

## AMENDATORY AGREEMENT

**THIS AMENDATORY AGREEMENT** is made and entered into by and between the **CITY AND COUNTY OF DENVER**, a municipal corporation of the State of Colorado (the "City"), and **NEXTEL WEST CORP.**, a Delaware Corp and **SPRINT SPECTRUM REALTY COMPANY, L.P**, a Delaware limited partnership, collectively referred to as Sprint Nextel Communications, whose address is 6391 Sprint Parkway, Overland Park, Kansas 66251-2650 (the "Licensee").

### WITNESSETH:

**WHEREAS**, the City and the Licensee entered into a License Agreement dated August 7, 2006, but not fully executed until August 7, 2007; pursuant to which Licensee operates a Distributed Antenna System ("DAS") and associated radio frequency equipment at the Colorado Convention Center (the "Agreement"); and

**WHEREAS**, the City and the Licensee wish to amend the Agreement, to enable Licensee to upgrade its system;

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants and obligations herein set forth, the parties agree as follows:

1. The preamble to the License Agreement is hereby modified to remove the date of August 7, 2006 and replace it with August 7, 2007.
2. Permitted Use. Section 1.02 of the Agreement, entitled "**Permitted Use**," is hereby amended to provide that Licensee shall be authorized to operate in the following FCC-licensed radio bands (and no others):

Initial Configuration

Technology	Frequency Band (MHz)	Sub-Band	Sector Count	Number of Channels
CDMA	800 (816 – 824, 861 – 869)	SMR	2	1
LTE (5MHz)	800 (816 – 824, 861 – 869)	SMR	2	1

CDMA	1900 (1850 – 1860, 1930 - 1940)	A	2	3
EVDO	1900 (1850 – 1860, 1930 - 1940)	A	2	4
LTE (5MHz)	1900 (1910 – 1915, 1990 - 1995)	G	2	1

Alternate Future Configuration

Technology	Frequency Band (MHz)	Sub-Band	Sector Count	Number of Channels
CDMA	800 (816 – 824, 861 – 869)	SMR	2	1
LTE (5MHz)	800 (816 – 824, 861 – 869)	SMR	2	1
CDMA	1900 (1850 – 1860, 1930 - 1940)	A	2	1
EVDO	1900 (1850 – 1860, 1930 - 1940)	A	2	2
LTE(5MHz)	1900 (1850 – 1860, 1930 - 1940)	A	2	1
LTE (5MHz)	1900 (1910 – 1915, 1990 - 1995)	G	2	1

Other provisions of Section 1.02 not expressly amended above remain unchanged.

3. License Fees. Effective December 1, 2014, Section 3.01 of the Agreement, entitled “**License Fees**,” is hereby amended so that the following fee schedule shall apply:

Base fee for DAS	\$3,625 per month Includes up to 288 square feet of floor space
Rooftop (outdoor) antenna	\$811.20 per month* (in addition to DAS base fee) (No additional floor space included)

All License Fees are subject to an annual increase of 4%. Other provisions of Section 3.01 not expressly amended above remain unchanged.

\*The parties acknowledge that Licensee as of the date of this Amendatory Agreement does not have a Rooftop antenna. A Rooftop antenna may be added only upon written approval from the City with respect to its location on the roof, its installation and its aesthetic effects on the building. The Rooftop antenna fee shall be commenced at the time of the Rooftop antenna installation.

4. Enhancement Project. Licensee will, through its contractor, upgrade its DAS system to support Current Technology. This work (the “Enhancement Project”) is described in greater detail on Exhibit A, attached hereto and incorporated herein, to this Amendatory Agreement. Licensee’s contractor will coordinate the Enhancement Project with Pericle Communications Company (“Pericle”), the Program Manager’s consulting engineer for this matter, who will be responsible for scheduling and managing the Enhancement Project. Licensee will be responsible for the payment of a Development fee to manage the Enhancement Project, in the amount of \$ 7,500.00, to be paid prior to the commencement of the Enhancement Project. Unless specifically modified herein, the requirements set forth in section 4 of the Agreement, relating to Installation and Construction of the “DAS project,” are applicable to the Enhancement Project, including without limitation the following:

a. Each carrier will own and operate its own equipment but shall share conduit. Each carrier is responsible for maintenance of its equipment. Cabling infrastructure becomes the property of City at the end of the term or any extension of the agreement. (4.01.2)

b. Projects will be constructed in accordance with City ordinances, rules and regulations, and pursuant to permits obtained from the City and according to the terms thereof. Prior to construction, plans and specifications for the Enhancement Project must be submitted for review and approval to the City. City requirements for construction of the Enhancement Project include without limitation, compliance with the City’s Prevailing Wage law, sections 20-76 et seq., DRMC. (4.02)

c. Carriers are to submit three (3) sets of complete plans and specs for the Enhancement Project, and a construction schedule to the Project Manager for prior

approval. Upon completion, carriers shall furnish evidence of payment, contractor's affidavits, and waivers for all liens. Licensee shall include in Licensee's agreement with its contractors provisions whereby contractor defends and holds harmless City and Project Manager from all costs or damages related to such work. (4.03)

d. A City-issued Notice to Proceed (NTP) and performance bonds for 100% of the construction costs are required before construction and/or enhancements begin. (4.03 and 4.04)

5. No Other Changes. As herein amended, the Agreement is affirmed and ratified in each and every particular. Defined terms not otherwise defined in this Amendatory Agreement shall have the meaning(s) set forth in the original Agreement.

**(Remainder of the page intentionally left blank)**

**Contract Control Number:**

IN WITNESS WHEREOF, the parties have set their hands and affixed their seals at Denver, Colorado as of

SEAL

**CITY AND COUNTY OF DENVER**

ATTEST:

By \_\_\_\_\_

\_\_\_\_\_

APPROVED AS TO FORM:

REGISTERED AND COUNTERSIGNED:

By \_\_\_\_\_

By \_\_\_\_\_

By \_\_\_\_\_



**Contract Control Number:** THTRS-RC7A006-01

**Contractor Name:** Sprint Nextel Communications

By: John E Beaudoin

Name: John E. Beaudoin  
(please print)

Title: SR MGR, CONTRACTS  
(please print)

DATE: NOVEMBER 20, 2014

**ATTEST: [if required]**

By: \_\_\_\_\_

Name: \_\_\_\_\_  
(please print)

Title: \_\_\_\_\_  
(please print)



## **EXHIBIT A**

### **Colorado Convention Center** – Sprint Nextel Communications Statement of Work for LTE upgrade to DAS

Sprint Nextel Communications is upgrading the current legacy Base Station equipment to an updated Samsung Base Station model. The installation of the new equipment and decommissioning of the old equipment will be done within the Licensee's equipment space and in accordance with the attached drawings dated 2/28/14, incorporated herein. Sprint will re-connect (integrate) to the current DAS – Distributed Antenna System at Denver Convention Center - DN98XC006. Sprint will need to complete 911 call testing and will also need to complete testing throughout the building to gather RF Measurements once the system is brought back On-Air. Sprint has contracted third parties to complete the installation of 100 Mbps of Ethernet backhaul fiber terminating in the Sprint shelter. Sprint will coordinate all vendor visits with the Denver Convention Center and will work around event dates. 1900 LTE G-block will be added to the DAS is Tx: 1990 – 1995, Rx: 1910 – 1915.

The Enhancement Project will not require any additional space.

The Enhancement Project will not require any additional power.

