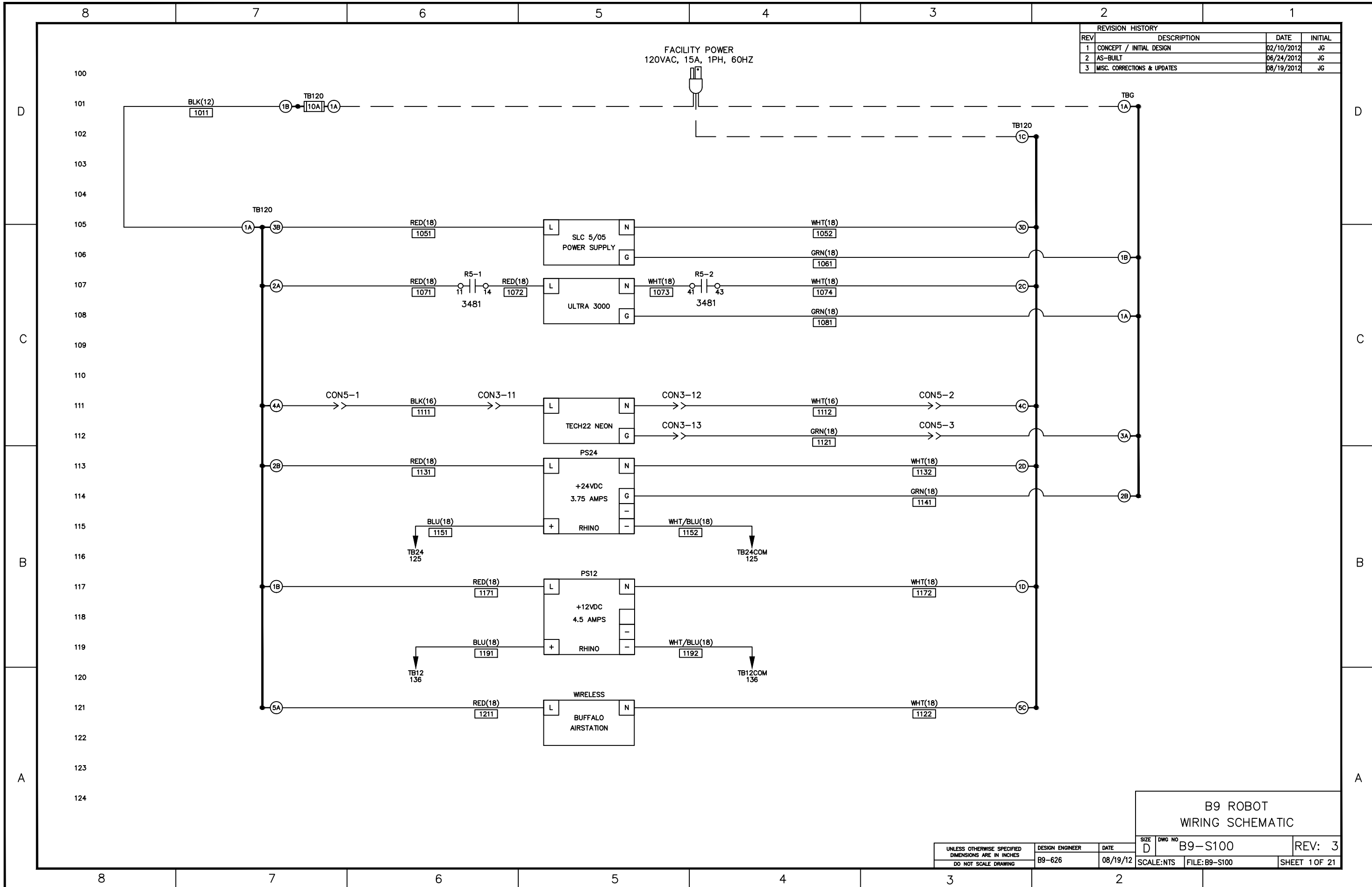
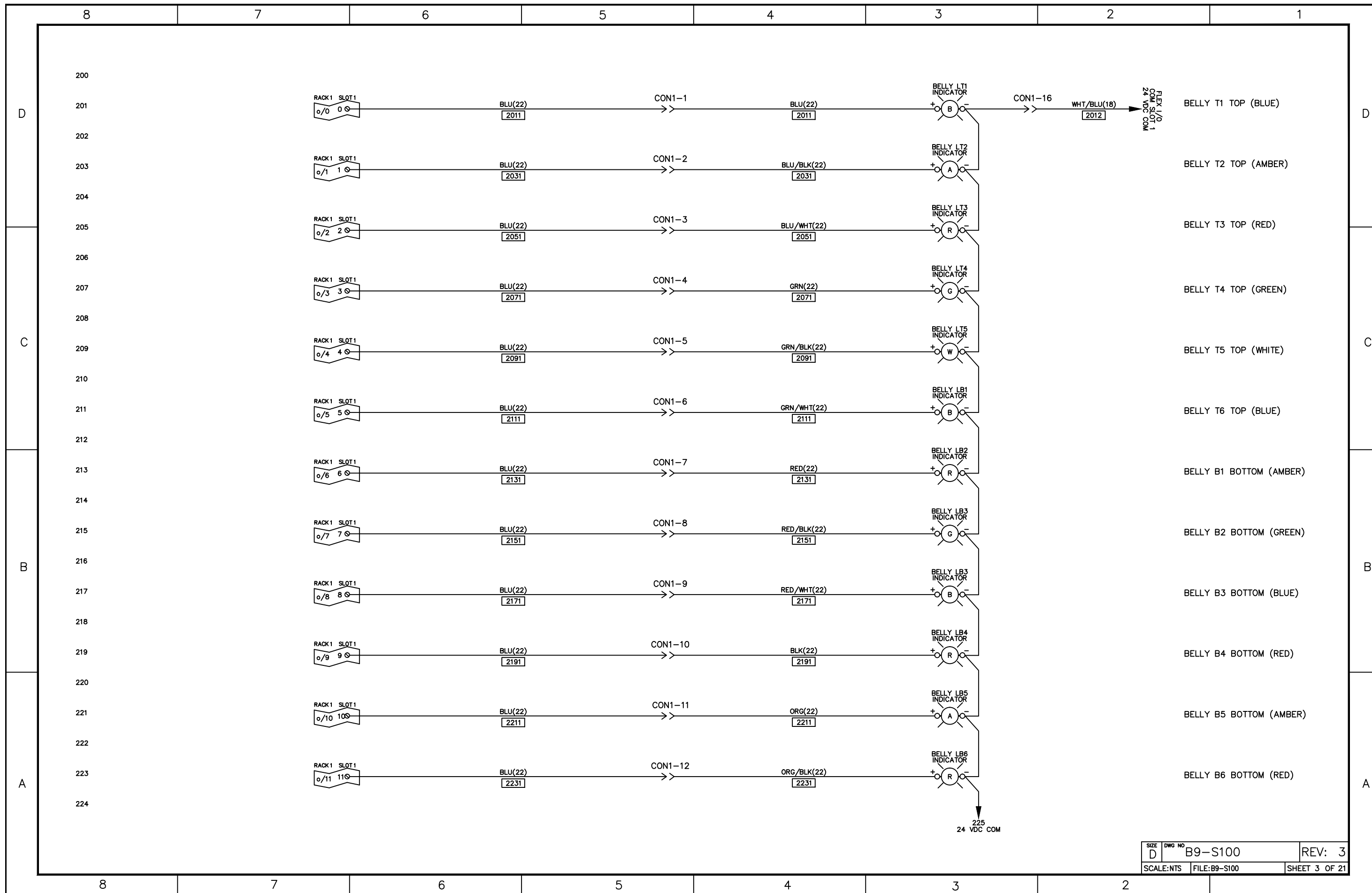
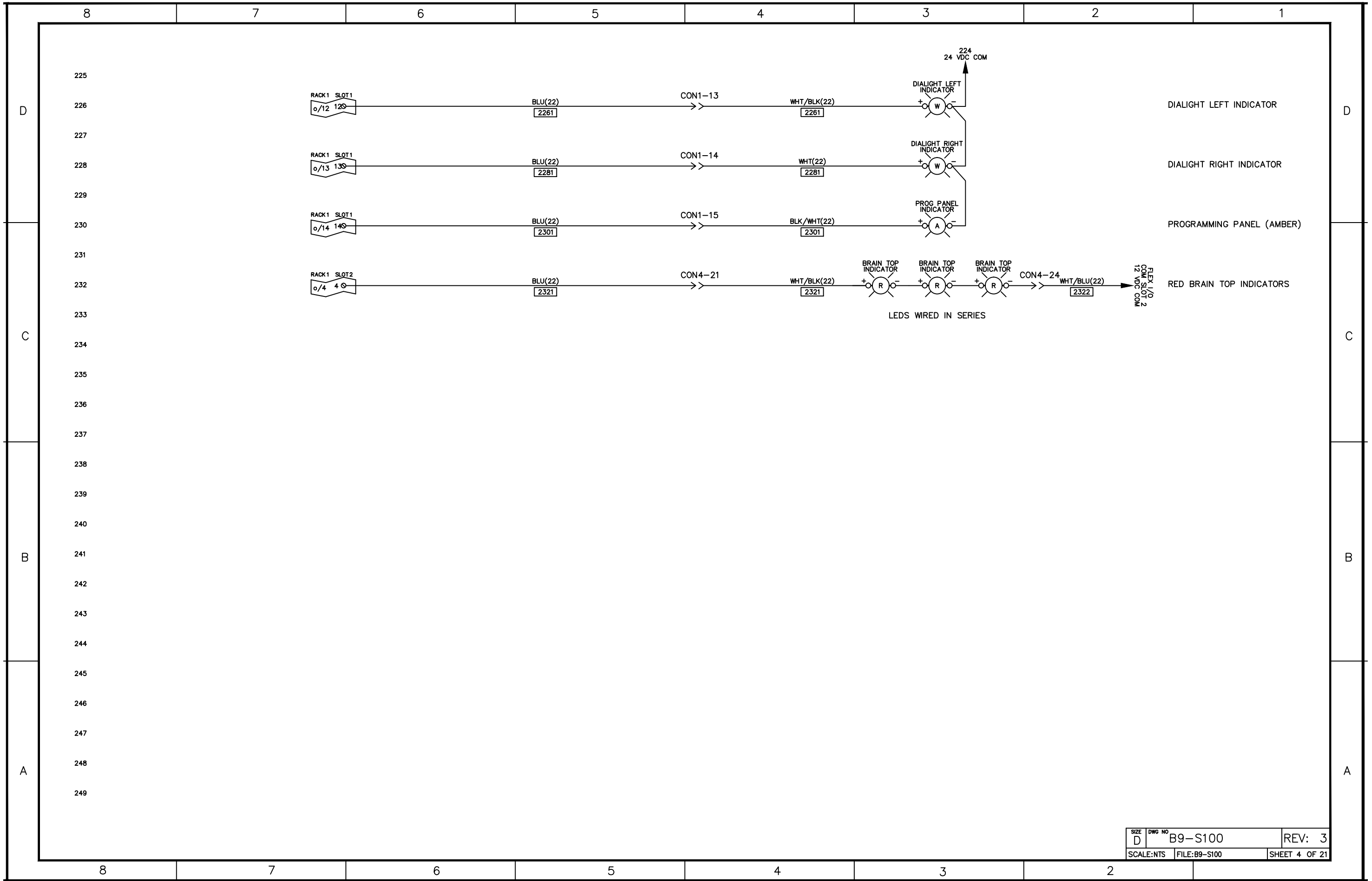


