

## G'town quakes at prospect of temblor

### City studies ways to refit buildings to withstand big one, with only 4 of 23 rated secure

By Lela Garlington

Wednesday, August 27, 2008

If the ground starts shaking from an earthquake, Germantown's safest city-owned building likely will be unoccupied -- unless a training exercise is under way.

The city recently finished a seismic-risk assessment to determine which structures need to be fixed, replaced or retrofitted.

Structural engineer Mike Griffin with Missouri-based CCS Group Inc. briefed the Germantown Board of Mayor and Aldermen during an hourlong work session Monday afternoon.

And he listed the Fire Training Facility behind Fire Station 4 on Forest Hill-Irene Road as the safest building.

"If you want to go somewhere, go there," he suggested.

City fire officials burn the shell of a building -- with its concrete foundation and metal walls -- about twice a week to train its firefighters.

The study looked at 23 of the city's buildings -- everything from a storage shed with radio equipment to the Municipal Center.

The city's most vulnerable buildings included the Municipal Center, Fire Station 2 at 8925 Dogwood and the Public Services Warehouse. Based on moderate, major or severe ground motion with magnitudes of 6.2, 7 and 7.7, respectively, Griffin predicted none of these critical buildings could be occupied immediately after power is restored.

He didn't paint a completely gloomy scenario. The city water towers carried a low risk that did not need additional strengthening. Griffin suggested certain structural fixes requiring as little as four bolts to anchor lights or equipment to prevent them from falling.

"We don't like 40-pound lights falling on somebody's head," he said. "How much is a bolt? 50 cents? A lot of that is really that easy."

Rather than retrofit the entire Municipal Center, Griffin said the city could strengthen the wing housing police and radio dispatch.

Because the city is in the county's Hazard Mitigation Plan, he urged the board to develop a more specific addendum addressing the city's plans. Such work, he explained, would help Germantown gain more federal or state grant funds.

In doing the \$89,500 study, Griffin and engineers with Allen & Hoshall raised ceiling tiles, climbed into attics, checked water heaters, inspected roofs, reviewed plans and looked for bracing for interior partition walls and anchors attached to electrical, mechanical and communications equipment.

Germantown Fire Chief Dennis Wolf said he wasn't surprised by the city's safest building. "It is designed for us to set fires in and not burn down," he said.

What shocked him was how poor Fire Station 2 fared. The property is subject to liquefaction, which is similar to quicksand. The building's foundation is settling for the second time.

City officials have budgeted replacing Fire Station 4 at Forest Hill-Irene. Now, Wolf said, the city needs to consider replacing a second station.

Of the suburb's 23 buildings, Wolf said, "Only four were built with seismic designs and that is GPAC, the library, the Johnson Road Water Plant and Fire Station No. 1 at 2700 Cross Country."

Mayor Sharon Goldsworthy said updating the city's hazardous mitigation plan is a good way to start, along with attacking nonstructural issues.

City Administrator Patrick Lawton added that the staff will review safety components to determine what needs to be added to next year's capital improvement budget.

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