MORTENSEN ENGINEERING INC

May 13, 2019
Project No. 19-10-08875

TO: Hillsborough County Tax Collector
P.O. Box 30012
Tampa, Florida 33630

Attention: Mr. Doug Belden

SUBJECT: *Geotechnical Engineering Services*
Foundation and Soils Study
Tax Collector Service Center – Plant City
Turkey Creek Road and Sydney Road
Plant City, Hillsborough County, Florida

In general accordance with our authorized proposal to you dated 2/20/19, Mortensen Engineering, Inc. (MEI) has completed a series of soil test borings and an evaluation of the soil stratigraphy at the above referenced proposed tax collector service center site, in Plant City, Florida (see Plate 1). We understand that the tax collector service center will basically include one 1 to 2-story structure, one stormwater pond area, and typical pavement/parking areas. Based on the subsurface data collected, foundation support conditions were evaluated. The work herein was not related to or part of an environmental/contamination assessment of the subject site.

The following summary report presents the results of our study, and includes our evaluation of the soil conditions encountered, and our subsequent design level geotechnical engineering evaluations and recommendations. If you have any questions about this report, please contact us. Thank you for this opportunity to be of service to you.

Sincerely,
MORTENSEN ENGINEERING, INC.
Florida Certificate of Authorization No. 5678

MICHAEL T. GAGNE
LICENSE
No. 63006
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Kevin D. Mathewson, P.E.
Vice President
P.E. License No. 68429

Michael T. Gagne, P.E.
President
P.E. License No. 63006

Mainfile/404/08875.docx
Attachments: Plates 1 and 2
Appendix (Historic Aerials)
xc: Mr. David Bartelt, PE – FEES

PURPOSE AND SCOPE

This study was performed to obtain information about the general subsurface conditions in the specific areas test drilled, in order to form an opinion of the soil stratigraphy and enable estimates of geotechnical engineering properties. Based on the data collected, recommendations for each of the following were formulated:

1. Soil stratigraphy at the boring locations and development of the soil profile within the depth of foundation influence in the anticipated building pad area.

2. Feasibility of the anticipated shallow spread foundation system for support of the proposed lightly loaded 1 to 2-story structure.

3. Provide the design parameters required for the foundation system, including allowable bearing pressure and soil subgrade preparation requirements.

4. Provide engineering criteria for the placement and compaction of approved fill materials (if necessary) in the building and pavement areas.

5. Discuss the general location and description of potentially deleterious materials or conditions, which may interfere with construction progress or structure performance, including existing fills, surficial organics, loose sands, etc., based solely on our test boring findings.

6. Provide pavement material type recommendations and construction requirements; pavement thickness design to be provided by others.

7. Assess the suitability of the shallow soils for reuse as utility trench/manhole backfill and building pad/pavement area structural fill material.

8. Determine the shallow groundwater conditions at each test boring location and provide wet season groundwater estimates.

The scope of our work for this study involved field and laboratory testing, and the engineering evaluation of foundation support conditions. Specifically included were:

1. Execution of a program of subsurface exploration consisting of borings, sampling and field testing. We performed four Standard Penetration Test (SPT) borings (per ASTM D-1586) in the proposed building pad area, each to a depth of 20 feet.

2. We performed two SPT borings (per ASTM D-1586) in the proposed stormwater pond area, each to a depth of 20 feet.

3. We performed five shallow power auger borings (per ASTM D-1452), each to a depth of 5 feet (+/-), in proposed pavement/parking areas.

4. Planned and conducted a program of limited laboratory testing on selected soil samples recovered from the borings, including visual classifications (per ASTM D-2488). No LBR testing work is included herein.

5. Performed geotechnical engineering evaluations and analyses in order to develop geotechnical recommendations in each of the pertinent areas previously discussed.

6. Prepared a geotechnical engineering report which summarizes the course of the study pursued, the field and laboratory data generated, subsurface conditions encountered, and our geotechnical engineering evaluations and recommendations in each of the pertinent topic areas.

SUBSURFACE EXPLORATION

To establish the general subsurface conditions in the proposed building pad area, four SPT borings, designated SPT-1 to SPT-4, were performed each to a depth of 20 feet (+/-). Two SPT borings, designated PA-1 and PA-2, were performed each to a depth of 20 feet (+/-), within the proposed stormwater pond area. Also, five shallow power auger borings (HA-1 to HA-5) were performed in the associated pavement/parking areas, each to a depth of 5 feet (+/-). The test borings were staked, flagged and labeled in the field by the project surveyor, prior to test drilling; test boring ground elevation data from the project surveyor is included herein, see Plate 2. The approximate test boring locations reported herein are indicated on Plate 1, the project site plan provided by the project civil engineer Florida Engineering and Environmental Services, Inc. (FEES).

The SPT boring procedure was conducted in general accordance with ASTM D-1586, using rotary wash drilling techniques. Soil sampling using a 1-3/8 inch I.D. split-barrel sampler was performed on 5-foot intervals, or detectable change in strata. The number of successive blows required to drive the sampler into the soil constitutes the test result commonly referred to as the "N"-value. The "N"-value has been empirically correlated with various soil properties and is considered to be indicative of the relative density of cohesionless soils and the consistency of cohesive soils. The recovered split spoon samples were visually classified in the field with representative samples placed in jars and transported to our office for review by the project geotechnical engineer and confirmation of the field classification. No SPT borings were requested or advanced below depths of 20 feet (or other geophysical site testing techniques) to evaluate the deeper subsurface conditions and to assess the risk of ground subsidence due to subsurface solutioning/sinkhole activity over the area or in the specific building pad area; if this deeper work is necessary please contact us.

SUBSURFACE CONDITIONS

The results of our field exploration program including the stratification profiles and some pertinent exploration information are graphically presented on Plate 2. The project geotechnical engineer based soil stratification on the review of recovered soil samples and interpretation of field boring logs. The stratification lines represent the approximate boundaries between soil types and the actual transition may be gradual. The soils were visually classified using the *Unified Soil Classification System* (ASTM D-2488). For the specific shallow soil conditions in a specific area, please review in detail Plates 1 and 2. Considering the available test boring data included on Plates 1 and 2, and the historic aerials/data in the Appendix, at least the following subsurface conditions are noteworthy, in our opinion.

General Site Conditions

- Historic aerials of the subject site from 1939 to 2018 showing previous/past site activities are included in the Appendix. Based on our review of the historic aerials and our limited site assessment, the subject site appears to have been used for agricultural purposes from about early 1940's to late 1960's, and then county maintenance/storage purposes. It is important to note that the upper surficial soils over the majority of the subject site have been altered, disturbed and impacted by previous agricultural activities and current maintenance activities. Shallow soil variations should be anticipated.

Building Pad Area

- In general, beneath the natural topsoils (Stratum 1) or sandy fill materials (Stratum 3) with gravel, typically loose to very dense (based on SPT "N" values) fine sands to silty fine sands (Strata 2 - 4) were encountered to depths of 12 to 20 feet (+/-) at our test boring locations (SPT-1 to SPT-4), see soil profiles on Plate 2.
- Deeper semi-confining unit clayey materials (clayey sands of Stratum 6 and sandy clays of Stratum 7) were encountered at three of our test boring locations (SPT-1, SPT-2 and SPT-4), below a depth of 12 feet (+/-).
- No weathered limestone materials were encountered at our test boring locations to the depths drilled (20 feet +/-).

