



Madison, Wisconsin

INDEX OF SHEETS

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NO MAINTENANCE PLAN WITH THIS PROJECT

PROJECT LOCATION

CONVENTIONAL SIGNS	
FIELD VERIFY ALL UTILITY LOCATIONS	
GAS	— G —
STORM SEWER	— ST —
SANITARY SEWER	— SAN —
WATER	— W —
BURIED ELECTRIC	— E —
OVERHEAD ELECTRIC	— OH —
POWER POLE	□
ADA COMPLIANT RAMP W/ DETECTABLE WARNING FIELD	□
COMBUSTIBLE FLUIDS	⚠️

NOTES:

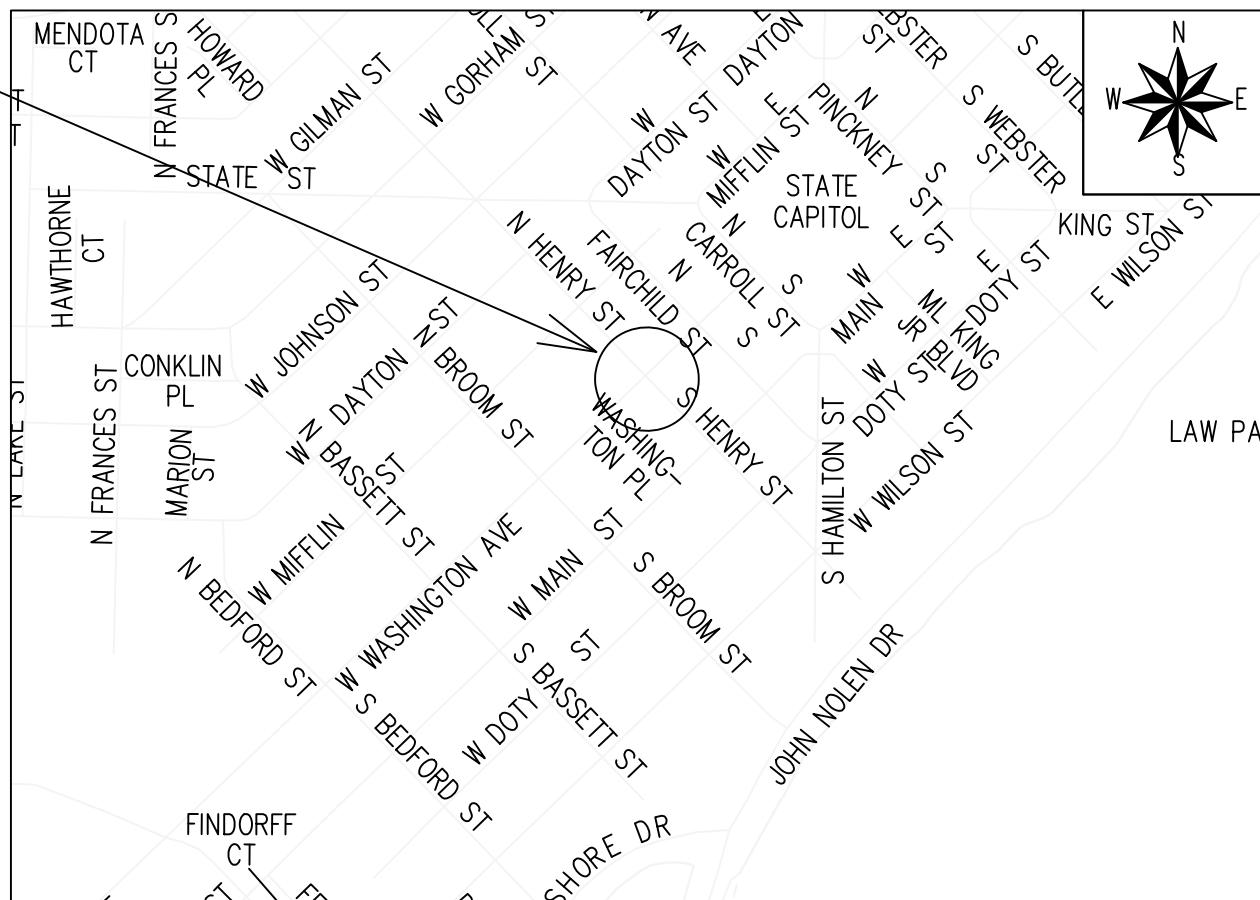
ALL GUTTERS SHALL DRAIN WITH A MINIMUM GRADE OF 0.50% TOWARD STORM SEWER INLETS.

SIDEWALK RAMPS AND CURB THRU SIDEWALK RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1" PER 12", SIDEWALK AND CURB RAMPS SHALL BE CONSTRUCTED WITH A SIDE SLOPE OF 1.50%. SIDEWALK SHALL HAVE A MINIMUM LONGITUDINAL SLOPE OF 0.50% AND A MAXIMUM LONGITUDINAL SLOPE OF 5.00% EXCEPT WHERE STREET GRADES EXCEED 5.00%.

