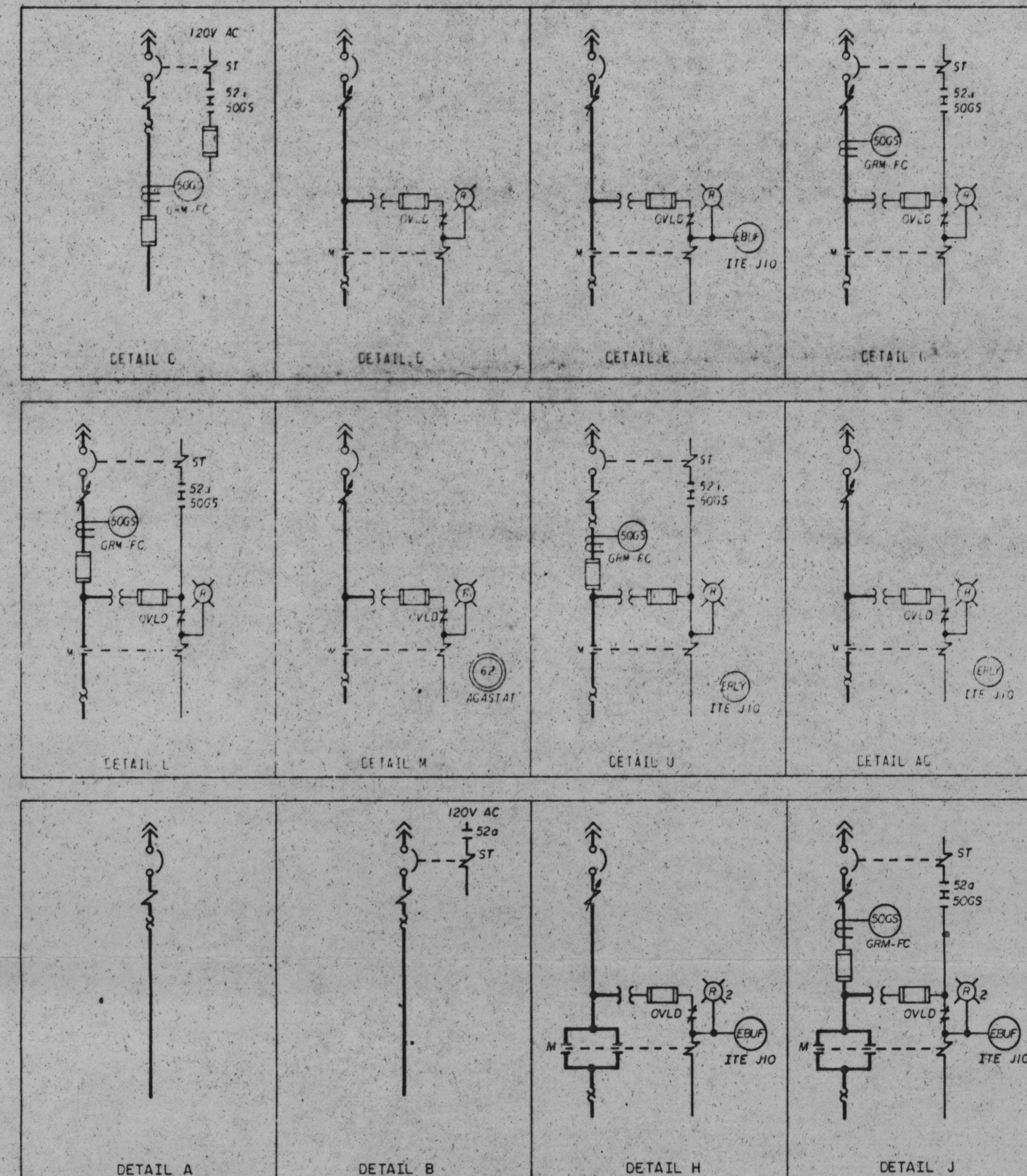
88 E 5AW1732-ED-1

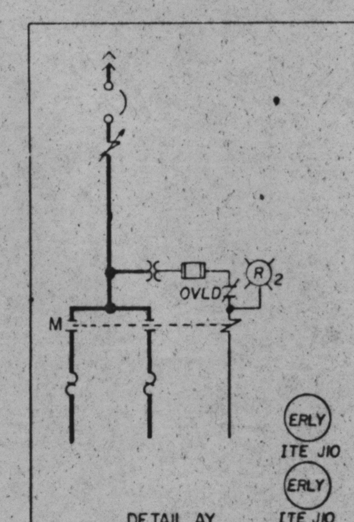
COMPT NO	LOAD	UNID	DETAIL	LOAD SIZE	SCHEMATIC DWG REFERENCE
A1	MAIN BREAKER	IED-52NA-4RF	SEE KEY DIAG		
B1L	26V DC BAT CHGR 1A NO. FDR	IES-EBC-10	A	6KVA	5GW0640-EP-02
B1R	AIRBORNE RADIATION MON FDR	IIR-ILPA-006	A	3.4KVA	5GW0640-IR-02
B2	CONT BLDG EL 629 AHU ISOLATION MOV	OVL-IFCV-019	H	0.13HP	5GW0640-VK-23
B3	CONT BLDG EL 629 AHU ISOLATION MOV	OVL-IFCV-268	H	0.13HP	5GW0640-VK-23
B4	HOT MACHINE SHOP SUPPLY FAN	IVA-EMOT-C05	D	20HP	5GW1740-VA-28
B5	STARTUP CIRCULATION PUMP 1A	ICR-EMOT-002	G	50HP	5GW1640-CR-03
	1145				
C1	MAIN STEAM SAFETY VALVE RM EXH VENTILATION FAN	IVC-EMOT-815	D	5HP	5GW0740-VC-17
C2	CONT BLDG BATTERY BOARD ROOM AHU	OVL-EMOT-S67	D	15HP	5GW0640-VK-22
C3	ANNULUS PURGE SUPPLY FAN	IVH-EMOT-010	M	15HP	5GW1740-VH-04
C4	RB INSTR ROOM PURGE SUPPLY FAN	IVH-EMOT-008	M	3HP	5GW1740-VH-02
C5	COMPONENT DRAIN PUMP 1A1	IWL-EMOT-004	D	10HP	5GW1740-WD-04
C6	CRD ROOM 1 AHU	IVA-EMOT-020	D	7.5HP	5GW1740-VA-18
D1	HOT SAMPLING ROOM HOOD FAN	IVA-EMOT-183	C	5HP	5GW1740-VA-18
D2	SPARE	IED-	H		
