DRMP, INC.

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Memorandum

DRMP Job #: 18-0145.000 Date: April 20, 2020

To: Annemarie Hammond
FDOT Florida's Turnpike Enterprise
Permit Coordinator

From: George McLatchey
DRMP, Inc.
Ecological Division Manager

Subject: Species-specific Survey Methodology for Southeastern American Kestrel, Spring/Summer 2020
Suncoast Parkway 2 (SR 44 to CR 486) FPID # 442764-1

Project Introduction

The proposed project is a four-lane, limited-access toll facility located in Citrus County that would extend the existing Suncoast Parkway northward from its intersection with State Road (SR 44) to County Road (CR) 486 (project area). A Location Map is attached as Figure 1. The anticipated project length is approximately 2.4 miles.

The Southeastern American kestrel (*Falco sparverius paulus*) is listed as Threatened by the Florida Fish and Wildlife Conservation Commission (FWC). Kestrels have been observed within the vicinity of the project area during previous wildlife surveys. Based on the Southwest Florida Water Management District Land Use, Cover, and Forms Classification (FLUCCS) data (2017), a total of 157 acres of potentially suitable kestrel habitat was identified within the project area (Table 1).

Table 1. Land use classifications within the project area with potentially suitable kestrel habitat

FLUCCS Code	Description	Acres
1100	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS PER ACRE	35.1
1900	OPEN LAND	15.8
2100	CROPLAND AND PASTURELAND	34.9
2600	OTHER OPEN LANDS	7.6
4120	LONGLEAF PINE - XERIC OAK	21.2
4340	UPLAND HARDWOOD - CONIFEROUS MIX	27.5
4400	TREE PLANTATION	10.2
8300	UTILITIES	4.6
	Total	**156.9**

In 2019, DRMP was contracted by Florida's Turnpike Enterprise to conduct a species-specific survey for the southeastern American kestrel (kestrel) within the proposed project area to determine the number, if any, of kestrels or kestrel pairs within the project area and to map nest sites.

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Proposed Survey Methodology

The FWC "Ecology and Habitat Protection Needs of the Southeastern American Kestrel (*Falco sparverius paulus*) on Large-Scale Development Sites in Florida, Nongame Wildlife Technical Report No 13" (Stys 1993) was utilized as guidance in developing the proposed survey methodologies, summarized below.

A combination of vehicular and pedestrian transects will be utilized to survey the project area (Figure 2), covering all potentially suitable habitat. Proposed transect length and distance between transects vary based on vegetative conditions. Surveys will be conducted during the spring and summer (May–July 2020) during the morning hours (3–4 hours after sunrise) on calm, clear days. The entire project area will be surveyed once a week for seven weeks. For vehicular transects, a driving speed of 10–25 mph will be maintained, varying in response to terrain, road condition, and visibility. Pedestrian transects will be walked at a steady pace. Biologists will record any signs of kestrel activity, including kestrels perched, flying, hovering, or exhibiting courtship, breeding, or territorial defense behaviors. The habitat category (i.e., Type I and Type II) will be noted for each kestrel sighting. Biologists will locate and investigate potential nest sites on foot. If a nest site is found, measurements will include the tree species, stage of decay, and tree health. If the nest site is in a man-made structure, the type of structure, physical state of structure and location of the nest within or on the structure will be noted. All kestrel sightings, potential nest sites, and confirmed nest sites will be recorded using a sub-meter accuracy Trimble handheld GPS unit. Flight paths, landing locations, behavior and vocalizations of observed kestrels will also be recorded.

Survey deliverables will include the following:

- Survey data sheets including field survey dates, start and end times, daily weather information, habitat category, and kestrel observations and behavior (blank data sheet attached)
- Nest site data sheets including tree species, stage of decay, and nest tree health; for man-made structures: the type of structure, physical state of structure and location of the nest within or on the structure (blank data sheet attached)
- Project area photos
- Figures depicting the current project area, pedestrian and vehicular survey transects, kestrel observations during the survey or any other time including flight directions, potential nest site locations, and confirmed nest site locations

End of Memorandum

Attachments: Figure 1. Location Map
Figure 2. Kestrel Survey Map
Kestrel survey data sheet
Kestrel nest site data sheet

