HATCHET CREEK, AN ENVIRONMENTAL CLUSTER SUBDIVISION

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EXPERIENCE

- 29 Years in Florida
- 25 Years of Environmental Consulting
- *BS Biology* : Aquatic Ecology, VirginiaTech
- *MS Systems Ecology* : Center for Wetlands, UF
- *Professional Wetland Scientist* : Certification from the Society of Wetland Scientists
- *Member of Reclamation Technical Advisory Committee* : Florida Institute of Phosphate Research
- *Authorized Gopher Tortoise Agent* : Florida Fish & Wildlife Commission

EXPERIENCE

Currently:

Consultant to City of Gainesville

- GRU – Eastside Maintenance Facility
- GRU – Deerhaven Land Use Change
- GRU – Deerhaven Biomass Plant Siting

Consultant to Alachua County

- Hired by the County to perform Special Area Study and Special Area Plan for the Paynes Prairie West Strategic Ecosystem

EXPERIENCE

Tendered as an Expert Witness in District Court & Division of Administrative Hearings

- Wetlands Ecology
- Wastewater to Wetlands
- Wetlands Water Quality
- Jurisdictional Determinations

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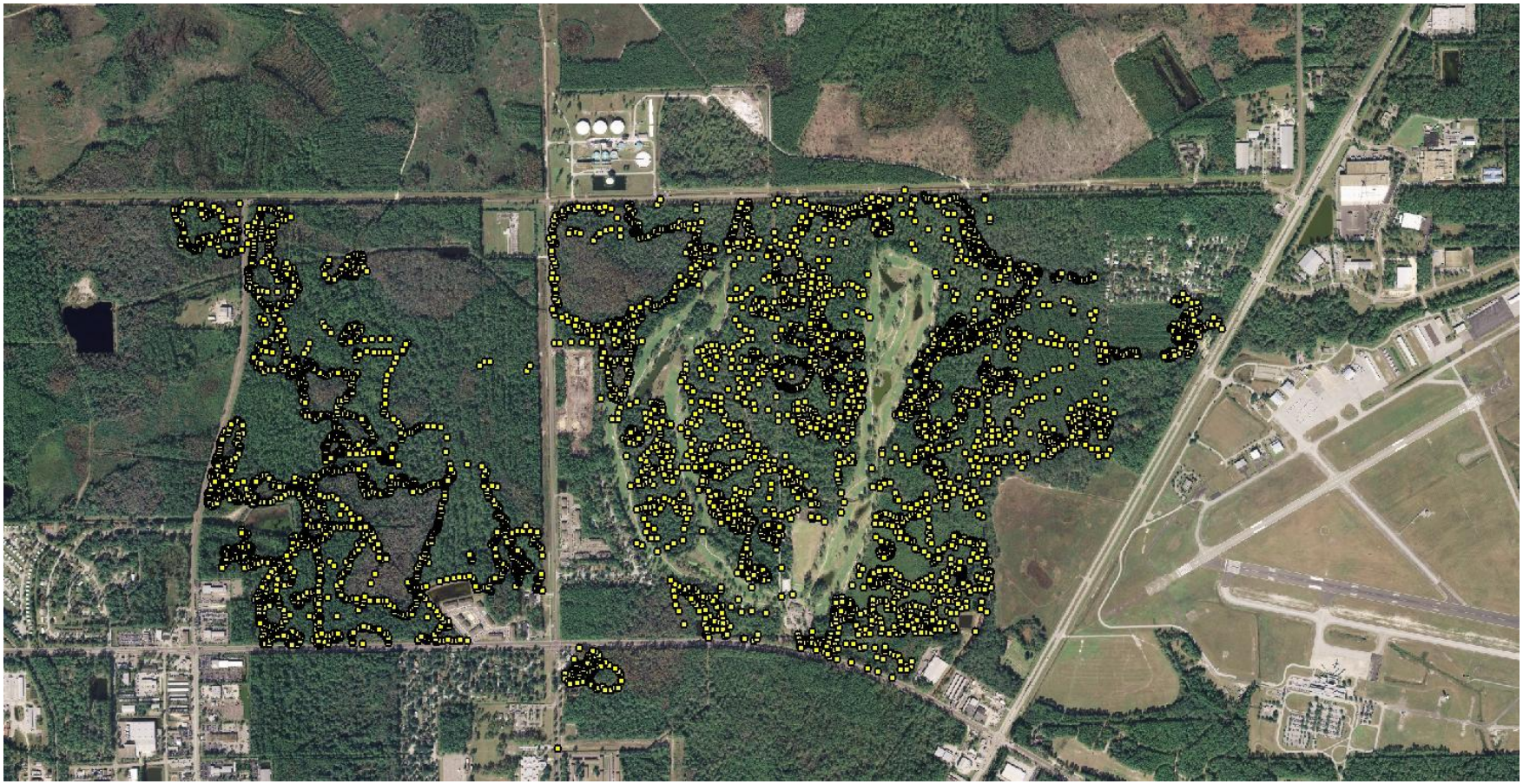
EXPERIENCE: 565 Hours On Site Since 2004



