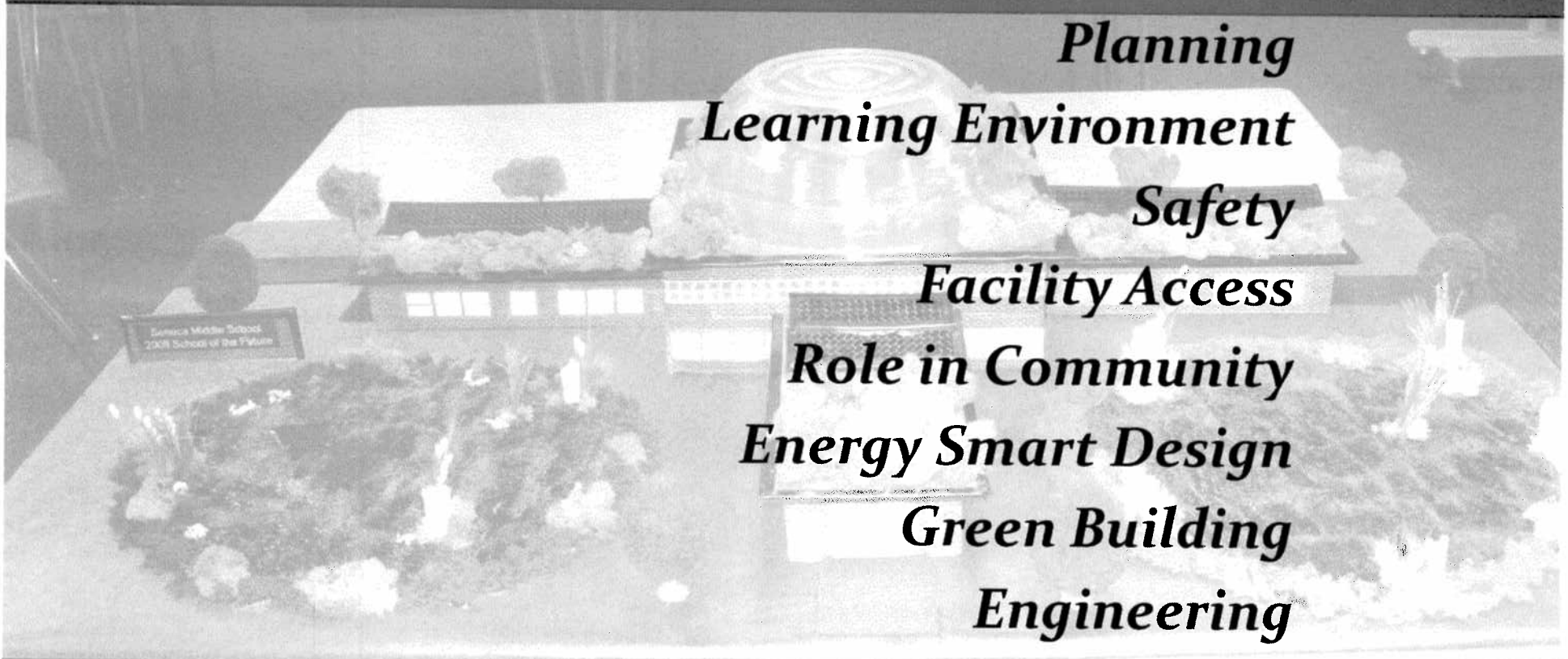
Seneca Middle School
School of the Future



Planning

Learning Environment

Safety

Facility Access

Role in Community

Energy Smart Design

Green Building

Engineering

Mentors

- *Robert Roop*
  Peter Basso Associates Inc.
  Engineering Assistance
- *Dale Jerome*
  French Associates
  Architects
- *Jeff Atkins*
  Barton Malow
  Project Engineer

