

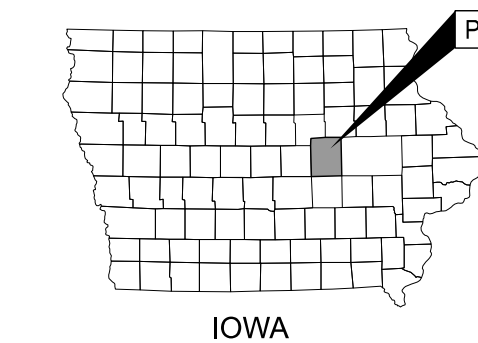
TRAFFIC SIGNALS
PCC SIDEWALK/TRAIL
HSIP-SWAP-7575(607)--SJ-86

CITY OF TAMA

LETTING DATE

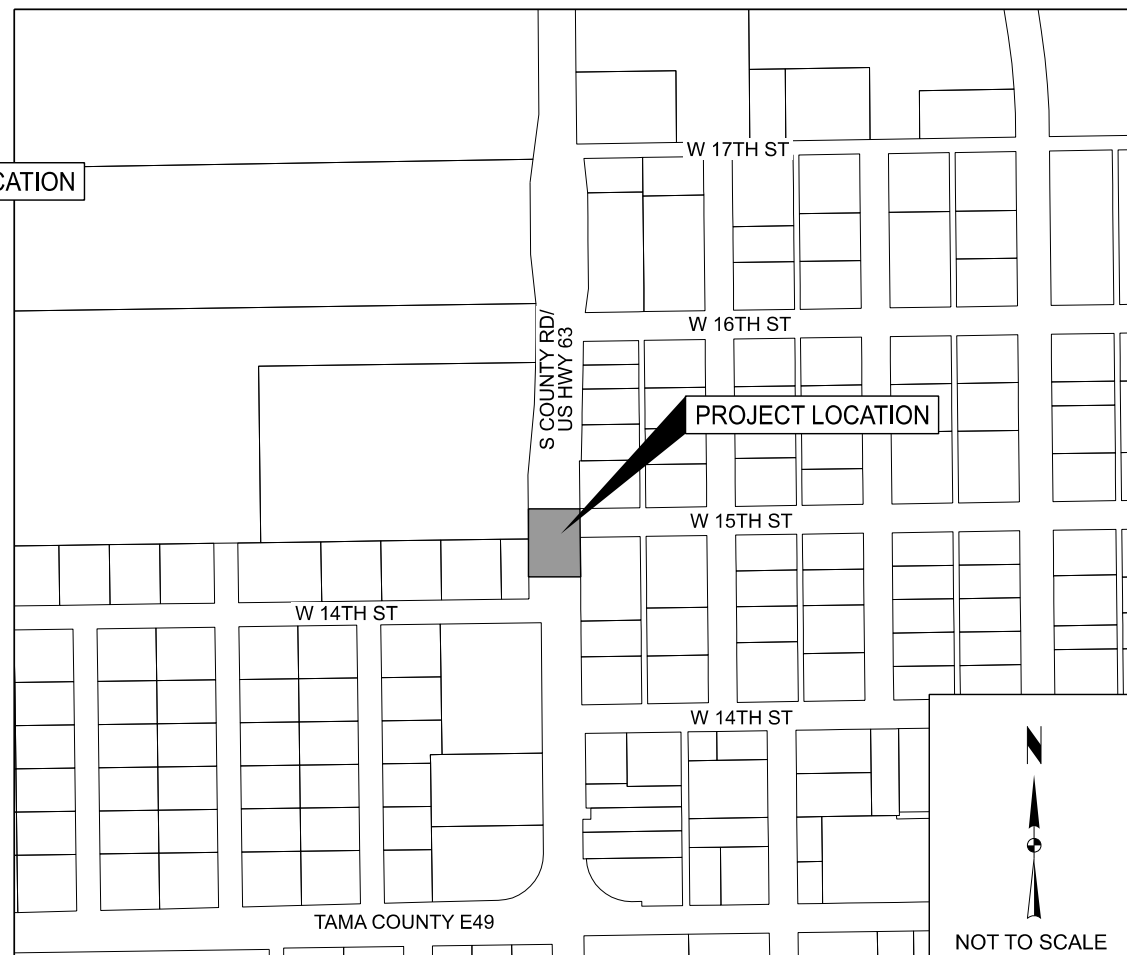
AUGUST 18TH, 2026

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	TIMOTHY P. MROCH, P.E.	CIVIL
G.1	TIM W. FORINASH, P.L.S.	LAND SURVEYOR



STANDARD ROAD PLANS APPLICABLE TO THE PROJECT CAN BE FOUND ON SHEET C.2

REFER TO THE PROPOSAL FORM FOR LIST OF APPLICABLE SPECIFICATIONS



VICINITY MAP

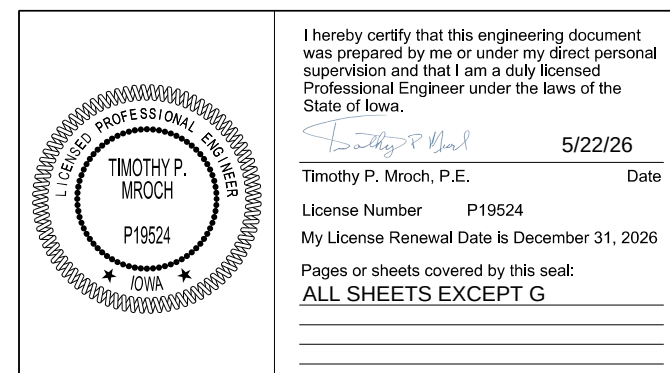


HIGHWAY DIVISION
PLANS OF PROPOSED IMPROVEMENTS ON THE
URBAN ROAD SYSTEM
IN THE CITY OF TAMA
CONSTRUCTION OF
PEDESTRIAN HYBRID BEACON
at W 15th ST and US 63

WORK TYPE: TRAFFIC SIGNALS

	TOTAL
	19
PROJECT IDENTIFICATION NUMBER	
86-7575-607	
IOWA DOT PROJECT NUMBER	
HSIP-SWAP-7575(607)-SJ-86	

INDEX OF SHEETS		105-3
		MODIFIED
NO.	DESCRIPTION	
A.1	TITLE SHEET	
A.2	LEGENDS	
B.1	TYPICAL SECTIONS AND PAVEMENT DETAILS	
C.1-C.4	QUANTITIES AND GENERAL INFORMATION	
D.1	MAINLINE PLAN	
G.1	SURVEY CONTROL AND REFERENCE INFORMATION	
J.1	TRAFFIC CONTROL AND STAGING	
N.1-N.6	TRAFFIC SIGNAL SHEETS	
Q.1	PROJECT REMOVALS	
S.1-S.2	SIDEWALK SHEETS	

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HHSIP-SWAP-7575(607)--SJ-86
PEDESTRIAN CROSSING SIGNAL AT US 63 AND 15TH STREET

CITY OF TAMA, IOWA

SNYDER & ASSOCIATES, INC.



Project No: 125.1004

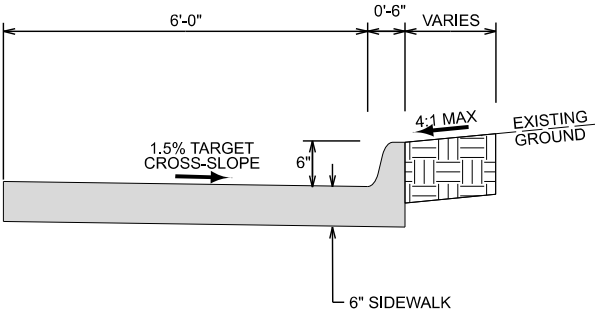
Sheet A.1

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1
B.1

SIDEWALK, P.C. CONCRETE, 6" WITH CURB

NO SCALE



Project No: 125.1004

Sheet B.1

HSIP-SWAP-7575(607)--SJ-86

PEDESTRIAN CROSSING SIGNAL AT US 63 AND 15TH STREET

TYPICAL SECTIONS AND PAVEMENT DETAILS

CITY OF TAMA, IOWA

SNYDER & ASSOCIATES, INC.