Stormwater Pond Area

- Fine sands to slightly clayey fine sands (Strata 1 - 5), suitable for reuse as structural fill material, were encountered to depths of 8 and 12 feet (+/-), at pond area test boring locations PA-1 and PA-2, respectively, see soil profiles on Plate 2.
- Deeper semi-confining unit clayey materials (clayey sands of Stratum 6 and sandy clays of Stratum 7), which are unsuitable for reuse as structural fill material, were encountered at our test boring locations below depths of 8 and 12 feet (+/-) and extended typically to our boring termination depths of 20 feet (+/-).
- An organic laden sand (Stratum 11) seam, was discovered at a depth of 1.5 to 2 feet (+/-), at test boring location PA-1, see Plates 1 and 2. This organic laden sand seam is presumably the remnants of a previous lowland/wetland area (see the 1939 to 1957 historic aerials in the Appendix) in the northeast portion of the site. Organic laden sand (Stratum 11) materials are unsuitable for reuse as structural fill material. Any discovered buried muck/organic laden sand (Stratum 10/11) materials within building pad/pavement areas, will need to be removed and replaced with suitable structural fill materials. This issue (the evaluation/treatment of buried organic materials) warrants special attention during subgrade preparation operations, under geotechnical monitoring/testing; with any buried unacceptable/deleterious conditions or materials repaired/removed by the contractor (to an acceptable level) prior to new structure/pavement construction, as directed in the field by the geotechnical consultant.

Pavement/Parking Areas

- Fine sands to silty fine sands (Strata 1 - 4), suitable beneath pavement/parking areas, and underground utilities (with proper compaction), were noted to our boring termination depths of 5 feet (+/-).
- No significant clayey materials (clayey sands/sandy clays) was encountered at our auger boring locations (HA-1 to HA-5), to the depths augered (5 feet +/-).

Shallow Groundwater Conditions

The shallow groundwater level was encountered at several of our test boring locations, at depths varying from 3.5 to 5 feet (+/-) below the existing ground level, at the time of our fieldwork (May 2019). It must be noted that fluctuations in future shallow groundwater levels will occur due to variations in rainfall, fill thickness, seasonal high water level in the nearby wetland/ditch areas, and other factors not evident at the time our measurements were taken. Site development will alter natural groundwater conditions.

Based on the shallow groundwater data herein, and the USDA/SCS soil survey information for the site, we estimate that average predevelopment (temporary) normal wet season high groundwater levels, under natural (normal) conditions, should be about 1-foot (+/-) below the existing ground level

(+114.5) in the stormwater pond area, and approximately 1 to 2-feet below the existing ground level (+115.0 to +117.0), depending upon ground elevation, in the building pad and pavement areas. Shallow groundwater should be a significant design and construction consideration.

ENGINEERING EVALUATIONS AND RECOMMENDATIONS

Foundations

In general, all shallow footings will need to bear on properly improved (heavily compacted) natural sand subgrade or on properly placed and compacted cohesionless (sand) engineered/structural fill, free of deleterious debris, adequately tested for acceptance. Conventional shallow foundations consisting of perimeter wall footings and isolated pad footings should be suitable for support of the proposed 1 to 2-story (lightly loaded) structure, provided the stripped subgrade and foundation and slab subgrade are properly prepared, and assuming final level geotechnical/construction testing supports this assessment.

Any buried organic laden sands or buried deleterious fill/debris materials currently known or later discovered, are unacceptable beneath building pad/structure areas, and pavement areas (and other structure areas); all these unsuitable organic/deleterious/debris materials need to be completely removed and replaced with acceptable structural fill materials (if necessary) properly compacted during land development activities, under geotechnical observation and testing. Also, all existing fills (if acceptable quality and no buried organics/debris) will need to be adequately compacted to at least 95% modified Proctor dry density (per ASTM D-1557) prior to building, pavement or slab construction.

Assuming proper subgrade preparation/compaction, and proper fill placement/compaction (as required), the building footings could be proportioned using a maximum net allowable soil bearing pressure of 2,500 psf (in excess of overburden). All footings should bear on properly compacted natural sand subgrade or on (or within) properly placed and compacted cohesionless (sand) structural fill.

All footings should be embedded no less than 16 inches below adjacent compacted grade on all sides. Strip or wall footings should be a minimum of 18 inches wide and square pad footings a minimum of 2 feet square. These minimum footing sizes should be used regardless of whether or not the foundation loads and allowable bearing pressures dictate a smaller size. These minimum footing sizes tend to provide adequate bearing area that should account for minor variations in the bearing materials. Foundations so designed and supported on materials prepared as described later in this report should experience total settlements of 1-inch or less; differential settlements should be about ½ of the total settlement. If any individual column loads exceed 75 kips or if any wall loads exceed 4.0 ksf, we should be consulted for additional evaluation. The above settlements are generally considered acceptable; however, this must be confirmed by the project structural engineer.

Pavement Considerations

In general, the shallow sandy soils over the areas tested herein should be suitable for the construction and support of a semi-flexible (soil cement or crushed concrete base) pavement section, after proper site stripping/clearing and proper subgrade preparation, and new fill placement. Any fill which may be required to elevate areas to the proposed subgrade elevations should consist of approved fine sands (less than 15% non-plastic fines) uniformly compacted. All new fills (and the stripped subgrade) should be compacted to at least 98% of AASHTO T-180 (modified Proctor). Either soil-cement or crushed concrete could be considered as the pavement base course material for this site, and either (material and placement) should be in compliance with Hillsborough County standards. The sampling of the stabilized subgrade and base materials for acceptance should be at a frequency of 1 sample per 10,000 SF

(+/-), and density testing of the stabilized subgrade and base materials should be at a frequency of 1 test per 5,000 SF (+/-). All pavement materials will require testing for acceptance by the geotechnical consultant. For design, the bottom of the pavement base course (soil cement or crushed concrete) should be at least 12 inches above the anticipated normal wet season high groundwater level, with the design/use of pavement underdrains per Hillsborough County criteria. Proper pavement underdrain use, placement, construction, discharge elevation selection and ongoing maintenance will all be necessary for this project.

Soil Reuse Considerations

Considering the results of our SPT borings (PA-1 and PA-2) in the proposed stormwater pond area, the soil material types classified as fine sand to slightly clayey fine sand (Strata 1 – 4), discovered to depths of 8 to 12 feet deep (+/-), as noted herein, after excavation and proper drying, should be considered suitable for reuse as pavement and building pad structural fill material. Any slightly clayey fine sands encountered will require some additional drying prior to reuse, and possibly mixing with the upper fine sands prior to reuse and compaction. Clayey sands (Stratum 6) and sandy clays (Stratum 7) are not suitable for reuse as structural fill material. Dewatering during pond (and utility pipeline/manhole) excavation operations could be a significant construction issue, depending upon the time of year and depth of excavation.

Fill Placement and Subgrade Preparation

The following are our recommendations for overall site preparation and mechanical densification work for the proposed building area and pavement/parking areas, based on the anticipated construction and our test boring data on Plate 2. These recommendations need to be incorporated into the project design and general specifications prepared by the design engineers or architect.

1. The building area (and all pavement areas) plus a 10-foot margin beyond the perimeter should be stripped and cleared of all surface vegetation, topsoils, organics, surface fills, all existing structures, stockpiled fills, and below ground obstructions, pipelines, conduits, foundation elements, slabs, debris, etc. Root raking to a depth of 12 inches (+/-) over the building areas (and all pavement areas) is recommended. A representative from the geotechnical consultant should observe the cleared/stripped subgrade to verify acceptable conditions. In general, all surficial and buried organic laden sand materials or other deleterious materials/conditions, known or later discovered (beneath existing fills or natural soils, or from previous operations on-site) should be uncovered and completely removed during stripping (or clearing) operations in all pavement and building areas.

2. After acceptable stripping/clearing, the building pad areas (plus 10-foot beyond the structure limits) (and all pavement areas) should be leveled sufficiently to permit equipment traffic, and then carefully proof-rolled using a large diameter drum roller, under full-time geotechnical observation/monitoring. The vibratory drum roller compactor should be one of the large models reasonably available; about 30,000 lbs. operation weight, with about 60,000 lbs. of centrifugal force. Careful observations should be made during proofrolling of the building pad areas (and pavement areas) to identify any areas of soft or yielding soils that may require overexcavation and replacement.

3. A minimum of 20 overlapping passes in a criss-cross pattern should be made by the large diameter drum roller across the building pad areas prior to placing any new fill (10 passes over all pavement areas); effective groundwater/surface water controls may be necessary in order to complete this work and subsequent filling. Compaction should continue at the

stripped/proof-rolled subgrade level until a minimum density requirement of 95% (98% in roadway/pavement areas) of the maximum modified Proctor dry density established in accordance with ASTM D-1557, is achieved for a minimum depth of 1 foot below the stripped grade, as determined by field density (compaction) tests.

