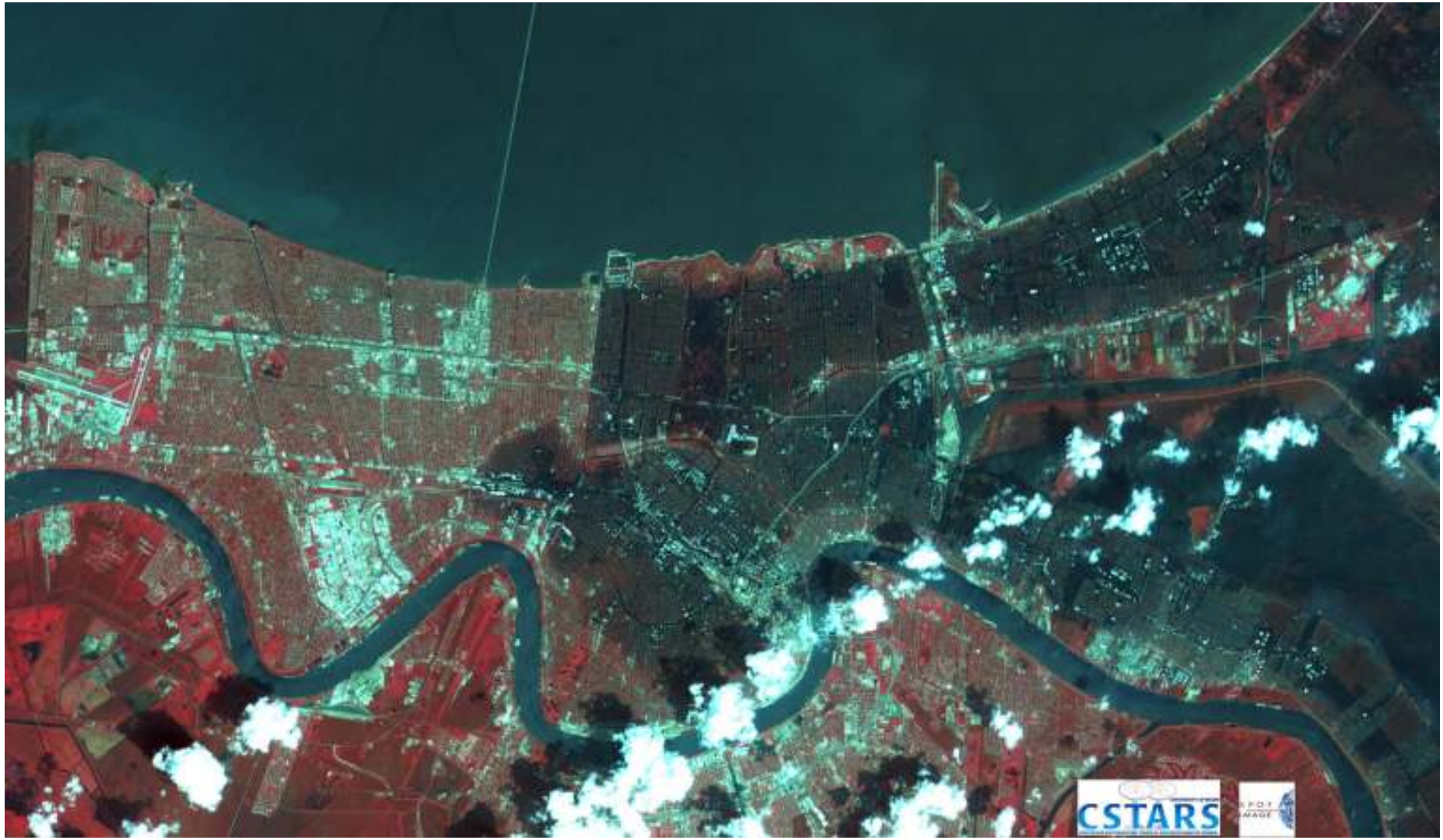
Using Remote Sensing in the long term recovery and restoration in New Orleans

…seeking new strategies for

rapidly and efficiently

documenting and analyzing neighborhood recovery and restoration.

John C. Pine
Disaster Science & Management
Louisiana State University



Current Situation: Catastrophic damage from Katrina with fragmented slow recovery –
Individual Response: frustrated, angry, and individual decision making “on hold.”

HIGH TIDE
STANDING WATER LINE

Lakeview

Recovery is SLOW

Neighborhood Driven

Lakeview

Lakeview

Lakeview

Business recovery on Canal Blvd.

Two Years Later

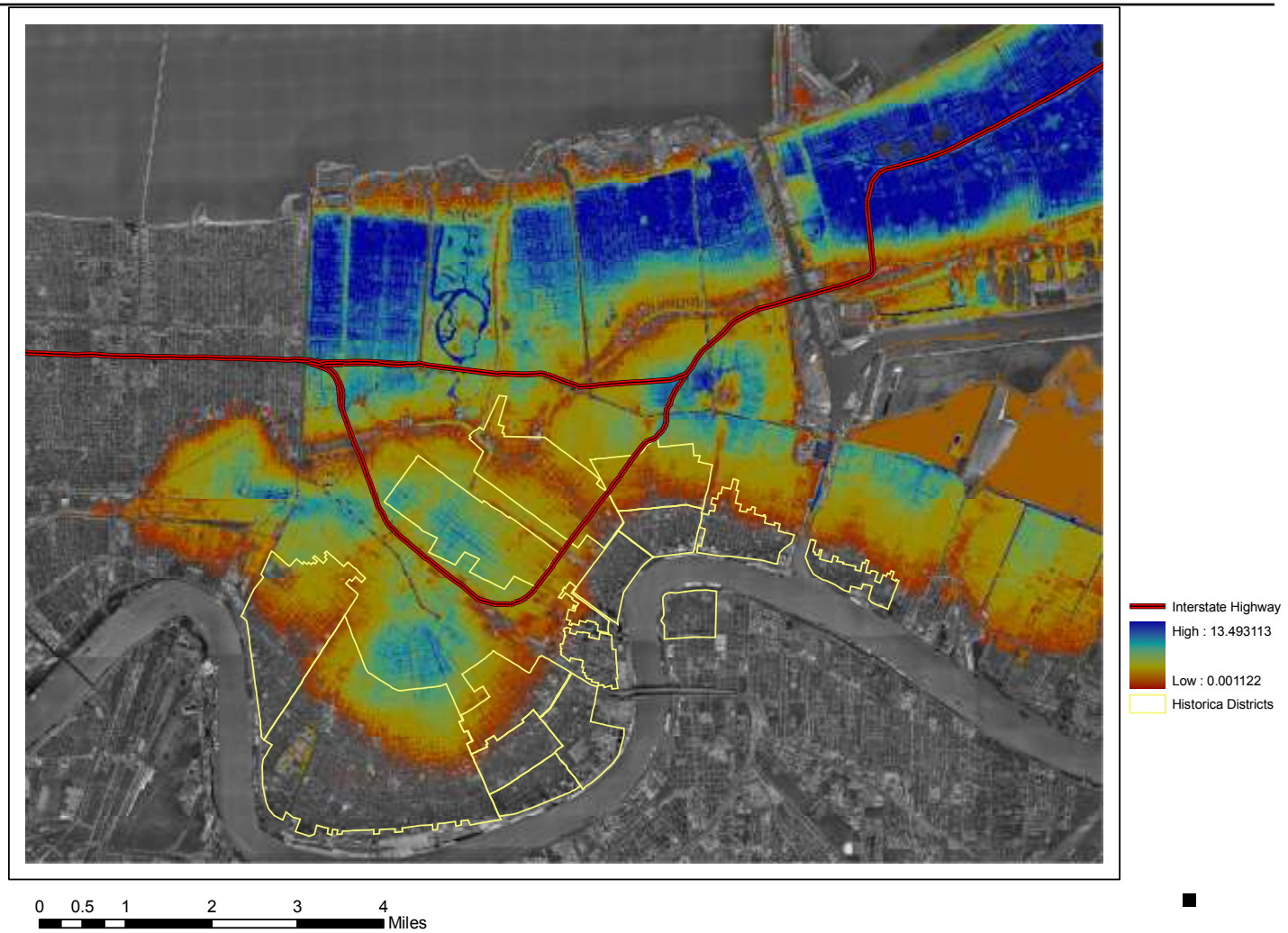
Some Neighborhoods have **Limited Recovery**

