

CIRCLE K SOUTHWEST PROTOTYPE 4480 - 08/13/2013

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Drawn Name: 10/31/2013 10:17:00 Deleted Distribution Documents at E:\Cms_SouthWest\4480.dwg User Modified: Feb 16, 2015 - 5:00pm Printed at: Feb 16, 2015 - 5:00pm by galloway



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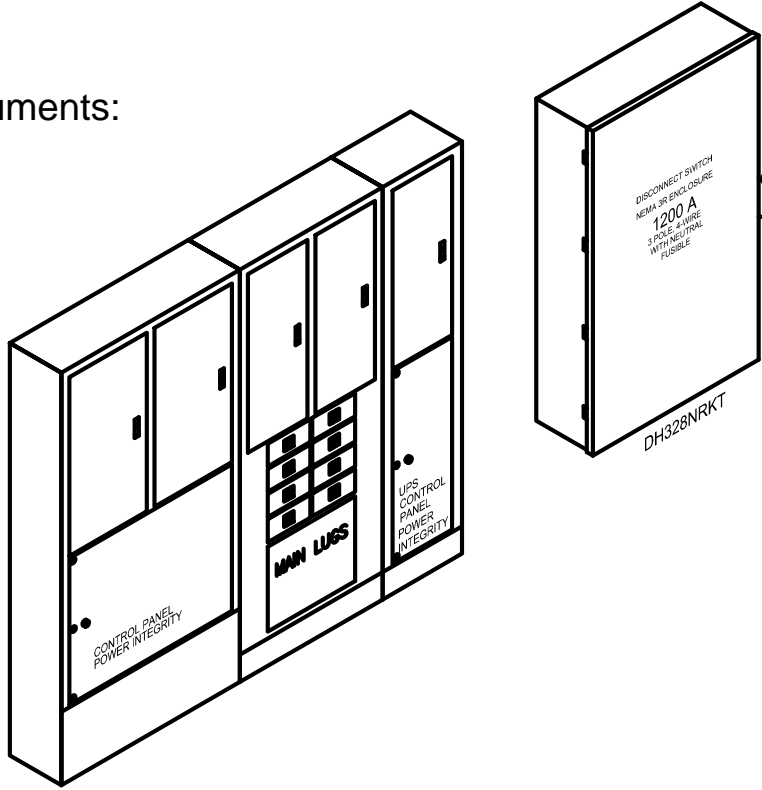
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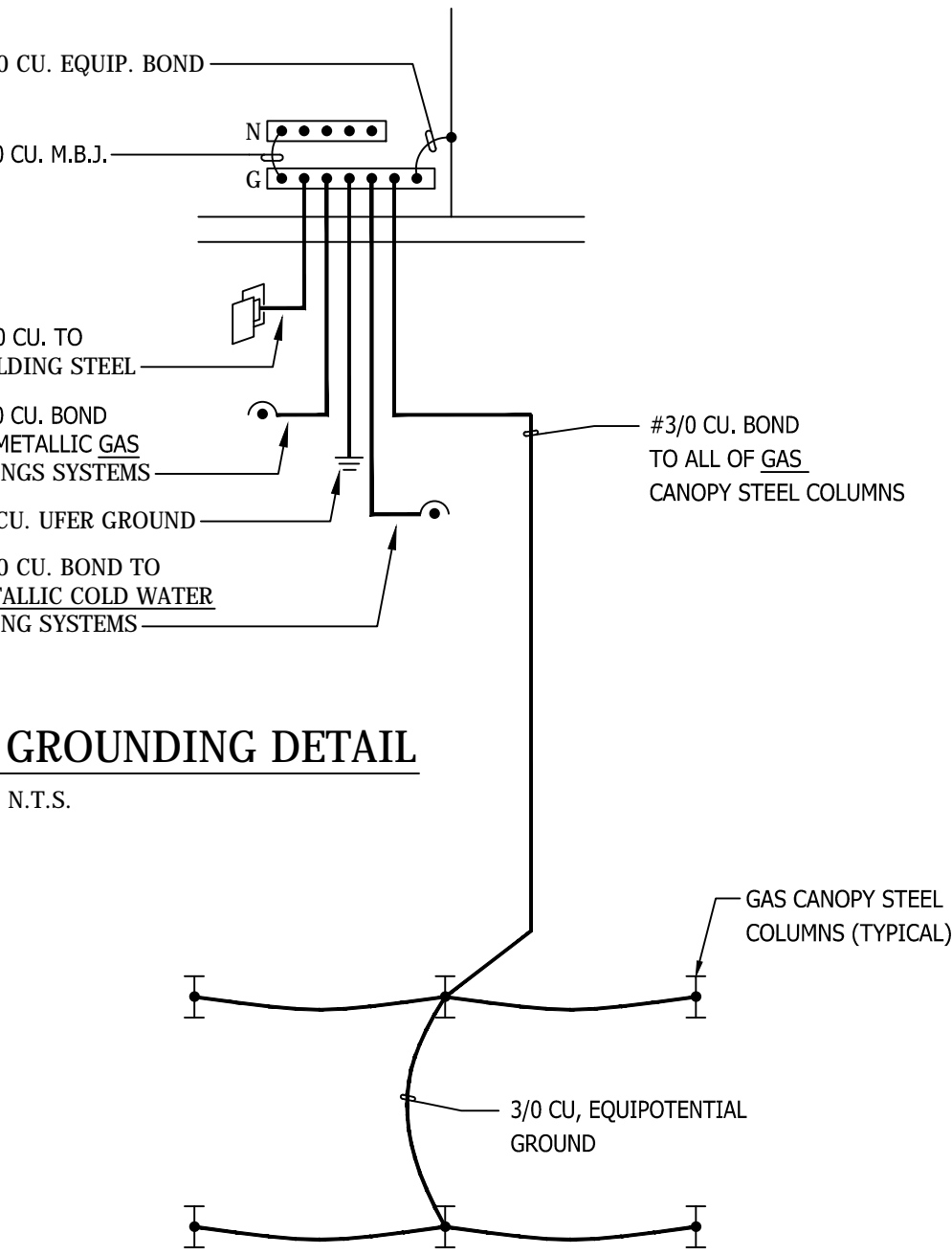
Model: PDS-CKSWsite# (Address, Southwest Area, TX,OK,NM,CO) GO# : SCHxxxxxxx Power Distribution Systems Product Details