CITY OF MADISON
CITY ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
PLAN OF PROPOSED IMPROVEMENT

*HENRY STREET & WEST
WASHINGTON AVENUE TRAFFIC
SIGNAL*

*CITY PROJECT NO. 13480
CONTRACT NO. 8647*



**PUBLIC IMPROVEMENT PROJECT
APPROVED**

MARCH 29, 2022

*BY THE COMMON COUNCIL
OF MADISON, WISCONSIN*

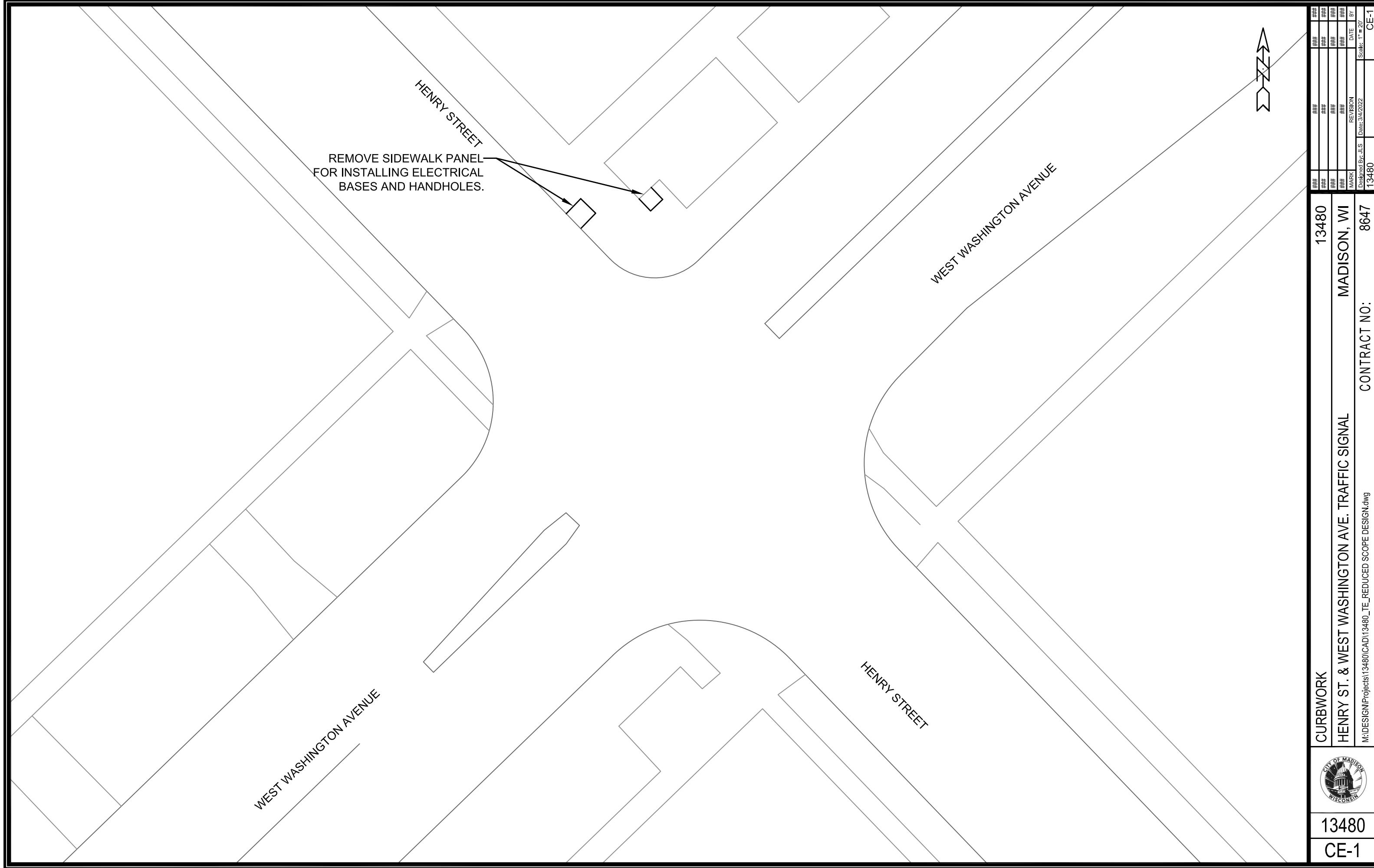
**PUBLIC IMPROVEMENT DESIGN
APPROVED BY:**

