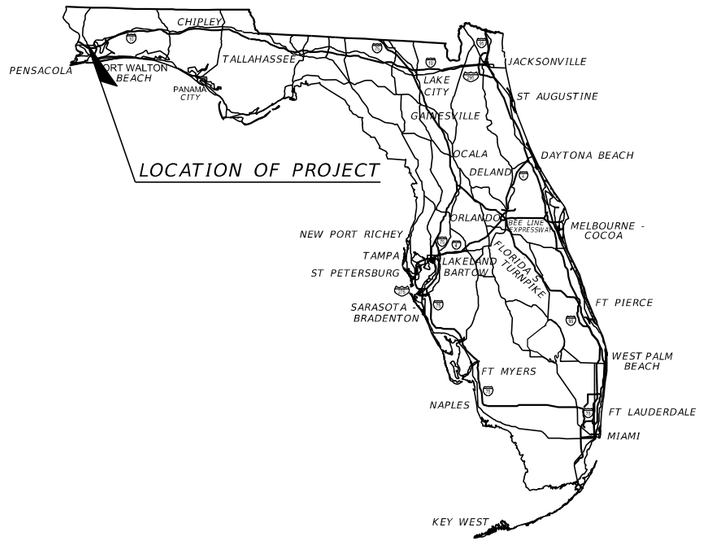
SIGNALIZATION PERMIT PLANS

CR 297A AT CR 97

ESCAMBIA COUNTY (48630)

COUNTY ROAD NO. 297A



INDEX OF SIGNALIZATION PLANS

SIGNALIZATION PLANS ENGINEER OF RECORD

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CONTRACT NUMBER C-9H02
VENDOR NUMBER 59-305-7180
CERTIFICATE OF AUTHORIZATION NO. 8188
PHONE NUMBER 850-638-3100

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

FISCAL YEAR	SHEET NO.
21	T-1

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

DAVID J. ANDERSON
LICENSE
No 36030
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SIGNALIZATION PLANS

SHEET NO.	SHEET DESCRIPTION
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T-4	GENERAL NOTES
T-5	SIGNALIZATION PLAN
T-6	MAST ARM TABULATION

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

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SIGNALIZATION PLANS

SHEET NO.	SHEET DESCRIPTION
T-2	SIGNATURE SHEET
T-7	STANDARD MAST ARM ASSEMBLIES DATA TABLE

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

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SIGNALIZATION PLANS

SHEET NO.	SHEET DESCRIPTION
T-2	SIGNATURE SHEET
T-8	REPORT OF SIGNAL BORINGS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

DAVID J. ANDERSON, P.E.
P.E. LICENSE NUMBER 36030
HSA CONSULTING GROUP, INC.
1284 JACKSON AVENUE
CHIPLEY FL, 32428

ESCAMBIA COUNTY

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR 297A	ESCAMBIA	

SIGNATURE SHEET

SHEET NO. T-2

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NO. T-5		TOTAL THIS SHEET		GRAND TOTAL		REF. SHEET
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	
0630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	540		540				
0630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	410		410				
0632-7-1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1		1				
0635-2-11	PULL & SPLICE BOX, FURNISH & INSTALL, 13"X24" COVER SIZE	EA	7		7				
0639-1-112	ELECTRICAL POWER SERVICE, FURNISH & INSTALL, OVERHEAD METER PURCHASED BY CONTRACTOR FROM POWER COMPANY	AS	1		1				
0639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	20		20				
0639-3-11	ELECTRICAL SERVICE DISCONNECT, FURNISH & INSTALL, POLE MOUNT	EA	1		1				
0641-2-12	PRESTRESSED CONCRETE POLE, FURNISH & INSTALL, TYPE P-II SERVICE POLE	EA	1		1				
0641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE POLE REMOVAL- POLE 30' AND GREATER	EA	2		2				
0649-21-3	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 40'	EA	1		1				
0649-21-10	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 60'	EA	1		1				
0650-1-34	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL, POLYCARBONATE, 3 SECTION, 1 WAY	AS	6		6				
0660-3-11	VEHICLE DETECTION SYSTEM - MICROWAVE, FURNISH AND INSTALL CABINET EQUIPMENT	EA	1		1				
0660-3-12	VEHICLE DETECTION SYSTEM - MICROWAVE, FURNISH AND INSTALL ABOVE GROUND EQUIPMENT	EA	2		2				
0660-4-11	VEHICLE DETECTION SYSTEM - VIDEO, FURNISH AND INSTALL CABINET EQUIPMENT	EA	1		1				
0660-4-12	VEHICLE DETECTION SYSTEM - VIDEO, FURNISH AND INSTALL, ABOVE GROUND EQUIPMENT	EA	2		2				
0670-5-111	TRAFFIC SIGNAL CONTROLLER ASSEMBLY, FURNISH & INSTALL, NEMA, 1 PREEMPTION	AS	1		1				
0682-1-113	ITS CCTV CAMERA, FURNISH & INSTALL, DOME PTZ ENCLOSURE - PRESSURIZED, IP, HIGH DEFINITION	EA	1		1				
0684-1-1	MANAGED FIELD ETHERNET SWITCH, FURNISH & INSATLL	EA	1		1				
0684-6-12	WIRELESS COMMUNICATION DEVICE, FURNISH & INSTALL, ETHERNET SUBSCRIBER UNIT	EA	1		1				
0685-1-14	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, ONLINE/DOUBLE CONVERSION WITH CABINET	EA	1		1				
0700-1-11	SINGLE POST SIGN, FURNISH & INSTALL, GROUND MOUNT, UP TO 12 SF	AS	3		3				
0700-5-22	INTERNALLY ILLUMINATED SIGN, FURNISH & INSTALL, OVERHEAD MOUNT, 12-18 SF	EA	3		3				
0715-5-32	LUMINAIRE & BRACKET ARM- GALV STEEL FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	2		2				

