

Tree Inventory

Green ARTery

Tampa, Hillsborough County, Florida
E Sciences Project Number 3-0223-001
February 10, 2022



ENGINEERING
ENVIRONMENTAL
ECOLOGICAL

Prepared for:

Mark Lauckner
Patel, Greene & Associates, LLC (PGA)
12570 Telecom Drive
Temple Terrace, FL 33637



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**Subject: Tree Inventory
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E Sciences Project Number 3-0223-001**

Dear Mr. Lauckner:

RES Florida Consulting, LLC d/b/a E Sciences (E Sciences) is pleased to submit this report on our tree inventory at East Hollywood Street and Van Dyke Place in Tampa, Florida. This inventory was prepared in general accordance with our proposal number 3-0223-P01 dated August 11, 2020.

E Sciences conducted a tree inventory to identify, assess, measure, and apply a condition rating to trees including potential grand trees according to the provisions of the City of Tampa tree ordinance. The trees were individually numbered on a survey provided to us. The inventory was conducted on February 3, 2022. The attached tables summarize the data collected and the resultant recommendations. We have also attached the annotated survey for your reference.

The inventory included trees located adjacent to and within 20 feet of proposed improvements along East Hollywood Street and Van Dyke Place that may be impacted by the installation of a new sidewalk (hereinafter referred to as “assessment area”). This area could include trees with trunks/root systems of adequate size to likely incur root impacts during improvements and trees with lower hanging branches that could be impacted by construction equipment. Per coordination with City staff, it has been determined that a minimum of 14 feet of clearance for construction equipment is required.

The determination that a tree would likely incur root system impacts from construction activities was based on the required setbacks defined in the City of Tampa tree ordinance. The setbacks are as follows:

- Small trees (crepe myrtle, arborvitae) and palms require a 6-foot setback
- Trees 5-inches to 23-inches require a 10-foot setback
- Trees 24-inches to 31-inches require a 15-foot setback
- Trees 32-inches and larger require a 20-foot setback

Summary of Findings and Recommendations

It was determined that 17 (four off site) trees within the study area had root systems or low hanging branches that could potentially be compromised by proposed improvements (see attached annotated survey and tree data table). Based on our observations, it was determined that the poor condition or invasive exotic status of two of these trees warrants consideration of removal independent of proposed construction and ten trees require no action. Consequently, a total of five (three off site) trees were identified where remediation was recommended to address potential construction impacts. These trees were categorized as follows (categories named per the value assigned to the “recommendations” column on the tree data tables).

- **“Hand work and Root Prune” (two tree(s)):** The new sidewalk and/or drainage work could encroach into the required setback of these trees. It is likely that roots from these subject trees are growing in the area of proposed improvements; therefore, these roots could be severely damaged during construction activities. Recommended remedial action for these trees includes the following: hand work within the required setback; exposing roots using non-destructive measures (e.g. air spade); and pruning roots, as necessary.
- **“Hand work and Root Prune/Clearance Pruning” (two tree(s)):** These trees have the same characteristics and proposed remediation as the “Hand Work and Root Prune” trees with the addition of lower hanging branches (i.e. less than 14 feet above ground) that require clearance pruning prior to construction.
- **“Clearance Prune” (one tree(s)):** These trees with lower hanging branches (i.e. less than 14 feet above ground) that require clearance pruning prior to construction.
- **“Consider Removal” (two tree(s)):** These trees are either dead or in critical condition due to major defects and warrant consideration for removal due to elevated likelihood of failure. This category also includes trees that cannot withstand the proposed impacts.

*Please note: The recommended remediations are based on the information provided to date. Recommendations will be updated as necessary in the Tree Preservation Plan upon receipt of the final site plan.

Supplemental Observations

Upon inspection, trees with a condition rating of 40% or less were not eminent for removal but they will likely not have enough stored-up energy to withstand the impacts of proposed improvements. These subject trees could go into further decline and possibly die. It is our recommendation that the trees subject to this project be monitored for further decline on an annual basis after the completion of improvements.

