



SUSAN S. MURANISHI
COUNTY ADMINISTRATOR

C O U N T Y A D M I N I S T R A T O R

July 15, 2014

Honorable Board of Supervisors
Administration Building
Oakland, CA 94612

**SUBJECT: APPROVE AND AUTHORIZE THE EXECUTION OF A FIRST AMENDMENT TO
LICENSE AGREEMENT BETWEEN GTE MOBILNET OF CALIFORNIA LIMITED
PARTNERSHIP, DBA VERIZON WIRELESS AND THE OAKLAND-ALAMEDA
COUNTY COLISEUM AUTHORITY AND CERTAIN RELATED MATTERS**

Dear Board Members:

RECOMMENDATION:

Approve and authorize the execution of a First Amendment to License Agreement between GTE Mobilnet of California Limited Partnership, dba Verizon Wireless and the Oakland-Alameda County Coliseum Authority and certain related matters.

BACKGROUND:

In September 2012, the Board of Commissioners of the Oakland-Alameda County Coliseum Authority approved a License Agreement with GTE Mobilnet of California Limited Partnership, dba Verizon Wireless ("Verizon") to permit it to install a Distributed Antenna System (DAS) in the Arena. In the process of designing the installation of the DAS, Verizon became aware that it required additional space for the equipment associated with the DAS. Verizon has requested that the Authority amend the License Agreement to add the additional space required for installation. As compensation for this additional space, Verizon has agreed to pay an additional \$2,400 per year. The Oakland-Alameda County Coliseum Authority Board has approved the First Amendment to License Agreement, and the County and the City of Oakland, as property owners, must now also approve the Amendment.

FINANCING:

This action will have no impact on net county cost.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Susan Muranishi", is written over a horizontal line.

Susan S. Muranishi
County Administrator

SSM:KMM:ep
Attachments

FIRST AMENDMENT TO LICENSE AGREEMENT

This First Amendment to License Agreement ("**First Amendment**") is made effective as of April 1, 2014 (the "**Effective Date**") by and between Oakland-Alameda County Coliseum Authority, a California joint powers authority organized and existing under applicable provisions of the California Government Code and an Amended and Restated Joint Exercise of Powers Agreement, dated December 17, 1996, by and between the County of Alameda and the City of Oakland ("**Licensor**") and GTE Mobilnet of California Limited Partnership, d/b/a Verizon Wireless ("**Licensee**"), with reference to the facts set forth in the Recitals below:

RECITALS

A. WHEREAS, pursuant to an Amended and Restated Management Agreement entered into in March 2000 (the "**Management Agreement**"), Licensor operates and manages that certain plot, parcel or tract of land, improved with one or more structures (collectively, the "**Structure**"), together with all rights and privileges arising in connection therewith, located at 7000 Coliseum Way, City of Oakland, in the County of Alameda, State of California, and commonly known as the Oakland-Alameda County Coliseum (collectively, the "**Property**"); and

B. WHEREAS, Licensor and Licensee are parties to a License Agreement dated December 6, 2012 (the "**Agreement**"), pursuant to which Licensee licenses certain space within the Structure (the "**Equipment Space**") for the operation of a Distributed Antenna System ("**DAS**"); and

C. WHEREAS, Licensor's management agent, AEG Management Oakland, LLC, a California limited liability company ("**AEG**"), manages and operates many of the day-to-day business and game-day operations at the Property on behalf of Licensor; and

D. Licensor and Licensee have agreed to amend the Agreement to expand the Equipment Space to accommodate the installation of additional DAS equipment.

AGREEMENT

NOW, THEREFORE, in consideration of the facts contained in the Recitals above, the mutual covenants and conditions below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Exhibits. The parties acknowledge and agree that the attached **Exhibit 1B-1** attached to this First Amendment is intended to supplement the **Exhibit 1B** attached to the Agreement. To the extent of any discrepancies between **Exhibit 1B** and **Exhibit 1B-1**, the **Exhibit 1B-1** shall control.

2. Additional Equipment Space. Section 2(a) of the Agreement is hereby amended to reflect that the Equipment Space shall be expanded to include a separate parcel of space measuring approximately four feet (4') by eleven feet (11') (the "**Additional Equipment Space**") to accommodate the installation and operation of Licensee's additional DAS equipment, which Additional Equipment Space shall hereafter be considered part of the Premises. Licensor

hereby consents to the installation and operation of such equipment, as described and depicted in **Exhibit 1B-1**.

3. License Fee Increase. Beginning on the first (1st) day of the month following the full execution of this First Amendment (the "**License Fee Increase Date**"), the annual License Fee shall increase by Two Thousand Four Hundred Dollars (\$2,400.00) (the "**License Fee Increase**"). Licenser acknowledges that the initial payment of the License Fee Increase may not actually be sent by Licensee until thirty (30) days after the License Fee Increase Date.

4. Continued Effect. Except as specifically modified by this First Amendment, all of the terms and conditions of the Agreement shall remain in full force and effect. In the event of a conflict between any term and provision of the Agreement and this First Amendment, the terms and provisions of this First Amendment shall control. In addition, except as otherwise stated in this First Amendment, all initially capitalized terms will have the same respective defined meanings stated in the Agreement. All captions are for reference purposes only and shall not be used in the construction or interpretation of this First Amendment.

IN WITNESS WHEREOF, Licenser and Licensee have caused this First Amendment to be executed by each party's duly authorized representative effective as of the Effective Date.

"LICENSOR"

Oakland-Alameda County Coliseum Authority

By: _____
Chair

Date: _____, 2014

"LICENSEE"

GTE Mobilnet of California Limited Partnership,
d/b/a Verizon Wireless

By: Cellco Partnership
Its: General Partner

By:  _____

Print Name: Brian Mecum

Its: Area Vice President Network

Date: 5-27-14

ACKNOWLEDGED AND APPROVED:

CITY OF OAKLAND

By: _____
Print Name: _____
Its: _____
Date: _____, 2014

APPROVED AS TO FORM:

OFFICE OF THE CITY ATTORNEY

By: _____
Print Name: _____
Its: _____
Date: _____, 2014

ACKNOWLEDGED AND APPROVED:

COUNTY OF ALAMEDA

By: _____
Print Name: _____
Its: _____
Date: _____, 2014

APPROVED AS TO FORM:

OFFICE OF THE COUNTY COUNSEL

By: Brian Washington
Print Name: Brian Washington
Its: _____
Date: June 20, 2014

ACKNOWLEDGED AND APPROVED:

AEG Management Oakland, LLC
a California limited liability company

By: _____
Print Name: _____
Its: Authorized Representative
Date: _____, 2014

EXHIBIT 1B-1

Depiction of Additional Equipment Space

See attached.

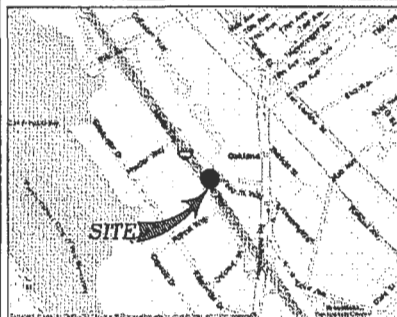


OAKLAND COLISEUM

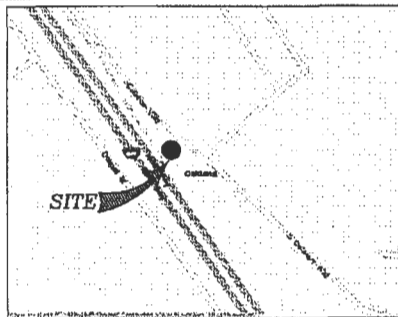
250504

7000 COLISEUM WAY
OAKLAND, CA 94621

VICINITY MAP - N.T.S.



AREA MAP - N.T.S.



DRIVING DIRECTIONS

FROM: VERIZON WIRELESS REGIONAL OFFICE
IN WALNUT CREEK, CA
2785 MITCHELL DRIVE
WALNUT CREEK, CA 94598

TO: 7000 COLISEUM WAY
OAKLAND, CA 94621

DISTANCE: 12.39 MILES

1. HEAD SOUTHWEST ON MITCHELL DRIVE TOWARD NORTH WIGET LANE
2. TURN LEFT AT NORTH WIGET LANE
3. TURN RIGHT ON YORBA VALLEY ROAD
4. MERGE ONTO CA-24 WEST VIA THE RAMP TO OAKLAND
5. CONTINUE ONTO I-880 WEST
6. MERGE ONTO I-880 SOUTH
7. TAKE EXIT 37 FOR 88TH AVE/ZHONGE WAY TOWARD MCAFEE COLISEUM
8. TURN LEFT ONTO ZHONGE WAY
9. CONTINUE ONTO 88TH AVENUE
10. TURN RIGHT ONTO COLISEUM WAY
11. TURN LEFT TO STAY ON COLISEUM WAY
(DESTINATION WILL BE ON THE RIGHT)

SIGNATURE BLOCK

VERIZON WIRELESS EQUIPMENT ENGINEER:

SIGNATURE _____ DATE _____

VERIZON WIRELESS CONSTRUCTION:

SIGNATURE _____ DATE _____

PROPERTY OWNER:

SIGNATURE _____ DATE _____

AGENT-CONSTRUCTION:

SIGNATURE _____ DATE _____

VERIZON WIRELESS REAL ESTATE:

SIGNATURE _____ DATE _____

VERIZON WIRELESS RF ENGINEER:

SIGNATURE _____ DATE _____

AGENT-LEASING:

SIGNATURE _____ DATE _____

AGENT-ZONING:

SIGNATURE _____ DATE _____

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. CALIFORNIA ADMINISTRATIVE CODE (INCL. TITLE 24 & 25)
2. 2010 CALIFORNIA BUILDING CODE
3. CITY/COUNTY ORDINANCES
4. BUILDING OFFICIALS AND CODE ADMINISTRATORS (BOCA)
5. 2010 CALIFORNIA MECHANICAL CODE
6. ANSI/ISA-222-0 LIFE SAFETY CODE NFPA-101
7. 2010 CALIFORNIA PLUMBING CODE
8. 2010 CALIFORNIA ELECTRICAL CODE
9. LOCAL BUILDING CODE NOT FOR LOCAL INSPECTION

BUILDING/ SITE DATA LEGEND

LATITUDE: 37.751328° N (NAD83)
LONGITUDE: 122.202058° W (NAD83)
ELEVATION: ±133' AMSL (NGVD 29)
A.P.N.: CALTRANS RIGHT-OF-WAY
ZONING: C-36
OCCUPANCY: U, UNMANNED
TYPE OF CONSTRUCTION: V-B
AREA OF CONST.:
32'x14' = 448 SQ. FT.
10'x10' = 100 SQ. FT.
11'x4' = 44 SQ. FT.
8'x3' = 24 SQ. FT.

HANDICAP REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.

TITLE 24 REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. TITLE 24 IS EXEMPT.

PROJECT DESCRIPTION

INSTALLATION OF A WIRELESS COMMUNICATIONS FACILITY, INCLUDING THE CONSTRUCTION OF A PROPOSED 22'x14' CUSTOM BUILT EQUIPMENT SHELTER ENCLOSED WITHIN A 32'-0"x14'-0" LEASE AREA. A 10'-0"x10'-0" LEASE AREA FOR ASSOCIATED UTILITIES AND COAXIAL CABLE LINES, A 11'-0"x4'-0" LEASE AREA FOR ADDITIONAL EQUIPMENT LOCATED INSIDE BUILDING & 8'-0"x3'-0" LEASE AREA FOR NEW SOFFIT.

PROJECT DATA

PROPERTY OWNER:

OAKLAND-ALAMEDA COUNTY
COLISEUM AUTHORITY
7000 COLISEUM WAY
OAKLAND, CA 94612
CONTACT: MARK KAUFMAN
PHONE: (925) 278-8048

APPLICANT:

VERIZON WIRELESS
WALNUT CREEK EXECUTIVE PARK
2785 MITCHELL DRIVE BUILDING 9
WALNUT CREEK, CA 94598
CONTACT: PHIL WESTMORELAND
PHONE: (925) 278-8048

LEASING MANAGER:

NSA WIRELESS
2000 CROW CANYON PLACE,
STE 400, SAN RAMON, CA 94583
CONTACT: BILL NEVIN
PHONE: (925) 244-1890

ZONING MANAGER:

NSA WIRELESS
2000 CROW CANYON PLACE,
STE 400, SAN RAMON, CA 94583
CONTACT: CHARNEIL JAMES
PHONE: (925) 244-1890

ARCHITECT:

DELTA GROUPS ENGINEERING, INC.
2382 MCGRAW AVENUE
IRVINE, CA 92614
CONTACT: ALBERT TENG
PHONE: (949) 622-0333

STRUCTURAL ENGINEER:

DELTA GROUPS ENGINEERING, INC.
2382 MCGRAW AVENUE
IRVINE, CA 92614
CONTACT: ALBERT TENG
PHONE: (949) 622-0333

CONSTRUCTION MANAGER:

NSA WIRELESS
2000 CROW CANYON PLACE,
STE 400, SAN RAMON, CA 94583
CONTACT: ROGER SHARP
PHONE: (925) 244-1890

SHEET INDEX

- | | |
|------|--|
| T1 | TITLE SHEET |
| A1 | OVERALL SITE PLAN |
| A2 | ENLARGED SITE PLAN & CONSTRUCTION NOTES |
| A3 | EQUIPMENT AREA PLAN, SOUTHWEST ELEVATION & ENLARGED SOUTHWEST ELEVATION |
| A3.1 | EQUIPMENT PLAN AT TUNNEL LOCATION & DETAILS |
| A3.2 | SOFFIT PLAN & DETAILS |
| A4 | DETAILS |
| A5 | DETAILS |
| A6 | DETAILS |
| A6 | DETAILS |
| S1 | STRUCTURAL NOTES |
| S2 | FOUNDATION PLAN, DETAILS & HVAC MOUNTING |
| S3 | ROOF PLAN & DETAILS |
| E1 | ELECTRICAL & TELEPHONE SPECIFICATIONS, & UTILITIES NOTES |
| E2 | UTILITIES SITE PLAN |
| E3 | ENLARGED UTILITIES PLAN, ELECTRICAL ELEC. LIGHTING PLAN & LTO, FIXTURE SCHEDULE |
| E4 | 1-LINE DIAGRAMS & PANEL SCHEDULE |
| E5 | ALARM RELAY SCHEMATIC, 1-LINE DIAGRAM FOR ALARM, MATERIALS LIST & PANEL SCHEDULE |
| E6 | GROUNDING PLAN, GENERAL GROUNDING NOTES, & DETAILS |
| E7 | GROUNDING DETAILS & CABLE SCHEDULE |
| E8 | BARD TYPICAL LEAD/LAO WIRING DIAGRAM |
| H1 | GENERAL NOTES, LEGEND, & ABBREVIATIONS |
| H2 | STANDARD NOTES & SPECIFICATIONS |
| H3 | BATTERIES-MATERIALS SAFETY DATA SHEET |



2785 MITCHELL DRIVE, SUITE 9
WALNUT CREEK, CA 94598

PROJECT INFORMATION:

OAKLAND COLISEUM
250504
7000 COLISEUM WAY
OAKLAND, CA 94621
ALAMEDA COUNTY

CURRENT ISSUE DATE:

07/31/13

ISSUED FOR:

CD (DESIGN CHANGE)

REV.: DATE: DESCRIPTION: BY:

REV.	DATE	DESCRIPTION	BY
1	07/31/13	CD (DESIGN CHANGE)	JR
2	07/31/13	CD (DESIGN CHANGE)	JR
3	08/04/13	CD (HARD)	JR
4	08/04/13	CD (HARD)	JR
5	11/13/13	CD (HARD)	JR

PLANS PREPARED BY:



CONSULTANT:



SEAL OF APPROVAL:

