

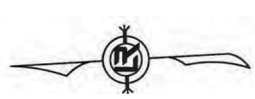
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 KANIS ROAD  
 TEMPORARY EROSION CONTROL PLAN  
 KANIS ROAD  
 GAMBLE TO SHACKLEFORD - STAGE 1  
 SHEET 7

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

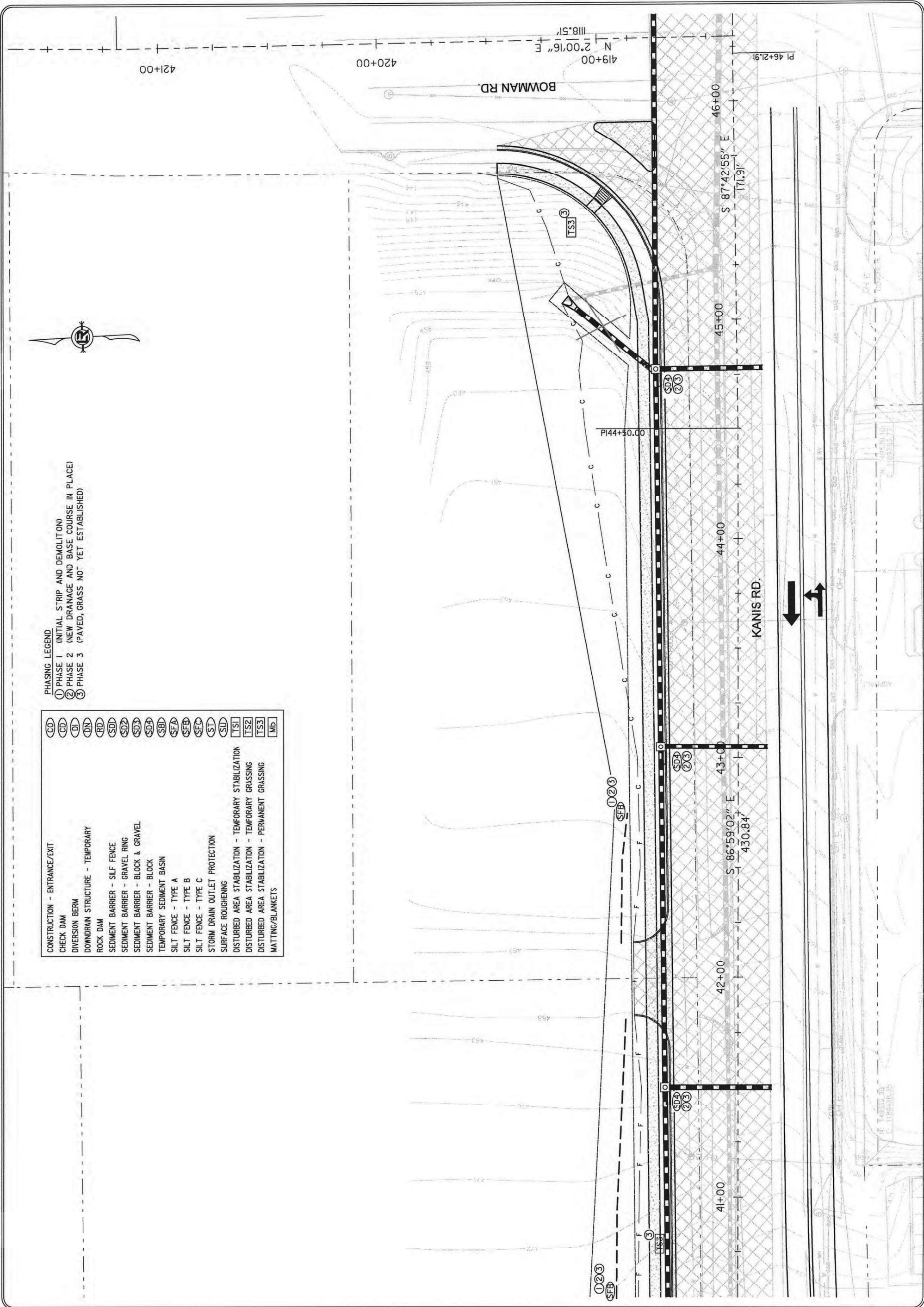
STATE OF ARKANSAS  
 REGISTERED PROFESSIONAL ENGINEER  
 N. 11427  
 KEVIN G. TOBLESKY  
 3-15-17

DRAWN BY: RFR  
 DESIGNED: RFR  
 CHECKED: KGT  
 DATE: 02/24/17  
 SCALE: 1" = 40'  
 PROJECT NO.: 13-B-SD-6A  
 SHEET NO.: C10.2



PHASING LEGEND:  
 ① PHASE 1 (INITIAL STRIP AND DEMOLITION)  
 ② PHASE 2 (NEW DRAINAGE AND BASE COURSE IN PLACE)  
 ③ PHASE 3 (PAVED, GRASS NOT YET ESTABLISHED)


CO	CONSTRUCTION - ENTRANCE/EXIT
CD	CHECK DAM
DB	DIVERSION BERM
DN	DOWNDRAIN STRUCTURE - TEMPORARY
RD	ROCK DAM
SD1	SEDIMENT BARRIER - SILT FENCE
SD2	SEDIMENT BARRIER - GRAVEL RING
SD3	SEDIMENT BARRIER - BLOCK & GRAVEL
SD4	SEDIMENT BARRIER - BLOCK
SBI	TEMPORARY SEDIMENT BASIN
SFA	SILT FENCE - TYPE A
SFB	SILT FENCE - TYPE B
SFC	SILT FENCE - TYPE C
ST	STORM DRAIN OUTLET PROTECTION
SU	SURFACE ROUGHENING
TS1	DISTURBED AREA STABILIZATION - TEMPORARY STABILIZATION
TS2	DISTURBED AREA STABILIZATION - TEMPORARY GRASSING
TS3	DISTURBED AREA STABILIZATION - PERMANENT GRASSING
MB	MATTING/BLANKETS



REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 KANIS ROAD  
 TEMPORARY EROSION CONTROL PLAN  
 KANIS ROAD  
 GAMBLE TO SHACKLEFORD - STAGE 1  
 SHEET 8

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



STATE OF ARKANSAS  
 REGISTERED PROFESSIONAL ENGINEER  
 N. G. TOBLESKY  
 No. 11427  
 EXPIRES 6/30/2018

DRAWN BY	3-15-17
RFI	
DESIGNED	
RFI	
CHECKED	
KGT	
DATE	02/24/17
SCALE	1" = 40'
PROJECT NO.	13-B5D-6A
SHEET NO.	C10.3

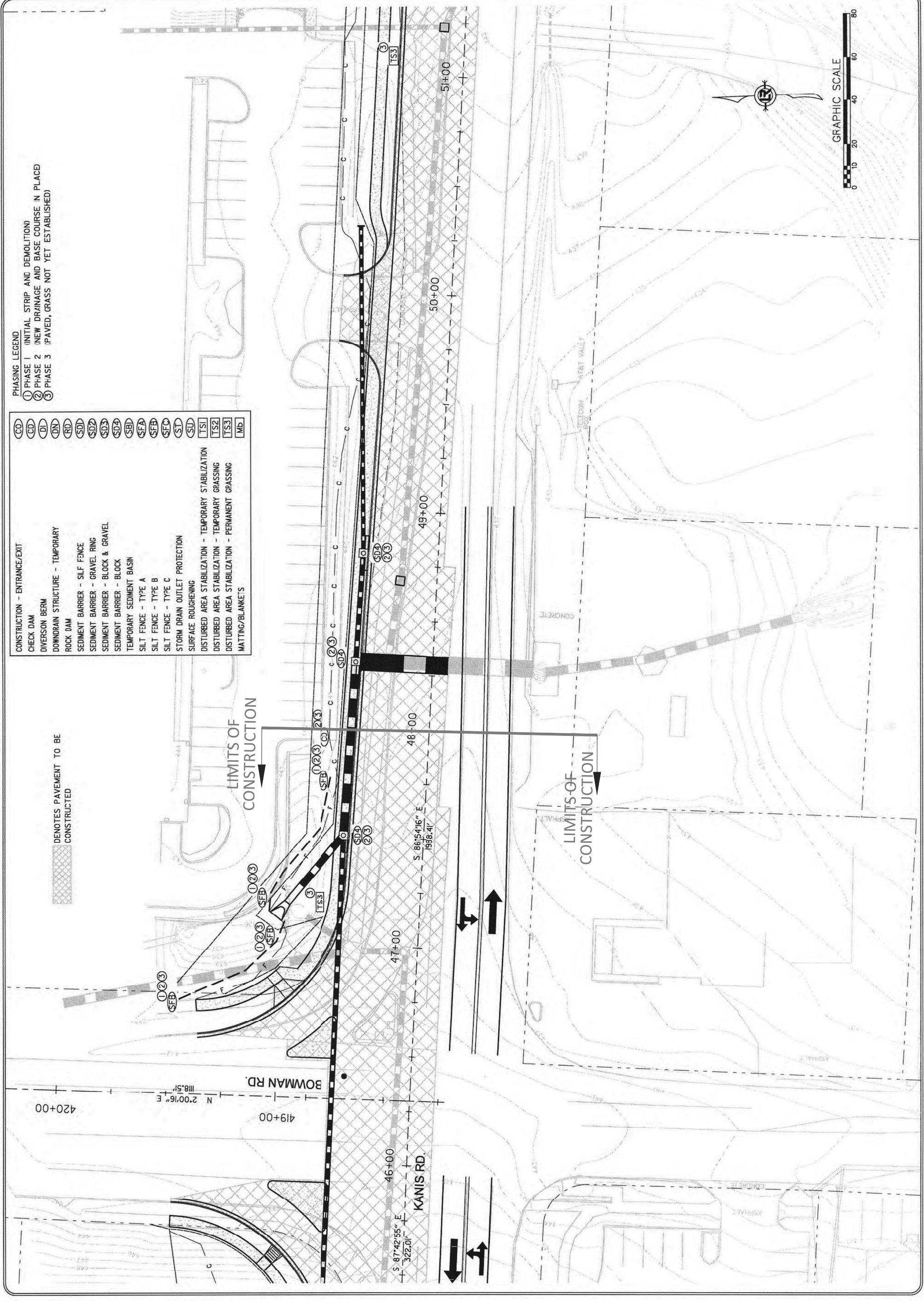
- PHASING LEGEND
- ① PHASE 1 (INITIAL STRIP AND DEMOLITION)
  - ② PHASE 2 (NEW DRAINAGE AND BASE COURSE IN PLACE)
  - ③ PHASE 3 (PAVED, GRASS NOT YET ESTABLISHED)

- |     |  |
|-----|--|
| CO  | CHECK DAM  |
| CD  | DIVERSION BERM   |
| DI  | DOWNDRAIN STRUCTURE - TEMPORARY                        |
| DN  | ROCK DAM   |
| RD  | SEDIMENT BARRIER - SILT FENCE                          |
| SD1 | SEDIMENT BARRIER - GRAVEL RING                         |
| SD2 | SEDIMENT BARRIER - BLOCK & GRAVEL                      |
| SD3 | SEDIMENT BARRIER - BLOCK                               |
| SD4 | TEMPORARY SEDIMENT BASIN                               |
| SBI | SILT FENCE - TYPE A                                    |
| SFA | SILT FENCE - TYPE B                                    |
| SFB | SILT FENCE - TYPE C                                    |
| SFC | STORM DRAIN OUTLET PROTECTION                          |
| ST  | SURFACE ROUGHENING                                     |
| SU  | DISTURBED AREA STABILIZATION - TEMPORARY STABILIZATION |
| TS1 | DISTURBED AREA STABILIZATION - TEMPORARY GRASSING      |
| TS2 | DISTURBED AREA STABILIZATION - PERMANENT GRASSING      |
| TS3 | MATTING/BLANKETS                                       |
| MB  |  |

⊞ DENOTES PAVEMENT TO BE CONSTRUCTED

LIMITS OF CONSTRUCTION

LIMITS OF CONSTRUCTION



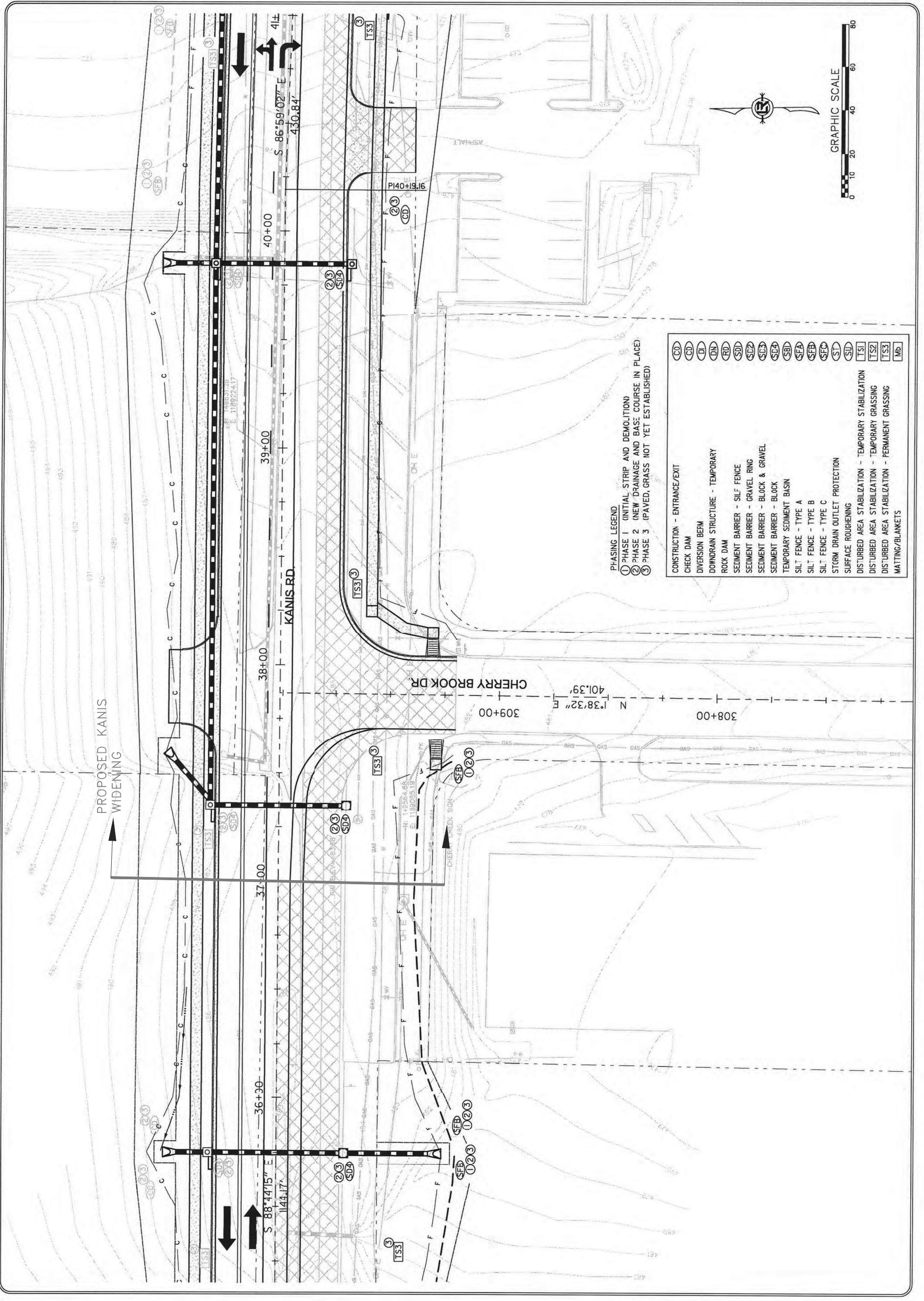
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 KANIS ROAD  
 TEMPORARY EROSION CONTROL PLAN  
 KANIS ROAD  
 GAMBLE TO SHACKLEFORD - STAGE 2  
 SHEET 22

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

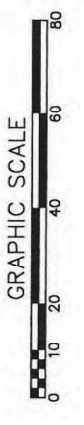


3-15-17  
 DRAWN BY  
 RFR  
 DESIGNED  
 RFR  
 CHECKED  
 KGT  
 DATE  
 02/24/17  
 SCALE  
 1" = 40'  
 PROJECT NO.  
 13-B-5D-6A  
 SHEET NO.  
 C10.4



PHASING LEGEND  
 ① PHASE 1 (INITIAL STRIP AND DEMOLITION)  
 ② PHASE 2 (NEW DRAINAGE AND BASE COURSE IN PLACE)  
 ③ PHASE 3 (PAVED, GRASS NOT YET ESTABLISHED)


CO	CONSTRUCTION - ENTRANCE/EXIT
CD	CHECK DAM
DI	DIVERSION BERM
DN	DOWNDRAIN STRUCTURE - TEMPORARY
RD	ROCK DAM
SDI	SEDIMENT BARRIER - SILT FENCE
SD2	SEDIMENT BARRIER - GRAVEL RING
SD3	SEDIMENT BARRIER - BLOCK & GRAVEL
SD4	SEDIMENT BARRIER - BLOCK
SB	TEMPORARY SEDIMENT BASIN
SFA	SILT FENCE - TYPE A
SFB	SILT FENCE - TYPE B
SFC	SILT FENCE - TYPE C
ST	STORM DRAIN OUTLET PROTECTION
SU	SURFACE ROUGHENING
TS1	DISTURBED AREA STABILIZATION - TEMPORARY STABILIZATION
TS2	DISTURBED AREA STABILIZATION - TEMPORARY GRASSING
TS3	DISTURBED AREA STABILIZATION - PERMANENT GRASSING
Mb	MATTING/BLANKETS



REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 KANIS ROAD  
 TEMPORARY EROSION CONTROL PLAN  
 KANIS ROAD  
 GAMBLE TO SHACKLEFORD - STAGE 2  
 SHEET 23

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



3-15-17

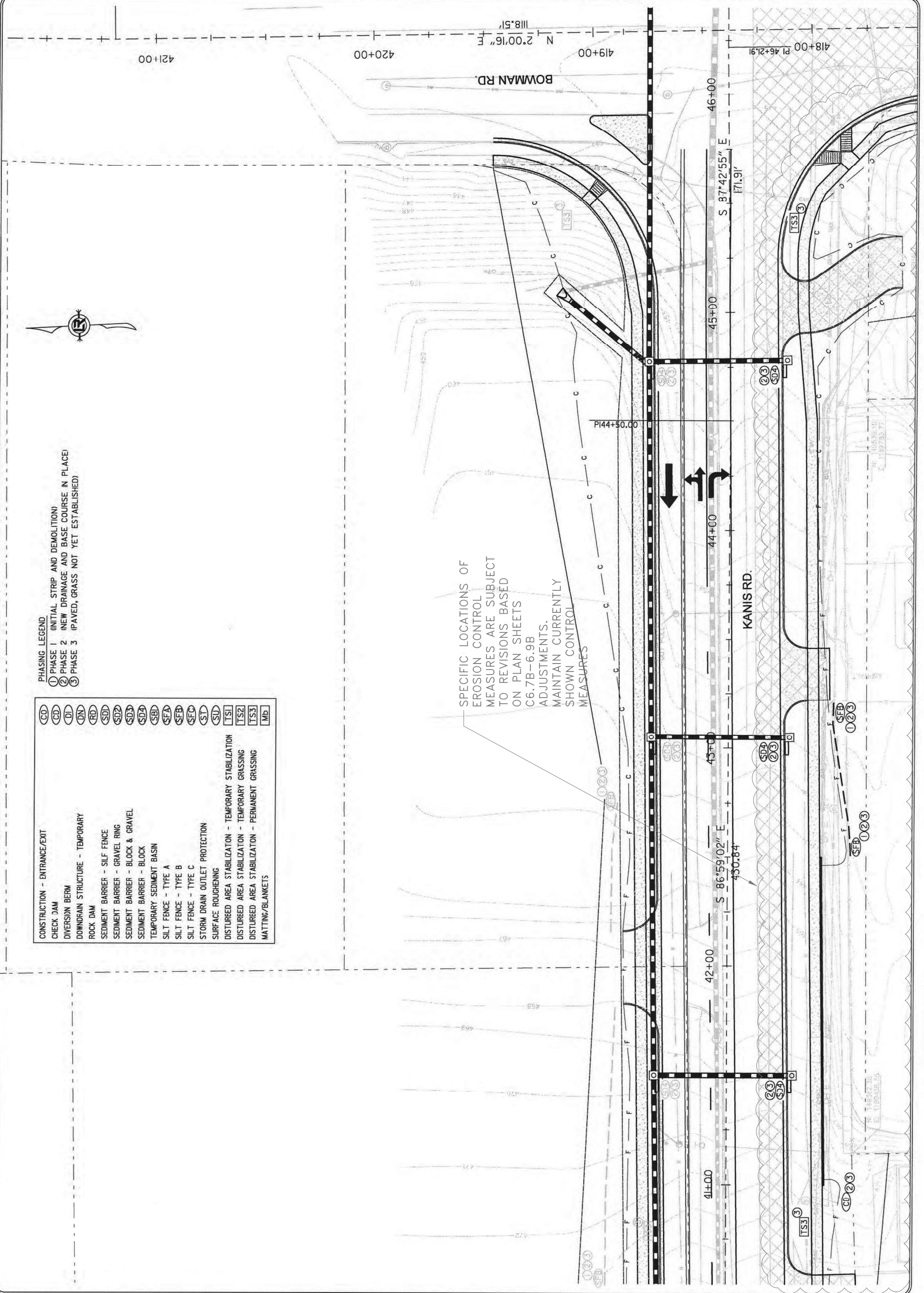
DRAWN BY  
 RFR  
 DESIGNED  
 RFR  
 CHECKED  
 KGT  
 DATE  
 02/24/17  
 SCALE  
 1" = 40'  
 PROJECT NO.  
 13-B-5D-6A  
 SHEET NO.  
**C10.5**



- PHASING LEGEND
- ① PHASE 1 (INITIAL STRIP AND DEMOLITION)
  - ② PHASE 2 (NEW DRAINAGE AND BASE COURSE IN PLACE)
  - ③ PHASE 3 (PAVED, GRASS NOT YET ESTABLISHED)

(CO)	CONSTRUCTION - ENTRANCE/EXIT
(CD)	CHECK DAM
(DI)	DIVERSION BERM
(DN)	DOWNDRAIN STRUCTURE - TEMPORARY
(RD)	ROCK DAM
(SD)	SEDIMENT BARRIER - SILT FENCE
(SD2)	SEDIMENT BARRIER - GRAVEL RING
(SD3)	SEDIMENT BARRIER - BLOCK & GRAVEL
(SD4)	SEDIMENT BARRIER - BLOCK
(SB)	TEMPORARY SEDIMENT BASIN
(SFA)	SILT FENCE - TYPE A
(SFB)	SILT FENCE - TYPE B
(SFC)	SILT FENCE - TYPE C
(ST)	STORM DRAIN OUTLET PROTECTION
(SU)	SURFACE ROUGHENING
(TS1)	DISTURBED AREA STABILIZATION - TEMPORARY STABILIZATION
(TS2)	DISTURBED AREA STABILIZATION - TEMPORARY GRASSING
(TS3)	DISTURBED AREA STABILIZATION - PERMANENT GRASSING
(Mb)	MATTING/BLANKETS


SPECIFIC LOCATIONS OF  
 EROSION CONTROL  
 MEASURES ARE SUBJECT  
 TO REVISIONS BASED  
 ON PLAN SHEETS  
 C6.7B-6.9B  
 ADJUSTMENTS.  
 MAINTAIN CURRENTLY  
 SHOWN CONTROL  
 MEASURES



REVISIONS	DATE

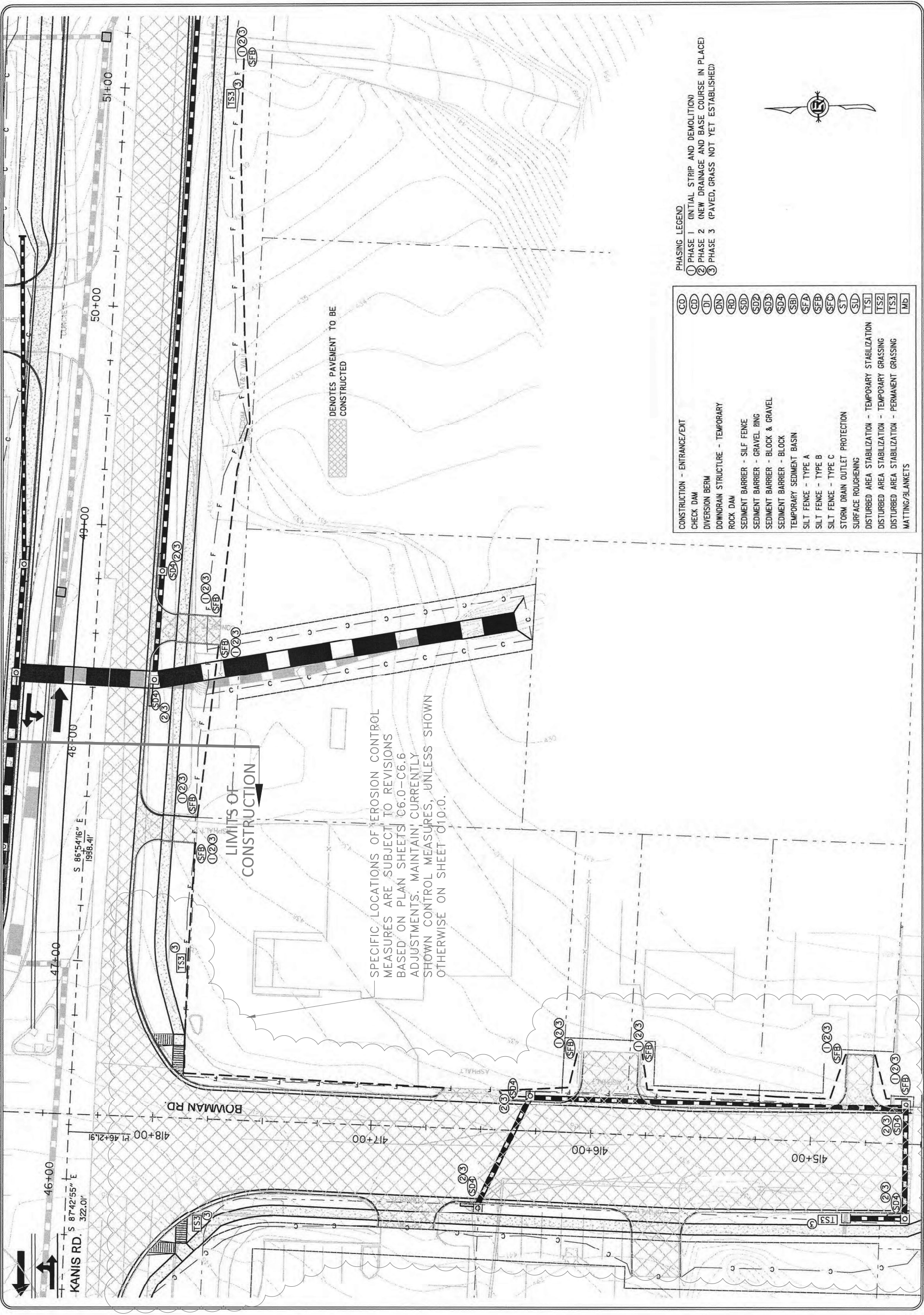
CITY OF LITTLE ROCK, ARKANSAS  
 KANIS ROAD  
 TEMPORARY EROSION CONTROL PLAN  
 KANIS ROAD - STAGE 2  
 SHEET 24

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



STATE OF ARKANSAS  
 REGISTERED PROFESSIONAL ENGINEER  
 N. 11487  
 KEVIN G. TOBLESKY

DRAWN BY	3-15-17
RF	
DESIGNED	
RF	
CHECKED	
KGT	
DATE	02/24/17
SCALE	1" = 40'
PROJECT NO.	13-B-5D-6A
SHEET NO.	C10.6



PHASING LEGEND  
 ① PHASE 1 (INITIAL STRIP AND DEMOLITION)  
 ② PHASE 2 (NEW DRAINAGE AND BASE COURSE IN PLACE)  
 ③ PHASE 3 (PAVED, GRASS NOT YET ESTABLISHED)

CONSTRUCTION - ENTRANCE/EXIT	CO
CHECK DAM	CD
DIVERSION BERM	DI
DOWNDRAIN STRUCTURE - TEMPORARY	DN
ROCK DAM	RD
SEDIMENT BARRIER - SILT FENCE	SD
SEDIMENT BARRIER - GRAVEL RING	SD2
SEDIMENT BARRIER - BLOCK & GRAVEL	SD3
SEDIMENT BARRIER - BLOCK	SD4
TEMPORARY SEDIMENT BASIN	SB
SILT FENCE - TYPE A	SFA
SILT FENCE - TYPE B	SFB
SILT FENCE - TYPE C	SFC
STORM DRAIN OUTLET PROTECTION	ST
SURFACE ROUGHENING	SU
DISTURBED AREA STABILIZATION - TEMPORARY STABILIZATION	TS1
DISTURBED AREA STABILIZATION - TEMPORARY GRASSING	TS2
DISTURBED AREA STABILIZATION - PERMANENT GRASSING	TS3
MATTING/BLANKETS	MB

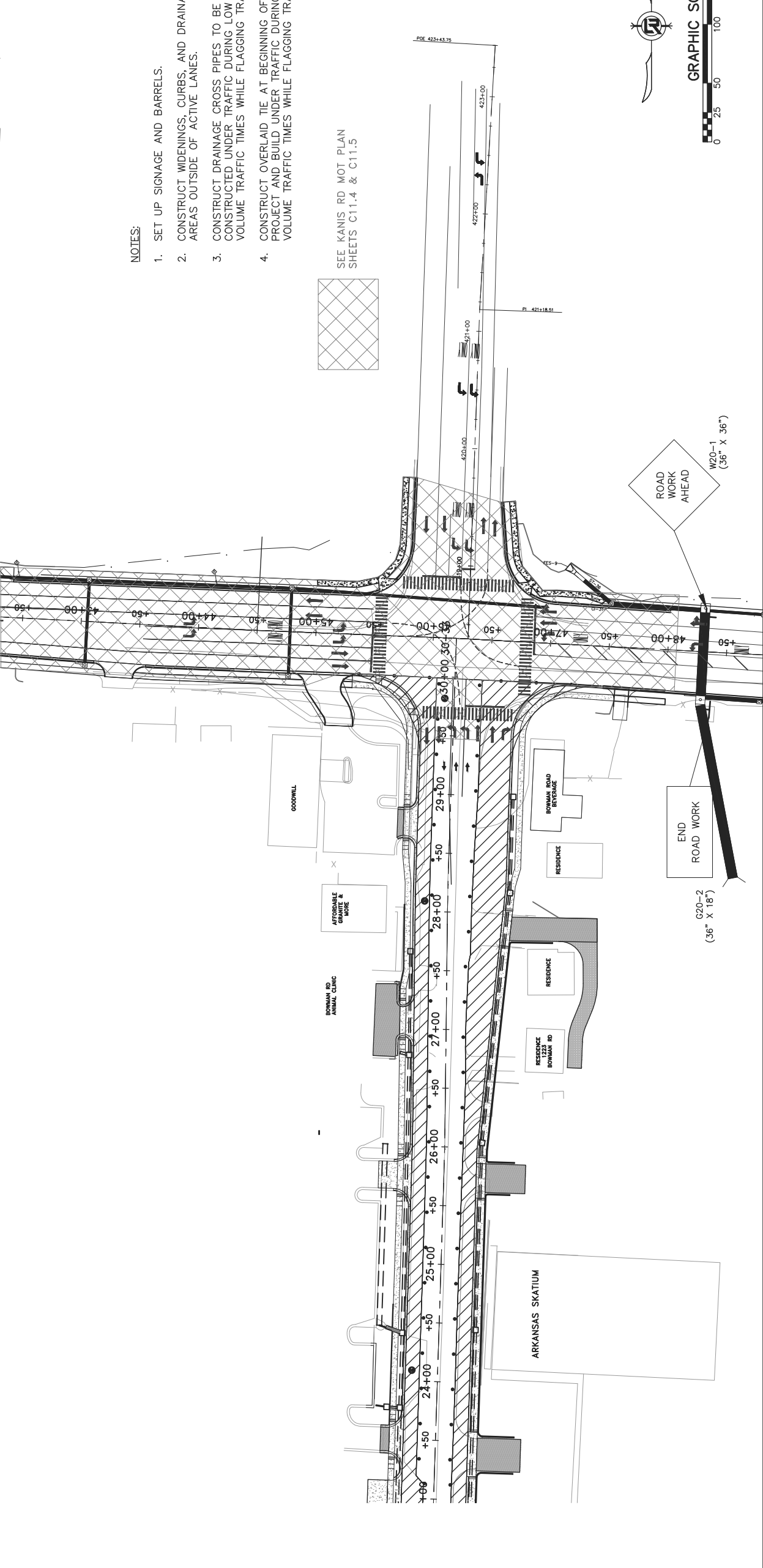
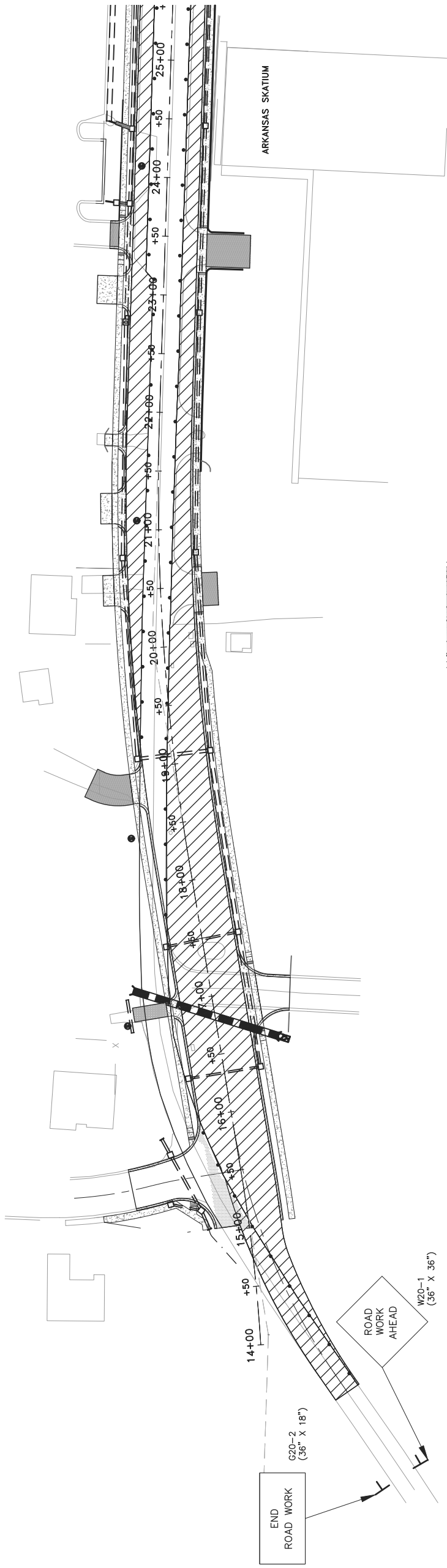
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**MAINTENANCE OF TRAFFIC PLAN (1)**

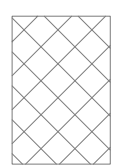
DEPARTMENT OF PUBLIC WORKS  
 701 W. MARKHAM  
 CIVIL ENGINEERING  
 LITTLE ROCK, ARKANSAS 72201



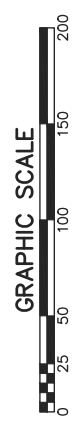
DRAWN BY	KLL
DESIGNED	COF
CHECKED	BOL
DATE	12-11-2020
SCALE	AS NOTED
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	C111.0



- NOTES:**
1. SET UP SIGNAGE AND BARRELS.
  2. CONSTRUCT WIDENINGS, CURBS, AND DRAINAGE IN AREAS OUTSIDE OF ACTIVE LANES.
  3. CONSTRUCT DRAINAGE CROSS PIPES TO BE CONSTRUCTED UNDER TRAFFIC DURING LOW VOLUME TRAFFIC TIMES WHILE FLAGGING TRAFFIC.
  4. CONSTRUCT OVERLAD TIE AT BEGINNING OF PROJECT AND BUILD UNDER TRAFFIC DURING LOW VOLUME TRAFFIC TIMES WHILE FLAGGING TRAFFIC.