Observations of overhead utility conflicts were also recorded (see attached data table). These observations may assist the City in determining where overhead utility clearance pruning may be warranted.

The data and recommendations presented in this report shall not be used for purposes other than those listed in the above referenced proposal. This inventory does not constitute a tree risk assessment.

We appreciate the opportunity to provide you with this arborist inventory report. If you have any questions concerning this report, please contact Lori Ballard at 727-403-5980.

Sincerely,

ERES Florida Consulting, LLC d/b/a E Sciences



Lori Ballard
Senior Arborist



James J. Orioles, P.E.
Chief Engineer

Attachments:

- Attachment A: Tree Inventory
- Attachment B: Grand Tree Chart
- Attachment C: Annotated Survey

ATTACHMENT A

Tree Inventory - Green ARtery

#	SPECIES		SIZE	Notes	CONDITION INFORMATION			ADDITIONAL NOTES	RECOMMENDATIONS	
	Common Name	Scientific Name	DBH (in.)		Condition	Condition Note 1	Condition Note 2			Condition Note 3
1	LIVE OAK	<i>Quercus virginiana</i>	37	SEE GRAND TREE CHART	C - 6	Root barrier: sidewalk and asphalt road 1 foot from root flare to the north and west, girdling roots	Tri-dominant 11 foot above grade	Utility pruned, excessive epicormic growth	If preserved - remove girdling roots	No Action
2	CABBAGE PALM	<i>Sabal palmetto</i>	13		70%	Nutrient deficiency				No Action
3	LIVE OAK	<i>Quercus virginiana</i>	25		40%	Root barrier: sidewalk and asphalt road, small basal wound to the west	Utility pruned, multiple scaffold branches are stubs, vehicle damage to lowest scaffold branch to the south	Excessive epicormic growth, dead wood	If preserved - remove southern scaffold branch and dead wood	No Action
4	LIVE OAK	<i>Quercus virginiana</i>	31		25%	Root barrier: sidewalk and asphalt road, equipment damage to exposed roots	Sloughing bark from 1 foot above grade to 12 foot above grade to the east	Excessive epicormic growth, large diameter stubs, dead wood		Remove
5	CABBAGE PALM	<i>Sabal palmetto</i>	12		70%	Nutrient deficiency				No Action
6	CABBAGE PALM	<i>Sabal palmetto</i>	13		70%	Nutrient deficiency	Suppressed canopy			No Action
7	CABBAGE PALM	<i>Sabal palmetto</i>	12		70%	Nutrient deficiency	Suppressed canopy			No Action
8	PAPER BARK MULBERRY	<i>Broussonetia papyrifera</i>	23		EXEMPT					Clearance Prune
9	CAMPBOR	<i>Cinnamomum camphora</i>	19		40%	Codominant with included bark starting at 3 foot above grade up to 4 foot above grade	Included scaffold branch, rubbing branches	Stubs	If preserved - remove included branch, stubs and monitor	Hand work in CRZ and Root Prune/Clearance Prune
10	LIVE OAK	<i>Quercus virginiana</i>	33	SEE GRAND TREE CHART	C - 9	Phototropic lean, restricted tension root development due to tree #11	Topped due to adjacent utility wires, vehicle damage to lowest scaffold branches	Restricted canopy, excessive epicormic growth	If preserved - monitor	No Action
11	LIVE OAK	<i>Quercus virginiana</i>	35	SEE GRAND TREE CHART	B - 7	Restricted canopy	Dead wood		If preserved - remove dead wood	No Action
12	CABBAGE PALM	<i>Sabal palmetto</i>	21	MEASUREMENT INCLUDES BOOTS	85%					No Action
13	RED MAPLE	<i>Acer rubrum</i>	6	OFF SITE	35%	Large wound from grade up to 4 foot above grade to the east, sounding indicated internal decay	Restricted canopy		If preserved - monitor	Hand Work in CRZ and Root Prune
14	PONYTAIL PALM	<i>Beaucarnea recurvata</i>	21	OFF SITE	70%	Girdling roots	Restricted canopy	Suppressed canopy		Hand Work in CRZ and Root Prune
15	HONG KONG ORCHID	<i>Bauhinia blakeana</i>	18	OFF SITE	EXEMPT					Remove
16	CABBAGE PALM	<i>Sabal palmetto</i>	13		70%	Nutrient deficiency	Growing behind fence			No Action
17	LIVE OAK	<i>Quercus virginiana</i>	21	OFF SITE						Hand Work in CRZ and Root Prune/Clearance Prune

