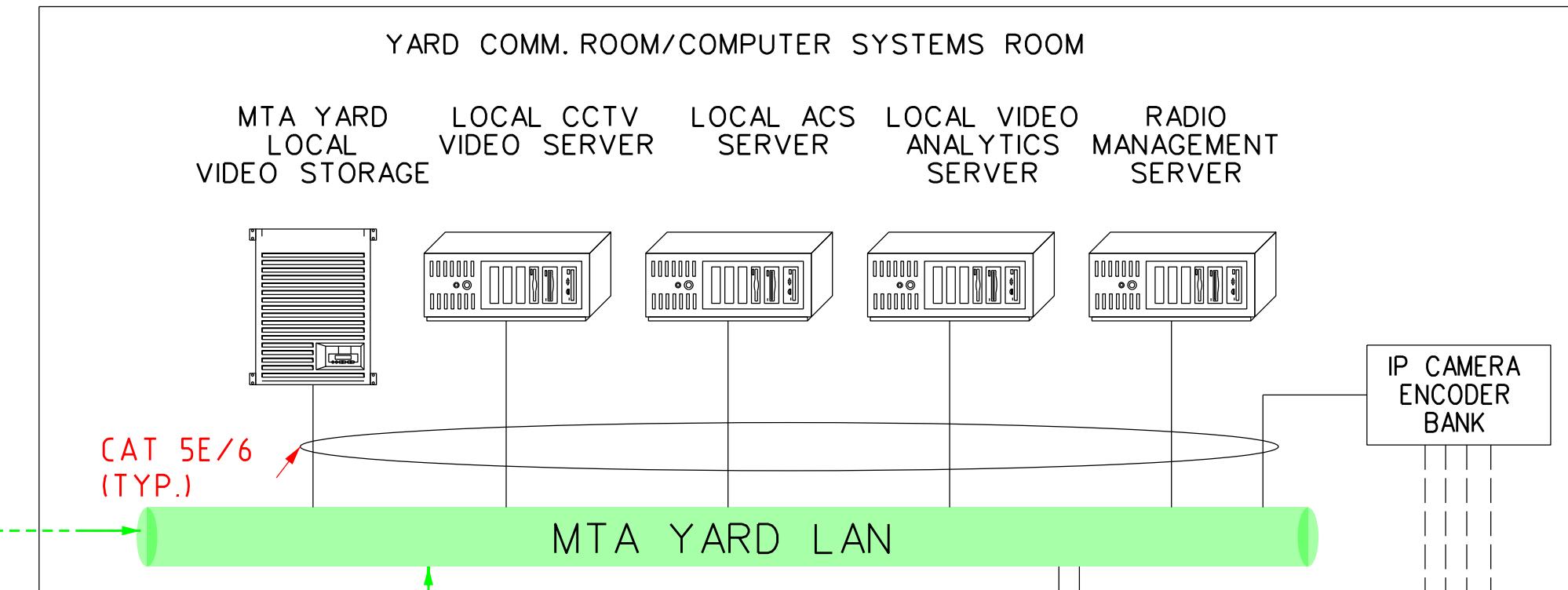
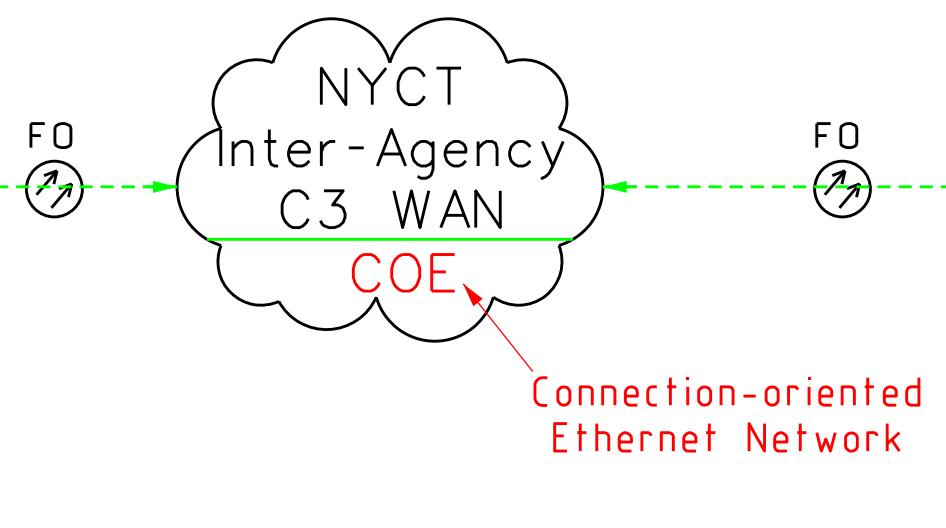
