

Madison, Wisconsin

CITY OF MADISON

CITY ENGINEERING DIVISION

DEPARTMENT OF PUBLIC WORKS

PLAN OF PROPOSED IMPROVEMENT

PUBLIC IMPROVEMENT PROJECT APPROVED

FEBRUARY 6, 2018

BY THE COMMON COUNCIL OF MADISON, WISCONSIN

PUBLIC IMPROVEMENT DESIGN APPROVED BY:

[Signature] 3/1/18
City Engineer Date

INDEX OF SHEETS

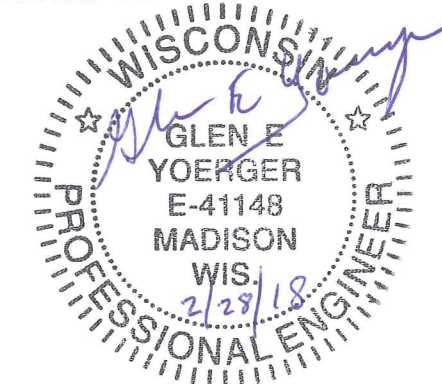
SHEET NO.	TITLE
1	
D1	TYPICAL SECTION
D2	INTERSECTION DETAILS
D3	PAVING DETAILS
P1	UNIVERSITY AVENUE PLAN & PROFILE
U1	UTILITIES PLAN & PROFILE
E1-E9	ELECTRICAL PLAN AND DETAILS
SDD 9 C 12-9a & 9b	WisDOT CONC BASE TYPE 13 DETAILS
PM1	PAVEMENT MARKING PLAN
TC1-TC6	TRAFFIC CONTROL PLAN

HILDALE WAY – MAPLE TERRACE – UNIVERSITY AVENUE TRAFFIC SIGNAL ASSESSMENT DISTRICT

CITY PROJECT NO. 45852

CONTRACT NO. 8128

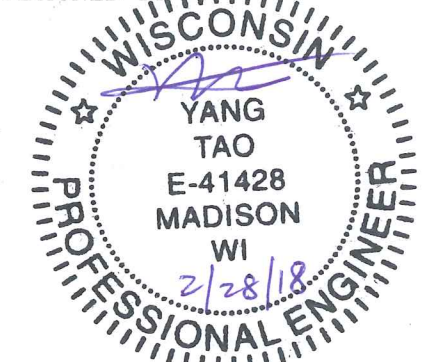
STREET DESIGNED BY:



STORM SEWER DESIGNED BY:



GEOMETRICS & PAVEMENT MARKINGS DESIGNED BY:



ELECTRICAL DESIGNED BY:

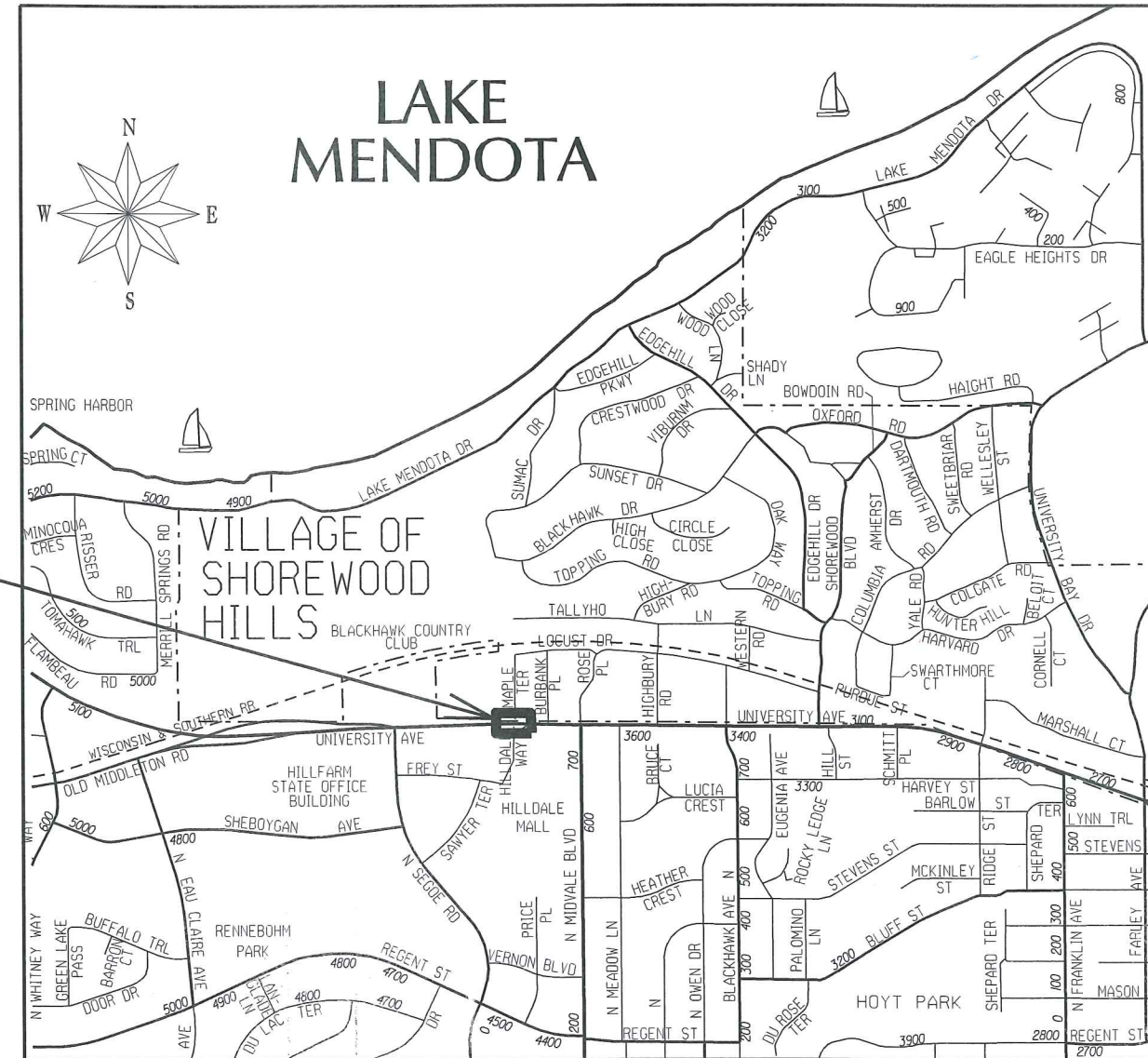


CONVENTIONAL SIGNS

FIELD VERIFY ALL UTILITY LOCATIONS

GAS	— G —
STORM SEWER	— ST —
SANITARY SEWER	— SAN —
WATER	— W —
OVERHEAD ELECTRIC	— OH —
POWER POLE	⊕
ADA COMPLIANT RAMP W/ DETECTABLE WARNING FIELD	
COMBUSTIBLE FLUIDS	

PROJECT LOCATION



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%.

EARTH WORK SUMMARY:

EXCAVATION CUT (MEASURED PLAN QUANTITY)	170 C.Y.
ESTIMATED UNDISTRIBUTED UNDERCUT	40 C.Y.
TOTAL UNCLASSIFIED EXCAVATION CUT	210 C.Y.

PLOT SCALE:

PLOT NAME:

REV. DATE:

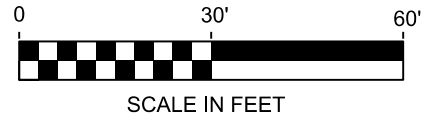
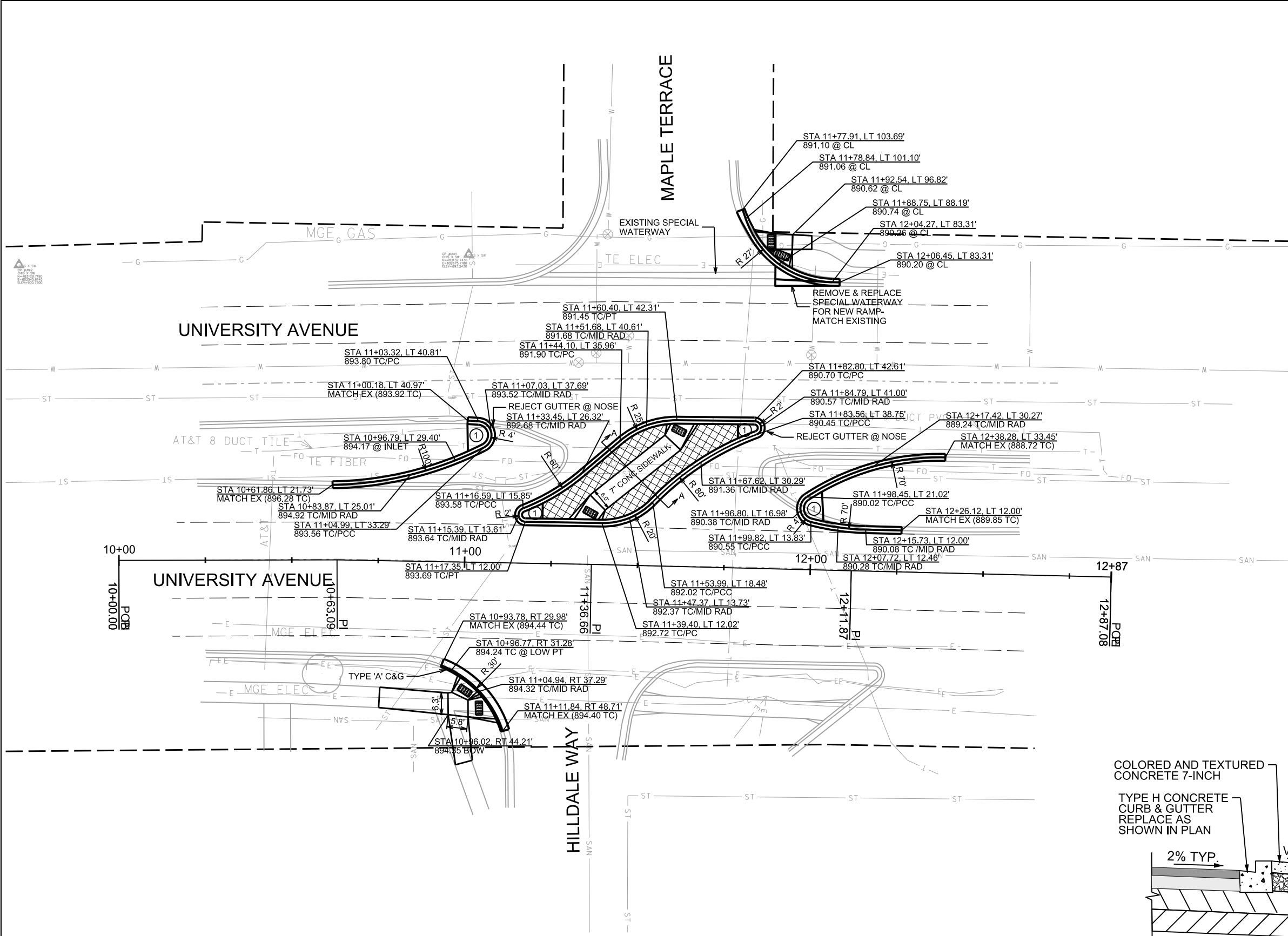
ORIGINATOR: CITY OF MADISON - STREETS DIVISION

PLOT SCALE: _____

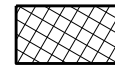


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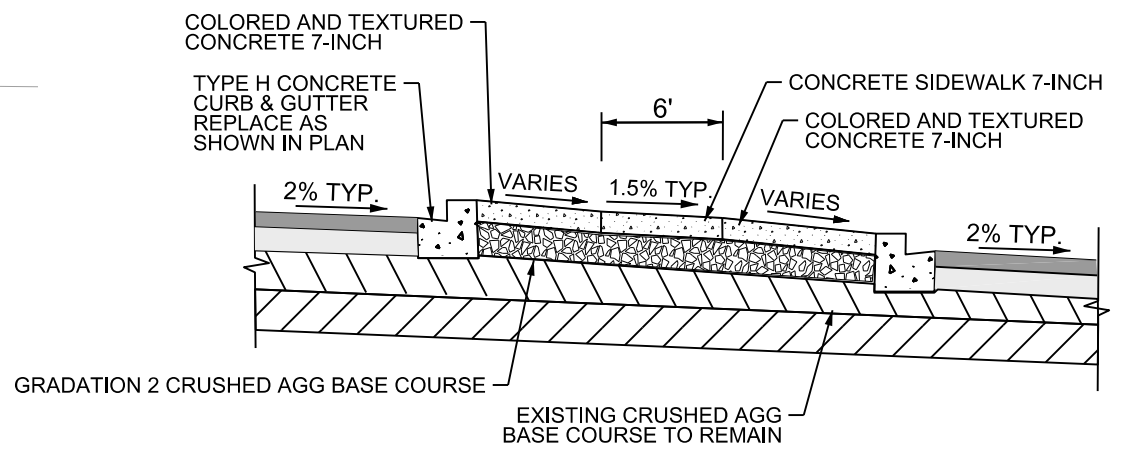
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ORIGINATOR: CITY OF MADISON - STREETS DIVISION



LEGEND

-  COLORED AND TEXTURED CONCRETE 7-INCH
-  DETECTABLE WARNING FIELD
-  CONCRETE MOUNTABLE MEDIAN ISLAND NOSE PER S.D.D. 3.13



