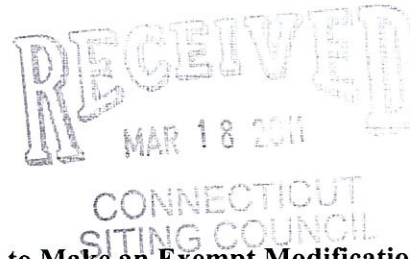


EM-SPRINT-045-110318

March 14, 2011

Chairman Daniel F. Caruso
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06501



SUBJECT: Sprint Spectrum L.P.'s Notice of Intent to Make an Exempt Modification to an Existing Facility at 93 Roxbury Road, East Lyme, CT 06333 (Site # CT03XC110)

Dear Chairman Caruso:

Pursuant to R.C.S.A. Sections 16-50j-73 and 16-50j-72(b), Sprint Spectrum L.P. (Sprint) hereby gives notice to the Connecticut Siting Council (Council) and the Town of East Lyme of its intent to make an exempt modification to an existing telecommunications facility located at 93 Roxbury Road, East Lyme, Connecticut

Sprint plans to install a hydrogen fuel cell at its 93 Roxbury Road facility to provide emergency backup power in the event of an electric outage. This planned installation does not constitute a modification subject to the Council's review as it falls within those activities provided for in R.C.S.A. Section 16-50j-72(b)(2). Specifically, this installation will not change the height of the existing tower, will not extend the boundaries of the existing compound, will not increase noise levels at the site by six decibels or more, and will not increase the total radio frequency electromagnetic radiation power density at the site to levels above applicable standards.

PROPOSED INSTALLATION

Sprint plans to install a 4kW ReliOn hydrogen fuel cell generator within the existing fenced equipment compound; the entire installation mounted to a new 9'0" x 6'0" concrete pad. The fuel cell will be inside a cabinet measuring 3'4" x 2'4" x 6'0". There will also be four cabinets with dimensions of 4'8" x 4'8" x 6'0", each cabinet houses four hydrogen cylinders.

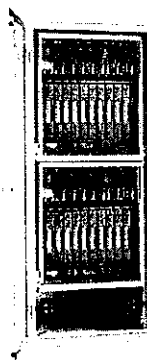
Please contact me at 703.533.1006 should you have any questions about this planned modification.

Sincerely,

Mark Hulshart
Principal

cc: Paul M. Formica, First Selectman, Town of East Lyme (property owner and town representative)

T-2000® 4kW Outdoor Solution



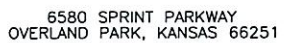
Features:

- T-2000® Outdoor Solution
- Ideal for site loads ranging from 0 – 4kW
 - Simple installation
 - Minimal site footprint
- Modular fuel storage solutions available for extended run capabilities

| | |
|---------------------------|---|
| Dimensions (w x d x h) | 27.5" x 41" x 72" (70 cm x 104 cm x 183 cm) |
| Weight | 654 lbs / 297.3 kg without cylinders |
| Rated net power | 0 to 4,000 Watts |
| Rated current | 0 to 160A @ 24 VDC / 0 to 80A @ 48 VDC |
| DC voltage | 24 or 48 VDC nominal |
| Fuel Composition | Standard industrial grade hydrogen (99.95%) |
| Supply pressure to unit | 3.5 to 6 psig / 24 to 41 KPag / 0.24 bar to 0.41 bar |
| Fuel Consumption | 60 slpm @ 4,000 Watts |
| Hydrogen Storage Capacity | Modular fuel storage solutions available |
| Ambient temperature | -40°F to 115°F / -40°C to 46°C |
| Relative humidity | 0 to 95% non-condensing |
| Altitude | -197 ft to 13,800 ft / -60m to 4,206m |
| Location | Outdoors |
| Safety Compliance | UL/CSA/CE/NEBS |
| Water emissions | Max. 30mL / kWh |
| Noise | 47 dBA @ 5 ft |
| Remote Monitoring/Control | System configuration & status / Historical & operational data |
| Communications | RJ45 / DB9/ Dry Contact |

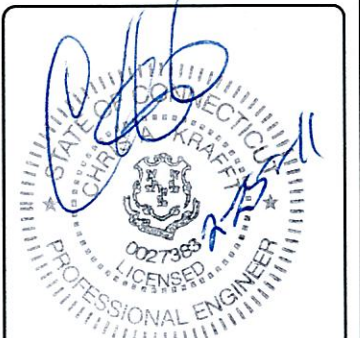


SITE TYPE: EXISTING 150'-0" SELF SUPPORT TOWER



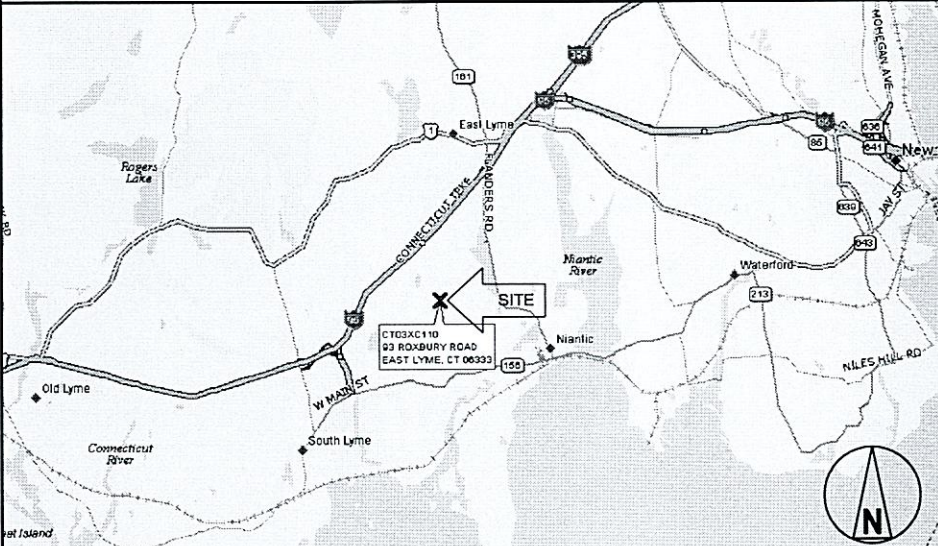
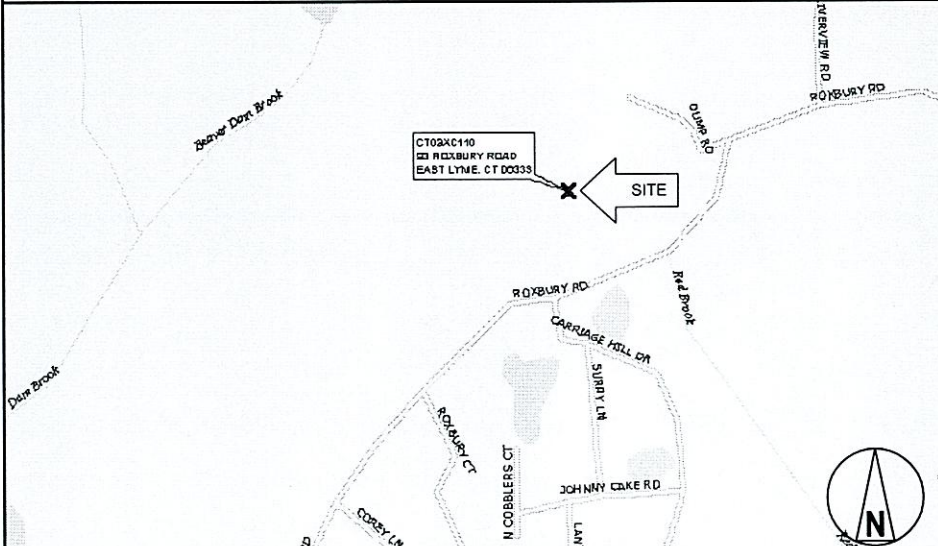
| | |
|-------------|-----|
| CHECKED BY: | BJH |
|-------------|-----|

