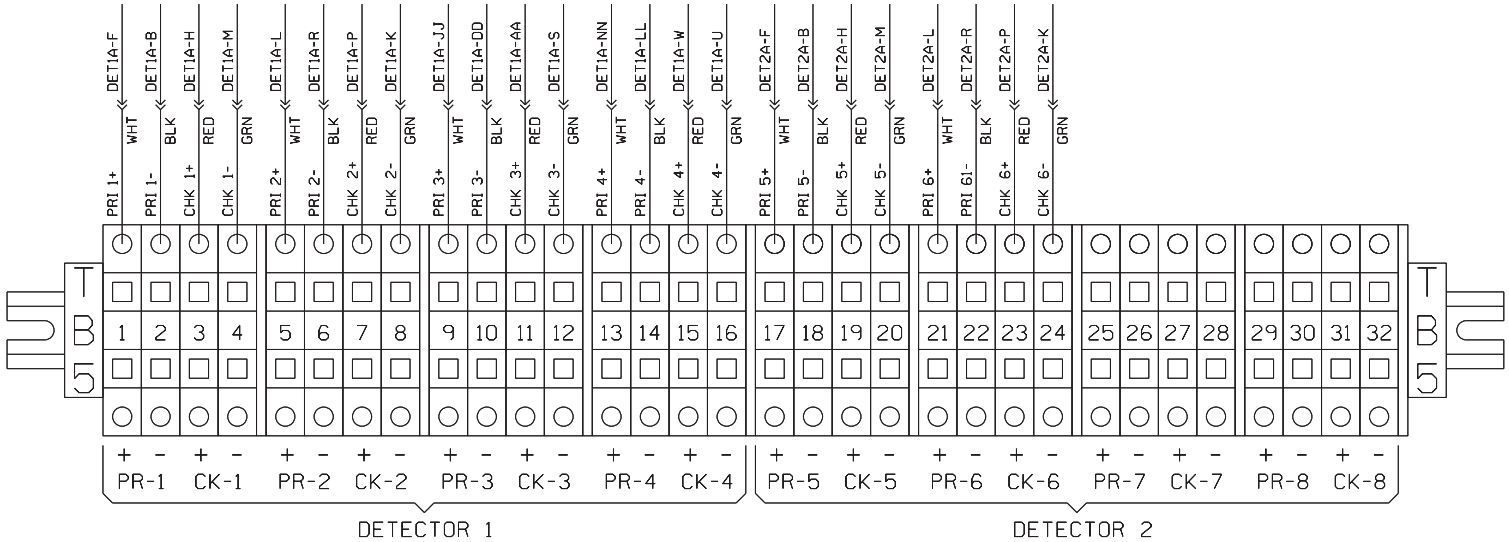



NEW SHEET

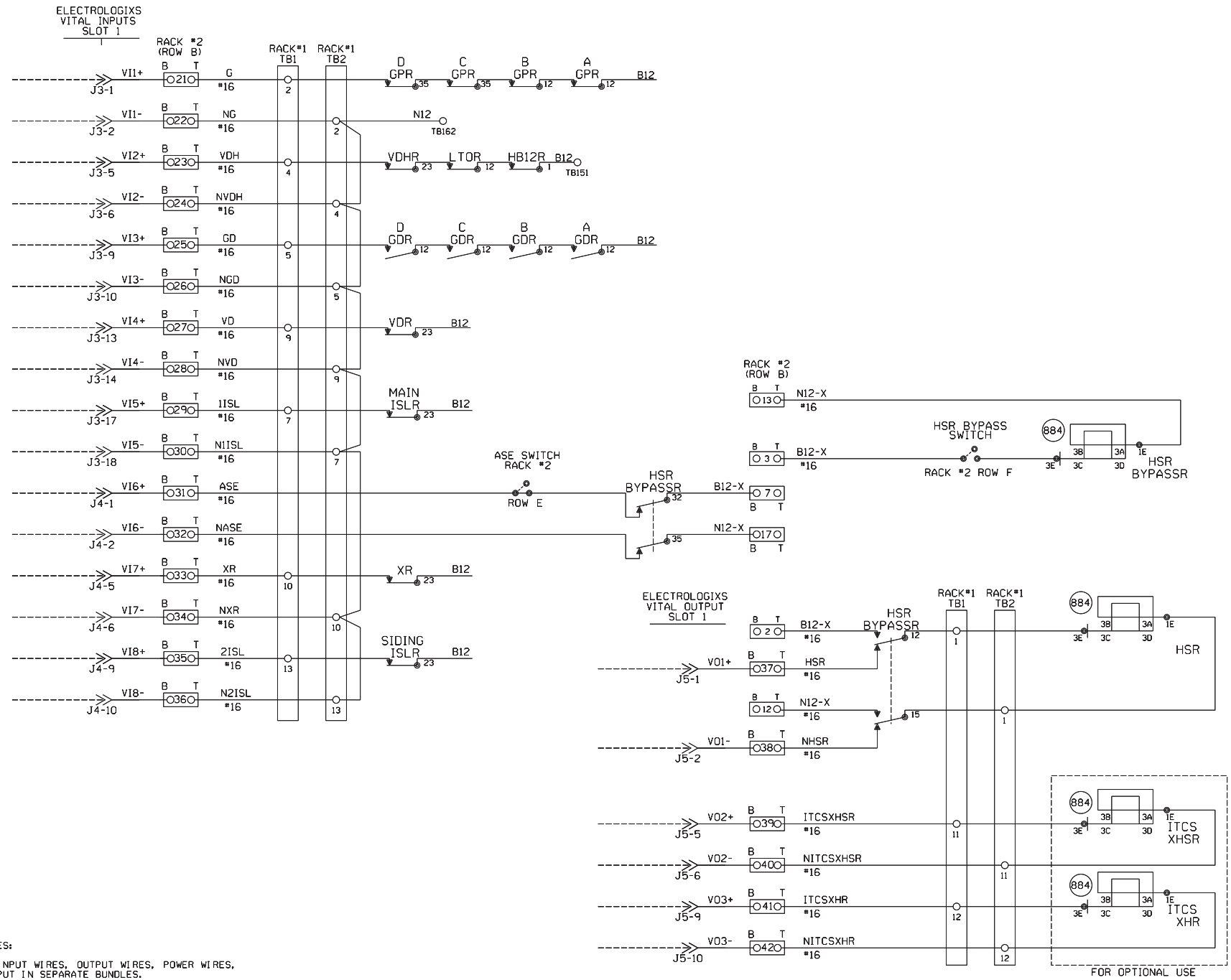
Designed: 09/25/13
UPGRADE DWIGHT SIDING, M.P. 68.33 TO M.P. 74.97
PID: 83019 WO#: 20521
Is: /MWK
Rec'd: / /WIT /RLL

CIRCUIT MODIFICATIONS ARE NOT TO BE MADE WITHOUT AUTHORITY FROM THE OFFICE OF SIGNAL DESIGN

Date: 9/25/13
Des: WIT Chk: MWK
PID: 83019
AFE: 20521

UNION PACIFIC RAILROAD
DWIGHT, ILLINOIS
MAZON ROAD
JOLIET SUBDIVISION
Office of AVP Engineering - Signal Omaha, Nebraska

Sh.: 9C
DOT 290534P
MP: 71.14
ID: CSL7114.9CX




NOTES:

1. INPUT WIRES, OUTPUT WIRES, POWER WIRES, PUT IN SEPARATE BUNDLES.
2. ALL WIRES #16 UNLESS NOTED.
3. O?? O 2 POSITION WAGO BLOCK.