This drawing package consists of the following documents:

- Cover Page (with Overview)
- SES Elevation & Footprint
(Service Entrance DT Switch)
- PDS Elevation & Footprint
(MDP, Distribution Panels & Fueling Controls)
(UPS Panel with Automatic Control)
- PDS - Example Wall Layout
- Online
- Accessories
- Factory Cabling for PDS



⑤ INTEGRATED POWER INTEGRITY / EQUIPMENT ROOM CONDUIT PENETRATION DETAILS N.T.S.



② GROUNDING DETAIL N.T.S.

General Document Notes

General:
These documents are supplied to the customer and contractor specifically for customer documentation and installation of the described product.
Information on additional configurations of this product and other products from Power Integrity are available upon request.

Additional copies of these documents are available in print and electronically upon request.

For copies of these drawings in an electronic format (.PDF, .DXF, or .DWG) contact Power Integrity.

Drawing Use:
The drawings in this package are provided as a guideline to use when incorporating the model depicted into site construction drawings.

The details provided are to be used in their entirety without modification.

The use of these drawings is limited to the purpose of illustrating and documenting the use and installation of the products depicted.

The proper use and application of the details contained in these drawings are the responsibility of the user.

All equipment depicted in the contained details is to be installed per the installation instructions provided with equipment.

Installation instructions should take precedence over any details provided in these drawings

Drawing Revision:
Revision updates will be sent at the time of their release to all companies that were issued a "Control Copy" of these drawings, providing that a copy of the Control Document Acknowledgment has been signed and returned to Power Integrity Corporation.

It is the responsibility of the user of these drawings to verify the latest revision through Power Integrity.

Plan Approval:
It is the responsibility of the customer to obtain any required approval from state or local authorities prior to installation of this product.