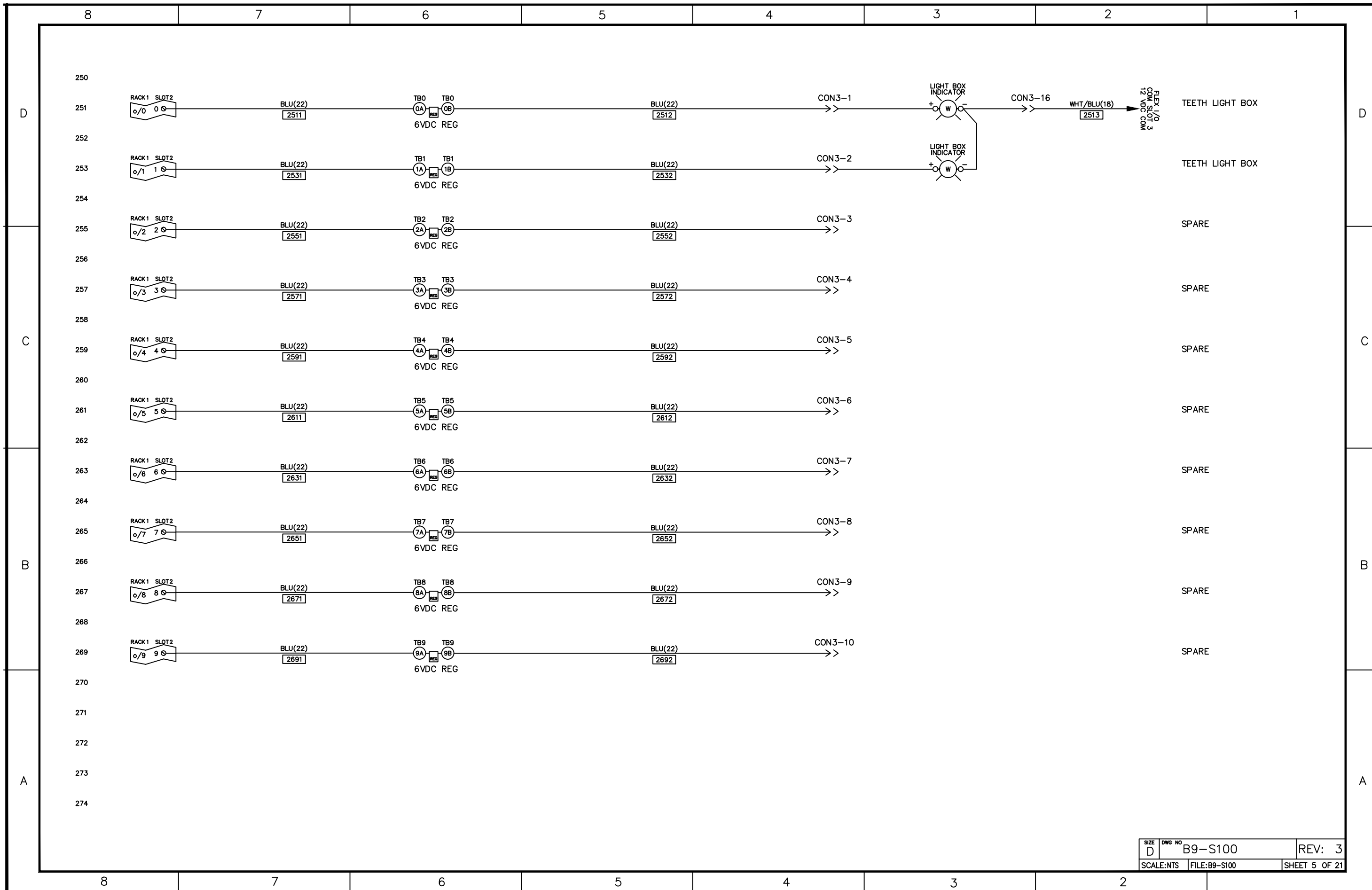
| REVISION HISTORY | | | |
|------------------|-----------------------------|------------|---------|
| REV | DESCRIPTION | DATE | INITIAL |
| 1 | CONCEPT / INITIAL DESIGN | 02/10/2012 | JG |
| 2 | AS-BUILT | 06/24/2012 | JG |
| 3 | MISC. CORRECTIONS & UPDATES | 08/19/2012 | JG |