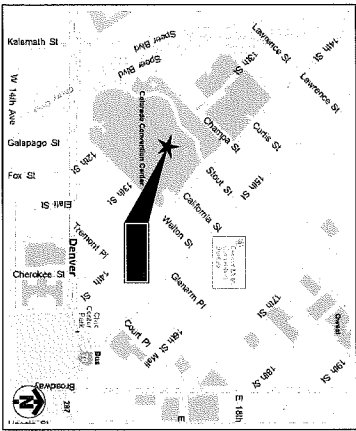
**SHEET INDEX**

NO.	DESCRIPTION
T-1	TITLE SHEET
C-1	SITE PLAN
C-2	EXISTING EQUIPMENT ROOM PLAN
C-2A	EXISTING EQUIPMENT ROOM PLAN
C-2B	TEMPORARY EQUIPMENT ROOM PLAN
C-2C	FINAL EQUIPMENT ROOM PLAN
C-3	EQUIPMENT AND GAS ANTENNA DETAILS
C-4A	RADIO SPECS AND MOUNTING DETAILS
C-4B	RADIO SPECS AND MOUNTING DETAILS
E-1	UNDRAINED UTILITY PLAN
E-2	ONE LINE RIBBER DIAGRAM AND DETAILS
E-3	FIBER & SITE DETAILS
E-4	GROUNDING DIAGRAM AND NOTES

**DRIVING DIRECTIONS**

DEPART FROM NEAREST MAJOR AIRPORT:  
 DEPART DENVER INT'L AIRPORT ON PENNA BLVD (SOUTH)  
 BEAR RIGHT (WEST) ON PENNA BLVD  
 BEAR RIGHT (SOUTH) ON PENNA BLVD  
 BEAR LEFT (WEST) TO PENNA BLVD  
 AT EXIT 714, TAKE RAMP (LEFT) ONTO HWY. I-76  
 AT EXIT 714, TURN RIGHT ONTO RAMP TO HWY. I-25  
 KEEP LEFT TO STAY ON RAMP I-25  
 AT EXIT 212B, TURN RIGHT ONTO RAMP TO N. SPEER BLVD  
 BEAR RIGHT (SOUTH-WEST) ONTO N. SPEER BLVD  
 BEAR RIGHT (WEST) ONTO N. SPEER BLVD  
 TURN LEFT (EAST) ONTO SPOUT ST.  
 ARRIVE AT SITE ON RIGHT.

**VICINITY MAP**



SITE NAME

**COLORADO CONVENTION CENTER**

SITE NUMBER

**DN98XC006**

SITE ADDRESS

**10014TH ST,  
DENVER, CO 80202**

PROJECT NAME

**NETWORK VISION MYBTS LAUNCH**

**PROJECT TEAM**

**FULLERTON**  
 ENGINEERS  
 9601 W. BRUNN HAVEN AVE SUITE 200  
 DENVER, COLORADO 80231  
 TEL: 847.292.0200  
 FAX: 847.292.0206  
 www.fullertonengineering.com

**SCOPE OF WORK:**

- HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED
- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
- FACILITY HAS NO PUMPING OR REFRIGERANTS
- THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS
- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF APPLICABLE REGULATORY STANDARDS FOR COMMERCIAL WIRELESS SITES (LATEST VERSION)
- INSTALL NEW CABINETS (7), RACKS (7), AND RIBBONS (6)
- INSTALL EXISTING EQUIPMENT ROOM
- INSTALL NEW GAS ANTENNA (1) AND REUSE EXISTING COAX CABLE (1)
- INSTALL NEW FIBER FROM MEET POINT TO NEW AV EQUIPMENT CABINET AND TO NEW EQUIPMENT CABINET
- ALL NEW MATERIAL SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE
- ANTENNAS, RIBBONS AND CABLES FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR

**PROJECT SUMMARY**

SITE NAME:	COLORADO CONVENTION CENTER
SITE NO.:	DN98XC006
SITE ADDRESS:	10014TH ST DENVER, CO 80202
COUNTY:	DENVER
SITE COORDINATES:	(GOOGLE) N 39°14'31.9" W 104°58'41.1" NAD 83 (NAD 83) 5951.1
LONGITUDE:	
ELEVATION:	
JURISDICTION:	CITY OF DENVER
ZONING:	
APPLICANT:	SPRINT/NEXTEL, PROPERTY SERVICES HALL STON, KSCOPF1020, Z1650 6391 SPRINT PARKWAY OVERLAND PARK, KS 66201-2650
LANDLORD:	COLORADO CONVENTION CENTER 10014TH ST DENVER, CO 80202 (303) 228-6000
BUILDING CODE:	2009 INTERNATIONAL BUILDING CODE
ELECTRICAL CODE:	2009 NATIONAL ELECTRICAL CODE
ENGINEER'S LICENSE	

**ENGINEER'S LICENSE**

**CERTIFICATION STATEMENT:**  
 I CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF CONFORM WITH THE REQUIREMENTS OF INTERNATIONAL BUILDING CODE 2009 EDITION  
 LICENSED ENGINEER - STATE OF COLORADO

ISSUED DATE:	_____	LICENSER:	_____
APPROVALS			
PRINT COPIES:	DATE		
PRINT PER:	DATE		
PRINT OPS:	DATE		
LANDLORD:	DATE		

DRAWING SCALED TO 11"x17"

**Sprint**  
 6370 SPRINT PARKWAY  
 OVERLAND PARK, KS 66201  
 TEL: (913) 782-9999

**FULLERTON**  
 9601 W. BRUNN HAVEN, AVE SUITE 200  
 DENVER, COLORADO 80231  
 TEL: 847.292.0200  
 FAX: 847.292.0206  
 www.fullertonengineering.com

