TECHNOLOGY SYSTEMS FOR EOCS

Taw North, RCCD, LEED AP

TLC Engineering Solutions

AGENDA

Introduction to EOC Technology Systems

Technology Planning Considerations

Design Lessons Learned

INTRODUCTION TO EOC TECHNOLOGY

Communications

Audio Visual Systems

Security

Information Technology

COMMUNICATIONS

- Telecommunications Circuits
- Municipal Fiber
- Radio
- Microwave
- Satellite
- Internet

AUDIO VISUAL SYSTEMS

- Large Format Presentation Systems
  - Video Walls
  - Direct View LED
  - Projection
- Small Meeting Spaces
- Individual Offices
- Video Teleconferencing
- Content and Sources

AUDIO VISUAL SYSTEMS | VIDEO WALLS

- Made up of multiple 46" OR 55" Displays

- Can combine multiple displays

AUDIO VISUAL SYSTEMS | DIRECT VIEW LED

- Made up of multiple smaller LED panels

- 4K resolution

- Similar to scoreboard technology

AUDIO VISUAL SYSTEMS | PROJECTORS

- New technology: Laser and 4K
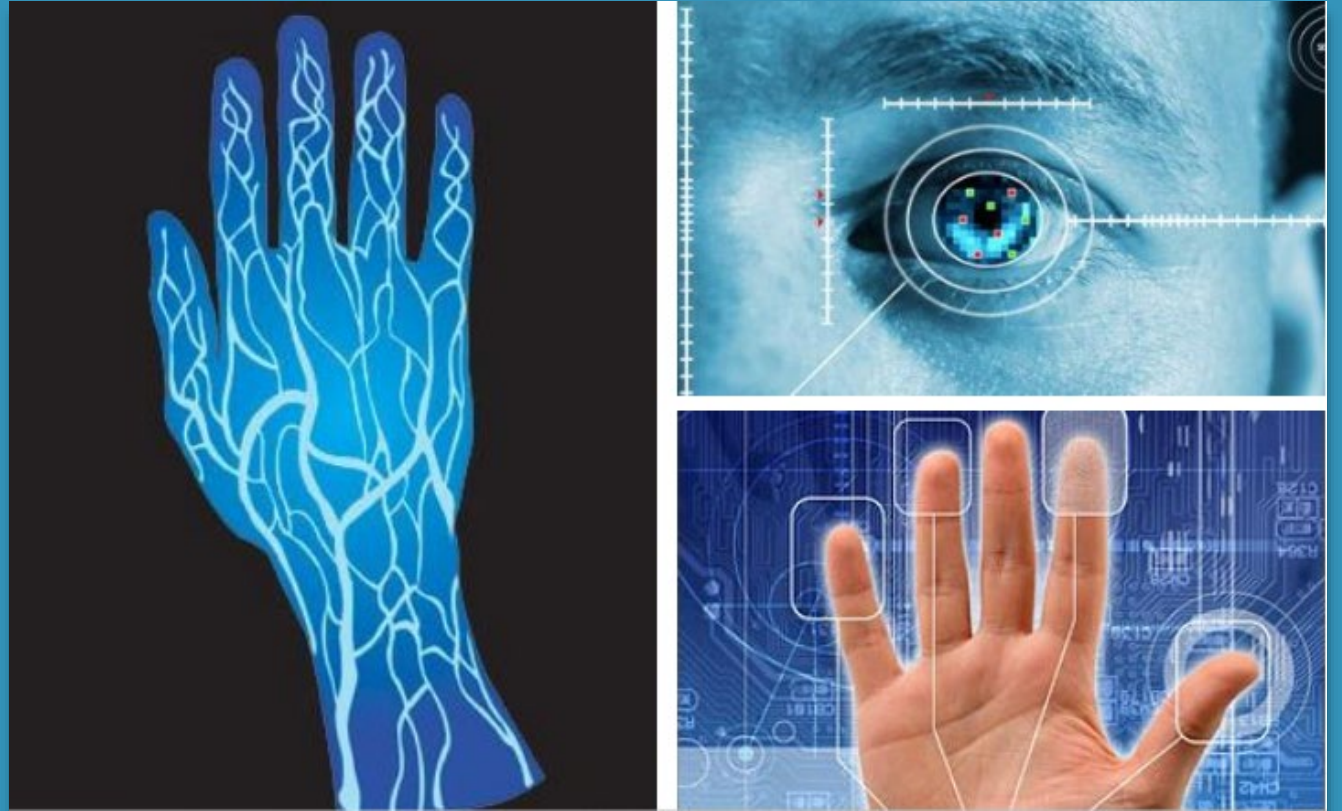- Requires lamps to be replaced
- Fan noise in room