900 BELL DRIVE S.W.
CEDAR RAPIDS, IA 52404
319-362-9394 | www.snyder-associates.com

MARK	REVISION			DATE	BY		
Engineer: JMG	Checked By:	TPM					
Technician: C-JN	Date:	05/19/2026		T-R-S:			
Project No:	125.1004			Sheet		B.1	

			105_04 4/21/26
STANDARDS The following Standards apply to construction work on this project.			
Number	Date	Title	
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices	
MI-220	04-15-25	Detectable Warnings and Pedestrian Ramp	
PM-110	10-15-24	Line Types	
PM-115	04-15-25	Grooving for Line Types	
PR-102	10-21-25	Full Depth PCC Patch without Dowels	
PV-101	01-01-26	Joints	
PV-102	10-21-25	PCC Curb Details	
SI-101	04-19-16	Locations - Type 'A' Signs	
SI-131	10-18-16	Installation - Type 'A' Signs	
SI-133	10-17-17	Installation - Type 'A' Sign Shim	
SI-171	04-18-17	Reference Location Sign Posts	
TC-202	04-18-23	Work Within 15 ft of Traveled Way	
TC-228	04-18-23	Lane Closure Involving TWLTL	
TC-601	10-15-19	Pedestrian Detour	
TC-602	10-15-19	Sidewalk Diversion	

111_25 4/21/26			INDEX OF TABULATIONS		
Tabulation	Tabulation Title				Sheet No.
100_01D	PROJECT DESCRIPTION				C.2
100_19	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE				C.2
102_06C	FULL-DEPTH PATCHES				C.2
105_04	STANDARD ROAD PLANS				C.2
108_22	PAVEMENT MARKING LINE TYPES				C.2
103_10	TOPSOIL STRIPPING AND PLACEMENT				C.3
110_05	SIDEWALK REMOVAL				C.3
190_51	MATERIALS FOR TYPE A SIGNS				C.3
190_66	SUMMARY OF TYPE A SIGNS				C.3
113_01	SIDEWALKS				C.3
232_03A	EROSION CONTROL (RURAL SEEDING)				C.4
232_11	EROSION CONTROL (STABILIZING CROP SEEDING)				C.4
290_01	SIDEWALK CONSTRAINTS WITHIN CITY LIMITS				C.4
290_02	SMALL QUANTITY CONCRETE TESTING				C.4
113_10	SIDEWALK COMPLIANCE				S.1
113_10A	SIDEWALK COMPLIANCE VALUES				S.1

108_22 11/25/25																	
PAVEMENT MARKING LINE TYPES																	
Line factors based on 6-inch wide continuous line. *BCY4 - Place on the same side of the roadway to match existing markings near the project. **NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field. ***MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area. BCY4: Broken Centerline (Yellow) @ 0.17 BCY6: Broken Centerline (Yellow) @ 0.25 BLC6: Broken Line Contrast (White/Black) @ 0.50 BLW4: Broken Lane Line (White) @ 0.17 BLW6: Broken Lane Line (White) @ 0.25 CBW6: Crosswalk Bar (White) @ 10.00 CHW8: Channelizing Line (White) @ 1.33 CHW10: Channelizing Line (White) @ 1.67 CHY8: Channelizing Line (Yellow) @ 1.33 CHY10: Channelizing Line (Yellow) @ 1.67 CLW6: Crosswalk Line (White) @ 2.00 DCY4: Double Centerline (Yellow) @ 1.34 DCY6: Double Centerline (Yellow) @ 2.00 DDY4: Double Dotted Line (Yellow) @ 0.44 DDY6: Double Dotted Line (Yellow) @ 0.67 DLW4: Dotted Line (White) @ 0.22 DLW6: Dotted Line (White) @ 0.33 DLY4: Dotted Line (Yellow) @ 0.22 DLY6: Dotted Line (Yellow) @ 0.33 ELW4: Edge Line Right (White) @ 0.67 ELW6: Edge Line Right (White) @ 1.00 ELY4: Edge Line Left (Yellow) @ 0.67 ELY6: Edge Line Left (Yellow) @ 1.00 LDW8: Lane Drop (White) @ 0.33 LDW10: Lane Drop (White) @ 0.42 MNY6: Median Nose (Yellow) @ 1.00 NPY4: No Passing Zone Line (Yellow) @ 0.84 NPY6: No Passing Zone Line (Yellow) @ 1.25 RLW4: Ramp Edge Line Right (White) @ 0.67 RLW6: Ramp Edge Line Right (White) @ 1.00 RLY4: Ramp Edge Line Left (Yellow) @ 0.67 RLY6: Ramp Edge Line Left (Yellow) @ 1.00 SLW2: Stop Line (White) @ 4.00 SLW4: Solid Lane Line (White) @ 0.67 SLW6: Solid Lane Line (White) @ 1.00 SPW4: Sloped Curb 4" (White) @ 2.16 SPW6: Sloped Curb 6" (White) @ 2.28 SPY4: Sloped Curb 4" (Yellow) @ 2.16 SPY6: Sloped Curb 6" (Yellow) @ 2.28 STW6: Standard Curb 6" (Yellow) @ 2.03 STY6: Standard Curb 6" (Yellow) @ 2.03 YLW2: Yield Line (White) @ 1.15																	
Line No.	Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	CBW6 (STA)	CBW6 Factored (STA)	NPY4** (STA)	NPY4** Factored (STA)	SLW2 (STA)	SLW2 Factored (STA)	Remarks
1.0	US HWY 63	9+12.00		NB	Durable Paint			1	Yes	0.28					0.28	1.12	
2.0	US HWY 63	9+80.00		All	Durable Paint		1		Yes	0.50	0.52	5.20					
3.0	W 15TH ST	9+99.00	10+14.00	WB	Durable Paint			1	Yes	0.11					0.15	0.60	
4.0	US HWY 63	10+48.00		SB	Durable Paint			1	Yes	0.28					0.28	1.12	
5.0	US HWY 63	9+12.00	10+48.00	Center	Removal of Paint	1		1	No				2.72	2.28			

FULL-DEPTH PATCHES																					102_06C 4/21/26
Line No.	Count	Station	Reference Location Sign	Direction of Travel	Side	Length (FT)	Width (FT)	Patch Thickness (IN)	Patch Repair or Finish	PCC Patch Type	PCC Patch Quantity (SY)	HMA Patches (SY)	Composite HMA (TON)	Subbase Patches (PR-140) (SY)	Subbase Patch with 'EF' Joint (PR-101) (SY)	Patch Subdrain PR-101 or PR-140 (No.)	'CD' Joints (No.)	'CT' Joints (No.)	'EF' Joints PR-101 (No.)	Anchor Lugs Removal (No.)	Remarks
1.0	1	9+79.00		SB	Right	15.0	1.6	10.0	Finish	PCC Without Dowels (PR-102)	2.7										10 IN. PCC EX.
2.0	1	9+82.00		NB	Right	16.2	14.5	10.0	Finish	PCC Without Dowels (PR-102)	17.9										10 IN. PCC EX.
Total:											20.6										

100_19 10/15/24							
PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE							
Possible Standards: EC-204							
Line No.	Station From	Station To	Side	Sediment Control Device Type	Diameter Size	Length (LF)	Remarks
1.0	9+62.00	9+77.00	Left	Perimeter and Slope	12 inch	15.00	
2.0	9+82.00	10+07.00	Left	Perimeter and Slope	12 inch	25.00	
3.0	9+35.00	9+75.00	Right	Perimeter and Slope	12 inch	40.00	
4.0	9+83.00	9+86.00	Right	Perimeter and Slope	12 inch	35.00	
5.0	10+13.00	10+13.00	Right	Perimeter and Slope	12 inch	15.00	

100_01D 8/15/22		PROJECT DESCRIPTION	
		This project is for the construction of an overhead pedestrian hybrid beacon crossing at the intersection of West 15th St and US Highway 63/ South County Rd. Ancillary improvements include sidewalk, signage, full-depth pavement patches, and pavement markings.	

