INDEX OF SHEETS 04-27-2018 LETTING ITEM 201 SHEET NO. ITEM COVER SHEET 1 **GENERAL NOTES & COMMITMENTS** SUMMARY OF QUANTITIES 3-5 6–7 TYPICAL SECTIONS 8-9 SCHEDULE OF QUANTITIES PLAN AND PROFILE SHEET 10 11 TRAFFIC CONTROL PLAN 12 **EROSION CONTROL SHEET** 13 **DRAINAGE SHEET** REMOVAL SHEET 14 INTERSECTION DETAILS 15-16 17 **PAVEMENT MARKING & SIGNING SHEET** 18-20 TRAFFIC SIGNAL SHEETS ENTRANCE DETAILS 21 22-23 **CROSS SECTION SHEETS HIGHWAY STANDARDS** STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS 000001-06 AREAS OF REINFORCEMENT BARS 001001--02 001006 DECIMAL OF AN INCH AND OF A FOOT 280001-07 **TEMPORARY EROSION CONTROL SYSTEMS** 424011-03 **CORNER PARALLEL CURB RAMPS FOR SIDEWALKS** PRECAST REINFORCED CONCRETE FLARED END SECTION 542301-03 602301-04 INLET - TYPE A 602306-03 INLET – TYPE B MANHOLE TYPE A 602401-04 602601-05 PRECAST REINFORCED CONCRETE FLAT SLAB TOP FRAME AND GRATE TYPE 3 604006-05 604036-03 **GRATE TYPE 8** FRAME AND GRATE TYPE 24 604091-03 606001--07 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER 701326--04 LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45 MPH URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH 701601--09 NONTRAVERSABLE MEDIAN TRAFFIC CONTROL DEVICES 701901-07 720001-01 SIGN PANEL MOUNTING DETAILS 720006-04 SIGN PANEL ERECTION DETAILS METAL POSTS FOR SIGNS, MARKERS & DELINEATORS 720011--01 720016-04 MAST ARM MOUNTED STREET NAME SIGNS TELESCOPING STEEL SIGN SUPPORT 728001-01 APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS) 729001-01 780001-05 TYPICAL PAVEMENT MARKINGS HANDHOLES 814001-03 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES 873001-02 TRAFFIC SIGNAL GROUNDING & BONDING PEDESTRIAN PUSH BUTTON POST 876001-04 STEEL MAST ARM ASSEMBLY AND POLE 56' THROUGH 75' 877002-04 CONCRETE FOUNDATION DETAILS 878001--10 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS DETECTOR LOOP INSTALLATIONS 886001-01 886006-01 TYPICAL LAYOUTS FOR DETECTION LOOPS BLR21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS **BEGIN SECTION** STA. 10 + 46



SCALE IN FEET

1"=5'

1'' = 10'

1'' = 5'

ROADWAY CLASSIFICATION = MAJOR COLLECTOR

PLAN

PROFILE HORIZ

PROFILE VERT

CROSS SECTION HORIZ

DESIGN DESIGNATION

DESIGN SPEED = 20 MPH

CURRENT ADT (2018) = 1.750

DESIGN YEAR ADT (2038) = 2,357

CROSS SECTION VERT

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E. JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED





GROSS LENGTH = 395.0' = (0.075 MILES) NET LENGTH = 395.0' = (0.075 MILES)

BRIAN S HEIL, P.E.

License Expires 11/30/2019

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GENERAL NOTES

UTILITIES

- ABOVE-GROUND UTILITY FACILITIES OR APPURTENANCES SHALL BE RELOCATED OR ADJUSTED BY THEIR RESPECTIVE OWNERS TO 1. PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 1.5 FEET, MEASURED FROM THE FACE OF CURB TO THE NEAR EDGE OF THE OBJECT.
- ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE TO BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA BEFORE 2. DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

CHARTER COMMUNICATIONS* (COMMUNICATIONS) 815 CHARTER COMMONS TOWN & COUNTRY, MO 63017 (636) 387-6650

AMEREN ILLINOIS* (ELECTRIC) 1050 WEST BOULEVARD BELLEVILLE, IL 62221 (618) 236-4372

CITY OF COLUMBIA. (WATER & SEWER) 208 SOUTH RAPP COLUMBIA, IL 62239 (618) 281-7144

HTC - HARRISONVILLE TELEPHONE COMPANY* (TELEPHONE) 213 SOUTH MAIN STREET, P.O. BOX 149 WATERLOO, IL 62298 (618) 939-1000

MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800) 892-0123 OR 811 AND ARE INDICATED BY A ". NON J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

GENERAL

- THE CONTRACTOR SHALL PROVIDE BLOCKOUTS IN THE PROPOSED SIDEWALK FOR PLACEMENT OF SIGN POSTS AND MAILBOX 3. SUPPORTS, AS DIRECTED BY THE ENGINEER. THE COST OF THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE FOR PORTLAND CEMENT CONCRETE SIDEWALK.
- 4. IN CASE OF CONFLICT BETWEEN THE CONSTRUCTION PLANS AND THE RIGHT OF WAY PLANS, THE RIGHT OF WAY PLANS SHALL TAKE PRECEDENCE IN MATTERS CONCERNING RIGHT OF WAY AND EASEMENTS. THE CONSTRUCTION PLANS SHALL TAKE PRECEDENCE IN MATTERS CONCERNING CONSTRUCTION ITEMS.
- THE CONTRACTOR SHALL FERTILIZE, SEED AND MULCH ALL EARTH SURFACES DISTURBED BY CONSTRUCTION. FERTILIZER, 5. SEEDING AND MULCH WITHIN THE CONSTRUCTION LIMITS WILL BE PAID FOR AS PROVIDED IN THE CONTRACT. FERTILIZER. SEEDING AND MULCH OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT. SEE THE SEEDING SCHEDULE FOR ESTIMATED PLAN QUANTITIES.
- 6. ALL EXISTING ROADWAY FEATURES INCLUDING, BUT NOT LIMITED TO, PAVEMENT, CURB, SIDEWALK, DRIVEWAY PAVEMENT, CULVERTS, HEADWALLS, LANDSCAPE, RIPRAP, AND GUARDRAIL, WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR UNLESS NOTED OTHERWISE ON THE PLANS. ALL FEATURES WHICH ARE TO BE REMOVED AND FOR WHICH THERE IS NO SPECIFIC PAY ITEM, WILL NOT BE MEASURED SEPARATELY FOR PAYMENT AND THE COST OF THIS REMOVAL WORK SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.

