

CITY OF MASSILLON, OHIO
REGIONAL WASTEWATER TREATMENT PLANT
UPGRADE 2000
PROJECT NO. E9031

JUN 9 2003

DATE	SYM	REVISION RECORD	AUTH	DR	CK
3/29/02	A	FOR APPROVAL	CUST	RN	BS

INSTRUMENT IDENTIFICATION SYMBOLS

FIRST LETTER		SUCCEEDING LETTERS		
MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A ANALYSIS		ALARM		
B BURNER FLAME		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C CONDUCTIVITY (ELECTRICAL)			CONTROL	
D DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENTIAL			
E VOLTAGE (EMF)		PRIMARY ELEMENT		
F FLOW RATE	RATIO (FRACTION)			FAILURE
G GAGING (DIMENSIONAL)		GLASS	GATE	
H HAND (MANUALLY INITIATED)				HIGH OR OPENED
I CURRENT (ELECTRICAL)		INDICATE		
J POWER	SCAN			
K TIME OR TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L LEVEL		PILOT (LIGHT)		LOW OR CLOSED
M MOTOR OR MOTION				MIDDLE OR INTERMEDIATE
N USER'S CHOICE OR STATUS		USER'S CHOICE	USER'S CHOICE	ON, OPERATE OR RUNNING
O USER'S CHOICE OR TORQUE	OVERLOAD	ORIFICE (RESTRICTION)		
P PRESSURE OR VACUUM		POINT (TEST CONNECTION)		
Q QUANTITY OR EVENT	INTEGRATE OR TOTALIZE			
R RADIOACTIVITY		RECORD OR PRINT		
S SPEED OR FREQUENCY	SAFETY		SWITCH	OFF OR STOPPED
T TEMPERATURE			TRANSMIT	
U MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V VIBRATION, MECH. MONITORING, WEIGHT OR FORCE			VALVE, DAMPER OR LOUVER	
W UNCLASSIFIED		UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y EVENT STATE OR PRESSURE			RELAY OR COMPUTE DRIVE, ACTUATE, OR UNCLASSIFIED FINAL CONTROL ELEMENT	
Z POSITION				

LEGEND

	FUSE (X = AMPERE MELT RATING) (Y = FUSE REFERENCE NUMBER)
	FUSE WITH BLOWN FUSE INDICATOR (X = AMPERE MELT RATING) (Y = FUSE REFERENCE NUMBER)
	FUSE (X = AMPERE MELT RATING) (Y = FUSE REFERENCE NUMBER)
	RELAY CONTACT, NO
	RELAY CONTACT, NC
	CONTROL RELAY W/ DESIGNATION NUMBER (X)
	DISCONNECT SWITCH
	PUSHBUTTON, SINGLE CIRCUIT, NO
	PUSHBUTTON, SINGLE CIRCUIT, NC
	LIMIT SWITCH, NC
	LIMIT SWITCH, NO
	ELECTRICAL SIGNAL (PANEL)
	ELECTRICAL SIGNAL (FIELD)
	CONTROLNET NETWORK
	TERMINAL
	TERMINAL
	TERMINAL

	PUSH-TO-TEST INDICATOR LIGHT X = LENS COLOR R: RED G: GREEN A: AMBER B: BLUE W: WHITE YYY = PUSH TO TEST WIRE.
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INSTRUMENTATION TAG NUMBERING SYSTEM

	LLL = FUNCTIONAL INSTRUMENT FIELD MOUNTED DEVICE NNN = LOOP NUMBER
	LLL = FUNCTIONAL INSTRUMENT FILTER CONSOLE / PANEL MOUNTED INSTRUMENT OR DEVICE NNN = LOOP NUMBER
	LLL = FUNCTIONAL INSTRUMENT INTERIOR PANEL MOUNTED INSTRUMENT OR DEVICE NNN = LOOP NUMBER

	SWITCH - 2 POSITION SELECTOR
	SWITCH - 3 POSITION SELECTOR
	SWITCH - 4 POSITION SELECTOR
	SUBPANEL GROUND

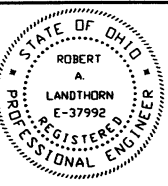
ABBREVIATIONS

AC	= ALTERNATING CURRENT
AWG	= AMERICAN WIRE GAUGE
CKT	= CIRCUIT
DC	= DIRECT CURRENT
DWG	= DRAWING
XXX	= FUNCTION SUBSCRIPT FOR PUSHBUTTONS AND HAND SWITCHES
ACK	= ACKNOWLEDGE
EN	= EMERGENCY - NORMAL
HOA	= HAND-OFF-AUTO
HOR	= HAND-OFF-REMOTE
LR	= LOCAL-REMOTE
MOA	= MANUAL-OFF-AUTO
OA	= OPEN-AUTO
OC	= OPEN-CLOSE
OCA	= OPEN-CLOSE-AUTO
OO	= ON-OFF
OOC	= OPEN-OFF-CLOSE
OOCA	= OPEN-OFF-CLOSE-AUTO
T	= TEST
SG	= SHIELD GROUND
ECB	= ELECTRICAL CIRCUIT BREAKER

NOTE:
1. FINAL CORRECTIONS WILL BE MADE TO REFLECT
AS-BUILT/INSTALLED STATUS UPON COMPLETION
OF COMMISSIONING.

03/18/02 14:41

WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐	
INSULATION: NYLON ☐ PVC ☒			
WIRE SPECIFICATIONS:			
USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHY.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHY.	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL	AWG #16	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	2 AWG #16	CONDUCTOR SHLD.	THW/THHN



KOKOSING CONSTRUCTION CO. P.O. #	
DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040	

TOLERANCES	DUBLIN TECHNICAL SYSTEMS, INC.	
±	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE
DECIMAL ± .03	DRAWN BY RN	APPROVED BY BS
FRACTIONAL ± 1/32"	TITLE ELECTRICAL LEGENDS AND SYMBOLS	
ANGULAR ± 1°	DATE 3/18/02	DRAWING NUMBER DTSI - 02040 - 001

CITY OF MASSILLON, OHIO

REGIONAL WASTEWATER TREATMENT PLANT

UPGRADE 2000

PROJECT NO. E9031

DATE	SYM	REVISION RECORD	AUTH	DR	CK
4/9/02	A	FOR APPROVAL	CUST	HR	BS

DRAWING LIST

DTSI - 02040 - 001	ELECTRICAL LEGENDS AND SYMBOLS
DTSI - 02040 - 002	DRAWING INDEX
DTSI - 02040 - 003	DRAWING INDEX
DTSI - 02040 - 004	SPARE
DTSI - 02040 - 005	ETHERNET AND CONTROLNET ARCHITECTURE DRAWING
DTSI - 02040 - 006	SPARE
DTSI - 02040 - 007	SPARE
DTSI - 02040 - 008	SPARE
DTSI - 02040 - 009	SPARE
DTSI - 02040 - 010	OPERATOR'S LABORATORY ENCLOSURE PLC SLOTS 1 & 2 SCHEMATIC
DTSI - 02040 - 011	SPARE
DTSI - 02040 - 012	OPERATOR'S LABORATORY ENCLOSURE PLC SLOTS 5 & 6 SCHEMATIC
DTSI - 02040 - 013	LABORATORY ENCLOSURE PLC SLOT 7 SCHEMATIC
DTSI - 02040 - 014	SPARE
DTSI - 02040 - 015	SPARE
DTSI - 02040 - 016	OPERATOR'S LABORATORY ENCLOSURE PANEL LAYOUT
DTSI - 02040 - 017	SPARE
DTSI - 02040 - 018	SPARE
DTSI - 02040 - 019	SPARE
DTSI - 02040 - 020	TRANS A1 NODE 1 SCREEN & GRIT PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC
DTSI - 02040 - 021	TRANS A1 NODE 1 SCREEN & GRIT I/O WIRING DIAGRAM SLOTS 0 & 1
DTSI - 02040 - 022	TRANS A1 NODE 1 SCREEN & GRIT I/O WIRING DIAGRAM SLOTS 2 & 3
DTSI - 02040 - 023	TRANS A1 NODE 1 SCREEN & GRIT I/O WIRING DIAGRAM SLOTS 4 & 5
DTSI - 02040 - 024	SPARE
DTSI - 02040 - 025	TRANS A2 NODE 2 PRIMARY TREATMENT PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC
DTSI - 02040 - 026	TRANS A2 NODE 2 PRIMARY TREATMENT I/O WIRING DIAGRAM SLOTS 0 & 1
DTSI - 02040 - 027	TRANS A2 NODE 2 PRIMARY TREATMENT I/O WIRING DIAGRAM SLOTS 2 & 3
DTSI - 02040 - 028	TRANS A2 NODE 2 PRIMARY TREATMENT I/O WIRING DIAGRAM SLOTS 4 & 5
DTSI - 02040 - 029	SPARE
DTSI - 02040 - 030	TRANS B & C NODE 3 SCREW PUMPS & AERATION MIXERS PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC
DTSI - 02040 - 031	TRANS B & C NODE 3 SCREW PUMPS & AERATION MIXERS I/O WIRING DIAGRAM SLOTS 0& 1
DTSI - 02040 - 032	SPARE
DTSI - 02040 - 033	SPARE
DTSI - 02040 - 034	SPARE
DTSI - 02040 - 035	TRANS D1A NODE 4 SOLIDS HANDLING UNIT #1 PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC
DTSI - 02040 - 036	TRANS D1A NODE 4 SOLIDS HANDLING UNIT #1 I/O WIRING DIAGRAM SLOTS 0 & 1
DTSI - 02040 - 037	TRANS D1A NODE 4 SOLIDS HANDLING UNIT #1 I/O WIRING DIAGRAM SLOTS 2 & 3
DTSI - 02040 - 038	TRANS D1A NODE 4 SOLIDS HANDLING UNIT #1 I/O WIRING DIAGRAM SLOTS 4 & 5
DTSI - 02040 - 039	SPARE
DTSI - 02040 - 040	TRANS D1B NODE 5 SOLIDS HANDLING UNIT #2 PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC
DTSI - 02040 - 041	TRANS D1B NODE 5 SOLIDS HANDLING UNIT #2 I/O WIRING DIAGRAM SLOTS 0 & 1
DTSI - 02040 - 042	TRANS D1B NODE 5 SOLIDS HANDLING UNIT #2 I/O WIRING DIAGRAM SLOTS 2 & 3
DTSI - 02040 - 043	TRANS D1B NODE 5 SOLIDS HANDLING UNIT #2 I/O WIRING DIAGRAM SLOTS 4 & 5
DTSI - 02040 - 044	TRANS D1B NODE 5 SOLIDS HANDLING UNIT #2 I/O WIRING DIAGRAM SLOT 6

DTSI - 02040 - 045	TRANS D2A NODE 6 DIGESTER AREA PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC
DTSI - 02040 - 046	TRANS D2A NODE 6 DIGESTER AREA I/O WIRING DIAGRAM SLOTS 0 & 1
DTSI - 02040 - 047	TRANS D2A NODE 6 DIGESTER AREA I/O WIRING DIAGRAM SLOTS 2 & 3
DTSI - 02040 - 048	TRANS D2A NODE 6 DIGESTER AREA I/O WIRING DIAGRAM SLOTS 4 & 5
DTSI - 02040 - 049	TRANS D2A NODE 6 DIGESTER AREA I/O WIRING DIAGRAM SLOTS 6 & 7
DTSI - 02040 - 050	TRANS E1 & E2 NODE 7 BLOWER BUILDING PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC
DTSI - 02040 - 051	TRANS E1 & E2 NODE 7 BLOWER BUILDING I/O WIRING DIAGRAM SLOTS 0 & 1
DTSI - 02040 - 052	TRANS E1 & E2 NODE 7 BLOWER BUILDING I/O WIRING DIAGRAM SLOTS 2 & 3
DTSI - 02040 - 053	TRANS E1 & E2 NODE 7 BLOWER BUILDING I/O WIRING DIAGRAM SLOT 4
DTSI - 02040 - 054	SPARE
DTSI - 02040 - 055	TRANS F1 & F2 NODE 8 RETENTION BASIN PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC
DTSI - 02040 - 056	TRANS F1 & F2 NODE 8 RETENTION BASIN I/O WIRING DIAGRAM SLOTS 0 & 1
DTSI - 02040 - 057	TRANS F1 & F2 NODE 8 RETENTION BASIN I/O WIRING DIAGRAM SLOT 2
DTSI - 02040 - 058	SPARE
DTSI - 02040 - 059	SPARE
DTSI - 02040 - 060	TRANS A NODE 9 ADMINISTRATION BUILDING PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC
DTSI - 02040 - 061	TRANS A NODE 9 ADMINISTRATION BUILDING I/O WIRING DIAGRAM SLOTS 0 & 1
DTSI - 02040 - 062	TRANS A NODE 9 ADMINISTRATION BUILDING I/O WIRING DIAGRAM SLOT 2
DTSI - 02040 - 063	SPARE
DTSI - 02040 - 064	SPARE
DTSI - 02040 - 065	TRANS D2B NODE 10 RAS & SEC CLARIFIER PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC
DTSI - 02040 - 066	TRANS D2B NODE 10 RAS & SEC CLARIFIER I/O WIRING DIAGRAM SLOTS 0 & 1
DTSI - 02040 - 067	TRANS D2B NODE 10 RAS & SEC CLARIFIER I/O WIRING DIAGRAM SLOTS 2 & 3
DTSI - 02040 - 068	TRANS D2B NODE 10 RAS & SEC CLARIFIER I/O WIRING DIAGRAM SLOTS 4 & 5
DTSI - 02040 - 069	SPARE
DTSI - 02040 - 070	TRANS D1 NODE 11 TERTIARY FILTER & UV PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC
DTSI - 02040 - 071	TRANS D1 NODE 11 TERTIARY FILTER & UV I/O WIRING DIAGRAM SLOTS 0 & 1
DTSI - 02040 - 072	TRANS D1 NODE 11 TERTIARY FILTER & UV I/O WIRING DIAGRAM SLOTS 2 & 3
DTSI - 02040 - 073	TRANS D1 NODE 11 TERTIARY FILTER & UV I/O WIRING DIAGRAM SLOTS 4 & 5
DTSI - 02040 - 074	SPARE
DTSI - 02040 - 075	SPARE
DTSI - 02040 - 076	ADMINISTRATION BUILDING MEDIA CONVERTER JUNCTION BOX
DTSI - 02040 - 077	MAINTENANCE BUILDING MEDIA CONVERTER JUNCTION BOX
DTSI - 02040 - 078	SOLIDS HANDLING BUILDING MEDIA CONVERTER JUNCTION BOX
DTSI - 02040 - 079	SPARE
DTSI - 02040 - 080	SPARE
DTSI - 02040 - 081	SPARE
DTSI - 02040 - 082	SPARE
DTSI - 02040 - 083	SPARE
DTSI - 02040 - 084	SPARE

06/05/03 10:12

WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐	
INSULATION: NYLON ☐ PVC ☒			
WIRE SPECIFICATIONS:			
USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FORECH	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL	AWG #16	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN



DUBLIN TECHNICAL SYSTEMS INC.
PROJECT # 02040

TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
+	DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE
+	03		DRAWN BY HR
+	FRACTIONAL	TITLE DRAWING INDEX	APPROVED BY BS
+	1/32"		
+	ANGULAR	DATE 4/9/02	DRAWING NUMBER DTSI - 02040 - 002
+	1"		

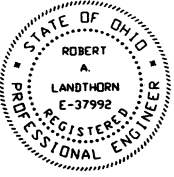
CITY OF MASSILLON, OHIO
REGIONAL WASTEWATER TREATMENT PLANT
UPGRADE 2000
PROJECT NO. E9031

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	DG

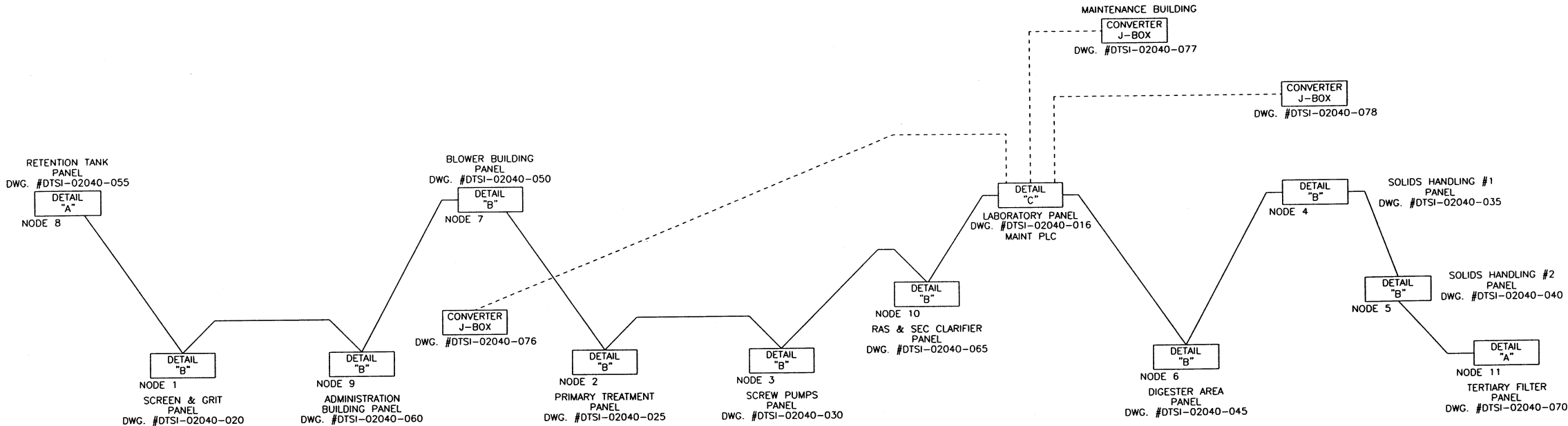
DRAWING LIST

DTSI - 02040 - 200	RETENTION BYPASS FLOW METER M1
DTSI - 02040 - 201	SECONDARY CLARIFIER VALVE #1
DTSI - 02040 - 202	SECONDARY CLARIFIER VALVE #2
DTSI - 02040 - 203	SECONDARY CLARIFIER VALVE #3
DTSI - 02040 - 204	SECONDARY CLARIFIER VALVE #4
DTSI - 02040 - 205	SECONDARY CLARIFIER VALVE #5
DTSI - 02040 - 206	AERATION TANK #1 RAS FLOW
DTSI - 02040 - 207	AERATION TANK #2 RAS FLOW
DTSI - 02040 - 208	AERATION TANK #3 RAS FLOW
DTSI - 02040 - 209	WAS TO SLUDGE BLENDING FLOW, M10
DTSI - 02040 - 210	RAW SLUDGE TO SLUDGE BLENDING FLOW, M11
DTSI - 02040 - 211	DIGESTER RECIRCULATION FLOW, M13
DTSI - 02040 - 212	DIGESTER FEED FLOW, M12
DTSI - 02040 - 213	GBT FEED FLOW, M14
DTSI - 02040 - 214	BFP FEED FLOW, M15
DTSI - 02040 - 215	GBT #1 DISCHARGE FLOW, M16
DTSI - 02040 - 216	GBT #2 DISCHARGE FLOW, M17
DTSI - 02040 - 217	SPARE
DTSI - 02040 - 218	SPARE
DTSI - 02040 - 219	SPARE
DTSI - 02040 - 220	RETENTION BASIN EFFLUENT FLUME LEVEL, M19
DTSI - 02040 - 221	PLANT EFFLUENT FLOW, M20
DTSI - 02040 - 222	SECONDARY BYPASS FLOW, M21
DTSI - 02040 - 223	SPARE
DTSI - 02040 - 224	SPARE
DTSI - 02040 - 225	SIDESTREAM / RECYCLE FLOW, M22
DTSI - 02040 - 226	DIGESTER WASTE GAS FLOW, M23
DTSI - 02040 - 227	DIGESTER UTILITY GAS FLOW, M24
DTSI - 02040 - 228	SPARE
DTSI - 02040 - 229	SPARE
DTSI - 02040 - 230	RAS PUMP #1 VFD SPEED CONTROL

DTSI - 02040 - 231	RAS PUMP #2 VFD SPEED CONTROL
DTSI - 02040 - 232	RAS PUMP #3 VFD SPEED CONTROL
DTSI - 02040 - 233	RAS PUMP #4 VFD SPEED CONTROL
DTSI - 02040 - 234	SPARE
DTSI - 02040 - 235	INFLUENT TRUNK SEWER LEVEL AND FLOW
DTSI - 02040 - 236	SPARE
DTSI - 02040 - 237	SPARE
DTSI - 02040 - 238	SPARE
DTSI - 02040 - 239	SPARE
DTSI - 02040 - 250	FLOW RETENTION BASIN EFFLUENT FLOW LEVEL, L2
DTSI - 02040 - 251	STORM FLOW RETENTION TANK WATER LEVEL, L3
DTSI - 02040 - 252	THICKENED SLUDGE WET WELL LEVEL, L4
DTSI - 02040 - 253	SLUDGE BLENDING TANK #1 LEVEL
DTSI - 02040 - 254	SLUDGE BLENDING TANK #2 LEVEL
DTSI - 02040 - 255	SIDESTREAM TANK LEVEL, L9
DTSI - 02040 - 256	HIGH RIVER STAGE LEVEL, L10
DTSI - 02040 - 257	BAR SCREENS #1 & #2 LEVEL SWITCHES
DTSI - 02040 - 258	BAR SCREENS LEVEL RELAY PANEL LAYOUT
DTSI - 02040 - 259	RAS WET WELL LEVEL RELAY PANEL LAYOUT
DTSI - 02040 - 260	SPARE
DTSI - 02040 - 261	SPARE
DTSI - 02040 - 262	PRIMARY DIGESTER LEVEL
DTSI - 02040 - 263	SECONDARY DIGESTER LEVEL, L6B
DTSI - 02040 - 264	SPARE
DTSI - 02040 - 265	NPW WET WELL LEVEL, L13
DTSI - 02040 - 266	HIGH RIVER LEVEL SWITCHES
DTSI - 02040 - 267	HIGH RIVER LEVEL PANEL LAYOUT
DTSI - 02040 - 268	SECONDARY DIGESTER LEVEL ALARM PANEL LAYOUT

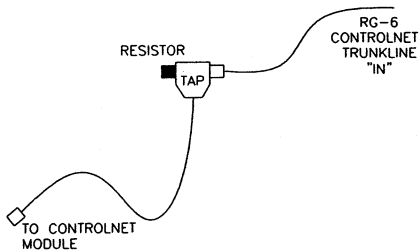
06/05/03 10:27	WIRE LUGS - NO ☒ YES ☐ RING ☐ LOCKING SPADE ☐		 DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040	TOLERANCES	DUBLIN TECHNICAL SYSTEMS, INC.		
	INSULATION: NYLON ☐ PVC ☒			DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE	DRAWN BY
	WIRE SPECIFICATIONS:			± .03	NONE	APPROVED BY	
	SIZE COLOR INSULATION			FRACTIONAL	TITLE		
	AC PANEL POWER AWG #12 BLK. THW/THHN			± 1/32"	DRAWING INDEX		
	AC PANEL NEUTRAL AWG #12 WHI. THW/THHN			ANGULAR	DATE		
	AC PANEL GROUND AWG #12 GRN. THW/THHN			± 1'	5/12/03		
	AC CONTROL POWER AWG #14 RED THW/THHN				DRAWING NUMBER		
	AC CONTROL NEUTRAL AWG #14 WHI. THW/THHN				DTSI - 02040 - 003		
	AC FOREIGN AWG #14 YELLOW THW/THHN						
	DC POWER AWG #16 BLUE THW/THHN						
	DC CONTROL AWG #16 BLUE THW/THHN						
	SIGNAL/INSTRUMENTS AWG #16 2 CONDUCTOR SHLD THW/THHN						

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/6/03	A	FOR APPROVAL			

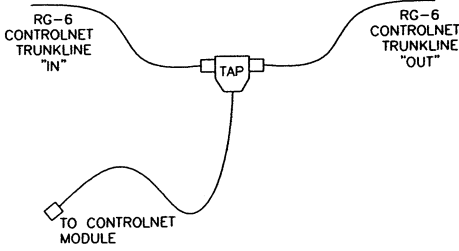


LEGEND

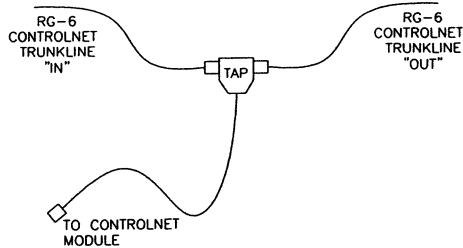
————— CONTROLNET
 - - - - - ETHERNET



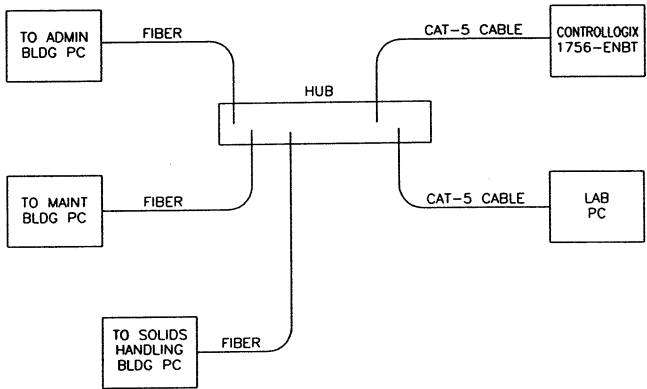
DETAIL "A"



DETAIL "B"

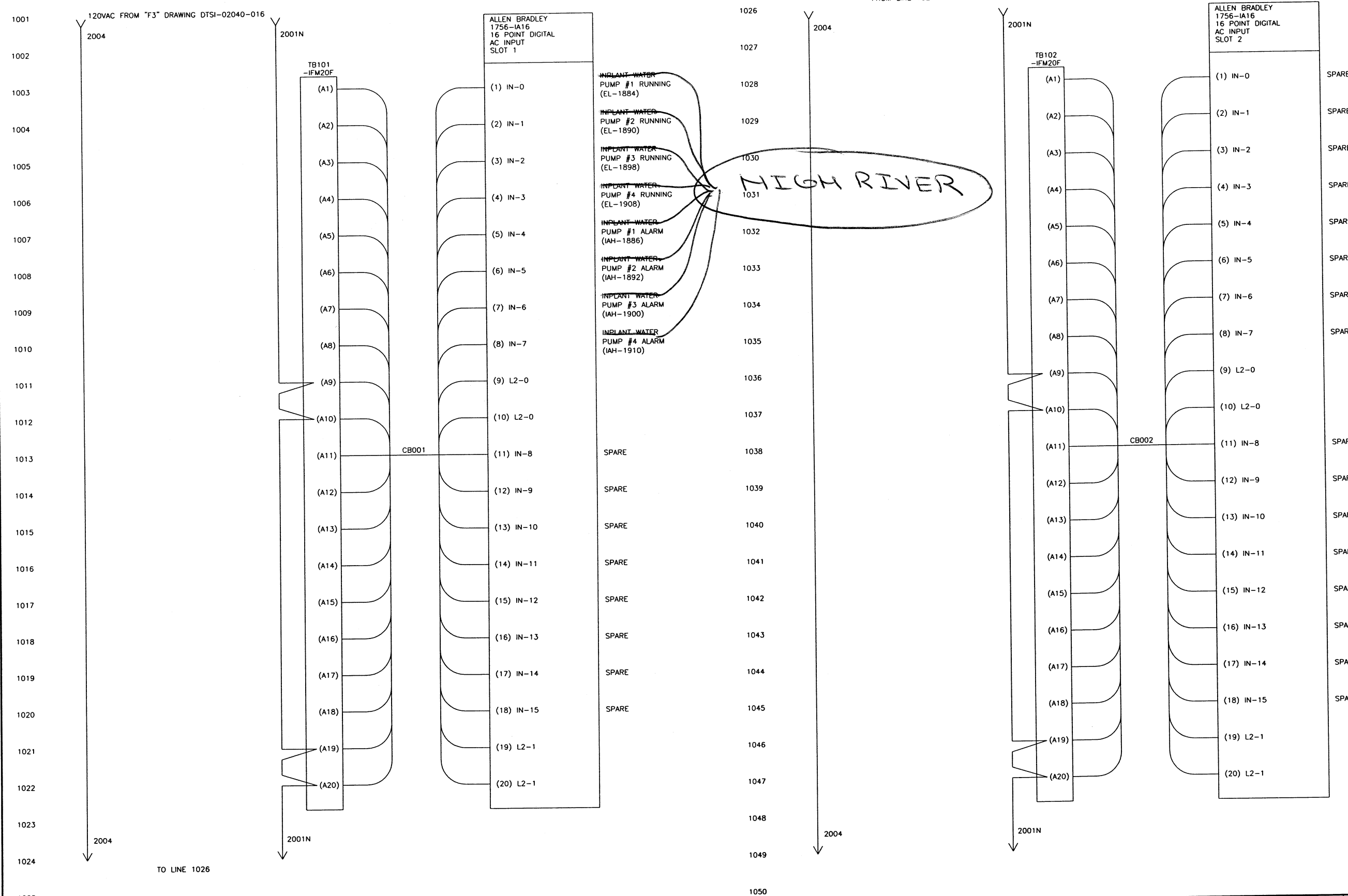


DETAIL "C"

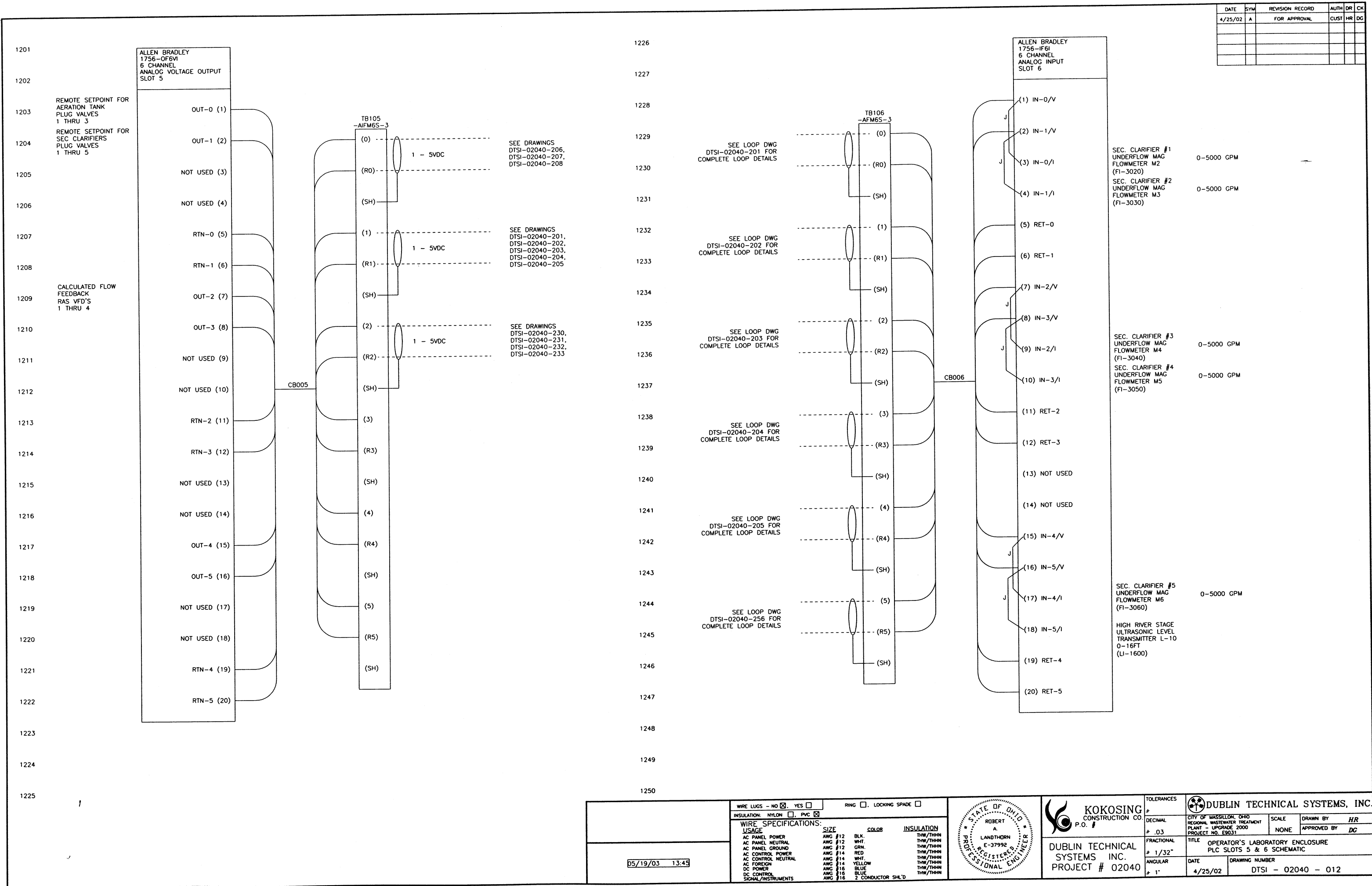


06/04/03 14:31	WIRE LUGS - NO ☒ YES ☐ RING ☐ LOCKING SPADE ☐		STATE OF OHIO ROBERT A. LANDTHORN E-37992 REGISTERED PROFESSIONAL ENGINEER	KOKOSING CONSTRUCTION CO. P.O. # DUBLIN TECHNICAL SYSTEMS, INC. PROJECT # 02040	TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.		
	INSULATION: NYLON ☐ PVC ☒				DECIMAL	CITY OF MASSILLON, OHIO	SCALE	DRAWN BY <i>HR</i>	
	WIRE SPECIFICATIONS: USAGE				± .03	REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000	NONE	APPROVED BY <i>DC</i>	
	SIZE		COLOR	INSULATION	FRACTIONAL	TITLE		ETHERNET AND CONTROLNET ARCHITECTURE DRAWING	
AC PANEL POWER		AWG #12	BLK.	THW/THHN	± 1/32"	DATE	DRAWING NUMBER		
AC PANEL NEUTRAL		AWG #12	WHT.	THW/THHN	ANGULAR	5/6/02	DTSI - 02040 - 005		
AC PANEL GROUND		AWG #12	GRN.	THW/THHN	± 1°				
AC CONTROL POWER		AWG #14	RED	THW/THHN					
AC CONTROL NEUTRAL		AWG #14	WHT.	THW/THHN					
AC FOREIGN		AWG #14	YELLOW	THW/THHN					
DC POWER		AWG #16	BLUE	THW/THHN					
DC CONTROL		AWG #16	BLUE	THW/THHN					
SIGNAL/INSTRUMENTS		AWG #16	2 CONDUCTOR SHLD'D	THW/THHN					

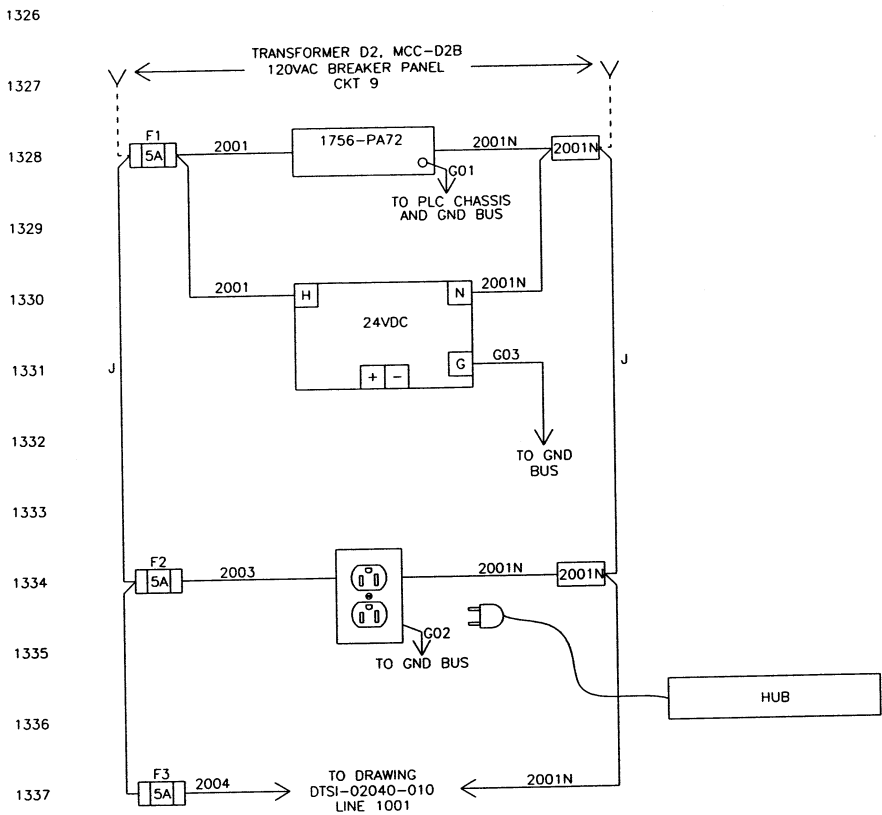
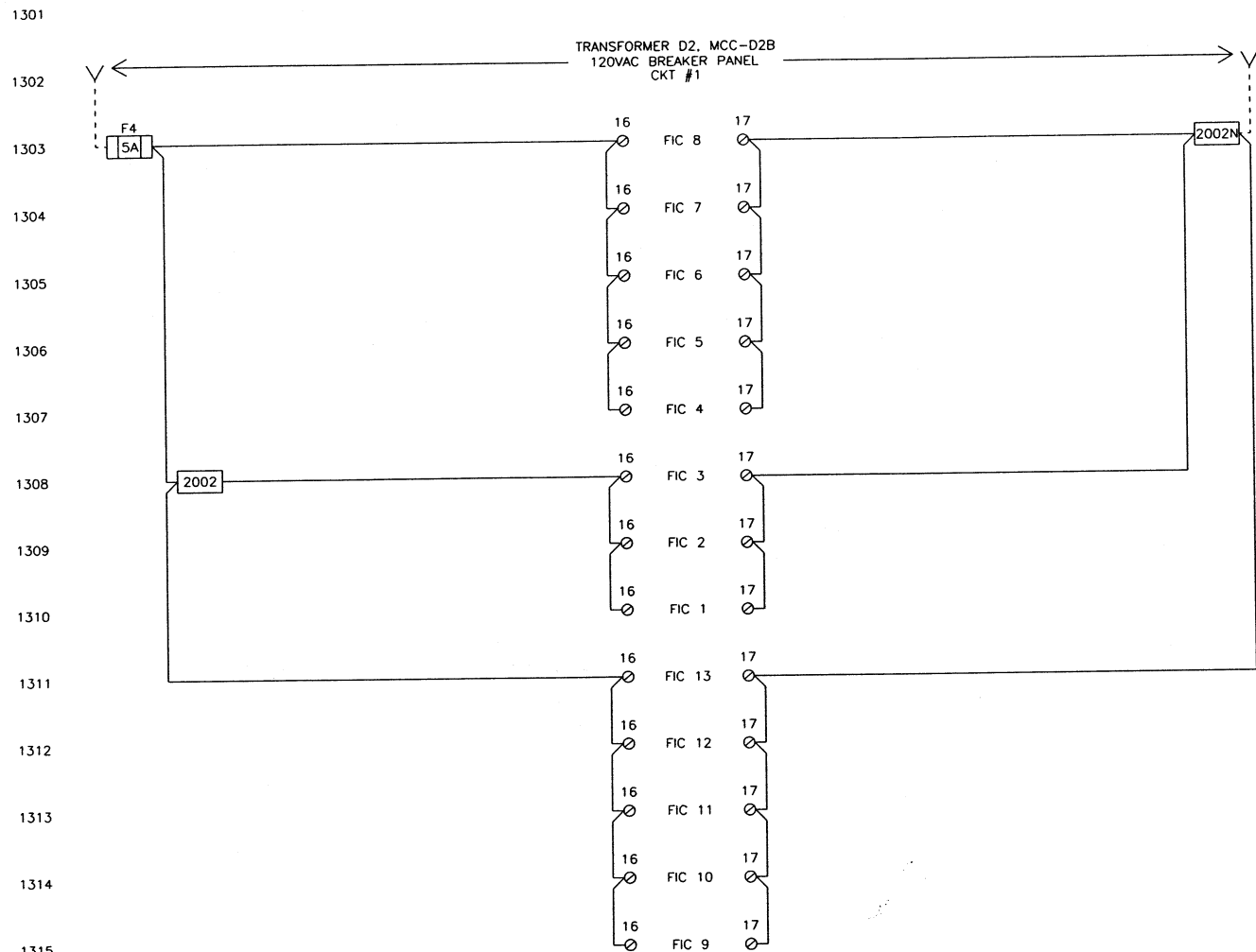
DATE	SYM	REVISION RECORD	AUTH	DR	CHK
4/25/02	A	FOR APPROVAL	CUST	HR	DC



WIRE LUGS - NO ☒ . YES ☐ INSULATION: NYLON ☐ . PVC ☒		RING ☐ . LOCKING SPADE ☐						TOLERANCES		 DUBLIN TECHNICAL SYSTEMS, INC.	
								CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E02031		SCALE NONE	
WIRE SPECIFICATIONS:		SIZE		COLOR		INSULATION		DECIMAL .03		TITLE OPERATOR'S LABORATORY ENCLOSURE PLC SLOTS 1 & 2 SCHEMATIC	
USAGE:		AWG		BLK.		THW/THHN		FRACTIONAL 1/32"		DATE 4/25/02	
AC PANEL POWER		AWG #12		BLK.		THW/THHN		ANGULAR 1"		DRAWING NUMBER DTSI - 02040 - 010	
AC PANEL NEUTRAL		AWG #12		WHI.		THW/THHN					
AC PANEL GROUND		AWG #12		GRN.		THW/THHN					
AC CONTROL POWER		AWG #14		RED		THW/THHN					
AC CONTROL NEUTRAL		AWG #14		WHI.		THW/THHN					
AC FOREIGN		AWG #14		YELLOW		THW/THHN					
DC POWER		AWG #16		BLUE		THW/THHN					
DC CONTROL		AWG #16		BLUE		THW/THHN					
SIGNAL INSTRUMENTS		AWG #16		2 CONDUCTOR SHLD		THW/THHN					
05/19/03 13:11								DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040			



DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/19/03	A	FOR APPROVAL	CUST	TL	DG



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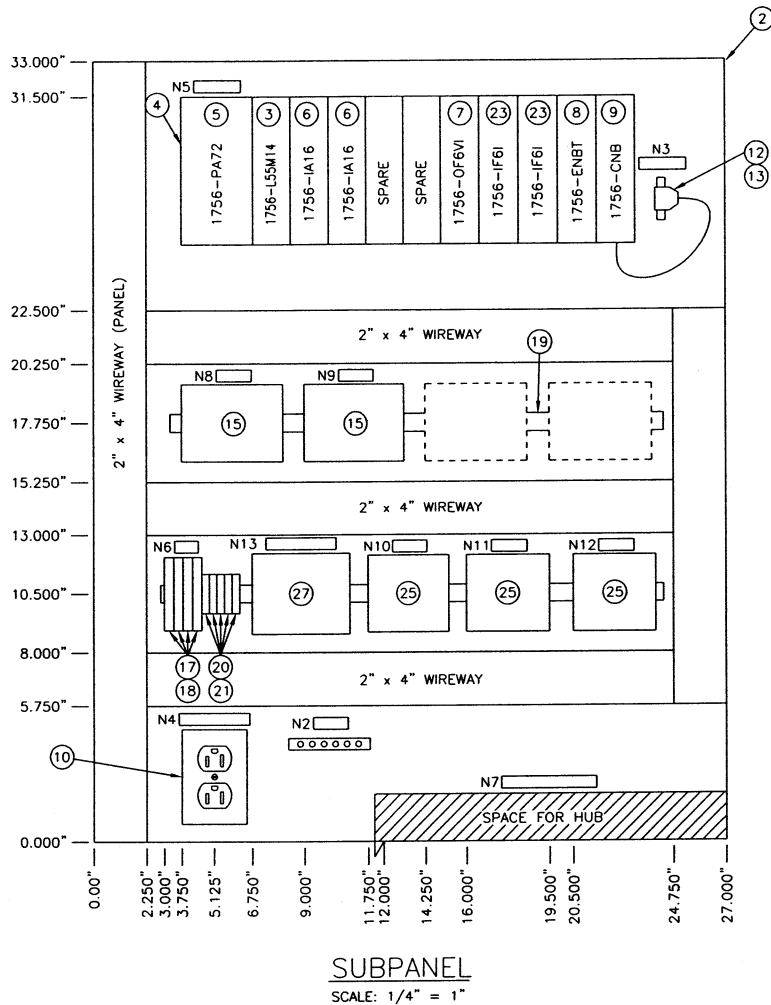
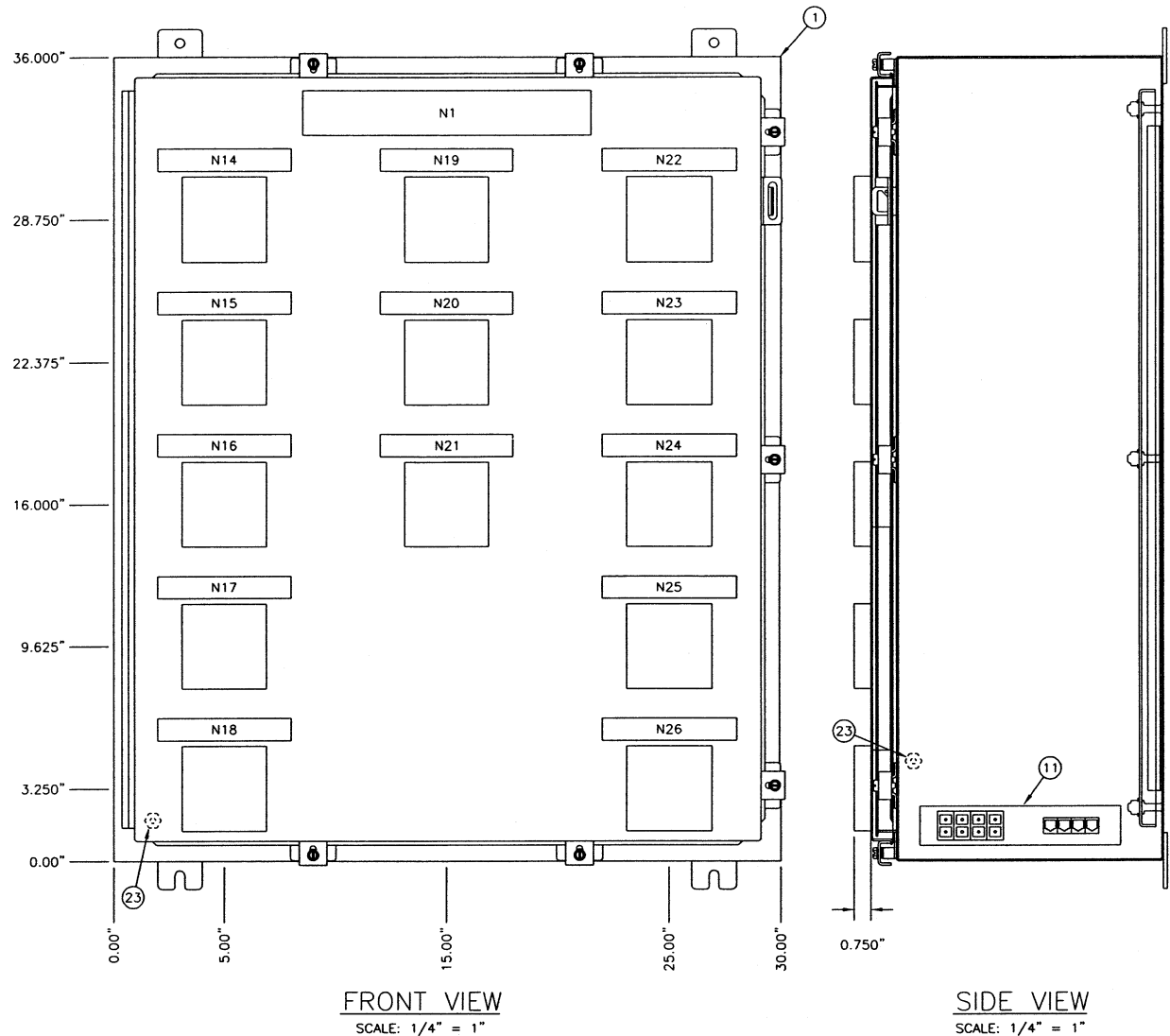
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05/19/03 14:27	WIRE LUGS - NO ☐ YES ☐		RING ☐ LOCKING SPADE ☐				KOKOSING CONSTRUCTION CO.		P.O. #	DUBLIN TECHNICAL SYSTEMS, INC.	
	INSULATION: NYLON ☐ PVC ☒						DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E3031		SCALE	DRAWN BY
	WIRE SPECIFICATIONS:		SIZE				FRACTIONAL	TITLE		APPROVED BY	DL
	AC PANEL POWER		AWG #12 BLK. THW/THHN				1/32"	OPERATOR'S LABORATORY ENCLOSURE SCHEMATIC DIAGRAMS		DATE	DRAWING NUMBER
	AC PANEL NEUTRAL		AWG #12 WHT. THW/THHN								
	AC PANEL GROUND		AWG #12 GRN. THW/THHN								
	AC CONTROL POWER		AWG #14 RED THW/THHN								
	AC CONTROL NEUTRAL		AWG #14 WHT. THW/THHN								
	AC FOREIGN		AWG #14 YELLOW THW/THHN								
	DC POWER		AWG #18 BLUE THW/THHN								
DC CONTROL		AWG #18 BLUE THW/THHN									
SIGNAL/INSTRUMENTS		AWG #18 2 CONDUCTOR SHLD THW/THHN									
						DUBLIN TECHNICAL SYSTEMS INC.			ANGULAR		
						PROJECT # 02040		1"		5/19/03	DTSI - 02040 - 015

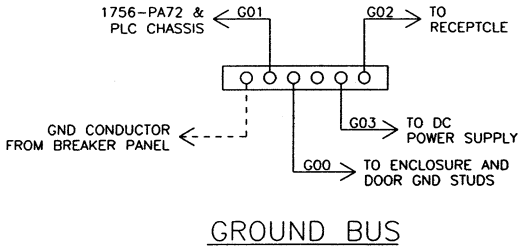
DATE	SYM	REVISION RECORD	AUTH	DR	CK
3/18/02	A	FOR APPROVAL	CUST	HR	BS
5/18/03	B	ADD FIC'S	CUST	RTR	DC



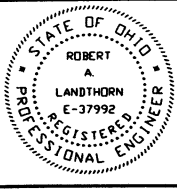
BILL OF MATERIAL				
ITEM	QTY	USED FOR	DESCRIPTION	
1	1	ENCLOSURE	HOFFMAN #A-36H30DLP, 36"H X 30"W X 12"D, TYPE 4	
2	1	SUBPANEL	HOFFMAN #A-36P30, 33"H X 27"W	
3	1	PROGRAMMABLE CONTROLLER	ALLEN BRADLEY #1756-L55M14, CONTROLLOGIX PROCESSOR 3.5mB USER MEMORY	
4	1	CHASSIS	ALLEN BRADLEY #1756-A10, 10 SLOT	
5	1	POWER SUPPLY	ALLEN BRADLEY #1756-PA72 120VAC, 70W MAX. OUTPUT	
6	2	INPUT MODULE	ALLEN BRADLEY #1756-IA16, 16 POINT AC INPUT MODULE	
7	1	ANALOG OUTPUT MODULE	ALLEN BRADLEY #1756-OF6V1, 6 CHANNEL ISOLATED VOLTAGE OUTPUT	
8	1	ETHERNET MODULE	ALLEN BRADLEY #1756-ENBT, ETHERNET BRIDGE MODULE	
9	1	MODULE	ALLEN BRADLEY #1756-CNB, SINGLE POINT NON-REDUNDANT CONTROLNET INTERFACE MODULE	
10	1	RECEPTACLE	HUBBELL #CR5362GY WITH BOX & COVERPLATE 20 AMP 125 VOLT DUPLEX	
11	1	MIXED-MEDIA HUB	GARRETTCOM MAGNUM #QS580 WITH (4) RJ-45 AND 4) 10MB ST-TYPE PORTS, (1) OPM10MST AND (1) OPM-RJ-45	
12	1	CONTROLNET TAP	ALLEN BRADLEY #1786-TPS	
13	13	SINGLE LOOP CONTROLLERS	OMEGA CN3251-F PROCESS CONTROLLER W/ 4-20mA OUTPUT NEMA-4X	
14	1	GROUND BUS	ILSCO #D167-6 6 PPOINT COPPER GND BUS	
15	2	DIGITAL I/O TERMINAL	ALLEN BRADLEY #1492-IFM20F INTERFACE MODULES	
16	2	DIGITAL I/O CABLE	ALLEN BRADLEY #1492-CABLE010X WITH WIRING ARM NOT SHOWN	
17	4	FUSE TERMINAL	PHOENIX CONTACT #UK6.3-HESI WITH 3 POS. BRIDGE EB10-10	
18	4	F1, F2, F3, F4	BUSSMANN #AGC-5 5 AMP FAST-ACTING FUSE 1/4" X 1-1/4"	
19	LOT	RAIL	PHOENIX CONTACT #NS35 MOUNTING RAIL	
20	5	TERMINAL	PHOENIX CONTACT #UKN6	
21	LOT	END BARRIER	PHOENIX CONTACT #D-UK 4/10	
22	2	GND STUD	FOR ENCLOSURE AND DOOR	
23	2	ANALOG INPUT MODULE	ALLEN BRADLEY #1756-IF6I 6 CHANNEL ISOLATED INPUT	
24	2	AI CABLE	ALLEN BRADLEY #1492-ACABLE010X	
25	3	ANALOG I/O TERMINAL	ALLEN BRADLEY #1492-AIFM6S-3	
26	1	AO CABLE	ALLEN BRADLEY #1492-ACABLE010Y	
27	1	DC VOLT SUPPLY	PHOENIX CONTACT #2939247, 120VAC INPUT, 24VDC OUTPUT @ 1.0A	
28	LOT	NAMEPLATES	WHITE WITH BLACK CORE	

NAMEPLATES WHITE WITH BLACK LETTERING

	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" X 13"	1/2"	YES	OPERATOR'S	LABORATORY ENCLOSURE
N2	1	0.5" X 1.5"	1/4"	NO	GND BUS	
N3	1	0.5" X 2"	1/4"	NO	C-NET TAP	
N4	1	0.5" X 3"	1/4"	NO	RECEPTACLE	
N5	1	0.5" X 2"	1/4"	NO	PLC RACK	
N6	1	0.5" X 1"	1/4"	NO	TB1	
N7	1	0.5" X 4"	1/4"	NO	MIXED-MEDIA HUB	
N8	1	0.5" X 1.5"	1/4"	NO	TB101	
N9	1	0.5" X 1.5"	1/4"	NO	TB102	
N10	1	0.5" X 1.5"	1/4"	NO	TB105	
N11	1	0.5" X 1.5"	1/4"	NO	TB106	
N12	1	0.5" X 1.5"	1/4"	NO	TB107	
N13	1	0.5" X 3"	1/4"	NO	DC VOLT SUPPLY	
N14	1	1" X 6"	1/4"	NO	FIC 4	SEC. CLARIFIER VALVE #1
N15	1	1" X 6"	1/4"	NO	FIC 5	SEC. CLARIFIER VALVE #2
N16	1	1" X 6"	1/4"	NO	FIC 6	SEC. CLARIFIER VALVE #3
N17	1	1" X 6"	1/4"	NO	FIC 7	SEC. CLARIFIER VALVE #4
N18	1	1" X 6"	1/4"	NO	FIC 8	SEC. CLARIFIER VALVE #5
N19	1	1" X 6"	1/4"	NO	FIC 1	AER. TANK #1 RAS FLOW
N20	1	1" X 6"	1/4"	NO	FIC 2	AER. TANK #2 RAS FLOW
N21	1	1" X 6"	1/4"	NO	FIC 3	AER. TANK #3 RAS FLOW
N22	1	1" X 6"	1/4"	NO	FIC 9	RAS PUMP #1 SPEED CNTL
N23	1	1" X 6"	1/4"	NO	FIC 10	RAS PUMP #2 SPEED CNTL
N24	1	1" X 6"	1/4"	NO	FIC 11	RAS PUMP #3 SPEED CNTL
N25	1	1" X 6"	1/4"	NO	FIC 12	RAS PUMP #4 SPEED CNTL
N26	1	1" X 6"	1/4"	NO	FIC 13	SPARE



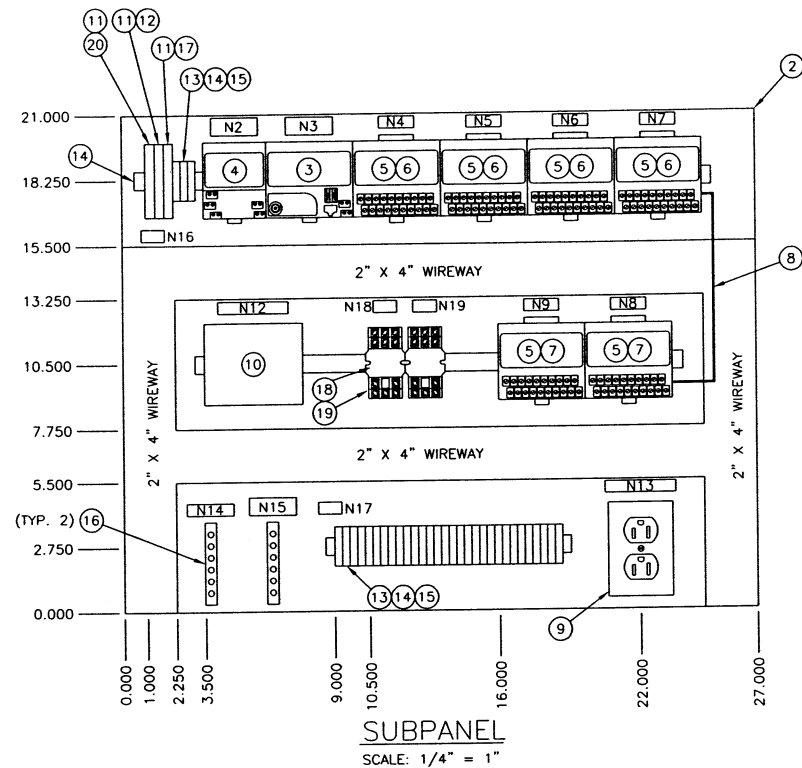
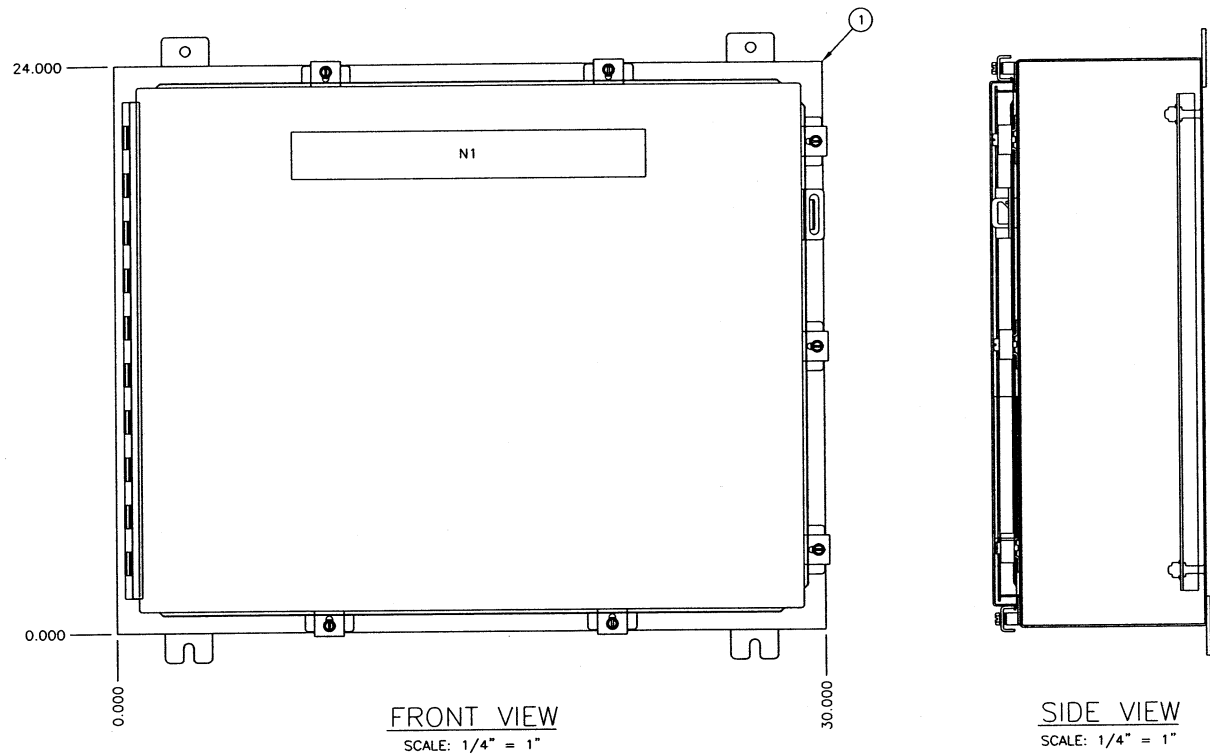
WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐	
INSULATION: NYLON ☐ PVC ☒			
WIRE SPECIFICATIONS:			
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHIT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHIT.	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL	AWG #16	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN



KOKOSING CONSTRUCTION CO. P.O. #

DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040

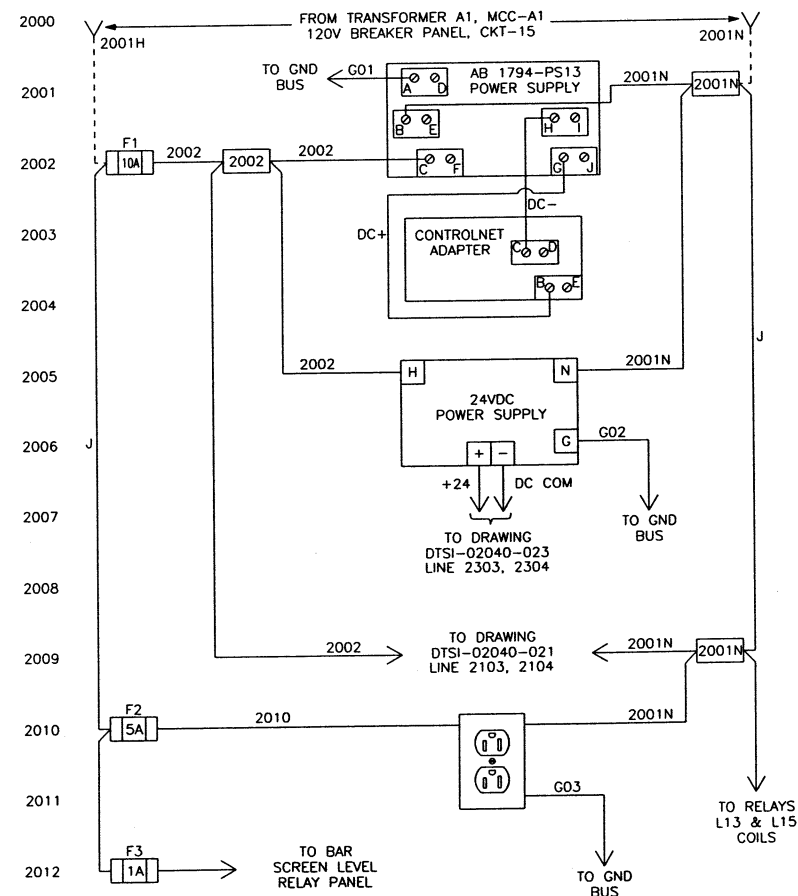
TOLERANCES	DUBLIN TECHNICAL SYSTEMS, INC.
DECIMAL $\pm .03$	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E8031
FRACTIONAL $\pm 1/32"$	TITLE OPERATOR'S LABORATORY ENCLOSURE PANEL LAYOUT
ANGULAR $\pm 1^\circ$	DATE 3/18/02 DRAWING NUMBER DTSI - 02040 - 016



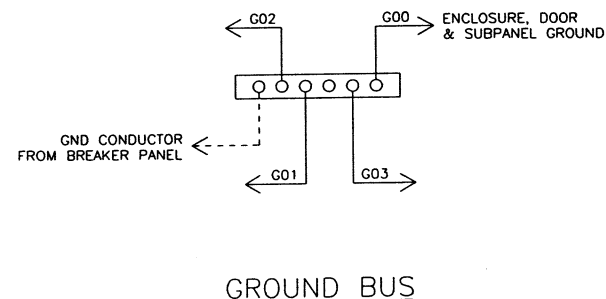
NAMEPLATES

WHITE WITH BLACK LETTERING

	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" X 15"	1/2"	YES	SCREEN & GRIT	REMOTE I/O ENCLOSURE - NODE 1
N2	1	0.75" X 2.0"	3/16"	NO	CONTROLNET	P.S.
N3	1	0.75" X 2.0"	3/16"	NO	CONTROLNET	ADAPTER
N4	1	0.5" X 1.5"	3/16"	NO	SLOT 0	
N5	1	0.5" X 1.5"	3/16"	NO	SLOT 1	
N6	1	0.5" X 1.5"	3/16"	NO	SLOT 2	
N7	1	0.5" X 1.5"	3/16"	NO	SLOT 3	
N8	1	0.5" X 1.5"	3/16"	NO	SLOT 4	
N9	1	0.5" X 1.5"	3/16"	NO	SLOT 5	
N10	0	0.5" X 1.5"	3/16"	NO	SLOT 6	
N11	0	0.5" X 1.5"	3/16"	NO	SLOT 7	
N12	1	0.5" X 3.0"	3/16"	NO	DC POWER SUPPLY	
N13	1	0.5" X 2.0"	3/16"	NO	RECEPTACLE	
N14	1	0.5" X 2.0"	3/16"	NO	GND BUS	
N15	1	0.75" X 2.0"	3/16"	NO	ISOLATED	GND BUS
N16	1	0.5" X 1.0"	3/16"	NO	TB1	
N17	1	0.5" X 1.0"	3/16"	NO	TB2	
N18	1	0.5" X 1.0"	3/16"	NO	L13	
N19	1	0.5" X 1.0"	3/16"	NO	L15	

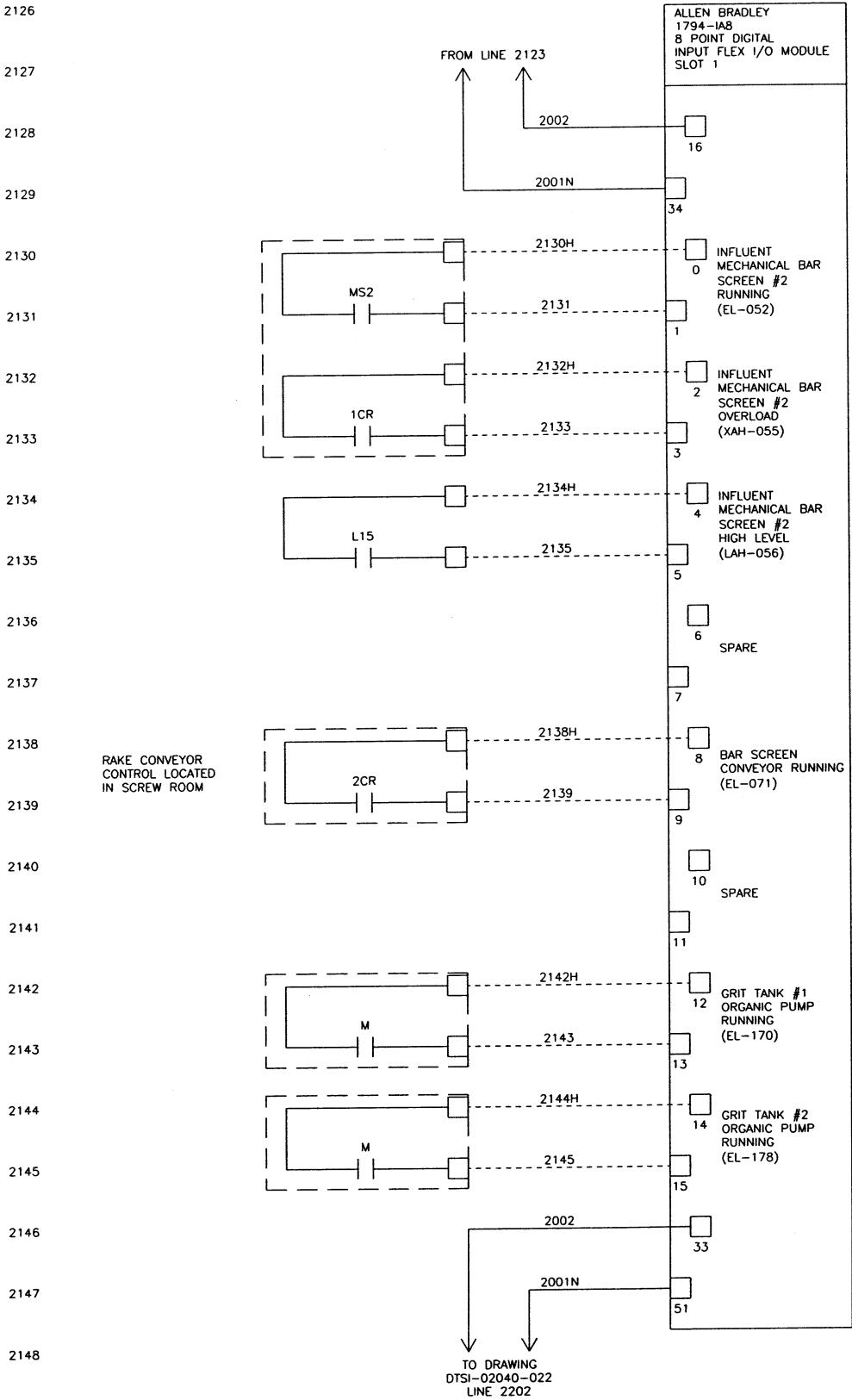
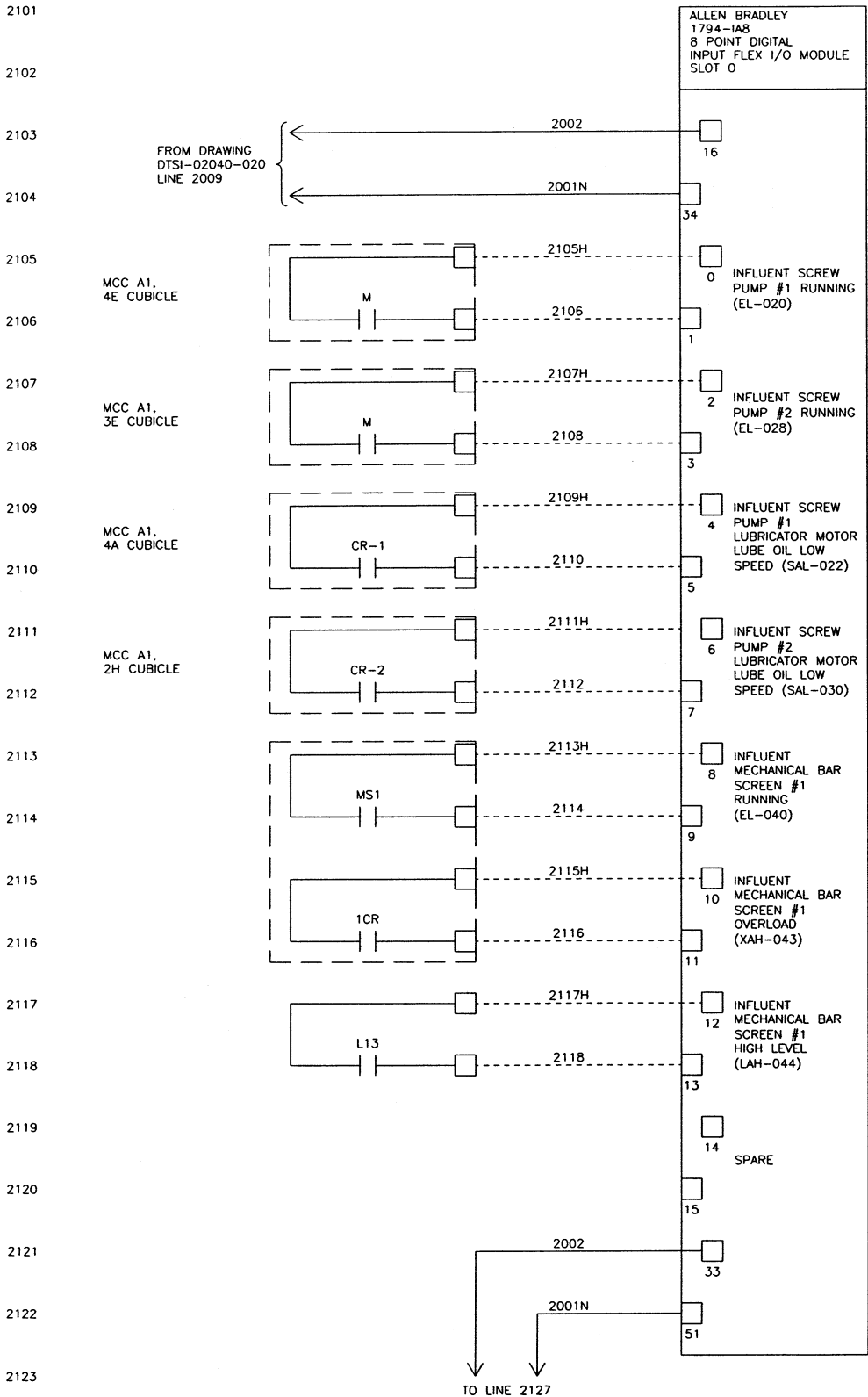


BILL OF MATERIAL			
ITEM	QTY	USED FOR	DESCRIPTION
1	1	ENCLOSURE	HOFFMAN #A-24H30BLP, 24"H X 30"W X 8"D, NEMA 4
2	1	SUBPANEL	HOFFMAN #A-30P24, 21"H X 27"W
3	1	CONTROLNET ADAPTER	ALLEN BRADLEY #1794-ACN15, 8 MODULE CONTROLNET INTERFACE
4	1	POWER SUPPLY	ALLEN BRADLEY #1794-PS13, 120/230VAC INPUT, 1.3A @ 24VDC OUTPUT
5	6	TERMINAL BASE	ALLEN BRADLEY #1794-TBNF, FUSED MODULE
6	4	INPUT MODULE	ALLEN BRADLEY #1794-IAB, 8 POINT NON-ISOLATED DIGITAL INPUT MODULE
7	2	INPUT MODULE	ALLEN BRADLEY #1794-IF4I, 4 POINT ISOLATED ANALOG INPUT MODULE
8	1	EXTENDER CABLE	ALLEN BRADLEY #1794-CE1, 1 FOOT
9	1	RECEPTACLE	HUBBELL #CR5362GY WITH BOX AND COVERPLATE 20 AMPS 125 VOLT GRAY
10	1	POWER SUPPLY	PHOENIX CONTACT #2939247, 120VAC INPUT, 24VDC OUTPUT @ 1.0A
11	3	FUSED TERMINAL	PHOENIX CONTACT #UK 6.3-HESI WITH 2 POS. OR 3 POS BRIDGE, EB2-10 OR EB10-10
12	1	F1	BUSSMAN #AGC-10, 10 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"
13	33	TERMINAL	PHOENIX CONTACT #UK6N
14	LOT	RAIL	PHOENIX CONTACT #NS35 MOUNTING RAIL
15	LOT	END BARRIER	PHOENIX CONTACT #D-UK 4/10
16	2	GND BUS	ILSCO #D167-6, 6 POINT COPPER GND BUS
17	1	F2	BUSSMAN #AGC-5, 5 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"
18	2	RELAY	IDEC RU4PDT5-A110 120VAC COIL SPDT RELAY
19	2	SOCKET	IDEC SY4S-05 SNAP MOUNT RELAY SOCKET FOR SPDT RELAY
20	1	F3	BUSMMAN #AGC-1 1 AMP FAST ACTING.