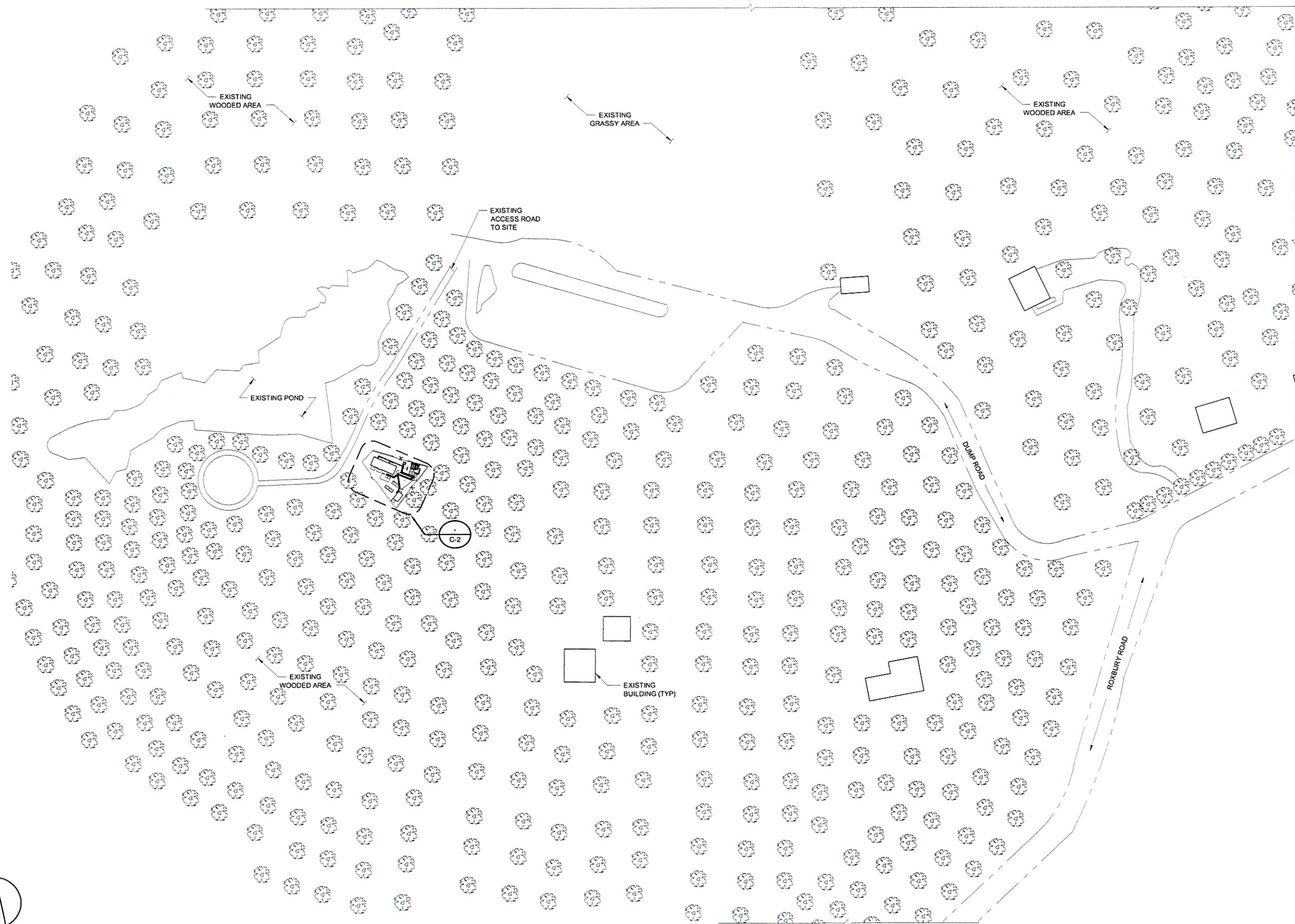
| | | |
|-----|------------|-------------------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| 0 | 02/25/2011 | ISSUED FOR CONSTRUCTION |
| REV | DATE | DESCRIPTION |



IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE
DIRECTION OF A LICENSED PROFESSIONAL
ENGINEER, TO ALTER THIS DOCUMENT.

T-1

| SITE INFORMATION | AREA MAP | APPLICABLE CODES | DRAWING INDEX | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|--|-----|----------------------------|-----|-------------------|-----|-----------|-----|---------------------------|-----|----------------------|-----|---------------------------|-----|-----------------------------|-----|-------------------------|-----|---------------------------|-----|--------------------------|-----|----------------------------|
| <p><u>SITE ADDRESS:</u> 93 ROXBURY ROAD EAST LYME, CT 06333</p> <p><u>PROPERTY OWNER:</u> CROWN CASTLE 2000 CORPORATE DRIVE REFERENCE: 806384 CAWONSBURG, PA 15317</p> <p><u>EQUIPMENT SUPPLIER:</u> ReliOn 15913 EAST EUCLID AVENUE SPOKANE, WASHINGTON 99216</p> <p>DARIN PAINTER DIRECTOR OF SALES OFFICE: 913-766-4256 MOBILE: 913-486-2550 dpainter@reli-on-inc.com</p> <p><u>POWER COMPANY:</u> CL&P PHONE: 800-286-5000</p> <p><u>TELCO COMPANY:</u> NA</p> <p><u>COUNTY:</u> NEW LONDON</p> <p><u>LATITUDE (NAD83):</u> 41° 20' 4.995" N 41.334721</p> <p><u>LONGITUDE (NAD83):</u> 72° 13' 19.995" W -72.222221</p> <p><u>CONTACT ENGINEER:</u> BRYAN HANSEN WORK: 913-458-7343 E-MAIL: hansenbj@bv.com</p> |  | <p>ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:</p> <p>2003 INTERNATIONAL BUILDING CODE WITH 2005 STATE OF CONNECTICUT MODIFICATIONS</p> <p>2003 INTERNATIONAL MECHANICAL CODE WITH 2005 STATE OF CONNECTICUT MODIFICATIONS</p> <p>2003 INTERNATIONAL PLUMBING CODE WITH 2005 STATE OF CONNECTICUT MODIFICATIONS</p> <p>2005 NEC NATIONAL ELECTRICAL CODE</p> <p>IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL</p> | <table><tr><td>T-1</td><td>TITLE SHEET & PROJECT DATA</td></tr><tr><td>C-1</td><td>OVERALL SITE PLAN</td></tr><tr><td>C-2</td><td>SITE PLAN</td></tr><tr><td>S-1</td><td>EQUIPMENT CABINET DETAILS</td></tr><tr><td>S-2</td><td>CONCRETE PAD DETAILS</td></tr><tr><td>M-1</td><td>HYDROGEN PIPING SCHEMATIC</td></tr><tr><td>E-1</td><td>ELECTRICAL ONE-LINE DIAGRAM</td></tr><tr><td>E-2</td><td>OVERALL CONDUIT DETAILS</td></tr><tr><td>E-3</td><td>ELECTRICAL WIRING DIAGRAM</td></tr><tr><td>E-4</td><td>FUEL CELL INSTALL DETAIL</td></tr><tr><td>G-1</td><td>GROUNDING PLAN AND DETAILS</td></tr></table> | T-1 | TITLE SHEET & PROJECT DATA | C-1 | OVERALL SITE PLAN | C-2 | SITE PLAN | S-1 | EQUIPMENT CABINET DETAILS | S-2 | CONCRETE PAD DETAILS | M-1 | HYDROGEN PIPING SCHEMATIC | E-1 | ELECTRICAL ONE-LINE DIAGRAM | E-2 | OVERALL CONDUIT DETAILS | E-3 | ELECTRICAL WIRING DIAGRAM | E-4 | FUEL CELL INSTALL DETAIL | G-1 | GROUNDING PLAN AND DETAILS |
| T-1 | TITLE SHEET & PROJECT DATA | | | | | | | | | | | | | | | | | | | | | | | | |
| C-1 | OVERALL SITE PLAN | | | | | | | | | | | | | | | | | | | | | | | | |
| C-2 | SITE PLAN | | | | | | | | | | | | | | | | | | | | | | | | |
| S-1 | EQUIPMENT CABINET DETAILS | | | | | | | | | | | | | | | | | | | | | | | | |
| S-2 | CONCRETE PAD DETAILS | | | | | | | | | | | | | | | | | | | | | | | | |
| M-1 | HYDROGEN PIPING SCHEMATIC | | | | | | | | | | | | | | | | | | | | | | | | |
| E-1 | ELECTRICAL ONE-LINE DIAGRAM | | | | | | | | | | | | | | | | | | | | | | | | |
| E-2 | OVERALL CONDUIT DETAILS | | | | | | | | | | | | | | | | | | | | | | | | |
| E-3 | ELECTRICAL WIRING DIAGRAM | | | | | | | | | | | | | | | | | | | | | | | | |
| E-4 | FUEL CELL INSTALL DETAIL | | | | | | | | | | | | | | | | | | | | | | | | |
| G-1 | GROUNDING PLAN AND DETAILS | | | | | | | | | | | | | | | | | | | | | | | | |
| | LOCATION MAP | PROJECT DESCRIPTION | ENGINEER OF RECORD | | | | | | | | | | | | | | | | | | | | | | |
| |  | <p>INSTALL POWER BACK UP EQUIPMENT TO EXISTING SITE WITHIN EXISTING COMPOUND. INSTALL (1) NEW FUEL CELL WITH (1) FUEL STORAGE CABINET ON CONCRETE PAD AND CONNECT TO THE SITE'S DC POWER PLANT BUS.</p> | <p>CHRISTOPHER ALAN KRAFFT PE # 0027383</p> <p>BLACK & VEATCH CORPORATION</p> | | | | | | | | | | | | | | | | | | | | | | |
| | | DRIVING DIRECTIONS FROM NEAREST AIRPORT | | | | | | | | | | | | | | | | | | | | | | | |
| | | <p>GROTON- NEW LONDON AIRPORT: HEAD WEST ON S ROAD/RUNWAY LANE/TOWER AVENUE TOWARDS RHODE ISLAND LANE, CONTINUE TO FOLLOW TOWER AVENUE, TURN RIGHT AT HIGH ROCK ROAD, TURN LEFT AT POQUONNOCK ROAD, TURN RIGHT AT MITCHELL STREET, CONTINUE ONTO NORTH STREET, TAKE THE RAMP ONTO I-95 S, TAKE EXIT 74 FOR CT-161 TOWARDS NIAN TIC, TURN RIGHT AT CT-161 S/FLANDERS ROAD, SLIGHT RIGHT AT SOCIETY ROAD, TURN LEFT AT RIVERVIEW ROAD, TURN RIGHT AT ROXBURY ROAD, TAKE THE FIRST LEFT TO STAY ON ROXBURY ROAD, SITE IS ON THE RIGHT.</p> | | | | | | | | | | | | | | | | | | | | | | | |



