

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0662-01	2019	84	194



**STREET IMPROVEMENTS FOR**  
**17TH ST - BROADWAY TO I-135**  
**FROM BROADWAY TO I-135**

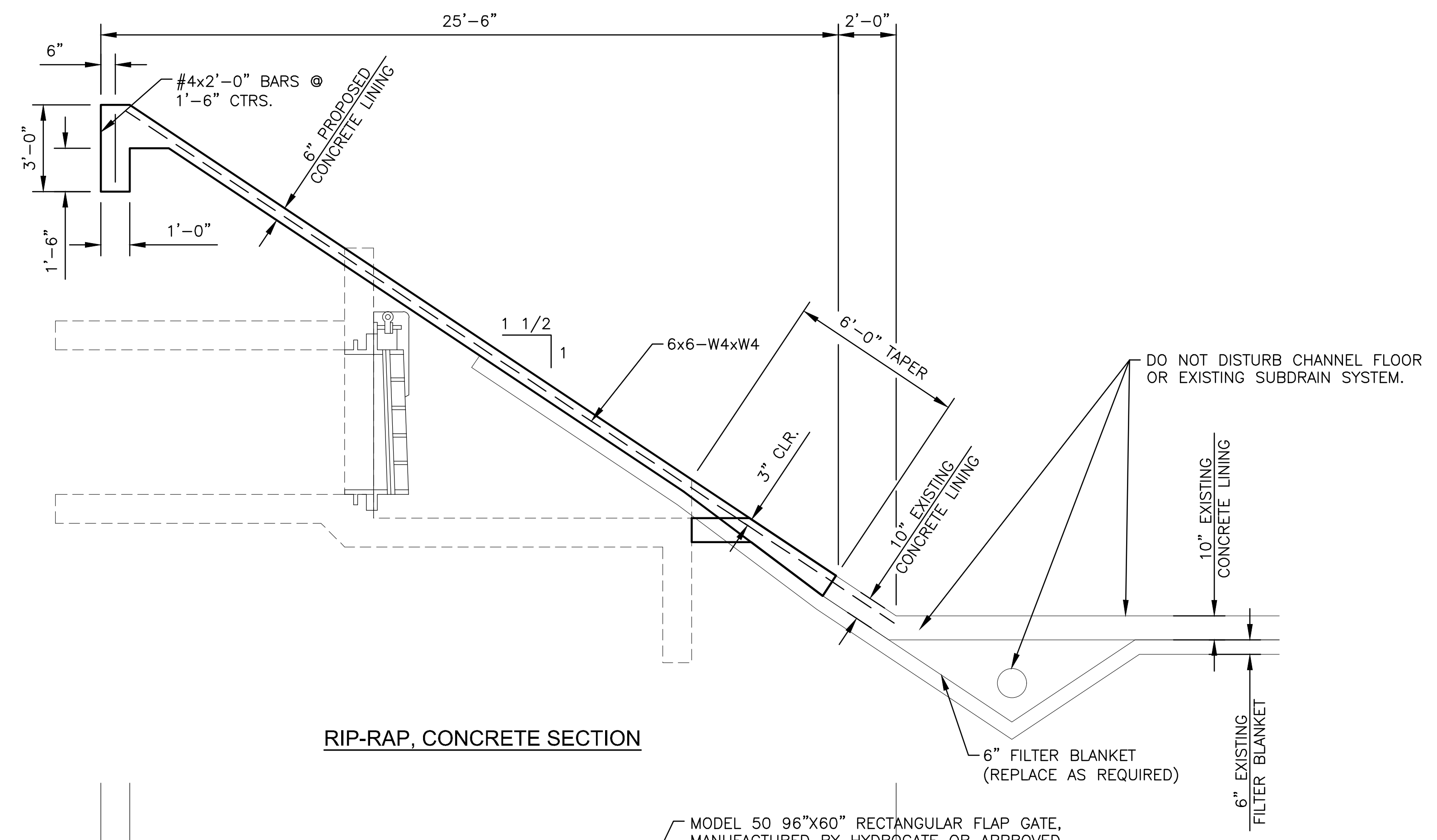
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**OUTFALL STRUCTURAL DETAILS**