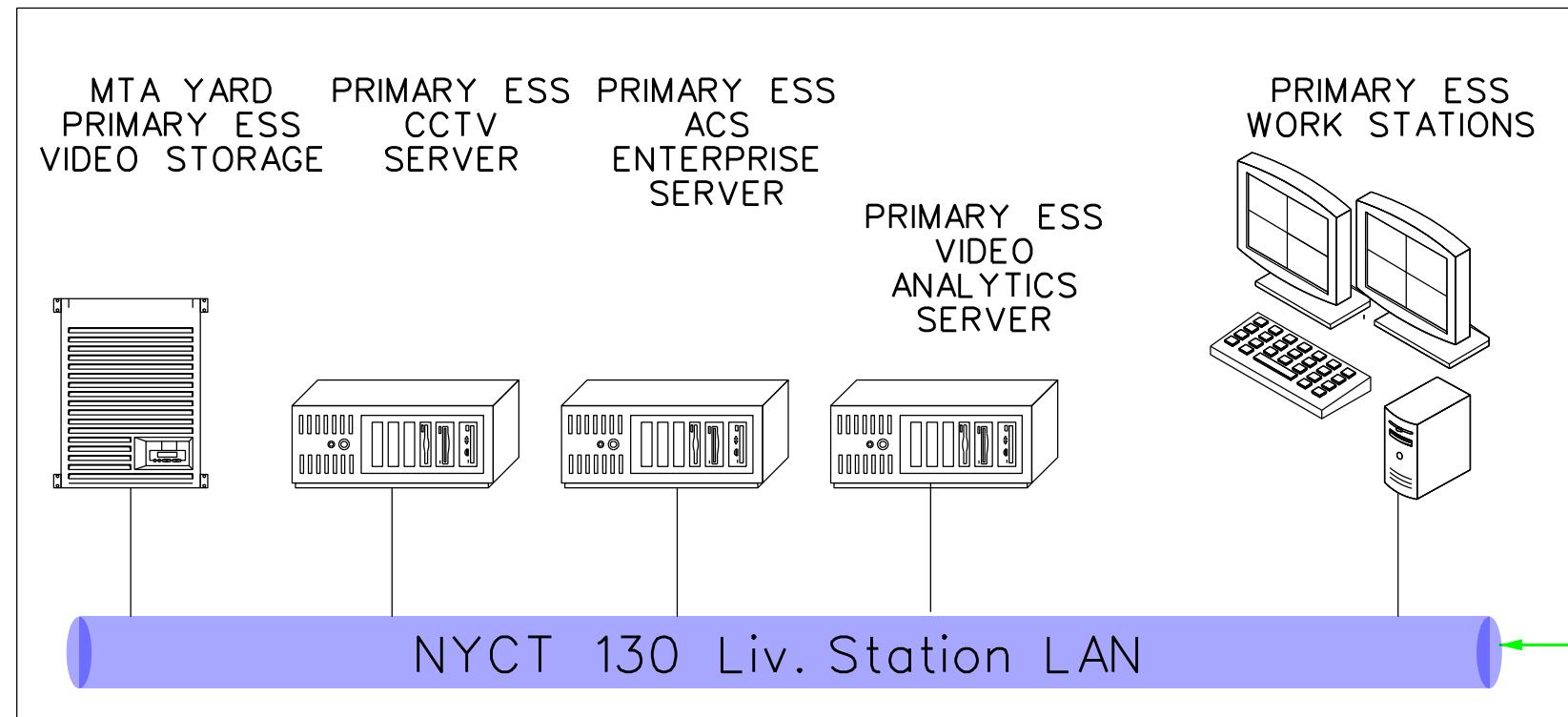