OVERALL SITE PLAN
NO SCALE



6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251



BLACK & VEATCH

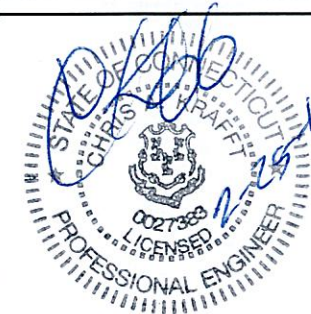
10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO: 168202

DRAWN BY: ASK

CHECKED BY: MB

| REV | DATE | DESCRIPTION |
|-----|------------|-------------------------|
| 0 | 02/25/2011 | ISSUED FOR CONSTRUCTION |



IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE
DIRECTION OF A LICENSED PROFESSIONAL
ENGINEER, TO ALTER THIS DOCUMENT.

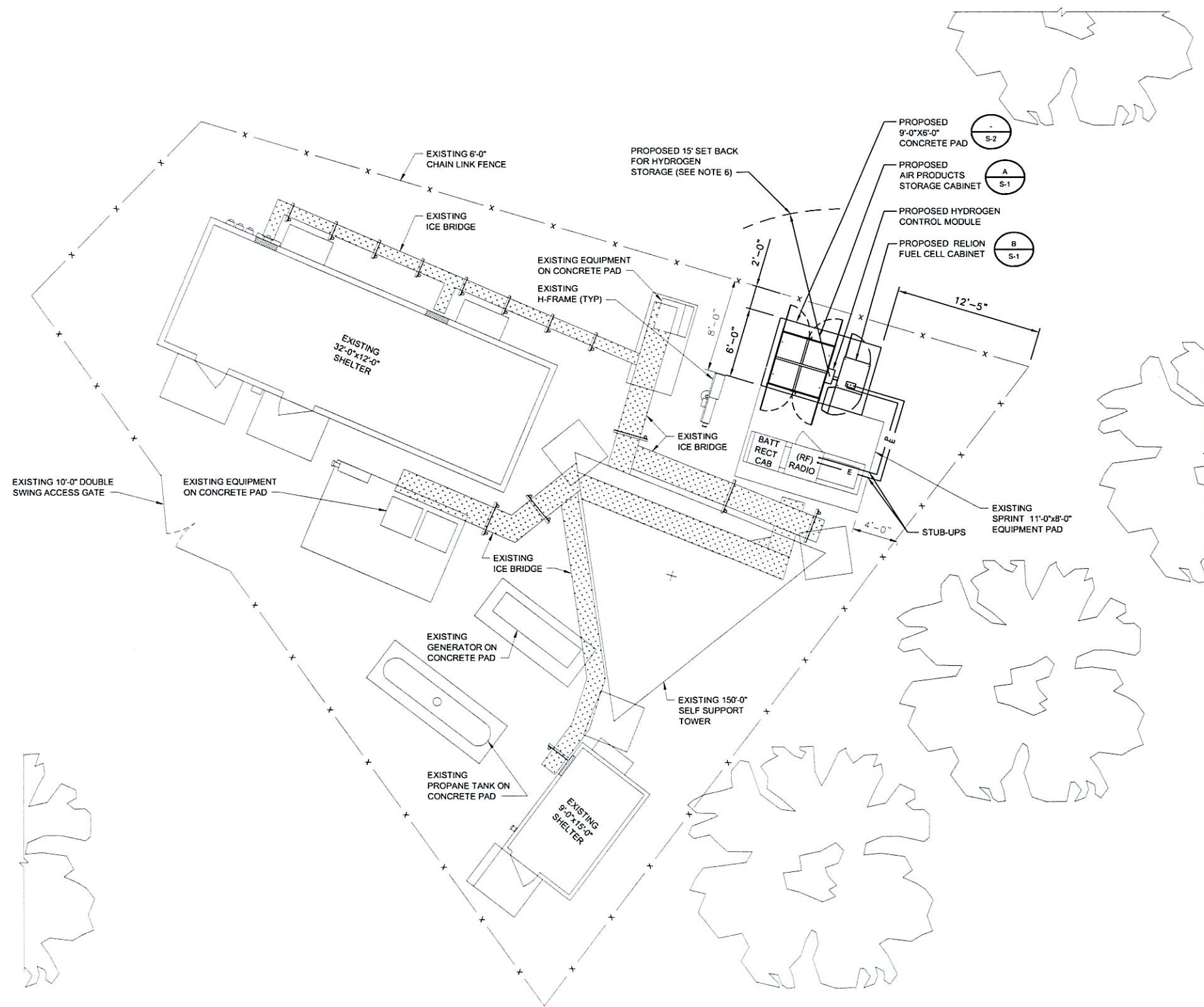
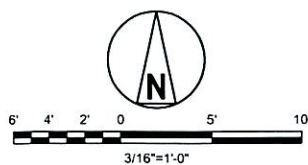
EAST LYME
CT03XC110
93 ROXBURY ROAD
EAST LYME, CT 06333
CO-LOCATION

SHEET TITLE

**OVERALL
SITE PLAN**

SHEET NUMBER

C-1



SITE PLAN

GENERAL NOTES:

1. CONTRACTOR SHALL GROUND ALL NEW EQUIPMENT TO THE NEAREST GROUND RING (SEE G-1).
2. CONTRACTOR SHALL ROUTE CONDUIT TO AVOID TRIP HAZARDS BY EITHER UTILIZING EXISTING CABLE TRAY, OVERHEAD ICE BRIDGE, UNDERNEATH RAISED PLATFORM, OR AROUND EDGE OF CONCRETE PAD.
3. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION OF ALL NEW EQUIPMENT.
4. CONTRACTOR SHALL VERIFY THE ALARM CABLES ARE OF SUFFICIENT LENGTH.
5. EXCESS CABLES SHALL BE LACED IN A NEAT AND ORGANIZED MANNER.
6. HYDROGEN STORAGE CABINET HAS A REQUIRED SET BACK OF 15' FROM IGNITION SOURCES & AIR INTAKES.