FARTHWORK

- 7. EARTH EXCAVATION INCLUDES THE REMOVAL OF THE EXISTING BITUMINOUS (OIL & CHIP) ROADWAY SURFACE AND AGGREGATE BASE. THE CONTRACTOR MAY INCORPORATE THESE MATERIALS INTO THE PROPOSED EMBANKMENT. SURPLUS AND/OR UNSUITABLE MATERIAL SHALL BE DISPOSED OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."
- 8. PRIOR TO STARTING EARTHWORK OPERATIONS IN AREAS THAT DO NOT REQUIRE EXCAVATION, THE EXISTING BITUMINOUS (OIL & CHIP: ROADWAY SUFFACE SHALL BE CARIFIED OR BROKEN BY MECHANICAL MEANS, REDUCING ALL PARTICLES TO A SIZE NOT LARGER THAN 4 INCHES IN THE LARGEST DIMENSION. THE COST OF THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.

PAVING

AT VARIOUS LOCATIONS, IT MAY BE NECESSARY TO TRANSITION PROPOSED COMBINATION CONCRETE CURB AND GUTTER TO 9. MEET EXISTING CONDITIONS. THE MINIMUM LENGTH OF TRANSITIONAL COMBINATION CURB AND GUTTER SHALL BE 10 FEET, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

DRAINAGE

- 10. STORM SEWER INVERTS SHOWN ON THE PLANS HAVE BEEN CALCULATED TO THE CENTER OF THE STRUCTURE. THE STORM SEWER SLOPES SHOWN ON THE PLANS ARE THE PERCENT GRADE FROM CENTER TO CENTER OF STRUCTURE. THE LENGTH OF STORM SEWERS SHOWN ON THE PLANS IS THE DISTANCE FROM CENTER TO CENTER OF STRUCTURE. STORM SEWER WILL BE MEASURED AND PAID FOR AS SPECIFIED IN ARTICLES 550.09 AND 550.10 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION." FLARED END SECTIONS ARE LOCATED BY STATION, OFFSET AND FLOWLINE ELEVATION AT THE FLARED END OF THE FLARED END SECTION.
- 11. THE OFFSETS TO ALL INLETS AND MANHOLES ARE GIVEN TO THE CENTER OF THE OPENING AT THE BASE OF THE FRAME AND GRATE OR LID. CONCENTRIC DRAINAGE STRUCTURES WERE ASSUMED WHEN CALCULATING THESE DIMENSIONS.
- 12. ALL TYPE 3 FRAMES AND GRATES SHALL BE FURNISHED BY THE CONTRACTOR WITH TYPE 3 GRATES AND OPEN CURB BOXES. SEE HIGHWAY STANDARD 604006 AND THE SPECIAL PROVISIONS FOR DETAILS.
- 13. ALL DRAINAGE STRUCTURES CONSTRUCTED, ADJUSTED OR RECONSTRUCTED UNDER THE CONTRACT, SHALL BE CLEANED OF ANY ACCUMULATION OF SILT, DEBRIS OR FOREIGN MATTER AT THE END OF EACH WORKING DAY AND AT THE TIME OF FINAL INSPECTION. THE COST OF THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE FOR THE VARIOUS DRAINAGE STRUCTURE ITEMS INCLUDED IN THE CONTRACT.

PAVEMENT MARKING

14. THE PAVEMENT MARKING LOCATIONS SHOWN IN THE PLANS ARE APPROXIMATE. PROPOSED CROSSWALKS AND STOP BARS SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER, IF NECESSARY, TO MATCH FIELD CONDITIONS.

ELECTRICAL

15. THE LOCATION OF ALL DETECTOR LOOPS SHALL BE APPROVED BY THE ENGINEER BEFORE ANY SLOTS ARE SAWED IN THE PAVEMENT.

APPROXIMATE QUANTITIES, SYMBOLS & ABBREVIATIONS

16. THE FOLLOWING SYMBOLS AND ABBREVIATIONS SUPPLEMENT OR SUPERCEDE HIGHWAY STANDARD 000001:

BO CONSTR CP	BY OTHERS (USED IN CONJUNCTION WITH TBA & TBR) CONSTRUCTION CONTROL POINT
DND	DO NOT DISTURB
ESMT	EASEMENT
ELEV	ELEVATION
к	LENGTH OF VERTICAL CURVE PER PERCENT GRADE DIFFI
N/F	NOW OR FORMERLY
0/C	OIL AND CHIP
PERM	PERMANENT
PVI	POINT OF VERTICAL INTERSECTION
PVC	POLYVINYL CHLORIDE PIPE
TCE	TEMPORARY CONSTRUCTION EASEMENT
TBA	TO BE ADJUSTED
TBR	TO BE REMOVED
TBRL	TO BE RELOCATED
TYP	TYPICAL
W	WIDTH

COMMITMENTS

NONF

	USER NAME = brandon.ratermann	DESIGNED -	REVISED -				F	F.A.U. RTE	SECTION	COUNTY	TOTAL	SHEET NO.
OATES ASSOCIATES		DRAWN -	REVISED -	STATE OF ILLINOIS GENERAL NOTES & COMMITMI		GENERAL NOTES & COMMITMENTS	9	9345	15-00052-00-PV	MONROE	23	2
Consulting Engineers	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				GALL ROAD INTERSECTION		CONTRACT		7667
DIS DESIGN FIRM LICENSE NO: 184.001115	PLOT DATE = 1/25/2018	DATE –	REVISED -		SCALE: NTS	SHEET 1 OF 1 SHEETS STA.	TO STA.	ILLINOIS FED. #		. AID PROJECT		

ERENCE

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
		20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	Ε
	*	20200100	EARTH EXCAVATION	CU YD	990
	*	20800150	TRENCH BACKFILL	CU YD	15
		21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	1,346
		28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	50
		28000305	TEMPORARY DITCH CHECKS	FOOT	29
		28000400	PERIMETER EROSION BARRIER	FOOT	440
		28000500	INLET AND PIPE PROTECTION	EACH	1
		28100107	STONE RIPRAP, CLASS A4	SO YD	5
		28200200	FILTER FABRIC	SO YD	5
		31100910	SUBBASE GRANULAR MATERIAL, TYPE A 12"	SO YD	2,05
		35100300	AGGREGATE BASE COURSE, TYPE A 4"	SO YD	51
		40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	4,67
		40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1,71

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
		40701801	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 6"	SO YD	343
		40701881	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 10"	SO YD	1,736
		40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	9
		42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	148
		42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	1,531
	*	42400800	DETECTABLE WARNINGS	SQ FT	46
		44000100	PAVEMENT REMOVAL	SQ YD	1,316
		44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	238
		44000600	SIDEWALK REMOVAL	SQ FT	223
		44004250	PAVED SHOULDER REMOVAL	SQ YD	102
-	*	50105220	PIPE CULVERT REMOVAL	FOOT	82
		54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	1
		550A2320	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 12"	FOOT	137
		550A2340	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 18"	FOOT	43