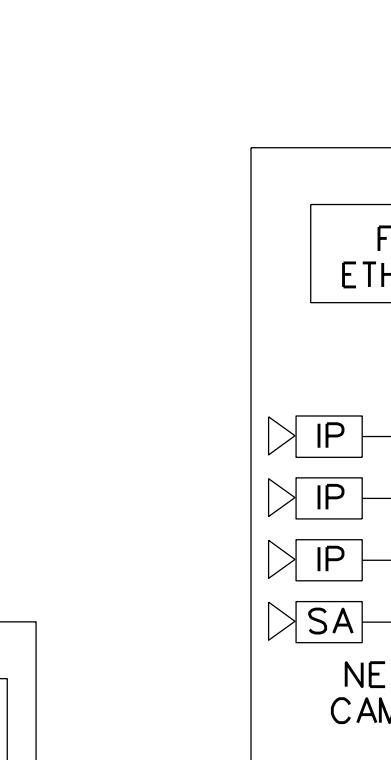
MTA YARD ESS OVERVIEW DIAGRAM

(Preliminary Draft 1/9/14)

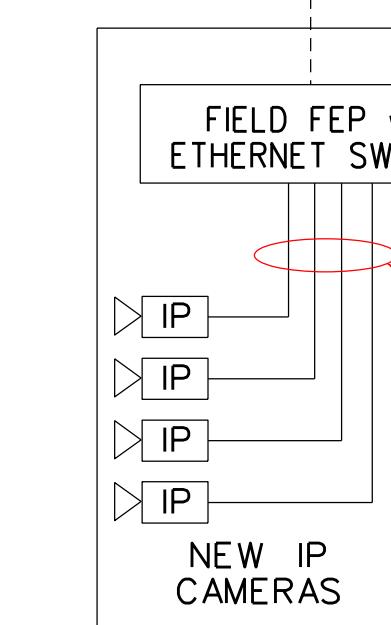
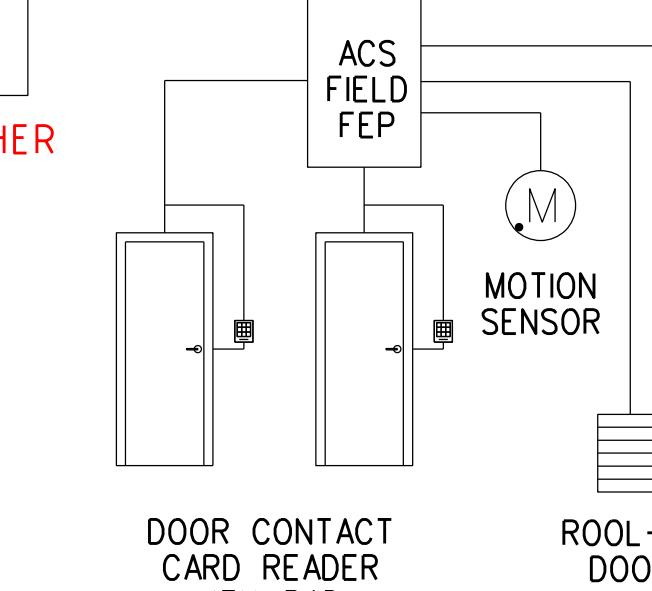
MTA REGIONAL C3 COMMAND CENTER
AT 130 LIVINGSTON



