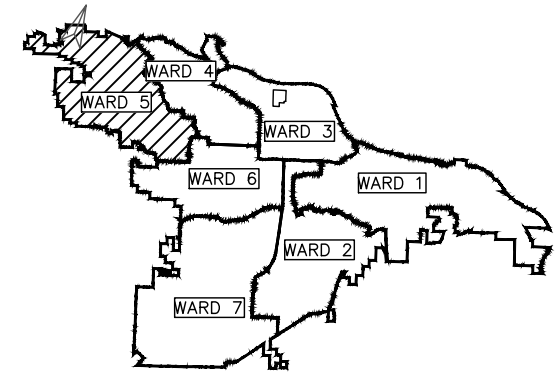


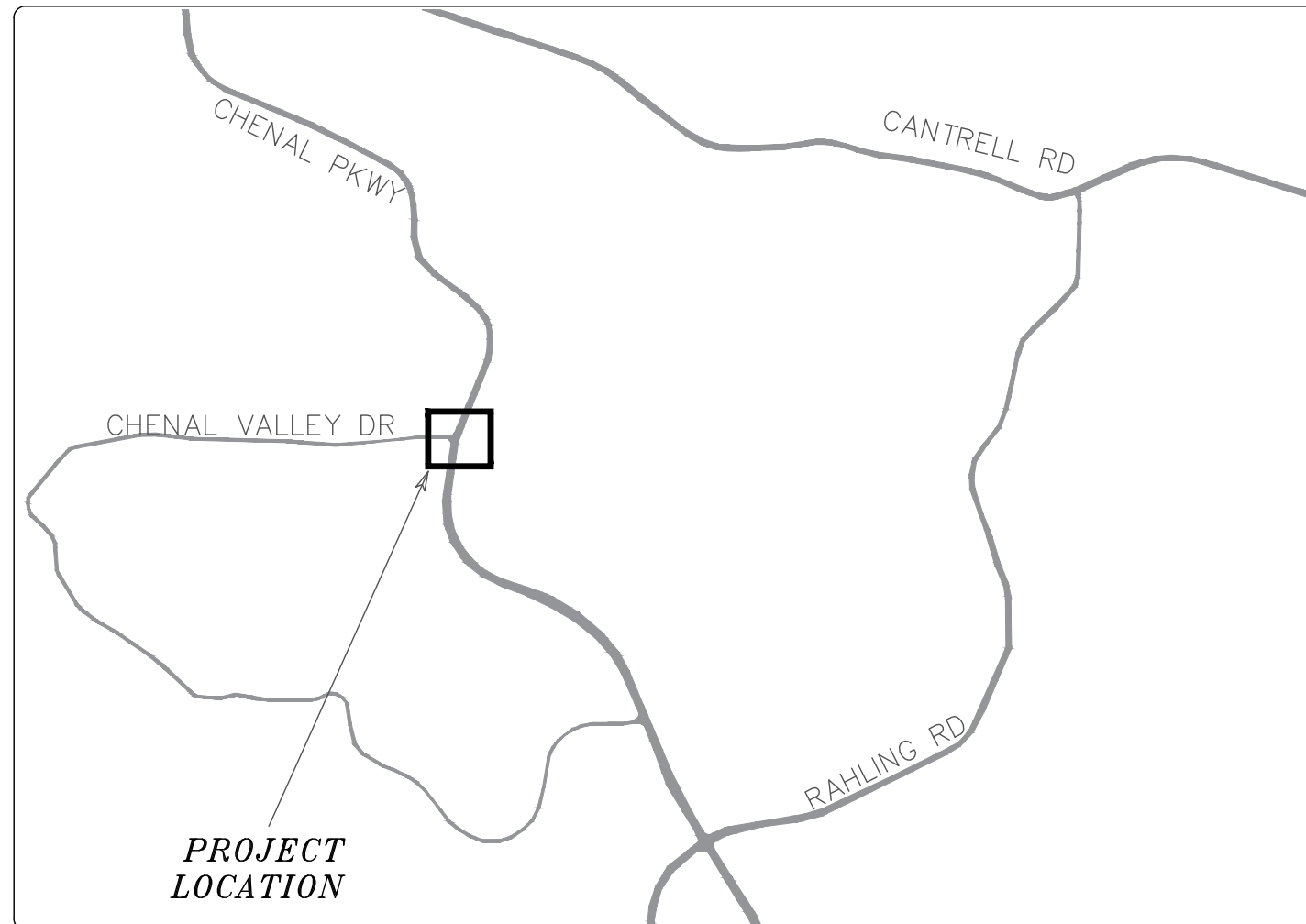
PROJECT #05-17-ST-255C

CHENAL VALLEY SIGNAL

CHENAL VALLEY DR AND CHENAL PKWY



PROJECT LOCATION – WARD 5



SHEET NO.	TITLE
C1	COVER SHEET
C2	TRAFFIC SIGNAL NOTES
C3	TRAFFIC SIGNAL QUANTITIES
C4	PERMANENT PAVEMENT MARKINGS SHEET
C5	SIGNALIZATION PLAN SHEET
C6	SIGNALIZATION PLAN SHEET
C7	SIGNALIZATION PLAN SHEET
C8	SIGNALIZATION PLAN SHEET
C9	SIGNALIZATION PLAN SHEET



2019-2021
BOND PROGRAM

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 WEST MARKHAM STREET
LITTLE ROCK, ARKANSAS 72201



10800 FINANCIAL CENTRE PKWY
SUITE 500
LITTLE ROCK, AR 72211
TEL (501) 801-2690

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
CHENAL AND CHENAL VALLEY TRAFFIC SIGNAL

