

## ADDENDUM NO. 1

TO: ALL PLAN HOLDERS

RE: Bob Watson Sidewalk – City of El Dorado, Arkansas

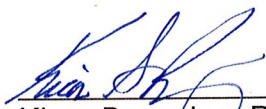
ADDENDUM DATE: April 6, 2022

The Plans, Specifications and Contract Documents for the above referenced project are hereby modified as follows:

1. **Notice to Bidders: Remove and Replace Notice to Bidders with the attached.**  
Contact information has been updated.
2. **Plans: Remove and Replace Plans with attached.**
3. **Bid Proposal: Remove and Replace Bid Proposal with attached.**

ADDENDUM NO.1 ISSUED BY:

A.L. FRANKS ENGINEERING

  
Kiron Browning, P.E.  
Project Manager



**NOTICE TO BIDDERS OF THE INTENTION OF THE CITY OF EL DORADO, ARKANSAS TO LET CONTRACT FOR CONSTRUCTION OF BOB WATSON DRIVE SIDEWALK IMPROVEMENTS.**

SEALED PROPOSALS addressed to Public Works Director, Robert Edmonds, City of El Dorado, Arkansas, 512 North Washington, El Dorado, Arkansas 71730, will be received until **2:00 P.M., on Tuesday, April 26, 2022** for furnishing all labor, equipment, materials, supplies, and supervision necessary for the construction of proposed sidewalks as described in the plans and specifications. Bids will be opened and read aloud at such time at Public Works Department, 512 North Washington, El Dorado, Arkansas.

PLANS AND SPECIFICATIONS may be examined without charge at the office of A.L. Franks Engineering, 118 East Broad Street, Texarkana, Arkansas 71854, or at Public Works Department, El Dorado, Arkansas. One copy of each set of documents may be purchased from A.L. Franks Engineering at [www.alfranskengineering.com](http://www.alfranskengineering.com) for \$100.00 . No refunds will be made.

A CERTIFIED OR CASHIER'S CHECK, or an acceptable bid bond in an amount not less than five percent (5%) of the total bid shall accompany each bid as a guaranty that, if awarded the contract, the bidder will promptly enter into contract with the City of El Dorado, Arkansas and furnish bonds on the forms provided.

THE SUCCESSFUL BIDDER OR BIDDERS will be required to furnish a Performance and Payment Bond, each in the amount of the contract, written by a responsible surety company authorized to do business in the State of Arkansas that is satisfactory to the Owner.

BIDDERS ARE expected to inspect the site of the work and to inform themselves of all local conditions. The time of completion shall be **120 calendar days** including Saturdays, Sundays and legal holidays.

An Arkansas Contractor's License is not required to bid the job, however at the time the contract is signed, the Contractor must be licensed. Evidence of licensure shall be provided to the Owner prior to award of the project to the lowest, responsible responsive bidder.

THE SUCCESSFUL BIDDER will be required to furnish evidence of registration with the State Department of Finance and Administration in compliance with Act 125 of 1965 prior to engaging in the performance of this Contract.

NO BID may be withdrawn after the scheduled closing time for receipt of bids for at least 90 calendar days.

IN CASE of ambiguity or lack of clearness stating the price in the bids, the City of El Dorado, Arkansas reserves the right to consider the most advantageous construction thereof, or to reject the bid.

THE CITY OF EL DORADO, ARKANSAS reserves the right to reject any or all bids, waive any or all informalities, and to award the contract to the bidder or bidders who, in the opinion of the Owner, offers the proposal to the best interest of same. Award of the contract may be denied if the Statement of Qualifications is not appropriately completed.

CONTRACTORS are cautioned that qualified bids will be subject to rejection.

CONTRACTORS are specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this contract must be acceptable to the Owner.

Bidders are advised that "Buy America" provisions apply to this contract. The Arkansas Department of Transportation's Standard Specifications for Highway Construction, latest edition, Section 106 has requirements and restrictions for Buy America. Also, 23 CFR 635.410 has all federal requirements for Buy America.

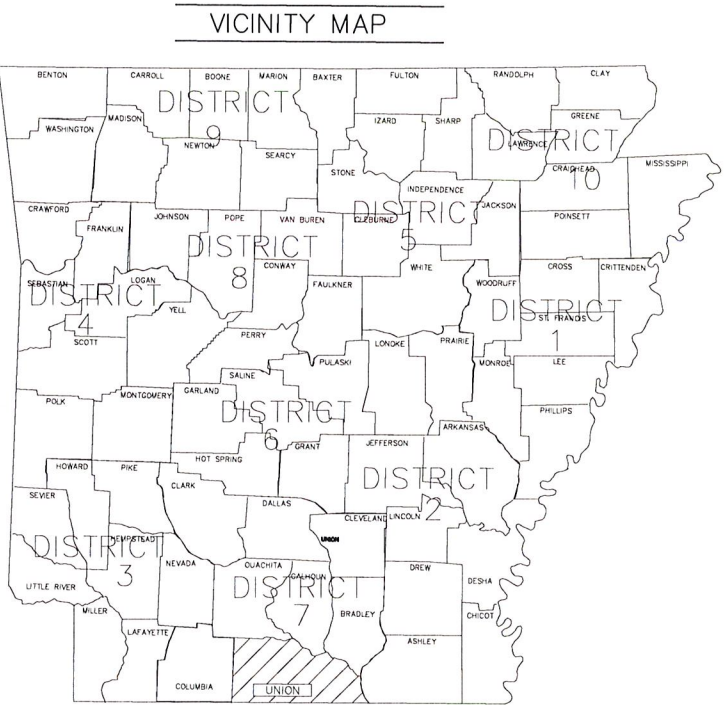
The City of El Dorado, Arkansas hereby notifies all bidders that this contract is subject to applicable labor laws, non-discrimination provisions, wage rate laws and other federal laws including the Fair Labor Standards Acts of 1938. The Work Hours Act of 1962 and Title VI of the Civil Rights Act of 1964 also apply.

City of El Dorado, Arkansas

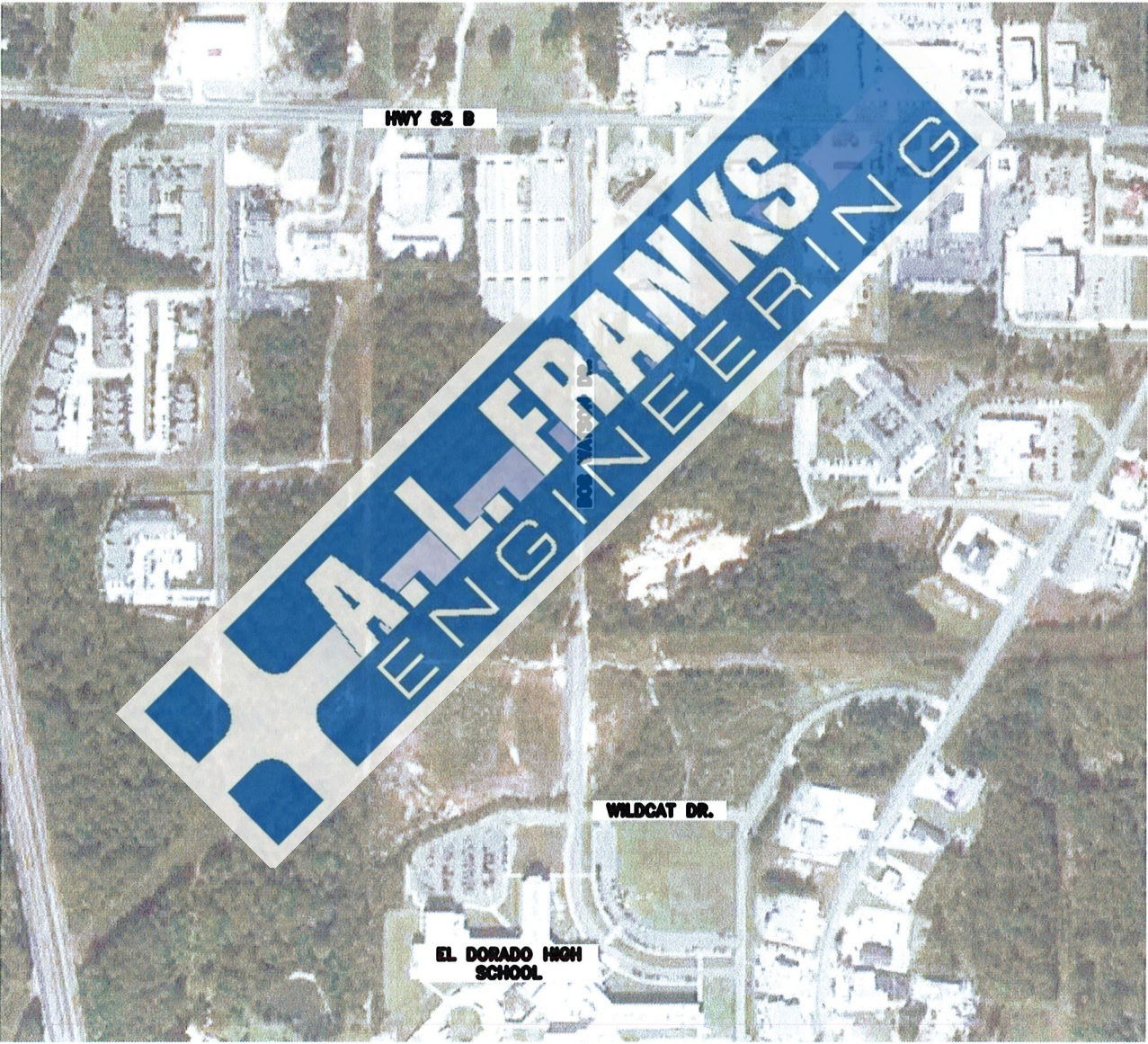
Robert Edmonds, Public Works Director



# BOB WATSON DR. SIDEWALK (EL DORADO) (TAP-15)(S) ARDOT JOB # 070575



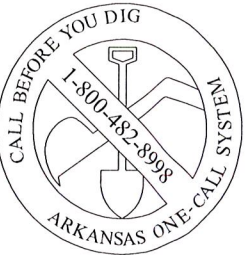
ARK. HWY. DIST. NO. 7



CITY OF EL DORADO

CITY OF EL DORADO, ARKANSAS  
512 NORTH WASHINGTON  
EL DORADO, ARKANSAS 71730  
PH: 870-863-4244

ROBERT EDMONDS, PUBLIC WORKS DIRECTOR



BEFORE CONSTRUCTION BEGINS  
GIVE 48 HOURS NOTICE  
FOR UNDERGROUND UTILITY LOCATIONS  
CALL: THE ARKANSAS ONE-CALL SYSTEM 1-800-482-8998

SUBMITTED BY:



101 West Main, Suite 413  
El Dorado, Arkansas 71730  
Phone (870) 444-5160  
Fax (870) 444-5161

118 E. Broad Street  
Texarkana, Arkansas 71854  
Phone (870) 216-1906  
Fax (870) 216-1907



*Kiron S. Browning* 4/6/2022  
KIRON S. BROWNING, P.E. PROJECT ENGINEER DATE

*Cody J. Stringer* 4/6/22  
CODY J. STRINGER, E.I. PROJECT MANAGER DATE



GENERAL NOTES

1. GRADE LINE DENOTES FINISHED GRADE OF SIDEWALKS WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. ANY EQUIPMENT OR APPURTENACNE THAT INTERFERS WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U.S.MAILBOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECIEVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.
5. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE THE STANDARD SPECIFICATIONS.
6. 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 CONSTRUCTION OPERATION.
7. ALL PARTS OF THIS DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE AASHTO, ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARDS AND DETAILS, ADA STANDARDS FOR ACCESSIBLE DESIGN AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITIONS.
8. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES OR SERVICE LINES CROSSED OR EXPOSED BY CONSTRUCTION OPERATIONS. WHERE EXISTING UTILITIES OR SERVICE LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL REPLACE OR REPAIR THE UTILITES OR SERVICE LINES WITH THE SAME TYPE OF ORIGINAL MATERIAL AND CONTRUCTION, OR BETTER, AT THE CONTRACTOR'S EXPENSE.
10. THE CONTRACTOR SHALL PROVIDE FOR THE DIVERSION OF PEDESTRAINS AND VEHICLES DURING THE PROGRESS OF WORK IN A MANNER SATISFACTORY TO THE CONSTRUCTION ENGINEER. NO SEPERATE PAY ITEM.
11. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING STREETS AND SIDEWALKS ADJACENT TO PROJECT FREE OF MUD AND DEBRIS.
12. ALL MODIFICATIONS TO THE CONSTRUCTION PLANS SHALL MEET THE LATEST VERSION OF ADA STANDARDS FOR ACCESSIBLE DESIGN AND BE APPROVED BY THE ENGINEER.
13. ALL CONCRETE AND ASPHALT SCHEDULED FOR REMOVAL SHALL BE SAWCUT FULL DEPTH PRIOR TO REMOVAL. ALL DAMAGE BEYOND THE SAWCUT LINE FOR THE ITEM TO REMAIN SHALL BE REPAIRED AT THE CONTRACTOR'S SOLE EXPENSE.
14. CONTRACTOR TO BACKFILL BEHIND PROPOSED SIDEWALK AND SLOPE TO EXISTING RIGHT-OF-WAY OR AS OTHERWISE NOTED.

GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR CONSTRUCTION, EDITION OF 2014, 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-WATE RATE DETERMINATION
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
604-1	RETROFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTON ZONES

SUMMARY OF QUANTIITES

	ITEM	QUANTITY	UNIT
	REMOVAL AND DISPOSAL	1.0	LS
	MOBILIZATION	1.0	LS
	MAINTENANCE OF TRAFFIC	1.0	LS
	4" CONCRETE FLATWORK	2,370	SY
	8" CONCRETE FLATWORK	120	SY
	6" CONCRETE CURB	2300	LF
	LAYDOWN CURB	80	LF
	RIP RAP DRAINAGE	1.0	LS
	CONCRETE RETAINING WALL	500	LF
	TYPE 1 WHEELCHAIR RAMP	1	EA
	TYPE 3 WHEELCHAIR RAMP	3	EA
	TYPE 4 WHEELCHAIR RAMP	1	EA
	SIDEWALK DRAIN	5	EA
	HEADWALL	2	EA
	HANDRAIL	50	LF
	SIGNS	64	SF
	RE-SET STREET SIGNS	5	EA
	CROSSWALK SIGNS	4	EA
	CROSSWALK STRIPING	2	EA
	GRADE AND SEED	4460	SF
	GRADE AND FILL SIDEWALK AREA	1	LS
	ANTIQUE LIGHTING	39	EA

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Date	Revision	By

Designed	CJS
Checked	KSB
Drawn	CJS
Approved	KSB



118 East Broad Street  
Texarkana, Arkansas 71854  
Phone (870) 216-1906  
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CITY OF EL DORADO, ARKANSAS  
BOB WATSON DR. SIDEWALK

GENERAL NOTES

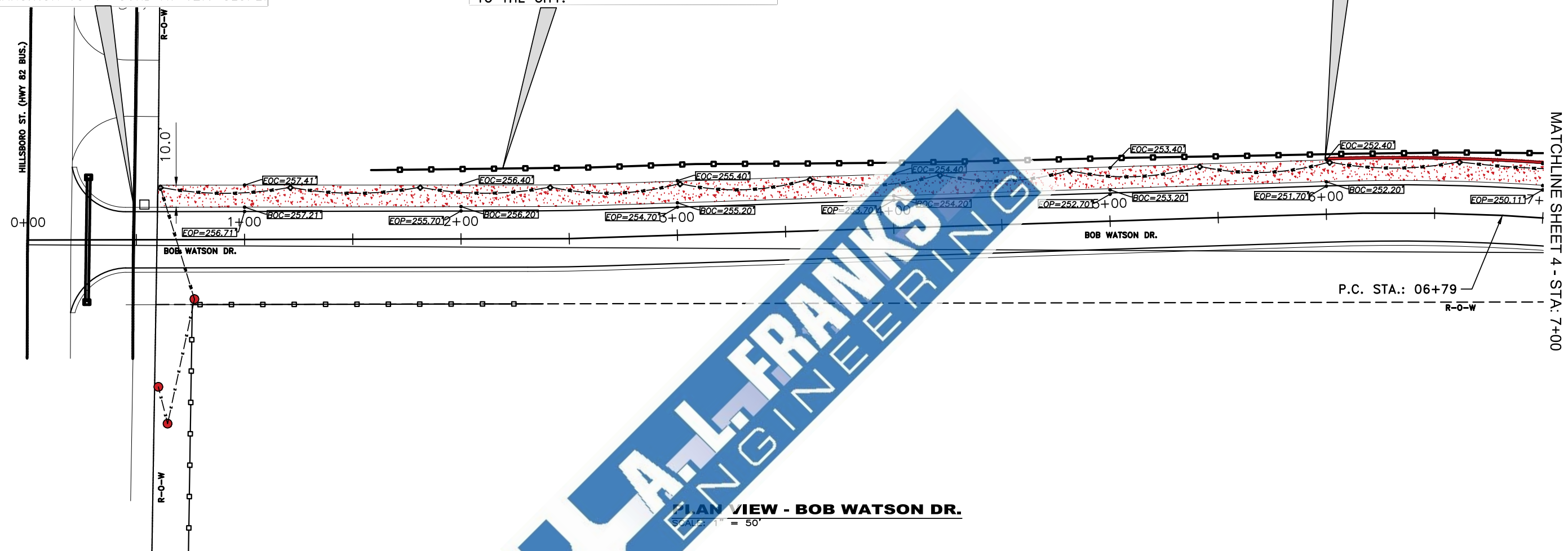


Job No.: ED-01-16  
Scale: AS SHOWN  
Date: FEB 2021  
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TIE-IN PROPOSED CURB AND SIDEWALK TO EXISTING LAY DOWN CURB AT STA: 0+49. MATCH EXISTING CURB ELEVATION. TRANSITION TO 6" CURB AT 12:1 SLOPE.