4. Following satisfactory completion of the initial compaction of the stripped/cleared area, the building pad area (and pavement areas) may be brought up to finished subgrade levels. Fill should consist of fine sand to silty fine sand (Strata 1 – 4) with less than 15% (+/-) fines passing the No. 200 sieve, free of rubble, organics, clay, debris and other unsuitable materials. Approved sand fills should be placed in loose lifts not exceeding 12 inches in thickness, and they should be carefully compacted to a minimum of 95% (98% in roadway areas) of the maximum modified Proctor dry density (ASTM D-1557) up to the finished subgrade levels. Density tests to confirm compaction should be performed in each 12-inch fill lift before the next lift is placed.

5. The compaction testing of the subgrade and fill materials should be performed at a frequency 1 test per 2,500 SF (+/-) of building pad area, 1 test per 5,000 SF (+/-) of pavement/parking area, and 1 test for every 300 lineal feet (+/-) of utility trench backfill (for every 1-foot lift of backfill material). The bottom of all building foundation excavations should be carefully re-compacted (and tested) after excavation to densify any soils loosened in the excavation process. Each pad footing excavation, and every 50 l.f. of wall footing should be density tested (to confirm 95% modified Proctor compaction) prior to steel placement. Backfill soils placed adjacent to footings or walls should be carefully compacted. Approved sand fills placed in footing excavations above the bearing level, and in other areas which are expected to provide support or slab/foundation embedment constraint, should be placed in loose lifts not exceeding 12 inches and should be carefully compacted to a minimum of 95% of the maximum modified Proctor dry density.

6. The contractor must select and operate all their construction/compaction/proofrolling/dewatering equipment such that no adjacent existing structures or utilities are adversely impacted. This will be a very important consideration for the building pad area, pavement/parking areas, and underground pipelines, adjacent to any existing structures/utilities. All new building pad and pavement/parking and buried utility areas adjacent to existing structures/utilities need subgrade improvement for proper foundation support; this improvement needs to be accomplished by the contractor, satisfactory to the geotechnical consultant, without adversely impacting any adjacent existing structures, pipelines, etc. The contractor will need to implement effective procedures to dampen construction (and dewatering) vibrations/impacts beyond the new building pad (and pavement) limits and should also provide ground vibration/settlement monitoring procedures in the field (if necessary) to document that their operations are not adversely impacting any adjacent existing structures/pipelines.

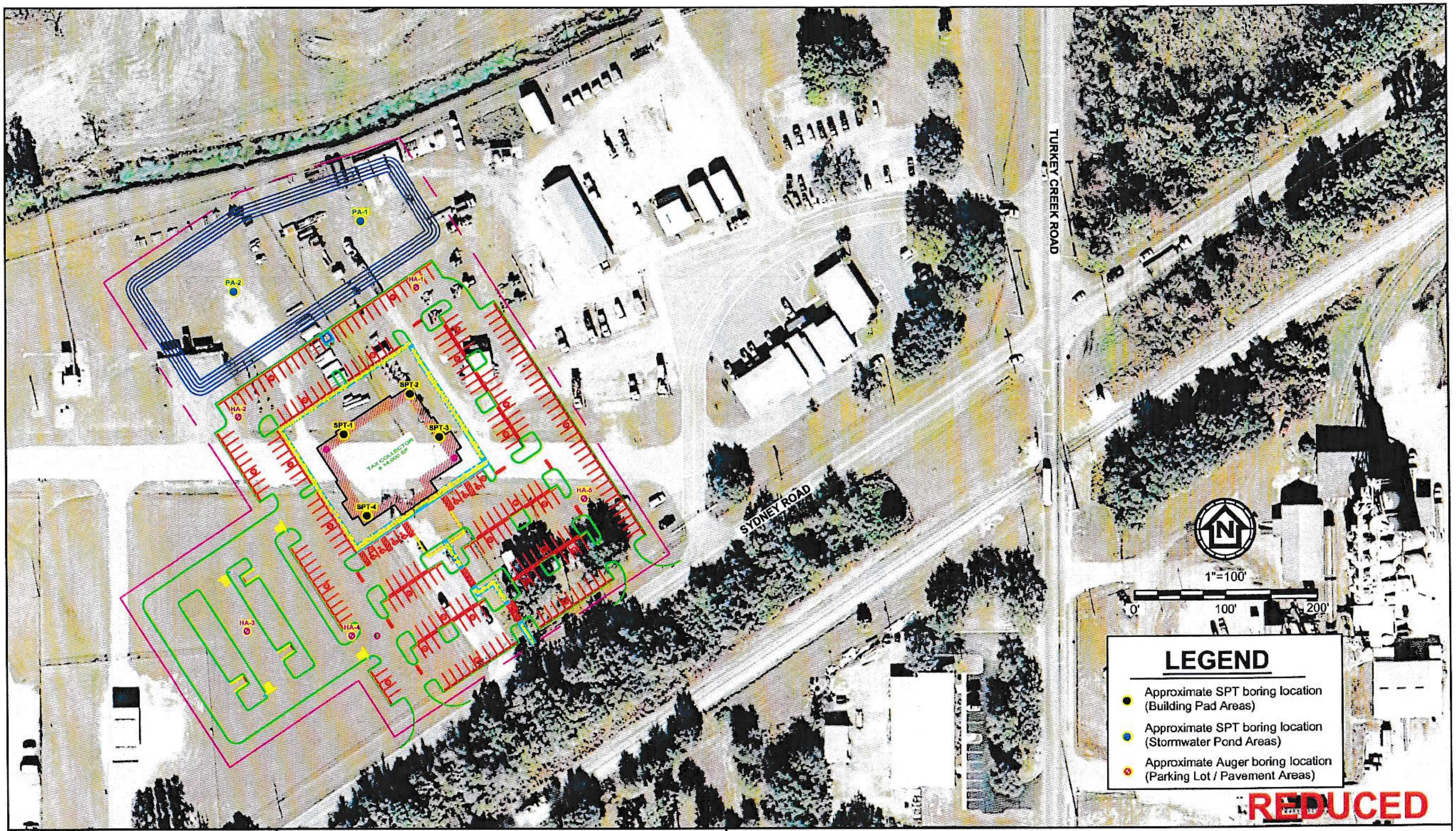
LIMITATIONS OF REPORT

Our work herein does not include a Phase I ESA. No soil radon or other soil chemical testing work is included herein, as this type of work was not requested. No deep SPT borings or other geophysical site testing techniques to assess site sinkhole potential or risk were included herein; this special assessment work could be provided later if requested in writing; only the shallow subsurface conditions to 20 feet deep, in the building pad and pond areas, were evaluated and reported for our work herein. If deeper testing is necessary, please contact us.

The discussions, evaluations and recommendations submitted in this report are based solely upon the location and type of construction, whatever information was presented or acquired from the site owner (or representative), and the limited subsurface data obtained from the limited amount of test borings (3-inch diameter) performed at the approximate locations indicated. The discussions, evaluations and recommendations herein do not reflect any variations or differing subsurface conditions which may occur or be present (left undetected), between test boring locations, or in areas not currently accessible to testing. Because all of the study area was previously impacted by various site activities at various times, unusual and significant variations in the subsurface conditions are possible between test boring locations, which could alter the provided discussions, evaluations and recommendations, and the level or cost of any corrective actions if appropriate. It is important to note that test borings reveal the subsurface conditions just at the test location; for a natural site it is appropriate and accepted geotechnical practice to extrapolate subsurface conditions between reasonably spaced test boring locations; for a previously impacted or filled site, without geotechnical quality control, such an extrapolation of subsurface conditions between test locations may or may not be appropriate.