COVER SHEET



DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201



DRAWN BY

JLV
DESIGNED
JLV
CHECKED
BLV
DATE
08/14/2019
SCALE
NTS
PROJECT NO.
05-17-ST-225C
SHEET NO.
C1

NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2017) NATIONAL ELECTRICAL CODE, NFPA 101 (CURRENT EDITION) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.
2. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND E.G.C. TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT ONLY ONE NEUTRAL-TO-GROUND BOND EXISTS IN THE SYSTEM AND THAT IT IS AT THE MAIN BREAKER.
3. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAIN-TIGHT BREAKER (DISCONNECT), GALVANIZED STEEL SERVICE RISER, METER LOOP (IF REQUIRED), AND WEATHERHEAD AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. IF THE SERVICE POINT IS OVER 10 FEET FROM THE CONTROLLER, THE CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE TWO CIRCUIT EXTERNAL BREAKER (SECONDARY BREAKER) ON OR NEAR THE TRAFFIC SIGNAL CONTROLLER CABINET AND SHALL INSTALL CONDUIT, ELECTRICAL SERVICE WIRE (2c/#6 A.W.G. USE RATED, WITH GROUND TYPICAL), AND PERFORM WIRING TO TAP INTO THE CITY'S/COUNTY'S MAIN BREAKER AS PART OF THIS CONTRACT. CONDUIT IS PAID FOR AS A SEPARATE ITEM OF THIS CONTRACT. TWO CIRCUIT BREAKERS, CONSIDERED SUBSIDIARY TO THE CONTROL EQUIPMENT, ARE NEEDED WHERE STREET LIGHTING IS INCLUDED. AS PART OF THE SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (2c/#12 A.W.G. UF RATED, TYPICAL) SHALL BE KEPT FROM THE CIRCUIT SERVING THE TRAFFIC SIGNAL CONTROL EQUIPMENT FROM THE POINT OF TIE-IN AT THE SECONDARY BREAKER PROVIDED BY THE CONTRACTOR.
- 4.
5. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE.
6. TRAFFIC CONTROLLER CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER OR REMOVE LOAD SWITCHES IN ORDER TO EASILY TEST OR MODIFY DETECTOR INPUTS TO THE CONTROLLER.
7. CONTROLLER CABINET SHALL BE WIRED SUCH THAT DURING FLASH OPERATIONS POWER TO THE LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUSS.
8. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, STANDARD DRAWINGS AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
9. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE HDPE AND INSTALLED BY PUSHING OR BORING METHODS. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE STANDARD DRAWINGS MAY BE USED.
10. TRAFFIC SIGNAL POLES SHALL BE GALVANIZED WITH METAL HANDHOLE COVERS. BACKPLATES SHALL BE METAL AND SUPPLIED FOR ALL SIGNAL HEADS.
11. PAVEMENT MARKINGS SHOWN FOR REFERENCE ONLY. SEE PERMANENT PAVEMENT MARKING DETAILS.
12. FOUNDATION FOR ALL POLES SHALL BE EXTENDED IF NECESSARY TO ACCOMMODATE THE REQUIREMENTS FOR SIGNAL HEAD CLEARANCE ABOVE ROADWAY ONLY AT LOCATIONS WHERE THE GROUND ELEVATION AT THE POLE IS BELOW THE ELEVATION OF THE ROADWAY (SEE NOTES ON STANDARD DRAWING). PAYMENT WILL BE INCLUDED IN SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.
13. ALL CONCRETE PULL BOXES SHALL BE (TYPE 2 HD) UNLESS OTHERWISE INDICATED. ALL CONDUIT SHALL BE THREE (3") INCH DIAMETER UNLESS SPECIFIED ON PLANS.
14. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.
15. LUMINAIRE ASSEMBLIES SHALL BE OF THE FULL CUTOFF TYPE.
16. HARDWARE INPUTS MAY BE DETERMINED BY SUPPLIER. EACH DETECTOR OUTPUT SHALL INPUT THE CONTROLLER THROUGH A SEPARATE INPUT UNLESS OTHERWISE NOTED AND BE PROGRAMMED TO ACTUATE THE ASSOCIATED PHASE. COMBINATION (COMB.) DETECTORS SHALL ALSO BE PROGRAMMED TO PROVIDE VEHICLE COUNT/OCCUPANCY DATA.
17. THE LOCAL RADIO WITH ANTENNA SHALL BE COMPATIBLE WITH THE EXISTING CLOSED LOOP COORDINATION SYSTEM IN THE CITY/COUNTY.
18. TO DETERMINE UTILITY CLEARANCES ABOVE THE TRAFFIC SIGNAL POLE, REFER TO THE POLE SCHEDULE FOR VERTICAL SHAFT HEIGHT. WHERE THE POLE SCHEDULE INDICATES THAT A LUMINAIRE ARM WILL BE USED, THIRTY-EIGHT (38') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE LUMINAIRE ARM. WHERE THE POLE SCHEDULE INDICATES A TRAFFIC SIGNAL POLE WITHOUT A LUMINAIRE ARM, A HEIGHT OF TWENTY-ONE (21') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE TRAFFIC SIGNAL MAST ARM. AN ADDITIONAL SIX (6') FEET SHOULD BE USED DIRECTLY ABOVE "VIDEO DETECTOR" AT LOCATIONS SHOWN ON THE SIGNAL PLANS.