SECTION A-A - PROPOSED MEDIAN ISLAND

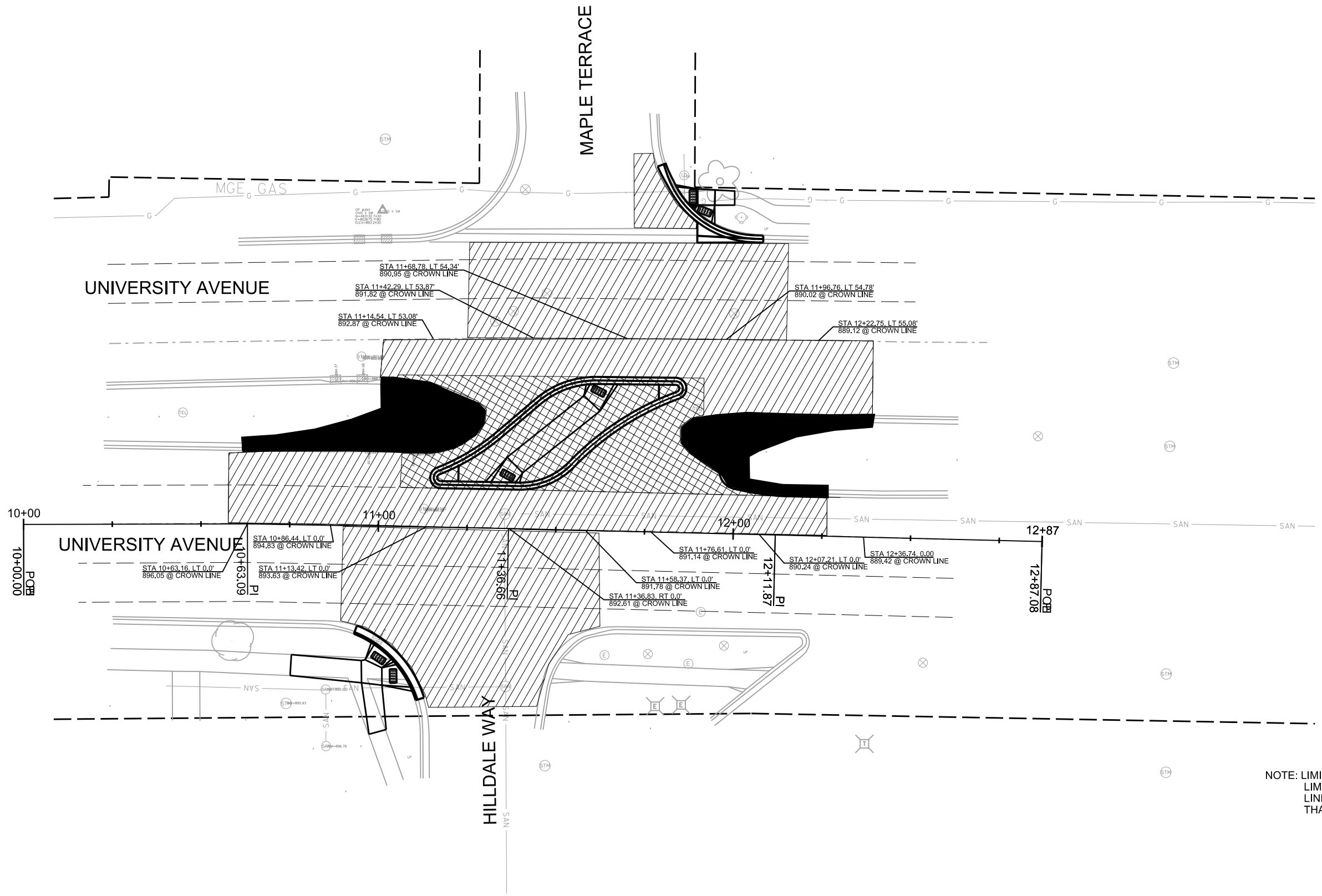
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PLOT NAME: _____

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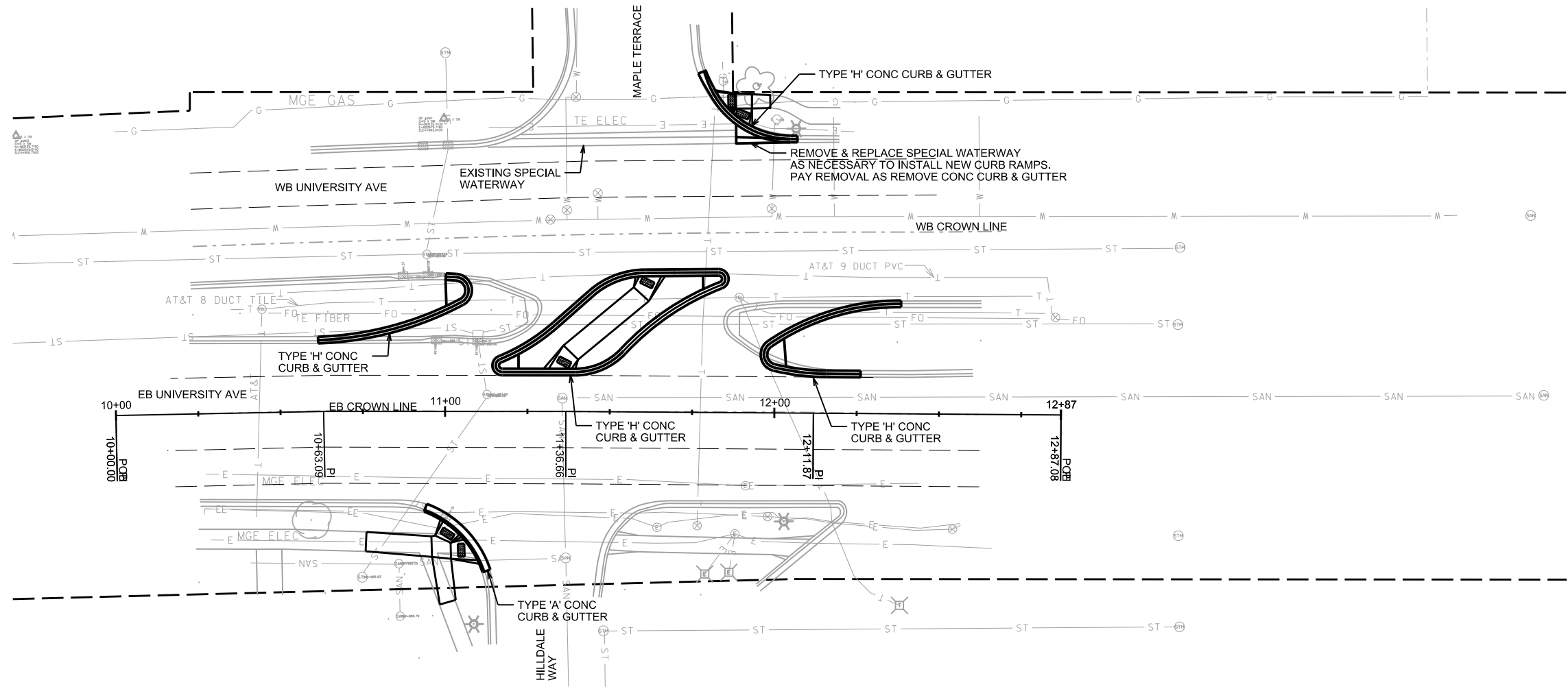
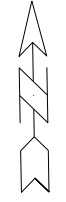
ORIGINATOR: CITY OF MADISON - STREETS DIVISION



LEGEND

- FULL DEPTH EXCAVATION
 PAVEMENT STRUCTURE:
 HMA SURFACE LAYER: 2" - 4 MT 58-28 H
 HMA LOWER LAYER: 4" - 3 MT 58-28 S
 UPPER BASE COURSE LAYER: 8" GRADATION 2 CABG
 LOWER BASE COURSE LAYER: 8" GRADATION 1 CABG
- REMOVE EXISTING HMA PAVEMENT (SAWCUT REQUIRED)
 EXISTING BASE COURSES TO REMAIN
 REPLACE PAVEMENT AREAS WITH:
 HMA SURFACE LAYER: 2" - 4 MT 58-28 H
 HMA LOWER LAYER: 4" - 3 MT 58-28 S
- 2-INCH MILL AND OVERLAY
 HMA SURFACE LAYER: 2" - 4 MT 58-28 H

NOTE: LIMITS OF PAVEMENT MILLING AND REMOVALS ARE APPROXIMATE. LIMITS MAY BE ADJUSTED IN THE FIELD TO MATCH EXISTING JOINT LINES OR MAY BE EXPANDED TO INCLUDE ANY ADDITIONAL TRENCHING THAT MAY BE REQUIRED.

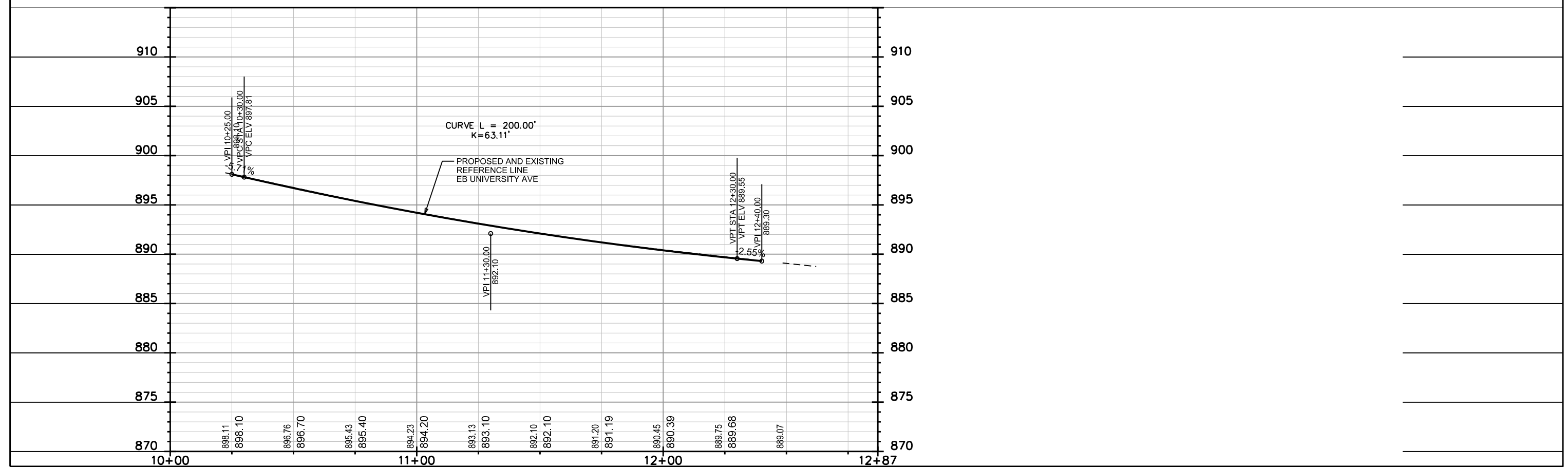


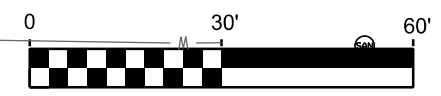
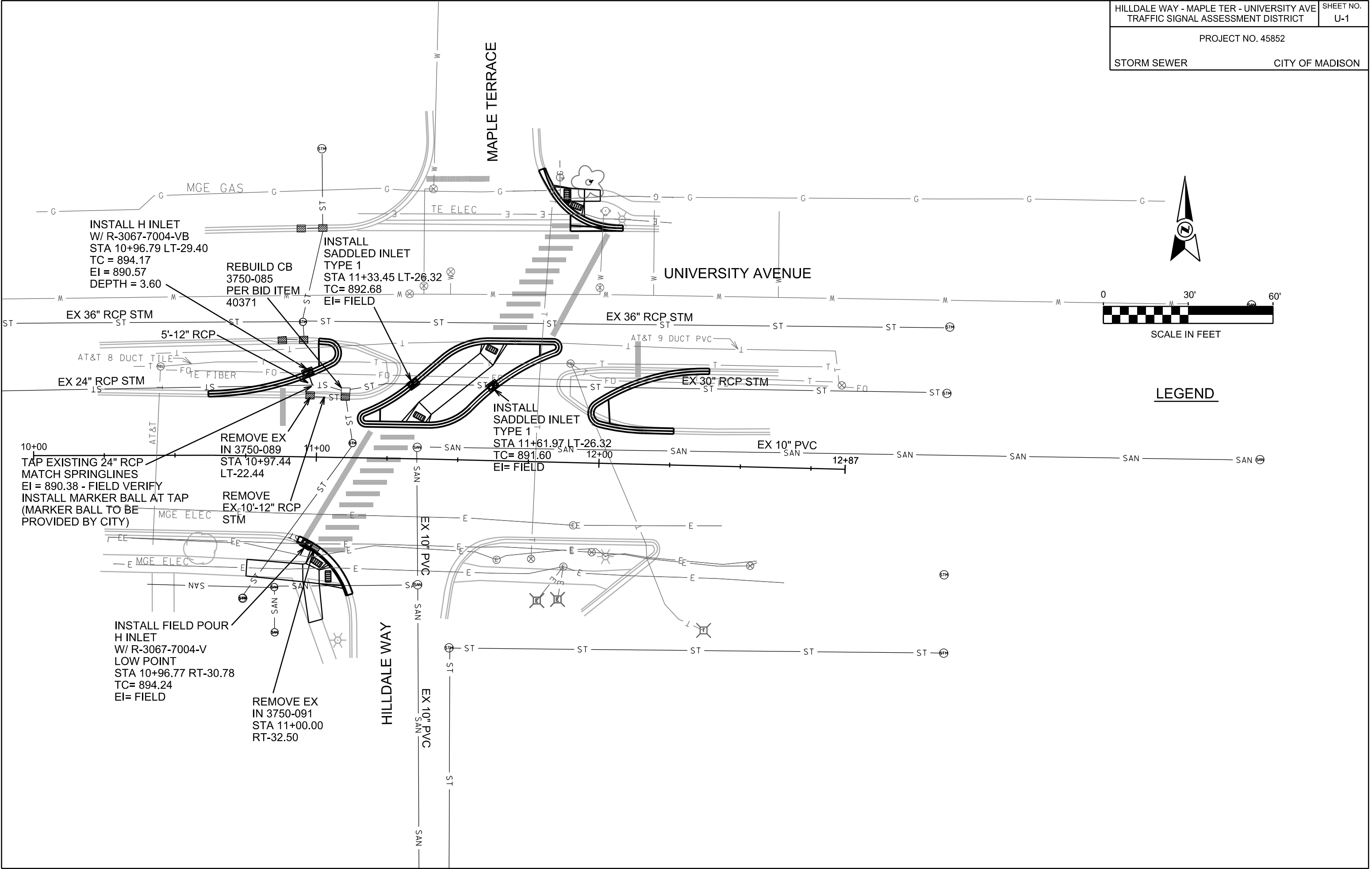
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PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

















