

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONSTRUCTION PLANS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	100730	28
② HWY. 1/FOX MEADOW LN. & HWY. 91/UNIVERSITY LOOP SIGNALS (JONESBORO)								

HWY. 1/FOX MEADOW LN. &
HWY. 91/UNIVERSITY LOOP SIGNALS

(JONESBORO) (S)

CRAIGHEAD COUNTY

ROUTE 1, SECTION 17
ROUTE 91, SECTION 2

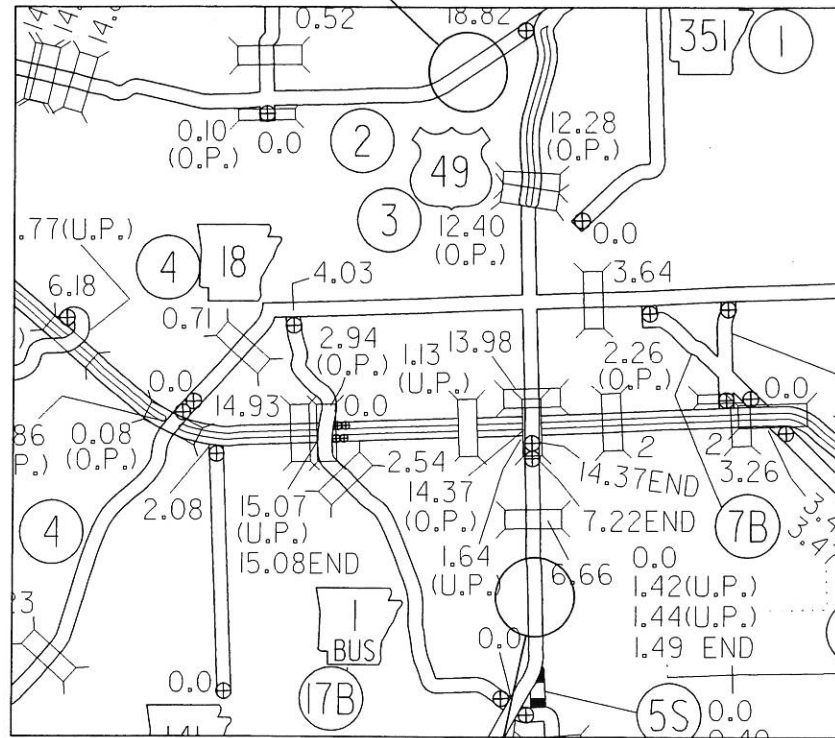
FAP NO. STP-9227(44)

JOB 100730

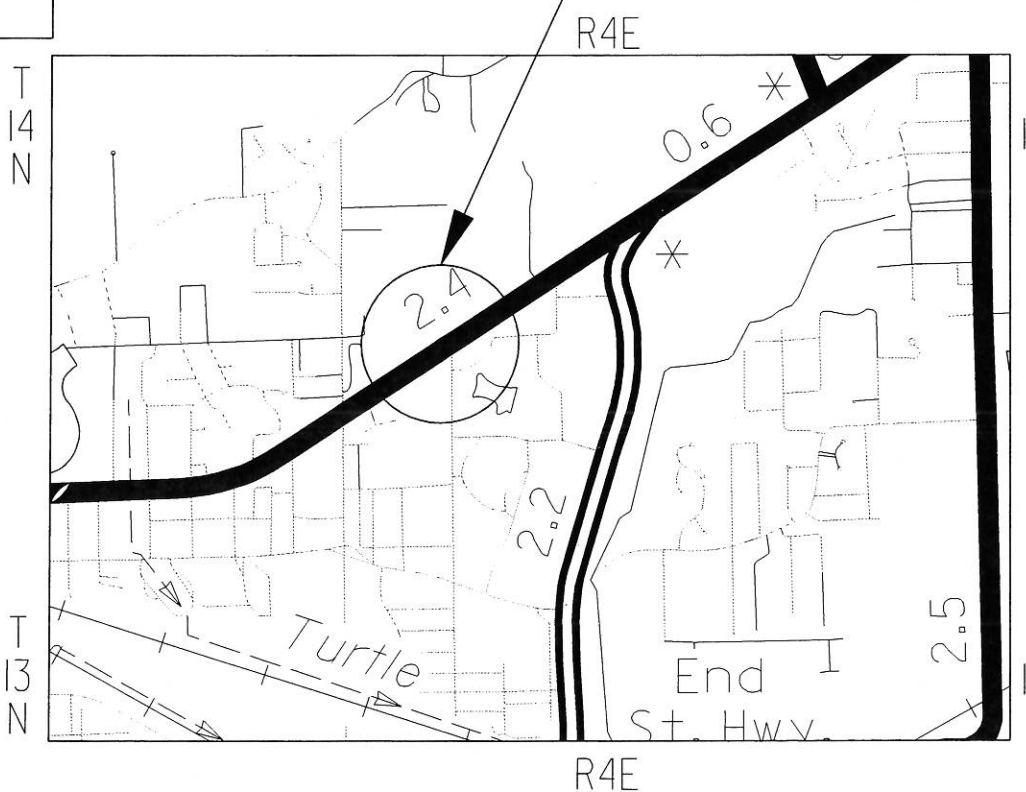


ARKANSAS HIGHWAY DISTRICT 10

PROJECT LOCATION

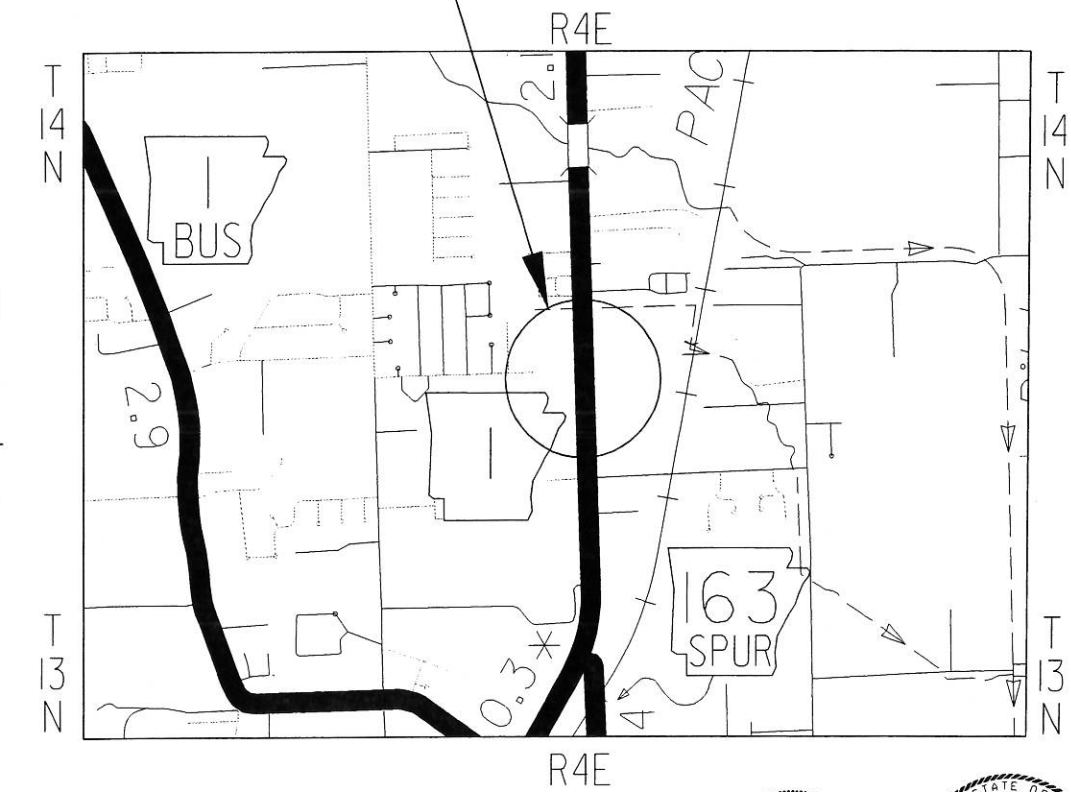


PROJECT LOCATION



VICINITY MAP

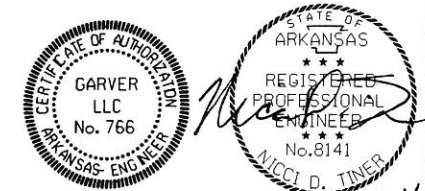
PROJECT LOCATION



PROJECT LOCATION

MID POINT OF PROJECT

Long. 90°40'11" W
Lat. 35°47'19" N



JOB 100730

2/4/2011 10:21:18 AM
WORKSPACE: AHTD\B
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REVISED DATE:

SHEET NO.	TITLE	DRAWING NO.	DATE
1	TITLE SHEET		
2	INDEX OF SHEETS, GOVERNING SPECIFICATIONS AND NOTES		
3	SUMMARY OF QUANTITIES AND REVISIONS		
4	CONTROL DETAIL SHEET (HWY. 1 AT FOX MEADOW LN.)		
5	PERMANENT PAVEMENT MARKINGS (HWY. 1 AT FOX MEADOW LN.)		
6-8	SIGNALIZATION PLANS (HWY. 1 AT FOX MEADOW LN.)		
9	CONTROL DETAIL SHEET (HWY. 91 AT UNIVERSITY LOOP)		
10	MAINTENANCE OF TRAFFIC (HWY. 91 AT UNIVERSITY LOOP)		
11-12	CURB DETAILS (HWY. 91 AT UNIVERSITY LOOP)		
13	PERMANENT PAVEMENT MARKINGS (HWY. 91 AT UNIVERSITY LOOP)		
14-16	SIGNALIZATION PLANS (HWY. 91 AT UNIVERSITY LOOP)		
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26	STANDARD TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION	TC-1	11-17-10
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28	STANDARD TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION	TC-3	10-15-09

GENERAL NOTES

- LEVEL DATUM U. S. C. & G. S.
- GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON THE PLANS.
- ALL PIPE LINES, POWER, TELEPHONE AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
- ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U.S. MAILBOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.
- ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
- ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO INSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.

GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2003, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-2	MANUAL FOR ASSESSING SAFETY HARDWAY (MASH)
103-1	DETERMINATION OF DBE PARTICIPATION
105-1	CONSTRUCTION CONTROL MARKINGS
105-2	EQUIPMENT AND MATERIAL STORAGE ON BRIDGE STRUCTURES
107-1	WORKER VISIBILITY
108-1	LIQUIDATED DAMAGES
600-1	WATER FOR VEGETATION
603-1	MAINTENANCE OF TRAFFIC
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
711-1	CONCRETE PULL BOX
714-1	DESIGN AND MATERIAL REQUIREMENTS FOR TRAFFIC SIGNAL MAST ARMS AND POLES
718-2	REFLECTORIZED PAINT PAVEMENT MARKINGS
719-2	THERMOPLASTIC PAVEMENT MARKING MATERIAL
JOB 100730	CABINET DRAWER ASSEMBLY
JOB 100730	EDGE CARD VIDEO PROCESSOR
JOB 100730	ELECTRICAL CONDUCTORS-IN-CONDUIT
JOB 100730	ELECTRICAL CONDUCTORS FOR LUMINAIRES
JOB 100730	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 100730	INTERNET BIDDING
JOB 100730	LED TRAFFIC SIGNAL HEAD
JOB 100730	LUMINAIRE ASSEMBLY (CUTOFF TYPE)
JOB 100730	SERVICE POINT ASSEMBLY
JOB 100730	STREET NAME SIGN (MAST ARM MOUNTED)
JOB 100730	SYSTEM LOCAL CONTROLLER
JOB 100730	UTILITY ADJUSTMENTS
JOB 100730	VIDEO DETECTOR (COLOR)

TRAFFIC SIGNAL NOTES

- PERFORM ELECTRICAL WORK IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2002) NATIONAL ELECTRICAL CODE, NFPA 101(2000) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.
- EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (EGC) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND EGC 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.
- ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY TO A SERVICE POLE WITH EXTERNAL RAIN TIGHT BREAKER (MAIN BREAKER), 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 USE RATED, WITH GROUND TYPICAL), AND PERFORM WIRING TO TAP INTO THE CITY'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 WHERE STREET LIGHTING IS INCLUDED. AS PART OF THE SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (2c/*12 AWG 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.
- CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE.
- 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.
- CONTROLLER CABINET SHALL BE WIRED SUCH THAT DURING FLASH OPERATIONS POWER TO THE LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUSS.
- ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARKANSAS HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARDS AND DETAILS AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITIONS.
- CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHODS. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE DETAILS MAY BE USED.
- TRAFFIC SIGNAL POLES SHALL BE GALVANIZED. BACKPLATES SHALL BE SUPPLIED FOR ALL SIGNAL HEADS.
- 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 SPECIAL DETAILS). PAYMENT WILL BE INCLUDED IN SECTION 714, AHTD STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- ALL BOXES SHALL BE (TYPE 2 HD) UNLESS OTHERWISE INDICATED. ALL CONDUIT SHALL BE 3" DIAMETER UNLESS SPECIFIED ON PLANS.
- CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.
- LUMINAIRE ASSEMBLIES SHALL BE OF THE FULL CUTOFF TYPE.
- 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.
- THE LOCAL RADIO WITH ANTENNA SHALL BE AN MDS 9810 SPREAD SPECTRUM RADIO WHICH IS COMPATIBLE WITH THE EXISTING CLOSED LOOP COORDINATION SYSTEM IN THE CITY.
- 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, 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 21 FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE TRAFFIC SIGNAL MAST ARM. AN ADDITIONAL 6 FEET SHOULD BE USED DIRECTLY ABOVE "VIDEO DETECTOR" AT LOCATIONS SHOWN ON THE SIGNAL PLANS.
- THE DESIRABLE MINIMUM DISTANCE FROM THE FACE OF ROADWAY CURB OR SHOULDER EDGE TO THE FACE OF NON-BREAKAWAY POLE OR OBSTRUCTION IS 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.
- 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 IS KEYED INTO COMPETENT ROCK.
- CONNECTION OF TRAFFIC SIGNAL DISPLAY TO FIELD WIRING SHALL UTILIZE AN APPROVED TERMINAL STRIP BEHIND HANDHOLE 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 POLE WITH FOUNDATION.
- CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO IMSA STANDARDS.
- 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.
- TRAFFIC SIGNAL CONTRACTOR MUST NOTIFY 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.
- 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.
- TRAFFIC SIGNAL CONTROLLER SHALL BE COMPATIBLE WITH THE CITY'S EXISTING EAGLE MARC MASTER CLOSED LOOP SYSTEM.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
							JOB NO.	100730
							SHEET NO.	2
							TOTAL SHEETS	28

2 INDEX OF SHEETS, GOVERNING SPECS. & NOTES



3-1-11

LOCATION: HWY. 1/FOX MEADOW LN. & HWY. 91/UNIVERSITY LOOP
 CITY: JONESBORO
 COUNTY: CRAIGHHEAD
 DISTRICT: 10 SCALE: 1"=NA' DRAWN BY: JPD

DATE: 3/1/11 FILE NAME: t100730.ind.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100730	3	28

② SUMMARY OF QUANTITIES AND REVISIONS



2-17-11

SUMMARY OF QUANTITIES

ITEM NO.	ITEM	HWY. 1 AT FOX MEADOW LN.	HWY. 91 AT UNIVERSITY LOOP	TOTAL QUANTITY	UNIT
202	REMOVAL AND DISPOSAL OF CURB AND GUTTER	-	72	72	LIN. FT.
202	REMOVAL AND DISPOSAL OF ISLANDS	-	64	64	SQ. YD.
202	REMOVAL AND DISPOSAL OF SIGNS	1	1	2	EACH
210	UNCLASSIFIED EXCAVATION	-	3	3	CU. YD.
505	PORTLAND CEMENT CONCRETE DRIVEWAY	-	29	29	SQ. YD.
601	MOBILIZATION	0.50	0.50	1.00	L.S.
SS&603	MAINTENANCE OF TRAFFIC	0.50	0.50	1.00	L.S.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	2645	3525	6170	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS (WORDS)	2	-	2	EACH
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS (ARROWS)	2	2	4	EACH
SS&604	SIGNS	-	72	72	SQ. FT.
SS&604	TRAFFIC DRUMS	-	55	55	EACH
SS&620	WATER	-	0.1	0.1	M.G.
624	SOLID SODDING	-	10	10	SQ. YD.
628	TOPSOIL FURNISHED AND PLACED	-	2	2	CU. YD.
632	CONCRETE ISLAND	-	110	110	SQ. YD.
634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1'6")	-	207	207	LIN. FT.
SP&701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2 (8 PHASES)	1	1	2	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	8	9	17	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	1	1	2	EACH
708	TRAFFIC SIGNAL CABLE (5c/14 A.W.G.)	277	355	632	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7c/14 A.W.G.)	66	117	183	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12c/14 A.W.G.)	170	29	199	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20c/14 A.W.G.)	36	216	252	LIN. FT.
709	GALVANIZED STEEL CONDUIT (1.25")	15	15	30	LIN. FT.
710	NON-METALLIC CONDUIT (1.25")	11	10	21	LIN. FT.
710	NON-METALLIC CONDUIT (2")	21	23	44	LIN. FT.
710	NON-METALLIC CONDUIT (3")	170	245	415	LIN. FT.
SS&711	CONCRETE PULL BOX (TYPE 2 HD)	3	4	7	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (36')	1	3	4	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (32'-42')	1	-	1	EACH
SS&718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (10")	-	207	207	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING WHITE (4")	1091	2023	3114	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING WHITE (8")	-	466	466	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")	26	91	117	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING WHITE (24")	34	55	89	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	1440	2246	3686	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING YELLOW (8")	-	270	270	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING YELLOW (12")	-	16	16	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	2	4	6	EACH
SS&719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	2	6	8	EACH
721	RAISED PAVEMENT MARKERS (TYPE II)	24	73	97	EACH
SP&733	VIDEO DETECTOR (CLR)	6	5	11	EACH
733	VIDEO CABLE	663	738	1401	LIN. FT.
733	VIDEO MONITOR (CLR)	1	1	2	EACH
SP&733	VIDEO PROCESSOR, EDGE CARD (2 CAMERA)	4	3	7	EACH
SP&733	VIDEO EDGE CARD EXTENDER	1	1	2	EACH
SP&733	VEHICLE DETECTOR RACK (16 CHANNEL)	1	1	2	EACH
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2c/6 A.W.G.)	26	25	51	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/8 A.W.G., EGC)	217	270	487	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/12 A.W.G., EGC)	120	100	220	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	290	251	541	LIN. FT.
SP	LUMINAIRE ASSEMBLY	2	2	4	EACH
SP	LOCAL RADIO WITH ANTENNA	1	1	2	EACH
SP	ANTENNA CABLE (TYPE 6)	56	58	114	LIN. FT.
SP	18" STREET NAME SIGN	3	3	6	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	1	2	EACH

DATE	REVISION	SHEET NUMBER

* ONE ADDITIONAL VIDEO DETECTOR AND ONE ADDITIONAL VIDEO PROCESSOR, EDGE CARD PROVIDED FOR FUTURE USE AT HWY. 1 AT FOX MEADOW LN. INTERSECTION.