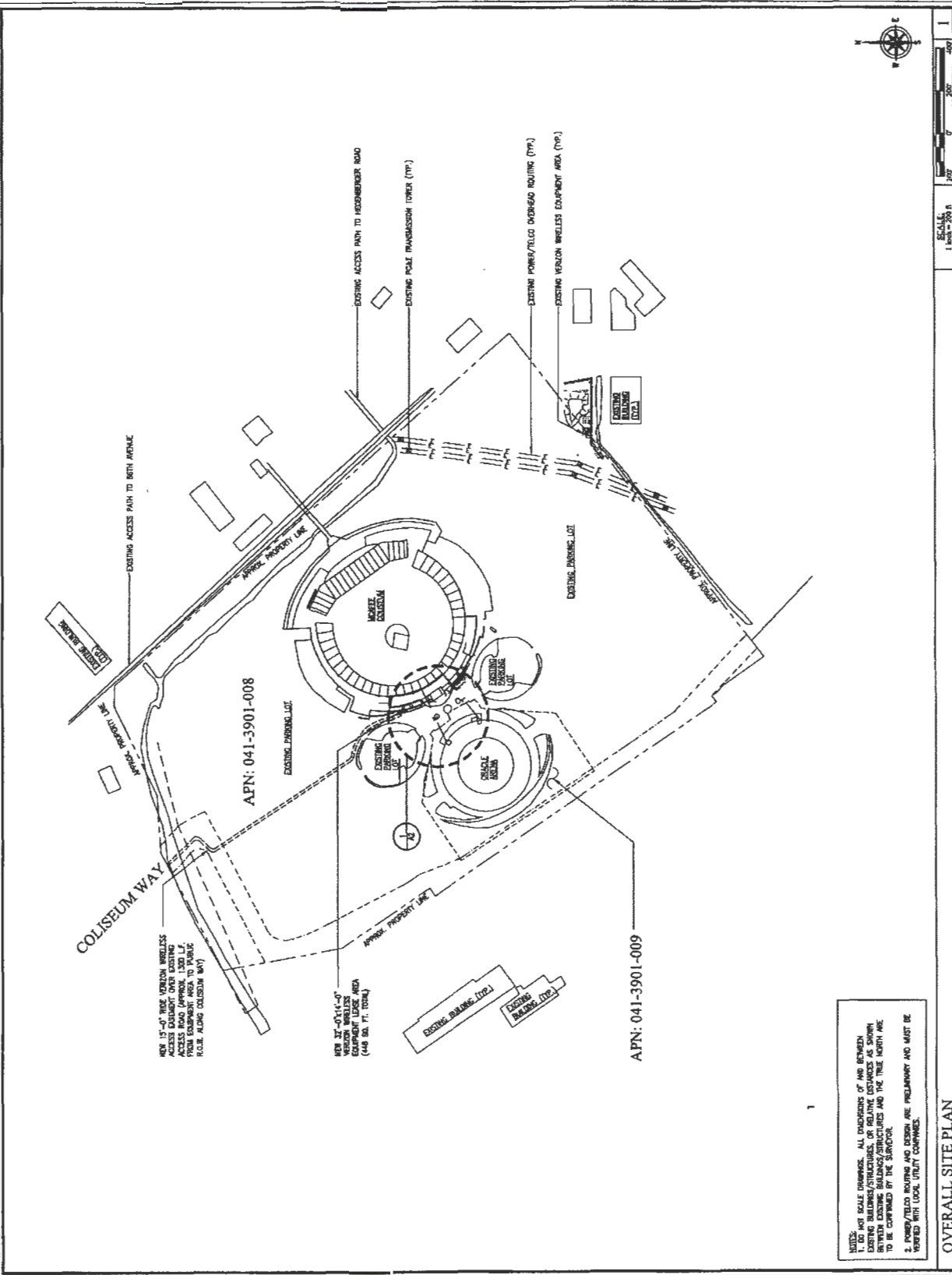


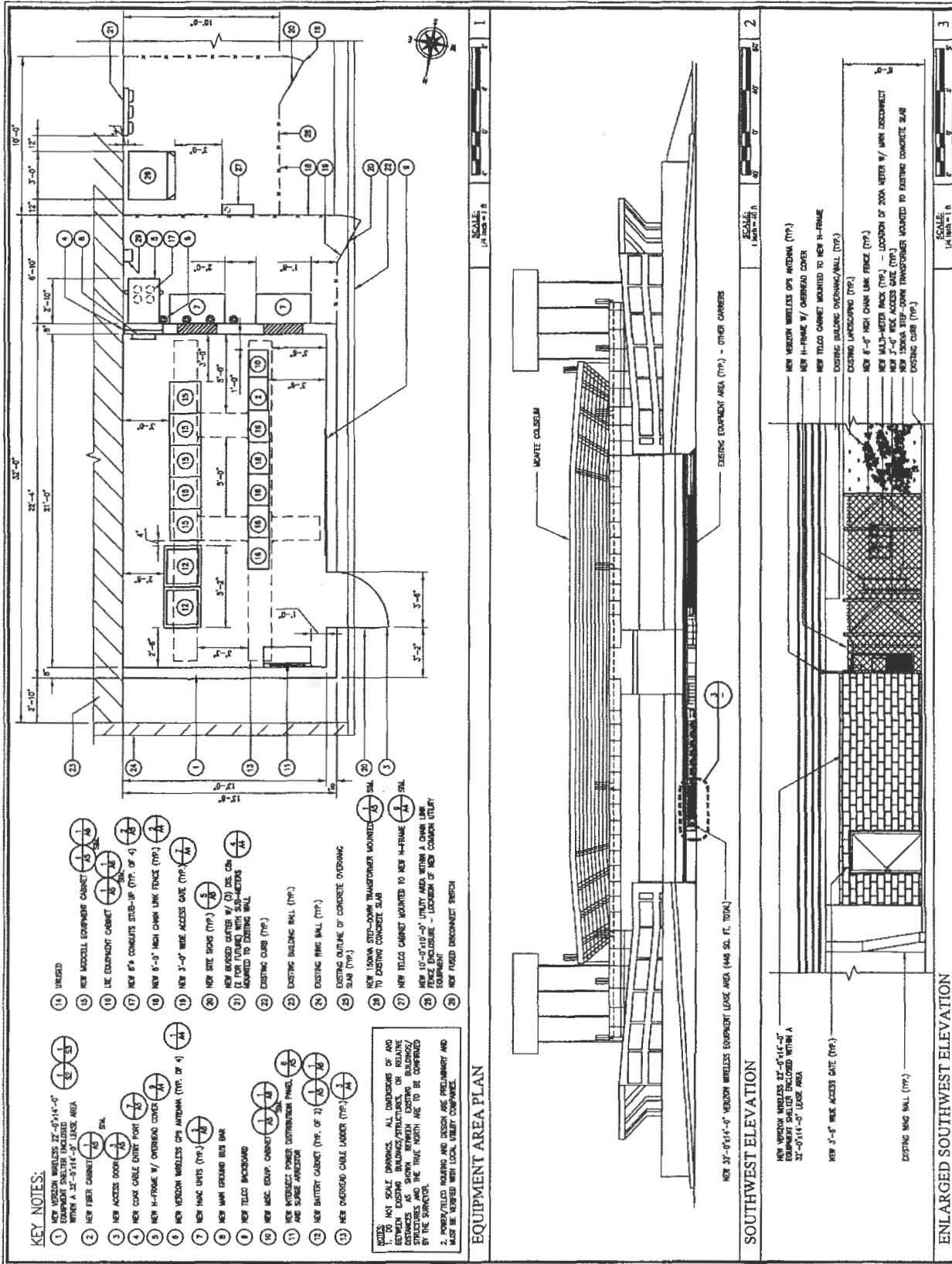
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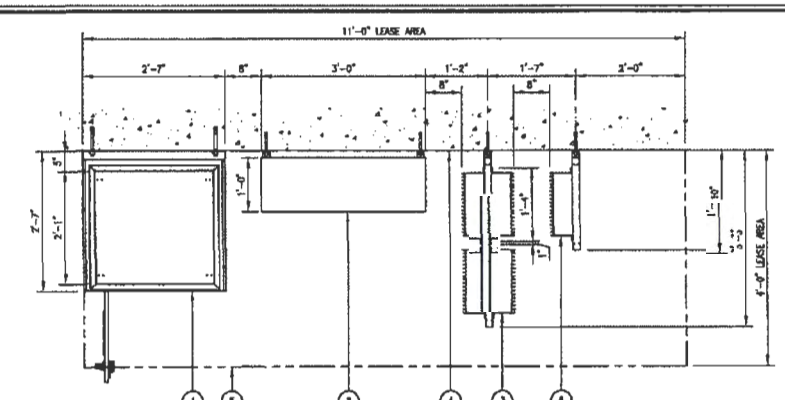
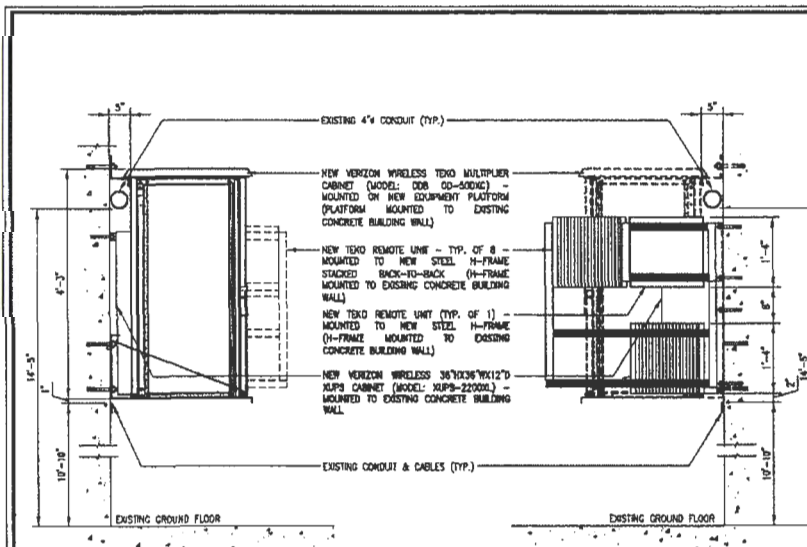
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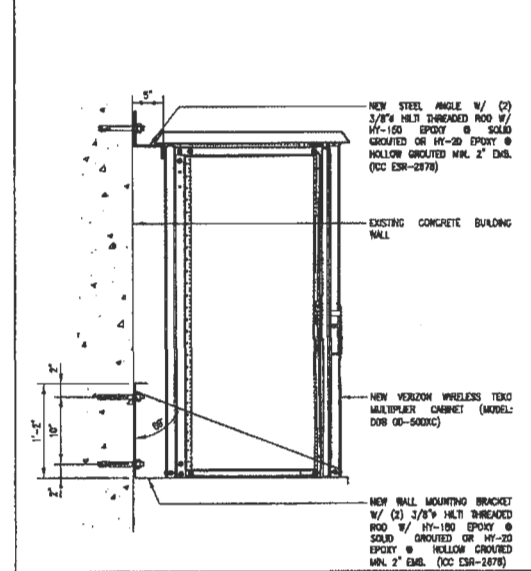
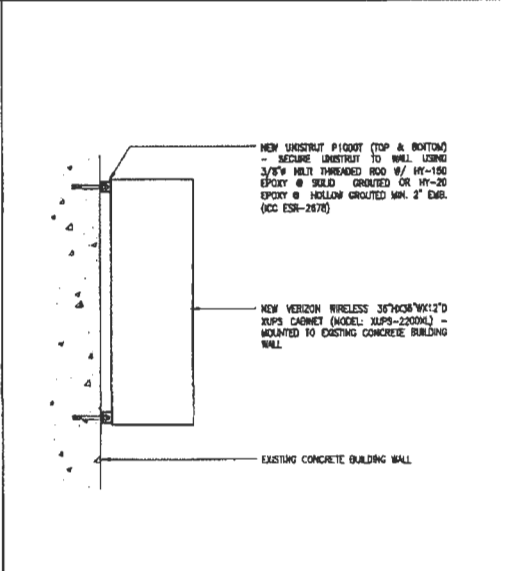
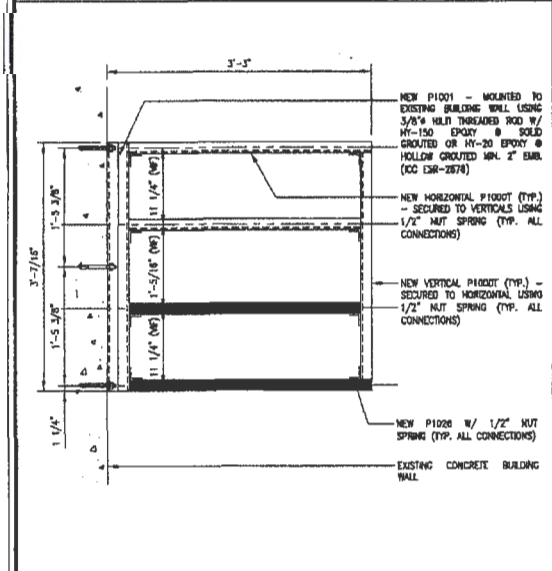






- KEY NOTES:**
- ① NEW VERIZON WIRELESS TEXO MULTIPLIER CABINET (MODEL: DOB 00-5000G) - MOUNTED ON NEW EQUIPMENT PLATFORM (PLATFORM MOUNTED TO EXISTING CONCRETE BUILDING WALL)
 - ② NEW VERIZON WIRELESS 36\"/>
 - ③ NEW TEXO REMOTE UNIT (TYP. OF 1) - MOUNTED TO NEW STEEL H-FRAME STACKED BACK-TO-BACK (H-FRAME MOUNTED TO EXISTING CONCRETE BUILDING WALL)
 - ④ EXISTING CONCRETE BUILDING WALL
 - ⑤ NEW VERIZON WIRELESS 11'-0\"/>
 - ⑥ NEW TEXO REMOTE UNIT (TYP. OF 1) - MOUNTED TO NEW STEEL H-FRAME (H-FRAME MOUNTED TO EXISTING CONCRETE BUILDING WALL)

EQUIPMENT ELEVATIONS SCALE: 1 inch = 1 ft 2 EQUIPMENT PLAN AT TUNNEL LOCATION SCALE: 1 inch = 1 ft 1



H-FRAME DETAIL & ANCHORAGE 5 BATTERY CABINET ANCHORAGE DETAIL 4 EQUIPMENT CABINET WALL MOUNT 3

verizonwireless

2785 MITCHELL DRIVE, SUITE 9
WALNUT CREEK, CA 94598

PROJECT INFORMATION:

OAKLAND COLISEUM
250504
7000 COUSELUM WAY
OAKLAND, CA 94621
ALAMEDA COUNTY

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REV.	DATE	DESCRIPTION	BY	CHK
1	07/31/13	CD (DESIGN CHANGE)	JK	
2	07/08/13	CD (DESIGN CHANGE)	JK	
3	06/04/13	CD (1008)		
4	06/04/13	CD (1005)		
5	11/11/11	CD (0907)		

PLANS PREPARED BY:

DELTA GROUPS
ENGINEERING, INC.
CONSULTING ENGINEERS

3430 WEST LAS PORTAS, SUITE 403
FALGOUTH, CA 94539
TEL: (925) 468-0116 FAX: (925) 468-0380

CONSULTANT:

SEAL OF APPROVAL:

SHEET TITLE:

EQUIPMENT PLAN AT TUNNEL LOCATION, EQUIPMENT ELEVATIONS & DETAILS

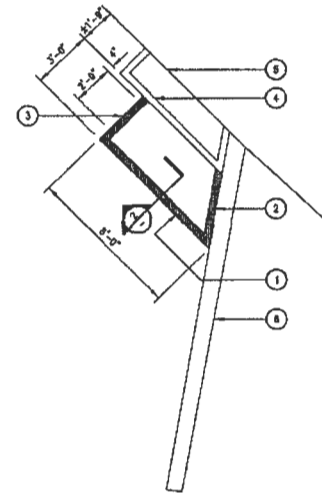
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P111NS04

KEY NOTES:

- ① NEW METAL STUD WALL (CLARKWESTERN 400S200-43 OR EQUAL) @ 16" O.C.
- ② NEW OPENING FOR ANTENNA CABLES (CONTRACTOR VERIFY)
- ③ NEW 2'-0" WIDE ACCESS OPENING
- ④ EXISTING SOFFIT (TYP.)
- ⑤ EXISTING BUILDING WALL (TYP.)
- ⑥ EXISTING RING WALL (TYP.)

