

SIGNAL PHASING	
E.B. LEFT - MAJOR STREET	Ø1
E.B. THRU - MAJOR STREET w/ PED. SOUTH SIDE	Ø6 + PED.
W.B. LEFT - MAJOR STREET	Ø5
W.B. THRU - MAJOR STREET w/ PED. NORTH SIDE	Ø2 + PED.
N.B. - MINOR STREET w/ PED. EAST SIDE	Ø4 + PED.
S.B. - MINOR STREET w/ PED. WEST SIDE	Ø8 + PED.

- The controller unit shall be NEMA configuration.
- The cabinet back panel shall be completely wired with harnesses for 8-phase operation with four overlaps and four concurrent pedestrian phases.

**TRAFFIC SIGNAL PRECONSTRUCTION NOTE:**

Unless noted otherwise, all traffic signal work on this project shall be in accordance with St. Louis County Standard Specifications for Road and Bridge Construction, Division 900, Section 904 - St. Louis County Traffic Signals; and with "St. Louis County Standard Drawings - Traffic Signal Details". The Contractor shall have said references on the job site at all times during construction/installation of the signalization equipment.

The Section 904 specifications in effect for this project will be those available for viewing on the date the signal plans were approved.

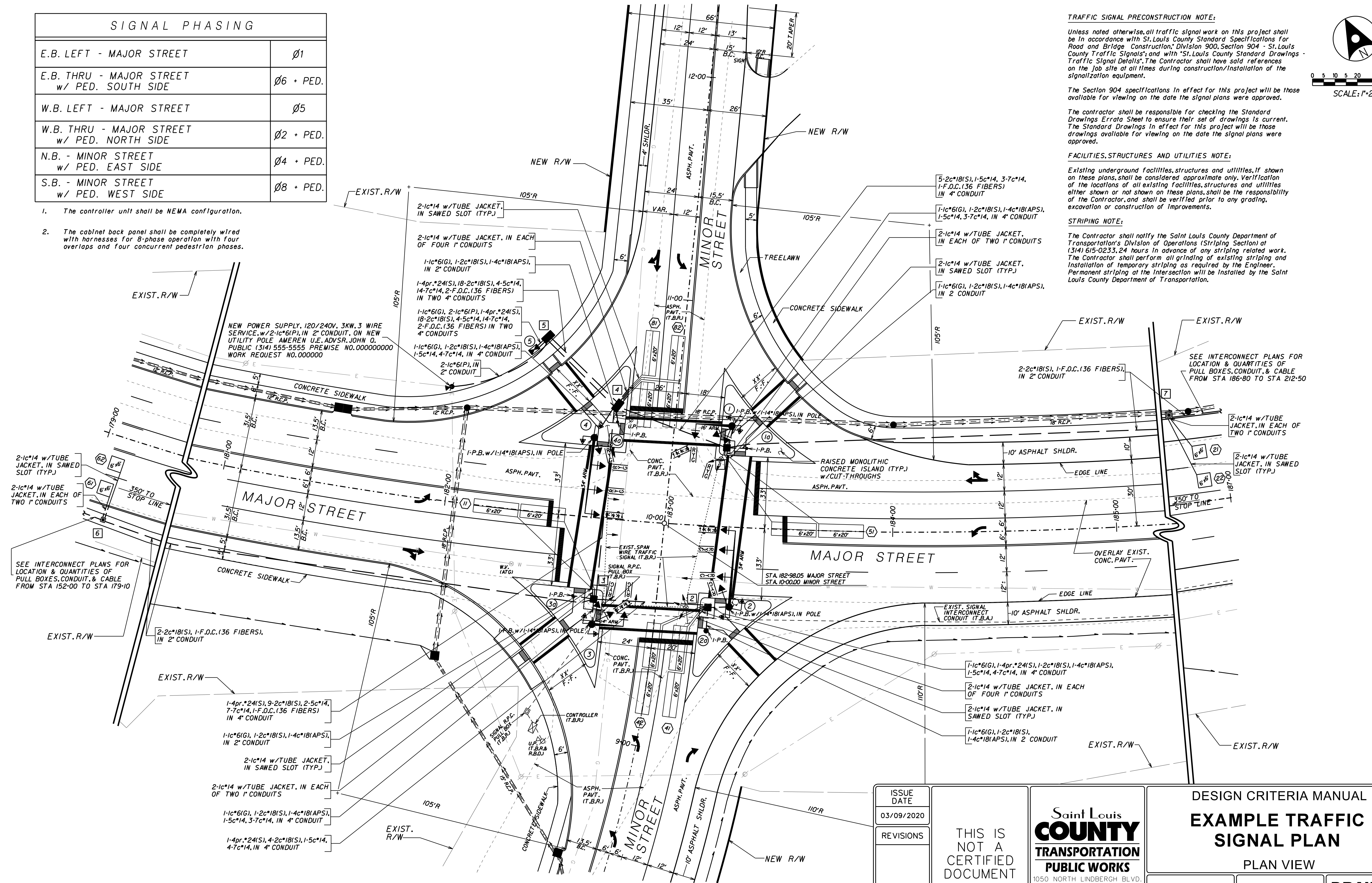
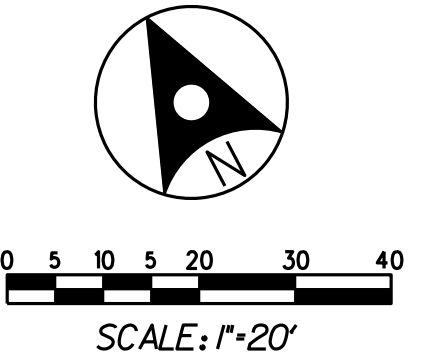
The contractor shall be responsible for checking the Standard Drawings Errata Sheet to ensure their set of drawings is current. The Standard Drawings in effect for this project will be those drawings available for viewing on the date the signal plans were approved.