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 WORKSPACE: AHTDVB
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 REVISED DATE:

LOCATION: HWY. 1/FOX MEADOW LN. & HWY. 91/UNIVERSITY LOOP
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: 1" = 40' DRAWN BY: JPD

DATE: 2/7/11 FILE NAME: t100730_qty.dgn

COORDINATES

POINT	NORTHING	EASTING	ELEVATION	STATION (HWY 91)	OFFSET	DESCRIPTION
4	554577.0260	1705917.9281	331.47	26+02.97	60.64' RT.	5/8" REBAR W.2: CAP
5	554987.1337	1706357.0567	321.49	31+91.42	60.77' RT.	5/8" REBAR W.2: CAP
6	554119.3782	1705131.2190	320.88	16+93.03	41.62' RT.	5/8" REBAR W.2: CAP
902	554466.7510	1705910.8660	326.52	25+39.51	151.10' RT.	TBM, CHISELED SQUARE
903	554489.8930	1705754.1520	333.24	24+17.77	49.73' RT.	TBM, CM: CPS IN FACE OF PP

CENTERLINE POINTS

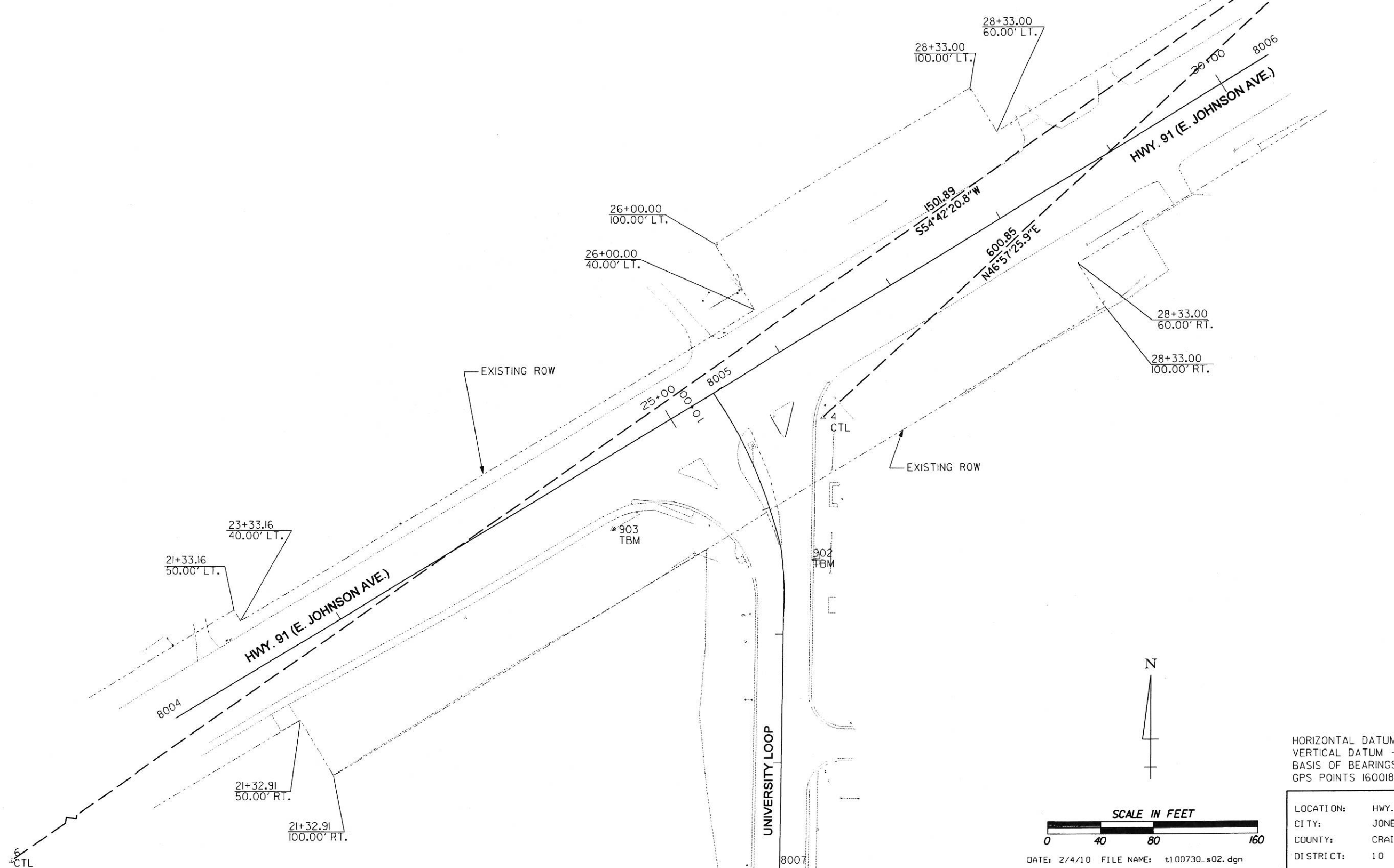
NUMBER	TYPE	STATION	NORTHING	EASTING
8004	POB (HWY. 91)	20+51.29	554341.4920	1705415.3920
8005	POT (HWY. 91)	25+38.64	554595.2933	1705831.4330
8006	POI (HWY. 91)	30+42.55	554857.7200	1706261.6130
8007	POB (UNIVERSITY LOOP)	6+25.00	554232.5993	1705884.9332

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							9	28

② CONTROL DETAIL SHEET (HWY. 91 AT UNIVERSITY LOOP)

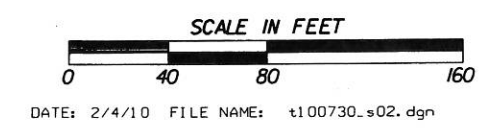


2-7-11



HORIZONTAL DATUM - NAD 83 (1997)
 VERTICAL DATUM - NAD 88
 BASIS OF BEARINGS - GRID NORTH BASED ON
 GPS POINTS 160018-160031

LOCATION: HWY. 91 AT UNIVERSITY LOOP
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: AS SHOWN DRAWN BY: JPD



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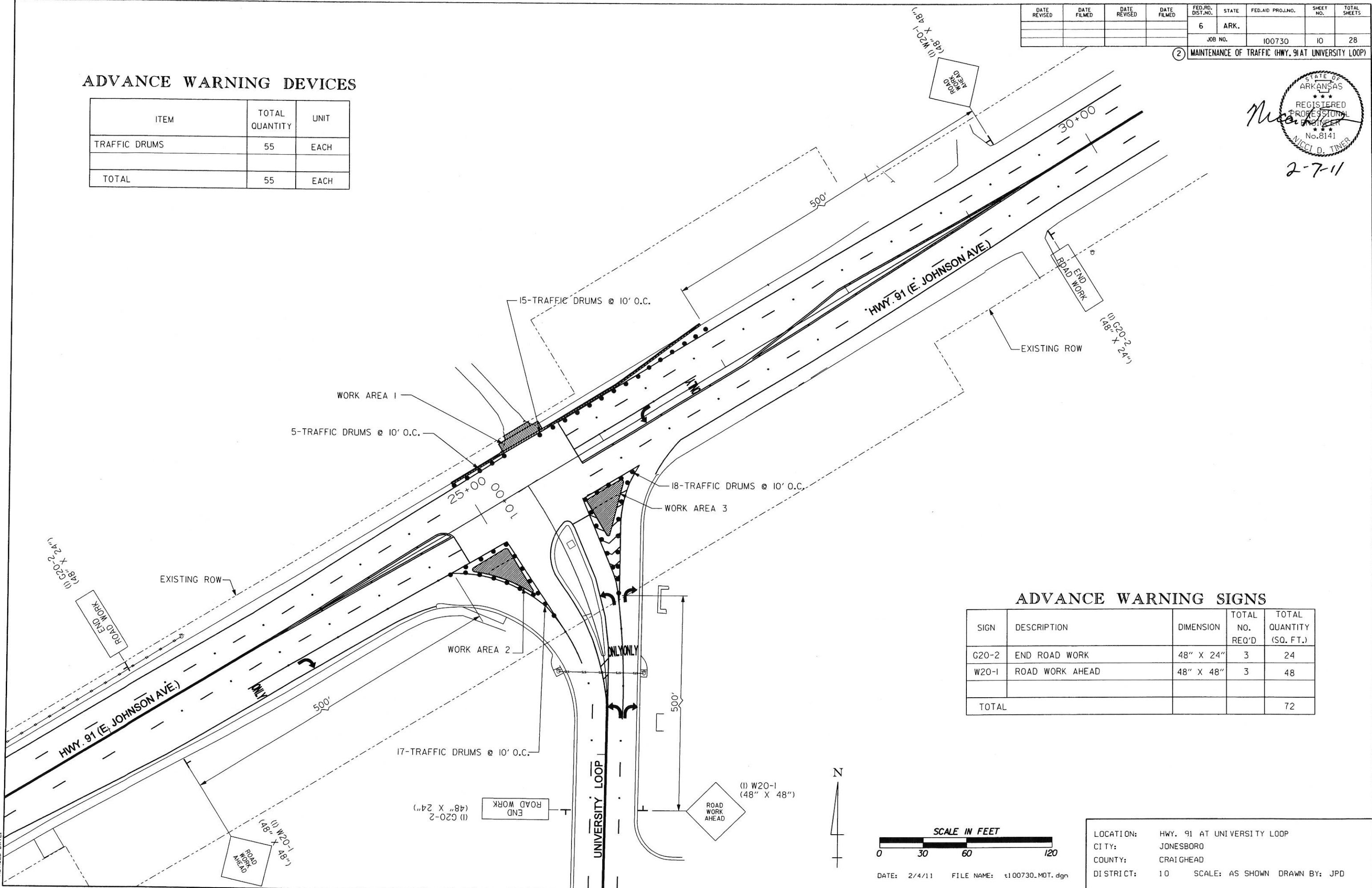
② MAINTENANCE OF TRAFFIC (HWY. 91 AT UNIVERSITY LOOP)



