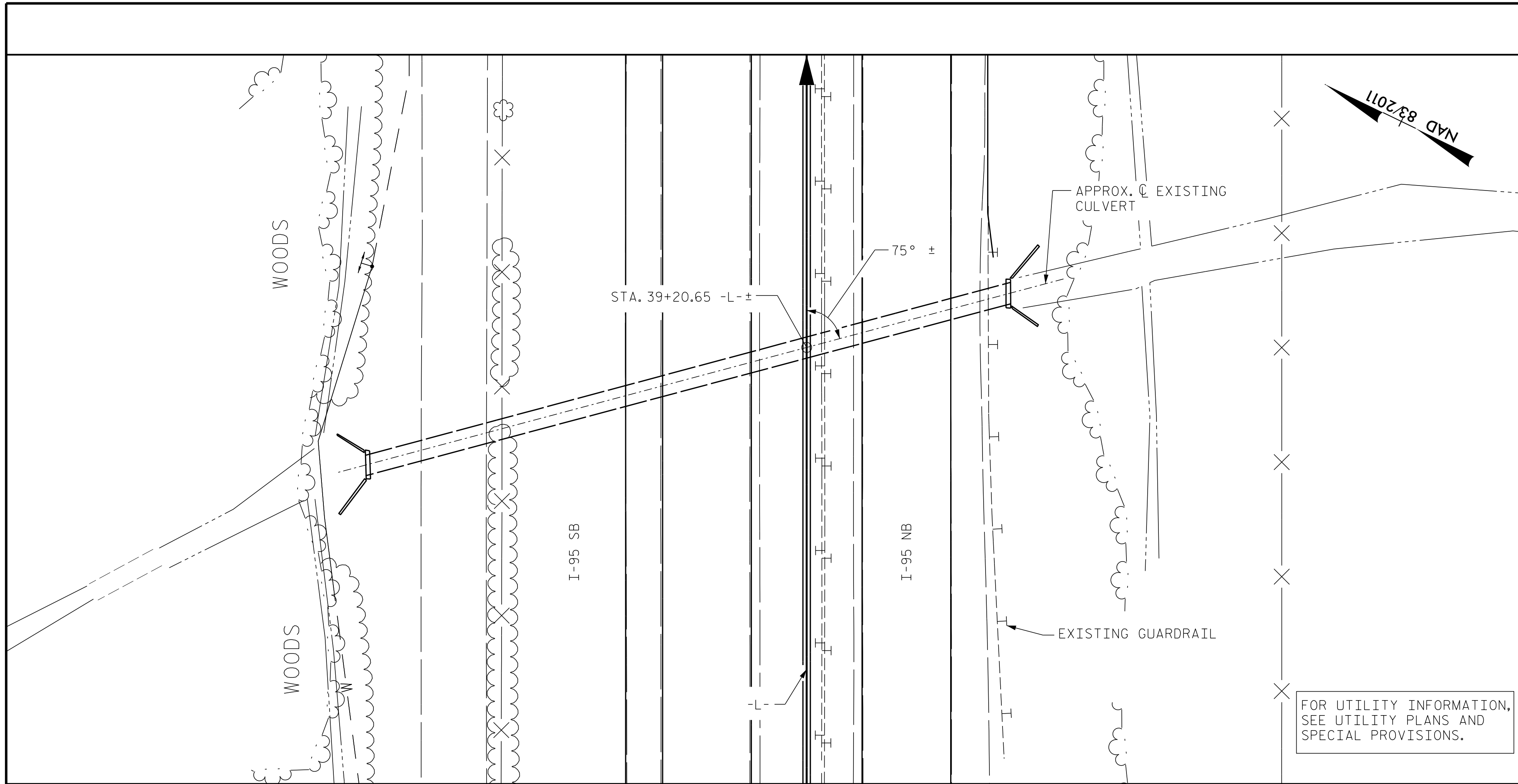


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**This file or an individual page
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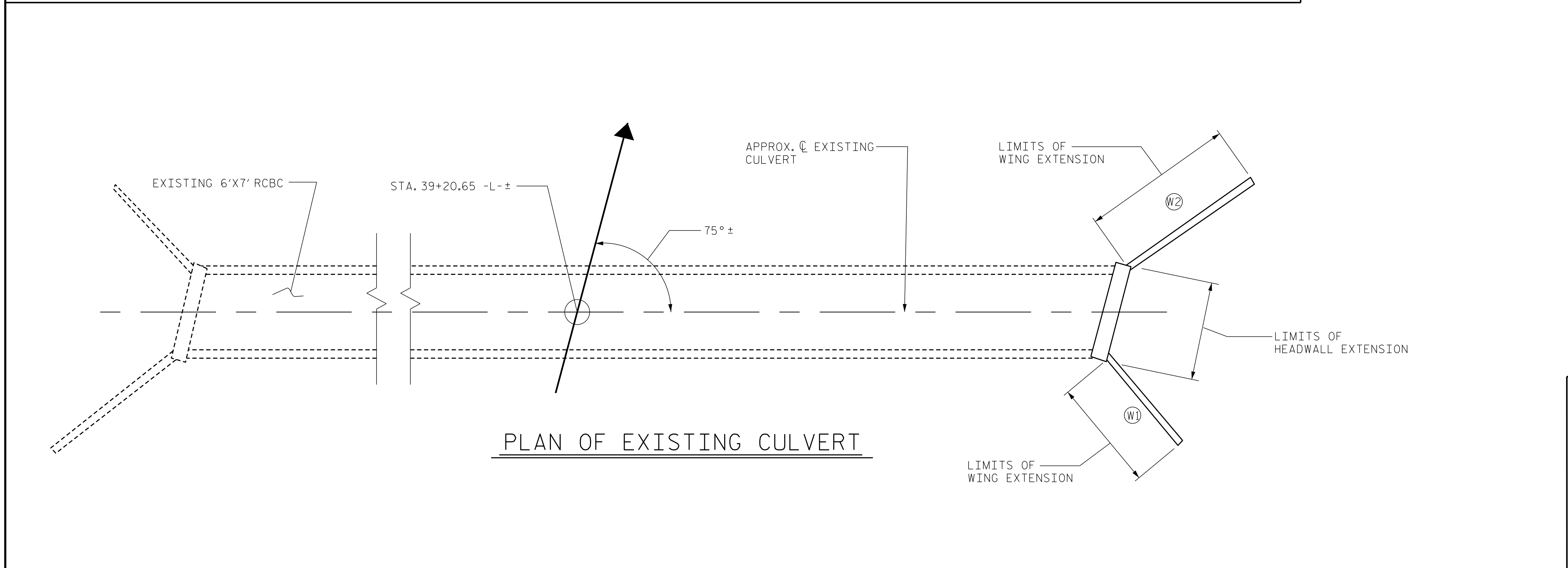
LOCATION SKETCH

GENERAL NOTES

- FOR OTHER DESIGN DATA AND NOTES SEE STANDARD NOTE SHEET.
- A 3 FOOT STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE OF THE WING EXTENSION COVERING THE LENGTH OF THE WING EXTENSION EXPANSION JOINT.
- * #5 U1 BARS TO BE DRILLED AND ADHESIVELY ANCHORED INTO THE EXISTING TOP SLAB OF THE CULVERT IN ACCORDANCE WITH SECTION 420-13 OF THE STANDARD SPECIFICATION.
- ** #4 V1 BARS TO BE DRILLED AND GROUTED INTO THE EXISTING WINGS IN ACCORDANCE WITH "GROUT FOR STRUCTURES" SPECIAL PROVISION.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

TOTAL STRUCTURE QUANTITIES	
CLASS A CONCRETE	
WINGS & HEADWALL EXTENSION	2.8 C.Y.
REINFORCING STEEL	
WINGS & HEADWALL EXTENSION	196 LBS.