ATTACHMENT B

GRAND TREE LIST (TYPE 1) WITH SPECIES RATING OF 81%-100% (Diameter Measurements in Feet)									TREE #1		
COMMON NAME [1]	SHORTEST LENGTH DIAMETER "SLD" (Feet)	LONGEST LENGTH DIAMETER "LLD" (Feet)	CROWN SPREAD "CS" (Feet)	CROWN FOOTPRINT "CF" (SqFt)	CONDITION RATING "CR" [2]	CONDITION RATING "CR" (Equivalent %) [2]	SPECIES RATING "SR" (%) [3]	REPLACEMENT CROWN FOOTPRINT "RCF" (SqFt)	TOTAL MITIGATION TREES REQ'D [4,5]		
LIVE OAK	44	73	58.5	2688	A	1	1	2688	17		
									0.95	2553	17
									0.9	2419	16
									0.85	2285	15
									0.81	2177	14
					B	0.9			1	2419	16
									0.95	2298	15
									0.9	2177	14
									0.85	2056	13
					C	0.75			0.81	1959	13
									1	2016	13
									0.95	1915	12
									0.9	1814	12
									0.85	1713	11
					D	0.4			0.81	1633	11
									1	1075	7
									0.95	1021	7
									0.9	968	6
									0.85	914	6
							0.81	871	6		

GRAND TREE LIST (TYPE 1) WITH SPECIES RATING OF 81%-100% (Diameter Measurements in Feet)									TREE #10		
COMMON NAME [1]	SHORTEST LENGTH DIAMETER "SLD" (Feet)	LONGEST LENGTH DIAMETER "LLD" (Feet)	CROWN SPREAD "CS" (Feet)	CROWN FOOTPRINT "CF" (SqFt)	CONDITION RATING "CR" [2]	CONDITION RATING "CR" (Equivalent %) [2]	SPECIES RATING "SR" (%) [3]	REPLACEMENT CROWN FOOTPRINT "RCF" (SqFt)	TOTAL MITIGATION TREES REQ'D [4,5]		
LIVE OAK	44	47	45.5	1626	A	1	1	1626	11		
							B	0.9	0.95	1545	10
									0.9	1463	10
									0.85	1382	9
									0.81	1317	9
					1	1463			10		
					C	0.75	0.95	1390	9		
							0.9	1317	9		
							0.85	1244	8		
							0.81	1185	8		
							1	1219	8		
					D	0.4	0.95	1159	8		
							0.9	1098	7		
							0.85	1037	7		
							0.81	988	6		
							1	650	4		
							0.95	618	4		
							0.9	585	4		
							0.85	553	4		
							0.81	527	3		

GRAND TREE LIST (TYPE 1) WITH SPECIES RATING OF 81%-100% (Diameter Measurements in Feet)									TREE #11	
COMMON NAME [1]	SHORTEST LENGTH DIAMETER "SLD" (Feet)	LONGEST LENGTH DIAMETER "LLD" (Feet)	CROWN SPREAD "CS" (Feet)	CROWN FOOTPRINT "CF" (SqFt)	CONDITION RATING "CR" [2]	CONDITION RATING "CR" (Equivalent %) [2]	SPECIES RATING "SR" (%) [3]	REPLACEMENT CROWN FOOTPRINT "RCF" (SqFt)	TOTAL MITIGATION TREES REQ'D [4,5]	
LIVE OAK	72	84	78.0	4778	A	1	1	4778	31	
								0.95	4539	29
								0.9	4301	28
								0.85	4062	26
								0.81	3870	25
					B	0.9	1	4301	28	
								0.95	4085	27
								0.9	3870	25
								0.85	3655	24
								0.81	3483	23
					C	0.75	1	3584	23	
								0.95	3405	22
								0.9	3225	21
								0.85	3046	20
								0.81	2903	19
					D	0.4	1	1911	12	
								0.95	1816	12
								0.9	1720	11
								0.85	1625	11
								0.81	1548	10