EXISTING FENCE LINE AND R-O-W. CONTRACTOR TO GRADE AND SOD FROM EDGE OF SIDEWALK TO FENCE LINE. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO FENCE AT NO ADDITIONAL COST TO THE CITY.

RETAINING WALL APPROXIMATELY 200' LONG OR UNTIL BACK TO EXISTING GRADE. RETAINING WALL TO START AT STA: 6+00. SEE TYPICAL RETAINING WALL DETAIL ON DETAIL SHEET 8.



- NOTES:
1. ALL SHEETS - PROPOSED SIDEWALK IS FOLLOWING THE EXISTING ROADWAY, GRADES ARE SHOWN.
  2. ALL SHEETS - PROPOSED CURB AND GUTTER WILL BE INSTALLED AT THE EXISTING EDGE OF PAVEMENT.
  3. ALL SHEETS - SIDEWALK DRAINS WILL BE INSTALLED WHERE INDICATED FOR DRAINAGE.
  4. ALL SHEETS - FILL AS NEEDED TO GRADE BEHIND SIDEWALK TO SLOPE TO GRADE.
  5. ALL SHEETS - WHERE EXISTING CURB AND GUTTER REMAIN, PROPOSED 10' SIDEWALK WILL BE PLACED AT BACK OF CURB.

NOTE:  
CONTRACTOR TO DO MINIMAL SAW CUT AT EOP FOR THE LENGTH OF THE PROJECT TO HAVE A STRAIGHT EDGE TO POUR CURB AGAINST. USE SAW CUT ON EXISTING EOP AS CONTROL POINT FOR ELEVATION. 6" CURB TO BE 24" WIDE AND SIDEWALK TO BE 10' WIDE AT A 2.0% MAX. SEE SIDEWALK TYPICAL SECTION ON DETAIL SHEET 8.

NOTE:  
CONTRACTOR TO GRADE AT 3:1 SLOPE AND SOD FROM BACK EDGE OF SIDEWALK GRADE & HOLD THE SLOPE TO RIGHT OF WAY FOR THE LENGTH OF THE SIDEWALK. GRADING WILL BE DONE AT THE OPINION OF THE ENGINEER AT NO ADDITIONAL COST. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO FENCE AT NO ADDITIONAL COST TO THE CITY.

Designed	CJS
Checked	KSB
Drawn	CJS
Approved	KSB



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BOB WATSON DR. SIDEWALK

SIDEWALK IMPROVEMENTS  
STA: 0+00 TO STA: 7+00



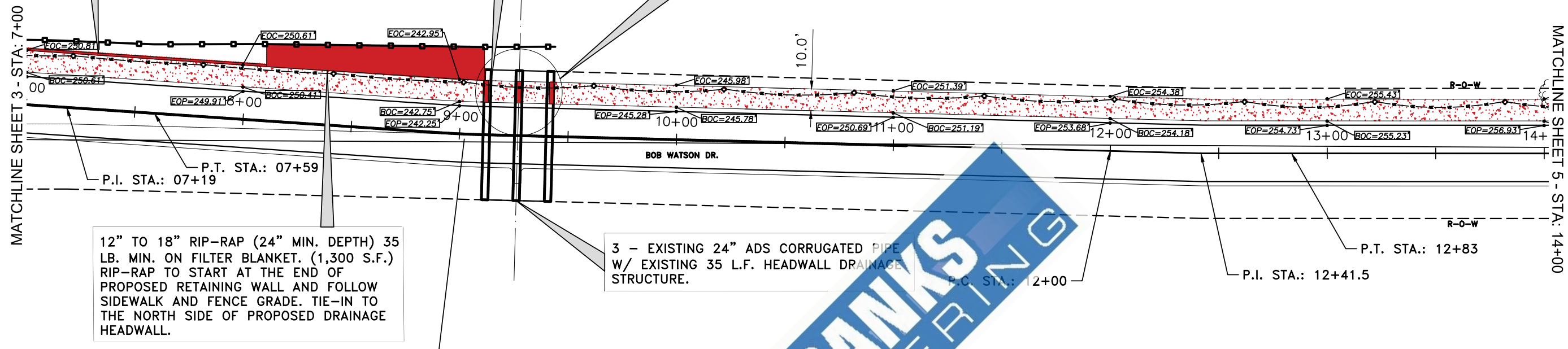
Job No.: ED-01-16  
Scale: 1"=50'  
Date: FEB 2021  
Sheet 3 OF 14

Date	Revision	By

SEE NOTE SHEET 4 FOR DETAILS. SEE  
RETAINING WALL DETAIL SHEET 8.

3-SIDEWALK DRAINS, HANDRAIL, AND  
PROPOSED HEADWALL TO BE INSTALLED ON  
TOP OF 3-EXISTING 24" ADS CORRUGATED  
PIPE SEE DETAIL SHEET 10.

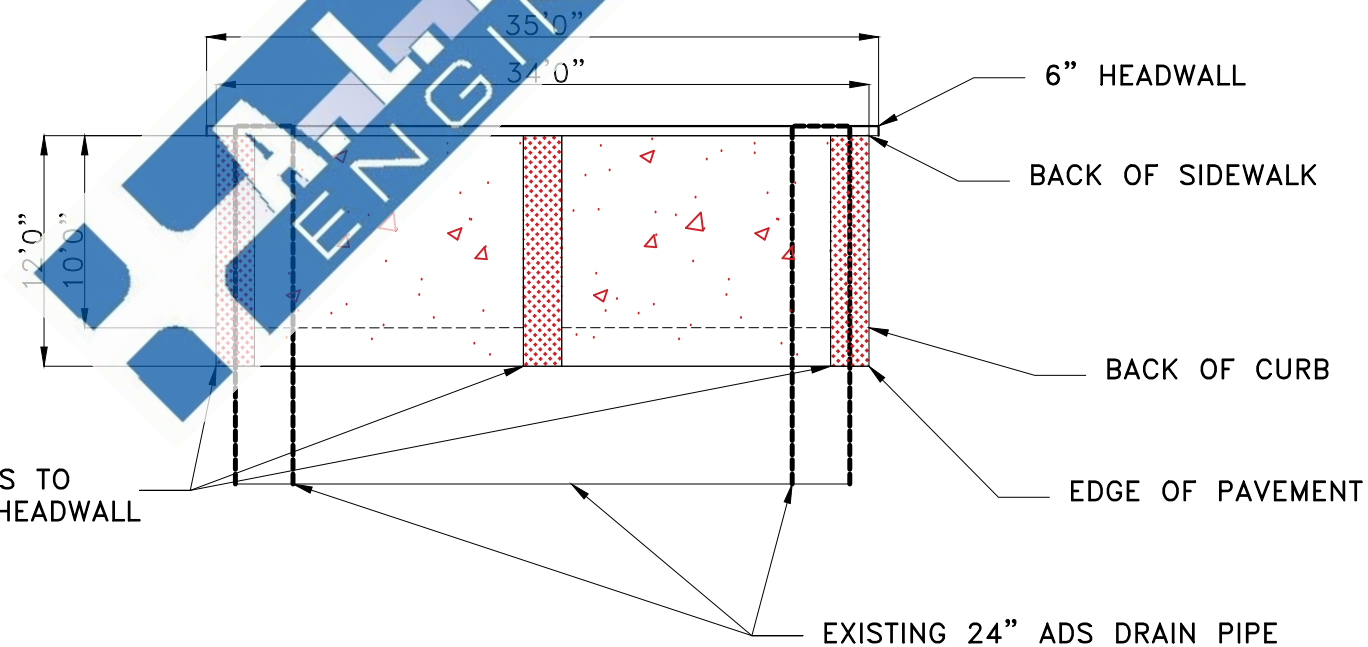
SEE BELOW. "DETAIL A"



NOTE:  
CONTRACTOR TO DO MINIMAL SAW CUT AT  
EOP FOR THE LENGTH OF THE PROJECT TO  
HAVE A STRAIGHT EDGE TO POUR CURB  
AGAINST. USE SAW CUT ON EXISTING EOP  
AS CONTROL POINT FOR ELEVATION. 6"  
CURB TO BE 24" WIDE AND SIDEWALK TO  
BE 10' WIDE AT A 2.0% MAX. SEE  
SIDEWALK TYPICAL SECTION ON DETAIL  
SHEET 8.

NOTE:  
CONTRACTOR TO GRADE AT 3:1 SLOPE AND  
SOD FROM BACK EDGE OF SIDEWALK GRADE  
& HOLD THE SLOPE TO RIGHT OF WAY FOR  
THE LENGTH OF THE SIDEWALK. GRADING  
WILL BE DONE AT THE OPINION OF THE  
ENGINEER AT NO ADDITIONAL COST.  
CONTRACTOR IS RESPONSIBLE FOR ANY  
DAMAGE TO FENCE AT NO ADDITIONAL COST  
TO THE CITY.

24" SIDEWALK DRAINS TO  
EXTEND TO TOP OF HEADWALL



**DETAIL A**  
SCALE: 1" = 10'

Designed CJS  
Checked KSB  
Drawn CJS  
Approved KSB



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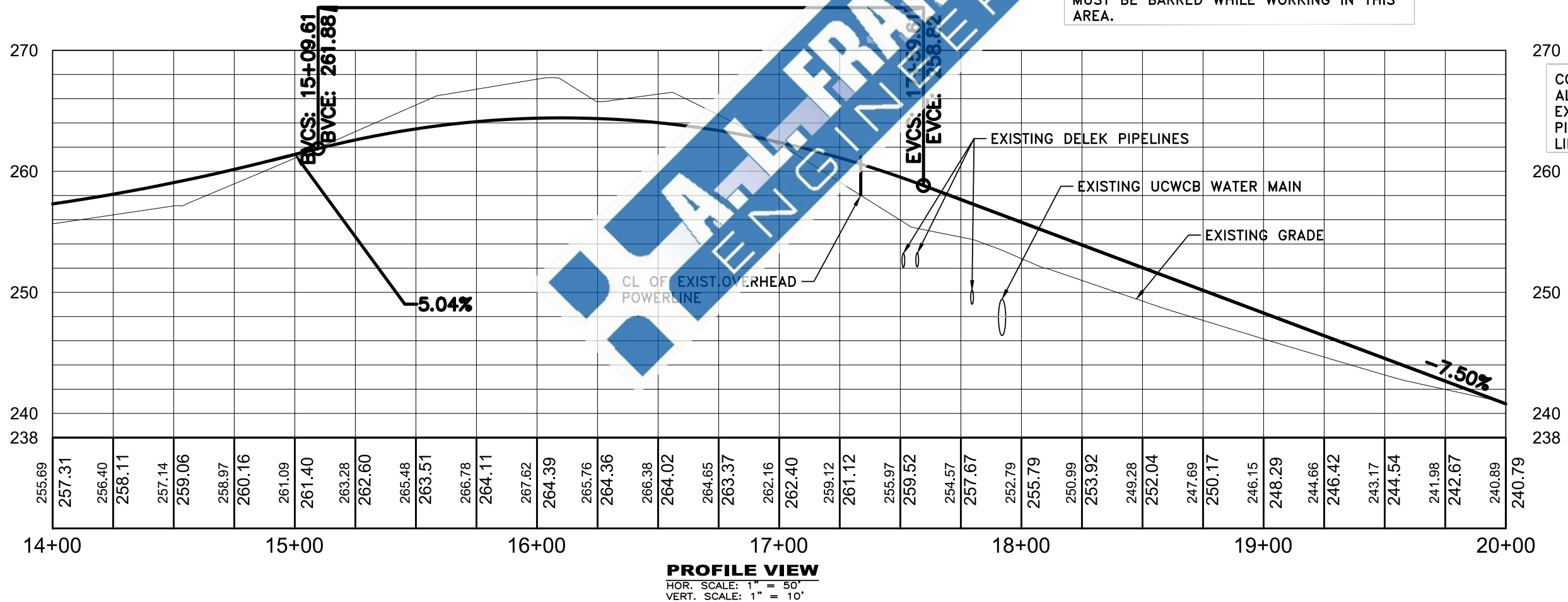
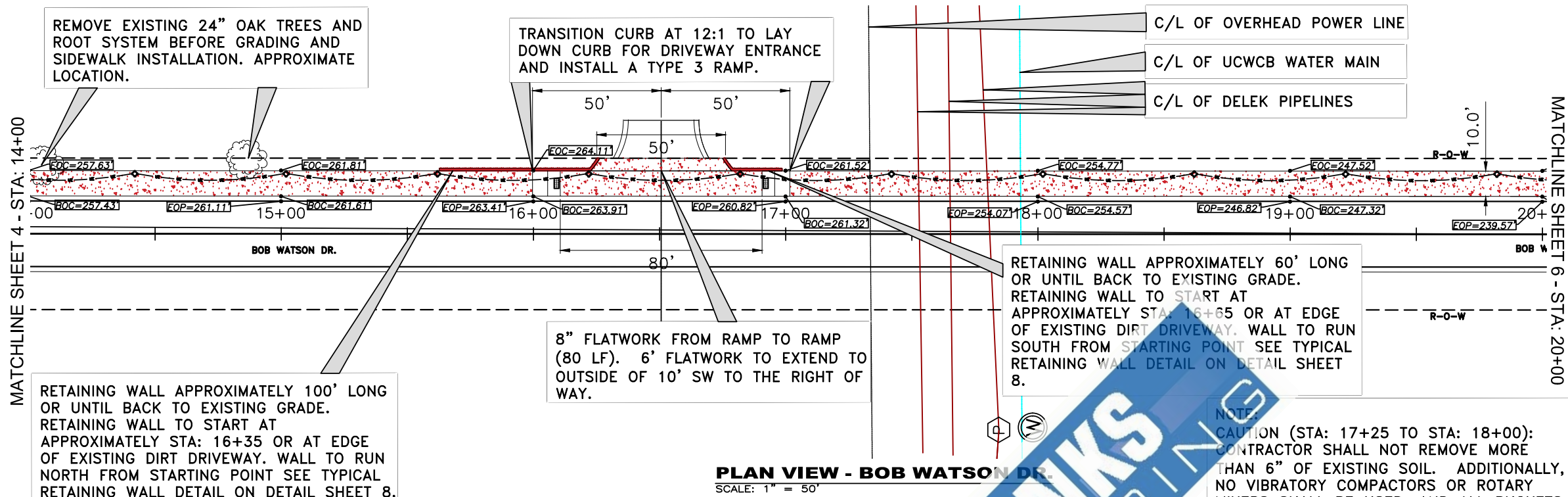
CITY OF EL DORADO, ARKANSAS  
BOB WATSON DR. SIDEWALK