HSIP-SWAP-7575(607)--SJ-86
PEDESTRIAN CROSSING SIGNAL AT US 63 AND 15TH STREET

QUANTITIES AND GENERAL INFORMATION

CITY OF TAMA, IOWA

900 BELL DRIVE S.W.
CEDAR RAPIDS, IA 52404
319-362-9394 | www.snyder-associates.com

SNYDER & ASSOCIATES, INC.



SNYDER & ASSOCIATES

Project No: 125.1004

Sheet C.2

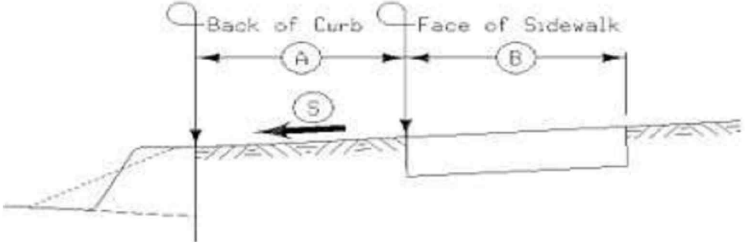
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TOPSOIL STRIPPING AND PLACEMENT103_10 4/30/25							
Line No.	Road Identification	Dir. of Traffic	Station From	Station To	Topsoil Stripping Thickness (IN)	Topsoil Placement Thickness (IN)	Remarks
1.0	US HWY 63	SB	9+67.00	9+98.00	6.0	6.0	
2.0	US HWY 63	NB	9+70.00	9+87.00	6.0	6.0	

SIDEWALK REMOVAL110_05 8/15/22					
* Not a bid item					
Line No.	Station From	Station To	Area (SY)	Saw Cut* (LF)	Remarks
1.0	9+66.66	9+98.10	19.8	14.0	

MATERIALS FOR TYPE 'A' SIGNS190_51 2/10/23																						
Line No.	Type A Signing Typicals	Sign Number	Dir. of Travel	Sign Location Station	Wood Posts (No.)	4 x 6 Leg 1 (FT)	4 x 6 Leg 2 (FT)	Perf. Sq. Steel Leg 1 (FT)	Perf. Sq. Anchor Type	Anchor Quantity (EA)	Steel Rect. Tube (No)	Steel Rect. Tube (FT)	Rect. Tube Anchors (EA)	Type A Bracket One Post	Type A Bracket Two Post	Type A Bracket Auxiliary	Type A Bracket (H)	Type A Bracket (F)	Type A Bracket (F1)	Install. Type	Install. Dim X (FT)	Remarks
1.0	SI-101	S1-1	NB					9.0	Soil	1				1						3	8.0	NOT SHOWN IN PLANS - 150 FT FROM CL OF W 15TH ST
2.0	SI-101	W16-9P	NB																			INSTALL WITH S1-1
3.0	SI-101	R10-6	NB	9+08.50				10.0	Soil	1				1						3	8.0	
4.0	SI-101	R10-6	SB	10+48.00				10.0	Soil	1				1						3	3.5	
5.0	SI-101	S1-1	SB	11+09.00				9.0	Soil	1				1						3	3.5	
6.0	SI-101	W16-9P	SB	11+09.00																		INSTALL WITH S1-1

SUMMARY OF TYPE 'A' SIGNS190_66 9/29/23					
Line No.	Sign Number	Non-Standard Sign Number or Name	Quantity (EA)	Size (IN)	Total Sign Area (SF)
1.0	R10-6	STOP HERE ON RED	2	24 X 36	12.0
2.0	S1-1	SCHOOL	2	36 X 36	18.0
3.0	W16-9P	AHEAD	2	24 X 12	4.0

SIDEWALKS113_01 3/29/24											
See MI-220 and S Sheets											
											
Line No.	Intersection/Road	Quadrant/Side	A (FT)	B (FT)	S (%)	Sidewalk Thickness (IN)	Sidewalk Length (FT)	Sidewalk Width (FT)	Sidewalk Area (SY)	Detectable Warnings (SF)	Remarks
1.0	US HWY 63 and W 15TH ST	W	5.0	5.0	3.0	6	31.5	5.0	19.8	10.0	
2.0	US HWY 63 and W 15TH ST	SE	5.0	6.0	0.1	6	18.5	6.5	11.6	16.6	

HSIP-SWAP-7575(607)--SJ-86
PEDESTRIAN CROSSING SIGNAL AT US 63 AND 15TH STREET

QUANTITIES AND GENERAL INFORMATION

SNYDER & ASSOCIATES, INC.

