

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
CONCRETE MEDIAN DROP INLET TYPE 'A'
EXTRA DEPTH OVER 12' TO 25'
12" THRU 72" PIPE

SHEET 1 OF 2
840D17

GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE DROP INLETS WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

WHEN PAYMENT FOR THE DROP INLET IS MADE ON A PER EACH BASIS, THE CONCRETE APRON WILL BE CONSIDERED PART OF THE DROP INLET.

CONSTRUCT WITH PIPE CROWNS MATCHING.

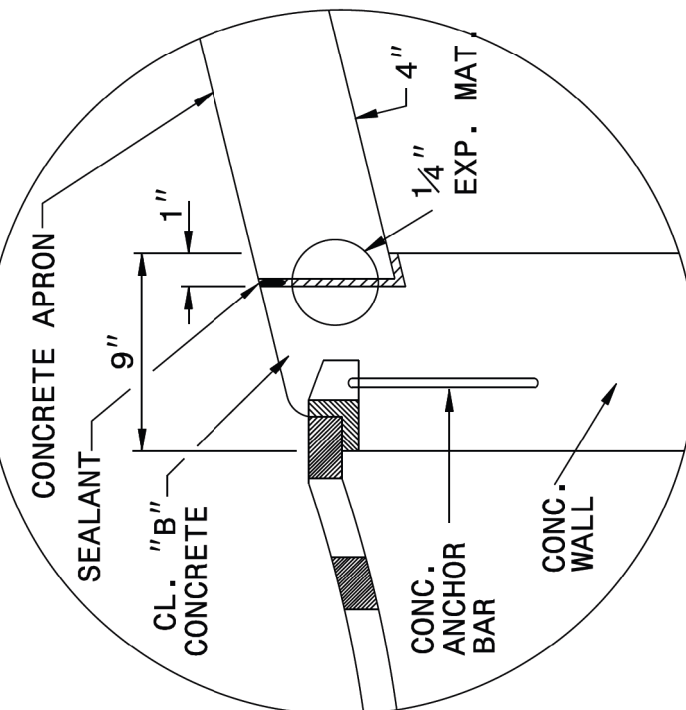
USE STANDARD FRAMES AND GRATES 840.22 (SHOWN), 840.24 (SHOWN), 840.20, 840.29, AND 840.33.

SEE STANDARD DRAWING 840.25 FOR ATTACHMENT OF FRAMES AND GRATES NOT SHOWN.

CHAMFER ALL EXPOSED CORNERS 1".

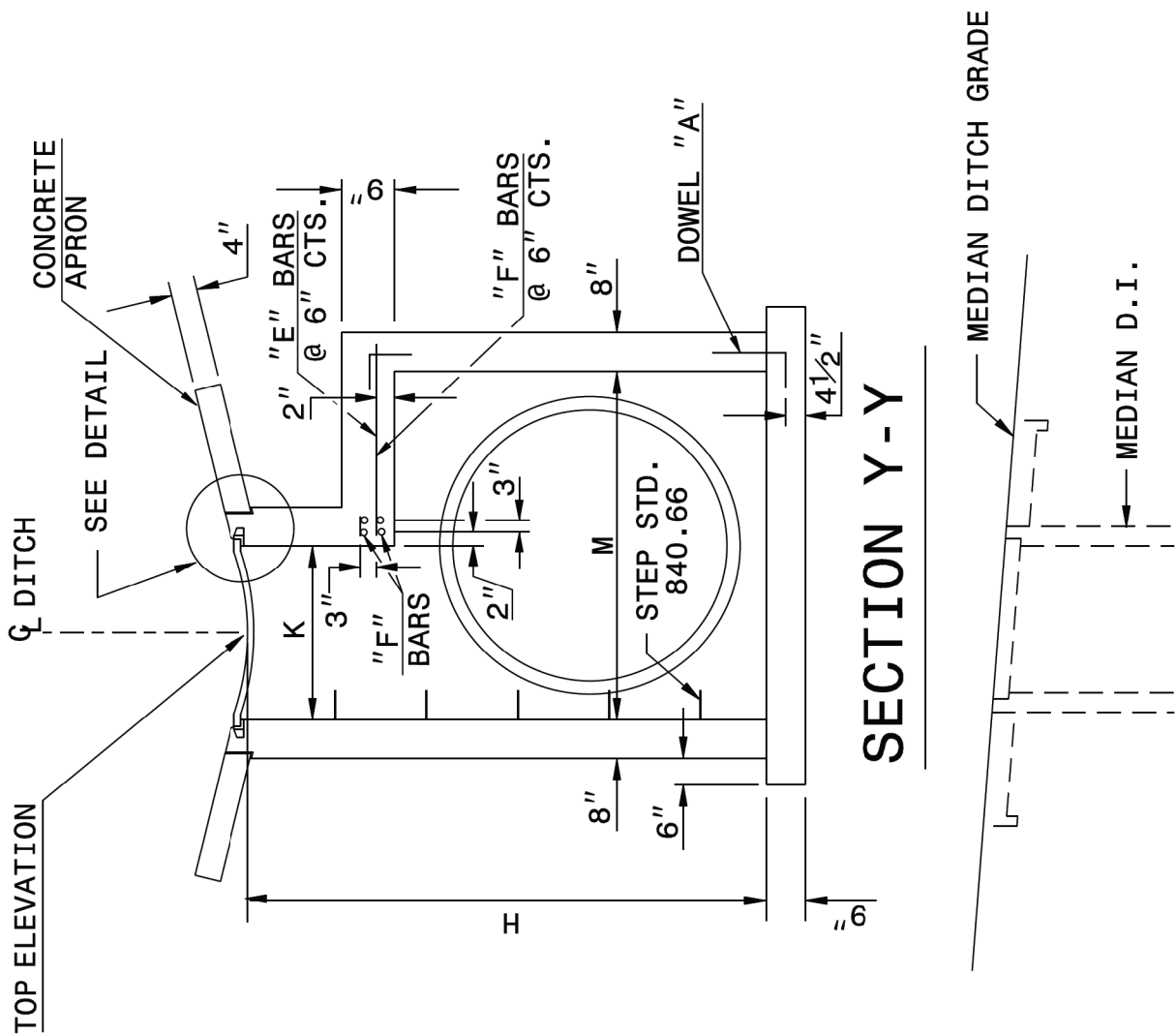
DRAWING NOT TO SCALE.