19. THE DESIRABLE MINIMUM DISTANCE FROM THE FACE OF ROADWAY CURB OR SHOULDER EDGE TO THE FACE OF NON-BREAKAWAY POLE OR OBSTRUCTION IS SIX (6') FEET. REFER TO TRAFFIC SIGNAL PLANS FOR SPECIFIC LOCATION OF POLES, CONTROLLER AND ANY OTHER NON-BREAKAWAY OBSTRUCTIONS. REFER TO "DESIGN PARAMETERS, MINIMUM CLEAR ZONE DISTANCE" FOR MINIMUM DISTANCE FROM THE EDGE OF TRAVELED WAY TO THE FACE OF A NON-BREAKAWAY POLE OR OBSTRUCTION. TRAFFIC SIGNAL POLES OR ANY OTHER NON-BREAKAWAY OBSTRUCTION SHALL NOT BE INSTALLED WITHIN THE CLEAR ZONE.
20. AS DETERMINED BY THE ENGINEER, FOUNDATION EMBEDMENT MAY BE DECREASED BY A MAXIMUM OF TWO FEET IF COMPETENT ROCK IS ENCOUNTERED PRIOR TO ACHIEVING PLAN EMBEDMENT AND AT LEAST HALF OF THE REMAINING PLAN EMBEDMENT LENGTH IS KEYED INTO COMPETENT ROCK.
21. CONNECTION OF TRAFFIC SIGNAL DISPLAY TO FIELD WIRING SHALL UTILIZE AN APPROVED TERMINAL STRIP BEHIND HAND-HOLE COVER AT BASE OF POLE. TERMINAL STRIP SHALL PROVIDE PROTECTION TO PREVENT EXPOSURE TO THE PUBLIC IN THE EVENT THAT POLE COVER IS MISSING. PAYMENT FOR TERMINAL STRIPS SHALL BE INCLUDED IN ITEM 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.
22. CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO IMSA STANDARDS.
23. ONE VIDEO PROGRAMMING MODULE SHALL BE PROVIDED FOR AIMING AND SETUP OF DETECTORS IF THE VIDEO SYSTEM CANNOT BE ADJUSTED THROUGH HARDWARE AND SOFTWARE PROVIDED BY ITEMS WITHIN THE JOB.
24. TRAFFIC SIGNAL CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO SIGNAL RELATED WORK. NO WORK ON TRAFFIC SIGNALS WILL BE ALLOWED OR APPROVED WITHOUT THIS PRIOR NOTIFICATION.
25. ALL STEEL POLES SHALL BE DESIGNED TO MEET THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4th EDITION (2001) WITH 2003 AND 2006 INTERIMS.
26. DOOR PANEL TEST PUSH BUTTONS SHALL ACTUATE INDICATED PHASES. DETECTOR ASSIGNMENTS AND/OR SIDE PANEL JUMPERS MAY REQUIRE MODIFICATION.
27. ALL SYSTEM DETECTOR RACKS AND ASSOCIATED EQUIPMENT SHALL BE PROTECTED BY THE MAIN CONTROLLER CABINET POWER SURGE PROTECTION.
28. IN PULL BOXES, POLE BASES, JUNCTION BOXES AND CONTROLLER CABINETS, THE DIRECTION OF EACH CABLE RUN SHALL BE INDICATED BY ATTACHING A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO THE CONDUIT. TAGS SHALL BE EMBOSSED, STAMPED OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. IN INSTANCES WHERE THE CONDUIT OR CONDUIT ENTRANCES ARE NOT VISIBLE OR ACCESSIBLE, A DIRECTION TAG SHALL BE ATTACHED TO EACH CABLE.
29. THE CONTRACTOR SHALL PERFORM ALL WORK POSSIBLE THAT WILL MINIMIZE THE TIME THAT THE TRAFFIC SIGNAL IS OUT OF OPERATION. IF, IN THE OPINION OF THE ENGINEER, TRAFFIC CONDITIONS WARRANT THE CONTRACTOR SHALL PROVIDE FLAGMEN TO DIRECT TRAFFIC WHILE THE TRAFFIC SIGNAL IS OUT OF OPERATION.

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
CHENAL AND CHENAL VALLEY TRAFFIC SIGNAL

TRAFFIC SIGNAL NOTES



DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201



DRAWN BY JLV
DESIGNED JLV
CHECKED BLV
DATE 08/14/2019
SCALE NTS
PROJECT NO. 05-17-ST-225C
SHEET NO. C2

ITEM NO.	ITEM	QUAN.	UNIT
701	ACTUATED CONTROLLER TS1-TYPE 2 (8 PHASES)	1	EACH
702	LOCAL RADIO MDS SD9, WITH ANTENNA	1	EACH
702	PEDESTAL DISCONNECT WITH BATTERY BACK UP CLR	1	EACH
704	ANTENNA CABLE (TYPE 6)	164	LIN. FT.
SP & 706	TRAFFIC SIGNAL HEAD, LED (3SECTION, 1WAY)	10	EACH
707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	8	EACH
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	1156	LIN. FT.
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	2012	LIN. FT.
708	ELECTRICAL CONDUCTORS FOR LUMINAIRES	1231	LIN. FT.
708	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/8 A.W.G., E.G.C.)	875	LIN. FT.
708	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/12 A.W.G., E.G.C.)	172	LIN. FT.
708	ELECTRICAL CONDUCTORS-IN-CONDUIT (2c/6 A.W.G.)	144	LIN. FT.
709	GALVANIZED STEEL CONDUIT (1.25")	11	LIN. FT.
710	NON-METALLIC CONDUIT (2")	133	LIN. FT.
710	NON-METALLIC CONDUIT (3")	694	LIN. FT.
711	CONCRETE PULL BOX (TYPE 2 HD)	7	EACH
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (34')	1	EACH
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (36')	1	EACH
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (42')	1	EACH
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (44')	1	EACH
714	LED LUMINAIRE ASSEMBLY	4	EACH
715	PEDESTRIAN POLE WITH FOUNDATION	1	EACH
715	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH
719	THERMOPLASTIC PAVEMENT MARKING WHITE (24")	600	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING ARROWS	2	EACH
726	18" STREET NAME SIGN	4	EACH
733	VIDEO MONITOR (CLR)	1	EACH
* 733	VIDEO DETECTOR	6	EACH
733	VIDEO CABLE	1997	LIN. FT.
733	VEHICLE DETECTOR-RACK (16 CHANNEL)	2	EACH
* 733	VIDEO PROCESSOR, EDGE CARD (2 CAMERA)	2	EACH