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Section 30-302.1(d)

Avoidance through practicable design modifications is not required when the ecological value of the function provided by the area of wetland is low and the proposed mitigation will provide greater long-term ecological value than the area of wetland to be affected.

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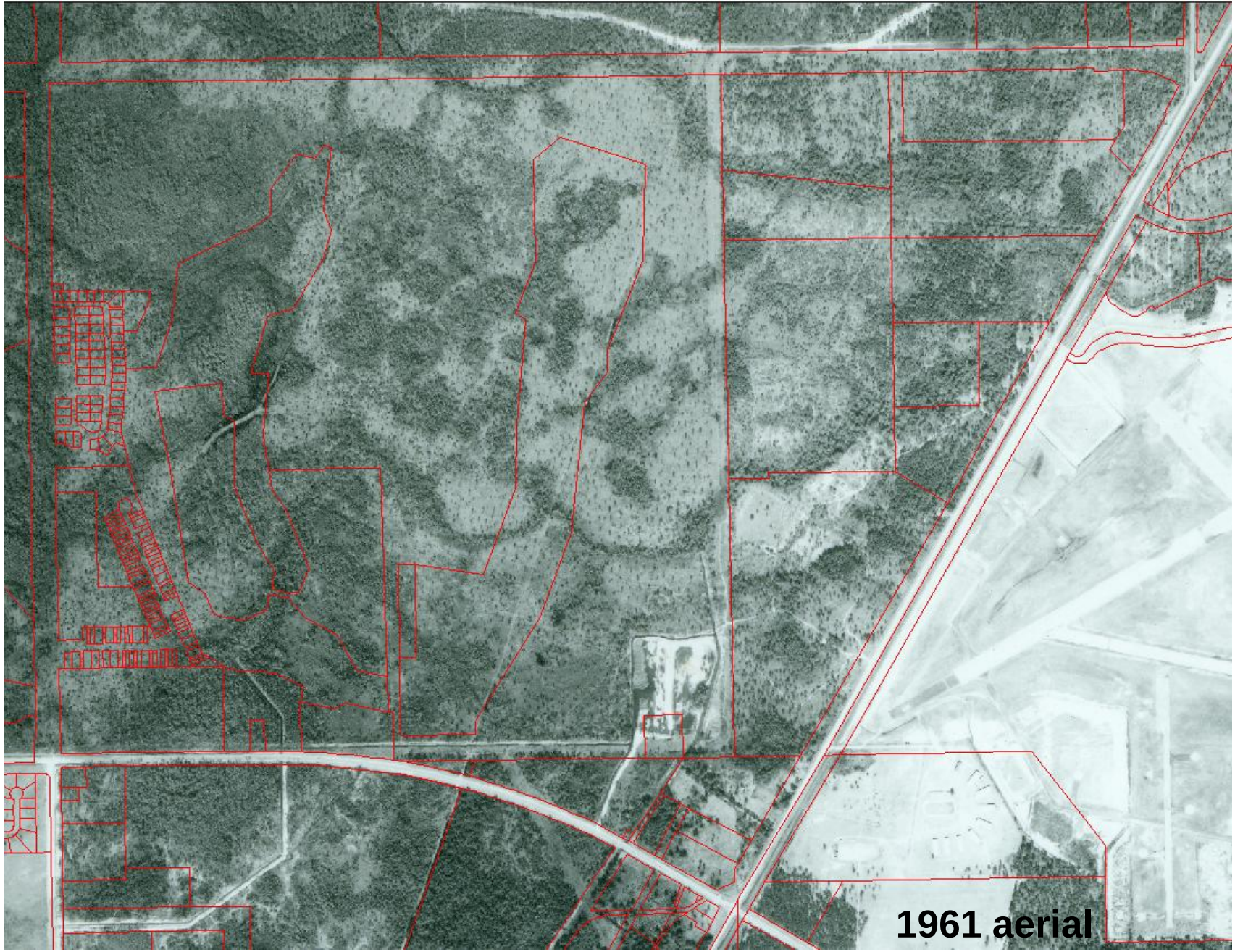
Part 1 Test: "Avoidance through practicable design modification is not required when the value of the function provided by the wetland is low."