SEE KANIS RD MOT PLAN SHEETS C11.4 & C11.5

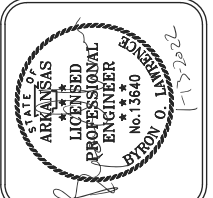


END ROAD WORK (36" X 18")  
 ROAD WORK AHEAD (36" X 36")

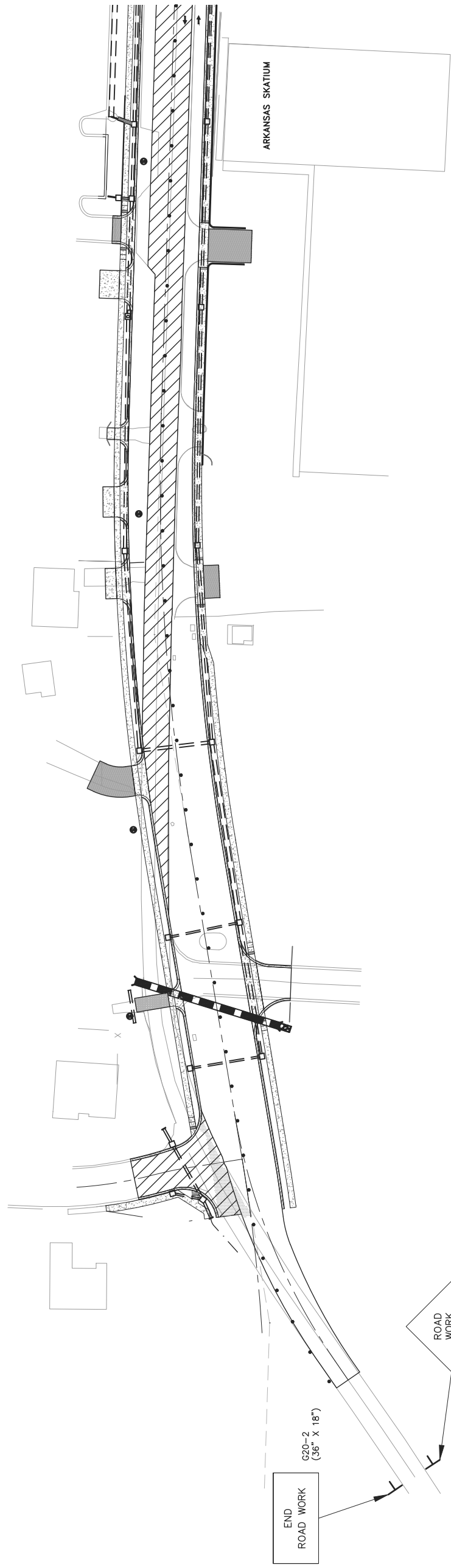
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 MAINTENANCE OF TRAFFIC PLAN (2)

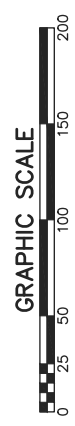
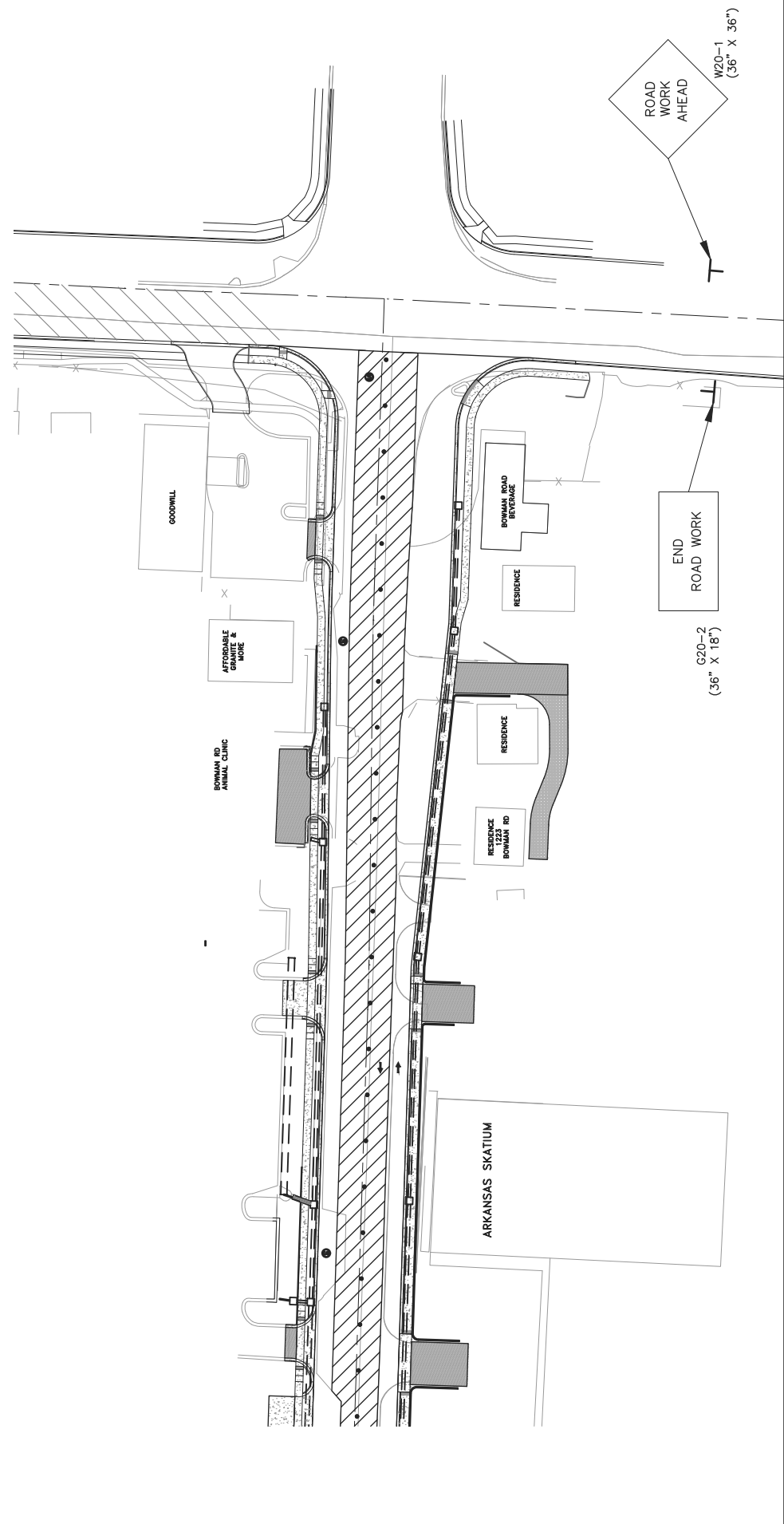
DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



DRAWN BY	KLL
DESIGNED	COF
CHECKED	BOL
DATE	12-11-2020
SCALE	AS NOTED
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	C11.1




- NOTES:
1. SHIFT NORTH BOUND LANES EAST TO NEWLY WIDENED LANES.
  2. OVERLAY EXISTING NORTH BOUND LANE.
  3. SHIFT SOUTH BOUND LANE ADJACENT TO NORTH BOUND LANE AND ADJUST AS NEEDED TO BUILD UNDER TRAFFIC.
  4. OVERLAY EXISTING SOUTH BOUND LANE.
  5. BUILD CHERRY LAUREL APPROACH.



REVISIONS	DATE

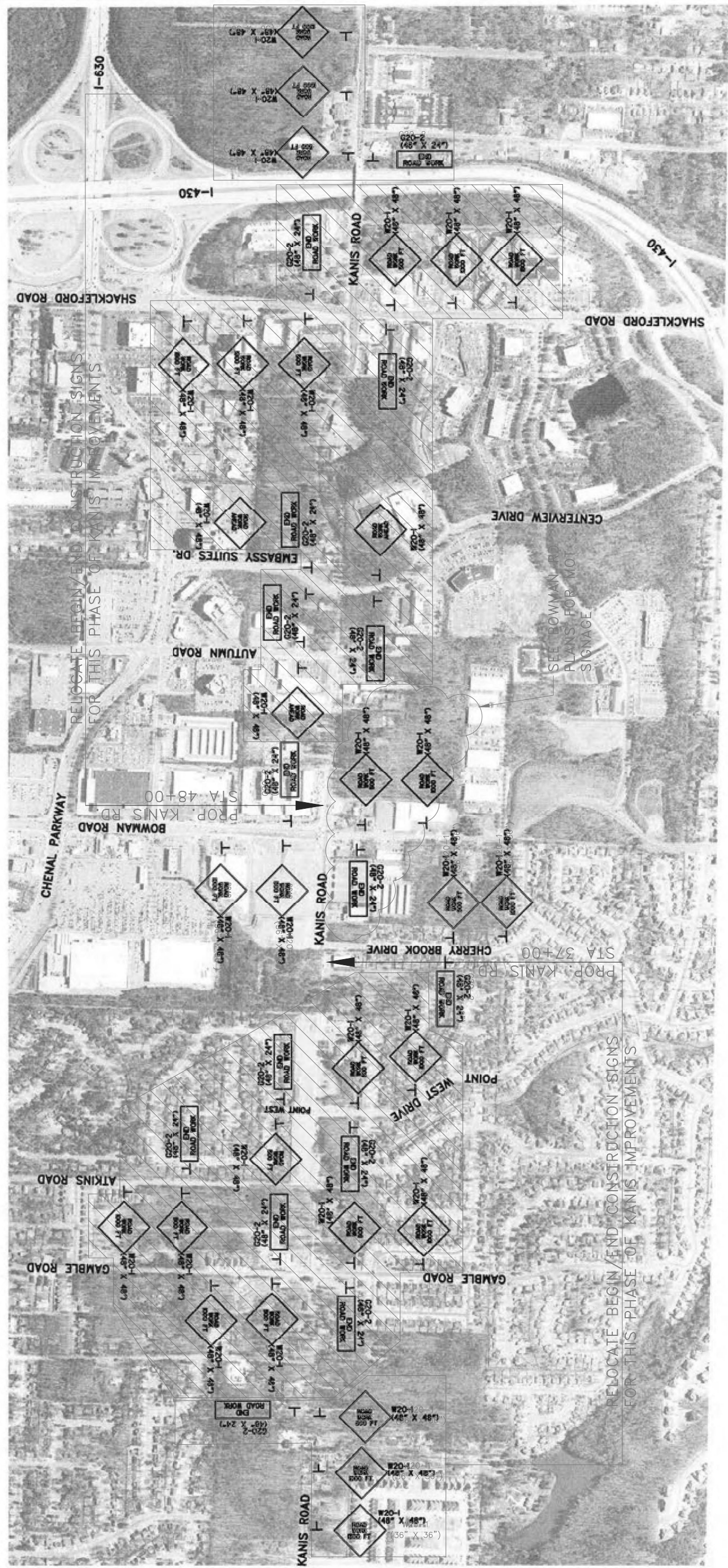
CITY OF LITTLE ROCK, ARKANSAS  
 KANIS ROAD  
 MAINTENANCE OF TRAFFIC  
 ADVANCE WARNING SIGNS

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



STATE OF ARKANSAS  
 REGISTERED PROFESSIONAL ENGINEER  
 N. 11,237  
 KEVIN G. TOBLESKY

DRAWN BY	9-5-16
DESIGNED	
CHECKED	
KGT	
DATE	02/24/17
SCALE	NTS
PROJECT NO.	13-B-5D-6A
SHEET NO.	C111.2



NOTE: LOCATIONS OF ALL ADVANCE SIGNS  
 ALONG SIDE ROADS SHALL BE PLACED AT  
 A MINIMUM OF 500 FT.



REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 KANIS ROAD  
 MAINTENANCE OF TRAFFIC - STAGE 1  
 KANIS ROAD SHEET 3

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

STATE OF ARKANSAS  
 REGISTERED PROFESSIONAL ENGINEER  
 KEVIN G. TOBLESKY  
 N. 11,037  
 2-15-17

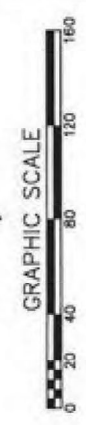
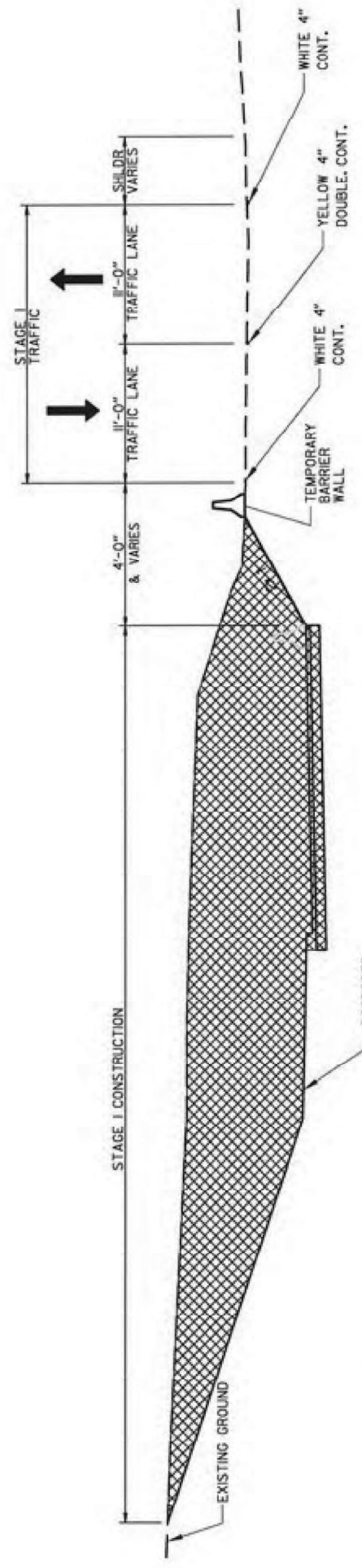
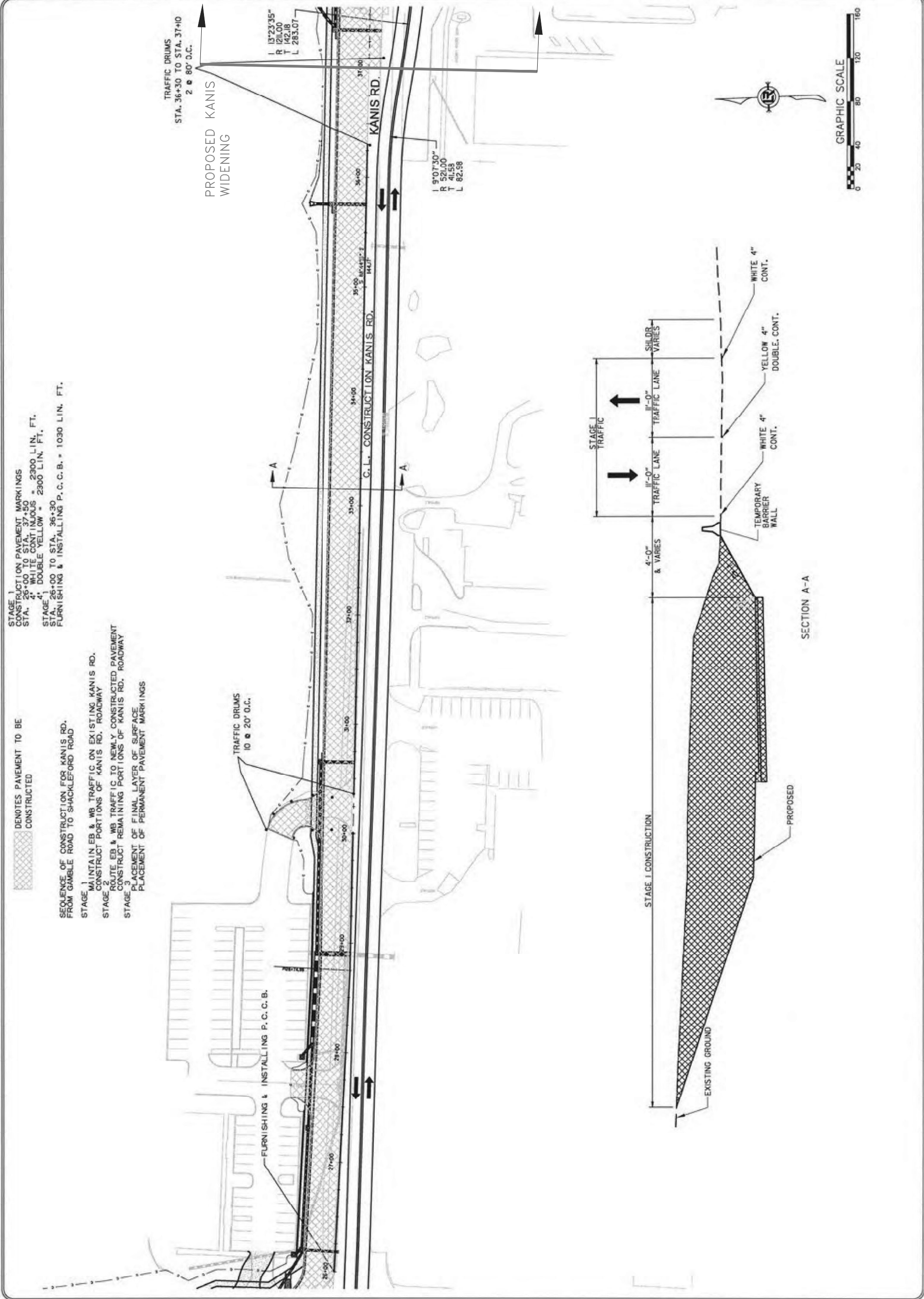
DRAWN BY  
 RFR  
 DESIGNED  
 RFR  
 CHECKED  
 KGT  
 DATE  
 02 / 24 / 17  
 SCALE  
 1" = 80'  
 PROJECT NO.  
 13-B-5D-6A  
 SHEET NO.  
 C111.3

STAGE 1 CONSTRUCTION PAVEMENT MARKINGS  
 STA. 26+00 TO STA. 37+50  
 WHITE CONTINUOUS 2300 L.I.N. FT.  
 4" DOUBLE YELLOW 2300 L.I.N. FT.  
 STAGE 2  
 STA. 26+00 TO STA. 36+30  
 FURNISHING & INSTALLING P.C.C.B. \* 1030 L.I.N. FT.

STAGE 1 MAINTAIN EB & WB TRAFFIC ON EXISTING KANIS RD.  
 STAGE 2 CONSTRUCT PORTIONS OF KANIS RD. ROADWAY  
 STAGE 3 ROUTE EB & WB TRAFFIC TO NEWLY CONSTRUCTED PAVEMENT  
 STAGE 4 CONSTRUCT REMAINING PORTIONS OF KANIS RD. ROADWAY  
 STAGE 5 PLACE FINAL LAYER OF SURFACE  
 STAGE 6 PLACE PERMANENT PAVEMENT MARKINGS

SEQUENCE OF CONSTRUCTION FOR KANIS RD.  
 FROM GAMBLE ROAD TO SHACKLEFORD ROAD

▨ DENOTES PAVEMENT TO BE CONSTRUCTED



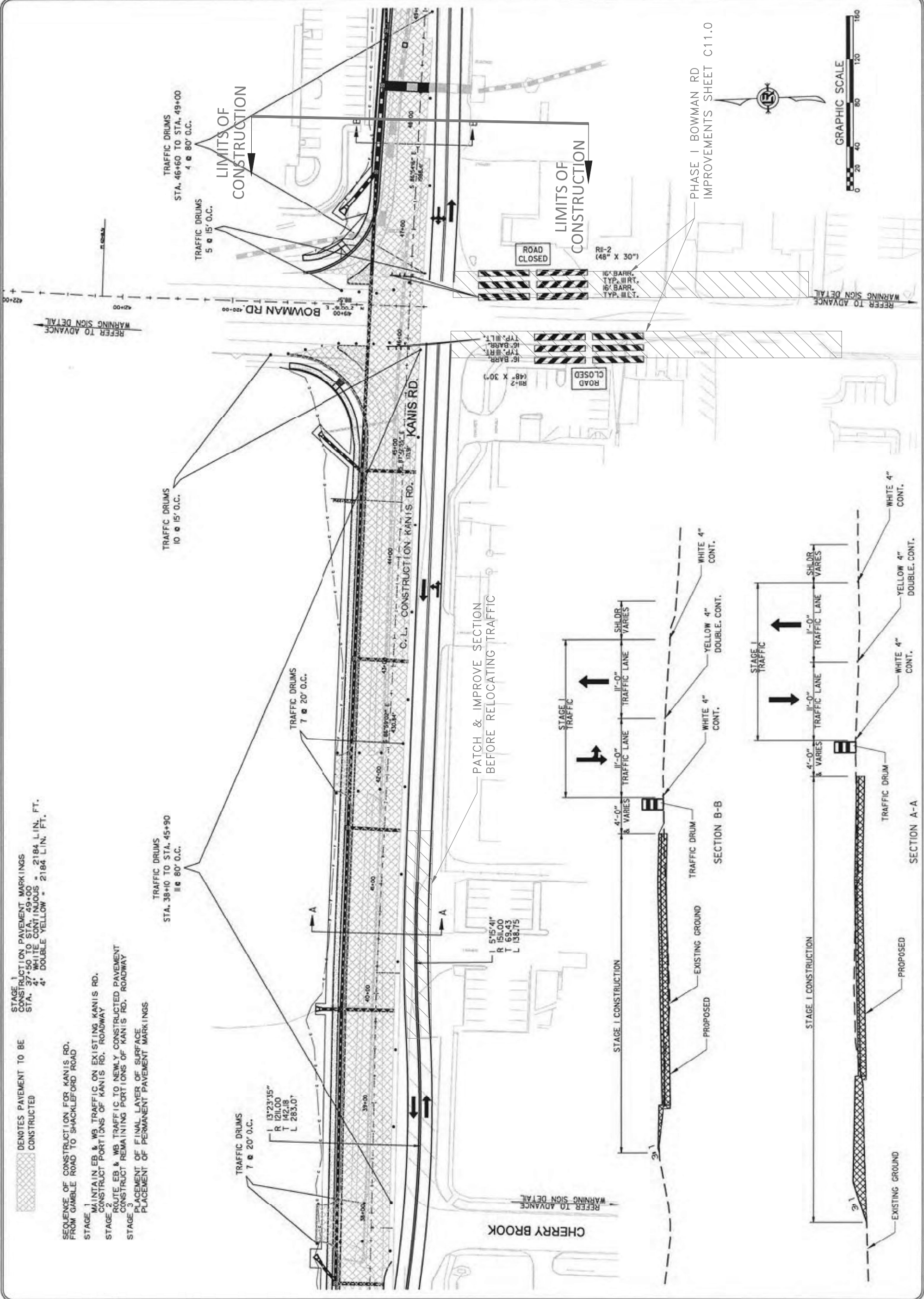
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 MAINTENANCE OF TRAFFIC - STAGE 1  
 KANIS ROAD SHEET 4

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

STATE OF ARKANSAS  
 REGISTERED PROFESSIONAL ENGINEER  
 KEVIN G. TOBLESKY  
 No. 11487  
 3-15-17

DRAWN BY RFR  
 DESIGNED RFR  
 CHECKED KGT  
 DATE 02/24/17  
 SCALE 1" = 80'  
 PROJECT NO. 13-BD-6A  
 SHEET NO. C11.4



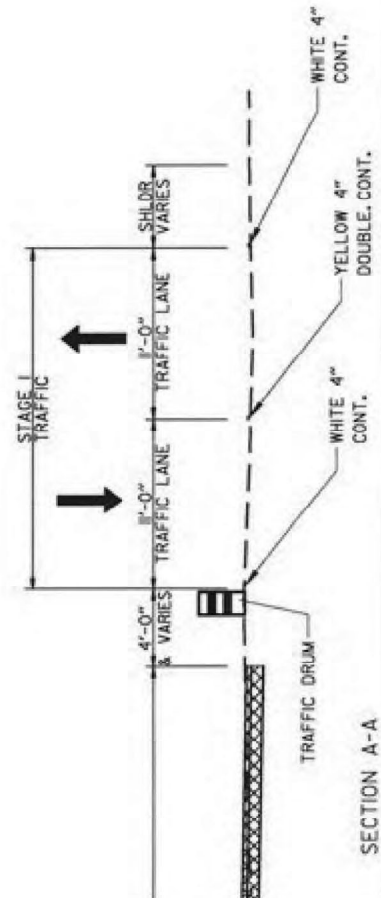
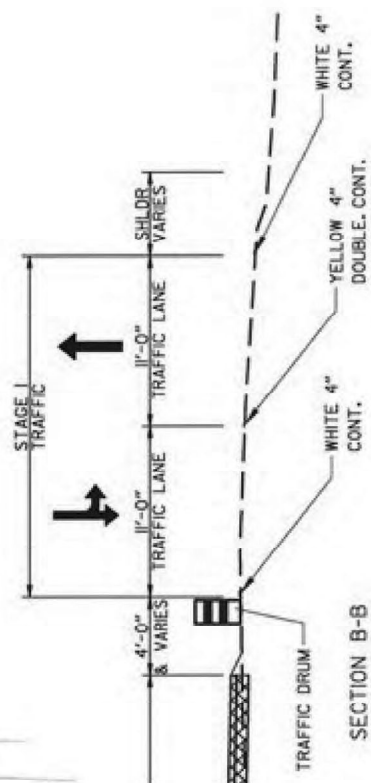
STAGE 1 CONSTRUCTION PAVEMENT MARKINGS  
 STA. 37+50 TO STA. 49+00  
 4" WHITE CONTINUOUS - 2184 LIN. FT.  
 4" DOUBLE YELLOW - 2184 LIN. FT.