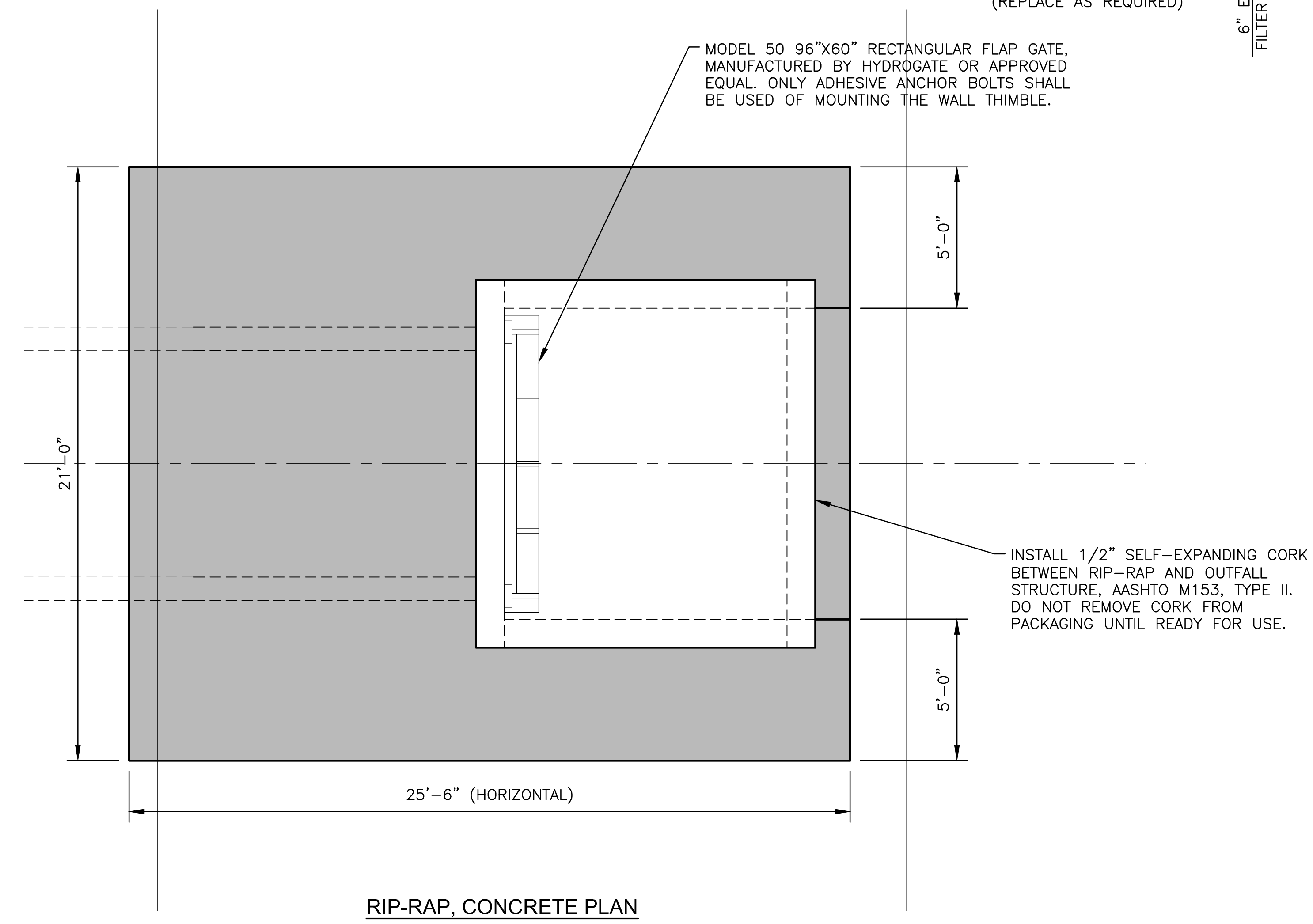
PROJECT NO.	87 N-0662-01	
DATE	8/30/2019	
SCALE	NTS	
DESIGNED	KJS	
DRAWN	RAM	
CHECKED	KJS	
NO.	REVISION	DATE

