



INTEGRAL CONSULTANTS

for Buildings & Business

"WE OFFER PEACE OF MIND THROUGH KNOWLEDGE AND EXPERTISE"

NEWSLETTER

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DECEMBER, 2008

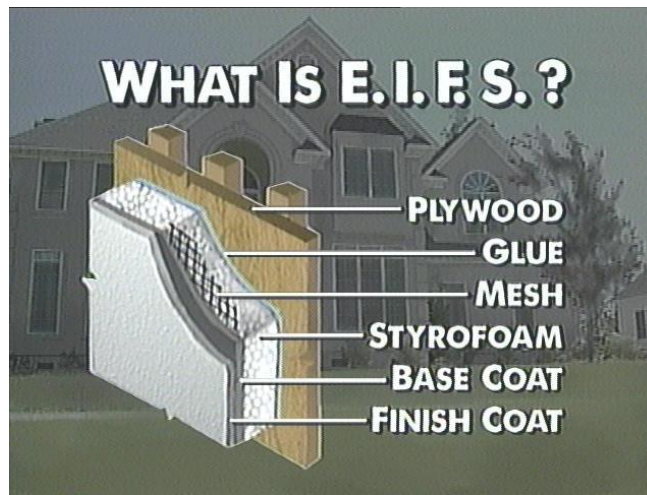
IT' RAININ' IN HERE HOSS!



Built in 1991 (E), the complex was constructed with EIFS, staggered setbacks, good fronts, mansard fascia, drywall, ornamental finishes, carpet, plain terrazzo, extensive lighting and outlets, good plumbing, and warm and cool air (zoned).

Due to the mixed occupancy that the building was designed for the construction has hidden features that are seismic construction, fire ceilings and walls, and sound proofing.

Since the occupancy design of the building is of a community shopping center type, it also features fire alarm systems, co2 system, sprinkler system, and commercial alarm systems.



The building is divided into seven main areas. Each one of these areas have occupancy design fixtures, but only the Banquet Facilities including the storage section, the Storage & Maintenance Section, the Beer & Wine Store, the Lobby, Reception, & Meeting Room, and the Service & Administration areas were affected by this loss. Included in these areas are the exit staircases for the general public from the upper floor.

The dry pipe for the sprinkler system ruptured from freezing causing the air in the pipe to escape, which in turn triggered the main control valve to release water into the system. This in turn resulted in water under pressure escaping through the sprinkler system into the attic at 60 pounds per minute. With the pressure of the water it split the fitting, and dispersed water into the attic for a few hours before it was discovered, by triggering the alarm system.



The pressure of the water would spray onto the roof deck and truss system ascending down onto the insulation in the attic. With the amount of water coming from the pipe it would soon saturate the insulation, and fill up the ceiling joist portions of the trusses. The water would also seek the path of least resistance and run through the ventilation system, the holes drilled to feed wiring, and down the inside of exterior walls, and partitions, which it did.

The pipe that ruptured was almost directly above the bar in the banquet room, and stains from the discharge can be seen on the underside of the roof deck today. The accumulation of water in the attic spared the residence area, and ran towards the left elevation of the building. The weight of the water on the drywall ceiling soon would bring the drywall crashing into the banquet room.

Although the building envelope would not show signs of being breached due to this loss, it would do so in the future which it has. Any damage to the building envelope would show as bubbles or blisters to the exterior stucco. Since stucco is not a moisture barrier, it was

necessary to remove the stucco, replace the building envelope cover, and re stucco all elevations where there is stucco applied.

This hidden damage would be to the left front, left, and left rear elevations as shown below.



The water ran through the taped joints of the drywall, the light fixtures, the ventilation ducts, and diffusers in the ceiling of the Banquet Room. The room had just been set up for a banquet in the next few days. The weight of the water and the wet insulation brought part of the ceiling down onto the tables, chairs, and floor in the banquet room, and the washrooms. It saturated the partition walls to the washrooms, kitchen, and halls. As the water accumulated on the quarry tile, carpet, and hardwood dance floor it spilled out onto the balcony and over onto the ground below, as well as entering the main, side, and rear exits, down the staircases and out the doors. It was a couple of inches deep in areas on the second floor. It did not penetrate the walls into the residence but did flow into the storage over the entrance canopy to the beer and wine store.



In general, on the upper floor the banquet room sustained the brute force of the water damaging ceiling, walls, floors, built-ins, doors, and occupancy design fixtures with some of the same damage occurring in the washrooms. It spilled onto the kitchen, halls, rear staircase, side staircase, and front staircase. There is plywood to create a fireguard, and seismic reinforcing behind the drywall to the walls, which would expand and dry out

jeopardizing the integrity of the building envelope. The amount of water and weight of the water would have breached the integrity of the vapour barrier as well.

The bar is directly above the interior entry of the beer and wine store which would place the majority of the water that ran down from the second floor into the beer & wine store, the cooler, and the maintenance and storage areas. Once the water began to puddle in these areas it ran through into the reception, office, lobby and meeting room areas. It also entered from the cooler into the furnace room down the hall corridor spilling into the office, laundry and sewing, electrical room, and storage areas. It stopped at the entry to the kitchen to the pub because that floor is higher than the floor it landed on. Some ceiling damage did occur to the office, reception and hall areas.

The ceiling has two layer of drywall above the t bar ceiling system. The first layer is fastened to the floor joists, and then a track is fastened to it which has drywall fastened to it to create a sound barrier. There would be insulation in the ceiling / floor joists to dull the sound as well. Again, there is plywood to create a fireguard, and seismic reinforcing behind the drywall to the walls, which would expand and dry out jeopardizing the integrity of the building envelope.



In summary, on the main floor the Cooler, and Beer & Wine Store suffered the major water damage with some additional damage to the Reception, Lobby, Halls, Office, Laundry, Maintenance and Storage areas. The floor in all areas except the Pub suffered water damage.

The total loss including Business Interruption was in excess of \$ 500,000 caused by defective fittings for the sprinkler system which was not recoverable by subrogation due to the company manufacturing them going out of business hence an insurable loss.



A MESSAGE FROM OUR PRESIDENT

To all of our clients, suppliers, and friends, thank you for another successful year.

On behalf our staff at Integral Consultants and the staff at Mainland Concrete Lifters, whom we have partnered with over the years, may we wish you the warmest greetings this holiday season and hope 2009 brings you health, happiness and prosperity.

Ron Wilkes
President
Integral Consultants



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