PLAN OF EXISTING CULVERT

PROJECT NO. I-5786
JOHNSTON COUNTY
 STATION: 39+20.65 -L-
 SHEET 1 OF 2

ENGINEER OF RECORD:
 Greg M. Gilliland
 PROFESSIONAL SEAL
 37400
 ENGINEER
 GREGORY M. GILLILAND
 6/5/2017
 WETHERILL ENGINEERING
 1223 Jones Franklin Rd.
 Raleigh, N.C. 27606
 Bus: 919 851 8077
 Fax: 919 851 8107
 LICENSE NO. F-0377

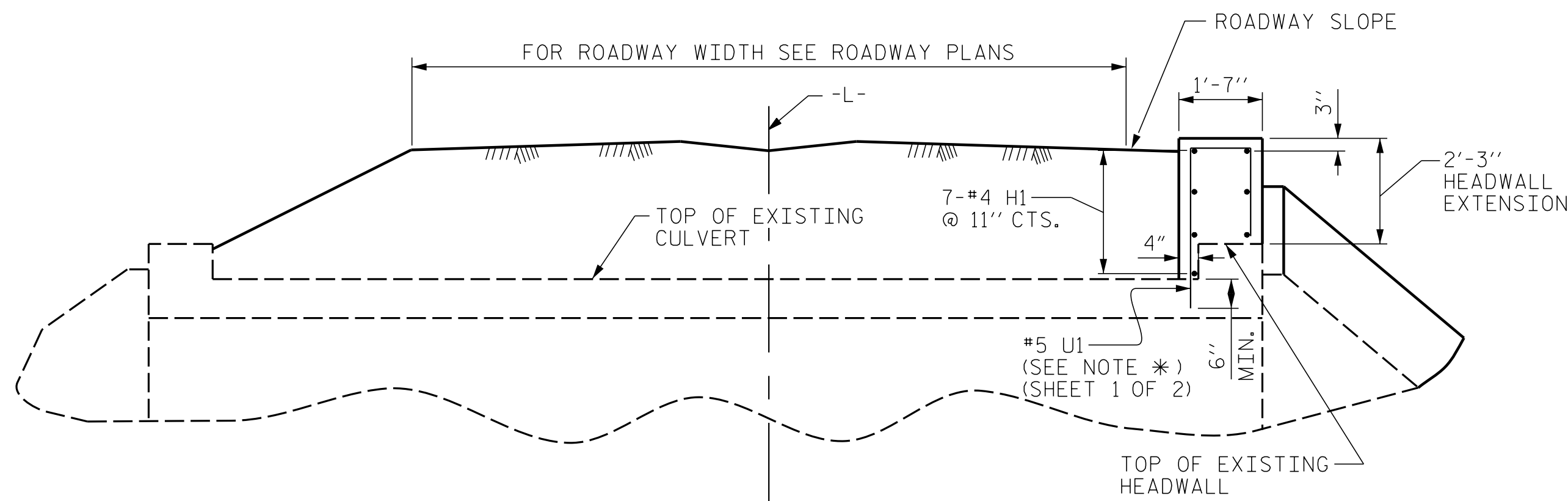
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 HEADWALL AND WING EXTENSION ON EXISTING SINGLE 6'X7' CONCRETE BOX CULVERT

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C01-1
1			3			TOTAL SHEETS
2			4			2

DRAWN BY : G.WILSON DATE : 4/2017
 CHECKED BY : G.M.GILLILAND DATE : 5/2017

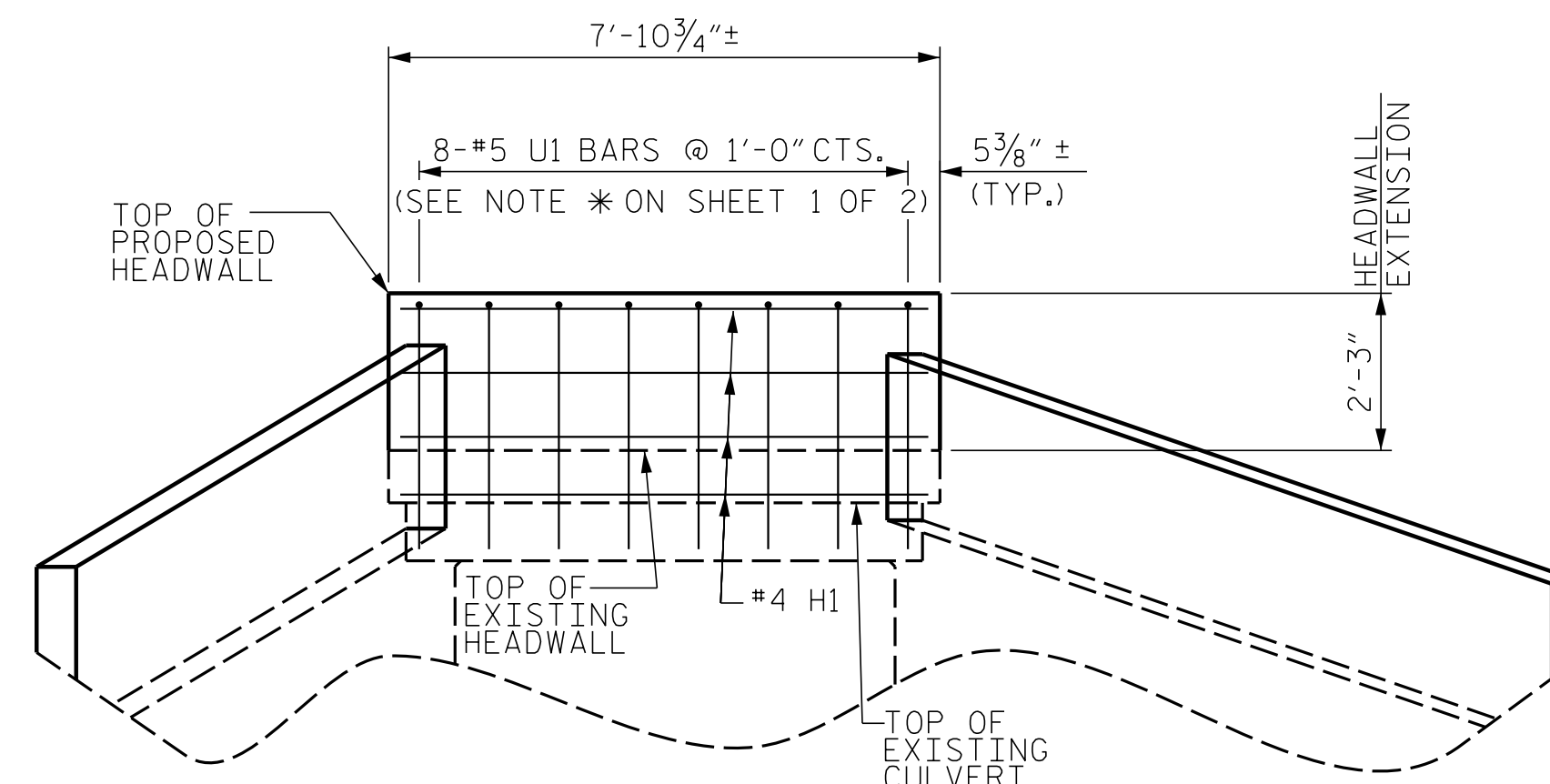
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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PARTIAL CULVERT SECTION NORMAL TO ROADWAY

REINFORCEMENT FOR WING EXTENSION NOT SHOWN FOR CLARITY



HEADWALL ELEVATION NORMAL TO SKEW

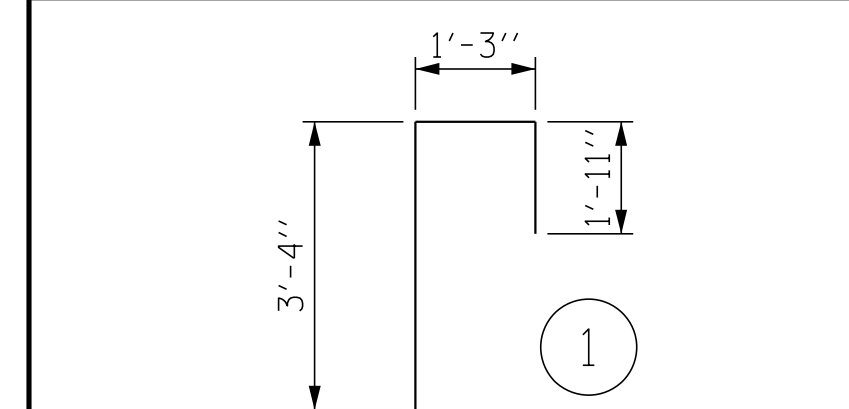
REINFORCEMENT FOR WING EXTENSION NOT SHOWN FOR CLARITY