Planning

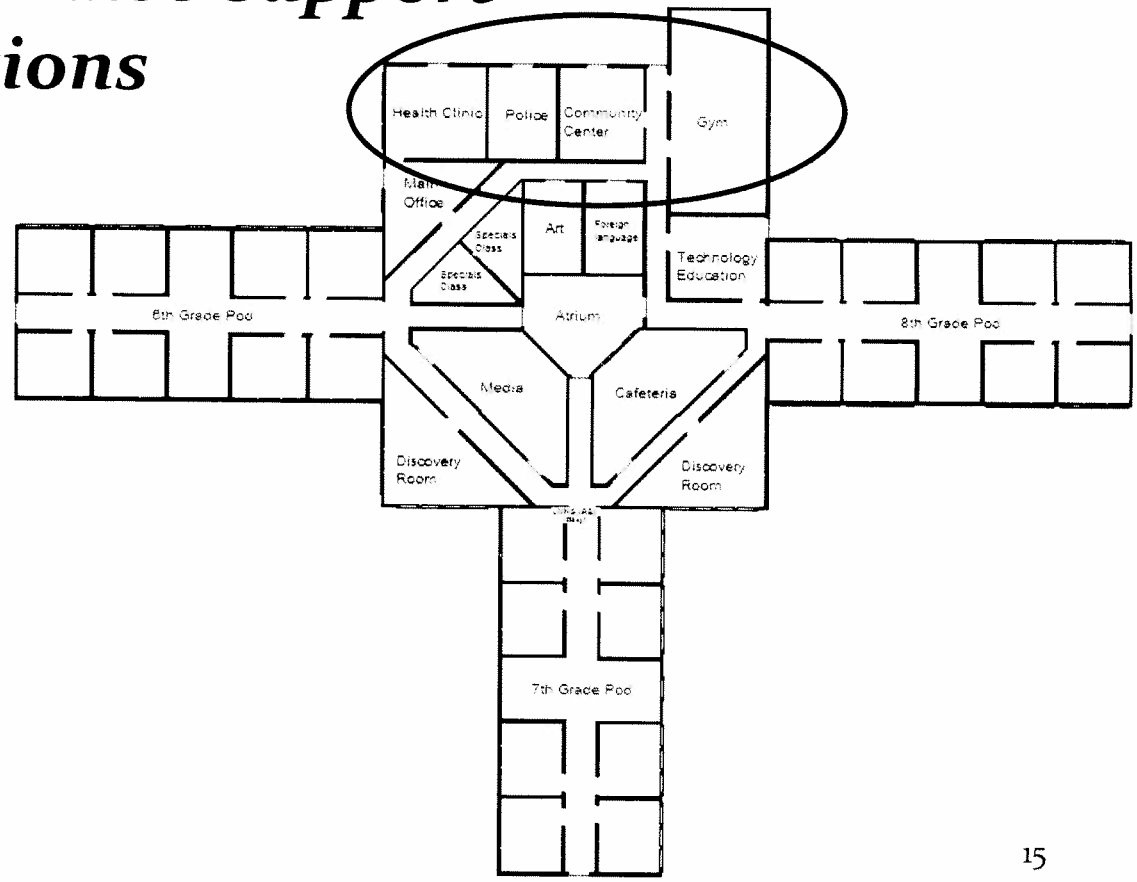
- *Interviews*
  - *Superintendent of Curriculum*
  - *Principal*
  - *Director of Technology*
  - *City Engineer*
  - *Parents*
- *Student Survey*

Planning

- *Interview outcomes*
  - *Safe School*
  - *Low teacher student ratio*
  - *More Technology*
  - *Centralized common use areas*

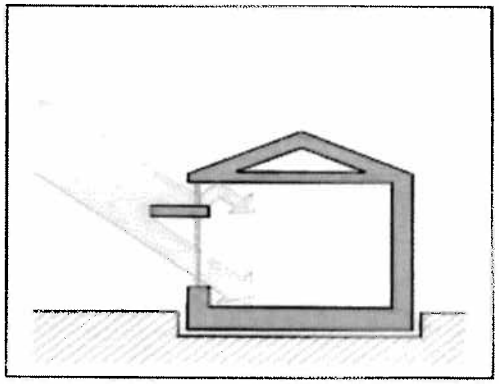
Role in Community

- *A police substation, medical clinic and community center are part of the school.*
- *Community services also support daily school operations*
- *Gym located near public space for easy access by community center*



Green Building

- *Glass Dome and large windows allow daylight to stream in, reducing electrical needs.*
- *Glass Dome utilizes smart glass*
- *Lightshelves bounce sunlight deep into the room and provide even light distribution.*



Green Building

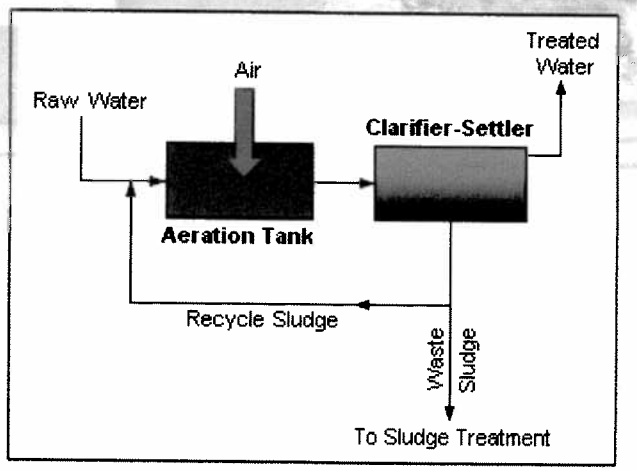
- *Green Roof absorbs heat and moisture and reduces heat footprint of school.*

Green Building

- *Water gardens absorb runoff from parking areas and provide habitat for local species.*

Green Building

- *Low-flow sinks, waterless urinals and dual-flush toilets reduce total water use by as much as 50%.*
- *Toilets use harvested rainwater instead of potable water.*
- *Waste water is treated on site and effluent discharged to water garden.*



Green Building

Alternative Transportation Options

- ***Alternative-fuel buses reduce CO_2 emissions and decrease smog and ground level ozone.***
- ***Bike racks and safe bike paths and sidewalks encourage an active lifestyle and decrease emissions.***
- ***Bus stop for public buses.***

Plug in diesel electric school buses run on vegetable oil and electricity