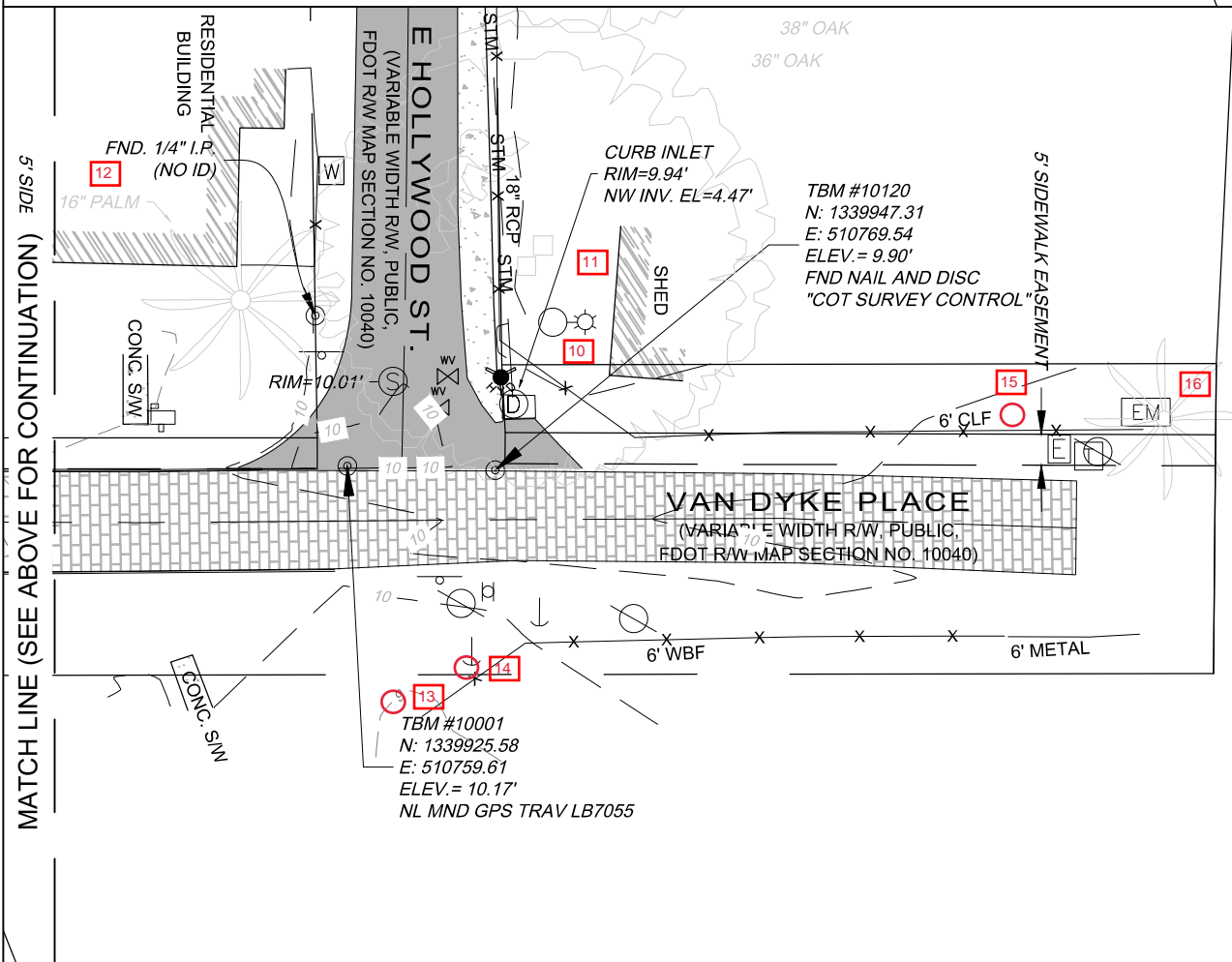
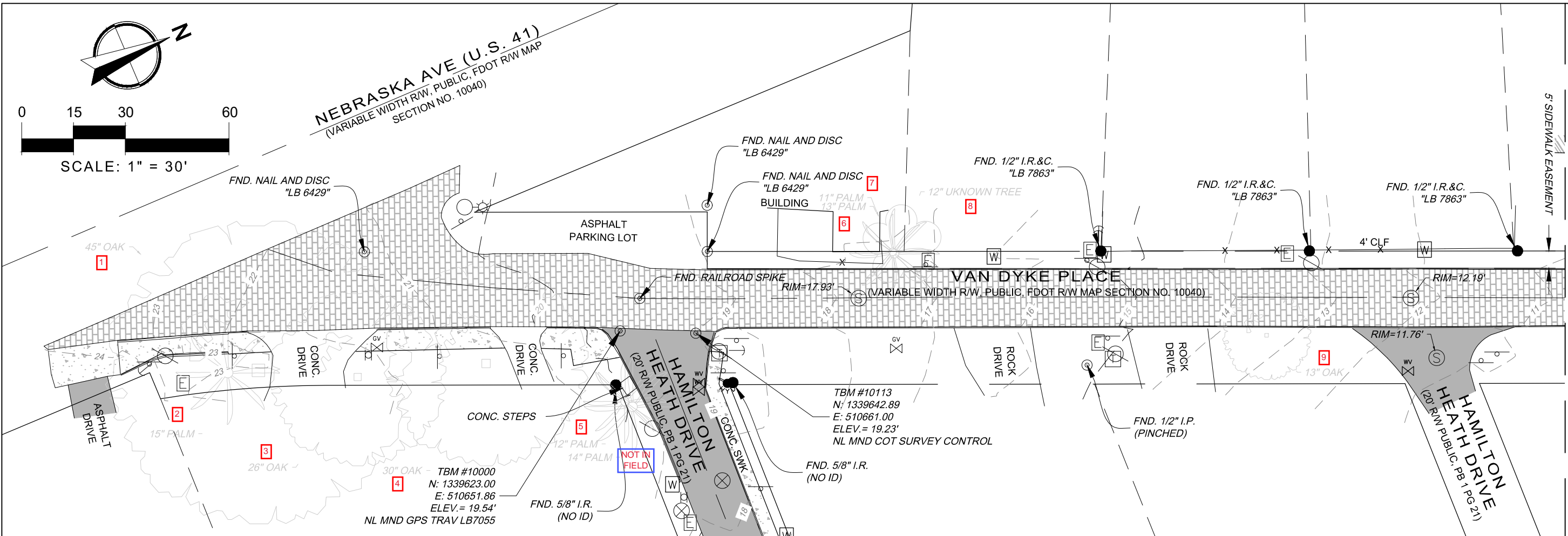
[1] Refer to Sec. 27-284.1.2, Table 284.1.2

