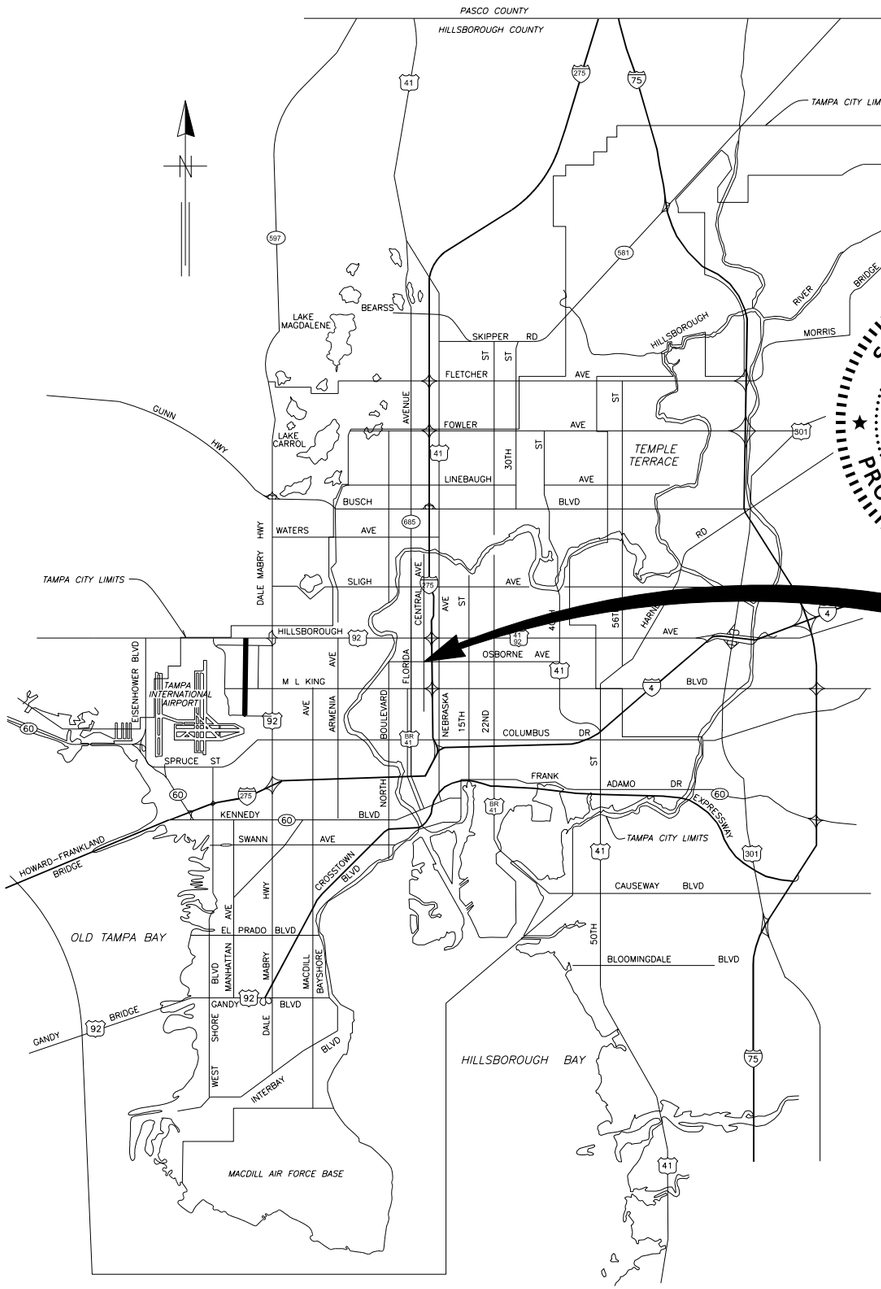
LOCATION MAP



SARA M. BERESHEIM
LICENSE
No 63951
STATE OF FLORIDA
PROFESSIONAL ENGINEER

JOHNSON, MIRMIRAN & THOMPSON, INC.
2000 EAST 11th AVENUE, SUITE 300
TAMPA, FL 33605-3830
CERTIFICATE OF AUTHORIZATION: 5917
SARA M. BERESHEIM, P.E. NO. 63951

CITY of TAMPA

CITY OF TAMPA FLORIDA
MASCOTTE
ORGANIZED JULY 15 1887

PLANNING AND DEVELOPMENT DEPARTMENT

CENTRAL AVENUE AT OSBORNE AVENUE

SIGNALIZATION PLANS

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THIS SHEET IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS SHEET HAS BEEN DIGITALLY SIGNED AND SEALED USING A DIGITAL SIGNATURE.
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SHEET INDEX

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T-8	MAST ARM TABULATION
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T-10*	REPORT OF CORE BORINGS

* THIS SHEET IS INCLUDED IN THE INDEX OF SIGNALIZATION PLANS ONLY TO INDICATE THAT IT IS PART OF THE SIGNALIZATION PLANS. THIS SHEET IS CONTAINED IN A SEPARATE DIGITALLY SIGNED AND SEALED DOCUMENT.

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE FLORIDA DEPT. OF TRANSPORTATION, ROADWAY AND TRAFFIC DESIGN STANDARDS (DATED JULY 2016), THE FLORIDA DEPT. OF TRANSPORTATION, STANDARD SPECIFICATIONS (DATED JAN. 2016) AND SUPPLEMENTS THERETO, AND THE LATEST HILLSBOROUGH COUNTY, STANDARD SPECIFICATIONS.

JMT
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The Enclosed Document Is Provided For Your Convenience.

Please Email ALL Questions:

MailTo:ContractAdministration@TampaGov.net

City of Tampa
Contract Administration Department
306 E. Jackson St. #280A4N
Tampa, FL 33602
(813)274-8456

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	PLAN	FINAL													TOTAL THIS SHEET PLAN	TOTAL THIS SHEET FINAL	GRAND TOTAL PLAN	GRAND TOTAL FINAL
0101-1	MOBILIZATION	LS	1														1		1	
0102-1	MAINTENANCE OF TRAFFIC	LS	1														1		1	
0110-1-1	CLEARING & GRUBBING	LS/AC	1/0.02														1/0.02		1/0.02	
0110-4-10	REMOVAL OF EXISTING CONCRETE	SY	97														97		97	
0162-1-11	PREPARED SOIL LAYER	SY	14														14.0		14	
0520-2-4	CURB TYPE D	LF	87														87		87	
0522-2	CONCRETE SIDEWALK 6" THICK	SY	99														99		99	
0527-2	DETECTABLE WARNING	SF	76														76		76	
0570-1-2	PERFORMANCE TURF, SOD	SY	119														119		119	
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	235														235		235	
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	147														147		147	
632-7-1	SIGNAL CABLE-NEW OR RECONSTRUCTED INTERSECTION, F & I	PI	1														1		1	
635-2-11	PULL & SPLICE BOX, F & I, 13" X 24" COVER SIZE	EA	13														13		13	
639-1-122	ELECTRICAL POWER SERVICE, F & I, UNDERGROUND, METER, PURCHASED BY CONTRACTOR	AS	1														1		1	
639-1-610	ELECTRICAL POWER SERVICE, REMOVE, OVERHEAD	AS	1														1		1	
639-2-1	ELECTRICAL SERVICE WIRE	LF	94														94		94	
641-2-12	PRESTRESSED CONCRETE POLE, F & I, TYPE P-II SERVICE POLE	EA	1														1		1	
643-600	WOOD STRAIN POLES, REMOVE	EA	3														3		3	
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	4														4		4	
649-21-9	STEEL MAST ARM ASSEMBLY, F & I, DOUBLE ARM, 50'-50'	EA	1														1		1	
649-21-12	STEEL MAST ARM ASSEMBLY, F & I, DOUBLE ARM, 60'-40'	EA	1														1		1	
650-1-14	TRAFFIC SIGNAL, F & I, ALUMINUM, 3 SECTION, 1 WAY	AS	12														12		12	
653-1-11	PEDESTRIAN SIGNAL, F & I, LED COUNTDOWN, 1 WAY	AS	8														8		8	
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F & I, CABINET EQUIPMENT	EA	1														1		1	
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F & I, ABOVE GROUND EQUIPMENT	EA	1														1		1	
665-1-11	PEDESTRIAN DETECTOR, F & I, STANDARD	EA	8														8		8	
670-5-110	TRAFFIC CONTROLLER ASSEMBLY, F & I, NEMA, NONE	AS	1														1		1	
670-5-600	TRAFFIC CONTROLLER ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS	1														1		1	
700-1-50	SINGLE POST SIGN, RELOCATE	AS	2														2		2	
700-5-22	INTERNALLY ILLUMINATED SIGN, F & I, OVERHEAD MOUNT, 12 - 18 SF	EA	4														4		4	
0102-1	MAINTENANCE OF TRAFFIC	LS	1														1		1	
0327-70-1	MILLING EXISTING ASPH PAVT, 1" AVG. DEPTH	SY	652														652		652	
0337-7-81	ASPHALTIC CONCRETE FRICTION COURSE, FC-9.5	TN	35.9														36		36	
710-90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	LS	1														1		1	
*	PAINT, STANDARD, WHITE, SOLID, 6"																			
*	PAINT, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK																			
*	PAINT, STANDARD, WHITE, SOLID, 24"																			
*	PAINT, STANDARD, YELLOW, SOLID, 6"																			
711-11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK	LF	342														342		342	
711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24"	LF	101														101		101	
711-14-125	THERMOPLASTIC, PREFORMED, WHITE, SOLID 24"	LF	290														290		290	
711-16-101	THERMOPLASTIC, STANDARD - OTHER SURFACES, WHITE, SOLID 6"	GM	0.002														0.002		0.002	
711-16-201	THERMOPLASTIC, STANDARD - OTHER SURFACES, YELLOW, SOLID 6"	GM	0.004														0.004		0.004	