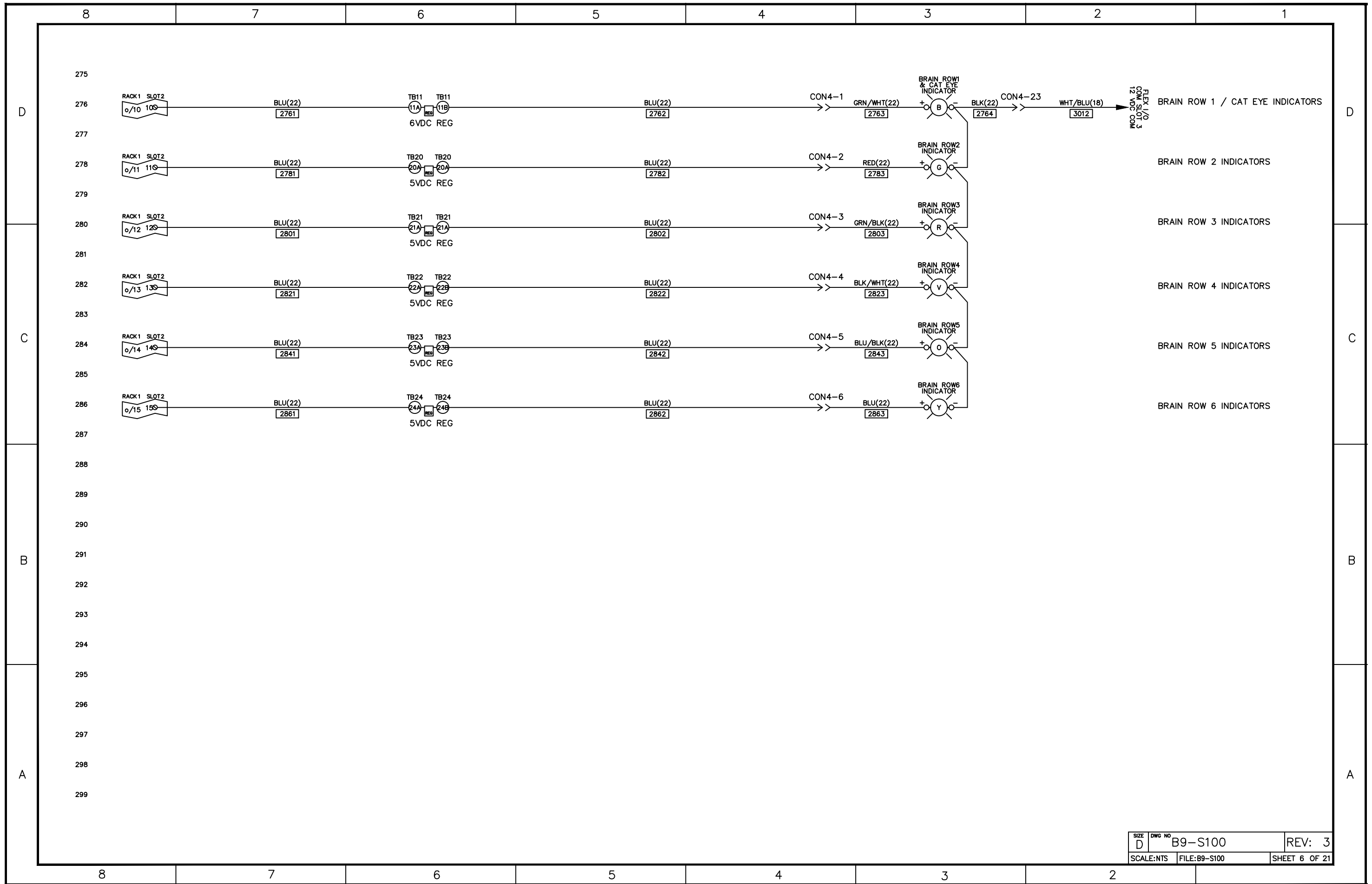


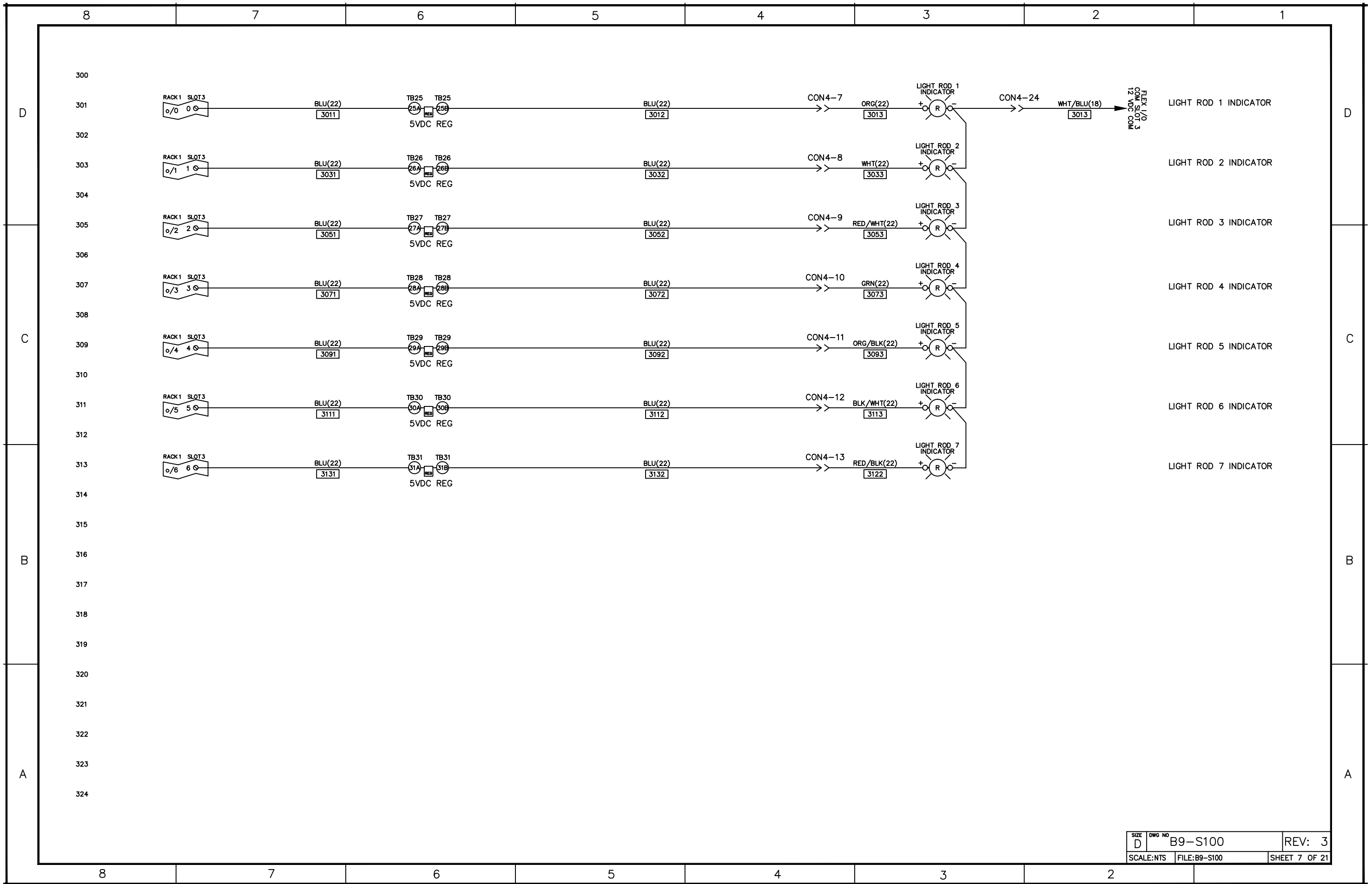


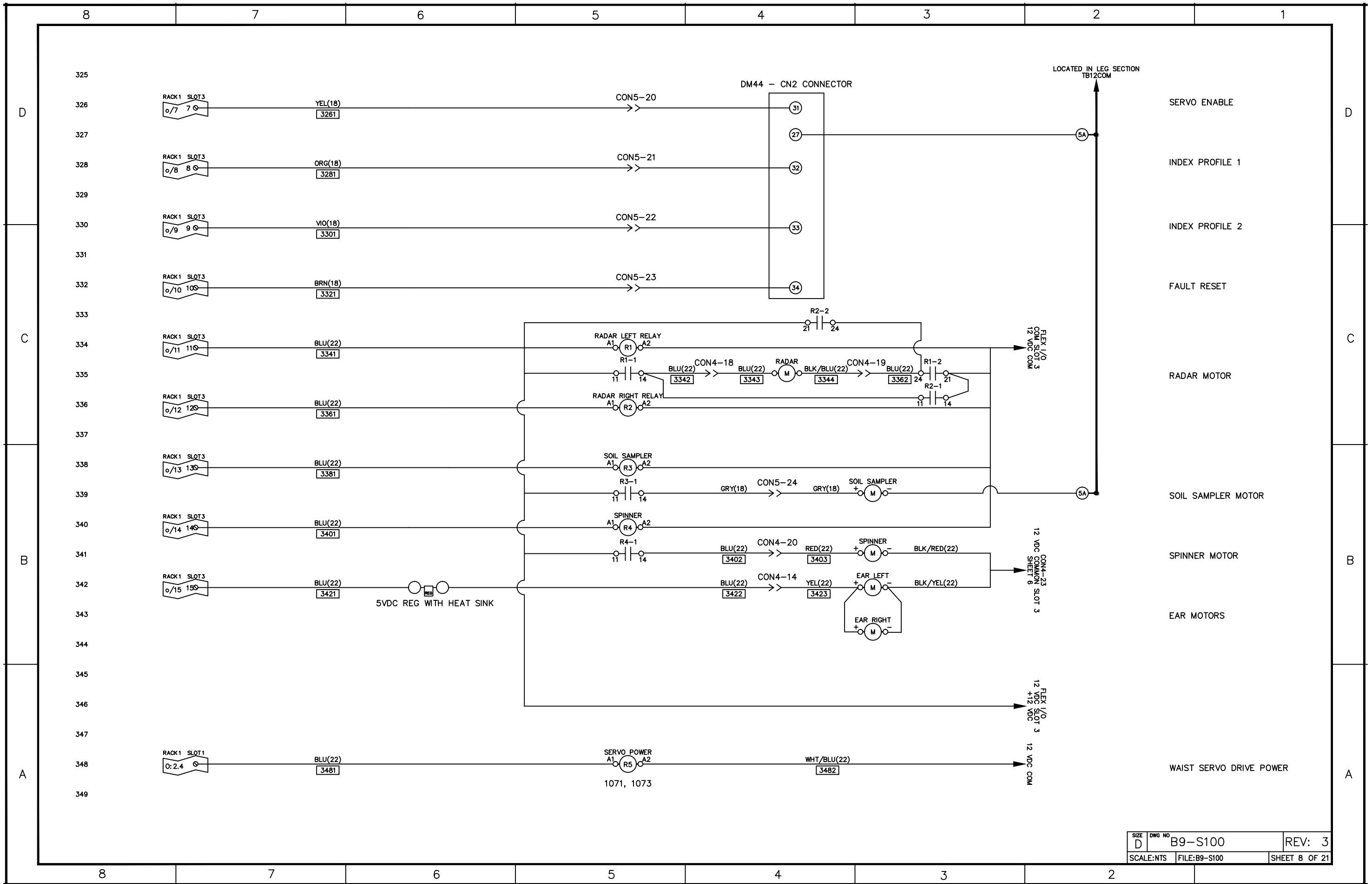
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|------------|-------------------|---------------|
| SIZE D | DWG NO B9-S100 | REV: 3 |
| SCALE: NTS | FILE: B9-S100 | SHEET 3 OF 21 |