Further, the test borings herein attempt to reflect or representative (to the extent possible) the current condition or integrity of the shallow overburden soil conditions just at the time of our fieldwork; future subsurface conditions may or may not be represented by the test boring results herein, as the process of overburden soil erosion/raveling related to limestone solutioning/sinkhole activity processes, could cause minor to more significant adverse change, in the subsurface conditions not represented by the test boring results herein; this is beyond our control. If any subsurface variations (from the data provided in this report) become evident during the course of subsequent geotechnical field testing in the future, a re-evaluation of the discussions and recommendations contained in this report will be necessary.

This report and the work and opinions herein, are exclusively and solely for the use and benefit of the client (or addressee); no other entities, individuals or companies have the privilege to rely on this work product and opinions provided herein. In no event and under no circumstances shall MEI have any duty or obligation, or liability to any third party. The work, opinions, and report herein were performed/prepared in accordance with generally accepted geotechnical engineering principles and practices, consistent with the community of geotechnical consultants performing similar type work, with the limitations noted herein. MEI used that degree of normal care and skill ordinarily exercised under similar circumstances by members of its profession; no other warranties or representations are expressed or implied. All statements made herein by MEI are opinions based solely upon reasonable engineering judgment, using solely the data and information available at the time.



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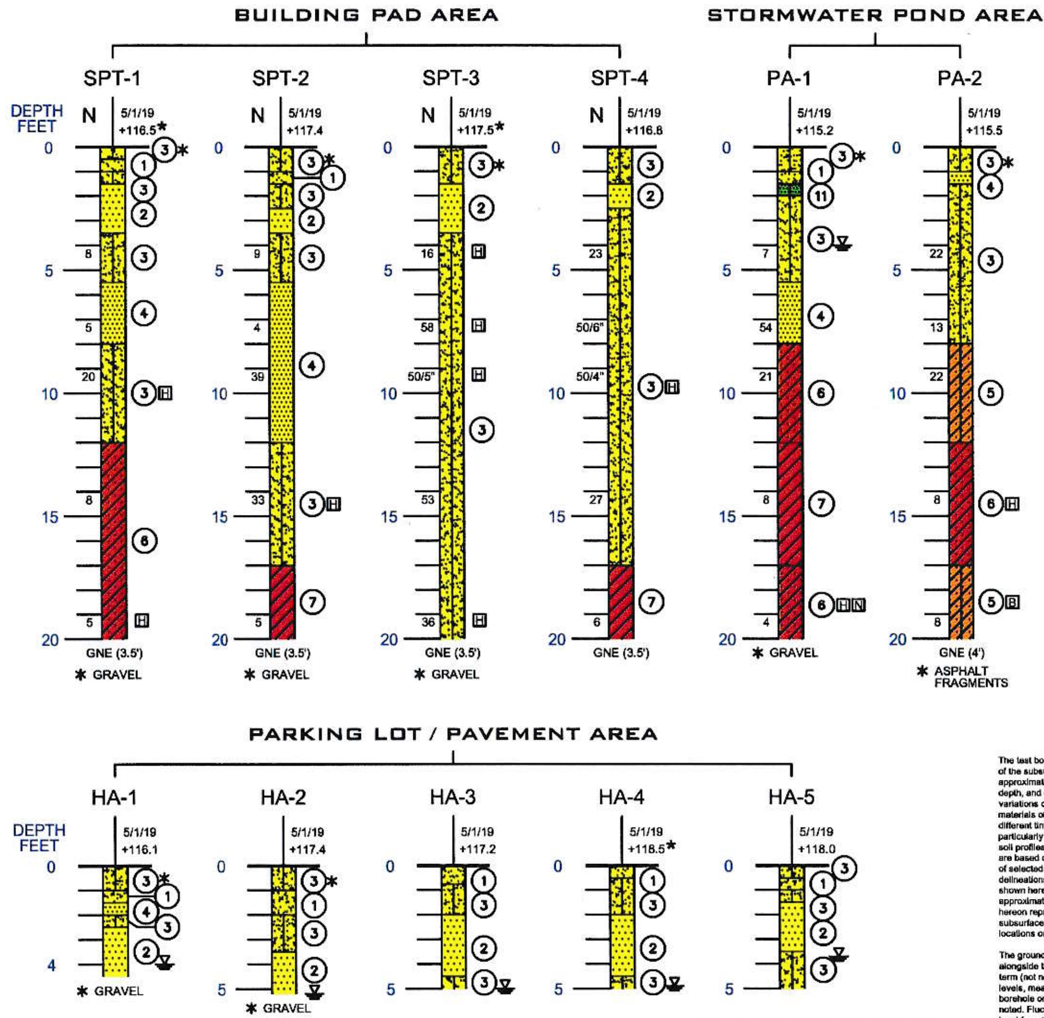
FOUNDATION AND SOILS STUDY

TAX COLLECTOR SERVICE CENTER - PLANT CITY

PLANT CITY, HILLSBOROUGH COUNTY, FLORIDA

BORING LOCATION PLAN

CREATED BY: DNH CHECKED BY: PWV	DATE: MAY 2019 PROJECT NO: 19-10-08875	PLATE 1



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The test boring results hereon are representative of the subsurface conditions only at the noted approximate boring location, only for the noted depth, and only on the date tested. Local variations characteristic of the subsurface materials of the region should be anticipated at different times and may be encountered particularly in areas previously disturbed. The soil profiles and the other field test data hereon are based on the driller's logs and visual review of selected soil samples in the laboratory. The delineations between different soil material types shown hereon should be considered approximate. The generalized soil descriptions hereon represent our interpretation of the subsurface soil conditions at the noted boring locations only on the dates drilled.

The groundwater level data shown hereon alongside the soil boring profiles represent short term (not necessarily stabilized) groundwater levels, measured in the boreholes or in an offset borehole on the date drilled, unless otherwise noted. Fluctuations in the shallow groundwater level from the levels shown hereon will occur and should be anticipated throughout the year; local variations from the levels shown hereon should also be anticipated.

LEGEND

(1)	Gray to dark gray fine SAND to slightly silty fine SAND, trace organics (SP/SP-SM)
(2)	White to light brown fine SAND to silty fine SAND (SP/SP-SM/SM)
(3)	Brown or gray fine SAND to silty fine SAND (SP/SP-SM/SM)
(4)	Dark brown to reddish brown or black slightly silty fine SAND to silty fine SAND (SP-SM/SM)
(5)	Gray or brown silty to slightly clayey fine SAND (SM/SM-SC)
(6)	Gray or brown clayey SAND (SC)
(7)	Gray or brown to gray-green sandy CLAY to CLAY (CL/CH)
(8)	White or light gray weathered LIMESTONE
(9)	Light gray to gray or tan cemented SILT to clayey SILT (ML/MH)
(10)	Dark brown to black sandy and organic MUCK (PT)
(11)	Dark gray to dark brown organic laden silty SAND, with significant roots (SM-PT)
B	Clay Seams
H	Silty
N	Phosphate
▽	Groundwater level, at time of field work
GNE	Groundwater not encountered (to depth below ground surface) at time of field work
SP	Unified Soil Classification group symbol as determined by visual review (Per ASTM D-2488)
5/1/19	Date of field work
+117.4	Ground Elevation per Hillsborough County Survey and Mapping or Estimated (*) From Offset From Staked Location