SIDEWALK IMPROVEMENTS  
STA: 7+00 TO STA: 14+00



Job No.: ED-01-16  
Scale: 1"=50'  
Date: FEB 2021  
Sheet 4 OF 14





Date	Revision	By

Designed CJS  
Checked KSB  
Drawn KSB  
Approved ALF



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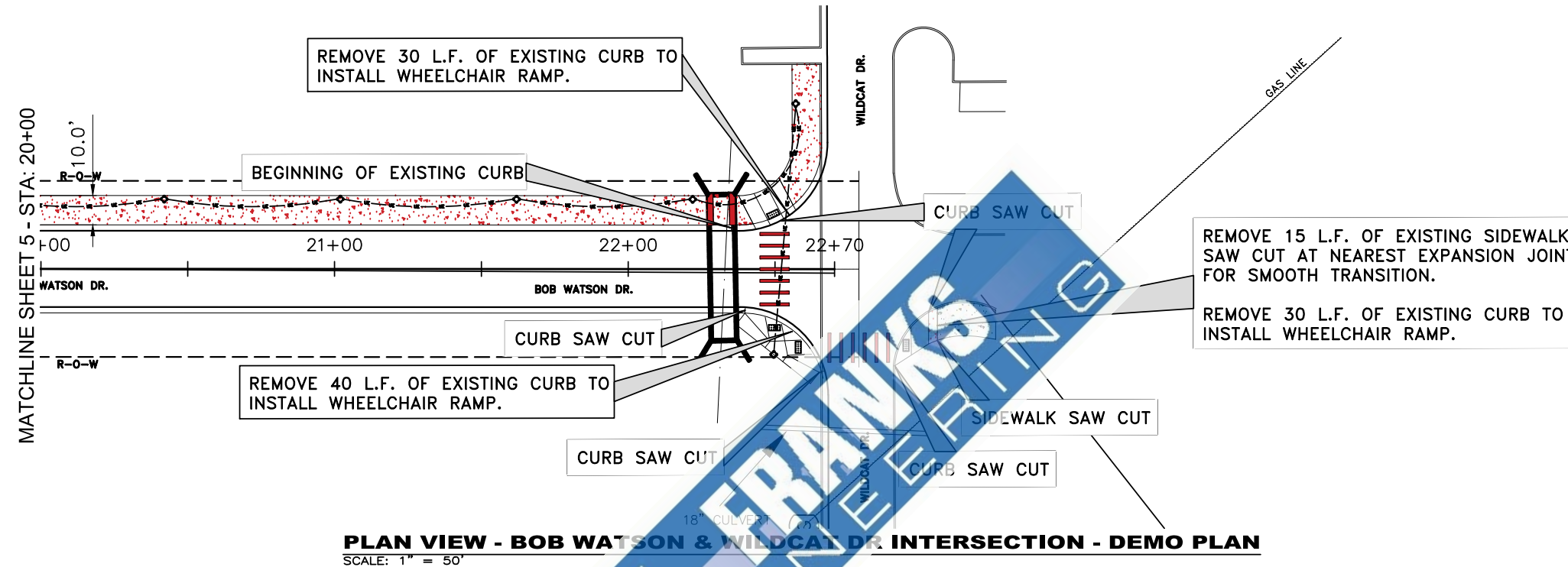
CITY OF EL DORADO, ARKANSAS  
BOB WATSON DR. SIDEWALK

SIDEWALK IMPROVEMENTS  
STA: 14+00 TO STA: 20+00



Job No.: ED-01-16  
Scale: 1"=50'  
Date: FEB 2021  
Sheet 5 OF 14





Date	Revision	By


Designed	CJS
Checked	KSB
Drawn	CJS
Approved	KSB



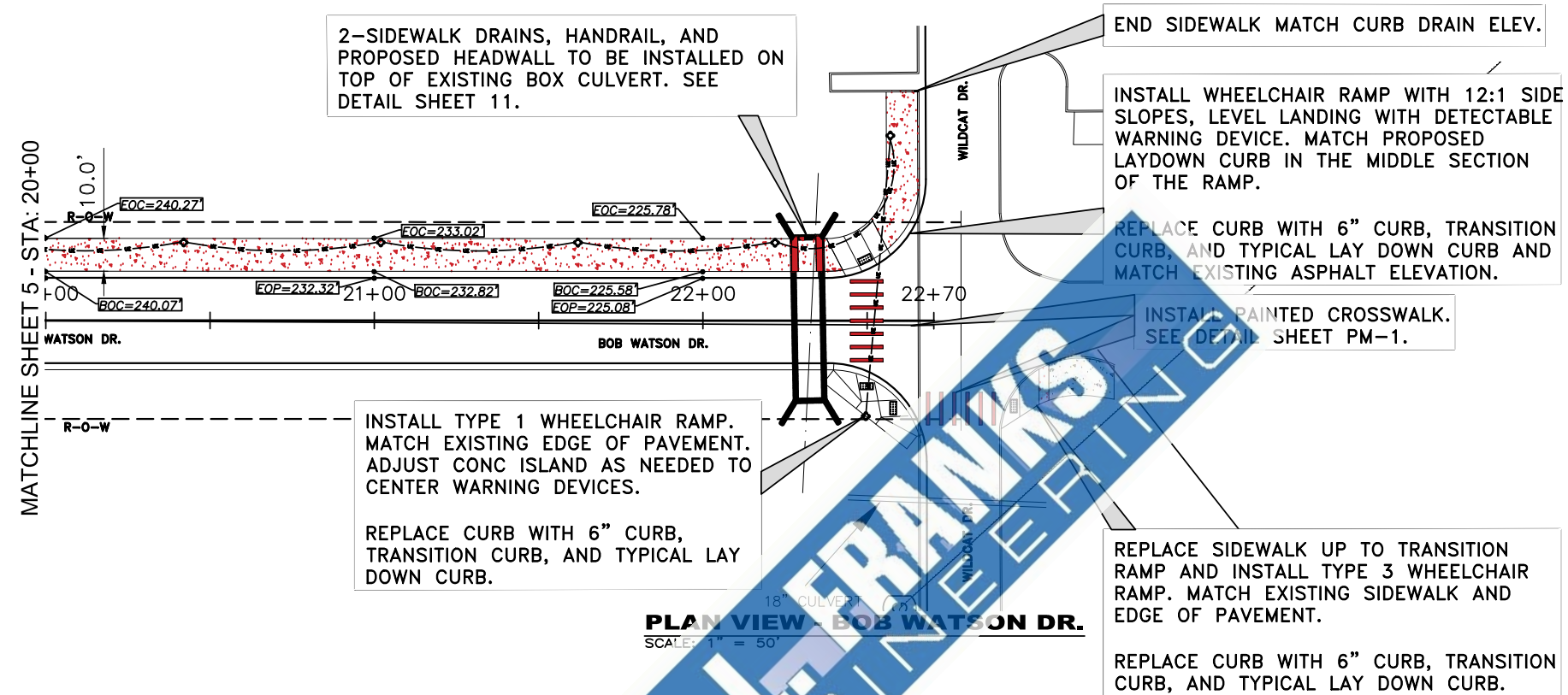
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CITY OF EL DORADO, ARKANSAS  
BOB WATSON DR. SIDEWALK

SIDEWALK IMPROVEMENTS  
DEMO PLAN  
STA: 20+00 TO STA: 22+70



Job No.: ED-01-16  
Scale: 1"=50'  
Date: FEB 2021  
Sheet 6 OF 14



NOTE:  
CONTRACTOR TO DO MINIMAL SAW CUT AT EOP FOR THE LENGTH OF THE PROJECT TO HAVE A STRAIGHT EDGE TO POUR CURB AGAINST. USE SAW CUT ON EXISTING EOP AS CONTROL POINT FOR ELEVATION. 6" CURB TO BE 24" WIDE AND SIDEWALK TO BE 10' WIDE AT A 2.0% MAX. SEE SIDEWALK TYPICAL SECTION ON DETAIL SHEET 8.

NOTE:  
CONTRACTOR TO GRADE AT 3:1 SLOPE AND SOD FROM BACK EDGE OF SIDEWALK GRADE & HOLD THE SLOPE TO RIGHT OF WAY FOR THE LENGTH OF THE SIDEWALK. GRADING WILL BE DONE AT THE OPINION OF THE ENGINEER AT NO ADDITIONAL COST. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO FENCE AT NO ADDITIONAL COST TO THE CITY.

Date	Revision	By


Designed	CJS
Checked	KSB
Drawn	CJS
Approved	KSB



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BOB WATSON DR. SIDEWALK

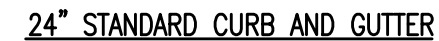
SIDEWALK IMPROVEMENTS  
STA: 20+00 TO STA: 22+70



Job No.: ED-01-16  
Scale: 1"=50'  
Date: FEB 2021  
Sheet 7 OF 14



1. ALL CONCRETE SIDEWALK PAVING TO HAVE A SINGLE MAT OF REINFORCING STEEL (NO. 4 BARS 18" OC/W)
2. ALL SIDEWALK TO HAVE CONTROL JOINTS AT INTERVALS EQUAL TO THE SECTION WIDTH.
3. ALL SIDEWALK TO HAVE EXPANSION JOINTS AT INTERVALS NOT TO EXCEED 80'.



PROVIDE EXPANSION JOINTS AT 60' MAX SPACING.



NOTE:  
HANDRAILS TO BE IN FULL COMPLIANCE WITH ALL  
APPLICABLE SECTIONS OF THE MOST CURRENT REVISION  
OF THE AMERICANS WITH DISABILITIES ACT.  
HANDRAIL TO BE BLACK PAINTED STEEL  
AND SLOPED TO MATCH TOP OF WALL SLOPE AT LOCATIONS  
SHOWN FOR INSTALLATION. ALL VERTICAL SECTIONS TO BE  
PLUMB.



Date	Revision	By

Designed	CJS
Checked	KSB
Drawn	CJS
Approved	KSB



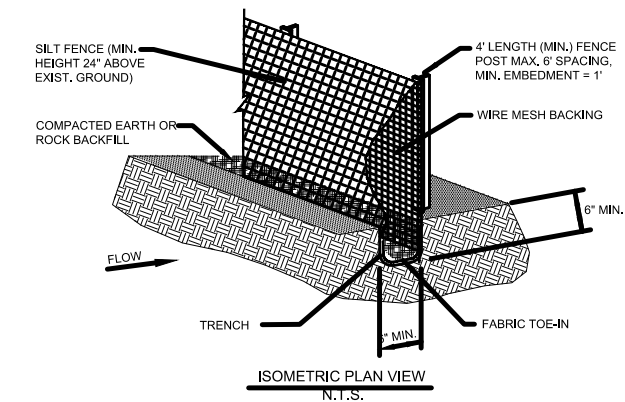
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**CITY OF EL DORADO, ARKANSAS**  
**BOB WATSON DR. SIDEWALK**

## SIDEWALK DETAIL SHEET



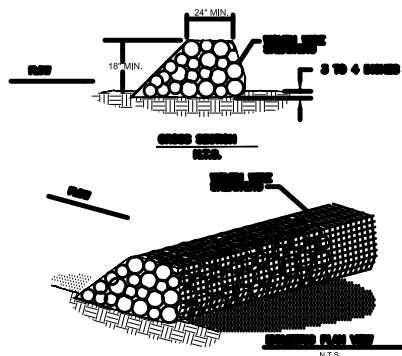
<b>Job No.:</b> ED-01-16
<b>Scale:</b> AS SHOWN
<b>Date:</b> FEB 2021
<b>Sheet</b> 8 <b>OF</b> 14



**SILT FENCE GENERAL NOTES:**

1. POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TOWIRE BACKING, WHICH IN TURN IS ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
5. INSPECTION SHALL BE MADE EVERY TWO WEEKS AND AFTER EACH 1/2\"/>
6. SILT FENCE SHALL BE REMOVED WHEN FINAL STABILIZATION IS ACHIEVED OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

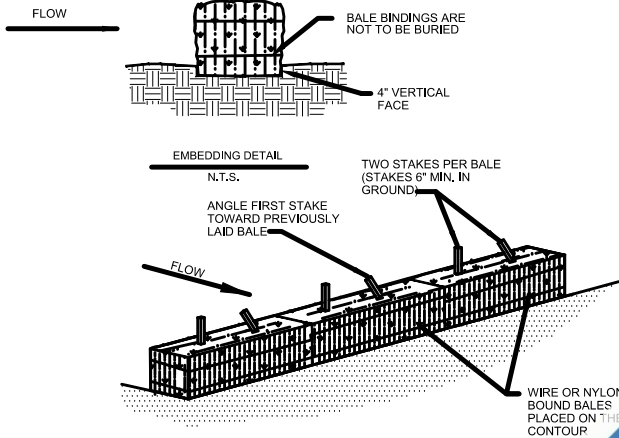
**SILT FENCE DETAIL**



**ROCK BERM GENERAL NOTES:**

1. USE ONLY OPEN GRADED ROCK 4-8 INCHES IN DIAMETER FOR STREAM FLOW CONDITION. USE OPEN GRADED ROCK 3-5 INCHES IN DIAMETER FOR OTHER CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE SIZE OF 20 GAUGE AND SHALL BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP.
3. THE ROCK BERM SHALL BE INSPECTED EVERY TWO WEEKS OR AFTER EACH 1/2\"/>
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD OF THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.
6. ROCK BERM SHOULD BE USED AS CHECK DAMS FOR CONCENTRATED FLOW AND ARE NOT INTENDED FOR USE IN PERIMETER PROTECTION.

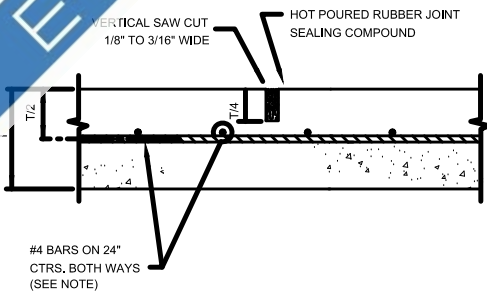
**ROCK BERM DETAIL**  
N.T.S.



**STRAW BALE DIKE**  
N.T.S.

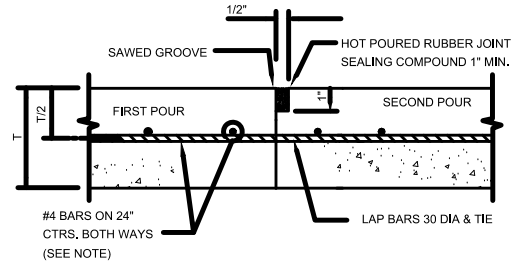
**STRAW BALE DIKE GENERAL NOTES:**

1. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF FOUR INCHES.
2. BALES SHALL BE SECURELY ANCHORED IN PLACE BY 2\"/>
3. INSPECTION SHALL BE MADE EVERY TWO WEEKS AND AFTER EACH 1/2\"/>
4. WHEN SILT REACHES A DEPTH OF 6 INCHES, IT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.
5. AFTER THE DISTURBED AREAS OF THE SITE ARE COMPLETELY STABILIZED, THE BALES SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED SPOIL DISPOSAL SITE.