SCALE IN FEET

LEGEND

GENERAL ELECTRIC 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-HOURS IN ADVANCE OF NEEDING CONDUIT OR BASE LOCATIONS MARKED.
2. BASES INSTALLED IN TERRACE SHALL BE 4' FROM FACE OF CURB UNLESS OTHERWISE NOTED, SUBJECT TO NOTE 1 ABOVE.
3. THE CONTRACTOR SHALL DO ALL WORK IN ACCORDANCE WITH "CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2018 EDITION" AND ALL ADDENDUMS THERETO. ALL CONDUIT SHALL BE PVC, SCHEDULE 80 UNDER PAVEMENT OR SCHEDULE 40 OTHERWISE. PULL WIRE REQUIRED AS PER STANDARD SPECIFICATIONS.
4. THE CONTRACTOR SHALL CALL TROY VANT (608 266-9031) AT THE TRAFFIC ENGINEERING SHOP AT LEAST 24-HOURS IN ADVANCE OF POURING BASES, INSTALLING HANDHOLES OR BURYING CONDUIT TO ARRANGE FOR INSPECTION.
5. ANY WORK COMPLETED WITHOUT INSPECTION IS SUBJECT TO REJECTION.
6. EXISTING STREETLIGHTS SHALL BE IN SERVICE EACH AND EVERY NIGHT.
7. TRAVEL LANE CLOSURES SHALL ONLY OCCUR ON WEEKDAYS BETWEEN 8:30 AM AND 4:00 PM AND ANYTIME ON WEEKENDS. ALL LANE CLOSURES OF UNIVERSITY AVENUE SHALL REQUIRE AN ELECTRONIC, FLASHING ARROWBOARD. FLASHING ARROWBOARD COST INCLUDED IN BID ITEM 10701 TRAFFIC CONTROL.
8. ALL SIGNING AND BARRICADING SHALL CONFORM WITH THE FEDERAL HIGHWAYS ADMINISTRATIONS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE CITY OF MADISON STANDARDS FOR SIDEWALK AND BIKEWAY CLOSURES AND THE STATE OF WISCONSIN STANDARD DETAIL DRAWING S.D.D. 1503.
9. THE CONTRACTOR SHALL ARRANGE FOR PICK UP OF THE FOLLOWING CITY FURNISHED MATERIALS, WHICH SHOULD BE ARRANGED FOR PICKUP BY CALLING DENNIS ROWE, TRAFFIC ENGINEERING SHOP, (608 266-9034) 1120 SAYLE ST., AT LEAST 24-HOURS PRIOR TO NEEDING MATERIALS:
 - (16) 3/4" BY 19" ANCHOR BOLTS FOR TYPE G BASE
 - (8) 1" BY 40" ANCHOR BOLTS FOR LB-3 BASE
 - (4) 1 1/4" BY 48" ANCHOR BOLTS FOR LB-8 BASE
10. THE CONTRACTOR SHALL PROVIDE ANCHOR BOLTS FOR TYPE 13 BASES.
11. THE CONTRACTOR SHALL INSTALL LOOP LEED DUCT CONDUITS PRIOR TO CITY CREWS INSTALLING LOOP DETECTOR WIRES.
12. NOTIFY TOM BODENSTEIN (608 266-4767) A MINIMUM OF 24 HOURS AND MAXIMUM OF 48 HOURS PRIOR TO FINAL BASE COURSE COMPACTION AND TRIMMING FOR CITY CREWS TO INSTALL LOOP DETECTION WIRES IN THE BASE COURSE PRIOR TO PLACEMENT OF ASPHALTIC PAVEMENT.
13. CONTRACTOR SHALL CONTACT TROY VANT (608 266-9031) AT LEAST 24 HOURS PRIOR TO EXCAVATING IN THE MEDIAN TO COORDINATE MOVING THE EXISTING FIBER OPTIC CABLE BEING RE-ROUTED TO AROUND THE PLANNED INLETS AND BASES. THE CONTRACTOR SHALL NOT DISTURB EXISTING FIBER OPTIC CABLES DURING THE PROJECT.

LEGEND

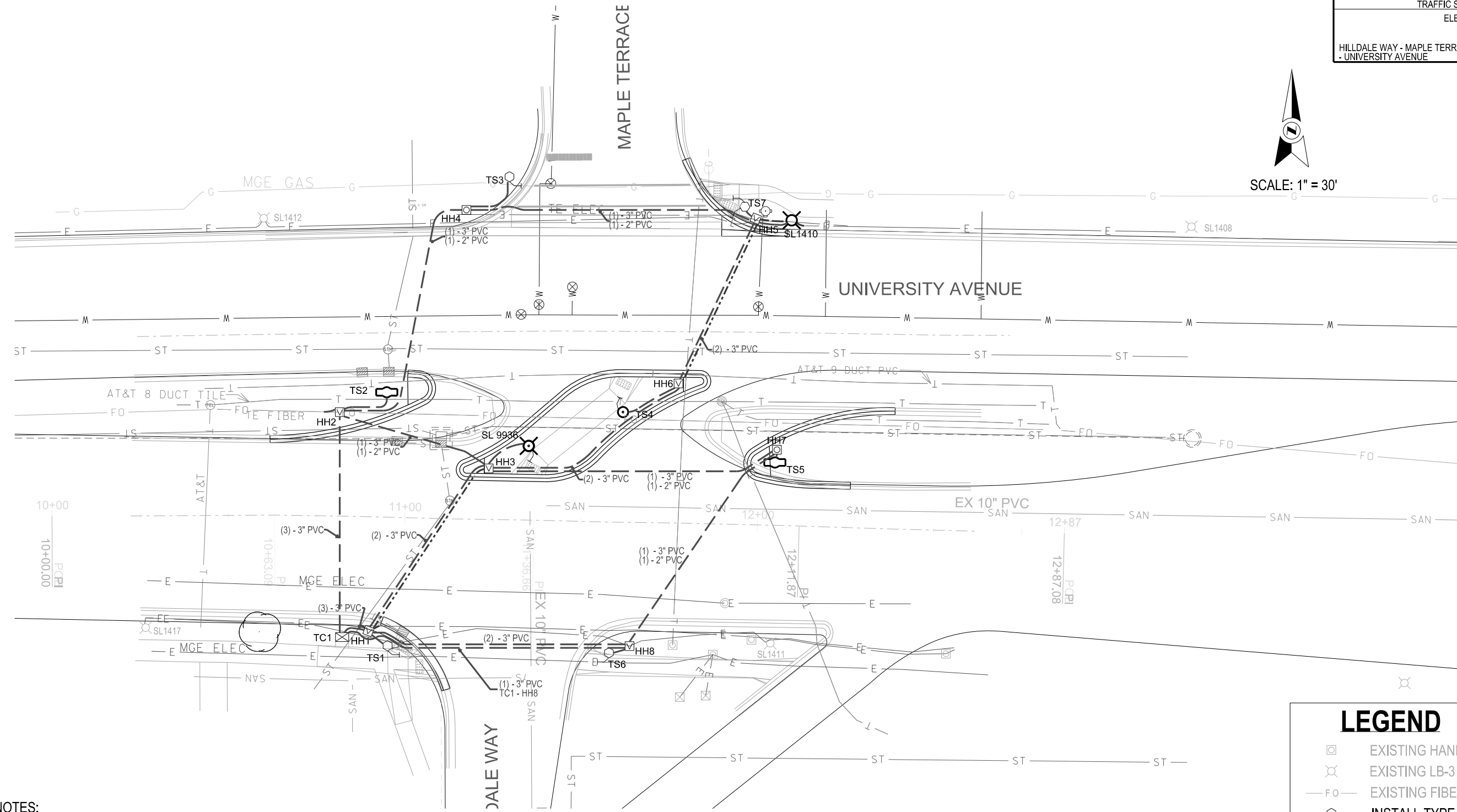
-  EXISTING HANDHOLE
-  EXISTING LB-3 BASE
-  EXISTING FIBER OPTIC CONDUIT
-  INSTALL TYPE G BASE
-  INSTALL LB-3 BASE
-  INSTALL LB-8 BASE
-  INSTALL TYPE 13 BASE
-  INSTALL TYPE P BASE
-  FURNISH AND INSTALL TYPE III HANDHOLE
-  FURNISH AND INSTALL TYPE V HANDHOLE
-  FURNISH AND INSTALL PVC CONDUIT STREET LIGHTING (SIZE NOTED)
-  FURNISH AND INSTALL PVC CONDUIT TRAFFIC SIGNALS (SIZE NOTED)

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

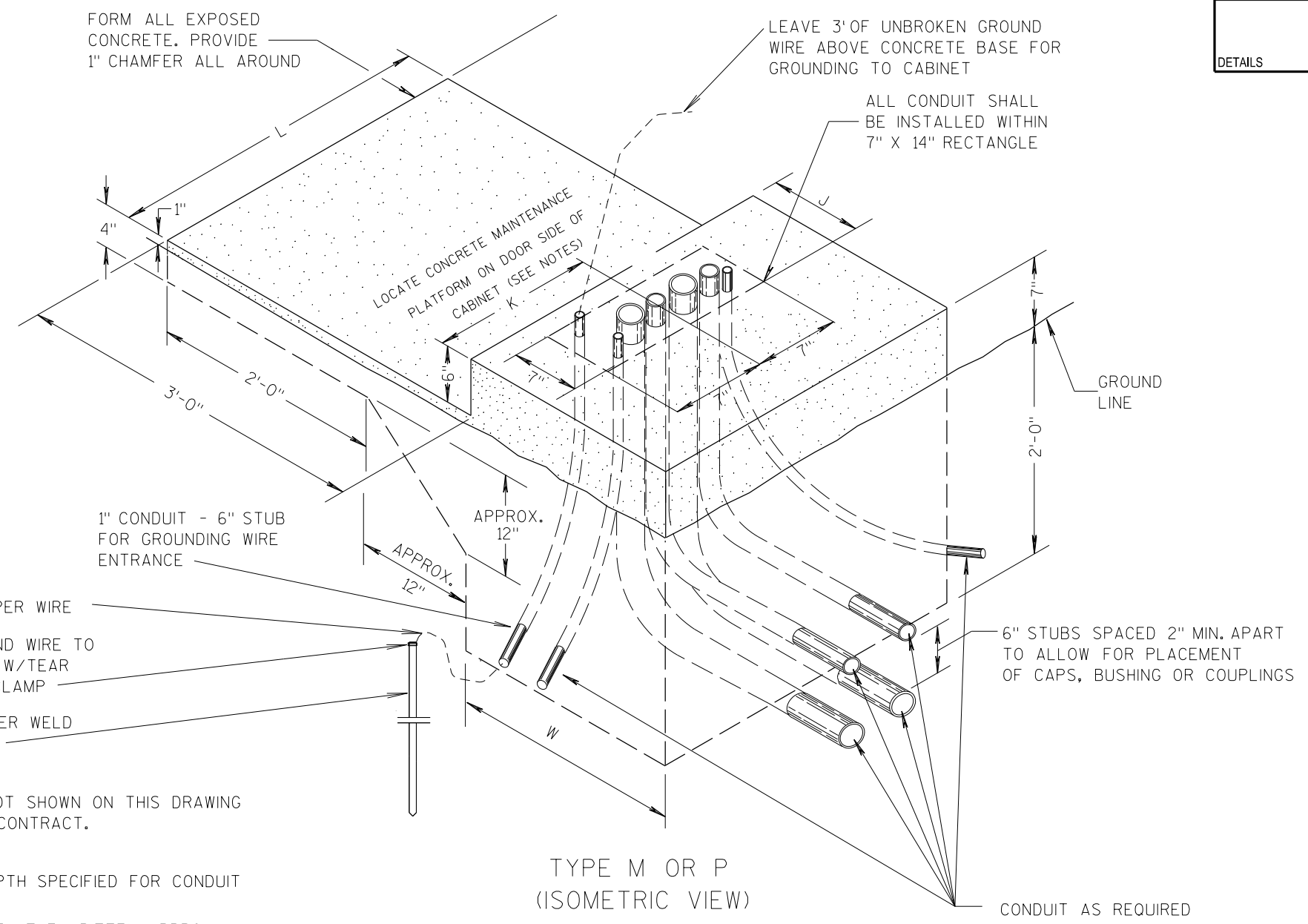


- NOTES:**
1. HH1 AND HH5 TO INTERCEPT EXISTING STREET LIGHT CONDUIT
 2. HH2 TO INTERCEPT EXISTING FIBER OPTIC CONDUIT. CONTRACTOR SHALL CONTACT MIKE BENSZSCHAWEL (266-9031) 24-HRS PRIOR TO EXCAVATING IN MEDIAN AND INSTALLING HH2. TE SHOP SHALL MAKE ADJUSTMENTS TO EXISTING FIBER OPTIC CABLE BETWEEN HH2 AND EXISTING TYPE III HH IN MEDIAN EAST OF INTERSECTION.
 3. CONTRACTOR SHALL NOT DISRUPT FIBER OPTIC CABLE IN MEDIAN DURING CONSTRUCTION.
 4. INSTALL (1) - 3" SCHEDULE 80 PVC CONDUIT FROM TC1 TO HH8, BYPASSING HH1 FOR MG&E SERVICE FROM ISLAND ON SOUTH APPROACH.

LEGEND	
	EXISTING HANDHOLE
	EXISTING LB-3 BASE
	EXISTING FIBER OPTIC CONDUIT
	INSTALL TYPE G BASE
	INSTALL LB-3 BASE
	INSTALL LB-8 BASE
	INSTALL TYPE 13 BASE
	INSTALL TYPE P BASE
	FURNISH AND INSTALL TYPE III HANDHOLE
	FURNISH AND INSTALL TYPE V HANDHOLE
	FURNISH AND INSTALL PVC CONDUIT STREET LIGHTING (SIZE NOTED)
	FURNISH AND INSTALL PVC CONDUIT TRAFFIC SIGNALS (SIZE NOTED)

PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	L	W	J	K	
TYPE M	40"	30"	12"	20"	.823
TYPE P	48"	30"	16"	24"	1.179
TYPE M MODIFIED	-	-	-	-	-
TYPE P MODIFIED	-	-	-	-	-
TYPE OTHER	-	-	-	-	-



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL CONDUIT SHALL BE PVC, SCHEDULE 40

DEPTH OF CONDUIT EXITING THE BASE SHALL MATCH THE DEPTH SPECIFIED FOR CONDUIT INSTALLATION.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED AND LEVEL.

MAINTENANCE PLATFORM SHALL NOT BE INSTALLED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

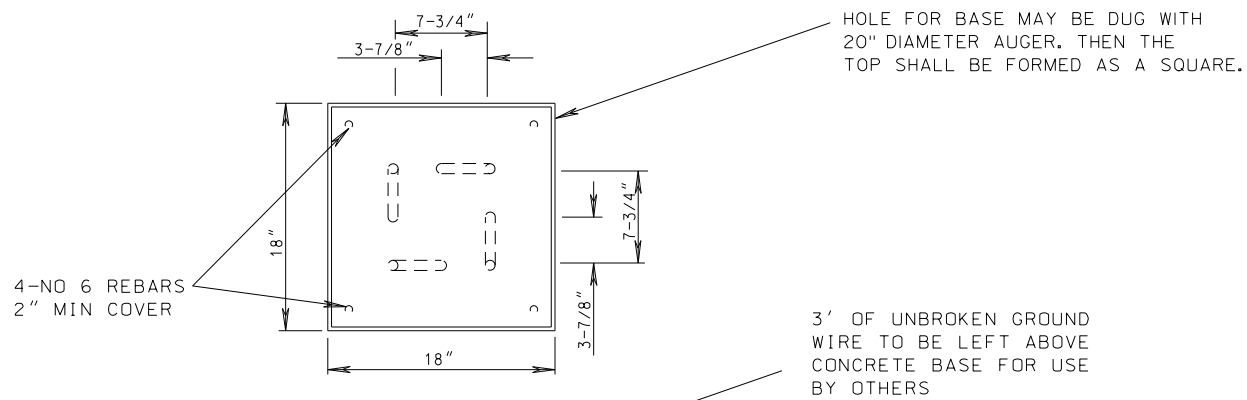
CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MINIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUITS SHALL EXIT THE BASE IN THE DIRECTION OF THE STRUCTURE IT IS TERMINATING INTO.