LOW-QUALITY WETLANDS

1. The area has effectively been drained since 1968 (41 years).
2. On-site hydrologic data support severe drainage of wetland areas.
3. The absence of biological indicators of wetland hydrology support hydrologic data.
4. The 100-Year stormwater models support the assertion that even under the extreme rain events, inundation is infrequent and drawdown in wetlands is rapid.

5. Vegetation changes
    a) Existing vegetation is not characteristic of what existed in the historic condition.
    b) Remarkable absence of size class structure.
    c) No evidence of recruitment of canopy species.
    d) Extensive canopy mortality.
    e) Absence of wetland canopy or any canopy in many areas.
    f) Greater occurrence of pine and oak species in canopy and gallberry and palmetto in subcanopy.
    g) The absence of OBL and FACW herb species in the groundcover.



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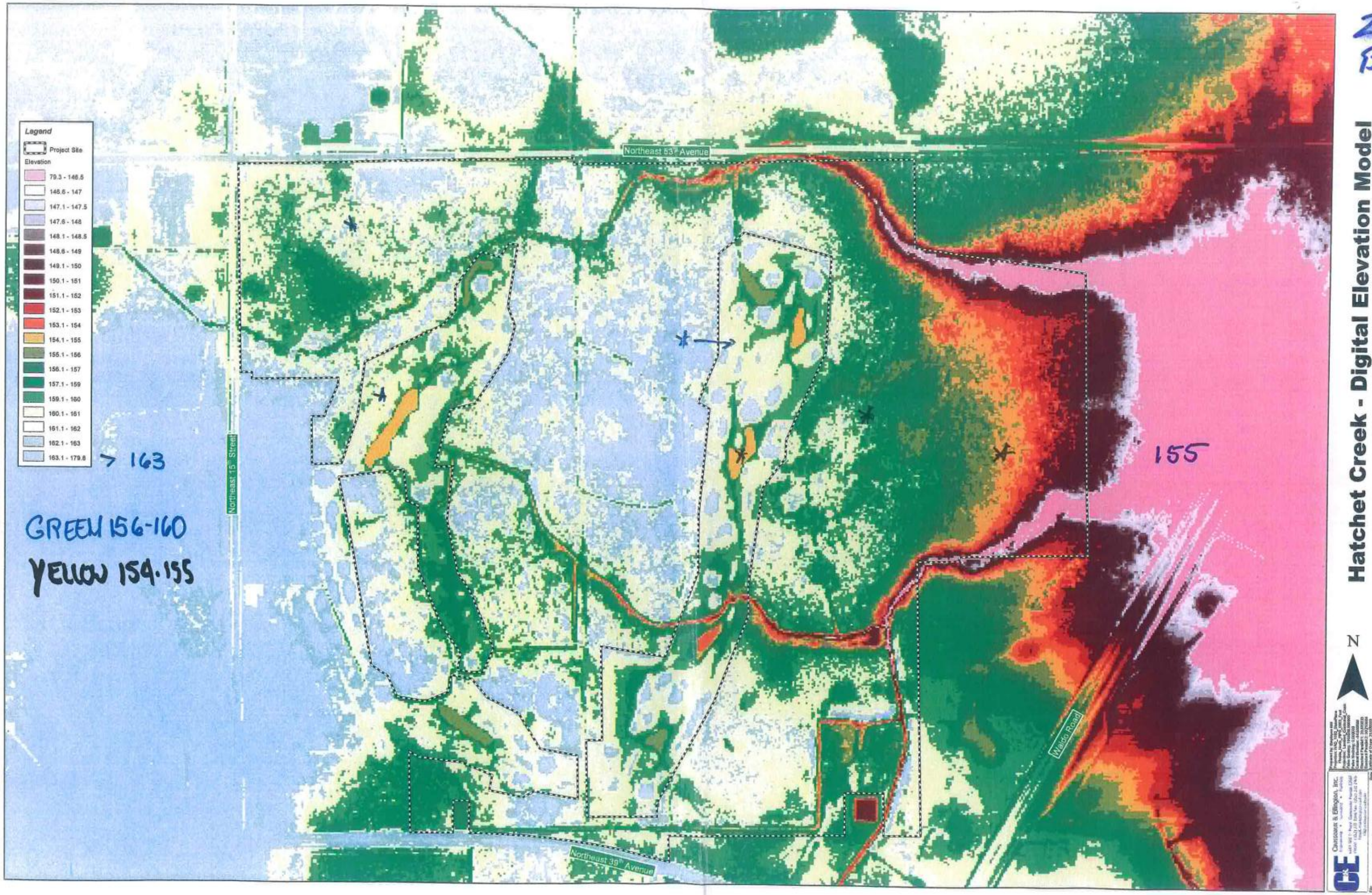
1974 aerial