CHECKED BY:	DATE	INCHES	DATE	BY
CU	1/26/04	5/8"	8/27/02	TU

SITE NAME  
**COLORADO CONVENTION CENTER**

SITE NO.  
**DN98XC006**

SITE ADDRESS  
**10014TH ST,  
DENVER, CO 80202**

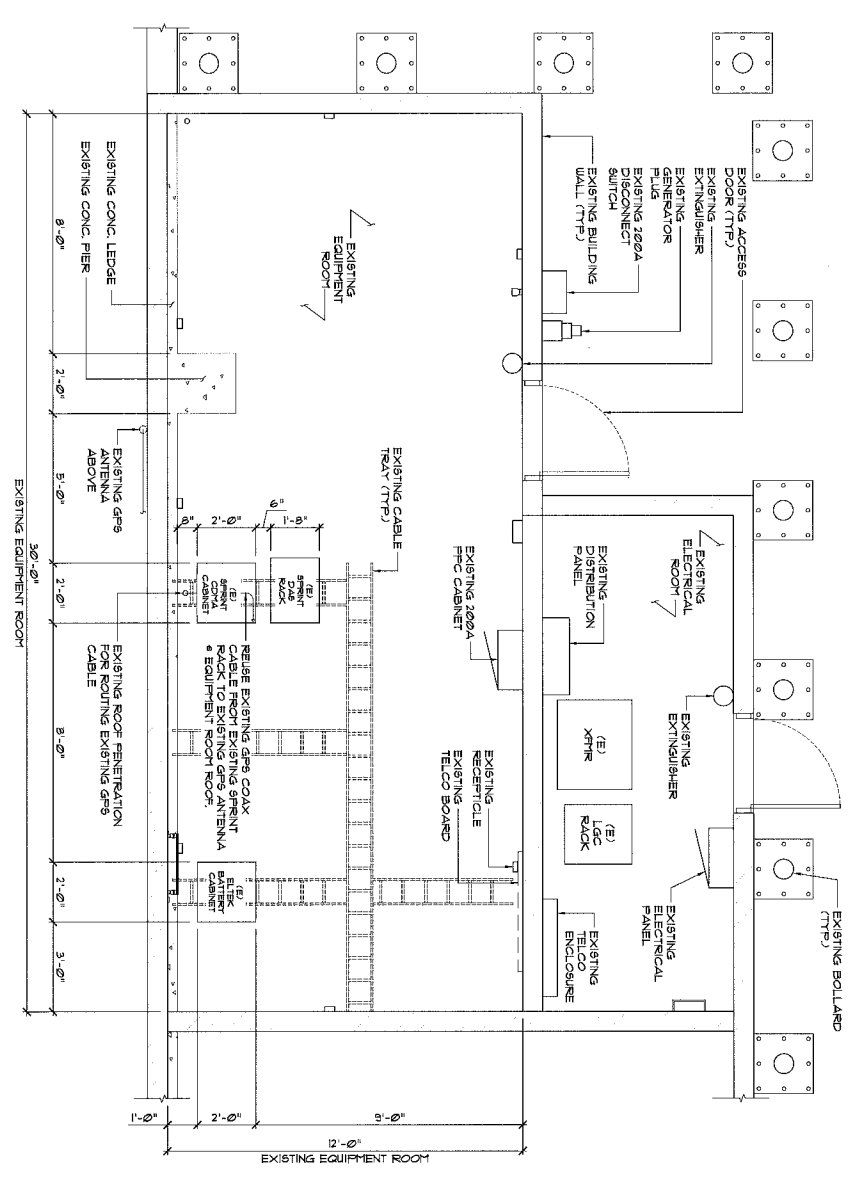
SHEET NAME  
**TITLE SHEET**

SHEET NUMBER  
**T-1**





EXISTING EQUIPMENT ROOM PLAN

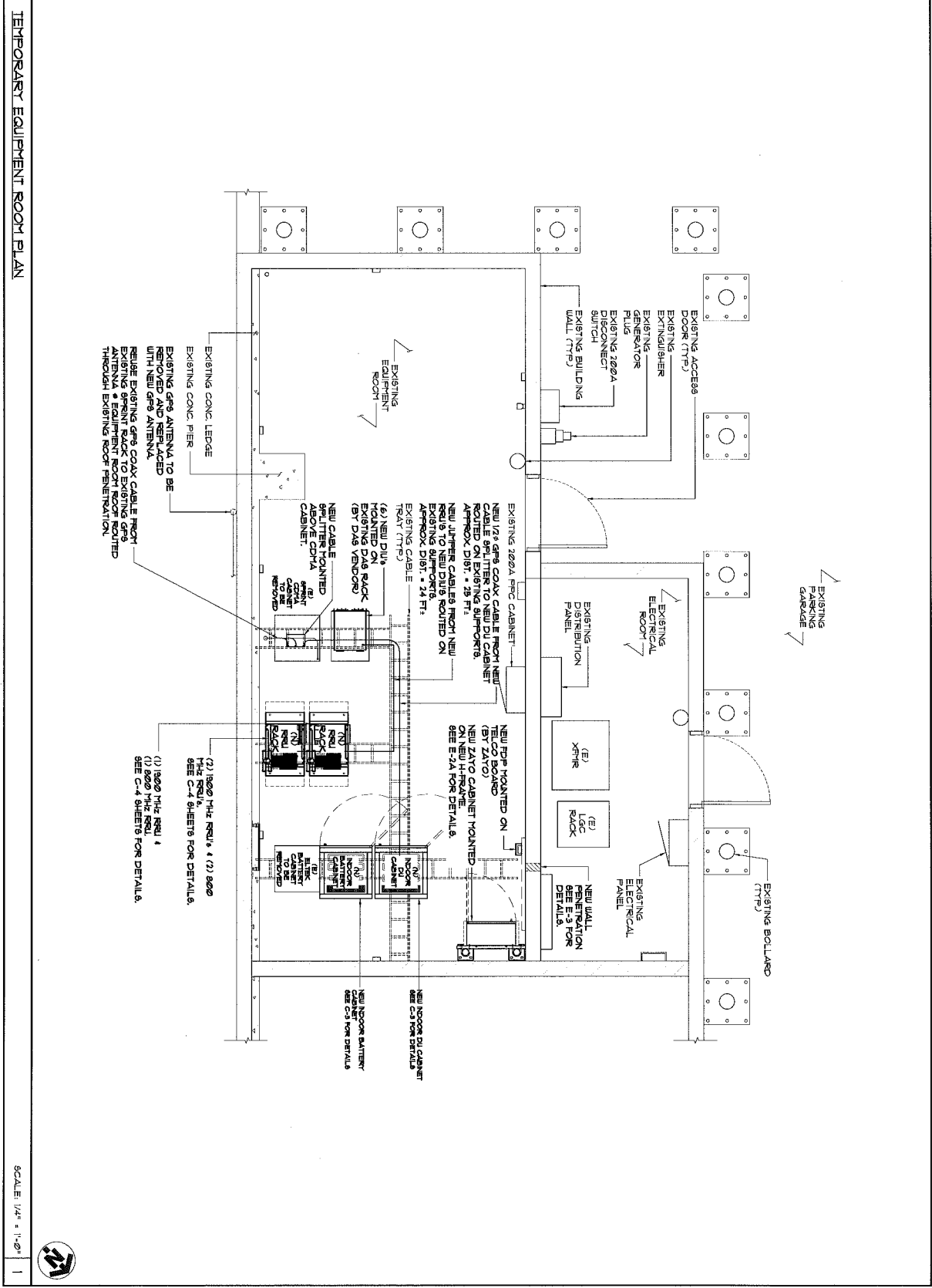


SCALE: 1/4" = 1'-0"



<p><b>Sprint</b></p> <p>6770 SPRINT PARKWAY OVERLAND PARK, MO 66204 TEL: (316) 552-5895</p>		<p><b>FULLERTON</b></p> <p>9400 W. BURN HAVEN AVE. SUITE 200 ROSEMOUNT, ILLINOIS 60018 TEL: 847-292-0200 FAX: 847-292-0206 www.fullerton-engineering.com</p>									
<p>DESIGNED BY: <b>CE</b></p> <p>DRAWN BY: <b>MB</b></p> <p>DATE: <b>7/20/14</b></p> <p>DATE: <b>5/28/2010</b></p> <p>DATE: <b>7/11/09</b></p>	<p>REVISIONS:</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>7/20/14</td> <td>5/28/2010</td> <td>TW</td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION	BY	1	7/20/14	5/28/2010	TW	<p>SITE NAME <b>COLORADO CONVENTION CENTER</b></p> <p>SITE NO. <b>DN93XC0006</b></p> <p>SITE ADDRESS <b>1200 14TH ST., DENVER, CO 80202</b></p> <p>SHEET NAME <b>EXISTING EQUIPMENT ROOM PLAN</b></p> <p>SHEET NUMBER <b>C-2A</b></p>	
NO.	DATE	DESCRIPTION	BY								
1	7/20/14	5/28/2010	TW								

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TEMPORARY EQUIPMENT ROOM PLAN