* THESE QUANTITIES ARE PAID FOR UNDER PAINTED PAVEMENT MARKINGS (FINAL SURFACE), LUMP SUM - ITEM NO. 710-90. THE QUANTITIES ARE SHOWN FOR ONE APPLICATION; SEE FDOT SPECIFICATION 710 FOR THE NUMBER OF APPLICATIONS REQUIRED.

SARA M. BERESHEIM LICENSE No 63951 STATE OF FLORIDA PROFESSIONAL ENGINEER

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SARA M. BERESHEIM, P.E. 63951

Drawn:	RMR	Date: 9/16
Designed:	RMR	Date: 9/16
Checked:	SMB	Date: 9/16
Reviewed:	SCQ	Date: 9/16
Approved:	SMB	Date: 9/16
Approved:		Date:

No:	Date:	Revision:	By:

City of Tampa Florida

CITY OF TAMPA
PLANNING & DEVELOPMENT
DEPARTMENT

CENTRAL AVENUE at OSBORNE AVENUE
TABULATION OF QUANTITIES

Field Book:	
Atlas Sheet:	
File No.	Index No. T-2
Job No.	
Scale:	
SHEET	

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SIGNALIZATION:

1. MEET THE CRITERIA OUTLINED IN "THE MINIMUM SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND DEVICES".

2. ONE WEEK PRIOR TO THE START OF TRAFFIC SIGNAL INSTALLATION, THE SIGNAL CONTRACTOR SHALL CONTACT:
   A. MR. SCOTT KEITH
      CITY OF TAMPA SIGNAL SHOP
      3802 EAST 26th ANENUE
      TAMPA, FL 33605-1626
      PHONE: (813) 951-2915
      EMAIL: scott.keith@tampagov.net

3. NOTIFY THE CITY OF TAMPA TRAFFIC SIGNAL SUPERINTENDENT AND THE TMC AT LEAST 24 HOURS IN ADVANCE OF ANY SIGNAL RELATED WORK AND BEFORE CUTTING/ DISCONNECTING THE COMMUNICATIONS CABLE. FAILURE TO PROVIDE THIS NOTICE MAY RESULT IN REJECTION OF ALL UNINSPECTED WORK.

4. NOTIFY TAMPA ELECTRIC COMPANY (TECO) (CONTACT TECO FOR REQUIRED TIME FRAME) IN ADVANCE OF SETTING ANY POLE WHERE CONFLICT WITH AN OVERHEAD ELECTRICAL CONDUCTOR EXISTS AND IN ALL CASES WHERE JOINT USE POLES ARE CALLED FOR ON THE PLANS. IN AREAS OF LIMITED OVERHEAD CLEARANCE CONTRACTOR IS TO USE A LOW PROFILE DRILL RIG.

5. REMOVED CONTROLLER CABINET SHALL BE RETURNED TO THE CITY OF TAMPA OR DISPOSED OF AS DIRECTED BY THE TRAFFIC SIGNAL SUPERINTENDENT, (813) 951-2915.

6. SUBMIT THE AS-BUILT PLANS TO THE ENGINEER FOR FINAL ACCEPTANCE. THE ENGINEER SHALL PROVIDE AT LEAST ONE COMPLETE COPY OF THE PLANS, IN AN ACCEPTABLE ELECTRONIC FORMAT (AUTOCAD) TO THE CITY OF TAMPA FOR THEIR RECORDS.

7. FIELD VERIFY ALL CRITICAL ELEVATIONS PRIOR TO ORDERING SIGNAL STRAIN POLES AND MAST ARMS

8. THE TYPE OF EQUIPMENT USED IN THE INSTALLATION OF MAST ARMS/FOUNDATIONS, OVERHEAD/CANTILEVER SIGNS/FOUNDATIONS, AND THE MOVEMENT/INSTALLATION OF STRAIN POLES SHALL MEET THE FOLLOWING REQUIREMENTS:
   A. OVERHEAD LINES SHALL STAY IN PLACE BOTH VERTICALLY AND HORIZONTALLY.
   B. MEET ALL APPLICABLE OSHA REQUIREMENTS. ANY COST ASSOCIATED WITH THE TYPES OF EQUIPMENT REQUIRED FOR THIS INSTALLATION IS INCLUDED IN THE RELATED PAY ITEMS.

9. SIGNAL TIMINGS SHALL BE FURNISHED BY THE CITY OF TAMPA.

10. THE CONTRACTOR SHALL CONTACT THE CITY OF TAMPA SIGNAL SUPERINTENDENT AT (813) 951-2915 FOR CABLE SPECIFICATIONS BEFORE ORDERING SIGNAL CABLE FOR PROJECT AND REQUEST A GENERAL CONTRACTORS PACKAGE AS A REFERENCE TO ALL EQUIPMENT AND MATERIALS.

11. ALL WIRING SHALL BE IN ACCORDANCE WITH CITY OF TAMPA WIRING STANDARDS. CONTACT TRAFFIC SIGNAL SUPERINTENDENT FOR INFORMATION REGARDING CITY WIRING STANDARDS AT (813) 951-2915.

12. TRAFFIC SIGNAL CABLE PROVIDING POWER TO VEHICULAR AND PEDESTRIAN SIGNAL HEADS SHALL NOT BE INSTALLED IN THE SAME CONDUIT CONTAINING LOOP LEAD-INS AND PEDESTRIAN DETECTOR CABLES. (HIGH VOLTAGE AND LOW VOLTAGE CABLE OR WIRE ARE TO BE SEPARATED BY CONDUIT AND PULL BOX.)

13. VERTICAL CLEARANCE ON TRAFFIC SIGNAL HEADS SHALL MEET FDOT STANDARDS.

14. DISCONNECT HANGARS OR ASTRO BRACKETS SHALL BE FDOT CERTIFIED AND MEET CITY OF TAMPA SPECIFICATIONS. DISCONNECT WIRING SHALL MEET CITY STANDARDS. CONTACT TRAFFIC SIGNAL SUPERINTENDENT FOR DISCONNECT WIRING STANDARDS AT (813) 951-2915.

15. THE CONTRACTOR IS TO DE-WATER FOUNDATION EXCAVATION IF THE ELEVATION OF GROUND WATER IS HIGHER THAN THE ELEVATION OF THE FOUNDATION BASE.

16. ELECTRICAL SERVICE AUTHORIZATION AND SERVICE RELEASE MUST BE COORDINATED IN ADVANCE THROUGH THE TRAFFIC OPERATIONS CHIEF. CONTACT THE TRAFFIC SIGNAL SUPER-INTENDENT FOR INSTRUCTIONS AT (813) 951-2915. ALL TECO ELECTRICAL SERVICE FEES SHALL BE INCLUDED AS PART OF SIGNAL COST. NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

17. WHEN A CONTRACTOR IS DOING SIGNAL WORK IN AN INTERSECTION (INSTALLING CON-DUIT IN THE STREET, REMOVING EXISTING SIGNAL EQUIPMENT, INSTALLING LOOPS AND RUNS, AND TURNING ON OF NEW SIGNALS) WHERE A LANE IS CLOSED, THE PROJECT ENGINEER MAY REQUIRE AN OFF-DUTY LAW ENFORCEMENT OFFICER TO DIRECT TRAFFIC. THE HOURLY RATE OF PAY FOR AN OFF-DUTY LAW ENFORCEMENT OFFICER CAN BE OBTAINED FROM THE OFFICE OF THE LAW ENFORCEMENT OFFICER. THIS IS IN ADDITION TO PROPER MAINTENANCE OF TRAFFIC.