MDDEL NAME = Default

	USER NAME = b.heil	DESIGNED -	REVISED -						SECTION	COUNTY	TOTAL S SHEETS	SHEET NO.	
	DATES ASSOCIATES	ASSOCIATES DRAWN - REVISED - STATE OF ILLINOIS SUMMARY OF QUAN	SUMMARY OF QUANTITIES		9345	10-00052-00-PV	MONROE	23	3				
	Consulting Engineers	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				GALL	ROAD INTERSECTION	CONTRAC	CT NO. 97	7667
IOIS DESIGN FIRM	LICENSE NO: 184.001115	PLOT DATE = 2/5/2018	DATE -	REVISED -		SCALE: NTS	SHEET 1 OF 3 SHEETS STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		

NOTES: SP - SEE PROJECT SPECIFIC SPECIAL PROVISIONS SI - SPECIALTY ITEM

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY

		550A2520	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 12"	FOOT	36
	-	550A2540	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 18"	FOOT	199
		60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1
		60218500	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 3 FRAME AND GRATE	EACH	1
		60219540	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 24 FRAME AND GRATE	EACH	2
		60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	1
		60236200	INLETS, TYPE A, TYPE 8 GRATE	EACH	1
		60237470	INLETS, TYPE A, TYPE 24 FRAME AND GRATE	EACH	1
		60240220	INLETS, TYPE B, TYPE 3 FRAME AND GRATE	EACH	2
		60240328	INLETS, TYPE B, TYPE 24 FRAME AND GRATE	- EACH	2
		60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	814
		63200310	GUARDRAIL REMOVAL	FOOT	94
		67100100	MOBILIZATION	L SUM	1
		70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	47.0

	TOTAL QUANTITY	SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
FOOT	36			70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	847
FOOT	199			70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	292
EACH	1			70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	80
EACH	1	*		72000100	SIGN PANEL - TYPE 1	SQ FT	39.9
EACH	2	*		72400710	RELOCATE SIGN PANEL - TYPE 1	SQ FT	17.5
EACH	. 1	*		72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	110
EACH	1	*		78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	47.0
EACH	1	*		78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	847
EACH	2	*		78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	292
EACH	2	*		78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	80
FOOT	814	*		81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	25
FOOT	94	*		81028320	UNDERGROUND CONDUIT, PVC, 1" DIA.	FOOT	36
L SUM	1	*		81028340	UNDERGROUND CONDUIT, PVC, 1 1/2" DIA.	FOOT	100
							24

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L PA		Consulting Engineers	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					
MODE	ILLINOIS DESIGN FIRM	A LICENSE NO: 184.001115	PLOT DATE = 2/5/2018	DATE -	REVISED -	·	SCALE: NTS	SHEET 2	0F 3	SHEETS	5 STA

NTITIES F.A.L. SECTION COUNTY TOTAL SHEET 9345 10-00052-00-PV MONROE 23 4 GALL ROAD INTERSECTION CONTRACT NO. 97667 STA. TO STA. ILLINDIS FED. AID PROJECT

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY		SI	SP	CODE NO.
*		81400700	HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	3		*	*	89000100
*		87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1,205		*		89500100
*		87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,233		*		89502200
*		87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2,518		*		89502300
*		87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,613		*	*	89502375
*		87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	4,334		*	*	89502380
*		87700340	STEEL MAST ARM ASSEMBLY AND POLE, 58 FT.	EACH	2		*		89502385
*		87800420	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	42			*	X0327980
*		88040090	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	2			*	X2500920
*		88040160	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1			*	X7010216
¥		88102825	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER	EACH	4			*	x7030005
*		88200100	TRAFFIC SIGNAL BACKPLATE	EACH	3		*	,18	X8030110
*	•	88600200	DETECTOR LOOP. TYPE II	FOOT	442		*	*	X8950450
		88800100		EACH	2	#		*	Z0076660
*						Ŧ		*	20076604

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTIT
*	*	89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	
*		89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	
*		89502200	MODIFY EXISTING CONTROLLER	EACH	
*		89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	8,0
*	*	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	
*	*	89502380	REMOVE EXISTING HANDHOLE	EACH	
*		89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	
	*	X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	1
	15	X2500920	SEEDING, CLASS 1A (SPECIAL)	ACRE	0.
	*	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	
	*	X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SO FT	7
*	. 16	X8030110	LOCATING UNDERGROUND CABLE, SPECIAL	EACH	
*	*	X8950450	REMOVE EXISTING UNDERGROUND CONDUIT	FOOT	1
	*	Z0076600	TRAINEES	HOUR	5

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					# - 0042							
		USER NAME = 5.heil	DESIGNED -	REVISED -								
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NTITIES F.A.U. SECTION COUNTY TOTAL SHEET 9345 10-00052-00-PV MONROE 23 5 GALL ROAD INTERSECTION CONTRACT NO. 97667 STA. TO STA. ILLINOIS[FED. AID PROJECT



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		USER NAME = brandon.ratermann	DESIGNED -	REVISED -						_	F.A.U. RTE.	SECTION	COUNTY	TOTA SHEE	AL SHE	ET 0.	
		DRAWN -	REVISED -	STATE OF ILLINOIS	TYPICAL SECTIONS						9345	15-00052-00-PV	MONROE	23	, F	ô	
	Consulting Engineers	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION						GAL	L ROAD INTERSECTION	CONTRA	CT NO.	. 9766	õ7	
ILLINOIS DESIGN	FIRM LICENSE NO: 184.001115	PLOT DATE = 1/27/2018	DATE –	REVISED -		SCALE: NTS	SHEET 1	1 OF	2 SHEE	TS STA	A. TO STA.		ILLINOIS FED. A	ID PROJECT			

TYPICAL SECTION LEGEND

EXISTING HMA PAVEMENT, 11"
 EXISTING OIL & CHIP SURFACE TREATMENT
 EXISTING AGGREGATE SUBBASE
 EXISTING AGGREGATE SHOULDER





- (4) PROPOSED PCC SIDEWALK, 4"



PROPOSED GALL ROAD STA. 13+39 TO STA. 14+21



PROPOSED GALL ROAD

STA. 10+46 TO STA. 13+39



- CROSS SLOPES
- 3 SIDEWALK ENDS AT STA. 11+85
- STA. 11+69 RT

STATION	DESCRIPTION	X-SLOPE LT	X-SLOPE RT
10+46	RT 3 INT	-0.7%	+0.7%
10+86	T.R.	-1.5%	+1.5%
11+00	FULL S.E.	-2.0%	+2.0%
12+53	FULL S.E.	-2.0%	+2.0%
12+80	T.R.	-2.0%	0.0%
13+07	END S.E.	-2.0%	-2.0%