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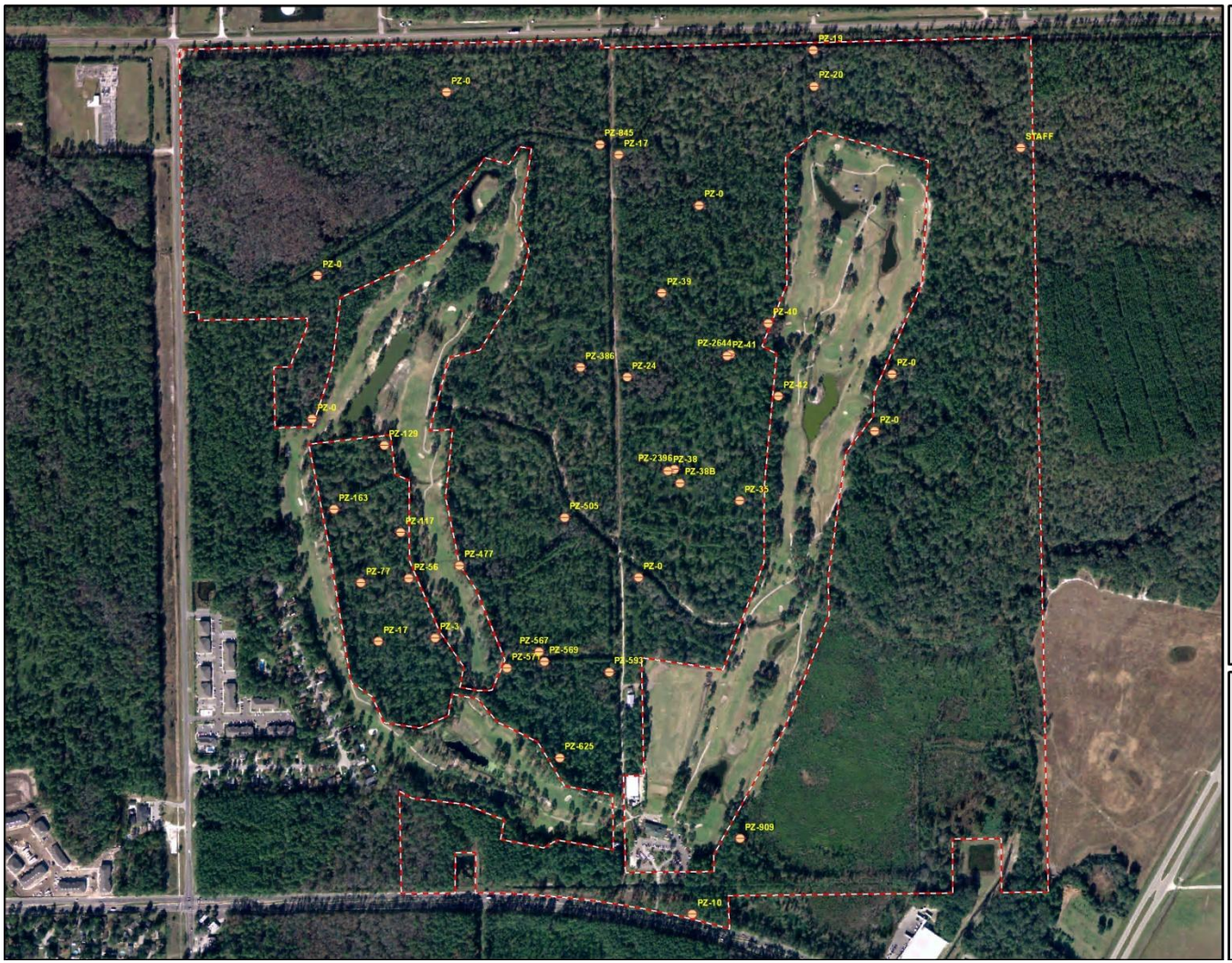
Hatchet Creek Piezometer Locations