**NEW SHEET**

Designed: 09/25/13
UPGRADE DWIGHT SIDING, M.P. 68.33 TO M.P. 74.97
PID: 83019 WO#: 20521 /MWK
Es: /
Rec'd: / /WIT /RLL

CIRCUIT MODIFICATIONS ARE NOT TO BE MADE WITHOUT AUTHORITY FROM THE OFFICE OF SIGNAL DESIGN

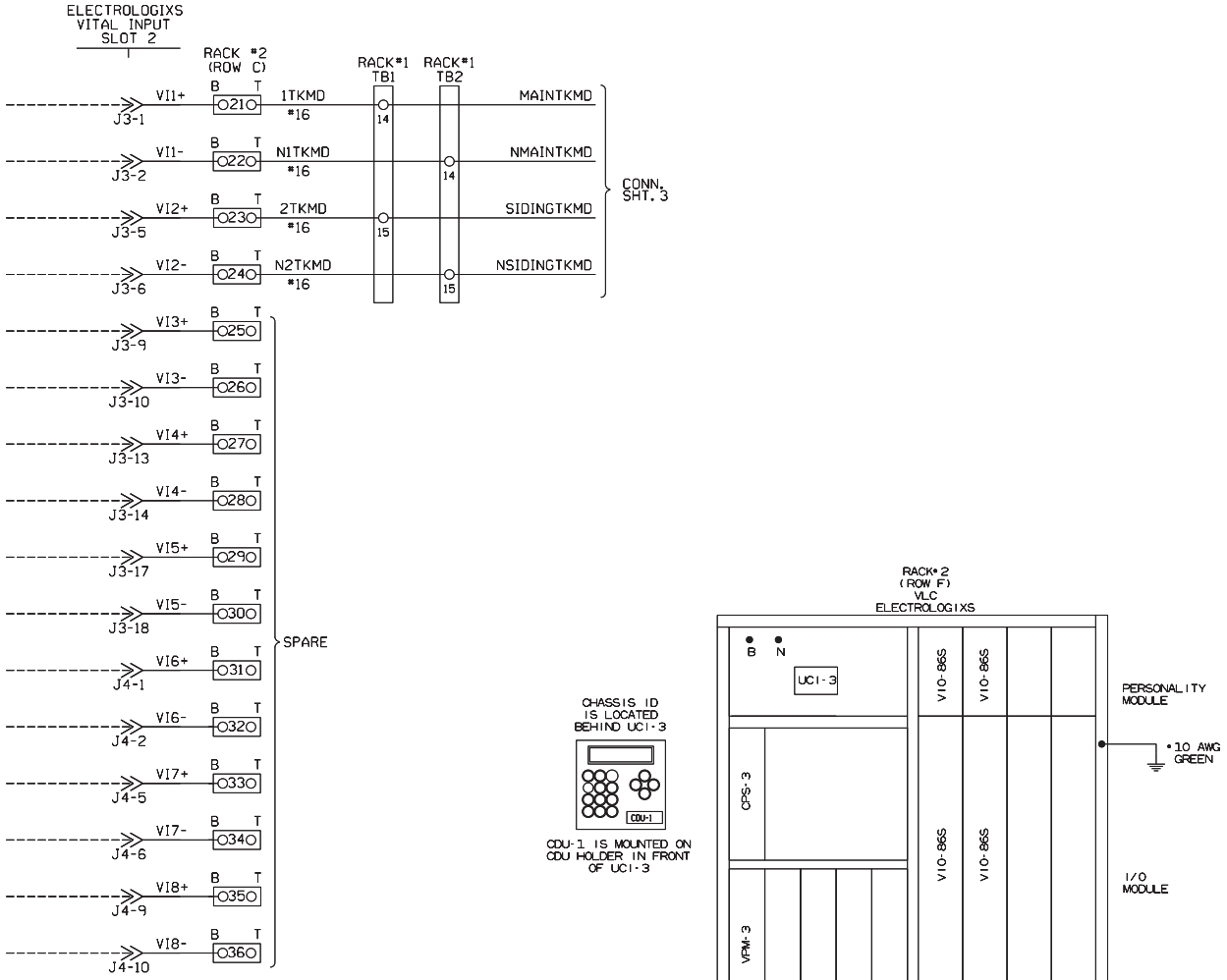
Date: 9/25/13
Des: WIT Chk: MWK
PID: 83019
AFE: 20521

**UNION PACIFIC RAILROAD**

DWIGHT, ILLINOIS
MAZON ROAD
JOLIET SUBDIVISION

Office of AVP Engineering - Signal Omaha, Nebraska

Sh.: 10
DOT 290534P
MP: 71.14
ID: CSL7114.10X




CHASSIS ID 25

1 2 3 4 5 6 7 8

CKSUM: _____

CRC: _____

o = TAB INTACT

● = TAB PUNCHED OUT

NOTES:

1. TO NETWORK SWITCH (SUPPLIED BY RR).
2. INPUT WIRES, OUTPUT WIRES, POWER WIRES, PUT IN SEPARATE BUNDLES.
3. ALL WIRES #16 UNLESS NOTED.
4. O??O 2 POSITION WAGO BLOCK.

**NEW SHEET**

Designed: 09/25/13
UPGRADE DWIGHT SIDING, M.P. 68.33 TO M.P. 74.97
PID: 83019 WO#: 20521 /MWK
Es: /
Rec'd: / /WIT /RLL

CIRCUIT MODIFICATIONS ARE NOT TO BE MADE WITHOUT AUTHORITY FROM THE OFFICE OF SIGNAL DESIGN

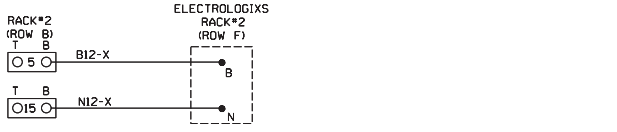
Date: 9/25/13
Des: WIT Chk: MWK
PID: 83019
AFE: 20521

**UNION PACIFIC RAILROAD**

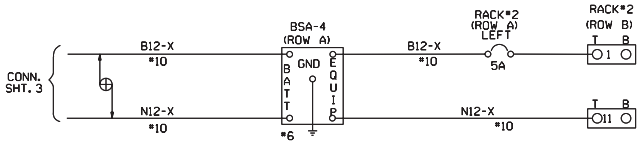
DWIGHT, ILLINOIS
MAZON ROAD
JOLIET SUBDIVISION

Office of AVP Engineering - Signal Omaha, Nebraska

Sh.: 10A
DOT 290534P
MP: 71.14
ID: CSL7114.10AX

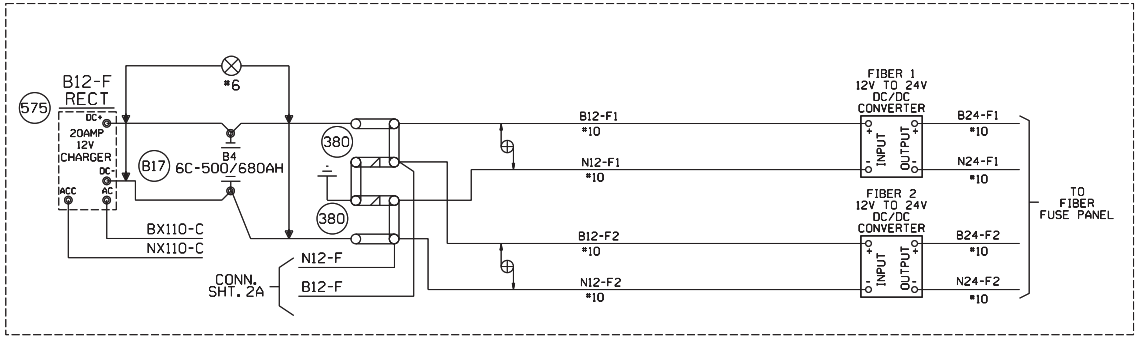



WIRING NOTE:
WIRE 30' LONG
WIRES TO BSA-4




RR
TO SHOW TERMINAL *

FIBER FEED BATTERY EQUIPMENT




NOTES:

DENOTES TWISTED PAIR

O?? O 2 POSITION WAGO BLOCK

**NEW SHEET**

Designed: 09/25/13
UPGRADE DWIGHT SIDING, M.P. 68.33 TO M.P. 74.97
PID: 83019 WO#: 20521 /MWK
Es: /
Rec'd: / /WIT /RLL