Sprint

6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251



BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO: 168202

DRAWN BY: ASK

CHECKED BY: MB

| REV | DATE | DESCRIPTION |
|-----|------------|-------------------------|
| 0 | 02/25/2011 | ISSUED FOR CONSTRUCTION |

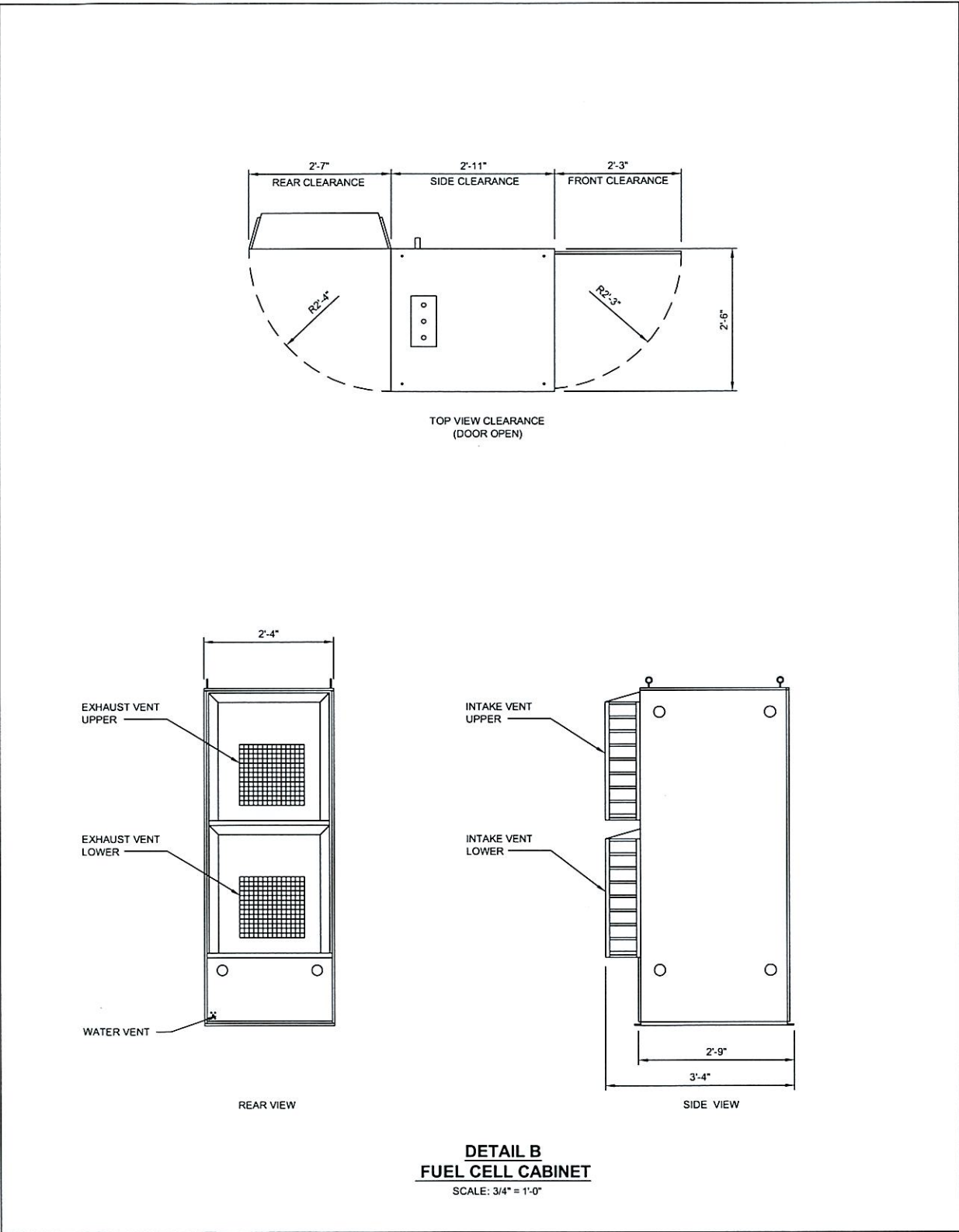
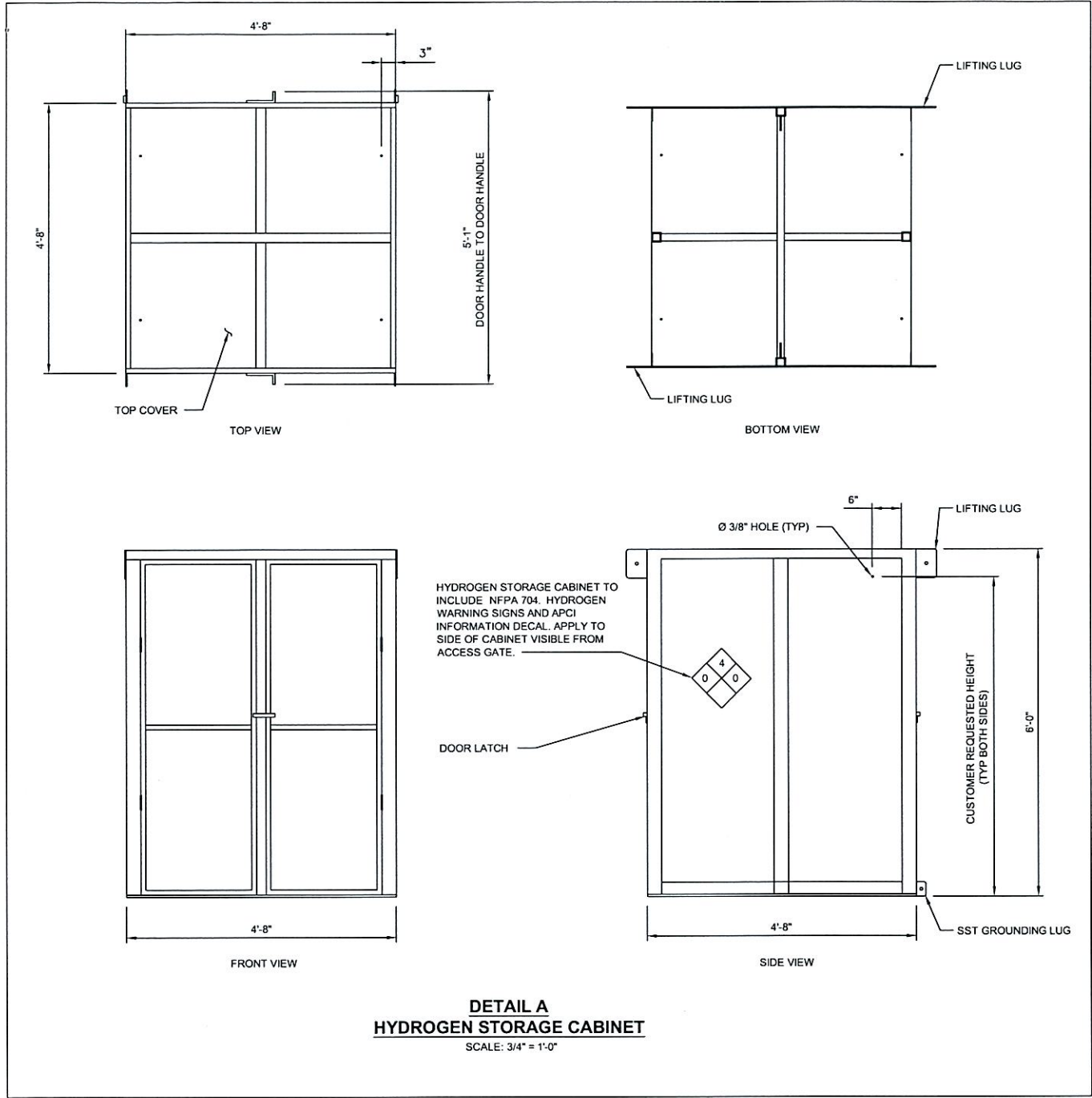


IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE
DIRECTION OF A LICENSED PROFESSIONAL
ENGINEER, TO ALTER THIS DOCUMENT.