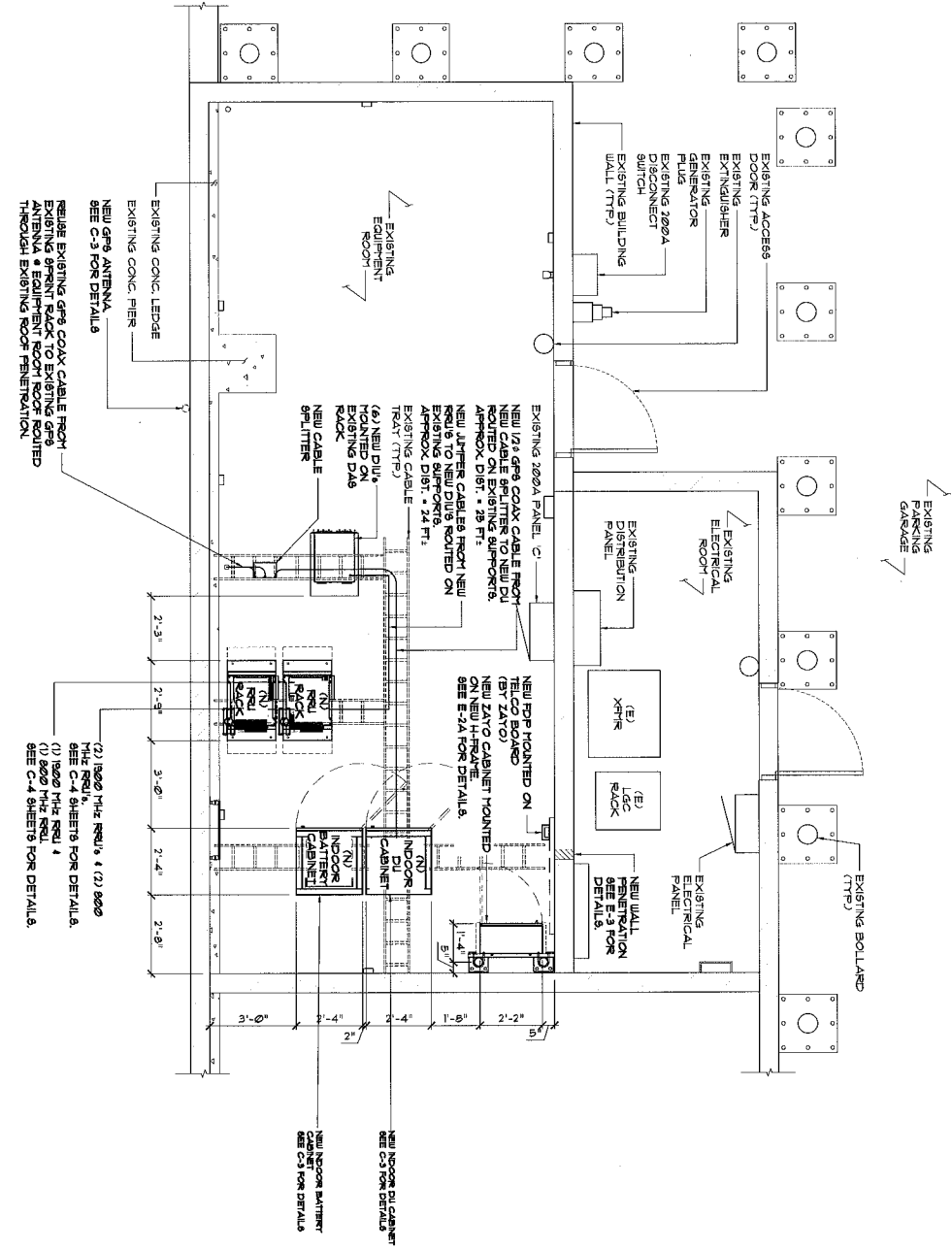
SCALE: 1/4" = 1'-0"



	<p>6720 SPRINT PARQUAY OVERLAND PARK, KS 66251 TEL: (913) 762-9657</p>	<p><b>FULLERTON</b></p>	<p>9600 W. 89th AVENUE, SUITE 200 OVERLAND PARK, KS 66208 TEL: 913-792-0200 FAX: 913-792-0206 www.fullertonengineering.com</p>																						
<p>CHECKED BY: CJ APPROVED BY: THB</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>#</th> <th>DATE</th> <th>DESCRIPTION</th> <th>INIT</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2/28/04</td> <td>90% REVISED</td> <td>THB</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	#	DATE	DESCRIPTION	INIT	1	2/28/04	90% REVISED	THB																	<p>SITE NAME <b>COLORADO CONVENTION CENTER</b></p> <p>SITE NO. <b>DN98XC0006</b></p> <p>SITE ADDRESS 1000 14TH ST. DENVER, CO 80202</p> <p>SHEET NAME <b>TEMPORARY EQUIPMENT ROOM PLAN</b></p> <p>SHEET NUMBER <b>C-2B</b></p>
#	DATE	DESCRIPTION	INIT																						
1	2/28/04	90% REVISED	THB																						

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FINAL EQUIPMENT ROOF PLAN

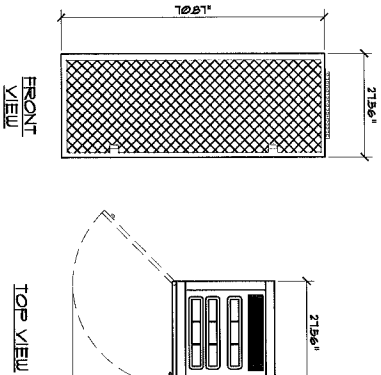


SCALE: 1/4" = 1'-0"



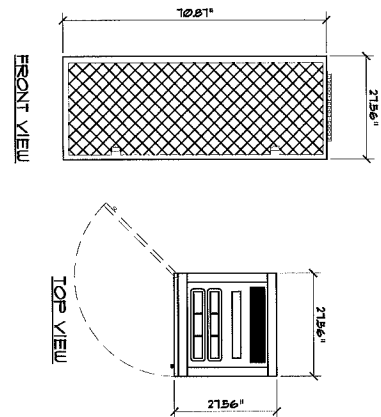
6220 SPRINT PARKWAY OVERLAND PARK, MO 66251 TEL: (816) 651-9551									
<b>FULLERTON</b> ENGINEERING CONSULTANTS, INC. 9600 W. ARVIN HANG AVE. SUITE 200 ROSEMONT, ILLINOIS 60018 TEL: 847.375.0200 FAX: 847.375.0208 WWW.FULLERTONENGINEERING.COM									
CHECKED BY: JCI APPROVED BY: JMB	<table border="1"> <thead> <tr> <th>#</th> <th>DATE</th> <th>DESCRIPTION</th> <th>INT</th> </tr> </thead> <tbody> <tr> <td>220/14</td> <td>9/26</td> <td>REVIEW</td> <td>TJL</td> </tr> </tbody> </table>	#	DATE	DESCRIPTION	INT	220/14	9/26	REVIEW	TJL
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220/14	9/26	REVIEW	TJL						
SITE NAME <b>COLORADO CONVENTION CENTER</b>									
SITE NO. <b>DN83XC0006</b>									
SITE ADDRESS 1000 W 4TH ST. DENVER, CO 80202									
SHEET NAME <b>FINAL EQUIPMENT ROOF PLAN</b>									
SHEET NUMBER <b>C-2A</b>									

**NEW SAMSUNG DU INDOOR CABINET**

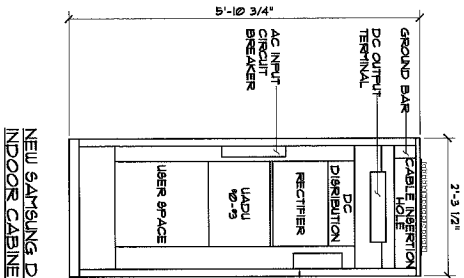


DIMENSIONS  
 WEIGHT W/O UADU 76.91" x 2156" x 2156"  
 WEIGHT W/ UADU 474 lbs  
 26.63 lbs

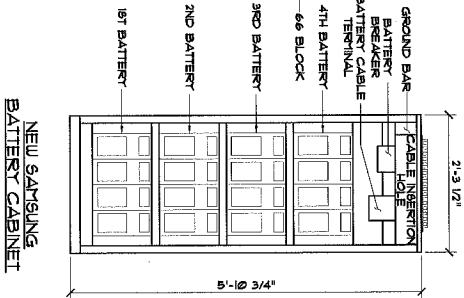
**NEW SAMSUNG BATTERY CABINET**



DIMENSIONS  
 WEIGHT W/TH BATTERY 76.91" x 2156" x 2156"  
 2533 lbs



**NEW SAMSUNG DU INDOOR CABINET**



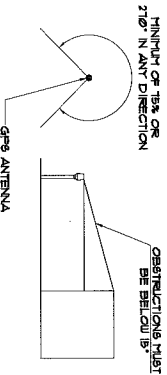
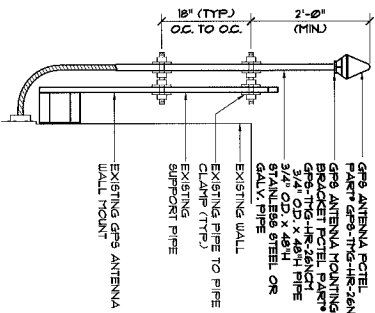
**NEW SAMSUNG BATTERY CABINET**