Neighborhoods and Non-profits have asked for HELP.

Opportunity for application of remote sensing technology.

- Funding for low cost housing provided by HUD and private foundations (including rentals)
- Document current status of neighborhoods
- Document acquisitions
- Document areas around acquisitions
- Document historic properties
- Identify priority properties for acquisition

…seeking new strategies for rapidly and efficiently documenting and analyzing neighborhood recovery and restoration.



Holy Cross Historic District (Lower 9th Ward)

- One Person
- 100 structures per day (>2500)
- Spatial data (GPS)
- Imagery
- Text w/consistent terminology
- Digital
- GIS “enabled”

Rapidly and efficiently…

Data Collection Field Kit

- **PDA**
- **FAST Software**
- **GPS**
- **Digital Camera**

Rapid Building and Site Condition Assessment

Inspection Inspection date time _____ ☐ AM ☐ PM

Inspector _____ Area inspected ☐ Exterior Only ☐ Exterior and Interior

Affiliation _____

Page 1 of ___

Attachments: Sketches ☐ Documents ☐ Photographs ☐ Other ☐

Property Description

Building name _____

Address _____

_____

Historic district name _____

Number of stories above ground _____ below ground _____

Approx footprint area (square feet) _____

Number of residential units _____

Type of Construction: ☐ Wood Frame ☐ Brick ☐ Boat ☐ Steel Frame ☐ Stone ☐ Other ☐ Concrete ☐ Manufactured

Primary Occupancy: ☐ Dwelling ☐ Other Residential ☐ Public Assembly ☐ Emergency Services ☐ Commercial ☐ Offices ☐ Industrial ☐ Government ☐ Museum ☐ School ☐ Religious ☐ Cemetery ☐ Other

Occupied? ☐ Yes ☐ No

Repairs begun? ☐ Yes ☐ No

Owner/Contact Info

Characteristics

Building age ☐ 0- 25 yr ☐ 25 - 50 yr ☐ 50 -100 yr ☐ 100+ yr ☐ Verified ☐ Reported ☐ Estimated

Foundation ☐ Pier ☐ Slab ☐ Chain Wall ☐ Basement ☐ Other _____

Roof type ☐ Hipped ☐ Gable ☐ Mansard ☐ Pyramid ☐ Flat ☐ Other _____

Roof covering ☐ Slate ☐ Metal ☐ Tile ☐ Asphalt ☐ Asbestos ☐ Other _____

Wall finish ☐ Stucco ☐ Wood ☐ Vinyl ☐ Masonry ☐ Asbestos ☐ Other _____

Landscape features ☐ Walkway ☐ Driveway ☐ Fences ☐ Sculpture/Fountains ☐ Structures ☐ Other _____

Archaeological site ☐ Yes ☐ No ☐ On SHPO List ☐ Unknown ☐ Other _____

Visible artifacts ☐ Bone ☐ Pottery ☐ Metal ☐ Stone ☐ Glass ☐ Unknown ☐ Other _____

Interior condition ☐ Structural Damage ☐ Mold/Mildew ☐ Falling Plaster ☐ Other _____

Interior contents ☐ Antiques ☐ Archives ☐ Art Work ☐ Other _____

Appears historic? ☐ Yes ☐ No ☐ Don't know Is there a sign or plaque? ☐ Yes ☐ No _____

Historic designation ☐ Nat'l Hist. Landmark ☐ Nat'l Reg/District ☐ State/Local ☐ Eligible ☐ Other _____

Flood Data

Nature of water ☐ Standing ☐ Flowing ☐ Seepage ☐ Water Marks ☐ Other _____

Space where water entered ☐ Basement/Crawl ☐ First Floor ☐ Second Floor

Depth of water measured from main floor (+/-) _____

Sediment deposited ☐ On Site ☐ In Structure Site erosion ☐ Yes ☐ No ☐ Don't know

Evaluation

Investigate the building for the conditions and check the appropriate column.