Legend

- Piezometer Locations
- Project Boundary

750
Feet

1 inch equals 750 feet

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Prepared by: J Carter

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Test 2: "and the proposed mitigation will provide greater long-term ecological value than the area of the wetland to be affected."

MITIGATION

Functional Loss Credits	-4.010
Functional Gain Credits Total within Cluster Subdivision	+5.580
Functional Gain Credits Total within Parcel	+9.052

Offsets mitigation by a factor of 2.26

Total Conservation: 88.96 acres

Hatchet Creek Wetland Mitigation Areas

CONSERVATION AREAS
1. 61.34 ac
2. 4.45 ac
3. 11.80 ac
Total 77.59 ac

Legend

Project Boundary
CW1 = 2.48
CW2 = 5.31
CW3 = 3.58
Total = 11.37

750
Feet

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Prepared by: J Carter

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0-10% Set-Aside Requirement Of Total Parcel Area

•Total Cluster Subdivision Acreage	292.90
•Cluster Subdivision within Significant Ecological Community Overlay	231.66
•Maximum Required Set-Aside (10%)	23.17
•Proposed Set-Aside w/in Cluster Subdivision (12.06%)	27.93
•Additional Set-Aside Offered w/in Parcel (11.51%) (Highest Quality Area)	26.67
TOTAL SET-ASIDE	**54.60**