INDOOR DU AND BATTERY CABINET DETAILS

SCALE: 1/4" = 1'-0"

GPS ANTENNA DETAIL

SCALE: NTS

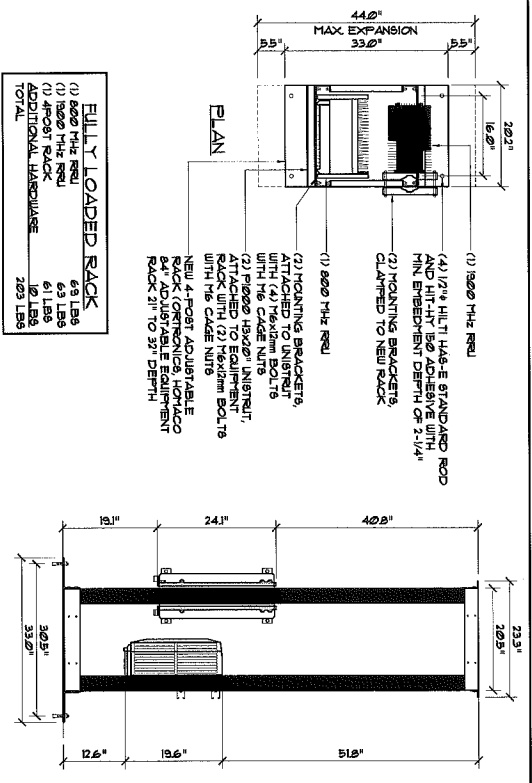


- GPS MINIMUM SKY VIEW REQUIREMENTS**
- NOTES:**
- THE LOCATION AND LOCATION OF THE GPS ANTENNA SHALL BE ACCORDANCE WITH THE FULL REPORT.
  - THE GPS ANTENNA HOIST IS DESIGNED TO FASTEN TO A STANDARD 1 1/4\"/>

GPS ANTENNA DETAIL

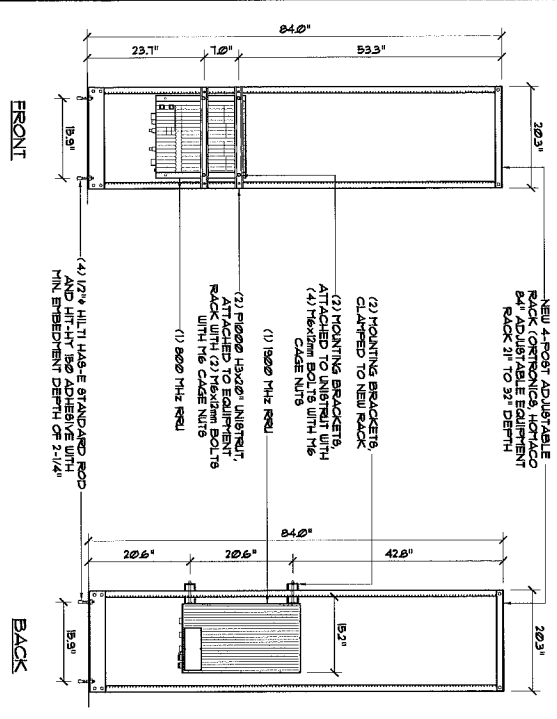
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		6720 SPRINT PARKWAY OVERLAND PARK, KS 66251 TEL: (817) 651-5655	
		9600 W. BURNHAMME AVE. SUITE 200 HOUSTON, TEXAS 77063 TEL: 847.292.0200 FAX: 847.292.0206 www.fullertonengineering.com	
CHECKED BY:	CJ	DATE:	11/15/07
APPROVED BY:	THB	REVISION:	1
BY:	2/28/07	90% REVIEW:	1/11/07
SHEET NAME <b>COLORADO CONVENTION CENTER</b>			
SITE NO. <b>DN98XC0006</b>			
SITE ADDRESS 1000 4TH ST. DENVER, CO 80202			
SHEET NUMBER <b>C-3</b>			

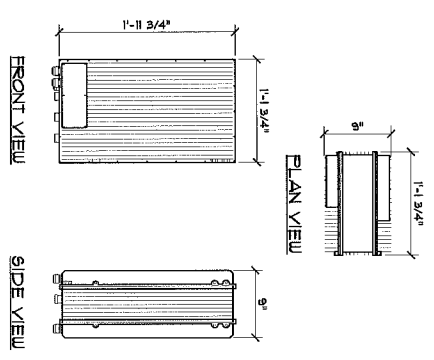


**FULLY LOADED RACK**

(1) 1900 MHz REU	6.8 LBS
(2) MOUNTING BRACKET	6.8 LBS
(4) 1/2" HILTI HAS-E STANDARD ROD AND HIT-IT 150 ADHESIVE WITH MIN EMBEDMENT DEPTH OF 2-1/4"	81 LBS
(2) MOUNTING BRACKET, CLAMPED TO NEW RACK	13.6 LBS
<b>TOTAL</b>	<b>209 LBS</b>



1900 MHz REU'S MOUNTING DETAILS 1 SCALE: 1/2" = 1'-0"



**SAMSUNG REU 1900**

DIMENSIONS (INCHES)

HEIGHT: 1'-1 3/4"

WIDTH: 1'-1 3/4" x 9" x 1'-1 3/4"

WEIGHT: 67.25 LB

1900 MHz REU DETAILS 2 SCALE: 3/4" = 1'-0"

6720 SPRINT PARKWAY  
OVERLAND PARK, KS 66251  
TEL: (913) 652-5051

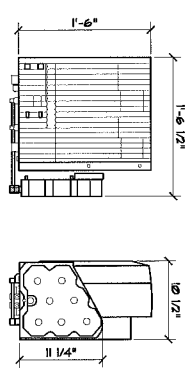
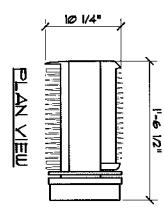
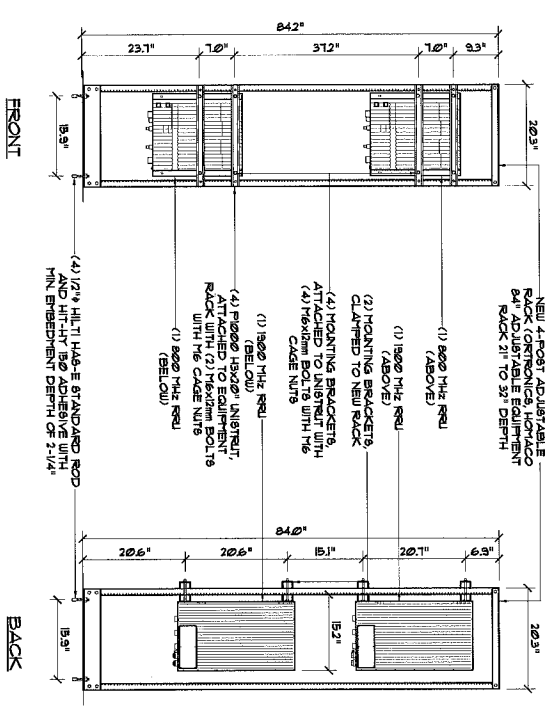
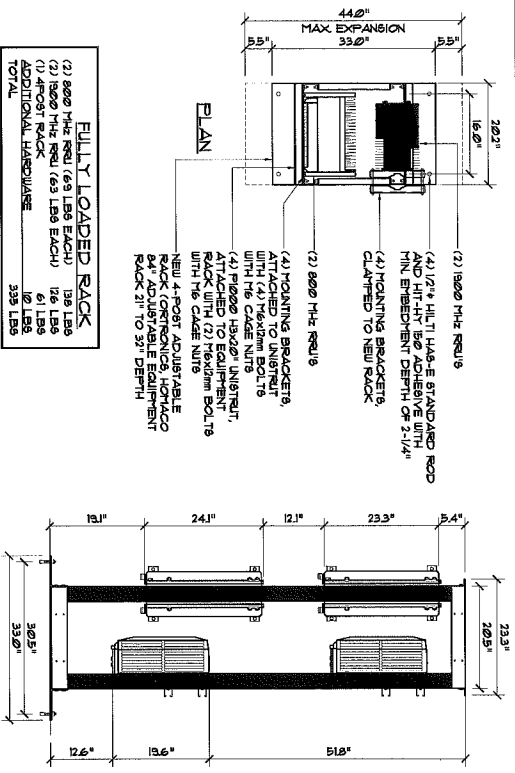
**FULLERTON**