2-7-11

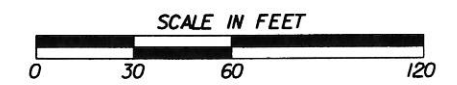
ADVANCE WARNING DEVICES

ITEM	TOTAL QUANTITY	UNIT
TRAFFIC DRUMS	55	EACH
TOTAL	55	EACH



ADVANCE WARNING SIGNS

SIGN	DESCRIPTION	DIMENSION	TOTAL NO. REQ'D	TOTAL QUANTITY (SQ. FT.)
G20-2	END ROAD WORK	48" X 24"	3	24
W20-1	ROAD WORK AHEAD	48" X 48"	3	48
TOTAL				72



LOCATION: HWY. 91 AT UNIVERSITY LOOP
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: AS SHOWN DRAWN BY: JPD

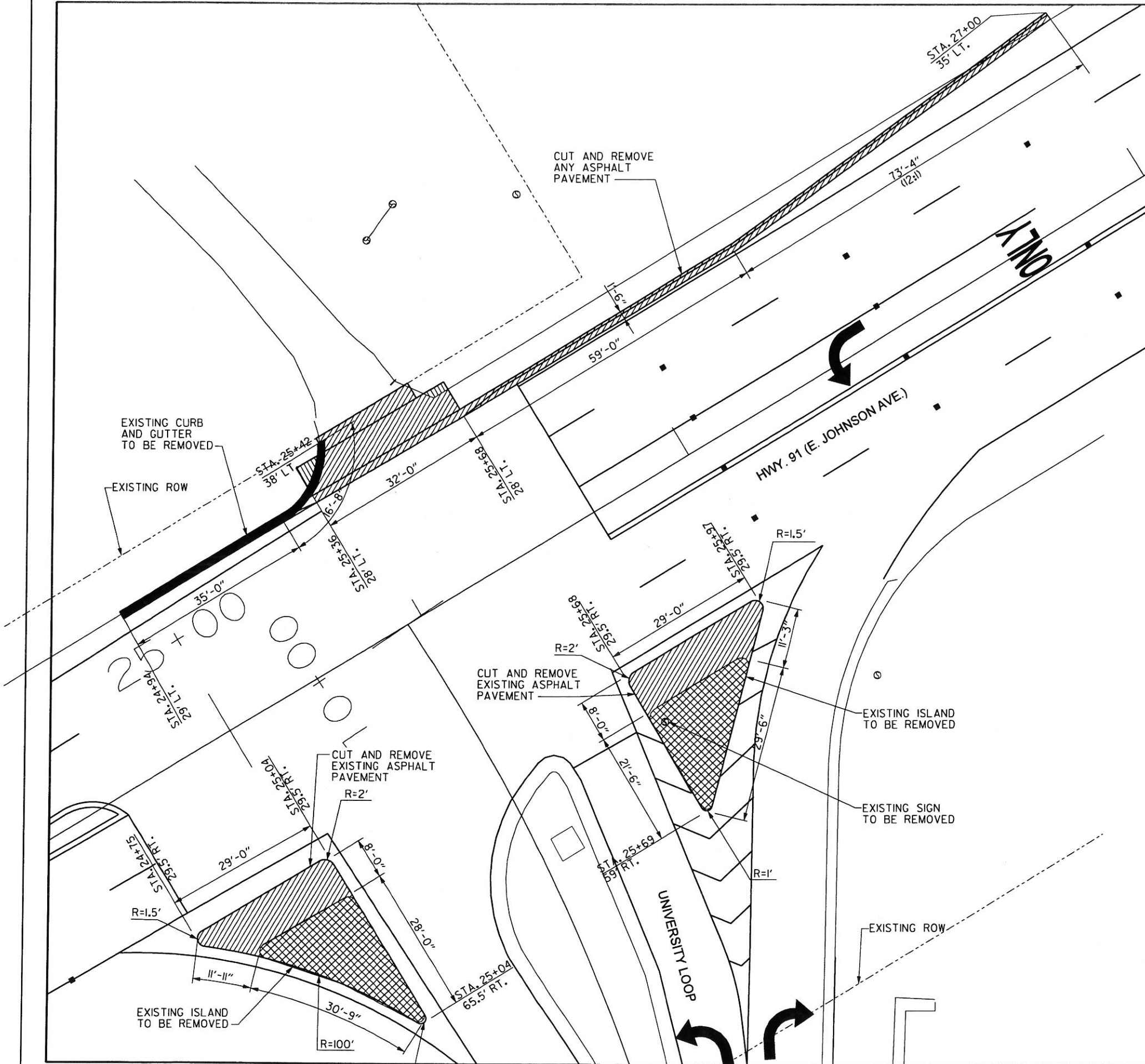
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JOB NO. 100730							II	28

② CURB DETAILS (HWY. 91 AT UNIVERSITY LOOP)



2-22-11



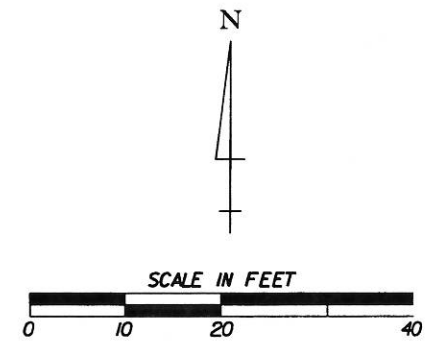
LEGEND

- EXISTING CONCRETE CURB AND GUTTER TO BE REMOVED
- EXISTING CONCRETE ISLAND TO BE REMOVED
- EXISTING ASPHALT TO BE REMOVED
- EXISTING GRASS TO BE REMOVED

REMOVAL QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
202	REMOVAL AND DISPOSAL OF CURB AND GUTTER	72	LIN. FT.
202	REMOVAL AND DISPOSAL OF ISLANDS	64	SQ. YD.
202	REMOVAL AND DISPOSAL OF SIGNS	1	EACH
210	UNCLASSIFIED EXCAVATION	3	CU. YD.

NOTE: EARTHWORK QUANTITIES SHOWN ABOVE SHALL BE PAID AS PLAN QUANTITY.

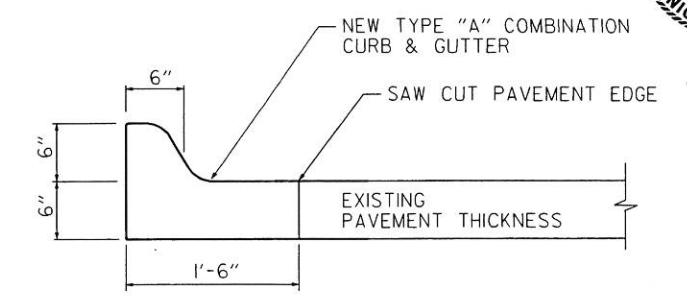


NOTE: STATIONING AND OFFSETS REFERENCED FROM Q. HWY. 91.

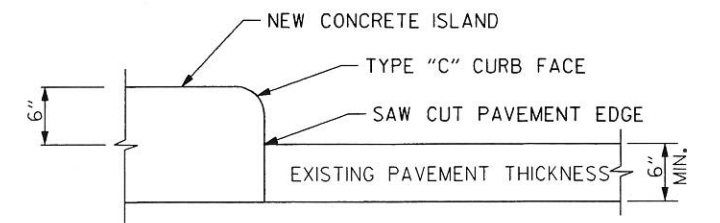
LOCATION: HWY. 91 AT UNIVERSITY LOOP
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: AS SHOWN DRAWN BY: JPD

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		12	28
				JOB NO.	100730			

② CURB DETAILS (HWY. 91 AT UNIVERSITY LOOP)



TYPE A CONCRETE COMBINATION CURB AND GUTTER



CONCRETE ISLAND

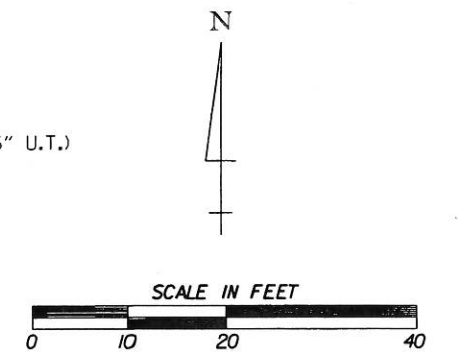
CURB AND RAMP QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
505	PORTLAND CEMENT CONCRETE DRIVEWAY	29	SQ. YD.
SS&620	WATER	0.1	M.G.
624	SOLID SODDING	10	SQ. YD.
628	TOPSOIL FURNISHED AND PLACED	2	CU. YD.
632	CONCRETE ISLAND	110	SQ. YD.
634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6")	207	LIN. FT.