MIXTURE USE	FULL DEPTH SURFACE	BINDER	INCIDENTAL SURFACING
THICKNESS	2"	8" *, 4" **	3′′
AC/PG	PG 64-22	PG 64-22	PG 64-22
RAP % (MAX)	SEE BDE SPECIAL PROVISIONS	SEE BDE SPECIAL PROVISIONS	SEE BDE SPECIAL PROVISIONS
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70	4.0% @ Ndes=70
MIX COMPOSITION	IL-9 . 5	IL-19.0	IL-9 . 5
FRICTION AGG	MIXTURE "C"		MIXTURE "C"
NOTES:	 ROADWAY PRIVATE ENTRANCE 		

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		USER NAME = brandon.ratermann	DESIGNED -	REVISED -					F.A.U. RTF.	SECTION	COUNTY	TOTAL	SHEET NO.
	OATES ASSOCIATES		DRAWN -	REVISED -	STATE OF ILLINOIS		TYPICAL SEC	FIONS	9345	15-00052-00-PV	MONROE	23	7
	Consulting Engineers	PLOT SCALE = 40.0000 ' / 1n.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				GAL	L ROAD INTERSECTION	CONTRAC	T NO. 9	7667
INOIS DESIGN FIF	RM LICENSE NO: 184.001115	PLOT DATE = 1/27/2018	DATE -	REVISED -		SCALE: NTS	SHEET 2 OF 2 SHEETS	STA. TO STA.		ILLINOIS FED. AI) PROJECT		

STRUCTURAL DESIGN TRAFFIC: YEAR: 2038
PV = <u>2,074</u> SU = <u>165</u> MU = <u>118</u>
ROAD/STREET CLASSIFICATION: CLASS: III
PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:
P = <u>88%</u> S = <u>7%</u> M = <u>5%</u>
TRAFFIC FACTOR: ACTUAL = <u>0.64</u>
MIN =0.5
PG GRADE: BINDER: 64-22 SURFACE: 64-22
STRUCTURAL SUPPORT RATING:
SSR = <u>POOR</u>

TYPICAL SECTION LEGEND

1) PROPOSED SUBBASE GRANULAR MATERIAL, TYPE A, 12" (2) PROPOSED HMA PAVEMENT (FULL DEPTH), 10" (3) PROPOSED COMBINATION CURB & GUTTER, TYPE B-6.24 5 PROPOSED TOPSOIL FURNISH AND PLACE, 4"

TYPICAL SECTION NOTES

 LANE WIDTH VARIES FROM 13' AT STA. 12+35 TO 0' AT STA. 13+39 2 SEE SUPERELEVATION TABLE FOR TRANSITION RATE AND

4 GUTTER PAN TO BE INVERTED FROM STA. 10+46 RT TO

SUPERELEVATION TABLE

MIXTURES TABLE

ENTRANCE

		ENTRANCE	ENTRANCE	ENTRANCE	EXISTING	AGG BSE	BIT MATL	BIT MATL	HMA PAVT	PCC	DRIVEWAY
STATI	ON OFFSET	TYPE	WIDTH	DEPTH	SURFACE	CSE A 4	PR CT	ТАСК СТ	FD 6	DRIVEWAY	PAVEMENT
			//W//	"D"	TYPE					PAVT 6	REM
		(NOTE 1)					(NOTE 2&3)	(NOTE 2&3)			
			(FOOT)	(FOOT)		(SQ YD)	(POUND)	(POUND)	(SQ YD)	(SQ YD)	(SQ YD)
11+78.	.5 RT	CONC	26	16.5	HMA	424	772	154	343	60	139
13+60	.5 LT	CONC	25	25	НМА	90				88	99
TOTA	L					514	772	154	343	148	238

 IOTAL

 ENTRANCE NOTES;

 1.
 DEPRESSED CURB AND GUTTER THROUGH ENTRANCES SHALL BE MEASURED FOR PAYMENT AS COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18.

 2.
 ASSUMES 1 APPLICATION OF PRIME COAT AND 2 APPLICATIONS OF TACK COAT. APPLICATION RATES: BITUMINOUS MATERIAL (PRIME COAT): 0.25 LBS / SQ FT BITUMINOUS MATERIAL (TACK COAT): 0.05 LBS / SQ FT

 3
 NOT A TOTAL OHANTITY.

EARTHWORK

			EARTH		EARTHWORK
STATION	STATION	EARTH	EXCAVATION	EMBANKMENT	BALANCE
		EXCAVATION	ADJUSTED		WASTE (+) OR
			FOR		SHORTAGE (-)
			SHRINKAGE		
			(NOTE 1)	(NOTE 2)	(NOTE 3)
		(CU YD)	(CU YD)	(CU YD)	(CU YD)
10+46	14+41	990	743	115	628
TOTAL		990	743	115	628

EARTHWORK NOTES:

1. 2.

3.

PAVEMENT

			SUB GRAN	HMA PAVT	PAVEMENT	PVD SHLDR	BIT MATL	BIT MATL	INC HMA
STATION	STATION	OFFSET	MAT A 12	FD 10	REM	REM	PR CT	ТАСК СТ	SURF
				(NOTE 1&2)			(NOTE 1&3)	(NOTE 1&3)	(NOTE 1)
			(SQ YD)	(SQ YD)	(SQ YD)	(SQ YD)	(POUND)	(POUND)	(TON)
10+45	14+21	LT/RT	2,057	1,736	1,316	102	3,905	1,562	
14+21	14+41	LT/RT							9
TOTAL			2,057	1,736	1,316	102	3,905	1,562	9

PAVEMENT NOTES: 1. APPLICATION RATES USED FOR QUANTITY ESTIMATES ARE AS FOLLOWS: HOT-MIX ASPHALT: BITUMINOUS MATERIAL (PRIME COAT): 0.25 LBS / S0 FT

BITUMINOUS MATERIAL (TACK COAT): 0.05 LBS / SG FT THE PROPOSED SURFACE COURSE SHALL BE 2 IN. THICK. ASSUMES 1 APPLICATION OF PRIME COAT AND 2 APPLICATIONS OF TACK COAT. NOT A TOTAL QUANTITY. 2. 3.

SIDEWALK

1.

			PC CONC	DETECTABLE	SIDEWALK
STATION	STATION	OFFSET	SIDEWALK 4	WARNINGS	REM
			(NOTE 1)	(NOTE 1)	
			(SQ FT)	(SQ FT)	(SQ FT)
10+55	10+89	RT	171	23	177
10+88	12+35	LT	1,310	23	
11+54	11+59	RT	50		46
TOTAL			1,531	46	223
SIDEWALK NO)TES:				

SIDEWALK RAMPS ACCESSIBLE TO THE DISABLED ARE REQUIRED. SEE PLAN SHEETS FOR LOCATIONS AND TYPES.