SHEET NO.  
84 OF 194

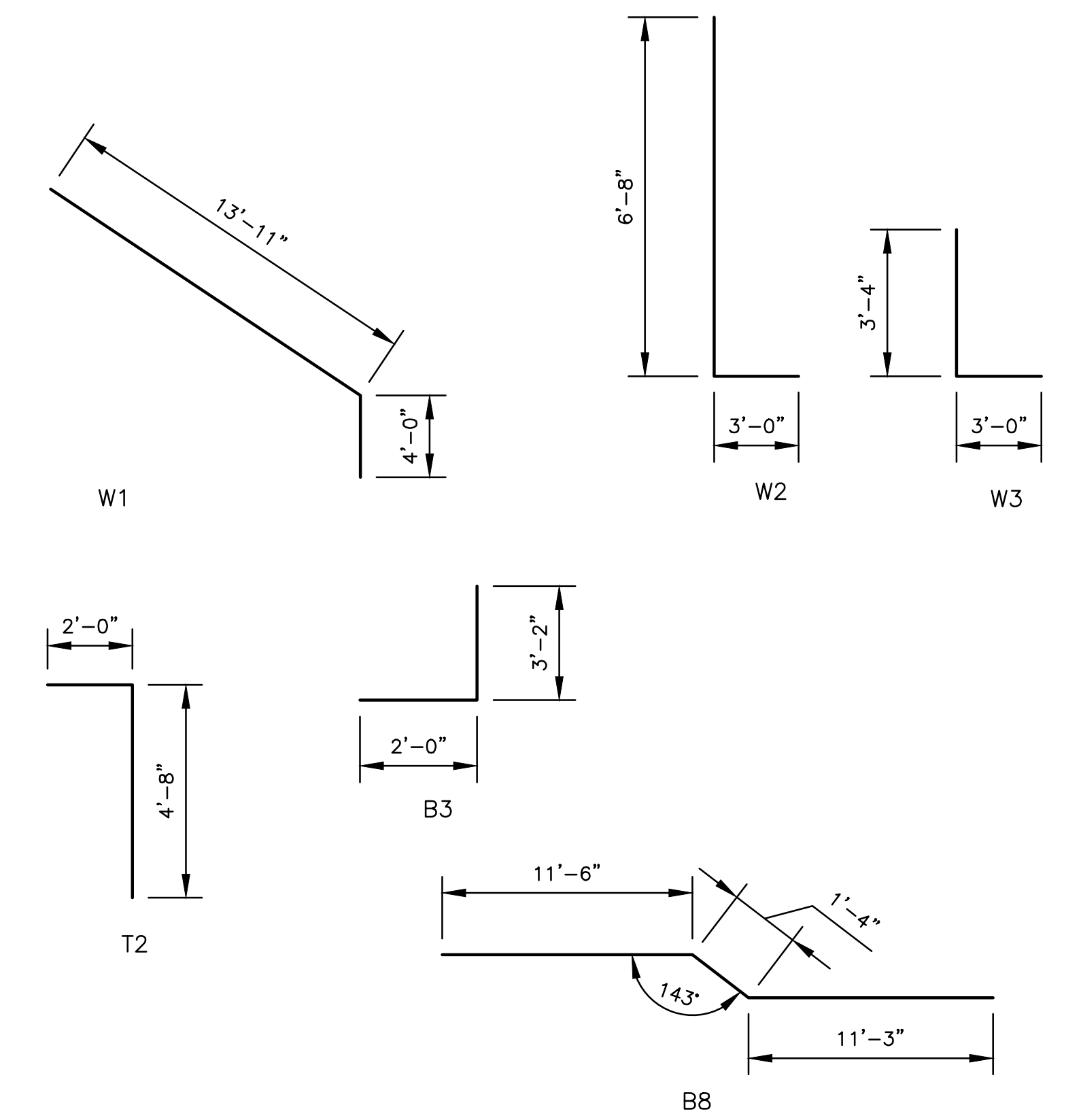
PLOTTED: Tuesday, September 03, 2019 @ 02:50PM  
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**RIP-RAP, CONCRETE SECTION**



**RIP-RAP, CONCRETE PLAN**



**BAR BENDING DIAGRAMS**

FOR INFORMATION ONLY

BILL OF REINFORCING STEEL							
Straight Bars				Bent Bars			
Mark	Size	No.	Length	Mark	Size	No.	Length
B1	#5	6	10'-0"	B3	#5	14	5'-2"
B2	#5	31	12'-8"	B8	#5	11	24'-1"
B4	#5	41	9'-4"	W1	#5	4	17'-11"
B6	#5	22	6'-8"	W2	#5	10	9'-8"
B7	#5	20	12'-0"	W3	#5	10	6'-4"
				T2	#5	14	6'-8"

FOR INFORMATION ONLY

SUMMARY OF QUANTITIES	
Rip-Rap, Concrete 6", (Reinf.)	51.6 S.Y.
Flap Gate	1 Ea.
Concrete (Grade 4.0)	24.7 C.Y.
Reinforcing Steel (Gr. 60)	1,970 Lbs.

**Note:**  
 Filter Materials Subsidiary to "Rip-Rap, Concrete 6", (Reinf.)  
 (Filter Material - ASTM C33 Sand)

**LEGEND**

