

# Solid Waste Authority of Palm Beach County

Lantana Road Landfill/Park Ridge Golf Course

Category D: Environmental



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## Role of Entrant's Firm in Project

### Planning

- Viable reuse options
- Funding
- Public involvement

### Permitting Services

- Solid Waste
- Environmental Resource
- Water Use
- Drainage District
- Local County Zoning and Building
- Dredge and Fill

### Design-Construction Manager at Risk



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## Role of Other Consultants Participating in Project

Golf Course Architect  
Irrigation Design  
Architectural Design  
Electrical Engineering  
Structural Engineering



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## Project Background

### Lantana Road Landfill

- 231 acres
- Operated as unregulated solid waste facility for 23 years
- Florida Department of Environmental Regulation and Solid Waste Authority of Palm Beach County (SWA) agreed to close the facility in 1985
- Closure was completed in 1988



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## Original or Innovative Application of New or Existing Techniques

This Project Required Innovative Design to Address Unique Conditions

- Floating slabs for structure foundations
- Shallow rooted plants and trees for landscaping
- Additional membrane liners beneath the tee boxes and greens to protect from potentially harmful landfill gases
- Importation of fill material
- Use of flexible piping for irrigation system
- Lined irrigation pond to store surplus water
- Inclusion of drain inlets around tees, greens, and fairways to facilitate drainage



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## Future Value to the Engineering Profession

### Redefining Public Image

- Minimizing the impact of solid waste facilities on adjacent and neighboring properties
- Designing an innovative closure while ensuring public health and safety
- Reusing closed facilities to the extent practical
- Integrating surrounding community needs into the end-use plans



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Prior to Construction



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## During Construction





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After Construction



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## Social, Economic, and Sustainable Design Considerations

Turned a Liability Into an Asset By:

- Generating revenue for Palm Beach County
- Greatly reducing the costs of maintaining the old, closed landfill
- Provided residents of Palm Beach County with an affordable, year-round golf course



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## Complexity

### Challenges

- Decommissioning the landfill gas collection system
- Building the course without damaging the geomembrane cap of the landfill
- Grading and installing erosion control features to prevent washout of newly established turf grasses
- Obtaining sufficient irrigation water from the existing supply wells and adjacent lakes without exceeding water management district drawdown criteria
- Maintaining soils and establishing turf grass



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## Exceeding Client/Owner Needs

### The Park Ridge Golf Course

- Opened to the public in March 2007
- Full-size, 18-hole, par-72, 6,100+ yard course
- Elevated tees, fairways, greens, and spectacular vistas
- Boasts topography that is truly unique to South Florida
- Provides TifEagle greens, extensive practice facilities, and a full-service golf shop and snack bar
- Currently averages 170 golfers per day
- Generates approximately \$6,000 in revenue per day for Palm Beach County