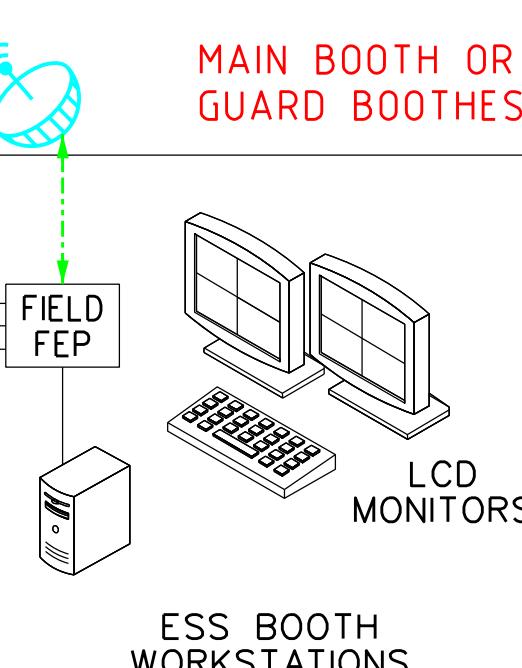
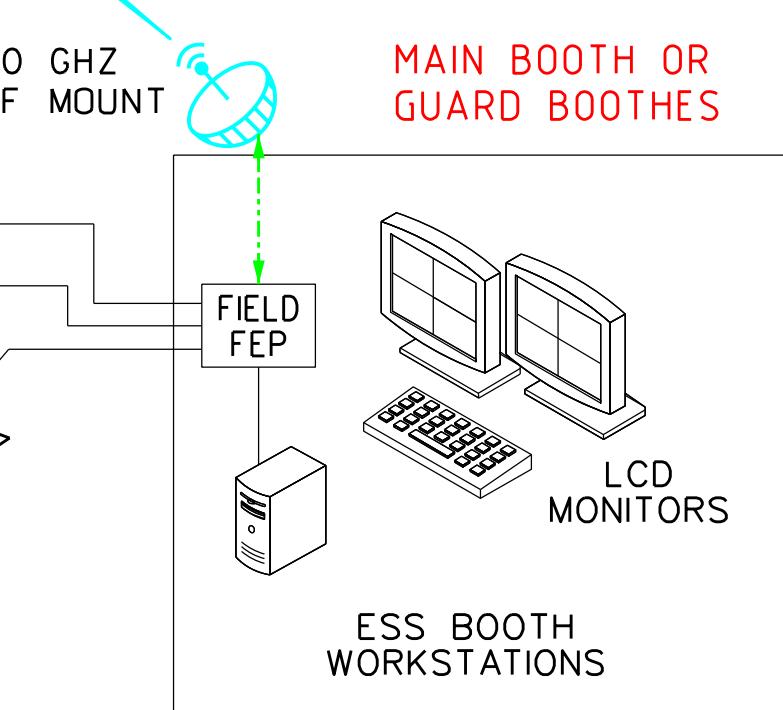
PARKING LOTS



ADMIN./MAIN./OTHER
BUILDINGS



PORTAL
STRUCTURE



EXIT
GATES
1, 2, etc.
A, B, etc.