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FOUNDATION AND SOILS STUDY

TAX COLLECTOR SERVICE CENTER - PLANT CITY

PLANT CITY, HILLSBOROUGH COUNTY, FLORIDA

SPT / AUGER BORING SOIL PROFILES AND SOILS LEGEND

CREATED BY: DNH CHECKED BY: PWV	DATE: MAY 2019 PROJECT NO: 19-10-08875	PLATE 2

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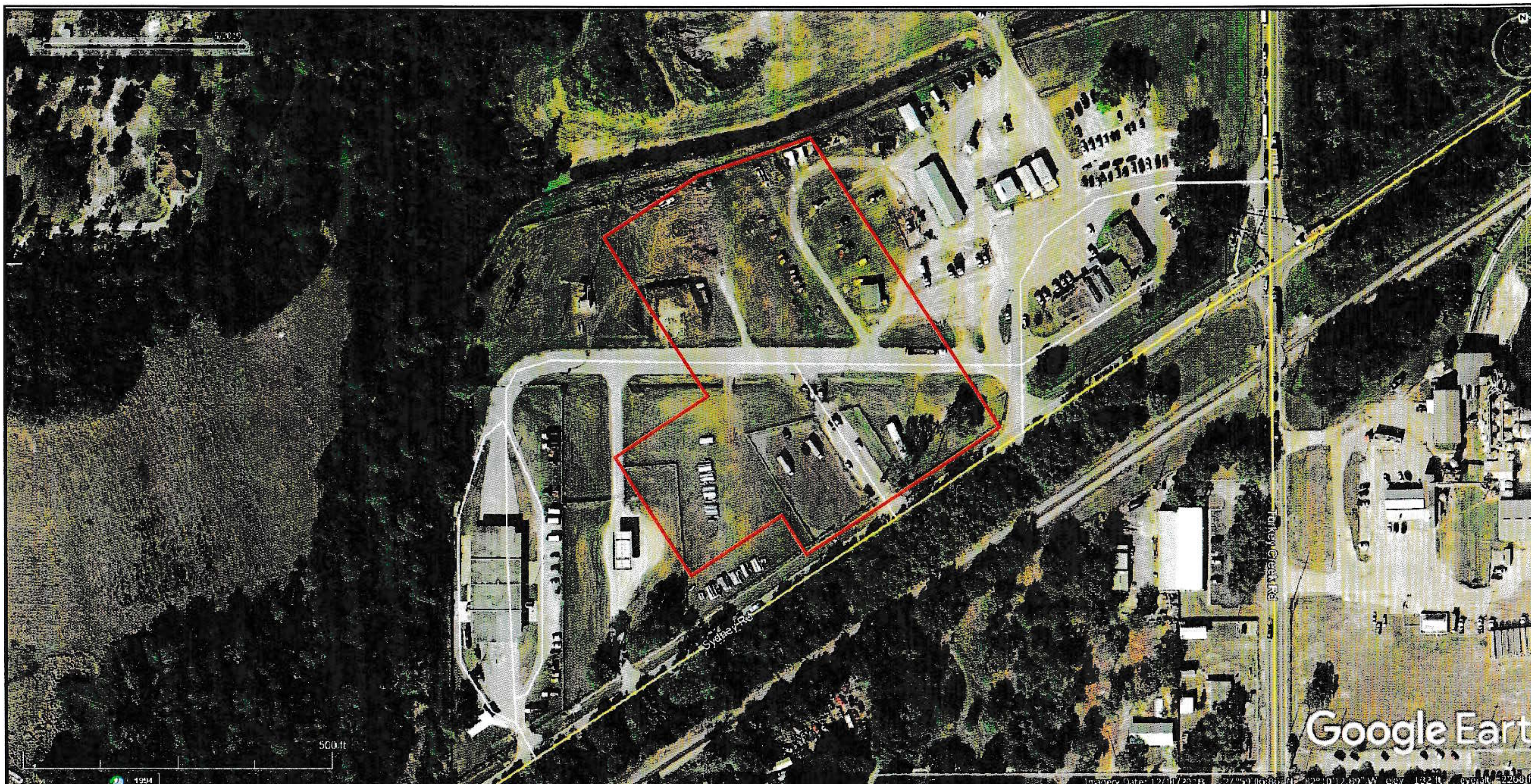
APPENDIX



Approximate Site limits

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FOUNDATION AND SOILS STUDY	2018 AERIAL VIEW		
TAX COLLECTOR SERVICE CENTER - PLANT CITY PLANT CITY, HILLSBOROUGH COUNTY, FLORIDA	CREATED BY: DNH CHECKED BY: PWV	DATE: MAY 2019 PROJECT NO: 19-10-08875	REFERENCE: GOOGLE EARTH

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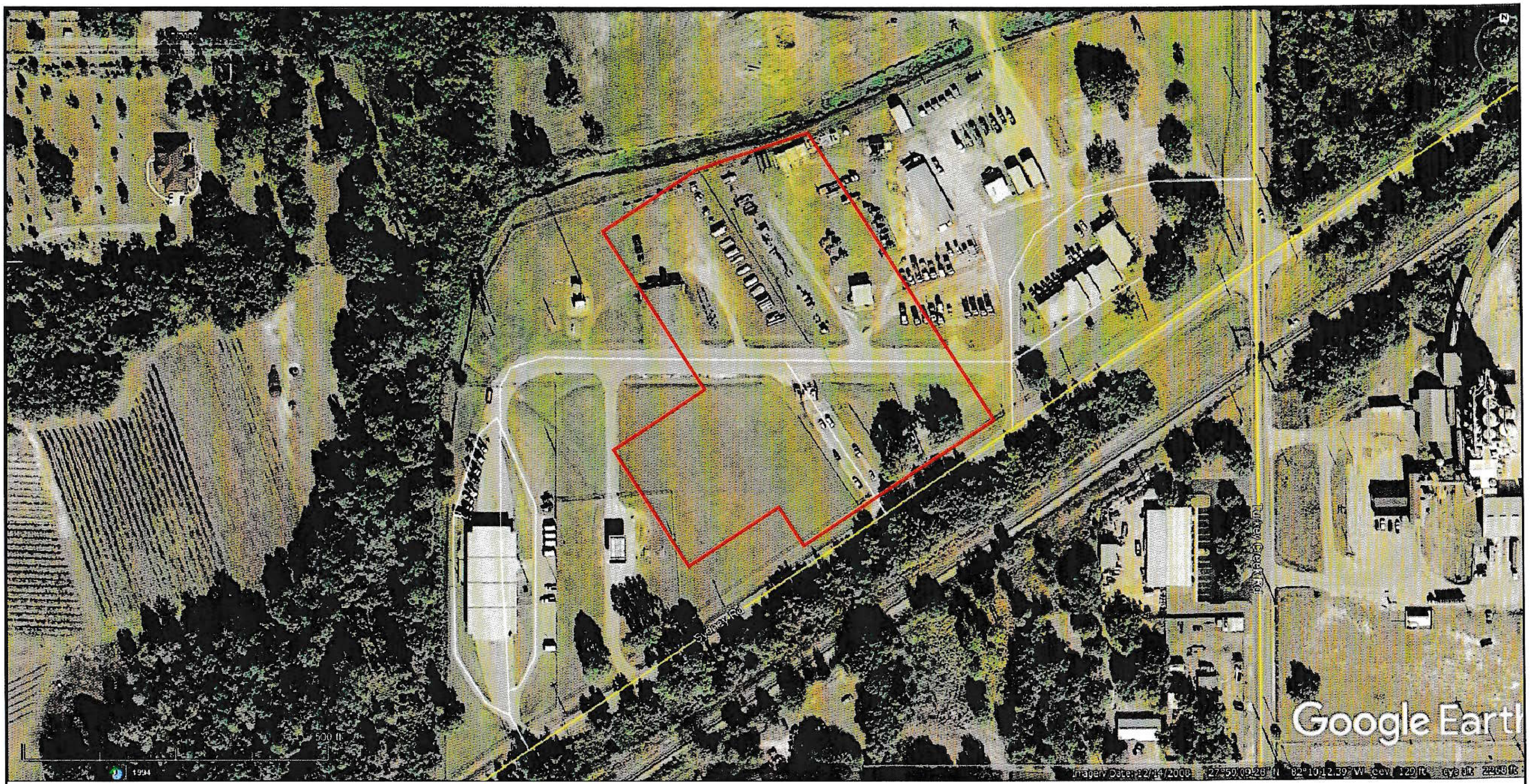