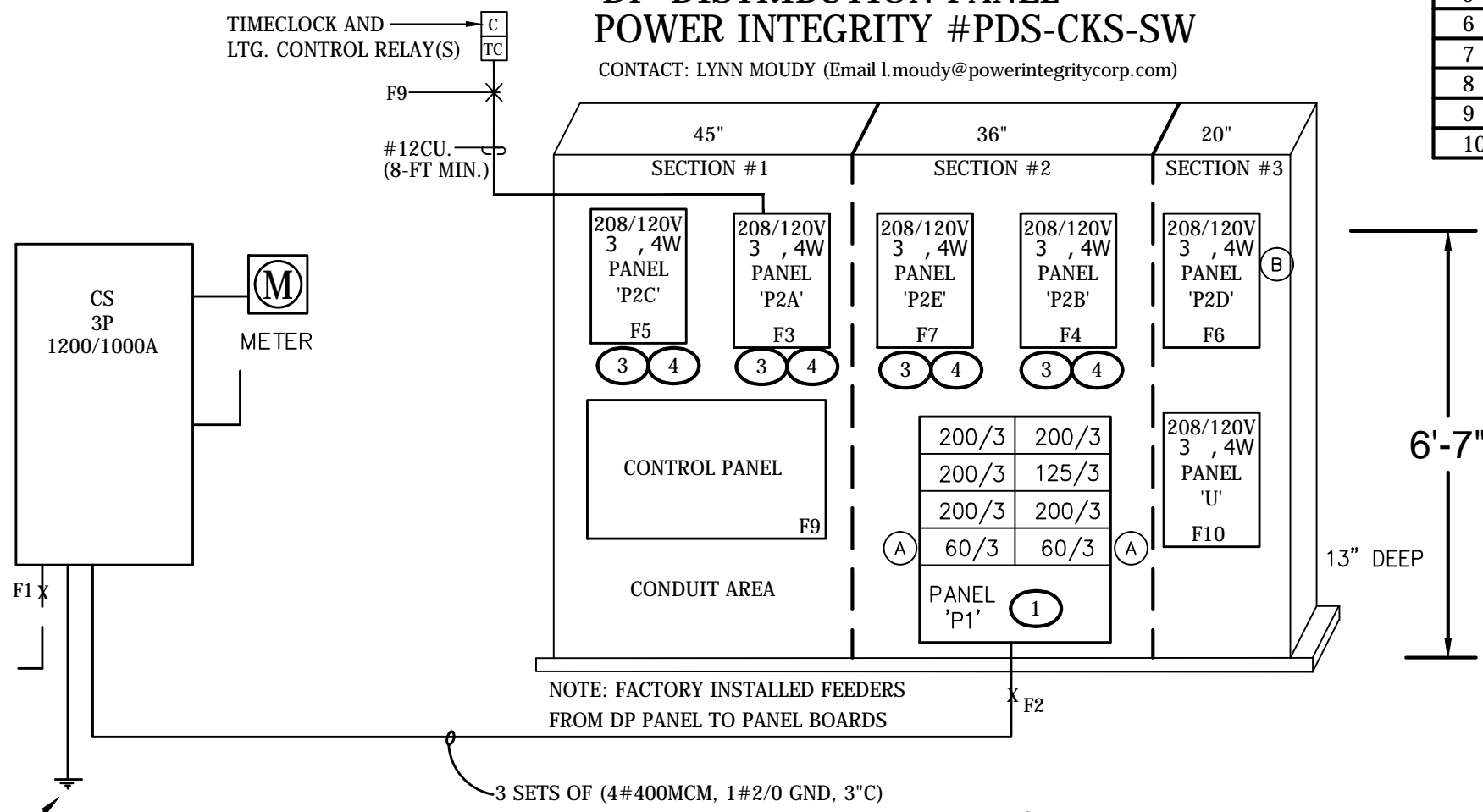
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FOR ADDITIONAL INFORMATION AND SPECIFICATIONS PERTAINING TO THE INSTALLATION AND PREPARATION OF CONDUITS AND FIELD WIRING CONTACT POWER INTEGRITY FOR PETROLEUM SYSTEMS ELECTRICAL CONSTRUCTION PREPARATION AND INSTALLATION GUIDELINES.
Power Integrity Corporation (336)379-9773.