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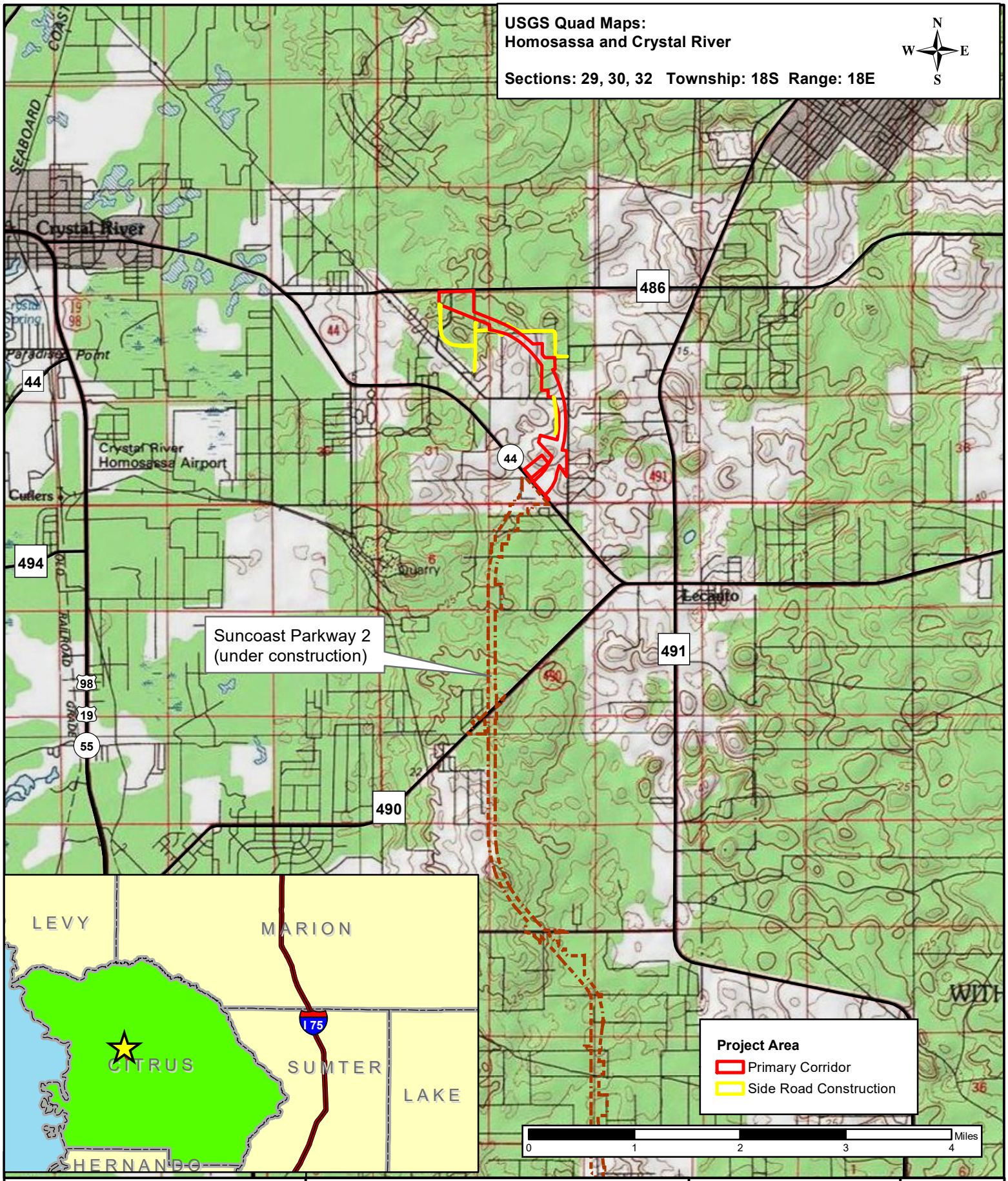

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Suncoast Parkway 2 - SR 44 to CR 486