Approximate Site limits

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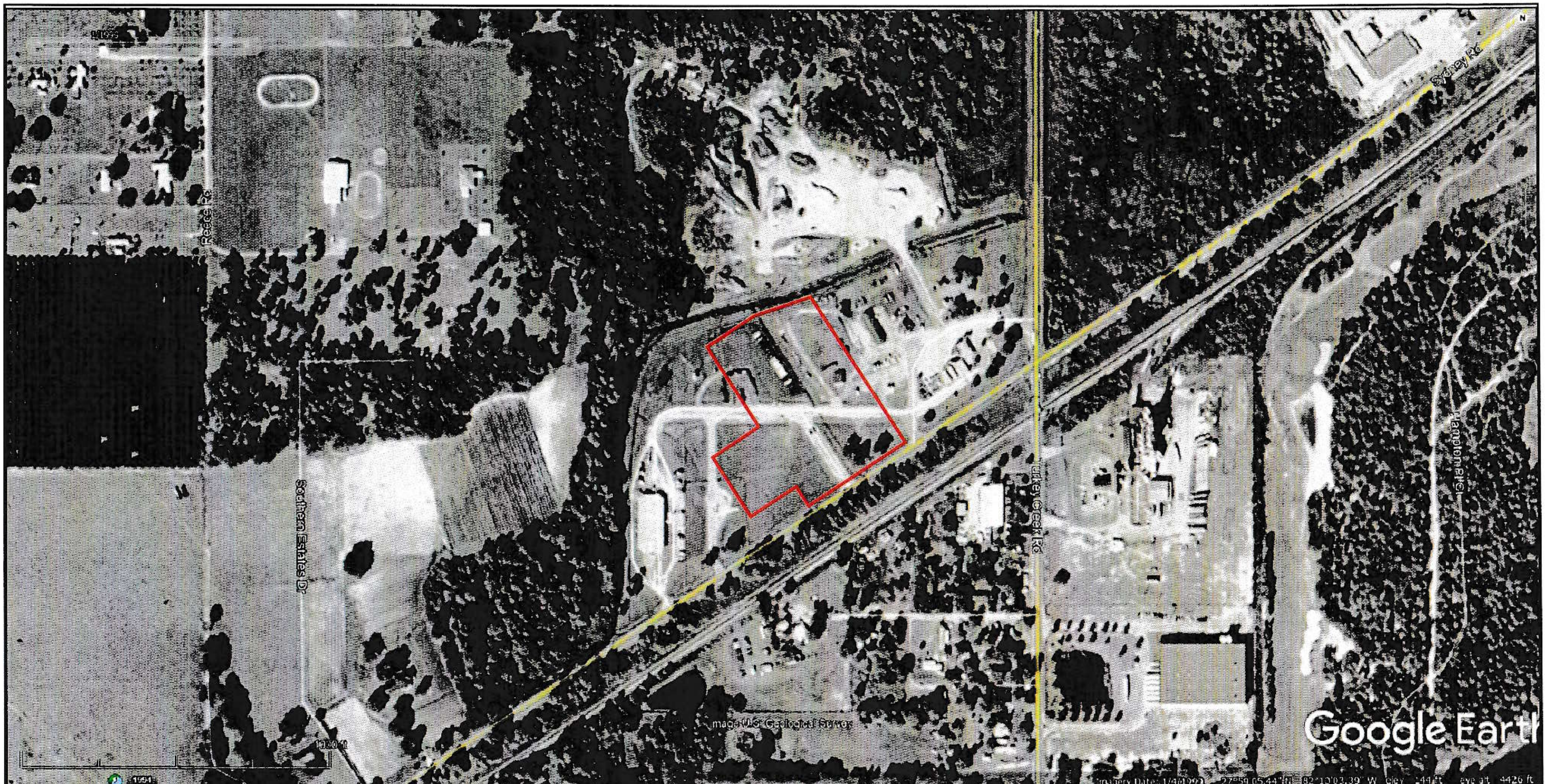
MORTENSEN ENGINEERING INC	*FOUNDATION AND SOILS STUDY* TAX COLLECTOR SERVICE CENTER - PLANT CITY PLANT CITY, HILLSBOROUGH COUNTY, FLORIDA	2008 AERIAL VIEW CREATED BY: DNH CHECKED BY: PWV	DATE: MAY 2019 PROJECT NO: 19-10-08875	REFERENCE: GOOGLE EARTH



Approximate Site limits

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MEI MORTENSEN ENGINEERING INC	*FOUNDATION AND SOILS STUDY*	1999 AERIAL VIEW		
	TAX COLLECTOR SERVICE CENTER - PLANT CITY	**CREATED BY: DNH** **CHECKED BY: PWV**	**DATE: MAY 2019** **PROJECT NO: 19-10-08875**	**REFERENCE: GOOGLE EARTH**
	PLANT CITY, HILLSBOROUGH COUNTY, FLORIDA			

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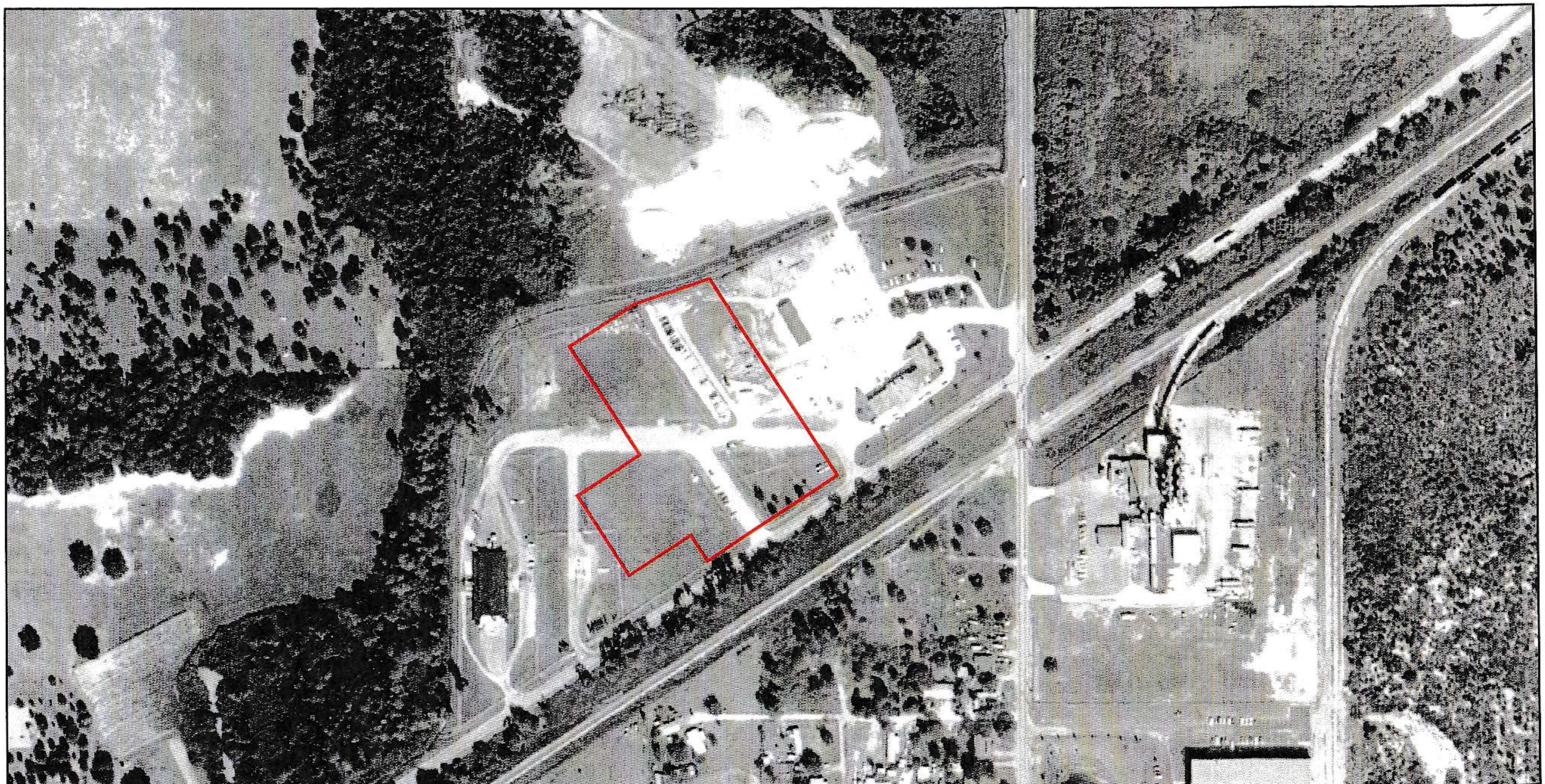