PAY ITEM FOOTNOTES:

1. 630-2-11:
   ALL CONDUIT RUNS SHOWN ON THE PLANS ARE SCHEMATIC AND FIELD ADJUSTMENTS MAY BE NECESSARY. WITH THE EXCEPTION OF ELECTRICAL POWER SERVICE DUCTS, ALL UNDERGROUND AND UNDER PAVEMENT CONDUITS SHALL BE SCHEDULE 40 PVC WITH A MINIMUM SIZE OF TWO INCHES UNLESS OTHERWISE SPECIFIED IN THE PLANS. TWO SEPARATE UNDERGROUND CONDUIT RUNS LOCATED 180 DEGREES APART ARE REQUIRED FOR ALL SIGNAL MAST ARMS. THERE SHALL BE A MINIMUM OF TWO RUNS OF TWO INCH CONDUIT BETWEEN THE LAST LOW VOLTAGE (LOOPS) PULL BOX LOCATED NEAR THE CONTROLLER CABINET AND THE CONTROLLER CABINET.

   CONDUIT SHALL BE INSTALLED, BACKFILLED, AND RESTORED IN ACCORDANCE WITH APPLICABLE STANDARDS AND/OR AS INSTRUCTED BY THE GOVERNING/PERMITTING AGENCY. MINIMUM DEPTH OF CONDUIT SHALL BE 36".

   CONTROLLER BASE SHALL CONTAIN A MIN. OF FOUR CONDUITS. UNUSED CONDUITS TO BE CAPPED IN CABINET AND STUBBED INTO NEAREST SIGNAL PULLBOX.

   THE TERMINATION ENDS OF ALL POLYVINYL CHLORIDE (PVC) PLASTIC CONDUIT ENTER-ING ALL PULLBOXES AND CABINET BASES SHALL BE FITTED WITH AN END BELL DUCT FITTING PRIOR TO ANY PULL-LINE OR CABLE INSTALLATION.

630-2-11 (CONT.):
NEPT INC. MULE TAPE # 1250 P3 MF 11.75 FX 9.5 1250 LB AND A 14 GAUGE XHHW WIRE FOR TRACING OR APPROVED EQUAL SHALL BE INSTALLED IN ALL CONDUITS WHICH ARE TO RECEIVE CABLE AT A FUTURE TIME. AT LEAST THREE FEET OF PULL-LINE SHALL BE ACCESSIBLE AT EACH CONDUIT TERMINATION AND SECURED WITHIN THE PULLBOX AND PLACE OF TERMINATION.

DETECTABLE LOCATING TAPE SHALL BE PLACED OVER THE CENTERLINE OF ALL PVC PIPES AT ONE FOOT BELOW GRADE. PAYMENT FOR DETECTABLE LOCATING TAPE IS INCLUDED IN THE PAY ITEM FOR CONDUIT.

IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY DIRECTIONAL BORE OR TRENCHING.

ALL CONDUIT WITH PULL-LINE INSTALLED SHALL BE SEALED AND CAPPED TO AVOID DEBRIS AND SOIL FROM ENTERING DURING CONSTRUCTION.

CONDUIT TRENCH UNDER PAVEMENT SHALL BE STABILIZED WITH 12" OF TYPE "C" STABILIZATION. PAYMENT SHALL BE INCLUDED IN PAY ITEM "CONDUIT (UNDER PAVEMENT)" AND NO OTHER ADDITIONAL COMPENSATION WILL BE PROVIDED.

2. 632-7-1:
   EACH PHASE/MOVEMENT SHALL BE CONTINOUS LENGTHS OF CABLE WIRED FROM EACH SIGNAL DISPLAY TO THE CONTROLLER AS A SEPARATE PHASE/MOVEMENT. THIS INCLUDES THE LEFT TURN MOVEMENT WHICH SHALL HAVE CONDUCTORS AVAILABLE FOR EITHER PROTECTED OR PERMISSIVE MOVEMENTS. THE CONTRACTOR SHALL VERIFY COLOR CODES FOR SIGNAL CABLE AND FIBER OPTIC CABLE WITH THE CITY OF TAMPA TRAFFIC SIGNAL SUPERVISOR BEFORE ORDERING AND WIRE THE SIGNAL IN ACCORDANCE WITH THAT COLOR CODE AND CITY OF TAMPA SPECIFICATIONS. THERE SHALL BE ONE NEUTRAL PER APPROACH. DAISY CHINING IS NOT ALLOWED.

3. 635-2-11:
   PULLBOXES SHALL BE "CHRISTY FIBERLITE" AND SHALL BE OF A PRODUCT SERIES EQUIVALENT FOR PULLING COPPER OR FIBER OPTIC CABLE. SIGNALIZATION PULL BOXES AND COVERS MUST INCLUDE THE RAISED LOGO "TRAFFIC SIGNAL", INTERCONNECT PULL BOXES AND SPLICE BOXES MUST INCLUDE THE RAISED LOGO "CITY OF TAMPA FIBER OPTIC".

4. 639-2-1:
   THE PAYMENT OF THIS ITEM IS THE LENGTH OF COMPLETE WIRE RUN (ALL CONDUCTORS INCLUDED), NOT PER EACH CONDUCTOR.

5. 641-2-12, 649-21-9 AND 649-21-12:
   AT LOCATIONS WHERE UNDERGROUND UTILITIES ARE IN CLOSE PROXIMITY TO THE SIGNAL POLE FOUNDATION, AS DETERMINED BY THE CONTRACTOR, THE CONTRACTOR SHALL HAND DIG THE FIRST FOUR FEET OF THE HOLE FOR THE POLE FOUNDATION.

   SPLICES WILL NOT BE ALLOWED AT THE HANDHOLE OF THE MAST ARM. NEW SIGNAL CABLE SHALL BE RUN TO EACH SIGNAL HEAD.

   EACH MAST ARM SHALL HAVE TWO TRUNK LINES FROM THE CONTROLLER CABINET TO EACH MAST ARM POLE FOR THE SIGNAL HEADS AND ONE INDIVIDUAL TRUNK LINE FROM THE CONTROLLER CABINET TO EACH PEDESTRIAN POLE FOR THE PEDESTRIAN SIGNAL HEADS. PEDESTRIAN SIGNAL CABLE SHALL NOT BE JUMPERED FROM CORNER TO CORNER.

   CITY OF TAMPA STANDARD DRAWINGS FOR MAST ARMS ARE AVAILABLE AT THE CITY ANNEX, 306 E. JACKSON STREET, 5TH FLOOR, NORTH WING.

POLE AND MAST ARM SIGNAL INSTALLATIONS: FOUNDATIONS FOR POLE AND MAST ARMS SHALL NOT BE POURED UNLESS A CITY OF TAMPA INSPECTOR IS ON SITE. THERE ARE NO EXCEPTIONS. CONTACT VIK BHIDE TRAFFIC DESIGN ENGINEER AT (813) 274-8066 48 HOURS PRIOR TO POURING FOUNDATION.

6. 646-1-11: ALUMINUM PEDESTALS SHALL BE MOUNTED ON TRANSFORMER BASE.

7. 650-1-14:
   ALL SIGNAL HEADS SHALL HAVE BACKPLATES WITH YELLOW REFLECTIVE BORDERS.
   ALL SIGNAL HEADS SHALL HAVE TUNNEL VISORS.
   ALL TRAFFIC SIGNAL HEADS MUST BE FDOT CERTIFIED, CAST ALUMINUM RED SECTION WITH POLYCARBONATE AMBER AND GREEN SECTIONS, WITH STAINLESS STEEL HARDWARE, AND TUNNEL VISORS. ALL SIGNAL INDICATIONS SHALL BE AN L.E.D. INDICATION. ALL LED SIGNAL HEADS SHALL MEET CITY SPECIFICATIONS.

8. 653-1-11:
   PEDESTRIAN SIGNAL SHALL BE COUNTDOWN WITH OVERLAY/FILLED/FILLED HAND AND PEDESTRIAN SYMBOLS AND SHALL BE FDOT APPROVED PRODUCT.
   ALL PEDESTRIAN SIGNAL HEADS MUST BE FDOT CERTIFIED COUNT DOWN HEADS, WITH CAST ALUMINUM HOUSING, USING LED INTERNATIONAL SYMBOLS, MEETING CITY OF TAMPA SPECIFICATIONS AND ALL PUSH BUTTONS SHALL BE WIRED SEPARATELY USING LOW VOLTAGE BELDON WIRE PLACED IN SEPARATE LOW VOLTAGE CONDUIT OR LOW VOLTAGE PULL BOX.

   PEDESTRIAN SIGNAL GROUND RODS SHALL BE WITHIN THE PEDESTRIAN SIGNAL FOUNDATION OR WITHIN A PULL BOX WITHIN 10 FT OF THE PEDESTRIAN POLE. 20 FT OF GROUND ROD PER POLE. GROUND RODS NEED TO BE ACCESSIBLE FOR INSPECTION.