* ONE SPARE VIDEO DETECTOR AND ONE SPARE VIDEO PROCESSOR SHALL BE SUPPLIED

EXISTING


IRON ROD	○ IR
PK NAIL	○ PK
R.R. SPIKE	○ RR(Sp)
CONC. MONUMENT	□ CM
WATER VALVE	⊗ WV
WATER METER	⊞ WM
FIRE HYDRANT	∩ FH
GAS METER	⊞ GM
GAS VALVE	⊗ GV
CLEAN-OUT	○ CO
GUARD POST (BOLLARD)	● GP
SIGN POST	⊕
BENCHMARK	⊕
STORM SEWER MANHOLE	⊙
SANITARY SEWER MANHOLE	⊙
TELEPHONE MANHOLE	⊙
ELECTRIC MANHOLE	⊙
TELEPHONE BOX	⊞
ELECTRIC BOX	⊞
CABLE BOX	⊞
UTILITY POLE	⊙
GUY WIRE	⊕
LIGHT POLE	⊙
POST OR POLE (TYPE AS NOTED)	⊙
MAILBOX	⊞
DECIDUOUS TREE	⊙
EVERGREEN/CONIFEROUS TREE	⊙
BUSH	⊙
PROPERTY LINE	— — — — —
SETBACK LINE	— — — — —
EASEMENT LINE	— — — — —
CURB	— — — — —
FENCE	— X — X — X —
OVERHEAD ELECTRIC	— OE — OE —
OVERHEAD TELEPHONE	— OT — OT —
OVERHEAD CABLE	— OC — OC —
UNDERGROUND TELEPHONE	— UGT —
UNDERGROUND ELECTRIC	— UGE —
UNDERGROUND CABLE	— UGC —
WATER LINE	— 8"W —
SEWER LINE	— 8"SS —
GAS LINE	— 4"G —
STORM SEWER/CULVERT	— 24" CMP/RCP/DIP —
EDGE OF WOODS	⊙
CONTOUR LINE	— 650 —

PROPOSED

PROPOSED CONTOUR	⊙ 25
PROPOSED SPOT ELEVATION	⊙ 25.00
PROPOSED SPOT CURB ELEVATION	⊙ 25.50 25.00
STORM SEWER - PIPE	⊞
STORM SEWER - MITERED END SECTION	⊞
STORM SEWER - GRATE INLET	⊞
STORM SEWER - JUNCTION BOX	⊙
STORM SEWER - FLARED END SECTION	⊞
STORM SEWER - HEADWALL	⊞
STORM SEWER - SINGLE WING	⊞
STORM SEWER - DOUBLE WING	⊞
STORM SEWER - AREA INLET	⊞
GRADE BREAK LINE	— — — — —
HIGH POINT	HP
LOW POINT	LP
CUT LINE	— C —
FILL LINE	— F —
SANITARY SEWER PIPE	— SAN —
SANITARY SEWER MANHOLE	⊙
PROPOSED CURB	⊞
PROPOSED CONCRETE	⊞
CONSTRUCTION - ENTRANCE/EXIT	⊙
CHECK DAM	⊙
DIVERSION BERM	⊙
DOWNDRAIN STRUCTURE - TEMPORARY	⊙
ROCK DAM	⊙
SEDIMENT BARRIER - SILT FENCE	⊙
SEDIMENT BARRIER - GRAVEL RING	⊙
SEDIMENT BARRIER - BLOCK & GRAVEL	⊙
SEDIMENT BARRIER - BLOCK	⊙
TEMPORARY SEDIMENT BASIN	⊙
SILT FENCE - TYPE A	⊙
SILT FENCE - TYPE B	⊙
SILT FENCE - TYPE C	⊙
STORM DRAIN OUTLET PROTECTION	⊙
SURFACE ROUGHENING	⊙
DISTURBED AREA STABILIZATION - TEMPORARY STABILIZATION	⊙ TS1
DISTURBED AREA STABILIZATION - TEMPORARY GRASSING	⊙ TS2
DISTURBED AREA STABILIZATION - PERMANENT GRASSING	⊙ TS3
MATTING/BLANKETS	⊙ Mb

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
CHENAL AND CHENAL VALLEY TRAFFIC SIGNAL
NOTES/QUANTITIES SHEET


 DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201


 STATE OF ARKANSAS
 REGISTERED PROFESSIONAL ENGINEER
 No. 5418
 BRIAN L. VINES
 2019-12-04

DRAWN BY JLV
DESIGNED JLV
CHECKED BLV
DATE 08/14/2019
SCALE NTS
PROJECT NO. 05-17-ST-225C
SHEET NO. C3

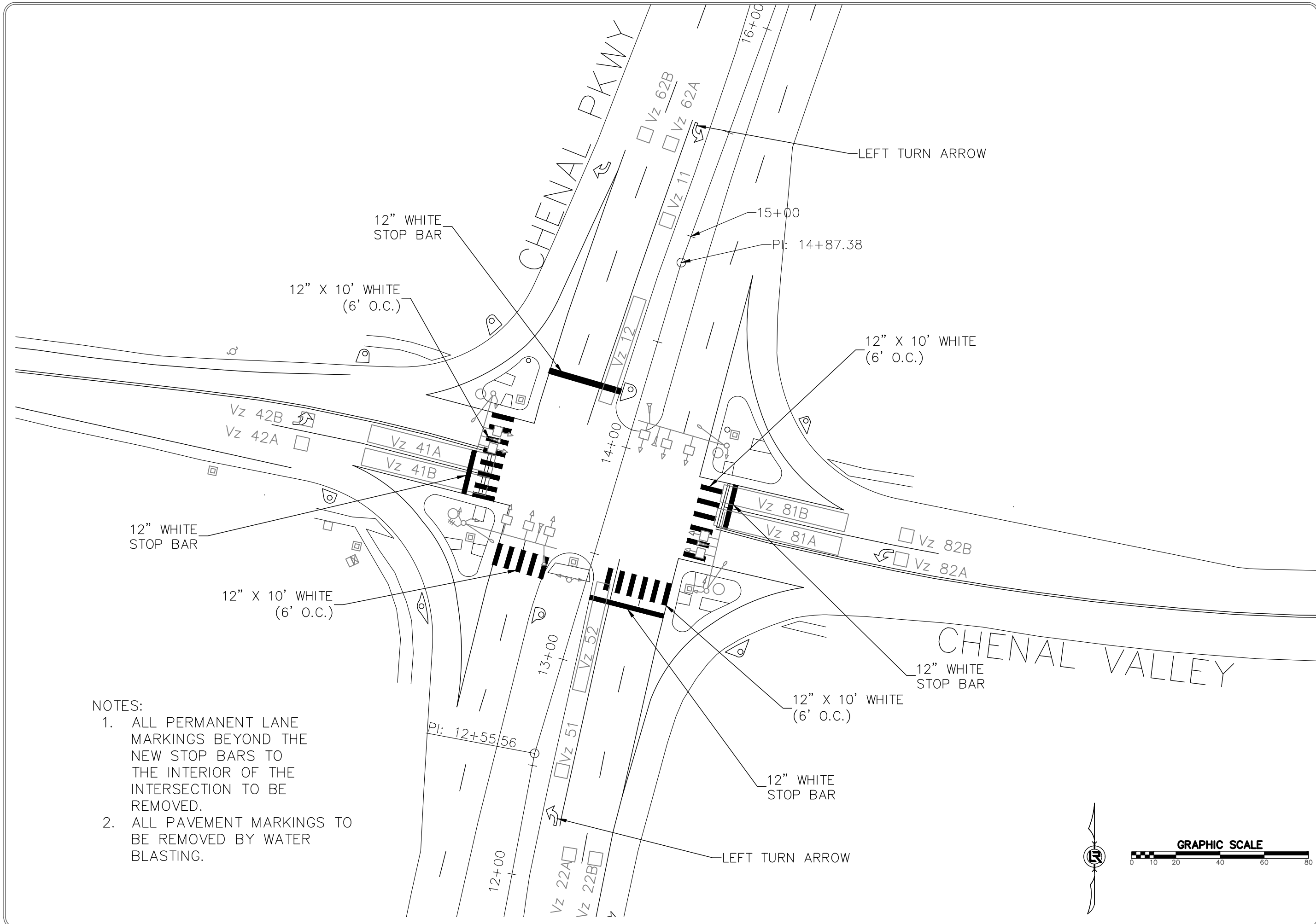
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
CHENAL AND CHENAL VALLEY TRAFFIC SIGNAL
 PERMANENT PAVEMENT MARKINGS SHEET