SEQUENCE OF CONSTRUCTION FOR KANIS RD.  
 FROM GAMBLE ROAD TO SHACKLEFORD ROAD

- STAGE 1 MAINTAIN EB & WB TRAFFIC ON EXISTING KANIS RD. CONSTRUCT PORTIONS OF KANIS RD. ROADWAY
- STAGE 2 ROUTE EB & WB TRAFFIC TO NEWLY CONSTRUCTED PAVEMENT CONSTRUCT REMAINING PORTIONS OF KANIS RD. ROADWAY
- STAGE 3 PLACEMENT OF FINAL LAYER OF SURFACE PLACEMENT OF PERMANENT PAVEMENT MARKINGS

▨ DENOTES PAVEMENT TO BE CONSTRUCTED

PATCH & IMPROVE SECTION BEFORE RELOCATING TRAFFIC



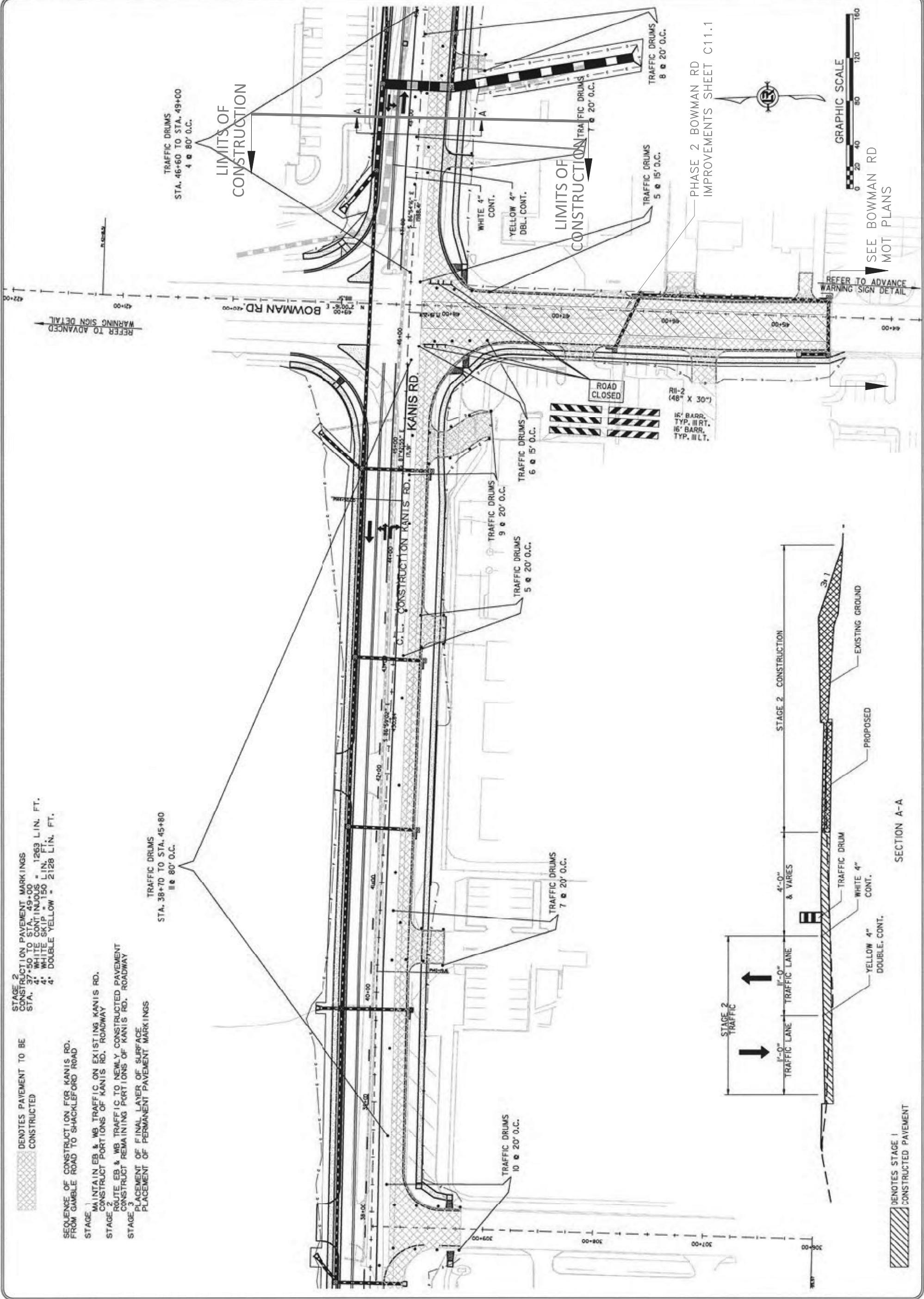
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 MAINTENANCE OF TRAFFIC - STAGE 2  
 KANIS ROAD SHEET 4

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



3-15-17  
 DRAWN BY  
 DESIGNED  
 RFR  
 CHECKED  
 RFR  
 KGT  
 DATE  
 02/24/17  
 SCALE  
 1" = 80'  
 PROJECT NO.  
 13-B-5D-6A  
 SHEET NO.  
 C11.5



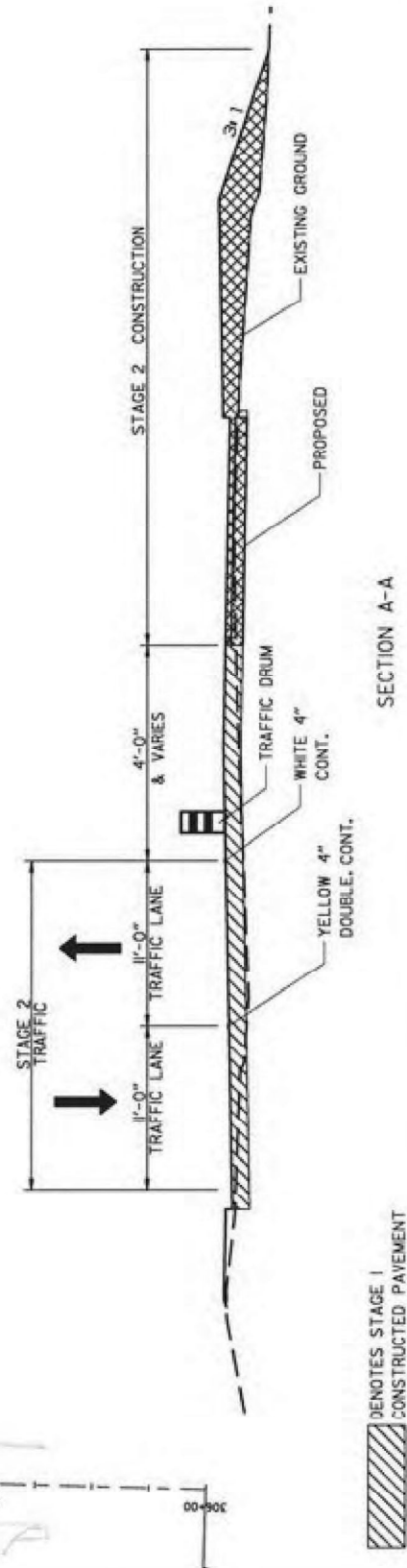
STAGE 2  
 CONSTRUCTION PAVEMENT MARKINGS  
 STA. 37+50 TO STA. 49+00  
 4. WHITE CONT. INJIOUS - 1263 LIN. FT.  
 4. WHITE SKIP - 150 LIN. FT.  
 4. DOUBLE YELLOW - 2128 LIN. FT.

SEQUENCE OF CONSTRUCTION FOR KANIS RD.  
 FROM GAMBLE ROAD TO SHACKLEFORD ROAD

- STAGE 1  
 MAINTAIN EB & WB TRAFFIC ON EXISTING KANIS RD.  
 CONSTRUCT PORTIONS OF KANIS RD. ROADWAY
- STAGE 2  
 ROUTE EB & WB TRAFFIC TO NEWLY CONSTRUCTED PAVEMENT  
 CONSTRUCT REMAINING PORTIONS OF KANIS RD. ROADWAY
- STAGE 3  
 PLACE FINAL LAYER OF SURFACE  
 PLACE PERMANENT PAVEMENT MARKINGS

TRAFFIC DRUMS  
 STA. 38+70 TO STA. 45+80  
 11 @ 80' O.C.

TRAFFIC DRUMS  
 STA. 46+60 TO STA. 49+00  
 4 @ 80' O.C.



SECTION A-A



SEE BOWMAN RD  
 MOT PLANS

REFER TO ADVANCE  
 WARNING SIGN DETAIL

PHASE 2 BOWMAN RD  
 IMPROVEMENTS SHEET C11.1



DENOTES STAGE 1  
 CONSTRUCTED PAVEMENT

# TRAFFIC SIGNAL NOTES

- PERFORM ELECTRICAL WORK IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2014) NATIONAL ELECTRICAL CODE, NFPA 101 (2012) 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 PAINTTIGHT 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/1#) USE RATED, WITH GROUND TYPICAL), AND PERFORM WIRING TO TAP INTO THE CITY 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/1#) AWG UF RATED, TYPICAL) SHALL BE KEPT FROM THE CIRCUIT BREAKER. 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. ALL BORED CONDUIT SHALL BE SCHEDULE 80 HDPE, WITH NO UNDERGROUND SPLICES.
- TRAFFIC SIGNAL POLES SHALL BE GALVANIZED WITH STEEL HAND HOLE COVER. BACKPLATES SHALL BE METAL AND SUPPLIED FOR ALL SIGNAL HEADS.
- PAVEMENT MARKING SHOWN FOR REFERENCE ONLY. SEE PAVEMENT MARKING PLAN SHEETS.
- 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.
- 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.
- 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' 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 LENGTH IS KEYED INTO COMPETENT ROCK.
- 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.
- CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO ISMA 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 TO SIGNAL RELATED WORK.
- 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.
- CONTROLLER AND COMMUNICATIONS SHALL BE COMPATIBLE WITH AND CONNECTED TO EXISTING COMMUNICATION FOR THE CITY OF LITTLE ROCK

# GENERAL NOTES

- 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.


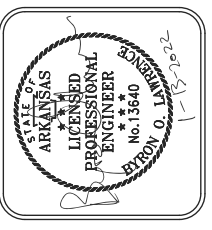
\_\_\_\_\_ NOTE: \_\_\_\_\_

- 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.
- CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE.
- ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARKANSAS HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARDS AND DETAILS AND WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 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 FOR ALL SIGNAL HEADS SHALL BE INCLUDED AND CONSIDERED SUBSIDIARY TO THE TRAFFIC SIGNAL HEADS. TRAFFIC SIGNAL AND PEDESTRIAN SIGNAL HEADS SHALL BE LED.
- POWER CONDUCTORS (3C-14) SHALL BE CONSIDERED SUBSIDIARY TO TYPE 6 CAT 5E VIDEO CABLE.
- STREET LIGHT FIXTURES SHALL BE LEOTEK MODEL GC1-60F-MV-NW-3-GY-700 145 WATT TYPE III WITH CONSTANT LIGHT OUTPUT DRIVER, BUBBLE LEVEL, PHOTO ELECTRIC CELL, ANSINEMA LABEL, GREY FINISH OR APPROVED EQUAL, AND 10 YEAR WARRANTY. ALL STREET LIGHT FIXTURES SHALL BE GROUND TO POLE BASE VIA 1C-#12EGC SOLID COPPER WIRE AND BE CONSIDERED SUBSIDIARY TO INSTALLATION OF 2C-12AWG ELECTRICAL CONDUCTOR FOR LUMINAIRES.
- CABINET BASE SHALL BE QUAZITE WITH POURED CONCRETE 4'X6' PAD IN FRONT OF BASE.
- VIDEO PROCESSOR SHALL BE RHYTHM ENGINEERING InSync BRAND. CONTACT RHYTHM ENGINEERING (913) 227-0603
- UBIQUITY 5-PORT TOUGH SWITCH SHALL BE SUBSIDIARY TO UBIQUITY NSM5 ETHERNET RADIO.

REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**SIGNAL PLAN**

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

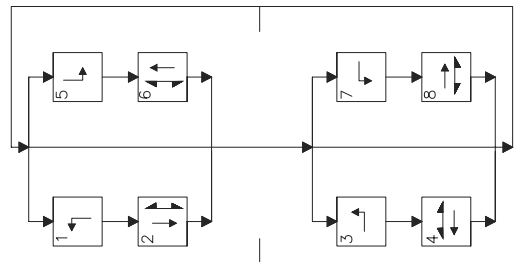



<b>DRAWN BY</b>	KLL
<b>DESIGNED</b>	COF
<b>CHECKED</b>	BOL
<b>DATE</b>	12-11-2020
<b>SCALE</b>	H: 1"=20' V: 1"=5'
<b>PROJECT NO.</b>	CLR 6-15-ST-249
<b>SHEET NO.</b>	<b>C12.0</b>

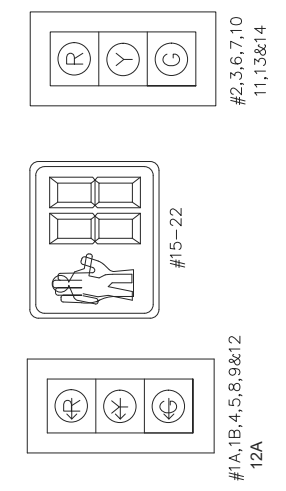
# TRAFFIC SIGNAL SIGNAL QUANTITIES

ITEM NO.	ITEM	QUAN.	UNIT
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	16	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	8	EACH
708	TRAFFIC SIGNAL CABLE (5c/14 A.W.G.)	940	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7c/14 A.W.G.)	325	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12c/14 A.W.G.)	195	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20c/14 A.W.G.)	680	LIN. FT.
710	NON-METALLIC CONDUIT (2")	375	LIN. FT.
710	NON-METALLIC CONDUIT (3")	650	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	6	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56')	3	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (58')	1	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	3	EACH
733	VIDEO CABLE (CAT 5E WITH 3C/14AWG)	990	LIN. FT.
SP & 733	VIDEO DETECTOR (IP )	4	EACH
SP & 733	VIDEO MONITOR (CLR)	1	EACH
SP & 733	ATCS PROCESSING UNIT	1	EACH
SP	ELECTRICAL CONDUCTORS -IN- CONDUIT (3c/12 A.W.G.)	925	LIN. FT.
SP	ELECTRICAL CONDUCTORS -IN- CONDUIT (1c/8 A.W.G., EGC)	100	LIN. FT.
SP	LUMINAIRE ASSEMBLY	4	EACH
SP	18" STREET NAME SIGN	4	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1	L.S.
SP	ETHERNET RADIO (UBIQUITY NSM 5) WITH ANTENNA	1	EACH
SP	ANTENNA CABLE (CAT 5E)	240	LIN. FT.
SP	ETHERNET SWITCH, T-100 HARDENED (8 PORT)	1	EACH
SP	POWER OVER ETHERNET EXTENDER	1	EACH

# PHASING DIAGRAM



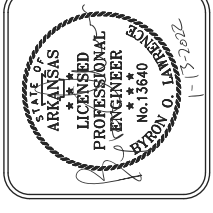
# SIGNAL FACES



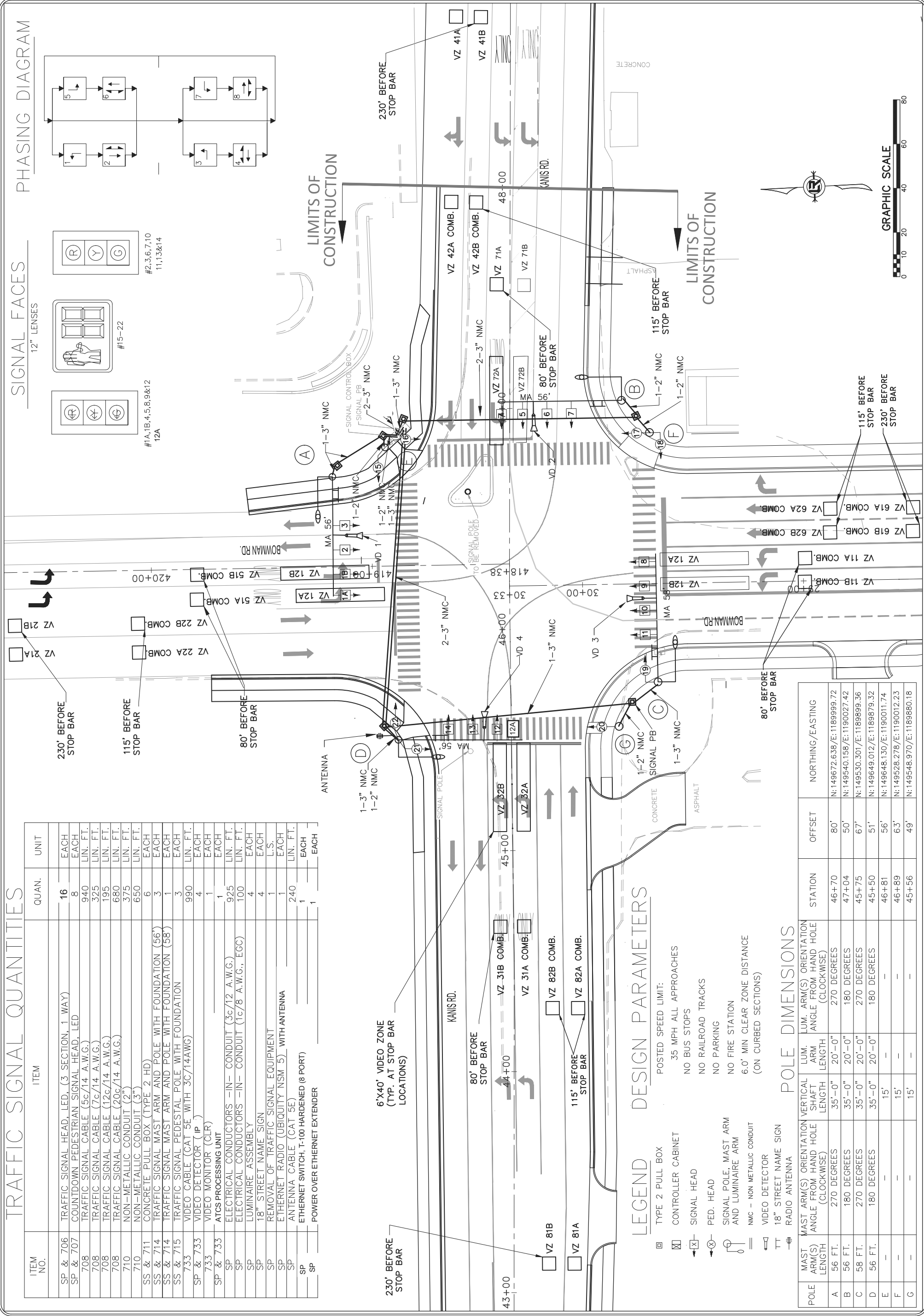
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
BOWMAN ROAD RECONSTRUCTION  
SIGNAL PLAN

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



DRAWN BY	KLL
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CHECKED	BOL
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PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	C12.1



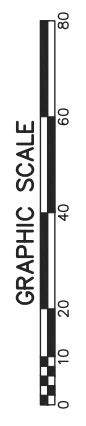
# LEGEND

- TYPE 2 PULL BOX
- CONTROLLER CABINET
- SIGNAL HEAD
- PED. HEAD
- SIGNAL POLE, MAST ARM AND LUMINAIRE ARM
- NMC - NON METALLIC CONDUIT
- VIDEO DETECTOR
- 18" STREET NAME SIGN
- RADIO ANTENNA

- POSTED SPEED LIMIT:
- 35 MPH ALL APPROACHES
- NO BUS STOPS
- NO RAILROAD TRACKS
- NO PARKING
- NO FIRE STATION
- 6.0' MIN CLEAR ZONE DISTANCE (ON CURBED SECTIONS)

# POLE DIMENSIONS

POLE	MAST ARM(S) LENGTH	ORIENTATION (CLOCKWISE)	VERTICAL SHAFT LENGTH	LUM. ARM(S) LENGTH	ORIENTATION (CLOCKWISE)	STATION	OFFSET	NORTHING/EASTING
A	56 FT.	270 DEGREES	35'-0"	20'-0"	270 DEGREES	46+70	80'	N:149672.638/E:1189999.72
B	56 FT.	180 DEGREES	35'-0"	20'-0"	180 DEGREES	47+04	50'	N:149540.158/E:1190027.42
C	58 FT.	270 DEGREES	35'-0"	20'-0"	270 DEGREES	45+75	67'	N:149530.301/E:1189899.36
D	56 FT.	180 DEGREES	35'-0"	20'-0"	180 DEGREES	45+50	51'	N:149649.012/E:1189879.32
E	-	-	15'	-	-	46+81	56'	N:149648.130/E:1190011.74
F	-	-	15'	-	-	46+89	63'	N:149528.278/E:1190012.23
G	-	-	15'	-	-	45+56	49'	N:149548.970/E:1189880.18





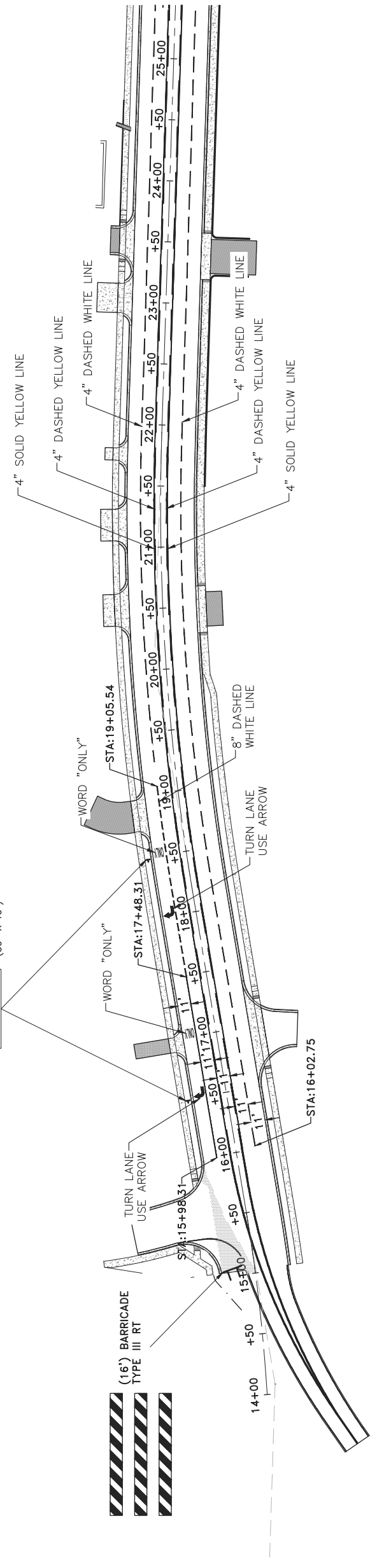
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS  
BOWMAN ROAD RECONSTRUCTION  
SIGNAGE AND MARKING PLAN (1)**

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



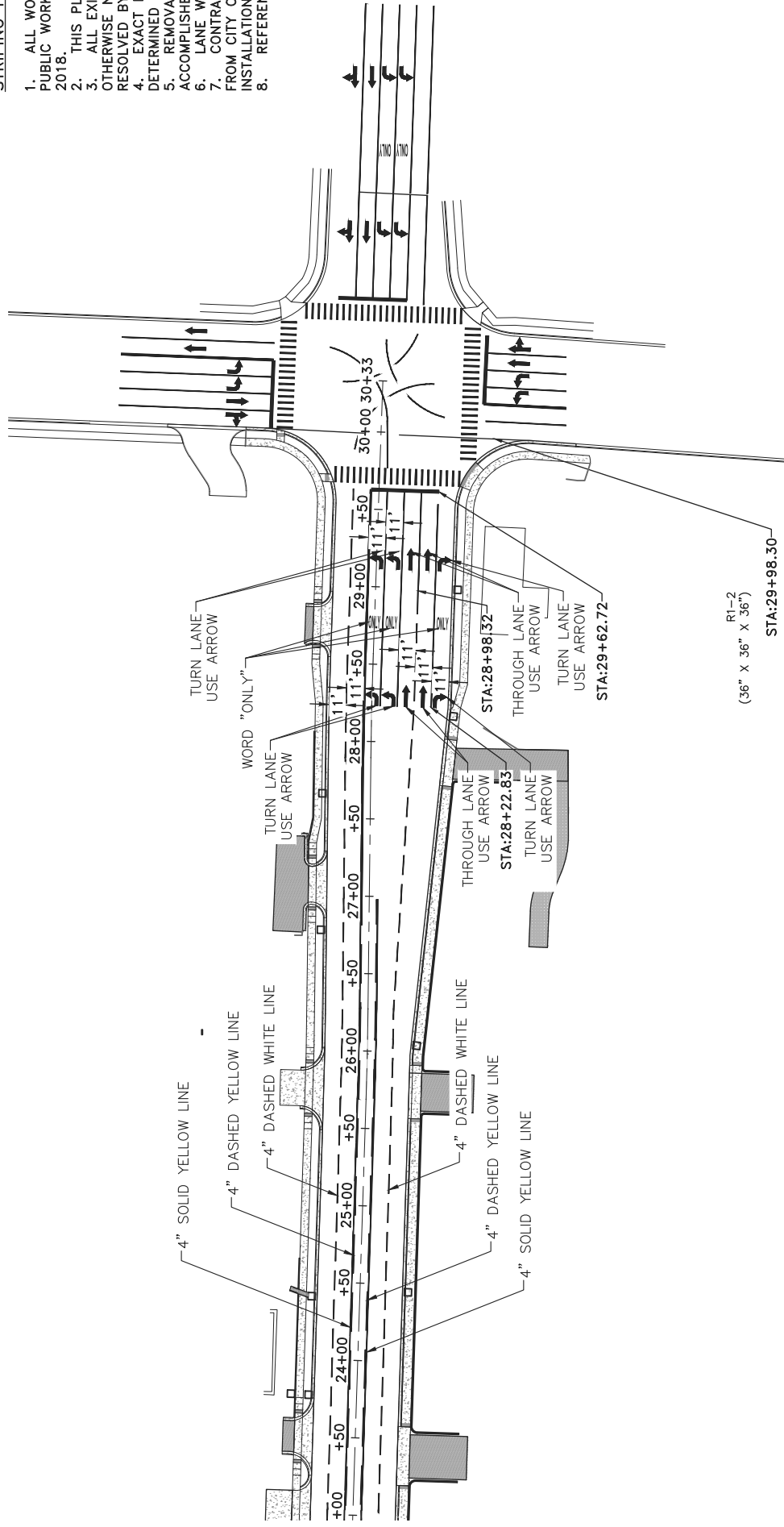
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DESIGNED	KLL
CHECKED	KLL
BOL	BOL
DATE	12-11-2020
SCALE	1"=50'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	C13.0



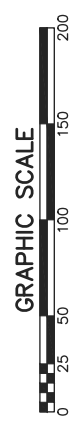
RIGHT LANE  
MUST  
TURN RIGHT  
R3-7R  
(30" X 10")

**STRIPING PLAN NOTES**

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH: CITY OF LITTLE ROCK PUBLIC WORKS PROJECT DESIGN PLAN DEVELOPMENT GUIDELINES, DATED JULY 2018.
2. THIS PLAN IS ACCURATE FOR SIGNING AND STRIPING WORK ONLY.
3. ALL EXISTING SIGNING, STRIPING, AND MARKINGS TO REMAIN, UNLESS OTHERWISE NOTED. CONFLICTS BETWEEN EXISTING AND PROPOSED SHALL BE RESOLVED BY THE ENGINEER.
4. EXACT POSITION AND LOCATION OF ALL ROADSIDE SIGNS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
5. REMOVAL OF EXISTING STRIPING AND PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY SANDBLASTING OR OTHER APPROVED GRINDING METHOD.
6. LANE WIDTHS ADJACENT TO CURBS ARE MEASURED TO THE FACE OF CURB.
7. CONTRACTOR SHALL SPOT MARK FOR STRIPING LAYOUT AND OBTAIN APPROVAL FROM CITY OF LITTLE ROCK TRAFFIC ENGINEERING PRIOR TO PERMANENT INSTALLATION.
8. REFERENCE ARDOT PM1 STANDARD DETAIL FOR STANDARD STRIPING.



R1-2  
(36" X 36" X 36")



REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**STRIPING PLAN**

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



DRAWN BY	KLL
DESIGNED	COF
CHECKED	BOL
DATE	12-11-2020
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PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	C13.1

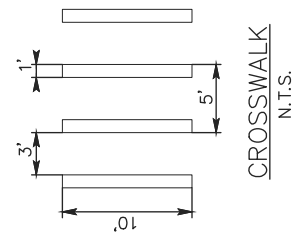
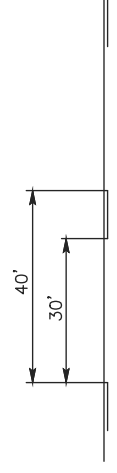
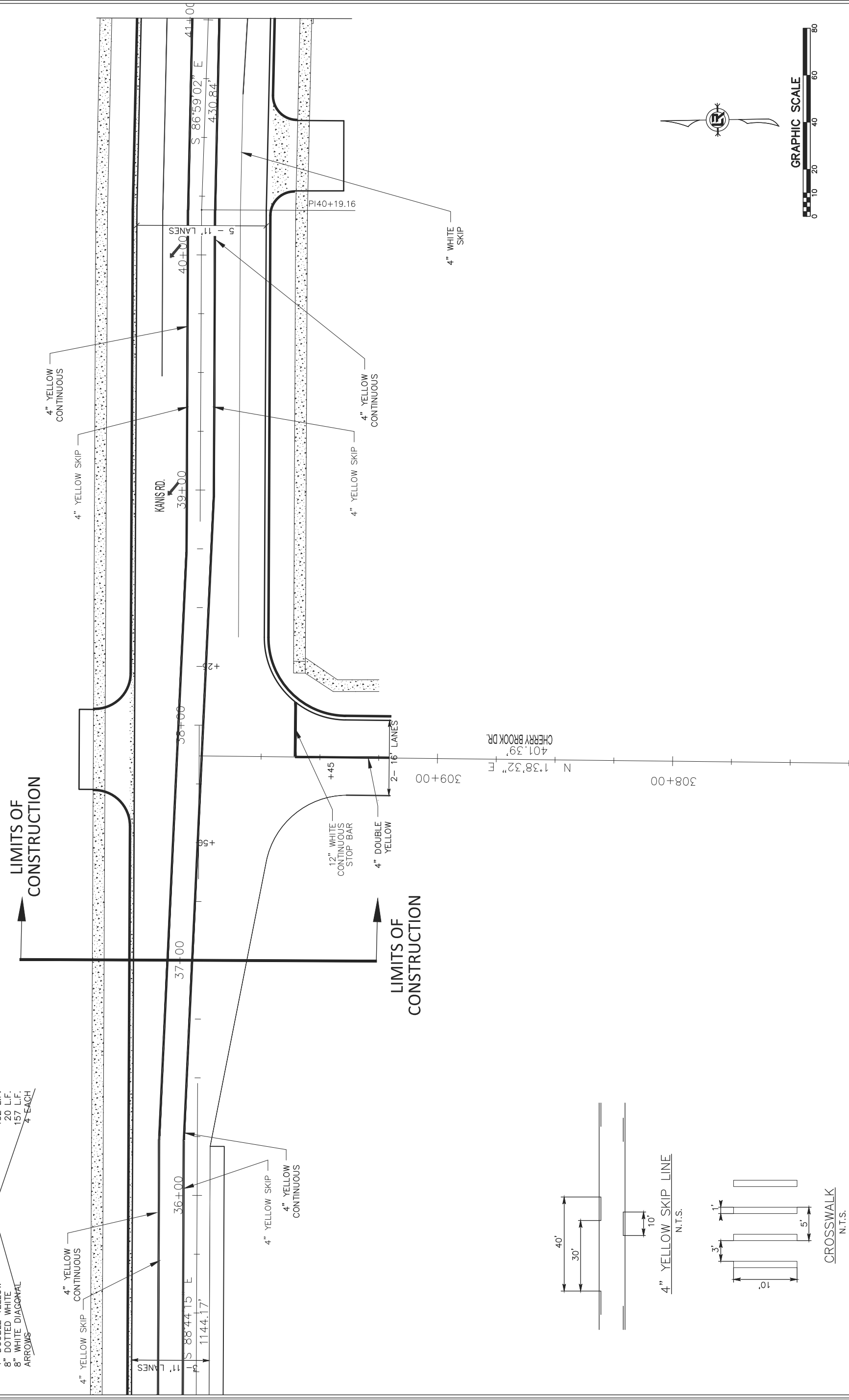
PERMANENT STRIPING QUANTITIES  
 CHERRY BROOK DR. (STA. 309+00 TO STA. 309+75)

ITEM	QUANTITY
4" DBL. YELLOW CONTINUOUS	128 L.F.
12" WHITE CONTINUOUS STOP BAR	26 L.F.

PERMANENT STRIPING QUANTITIES  
 KANIS RD. (STA. 37+00 TO STA. 40+75)

ITEM	QUANTITY
4" WHITE SKIP	20 L.F.
4" WHITE CONTINUOUS	800 L.F.
4" YELLOW CONTINUOUS	240 L.F.
4" YELLOW SKIP	152 L.F.
4" DOUBLE YELLOW	20 L.F.
8" DOTTED WHITE	157 L.F.
8" WHITE DIAGONAL	4 EACH

CONTRACTOR SHALL SPOT MARK FOR STRIPING LAYOUT AND OBTAIN APPROVAL FROM THE CITY OF LITTLE ROCK TRAFFIC ENGINEERING PRIOR TO PERMANENT INSTALLATION.