D3	CC SURGE TANK 1A STATION CW SUPPLY MOV	IKC-IFCV-015	H	0.13HP	5GW1740-KC-05
D4	RCP P1A2 SEAL AREA COOLER INLET MOV	IKC-IFCV-153	J	0.7HP	5GW1740-KC-10
D5	RB NORMAL CIRCULATION FAN	IVH-EMOT-107	L	20HP	5GW1740-VH-05
E1	RC PUMP P1A1 SPACE HTR	INC-EHTR-005	U	0.94KW	5GW1740-NC-02
E2	RB INSTR ROOM AHU	IVJ-EMOT-001	L	3HP	5GW1740-VJ-05
E4	STARTUP DISCHARGE TO CONDENSER ISLN MOV	ICR-IFCV-048	H	3.94HP	5GW1640-CR-05
E5	CONT BLDG EL 629 AHU	OVL-EMOT-208	G	40HP	5GW0640-VK-22
F1	CRDM STRUCTURE FAN	IVH-EMOT-114	L	7.5HP	5GW1740-VH-07
F2	SPARE	IED-	L		
F4	24,48,125V BATTERY RM AHU	OVL-EMOT-S65	D	3 HP	5GW0640-VK-22
F5	CORE FLOODING TANKS RECIRCULATION PUMP	INL-EMOT-200	E	20HP	5GW0640-NL-06
F6	FUTURE-12 INCH 1174	IED-			
G1	ANNULUS PURGE EXH FAN	IVH-EMOT-001	AC	15HP	5GW1740-VH-02
G2	CRDM STRUCTURE FAN	IVH-EMOT-118	L	7.5HP	5GW1740-VH-08
G3	CB ESF MECH EQPT ROOM EXHAUST FAN	OVK-EMOT-310	E	0.75HP	5GW0640-VK-16
G4	CONT BLDG EL 610 AHU	OVL-EMOT-205	G	30HP	5GW0640-VK-20
G6	FUTURE-6 INCH	IED-			
H1	MCC LOSS OF VOLTAGE RLY		SEE KEY DIAG		
H2	120V-1P-CKT BKR COMPT		SEE KEY DIAG		
H4	FUSE COMPT		SEE KEY DIAG		
H5	MCC CONTROL TRANSFORMER AND DISCONNECT SWITCH		SEE KEY DIAG		