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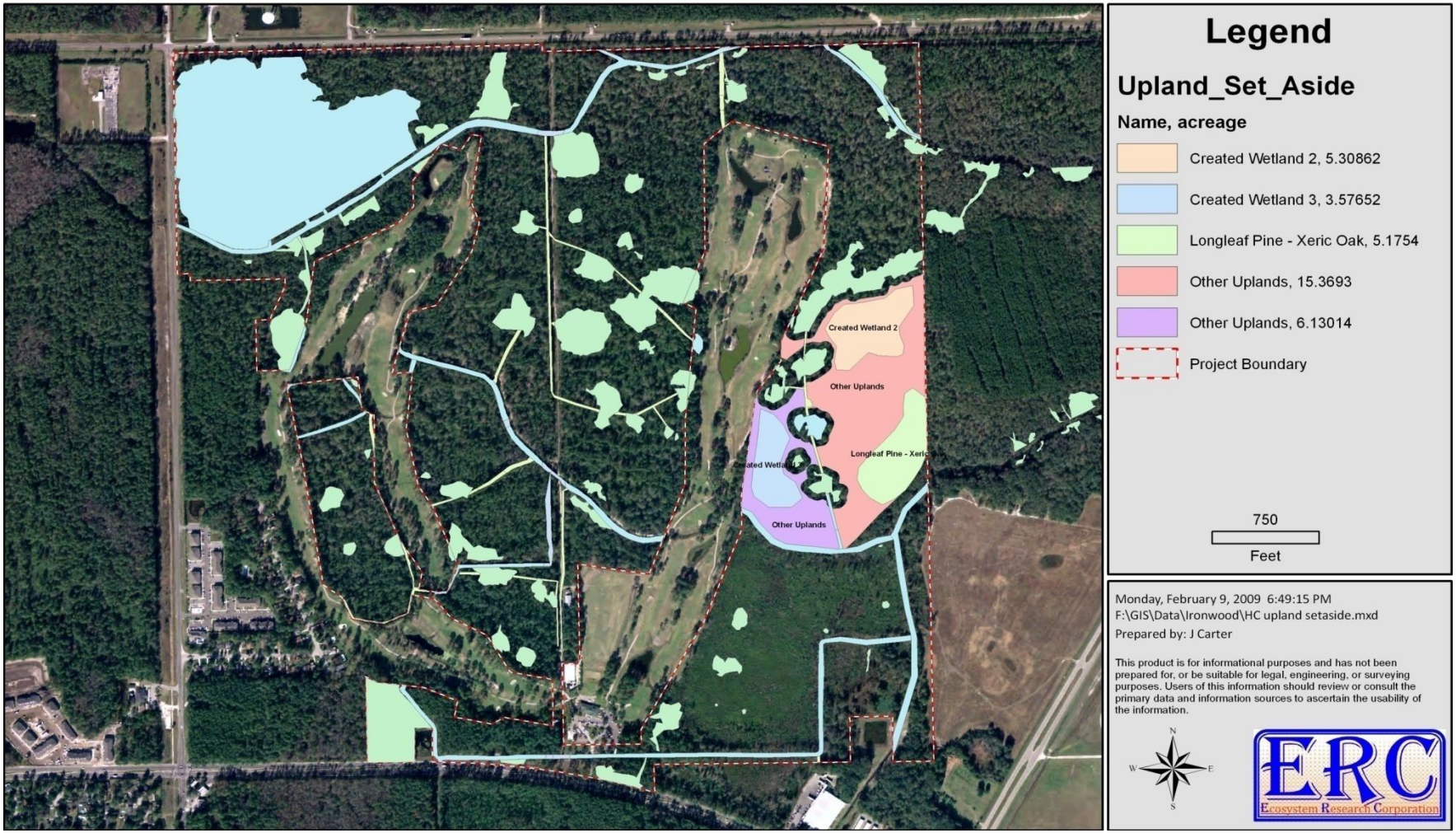