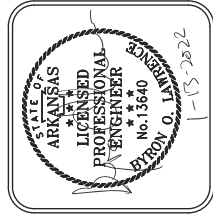




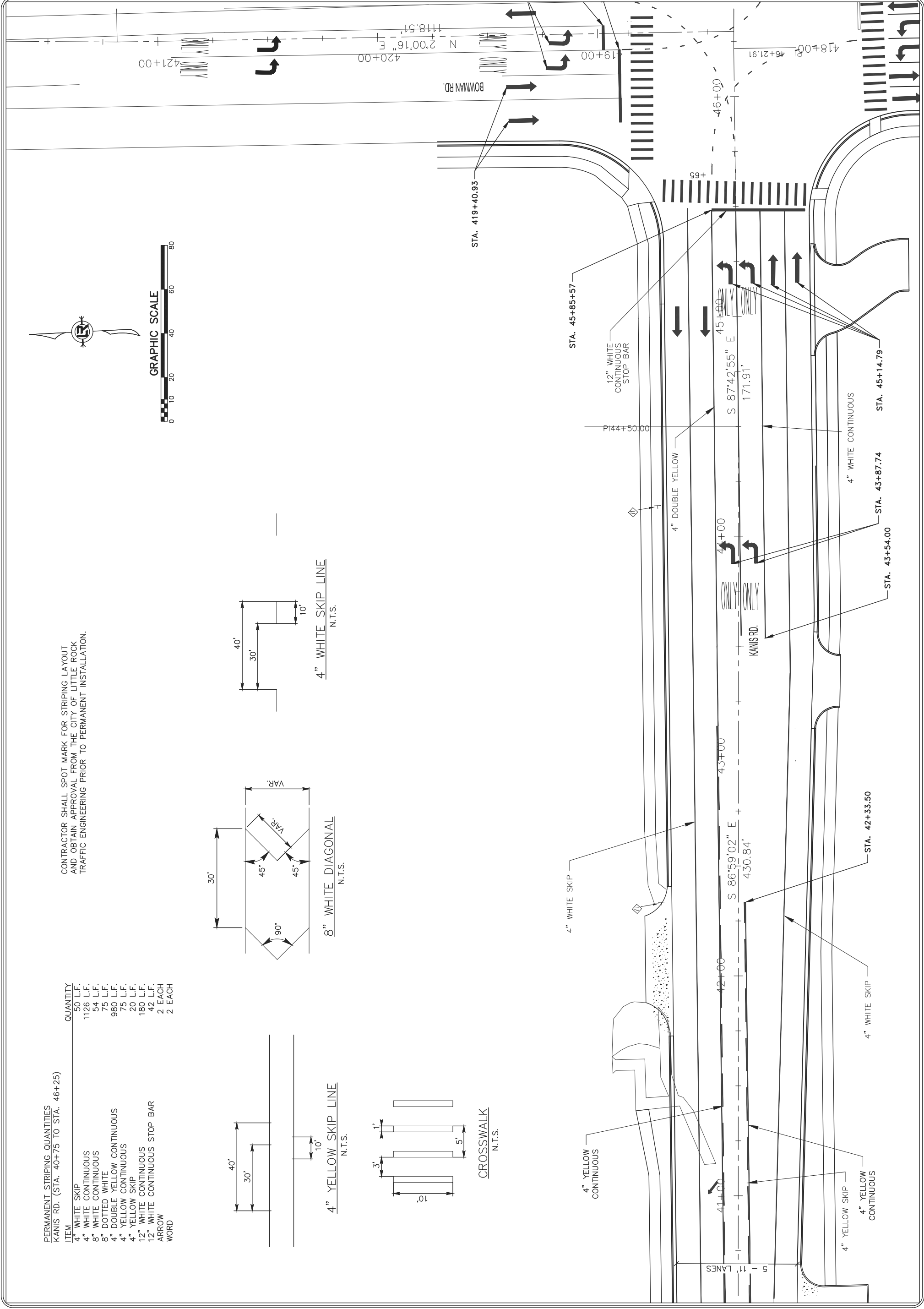
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**STRIPING PLAN**

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

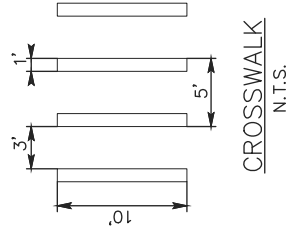
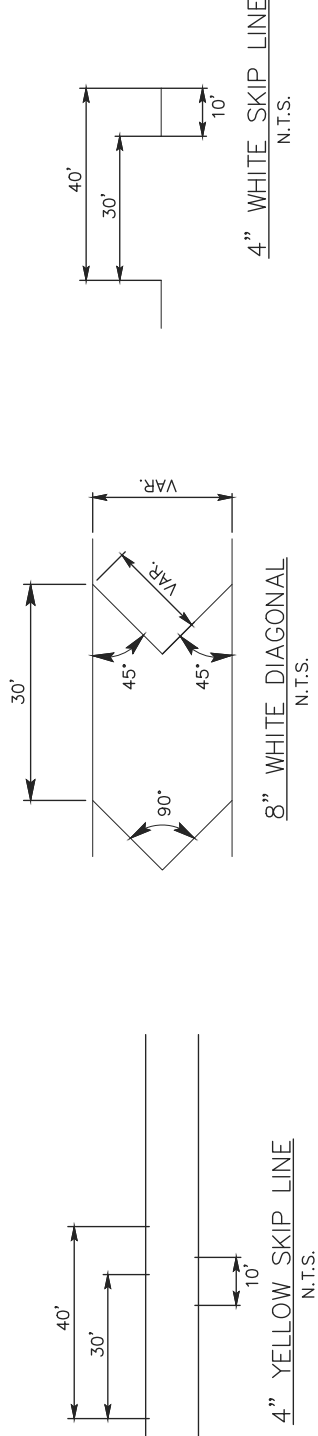


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<b>DESIGNED</b>	COF
<b>CHECKED</b>	BOL
<b>DATE</b>	12-11-2020
<b>SCALE</b>	H: 1"=20' V: 1"=5'
<b>PROJECT NO.</b>	CLR 6-15-ST-249
<b>SHEET NO.</b>	<b>C13.2</b>



CONTRACTOR SHALL SPOT MARK FOR STRIPING LAYOUT AND OBTAIN APPROVAL FROM THE CITY OF LITTLE ROCK TRAFFIC ENGINEERING PRIOR TO PERMANENT INSTALLATION.

PERMANENT STRIPING QUANTITIES	QUANTITY
KANIS RD. (STA. 40+75 TO STA. 46+25)	
4" WHITE SKIP	50 L.F.
4" WHITE CONTINUOUS	1126 L.F.
8" WHITE CONTINUOUS	54 L.F.
8" DOTTED WHITE	75 L.F.
4" DOUBLE YELLOW CONTINUOUS	980 L.F.
4" YELLOW CONTINUOUS	75 L.F.
4" YELLOW SKIP	20 L.F.
12" WHITE CONTINUOUS	180 L.F.
12" WHITE CONTINUOUS STOP BAR	42 L.F.
ARROW	2 EACH
WORD	2 EACH



REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**STRIPING PLAN**

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

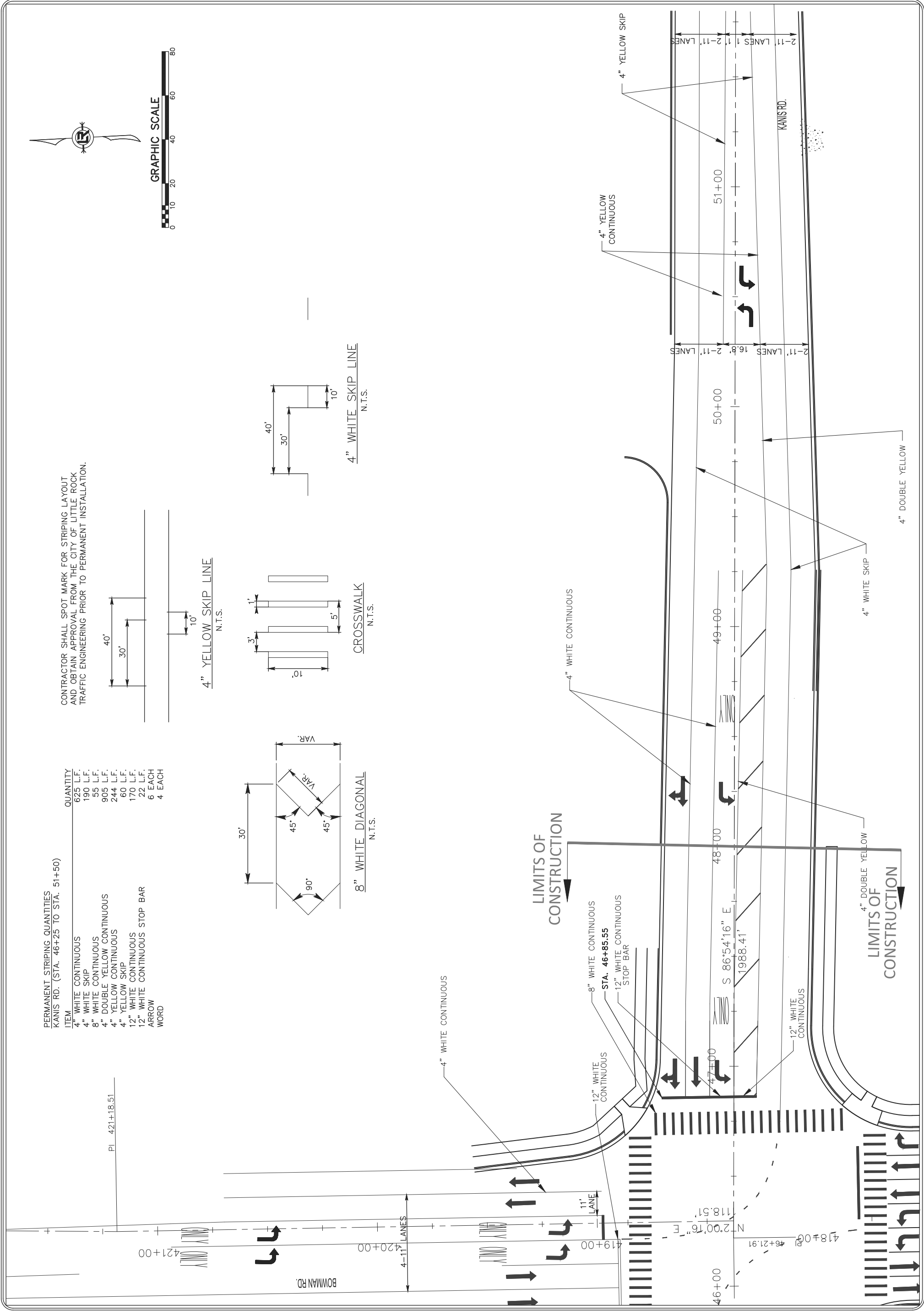
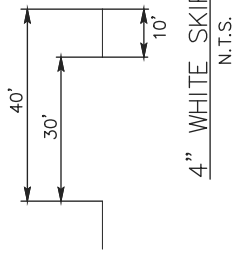
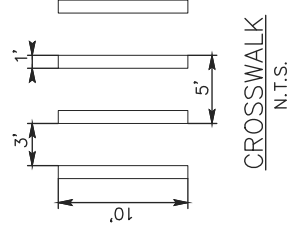
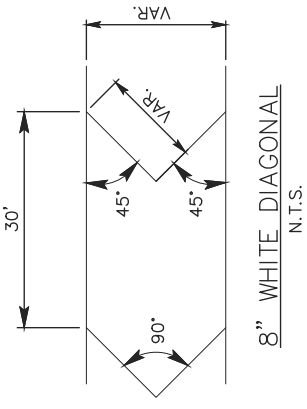
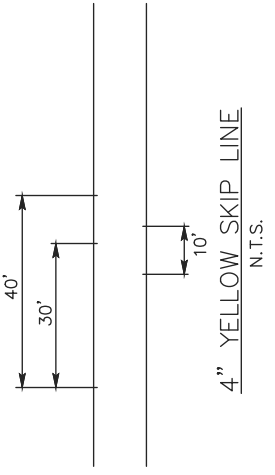


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DESIGNED	COF
CHECKED	BOL
DATE	12-11-2020
SCALE	H: 1"=20' V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	<b>C13.3</b>

PERMANENT STRIPING QUANTITIES  
 KANIS RD. (STA. 46+25 TO STA. 51+50)

ITEM	QUANTITY
4" WHITE CONTINUOUS	625 L.F.
4" WHITE SKIP	190 L.F.
8" WHITE CONTINUOUS	55 L.F.
4" DOUBLE YELLOW CONTINUOUS	905 L.F.
4" YELLOW CONTINUOUS	244 L.F.
4" YELLOW SKIP	60 L.F.
12" WHITE CONTINUOUS	170 L.F.
12" WHITE CONTINUOUS STOP BAR	22 L.F.
ARROW	6 EACH
WORD	4 EACH

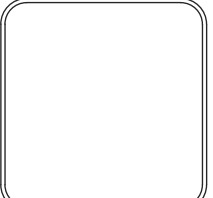
CONTRACTOR SHALL SPOT MARK FOR STRIPING LAYOUT AND OBTAIN APPROVAL FROM THE CITY OF LITTLE ROCK TRAFFIC ENGINEERING PRIOR TO PERMANENT INSTALLATION.



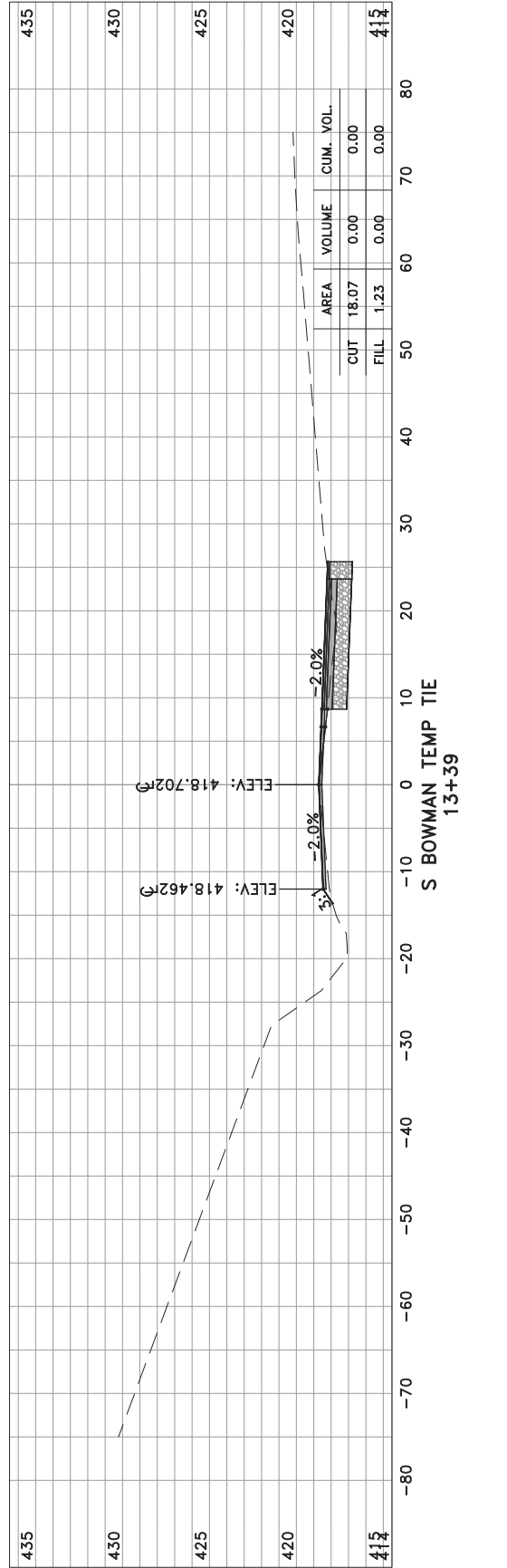
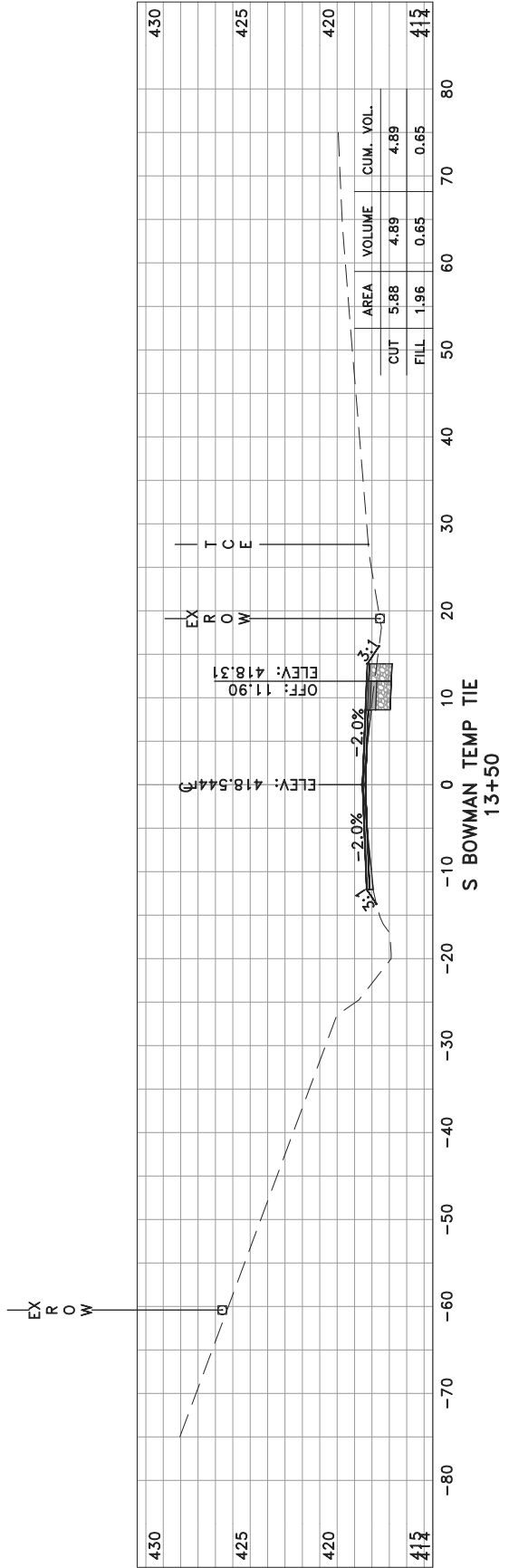
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**CROSS SECTIONS (1)**  
**BOWMAN ROAD**

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10' V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	<b>X1</b>



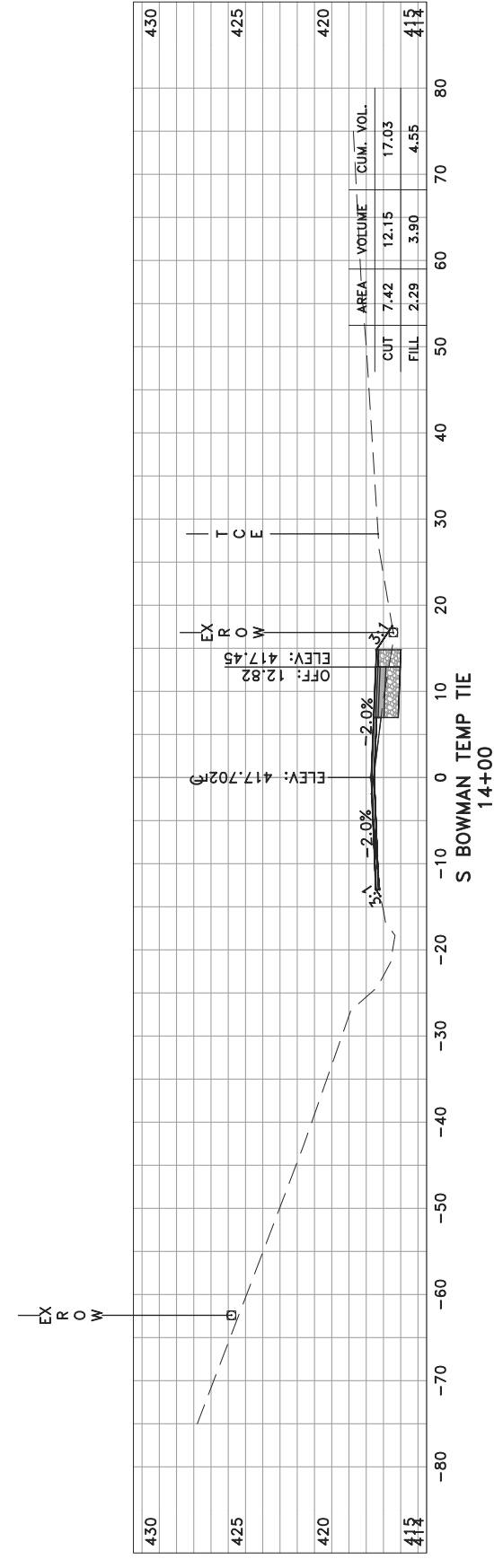
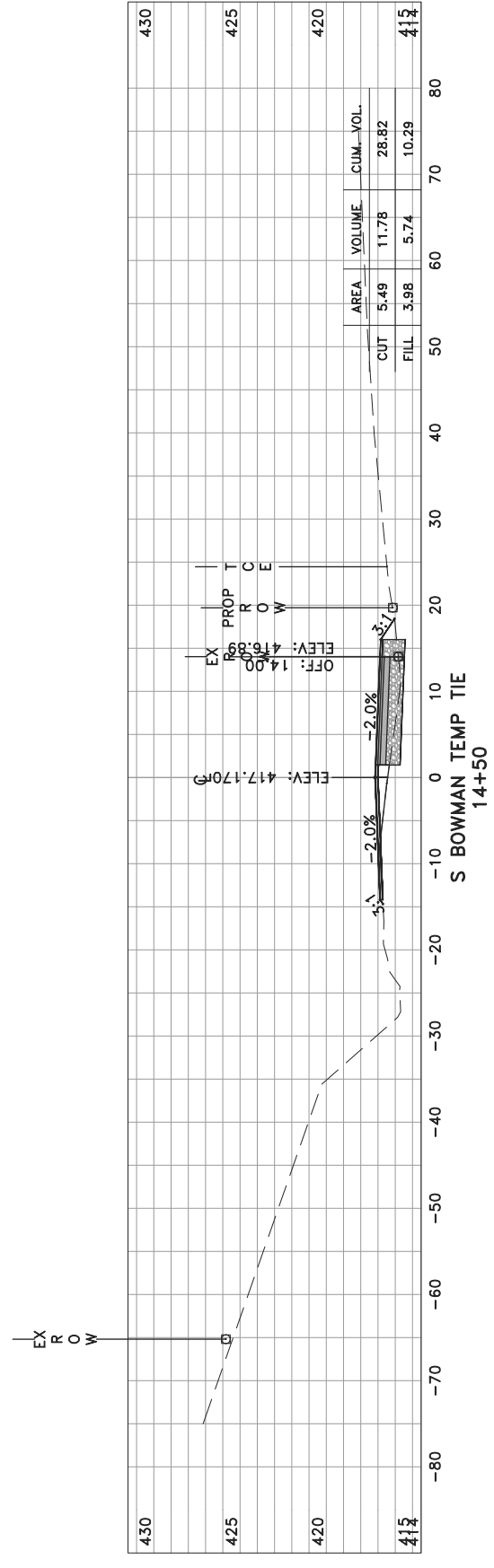
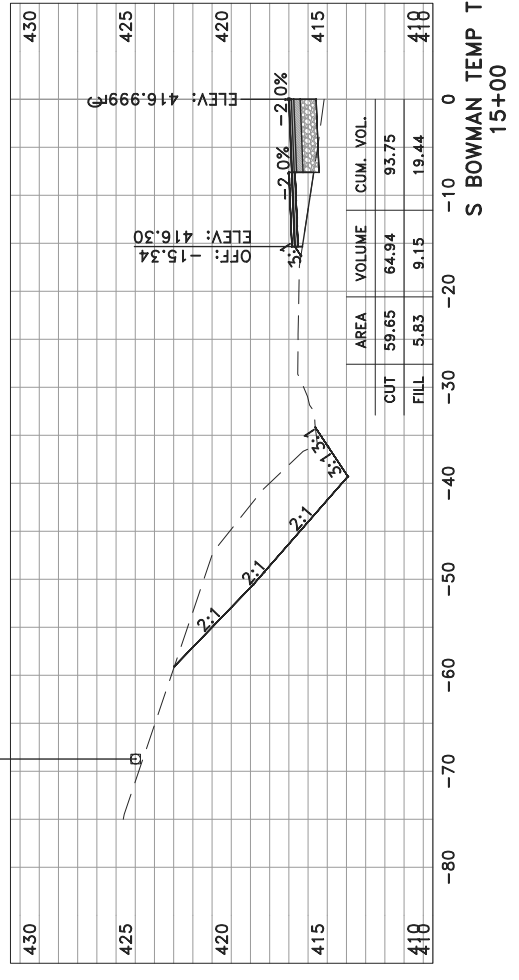
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 CROSS SECTIONS (2)  
 BOWMAN ROAD

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10' V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	X2



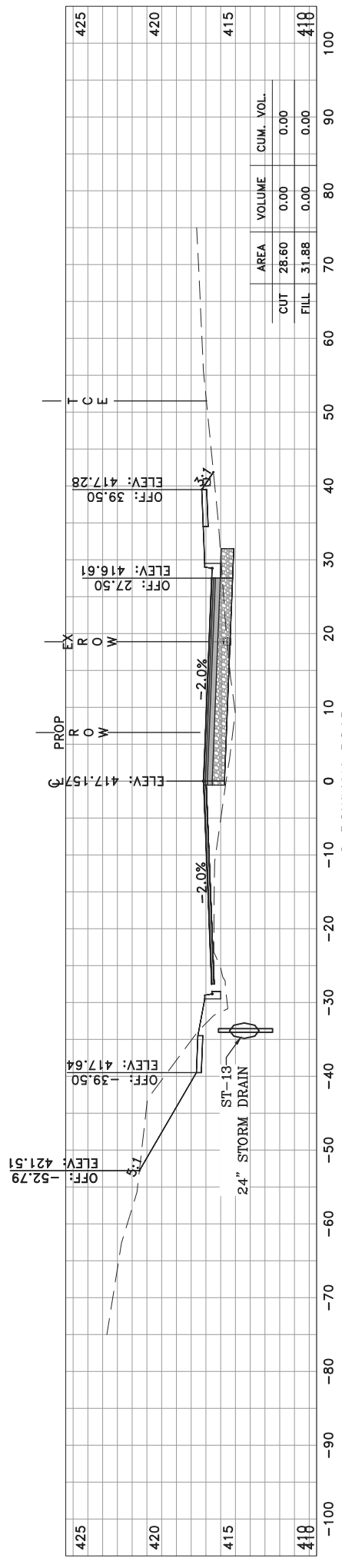
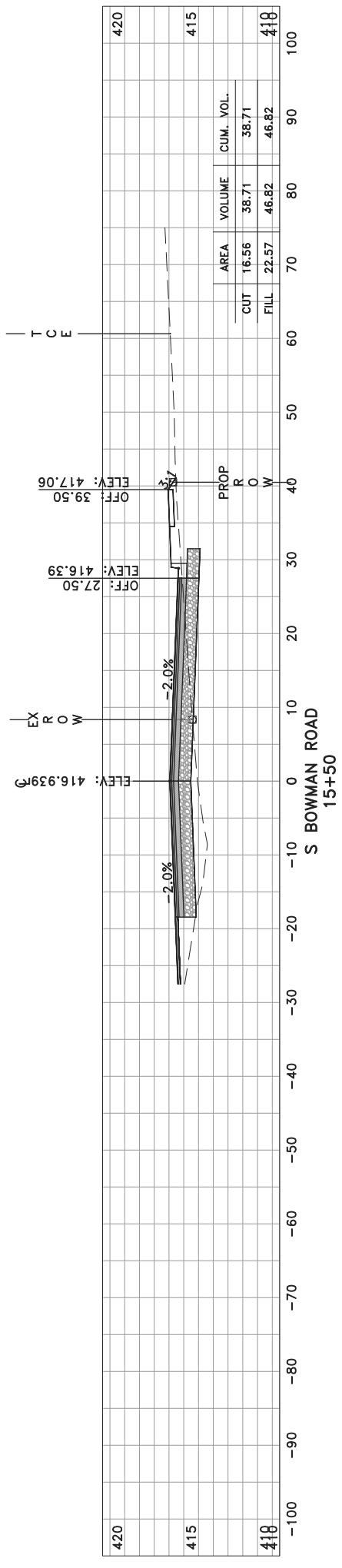
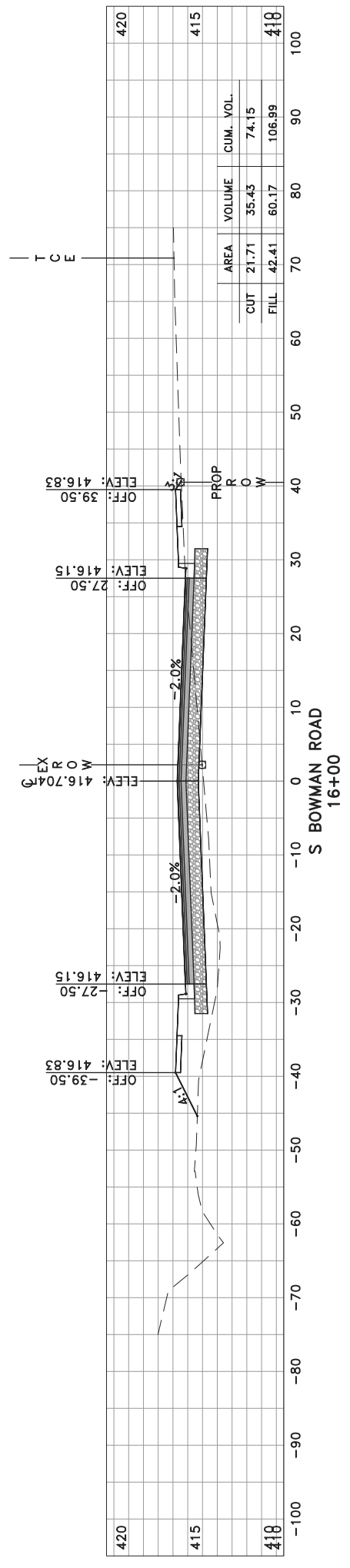
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 CROSS SECTIONS (3)  
 BOWMAN ROAD

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



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DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10'
	V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	X3



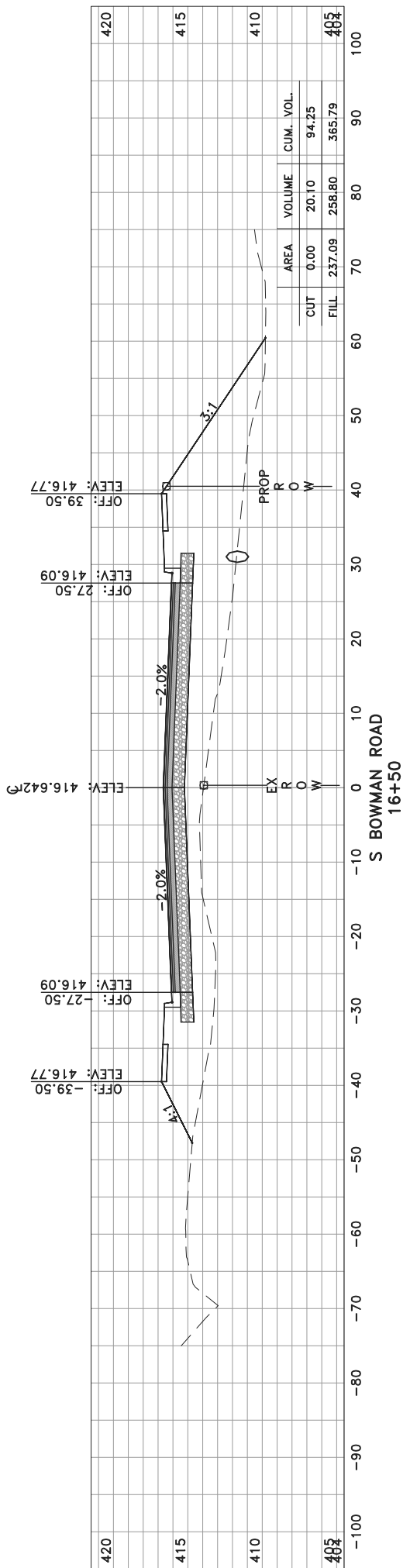
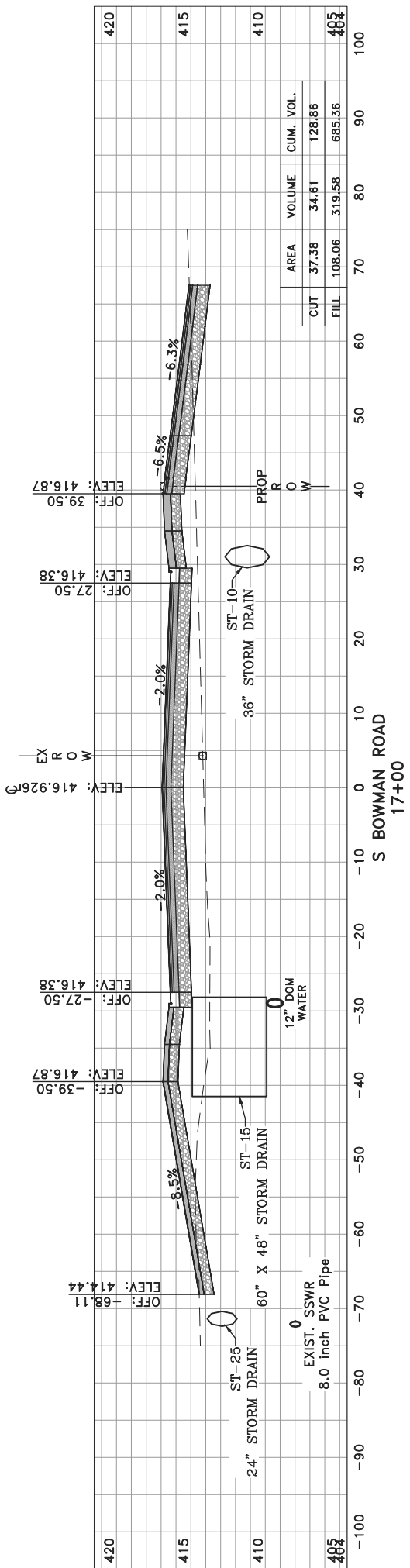
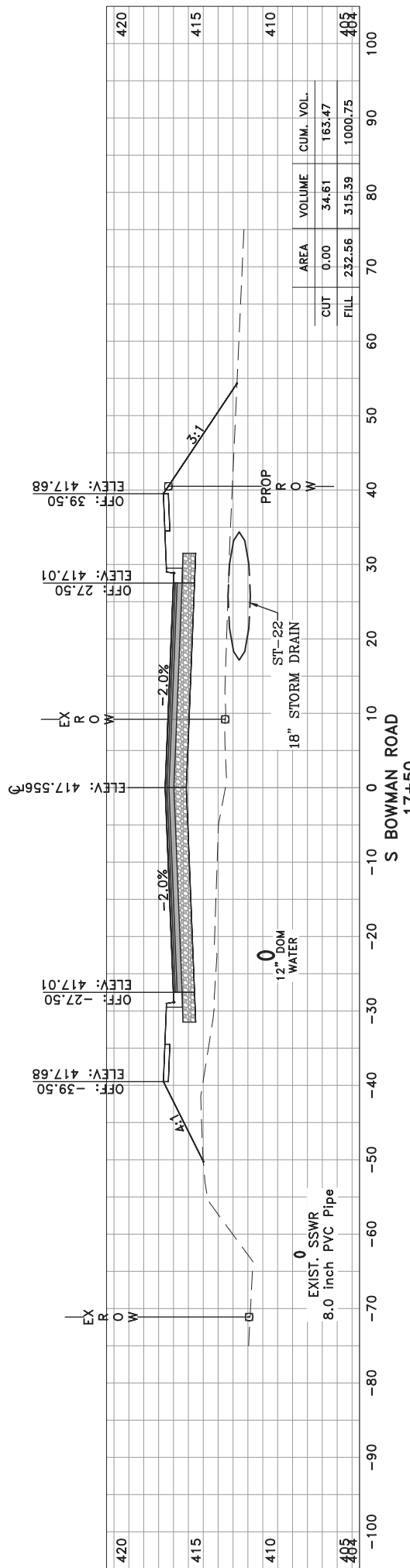
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**CROSS SECTIONS (4)**  
**BOWMAN ROAD**