S1

COMPT NO.	LOAD	UNID	DETAIL	LOAD SIZE	SCHEMATIC DWG REFERENCE
J1L	HOT INSTR SHOP HOT WATER HTR	OYP-EHTR-761	A	9KW	5GW0740-YP-02
J1R	CCS LIQUID RADN MON #1 FDR	IIR-ILPA-037	A	2.5KVA	5GW0640-IR-02
J2L	VITAL BATTERY RM ID DUCT HTR	IVA-EHTR-187	A	25KW	5GW1740-VA-21
J2R	26V DC BAT CHGR 1B ALT FDR	IES-EBC-11	A	6KVA	5GW0640-EP-02
J3	TECHNICAL SUPPORT CENTER CHILLER ROOM AHU 1	OVL-EMOT-W24	D	2HP	5GW0640-VK-16
J4	TECHNICAL SUPPORT CENTER AIR HANDLING UNIT 1	OVL-EMOT-W22	AY	20HP	
J6	OIL PUMP FOR WATER CHILLER #1	OVL-EMOT-011	D	0.25HP	
K1	SEC K BUS GRD RLY	IED-50GS-488	SEE KEY DIAG		
K3L	AB 480V PWR RCPT A, B, C, D	IED-ERCP-007	B		5GW1740-ED-18
K3R	HOT MACH SHOP MONORAIL HOIST	IMM-MMHE-093	A		5GW1740-MM-03
K4	FUTURE-12 INCH	IED-			
K5	TECHNICAL SUPPORT CENTER CHILLED WATER PUMP 1	OVL-EMOT-W30	G	40HP	
L1L	6 TON SEAL INJ FILTER HOIST	IMM-MMHE-018	A	7.5HP	5GW1740-MM-02
L1R	VITAL BAT RM 1F DUCT HTR	IVA-EHTR-188	A	25KW	5GW1740-VA-21
L2	STEAM GEN 1A STARTUP ISLN MOV	ICR-IFCV-018	H	1.6HP	5GW1640-CR-04
L3	SPARE	IED-	L		
L4	RCP P1A2 SEAL AREA COOLER OUTLET MOV	IKC-IFCV-156	J	0.7HP	5GW1740-KC-10
L6	PURGE COMPR FOR WATER CHILLER #1	OVL-EMOT-012	D	0.5HP	
M1	RCP P1B2 SEAL AREA COOLER INLET MOV	IKC-IFCV-204	J	0.7HP	5GW1740-KC-13
M2	RCP P1B2 SEAL AREA COOLER OUTLET MOV	IKC-IFCV-207	J	0.7HP	5GW1740-KC-13
M4	ST GEN A STARTUP & RECIRC MAIN STEAM LINE DRAIN	ISM-IFCV-321	J	1.6HP	5GW1640-SM-02
M5	SPARE	IED-	J		
N1L	ZONE 1A EL 686 UNIT HTR	IVA-EHTR-190	A	15KW	5GW1740-VA-19
N1R	PURGE EXH ROOM UNIT HTR B	OVC-EHTR-140	A	20KW	5GW0740-VC-11
N2	SPARE	IED-	H		
N3	FUTURE - 12	IED-			
N4	SPARE	IED-	J		
N5	WD RB NORMAL SUMP PUMP SUCTION MOV	IWL-IFCV-080	J	0.33HP	5GW1740-WD-05
P1L	ZONE 1A EL 629 RB INTERFACE A UH	IVA-EHTR-194	A	5KW	5GW1740-VA-19
P1R	ZONE 1A EL 669 RB INTERFACE A UH	IVA-EHTR-192	A	5KW	5GW1740-VA-19
P2L	EL 649 MAIN ST SAF VLV RM 1A UH	IVC-EHTR-146	A	25KW	5GW0740-VC-05
P2R	PURGE EXH RM UNIT HTR A	OVC-EHTR-139	A	20KW	5GW0740-VC-11
P3	STEAM GEN 1A STARTUP MAIN FW ISLN MOV	ICR-IFCV-029	H	2.6HP	5GW1640-CR-06
P4	SPARE	IED-	J		
P5	SPARE	IED-	J		
Q1	MKUP LETDOWN ORIFICE SHUTOFF MOV	INV-IFCV-042	H	0.66HP	5GW1740-NV-11
Q2	MKUP PURIFICATION BYPASS TO BLEED MOV (MU-HV11)	INV-IFCV-347	H	0.13HP	5GW1740-NV-35
Q3L	TENDON PMP DISTR PNL A	IWE-ET-275	A	37.5KVA	5GW1740-WE-07
Q3R	FUTURE - HALF COMPT	IED-			
Q4	SPARE	IED- 1007	J		
Q5	SPARE	IED-	C		