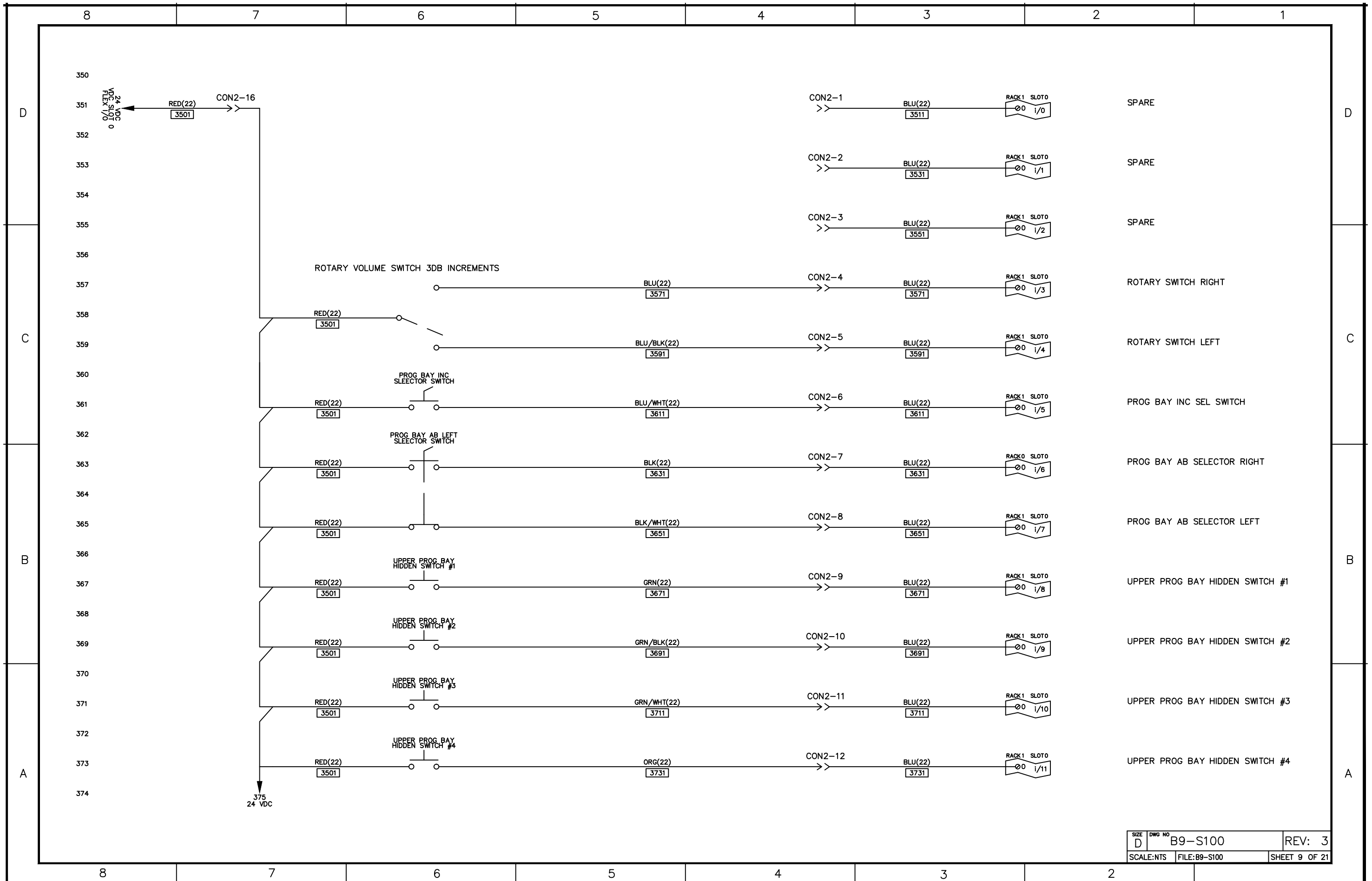


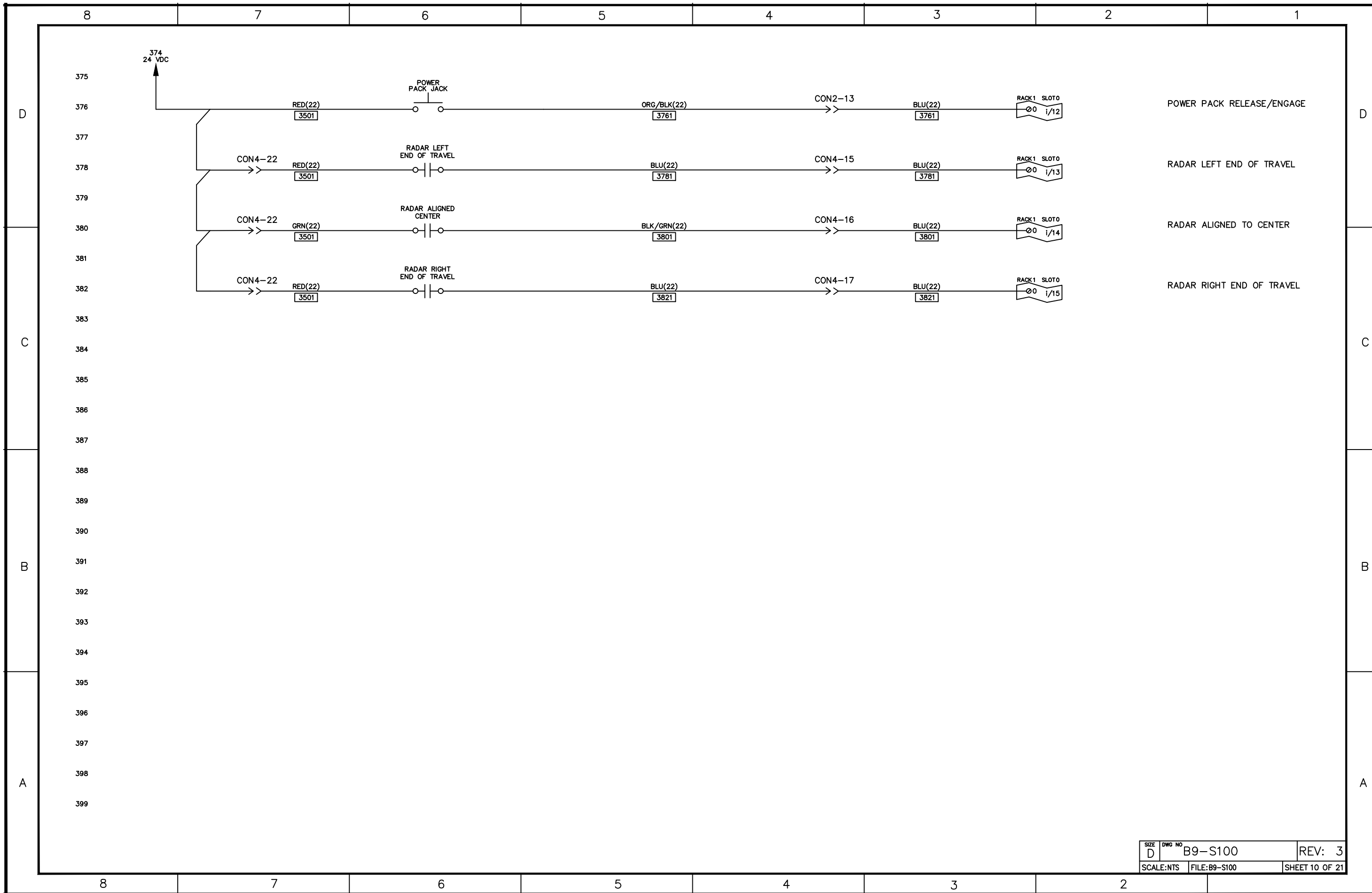






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|------------|-------------------|---------------|
| SIZE D | DWG NO B9-S100 | REV: 3 |
| SCALE: NTS | FILE: B9-S100 | SHEET 8 OF 21 |