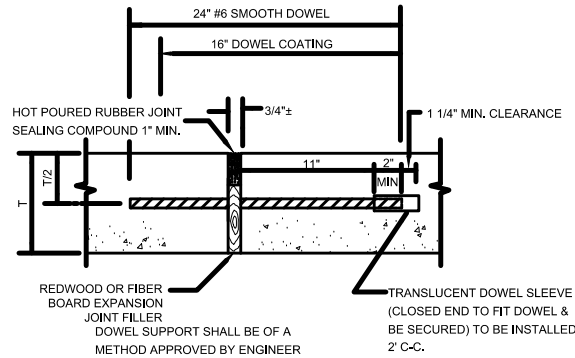
TYPICAL SPACING: 15-FT CENTERS

**SAWED CONTRACTION JOINT**  
N.T.S.



TO BE LOCATED AT END OF DAYS POUR OR AS NOTED IN THE PAVING PLAN

**CONSTRUCTION JOINT**  
N.T.S.



(SPACED 100 FT. MAXIMUM; LOCATE AT STRUCTURES AND AT INTERSECTION P.C.'S & P.T.'S)

**EXPANSION JOINT**  
N.T.S.

Date	Revision	By

Designed	CJS
Checked	KSJ
Drawn	CJS
Approved	KSJ



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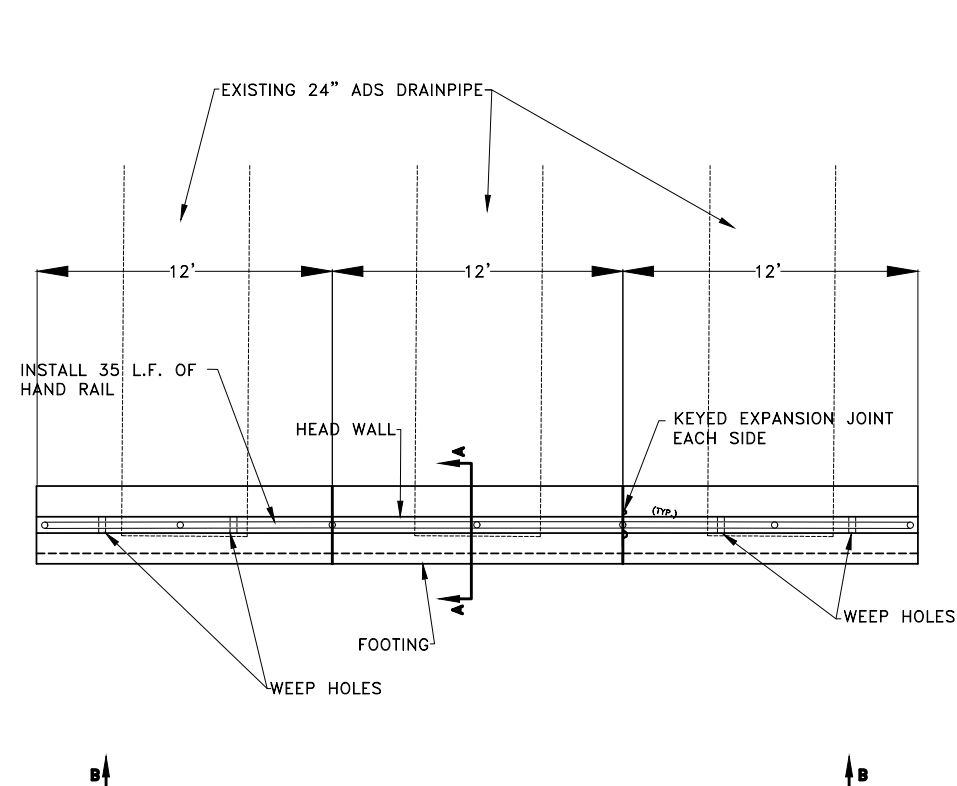
CITY OF EL DORADO, ARKANSAS  
BOB WATSON DR. SIDEWALK

MISCELLANEOUS DETAILS

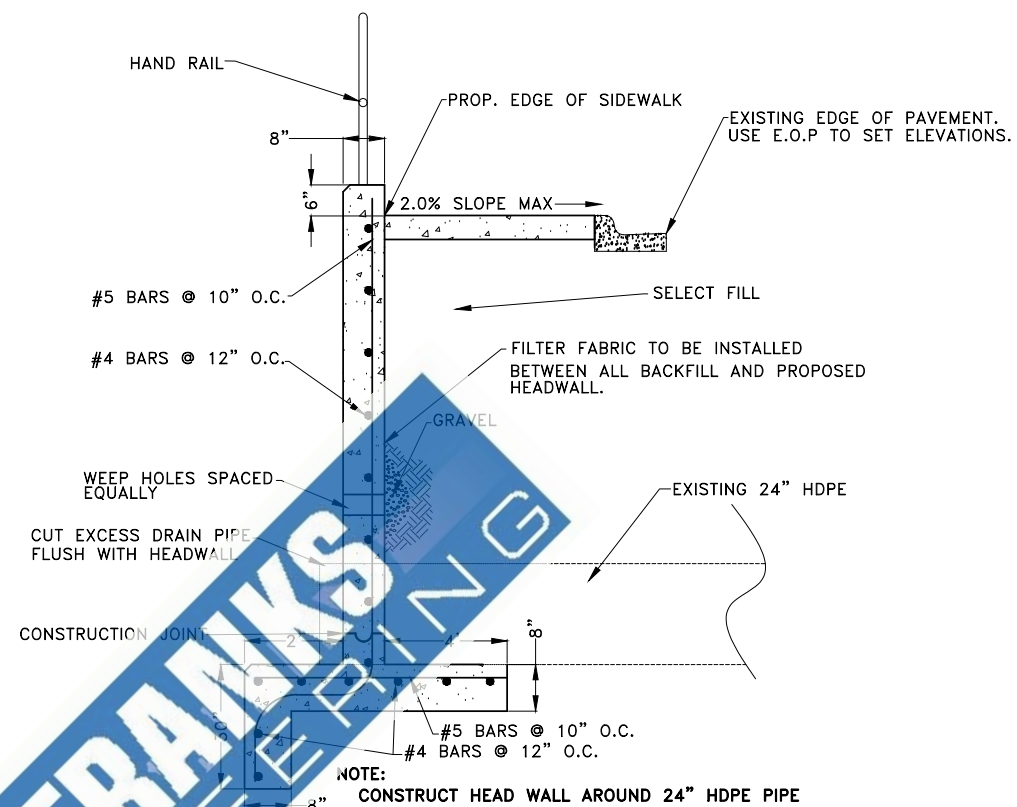


Job No.: ED-01-16  
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Sheet 9 OF 14

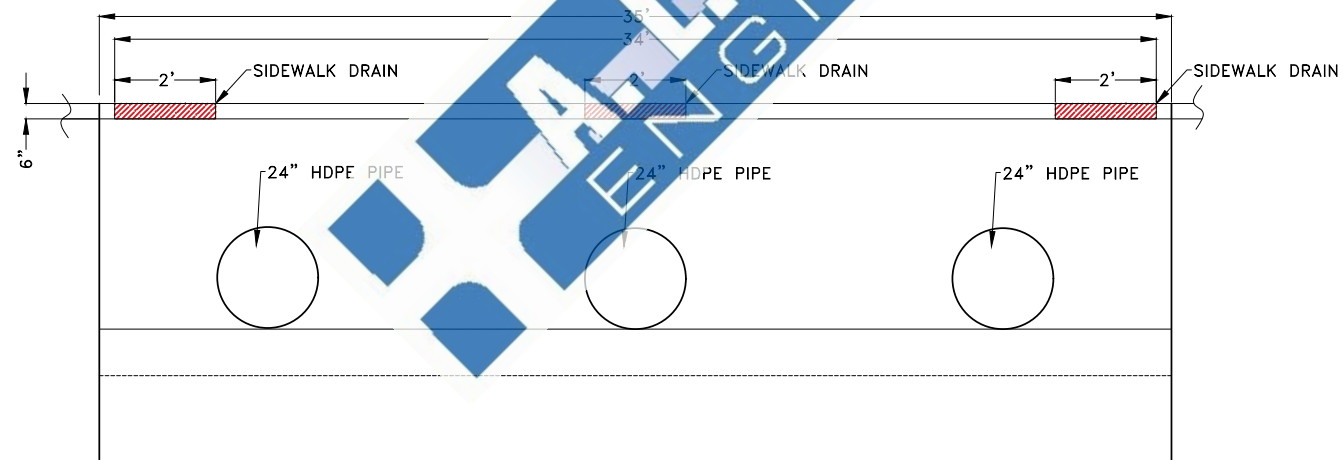




**HEAD WALL #1  
PLAN VIEW**  
SCALE: AS SHOWN



**HEAD WALL #1  
SECTION A-A**  
SCALE: AS SHOWN



**HEAD WALL #1  
SECTION B-B**  
SCALE: AS SHOWN

Date	Revision	By

Designed CJS  
Checked KSB  
Drawn CJS  
Approved KSB



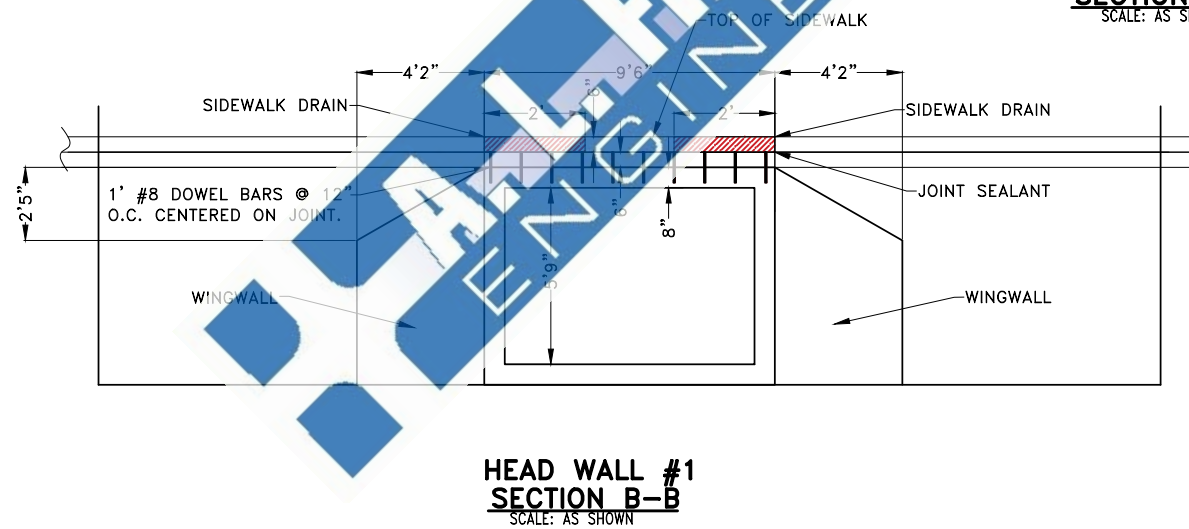
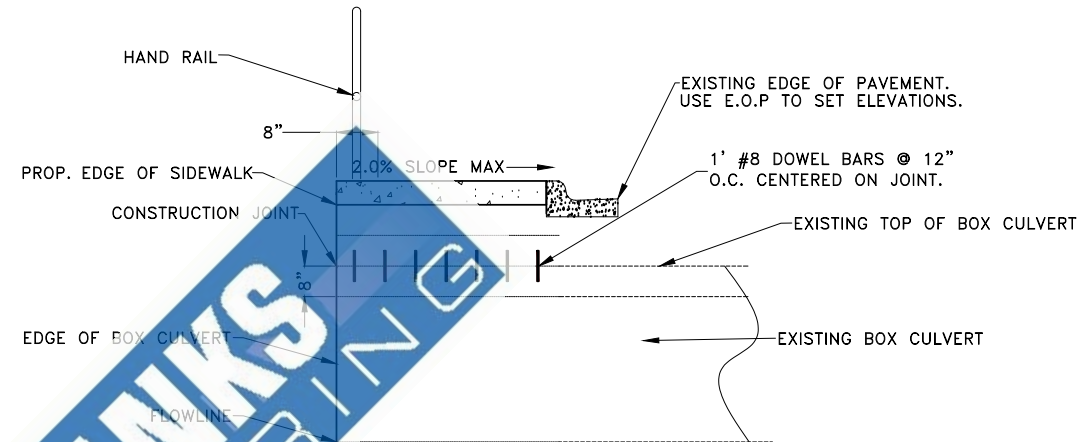
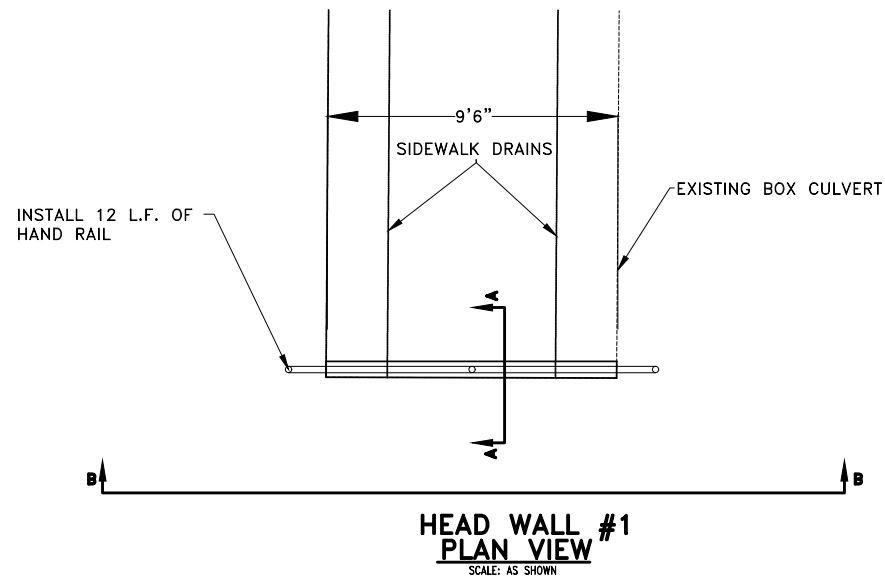
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BOB WATSON DR. SIDEWALK**

**DRAINAGE HEADWALL  
STA. 9+25**



Job No.: ED-01-16  
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Date: FEB 2021  
Sheet 10 OF 14



Date	Revision	By

Designed	CJS
Checked	KSB
Drawn	CJS
Approved	KSB



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CITY OF EL DORADO, ARKANSAS  
BOB WATSON DR. SIDEWALK

BOX CULVERT HEADWALL  
STA. 22+35



Job No.: ED-01-16  
Scale: AS SHOWN  
Date: FEB 2021  
Sheet 11 OF 14



TABLE OF DIMENSIONS & REINFORCING STEEL  
(Wings for One Structure End)