AUDIO VISUAL SYSTEMS | MEETING ROOMS

- Integrated Video Teleconferencing
- Collaboration Systems
- Screen Sharing
- Occupancy Sensors
- Wireless Presentation Systems

SECURITY SYSTEMS

- Access Control
- CCTV
- Intercom
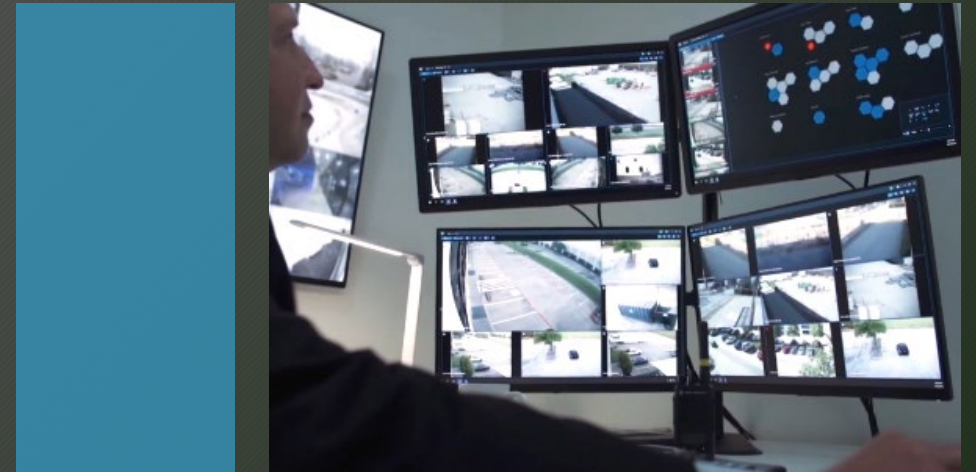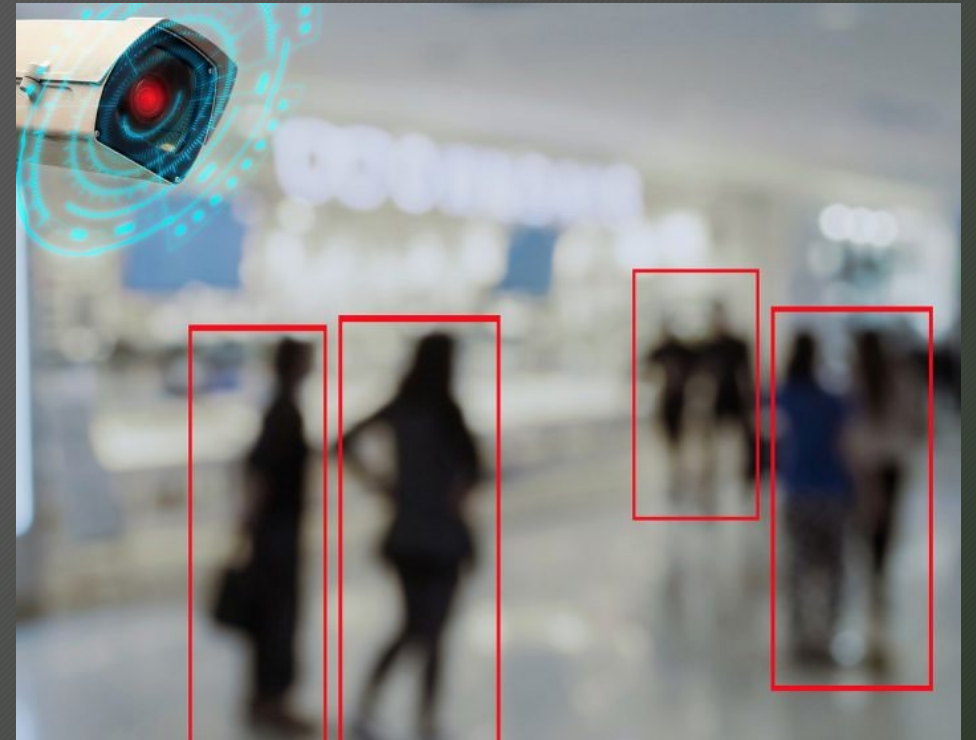- Distributed Antenna System