City Engineer

Date

*ELECTRICAL
DESIGNED BY:*

**GEOMETRICS &
PAVEMENT MARKINGS
DESIGNED BY:**

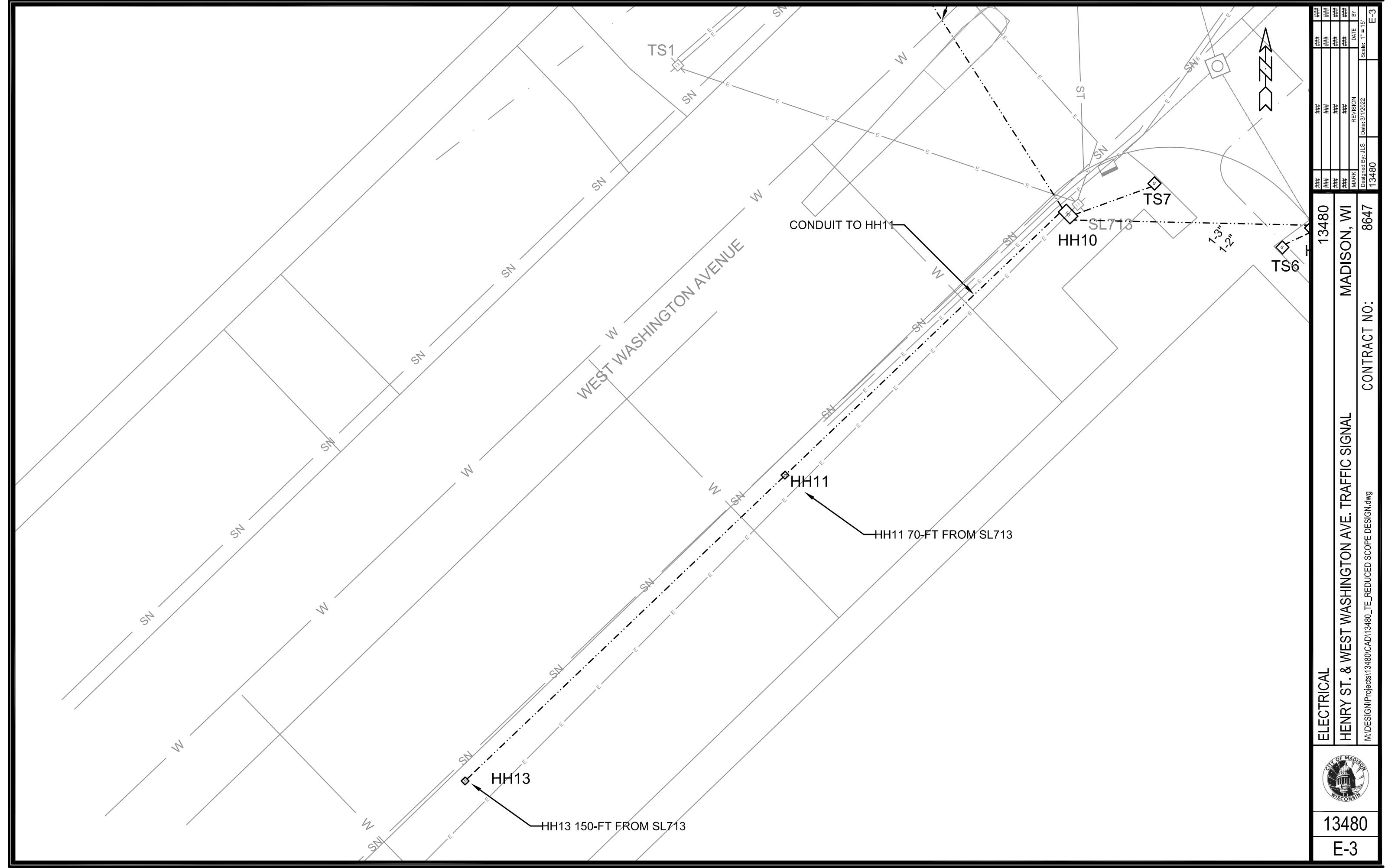


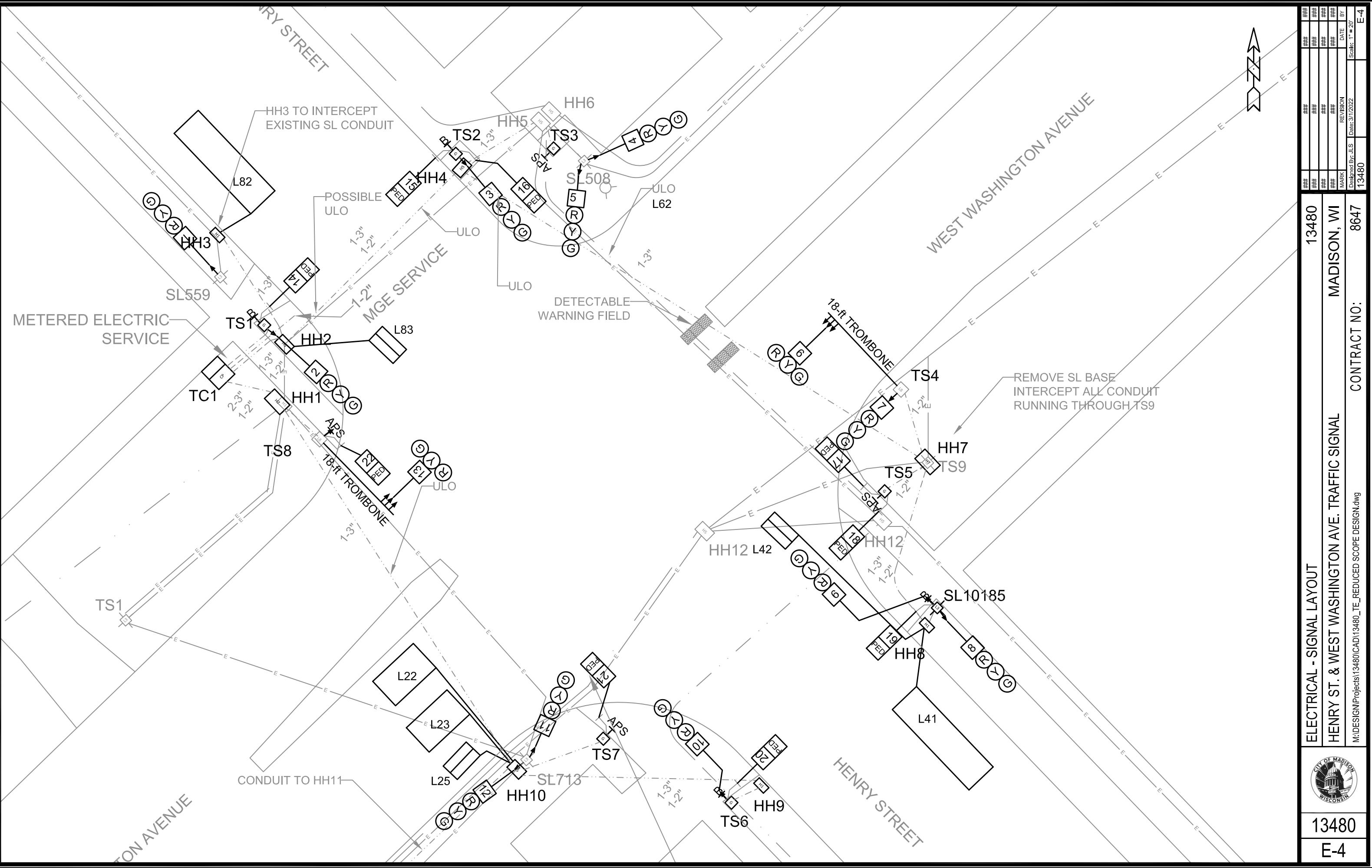
GENERAL ELECTRICAL NOTES:

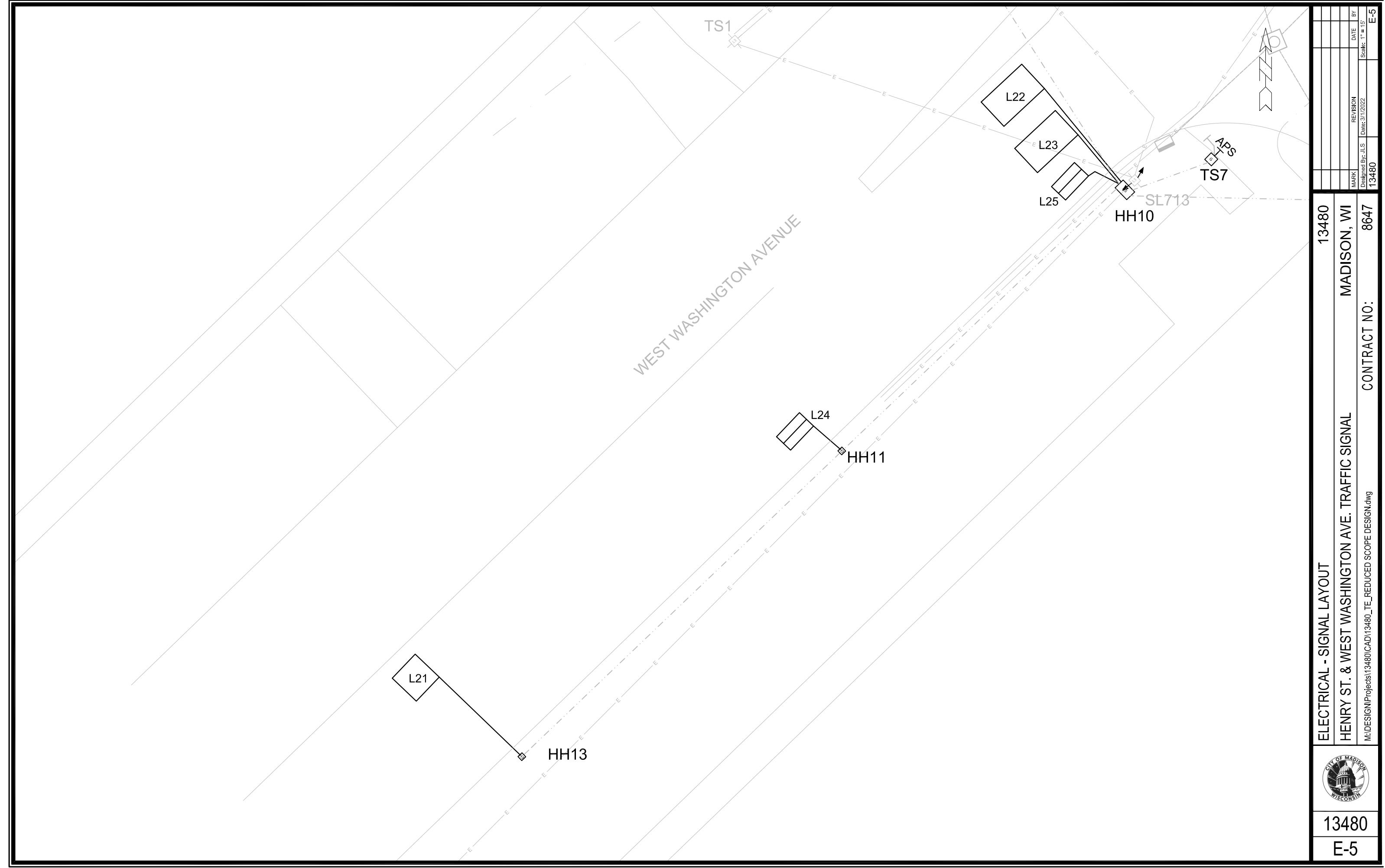
1. ALL LOCATIONS ARE APPROXIMATE, THE TRAFFIC ENGINEER SHALL APPROVE FINAL LOCATIONS, INCLUDING SETBACK IN THE FIELD AFTER CONTRACTOR SURVEYS STAKING. THE CONTRACTOR SHALL NOTIFY JERRY SCHIPPA (608) 267-1969 CITY TRAFFIC ENGINEERING, AT LEAST 24-HRS IN ADVANCE OF NEEDING CONDUIT OR BASE LOCATIONS MARKED.
2. THE CONTRACTOR SHALL DO ALL WORK IN ACCORDANCE WITH "CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2022 EDITION" AND ALL ADDENDUMS THERETO.
3. ALL CONDUIT SHALL BE PVC, SCHEDULE 80 BENEATH PAVEMENT OR SCHEDULE 40 OTHERWISE, PULL WIRE REQUIRED AS PER STANDARD SPECIFICATIONS.
4. THE CONTRACTOR SHALL CALL TROY VANT (608) 395-1975 AT THE TRAFFIC ENGINEERING SHOP AT LEAST 24-HRS IN ADVANCE OF PLACING CONCRETE, INSTALLING BASES, INSTALLING HANDHOLES, OR BURYING CONDUIT FOR INSPECTION.
5. ANY WORK COMPLETED WITHOUT INSPECTION IS SUBJECT TO REJECTION.
6. PER STANDARD SPECIFICATION, RESTORING TERRACES DUE TO CONDUIT INSTALLATION IS INCIDENTAL TO CONSTRUCTION. RESTORING LANDSCAPED MEDIAN IS COVERED UNDER SPECIAL PROVISION.
7. EXISTING STREET LIGHTS SHALL BE IN SERVICE EVERY NIGHT.
8. THE CONTRACTOR SHALL ARRANGE FOR PICK UP OF THE FOLLOWING CITY FURNISHED MATERIALS, WHICH SHOULD BE ARRANGED FOR PICK UP BY CALLING ED SMITH, TRAFFIC ENGINEERING SHOP (608) 266-8031 AT 1120 SAYLE STREET.
 - 8.1. (32) $\frac{3}{4}$ " BY 19" ANCHOR BOLTS FOR TYPE G BASES (6 TOTAL).
 - 8.2. (4) 1" BY 40" ANCHOR BOLTS FOR LB-3 BASES (1 TOTAL).
 - 8.3. (8) 1 $\frac{1}{4}$ " BY 48" ANCHOR BOLTS FOR LB-8 BASES (2 TOTAL)

<input type="checkbox"/> CP	60413 TYPE P BASE	-----	2-INCH PVC CONDUIT SCHEDULE 40, UNLESS NOTED ON PLANS AND QUANTITIES.
<input type="checkbox"/> L8	60407 TYPE LB-8 BASE		
<input type="checkbox"/> L3	60403 TYPE LB-3 BASE WITH STREETLIGHT		
<input type="checkbox"/> L3	60403 TYPE LB-3 BASE		
<input type="checkbox"/> G	60411 TYPE G BASE		
<input type="checkbox"/> H3	60704 TYPE III HANDHOLE		
<input type="checkbox"/> H1	60702 TYPE II HANDHOLE		
<input type="checkbox"/> H5	60706 TYPE V HANDHOLE		
<input type="checkbox"/> H7	60708 TYPE VII HANDHOLE		

