LEAGUE OF MINNESOTA CITIES

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SINCE 1913

Rod Maetzold, Fire Chief – mayerlumber@frontiernet.net
City of Mayer
413 Bluejay Ave.
Mayer, MN 55360

Re: Fire Department Building Safety Walkthrough Conducted on June 4, 2018

Dear Chief Maetzold,

On the above date, I met with you to discuss loss control topics pertaining to the Mayer Fire Department. This was in conjunction with the City of Mayer's participation in the League of Minnesota Cities Insurance Trust (LMCIT) property, liability and/or workers' compensation program.

Purpose of Visit
The purpose of my visit was to conduct a safety survey of the Fire Department station and operations to identify areas and job tasks where there is known or potential hazards During my visit, we discussed the following:

- Walkways & Aisles
- Housekeeping
- Stairs
- Meeting Rooms & Use
- Apparatus Bays & Storage
- SCBA Filling Area
- Equipment Maintenance Area
- PPE Washing
- ADA Accessibility
- Equipment Maintenance Area
- Getting On/Off Equipment
- Miscellaneous

Conclusions

- The City of Mayer Fire Department keeps the fire station well maintained and practices good overall housekeeping in the limited space they have.
- The Mayer Fire Department also provides to their employee's individual gear and lockers for each firefighter with decontamination areas, for both SCBA & PPE.
- The Mayer Fire Department already has in place some safety features related to the prevention of employee slips, trips and falls. Including housekeeping, and limiting obstructions in walkways.
- The City of Mayer Fire Department may be eligible to receive an OSHA grant for employee safety equipment. For more information, visit the Minnesota Department of Labor and Industry's website at http://www.doli.state.mn.us/wsc/Grants.asp, email DLI.Grants@state.mn.us, or call (651) 284-5162 (local) or (800) 731-7232 (toll free).
- To help reduce potential hazard the City Mayer wish to consider implementing the loss control recommendations (also listed in the Appendix).

Recommendations
I've included loss control recommendations aimed at reducing the slip, trip and fall hazards, employee safety, American with Disabilities Act (ADA) compliance, and overall building safety for your consideration in the attached appendix. Steps should be taken to evaluate and reduce these hazards.

60 Day Response
I have submitted recommendations for your consideration as a tool to help guide your risk management efforts. The decision to complete the recommendations, either in part or in full or the decision not to complete recommendations, lies entirely with the City of Mayer. LMCIT believes completion of recommendations can ultimately reduce property, liability or workers' compensation losses as the case may be.

Please contact me by telephone or email within the next 60 days to let me know what, if any, progress you are making on each recommendation. I look forward to hearing from you.

Thanks again for the time and courtesy extended to me during my visit. As always, if you have safety or loss control related questions, please do not hesitate to contact me.

Sincerely,
Sincerely,

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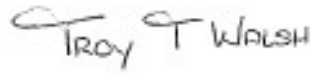

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Margaret McCallum, City Administrator - margaret.mccallum@cityofmayer.com

Attachments: Appendix New Recommendations

Recommendation Appendix

The referenced products and/or services are provided solely as a source of general assistance and should not be taken as the League's endorsement of the particular product or service or a recommendation that it will meet your unique needs.

The City of Mayer Fire Department: 400 Ash Ave N. Mayer, MN 55360
The Mayer Fire Department was established in 1900, and has a long history within the community and surrounding townships. When meeting with Fire Chief Rod Maetzold, we discussed the history of the Fire Station, current apparatus, future projections for the community, and current operations of the department. The Mayer Fire Station was originally built in the 1960's with an addition of three apparatus bays in the 1980's. Chief Maetzold discussed that the members of the fire department and community have done extensive remodels and repairs to the station including, new apparatus doors, apparatus bay heating systems, multiple exterior and interior paint updates, new roofs and siding upgrades. This does not include equipment updates to the station that would include SCBA filling station, gear washing machine, gear drying machine, hose drying racks, gear lockers, and maintenance/ tool repair area. Chief Maetzold discussed that as the community has grown so have the apparatus, and the equipment needs. This growth has started to become an issue with storage, and organization of the station. Chief Maetzold and the membership have done an excellent job to keep the station maintained, organized, and clutter free to promote safety for it members and the public.

During the walkthrough we reviewed safety clearance in walking areas in the station, organization, building safety, exhaust systems for apparatus bays, storage, and the meeting/office rooms.