**FACILITIES, STRUCTURES AND UTILITIES NOTE:**

Existing underground facilities, structures and utilities, if shown on these plans, shall be considered approximate only. Verification of the locations of all existing facilities, structures and utilities either shown or not shown on these plans, shall be the responsibility of the Contractor, and shall be verified prior to any grading, excavation or construction of improvements.

**STRIPING NOTE:**

The Contractor shall notify the Saint Louis County Department of Transportation's Division of Operations (Striping Section) at (314) 615-0233, 24 hours in advance of any striping related work. The Contractor shall perform all grinding of existing striping and installation of temporary striping as required by the Engineer. Permanent striping at the intersection will be installed by the Saint Louis County Department of Transportation.



ISSUE DATE	03/09/2020
REVISIONS	

THIS IS NOT A CERTIFIED DOCUMENT

**Saint Louis COUNTY TRANSPORTATION PUBLIC WORKS**  
1050 NORTH LINDBERGH BLVD. ST. LOUIS, MISSOURI 63132

DESIGN CRITERIA MANUAL  
**EXAMPLE TRAFFIC SIGNAL PLAN**  
PLAN VIEW

EFFECTIVE 05/01/2020	SHEET 1 OF 2	<b>DRAWING</b> 5.7
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TRAFFIC SIGNAL ITEMS			
ITEM NO.	DESCRIPTION	UNIT	QUANT.
904-02.13	Signal Head, Type 3S	Ea.	2
904-02.34	Signal Head, Type 34S	Ea.	2
904-05.43	Signal Head, Type 3B, Terminal Compartment, and Astro Bracket	Ea.	6
	Mounting		
904-05.44	Signal Head, Type 4B, Terminal Compartment, and Astro Bracket	Ea.	2
	Mounting		
904-24.01	Signal Head, Type 1S, Pedestrian	Ea.	8
904-28.07	Post, Signal, w/Sq. Pedestal Base and Post Cap, 7' Maximum Total	Ea.	4
	Height, Aluminum		
904-29.14	Post, Extension, 4-1/2" O.D. x 14', Aluminum, w/Mounting Hardware	Ea.	1
	and Post Cap		
904-32.14	19' Pole, w/14' Mast Arm, Steel	Ea.	1
904-32.16	19' Pole, w/16' Mast Arm, Steel	Ea.	1
904-32.34	19' Pole, w/34' Mast Arm, Steel	Ea.	2
904-43.88	Controller, Fully Actuated, (8 Phase Timer, in Aluminum Cabinet Approx.	Ea.	1
	55"H x 44"W x 26"D, Wired for 8 Phase Operation) w/Internal Fiber Optic		
	Modem and Termination Housing TS2, Type 2, w/Battery Backup		
904-49.22	Detector, Pedestrian Push Button, APS, Freezeproof	Ea.	8
904-49.35	Detector, Vehicle Induction Loop, Card Rack Mtg., 2 Channel,	Ea.	6
	w/Delay and Extension Timing and Relay Outputs		