	USER NAME = brandon,ratermann	DESIGNED -	REVISED -					F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
OATES ASS	DCIATES	DRAWN -	REVISED -	STATE OF ILLINOIS		SCHEDULE OF QUANTITIES		9345	15-00052-00-PV	MONROE	23	8
Consulting	ngineers PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				GALL	ROAD INTERSECTION	CONTRAC	CT NO. 9	7667
IOIS DESIGN FIRM LICENSE NO	184.001115 PLOT DATE = 1/27/2018	DATE –	REVISED -		SCALE: NTS	SHEET 1 OF 2 SHEETS STA.	TO STA.		ILLINOIS FED.	AID PROJECT		

ESTIMATED SHRINKAGE FACTOR = 25%. APPROXIMATE EMBANKMENT QUANTITY IS SHOWN FOR INFORMATION ONLY. APPROXIMATE EARTHWORK BALANCE IS SHOWN FOR INFORMATION ONLY.

SEE CONSTRUCTION DETAILS SHEET AND HIGHWAY STANDARDS FOR CURB RAMP DETAILS.

PAVEMENT MARKING

					TEMP PVT	TEMP PVT	TEMP PVT	TEMP PVT	TEMP PVT	PAVT MK	THPL PVT	THPL PVT	THPL PVT	THPL PVT
STATION	STATION	OFFSET	COMMENT	COLOR	MK LTRS	MK LINE 4	MK LINE 12	MK LINE 24	MK REM	REM	MK LTRS	MK LINE 4	MK LINE 12	MK LINE 24
					& SYMB					WTR BL	& SYMB			
					(NOTE 2)	(NOTE 2)	(NOTE 2)	(NOTE 2)	(NOTE 2)		(NOTE 1)	(NOTE 1)	(NOTE 1)	(NOTE 1)
					(SQ FT)	(FOOT)	(FOOT)	(FOOT)	(SQ FT)	(SQ FT)	(SQ FT)	(FOOT)	(FOOT)	(FOOT)
GALL ROAD														
10+80	14+21	CL	DOUBLE CL	YELLOW		682			227			682		
10+80	12+35	LT	SOLID LANE LINE	WHITE		141			47			141		
11	+05	LT	TURN LANE ARROWS	WHITE	23.5				24		23.5			
12	+10	LT	TURN LANE ARROWS	WHITE	23.5				24		23.5			
12+35	13+34	LT	2'-6' SKIP DASH	WHITE		24			8			24		
INTERSECTION	IS													
IL RO	DUTE 3	RT	X WALK & STOP BAR	WHITE			114	40	194	170			114	40
GALI	ROAD	LT/RT	X-WALK & STOP BAR	WHITE			178	40	258				178	40
TOTAL					47.0	847	292	80	781	170	47.0	847	292	80
DAMENT MA	BULLER NOTES													

PAVEMENT MARKING NOTES: 1. SEE HIGHWAY STANDARD 780001 FOR PAVEMENT MARKING DETAILS. 2. TEMPORARY PAVEMENT MARKINGS TO BE PLACED AT THE ENGINEER'S DISCRETION

SIGN

						SIGN PANEL	TELES	RELOC	
STATION	OFF	SET	MUTCD	DESCRIPTION	SIZE	T1	STL SIN	SIGN	NOTES
			TYPE				SUPPORT	PANEL	
								T1	
					(IN X IN)	(SQ FT)	(FOOT)	(SQ FT)	
8+97	57	RT	R10-3e L	PUSH BUTTON TO CROSS	9 X 15	0.9			
10+68	40	RT	R10-3e R	PUSH BUTTON TO CROSS	9 X 15	0.9			
10+68	40	RT	R10-3e L	PUSH BUTTON TO CROSS	9 X 15	0.9			
10+86	56	LT	R10-3e R	PUSH BUTTON TO CROSS	9 X 15	0.9			
10+35	67	LT	R10-12	YIELD ON GREEN	30 X 36			7.5	RELOCATE EX SIGN ON NEW MAST ARM
10+62	60	LT	R3-2	STREET NAME	48 X 30			10	RELOCATE EX SIGN ON NEW MAST ARM
11+25	20	RT	R2-1	SPEED LIMIT	24 X 30	5	16		20 MPH
11+89	91	RT	K-2897	ENTRANCE ONLY	30 X 18	3.75	15		
11.00	27	рт	R1-1	STOP SIGN	30 X 30	6.25	10		
11+98	23		R10-7	DO NOT BLOCK INT	24 X 30	5	10		
13+35	23	LT	R3-7L	LEFT LANE MUST TURN LEFT	30 X 30	6.25	16		
13+75	20	RT	R2-1	SPEED LIMIT	24 X 30	5	16		25 MPH
13+95	23	LT	R2-1	SPEED LIMIT	24 X 30	5	16		20 MPH
TOTALS						39.9	110	17.5	

SEEDING

			SEEDING	NITROGEN	PHOSPHORUS	POTASSIUM	MULCH	TEMP	TOPSOIL
STATION	STATION	OFFSET	CL 1A SP	FERT NUTR	FERT NUTR	FERT NUTR	METHOD 2	EROS CNTL	FURNISH &
				(NOTE 1)	(NOTE 1)	(NOTE 1)	(NOTE 1)	SEEDING	PLACE 4"
								(NOTE 2)	
			(ACRE)	(POUND)	(POUND)	(POUND)	(ACRE)	(POUND)	(SQ YD)
10+46	11+78	RT	0.09	8	8	8	0.09	18	467
10+40	13+60	LT	0.07	6	6	6	0.07	14	370
11+78	14+40	RT	0.08	7	7	7	0.08	16	429
13+60	14+40	LT	0.01	1	1	1	0.01	2	80
TOTAL			0.25	22	22	22	0.25	50	1,346

1. 2.

SIGN NOTES SEE SIGNING SHEET AND TRAFFIC SIGNAL SHEET FOR ADDITIONAL INFORMATION 1

	USER NAME = b.heil	DESIGNED -	REVISED -						SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
OATES ASSOCIA	ES	DRAWN -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES			9345	10-00052-00-PV	MONROE	23	9
Consulting Engine	PLOT SCALE = 40.0000 '/ in.	CHECKED -	REVISED -					GALL	ROAD INTERSECTION	CONTRAC	CT NO. 97	7667
IS DESIGN FIRM LICENSE NO: 184.0	115 PLOT DATE = 2/5/2018	DATE -	REVISED -		SCALE: NTS	SHEET 2 OF 2 SHEETS STA.	TO STA.		ILLINOIS FED.	AID PROJECT		

CURB &	GUTTER		
			COMB CC&G
STATION	STATION	OFFSET	TB6.24
			(NOTE 1)
			(FOOT)
10+40	11+67	RT	178
10+83	13+48	LT	311
11+92	14+21	RT	256
13+72	14+21	LT	69
TOTAL			814

CURB & GUTTER NOTES: 1. THE TRANSITION FROM TYPE B-6.24 CC&G SHALL BE 15' AND MEASURED FOR PAYMENT AS COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24.