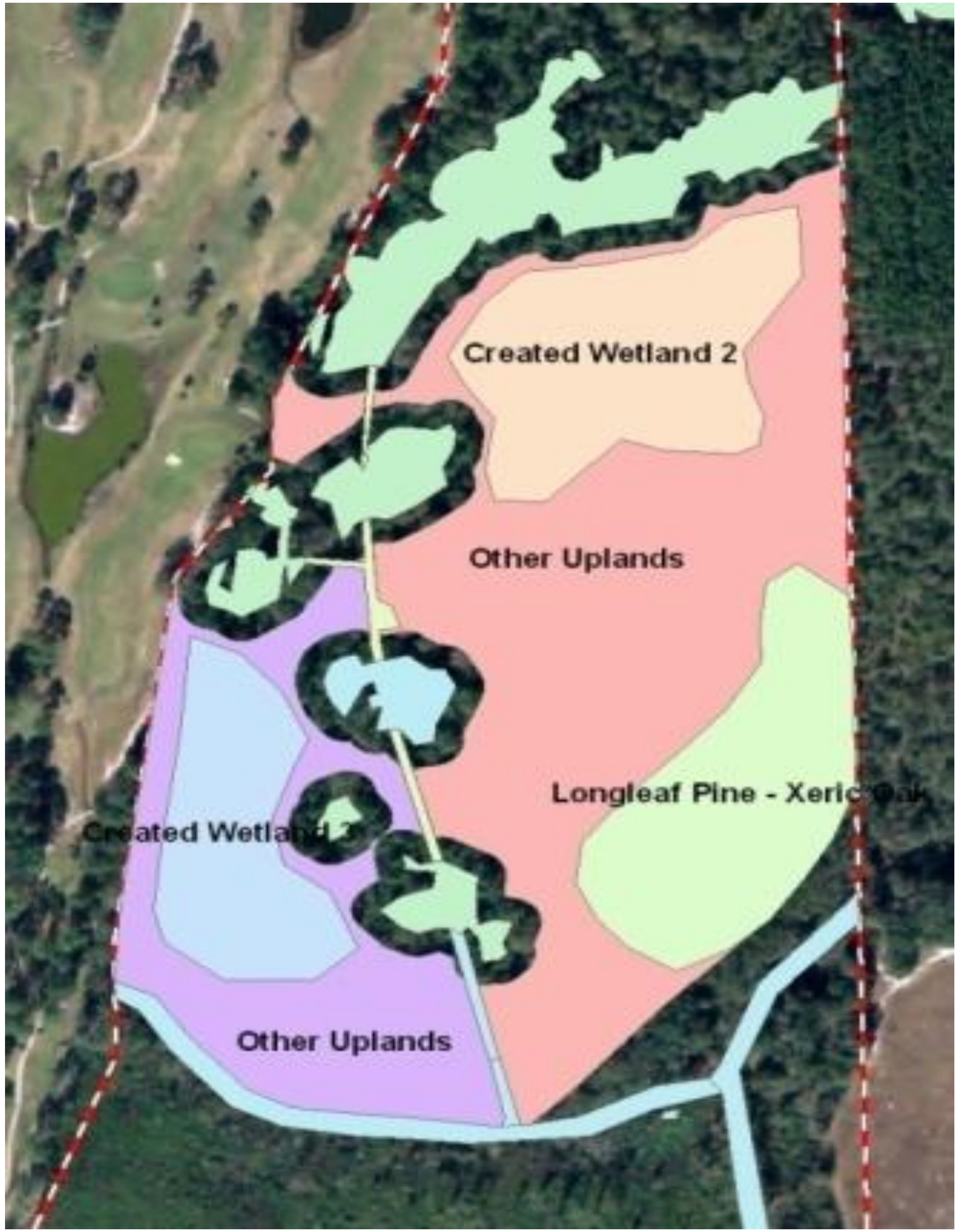
Set-Aside	26.67 acres
Created wetlands	8.88 acres
Total	35.55 acres

