Electronic Safety and Security

I. Access Control

A. General

1. Access control systems proximity card reader, numeric keypad, and related security equipment necessary for a complete system shall be designed and engineered by sub-contractor as approved by Amtrak Emergency Management and/or Corporate Security.

II. Video Surveillance

A. General

1. Video surveillance systems and related security equipment necessary for a complete system shall be designed and engineered as approved by Amtrak Emergency Management and/or Corporate Security.

III. Fire Detection and Alarm

A. Notification

1. Coordinate with Amtrak Police and C&S for remote alarms.

B. Alarms/Monitoring/Control

1. Specify tamper switches for all valves which control the flow of water to water-based fire suppression systems.

2. Provide each sprinkler/standpipe system and/or zone with a control valve, check valve, water flow switch, pressure gauge and test & drain.

3. All water flow and tamper devices are to be connected to and supervised by the Facility Fire Alarm Control Panel.

4. Pre-action sprinkler systems are to preferably be actuated by heat detectors. If smoke detection is used, it is to be an air sampling type system. Heat detectors will help minimize the possibility of tripping a pre- action system based on a false trip of a smoke detector.

5. All Fire Alarm Wiring shall be in conduit. No free air wire installation unless approved by Amtrak.

6. Connect all alarms and controls for a pre-action sprinkler system to a local addressable pre-action panel listed and approved for release. Transmit alarm and trouble signals for the pre-action system to fire alarm panel. Alarm signal(s) are to notify the local Emergency Authorities and the AMTRAK Police– Ademco long protocol.

7. Where duct smoke detectors are installed more than 10 feet above the finished floor or in arrangements where the duct smoke detector alarm or supervisory indicator is not visible to responding personnel, the duct smoke detector shall be provided with remote alarm or supervisory indication in a location that is readily visible to responding personnel and acceptable to the Amtrak.

8. End of Line Resistors shall be shown on Speaker and Strobe notification alarm circuits.

9. Design shall dictate that battery calculations shall be submitted for all Data Gathering Panels and Fire Alarm Control Panels

10. Design shall provide voltage drop calculations for all Signaling Line Circuits and Notification Alarm Circuits

11. In public areas, provide tamper covers on all Pull Stations.

12. Design shall provide the candela output requirements and provided ratings on the drawings, as specified in NFPA 72, at all strobe, horn/strobe, and speaker/strobe locations.

13. Design shall indicate that labels shall be provided for all conduits, cables, and addressable devices, placed a maximum of 20ft.

14. All fire alarm conduits shall be painted Fire Department red.

15. Stranded wire is not permitted. Solid wire is preferred.

16. Design shall specify that wire nuts are not permitted.

IV. References and Guidance (Retrievable on request by Design Manager)

A. Digital Technology Standards: CP&RE IT Standards Document v11 - Complete (10/1/24)

B. Design Direction:

1. As a default, designs shall include all conduits, boxes, wiring specifications, equipment specifications, etc. unless the Project Manager or Design Manager indicates that a system-level performance specification is acceptable.

2. Conduit and wiring shall comply with Chapter 26 – Electrical.