Orchard Lake Pavement Rehabilitation Program
Orchard Lake, Michigan

The Indian Trail project included both drainage improvements and paving/rehabilitation work for the section of Indian Trail between Seminary and Commerce Road. Indian Trail is a public road located along the east shore of Orchard Lake. The Trail abuts St. Mary's Preparatory School. The City and Orchard Lake Schools wanted the roadway improved, but were also concerned that paving improvements might increase the run-off from the paved surfaces into the Lake and compromise water quality.

As city engineers for the City of Orchard Lake Village, **Spalding DeDecker Associates, Inc. (SDA)** responsibilities included topographical survey, design of the pavement, utility relocations, maintenance of traffic, storm sewer design, roadway design, permanent signing and striping, soil erosion control measures, and construction engineering services that included contract administration, construction staking, material testing, and inspection. SDA designed the drainage system to restrict flow and utilized energy dissipaters to reduce the amount of sediment loading.

OWNER / CLIENT
City of Orchard Lake Village

PROJECT START - END
June 2003 - August 2007

SDA PROJECT NO.
OR05-003

Construction consisted of adding/upgrading storm sewers and drainage structures, crushing and shaping existing asphalt pavement, placement of a 6" aggregate base, placement of 2' concrete curb and gutter, and paving with 4" of asphalt. There were also minor improvements to the Commerce Road and Seminary intersections and drive approaches.

SPECIAL FEATURES
Context sensitive design for this project included maintaining 2-10' wide lanes (instead of widening), minimizing disruptions to adjacent St. Mary's College and Prep School's campus activities, not disturbing/removing St Mary's wrought iron fencing and stone columns that encroached on part of the right-of-way, and extra soil erosion/sedimentation control measures

for the adjacent Orchard Lake. Through traffic was detoured around Indian Trail via Commerce Road and Orchard Lake Road.

Special filtration baskets in the catch basins were utilized to separate sediments and other potential contaminants from the stormwater before it was discharged to Orchard Lake to filter out solids, metals, and chemicals from the stormwater before it entered Orchard Lake.

SDA teamed with Orchard Lake Schools to develop a Storm Water Management Plan.