PAY ITEM NOTES

1. 670-5-111 TRAFFIC SIGNAL CONTROLLER WITH CABINET WITH APPROPRIATE EXTENSION TO RAISE CABINET 4" ABOVE CENTERLINE ROAD ELEVATION AND SHALL CONSIST OF:
   a. TRANSPORTATION CONTROL SYSTEMS (TCS) NEMA TS2 SIZE 6 DOUBLE DOOR CABINET.
   b. McCAIN ATC EX2 TS2 TYPE 2 NEMA CONTROLLER.
   c. MMU2-16LE (ip) SMART MONITOR.

2. 660-3-11, 660-3-12 MS SEDCO.
   a. TC-CK1-VMS, MICROWAVE-BASED MOTION AND PRESENCE SENSOR FOR ADVANCE DETECTION MOTION SENSOR AND CARDS.
   b. SUPPLEMENTAL INTERFACE HARDWARE, CABLING AND OTHER SYSTEM COMPONENTS AND PROGRAMMING ARE INCIDENTAL TO DETECTION SYSTEM.

3. 660-4-11 AND 660-4-12 SHALL CONSIST OF MIOVISION SMART SENSE WITH (2) SMARTVIEW 360 CAMERA HARDWARE WITH CONTINUOUS COUNTS AND ATSPMS (VEHICLES, CYCLISTS, PEDESTRIAN DETECTION) FOR ONE YEAR.
   a. SHELF MOUNTED VIDEO PROCESSOR TO BE LOCATED IN CONTROLLER CABINET.
   b. SUPPLEMENTAL INTERFACE HARDWARE, CABLING AND OTHER SYSTEM COMPONENTS AND PROGRAMMING ARE INCIDENTAL TO VIDEO PROCESSOR.
   c. WIRELESS CELLULAR COMMUNICATION DEVICE INCLUDED - MIOVISION SMARTLINK.

4. 685-1-14 UNINTERRUPTABLE POWER SERVICE TO CONSIST OF:
   a. MYERS MP 2000E WITH SNMP CARD WIRED FOR LOW BATTERY ALERTS
   b. SEPERATE PIGGY CABINET ATTACHED TO TYPE 6 CABINET.
   c. WIRING UPS TO SIGNAL CABINET FOR ALERTS.

5. 639-3-11 - A SEPARATE ELECTRICAL SERVICE DISCONNECT, PULL BOX AND CONDUIT RUN TO MAST ARM #2 WILL PROVIDE POWER FOR THE LUMINAIRE MOUNTED ON THE POLE.

6. 684-6-12 - SHALL CONSIST OF CRADLEPOINT COR IBR900 MOBILE ROUTER WITH NETCLOUD MANAGER, ITS CABINET, APPROVED CELLULAR ANTENNAE, POWER STRIP, TERMINAL BLOCK AND ASSOCIATED WIRING FOR ITS CCTV CAMERA AND ITS CABINET SHALL BE MINIMUM 16" X 12" HEIGHT X 9" DEEP.

7. 682-1-113 SHALL CONSIST OF AXIS COMMUNICATIONS Q6075 - E/1080P/ PTZ(CCTV CAMERA)

PAY ITEM NOTES CONTINUES

8. 684-1-1 SHALL CONSIST OF ADVANTECH ETHERNET SWITCH, EKI 7712G-2FVP.

9. 700-5-22 UNITS TO CONSIST OF TRANSPORTATION CONTROL SYSTEMS (TCS) BRIGHT LIGHT EDGE LIT. STREET NAME SIGNS MOUNTED TO THE MAST ARMS USING STANDARD PELCO MOUNTING HARDWARE.

10. CONTRACTOR TO SUBMIT FDOT FORM 750-01-01 TO ESCAMBIA COUNTY TRAFFIC ENGINEER WITH SHOP DRAWING SUBMITTAL.

11. 641-2-80 POLE REMOVAL - INCLUDES REMOVAL OF EXISTING HARDWARE INCLUDING BEACON, CABLE, WIRING AND OTHER MISC. HARDWARE AND COMPONENTS.

LIGHTING NOTES 715-5-32

1. THE LUMINAIRES WILL BE INSTALLED ON MAST ARMS IN ACCORDANCE WITH INDEX 649-031 SHEET 5 OF 6.

2. THE PROPOSED 264 WATT LIGHT-EMITTING DIODE LUMINAIRE TO ATTACH TO NEW SIGNAL MAST ARMS.

3. DESIGN FOR MEDIUM TYPE IV DISTRIBUTION. SINGLE 15' ARMS WITH 0 DEGREES TILT. MOUNTING HEIGHT 37.5'.

4. 4000K, CCT, USE AMERICAN ELECTRIC CURVE ATB2 P604 R4 4K.IES OR EQUAL.