I have added recommendation following our walkthrough, and these are in the below attachment.

Recommendations and comments are provided for loss control and risk exposure improvement purposes only. They are not made for the purpose of complying with the requirements of any law, rule or regulation. We do not infer or imply in the making of these recommendations and comments that all sites were reviewed or that all possible hazards were noted. The final responsibility for conducting loss control and risk management programs rests with the member.

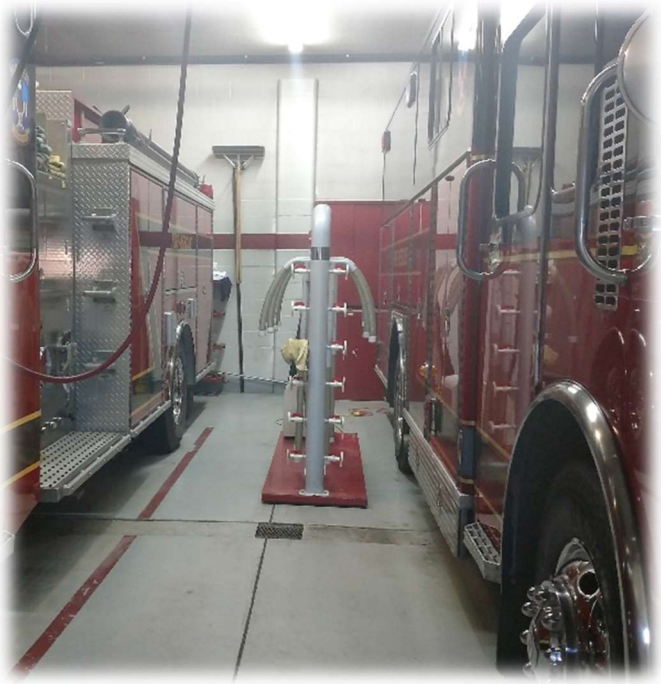
Recommendations generated from today's visit:

01-06/18: Recommend reviewing apparatus bays for access and clearance. The Mayer Fire Department has a very well kept and organized facility including their apparatus bays. All bays have been filled with apparatus, as well as gear lockers, maintenance equipment, and some fire equipment storage.

- Apparatus floor markings help ensure proper location of apparatus to maximize access, and limit hazards. Even with these parking markings, there is limited access at the front and rear of most apparatus for members to walk around apparatus. According to the Safety and Health Considerations for the Design of Fire and EMS Stations published by the US Fire Administration: Page 67 – A minimum 4-foot clearance shall be maintained (designated) around apparatus parked within the station. Most of the current apparatus do have a 4-foot clearance between. The Front & Rear of almost all apparatus does not meet a 4-foot clearance, with a few less than 2-feet.
- The Fire Service has changed for the better with the introduction of routine PPE Washing, and Maintenance. The Mayer Fire Department have acquired a Gear-Dryer for proper PPE Maintenance and Decontamination. This Gear-Dryer does take up some apparatus floor space, but is a valuable tool for firefighter safety.

(Front & Rear Apparatus, Less than 3-Feet Clearance)

(Between Apparatus, most have 4-foot Clearance but also have multiple obstructions)



(Left Pic: Rear of Apparatus at the Hose Drying Rack, less than 2-feet of clearance)
(Right Pic: All Apparatus have overhead Electrical Plugs to reduce clearance infringement)

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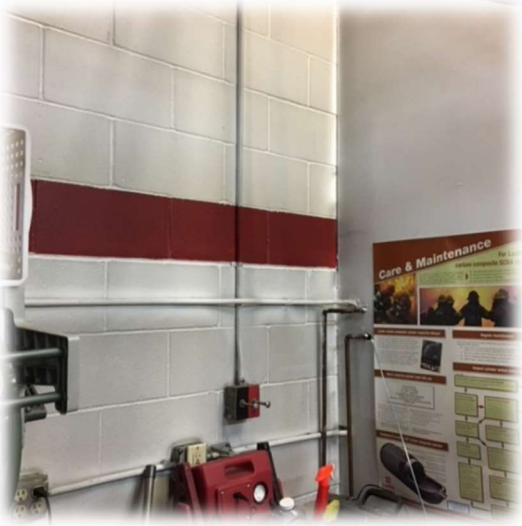
(Left Pic: Space for Boat, the Engine must be moved to get the boat out of the station)
(Right Pic: Space between the boat and the Hose Drying Rack in limited)