Hatchet Creek "Upland Set-Aside"





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SITE STATISTICS

Total Project Acreage	292 acres
Post Project Acreage	
Wetlands	62.92
Surface Waters	8.24
Wetland Buffers	28.68
Stormwater Basins	50.14
Creek Setbacks	11.35
Section 30-309(e) Set-Aside	27.93
Total Open Space Acreage	189.26
Open Space Percent of Site	64.8%
Developed Area	102.74
Developed Area % of Site	35.2%

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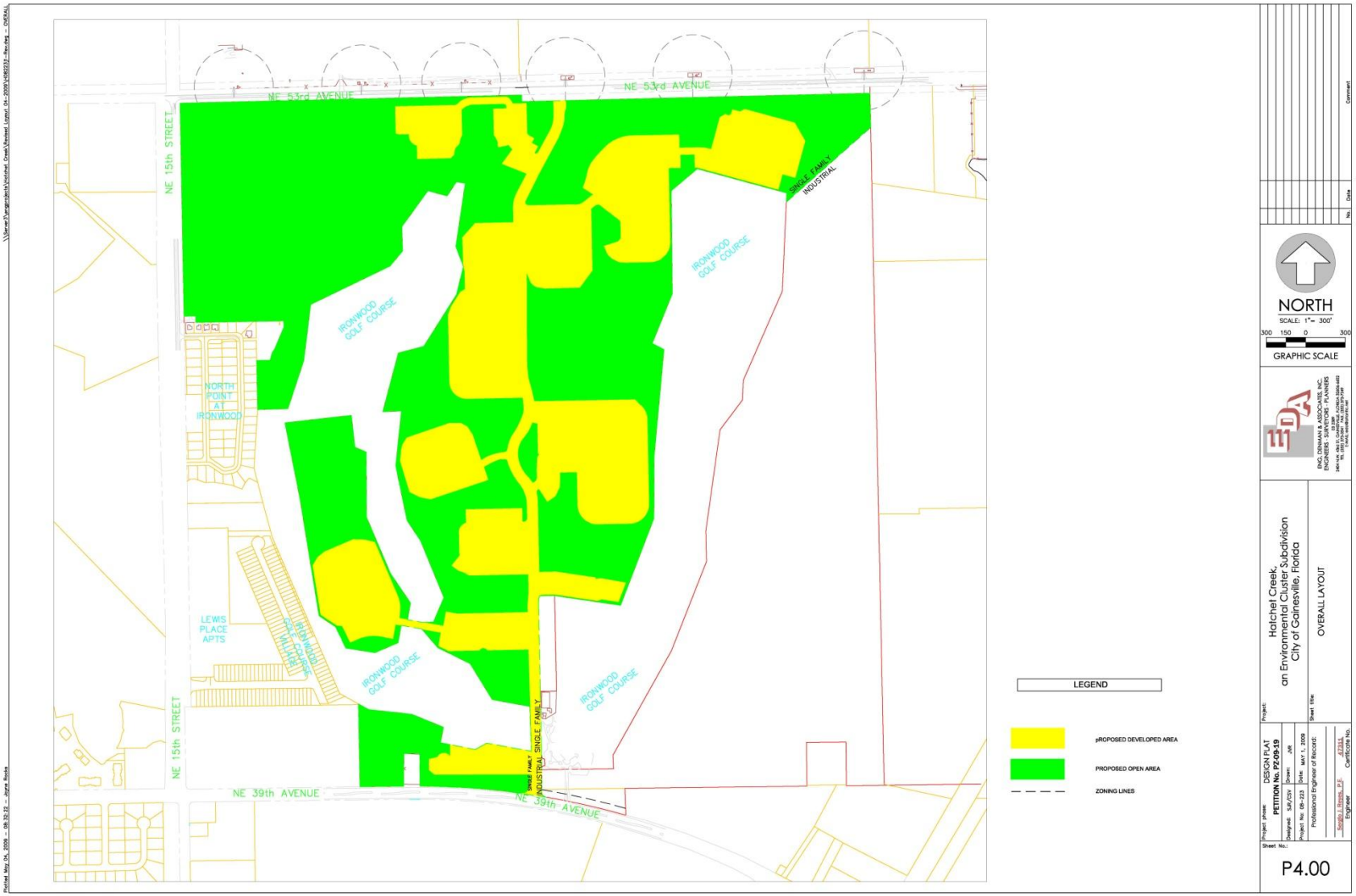

Total Open Space 64.8%
Developed Area 35.2%

SITE STATISTICS
Stormwater Treatment

Total Project Impervious Area

Total Site Acreage of Impervious Surface / %	52 Acres/17.8%
Total Stormwater Treatment Area	38.47 Acres

Treatment Ratio:

0.73 Acres of Basin/Acre Impervious Area

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CONCLUSION

In my opinion, this project is in compliance with and satisfies all environmental regulations contained within:

- Section 30-309, Significant Ecological Communities District
- 30-302.1, Avoiding Loss or Degradation of Wetlands
- 30-301, Regulated Surface Waters and Wetlands
- 30-190, Cluster Subdivisions

In addition, the wetland impacts requested in this application are less than what has been permitted by the City of Gainesville for developments in the vicinity of the project site.

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