5. LUMINAIRE AND ARM TO BE INSTALLED PERPENDICULAR TO CR 297A.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

DAVID J. ANDERSON, P.E.
P.E. LICENSE NUMBER 36030
HSA CONSULTING GROUP, INC.
1284 JACKSON AVENUE
CHIPLEY FL, 32428

ESCAMBIA COUNTY

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR 297A	ESCAMBIA	_____

TABULATION OF QUANTITIES

SHEET NO. T-3

SIGNALIZATION NOTES:

1. THE CONTRACTOR SHALL NOTIFY ALL UTILITIES THROUGH ESCAMBIA COUNTY AT LEAST TWO BUSINESS DAYS IN ADVANCE OF THE ACTUAL BEGINNING OF UNDERGROUND CONSTRUCTION ON THE JOB SITE. PLEASE CONTACT MS. JOHNNY PETTIGREW AT 850-595-3484 AND PROVIDE A DETAILED DESCRIPTION OF THE WORK TO BE ACCOMPLISHED.

2. AS DIRECTED BY THE PROJECT ADMINISTRATOR, THE CONTRACTOR SHALL ADJUST CONDUIT AND PULL BOXES IN ORDER TO AVOID ANY POSSIBLE CONFLICTS WITH UNDERGROUND UTILITIES.

3. THE CONTRACTOR WHO IS ENGAGED IN INSTALLING OR MAINTAINING TRAFFIC SIGNALS WITHIN DISTRICT THREE SHALL HAVE ALL WORK PERFORMED UNDER THE SUPERVISION OF A TECHNICIAN CERTIFIED BY THE INTERNATIONAL MUNICIPAL SIGNAL ORGANIZATION (IMSA) AS A LEVEL II, TRAFFIC SIGNALS TECHNICIAN. THE TECHNICIAN SHALL REPORT TO THE JOB SITE WITHIN FOUR HOURS OF NOTIFICATION TO THE WORK SITE SUPERVISOR TO CORRECT ANY PROBLEM OR EMERGENCY THAT MAY ARISE. IN ADDITION, A TECHNICIAN CERTIFIED AS AN I.M.S.A. LEVEL I TRAFFIC SIGNAL TECHNICIAN SHALL BE PRESENT ON THE JOB SITE AT ALL TIMES THE TRAFFIC SIGNALIZATION WORK IS IN PROGRESS.

4. LANE CLOSURES ARE PROHIBITED ON CR 297A FROM 6:00 PM.

5. SCHEDULE AN INSPECTION THROUGH THE ESCAMBIA COUNTY, TRANSPORTATION & TRAFFIC OPERATIONS OFFICE (JIM HAGON 850-595-3404) TWO WEEKS BEFORE PLACING A NEW TRAFFIC SIGNAL INSTALLATION IN NORMAL OPERATION MODE. AN INSPECTION IS NOT REQUIRED PRIOR TO PLACING THE SIGNAL IN FLASHING MODE.

6. THE PAY ITEM FOR ELECTRICAL POWER SERVICE SHALL INCLUDE THE COST OF ANY PERMITS AND INITIAL CONNECTION FEES THAT MAY BE ASSESSED BY THE POWER COMPANY OR LOCAL GOVERNMENT, WHENEVER APPLICABLE. THIS APPLIES TO OVERHEAD AND UNDERGROUND SERVICES.

7. THE POWER SERVICE AT DISCONNECT SHALL BE METERED PER FLORIDA POWER & LIGHT.

8. POLE AND FOUNDATION ELEVATION IS CRITICAL DUE TO THE USE OF HORIZONTAL SIGNAL HEADS IN THE ESCAMBIA COUNTY. MOUNTING SIGNAL HEADS VERTICALLY OR BELOW THE MAST ARM TO REMEDY ELEVATION PROBLEMS IS UNACCEPTABLE.

9. HAND-DIG THE FIRST 4 FEET OF POLE FOUNDATIONS.

10. THE PAY ITEM FOR VEHICULAR SIGNAL ASSEMBLIES SHALL INCLUDE THE COST OF A HORIZONTAL ARTICULATING BRACKET FOR ALL PROJECTS UTILIZING MAST ARM OR MONOTUBE SUPPORTS.

11. INSTALL CONDUIT ACCORDING TO THE FDOT STANDARD PLANS INDEX 630-001 AND FDOT SPECIFICATIONS 630. UTILIZE THIS METHOD FOR ALL APPLICATIONS IN THE DISTRICT, WITHOUT REGARD TO THE PRESENCE OF CURB AND GUTTER.

12. SIGNAL CABLE SHALL ONLY BE INSTALLED IN CONTINUOUS LENGTHS BETWEEN THE OVERHEAD AND CONTROLLER CABINET. SPLICING OF CABLE ONLY PERMITTED IN THE SIGNAL/PEDESTRIAN HEADS, TRANSFORMER BASES OF PEDESTRIAN PEDESTALS, STRUCTURE HAND HOLES FOR MAST ARM INSTALLATIONS, AND STRAIN POLE HAND HOLES AND/OR DISCONNECT HANGERS FOR SPAN-WIRE INSTALLATIONS. NO UNJACKETED INDIVIDUAL CONDUCTORS SHALL BE ALLOWED WITHIN THESE COMPONENTS OF THE TRAFFIC SIGNAL INSTALLATION: CONDUITS, PULL BOXES, MAST ARM UPRIGHTS, STRAIN POLES, PEDESTRIAN PEDESTAL POLES, PEDESTRIAN MOUNTING BRACKETS OR ASTRO-BRACKET GUSSET TUBING. NO EXCEPTIONS.