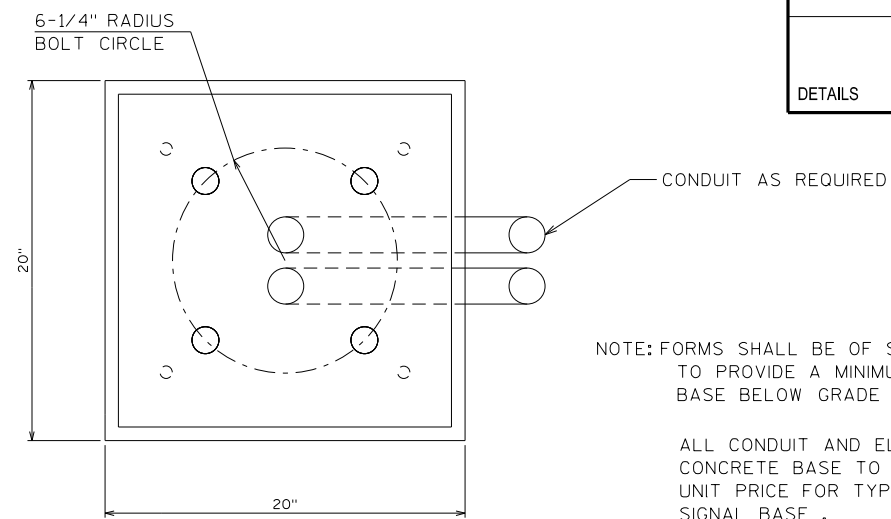
MAINTENANCE PLATFORM SIZE MAY VARY ON ACCOUNT OF CONDITIONS. VERIFY THE MAINTENANCE PLATFORM SIZE WITH ENGINEER PRIOR TO POURING BASE.

CONCRETE CONTROL CABINET BASES

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



3' OF UNBROKEN GROUND WIRE TO BE LEFT ABOVE CONCRETE BASE FOR USE BY OTHERS



CONDUIT EXTENDS 2' (+/-) 1/4" ABOVE CONCRETE

TYPICAL ELEVATION
SEE PLATE 6.01

TERRACE GRADE

CONDUIT MUST BE 30" BELOW TOP OF BASE

CLAMP GROUND WIRE TO ANCHOR BOLT W/WATER PIPE TYPE GROUND CLAMP

1-NO 4 STRANDED INSULATED COPPER WIRE

CLAMP GROUND WIRE TO GROUND ROD W/TEAR DROP TYPE CLAMP

5/8" X 8' COPPER WELD GROUND ROD

3/4" - 45° BEVEL

FORMS SHALL BE OF SUFFICIENT DEPTH TO PROVIDE A MINIMUM OF 12" OF FORMED BASE BELOW GRADE ON LOW SIDE

1" X 40" ANCHOR BOLTS WITH 6" OF THREAD AT TOP AND 4" L-BEND AT BOTTOM. FURNISHED BY CITY.

INSTALL PVC ELBOWS OUT OF EACH SIDE OF THE BASE AS NEEDED

CLAMP GROUND WIRE TO ANCHOR BOLT WITH WATER PIPE TYPE GROUND CLAMP.

3' OF UNBROKEN GROUND WIRE TO BE LEFT ABOVE CONCRETE BASE FOR USE BY OTHERS

TYPICAL ELEVATION
SEE PLATE 6.01

TERRACE GRADE

4 - 3/4" X 19" ANCHOR BOLTS FURNISHED BY CITY

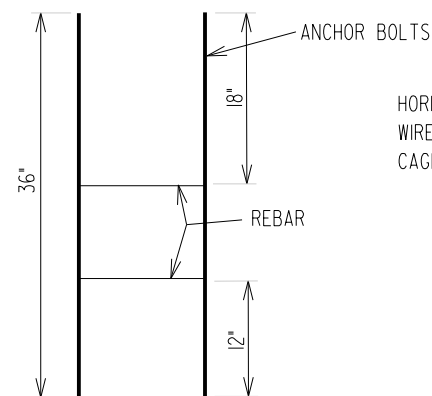
4 NO. 6 REINFORCING BARS 2" CLEAR (INCIDENTAL TO BASE CONST.)

EXTENSION OF ALL CONDUIT RUNS INTO BASE SHALL BE VERTICAL (MIN. 12") AND CENTERED

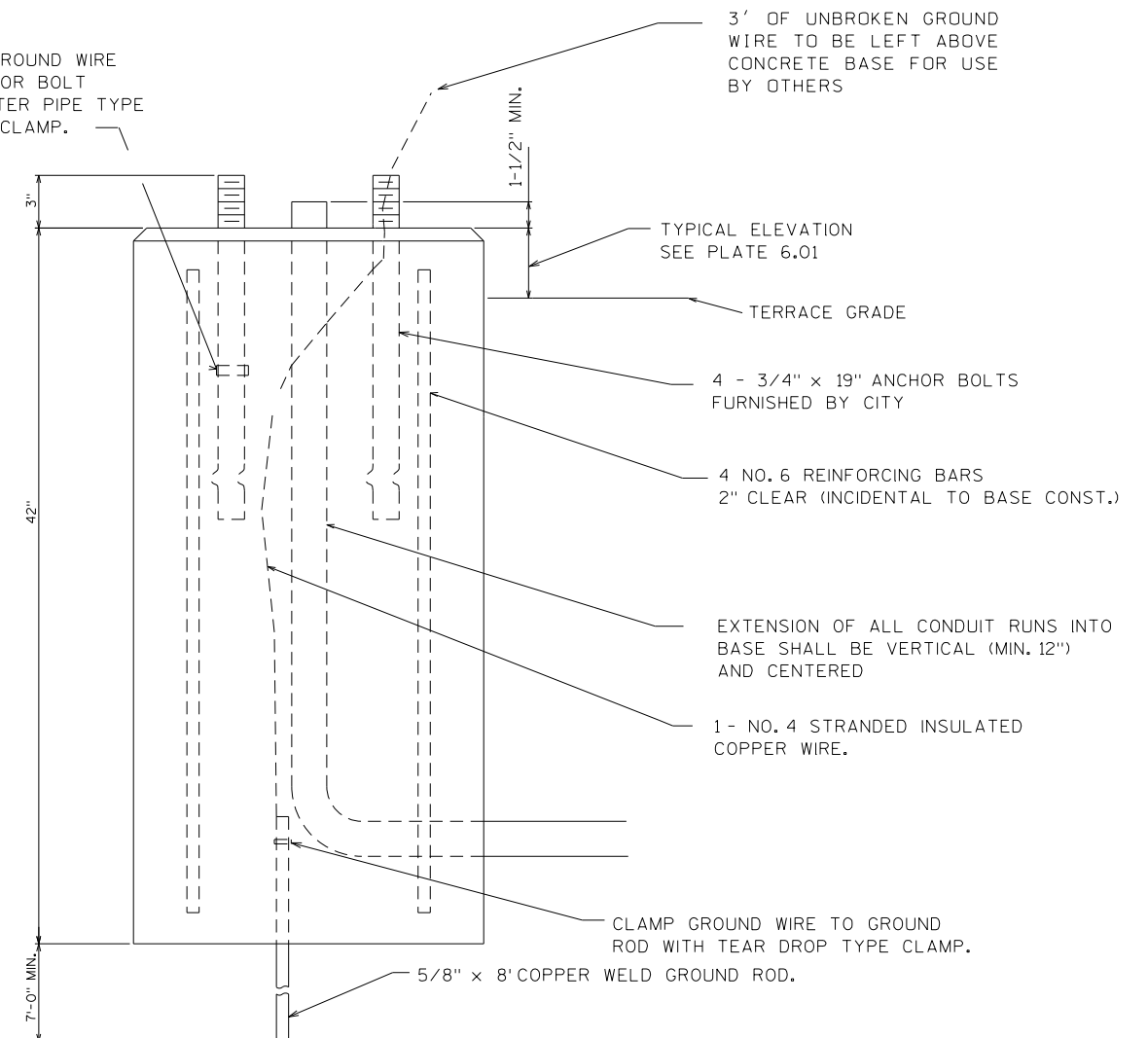
1 - NO. 4 STRANDED INSULATED COPPER WIRE.

CLAMP GROUND WIRE TO GROUND ROD WITH TEAR DROP TYPE CLAMP.

5/8" X 8' COPPER WELD GROUND ROD.



DETAIL: TYPE G BASE
SCALE: NONE



DETAIL: TYPE LB-3 BASE
SCALE: NONE

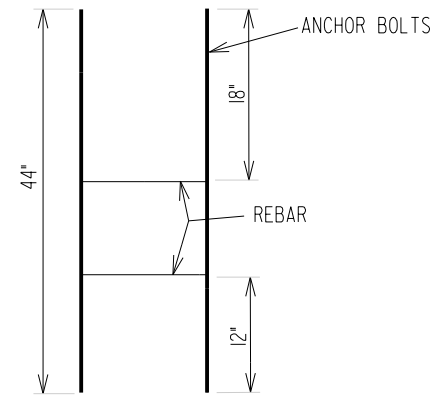
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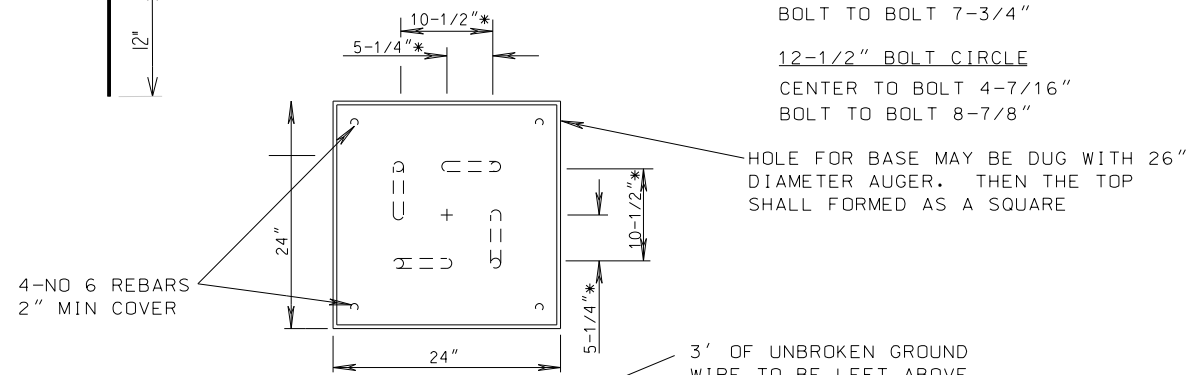
HORIZONTAL REBAR SHALL BE TACK WELDED OR WIRED TO ANCHOR BOLTS TO FORM ANCHOR BOLT CAGE BEFORE POURING CONCRETE.



*IF ANOTHER BOLT CIRCLE IS REQUIRED, INSTEAD OF THE 15" BOLT CIRCLE SHOWN, THE FOLLOWING DIMENSIONS SHOULD BE USED

11" BOLT CIRCLE
CENTER TO BOLT 3-7/8"
BOLT TO BOLT 7-3/4"

12-1/2" BOLT CIRCLE
CENTER TO BOLT 4-7/16"
BOLT TO BOLT 8-7/8"



HOLE FOR BASE MAY BE DUG WITH 26" DIAMETER AUGER. THEN THE TOP SHALL FORMED AS A SQUARE

3' OF UNBROKEN GROUND WIRE TO BE LEFT ABOVE CONCRETE BASE FOR USE BY OTHERS

CONDUIT EXTENDS 2' (+/-) 1/4" ABOVE CONCRETE
TYPICAL ELEVATION SEE PLATE 6.01

TERRACE GRADE

CLAMP GROUND WIRE TO ANCHOR BOLT W/WATER PIPE TYPE GROUND CLAMP

1-NO 4 STRANDED INSULATED COPPER WIRE

CLAMP GROUND WIRE TO GROUND ROD W/TEAR DROP TYPE CLAMP

5/8" x 8' COPPER WELD GROUND ROD

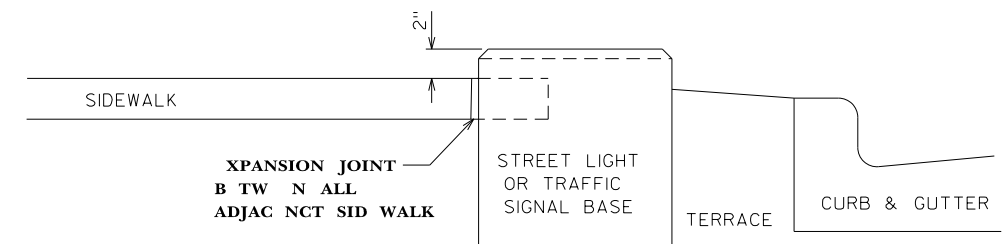
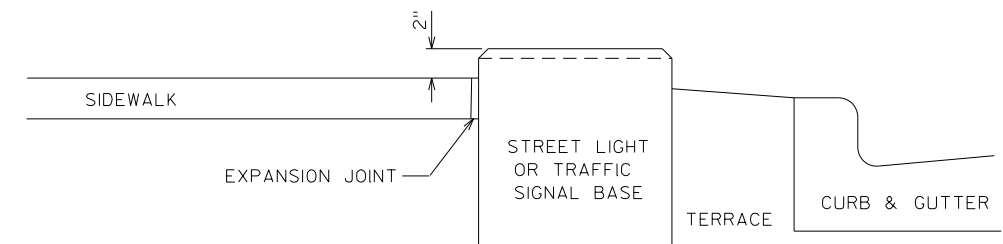
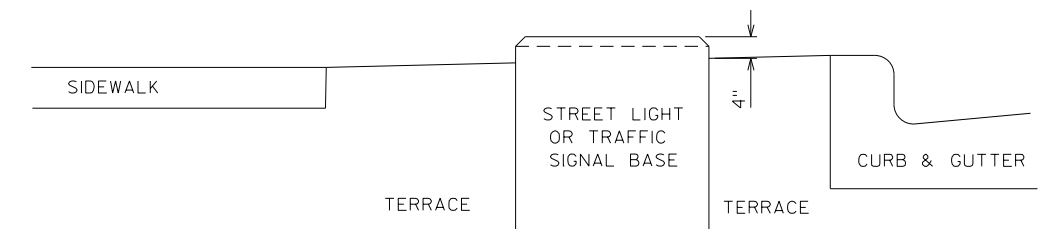
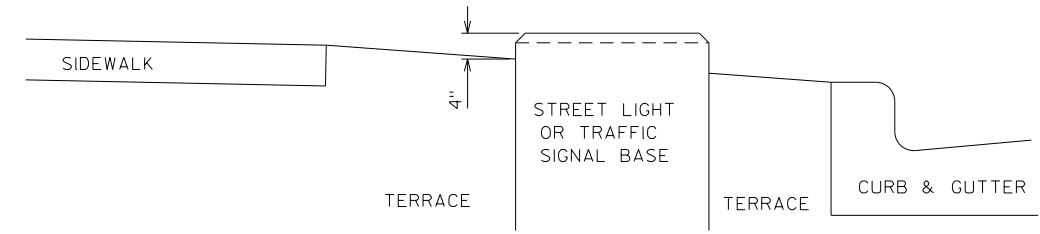
3/4" - 45° BEVEL

