NORTH ARROW

AS BUILT NOTE

FOR DETAILS OF CONDUIT ROUTING, SEE AS BUILT DRAWING 6E721-2383-SERIES 16 AND CONSTRUCTION STATUS CONDUIT REPORT. FOR DETAILS OF CABLE TRAY INFORMATION, SEE CABLE TRAY IDENTIFICATION DRAWING 6E721-2836-20 AND CABLE SUMMARY PRINTOUT; ALSO SEE EF2-67088.

NOTES: (CONTINUED)

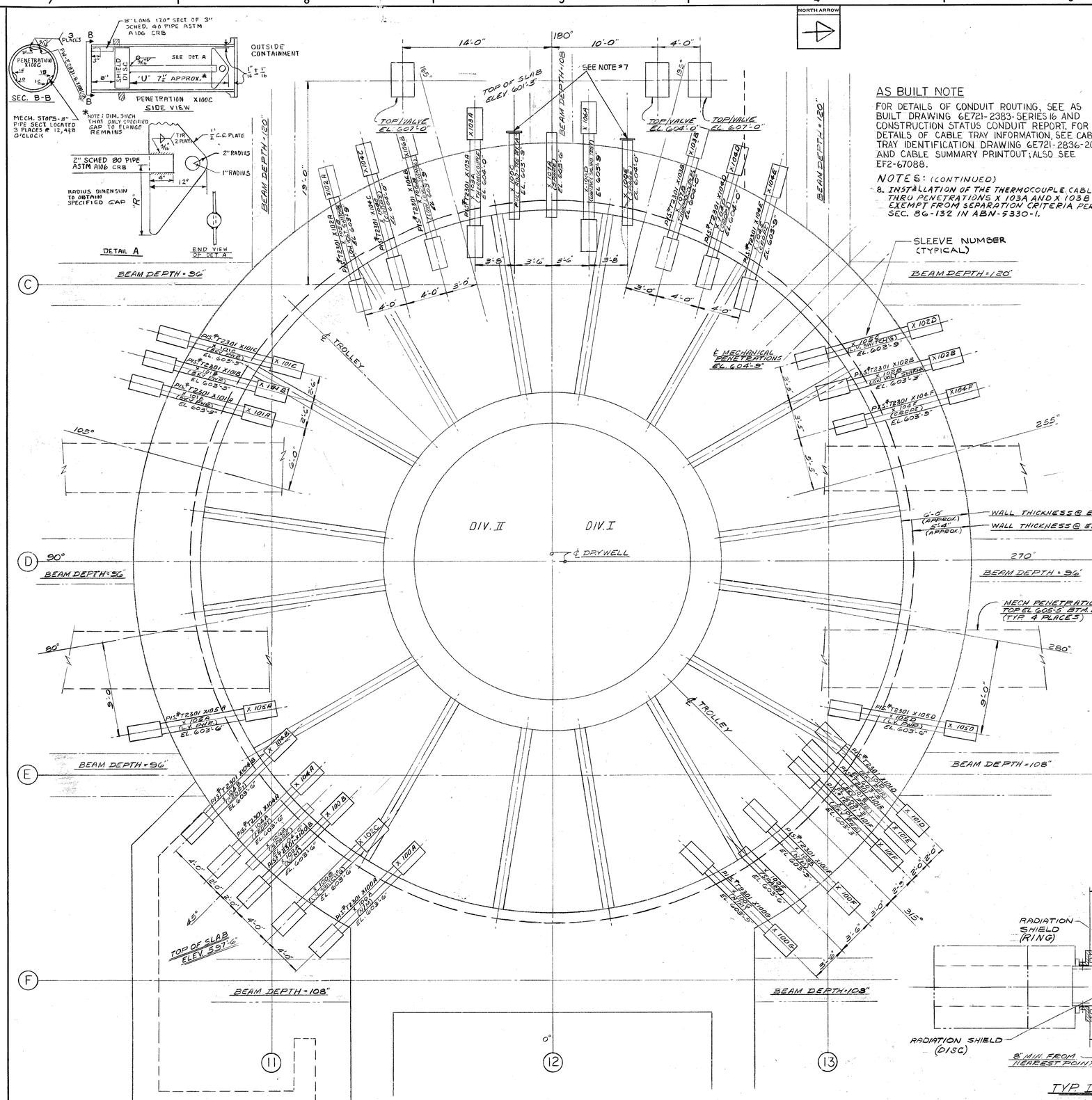
8. INSTALLATION OF THE THERMOCOUPLE CABLES THRU PENETRATIONS X 103A AND X 103B EXEMPT FROM SEPARATION CRITERIA PER SEC. 8G-132 IN ABN-5330-1.