9. 665-1-11:
   SHALL INCLUDE ADDITIONAL COST OF LABOR AND MATERIALS REQUIRED FOR INSTALLATION OF PEDESTRIAN SIGNAL SIGN FTP-68B-06.

10. 665-1-12:
    LATCHING PUSH BUTTON: INCIDENTAL EQUIPMENT FOR THIS UNIT AND COST WILL BE INCLUDED UNDER THIS PAY ITEM NUMBER SHALL INCLUDE VISUAL INDICATION OF ACTUATION AND SHALL REMAIN ILLUMINATED UNTIL THE PEDESTRIAN WALK INDICATION IS DISPLAYED. PUSH BUTTON SHALL HAVE A TACTILE ARROW.

11. 670-5-110:
    THE CONTRACTOR TO SUPPLY THE TRAFFIC CABINET AND CONTROLLER. CONTACT C.O.T. SIGNAL SHOP FOR ACCEPTABLE CHOICE OF CONTROLLER, MMU AND CABINET.

    THIS PAY ITEM SHALL INCLUDE ALL COSTS ASSOCIATED WITH FURNISHING AND INSTALLING A FULLY LOADED TS2 TYPE-1, SIZE P-44 CONTROLLER CABINET ASSEMBLY WITH AN EIGHT PHASE BACKPLANE, MINIMUM SIXTEEN LOAD BAY POSITIONS, NO PAINT OUTSIDE, WHITE PAINT INSIDE, GPS CLOCK SYNC, TWO QUAD OUTLETS, ONE DUPLEX GFI, WALL MOUNT PATCH PANEL (12X SINGLE MODE WITH SC-CONNECTORS), ETHERNET EDGE SWITCH, CONTROLLER WITH CENTRAL SOFTWARE LICENSE COMPATIBLE WITH THE CITY'S CENTRACS TRAFFIC CONTROL SYSTEM AND MMU. THE CONTRACTOR SHALL NOTIFY THE CITY OF TAMPA SIGNAL SHOP AT LEAST 48 HOURS IN ADVANCE OF TURNING ON A NEW OR MODIFIED CONTROLLER CABINET ASSEMBLY. CABINET DOOR SHALL OPEN AWAY FROM TRAFFIC, THE TECNICIAN SLAB SHALL BE A MAXIMUM OF 4" BELOW THE TOP OF THE CONCRETE PAD, THIS SHALL INCLUDE ADDITIONAL COST OF LABOR, CONCRETE AND OTHER MATERIALS FOR CONTROLLER BASE, PAD AND STEPS AS ONE UNIT.

    CONNECT INTERNALLY ILLUMINATED STREET NAME SIGN CONDUCTORS TO PHOTOELECTRIC CELL LOCATED INSIDE THE CONTROLLER CABINET AND PHOTOELECTRIC CELL CONDUCTORS TO INTERNALLY ILLUMINATED STREET NAME SIGN PANEL LOCATED INSIDE THE CONTROLLER CABINET. THIS ITEM SHALL INCLUDE A PLEXIGLASS WINDOW KIT (LIGHT ACCESS) FOR THE INSTALLATION OF A PHOTOELECTRIC CELL INSIDE THE CONTROLLER CABINET AND SHALL BE INSTALLED BY THE MANUFACTURER OF THE CABINET.

    THE CONTRACTOR SHALL PROVIDE SUBMITTAL DOCUMENTATION ON ALL EQUIPMENT AND MISCELLANEOUS MATERIALS TO BE UTILIZED ON THIS PROJECT TO THE TRAFFIC OPERATIONS CHIEF. THIS SHALL BE ACCOMPLISHED PRIOR TO ORDERING ANY EQUIPMENT FOR THIS PROJECT.

    THE CONTROLLER SHALL HAVE THE CAPABILITY OF SENDING AND RECEIVING DATA TO AND FROM A LAPTOP PERSONAL COMPUTER AT THE INTERSECTION.

    SHALL INCLUDE A MANUAL PUSHBUTTON WITH CORD AS SPECIFIED IN THE STANDARD SPECIFICATION (TRAFFIC SIGNALS), SECTION A 676-01 (C), POLICE SWITCHES. E.C.T.C.D.

    CONTROLLER SHALL BE CAPABLE OF S.O.P. 10, WITH TBC CAPABILITY.

    THE TOP ELEVATION OF THE CONTROLLER BASE SHALL BE GREATER THAN THE CROWN OF THE ROADWAY.

12. 660-4-11 AND 660-4-12:
    THIS ITEM SHALL INCLUDE ALL LABOR AND MATERIALS REQUIRED TO FURNISH AND INSTALL A VIDEO DETECTION SYSTEM INCLUDING: VIDEO CAMERA, PROCESSORS, INTERFACE UNITS, CABLE PLANTS, MOUNTING BRACKETS, AND ANY ADDITIONAL EQUIPMENT REQUIRED TO MAKE A COMPLETE ACCEPTABLE SYSTEM. CABLE SHALL HAVE NO SPLICE BETWEEN THE VIDEO CAMERA AND THE CONTROLLER CONNECTION. VIDEO CAMERA DETECTION SYSTEM SHALL BE COMPATABLE WITH THE CITY OF TAMPA CONTROLLER EQUIPMENT, CABINET, AND TRAFFIC SIGNAL COMPUTER SYSTEM. THE CONTRACTOR SHALL COORDINATE WITH THE MAINTAINING AGENCY FOR UNIT ACCEPTANCE. CONTACT JOHN GASKINS WITH TRAFFIC CONTROL SYSTEMS FOR PROPER INSTALLATION.

13. 700-5-22:
    ILLUMINATED STREET NAME SIGNS SHALL BE LED SUPPLIED BY THE CONTRACTOR.
    BID ITEM FOR SIGNS SHALL BE FURNISH AND INSTALL ONLY AND WILL INCLUDE ELECTRICAL SERVICE WIRE. WIRE SHALL BE IMSA 50-2 14 AWG.

    SIGN MATERIAL FOR ILLUMINATED STREET NAME SIGNS SHALL BE 3M GREEN EC FILM OVER DIAMOND GRADE VIP SHEETING.

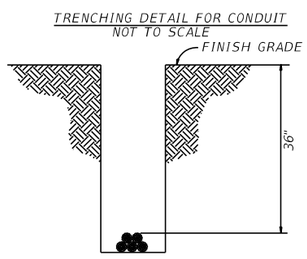
TEMPORARY SIGNALIZATION:

1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO PROVIDE AND MAINTAIN OPERATION OF TEMPORARY SIGNALIZATION DURING ALL PHASES OF CONSTRUCTION INCLUDING VEHICLE DETECTION AND PEDESTRIAN OPERATIONS UNTIL PERMANENT SIGNALIZATION IS INSTALLED AND FUNCTIONING PROPERLY.

2. THE WORK INCLUDES ALL EVACUATION, BACKFILL, SHEETING, SHORING, BRACING, INSTALL-TION OF WOOD SIGNAL POLES, GUY WIRING, SIGNAL HEADS AND CONNECTING HARDWARE, SPANWIRE, MESSENGER WIRE, SIGNAL CABLE, ELECTRICAL SERVICE, WIRE AND SERVICE ATTACHMENT,CONTROLLER AND POLE MOUNTED CABINET; RELOCATION OF SIGNAL HEADS DURING CONSTRUCTION PHASING; AND ALL OTHER WORK AND HARDWARE INCIDENTAL TO PROVIDING AND MAINTAINING THE OPERATION OF TEMPORARY SIGNALIZATION.

3. PAYMENT IN FULL FOR TEMPORARY SIGNALIZATION SHALL BE INCLUDED IN THE PAY ITEM NO. 102-1, MAINTENANCE OF TRAFFIC AND NO SEPARATE PAYMENT SHALL BE MADE.

TRENCHING DETAIL FOR CONDUIT
NOT TO SCALE



JOINT USE: TECO CONDUCTORS IN THEIR NORMAL POSITION.