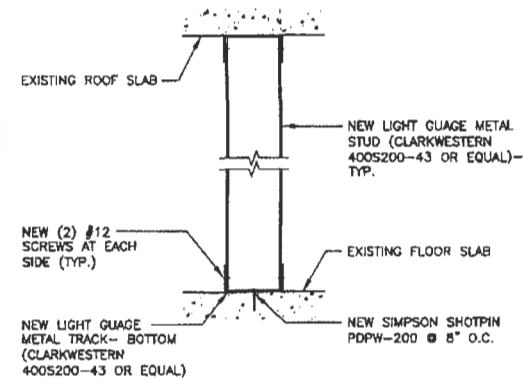


UNUSED

3 NEW SOFFIT PLAN

SCALE
3/8" = 1'-0"

1



UNUSED

5

UNUSED

4

NEW WALL TO CONCRETE SLAB/ROOF

3



2785 MITCHELL DRIVE, SUITE 9
WALNUT CREEK, CA 94596

PROJECT INFORMATION:

OAKLAND COLOSSEUM
250504
7000 COLOSSEUM WAY
OAKLAND, CA 94621
ALAMEDA COUNTY

CURRENT ISSUE DATE:

07/31/13

ISSUED FOR:

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REV.	DATE	DESCRIPTION	BY
1	07/21/13	CD (DESIGN CHANGE)	JK
2	07/29/13	CD (DESIGN CHANGE)	JK
3	08/06/13	CD (H080)	JK
4	08/06/13	CD (H080)	JK
5	11/11/11	CD (H080)	JT

PLANS PREPARED BY:



6430 WEST LANE, PORTLAND, OREGON 97203
FLEMINGTON, CA 94588
TEL: (503) 448-0110 FAX: (503) 448-0369

CONSULTANT:

SEAL OF APPROVAL:

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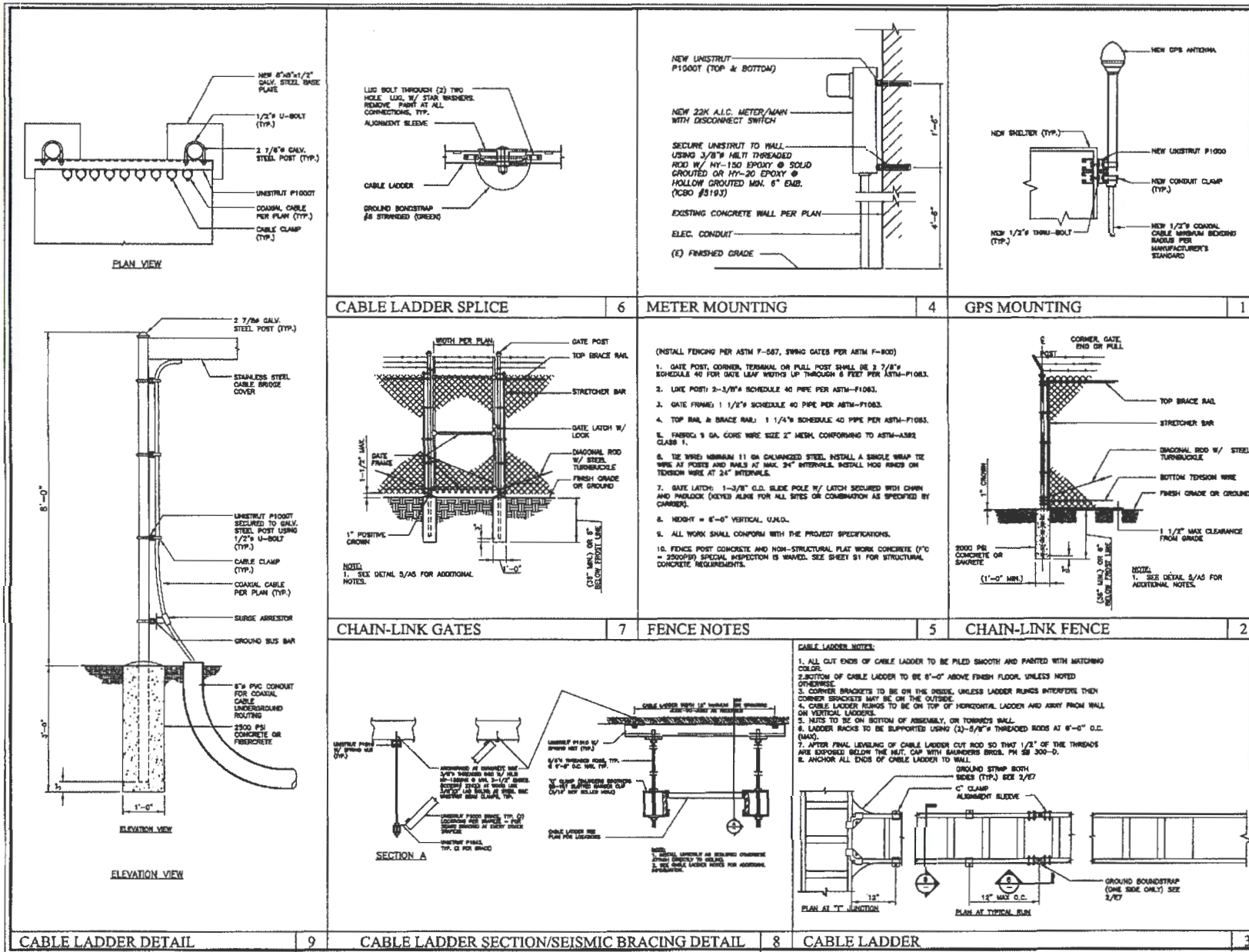
NEW SOFFIT PLAN &
DETAILS

SHEET NUMBER: REVISION:

A3.2

5

P11N906



2785 MITCHELL DRIVE, SUITE 9
WALNUT CREEK, CA 94598

PROJECT INFORMATION

OAKLAND COLISEUM
250504
7000 COLISEUM WAY
OAKLAND, CA 94621
ALAMEDA COUNTY

CURRENT ISSUE DATE:
07/31/13

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REV.: DATE: DESCRIPTION: BY:

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1	07/31/13	CD (DESIGN CHANGE)	JK
2	07/31/13	CD (DESIGN CHANGE)	JK
3	07/31/13	CD (DESIGN CHANGE)	JK
4	07/31/13	CD (DESIGN CHANGE)	JK
5	07/31/13	CD (DESIGN CHANGE)	JK
6	07/31/13	CD (DESIGN CHANGE)	JK
7	07/31/13	CD (DESIGN CHANGE)	JK

PLANS PREPARED BY:

DELTA GROUPS ENGINEERING, INC.
CONSULTING ENGINEERS

8625 WEST LEB AVENUE, SUITE 400
PACIFIC, CA 94646
TEL: (925) 498-0118 FAX: (925) 498-0303

CONSULTANT:

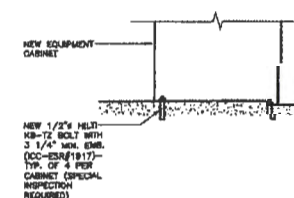
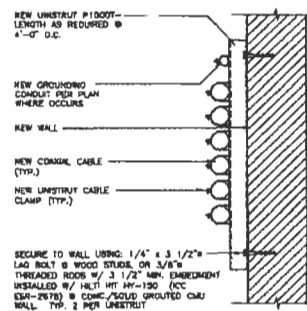
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SHEET TITLE:
DETAILS

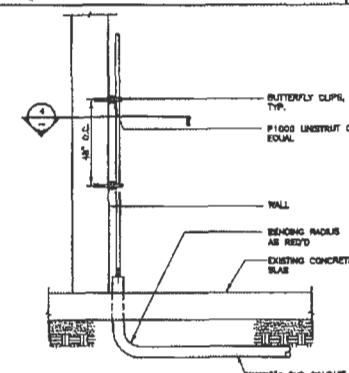
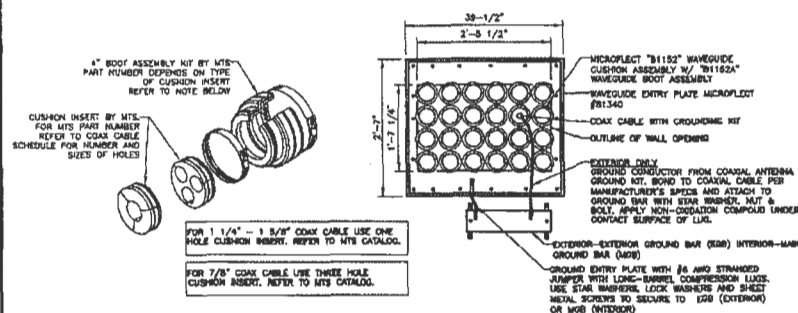
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A4

REVISION:
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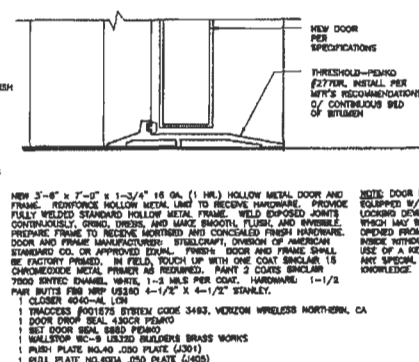
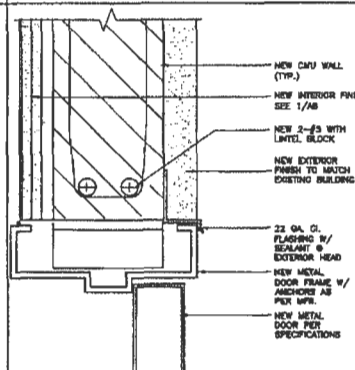
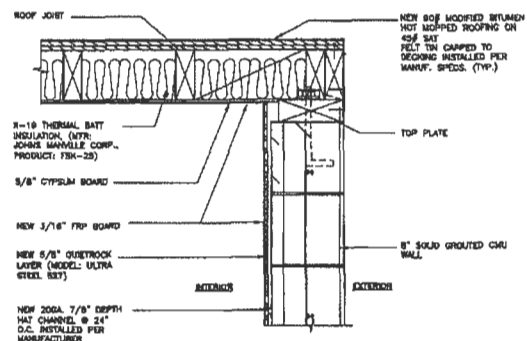
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EQUIPMENT ANCHORAGE



CABLE STUB-UP



DOOR HEAD (JAMB SIMILAR) & THRESHOLD

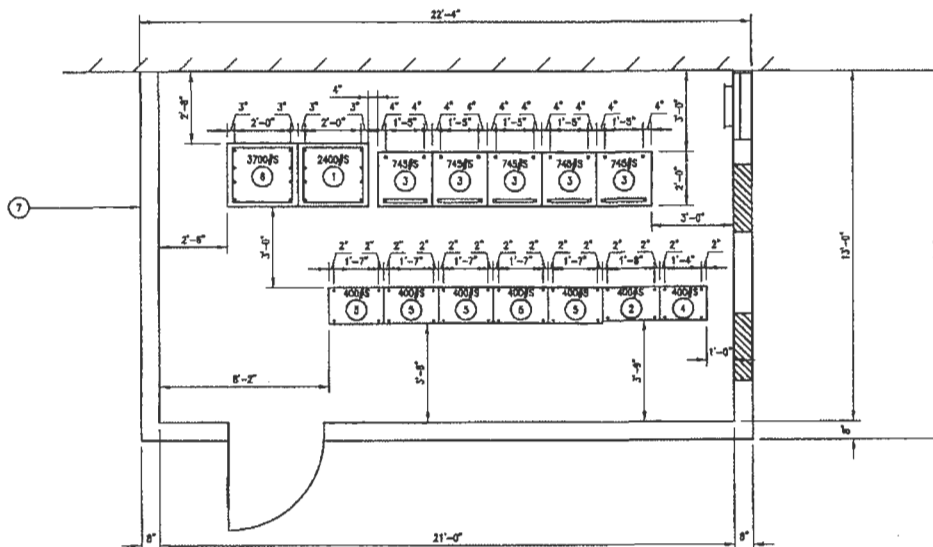
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KEY NOTES:

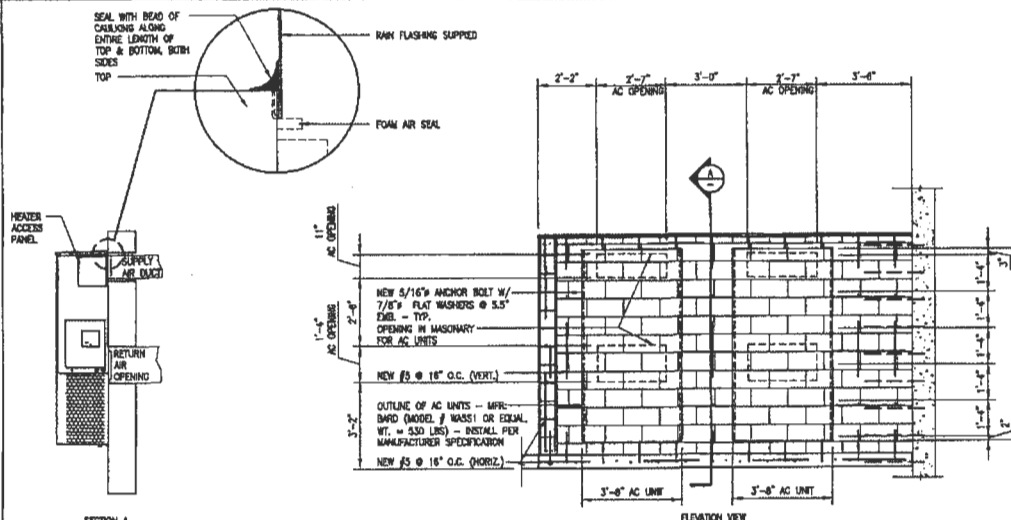
- 1 NEW EMERSON MEASURE HRI ON TOP OF 400 RACK
- 2 NEW MISC. EQUIPMENT CABINET
- 3 NEW MACRO UP ITS CABINET
- 4 NEW FIBER CABINET
- 5 NEW LTE EQUIPMENT CABINET
- 6 NEW 400 BATTERY RACK WITH CONTAINMENT TRAY
- 7 NEW VERIZON WIRELESS 22'-4"x13'-8" EQUIPMENT SHELTER ENCLOSED WITHIN A 32'-0"x14'-0" LEASE AREA

EQUIPMENT WEIGHT AND DIMENSIONS

ITEM	WIDTH	DEPTH	HEIGHT	WEIGHT
1	2'-2"	2'-0"	7'-0"	2400 LBS.
2	2'-1"	1'-3"	2'-0"	400 LBS.
3	2'-0"	2'-0"	8'-2"	745 LBS.
4	1'-8 1/2"	1'-3"	7'-0"	400 LBS.
5	2'-0"	1'-2"	4'-6"	400 LBS.
6	2'-2"	2'-0"	7'-0"	3700 LBS.



EQUIPMENT BOLT HOLE LOCATIONS



NOTES:
IT IS RECOMMENDED THAT A BEAD OF SILICONE CAULKING BE PLACED BEHIND THE SIDE MOUNTING FLANGES AND UNDER TOP FLASHING AT TIME OF INSTALLATION.

UNUSED

3

HVAC MOUNTING

SCALE: 1" = 1'-0"

2



2785 MITCHELL DRIVE, SUITE 9
WALNUT CREEK, CA 94598

PROJECT INFORMATION:

OAKLAND COLISEUM
250304
7000 COLISEUM WAY
OAKLAND, CA 94621
ALAMEDA COUNTY

CURRENT ISSUE DATE:

07/31/13

ISSUED FOR:

CD (DESIGN CHANGE)

REV.: DATE: DESCRIPTION: BY:

REV.	DATE	DESCRIPTION	BY
1	07/31/13	CD (DESIGN CHANGE)	J
2	07/08/13	CD (DESIGN CHANGE)	J
3	08/06/13	CD (100K)	J
4	08/06/13	CD (100K)	J
5	11/11/13	CD (100K)	J

PLANS PREPARED BY:



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PACIFIC PALISADES, CA 91368
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CONSULTANT:

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SEAL OF APPROVAL:

Blank area for seal of approval.

SHEET TITLE:

DETAILS

SHEET NUMBER:

A6

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FT11N504

STRUCTURAL NOTES

GENERAL NOTES

- THE FOLLOWING NOTES, TYPICAL DETAILS AND SCHEDULES SHALL APPLY TO ALL DRAWINGS UNLESS OTHERWISE SHOWN ON NOTES. ALL CONSTRUCTION SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF GAITHERSBURG DEPARTMENT AND THE CALIFORNIA BUILDING CODE, 2007 EDITION.
- THE CONTRACTOR SHALL VERIFY ALL GRADES, DIMENSIONS, FRAMING, FOUNDATION AND SITE CONDITIONS PRIOR TO THE STARTING WORK. ALL MAJOR DISCREPANCIES SHALL BE BRIDGLED TO THE ATTENTION OF THE ENGINEER PRIOR TO COMMENCING OR CONTINUING WITH WORK.
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS.
- FRAMING CONDITION NOT SPECIFICALLY SHOWN SHALL BE FRAMED SIMILAR TO TYPICAL DETAILS AS SHOWN FOR SIMILAR CONDITIONS AND RESPECTIVE MATERIALS.
- PROVIDE OPENINGS AND SUPPORTS AS REQUIRED FOR HEATER, MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT, VENT DUCTS, PIPING, ETC. ALL SUSPENDED MECHANICAL EQUIPMENT TO BE PROVIDED WITH APPROVED SWAY OR LATERAL BRACING.