05/20/03 11:38	WIRE LUGS - NO ☒ YES ☐ INSULATION: NYLON ☐ PVC ☒ WIRE SPECIFICATIONS: <table><tr><th>USAGE</th><th>SIZE</th><th>COLOR</th><th>INSULATION</th></tr><tr><td>AC PANEL POWER</td><td>AWG #12</td><td>BLK</td><td>THW/THHN</td></tr><tr><td>AC PANEL NEUTRAL</td><td>AWG #12</td><td>WHT</td><td>THW/THHN</td></tr><tr><td>AC PANEL GROUND</td><td>AWG #12</td><td>GRN</td><td>THW/THHN</td></tr><tr><td>AC CONTROL POWER</td><td>AWG #14</td><td>RED</td><td>THW/THHN</td></tr><tr><td>AC CONTROL NEUTRAL</td><td>AWG #14</td><td>WHT</td><td>THW/THHN</td></tr><tr><td>AC FOREIGN</td><td>AWG #14</td><td>YELLOW</td><td>THW/THHN</td></tr><tr><td>DC POWER</td><td>AWG #16</td><td>BLUE</td><td>THW/THHN</td></tr><tr><td>DC CONTROL SIGNAL/INSTRUMENTS</td><td>AWG #16</td><td>BLUE</td><td>THW/THHN</td></tr><tr><td></td><td>AWG #16</td><td>2 CONDUCTOR SHLD</td><td>THW/THHN</td></tr></table>	USAGE	SIZE	COLOR	INSULATION	AC PANEL POWER	AWG #12	BLK	THW/THHN	AC PANEL NEUTRAL	AWG #12	WHT	THW/THHN	AC PANEL GROUND	AWG #12	GRN	THW/THHN	AC CONTROL POWER	AWG #14	RED	THW/THHN	AC CONTROL NEUTRAL	AWG #14	WHT	THW/THHN	AC FOREIGN	AWG #14	YELLOW	THW/THHN	DC POWER	AWG #16	BLUE	THW/THHN	DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	BLUE	THW/THHN		AWG #16	2 CONDUCTOR SHLD	THW/THHN	RING ☐ LOCKING SPADE ☐ STATE OF OHIO ROBERT A. LANDTHORN E-37992 PROFESSIONAL ENGINEER	KOKOSING CONSTRUCTION CO. P.O. # DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040	TOLERANCES DECIMAL + .03 FRACTIONAL + 1/32" ANGULAR + 1°	DUBLIN TECHNICAL SYSTEMS, INC. CITY OF WASHINGTON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031 SCALE NONE DRAWN BY HR APPROVED BY BS TITLE TRANS A1 NODE 1 SCREEN & GRIT PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC DATE 4/09/02 DRAWING NUMBER DTSI - 02040 - 020
USAGE	SIZE	COLOR	INSULATION																																										
AC PANEL POWER	AWG #12	BLK	THW/THHN																																										
AC PANEL NEUTRAL	AWG #12	WHT	THW/THHN																																										
AC PANEL GROUND	AWG #12	GRN	THW/THHN																																										
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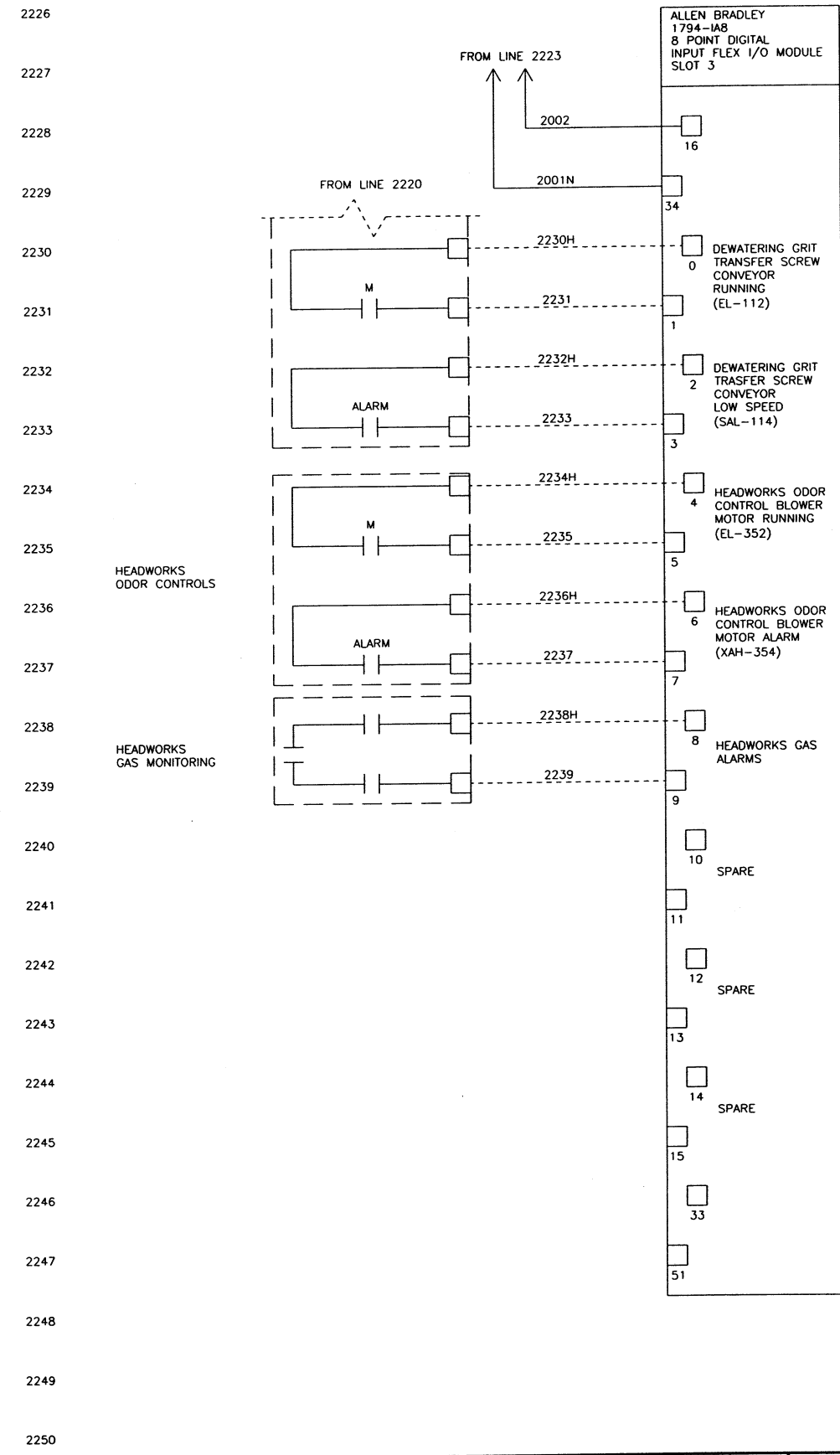
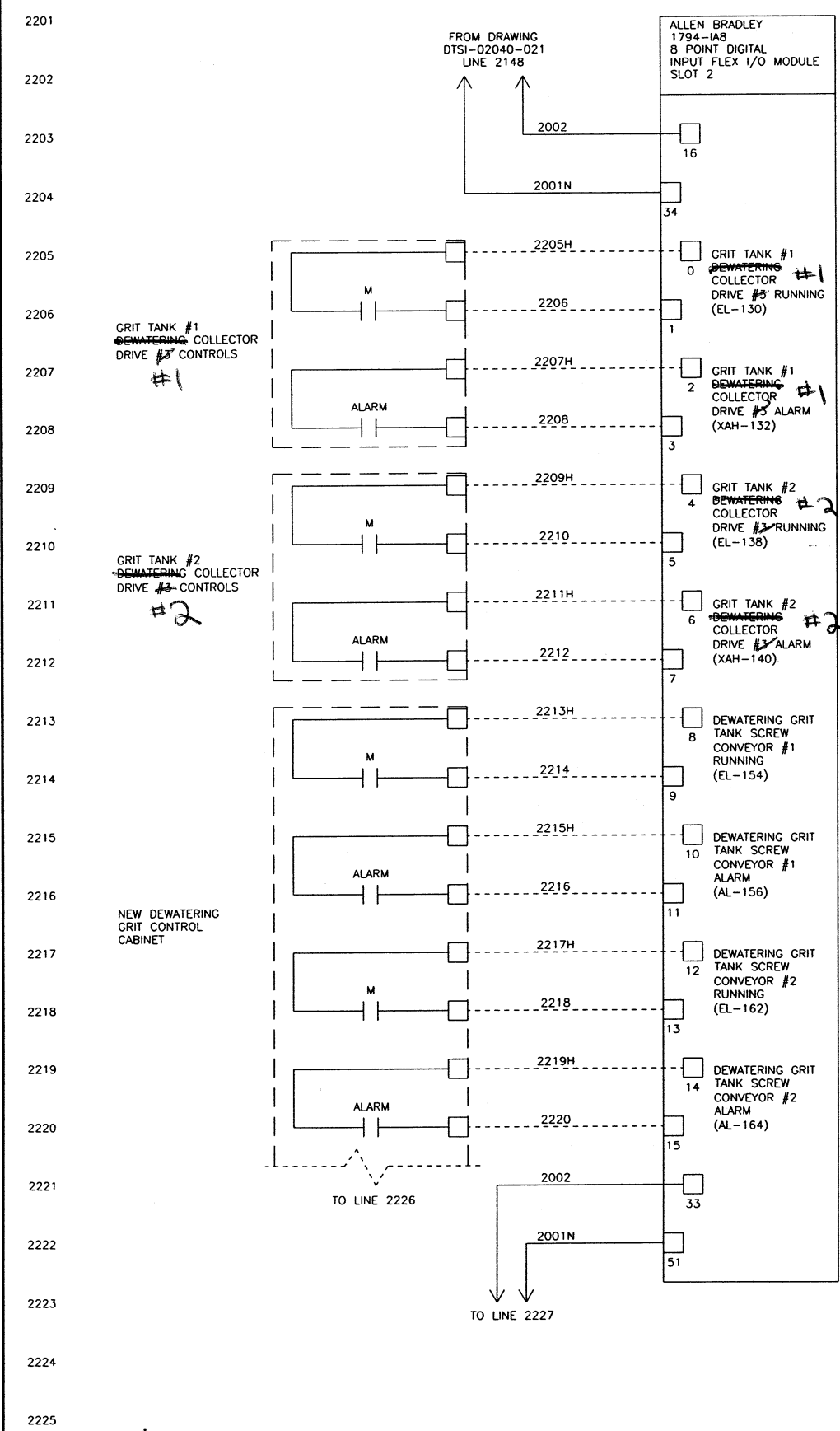
DATE	SYM	REVISION	RECORD	AUTH	DR	CK
5/12/03	A		FOR APPROVAL		CUST	TL



05/21/03 14:53	WIRE LUGS - NO ☒ YES ☐	INSULATION: NYLON ☐ PVC ☒	RING ☐ LOCKING SPADE ☐
	WIRE SPECIFICATIONS:		
	AC PANEL POWER	AWG #12 BLK.	THW/THHN
	AC PANEL NEUTRAL	AWG #12 WHT.	THW/THHN
	AC PANEL GROUND	AWG #12 GRN.	THW/THHN
	AC CONTROL POWER	AWG #14 RED	THW/THHN
	AC CONTROL NEUTRAL	AWG #14 WHT.	THW/THHN
	AC FOREIGN	AWG #14 YELLOW	THW/THHN
	DC POWER	AWG #16 BLUE	THW/THHN
	DC CONTROL	AWG #16 BLUE	THW/THHN
	SIGNAL/INSTRUMENTS	AWG #16 2 CONDUCTOR SHLD	THW/THHN

STATE OF OHIO REGISTERED PROFESSIONAL ENGINEER ROBERT A. LANDTHORN E-37992	KOKOSING CONSTRUCTION CO. P.O. #	TOLERANCES DECIMAL ± .03 FRACTIONAL ± 1/32" ANGULAR ± 1°	DUBLIN TECHNICAL SYSTEMS, INC. CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E3031	SCALE NONE	DRAWN BY HR APPROVED BY BS	TITLE TRANS A1 NODE 1 SCREEN & GRIT I/O WIRING DIAGRAM SLOTS 0 & 1	DATE 4/08/02	DRAWING NUMBER DTSI - 02040 - 021
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DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



04/09/02 15:39	WIRE LUGS - NO ☒ YES ☐ RING ☐ LOCKING SPADE ☐	STATE OF OHIO ROBERT A. LANDTHORN E-37992 REGISTERED PROFESSIONAL ENGINEER	KOKOSING CONSTRUCTION CO. P.O. #	TOLERANCES DECIMAL ± .03 FRACTIONAL ± 1/32" ANGULAR ± 1°	DUBLIN TECHNICAL SYSTEMS, INC. CITY OF WASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE	DRAWN BY HR	
	APPROVED BY BS							
WIRE SPECIFICATIONS: AC PANEL POWER AC PANEL NEUTRAL AC PANEL GROUND AC CONTROL POWER AC CONTROL NEUTRAL AC FOREIGN DC POWER DC CONTROL SIGNAL/INSTRUMENTS		SIZE AWG #12 AWG #12 AWG #12 AWG #14 AWG #14 AWG #14 AWG #16 AWG #16 AWG #16	COLOR BLK. WHT. GRN. RED WHT. YELLOW BLUE BLUE 2 CONDUCTOR SHLD.	INSULATION THW/THHN THW/THHN THW/THHN THW/THHN THW/THHN THW/THHN THW/THHN THW/THHN	TITLE TRANS A1 NODE 1 SCREEN & GRIT I/O WIRING DIAGRAM SLOTS 2 & 3		DATE 4/08/02	DRAWING NUMBER DTSI - 02040 - 022

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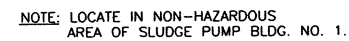
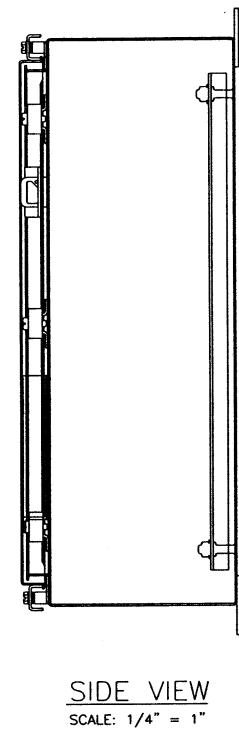
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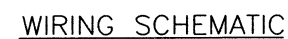
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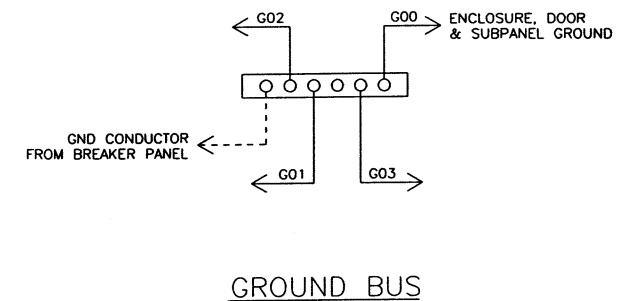
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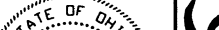


ITEM	QTY	USED FOR	DESCRIPTION
1	1	ENCLOSURE	HOFFMAN #A-24H30BLP, 24"H X 30"W X 8"D, NEMA 4
2	1	SUBPANEL	HOFFMAN #A-30P24, 21"H X 27"W
3	1	CONTROLNET ADAPTER	ALLEN BRADLEY #1794-ACN15, 8 MODULE CONTROLNET INTERFACE
4	1	POWER SUPPLY	ALLEN BRADLEY #1794-PS13, 120/230VAC INPUT, 1.3A @ 24VDC OUTPUT
5	6	TERMINAL BASE	ALLEN BRADLEY #1794-TBNF, FUSED MODULE
6	5	INPUT MODULE	ALLEN BRADLEY #1794-IAB, 8 POINT NON-ISOLATED DIGITAL INPUT MODULE
7	1	INPUT MODULE	ALLEN BRADLEY #1794-IF4I, 4 POINT ISOLATED ANALOG INPUT MODULE
8	1	EXTENDER CABLE	ALLEN BRADLEY #1794-CE1, 1 FOOT
9	1	RECEPTACLE	HUBBELL #CR5362GY WITH BOX AND COVERPLATE 20 AMPS 125 VOLT GRAY
10	1	POWER SUPPLY	PHOENIX CONTACT #2939247, 120VAC INPUT, 24VDC OUTPUT @ 1.0A
11	2	FUSED TERMINAL	PHOENIX CONTACT #UK 6.3-HESI WITH 2 POS. OR 3 POS BRIDGE, EB2-10 OR EB10-10
12	1	F1	BUSSMAN #AGC-10, 10 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"
13	33	TERMINAL	PHOENIX CONTACT #UK6N
14	LOT	RAIL	PHOENIX CONTACT #NS35 MOUNTING RAIL
15	LOT	END BARRIER	PHOENIX CONTACT #D-UK 4/10
16	1	GND BUS	ILSCO #D167-6, 6 POINT COPPER GND BUS
17	1	F2	BUSSMAN #AGC-5, 5 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"

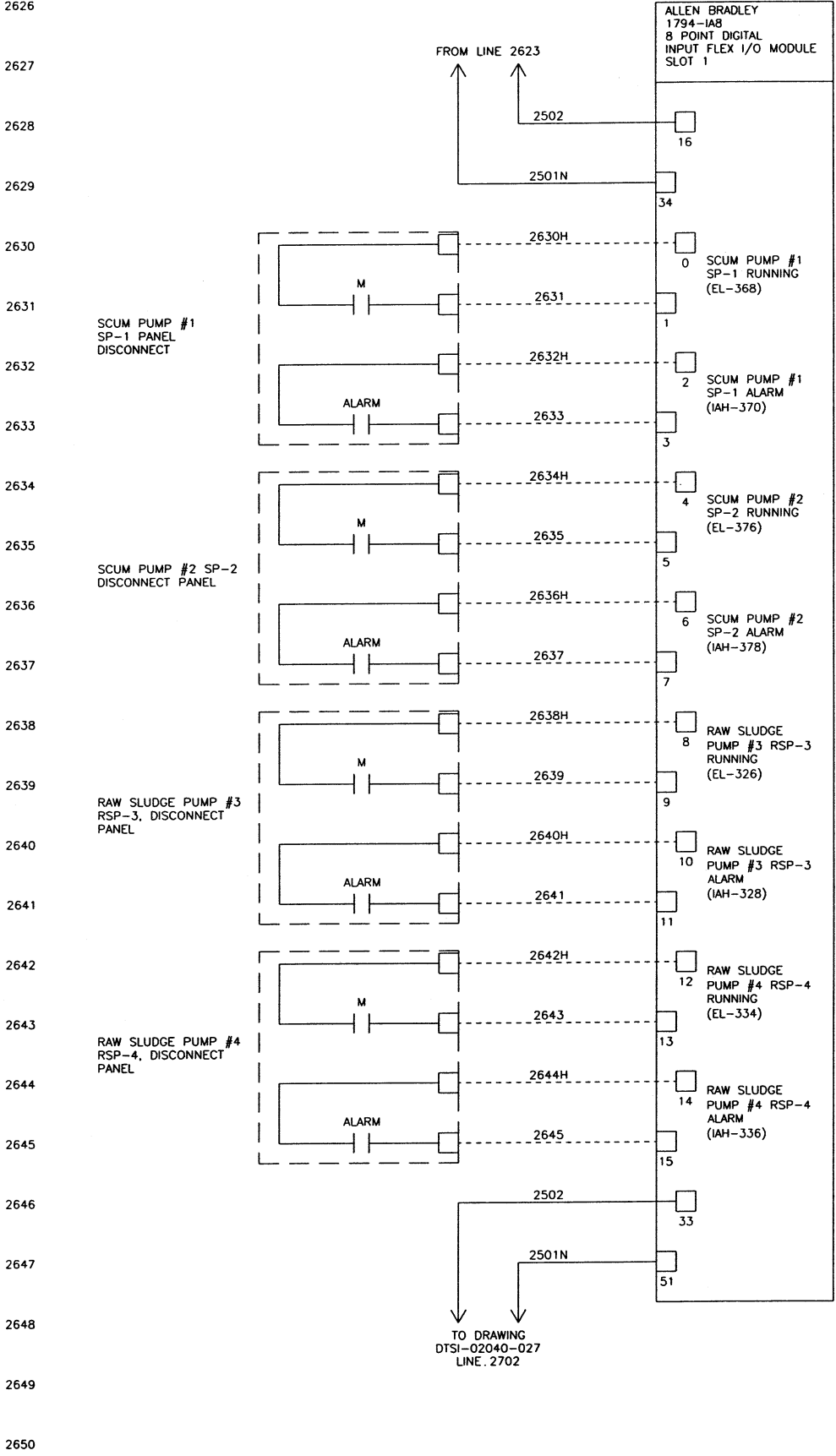
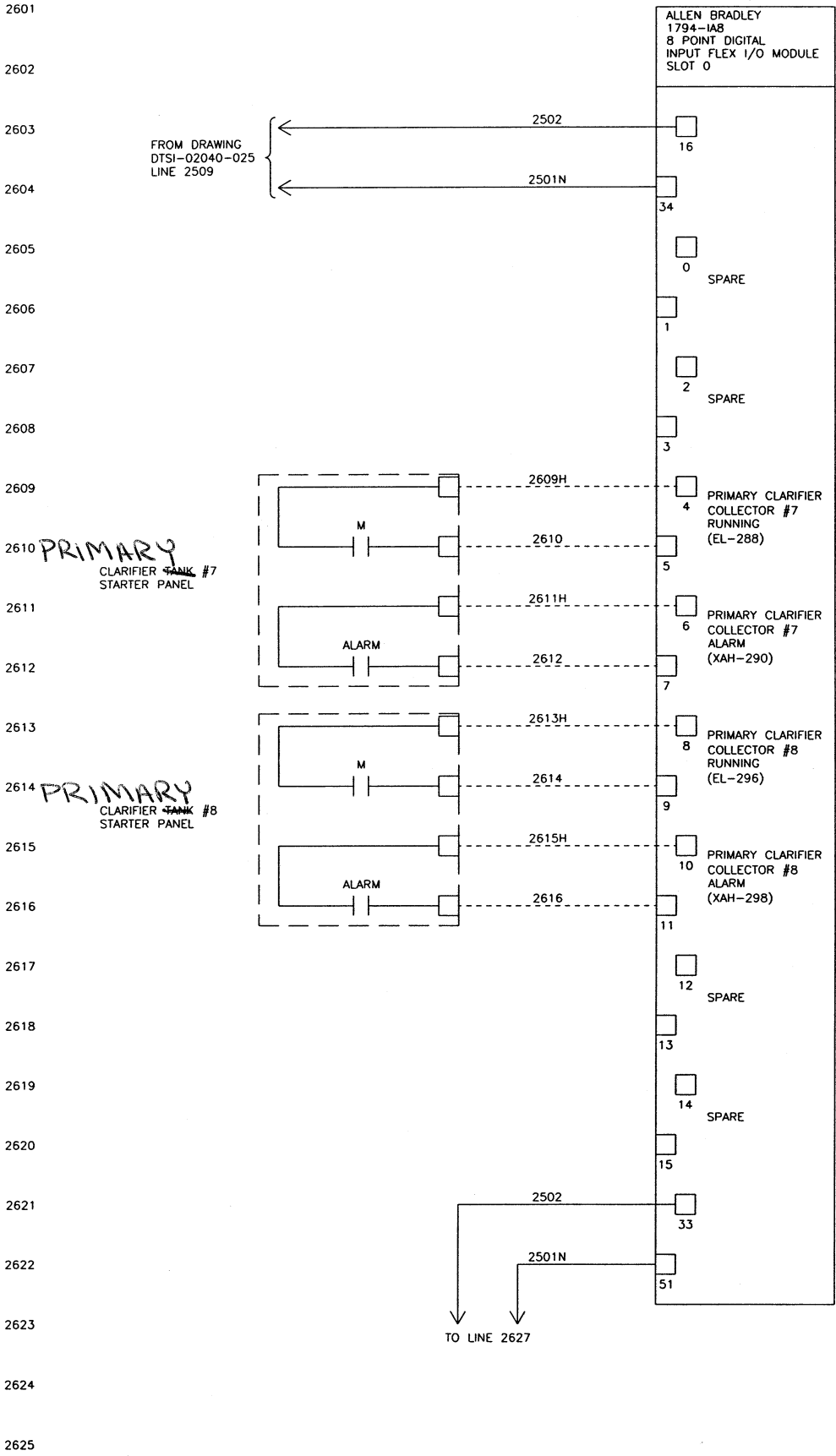


	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" x 16"	1/2"	YES	PRIMARY TREATMENT	REMOTE I/O ENCLOSURE – NODE
N2	1	0.75" x 2"	3/16"	NO	CONTROLNET	P.S.
N3	1	0.75" x 2"	3/16"	NO	CONTROLNET	ADAPTER
N4	1	0.5" x 1.5"	3/16"	NO	SLOT 0	
N5	1	0.5" x 1.5"	3/16"	NO	SLOT 1	
N6	1	0.5" x 1.5"	3/16"	NO	SLOT 2	
N7	1	0.5" x 1.5"	3/16"	NO	SLOT 3	
N8	1	0.5" x 1.5"	3/16"	NO	SLOT 4	
N9	1	0.5" x 1.5"	3/16"	NO	SLOT 5	
N10	0	0.5" x 1.5"	3/16"	NO	SLOT 6	
N11	0	0.5" x 1.5"	3/16"	NO	SLOT 7	
N12	1	0.5" x 3"	3/16"	NO	DC POWER SUPPLY	
N13	1	0.5" x 2"	3/16"	NO	RECEPTACLE	
N14	1	0.5" x 2"	3/16"	NO	GND BUS	
N15	1	0.75" x 2"	3/16"	NO	ISOLATED	GND BUS
N16	1	0.5" x 1"	3/16"	NO	TB1	
N17	1	0.5" x 1"	3/16"	NO	TB2	



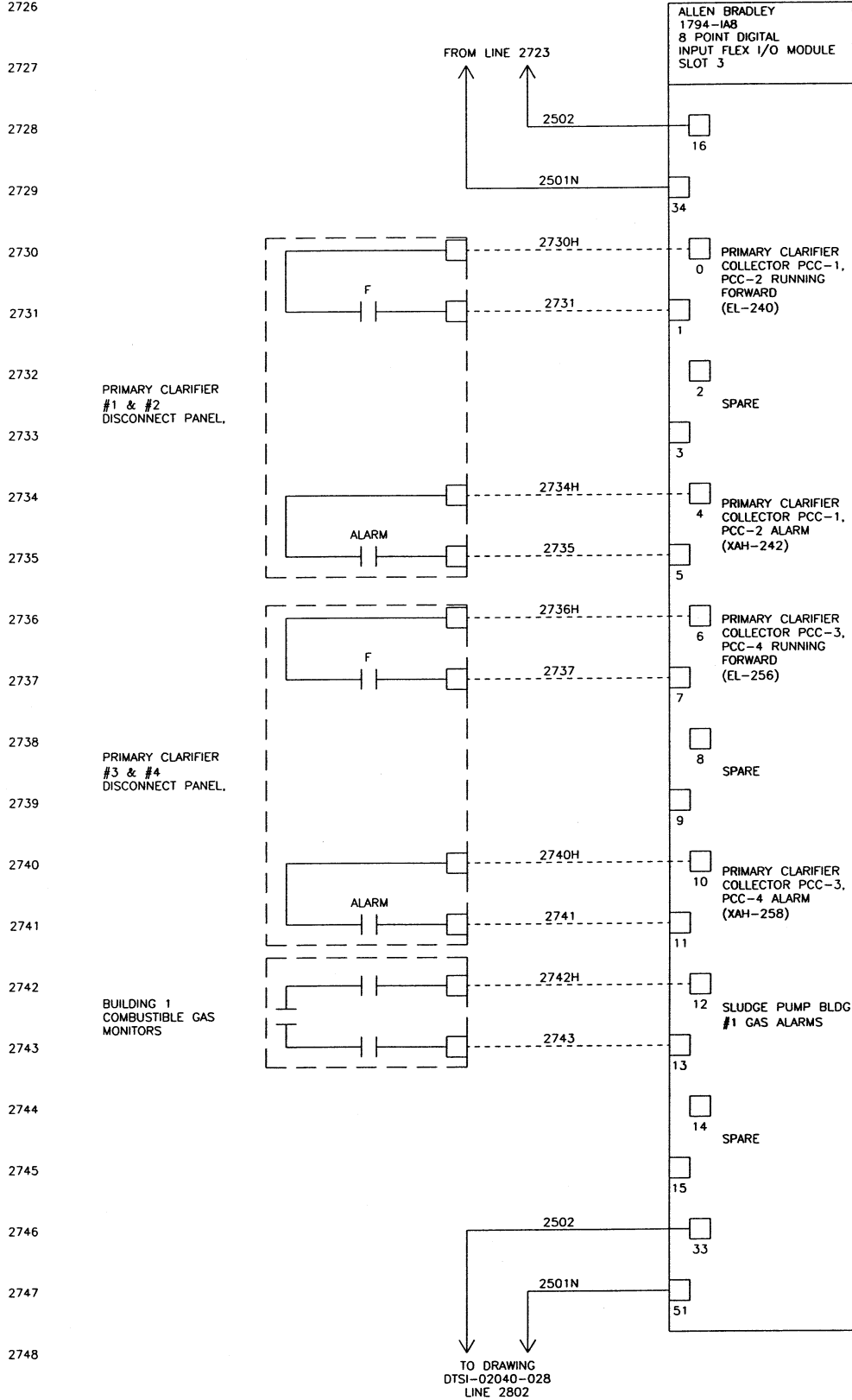
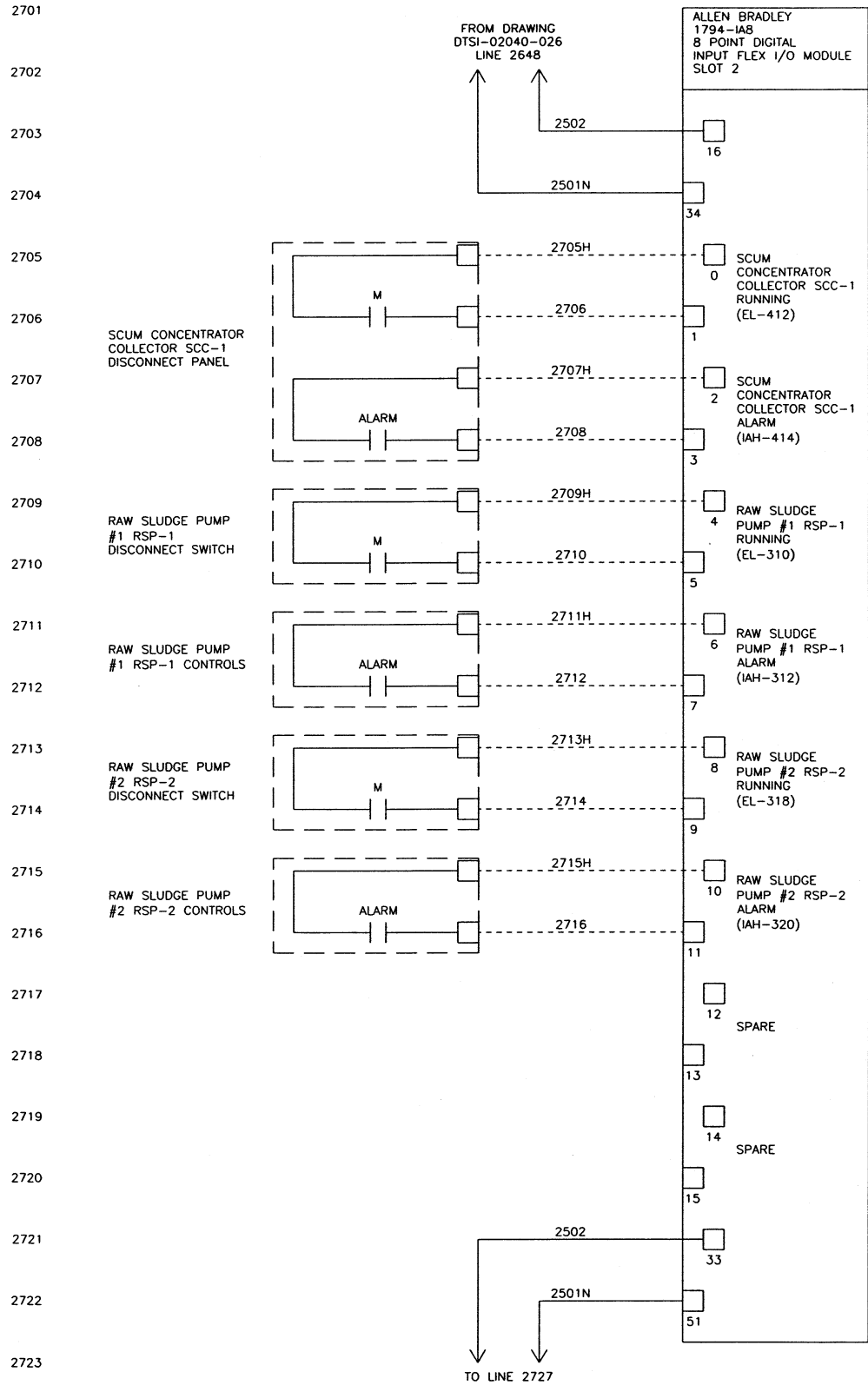
WIRE LUGS - NO ☒ . YES ☐ INSULATION: NYLON ☒ PVC ☐		RING ☐ . LOCKING SPADE ☐				TOLERANCES		 DUBLIN TECHNICAL SYSTEMS, INC.					
WIRE SPECIFICATIONS:		SIZE				COLOR		INSULATION		DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE	DRAWN BY <i>HR</i>
USAGE		AWG				BLK		THW/THHN		.03	APPROVED BY <i>BS</i>		
AC PANEL POWER		AWC #12		BLK		THW/THHN		FRACTIONAL	TITLE TRANS AT NODE 2 PRIMARY TREATMENT PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC				
AC PANEL NEUTRAL		AWC #12		WHT.		THW/THHN		+ 1/32"	DATE				
AC PANEL GROUND		AWC #12		GRN.		THW/THHN		ANGULAR	DRAWING NUMBER				
AC CONTROL POWER		AWC #14		RED		THW/THHN		1"	4/09/02				
AC CONTROL NEUTRAL		AWC #14		WHT.		THW/THHN		DTSI - 02040 - 025					
AC FOREIGN		AWC #14		YELN		THW/THHN							
DC POWER		AWC #16		BLUE		THW/THHN							
DC CONTROL		AWC #16		BLUE		THW/THHN							
SIGNAL INSTRUMENTS		AWC #16		2 CONDUCTOR SHLD		THW/THHN							
05/20/03 12:25													

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



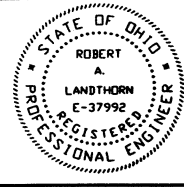
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	INSULATION: NYLON ☐ PVC ☒							
WIRE SPECIFICATIONS:		SIZE	COLOR	INSULATION	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031			
AC PANEL POWER		AWG #12	BLK.	THW/THHH	SCALE			
AC PANEL NEUTRAL		AWG #12	WHT.	THW/THHH	DRAWN BY HR			
AC PANEL GROUND		AWG #12	GRN.	THW/THHH	APPROVED BY BS			
AC CONTROL POWER		AWG #14	RED	THW/THHH	NONE			
AC CONTROL NEUTRAL		AWG #14	WHT.	THW/THHH	TITLE			
AC FOREIGN		AWG #14	YELLOW	THW/THHH	TRANS A2 NODE 2 PRIMARY TREATMENT I/O WIRING DIAGRAM SLOTS 0 & 1			
DC POWER		AWG #16	BLUE	THW/THHH	DATE			
DC CONTROL		AWG #16	BLUE	THW/THHH	DRAWING NUMBER			
SIGNAL/INSTRUMENTS		AWG #16	2 CONDUCTOR SHLD	THW/THHH	4/08/02 DTSI - 02040 - 026			

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



07/25/02 09:10

WIRE LUGS - NO ☒ YES ☐				RING ☐ LOCKING SPADE ☐			
INSULATION: NYLON ☐ PVC ☒							
WIRE SPECIFICATIONS:							
AC PANEL POWER	AWG #12	BLK.	THW/THIN	AC PANEL NEUTRAL	AWG #12	WHT.	THW/THIN
AC PANEL GROUND	AWG #12	GRN.	THW/THIN	AC CONTROL POWER	AWG #14	RED	THW/THIN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THIN	AC FOREIGN	AWG #14	YELLOW	THW/THIN
DC POWER	AWG #16	BLUE	THW/THIN	DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	BLUE	THW/THIN
				2 CONDUCTOR SHLD'D			

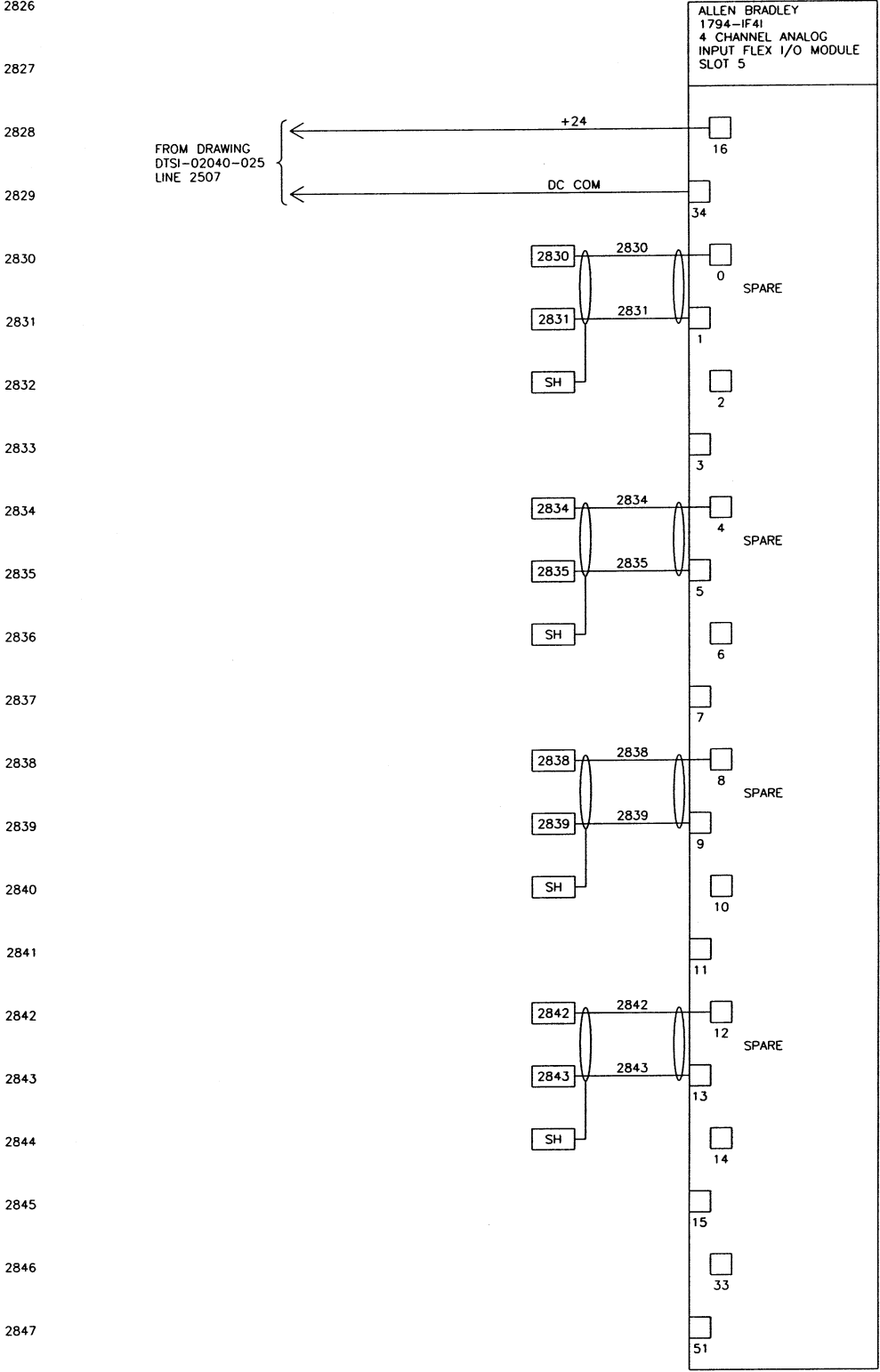
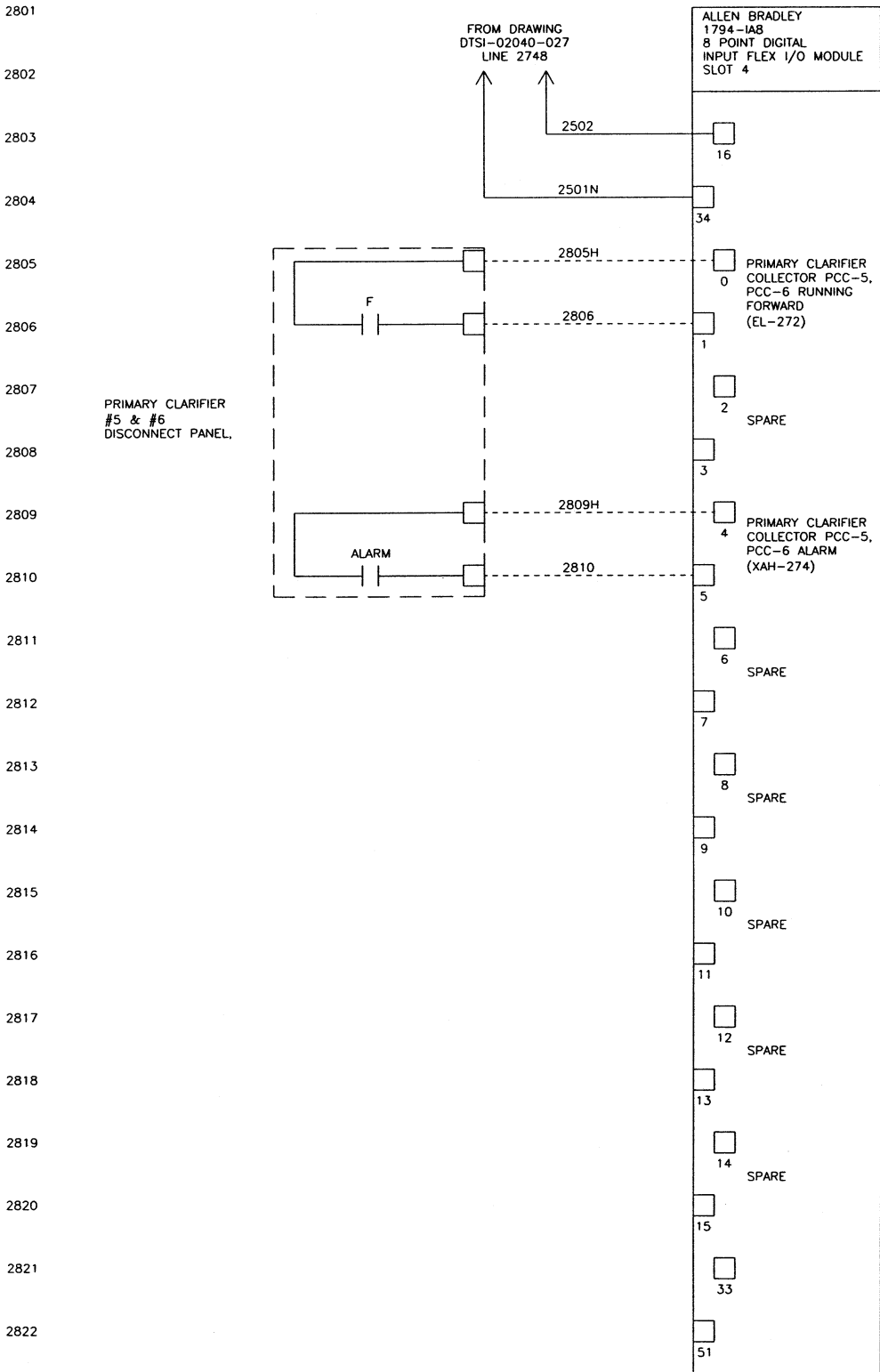


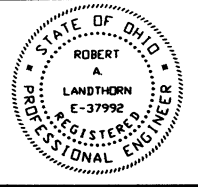
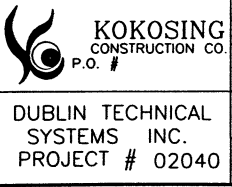
KOKOSING
CONSTRUCTION CO.
P.O. #

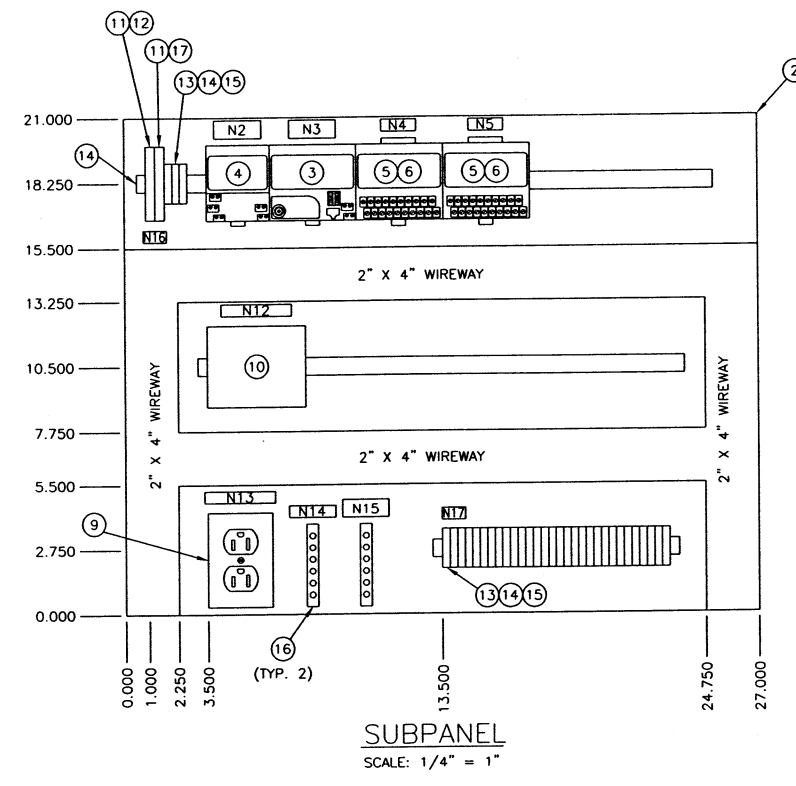
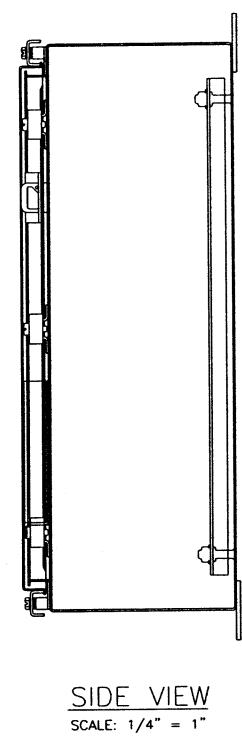
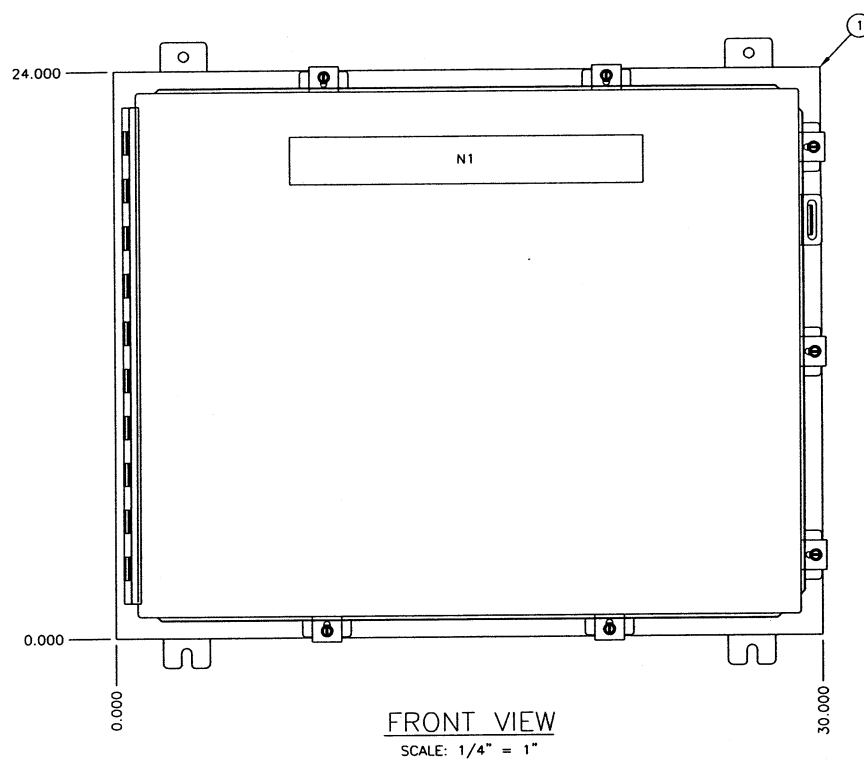
DUBLIN TECHNICAL
SYSTEMS, INC.
PROJECT # 02040

TOLERANCES	DUBLIN TECHNICAL SYSTEMS, INC.
±	
DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031
± .03	SCALE NONE
FRACTIONAL	DRAWN BY HR
± 1/32"	APPROVED BY BS
ANGULAR	TITLE TRANS A2 NODE 2 PRIMARY TREATMENT I/O WIRING DIAGRAM SLOTS 2 & 3
± 1"	DATE 4/08/02
	DRAWING NUMBER DTSI - 02040 - 027

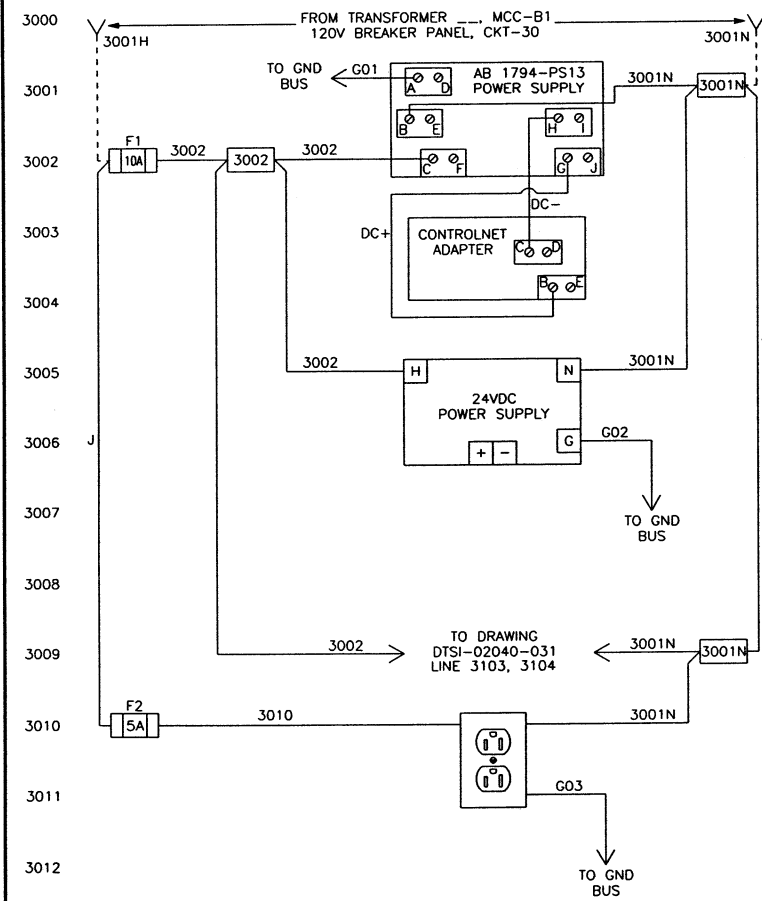
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5/12/03	A	FOR APPROVAL	CUST	HR	BS



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	INSULATION: NYLON ☐ PVC ☒								
	WIRE SPECIFICATIONS:								
	AC PANEL POWER	AWG #12 BLK.	COLOR	INSULATION					
	AC PANEL NEUTRAL	AWG #12 WHT.		THW/THHN					
	AC PANEL GROUND	AWG #12 GRN.		THW/THHN					
	AC CONTROL POWER	AWG #14 RED		THW/THHN					
	AC CONTROL NEUTRAL	AWG #14 WHT.		THW/THHN					
	AC FOREIGN	AWG #14 YELLOW		THW/THHN					
	DC POWER	AWG #16 BLUE		THW/THHN					
	DC CONTROL	AWG #16 BLUE		THW/THHN					
	SIGNAL/INSTRUMENTS	AWG #16 2 CONDUCTOR SH'D		THW/THHN					
	DATE				DRAWING NUMBER		TITLE		
	4/08/02				DTSI - 02040 - 028		TRANS A2 NODE 2 PRIMARY TREATMENT I/O WIRING DIAGRAM SLOTS 4 & 5		
	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031				SCALE NONE		DRAWN BY HR APPROVED BY BS		

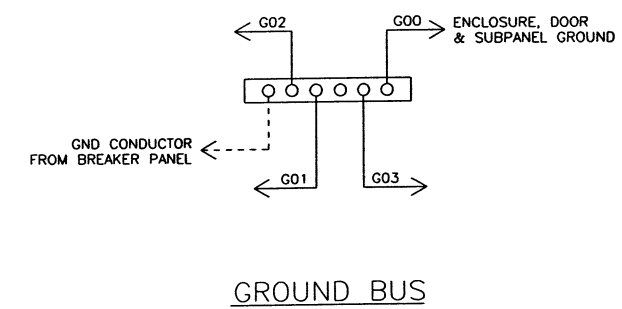


BILL OF MATERIAL			
ITEM	QTY	USED FOR	DESCRIPTION
1	1	ENCLOSURE	HOFFMAN #A-24H30BLP, 24"H X 30"W X 8"D, NEMA 4
2	1	SUBPANEL	HOFFMAN #A-30P24, 21"H X 27"W
3	1	CONTROLNET ADAPTER	ALLEN BRADLEY #1794-ACN15, 8 MODULE CONTROLNET INTERFACE
4	1	POWER SUPPLY	ALLEN BRADLEY #1794-PS13, 120/230VAC INPUT, 1.3A @ 24VDC OUTPUT
5	2	TERMINAL BASE	ALLEN BRADLEY #1794-TBNF, FUSED MODULE
6	2	INPUT MODULE	ALLEN BRADLEY #1794-IAB, 8 POINT NON-ISOLATED DIGITAL INPUT MODULE
7		NOT USED	
8		NOT USED	
9	1	RECEPTACLE	HUBBELL #CR5362GY WITH BOX AND COVERPLATE 20 AMPS 125 VOLT GRAY
10	1	POWER SUPPLY	PHOENIX CONTACT #2939247, 120VAC INPUT, 24VDC OUTPUT @ 1.0A
11	2	FUSED TERMINAL	PHOENIX CONTACT #UK 6.3-HESI WITH 2 POS. OR 3 POS BRIDGE, EB2-10 OR EB10-10
12	1	F1	BUSSMAN #AGC-10, 10 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"
13	33	TERMINAL	PHOENIX CONTACT #UK6N
14	LOT	RAIL	PHOENIX CONTACT #NS35 MOUNTING RAIL
15	LOT	END BARRIER	PHOENIX CONTACT #D-UK 4/10
16	1	GND BUS	ILSCO #D167-6, 6 POINT COPPER GND BUS
17	1	F2	BUSSMAN #AGC-5, 5 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"



NAMEPLATES WHITE WITH BLACK LETTERING

	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" X 15"	1/2"	YES	SCREW PUMPS & AERATION MIXERS	REMOTE I/O ENCLOSURE - NODE 3
N2	1	0.75" X 2"	3/16"	NO	CONTROLNET	P.S.
N3	1	0.75" X 2"	3/16"	NO	CONTROLNET	ADAPTER
N4	1	0.5" X 1.5"	3/16"	NO	SLOT 0	
N5	1	0.5" X 1.5"	3/16"	NO	SLOT 1	
N6	0	0.5" X 1.5"	3/16"	NO	SLOT 2	
N7	0	0.5" X 1.5"	3/16"	NO	SLOT 3	
N8	0	0.5" X 1.5"	3/16"	NO	SLOT 4	
N9	0	0.5" X 1.5"	3/16"	NO	SLOT 5	
N10	0	0.5" X 1.5"	3/16"	NO	SLOT 6	
N11	0	0.5" X 1.5"	3/16"	NO	SLOT 7	
N12	1	0.5" X 3"	3/16"	NO	DC POWER SUPPLY	
N13	1	0.5" X 2"	3/16"	NO	RECEPTACLE	
N14	1	0.5" X 2"	3/16"	NO	GND BUS	
N15	1	0.75" X 2"	3/16"	NO	ISOLATED	GND BUS
N16	1	0.5" X 1"	3/16"	NO	TB1	
N17	1	0.5" X 1"	3/16"	NO	TB2	



05/20/03 12:28

WIRE LUGS - NO ☒ YES ☐ RING ☐ LOCKING SPADE ☐
INSULATION: NYLON ☐ PVC ☒
WIRE SPECIFICATIONS:
USAGE SIZE COLOR INSULATION
AC PANEL POWER AWG #12 BLK THW/THHN
AC PANEL NEUTRAL AWG #12 WHT. THW/THHN
AC PANEL GROUND AWG #12 GRN. THW/THHN
AC CONTROL POWER AWG #14 RED THW/THHN
AC CONTROL NEUTRAL AWG #14 WHT. THW/THHN
AC FOREIGN AWG #14 YELLOW THW/THHN
DC POWER AWG #16 BLUE THW/THHN
DC CONTROL SIGNAL/INSTRUMENTS AWG #16 2 CONDUCTOR SHLD THW/THHN

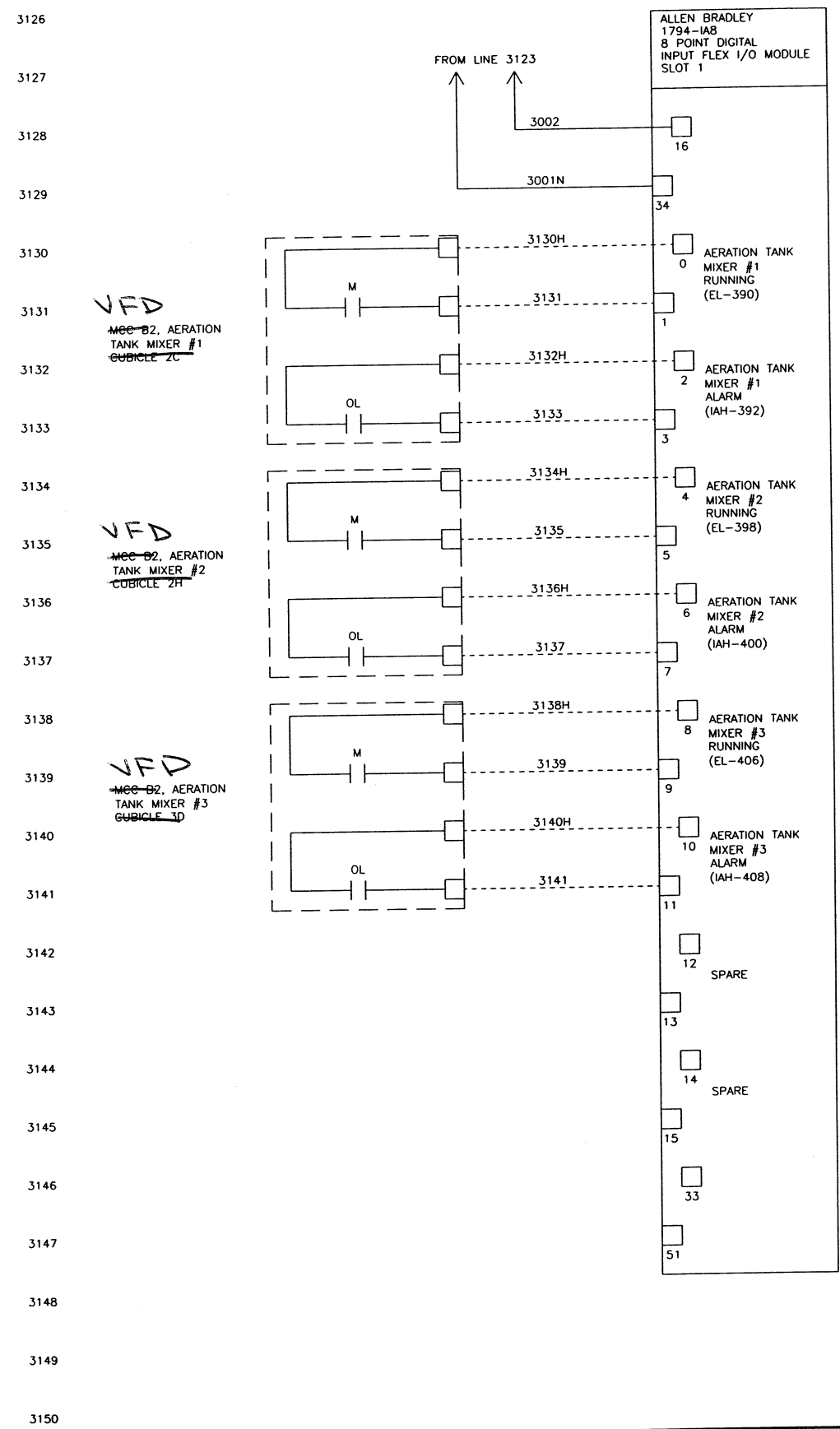
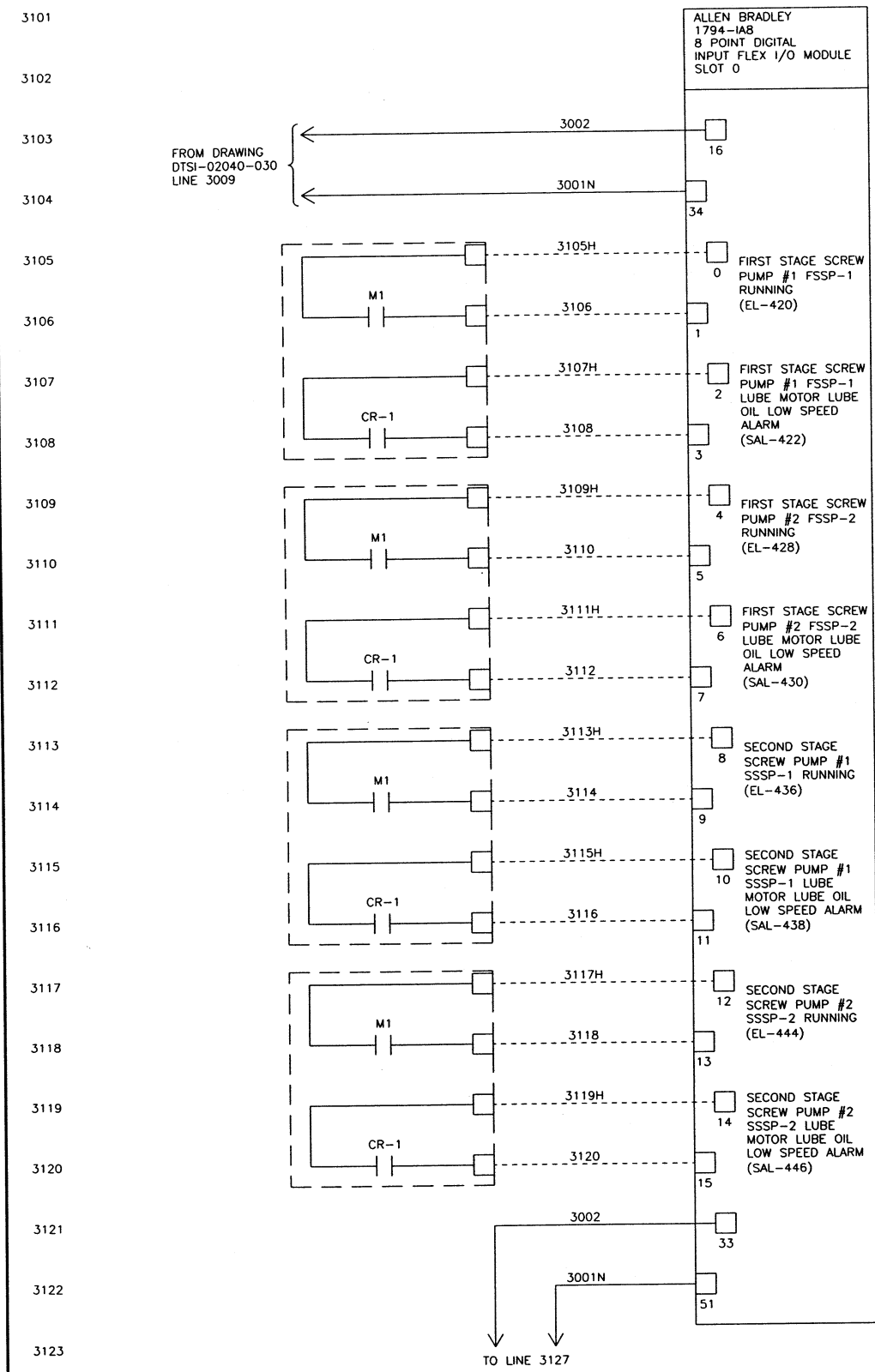
STATE OF OHIO
ROBERT A. LANDTHORN
C-37992
REGISTERED PROFESSIONAL ENGINEER