Maximum Wingwall Height Hw	Dimensions				Variable Reinforcing			Estimated Quantities per ft of wing length (2~Wings)	
	W	X	Y	Z	Bars J 1	Bars J 2		Reinf (Lb/Ft)	Conc (CY/Ft)
2'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	33.73 0.248
3'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.07 0.261
3'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.74 0.273
4'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	38.41 0.285
4'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	41.75 0.330
5'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.09 0.343
5'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.75 0.355
6'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	46.42 0.367
7'-0"	3'-8"	1'-9"	1'-3"	7"	#4	1'-0"	#4	1'-0"	52.77 0.414
8'-0"	4'-2"	2'-0"	1'-6"	8"	#5	1'-0"	#4	1'-0"	60.19 0.486
9'-0"	4'-8"	2'-3"	1'-9"	8"	#4	6"	#4	6"	81.49 0.535
10'-0"	5'-2"	2'-6"	2'-0"	8"	#5	6"	#4	6"	97.25 0.584
11'-0"	5'-8"	2'-9"	2'-3"	8"	#6	6"	#5	6"	133.65 0.634
12'-0"	6'-2"	3'-0"	2'-6"	9"	#7	6"	#5	6"	162.29 0.721
13'-0"	6'-8"	3'-3"	2'-9"	11"	#7	6"	#5	6"	178.80 0.856
14'-0"	7'-2"	3'-6"	3'-0"	1'-0"	#8	6"	#5	6"	216.78 0.959
15'-0"	7'-8"	4'-0"	3'-0"	1'-1"	#9	6"	#6	6"	283.06 1.068
16'-0"	8'-2"	4'-6"	3'-0"	1'-3"	#9	6"	#6	6"	297.02 1.234

TABLE OF WINGWALL REINFORCING (2~Wings)

Bar	Size	No.	Spa
D	#5	~	1'-0"
E	#4	~	1'-0"
F	#4	~	1'-0"
G	#6	4	~
M	#4	4	~
P	#4	~	1'-0"
R	#5	6	~
V	#4	~	1'-0"

TABLE OF ESTIMATED CULVERT TOEWALL QUANTITIES

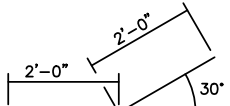
Bar	Size	No.	Spa
L	#4	~	1'-6"
Q	#4	1	~
Reinf (Lb/Ft)			2.45
Conc (CY/Ft)			0.037

WING DIMENSION CALCULATIONS:

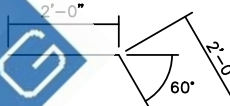
Formulas: (All values are in Feet)  
 $Hw = H + T + C - 0.250'$   
 $A = (Hw - 0.333') (SL)$   
 $B = (A) \text{ Tangent } (30^\circ)$   
 $Lw = (A) \div \cosine (30^\circ)$   
For Cast-in-place culverts:  
 $Ltw = (N) (S) \div (N \div (U))$   
For Precast culverts:  
 $Ltw = (N) (2U \div 5) \div (N \div (0.500'))$   
Total Wingwall Area (Two Wings ~ S.F.) =  $(Hw - 0.333') (Lw)$

Hw = Height of Wingwall  
SL:1 = Side Slope Ratio (Horizontal:1 Vertical)  
Lw = Length of Wingwall  
Ltw = Culvert Toewall Length  
N = Number of Culvert Spans

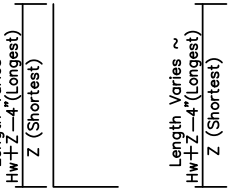
See applicable box culvert standard for H, S, T, and U values.



BARS D



BARS R



BARS J 1



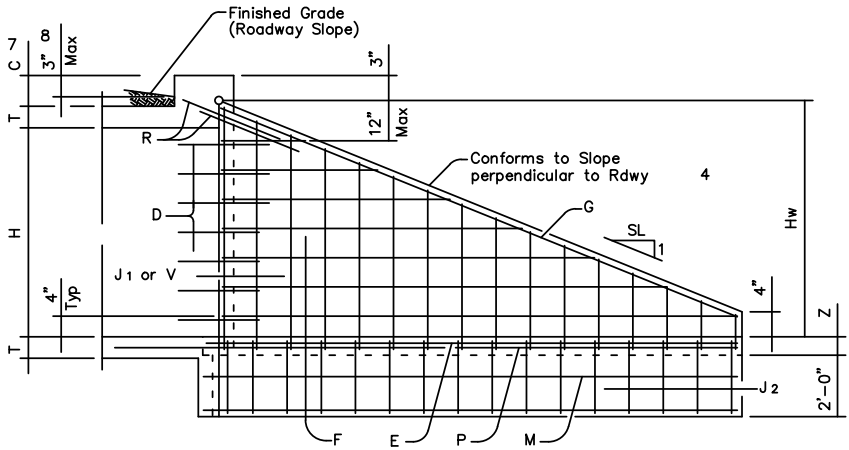
BARS L

BARS V



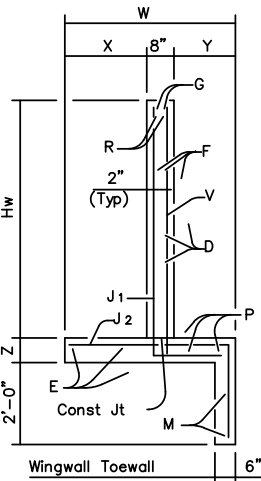
BARS J 2

GENERAL NOTES:  
Designed according to AASHTO LRFD Specifications.  
All reinforcing steel shall be Grade 60.  
Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.  
All concrete shall be Class "C" and shall have a minimum compressive strength of 3600 psi.  
All reinforcing bars shall be adjusted to provide a minimum of 1 1/4" clear cover.  
When structure is founded on solid rock, depth of toewalls for culverts and wingwalls may be reduced or eliminated as directed by the Engineer.  
See BCS sheet for additional dimensions and information.  
The quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for Contractor's information only.

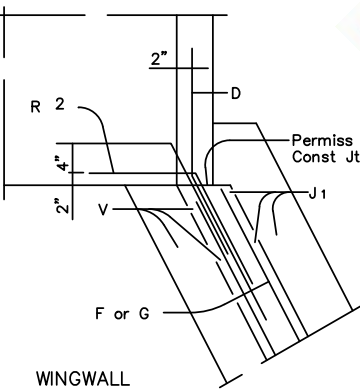


INSIDE ELEVATION

(Showing reinforcing. Culvert and Culvert Toewall reinforcing not shown for clarity.)



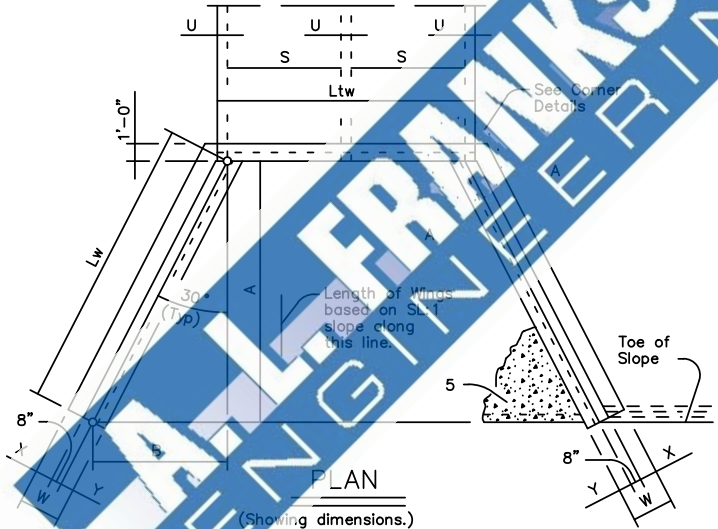
SECTION A-A



WINGWALL

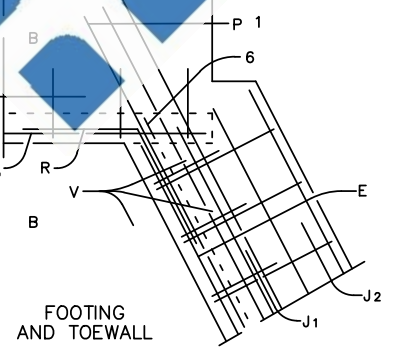
CORNER DETAILS

(Culvert and Culvert Toewall reinforcing not shown for clarity.)

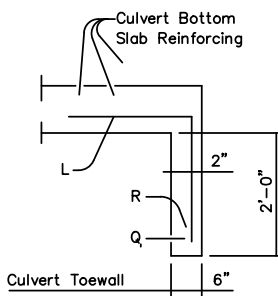


PLAN

(Showing dimensions.)



FOOTING AND TOEWALL



SECTION B-B

Date	Revision	By

Designed	CJS
Checked	KSB
Drawn	CJS
Approved	KSB



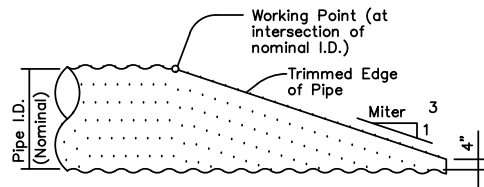
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BOB WATSON DR. SIDEWALK

CONCRETE WING WALL DETAILS



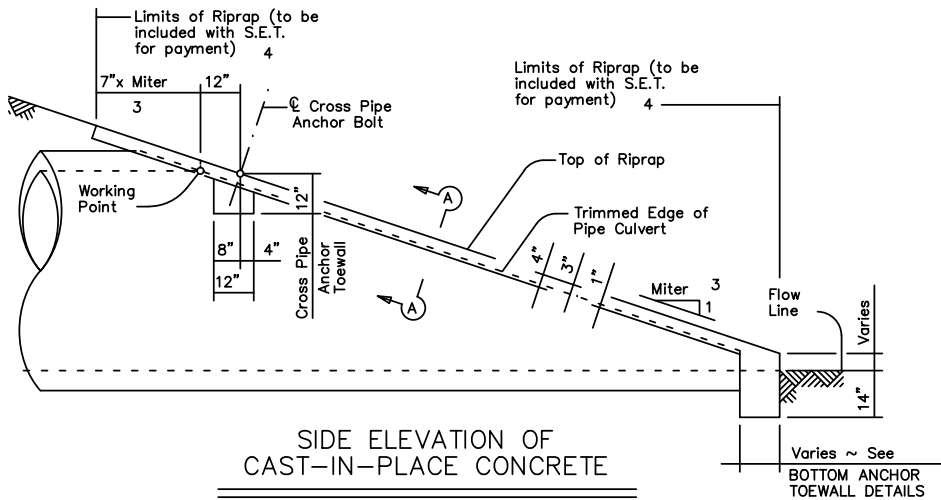
Job No.: ED-01-16
Scale: AS SHOWN
Date: FEB 2021
Sheet 12 OF 14



NOTE: All Pipe Runners, calculations, and dimensions are based on the pipe culverts mitered as shown in this detail. Alternate styles of mitered ends will require that appropriate adjustments be made to the values presented on this standard.

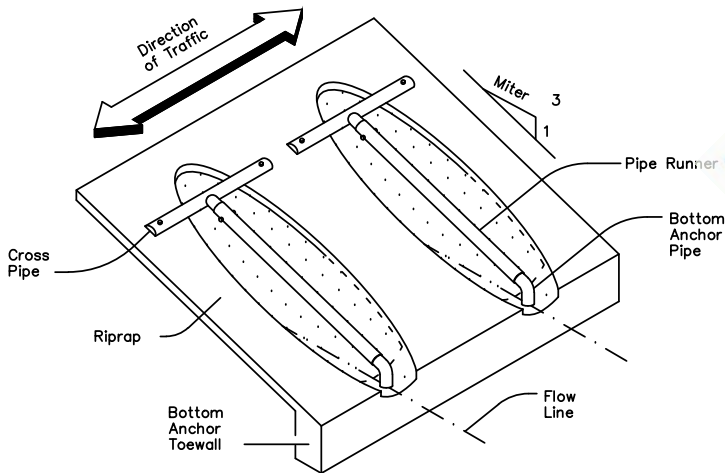
SIDE ELEVATION OF TYPICAL PIPE CULVERT MITER

(Showing Corrugated Metal Pipe Culvert. Details of Concrete Pipe Culvert are similar.)



SIDE ELEVATION OF CAST-IN-PLACE CONCRETE

(Showing Concrete Pipe Culvert. Details of Corrugated Metal Pipe Culvert are similar. Pipe Runners not shown for clarity)



ISOMETRIC VIEW OF TYPICAL INSTALLATION

(Showing installation with no skew.)

CROSS PIPE LENGTHS & PIPE RUNNER LENGTHS 1 2

Nominal Culvert I.D.	Pipe Culvert Spa ~ G	Cross Pipe Length	Pipe Runner Length											
			3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
			0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
24"	1'- 7"	3'- 5"	N/A	N/A	N/A	5'-10"	N/A	N/A	N/A	8'- 1"	N/A	N/A	N/A	12'- 9"
27"	1'- 8"	3'- 8"	N/A	N/A	5'- 5"	6'-11"	N/A	N/A	7'- 7"	9'- 7"	N/A	N/A	11'-11"	14'-11"
30"	1'-10"	3'-11"	N/A	N/A	6'- 4"	8'- 0"	N/A	N/A	8'- 9"	11'- 0"	N/A	N/A	13'- 8"	17'- 0"
33"	1'-11"	4'- 2"	6'- 2"	6'- 5"	7'- 3"	9'- 1"	8'- 6"	8'-10"	10'- 0"	12'- 5"	13'- 3"	13'- 9"	15'- 5"	19'- 2"
36"	2'- 1"	4'- 5"	6'-11"	7'- 3"	8'- 2"	10'- 2"	9'- 6"	9'-11"	11'- 2"	13'-10"	14'- 9"	15'- 3"	17'- 2"	21'- 3"
42"	2'- 4"	4'-11"	8'- 6"	8'-10"	9'-11"	12'- 4"	11'- 7"	12'- 0"	13'- 6"	16'- 8"	17'- 9"	18'- 5"	20'- 8"	25'- 7"
48"	2'- 7"	5'- 5"	10'- 1"	10'- 5"	11'- 9"	N/A	13'- 7"	14'- 2"	15'-10"	N/A	20'- 9"	21'- 6"	24'- 2"	N/A
54"	3'- 0"	5'-11"	11'- 8"	12'- 1"	N/A	N/A	15'- 8"	16'- 3"	N/A	N/A	23'-10"	24'- 8"	N/A	N/A
60"	3'- 3"	6'- 5"	13'- 3"	N/A	N/A	N/A	17'- 9"	N/A	N/A	N/A	26'-10"	N/A	N/A	N/A

TYPICAL PIPE CULVERT MITERS 3					CONDITIONS WHERE PIPE RUNNERS ARE NOT REQUIRED 2			STANDARD PIPE SIZES & MAX PIPE RUNNER LENGTHS 1			
Side Slope	0° Skew	15° Skew	30° Skew	45° Skew	Nominal Culvert I.D.	Single Pipe Culvert	Multiple Pipe Culverts	Pipe Size	Pipe O.D.	Pipe I.D.	Max Pipe Runner Length
3:1	3:1	3.106:1	3.464:1	4.243:1	12" thru 21"	Skews thru 45°	Skews thru 45°	2" STD	2.375"	2.067"	N/A
4:1	4:1	4.141:1	4.619:1	5.657:1	24"	Skews thru 45°	Skews thru 30°	3" STD	3.500"	3.068"	10'- 0"
6:1	6:1	6.212:1	6.928:1	8.485:1	27"	Skews thru 30°	Skews thru 15°	4" STD	4.500"	4.026"	19'- 8"
					30"	Skews thru 15°	Skews thru 15°	5" STD	5.563"	5.047"	34'- 2"
					33"	Skews thru 15°	Always required				
					36"	Normal(No Skew)	Always required				
					42" to 60"	Always required	Always required				

ESTIMATED CONCRETE RIPRAP QUANTITIES (CY) 5

Nominal Culvert I.D.	3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
12"	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.7	
15"	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9
18"	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	1.0
21"	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.2
24"	0.6	0.7	0.7	0.8	0.8	0.8	0.8	1.0	1.0	1.0	1.1	1.3
27"	0.7	0.7	0.8	0.9	0.8	0.9	0.9	1.1	1.1	1.1	1.2	1.4
30"	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.2	1.2	1.2	1.3	1.6
33"	0.8	0.8	0.9	1.0	1.0	1.0	1.1	1.3	1.3	1.4	1.5	1.7
36"	0.9	0.9	0.9	1.1	1.1	1.1	1.2	1.4	1.4	1.5	1.6	1.8
42"	1.0	1.0	1.1	1.3	1.2	1.3	1.3	1.6	1.6	1.7	1.8	2.1
48"	1.1	1.1	1.2	N/A	1.4	1.4	1.5	N/A	1.9	1.9	2.1	N/A
54"	1.3	1.3	N/A	N/A	1.6	1.6	N/A	N/A	2.1	2.1	N/A	N/A
60"	1.4	N/A	N/A	N/A	1.7	N/A	N/A	N/A	2.3	N/A	N/A	N/A

1 Size of Pipe Runner shall be as shown in the tables. Cross Pipe shall be the same size as the Pipe Runner. Cross Pipe Stub Out and Bottom Anchor Pipe shall be the next smaller size pipe as shown in the STANDARD PIPE SIZES table.