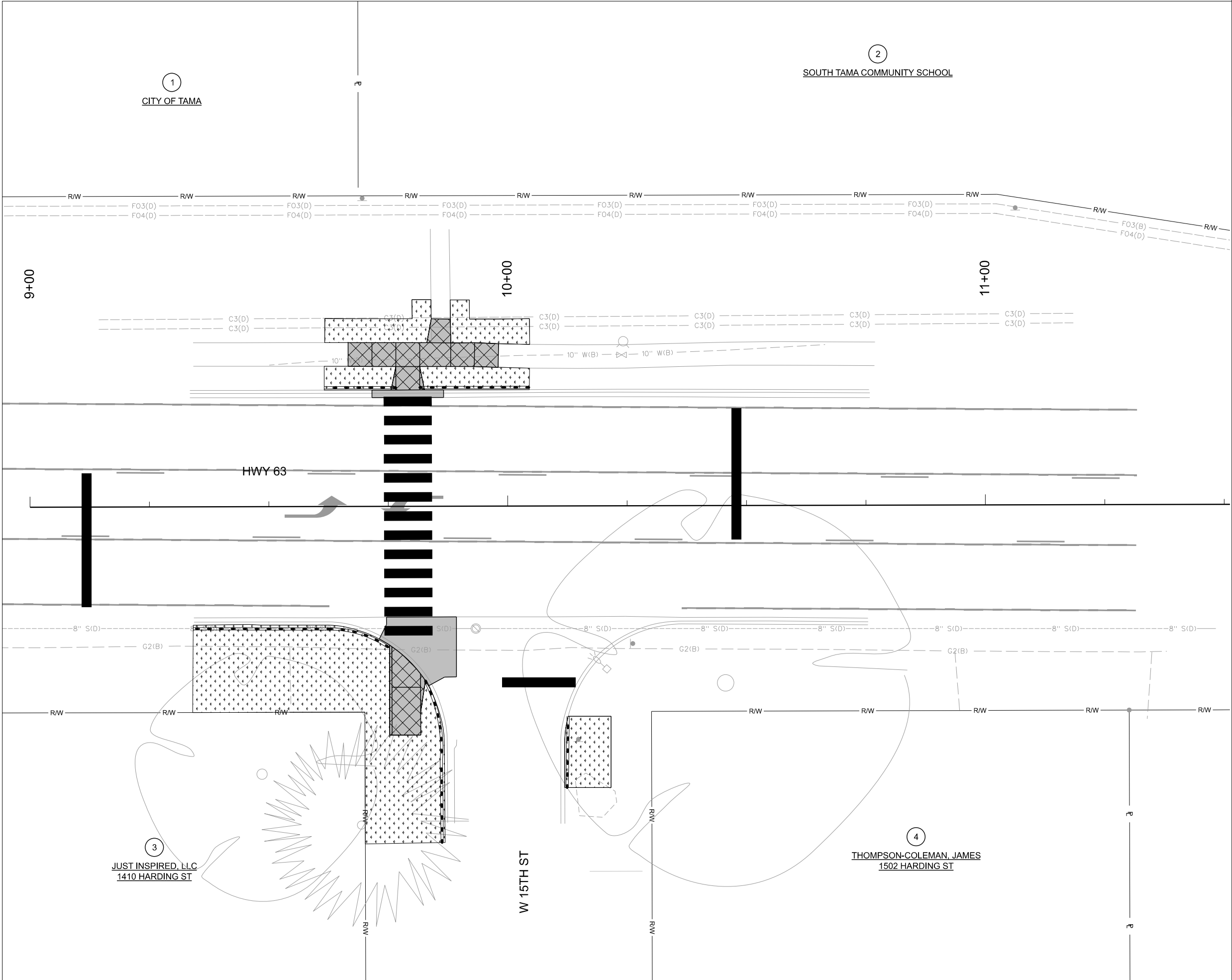
CITY OF TAMA, IOWA

900 BELL DRIVE S.W.
CEDAR RAPIDS, IA 52404
319-362-9394 | www.snyder-associates.com

Project No: 125.1004

Sheet C.3

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LEGEND

- PATCH, FULL-DEPTH FINISH
- SIDEWALK, PCC, 6 IN.
- SEEDING AND FERTILIZING (URBAN) *NOT A BID ITEM*
- PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE

Project No: 125.1004

Sheet D.1

HSIP-SWAP-7575(607)--SJ-86

PEDESTRIAN CROSSING SIGNAL AT US 63 AND 15TH STREET

MAINLINE PLAN

CITY OF TAMA, IOWA

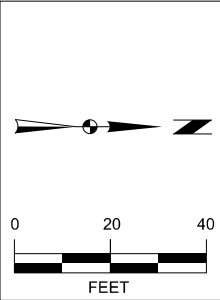
SNYDER & ASSOCIATES, INC.

900 BELL DRIVE S.W.
CEDAR RAPIDS, IA 52404
319-362-9394 | www.snyder-associates.com

MARK	REVISION	DATE	BY
Engineer: JMG	Checked By: TPM		
Technician: C-IN	Date: 05/19/2026		
T-R-S:			

Project No: 125.1004

Sheet D.1



Horizontal Alignment Review Report

Report Created: Tuesday, February 10, 2026
Time: 11:46:46 AM

File Name: V:\Projects\2025\125.1004.08\CADD\1251004_GEOM.dgn
Note: All units in this report are in feet unless specified otherwise.

Alignment Name: GeomBL4

Alignment Description:

Alignment Style: Alignment\Geom_Baseline

Element: Linear

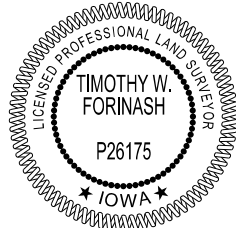
START
END

	Station	Northing	Easting
(START)	900	7827946.909	19563889.7
(END)	1175	7828221.908	19563889.02

Tangential Direction: N0.141°W
Tangential Length: 275

PROJECT CONTROL

Control Point	Northing	Easting	Elevation
CP10	7827928.80	19563862.39	886.51
CUT X ON INTAKE			
CP11	7828210.96	19563863.55	887.42
CUT X ON INTAKE			



I hereby certify that this land surveying document was prepared and the related survey work was performed by me or under my direct personal supervision and that I am a duly licensed Professional Land Surveyor under the laws of the State of Iowa.

Tim Forinash 5/19/2026
Timothy W. Forinash, P.L.S. Date

License Number P26175
My License Renewal Date is December 31, 2027

Pages or sheets covered by this seal:
G SHEETS

HSIP-SWAP-7575(607)--SJ-86
PEDESTRIAN CROSSING SIGNAL AT US 63 AND 15TH STREET

SURVEY CONTROL AND REFERENCE INFORMATION CITY OF TAMA, IOWA

SNYDER & ASSOCIATES, INC.

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Project No: 125.1004

Sheet G.1

Sheet G.1

Project No: 125.1004

TRAFFIC SIGNAL LEGEND					
EXISTING			PROPOSED		
		TRAFFIC SIGNAL			CONTROLLER CABINET WITH FOOTING
		TRAFFIC SIGNAL WITH BACKPLATE			SECONDARY SERVICE POINT
		PEDESTRIAN SIGNAL			INDUCTIVE LOOP DETECTOR (XX = NUMBER DESIGNATION)
		MAST ARM SUSPENDED TRAFFIC SIGNAL (XX = LENGTH OF MAST ARM)			DETECTION ZONE (XX = NUMBER DESIGNATION)
		METAL TRAFFIC SIGNAL PEDESTAL			VIDEO DETECTION CAMERA
		TRAFFIC SIGNAL HEAD NUMBER			TRAFFIC MONITORING CAMERA
		POLE NUMBER			EMERGENCY VEHICLE DETECTOR
		STREET LIGHT ON SIGNAL POLE			POLE MOUNTED SIGN
		CONDUIT TRENCHED, PUSHED, JACKED, OR BORED			
		HANDHOLE			

WIRING LEGEND	
	SIGNAL NUMBER
	POLE NUMBER
	HANDHOLE NUMBER
COND	CONDUIT
PWR	POWER CABLE
LUM	LUMINAIRE (1c #8)
PB	PEDESTRIAN PUSHBUTTON (2c)
GND	GROUND WIRE (1c #6)
TR	TRACER WIRE (1c #10)
PT	PULL TAPE

ESTIMATE OF PEDESTRIAN HYBRID BEACON QUANTITIES			
ITEM	DESCRIPTION	UNITS	TOTAL
CONTROLLER AND CABINET	CONTROLLER, CABINET, 18" RISER, AND ACCESSORIES	LS	1
DETECTION	APS PUSHBUTTON WITH R10-3E SIGN	EACH	2
TRAFFIC SIGNAL HEADS	12" R,R,Y (ALL LED) W/ BACKPLATE, MAST-ARM MOUNTED	EACH	4
	16" PEDESTRIAN HEAD, HAND/PERSON, COUNTDOWN SIDE-OF-POLE MOUNTED	EACH	2
	BLANK-OUT TRAFFIC SIGN (LED, FILLED IN), R3-2, 24" x 24", COLOR	EACH	2
POWER SUPPLY	POWER SUPPLY	EACH	1
HANDHOLES	TYPE I - PRE-CAST CONCRETE HANDHOLE, 24" DIAMETER	EACH	3
WIRE AND CABLE	SIGNAL CABLE - 2c #14 AWG	LIN FT	190
	SIGNAL CABLE - 5c #14 AWG	LIN FT	675
	LUMINAIRE CABLE - 1c #8 AWG	LIN FT	110
	GROUND WIRE - 1c #6 BARE	LIN FT	230
	POWER - 1c #6 AWG	LIN FT	30
	TRACER WIRE - 1c #10	LIN FT	230
	PULL TAPE	LIN FT	230
CONDUIT	2" PVC, TRENCHED/BORED	LIN FT	50
	3" PVC, TRENCHED/BORED	LIN FT	135
CONCRETE FOOTING			
	CONTROLLER CABINET FOOTING AND PAD WITH CURB	EACH	1
	POLE FOOTING, 2' DIA x 4' DEPTH	EACH	2
	POLE FOOTING, 3' DIA x 16' DEPTH	EACH	1
TRAFFIC SIGNAL POLES MISC	ALUMINUM PEDESTAL POLE - HEIGHT 12'	EACH	2
	STEEL COMBINATION SIGNAL/LIGHTING - 50' MAST ARM	EACH	1
	TRAFFIC SIGN - R10-23A, 30" x 36", MAST ARM MOUNTED	EACH	2
	TRAFFIC SIGN - S1-1, 36" x 36", MAST ARM MOUNTED	EACH	2
	TRAFFIC SIGN - S1-1, 36" x 36", SIGNAL POLE MOUNTED	EACH	1
	TRAFFIC SIGN - S1-1, 36" x 36", PEDESTAL MOUNTED	EACH	1
	TRAFFIC SIGN - W16-7P, 24" x 12", SIGNAL POLE MOUNTED	EACH	1
	TRAFFIC SIGN - W16-7P, 24" x 12", PEDESTAL MOUNTED	EACH	1
	TRAFFIC SIGN - R1-1, 30" x 30", PEDESTAL MOUNTED	EACH	1
	TRAFFIC SIGN - S1-1, 36" x 36"	EACH	2
	TRAFFIC SIGN - W16-9P, 24" x 12"	EACH	2
TRAFFIC SIGN - R10-6, 36" x 36"	EACH	2	