S1





NOTES

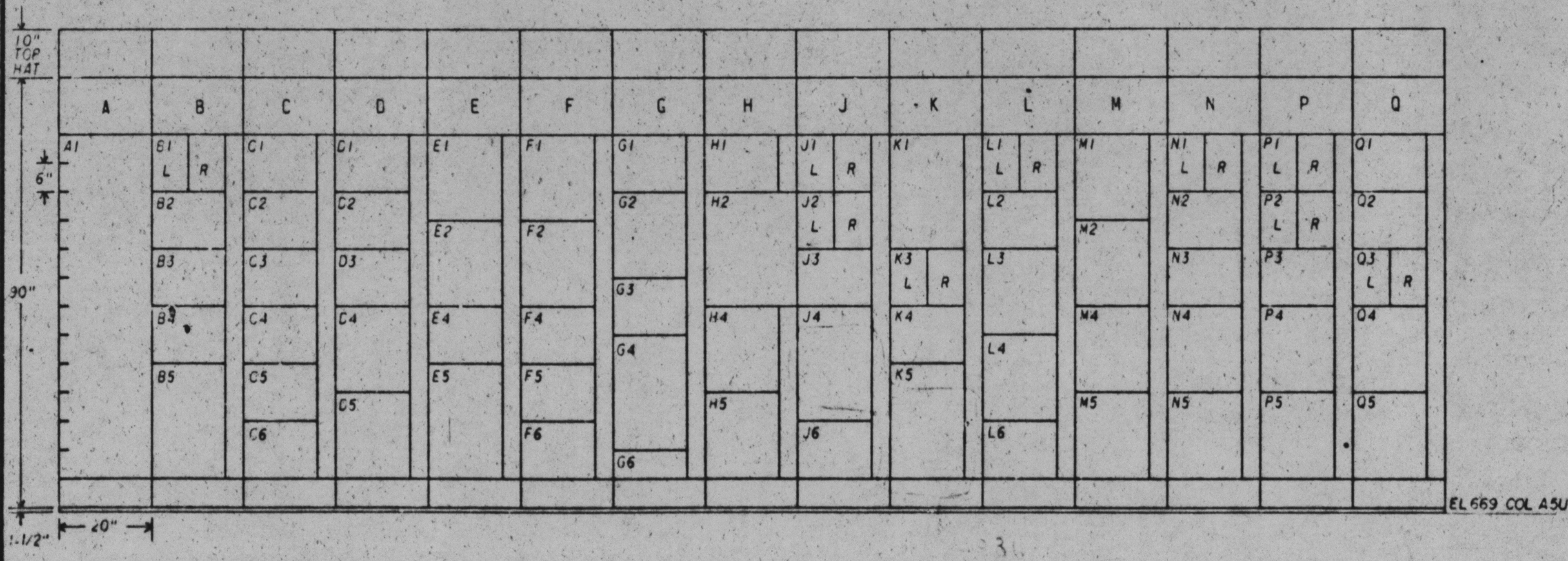
1. 480V MOTOR CONTROL CENTER PROVIDED ON TVA CONTRACT NO 76K5-86242 BY GOULD/ITE
2. ALL MOLDED CASE 480V CIRCUIT BREAKERS ARE 3Φ, 600V WITH AN INTERRUPTING RATING OF NOT LESS THAN 25,000 RMS SYMMETRICAL AMPS AT 480V. CIRCUIT BREAKERS SHOWN WITH SHUNT TRIP COILS HAVE A TRIP COIL CAPABLE OF OPERATING AT 55 PERCENT RATED VOLTAGE. ALL 100A FRAME 480V CIRCUIT BREAKERS ARE ITE "HE" SERIES AND THE 400A FRAME 480V CIRCUIT BREAKERS ARE ITE "JL" SERIES
3. ALL MOLDED CASE 120V CIRCUIT BREAKERS ARE 1Φ, 100A FRAME, THERMAL MAGNETIC WITH 15A TRIP, ITE "BQ" SERIES
4. ALL 5A AND 10A FUSES ARE GOULD/SHAWMUT, AMP-TRAP, FORM 600, MIDGET TYPE 2
5. FUSES IN THE POWER CIRCUITS ARE GOULD/SHAWMUT CLASS "J" CURRENT LIMITING. FUSES ARE REQUIRED TO PROVIDE REDUNDANT PROTECTION FOR PRIMARY CONTAINMENT PENETRATIONS