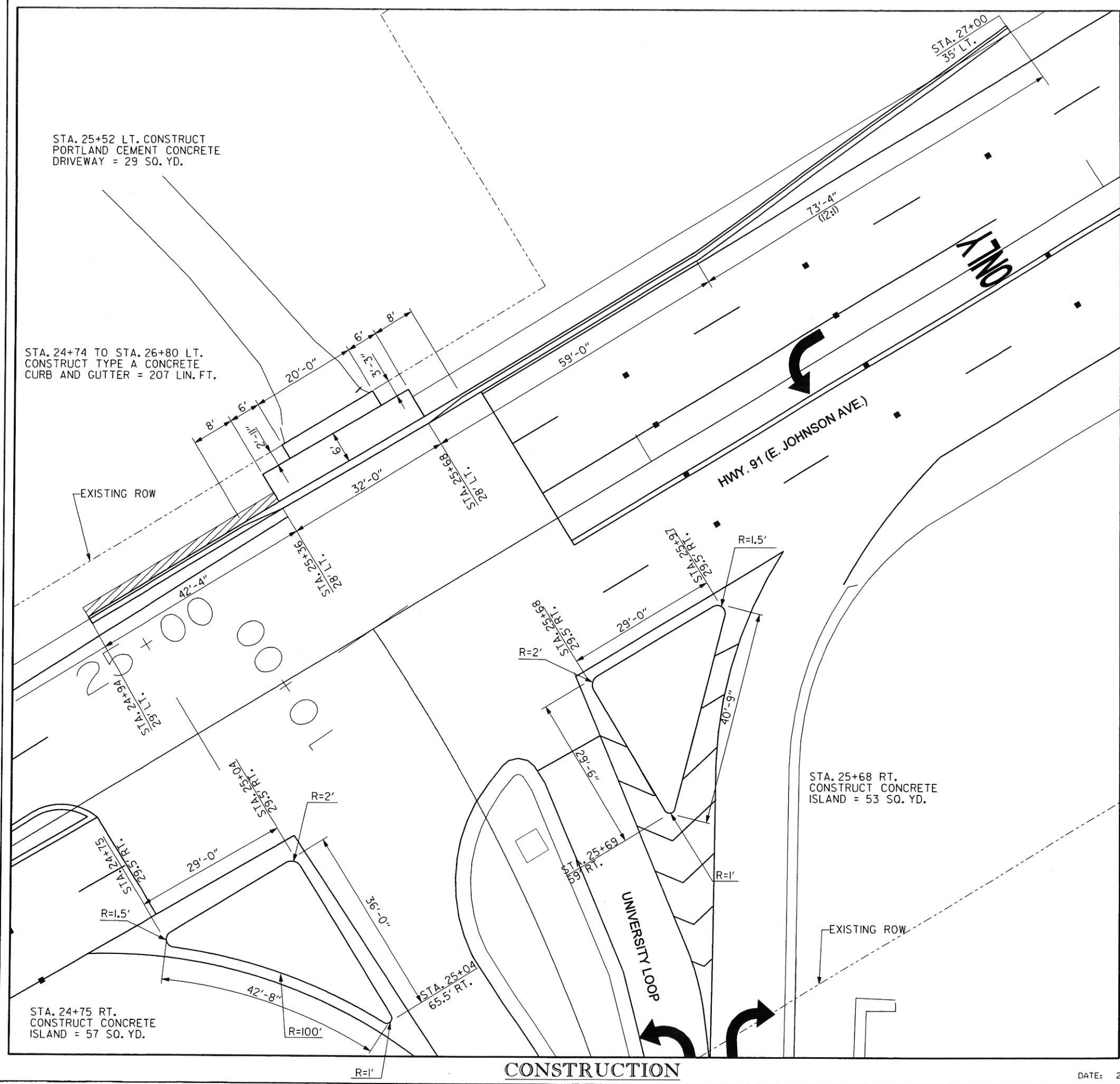
LEGEND

TOPSOIL FURNISHED AND PLACED (6" U.T.) WITH SOLID SODDING

NOTE: STATIONING AND OFFSETS REFERENCED FROM C. HWY. 91.



LOCATION: HWY. 91 AT UNIVERSITY LOOP
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: AS SHOWN DRAWN BY: JPD



CONSTRUCTION

DATE: 2/17/11 FILE NAME: t100730.DTL2.dgn

cemckinney 2/17/2011 8:39:20 AM
 WORKSPACE: AHTDVB
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 REVISED DATE:

PERMANENT PAVEMENT MARKINGS QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	3525	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS (ARROWS)	2	EACH
SS&718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (10")	207	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING WHITE (4")	2023	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING WHITE (8")	466	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")	91	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING WHITE (24")	55	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	2246	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING YELLOW (8")	270	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING YELLOW (12")	16	LIN. FT.
SS&719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	4	EACH
SS&719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	6	EACH
721	RAISED PAVEMENT MARKERS (TYPE II)	73	EACH

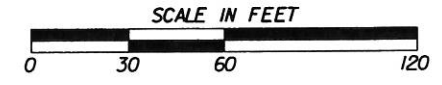
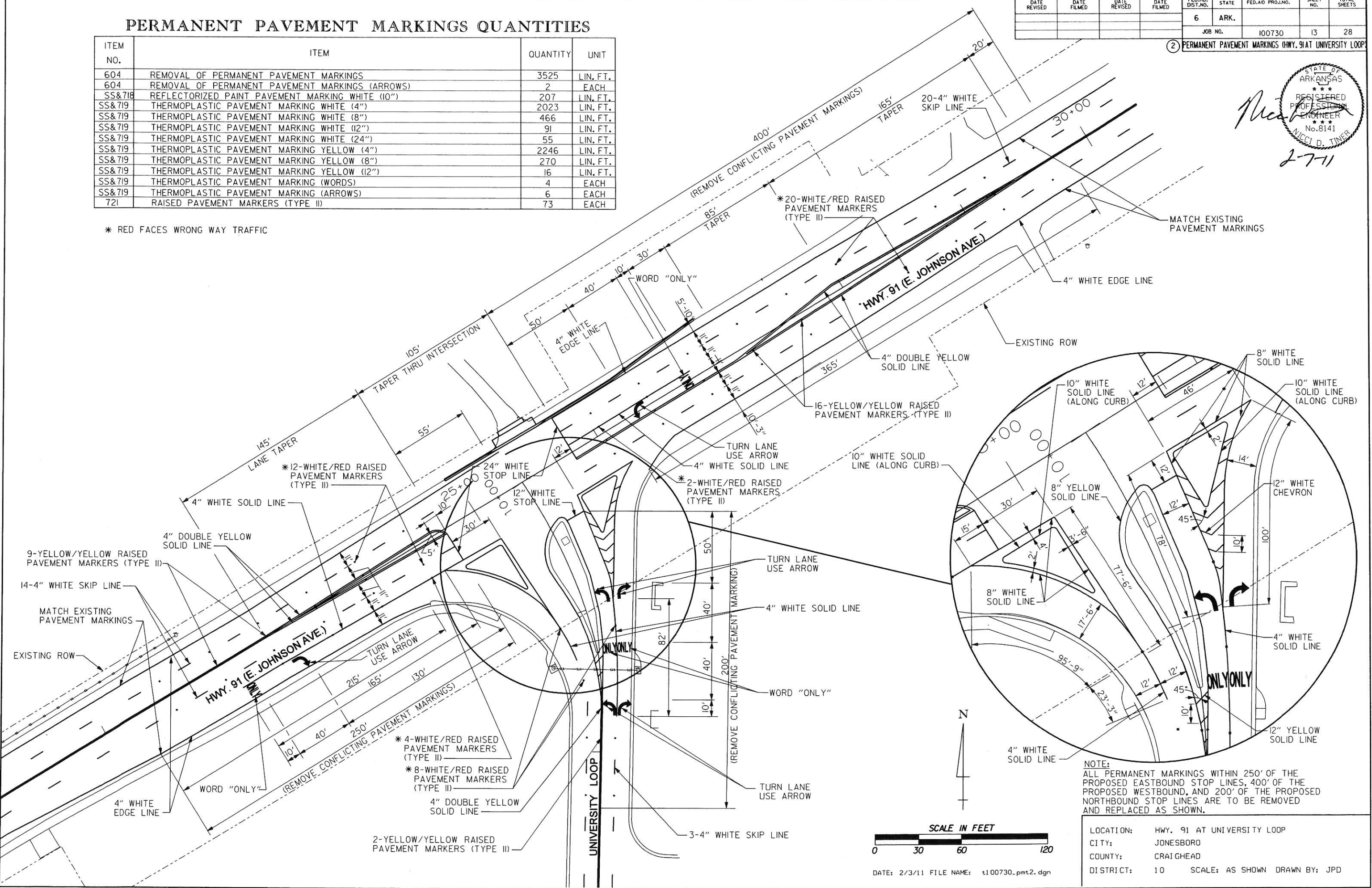
* RED FACES WRONG WAY TRAFFIC

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		13	28
				JOB NO.	100730			

② PERMANENT PAVEMENT MARKINGS (HWY. 91 AT UNIVERSITY LOOP)



2-7-11



DATE: 2/3/11 FILE NAME: t100730_pmt2.dgn

NOTE:
ALL PERMANENT MARKINGS WITHIN 250' OF THE PROPOSED EASTBOUND STOP LINES, 400' OF THE PROPOSED WESTBOUND, AND 200' OF THE PROPOSED NORTHBOUND STOP LINES ARE TO BE REMOVED AND REPLACED AS SHOWN.