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10'
	V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	<b>X4</b>



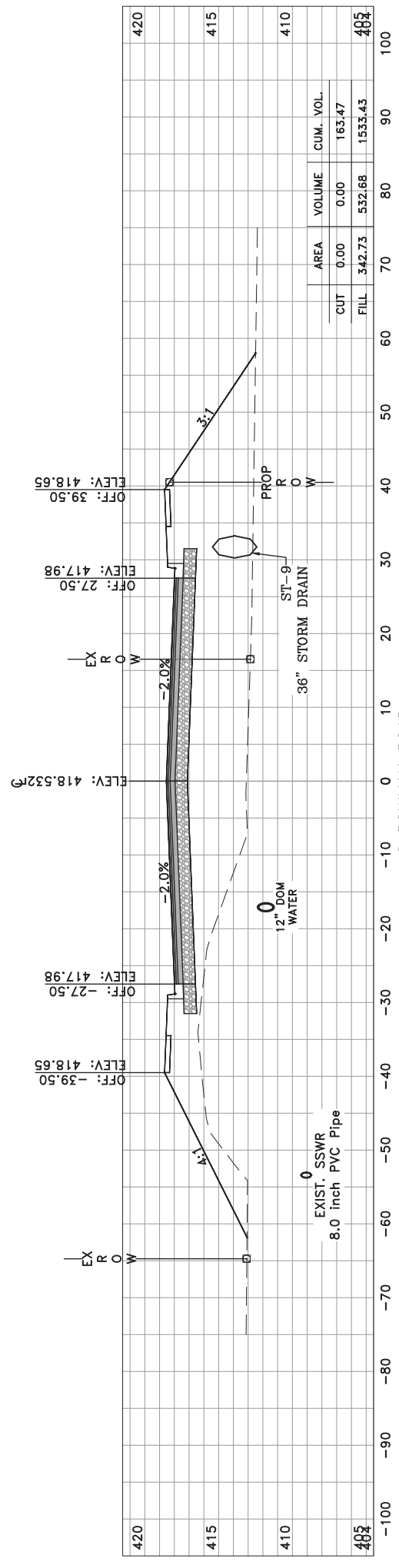
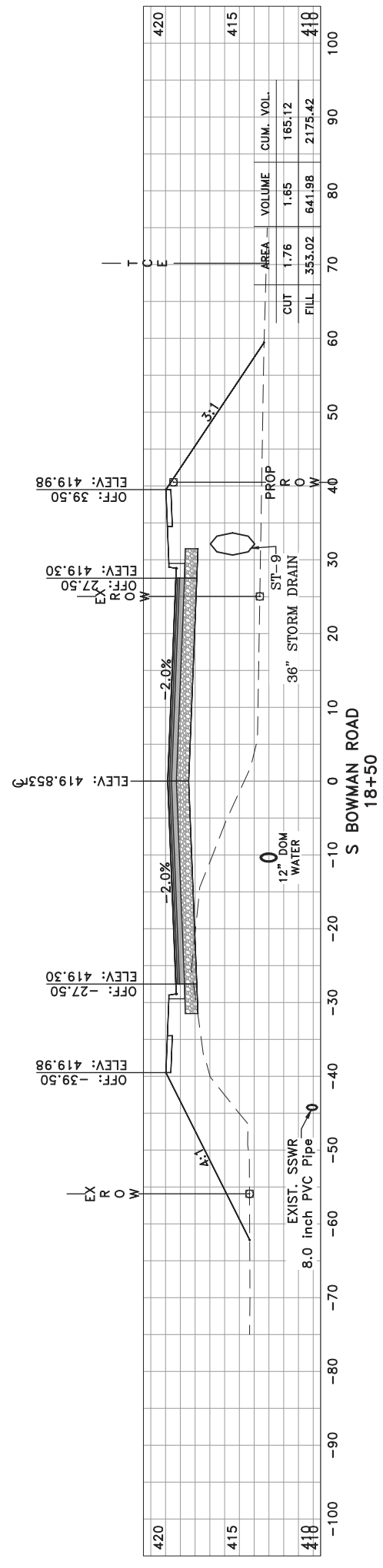
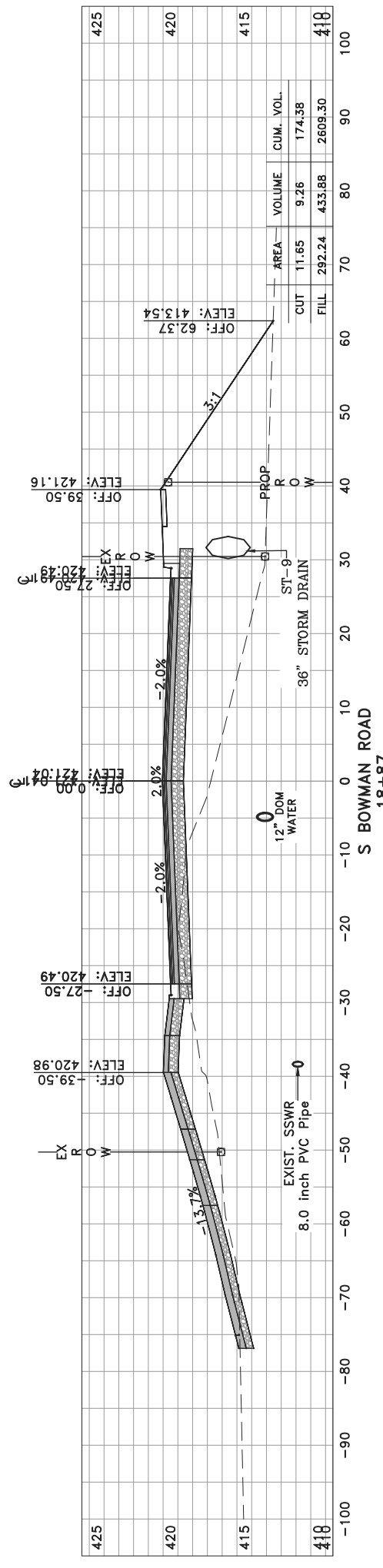
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 CROSS SECTIONS (5)  
 BOWMAN ROAD

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10' V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	X5



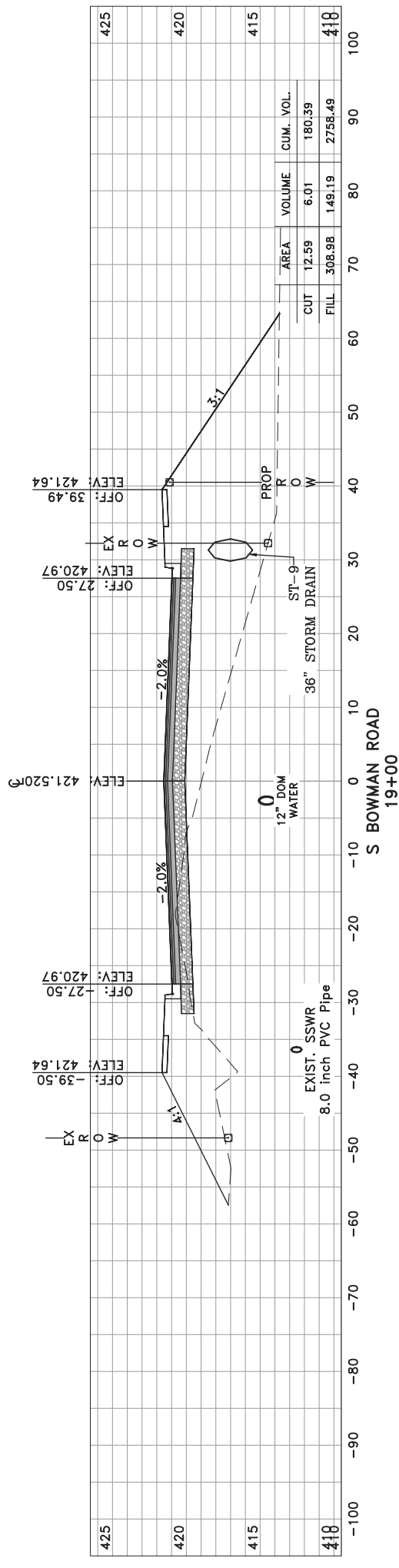
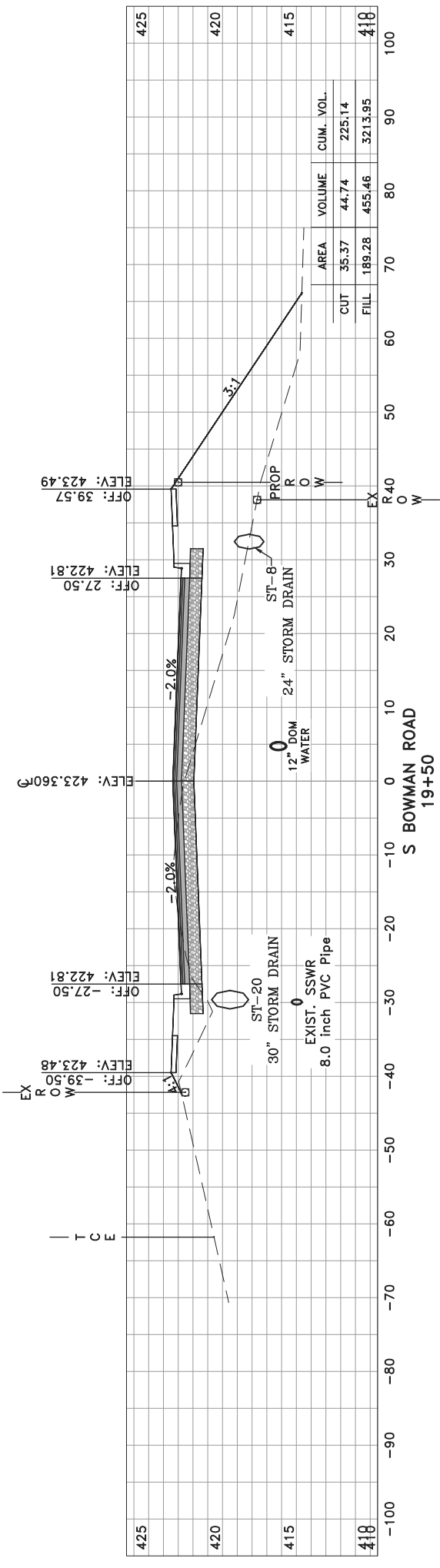
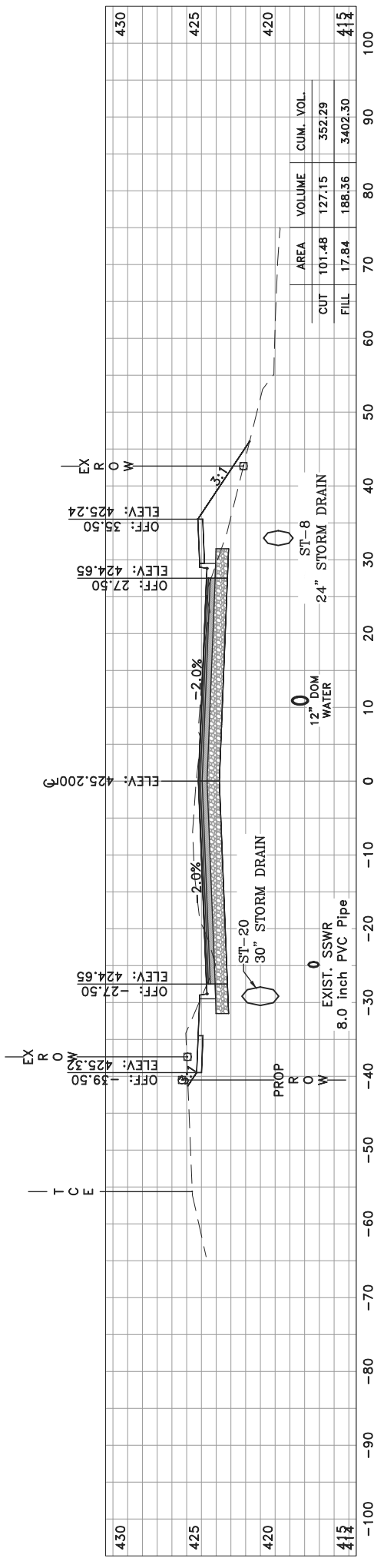
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**CROSS SECTIONS (6)**  
**BOWMAN ROAD**

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10'
	V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	<b>X6</b>





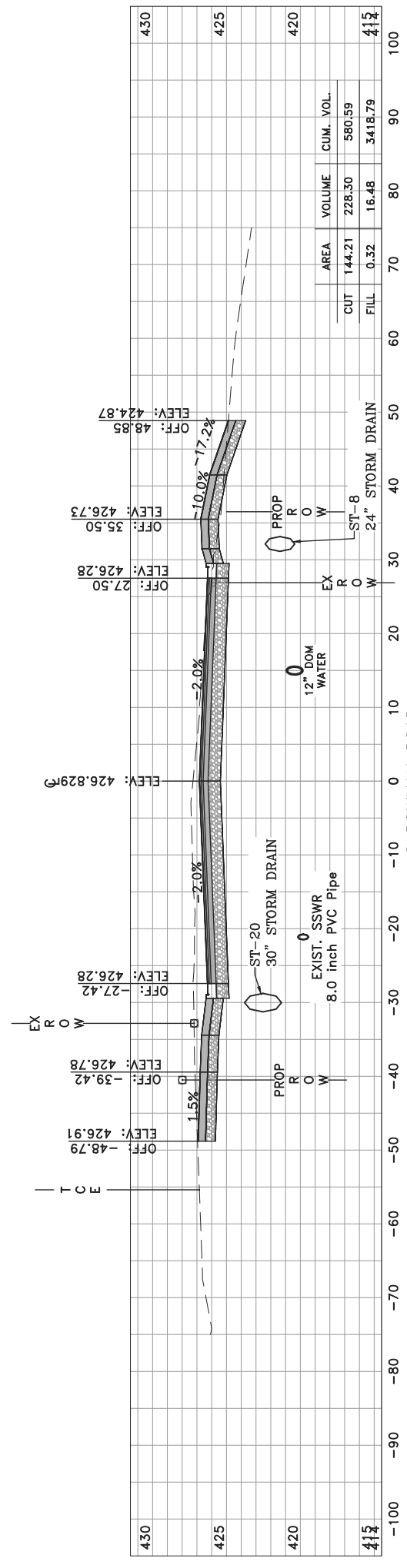
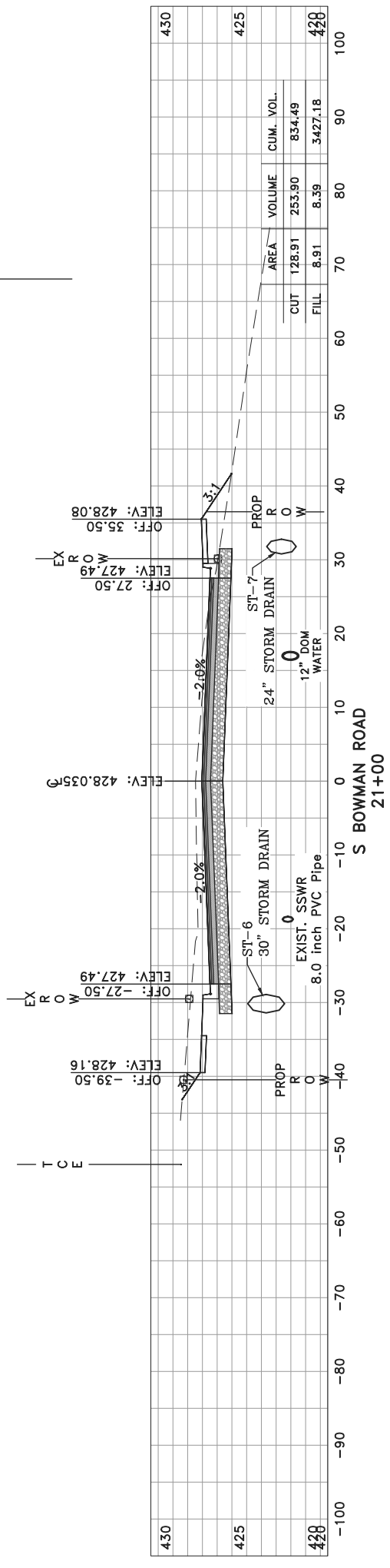
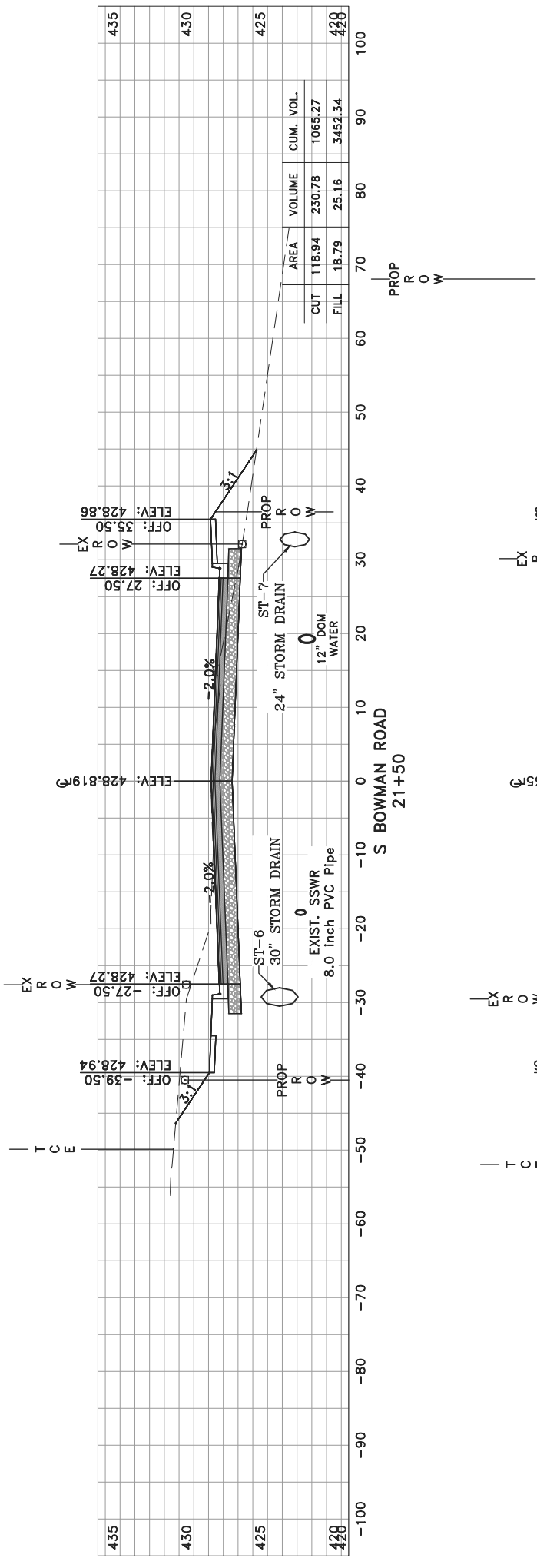
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**CROSS SECTIONS (7)**  
**BOWMAN ROAD**

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10'
	V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	<b>X7</b>



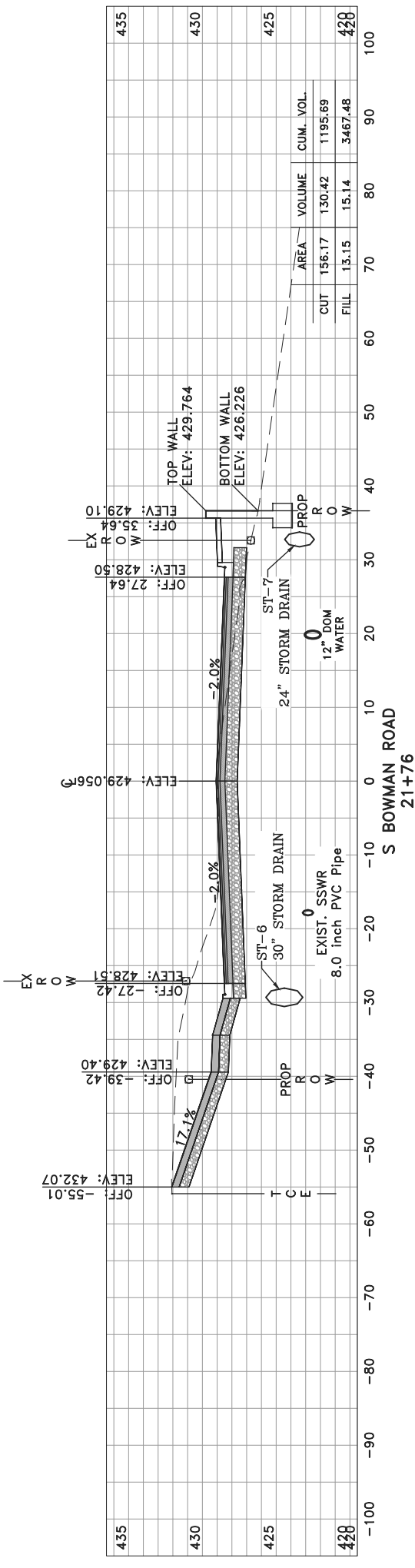
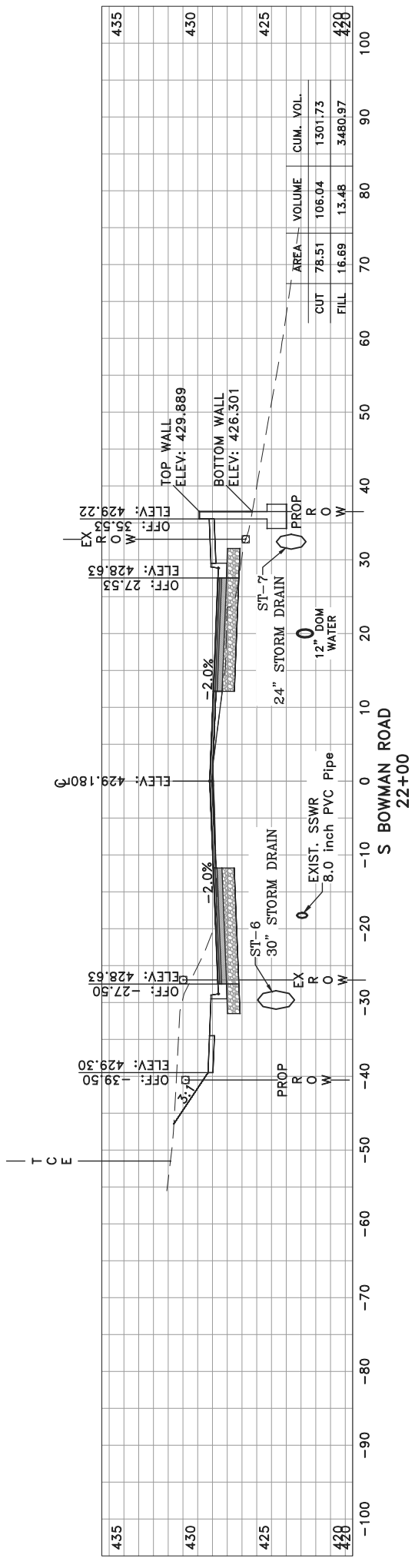
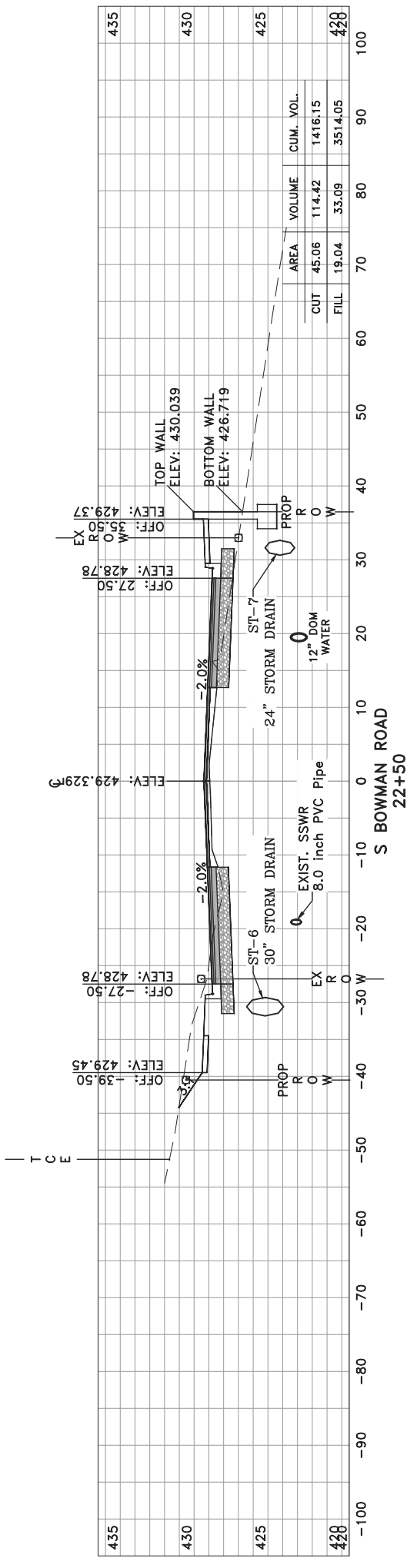
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**CROSS SECTIONS (8)**  
**BOWMAN ROAD**

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10'
	V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	<b>X8</b>



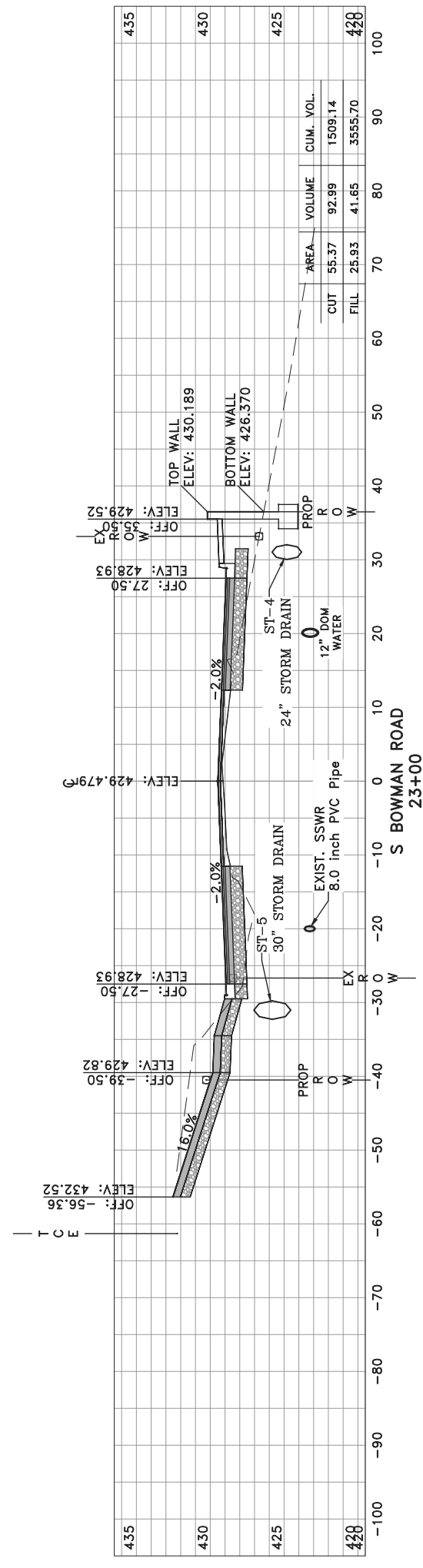
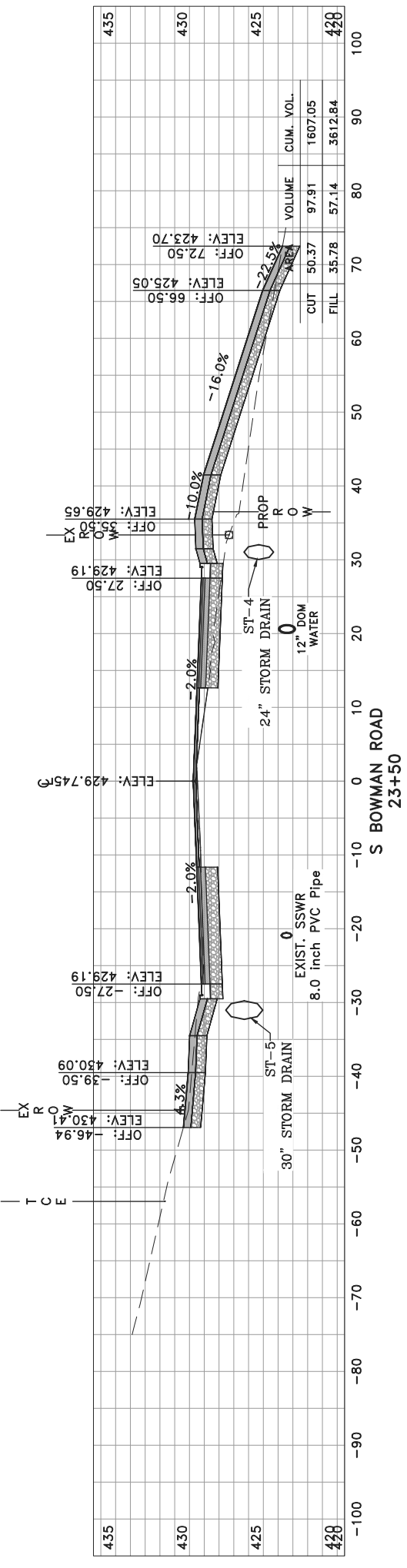
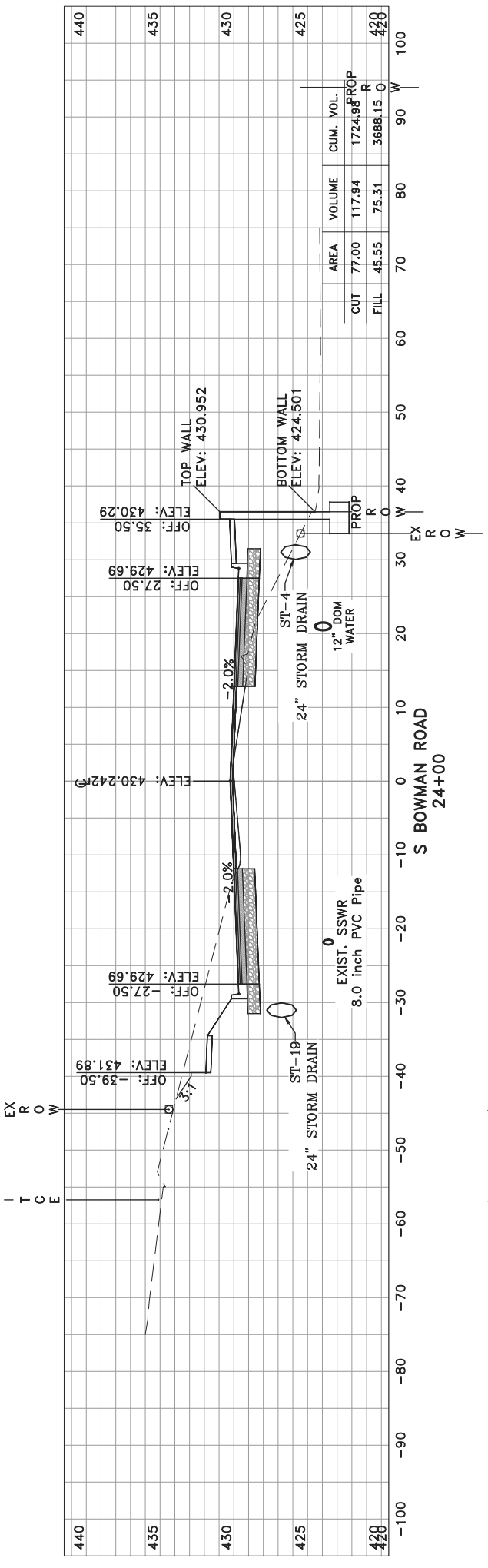
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**CROSS SECTIONS (9)**  
**BOWMAN ROAD**