CIRCUIT MODIFICATIONS ARE NOT TO BE MADE WITHOUT AUTHORITY FROM THE OFFICE OF SIGNAL DESIGN

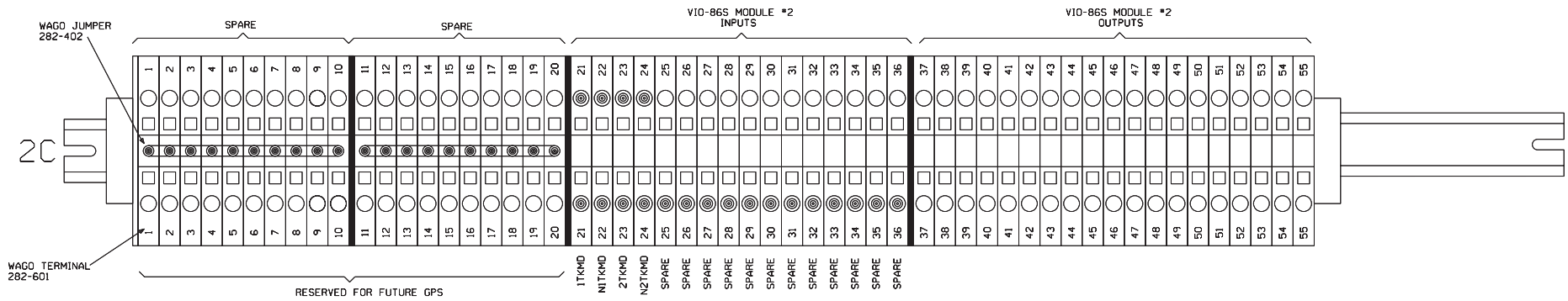
Date: 9/25/13
Des: WIT Chk: MWK
PID: 83019
AFE: 20521

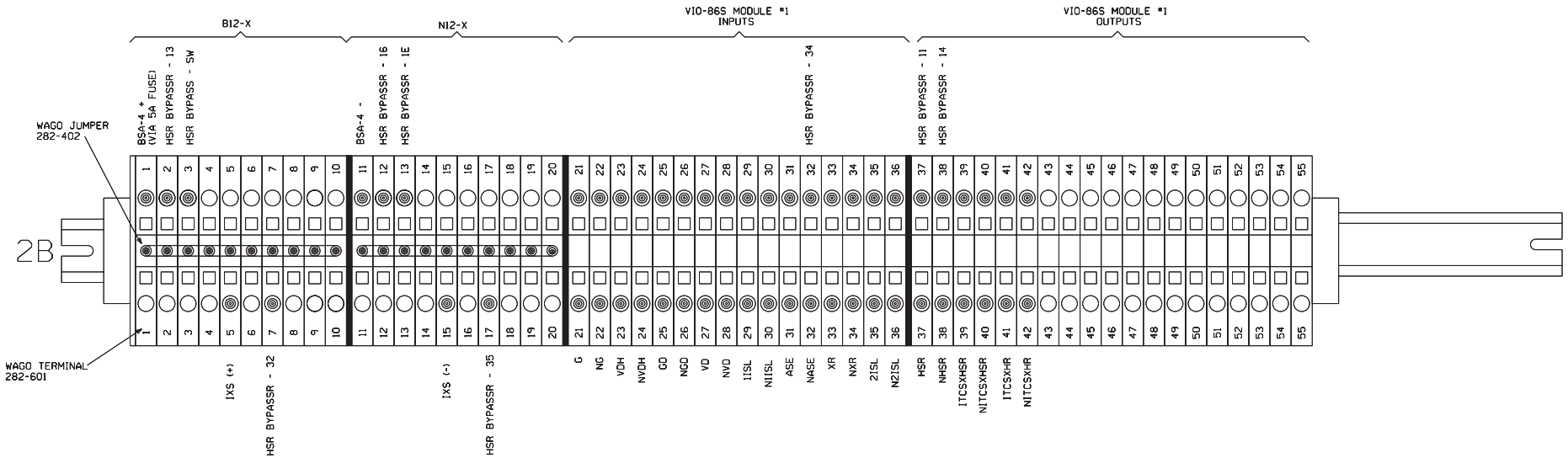
# UNION PACIFIC RAILROAD

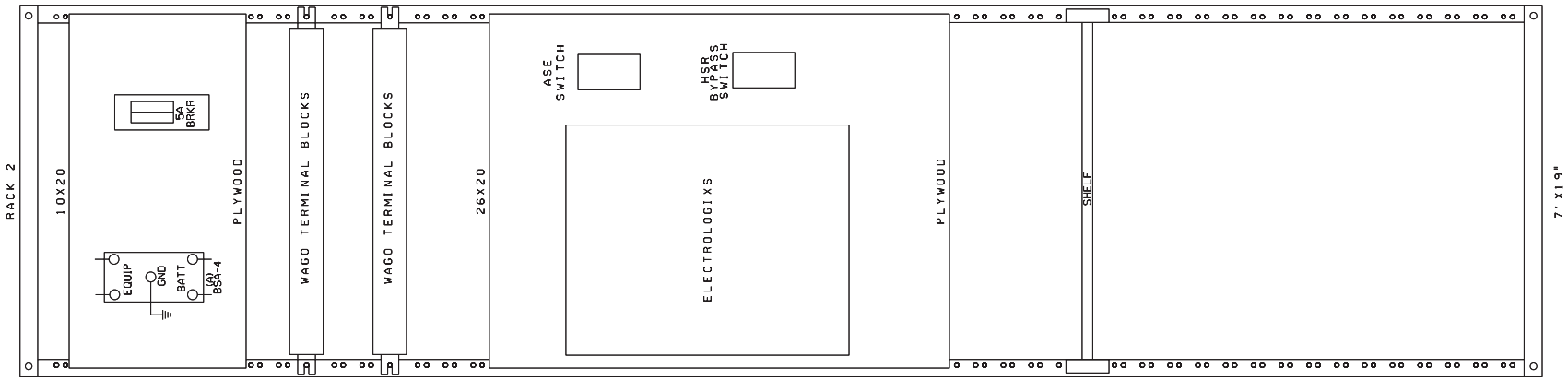
DWIGHT, ILLINOIS
MAZON ROAD
JOLIET SUBDIVISION

Office of AVP Engineering - Signal Omaha, Nebraska

Sh.: 10B
DOT 290534P
MP: 71.14
ID: CSL7114.10BX




A B C D E F G H J K

**NEW SHEET**

Designed: 09/25/13
UPGRADE DWIGHT SIDING, M.P. 68.33 TO M.P. 74.97
PID: 83019 WO#: 20521 /MWK
ES: /
Rec'd: / /WIT /RLL

CIRCUIT MODIFICATIONS ARE NOT TO BE MADE WITHOUT AUTHORITY FROM THE OFFICE OF SIGNAL DESIGN

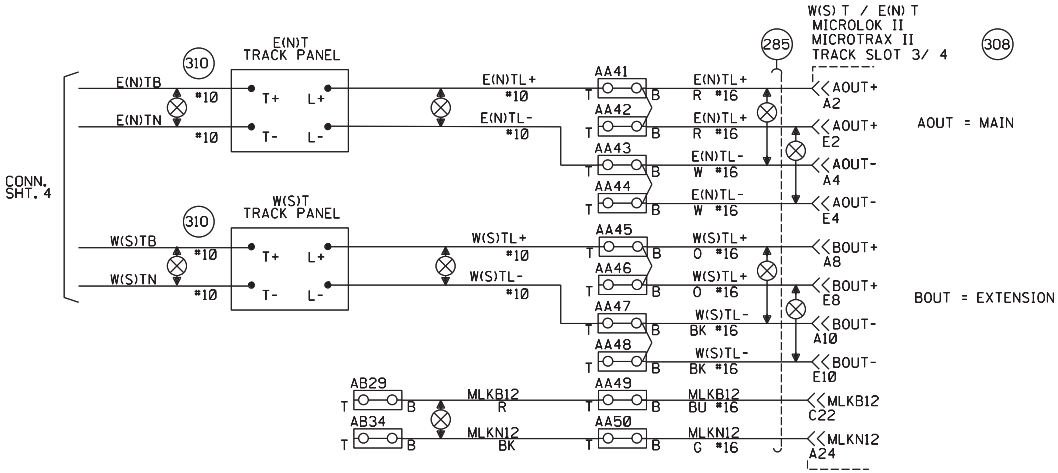
Date: 9/25/13
Des: WIT Chk: MWK
PID: 83019
AFE: 20521

