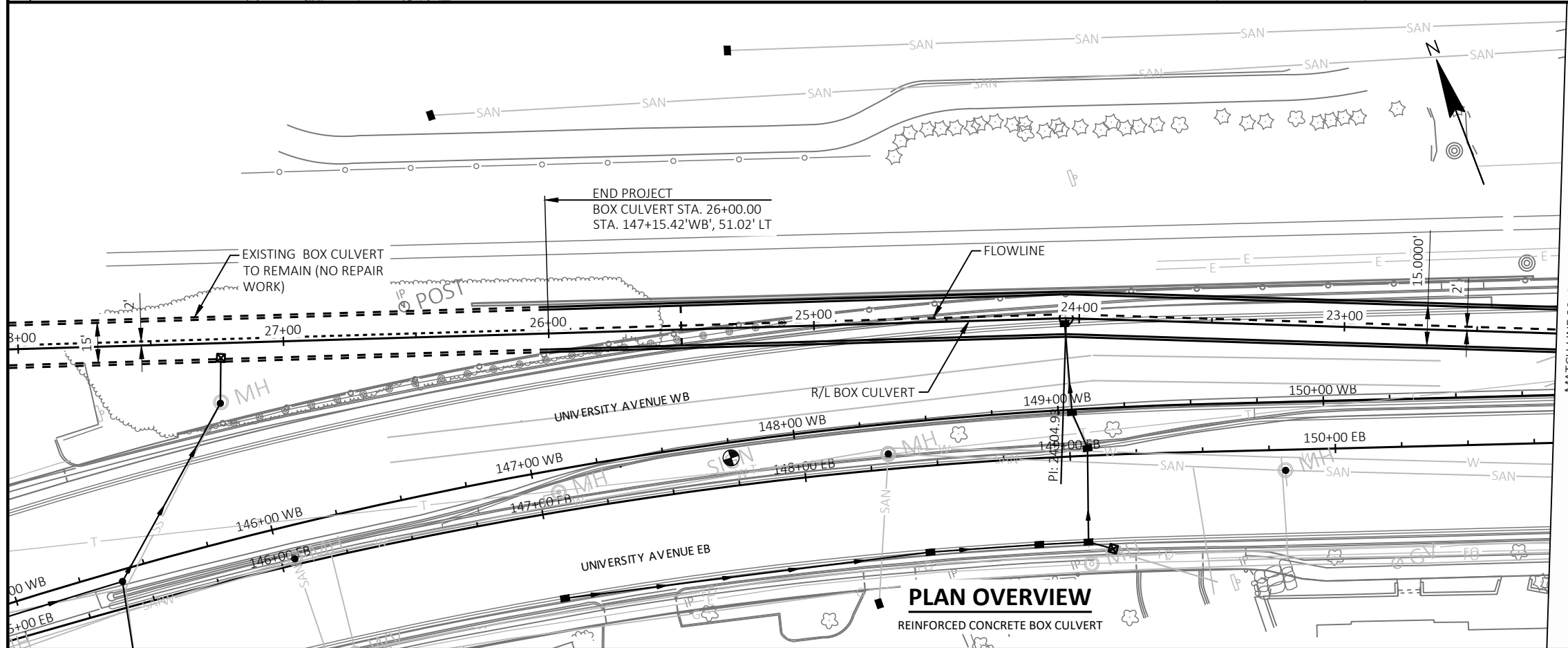
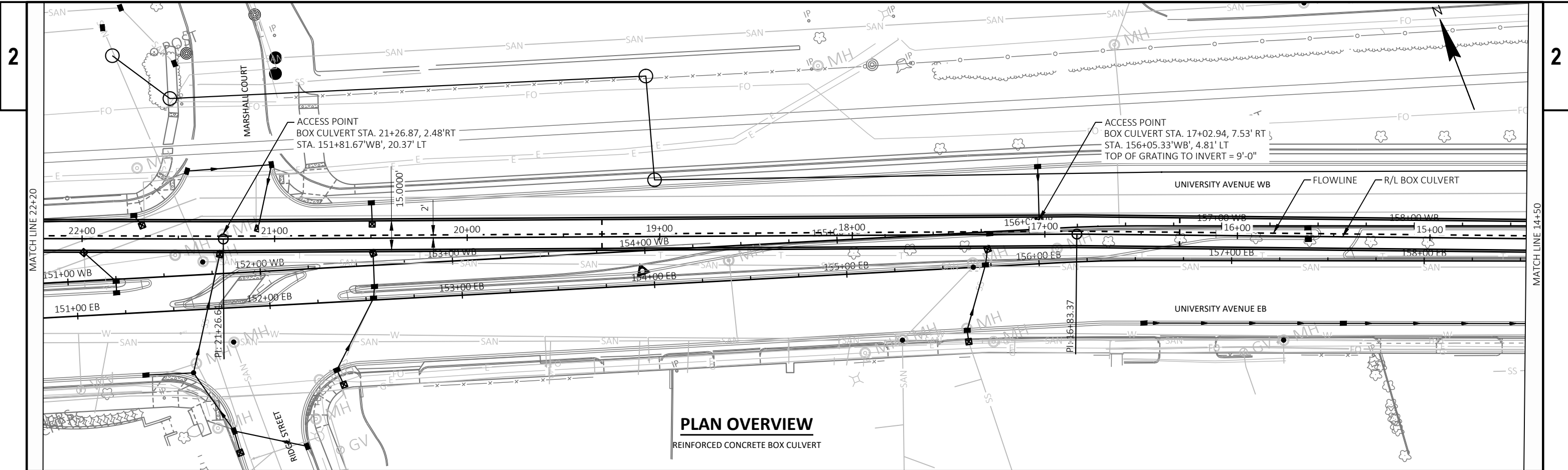


PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN OVERVIEW: EXISTING BOX CULVERT REPAIRS	SHEET	E
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PROJECT NO: 5992-11-31

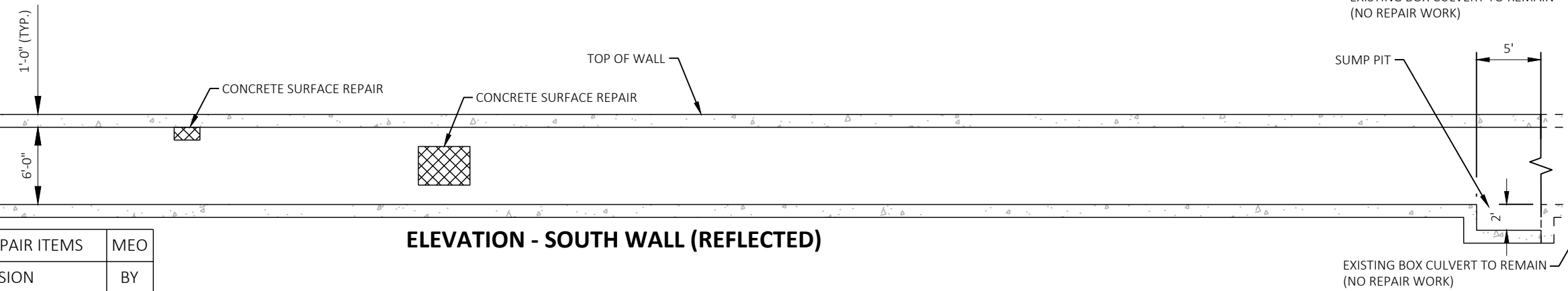
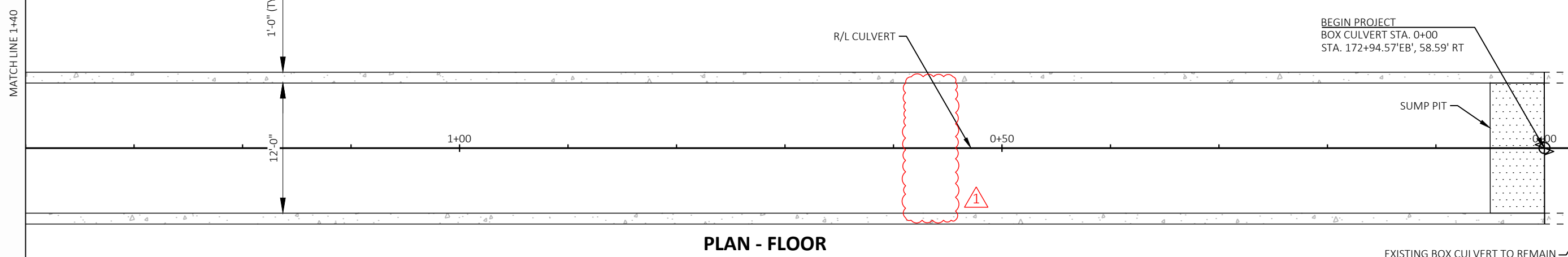
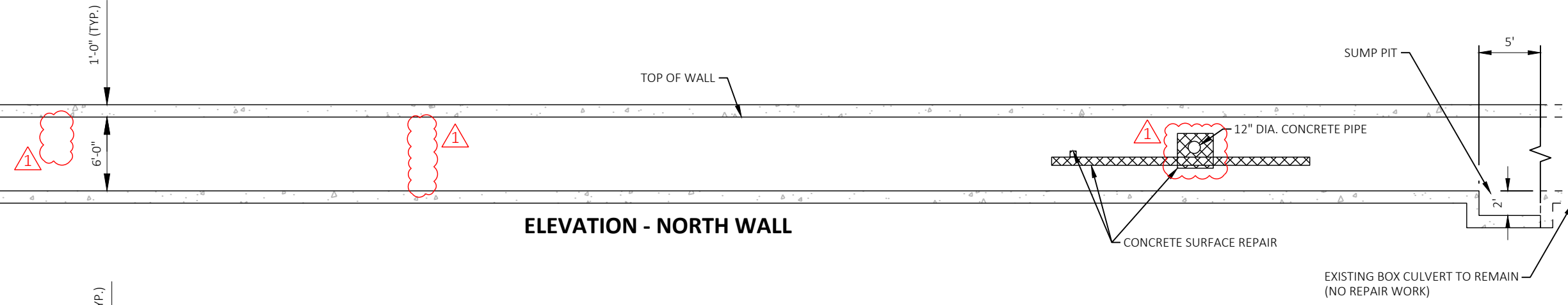
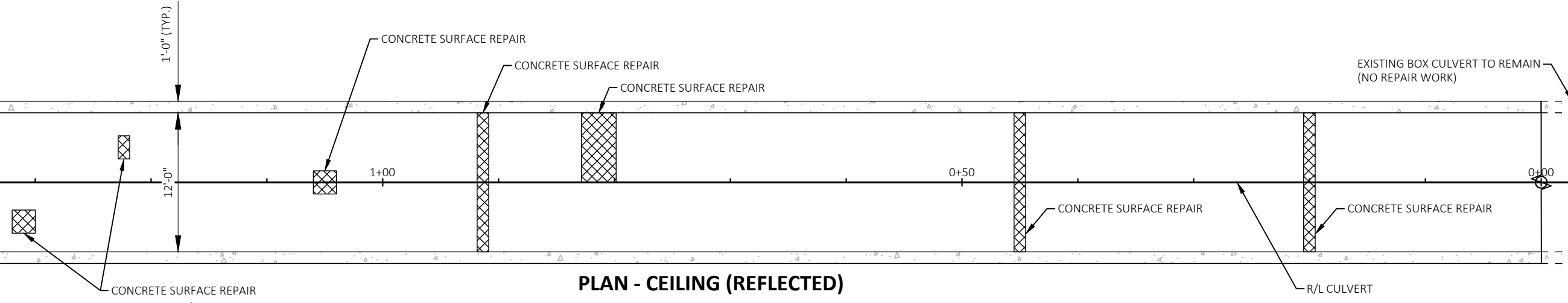
HWY: UNIVERSITY AVENUE

COUNTY: DANE

PLAN OVERVIEW

SHEET

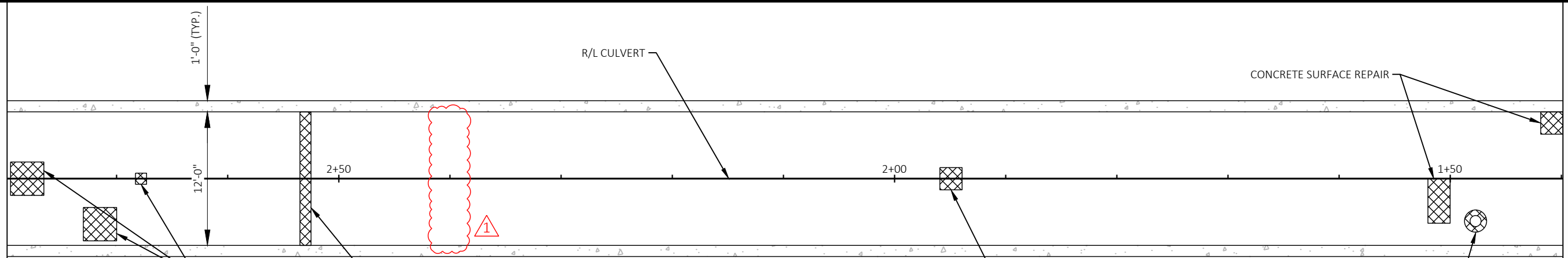
E



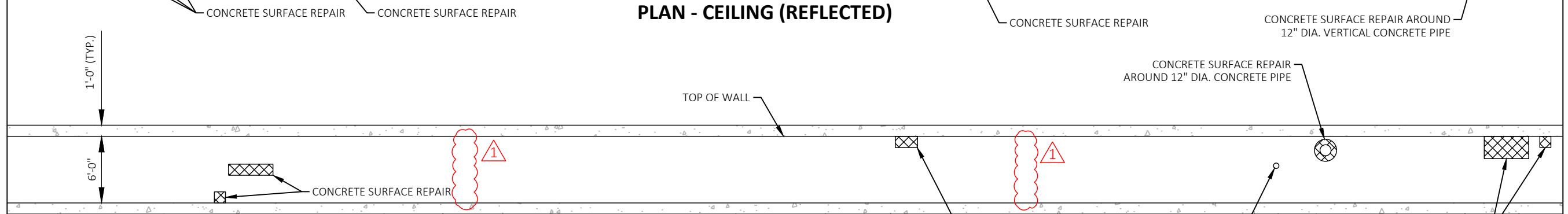
NO.	DATE	REVISION	BY
1	7/18/2023	REVISED REPAIR ITEMS	MEO

BEGIN PROJECT
BOX CULVERT STA. 0+00
STA. 172+94.57'EB', 58.59' RT

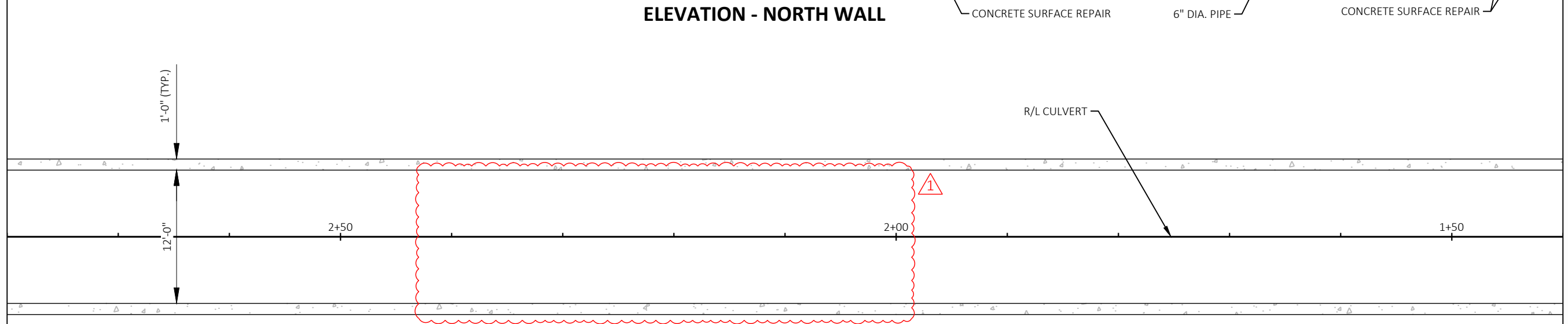
MATCH LINE 1+40



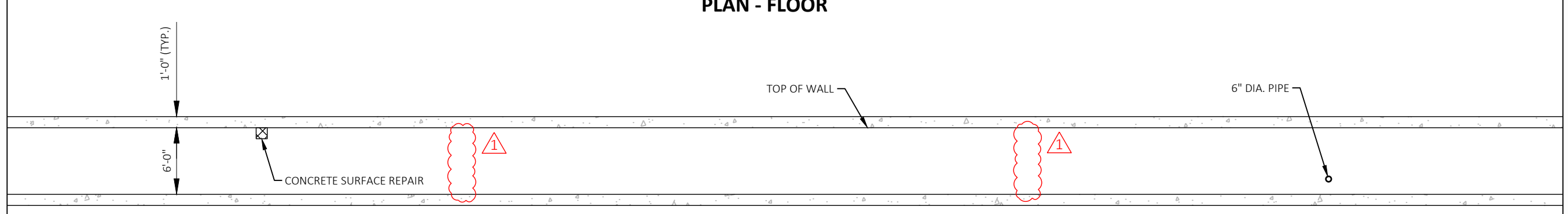
PLAN - CEILING (REFLECTED)



ELEVATION - NORTH WALL

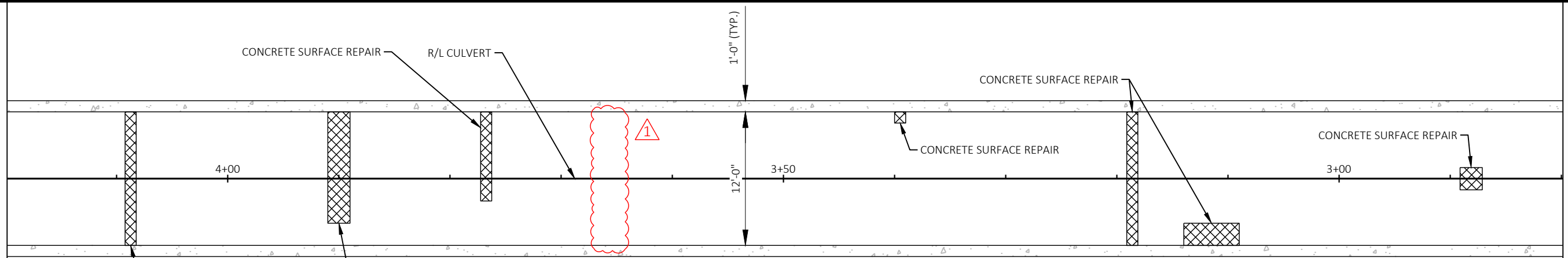
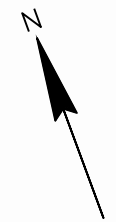


PLAN - FLOOR

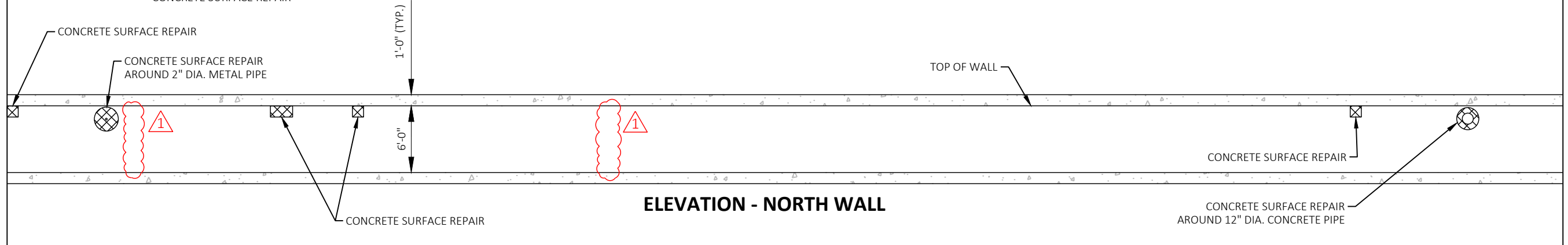


ELEVATION - SOUTH WALL (REFLECTED)

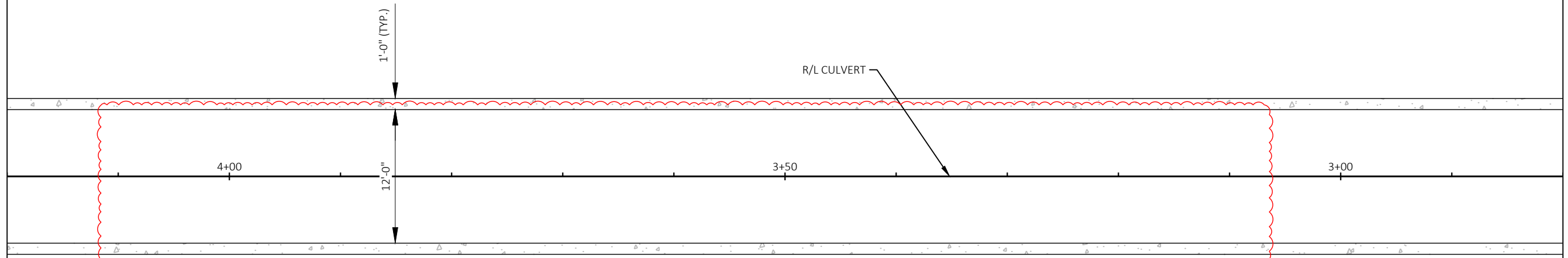
1	7/18/2023	REVISED REPAIR ITEMS	MEO
NO.	DATE	REVISION	BY



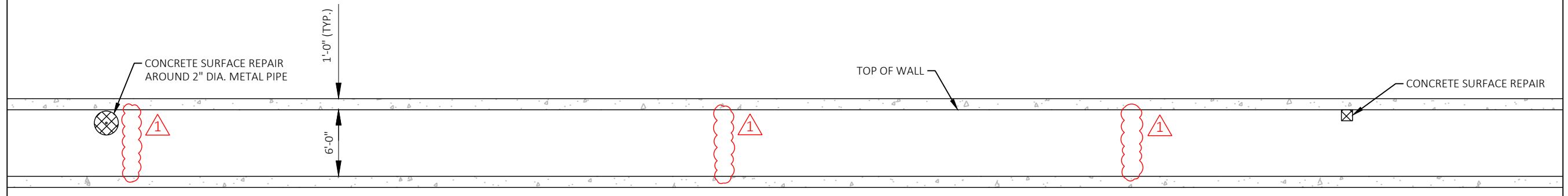
PLAN - CEILING (REFLECTED)



ELEVATION - NORTH WALL

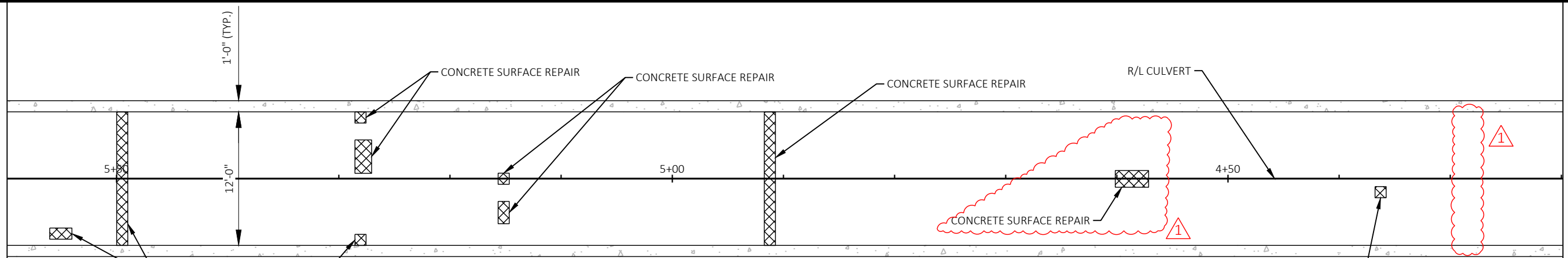


PLAN - FLOOR

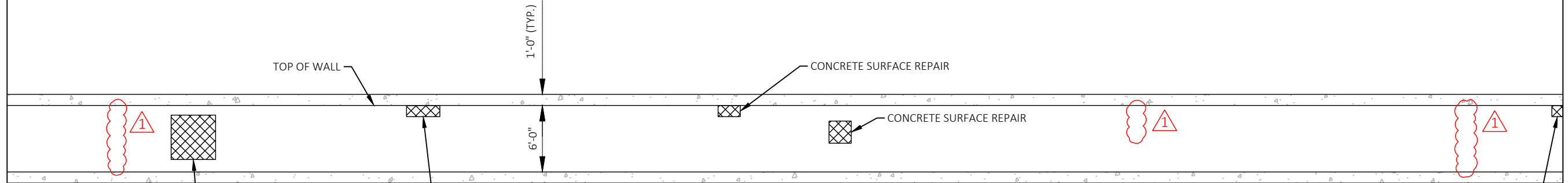


ELEVATION - SOUTH WALL (REFLECTED)

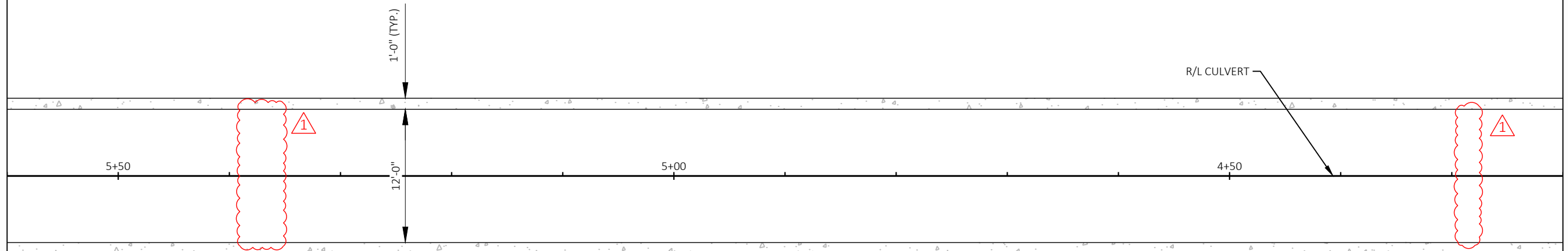
1	7/18/2023	REVISED REPAIR ITEMS	MEO
NO.	DATE	REVISION	BY



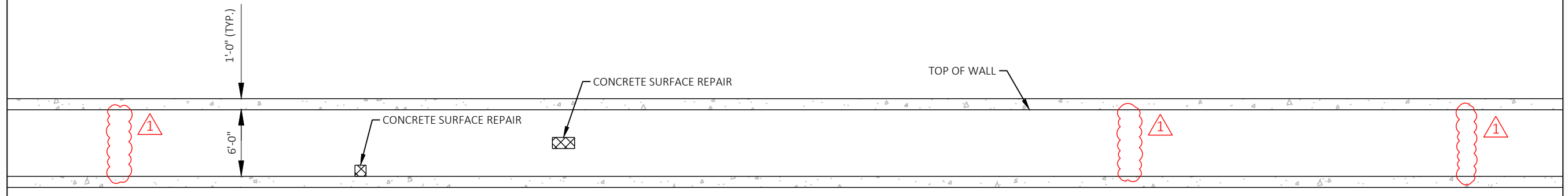
PLAN - CEILING (REFLECTED)



ELEVATION - NORTH WALL



PLAN - FLOOR

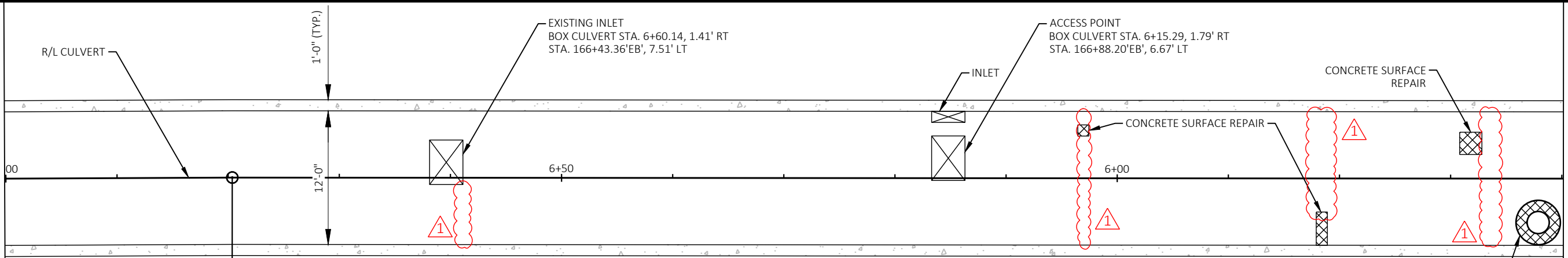


ELEVATION - SOUTH WALL (REFLECTED)

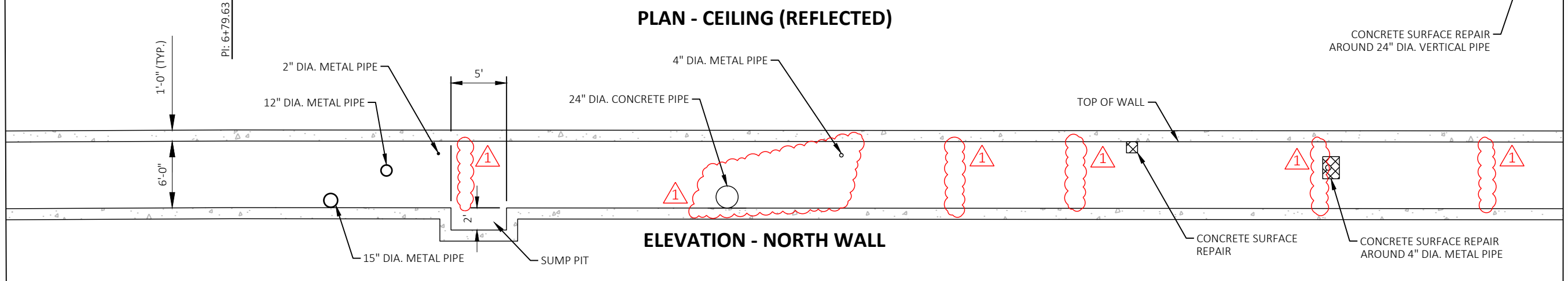
1	7/18/2023	REVISED REPAIR ITEMS	MEO
NO.	DATE	REVISION	BY

MATCH LINE 5+60

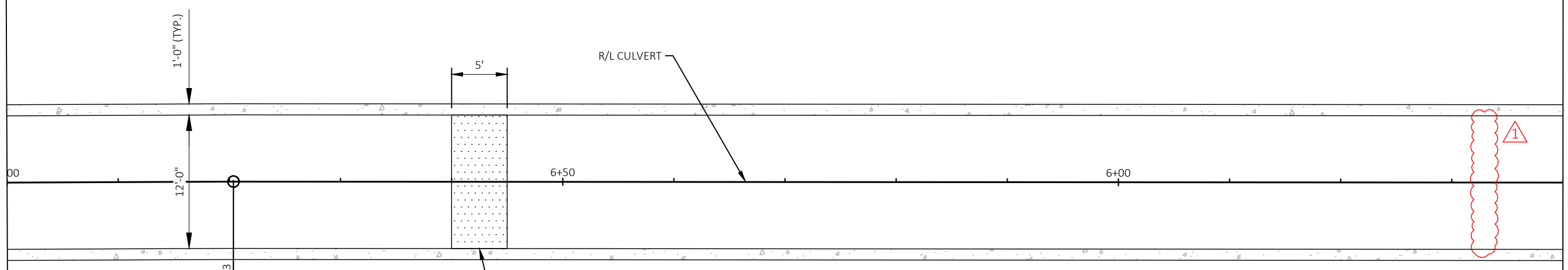
MATCH LINE 4+20



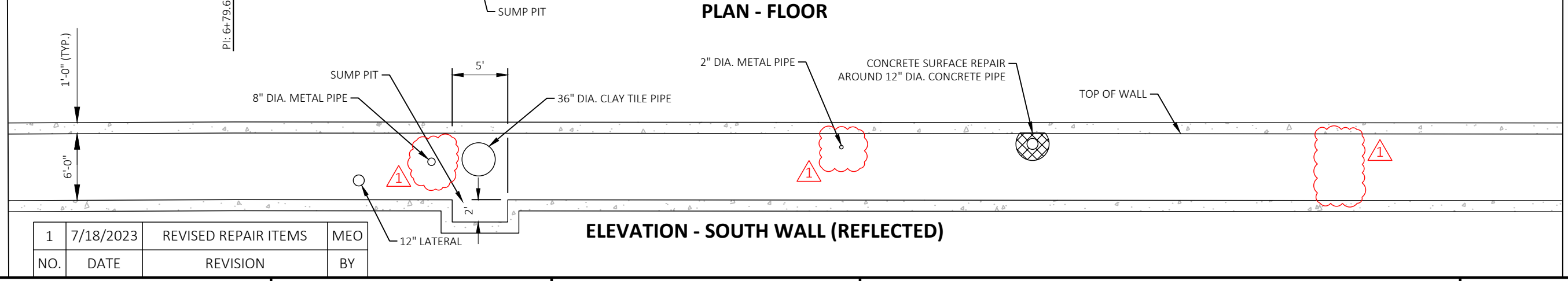
PLAN - CEILING (REFLECTED)



ELEVATION - NORTH WALL

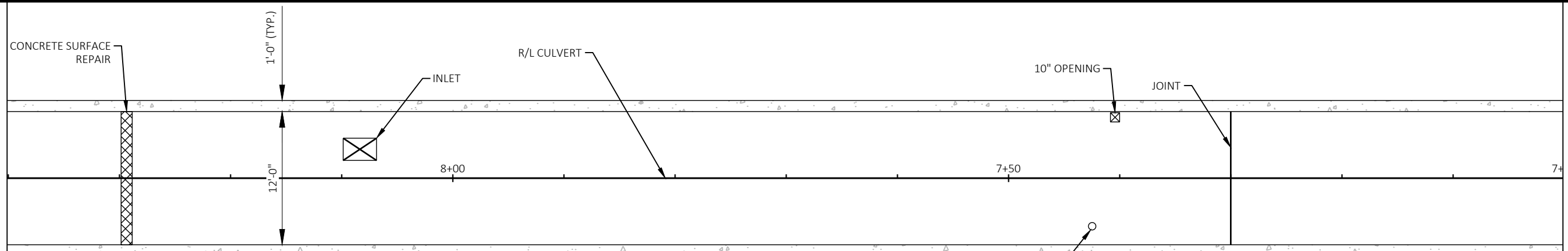


PLAN - FLOOR

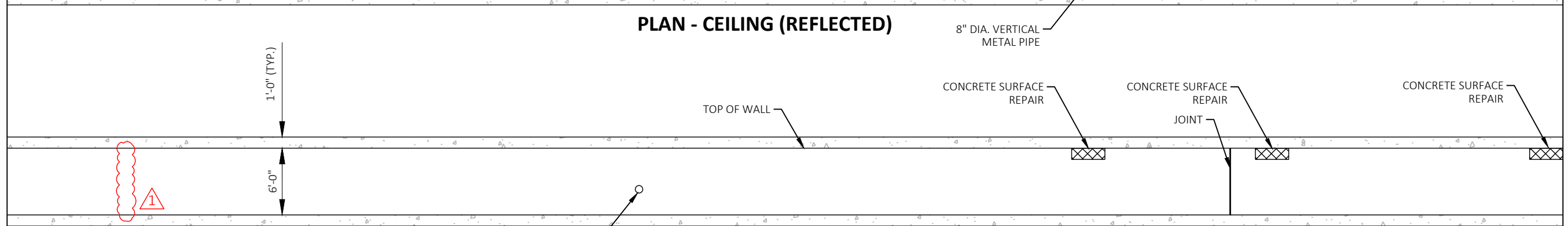


ELEVATION - SOUTH WALL (REFLECTED)

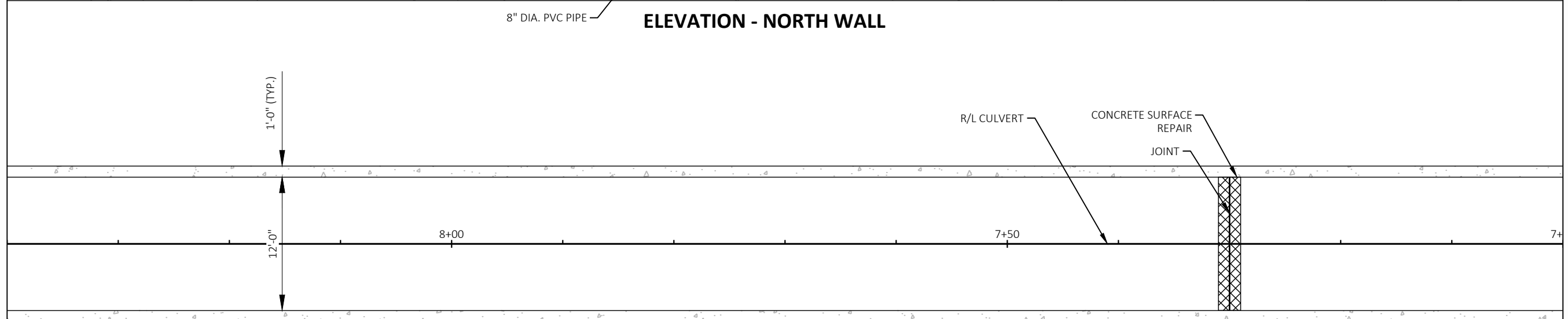
NO.	DATE	REVISION	BY
1	7/18/2023	REVISED REPAIR ITEMS	MEO



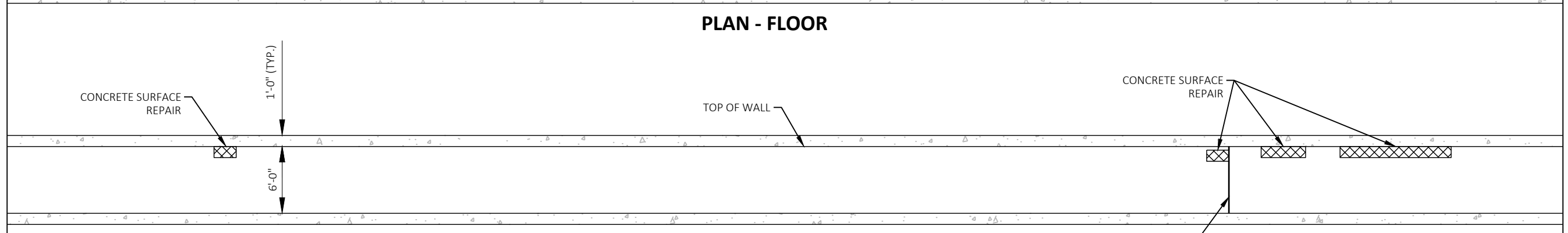
PLAN - CEILING (REFLECTED)



ELEVATION - NORTH WALL

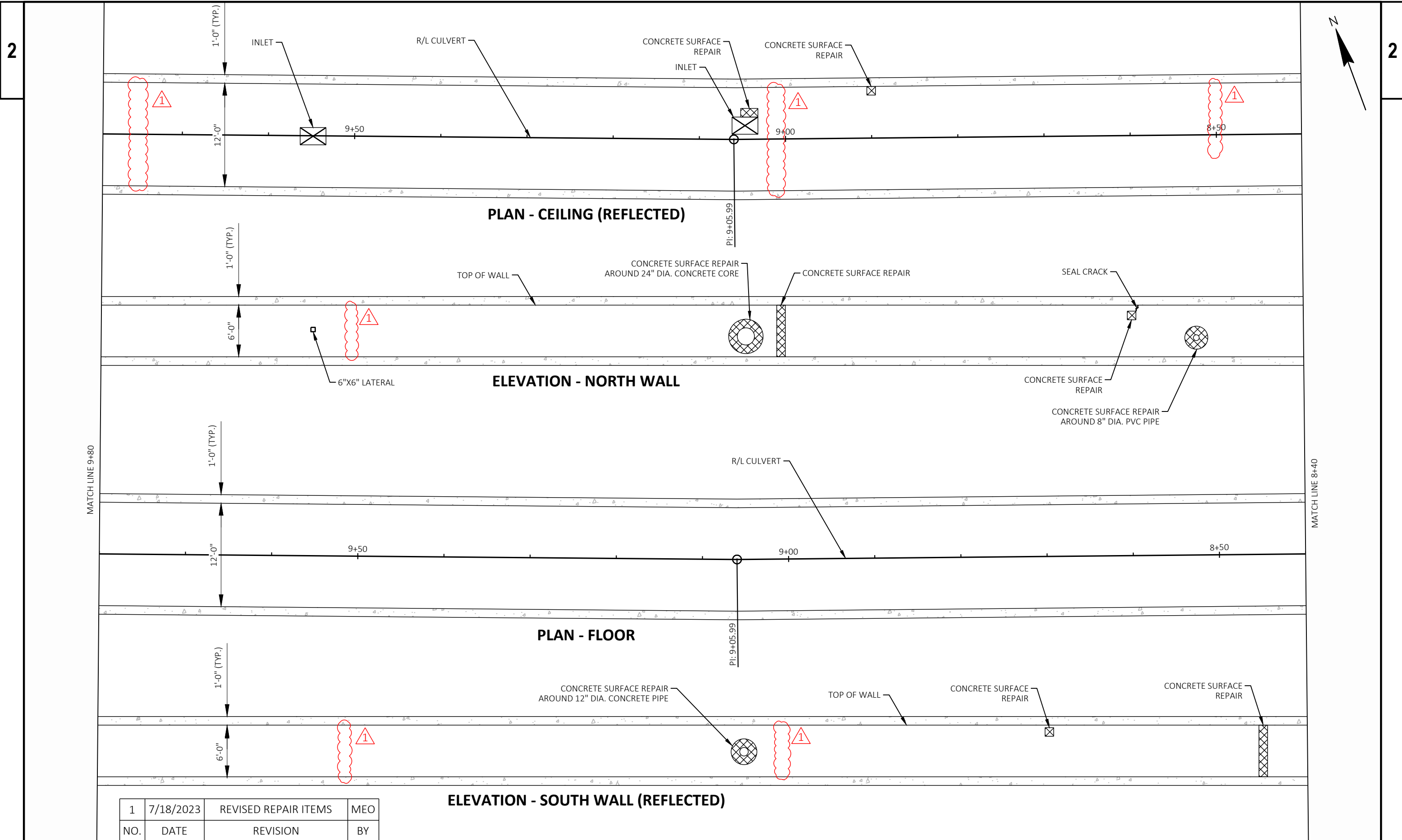


PLAN - FLOOR

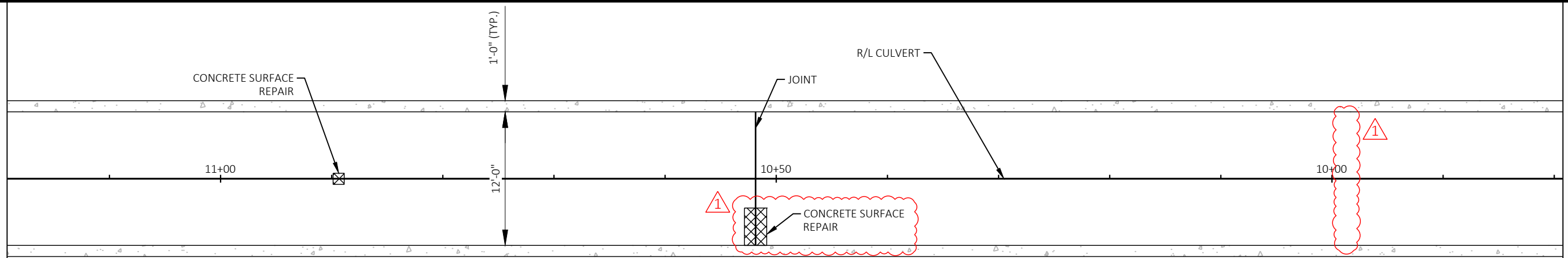


ELEVATION - SOUTH WALL (REFLECTED)

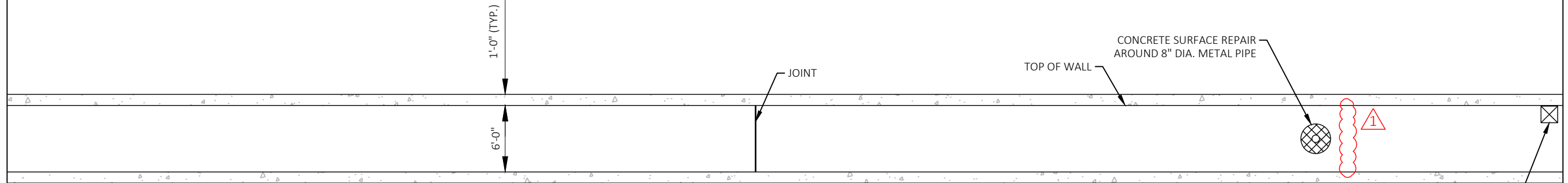
1	7/18/2023	REMOVED CRACK SEALING	MEO
NO.	DATE	REVISION	BY



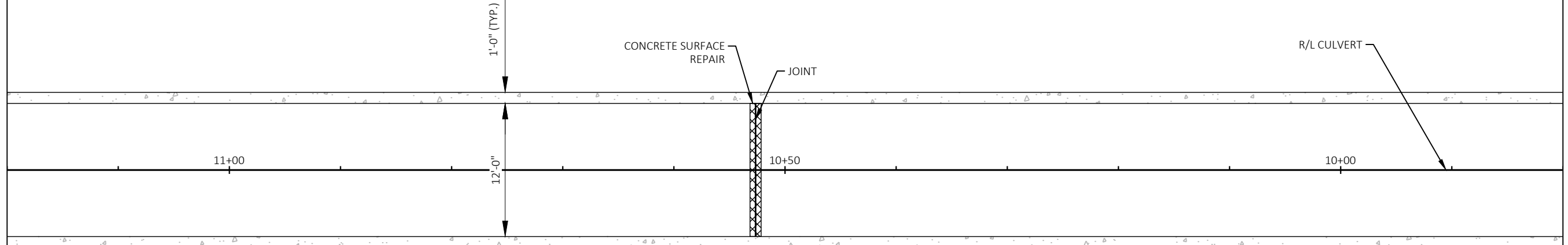
1	7/18/2023	REVISED REPAIR ITEMS	MEO
NO.	DATE	REVISION	BY



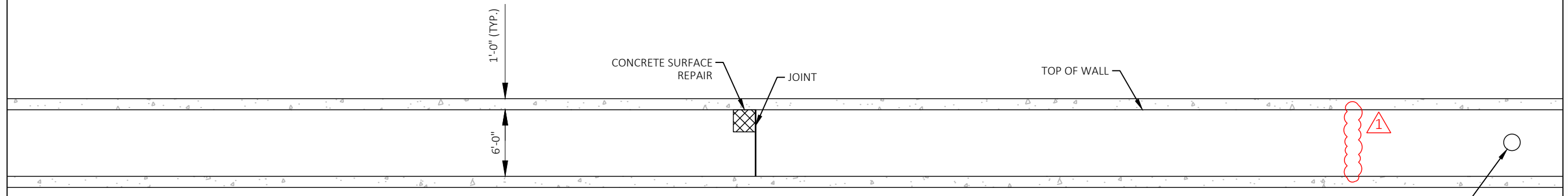
PLAN - CEILING (REFLECTED)



ELEVATION - NORTH WALL



PLAN - FLOOR

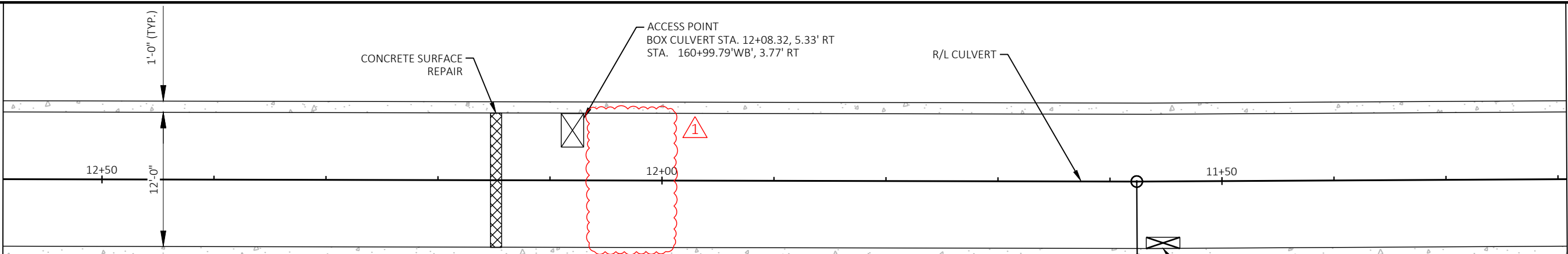


ELEVATION - SOUTH WALL (REFLECTED)

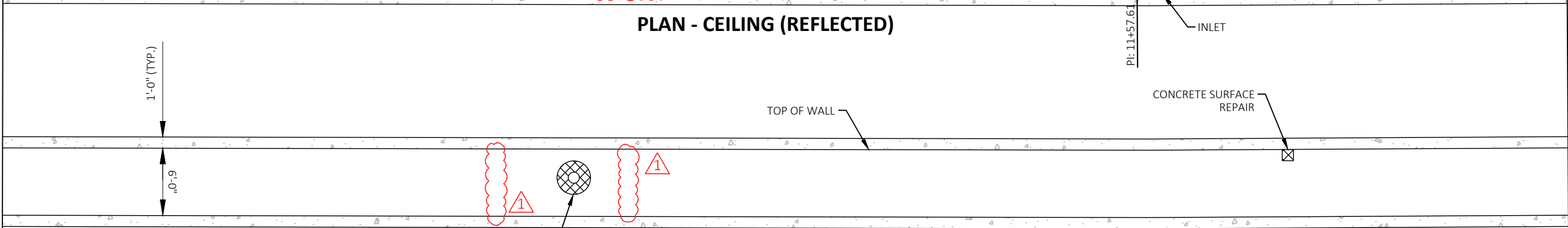
1	7/18/2023	REVISED REPAIR ITEMS	MEO
NO.	DATE	REVISION	BY

MATCH LINE 11+20

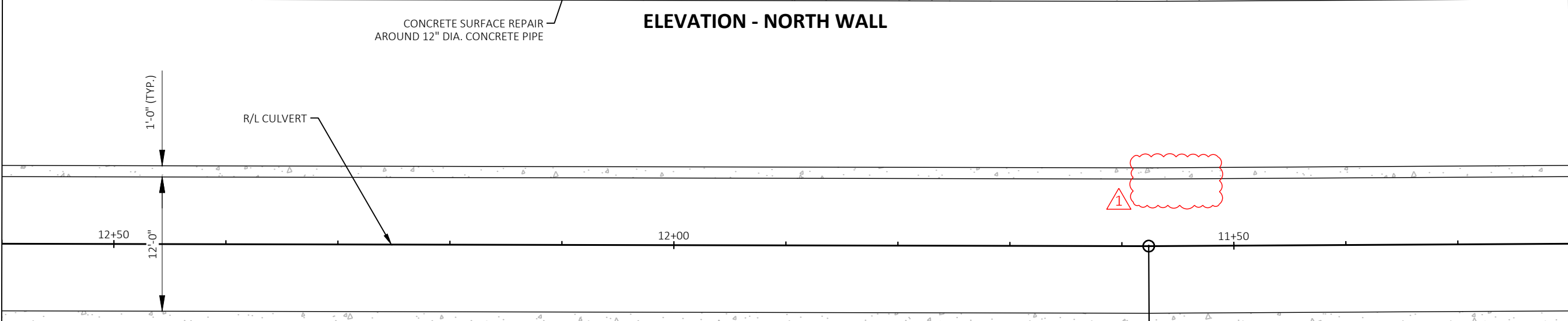
MATCH LINE 9+80



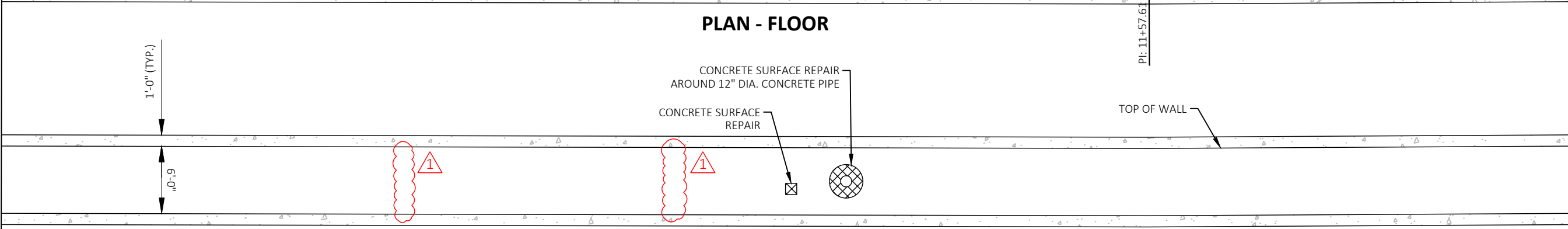
PLAN - CEILING (REFLECTED)



ELEVATION - NORTH WALL

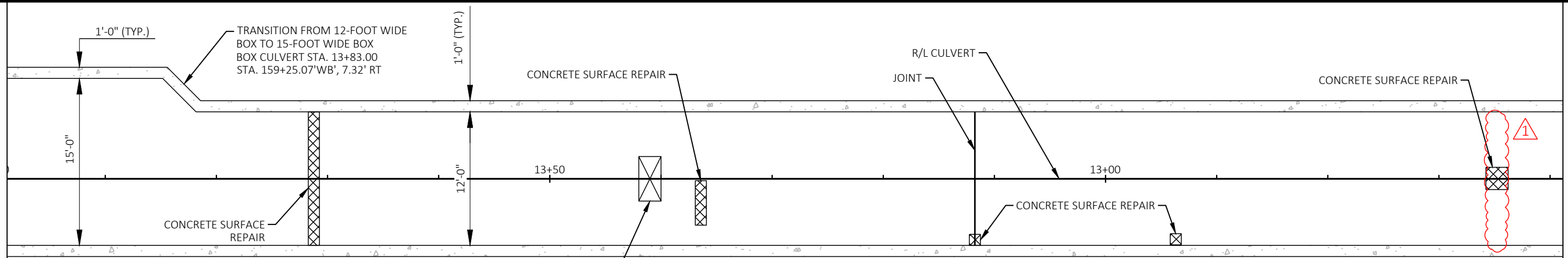


PLAN - FLOOR

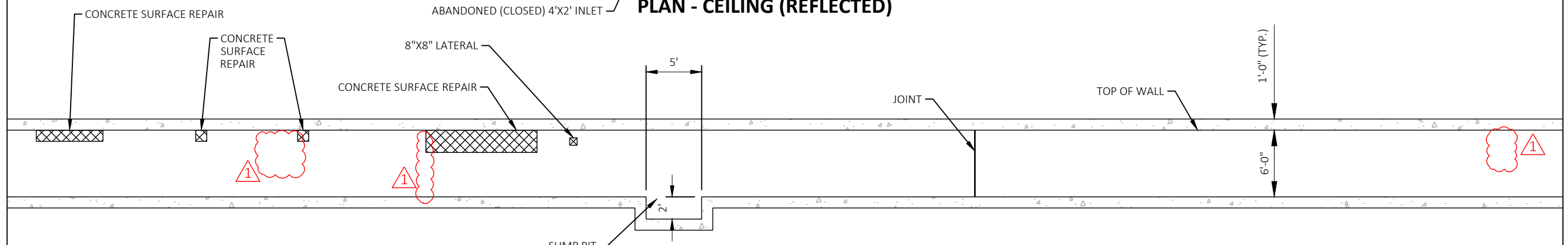


ELEVATION - SOUTH WALL (REFLECTED)

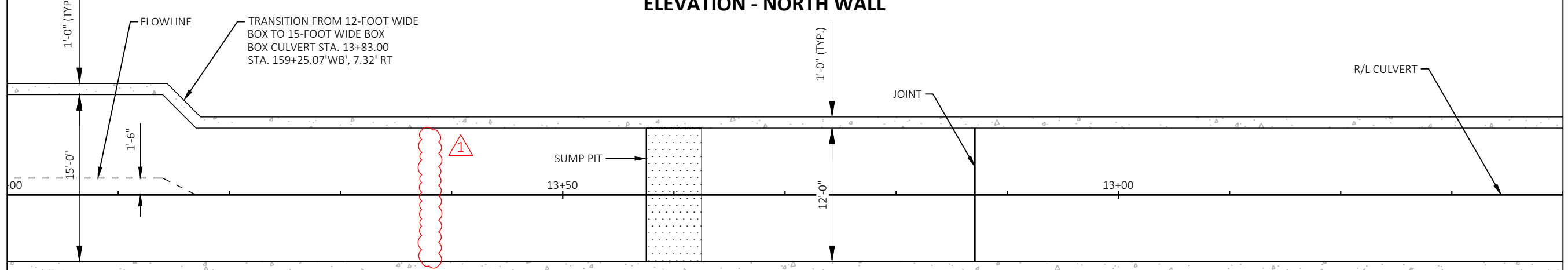
1	7/18/2023	REVISED REPAIR ITEMS	MEO
NO.	DATE	REVISION	BY



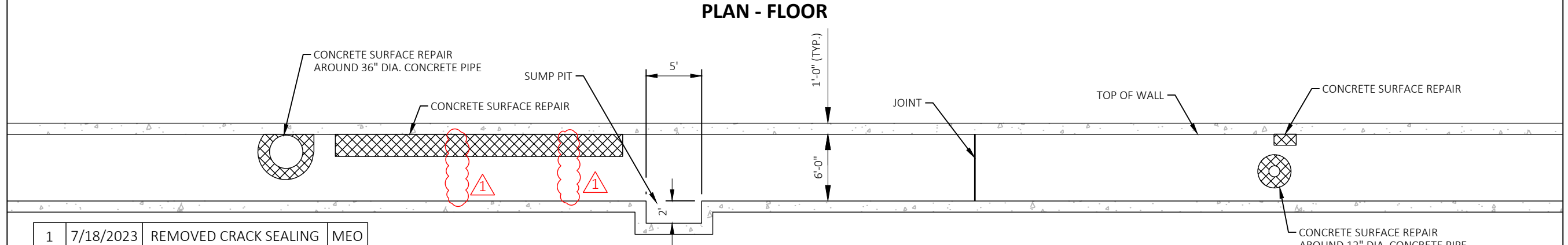
PLAN - CEILING (REFLECTED)



ELEVATION - NORTH WALL



PLAN - FLOOR

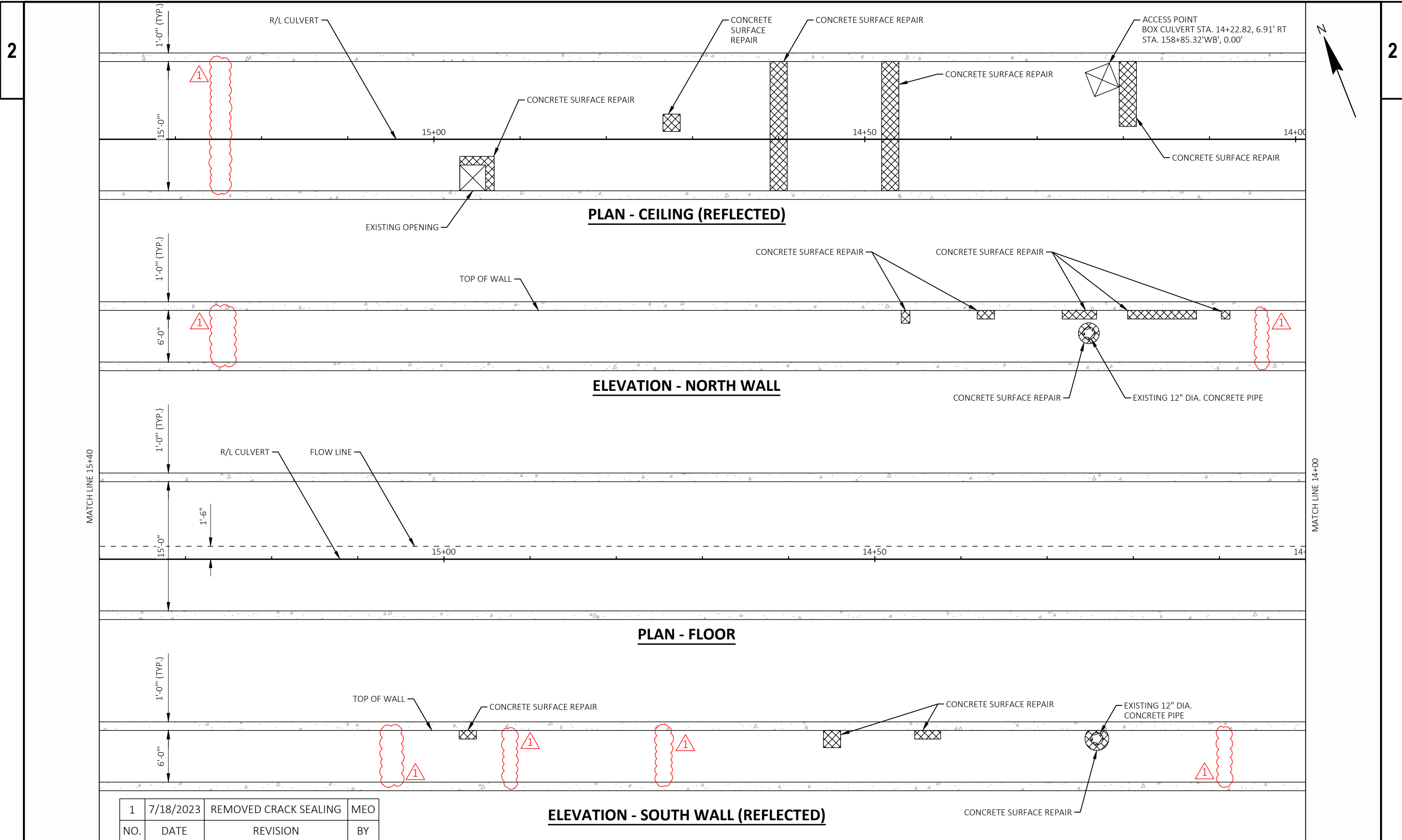


ELEVATION - SOUTH WALL (REFLECTED)

NO.	DATE	REVISION	BY
1	7/18/2023	REMOVED CRACK SEALING	MEO

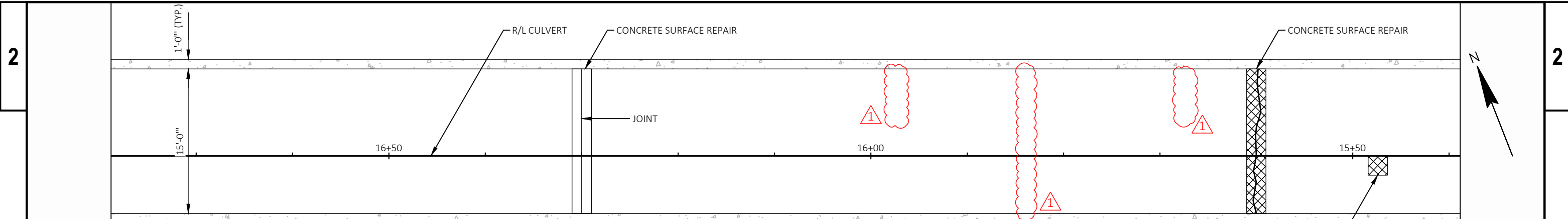
MATCH LINE 14+00

MATCH LINE 12+60

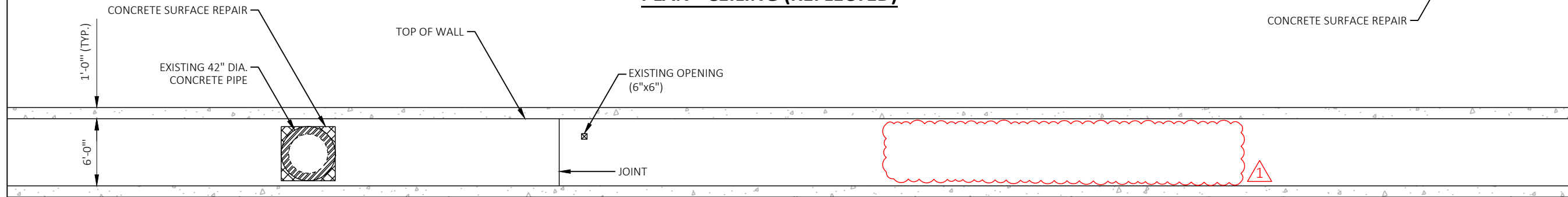


1	7/18/2023	REMOVED CRACK SEALING	MEO
NO.	DATE	REVISION	BY

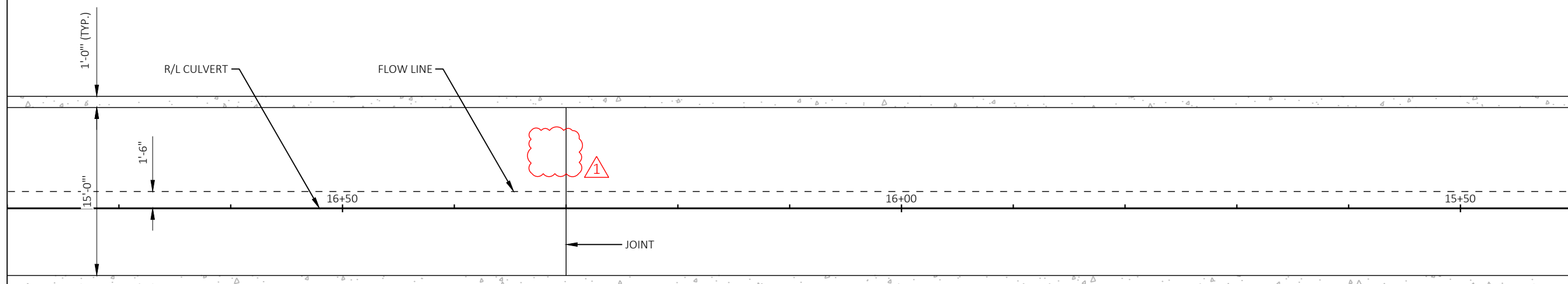
ELEVATION - SOUTH WALL (REFLECTED)



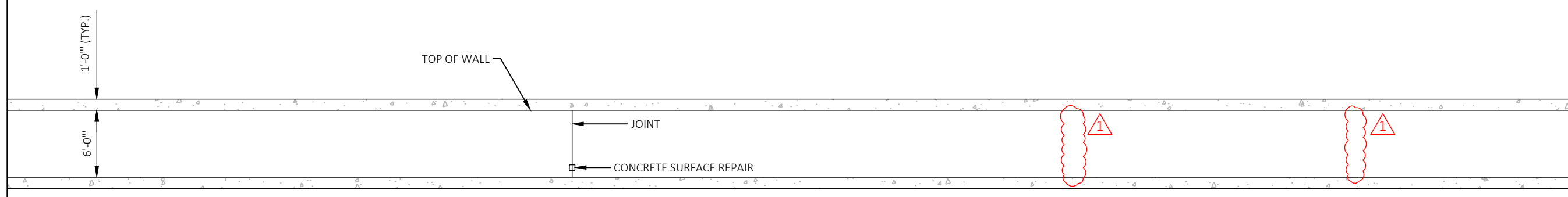
PLAN - CEILING (REFLECTED)



ELEVATION - NORTH WALL

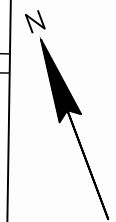
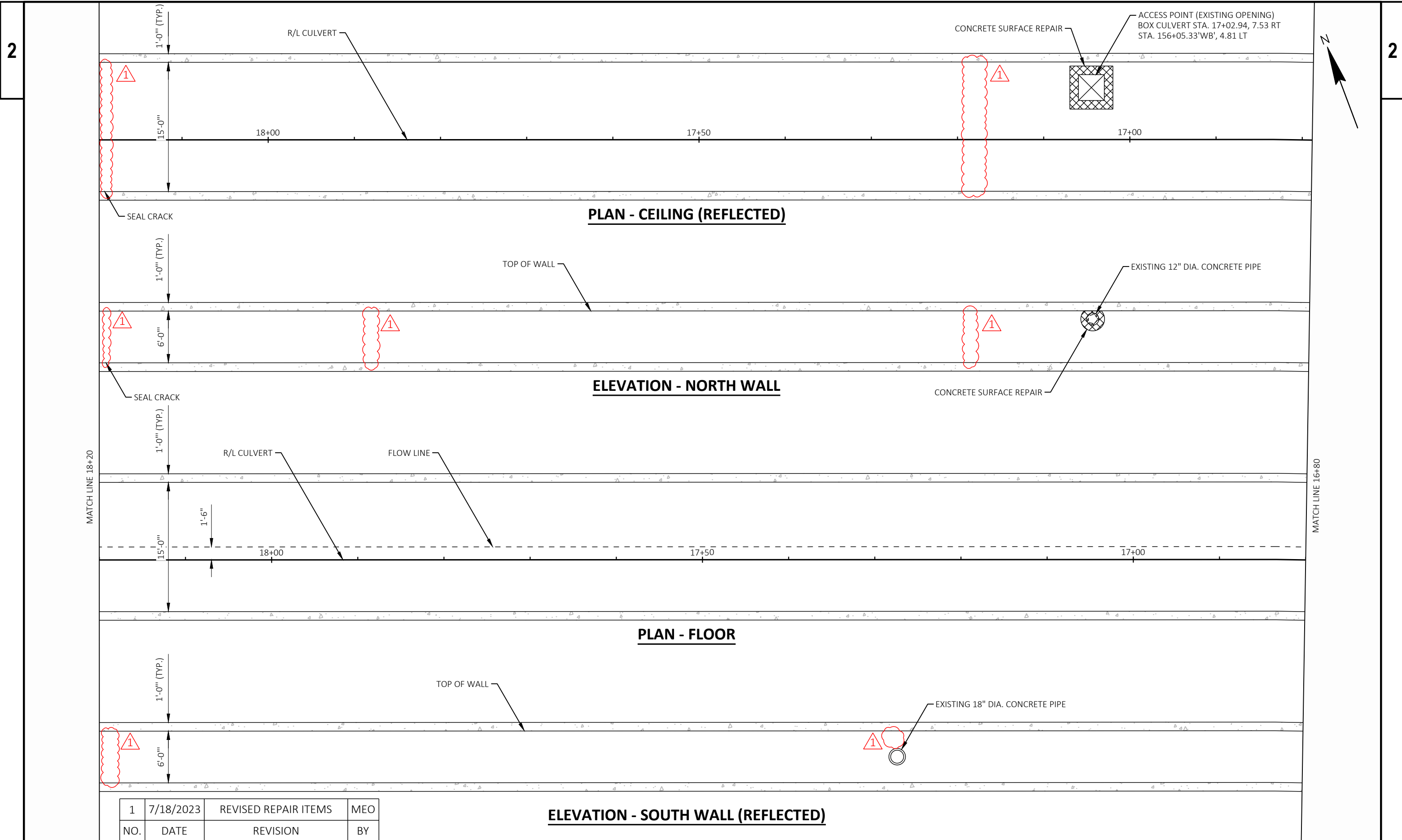


PLAN - FLOOR



ELEVATION - SOUTH WALL (REFLECTED)

NO.	DATE	REVISION	BY
1	7/18/2023	REVISED REPAIR ITEMS	MEO

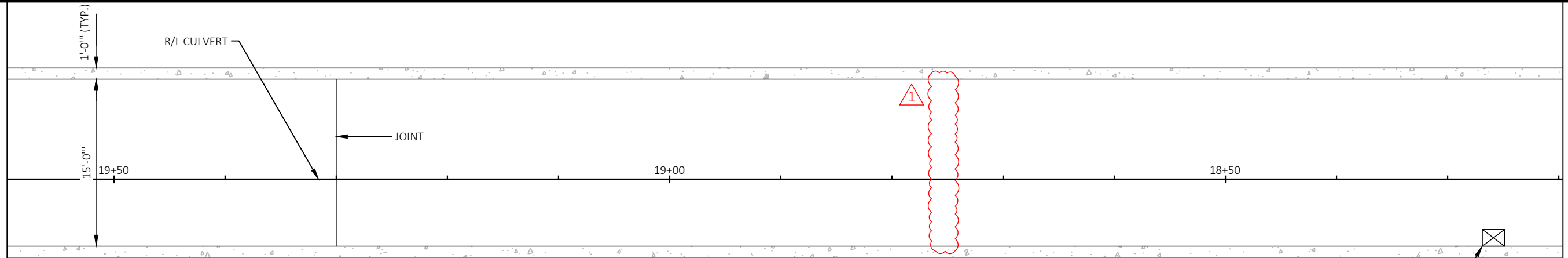


1	7/18/2023	REVISED REPAIR ITEMS	MEO
NO.	DATE	REVISION	BY

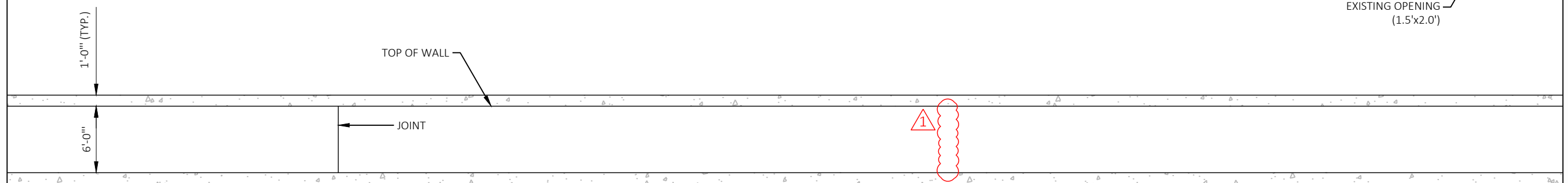
ELEVATION - SOUTH WALL (REFLECTED)

MATCH LINE 18+20

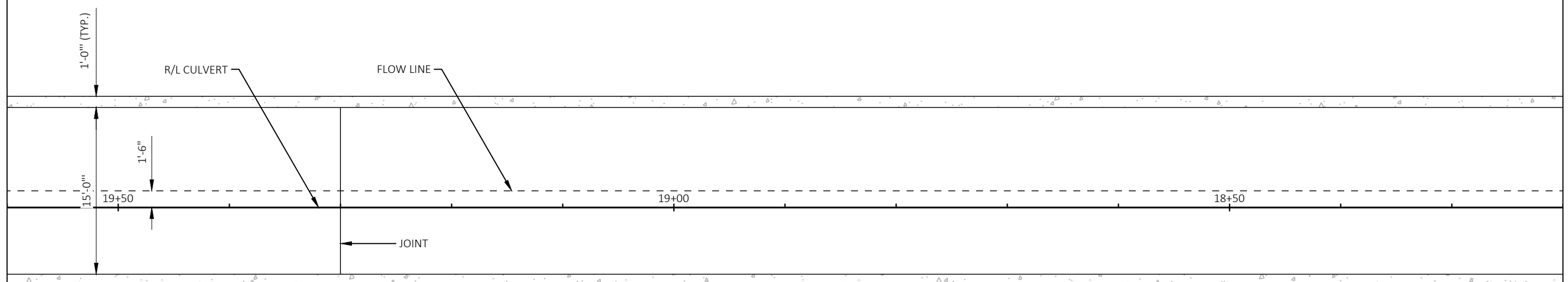
MATCH LINE 16+80



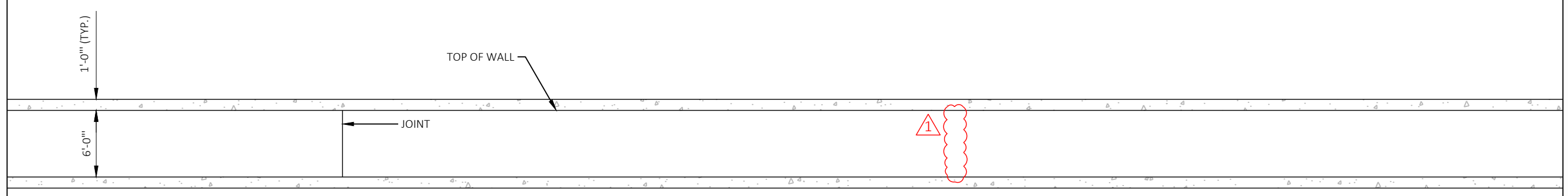
PLAN - CEILING (REFLECTED)



ELEVATION - NORTH WALL



PLAN - FLOOR

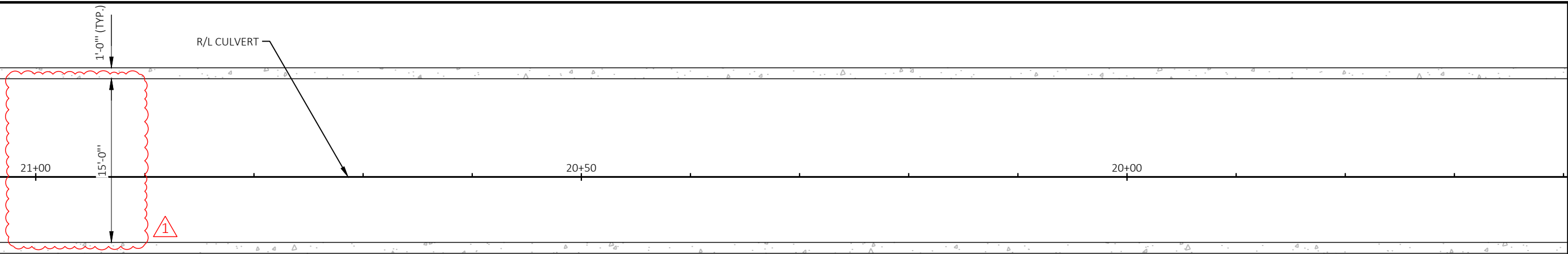


ELEVATION - SOUTH WALL (REFLECTED)

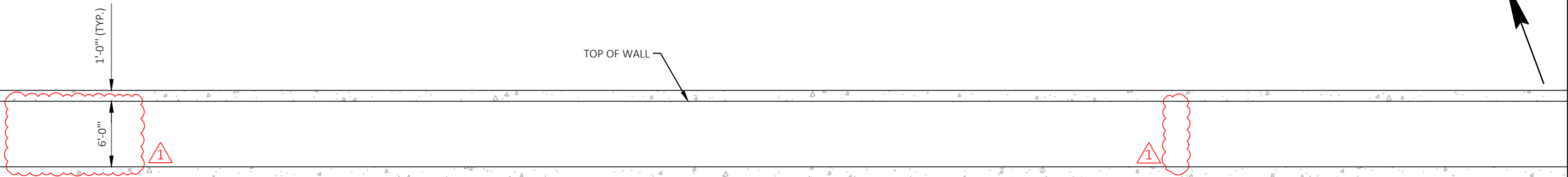
1	7/18/2023	REMOVED CRACK SEALING	MEO
NO.	DATE	REVISION	BY

MATCHLINE 19+60

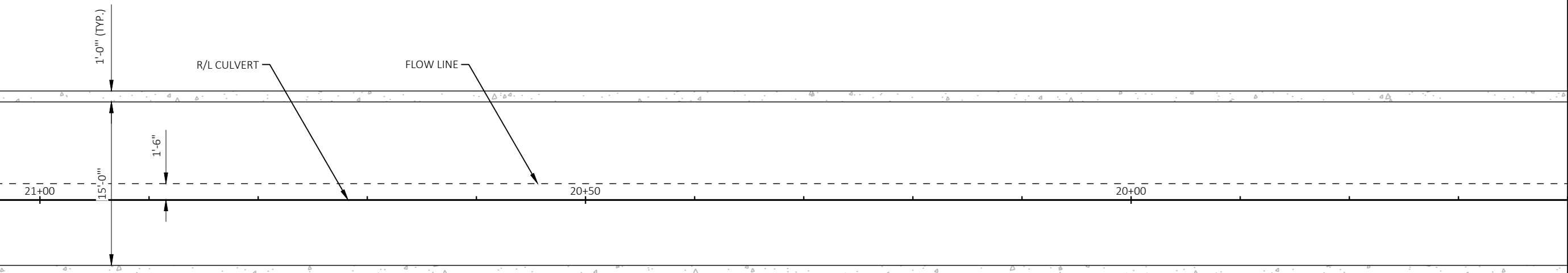
MATCHLINE 18+20



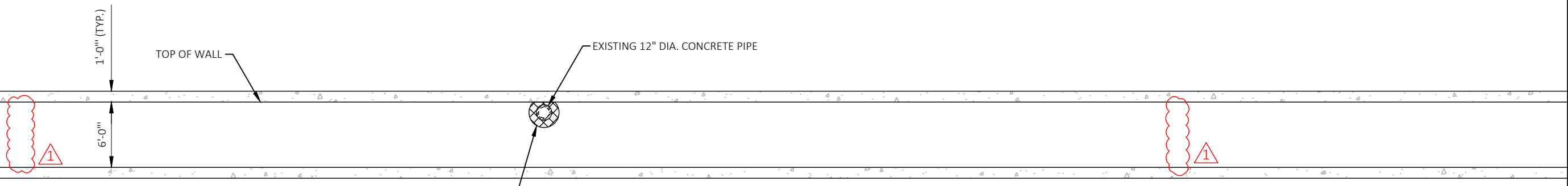
PLAN - CEILING (REFLECTED)



ELEVATION - NORTH WALL



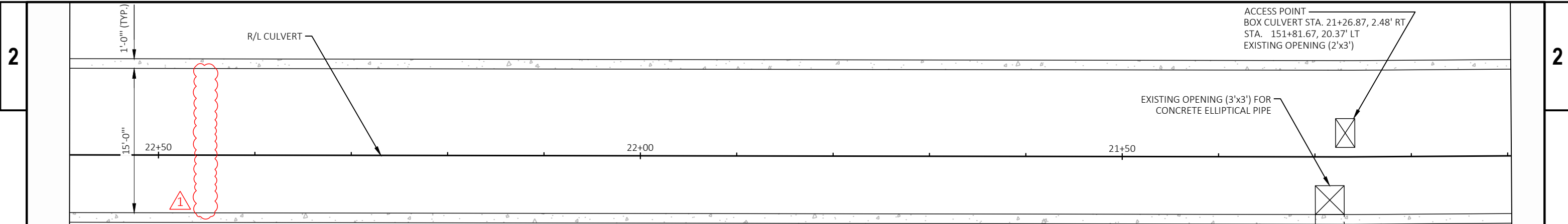
PLAN - FLOOR



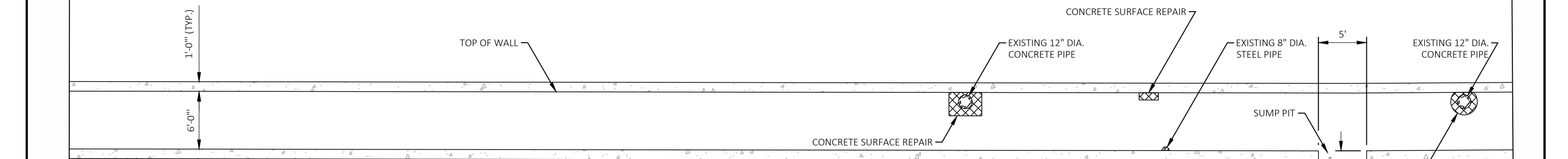
ELEVATION - SOUTH WALL (REFLECTED)

1	7/18/2023	REMOVED CRACK SEALING	MEO
NO.	DATE	REVISION	BY

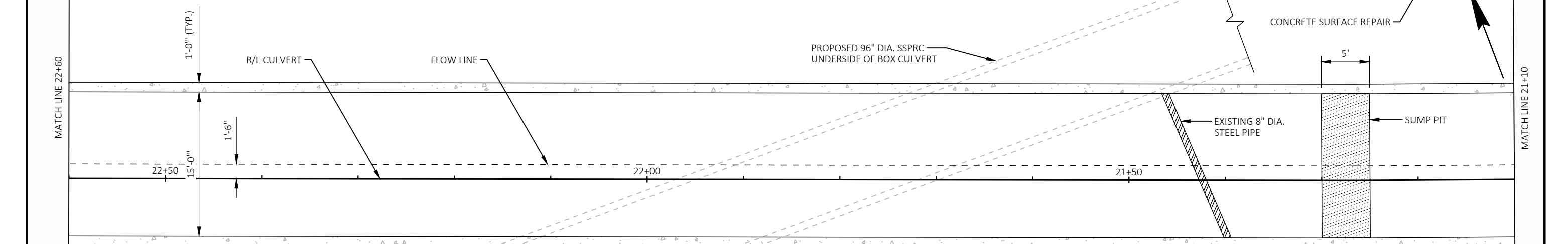
CONCRETE SURFACE REPAIR



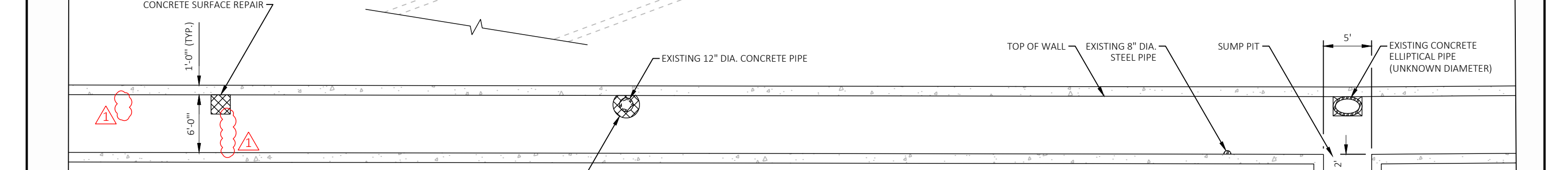
PLAN - CEILING (REFLECTED)



ELEVATION - NORTH WALL

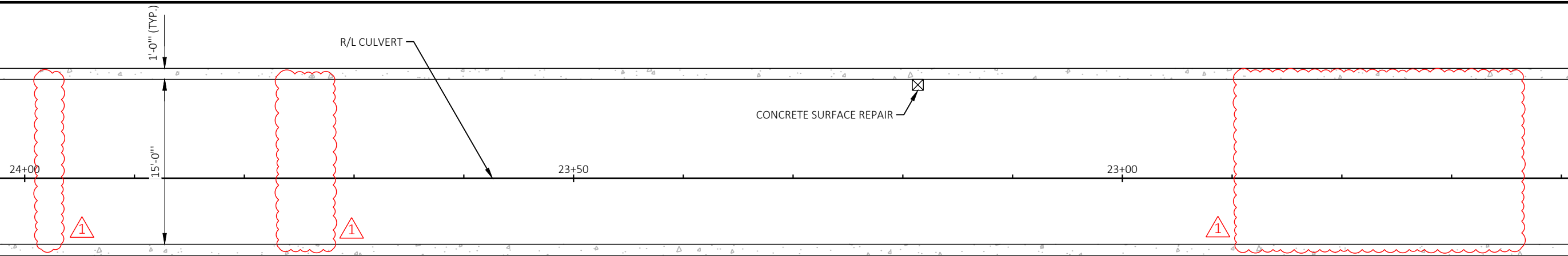


PLAN - FLOOR

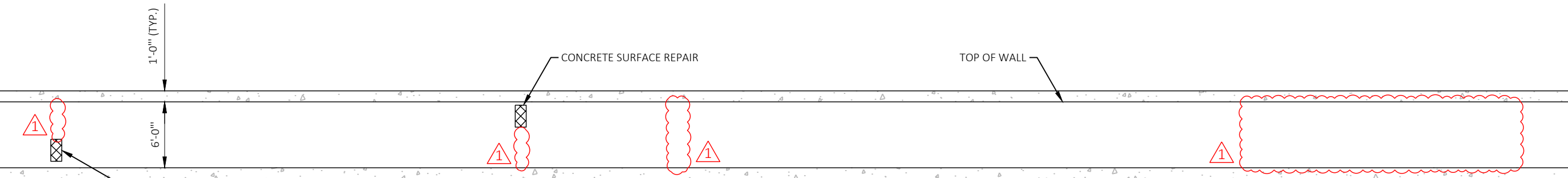


ELEVATION - SOUTH WALL (REFLECTED)

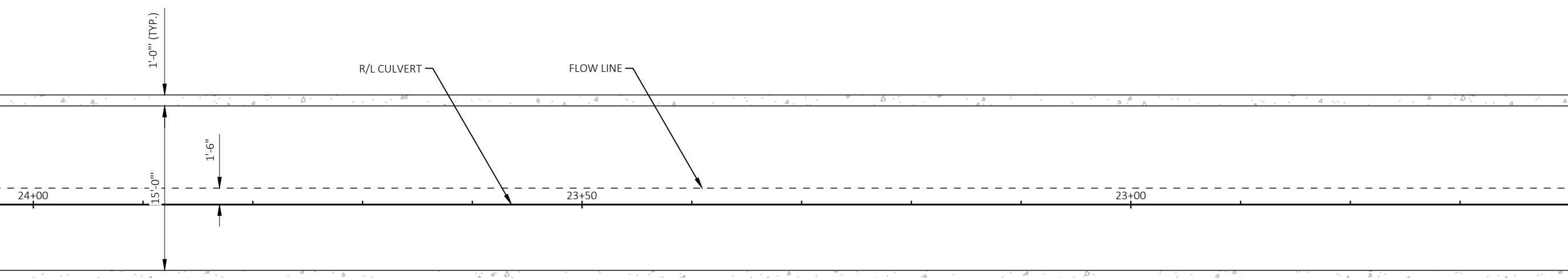
NO.	DATE	REVISION	BY
1	7/18/2023	REVISED REPAIR ITEMS	MEO



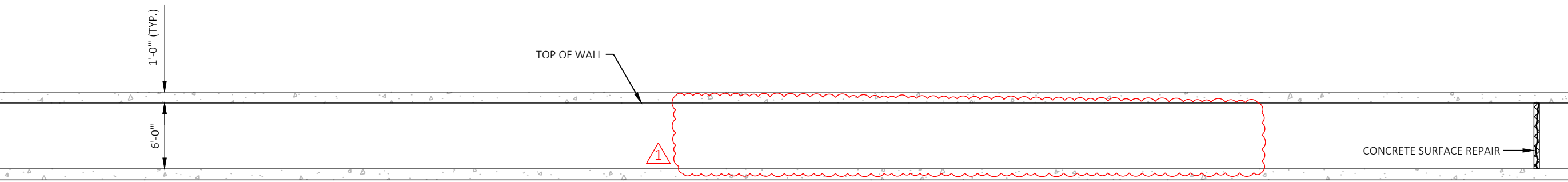
PLAN - CEILING (REFLECTED)



ELEVATION - NORTH WALL

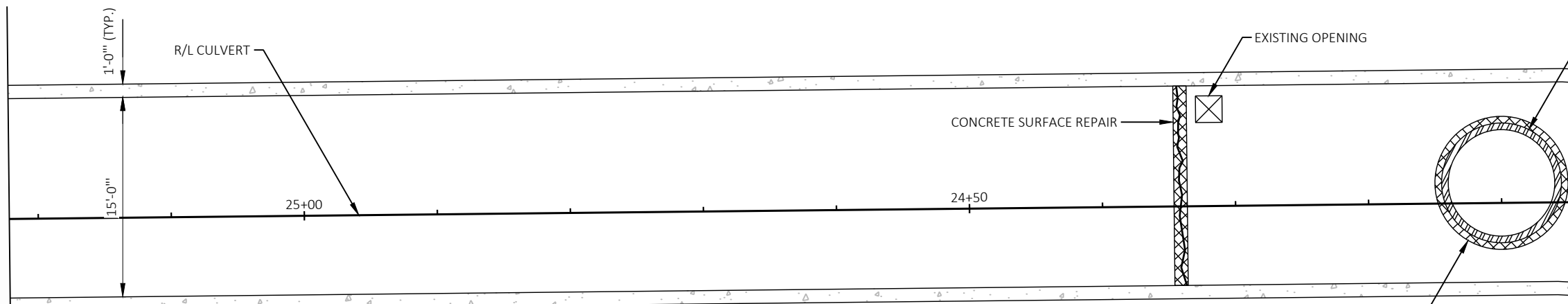


PLAN - FLOOR

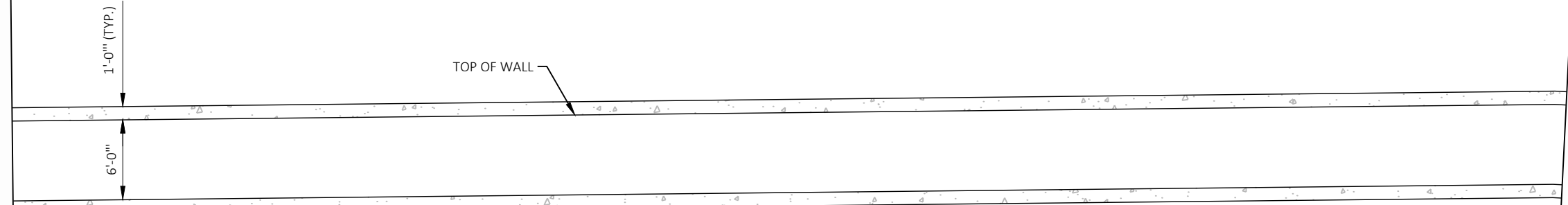


ELEVATION - SOUTH WALL (REFLECTED)

1	7/18/2023	REMOVED CRACK SEALING	MEO
NO.	DATE	REVISION	BY



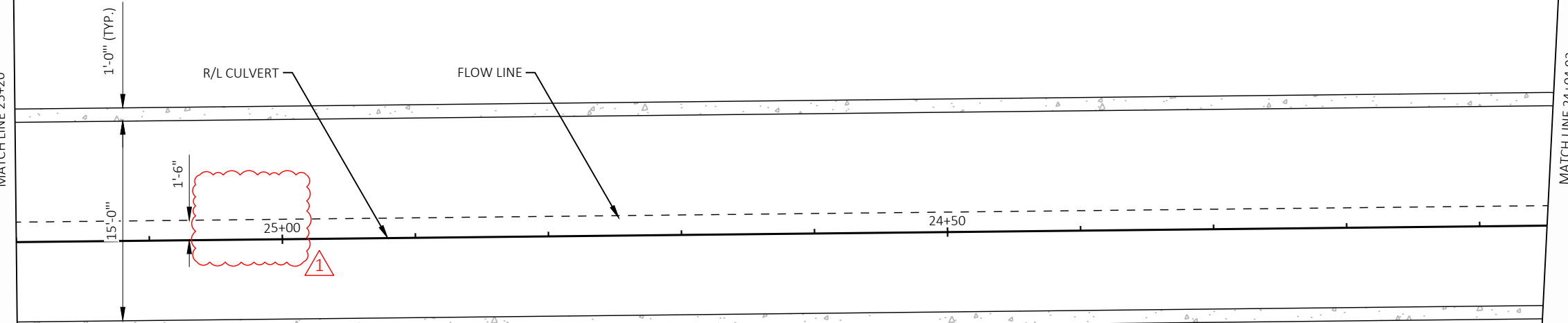
PLAN - CEILING (REFLECTED)



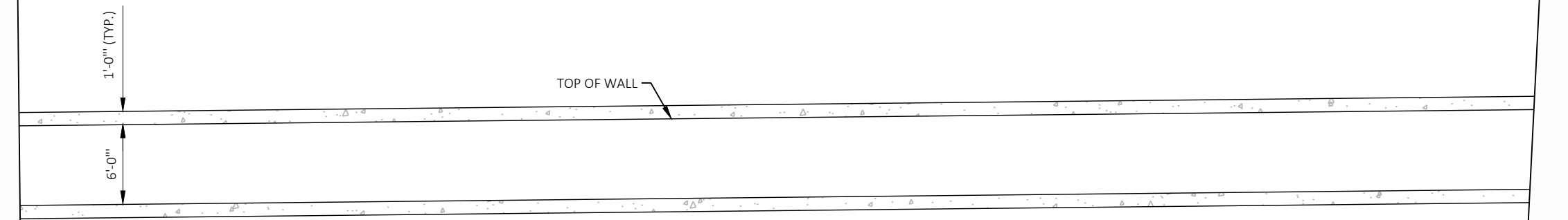
ELEVATION - NORTH WALL

MATCH LINE 25+20

MATCH LINE 24+04.93

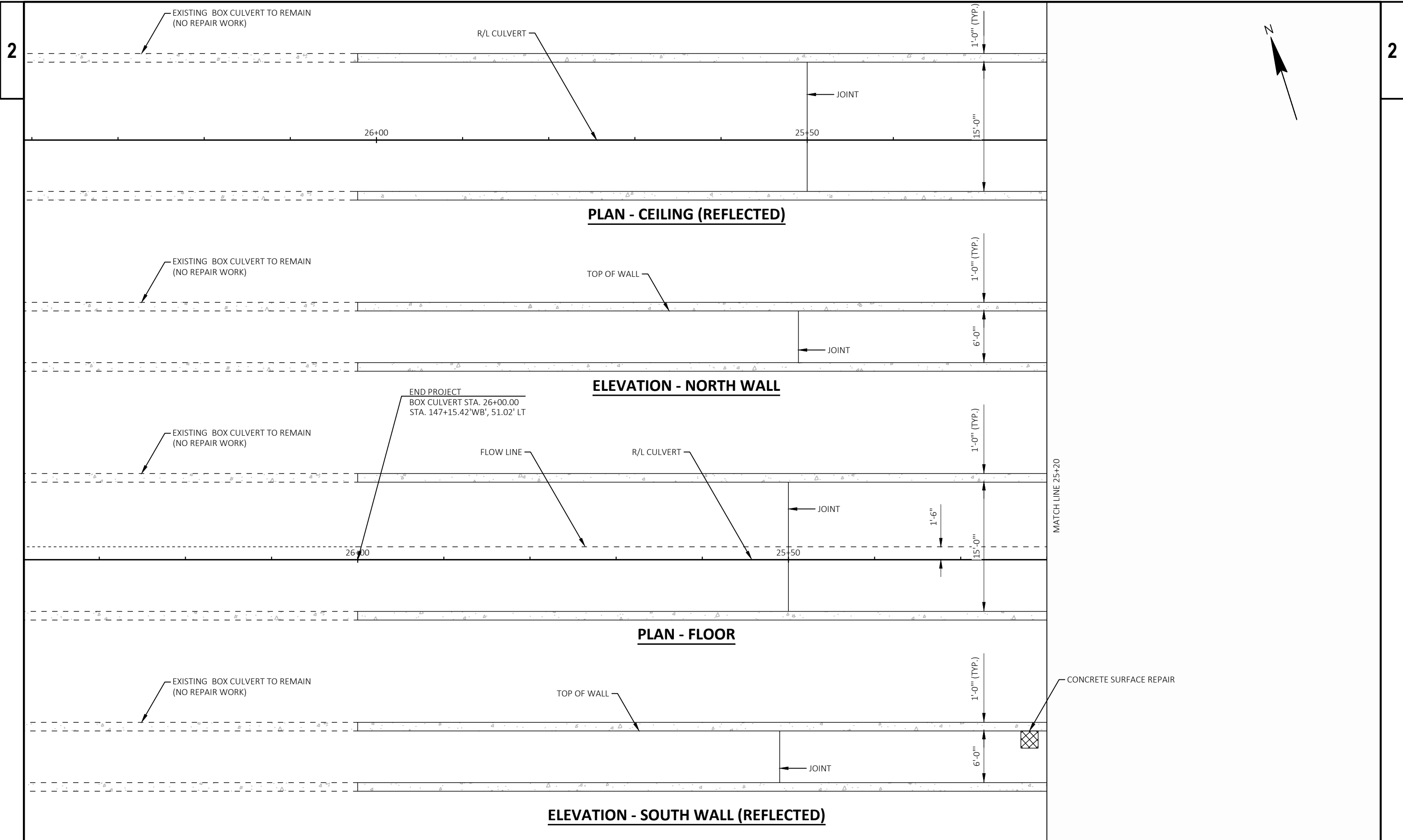


PLAN - FLOOR

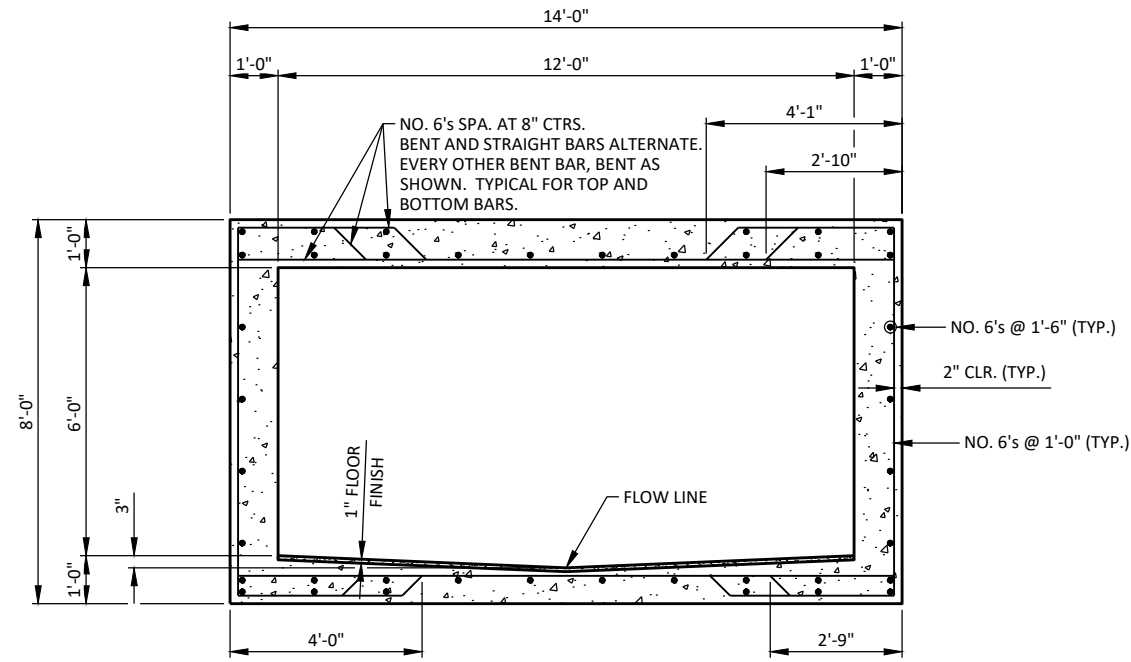


ELEVATION - SOUTH WALL (REFLECTED)

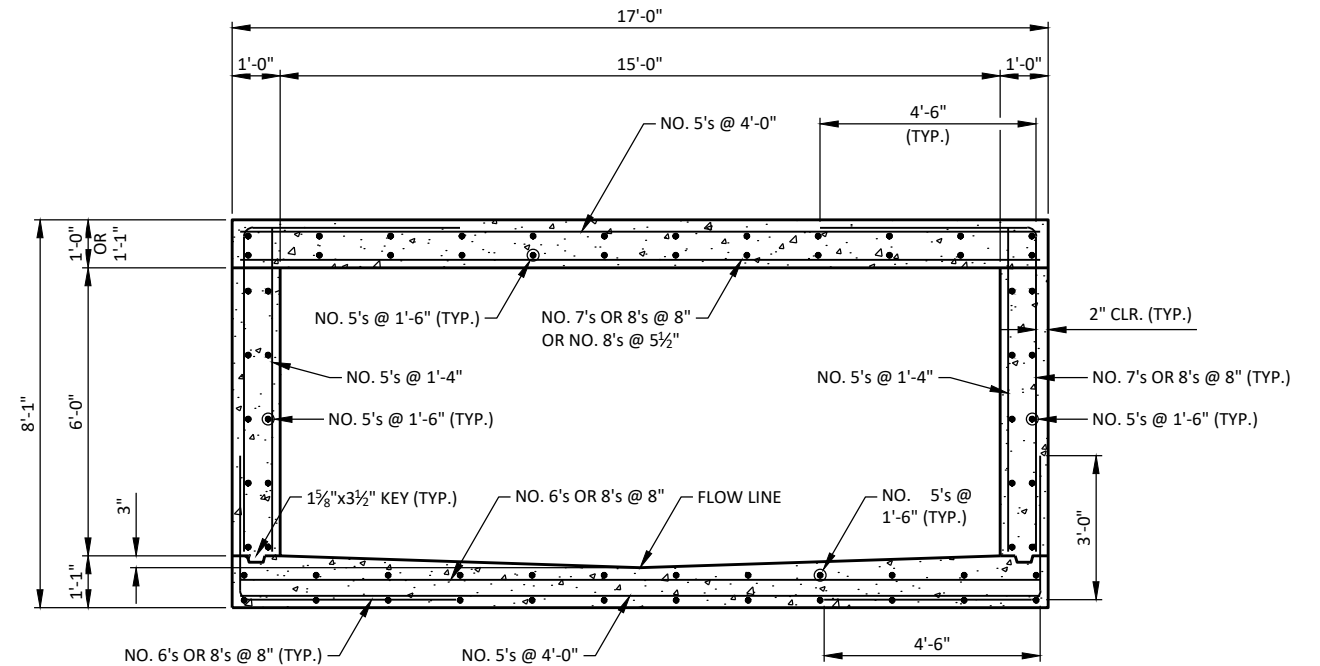
1	7/18/2023	REMOVED SURFACE REPAIR	MEO
NO.	DATE	REVISION	BY



PROJECT NO: 5992-11-31	HWY: UNIVERSITY AVENUE	COUNTY: DANE	PLAN DETAILS: EXISTING BOX CULVERT REPAIRS	SHEET	E
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TYPICAL EXISTING SECTION
STA. 0+00 TO 13+83



TYPICAL EXISTING SECTION
STA. 13+83 TO 26+00

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	50
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	490
509.1500	CONCRETE SURFACE REPAIR	SF	950
	NON-BID ITEMS		
	PREFORMED FILLER	1/2", 1"	

ALL ITEMS ARE CATEGORY 0040

BILL OF BARS

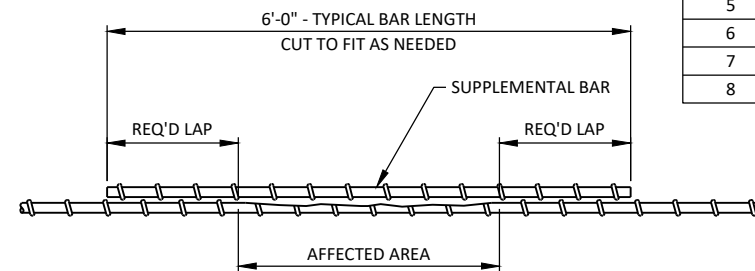
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
ALL BAR STEEL REINFORCEMENT IS EPOXY COATED.

BAR MARK	NO. REQ'D.	LENGTH	BENT	LOCATION
C501	15	4'-0"		CONCRETE SURFACE REPAIR - SUPPLEMENTAL BAR
C602	15	4'-0"		CONCRETE SURFACE REPAIR - SUPPLEMENTAL BAR
C703	10	6'-0"		CONCRETE SURFACE REPAIR - SUPPLEMENTAL BAR
C804	8	7'-6"		CONCRETE SURFACE REPAIR - SUPPLEMENTAL BAR
C405	50	1'-7"	X	REPAIR AT UTILITY PENETRATION - ADHESIVE ANCHOR NO. 4 BAR

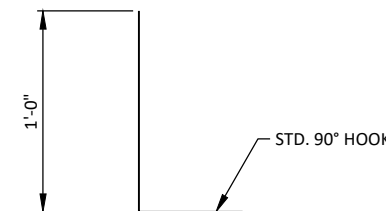
TOTAL WEIGHT = 490 LBS.

NO.	DATE	REVISION	BY
1	7/18/2023	REVISED QUANTITIES	MEO

BAR SIZE	REQUIRED LAP
5	1'-6"
6	1'-10"
7	2'-5"
8	3'-3"



SUPPLEMENTAL REINFORCEMENT DETAIL



C405

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

REPAIR AREAS SHOWN ARE CONCEPTUAL AND FOR REFERENCE ONLY. ACTUAL REPAIR AREAS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. PROVIDE ADEQUATE ACCESS FOR THE REPAIR AREA DETERMINATION AND INSPECTION.

ALL REPAIR AREAS SHALL BE DEFINED BY A 1/2" SAW CUT. SAW CUTTING IS INCIDENTAL TO THE BID ITEM "CONCRETE SURFACE REPAIR."

ALL EXPOSED AND CORRODED REINFORCEMENT IS TO BE ABRASIVE BLAST CLEANED PRIOR TO PLACING CONCRETE FOR THE REPAIRS. REMOVE SECTIONS OF CORRODED REINFORCEMENT EXHIBITING A REDUCTION IN BAR DIAMETER GREATER THAN 1/8"±. REPLACE REMOVED SECTION WITH NEW BAR. USE BARS AND ANCHORS FROM THE BILL OF BARS SHOWN ON THIS SHEET. BARS MAY BE BENT OR CUT IN THE FIELD TO FIT IF NECESSARY.

REINFORCING BARS ARE TO HAVE 2" MIN. CLEAR COVER UNLESS OTHERWISE SHOWN. REMOVAL OF SOUND CONCRETE MAY BE REQUIRED TO FACILITATE INSTALLATION OF SUPPLEMENTAL REINFORCEMENT.

SUPPLEMENTAL BAR REINFORCEMENT IS PAID FOR UNDER BID ITEM "BAR STEEL REINFORCEMENT HS COATED STRUCTURES." ADHESIVE ANCHORS ARE PAID FOR UNDER THE BID ITEM "ADHESIVE ANCHORS NO. 4 BAR."

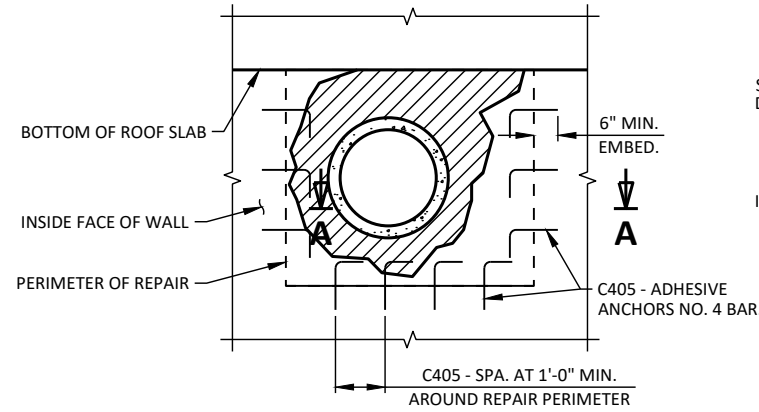
ANY EXCAVATION NECESSARY TO COMPLETE THE CONCRETE SURFACE REPAIRS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE SURFACE REPAIR."

DESIGN DATA

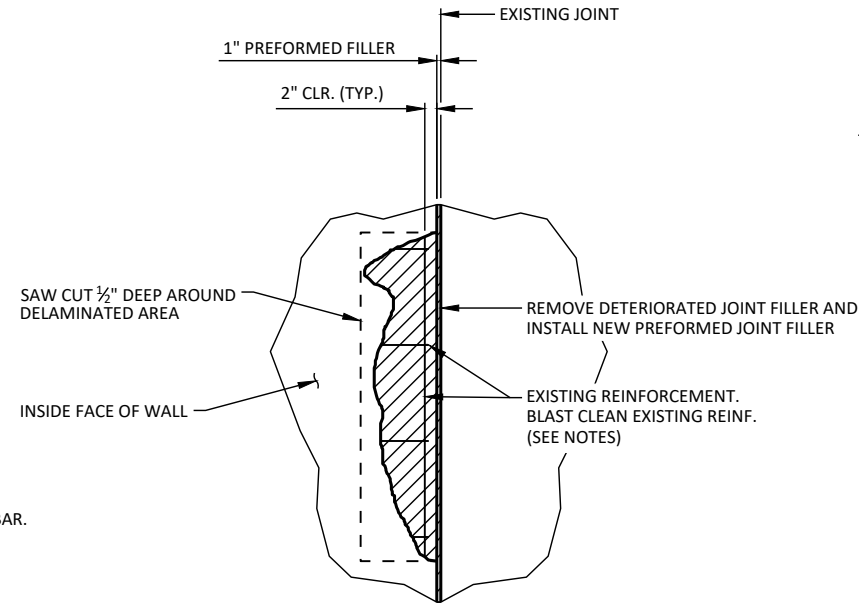
MATERIAL PROPERTIES:

CONCRETE MASONRY:
CONCRETE SURFACE REPAIR ————— $f'_c = 3,500$ PSI

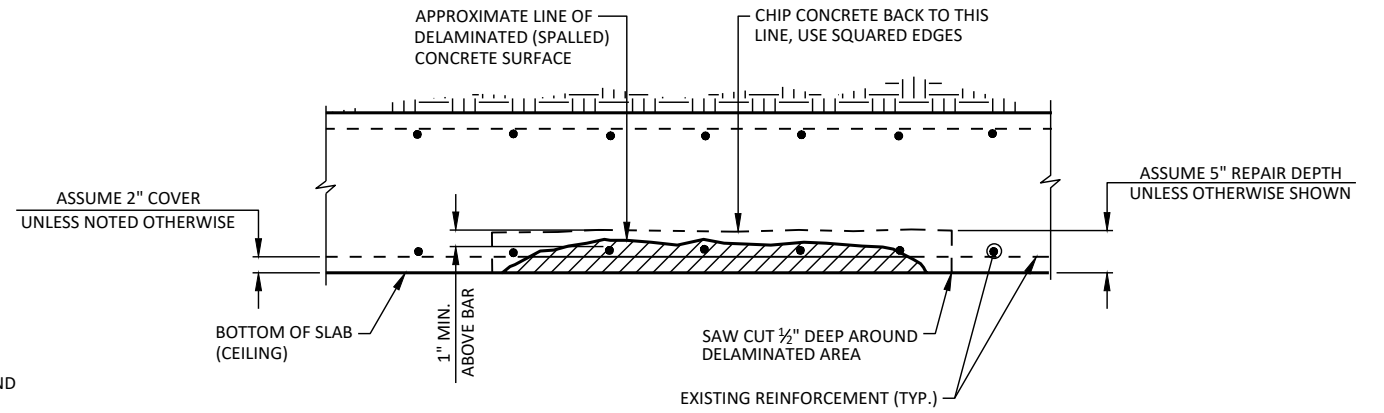
BAR STEEL REINFORCEMENT
GRADE 60 ————— $f_y = 60,000$ PSI



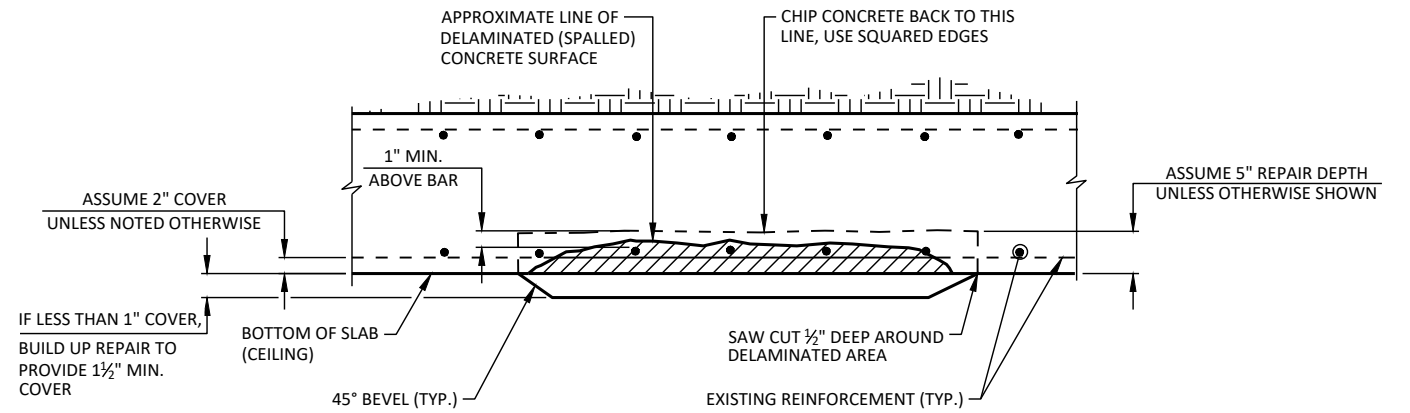
**REPAIR TO DELAMINATION
AT UTILITY PENETRATION**



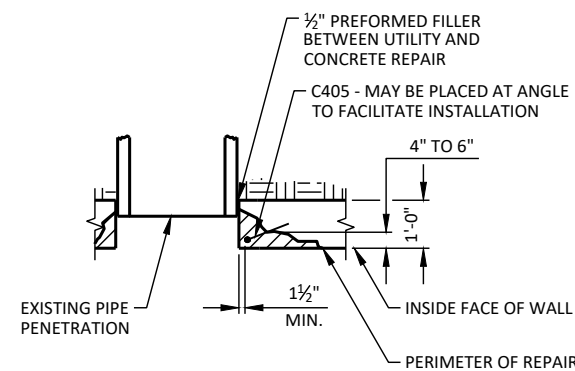
**REPAIR TO DELAMINATION
AT WALL JOINT**



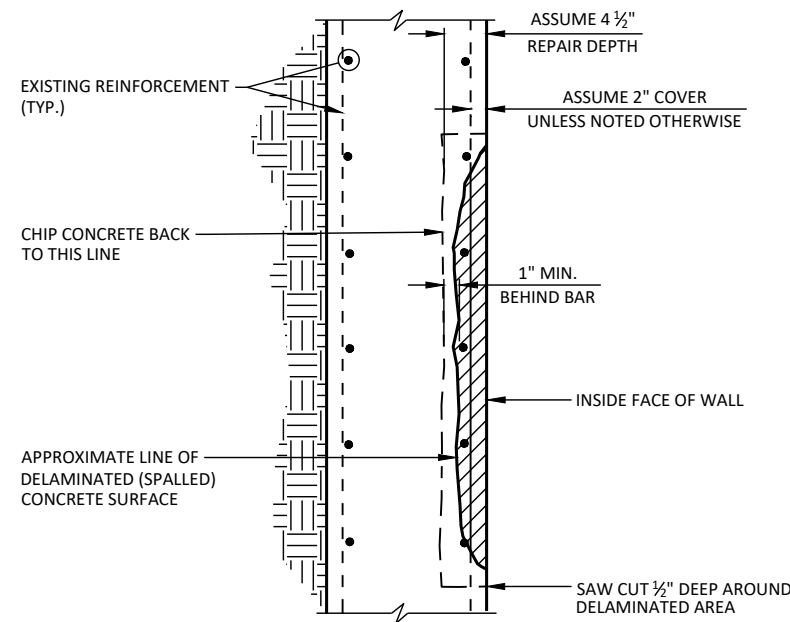
**REPAIR TYPE 1 TO DELAMINATION
AT BOTTOM SURFACE OF
STRUCTURAL SLAB**



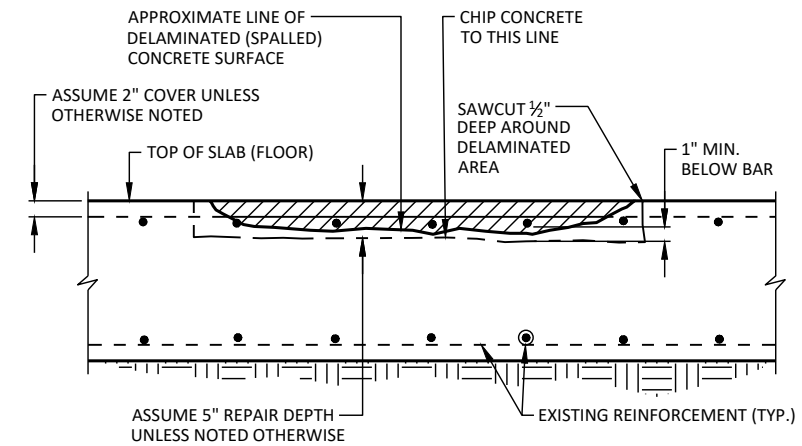
**REPAIR TYPE 2 TO DELAMINATION
AT BOTTOM SURFACE OF
STRUCTURAL SLAB**



SECTION A-A



REPAIR TO DELAMINATION AT WALL



**REPAIR TO DELAMINATION AT TOP
SURFACE OF STRUCTURAL SLAB**