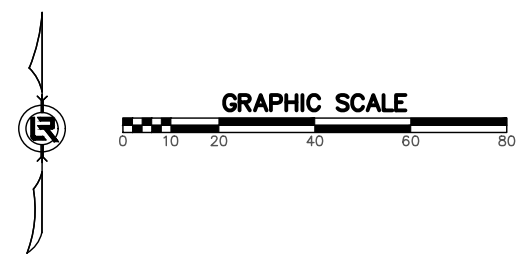
DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201

STATE OF ARKANSAS
 REGISTERED PROFESSIONAL ENGINEER
 No. 5418
 BRIAN L. VINES
 2019-12-04

DRAWN BY
 JLW
 DESIGNED
 JLW
 CHECKED
 BLV
 DATE
 08/14/2019
 SCALE
 1:40
 PROJECT NO.
 05-17-ST-225C
 SHEET NO.
 C4



- NOTES:
1. ALL PERMANENT LANE MARKINGS BEYOND THE NEW STOP BARS TO THE INTERIOR OF THE INTERSECTION TO BE REMOVED.
 2. ALL PAVEMENT MARKINGS TO BE REMOVED BY WATER BLASTING.

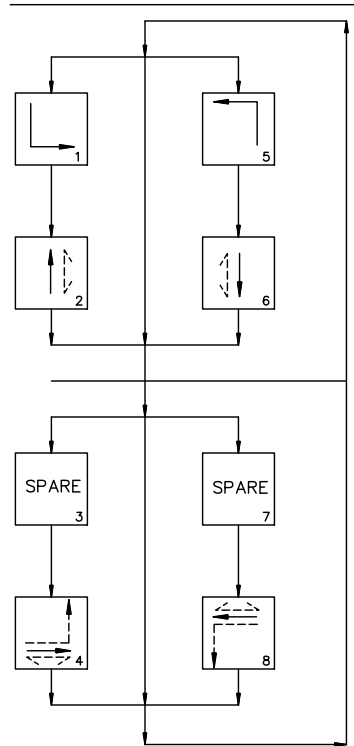


INTERVAL CHART

SIGNAL FACES	CHENAL PARKWAY AND CHENAL VALLEY DRIVE										FLASH SEQUENCE
	1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	4+8	CLR.	
1 & 2	R	R	R	R	R	R	R	R	G	R	R
3 & 4	R	R	R	R	G	R	G	R	R	R	R
5	←G	***	←FY	***	←G	***	←FY	←R	←R	←R	←R
6 & 7	R	R	R	R	R	R	R	R	G	R	R
8 & 9	R	R	G	R	R	R	G	R	R	R	R
10	←G	***	←G	***	←FY	***	←FY	←R	←R	←R	←R
P2&P3	DW	DW	DW	DW	DW	DW	W	DW	DW	DW	BLK
PP4,P5,P6,&P6	DW	DW	DW	DW	DW	DW	DW	DW	W	DW	BLK
P8&P9	DW	DW	DW	DW	DW	DW	W	DW	DW	DW	BLK
P10,P11,P12,&P1	DW	DW	DW	DW	DW	DW	DW	DW	W	DW	BLK