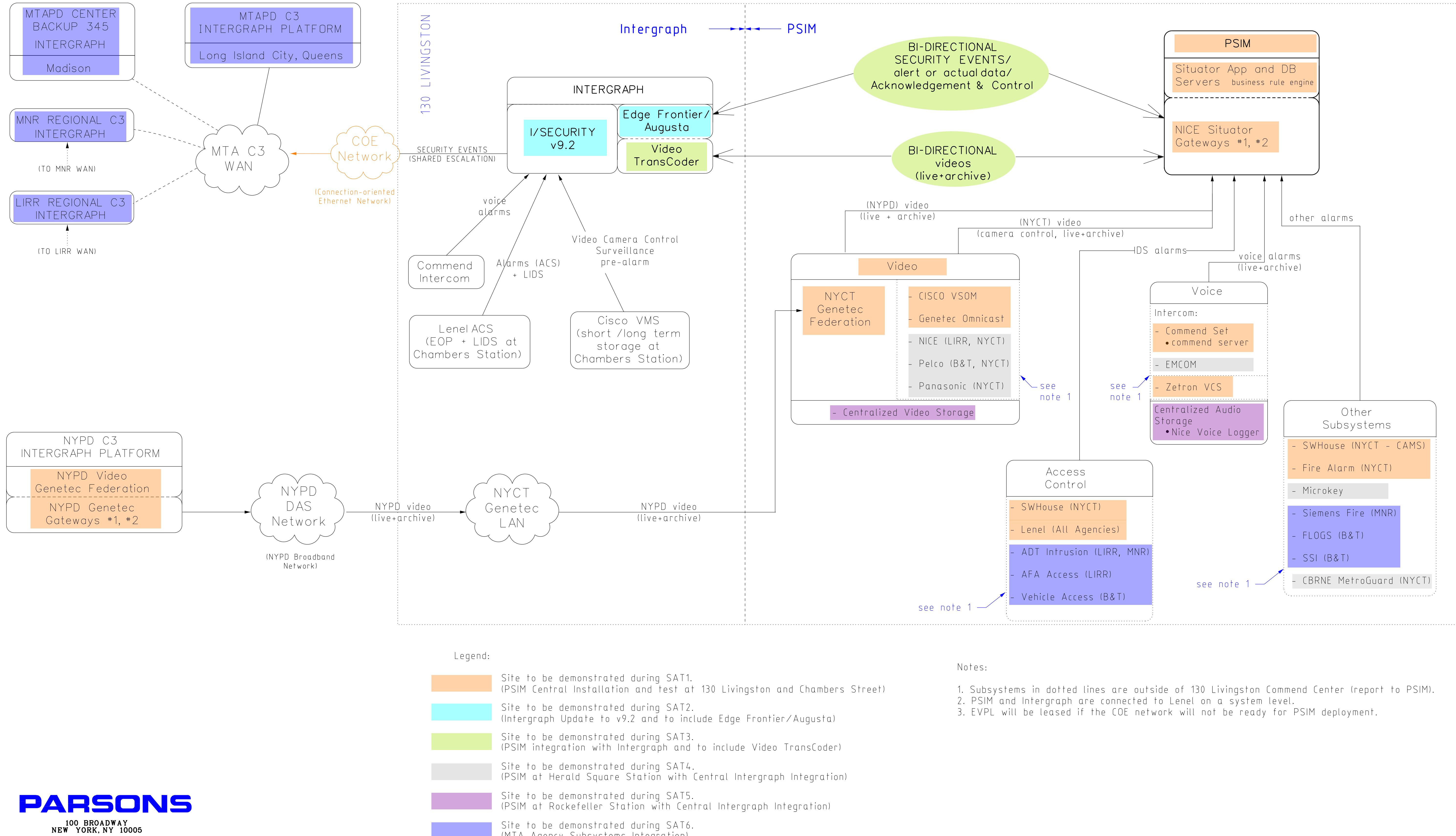
ENTRY
GATES
1, 2, etc.
A, B, etc.



PSIM Site Acceptance Tests Phases

(Assume all SAT will be done at RCC)