2 This standard allows for the placement of only one pipe runner across each culvert pipe opening. In order to limit the clear opening to be traversed by an errant vehicle, the following conditions must be met:

For 60" culvert pipes, the skew must not exceed 0°.  
For 54" culvert pipes, the skew must not exceed 15°.  
For 48" culvert pipes, the skew must not exceed 30°.  
For all culvert pipe sizes 42" and less, the skew must not exceed 45°.

If the above conditions cannot be met, the designer should consider using a safety end treatment with flared wings. For further information, refer to the TxDOT "Roadway Design Manual".

3 Miter = Slope of Mitered Pipe Culvert End

4 Riprap placed beyond the limits shown will be paid as Concrete Riprap in accordance with Item 432, "Riprap".

5 Quantities shown are for one end of one reinforced Concrete Pipe Culvert. For multiple Pipe Culverts or for Corrugated Metal Pipe Culverts, quantities will need to be adjusted. Riprap quantities are for Contractor's information only.

Date	Revision	By

Designed CJS  
Checked KSB  
Drawn CJS  
Approved KSB



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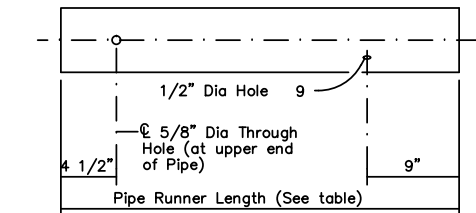
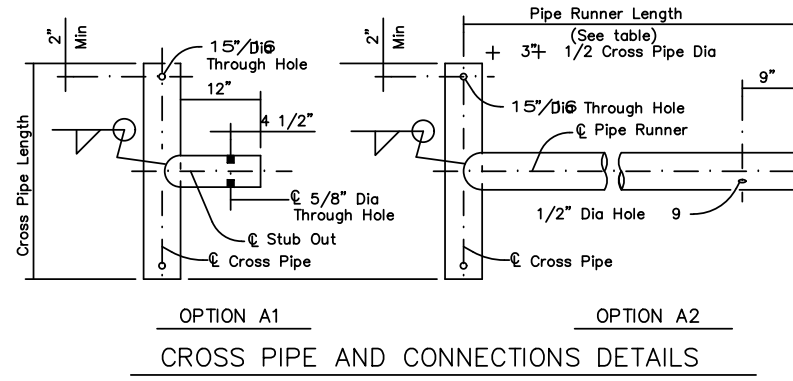
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BOB WATSON DR. SIDEWALK

SAFETY END TREATMENT DETAILS

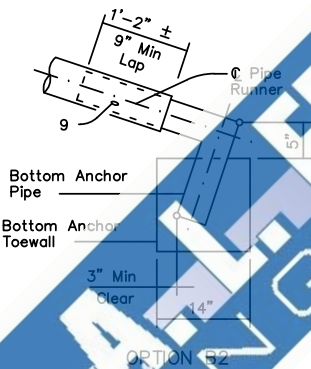
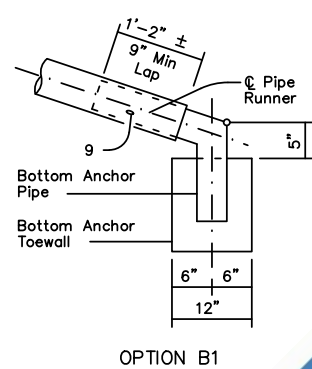
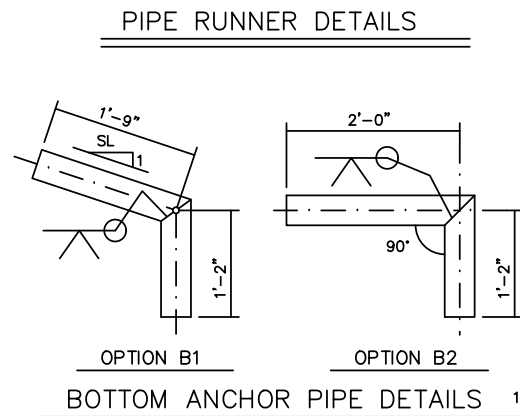


Job No.: ED-01-16  
Scale: AS SHOWN  
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Sheet 13 OF 14





NOTE: The separate Pipe Runner shown is required when Cross Pipe Connection Option A1 is used.



(Culvert & Riprap not shown for clarity)

**GENERAL NOTES:**

Pipe Runners are designed for a traversing load of 1,800 pounds at yield as recommended by Research Report 280-1, "Safety Treatment of Roadside Cross-Drainage Structures", Texas Transportation Institute, March 1981.

The Safety End Treatments shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the Pipe Runners.

Riprap and all necessary inverts shall be Concrete Riprap conforming to the requirements of Item 432, "Riprap".

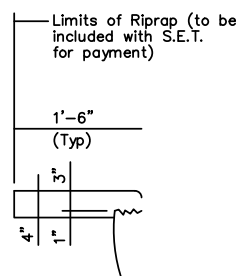
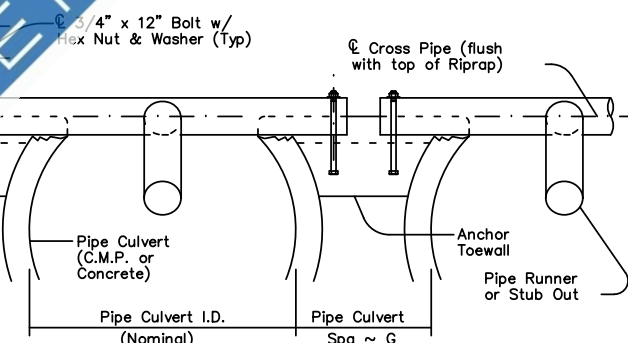
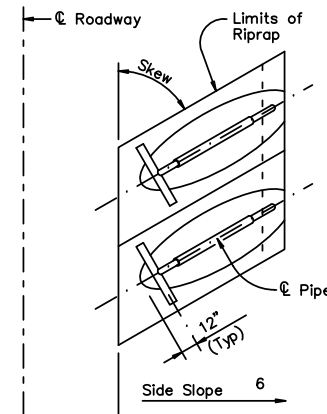
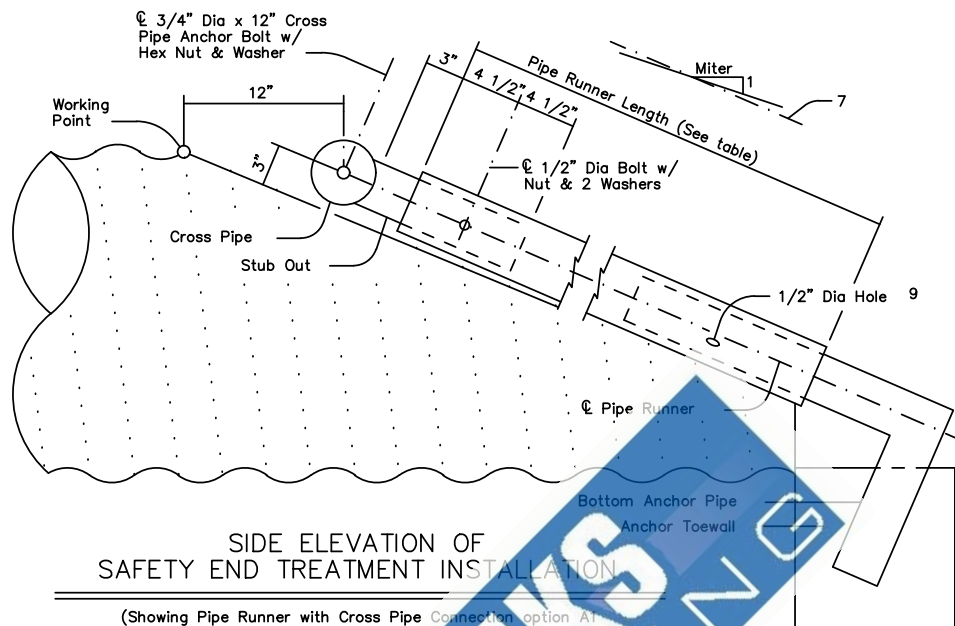
Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.

Payment for riprap and toewall is included in the Price Bid for each Safety End Treatment.

Pipe Runners, Cross Pipes, and Anchor Pipes shall conform to the requirements of ASTM A53 (Type E or S, Grade B), ASTM A500 (Grade B), or API 5LX52.

Bolts and nuts shall conform to ASTM A307.

All steel components, except concrete reinforcing, shall be galvanized after fabrication. Galvanizing damaged during transport or construction shall be repaired in accordance with the specifications.



# SECTION A-A

- Riprap placed beyond the limits shown will be paid as Concrete Riprap in accordance with Item 432, "Riprap".
- Recommended values of side slope are 3:1, 4:1, & 6:1. All quantities, calculations, and dimensions shown herein are based on these recommended values. Slope of 3:1 or flatter is required for vehicle safety.
- Note that actual slope of Pipe Runner may vary slightly from Side Slope of Riprap and trimmed Culvert Pipe edge.
- Care shall be taken to ensure that Riprap concrete does not flow into the Cross Pipe so as to permit disassembly of the bolted connection to allow cleanout access.
- After installation, the 1/2" hole shall be inspected to ensure that the lap of the Pipe Runner with the Bottom Anchor Pipe is adequate.
- At fabricator's option, a heat bend to a smooth 5" radius or a manufactured elbow (of the same material as the Runner) may be substituted for the mitered and welded joint in the Bottom Anchor Pipe.

Date	Revision	By

Designed	CJS
Checked	KSB
Drawn	CJS
Approved	KSB

**A-L FRANKS ENGINEERING**

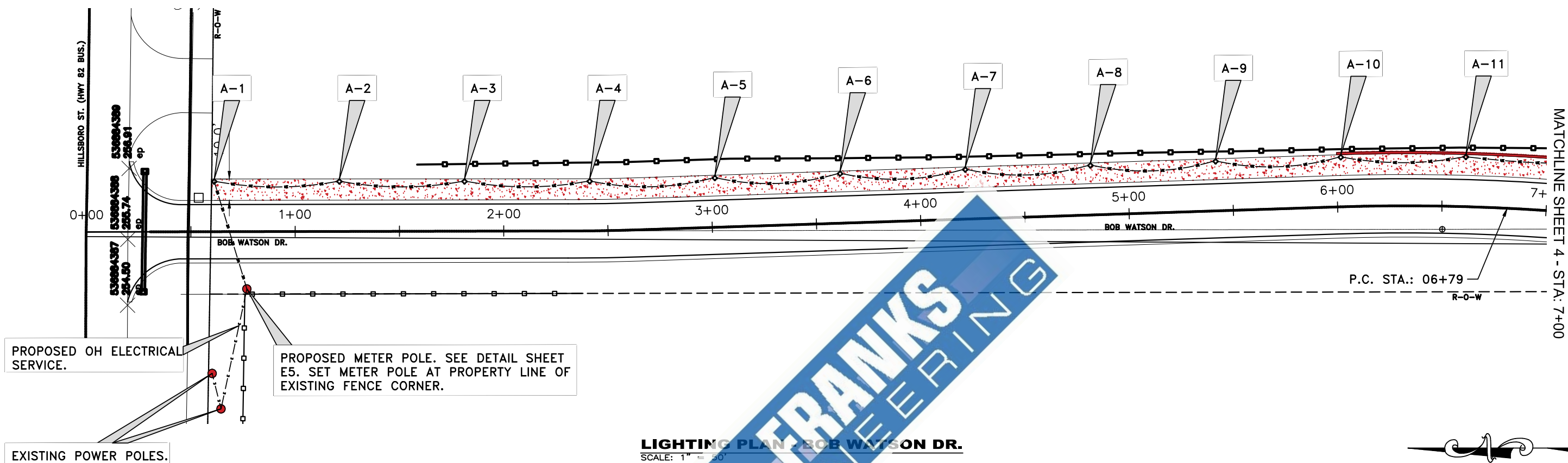
118 East Broad Street  
Texarkana, Arkansas 71854  
Phone (870) 216-1906  
Fax (870) 216-1907

**CITY OF EL DORADO, ARKANSAS**  
**BOB WATSON DR. SIDEWALK**

**SAFETY END TREATMENT DETAILS**  
**CONT'D**

**STATE OF ARKANSAS**  
**LICENSED PROFESSIONAL ENGINEER**  
No. 16656  
KATHY SCOTT BROWNING

Job No.: ED-01-16  
Scale: AS SHOWN  
Date: FEB 2021  
Sheet 14 OF 14



LIGHT POLES TO BE INSTALLED IN THE BACK EDGE OF S/W AND MATCH SIDEWALK GRADE. FOUNDATIONS TO BE ON 60' CENTERS UNLESS OTHERWISE NOTED.

COPPER CONDUCTOR WIRE SIZE SHOWN IN TABLES SHALL CORRESPOND TO DUAL RATED THHN/THWN WIRE (2 CONDUCTORS, 1 GROUND)

BORING OF THE STREET, DRIVES, AND EXISTING DRAINAGE SHALL BE PERFORMED AS NECESSARY, THIS WILL NOT BE AN EXTRA PAY ITEM.

CONTRACTOR SHALL COORDINATE SERVICE INSTALLATION WITH ENTERGY. ENTERGY REQUIREMENTS SHALL BE ADHERED TO.

LIGHTING CIRCUIT NO.1 (A1-A39)

A1 - A2, #2 CONDUCTOR  
A2 - A3, #2 CONDUCTOR  
A3 - A4, #2 CONDUCTOR  
A4 - A5, #2 CONDUCTOR  
A5 - A6, #2 CONDUCTOR  
A6 - A7, #2 CONDUCTOR  
A7 - A8, #2 CONDUCTOR  
A8 - A9, #2 CONDUCTOR  
A9 - A10, #2 CONDUCTOR  
A10 - A11, #2 CONDUCTOR  
A11 - A12, #2 CONDUCTOR  
A12 - A13, #2 CONDUCTOR  
A13 - A14, #2 CONDUCTOR  
A14 - A15, #2 CONDUCTOR

LIGHTING CIRCUIT NO.1 (A1-A39)

A16 - A17, #4 CONDUCTOR  
A17 - A18, #4 CONDUCTOR  
A18 - A19, #4 CONDUCTOR  
A19 - A20, #4 CONDUCTOR  
A20 - A21, #4 CONDUCTOR  
A21 - A22, #6 CONDUCTOR  
A22 - A23, #6 CONDUCTOR  
A23 - A24, #6 CONDUCTOR  
A24 - A25, #6 CONDUCTOR  
A25 - A26, #6 CONDUCTOR  
A26 - A27, #8 CONDUCTOR  
A27 - A28, #8 CONDUCTOR  
A28 - A29, #8 CONDUCTOR  
A29 - A30, #8 CONDUCTOR

LIGHTING CIRCUIT NO.1 (A1-A39)

A30 - A31, #10 CONDUCTOR  
A31 - A32, #10 CONDUCTOR  
A32 - A33, #10 CONDUCTOR  
A33 - A34, #10 CONDUCTOR  
A34 - A35, #10 CONDUCTOR  
A35 - A36, #12 CONDUCTOR  
A36 - A37, #12 CONDUCTOR  
A37 - A38, #12 CONDUCTOR  
A38 - A39, #12 CONDUCTOR

TOTAL AMPS=12.48

PVC SCH 40 CONDUIT SIZE

CONDUCTOR	SIZE	TOTAL LENGTH
#2	1 1/4"	910'
#4	1"	370'
#6	3/4"	310'
#8	3/4"	250'
#10	3/4"	310'
#12	3/4"	270'

NOTE: CONTRACTOR WILL VERIFY ALL MEASUREMENTS FOR EACH CONDUCTOR SIZE FOR BIDDING AND CONSTRUCTION PURPOSES.