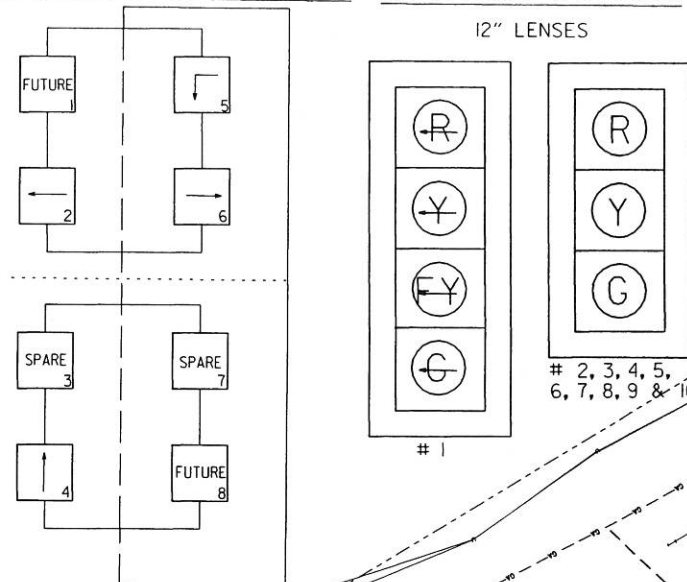
LOCATION: HWY. 91 AT UNIVERSITY LOOP
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: AS SHOWN DRAWN BY: JPD

2/4/2011 10:05:34 AM
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 WORKSPACE: AHTDVB
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 REVISED DATE:

TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
601	MOBILIZATION	0.50	L.S.
SS&603	MAINTENANCE OF TRAFFIC	0.50	L.S.
SP&701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2 (8 PHASES)	1	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1WAY)	9	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1WAY)	1	EACH
708	TRAFFIC SIGNAL CABLE (5c/14 A.W.G.)	355	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7c/14 A.W.G.)	117	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12c/14 A.W.G.)	29	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20c/14 A.W.G.)	216	LIN. FT.
709	GALVANIZED STEEL CONDUIT (1.25")	15	LIN. FT.
710	NON-METALLIC CONDUIT (1.25")	10	LIN. FT.
710	NON-METALLIC CONDUIT (2")	23	LIN. FT.
710	NON-METALLIC CONDUIT (3")	245	LIN. FT.
SS&711	CONCRETE PULL BOX (TYPE 2 HD)	4	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (36')	3	EACH
SP&733	VIDEO DETECTOR (CLR)	5	EACH
733	VIDEO CABLE	738	LIN. FT.
733	VIDEO MONITOR (CLR)	1	EACH
SP&733	VIDEO PROCESSOR, EDGE CARD (2 CAMERA)	3	EACH
SP&733	VIDEO EDGE CARD EXTENDER	1	EACH
SP&733	VEHICLE DETECTOR RACK (16 CHANNEL)	1	EACH
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2c/6 A.W.G.)	25	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/8 A.W.G., EGC)	270	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/12 A.W.G., EGC)	100	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	251	LIN. FT.
SP	LUMINAIRE ASSEMBLY	2	EACH
SP	LOCAL RADIO WITH ANTENNA	1	EACH
SP	ANTENNA CABLE (TYPE 6)	58	LIN. FT.
SP	18" STREET NAME SIGN	3	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH

PHASING DIAGRAM SIGNAL FACES

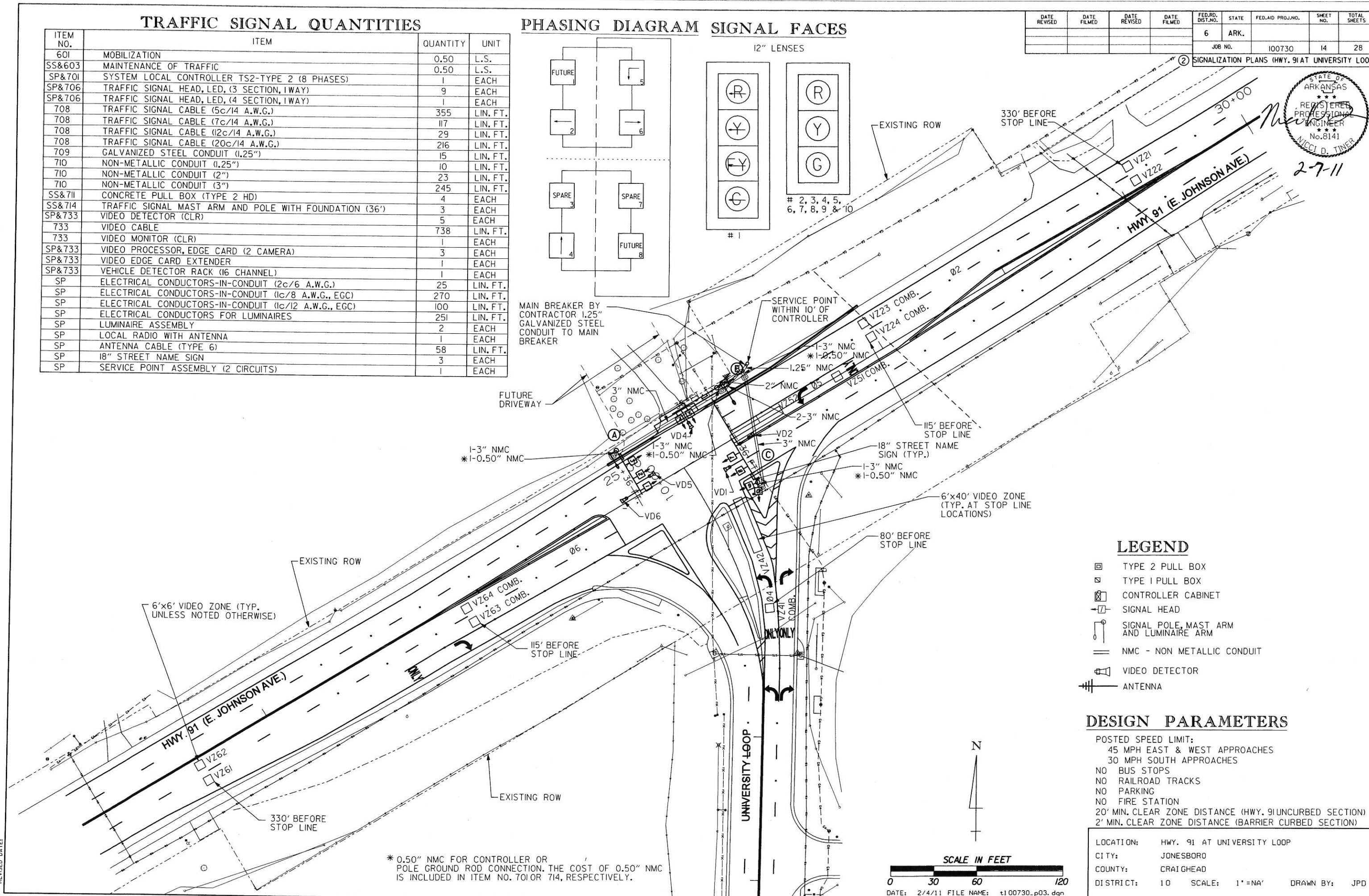


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		14	28
				JOB NO.	100730			

SIGNALIZATION PLANS (HWY. 91 AT UNIVERSITY LOOP)



2-7-11



* 0.50" NMC FOR CONTROLLER OR POLE GROUND ROD CONNECTION. THE COST OF 0.50" NMC IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.