13. BASKET TYPE SINGLE EYE SPLIT MESH ROD CLOSING CABLE GRIPS REQUIRED FOR SIGNAL CABLE STRAIN RELIEF AT "J" HOOK OF EACH UPRIGHT.

14. CONTROLLER CABINET SHALL BE FULLY WIRED AND FURNISHED WITH ALL EQUIPMENT NECESSARY TO RUN THE CONTROLLER INDICATED IN THE PLANS. TIMINGS ARE INITIAL AND ADJUSTMENTS CAN BE MADE BY THE COUNTY AS APPROVED BY THE EOR.

15. CONSTRUCTION DEBRIS GENERATED BY THE CONTRACTOR DURING CONSTRUCTION OF THIS SIGNALIZED INTERSECTION SHALL BE REMOVED BY THE CONTRACTOR FROM THE ESCAMBIA COUNTY RIGHT-OF-WAY AT THE END OF EACH WORK DAY.

16. PULL BOXES SHALL BE INSTALLED A MINIMUM OF 3' FROM THE EDGE OF THE PAVEMENT.

17. CONTROLLER CABINET DOOR SHALL OPEN TOWARDS ROW LINE - CONSTRUCT CONCRETE PAD TO PROVIDE LEVEL SURFACE FOR MAINTENANCE ACTIVITIES. ROUTE TO CONCRETE PAD TO HAVE NO STEEPER SHAPE THAN 1:6 WITHIN 5' AND 1:4 SLOPES WITHIN 10'.

SPECIAL NOTES:

1. UTILITY AGENCY OWNERS

COMPANY	CONTACT	PHONE
AT&T FLORIDA	TOM MANNING	(850) 463-5176
FLORIDA POWER & LIGHT	DEREK GILMORE	(850) 777-9476
ENERGY SERVICE OF PENSACOLA (NATURAL GAS)	DIANE MOORE	(850) 474-5319
ECUA (WATER/SEWER)	JACOB KEARLEY	(850) 969-5823
COX CABLE	TROY YOUNG	(850) 857-4551
ESCAMBIA COUNTY TRAFFIC SIGNAL	JOHNNY PETTIGREW	(850) 595-3484
FLORIDA POWER AND LIGHT	DEREK GILMORE	(850) 777-9476

2. ESCAMBIA COUNTY IS THE MAINTAINING AGENCY.

3. ESCAMBIA COUNTY IS RESPONSIBLE FOR THE POWER BILL.

4. PROVIDE NEW TRAFFIC SIGNAL SYSTEM EQUIPMENT AND MATERIALS THAT IS FULLY COMPATIBLE AND INTER-OPERABLE WITH EQUIPMENT CURRENTLY INSTALLED AND OPERATIONAL AS PART OF THE ESCAMBIA COUNTY ADVANCED TRANSPORTATION MANAGEMENT SYSTEM (ATMS).
   a. IF NECESSARY, CONTACT THE COUNTY TRAFFIC ENGINEER AT 850-595-3404 FOR EQUIPMENT AND MATERIAL SPECIFICATION. INCOMPATIBLE EQUIPMENT AND MATERIALS WILLNOT BE ACCEPTED.

5. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS (INCLUDE THOSE DESIGNATED Vv, Vh, AND Vvh) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.

6. GENERATOR HARNESS ASSEMBLY: THE PAY ITEM FOR THE CONTROLLER CABINET ASSEMBLY SHALL INCLUDE ALL WORK AND MATERIALS NECESSSARY FOR THE INSTALLATION OF A COMPLETE GENERATOR HARNESS ASSEMBLY WITH EGRESS PORT, WHOSE DESIGN HAS BEEN STANDARDIZED THROUGHOUT DISTRICT THREE. THE CONTRACTOR SHALL VISIT AN EXISTING INTERSECTION WHERE SAID STANDARDIZED HARNESS IS INSTALLED IN ORDER TO VERIFY NECESSARY EQUIPMENT. DETAILS RELATED TO THE STANDARDIZED GENERATOR HARNESS INSTALLATION ARE AS FOLLOWS: A TOTAL OF TWENTY-FIVE (25) FEET OF TYPE "SEOW" OR "SO" 10-3 AWG COPPER CABLE SHALL BE PROVIDED. A MALE PLUG (LEVITON # 5266-C, 5-15P) SHALL BE ATTACHED TO TWENTY-THREE (23) FEET OF CABLE CONNECTED INTO THE CONTROLLER CABINET TERMINAL STRIP. A FEMALE CONNECTOR (LEVITON, PART # 5369-C, 5-20R) SHALL BE ATTACHED TO TWO (2) FEET OF "SO" CABLE SPLICED INTO THE # 6 AWG ELECTRICAL SERVICE WIRE. THREE INSULATED MECHNICAL OR COMPRESSION CLAMPS (NO SPLIT BOLTS OR WIRE NUTS) FOR COPPER WIRE SHALL BE UTILIZED TO SPLICE CABLE TO ELECTRICAL SERVICE WIRE. A VERTICAL MOUNT, SELF-CLOSING, METALLIC, WEATHER-PROOF COVER AND GASKET SHALL BE PROVIDED AS AN EGRESS PORT, WHICH SHALL HAVE SUFFICIENT ROOM FOR THE MALE PLUG TO EXIT AND ENTER FOR TEMPORARY CONNECTOR TO EMERGENCY GENERATOR.