TRAFFIC SIGNAL GENERAL NOTES:

1. ALL QUANTITIES SHOWN IN THE TRAFFIC SIGNAL PLANS AND SPECIFICATIONS ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR'S LUMP SUM BID SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL TRAFFIC SIGNAL INSTALLATION IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.
2. PROVIDE TRAFFIC CONTROL DEVICES AS REQUIRED TO FACILITATE CONSTRUCTION OF TRAFFIC SIGNALS IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR THE STREETS AND HIGHWAYS, AS ADOPTED BY THE IOWA DEPARTMENT OF TRANSPORTATION PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC), CHAPTER 130.
3. THE PLAN LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION ON THE PROJECT TO ESTABLISH LOCATIONS.
4. INSTALL ONE SIGNAL CABLE FROM EACH SIGNAL HEAD TO THE BASE OF THE POLE. A 5-CONDUCTOR CABLE SHALL BE USED IN THE POLES FOR EACH VEHICLE AND PEDESTRIAN SIGNAL HEAD. ALL SIGNAL CABLE SHALL BE #14 AWG UNLESS OTHERWISE NOTED ON THE PLANS.
5. INSTALL A #6 AWG BARE COPPER GROUND WIRE BETWEEN THE GROUND RODS IN THE SIGNAL FOOTINGS AND HANDHOLES TO FORM A CONTINUOUSLY GROUNDED SYSTEM. THE GROUND WIRE SHALL BE INSTALLED IN ALL CONDUITS.
6. PROVIDE THREE BUSINESS DAYS OF NOTICE TO CITY AND THE PROJECT ENGINEER BEFORE PLACING INTO OPERATION.
7. COORDINATE WITH POWER SERVICE PROVIDER FOR SECONDARY SERVICE PRIOR TO CONDUIT/CIRCUIT INSTALLATION.
8. AN EMPLOYEE ON THE PROJECT SHALL HAVE A LEVEL II INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA) TRAFFIC SIGNAL TECHNICIAN CERTIFICATION.
9. UNLESS OTHERWISE DIRECTED, TRAFFIC SIGNAL HEADS ON MAST ARMS ARE TO BE ALIGNED OVER THE CENTER OF INTERSECTION APPROACH LANES. APPROXIMATE LOCATIONS ARE AS SHOWN IN THE TRAFFIC SIGNAL POLE DATA TABLE. CONTRACTOR SHALL FIELD VERIFY SIGNAL HEAD LOCATIONS.
10. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL NEW CONDUITS UNTIL PROJECT ACCEPTANCE.
11. LUMINAIRE SHALL BE LED, 15,000 LUMENS (+/- 5%), 100 LUMENS/WATT MINIMUM EFFICIENCY, 4000k COLOR TEMPERATURE, TYPE II DISTRIBUTION, MEDIUM, B3-U0-G3, L70> 70,000 HOURS WITH AT LEAST 5-YEAR WARRANTY, GRAY FINISH AND PHOTOCCELL CONTROL.

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PEDESTRIAN CROSSING SIGNAL AT US 63 AND 15TH STREET

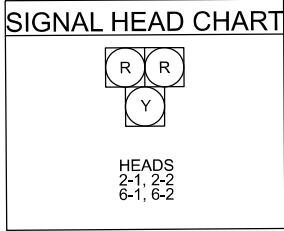
TRAFFIC SIGNAL DETAILS

CITY OF TAMA, IOWA

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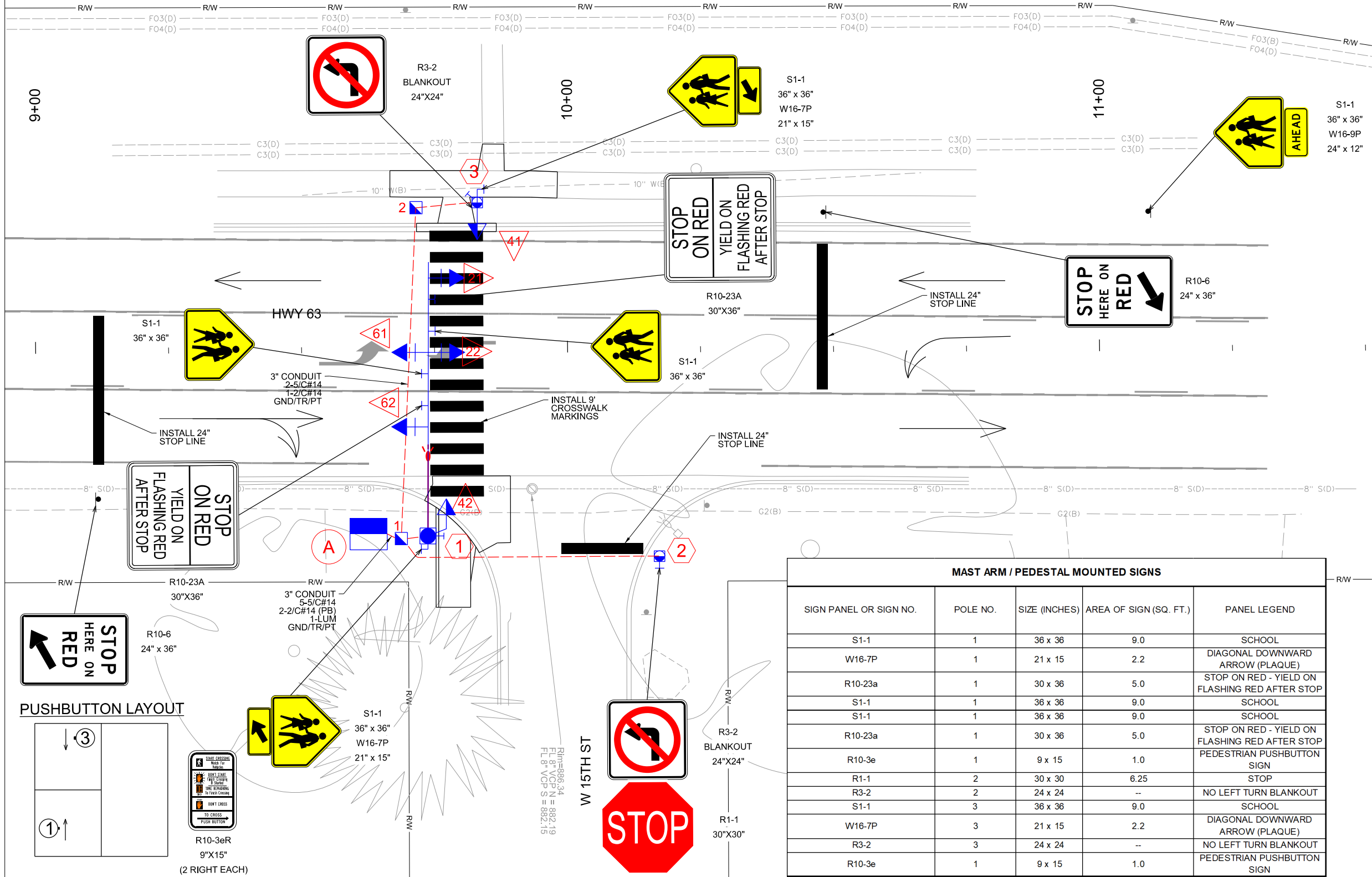
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TRAFFIC SIGNAL POLE DATA												
POLE NO.	POLE TYPE	MAST ARM LENGTH/PEDESTAL HEIGHT (ft.)	TRAFFIC SIGNAL HEADS		TRAFFIC SIGNS		LUMINAIRE ARM			FOOTING DIMENSIONS		TOTAL QUANTITY
			QTY.	LOCATION ON ARM (ft.)	QTY.	LOCATION ON ARM (ft.)	SPREAD (ft.)	MOUNTING HEIGHT (ft.)	ORIENTATION (degrees)	DIA. (ft.)	DEPTH (ft.)	
1	COMBINATION SIGNAL/LIGHTING	50	4	47, 33, 33, 19	4	43, 37, 29, 23	15	35	0	3	16	1
2	PEDESTAL	12								2	4	1
3	PEDESTAL	12								2	4	1