9600 W. 96TH AVENUE, SUITE 200  
ROSKOPF, ILLINOIS 60018  
TEL: 847.292.0200  
FAX: 847.292.0206  
www.fullertonengineering.com

DESIGNED BY: [initials]	DATE: 2/28/14	SCALE: 3/4" = 1'-0"
DRAWN BY: [initials]	DATE: 2/28/14	SCALE: 3/4" = 1'-0"
CHECKED BY: [initials]	DATE: 2/28/14	SCALE: 3/4" = 1'-0"
APPROVED BY: [initials]	DATE: 2/28/14	SCALE: 3/4" = 1'-0"

SITE NAME <b>COLORADO CONVENTION CENTER</b>
SITE NO. <b>DN8XC006</b>
SITE ADDRESS <b>1000 4TH ST. DENVER, CO 80202</b>
SHEET NAME <b>RADIO SPECS AND MOUNTING DETAILS</b>
SHEET NUMBER <b>C-4A</b>

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**SAMSUNG RRU 800**

DIMENSIONS (WxDxH)

1'-6 1/2" x 10 1/4" x 1'-6"

65.34 LB

800 & 1900 MHz RRUs MOUNTING DETAILS

SCALE: 1/2" = 1'-0"

1

800 MHz RRU DETAILS

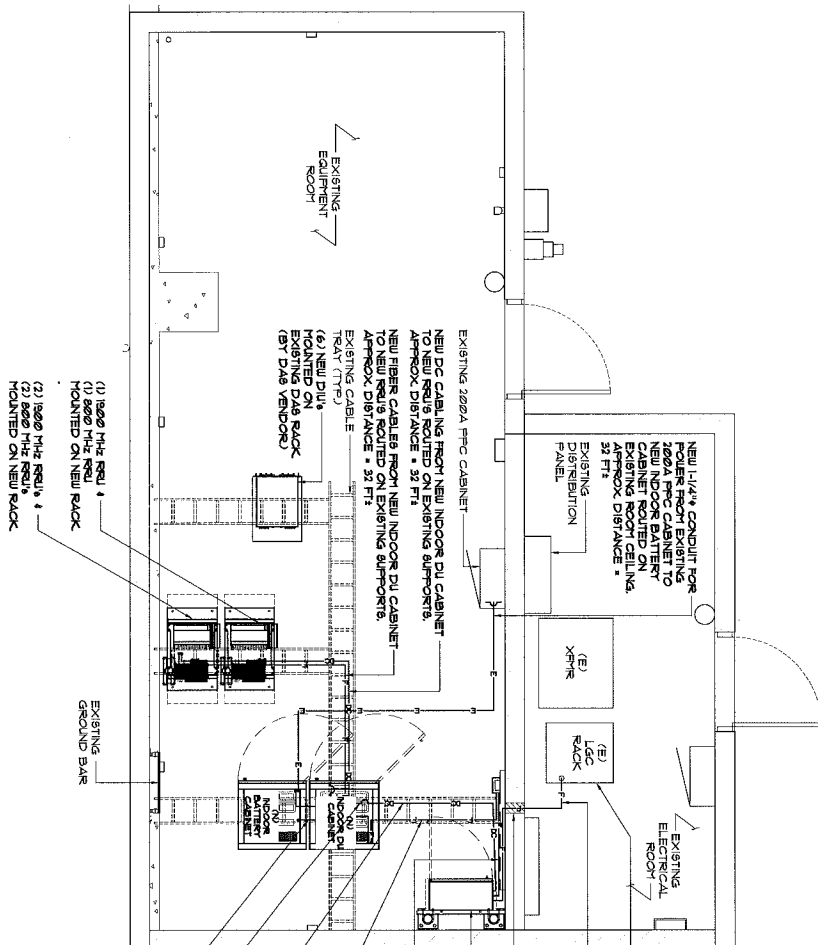
SCALE: 3/4" = 1'-0"

2

		6120 SPRINT PARKWAY OVERLAND PARK, KS 66251 TEL: (913) 162-8052	
		9600 W. BRINN HAVAN AVE. SUITE 200 NORTH PLATTE, NE 68901 TEL: 847-293-0200 FAX: 847-293-0206 www.fullertonengineering.com	
CHECKED BY: CJ APPROVED BY: MFB # DATE DESCRIPTION TIME 2/28/14 9:29 (REVISED) 10	SITE NAME <b>COLORADO CONVENTION CENTER</b> SITE NO.	SHEET NAME <b>RADIO SPECS AND MOUNTING DETAILS</b> SHEET NUMBER <b>C-4B</b>	SITE ADDRESS 7000 W 14th ST. DENVER, CO 80202
SITE ADDRESS <b>DN98XC006</b>		SHEET NUMBER <b>C-4B</b>	

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**NOTE:**  
ALL FLOOR AND WALL  
PENETRATIONS TO BE 2-HR FIRE  
RATED PER BUILDING TYPE  
SEE E-3 FOR DETAILS



- (1) 1800 MHz RRU's 4
- (1) 800 MHz RRU
- MOUNTED ON NEW RACK
- (2) 1800 MHz RRU's 4
- (2) 800 MHz RRU's 4
- MOUNTED ON NEW RACK

- MEET POINT
- EXISTING LDC RACK
- NEW 1-1/4" INNEODUCT FOR FIBER FROM FIBER FEET POINT TO NEW APPROX. DISTANCE = 23 FT.
- NEW WALL PENETRATION SEE E-3 FOR DETAILS.
- NEW ZAYO CABINET MOUNTED ON NEW L-FRAME (BY ZAYO) APPROX. DISTANCE = 23 FT.
- NEW 1-1/4" INNEODUCT FOR FIBER FROM NEW TELCO BOARD MOUNTED ON EXISTING TELCO BOARD. APPROX. DISTANCE = 18 FT.
- NEW 1-1/4" INNEODUCT FOR FIBER FROM NEW INDOOR DU CABINET TO NEW INDOOR DU CABINET APPROX. DISTANCE = 10 FT.
- NEW DC CABLING FROM NEW ZAYO CABINET TO NEW INDOOR DU CABINET APPROX. DISTANCE = 26 FT.
- NEW 202A IN C/P (L-24) FOR NEW ZAYO CABINET DC FEED
- NEW DC CABLING FROM NEW INDOOR DU CABINET TO NEW INDOOR DU CABINET APPROX. DISTANCE = 20 FT.

