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CONSULTATION REPORT

PROJECT

**Woodstream Falls Condominiums
Existing Clubhouse Building
9700 Iliff Avenue**

PROJECT LOCATION

9700 E Iliff Avenue
Denver, Colorado

DATE OF INSPECTION

July 20, 2009

Inspection and Report provided for
Mr. Barry McConnell
Woodstream Falls Condominiums

**CONSULTATION BASED ON FIELD INSPECTIONS PERFORMED BY
COLORADO CONSULTING STAFF MEMBERS**

Steve Thomas, C.B.O.
Harold Willman
David P. Tyree, P.E., C.B.O.

BUILDING INFORMATION

Occupancy Classification	Type of Construction
A-3/B/	V-B (Assumed)
Total Floor Area	Height (Stories/Feet)
Unknown	1 story plus basement

CONSULTATION COMMENTS

This inspection was of an existing clubhouse building constructed in 1973 and is roughly 6,000 square feet in area. The inspection was conducted by Stephen Thomas, CBO; David Tyree, PE, CBO; and Harold Willman. The surrounding buildings were originally apartments. The building we inspected was previously a clubhouse for the apartment complex. The apartments were later converted to condos. The clubhouse shows much wear and tear over the years. It appears some work has been completed without a building permit since the original building was constructed. Much of the items we observed are considered dangerous and should not be used prior to repair or replacement.

This report is very cursory in nature and does not constitute a complete inspection of the building nor does it imply that if the following issues are resolved as noted in this report that the building meets all of the provisions of the building, mechanical, plumbing, or electrical codes. A much more complete inspection and plans on how the building was constructed would be necessary to verify conformance to today's codes. Our comments are only referring to issues that were visually obvious to us during our 3 hour walk thru with the building engineer. It was our understanding that the basement is to be used for storage only. The first floor could be used as office, assembly or possibly daycare. All work should be completed by obtaining a building permit and having proper inspections by the local building department.

Based on a copy of an order to comply, the use of the building is currently limited to 50 occupants. As a code consultant, we do not have the authority to reduce the occupant load to less than 50. The building code requires the occupant load of a space to be calculated on the floor area of the space. The area of the assembly room is approximately 3,025 square feet. The calculated occupant load for the space is 202. Therefore, this report is based on the calculated occupant load of the building and not the limitation of the fire department. If the Denver Building and Fire Departments choose to allow the owner to post a lower occupant load, that is their decision. Most departments will not approve such a large reduction in the occupant load.

It appears that the Fire Department's letter is not authorizing the reduced occupant load, but limiting the number of occupants that can use the space currently based on the conditions. Any exceptions to the code can only be approved by the authority having jurisdiction. As we discussed during the inspection, due to liability concerns it is impossible for me to compromise the provisions of the code in this report. The comments below are based on the higher occupant load. If the city approves a lower occupant load, many of the items such as the direction of the door swings and panic hardware would not be required.

STRUCTURAL ITEMS

1. The exterior deck on the south side of the building must be replaced with either a new wood deck or poured in place concrete. The existing deck is rotted out in places, missing joists, does not have proper clearances to grade and is generally in a state of disrepair. Additionally, two conforming exits must be provided from the deck as the occupant load is obviously over 50 occupants. Landings are required at all exterior doors as well as the stairway from the basement.
2. There is a closed-in stairway from the first floor to the basement. The enclosure uses 2x6 wood floor joists (Hem Fir #2 ?) 16 inches on center spanning a distance from 44 inches to 7 feet. It is obvious the existing construction does not comply with either the deflection criteria or the requirement to support a 100 pounds per square foot (psf) live load. This area should be torn out and replaced with conforming construction. Additionally, there is a small area of 2x4 joists spanning 2-3 feet which again should be replaced along with the stair enclosure.
3. The general construction material of the floor system is either Twin T precast construction or poured in place concrete. However, there is an area that appears to have once been dropped to accommodate a fireplace unit of some sort. Since then, this area was been revised by the addition of wood joists to bring the floor to the same elevation as the pit support slab. The joists are 2x8 joists 16" on center. The lumber appears to be Hem Fir #2 and again could be overspanned. There are obvious nails missing from the joist hangers allowing lateral rotation of the joists. Additionally, we were not able to determine how the rim joist supporting the joists is supported to the concrete slab. A structural engineer is recommended to review the current situations and complete a conforming design; this is true of all structural issues.