FORMS SHALL BE OF SUFFICIENT DEPTH TO PROVIDE A MINIMUM OF 12" OF FORMED BASE BELOW GRADE ON LOW SIDE

1-1/4" X 48" ANCHOR BOLTS WITH 6" OF THREAD AT TOP AND 4" L-BEND AT BOTTOM FURNISHED BY CITY

EXTENSION OF ALL CONDUIT RUNS INTO BASE SHALL BE VERTICAL (MINIMUM 12") AND CENTERED

DETAIL: LB-8 BASE
SCALE: NONE



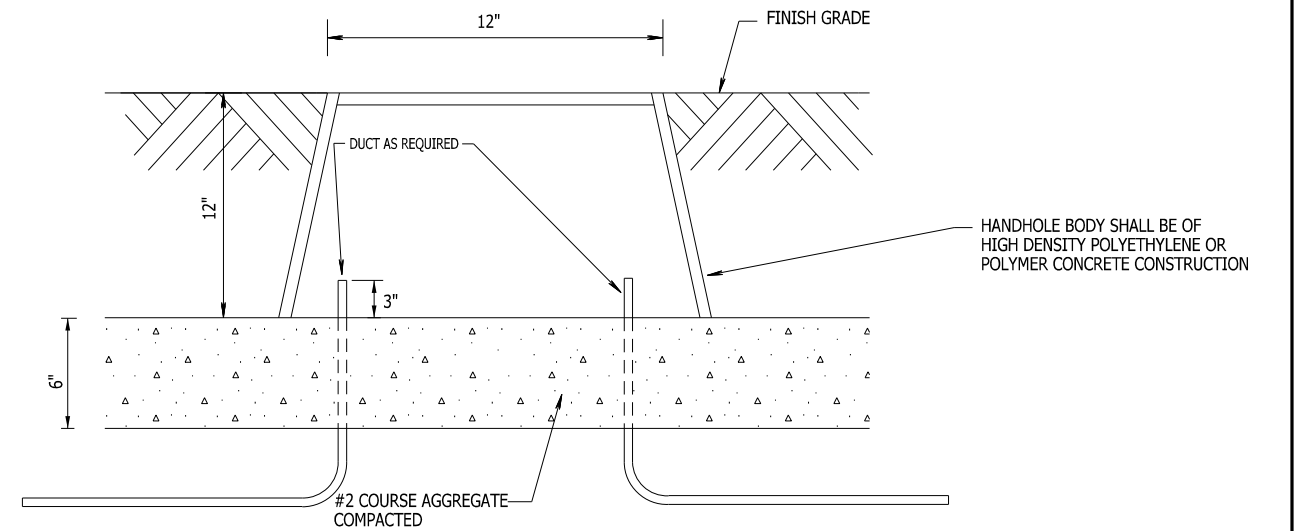
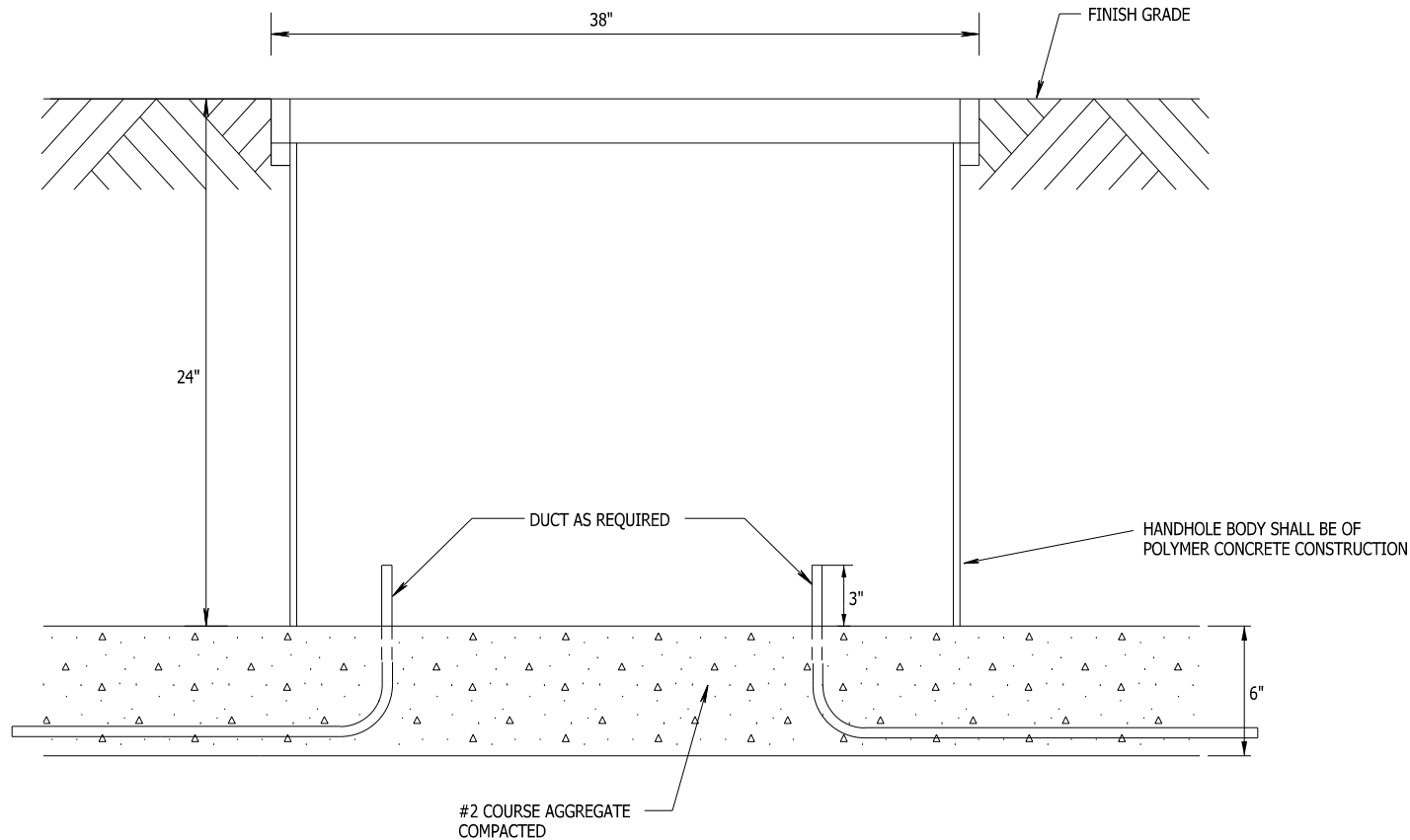
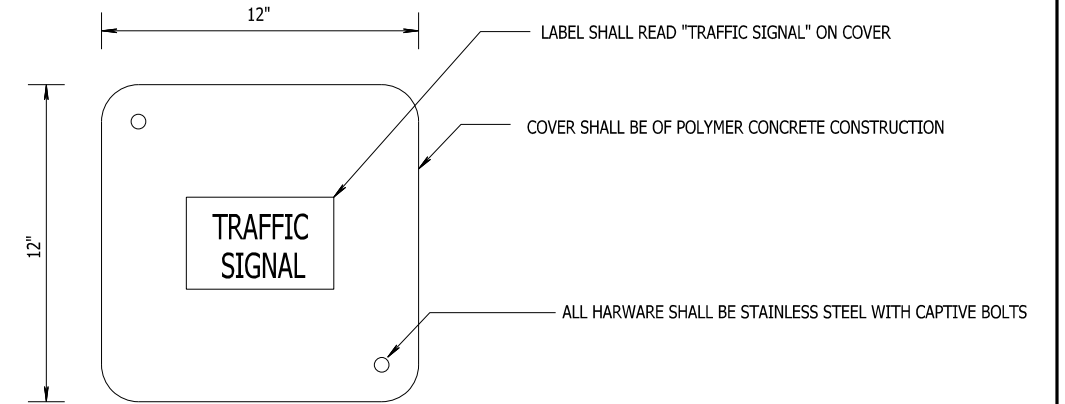
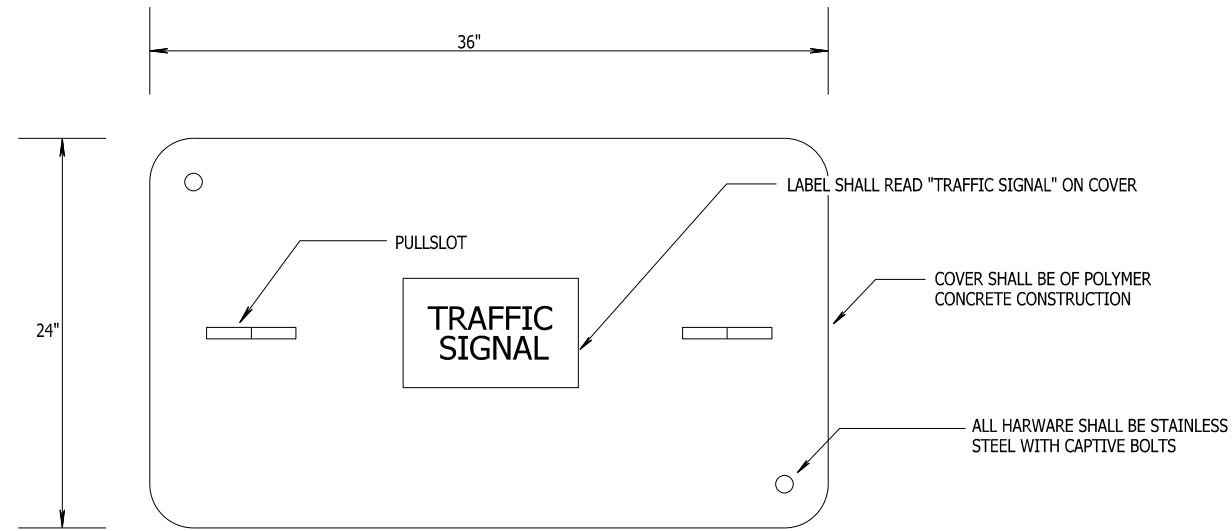
DETAIL: BASE ELEVATION
SCALE: NONE

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



DETAIL: TYPE III HANDHOLE
SCALE: NONE

DETAIL: TYPE V HANDHOLE
SCALE: NONE

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

STREET LIGHTING CONDUIT (45852)

CATEGORY	FROM	TO	60231	60230	60532	COMMENTS	
			CONDUIT RIGID NONMETALLIC		FURNISH & INSTALL		
			SCHEDULE 40	SCHEDULE 80	3 #4 & 1 #8 WIRES		
			2-INCH BY	2-INCH	IN EXISTING OR CONTRACTOR INSTALLED CONDUIT		
			OPEN TRENCH				
			LF	LF	LF		
	HH1	HH3	-	57	114	1-2"	
	HH5	SL1410	10	-	10	1-2"	
	HH5	HH6		52	52	1-2"	
	HH1	EXISTING	4	-	-	1-2"	
	HH1	EXISTING	-	4	120	1-2"	
	SL1410	EXISTING	5				
PROJECT 45852 TOTALS			19	113	296		

ELECTRICAL PULLBOXES (45852)

CATEGORY	STATION	OFFSET	DESCRIPTION	60702	60708
				CONSTRUCT ELECTRICAL HANDHOLE TYPE I EACH	CONSTRUCT ELECTRICAL HANDHOLE TYPE V EACH
0030/0040	STA 10+90.4 EB UNIVERSITY	32' R	HH1	-	1
	STA 10+81.1 EB UNIVERSITY	30' L	HH2	-	1
	STA 11+22 EB UNIVERSITY	14.5' L	HH3	-	1
	STA 11+16 EB UNIVERSITY	87' L	HH4	1	-
	STA 11+98 EB UNIVERSITY	87.5' L	HH5	-	1
	STA 11+76.75 EB UNIVERSITY	39' L	HH6	-	1
	STA 12+05 EB UNIVERSITY	21' L	HH7	1	-
	STA 11+64.75 EB UNIVERSITY	35' R	HH8	1	-
PROJECT 45852 TOTALS				3	5

TRAFFIC SIGNAL CONDUIT (45852)