MAX. DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 25 FEET.

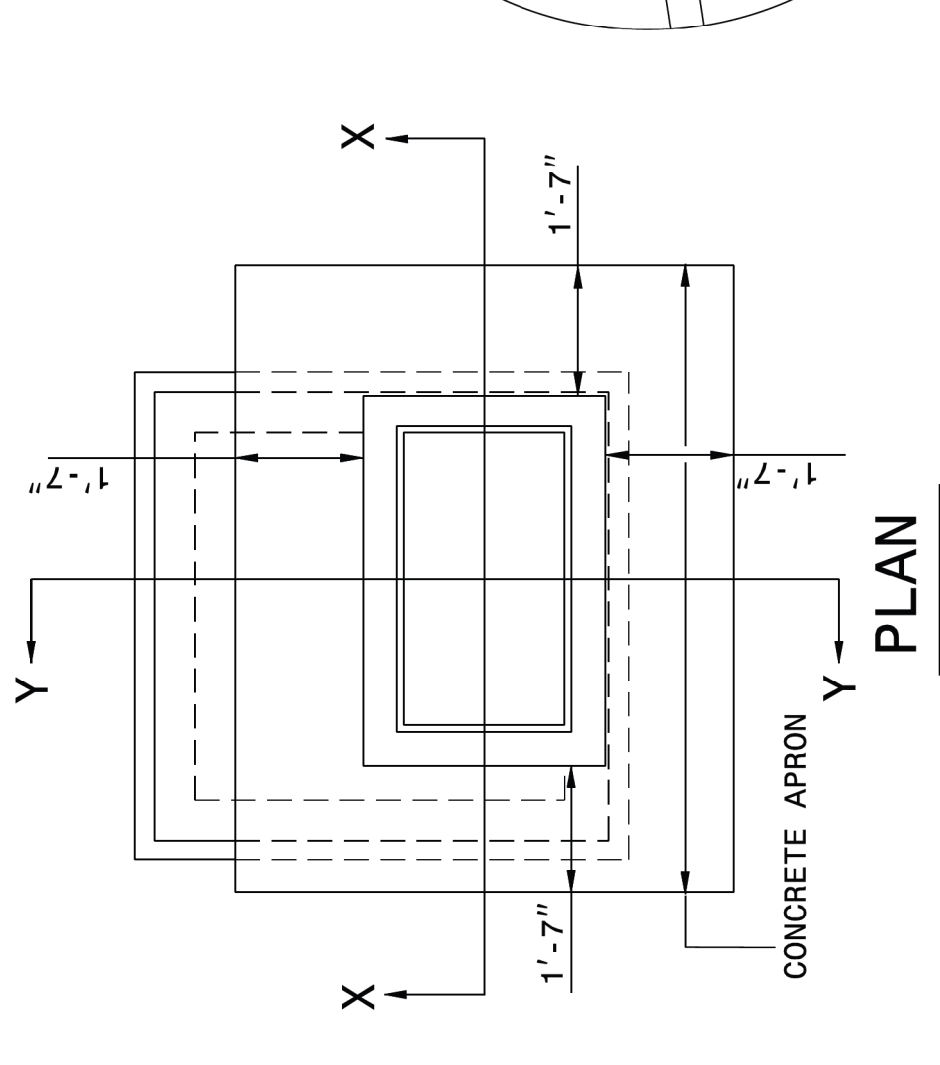
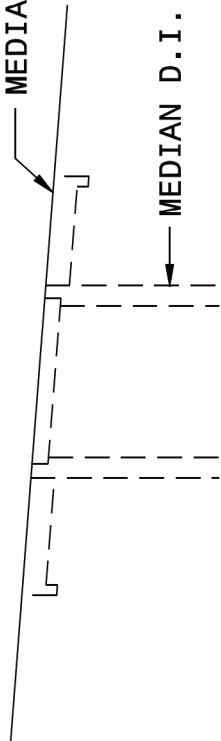