- 1** TYPE A FOUNDATION (50' MAX)
4-MAST ARM MOUNTED SIGNALS
OVERHEAD AT:
19', 33', 33', AND 47'
1-POLE MOUNTED C.D. PED INDICATION
4-SIGNS OVERHEAD (R10-23a, S1-1)
(SEE SIGN DETAILS)
2-POLE MOUNTED SIGNS (S1-1, W16-7p)
(SEE SIGN DETAILS)
2" CONDUIT TO HH 1 WITH:
2-5/C#14
1-2/C#14 (PB)
1-LUM
GND/TR/PT
- 2** TRAFFIC SIGNAL PEDESTAL FOUNDATION
TRAFFIC SIGNAL PEDESTAL
1-24"x24" R 3-2 (NO LEFT TURN)
LED BLANKOUT SIGN
1-30"x30" R-1 (STOP) SIGN
2" CONDUIT TO HH 1 WITH:
1-5/C#14
GND/TR/PT
- 3** TRAFFIC SIGNAL PEDESTAL FOUNDATION
TRAFFIC SIGNAL PEDESTAL
1-POLE MOUNTED C.C PED INDICATION
1-24"x24" R3-2 (NO LEFT TURN)
LED BLANKOUT SIGN
2-POLE MOUNTED SIGNS (S1-1, W16-7P)
2" CONDUIT TO HH 2 WITH:
2-5/C#14
1-2/C#14 (PB)
GND/TR/PT

NOTES:
SCHOOL CROSSING AHEAD SIGNS (S1-1 AND W16-9P) SHALL BE PLACED A MINIMUM OF 125' IN ADVANCE OF THE PEDESTRIAN CROSSING. SB SIGNS SHOWN IN PLAN VIEW. NB SIGNS NOT SHOWN IN PLAN VIEW.



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PEDESTRIAN CROSSING SIGNAL AT US 63 AND 15TH STREET

TRAFFIC SIGNAL LAYOUT

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Sheet N.2

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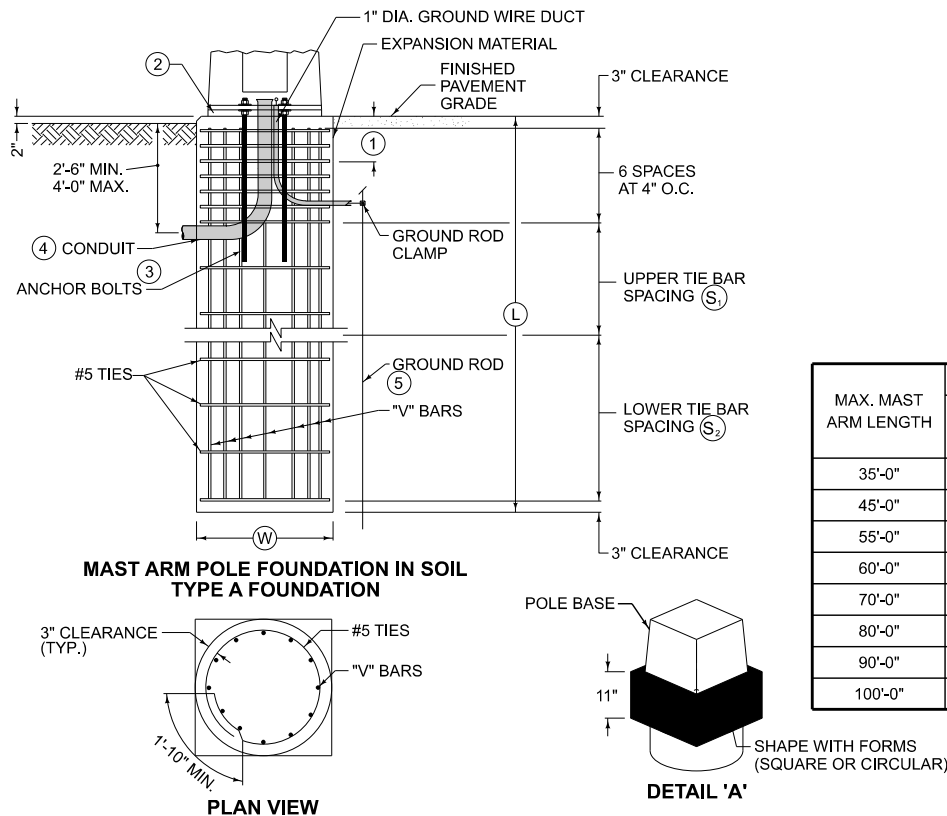
N.3



- ① TYPICAL PLACEMENT OF TRAFFIC CONTROL AND STREET NAME SIGNS
SIGN SHALL BE FURNISHED AND INSTALLED AS REQUIRED ON PLANS.
- ② SPACING AS SPECIFIED ON PLANS



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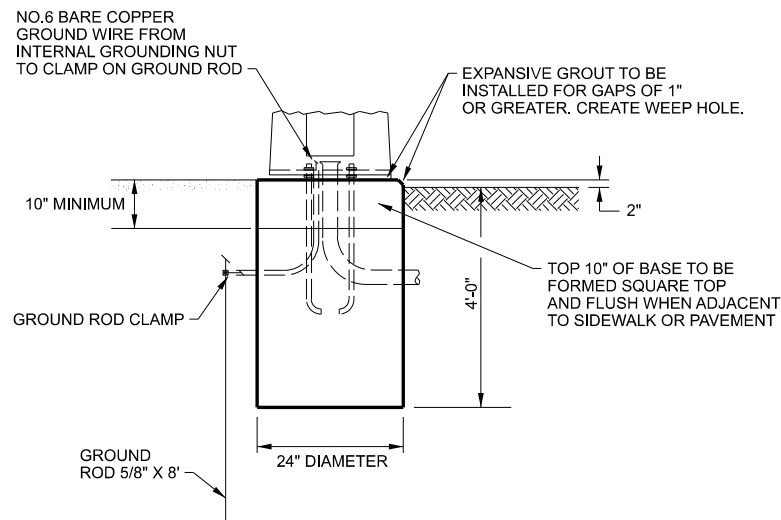


THE TYPE A FOUNDATION IS THE NORMALLY REQUIRED FOUNDATION CONSTRUCTION. WHERE ROCK IS ENCOUNTERED, THE ENGINEER MAY APPROVE THE USE OF THE TYPE B OR C FOUNDATION. PRIOR TO INSTALLING A FOUNDATION IN ROCK, OBTAIN A SUBSURFACE INVESTIGATION CERTIFIED BY A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF IOWA.