# UNION PACIFIC RAILROAD

DWIGHT, ILLINOIS
MAZON ROAD
JOLIET SUBDIVISION

Office of AVP Engineering - Signal Omaha, Nebraska

Sh.: 10C
DOT 290534P
MP: 71.14
ID: CSL7114.10CX

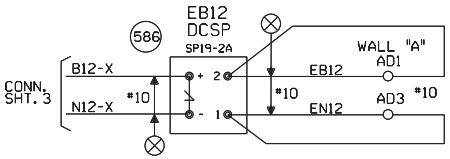



NOTES:

⊘ = OBSERVE CORRECT POLARITY. EQUIPMENT WILL BE DAMAGED IF CONNECTIONS ARE REVERSED

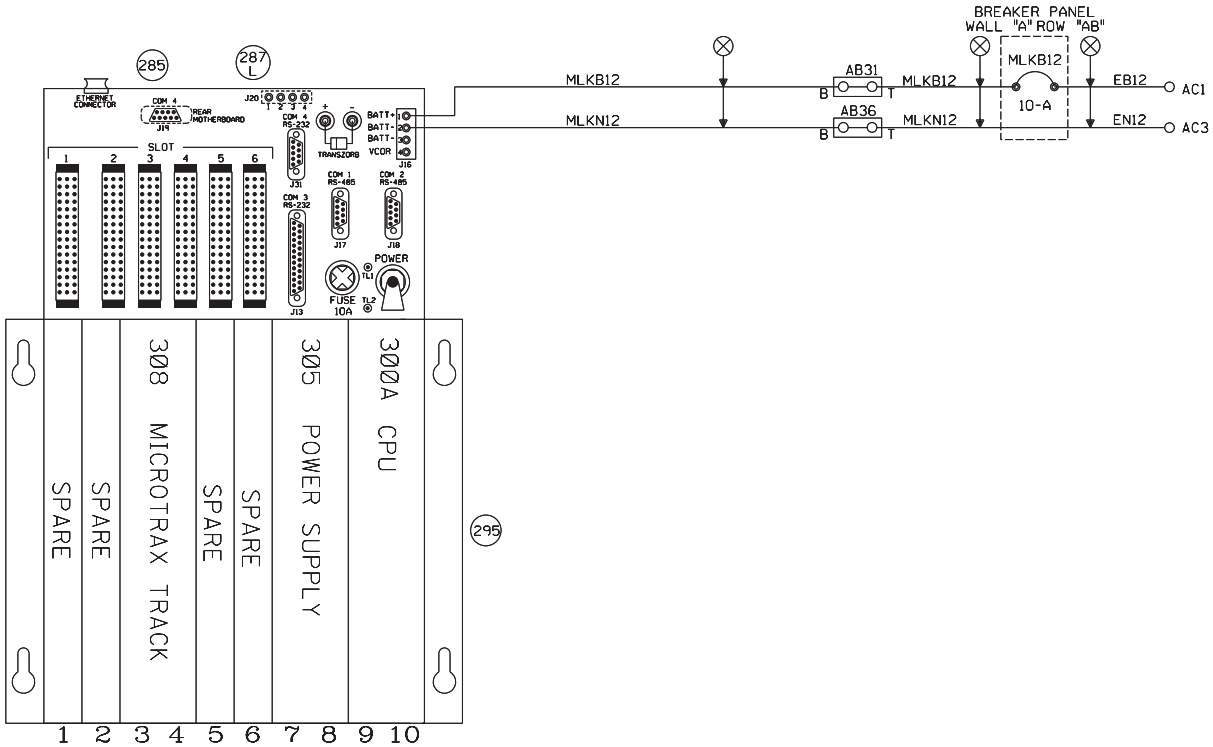
ENSURE TRACK POLARITY IS TRANSPOSED ACROSS ALL INSULATED JOINTS.

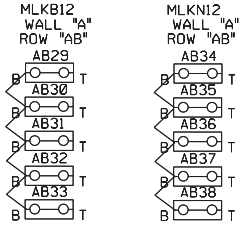
⧖ = TEST TERMINALS MUST BE INSTALLED ON ALL WIRING CONNECTED TO EXTERNAL CABLES (EXCEPT TRACK AND A.C. POWER WIRES).




NEW SHEET

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Designed: 09/25/13<br>UPGRADE DWIGHT SIDING, M.P. 68.33 TO M.P. 74.97<br>PID: 83019 WO#: 20521<br>IS: / MWK<br>Rec#: / WIT / RLL | MODIFICATION LEVEL | | CIRCUIT MODIFICATIONS ARE NOT TO BE MADE WITHOUT AUTHORITY FROM THE OFFICE OF SIGNAL DESIGN | Date: 9/25/13<br>Des: WIT Chk: MWK<br>PID: 83019<br>AFE: 20521 | UNION PACIFIC RAILROAD<br>DWIGHT, ILLINOIS<br>MAZON ROAD<br>JOLIET SUBDIVISION<br>Office of AVP Engineering - Signal Omaha, Nebraska | Sh.: 11<br>DOT 290534P<br>MP: 71.14<br>ID: CSL7114.11S |
| | Q.A. LAST LEVEL CHECKED | DU | | | | |
| | LAST LEVEL MOD THIS TYPICAL | DU | | | | |
| | LAST LEVEL BY DESIGNER | DU | | | | |
| | CHANGED FROM TYPICAL? | Y | | | | |
| | REV 10/3/13 1TMLHBINT.1S.DGN | | | | | |

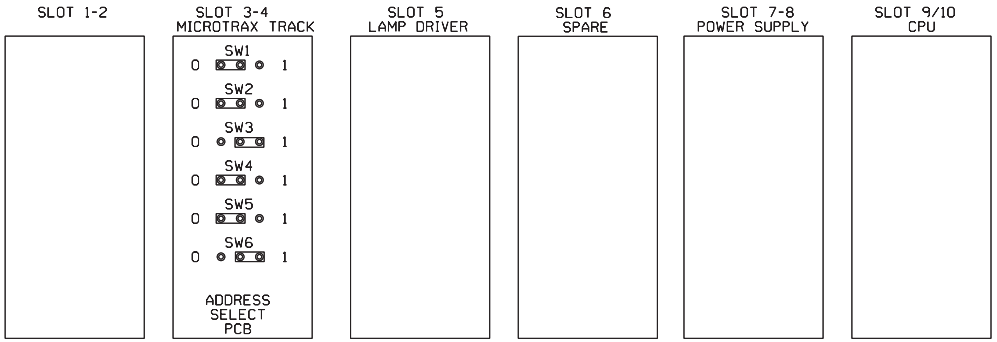



NEW SHEET

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Designed: 09/25/13<br>UPGRADE DWIGHT SIDING, M.P. 68.33 TO M.P. 74.97<br>PID: 83019 WO#: 20521<br>IS: / MWK<br>Rec#: / WIT / RLL | MODIFICATION LEVEL | | CIRCUIT MODIFICATIONS ARE NOT TO BE MADE WITHOUT AUTHORITY FROM THE OFFICE OF SIGNAL DESIGN | Date: 9/25/13<br>Des: WIT Chk: MWK<br>PID: 83019<br>AFE: 20521 | UNION PACIFIC RAILROAD<br>DWIGHT, ILLINOIS<br>MAZON ROAD<br>JOLIET SUBDIVISION<br>Office of AVP Engineering - Signal Omaha, Nebraska | Sh.: 11A<br>DOT 290534P<br>MP: 71.14<br>ID: CSL7114.11AS | |
| | Q.A. LAST LEVEL CHECKED | DU | | | | | |
| | LAST LEVEL MOD THIS TYPICAL | DU | | | | | |
| | LAST LEVEL BY DESIGNER | DU | | | | | |
| | CHANGED FROM TYPICAL? | Y | | | | | |
| | Rev 10/3/13 1TMLHBINT.4S.DGN | | | | | | |

## ADDRESS SELECT JUMPERS LOCATED INSIDE CARDFILE




ML8RRH REV B

| | |
|---|---|
| | |
| | |
| | |
| | |
| 15 SEC SLOW PICK ET TO PREVENT JOINT HOP | |
| 15 SEC SLOW PICK WT TO PREVENT JOINT HOP | |
| PROGRAM ID 1 (BINARY 1) | |
| PROGRAM ID 2 (BINARY 2) | |
| PROGRAM ID 3 (BINARY 4) | X |
| PROGRAM ID 4 (BINARY 8) | |
| PROGRAM ID 5 (BINARY 16) | |
| PROGRAM ID 6 (BINARY 32) | X |
| PROGRAM ID 7 (BINARY 64) | |
| PROGRAM ID 8 (BINARY 128) | |
| CODE P? | |
| | |
| | |
| | |

PLACE AN "X" IN THE BOX FOR DESIRED CONFIGURATION.