*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

PHASING DIAGRAM

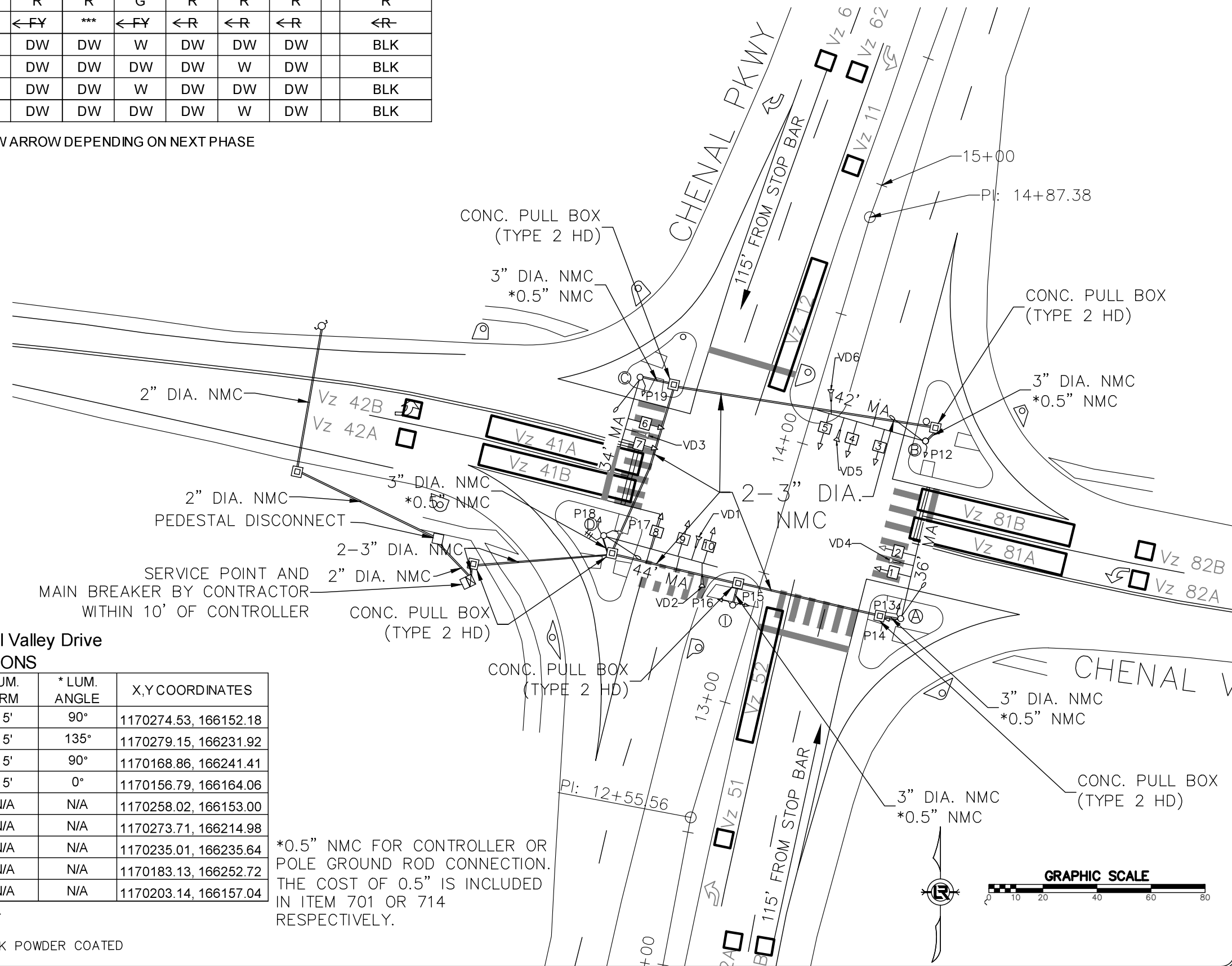


Chenal Parkway/ Chenal Valley Drive
POLE DIMENSIONS

POLE	MAST ARM	* MAST ARM ANGLE	VERT. SHAFT	LUM. ARM	* LUM. ANGLE	X,Y COORDINATES
A	37'	90°	35'	15'	90°	1170274.53, 166152.18
B	44'	135°	35'	15'	135°	1170279.15, 166231.92
C	37'	90°	35'	15'	90°	1170168.86, 166241.41
D	44'	0°	35'	15'	0°	1170156.79, 166164.06
E	N/A	N/A	8'	N/A	N/A	1170258.02, 166153.00
F	N/A	N/A	8'	N/A	N/A	1170273.71, 166214.98
G	N/A	N/A	8'	N/A	N/A	1170235.01, 166235.64
H	N/A	N/A	8'	N/A	N/A	1170183.13, 166252.72
I	N/A	N/A	8'	N/A	N/A	1170203.14, 166157.04


* ANGLE MEASURED CLOCKWISE FROM HAND HOLE.

NOTES:
1. ALL SIGNAL POLES AND MAST ARMS TO BE BLACK POWDER COATED



*0.5" NMC FOR CONTROLLER OR POLE GROUND ROD CONNECTION. THE COST OF 0.5" IS INCLUDED IN ITEM 701 OR 714 RESPECTIVELY.



REVISIONS	DATE
CITY OF LITTLE ROCK, ARKANSAS	SIGNALIZATION PLAN SHEET
DEPARTMENT OF PUBLIC WORKS	LITTLE ROCK, ARKANSAS 72201
CIVIL ENGINEERING	701 W. MARKHAM
	
DRAWN BY JLV	DESIGNED JLV
CHECKED BLV	DATE 08/14/2019
SCALE 1:40	PROJECT NO. 05-17-ST-225C
SHEET NO. C5	

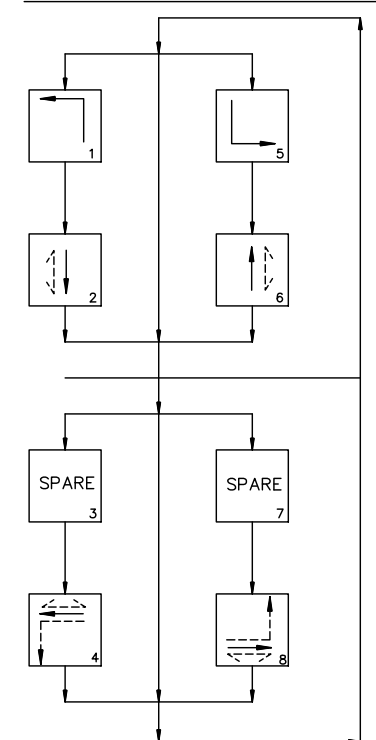
Chenal Parkway/ Chenal Valley Drive
POLE DIMENSIONS

POLE	MAST ARM	*MAST ARM ANGLE	VERT. SHAFT	LUM. ARM	*LUM. ANGLE	X,Y COORDINATES
A	37'	90°	35'	20'	90°	1170265.29, 166152.03
B	44'	135°	35'	20'	135°	1170274.46, 166217.78
C	37'	90°	35'	20'	90°	1170168.86, 166241.41
D	44'	0°	50'	20'	0°	1170155.38, 166182.76
I	N/A	N/A	12'	N/A	N/A	1170203.14, 166157.04

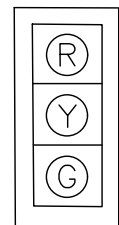
* ANGLE MEASURED CLOCKWISE FROM HAND HOLE.