TRAFFIC SIGNAL LEGEND

MA-1	REQUIRED MAST ARM	◪	REQUIRED PULL BOX
MA-1	MAST ARM NUMBER	PB-1	PULL BOX NUMBER
◉	REQUIRED MAST ARM POLE	—•—	REQ. UNDERGROUND CONDUIT
⬡ 2	MAST ARM POLE NUMBER	—••—	CONDUIT BORING UNDER ROADWAY
◄▮	REQUIRED PEDESTRIAN SIGNAL HEAD	┼	REQUIRED SIGN OVER HEAD
2	SIGNAL HEAD PHASE NUMBER	●	PEDESTAL POLE
Ⓐ	SIGN IDENTIFICATION	PP-2	PEDESTRIAN POLE NUMBER
L-1	REQUIRED INDUCTIVE LOOPS	←	REQ. PED PUSH BUTTON ASSY. WITH SIGN ONLY
●	REQ. POWER SERVICE POLE	←●	REQ. PED PUSH BUTTON ASSY. WITH SIGN AND POLE
▮→	REQ. VEHICLE SIGNAL HEAD	P4	PEDESTRIAN SIGNAL PHASE NUMBER
▷	MICROWAVE VEHICLE DETECTION		
▼	VIDEO DETECTION CAMERA		
▼ C	CCTV CAMERA		

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DAVID J. ANDERSON, P.E.
P.E. LICENSE NUMBER 36030
HSA CONSULTING GROUP, INC.
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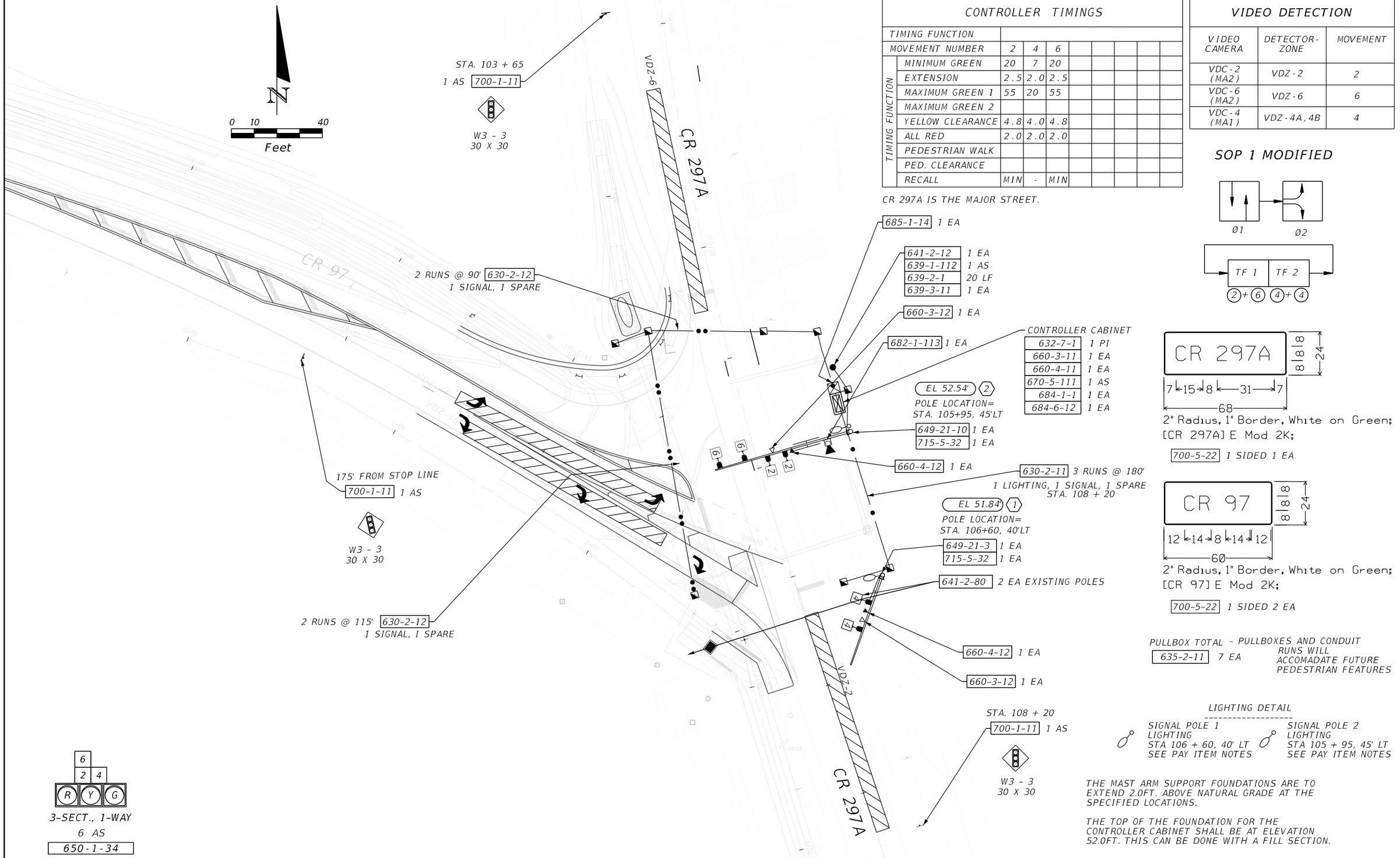
CHIPLEY FL, 32428

ESCAMBIA COUNTY

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR 297A	ESCAMBIA	------

GENERAL NOTES

SHEET NO. T-4



CONTROLLER TIMINGS

TIMING FUNCTION									
MOVEMENT NUMBER		2	4	6					
TIMING FUNCTION	MINIMUM GREEN	20	7	20					
	EXTENSION	2.5	2.0	2.5					
	MAXIMUM GREEN 1	55	20	55					
	MAXIMUM GREEN 2								
	YELLOW CLEARANCE	4.8	4.0	4.8					
	ALL RED	2.0	2.0	2.0					
	PEDESTRIAN WALK								
	PED. CLEARANCE								
	RECALL	MIN	-	MIN					

CR 297A IS THE MAJOR STREET.