FERTILIZER AND MULCH QUANTITIES ARE SHOWN FOR INFORMATION ONLY. THE COST FOR FERTILIZER NUTRIENTS AND MULCH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR SEEDING, CLASS 1A (SPECIAL). THE APPLICATION RATE FOR FERTILIZER NUTRIENTS IS 90 LBS/ACRE FOR ESTIMATION PURPOSES. SEEDING APPLICATION RATE IS 100 LBS/ACRE AND ASSUMES 2 APPLICATIONS.





		USER NAME = brandon.ratermann	DESIGNED -	REVISED -							F.A.U. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.	
	OATES ASSOCIATES Consulting Engineers		DRAWN -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL PLAN			9345	10-00052-00-PV	MONROE	23	11			
		PLOT SCALE = 500.0000 // in.	CHECKED -	REVISED -		DEPARTMENT OF TRANSPORTATION					GALL	ROAD INTERSECTION	CONTRAC	T NO. 9	7667	
DESIGN FIF	RM LICENSE NO: 184.001115	PLOT DATE = 1/27/2018	DATE –	REVISED -	SCALE		SHEET 1	OF 1	SHEETS	STA.	TO STA.		ILLINOIS FED.	AID PROJECT		

TRAFFIC CONTROL PLAN LEGEND



NOT TO SCALE

ALL TRAFFIC CONTROL SIGNS, BARRICADES, AND MAINTENANCE TO BE INCLUDED IN THE COST OF TRAFFIC

TYPE A LOW INTENSITY FLASHING LIGHTS SHALL BE USED ON THE FIRST SIGN IN ADVANCE OF THE WORK

BARRICADES AND SIGNS SHALL BE POSITIONED AS SHOWN, ACCORDING TO HIGHWAY STANDARDS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND AS DIRECTED BY THE ENGINEER.

THE EXACT LOCATION OF THE BARRICADES AND SIGNS SHALL BE STAKED IN THE FIELD BY THE CONTRACTOR TWO WORKING DAYS IN ADVANCE OF CONSTRUCTION OPERATIONS FOR APPROVAL BY THE ENGINEER.

CHANGEABLE MESSAGE SIGNS SHALL BE IN PLACE 2 WEEKS PRIOR TO ROAD CLOSURE. SEE SPECIAL



	DL SHEET		F.A.U. RTE.	SEC	TION		COUNTY	TOTAL SHEETS	SHEET NO.
)			9345	15-0005	2-00-PV	'	MONROE	23	12
			GA	LL ROAD INTE	RSECTIO	ON	CONTRACT	NO. 9	7667
	STA.	TO STA.			ILLINOIS	FED. AI	D PROJECT		





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FILE NAME	MODEL NAME =

		USER NAME = brandon.ratermann	DESIGNED -	REVISED -			F.A.U. RTE.	SECTION	COUNTY	TOTAL S	HEET NO.
	OATES ASSOCIATES		DRAWN -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REMOVAL SHEET	9345	15-00052-00-PV	MONROE	23	14
	Consulting Engineers	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -			GAL	L ROAD INTERSECTION	CONTRAC	f NO. 97	667
INOIS DESIGN FI	RM LICENSE NO: 184.001115	PLOT DATE = 1/27/2018	DATE –	REVISED -		SCALE: 1" = 20" SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS FED. A	. AID PROJECT		



DEL NAME = Full Apron .E NAME H:\P\15006\Micros

		USER NAME = brandon.ratermann	DESIGNED -	REVISED -		ATION			SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	OATES ASSOCIATES		DRAWN -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION SCALE: 1				15-00052-00-PV	MONROE	23	15
	Consulting Engineers	PLOT SCALE = 20.0000 '/ in.	CHECKED -	REVISED -					L ROAD INTERSECTION	CONTRAC	T NO. 5	7667
INOIS DESIGN FIF	RM LICENSE NO: 184.001115	PLOT DATE = 1/27/2018	DATE –	REVISED -		SCALE: 1" = 10' SHEET 1 OF 2 SHEETS STA. TO STA.			ILLINOIS FED. A	D PROJECT		





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NAME	IAME	
_	~	L

	OATES ASSOCIATES Consulting Engineers	USER NAME = brandon,ratermann PLOT SCALE = 40.0000 ' / 10.	DESIGNED – DRAWN – CHECKED –	REVISED – REVISED – REVISED –	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		PAVEMENT MARKING &
LINOIS DESIGN FIRM LICENSE NO: 184.0011	IRM LICENSE NO: 184.001115	PLOT DATE = 1/27/2018	DATE –	REVISED -		SCALE:	SHEET 1 OF 1 SHEETS