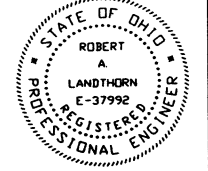
KOKOSING CONSTRUCTION CO.
P.O. #
DUBLIN TECHNICAL SYSTEMS INC.
PROJECT # 02040

TOLERANCES
DECIMAL ± .03
FRACTIONAL ± 1/32"
ANGULAR ± 1°
CITY OF MASSILLON, OHIO
REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000
PROJECT NO. E9031
TITLE TRANS B & C NODE 3 SCREW PUMPS & AERATION MIXERS PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC
DATE 4/09/02
DRAWING NUMBER DTSI - 02040 - 030

DUBLIN TECHNICAL SYSTEMS, INC.
SCALE NONE
DRAWN BY HR
APPROVED BY BS

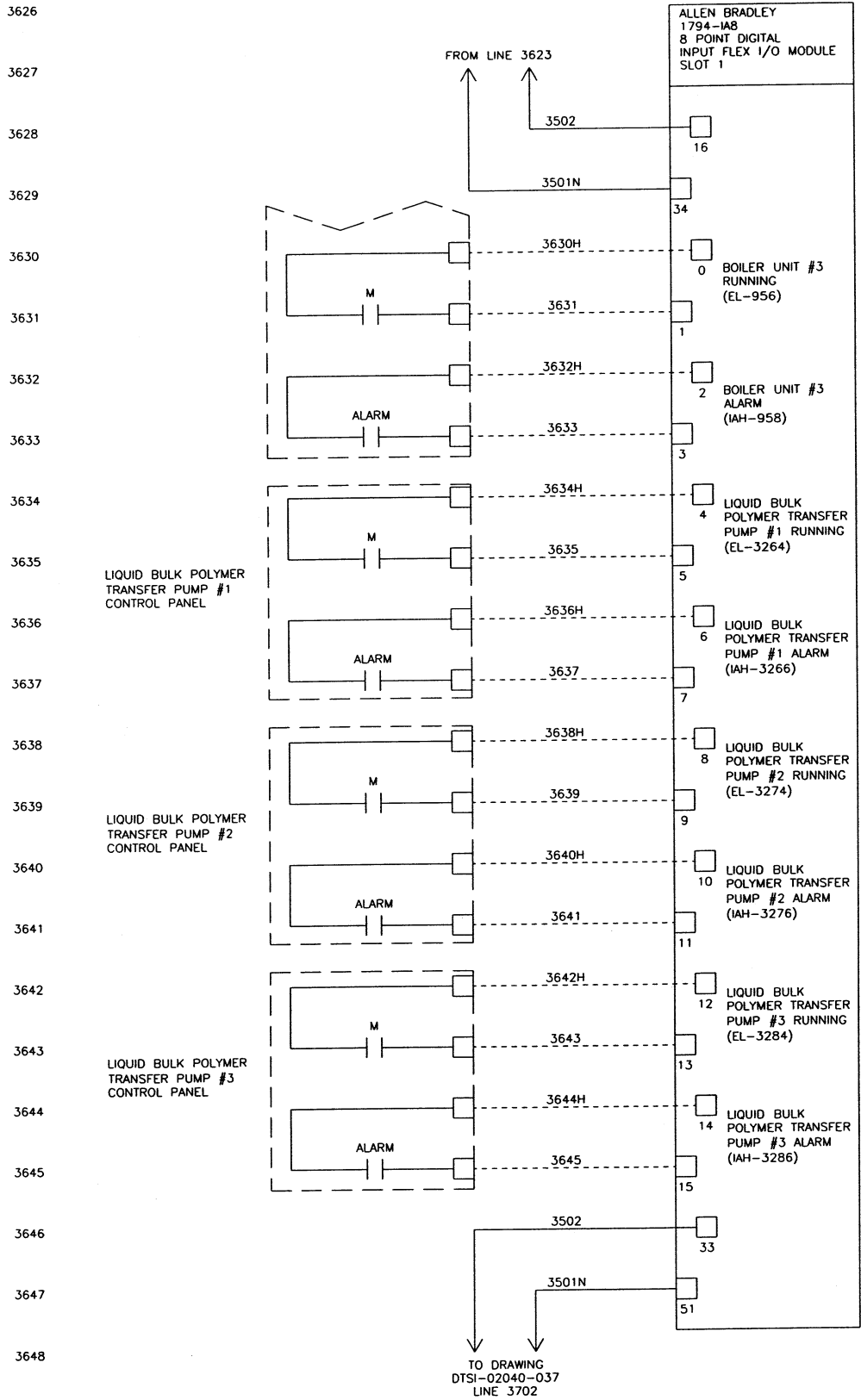
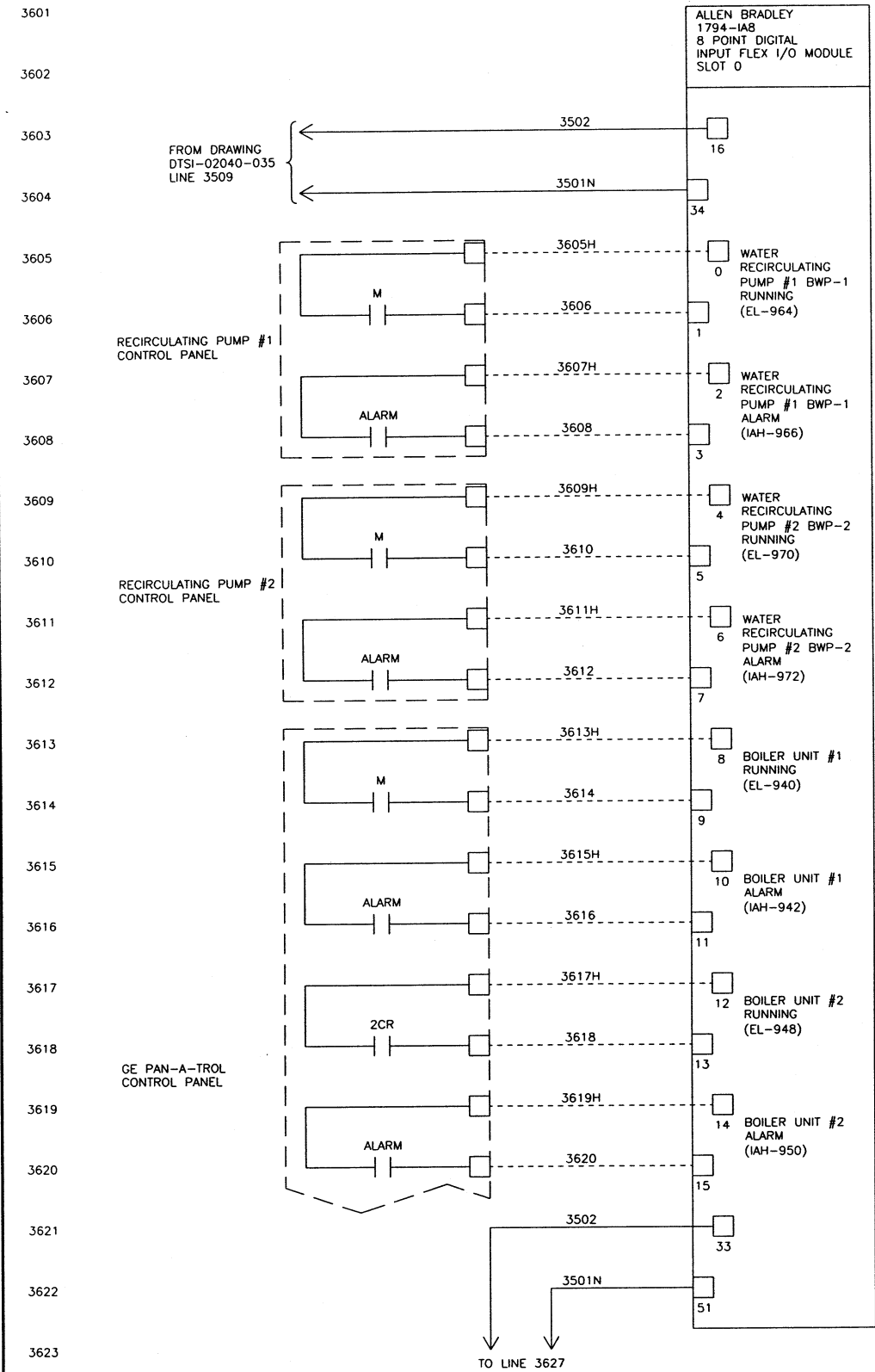
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5/12/03	A	FOR APPROVAL	CUST	HR	BS

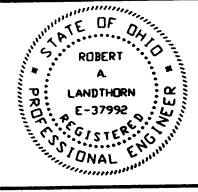


04/09/02 13:27	WIRE LUGS - NO ☒ YES ☐	RING ☐ LOCKING SPADE ☐		 KOKOSING CONSTRUCTION CO. P.O. #	TOLERANCES	 DUBLIN TECHNICAL SYSTEMS, INC.			
	INSULATION: NYLON ☐ PVC ☒				DECIMAL		CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE	DRAWN BY HR
	WIRE SPECIFICATIONS:				FRACTIONAL		TITLE TRANS B & C NODE 3 SCREW PUMPS & AERATION MIXERS I/O WIRING DIAGRAM SLOTS 0 & 1	NONE	APPROVED BY BS
	USAGE				ANGULAR		DATE	DRAWING NUMBER	

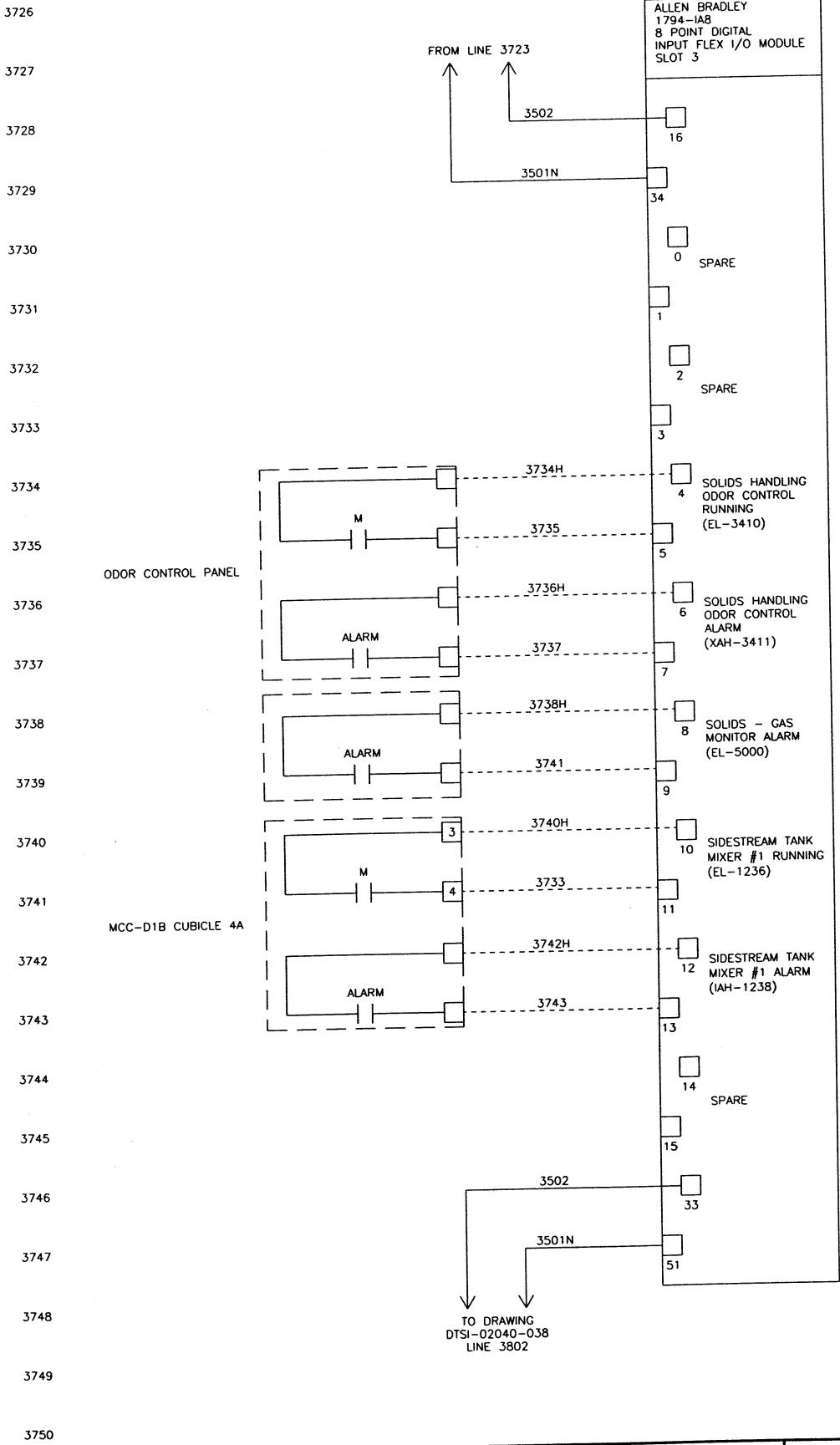
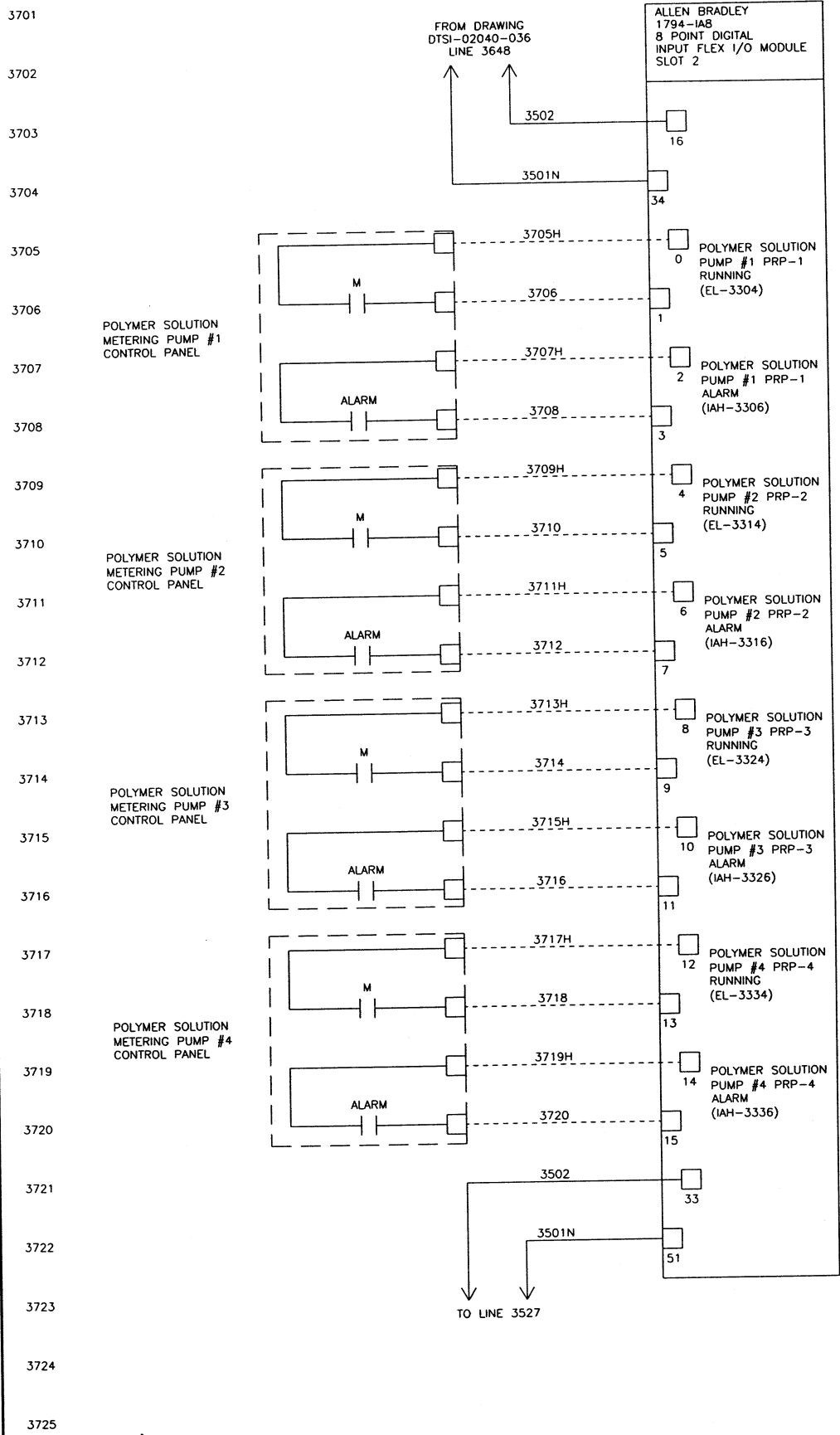
DATE	4/08/02	DTSI - 02040 - 031
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DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



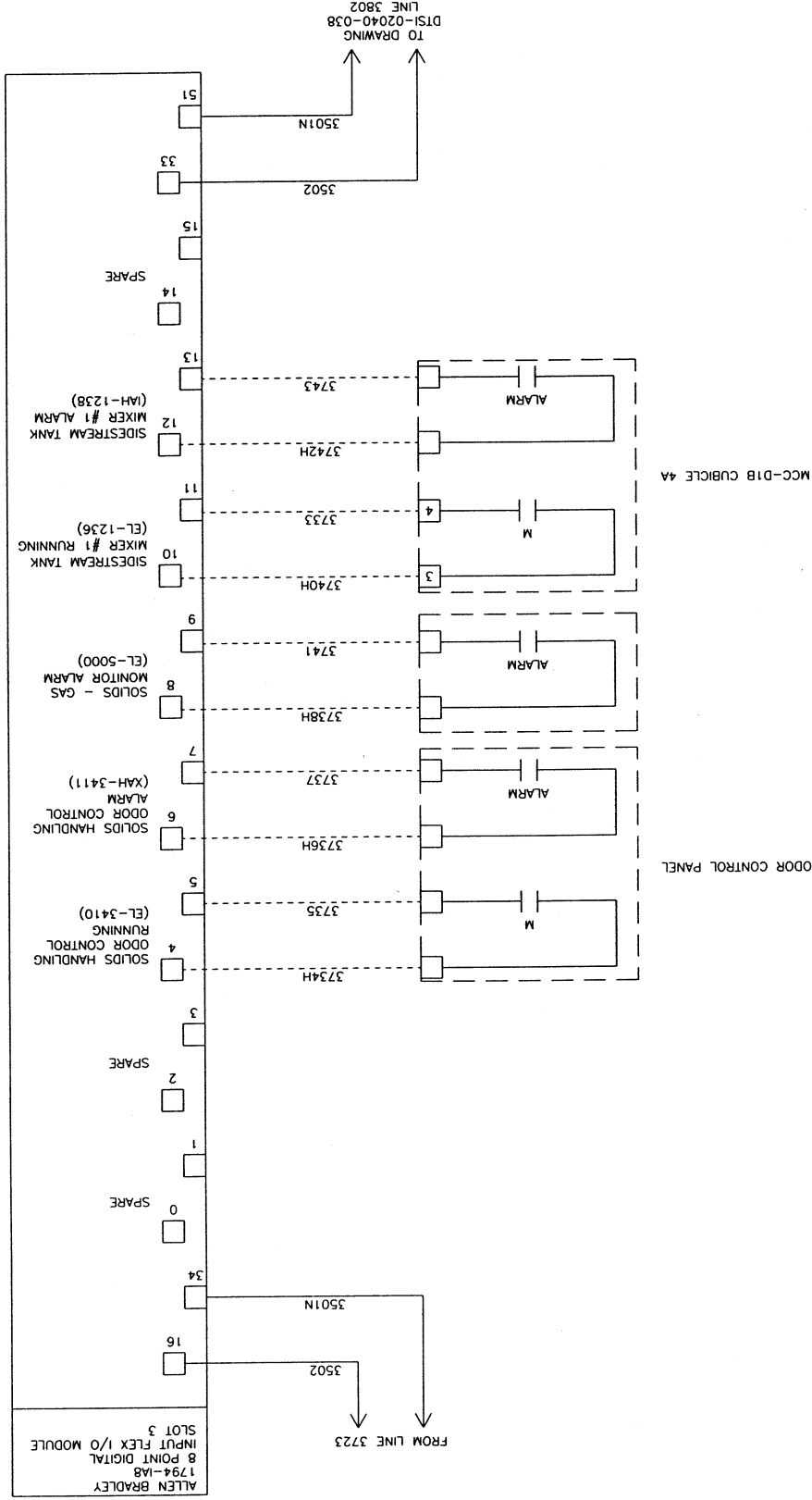
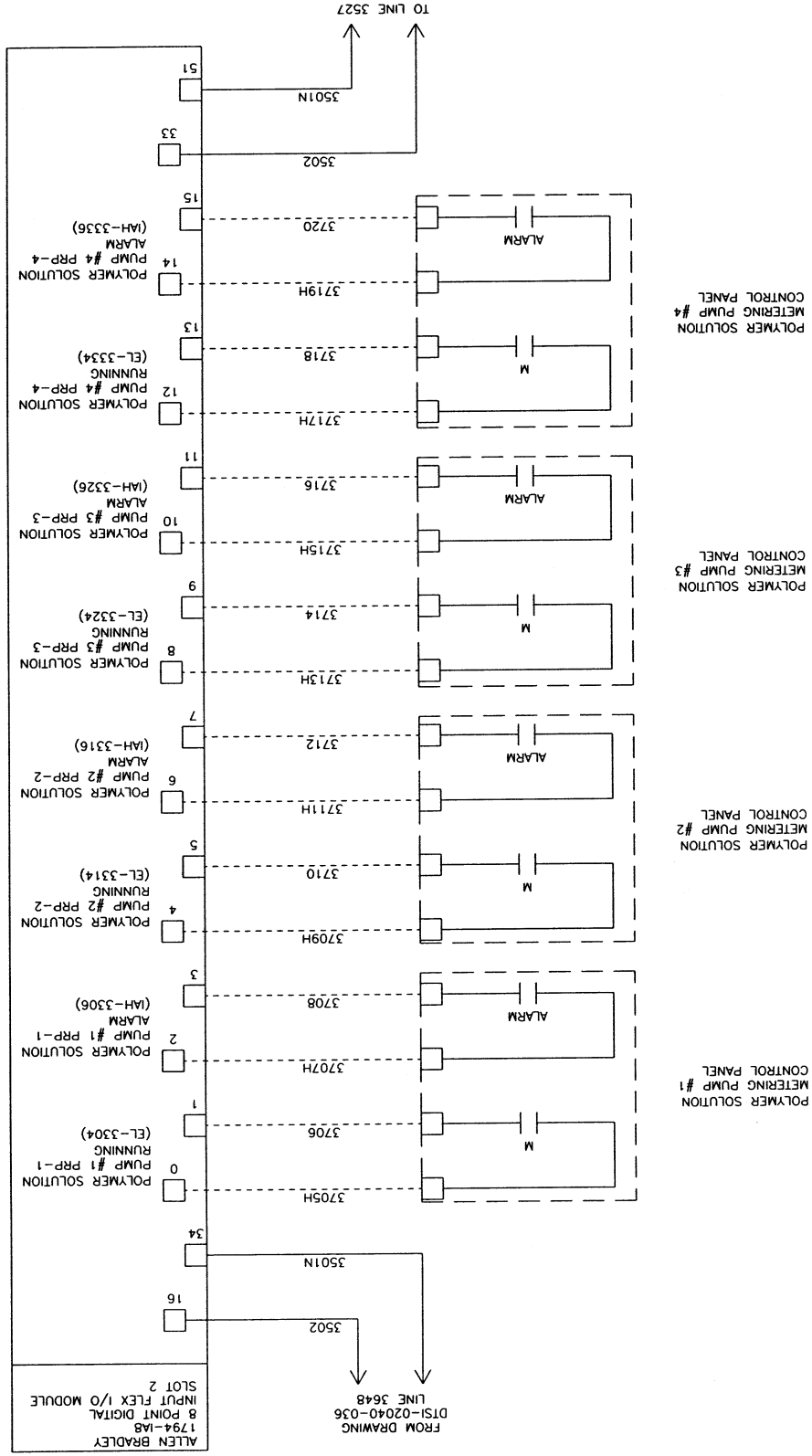
07/25/02 09:19	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐			 KOKOSING CONSTRUCTION CO. P.O. #	TOLERANCES		 DUBLIN TECHNICAL SYSTEMS, INC.				
	INSULATION: NYLON ☐ PVC ☒		WIRE SPECIFICATIONS:				DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE	DRAWN BY HR			
	USAGE		SIZE	COLOR			INSULATION	FRACTIONAL		± .03	NONE		APPROVED BY BS
	AC PANEL POWER		AWG #12	BLK.			THW/THHN	ANGULAR		± 1/32"	TITLE		
	AC PANEL NEUTRAL		AWG #12	WHT.			THW/THHN	DATE		4/08/02	DRAWING NUMBER		
	AC PANEL GROUND		AWG #12	GRN.			THW/THHN	DTSI - 02040 - 036					
	AC CONTROL POWER		AWG #14	RED			THW/THHN						
	AC CONTROL NEUTRAL		AWG #14	WHT.			THW/THHN						
	AC FOREIGN		AWG #14	YELLOW			THW/THHN						
	DC POWER		AWG #16	BLUE			THW/THHN						
	DC CONTROL		AWG #16	BLUE			THW/THHN						
	SIGNAL/INSTRUMENTS		AWG #16	2 CONDUCTOR SHLD			THW/THHN						

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



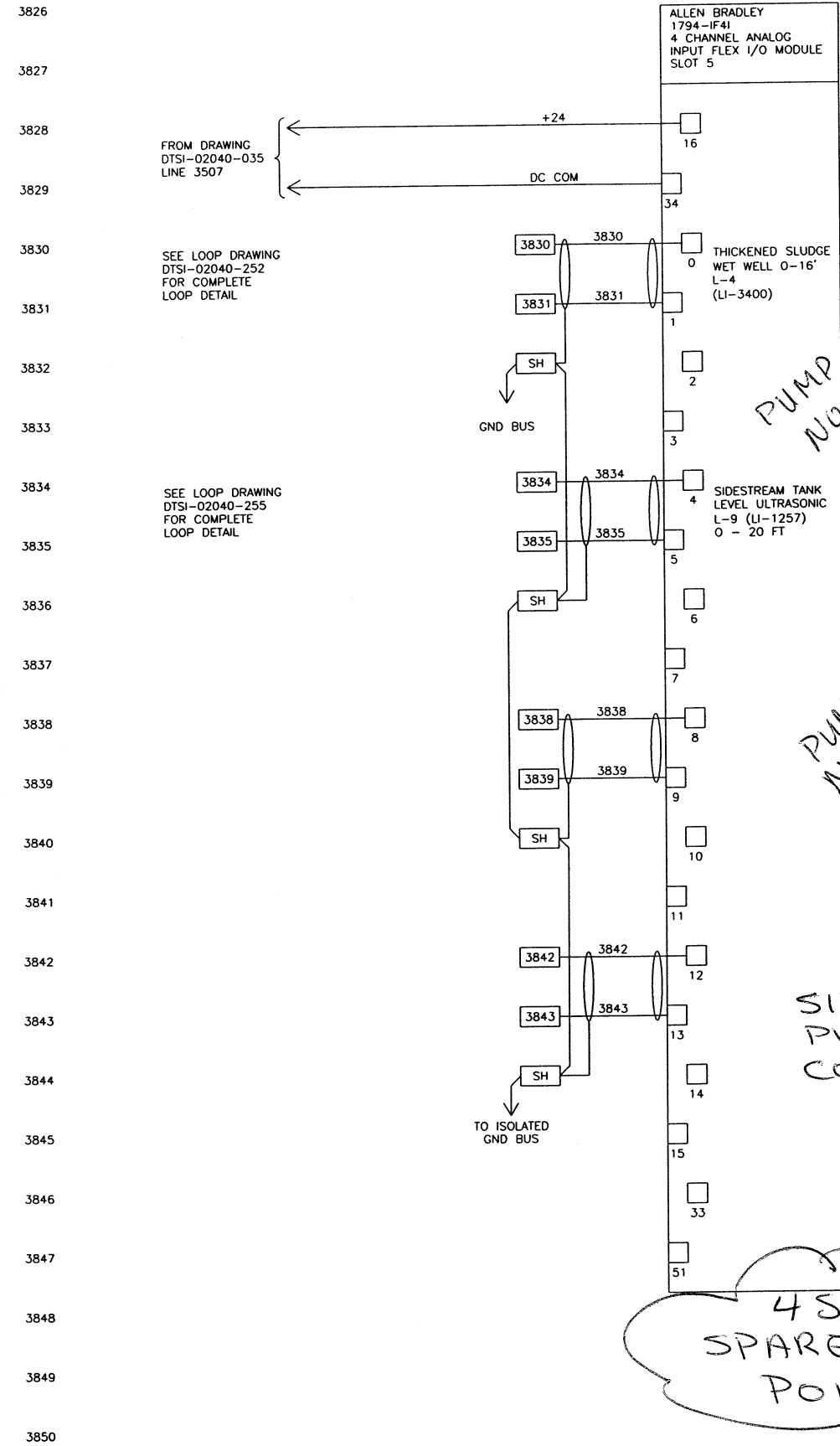
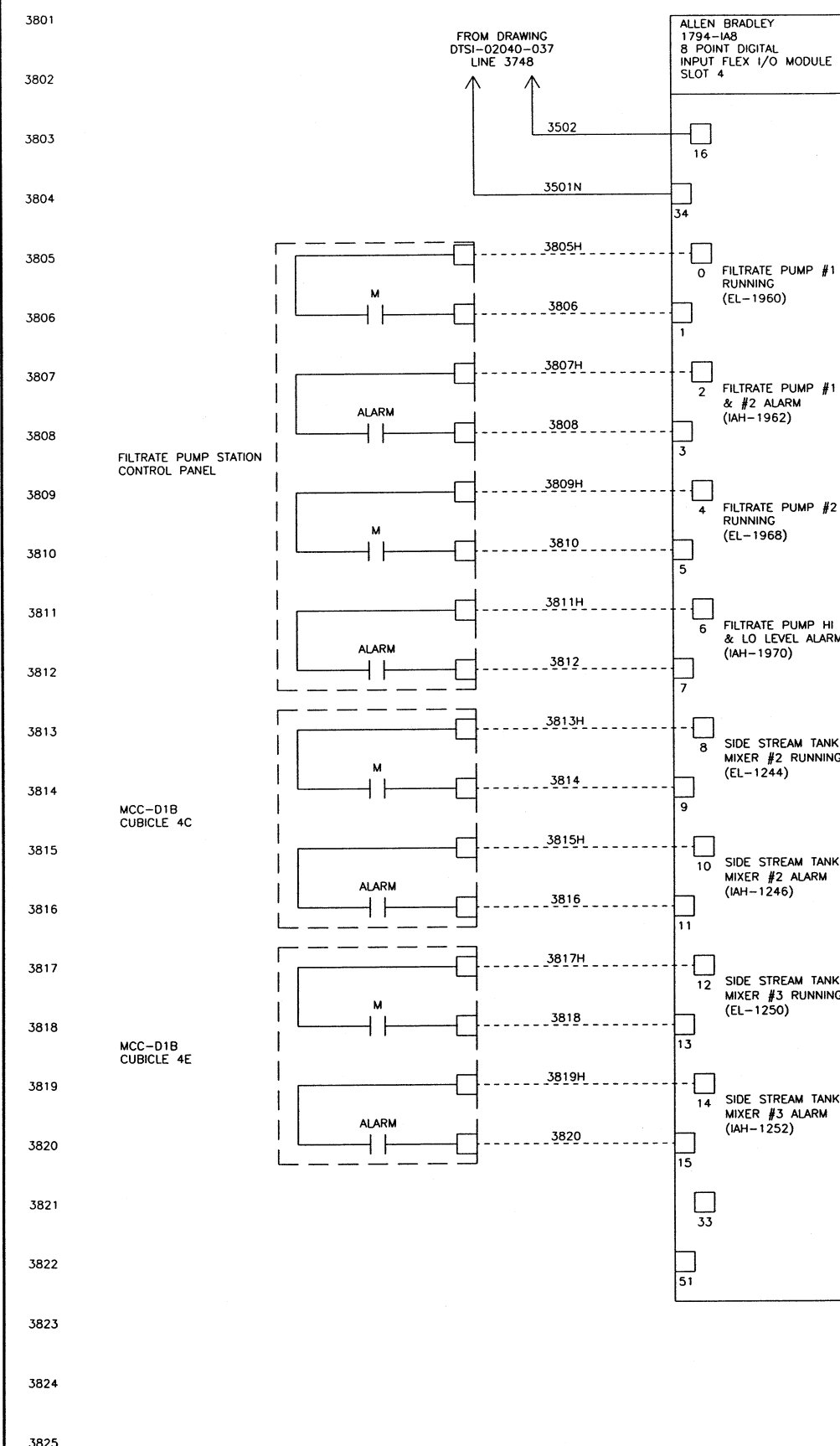
04/12/02 13:22	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐				TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.			
	INSULATION: NYLON ☐ PVC ☒		WIRE SPECIFICATIONS:				DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE	DRAWN BY HR		
			USAGE							FRACTIONAL	TITLE	
			AC PANEL POWER				AWG #12 BLK	THW/THHN	± 1/32"	TRANS D1A NODE 4 SOLIDS HANDLING UNIT #1 I/O WIRING DIAGRAM SLOTS 2 & 3		
			AC PANEL NEUTRAL				AWG #12 WHT	THW/THHN	ANGULAR	DATE		
			AC PANEL GROUND				AWG #12 GRN	THW/THHN	± 1"	DRAWING NUMBER		
			AC CONTROL POWER				AWG #14 RED	THW/THHN	4/08/02			
			AC CONTROL NEUTRAL				AWG #14 WHT	THW/THHN				
			AC FOREIGN				AWG #14 YELLOW	THW/THHN				
			DC POWER				AWG #16 BLUE	THW/THHN				
		DC CONTROL		AWG #16 BLUE	THW/THHN							
		SIGNAL/INSTRUMENTS		AWG #16 2 CONDUCTOR SHLD	THW/THHN							

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS

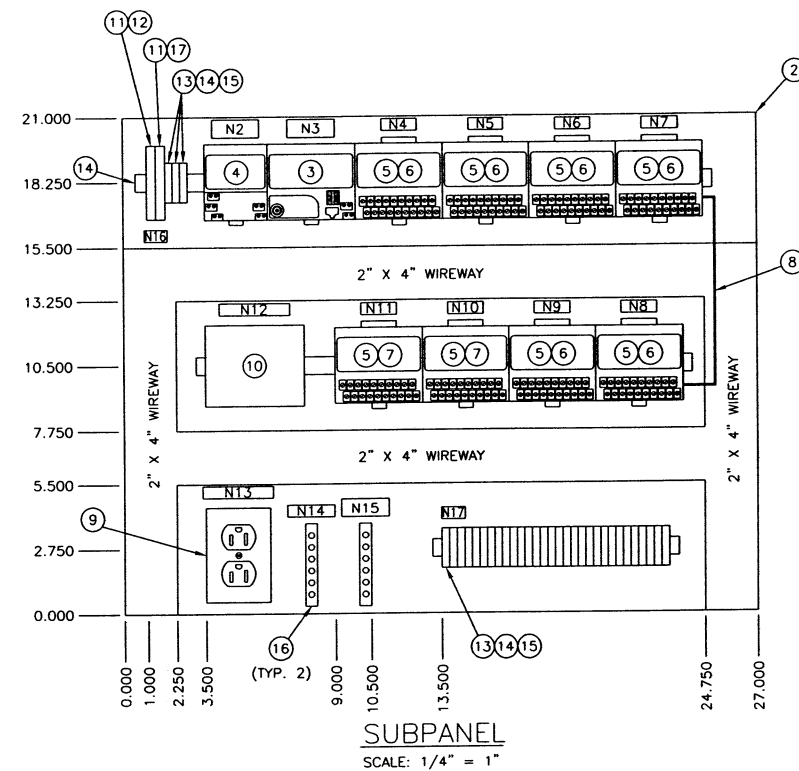


DATE 4/08/02 DRAWING NUMBER DTSL - 02040 - 037		PROJECT # 02040 DUBLIN TECHNICAL SYSTEMS INC.				04/12/02 13:22	
TYPED BY: J. NOE CHECKED BY: J. NOE SCALE: NONE DRAWN BY: HR APPROVED BY: BS		FRACTIONAL: 1/32" DECIMAL: .03" TOLERANCES:		SIZE:		WIRE SPECIFICATIONS:	
CITY OF MASSACHUSETTS REGIONAL WATER TREATMENT PLANT - 02000		KOKOSING P.O. CONSTRUCTION CO.		INSULATION:		WHITE LUGS - NO ☐ YES ☐ INSULATION: W/TON ☐ P/C ☐	
DUBLIN TECHNICAL SYSTEMS, INC.		DUBLIN TECHNICAL SYSTEMS INC.		RING ☐ LOCKING SPAD ☐		WIRE LUGS - NO ☐ YES ☐	

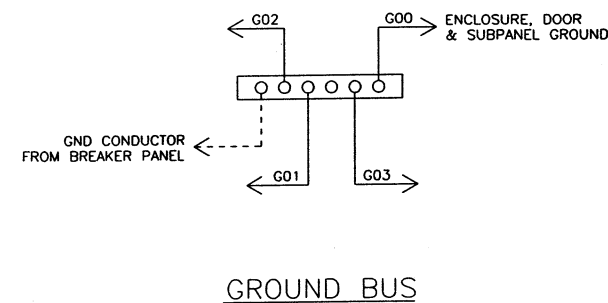
AB
1794-1A8
8 POINT DIGITAL
INPUT FLEX I/O MODULE
SLOT 6

[illegible]

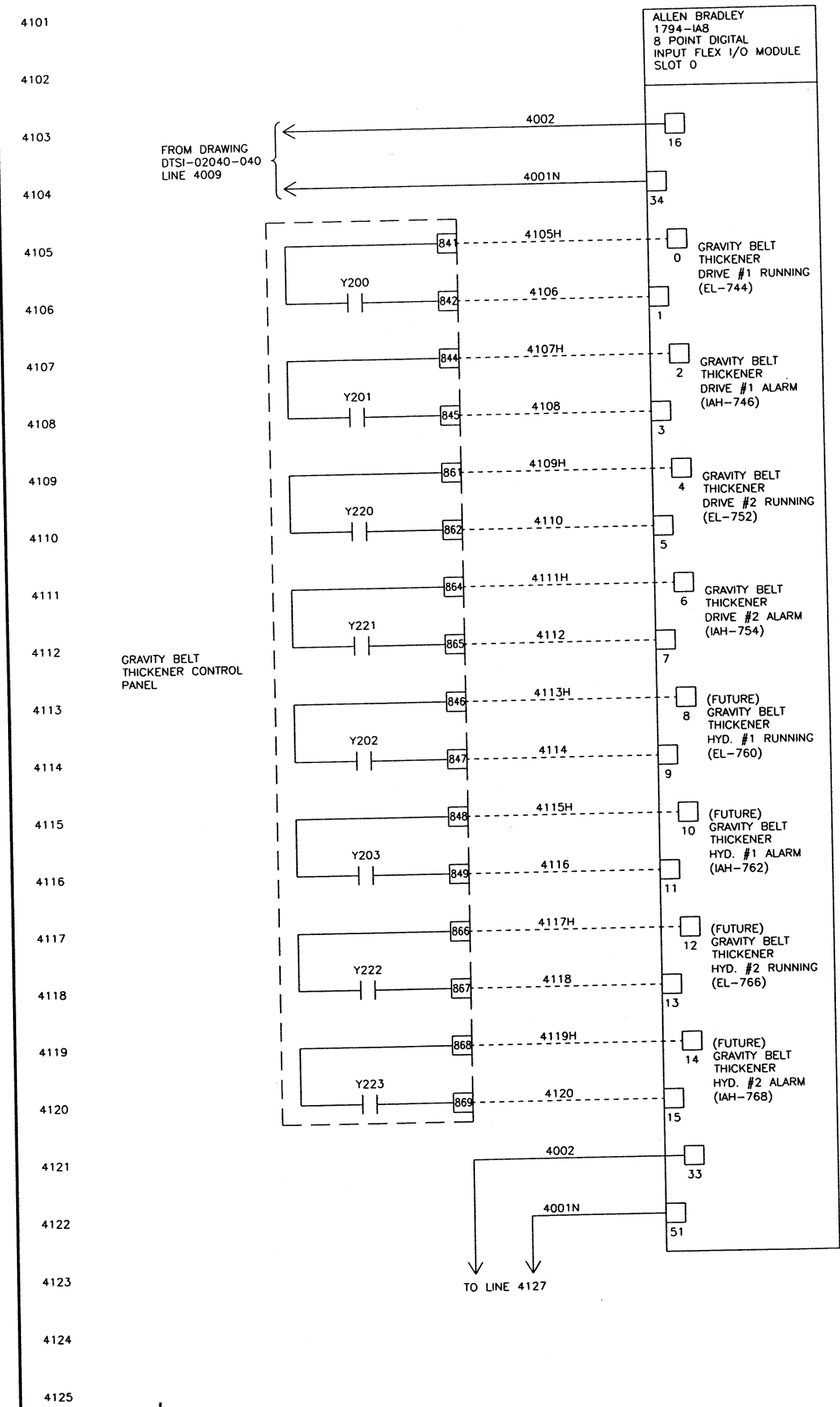
BILL OF MATERIAL			
ITEM	QTY	USED FOR	DESCRIPTION
1	1	ENCLOSURE	HOFFMAN #A-24H30BLP. 24"H X 30"W X 8"D, NEMA 4
2	1	SUBPANEL	HOFFMAN #A-30P24. 21"H X 27"W
3	1	CONTROLNET ADAPTER	ALLEN BRADLEY #1794-ACN15, 8 MODULE CONTROLNET INTERFACE
4	1	POWER SUPPLY	ALLEN BRADLEY #1794-PS13, 120/230VAC INPUT, 1.3A @ 24VDC OUTPUT
5	7	TERMINAL BASE	ALLEN BRADLEY #1794-TBNF, FUSED MODULE
6	6	INPUT MODULE	ALLEN BRADLEY #1794-IAB, 8 POINT NON-ISOLATED DIGITAL INPUT MODULE
7	2	INPUT MODULE	ALLEN BRADLEY #1794-IF41, 4 POINT ISOLATED ANALOG INPUT MODULE
8	1	EXTENDER CABLE	ALLEN BRADLEY #1794-CE1, 1 FOOT
9	1	RECEPTACLE	HUBBELL #CR5362GY WITH BOX AND COVERPLATE 20 AMPS 125 VOLT GRAY
10	1	POWER SUPPLY	PHOENIX CONTACT #2939247, 120VAC INPUT, 24VDC OUTPUT @ 1.0A
11	2	FUSED TERMINAL	PHOENIX CONTACT #UK 6.3-HESI WITH 2 POS. OR 3 POS BRIDGE, EB2-10 OR EB10-10
12	1	F1	BUSSMAN #AGC-10, 10 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"
13	33	TERMINAL	PHOENIX CONTACT #UK6N
14	LOT	RAIL	PHOENIX CONTACT #NS35 MOUNTING RAIL
15	LOT	END BARRIER	PHOENIX CONTACT #D-UK 4/10
16	1	GND BUS	ILSCO #D167-6, 6 POINT COPPER GND BUS
17	1	F2	BUSSMAN #AGC-5, 5 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"



	QTY	SIZE	LETTER SIZE	MTC. HOLES	LINE 1	LINE 2
N1	1	2" X 15"	1/2"	YES	SOLIDS HANDLING UNIT #2	REMOTE I/O ENCLOSURE -- NODE 5
N2	1	0.75" X 2"	3/16"	NO	CONTROLNET	P.S.
N3	1	0.75" X 2"	3/16"	NO	CONTROLNET	ADAPTER
N4	1	0.5" X 1.5"	3/16"	NO	SLOT 0	
N5	1	0.5" X 1.5"	3/16"	NO	SLOT 1	
N6	1	0.5" X 1.5"	3/16"	NO	SLOT 2	
N7	1	0.5" X 1.5"	3/16"	NO	SLOT 3	
N8	1	0.5" X 1.5"	3/16"	NO	SLOT 4	
N9	1	0.5" X 1.5"	3/16"	NO	SLOT 5	
N10	1	0.5" X 1.5"	3/16"	NO	SLOT 6	
N11	1	0.5" X 1.5"	3/16"	NO	SLOT 7	
N12	1	0.5" X 3"	3/16"	NO	DC POWER SUPPLY	
N13	1	0.5" X 2"	3/16"	NO	RECEPTACLE	
N14	1	0.5" X 2"	3/16"	NO	GND BUS	
N15	1	0.75" X 2"	3/16"	NO	ISOLATED	GND BUS
N16	1	0.5" X 1"	3/16"	NO	TB1	
N17	1	0.5" X 1"	3/16"	NO	TB2	



DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



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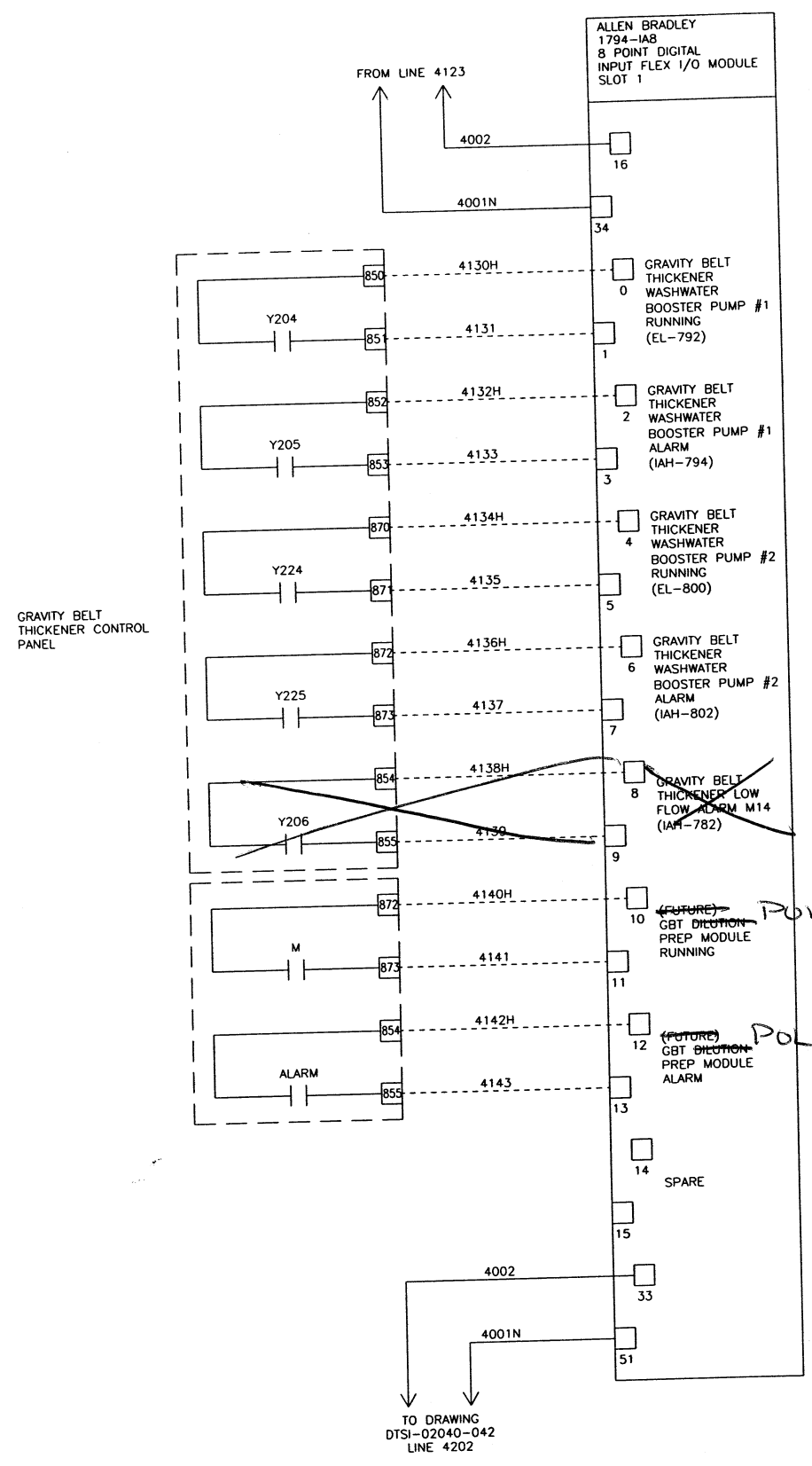
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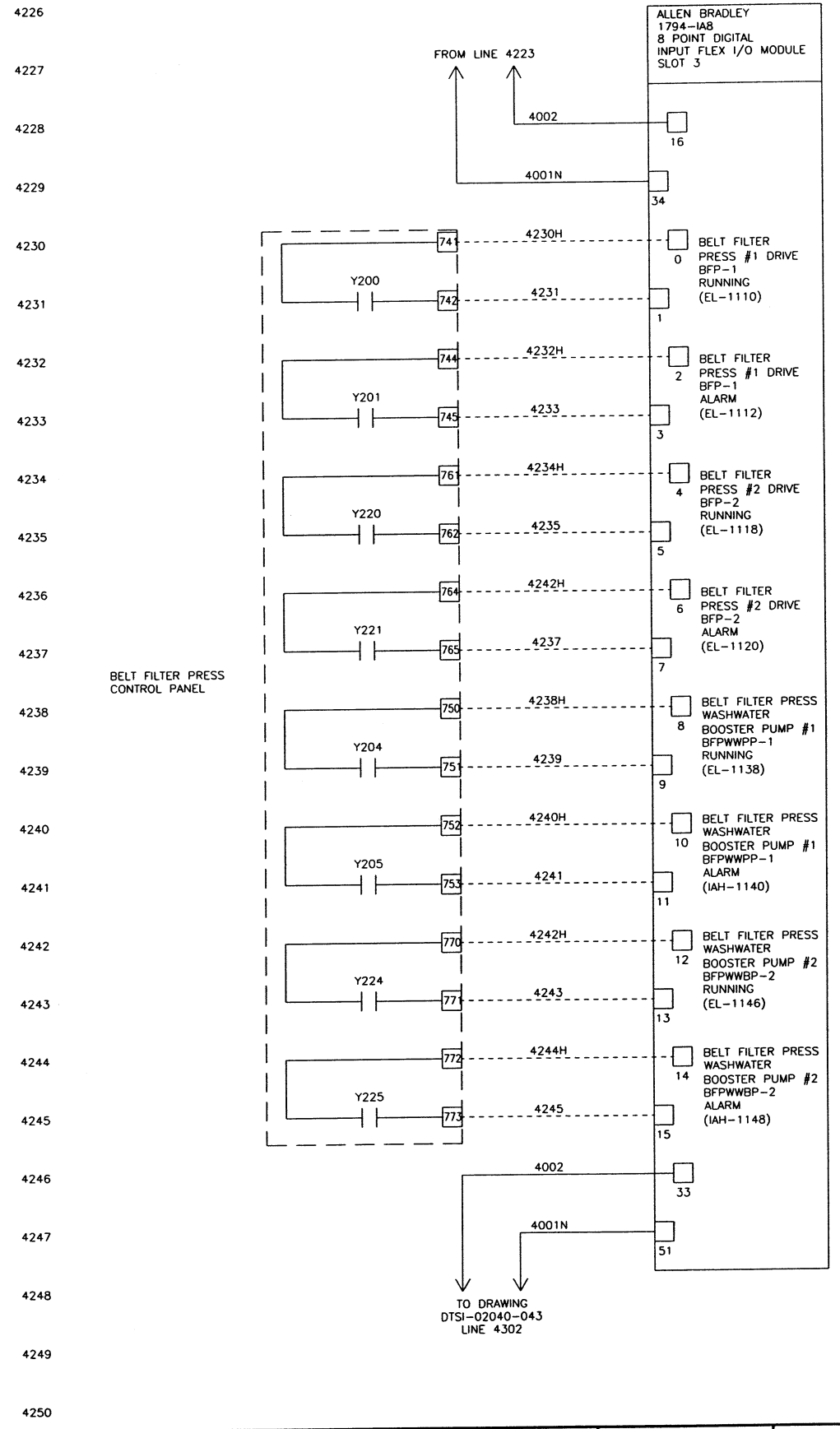
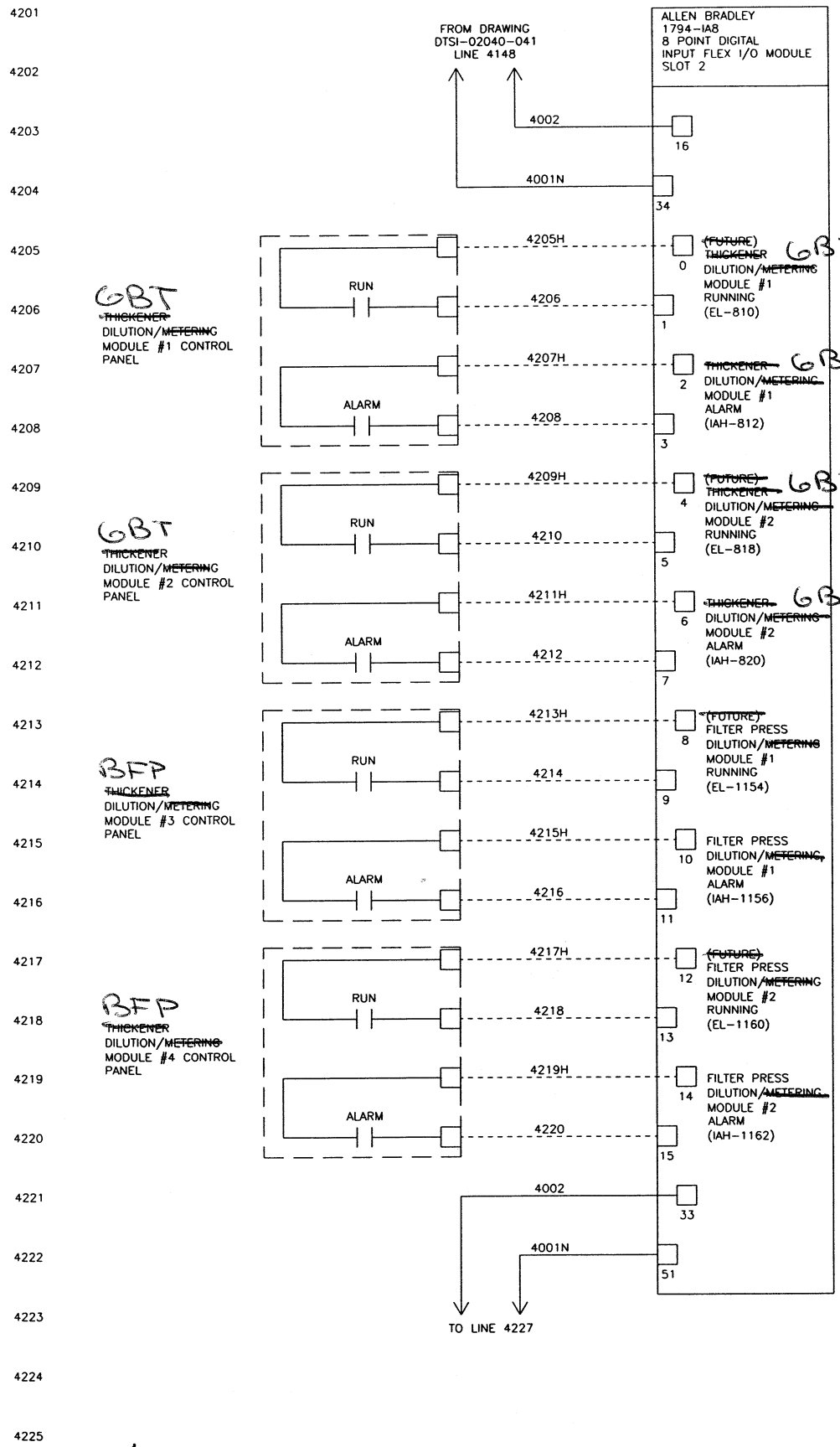
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POLYMER

POLYMER

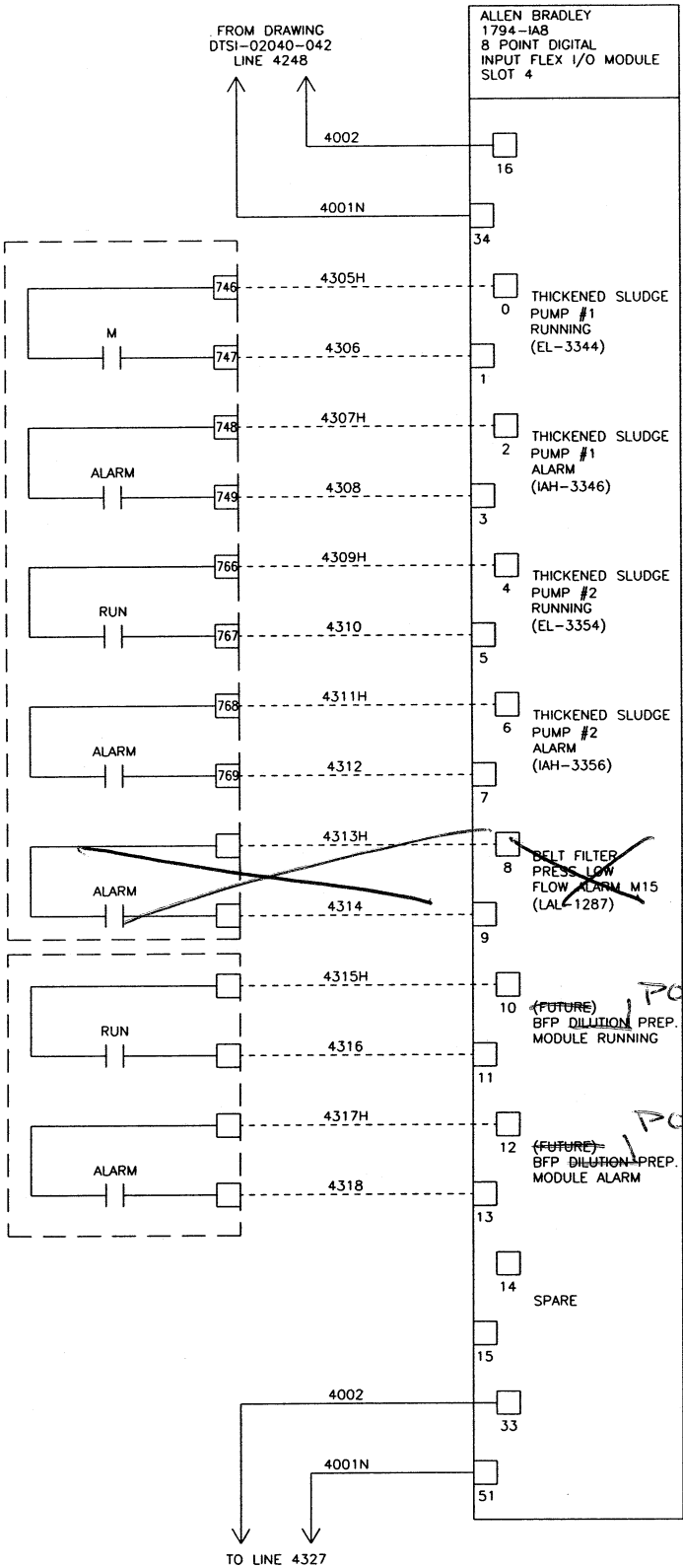
05/21/03 16:08	WIRE LUGS - NO ☒ YES ☐ RING ☐ LOCKING SPADE ☐	STATE OF OHIO ROBERT A. LANDTHORN REGISTERED PROFESSIONAL ENGINEER	KOKOSING CONSTRUCTION CO. P.O. #	DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040	TOLERANCES	DUBLIN TECHNICAL SYSTEMS, INC. CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE	DRAWN BY HR	APPROVED BY BS
	DECIMAL ± .03				NONE				
	WIRE SPECIFICATIONS:				FRACTIONAL ± 1/32"	TITLE TRANS D1B NODE 5 SOLIDS HANDLING UNIT #2 I/O WIRING DIAGRAM SLOTS 0 & 1	DATE 4/08/02	DRAWING NUMBER DTSI - 02040 - 041	
	INSULATION: NYLON ☐ PVC ☒				ANGULAR ± 1"				
	USAGE	SIZE	COLOR	INSULATION					
	AC PANEL POWER	AWG #12	BLK.	THW/THHN					
	AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN					
	AC CONTROL POWER	AWG #12	GRN.	THW/THHN					
	AC PANEL GROUND	AWG #14	RED	THW/THHN					
	AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN					
	AC FOREIGN	AWG #14	YELLOW	THW/THHN					
	DC POWER	AWG #16	BLUE	THW/THHN					
	DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	BLUE	2 CONDUCTOR SHLD THW/THHN					

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



05/21/03 16:11	WIRE LUGS - NO ☒ YES ☐	INSULATION: NYLON ☐ PVC ☒	RING ☐ LOCKING SPADE ☐			TOLERANCES ± .03 ± 1/32" ± 1"		DUBLIN TECHNICAL SYSTEMS, INC.		
	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031							SCALE NONE	DRAWN BY HR	
	TITLE TRANS D18 NODE 5 SOLIDS HANDLING UNIT #2 I/O WIRING DIAGRAM SLOTS 2 & 3							APPROVED BY BS	DATE 4/08/02	
	DRAWING NUMBER DTSI - 02040 - 042									

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



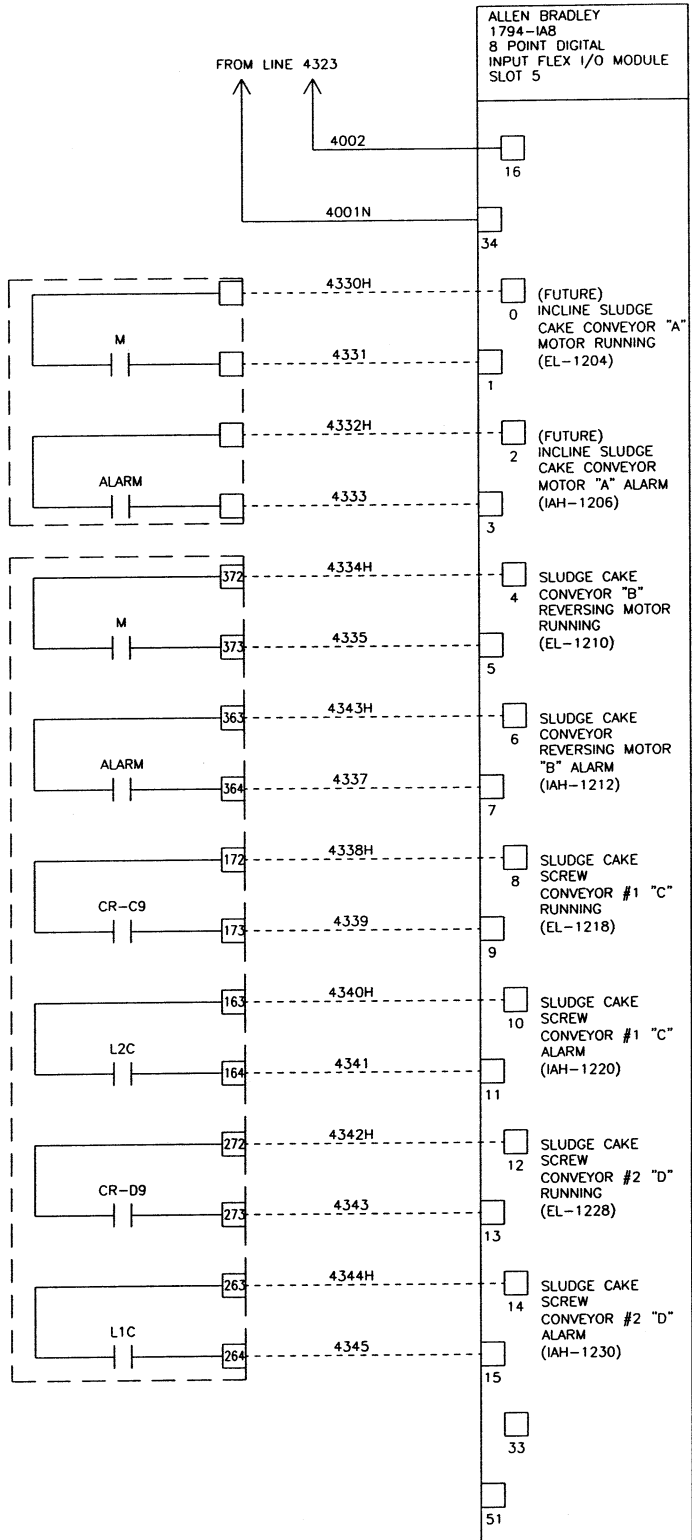
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POLYMER

POLYMER

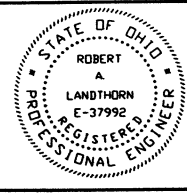
BELT FILTER PRESS CONTROL PANEL

SLUDGE CAKE SCREW CONVEYOR CONTROL PANEL



04/22/02 14:18

WIRE LUGS - NO ☒ YES ☐	INSULATION: NYLON ☐ PVC ☒	RING ☐ LOCKING SPADE ☐
WIRE SPECIFICATIONS:	SIZE	COLOR
AC PANEL POWER	AWG #12	BLK.
AC PANEL NEUTRAL	AWG #12	WHT.
AC PANEL GROUND	AWG #12	GRN.
AC CONTROL POWER	AWG #14	RED
AC CONTROL NEUTRAL	AWG #14	WHT.
AC FOREIGN	AWG #14	YELLOW
DC POWER	AWG #16	BLUE
DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	BLUE
	AWG #16	2 CONDUCTOR SHLD