FDOT Florida's Turnpike Enterprise

FPID No. 442764-1

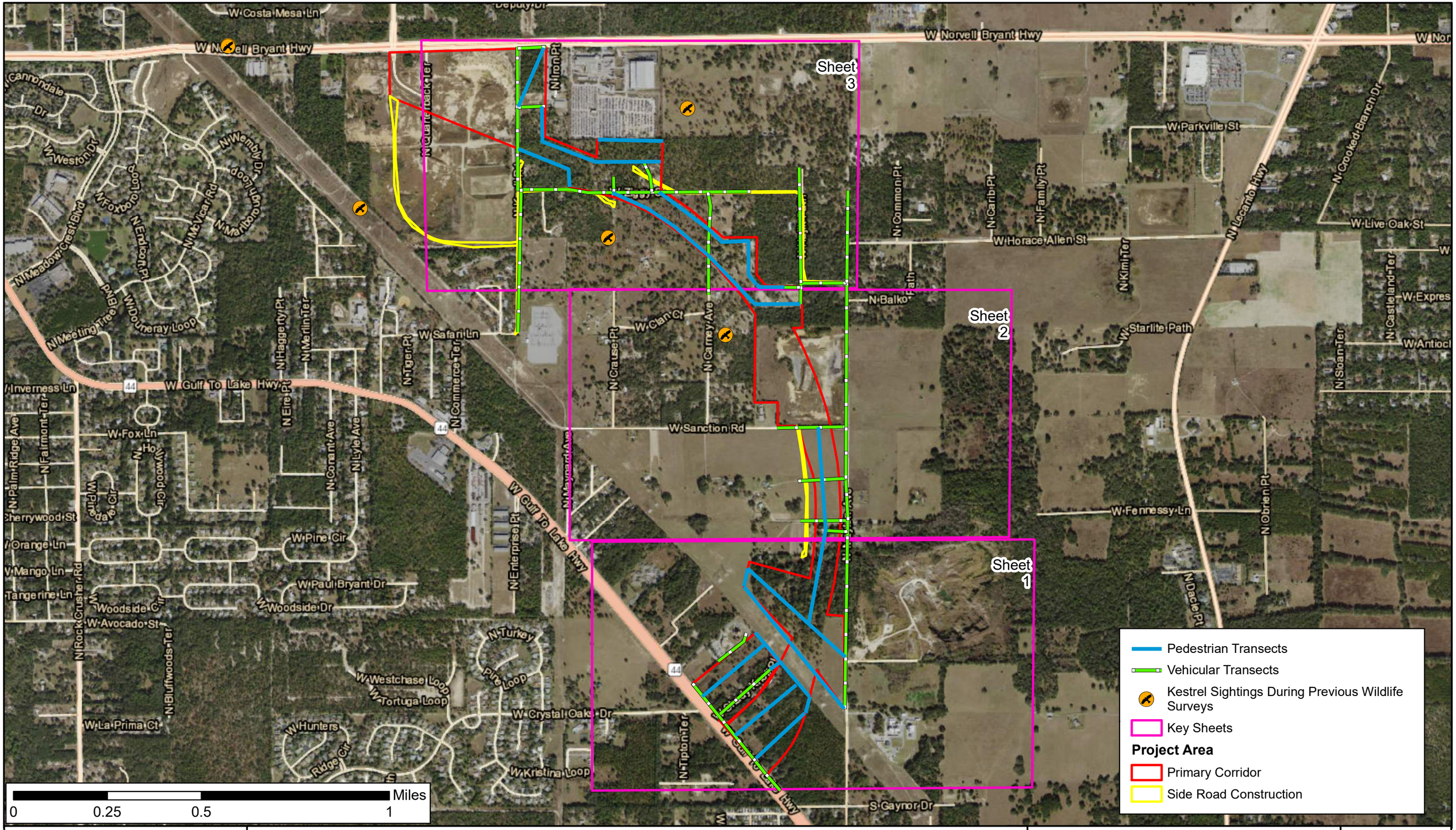
Citrus County, Florida

Location Map

Figure 1

DATE:	DRAWN BY:	PROJECT NUMBER:
February 2020	MEB	18-0145.000

DATA SOURCE:
Topographic Map - ESRI 2016



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April 2020	MEB	18-0145.000