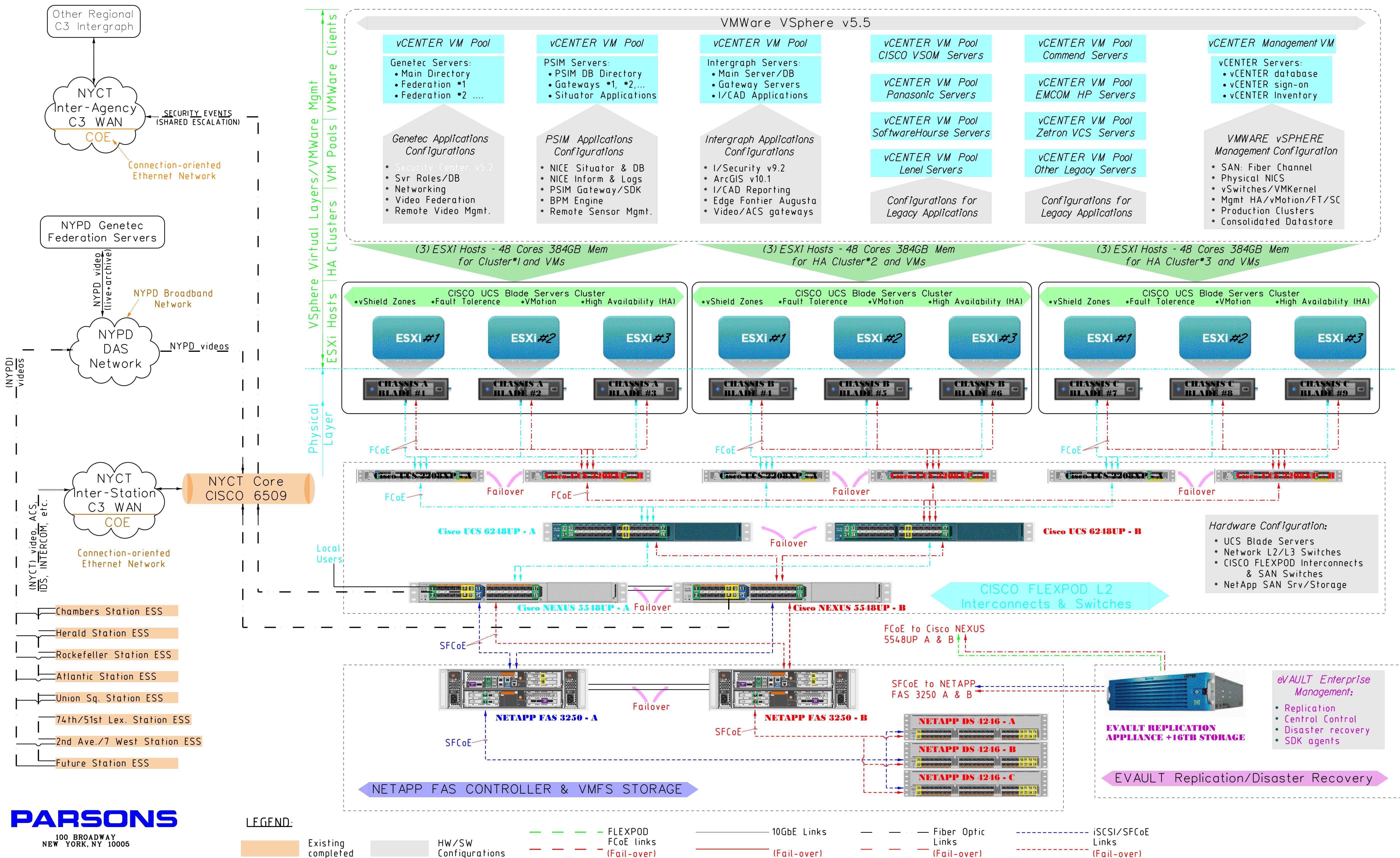
(Preliminary Draft Last Updated: 1/16/13)





ESS RESILLIENCE VMWARE vSPHERE v5.5 ARCHITECTURE

(Preliminary Draft 3/11/14)



NICE Situator Interface with 3D LiDAR Data Design Concept – ArcGIS (Option #1: Dynamic Mapping)