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10' V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	<b>X9</b>



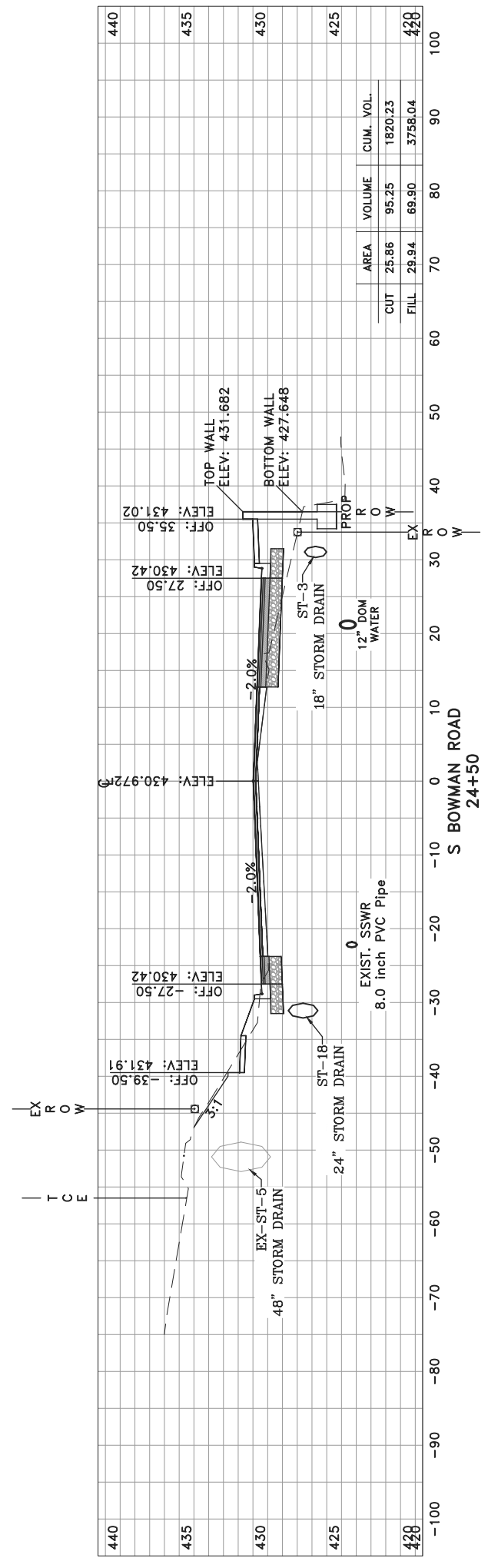
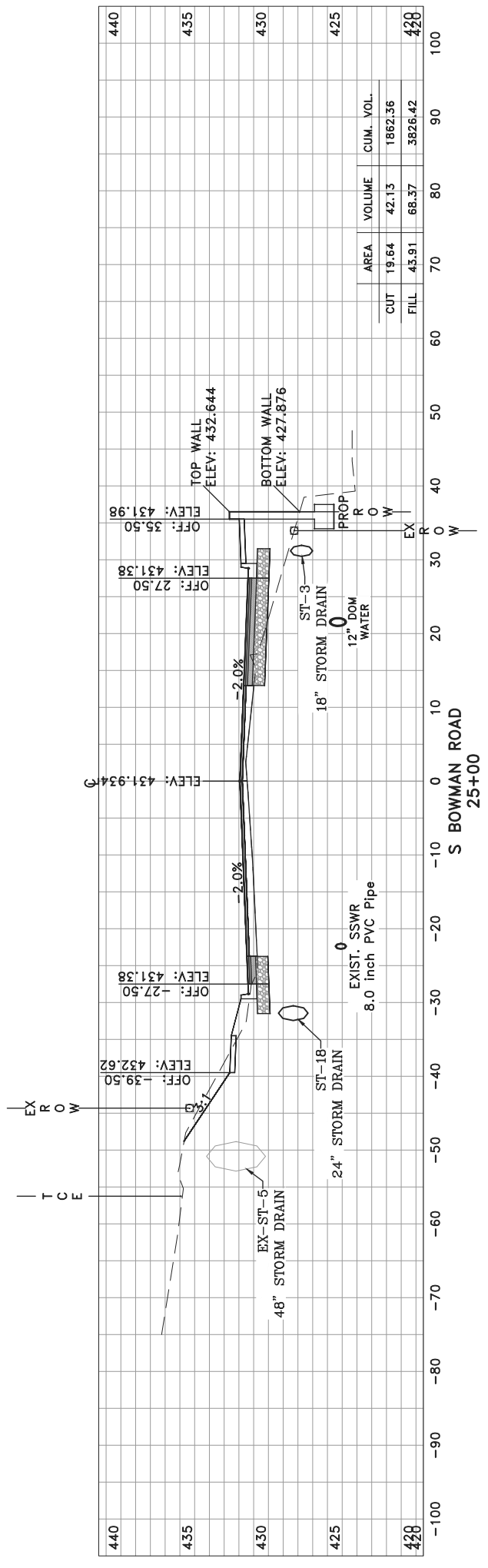
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 CROSS SECTIONS (10)  
 BOWMAN ROAD

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10' V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	X10



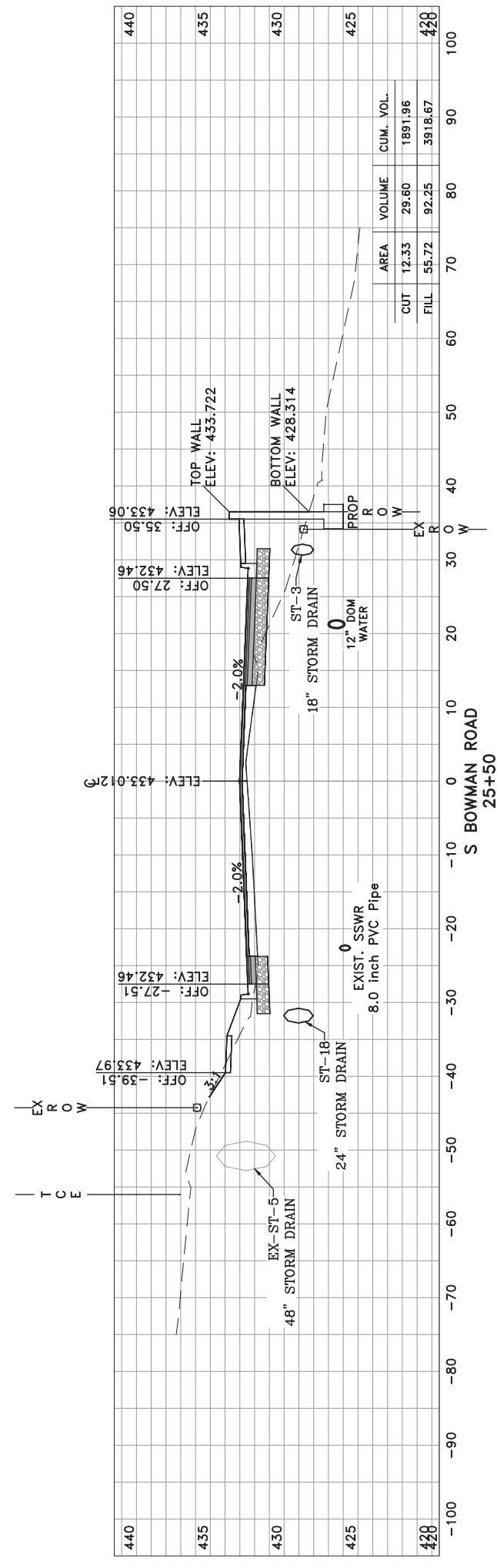
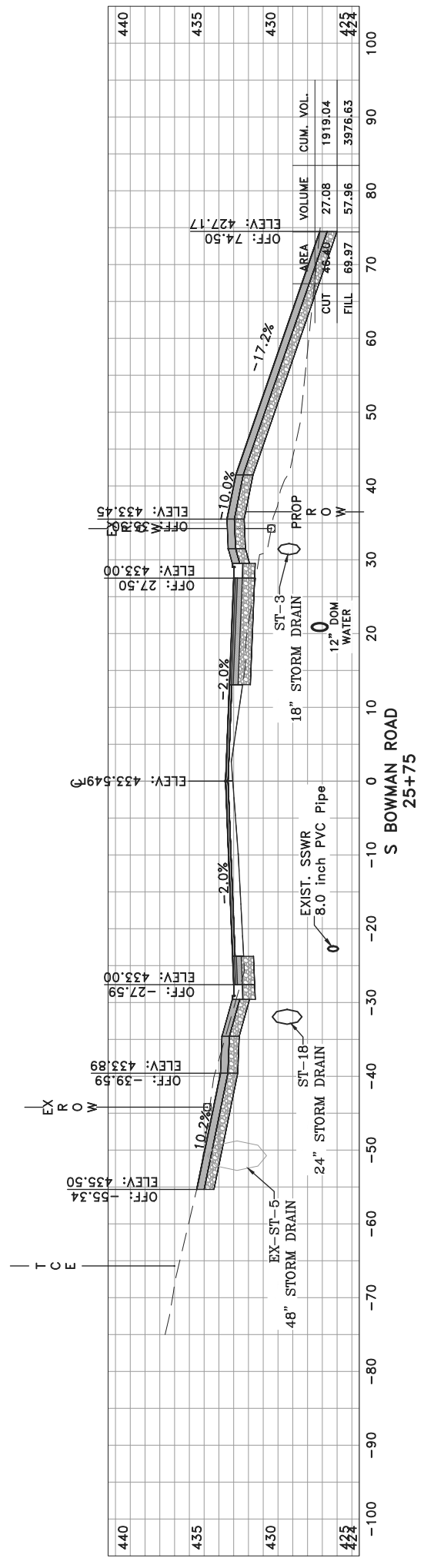
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 CROSS SECTIONS (11)  
 BOWMAN ROAD

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10'
	V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	X111



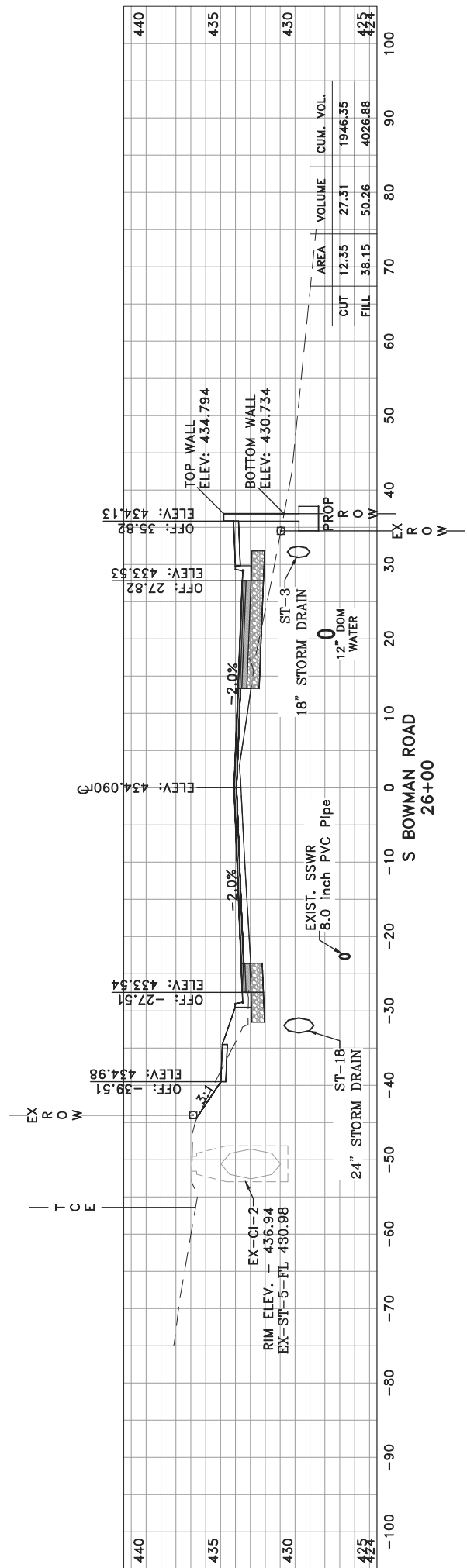
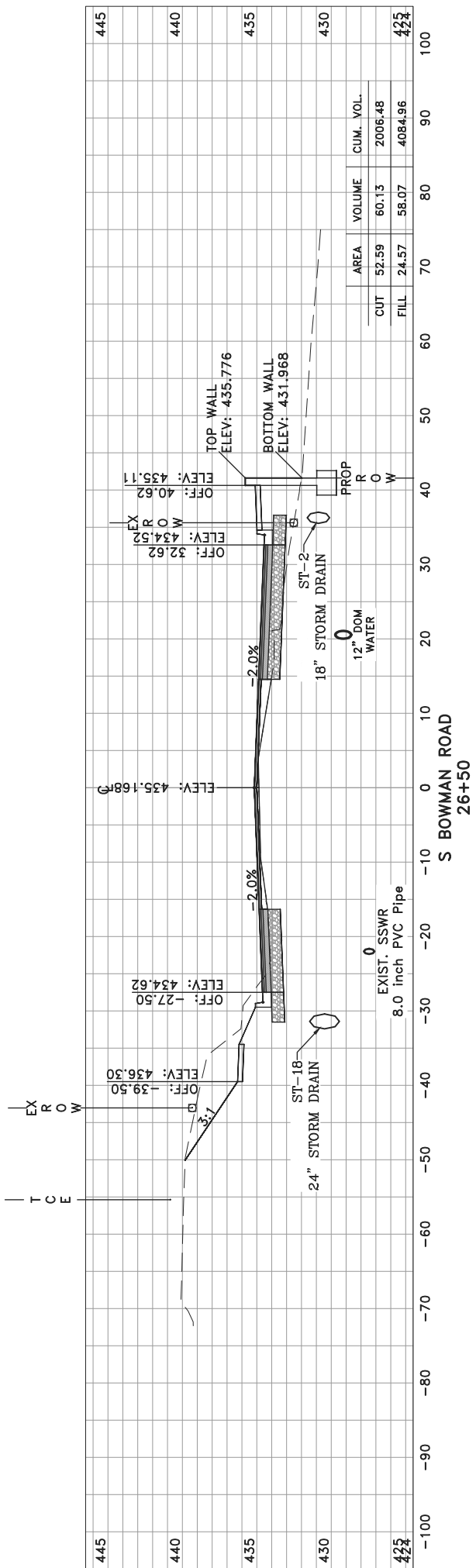
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 CROSS SECTIONS (12)

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10' V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	X12



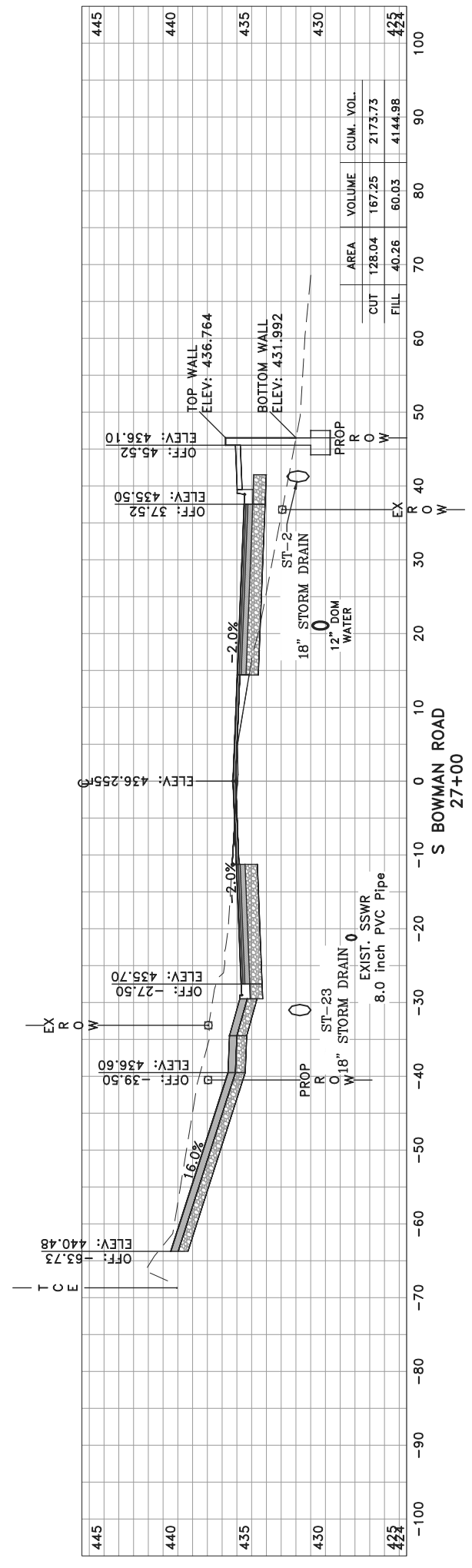
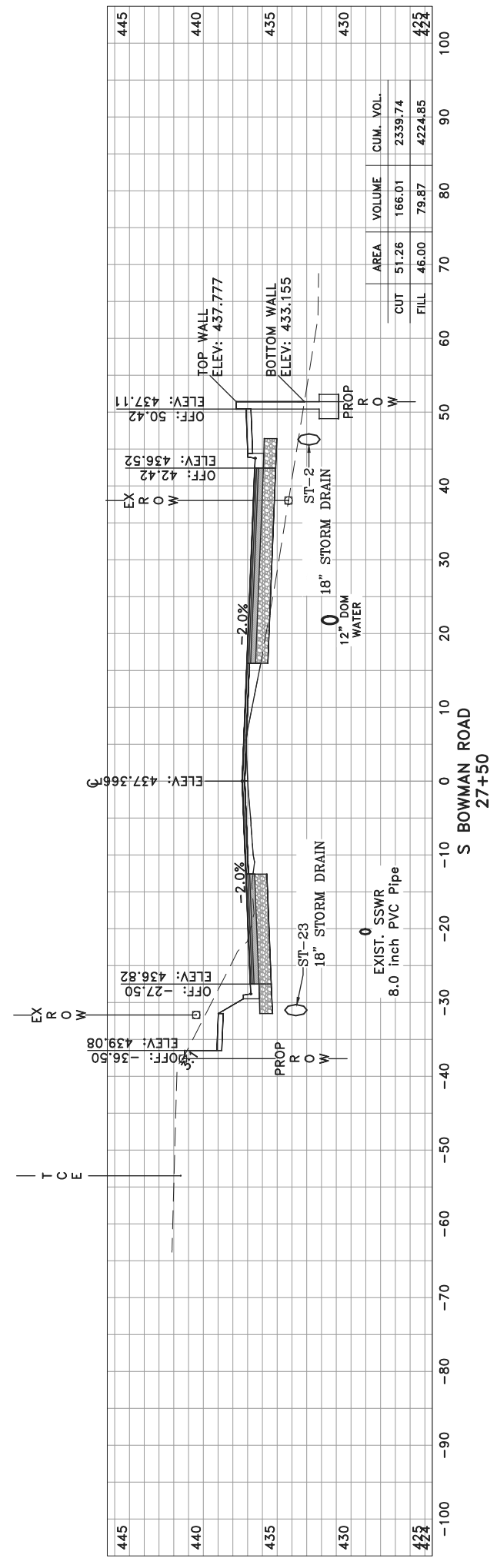
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**CROSS SECTIONS (13)**

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10'
	V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	<b>X13</b>



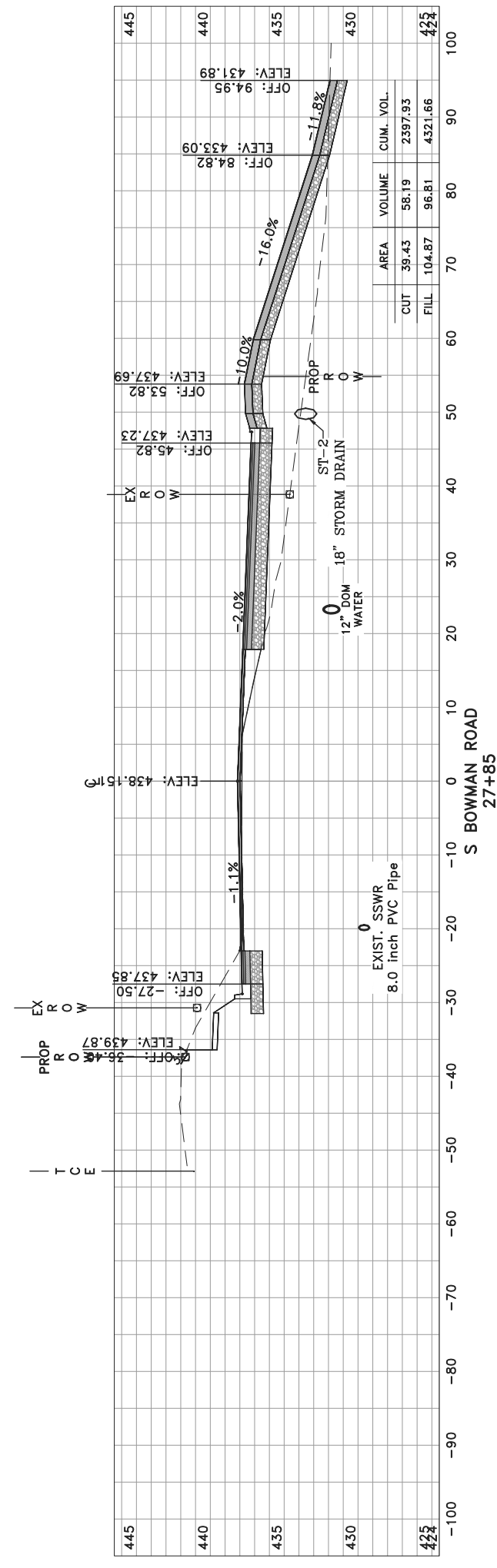
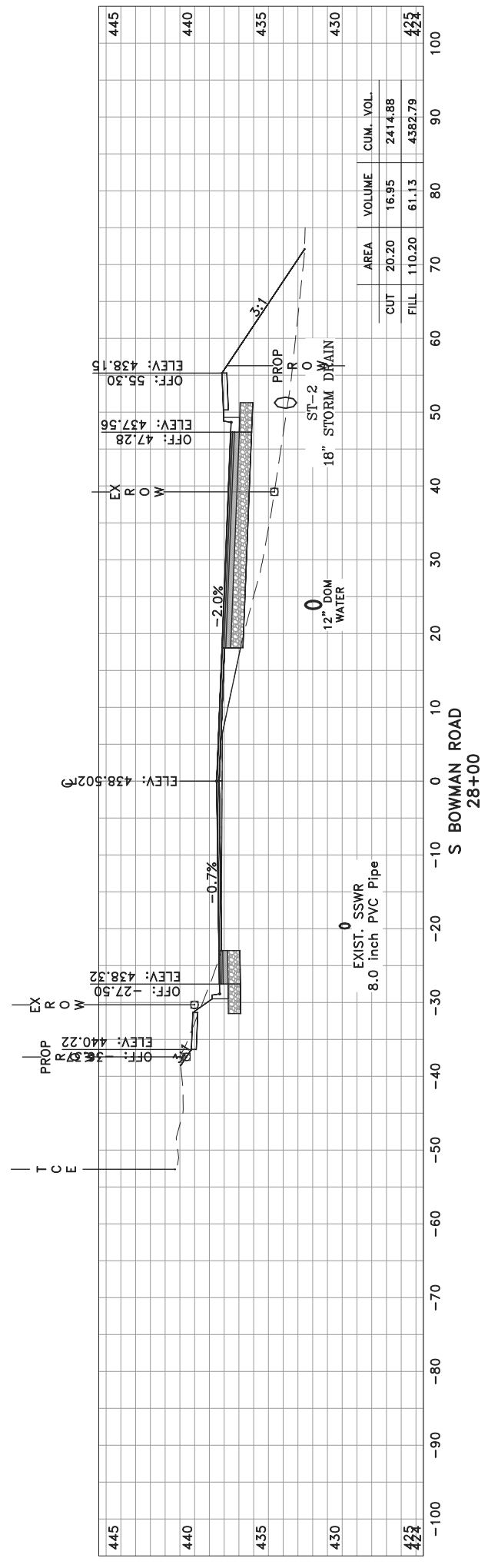
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**CROSS SECTIONS (14)**

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10' V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	<b>X14</b>





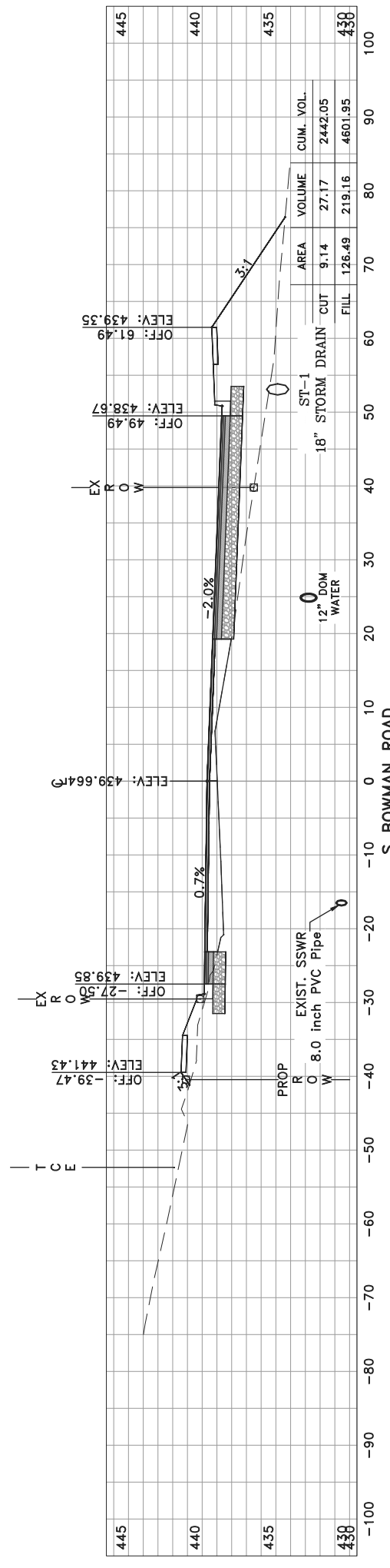
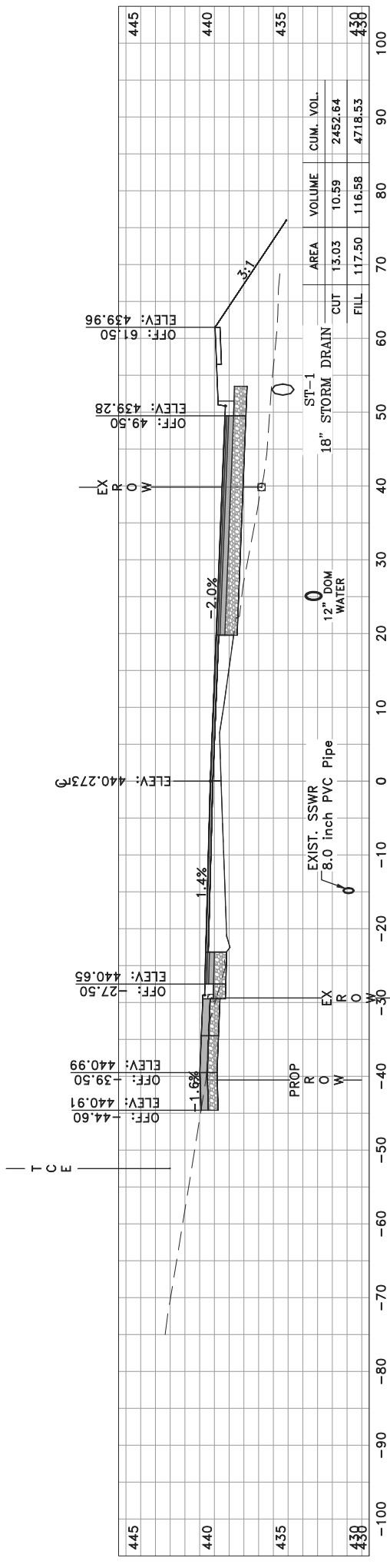
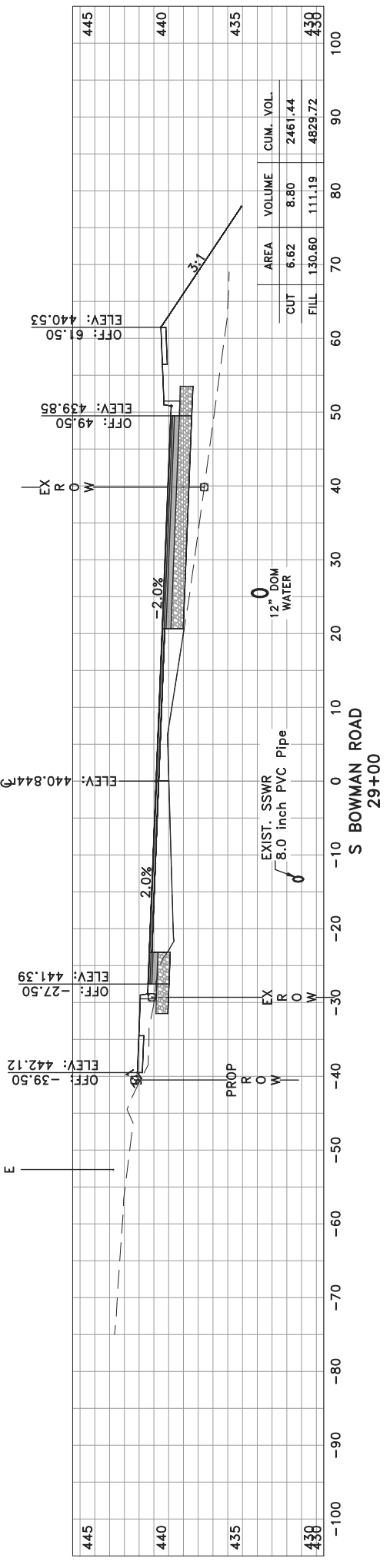
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**CROSS SECTIONS (15)**

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10'
	V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	<b>X15</b>