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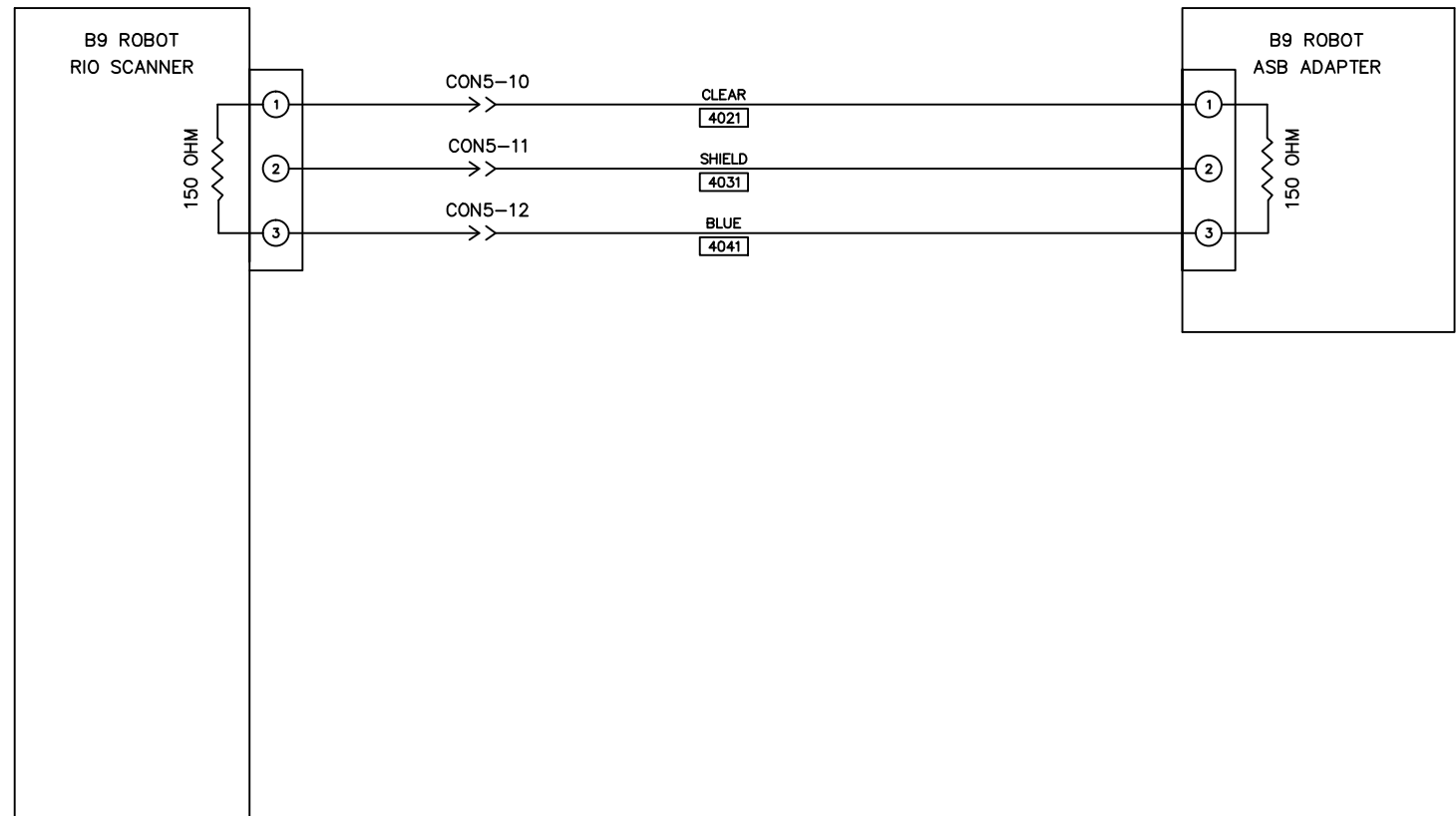
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SLC 5/05 1747-SN

1794-ASB



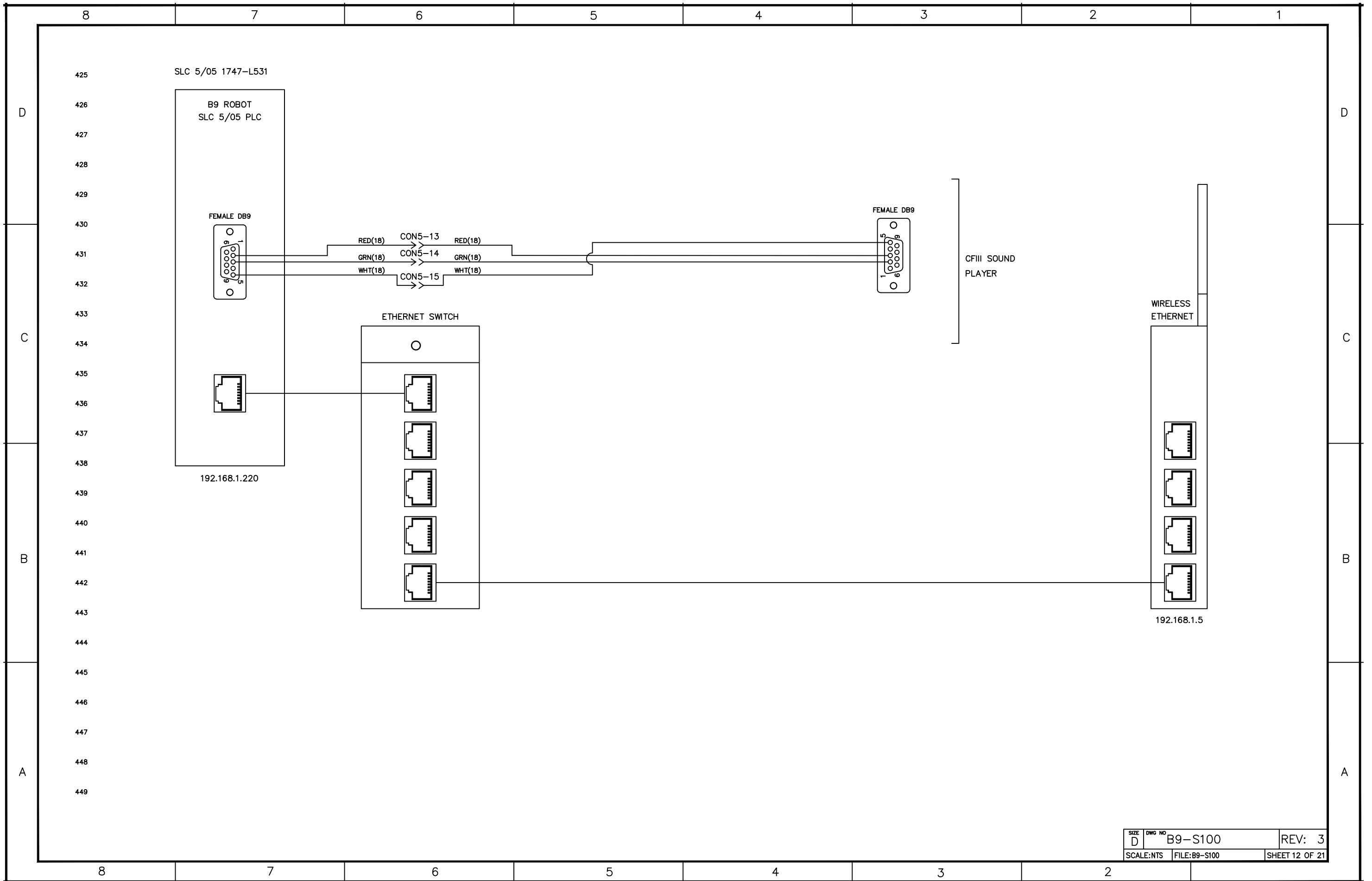
1794-ASB RACK #1 DIPSWITCH SETTINGS

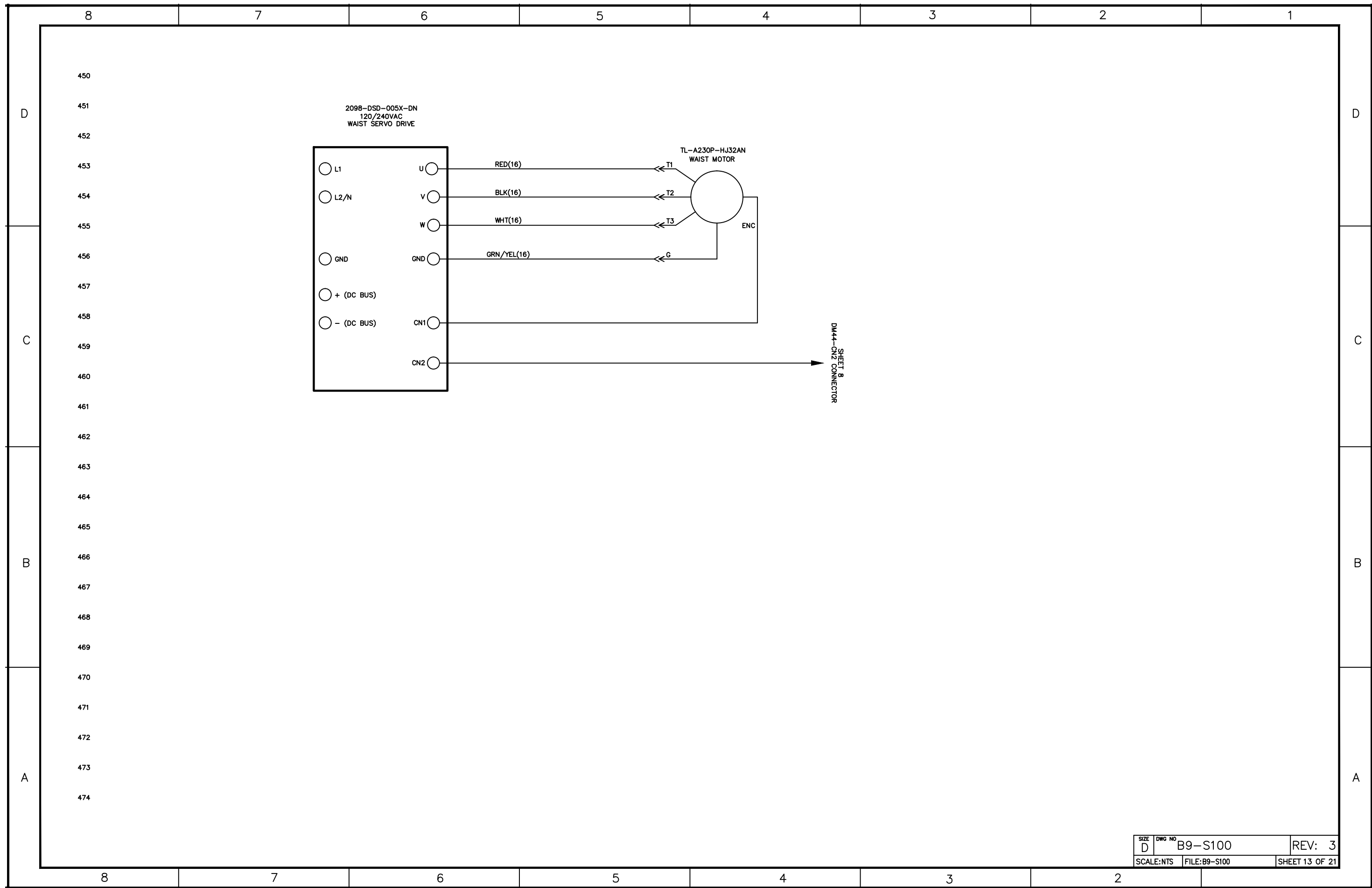
| SWITCH #1 | SEL | | SWITCH #2 | SEL | |
|-----------|-----|------------|-----------|-----|-----------------|
| 8 | 1 | I/O GROUP | 8 | 1 | MODE SW 0 |
| 7 | 1 | | 7 | 1 | HOLD INPUTS |
| 6 | 1 | | 6 | 1 | FAULT 0=ENABLED |
| 5 | 1 | I/O RACK # | 5 | 1 | MODE SW 1 |
| 4 | 1 | | 4 | 1 | MODE SW 3/4 |
| 3 | 1 | | 3 | 1 | |
| 2 | 1 | | 2 | 1 | PROC RESTART |
| 1 | 1 | | 1 | 1 | HLS RST OUTPUTS |