Collapsed or off foundation	☐ Minor/None	☐ Moderate	☐ Severe	
Leaning, other structural damage	☐ Minor/None	☐ Moderate	☐ Severe	
Damage to windows, doors	☐ Minor/None	☐ Moderate	☐ Severe	
Chimney, parapet, or other falling hazard	☐ Minor/None	☐ Moderate	☐ Severe	
Roof damage	☐ Minor/None	☐ Moderate	☐ Severe	
Foundation damage	☐ Minor/None	☐ Moderate	☐ Severe	
Siding damage	☐ Minor/None	☐ Moderate	☐ Severe	
Damage to electrical, mechanical, AC systems	☐ Minor/None	☐ Moderate	☐ Severe	
Landscape damage	☐ Minor/None	☐ Moderate	☐ Severe	

Potential Hazards ☐ Electrical ☐ Lead ☐ Asbestos ☐ Mold ☐ Other _____

Estimated Building Damage

☐ None
☐ 1-10%
☐ 10-30%
☐ 30-60%
☐ 60-90%
☐ 90-100%

Further Actions Recommendations ☐ Add Temporary Roof Covering ☐ Board ☐ Shore ☐ Other _____

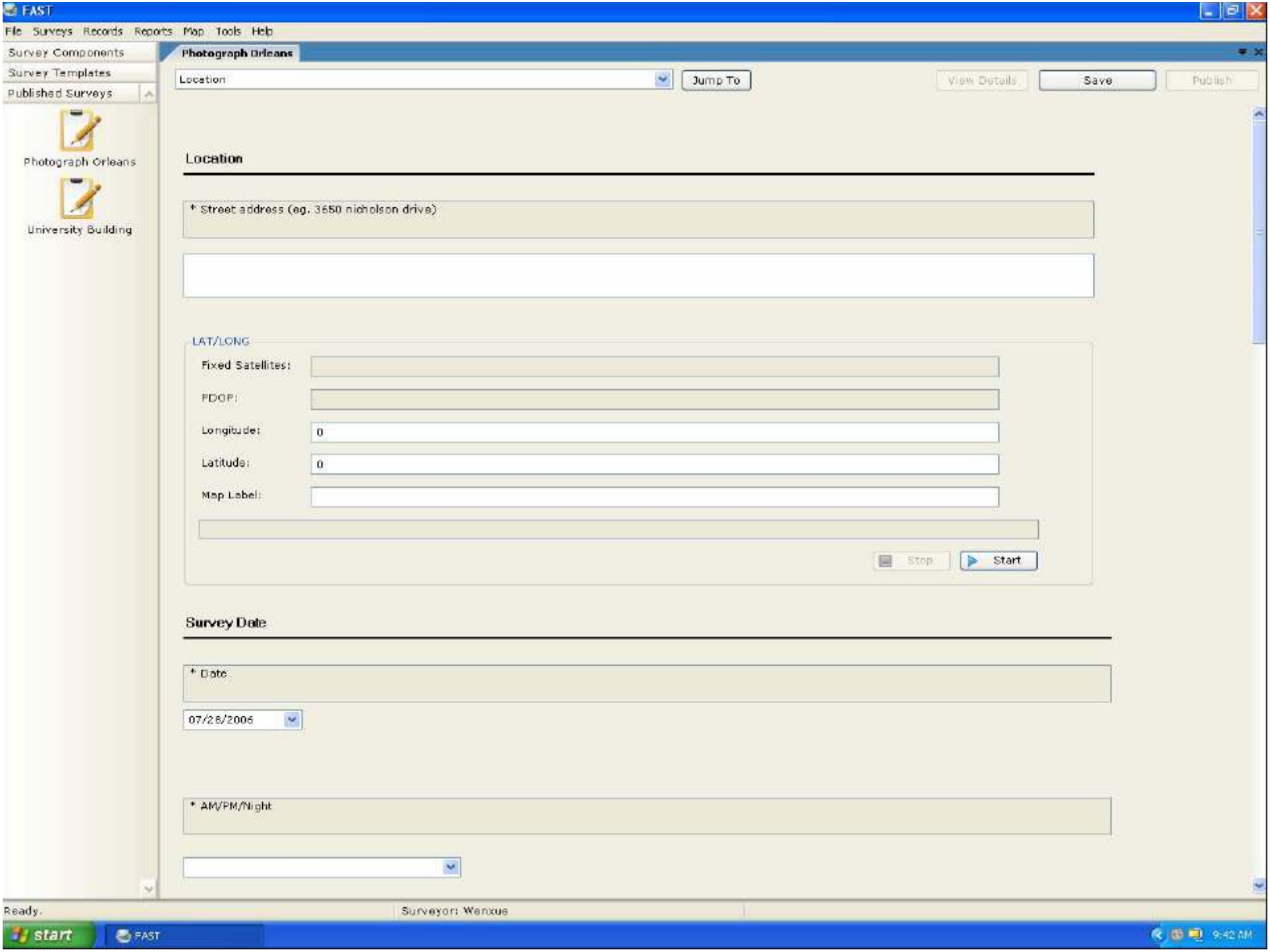
Detailed evaluation recommended ☐ Structural ☐ Environmental ☐ Archaeological ☐ Historic Significance ☐ Collections

Other recommendations _____

Barricades needed in the following areas _____

Posting ☐ Inspected ☐ Restricted Use ☐ Unsafe ☐ Historic Designation ☐ Detailed Evaluation Needed

NCPTT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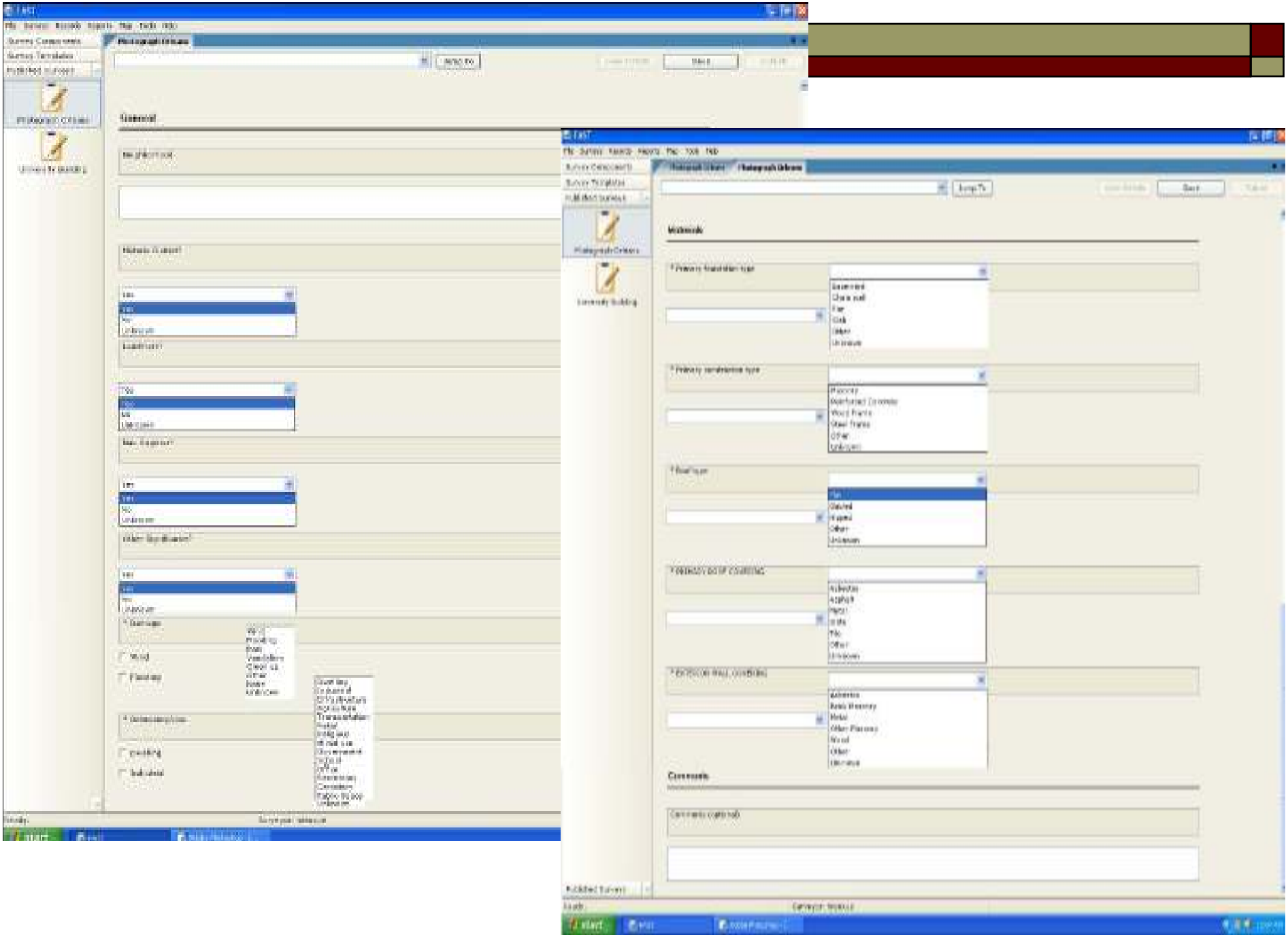