PENETRATION SCHEDULE

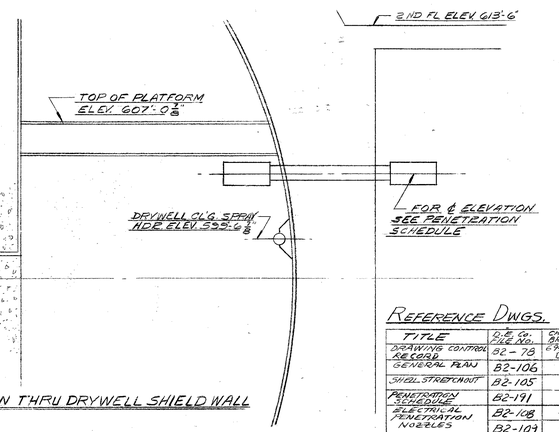
ELECTRICAL PENETRATION NUMBER FIS. T2301-	INSTALLED IN SLEEVE NUMBER (PENETRATION NUMBER FIS T2300	SYST. OR DIV. OF CABLES	SLEEVE SIZE	SLEEVE WALL	LOCATION ELEV	LOCATION AZIMUTH	FLANGE	PENETRATION TYPE	RADIATION SHIELDING DISC	RADIATION SHIELDING RING (BY CB&I)
X 100A	X 100A	N.M.	12"	.688	603'-6	SEE PLAN	YES	NEUTRON MONITOR	BY CONAX	3" THICK
X 102C	X 100B	DIV II & BOP	12"	.688	603'-6		YES	LOW VOLTAGE SWITCHG.	BY CB&I	
NONE	X 100C	—	12"	.688	603'-9		YES	SPARE		
X 106A	X 100D	B.O.P.	12"	.688	603'-9		YES	LOW LEVEL SIGNAL VIBRATION TEST		
NONE	X 100E	—	12"	.688	604'-0		YES	SPARE		
NONE	X 100F	—	12"	.688	603'-6		NO	SPARE		
X 100G	X 100G	N.M.	12"	.688	603'-6		YES	NEUTRON MONITOR	BY CONAX	
X 101A	X 101A	B.O.P.	12	.688	603'-3			MEDIUM VOLTAGE POWER (6.9V) RECIRC. PUMP POWER		2"
X 101B	X 101B		12"	.688	603'-3					
X 101C	X 101C		12"	.688	603'-3					
X 101D	X 101D		12"	.688	603'-3					
X 101E	X 101E		12"	.688	603'-3					
X 101F	X 101F		12	.688	603'-3					
X 100B	X 102A	NM & DIV II	12"	.688	603'-6			NEUTRON MONITOR		
X 102B	X 102B	DIV I DIV II BOP'S	12"	.688	603'-3			LOW VOLTAGE SWITCHG		
X 103A	X 103A	DIV I & BOP	12"	.688	604'-0			THERMOCOUPLES		3"
X 100F	X 103B	NM & DIV I	12"	.688	603'-3			NEUTRON MONITOR		
X 104A	X 104A	B.O.P.	12"	.688	603'-6			CONTROL ROD DRIVE		2"
X 104B	X 104B		12"	.688	603'-6					
X 104C	X 104C		12"	.688	604'-0					
X 104D	X 104D		12"	.688	604'-0					
X 104E	X 104E		12"	.688	603'-9					
X 104F	X 104F		12"	.688	603'-9					
X 105A	X 105A	DIV II & BOP	12"	.688	603'-6			LOW VOLTAGE POWER (480V)		
X 102A	X 105B	DIV II BOP'S REF.	12"	.688	603'-9			LOW VOLTAGE SWITCH'S.		
X 102D	X 105C	DIV I & BOP	12"	.688	603'-9		YES	LOW VOLTAGE SWITCH'S.	BY CB&I	
X 105D	X 105D	DIV I & BOP	12"	.688	603'-6		YES	LOW VOLTAGE POWER (480V)	BY CONAX	
NONE	X 106A	—	12"	.638	604'-0		NO	SPARE	BY CB&I	
X 106B	X 106B	B.O.P.	12"	.688	603'-9		YES	LOW LEVEL SIGNAL VIBRATION TEST	BY CONAX	
NONE	X 107A		12"	.688	603'-6		NO	SPARE	BY CB&I	3"
X 103B	X 107B	DIV I AND & BOP	12"	.688	604'-0		YES	THERMOCOUPLES	BY CONAX	2"