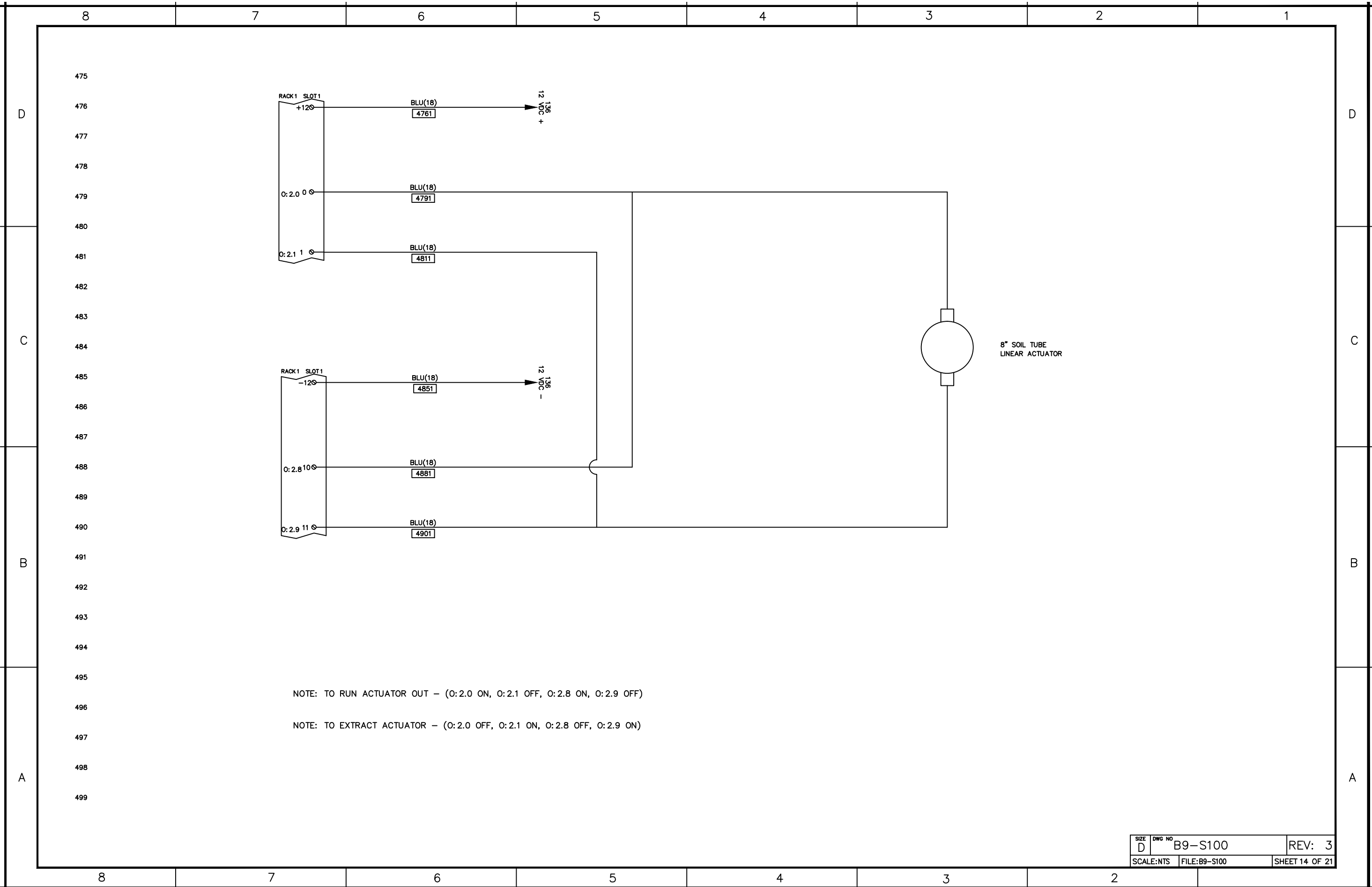
LEGEND
0 = OPEN, OFF
1 = CLOSED, ON

NOTES:
REMOTE I/O CABLE TYPE - BELDEN 9463

8 7 6 5 4 3 2 1



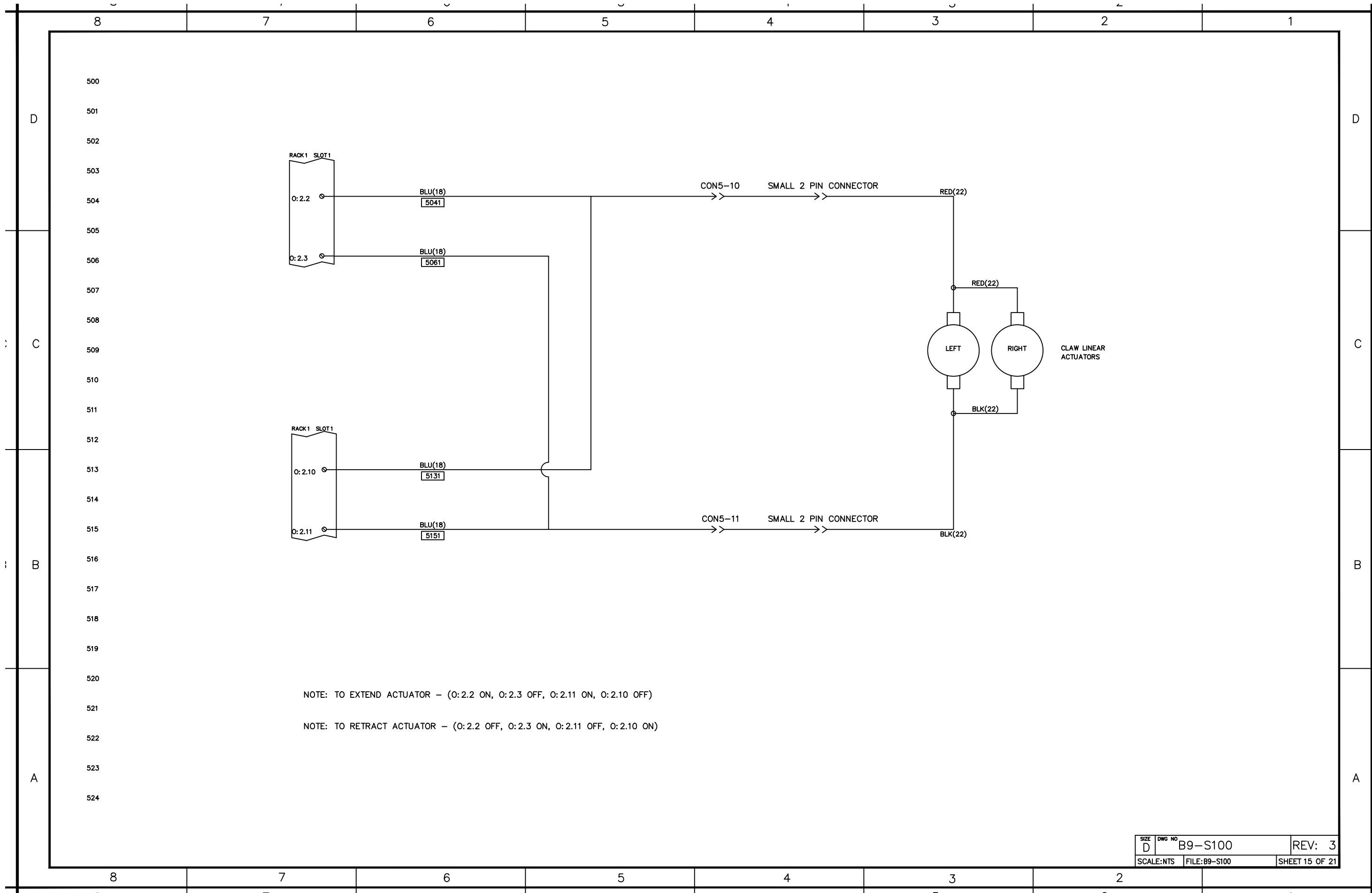




NOTE: TO RUN ACTUATOR OUT - (O:2.0 ON, O:2.1 OFF, O:2.8 ON, O:2.9 OFF)