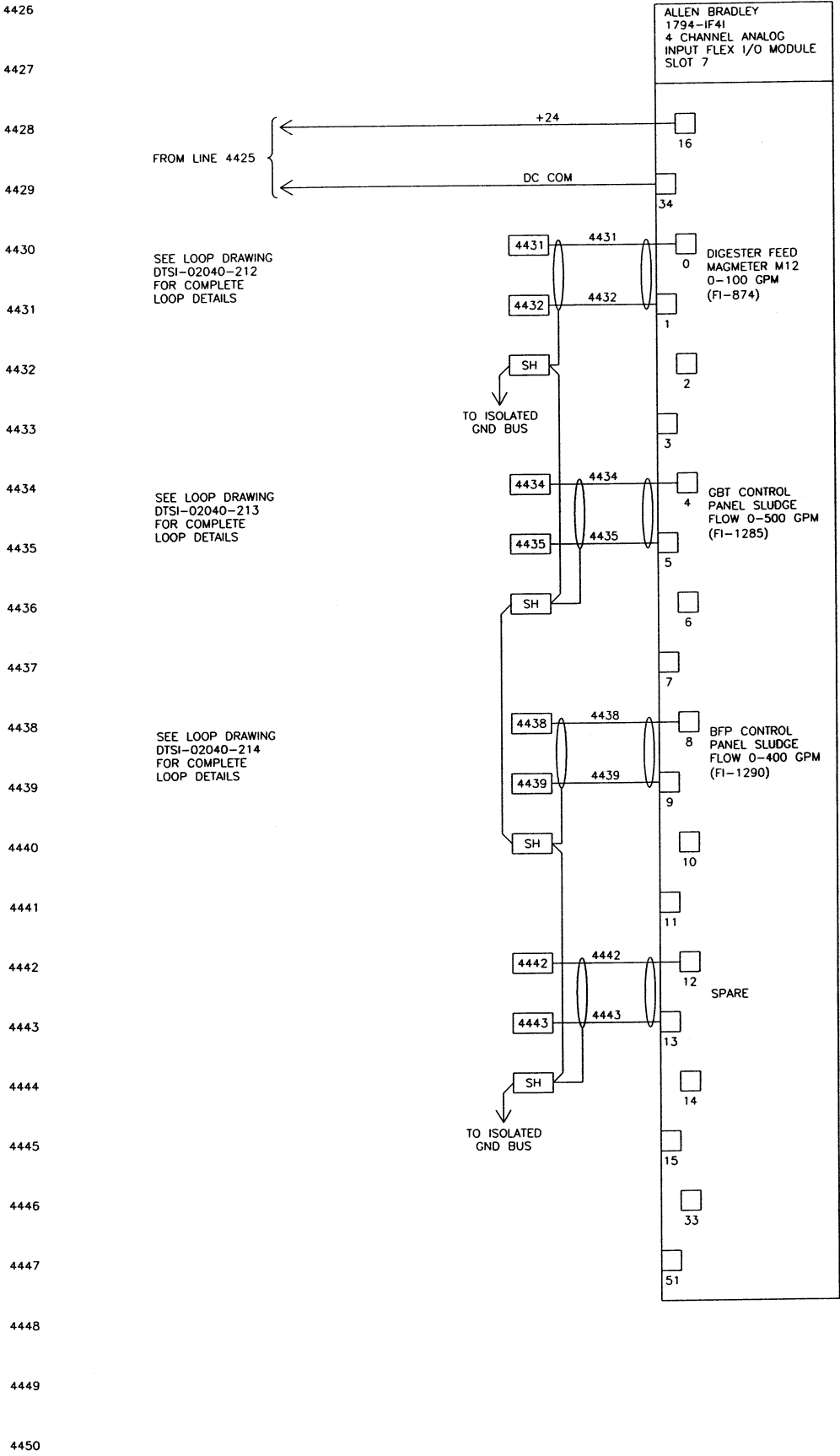
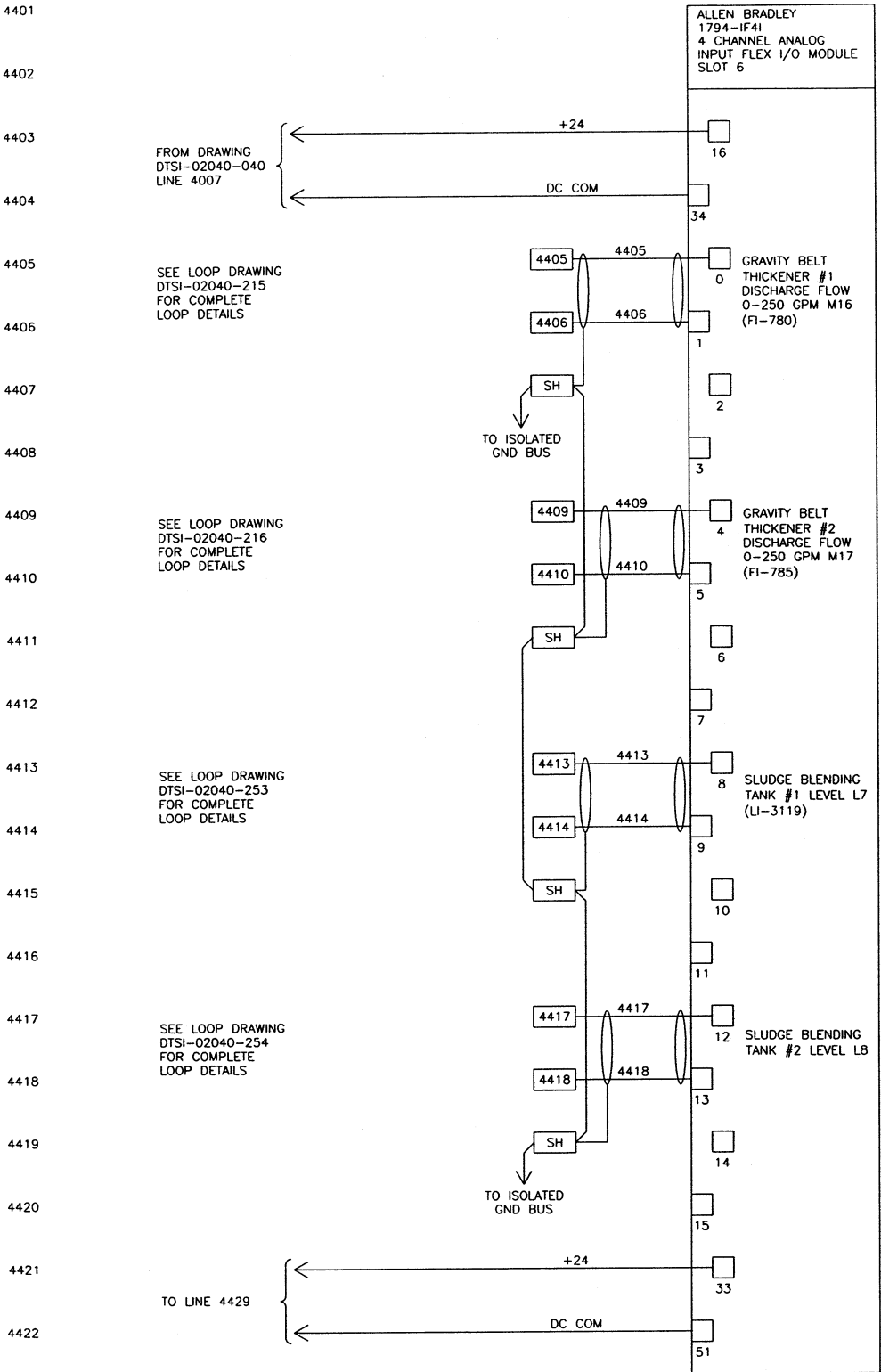


KOKOSING CONSTRUCTION CO.
P.O. #

DUBLIN TECHNICAL SYSTEMS INC.
PROJECT # 02040

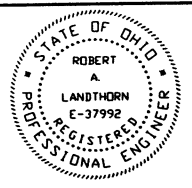
TOLERANCES	DUBLIN TECHNICAL SYSTEMS, INC.
DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031
FRACTIONAL	SCALE NONE
ANGULAR	DRAWN BY HR
	APPROVED BY BS
	TITLE TRANS D1B NODE 5 SOLIDS HANDLING UNIT #2 I/O WIRING DIAGRAM SLOTS 4 & 5
	DATE 4/08/02
	DRAWING NUMBER DTSI - 02040 - 043

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



04/15/02 16:12

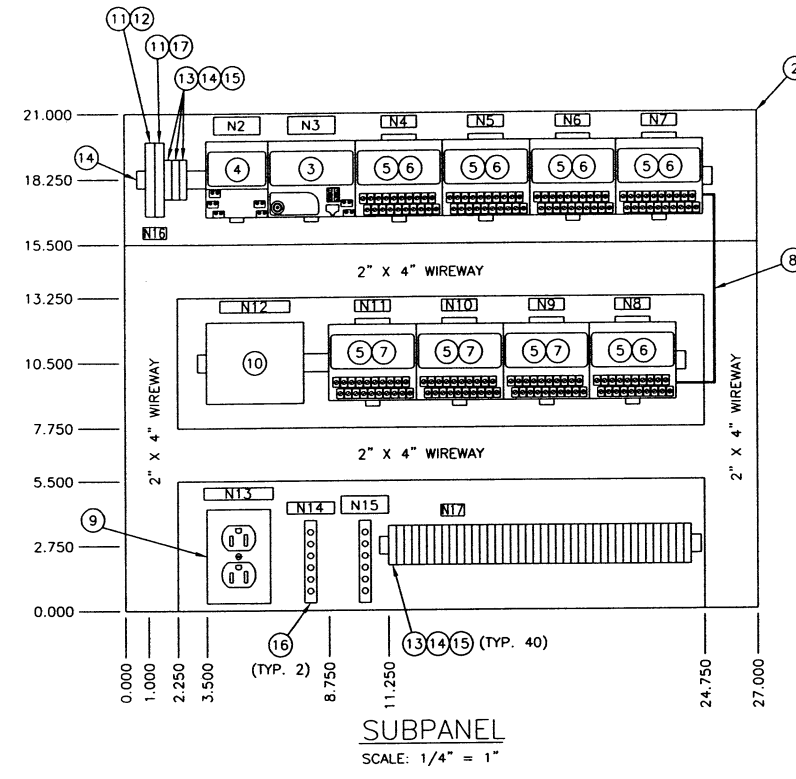
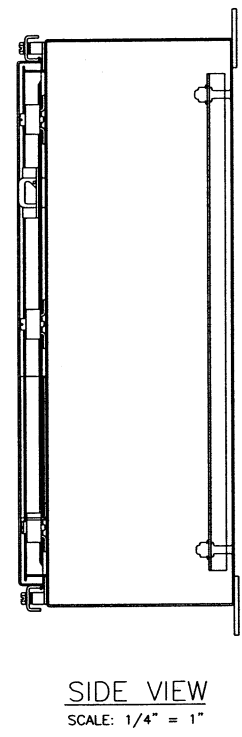
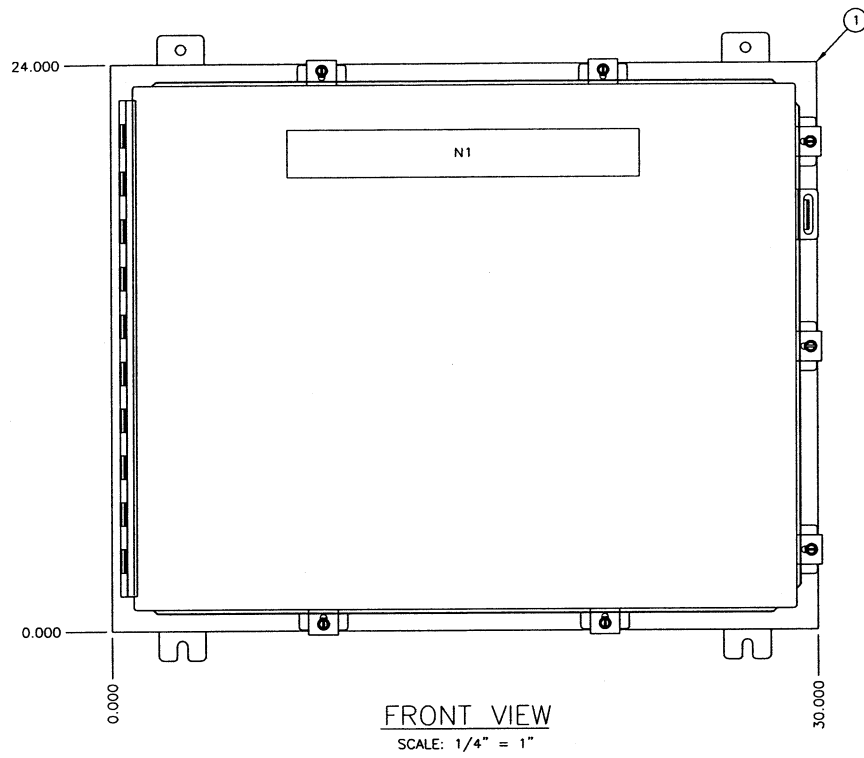
WIRE LUGS - NO ☒ YES ☐				RING ☐ LOCKING SPADE ☐			
INSULATION: NYLON ☐ PVC ☒							
WIRE SPECIFICATIONS:							
USAGE	SIZE	COLOR	INSULATION				
AC PANEL POWER	AWG #12	BLK	THW/THHH				
AC PANEL NEUTRAL	AWG #12	WHT	THW/THHH				
AC PANEL GROUND	AWG #12	GRN	THW/THHH				
AC CONTROL POWER	AWG #14	RED	THW/THHH				
AC CONTROL NEUTRAL	AWG #14	WHT	THW/THHH				
AC FORECH	AWG #14	YELLOW	THW/THHH				
DC POWER	AWG #16	BLUE	THW/THHH				
DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	BLUE	THW/THHH				
				2 CONDUCTOR SHLD			



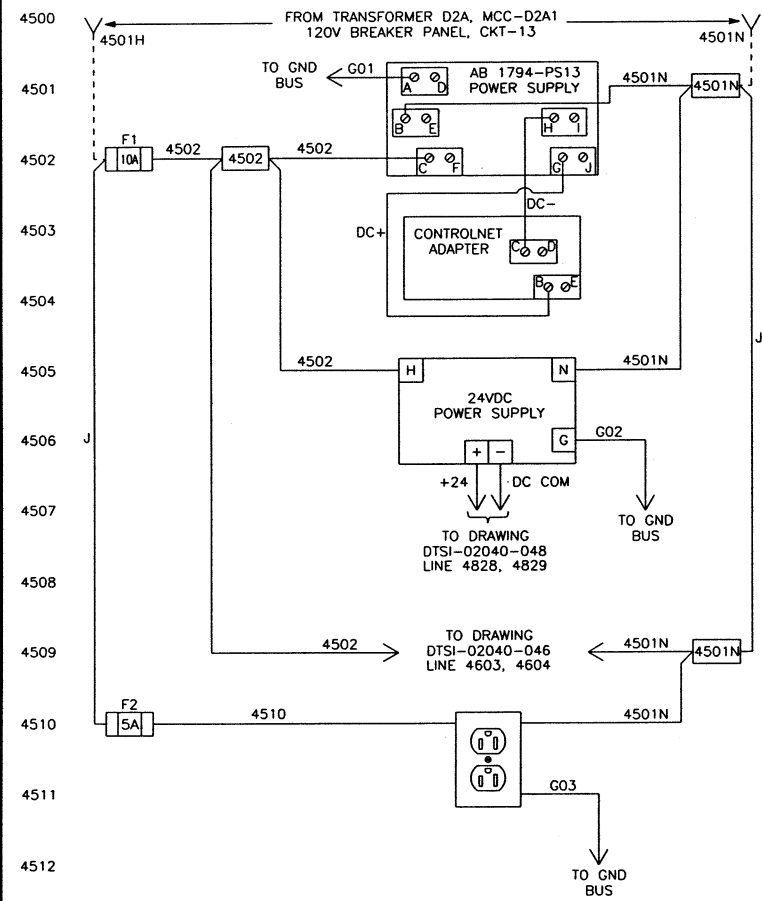
KOKOSING
CONSTRUCTION CO.
P.O. #

DUBLIN TECHNICAL
SYSTEMS INC.
PROJECT # 02040

TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
±	DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. 09031	SCALE NONE
± .03	FRACTIONAL	TITLE TRANS D1B NODE 5 SOLIDS HANDLING UNIT #2 I/O WIRING DIAGRAM SLOTS 6 & 7	DRAWN BY HR
± 1/32"	ANGULAR	DATE 4/08/02	APPROVED BY BS
± 1"		DRAWING NUMBER DTSI - 02040 - 044	

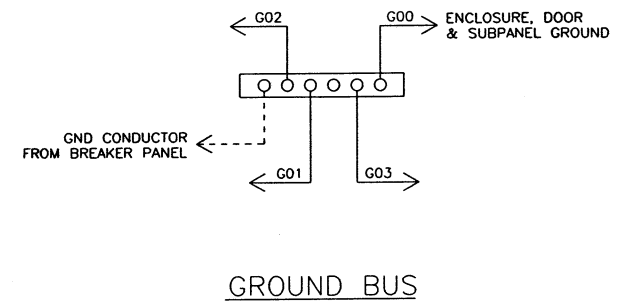


BILL OF MATERIAL			
ITEM	QTY	USED FOR	DESCRIPTION
1	1	ENCLOSURE	HOFFMAN #A-24H30BLP, 24"H X 30"W X 8"D, NEMA 4
2	1	SUBPANEL	HOFFMAN #A-30P24, 21"H X 27"W
3	1	CONTROLNET ADAPTER	ALLEN BRADLEY #1794-ACN15, 8 MODULE CONTROLNET INTERFACE
4	1	POWER SUPPLY	ALLEN BRADLEY #1794-PS13, 120/230VAC INPUT, 1.3A @ 24VDC OUTPUT
5	8	TERMINAL BASE	ALLEN BRADLEY #1794-TBNF, FUSED MODULE
6	5	INPUT MODULE	ALLEN BRADLEY #1794-IAB, 8 POINT NON-ISOLATED DIGITAL INPUT MODULE
7	3	INPUT MODULE	ALLEN BRADLEY #1794-IF4I, 4 POINT ISOLATED ANALOG INPUT MODULE
8	1	EXTENDER CABLE	ALLEN BRADLEY #1794-CE1, 1 FOOT
9	1	RECEPTACLE	HUBBELL #CR5362GY WITH BOX AND COVERPLATE 20 AMPS 125 VOLT GRAY
10	1	POWER SUPPLY	PHOENIX CONTACT #2939247, 120VAC INPUT, 24VDC OUTPUT @ 1.0A
11	2	FUSED TERMINAL	PHOENIX CONTACT #UK 6.3-HESI WITH 2 POS. OR 3 POS BRIDGE, EB2-10 OR EB10-10
12	1	F1	BUSSMAN #AGC-10, 10 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"
13	43	TERMINAL	PHOENIX CONTACT #UK6N
14	LOT	RAIL	PHOENIX CONTACT #NS35 MOUNTING RAIL
15	LOT	END BARRIER	PHOENIX CONTACT #D-UK 4/10
16	1	GND BUS	ILSCO #D167-6, 6 POINT COPPER GND BUS
17	1	F2	BUSSMAN #AGC-5, 5 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"



NAMEPLATES WHITE WITH BLACK LETTERING

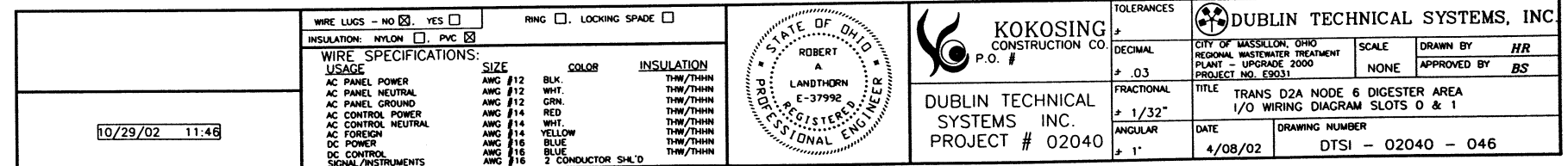
	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" X 15"	1/2"	YES	DIGESTER AREA	REMOTE I/O ENCLOSURE -- NODE 6
N2	1	0.75" X 2"	3/16"	NO	CONTROLNET	P.S.
N3	1	0.75" X 2"	3/16"	NO	CONTROLNET	ADAPTER
N4	1	0.5" X 1.5"	3/16"	NO	SLOT 0	
N5	1	0.5" X 1.5"	3/16"	NO	SLOT 1	
N6	1	0.5" X 1.5"	3/16"	NO	SLOT 2	
N7	1	0.5" X 1.5"	3/16"	NO	SLOT 3	
N8	1	0.5" X 1.5"	3/16"	NO	SLOT 4	
N9	1	0.5" X 1.5"	3/16"	NO	SLOT 5	
N10	1	0.5" X 1.5"	3/16"	NO	SLOT 6	
N11	1	0.5" X 1.5"	3/16"	NO	SLOT 7	
N12	1	0.5" X 3"	3/16"	NO	DC POWER SUPPLY	
N13	1	0.5" X 2"	3/16"	NO	RECEPTACLE	
N14	1	0.5" X 2"	3/16"	NO	GND BUS	
N15	1	0.75" X 2"	3/16"	NO	ISOLATED	GND BUS
N16	1	0.5" X 1"	3/16"	NO	TB1	
N17	1	0.5" X 1"	3/16"	NO	TB2	



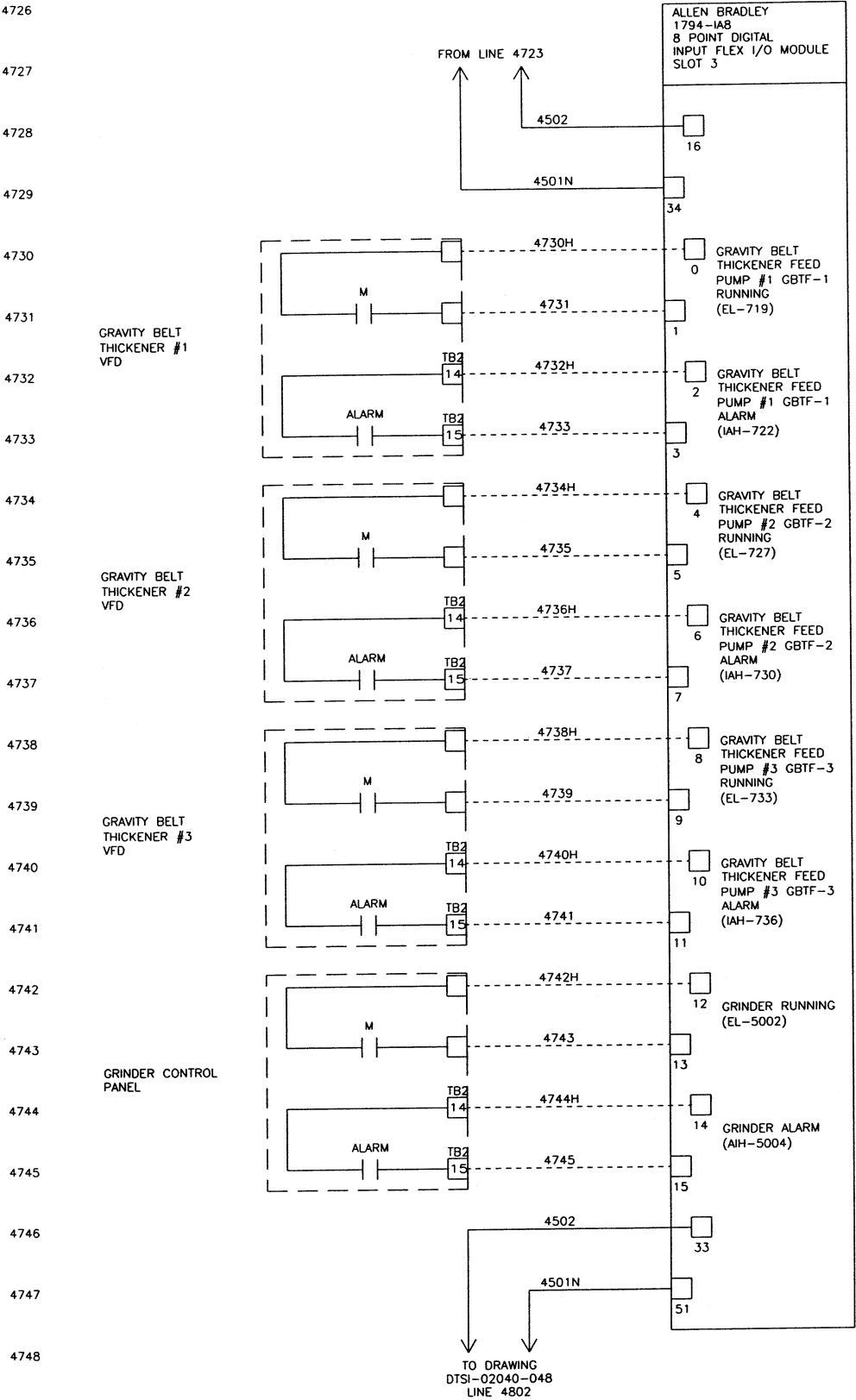
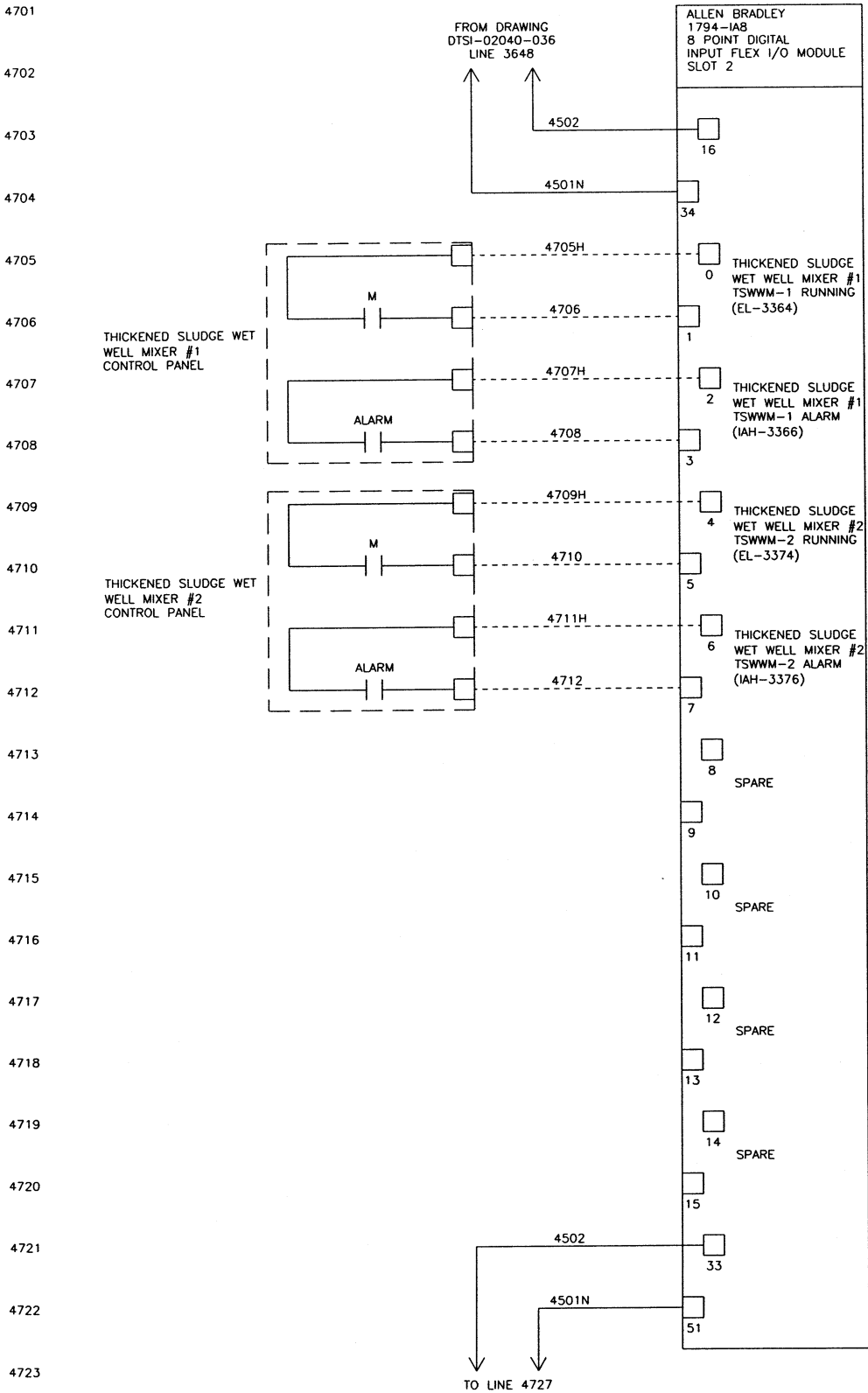
WIRING SCHEMATIC

05/20/03 11:35	WIRE LUGS - NO ☒ YES ☐ INSULATION: NYLON ☐ PVC ☒	RING ☐ LOCKING SPADE ☐	KOKOSING CONSTRUCTION CO. P.O. # DUBLIN TECHNICAL SYSTEMS, INC. PROJECT # 02040	TOLERANCES + DECIMAL + .03 FRACTIONAL + 1/32" ANGULAR + 1"	DUBLIN TECHNICAL SYSTEMS, INC. CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031 TITLE TRANS D2A NODE 6 DIGESTER AREA PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC DATE 4/09/02 DRAWING NUMBER DTSI - 02040 - 045
	WIRE SPECIFICATIONS: USAGE AC PANEL POWER AC PANEL NEUTRAL AC PANEL GROUND AC CONTROL POWER AC CONTROL NEUTRAL AC FOREIGN DC POWER DC CONTROL SIGNAL/INSTRUMENTS	SIZE AWG #12 AWG #12 AWG #12 AWG #14 AWG #14 AWG #14 AWG #16 AWG #16 AWG #16 AWG #16		COLOR BLK. WHT. GRN. RED WHT. YELLOW BLUE BLUE BLUE 2 CONDUCTOR SHLD	

STATE OF OHIO
REGISTERED PROFESSIONAL ENGINEER
ROBERT A. LANDTHORN
E-37992

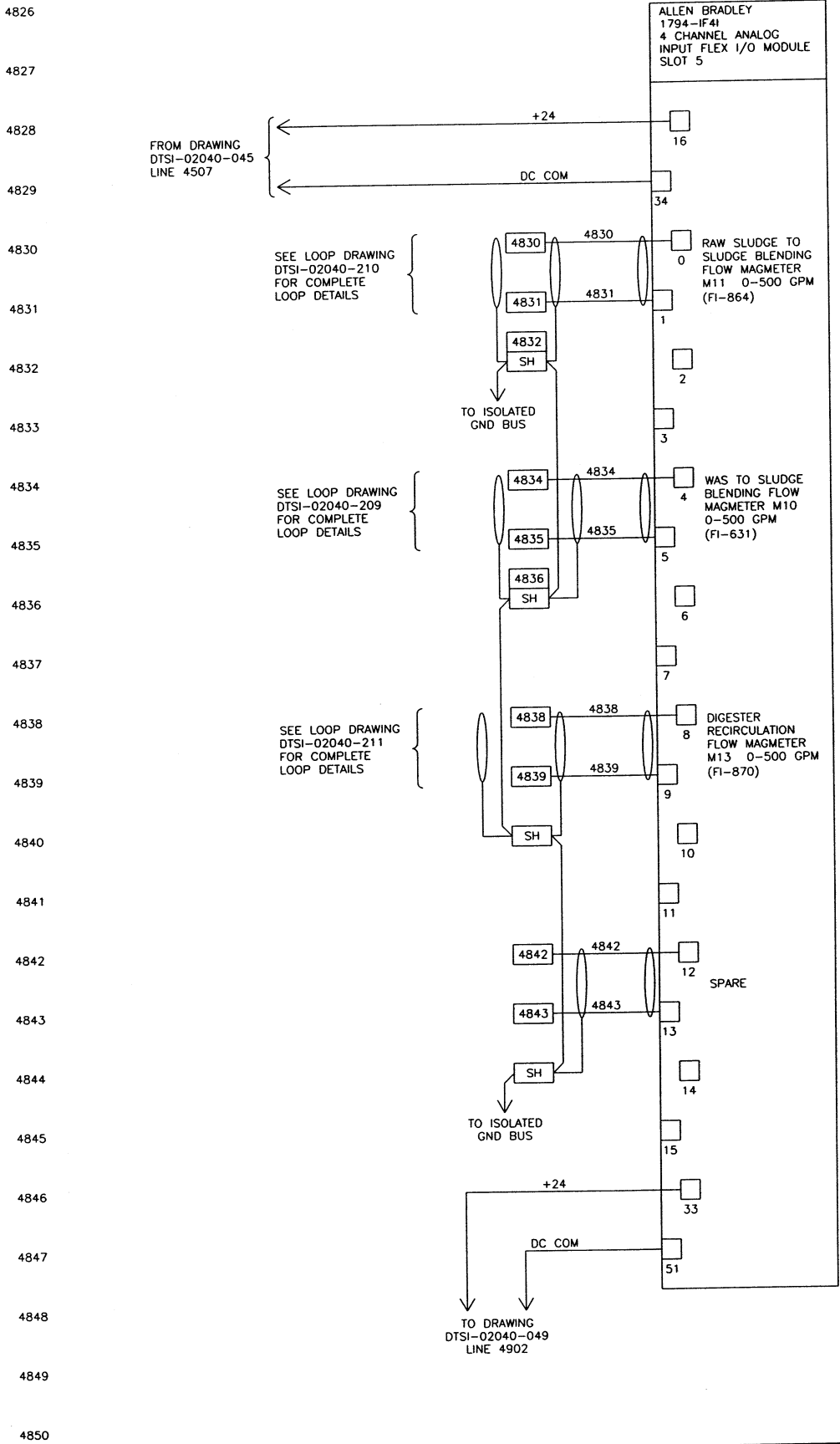
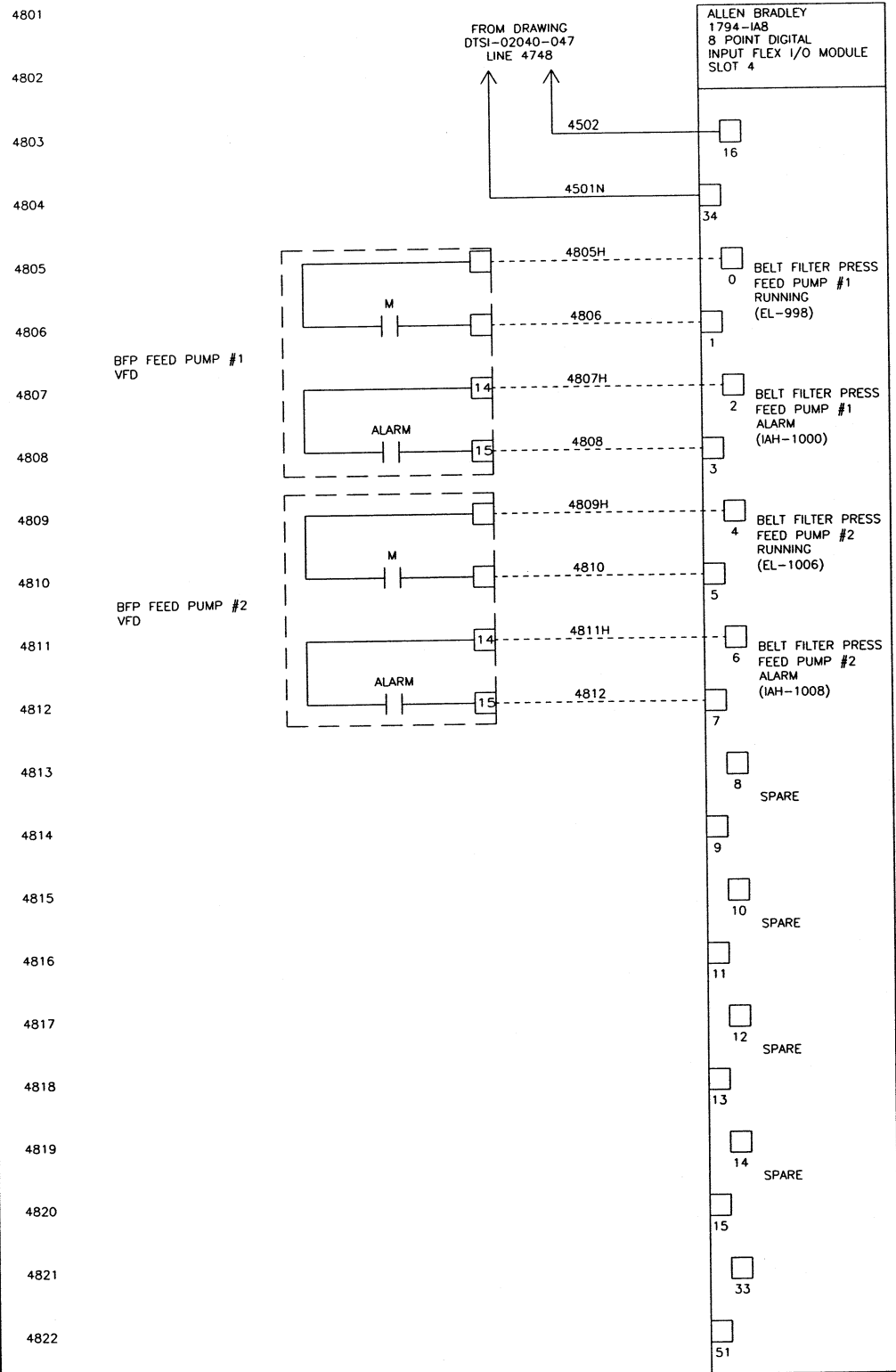
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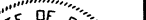
DATE	SYM	REVISION	RECORD	AUTH	DR	CK
4/08/02	A	FOR APPROVAL		CUST	HR	BS



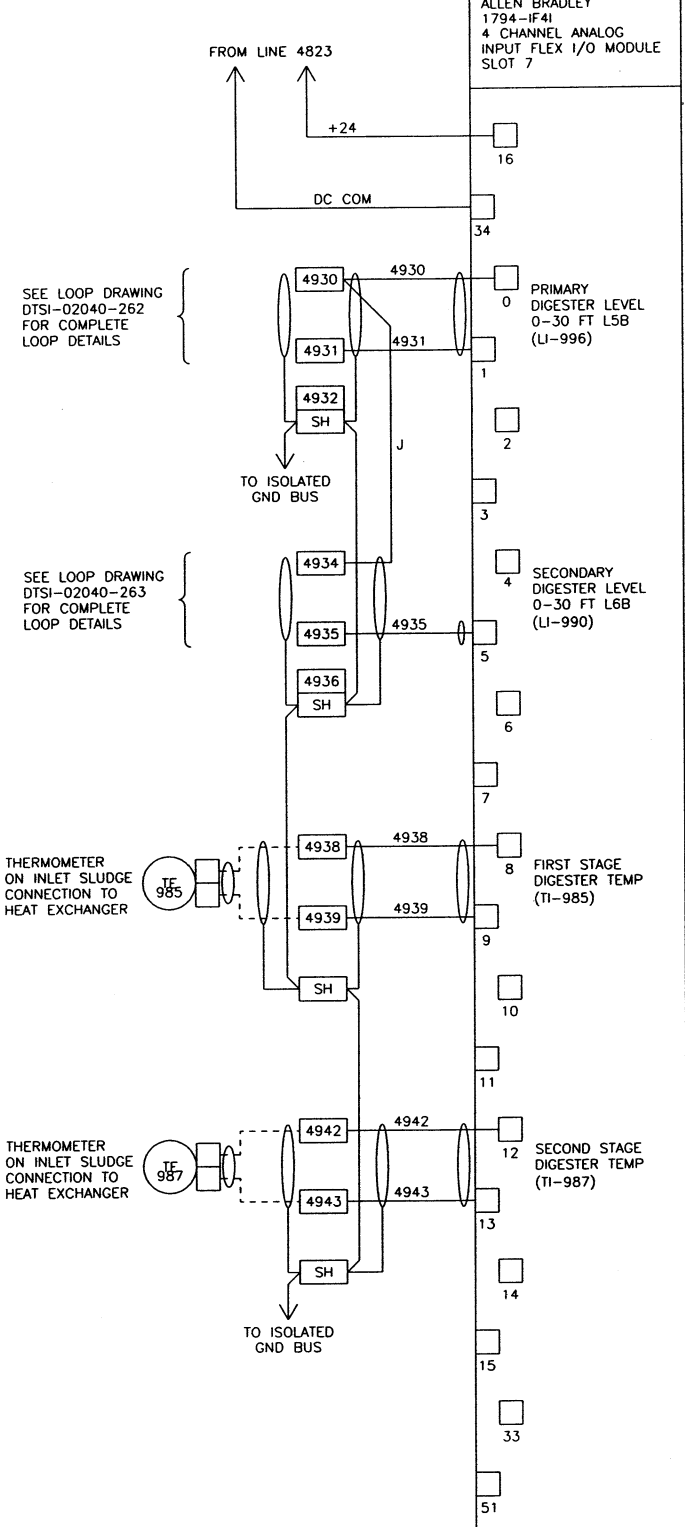
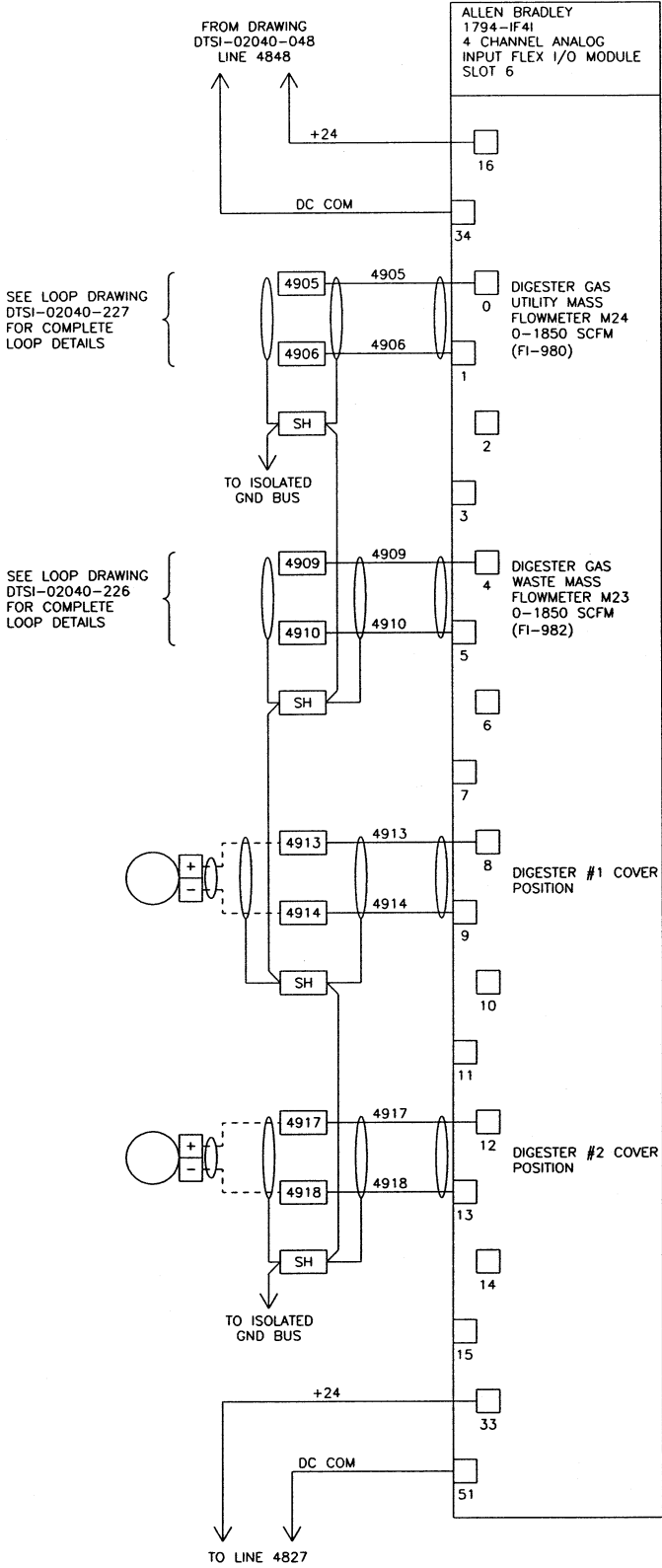
10/29/02 11:53	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐			 KOKOSING CONSTRUCTION CO. P.O. #	TOLERANCES		 DUBLIN TECHNICAL SYSTEMS, INC.		
	INSULATION: NYLON ☐ PVC ☒						DECIMAL	CITY OF MASSILLON, OHIO		SCALE	DRAWN BY <i>HR</i>
	WIRE SPECIFICATIONS:						± .03	REGIONAL WASTEWATER TREATMENT		NONE	APPROVED BY <i>BS</i>
	USAGE						FRACTIONAL	PLANT - UPGRADE 2000			
			SIZE	COLOR			INSULATION	PROJECT NO. E9031			
	AC PANEL POWER		AWG #12	BLK.			THW/THHN				
	AC PANEL NEUTRAL		AWG #12	WHT.			THW/THHN				
	AC PANEL GROUND		AWG #12	GRN.			THW/THHN				
	AC CONTROL POWER		AWG #14	RED			THW/THHN				
	AC CONTROL NEUTRAL		AWG #14	WHT.			THW/THHN				
AC FOREIGN		AWG #14	YELLOW	THW/THHN							
DC POWER		AWG #16	BLUE	THW/THHN							
DC CONTROL		AWG #16	BLUE	THW/THHN							
SIGNAL/INSTRUMENTS		AWG #16	2 CONDUCTOR SHLD								
						DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040	TITLE TRANS D2A NODE 6 DIGESTER AREA I/O WIRING DIAGRAM SLOTS 2 & 3				
							DATE 4/08/02	DRAWING NUMBER DTSI - 02040 - 047			

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS

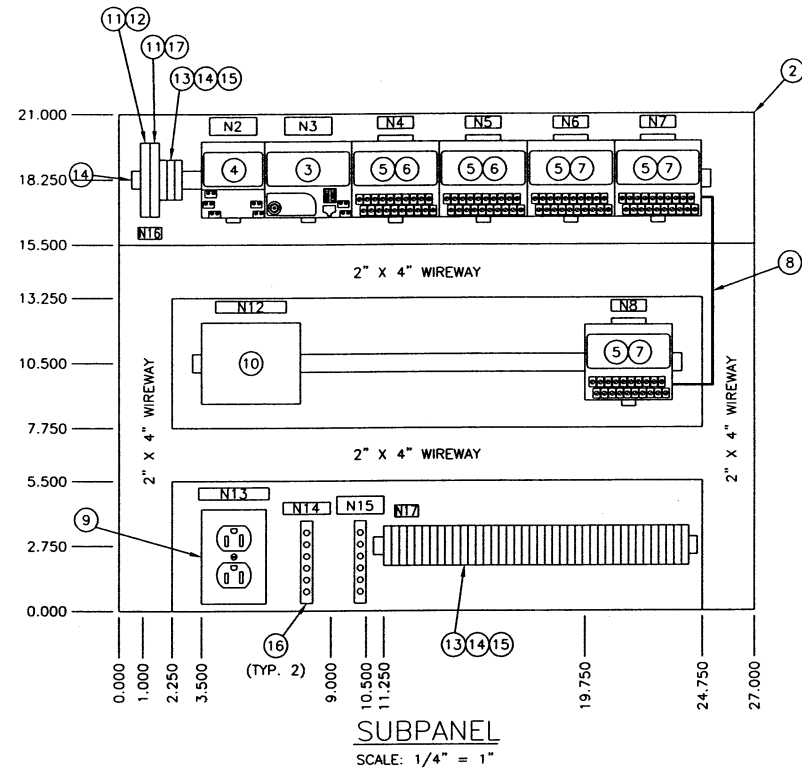
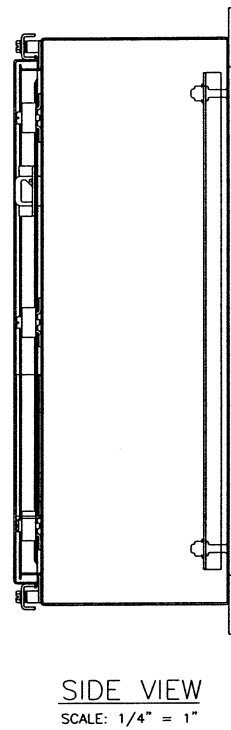
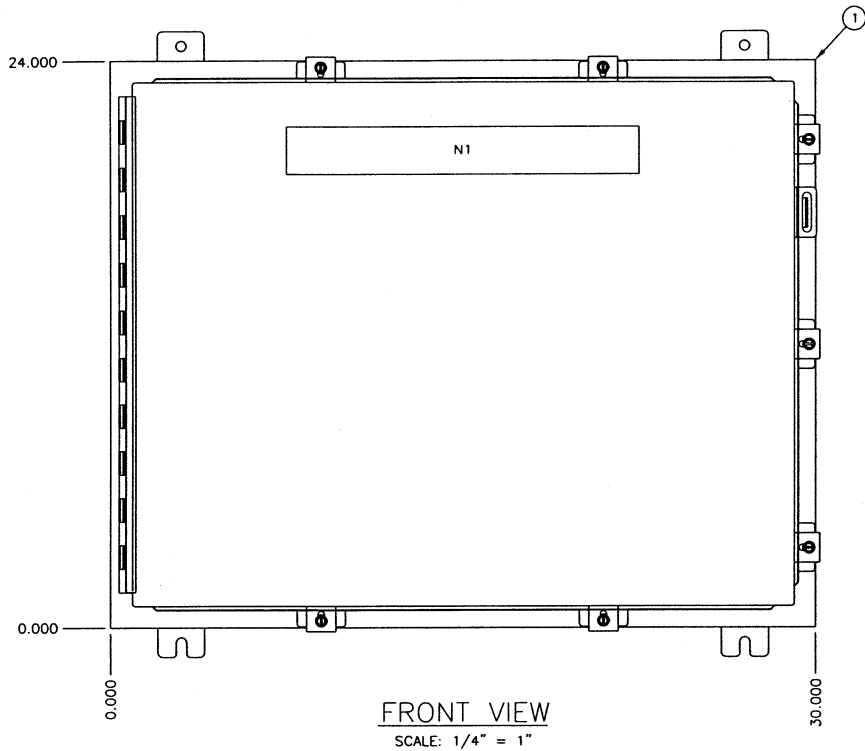


10/29/02 12:00	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐			 KOKOSING CONSTRUCTION CO. P.O. #	+ DECIMAL ± .03 FRACTIONAL ± 1/32" ANGULAR ± 1"	DUBLIN TECHNICAL SYSTEMS, INC.				
	INSULATION: NYLON ☐ PVC ☒							CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031		SCALE NONE	DRAWN BY HR	APPROVED BY BS
	WIRE SPECIFICATIONS:							TITLE TRANS D2A NODE 6 DIGESTER AREA I/O WIRING DIAGRAM SLOTS 4 & 5		DRAWING NUMBER DTSI - 02040 - 048		
	USAGE	SIZE	COLOR	INSULATION								
	AC PANEL POWER	AWG #12	BLK	THW/THHH								
	AC PANEL NEUTRAL	AWG #12	WHT	THW/THHH								
	AC PANEL GROUND	AWG #12	GRN	THW/THHH								
	AC CONTROL POWER	AWG #14	RED	THW/THHH								
	AC CONTROL NEUTRAL	AWG #14	WHT	THW/THHH								
	AC FOREIGN	AWG #14	YELLOW	THW/THHH								
DC POWER	AWG #16	BLUE	THW/THHH									
DC CONTROL	AWG #16	BLUE	THW/THHH									
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHH									

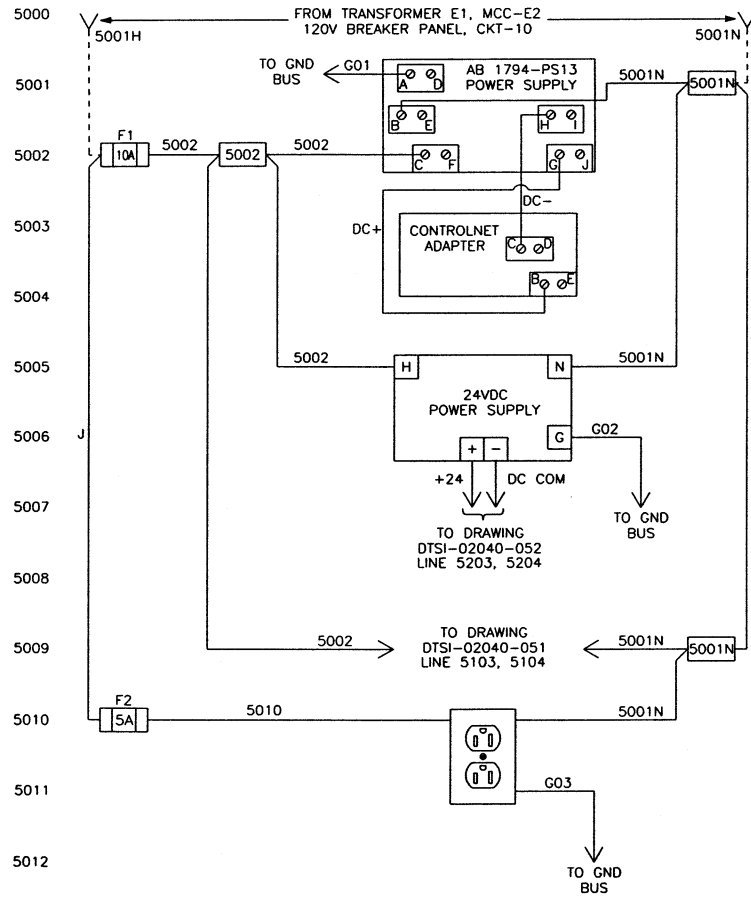
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



10/29/02 09:59	WIRE LUGS - NO ☒ YES ☐ RING ☐ LOCKING SPADE ☐ INSULATION: NYLON ☐ PVC ☒ WIRE SPECIFICATIONS: USAGE SIZE COLOR INSULATION AC PANEL POWER AWG #12 BLK. THW/THHN AC PANEL NEUTRAL AWG #12 WHT. THW/THHN AC PANEL GROUND AWG #12 GRN. THW/THHN AC CONTROL POWER AWG #14 RED THW/THHN AC CONTROL NEUTRAL AWG #14 WHT. THW/THHN AC FOREIGN AWG #14 YELLOW THW/THHN DC POWER AWG #16 BLUE THW/THHN DC CONTROL SIGNAL/INSTRUMENTS AWG #16 BLUE THW/THHN 2 CONDUCTOR SHLD	STATE OF OHIO ROBERT A. LANDTHORN E-37992 REGISTERED PROFESSIONAL ENGINEER	KOKOSING CONSTRUCTION CO. P.O. # DUBLIN TECHNICAL SYSTEMS, INC. PROJECT # 02040	TOLERANCES DECIMAL + .03 FRACTIONAL + 1/32" ANGULAR + 1"	DUBLIN TECHNICAL SYSTEMS, INC. CITY OF WASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031 TITLE TRANS D2A NODE 6 DIGESTER AREA I/O WIRING DIAGRAM SLOTS 6 & 7 DATE 4/08/02 DRAWING NUMBER DTSI - 02040 - 049	SCALE NONE DRAWN BY HR APPROVED BY BS
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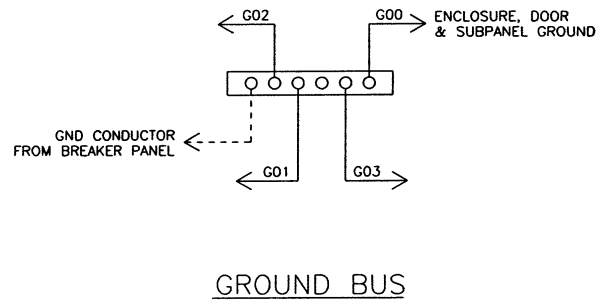


BILL OF MATERIAL			
ITEM	QTY	USED FOR	DESCRIPTION
1	1	ENCLOSURE	HOFFMAN #A-24H30BLP, 24"H X 30"W X 8"D, NEMA 4
2	1	SUBPANEL	HOFFMAN #A-30P24, 21"H X 27"W
3	1	CONTROLNET ADAPTER	ALLEN BRADLEY #1794-ACN15, 8 MODULE CONTROLNET INTERFACE
4	1	POWER SUPPLY	ALLEN BRADLEY #1794-PS13, 120/230VAC INPUT, 1.3A @ 24VDC OUTPUT
5	5	TERMINAL BASE	ALLEN BRADLEY #1794-TBNF, FUSED MODULE
6	2	INPUT MODULE	ALLEN BRADLEY #1794-IAB, 8 POINT NON-ISOLATED DIGITAL INPUT MODULE
7	3	INPUT MODULE	ALLEN BRADLEY #1794-IF4I, 4 POINT ISOLATED ANALOG INPUT MODULE
8	1	EXTENDER CABLE	ALLEN BRADLEY #1794-CE1, 1 FOOT
9	1	RECEPTACLE	HUBBELL #CR5362GY WITH BOX AND COVERPLATE 20 AMPS 125 VOLT GRAY
10	1	POWER SUPPLY	PHOENIX CONTACT #2939247, 120VAC INPUT, 24VDC OUTPUT @ 1.0A
11	2	FUSED TERMINAL	PHOENIX CONTACT #UK 6.3-HESI WITH 2 POS. OR 3 POS BRIDGE, EB2-10 OR EB10-10
12	1	F1	BUSSMAN #AGC-10, 10 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"
13	43	TERMINAL	PHOENIX CONTACT #UK6N
14	LOT	RAIL	PHOENIX CONTACT #NS35 MOUNTING RAIL
15	LOT	END BARRIER	PHOENIX CONTACT #D-UK 4/10
16	1	GND BUS	ILSCO #D167-6, 6 POINT COPPER GND BUS
17	1	F2	BUSSMAN #AGC-5, 5 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"
18	1	CONTROLNET TAP	ALLEN BRADLEY #1786-TPS (NOT SHOWN)



NAMEPLATES WHITE WITH BLACK LETTERING

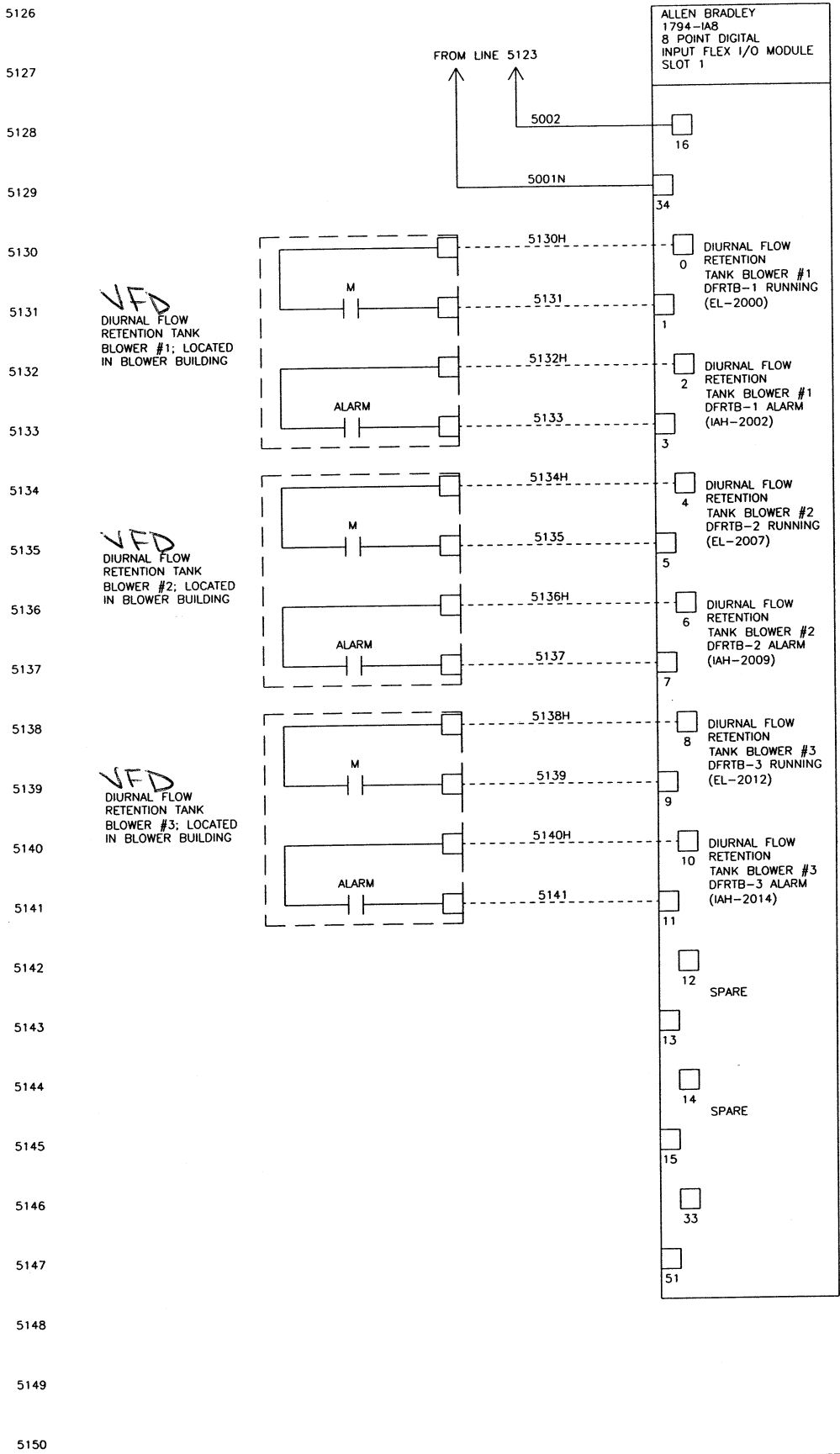
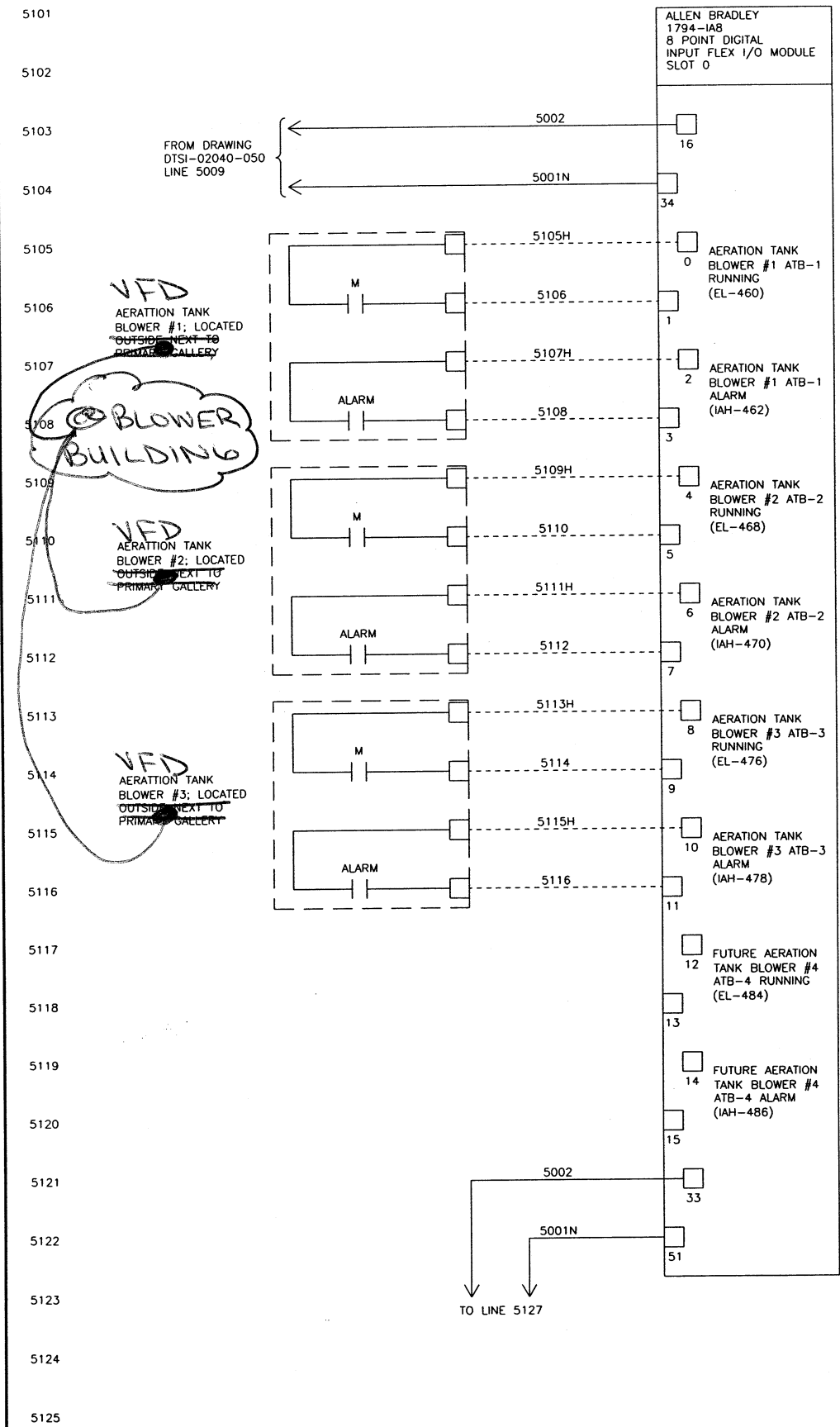
	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" X 15"	1/2"	YES	BLOWER BUILDING	REMOTE I/O ENCLOSURE - NODE 7
N2	1	0.75" X 2"	3/16"	NO	CONTROLNET	P.S.
N3	1	0.75" X 2"	3/16"	NO	CONTROLNET	ADAPTER
N4	1	0.5" X 1.5"	3/16"	NO	SLOT 0	
N5	1	0.5" X 1.5"	3/16"	NO	SLOT 1	
N6	1	0.5" X 1.5"	3/16"	NO	SLOT 2	
N7	1	0.5" X 1.5"	3/16"	NO	SLOT 3	
N8	1	0.5" X 1.5"	3/16"	NO	SLOT 4	
N9	1	0.5" X 1.5"	3/16"	NO	SLOT 5	
N10	0	0.5" X 1.5"	3/16"	NO	SLOT 6	
N11	0	0.5" X 1.5"	3/16"	NO	SLOT 7	
N12	1	0.5" X 3"	3/16"	NO	DC POWER SUPPLY	
N13	1	0.5" X 2"	3/16"	NO	RECEPTACLE	
N14	1	0.5" X 2"	3/16"	NO	GND BUS	
N15	1	0.75" X 2"	3/16"	NO	ISOLATED	GND BUS
N16	1	0.5" X 1"	3/16"	NO	TB1	
N17	1	0.5" X 1"	3/16"	NO	TB2	