**EAST LYME
CT03XC110
93 ROXBURY ROAD
EAST LYME, CT 06333
CO-LOCATION**

SHEET TITLE
SITE PLAN

SHEET NUMBER
C-2



6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251



BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO: 168202
DRAWN BY: ASK
CHECKED BY: MB

| REV | DATE | DESCRIPTION |
|-----|------------|-------------------------|
| 0 | 02/25/2011 | ISSUED FOR CONSTRUCTION |

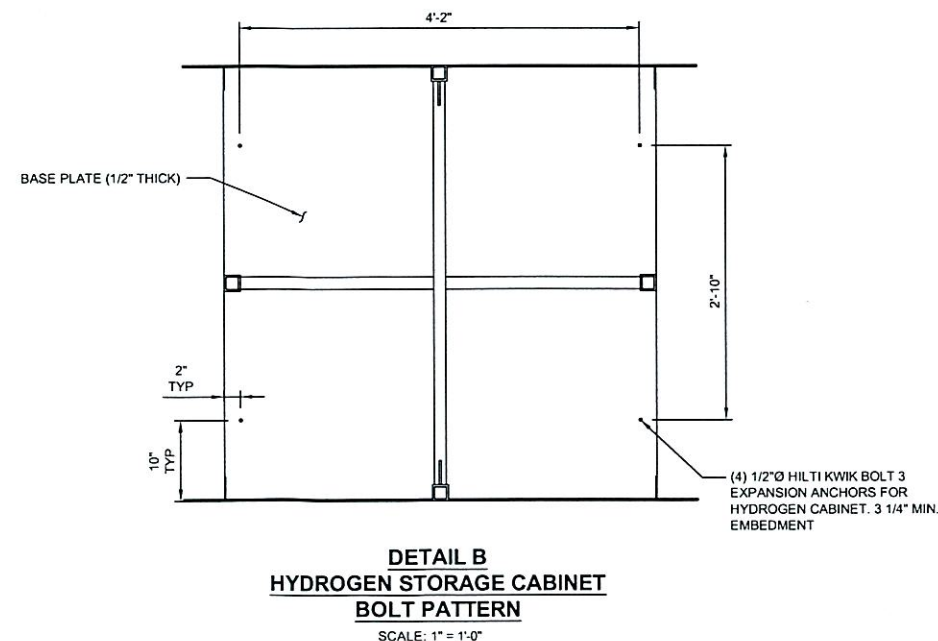
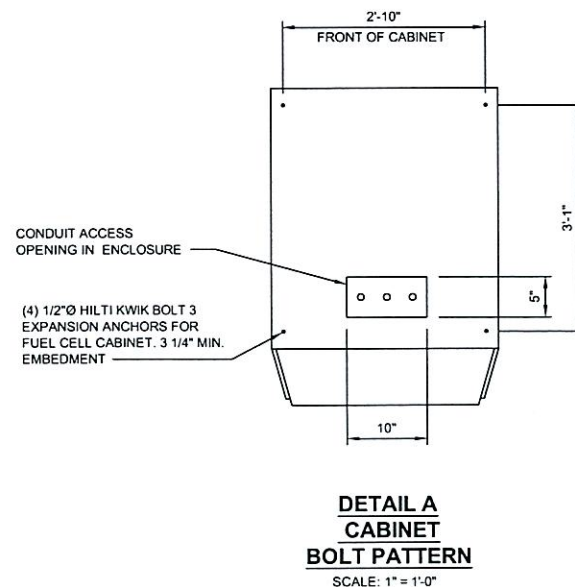
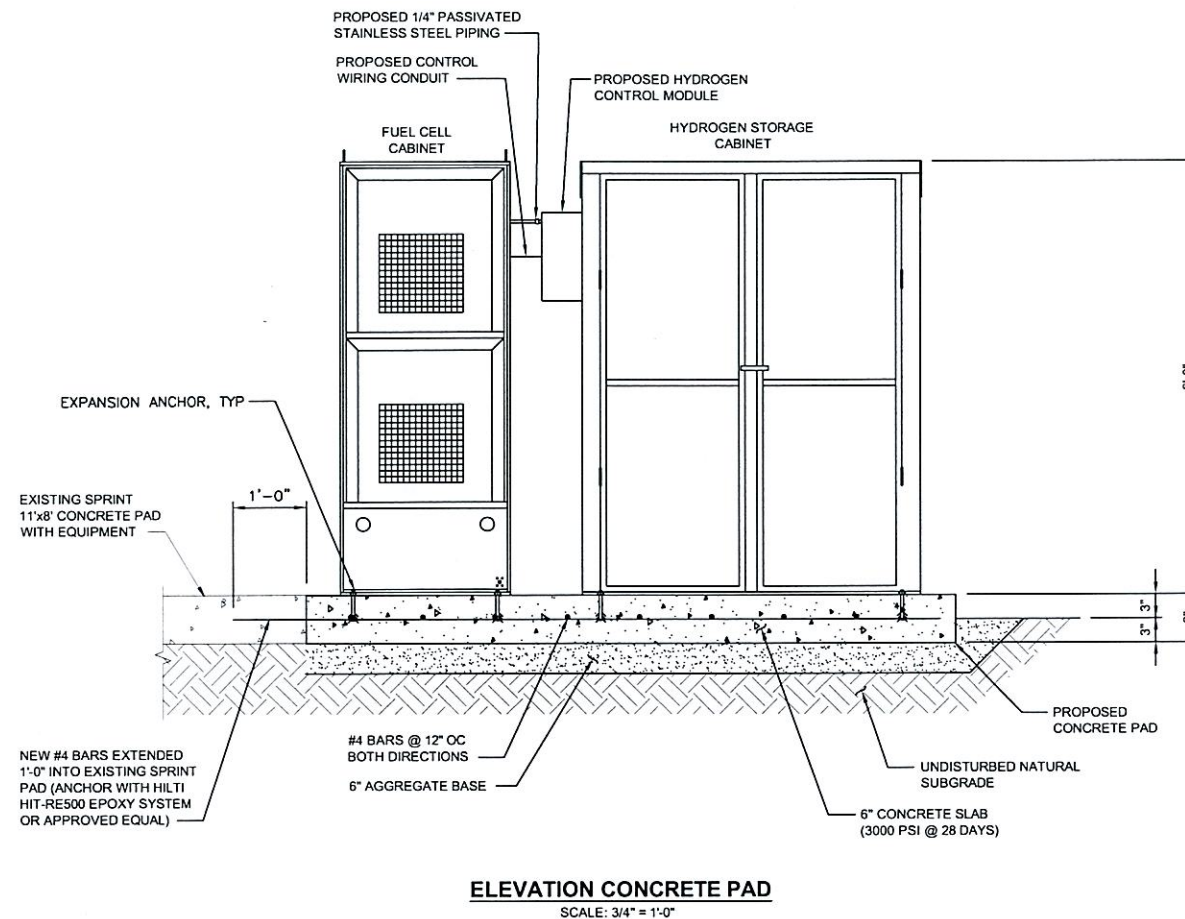
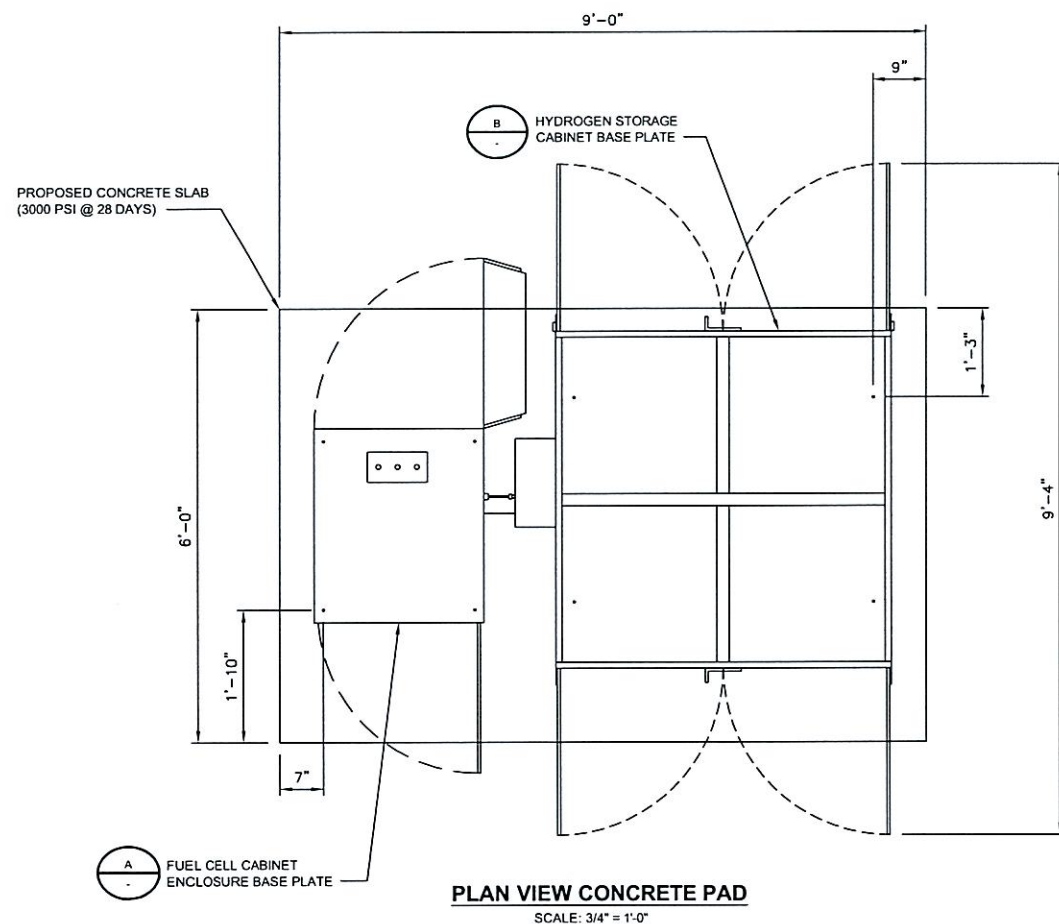


IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE
DIRECTION OF A LICENSED PROFESSIONAL
ENGINEER, TO ALTER THIS DOCUMENT.

EAST LYME
CT03XC110
93 ROXBURY ROAD
EAST LYME, CT 06333
CO-LOCATION

SHEET TITLE
**EQUIPMENT CABINET
DETAILS**

SHEET NUMBER
S-1



Sprint

6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

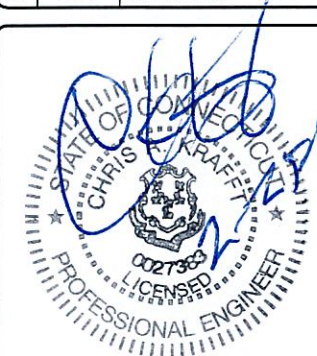


BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO: 168202
DRAWN BY: ASK
CHECKED BY: MB

| REV | DATE | DESCRIPTION |
|-----|------------|-------------------------|
| 0 | 02/25/2011 | ISSUED FOR CONSTRUCTION |



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

**EAST LYME
CT03XC110
93 ROXBURY ROAD
EAST LYME, CT 06333
CO-LOCATION**

SHEET TITLE
CONCRETE PAD DETAILS

SHEET NUMBER

S-2



6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251



BLACK & VEATCH

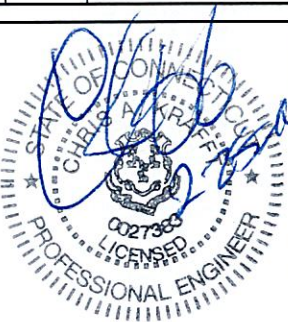
10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO: 168202