FOR BID ONLY

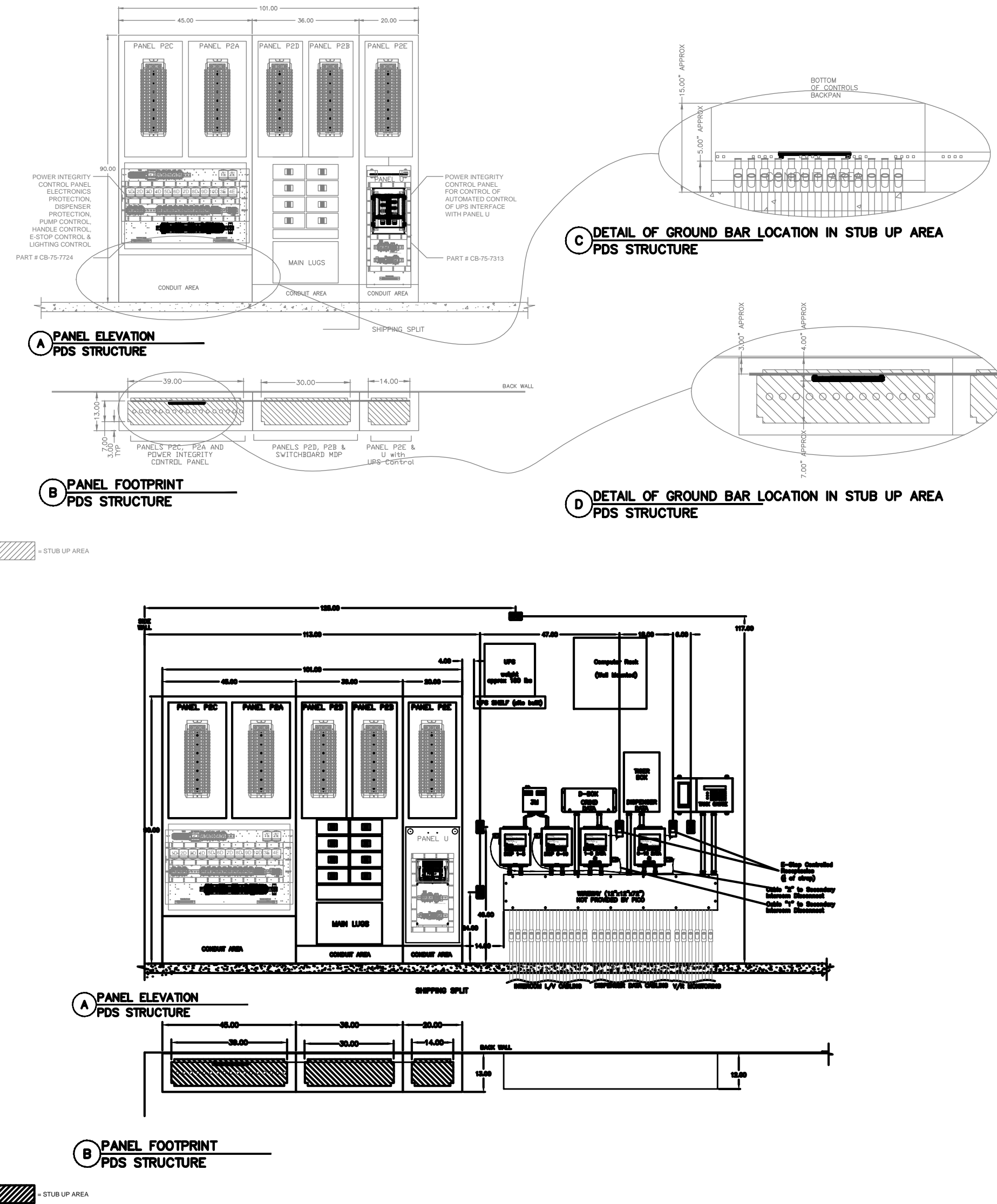
'DP' DISTRIBUTION PANEL POWER INTEGRITY #PDS-CKS-SW CONTACT: LYNN MOUDY (Email L.moudy@powerintegritycorp.com)



① ONE LINE DIAGRAM N.T.S.

