

Tenant Improvement Fire Protection Report

McCarran International Airport | Terminal 3 TSA Innovation Checkpoint Renovation Project

MARCH 02, 2020

1. Type of Facility: Airport Terminal
2. Name of Facility: McCarran International Airport – Terminal 3
3. Facility Address: 5758 Wayne Newton Blvd, Las Vegas, NV 89118
4. Date: MARCH 02, 2020
5. Preparer of document: Rollie A. McNutt
6. Project Number: 3019
7. Submittal: Issued for Bid/Construction

The purpose of this Tenant Improvement Fire Protection Report (TI FPR) is to detail the changes and renovations to the fire protection systems, per the Clark County Department of Building and Fire Prevention, as part of the redesign of the McCarran Terminal 3 TSA Innovations Checkpoint Renovation project.



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& Newnam, Inc.
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TBPE Firm No. 2614

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General Project Description: The project is located on the ground floor (Level 0) of Terminal 3 of the McCarran International Airport. It will consist mainly of a renovation to the baggage screening equipment. The approximate square footage of Level 0 Terminal 3 is 600,838, and the approximate square footage of the renovation is 15,000 sq. ft. The terminal has 4 levels.

There will be no renovations or additions outside of the planned scope of work. The site and location of the building will not change. The fire department access is to remain the same. The general occupancy of the terminal is considered a Group A-3 Assembly occupancy in accordance with the IBC.

Design Team:

1. Owner's Representative: Danny Hwang, Clark County Dept. of Aviation, DannyH@McCarran.com
2. Project Manager: Ted Armstrong, Lockwood, Andrews & Newman, Inc. (LAN), TEArmstrong@lan-inc.com
3. Architect: Hal Lynch, LAN, HELynch@lan-inc.com
4. Fire Protection Engineer: Melisa Rodriguez, Leo A Daly, MARodriguez@leoadaly.com
5. Mechanical Engineer: Kenneth Gau, LAN, KLGau@lan-inc.com
6. Electrical Engineer: Mason McIntire, LAN, MDMcintire@lan-inc.com

Key Issues Identifying: There are no requests for alternate material or methods. The existing ceiling system will remain. Existing fire protection features such as, sprinklers and fire alarm devices will remain in the in ceiling. The existing modular walls will be replaced with stud framed walls that will terminate at the ceiling. It is planned that the existing sprinklers and fire alarm devices near the walls will need to be modified to accommodate for their construction.

The existing exiting will not change. The new walls will be located in the same position as the existing modular wall thus not changing the current egress system.

Applicable Codes and Standards: Clark County has adopted the 2018 International Building Code with amendments.

- 2018 IBC w/ Clark County Amendments
- 2018 IFC w/ Clark County Amendments
- NFPA 13 2016 edition
- NFPA 70 2016 edition
- NFPA 72 2016 edition

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Fire-Resistive Construction: There are no anticipated changes to the structure or general building construction classification. The renovation will not include any new fire or smoke rated walls. There are no changes to any existing horizontal exits. There is no change of occupancy required for this renovation.

There is an existing fire pump room and fire command center at the West end of the terminal. There are no planned changes to either of these spaces. The alarm and sprinkler zoning for the area of renovation is to stay the same.

There are no new duct or air transfer penetrations to existing fire/smoke rated construction. Any new electrical conduit that is required to penetrate fire or smoke rated construction will be appropriately sealed to maintain the required fire or smoke rating.

Interior Wall and Ceiling Finishes: Interior wall and ceiling finishes are required to follow the requirements from table 803.13 for Sprinklered Group A-3 occupancies.

- Interior exit stairways and ramps and exit passageways: Class B
- Corridors and enclosures for exits access stairways and ramps: Class B
- Rooms and enclosed spaces: Class C

Egress Systems: There will be very minimal impact to the existing egress systems. Occupants within the area of work will traverse back out of the terminal along the same path on which they entered. There is no change of occupant load to the space, thus the existing egress components are considered to be sufficient for the predicted occupant load. An area exiting plan will be provided for review and approval.

There are no additions or modifications to the following existing egress systems:

- Delayed egress components
- Stair door locking/unlocking
- Alarm zoning
- Fire rated construction

Where necessary exit signs will be replaced at locations as close to existing as possible, in order to maintain the existing egress system integrity.

Active Fire Protection Systems: The building is fully sprinklered, there are multiple wet, dry, and pre-action systems throughout the terminal. All sprinkler systems are fed from a fire pump room at the West end of the building. There are two electric fire pumps both with automatic transfer switches in case of a power failure. There is a class I standpipe system in the terminal with hose connections located throughout the terminal. There will be no changes to the fire pumps or standpipe system.

The area of renovation will affect only one wet-pipe sprinkler system zone; zone T3-0-08W. The control valve for this zone is located in a fire riser room adjacent to the area of work; room 00714. There will be no changes to the sprinkler system zone boundary or control valve and flow switch manifold. The anticipated changes to the fire sprinkler system are as follows:

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- Existing pendent sprinklers and all associated overhead piping will remain.
- At the areas near the new walls the sprinkler coverage will be modified, if necessary, to account for the new walls.
- A new pendent sprinkler will be installed in the IDF Room.
- All hangers and bracing will be per NFPA 13 and provide seismic support.

The design criteria will not change from the existing criteria, thus no changes to the water supply are needed. There will not be modifications of more than 20 sprinklers, therefore the installing contractor will not be required to submit hydraulic calculations.

Fire Detection Systems: The current fire detection system features water flow alarms, manual pull stations, smoke detectors, and other equipment outside the scope of work that will not be altered during this project. The existing sprinkler system features a water flow switch, which when a sprinkler open triggers an alarm at the main fire alarm panel and also sends a signal to the local monitoring station. There will be no change to the water flow switch configuration. There are no changes to the manual pull station locations and heat detector locations. Currently spot type smoke detectors are installed in the area of work. These smoke detectors will remain.

Fire Alarm and Emergency Communications: The terminal features a full voice and visual alarm system. Changes to the voice alarm system will be limited to the removal and reinstallation of visual strobes on columns.

There are no additions or modifications to the fire alarm zones and fire department communication system.

Conclusion: The fire protection design for the McCarran Terminal 3 TSA Innovations Checkpoint Renovation project has been designed to meet the letter and intent of the applicable codes.

I have been involved in the preparation and review of the Tennant Improvement Fire Protection Report within the extent of my professional discipline. I concur that the fire protection aspects outlined herein will be coordinated on our respective drawings and specifications.

Preparer: Rollie A. McNutt

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