FOUNDATION AND FOOTINGS

- MAXIMUM BEARING PRESSURE FOR D.L. + L.L. = 1,500 PSF @ 1'-0" MINIMUM INTO UNDISTURBED NATURAL SOILS.
- COMPACT ALL FILLS AND BACKFILLS TO A MINIMUM OF 95% PERCENT OF MAXIMUM DRY DENSITY PER ASTM D-1557-07.
- PROVIDE 8 MIL PVC MEMBRANE PLUS 2" SAND UNDER SLABS.
- DURING ALL GRADING ACTIVITIES INCLUDING SITE PREPARATION, FOOTING EXCAVATION, SUDANMAN INSTALLATION AND PLACEMENT OF FILL SHALL BE OBSERVED AND ADVISED BY THE SOIL ENGINEER.
- FOOTINGS SHOULD BE CLEARED OF ALL LOOSE SOIL, MOISTENED, FREE OF SHRINKAGE PLACES AND APPROVED BY THE SOIL ENGINEER OR PRIOR TO PLACING FORMS, STEEL OR CONCRETE.
- ALL FILLS PLACED FOR ENGINEERING PURPOSE SHALL BE TESTED AND APPROVED BY THE SOIL ENGINEER.

CONCRETE AND REINFORCING STEEL

- MINIMUM CONCRETE STRENGTH @ 28 DAYS AS FOLLOWS:
 - WALL FOOTING 3,500 PSI
 - SLAB ON GRADE 3,500 PSI
 - GRADE BEAM 3,500 PSI
 - CORNER AND PILE 3,500 PSI
- PROVIDE LAB MIX DESIGN FOR ALL CONCRETE. SUBMIT TO ENGINEER / ARCHITECT FOR REVIEW PRIOR TO THE PLACING CONCRETE.
- CEMENT PER ASTM C150-07, TYPE I (U.K.O.).
- REINFORCING STEEL - INTERMEDIATE GRADE PER ASTM A615/A615M-07, GRADE 60 FOR #4 AND LARGER BARS. GRADE 80 FOR #5 AND LARGER BARS.
- ALL CONCRETE TO BE REINFORCED AS INDICATED. ALL ANCHOR BOLTS, DOWELS AND OTHER EMBEDDED ITEMS TO BE SECURELY TIED IN PLACE BEFORE CONCRETE IS PLACED.
- DIMENSIONS LOCATING REINFORCING BARS ARE TO FACE OF BARS AND DENOTES CLEAR COVERAGE TO MAIN STEEL. UNLESS OTHERWISE NOTED, CONCRETE COVERAGE SHALL BE AS FOLLOWS:
 - CONCRETE AGAINST EARTH (NOT FORMED) 3"
 - CONCRETE AGAINST EARTH (FORMED) 1"
- MAXIMUM SLUMPS FOR:
 - SLAB ON GRADE AND FILL OVER FLOOR 4" MAX.
 - ALL OTHER CONCRETE 5" MAX.
- NO BRICK OR POROUS MATERIALS SHALL SUPPORT STEEL. USE GROOVED CONCRETE BLOCK.
- ALL SLABS ON GRADE TO BE REINFORCED WITH #4 @ 18" O.C. EACH WAY UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DEPRESSION AREAS, RECESSES, CURBS.
- ALL CONCRETE AND PLACEMENT OF REINFORCING STEEL FOR FOUNDATIONS TO BE CHECKED BY INSPECTOR PRIOR TO THE PLACING CONCRETE.

MASONRY

- STANDARD CONCRETE BLOCK SHALL CONFORM TO ASTM C90-06, GRADE N-1 (STANDARD 31-1).
- MINIMUM STRENGTH OF BLOCK (U.K.O.): $f'_c = 8,000$ PSI (MIN.)
- GROUT MIX: 1 PART CEMENT, 3 PARTS SAND, 3 PARTS PEA GRAVEL (3/8" MAX.).
- MORTAR MIX: 1 PART CEMENT, 1/4 PART LIME PUTTY, 3 1/2 PARTS DAMP LOOSE SAND.
- SET AND BRACE VERTICAL REINFORCING BEFORE LAYING MASONRY UNITS.
- LAP ALL REINFORCING BARS 48 DIAMETER @ SPACES UNLESS OTHERWISE NOTED.
- PROVIDE 1/2" CLEAR TO ALL REINFORCING STEEL.
- WALL STEEL SPACERS MAY BE TIED.

MASONRY (CONT'D)

- GROUT ALL BLOCK MASONRY CELLS SOLID IN 8'-0" MAXIMUM LIFTS
 - CLEANOUT OPENINGS SHALL BE PROVIDED IN EVERY CELL AT THE BOTTOM OF EACH POUR OF GROUT.
 - CLEANOUT OPENINGS NEED TO BE PROVIDED IN EVERY REINFORCED CELL AT THE BOTTOM OF EACH POUR GROUT. IF THE COURSE AT THE BOTTOM OF THE POUR IS CONSTRUCTED ENTIRELY OF HORIZONTAL OPEN-AND-BOND BRW UNITS.
 - THE FOUNDATION OR OTHER HORIZONTAL CONSTRUCTION JOINTS SHALL BE CLEANED OF ALL LOOSE MATERIAL AND MORTAR DROPPINGS BEFORE EACH POUR.
 - THE CLEANOUTS SHALL BE SEALED BEFORE GROUTING.
 - AN APPROVED ADMIXTURE THAT REDUCES EARLY WATER LOSS AND PRODUCES AND EXPANSIVE ACTION SHALL BE USED IN THE GROUT.
- PROVIDE 1/4" MINIMUM GROUT AROUND ALL ANCHOR BOLTS.
- PROVIDE VERTICAL MASONRY CONTROL JOINTS AT 20 FT. O/C MAXIMUM.
- REINFORCING STEEL:
 - ASTM A615, GRADE 40 FOR #4 OR SMALLER BARS
 - ASTM A615, GRADE 80 FOR #5 AND LARGER BARS
- GROUT STRENGTH $f'_c = 2500$ PSI MIN. @ 28 DAYS

SYSTEM DESIGN DATA

S_u	S_t	S_{DS}	S_{D1}	C_S	R	SDC	I_p
1.651g	0.605g	1.101g	0.605g	0.44g	2.5	D	1.0

WIND DESIGN DATA

WIND EXP. C
 SITE WIND SPEED: 85 MPH
 CHL WALL CL = 78 PSF
 RF DEAD LOAD = 15 PSF
 RF LIVE LOAD = 20 PSF
 CLG CL = 8 PSF

EXTRACTION ANCHORS FOR EQUIPMENT

ANCHOR	SIZE	EMBEDMENT	PULL TEST LOAD
CABINET	1/2" #	3-1/4"	4880 LBS

ADHESIVE ANCHOR

ANCHOR	SIZE	EMBEDMENT	PULL TEST LOAD
1	3/8" #	3-1/2"	1240 LBS



2785 MITCHELL DRIVE, SUITE 9
 WALNUT CREEK, CA 94598

PROJECT INFORMATION:

OAKLAND COLISEUM
 250504
 7000 COLISEUM WAY
 OAKLAND, CA 94621
 ALAMEDA COUNTY

CURRENT ISSUE DATE:

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PLANS PREPARED BY:

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CONSULTANT:

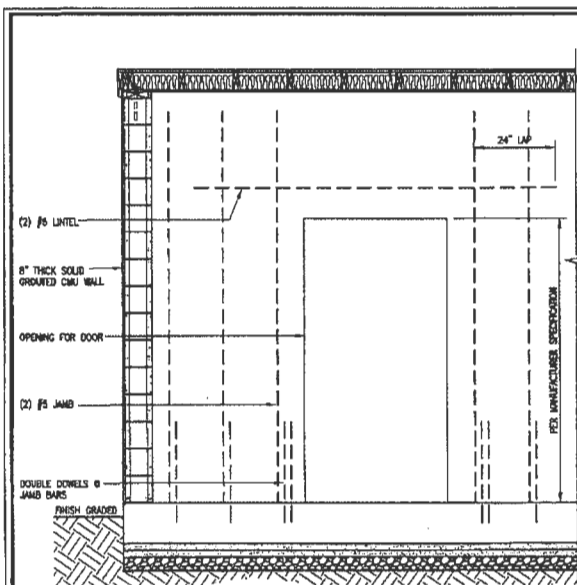
SEAL OF APPROVAL:

SHEET TITLE:

STRUCTURAL NOTES

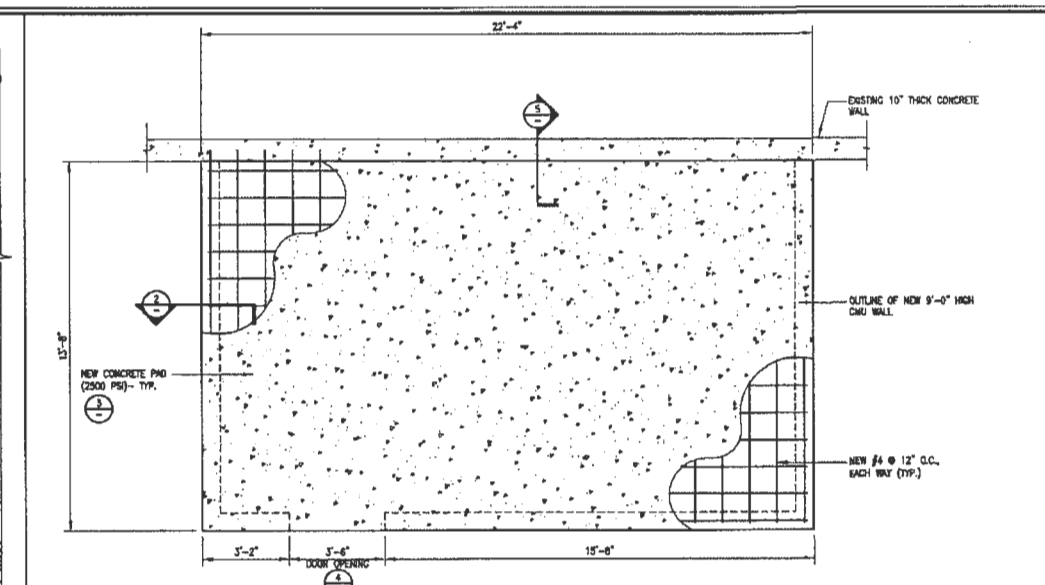
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S1 **5**
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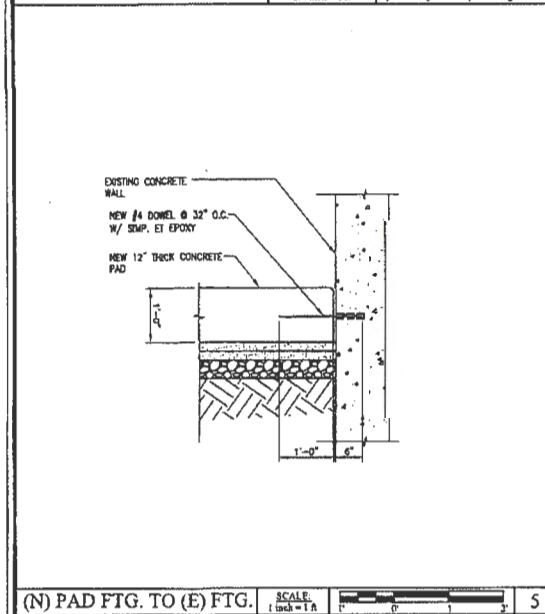
DOOR FRAMING DETAIL

SCALE:
3/4 inch = 1 ft.



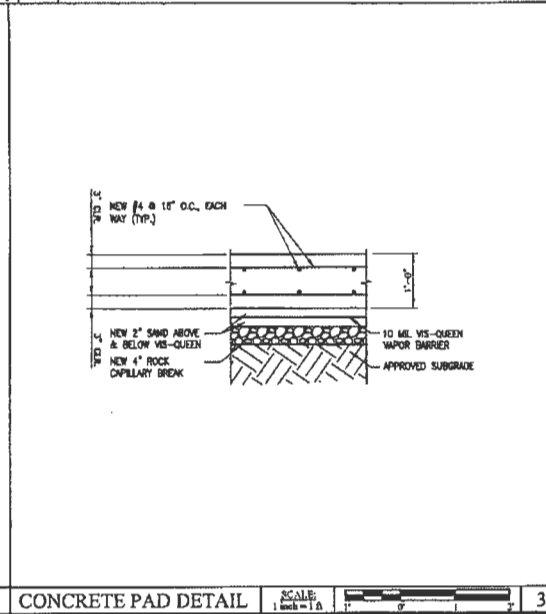
4 FOUNDATION PLAN

SCALE:
1/2 inch = 1 ft.



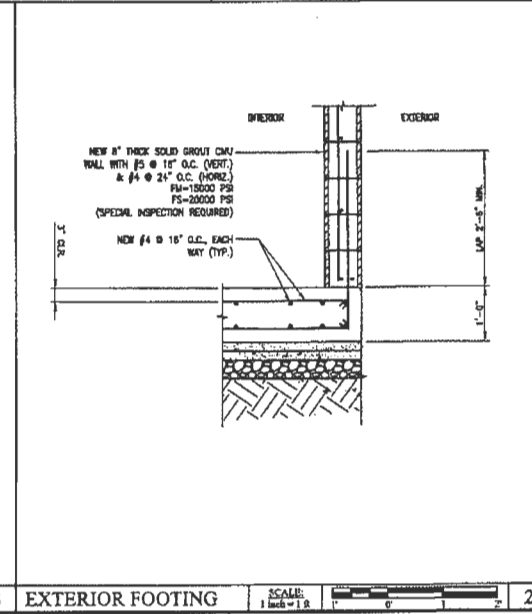
(N) PAD FTG. TO (E) FTG.

SCALE:
1 inch = 1 ft.



CONCRETE PAD DETAIL

SCALE:
1 inch = 1 ft.



EXTERIOR FOOTING

SCALE:
1 inch = 1 ft.