**ENLARGED UTILITY PLAN**

SCALE: 1/4" = 1'-0"



<p><b>Sprint</b></p> <p>6720 SPRINT PARKWAY OVERLAND PARK, KS 66251 TEL: (913) 162-8052</p>	<p><b>FULLERTON</b></p> <p>9600 W. BRINN HAVEN AVE, SUITE 200 ROSBORN, UT 82501 TEL: (970) 233-0216 FAX: (970) 233-0216 www.fullertonengineering.com</p>	<p>SITE NAME: <b>COLORADO CONVENTION CENTER</b></p> <p>SITE NO.: <b>DN98XC006</b></p> <p>SITE ADDRESS: <b>700 14TH ST. DENVER CO 80202</b></p> <p>SHEET NAME: <b>ENLARGED UTILITY PLAN</b></p> <p>SHEET NUMBER: <b>E-1</b></p>																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>APPROVED BY:</th> <th>DATE:</th> <th>DISTRIBUTION:</th> <th>INT.</th> </tr> </thead> <tbody> <tr> <td>CJ</td> <td>2/28/14</td> <td>90% REVIEW</td> <td>TL</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			APPROVED BY:	DATE:	DISTRIBUTION:	INT.	CJ	2/28/14	90% REVIEW	TL												
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CJ	2/28/14	90% REVIEW	TL																			

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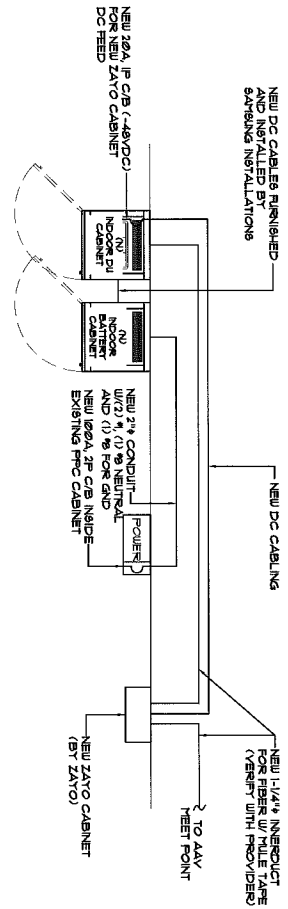
**Sprint**  
 6720 SPRINT PARKWAY  
 OVERLAND PARK, KS 66251  
 TEL: (817) 761-8092

**FULLERTON**  
 6900 W. BRYN MAWR AVE. SUITE 200  
 OVERLAND PARK, KS 66205  
 TEL: 817-292-0206  
 FAX: 817-292-0206  
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CHECKED BY:	CJ
APPROVED BY:	TBS
# DATE	DISCRETION INT
2/28/14	90% REVIEW INT

SITE NAME  
**COLORADO CONVENTION CENTER**  
 SITE NO.  
**DN98XC006**  
 SITE ADDRESS  
 1000 14TH ST  
 DENVER, CO 80202

SHEET NAME  
**ONE LINE RISER DIAGRAM AND DETAILS**  
 SHEET NUMBER  
**E-2**



**ONE LINE DIAGRAM**

SCALE: NTS, 1

NOTES:  
 1. NEW 100A 2P CB FOR NEW DU INDOOR CABINET INSIDE EXISTING PFC CABINET

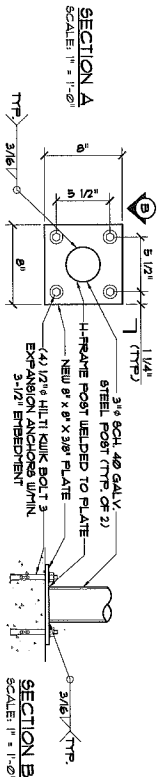
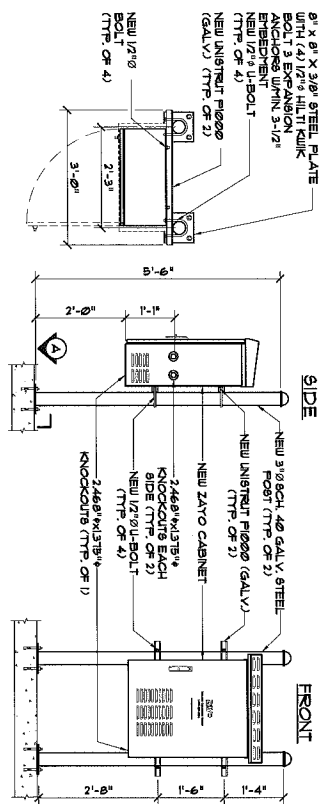
CIRCUIT NUMBER	CIRCUIT DESCRIPTION	CIRCUIT TYPE	LOADS			WIRE	CIRCUIT BREAKER	PANEL	TERMINAL	CIRCUIT NUMBER	CIRCUIT DESCRIPTION	CIRCUIT TYPE	LOADS			WIRE	CIRCUIT BREAKER	PANEL	TERMINAL	
			RESISTIVE	INDUCTIVE	POWER FACTOR								RESISTIVE	INDUCTIVE	POWER FACTOR					RESISTIVE
1	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	1	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
2	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	2	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
3	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	3	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
4	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	4	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
5	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	5	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
6	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	6	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
7	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	7	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
8	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	8	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
9	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	9	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
10	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	10	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
11	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	11	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
12	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	12	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
13	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	13	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
14	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	14	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
15	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	15	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
16	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	16	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
17	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	17	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
18	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	18	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
19	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	19	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
20	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	20	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
21	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	21	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
22	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	22	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
23	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	23	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
24	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	24	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
25	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	25	SPRING	IND	0.00	0.00	1.00	125	2	30	REC'D	
TOTAL LOAD										TOTAL LOAD										

**EXISTING DISTRIBUTION PANEL**

SCALE: NTS, 2

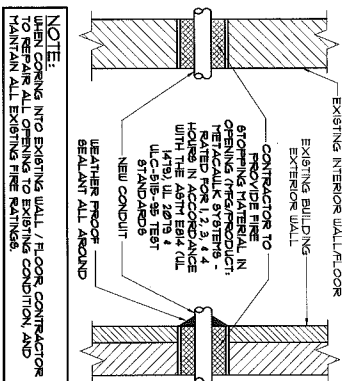
**NEW DISTRIBUTION PANEL**

SCALE: NTS, 3



ZAYO CABINET DETAILS

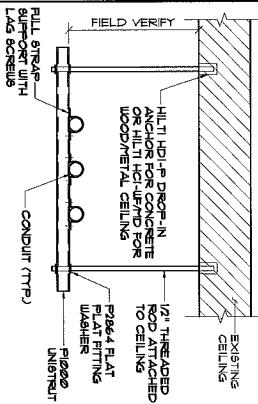
SCALE: N.T.S.



**NOTE:**  
WHEN CORING INTO EXISTING WALL / FLOOR CONTRACTOR TO REPAIR ALL OPENING TO EXISTING CONDITION AND MAINTAIN ALL EXISTING THE FINISHES.

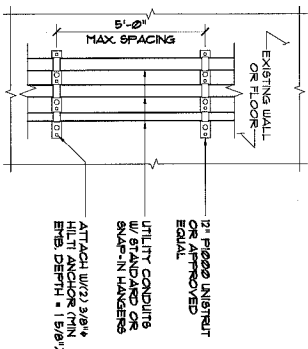
WALL PENETRATION DETAIL

SCALE: N.T.S.



TFP CONDUIT ATTACHMENT @ CEILING

SCALE: N.T.S.



TFP SUPPORT @ BUILDING WALL

SCALE: N.T.S.

NOT USED

SCALE: N.T.S.

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**FULLERTON**  
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DRAWN BY:	TBD
CHECKED BY:	NS
DATE:	1/28/14
SCALE:	50% REDUCED
TITLE:	TU

SITE NAME  
**COLORADO CONVENTION CENTER**

SITE NO.  
**DN93XC0006**

SITE ADDRESS  
**1002 14TH ST  
DENVER, CO 80202**

SHEET NAME  
**FIBER & SITE DETAILS**

SHEET NUMBER  
**E-3**

**SERVICE EQUIPMENT NOTES:**

1. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
2. PATCH REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.