Approximate Site limits

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MEI MORTENSEN ENGINEERING INC	*FOUNDATION AND SOILS STUDY* TAX COLLECTOR SERVICE CENTER - PLANT CITY PLANT CITY, HILLSBOROUGH COUNTY, FLORIDA	1987 AERIAL VIEW		
		CREATED BY: DNH CHECKED BY: PWV	DATE: MAY 2019 PROJECT NO: 19-10-08875	REFERENCE: FDOT

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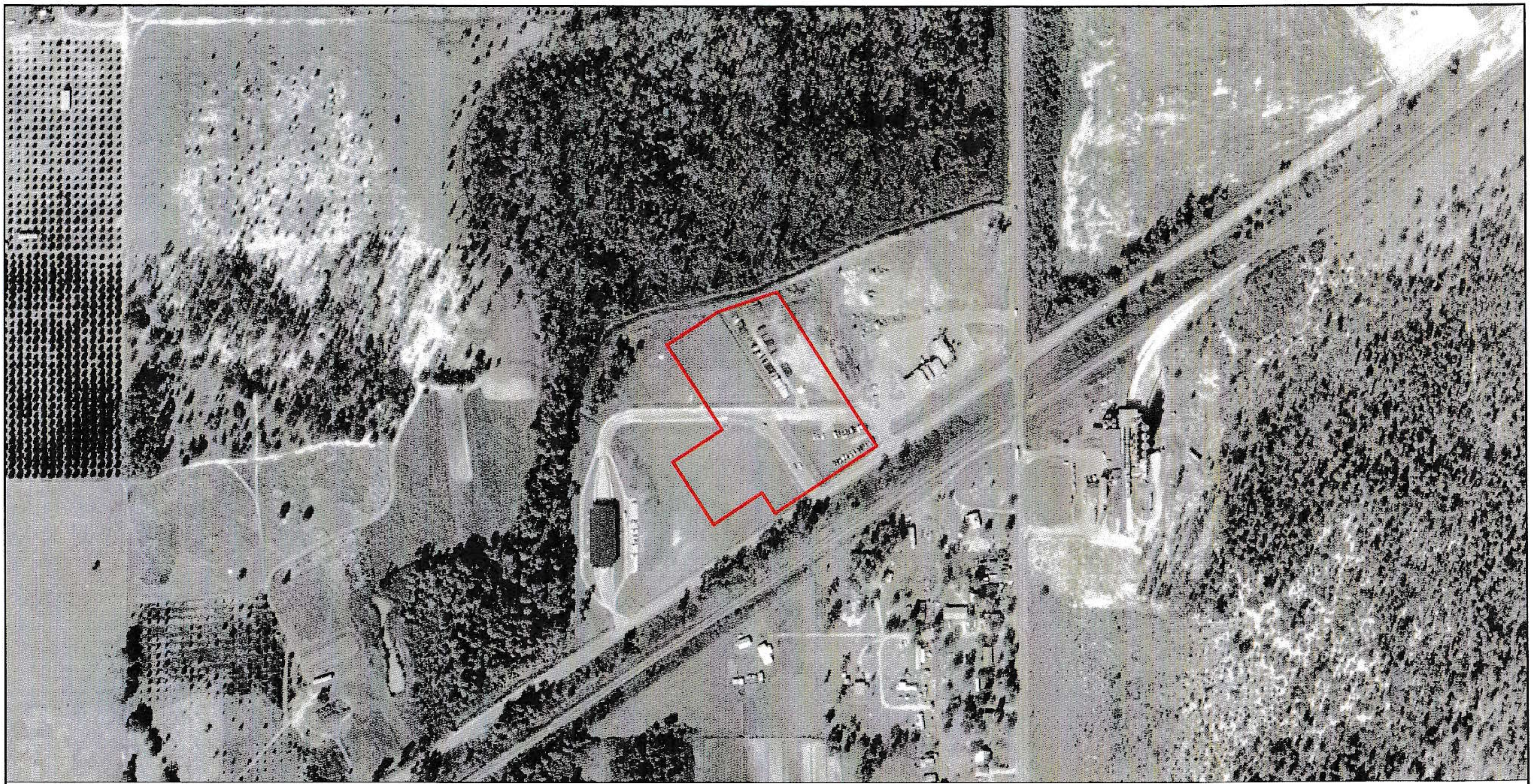

Approximate Site limits

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MEI MORTENSEN ENGINEERING INC	*FOUNDATION AND SOILS STUDY* TAX COLLECTOR SERVICE CENTER - PLANT CITY PLANT CITY, HILLSBOROUGH COUNTY, FLORIDA	1976 AERIAL VIEW CREATED BY: DNH CHECKED BY: PWV	DATE: MAY 2019 PROJECT NO: 19-10-08875	REFERENCE: FDOT

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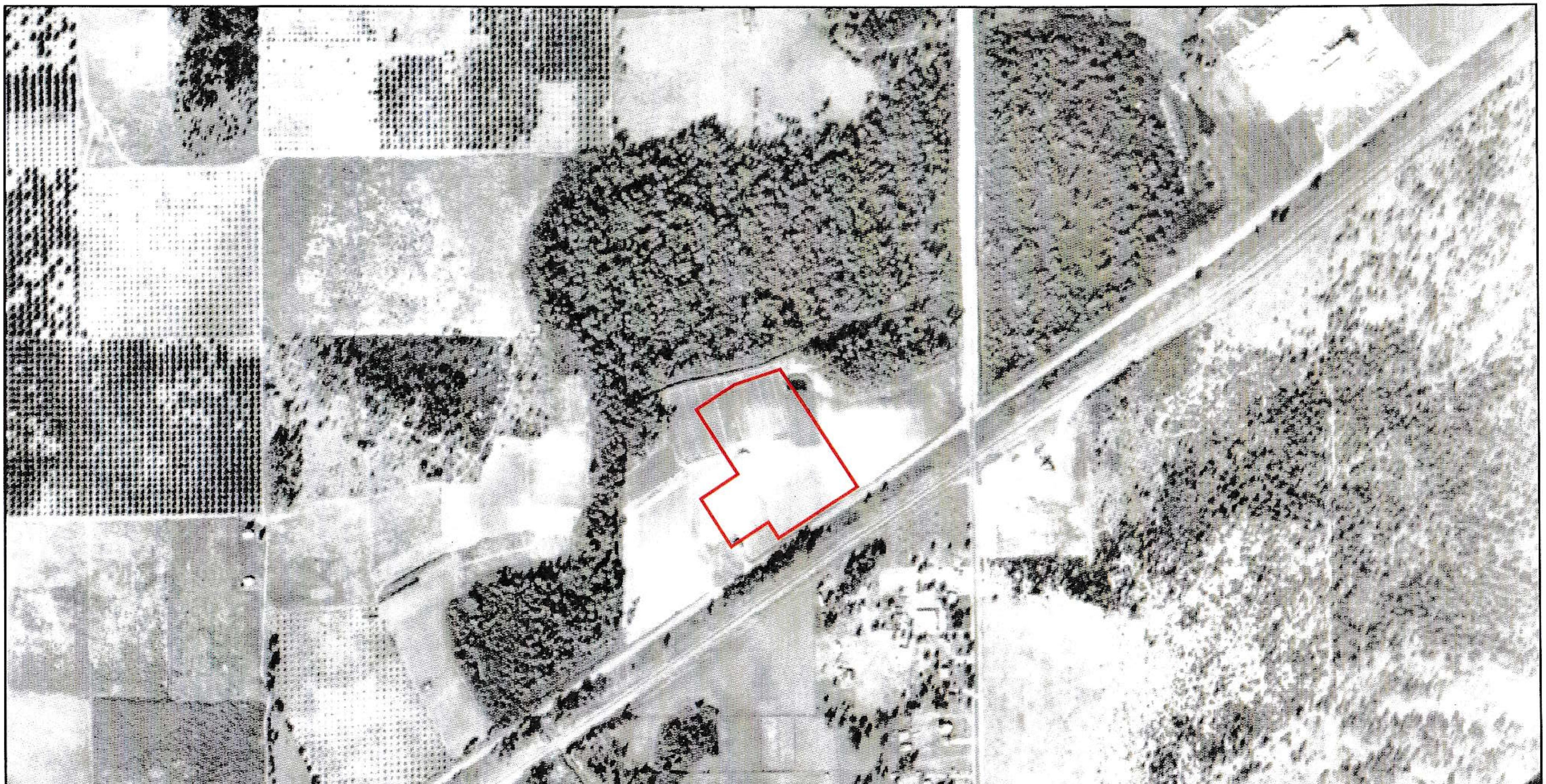