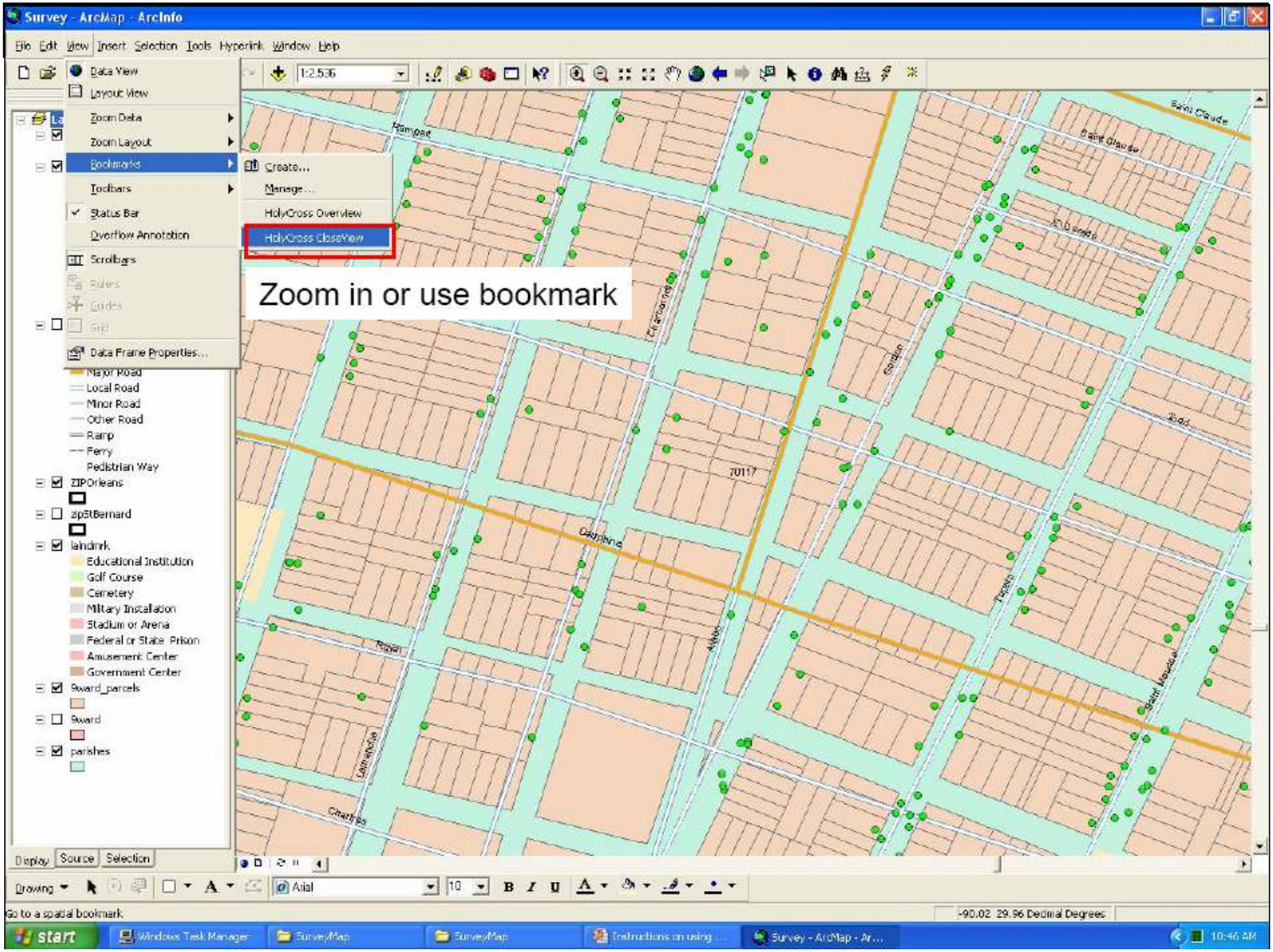
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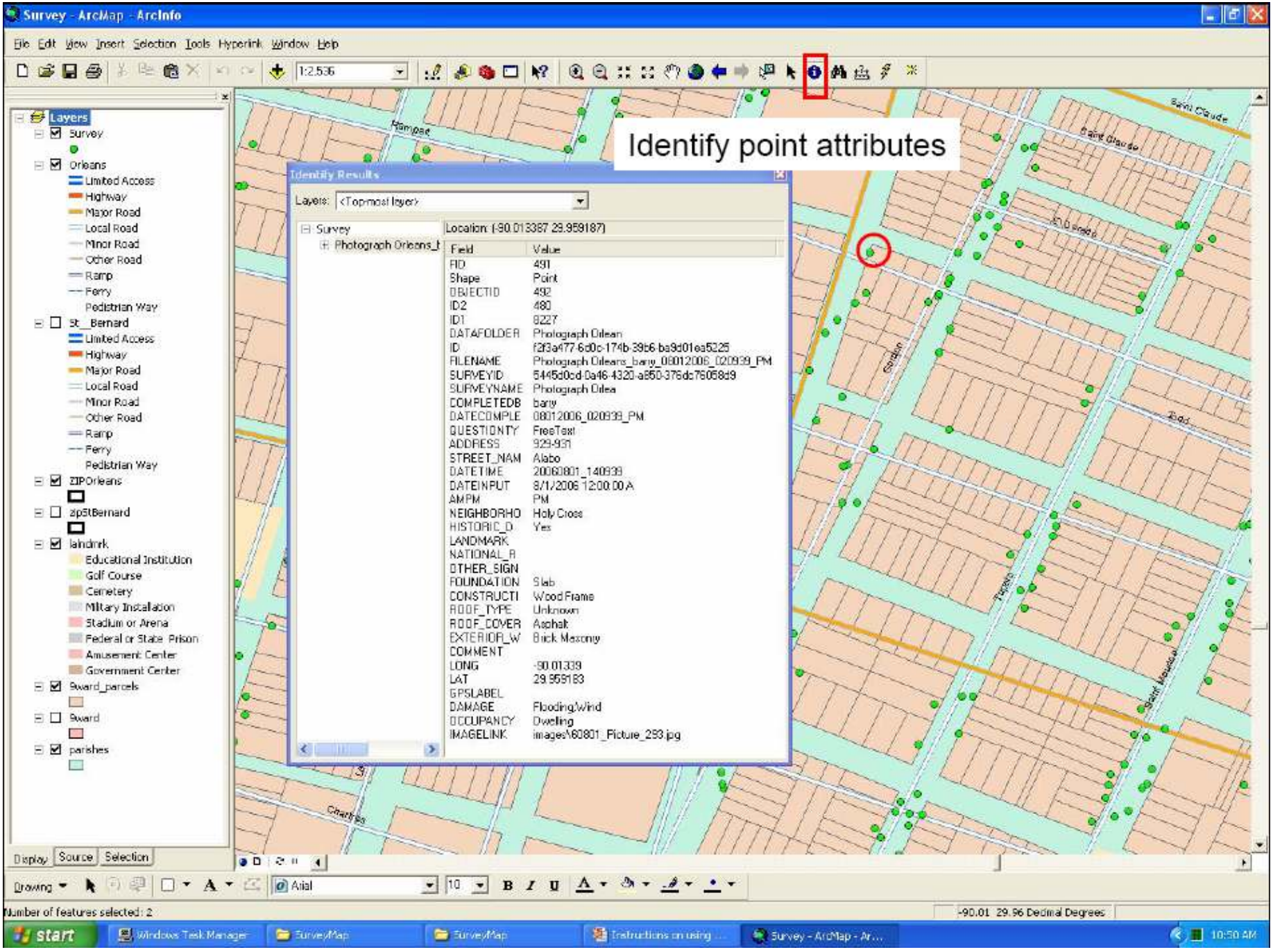
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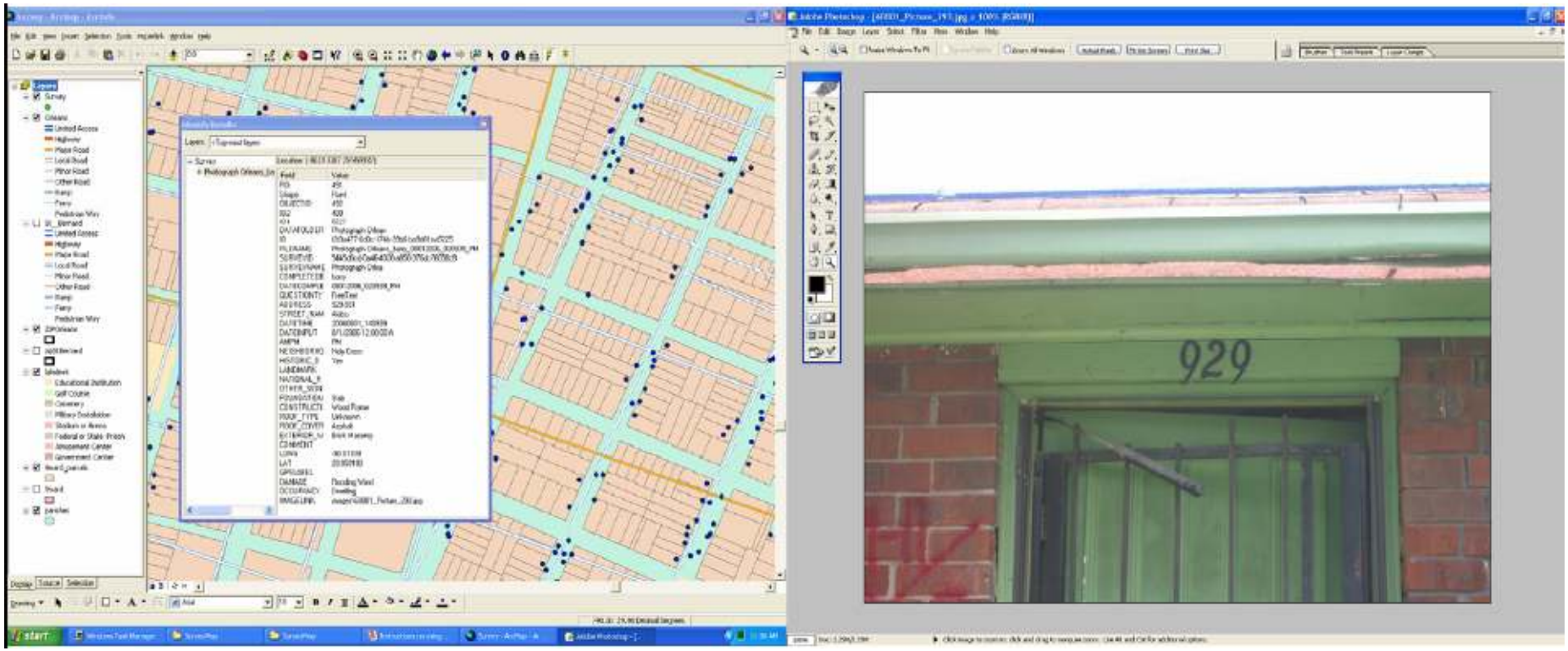