NOTE: FOR PTC COMPATIBLE CPU JUMPER SETTINGS REFER TO ANSALDO MANUAL 1D1.0028 PAGE 1-26 1-27 1-28 REV.1 DATE 8/2009

FOR STANDARD CPU JUMPER SETTINGS REFER TO ANSALDO MANUAL SM-6800B PAGE 2-12, 2-13 REV.2.5 DATE 9/2000

NEW SHEET

Designed: 09/25/13
UPGRADE DWIGHT SIDING, M.P. 68.33 TO M.P. 74.97
PID: 83019 WO#: 20521
IS: /MWK
Rec'd: / /WIT /RLL

| MODIFICATION LEVEL | |
|---|---|
| O. A. LAST LEVEL CHECKED | DU |
| LAST LEVEL MOD THIS TYPICAL | DU |
| LAST LEVEL BY DESIGNER | DU |
| CHANGED FROM TYPICAL? | Y |

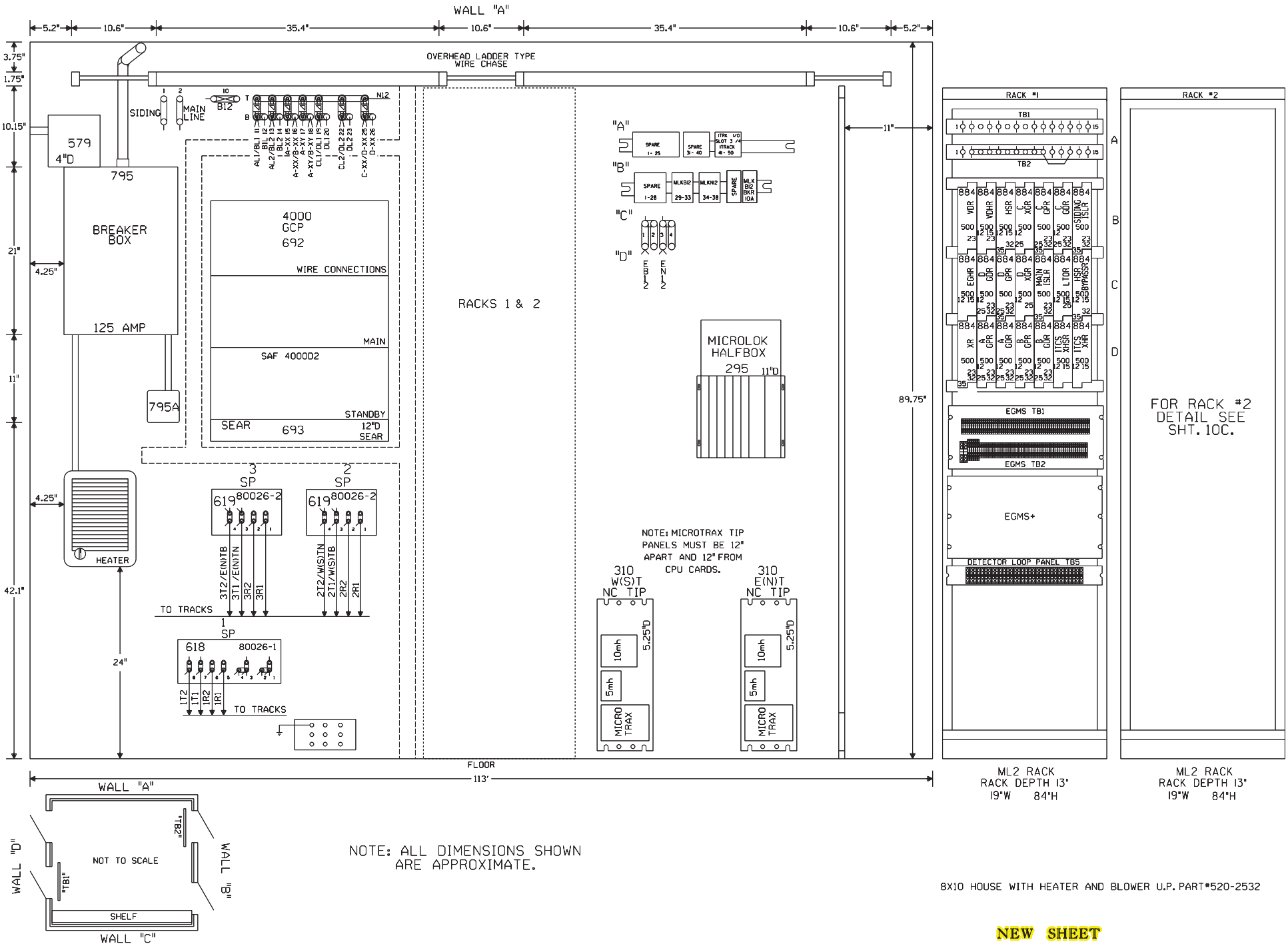
REV 10/3/13 1TMLHBINT.SS.DGN

CIRCUIT MODIFICATIONS ARE NOT TO BE MADE WITHOUT AUTHORITY FROM THE OFFICE OF SIGNAL DESIGN

Date: 9/25/13
Des: WIT Chk: MWK
PID: 83019
AFE: 20521

**UNION PACIFIC RAILROAD**
DWIGHT, ILLINOIS
MAZON ROAD
JOLIET SUBDIVISION
Office of AVP Engineering - Signal Omaha, Nebraska

Sh.: 11B
DOT 290534P
MP: 71.14
ID: CSL7114.11BS




NOTE: ALL DIMENSIONS SHOWN ARE APPROXIMATE.