904-49.51	Pan Tilt Zoom (PTZ) Internet Protocol Video Surveillance Camera	Ea.	1
	System (Camera w/Bracket, Managed Ethernet Switch and		
	Misc. Cables)		
904-49.52	Software License, PTZ Camera	Ea.	1
904-51.00	Conduit, 1"	L.F.	80
904-52.00	Conduit, 2"	L.F.	801
904-54.00	Conduit, 4"	L.F.	345
904-82.06	Cable, Power, #6 Gauge, 1 Conductor	L.F.	170
904-83.05	Cable, Signal, #14 Gauge, 5 Conductor	L.F.	690
904-83.07	Cable, Signal, #14 Gauge, 7 Conductor	L.F.	2,700
904-84.00	Wire, Stranded Ground, #6 Gauge	L.F.	160
904-85.05	Cable, Detector Loop, #14 Gauge, 1 Conductor, w/Tube Jacket	L.F.	260
	(In Conduit and Pull Boxes)		
904-85.06	Cable, Detector Loop, #14 Gauge, 1 Conductor, w/Tube Jacket	L.F.	3,240
	(In Sawed Slot)		
904-85.18	Cable, Push Button and/or Detector Loop Lead-In,	L.F.	4,280
	#18 Gauge, 2 Conductor (Shielded)		
904-85.34	Cable, Communication, #18 Gauge, 4 Conductor (APS)	L.F.	200
904-85.36	Cable, Communication, Fiber Optic, 36 Fibers (30 Single-Mode	L.F.	1,080
	and 6 Multi-Mode)		
904-85.81	Cable, Communication, Power, PTZ Camera, Video Detection Camera,	L.F.	270
	#24 Gauge, 4 Pair (Shielded)		
904-86.01	Power Supply Assembly, on Wood Utility Pole, 120/240 Volt	Ea.	1
904-88.01	Pull Box, Single, Concrete	Ea.	3
904-88.02	Pull Box, Double, Concrete	Ea.	2
904-89.17	Preformed Pull Box, (17"W x 30"L x 26"Min. H) Reinforced Polymer	Ea.	1
	Concrete		
904-90.17	Preformed Pull Box, (17"W x 30"L x 26"Min. H) Reinforced Polymer	Ea.	1
	Concrete w/1' Concrete Apron		
904-91.43	Base, Type P-3, Concrete	Ea.	4
904-91.56	Base, Type B-6, Concrete	Ea.	2
904-91.57	Base, Type B-7, Concrete	Ea.	2
904-91.88	Base, Type D-8PH, Concrete	Ea.	1
904-95.30	Removal of Preformed Pull Box	Ea.	2
904-96.21	Removal of Concrete Controller Base	Ea.	1
904-97.20	Removal of Signal Equipment (Intersection)	Ea.	1
904-97.43	Removal of Power Supply Assembly	Ea.	1

PULL BOX SCHEDULE						
BOX NUMBER	BOX TYPE			LOCATION		
	CONCRETE	REINFORCED PLASTIC MORTAR	REINFORCED PLASTIC MORTAR W/CONC. APRON	STATION	OFFSET	SIDE
1	SINGLE			183+24.29'	35.22'	LT
2	SINGLE			183+19.55	36.33'	RT
3	SINGLE			182+69.92'	36.29'	RT
4	DOUBLE			182+72.98'	50.70'	LT
5	DOUBLE			182+37.82'	78.13'	LT
6			(17"Wx30"Lx26"MIN. H)	179+09.22'	37.85'	RT
7			(17"Wx30"Lx26"MIN. H)	186+77.31'	40.21'	LT

\* St. Louis County may require stationing and offset of pull boxes to be included in the schedule as shown above.