WIRING SCHEMATIC

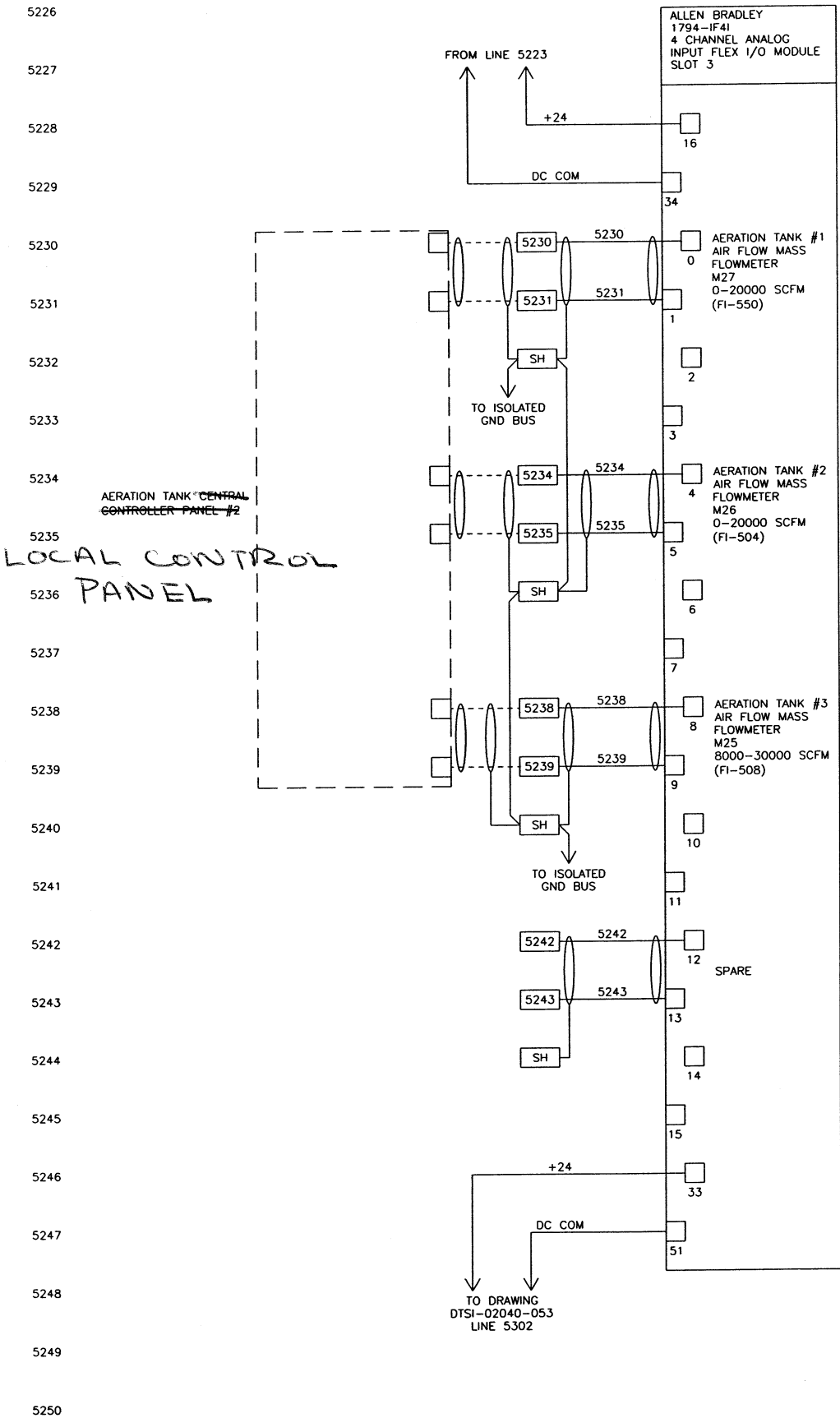
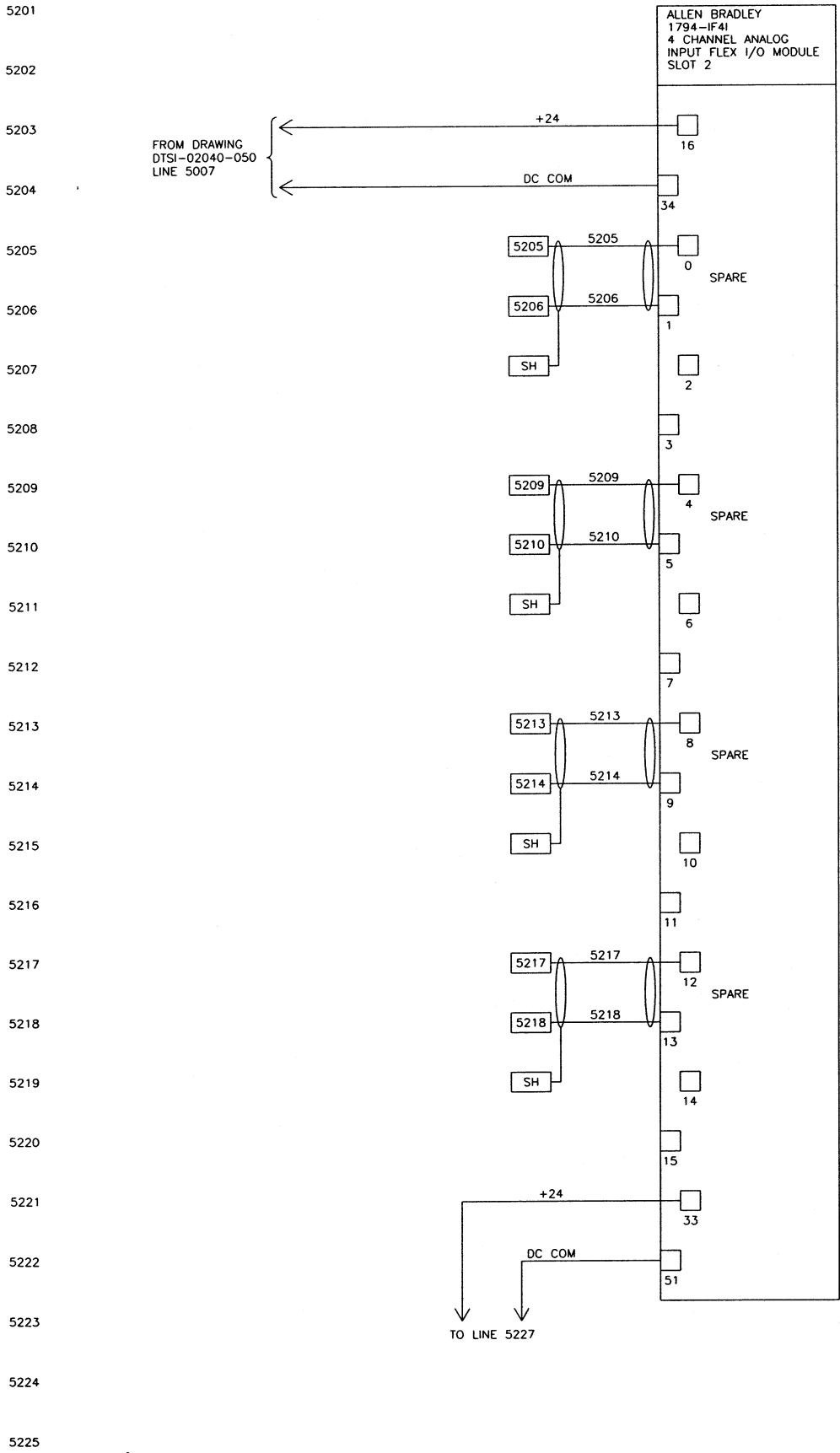
05/20/03 11:53	WIRE LUGS - NO ☒ YES ☐	RING ☐ LOCKING SPADE ☐	TOLERANCES ± .03 ± 1/32" ± 1"	KOKOSING CONSTRUCTION CO. P.O. #	DUBLIN TECHNICAL SYSTEMS, INC. CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE	DRAWN BY HR	APPROVED BY BS	
	INSULATION: NYLON ☐ PVC ☒	STATE OF OHIO REGISTERED PROFESSIONAL ENGINEER ROBERT A. LANDTHORN E-37992							TITLE TRANS E1 & E2 NODE 7 BLOWER BUILDING PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC
WIRE SPECIFICATIONS:		SIZE		COLOR		INSULATION			
AC PANEL POWER		AWG #12	BLK.	THW/THHH					
AC PANEL NEUTRAL		AWG #12	WHT.	THW/THHH					
AC PANEL GROUND		AWG #12	GRN.	THW/THHH					
AC CONTROL POWER		AWG #14	RED	THW/THHH					
AC CONTROL NEUTRAL		AWG #14	WHT.	THW/THHH					
AC FOREIGN		AWG #14	YELLOW	THW/THHH					
DC POWER		AWG #16	BLUE	THW/THHH					
DC CONTROL		AWG #16	BLUE	THW/THHH					
SIGNAL/INSTRUMENTS		AWG #16	2 CONDUCTOR SHLD	THW/THHH					

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



06/03/03 10:13	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐			 KOKOSING CONSTRUCTION CO. P.O. #	TOLERANCES DECIMAL ± .03 FRACTIONAL ± 1/32" ANGULAR ± 1°	 DUBLIN TECHNICAL SYSTEMS, INC. CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E2031	SCALE NONE	DRAWN BY HR APPROVED BY BS	TITLE TRANS E1 & E2 NODE 7 BLOWER BUILDING I/O WIRING DIAGRAM SLOTS 0 & 1	DATE 4/08/02	DRAWING NUMBER DTSI - 02040 - 051								
	INSULATION: NYLON ☐ PVC ☒																				
	WIRE SPECIFICATIONS:													STATE OF OHIO REGISTERED PROFESSIONAL ENGINEER ROBERT A. LANDTHORN E-37992							
	USAGE		SIZE	COLOR										INSULATION							
	AC PANEL POWER		AWG #12	BLK.										THW/THHN							
	AC PANEL NEUTRAL		AWG #12	WHY.										THW/THHN							
	AC PANEL GROUND		AWG #12	GRN.										THW/THHN							
	AC CONTROL POWER		AWG #14	RED										THW/THHN							
	AC CONTROL NEUTRAL		AWG #14	WHY.										THW/THHN							
	AC FORECH		AWG #14	YELLOW										THW/THHN							
	DC POWER		AWG #16	BLUE										THW/THHN							
	DC CONTROL SIGNAL/INSTRUMENTS		AWG #16	BLUE										THW/THHN							
		AWG #16	2 CONDUCTOR SHLD																		

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



06/03/03 10:17

WIRE LUGS - NO ☒ YES ☐				RING ☐ LOCKING SPADE ☐			
INSULATION: NYLON ☐ PVC ☒							
WIRE SPECIFICATIONS:							
USAGE	SIZE	COLOR	INSULATION				
AC PANEL POWER	AWG #12	BLK.	THW/THHN				
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN				
AC PANEL GROUND	AWG #12	GRN.	THW/THHN				
AC CONTROL POWER	AWG #14	RED	THW/THHN				
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN				
AC FOREIGN	AWG #14	YELLOW	THW/THHN				
DC POWER	AWG #16	BLUE	THW/THHN				
DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	BLUE	THW/THHN				
				2 CONDUCTOR SHLD			

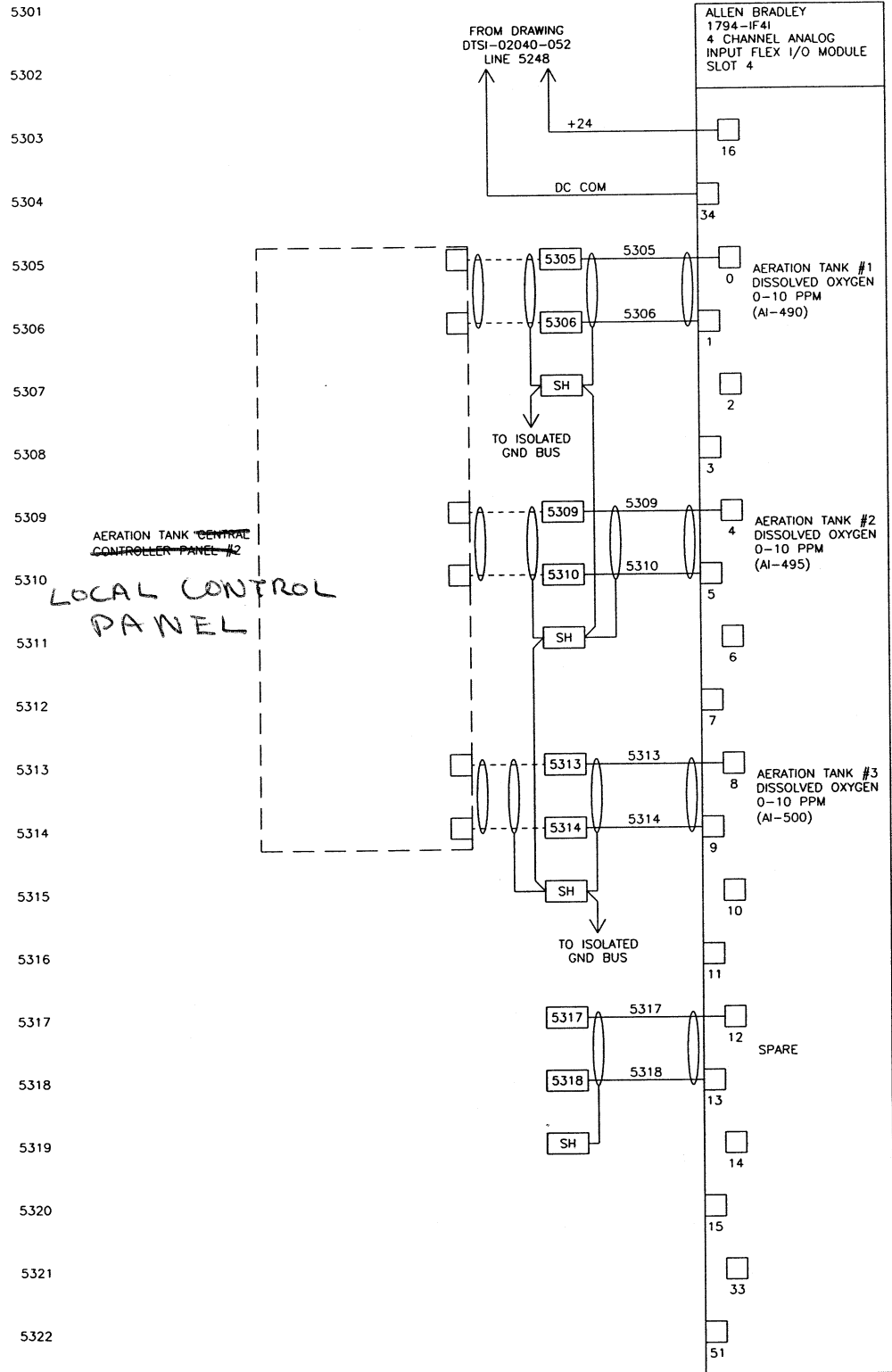


KOKOSING
CONSTRUCTION CO.
P.O. #

DUBLIN TECHNICAL
SYSTEMS INC.
PROJECT # 02040

TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
DECIMAL	± .03	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE
FRACTIONAL	± 1/32"	TITLE TRANS E1 & E2 NODE 7 BLOWER BUILDING I/O WIRING DIAGRAM SLOTS 2 & 3	
ANGULAR	± 1°	DATE 4/08/02	DRAWING NUMBER DTSI - 02040 - 052

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



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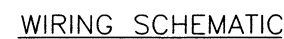
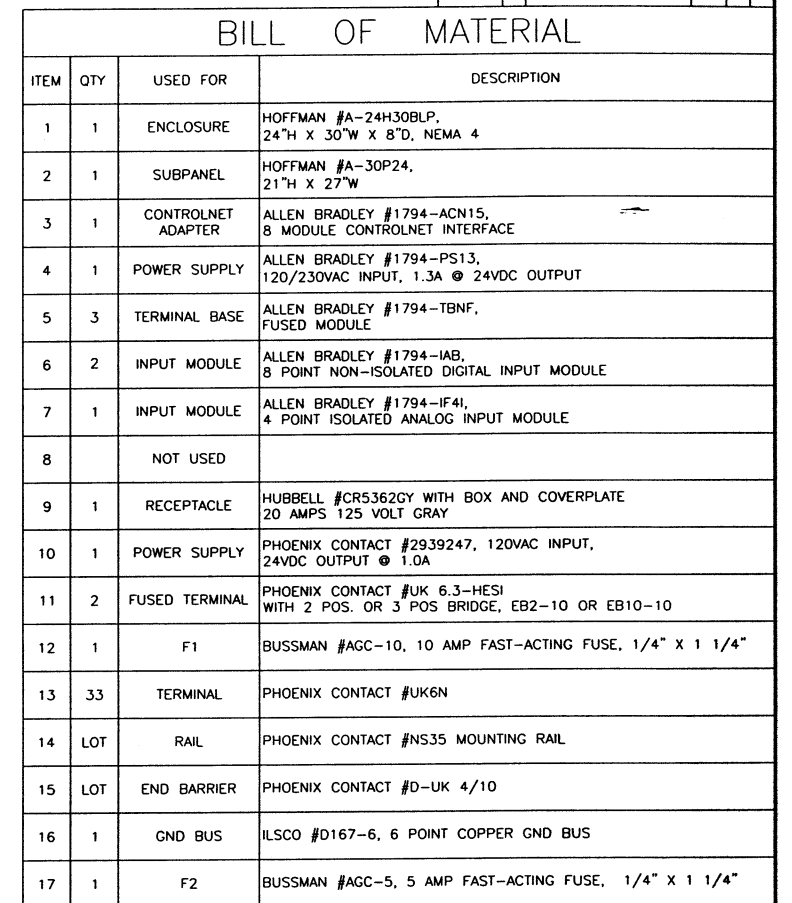
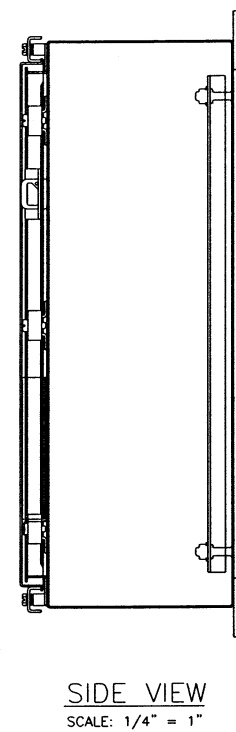
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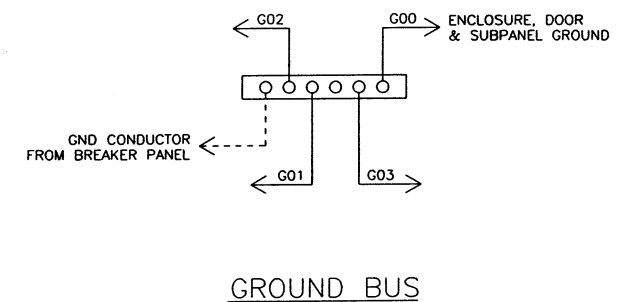
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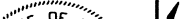
06/03/03 10:18	WIRE LUGS - NO ☒ YES ☐ RING ☐ LOCKING SPADE ☐		 KOKOSING CONSTRUCTION CO. P.O. #	TOLERANCES	 DUBLIN TECHNICAL SYSTEMS, INC.			
	INSULATION: NYLON ☐ PVC ☒			DECIMAL				
	WIRE SPECIFICATIONS:		 KOKOSING CONSTRUCTION CO. P.O. #	± .03	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE	DRAWN BY	HR
	USAGE			FRACTIONAL		NONE	APPROVED BY	BS
	AC PANEL POWER	AWG #12	BLK.	THW/THHN	TITLE	TRANS E1 & E2 NODE 7 BLOWER BUILDING I/O WIRING DIAGRAM SLOT 4	DATE	DRAWING NUMBER
	AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN				
	AC PANEL GROUND	AWG #12	GRN.	THW/THHN	ANGULAR	4/08/02	DTSI - 02040 - 053	
	AC CONTROL POWER	AWG #14	RED	THW/THHN				
	AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN	± 1°			
	AC FOREIGN	AWG #14	YELLOW	THW/THHN				
	DC POWER	AWG #16	BLUE	THW/THHN				
	DC CONTROL	AWG #16	BLUE	THW/THHN				
	SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN				



NAMEPLATES WHITE WITH BLACK LETTERING

	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" x 15"	1/2"	YES	RETENTION BASIN	REMOTE I/O ENCLOSURE -- NODE
N2	1	0.75" x 2"	3/16"	NO	CONTROLNET	P.S.
N3	1	0.75" x 2"	3/16"	NO	CONTROLNET	ADAPTER
N4	1	0.5" x 1.5"	3/16"	NO	SLOT 0	
N5	1	0.5" x 1.5"	3/16"	NO	SLOT 1	
N6	1	0.5" x 1.5"	3/16"	NO	SLOT 2	
N7	0	0.5" x 1.5"	3/16"	NO	SLOT 3	
N8	0	0.5" x 1.5"	3/16"	NO	SLOT 4	
N9	0	0.5" x 1.5"	3/16"	NO	SLOT 5	
N10	0	0.5" x 1.5"	3/16"	NO	SLOT 6	
N11	0	0.5" x 1.5"	3/16"	NO	SLOT 7	
N12	1	0.5" x 3"	3/16"	NO	DC POWER SUPPLY	
N13	1	0.5" x 2"	3/16"	NO	RECEPTACLE	
N14	1	0.5" x 2"	3/16"	NO	GND BUS	
N15	1	0.75" x 2"	3/16"	NO	ISOLATED	GND BUS
N16	1	0.5" x 1"	3/16"	NO	TB1	
N17	1	0.5" x 1"	3/16"	NO	TB2	



		WIRE LUGS - NO ☒ . YES ☐		RING ☐ . LOCKING SPADE ☐				 KOKOSING CONSTRUCTION CO. P.O. #		TOLERANCES		 DUBLIN TECHNICAL SYSTEMS, INC.			
		INSULATION: NYLON ☐ . PVC ☒								DECIMAL		CITY OF WASHINGTON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E2031		SCALE NONE	DRAWN BY HR
		WIRE SPECIFICATIONS:								± .03		APPROVED BY BS			
		USAGE		SIZE		COLOR		INSULATION		FRACTIONAL		TITLE			
		AC PANEL POWER		AWG #12		BLK.		THW/THHN		± 1/32"		PANEL TRANS F1 & F2 NODE 8 RETENTION BASIN			
		AC PANEL NEUTRAL		AWG #12		WHT.		THW/THHN				PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC			
		AC PANEL GROUND		AWG #12		GRN.		THW/THHN							
		AC CONTROL POWER		AWG #14		RED		THW/THHN							
		AC CONTROL NEUTRAL		AWG #14		WHT.		THW/THHN							
		AC FOREIGN		AWG #14		YELLOW		THW/THHN							
		DC POWER		AWG #16		BLUE		THW/THHN							
		DC CONTROL		AWG #16		BLUE		THW/THHN							
		SIGNAL INSTRUMENTS		AWG #16		2-CONDUCTOR SHLD.		THW/THHN							
05/20/03 12:00										ANGULAR		DATE			
										± 1'		4/09/02			
												DRAWING NUMBER			
												DTSI - 02040 - 055			

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FROM DRAWING
DTSI-02040-055
LINE 5509

DIURNAL FLOW
RETENTION PUMP #1
VFD PANEL; LOCATED IN
RETENTION BASIN MCC
ROOM

DIURNAL FLOW
RETENTION PUMP #2
VFD PANEL; LOCATED IN
RETENTION BASIN MCC
ROOM

DIURNAL FLOW
RETENTION PUMP #3
VFD PANEL; LOCATED IN
RETENTION BASIN MCC
ROOM

DIURNAL BASIN PUMP
CONTROL PANEL;
LOCATED IN RETENTION
BASIN MCC ROOM

MAIN PUMP
CONTROL
PANEL

5502

5501N

5605H

5606

5607H

5608

5609H

5610

5611H

5612

5613H

5614

5615H

5616

16

34

0

1

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4

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6

7

8

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14

15

33

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TO LINE 2127

ALLEN BRADLEY
1794-IA8
8 POINT DIGITAL
INPUT FLEX I/O MODULE
SLOT 0

DIURNAL FLOW
RETENTION
PUMP #1 DFRTP-1
RUNNING
(EL-2024)

DIURNAL FLOW
RETENTION
PUMP #2 DFRTP-2
RUNNING
(EL-2034)

DIURNAL FLOW
RETENTION
PUMP #3 DFRTP-3
RUNNING
(EL-2044)

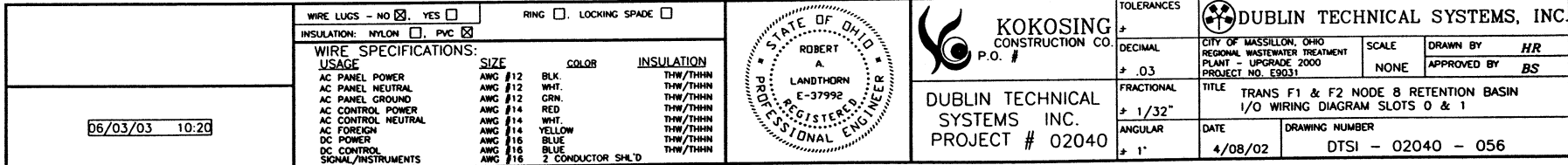
DIURNAL FLOW
RETENTION
PUMP #1 DFRTP-1
ALARM
(IAH-2026)

DIURNAL FLOW
RETENTION
PUMP #2 DFRTP-2
ALARM
(IAH-2036)

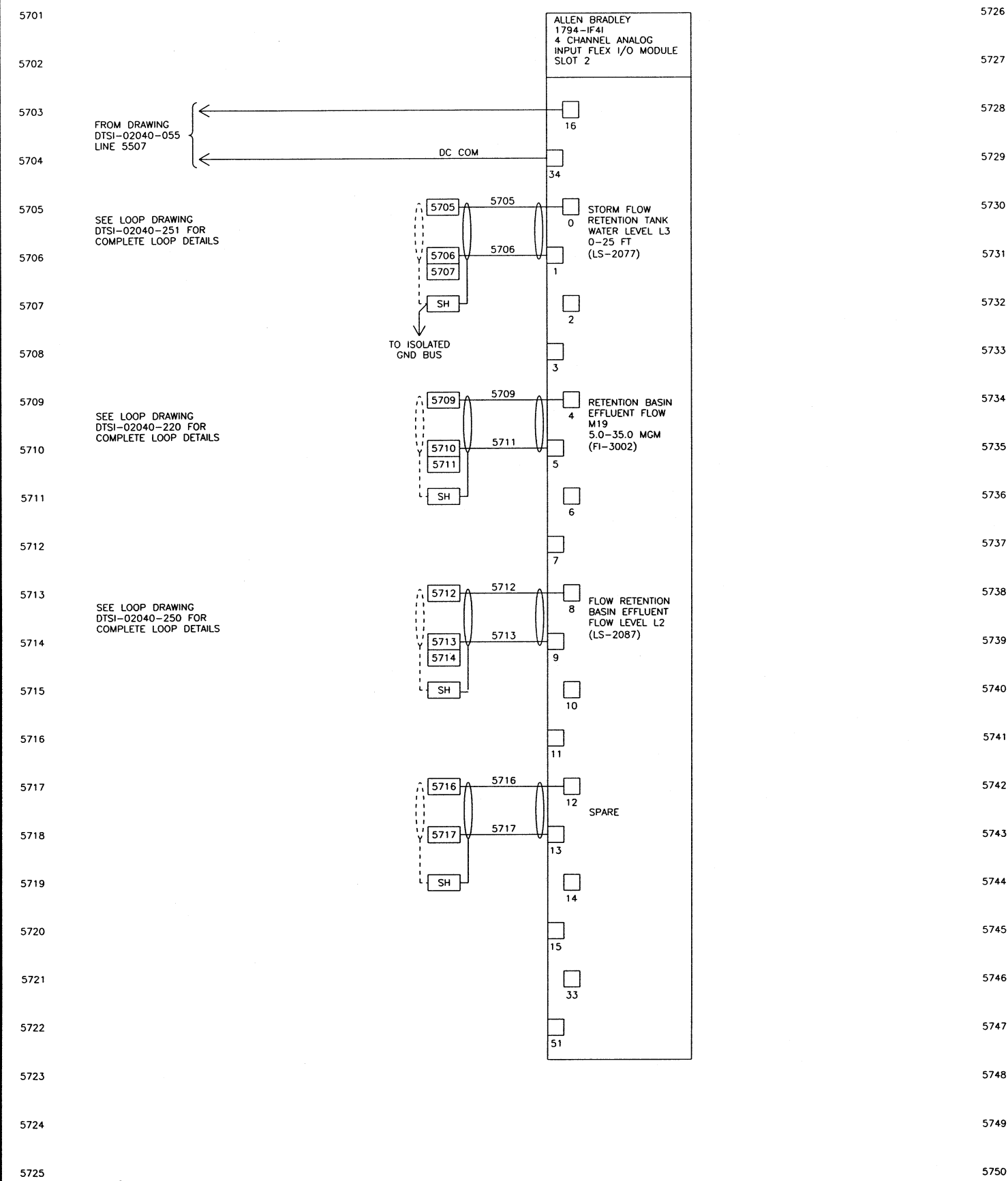
DIURNAL FLOW
RETENTION
PUMP #3 DFRTP-3
ALARM
(IAH-2046)

SPARE

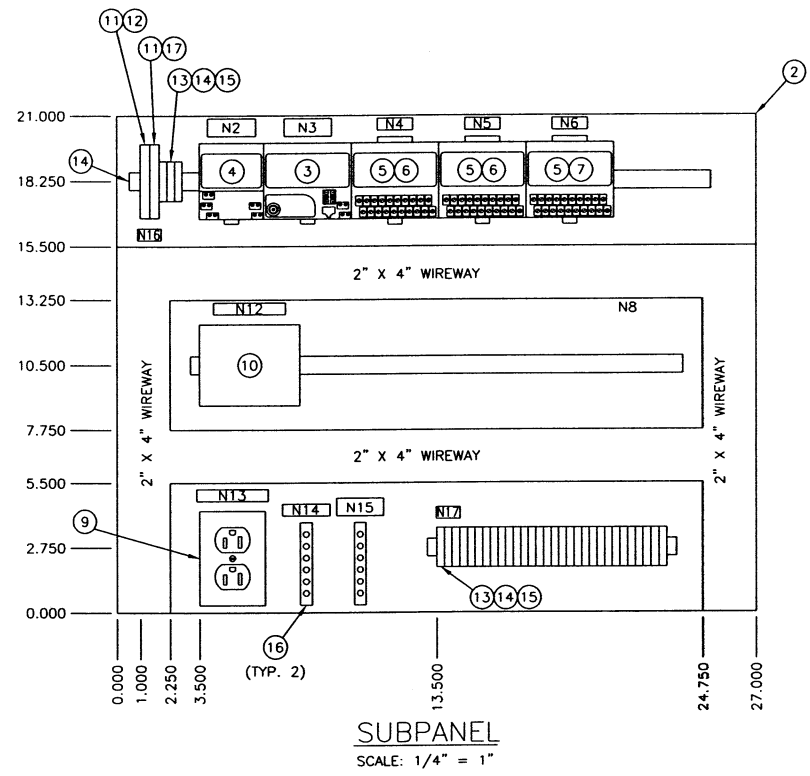
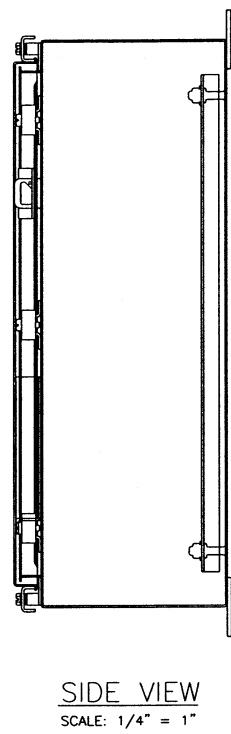
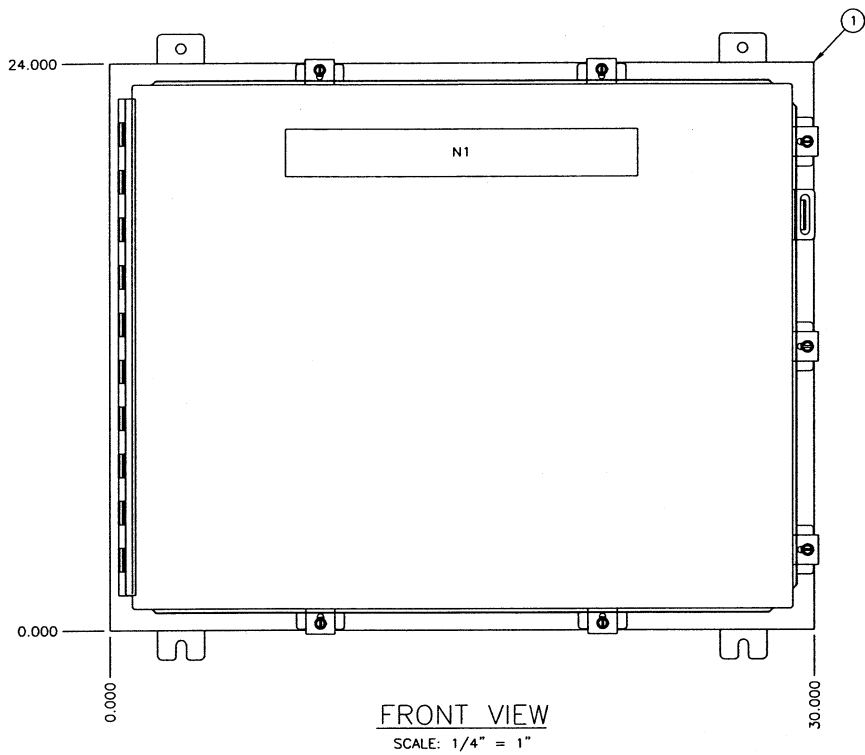
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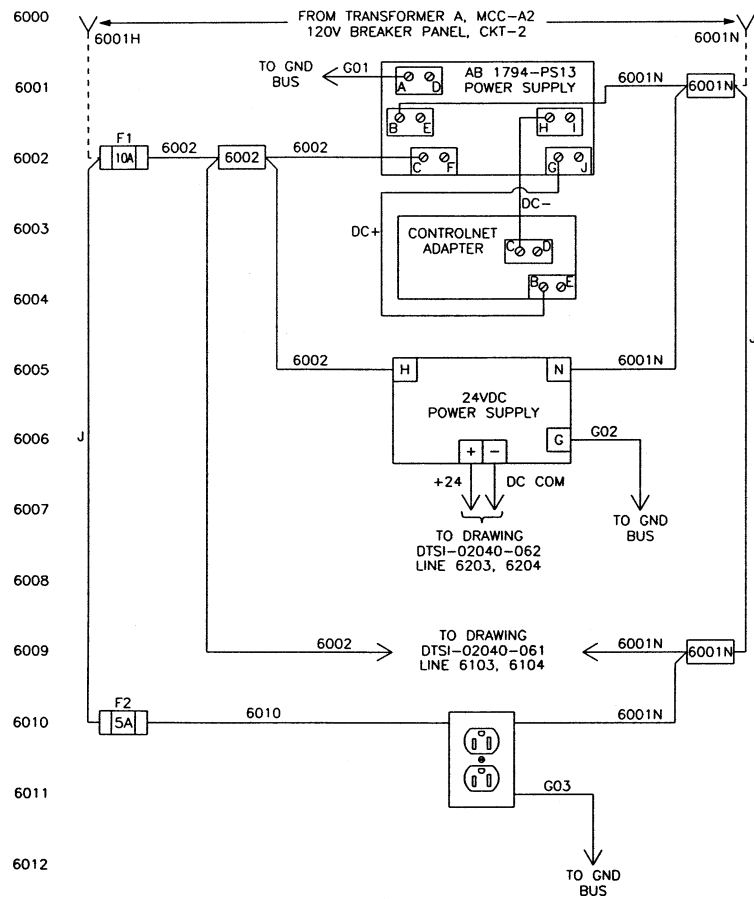
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



	WIRE LUGS - NO ☒ YES ☐	RING ☐ LOCKING SPADE ☐												
	INSULATION: NYLON ☐ PVC ☒													
	WIRE SPECIFICATIONS:		SIZE	COLOR	INSULATION									
	AC PANEL POWER		AWG #12	BLK.	THW/THHN									
	AC PANEL NEUTRAL		AWG #12	WHT.	THW/THHN									
	AC PANEL GROUND		AWG #12	GRN.	THW/THHN									
	AC CONTROL POWER		AWG #14	RED	THW/THHN									
	AC CONTROL NEUTRAL		AWG #14	WHT.	THW/THHN									
	AC FOREIGN		AWG #14	YELLOW	THW/THHN									
	DC POWER		AWG #16	BLUE	THW/THHN									
	DC CONTROL		AWG #16	BLUE	THW/THHN									
	SIGNAL/INSTRUMENTS		AWG #16	2 CONDUCTOR SHLD	THW/THHN									
06/03/03 10:27														
			STATE OF OHIO ROBERT A. LANBTHORN E-37992 REGISTERED PROFESSIONAL ENGINEER			KOKOSING CONSTRUCTION CO. P.O. #			TOLERANCES ± DECIMAL ± .03 FRACTIONAL ± 1/32" ANGULAR ± 1"			DUBLIN TECHNICAL SYSTEMS, INC. CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031 SCALE NONE DRAWN BY HR APPROVED BY BS TITLE TRANS F1 & F2 NODE 8 RETENTION BASIN I/O WIRING DIAGRAM SLOT 2 DATE 4/08/02 DRAWING NUMBER DTSI - 02040 - 057		

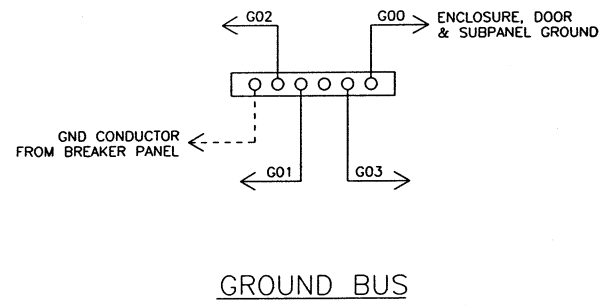


BILL OF MATERIAL			
ITEM	QTY	USED FOR	DESCRIPTION
1	1	ENCLOSURE	HOFFMAN #A-24H30BLP, 24"H X 30"W X 8"D, NEMA 4
2	1	SUBPANEL	HOFFMAN #A-30P24, 21"H X 27"W
3	1	CONTROLNET ADAPTER	ALLEN BRADLEY #1794-ACN15, 8 MODULE CONTROLNET INTERFACE
4	1	POWER SUPPLY	ALLEN BRADLEY #1794-PS13, 120/230VAC INPUT, 1.3A @ 24VDC OUTPUT
5	3	TERMINAL BASE	ALLEN BRADLEY #1794-TBNF, FUSED MODULE
6	2	INPUT MODULE	ALLEN BRADLEY #1794-IAB, 8 POINT NON-ISOLATED DIGITAL INPUT MODULE
7	1	INPUT MODULE	ALLEN BRADLEY #1794-IF4I, 4 POINT ISOLATED ANALOG INPUT MODULE
8		NOT USED	
9	1	RECEPTACLE	HUBBELL #CR5362GY WITH BOX AND COVERPLATE 20 AMPS 125 VOLT GRAY
10	1	POWER SUPPLY	PHOENIX CONTACT #2939247, 120VAC INPUT, 24VDC OUTPUT @ 1.0A
11	2	FUSED TERMINAL	PHOENIX CONTACT #UK 6.3-HESI WITH 2 POS. OR 3 POS BRIDGE, EB2-10 OR EB10-10
12	1	F1	BUSSMAN #AGC-10, 10 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"
13	33	TERMINAL	PHOENIX CONTACT #UK6N
14	LOT	RAIL	PHOENIX CONTACT #NS35 MOUNTING RAIL
15	LOT	END BARRIER	PHOENIX CONTACT #D-UK 4/10
16	1	GND BUS	ILSCO #D167-6, 6 POINT COPPER GND BUS
17	1	F2	BUSSMAN #AGC-5, 5 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"



NAMEPLATES

	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" X 15"	1/2"	YES	ADMINISTRATION BUILDING	REMOTE I/O ENCLOSURE - NODE 9
N2	1	0.75" X 2"	3/16"	NO	CONTROLNET	P.S.
N3	1	0.75" X 2"	3/16"	NO	CONTROLNET	ADAPTER
N4	1	0.5" X 1.5"	3/16"	NO	SLOT 0	
N5	1	0.5" X 1.5"	3/16"	NO	SLOT 1	
N6	1	0.5" X 1.5"	3/16"	NO	SLOT 2	
N7	0	0.5" X 1.5"	3/16"	NO	SLOT 3	
N8	0	0.5" X 1.5"	3/16"	NO	SLOT 4	
N9	0	0.5" X 1.5"	3/16"	NO	SLOT 5	
N10	0	0.5" X 1.5"	3/16"	NO	SLOT 6	
N11	0	0.5" X 1.5"	3/16"	NO	SLOT 7	
N12	1	0.5" X 3"	3/16"	NO	DC POWER SUPPLY	
N13	1	0.5" X 2"	3/16"	NO	RECEPTACLE	
N14	1	0.5" X 2"	3/16"	NO	GND BUS	
N15	1	0.75" X 2"	3/16"	NO	ISOLATED	GND BUS
N16	1	0.5" X 1"	3/16"	NO	TB1	
N17	1	0.5" X 1"	3/16"	NO	TB2	



WIRING SCHEMATIC

05/20/03 12:04

WIRE LUGS - NO ☒ YES ☐ RING ☐ LOCKING SPADE ☐

INSULATION: NYLON ☐ PVC ☒

WIRE SPECIFICATIONS:

AC PANEL POWER AWG #12 BLK THW/THHH

AC PANEL NEUTRAL AWG #12 WHT. THW/THHH

AC PANEL GROUND AWG #12 GRN. THW/THHH

AC CONTROL POWER AWG #14 RED THW/THHH

AC CONTROL NEUTRAL AWG #14 WHT. THW/THHH

AC FOREIGN AWG #14 YELLOW THW/THHH

DC POWER AWG #16 BLUE THW/THHH

DC CONTROL SIGNAL/INSTRUMENTS AWG #16 BLUE 2 CONDUCTOR SHLD THW/THHH

STATE OF OHIO

ROBERT A. LANDTHORN

E-37992

REGISTERED PROFESSIONAL ENGINEER

KOKOSING CONSTRUCTION CO.

P.O. #

DUBLIN TECHNICAL SYSTEMS INC.

PROJECT # 02040

TOLERANCES

DECIMAL ± .03

FRACTIONAL ± 1/32"

ANGULAR ± 1°

DUBLIN TECHNICAL SYSTEMS, INC.

CITY OF MASSILLON, OHIO

REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000

PROJECT NO. E9031

SCALE NONE

DRAWN BY HR

APPROVED BY BS

TITLE TRANS A NODE 9 ADMINISTRATION BUILDING PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC

DATE 4/09/02

DRAWING NUMBER DTSI - 02040 - 060

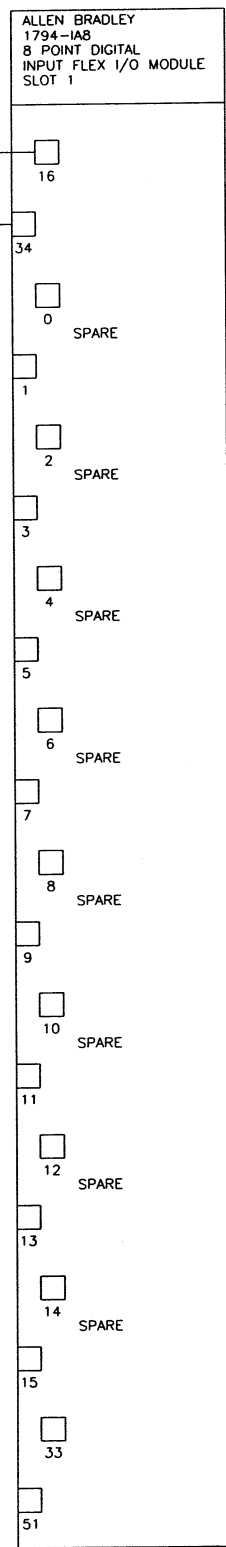
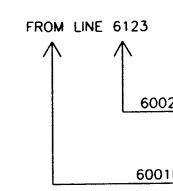
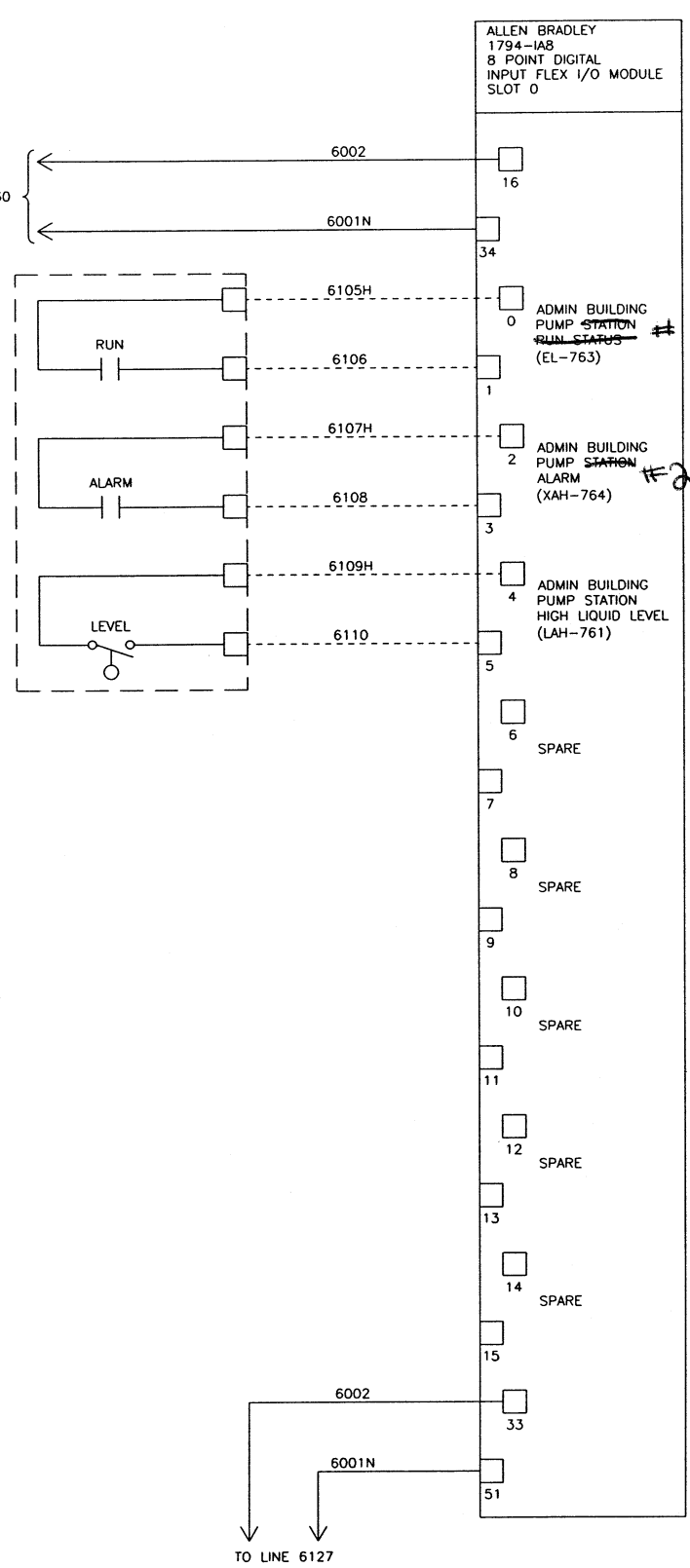
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS

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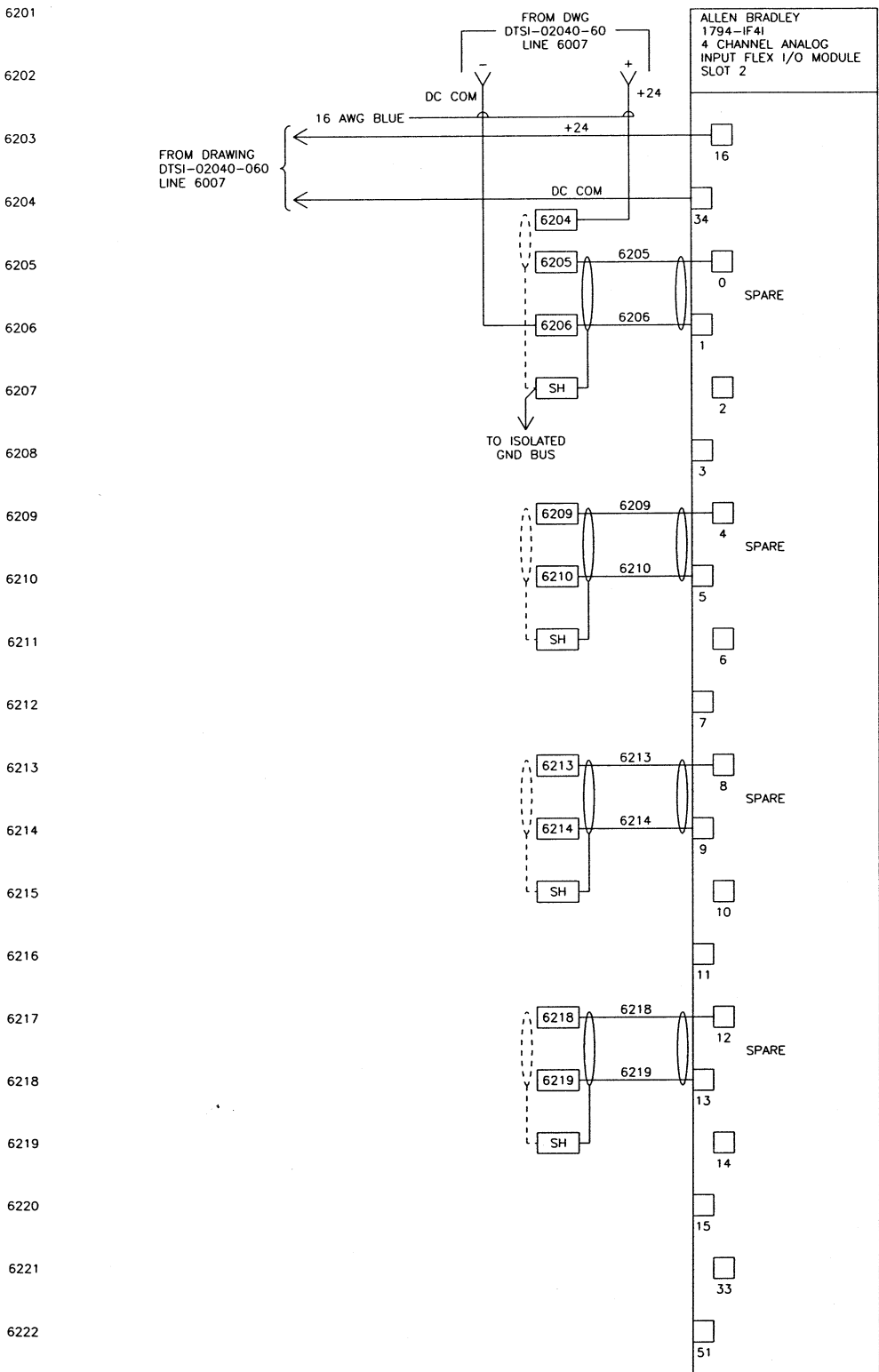
FROM DRAWING
DTSI-02040-060
LINE 6009

ADMIN. BUILDING -
MAIN LEVEL;
ADMINISTRATION PUMP
CONTROLS



06/03/03 10:28	WIRE LUGS - NO ☒ YES ☐	RING ☐ LOCKING SPADE ☐			TOLERANCES ± .03 ± 1/32" ± 1"		DUBLIN TECHNICAL SYSTEMS, INC.		
	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031								
WIRE SPECIFICATIONS: USAGE		SIZE	COLOR	INSULATION	TITLE TRANS A NODE 9 ADMINISTRATION BUILDING I/O WIRING DIAGRAM SLOTS 0 & 1				
AC PANEL POWER		AWG #12	BLK.	THW/THHN	DATE 4/08/02				
AC PANEL NEUTRAL		AWG #12	WHT.	THW/THHN	DRAWING NUMBER DTSI - 02040 - 061				
AC PANEL GROUND		AWG #12	GRN.	THW/THHN					
AC CONTROL POWER		AWG #14	RED	THW/THHN					
AC CONTROL NEUTRAL		AWG #14	WHT.	THW/THHN					
AC FOREIGN		AWG #14	YELLOW	THW/THHN					
DC POWER		AWG #16	BLUE	THW/THHN					
DC CONTROL		AWG #16	BLUE	THW/THHN					
SIGNAL/INSTRUMENTS		AWG #16	2 CONDUCTOR SHLD	THW/THHN					

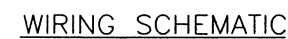
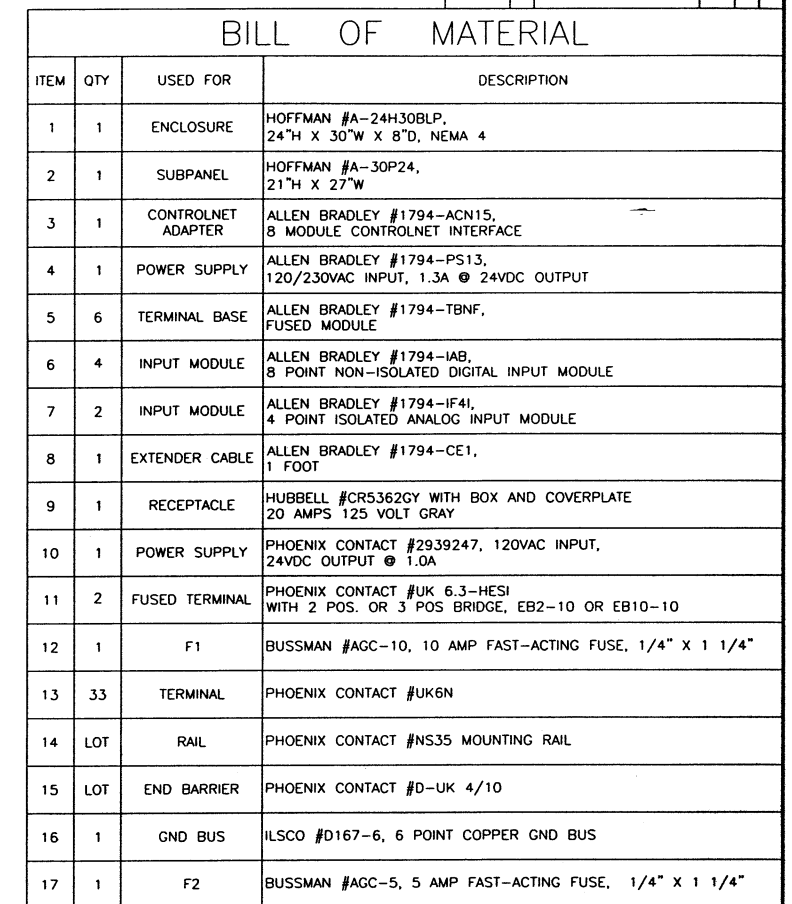
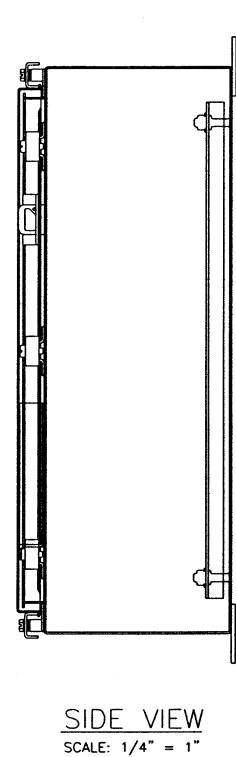
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



06/03/03 10:29	WIRE LUGS - NO ☒ YES ☐	RING ☐ LOCKING SPADE ☐	TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
	INSULATION: NYLON ☐ PVC ☒		DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE	DRAWN BY HR
	WIRE SPECIFICATIONS:		FRACTIONAL	TITLE TRANS A NODE 9 ADMINISTRATION BUILDING I/O WIRING DIAGRAM SLOT 2		
	USAGE	SIZE COLOR INSULATION	ANGULAR	DATE 4/08/02		
	AC PANEL POWER	AWG #12 BLK. THW/THHN	DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040	DRAWING NUMBER DTSI - 02040 - 062		
	AC PANEL NEUTRAL	AWG #12 WHT. THW/THHN				
AC PANEL GROUND	AWG #12 GRN. THW/THHN					
AC CONTROL POWER	AWG #14 RED THW/THHN					
	AC CONTROL NEUTRAL	AWG #14 WHT. THW/THHN				
	AC FOREIGN	AWG #14 YELLOW THW/THHN				
	DC POWER	AWG #16 BLUE THW/THHN				
	DC CONTROL	AWG #16 BLUE THW/THHN				
	SIGNAL/INSTRUMENTS	AWG #16 2 CONDUCTOR SHLD'D THW/THHN				

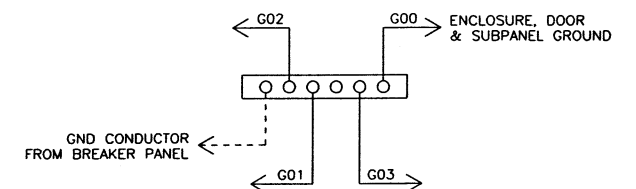
STATE OF OHIO
ROBERT A. LANDTHORN
E-37992
REGISTERED PROFESSIONAL ENGINEER

KOKOSING
CONSTRUCTION CO.
P.O. #

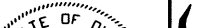


NAMEPLATES WHITE WITH BLACK LETTERING

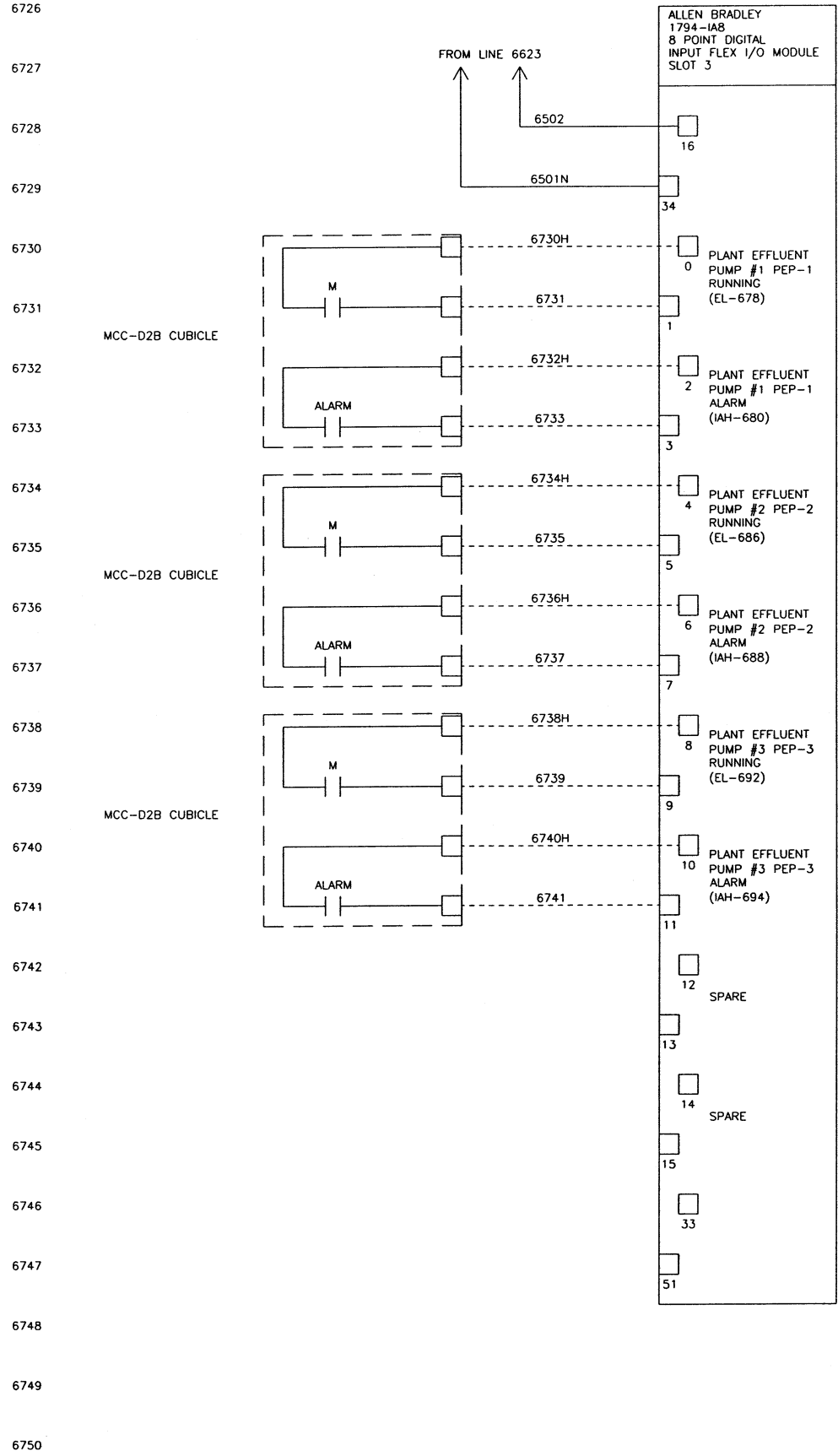
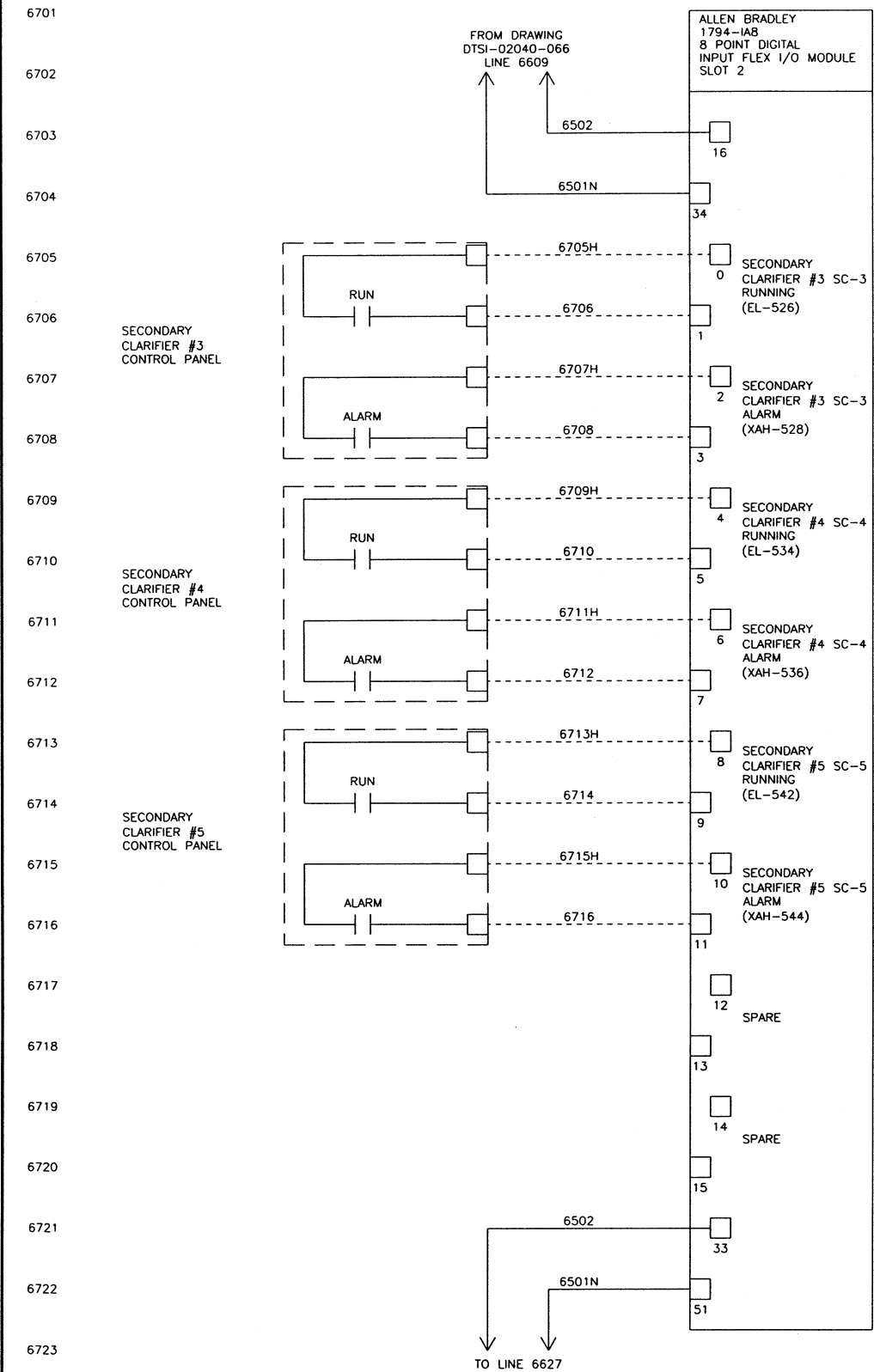
	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" X 15"	1/2"	YES	RAS & SEC CLARIFIER	REMOTE I/O ENCLOSURE – NODE 10
N2	1	0.75" X 2"	3/16"	NO	CONTROLNET	P.S.
N3	1	0.75" X 2"	3/16"	NO	CONTROLNET	ADAPTER
N4	1	0.5" X 1.5"	3/16"	NO	SLOT 0	
N5	1	0.5" X 1.5"	3/16"	NO	SLOT 1	
N6	1	0.5" X 1.5"	3/16"	NO	SLOT 2	
N7	1	0.5" X 1.5"	3/16"	NO	SLOT 3	
N8	1	0.5" X 1.5"	3/16"	NO	SLOT 4	
N9	1	0.5" X 1.5"	3/16"	NO	SLOT 5	
N10	0	0.5" X 1.5"	3/16"	NO	SLOT 6	
N11	0	0.5" X 1.5"	3/16"	NO	SLOT 7	
N12	1	0.5" X 3"	3/16"	NO	DC POWER SUPPLY	
N13	1	0.5" X 2"	3/16"	NO	RECEPTACLE	
N14	1	0.5" X 2"	3/16"	NO	GND BUS	
N15	1	0.75" X 2"	3/16"	NO	ISOLATED	GND BUS
N16	1	0.5" X 1"	3/16"	NO	TB1	
N17	1	0.5" X 1"	3/16"	NO	TB2	

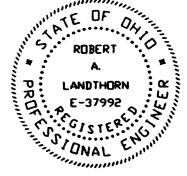


GROUND BUS

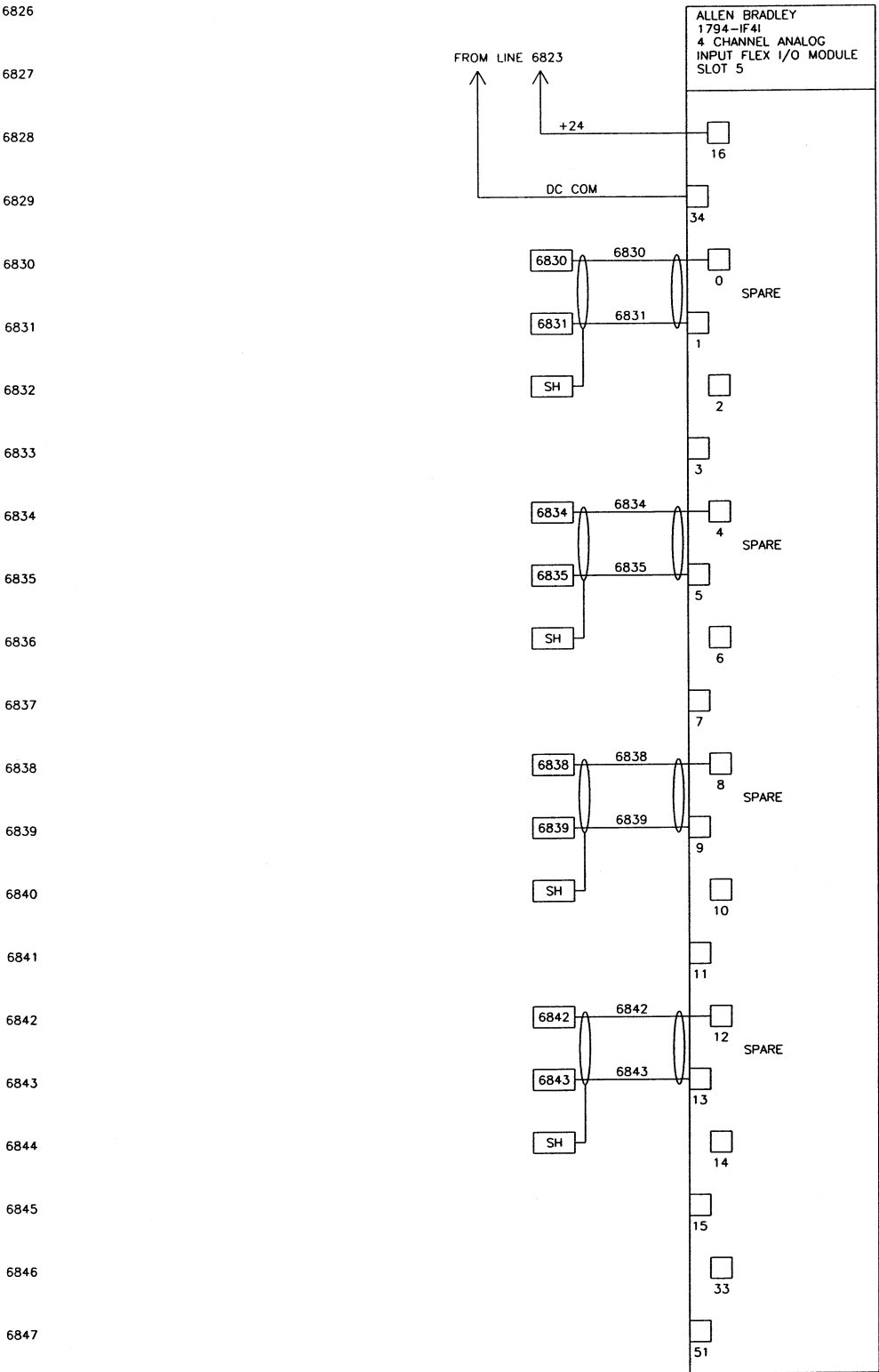
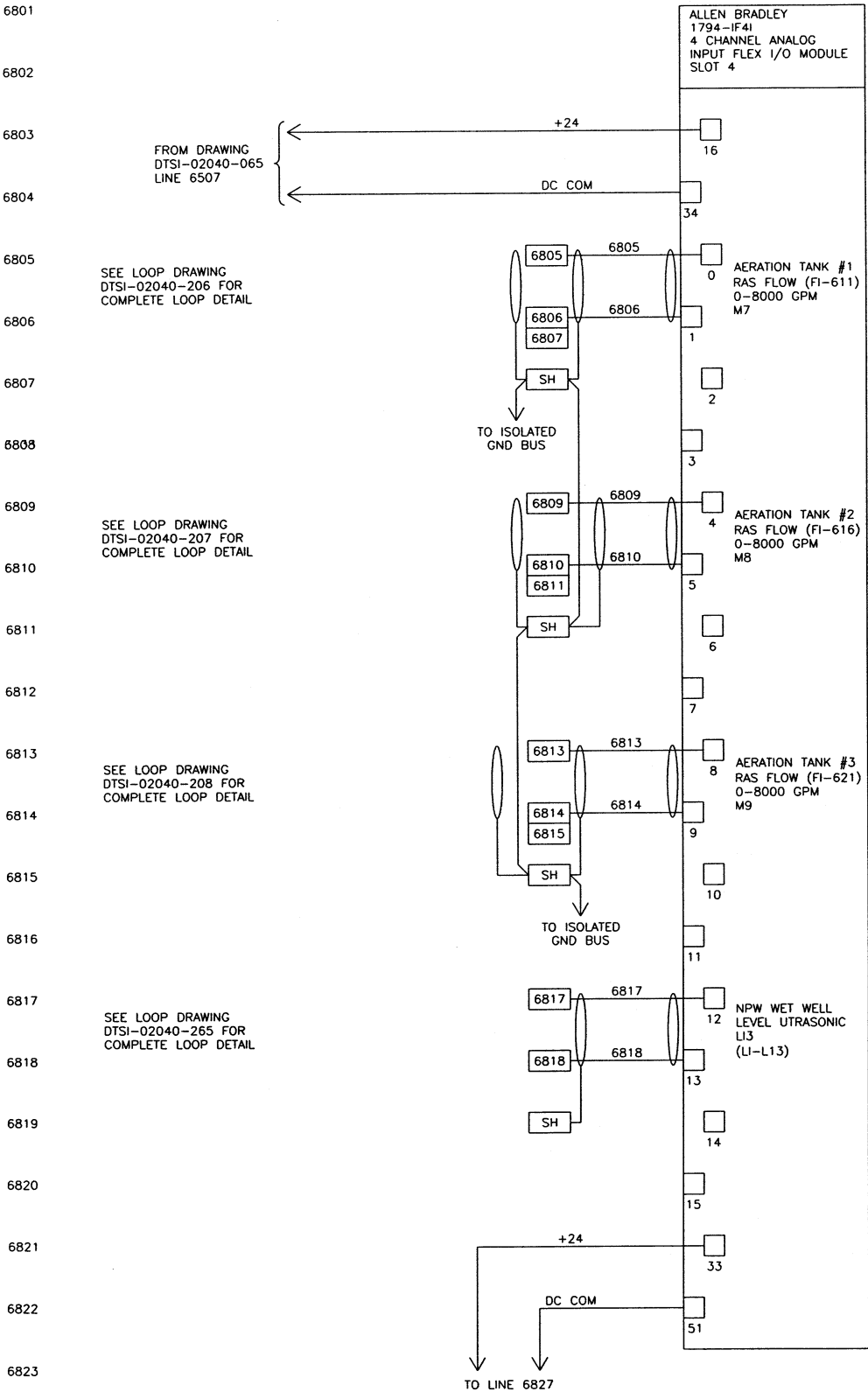
		WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐				TOLERANCES		 DUBLIN TECHNICAL SYSTEMS, INC.			
		INSULATION: NYLON ☐ PVC ☒						DECIMAL		CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE	DRAWN BY	HR
		WIRE SPECIFICATIONS:						± .03		NONE	APPROVED BY	BS	
		USAGE:						FRACTIONAL		TRANS D2B NODE 10 RAS & SEC CLARIFIER PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC	DATE	DRAWING NUMBER	
		SIZE COLOR INSULATION				± 1/32"			4/09/02	DTSI - 02040 - 065			
		AWG #12 BLK THW/THHN				ANGULAR							
		AWG #12 WHIT THW/THHN				± 1°							
		AWG #12 GRN THW/THHN											
		AWG #14 RED THW/THHN											
		AWG #14 WHIT THW/THHN											
		AWG #14 YELLOW THW/THHN											
		AWG #16 BLUE THW/THHN											
		AWG #16 BLUE THW/THHN											
		DC POWER											
		DC CONTROL											
		SIGNAL CONNECTIONS											