**CONDUCTOR NOTES:**

1. ALL CONDUCTORS SHALL BE COPPER
2. ALL WIRING SHALL BE COPPER WITH THINNYAN DUAL RATED 600V VOLTS INSULATION
3. GROUNDING CONDUCTORS SHALL BE SOLID TINNED COPPER UNLESS OTHERWISE NOTED.

**CONDUIT NOTES:**

1. RIGID GALVANIZED STEEL (RGS) SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH EARTH, OR EXPOSED ABOVE GRADE
2. EMT SHALL BE USED ONLY FOR INTERIOR RUNS AND SHALL HAVE COMPRESSION TYPE FITTINGS
3. SEAL TIGHT, FLEXIBLE CONDUIT MAY BE USED WHERE CODE PERMITS. ALL CONDUIT SHALL HAVE FULL SIZE EQUIPMENT GROUND WIRE
4. SERVICE CONDUITS SHALL HAVE NO MORE THAN (3) - 90° BENDS IN ANY SINGLE RUN. THE CONTRACTOR SHALL PROVIDE FULL BOXES AS NEEDED WHERE CONDUIT REQUIREMENTS EXCEED THESE CONDITIONS
5. ALL CABLES, POWER AND/OR TELEPHONE AND/OR FIBER OPTIC CONDUITS SHALL HAVE A MINIMUM 24" RADIUS SWEEP TO EQUIPMENT FULL BOXES, ETC. UNLESS OTHERWISE NOTED, OR AS REQUIRED BY UTILITY COMPANIES

**NEW CABLE GROUNDING NOTES:**

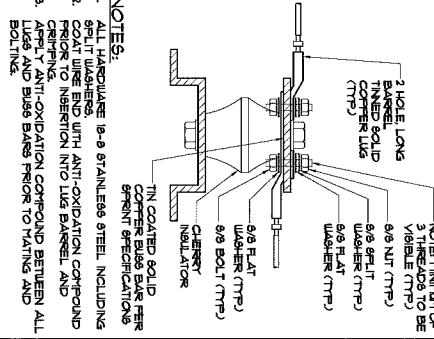
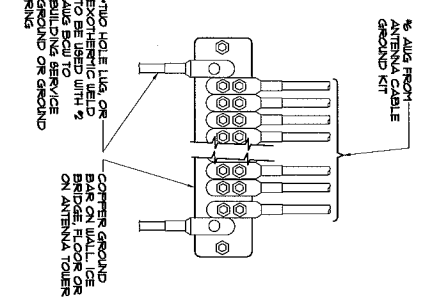
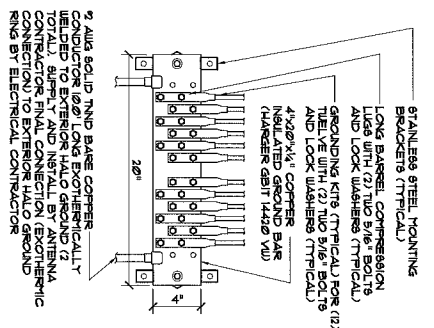
1. CONTRACTOR SHALL CONNECT GROUND KITS TO THE EXISTING GROUND BARS AT THE TOP AND BASE OF TOWER
2. CONTRACTOR SHALL CONNECT GROUND KITS TO THE NEW GROUND BAR BEFORE ENTRY TO CABINET
3. NO BACK TO BACK LUGGING OF SPRINT GROUND

**GENERAL GROUNDING NOTES:**

1. VERTICAL DROPS SHALL BE 20" Ø OF 1/2" AWG SOLID TINNED COPPER WIRE. CAPWELD TO GROUND BAR
2. ALL BENDS MINIMUM 9" RADIUS.
3. APPLY ANTI-OXIDATION COMPOUND TO ALL CONNECTIONS.
4. BASE COPPER CONDUCTORS SHALL NOT BE IN CONTACT WITH ANY DISSIMILAR MATERIAL. PLACE ON STANDOFFS, IF NECESSARY TO ALLOW FOR PROPER INSTALLATION.
5. SHAFT BENDS IN GROUNDING CONDUCTORS SHALL BE AVOIDED. 90° BENDS SHALL NOT BE USED.
6. ALL GROUNDING CONDUCTORS SHALL BE KEPT AS SHORT AS POSSIBLE. THE SHORTEST PRACTICAL ROUTE SHALL BE CHOSEN WITH THE LEAST AMOUNT OF BENDS AND SPLICES. USE THIS RULE AT ALL TIMES.
1. ALL CONNECTIONS TO GROUND BARS SHALL BE WITH A 3-HOLE LUG UNLESS OTHERWISE SPECIFIED.
2. WHEN GROUNDING MORE THAN ONE PIECE OF EQUIPMENT, DO NOT USE THE EQUIPMENT AS A GROUNDING CONDUCTOR. DOUBLE-STACKING OF LUGS SHALL BE USED TO GET FROM EQUIPMENT TO EQUIPMENT.
3. REMOVE ALL PAINT BENEATH THE SURFACE OF GROUND LUGS.

**NOTES**

SCALE: NTS, 1

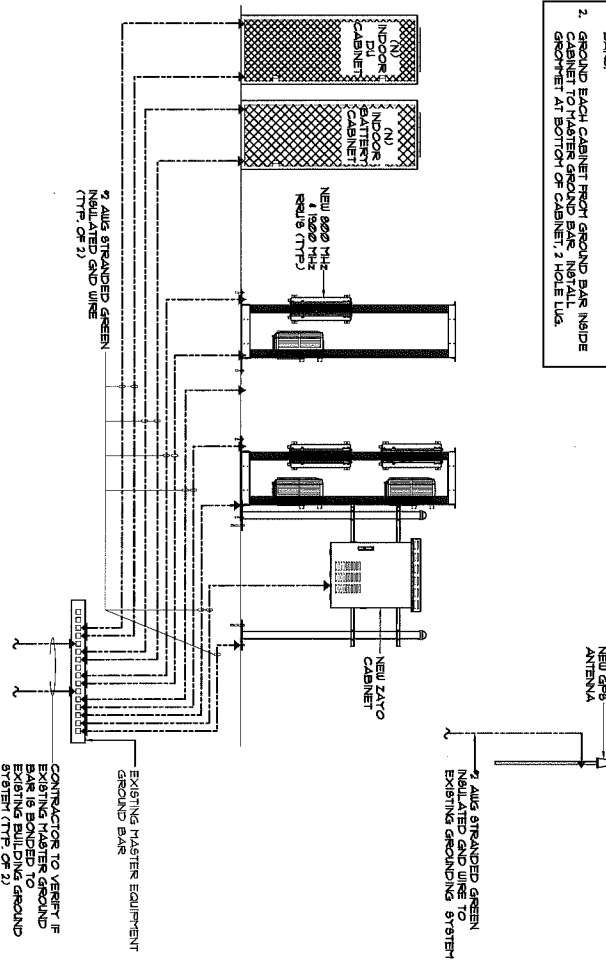


**TYPICAL GROUNDING DETAILS**

SCALE: NTS, 2

- NOTE:**
1. ALL NEW GROUND BARS SHALL BE TIED TO EXISTING BARS.
  2. GROUND EACH CABINET FROM GROUND BAR INSIDE CABINET AT BOTTOM OF CABINET; 1-HOLE LUG.

- MECHANICAL CONNECTION
- EXOTHERMIC CONNECTION



**TYPICAL GROUNDING RISER DIAGRAM**

SCALE: NTS, 3

**Sprint**

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1/18/11	9/21/10	9/21/10	INT

SITE NAME  
**COLORADO CONVENTION CENTER**

SITE NO.  
**DN98XC0006**

SITE ADDRESS  
**1000 14TH ST  
DENVER, CO 80202**

SHEET NAME  
**GROUNDING DIAGRAM AND NOTES**

SHEET NUMBER  
**EG-1**