Designed CJS  
Checked KSB  
Drawn CJS  
Approved KSB



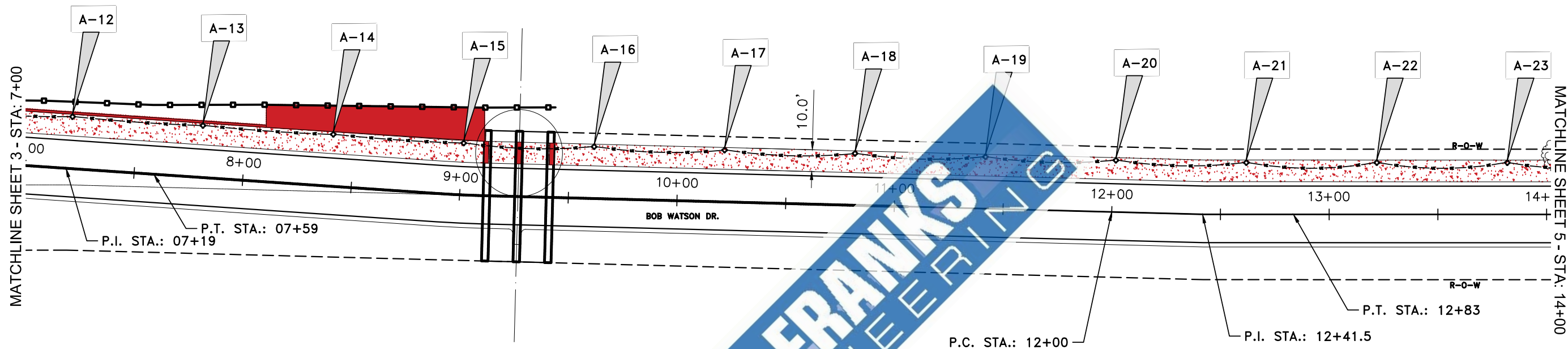
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CITY OF EL DORADO, ARKANSAS  
BOB WATSON DR. SIDEWALK

SIDEWALK IMPROVEMENTS  
LIGHTING PLAN  
STA: 0+00 TO STA: 7+00



Job No.: ED-01-16  
Scale: 1"=50'  
Date: FEB 2021  
Sheet E1 OF E5



**LIGHTING PLAN - BOB WATSON DR.**  
SCALE: 1" = 50'

LIGHT POLES TO BE INSTALLED IN THE BACK EDGE OF S/W AND MATCH SIDEWALK GRADE. FOUNDATIONS TO BE ON 60' CENTERS UNLESS OTHERWISE NOTED.

COPPER CONDUCTOR WIRE SIZE SHOWN IN TABLES SHALL CORRESPOND TO DUAL RATED THHN/THWN WIRE (2 CONDUCTORS, 1 GROUND)

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**LIGHTING CIRCUIT NO.1 (A1-A39)**

A1 - A2, #2 CONDUCTOR  
A2 - A3, #2 CONDUCTOR  
A3 - A4, #2 CONDUCTOR  
A4 - A5, #2 CONDUCTOR  
A5 - A6, #2 CONDUCTOR  
A6 - A7, #2 CONDUCTOR  
A7 - A8, #2 CONDUCTOR  
A8 - A9, #2 CONDUCTOR  
A9 - A10, #2 CONDUCTOR  
A10 - A11, #2 CONDUCTOR  
A11 - A12, #2 CONDUCTOR  
A12 - A13, #2 CONDUCTOR  
A13 - A14, #2 CONDUCTOR  
A14 - A15, #2 CONDUCTOR

**LIGHTING CIRCUIT NO.1 (A1-A39)**

A16 - A17, #4 CONDUCTOR  
A17 - A18, #4 CONDUCTOR  
A18 - A19, #4 CONDUCTOR  
A19 - A20, #4 CONDUCTOR  
A20 - A21, #4 CONDUCTOR  
A21 - A22, #6 CONDUCTOR  
A22 - A23, #6 CONDUCTOR  
A23 - A24, #6 CONDUCTOR  
A24 - A25, #6 CONDUCTOR  
A25 - A26, #6 CONDUCTOR  
A26 - A27, #8 CONDUCTOR  
A27 - A28, #8 CONDUCTOR  
A28 - A29, #8 CONDUCTOR  
A29 - A30, #8 CONDUCTOR

**LIGHTING CIRCUIT NO.1 (A1-A39)**

A30 - A31, #10 CONDUCTOR  
A31 - A32, #10 CONDUCTOR  
A32 - A33, #10 CONDUCTOR  
A33 - A34, #10 CONDUCTOR  
A34 - A35, #10 CONDUCTOR  
A35 - A36, #12 CONDUCTOR  
A36 - A37, #12 CONDUCTOR  
A37 - A38, #12 CONDUCTOR  
A38 - A39, #12 CONDUCTOR

TOTAL AMPS=12.48

**PVC SCH 40 CONDUIT SIZE**

CONDUCTOR	SIZE	TOTAL LENGTH
#2	1 1/4"	910'
#4	1"	370'
#6	3/4"	310'
#8	3/4"	250'
#10	3/4"	310'
#12	3/4"	270'

NOTE: CONTRACTOR WILL VERIFY ALL MEASUREMENTS FOR EACH CONDUCTOR SIZE FOR BIDDING AND CONSTRUCTION PURPOSES.



Date	Revision	By


Designed	CJS
Checked	KSB
Drawn	CJS
Approved	KSB



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Phone (870) 216-1906  
Fax (870) 216-1907

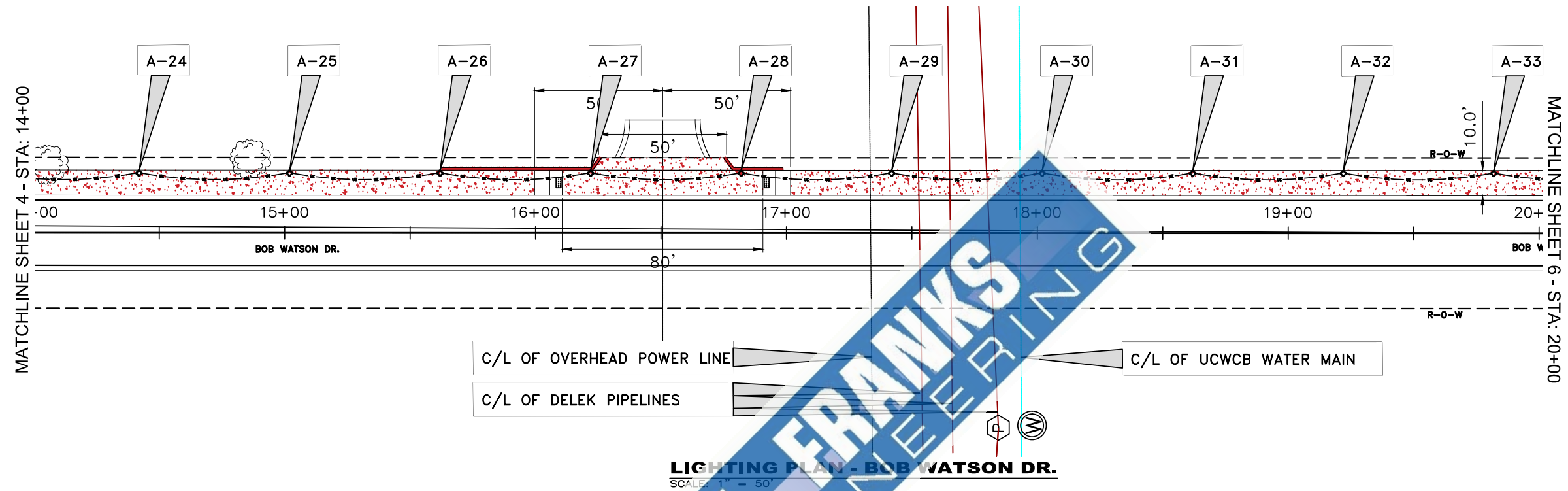
**CITY OF EL DORADO, ARKANSAS**  
**BOB WATSON DR. SIDEWALK**

**SIDEWALK IMPROVEMENTS**  
**LIGHTING PLAN**  
**STA: 7+00 TO STA: 14+00**



Job No.: ED-01-16  
Scale: 1"=50'  
Date: FEB 2021  
Sheet E2 OF E5





LIGHT POLES TO BE INSTALLED IN THE BACK EDGE OF S/W AND MATCH SIDEWALK GRADE. FOUNDATIONS TO BE ON 60' CENTERS UNLESS OTHERWISE NOTED.

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LIGHTING CIRCUIT NO.1 (A1-A39)

A1 - A2, #2 CONDUCTOR  
A2 - A3, #2 CONDUCTOR  
A3 - A4, #2 CONDUCTOR  
A4 - A5, #2 CONDUCTOR  
A5 - A6, #2 CONDUCTOR  
A6 - A7, #2 CONDUCTOR  
A7 - A8, #2 CONDUCTOR  
A8 - A9, #2 CONDUCTOR  
A9 - A10, #2 CONDUCTOR  
A10 - A11, #2 CONDUCTOR  
A11 - A12, #2 CONDUCTOR  
A12 - A13, #2 CONDUCTOR  
A13 - A14, #2 CONDUCTOR  
A14 - A15, #2 CONDUCTOR

LIGHTING CIRCUIT NO.1 (A1-A39)

A16 - A17, #4 CONDUCTOR  
A17 - A18, #4 CONDUCTOR  
A18 - A19, #4 CONDUCTOR  
A19 - A20, #4 CONDUCTOR  
A20 - A21, #4 CONDUCTOR  
A21 - A22, #6 CONDUCTOR  
A22 - A23, #6 CONDUCTOR  
A23 - A24, #6 CONDUCTOR  
A24 - A25, #6 CONDUCTOR  
A25 - A26, #6 CONDUCTOR  
A26 - A27, #8 CONDUCTOR  
A27 - A28, #8 CONDUCTOR  
A28 - A29, #8 CONDUCTOR  
A29 - A30, #8 CONDUCTOR

LIGHTING CIRCUIT NO.1 (A1-A39)

A30 - A31, #10 CONDUCTOR  
A31 - A32, #10 CONDUCTOR  
A32 - A33, #10 CONDUCTOR  
A33 - A34, #10 CONDUCTOR  
A34 - A35, #10 CONDUCTOR  
A35 - A36, #12 CONDUCTOR  
A36 - A37, #12 CONDUCTOR  
A37 - A38, #12 CONDUCTOR  
A38 - A39, #12 CONDUCTOR

TOTAL AMPS=12.48

PVC SCH 40 CONDUIT SIZE		
CONDUCTOR	SIZE	TOTAL LENGTH
#2	1 1/4"	910'
#4	1"	370'
#6	3/4"	310'
#8	3/4"	250'
#10	3/4"	310'
#12	3/4"	270'

NOTE: CONTRACTOR WILL VERIFY ALL MEASUREMENTS FOR EACH CONDUCTOR SIZE FOR BIDDING AND CONSTRUCTION PURPOSES.

Date	Revision	By


Designed	CJS
Checked	KSB
Drawn	CJS
Approved	KSB



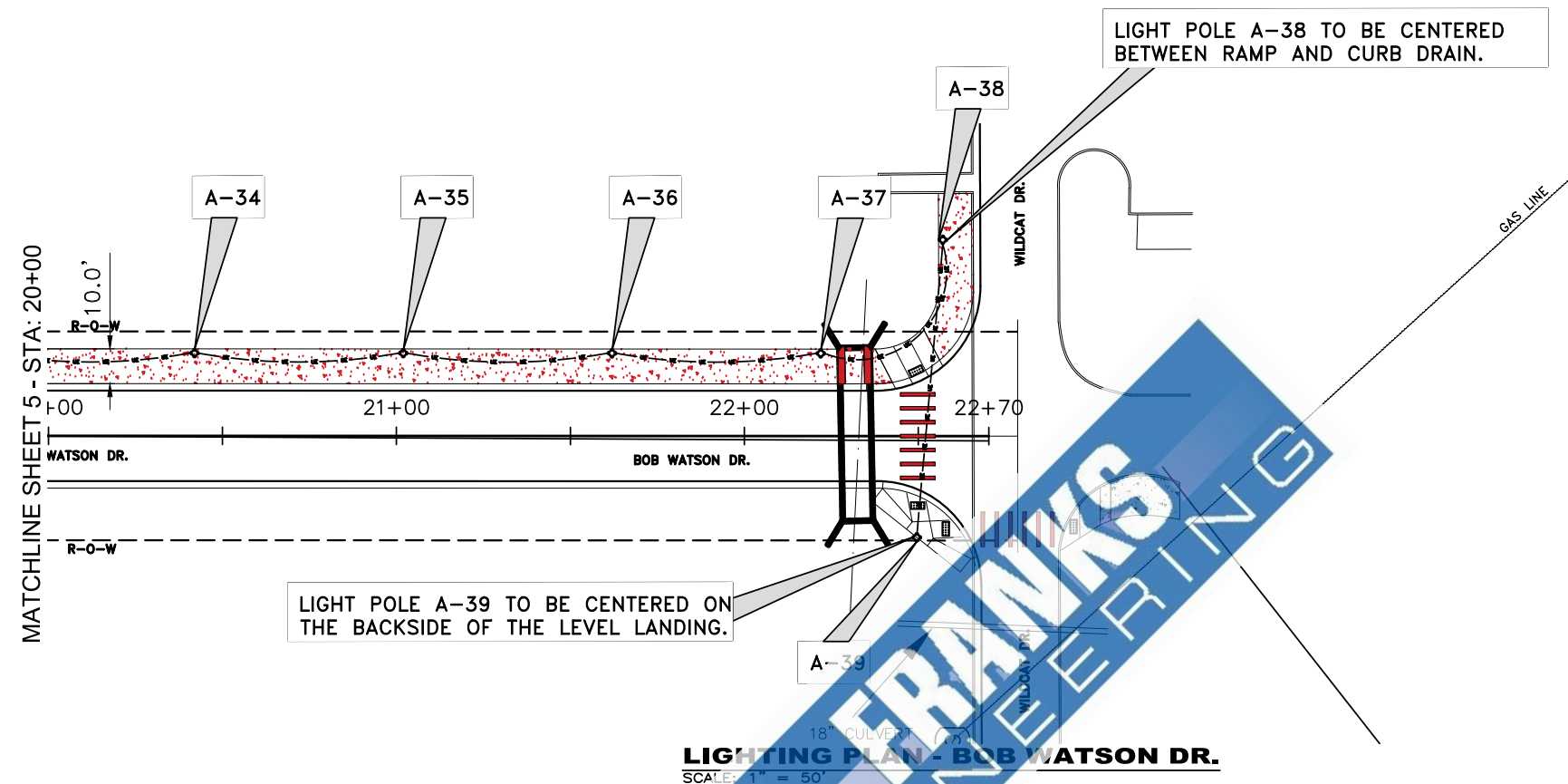
118 East Broad Street  
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Phone (870) 216-1906  
Fax (870) 216-1907

CITY OF EL DORADO, ARKANSAS  
BOB WATSON DR. SIDEWALK

SIDEWALK IMPROVEMENTS  
LIGHTING PLAN  
STA: 14+00 TO STA: 20+00



Job No.: ED-01-16  
Scale: 1"=50'  
Date: FEB 2021  
Sheet E3 OF E5



LIGHT POLES TO BE INSTALLED IN THE BACK EDGE OF S/W AND MATCH SIDEWALK GRADE. FOUNDATIONS TO BE ON 60' CENTERS UNLESS OTHERWISE NOTED.