Suncoast Parkway 2 - SR 44 to CR 486

FDOT Florida's Turnpike Enterprise
FPID No. 442764-1
Citrus County, Florida

Kestrel Survey Map

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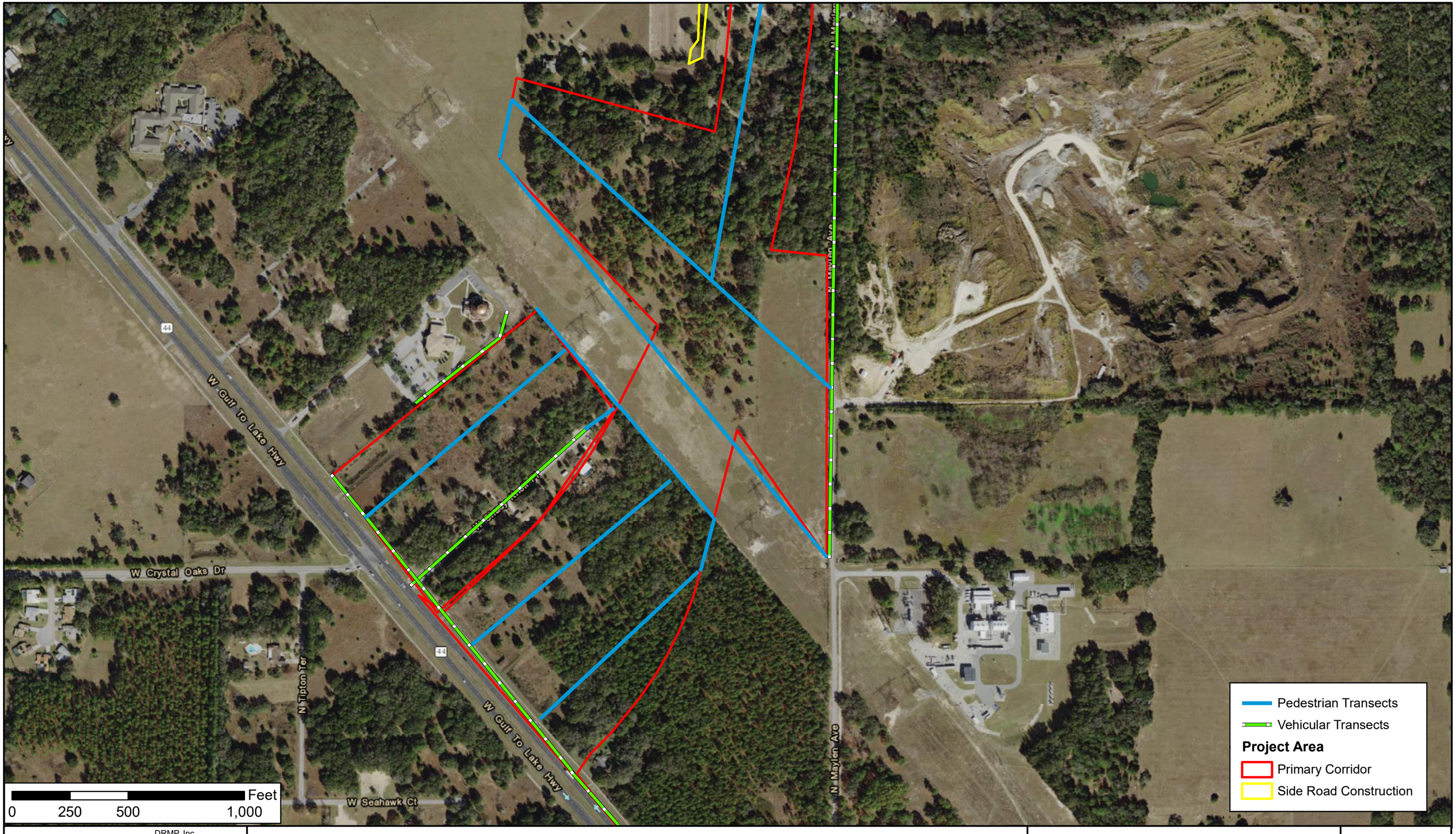
DATA SOURCE:
Imagery: ESRI 2019