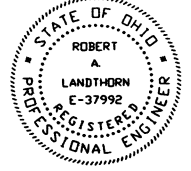
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS

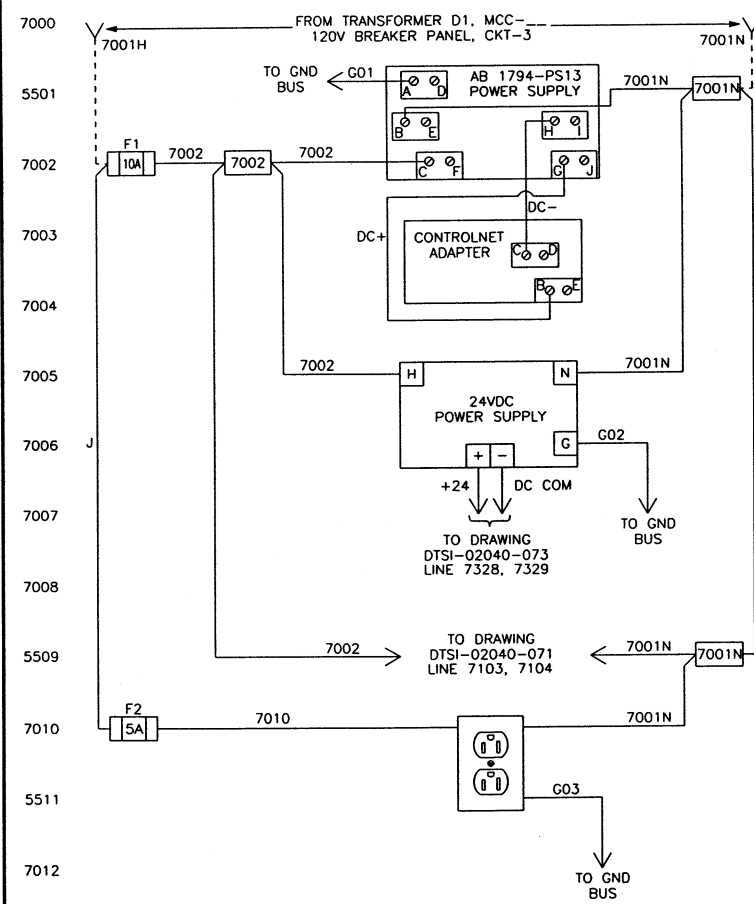
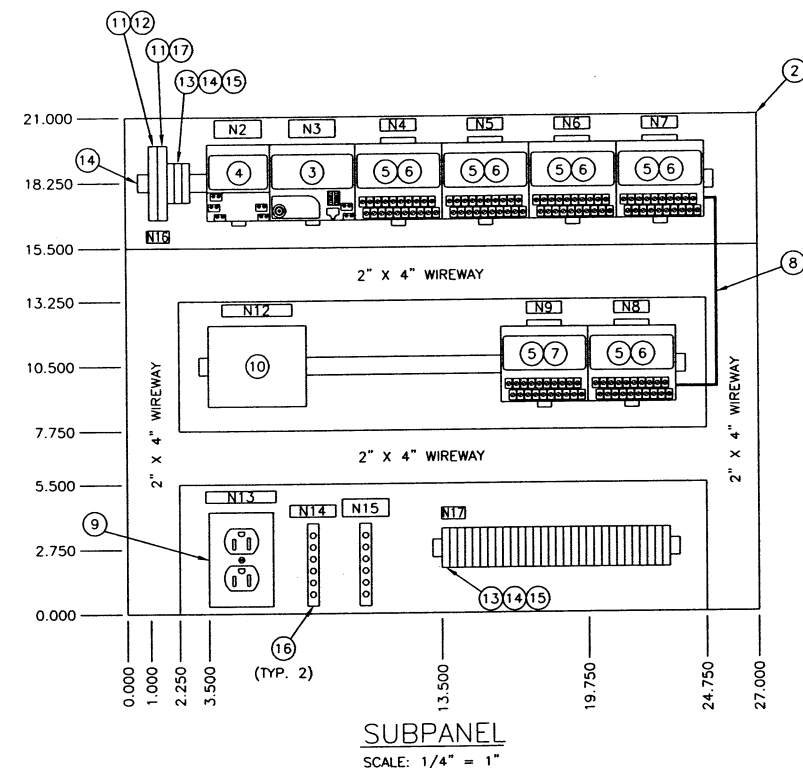
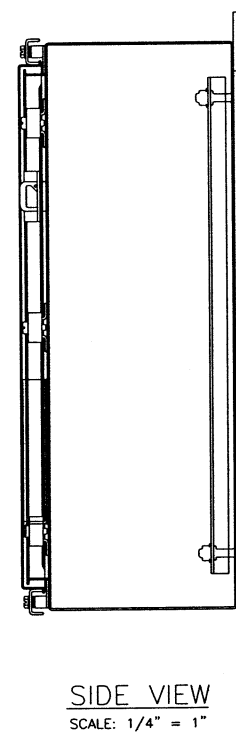
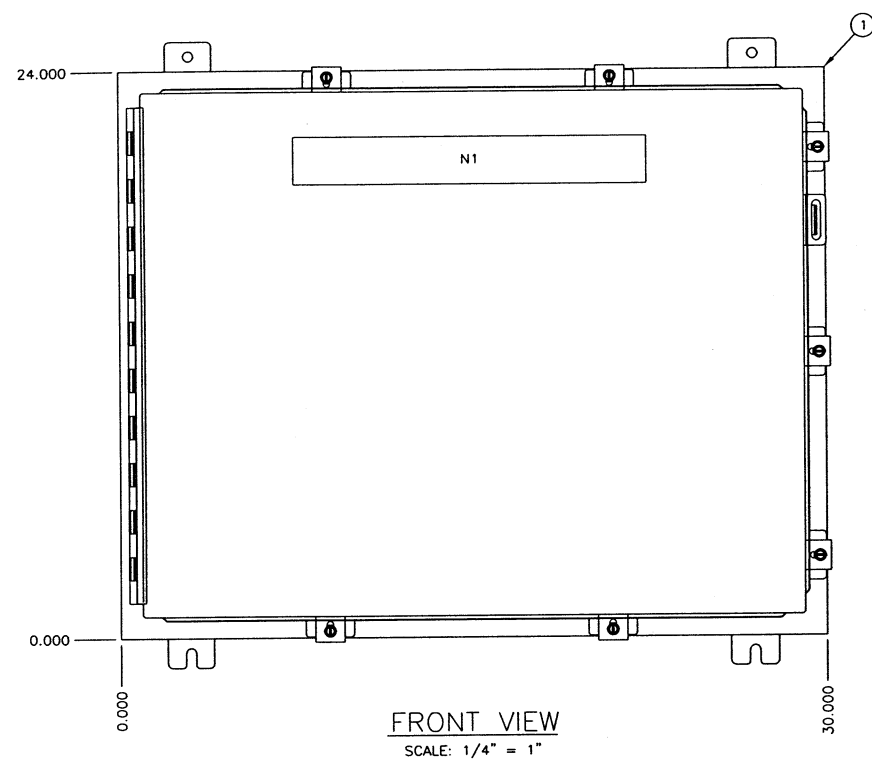


06/03/03 10:38	WIRE LUGS - NO ☒ YES ☐	RING ☐ LOCKING SPADE ☐			TOLERANCES			DUBLIN TECHNICAL SYSTEMS, INC.	
	INSULATION: NYLON ☐ PVC ☒				CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE		DRAWN BY HR APPROVED BY BS	
WIRE SPECIFICATIONS:		SIZE	COLOR	INSULATION	FRACTIONAL ± 1/32"	TITLE TRANS D2B NODE 10 RAS & SEC CLARIFIER I/O WIRING DIAGRAM SLOTS 2 & 3			
AC PANEL POWER		AWG #12	BLK.	THW/THHN	ANGULAR ± 1"	DATE 4/08/02			
AC PANEL NEUTRAL		AWG #12	WHT.	THW/THHN	DRAWING NUMBER DTSI - 02040 - 067				
AC PANEL GROUND		AWG #12	GRN.	THW/THHN					
AC CONTROL POWER		AWG #14	RED	THW/THHN					
AC CONTROL NEUTRAL		AWG #14	WHT.	THW/THHN					
AC FOREIGN		AWG #14	YELLOW	THW/THHN					
DC POWER		AWG #16	BLUE	THW/THHN					
DC CONTROL		AWG #16	BLUE	THW/THHN					
SIGNAL/INSTRUMENTS		AWG #16	2 CONDUCTOR SHLD	THW/THHN					

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



06/03/03 10:43	WIRE LUGS - NO ☒ YES ☐	RING ☐ LOCKING SPADE ☐		 KOKOSING CONSTRUCTION CO. P.O. #	TOLERANCES	 DUBLIN TECHNICAL SYSTEMS, INC.
	INSULATION: NYLON ☐ PVC ☒	WIRE SPECIFICATIONS:			DECIMAL	
	USAGE	SIZE	COLOR	INSULATION	FRACTIONAL	TITLE
	AC PANEL POWER	AWG #12	BLK.	THW/THHN	1/32"	TRANS D2B NODE 10 RAS & SEC CLARIFIER
	AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN		I/O WIRING DIAGRAM SLOTS 4 & 5
	AC PANEL GROUND	AWG #12	GRN.	THW/THHN		
	AC CONTROL POWER	AWG #14	RED	THW/THHN		
	AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN		
	AC FOREIGN	AWG #14	YELLOW	THW/THHN		
	DC POWER	AWG #16	BLUE	THW/THHN		
	DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	BLUE	2 CONDUCTOR SHLD	1"	
					DATE	DRAWING NUMBER
					4/08/02	DTSI - 02040 - 068

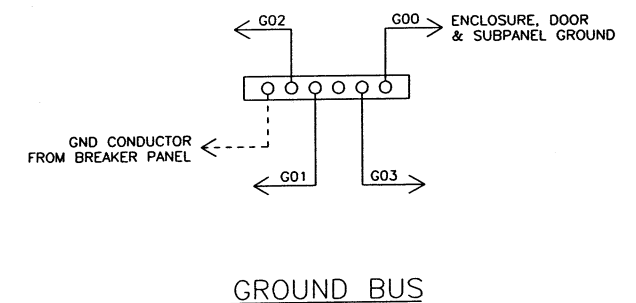


DATE	SYM	REVISION RECORD	AUTH	OR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS

BILL OF MATERIAL			
ITEM	QTY	USED FOR	DESCRIPTION
1	1	ENCLOSURE	HOFFMAN #A-24H30BLP, 24"H X 30"W X 8"D, NEMA 4
2	1	SUBPANEL	HOFFMAN #A-30P24, 21"H X 27"W
3	1	CONTROLNET ADAPTER	ALLEN BRADLEY #1794-ACN15, 8 MODULE CONTROLNET INTERFACE
4	1	POWER SUPPLY	ALLEN BRADLEY #1794-PS13, 120/230VAC INPUT, 1.3A @ 24VDC OUTPUT
5	6	TERMINAL BASE	ALLEN BRADLEY #1794-TBNF, FUSED MODULE
6	5	INPUT MODULE	ALLEN BRADLEY #1794-IAB, 8 POINT NON-ISOLATED DIGITAL INPUT MODULE
7	1	INPUT MODULE	ALLEN BRADLEY #1794-IF4I, 4 POINT ISOLATED ANALOG INPUT MODULE
8	1	EXTENDER CABLE	ALLEN BRADLEY #1794-CE1, 1 FOOT
9	1	RECEPTACLE	PASS & SEYMOUR #5362-AGRY, 20 AMPS 125 VOLT GRAY
10	1	POWER SUPPLY	PHOENIX CONTACT #2939247, 120VAC INPUT, 24VDC OUTPUT @ 1.0A
11	2	FUSED TERMINAL	PHOENIX CONTACT #UK 6.3-HESI WITH 2 POS. OR 3 POS BRIDGE, EB2-10 OR EB10-10
12	1	F1	BUSSMAN #AGC-10, 10 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"
13	33	TERMINAL	PHOENIX CONTACT #UK6N
14	LOT	RAIL	PHOENIX CONTACT #NS35 MOUNTING RAIL
15	LOT	END BARRIER	PHOENIX CONTACT #D-UK 4/10
16	1	GND BUS	ILSCO #D167-6, 6 POINT COPPER GND BUS
17	1	F2	BUSSMAN #AGC-5, 5 AMP FAST-ACTING FUSE, 1/4" X 1 1/4"

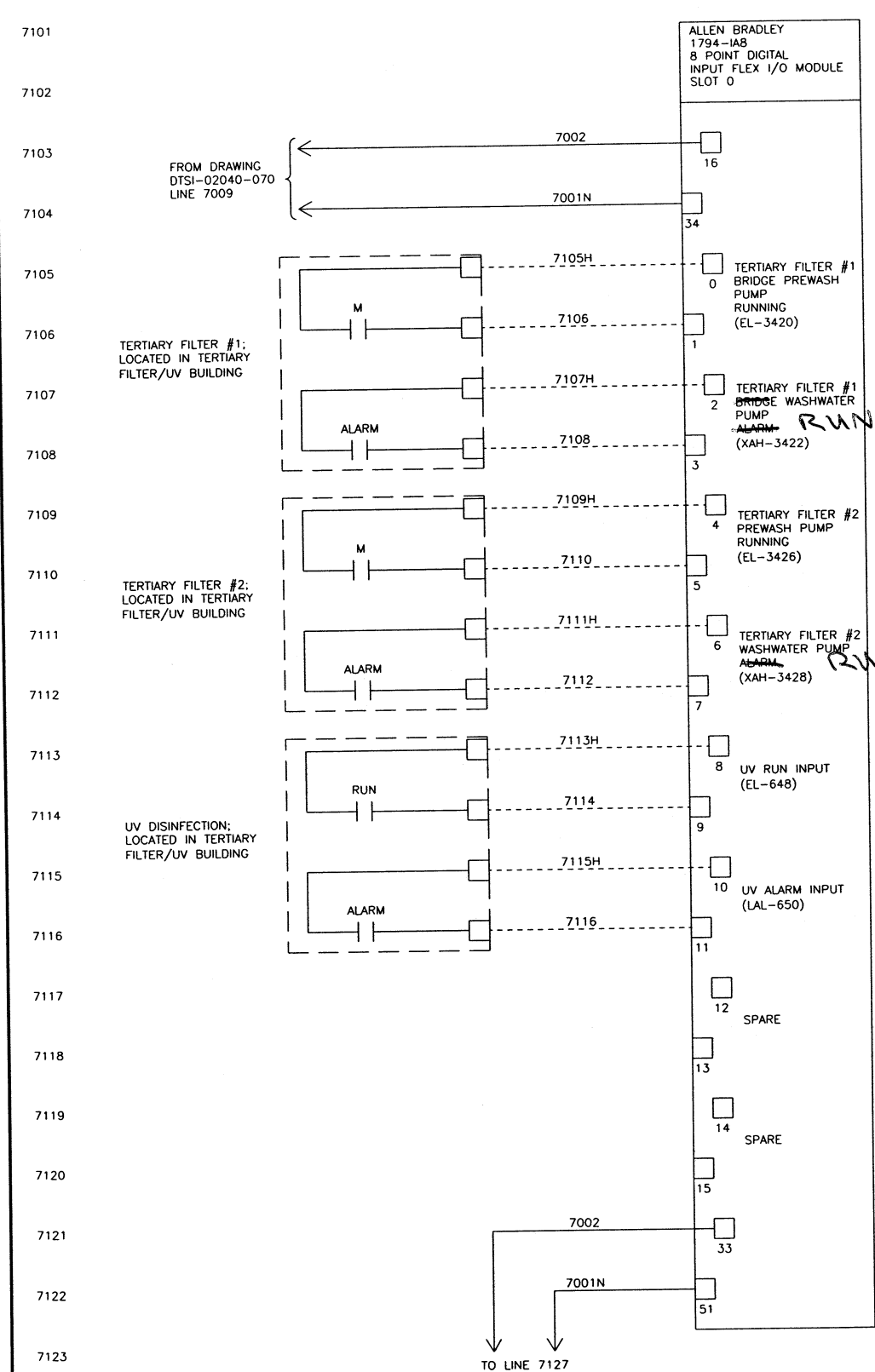
NAMEPLATES WHITE WITH BLACK LETTERING

	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" X 15"	1/2"	YES	TERTIARY FILTER & UV	REMOTE I/O ENCLOSURE -- NODE
N2	1	0.75" X 2"	3/16"	NO	CONTROLNET	P.S.
N3	1	0.75" X 2"	3/16"	NO	CONTROLNET	ADAPTER
N4	1	0.5" X 1.5"	3/16"	NO	SLOT 0	
N5	1	0.5" X 1.5"	3/16"	NO	SLOT 1	
N6	1	0.5" X 1.5"	3/16"	NO	SLOT 2	
N7	1	0.5" X 1.5"	3/16"	NO	SLOT 3	
N8	1	0.5" X 1.5"	3/16"	NO	SLOT 4	
N9	1	0.5" X 1.5"	3/16"	NO	SLOT 5	
N10	0	0.5" X 1.5"	3/16"	NO	SLOT 6	
N11	0	0.5" X 1.5"	3/16"	NO	SLOT 7	
N12	1	0.5" X 3"	3/16"	NO	DC POWER SUPPLY	
N13	1	0.5" X 2"	3/16"	NO	RECEPTACLE	
N14	1	0.5" X 2"	3/16"	NO	GND BUS	
N15	1	0.75" X 2"	3/16"	NO	ISOLATED	GND BUS
N16	1	0.5" X 1"	3/16"	NO	TB1	
N17	1	0.5" X 1"	3/16"	NO	TB2	



WIRE LUGS - NO ☒ . YES ☐ INSULATION: NYLON ☐ . PVC ☒		RING ☐ . LOCKING SPADE ☐						TOLERANCES ±		 DUBLIN TECHNICAL SYSTEMS, INC.	
WIRE SPECIFICATIONS: USAGE		SIZE	COLOR	INSULATION		DECIMAL ± .03		CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE	DRAWN BY HR	APPROVED BY BS
AC PANEL POWER AC PANEL NEUTRAL AC PANEL GROUND AC CONTROL POWER AC CONTROL NEUTRAL AC FOREIGN DC POWER DC CONTROL SIGNAL/INSTRUMENTS		AWG #12 AWG #12 AWG #12 AWG #14 AWG #14 AWG #16 AWG #16 AWG #16	BLK. WHT. GRN. RED WHT. YELLOW BLUE BLUE BLUE	THW/THHN THW/THHN THW/THHN THW/THHN THW/THHN THW/THHN THW/THHN THW/THHN THW/THHN		FRACTIONAL ± 1/32"		TITLE TRANS D1 NODE 11 TERTIARY FILTER & UV PANEL LAYOUT, BILL OF MATERIAL & WIRING SCHEMATIC			
05/20/03 12:17		CONDUCTOR SHLD		DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040		ANGULAR ± 1°		DATE 4/09/02	DRAWING NUMBER DTSI - 02040 - 070		

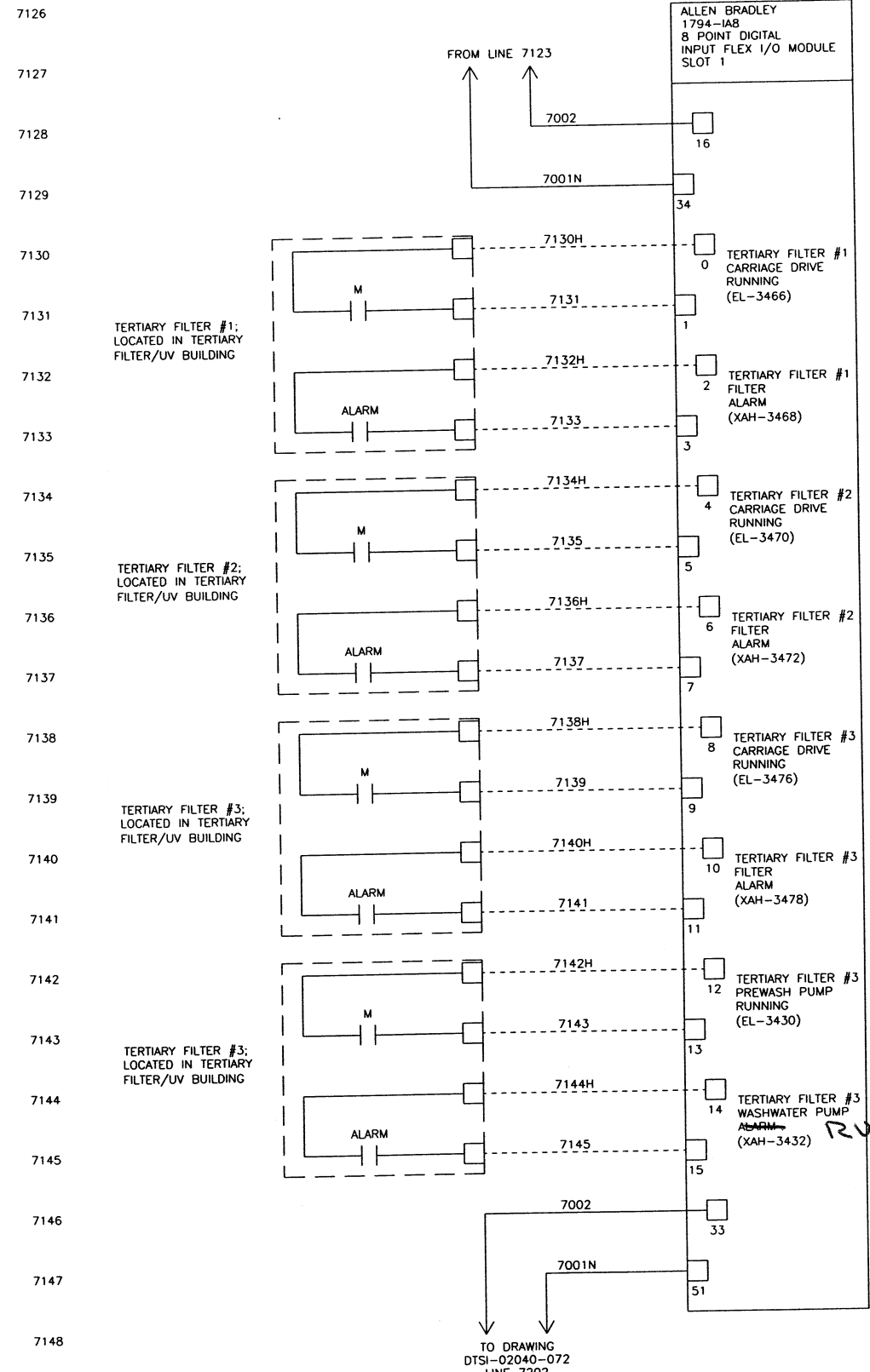
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL			



RUNNING

RUNNING

RUNNING



WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐	
INSULATION: NYLON ☐ PVC ☒			
WIRE SPECIFICATIONS:			
USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL	AWG #16	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN

06/03/03 10:51

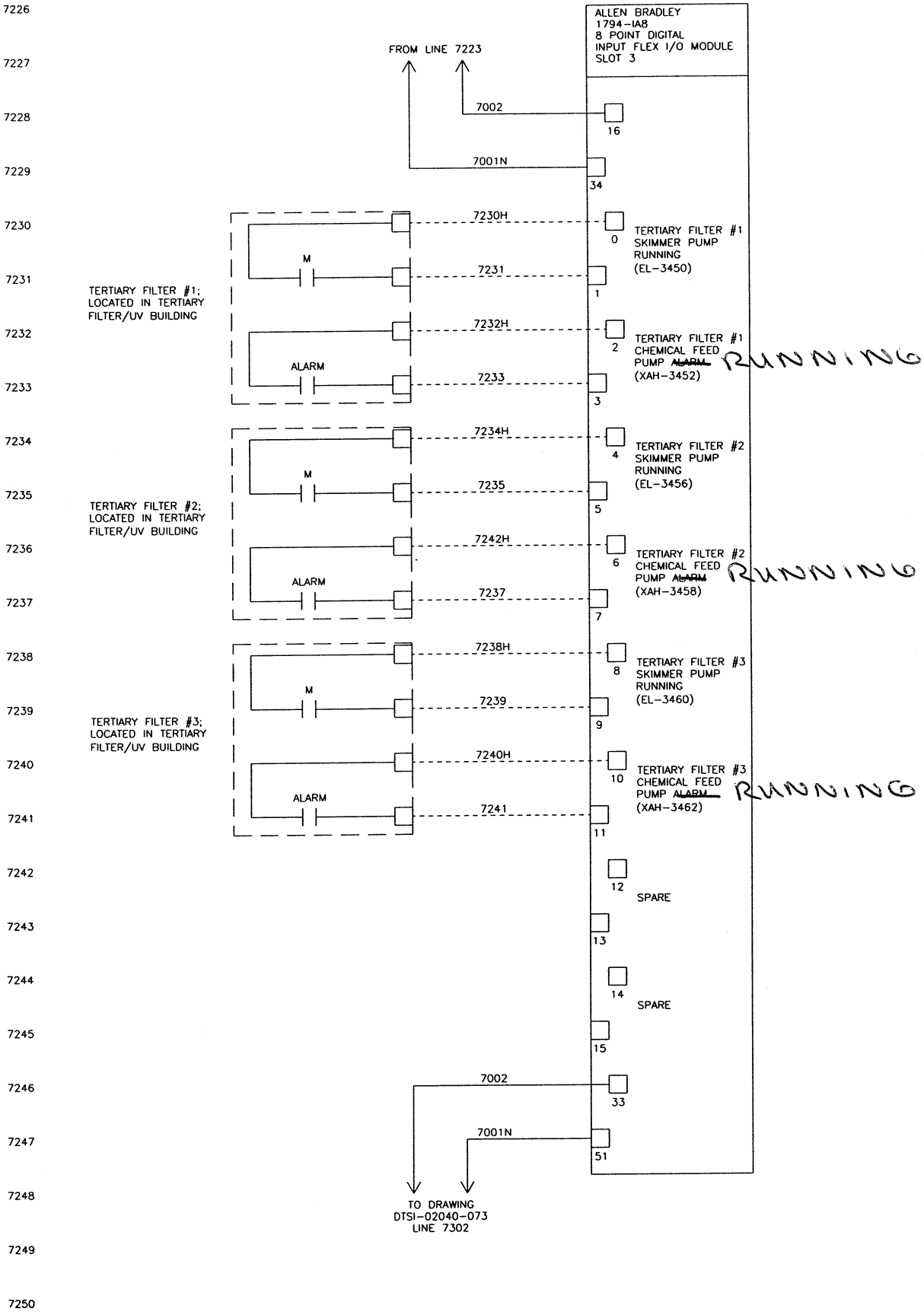
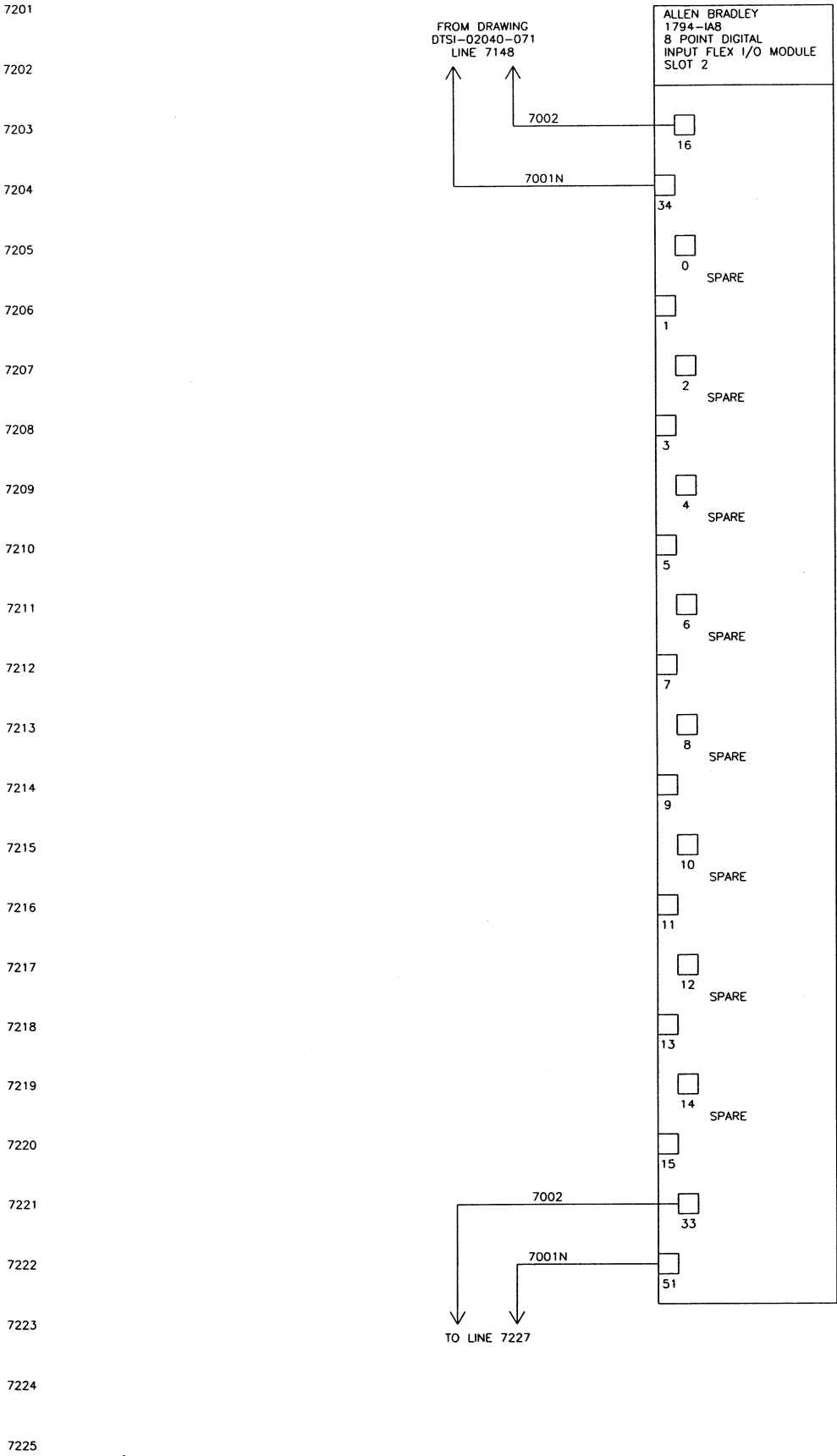
STATE OF OHIO
ROBERT A. LANDTHORN
E-37992
REGISTERED ELECTRICAL ENGINEER

KOKOSING
CONSTRUCTION CO.
P.O. #

DUBLIN TECHNICAL
SYSTEMS INC.
PROJECT # 02040

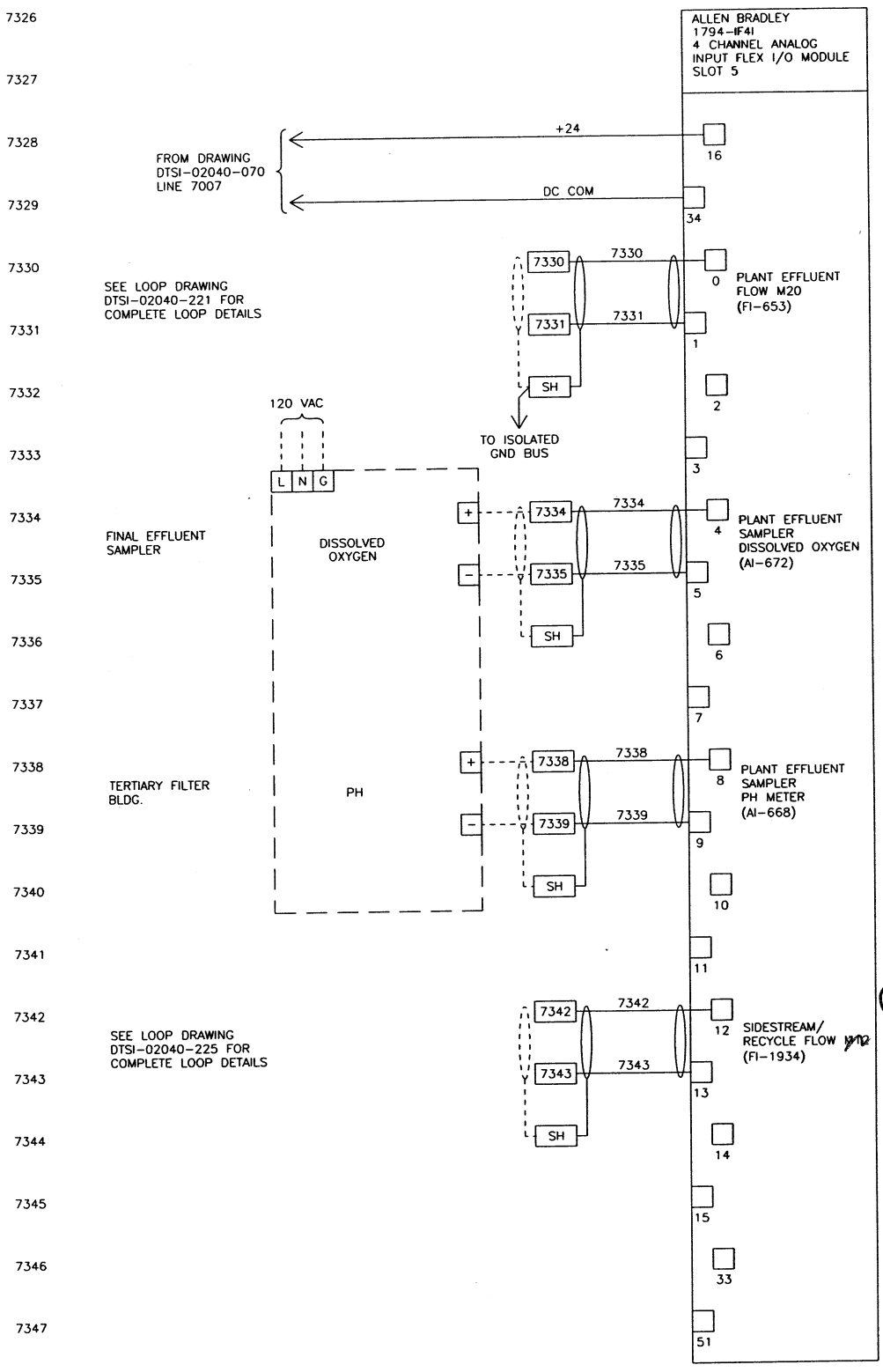
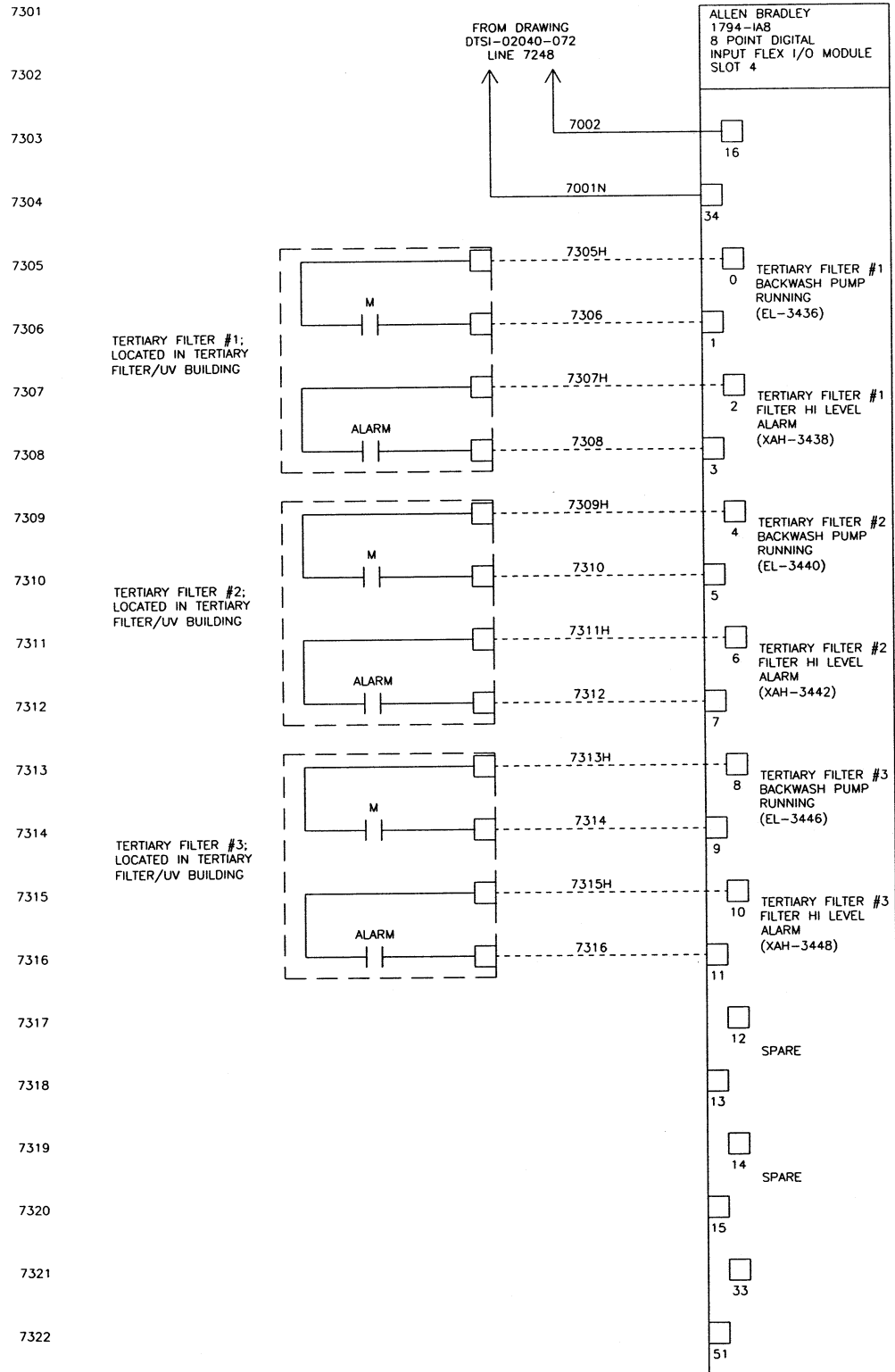
TOLERANCES	DUBLIN TECHNICAL SYSTEMS, INC.	
±	DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031
± .03	NONE	SCALE
FRACTIONAL	± 1/32"	DRAWN BY HR
ANGULAR	± 1'	APPROVED BY BS
DATE	4/08/02	TITLE
		TRANS D1 NODE 11 TERTIARY FILTER & UV I/O WIRING DIAGRAM SLOTS 0 & 1
		DRAWING NUMBER
		DTSI - 02040 - 071

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS



06/03/03 10:58	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐			 KOKOSING CONSTRUCTION CO. P.O. #	TOLERANCES		 DUBLIN TECHNICAL SYSTEMS, INC.		
	INSULATION: NYLON ☐ PVC ☒						DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031		SCALE	DRAWN BY <i>HR</i>
	WIRE SPECIFICATIONS:						± .03	NONE		APPROVED BY <i>BS</i>	
	USAGE	SIZE	COLOR	INSULATION			FRACTIONAL	TITLE			
	AC PANEL POWER	AWG #12	BLK.	THW/THHN			± 1/32"	TRANS D1 NODE 11 TERTIARY FILTER & UV I/O WIRING DIAGRAM SLOTS 2 & 3			
	AC PANEL NEUTRAL	AWG #12	WHI.	THW/THHN			ANGULAR	DATE		DRAWING NUMBER	
	AC PANEL GROUND	AWG #12	GRN.	THW/THHN			± 1"	4/08/02		DTSI - 02040 - 072	
	AC CONTROL POWER	AWG #14	RED	THW/THHN							
	AC CONTROL NEUTRAL	AWG #14	WHI.	THW/THHN							
	AC FORECH	AWG #14	YELLOW	THW/THHN							
DC POWER	AWG #16	BLUE	THW/THHN								
DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	BLUE	THW/THHN								
	AWG #16	2 CONDUCTOR SHLD									

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	HR	BS

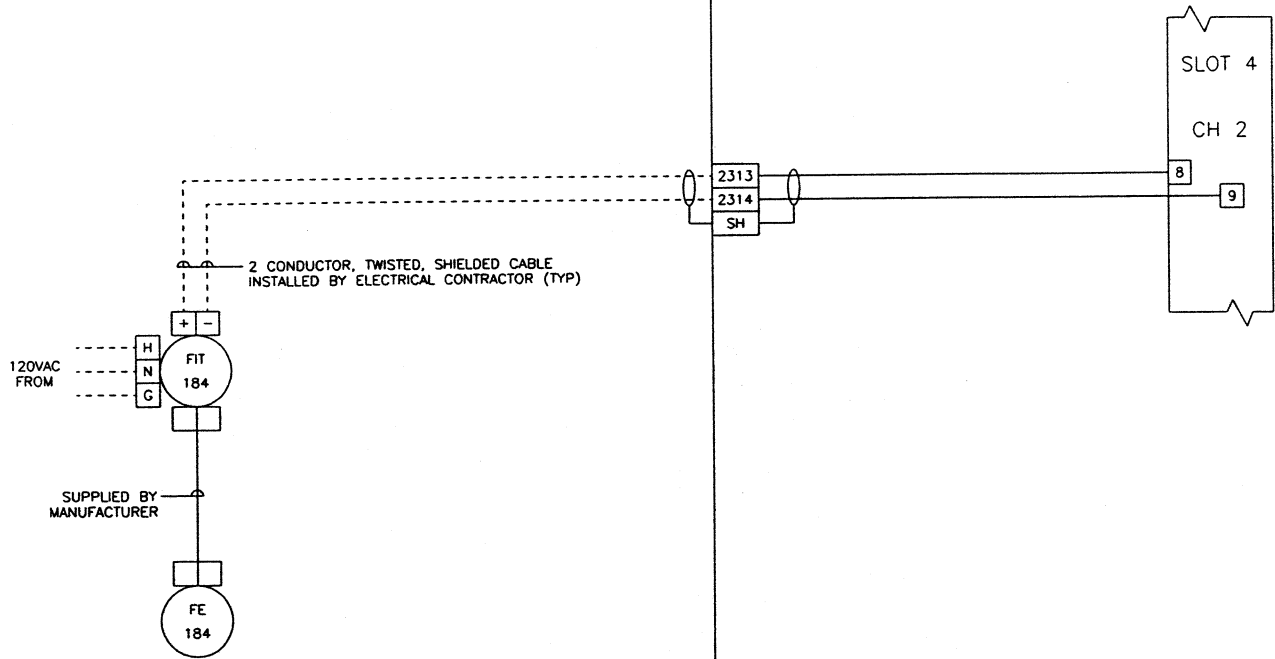


06/03/03 11:48	WIRE LUGS - NO ☒ YES ☐ RING ☐ LOCKING SPADE ☐			TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
	WIRE SPECIFICATIONS:			DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE	DRAWN BY
	INSULATION: NYLON ☐ PVC ☒						
	USAGE	SIZE	COLOR	INSULATION	FRACTIONAL	TITLE TRANS D1 NODE 11 TERTIARY FILTER & UV I/O WIRING DIAGRAM SLOTS 4 & 5	
	AC PANEL POWER	AWG #12	BLK.	THW/THHN		DATE	DRAWING NUMBER
	AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN		4/08/02	DTSI - 02040 - 073
	AC PANEL GROUND	AWG #12	GRN.	THW/THHN			
	AC CONTROL POWER	AWG #14	RED	THW/THHN			
	AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN			
	AC FOREIGN	AWG #14	YELLOW	THW/THHN			
	DC POWER	AWG #16	BLUE	THW/THHN			
	DC CONTROL	AWG #16	BLUE	THW/THHN			
	SIGNAL/INSTRUMENTS	AWG #18	2 CONDUCTOR SHLD	THW/THHN			

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M1 FIELD

PLC PANEL NODE 1



TAG: FE/FIT-184
MANUFACTURER: ABB
MODEL: MFF60 (SEE ISA SHEET)
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0-30 MGD

06/03/03 12:01

WIRE LUGS - NO ☒ YES ☐

INSULATION: NYLON ☐ PVC ☒

WIRE SPECIFICATIONS

USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL	AWG #16	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN

06/03/03 12:01

WIRE LUGS - NO ☒ YES ☐

INSULATION: NYLON ☐ PVC ☒

WIRE SPECIFICATIONS

USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL	AWG #16	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN

06/03/03 12:01

STATE OF OHIO
REGISTERED PROFESSIONAL ENGINEER
ROBERT A. LANBTHORN
E-37992

KOKOSING
CONSTRUCTION CO.
P.O. #

DUBLIN TECHNICAL
SYSTEMS INC.
PROJECT # 02040

TOLERANCES
±
DECIMAL
± .03
FRACTIONAL
± 1/32"
ANGULAR
± 1°

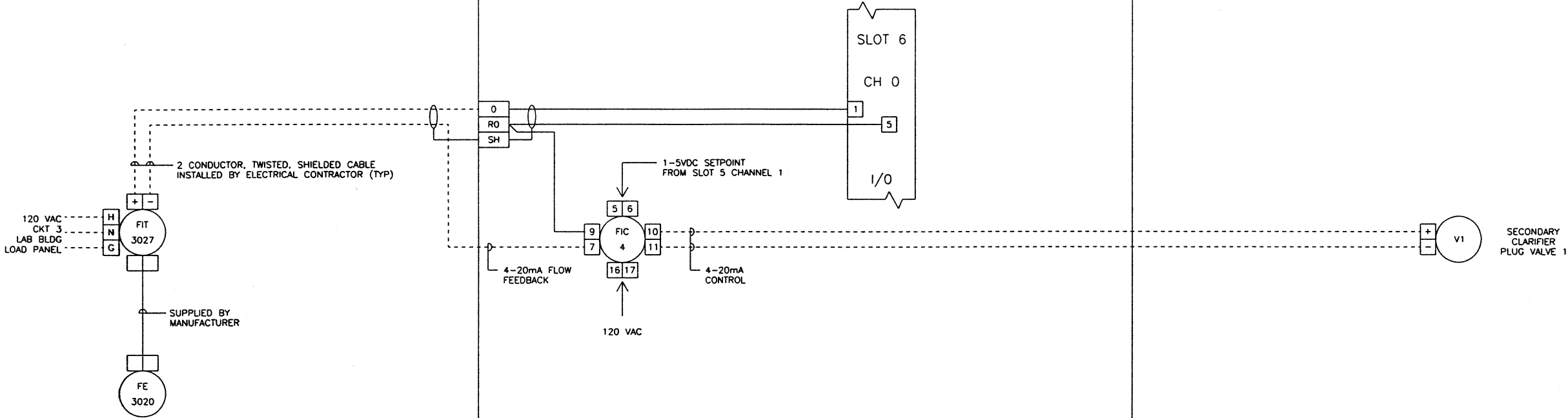
DUBLIN TECHNICAL SYSTEMS, INC.
CITY OF MASSILLON, OHIO
REGIONAL WASTEWATER TREATMENT
PLANT - UPGRADE 2000
PROJECT NO. E9031
SCALE
NONE
DRAWN BY
TL
APPROVED BY
JK
TITLE
RETENTION BYPASS FLOW METER M1
DATE
9/18/02
DRAWING NUMBER
DTSI - 02040 - 200

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M2 FIELD

PLC PANEL OPERATOR'S LABORATORY ENCLOSURE

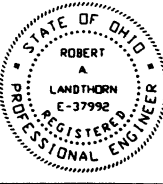
FIELD



TAG: FE-3020/FIT-3027
MANUFACTURER: ABB
MODEL: MFE4ER140111
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0 - 5000 GPM

06/04/03 14:30

WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐	
INSULATION: NYLON ☐ PVC ☒			
WIRE SPECIFICATIONS:		INSULATION	
USAGE	SIZE	COLOR	
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL	AWG #16	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN



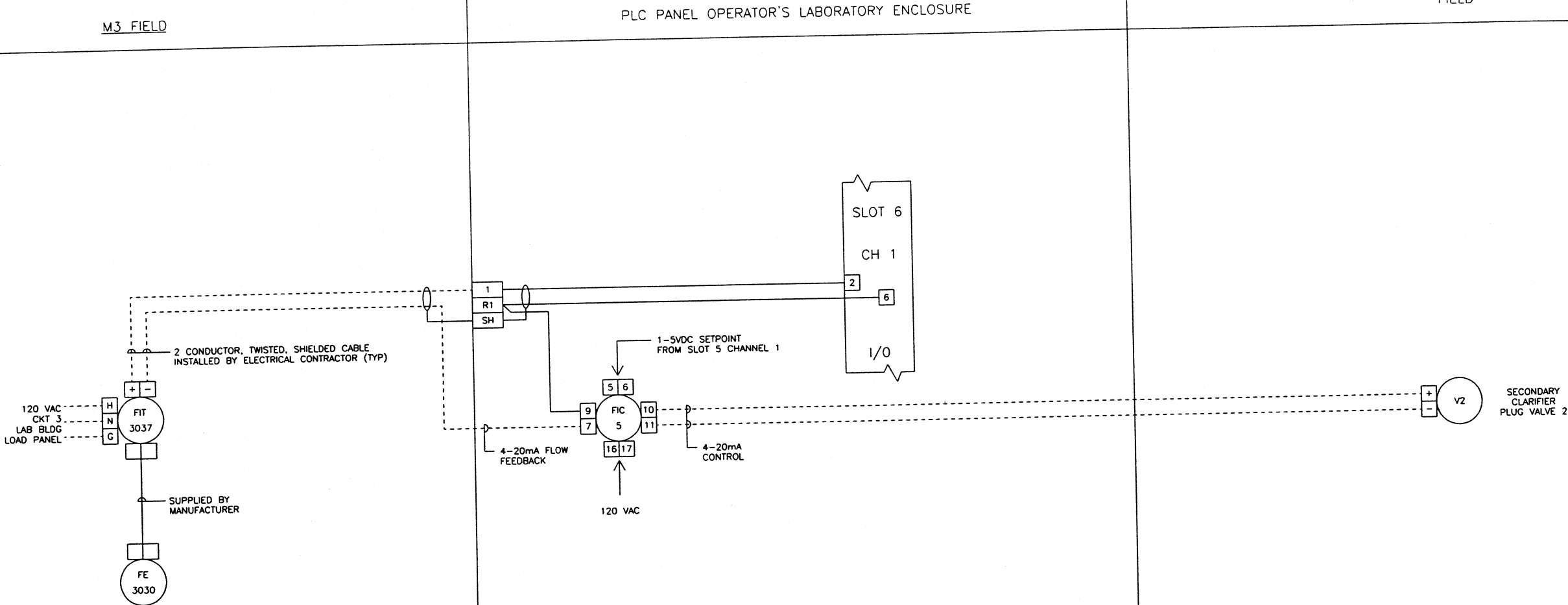
KOKOSING
CONSTRUCTION CO.
P.O. #

DUBLIN TECHNICAL SYSTEMS INC.
PROJECT # 02040

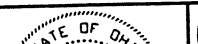
TOLERANCES
DECIMAL
± .03
FRACTIONAL
± 1/32"
ANGULAR
± 1°

DUBLIN TECHNICAL SYSTEMS, INC.			
CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. 53031	SCALE NONE	DRAWN BY TL	APPROVED BY JK
TITLE SECONDARY CLARIFIER VALVE #1			
DATE 9/18/02	DRAWING NUMBER DTSI - 02040 - 201		

DATE	SYM	REVISION	RECORD	AUTH	OR	CK
5/12/03	A	FOR APPROVAL		CUST	TL	JK



TAG: FE-3030/FIT-3037
 MANUFACTURER: ABB
 MODEL: MFE4ER140111
 POWER: 120 VAC/60 HZ
 ENCLOSURE: NEMA 4X
 CALIBRATION RANGE: 0 - 5000 GPM

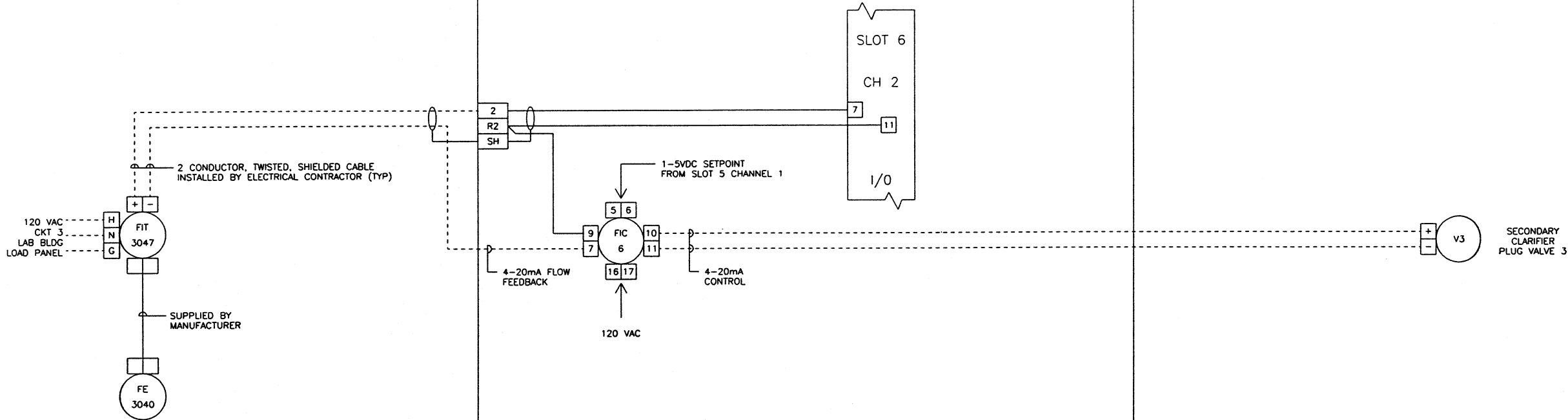
06/04/03 14:29	WIRE LUGS - NO ☐ YES ☐		RING ☐ LOCKING SPADE ☐				TOLERANCES			DUBLIN TECHNICAL SYSTEMS, INC.			
	INSULATION: NYLON ☐ PVC ☒						DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031		SCALE	DRAWN BY <i>TL</i>		
	WIRE SPECIFICATIONS:						± 0.3	NONE		APPROVED BY <i>JK</i>			
	USAGE	SIZE	COLOR	INSULATION			FRACTIONAL	TITLE					
	AC PANEL POWER	AWG #12	BLK.	THW/THHN			± 1/32"	SECONDARY CLARIFIER VALVE #2					
	AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN									
	AC PANEL GROUND	AWG #12	GRN.	THW/THHN									
	AC CONTROL POWER	AWG #14	RED	THW/THHN									
	AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN									
	AC FOREIGN	AWG #14	YELLOW	THW/THHN									
DC POWER	AWG #18	BLUE	THW/THHN										
DC CONTROL	AWG #18	BLUE	THW/THHN										
SIGNAL/INSTRUMENTS	AWG #18	2 CONDUCTOR SHLD	THW/THHN										
					DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040		ANGULAR	DATE	DRAWING NUMBER				
							± 1"	9/18/02	DTSI - 02040 - 202				

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M4 FIELD

PLC PANEL OPERATOR'S LABORATORY ENCLOSURE

FIELD



TAG: FE-3040/FIT-3047

MANUFACTURER: ABB
 MODEL: MFE4ER140111
 POWER: 120 VAC/60 HZ
 ENCLOSURE: NEMA 4X
 CALIBRATION RANGE: 0 - 5000 GPM

06/04/03 14:28

WIRE LUGS - NO ☒ YES ☐				RING ☐ LOCKING SPADE ☐			
INSULATION: NYLON ☐ PVC ☒							
WIRE SPECIFICATIONS:		SIZE		COLOR		INSULATION	
USAGE							
AC PANEL POWER	AWG #12	BLK				THW/THHH	
AC PANEL NEUTRAL	AWG #12	WHT				THW/THHH	
AC PANEL GROUND	AWG #12	GRN				THW/THHH	
AC CONTROL POWER	AWG #14	RED				THW/THHH	
AC CONTROL NEUTRAL	AWG #14	WHT				THW/THHH	
AC FOREIGN	AWG #14	YELLOW				THW/THHH	
DC POWER	AWG #16	BLUE				THW/THHH	
DC CONTROL	AWG #16	BLUE				THW/THHH	
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD					



KOKOSING
CONSTRUCTION CO.
P.O. #

**DUBLIN TECHNICAL
SYSTEMS INC.**
PROJECT # 02040

TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
DECIMAL	± .03	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E2031	SCALE NONE
FRACTIONAL	± 1/32"	TITLE SECONDARY CLARIFIER VALVE #3	
ANGULAR	± 1°	DATE 9/18/02	DRAWING NUMBER DTSI - 02040 - 203

DRAWN BY
TL

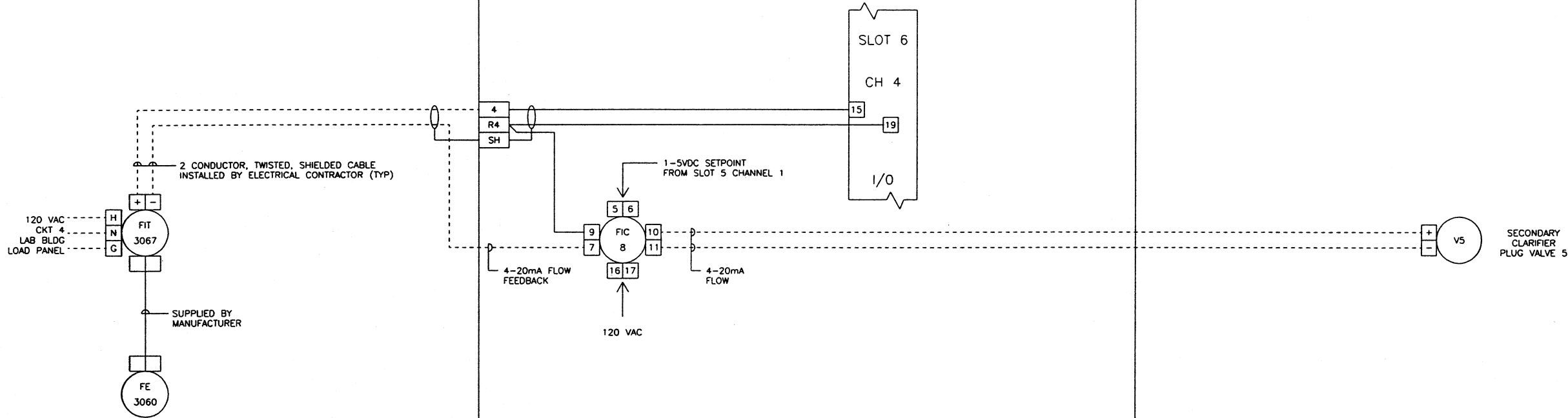
APPROVED BY
JK

DATE	SYM	REVISION RECORD	AUTH	OR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M6 FIELD

PLC PANEL OPERATOR'S LABORATORY ENCLOSURE

FIELD



TAG: FE-3060/FIT-3067
MANUFACTURER: ABB
MODEL: MFE4ER140111
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0 - 5000 GPM

WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐	
INSULATION: NYLON ☐ PVC ☒			
WIRE SPECIFICATIONS: USAGE SIZE COLOR INSULATION AC PANEL POWER AWG #12 BLK THW/THHN AC PANEL NEUTRAL AWG #12 WHI THW/THHN AC PANEL GROUND AWG #12 GRN THW/THHN AC CONTROL POWER AWG #14 RED THW/THHN AC CONTROL NEUTRAL AWG #14 WHI THW/THHN AC FOREIGN AWG #14 YELLOW THW/THHN DC POWER AWG #18 BLUE THW/THHN DC CONTROL AWG #18 BLUE THW/THHN SIGNAL/INSTRUMENTS AWG #16 2 CONDUCTOR SHLD THW/THHN			
06/04/03 14:24		STATE OF OHIO ROBERT A. LANDTHORN E-37992 REGISTERED PROFESSIONAL ENGINEER	
KOKOSING CONSTRUCTION CO. P.O. #		TOLERANCES DECIMAL ± .03 FRACTIONAL ± 1/32" ANGULAR ± 1°	
DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040		DUBLIN TECHNICAL SYSTEMS, INC. CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E2031 SCALE NONE DRAWN BY TL APPROVED BY JK TITLE SECONDARY CLARIFIER VALVE #5 DATE 9/18/02 DRAWING NUMBER DTSI - 02040 - 205	

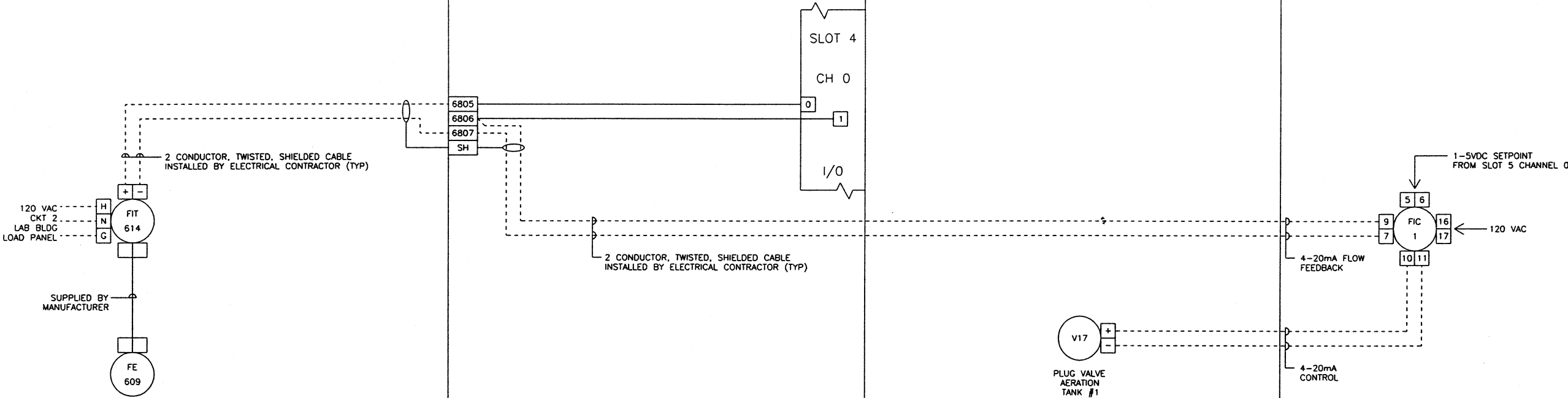
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M7 FIELD

PLC PANEL NODE 10

FIELD

PLC PANEL OPERATOR'S LABORATORY ENCLOSURE



TAG: FE-609/FIT-614
MANUFACTURER: ABB
MODEL: MFE4ER (SEE ISA SHEET)
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0-8000 GPM

08/28/02 09:07

WIRE LUGS - NO ☒ YES ☐	INSULATION: NYLON ☐ PVC ☒	RING ☐ LOCKING SPADE ☐
WIRE SPECIFICATIONS:	SIZE	COLOR
AC PANEL POWER	AWG #12	BLK.
AC PANEL NEUTRAL	AWG #12	WHT.
AC PANEL GROUND	AWG #12	GRN.
AC CONTROL POWER	AWG #14	RED
AC CONTROL NEUTRAL	AWG #14	WHT.
AC CONTROL GROUND	AWG #14	GRN.
DC POWER	AWG #16	BLUE
DC CONTROL	AWG #16	BLUE
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD



KOKOSING
CONSTRUCTION CO.
P.O. # 1
DUBLIN TECHNICAL
SYSTEMS INC.
PROJECT # 02040

TOLERANCES	DECIMAL	FRACTIONAL	ANGULAR
	# .03	# 1/32"	# 1°
DUBLIN TECHNICAL SYSTEMS, INC.	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE	DRAWN BY TL APPROVED BY JK
TITLE AERATION TANK #1 RAS FLOW		DATE 9/18/02	DRAWING NUMBER DTSI - 02040 - 206

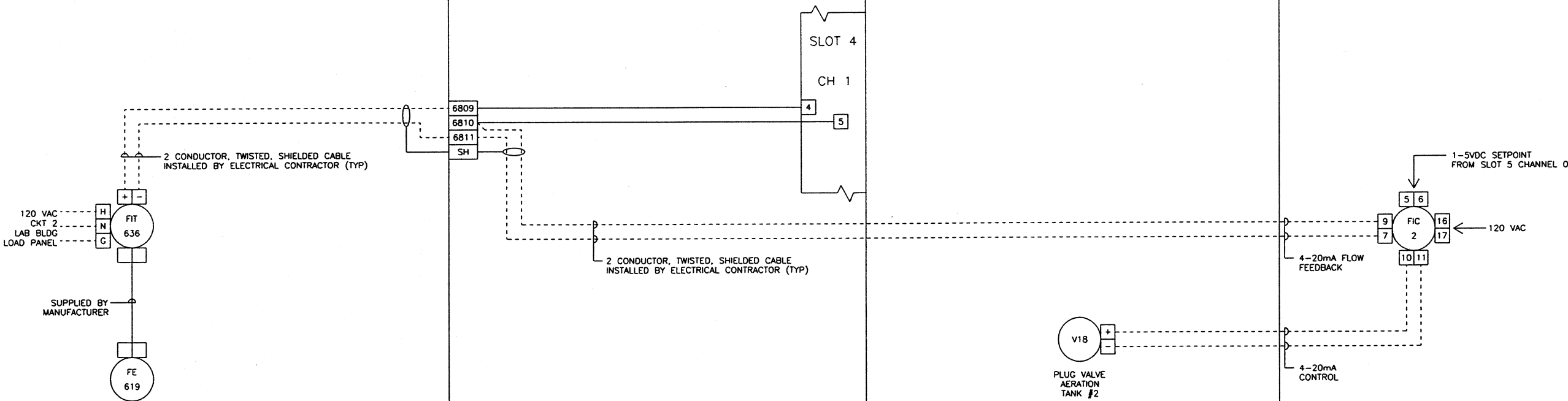
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M8 FIELD