ACCESS CONTROL SYSTEMS

- Site security
- Control Public and Private Areas
- Change access levels based on Activation Levels
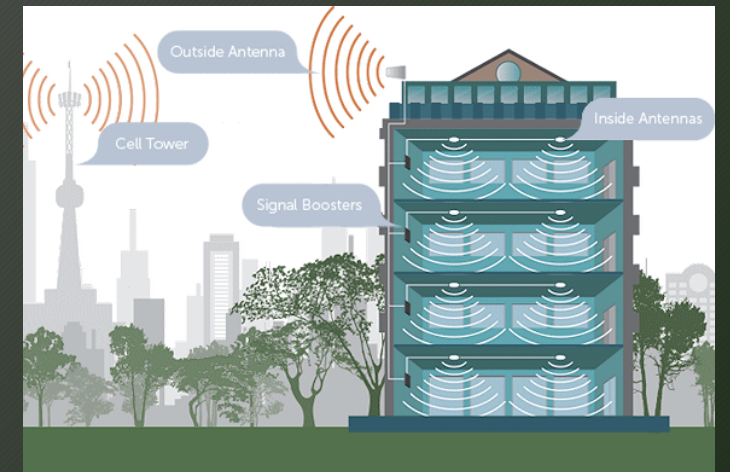- Secure Credentials

CCTV AND INTERCOM SYSTEMS

- Main purpose is to capture video for review post event

- Situational Awareness

- Analytics
    - Abandoned item
    - Wrong way traffic
    - Loitering

- Intercom with Video

DISTRIBUTED ANTENNA SYSTEM

- Public Safety – 800 MHz for First Responders
- Cellular
  - Carrier Provided
  - Neutral Host

INFORMATION TECHNOLOGY

Data Centers

Servers

Network

Peripheral Devices

Software

TECHNOLOGY PLANNING CONSIDERATIONS
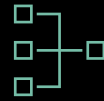
Redundancy