Figure 2
Key Sheet



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Citrus County, Florida

Kestrel Survey Map

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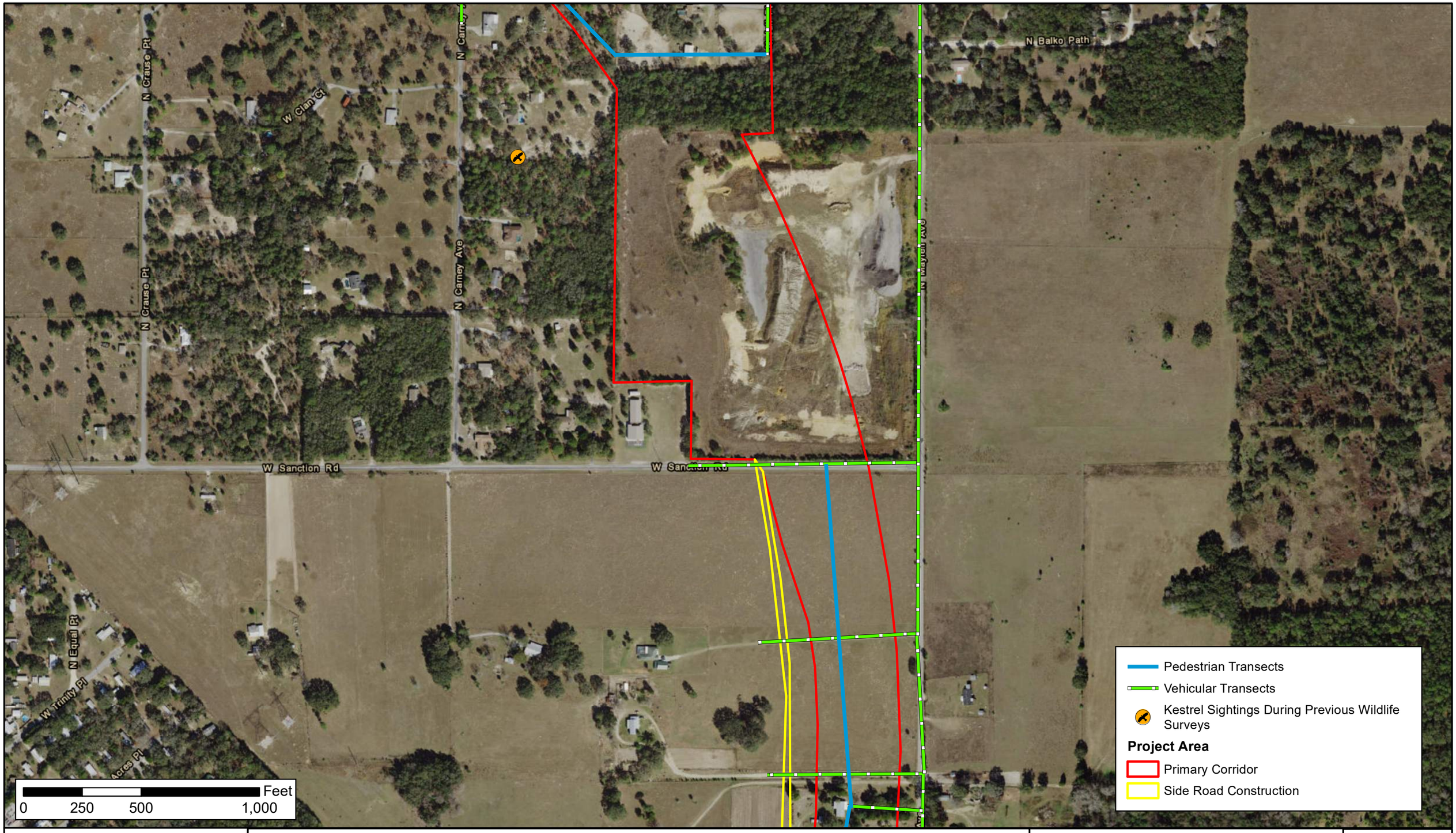
DATA SOURCE:
Imagery: ESRI 2019