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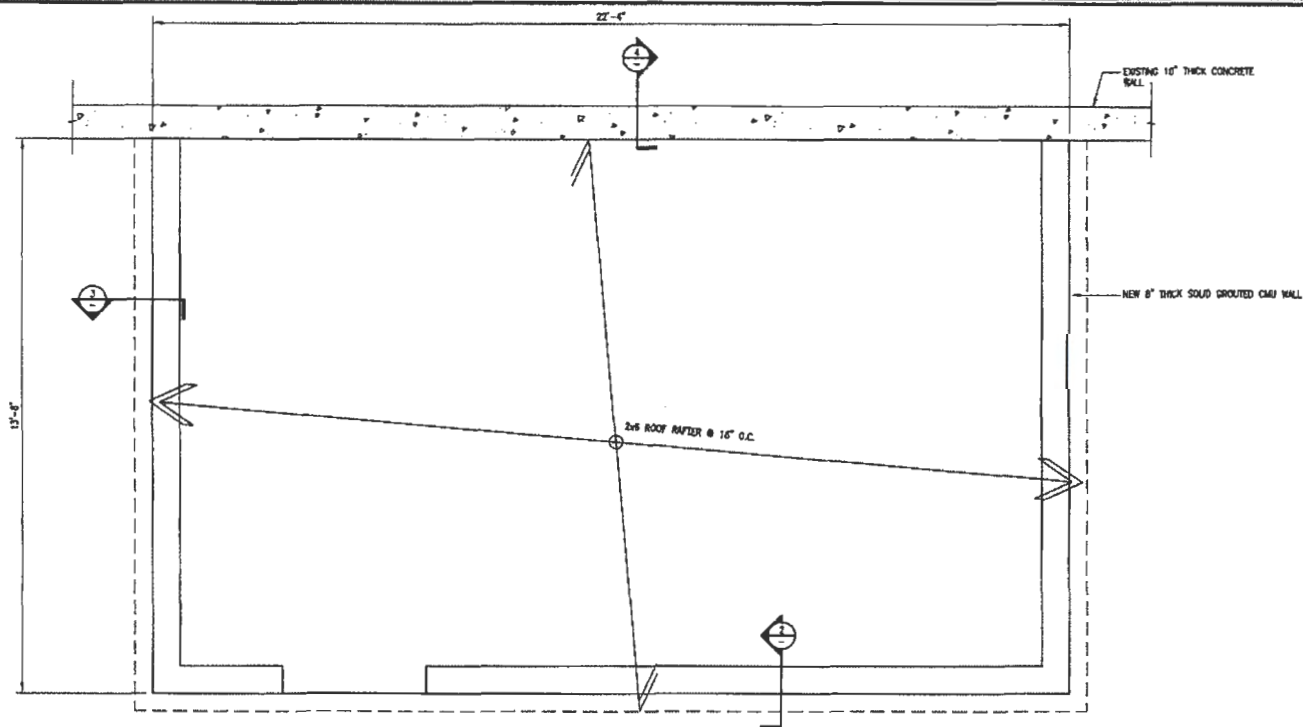
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SHEET TITLE:

FOUNDATION PLAN & DETAILS

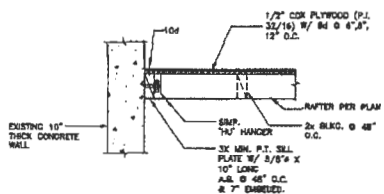
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S2 **5**
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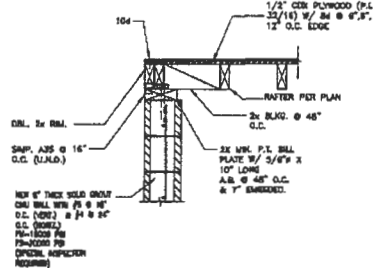
ROOF PLAN

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



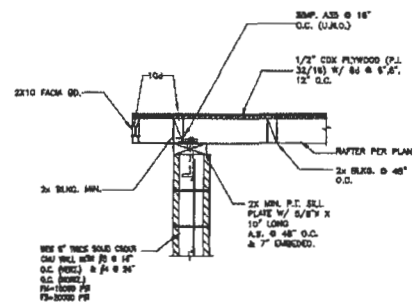
SHEAR TRANSFER AT WALL

4



SHEAR TRANSFER AT ROOF

3



SHEAR TRANSFER AT ROOF

2



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10	07/21/13	CD (DESIGN CHANGE)	JL

PLANS PREPARED BY:



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CONSULTANT:

SEAL OF APPROVAL:

SHEET TITLE:

ROOF PLAN & DETAILS

SHEET NUMBER:

S3

REVISION:

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PT118007

1. ALL WORK AND MATERIAL SHALL BE IN COMPLETE COMPLIANCE WITH THE 2007 EDITION OF THE C.E.C. AND ALL REGULATIONS, LAWS, SAFETY ORDERS, ORDINANCES OR CODES. IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL.

2. THE SEISMIC BRACING AND ANCHORAGE OF ELECTRICAL CONDUITS AND WIRINGS SHALL BE IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE, CHAPTER 23 AND "GUIDELINE FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS" PUBLISHED BY SMAN AND HPC, OR THE SUPERSTRUT-SEISMIC RESTRAINTS SYSTEM, OR THE U.S.-JAPAN SEISMIC RESTRAINT SYSTEM.

3. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL, OR LISTED AND CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY WHERE (UL) DOES NOT HAVE LISTING. CUSTOM MADE EQUIPMENT SHALL HAVE COMPLETE TEST DATA SUBMITTED BY THE MANUFACTURER ATTESTING TO ITS SAFETY. IN ADDITION, THE MATERIALS, EQUIPMENT, AND INSTALLATION SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING CODES AND REGULATIONS:

AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)
INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
NATIONAL STANDARDS ASSOCIATION (ANSI)
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
NATIONAL ELECTRICAL CODE (NEC)
CALIFORNIA CODE OF REGULATIONS TITLE 24 (COC)
INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA)
ALL LOCAL CODES HAVING JURISDICTION

4. THE CONTRACTOR SHALL VISIT THE SITE, INCLUDING ALL AREAS INDICATED ON THE DRAWINGS, AND SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AS WELL AS THE ELECTRICAL AND MECHANICAL REQUIREMENTS OF THIS PROJECT. BY SUBMITTING A BID, HE ACCEPTS THE CONDITIONS UNDER WHICH HE SHALL BE REQUIRED TO PERFORM HIS WORK.

5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COMPLETE SET OF CONTRACT DOCUMENTS, ADDENDUMS, DRAWINGS AND SPECIFICATIONS AS WELL AS THE LATEST EDITION OF ANY DESIGN SPECIFICATIONS. HE SHALL CHECK THE DRAWINGS OF THE OTHER TRADES AND SHALL CAREFULLY READ THE DESIGN SPECIFICATIONS AND DETERMINE HIS RESPONSIBILITIES. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF DOING THE WORK IN COMPLETE ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.

6. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES AT THE SITE. ANY COSTS TO INSTALL WORK TO ACCOMPLISH SUCH COORDINATION WHICH OFFERS FROM THE WORK AS SHOWN ON THE DRAWINGS SHALL BE INCURRED BY THE CONTRACTOR. ANY DISCREPANCIES, AMBIGUITIES OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER AND THE ARCHITECT/ENGINEER IN WRITING PRIOR TO SUBMITTING A BID. ANY SUCH CONFLICTS NOT CLARIFIED PRIOR TO BID SHALL SUBJECT TO THE INTERPRETATION OF THE PROJECT MANAGER AT NO ADDITIONAL COST.

7. THE CONTRACTOR SHALL ORDER AND KEEP UP-TO-DATE A COMPLETE RECORD SET OF DRAWINGS. UPON COMPLETION OF THE WORK, A SET OF REPRODUCIBLE CONTRACT DRAWINGS SHALL BE OBTAINED FROM THE PROJECT MANAGER, AND ALL CHANGES AS NOTED ON THE RECORD SET OF DRAWINGS SHALL BE INCORPORATED THEREON BY THE CONTRACTOR WITH RED INK IN A NEAT, LEGIBLE, UNDERSTANDABLE AND PROFESSIONAL MANNER.

8. ALL INTERRUPTION OF ELECTRICAL POWER SHALL BE KEPT TO A MINIMUM. HOWEVER, WHEN AN INTERRUPTION IS NECESSARY, THE SHUTDOWN MUST BE COORDINATED WITH THE PROJECT MANAGER AND THE PROPERTY OWNER 14 DAYS PRIOR TO THE CURFEW. ANY OVERTIME PAY SHALL BE INCLUDED IN THE CONTRACTOR'S BID. WORK IN EXISTING SWITCHBOARDS OR PANELBOARDS SHALL BE COORDINATED WITH THE PROJECT MANAGER AND THE BUILDING OWNER PRIOR TO REMOVING ACCESS PANELS OR DOORS.

9. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW INDICATED ON PLANS. SHOP DRAWINGS SHALL INCLUDE ALL DATA WITH DIMENSIONS, SIZES, DIMENSIONS, COLORS, MATERIALS AND MANUFACTURER'S BROCHURES.

10. AFTER ALL REQUIREMENTS OF THE SPECIFICATIONS AND THE DRAWINGS HAVE BEEN FULLY COMPLETED, THE PROJECT MANAGER WILL INSPECT THE WORK. THE CONTRACTOR SHALL PROVIDE COMPETENT PERSONNEL TO DEMONSTRATE THE OPERATION OF ANY ITEM OR SYSTEM TO THE FULL SATISFACTION OF THOSE REPRESENTATIVES. FINAL ACCEPTANCE OF THE WORK WILL BE MADE BY THE PROJECT MANAGER AFTER RECEIPT OF APPROVAL AND RECOMMENDATION OF ACCEPTANCE FROM EACH REPRESENTATIVE.

11. THE CONTRACTOR SHALL FURNISH ONE YEAR WRITTEN GUARANTEE OF MATERIALS AND WORKMANSHIP FROM THE DATE OF SUBSTANTIAL COMPLETION.

12. COORDINATE WITH OTHER TRADES AS TO THE EXACT LOCATION OF THEIR RESPECTIVE EQUIPMENT. SUPPLY POWER AND MAKE CONNECTION TO EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS. REVIEW THE DRAWINGS OF OTHER TRADES AND LOCATION OF EQUIPMENT.

13. EXACT METHOD AND LOCATION OF CONDUIT PENETRATIONS AND OPENINGS IN CONCRETE WALLS OR FLOORS OR STRUCTURAL STEEL MEMBERS, SHALL BE DIRECTED BY THE STRUCTURAL ENGINEER. PENETRATION CORING, SPLICING, PATCHING, AND REPAIRING OF EXISTING WALLS AND SURFACES WHEREVER IT IS NECESSARY TO PENETRATE. OPENINGS SHALL BE SEALED IN AN APPROVED METHOD TO MEET THE FIRE RATING OF THE PARTICULAR WALL, FLOOR, OR CEILING.

14. UTILITY PENETRATIONS OF ANY KIND IN FIRE AND SMOKE PARTITIONS AND CEILING ASSEMBLIES SHALL BE FIREPROOFED TO MATCH AN APPROVED MATERIAL SECURELY INSTALLED.

15. CONNECTIONS TO VIBRATING EQUIPMENT AND SEISMIC REPAIRATIONS: LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN DRY INTERIOR LOCATIONS AND IN AREAS EXPOSED TO WEATHER, DAMP LOCATIONS, CONNECTIONS TO TRANSFORMER ENCLOSURES, AND FINAL CONNECTIONS TO MOTORS. PROVIDE A SEPARATE INSULATED GROUNDING CONDUCTOR IN FLEXIBLE CONDUIT RUNS. MINIMUM LENGTH SHALL BE SIX FEET UNLESS OTHERWISE NOTED.

16. ROUTE EXPOSED AND CONCEALED CONDUIT PARALLEL AND PERPENDICULAR TO WALL AND ADJACENT PIPING. AVOIDANCE CONDUIT TO MINIMUM HEADROOM AND TO PREVENT A HEAT APPROPRIATE.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SPLICING, TIEING, SPLICING, COMPACTING AND PATCHING OF CONCRETE AND ASPHALT AS REQUIRED TO PERFORM HIS WORK. ATTENTION IS CALLED TO THE FACT THAT WHERE ARE EXISTING UNDERGROUND UTILITY LINES. THE CONTRACTOR IS RESPONSIBLE FOR INVESTIGATION AND COORDINATION WITH ALL PROPERTY OWNERS, UTILITIES, AND APPROPRIATE "DIG ALERT" UNDERGROUND MARKING AGENCIES AND COMPANIES. THE CONTRACTOR SHALL ALWAYS USE EXTREME CAUTION WHEN TRENCHING FOR HIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER AND APPROVED REPAIR OF ANY AND ALL DAMAGES CAUSED DURING THE COURSE OF HIS WORK.

18. WHENEVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, GROUND FAULT PROTECTION SYSTEMS, ETC. (ALL MATERIALS) APPEARS ON THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIALS AND SERVICES REQUIRED BY STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO INSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE PROJECT MANAGER AND THE ARCHITECT/ENGINEER.

19. STRAIGHT FEEDER, BRANCH CIRCUIT, AND CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT WEATHER PROOF PULL BOXES OR JUNCTION BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 100 FEET. PULL BOXES SHALL BE SIZED PER CODE OR PER THE LATEST EDITION OF THE DESIGN SPECIFICATIONS, WHICHEVER IS MOST RESTRICTIVE. LOCATIONS SHALL BE DETERMINED IN THE FIELD OR AS INDICATED ON THE DRAWINGS.

20. MAXIMUM NUMBER OF CONDUCTORS IN OUTLET SHALL BE DETERMINED IN THE FIELD OR AS INDICATED ON THE DRAWINGS.

21. IDENTIFICATION MARK PLATES SHALL BE LOCATED 1/8 INCH THICK AND OF APPROVED SIZE WITH BEVELLED EDGES AND ENGRAVED WHITE LETTERS A MINIMUM OF 1/4 INCH HIGH ON BLACK BACKGROUND. NAMEPLATES SHALL BE PROVIDED ALL CIRCUITS IN THE SERVICE DISTRIBUTION AND POWER DISTRIBUTION SWITCH BOARDS OR PANEL BOARDS, DISCONNECTING SWITCHES, TRANSFORMERS, TERMINAL CABBINETS, TELEPHONE CABBINETS, ETC. ALL NAMEPLATES SHALL BE ATTACHED WITH SCREWS. PULL BOXES, JUNCTION BOXES, AND DEVICE BOXES SHALL BE MARKED WITH A PERMANENT MARKER.

22. THE EXACT LOCATION OF ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE COORDINATED WITH THE PLANS AND DETAILS FOR INSTALLATION.

23. DRAWINGS ARE DIAGNOSTIC ONLY. ROUTING OF RECEPTS SHALL BE AT THE OPTION OF THE CONTRACTOR UNLESS OTHERWISE NOTED ON THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY ELECTRICAL, ARCHITECTURAL, STRUCTURAL, CIVIL, OR MECHANICAL DEVICES OR FEATURES.

24. RIGID GALVANIZED STEEL CONDUIT SHALL BE FULL HEIGHT THREADED TYPE. RIGID METALLIC TUBING (RMT) MAY BE USED IN WALLS OR CEILING SPACES WHERE NOT SUBJECT TO MECHANICAL DAMAGE. DIRECT BURIED PIPES AND CABLES 40 MAY BE INSTALLED BENEATH SLAB OR BELOW GRADE AND SHALL BE CONCRETE ENCASED UNLESS NOTED OTHERWISE. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED IN ALL CONDUIT. PROVIDE CONDUIT SUPPORTS NOT TO EXCEED 6'-0", PROVIDE 3-PC CONNECTIONS FOR SECONDARY GROUND PATH OF SURFACE MOUNTED DAT.

25. RIGID STEEL CONDUIT FITTINGS INCLUDING COUPLINGS, LOCKOUTS, NIPPLES, ETC. SHALL BE THREADED AND THOROUGHLY GALVANIZED EXCEPT WHERE AN ADAPTER IS NEEDED TO CONNECT TO FMC. ELECTRICAL METALLIC TUBING (EMT) CONDUIT FITTINGS SHALL BE STEEL, BRIGHT THREADLESS COMPRESSION TYPE. DIE CAST, SET SCREW, OR WEDGED TYPES ARE NOT ACCEPTABLE. SET SCREW TYPE IS NOT ACCEPTABLE.

26. ALL TELCO CONDUIT INSTALLATIONS AND OTHER EMPTY CONDUIT RUNS AND STUBS SHALL INCLUDE A YELLOW 3/8" POLYPROPYLENE PULL STRING.

27. ALL CONDUCTORS SHALL BE COPPER #12 AND MINIMUM SIZE, TYPE THHN/THWN THERMOPLASTIC, 900 VOLT, 75 DEGREES CELSIUS WET AND 90 DEGREES CELSIUS DRY AND IS LISTED UNLESS NOTED OTHERWISE. CONDUCTORS #10 AND SMALLER SHALL BE SOLID. CONDUCTORS #8 AND LARGER SHALL BE STRANDED. UNLESS SPECIFICALLY NOTED TO THE CONTRARY, ALL WIRE CONNECTIONS SHALL BE CRIMP COMPRESSION TYPE BY "THOMAS AND BETT" OR APPROVED EQUIPMENT, INSTALLED AND INSULATED PER THE MANUFACTURER'S RECOMMENDATIONS. ALL WIRE ENDS SHALL BE MARKED FOR EASY IDENTIFICATION AND TRACING.

28. JUNCTION AND PULL BOXES: FOR INTERIOR DRY LOCATIONS, BOXES SHALL BE GALVANIZED ONE-PIECE, DRAWN STEEL, JOISTCUT TYPE WITH REMOVABLE MACHINE SCREW SECURED COVERS. FOR OUTSIDE, DAMP, OR SURFACE LOCATIONS, BOXES SHALL BE HEAVY CAST ALUMINUM OR CAST IRON WITH REMOVABLE, GASKETS, NON-FORMING MACHINE SCREW SECURED COVERS. BOXES SHALL BE SIZED FOR THE NUMBER AND SIZE OF CONDUCTORS AND CONDUIT ENTERING THE BOX AND EQUIPPED WITH PLASTER EXTENSION BOXES WHERE REQUIRED. BOXES SHALL BE LABELED TO INDICATE PANEL AND CIRCUIT NUMBER, OR TYPE OF SIGNAL OR COMMUNICATIONS SYSTEM.