SARA M. BERESHEIM
LICENSE
No 63951
STATE OF FLORIDA
PROFESSIONAL ENGINEER

JOHNSON, MIRMIRAN & THOMPSON, INC.
2000 EAST 11th AVENUE, SUITE 300
TAMPA, FL 33605-3830
CERTIFICATE OF AUTHORIZATION: 5917
SARA M. BERESHEIM, P.E. NO. 63951

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THIS SHEET IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C. THIS SHEET HAS BEEN DIGITALLY SIGNED AND SEALED USING A DIGITAL SIGNATURE.
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JMT
2000 EAST 11TH AVENUE, SUITE 300, TAMPA, FL 33605
PHONE: (813)314-0314 FAX: (813)314-0345
FBPE CERTIFICATE OF AUTHORIZATION NO. 5917
SARA M. BERESHEIM, P.E. 63951

Drawn:	RMR	Date: 9/16				
Designed:	RMR	Date: 9/16				
Checked:	SMB	Date: 9/16				
Reviewed:	SCQ	Date: 9/16				
Approved:	SMB	Date: 9/16				
Approved:		Date:	No:	Date:	Revision:	By:

City of Tampa Florida

CITY OF TAMPA
PLANNING & DEVELOPMENT
DEPARTMENT

CENTRAL AVENUE at OSBORNE AVENUE
SIGNALIZATION GENERAL NOTES

Field Book:	
Atlas Sheet:	
File No.	Index No.
Job No.	T-3
Scale:	
SHEET	

CONSTRUCTION PHASING

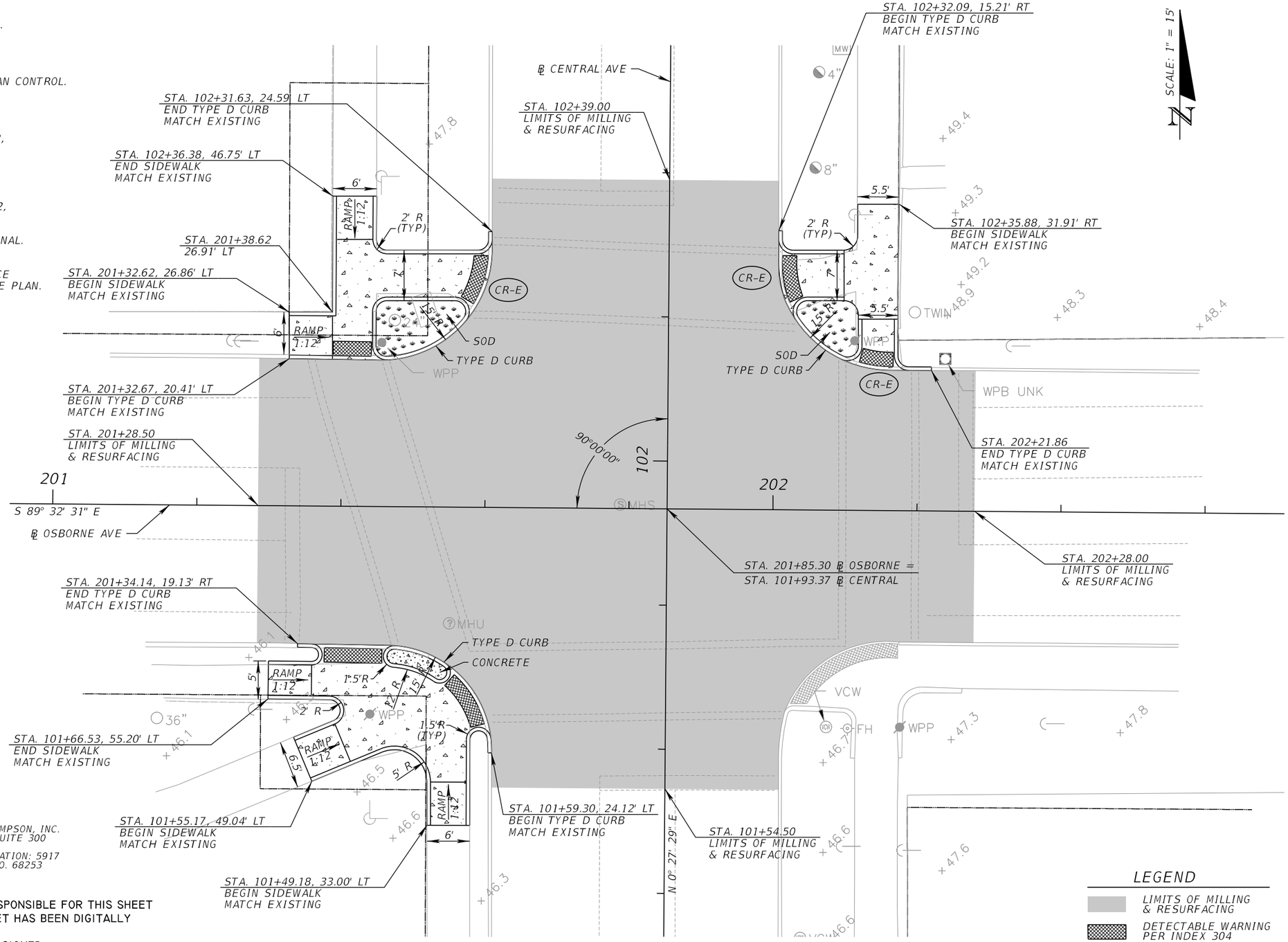
PHASE I
CONSTRUCT CURB, SIDEWALK, AND SIGNALS ON THE SOUTHWEST CORNER. UTILIZE INDEX 600, 601, 602, 603, 604, 605, AND 660 FOR PEDESTRIAN CONTROL. MAINTAIN EXISTING TRAFFIC SIGNALS AND EQUIPMENT.

PHASE II
CONSTRUCT SIGNALS ON THE SOUTHEAST CORNER. UTILIZE INDEX 600, 601, 602, AND 660 FOR PEDESTRIAN CONTROL. MAINTAIN EXISTING TRAFFIC SIGNALS AND EQUIPMENT.

PHASE III
CONSTRUCT CURB, SIDEWALK, AND SIGNALS ON THE NORTHEAST CORNER. UTILIZE INDEX 600, 601, 602, 603, 604, 605, AND 660 FOR PEDESTRIAN CONTROL. MAINTAIN EXISTING TRAFFIC SIGNALS AND EQUIPMENT.

PHASE IV
CONSTRUCT CURB, SIDEWALK, AND SIGNALS ON THE NORTHWEST CORNER. UTILIZE INDEX 600, 601, 602, 603, 604, 605, AND 660 FOR PEDESTRIAN CONTROL. REMOVE EXISTING TRAFFIC SIGNALS AND EQUIPMENT WHEN THE NEW SIGNALS ARE COMPLETE AND OPERATIONAL.

PHASE V
MILL AND RESURFACE THE ENTIRE INTERSECTION. PLACE FINAL SURFACE PAINTED PAVEMENT MARKINGS PER THE PLAN. UTILIZE INDEX 600 AND 607.



JORDAN L. CAVIGGIA
LICENSE
No 68253
STATE OF FLORIDA
PROFESSIONAL ENGINEER

JOHNSON, MIRMIRAN & THOMPSON, INC.
2000 EAST 11th AVENUE, SUITE 300
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JORDAN L. CAVIGGIA, P.E. 68253

Drawn:	CLW	Date: 9/16
Designed:	JLC	Date: 9/16
Checked:	DJS	Date: 9/16
Reviewed:	KDB	Date: 9/16
Approved:	JLC	Date: 9/16
Approved:		Date:

No:	Date:	Revision:	By:

City of Tampa Florida

CITY OF TAMPA
PLANNING & DEVELOPMENT
DEPARTMENT

CENTRAL AVENUE at OSBORNE AVENUE

ROADWAY PLAN

Field Book:	
Atlas Sheet:	
File No.	Index No. T-4
Job No.	
Scale:	
SHEET	

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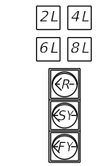
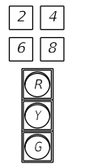
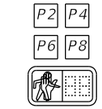


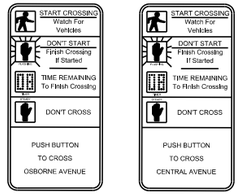
3-SECT., 1-WAY
4 AS
650-1-14



3-SECT., 1-WAY
8 AS
650-1-14



PED. SIGNAL
COUNT-DOWN
1-SECT., 1-WAY
8 AS
653-1-11



FTP-68B-06 8 EA

NOTES:

1. MAJOR STREET IS CENTRAL AVENUE, PHASE 1 (MOVEMENTS 2 AND 6); MINOR STREET IS OSBORNE AVENUE, PHASE 2 (MOVEMENTS 4 AND 8).
2. CONTROLLER AND CABINET WIRING SHALL BE COMPATIBLE WITH SOP 10. INITIAL SOP SHALL BE SOP 1.
3. POWER SERVICE METER BASE AND DISCONNECT SHALL BE INSTALLED ON THE CONCRETE SERVICE POLE AS SHOWN ON THE PLANS AS PER INDEX NUMBER 17736.
4. POSTED SPEED LIMIT IS 30 MPH ON OSBORNE AVENUE AND 30 MPH ON CENTRAL AVENUE.
5. RUN EXISTING FIBER OPTIC CABLE FOR CITY OF TAMPA COMMUNICATIONS FROM EXISTING FIBER OPTIC PULL BOX TO NEW CONTROLLER CABINET INSIDE NEW CONDUIT.

SIGN (A)

E. Osborne
400 AVE 500

SIGN (B)

E. Osborne
500 AVE 400

SIGN (C)

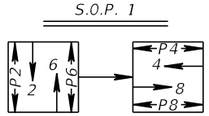
N. Central
4700 AVE 4800

SIGN (D)

N. Central
4800 AVE 4700

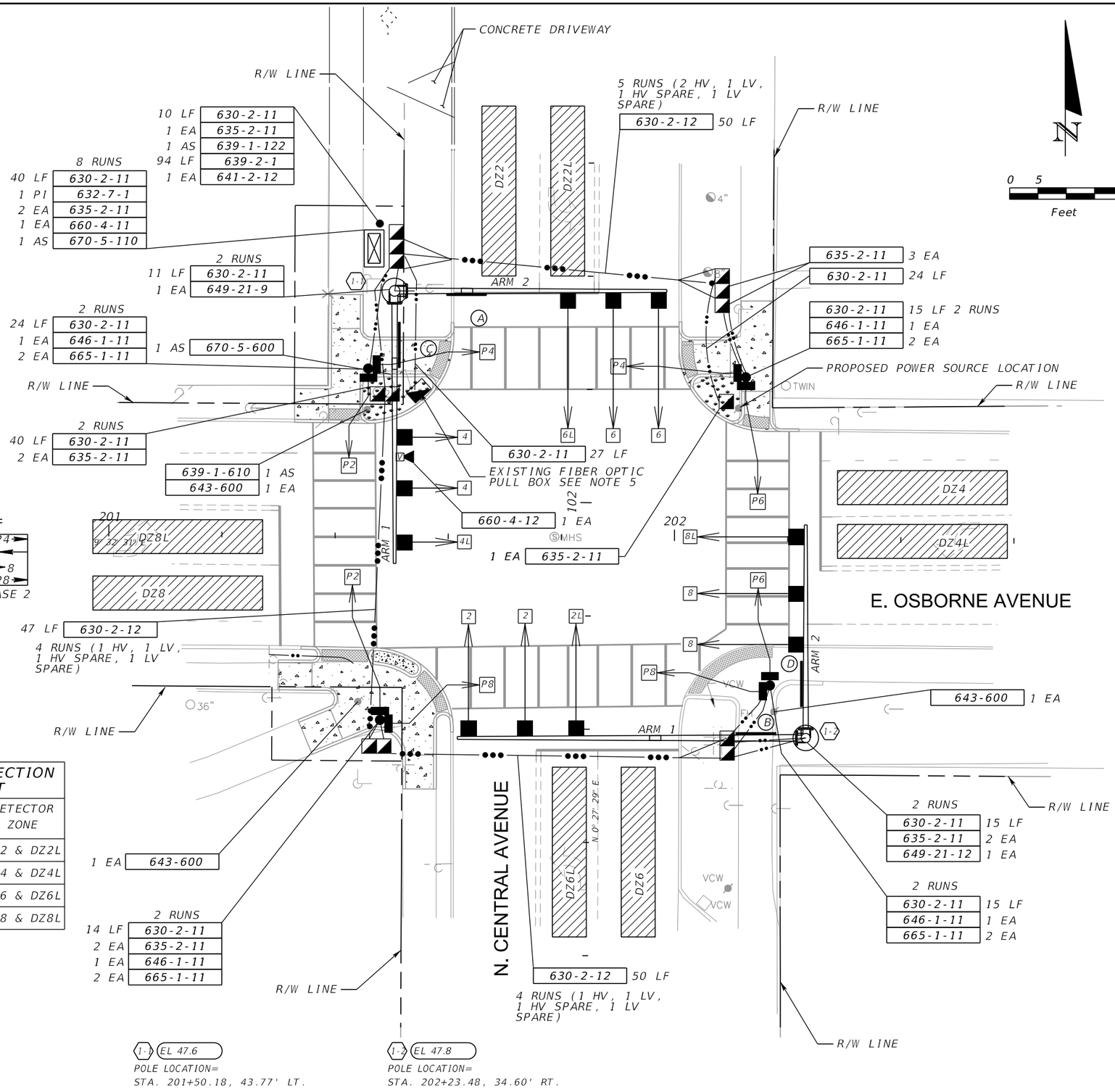
700-5-22 4 EA

S.O.P. 1



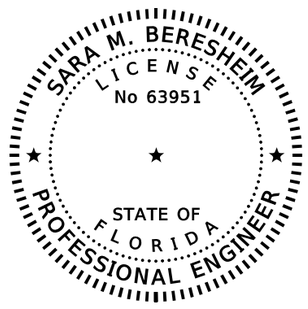
PHASE 1 PHASE 2

VIDEO DETECTION CHART	
VIDEO DETECTOR	DETECTOR ZONE
V-1	DZ2 & DZ2L
	DZ4 & DZ4L
	DZ6 & DZ6L
	DZ8 & DZ8L



I-1 EL 47.6
POLE LOCATION=
STA. 201+50.18, 43.77' LT.

I-2 EL 47.8
POLE LOCATION=
STA. 202+23.48, 34.60' RT.



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TAMPA, FL 33605-3830
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SARA M. BERESHEIM, P.E. NO. 63951

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Reviewed:	SCQ	Date: 9/16
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Approved:		Date:

No:	Date:	Revision:	By:

City of Tampa Florida

CITY OF TAMPA
PLANNING & DEVELOPMENT
DEPARTMENT

CENTRAL AVENUE at OSBORNE AVENUE
SIGNALIZATION PLAN

Field Book:	
Atlas Sheet:	
File No.	Index No.
Job No.	T-5
Scale:	
SHEET	

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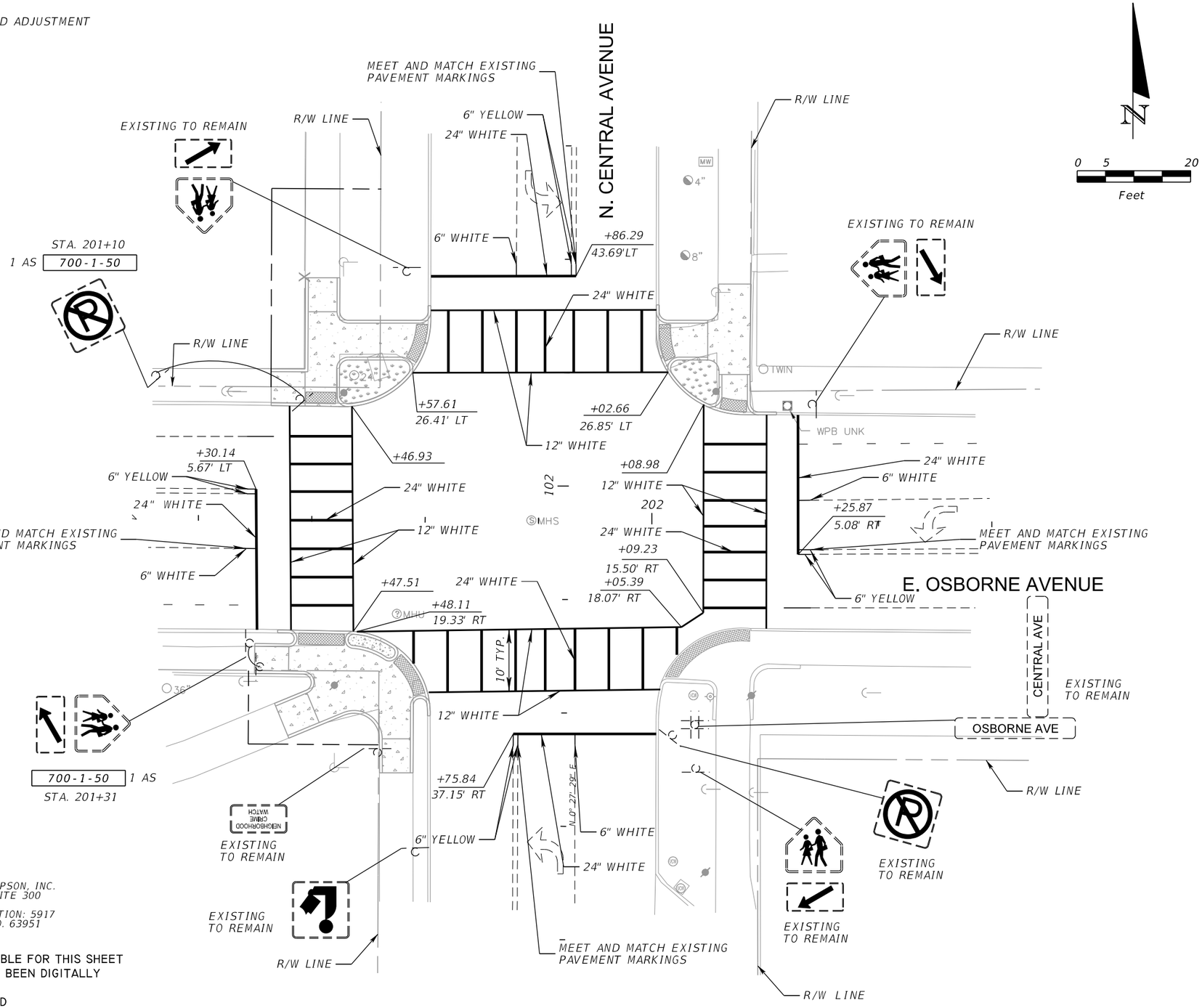
1/22/2019

GENERAL NOTES

1. SIGN LOCATIONS ARE APPROXIMATE AND MAY REQUIRE FIELD ADJUSTMENT AS DIRECTED BY THE ENGINEER.



SARA M. BERESHEIM LICENSE No 63951 STATE OF FLORIDA PROFESSIONAL ENGINEER

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No:	Date:	Revision:	By:

City of Tampa Florida

CITY OF TAMPA
PLANNING & DEVELOPMENT
DEPARTMENT

CENTRAL AVENUE at OSBORNE AVENUE
SIGNING AND PAVEMENT MARKING PLAN

Field Book:	
Atlas Sheet:	
File No.	Index No.
Job No.	T-6
Scale:	
SHEET	

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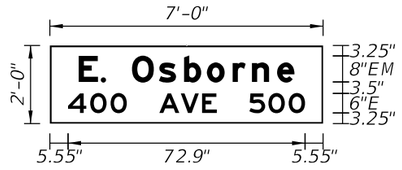
SIGN NAME	SIGN A	QTY	1	SIGN NO.	STATION(S)
PANEL		BORDER		_____	none
WIDTH	7'-0"	WIDTH	0.5"	_____	
HEIGHT	2'-0"	RADII	0"	_____	
LEGEND	White	COLOR	White	_____	
COLOR	Green			_____	

SYMBOL(S)	ANGLE	X	Y	WID	HT

SIGN NO.	NO. OF POSTS	EDGE OF LANE CLEARANCE	COLUMN SIZE		AVERAGE LENGTH



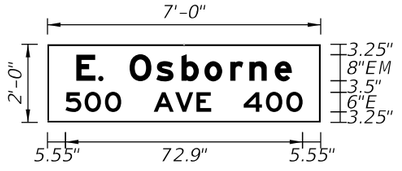
NO. OF LIGHT FIXTURES ___ | FIXTURE SPACING _____ | PHOTOMETRIC CURVE _____ | WATT ____ | VOLTAGE ____

COPY		E	.		O	s	b	o	r	n	e		L											
SPACE	8.8	6.8	1.6	8	8.2	7.8	7	7.9	5.9	7.8	5.3	8.8	66.3											
COPY		4	0	0		A	V	E		5	0	0		L										
SPACE	5.5	6.8	6.2	5	10	6.6	6.5	4.5	10	5.9	6.2	5	5.5	72.9										
COPY																								
SPACE																								
COPY																								
SPACE																								
COPY																								
SPACE																								
COPY																								
SPACE																								

SIGN NAME	SIGN B	QTY	1	SIGN NO.	STATION(S)
PANEL		BORDER		_____	none
WIDTH	7'-0"	WIDTH	0.5"	_____	
HEIGHT	2'-0"	RADII	0"	_____	
LEGEND	White	COLOR	White	_____	
COLOR	Green			_____	

SYMBOL(S)	ANGLE	X	Y	WID	HT

SIGN NO.	NO. OF POSTS	EDGE OF LANE CLEARANCE	COLUMN SIZE		AVERAGE LENGTH



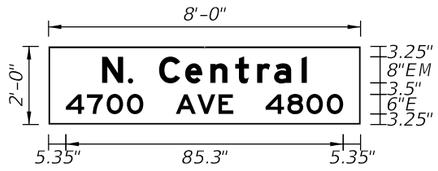
NO. OF LIGHT FIXTURES ___ | FIXTURE SPACING _____ | PHOTOMETRIC CURVE _____ | WATT ____ | VOLTAGE ____

COPY		E	.		O	s	b	o	r	n	e		L											
SPACE	8.8	6.8	1.6	8	8.2	7.8	7	7.9	5.9	7.8	5.3	8.8	66.3											
COPY		5	0	0		A	V	E		4	0	0		L										
SPACE	5.5	5.9	6.2	5	10	6.6	6.5	4.5	10	6.8	6.2	5	5.5	72.9										
COPY																								
SPACE																								
COPY																								
SPACE																								
COPY																								
SPACE																								
COPY																								
SPACE																								

SIGN NAME	SIGN C	QTY	1	SIGN NO.	STATION(S)
PANEL		BORDER		_____	none
WIDTH	8'-0"	WIDTH	0.5"	_____	
HEIGHT	2'-0"	RADII	0"	_____	
LEGEND	White	COLOR	White	_____	
COLOR	Green			_____	

SYMBOL(S)	ANGLE	X	Y	WID	HT

SIGN NO.	NO. OF POSTS	EDGE OF LANE CLEARANCE	COLUMN SIZE		AVERAGE LENGTH



NO. OF LIGHT FIXTURES ___ | FIXTURE SPACING _____ | PHOTOMETRIC CURVE _____ | WATT ____ | VOLTAGE ____

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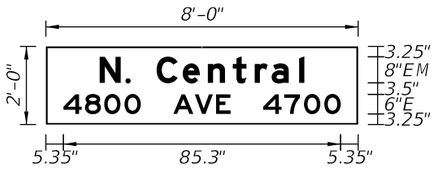
COPY		4	7	0	0		A	V	E		4	8	0	0		L								
SPACE	5.4	6.5	6.1	6.2	5	10	6.6	6.5	4.5	10	6.7	5.9	6.2	5	5.4	85.3								
COPY																								
SPACE																								
COPY																								
SPACE																								
COPY																								
SPACE																								
COPY																								
SPACE																								

SIGN NAME	SIGN D	QTY	1	SIGN NO.	STATION(S)
PANEL		BORDER		_____	none
WIDTH	8'-0"	WIDTH	0.5"	_____	
HEIGHT	2'-0"	RADII	0"	_____	
LEGEND	White	COLOR	White	_____	
COLOR	Green			_____	

SYMBOL(S)	ANGLE	X	Y	WID	HT

SIGN NO.	NO. OF POSTS	EDGE OF LANE CLEARANCE	COLUMN SIZE		AVERAGE LENGTH



NO. OF LIGHT FIXTURES ___ | FIXTURE SPACING _____ | PHOTOMETRIC CURVE _____ | WATT ____ | VOLTAGE ____

COPY		N	.		C	e	n	t	r	a	l		L											
SPACE	16.5	7.9	1.6	8	8	7.8	7.7	6.7	5.2	8.5	1.6	16.5	63											
COPY		4	8	0	0		A	V	E		4	7	0	0		L								
SPACE	5.4	6.7	5.9	6.2	5	10	6.6	6.5	4.5	10	6.5	6.1	6.2	5	5.4	85.3								
COPY																								
SPACE																								
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Approved:		Date:	

No:	Date:	Revision:	By:

City of Tampa Florida

CITY OF TAMPA
PLANNING & DEVELOPMENT
DEPARTMENT

CENTRAL AVENUE at OSBORNE AVENUE
GUIDE SIGN WORK SHEET

Field Book:	
Atlas Sheet:	
File No.	Index No.
Job No.	T-7
Scale:	
SHEET	

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1/22/2019 4:32:14 PM

SPECIAL INSTRUCTIONS

ID NO.	PED. BUTTON		PED. SIGNALS		HANDHOLE LOCATION

SARA M. BERESHEIM LICENSE No 63951 STATE OF FLORIDA PROFESSIONAL ENGINEER

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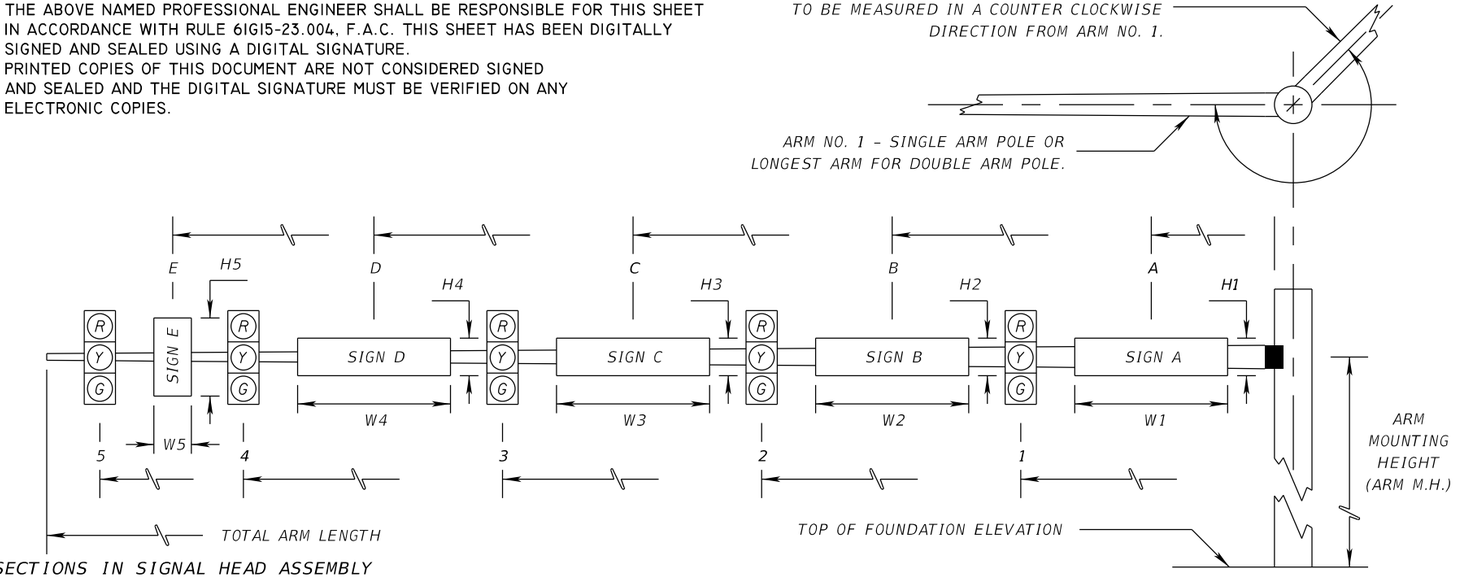
CERTIFICATE OF AUTHORIZATION: 5917
SARA M. BERESHEIM, P.E. NO. 63951



* DENOTES NUMBER OF SECTIONS IN SIGNAL HEAD ASSEMBLY

						SIGNAL DATA														SIGN DATA																				
									DISTANCE FROM POLE													DISTANCE FROM POLE / HEIGHT AND WIDTH OF SIGN																				
ID NO.	SHEET NO.	LOCATION BY STA.	TOP OF FOUND. ELEVATION	RDWY ARM NO.	CROWN ELEV.	SIGNAL V/H	BACK PLATES Y/N	PED. SIGNAL Y/N	1	*	2	*	3	*	4	*	5	*	TOTAL ARM LENGTH	ARM M.H.	ANGLE BETWEEN DUAL ARMS 90/270	A	H1	W1	B	H2	W2	C	H3	W3	D	H4	W4	E	H5	W5	PAINT COLOR
1-1	T-5	201+50.18	47.60	1	46.60	V	Y	N	23.68	3	32.68	3	42.20	3					46	21.5	90	7.39	2'	8'															NONE
	-----	----------	-------	2	47.83	V	Y	N	28.53	3	36.53	3	44.53	3					46	21.5	-----	10.62	2'	7'															NONE
1-2	T-5	202+23.48	47.80	1	46.75	V	Y	N	39.00	3	48.00	3	58.00	3					60	20.5	270	7.18	2'	7'															NONE
---	-----	----------	-------	2	47.28	V	Y	N	14.88	3	23.88	3	33.91	3					36	20.5	-----	7.91	2'	8'															NONE
---	-----	----------	-------																		-----																	
FUTURE LOADING																																							
1-1	T-5	201+50.18	47.60	1	46.60	V	Y	N	23.68	3	32.68	3	42.20	4					46	21.5	90	7.39	2'	8'												38.0	3'	2.5'	NONE
---	-----	----------	-------	2	47.83	V	Y	N	28.53	4	36.53	3	44.53	3					46	21.5	-----	10.62	2'	7'												32.5	3'	2.5'	NONE
1-2	T-5	202+23.48	47.80	1	46.75	V	Y	N	39.00	4	48.00	3	58.00	3					60	20.5	270	7.18	2'	7'												43.0	3'	2.5'	NONE
---	-----	----------	-------	2	47.28	V	Y	N	14.88	3	23.88	3	33.91	4					36	20.5	-----	7.91	2'	8'												30.0	3'	2.5'	NONE
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2000 EAST 11TH AVENUE, SUITE 300, TAMPA, FL 33605
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FBPE CERTIFICATE OF AUTHORIZATION NO. 5917
SARA M. BERESHEIM, P.E. 63951

Drawn:	RMR	Date: 9/16
Designed:	RMR	Date: 9/16
Checked:	SMB	Date: 9/16
Reviewed:	SCQ	Date: 9/16
Approved:	SMB	Date: 9/16
Approved:		Date:

No:	Date:	Revision:	By:

CITY OF TAMPA
PLANNING & DEVELOPMENT DEPARTMENT

CENTRAL AVENUE at OSBORNE AVENUE
MAST ARM TABULATION

Field Book:	
Atlas Sheet:	
File No.	Index No.
Job No.	T-8
Scale:	
SHEET	

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

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STANDARD MAST ARM ASSEMBLIES DATA TABLE

Table Date 11-01-16

STRUCTURE ID NUMBERS	DESIGNATION	FIRST ARM		SECOND ARM		UF (deg)	LL (deg)	POLE			DRILLED SHAFT ID
		ARM ID	FAA (ft.)	ARM ID	SAA (ft.)			POLE ID	UAA (ft.)	UB (ft.)	
1 - 1	A50/D-A50/D-P3/D-DS/18/5.0	A50/D	27.5	A50/D	27.5	90	---	P3/D	24.5	21.5	DS/18/5.0
1 - 2	A60/D-A40/D-P4/D-DS/16/5.0	A60/D		A40/D	36.0	270	---	P4/D	23.5	20.5	DS/16/5.0

NOTES [Notes Date 11-01-16]:

1. If an entry appears in column FAA, a shorter arm is required. This is obtained by removing length from the arm tip and the arm length shortened from FA to FAA. SAA Similar.
2. If an entry appears in column UAA, a shorter pole is required. This is obtained by removing length from the pole tip and the pole height shortened from UA to UAA.
3. Arm mounting height UB must be between 18-22 feet.
4. Pole types P2 and larger require a minimum 4.5 foot diameter drilled shaft. Pole types P5 and larger require a minimum 5.0 foot diameter drilled shaft.
5. Work this sheet with the Signal Designer's "Mast Arm Tabulation". See "Mast Arm Tabulation" for special instructions that include non-standard Handhole location, paint color, terminal compartment requirement, and pedestrian features.
6. Work with Index 649-030 and 649-031.
7. Design Wind Speed = 150 mph

FOUNDATION NOTES [Notes Date 01-01-12]:

1. Design based on Borings taken sealed by Martin E Millburg, PE.
2. Assumptions and Values used in design:

   Mast Arm 1-1:
   Soil Type: Sand (Cohesionless)
   Soil Layer Thickness = 20 ft.
   Soil Friction Angle = 30 deg.
   Soil Weight = 56 pcf
   SPT N-VALUE = 7 blows/ft.
   Design Water Table is 0 ft. below surface.

   Mast Arm 1-2:
   Soil Type: Sand (Cohesionless)
   Soil Layer Thickness = 25 ft.
   Soil Friction Angle = 31 deg.
   Soil Weight = 57 pcf
   SPT N-VALUE = 10 blows/ft.
   Design Water Table is 0 ft. below surface.

FREDERICK F. BRAERMAN LICENSE No 71026 STATE OF FLORIDA PROFESSIONAL ENGINEER

JOHNSON, MIRMIRAN & THOMPSON, INC.
2000 EAST 11th AVENUE, SUITE 300
TAMPA, FL 33605-3830
CERTIFICATE OF AUTHORIZATION: 5917
FREDERICK F. BRAERMAN, P.E. NO. 71026

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JMT
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FBPE CERTIFICATE OF AUTHORIZATION NO. 5917
FREDERICK F. BRAERMAN, P.E. 71026

Drawn:	PJM	Date:11/18			
Designed:	PJM	Date:11/18			
Checked:	SPA	Date:11/18			
Reviewed:	SPA	Date:11/18			
Approved:	FFB	Date:11/18			
Approved:		Date:	No:	Date:	Revision: By:

City of Tampa Florida

CITY OF TAMPA
PLANNING & DEVELOPMENT
DEPARTMENT

CENTRAL AVENUE at OSBORNE AVENUE
TABLE OF VARIABLES FOR STANDARD
MAST ARM ASSEMBLIES

Field Book:	
Atlas Sheet:	
File No.	Index No.
Job No.	T-9
Scale:	
SHEET	

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