Figure
2
Sheet 1 of 3



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Citrus County, Florida

Kestrel Survey Map

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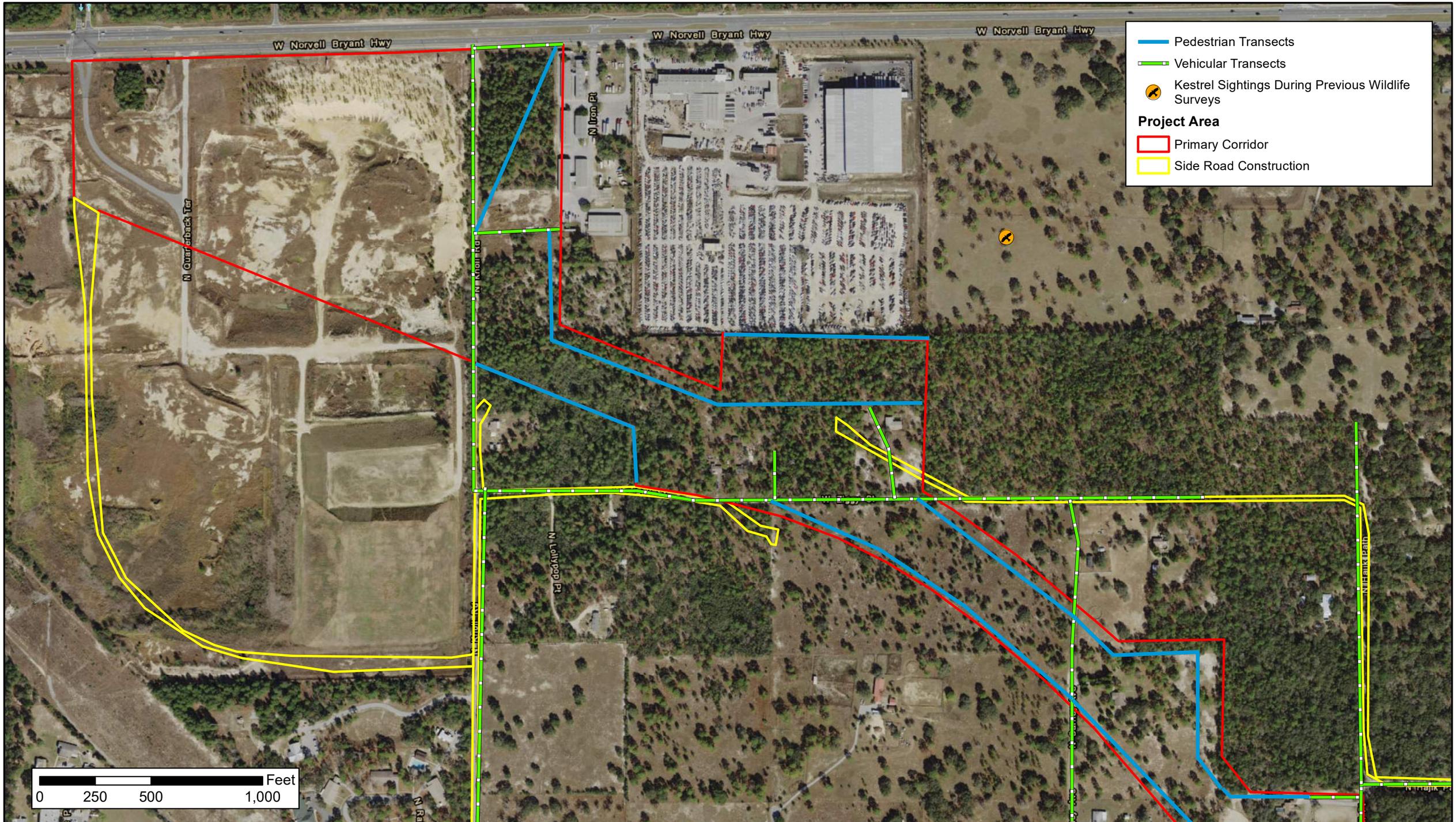
DATA SOURCE:
Imagery: ESRI 2019

Figure
2
Sheet 2 of 3



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Kestrel Survey Map

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DATA SOURCE:
Imagery: ESRI 2019

Figure
2
Sheet 3 of 3

Southeastern American Kestrel Survey Data Sheet **Suncoast Parkway 2 FPID No. 442764-1**

Observer Name:_____
Survey Date:_____
Start Time: _____
End Time: _____
% Cloud Cover:_____
Temperature:_____
Wind Speed:_____

Figure 2 Male Kestrel (Blue-grey wings)

Figure 1 Female Kestrel (Brown Wings)

Kestrel Observations

1. Number of Kestrels:_____
   Habitat Type:_____ Flight Direction:_____ Sex:_____
   Behavior:_____
   Perch Type:_____
   Transect Type (ped or vehicle)/Location:_____
   Notes:_____
   _____

2. Number of Kestrels:_____
   Habitat Type:_____ Flight Direction:_____ Sex:_____
   Behavior:_____
   Perch Type:_____
   Transect Type (ped or vehicle)/Location:_____
   Notes:_____
   _____