BILL OF MATERIAL

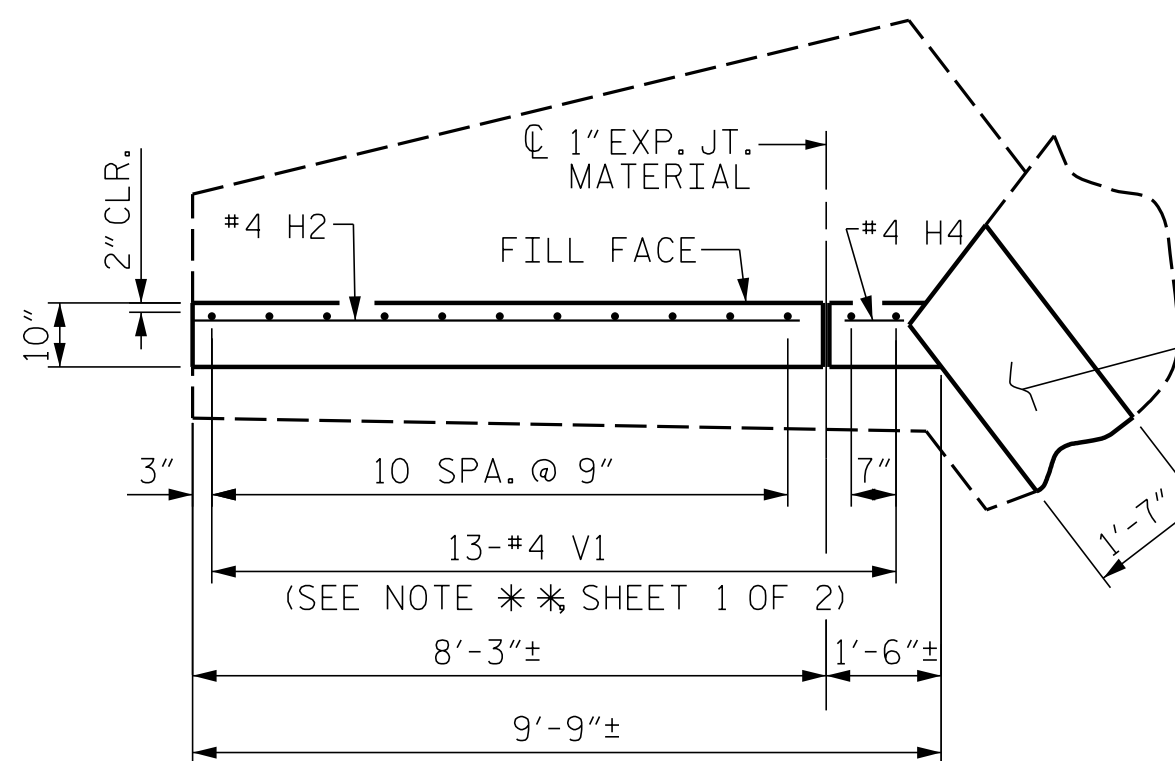
BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT
H1	7	#4	STR.	7'-6"	35
H2	3	#4	STR.	8'-5"	17
H3	3	#4	STR.	11'-7"	23
H4	6	#4	STR.	9"	3
U1	8	#5		6'-6"	54
V1	31	#4	STR.	3'-1"	64

REINFORCING STEEL	196 LBS.
CLASS A CONCRETE	
2 WINGS	1.7 CY
1 HEADWALL	1.1 CY
TOTAL	2.8 CY

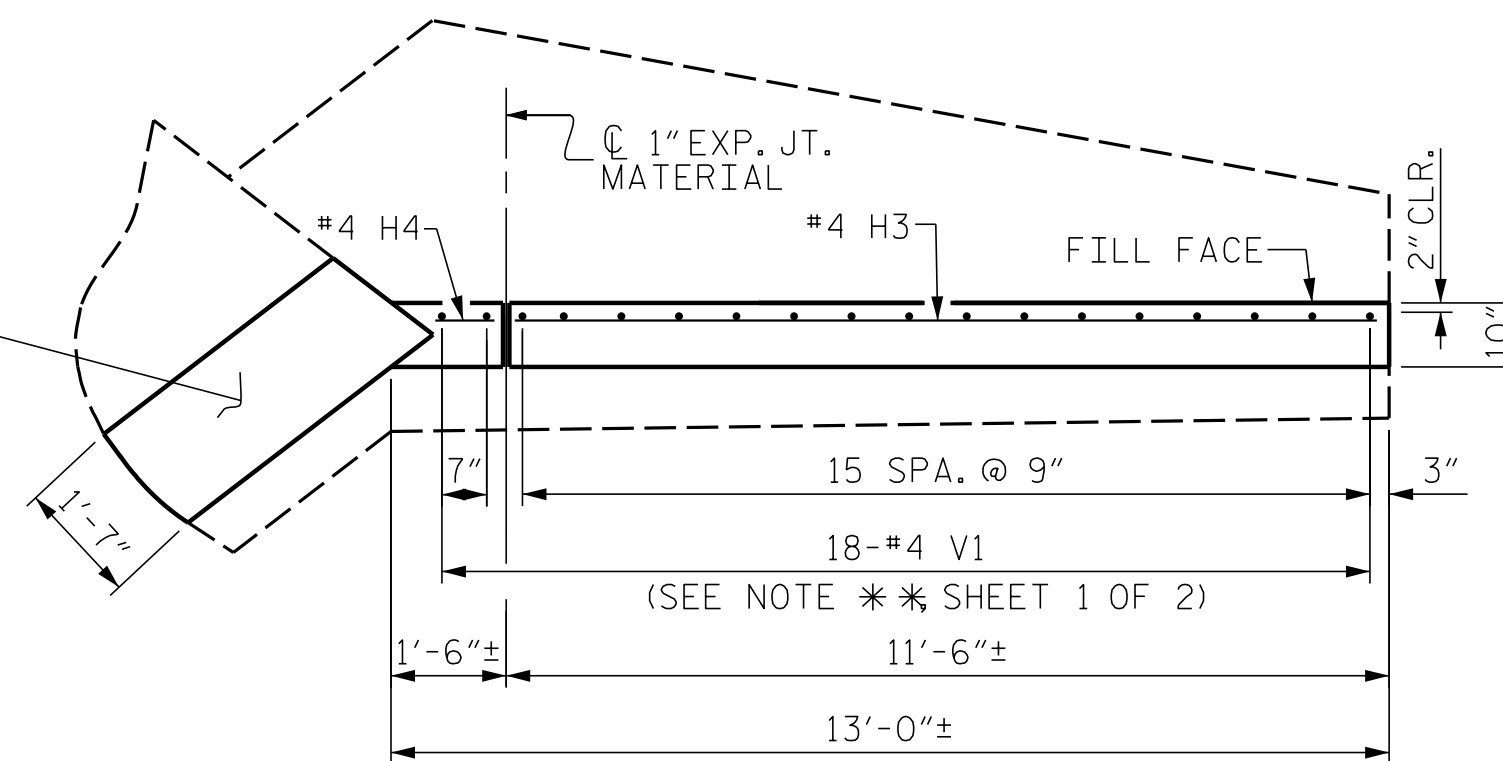
BAR TYPES



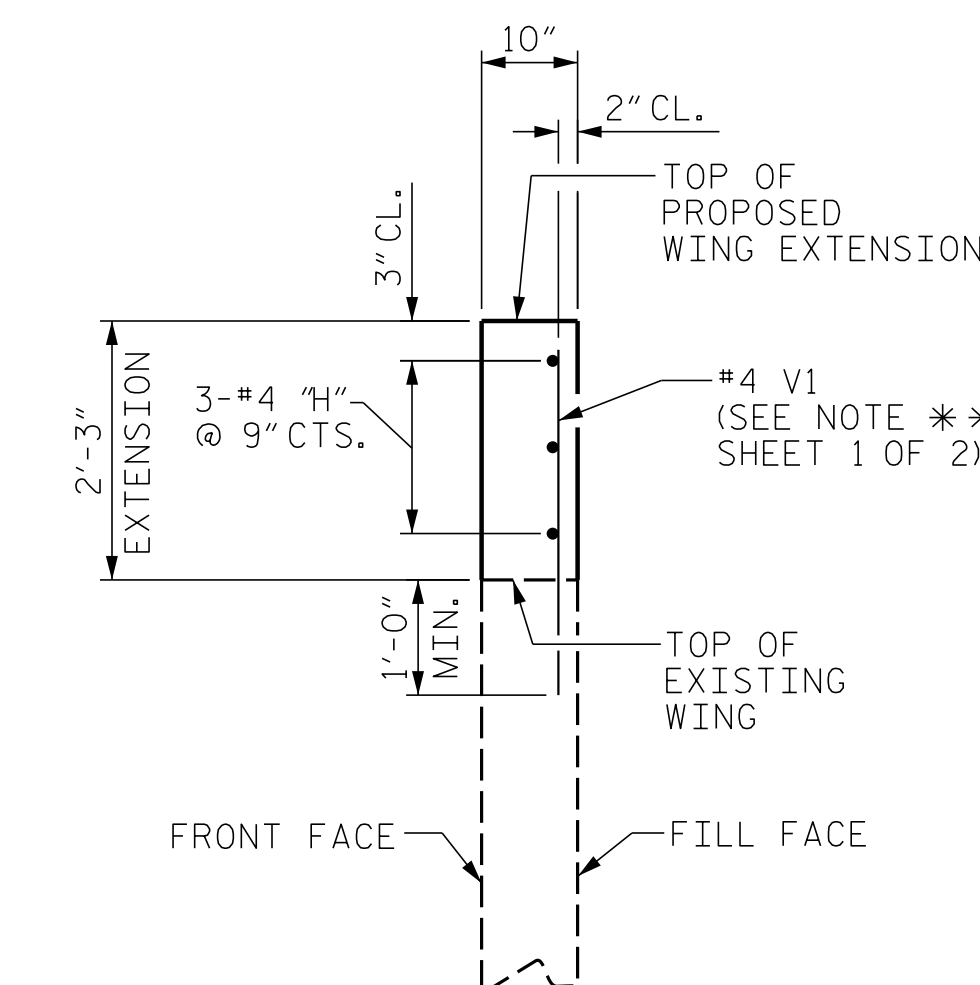
ALL BAR DIMENSIONS ARE OUT TO OUT.



PLAN W1

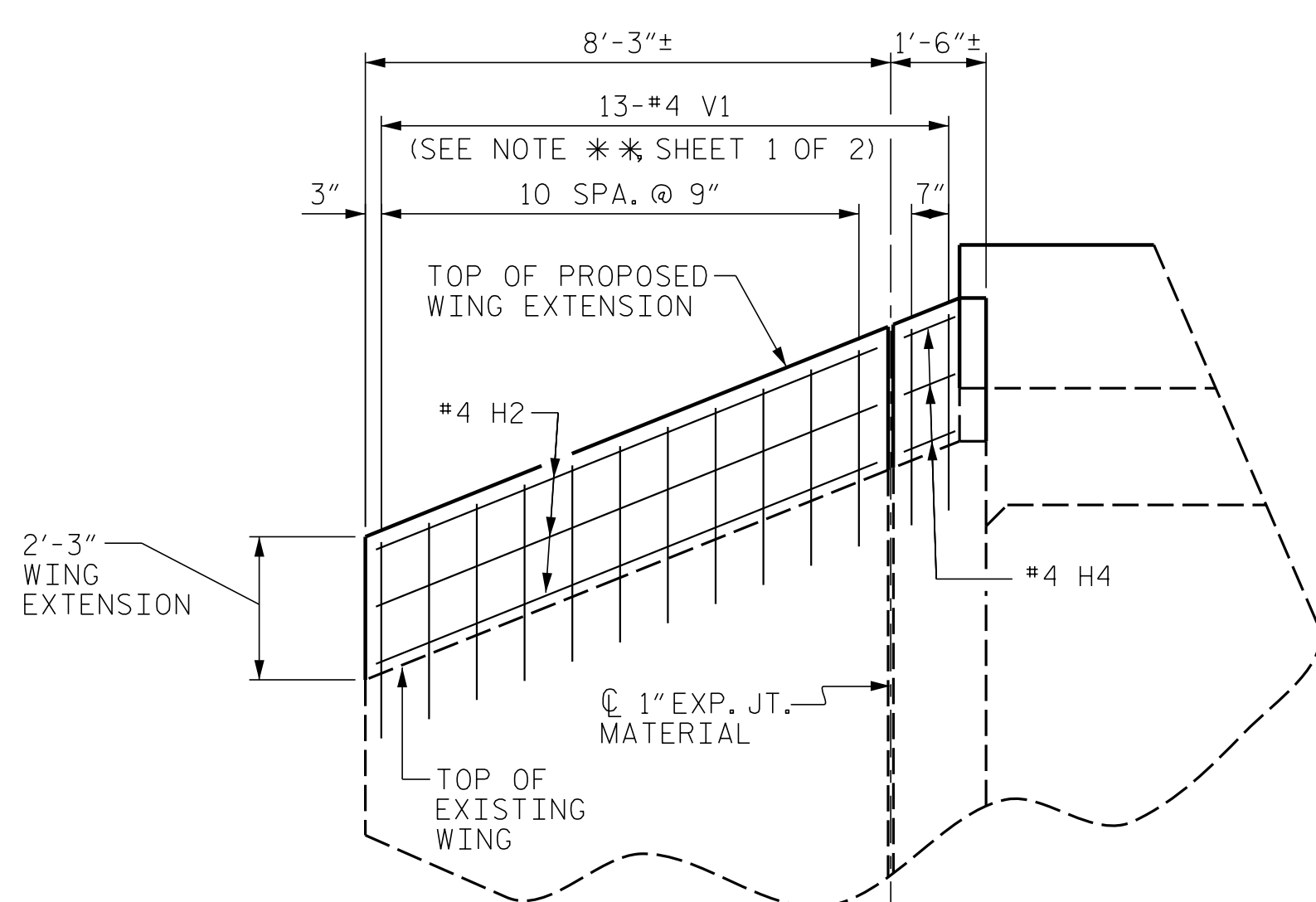


PLAN W2

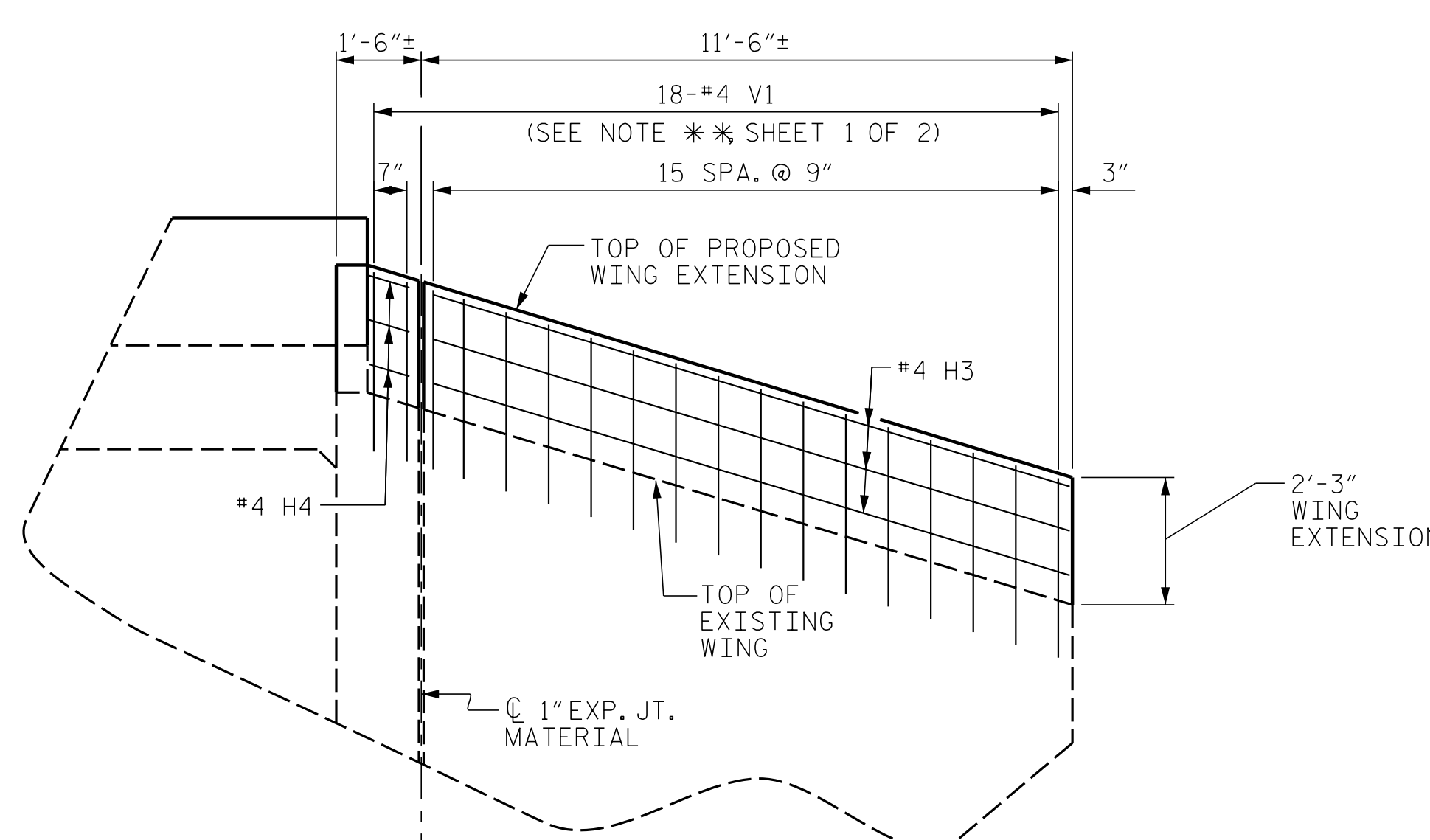


WING EXTENSION SECTION

(TYP. EACH WING)



ELEVATION W1



ELEVATION W2

PROJECT NO. I-5786

JOHNSTON COUNTY

STATION: 39+20.65 -L-

SHEET 2 OF 2

ENGINEER OF RECORD:
 Designated by:

 1223 Jones Franklin Rd.
 Raleigh, N.C. 27606
 Bus: 919 851 8077
 Fax: 919 851 8107
 LICENSE NO. F-0377

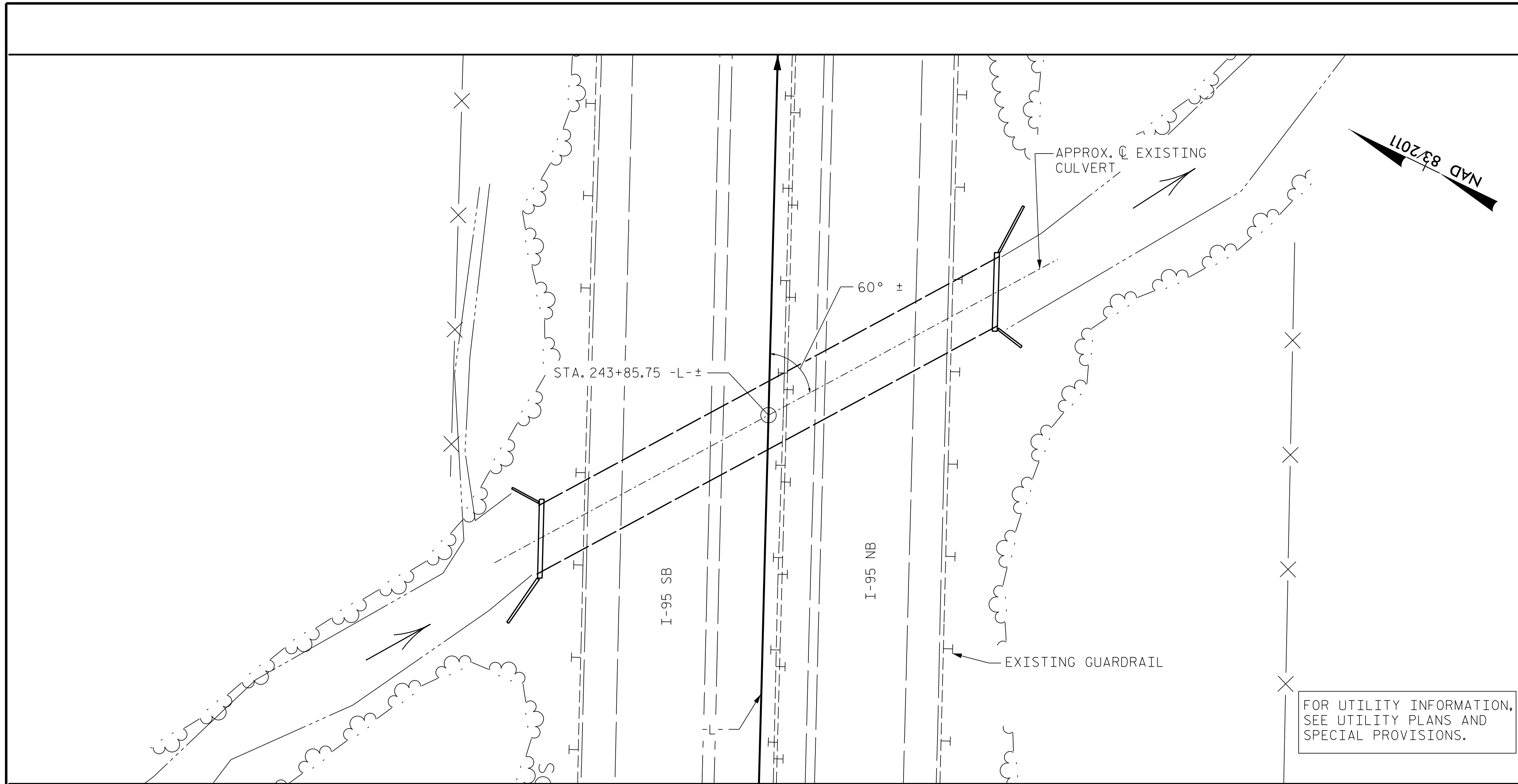
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
HEADWALL AND WING EXTENSION ON EXISTING SINGLE 6'X7' CONCRETE BOX CULVERT

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C01-2
1			3			TOTAL SHEETS
2			4			2

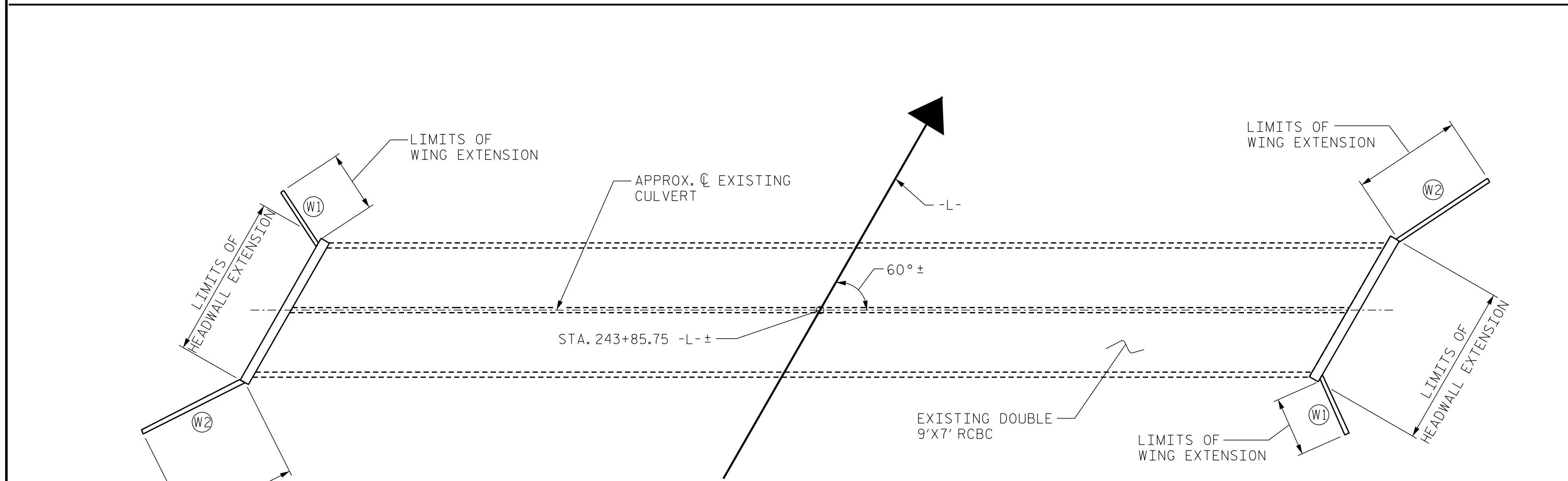
DRAWN BY: G.WILSON DATE: 4/2017
 CHECKED BY: G.M.GILLAND DATE: 5/2017

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

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LOCATION SKETCH



PLAN OF EXISTING CULVERT

GENERAL NOTES

- FOR OTHER DESIGN DATA AND NOTES SEE STANDARD NOTE SHEET.
- A 3 FOOT STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE OF THE WING EXTENSION COVERING THE LENGTH OF THE WING EXTENSION EXPANSION JOINT.
- * #5 U1 BARS TO BE DRILLED AND ADHESIVELY ANCHORED INTO THE EXISTING TOP SLAB OF THE CULVERT IN ACCORDANCE WITH SECTION 420-13 OF THE STANDARD SPECIFICATION.
- ** #4 V1 BARS TO BE DRILLED AND GROUTED INTO THE EXISTING WINGS IN ACCORDANCE WITH "GROUT FOR STRUCTURES" SPECIAL PROVISION.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

TOTAL STRUCTURE QUANTITIES	
CLASS A CONCRETE	
WINGS & HEADWALL EXTENSION	8.8 C.Y.
REINFORCING STEEL	
WINGS & HEADWALL EXTENSION	694 LBS.

PROJECT NO. I-5786
JOHNSTON COUNTY
 STATION: 243+85.75 -L-

SHEET 1 OF 2

ENGINEER OF RECORD:
 Designed by: Gregory M. Gilland
 PROFESSIONAL SEAL 37400
 ENGINEER
 GREGORY M. GILLAND
 6/5/2017
 WETHERILL ENGINEERING
 1223 Jones Franklin Rd.
 Raleigh, N.C. 27606
 Bus: 919 851 8077
 Fax: 919 851 8107
 LICENSE NO. F-0377

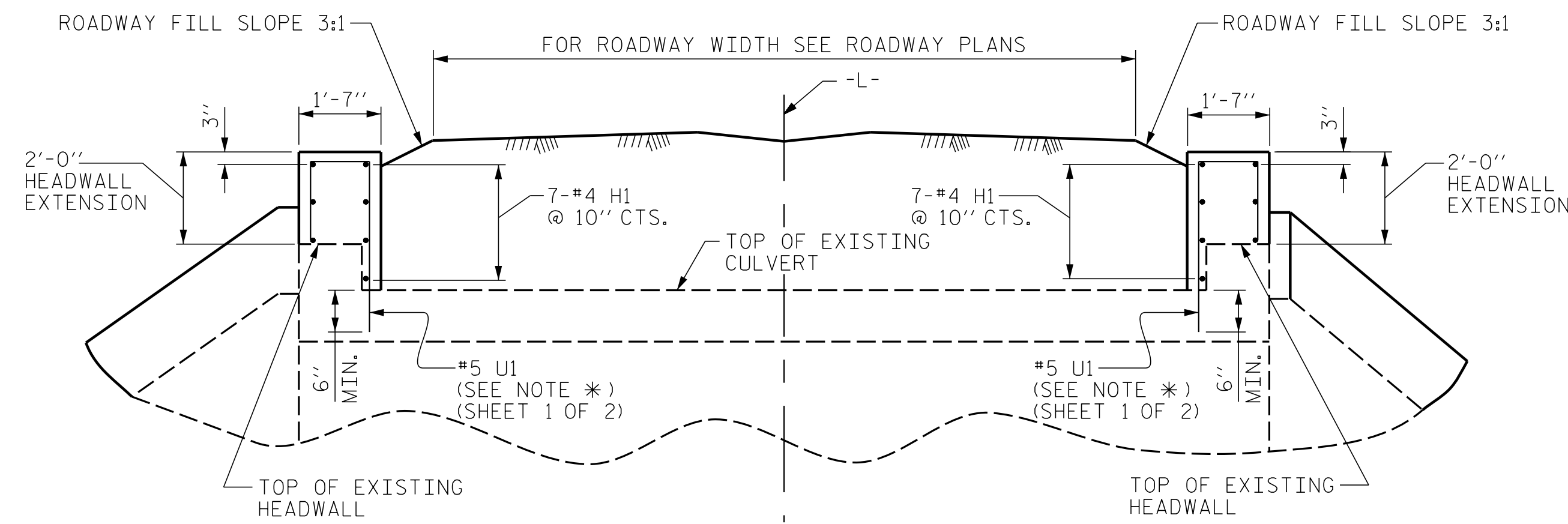
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 HEADWALL AND WING EXTENSION ON EXISTING DOUBLE 9'X7' CONCRETE BOX CULVERT

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C02-1
1			3			TOTAL SHEETS
2			4			2

DRAWN BY : G.WILSON DATE : 4/2017
 CHECKED BY : G.M.GILLAND DATE : 5/2017

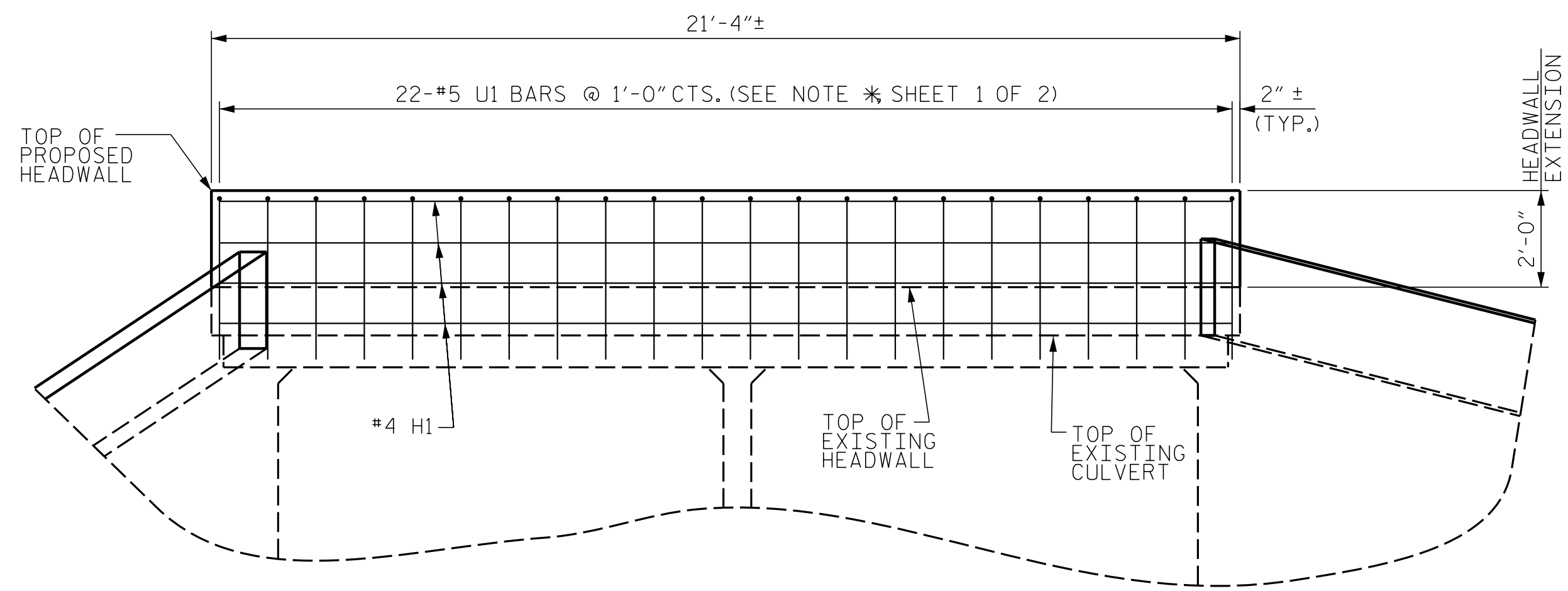
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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PARTIAL CULVERT SECTION NORMAL TO ROADWAY

REINFORCEMENT FOR WING EXTENSION NOT SHOWN FOR CLARITY



HEADWALL ELEVATION NORMAL TO SKEW

(TYP. EA. HEADWALL)

REINFORCEMENT FOR WING EXTENSION NOT SHOWN FOR CLARITY

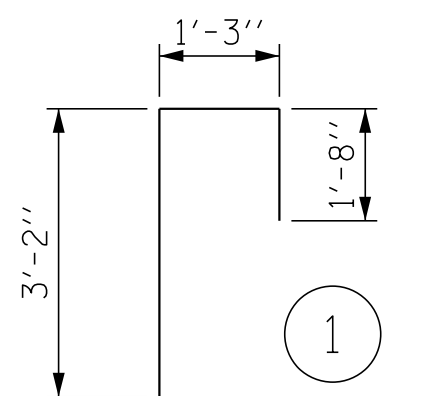
BILL OF MATERIAL

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
H1	14	#4	STR.	21'-0"	196
H2	6	#4	STR.	7'-8"	31
H3	6	#4	STR.	14'-2"	57
H4	12	#4	STR.	9"	6
U1	44	#5	1	6'-1"	279
V1	66	#4	STR.	2'-10"	125

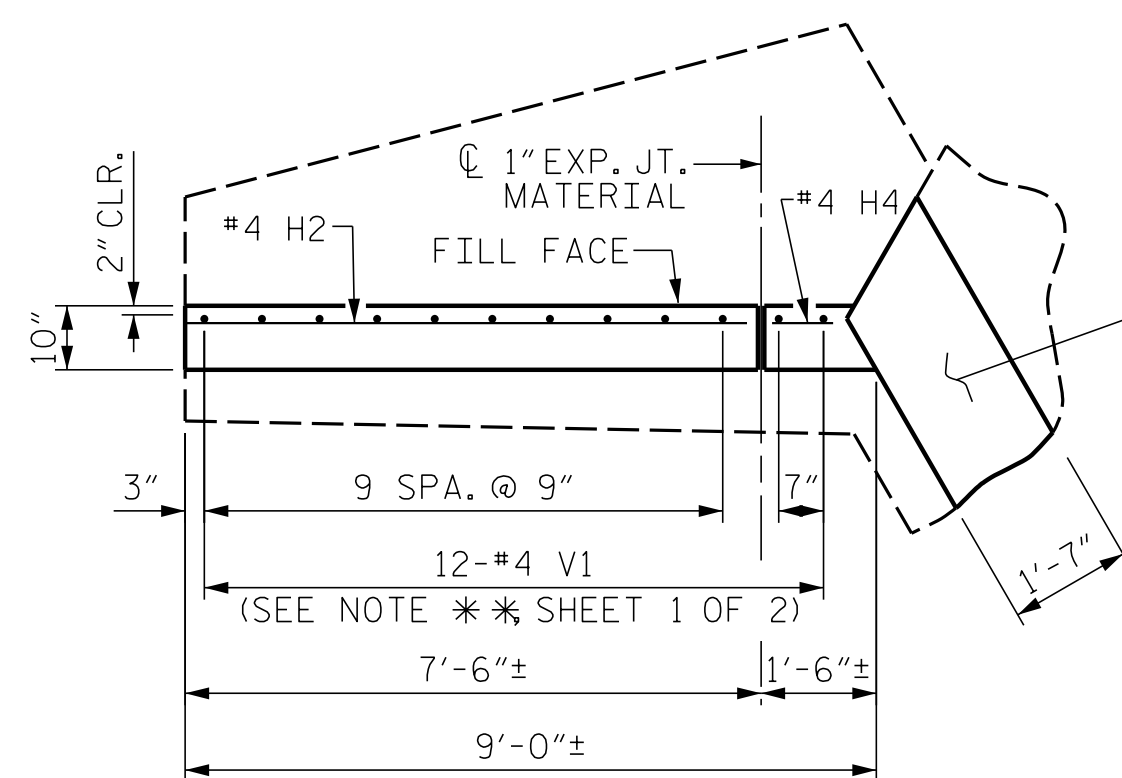
REINFORCING STEEL 694 LBS.

CLASS A CONCRETE
 4 WINGS 3.2 CY
 2 HEADWALLS 5.6 CY
TOTAL 8.8 CY

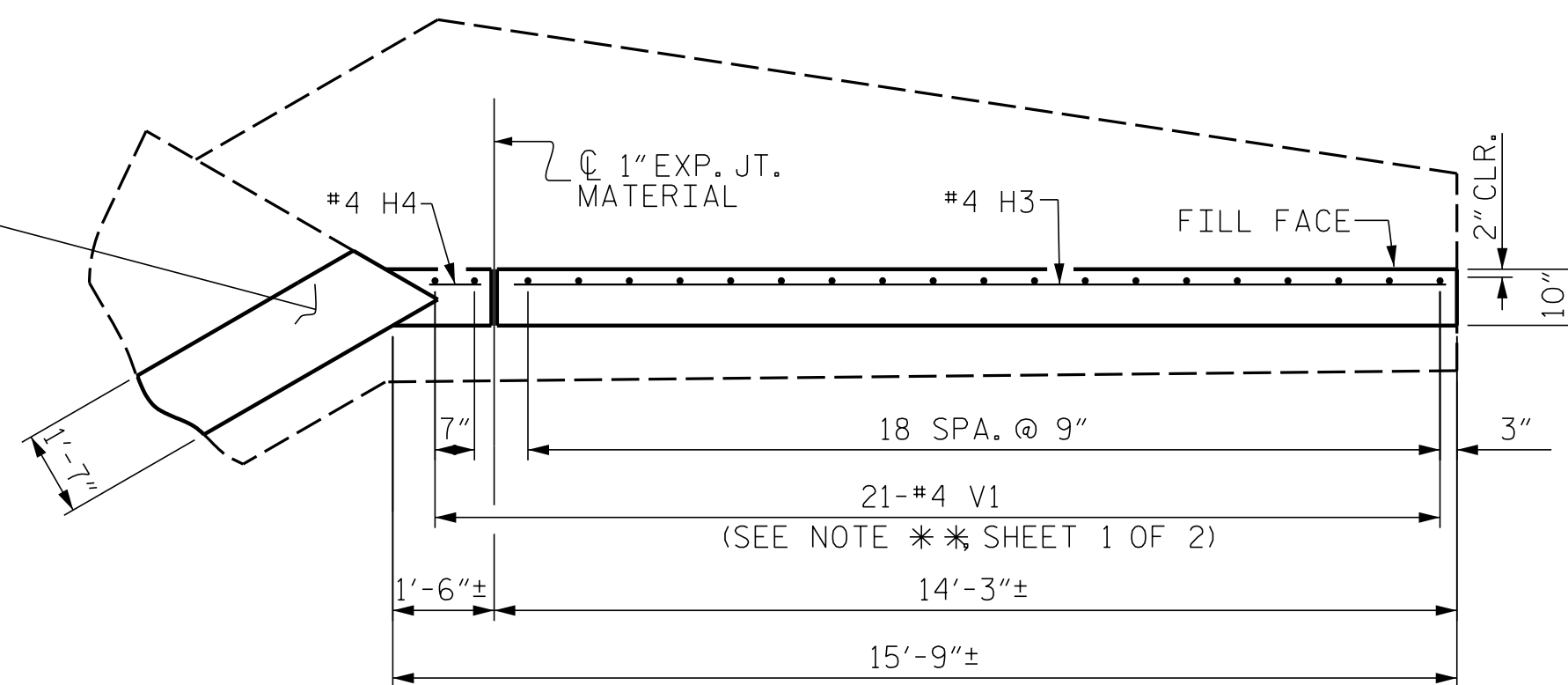
BAR TYPES



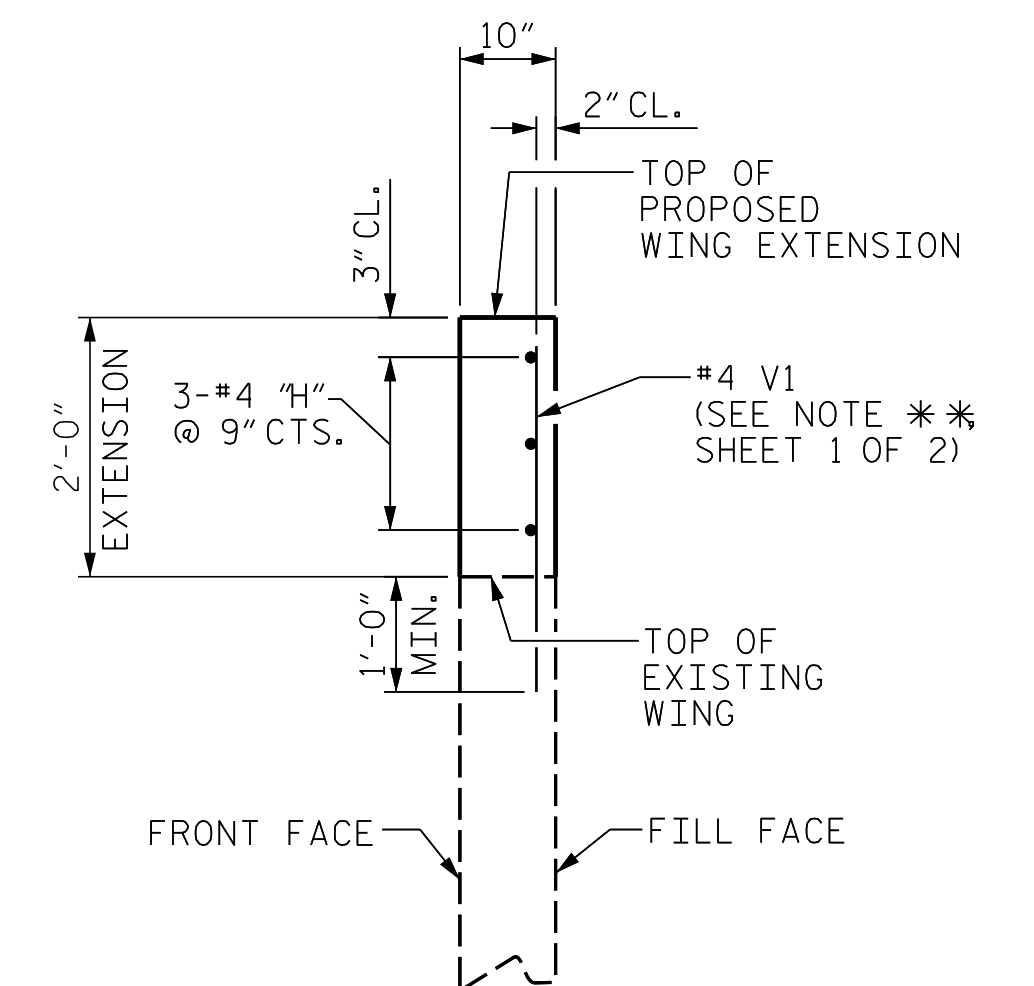
ALL BAR DIMENSIONS ARE OUT TO OUT.



PLAN W1

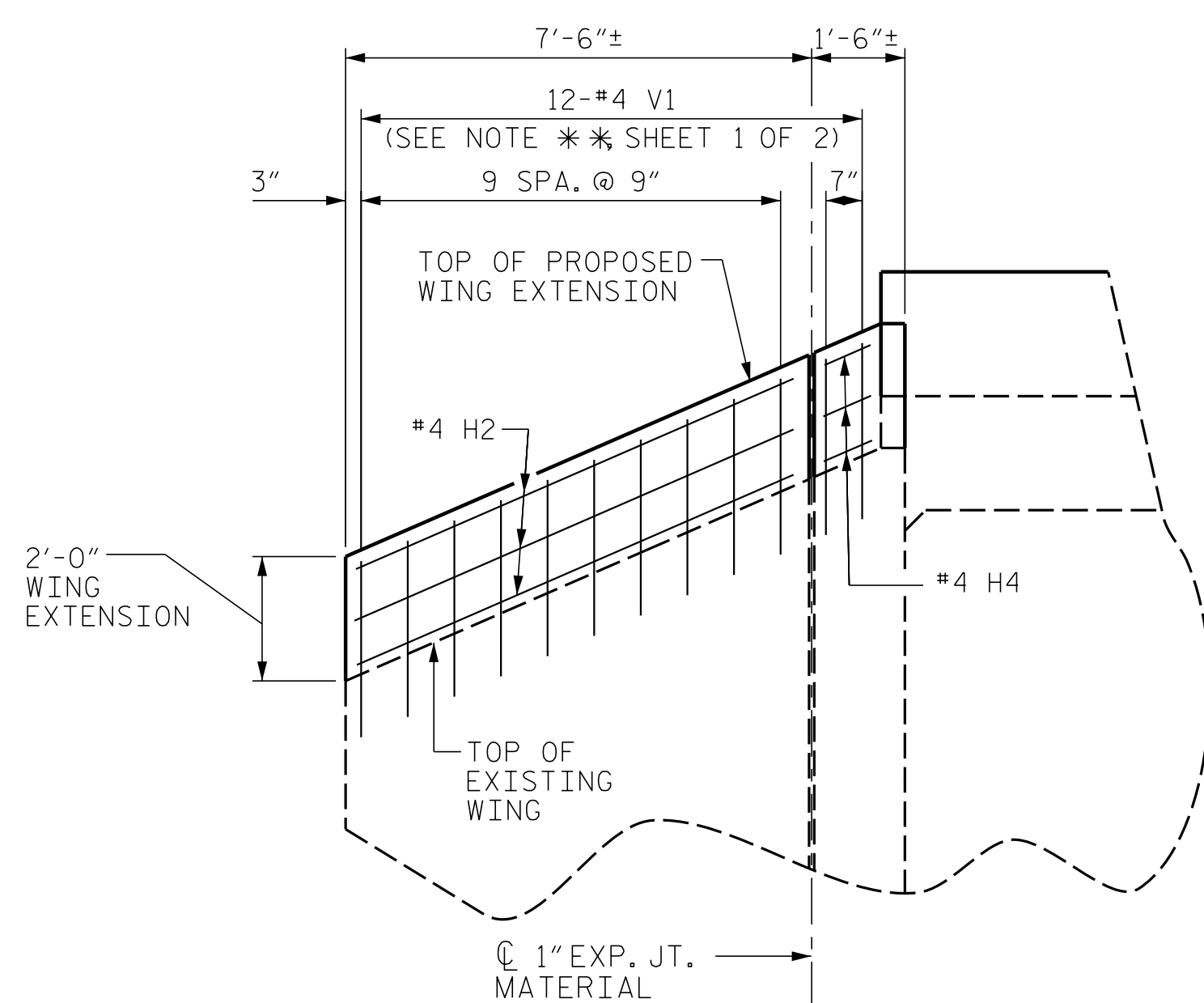


PLAN W2

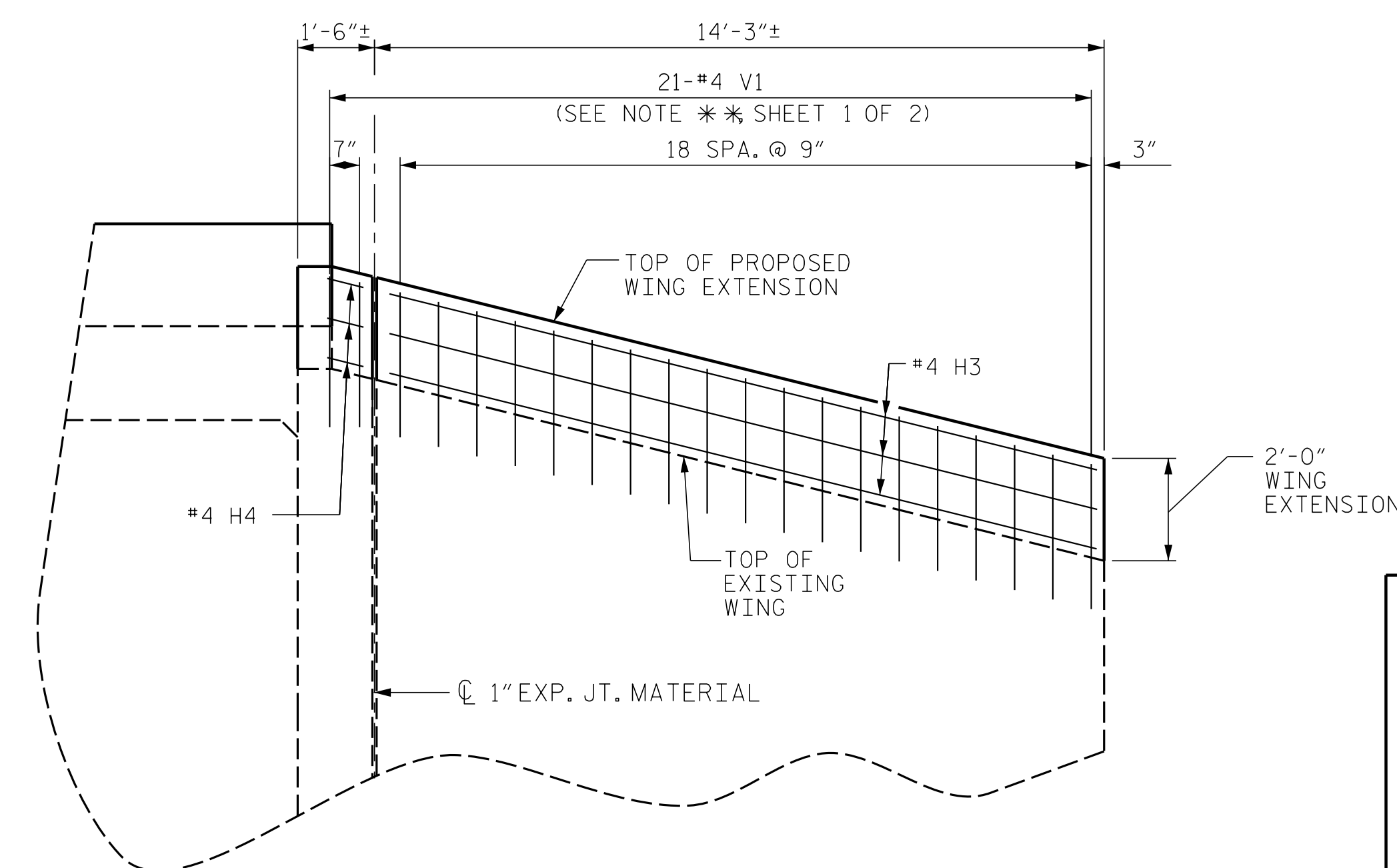


WING EXTENSION SECTION

(TYP. EACH WING)



ELEVATION W1



ELEVATION W2

PROJECT NO. I-5786
JOHNSTON COUNTY
 STATION: 243+85.75 -L-

SHEET 2 OF 2



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
HEADWALL AND WING EXTENSION ON EXISTING DOUBLE 9'X7' CONCRETE BOX CULVERT

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C02-2
1			3			TOTAL SHEETS
2			4			2

DRAWN BY: G. WILSON DATE: 5/2017
 CHECKED BY: G.M. GILLAND DATE: 5/2017

DOCUMENT NOT CONSIDERED FINAL
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1223 Jones Franklin Rd.
 Raleigh, N.C. 27606
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 Fax: 919 851 8107
 LICENSE NO. F-0377

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