LEGEND

- ☐ TYPE 2 PULL BOX
- ☐ TYPE 1 PULL BOX
- ☐ CONTROLLER CABINET
- ☐ SIGNAL HEAD
- ☐ SIGNAL POLE, MAST ARM AND LUMINAIRE ARM
- NMC - NON METALLIC CONDUIT
- ☐ VIDEO DETECTOR
- ☐ ANTENNA

DESIGN PARAMETERS

POSTED SPEED LIMIT:
 45 MPH EAST & WEST APPROACHES
 30 MPH SOUTH APPROACHES

NO BUS STOPS
 NO RAILROAD TRACKS
 NO PARKING
 NO FIRE STATION
 20' MIN. CLEAR ZONE DISTANCE (HWY. 91 UNCURBED SECTION)
 2' MIN. CLEAR ZONE DISTANCE (BARRIER CURBED SECTION)

LOCATION: HWY. 91 AT UNIVERSITY LOOP
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: 1"=NA' DRAWN BY: JPD

2/4/2011 9:59:53 AM
 WORKSPACE: AHTDV8
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 REVISED DATE:

POLE DIMENSIONS

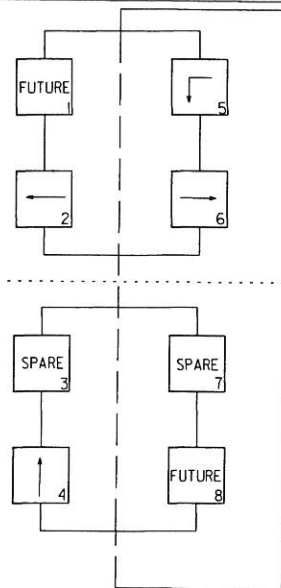
POLE	MAST ARM(S) LENGTH	MAST ARM(S) ORIENTATION ANGLE FROM HAND HOLE (CLOCKWISE)	VERTICAL SHAFT LENGTH	LUM. ARM LENGTH	LUM. ARM(S) ORIENTATION ANGLE FROM HAND HOLE (CLOCKWISE)	STATION HWY. 91	OFFSET	NORTHING	EASTING
A	36 FT.	180 DEGREES	35'-0"	10'-0"	180 DEGREES	25+04.03	35' LT.	554607.0626	1705783.7110
B	36 FT.	270 DEGREES	35'-0"	15'-0"	180 DEGREES	25+86.83	36' LT.	554651.4407	1705853.6280
C	36 FT.	180 DEGREES	21'-0"	-	-	25+77.12	35' RT.	554585.4641	1705882.5054

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		15	28

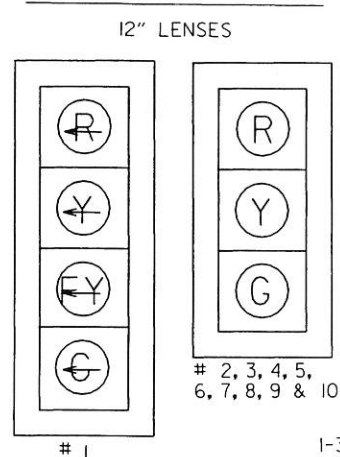
② SIGNALIZATION PLANS (HWY. 91 AT UNIVERSITY LOOP)



PHASING DIAGRAM

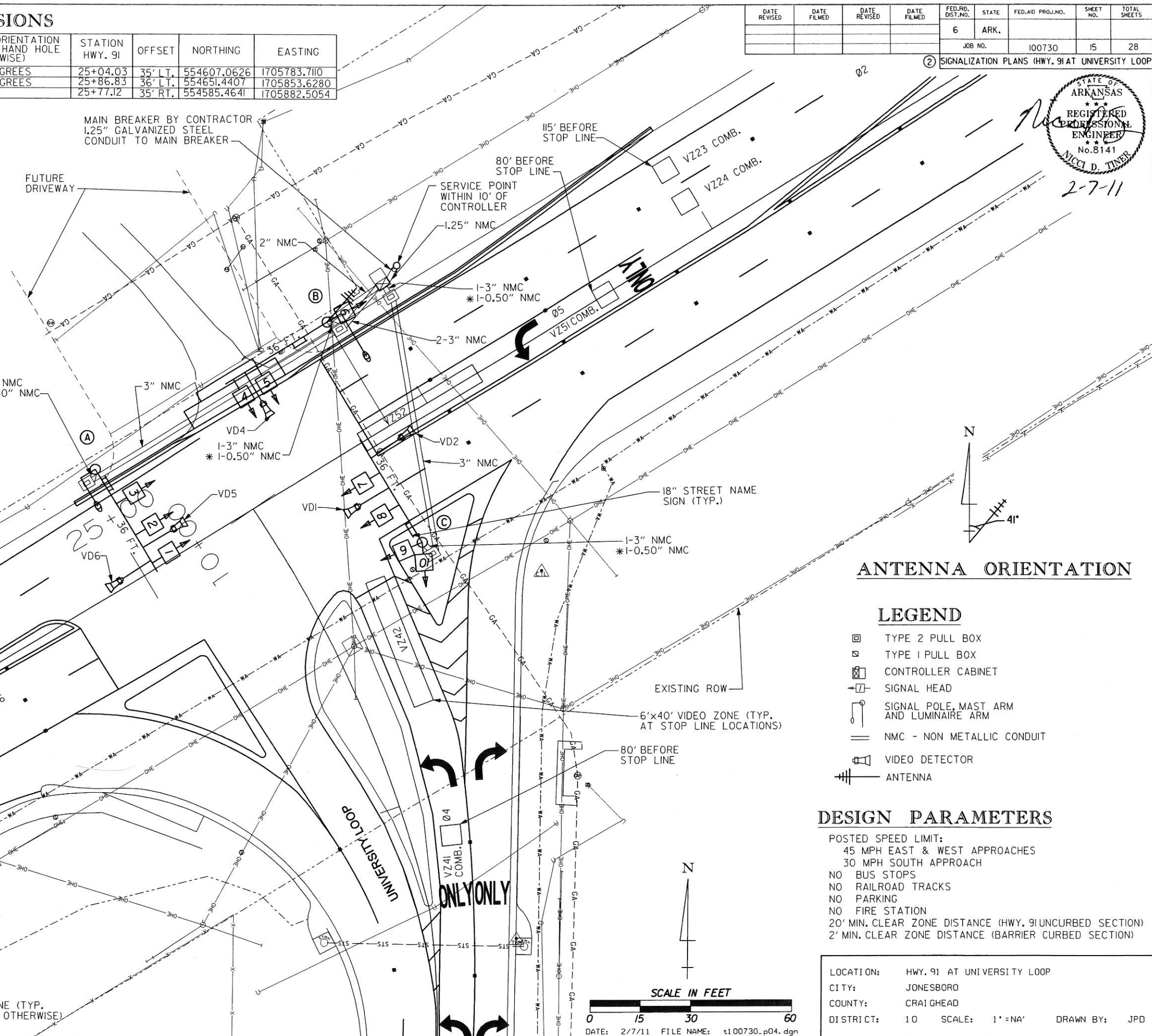


SIGNAL FACES



* 0.50" NMC FOR CONTROLLER OR POLE GROUND ROD CONNECTION. THE COST OF 0.50" NMC IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.

MAIN BREAKER BY CONTRACTOR
1.25" GALVANIZED STEEL
CONDUIT TO MAIN BREAKER



ANTENNA ORIENTATION

LEGEND

- ☐ TYPE 2 PULL BOX
- ▣ TYPE 1 PULL BOX
- ▤ CONTROLLER CABINET
- ⬆ SIGNAL HEAD
- ⊕ SIGNAL POLE, MAST ARM AND LUMINAIRE ARM
- NMC - NON METALLIC CONDUIT
- 📡 VIDEO DETECTOR
- ⚡ ANTENNA

DESIGN PARAMETERS

- POSTED SPEED LIMIT:
 - 45 MPH EAST & WEST APPROACHES
 - 30 MPH SOUTH APPROACH
- NO BUS STOPS
- NO RAILROAD TRACKS
- NO PARKING
- NO FIRE STATION
- 20' MIN. CLEAR ZONE DISTANCE (HWY. 91 UNCURBED SECTION)
- 2' MIN. CLEAR ZONE DISTANCE (BARRIER CURBED SECTION)

LOCATION: HWY. 91 AT UNIVERSITY LOOP
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: 1" = 40' DRAWN BY: JPD



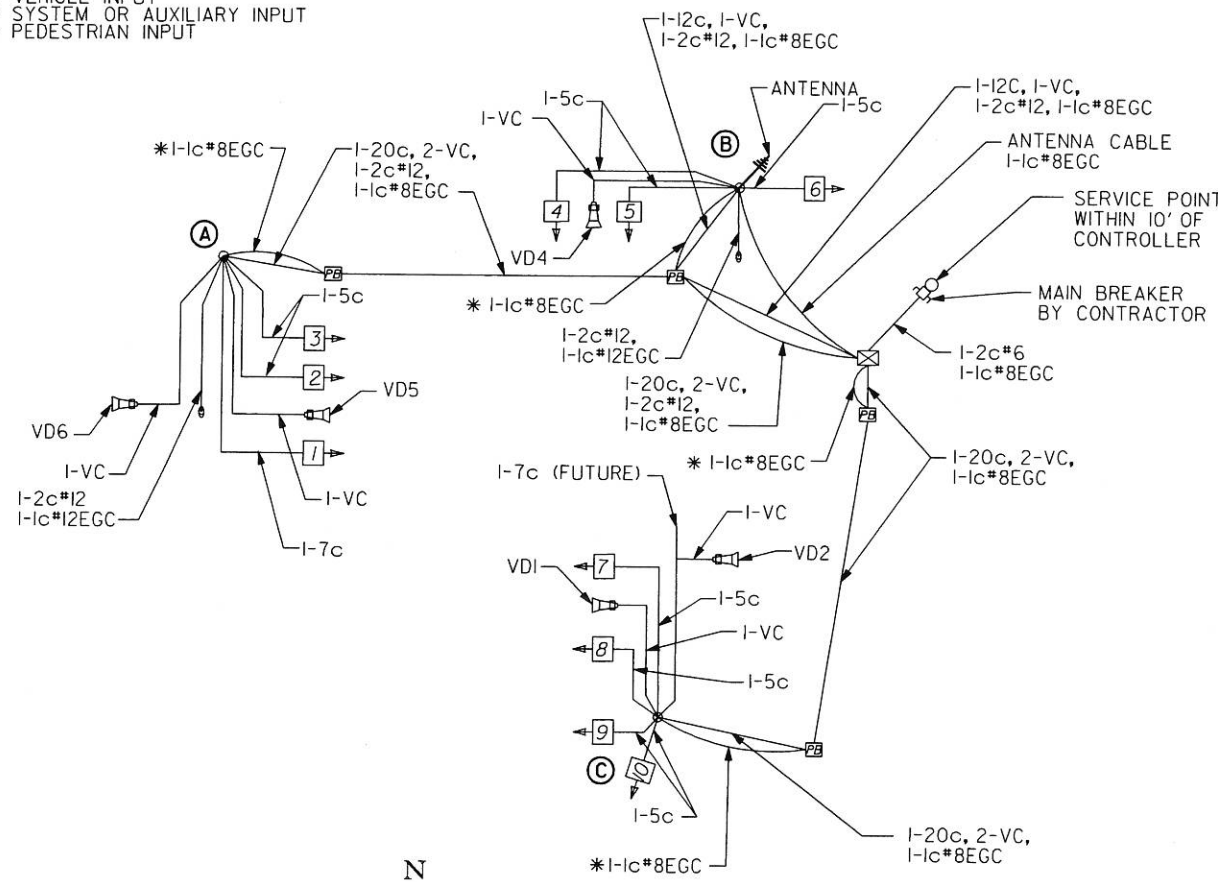
2/7/2011 8:34:46 AM
 WORKSPACE: AHTDVB
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 REVISED DATE:

