WALKER
PARKING CONSULTANTS

Walker Parking Consultants
1660 S. Highway 100, Suite 350
Minneapolis, MN 55416

Voice: 952.595.9116
Fax: 952.595.9518
www.walkerparking.com

October 1, 2004

Mr. Buick Alavy
City of Minneapolis
Property Services
350 South 5th Street, Room 223
Minneapolis, MN 55415

Re: Annual Observation Report
Courthouse Parking Facility
333 3rd Avenue South
Minneapolis, Minnesota
Walker Commission No. 21-3215.00

Dear Mr. Alavy:

In conformance with the City of Minneapolis inspection requirements for parking ramps, the following is a summary of the structural condition of the Plaza Parking Facility.

Walker completed a second year field observation of this parking facility to review the condition of the structural elements.

FACILITY DESCRIPTION

Built in 1997, the Courthouse Parking Facility is a cast-in-place, post-tensioned concrete parking structure approximately 180 feet wide by 240 feet long. There are two supported levels below grade with a floor area of 47,000 square feet and a slab-on-grade with a floor area of 58,000 square feet. There are additional supported parking levels along with multiple levels of office space above the parking levels inspected for this report. A concrete sealer was applied to the slab surface in 1997.

Access to and from the facility is provided by express ramp on Third Avenue S. Traffic flow in the parking facility is two-way with 90-degree straight in parking. There are two stair/elevator towers located at the northwest and northeast corners of the facility. The facility provides parking for approximately 300 vehicles below grade.

Epoxy coated reinforcement steel was used in the structure. A corrosion-inhibiting admixture (DCI, by W.R. Grace Co.) was added to the micro silica concrete used in floor slabs. A typical dose rate for DCI was 3.5 gallons per cubic yard of concrete.

VISUAL OBSERVATION SUMMARY AND CONCLUSIONS

During the course of our visual observation of this parking facility, we did not observe any conditions, which would restrict the facility from qualifying for an operating certificate. Limited overhead concrete removals to reduce the hazard of falling concrete are recommended. However, hidden or latent conditions may exist in this facility, which have not yet revealed themselves through visual evidence and may require removal in subsequent years. The following is a summary of conditions noted:

1. Isolated slab cracks were not sealed and leaking.
2. Isolated leaking has stalactite formations and resulted in surface corrosion to electrical conduits, sprinkler pipes, and drain pipes/hangers.
3. Isolated leaking construction joints and slab cracks that were previously sealed.
4. Isolated leaking slab crack with formation of stalactite located in slab above area being reviewed.
5. Worn traffic topping at express ramps, drive aisles and turn areas. Traffic topping is located at express ramps, over pour strips, and strips over construction joints and cracks.
6. Isolated areas of ponding water.
7. Moderate freeze-thaw deterioration to concrete masonry wall located at the bottom 8".

Leaking or unsealed construction joints, expansion joints, or cracks can contribute to corrosion of embedded post-tensioning tendons and anchors, and reinforcing steel. Corrosion of embedded post-tensioning tendons and anchors, located at all construction and expansion joints, can adversely affect the structural integrity of the floor slab; therefore, all joints shall be sealed and maintained annually.

It should be noted that Walker Parking Consultants/Engineers, Inc. has not performed a structural review to verify the structural adequacy of the original design, as this is not within the scope of work. During our review, we did not observe deterioration to be indicative of inadequate original structural design or construction.

CERTIFICATION

The City of Minneapolis Ramp Certification Ordinance requires that the engineer state whether the structure is capable of supporting the loads for which it is used. This structure is primarily used for the parking of passenger cars and, in our opinion, presently is capable of supporting that load.

Our recommendations include the continuation of annual structural maintenance, sealing of all non-sealed and/or leaking cracks, reseal all leaking construction joints, recoat worn traffic topping, removal of all loose overhead concrete as it is detected, and remaining items noted above and on drawings.