3. Number of Kestrels:_____
   Habitat Type:_____ Flight Direction:_____ Sex:_____
   Behavior:_____
   Perch Type:_____
   Transect Type (ped or vehicle)/Location:_____
   Notes:_____
   _____

4. Number of Kestrels:_____
   Habitat Type:_____ Flight Direction:_____ Sex:_____
   Behavior:_____
   Perch Type:_____
   Transect Type (ped or vehicle)/Location:_____
   Notes:_____
   _____

Habitat types:
Type I: Upland plant communities with less than 10% canopy cover and with at least 60% herbaceous ground cover less than 25 cm in height.
Type II: Open woodland communities with greater than 10% but less than 25% canopy cover and with at least 60% herbaceous ground cover less than 25 cm in height.
Other: Describe in notes

5. Number of Kestrels:_____
   Habitat Type:_____ Flight Direction:_____ Sex:_____
   Behavior:_____
   Perch Type:_____
   Transect Type (ped or vehicle)/Location:_____
   Notes:_____
   _____

6. Number of Kestrels:_____
   Habitat Type:_____ Flight Direction:_____ Sex:_____
   Behavior:_____
   Perch Type:_____
   Transect Type (ped or vehicle)/Location:_____
   Notes:_____
   _____

7. Number of Kestrels:_____
   Habitat Type:_____ Flight Direction:_____ Sex:_____
   Behavior:_____
   Perch Type:_____
   Transect Type (ped or vehicle)/Location:_____
   Notes:_____
   _____

8. Number of Kestrels:_____
   Habitat Type:_____ Flight Direction:_____ Sex:_____
   Behavior:_____
   Perch Type:_____
   Transect Type (ped or vehicle)/Location:_____
   Notes:_____
   _____

9. Number of Kestrels:_____
   Habitat Type:_____ Flight Direction:_____ Sex:_____
   Behavior:_____
   Perch Type:_____
   Transect Type (ped or vehicle)/Location:_____
   Notes:_____
   _____

10. Number of Kestrels:_____
    Habitat Type:_____ Flight Direction:_____ Sex:_____
    Behavior:_____
    Perch Type:_____
    Transect Type (ped or vehicle)/Location:_____
    Notes:_____
    _____

Habitat types:
Type I: Upland plant communities with less than 10% canopy cover and with at least 60% herbaceous ground cover less than 25 cm in height.
Type II: Open woodland communities with greater than 10% but less than 25% canopy cover and with at least 60% herbaceous ground cover less than 25 cm in height.
Other: Describe in notes

Date	Observer	Tree ID	DBH (cm)	Height Class	Species	Status (Decay Class)	Cavity #	10 m radius	
								Avg. Canopy Cover (%)	Avg. Herb Cover (%)

Notes (kestrel specific, i.e., sightings, nearest cavity tree #, behavior, flight direction, etc):

Height Class	Description
1	0-5 m
2	6-10 m
3	11-20 m
4	21+ m

Tree Decay Class

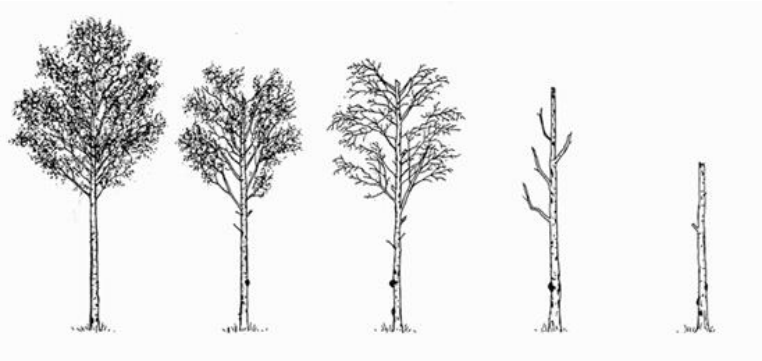

Figure 1. Deciduous Tree Decay

Figure 2. Evergreen Tree Decay

	Live	Dead			
Decay Class	**1**	**2**	**3**	**4**	**5**
Description	Live/healthy: no decay.	Live with defects: dead or broken top, dead limbs, fungal conks. Dying tree.	Dead: most limbs intact, some internal rot, top usually broken.	Dead: most limbs gone, top broken, extensive heartrot.	Dead: top 1/3 or more broken off, no branches, extensive heartrot.