ELECTRICAL COVER	
HENRY ST. & WEST WASHINGTON AVE. TRAFFIC SIGNAL	
M:\DESIGN\Projects\13480\CAD\13480_TE_REDUCED SCOPE DESIGN.dwg	
13480	13480
CONTRACT NO: 8647	
MARK	13480
DESIGNED BY: JLS	DATE: 3/17/2022
REVISION	
SCALE: N/A	
DATE BY	
E-1	







STRUCTURE	CONSTRUCT BASE					METERED ELECTRIC SERVICE	REMOVE STREET LIGHT BASE	NOTES
	60403	60407	60409	60411	60413			
	LB-3	LB-8	OFFSET BASE	TYPE G BASE	TYPE P BASE			
	(EA)	(EA)	(EA)	(EA)	(EA)	(EA)	(EA)	
TC1	-	-	-	-	1	1	-	
TS1	-	-	-	1	-	-	-	
SL559	-	-	-	-	-	-	-	MAINTAIN EX. SL
TS2	-	-	-	1	-	-	-	
SL508	-	-	-	-	-	-	-	MAINTAIN EX. SL
TS3	-	-	-	1	-	-	-	
TS4	-	1	-	-	-	-	-	
TS5	-	-	-	1	-	-	-	
SL10185	1	-	-	-	-	-	-	
TS6	-	-	-	1	-	-	-	
SL713	-	-	-	-	-	-	-	MAINTAIN EX. SL
TS7	-	-	-	1	-	-	-	
TS8	-	1	-	-	-	-	-	
TS9	-	-	-	-	-	-	1	REPLACE WITH HH
TOTAL	1	2	0	6	1	1	1	

STRUCTURE					CONSTRUCT ELECTRICAL HANDHOLE	REMOVAL	
	60702	60704	60706	60708	60427		
	TYPE I	TYPE III	TYPE V	TYPE VII	REMOVE ELECTRICAL HANDHOLE		
	(EA)	(EA)	(EA)	(EA)	(EA)	NOTES	
HH1	-	-	-	1	1	REMOVE AND REPLACE EX. HH	
HH2	-	-	1	-	-		
HH3	1	-	-	-	-	INTERCEPT SL CONDUIT	
HH4	-	-	1	-	-		
HH5	-	-	-	-	-	MAINTAIN EX. HH	
HH6	-	-	-	-	-	MAINTAIN EX. HH	
HH7	-	-	-	1	-		
HH8	1	-	-	-	-	REPLAES TS9 EX	
HH9	1	-	-	-	-		
HH10	-	-	1	-	-		
HH11	-	1	-	-	-		
HH12	-	-	-	-	-	MAINTAIN EX. HH	
HH13	-	1	-	-	-		
TOTAL	3	2	3	2	1		



ELECTRICAL - MISC. QTY

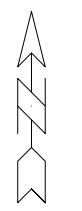
ELECTRICAL - MISCELLANEOUS QTY

100

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FROM STRUCTURE	TO STRUCTURE	FURNISH & INSTALL						NOTES
		60222 3 INCH PVC (SCHEDULE 80)	60224 3 INCH PVC (SCHEDULE 40)	60230 2 INCH PVC (SCHEDULE 80)	60232 2 INCH PVC (SCHEDULE 40)	60241 GOPHER RACEWAY FOR ELECTRICAL CONDUIT OR C.I.D.	60261 ELECTRICAL TRENCH	
		(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)
TC1	MGE	-	-	-	15	15	15	FOR MGE ELECTRIC SERVICE
TC1	TS1	-	-	-	12	-	-	(1) - 2"
TC1	HH1	-	24	-	12	-	12	(2) - 3", (1) - 2"
TC1	HH2	-	12	-	12	-	-	(1) - 3", (1) - 2"
HH2	HH3	-	23	-	-	23	-	(1) - 3"
HH2	HH4	32	-	32	-	32	-	(1) - 3", (1) - 2"
HH4	TS2	-	-	-	3	-	3	(1) - 2"
HH4	HH5	-	17	-	-	17	-	(1) - 3"
HH4	TS3	-	-	-	6	-	6	(1) - 2"
HH4	HH7	100	-	-	-	100	-	(1) - 3"
HH7	TS4	-	-	-	14	-	14	(1) - 2"
HH7	TS5	-	-	-	10	-	10	(1) - 2"
HH7	HH8	-	32	-	32	20	12	(1) - 3", (1) - 2"
HH8	SL10185	-	-	-	5	-	5	(1) - 2"
HH1	TS8	-	10	-	-	-	10	(1) - 3"
HH1	HH10	80	-	-	-	80	-	(1) - 3"
HH10	TS7	-	-	-	17	-	17	(1) - 2"
HH10	HH9	-	45	-	45	45	-	(1) - 3", (1) - 2"
HH9	TS6	-	-	-	7	-	7	(1) - 2"
HH10	HH11	-	-	-	70	-	70	(1) - 2"
HH11	HH12	-	-	-	80	-	80	(1) - 2"
TOTALS		212	163	32	340	332	261	