8X10 HOUSE WITH HEATER AND BLOWER U.P. PART#520-2532

**NEW SHEET**

Designed: 09/25/13
UPGRADE DWIGHT SIDING, M.P. 68.33 TO M.P. 74.97
PID: 83019 WO#: 20521
IS: /MWK
Rev: / /WIT /RLL

CIRCUIT MODIFICATIONS ARE NOT TO BE MADE WITHOUT AUTHORITY FROM THE OFFICE OF SIGNAL DESIGN

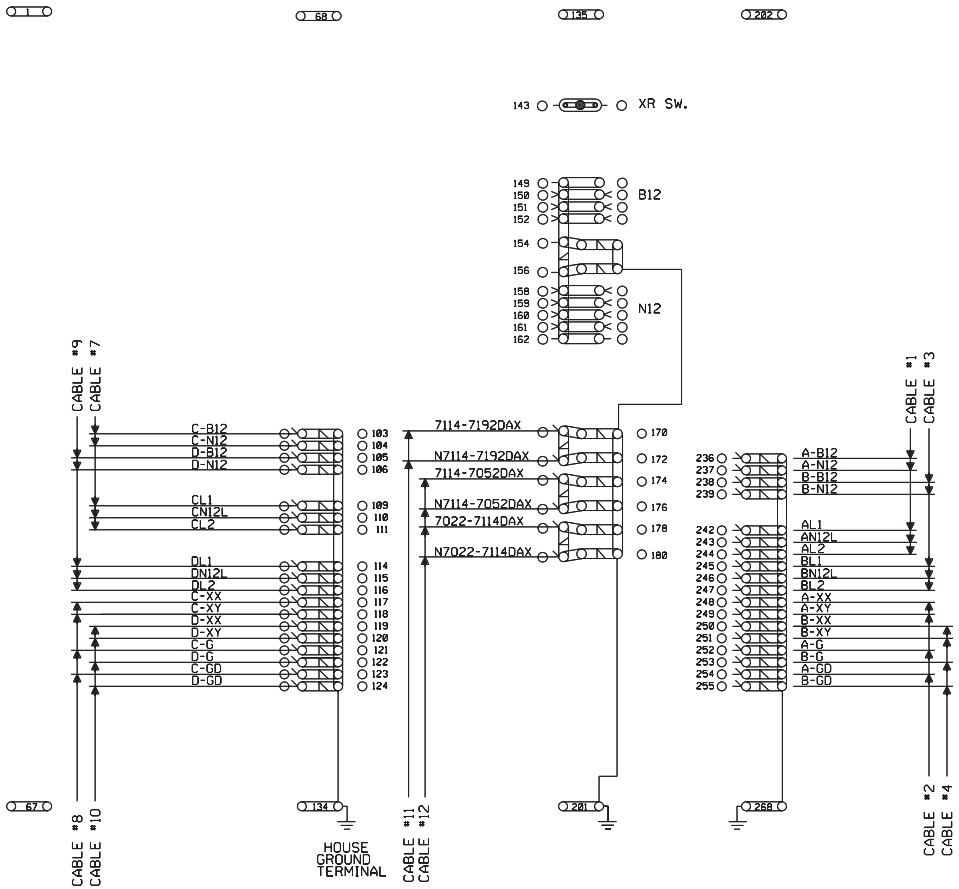
| | |
|---|---|
| Date: 9/25/13 | |
| Des: WIT Chk: MWK | |
| PID: 83019 | |
| AFE: 20521 | |

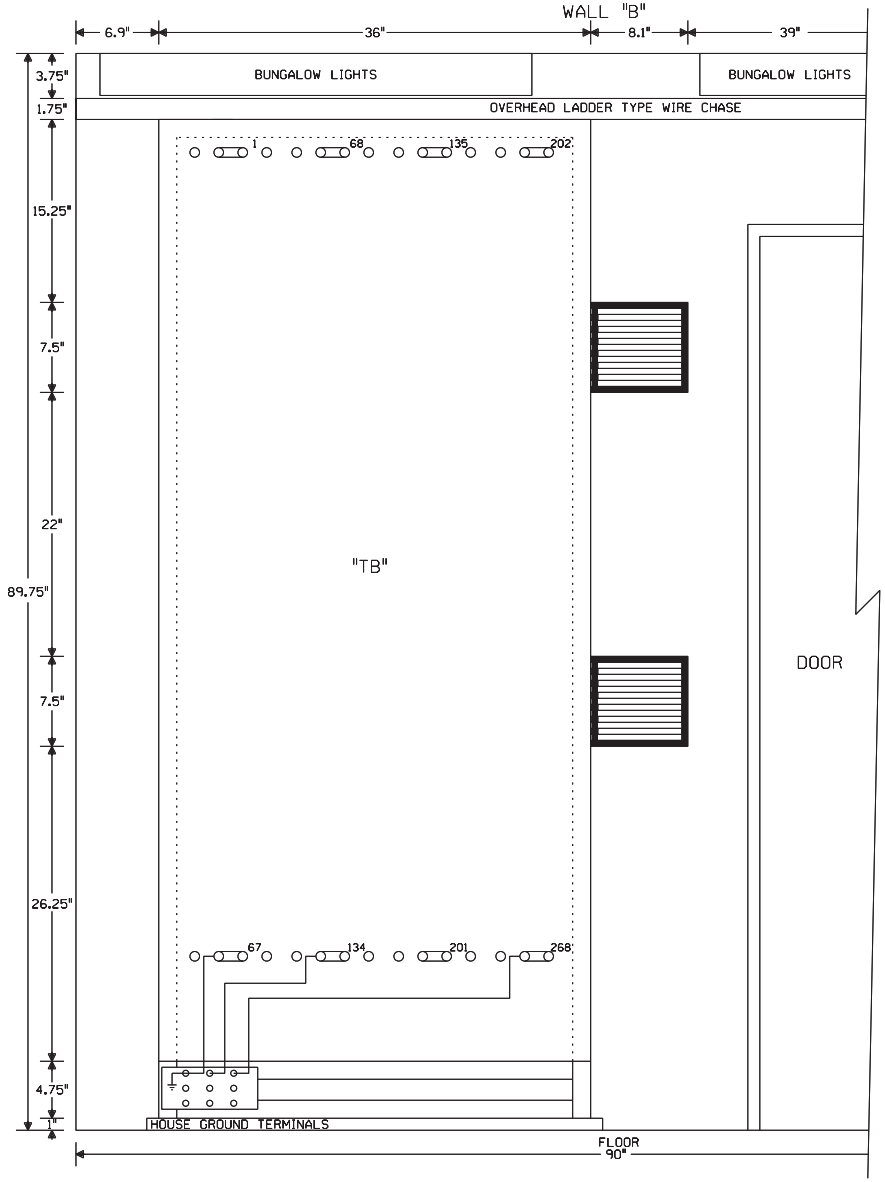
**UNION PACIFIC RAILROAD**

DWIGHT, ILLINOIS
MAZON ROAD
JOLIET SUBDIVISION

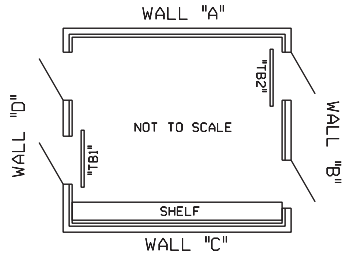
Office of AVP Engineering - Signal Omaha, Nebraska

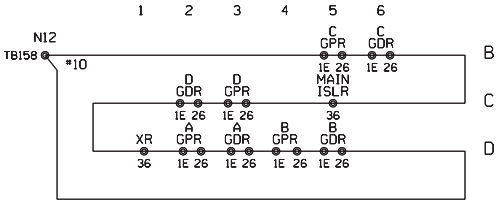
| | |
|---|---|
| Sh.: | 12 |
| DOT | 290534P |
| MP: | 71.14 |
| ID: | CSL7114.12X |

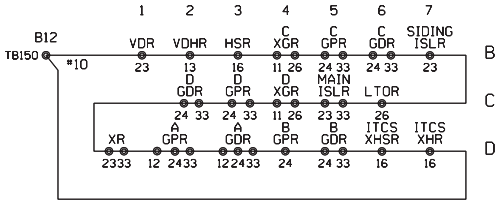



NOTE: ALL DIMENSIONS SHOWN ARE APPROXIMATE.