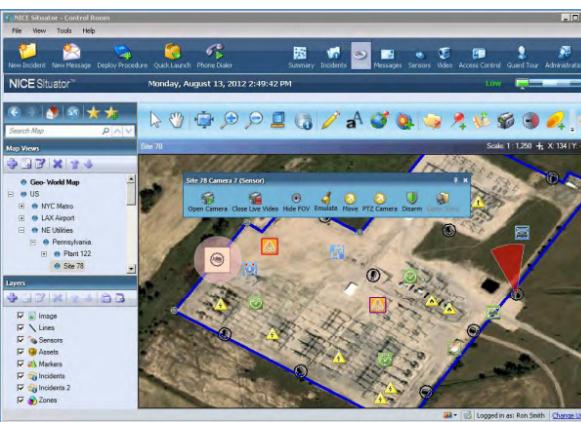
DRAFT 1/6/14

Cons (-):

- Extensive labor to set up ArcGIS/SQL Server/Clients
- Networking more complicated to support auto. SQL Sync. for dynamic map updates
- Great geomap details, difficult to post-process big cloud files (>2GB) with ArcGIS LAS Tools

Pros (+):

- + National GIS standard and SQL Server/Client Models
- + National standard for Metadata & Geospatial Data
- + National standard for GPS data
- + Built-in GIS Engine supports dynamic map processing, integration, update, and management by PSIM Nice Situator



Dataflow

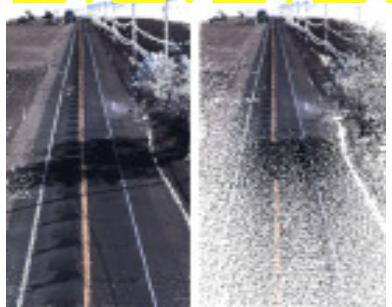
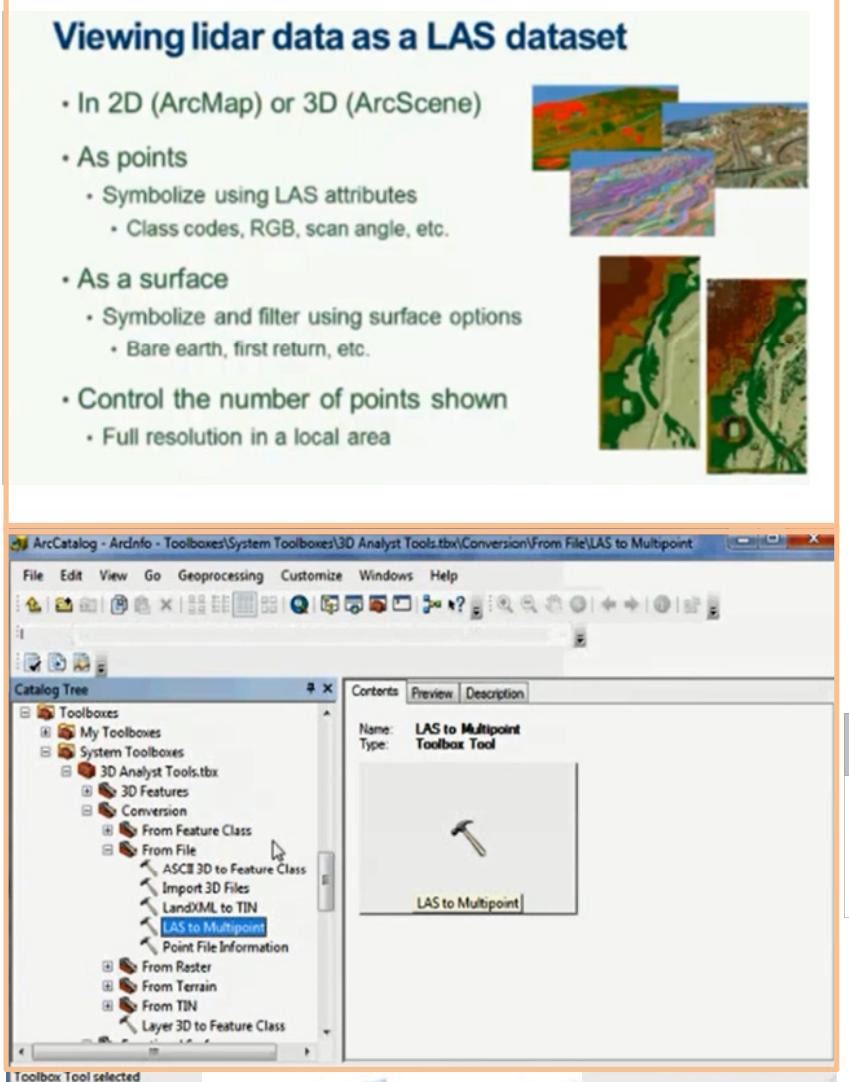
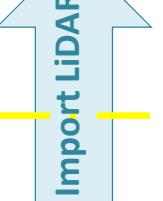
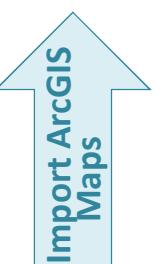
LiDAR 3D Point Cloud in .LAS files
standard binary format for data exchange