ELECTRICAL - MISC. QTY

HENRY ST. & WEST WASHINGTON AVE. TRAFFIC SIGNAL

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13480

MADISON, WI

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13480

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FROM STRUCTURE	TO STRUCTURE	FURNISH & INSTALL							NOTES
		SPV90001 CABLE TRAFFIC SIGNAL 5-14 (LF)	SPV90002 CABLE TRAFFIC SIGNAL 7-14 (LF)	SPV90003 CABLE TRAFFIC SIGNAL 9-14 (LF)	SPV90004 CABLE TRAFFIC SIGNAL 12- 14 (LF)	SPV90005 LOOP DETECTOR LEAD IN WIRE (LF)	60253 FURNISH & INSTALL 3 #4 AND 1 #8 WIRES (L.F.)		
TC1	TS1	-	-	27	-	-	-		
TC1	SL559	60	-	-	-	-	-		
TC1	TS2	-	-	85	-	-	-		
TC1	TS3	110	-	-	-	-	-		
TC1	SL508	-	125	-	-	-	-		
TC1	TS4	-	-	220	-	-	-		
TC1	TS5	-	-	185	-	-	-		
TC1	SL10185	-	-	-	220	-	220		
TC1	TS6	-	-	160	-	-	-		
TC1	TS7	-	130	-	-	-	-		
TC1	SL713	-	-	120	-	-	-		
TC1	TS8	-	-	-	70	-	-		
TC1	HH3	-	-	-	-	40	-	(1) CABLE	
TC1	HH8	-	-	-	-	200	-	(1) CABLE	
TC1	HH10	-	-	-	-	330	-	(3) CABLES	
TC1	HH11	-	-	-	-	180	-	(1) CABLE	
TC1	HH13	-	-	-	-	260	-	(1) CABLE	
TC1	HH2	-	-	-	-	12	-	(1) CABLE	
TOTALS		170	255	797	290	1022	220		

ELECTRICAL - MISC. QTY

HENRY ST. & WEST WASHINGTON AVE. TRAFFIC SIGNAL

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MADISON, WI

CONTRACT NO:

8647

REVISION

MARK

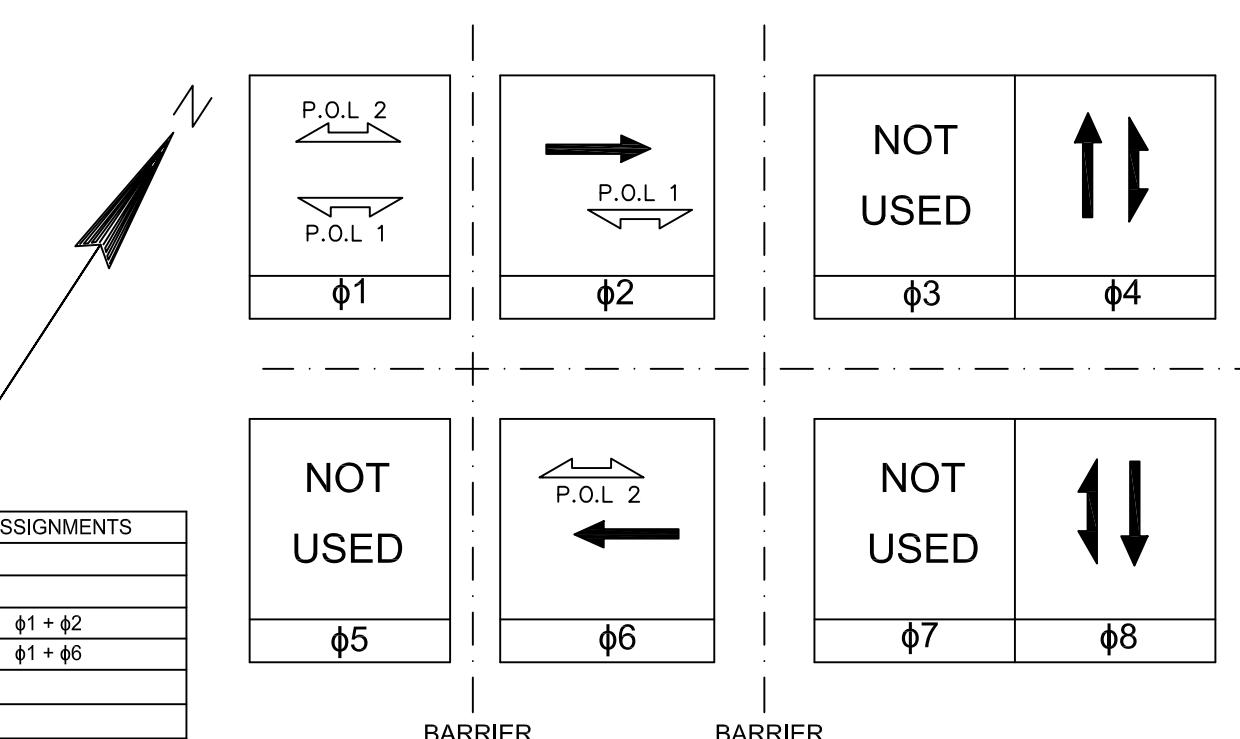
DATE: 3/15/2022

Scale: 1" = 15'