[2] Condition Rating determined as part of Tree Evaluation (Sec. 27-284.1.1); Ratings are: A = 1; B = 0.9; C = 0.75; D = 0.40; F = 0 not shown).

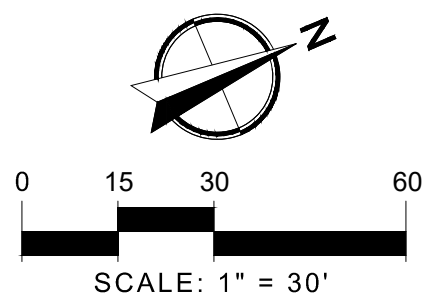
[3] Table 284.4.1-A defaults to mid-point of Species Rating range; Species Rating % may be adjusted up or down based on tree evaluation.

- [4] All grand tree species calculated at “moderate” growth rate, 10" caliper tree (Types 1 & 2) and 6" caliper tree (Type 3) as standard 5-year parity. (i.e. Type 1 Tree = 154 SF replacement Crown Footprint per 2.5" caliper tree planted; Type 2 Tree = 79 SF (CF); Type 3 Tree = 50 SF (CF)).
- [5] # of 2.5" Caliper (30 Gal Min) Trees Req'd for Mitigation. Use # in Yellow (i.e. mid-point); see also [3] above.

ATTACHMENT C



- 1 TREE NUMBER
- 1 ADDED TREE
- 1 NOTES



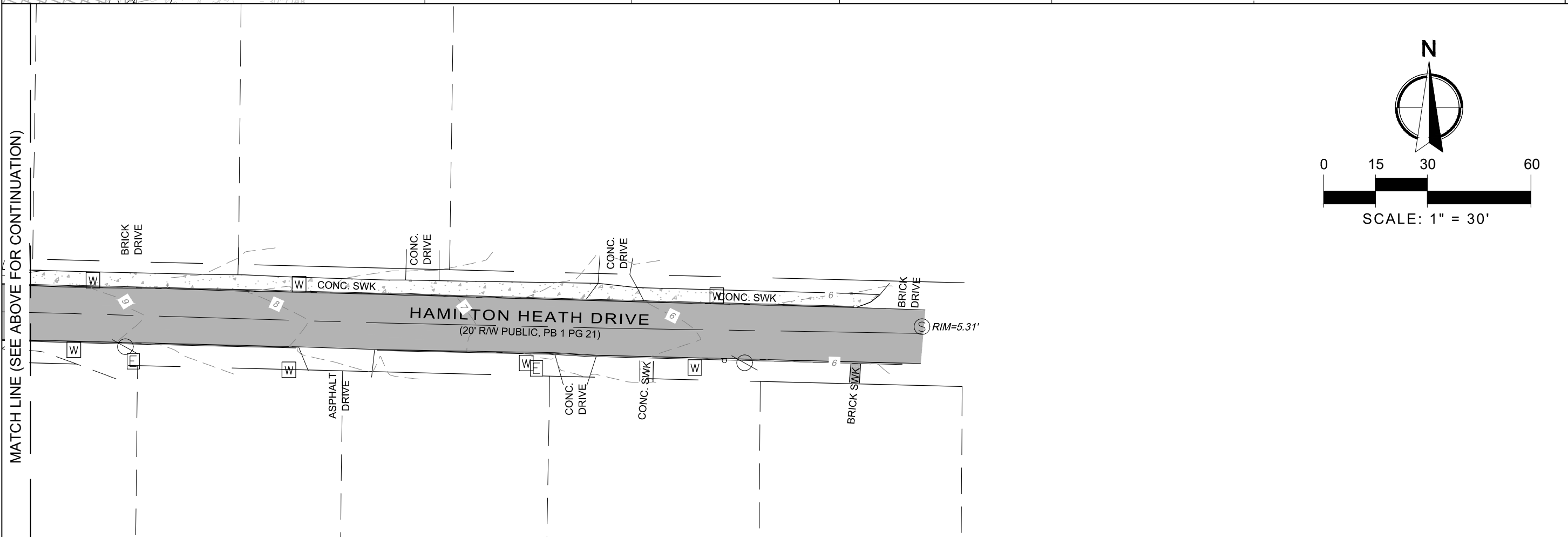
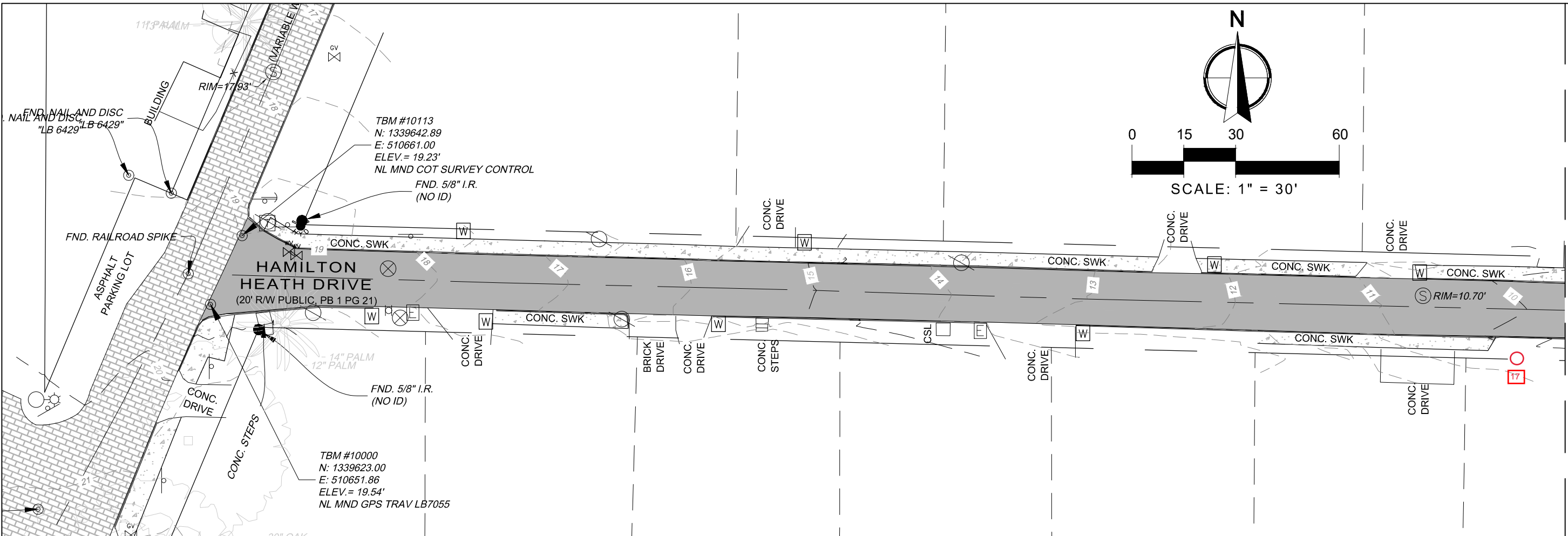
WGI
3111 W. Dr. Martin Luther King Jr. Blvd, Suite 375, Tampa, FL 33607
Phone No. 866.909.2220 www.wginc.com
LB No. 7055