29. ALL OUTDOOR ELECTRICAL DEVICES OR EQUIPMENT SHALL BE OF WEATHERPROOF TYPE.

30. ALL EQUIPMENT, MONOPHASE, FRAME, CABLE TRAY AND ANTENNA GROUND WIRE CONNECTIONS TO GROUND BUSSES SHALL BE MADE WITH CRIMP TYPE COMPRESSION CONNECTIONS TO CONNECTORS (MINIMUM 2 HOLE LUGS WITH PULL BOLTING). BUSES SHALL BE PRE-DRILLED TO ACCOMMODATE ALL CONNECTIONS.

31. ALL GROUNDING SHALL BE PER C.E.C. SECTION 250 AND 810 AND THE GROUNDING REQUIREMENTS OF THESE DRAWINGS.

32. ALL GROUND WIRE CONNECTIONS BETWEEN GROUND BUSES AND OTHER GROUNDING DEVICES SHALL BE CRAWLED.

33. ALL METALLIC GROUND WIRE CONDUIT SHALL BE GROUNDED TO THE GROUND WIRE USING SET SCREW CONNECTIONS AT CONDUIT END CAPS AND CRIMP CONNECTIONS AT WIRE.

34. COAT ALL BOLTED LUGS AND BUSH GROUND CONTACT SURFACES WITH KPR-SHIELD, NO-OX, OR EQUAL PRIOR TO ATTACHMENT.

35. WHEN CIRCUIT BREAKER SHALL BE RATED FOR STANDARD A.L.C. RATING HIGHER THAN INCOMING FROM UTILITY COMPANY.

36. ALL EQUIPMENT SHALL BE U.L. LISTED.

37. ALL CONDUIT CLEARANCES SHALL BE FIELD VERIFIED AND ALL CONDUIT ROUTING SHALL BE COORDINATED WITH PROPERTY OWNERS REPRESENTATIVE.

38. ALL CONNECTIONS TO EXISTING MAIN SWITCHGEAR INCLUDING "BUS-TAPS" AND/OR "WYE-TAPS" REQUIRE CERTIFICATION AND APPROVAL. FABRICATION AND CERTIFICATION SHALL BE FURNISHED BY A CONTRACTOR APPROVED BY THE APPLICABLE UTILITY.

39. CONTRACTOR SHALL COORDINATE WORK WITH UTILITY COMPANIES FOR FINAL AND EXACT WORK AND MATERIAL REQUIREMENTS, CONSTRUCT TO UTILITY COMPANIES ENGINEERING PLANS AND SPECIFICATIONS ONLY.

40. ALL BROCHURES, OPERATION MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO THE PROJECT MANAGER AT THE COMPLETION OF WORK.

41. SWITCHES AND RECEPTABLES AS SPECIFIED ON FLOOR PLANS.

NOTE:
REFER TO "CODE COMPLIANCE" SECTION ON SHEET T1 FOR THE LIST OF GOVERNING CODES AND STANDARDS.

1. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE POINT OF CONNECTION, CONDUIT ROUTE, INSTALLATION DETAILS AND SPECIFIC PROJECT PARAMETERS WITH THE LOCAL TELEPHONE COMPANY SINGLE POINT OF CONTACT (SPCC) PRIOR TO BEGINNING ANY WORK IN THE FIELD.

2. THE PROJECT ADDRESS AND ANY SPECIFIC UNIT NUMBER MUST BE PROVIDED TO THE LOCAL TELEPHONE COMPANY SPCC MINIMUM 1 WEEK PRIOR TO FINAL INSPECTION TO AVOID DELAY IN INSTALLATION OF SERVICE.

3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND FACILITIES AS SHOWN AND DETAILED ON THE PLANS AS REQUIRED FOR T1 SERVICE AND A SINGLE POTS LINE TO THE ITS FACILITY.

4. THE TELEPHONE TERMINAL BACKBOARD SHALL BE 36"x48"x1/2" THICK FIRE RATED PLYWOOD SHOWN AND PAINTED WITH FIRE RATED PAINT. MOUNT BACKBOARD BOTTOM AT 6" A.F.F. PROVIDE MINIMUM 12" CLEARANCE FROM POWER ON THE SAME WALL AND 42" MINIMUM CLEARANCE FROM ADJOINING OR OPPOSITE WALLS. VERIFY WIDTH.

5. CONDUIT SPECIFICATIONS SHALL BE AS FOLLOWS:

a. GENERAL: ALL TELEPHONE SERVICE CONDUIT SHALL RUN FROM POLE, WHUL, PULL-BOX, MANHOLE OR OTHER POINT OF CONNECTION ESTABLISHED BY THE LOCAL TELEPHONE COMPANY SPCC AND SHALL RUN CONTINUOUS TO AN EDGE OF THE TELEPHONE TERMINAL BACKBOARD.

b. UNDERGROUND CONDUIT AND BONES SHALL BE MINIMUM 4" DIAMETER SCHEDULE 40 PVC. TRENCH DEPTH SHALL PROVIDE FOR MINIMUM 24" COVER OVER CONDUIT. CONDUIT RUN SHALL BE NO MORE THAN 200 FEET IN LENGTH OR HAVE NO MORE THAN (2) 90 DEGREES (OR EQUIVALENT) BETWEEN PULL BOXES.

c. ABOVE GROUND CONDUIT AND CONDUIT INSIDE BUILDINGS SHALL BE ENT WITH FITTINGS AS NOTED IN ELECTRICAL NOTES. PROVIDE A UL APPROVED 18" HIGH x 10" DEEP WEATHER RESISTANT MEDIA 3R RATED PULL BOX ON ALL ABOVE GRADE CONDUIT RUNS AT INTERVALS NOT TO EXCEED 100 FEET OR (2) 90 DEGREES (OR EQUIVALENT).

d. OVERHEAD EXTERIOR FEEDS SHALL BE 4" DIAMETER RIGID GALVANIZED CONDUIT WITH A WEATHERHEAD OF A TYPE AND AT A HEIGHT APPROVED BY LOCAL TELEPHONE COMPANY SPCC (MINIMUM 20 FEET ABOVE FINISHED GRADE).

e. A 1-1/4" DIAMETER ORANGE INTER-DUCT SHALL BE PROVIDED IN ALL TELEPHONE SERVICE CONDUIT.

f. A MINIMUM 3/8" YELLOW POLYPROPYLENE PULL ROPE SHALL BE INCLUDED IN EVERY INTER-DUCT WITH A SEPARATE 3/8" YELLOW POLYPROPYLENE PULL ROPE INSIDE THE CONDUIT, NOT INSIDE THE INTER-DUCT.

g. THE ELECTRICAL CONTRACTOR SHALL VERIFY AVAILABILITY OR SHALL PROVIDE A NEW 120V POWER SOURCE MINIMUM 12" FROM TELEPHONE TERMINAL BACKBOARD.

h. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A #6 SOLID INSULATED COPPER GROUND WIRE FROM A GROUND SOURCE APPROVED BY THE LOCAL TELEPHONE COMPANY SPCC. MINIMUM STANDARD SOURCE SHALL BE A 5/8" DIAMETER x 8'-0" LONG COPPER CLAD STEEL GROUND ROD.

i. ALL BONDING SHALL BE DONE BY THE LOCAL TELEPHONE COMPANY UNLESS OTHERWISE NOTED.

j. ALL TELEPHONE CONDUIT SHALL BE LABELED AT DESIGNATED TELEPHONE COMPANY.

TELEPHONE SPECIFICATIONS

1. UTILITY POINTS OF SERVICE AND WORK / MATERIALS SHOWN ARE BASED UPON PRELIMINARY INFORMATION PROVIDED BY THE UTILITY COMPANIES AND ARE FOR BID PURPOSES ONLY.

2. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY FOR FINAL AND EXACT WORK / MATERIALS REQUIREMENTS AND CONSTRUCT TO UTILITY COMPANY ENGINEERING PLANS AND SPECIFICATIONS ONLY. CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT, PULL BOXES, CABLES, PULL BOXES, CONCRETE ENCASUREMENT OF CONDUIT (IF REQUIRED), TRANSFORMER PAD, BATTERIES, POLE MOUNT, TRENCHING, BACKFILL, PAY ALL UTILITY COMPANY FEES AND INCLUDE ALL REQUIREMENTS IN SCOPE OF WORK.

3. UTILITY CONTACTS FOR THIS PROJECT SHALL BE AS FOLLOWS:

POWER/TELCO:

NSA WIRELESS
2500 CROW CANYON PLACE,
SUITE 402, SAN RAMON, CA 94583
CONDUCT: ROGER SHARP
PHONE: (925) 244-1850

verizonwireless
2745 MITCHELL DRIVE, SUITE 9
WALNUT CREEK, CA 94598

OAKLAND COLISEUM
250504
7000 COLISEUM WAY
OAKLAND, CA 94621
ALAMEDA COUNTY

CURRENT ISSUE DATE:
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08/06/12	CD (100%)	JS
08/06/12	CD (100%)	JS
11/11/11	CD (100%)	JS

PLANS PREPARED BY:
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ENGINEERING, INC.
CONSULTING ENGINEERS

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CONSULTANT:

SEAL OF APPROVAL:

SHEET TITLE:

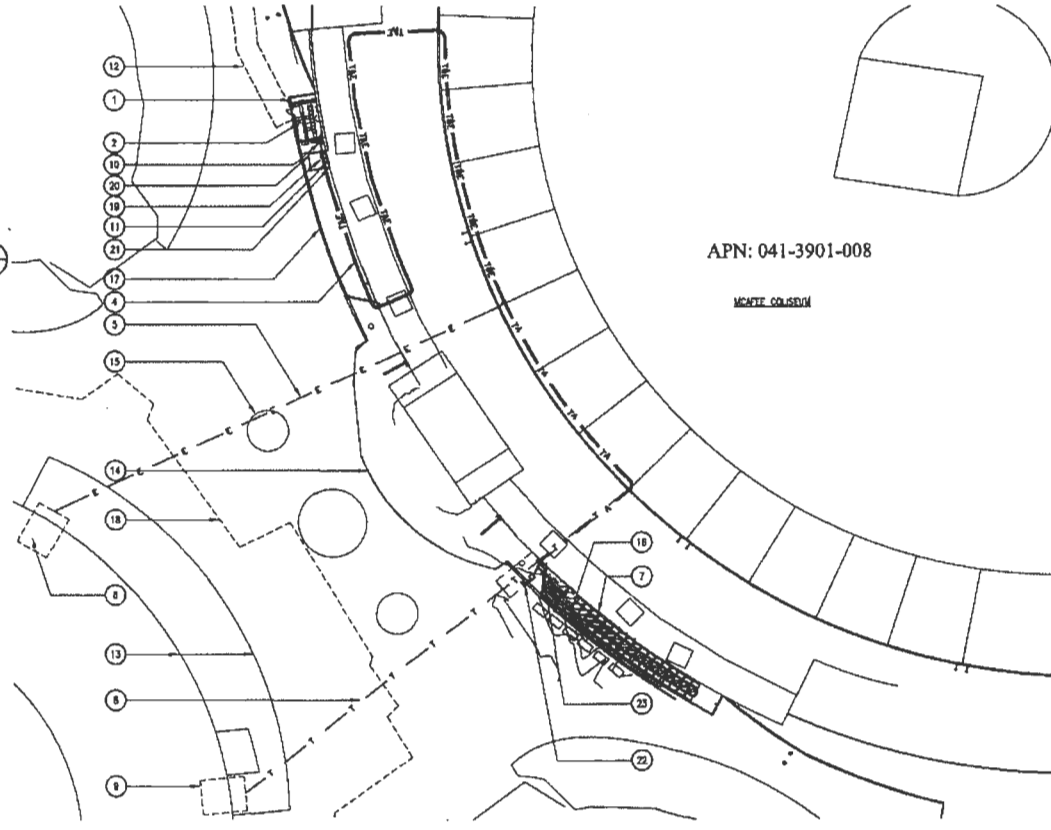
ELECTRICAL &
TELEPHONE
SPECIFICATIONS AND
UTILITIES NOTES

SHEET NUMBER: REVISION:

E1 **5**
P11NS007

KEY NOTES:

- 1 NEW VERIZON WIRELESS 22'-0"x14'-0" CUSTOM BUILT EQUIPMENT SHELTER LOCATED AT MAIN CONCRETE FLOOR LEVEL ENCLOSED WITHIN A 32'-0"x14'-0" LEASE AREA
- 2 OUTLINE OF EXISTING LANDSCAPING TO BE REMOVED
- 3 NEW 5'-0" WIDE VERIZON WIRELESS ACCESS EASEMENT OVER EXISTING ACCESS ROAD (APPROX. 20 L.F. COLISEUM WAY TO EQUIPMENT AREA)
- 4 NEW COAX CABLE OVERHEAD ROUTING ALONG FLOOR LEVEL 03 CEILING WITHIN A 5'-0" WIDE VERIZON WIRELESS UTILITY EASEMENT (APPROX 800 L.F. FROM EQUIPMENT SHELTER TO AT&T EQUIPMENT AREA) - ACTUAL ROUTE TO BE VERIFIED IN THE FIELD AND COORDINATED WITH LANDLORD
- 5 NEW POWER OVERHEAD ROUTING ALONG FLOOR LEVEL 03 CEILING WITHIN A 5'-0" WIDE VERIZON WIRELESS UTILITY EASEMENT (APPROX 800 L.F. FROM POWER P.O.C. TO 300A METER AT METER RACK & 42 L.F. FROM 300A METER TO EQUIPMENT SHELTER P.P.C.) - ACTUAL ROUTE TO BE VERIFIED IN THE FIELD AND COORDINATED WITH LANDLORD
- 6 NEW TELCO OVERHEAD ROUTING ALONG FLOOR LEVEL 03 CEILING WITHIN A 5'-0" WIDE VERIZON WIRELESS UTILITY EASEMENT (APPROX 900 L.F. FROM TELCO P.O.C. TO EQUIPMENT SHELTER) - ACTUAL ROUTE TO BE VERIFIED IN THE FIELD AND COORDINATED WITH LANDLORD
- 7 NEW COAX CABLE ROUTING ALONG EXISTING WALL (APPROX 60 L.F. FROM CONDUITS STUB-UP TO AT&T EQUIPMENT CABINET)
- 8 EXISTING ELECTRICAL ROOM (POWER P.O.C.)
- 9 EXISTING TELCO ROOM (TELCO P.O.C.)
- 10 NEW H-FRAME W/ OVERHEAD COVER & (4) 6" CONDUITS STUB-UP
- 11 NEW BUSSED GUTTER W/ (5) DIS. CDS: (2 FOR FUTURE)
- 12 NEW 15'-0" WIDE VERIZON WIRELESS ACCESS EASEMENT OVER EXISTING ACCESS ROAD (SEE SHEET A1 FOR CONTINUATION)
- 13 EXISTING ACCESS ROAD (TYP.)
- 14 EXISTING STADIUM MAIN ACCESS (TYP.)
- 15 EXISTING LANDSCAPING DECOR (TYP.)
- 16 EXISTING AT&T EQUIPMENT AREA (TYP.)
- 17 EXISTING OVERHANG SLAB WITH LANDSCAPE AREA BELOW (TYP.)
- 18 EXISTING UNDERGROUND PARKING LOT (TYP.)
- 19 NEW 1500VA STEP-DOWN TRANSFORMER MOUNTED TO EXISTING CONCRETE SLAB
- 20 NEW TELCO CABINET MOUNTED TO NEW H-FRAME
- 21 NEW 12'-0"x10'-0" UTILITY AREA WITHIN A CHAIN LINK FENCE ENCLOSURE - LOCATION OF NEW COMMON UTILITY EQUIPMENT
- 22 NEW TELCO EQUIPMENT LOCATED AT LOTS B & C TUNNEL
- 23 NEW TELCO EQUIPMENT LOCATED AT LOTS B & C TUNNEL
- 24 LOCATION OF NEW SPLIT (TYP.)