DRAWN BY: ASK

CHECKED BY: MB

| 0 | 02/25/2011 | ISSUED FOR CONSTRUCTION |
|-----|------------|-------------------------|
| REV | DATE | DESCRIPTION |

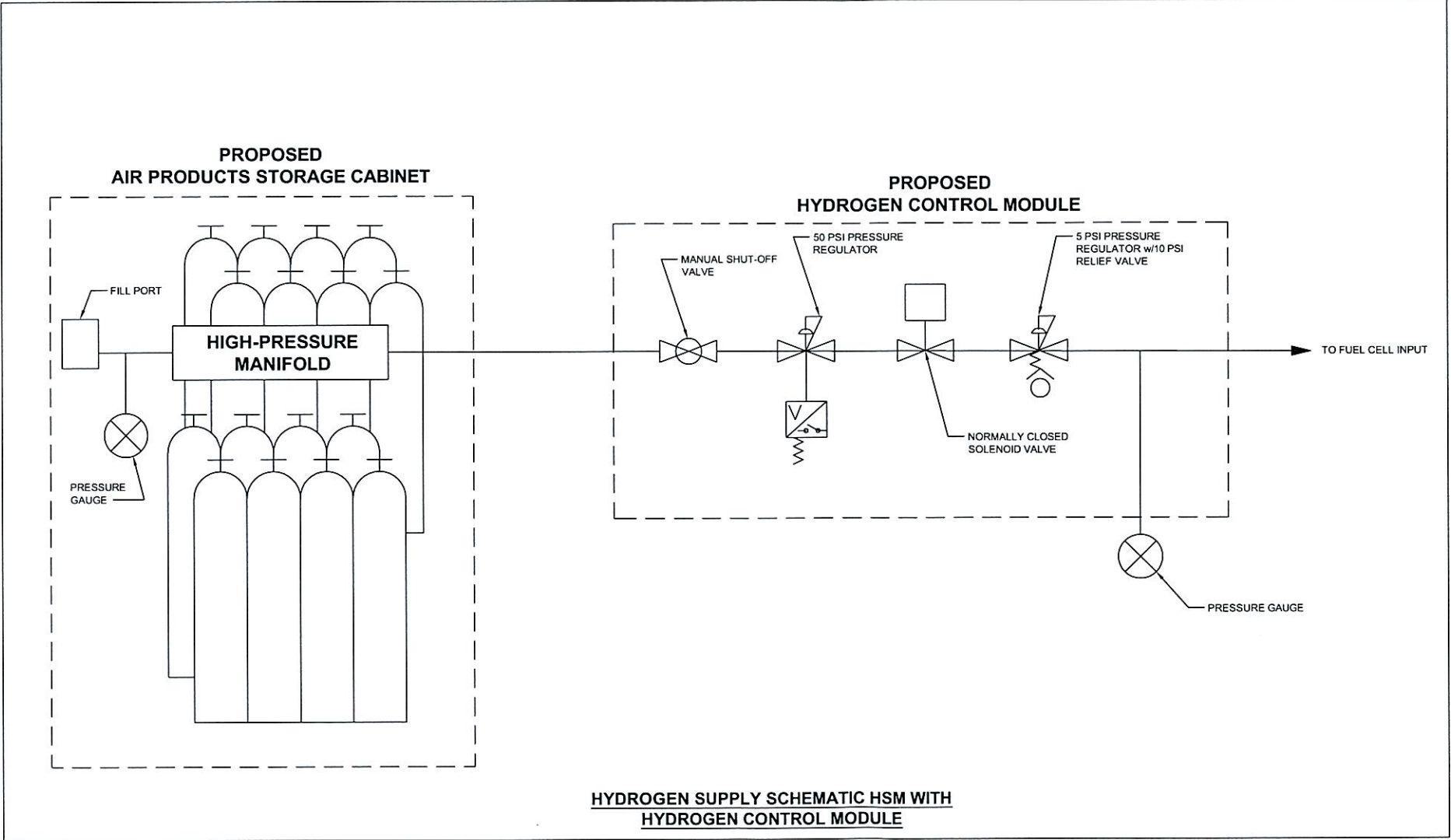


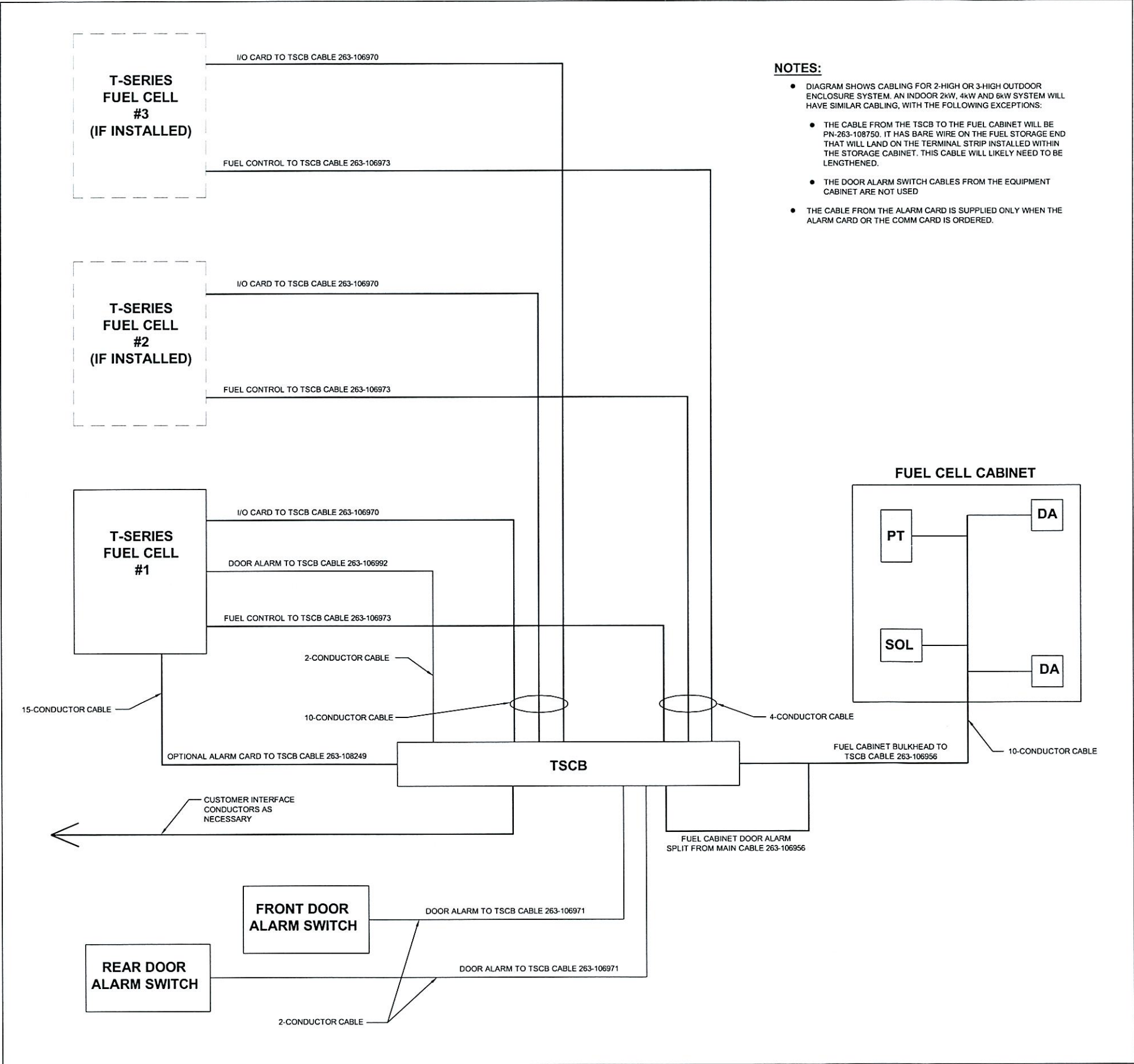
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE
DIRECTION OF A LICENSED PROFESSIONAL
ENGINEER, TO ALTER THIS DOCUMENT.

**EAST LYME
CT03XC110
93 ROXBURY ROAD
EAST LYME, CT 06333
CO-LOCATION**

SHEET TITLE
**HYDROGEN PIPING
SCHEMATIC**

SHEET NUMBER
M-1





NOTES:

- DIAGRAM SHOWS CABLING FOR 2-HIGH OR 3-HIGH OUTDOOR ENCLOSURE SYSTEM. AN INDOOR 2kW, 4kW AND 6kW SYSTEM WILL HAVE SIMILAR CABLING, WITH THE FOLLOWING EXCEPTIONS:
- THE CABLE FROM THE TSCB TO THE FUEL CABINET WILL BE PN-263-108750. IT HAS BARE WIRE ON THE FUEL STORAGE END THAT WILL LAND ON THE TERMINAL STRIP INSTALLED WITHIN THE STORAGE CABINET. THIS CABLE WILL LIKELY NEED TO BE LENGTHENED.
- THE DOOR ALARM SWITCH CABLES FROM THE EQUIPMENT CABINET ARE NOT USED
- THE CABLE FROM THE ALARM CARD IS SUPPLIED ONLY WHEN THE ALARM CARD OR THE COMM CARD IS ORDERED.

GENERAL ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), AND LOCAL CODES.
2. ALL ELECTRICAL MATERIALS, EQUIPMENT AND INSTALLATION PROCEDURES SHALL CONFORM WITH SPRINT'S STANDARD CONSTRUCTION SPECIFICATIONS.
3. ALL MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA NFPA, AND "UL" LISTED.
4. THE ELECTRICAL PLANS, DETAILS, AND DIAGRAMS SHOWN ON THESE DRAWINGS ARE DIAGRAMMATIC ONLY. ACTUAL FIELD CONDITIONS AND SITE REQUIREMENTS SHALL DICTATE THE AMOUNT AND LOCATION OF EQUIPMENT.
5. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY THE NEC AND ALL APPLICABLE LOCAL CODES.
6. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE A MINIMUM INTERRUPTING RATING OF 65,000 AIC (UNLESS NOTED OTHERWISE).
7. REFER TO THE VENDOR DRAWINGS OF THE PPC CABINET, BATTERY, AND BTS CABINETS FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT.
8. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL INSTALLATION.
9. LABEL ALL ELECTRICAL EQUIPMENT PER SPRINT'S SPECIFICATIONS.
10. ALL SINGLE-PHASE SELF-CONTAINED METER CONNECTION DEVICES MUST INCLUDE HORN TYPE BYPASS PROVISIONS SO THAT SERVICE WILL NOT BE INTERRUPTED WHEN A METER IS REMOVED FROM THE SOCKET.
11. USE METER CONNECTION DEVICES LABELED BY THE MANUFACTURER WITH THE LETTERS "CECHA".
12. ALL INTERIOR CONDUITS AND BUSHINGS SHALL BE EMT. ALL EXTERIOR SHALL BE PVC UNLESS NOTED OTHERWISE (SEE SPRINT'S STANDARD CONSTRUCTION SPECIFICATIONS).
13. PROVIDE 2 PULL STRINGS SECURELY FASTENED AT EACH END OF ALL CONDUITS. THE PULL STRINGS ARE TO BE 200 LB. TEST POLYETHYLENE CORD. PROVIDE CAP ON THE END OF EACH CONDUIT AND MARK AS SHOWN ON THIS SITE PLAN.
14. THE CONTRACTOR SHALL LOCATE AND MARK ALL EXISTING UNDERGROUND POWER, TELCO, GROUNDING CONDUITS, AND ALL OTHER UTILITIES EASEMENTS AND/OR WIRES PRIOR TO TRENCHING. ANY DAMAGE CAUSED TO THE EXISTING UNDERGROUND SERVICES OR SYSTEMS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. VERIFY WITH UTILITY NEW SERVICE HAS BEEN APPLIED FOR. THERE SHALL BE NO SPLICING OF GROUND CONDUCTORS BELOW GRADE.
15. UTILITY RACK AND CONDUIT SIZES TO BE FIELD DETERMINED BY CONTRACTOR IN ACCORDANCE WITH THE LOCAL JURISDICTION.
16. ALL WORK SHALL MEET OR EXCEED ALL APPLICABLE LOCAL AND NATIONAL ELECTRICAL CODE REQUIREMENTS.
17. ALL INSTALLATION AND EQUIPMENT SHALL MEET OR EXCEED SPRINT CONSTRUCTION SPECIFICATIONS.