Flexibility

Threats

Media

Future Planning

REDUNDANCY

Multiple Service Providers — Microwave, Satellite

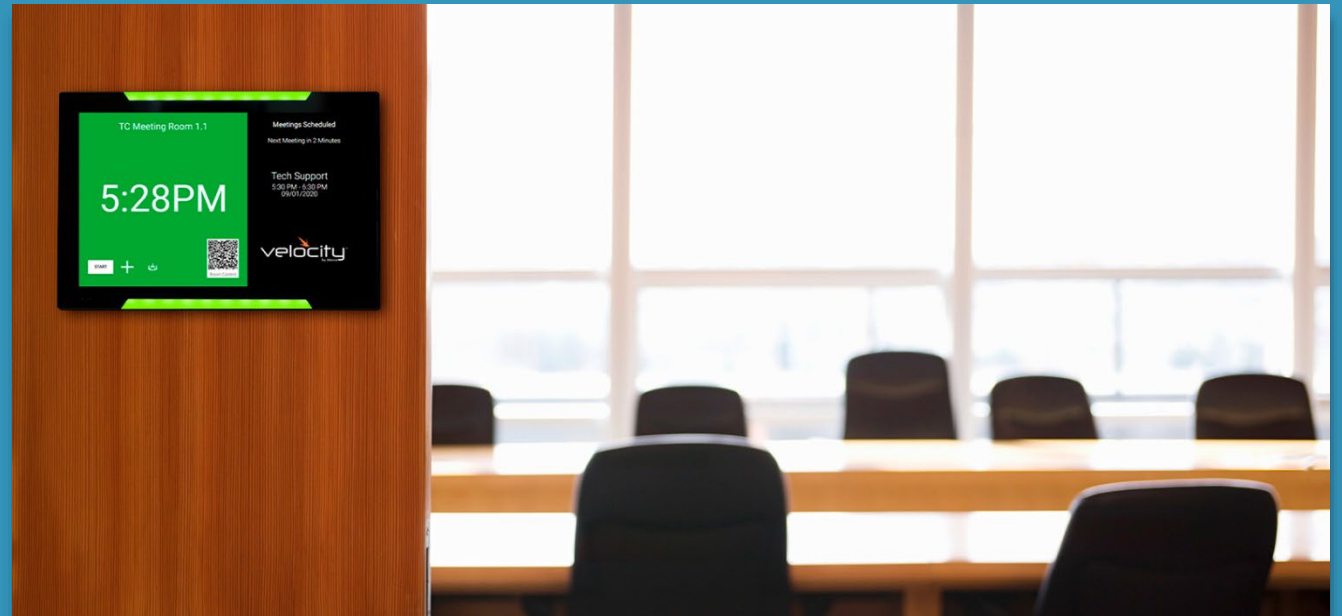**Diverse Pathways**

Utilities

Building Systems — Power, UPS, HVAC

FLEXIBILITY

- Maximize Use Cases
- Room Scheduling System
- Easy Access to Content
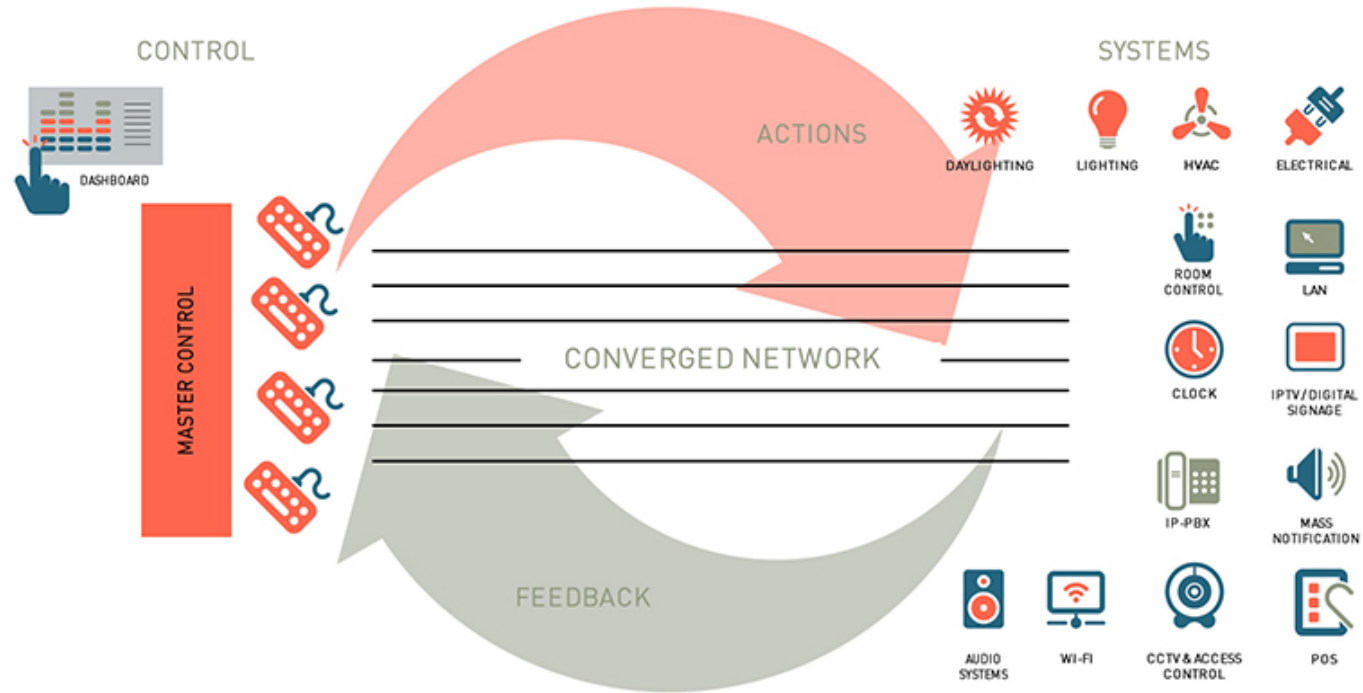- BYOD
- Ease of Use