NOTE: TO EXTRACT ACTUATOR - (O:2.0 OFF, O:2.1 ON, O:2.8 OFF, O:2.9 ON)

| | | |
|-----------|-------------------|----------------|
| SIZE D | DWG NO B9-S100 | REV: 3 |
| SCALE:NTS | FILE:B9-S100 | SHEET 14 OF 21 |



NOTE: TO EXTEND ACTUATOR - (O:2.2 ON, O:2.3 OFF, O:2.11 ON, O:2.10 OFF)

NOTE: TO RETRACT ACTUATOR - (O:2.2 OFF, O:2.3 ON, O:2.11 OFF, O:2.10 ON)

| RACK/SLOT | CONNECTOR | i/o POINT | TYPE | BUS | WIRE # | DESCRIPTION |
|-----------|-----------|-----------|-----------|--------|--------|--|
| 0/2 | NONE | 0:2.0 | 1746-0W16 | 12 VDC | 4791 | SOIL SAMPLER ACTUATOR EXTEND (+) |
| 0/2 | NONE | 0:2.1 | 1746-0W16 | 12 VDC | 4811 | SOIL SAMPLER ACTUATOR RETACT (+) |
| 0/2 | - | 0:2.2 | 1746-0W16 | 12 VDC | 5041 | PINCHER OPEN (+) |
| 0/2 | - | 0:2.3 | 1746-0W16 | 12 VDC | 5061 | PINCHER CLOSE (+) |
| 0/2 | - | 0:2.4 | 1746-0W16 | 12 VDC | 3481 | WAIST ROTATION SERVO DRIVE POWER RELAY |
| 0/2 | - | 0:2.5 | 1746-0W16 | - | - | - |
| 0/2 | - | 0:2.6 | 1746-0W16 | - | - | - |
| 0/2 | - | 0:2.7 | 1746-0W16 | - | - | - |
| 0/2 | NONE | 0:2.8 | 1746-0W16 | 12 VDC | 4881 | SOIL SAMPLER ACTUATOR EXTEND (-) |
| 0/2 | NONE | 0:2.9 | 1746-0W16 | 12 VDC | 4901 | SOIL SAMPLER ACTUATOR RETACT (-) |
| 0/2 | - | 0:2.10 | 1746-0W16 | 12 VDC | 5131 | PINCHER OPEN (-) |
| 0/2 | - | 0:2.11 | 1746-0W16 | 12 VDC | 5151 | PINCHER CLOSE (-) |
| 0/2 | - | 0:2.12 | 1746-0W16 | - | - | - |
| 0/2 | - | 0:2.13 | 1746-0W16 | - | - | - |
| 0/2 | - | 0:2.14 | 1746-0W16 | - | - | - |
| 0/2 | - | 0:2.15 | 1746-0W16 | - | - | - |

| RACK/SLOT | CONNECTOR | i/o POINT | TYPE | BUS | WIRE # | DESCRIPTION |
|-----------|-----------|-----------|------|--------|--------|---------------------------------|
| 1/0 | 1 | i/0 | IB16 | 24 VDC | 3511 | SPARE |
| 1/0 | 1 | i/1 | IB16 | 24 VDC | 3531 | SPARE |
| 1/0 | 1 | i/2 | IB16 | 24 VDC | 3551 | SPARE |
| 1/0 | 1 | i/3 | IB16 | 24 VDC | 3571 | ROTARY SWITCH RIGHT |
| 1/0 | 1 | i/4 | IB16 | 24 VDC | 3591 | ROTARY SWITCH LEFT |
| 1/0 | 1 | i/5 | IB16 | 24 VDC | 3611 | PROG BAY INC SEL SWITCH |
| 1/0 | 1 | i/6 | IB16 | 24 VDC | 3631 | PROG BAY AB RIGHT SWITCH |
| 1/0 | 1 | i/7 | IB16 | 24 VDC | 3651 | PROG BAY AB LEFT SWITCH |
| 1/0 | 1 | i/8 | IB16 | 24 VDC | 3671 | UPPER PROG BAY HIDDEN SWITCH #1 |
| 1/0 | 1 | i/9 | IB16 | 24 VDC | 3691 | UPPER PROG BAY HIDDEN SWITCH #2 |
| 1/0 | 1 | i/10 | IB16 | 24 VDC | 3711 | UPPER PROG BAY HIDDEN SWITCH #3 |
| 1/0 | 1 | i/11 | IB16 | 24 VDC | 3731 | UPPER PROG BAY HIDDEN SWITCH #4 |
| 1/0 | 1 | i/12 | IB16 | 24 VDC | 3761 | POWER PACK RELEASE/ENGAGE |
| 1/0 | 1 | i/13 | IB16 | 24 VDC | 3781 | RADAR LEFT END OF TRAVEL |
| 1/0 | 1 | i/14 | IB16 | 24 VDC | 3801 | RADAR ALIGNED TO CENTER |
| 1/0 | 1 | i/15 | IB16 | 24 VDC | 3821 | RADAR RIGHT END OF TRAVEL |

| RACK/SLOT | CONNECTOR | i/o POINT | TYPE | BUSS | WIRE # | DESCRIPTION |
|-----------|-----------|-----------|------|--------|--------|--------------------------------------|
| 1/1 | 1 | 0/0 | OB16 | 24 VDC | 2011 | BELLY LIGHT TOP #1 |
| 1/1 | 1 | 0/1 | OB16 | 24 VDC | 2311 | BELLY LIGHT TOP #2 |
| 1/1 | 1 | 0/1 | OB16 | 24 VDC | 2051 | BELLY LIGHT TOP #3 |
| 1/1 | 1 | 0/3 | OB16 | 24 VDC | 2071 | BELLY LIGHT TOP #4 |
| 1/1 | 1 | 0/4 | OB16 | 24 VDC | 2091 | BELLY LIGHT TOP #5 |
| 1/1 | 1 | 0/5 | OB16 | 24 VDC | 2111 | BELLY LIGHT TOP #6 |
| 1/1 | 1 | 0/6 | OB16 | 24 VDC | 2131 | BELLY LIGHT BOTTOM #1 |
| 1/1 | 1 | 0/7 | OB16 | 24 VDC | 2151 | BELLY LIGHT BOTTOM #2 |
| 1/1 | 1 | 0/8 | OB16 | 24 VDC | 2171 | BELLY LIGHT BOTTOM #3 |
| 1/1 | 1 | 0/9 | OB16 | 24 VDC | 2191 | BELLY LIGHT BOTTOM #4 |
| 1/1 | 1 | 0/1 | OB16 | 24 VDC | 2211 | BELLY LIGHT BOTTOM #5 |
| 1/1 | 1 | 0/11 | OB16 | 24 VDC | 2231 | BELLY LIGHT BOTTOM #6 |
| 1/1 | 1 | 0/11 | OB16 | 24 VDC | 2261 | DIALIGHT LEFT INDICATOR |
| 1/1 | 1 | 0/13 | OB16 | 24 VDC | 2281 | DIALIGHT RIGHT INDICATOR |
| 1/1 | 1 | 0/14 | OB16 | 24 VDC | 2301 | PROGRAMMING PANEL - YELLOW INDICATOR |
| 1/1 | 1 | 0/15 | OB16 | 24 VDC | - | SPARE |

| RACK/SLOT | CONNECTOR | i/o POINT | TYPE | BUSS | WIRE # | DESCRIPTION |
|-----------|-----------|-----------|------|--------|--------|----------------------------------|
| 1/2 | 2 | 0/0 | OB16 | 12 VDC | 2511 | TEETH LIGHT BOX INDICATOR |
| 1/2 | 2 | 0/1 | OB16 | 12 VDC | 2531 | TEETH LIGHT BOX INDICATOR |
| 1/2 | 2 | 0/2 | OB16 | 12 VDC | - | SPARE |
| 1/2 | 2 | 0/3 | OB16 | 12 VDC | - | SPARE |
| 1/2 | 2 | 0/4 | OB16 | 12 VDC | 2321 | RED BRAIN TOP INDICATORS |
| 1/2 | 2 | 0/5 | OB16 | 12 VDC | - | SPARE |
| 1/2 | 2 | 0/6 | OB16 | 12 VDC | - | SPARE |
| 1/2 | 2 | 0/7 | OB16 | 12 VDC | - | SPARE |
| 1/2 | 2 | 0/8 | OB16 | 12 VDC | - | SPARE |
| 1/2 | 2 | 0/9 | OB16 | 12 VDC | - | SPARE |
| 1/2 | 2 | 0/10 | OB16 | 12 VDC | 2761 | BRAIN ROW 1 / CAT EYE INDICATORS |
| 1/2 | 2 | 0/11 | OB16 | 12 VDC | 2781 | BRAIN ROW 2 INDICATORS |
| 1/2 | 2 | 0/12 | OB16 | 12 VDC | 2801 | BRAIN ROW 3 INDICATORS |
| 1/2 | 2 | 0/13 | OB16 | 12 VDC | 2821 | BRAIN ROW 4 INDICATORS |
| 1/2 | 2 | 0/14 | OB16 | 12 VDC | 2841 | BRAIN ROW 5 INDICATORS |
| 1/2 | 2 | 0/15 | OB16 | 12 VDC | 2861 | BRAIN ROW 6 INDICATORS |