CONDUIT RIGID NONMETALLIC												COMMENTS
CATEGORY	FROM	TO	SCHEDULE 40			SCHEDULE 80				60241 GOPHER RACEWAY FOR ELECTRICAL CONDUIT OR CABLE-IN-DUCT		
			60231	60223	60224	60229	60230	60221	60222			
			2-INCH BY OPEN TRENCH	3-INCH BY OPEN TRENCH	3-INCH	2-INCH BY OPEN TRENCH	2-INCH	3-INCH BY OPEN TRENCH	3-INCH		LF	
LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF		
0040	TC1	HH1	-	9	18	-	-	-	-	-	-	3-3"
	TC1	HH2	-	-	-	-	-	64	64	33	-	2-3"
	HH1	TS1	5	-	-	-	-	-	-	-	-	1-2"
	HH1	HH8	-	-	-	-	-	75	75	52	-	2-3"
	HH1	HH3	-	-	-	-	-	59	59	49	-	2-3"
	HH2	HH3	-	-	-	-	-	44	44	-	-	1-3", 1-2"
	HH2	TS2	15	-	-	-	-	-	-	-	-	1-2"
	HH2	HH4	-	-	-	-	-	80	80	31	-	1-3", 1-2"
	HH4	TS3	-	-	-	-	-	18	-	-	-	1-2"
	HH4	HH5	-	-	-	-	-	82	82	67	-	1-3", 1-2"
	HH5	HH6	-	-	-	-	-	52	52	35	-	2-3"
	HH6	TS4	-	-	-	15	-	-	-	-	-	1-2"
	HH6	HH3	-	-	-	-	-	63	63	-	-	2-3"
	HH3	SL9936	-	-	-	18	-	-	-	-	-	1-2"
	HH3	HH7	-	-	-	-	-	84	84	-	-	1-3", 1-2"
	HH7	TS5	4	-	-	-	-	-	-	-	-	1-2"
	HH7	HH8	-	-	-	-	-	71	71	-	-	1-3", 1-2"
	HH8	TS6	5	-	-	-	-	-	-	-	-	1-2"
	HH5	TS7	5	-	-	-	-	-	-	-	-	1-2"
	HH2	EXISTING	5	-	-	-	-	-	-	-	-	*
	HH2	EXISTING	5	-	-	-	-	-	-	-	-	*
	HH5	EXISTING	10	-	-	-	-	-	-	-	-	*
	TC1	HH8	-	-	-	-	-	-	80	-	-	1-3"
PROJECT 45852 TOTALS			54	9	18	33	379	674	393	317		

* MATCH EXISTING CONDUIT

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

STREET LIGHT BASES (45852)

60403

CATEGORY	STATION	OFFSET	DESCRIPTION	CONCRETE		LED LUMINAIRE AND MOUNTING BRACKET		ELECTRICAL WIRE	COMMENTS
				BASE TYPE LB-3	30-FT, 11 GAUGE	BASE 16-INCH STEEL	TYPE I	LIGHTING, 14-3 GROUNDED	
				EACH	EACH	EACH	EACH	LF	
0030	STA 12+7.75 EB UNIVERSITY	86.8' L	SL1410	1	1	1	1	40	
	STA 11+36.5 EB UNIVERSITY	22.75' L	SL9936	1	1	1	2	40	
	STA 10+58.5 EB UNIVERSITY	84.8' L	SL1412	-	-	-	1	-	
	STA 10+26.5 EB UNIVERSITY	31.75' R	SL1417	-	-	-	1	-	
	STA 112+04.5 EB UNIVERSITY	33.1' R	SL1411	-	-	-	1	-	
PROJECT 45852 TOTALS				2	2	2	6	80	

TRAFFIC SIGNAL BASES (45852)

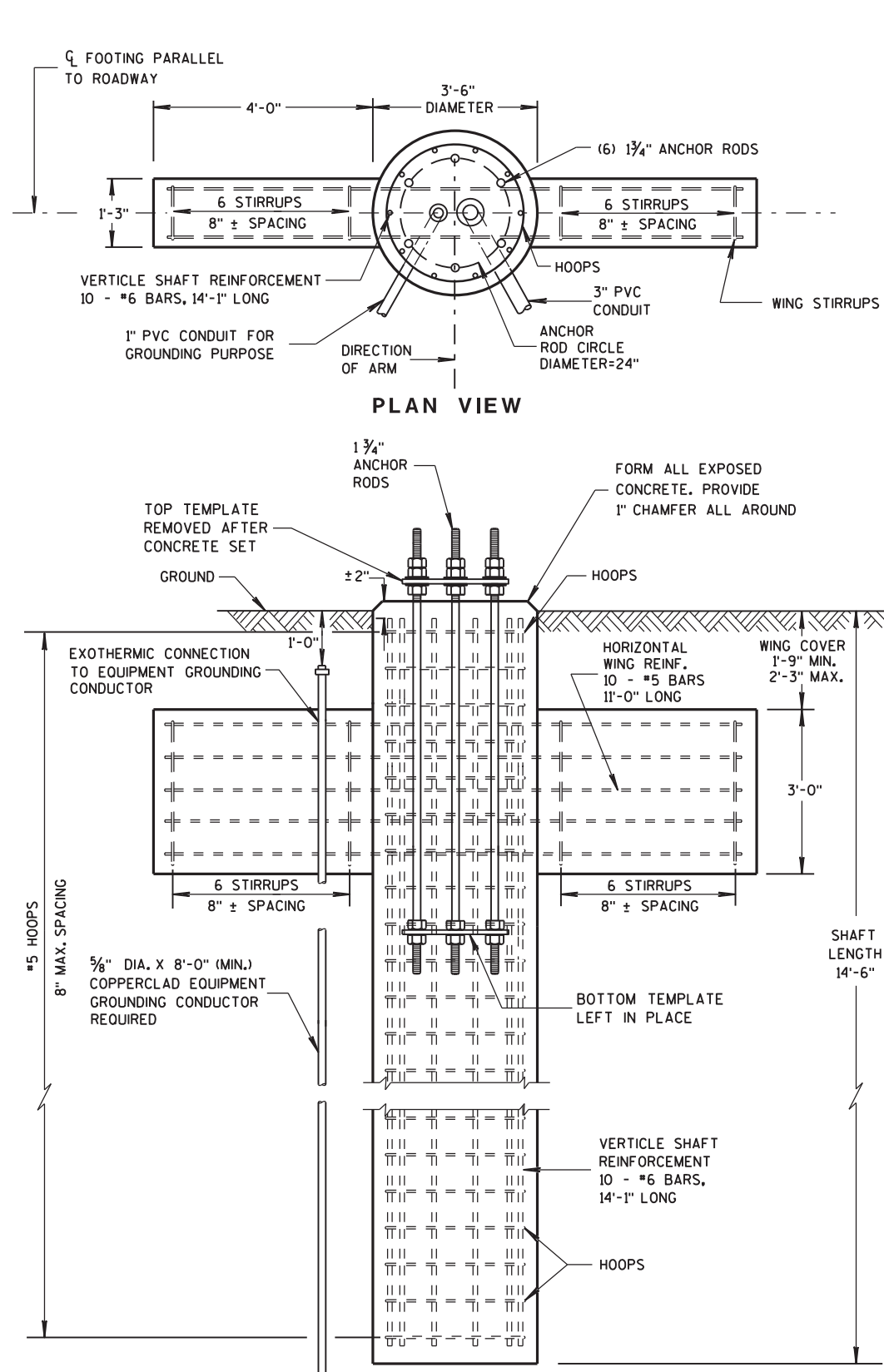
CATEGORY	STATION	OFFSET	DESCRIPTION	60413	60411	60407	90100	COMMENTS
				CONCRETE BASE TYPE P EACH	CONCRETE BASE TYPE G EACH	CONCRETE BASE TYPE LB-8 EACH	CONCRETE BASES TYPE 13 EACH	
0100	STA 10+95.75 EB UNIVERSITY	36.5' R	TS1	-	1	-	-	
	STA 10+94.25 EB UNIVERSITY	35.75' L	TS2	-	-	-	1	
	STA 11+28 EB UNIVERSITY	97.4' L	TS3	-	1	-	-	
	STA 11+61.33 EB UNIVERSITY	31.25' L	TS4	-	-	1	-	
	STA 12+04.75 EB UNIVERSITY	18.1' L	TS5	-	-	-	1	
	STA 11+58.8 EB UNIVERSITY	37' R	TS6	-	1	-	-	
	STA 11+94.5 EB UNIVERSITY	90' L	TS7	-	1	-	-	
	STA 10+82.8 EB UNIVERSITY	34' R	TC1	1	-	-	-	
PROJECT 45852 TOTALS				1	4	1	2	

PLOT SCALE:

PLOT NAME:

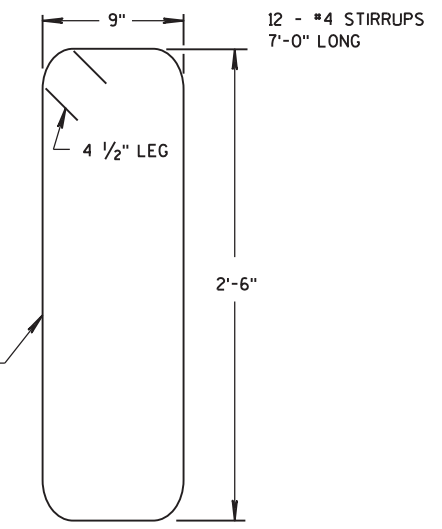
REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

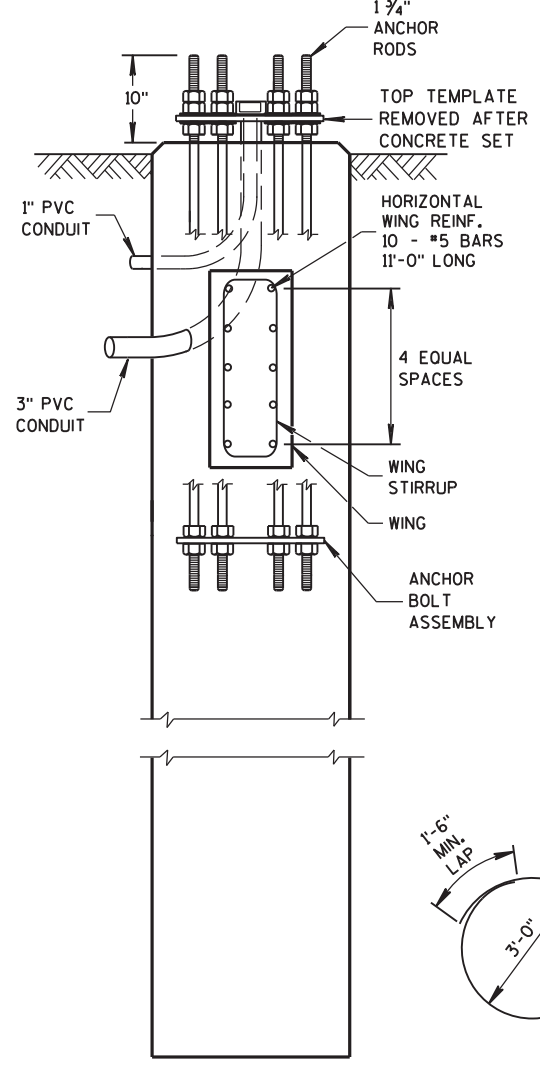


ELEVATION VIEW*

* CONDUITS ARE NOT SHOWN ON THIS VIEW FOR CLARITY

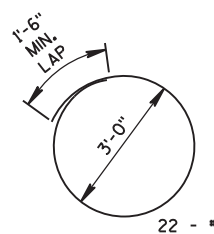


WING STIRRUP



SIDE VIEW**

** HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY



HOOP DETAIL

GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.
- BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.
- USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.
- THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.
- WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.
- BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.
- TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.
- CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.
- MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.
- CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4 1/2" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.
- ALL CONDUIT ENDS AT THE TOP OF THE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.
- BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.
- WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.
- A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).
- THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.
- BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.
- THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.
- ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATIONS)	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

6

6

S.D.D. 9 C 12-9a

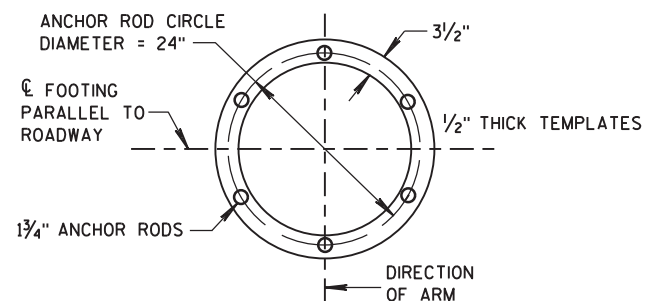
S.D.D. 9 C 12-9a

(FOR TYPE 12 & 13 & OVER HEIGHT (OH) POLES)

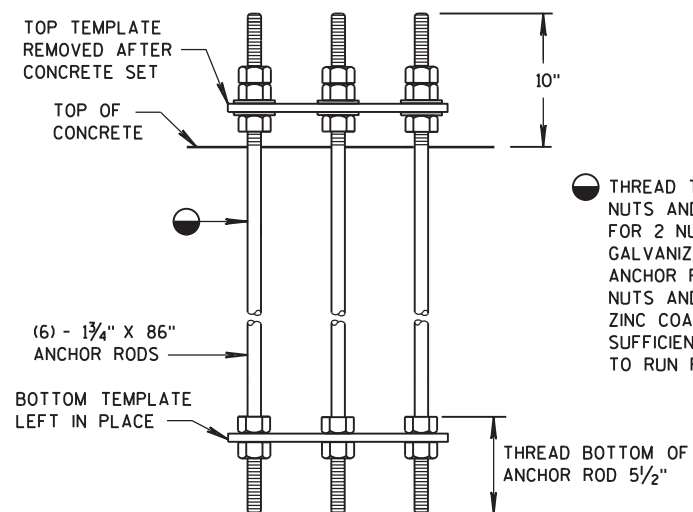
CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 635 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



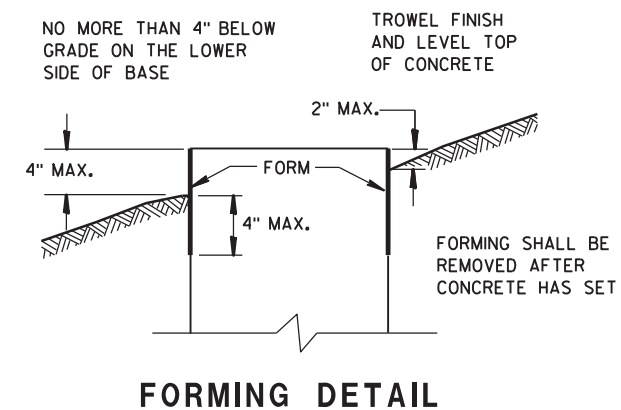
TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY

● THREAD TOP 11" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 1/2" FOR 2 NUTS PER ANCHOR ROD. HOT-DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR RODS (ASTM A123) AND HOT-DIP NUTS AND WASHERS (ASTM A153). USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