6. ALL CONTROL TRANSFORMERS ARE 1Φ, 480-120V WITH GROUNDED SECONDARY. THE SECONDARY OF THE 150 VA TRANSFORMER IS FUSED WITH A 1.5A DUAL-ELEMENT TIME-DELAY, BUSSMAN TYPE FNQ FUSE. THE SECONDARY OF THE 350 VA TRANSFORMER IS FUSED WITH A 3.5A DUAL-ELEMENT TIME-DELAY GOULD/SHAWMUT TYPE TRM FUSE
7. GROUND FAULT PROTECTION (50GS), ITE TYPE GRM-FC, PICKS UP AT APPROXIMATELY 10 AMPS PRIMARY CURRENT WITH NO INTENTIONAL TIME DELAY
8. THE PRIMARY OF THE 5KVA CONTROL POWER TRANSFORMER IS FUSED WITH A 15A TIME DELAY, BUSSMAN TYPE JHC-15 FUSE. (S1)
9. THE MOTOR CONTROL CENTER ARRANGEMENT IS CONTROLLED BY THE FRONT VIEW LOCATED ON THIS DRAWING. COMPARTMENT CONFIGURATION CONTROL DRAWINGS ARE REFERENCED IN THE MOTOR CONTROL CENTER COMPUTERIZED CIRCUIT SCHEDULE. THE MOTOR CONTROL CENTER COMPUTERIZED CIRCUIT SCHEDULE DOCUMENTS DEVICE RATINGS AND ADJUSTABLE CIRCUIT BREAKER SETTINGS. (S1)
10. THIS MCC IS NON-CLASS 1E LOCATED IN A CATEGORY I STRUCTURE
11. ALL AGASTAT RELAYS ARE OF THE 7000 SERIES