(Left Pic: The Grass Truck Clearance is less than 1-foot to the apparatus door)
(Right Pic: The Gear Washing Area and Sink are blocked with additional equipment & items)

(Left Pic: The extra hose is stored in gear lockers, limiting space between trucks and lockers)
(Right Pic: The trash receptacle impedes on the mezzanine staircase clearance)

02-06/18: Recommend reviewing the Apparatus Bays and Exhaust Ventilation. The Apparatus Bays are required to have a ventilation system for remove exhaust from apparatus. Minnesota State Statute **5205.0200 GARAGE VENTILATION.** Ventilation shall be provided for all repair garages, service stations, body shops, and all live storage garages, housing six or more vehicles driven by internal combustion engines. A live storage area is any area within a building used for the storage of fire trucks, tractors, automobiles, trucks, and other self-propelled vehicles driven in and out under their own power. https://www.revisor.mn.gov/rules/?id=5205.0200

- Note: In the photos the discoloration of the white walls with diesel exhaust soot.



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- Note: There has been a rising risk of Cancer within the Fire Service, and some of these concerns to reducing the risk of cancers in firefighters is the exhaust within the fire station. There are many changes in the fire service to prevent and reduce cancer in firefighters, and reducing the risk of exhaust exposure is one of them. Diesel Exhaust & Other Carcinogens (www.ffcancer.org)
- According to the Safety and Health Considerations for the Design of Fire and EMS Stations published by the US Fire Administration: Page 95 - Diesel exhaust has been classified as carcinogenic to humans by the International Agency for Research on Cancer (IARC), a branch of the World Health Organization.

03-06/18: Recommend reviewing the SCBA filling area. The SCBA Filling station is currently in the apparatus bay and close to the sink for SCBA Decontamination. When firefighters return from training and/or fire's they must decontaminate their SCBA's, refill bottles, and inspect them for service. This is being accomplished in a limited space area.

- During the walkthrough Chief Maetzold discussed during warmer weather apparatus can be placed outside when these tasks are completed, but during freezing temps this task becomes more difficult because of space.
- The SCBA Fill station has been plumbed for Fresh Air from the exterior of the building, when filling SCBA's.
- The National Fire Protection Association (NFPA) 1852, *Standard on Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus (SCBA),* provides requirements for the inspection, testing and repair of SCBA.

Decontamination Sink is located behind the Grill next to the Gear Washer

04-06/18: Recommend reviewing of Turn-out-Gear (PPE) washing area. The Fire Service has seen many changes, and decontamination of firefighter PPE has become another action in increasing life of PPE, and reducing the risk of cancer in firefighters. The PPE washing area is in the apparatus bay in close proximity to the SCBA fill station, and sink. This area may be used more often than the SCBA area with decontamination after ems emergencies, crashes, wildland fires, as well as structure fire and training.

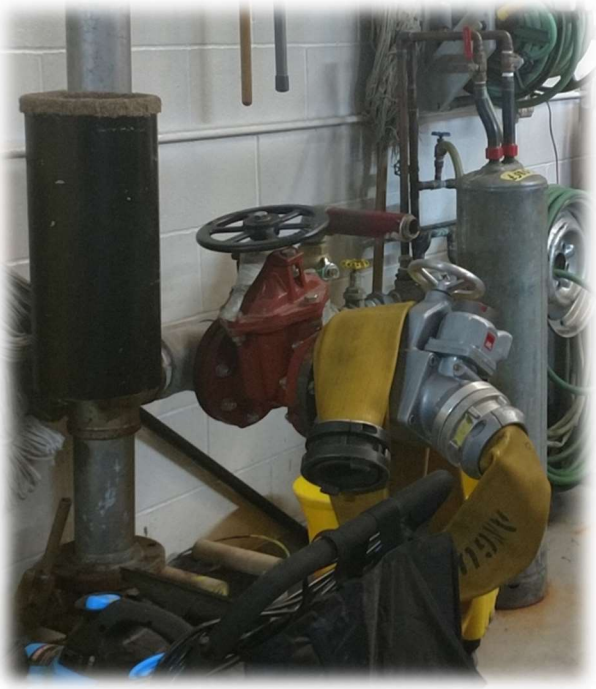
- Chief Maetzold again stated during warmer weather apparatus can be placed outside when these tasks are completed, but during freezing temps this task becomes more difficult because of space.