PLC PANEL NODE 10

FIELD

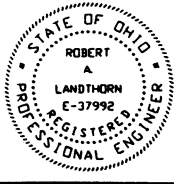
PLC PANEL OPERATOR'S LABORATORY ENCLOSURE



TAG: FE-619/FIT-636
MANUFACTURER: ABB
MODEL: MFE4ER (SEE ISA SHEET)
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0-8000 GPM

06/03/03 14:09

WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐	
INSULATION: NYLON ☐ PVC ☒			
WIRE SPECIFICATIONS:			
USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHH
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHH
AC PANEL GROUND	AWG #12	GRN.	THW/THHH
AC CONTROL POWER	AWG #14	RED	THW/THHH
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHH
AC FUSE/IGN	AWG #14	YELLOW	THW/THHH
DC POWER	AWG #18	BLUE	THW/THHH
DC CONTROL	AWG #18	BLUE	THW/THHH
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHH



KOKOSING
CONSTRUCTION CO.
P.O. #

DUBLIN TECHNICAL
SYSTEMS INC.
PROJECT # 02040

TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
+	DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E0031	SCALE NONE
+ 0.3	FRACTIONAL	TITLE AERATION TANK #2 RAS FLOW	DRAWN BY TL
+ 1/32"	ANGULAR	DATE 9/18/02	APPROVED BY JK
+ 1"		DRAWING NUMBER DTSI - 02040 - 207	

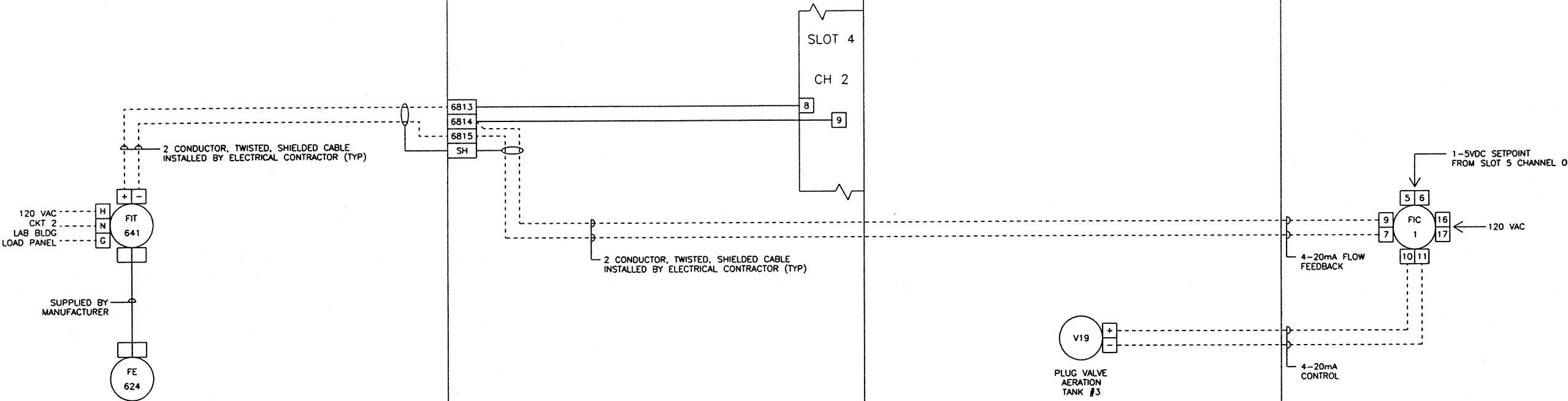
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M9 FIELD

PLC PANEL NODE 10

FIELD

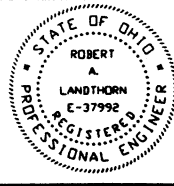
PLC PANEL OPERATOR'S LABORATORY ENCLOSURE



TAG: FE-624/FIT-641
MANUFACTURER: ABB
MODEL: MFE4ER (SEE ISA SHEET)
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0-8000 GPM

06/03/03 14:11

WIRE LUGS - NO ☒ YES ☐	RING ☐ LOCKING SPADE ☐
INSULATION: NYLON ☐ PVC ☒	
WIRE SPECIFICATIONS:	
USAGE	SIZE COLOR INSULATION
AC PANEL POWER	AWG #12 BLK THW/THHN
AC PANEL NEUTRAL	AWG #12 WHT THW/THHN
AC PANEL GROUND	AWG #12 GRN THW/THHN
AC CONTROL POWER	AWG #14 RED THW/THHN
AC CONTROL NEUTRAL	AWG #14 WHT THW/THHN
AC FOREIGN	AWG #14 YELLOW THW/THHN
DC POWER	AWG #16 BLUE THW/THHN
DC CONTROL	AWG #16 BLUE THW/THHN
SIGNAL/INSTRUMENTS	AWG #16 2 CONDUCTOR SHLD THW/THHN

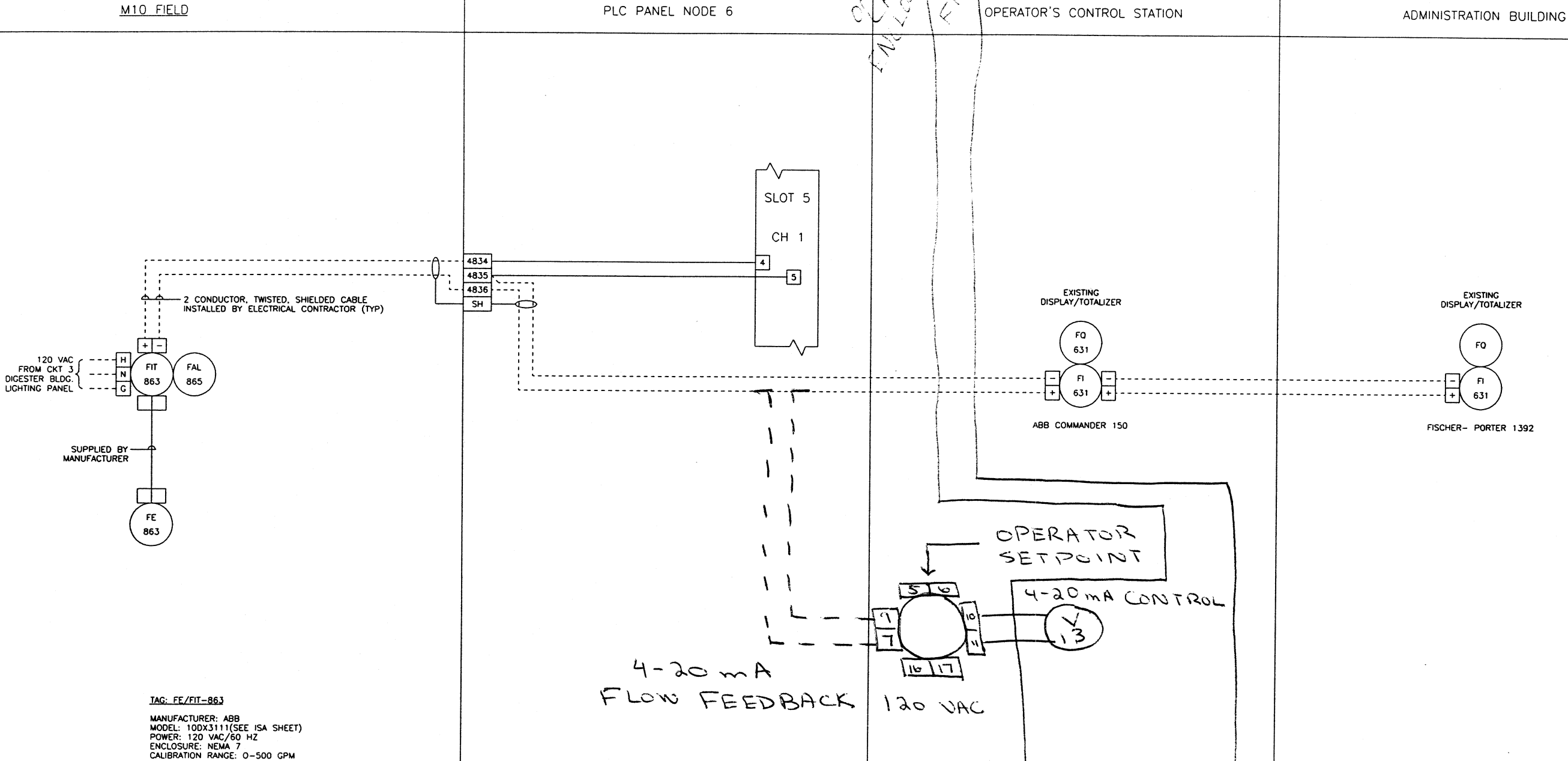


KOKOSING
CONSTRUCTION CO.
P.O. # 1

DUBLIN TECHNICAL
SYSTEMS INC.
PROJECT # 02040

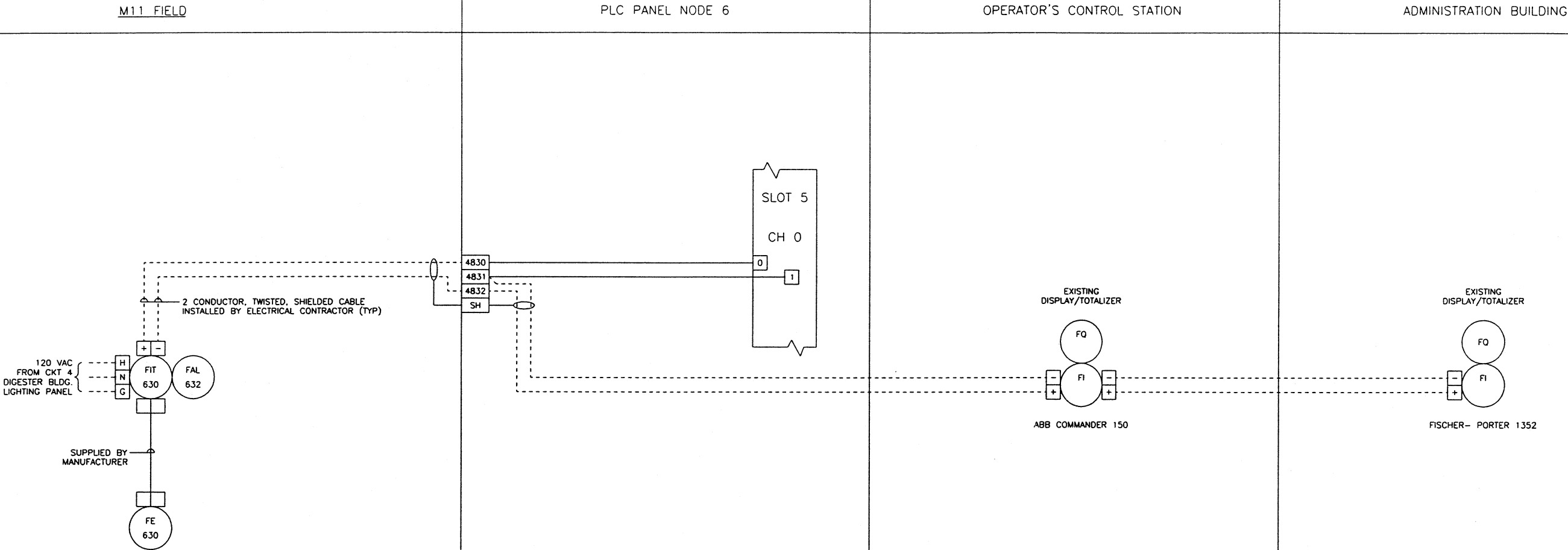
TOLERANCES	DUBLIN TECHNICAL SYSTEMS, INC.
DECIMAL	CITY OF MASSILLON, OHIO
FRACTIONAL	REGIONAL WASTEWATER TREATMENT
ANGULAR	PLANT - UPGRADE 2000
	PROJECT NO. E9031
	TITLE AERATION TANK #3 RAS FLOW
	DATE 9/18/02
	DRAWING NUMBER DTSI - 02040 - 208

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK



06/04/03 14:22	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐			 KOKOSING CONSTRUCTION CO P.O. #	TOLERANCES		 DUBLIN TECHNICAL SYSTEMS, INC.		
	INSULATION: NYLON ☐ PVC ☒						DECIMAL ± .03	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. 02031		SCALE NONE	DRAWN BY TL APPROVED BY JK
WIRE SPECIFICATIONS:						 DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040	FRACTIONAL ± 1/32"		TITLE WAS TO SLUDGE BLENDING FLOW, M10		
SIZE							ANGULAR ± 1°	DATE 9/18/02	DRAWING NUMBER DTSI - 02040 - 209		
COLOR											
INSULATION											
AC PANEL POWER											
AC PANEL NEUTRAL											
AC PANEL GROUND											
AC CONTROL POWER											
AC CONTROL NEUTRAL											
AC FOREIGN											
DC POWER											
DC CONTROL											
SIGNAL/INSTRUMENTS											

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/23/03	A	FOR APPROVAL	CUST	TL	JK



TAG: FE/FIT-630

MANUFACTURER: ABB

MODEL: 100X3111(SEE ISA SHEET)

POWER: 120 VAC/60 HZ

ENCLOSURE: NEMA 7

CALIBRATION RANGE: 0-500 GPM

06/04/03 14:20

WIRE LUGS - NO ☒ YES ☐

INSULATION: NYLON ☐ PVC ☒

WIRE SPECIFICATIONS:

USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT	THW/THHN
AC PANEL GROUND	AWG #12	GRN	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN

RING ☐ LOCKING SPADE ☐

STATE OF OHIO

ROBERT A. LANDTHORN

E-37992

REGISTERED PROFESSIONAL ENGINEER

KOKOSING CONSTRUCTION CO. P.O. #

DUBLIN TECHNICAL SYSTEMS, INC. PROJECT # 02040

TOLERANCES

DECIMAL	± .03
FRACTIONAL	± 1/32"
ANGULAR	± 1°

DUBLIN TECHNICAL SYSTEMS, INC.

CITY OF MASSILLON, OHIO	SCALE	DRAWN BY
REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000	NONE	TL
PROJECT NO. 09031	APPROVED BY	JK

TITLE

RAW SLUDGE TO SLUDGE BLENDING FLOW, M11

DATE

9/18/02

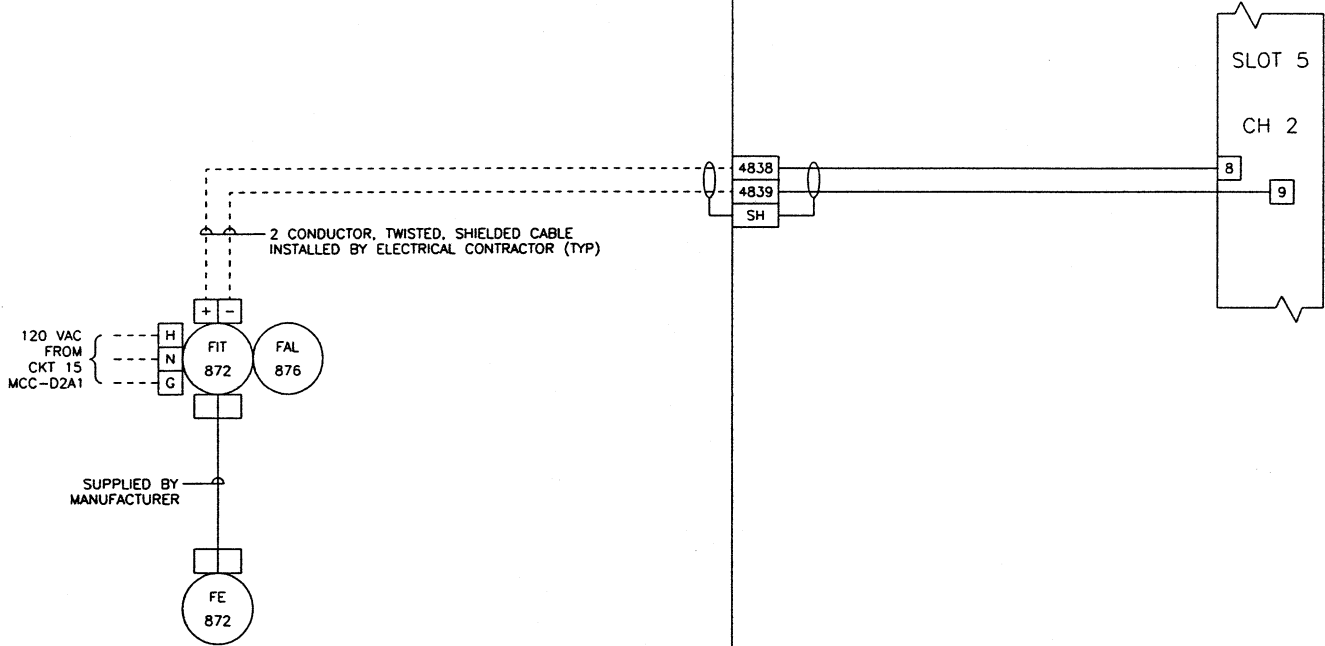
DRAWING NUMBER

DTSI - 02040 - 210

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M13 FIELD

PLC PANEL NODE 6



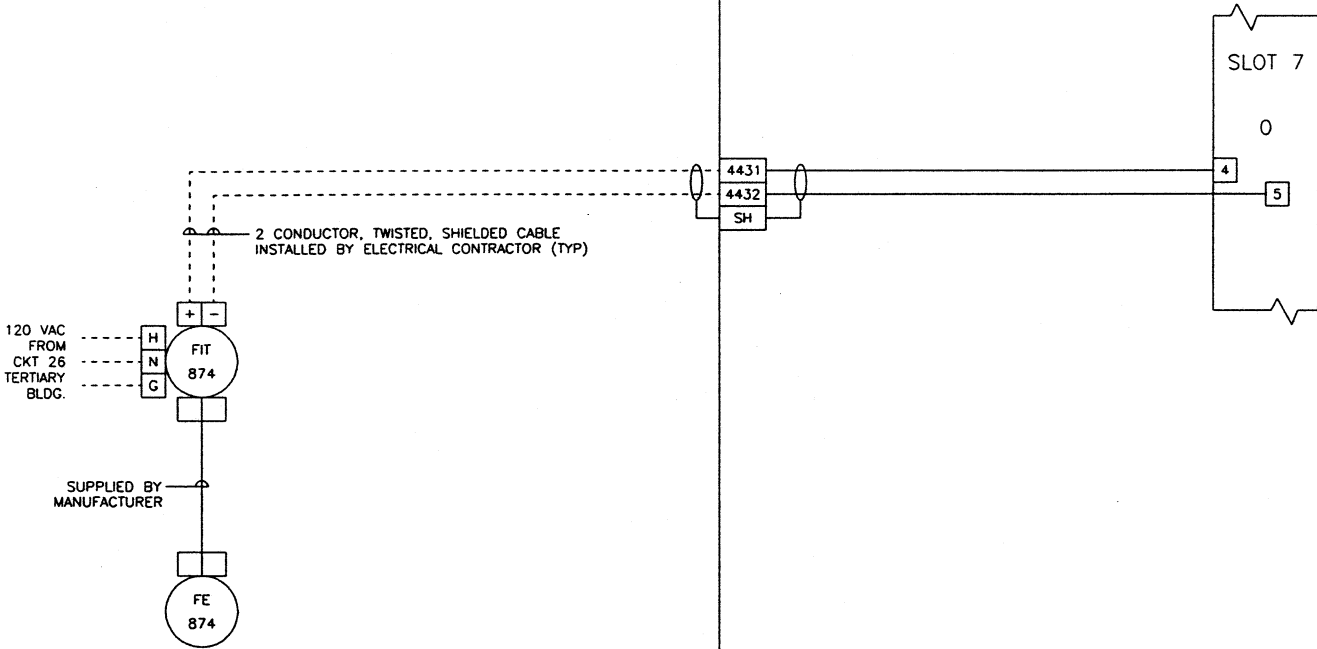
TAG: FE/FIT-872
MANUFACTURER: ABB
MODEL: 10DX3111(SEE ISA SHEET)
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 7
CALIBRATION RANGE: 0-500 GPM

06/03/03 14:53	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐				TOLERANCES			DUBLIN TECHNICAL SYSTEMS, INC.				
	INSULATION: NYLON ☐ PVC ☒						±	DECIMAL		CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. 02040	SCALE NONE	DRAWN BY TL		
	WIRE SPECIFICATIONS:						± 0.3	FRACTIONAL		APPROVED BY JK				
	USE						± 1/32"	ANGULAR					TITLE DIGESTER RECIRCULATION FLOW, M13	
	AC PANEL POWER						± 1"	DATE					DRAWING NUMBER	
	AC PANEL NEUTRAL							9/18/02					DTSI - 02040 - 211	
	AC PANEL GROUND													
	AC CONTROL POWER													
	AC CONTROL NEUTRAL													
	AC FOREIGN													
DC POWER														
DC CONTROL														
SIGNAL/INSTRUMENTS														

DATE	SYM	REVISION RECORD	AUTH	OR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M12 FIELD

PLC PANEL NODE 5



TAG: FE-/FIT-874

MANUFACTURER: ABB
MODEL: 10DX3111(SEE ISA SHEET)
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0-100GPM

06/03/03 14:59

WIRE LUGS - NO ☒ YES ☐

INSULATION: NYLON ☐ PVC ☒

WIRE SPECIFICATIONS:

USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FORECH	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN

06/03/03 14:59

WIRE LUGS - NO ☒ YES ☐

INSULATION: NYLON ☐ PVC ☒

WIRE SPECIFICATIONS:

USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FORECH	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN

06/03/03 14:59

STATE OF OHIO
REGISTERED PROFESSIONAL ENGINEER
ROBERT A. LANDTHORN
E-37992

KOKOSING CONSTRUCTION CO.
P.O. #

DUBLIN TECHNICAL SYSTEMS INC.
PROJECT # 02040

TOLERANCES

DECIMAL	FRACTIONAL	ANGULAR
± .03	± 1/32"	± 1°

DUBLIN TECHNICAL SYSTEMS, INC.

CITY OF WASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE	DRAWN BY TL	APPROVED BY JK
TITLE DIGESTER FEED FLOW, M12			
DATE 9/18/02	DRAWING NUMBER DTSI - 02040 - 212		

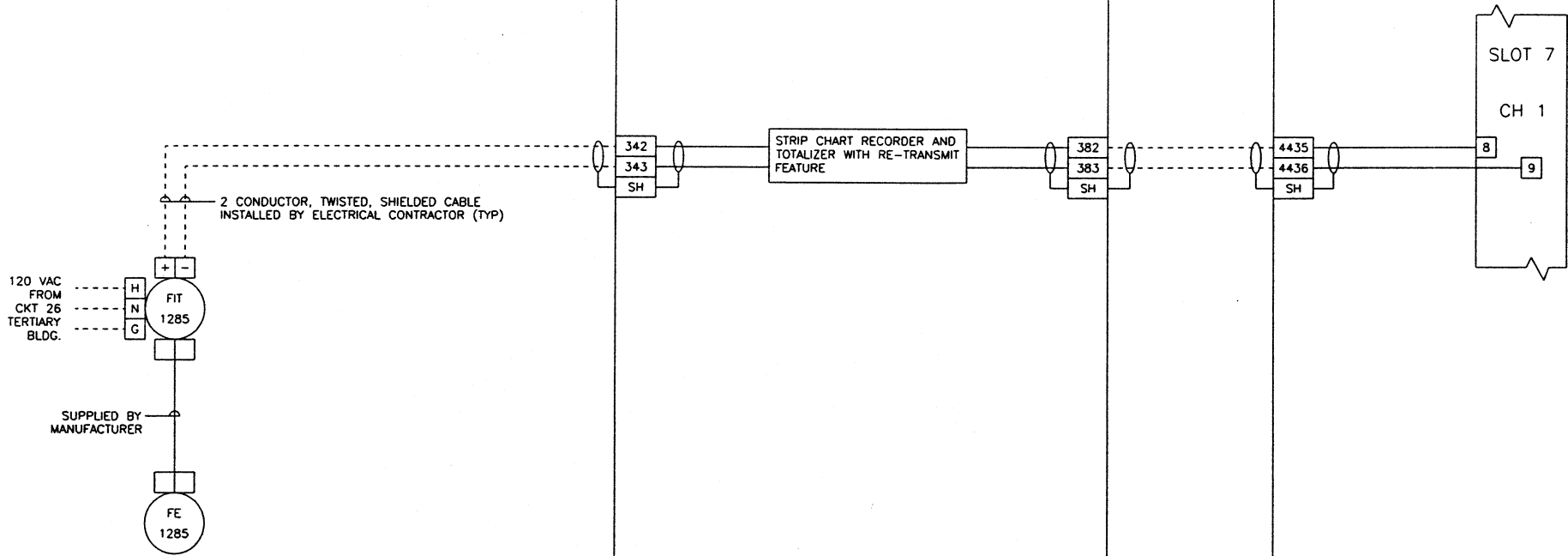
DATE	SYM	REVISION RECORD	AUTH	DR	CR
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M14 FIELD

GBT CONTROL PANEL

FIELD

PLC PANEL NODE 5



TAG: FE-/FIT-1285

MANUFACTURER: ABB
MODEL: 10DX3111 (SEE ISA SHEET)
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0-500GPM

06/03/03 15:04

WIRE LUGS - NO ☒ YES ☐ RING ☐ LOCKING SPADE ☐

INSULATION: NYLON ☐ PVC ☒

WIRE SPECIFICATIONS:

USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN



KOKOSING CONSTRUCTION CO.
P.O. #
DUBLIN TECHNICAL SYSTEMS INC.
PROJECT # 02040

TOLERANCES	DATE	DRAWING NUMBER
DECIMAL ± .03	9/18/02	DTSI - 02040 - 213
FRACTIONAL ± 1/32"		
ANGULAR ± 1°		

DUBLIN TECHNICAL SYSTEMS, INC.
CITY OF MASSILLON, OHIO
REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000
PROJECT NO. E9031
SCALE: NONE
DRAWN BY: TL
APPROVED BY: JK

TITLE: GBT FEED FLOW, M14

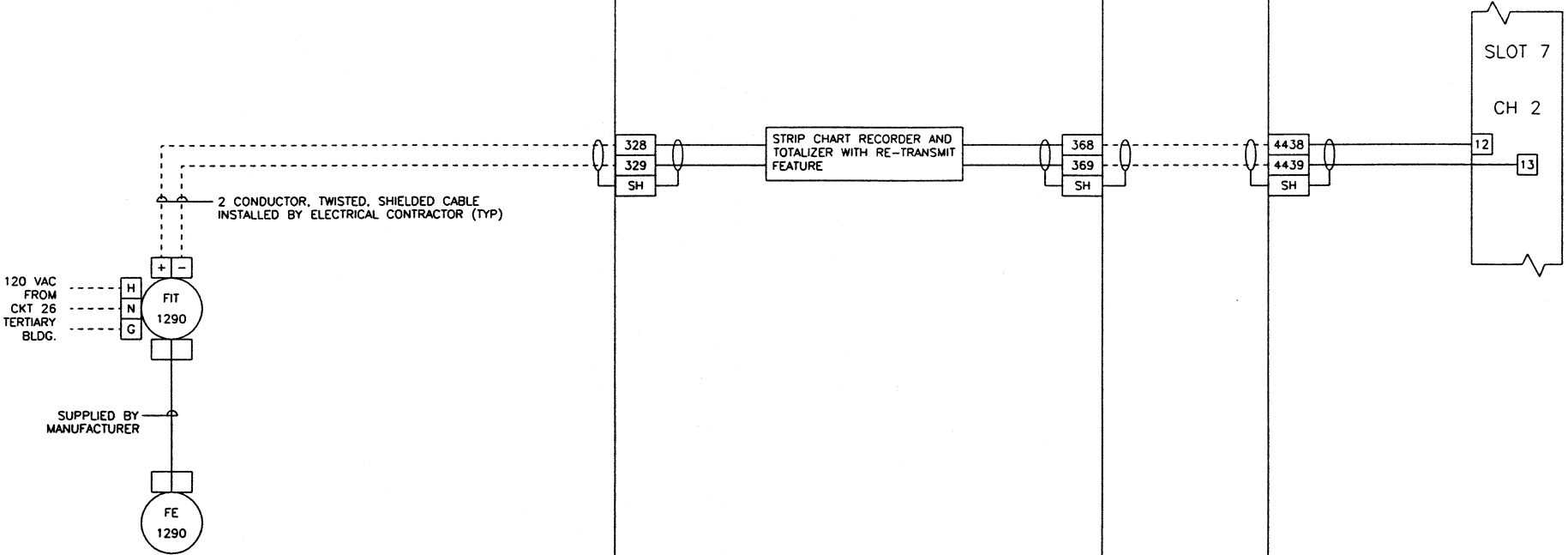
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M15 FIELD

BFP CONTROL PANEL

FIELD

PLC PANEL NODE 5

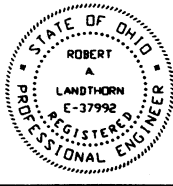


TAG: FE-/FIT-1290
MANUFACTURER: ABB
MODEL: 10DX3111 (SEE ISA SHEET)
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0-400GPM

06/03/03 15:07

WIRE LUGS - NO ☒ YES ☐ RING ☐ LOCKING SPADE ☐
INSULATION: NYLON ☐ PVC ☒

USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHI.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHI.	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN



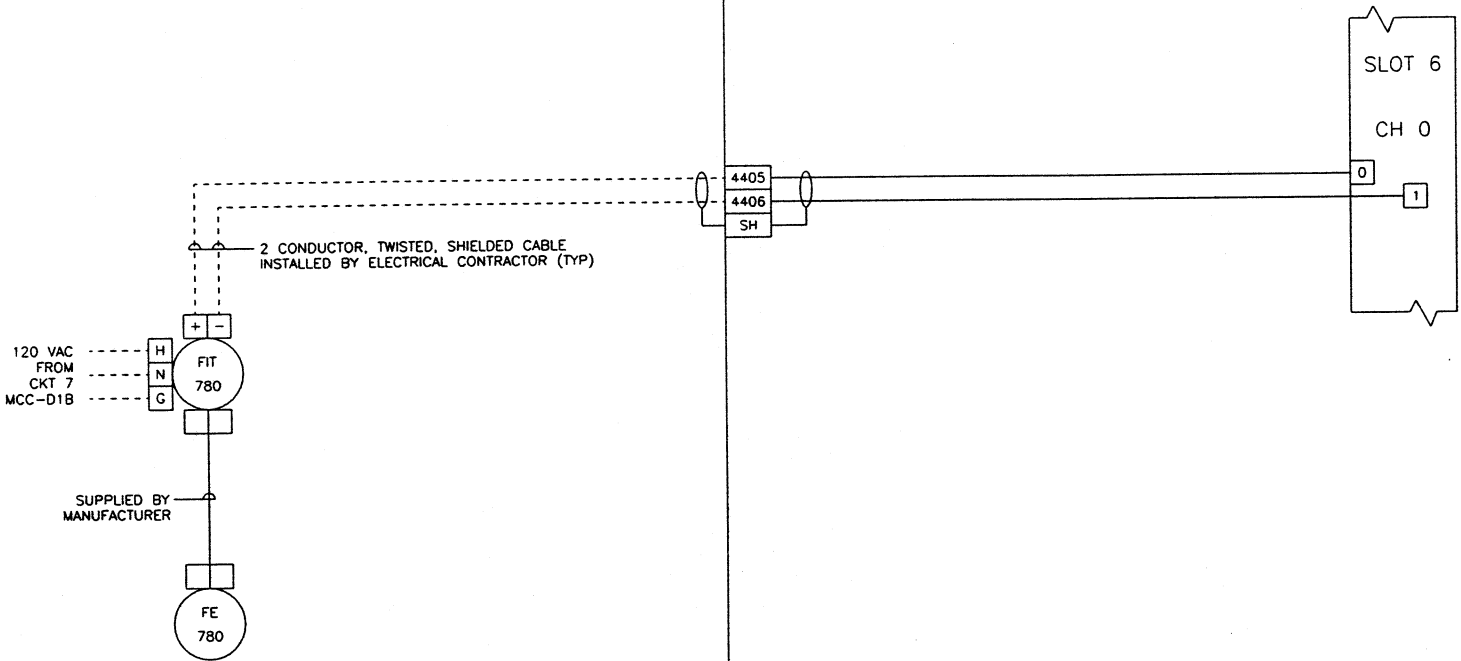
KOKOSING CONSTRUCTION CO.
P.O. #
DUBLIN TECHNICAL SYSTEMS INC.
PROJECT # 02040

TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
DECIMAL	± .03	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E2031	SCALE NONE
FRACTIONAL	± 1/32"	TITLE BFP FEED FLOW, M15	DRAWN BY TL
ANGULAR	± 1°	DATE 9/18/02	APPROVED BY JK
		DRAWING NUMBER DTSI - 02040 - 214	

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M16 FIELD

PLC PANEL NODE 5



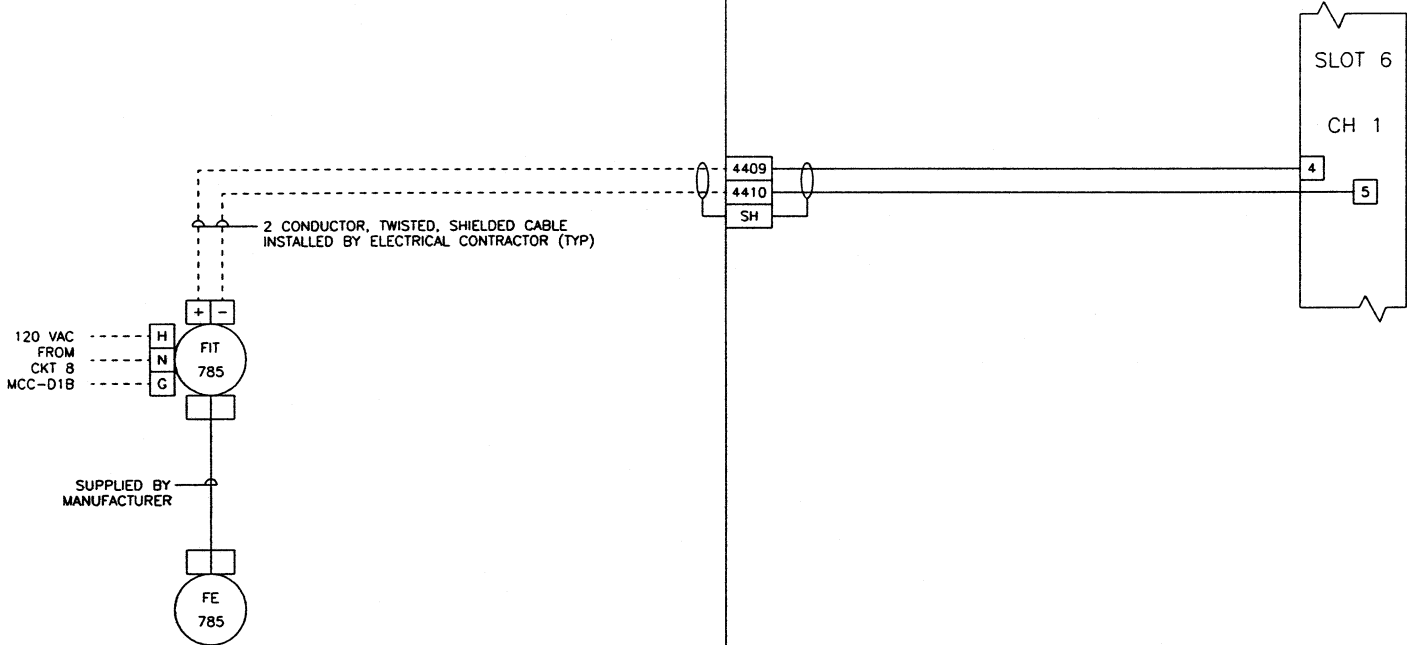
TAG: FE-/FIT-780
MANUFACTURER: ABB
MODEL: 10D3111 (SEE ISA SHEET)
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0-250GPM

06/03/03 15:10	WIRE LUGS - NO ☒ YES ☐ INSULATION: NYLON ☐ PVC ☒	RING ☐ LOCKING SPADE ☐		 KOKOSING CONSTRUCTION CO. P.O. #	TOLERANCES			DUBLIN TECHNICAL SYSTEMS, INC.	
	WIRE SPECIFICATIONS: USAGE AC PANEL POWER AC PANEL NEUTRAL AC PANEL GROUND AC CONTROL POWER AC CONTROL NEUTRAL AC FOREIGN DC POWER DC CONTROL SIGNAL/INSTRUMENTS	SIZE AWG #12 AWG #12 AWG #12 AWG #14 AWG #14 AWG #14 AWG #16 AWG #16 AWG #16			COLOR BLK WHT GRN RED WHT YELLOW BLUE BLUE 2 CONDUCTOR SHLD	INSULATION THW/THHH THW/THHH THW/THHH THW/THHH THW/THHH THW/THHH THW/THHH THW/THHH		DECIMAL ± 0.3	SCALE NONE
				DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040	FRACTIONAL ± 1/32"	TITLE GBT #1 DISCHARGE FLOW, M16	DATE 9/18/02	DRAWING NUMBER DTSI - 02040 - 215	

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M17 FIELD

PLC PANEL NODE 5



TAG: FE-/FIT-785

MANUFACTURER: ABB

MODEL: 100X3111 (SEE ISA SHEET)

POWER: 120 VAC/60 HZ

ENCLOSURE: NEMA 4X

CALIBRATION RANGE: 0-250GPM

06/03/03 15:14	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐			 KOKOSING CONSTRUCTION CO P.O. #	TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
	INSULATION: NYLON ☐ PVC ☒						DECIMAL			
		WIRE SPECIFICATIONS:						FRACTIONAL	TITLE	
		USAGE	SIZE	COLOR	INSULATION			± .03	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	
		AC PANEL POWER	AWG #12	BLK.	THW/THHN			± 1/32"	SCALE	
		AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN				NONE	
		AC PANEL GROUND	AWG #12	GRN.	THW/THHN				DRAWN BY	
		AC CONTROL POWER	AWG #14	RED	THW/THHN				TL	
		AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN				APPROVED BY	
		AC FOREIGN	AWG #14	YELLOW	THW/THHN				JK	
		DC POWER	AWG #18	BLUE	THW/THHN					
		DC CONTROL	AWG #18	BLUE	THW/THHN					
		SIGNAL/INSTRUMENTS	AWG #18	2 CONDUCTOR SHLD	THW/THHN					
								ANGULAR	DATE	
								± 1"	9/18/02	
									DRAWING NUMBER	
									DTSI - 02040 - 216	

DATE	SYM	REVISION	RECORD	AUTH	DR	CK
5/12/03	A		FOR APPROVAL			

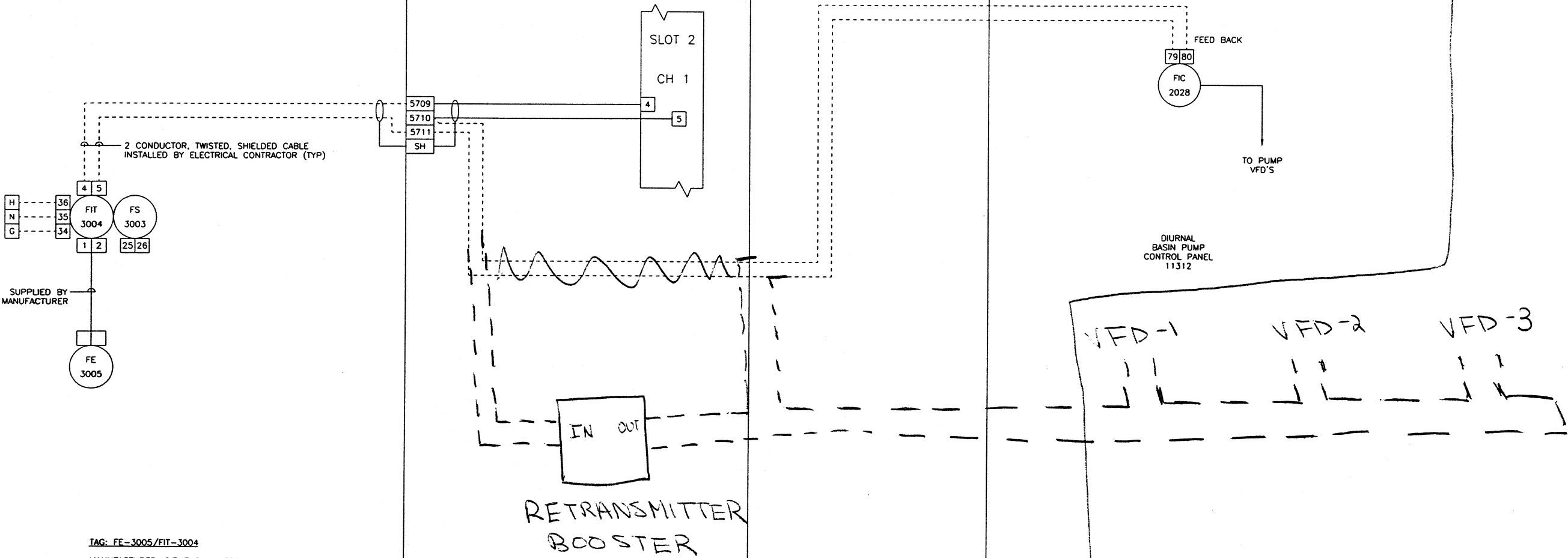
M19 FIELD

PLC PANEL NODE 8

FIELD

DIURNAL BASIN PUMP CONTROL PANEL

VFD'S



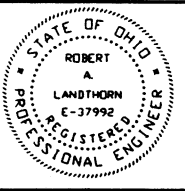
TAG: FE-3005/FIT-3004

MANUFACTURER: SIEMENS MILLTRONICS
 MODEL: OCM III
 POWER: 120 VAC/60 HZ
 ENCLOSURE: NEMA 4X
 CALIBRATION RANGE: 5.0 - 35.0 MGD

MGD

06/04/03 14:18

WIRE LUGS - NO ☒ YES ☐	RING ☐ LOCKING SPADE ☐
INSULATION: NYLON ☐ PVC ☒	
WIRE SPECIFICATIONS:	
USAGE	SIZE COLOR INSULATION
AC PANEL POWER	AWG #12 BLK THW/THHN
AC PANEL NEUTRAL	AWG #12 WHT THW/THHN
AC PANEL GROUND	AWG #12 GRN THW/THHN
AC CONTROL POWER	AWG #14 RED THW/THHN
AC CONTROL NEUTRAL	AWG #14 WHT THW/THHN
AC FOREIGN	AWG #14 YELLOW THW/THHN
DC POWER	AWG #16 BLUE THW/THHN
DC CONTROL	AWG #16 BLUE THW/THHN
SIGNAL/INSTRUMENTS	AWG #16 2-CONDUCTOR SHLD THW/THHN



KOKOSING
CONSTRUCTION CO.
P.O. #

DUBLIN TECHNICAL
SYSTEMS INC.
PROJECT # 02040

TOLERANCES	DUBLIN TECHNICAL SYSTEMS, INC.
DECIMAL ± 0.3	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. 18031
FRACTIONAL ± 1/32"	SCALE NONE
ANGULAR ± 1'	DRAWN BY TL
	APPROVED BY JK
	TITLE RETENTION BASIN EFFLUENT, M19 PARSHALL FLUME LEVEL
	DATE 9/18/02
	DRAWING NUMBER DTSI - 02040 - 220

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

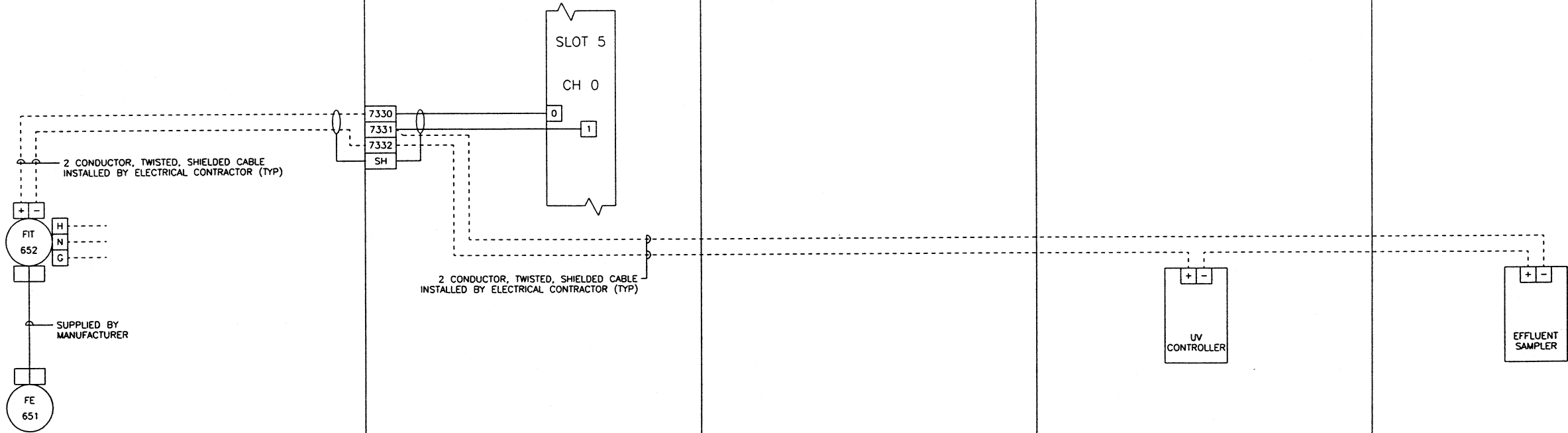
M20 FIELD

PLC PANEL NODE 11

FIELD

UV CONTROL PANEL TERTIARY BLDG.

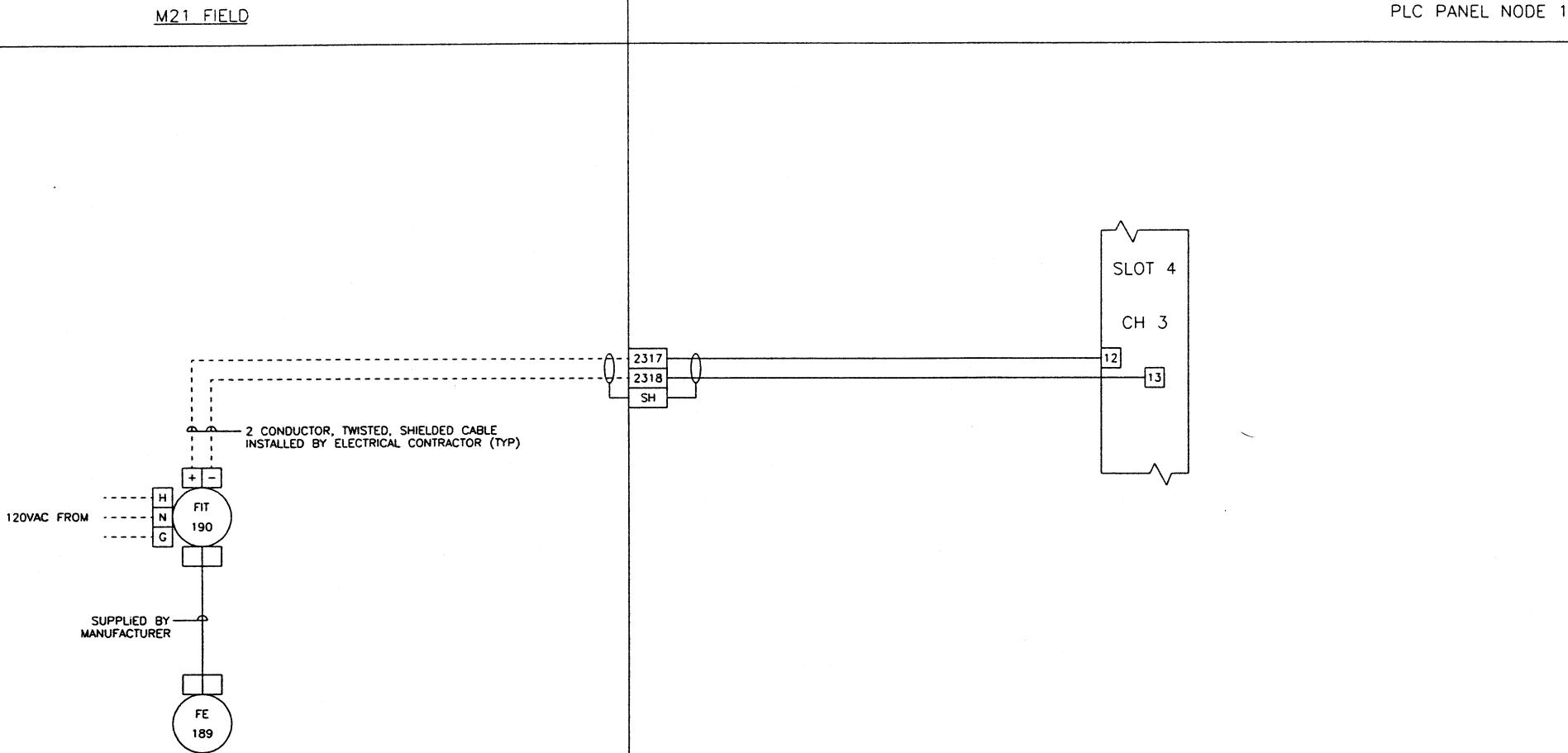
PLANT EFFLUENT SAMPLER TERTIARY BLDG.



TAG: FE-2/FT-2
MANUFACTURER: SIEMENS-MILLTRONICS
MODEL: OCM III
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 5.0-35.0 MGD

08/28/02 09:07	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐				TOLERANCES			DUBLIN TECHNICAL SYSTEMS, INC.			
	INSULATION: NYLON ☐ PVC ☒		WIRE SPECIFICATIONS:				DECIMAL	SCALE					
			USAGE	SIZE			COLOR	INSULATION			FRACTIONAL	DRAWN BY	
			AC PANEL POWER	AWG #12			BLK	THW/THHN			1/32"	TL	
			AC PANEL NEUTRAL	AWG #12			WHT	THW/THHN				APPROVED BY	
			AC PANEL GROUND	AWG #12			GRN	THW/THHN				JK	
			AC CONTROL POWER	AWG #14			RED	THW/THHN		TITLE		PLANT EFFLUENT FLOW, M20	
			AC CONTROL NEUTRAL	AWG #14			WHT	THW/THHN					
			AC FOREIGN	AWG #14			YELLOW	THW/THHN		DATE		DRAWING NUMBER	
			DC POWER	AWG #16			BLUE	THW/THHN		9/18/02			
			DC CONTROL	AWG #16			BLUE	THW/THHN		DTSI - 02040 - 221			
			SIGNAL/INSTRUMENTS	AWG #16			2 CONDUCTOR SHLD	THW/THHN					

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK



TAG: FE-/FIT-189
MANUFACTURER: SIEMENS MILLTRONICS
MODEL: OCM III
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0-42.6 MGD

06/04/03 12:29

WIRE LUGS - NO ☒ YES ☐

INSULATION: NYLON ☐ PVC ☒

WIRE SPECIFICATIONS:

USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL	AWG #16	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD'D	THW/THHN

RING ☐ LOCKING SPADE ☐

STATE OF OHIO
PROFESSIONAL ENGINEER
ROBERT A. LANDTMOHN
E-37992

KOKOSING
CONSTRUCTION CO.
P.O. #

DUBLIN TECHNICAL
SYSTEMS INC.
PROJECT # 02040

TOLERANCES
DECIMAL
± .03
FRACTIONAL
± 1/32"
ANGULAR
± 1°

DUBLIN TECHNICAL SYSTEMS, INC.

CITY OF MASSILLON, OHIO
REGIONAL WASTEWATER TREATMENT
PLANT - UPGRADE 2000
PROJECT NO. E2031

SCALE
NONE

DRAWN BY
TL
APPROVED BY
JK

TITLE
SECONDARY BYPASS FLOW, M21

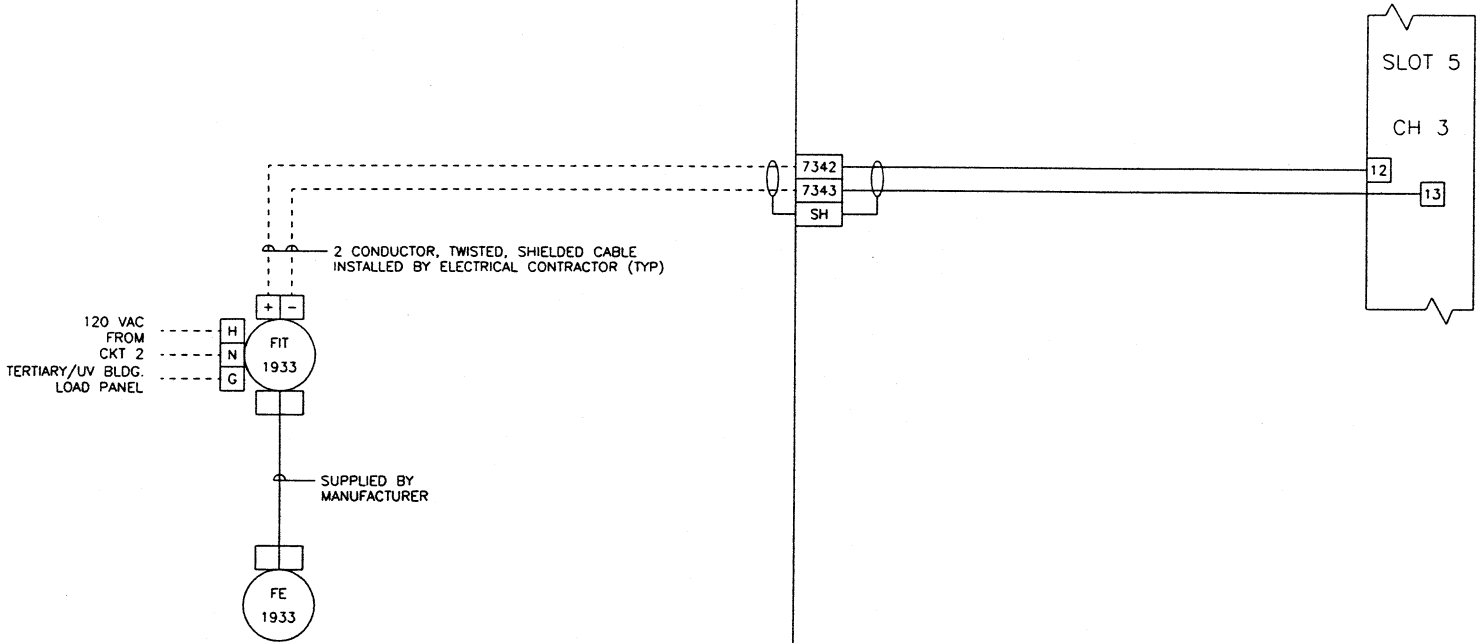
DATE
9/18/02

DRAWING NUMBER
DTSI - 02040 - 222

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M22 FIELD

PLC PANEL NODE 11



TAG: FE-2/FI-2
MANUFACTURER: THERMO POLYSONICS
MODEL: DCT6088
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0.0 - 1.0 MGD

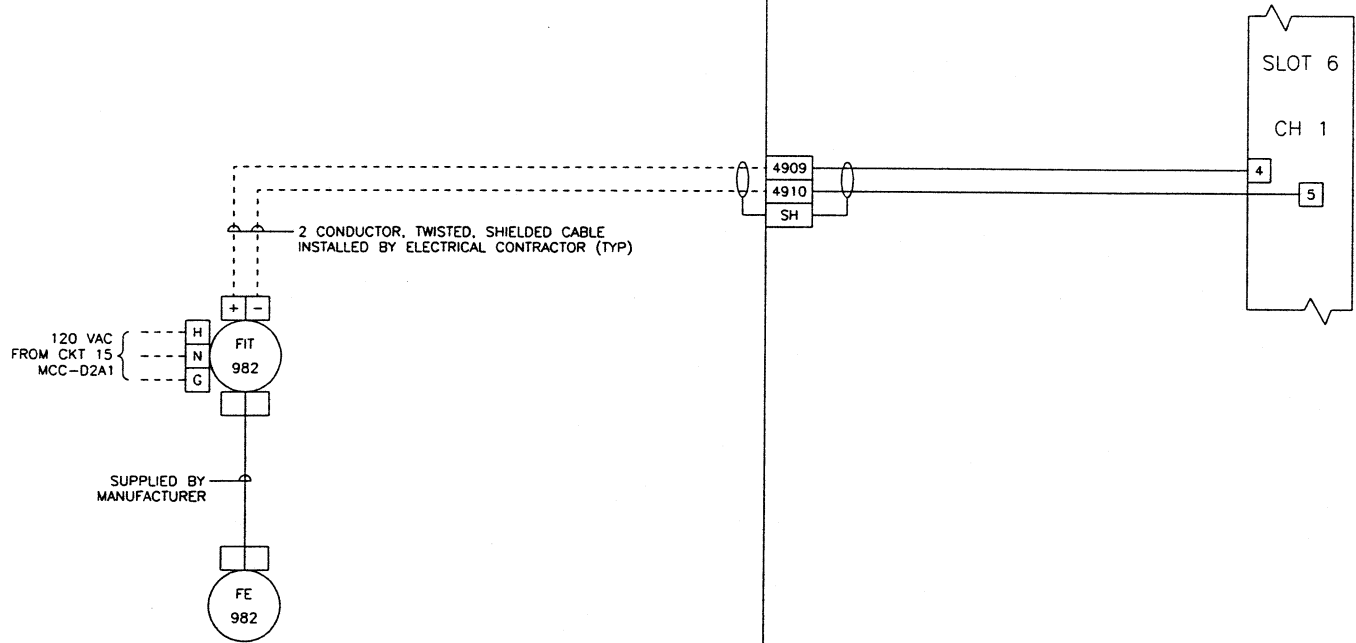
RAW
2200 gpm FROM PUMPS?
0-4.0 MGD?

06/05/03 10:31	WIRE LUGS - NO ☒ YES ☐	RING ☐ LOCKING SPADE ☐		 KOKOSING CONSTRUCTION CO. P.O. #	TOLERANCES	 DUBLIN TECHNICAL SYSTEMS, INC.		
	INSULATION: NYLON ☐ PVC ☒	DECIMAL			CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E3031		SCALE	DRAWN BY
	WIRE SPECIFICATIONS:				FRACTIONAL	TITLE	DATE	DRAWING NUMBER
	USAGE SIZE COLOR INSULATION				± 0.3	SIDESTREAM / RECYCLE FLOW, M22	9/18/02	DTSI - 02040 - 225
	AC PANEL POWER AWG #12 BLK. THW/THHN				± 1/32"			
	AC PANEL NEUTRAL AWG #12 WHT. THW/THHN				ANGULAR			
	AC PANEL GROUND AWG #12 GRN. THW/THHN				± 1"			
	AC CONTROL POWER AWG #14 RED THW/THHN							
	AC CONTROL NEUTRAL AWG #14 WHT. THW/THHN							
	AC FOREIGN AWG #14 YELLOW THW/THHN							
	DC POWER AWG #18 BLUE THW/THHN							
	DC CONTROL AWG #18 BLUE THW/THHN							
	SIGNAL/INSTRUMENTS AWG #18 2 CONDUCTOR SHLD THW/THHN							

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M23 FIELD

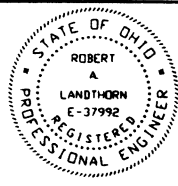
PLC PANEL NODE 6



TAG: FE/FIT-982
MANUFACTURER: FCI
MODEL: ST98-13CT02DAAFF
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 7
CALIBRATION RANGE: 0-1850 SCFM

06/04/03 12:40

WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐	
INSULATION: NYLON ☐ PVC ☒			
WIRE SPECIFICATIONS:			
USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FORECH	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD.	THW/THHN



KOKOSING
CONSTRUCTION CO.
P.O. #

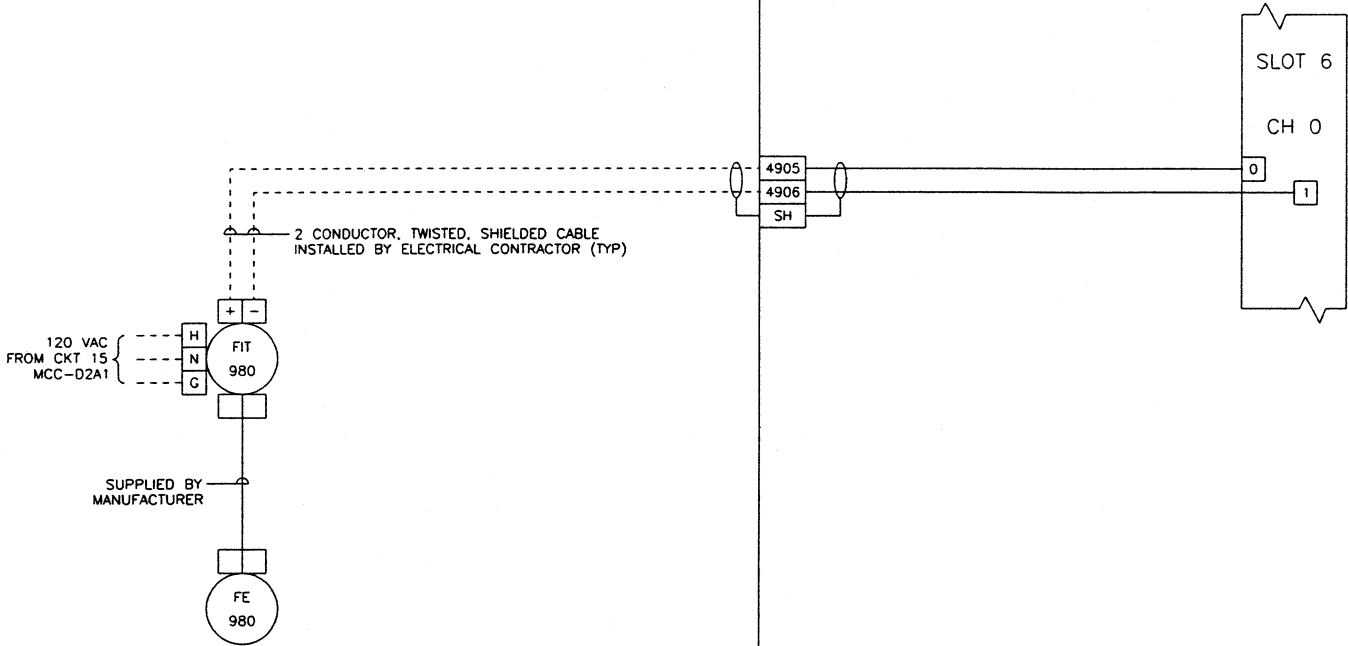
DUBLIN TECHNICAL
SYSTEMS INC.
PROJECT # 02040

TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
DECIMAL	± .03	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. 59031	SCALE NONE
FRACTIONAL	± 1/32"	TITLE DIGESTER WASTE GAS FLOW, M23	
ANGULAR	± 1'	DATE 9/18/02	DRAWING NUMBER DTSI - 02040 - 226

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

M24 FIELD

PLC PANEL NODE 6



TAG: FE/FIT-980
MANUFACTURER: FCI
MODEL: ST98-13CT02DAAFF
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 7
CALIBRATION RANGE: 0-1850 SCFM

10/29/02 10:54

WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐	
INSULATION: NYLON ☐ PVC ☒			
WIRE SPECIFICATIONS:			
USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL	AWG #16	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	AWG #16	3 CONDUCTOR SHLD	THW/THHN



KOKOSING
CONSTRUCTION CO.
P.O. #

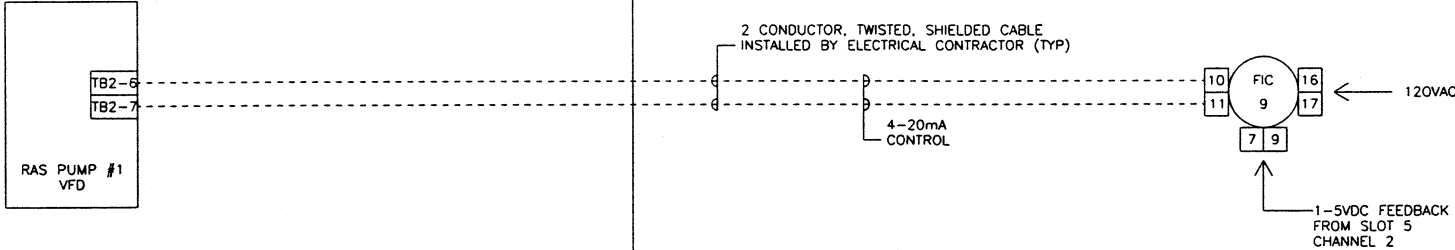
**DUBLIN TECHNICAL
SYSTEMS INC.**
PROJECT # 02040

TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
DECIMAL	± .03	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. 03031	SCALE NONE
FRACTIONAL	± 1/32"	TITLE DIGESTER UTILITY GAS FLOW, M24	DRAWN BY TL
ANGULAR	± 1'	DATE 9/18/02	APPROVED BY JK
		DRAWING NUMBER DTSI - 02040 - 227	

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

FIELD

OPERATOR'S LABORATORY ENCLOSURE



08/28/02 09:07	WIRE LUGS - NO ☐ YES ☐		RING ☐ LOCKING SPADE ☐			 KOKOSING CONSTRUCTION CO P.O. #	TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.								
	INSULATION: NYLON ☐ PVC ☒						DECIMAL	SCALE	DRAWN BY	TL							
												ANGULAR	NONE	APPROVED BY	JK		
												FRACTIONAL	TITLE RAS PUMP #1 VFD SPEED CONTROL				
												DATE	DRAWING NUMBER				
												9/18/02	DTSI - 02040 - 230				
WIRE SPECIFICATIONS:		SIZE	COLOR	INSULATION													
AC PANEL POWER		AWG #12	BLK.	THW/THHN													
AC PANEL NEUTRAL		AWG #12	WHT.	THW/THHN													
AC PANEL GROUND		AWG #12	GRN.	THW/THHN													
AC CONTROL POWER		AWG #14	RED	THW/THHN													
AC CONTROL NEUTRAL		AWG #14	WHT.	THW/THHN													
AC FOREIGN		AWG #14	YELLOW	THW/THHN													
DC POWER		AWG #16	BLUE	THW/THHN													
DC CONTROL		AWG #16	BLU.	THW/THHN													
SIGNAL/INSTRUMENTS		AWG #16	2 CONDUCTOR SHLD	THW/THHN													

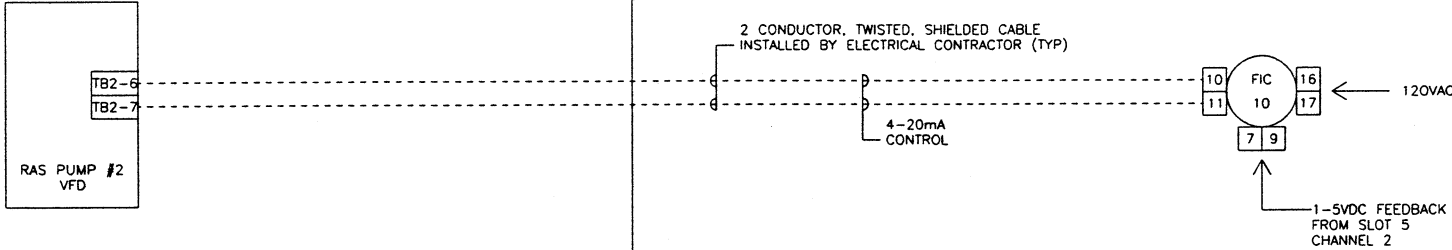
WIRE SPECIFICATIONS:		
USAGE	SIZE	COLOR
AC PANEL POWER	AWG #12	BLK.
AC PANEL NEUTRAL	AWG #12	WHT.
AC PANEL GROUND	AWG #12	GRN.
AC CONTROL POWER	AWG #14	RED
AC CONTROL NEUTRAL	AWG #14	WHT.
AC FOREIGN	AWG #14	YELLOW
DC POWER	AWG #16	BLUE
DC CONTROL	AWG #16	BLUE
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD

DUBLIN TECHNICAL SYSTEMS, INC.
PROJECT # 02040

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

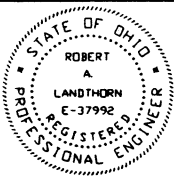
FIELD

OPERATOR'S LABORATORY ENCLOSURE



06/04/03 13:03

WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐	
INSULATION: NYLON ☐ PVC ☒			
WIRE SPECIFICATIONS:			
USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT	THW/THHN
AC PANEL GROUND	AWG #12	GRN	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL	AWG #16	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN



KOKOSING
CONSTRUCTION CO.
P.O. #

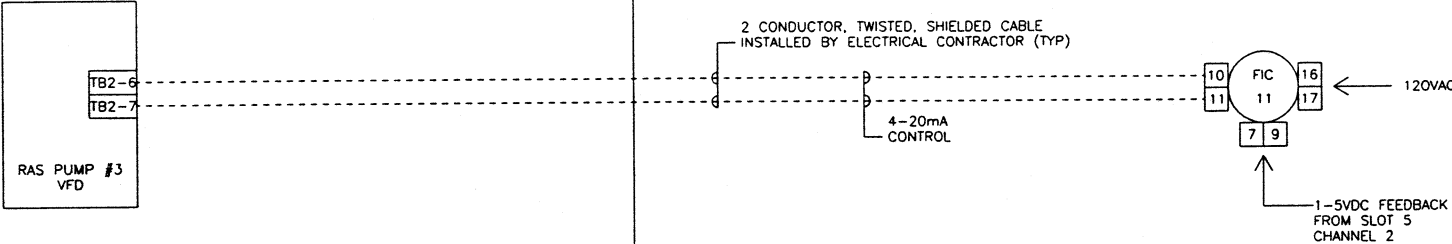
**DUBLIN TECHNICAL
SYSTEMS INC.**
PROJECT # 02040

TOLERANCES	DUBLIN TECHNICAL SYSTEMS, INC.	
DECIMAL	CITY OF WASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE
FRACTIONAL	TITLE RAS PUMP #2 VFD SPEED CONTROL	DRAWN BY TL
ANGULAR	DATE 9/18/02	APPROVED BY JK
	DRAWING NUMBER DTSI - 02040 - 231	

DATE	SYM	REVISION RECORD	AUTH OR	CK
5/12/03	A	FOR APPROVAL	CUST	TL JK

FIELD

OPERATOR'S LABORATORY ENCLOSURE



06/04/03 13:09

WIRE LUGS - NO ☒ YES ☐

INSULATION: NYLON ☐ PVC ☒

WIRE SPECIFICATIONS:

USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT	THW/THHN
AC PANEL GROUND	AWG #12	GRN	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	BLUE	THW/THHN
	AWG #16	2 CONDUCTOR SHLD	THW/THHN

RING ☐ LOCKING SPADE ☐

STATE OF OHIO
ROBERT A. LANDTHORN
E-37992
REGISTERED PROFESSIONAL ENGINEER

KOKOSING CONSTRUCTION CO.
P.O. #

DUBLIN TECHNICAL SYSTEMS INC.
PROJECT # 02040

TOLERANCES

±	DECIMAL
± .03	FRACTIONAL
± 1/32"	ANGULAR
± 1"	

DUBLIN TECHNICAL SYSTEMS, INC.