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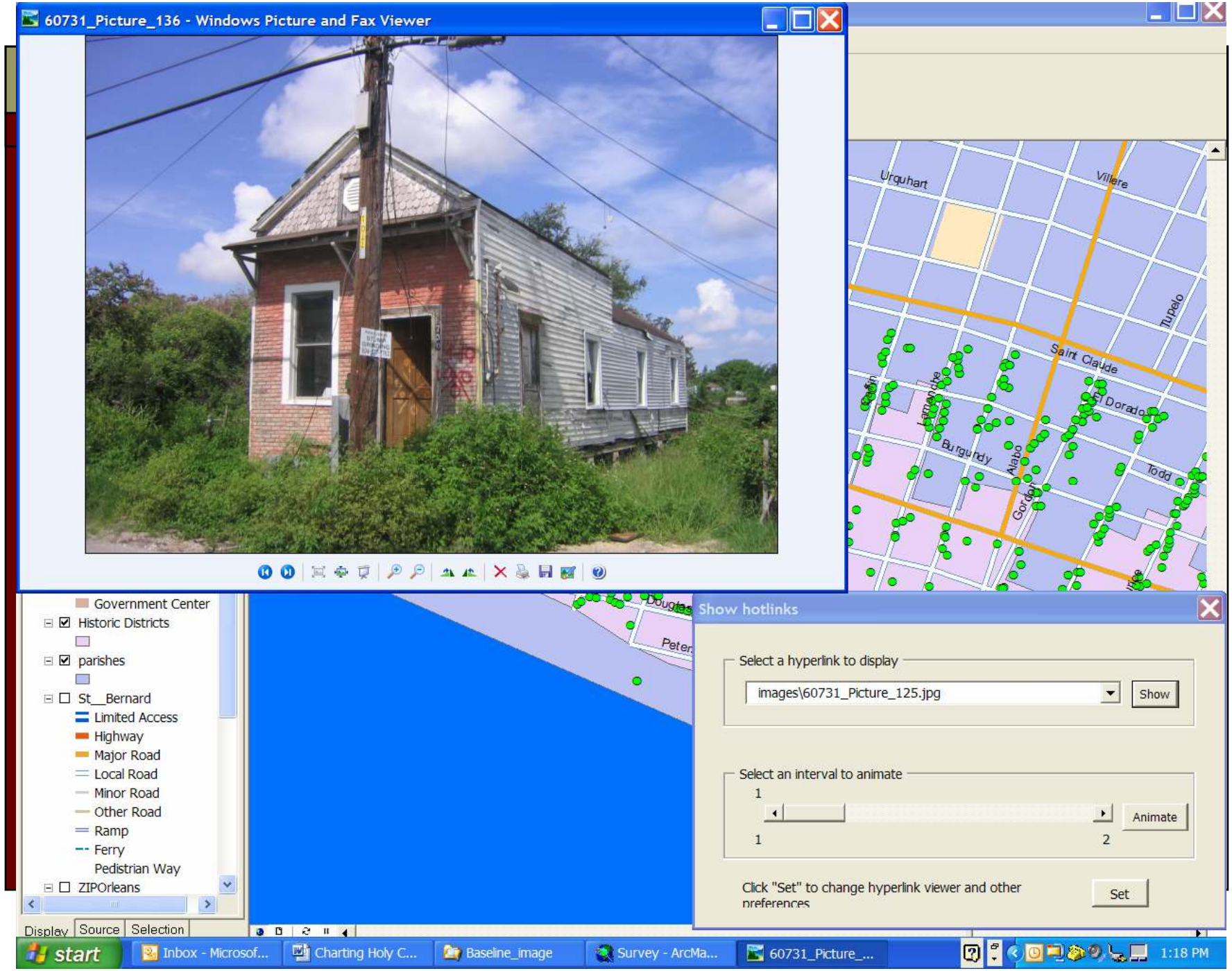
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HUD funded Providence Community