COPPER CONDUCTOR WIRE SIZE SHOWN IN TABLES SHALL CORRESPOND TO DUAL RATED THHN/THWN WIRE (2 CONDUCTORS, 1 GROUND)

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**LIGHTING CIRCUIT NO.1 (A1-A39)**

A1 - A2, #2 CONDUCTOR  
A2 - A3, #2 CONDUCTOR  
A3 - A4, #2 CONDUCTOR  
A4 - A5, #2 CONDUCTOR  
A5 - A6, #2 CONDUCTOR  
A6 - A7, #2 CONDUCTOR  
A7 - A8, #2 CONDUCTOR  
A8 - A9, #2 CONDUCTOR  
A9 - A10, #2 CONDUCTOR  
A10 - A11, #2 CONDUCTOR  
A11 - A12, #2 CONDUCTOR  
A12 - A13, #2 CONDUCTOR  
A13 - A14, #2 CONDUCTOR  
A14 - A15, #2 CONDUCTOR

**LIGHTING CIRCUIT NO.1 (A1-A39)**

A16 - A17, #4 CONDUCTOR  
A17 - A18, #4 CONDUCTOR  
A18 - A19, #4 CONDUCTOR  
A19 - A20, #4 CONDUCTOR  
A20 - A21, #4 CONDUCTOR  
A21 - A22, #6 CONDUCTOR  
A22 - A23, #6 CONDUCTOR  
A23 - A24, #6 CONDUCTOR  
A24 - A25, #6 CONDUCTOR  
A25 - A26, #6 CONDUCTOR  
A26 - A27, #8 CONDUCTOR  
A27 - A28, #8 CONDUCTOR  
A28 - A29, #8 CONDUCTOR  
A29 - A30, #8 CONDUCTOR

**LIGHTING CIRCUIT NO.1 (A1-A39)**

A30 - A31, #10 CONDUCTOR  
A31 - A32, #10 CONDUCTOR  
A32 - A33, #10 CONDUCTOR  
A33 - A34, #10 CONDUCTOR  
A34 - A35, #10 CONDUCTOR  
A35 - A36, #12 CONDUCTOR  
A36 - A37, #12 CONDUCTOR  
A37 - A38, #12 CONDUCTOR  
A38 - A39, #12 CONDUCTOR

TOTAL AMPS=12.48

**PVC SCH 40 CONDUIT SIZE**

CONDUCTOR	SIZE	TOTAL LENGTH
#2	1 1/4"	910'
#4	1"	370'
#6	3/4"	310'
#8	3/4"	250'
#10	3/4"	310'
#12	3/4"	270'

NOTE: CONTRACTOR WILL VERIFY ALL MEASUREMENTS FOR EACH CONDUCTOR SIZE FOR BIDDING AND CONSTRUCTION PURPOSES.

Date	Revision	By

Designed CJS  
Checked KSB  
Drawn CJS  
Approved KSB



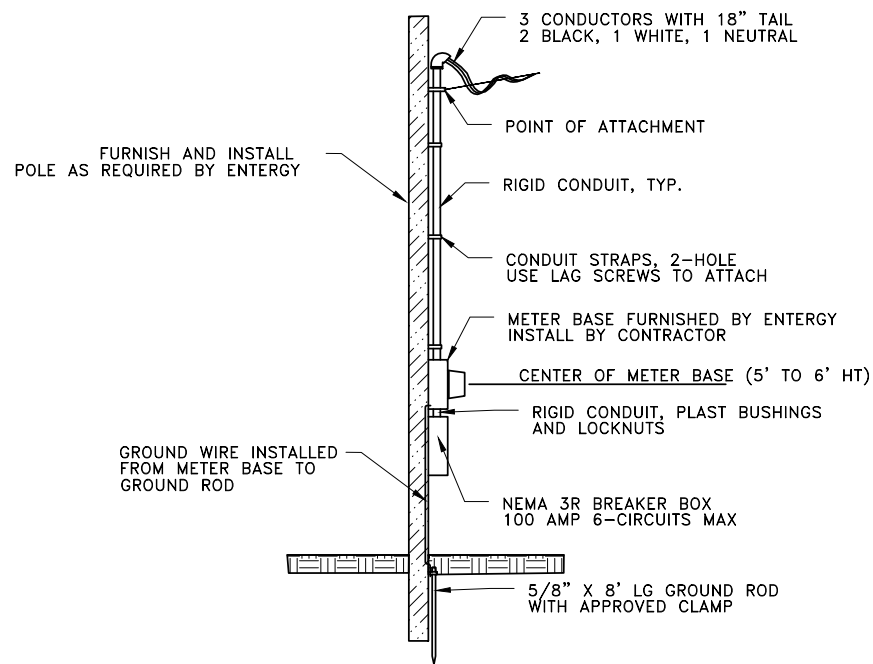
118 East Broad Street  
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Phone (870) 216-1906  
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CITY OF EL DORADO, ARKANSAS  
BOB WATSON DR. SIDEWALK

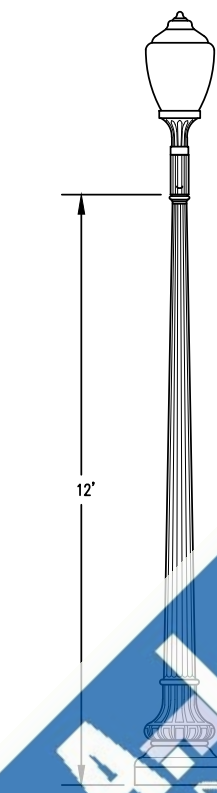
SIDEWALK IMPROVEMENTS  
LIGHTING PLAN  
STA: 20+00 TO STA: 22+70



Job No.: ED-01-16  
Scale: 1"=50'  
Date: FEB 2021  
Sheet E4 OF E5

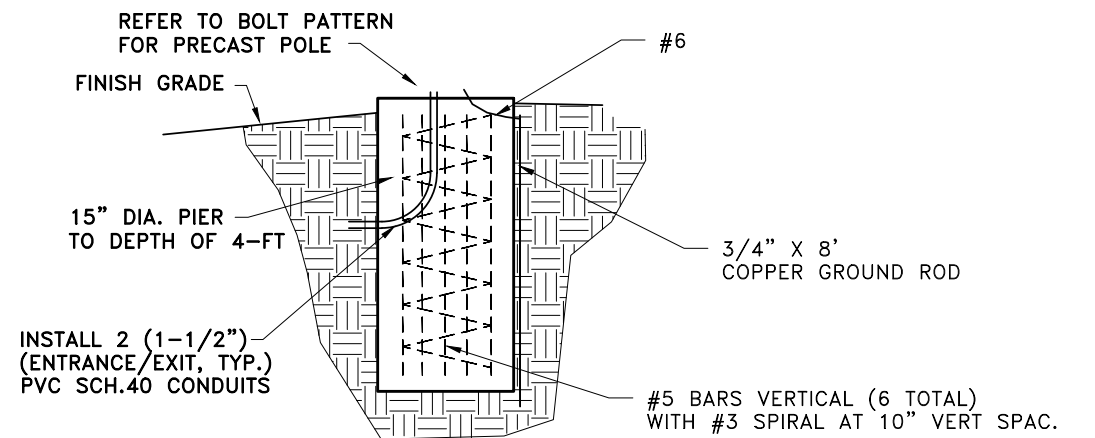


**ELECTRICAL SERVICE POLE**  
NOT TO SCALE



**TYPICAL LIGHTPOST DETAIL**

- NOTES:
1. ANTIQUE LIGHT POLES WILL BE 12 FEET.
  2. CONCRETE BASE FOUNDATION & ANCHOR BOLTS SHALL BE INSTALLED PER MANUFACTURES RECOMMENDATION.
  3. ANTIQUE LIGHT FIXTURE WILL BE STERNBERG / OLD TOWN MODEL-A840 (VC0B-4L/30(00)/TS/MDL05) WITH 75 WATT LED FIXTURE. (230 VOLT SINGLE PHASE)
  4. ANTIQUE LIGHT POLE WILL BE STERNBERG LIGHT 3900 RICHMOND OR APPROVED EQUAL.
  5. OWNER SHALL SELECT POLE FINISH, AND CCT.



**FOUNDATION DETAIL**  
NOTE TO SCALE

Date	Revision	By

Designed	CJS
Checked	KSB
Drawn	CJS
Approved	KSB



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**CITY OF EL DORADO, ARKANSAS**  
**BOB WATSON DR. SIDEWALK**

**SIDEWALK IMPROVEMENTS**  
**ELECTRICAL DETAILS**  
**STA: 20+00 TO STA: 22+70**



Job No.: ED-01-16  
Scale: AS SHOWN  
Date: FEB 2021  
Sheet E5 OF E5



CITY OF EL DORADO, ARKANSAS

BOB WATSON DRIVE SIDEWALKS

BID PROPOSAL

ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
1	1	L.S.	Removal and disposal including, but not limited to concrete sidewalks, curbs, gutters, asphalt sections trees, and brush including all necessary saw cutting as shown on the plans for the lump sum price of	\$ _____	\$ _____
			_____ Dollars and _____ Cents/L.S		
2	1	L.S.	Mobilization including preparatory work and operations, including but not limited to, movement of personnel, equipment, supplies, and incidentals to the project site for the lump sum price of	\$ _____	\$ _____
			_____ Dollars and _____ Cents/L.S		

BID PROPOSAL CONTINUED

ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
3	1	L.S.	Maintenance of Traffic per the plans and specifications for the lump sum price of	\$ _____	\$ _____
			_____ Dollars and _____ Cents/L.S.		
4	2,370	S.Y.	Concrete flatwork 4" thick including any grading, paving sand, reinforcement, Etc. per the plans and specifications for the unit price of	\$ _____	\$ _____
			_____ Dollars and _____ Cents/S.Y.		

BID PROPOSAL CONTINUED

ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
5	120	S.Y.	Concrete flatwork 8" thick including any grading, paving sand, reinforcement, etc. per the plans and specifications for the unit price of  _____ _____ Dollars and Cents/S.Y.	\$ _____	\$ _____
6	2,300	L.F.	6" Concrete curb and Gutter including sawcut line on the edge of asphalt per the plans and specifications for the unit price of  _____ _____ Dollars and Cents/L.F.	\$ _____	\$ _____



BID PROPOSAL CONTINUED

ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
7	80	L.F.	Laydown Concrete curb including sawcut line on the edge of asphalt per the plans and specifications for the unit price of ( laydown curb at wheelchair ramps to be included in ramp bid item)	\$ _____	\$ _____
			_____ Dollars and _____ Cents/L.F.		
8	1	L.S.	Furnish all equipment, material, and labor to install 12"-18" Rip Rap drainage (24" Min. Depth) 35 lb. min. on filter fabric including any grading or suitable backfill per the plans and specifications for the unit price of	\$ _____	\$ _____
			_____ Dollars and _____ Cents/L.S.		

BID PROPOSAL CONTINUED

ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
9	500	L.F.	Modular concrete Retaining Walls and footings per plans and specifications for the unit price of  _____ _____ Dollars and Cents/L.F.	\$ _____	\$ _____
10	1	EA	Furnish and install wheelchair ramps type 1 including any transitional ramps, landings, etc. to have a legal ramp per the plans and specifications for the unit price of  _____ _____ Dollars and Cents/EA	\$ _____	\$ _____

BID PROPOSAL CONTINUED

ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
11	3	EA	Furnish and install wheelchair ramps type 3 including any transitional ramps, landings, etc. to have a legal ramp per the plans and specifications for the unit price of  _____ _____ Dollars and Cents/EA	\$ _____	\$ _____
12	1	EA	Furnish and install wheelchair ramps type 4 including any transitional ramps, landings, etc. to have a legal ramp per the plans and specifications for the unit price of  _____ _____ Dollars and Cents/EA	\$ _____	\$ _____



BID PROPOSAL CONTINUED

ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
13	5	EA	Diamond Plate Steel for sidewalk drains to be bolted per the plans and specifications for the unit price of	\$ _____	\$ _____
			_____ Dollars and _____ Cents/EA		
14	1	L.S.	Furnish all equipment, material, and labor to install Headwall and drainage at Sta: 9+25 around the existing Drainpipe per the plans and specifications for the unit price of (not including handrail & flatwork)	\$ _____	\$ _____
			_____ Dollars and _____ Cents/L.S		

BID PROPOSAL CONTINUED

ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
15	1	L.S.	Furnish all equipment, material, and labor to install Headwall and drainage at Sta: 22+35 around the existing Box Culvert per the plans and specifications for the unit price of (not including handrail & flatwork)  _____ _____ Dollars and Cents/L.S.	\$ _____	\$ _____
16	50	L.F.	Handrail per the plans and specifications for the unit price of  _____ _____ Dollars and Cents/L.F.	\$ _____	\$ _____

BID PROPOSAL CONTINUED

ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
17	64	S.F.	Furnish and Install Traffic Control Devices,(4 Road Work Signs Total) including but not limited to, installing, maintaining, moving from one location to another and removing traffic control devices according to the plans and specifications for the unit price of  _____ _____ Dollars and Cents/S.F.	\$ _____	\$ _____
18	5	EA	Re-install street signs using sidewalk penetration detail per the plans and specifications for the unit price of  _____ _____ Dollars and Cents/EA	\$ _____	\$ _____



BID PROPOSAL CONTINUED

ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
19	4	EA	Solar powered pedestrian crosswalk signs per the plans and specifications for the unit price of	\$ _____	\$ _____
			<div><div></div><div></div><div>Dollars and Cents/EA</div></div>		
20	2	EA	Furnish and Install crosswalk striping per the plans and specifications for the unit price of	\$ _____	\$ _____
			<div><div></div><div></div><div>Dollars and Cents/EA</div></div>		

BID PROPOSAL CONTINUED

ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
21	4,460	S.F.	Grade and Seed sidewalk area per the plans and specifications for the unit price of	\$ _____	\$ _____
			_____ Dollars and _____ Cents/S.F.		
22	1	L.S.	Grade and cut/fill as directed by the engineer around the sidewalk area after installation of the sidewalk to achieve 3:1 slope requirements and stabilization per the plans and specifications for the unit price of	\$ _____	\$ _____
			_____ Dollars and _____ Cents/L.S.		

BID PROPOSAL CONTINUED

ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
23	39	EA	Provide and Install antique light post including all necessary bores, electrical wiring, conduit, and base end panel board for the unit price of		
				\$ _____	\$ _____
			_____ Dollars and _____ Cents/EA		
			_____		
				_____	_____
			<b>TOTAL OF ALL ITEMS</b>	\$ _____	

**NOTES:**

Submission of the completed Bid Proposal is considered evidence to the Owner that the Contractor fully and clearly understands the complete scope of work and all actions and materials required to complete the work.

Items required but not specifically called out in the Bid Proposal shall be included in other items.

Time required to complete base bid work shall be 120 calendar days.