NOTES:
1. ALL SIGNAL POLES AND MAST ARMS TO BE BLACK POWDER COATED

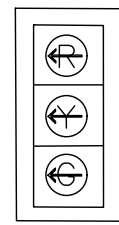
PHASING DIAGRAM



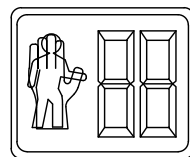
SIGNAL FACES
12" LENSES



1, 2, 4, 5
6, 7, 9, 10

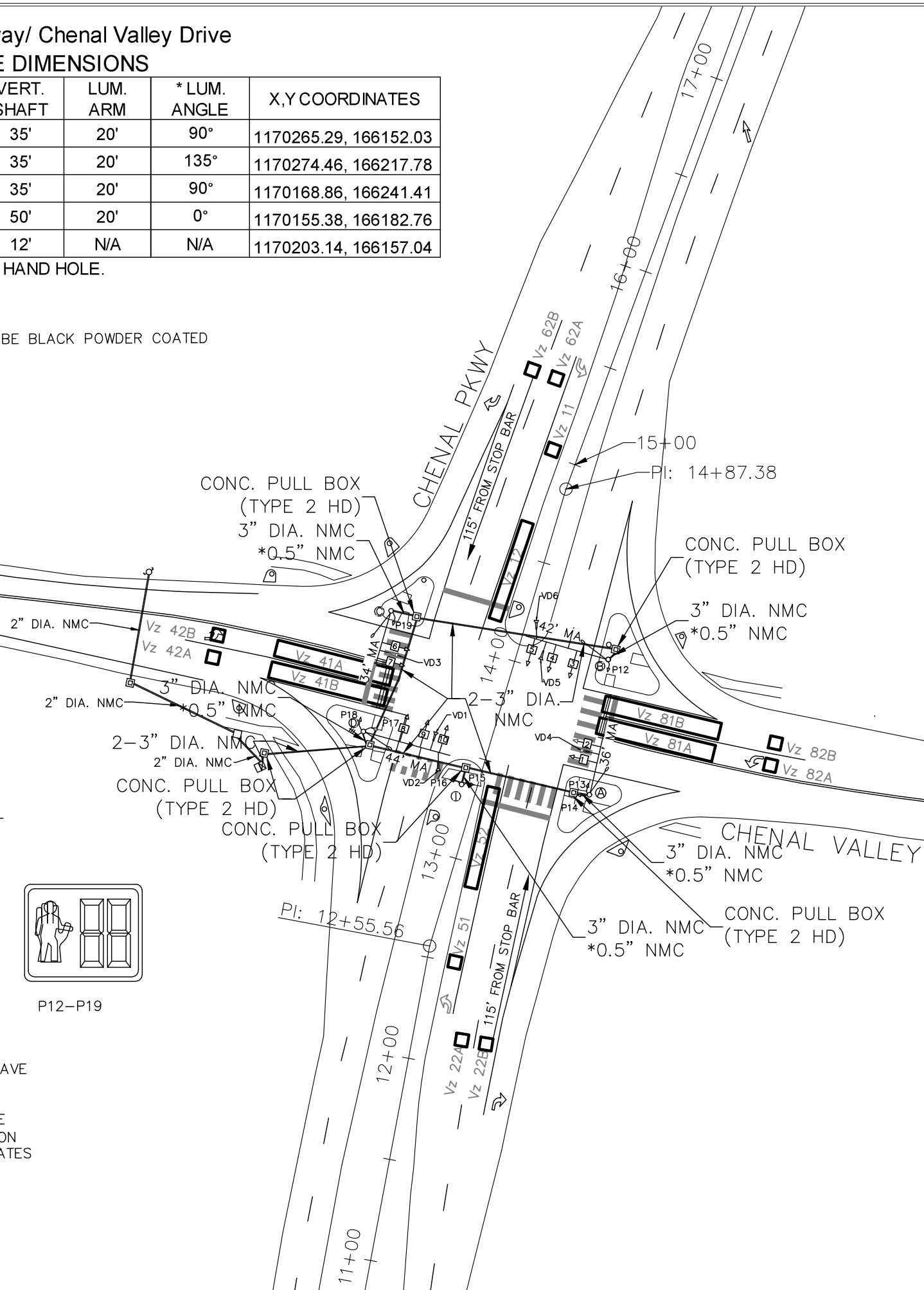


3 & 8



P12-P19

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE METAL BACKPLATES
2. REFER TO THE SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES



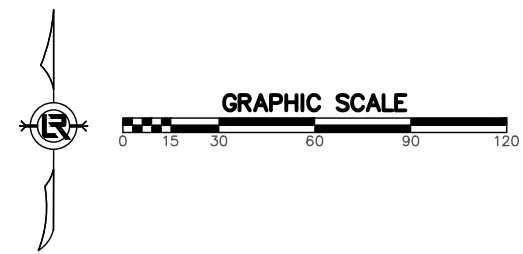
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
CHENAL AND CHENAL VALLEY TRAFFIC SIGNAL
SIGNALIZATION PLAN SHEET

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5418
BRIAN L. VINES
2019-12-04

DRAWN BY
JLV
DESIGNED
JLV
CHECKED
BLV
DATE
08/14/2019
SCALE
1:60
PROJECT NO.
05-17-ST-225C
SHEET NO.
C6



REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
 CHENAL AND CHENAL VALLEY TRAFFIC SIGNAL
 SIGNALIZATION PLAN SHEET