CITY OF MASSILLON, OHIO
REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000
PROJECT NO. E9031

SCALE
NONE

DRAWN BY
TL

APPROVED BY
JK

TITLE
RAS PUMP #3 VFD SPEED CONTROL

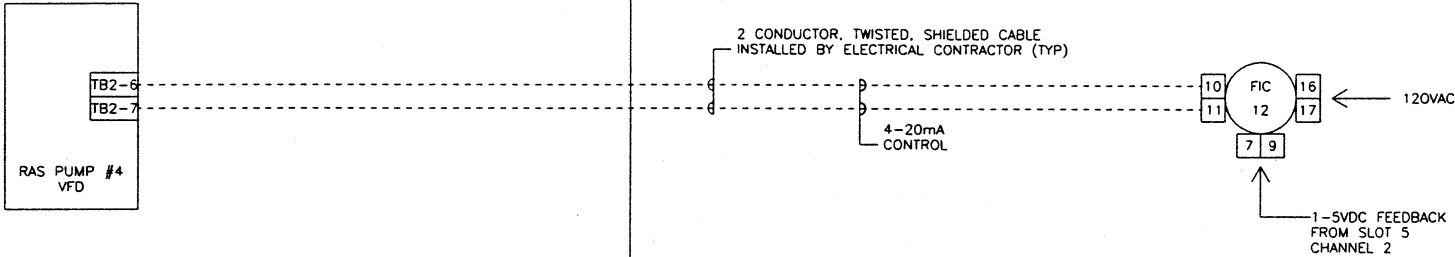
DATE
9/18/02

DRAWING NUMBER
DTSI - 02040 - 232

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

FIELD

OPERATOR'S LABORATORY ENCLOSURE



08/28/02 09:07	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐		STATE OF OHIO ROBERT A. LANDTHORN E-37992 REGISTERED PROFESSIONAL ENGINEER KOKOSING CONSTRUCTION CO. P.O. # DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040	TOLERANCES		 DUBLIN TECHNICAL SYSTEMS, INC.					
	INSULATION: NYLON ☐ PVC ☒					DECIMAL		CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031		SCALE NONE		DRAWN BY TL	
	WIRE SPECIFICATIONS:							± .03		APPROVED BY JK			
	USAGE	SIZE	COLOR	INSULATION				FRACTIONAL		TITLE RAS PUMP #4 SPEED CONTROL			
	AC PANEL POWER	AWG #12	BLK.	THW/THHN				± 1/32"					
	AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN				ANGULAR		DATE			
	AC PANEL GROUND	AWG #12	GRN.	THW/THHN				± 1°		9/18/02		DRAWING NUMBER	
	AC CONTROL POWER	AWG #14	RED	THW/THHN						DTSI - 02040 - 233			
	AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN									
	AC FOREIGN	AWG #14	YELLOW	THW/THHN									
DC POWER	AWG #16	BLUE	THW/THHN										
DC CONTROL SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN										

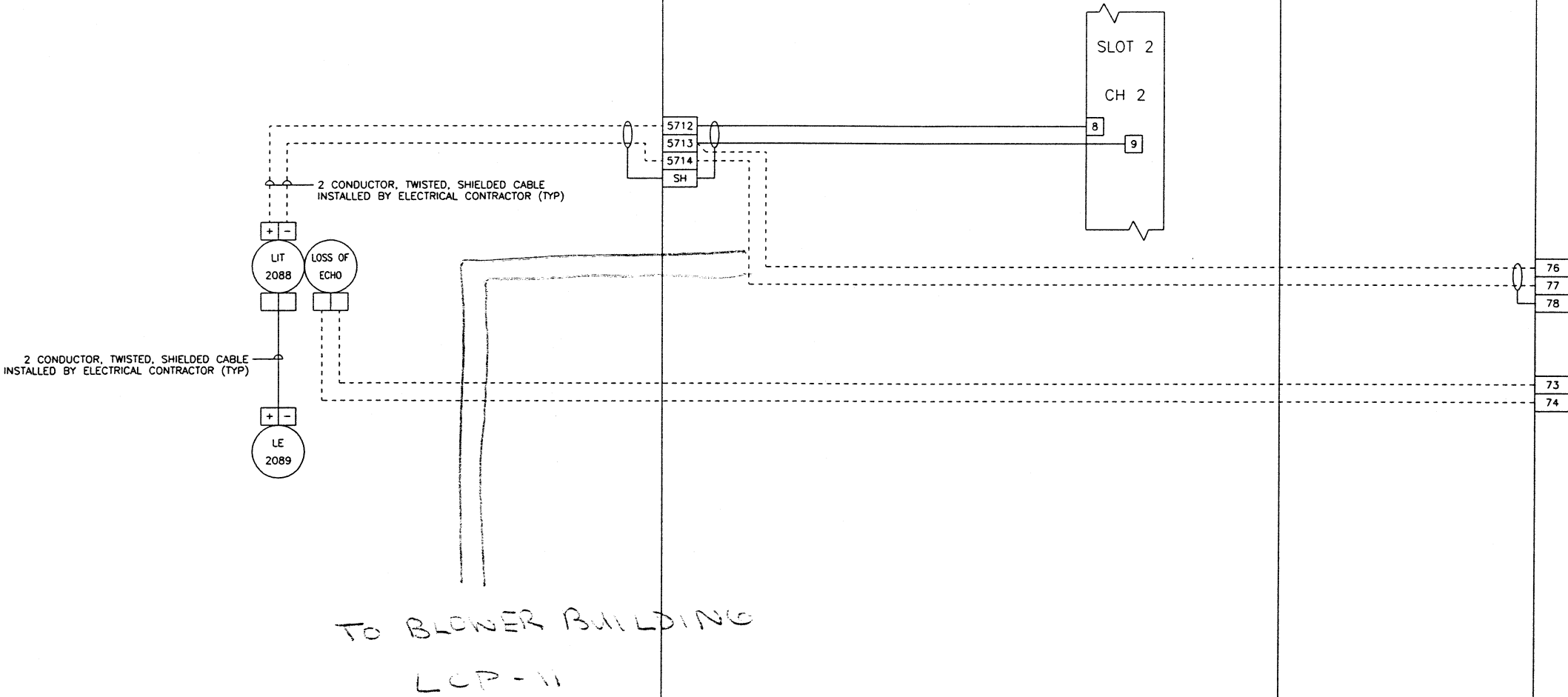
DATE	SYM	REVISION RECORD	AUTH	DR	CR
5/12/03	A	FOR APPROVAL	CUST	TL	JK

L2 FIELD

PLC PANEL NODE 8

FIELD

DIURNAL BASIN PUMP CONTROL PANEL



06/04/03 14:03

WIRE LUGS - NO ☒ YES ☐	RING ☐ LOCKING SPADE ☐
INSULATION: NYLON ☐ PVC ☒	
WIRE SPECIFICATIONS:	
USAGE	SIZE COLOR INSULATION
AC PANEL POWER	AWG #12 BLK THW/THHN
AC PANEL NEUTRAL	AWG #12 WHT THW/THHN
AC PANEL GROUND	AWG #12 GRN THW/THHN
AC CONTROL POWER	AWG #14 RED THW/THHN
AC CONTROL NEUTRAL	AWG #14 WHT THW/THHN
AC FOREIGN	AWG #14 YELLOW THW/THHN
DC POWER	AWG #16 BLUE THW/THHN
DC CONTROL	AWG #16 BLUE THW/THHN
SIGNAL/INSTRUMENTS	AWG #16 2 CONDUCTOR SHLD THW/THHN



KOKOSING
CONSTRUCTION CO.
P.O. #

**DUBLIN TECHNICAL
SYSTEMS INC.**
PROJECT # 02040

TOLERANCES	DUBLIN TECHNICAL SYSTEMS, INC.	
DECIMAL ± .03	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E3031	SCALE NONE
FRACTIONAL ± 1/32"	TITLE FLOW RETENTION BASIN EFFLUENT FLOW LEVEL, L2	DRAWN BY TL
ANGULAR ± 1'	DATE 9/18/02	APPROVED BY JK
	DRAWING NUMBER DTSI - 02040 - 250	

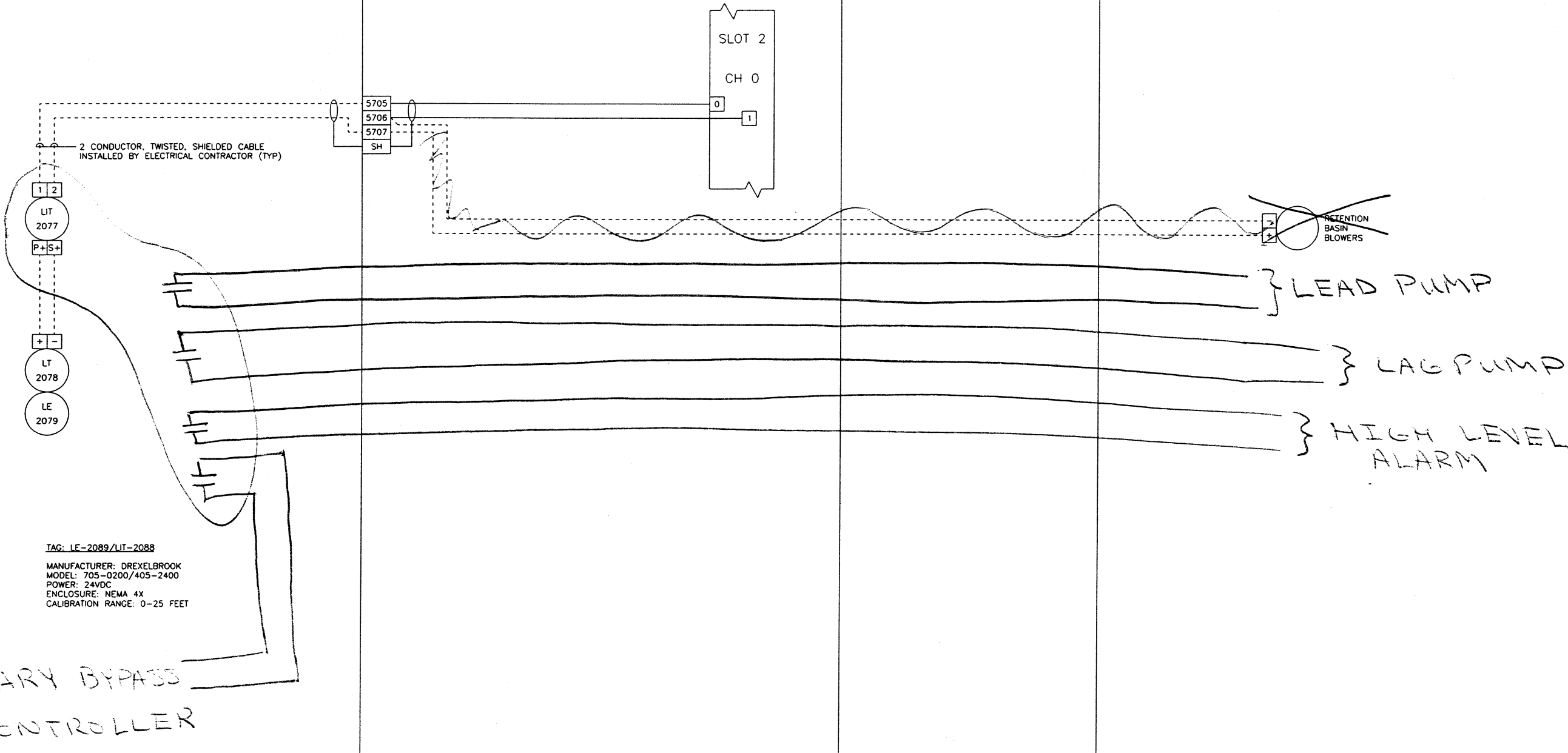
DATE	SYM	REVISION RECORD	AUTH	OR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

L3 FIELD

PLC PANEL NODE 8

FIELD

STORM BASIN PUMP CONTROL PANEL



06/04/03 14:16	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐		STATE OF OHIO ROBERT A. LANDTHORN E-37992 REGISTERED PROFESSIONAL ENGINEER	KOKOSING CONSTRUCTION CO. P.O. # DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040	TOLERANCES		 DUBLIN TECHNICAL SYSTEMS, INC.				
	INSULATION: NYLON ☐ PVC ☒						DECIMAL		CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. 03031		SCALE	DRAWN BY <i>TL</i>	
	WIRE SPECIFICATIONS:		SIZE	COLOR			INSULATION	+ .03		NONE		APPROVED BY <i>JK</i>	
	AC PANEL POWER		AWG #12	BLK			THW/THHN	FRACTIONAL		TITLE		STORM FLOW RETENTION TANK WATER LEVEL, L3	
	AC PANEL NEUTRAL		AWG #12	WHT			THW/THHN	+ 1/32"		DATE		DRAWING NUMBER	
	AC PANEL GROUND		AWG #12	GRN			THW/THHN	+ 1"		9/18/02		DTSI - 02040 - 251	
	AC CONTROL POWER		AWG #14	RED			THW/THHN						
	AC CONTROL NEUTRAL		AWG #14	WHT			THW/THHN						
	AC FOREIGN		AWG #14	YELLOW			THW/THHN						
	DC POWER		AWG #16	BLUE			THW/THHN						
	DC CONTROL		AWG #16	BLUE			THW/THHN						
	SIGNAL/INSTRUMENTS		AWG #16	2 CONDUCTOR SHLD			THW/THHN						

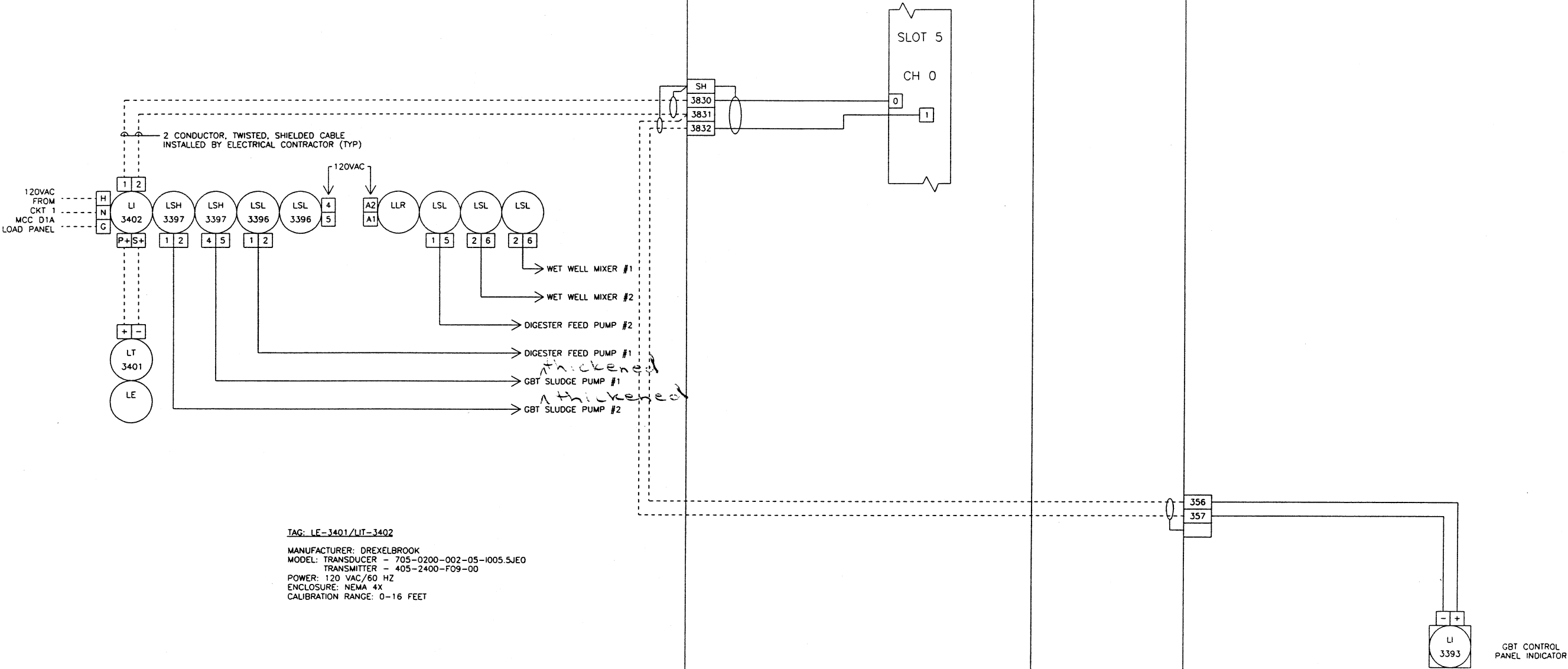
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL			

L4 FIELD

PLC PANEL NODE 4

FIELD

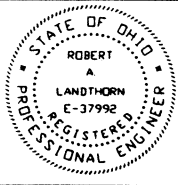
GBT CONTROL PANEL



TAG: LE-3401/LI-3402
MANUFACTURER: DREXELBROOK
MODEL: TRANSDUCER - 705-0200-002-05-1005.5JEO
TRANSMITTER - 405-2400-F09-00
POWER: 120 VAC/60 HZ
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0-16 FEET

06/04/03 15:49

WIRE LUGS - NO ☐ YES ☐		RING ☐ LOCKING SPADE ☐	
INSULATION: NYLON ☐ PVC ☒			
WIRE SPECIFICATIONS:			
USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT	THW/THHN
AC PANEL GROUND	AWG #12	GRN	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL	AWG #16	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN



KOKOSING
CONSTRUCTION CO.
P.O. #

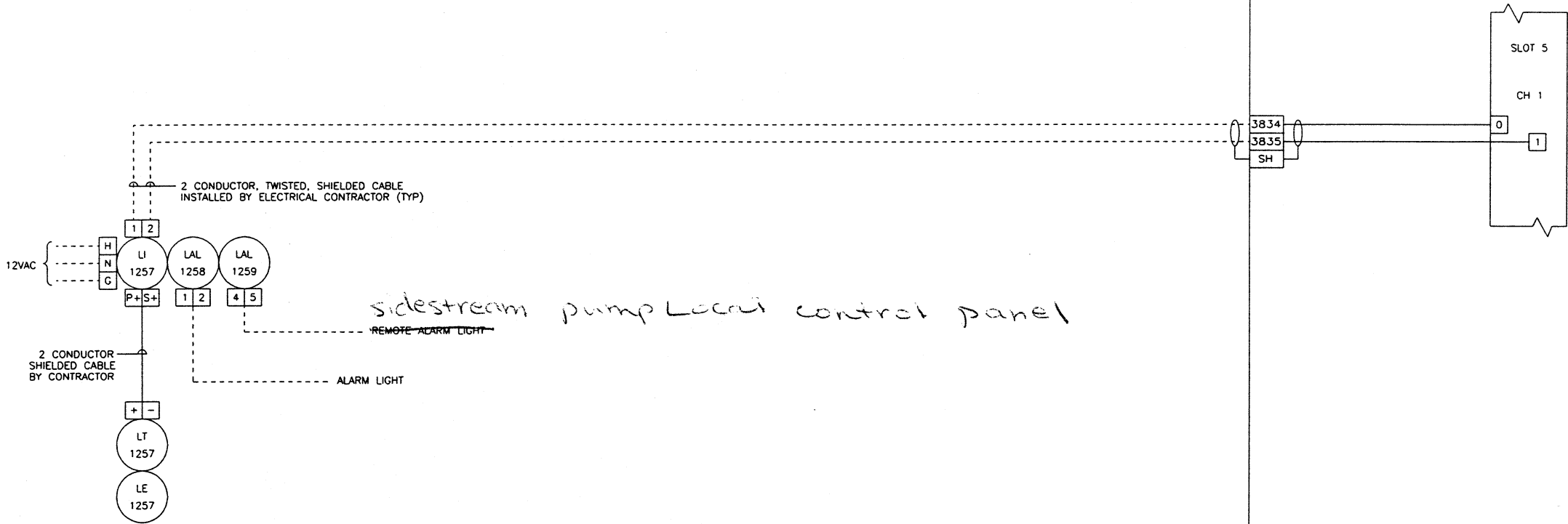
DUBLIN TECHNICAL SYSTEMS INC.
PROJECT # 02040

TOLERANCES	DUBLIN TECHNICAL SYSTEMS, INC.
DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031
FRACTIONAL	SCALE NONE
ANGULAR	DRAWN BY TL APPROVED BY JK
	TITLE THICKENED SLUDGE WET WELL LEVEL, L-4
	DATE 9/18/02
	DRAWING NUMBER DTSI - 02040 - 252

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	RTR	DC

L9 FIELD

PLC PANEL NODE 4



TAG: LE-/LT-3132

MANUFACTURER: DREXELBROOK

MODEL: 705-0200/405-2400

POWER: 120VAC

ENCLOSURE: NEMA 4X

CALIBRATION RANGE: 0-20 FEET

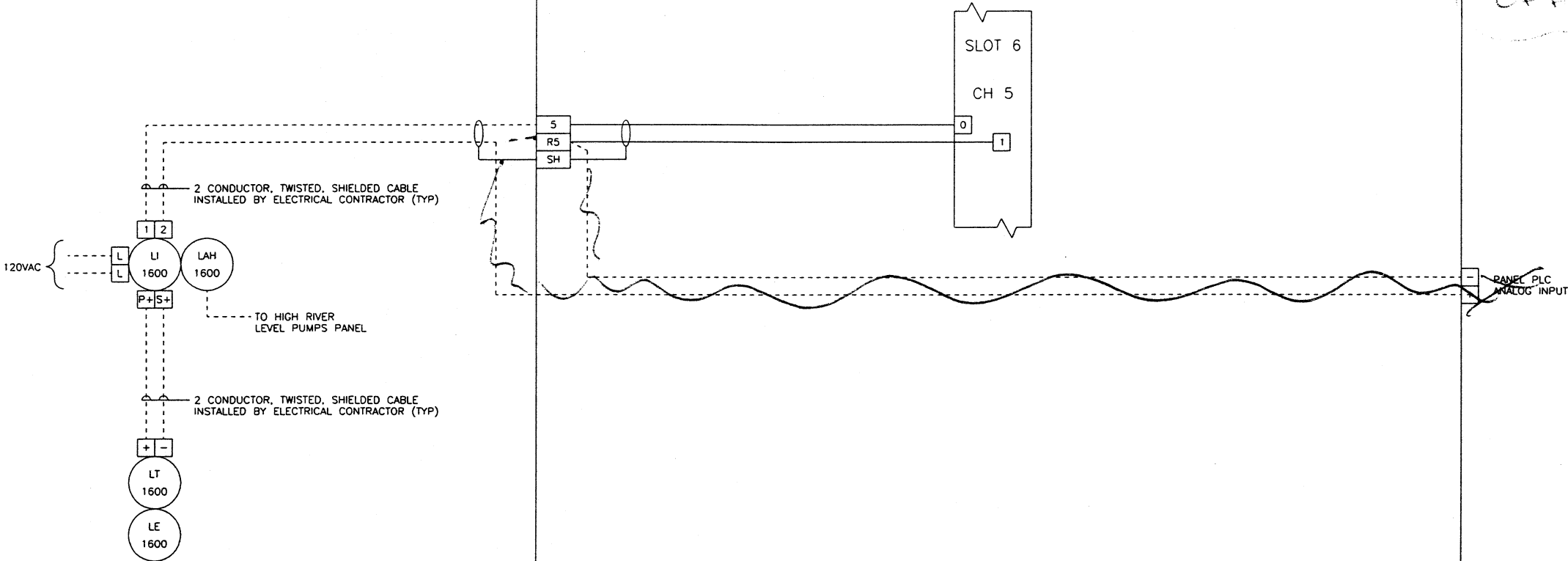
05/19/03 13:01	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐				TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
	INSULATION: NYLON ☐ PVC ☒						DECIMAL	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. 09031	SCALE NONE	DRAWN BY RTR
	WIRE SPECIFICATIONS:						± 0.3		APPROVED BY JK	
	USAGE	SIZE	COLOR	INSULATION			FRACTIONAL	TITLE SIDESTREAM TANK LEVEL, L9		
	AC PANEL POWER	AWG #12	BLK	THW/THHN			± 1/32"			
	AC PANEL NEUTRAL	AWG #12	WHT	THW/THHN			ANGULAR	DATE		
	AC PANEL GROUND	AWG #12	GRN	THW/THHN			± 1"	9/18/02		
	AC CONTROL POWER	AWG #14	RED	THW/THHN				DRAWING NUMBER		
	AC CONTROL NEUTRAL	AWG #14	WHT	THW/THHN				DTSI - 02040 - 255		
	AC FOREIGN	AWG #14	YELLOW	THW/THHN						
DC POWER	AWG #16	BLUE	THW/THHN							
DC CONTROL	AWG #16	BLUE	THW/THHN							
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN							

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	RTR	JK

L10 FIELD

PLC PANEL OPERATORS LABORATORY ENCLOSURE

HIGH RIVER LEVEL PUMPS CONTROL PANEL



TAG: LE-/LT-1600

MANUFACTURER: DREXELBROOK

MODEL: 705-6200/405-2400

POWER: 120VAC

ENCLOSURE: NEMA 4X

CALIBRATION RANGE: 0-16 FEET

08/28/02 09:07	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐				TOLERANCES			DUBLIN TECHNICAL SYSTEMS, INC.				
	INSULATION: NYLON ☐ PVC ☒						DECIMAL	± .03		CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE	DRAWN BY RTR		
	WIRE SPECIFICATIONS:						FRACTIONAL	± 1/32"		TITLE HIGH RIVER STAGE LEVEL, L-10				
	USAGE						ANGULAR	± 1°		DATE 9/18/02 DRAWING NUMBER DTSI - 02040 - 256				
	AC PANEL POWER		SIZE	AWG #12			BLK.	INSULATION		THW/THHN				
	AC PANEL NEUTRAL			AWG #12			WHT.			THW/THHN				
	AC PANEL GROUND			AWG #12			GRN.			THW/THHN				
	AC CONTROL POWER			AWG #14			RED			THW/THHN				
	AC CONTROL NEUTRAL			AWG #14			WHT.			THW/THHN				
	AC FOREIGN			AWG #14			YELLOW			THW/THHN				
DC POWER			AWG #16	BLUE		THW/THHN								
DC CONTROL			AWG #16	BLUE		THW/THHN								
SIGNAL/INSTRUMENTS			AWG #18	2 CONDUCTOR SHL'D		THW/THHN								

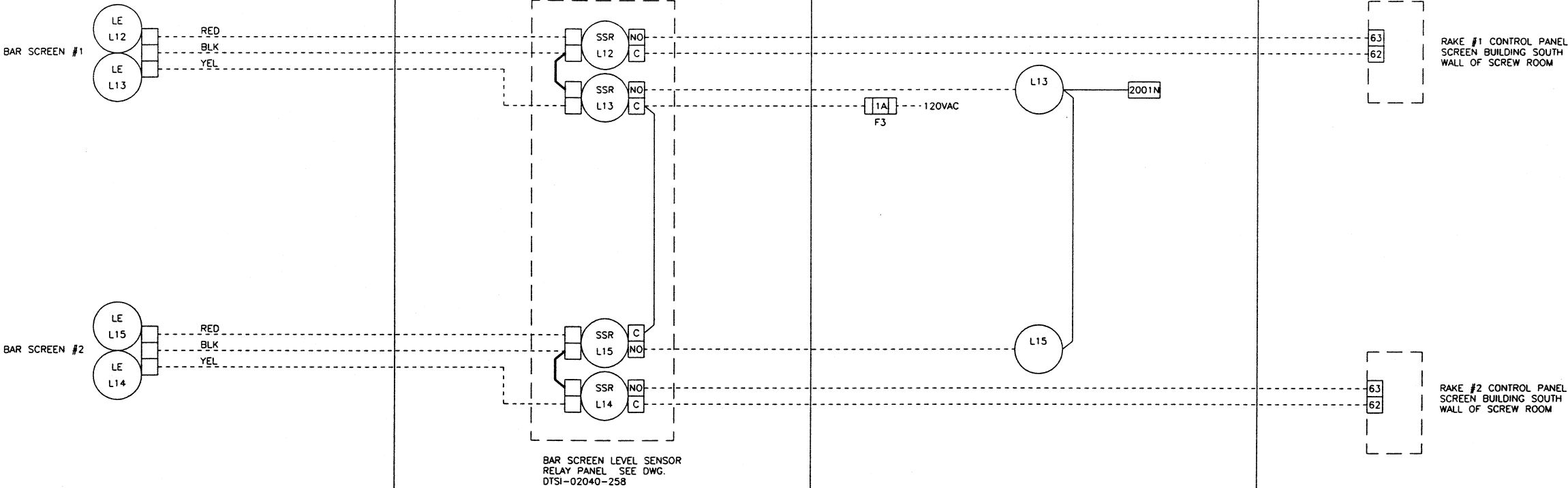
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	RTR	JK

SCREEN BUILDING/BAR SCREEN AREA

SCREEN BUILDING/SCREW ROOM

PLC PANEL NODE 1

SCREEN BUILDING/SCREW ROOM

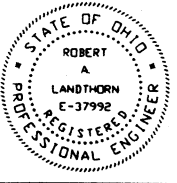


CLASS 1, DIV. 1
AREA

LE	SETPPOINT
L12	88.16 FT
L13	88.41 FT
L14	88.16 FT
L15	88.41 FT
TANK BOTTOM	85.14 FT

08/28/02 09:07

WIRE LUGS - NO ☒ YES ☐				RING ☐ LOCKING SPADE ☐			
INSULATION: NYLON ☐ PVC ☒							
WIRE SPECIFICATIONS:		SIZE	COLOR	INSULATION			
USAGE:							
AC PANEL POWER		AWG #12	BLK	THW/THHN			
AC PANEL NEUTRAL		AWG #12	WHT	THW/THHN			
AC PANEL GROUND		AWG #12	GRN	THW/THHN			
AC CONTROL POWER		AWG #14	RED	THW/THHN			
AC CONTROL NEUTRAL		AWG #14	WHT	THW/THHN			
AC FOREIGN		AWG #14	YELLOW	THW/THHN			
DC POWER		AWG #16	BLUE	THW/THHN			
DC CONTROL		AWG #16	BLUE	THW/THHN			
SIGNAL/INSTRUMENTS		AWG #16	2 CONDUCTOR SHLD	THW/THHN			



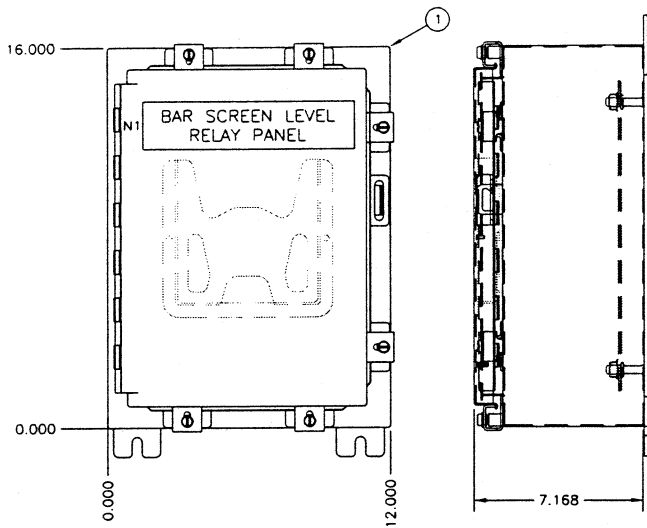
KOKOSING
CONSTRUCTION CO.
P.O. #

DUBLIN TECHNICAL SYSTEMS, INC.
PROJECT # 02040

TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
DECIMAL	± .03	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE
FRACTIONAL	± 1/32"	DRAWN BY <i>RTR</i> APPROVED BY <i>JK</i>	
ANGULAR	± 1'	DATE 9/18/02	
		DRAWING NUMBER DTSI - 02040 - 257	

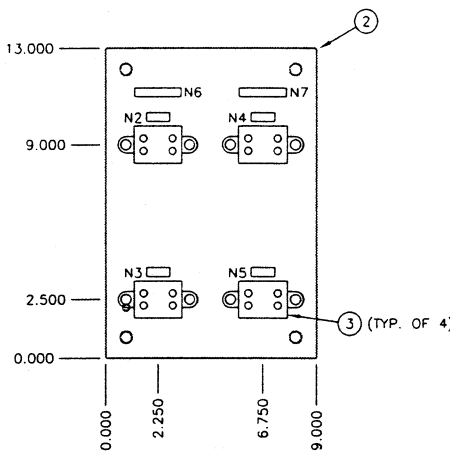
DATE	SYM	REVISION RECORD	AUTH:DR	CK
5/12/03	A	FOR APPROVAL	CUST:TL	DC

BILL OF MATERIAL				
ITEM	QTY	USED FOR	DESCRIPTION	
1	1	ENCLOSURE	HOFFMAN #A-161206LP TYPE 12, ENCLOSURE	
2	1	SUBPANEL	HOFFMAN #A-16P12 SUBPANEL WHITE ENAMEL	
3	4	GEMS LOAD-PAK	GEMS LOAD-PAK #20173 5 AMP. AC, SPST N.O. RELAY	
4	LOT	NAMEPLATE	NAMEPLATES, PLASTIC WHITE W/BLACK LETTERS.	
5	1	CORROSION INHIBITOR	HOFFMAN A-HCI1DV CORROSION INHIBITOR (NOT SHOWN)	



FRONT VIEW
SCALE: 1/4" = 1"

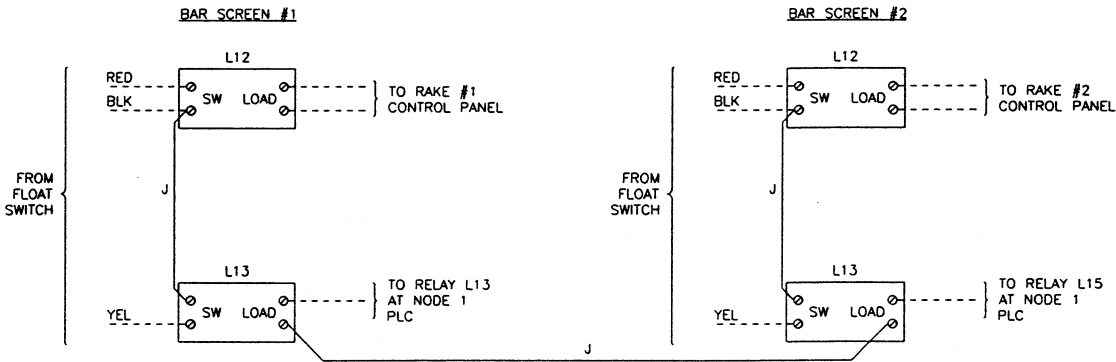
SIDE VIEW
SCALE: 1/4" = 1"



SUBPANEL
SCALE: 1/4" = 1"

NAMEPLATES WHITE WITH BLACK LETTERING

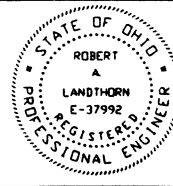
	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" X 9"	1/2"	YES	BAR SCREEN LEVEL	RELAY PANEL
N2	1	0.375" X 1"	3/16"	NO	L12	
N3	1	0.375" X 1"	3/16"	NO	L13	
N4	1	0.375" X 1"	3/16"	NO	L14	
N5	1	0.375" X 1"	3/16"	NO	L15	
N6	1	0.375" X 2"	3/16"	NO	BAR SCREEN #1	
N7	1	0.375" X 2"	3/16"	NO	BAR SCREEN #2	



WIRING SCHEMATIC

05/20/03 15:11

WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐	
INSULATION: NYLON ☐ PVC ☒			
WIRE SPECIFICATIONS:			
<u>USAGE</u>	<u>SIZE</u>	<u>COLOR</u>	<u>INSULATION</u>
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #18	BLUE	THW/THHN
DC CONTROL	AWG #18	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	AWG #18	2 CONDUCTOR SHLD	THW/THHN

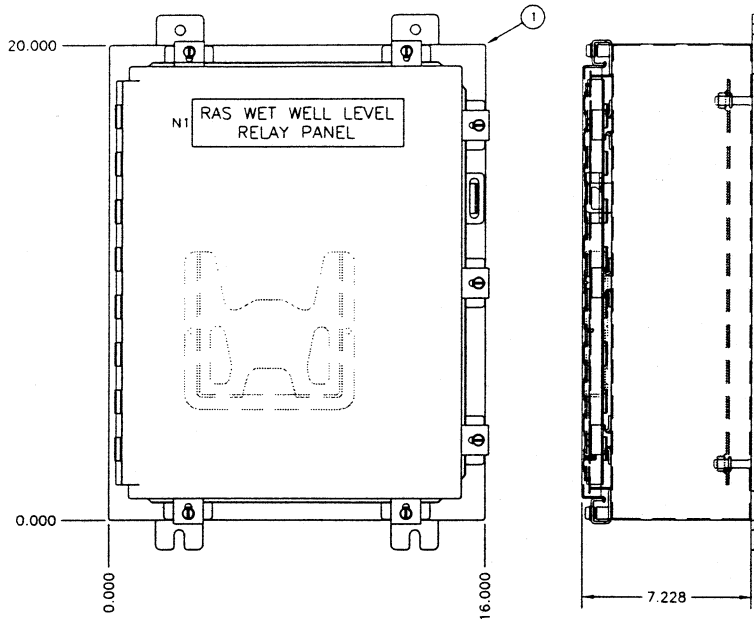


KOKOSING CONSTRUCTION CO. P.O. #

DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040

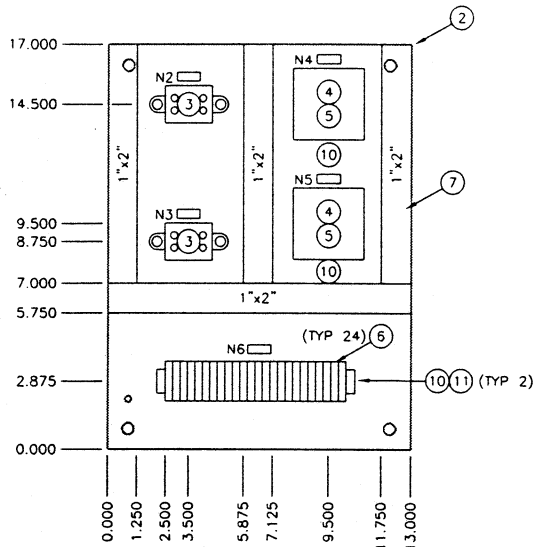
TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.	
DECIMAL	± .03	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE
FRACTIONAL	± 1/32"	TITLE BAR SCREENS LEVEL RELAY PANEL LAYOUT	DRAWN BY TL
ANGULAR	± 1"	DATE 5/12/03	APPROVED BY DC
		DRAWING NUMBER	DTSI - 02040 - 258

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	DC



FRONT VIEW
SCALE: 1/4" = 1"

SIDE VIEW
SCALE: 1/4" = 1"



SUBPANEL
SCALE: 1/4" = 1"

IB1

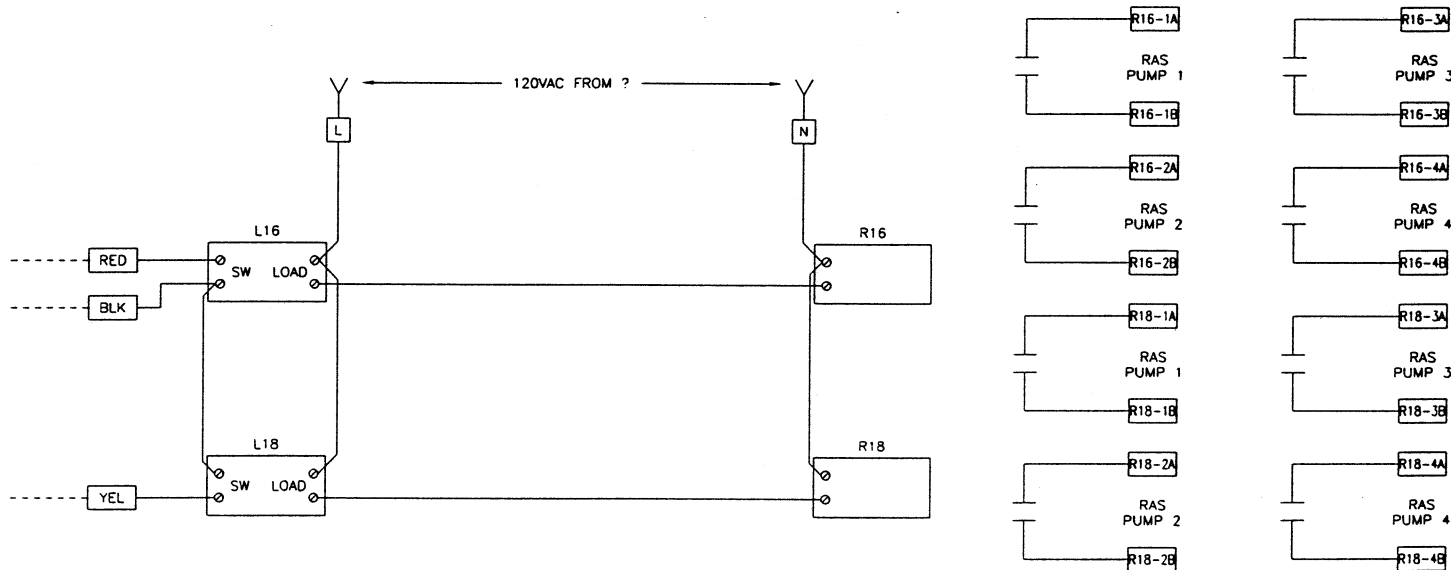
RED
BLK
YEL
SPARE
SPARE
SPARE
L
N
R16-1A
R16-1B
R16-2A
R16-2B
R16-3A
R16-3B
R16-4A
R16-4B
R18-1A
R18-1B
R18-2A
R18-2B
R18-3A
R18-3B
R18-4A
R18-4B

BILL OF MATERIAL

ITEM	QTY	USED FOR	DESCRIPTION
1	1	ENCLOSURE	HOFFMAN #A-201606LP NEMA 12 ENCLOSURE, 20"x16"x6"
2	1	SUBPANEL	HOFFMAN #A-20P16 WHITE ENAMEL SUBPANEL, 17"x13"
3	2	GEWS LOAD-PAK	GEWS LOAD-PAK #20173 5 AMP, AC, SPST N.O. RELAY
4	2	RELAY	IDEC RU4PDT5-A110 4PDT 120VAC RELAY
5	2	RELAY SOCKET	IDEC SY4S-05 4PDT RELAY SOCKET
6	24	TERMINAL	PHOENIX CONTACT #UK6N TERMINALS
7	LOT	PANDUIT	1"x2" PANDUIT WIREWAY WITH COVERS
8	LOT	NAMEPLATE	NAMEPLATES, PLASTIC WHITE W/BLACK LETTERS.
9	1	CORROSION INHIBITOR	HOFFMAN A-HCI1DV CORROSION INHIBITOR (NOT SHOWN)
10	LOT	MOUNTING RAIL	PHOENIX CONTACT #N535 MOUNTING RAIL
11	2	END BARRIER	PHOENIX CONTACT #D-UK 4/10 END BARRIER

NAMEPLATES WHITE WITH BLACK LETTERING

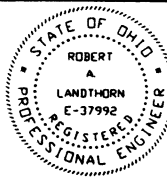
	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" x 9"	1/2"	YES	RAS WET WELL LEVEL	RELAY PANEL
N2	1	0.375" x 1"	3/16"	NO	L16	
N3	1	0.375" x 1"	3/16"	NO	L18	
N4	1	0.375" x 1"	3/16"	NO	R16	
N5	1	0.375" x 1"	3/16"	NO	R18	
N6	1	0.375" x 1"	3/16"	NO	TB1	



WIRING SCHEMATIC

05/21/03 13:14

WIRE LUGS - NO ☒ YES ☐			
INSULATION: NYLON ☐ PVC ☒			
RING ☐ LOCKING SPADE ☐			
WIRE SPECIFICATIONS:			
USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #18	BLUE	THW/THHN
DC CONTROL	AWG #18	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN



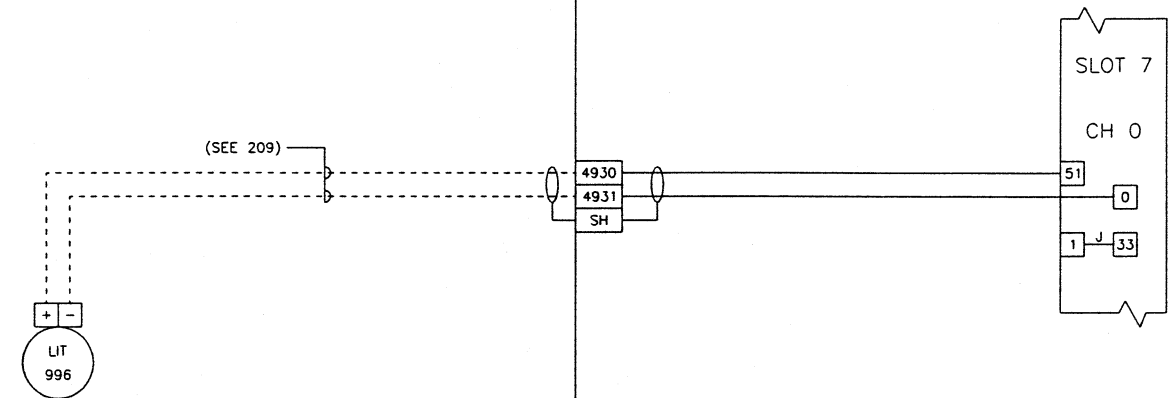
KOKOSING CONSTRUCTION CO. P.O. #	
DUBLIN TECHNICAL SYSTEMS INC. PROJECT-# 02040	

TOLERANCES	DUBLIN TECHNICAL SYSTEMS, INC.
DECIMAL ± .03	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031
FRACTIONAL ± 1/32"	SCALE NONE
ANGULAR ± 1°	DRAWN BY TL
DATE 5/12/03	APPROVED BY DC
DRAWING NUMBER DTSI - 02040 - 259	TITLE RAS WET WELL LEVEL RELAY PANEL LAYOUT

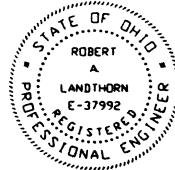
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

L5B FIELD

PLC PANEL NODE 6



TAG: LIT-996
MANUFACTURER: MILLTRONICS
MODEL: ?
POWER: 120 VAC
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0-30 FEET

10/29/02 11:16	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐			 KOKOSING CONSTRUCTION CO. P.O. #	TOLERANCES		 DUBLIN TECHNICAL SYSTEMS, INC.				
	INSULATION: NYLON ☐ PVC ☒						DECIMAL	± .03	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. 02040	SCALE NONE	DRAWN BY TL		
	WIRE SPECIFICATIONS:						DUBLIN TECHNICAL SYSTEMS INC. PROJECT # 02040		FRACTIONAL	± 1/32"	TITLE PRIMARY DIGESTER LEVEL		
	USAGE								ANGULAR	± 1'	DATE 9/18/02	DRAWING NUMBER DTSI - 02040 - 262	
	AC PANEL POWER		AWG #12 BLK.			THW/THHN							
	AC PANEL NEUTRAL		AWG #12 WHT.			THW/THHN							
	AC PANEL GROUND		AWG #12 GRN.			THW/THHN							
	AC CONTROL POWER		AWG #14 RED			THW/THHN							
	AC CONTROL NEUTRAL		AWG #14 WHT.			THW/THHN							
	AC FOREIGN		AWG #14 YELLOW			THW/THHN							
	DC POWER		AWG #16 BLUE			THW/THHN							
	DC CONTROL		AWG #16 BLUE			THW/THHN							
	SIGNAL/INSTRUMENTS		AWG #16 2 CONDUCTOR SHLD			THW/THHN							

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	JK

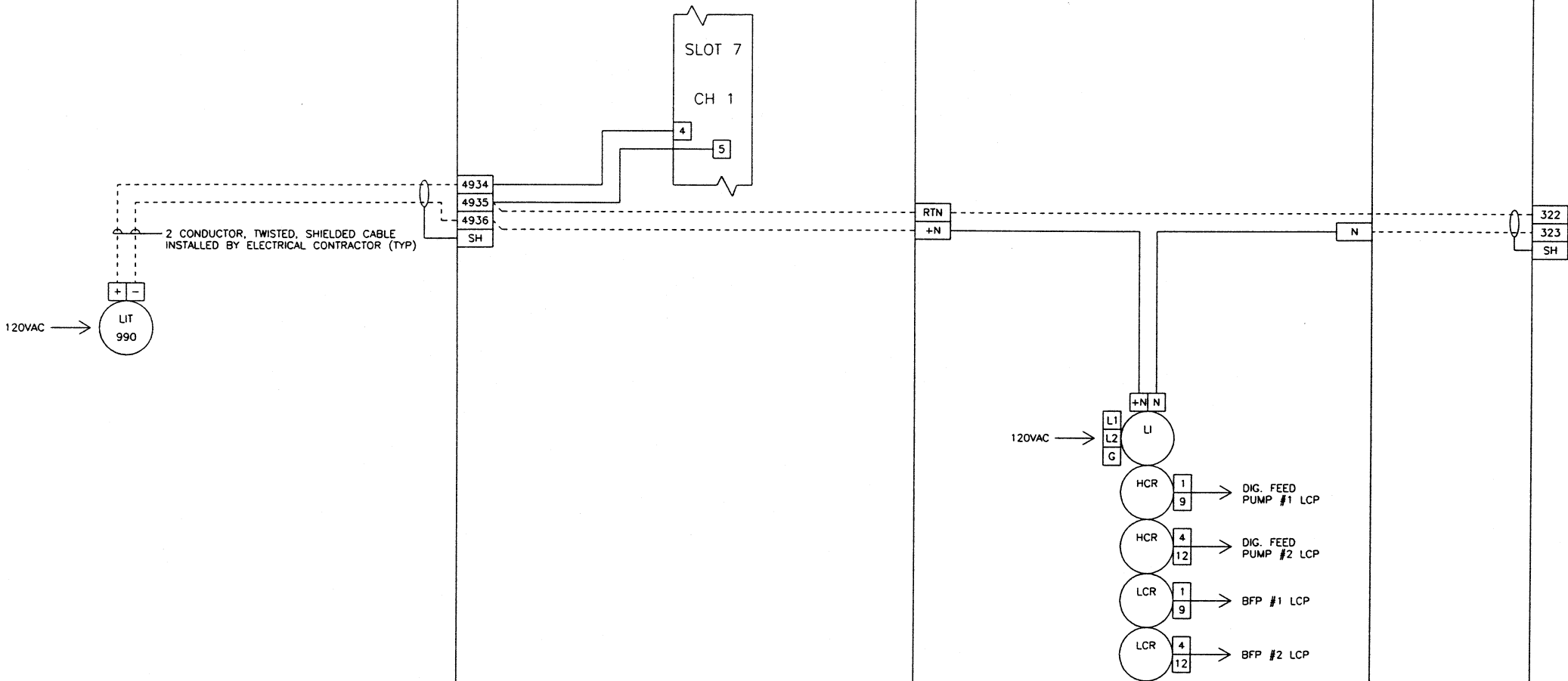
L6B FIELD

PLC PANEL NODE 6

DIGESTER LEVEL ALARM PANEL

FIELD

BFP CONTROL PANEL



TAG: LIT-990
MANUFACTURER: MILLTRONICS
MODEL: ?
POWER: 120 VAC/60 HZ
ENCLOSURE: ?
CALIBRATION RANGE: 0-30 FEET

06/05/03 11:57

WIRE LUGS - NO ☒ YES ☐

INSULATION: NYLON ☐ PVC ☒

WIRE SPECIFICATIONS:

USAGE	SIZE	COLOR	INSULATION
AC PANEL POWER	AWG #12	BLK.	THW/THHN
AC PANEL NEUTRAL	AWG #12	WHT.	THW/THHN
AC PANEL GROUND	AWG #12	GRN.	THW/THHN
AC CONTROL POWER	AWG #14	RED	THW/THHN
AC CONTROL NEUTRAL	AWG #14	WHT.	THW/THHN
AC FOREIGN	AWG #14	YELLOW	THW/THHN
DC POWER	AWG #16	BLUE	THW/THHN
DC CONTROL	AWG #16	BLUE	THW/THHN
SIGNAL/INSTRUMENTS	AWG #16	2 CONDUCTOR SHLD	THW/THHN

STATE OF OHIO

ROBERT A. LANDTHORN

E-37998

REGISTERED PROFESSIONAL ENGINEER

KOKOSING CONSTRUCTION CO.

P.O. #

DUBLIN TECHNICAL SYSTEMS INC.

PROJECT # 02040

TOLERANCES

+	
DECIMAL	± 0.3
FRACTIONAL	± 1/32"
ANGULAR	± 1°

DUBLIN TECHNICAL SYSTEMS, INC.

CITY OF MASSILLON, OHIO	SCALE	DRAWN BY	TL
REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000	NONE	APPROVED BY	JK
PROJECT NO. E9031			

TITLE

SECONDARY DIGESTER LEVEL, L6B

DATE

9/18/02

DRAWING NUMBER

DTSI - 02040 - 263

DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	RTR	OG

L13 FIELD

PLC PANEL NODE 10

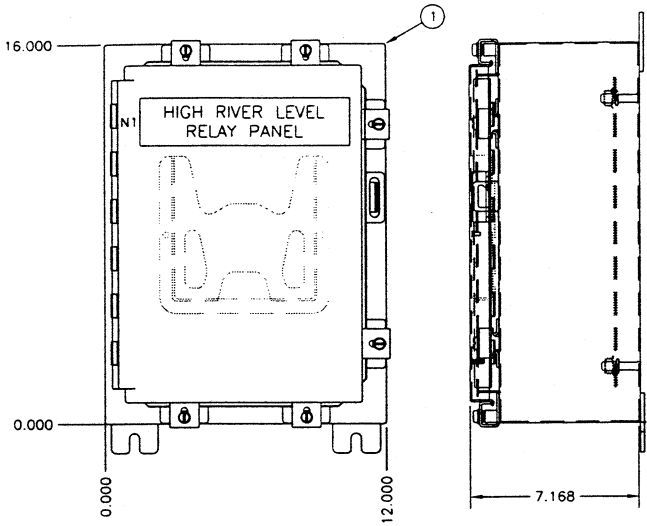


TAG: LE-/LT-L13
MANUFACTURER: DREXELBROOK
MODEL: 705-0200/405-2400
POWER: 120VAC/60Hz
ENCLOSURE: NEMA 4X
CALIBRATION RANGE: 0-10 FEET

05/19/03 13:01	WIRE LUGS - NO ☒ YES ☐ INSULATION: NYLON ☐ PVC ☒	RING ☐ LOCKING SPADE ☐		 KOKOSING CONSTRUCTION CO. P.O. # DUBLIN TECHNICAL SYSTEMS, INC. PROJECT # 02040	TOLERANCES DECIMAL ± .03 FRACTIONAL ± 1/32" ANGULAR ± 1°	 DUBLIN TECHNICAL SYSTEMS, INC. CITY OF WASSILON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031 TITLE NIPW WET WELL LEVEL, L13 DATE 9/18/02 DRAWING NUMBER DTSI - 02040 - 265
	WIRE SPECIFICATIONS: USAGE AC PANEL POWER AC PANEL NEUTRAL AC PANEL GROUND AC CONTROL POWER AC CONTROL NEUTRAL AC FOREIGN DC POWER SIGNAL/INSTRUMENTS	SIZE AWG #12 BLK AWG #12 WHT AWG #12 GRN AWG #14 RED AWG #14 WHT AWG #14 YELLOW AWG #16 BLUE AWG #16 2 CONDUCTOR SHLD			INSULATION THW/THHN THW/THHN THW/THHN THW/THHN THW/THHN THW/THHN THW/THHN THW/THHN	

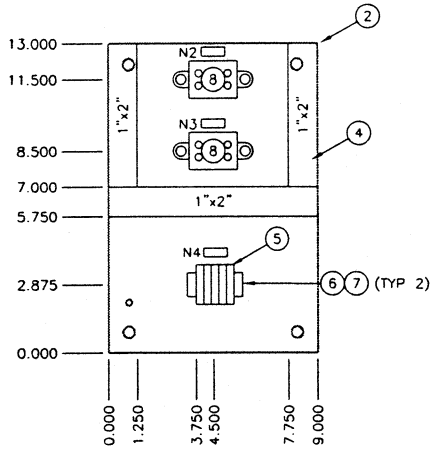
DATE	SYM	REVISION RECORD	AUTH	DR	CK
5/12/03	A	FOR APPROVAL	CUST	TL	DC

BILL OF MATERIAL					
ITEM	QTY	USED FOR	DESCRIPTION		
1	1	ENCLOSURE	HOFFMAN #A-161206LP NEMA 12 ENCLOSURE, 16"x12"x6"		
2	1	SUBPANEL	HOFFMAN #A-16P12 WHITE ENAMEL SUBPANEL, 13"x9"		
3	LOT	NAMEPLATE	NAMEPLATES, PLASTIC WHITE W/BLACK LETTERS.		
4	LOT	PANDUIT	1"x2" PANDUIT WIREWAY WITH COVERS		
5	6	TERMINAL	PHOENIX CONTACT #UK6N TERMINALS		
6	LOT	MOUNTING RAIL	PHOENIX CONTACT #NS35 MOUTING RAIL		
7	2	END BARRIER	PHOENIX CONTACT #D-UK 4/10 END BARRIER		
8	2	GEMS LOAD-PAK	GEMS LOAD-PAK #20173 5 AMP, AC, SPST N.O. RELAY		
9	1	CORROSION INHIBITOR	HOFFMAN A-HC11DV CORROSION INHIBITOR (NOT SHOWN)		



FRONT VIEW
SCALE: 1/4" = 1"

SIDE VIEW
SCALE: 1/4" = 1"



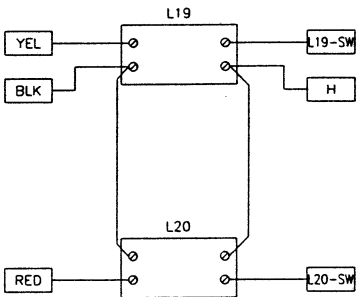
SUBPANEL
SCALE: 1/4" = 1"

NAMEPLATES WHITE WITH BLACK LETTERING

	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" X 9"	1/2"	YES	HIGH RIVER LEVEL	RELAY PANEL
N2	1	0.375" X 1"	3/16"	NO	L19	
N3	1	0.375" X 1"	3/16"	NO	L20	
N4	1	0.375" X 1"	3/16"	NO	TB1	

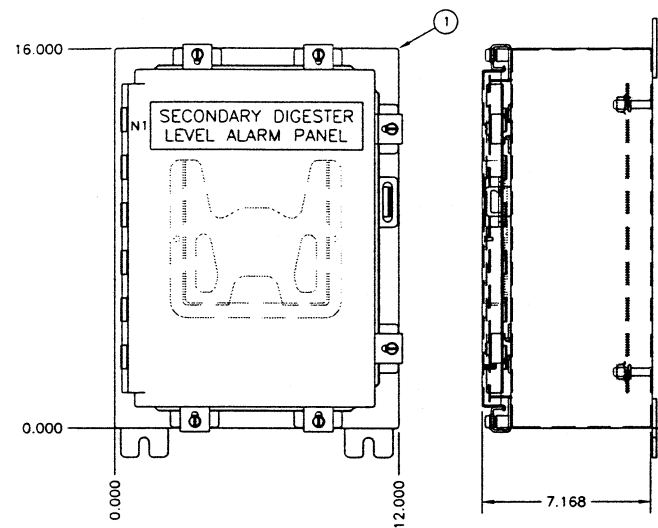
TB1

YEL
BLK
RED
H
L19-SW
L20-SW



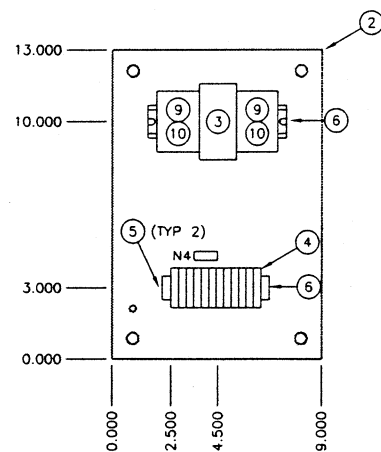
WIRING SCHEMATIC

05/21/03 14:20	WIRE LUGS - NO ☒ YES ☐		RING ☐ LOCKING SPADE ☐				TOLERANCES		DUBLIN TECHNICAL SYSTEMS, INC.			
	INSULATION: NYLON ☐ PVC ☒						DECIMAL	± 0.3	CITY OF MASSILLON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031	SCALE NONE	DRAWN BY TL APPROVED BY DC	
	WIRE SPECIFICATIONS:		SIZE				COLOR		INSULATION		FRACTIONAL	± 1/32"
	AC PANEL POWER		AWG #12				BLK.		TW/TH/HH		TITLE HIGH RIVER LEVEL PANEL LAYOUT	
	AC PANEL NEUTRAL		AWG #12				WHT.		TW/TH/HH		ANGULAR	
	AC PANEL GROUND		AWG #12				GRN.		TW/TH/HH		± 1"	
	AC CONTROL POWER		AWG #14				RED		TW/TH/HH		DATE	
	AC CONTROL NEUTRAL		AWG #14				WHT.		TW/TH/HH		5/12/03	
	AC FOREIGN		AWG #14				YELLOW		TW/TH/HH		DRAWING NUMBER	
	DC POWER		AWG #16				BLUE		TW/TH/HH		DTSI - 02040 - 267	
DC CONTROL		AWG #16		BLUE		TW/TH/HH						
SIGNAL/INSTRUMENTS		AWG #16		CONDUCTOR SHLD		TW/TH/HH						

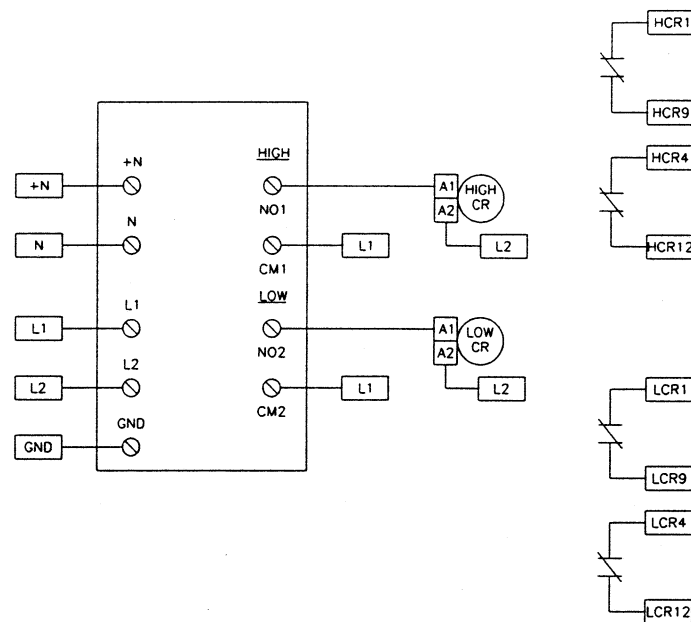


FRONT VIEW
SCALE: 1/4" = 1"

SIDE VIEW
SCALE: 1/4" = 1"



SUBPANEL
SCALE: 1/4" = 1"



WIRING SCHEMATIC

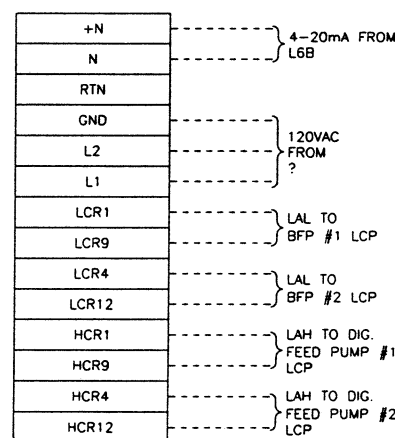
BILL OF MATERIAL				
ITEM	QTY	USED FOR	DESCRIPTION	
1	1	ENCLOSURE	HOFFMAN #A-161206LP NEMA 12 ENCLOSURE, 16"x12"x6"	
2	1	SUBPANEL	HOFFMAN #A-16P12 WHITE ENAMEL SUBPANEL, 13"x9"	
3	1	SIGNAL CONVERTER	MOORE INDUSTRIES SIGNAL CONVERTER ECA/4-20mA/DL1/L1/117AC/-AD[DIN]	
4	14	TERMINAL	PHOENIX CONTACT #UK6N TERMINALS	
5	2	END BARRIER	PHOENIX CONTACT #0-UK 4/10 END BARRIER	
6	LOT	MOUNTING RAIL	PHOENIX CONTACT #N535 MOUTING RAIL	
7	LOT	NAMEPLATE	NAMEPLATES, PLASTIC WHITE W/BLACK LETTERS.	
8	1	CORROSION INHIBITOR	HOFFMAN A-HC11DV CORROSION INHIBITOR (NOT SHOWN)	
9	2	RELAY	IDEC RU-DPDT5-A110 2 POLE-DOUBLE THROW RELAY	
10	2	RELAY SOCKET	IDEC SY25-05 RELAY SOCKET	

NOTE:
REFERENCE DRAWING # DTSI-02040-263
FOR LOOP DIAGRAM

NAMEPLATES WHITE WITH BLACK LETTERING

	QTY	SIZE	LETTER SIZE	MTG. HOLES	LINE 1	LINE 2
N1	1	2" X 9"	1/2"	YES	SECONDARY DIGESTER	LEVEL ALARM PANEL
N2	1	0.375" X 1"	3/16"	NO	L6B	
N3	1	0.375" X 1"	3/16"	NO	TB1	

TB1



05/05/03 11:25	WIRE LUGS - NO ☒ YES ☐ INSULATION: NYLON ☐ PVC ☒ RING ☐ LOCKING SPADE ☐ WIRE SPECIFICATIONS: USAGE SIZE COLOR INSULATION AC PANEL POWER AWG #12 BLK THW/THHN AC PANEL GROUND AWG #12 GRN THW/THHN AC CONTROL POWER AWG #14 RED THW/THHN AC CONTROL NEUTRAL AWG #14 WHT THW/THHN AC FOREIGN AWG #14 YELLOW THW/THHN DC POWER AWG #18 BLUE THW/THHN SIGNAL/INSTRUMENTS AWG #18 2 CONDUCTOR SHLD THW/THHN	STATE OF OHIO ROBERT A. LANDTHORN E-37992 REGISTERED ENGINEER	KOKOSING CONSTRUCTION CO. P.O. # DUBLIN TECHNICAL SYSTEMS, INC. PROJECT # 02040	TOLERANCES DECIMAL ± .03 FRACTIONAL ± 1/32" ANGULAR ± 1°	DUBLIN TECHNICAL SYSTEMS, INC. CITY OF WASSILON, OHIO REGIONAL WASTEWATER TREATMENT PLANT - UPGRADE 2000 PROJECT NO. E9031 SCALE NONE DRAWN BY TL APPROVED BY DC TITLE SECONDARY DIGESTER LEVEL ALARM PANEL LAYOUT DATE 5/12/03 DRAWING NUMBER DTSI - 02040 - 268
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