VIDEO DETECTION

VIDEO CAMERA	DETECTOR-ZONE	MOVEMENT
VDC-2 (MA2)	VDZ-2	2
VDC-6 (MA2)	VDZ-6	6
VDC-4 (MA1)	VDZ-4A, 4B	4

SOP 1 MODIFIED

PULLBOX TOTAL
635-2-11 7 EA

- PULLBOXES AND CONDUIT RUNS WILL ACCOMADATE FUTURE PEDESTRIAN FEATURES

LIGHTING DETAIL

SIGNAL POLE 1
LIGHTING
STA 106 + 60, 40' LT
SEE PAY ITEM NOTES

SIGNAL POLE 2
LIGHTING
STA 105 + 95, 45' LT
SEE PAY ITEM NOTES

THE MAST ARM SUPPORT FOUNDATIONS ARE TO EXTEND 2.0FT. ABOVE NATURAL GRADE AT THE SPECIFIED LOCATIONS.

THE TOP OF THE FOUNDATION FOR THE CONTROLLER CABINET SHALL BE AT ELEVATION 52.0FT. THIS CAN BE DONE WITH A FILL SECTION.

3-SECT., 1-WAY
6 AS
650-1-34

REVISIONS

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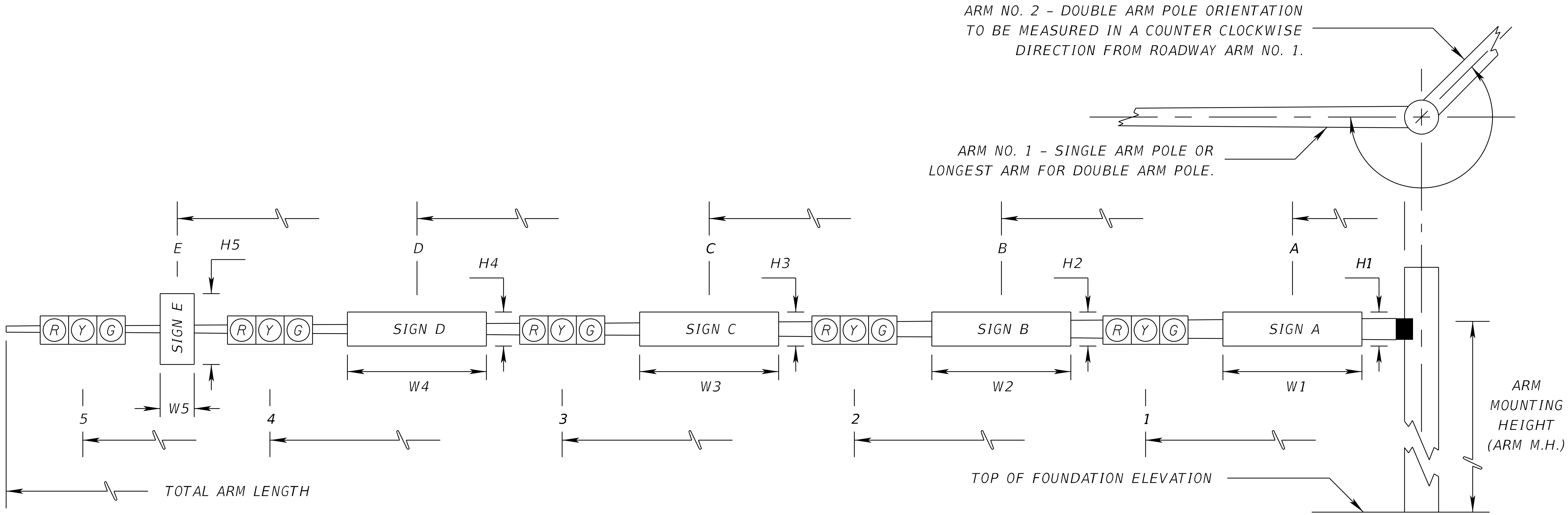
SIGNALIZATION PLAN

SHEET NO. T-5



						SIGNAL DATA																SIGN DATA															
ID NO.	SHEET NO.	LOCATION BY STA.	TOP OF FOUNDATION ELEVATION	RDWY ARM NO.	CROWN ELEV.	SIGNAL V/H	BACK PLATES Y/N	PED. SIGNAL Y/N	DISTANCE FROM POLE 1	*	2	*	3	*	4	*	5	*	TOTAL ARM LENGTH	ARM M.H.	BTW DUAL ARMS	DISTANCE FROM POLE/ HEIGHT AND WIDTH OF SIGN A	H1	W1	B	H2	W2	C	H3	W3	D	H4	W4	E	H5	W5	PAINT COLOR
1	5	106+60, 40.0' LT	51.84'	1	52.75'	H	Y	N	10	3	25	3							40.0	20.0		12	2	5													GALVANIZED
2	5	105+95, 45.0' LT	52.54'	1	53.61'	H	Y	N	30	3	35	3	45	4	47	3	55	3	60.0	20.0		12	2	6													GALVANIZED
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MAST ARM TABULATION

SHEET NO. T-6

NOTES:
1. Work with Index 649-030 and 649-031.
2. Design wind Speed = 170mph

FOUNDATION NOTES:
1. Design based on borings taken November 20, 2019 sealed by NOVA Engineering and Environmental LLC.