05-06/18: Recommend reviewing the use of Battery Tenders and Electrical Hazards. Battery tenders are commonly used for vehicles and equipment that have battery drawdown, and/or that do not get started often. These tenders help maintain the correct voltage to start and operate the apparatus. During the walkthrough the station currently has a couple of Batter Tender Banks mounted to the ceiling and hooked into the electrical system. These tender banks could pose a long-term concern with location, fall hazards, proximity to water, as well as a potential fire hazard.

06-06/18: Recommend reviewing the use of overhead fill stations for apparatus. As the Fire Service has modernized and updated Fire Apparatus the overhead fill has been replaced with safer methods. When the firefighter needs to climb onto the top of the apparatus to fill with water, they increase the potential of falling. These chances greatly increase during an emergency, and especially during the winter months. If the apparatus is unable to fill from ground level, overhead may be the only option. As apparatus are replaced, adding ground level fill intakes will reduce and/or eliminate the need to climb on the apparatus. The current station does have a ground filling station located at the back of the building. This again does pose an issue maintaining a 4-foot clearance around apparatus. Encouraging the use of the ground fill location, is a best practice for safety.

(Current Overhead Fill – Inside Station)

(Current Ground Fill Location – Inside Station, Rear *North* Wall)



07-06/18: Recommend reviewing storage areas above meeting office and meeting room. The Fire Department have utilized the vertical storage areas about the office and meeting room for equipment storage, gear storage, and less used items. These areas include wall shelves, floor storage, and some HVAC equipment. This area is accessed via the apparatus bay using a staircase.

- The storage area has shelves that are storing EMS equipment, training items, event supplies, as well as additional firefighter PPE.
- The second-floor storage areas have been kept organized, but the floor areas are starting to accumulate items with lack of additional storage room. The added storage items could be adding weight to the "dead load" of the floor construction and could potentially be problematic over time.
- The second-floor storage rooms also have low-ceiling height increasing the potential for injuries. When members need to access they will need to crawl or crouch. These actions could cause potential head injures because of height, but could also create an awkward body posture when needing to move large or heavy items.

(Directly at top of stairs – directly above Chiefs office.)

(East Side of Building – Left photo – Over Restrooms
Right photo – Over Meeting Room, looking north)

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(East Side of Building – Over Meeting Room – Looking South)

08-06/18: Recommend reviewing the office, meeting room, and restrooms for occupancy load, access and ADA accessibility. The meeting room and kitchenet are directly in the main front door, and is a location where meetings, trainings, and gatherings typically occur. At the rear-left of the meeting room is an office with two desks and file storage. The rear of the meeting room is both an Male & Female Restroom, as well as a utility/storage room.

- Reviewing the American with Disabilities Act (ADA) for accessibility and access for not only the fire department membership, but also the public during events or emergencies. Minnesota Council on Disability – A resource for all things dealing with disability and disability policy in Minnesota. Survey Example - http://www.disability.state.mn.us/wp-content/uploads/2016/09/CM-BUILDING-ACCESS-SURVEY-SHORT-DF-FINAL.docx
- The current meeting room is 17.5' ft. x 34' ft. = 595sq ft. *(minus the kitchenet 18sq ft.)* = 577sq ft. The Minnesota State Fire Code on Assembly Occupancies , using tables & chairs is 15sq ft. per person. Using this method, the occupancy for this room is approximately 38 People.
- The meeting room, bathrooms, and office are directly connected to the apparatus bays. This is also a concern for exhaust and continued carcinogen exposure.
- According to the Safety and Health Considerations for the Design of Fire and EMS Stations published by the US Fire Administration: Page 85 - The challenge in the design of fire and emergency services facilities to minimize the risks of cancer is to isolate, capture and remove the carcinogens. While these are simple concepts, they require a change that needs to be accepted in the emergency response culture.

(Left Photo – Meeting Room with Tables & Chairs South
Right Photo – Office off the Meeting Room)

(Left Photo – Door Left is Office / Door Right is Women's Restroom
Right Photo – Inside of Women's Restroom)

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(Left Photo – Men's Restroom Restroom
Right Photo – Utility/Storage Room)

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