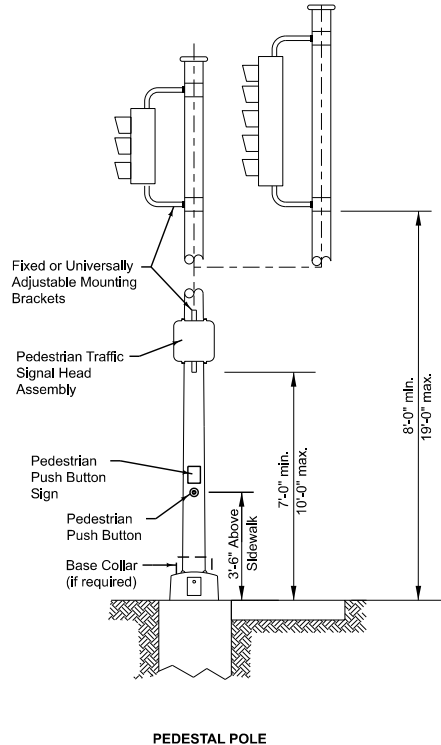
- 1 SHAPE TOP 11 INCHES WITH FORMS. SEE DETAIL 'A'.
- 2 INSTALL RODENT GUARD OR NON-SHRINK GROUT WITH WEEP HOLE.
- 3 FURNISH NUT, NUT AND PLATE, OR NUT AND ANCHOR BOLT ASSEMBLY RING PLATE ON EMBEDDED END.
- 4 PROVIDE CONDUITS AS PER PLANS.
- 5 INSTALL GROUND ROD ADJACENT TO FOUNDATION OR IN ADJACENT HANDHOLE.

MAX. MAST ARM LENGTH	FOUNDATION		"V" BARS			TIE BARS				
	W	L	COUNT	SIZE	LENGTH	COUNT	UPPER SPACING		LOWER SPACING	
							# SPACES	S ₁	# SPACES	S ₂
35'-0"	3'-0"	12'-0"	12	#8	11'-6"	17	9	12"	N/A	N/A
45'-0"	3'-0"	14'-0"	12	#8	13'-6"	19	11	12"	N/A	N/A
55'-0"	3'-0"	16'-0"	12	#8	15'-6"	25	12	8"	5	12"
60'-0"	3'-0"	18'-0"	13	#8	17'-6"	28	15	8"	5	12"
70'-0"	3'-6"	18'-0"	12	#10	17'-6"	28	15	8"	5	12"
80'-0"	3'-6"	21'-0"	14	#10	20'-6"	40	28	6"	4	12"
90'-0"	4'-0"	22'-0"	16	#10	21'-6"	42	24	6"	10	8"
100'-0"	4'-0"	24'-0"	18	#10	23'-6"	47	32	6"	7	8"

1 MAST ARM POLE FOUNDATION
N.5 NO SCALE



2 PEDESTAL POLE AND FOUNDATION
N.5 NO SCALE



HSIP-SWAP-7575(607)--SJ-86

PEDESTRIAN CROSSING SIGNAL AT US 63 AND 15TH STREET

TRAFFIC SIGNAL DETAILS

CITY OF TAMA, IOWA

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Sheet N.5

N.5

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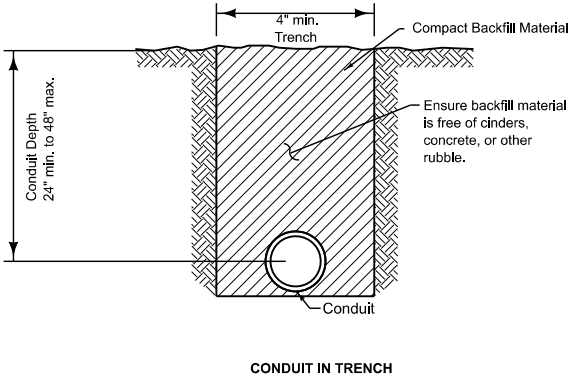
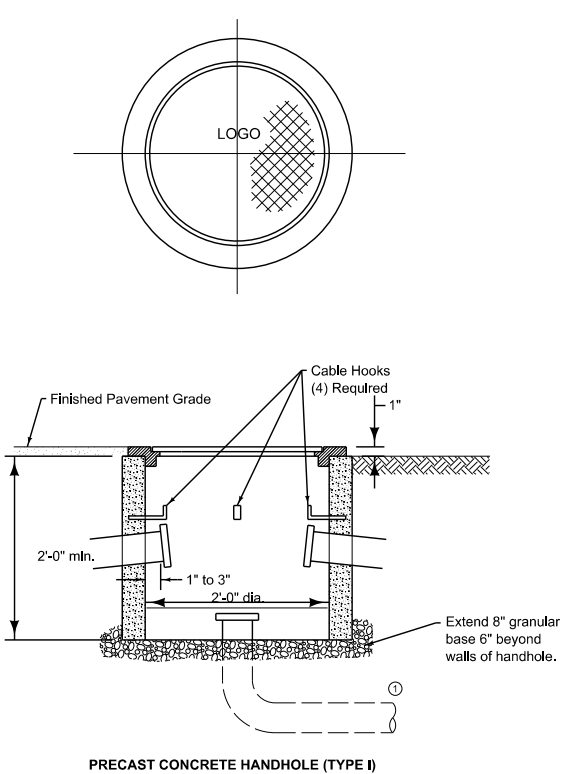
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CONDUIT AND PRECAST HANDHOLES

NO SCALE

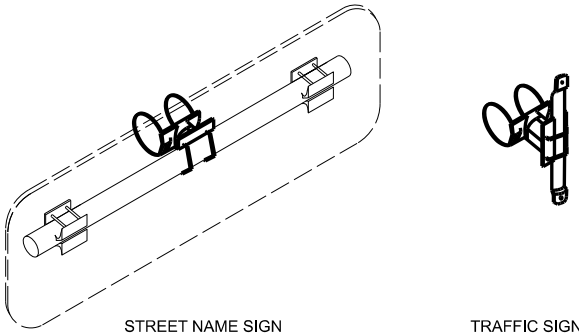


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N.6

MAST ARM SIGN BRACKET

NO SCALE



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Sheet N.6

HSIP-SWAP-7575(607)--SJ-86

PEDESTRIAN CROSSING SIGNAL AT US 63 AND 15TH STREET

TRAFFIC SIGNAL DETAILS

CITY OF TAMA, IOWA

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CITY OF TAMA, IOWA

TRAFFIC SIGNAL DETAILS

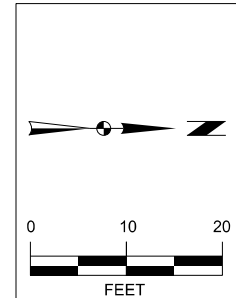
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Sheet