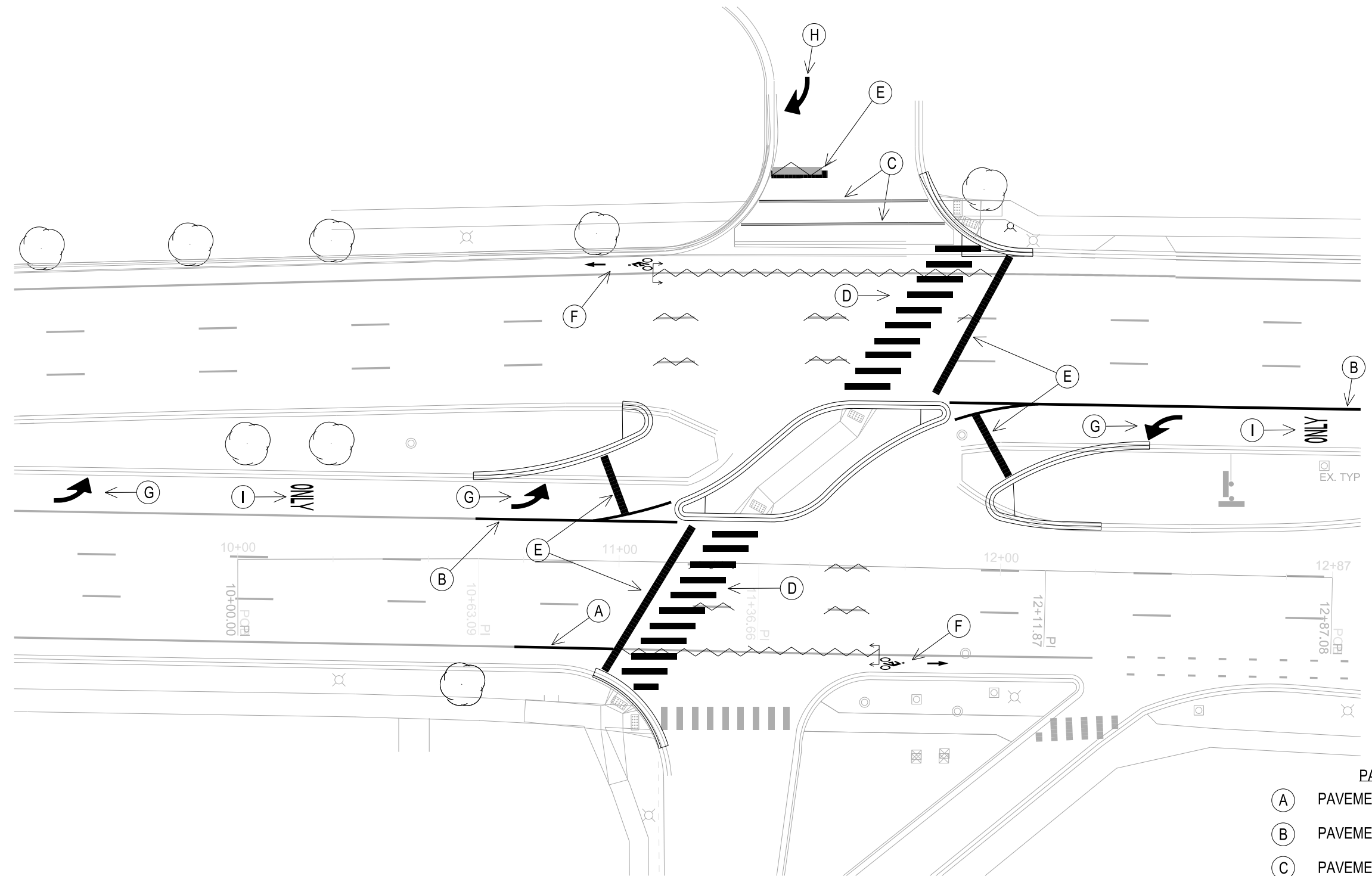


CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2017 /S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER
FHWA

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.




PAVEMENT MARKING NOTES:
1. CONTACT MARK WINTER (266-6543) AT LEAST 24 HOURS PRIOR TO REMOVING PAVEMENT MARKINGS AND INSTALLING NEW PAVEMENT MARKINGS.

- PAVEMENT MARKING LEGEND:**
- (A) PAVEMENT MARKING EPOXY, LINE 6-INCH
 - (B) PAVEMENT MARKING EPOXY, LINE 8-INCH
 - (C) PAVEMENT MARKING EPOXY, CROSSWALK, 6-INCH
 - (D) PAVEMENT MARKING EPOXY, CONTINENTAL CROSSWALK, 18-INCH
 - (E) PAVEMENT MARKING EPOXY, STOP LINE, 24-INCH
 - (F) PAVEMENT MARKING EPOXY, SYMBOL, BIKE LANE & STRAIGHT ARROW
 - (G) PAVEMENT MARKING EPOXY, SYMBOL, LEFT ARROW
 - (H) PAVEMENT MARKING EPOXY, SYMBOL, RIGHT ARROW
 - (I) PAVEMENT MARKING EPOXY, WORD, ONLY
 - ~ REMOVE EXISTING PAVEMENT MARKING



SCALE: 1" = 30'

USE SIDEWALK CLOSED BARRICADE WHEN SIDEWALK RAMP OUT OF SERVICE

 Type II Barricade

UNIVERSITY AVENUE

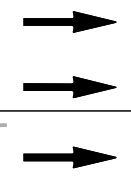
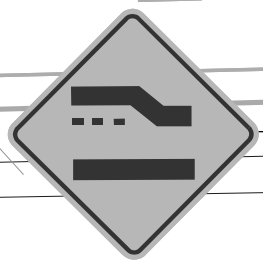
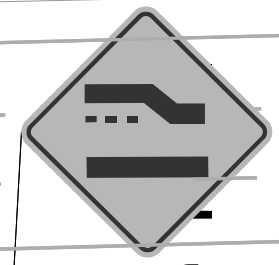
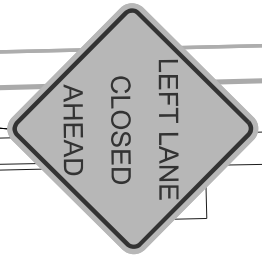
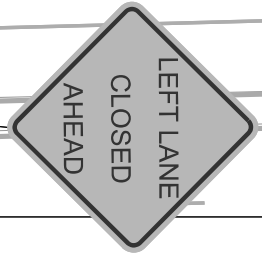
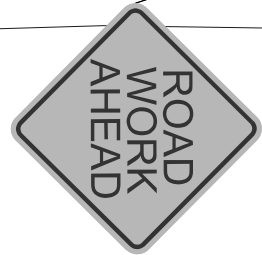
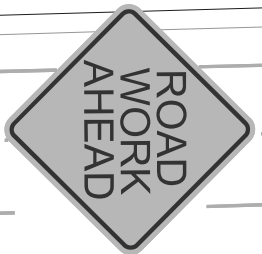
MATCHLINE A

250 FT







SEGOE RD

200 FT

140 FT



TRAFFIC CONTROL LEGEND:

-  FURNISH AND INSTALL TEMPORARY TRAFFIC CONTROL SIGN
-  FURNISH AND INSTALL ARROW BOARD
-  FURNISH AND INSTALL MESSAGE BOARD
-  OFF-PEAK LANE CLOSURES
-  PEAK HOUR LANE CLOSURES
-  WORK ZONE

TRAFFIC CONTROL NOTES:

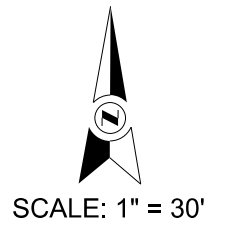
1. MESSAGE BOARDS SHALL BE IN PLACE SEVEN (7) DAYS PRIOR TO STARTING LANE CLOSURES.
2. CONTACT JERRY SCHIPPA, TRAFFIC ENGINEERING (267-1969) 24 HOURS PRIOR TO INSTALLING MESSAGE BOARDS TO VERIFY PLACEMENT AND REQUIRED DURATION PER NOTE 1.


PLOT SCALE:

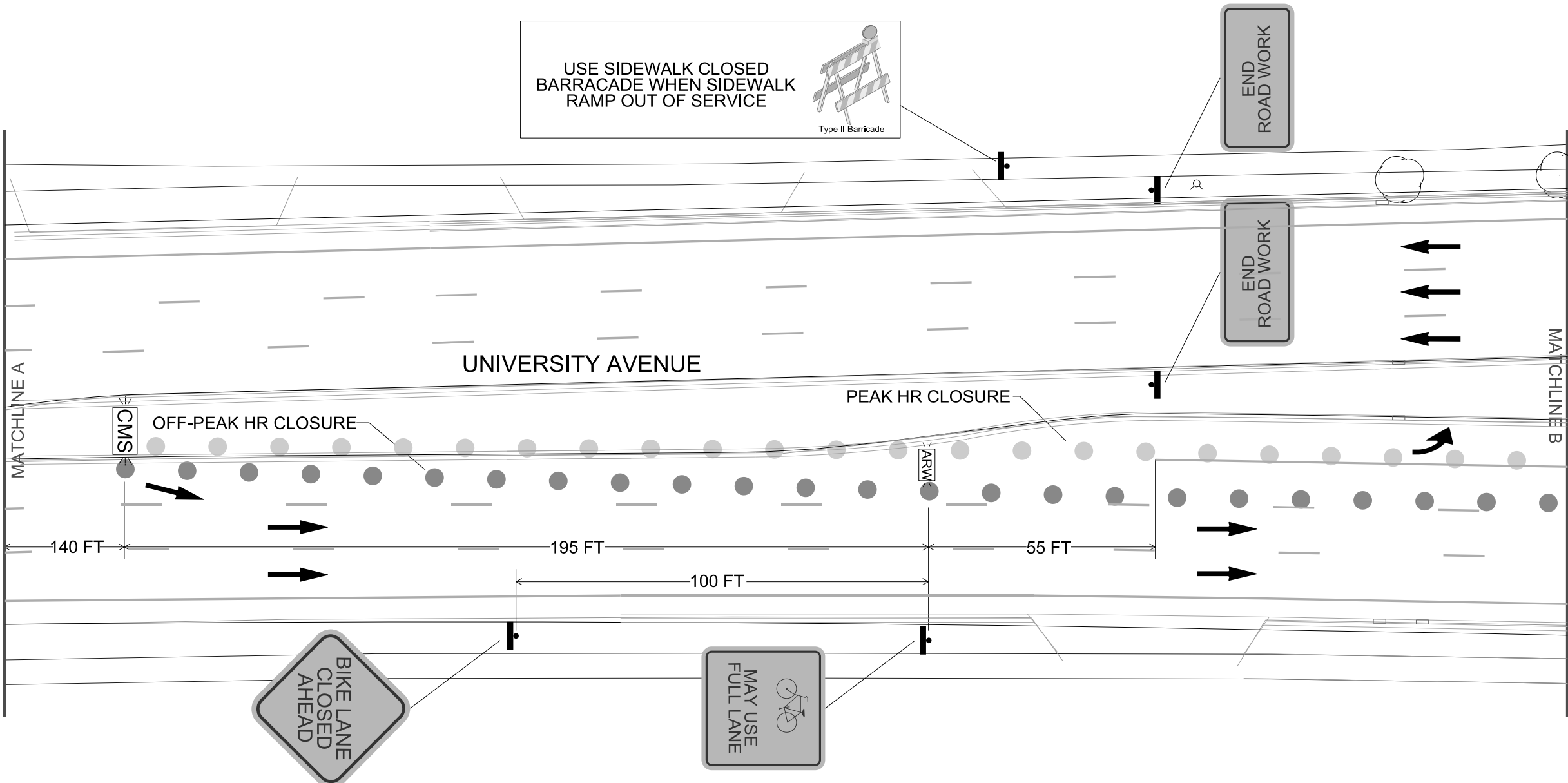
PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.









USE SIDEWALK CLOSED BARRICADE WHEN SIDEWALK RAMP OUT OF SERVICE

 Type II Barricade



TRAFFIC CONTROL NOTES:

1. DURING PEAK HOURS, MOVE BARRELS INTO MEDIAN AND LEFT TURN LANE IN ORDER TO MAINTAIN 3 LANES ON UNIVERSITY AVENUE.

TRAFFIC CONTROL LEGEND:

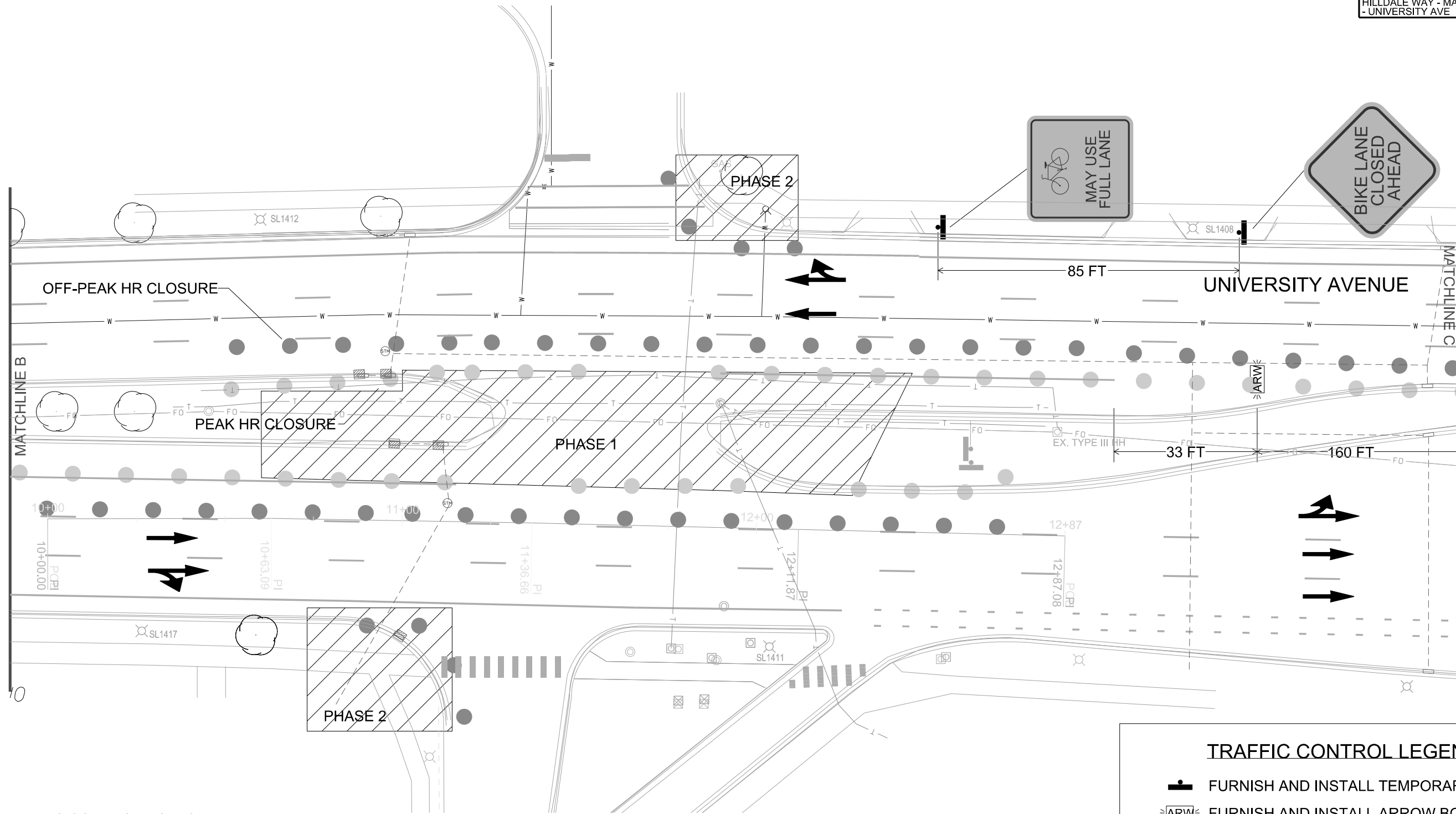
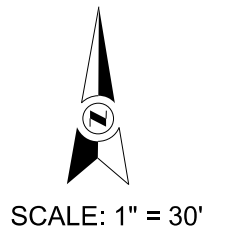
-  FURNISH AND INSTALL TEMPORARY TRAFFIC CONTROL SIGN
-  FURNISH AND INSTALL ARROW BOARD
-  FURNISH AND INSTALL MESSAGE BOARD
-  OFF-PEAK LANE CLOSURES
-  PEAK HOUR LANE CLOSURES
-  WORK ZONE