**NEW SHEET**

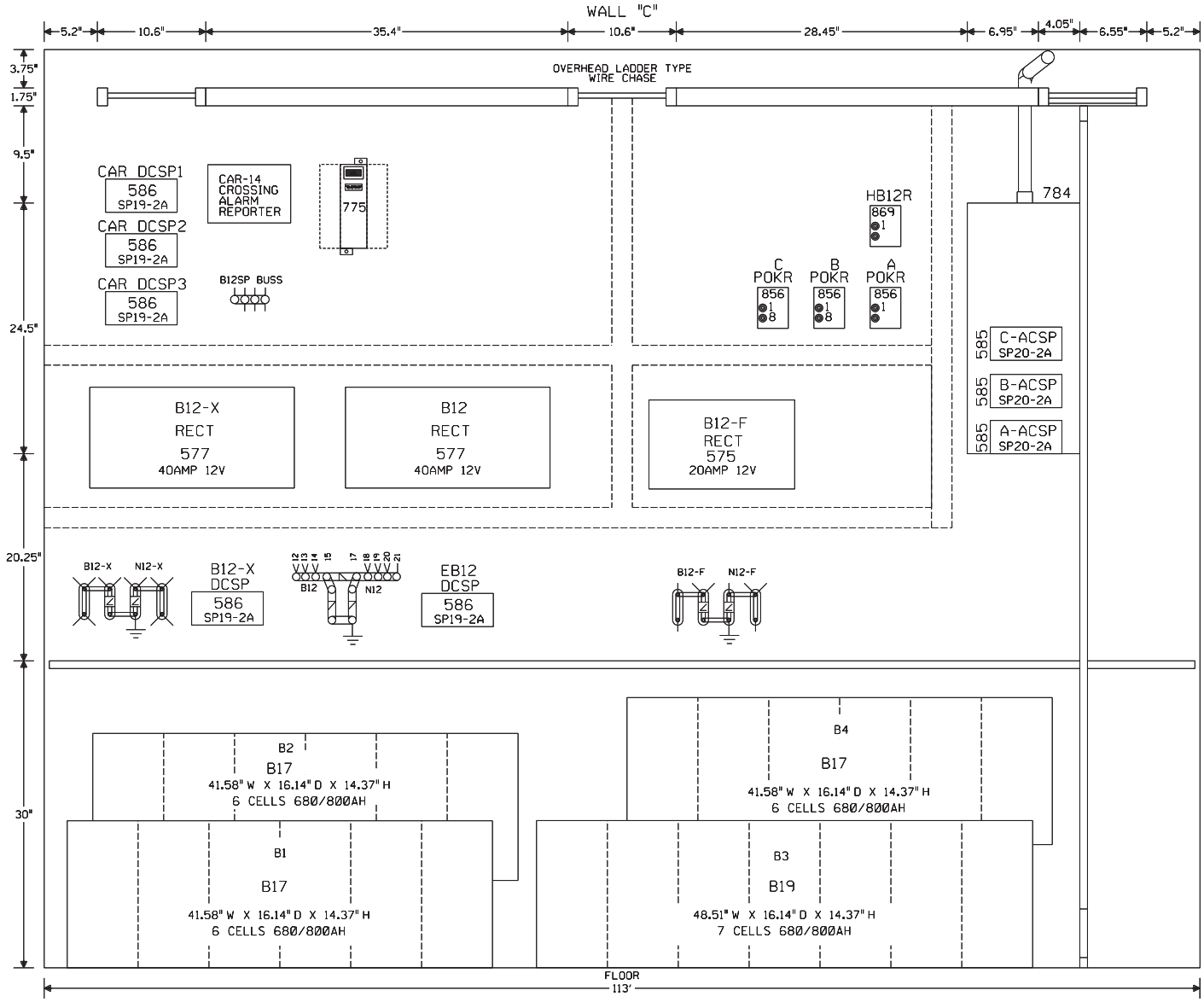
Designed: 09/25/13
UPGRADE DWIGHT SIDING, M.P. 68.33 TO M.P. 74.97
PID: 83019 WO#: 20521
IS: ✓MWK
Rec'd: / /WIT /RLL

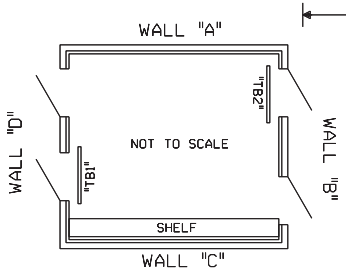
CIRCUIT MODIFICATIONS ARE NOT TO BE MADE WITHOUT AUTHORITY FROM THE OFFICE OF SIGNAL DESIGN

Date: 9/25/13
Des: WIT Chk: MWK
PID: 83019
AFE: 20521

**UNION PACIFIC RAILROAD**
DWIGHT, ILLINOIS
MAZON ROAD
JOLIET SUBDIVISION
Office of AVP Engineering - Signal Omaha, Nebraska

Sh.: 13
DOT 290534P
MP: 71.14
ID: CSL7114.13X




NOTE: ALL DIMENSIONS SHOWN ARE APPROXIMATE.

**NEW SHEET**

Designed: 09/25/13
UPGRADE DWIGHT SIDING, M.P. 68.33 TO M.P. 74.97
PID: 83019 WO#: 20521
IS: /MWK
Rec'd: / /WIT /RLL

CIRCUIT MODIFICATIONS ARE NOT TO BE MADE WITHOUT AUTHORITY FROM THE OFFICE OF SIGNAL DESIGN

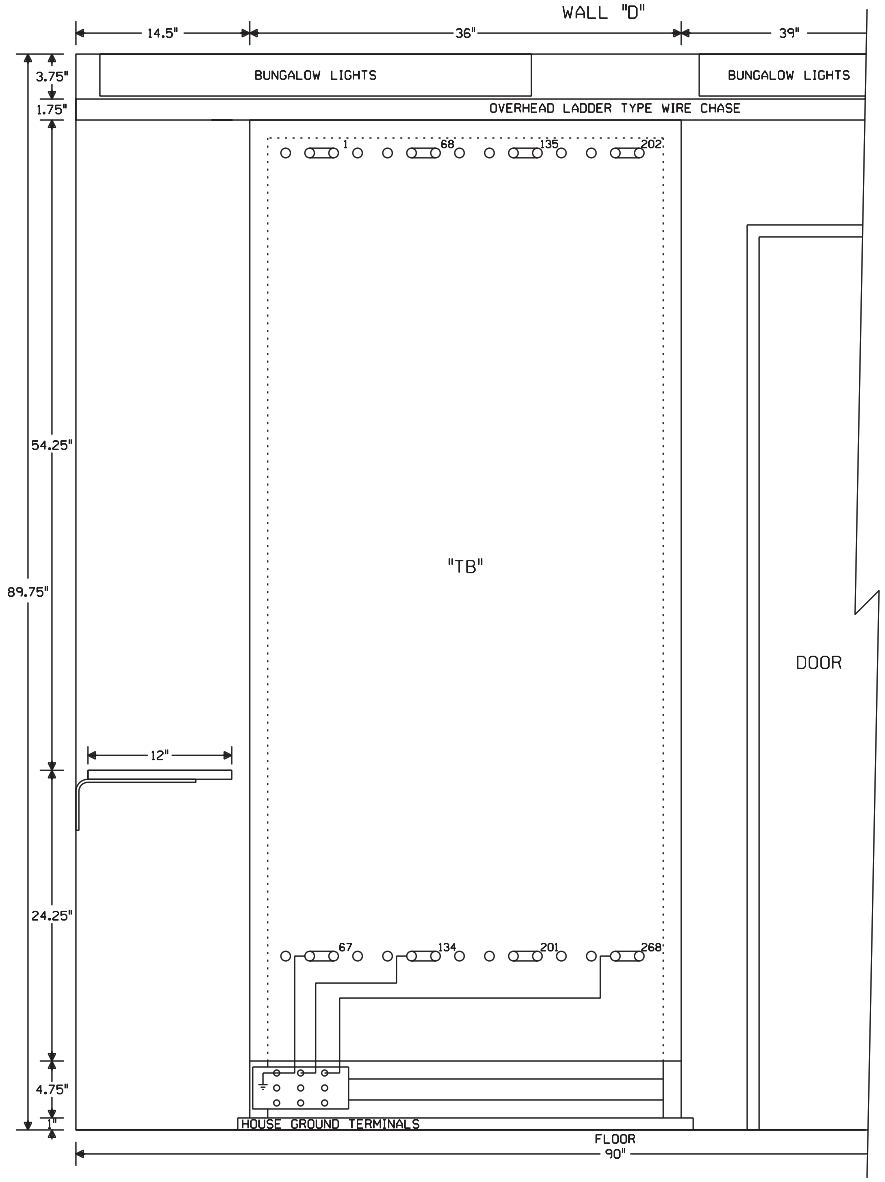
Date: 9/25/13
Des: WIT Chk: MWK
PID: 83019
AFE: 20521

# UNION PACIFIC RAILROAD

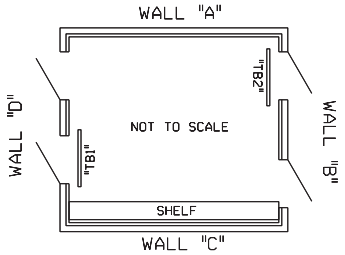
DWIGHT, ILLINOIS
MAZON ROAD
JOLIET SUBDIVISION

Office of AVP Engineering - Signal Omaha, Nebraska

Sh.: 14
DOT 290534P
MP: 71.14
ID: CSL7114.14X




NOTE: ALL DIMENSIONS SHOWN ARE APPROXIMATE.