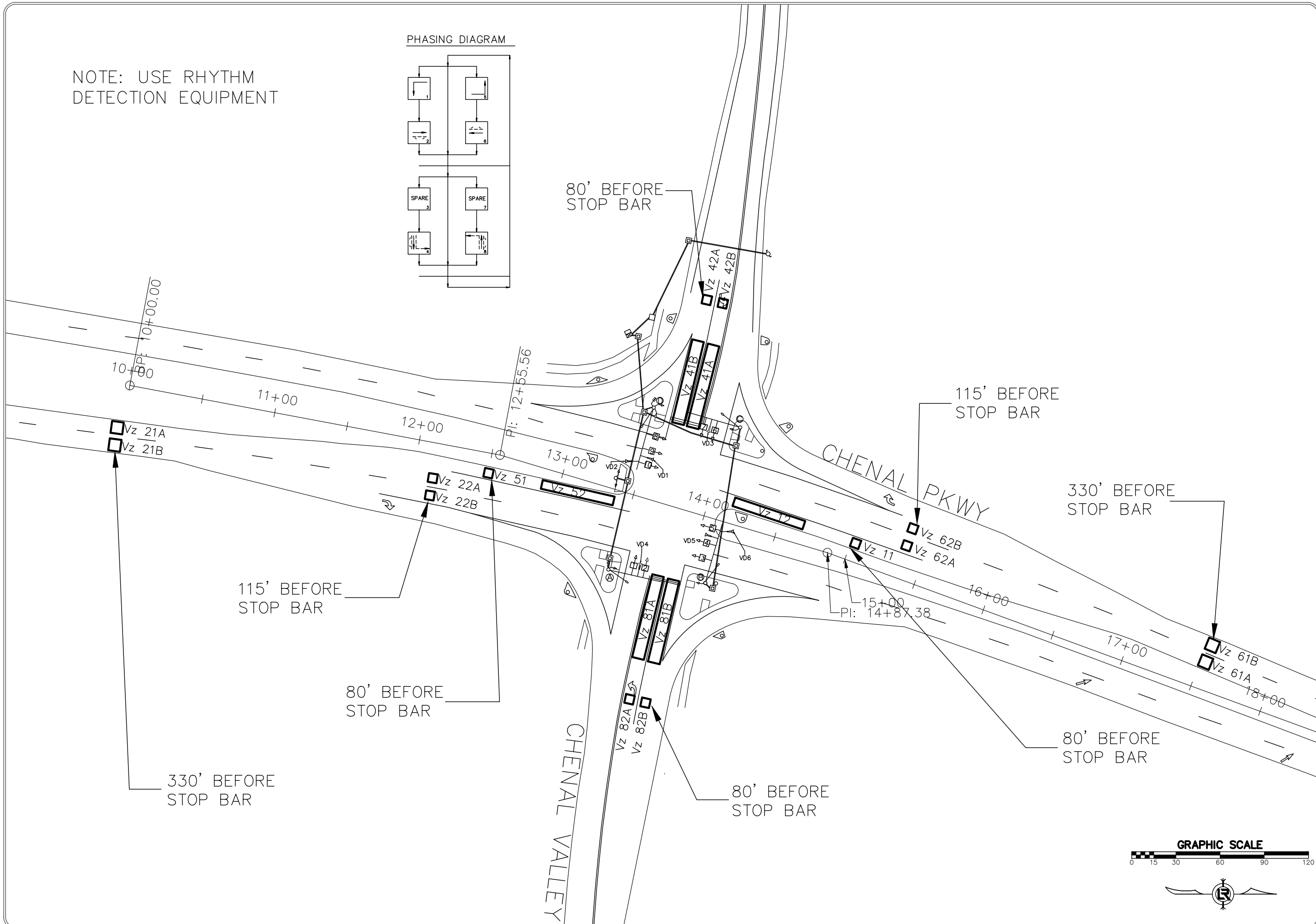
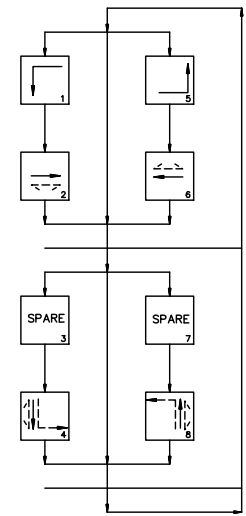
DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201

STATE OF ARKANSAS
 REGISTERED PROFESSIONAL ENGINEER
 No. 5418
 BRIAN L. VINES
 2019-12-04

DRAWN BY
 JLW
 DESIGNED
 JLW
 CHECKED
 BLV
 DATE
 08/14/2019
 SCALE
 1:60
 PROJECT NO.
 05-17-ST-225C
 SHEET NO.
 C7

NOTE: USE RHYTHM
 DETECTION EQUIPMENT

PHASING DIAGRAM



DETECTOR CHART

DETECTOR SYSTEM DESCRIPTION: JOB 34414.006

Chenal Parkway/ Chenal Valley Drive DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
DET. ID #	LOCATION DIRECTION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #	MASTER SYSTEM DETECTOR NUMBERS		
Vz11	SB LEFT TURN FAR	LOCAL			1	V9	1	1		CAMERA V1	23"
Vz12	SB LEFT TURN	LOCAL			2	V1	1			CAMERA V1	23"
Vz21 A&B	NB ADVANCE	LOCAL			5	V2	2			LOOP?	37"
Vz22 A&B	NB NEAR	LOCAL			6	V10	2	2		CAMERA V2	37"
Vz41 A&B	WB ADVANCE	LOCAL			13	V4	4			CAMERA V4	23"
Vz42 A&B	WB NEAR	LOCAL			14	V12	4	4		CAMERA V7	37"
Vz51	NB LEFT TURN FAR	LOCAL			7	V13	5	5		CAMERA V5	37"
Vz52	NB LEFT TURN	LOCAL			8	V5	5			CAMERA V5	37"
Vz61 A&B	SB ADVANCE	LOCAL			3	V6	6			LOOP?	37"
Vz62 A&B	SB NEAR	LOCAL			4	V14	6	6		CAMERA V6	23"
Vz81 A&B	EB ADVANCE	LOCAL			11	V8	8			CAMERA V8	23"
Vz82 A&B	EB NEAR	LOCAL			12	V16	8	8		CAMERA V8	37"
PB2 A&B	(ST. NAME) X. LEG	PED.				P2	2				
PB4 A&B	(ST. NAME) X. LEG	PED.				P4	4				
PB6 A&B	(ST. NAME) X. LEG	PED.				P6	6				
PB8 A&B	(ST. NAME) X. LEG	PED.				P8	8				
				SPARE:							

CONTROLLER INPUT ABBREVIATIONS:

V = VEHICLE INPUT

D = SYSTEM OR AUXILIARY INPUT

P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

DETECTOR SPACING CHART

CHENAL PARKWAY VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
45 MPH	330'	115'
CHENAL VALLEY DRIVE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	N/A	N/A

REVISIONS DATE

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CITY OF LITTLE ROCK, ARKANSAS
CHENAL AND CHENAL VALLEY TRAFFIC SIGNAL

SIGNALIZATION PLAN SHEET



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