Approximate Site limits

REDUCED

MEI MORTENSEN ENGINEERING INC	*FOUNDATION AND SOILS STUDY* TAX COLLECTOR SERVICE CENTER - PLANT CITY PLANT CITY, HILLSBOROUGH COUNTY, FLORIDA	1968 AERIAL VIEW		
		CREATED BY: DNH CHECKED BY: PWV	DATE: MAY 2019 PROJECT NO: 19-10-08875	REFERENCE: UFDC

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Approximate Site limits

REDUCED

MEI MORTENSEN ENGINEERING INC	*FOUNDATION AND SOILS STUDY* TAX COLLECTOR SERVICE CENTER - PLANT CITY PLANT CITY, HILLSBOROUGH COUNTY, FLORIDA	1957 AERIAL VIEW		
		CREATED BY: DNH CHECKED BY: PWV	DATE: MAY 2019 PROJECT NO: 19-10-08875	REFERENCE: UFDC

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Approximate Site limits

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REDUCED

MEI
MORTENSEN ENGINEERING INC

FOUNDATION AND SOILS STUDY **TAX COLLECTOR SERVICE CENTER - PLANT CITY** **PLANT CITY, HILLSBOROUGH COUNTY, FLORIDA**	**1948 AERIAL VIEW**		
	CREATED BY: DNH **CHECKED BY: PWV**	**DATE: MAY 2019** **PROJECT NO: 19-10-08875**	**REFERENCE:** **UFDC**

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Approximate Site limits

REDUCED

MEI MORTENSEN ENGINEERING INC	*FOUNDATION AND SOILS STUDY* **TAX COLLECTOR SERVICE CENTER - PLANT CITY** **PLANT CITY, HILLSBOROUGH COUNTY, FLORIDA**	**1939 AERIAL VIEW**	
		CREATED BY: DNH **CHECKED BY: PWV**	**DATE: MAY 2019** **PROJECT NO: 19-10-08875**
		REFERENCE: **UFDC**	

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MAP UNIT LEGEND

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
5	Basinger, Holopaw, and Samsula soils, depressional	0.2	3.4%
29	Myakka fine sand, 0 to 2 percent slopes	3.9	67.9%
46	St. Johns fine sand	1.4	24.3%
61	Zolfo fine sand, 0 to 2 percent slopes	0.3	4.4%
Totals for Area of Interest		**5.7**	**100.0%**

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MEI
MORTENSEN ENGINEERING INC

FOUNDATION AND SOILS STUDY

TAX COLLECTOR SERVICE CENTER - PLANT CITY

PLANT CITY, HILLSBOROUGH COUNTY, FLORIDA

USDA / SCS SOIL SURVEY MAP

CREATED BY: DNH
CHECKED BY: PWV

DATE: MAY 2019
PROJECT NO: 19-10-08875

REFERENCE:
USDA WEB SOIL SURVEY

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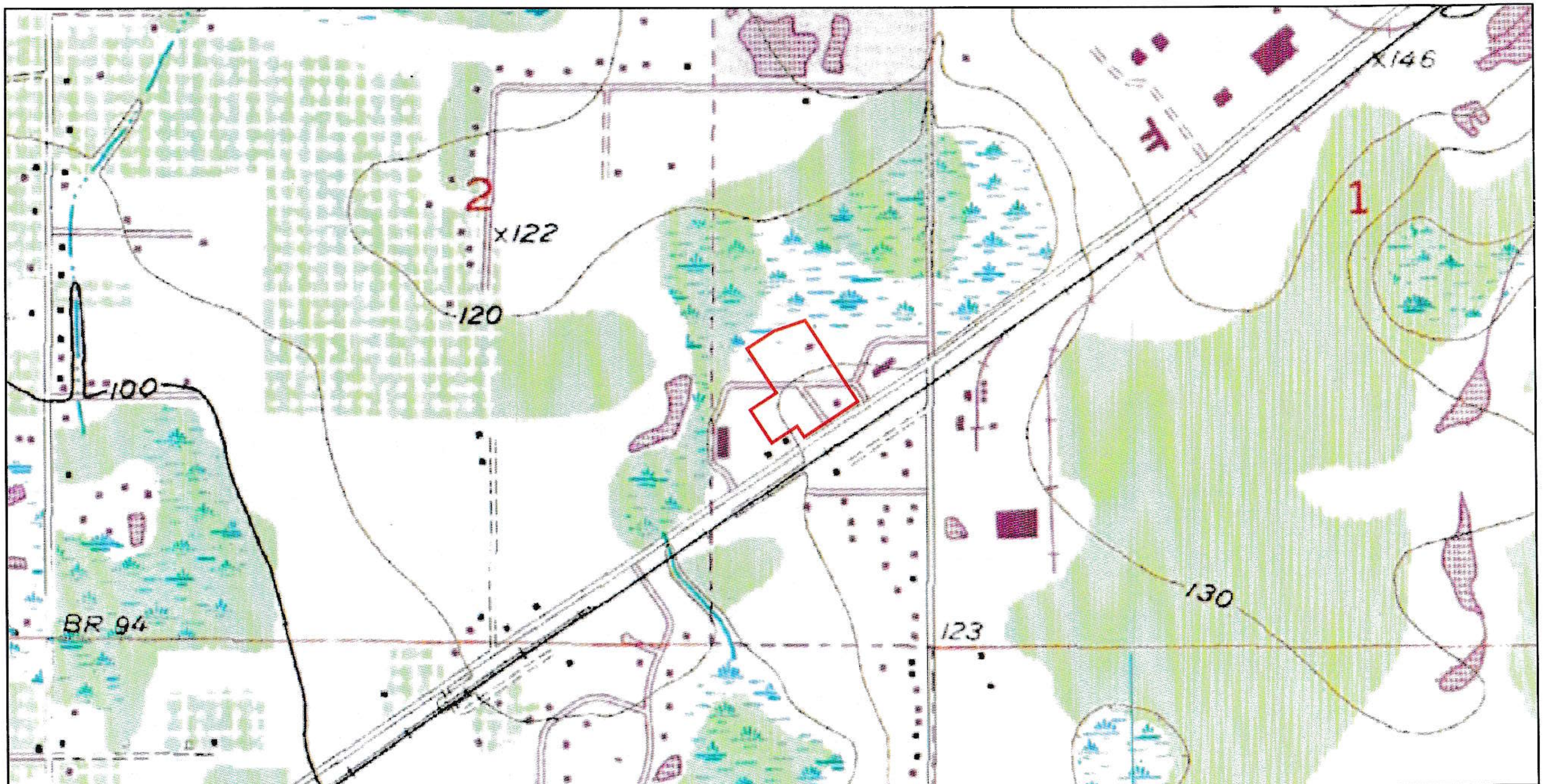

Approximate Site limits

REDUCED

MEI
MORTENSEN ENGINEERING INC

FOUNDATION AND SOILS STUDY **TAX COLLECTOR SERVICE CENTER - PLANT CITY** **PLANT CITY, HILLSBOROUGH COUNTY, FLORIDA**	**USGS TOPOGRAPHY VIEW** **CREATED BY: DNH** **CHECKED BY: PWV**	**DATE: MAY 2019** **PROJECT NO: 19-10-08875**	**REFERENCE:** **mytopo.com**

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