THREATS

"IT" is becoming more important for physical security

- Increasing involvement in purchase decision

- Increasing responsibility for system deployment and administration

- Systems designed without the "Voice of IT" will increasingly be unacceptable
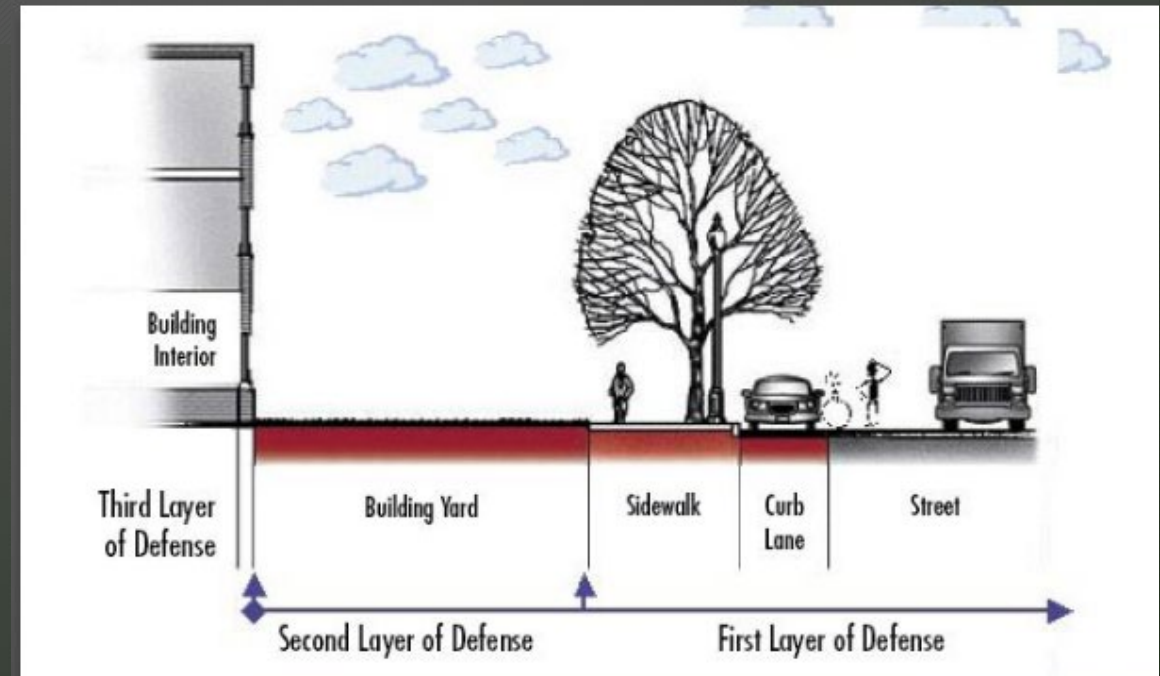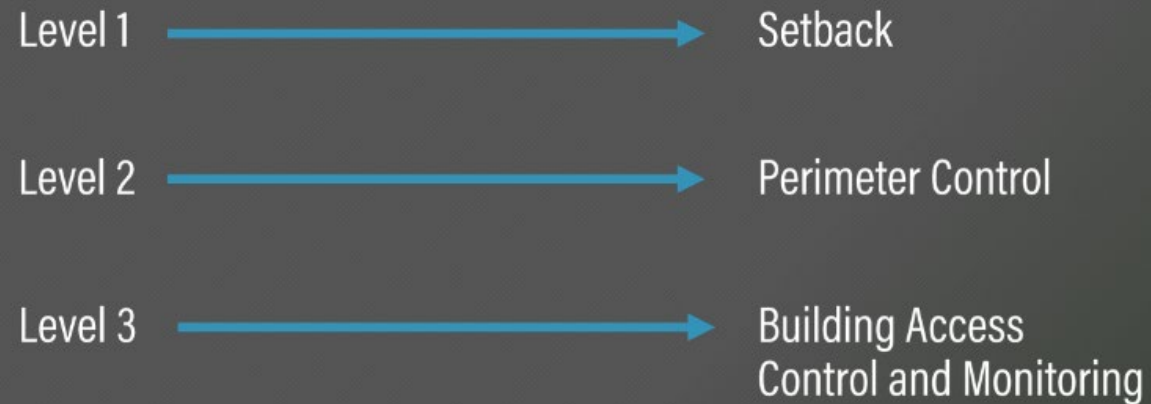
Cyber Security