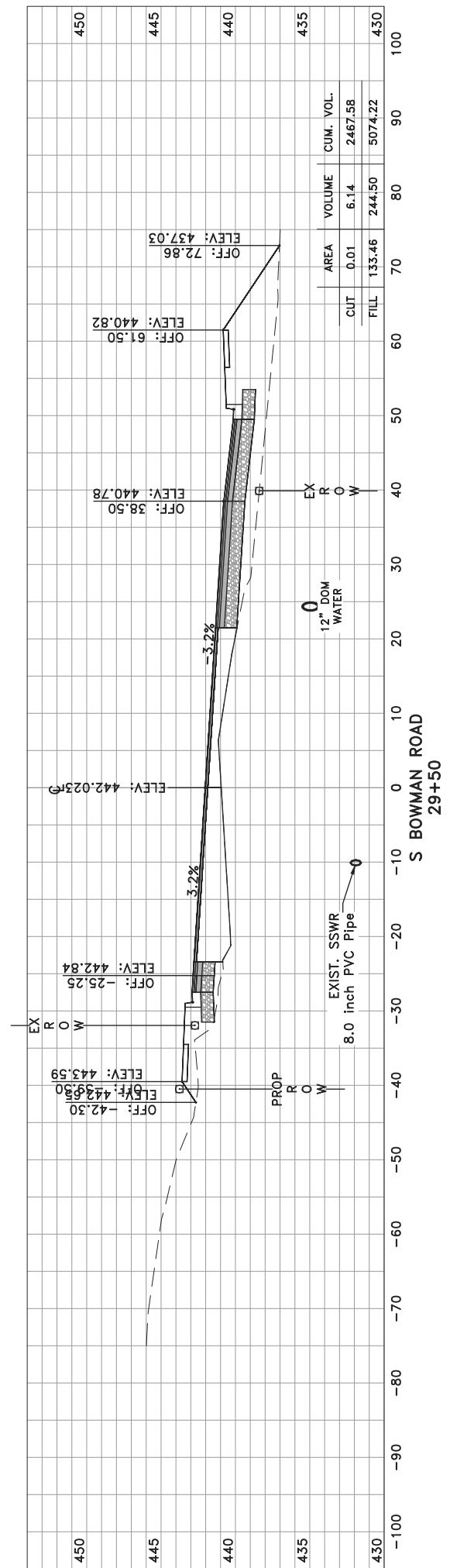
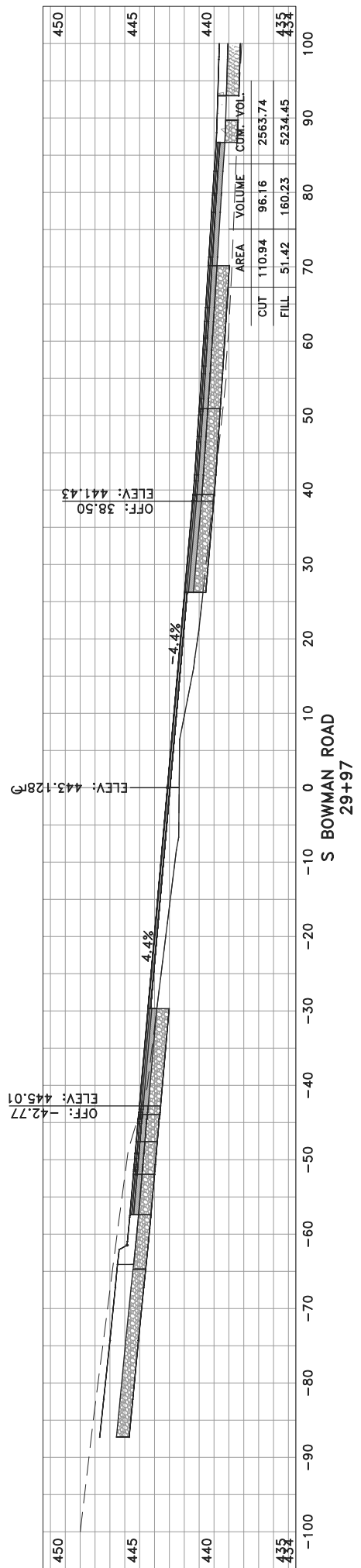
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**CROSS SECTIONS (16)**

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



DRAWN BY	KLL
DESIGNED	BOL
CHECKED	KLL
DATE	12-11-2020
SCALE	H: 1"=10' V: 1"=5'
PROJECT NO.	CLR 6-15-ST-249
SHEET NO.	<b>X16</b>

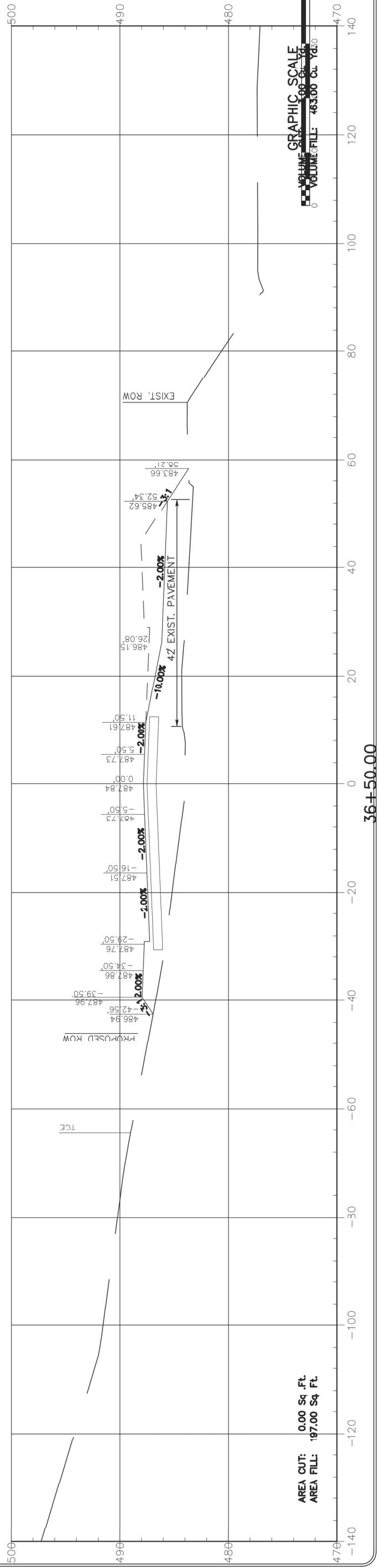
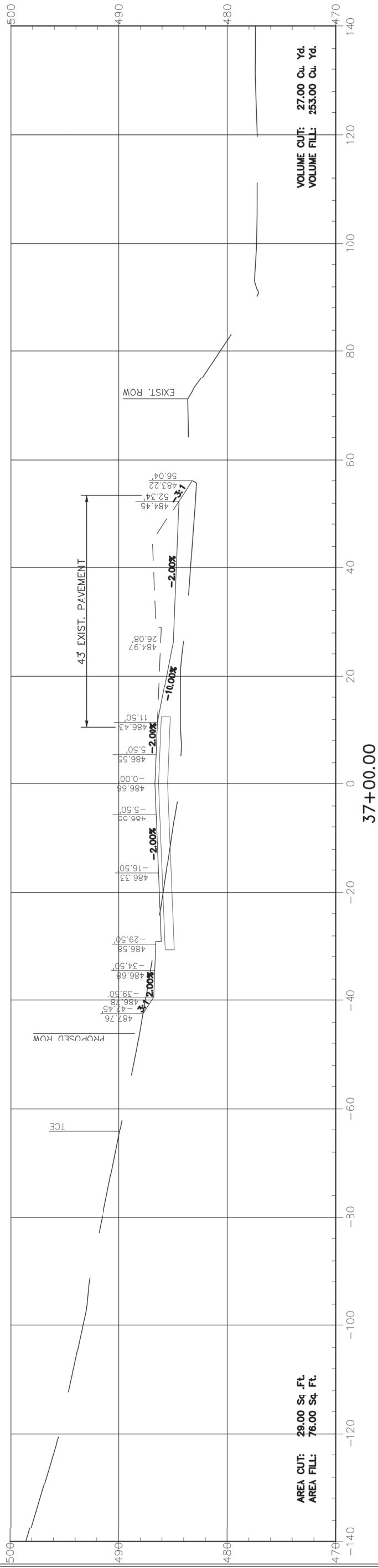


REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD STREET RECONSTRUCTION  
 CROSS SECTIONS (17)  
 KANIS ROAD

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

DRAWN BY  
 DESIGNED  
 RFR  
 CHECKED  
 KGT  
 DATE  
 2-24-2017  
 SCALE  
 1" = 20'  
 PROJECT NO.  
 CLR 13-B-5D-6A  
 SHEET NO.  
**X17**

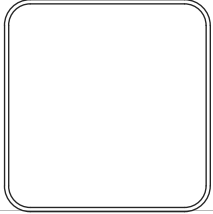


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 VOLUME FILL: 463.00 Cu. Yd.

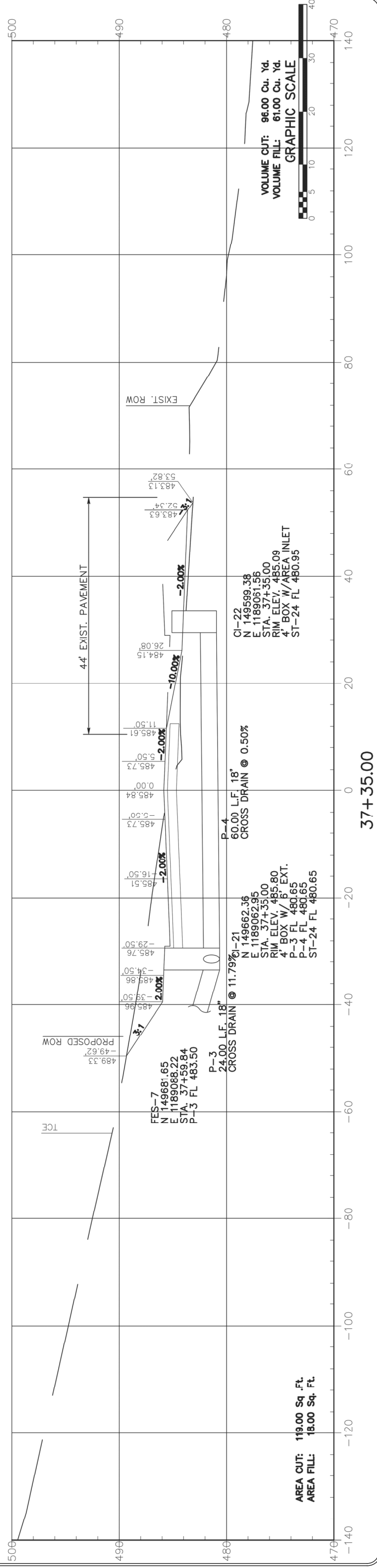
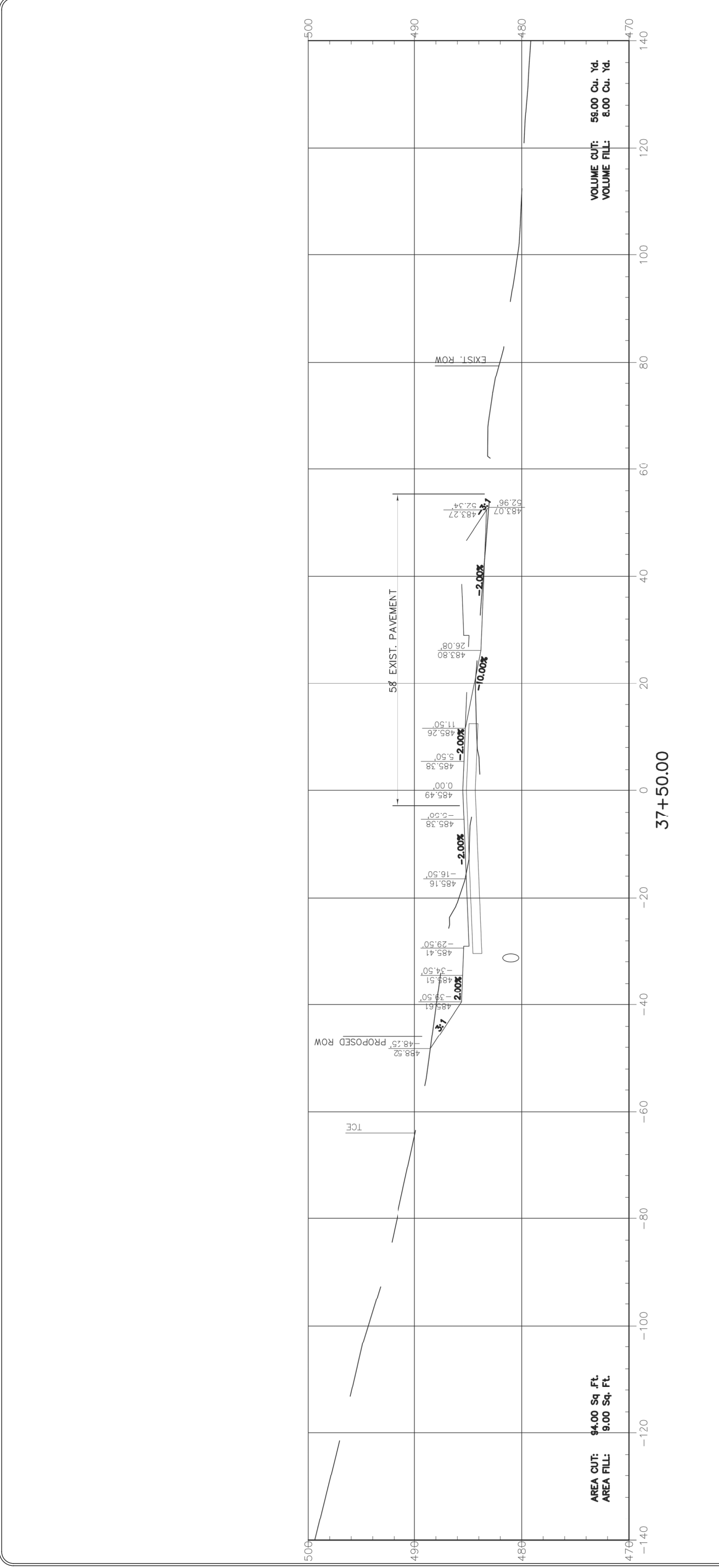
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD STREET RECONSTRUCTION**  
**CROSS SECTIONS (18)**  
**KANIS ROAD**

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



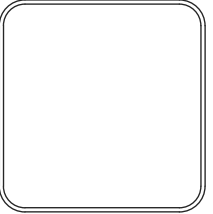
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**DATE**  
**2-24-2017**  
**SCALE**  
**1" = 20'**  
**PROJECT NO.**  
**CLR 13-B-5D-6A**  
**SHEET NO.**  
**X18**



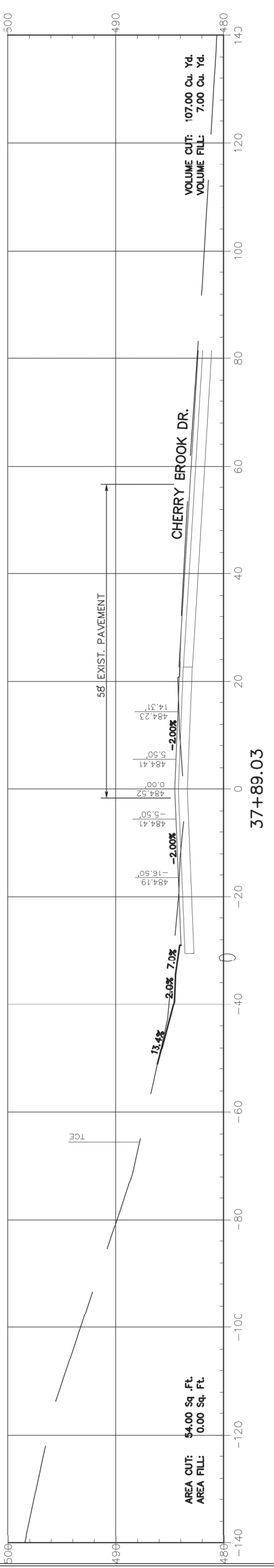
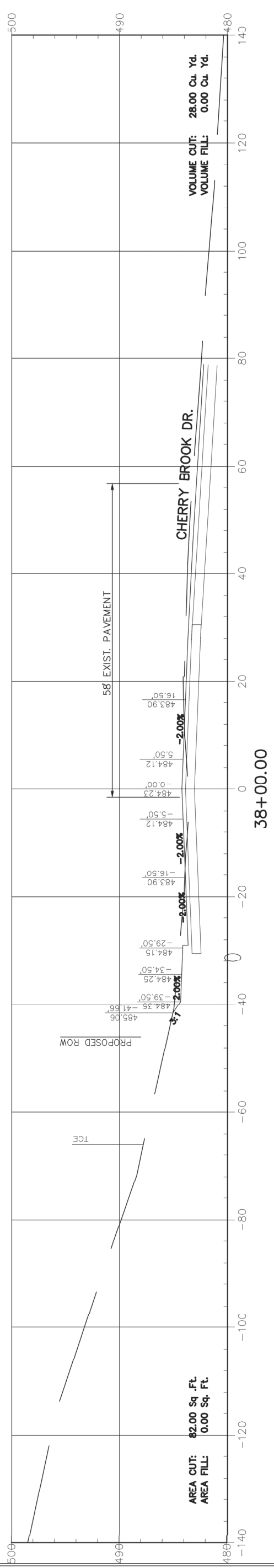
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD STREET RECONSTRUCTION**  
**CROSS SECTIONS (19)**  
**KANIS ROAD**

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



<b>DRAWN BY</b>	
<b>RFR</b>	
<b>DESIGNED</b>	
<b>RFR</b>	
<b>CHECKED</b>	
<b>KGJ</b>	
<b>DATE</b>	2-24-2017
<b>SCALE</b>	1" = 20'
<b>PROJECT NO.</b>	CLR 13-B-5D-6A
<b>SHEET NO.</b>	<b>X19</b>



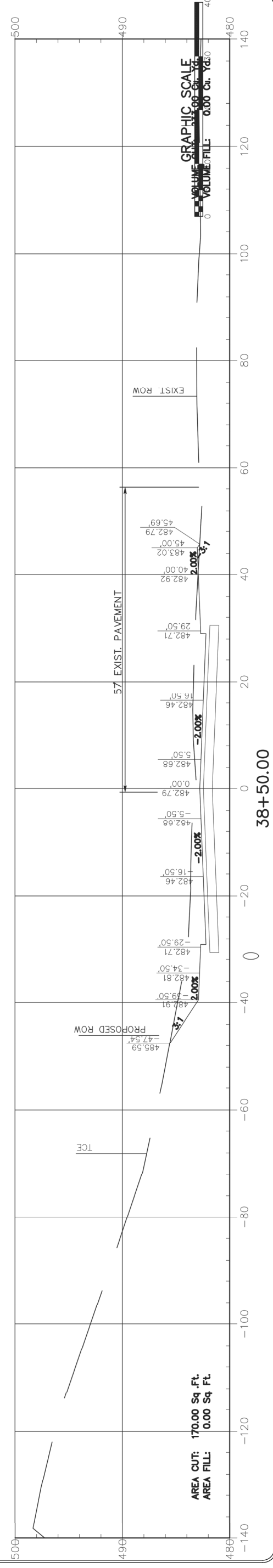
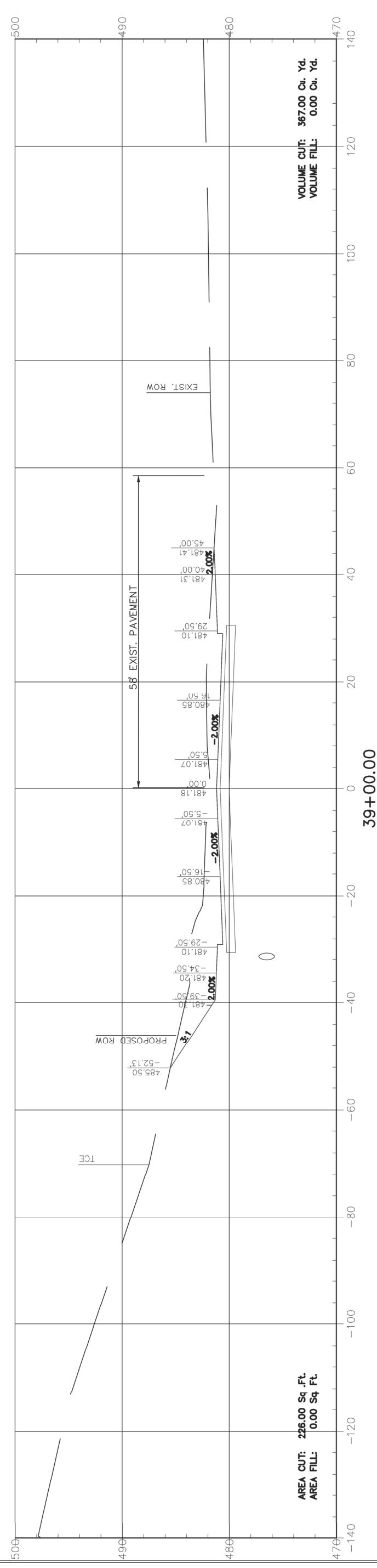
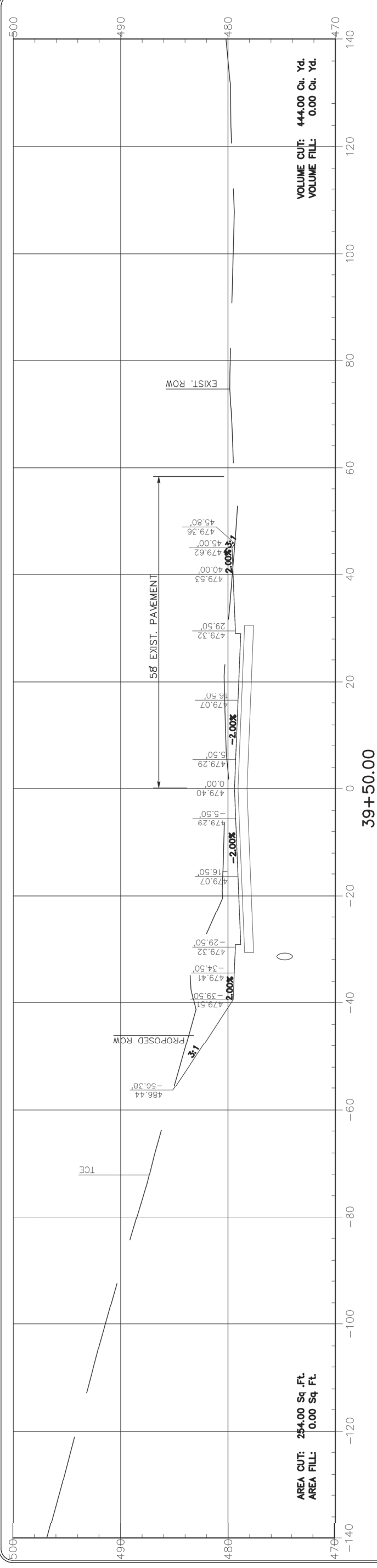
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD STREET RECONSTRUCTION**  
**CROSS SECTIONS (20)**  
**KANIS ROAD**

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



DRAWN BY	
DESIGNED	
RFI	
CHECKED	
KGT	
DATE	2-24-2017
SCALE	1" = 20'
PROJECT NO.	CLR 13-B-5D-6A
SHEET NO.	<b>X20</b>



**GRAPHIC SCALE**  
 1" = 20'  
 0 20 40 60 80 100 120 140

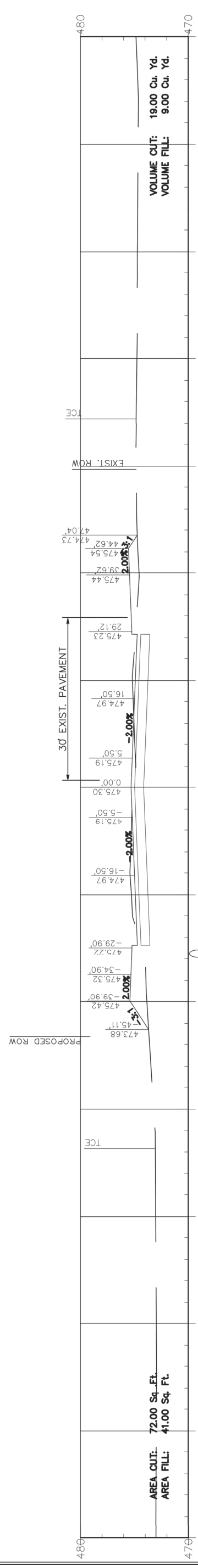
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD STREET RECONSTRUCTION**  
**CROSS SECTIONS (21)**  
**KANIS ROAD**

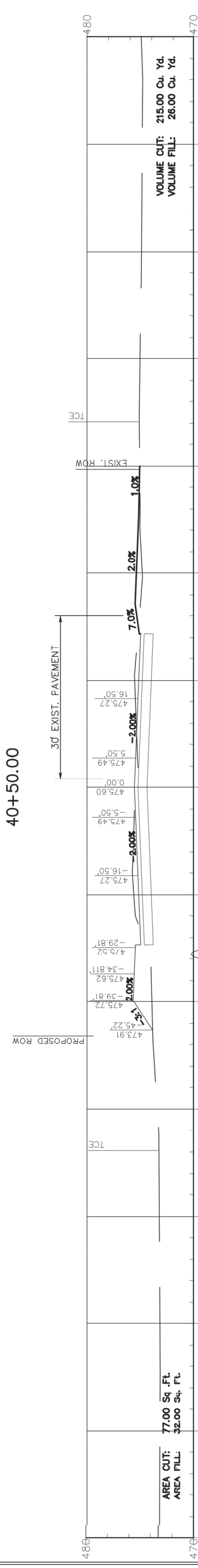
**DEPARTMENT OF PUBLIC WORKS**  
**CIVIL ENGINEERING**  
**701 W. MARKHAM**  
**LITTLE ROCK, ARKANSAS 72201**



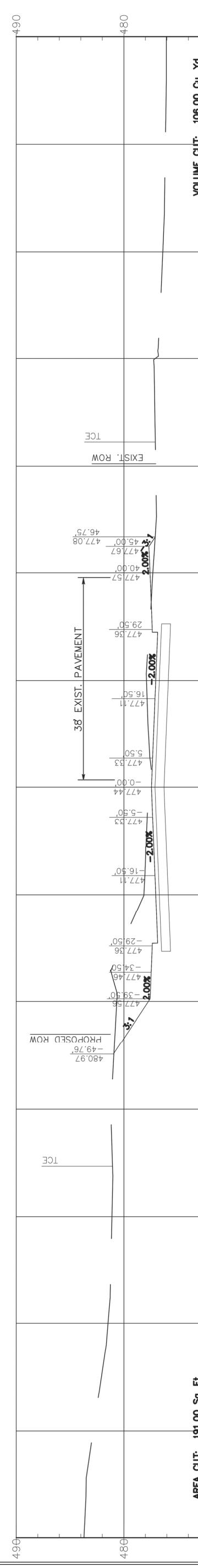
DRAWN BY	
DESIGNED	
CHECKED	
KGT	
DATE	2-24-2017
SCALE	1" = 20'
PROJECT NO.	CLR 13-B-5D-6A
SHEET NO.	<b>X21</b>



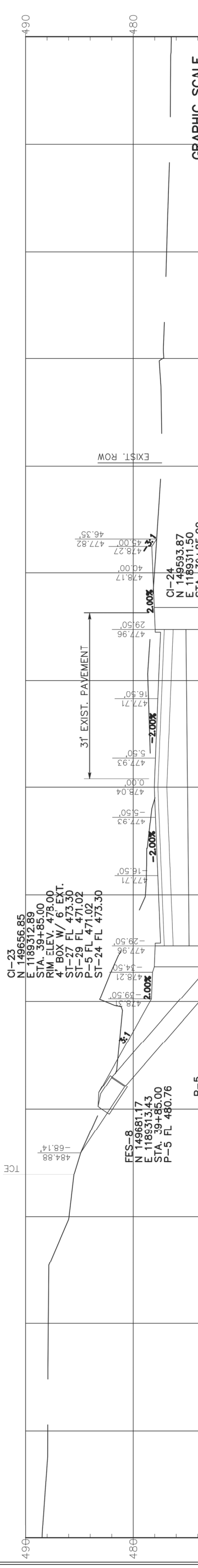
**40+50.00**



**40+43.25**



**40+00.00**



**39+85.00**

**GRAPHIC SCALE**  
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**0 20 40 60 80 100 120 140**

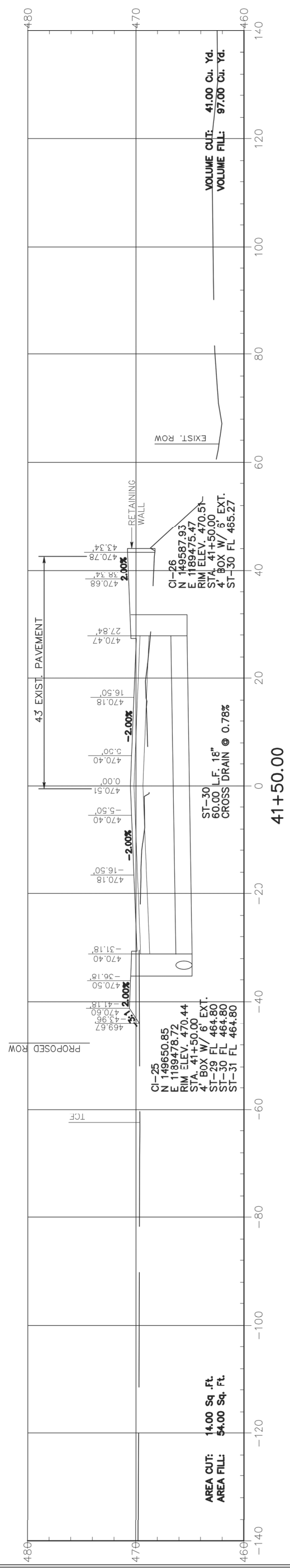
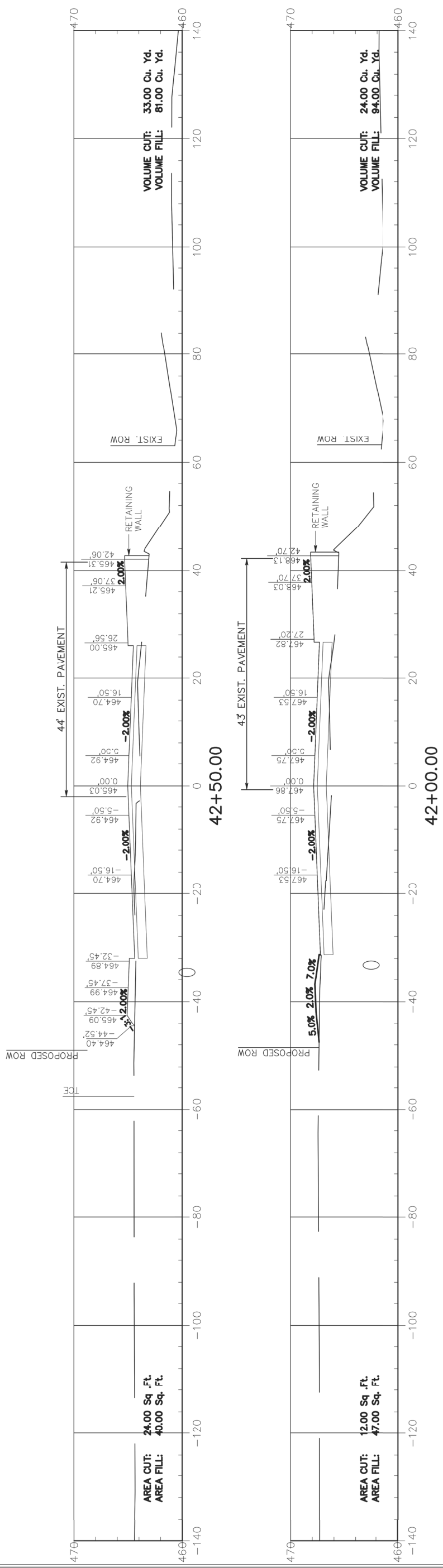
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD STREET RECONSTRUCTION**  
**CROSS SECTIONS (22)**  
**KANIS ROAD**