- A REFER TO PANEL SCHEDULES FOR WIRE AND CONDUIT SIZE FOR ROOF TOP UNITS.
- B MAXIMUM CIRCUIT BREAKER HEIGHT = 6'-7" AFF OR AFG

* PROVIDE CLASS RKS FUSES SIZED PER MANUFACTURERS SPECIFICATIONS



FAULT CURRENT CALCULATIONS													
THE FOLLOWING CALCULATIONS ARE BASED ON THE "POINT-BY-POINT" METHOD WHERE:													
$I_{sc} = I_{sc} \times M$				$M = 1/(1+f)$		$f = \frac{1.73 \times L \times I}{C \times E \times n}$		XFMR: $IP(sca) = \frac{IP(sca) \times V_p \times \%Z}{100,000 \times KVA}$		$IS(sca) = \frac{V_p \times M \times IS(sca)}{V_s}$			
(ALL CALCULATIONS UTILIZE COPPER CONDUCTORS)													
Fault Point	Panel / Transformer	Source (Fault Point)	Source I (amps)	Conduit Type	Wire/Bus Size	'C' value	E (volts)	L (length)	XFMR KVA	XFMR Z	f	M	Isc
1	SES	1	51,502										51,502
2	DIST. P1	1	51,502	NM	3 Set(s) of 400 KCMIL	22737	208	70			0.440	0.69	35,762
3	PANEL 'P2A'	2	35,762	M	1 Set(s) of 3/0	12844	208	0			0.000	1.00	35,762
4	PANEL 'P2B'	2	35,762	M	1 Set(s) of 3/0	12844	208	0			0.000	1.00	35,762
5	PANEL 'P2C'	2	35,762	M	1 Set(s) of 1/0	8925	208	0			0.000	1.00	35,762
6	PANEL 'P2D'	2	35,762	M	1 Set(s) of 3/0	12844	208	0			0.000	1.00	35,762
7	PANEL 'P2E'	2	35,762	M	1 Set(s) of 3/0	2430	208	0			0.000	1.00	35,762
8	NOT USED												
9	LTG. CONTACT	3	35,762	M	1 Set(s) of 12	617	120	8			6.693	0.13	4,649
10	PANEL 'U'	3	35,762	M	1 Set(s) of 6	981	208	5			1.516	0.397	14,214

SERIES RATING GENERAL NOTES

- THE MOTOR CONTRIBUTION TO THE FAULT CURRENT MEETS THE 1% CRITERIA, STATED IN EXCEPTION 3.5.1 AS WRITTEN IN THE ELECTRICAL CONSTRUCTION CODE INTERPRETATION DATE 3/3/97.
- NO DESIGN CHANGES MAY BE MADE TO THE SYSTEM WITHOUT THE PRIOR APPROVAL OF THE DESIGN ELECTRICAL ENGINEER AND THE ELECTRICAL INSPECTOR.

② SERIES RATING KEY NOTES

- THIS SERVICE IS A SERIES RATED SYSTEM. 2-TIER 65/10. ALL S.E.S. SYSTEM COMPONENTS SHALL BE RATED 65K, WITH SERIES RATED DOWNSTREAM.
- CONTRACTOR SHALL LABEL S.E.S. "CAUTION" - SERIES RATED SYSTEM (65/10). 65,000 AMPS AVAILABLE IDENTIFIED REPLACEMENT COMPONENT REQUIRED." IN ACCORDANCE WITH NEC 110-22.
- CONTRACTOR SHALL LABEL PANEL(S) "CAUTION" - SERIES RATED SYSTEM (65/10).
- CIRCUIT BREAKERS SHALL BE A BOLT-ON TYPE. U.L.-LISTED SERIES RATED COMBINATION WITH THE BREAKERS AT DISTRIBUTION PANEL 'DP'.

GreenbergFarrow

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ISSUE/REVISION RECORD

DATE	DESCRIPTION
02/13/15	PERMIT SET

PROFESSIONAL SEAL



PROFESSIONAL IN CHARGE

GUIDO INOA ALVAREZ

PROJECT MANAGER

GUIDO INOA ALVAREZ

QUALITY CONTROL

GUIDO INOA ALVAREZ

DRAWN BY

GUIDO INOA ALVAREZ

PROJECT NAME

**CIRCLE K
STORES, INC.**

**ALBUQUERQUE
NEW MEXICO**

**4400 COORS BLVD. SW
ALBUQUERQUE, NM 87121**



PROJECT NUMBER

20130791

SHEET TITLE

**ONLINE DIAGRAM,
CALCULATIONS
AND DETAILS**

SHEET NUMBER

E3.0