

Macomb Township Community Recreation Center

Macomb Township, MI

building features

- 58,000 sf multi-purpose recreation center
- 2 stories above grade
- final project cost of \$15 million
- construction from november 2002 to july 2004
- structure will house:
 - 2 court gymnasium w/ elevated walking track
 - 3 separate pool areas
 - men's and women's locker rooms
 - fitness and weights facilities
 - aerobics center
 - casual activity lounge
 - recreation administration and staff offices



Image courtesy of Eric Nielsen at Reese Engineering

mechanical system

- 2 Hot-water boilers of equal size, piped parallel (lead-lag)
- Gas-fired packaged units (rooftop)
- Direct expansion cooling
- Variable air volume application for all air-handling units
- Dedicated makeup air system (combustion air) for pool heating equipment

structural system

- CMU and stud wall construction
- Structural steel framing
- Brick and cast stone façade
- Standing seam and metal decking roof

electrical system

- 2500 KVA transformer steps down to 480Y/277 V
- 2500A, 480/277V, 3-phase, 4 wire main switchboard
- Main disconnect switch located on switchboard in main electrical room

lighting system

- Lighting operated at both 277 and 120V
- Natatorium and gymnasium are illuminated by HID fixtures
- Typical recessed 2'x4' and 2'x2' fluorescent luminaires in offices
- Mixture of indirect and direct lighting utilized throughout the building along with accent lighting fixtures
- Large domed skylight illuminates two-story atrium and lounge

project team

- Owner - Macomb Township Parks and Recreation
- Architect of Record - Neumann Smith & Associates
- Design Architect - Barker Rinker Seacat Architecture
- CM - Etkin Skanska Inc
- L/E Engineer - Reese Engineering Inc
- Mechanical Engineer - Integrated Mechanical Systems
- Landscape Architect / Civil Engineer - Beckett and Raeder Inc
- Structural Engineer - L&A Inc
- Aquatics Specialist - Water Technology



Andrew D. Nolt
Lighting/Electrical Option

www.arche.psu.edu/thesis/2005/adn114