

CHESTER STREET PARKING. STRUCTURE, BIRMINGHAM, MICHIGAN

OWNER:

City of Birmingham,
Michigan

ARCHITECT:

Lukenbach/Ziegelman &
Partners

ENGINEER/PARKING

CONSULTANT:

Walker Parking
Consultants/Engineers, Inc.

CONTRACTOR:

R. E. Dailey Co.
Concrete Construction

SUBCONTRACTOR:

Colasanti Corp.

Birmingham is a historic, southeastern Michigan community that blends commercial and upscale retail activity with many "village" characteristics (green space; picket fences; white, wood-framed houses with pitched roofs). Building a new parking structure in such a multi-faceted setting mandated a sensitive architectural statement with maximum user comfort and convenience.

The structure's architectural form and detail presented the greatest structural design challenges. Extensive computerized analytical methods were used to design the two curved, glass-enclosed stair/elevator towers. Other engineering solutions softened the mass, impact, and height of this 900 car facility. For example, the top tier is set back using buttress beams at a 45 degree angle. Terracing the western elevation also softens the height and

eases the transition from a park-like setting to the bustling urban core. Finally, upturned/ downturned beams and round profile columns on the exterior facades reduces the visual mass of these elements.

The six-level Chester Street Parking Structure is constructed of cast-in-place concrete with post-tensioned supported slabs and beams. The interlocking helix ramping system reduces travel distance, lessens cross traffic situations, and allows recirculation at all levels.

Although an "architecturally driven" project, the Chester Street Parking Structure combines form and function. The creative design solution positively impacted the project without compromising its structural integrity, function, or durability. The structure fulfills its goals as an attractive and convenient addition to Birmingham's parking system.