| RACK/SLOT | CONNECTOR | i/o POINT | TYPE | BUSS | WIRE # | DESCRIPTION |
|-----------|-----------|-----------|------|--------|--------|--|
| 1/3 | 3 | 0/0 | OB16 | 12 VDC | 3011 | LIGHT ROD 1 INDICATOR |
| 1/3 | 3 | 0/1 | OB16 | 12 VDC | 3031 | LIGHT ROD 2 INDICATOR |
| 1/3 | 3 | 0/1 | OB16 | 12 VDC | 3051 | LIGHT ROD 3 INDICATOR |
| 1/3 | 3 | 0/3 | OB16 | 12 VDC | 3071 | LIGHT ROD 4 INDICATOR |
| 1/3 | 3 | 0/4 | OB16 | 12 VDC | 3091 | LIGHT ROD 5 INDICATOR |
| 1/3 | 3 | 0/5 | OB16 | 12 VDC | 3111 | LIGHT ROD 6 INDICATOR |
| 1/3 | 3 | 0/6 | OB16 | 12 VDC | 3131 | LIGHT ROD 7 INDICATOR |
| 1/3 | 3 | 0/7 | OB16 | 12 VDC | 3261 | WAIST SERVO DRIVE ENABLE |
| 1/3 | 3 | 0/8 | OB16 | 12 VDC | 3281 | WAIST SERVO MAIN SHOW PROFILE START |
| 1/3 | 3 | 0/9 | OB16 | 12 VDC | 3301 | WAIST SERVO ALTERNATE SHOW PROFILE START |
| 1/3 | 3 | 0/1 | OB16 | 12 VDC | 3321 | WAIST SERVO FAULT RESET |
| 1/3 | 3 | 0/11 | OB16 | 12 VDC | 3341 | RADAR MOTOR RELAY - LEFT |
| 1/3 | 3 | 0/11 | OB16 | 12 VDC | 3361 | RADAR MOTOR RELAY - RIGHT |
| 1/3 | 3 | 0/13 | OB16 | 12 VDC | 3381 | SOIL SAMPLER MOTOR RELAY |
| 1/3 | 3 | 0/14 | OB16 | 12 VDC | 3401 | SPINNER MOTOR RELAY |
| 1/3 | 3 | 0/15 | OB16 | 12 VDC | 3421 | EAR MOTORS |

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| CONNECTOR | PIN | DESCRIPTION |
|-----------|-----|---------------------------|
| CN1 | 1 | BELLY T1 TOP (BLUE) |
| CN1 | 2 | BELLY T2 TOP (YELLOW) |
| CN1 | 3 | BELLY T3 TOP (WHITE) |
| CN1 | 4 | BELLY T4 TOP (BLUE) |
| CN1 | 5 | BELLY T5 TOP (GREEN) |
| CN1 | 6 | BELLY T6 TOP (RED) |
| CN1 | 7 | BELLY B1 BOTTOM (RED) |
| CN1 | 8 | BELLY B2 BOTTOM (GREEN) |
| CN1 | 9 | BELLY B3 BOTTOM (AMBER) |
| CN1 | 10 | BELLY B4 BOTTOM (GREEN) |
| CN1 | 11 | BELLY B5 BOTTOM (BLUE) |
| CN1 | 12 | BELLY B6 BOTTOM (WHITE) |
| CN1 | 13 | DIALIGHT LEFT INDICATOR |
| CN1 | 14 | DIALIGHT RIGHT INDICATOR |
| CN1 | 15 | PROGRAMMING PANEL (AMBER) |
| CN1 | 16 | 24 VDC COMMON |

| CONNECTOR | PIN | DESCRIPTION |
|-----------|-----|-----------------------------------|
| CN2 | 1 | SPARE |
| CN2 | 2 | SPARE |
| CN2 | 3 | SPARE |
| CN2 | 4 | ROTARY SWITCH RIGHT |
| CN2 | 5 | ROTARY SWITCH LEFT |
| CN2 | 6 | PROG BAY INC SEL SWITCH |
| CN2 | 7 | PROG BAY AB SELECTOR RIGHT |
| CN2 | 8 | PROG BAY AB SELECTOR LEFT |
| CN2 | 9 | UPPER PROG BAY HIDDEN SWITCH #1 |
| CN2 | 10 | UPPER PROG BAY HIDDEN SWITCH #2 |
| CN2 | 11 | UPPER PROG BAY HIDDEN SWITCH #3 |
| CN2 | 12 | UPPER PROG BAY HIDDEN SWITCH #4 |
| CN2 | 13 | POWER PACK RELEASE/ENGAGE CONTACT |
| CN2 | 14 | - |
| CN2 | 15 | - |
| CN2 | 16 | 24 VDC PUSHBUTTON POWER 24 VDC + |

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| CONNECTOR | PIN | DESCRIPTION |
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| CN3 | 1 | TEETH LIGHT BOX |
| CN3 | 2 | TEETH LIGHT BOX |
| CN3 | 3 | SPARE |
| CN3 | 4 | SPARE |
| CN3 | 5 | SPARE |
| CN3 | 6 | SPARE |
| CN3 | 7 | SPARE |
| CN3 | 8 | SPARE |
| CN3 | 9 | CFIII AUDIO + |
| CN3 | 10 | CFIII AUDIO - |
| CN3 | 11 | TECH22 NEON TRANSFORMER L1 |
| CN3 | 12 | TECH22 NEON TRANSFORMER L2 |
| CN3 | 13 | TECH22 NEON TRANSFORMER GROUND (NOT USED) |
| CN3 | 14 | TECH22 AUDIO INTERFACE +12 VDC |
| CN3 | 15 | TECH22 AUDIO INTERFACE COMMON 12 VDC |
| CN3 | 16 | 12 VDC COMMON FOR TEETH LIGHTS |

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| CONNECTOR | PIN | DESCRIPTION |
|-----------|-----|---|
| CN4 | 1 | BRAIN ROW 1 & CAT EYE INDICATORS |
| CN4 | 2 | BRAIN ROW 2 INDICATORS |
| CN4 | 3 | BRAIN ROW 3 INDICATORS |
| CN4 | 4 | BRAIN ROW 4 INDICATORS |
| CN4 | 5 | BRAIN ROW 5 INDICATORS |
| CN4 | 6 | BRAIN ROW 6 INDICATORS |
| CN4 | 7 | LIGHT ROD 1 INDICATOR |
| CN4 | 8 | LIGHT ROD 2 INDICATOR |
| CN4 | 9 | LIGHT ROD 3 INDICATOR |
| CN4 | 10 | LIGHT ROD 4 INDICATOR |
| CN4 | 11 | LIGHT ROD 5 INDICATOR |
| CN4 | 12 | LIGHT ROD 6 INDICATOR |
| CN4 | 13 | LIGHT ROD 7 INDICATOR |
| CN4 | 14 | EAR MOTORS LEFT/RIGHT + |
| CN4 | 15 | RADAR LEFT END OF TRAVEL SENSOR INPUT |
| CN4 | 16 | RADAR IN ALIGNED TO CENTER SENSOR INPUT |
| CN4 | 17 | RADAR RIGHT END OF TRAVEL SENSOR INPUT |
| CN4 | 18 | RADAR MOTOR + |
| CN4 | 19 | RADAR MOTOR - |
| CN4 | 20 | SPINNER MOTOR + |
| CN4 | 21 | RED BRAIN TOP INDICATORS |
| CN4 | 22 | +24 VDC RADAR SENSOR POWER |
| CN4 | 23 | 12 VDC COMMON |
| CN4 | 24 | 12 VDC COMMON |

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| CONNECTOR | PIN | DESCRIPTION |
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| CN5 | 1 | TECH22 NEON TRANSFORMER L1 |
| CN5 | 2 | TECH22 NEON TRANSFORMER L2 |
| CN5 | 3 | TECH22 NEON TRANSFORMER GROUND (NOT USED) |
| CN5 | 4 | FLEX I/O 24 VDC POWER + |
| CN5 | 5 | FLEX I/O 24 VDC POWER - |
| CN5 | 6 | FLEX I/O 12 VDC POWER + |
| CN5 | 7 | FLEX I/O 12 VDC POWER - |
| CN5 | 8 | - |
| CN5 | 9 | - |
| CN5 | 10 | CLAWS SIGNAL (+/-) |
| CN5 | 11 | CLAWS SIGNAL (-/+) |
| CN5 | 12 | - |
| CN5 | 13 | - |
| CN5 | 14 | - |
| CN5 | 15 | - |
| CN5 | 16 | - |
| CN5 | 17 | - |
| CN5 | 18 | - |
| CN5 | 19 | - |
| CN5 | 20 | SERVO ENABLE |
| CN5 | 21 | INDEX PROFILE |
| CN5 | 22 | INTERRUPT INDEX AND RETURN HOME |
| CN5 | 23 | FAULT RESET |
| CN5 | 24 | SOIL SAMPLER MOTOR + |