DETAIL

(APRON SUPPORT NOTCH)



SECTION Y-Y



PLAN

—FLOW LINE —TOP ELEVATION —MEDIAN OR SIDE DITCH GRADE

33" MIN. ALL SIZES
13" MIN.

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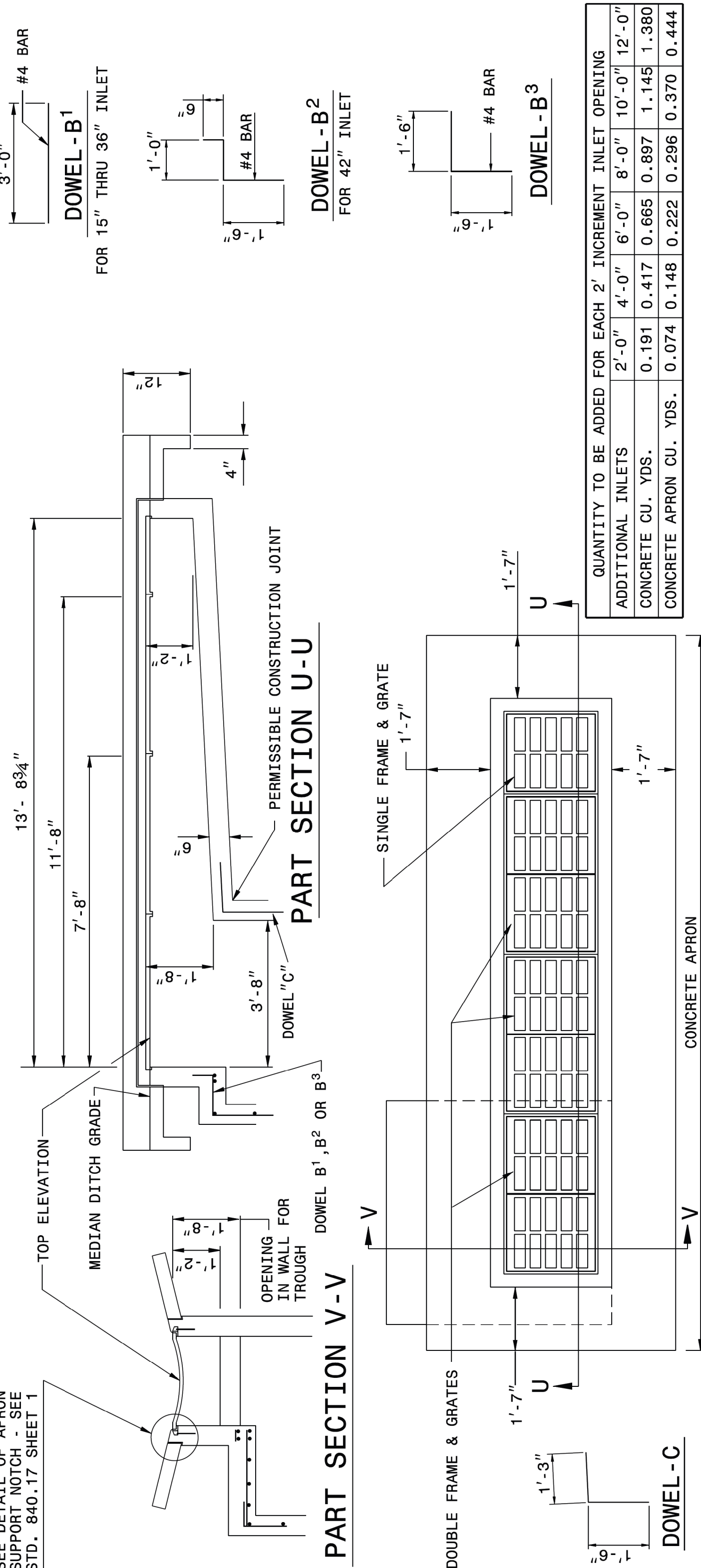
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PART SECTION U-U