ELECTRICAL GENERAL NOTES

- 1. PRIOR TO COMMENCING CONSTRUCTION OF ANY COMPONENT OF THE PROPOSED TRAFFIC SIGNAL SYSTEM, ALL UNDERGROUND UTILITIES SHALL BE FIELD LOCATED ACCORDING TO ARTICLE 107.31 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION". AGENCIES KNOWN TO HAVE FACILITIES WITHN THE PROJECT LIMITS ARE LISTED IN THE GENERAL NOTES OF THE PLANS. CALL J.U.L.I.E. (800) 892-0123 ONE WEEK BEFORE PLANNING TO DIG. IT MAY BE NECESSARY TO HAND DIG TEST HOLES TO EXPOSE EXISTING UTILITIES AT SOME LOCATIONS.
- 2. THE EXISTING SIGNS ON THE EXISTING MAST ARM IN THE SOUTHEAST QUADRANT SHALL BE RELOCATED TO THE NEW MAST ARM AND ATTACHED WITH NEW HARDWARE PER SECTION 720 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND HIGHWAY STANDARDS 720001 AND 720016.
- 3. TRAFFIC SIGNAL CABLES SHALL BE #14 AWG STRANDED COPPER UNLESS OTHERWISE SPECIFIED. TERMINAL ENDS SHALL HAVE CRIMPED-ON RING TONGUE CONNECTORS.
- 4. THE QUANTITIES SHOWN FOR TRAFFIC SIGNAL CABLE IN CONDUIT AND REMOVAL OF ELECTRIC CABLE FROM CONDUIT ASSUME THAT ALL CABLE IN EXISTING CONDUIT WILL NEED TO BE REPLACED. IF IT IS DETERMINED IN THE FIELD THAT THIS CABLE IS SUITABLE FOR USE AND IT WILL NOT BE DAMAGED WHILE PULLING ADDITIONAL CABLE THROUGH THE CONDUIT, WORK ON THESE ITEMS WILL BE UNNECCESARY.
- MOUNTING HARDWARE, SIGNAL POSTS AND BASES SHALL BE UNPAINTED ALUMINUM. 5. BOLTS, SCREWS, NUTS AND WASHERS SHALL BE STAINLESS STEEL. ANTI-SEIZE PASTE COMPOUND SHALL BE USED ON ALL MOUNTING HARDWARE FIELD CONNECTIONS.
- THE LOCATION OF MAST ARM SUPPORTS SHALL BE APPROVED BY THE ENGINEER 6. BEFORE FOUNDATIONS ARE CONSTRUCTED. MAST ARM POLES SHALL BE LOCATED A MINIMUM OF 10 FEET FROM THE EDGE OF PAVEMENT OR 2 FEET FROM THE EDGE OF SHOULDER, WHICHEVER DISTANCE IS GREATER. IN CURBED SECTIONS, THE MAST ARM POLES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM THE FACE OF THE CURB. THESE DISTANCES ARE TO THE NEAR FACE OF THE MAST ARM POLE.
- 7. THE FOLLOWING DEPTHS OF CONCRETE FOUNDATIONS FOR MAST ARM POLES HAVE BEEN DETERMINED FROM SOIL BORING DATA: NE CORNER: 21' O''
 - SE CORNER: 21' O"
- 8. THE LOCATION OF SIGNAL HEADS ON MAST ARMS SHALL BE APPROVED BY THE ENGINEER BEFORE MAST ARMS ARE INSTALLED.
- 9. BACKPLATES SHALL BE ABS PLASTIC
- 10. INDUCTIVE LOOP DETECTORS SUPPLIED FOR THIS PROJECT SHALL BE RACK MOUNTED AND SHALL HAVE THE CAPACITY OF OPERATING WITH BOTH DELAY AND EXTENSION MODES ACTIVE, IF A TIME SETTING IS PROGRAMMED.
- 11. CALL DELAY SHALL NOT FUNCTION WHEN THE RELATED PHASES ARE IN THE GREEN MODE. "CALL CARRY-OVER" SHALL FUNCTION ONLY WHEN THE RELATED PHASES ARE IN THE GREEN MODE.
- 12. THE LOCATION OF ALL DETECTOR LOOPS SHALL BE APPROVED BY THE ENGINEER BEFORE ANY SLOTS ARE SAWED IN THE PAVEMENT.
- 13. DURING SAWING OPERATIONS, THE CONTRACTOR SHALL CONTROL DUST SO THAT IT DOES NOT BECOME AIRBORNE AND DRIFT INTO TRAFFIC OR ONTO ADJACENT PROPERTIES.
- 14. DETECTOR LOOPS LOCATED WITHIN HOT-MIX ASPHALT SURFACE LIMITS SHALL BE INSTALLED IN THE PAVEMENT PRIOR TO HMA SURFACE PLACEMENT. DETECTOR LOOPS SHALL BE A MAXIMUM OF 4 INCHES DEEP, MEASURED FROM THE FINAL PAVEMENT SURFACE ELEVATION.
- 15. DETECTOR LOOP LEAD-IN SPLICES SHALL BE MADE IN A HANDHOLE PER SECTION 873 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION". CONDUCTORS SHALL BE SPLICED IN A RIGID MOLD WITH NON-HARDENING EPOXY FILLER. RESIN CORE SOLDER SHALL BE USED.
- 16. PROPOSED CONDUIT SHALL BE PVC UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL BE PLACED AND BACKFILLED PRIOR TO CONSTRUCTION OF NEW PAVEMENT, SHOULDER AND CURB. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PUSHING OR PULLING CONDUIT AFTER SUCH WORK HAS BEEN COMPLETED.
- 17. CONDUIT SPLICES WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED PART OF THE NEW CONDUIT INSTALLATION.
- 18. A 1/4" DIAMETER NYLON PULL ROPE SHALL BE INSTALLED IN ALL CONDUITS.
- 19. HANDHOLES SHALL BE CAST-IN-PLACE PORTLAND CEMENT CONCRETE ACCORDING TO ARTICLE 814.03(d) OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION". HANDHOLE COVERS SHALL BE SLOPED TO MATCH PROPOSED CONTOURS.

- 20. THE TEMPORARY TRAFFIC SIGNAL INSTALLATION SHALL ONLY BE INSTALLED TO REPLACE THE MAST ARM IN THE SOUTHEAST QUADRANT OF THE INTERSECTION. SEE SPECIAL PROVISIONS FOR INFORMATION REGARDING THE TRAFFIC SIGNAL CONSTRUCTION REQUIREMENTS. THIS PAY ITEM SHALL BE USED TO PROVIDE TRAFFIC SIGNAL CONTROL WHILE WAITING ON DELIVERY OF THE NEW MAST ARMS. THE MAST ARM IN THE NORTHEAST QUADRANT MAY BE USED TEMPORARILY AS IS ONCE RECONSTRUCTED GALL ROAD IS OPENED TO TRAFFIC.
- 21. THE FOLLOWING ABBREVIATIONS SUPPLEMENT OR SUPERCEDE HIGHWAY STANDARD 000001:
 - **ARND ABANDON**
 - ALUM ALLIMÍNI M
 - BRACKET MOUNTED BM
 - FOLITP EQUIPMENT GALVANIZED STEEL CONDUIT GSC
 - MΔ MAST ARM
- MAST ARM MOUNTED MAM
- PEDESTRIAN PED
- POLYVINYL CHLORIDE CONDUIT PVC.
- PR PUSH-BUTTON REL OC
- RELOCATE RFC
- REMOVE ELECTRICAL CABLE FROM CONDUIT SH SIGNAL HEAD
- UC UNDERGROUND CONDUIT

STANDARDS FOR TRAFFIC SIGNAL SHEETS

720001 SIGN PANEL MOUNTING DETAILS MAST ARM MOUNTED STREET NAME SIGNS 720016 HANDHOLES 814001 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES 857001 873001 TRAFFIC SIGNAL GROUNDING & BONDING PEDESTRIAN PUSH BUTTON POST 876001 877002 STEEL MAST ARM ASSEMBLY AND POLE 56' THROUGH 75' 878001 CONCRETE FOUNDATION DETAILS 880006 TRAFFIC SIGNAL MOUNTING DETAILS DETECTOR LOOP INSTALLATIONS 886001 TYPICAL LAYOUTS FOR DETECTION LOOPS 886006