Existing Conditions

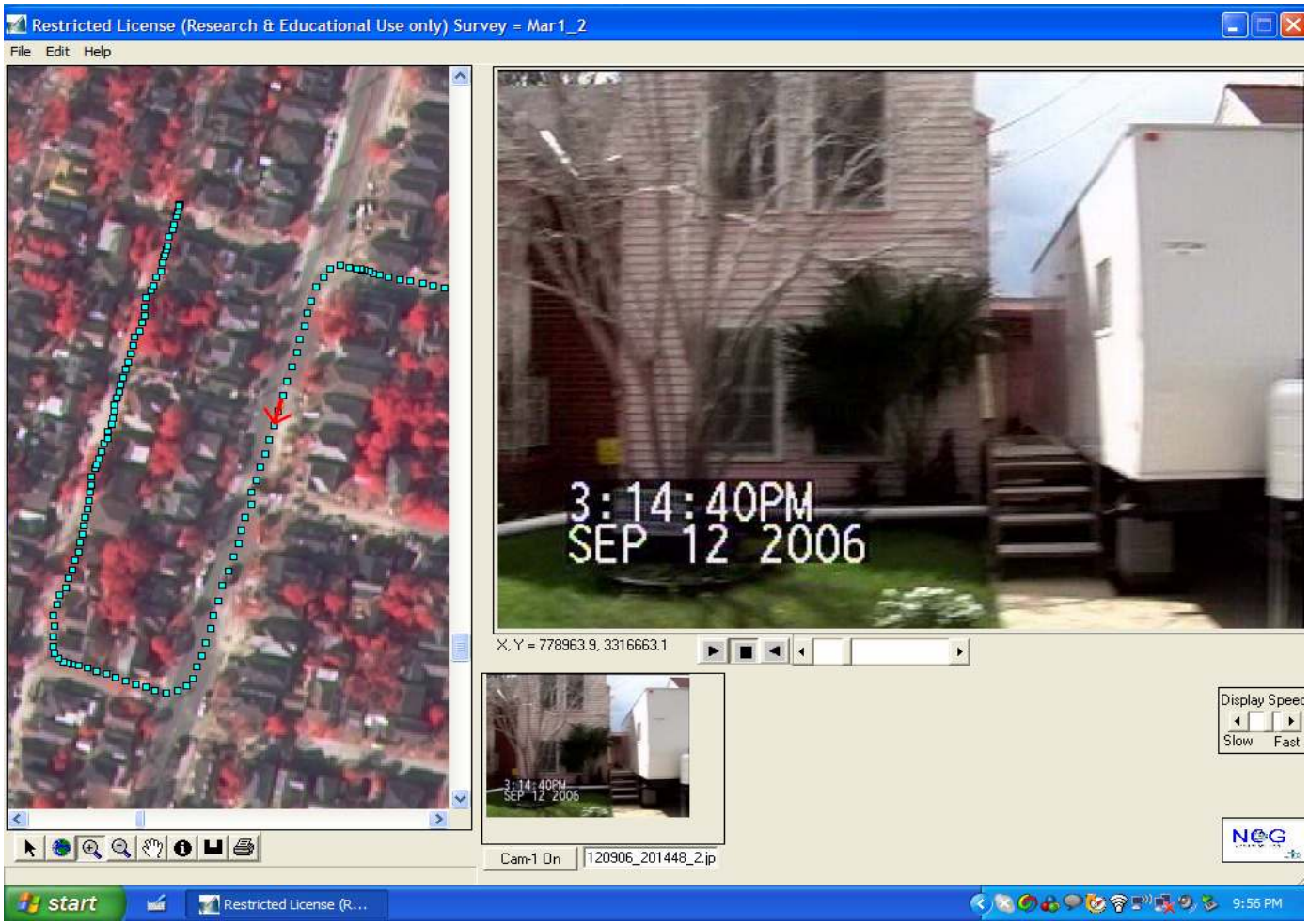
Community Driven Data Collection

- Provide specifications for equipment and programs
- Conduct training
- Provide on-going consultation to Providence Community Housing, Univ. of N.O., & N.O. Regional Planning Commission

Geospatial Video Recordings

- 09/12/06: Midcity
- 09/12/06: 9th Ward
- 08/29/06: Lakeview
- 08/29/06: 9th Ward/Gentilly

Geospatial Video Browser



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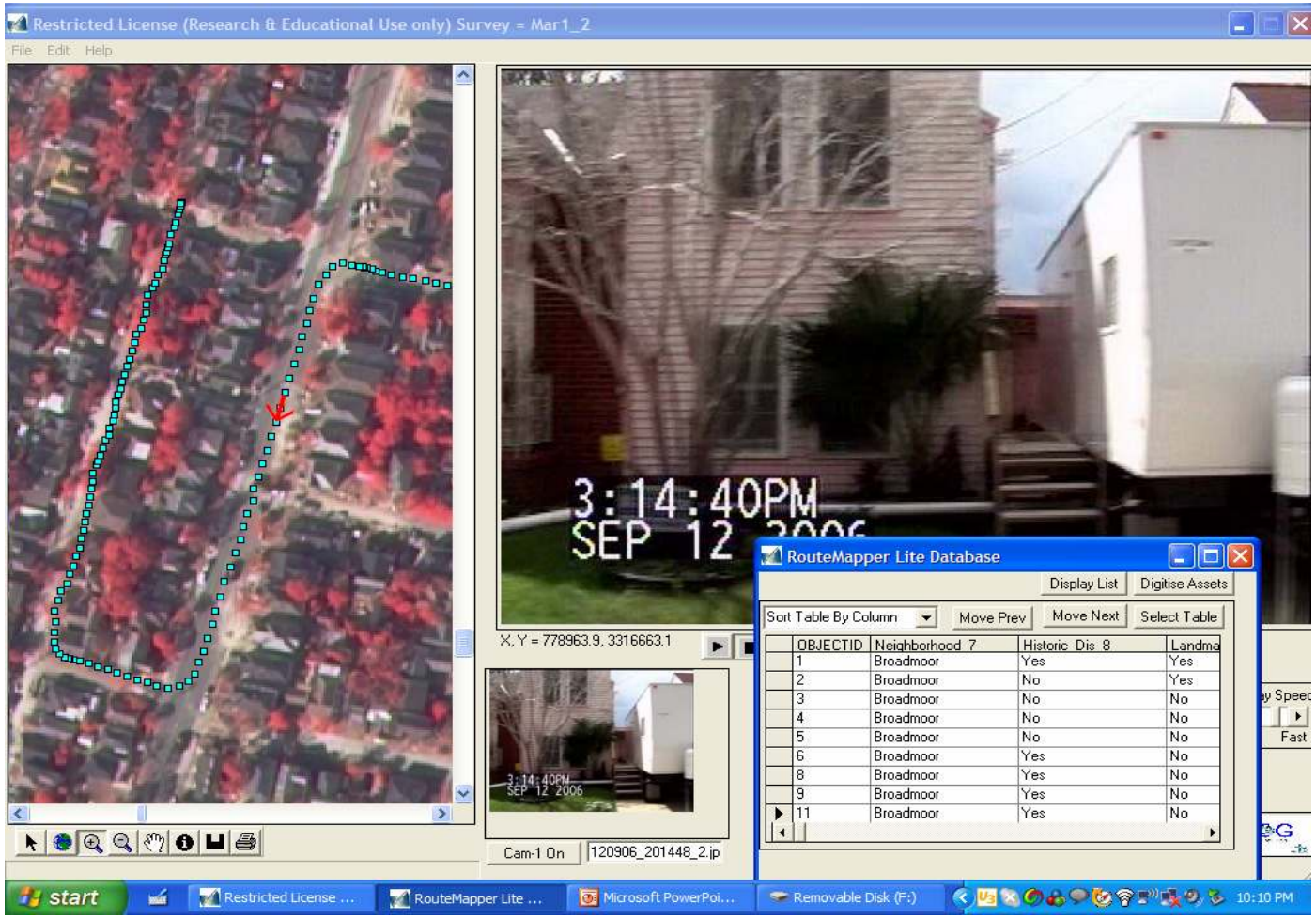