PART SECTION V-V

DOWEL B¹, B² OR B³—DOWEL - B³

QUANTITY TO BE ADDED FOR EACH 2' INCREMENT INLET OPENING						
ADDITIONAL INLETS	2'-0"	4'-0"	6'-0"	8'-0"	10'-0"	12'-0"
CONCRETE CU. YDS.	0.191	0.417	0.665	0.897	1.145	1.380
CONCRETE APRON CU. YDS.	0.074	0.148	0.222	0.296	0.370	0.444

MIN. DIMENSIONS AND QUANTITIES FOR CONCRETE GRADED DROP INLET(BASED ON MIN. HEIGHT, H)																					
DIMENSIONS OF BOX AND PIPE					REINFORCING STEEL - NO. 4 BARS								CU YDTS CONC. IN BOX				DEDUCTIONS FOR ONE PIPE				
PIPE	SPAN	WIDTH	SPAN	WIDTH	HEIGHT	BARS E		BARS F		BARS G		BARS H		TOTAL	BOTTOM SLAB	H TOTAL	H PER FT HT	APRON	TOTAL	C.S.	R.C.
D	J	K	L	M	H	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	LBS.							
12"	3'-8"	2'-0"	3'-8"	2'-0"	3'-9"	3	3'-9"	—	—	—	—	—	—	—	0.362	0.926	0.247	0.395	1.683	0.015	0.024
15"	3'-8"	2'-0"	3'-8"	2'-0"	4'-0"	—	—	—	—	—	—	—	—	—	0.362	0.988	0.247	0.395	1.745	0.023	0.036
18"	—	—	—	—	4'-3"	—	—	—	—	—	—	—	—	—	0.362	1.050	0.247	—	1.807	0.033	0.049
24"	—	—	—	—	4'-9"	8	1'-5"	6	4'-9"	—	—	—	—	27	0.444	1.362	0.278	2.201	0.059	0.085	
30"	—	—	—	—	5'-3"	8	2'-0"	7	4'-9"	—	—	—	—	33	0.502	1.644	0.288	2.541	0.092	0.127	
36"	—	—	—	—	5'-9"	8	2'-5"	8	4'-11"	4	0'-9"	2	4'-11"	47	0.560	1.931	0.321	2.920	0.132	0.178	
42"	—	—	—	—	6'-3"	10	3'-1"	9	5'-7"	—	—	—	—	67	0.704	2.500	0.370	3.677	0.180	0.243	
48"	—	—	—	—	6'-9"	11	3'-7"	10	6'-1"	—	—	—	—	87	0.823	3.013	0.407	4.315	0.235	0.317	
54"	—	—	—	—	7'-3"	12	4'-1"	11	6'-7"	11	6'-7"	5	6'-7"	107	0.951	3.589	0.444	5.072	0.297	0.401	
60"	—	—	—	—	7'-9"	13	4'-9"	12	7'-3"	—	—	—	—	135	1.311	4.539	0.494	6.170	0.367	0.495	
66"	—	—	—	—	8'-3"	14	5'-4"	14	7'-10"	—	—	—	—	168	1.136	5.061	0.537	—	6.901	0.444	0.599
72"	3'-8"	2'-0"	7'-8"	7'-2"	8'-3"	15	5'-11"	15	8'-5"	4	4'-3"	8	8'-5"	199	1.500	5.860	0.580	0.995	7.868	0.528	0.713

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**CONTRACT STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

SEE PLATE FOR TITLE

ORIGINAL BY: 2002 STD.840.17 DATE: _____
MODIFIED BY: K.A. KEMPF DATE: 07-06-09
CHECKED BY: _____ DATE: _____
FILE SPEC.: /stand/840d17 Extra Depth 2GI.dgn