2. Foundations were designed in accordance with the following values obtained from the geotechnical report:

BORING B-1 (POLE ID NO. 1)
Layer 1: Embedment depth range <7 ft.
Soil Type = Sand
Soil Layer Thickness = 7 ft.
Angle of Internal Friction = 29'
Soil Weight = 120 pcf (unsubmerged)

Layer 2: Embedment depth range 7 ft. to 9 ft.
Soil Type = Sand
Soil Layer Thickness = 2 ft
Angle of internal Friction = 29'
Soil Weight = 110 pcf (unsubmerged)

Layer 3: embedment depth range 9 ft. to 11 ft.
Soil Type = Sand
Soil Layer Thickness = 2 ft.
Angle of Internal Friction = 29'
Soil Weight = 50 pcf (submerged)

Layer 4: Embedment depth range 11ft. to 14ft.
Soil Type = Sand
Soil Layer Thickness = 3ft.
Angle of Internal Friction = 29'
Soil Weight = 60 pcf (Submerged)

Layer 5: Embodement depth range 14 ft. to 21 ft.
Soil Type = Sand
Soil Layer Thickness = 7 ft.
Angle of Internal Friction = 31'
Soil Weight = 50 pcf (submerged)

Design Water Table is 10 ft. below surface.

STANDARDS MAST ARM ASSEMBLIES DATA TABLE			TABLE DATE 06-30-21
STRUCTURE ID NUMBERS	DESIGNATION	ARM M.H. (ft)	DRILLED SHAFT ID
POLE 1	A40/S - P2/S/L	20	DS/15/4.5
POLE 2	A60/H/S-P4/S/L	20	DS/16/5

BORING B-2 (POLE ID NO. 2)
Layer 1: Embedment depth range <6 ft.
Soil Type = Sand
Soil Layer Thickness = 6 ft.
Angle of Internal Friction = 29'
Soil Weight = 115 pcf (unsubmerged)

Layer 2: Embedment depth range 6 ft. to 7 ft.
Soil Type = Sand
Soil Layer Thickness = 1 ft
Angle of internal Friction = 29'
Soil Weight = 110 pcf (unsubmerged)

Layer 3: embedment depth range 7 ft. to 11 ft.
Soil Type = Sand
Soil Layer Thickness = 4 ft.
Angle of Internal Friction = 33'
Soil Weight = 50 pcf (submerged)

Layer 4: Embedment depth range 11 ft. to 25 ft.
Soil Type = Sand
Soil Layer Thickness = 14ft.
Angle of Internal Friction = 20'
Soil Weight = 55 pcf (Submerged)

Design Water Table is 7 ft. below surface.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

PATRICK M. MCKEE, P.E.
P.E. LICENSE NUMBER: 63122
KEVER MAKEE ENGINEERING
1624 METROPOLITAN BLVD. SUITE A
TALLAHASSEE, FL 32308

ESCAMBIA COUNTY

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR 297A	ESCAMBIA	------

MAST ARM ASSEMBLIES DATA TABLE

SHEET NO. T-7

NOVA

KEY TO BORING LOGS

SYMBOLS AND ABBREVIATIONS

SYMBOL	DESCRIPTION
N-Value	No. of Blows of a 140-lb. Weight Falling 30 Inches Required to Drive a Standard Spoon 1 Foot
WOR	Weight of Drill Rods
WOH	Weight of Drill Rods and Hammer
	Sample from Auger Cuttings
	Standard Penetration Test Sample
	Thin-wall Shelby Tube Sample (Undisturbed Sampler Used)
% REC	Percent Core Recovery from Rock Core Drilling
RQD	Rock Quality Designation
	Stabilized Groundwater Level
	Seasonal High Groundwater Level (also referred to as the W.S.W.T.)
NE	Not Encountered
GNE	Groundwater Not Encountered
BT	Boring Terminated
-200 (%)	Fines Content or % Passing No. 200 Sieve
MC (%)	Moisture Content
LL	Liquid Limit (Atterberg Limits Test)
PI	Plasticity Index (Atterberg Limits Test)
K	Coefficient of Permeability
Org. Cont.	Organic Content
G.S. Elevation	Ground Surface Elevation

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE-GRAINED SOILS More than 50% retained on the 3in No. 200 sieve*	GRAVELS 50% or more of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
			GP	Poorly-graded gravels and gravel-sand mixtures, little or no fines
		GRAVELS WITH FINES	GM	Silty gravels and gravel-sand-silt mixtures
			GC	Clayey gravels and gravel-sand-clay mixtures
	SANDS More than 50% of coarse fraction passes No. 4 sieve	CLEAN SANDS 5% or less passing No. 200 sieve	SW**	Well-graded sands and gravelly sands, little or no fines
			SP**	Poorly-graded sands and gravelly sands, little or no fines
		SANDS with 12% or more passing No. 200 sieve	SM**	Silty sands, sand-silt mixtures
			SC**	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS 50% or more passes the 3in No. 200 sieve*	SILTS AND CLAYS Liquid limit 50% or less		ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS Liquid limit greater than 50%		MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity
HIGHLY ORGANIC SOILS			PT	Peat, muck and other highly organic soils