THREATS

- Cyber Security
- Building Systems

MEDIA

FUTURE PLANNING

- Communications
    - 5G
    - Private LTE
- Artificial Intelligence
- Training

FINANCIALS

Capital

Contractor Provided

Owner Provided

Warranties

Operations

Licensing

Upgrades

Maintenance Contracts

KEY POINTS

- Technology Rooms
- Sight Lines
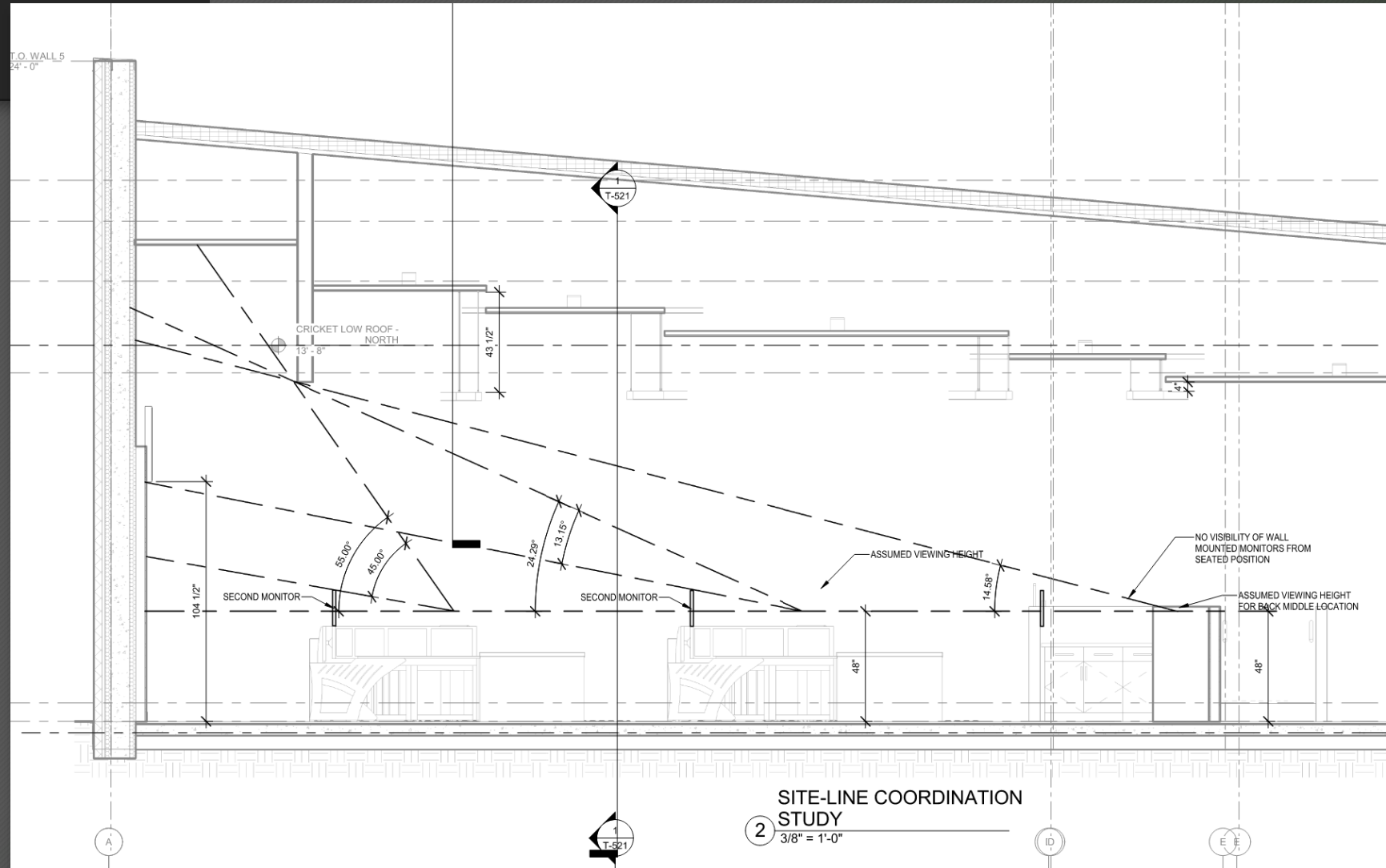- Control of Systems
- Programming of Systems
- Training
- Content Management

TECHNOLOGY ROOMS AND SPACES

SIGHT LINES

SITE-LINE COORDINATION STUDY
(2) 3/8" = 1'-0"

CONTROL OF SYSTEMS AND PROGRAMMING

TRAINING

CONTENT MANAGEMENT

TAW NORTH, RCCD, LEED AP
Director of Technology
TLC Engineering Solutions

(407) 487-1413

TAW.NORTH@TLC-ENG.COM

https://tlc-engineers.com/