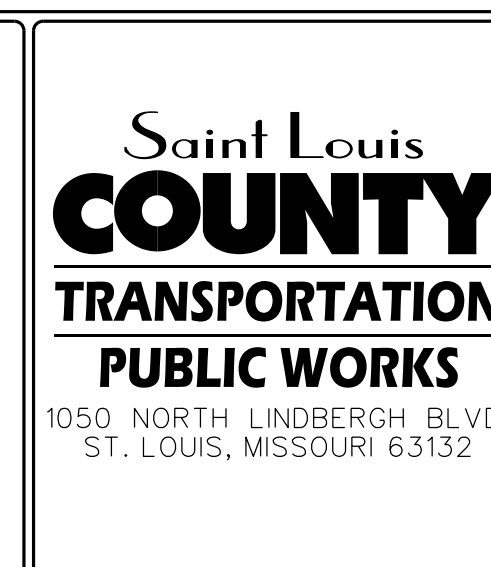
SIGNAL BASE AND EQUIPMENT SCHEDULE						
BASE NO.	CONCRETE BASE TYPE	MAST ARM OR POST TYPE	SIGNAL EQUIPMENT TYPE	STATION	OFFSET	SIDE
1	B-6	STEEL TRAFFIC SIGNAL POLE w/16' ARM	1 - 3B w/BP (ALL 12") 1 - 34S w/BP (ALL 12") 2 - IS PED. (APPROX. 16"x18") 1 - PUSH BUTTON	183+26.11'	45.04'	LT
1a	P-3	ALUMINUM SIGNAL POST w/SQUARE BASE PEDESTAL AND POST CAP (MAXIMUM TOTAL HEIGHT 7')	1 - PUSH BUTTON	183+33.88'	35.38'	LT
2	B-7	STEEL TRAFFIC SIGNAL POLE w/34' ARM & w/14' ALUMINUM POST EXTENSION	1 - 4B w/BP (ALL 12") 2 - 3B w/BP (ALL 12") 1 - 3S w/BP (ALL 12") 2 - IS PED. (APPROX. 16"x18") 1 - PUSH BUTTON 1 - PTZ VIDEO SURVEILLANCE CAMERA	183+28.86'	35.61'	RT
2a	P-3	ALUMINUM SIGNAL POST w/SQUARE BASE PEDESTAL AND POST CAP (MAXIMUM TOTAL HEIGHT 7')	1 - PUSH BUTTON	183+19.35'	46.80'	RT
3	B-6	STEEL TRAFFIC SIGNAL POLE w/14' ARM	1 - 3B w/BP (ALL 12") 1 - 34S w/BP (ALL 12") 2 - IS PED. (APPROX. 16"x18") 1 - PUSH BUTTON	182+70.14'	47.50'	RT
3a	P-3	ALUMINUM SIGNAL POST w/SQUARE BASE PEDESTAL AND POST CAP (MAXIMUM TOTAL HEIGHT 7')	1 - PUSH BUTTON	182+60.12'	35.52'	RT
4	B-7	STEEL TRAFFIC SIGNAL POLE w/34' ARM	1 - 4B w/BP (ALL 12") 2 - 3B w/BP (ALL 12") 1 - 3S w/BP (ALL 12") 2 - IS PED. (APPROX. 16"x18") 1 - PUSH BUTTON	182+63.66'	35.49'	LT
4a	P-3	ALUMINUM SIGNAL POST w/SQUARE BASE PEDESTAL AND POST CAP (MAXIMUM TOTAL HEIGHT 7')	1 - PUSH BUTTON	182+73.53'	43.92'	LT
5	D-8PH		CONTROLLER, GROUND MOUNT, ALUMINUM CABINET (APPROX. 55"Hx44"Wx26"D) w/BATTERY BACKUP	182+31.16'	71.88'	LT

\* St. Louis County may require stationing and offset of signal bases to be included in the schedule as shown above.

INDUCTION LOOP DETECTOR SCHEDULE				
LOOP NO.	SIZE AND TYPE OF LOOP		CARD POSITION IN RACK	CHANNEL USED
	STANDARD (3-TURNS)	QUADRUPOLE (2-4-2)		
21	6'x6'		2	A
22	6'x6'		2	B
61	6'x6'		6	A
62	6'x6'		6	B
41		(2) 6'x20'	4	A
42		(2) 6'x20'	4	B
81		(2) 6'x20'	8	A
82		(2) 6'x20'	8	B
11		(2) 6'x20'	1	A
51		(2) 6'x20'	5	A
CARDS PROVIDED FOR FUTURE USE				
OPEN SLOTS IN CARD RACK			3,7	

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DESIGN CRITERIA MANUAL		
EXAMPLE TRAFFIC SIGNAL PLAN		
QUANTITY SHEET		
EFFECTIVE	SHEET	DRAWING
05/01/2020	2 OF 2	5.7