*Based on the material passing the 3-inch (75 mm) sieve
** Use dual symbol (such as SP-SM and SP-SC) for soils with more than 5% but less than 12% passing the No. 200 sieve

RELATIVE DENSITY
(Sands and Gravels)
Very loose – Less than 4 Blow/Foot
Loose – 4 to 10 Blows/Foot
Medium Dense – 11 to 30 Blows/Foot
Dense – 31 to 50 Blows/Foot
Very Dense – More than 50 Blows/Foot

CONSISTENCY
(Silts and Clays)
Very Soft – Less than 2 Blows/Foot
Soft – 2 to 4 Blows/Foot
Medium Stiff – 5 to 8 Blows/Foot
Stiff – 9 to 15 Blows/Foot
Very Stiff – 16 to 30 Blows/Foot
Hard – More than 30 Blows/Foot

RELATIVE HARDNESS
(Limestone)
Soft – 100 Blows for more than 2 Inches
Hard – 100 Blows for less than 2 Inches

MODIFIERS

These modifiers Provide Our Estimate of the Amount of Minor Constituents (Silt or Clay Size Particles) in the Soil Sample
Trace – 5% or less
With Silt or With Clay – 6% to 11%
Silty or Clayey – 12% to 30%
Very Silty or Very Clayey – 31% to 50%

These Modifiers Provide Our Estimate of the Amount of Organic Components in the Soil Sample
Trace – Less than 3%
Few – 3% to 4%
Some – 5% to 8%
Many – Greater than 8%

These Modifiers Provide Our Estimate of the Amount of Other Components (Shell, Gravel, Etc.) in the Soil Sample
Trace – 5% or less
Few – 6% to 12%
Some – 13% to 30%
Many – 31% to 50%

NOVA

TEST BORING RECORD B-1

PROJECT: CR-297A and CR-97 Traffic Signals — PROJECT NO.: 10116-2020197
CLIENT: HSA Consulting Group
PROJECT LOCATION: Escambia County, Florida
LOCATION: Per Boring Location Plan — ELEVATION: Existing Grade
DRILLER: S. Ryan — LOGGED BY: J. James
DRILLING METHOD: SPT Boring, Autohammer* — DATE: November 20, 2020
DEPTH TO - WATER> INITIAL: ▽ 10 ft. AFTER 24 HOURS: ▽ ____ CAVING> ℄ ____

Depth (feet)	Elevation (ft MSL)	Description	Graphic	Groundwater	Sample Type	N-Value
0		TOPSOIL (Approx. 3-inches)				8
		Brown loose fine-grained silty SAND (SM)				4
		Brown/gray loose fine-grained clayey SAND with seams of grey/orange slightly silty sand (SC)				6
5						6
						6
		Light grey loose fine-grained slightly silty SAND (SP-SM)		▽		6
10						
		Dark brown/gray loose fine-grained clayey SAND (SC)				6
		Light grey loose to medium dense fine-grained slightly silty SAND (SP-SM)				8
15						8
						16
20						14
		Brown medium stiff high-plasticity CLAY (CH)				6
25		Boring Terminated at 25 ft.				
30						
35						

%<#200 ■ BLOW COUNT ● NATURAL MOISTURE ▲
PLASTIC LIMIT | LIQUID LIMIT
10 20 30 40 50 70 90

This information pertains only to this boring and should not be interpreted as being indicative of the site.

NOTE: Automatic hammer was calibrated to have 93% effeciency.

Page 1 of 1

NOVA

TEST BORING RECORD B-2

PROJECT: CR-297A and CR-97 Traffic Signals — PROJECT NO.: 10116-2020197
CLIENT: HSA Consulting Group
PROJECT LOCATION: Escambia County, Florida
LOCATION: Per Boring Location Plan — ELEVATION: Existing Grade
DRILLER: S. Ryan — LOGGED BY: J. James
DRILLING METHOD: SPT Boring, Autohammer* — DATE: November 20, 2020
DEPTH TO - WATER> INITIAL: ▽ 8 ft. AFTER 24 HOURS: ▽ ____ CAVING> ℄ ____

Depth (feet)	Elevation (ft MSL)	Description	Graphic	Groundwater	Sample Type	N-Value
0		TOPSOIL (Approx. 3-inches)				4
		Brown/orange loose fine-grained silty SAND (SM)				7
5						5
		GRAVEL and CONCRETE fragments.				5
		Light grey/brown loose fine-grained slightly silty SAND (SP-SM)		▽		21
10		Orange medium dense fine-grained slightly silty SAND (SP-SM)				
		Brown/dark gray soft to medium stiff high-plasticity CLAY (CH)				5
15						4
						6
20						7
						6
25		Boring Terminated at 25 ft.				
30						
35						

%<#200 ■ BLOW COUNT ● NATURAL MOISTURE ▲
PLASTIC LIMIT | LIQUID LIMIT
10 20 30 40 50 70 90

This information pertains only to this boring and should not be interpreted as being indicative of the site.

NOTE: Automatic hammer was calibrated to have 93% effeciency.

Page 1 of 1

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

WILLIAM LEE LAWRENCE, P.E.
P.E. LICENSE NUMBER 60147
NOVA ENGINEERING AND ENVIRONMENTAL, LLC.
104-A LURTON ST
PENSACOLA FL, 32505

ESCAMBIA COUNTY

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR 297A	ESCAMBIA	------

REPORT OF SIGNAL BORINGS

SHEET NO. T-8