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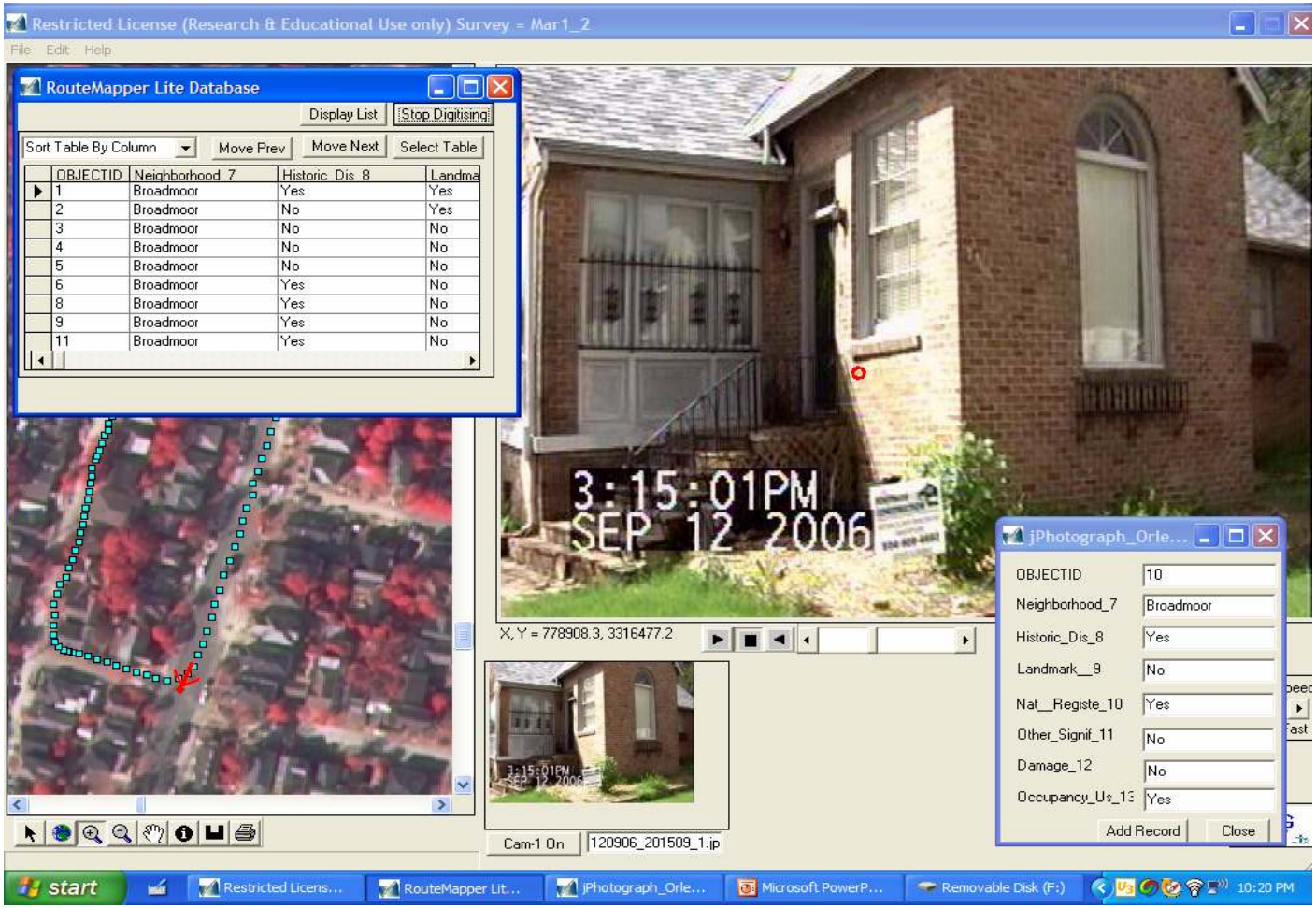

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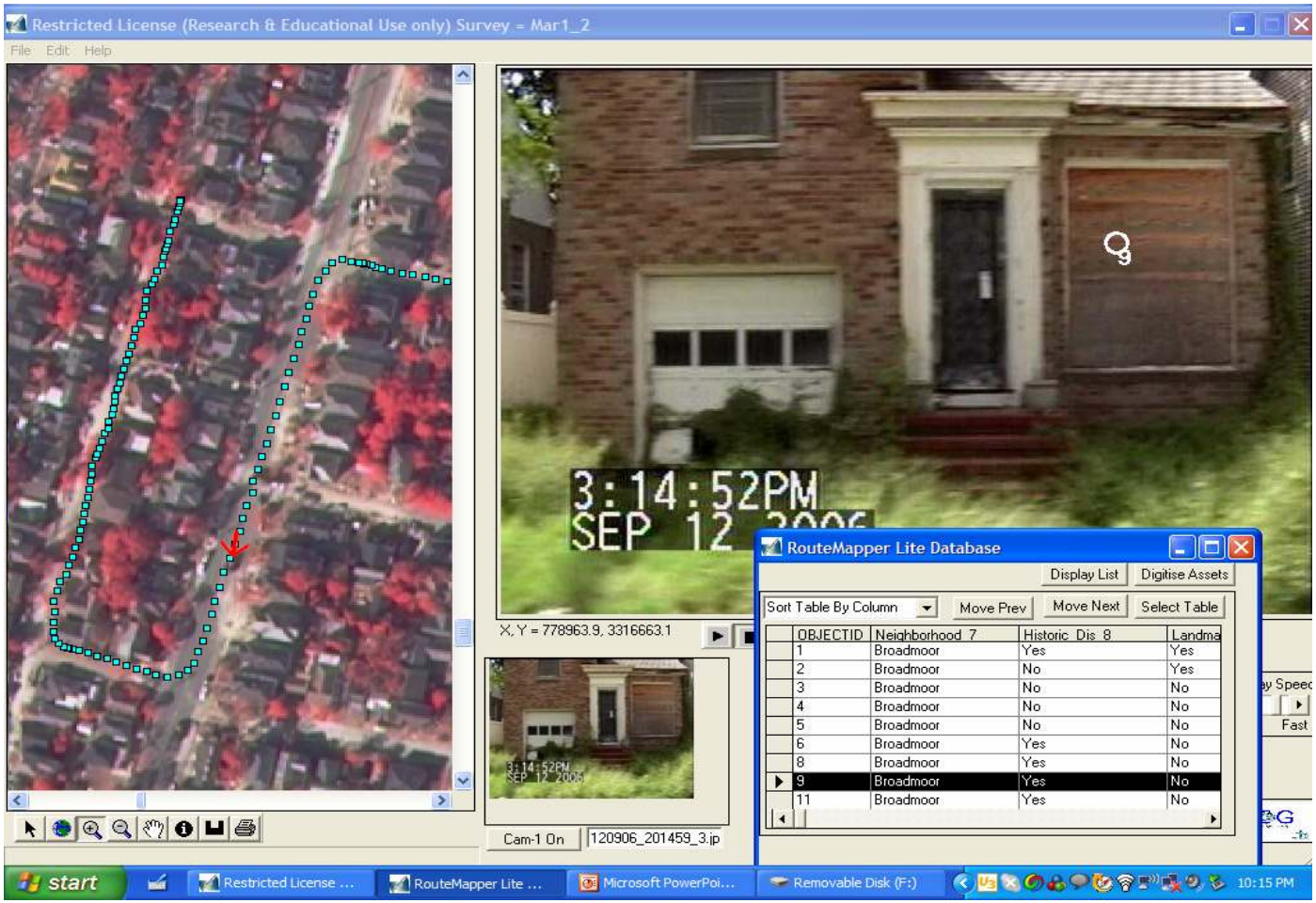

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