REFERENCED DRAWINGS AND DOCUMENTS

PLANT AC AUXILIARY POWER SYSTEM SINGLE LINE	2GW0720-RP-01
SINGLE LINE DIAGRAM 480V SWITCHGEAR 1XA2	2AW1726-ED-1
480V NORMAL AC AUXILIARY POWER DISTRIBUTION SYSTEM SCHEMATIC	5GW1740-ED-18
480V MCC COMPARTMENT TYPICALS	5GW0747-RP
480V MCC 1A3 COMPUTERIZED CIRCUIT SCHEDULE	5AC1762-ED

SYMBOLS

MAGNETIC TRIP ONLY CIRCUIT BREAKER (ADJUSTABLE)



FRONT VIEW

Docket # 50-438
Control # 8304050536
Date 3-25-83 of Document:
REGULATORY DOCKET FILE

PRC APERTURE CARD

S1 — COMPANION DWG: 5AW1732-ED-03; 5AW1732-ED-02 HAS BEEN VOIDED

INSPECTED AND APPROVED FOR ISSUE

REV NO	ECN NO	DATE								
4	886, 1007, 1174, 1185, S1, 1181									
	ADDED "VL" SYSTEM LOAD TO COMPTS C2, F4, J4, J5, K5 AND L6. ADDED "WE" SYSTEM LOAD TO COMPT Q3L. ADDED "NL" SYSTEM LOAD TO COMPT F5. CHANGED UNID IN COMPT C1. ADDED LOAD SIZE AND SCHEMATIC DWG REF COLUMN TO TABLES, REVISED NOTES 8 AND 9 AND MOVED KEY DIAGRAM TO SHEET 3. ADDED "VL" SYSTEM LOAD TO COMPT J3.									
3	614, S1	12-16-80								
	MOVE LOAD IVA-EMOT-C05 FROM COMPT J3 TO B4 BECAUSE OF HORSEPOWER INCREASE MADE MINOR CHANGES									
2	S1	12-27-79								
	RECORD DWG REV FOR THE MCC COMPUTERIZED CKT SCH HISTORICAL DATA BASE R4.									
1	62, S1	4-15-76	AH	AH	RGL	WRT	CTG	-	CTG	ULS
	ADDED AHU IN CB NON-VITAL BAT. BD ROOM PER ECN 62. INCORPORATED UNIS/SYS. GEN RE. PER ECN S1-VARIOUS.									

REV NO | ECN NO | DATE | DSGN | DRWN | CHKD | SUPV | ENGR | INSP | SUBM | RECM | APPD

DSGN ROGER C. HALL
DRWN C.W. TEMPLE, R.E. MILLSAPS
CHKD D.M. LASHLEY
SUPV W.L. ALDREDGE
INSP
ENGINEER C.T. Garner

SCALE EXCEPT AS NOTED

AUXILIARY BUILDING
UNIT 1

SINGLE LINE 480V MCC 1A3 1ED-EMCC-48

BELLEFONTE NUCLEAR PLANT
TENNESSEE VALLEY AUTHORITY
DIVISION OF ENGINEERING DESIGN
N

SUBMITTED C.T. Garner | RECOMMENDED G.L. Gonzalez | APPROVED R.M. Hodges

KNOXVILLE 12-6-74 | 88 | E | 5AW1732-ED-1 R4

RECORD DRAWING AS CONSTRUCTED

PRINT | SIZE