ADA TRANSITION PLANNING
AN INNOVATIVE APPROACH

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ADA TRANSITION PLAN - 2008

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- ❑ 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

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- ❑ 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

DATA INVENTORY

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- ❑ 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
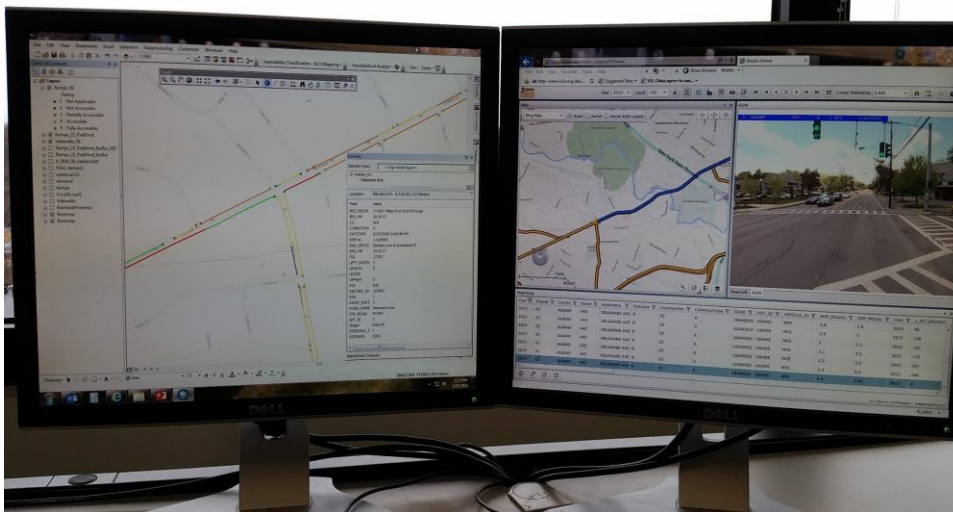

CONDITION RATING

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

ARCGIS AND IVISION

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PROJECT PRIORITIZATION

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- ❑ 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

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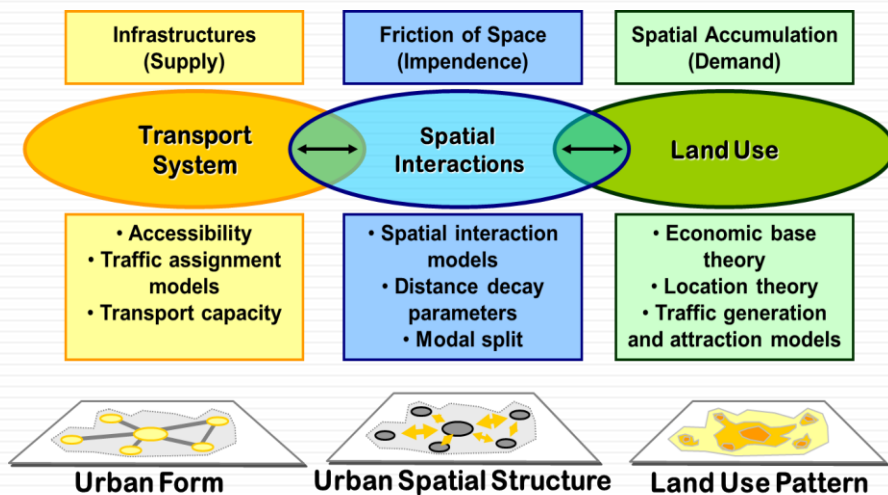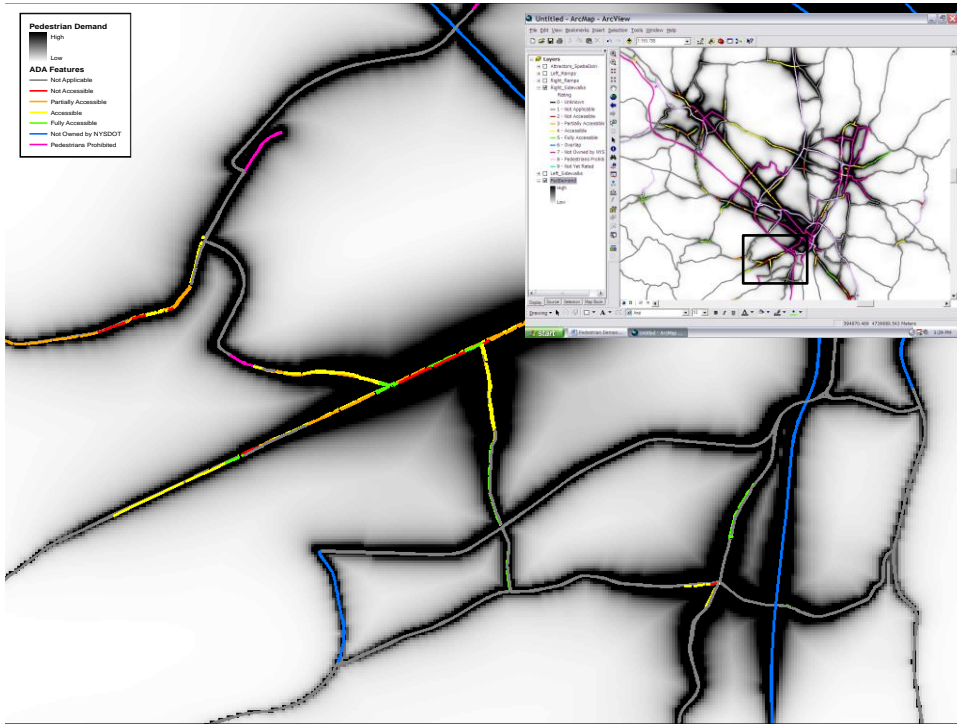
CONCLUSION

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- ❑ 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

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