MATCH LINE (SEE BELOW FOR CONTINUATION)

E SCIENCES - TREE INVENTORY

DATE:	2-3-22	FB/PG:	T204 / 9-13	REVISIONS:	BY:
SHEET 3 OF 9	JOB 7483.00	CKD DB	SURVEY DATE 11/23/21	DATE:	DATE:
DWG	VS-748300-01-WGI	FLD RC	OFF SD	DATE:	DATE:

TOPOGRAPHIC SURVEY
GREEN ARTERY SEGMENT D
Section 30, Township 28 S, Range 19 E
AS PREPARED FOR
PATEL, GREENE & ASSOCIATES



MATCH LINE (SEE BELOW FOR CONTINUATION)

MATCH LINE (SEE ABOVE FOR CONTINUATION)

WGI		3111 W. Dr. Martin Luther King Jr. Blvd, Suite 375, Tampa, FL 33607 Phone No. 866.909.2220 www.wginc.com LB No. 7055	
FLD	RC	FB/PG.	T204 / 9-13
OFF	SD	JOB	7483.00
CKD	DB	SURVEY DATE	11/23/21
SHEET 5 OF 9		DWG VS-748300-01-WGI	
TOPOGRAPHIC SURVEY GREEN ARTERY SEGMENT D Section 30, Township 28 S, Range 19 E AS PREPARED FOR PATEL, GREENE & ASSOCIATES		REVISIONS: BY: DATE:	2-3-22 E SCIENCES - TREE INVENTORY LB