ADA TRANSITION PLAN - 2008

- Develop and Implement
  - Self-evaluation
  - Transition Plan
  - Public involvement/notification, comment period
  - ADA/504 coordinators
  - Public complaint/grievance procedure
  - Data inventory curb ramps, crosswalks, sidewalks
  - Tools/analytical models project prioritization
DATA INVENTORY

Objectives
- Cost effective, timely, integrated, interoperable, maintained
- Geographic Information Systems (GIS) framework
- Condition rating evaluation (2-5)

Methodology
- Loosely-couple GIS and pavement photo-log system
- Integrated design and planning level detail
- Data model (curb ramps points; crosswalks, sidewalks polylines)
- University student-interns – GIS experience required
- Paid internships $10-18/hour and academic credit
- Provided training condition rating evaluation photo-log

Overall Results
- 11 student interns for 6 months, $150K
- Sidewalks = 2,285 miles; curb ramps = 44,000
- Total deficiencies statewide ~15% (NYSDOT touring routes only)
  - Sidewalks = 370 miles
  - Curb ramps = 5,900
- Cost ADA compliance (deficiencies only) = $250 million, next 10 years
- Initial data collection PLANNING LEVEL ONLY, not DESIGN LEVEL which results in underestimation
CONDITION RATING

Rating 2 – Not Accessible: Significant discontinuity, e.g. no ramps, unpaved walkway, heaving, vertical displacement, flooding

CONDITION RATING

Rating 3 – Partially Accessible: Not designed to current standards, e.g. geometry problems, no detectable warnings
CONDITION RATING

- Rating 4 – Accessible: Minor improvements, e.g. insufficient width, running-slope, no detectable warning

- Rating 5 – Fully Accessible: Designed to current standards, reasonable accommodations may still be required for individual cases
ARCGIS AND IVISION

ADA Features
- Not Applicable
- Not Accessible
- Partially Accessible
- Accessible
- Fully Accessible
PROJECT PRIORITIZATION

- Objectives
  - Cost effective, timely, integrated
  - Geographic Information Systems (GIS) framework
  - Pedestrian demand model (probabilistic, aggregate)

- Methodology
  - Gravity/spatial interaction/clustering; Multi-Criteria Decision Analysis (MCDA)
  - Data sources and variables
    - 2008 InfoGroup USA business establishments
    - 2000 U.S. Census characteristics, block group level
  - Attractors – food establishments, retail, libraries, churches, cemeteries, government buildings, parks and recreation, schools and universities, hospitals and nursing homes, bus stops
  - Generators – population, employment, household income < $35K, disability, journey-to-work walking trips
  - Analytical Hierarchy Process (AHP) – preference matrix, priorities weighted to derive model weights

TRANSPORT-LAND USE SYSTEM

- Infrastructures (Supply)
- Friction of Space (Impedence)
- Spatial Accumulation (Demand)

Transport System

- Spatial Interactions
  - Accessibility
  - Traffic assignment models
  - Transport capacity

- Land Use
  - Economic base theory
  - Location theory
  - Traffic generation and attraction models

Urban Form

Urban Spatial Structure

Land Use Pattern
CONCLUSION

- Best Practices
  - **NYSDOT**: low cost resources, technically innovative approaches, < $200K (vs. ~$1 million/region consultants)
  - **University**: building professional relationships, future collaboration, recruitment
  - **Student Interns**: paid internships, academic credit, practical work experience
  - **GIS framework**
  - **Combined effort** design-construction-planning

- Current activities
  - Streamline design-construction-planning data collection process to automate database changes
  - **ADA Transition Plan Update 2016**
THANK YOU/QUESTIONS