NOTES:

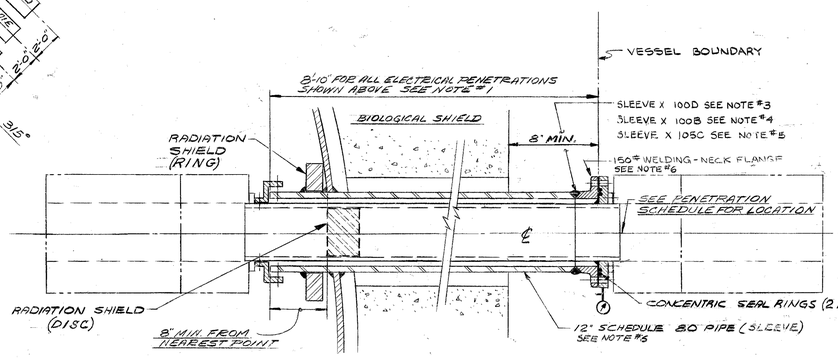
1. ALL SLEEVES TO BE HELD WITHIN 1/4" OF SAME LENGTH TO ASSUME INTERCHANGABILITY OF PENETRATION ASM.
2. ELECTRICAL CONTRACTOR SHALL NOT REMOVE SLEEVE SEALS (PLUGS) FROM SPARES OR USED PENET. UNTIL ACTUAL INSTALLATION IS TO BE DONE.
3. WELD ID. OF SLEEVE X 100D TO 150# WELDING NECK FLANGE IS FW 106A.
4. INCREASE LENGTH OF SLEEVE X 100B TO ENABLE INSERTION OF ELECT. PENET. X 102C AS FOLLOWS:- REMOVE FLANGE FROM SLEEVE. WELD 6" PIPE (MATL. SA 333 GR. 6 SCH. 100) TO 150# WELDING NECK FLANGE (WELD ID. IS FW X 100BF). WELD SLEEVE TO MODIFIED FLANGE (WELD ID. IS FW X 100BM).
5. WELD ID. OF SLEEVE X 105C TO 150# WELDING NECK FLANGE IS FW 102D.
6. MATL. OF SLEEVES IS SA 333 GR. 6 REF DWG. B2-105. MATL. FOR 150# WELDING NECK FLANGES IS SA 350 LF2 WITH SCH. 80 BORE.
7. SPARE SLEEVES X100C AND X100E ARE PRESSURE TESTABLE BETWEEN O-RINGS AT THE ASSEMBLY HEADER FLANGE(S).



PLAN OF DRYWELL - EL 604'-0"



TYPICAL SECTION THRU DRYWELL SHIELD WALL



TYP. DETAIL OF ELECT PENETRATION
NO SCALE
23 PENETRATIONS

REFERENCE DWGS.

TITLE	G.E. CO. FILE NO.	CHICAGO BRIDGE & IRON CB&I FILE
DRAWING CONTROL RECORD	B2-78	0C
GENERAL PLAN	B2-106	1
SHELL STRIPEOUT	B2-105	2
PENETRATION SCHEDULE	B2-191	3
ELECTRICAL PENETRATION NOZZLES	B2-108	40
	B2-107	41
	B2-98	42
	B2-99	43
	B2-110	44
	B2-119	45
	B2-219	67

SEE CONTINUATION

6E721-2831-8
LATEST REVISION "J"