BUILDING CODE ISSUES

1. The exterior door exiting from the assembly area to the southwest out onto the deck must swing in the direction of egress travel.
2. Panic Hardware is required to be installed on both of the assembly area exterior egress doors.
3. Landings are required on both sides of the exterior egress doors. The landings must be level and at the same elevation on both sides of the door. The northeast door opens onto a ramp without a landing. The southwest door opens onto the deck mentioned above. The landings must be a minimum of 44 inches in length and the same width as the doorway and are permitted to slope a maximum of ¼ inch vertical to 1 foot horizontal. The ramp on the northeast side cannot be steeper than 1 inch vertical to 12 inches horizontal.
4. The building engineer asked if a ceiling was required in the basement area. No ceilings are required in the basement except in the old stair areas. The fire sprinklers will need to be altered to provide the proper coverage in those areas that previously had a ceiling.
5. It is our understanding that there will not be a commercial kitchen in this building.

6. The exterior landing at basement exterior egress door must be elevated to be same elevation as floor level on the inside.
7. Accessible restrooms are required to be provided on first floor level or an elevator provided to restrooms in basement. If second option is chosen, the basement restrooms will need to be brought into conformance with current accessibility code requirements.
8. The floor system on first floor must be designed to support a minimum of 100 psf as noted above.
9. Exit signs are required to properly show exit path. Additional exit signs may be required and the sign at the top of the interior basement stairs must be relocated to show the egress path through the assembly space.
10. Handrails are required on both sides of the new stairs leading from pool area to public access.
11. Two exits are required from pool area. One should go out to parking area.
12. The assembly space is not permitted to exit through the storage/work room on northwest side of the room.
13. There are many abandoned pipes and electrical conduits in the basement that no one seems to know where they go. This could be a concern. They should be investigated and labeled.
14. The Sprinkler system is required to be maintained in the basement. It should be repaired in accordance with the applicable fire sprinkler regulations.
15. If the occupant load of the assembly space on the first floor exceeds 100, the rest of the building will be required to be provided with a fire sprinkler system.
16. There were numerous holes in the gypsum board throughout the building. These need to be patched to maintain the fire protection of the building structure.
17. Handrails must be provided on both sides of both stairways out of the basement. They must be located between 34 and 38 inches above the nose of the tread.
18. There are several fire dampers in the floor of the assembly area. The ones that could be seen were in poor shape. They should be serviced and checked to make sure that they are operational.

ELECTRICAL CODE ISSUES

This report is divided into two segments, items to be addressed for safety and recommendations.

ITEMS TO BE ADDRESSED:

1. In the woodworking portion of the shop area, the electrical devices need to be installed in dust proof enclosures and a dust collection system be installed. If all of the devices were installed in weather proof enclosures and that a written procedure for housekeeping were posted, then the dust collection system may not be required.
2. The electrical system has been worked on over a period of time without the system being maintained. Provide proper support for the electrical boxes, conduit and luminaires. Provide covers for all boxes and plug unused openings. Remove or cap all unused conductors. Remove all unused low voltage cabling.
3. Provide emergency egress illumination and exit lights with emergency power. Make sure that all batteries for the egress and exit lights are fully charged and working.
4. The electrical room cannot be used for storage. Remove all non-electrical items and devices from the room to maintain correct working space in front of the electrical panels.
5. Bond all of the electrical equipment in the pool equipment room. The electrical equipment needs to be at an equipotential plane to reduce voltage gradients in the pool area.

RECOMMENDATIONS:

6. Provide GFCI protection for all bathroom receptacles. Provide GFCI protection for all receptacles within 6 feet of a sink.
7. I would recommend direct access to the HVAC disconnect in the basement mechanical room.

All opinions in this report are based on the information provided. We do not accept any responsibility for any condition that was not known at the time of this report. Colorado Code Consulting, LLC reserves the right to amend this report if additional information is received. Thank you for the opportunity to be of assistance and provide our comments regarding this building. If you need additional information or have any questions, please do not hesitate to call.

Sincerely,



Stephen L. Thomas, CBO
President