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



DRAWN BY	RFR
DESIGNED	RFR
CHECKED	RFR
KGT	
DATE	2-24-2017
SCALE	1" = 20'
PROJECT NO.	CLR 13-B-5D-6A
SHEET NO.	<b>X22</b>

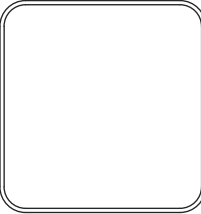




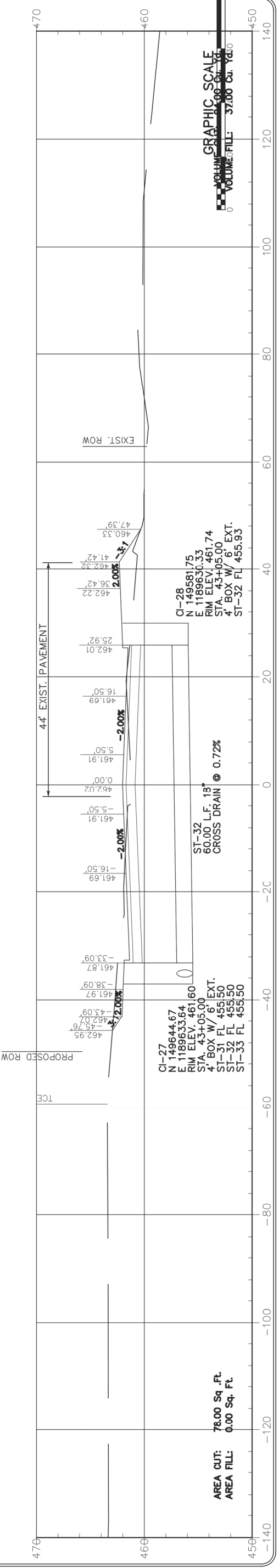
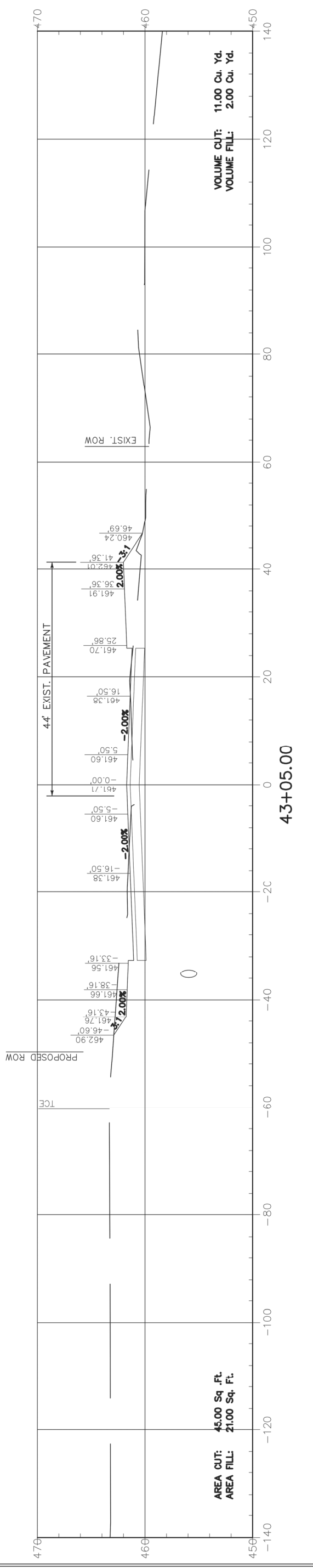
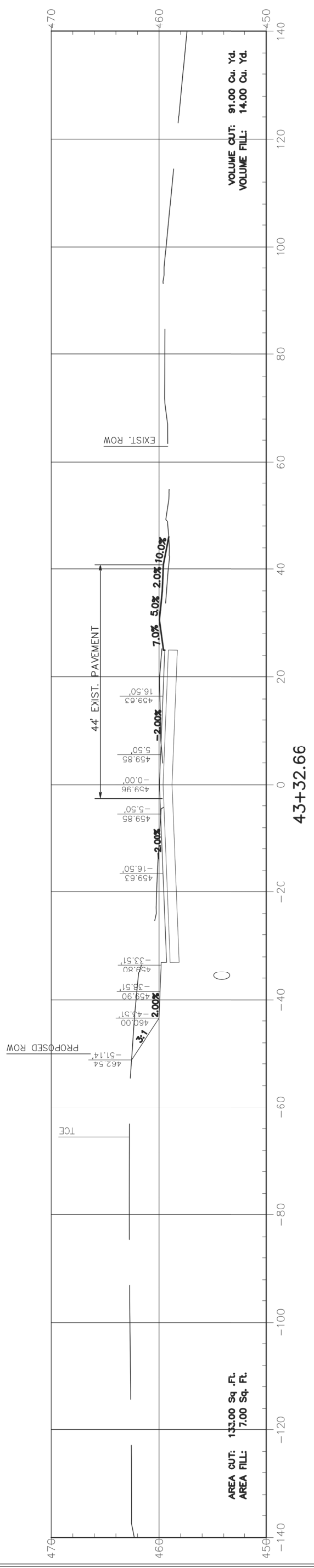
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD STREET RECONSTRUCTION**  
 CROSS SECTIONS (23)  
 KANIS ROAD

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



DRAWN BY	RFR
DESIGNED	RFR
CHECKED	
DATE	2-24-2017
SCALE	1" = 20'
PROJECT NO.	CLR 13-B-5D-6A
SHEET NO.	<b>X23</b>



**GRAPHIC SCALE**  
 0 20 40 60 80 100 120 140  
 0 20 40 60 80 100 120 140

CI-28  
 N 149581.75  
 E 1189630.33  
 RIM ELEV. 461.74  
 STA. 43+05.00  
 4' BOX W/ 6' EXT.  
 ST-32 FL 455.93

ST-32  
 60.00 L.F. 18"  
 CROSS DRAIN @ 0.72%

CI-27  
 N 149644.67  
 E 1189633.64  
 RIM ELEV. 461.60  
 STA. 43+05.00  
 4' BOX W/ 6' EXT.  
 ST-31 FL 455.50  
 ST-32 FL 455.50  
 ST-33 FL 455.50

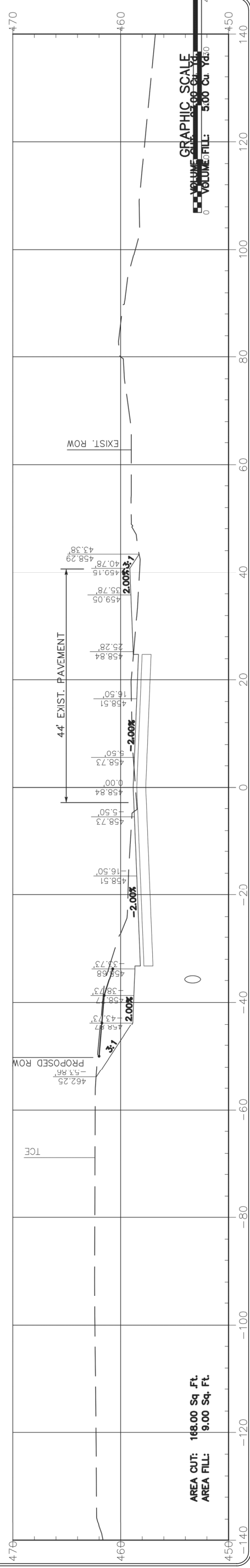
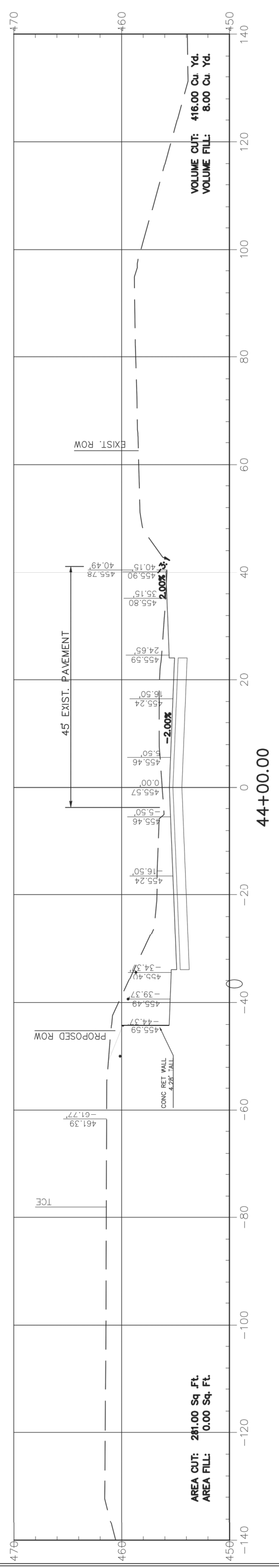
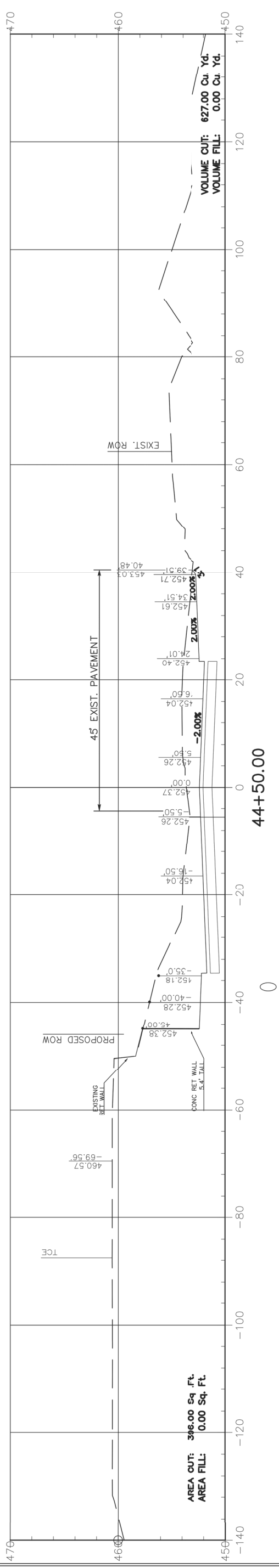
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD STREET RECONSTRUCTION**  
**CROSS SECTIONS (24)**  
**KANIS ROAD**

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



DRAWN BY	
DESIGNED	
CHECKED	
DATE	2-24-2017
SCALE	1" = 20'
PROJECT NO.	CLR 13-B-5D-6A
SHEET NO.	<b>X24</b>



GRAPHIC SCALE  
 1" = 20'  
 VOLUME CUT: 135.00 Cu. Yd.  
 VOLUME FILL: 5.00 Cu. Yd.

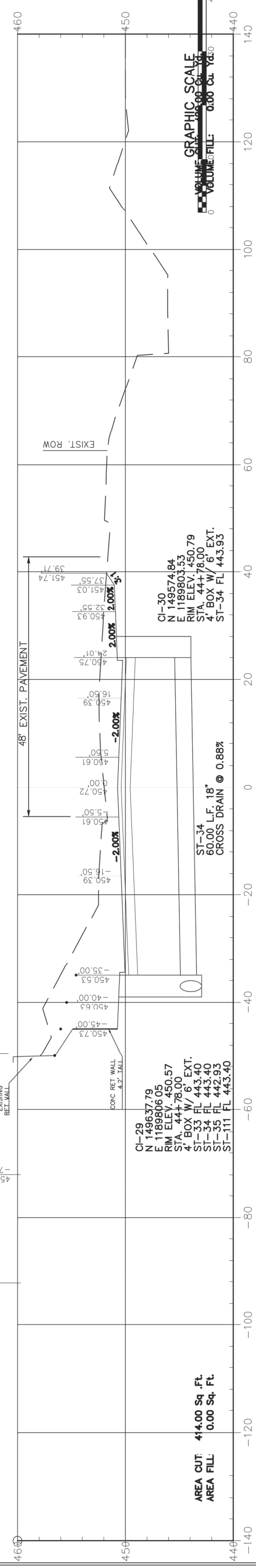
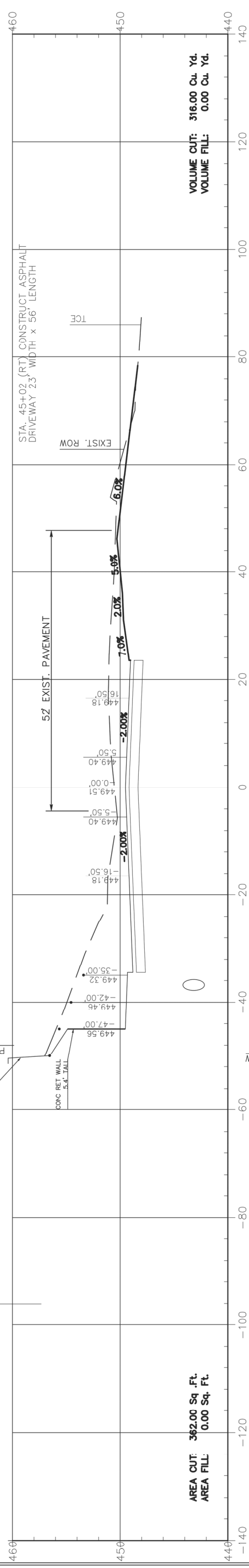
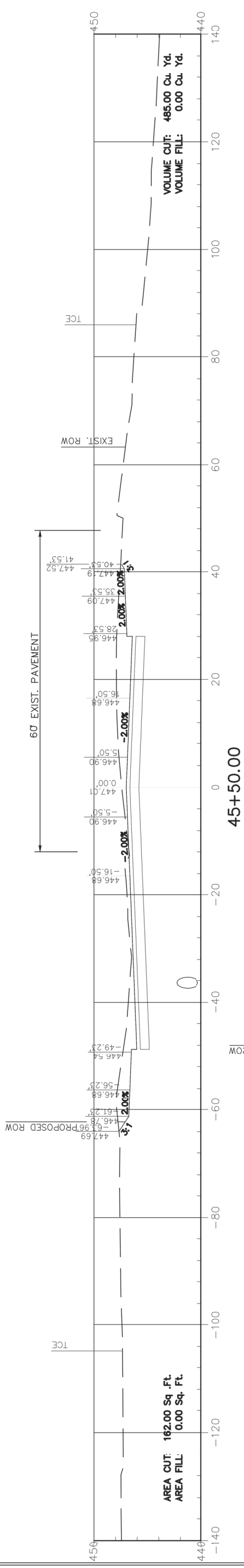
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD STREET RECONSTRUCTION**  
**CROSS SECTIONS (25)**  
**KANIS ROAD**

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



DRAWN BY	RFK
DESIGNED	RFK
CHECKED	KGK
DATE	2-24-2017
SCALE	1" = 20'
PROJECT NO.	CLR 13-B-5D-6A
SHEET NO.	<b>X25</b>

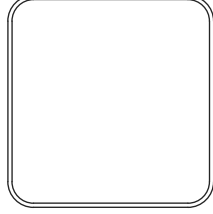


**GRAPHIC SCALE**  
 0 20 40 60 80 100 120 140  
 VOLUME CUT: 100.00 Cu. Yd.  
 VOLUME FILL: 0.00 Cu. Yd.

REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD STREET RECONSTRUCTION**  
**CROSS SECTIONS (26)**  
**KANIS ROAD**

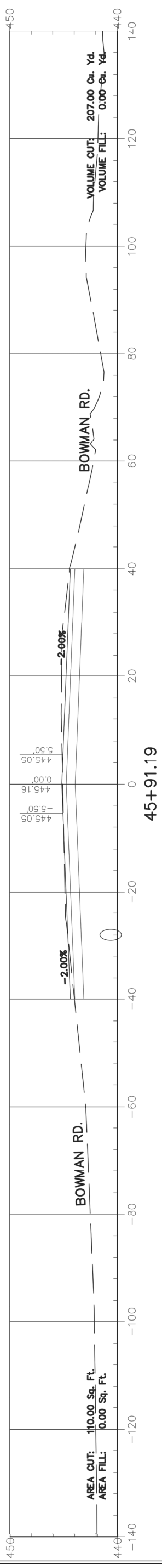
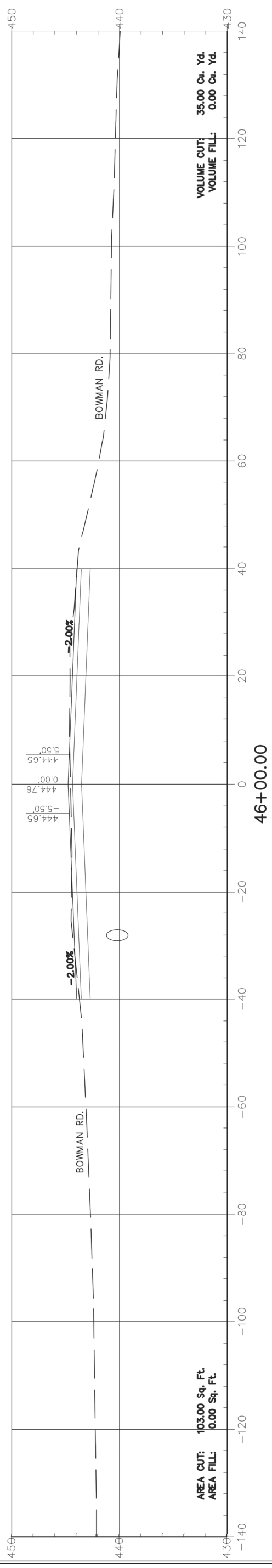
**DEPARTMENT OF PUBLIC WORKS**  
**CIVIL ENGINEERING**  
**701 W. MARKHAM**  
**LITTLE ROCK, ARKANSAS 72201**



<b>DRAWN BY</b>	
<b>DESIGNED</b>	
<b>CHECKED</b>	
<b>DATE</b>	
<b>SCALE</b>	
<b>PROJECT NO.</b>	
<b>SHEET NO.</b>	



**X26**



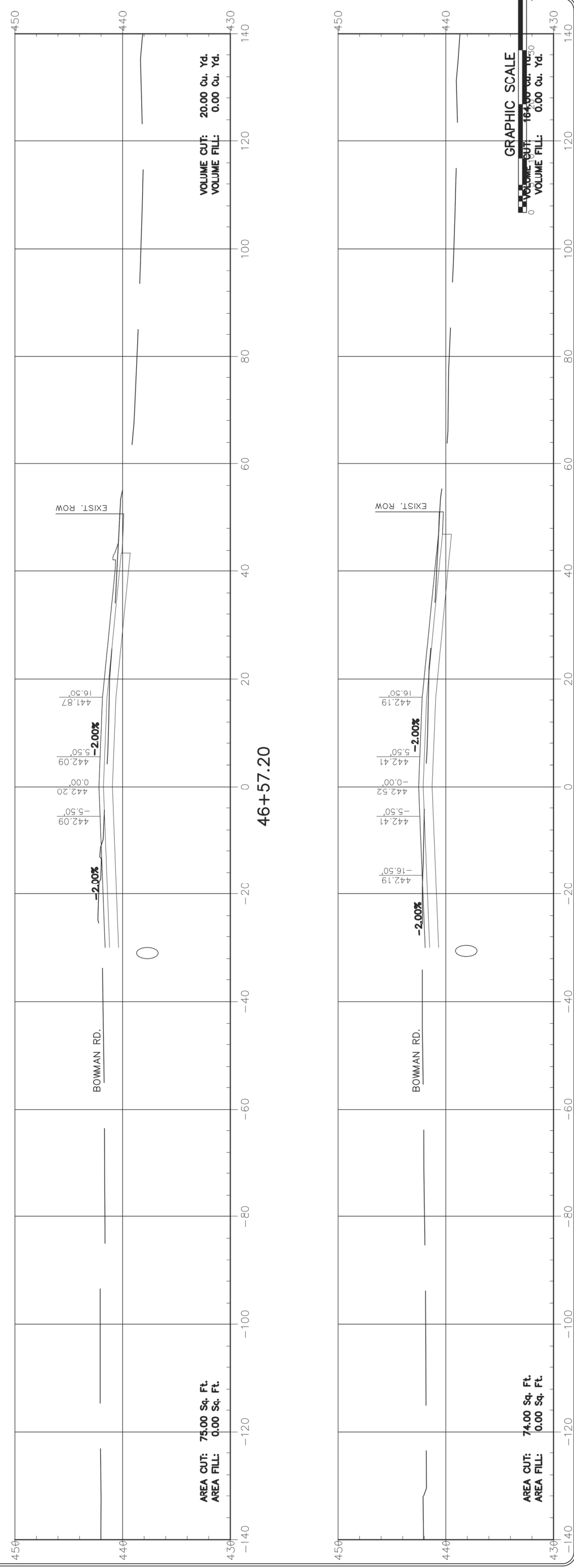
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD STREET RECONSTRUCTION  
 CROSS SECTIONS (27)  
 KANIS ROAD

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



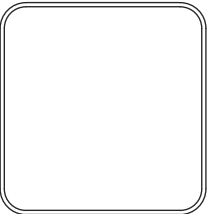
DRAWN BY	RFR
DESIGNED	RFR
CHECKED	RFR
KGJ	
DATE	2-24-2017
SCALE	1" = 20'
PROJECT NO.	CLR 13-B-5D-6A
SHEET NO.	X27



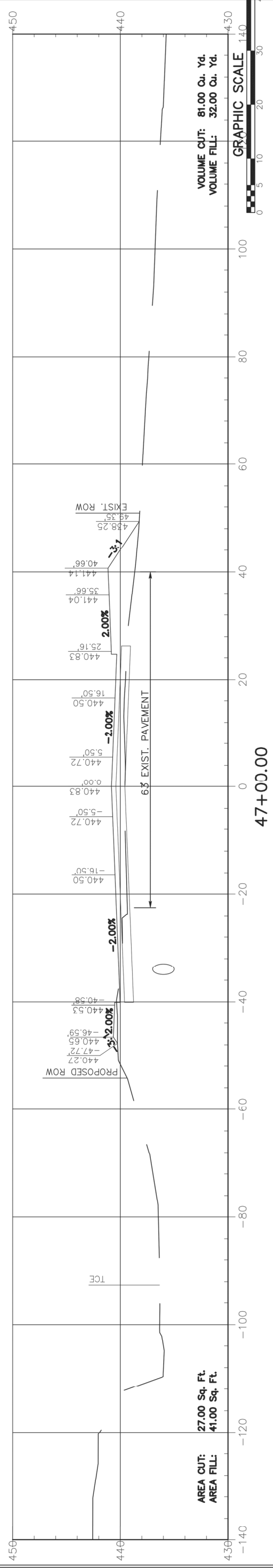
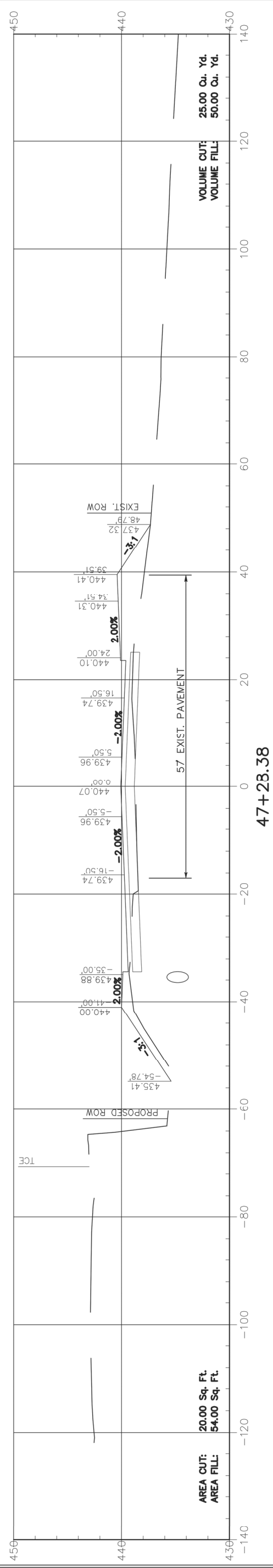
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD STREET RECONSTRUCTION  
 CROSS SECTIONS (28)  
 KANIS ROAD

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



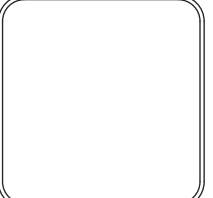
DRAWN BY	RFR
DESIGNED	RFR
CHECKED	RFR
KGT	
DATE	2-24-2017
SCALE	1" = 20'
PROJECT NO.	CLR 13-B-5D-6A
SHEET NO.	X28



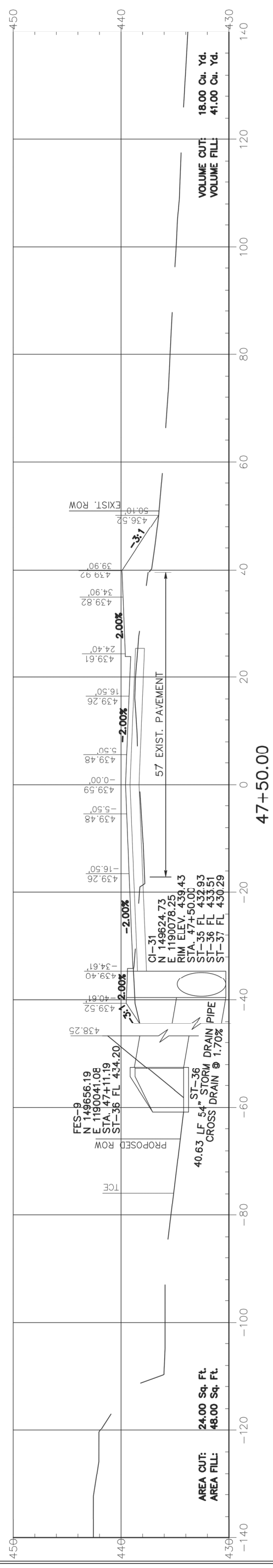
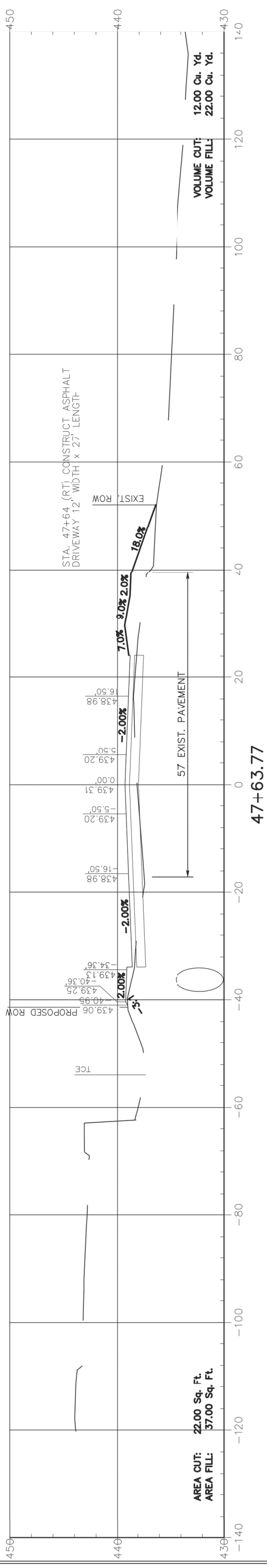
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD STREET RECONSTRUCTION**  
**CROSS SECTIONS (29)**  
**KANIS ROAD**

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



<b>DRAWN BY</b>	
<b>DESIGNED</b>	
<b>CHECKED</b>	
<b>KGT</b>	
<b>DATE</b>	2-24-2017
<b>SCALE</b>	1" = 20'
<b>PROJECT NO.</b>	
<b>CLR 13-B-5D-6A</b>	
<b>SHEET NO.</b>	<b>X29</b>



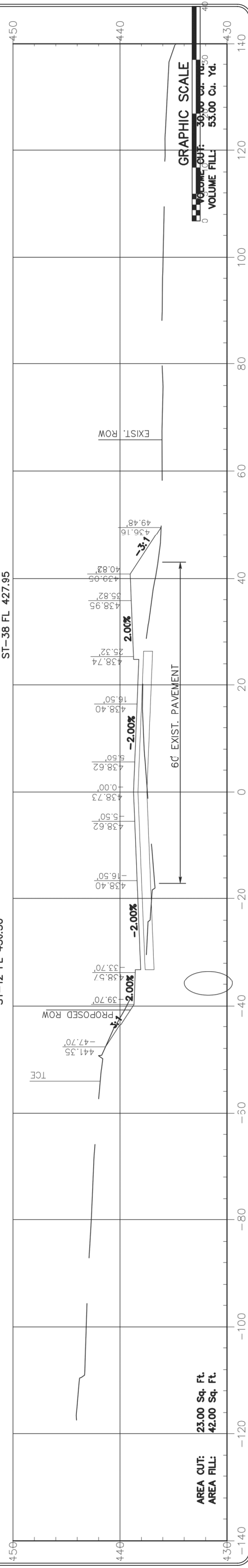
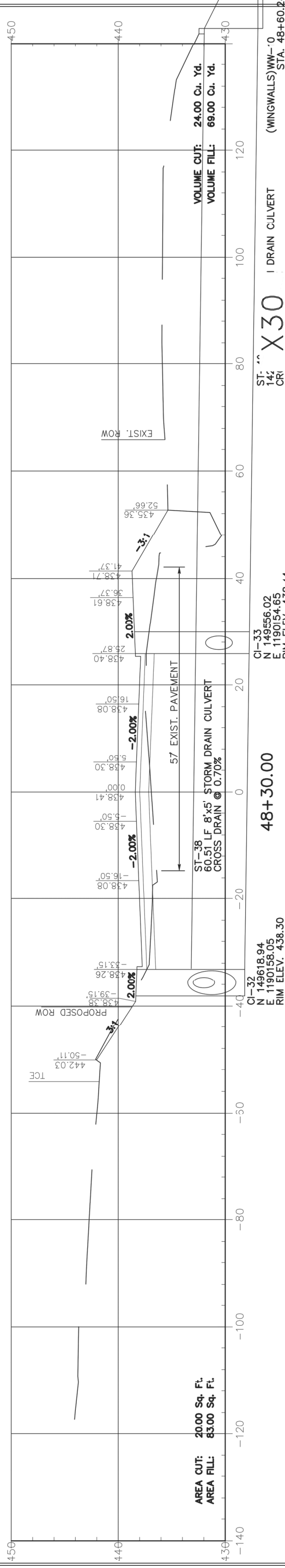
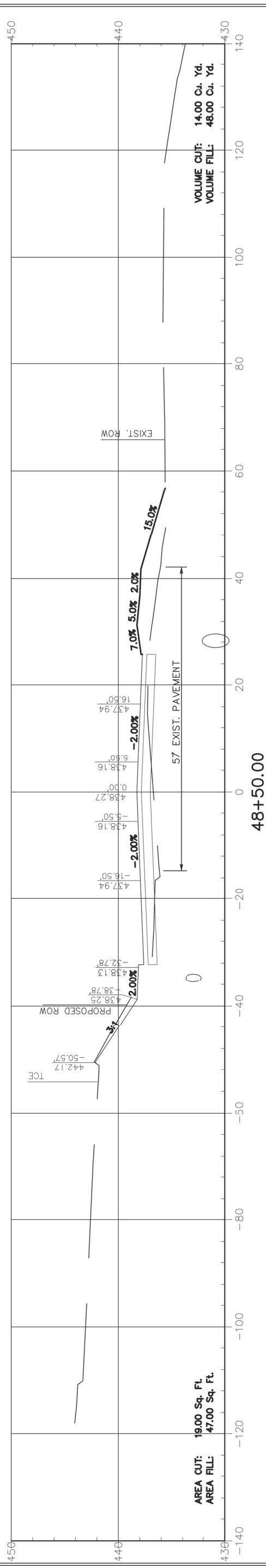
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD STREET RECONSTRUCTION  
 CROSS SECTIONS (30)  
 KANIS ROAD

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



DRAWN BY	RFR
DESIGNED	RFR
CHECKED	RFR
KGJ	
DATE	2-24-2017
SCALE	1" = 20'
PROJECT NO.	CLR 13-B-5D-6A
SHEET NO.	X30



ST. 14' CRI  
 (WINGWALLS) WW-0  
 STA. 48+60.2  
 ST-40 FL 446

CI-33  
 N 149556.02  
 E 1190154.65  
 RIM ELEV. 438.44  
 STA. 48+30.00  
 ST-39 FL 429.33  
 ST-40 FL 427.95  
 ST-38 FL 427.95

CI-32  
 N 149618.94  
 E 1190158.05  
 RIM ELEV. 438.30  
 STA. 48+30.00  
 ST-37 FL 429.00  
 ST-38 FL 428.37  
 ST-12 FL 430.50

GRAPHIC SCALE  
 0 10 20 30 40  
 VOLUME CUT: 36.00 Cu. Yd.  
 VOLUME FILL: 53.00 Cu. Yd.