DATE BY

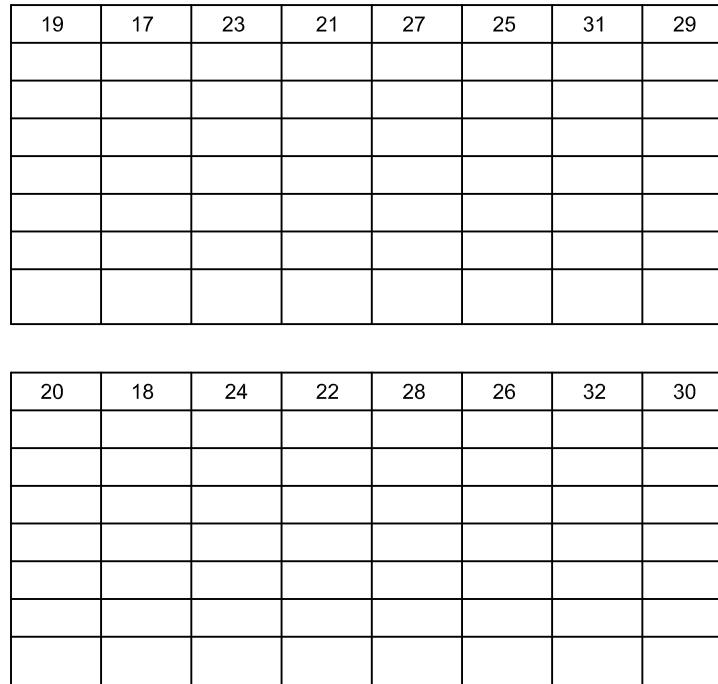
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HEAD NUMBERS		F L A S H
φ1		
φ2	5, 6, 10	R
φ3		
φ4	2, 3, 7	R
φ5		
φ6	4, 11, 12	R
φ7		
φ8	1, 8, 9	R
φ2 PED		
φ4 PED	15, 16, 17, 18	
φ6 PED		
φ8 PED	20, 23	O.L. ASSIGNMENTS
OLA		
OLB		
PED OL 1	19, 25	φ1 + φ2
PED OL 2	13, 14	φ1 + φ6
OLX		



DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)		21	24	41				82
PHASE CALLED		2	2	4				8
PHASE EXTENDED		2	2	4				8
DISCONNECT TIME								15"
CALLING DELAY								
EXTENSION STRETCH			7.0"					
LOOP FUNCTION			BIKE					
DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	23	22	25	42				83
PHASE CALLED	2	2	1,2	4				8
PHASE EXTENDED	2	2	2					
DISCONNECT TIME	12"	12"						
CALLING DELAY				3				
EXTENSION STRETCH								
LOOP FUNCTION			BIKE	BIKE				BIKE



PREEMPTION ASSIGNMENTS			
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED
1	RESERVED		
2	RESERVED		
3	EB/WB EVP		2, 6
4	NB/SB EVP		4, 8
5	NOT USED		
6	NOT USED		
7	NOT USED		
8	NOT USED		
9	NOT USED		
10	NOT USED		

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ϕ	PHASE RECALL	PHASE ACTIVE
1				X
2	X	X		X
3				
4	X	X		X
5				
6	X	X		X
7				
8	X	X		X

TYPE OF INTERCONNECT	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	X
RADIO	

NOTES:

1. APS BUTTONS FOR ALL CROSSINGS OF WEST WASH.
(5 BUTTONS TOTAL)
2. STANDARD PED BUTTONS FOR CROSSING HENRY.
3. EB ADVANCE/STOP BAR BIKE DETECTOR CALLS
PHASE 1 WHICH IS A 6" PHASE DISPLAYING WALKS
CROSSING HENRY STREET, SUPPLEMENTED BY SIGN
STATING "BIKES MAY USE WALK SIGNAL."
4. LATE NIGHT REST IN RED OPERATION.
5. EMERGENCY RED-RED FLASH ONLY.
6. PHASE 6 DETECTORS TO USE VIDEO DETECTION

TYPE OF LIGHTING	
Y OTHER AGENCY	
N TRAFFIC SIGNAL CABINET	
N SEPARATE LIGHTING CABINET	X

TYPE OF PRE-EMPT	
ONE	
RAILROAD	
EMERGENCY VEHICLE	X
GT	
TOMAR	X
HARDWIRE	
OTHER	
SHIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF REMOTE COMMUNICATION	
NONE	
FIBER	X
CELL MODEM	
PHONE	

M-DESIGN Projects 13480 CAD Signal Operations Henry W. Wash Sr. Sequence 0111



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