TRAFFIC SIGNAL LEGEND

- PROPOSED SIGNAL HEAD WITH BACKPLATE (SEE HIGHWAY STANDARD 880006) +-
- +0 EXISTING SIGNAL HEAD WITH BACKPLATE
- PROPOSED HANDHOLE
- \square EXISTING HANDHOLE

6' x 50'

6' × 50'

PVCC

 $\overline{\mathbf{N}}$ EXISTING DOUBLE HANDHOLE

PROPOSED DETECTOR LOOP (SEE HIGHWAY STANDARDS 886001 & 886006)

EXISTING DETECTOR LOOP (SEE HIGHWAY STANDARDS 886001 & 886006)

- PROPOSED CONDUIT: "T" TRENCH, "P" PUSHED, SIZE SPECIFIED
- EXISTING CONDUIT: SIZE SPECIFIED
- POLYVINYL CHLORIDE CONDUIT GSC
- REC REMOVE ELECTRIC CABLE FROM CONDUIT

GALVANIZED STEEL CONDUIT

- B PROPOSED SIGN
- \circ
- EXISTING MAST ARM \circ PROPOSED MAST ARM
- -[]
- EXISTING SIGNAL HEAD, PEDESTRIAN
- 0 EXISTING PEDESTRIAN PUSHBUTTON DETECTOR
- \bowtie EXISTING CONTROLLER
- Ô EXISTING SIGNAL POST
- PROPOSED SIGNAL POST

PROPOSED STREET NAME SIGN/TRAFFIC SIGN MOUNTED ON MAST ARM

CODE NO.	ITEM	UNIT	TOTAL QUANTITIES
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	25
81028320	UNDERGROUND CONDUIT, PVC, 1" DIA.	FOOT	36
81028340	UNDERGROUND CONDUIT, PVC, 1 1/2" DIA.	FOOT	100
81028370	UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	24
81400700	HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	3
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1,205
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,233
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2,518
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,613
87801305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	4,334
87700340	STEEL MAST ARM ASSEMBLY AND POLE, 58 FT.	EACH	2
87800420	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	42
88040090	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	2
88040160	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
88102825	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER	EACH	4
88200100	TRAFFIC SIGNAL BACKPLATE	EACH	3
88600200	DETECTOR LOOP, TYPE II	FOOT	442
88800100	PEDESTRIAN PUSH-BUTTON	EACH	2
8900200	TEMPORARY TRAFFIC SIGNAL INSTALLATION	L SUM	1
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	5
89502200	MODIFY EXISTING CONTROLLER	EACH	1
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	8,001
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
89502380	REMOVE EXISTING HANDHOLE	EACH	2
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
x8030110	LOCATING UNDERGROUND CABLE, SPECIAL	EACH	1
X8950450	REMOVE EXISTING UNDERGROUND CONDUIT	FOOT	131

TRAFFIC SIGNAL SCHEDULE

			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
L	L SHEETS		9345	15-00052-00-PV	MADISON	23	18
_			GA	LL ROAD INTERSECTION	CONTRACT	NO. 9	7667
S	STA.	TO STA.		ILLINOIS FED. 4	ID PROJECT		









PEDESTRIAN SIGNAL HEADS TBR ₩∕ COUNTDOWN HEADS

EXISTING TRAFFIC SIGNAL FACES



, = . | | R || | = . |



COUNTDOWN PEDESTRIAN SIGNAL HEAD

PROPOSED TRAFFIC SIGNAL FACES

NOTE: 1. EXISTING SIGNAL HEADS AND BACKPLATES TO BE RE-USED.

CABLE DIAGRAM LEGEND

	PROPOSED ELECTRIC CABLE IN CONDUIT					
\$	PROPOSED CABLE SPLICE (SEE ELECTRICAL GENERAL NOTES)					
2/C	INDICATES NUMBER OF CONDUCTORS IN CABLE					
C.D.	CALL DELAY (SEE ELECTRICAL GENERAL NOTES)					
C.C.O.	CALL CARRY OVER (SEE ELECTRICAL GENERAL NOTES)					
NO. 6	INDICATES AMERICAN WIRE (AWG) SIZE 6					
* 6	LOOP DETECTOR NUMBER					
·)	PROPOSED PEDESTRIAN PUSH BUTTON					
	EXISTING ELECTRIC CABLE IN CONDUIT					
• ^S	EXISTING CABLE SPLICE (SEE ELECTRICAL GENERAL NOTES)					
(<u>·</u>)	EXISTING PEDESTRIAN PUSH BUTTON					
-[EXISTING SERVICE INSTALLATION					

DETECTOR LOOP REQUIREMENTS & CALCULATIONS

N	PHASE	LOOP SIZE	REQUIRED	LEAD-IN	CALCULATED	CALCULATED
			NO. OF	LENGTH	INDUCTANCE	RESISTANCE
			TURNS		(NOTE 1)	(NOTE 1)
		(FOOT)		(FOOT)	(MICROHENRIES)	(OHMS)
	5	6' X 50'				
	5	6' X 50'				
	4	6' X 50'	3 - 6 - 3	201	830	2.6
J	4	6' X 50'	3 - 6 - 3	136	816	2.3
	1	6' X 50'				
	1	6' X 50'				
	3	6' X 50'				
RU	3	6' X 50'				
	3	6' X 50'				
).	3	6' X 6'				
).	2	6' X 6'				
).	2	6' X 6'				
).	4	6' X 6'	5	59	70	0.5
).	4	6' X 6'	5	46	67	0.4
).	6	6' X 6'				
).	6	6' X 6'				
TES:						

DETECTOR LOOP NOTES: 1. THE CALCULATED VALUES SHOWN ABOVE ARE FOR COMBINED LOOP + LEAD-IN INDUCTANCE AND RESISTANCE. ACTUAL VALUES SHOULD BE WITHIN +/- 20% OF THESE VALUES.

. SHEETS		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
		9345	15-00052-00-PV	MADISON	23	20		
_			GA	LL ROAD INTERSECTION	CONTRACT	NO. 9	7667	
5	STA.	TO STA.		ILLINOIS FED. AID PROJECT				





		USER NAME = brandon.ratermann	DESIGNED -	REVISED -		
0/	DATES ASSOCIATES		DRAWN -	REVISED -	STATE OF ILLINOIS	ENTRANCE DE
	Consulting Engineers	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	
DIS DESIGN FIRM LI	LICENSE NO: 184.001115	PLOT DATE = 1/27/2018	DATE –	REVISED -		SCALE: 1" = 10' SHEET 1 OF 1 SHEETS