**NEW SHEET**

| | | | | |
|---|---|---|---|---|
| Designed: 09/25/13<br>UPGRADE DWIGHT SIDING, M.P. 68.33 TO M.P. 74.97<br>PID: 83019 WO#: 20521<br>IS: ✓MWK<br>Rev: / /WIT /RLL | CIRCUIT MODIFICATIONS ARE NOT TO BE MADE WITHOUT AUTHORITY FROM THE OFFICE OF SIGNAL DESIGN | Date: 9/25/13<br>Des: WIT Chk: MWK<br>PID: 83019<br>AFE: 20521 | **UNION PACIFIC RAILROAD**<br>DWIGHT, ILLINOIS<br>MAZON ROAD<br>JOLIET SUBDIVISION<br>Office of AVP Engineering - Signal Omaha, Nebraska | Sh.: 15<br>DOT 290534P<br>MP: 71.14<br>ID: CSL7114.15X |

# Minimum Program Steps Report

## Location and SIN

DOT Number: 290534P
Milepost Number: 71.14
Site Name: Dwight, IL

SIN: 762010010016 *

* Parameter is part of office check number calculation.

## MCF and Template Selection

MCF Name: GCP-T6X-02-6.mcf
MCF Revision: 26
MCFCRC: 494D2656

Template = 1C:2 Bi, 2 Uni pairs (OCCN) *

* Parameter is part of office check number calculation.

## Minimum Program Steps

TEMPLATE:  module configuration
Track 5/RIO 2 Slot = RIO (OCCN) *

TEMPLATE:  track 1-Bi, Island
Track 1 : GCP Frequency = 86 Hz (OCCN) *
Track 1 : Approach Distance = 3228 ft (OCCN) *
Track 1 : Prime Warning Time = 39 sec (OCCN) *
Track 1 : GCP Transmit Level = Medium (Set in Field,TCN)
Track 1 : Isl Frequency = 17.5 kHz (OCCN) *

TEMPLATE:  track 2-Uni, Island
Track 2 : GCP Frequency = 86 Hz (OCCN) *
Track 2 : Approach Distance = 5100 ft (OCCN) *
Track 2 : Prime Warning Time = 39 sec (OCCN) *
Track 2 : GCP Transmit Level = Medium (Set in Field,TCN)
Track 2 : Isl Frequency = 11.5 kHz (OCCN) *
Track 2 : Island Distance = 129 ft (Set in Field,TCN)

TEMPLATE:  track 2 Daxes
Track 2 : Dax A Used = Yes (OCCN) *
Track 2 : Dax A Warning Time = 39 sec (OCCN) *
Track 2 : Dax A Offset Distance = 3319 ft (OCCN) *

TEMPLATE:  track 3-Uni,No Island
Track 3 : GCP Frequency = 86 Hz (OCCN) *
Track 3 : Approach Distance = 4384 ft (OCCN) *
Track 3 : Prime Warning Time = 39 sec (OCCN) *
Track 3 : Prime UAX = IP (OCCN) *
Track 3 : Prime UAX Pickup = 15 sec (OCCN) *
Track 3 : GCP Transmit Level = Medium (Set in Field,TCN)

TEMPLATE:  track 3 Daxes
Track 3 : Dax A Used = Yes (OCCN) *
Track 3 : Dax A Warning Time = 39 sec (OCCN) *
Track 3 : Dax A Offset Distance = 4223 ft (OCCN) *

TEMPLATE:  track Anding
AND 2 Used = Yes (OCCN) *

```
TEMPLATE:  AND 1 XR
AND 1 Enable Used = Yes (OCCN) *

TEMPLATE:  AND 2
AND 2 Track 2 = Prime (OCCN) *
AND 2 Track 3 = Prime (OCCN) *

TEMPLATE:  SSCC
SSCC-2 Number of GPs = 2 (OCCN) *
SSCC-2 Number of GDs = 2 (OCCN) *

TEMPLATE:  OOS
OOS Control = OOS IPs (OCCN) *
T3 OOS Control = OOS Input 2 (OCCN) *

TEMPLATE:  OP assignment 1
OUT 1.1 = AND 1 XR (OCCN) *
OUT 1.2 = T2 Island (OCCN) *
OUT 2.1 = T1 Island (OCCN) *
OUT 2.2 = T3 Dax A (OCCN) *
OUT 3.1 = T2 Dax A (OCCN) *

TEMPLATE:  OP assignment 2
OUT 5.1 = T1 Prime (OCCN) *
OUT 5.2 = AND 2 (OCCN) *

TEMPLATE:  IP assignment 1
IN 1.1 = AND 1 XR Enable (OCCN) *
IN 1.2 = Out Of Service IP 1 (OCCN) *
IN 2.2 = Out Of Service IP 2 (OCCN) *
IN 3.1 = T3 Prime UAX (OCCN) *

TEMPLATE:  IP assignment 2
IN 5.1 = GP 1.1 (OCCN) *

TEMPLATE:  IP assignment SSCC
IN 7.1 = AND 1 XR Enable (OCCN) *
IN 8.2 = GD 2.2 (OCCN) *
IN 8.3 = GP 2.2 (OCCN) *
IN 8.4 = GD 2.1 (OCCN) *
IN 8.5 = GP 2.1 (OCCN) *

TEMPLATE:  SEAR
SP 3.1 = General 3 (OCCN) *
SP 4.1 = General 4 (OCCN) *

MS4000 configuration
Track 1 : GCP Frequency = 86 Hz (OCCN,TCN) (Hidden) *
Track 1 : Isl Frequency = 17.5 kHz (OCCN) (Hidden) *
Track 1 : Pickup Delay (2s +) = 2 sec (OCCN) (Hidden) *
IN 1.1 = AND 1 XR Enable (OCCN) (Hidden) *
IN 1.2 = Out Of Service IP 1 (OCCN) (Hidden) *

MS4000 Predictor
Track 1 : Prime Warning Time = 39 sec (OCCN) (Hidden) *

GCP:  track 1
Track 1 : Island Distance = 129 ft (Set in Field,TCN)

ISLAND:  track 1
Track 1 : Pickup Delay (2s +) = 2 sec (OCCN) *
```

ISLAND:  track 2
Track 2 : Pickup Delay (2s +) = 2 sec (OCCN) *

ADVANCED:  site options
Daylight Savings = Off (Set in Field)

SEAR:  slot 1-4 inputs
IN 4.1 = Vehicle Det Hlth (OCCN) *
IN 4.2 = 3 Vehicle Detect (OCCN) *

SEAR:  inputs slot 5
IN 5.2 = General 1 (OCCN) *
IN 5.3 = General 2 (OCCN) *

Express: MS4000 configuration
Track 1 : GCP Frequency = 86 Hz (OCCN,TCN) (Hidden) *
Track 1 : Pickup Delay (2s +) = 2 sec (OCCN) (Hidden) *
IN 1.1 = AND 1 XR Enable (OCCN) (Hidden) *
IN 1.2 = Out Of Service IP 1 (OCCN) (Hidden) *

Express: MS4000 Predictor
Track 1 : Prime Warning Time = 39 sec (OCCN) (Hidden) *

* Parameter is part of office check number calculation.

Check Numbers
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Office Check Number: 23B07B10
Config. Check Number: 07E1C2A2
(Based on MCF Revision 26)

Parameters not part of office check number calculation:

Track 1 : GCP Transmit Level = Medium (Set in Field)
Track 2 : GCP Transmit Level = Medium (Set in Field)
Track 2 : Island Distance = 129 ft (Set in Field)
Track 3 : GCP Transmit Level = Medium (Set in Field)
Track 1 : Island Distance = 129 ft (Set in Field)
Daylight Savings = Off (Set in Field)

Comments
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<none>

Configuration Package File
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Filename: CSL7114_290534P.pac
Path: C:\PAC File\
Date/Time: 11/12/2014 14:21:20