DETECTOR CHART

DETECTOR I.D. #	DIRECTION & LOCATION	TYPE	DET. #	HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			VIDEO DET. TUBE LENGTH	COMMENT
				CAB. TRM. #	AMP CHN. #	CON. INP. #	LOCAL		MSTR. SYS. DET. #		
							PHS.	SYS. DET. #			
VZ21	WB OUTSIDE FAR	LOCAL			1	V2	2		23"	VD2	
VZ22	WB INSIDE FAR	LOCAL			2	V3	2		23"	VD2	
VZ23	WB OUTSIDE NEAR	COMB.			3	D2	2	2	23"	VD5	
VZ24	WB INSIDE NEAR	COMB.			4	D3	2	3	23"	VD5	
VZ41	NB FAR	COMB.			9	D4	4	4	23"	VD4	
VZ42	NB NEAR	LOCAL			10	V4	4		23"	VD4	
VZ51	WB LEFT FAR	COMB.			5	D5	5	5	23"	VD5	
VZ52	WB LEFT NEAR	LOCAL			6	V5	5		23"	VD5	
VZ61	EB OUTSIDE FAR	LOCAL			13	V6	6		74"	VD6	
VZ62	EB INSIDE FAR	LOCAL			14	V7	6		74"	VD6	
VZ63	EB OUTSIDE NEAR	COMB.			15	D6	6	6	23"	VD1	
VZ64	EB INSIDE NEAR	COMB.			16	D7	6	7	23"	VD1	

CONTROLLER INPUT ABBREVIATIONS:
 V = VEHICLE INPUT
 D = SYSTEM OR AUXILIARY INPUT
 P = PEDESTRIAN INPUT

SPARE AMP CHN. # = 7, 8, 11 & 12



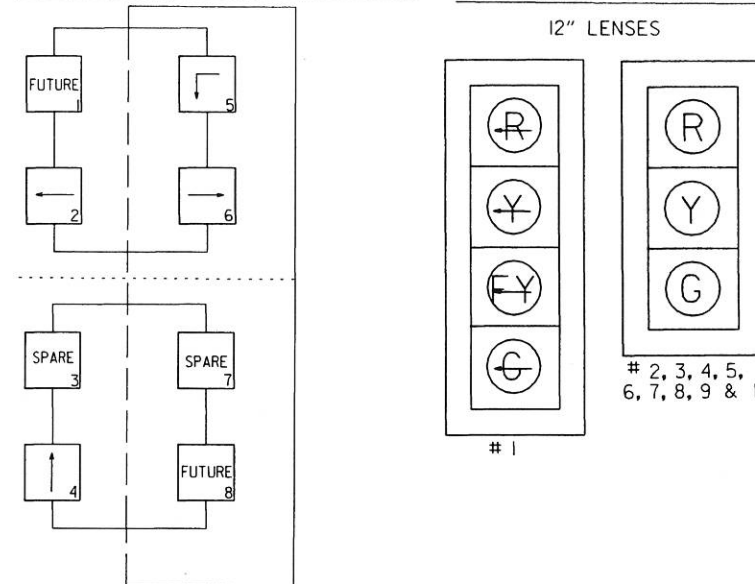
WIRING DIAGRAM

* 1-1c#8EGC SHOWN SEPARATELY FROM CONTROLLER OR POLE TO NEAREST PULL BOX IS INCLUDED IN ITEM NO. 701OR 714, RESPECTIVELY.

TYPICAL WIRING INCLUDES:

- SEPARATE 5c/#14 AWG FROM EACH 3 SEC SIGNAL HEAD TO BASE OF POLE.
- SEPARATE 7c/#14 AWG FROM EACH 4 SEC SIGNAL HEAD TO BASE OF POLE.
- PROVIDE SEPARATE CONDUIT FOR ANTENNA CABLE.
- ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA ON CABINET.
- THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.

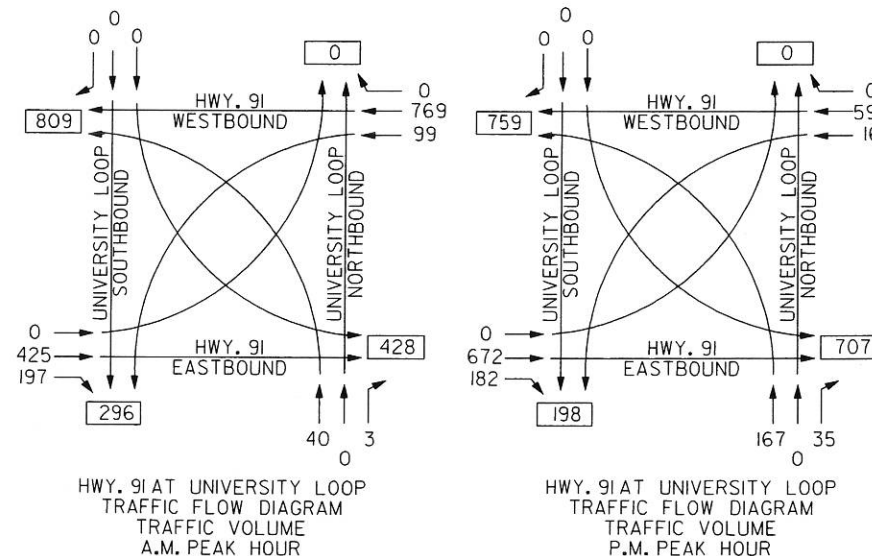
PHASING DIAGRAM SIGNAL FACES



INTERVAL CHART

SIGNAL FACES	INTERSECTION INTERVALS						FLASH SEQ.
	2+5	CLR. 2+6	CLR. 4	CLR.	CLR.	CLR.	
1	←	*	←Y	***	←	←	←
2, & 3	G	**	G	**	R	R	R
4 & 5	R	R	R	R	G	Y	R
6	G	**	G	**	R	R	R
7, 8 & 9	R	R	G	**	R	R	R
10	R	R	R	R	G	Y	R

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



NOTE:
2010 TRAFFIC VOLUMES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100730		16	28

2 SIGNALIZATION PLANS (HWY. 91 AT UNIVERSITY LOOP)



2-7-11

TYPICAL OVERHEAD STREET NAME MARKER MAST ARM MOUNTED

NOTES:

- REFLECTIVE SHEETING SHALL COMPLY WITH ASTM 4956 TYPE 8 OR TYPE 9 REFLECTIVE SHEETING. SHEETING AND LEGEND SHALL BE APPLIED IN SUCH A MANNER TO PROVIDE WRINKLE AND BUBBLE FREE SURFACES. APPLICATION OF SHEETING IS CAUSE FOR REJECTION OF MATERIALS DUE TO WORKMANSHIP.
- ALUMINUM SIGN BLANK SHALL BE ALLOY 6061-T6 OR 5052-H38. THE ALUMINUM SIGN SHALL ALSO BE ANODIZED. THE ALUMINUM SHEETING SHALL BE 0.010 INCH NOMINAL THICKNESS AND OF THE SIZE SHOWN WITH 1.5" CORNER RADIUS. PRIOR TO FABRICATION OF THE SIGNS, THE LAYOUT SHALL FIRST BE APPROVED BY AN AGENT OF THE CITY OF JONESBORO.
- SEE STD. DETAIL SHEET FOR MORE INFORMATION FOR MOUNTING ON MAST ARM ASSEMBLY.
- THE CLEARVIEW 5-W-R FONT SHALL BE USED FOR ALL LETTERS.
- STREET NAME "E JOHNSON AVE" ON POLE B. STREET NAME "UNIVERSITY LOOP" ON POLES A AND C.

LOCATION: HWY. 91 AT UNIVERSITY LOOP
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: 1" = 40' DRAWN BY: JPD

2/4/2011 10:00:06 AM
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 WORKSPACE: AHTDVB
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 REVISION DATE: