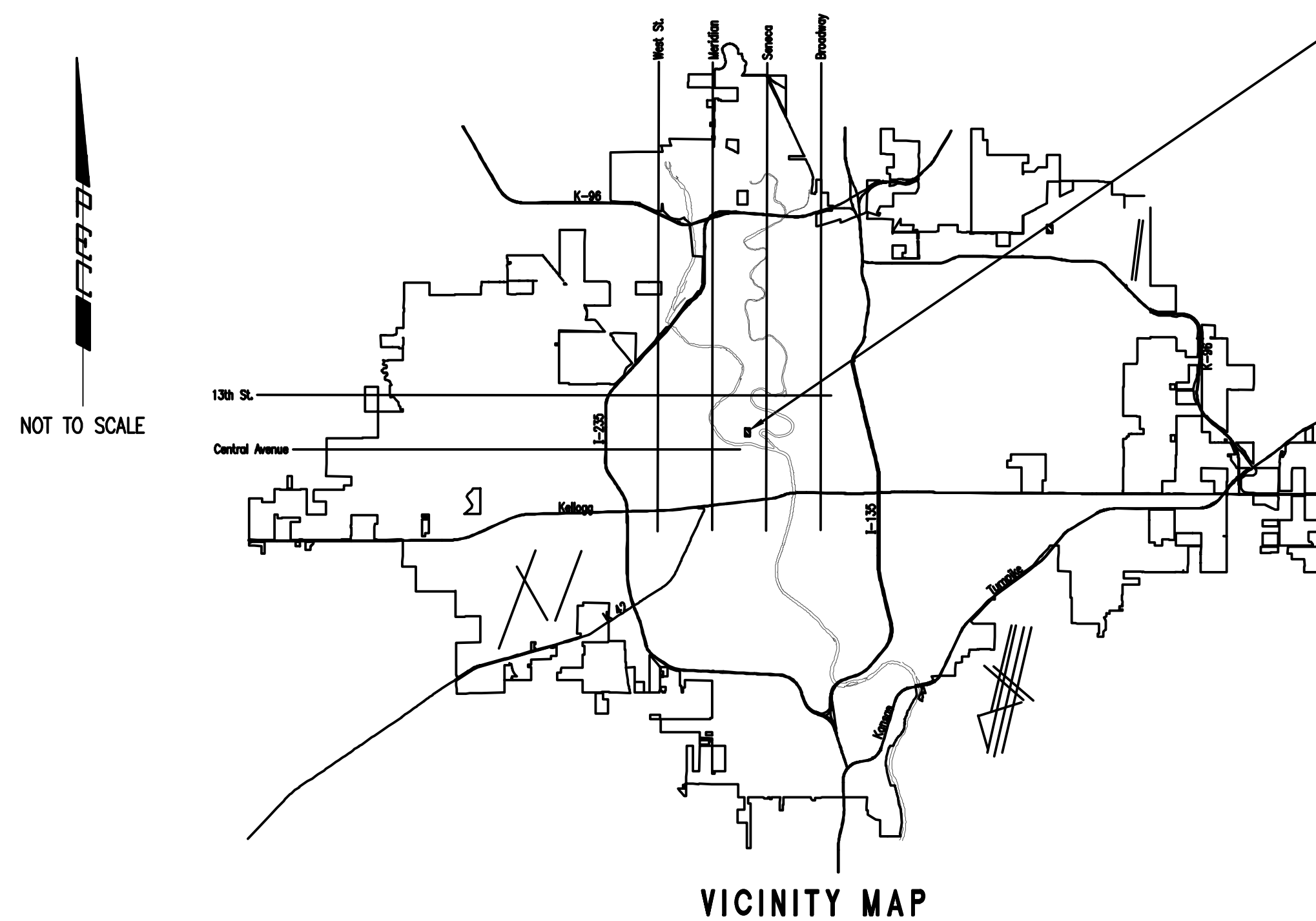


CONSTRUCTION PLANS FOR 2020 WATER TREATMENT PLANT VALVE ACTUATOR REPLACEMENT CITY OF WICHITA

SEDGWICK COUNTY, KANSAS
CITY OF WICHITA PROJECT NO. 448-2019-004278
OCA NO. 639001
GARY JANZEN, P.E., CITY ENGINEER

PROJECT LOCATION
WATER TREATMENT PLANT



VICINITY MAP

INDEX OF SHEETS

CIVIL

G001	TITLE SHEET
G002	KEY MAP & GENERAL NOTES
C101	FILTERS 1-6 VALVE ACTUATOR REPLACEMENT - PLAN AND SECTION VIEW
C102	FILTERS 7-14 VALVE ACTUATOR REPLACEMENT - PLAN AND SECTION VIEW
C103	FILTERS 1-14 ACTUATOR REPLACEMENT - SECTION VIEW

FOR REFERENCE ONLY

241	FILTER PIPE GALLERY - LOWER PLATFORM MODIFICATION PLAN
242	FILTER PIPE GALLERY - UPPER PLATFORM MODIFICATIONS PLAN
243	FILTER PIPE GALLERY - SECTIONS
244	FILTER PIPE GALLERY - DETAILS
245	FILTER PIPE GALLERY - DETAILS

ELECTRICAL

E100	ELECTRICAL LEAD SHEET
E101	FILTERS 1-6 VALVE ACTUATOR REPLACEMENT ELECTRICAL PLAN
E102	FILTERS 7-14 VALVE ACTUATOR REPLACEMENT ELECTRICAL PLAN

OCTOBER 2019

PEC PROJECT NO. 35-197043-004-0042

PLANS PREPARED BY

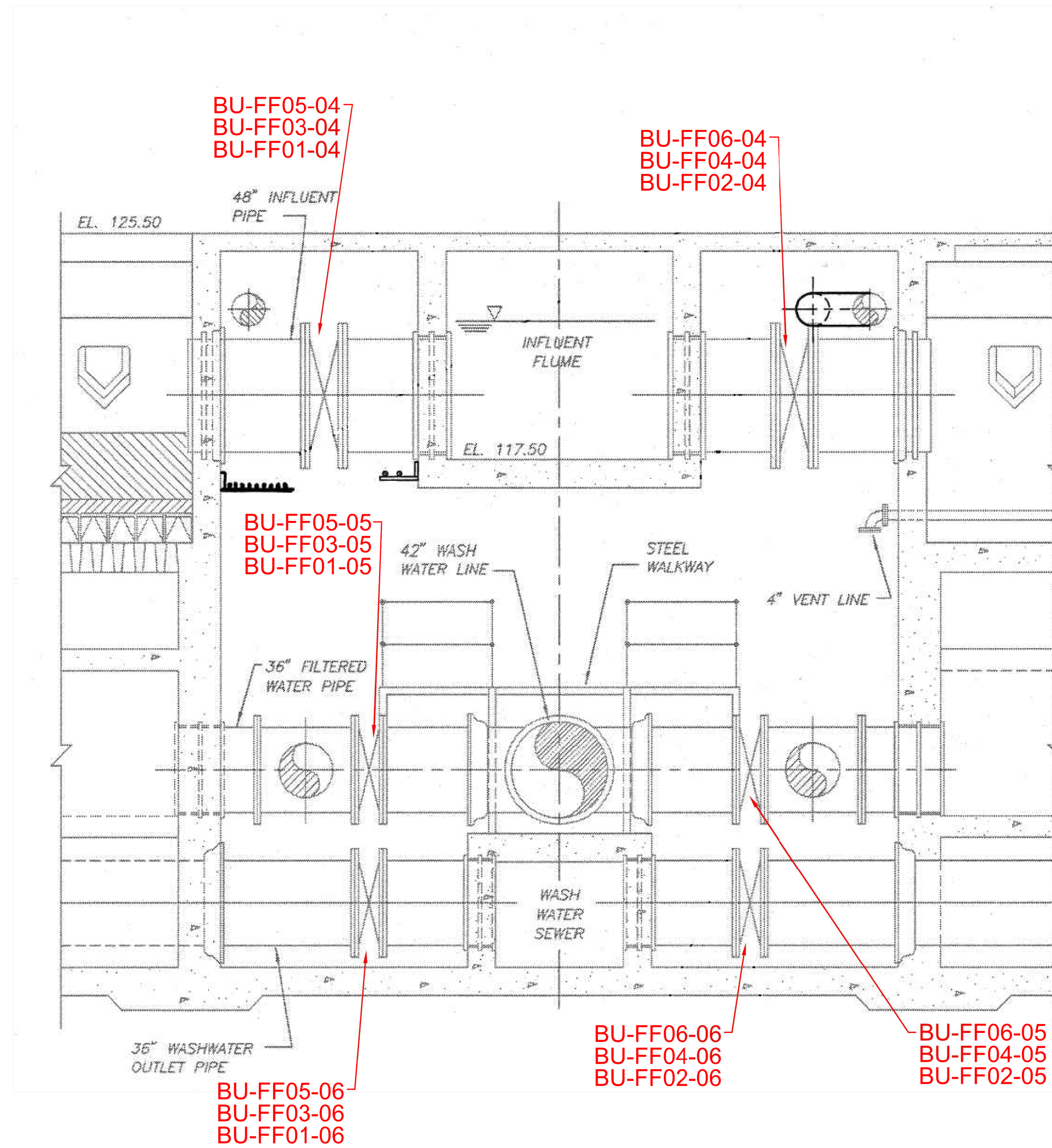
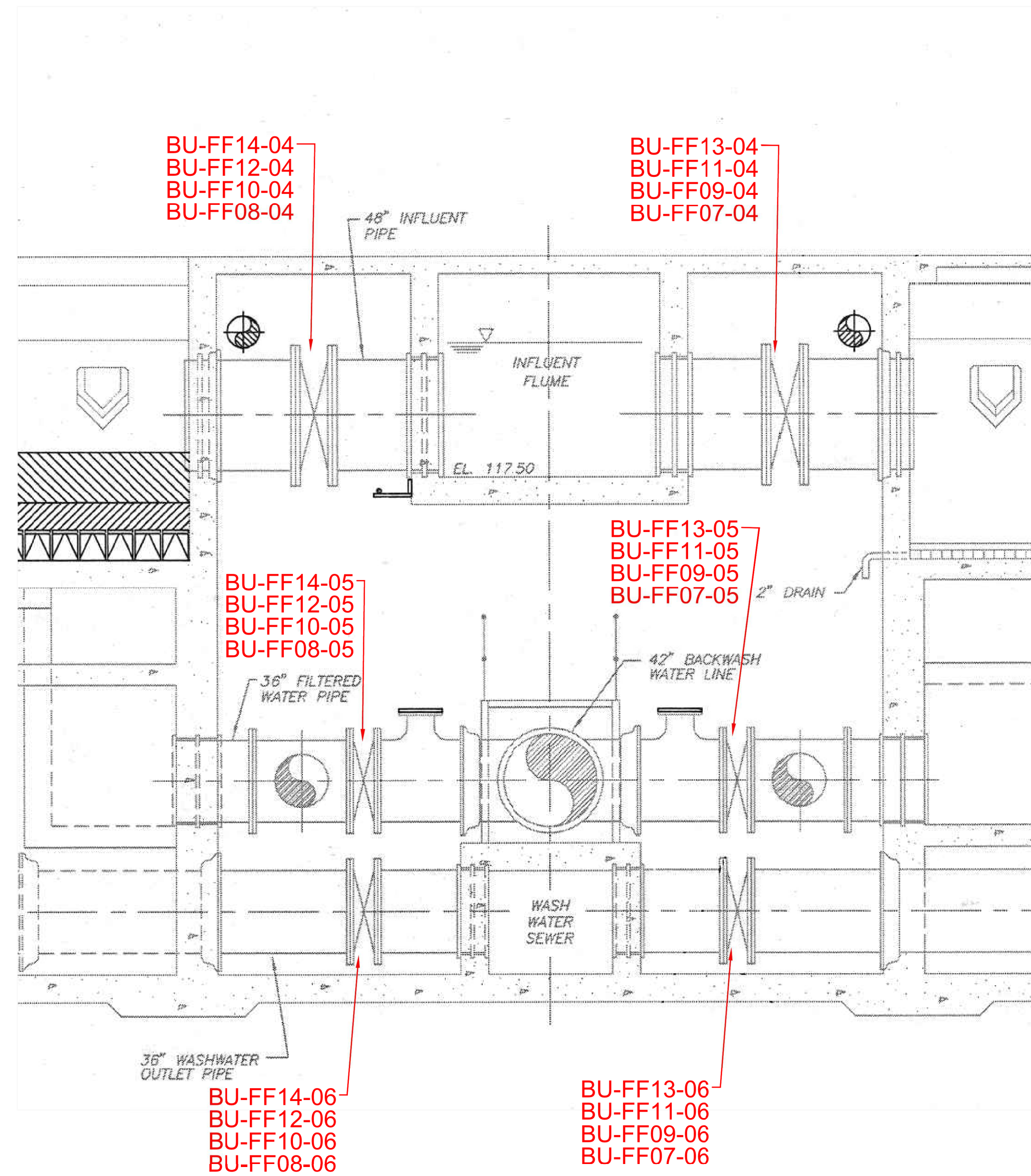
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ENGINEERS

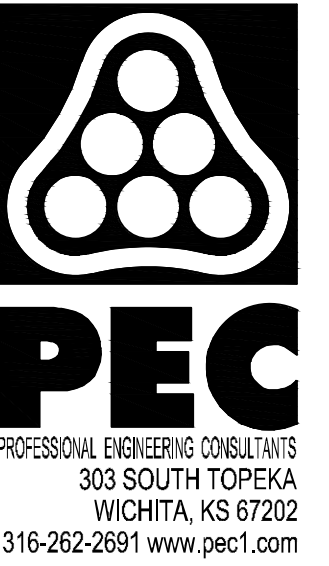
WICHITA, KANSAS



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VALVE IDENTIFICATION
 BU-FFXX-04 FILTER INLET VALVE
 BU-FFXX-05 BACKWASH WATER INLET VALVE
 BU-FFXX-06 BACKWASH OUTLET VALVE



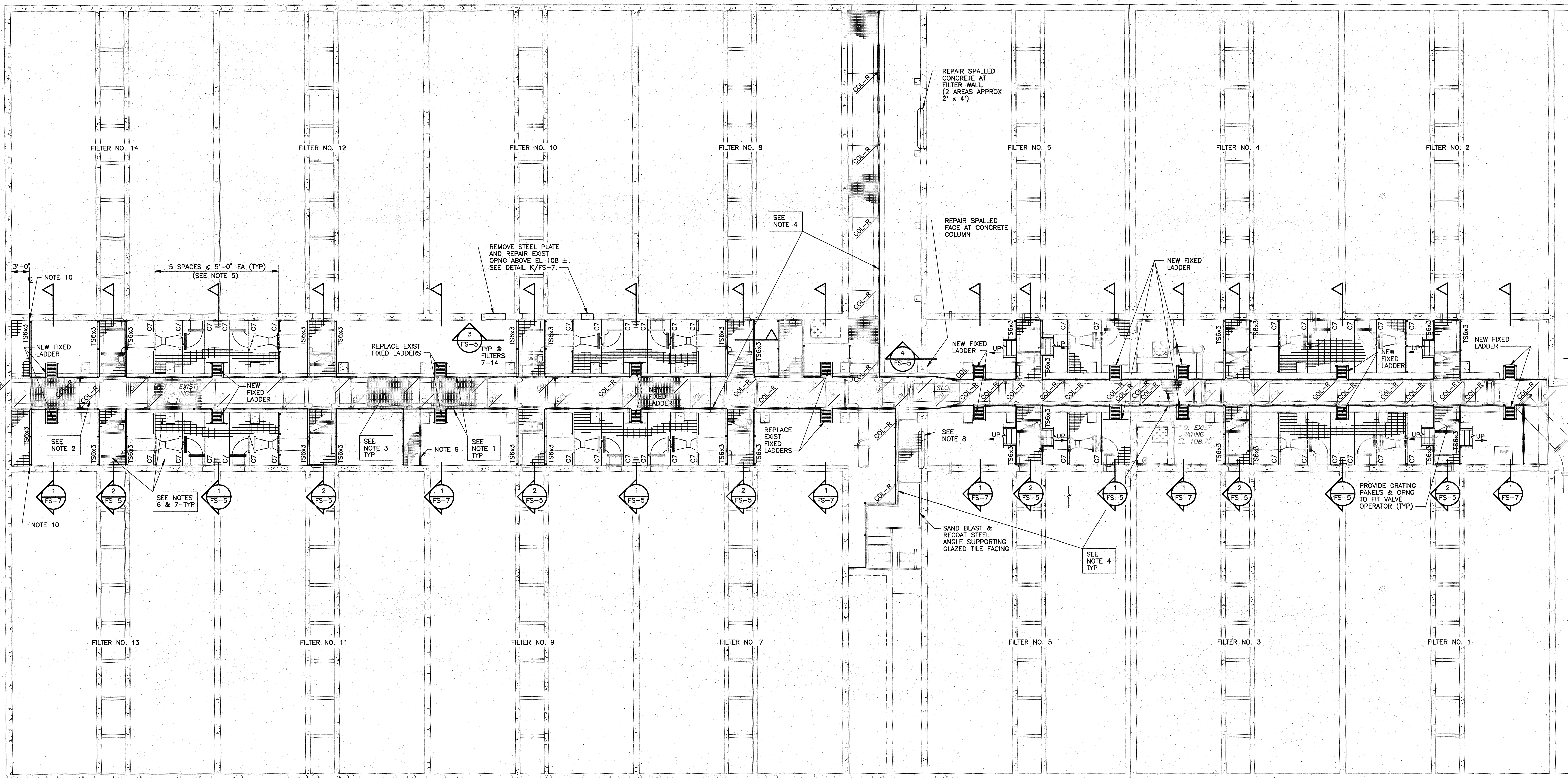
**2020 WATER TREATMENT PLANT
 VALVE ACTUATOR REPLACEMENT**

CITY OF WICHITA PROJECT NO. 448-2019-004278
 OCA NO. 639-001
 GARY JANZEN, P.E. - CITY ENGINEER

Issue:	
JOB NO.	197043-004
DATE	OCTOBER 2019
PM	MDK
DESIGNED BY	SCU
DRAWN BY	CAL
CHECKED BY	MDK

FILTERS 1-14
 ACTUATOR REPLACEMENT
 SECTION VIEW

C103



PLAN AT EL 116.00
SCALE: 1/8" = 1'-0"

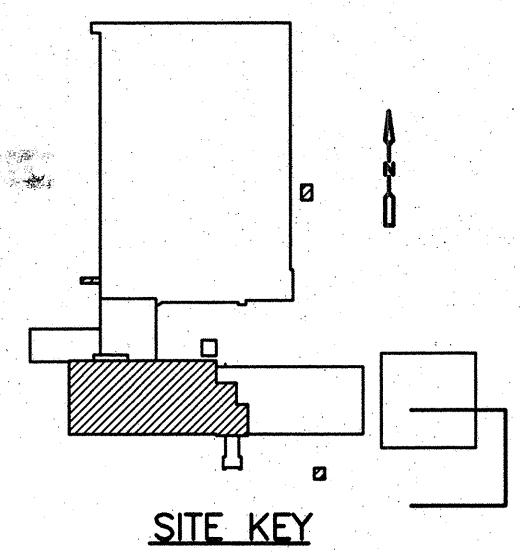
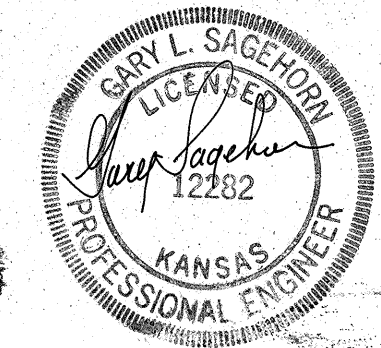
NOTES:

1. REMOVE EXIST STEEL GUARDRAIL FROM WALKWAYS AND REPLACE WITH ALUMINUM GUARDRAIL - TYPICAL AT EXISTING AND NEW WALKWAYS AND AT NEW PLATFORMS, STAIRS AND SHIP LADDERS. SEE DETAIL S306. PROVIDE DIELECTRIC BREAK BETWEEN ALUMINUM & STEEL STRUCTURE.
2. INDICATES REPAIR REQ'D AT COLUMN BASE. SEE DETAIL J/FS-7.
3. REMOVE EXISTING GRATING AT ALL FILTER PIPE GALLERY WALKWAYS. SANDBLAST TO STEEL STRUCTURES PAINTING COUNCIL (SSPC) SPECIFICATION SP-10. PRIME AND PAINT AS SPECIFIED FOR NON-SUBMERGED, NON-GALVANIZED FERROUS METALS IN SPECIFICATION SECTIONS 09901 & 09902. REINSTALL GRATING USING TYPE 316 STAINLESS STEEL SADDLE CLIPS AND FASTENERS.
4. REPAIR EXISTING WALKWAY SUPPORTS AS INDICATED. WHILE GRATING IS REMOVED, SANDBLAST WALKWAY SUPPORT FRAMING TO SPECIFICATION SP-10. PRIME AND PAINT AS SPECIFIED FOR NON-SUBMERGED, NON-GALVANIZED FERROUS METALS IN SPECIFICATION SECTIONS 09901 & 09902.
5. FOR PLATFORMS AT ELEVATION 104.25±: LAY OUT BEAMS AS INDICATED. EXACT LOCATIONS MAY BE FIELD ADJUSTED TO CLEAR EXISTING OBSTRUCTIONS PROVIDED GRATING CLEAR SPAN IS MAINTAINED LESS THAN 5'-0".
6. INSTALL ALL GRATING SUPPORT BEAMS AND FIELD MEASURE ACTUAL GRATING SPANS BEFORE FABRICATING GRATING SECTIONS.
7. GRATING EXTENTS: PROVIDE GRATING OVER FULL AREA BETWEEN FILTER WALL AND WALL OF WASH-WATER SEWER OR EDGE OF EXISTING WALKWAY. CUT GRATING AROUND COLUMNS & PIPE SUPPORT PEDESTALS. USE DETAIL S210 TO PROVIDE GRATING SUPPORT AT COLUMN OR WALL FACES.
8. REMOVE CRACKED & LOOSE CEMENT PLASTER FINISH ON FACE OF WALL. PREPARE SURFACE & RECOAT WITH CEMENT PLASTER.
9. REMOVE EXISTING SUMP PUMP AND SUPPORT PLATE AT WALKWAY. PROVIDE NEW GRATING TO REPLACE PLATE.

- MATERIALS**
- "TS6x3" DENOTES TS6x3x3/16
 - "C7" DENOTES C7x9.8
 - SEE SECTIONS AND DETAILS FOR TOP OF STEEL ELEVATIONS
 - NEW GRATING SHALL BE 1 1/4" DEEP GALVANIZED STEEL AS SPECIFIED

10. AT FAN ACCESS PLATFORMS (WEST END OF FILTER PIPE GALLERY) PROVIDE A SINGLE TS6x3 BEAM & TS3x3 COLUMN AS SHOWN IN DETAIL B/FS-6 TO SUPPORT EAST END OF GALV STEEL GRATING. SUPPORT GRATING AT WEST WALL PER DETAIL S210.
11. STAIRS TO UPPER PLATFORM AT FILTERS 1-6 DELETED BY C.O. (SEE FS-4)

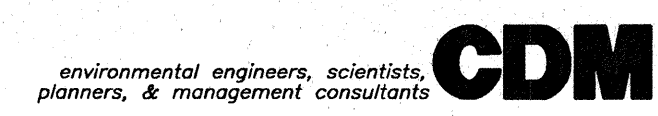
FOR REFERENCE ONLY
RECORD DRAWING

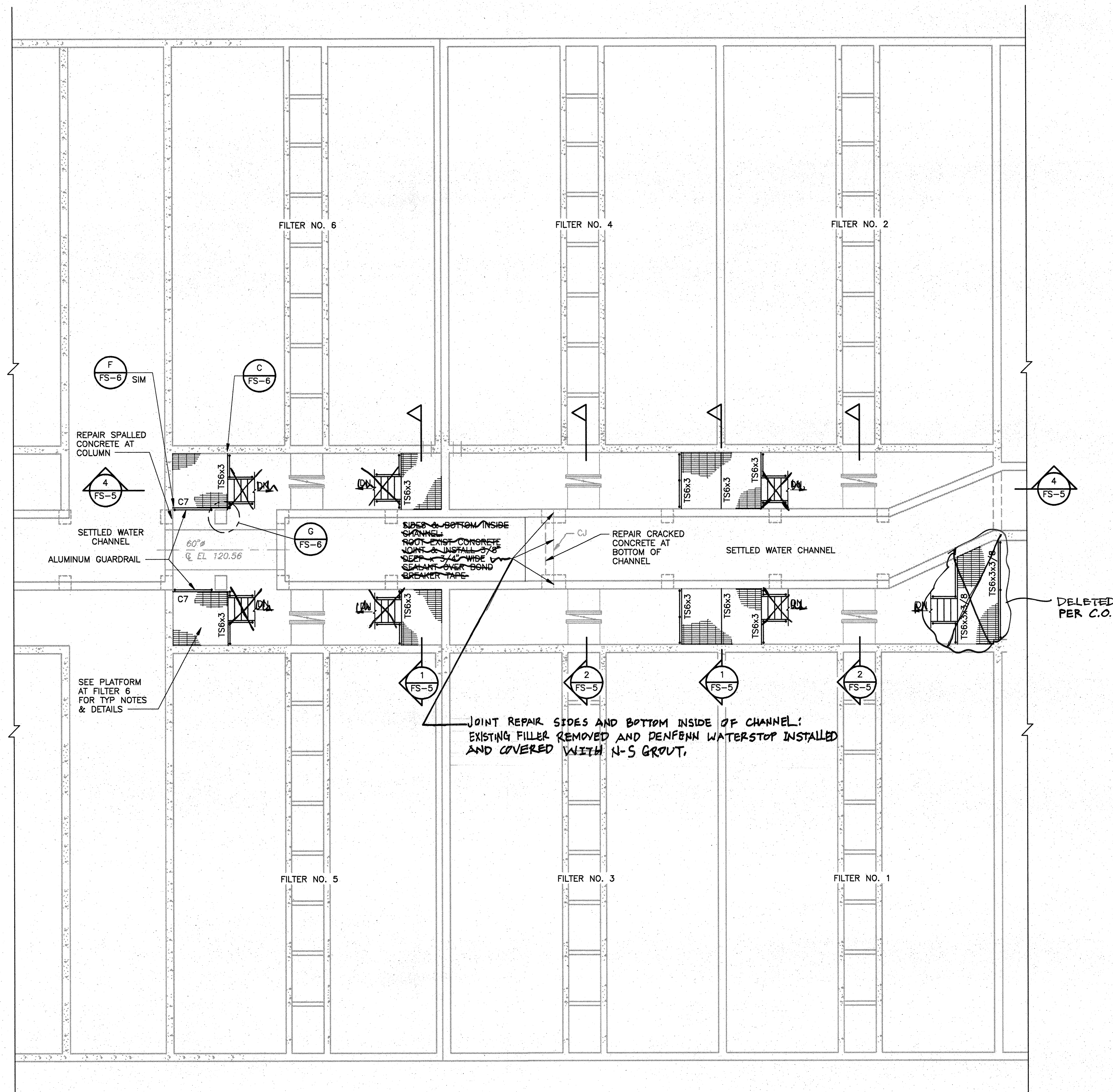


DESIGNED BY: G. SAGEHORN	CAMP DRESSER & MCKEE INC.
DRAWN BY: T. VERWEY	
SHEET CHK'D BY: G. SAGEHORN	
CROSS CHK'D BY: G. SAGEHORN	
APPROVED BY: G. SAGEHORN	
DATE: OCTOBER 1992	

CITY OF WICHITA, KANSAS
WATER TREATMENT PLANT IMPROVEMENTS
PHASE IIB

PROJECT NO. 2395-118-DNF
SHEET NO. FS-3
SHEET 241 OF 293

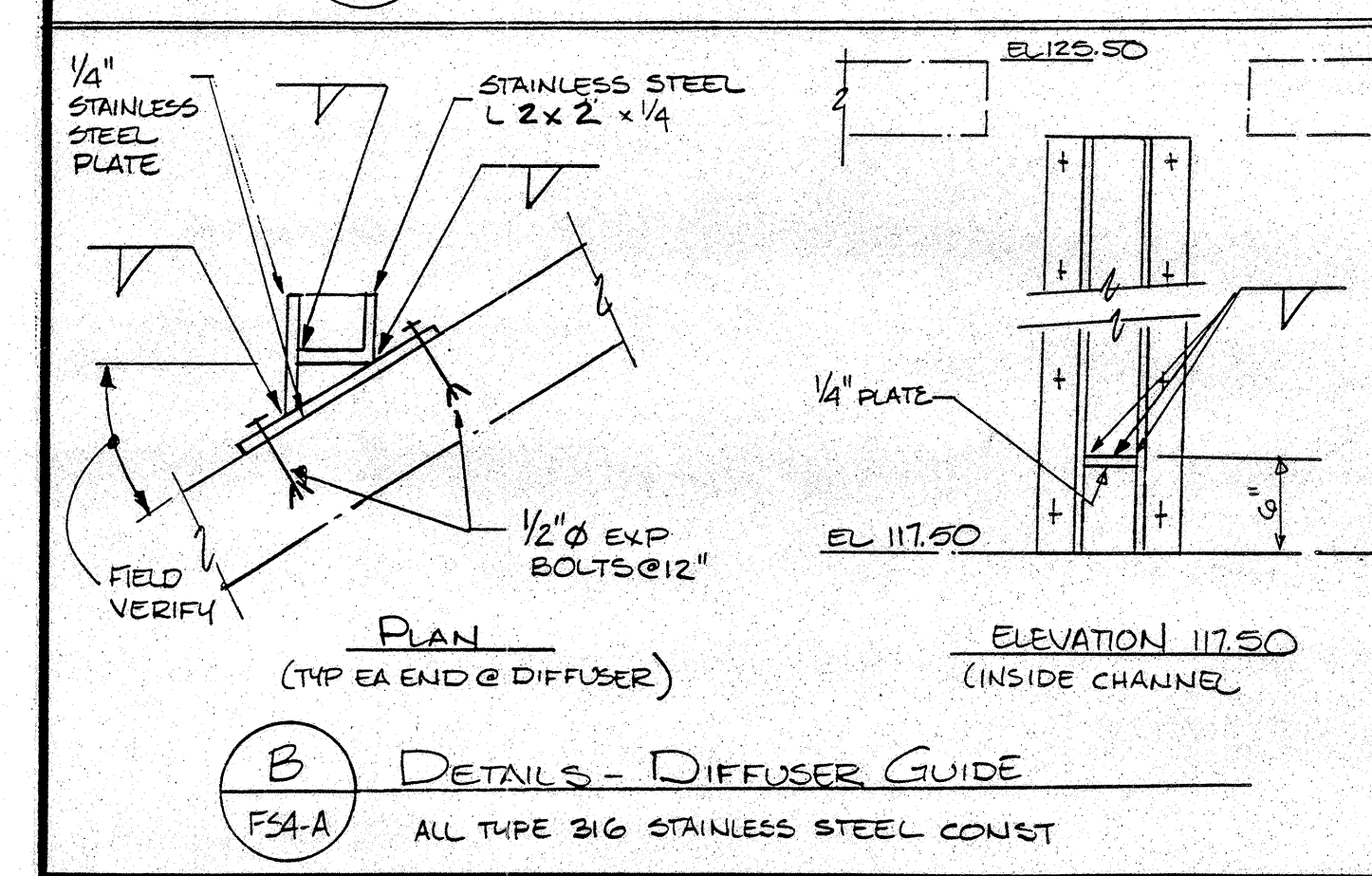
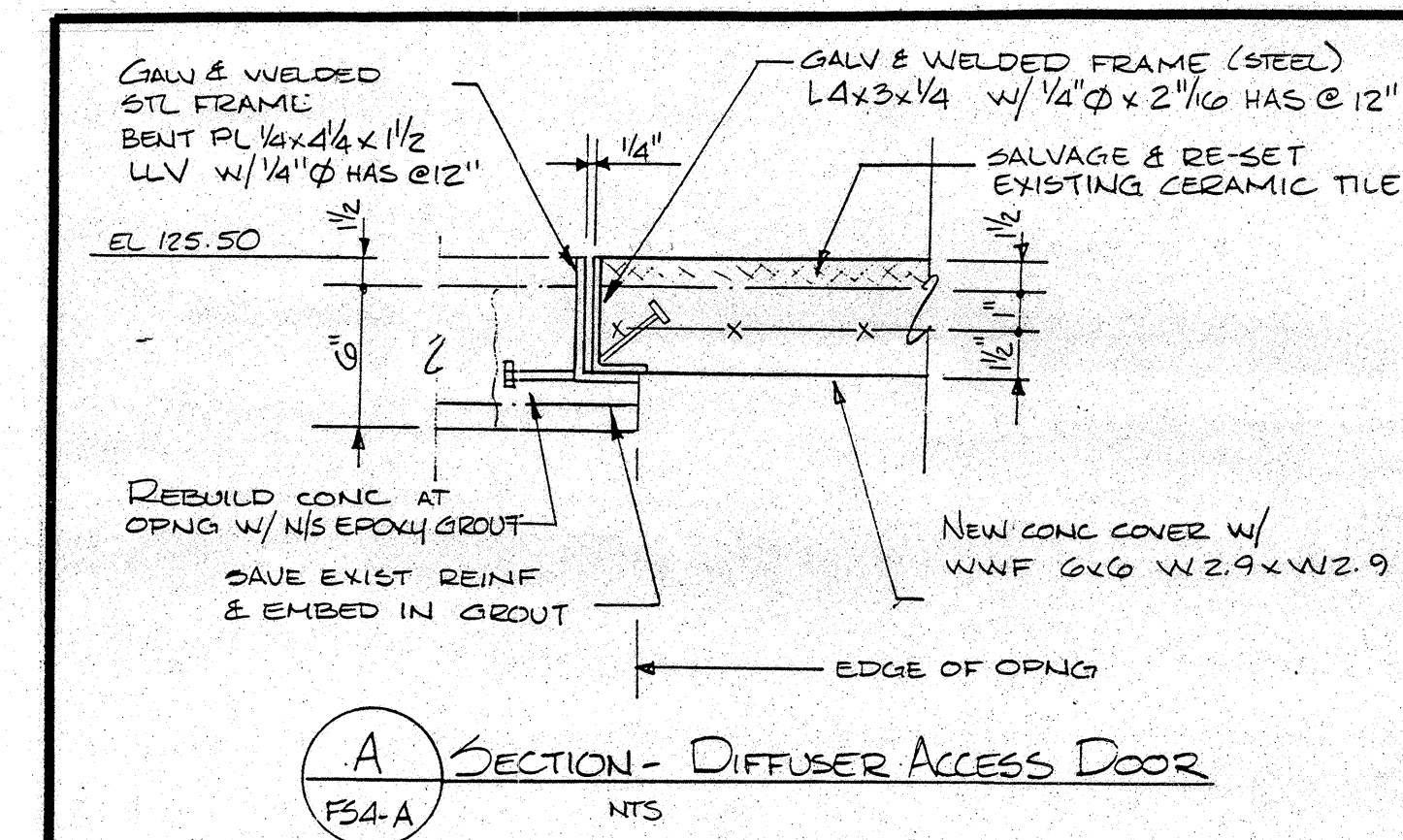
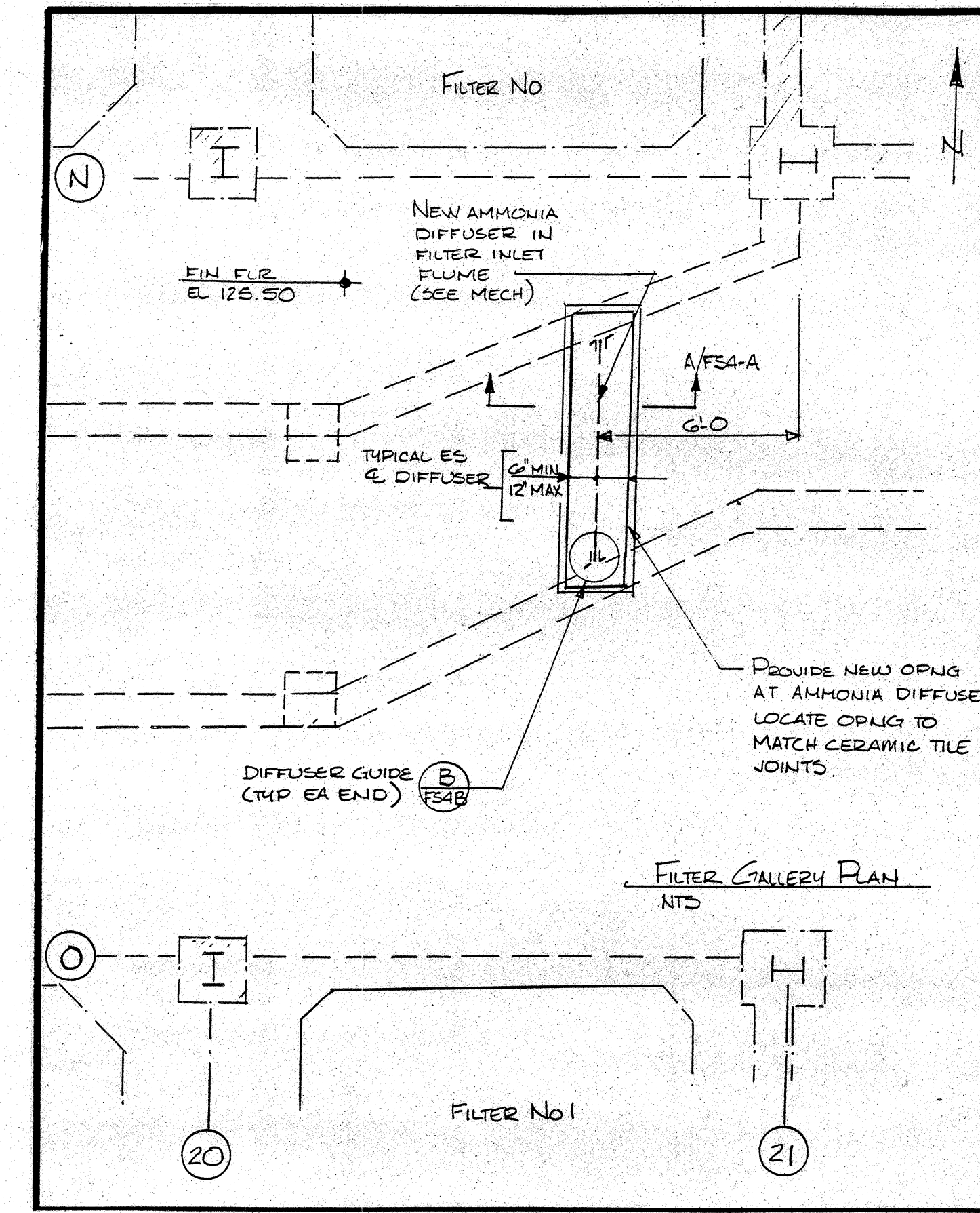




PLAN AT EL. 124.0
SCALE: 1/8" = 1'-0"

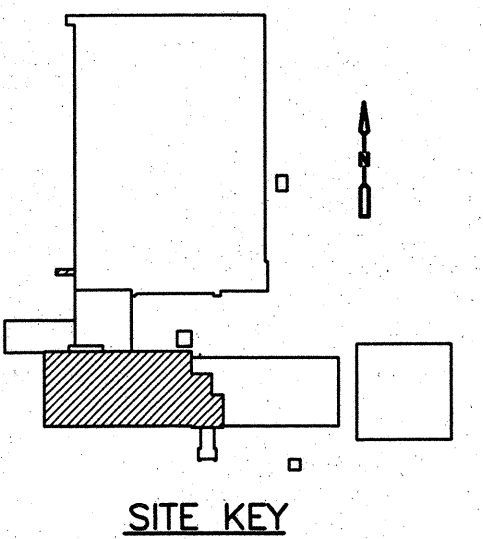
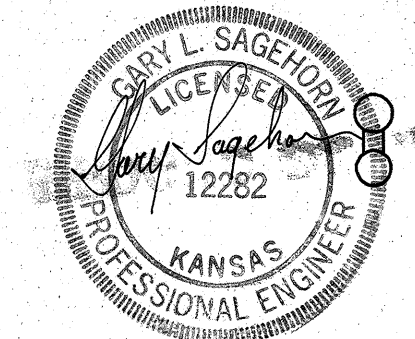
NOTES:

1. SEE NOTES SHEET FS-3.
2. MATERIALS: "TS6x3" DENOTES TS6x3x3/16 UNLESS OTHERWISE NOTED.
3. ALL STAIRS TO UPPER PLATFORM ELIMINATED PER C.O. (PORTABLE LADDER ACCESS ONLY.)



FOR REFERENCE ONLY

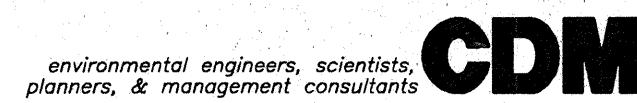
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REV. NO.	DATE	DRWN	CHKD	REMARKS
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3	9/96	MLM	LEE	REVISED FOR THE RECORD
2	12/92	MS	LEE	APPENDUM NO. 2

DESIGNED BY: G. SAGEHORN
DRAWN BY: T. VERWEY
SHEET CHK'D BY: G. SAGEHORN
CROSS CHK'D BY: G. SAGEHORN
APPROVED BY: G. SAGEHORN
DATE: OCTOBER 1992

CAMP DRESSER & MCKEE INC.



CITY OF WICHITA, KANSAS
WATER TREATMENT PLANT IMPROVEMENTS
PHASE IIB

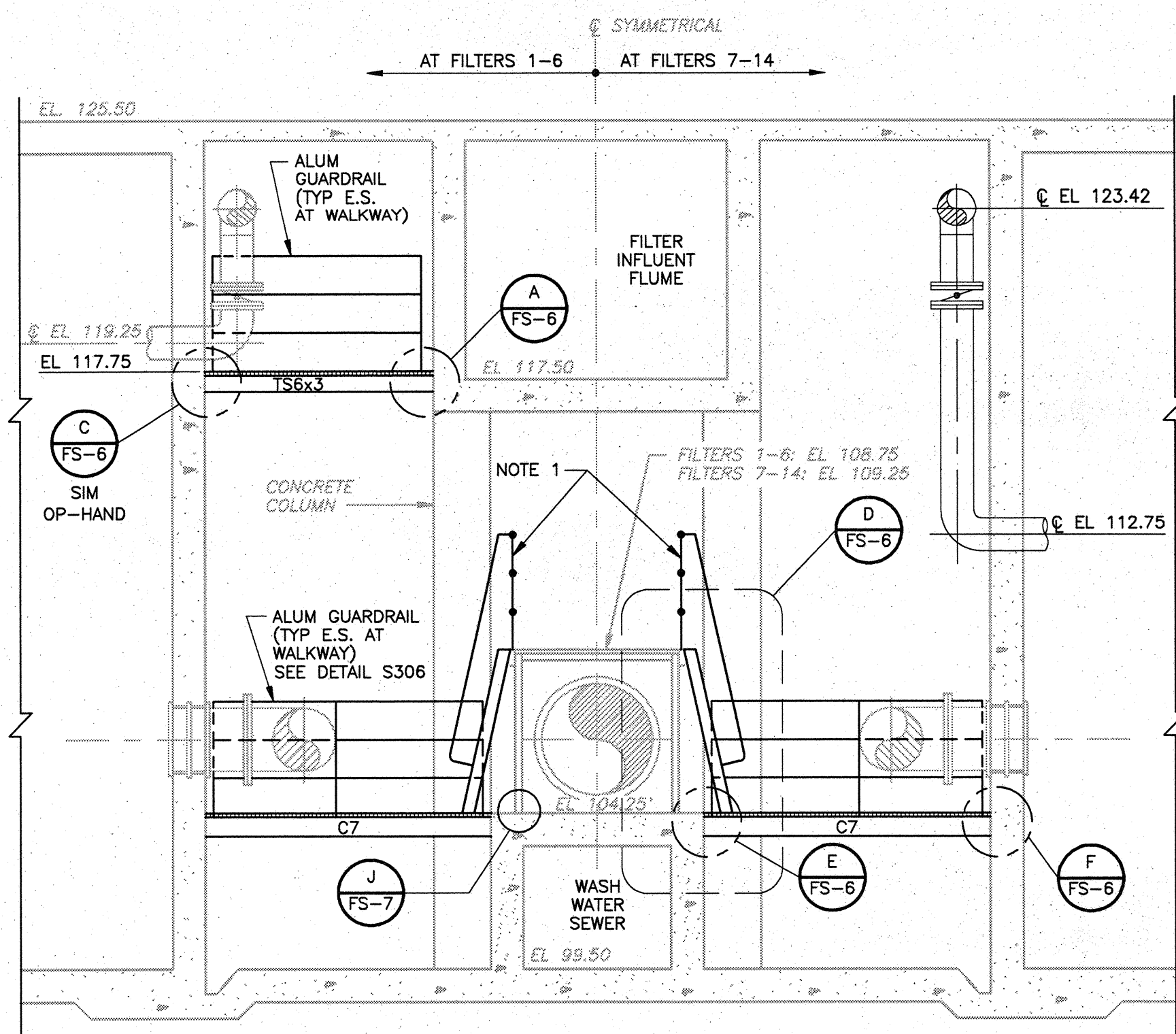
FILTER PIPE GALLERY
UPPER PLATFORM MODIFICATIONS PLAN

PROJECT NO.
2395-118-DNF

SHEET NO.

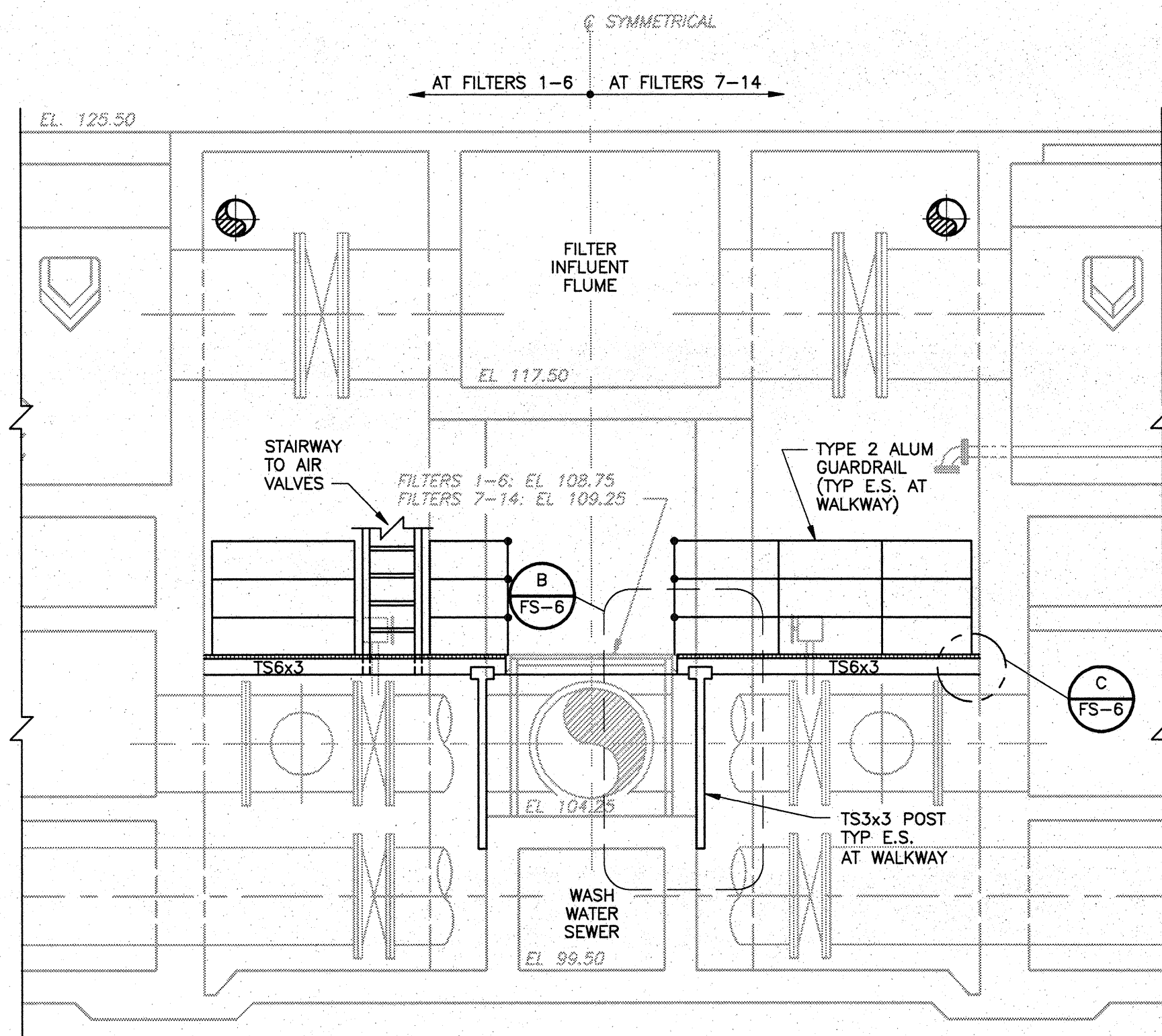
FS-4

SHEET 242 OF 293



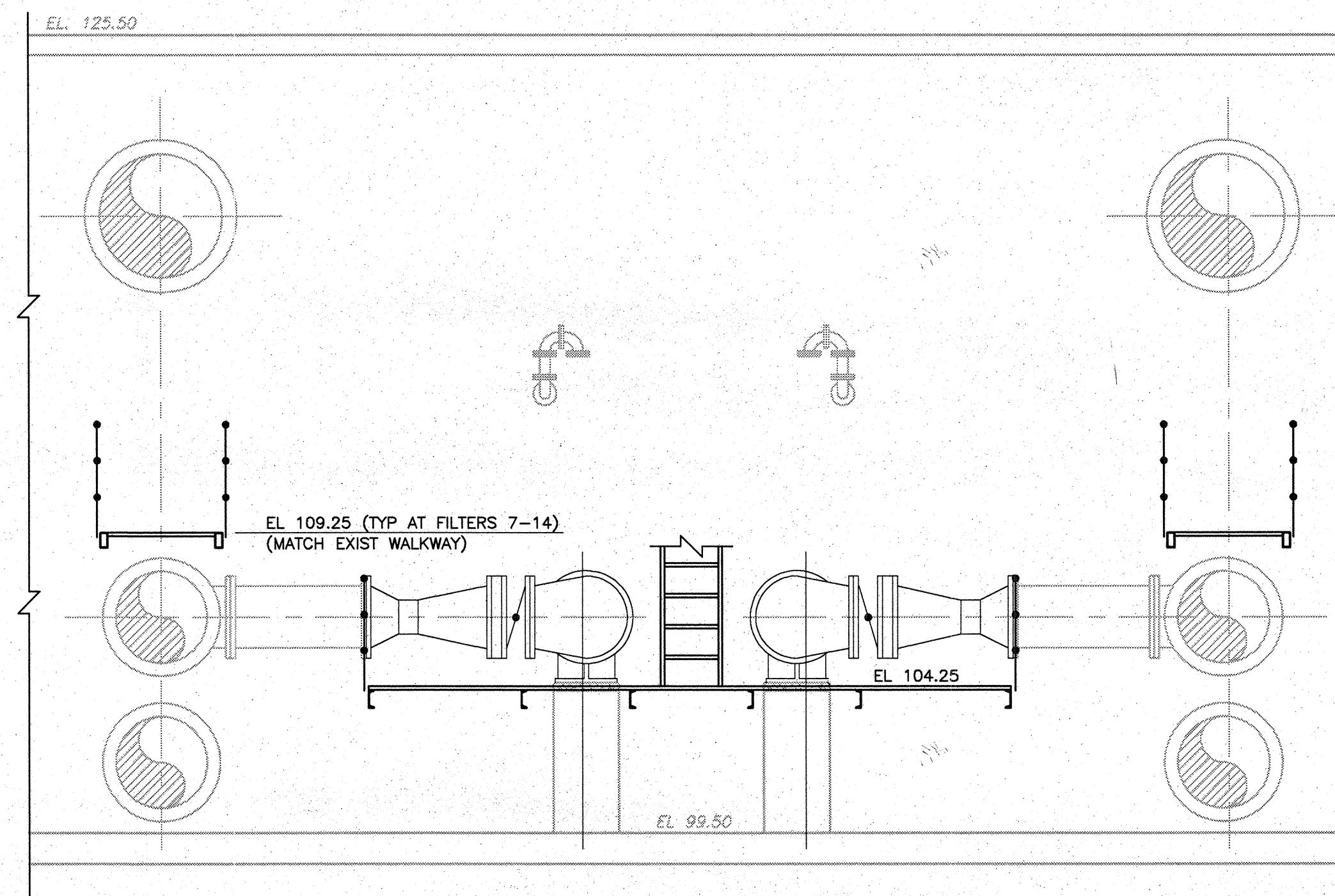
SECTION 1
1/4" = 1'-0"

NOTES:
1. INSTALL NEW ALUM GUARDRAIL EACH SIDE ALONG EXISTING WALKWAY. SEE DETAIL S306.

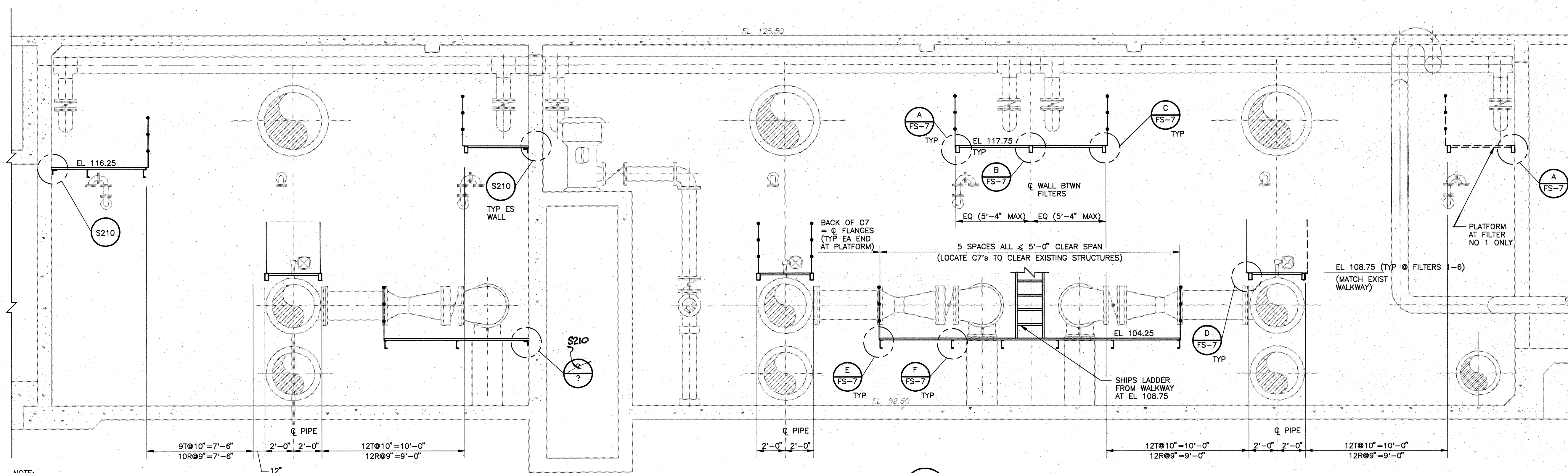


SECTION 2
1/4" = 1'-0"

NOTE:
STAIRS DELETED



SECTION 3
1/4" = 1'-0"

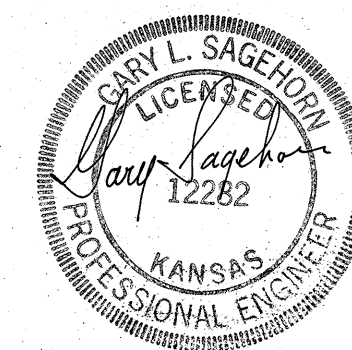


SECTION 4
1/4" = 1'-0"

NOTE:
1. DIMENSIONS AND ELEVATIONS OF ALL EXISTING STRUCTURES SHALL BE FIELD VERIFIED BY CONTRACTOR.

FOR REFERENCE ONLY

RECORD DRAWING



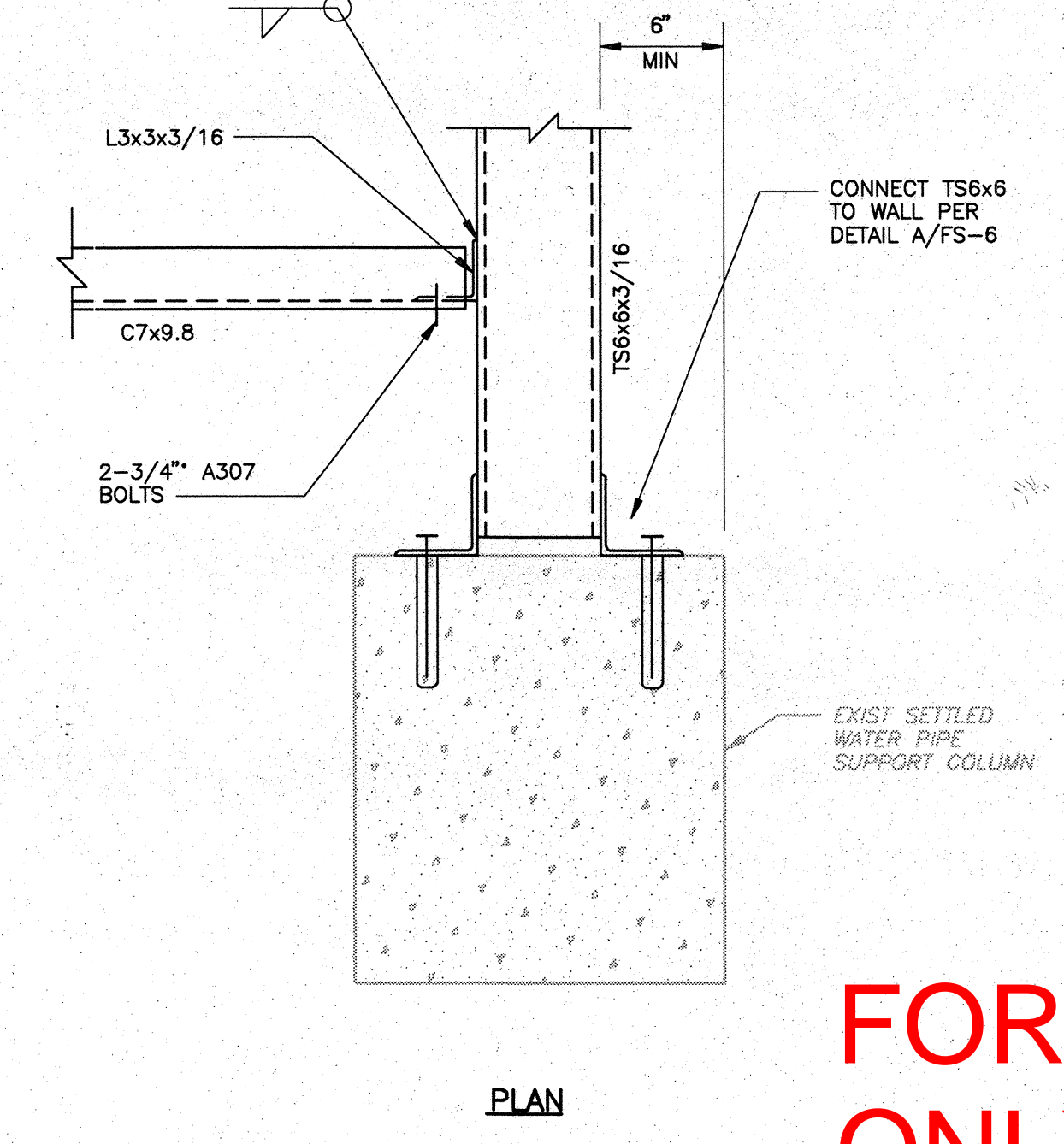
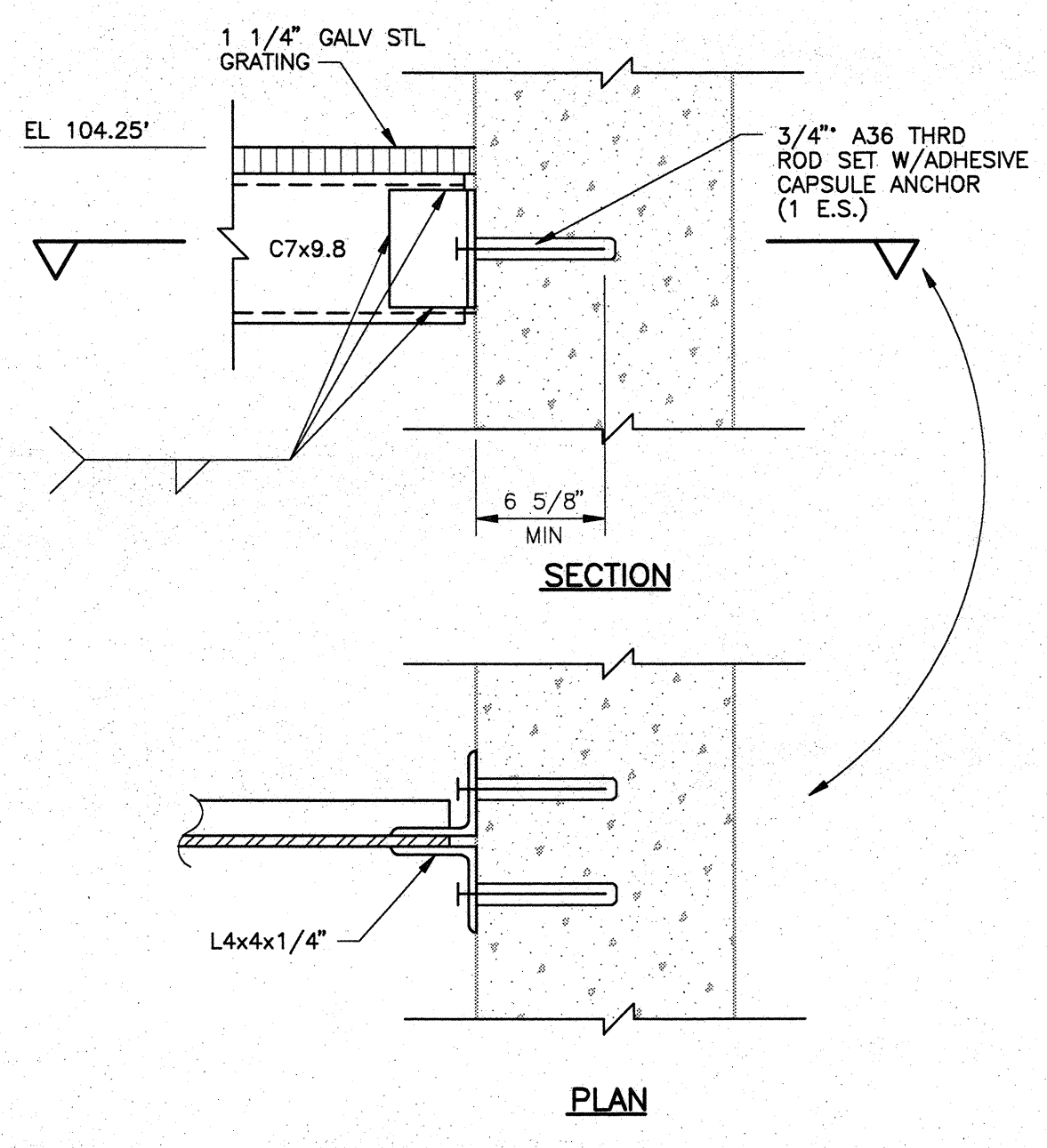
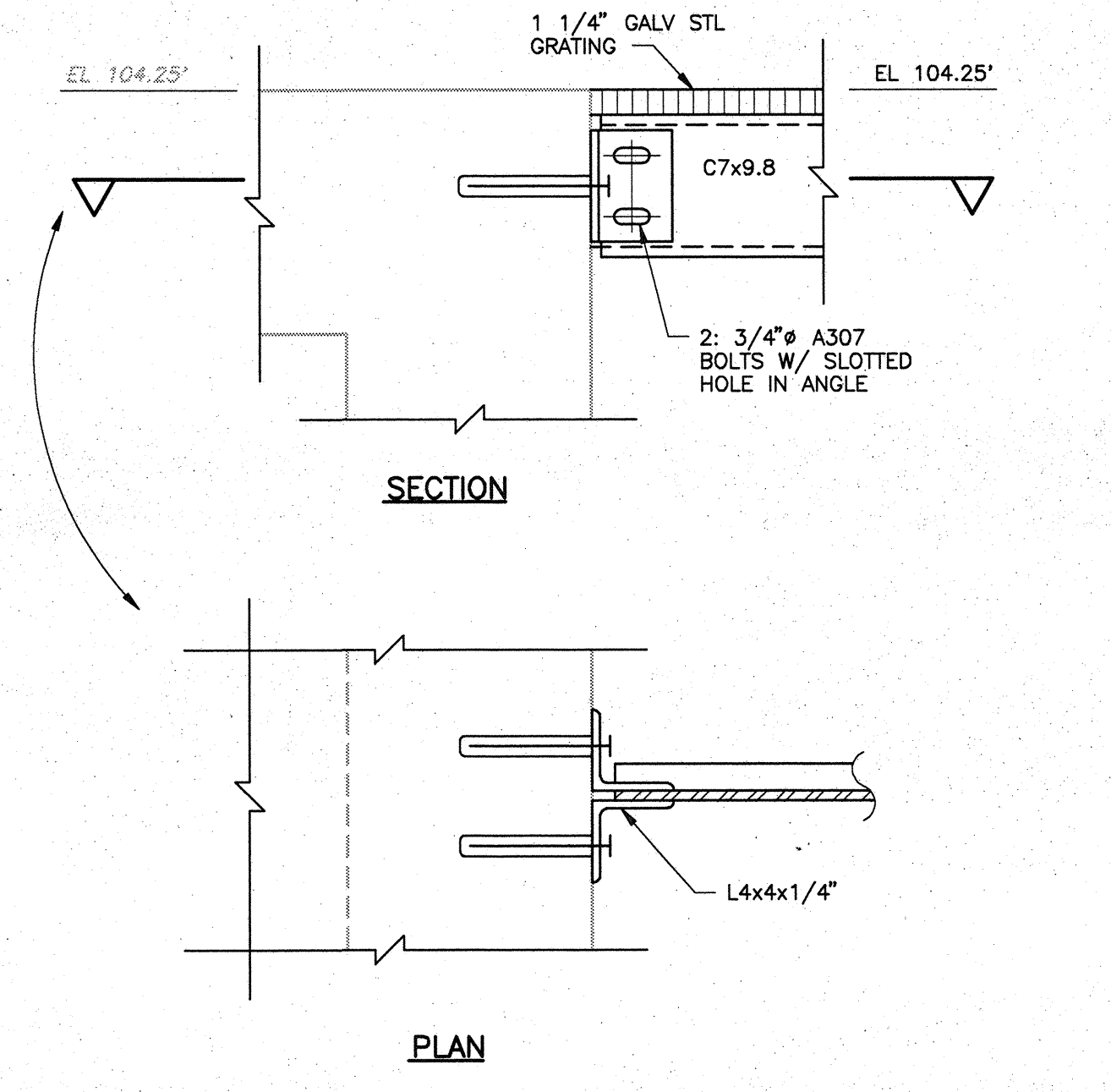
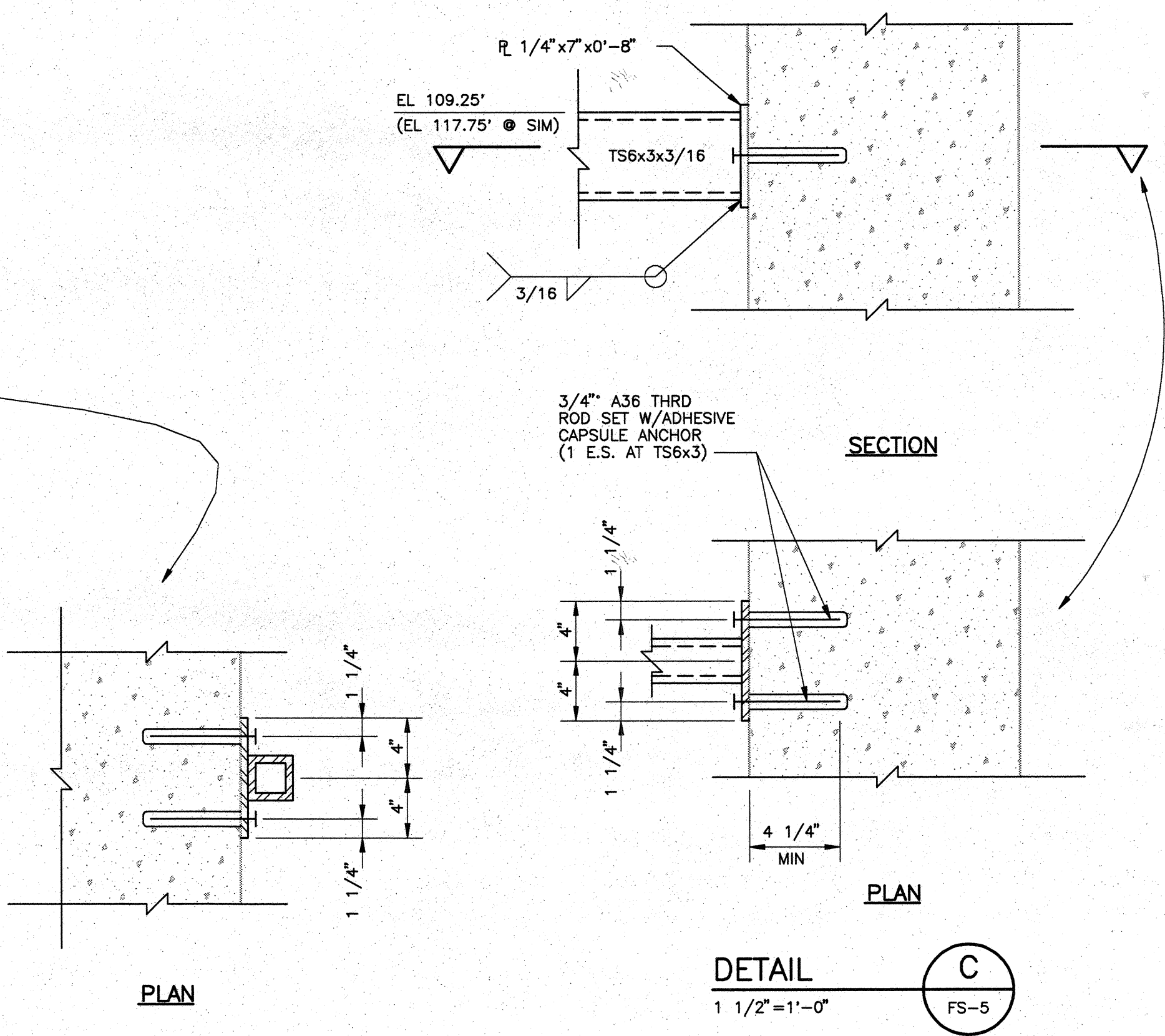
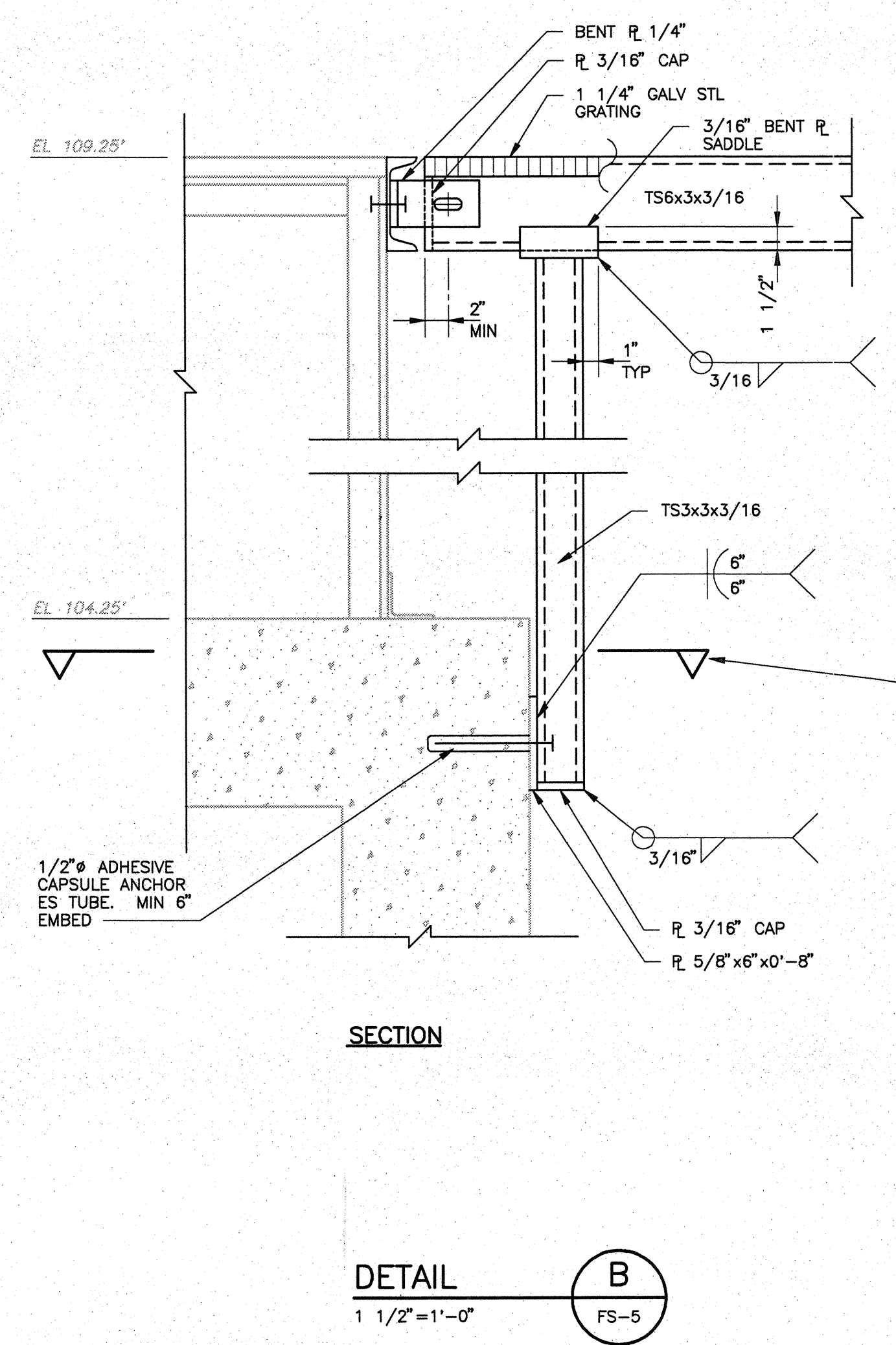
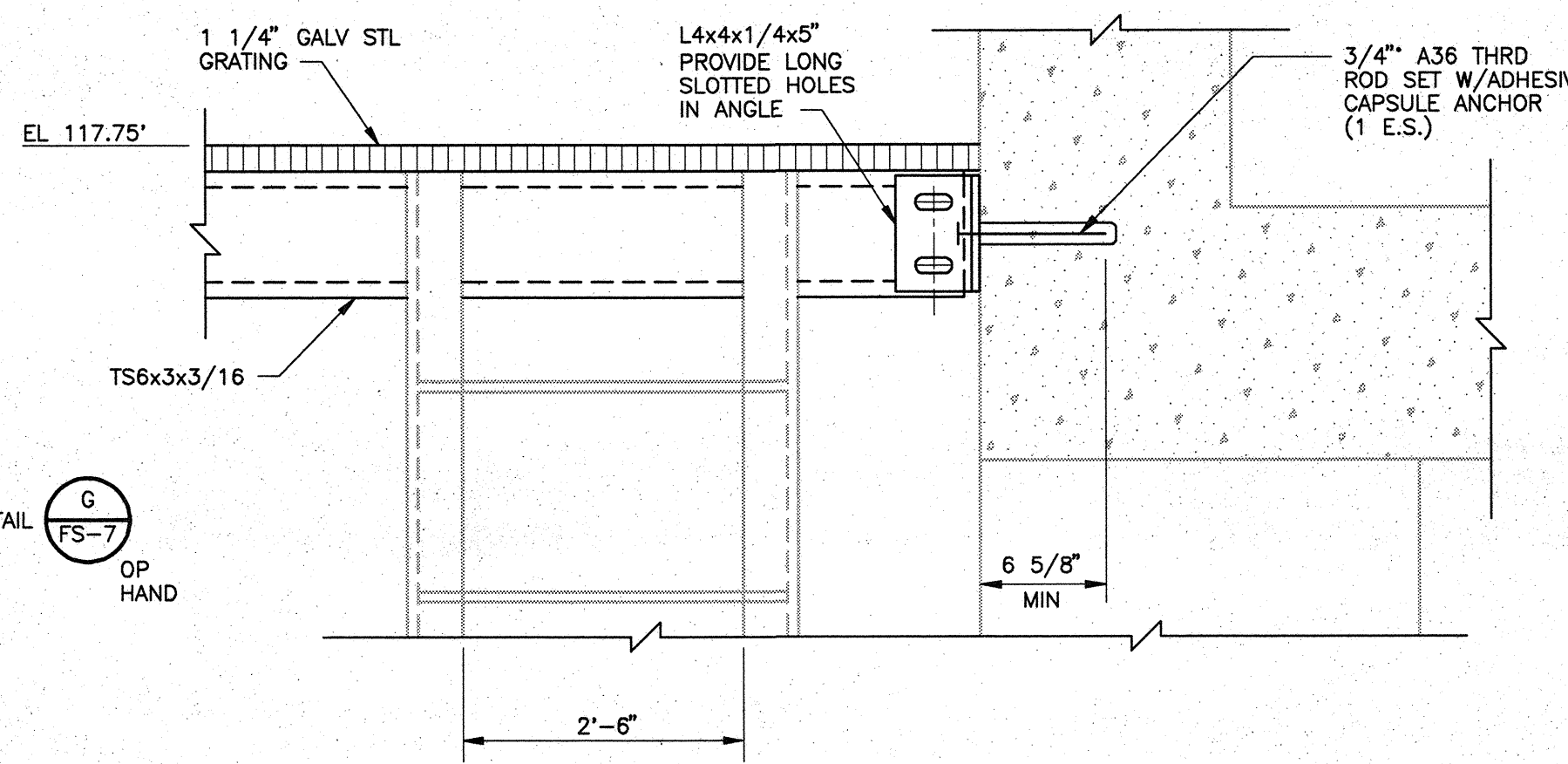
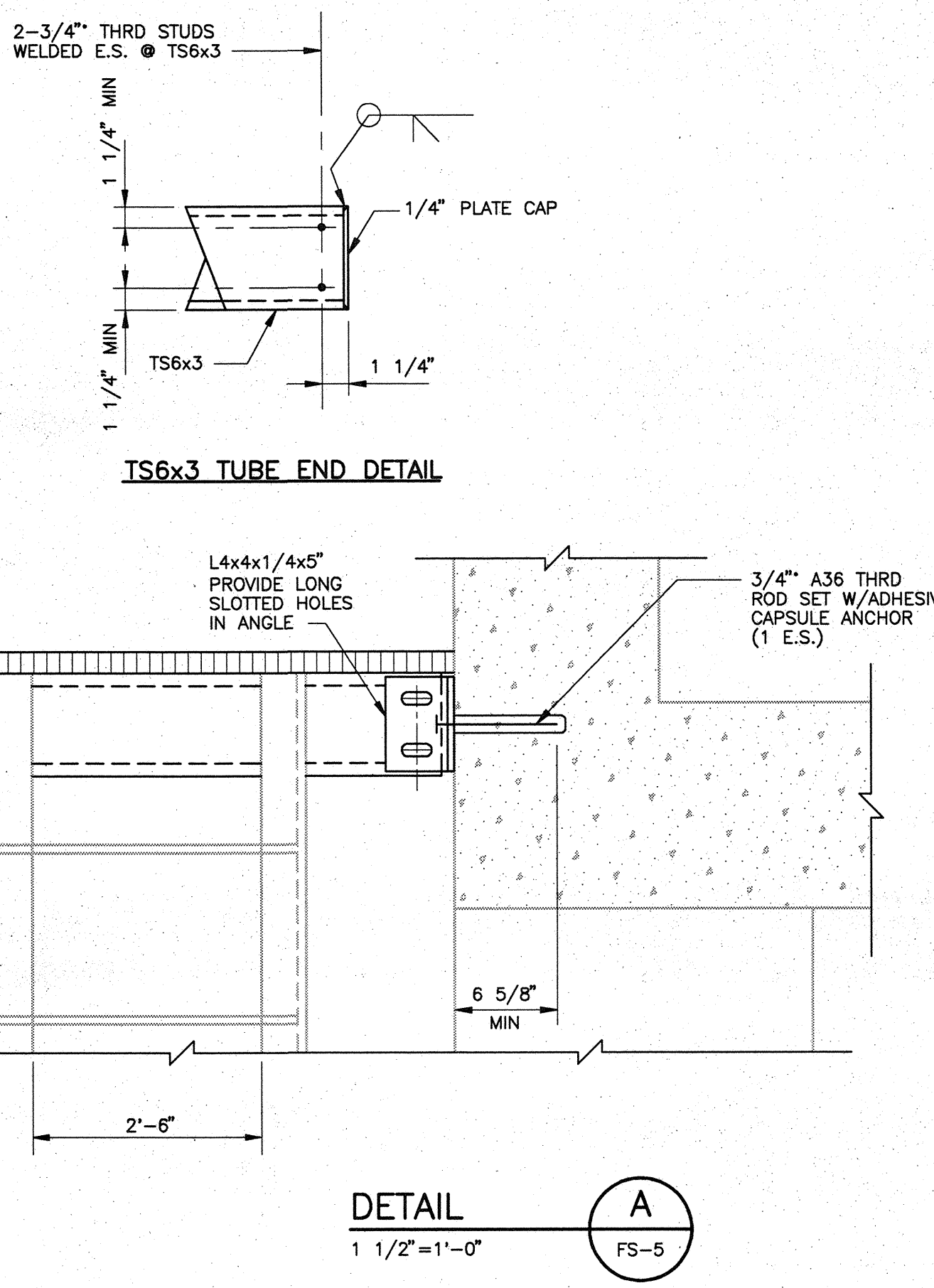
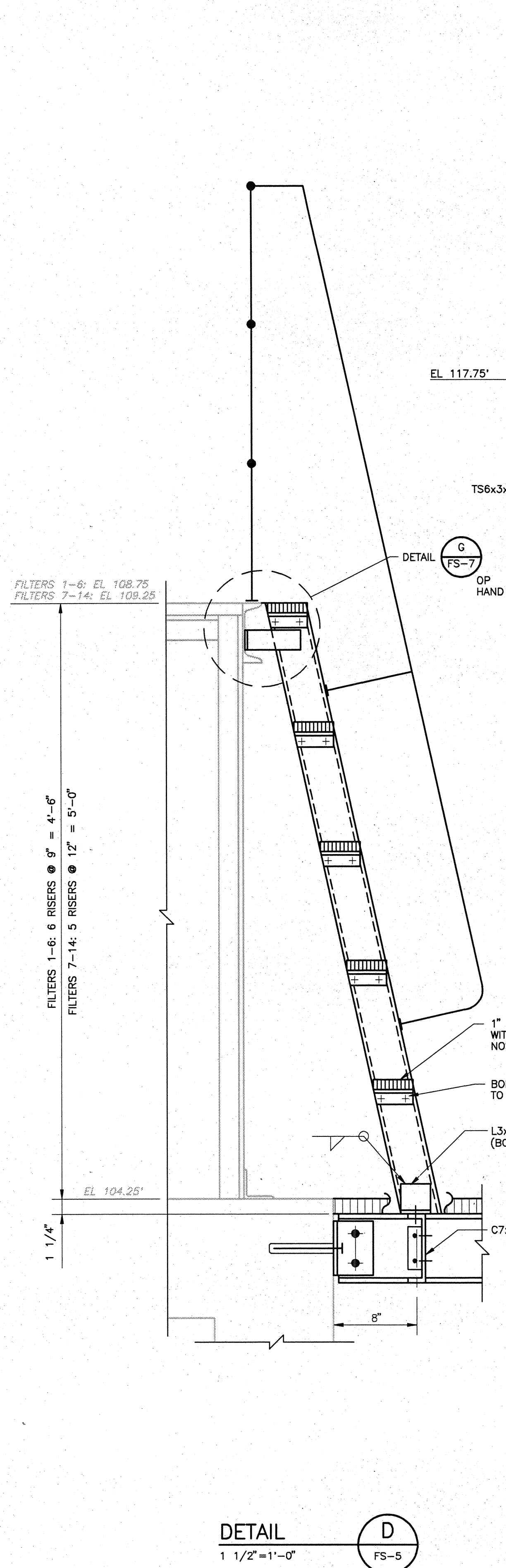
DESIGNED BY:	G. SAGEHORN
DRAWN BY:	T. VERWAY
SHEET CHK'D BY:	G. SAGEHORN
CROSS CHK'D BY:	G. SAGEHORN
APPROVED BY:	G. SAGEHORN
DATE:	OCTOBER 1992

CAMP DRESSER & MCKEE INC.	
environmental engineers, scientists, planners, & management consultants	
CDM	

CITY OF WICHITA, KANSAS
WATER TREATMENT PLANT IMPROVEMENTS
PHASE IIB

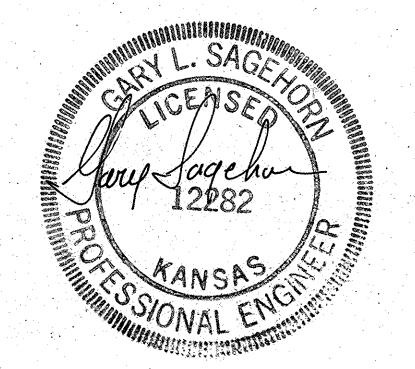
FILTER PIPE GALLERY SECTIONS
FS-5
SHEET 243 OF 293

PROJECT NO. 2395-118-DNF
SHEET NO. FS-5
SHEET 243 OF 293



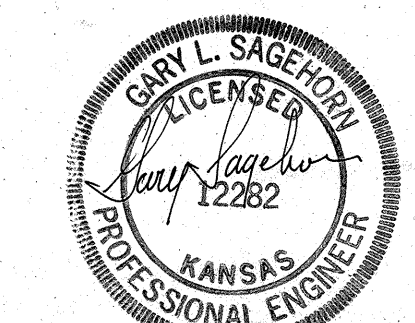
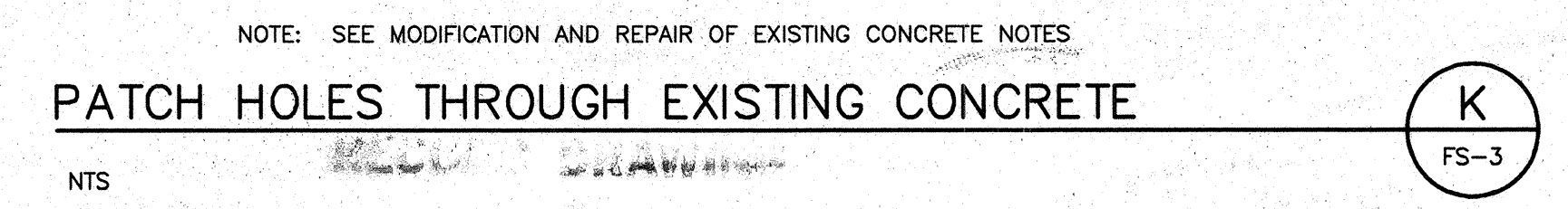
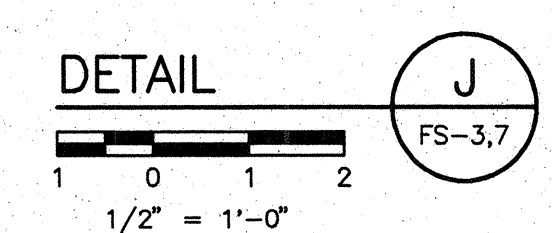
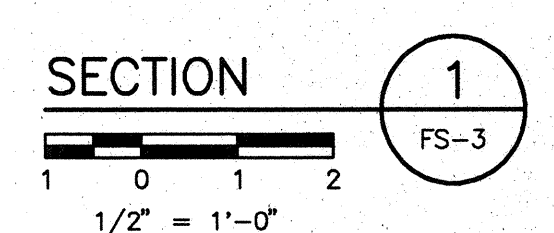
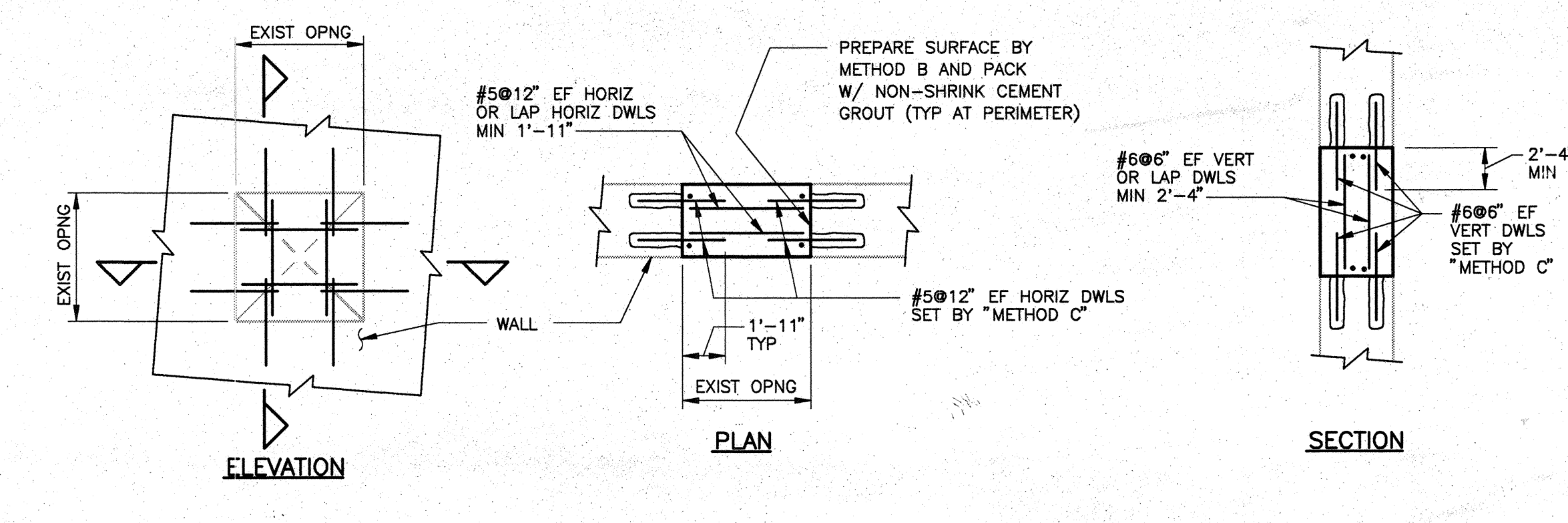
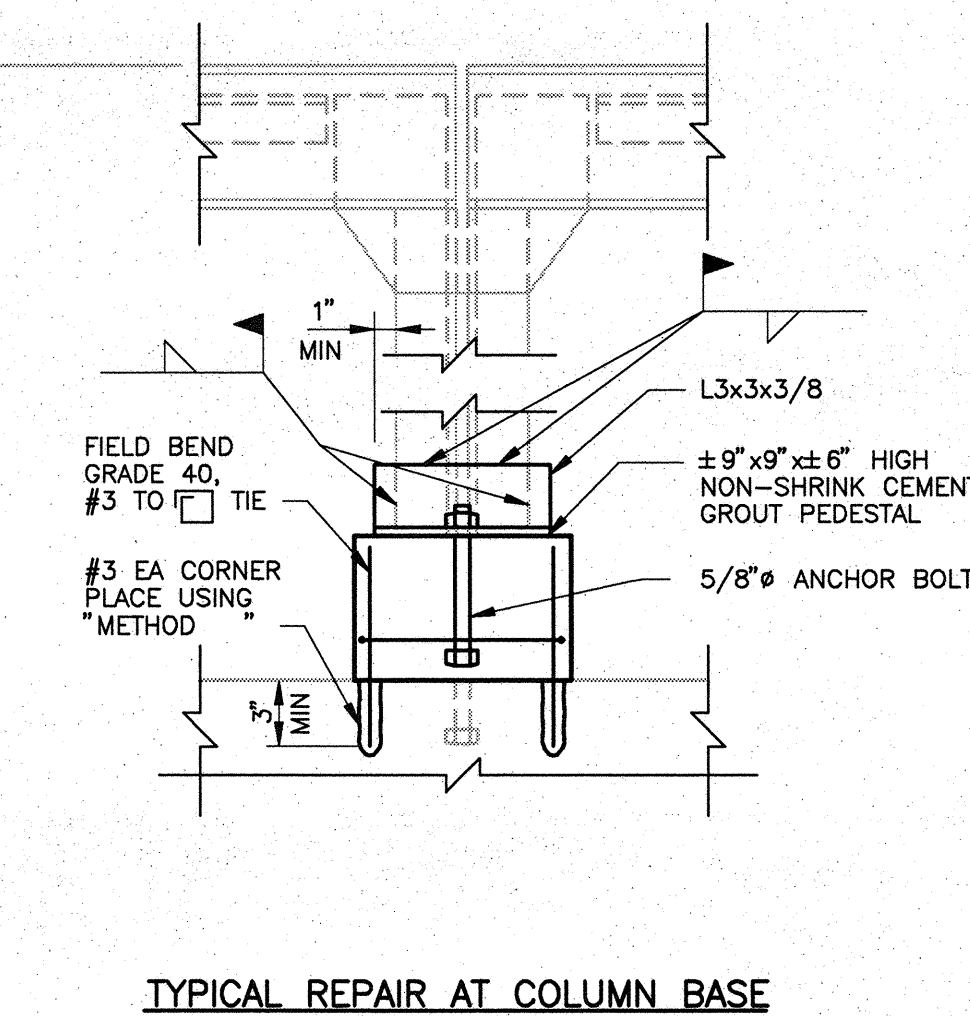
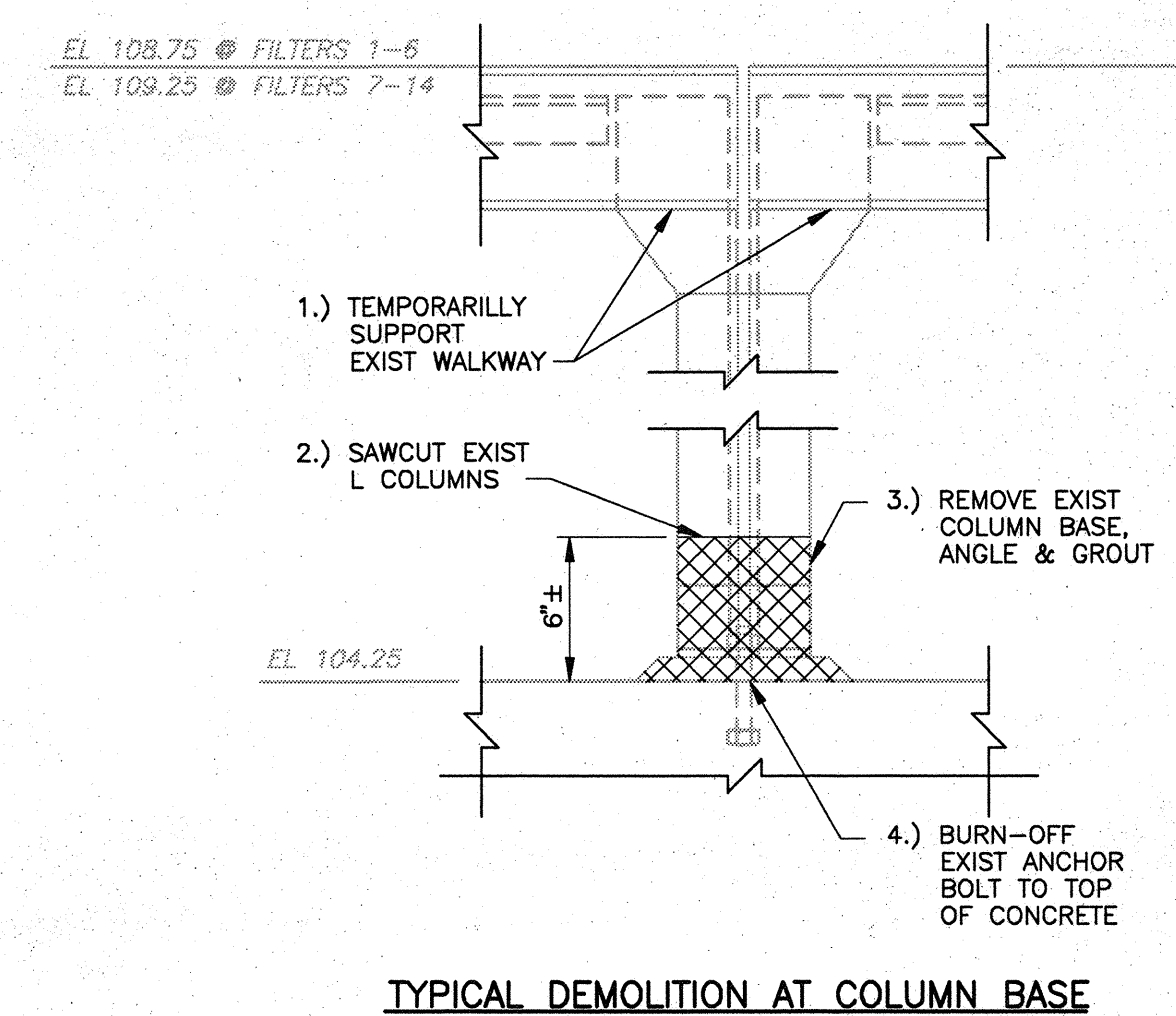
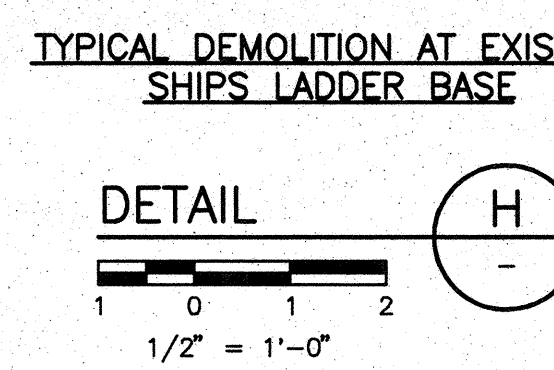
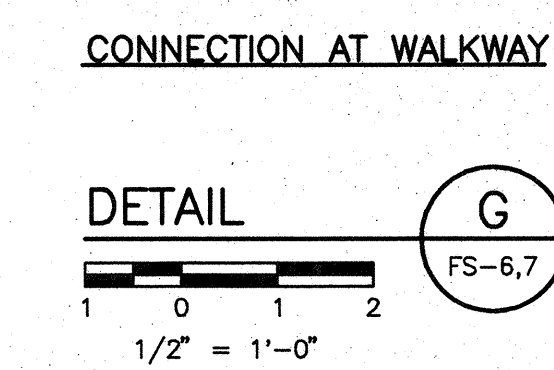
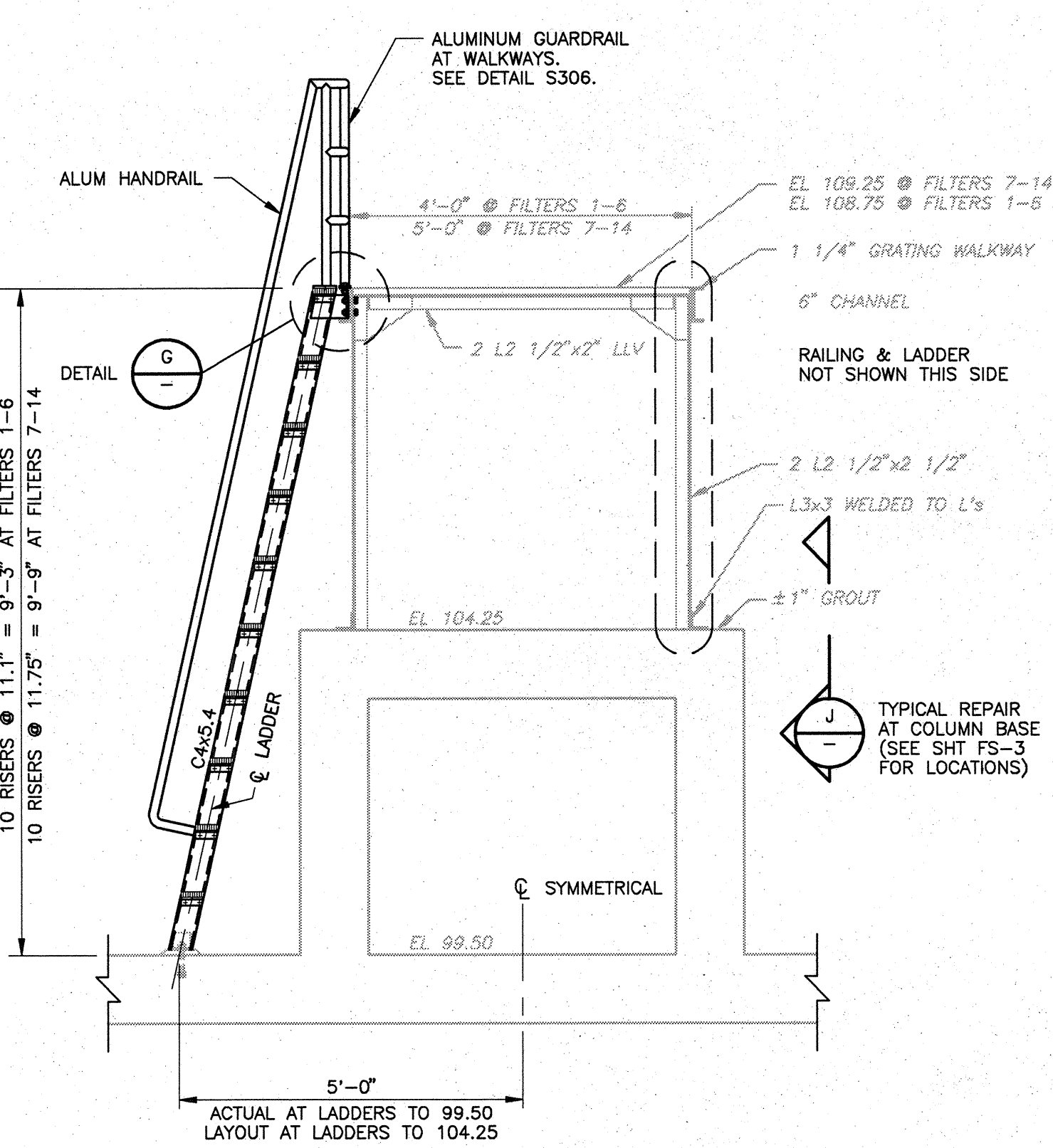
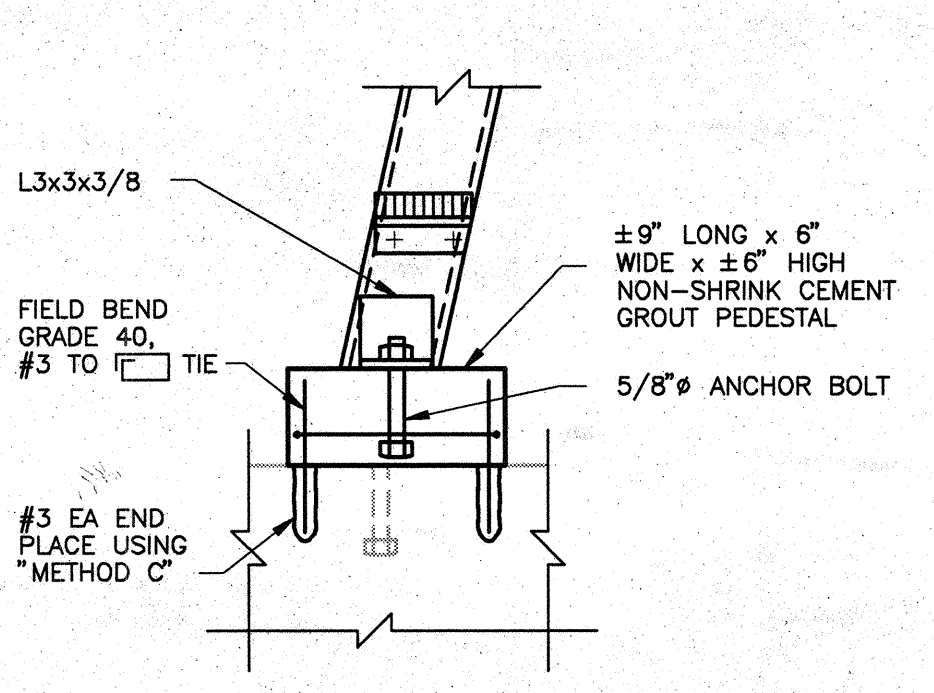
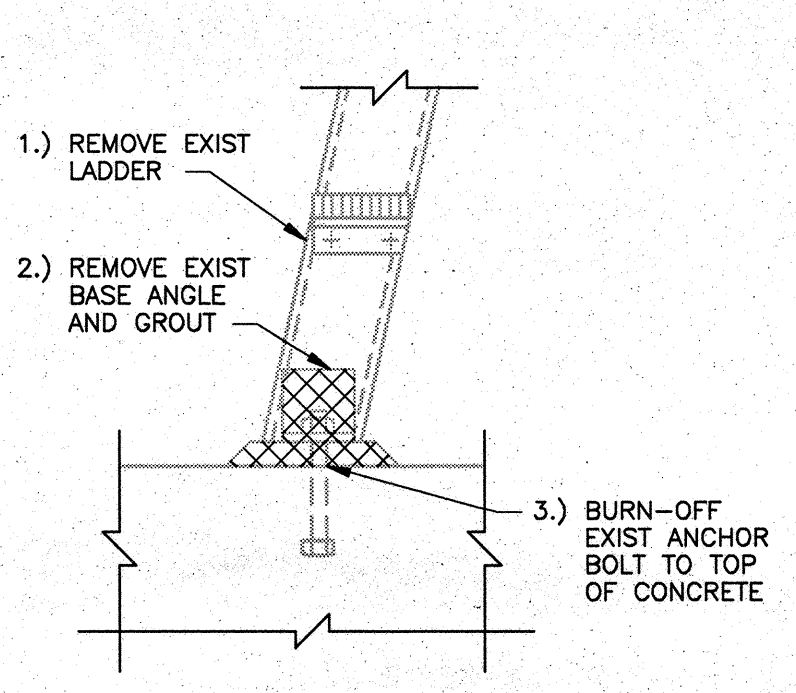
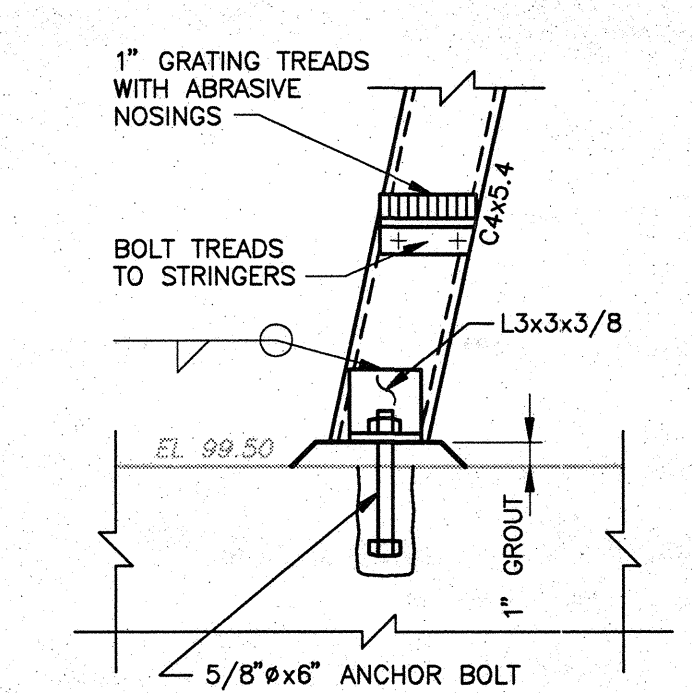
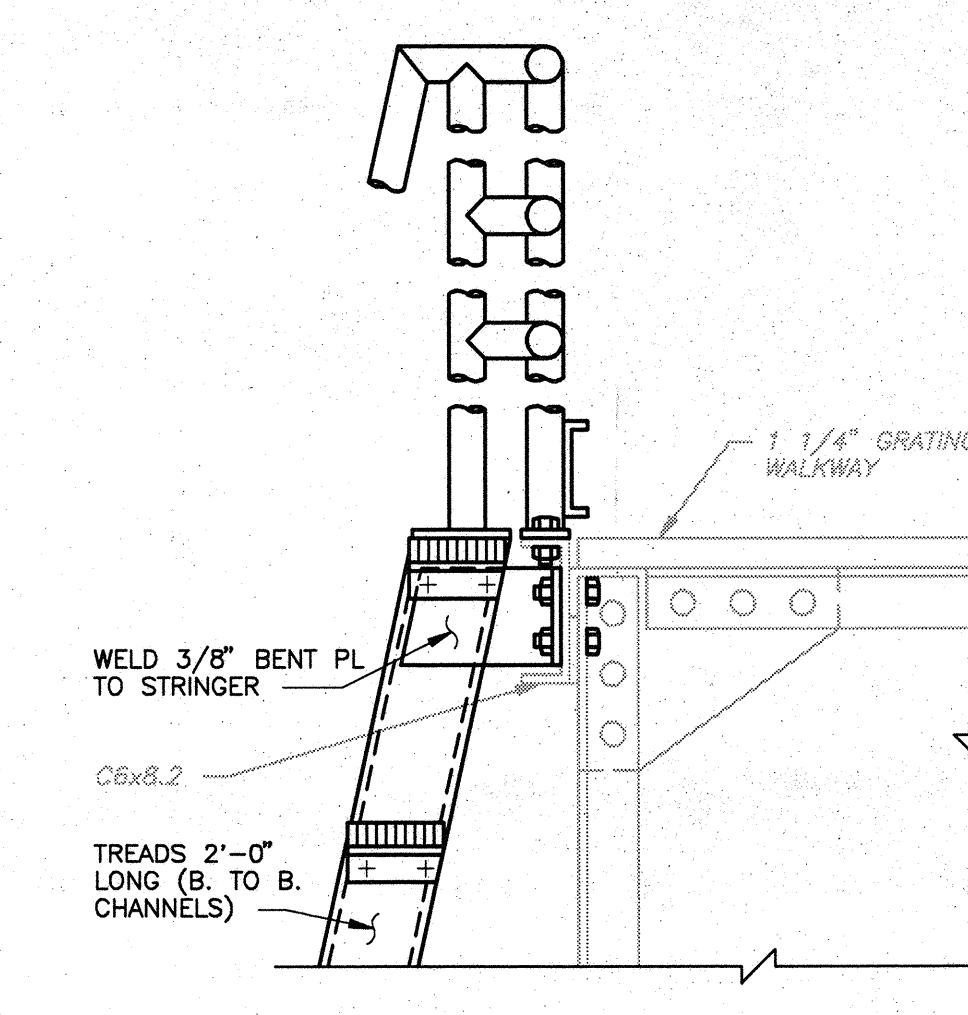
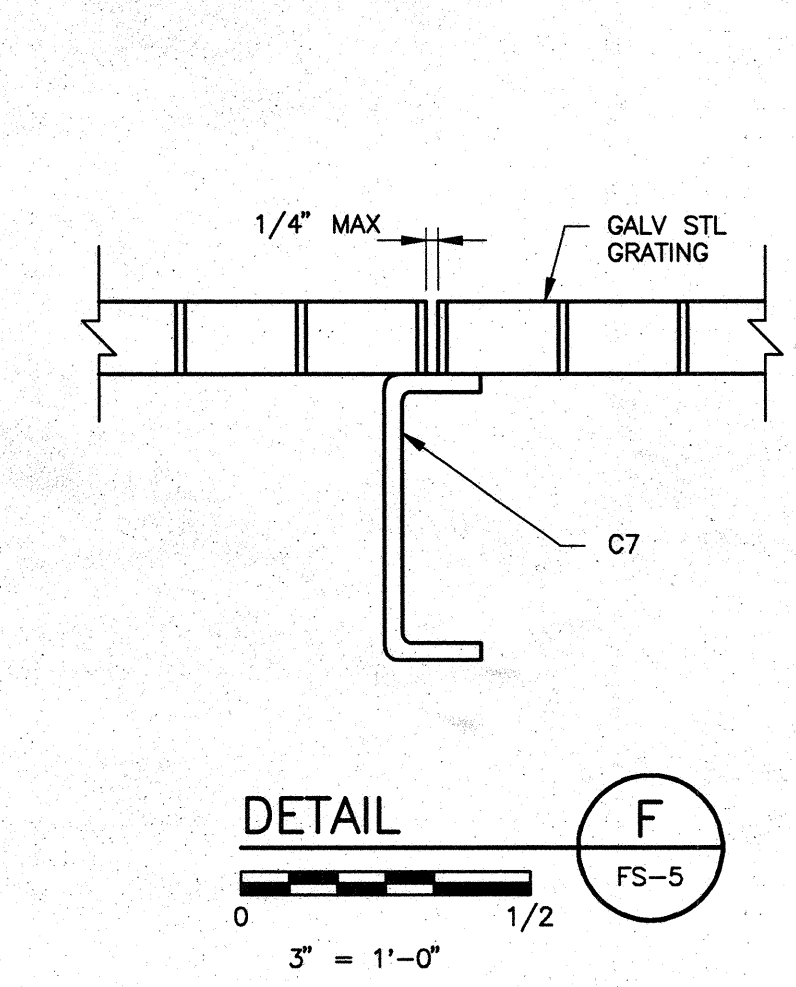
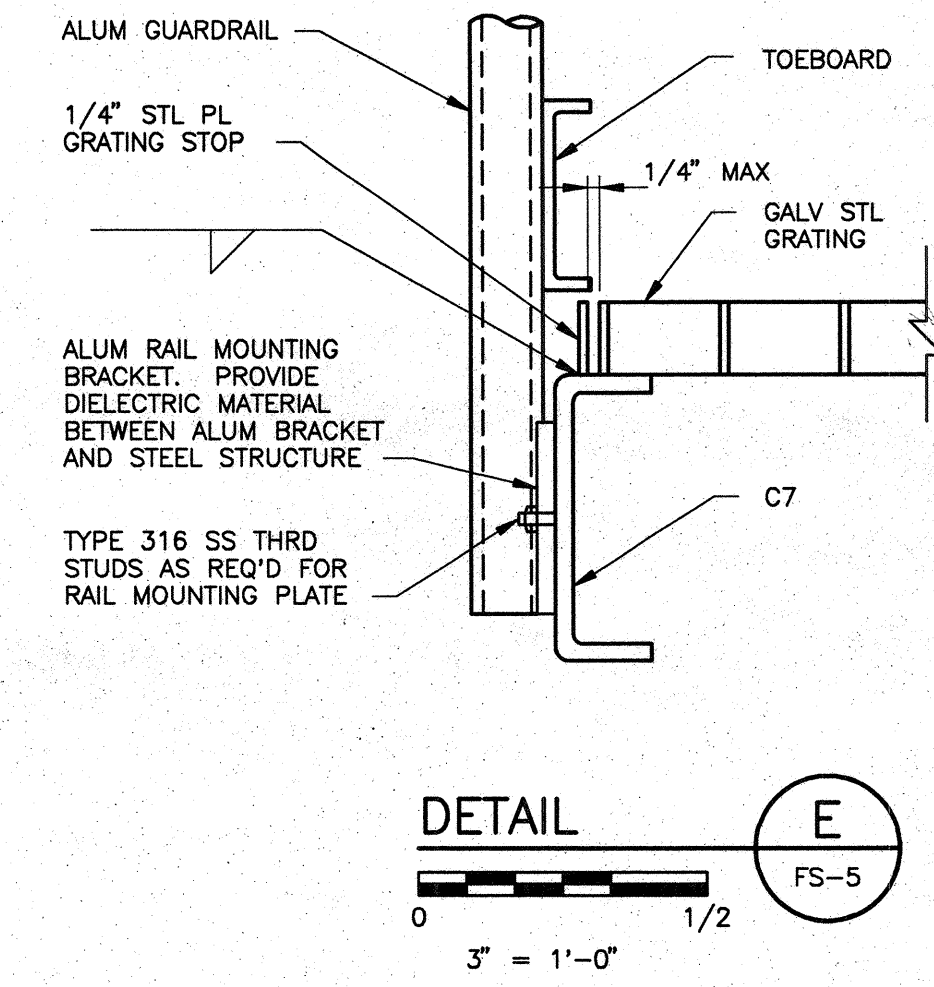
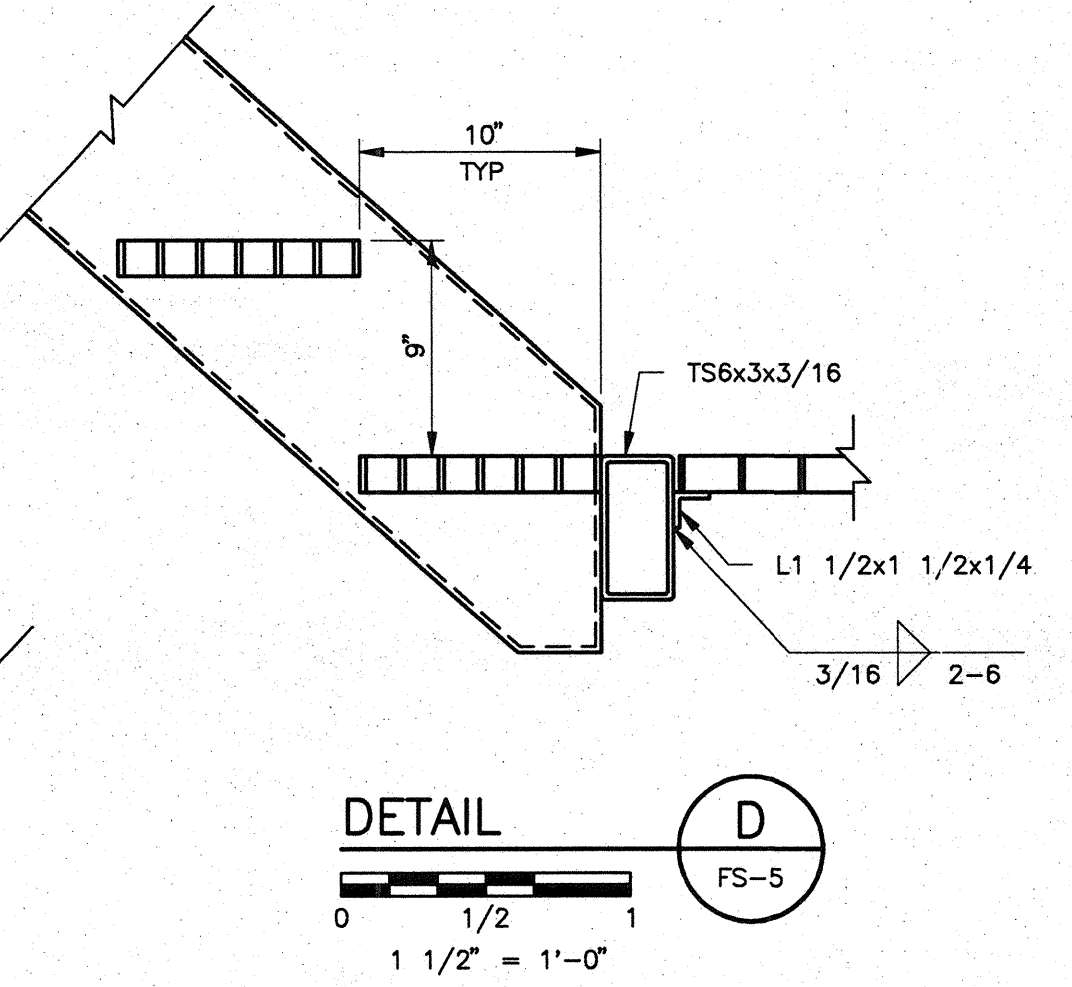
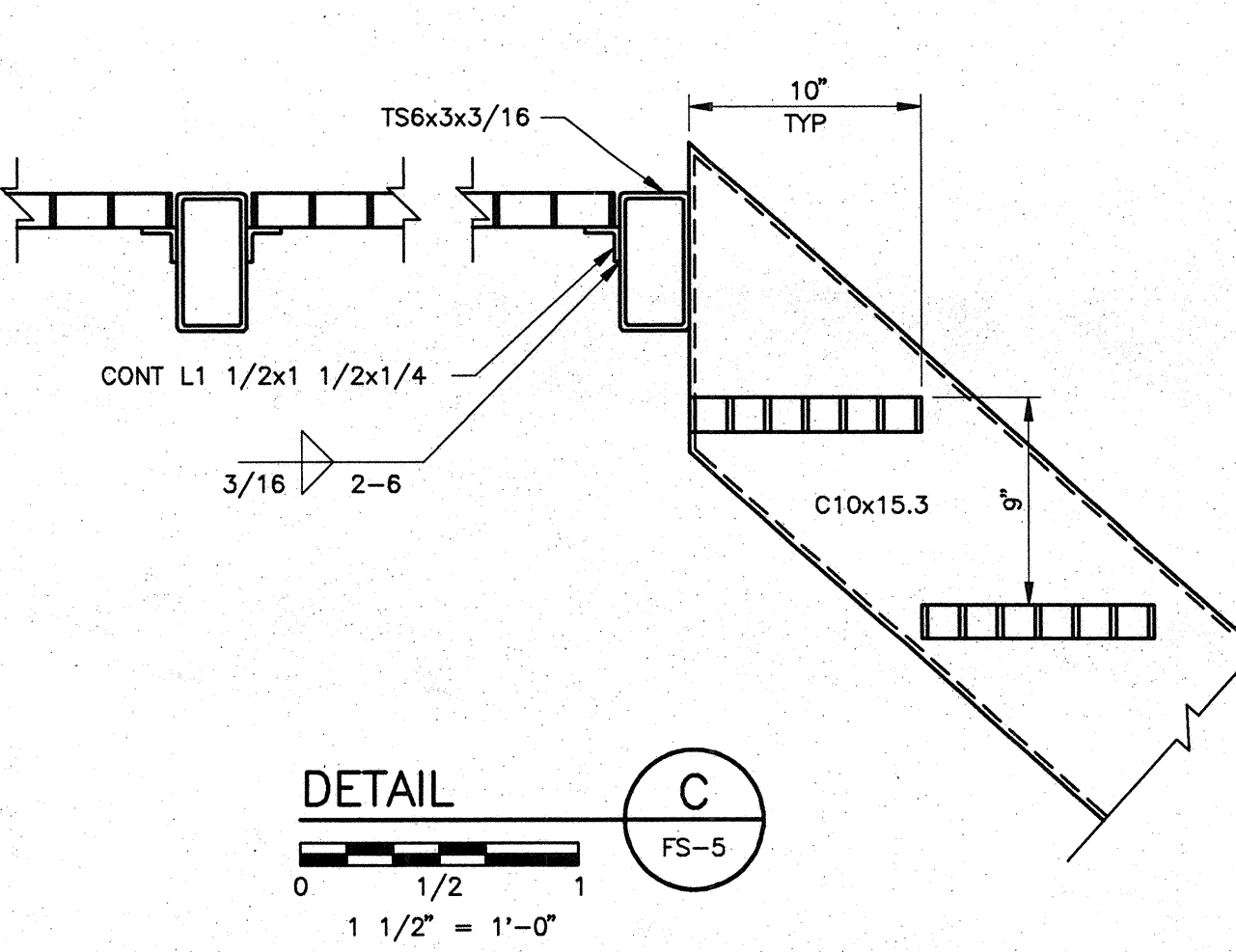
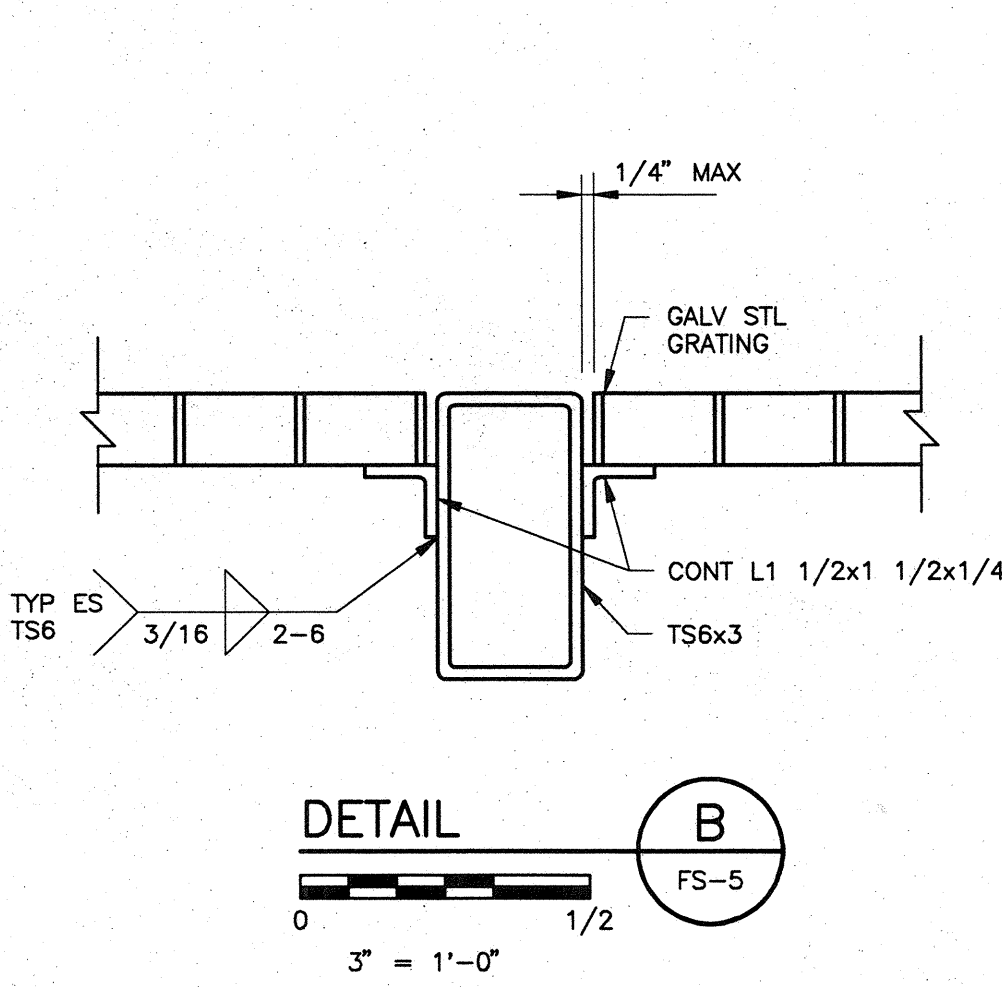
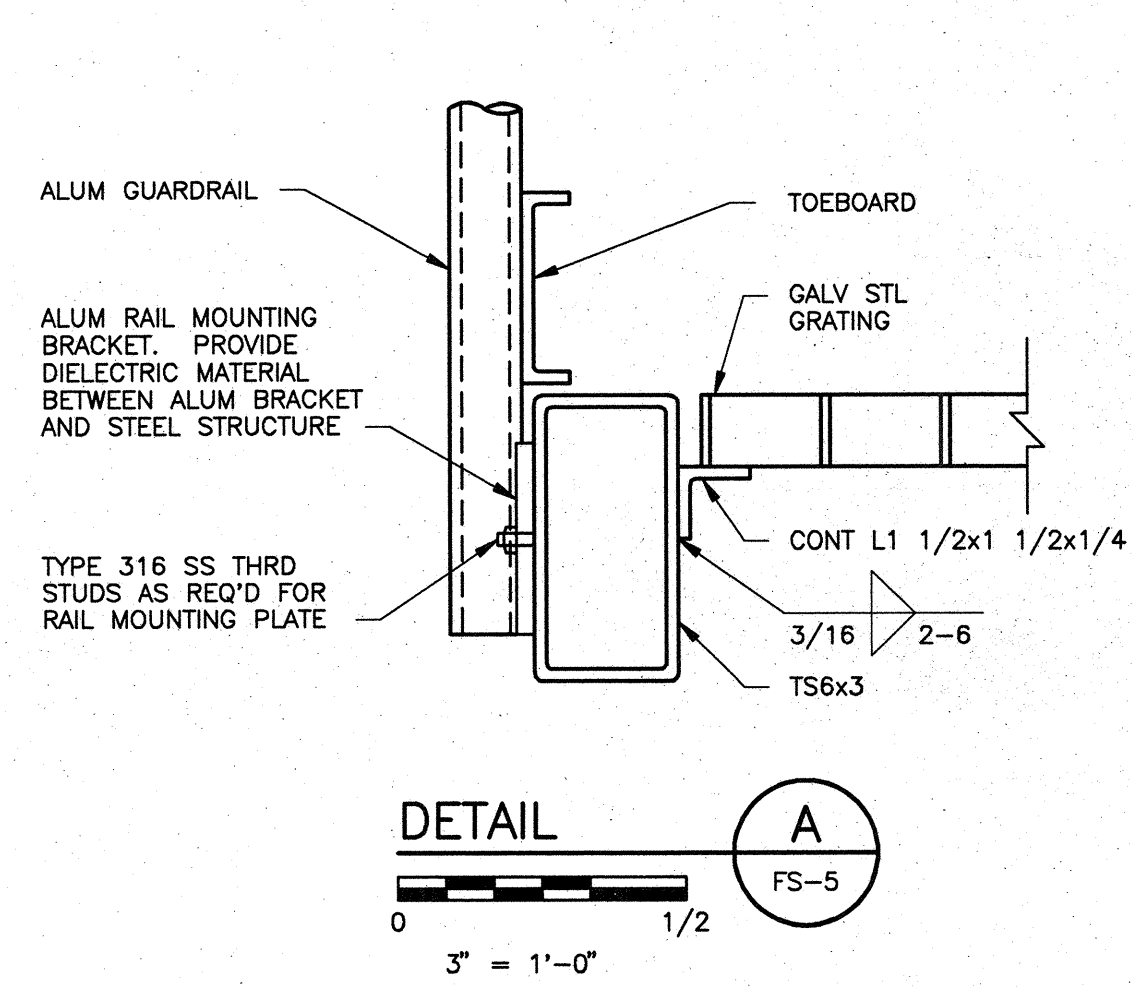
NOTE:
 1. DIMENSIONS AND ELEVATIONS OF ALL EXISTING STRUCTURES SHALL BE FIELD VERIFIED BY CONTRACTOR.

FOR REFERENCE ONLY



RECORD DRAWING

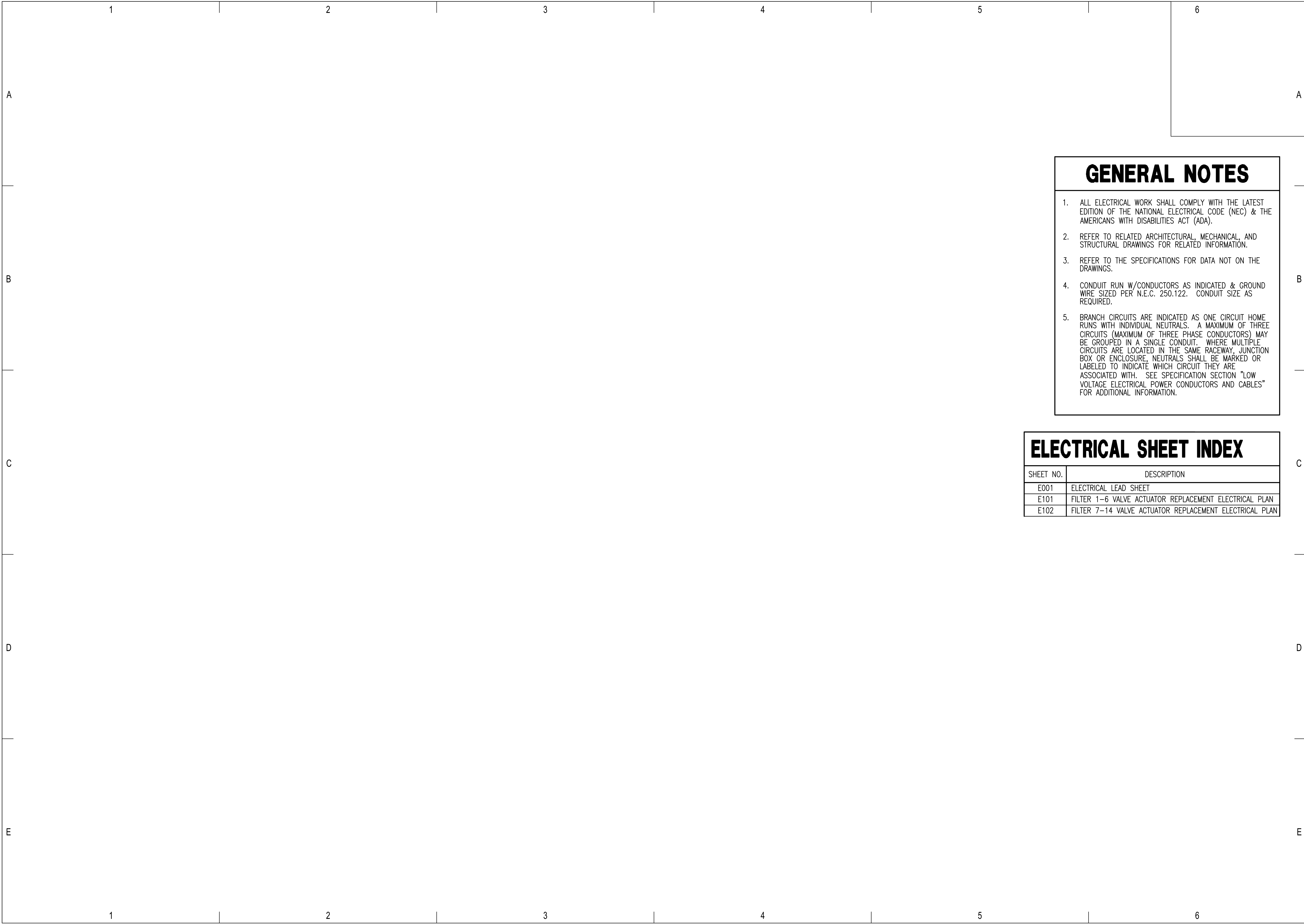
DESIGNED BY: G. SAGEHORN DRAWN BY: T. VERWEY SHEET CHK'D BY: G. SAGEHORN CROSS CHK'D BY: G. SAGEHORN APPROVED BY: G. SAGEHORN DATE: OCTOBER 1992				CAMP DRESSER & MCKEE INC. environmental engineers, scientists, planners, & management consultants				CITY OF WICHITA, KANSAS WATER TREATMENT PLANT IMPROVEMENTS PHASE IIB				FILTER PIPE GALLERY DETAILS				PROJECT NO. 2395-118-DNF SHEET NO. FS-6 SHEET 244 OF 293	
REV. NO.	DATE	DRWN	CHKD	REMARKS													



FOR REFERENCE ONLY RECORD DRAWING

DESIGNED BY: G. SAGEHORN DRAWN BY: J. KRISS SHEET CHK'D BY: G. SAGEHORN CROSS CHK'D BY: G. SAGEHORN APPROVED BY: G. SAGEHORN DATE: OCTOBER 1992				CAMP DRESSER & MCKEE INC. environmental engineers, scientists, planners, & management consultants CDM		CITY OF WICHITA, KANSAS WATER TREATMENT PLANT IMPROVEMENTS PHASE IIB		PROJECT NO. 2395-118-DNB SHEET NO. FS-7 SHEET 245 OF 293	
REV. NO.	DATE	DRWN	CHKD	REMARKS					

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GENERAL NOTES

- ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) & THE AMERICANS WITH DISABILITIES ACT (ADA).
- REFER TO RELATED ARCHITECTURAL, MECHANICAL, AND STRUCTURAL DRAWINGS FOR RELATED INFORMATION.
- REFER TO THE SPECIFICATIONS FOR DATA NOT ON THE DRAWINGS.
- CONDUIT RUN W/CONDUCTORS AS INDICATED & GROUND WIRE SIZED PER N.E.C. 250.122. CONDUIT SIZE AS REQUIRED.
- BRANCH CIRCUITS ARE INDICATED AS ONE CIRCUIT HOME RUNS WITH INDIVIDUAL NEUTRALS. A MAXIMUM OF THREE CIRCUITS (MAXIMUM OF THREE PHASE CONDUCTORS) MAY BE GROUPED IN A SINGLE CONDUIT. WHERE MULTIPLE CIRCUITS ARE LOCATED IN THE SAME RACEWAY, JUNCTION BOX OR ENCLOSURE, NEUTRALS SHALL BE MARKED OR LABELED TO INDICATE WHICH CIRCUIT THEY ARE ASSOCIATED WITH. SEE SPECIFICATION SECTION "LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES" FOR ADDITIONAL INFORMATION.

ELECTRICAL SHEET INDEX

SHEET NO.	DESCRIPTION
E001	ELECTRICAL LEAD SHEET
E101	FILTER 1-6 VALVE ACTUATOR REPLACEMENT ELECTRICAL PLAN
E102	FILTER 7-14 VALVE ACTUATOR REPLACEMENT ELECTRICAL PLAN

**2020 WATER TREATMENT PLANT
 VALVE ACTUATOR REPLACEMENT**

 CITY OF WICHITA PROJECT NO. 448-2019-004278
 OCA NO. 639-001
 GARY JANZEN, P.E. - CITY ENGINEER

Issue:	
JOB NO.	197043-004
DATE	OCTOBER 2019
PM	
DESIGNED BY	SMS
DRAWN BY	ZJS
CHECKED BY	SMS
ELECTRICAL LEAD SHEET	
E001	

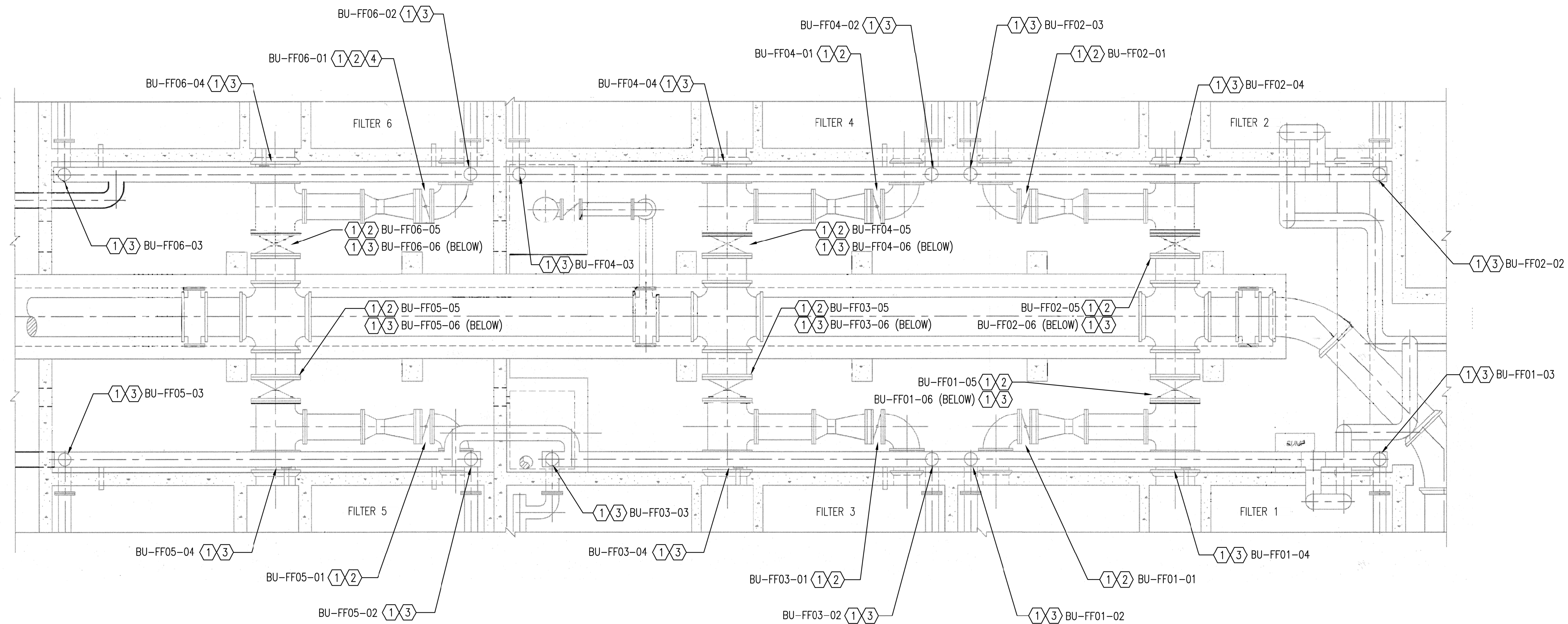
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KEYED NOTES:

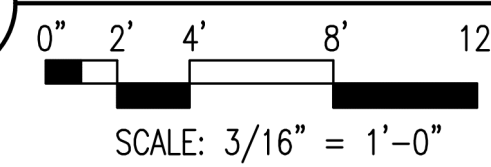
- ① EXISTING VALVE ACTUATOR TO BE REPLACED. DISCONNECT EXISTING POWER AND CONTROLS AS REQUIRED FOR REMOVAL. CONNECT EXISTING POWER AND CONTROLS TO REPLACEMENT ACTUATOR AS REQUIRED.
- ② PER EXISTING DRAWINGS, CONTROLS CONNECTIONS CONSIST OF (2) ANALOG CONNECTIONS AND (5) DISCRETE CONNECTIONS. FIELD VERIFY ALL REQUIREMENTS.
- ③ PER EXISTING DRAWINGS, CONTROLS CONNECTIONS CONSIST OF (12) DISCRETE CONNECTIONS. FIELD VERIFY ALL REQUIREMENTS.
- ④ EXISTING CONTROLS CONDUIT FROM VALVE ACTUATOR NOT CONNECTED TO CONDUIT BODY IN CONTROLS CONDUIT HOMERUN. PROVIDE PROPERLY SIZED CONNECTION AS REQUIRED. FIELD VERIFY ALL REQUIREMENTS.

PLAN NOTES:

- 1. BRANCH CIRCUITS ARE INDICATED AS ONE CIRCUIT HOME RUNS WITH INDIVIDUAL NEUTRALS. A MAXIMUM OF THREE CIRCUITS (MAXIMUM OF THREE PHASE CONDUCTORS) MAY BE GROUPED IN A SINGLE CONDUIT. WHERE MULTIPLE CIRCUITS ARE LOCATED IN THE SAME RACEWAY, JUNCTION BOX OR ENCLOSURE, NEUTRALS SHALL BE MARKED OR LABELED TO INDICATE WHICH CIRCUIT THEY ARE ASSOCIATED WITH. SEE SPECIFICATION SECTION "LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES" FOR ADDITIONAL INFORMATION.
- 2. A GROUND CONDUCTOR SIZED PER N.E.C. ARTICLE 250 IS REQUIRED IN ALL CONDUITS.



FILTER 1-6 VALVE ACTUATOR REPLACEMENT ELECTRICAL PLAN



2020 WATER TREATMENT PLANT VALVE ACTUATOR REPLACEMENT

CITY OF WICHITA PROJECT NO. 448-2019-004278
 OCA NO. 639-001
 GARY JANZEN, P.E. - CITY ENGINEER

Issue:	
JOB NO.	197043-004
DATE	OCTOBER 2019
PM	
DESIGNED BY	SMS
DRAWN BY	ZJS
CHECKED BY	SMS
FILTER 1-6 VALVE ACTUATOR REPLACEMENT ELECTRICAL PLAN	