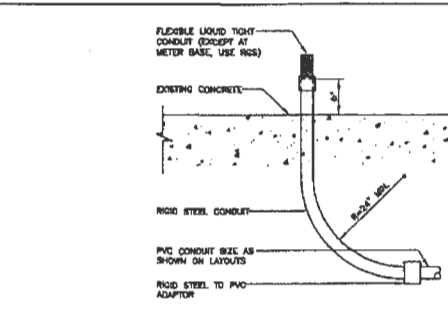
APN: 041-3901-008

MCATE COLISEUM

UTILITIES PLAN

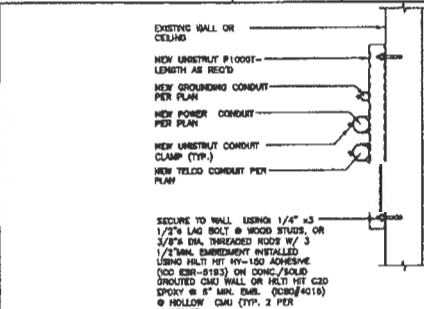
SCALE: 1 inch = 20 ft

- NOTES:
1. DO NOT SCALE DRAWINGS. ALL DIMENSIONS OF AND BETWEEN EXISTING BUILDINGS/STRUCTURES, OR RELATIVE DISTANCES AS SHOWN BETWEEN EXISTING BUILDINGS/STRUCTURES AND THE TRUE NORTH ARE TO BE CONFIRMED BY THE SURVEYOR.
 2. POWER/TELCO ROUTING AND DESIGN ARE PRELIMINARY AND MUST BE VERIFIED WITH LOCAL UTILITY COMPANIES.



CONDUIT STUB-UP

SCALE: 1 inch = 10 ft



CONDUITS ROUTING

SCALE: 1 inch = 10 ft

2785 MITCHELL DRIVE, SUITE 9
WALNUT CREEK, CA 94598

PROJECT INFORMATION:

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7000 COUSELUM WAY
OAKLAND, CA 94621
ALAMEDA COUNTY

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3	06/06/13	CD (100%)	JK
4	06/06/13	CD (90%)	JK
5	11/11/11	CD (80%)	JK

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CONSULTANT:

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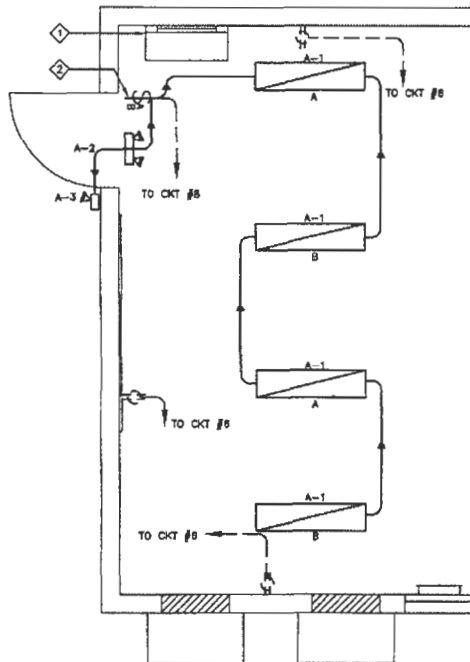
SHEET TITLE:
UTILITIES PLAN & DETAILS

SHEET NUMBER: **E2** REVISION: **5**

FITNS04

KEY NOTES:

- 1 POWER PANEL 'A'
- 2 BI-LEVEL SWITCH



LIGHTING FIXTURE SCHEDULE

TYPE	FIXTURE	MOUNTING	LAMPS	NO. / TYPE	FIXTURE WATT / VOLT	MANUFACTURER/CATALOG NUMBER
1	RECESSED	RECESSED	4	PROTECTOR	80	NEW SURFACE MOUNTED 1X4 FLUORESCENT LIGHT FIXTURE, 2200W LAMPS W/ADJUST. PRISMATIC DIFFUSER, LITHONIA MODEL #B2 40 120 ESR
2	RECESSED	RECESSED	3	PROTECTOR	120	DUAL-LITE #DL-2, MOUNTED AT T-8"
3	RECESSED	RECESSED	1	PROTECTOR	70	LITHONIA W/ 70SP, 120 W, MOUNTED AT T-8"

ALL FIXTURES TO BE APPROVED BY VERIZON WIRELESS COMMUNICATIONS/ARCHITECT BEFORE PURCHASE.

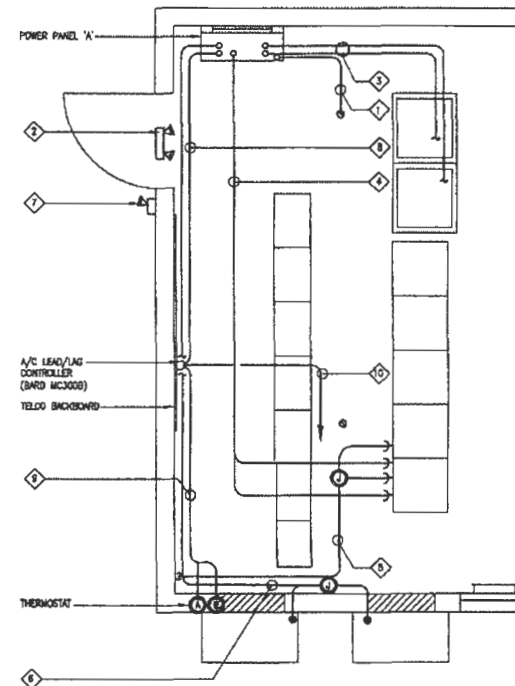
ELEC. LIGHTING PLAN & LTG. FIXTURE SCHEDULE

SCALE: 1/4" = 1' 0"

1

KEY NOTES:

- 1 2" C (EMT) - 3 #4/0 + 1 #4 GND. FOR SMOKE ALARM
- 2 EXT. LIGHT
- 3 3/4" C (EMT) - 2 #10 + 1 #12 GND. FOR BATTERY CHARGER
- 4 (2) 2" C (EMT) - 3 #2 + 1 #6 GND. FOR MODELL # 1 & 2 POWER
- 5 2" C (EMT) - FOR TELCO
- 6 1" C (EMT) - 4 #6 + 2 #10 GND. FOR A/C UNITS
- 7 EXTERIOR LIGHT
- 8 3/4" C (EMT) - 2 #12 + 1 #12 GND FROM CKT. #20 FOR A/C LEAD/LAG CONTROLLER
- 9 3/4" C (EMT) - 4 #16 FOR THERMOSTAT SENSORS
- 10 1" C (EMT) - TO A/C UNIT FOR CONTROL. REFER TO E-10 FOR WIRING DIAGRAM



SYMBOLS:

- 1 CONDUIT LOOKING DOWN
- 2 CONDUIT LOOKING UP
- 3 CONDUIT TURNING
- 4 JUNCTION BOX

NOTES:
1. DO NOT SCALE DRAWINGS. ALL DIMENSIONS OF AND BETWEEN EXISTING BUILDINGS/STRUCTURES, OR RELATIVE DISTANCES AS SHOWN BETWEEN EXISTING BUILDINGS/STRUCTURES AND THE TRUE NORTH ARE TO BE CONFIRMED BY THE SURVEYOR.
2. POWER/TELCO ROUTING AND DESIGN ARE PRELIMINARY AND MUST BE VERIFIED WITH LOCAL UTILITY COMPANIES.

CONDUIT/WIRING PLAN

SCALE: 1/4" = 1' 0"

1

verizon wireless

2785 MITCHELL DRIVE, SUITE 9
WILMINGTON, CA 94095

PROJECT INFORMATION:

OAKLAND COLISEUM
250654

7000 COLISEUM WAY
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06/26/13	CD (30%)	JK
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PLANS PREPARED BY:

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SEAL OF APPROVAL:

SHEET TITLE:

ENLARGED UTILITIES PLAN,
ELECTRICAL LIGHTING
PLAN & LTG. FIXTURE
SCHEDULE

SHEET NUMBER: REVISION:

E3 5

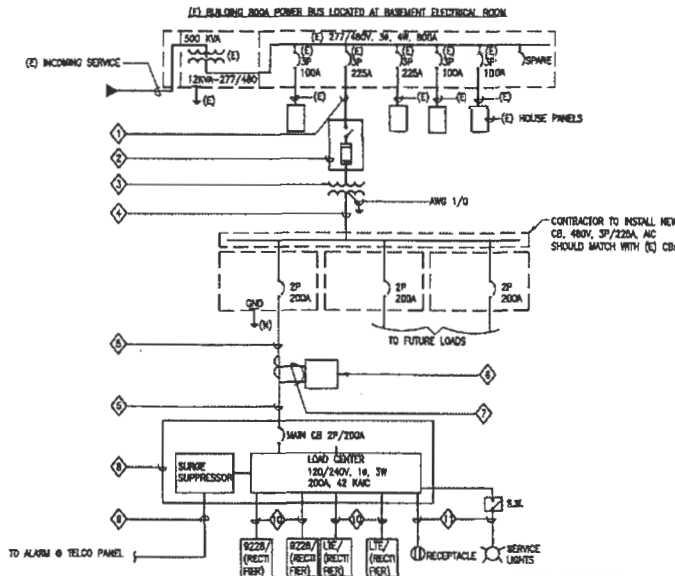
P11N3007

NOTES:

- (1) 3" C (RCS)
- (2) #300 KCMIL + (1) #2 GND. APPROX. 800' W - 2.5%
- (3) FUSED DIS. SWITCH 480V, 3P/225A. NEAR LOCATED @ SHAFER'S PROPERTY
- (4) SHAFER, 480 - 300/120V, 3W, 150KVA. LOCATED @ LEASE AREA
- (5) (2) 3" C (DWT) - 4 #350 KCMIL + 1 #2 GND. (FOR EACH CONDUIT - APPROX. 10 FT.)
- (6) 2" C (RCS) 3 #3/0 + 1 #4 GND. APPROX. 33 LF. W - 0.5%
- (7) SUB-METER, 240V, 14, 3W, 200A LOCATED WITHIN LEASE AREA
- (8) 3/4" C (DWT)-3/12 + 4/12 (FOR CURRENT SENSOR)
- (9) NEW POWER PANEL (PANEL "A"), 120/240V, 14, 3W, 200A, 100A, WEMA 14, LOCATED INSIDE SHELTER
- (10) 3/4" C (RCS) - 4/16 FOR SURGE ARRESTOR AND POWER FAILURE ALARM, APPROX. 10 FT.
- (11) 2" C (RCS) - 3/2 + 1/4 GND. APPROX. 10 FT.
- (12) 3/4" C (RCS) - 3/12 + 1/12 GND

NOTES:

1. FOR UNDERGROUND - USE PVC CONDUIT
2. FOR ABOVE GRADE - USE RGS CONDUIT
3. FOR INSIDE BUILDING - USE EMT CONDUIT WITH COMPRESSION FITTING.



NOTES:

1. SUBCONTRACTOR SHALL PROVIDE 200AMP, SINGLE PHASE, 120/208 VAC, 60HZ SERVICE FOR SITE.
2. SUBCONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY BEFORE THE START OF CONSTRUCTION. POWER AND TELEPHONE CONDUIT SHALL BE PROVIDED AND INSTALLED PER UTILITY REQUIREMENTS.
3. FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT REFER TO DRAWINGS PROVIDED BY PANEL MANUFACTURER.
4. SUBCONTRACTOR SHALL PROVIDE ELECTRICAL SERVICE EQUIPMENT WITH FAULT CURRENT RATING GREATER THAN THE AVAILABLE FAULT CURRENT FROM THE POWER UTILITY.
5. SUBCONTRACTOR SHALL VERIFY THAT THE MAIN BONDING JUMPER AND GROUNDING ELECTRODE CONDUCTOR IS INSTALLED PROPERLY WHEN PANEL IS SERVICE ENTRANCE EQUIPMENT.
6. REFER TO PANEL SCHEDULE PROVIDED BY SHELTER MANUFACTURER FOR CIRCUIT ARRANGEMENT AND WIRING DIAGRAM.
7. LIGHTING WILL BE DESIGNED AND INSTALLED BY SHELTER MANUFACTURER.
8. TITLE 24 SHALL BE PROVIDED BY SHELTER MANUFACTURER.

ALL WORK TO COMPLY WITH NFPA 70E AND OSHA TITLE 29.

1-LINE DIAGRAM FOR VOLTAGE ALTERNATIVE CURRENT

PANEL A									
PANEL CIRCUIT AND LOAD SCHEDULE									
CIRCUIT	DESCRIPTION	CIRCUIT	DESCRIPTION	CIRCUIT	DESCRIPTION	CIRCUIT	DESCRIPTION	CIRCUIT	DESCRIPTION
1	RECEIVER #1	2	RECEIVER #2	3	RECEIVER #3	4	RECEIVER #4	5	RECEIVER #5
6	RECEIVER #6	7	RECEIVER #7	8	RECEIVER #8	9	RECEIVER #9	10	RECEIVER #10
11	RECEIVER #11	12	RECEIVER #12	13	RECEIVER #13	14	RECEIVER #14	15	RECEIVER #15
16	RECEIVER #16	17	RECEIVER #17	18	RECEIVER #18	19	RECEIVER #19	20	RECEIVER #20
21	RECEIVER #21	22	RECEIVER #22	23	RECEIVER #23	24	RECEIVER #24	25	RECEIVER #25
26	RECEIVER #26	27	RECEIVER #27	28	RECEIVER #28	29	RECEIVER #29	30	RECEIVER #30
31	RECEIVER #31	32	RECEIVER #32	33	RECEIVER #33	34	RECEIVER #34	35	RECEIVER #35
36	RECEIVER #36	37	RECEIVER #37	38	RECEIVER #38	39	RECEIVER #39	40	RECEIVER #40
41	RECEIVER #41	42	RECEIVER #42	43	RECEIVER #43	44	RECEIVER #44	45	RECEIVER #45
46	RECEIVER #46	47	RECEIVER #47	48	RECEIVER #48	49	RECEIVER #49	50	RECEIVER #50
51	RECEIVER #51	52	RECEIVER #52	53	RECEIVER #53	54	RECEIVER #54	55	RECEIVER #55
56	RECEIVER #56	57	RECEIVER #57	58	RECEIVER #58	59	RECEIVER #59	60	RECEIVER #60
61	RECEIVER #61	62	RECEIVER #62	63	RECEIVER #63	64	RECEIVER #64	65	RECEIVER #65
66	RECEIVER #66	67	RECEIVER #67	68	RECEIVER #68	69	RECEIVER #69	70	RECEIVER #70
71	RECEIVER #71	72	RECEIVER #72	73	RECEIVER #73	74	RECEIVER #74	75	RECEIVER #75
76	RECEIVER #76	77	RECEIVER #77	78	RECEIVER #78	79	RECEIVER #79	80	RECEIVER #80
81	RECEIVER #81	82	RECEIVER #82	83	RECEIVER #83	84	RECEIVER #84	85	RECEIVER #85
86	RECEIVER #86	87	RECEIVER #87	88	RECEIVER #88	89	RECEIVER #89	90	RECEIVER #90
91	RECEIVER #91	92	RECEIVER #92	93	RECEIVER #93	94	RECEIVER #94	95	RECEIVER #95
96	RECEIVER #96	97	RECEIVER #97	98	RECEIVER #98	99	RECEIVER #99	100	RECEIVER #100

PANEL SCHEDULE



2789 MITCHELL DRIVE, SUITE 9
WALNUT CREEK, CA 94598

PROJECT INFORMATION:

OAKLAND COLISEUM
250004
7000 COLISEUM WAY
OAKLAND, CA 94621
ALAMEDA COUNTY

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4	08/04/13	CD (20%)	JK
5	11/11/11	CD (20%)	JK

PLANS PREPARED BY:



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CONSULTANT:

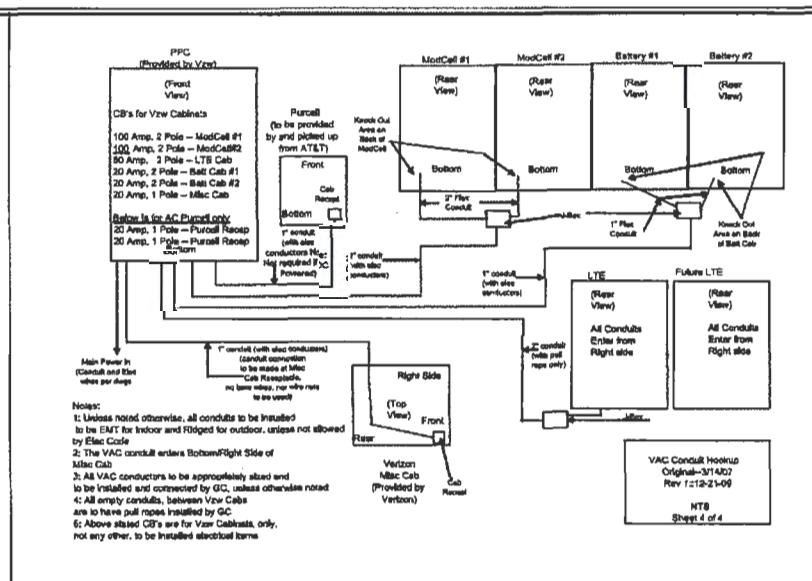
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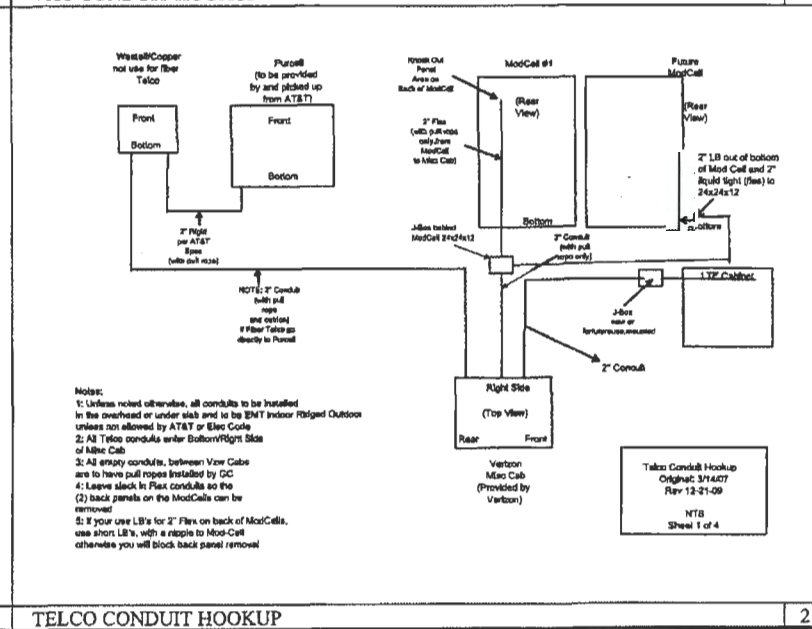
1-LINE DIAGRAMS &
PANEL SCHEDULE

SHEET NUMBER: REVISION:

E4 5
P11N5007



VAC CONDUIT HOOKUP

[illegible]

2785 MITCHELL DRIVE, SUITE 9
MILPITAS, CA 95035

PROJECT INFORMATION:

OAKLAND COLISEUM

250604

7500 COLLETT AVENUE
OAKLAND, CA 94621
ALAMEDA COUNTY

CURRENT ISSUE DATE: 07/31/13

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PLANS PREPARED BY:

DELTA GROUPS
ENGINEERING, INC.
COMMERCIAL ENGINEERS

2785 MITCHELL DRIVE, SUITE 9
MILPITAS, CA 95035
TEL: (408) 444-9118 FAX: (408) 444-4354

CONSULTANT:

SEAL OF APPROVAL:

SHEET TITLE: GROUNDING PLAN, GENERAL GROUNDING NOTES, & DETAILS

SHEET NUMBER: E6 5

PROJECT NUMBER: 11115007

KEY NOTES:

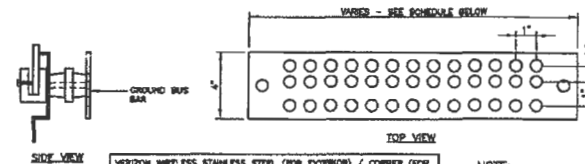
- NEW MODEL EQUIPMENT CABINET
- NEW MAIN BUS BAR (TYP.)
- NEW OVERHEAD CABLE LADDER (TYP.)
- NEW 60'S ANTENNA (TYP. OF 4)
- NEW 70'S ANTENNA (TYP. OF 4)
- NEW 80'S ANTENNA (TYP. OF 4)
- NEW 90'S ANTENNA (TYP. OF 4)
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- NEW 980'S ANTENNA (TYP. OF 4)
- NEW 990'S ANTENNA (TYP. OF 4)
- NEW 1000'S ANTENNA (TYP. OF 4)

GROUNDING PLAN

GENERAL GROUNDING NOTES

- EXTERIOR GROUNDING BUS BARS ARE GALVANIZED STEEL.
- ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING RESISTANCE AND MONITORING MAY VARY DUE TO SITE SPECIFIC CONDITIONS.
- ALL GROUNDING CONDUCTORS SHALL BE COPPER.
- ALL GROUNDING WIRE BELOW GRADE SHALL BE SHIELDED AND SHALL BE PROTECTED BY A 1/2" MINIMUM ALL CONDUIT BELIEF GRADE SHALL BE PROTECTIBLE BY.
- ALL GROUND WIRE ABOVE GRADE IS SHIELDED COPPER (LWC). SIZE AS SHOWN ON PLANS.
- USE MINIMUM #10 AWG COPPER CONDUCTORS FOR COMMUNICATION SERVICE GROUNDING CONDUCTORS.
- ALL GROUNDING CONDUCTORS SHALL BE LISTED FOR THE PURPOSES INTENDED.
- ALL LIDS SHALL BE 2-HOLE LONG-SHAPED SOLID COPPER BUSKEY TRIMS & BENTS OR EQUAL.
- MINIMUM BENT RADII FOR GROUNDING CONDUCTORS #1 AND LARGER SHALL BE 12" IF MINIMUM RADII FOR SMALL CONDUCTORS.

CADWELD DETAILS



PART #	BAR DESCRIPTION
EM 500 49-V2W-NR	1/4"x4"x8"
EM 500 412-V2W-NR	1/4"x4"x12"
EM 500 418-V2W-NR	1/4"x4"x18"
EM 500 430-V2W-NR	1/4"x4"x30"
EM 500 424-V2W-NR	1/4"x4"x24"

INCLUDES TWO STAINLESS STEEL TORQUE SHEAR HEAD BOLTS, W/ANTI LOOSING COMPOUND

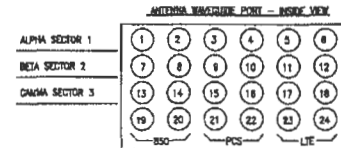
GENERAL CONTRACTOR TO STAMP "VERIZON WIRELESS" & SITE NUMBER BAR & PART ANTI-THEFT COMPOUND PROVIDED BY ELECTRIC MOTION COMPANY, PRODUCT ITEM 8101

NOTE:
1. EXTERIOR GRND BUS BAR: STAINLESS STEEL
2. INTERIOR GRND BUS BAR: COPPER

UNUSED

GROUND BUS BAR

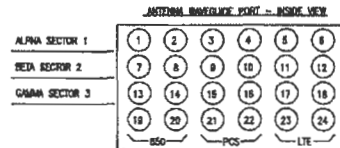
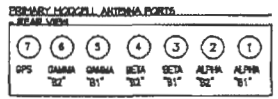
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PORT NO.	DESCRIPTION	COLOR CODE
18	MICROWAVE #1 (NR-1)	RED/RED/RED
20	MICROWAVE #2 (NR-2)	BLUE/BLUE/BLUE
21	MICROWAVE #3 (NR-3)	GREEN/GREEN/GREEN
22	MICROWAVE #4 (NR-4)	YELLOW/YELLOW/YELLOW
X	MICROWAVE #5 (NR-5)	ORANGE/ORANGE/ORANGE
X	MICROWAVE #6 (NR-6)	PURPLE/PURPLE/PURPLE
X	MICROWAVE #7 (NR-7)	WHITE/WHITE/WHITE
X	MICROWAVE #8 (NR-8)	WHITE/RED/WHITE
X	MICROWAVE #9 (NR-9)	WHITE/BLUE/WHITE
X	MICROWAVE #10 (NR-10)	WHITE/GREEN/WHITE

ANTENNA MICROWAVE GUIDE COLOR CODES

3



ANTENNA COLOR CODE SCHEME FOR LUCENT BSC/PCS/LTE MODELL

PORT NO.	SECTION SITE - 120 DEGREE (MODELL)	COLOR CODE	COMMENTS
1	ALPHA SECTOR 1 (BSC)	YELLOW/RED/GREEN	BSC SYSTEM
2	ALPHA SECTOR 2 (BSC)	YELLOW/RED/RED/RED/RED/RED	BSC SYSTEM
3	BETA SECTOR 1 (BSC)	BLUE/RED/RED	BSC SYSTEM
4	BETA SECTOR 2 (BSC)	BLUE/RED/RED/RED/RED/RED	BSC SYSTEM
5	ALPHA SECTOR 3 (BSC)	ORANGE/RED/RED	BSC SYSTEM
6	ALPHA SECTOR 4 (BSC)	ORANGE/RED/RED/RED/RED/RED	BSC SYSTEM
7	ALPHA SECTOR 5 (BSC)	PURPLE/RED/RED	BSC SYSTEM
8	ALPHA SECTOR 6 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
9	ALPHA SECTOR 7 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
10	ALPHA SECTOR 8 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
11	ALPHA SECTOR 9 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
12	ALPHA SECTOR 10 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
13	ALPHA SECTOR 11 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
14	ALPHA SECTOR 12 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
15	ALPHA SECTOR 13 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
16	ALPHA SECTOR 14 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
17	ALPHA SECTOR 15 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
18	ALPHA SECTOR 16 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
19	ALPHA SECTOR 17 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
20	ALPHA SECTOR 18 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
21	ALPHA SECTOR 19 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
22	ALPHA SECTOR 20 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
23	ALPHA SECTOR 21 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM
24	ALPHA SECTOR 22 (BSC)	PURPLE/RED/RED/RED/RED/RED	BSC SYSTEM

PORT NO.	DESCRIPTION	COLOR CODE	COMMENTS
21	GPS (BSC/PCS)	BLUE	BSC/PCS SYSTEM
24	GPS (LTE)	PURPLE/PURPLE/BLUE	LTE SYSTEM

NOTE:
SHARED BSC AND PCS FREQUENCIES THROUGH A DUPLEXED WAVELENGTH COAX RLM IS TO BE MARKED (1) WITH A DOUBLE BAND OF THE SECTOR COLOR ON THE FIRST LINE, AND (2) WITH TRIPLE BAND OF THE SECTOR COLOR ON THE SECOND LINE. EX: Y/Y, Y/Y, B/B AND B/B, B/B, Q/Q AND Q/Q, Q/Q

UNUSED

EQUIPMENT CABINET COLOR CODES

2



2785 MITCHELL DRIVE, SUITE 9
WALNUT CREEK, CA 94598

PROJECT INFORMATION:

OAKLAND COLISEUM
250504

7000 COLISEUM WAY
OAKLAND, CA 94621
ALAMEDA COUNTY

CURRENT ISSUE DATE:

07/31/13

ISSUED FOR:

CD (DESIGN CHANGE)

REV: DATE: DESCRIPTION: BY:

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2	07/31/13	CD (DESIGN CHANGE)	JK
3	07/31/13	CD (DESIGN CHANGE)	JK
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24	07/31/13	CD (DESIGN CHANGE)	JK

PLANS PREPARED BY:



3855 WEST LANE, SUITE 403
PULMONO, CA 95068
TEL: (925) 486-0118 FAX: (925) 486-0380

CONSULTANT:



SEAL OF APPROVAL:



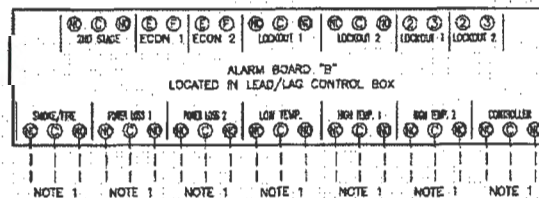
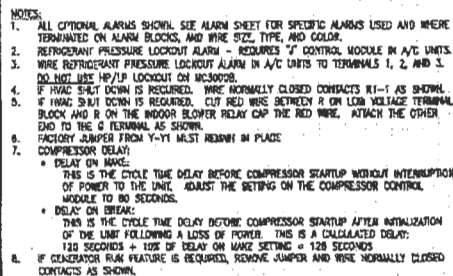
SHEET TITLE:

GROUNDING DETAILS & ANTENNA & CABLE SCHEDULE

SHEET NUMBER: REVISION:

E7 5

P1118007



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STANDARD NOTES AND SPECIFICATIONS



Northstar Battery Lead and Acid weights per 12 Volt Battery

Battery Type	Electrolyte				Acid				Lead			
	Weight /kg	Weight /lbs	Volume /litres	Volume /gallons	Weight /kg	Weight /lbs	Volume /litres	Volume /gallons	Weight /kg	Weight /lbs	Volume /litres	Volume /gallons
NSB40/NSB12-100	2.6	5.7	2.0	0.5	1.1	2.4	0.8	0.2	9.1	20.2	3.4	7.6
NSB70/NSB12-130	4.3	9.4	3.2	0.8	1.8	4.0	1.4	0.4	15.3	33.8	5.2	11.5
NSB75/NSB12-170	4.3	9.5	3.3	0.9	1.9	4.0	1.4	0.4	15.0	33.0	5.9	12.9
NSB90/NSB12-370	8.2	18.6	4.7	1.2	2.6	5.7	2.0	0.5	20.1	44.2	8.0	17.6
NSB125/NSB12-475	8.1	17.9	5.2	1.4	3.4	7.5	2.5	0.7	29.8	65.1	11.0	24.3
NSB40FT	2.4	5.3	1.8	0.5	1.0	2.2	0.8	0.2	7.2	15.9	3.3	7.2
NSB70FT	3.7	8.1	2.8	0.7	1.5	3.4	1.2	0.3	10.9	24.1	4.7	10.4
NSB90FT	5.8	11.8	4.0	1.1	2.2	4.9	1.7	0.4	18.0	39.3	7.4	16.4
NSB100FT	5.2	13.6	4.7	1.2	2.6	5.7	2.0	0.5	18.1	39.8	8.0	17.7
NSB110FT	6.8	15.0	5.2	1.4	2.9	6.3	2.2	0.6	19.9	43.8	9.1	20.1
NSB140FT	9.0	19.8	6.8	1.8	3.8	8.3	2.9	0.8	25.7	56.6	12.0	26.5
NSB170FT	10.4	22.8	7.8	2.0	4.4	9.7	3.3	0.9	28.7	63.3	14.4	31.8

All weights and volumes are for 12V-monobloc

PAGE 1

UNUSED

BATTERY TABLE (BASIC EQUIPMENT CABINET)

NORTHSTAR BATTERY COMPANY				
MODEL	TYPE	AMOUNT OF ELECTROLYTE	NO. OF BATTERIES	TOTAL GAL. ELECTROLYTE
NSB170FT	LEAD ACID	2.08 GAL.	24	49.92

QUANTITY IN EACH BATTERIES

ITEM	QUANTITY	ELECTROLYTE / UNIT (L)	LEAD / UNIT (LBS)	ELECTROLYTE / UNIT (GAL.)
1	1	7.80	63.30	2.08

CABINET	QUANTITY	ELECTROLYTE / UNIT (L)	LEAD / UNIT (LBS)	ELECTROLYTE / UNIT (GAL.)
#1	24	187.20	1519.20	49.92
#2	0	0	0	0

BATTERY NOTES

1. EACH RACK OR GROUPS OF RACKS SHALL BE PROVIDED WITH A LIQUID TIGHT 4 INCH SPILL CONTROL BARRIER, WHICH EXTENDS AT LEAST 1 INCH BEYOND THE RACK IN ALL DIRECTIONS.
2. FUTURE BATTERY CABINET #2 SHALL HAVE A SEPARATE PERMIT PRIOR TO USE/INSTALLATION

PAGE 2

UNUSED



2785 MITCHELL DRIVE, SUITE D
WALNUT CREEK, CA 94598

PROJECT INFORMATION:

OAKLAND COLISEUM
250804
7000 COLISEUM WAY
OAKLAND, CA 94621
ALAMEDA COUNTY

CURRENT ISSUE DATE:

07/31/13

ISSUED FOR:

CD (DESIGN CHANGE)

REV. DATE: DESCRIPTION: BY:

REV.	DATE	DESCRIPTION	BY
1	07/31/13	CD (DESIGN CHANGE)	JR
2	07/08/13	CD (DESIGN CHANGE)	JR
3	06/05/13	CD (100%)	JR
4	06/05/13	CD (100%)	JR
5	11/01/11	CD (100%)	JT

PLANS PREPARED BY:

DELTA GROUPS
ENGINEERING, INC.
CONSULTING ENGINEERS
8438 WEST LANE PORTLAND, OREGON 97205
TEL: (503) 466-0119 FAX: (503) 466-0209

CONSULTANT:

SEAL OF APPROVAL:

SHEET TITLE:

BATTERIES-MATERIALS
SAFETY DATA SHEET

SHEET NUMBER: REVISION:

N3 **5**
P11NS067