PLOT SCALE:

PLOT NAME:

REV. DATE:







ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



TRAFFIC CONTROL NOTES:

1. DRIVEWAYS SHALL REMAIN OPEN AT ALL TIIMES.
2. DURING PHASE 1, CONTRACTOR SHALL MAINTAIN 3 LANES OF TRAFFIC ON UNIVERSITY DURING PEAK HOURS. DURING OFF PEAK HOURS (9:00 AM TO 3:30 PM), CONTRACTOR MAY REDUCE UNIVERSITY TO TWO LANES AS SHOWN ON PLANS.
3. DURING PHASE 2, CONTRACTOR SHALL ARRANGE BARRELS ON EB UNIVERSITY SO THAT THE BIKE LANE REMAINS OPEN. CONTRACTOR SHALL KEEP OPEN BIKE LANES CLEAR OF DEBRIS DURING CONSTRUCTION AND PRIOR TO REMOVING BARRELS.

TRAFFIC CONTROL LEGEND:

-  FURNISH AND INSTALL TEMPORARY TRAFFIC CONTROL SIGN
-  FURNISH AND INSTALL ARROW BOARD
-  FURNISH AND INSTALL MESSAGE BOARD
-  OFF-PEAK LANE CLOSURES
-  PEAK HOUR LANE CLOSURES
-  WORK ZONE


PLOT SCALE:

PLOT NAME:

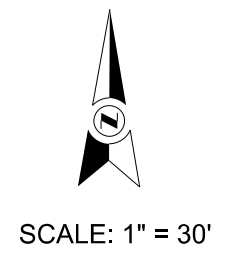
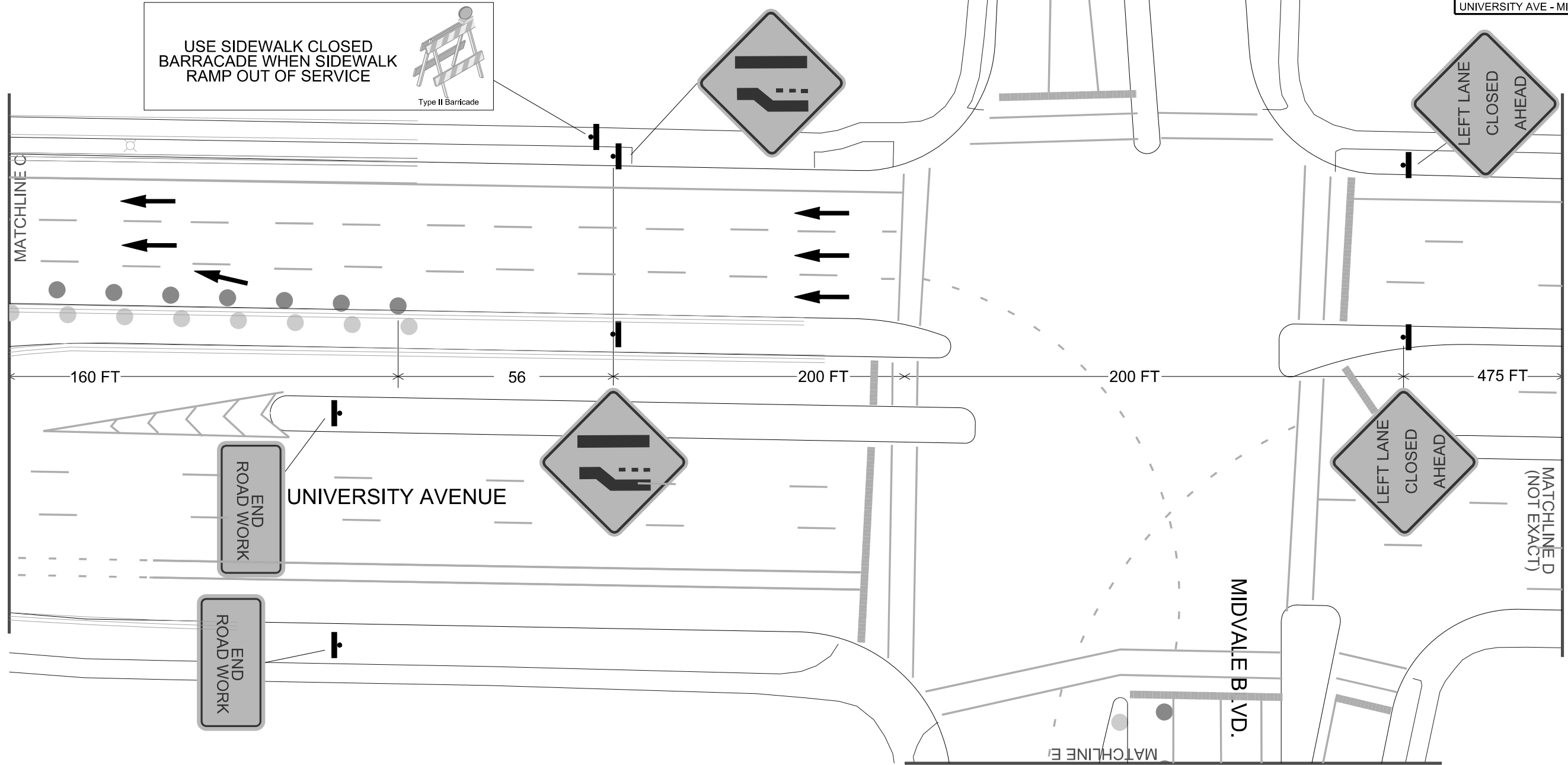
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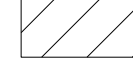
USE SIDEWALK CLOSED
BARRICADE WHEN SIDEWALK
RAMP OUT OF SERVICE



Type II Barricade



TRAFFIC CONTROL LEGEND:

-  FURNISH AND INSTALL TEMPORARY TRAFFIC CONTROL SIGN
-  FURNISH AND INSTALL ARROW BOARD
-  FURNISH AND INSTALL MESSAGE BOARD
-  OFF-PEAK LANE CLOSURES
-  PEAK HOUR LANE CLOSURES
-  WORK ZONE






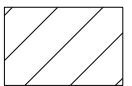
PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

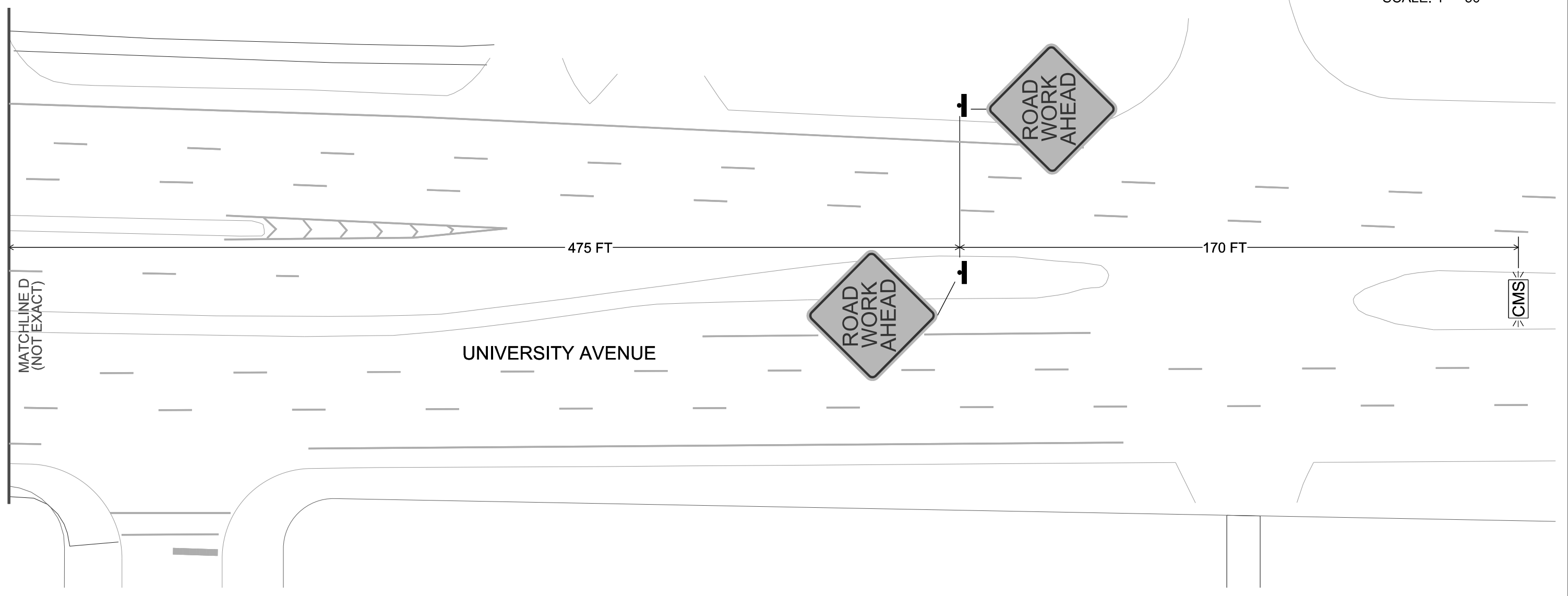
TRAFFIC CONTROL LEGEND:

-  FURNISH AND INSTALL TEMPORARY TRAFFIC CONTROL SIGN
-  FURNISH AND INSTALL ARROW BOARD
-  FURNISH AND INSTALL MESSAGE BOARD
-  OFF-PEAK LANE CLOSURES
-  PEAK HOUR LANE CLOSURES
-  WORK ZONE



SCALE: 1" = 30'

PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.





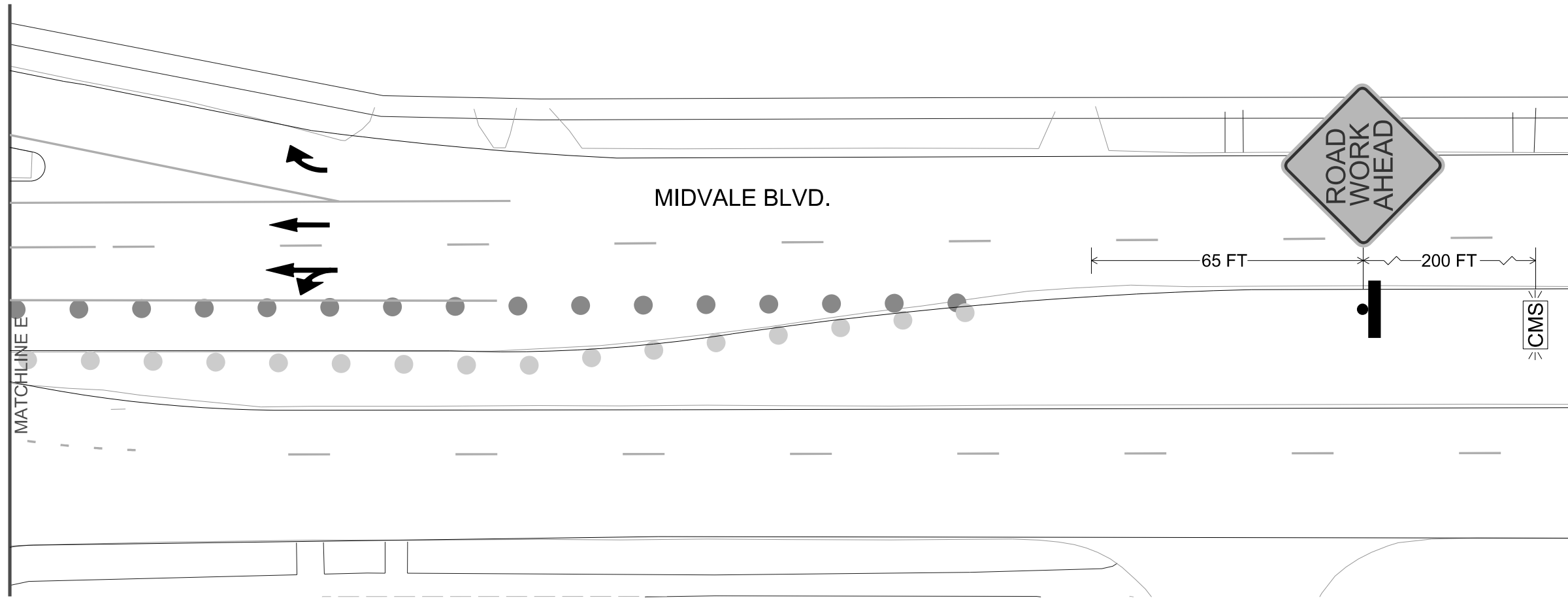
SCALE: 1" = 30'

PLOT SCALE:







PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



TRAFFIC CONTROL LEGEND:

-  FURNISH AND INSTALL TEMPORARY TRAFFIC CONTROL SIGN
-  FURNISH AND INSTALL ARROW BOARD
-  FURNISH AND INSTALL MESSAGE BOARD
-  OFF-PEAK LANE CLOSURES
-  PEAK HOUR LANE CLOSURES
-  WORK ZONE