ArcGIS v10.1 GUI:
- Import .LAS files
- Geoprocessing

ArcGIS v10.1 GUI for
- 3D Geocoding
- GIS Map Views

3D Esri ArcGIS Layers
in .shp files

PSIM Situator Map Tools:
- 3D Map Operations
- 3D Map View



NICE Situator Workstations

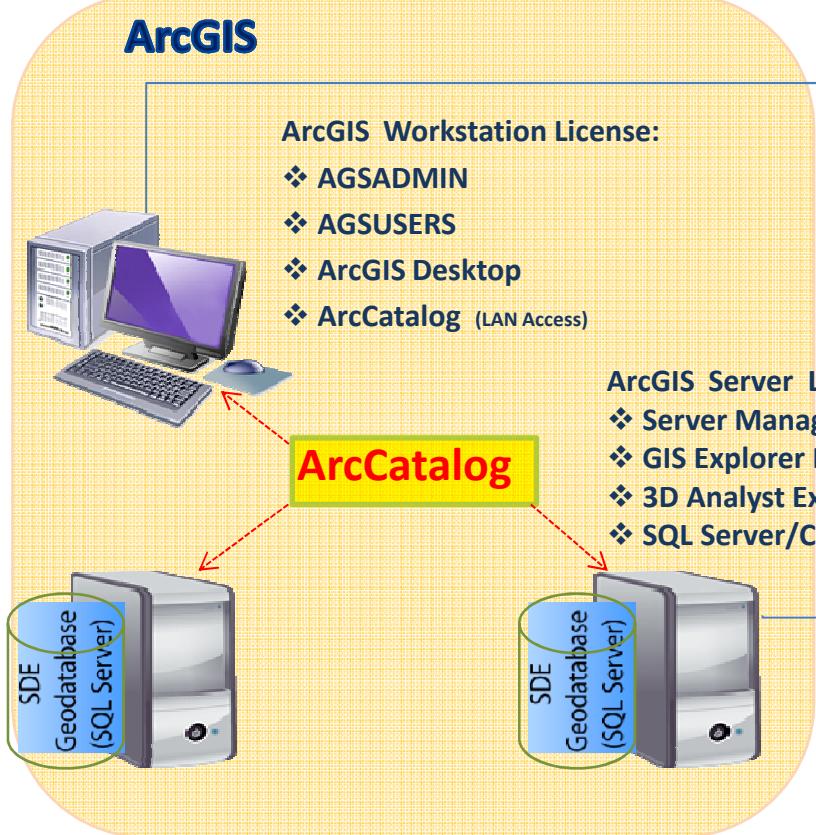
NICE Situator Application Servers

PHYSICAL Architecture



ArcGIS Workstations

ArcGIS Servers



LiDAR Survey Data from Subway Stations

130 LIV NYCT LAN

Subway 130 LIV.
Stations Plaza