GE721-2801-3 } PLAN OF CABLE TRAYS
GE721-2801-4 } TO PENETRATIONS OUTSIDE DRYWELL

GE721-2809-20 - PLAN OF CABLE TRAYS TO PENETRATIONS INSIDE DRYWELL

THIS DWG. WAS 6E721-2065

NUCLEAR SAFETY RELATED

INC. CODE U

Detroit Edison — Fermi 2

TITLE: ELECTRICAL PENETRATIONS OF DRYWELL — PLAN & SECTIONS

APERTURE CARD TITLE: ELEC PENE OF DRYWELL PLN SEC

PLANT IDENTIFICATION SYSTEM NUMBER: T2301

DOCUMENT TYPE CODE: DDDELE

NUC OPS FILE NO: 1801

DATE ISSUED TO IR: 11-26-96

DRAWING NUMBER: 6E721-2831-08

REV: J

DESIGNED BY: G.J. KUBINSKI 1-18-74
DRAWN BY: L. MATZ 8/6/71
CHECKED BY: 1/5/71
PROJ. SUPERVISOR: 1/5/71
PROJ. ENG.: 1/5/71
SYSTEMS ENG.: 1/16/71
MECH. ENG.: 1/16/71
PROJECT ENG.: 1-7-72
INSTR. & CONTROL ENG.: 1-7-72
PROJECT MANAGER: 9/19/71

QUALITY ASSURANCE: DATE
PROJ. DIRECTOR FOR: DATE

OTHER APPROVALS: DATE
REF. DWGS.: R2-1E
REF. BMS:

DE FORM DE-71 REV. 5-71 PTG. 1-74

	EA PROJ. ENG.	PROJ. DIR.	DESCRIPTION	DRAWN BY	DATE	ARCH-CIVIL	ELECT.	MECH.	DIV. DIRECTOR
G	[illegible] 6/21/84	[illegible] 6/21/84	INCORPORATED CHANGES PER DCN 10431 ADDED AS BUILT NOTE. (ZONE F3,4)	OFW 88P1A0					
F	[illegible] 4/26/84	[illegible] 4/26/84	ZONE 7F: ADDED SHIELD DISC PULL ROD & MECH STOP FOR PENETRATION X100C: ZONE 5E1 CH'GD. X100C TO PULL ROD (WAS SPARE) PER DCN 10533A. DCP T2301-E099 WAS COMPLETED REV. 6	OFW 88P1A0					
E	[illegible] 9-21-83	[illegible] 9-21-83	ZONE F-5: SLEEVE X-100D WAS SPARE - ADDED PENET. X-106A. ZONE B-6: SLEEVE X-100B WAS SPARE - ADDED PENET. X-102C. ZONE E-4: SLEEVE X-105C WAS SPARE - ADDED PENET. X-102D, CH'GD. PENET. SCH. CHART TO SUIT. ALL PER DCP T2301E0N FOR RECORD ONLY. ZONE A&B-2: AT TYP. WELD OF SLEEVE TO 150# WELDING NECK FLANGE ADDED REF. TO NOTES #3, 4, &5 FOR SLEEVES X-100D, X-100B, & X-105C RESPECTIVELY, AT TYP. 150# WELDING NECK FLANGE & 12" SCH. 80 SLEEVE ADDED REF. TO NOTE #6. ZONE D-(1) THRU (3): ADDED NOTES #3, 4, 5, & 6, ALL PER DCR-E-82330 CORRECTED TERMINOLOGY OF NOZZLE TO SLEEVE THROUGHOUT DWG.	OFW 88P1A0					
K			DCD'S INCORPORATED						
			OTHER REVISIONS						
			PREPARED BY / DATE / CHECKED BY / DATE						
			APPROVED BY / DATE						
J			DCD'S INCORPORATED TSR-2791D REV. 8						
			OTHER REVISIONS REMOVED DASHES FROM P1's Nos.'s.						
			PREPARED BY R. GONIA / DATE 11-3-96 / CHECKED BY / DATE 11-5-96						
			APPROVED BY / DATE 11/8/96						
I	EA PROJ. ENG.	PROJ. DIR.	INCORPORATED CHANGES PER ABN-5330-1, REV. 0.						
			PREPARED BY / DATE 6-20-84						
			APPROVED BY / DATE 6-21-84						

A Portion of This Document is Affected by the Following

DTC	Change Document	DTC	Change Document

EDP Posting Entries Require the Addition of the Ams Status Code: Either "AFC" or "ASB"
DE 963-1099 9-80 X