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Sheet Q.1

SIDEWALK COMPLIANCE												
See S Sheets												
* Does not include curb												
1. Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.												
2. Refer to tabulation 113-01 for bid quantities.												
3. See Tab 113-10A for point location information.												
Roadway Identification	From Point	Ending Point	Sidewalk Designation	Sidewalk Thickness (IN)	Distance* (FT)	Change in Elevation (FT)	Slope (%)	Acceptable Constructed Range	Staking Required? (1)	Measured Slope (%)	Initials	Remarks
US HWY 63	3	2	Ramp Running Slope	6	5.00	0.34	6.8		YES			
US HWY 63	17	18	Ramp Running Slope	6	5.00	0.34	6.8		YES			
US HWY 63	18	2	Ramp Cross Slope	6	5.00	0.06	1.2		YES			
US HWY 63	17	3	Landing/Turning Space	6	5.00	0.06	1.2		YES			
US HWY 63	3	4	Landing/Turning Space	6	5.00	0.06	1.2		YES			
US HWY 63	14	4	Landing/Turning Space	6	5.00	0.06	1.2		YES			
US HWY 63	17	14	Landing/Turning Space	6	5.00	0.06	1.2		YES			
US HWY 63	17	4	Landing/Turning Space	6	7.07	0.12	1.7		YES			
US HWY 63	16	17	Ramp Running Slope	6	4.90	0.12	2.4		YES			
US HWY 63	15	14	Ramp Running Slope	6	4.90	0.16	3.3		YES			
US HWY 63	16	15	Ramp Cross Slope	6	5.00	0.02	0.4		YES			
US HWY 63	4	8	Landing/Turning Space	6	6.51	0.08	1.2		YES			
US HWY 63	13	8	Landing/Turning Space	6	5.00	0.06	1.2		YES			
US HWY 63	14	13	Landing/Turning Space	6	6.47	0.08	1.2		YES			
US HWY 63	14	8	Landing/Turning Space	6	8.18	0.14	1.7		YES			
US HWY 63	8	9	Ramp Running Slope	6	5.00	0.33	6.6		YES			
US HWY 63	13	12	Ramp Running Slope	6	5.00	0.33	6.6		YES			
US HWY 63	12	9	Ramp Cross Slope	6	5.00	0.06	1.2		YES			
US HWY 63	21	20	Ramp Running Slope	6	10.00	0.79	7.9		YES			
US HWY 63	24	25	Ramp Running Slope	6	10.00	0.79	7.9		YES			
US HWY 63	20	25	Ramp Cross Slope	6	6.00	0.09	1.5		YES			
US HWY 63	22	21	Landing/Turning Space	6	8.50	0.08	0.9		YES			
US HWY 63	22	23	Landing/Turning Space	6	8.30	0.12	1.4		YES			
US HWY 63	23	24	Landing/Turning Space	6	2.77	0.05	1.8		YES			
US HWY 63	21	24	Landing/Turning Space	6	6.00	0.09	1.5		YES			

SIDEWALK COMPLIANCE VALUES			
FOR INFORMATION ONLY. VALUES USED TO DETERMINE DESIGNED SLOPES. SEE TAB 113-10.			
Point	Station	Offset	Elevation
1	9+66.67	-34.27	886.97
2	9+71.66	-34.26	886.75
3	9+76.66	-34.25	886.41
4	9+81.66	-34.24	886.47
5	9+83.18	-34.24	886.49
6	9+84.10	-39.24	886.27
7	9+88.10	-39.19	886.35
8	8+86.55	-34.19	886.55
9	9+93.18	-34.22	886.88
10	9+98.17	-33.98	887.05
11	9+98.08	-29.03	887.04
12	9+93.08	-29.22	886.82
14	9+81.66	-29.24	886.41
15	9+81.66	-24.35	886.25
16	9+76.66	-24.35	886.23
17	9+76.66	-29.25	886.35
18	9+71.66	-29.26	886.69
19	9+66.66	-29.33	886.96
20	9+75.68	47.86	887.13
21	9+75.58	37.86	886.34
22	9+75.68	29.37	886.22
23	9+81.68	35.10	886.34
23	9+81.68	37.86	886.43
25	9+81.68	47.68	887.22

HSIP-SWAP-7575(607)--SJ-86

PEDESTRIAN CROSSING SIGNAL AT US 63 AND 15TH STREET

SIDEWALK SHEETS

CITY OF TAMA, IOWA

SNYDER & ASSOCIATES

Project No: 125.1004

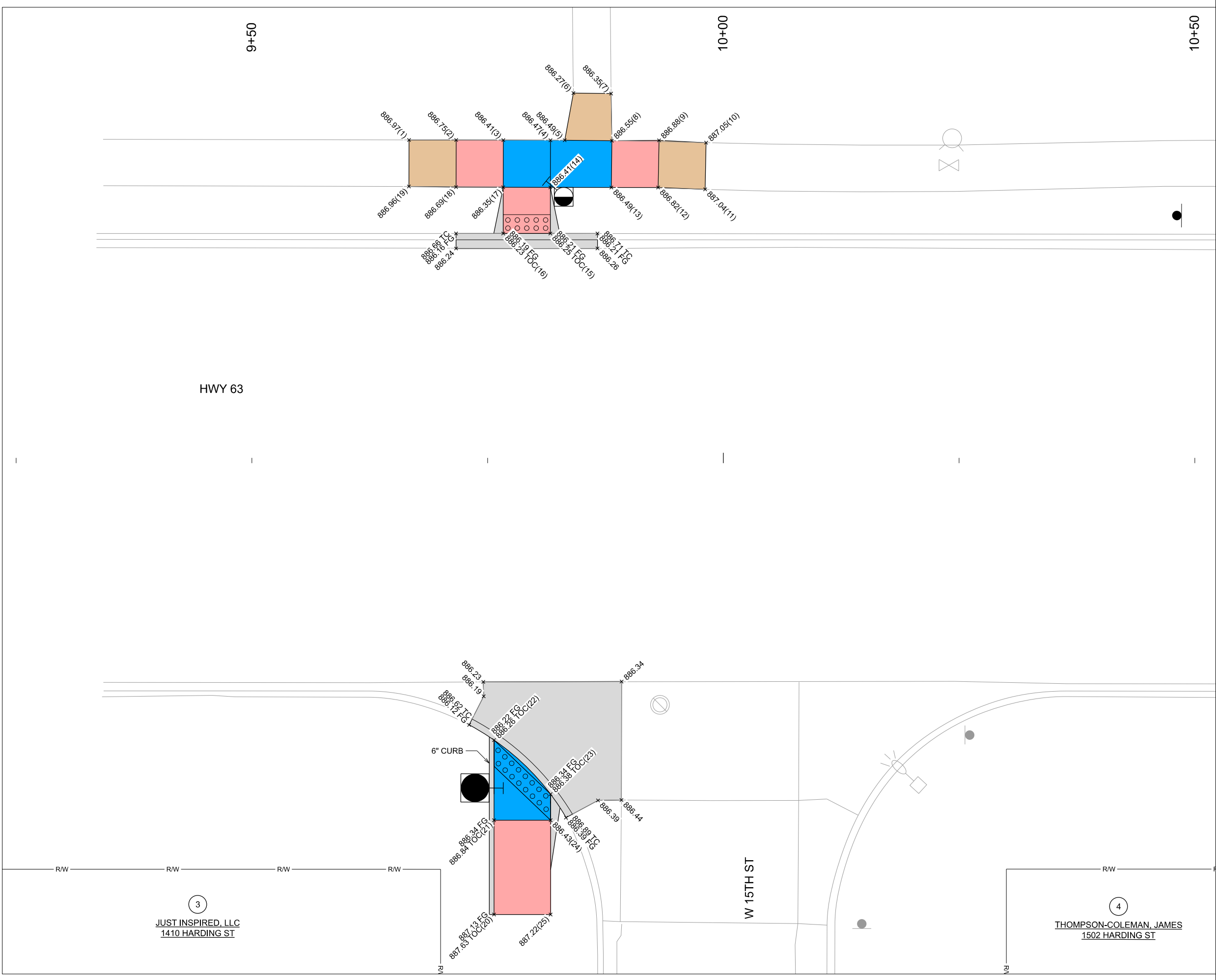
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125.1004

S.1



LEGEND

SIDEWALK

LANDING AREA

RAMP

DETECTABLE WARNING (TRUNCATED DOMES)

SPECIAL SHAPING/ROADWAY PAVEMENT

Project No: 125.1004

Sheet S.2

HSIP-SWAP-7575(607)--SJ-86

PEDESTRIAN CROSSING SIGNAL AT US 63 AND 15TH STREET

SIDEWALK SHEETS

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Sheet S.2

Project No: 125.1004

Sheet S.2