ELECTRICAL NOTES:

1. LIGHT SHADED LINES INDICATE EXISTING CONSTRUCTION.
2. CONTRACTOR TO VERIFY POWERWAVE MODEL AND ASSOCIATED POWER REQUIREMENTS. IF LARGER CIRCUIT BREAKERS ARE REQUIRED, CONTRACTOR SHALL PROVIDE CORRECT ELECTRICAL CONDUCTOR SIZES.



6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251



BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO: 168202

DRAWN BY: ASK

CHECKED BY: MB

| | | |
|-----|------------|-------------------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| 0 | 02/25/2011 | ISSUED FOR CONSTRUCTION |
| REV | DATE | DESCRIPTION |



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

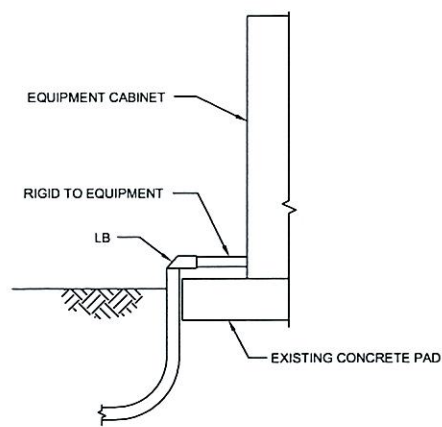
**EAST LYME
CT03XC110
93 ROXBURY ROAD
EAST LYME, CT 06333
CO-LOCATION**

SHEET TITLE
**ELECTRICAL ONE-LINE
DIAGRAM**

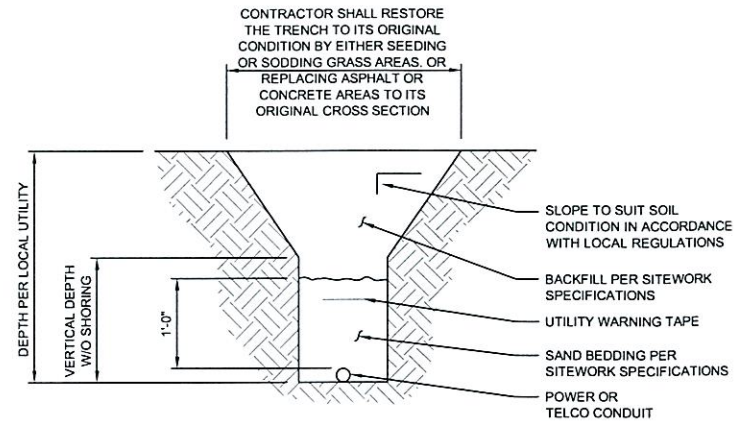
SHEET NUMBER

E-1

T-SERIES SIGNAL INTERCONNECT DIAGRAM



DETAIL A
STUB UP DETAIL
NO SCALE

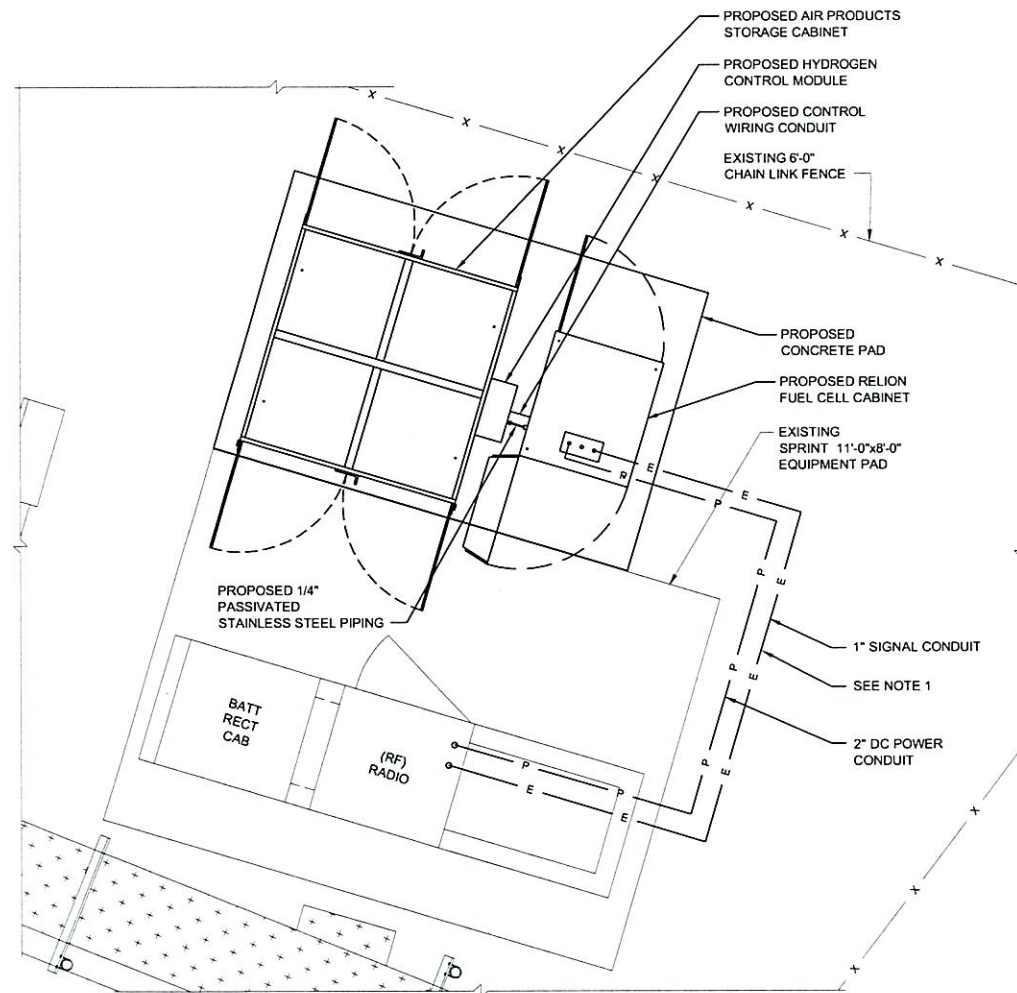


TYPICAL UTILITY
TRENCH DETAIL
NO SCALE

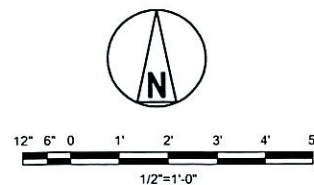
"ONE CALL"
SERVICE SHALL BE
CALLED PRIOR TO
EXCAVATION

GENERAL NOTES:

1. MATERIALS: ALL HANGERS, SUPPORTS, FASTENERS AND HARDWARE SHALL BE ZINC COATED OR OF EQUIVALENT CORROSION RESISTANCE BY TREATMENT OR INHERENT PROPERTY, AND SHALL BE MANUFACTURED PRODUCTS DESIGNED FOR THE APPLICATION. PRODUCTS FOR OUTDOOR USE SHALL BE HOT DIP GALVANIZED.
2. CONDUIT SEALS: INSTALL CONDUIT SEAL FOR EACH CONDUIT PENETRATING AN EXTERIOR BUILDING WALL BELOW GRADE (UNLESS PENETRATION IS BELOW LOWEST BUILDING FLOOR SLAB), AND ELSEWHERE AS INDICATED, AND SO AS TO ACHIEVE A SEALED WATERTIGHT INSTALLATION. MATCH EXISTING CONDITIONS AND MEET OR EXCEED INTEGRITY OF WALLS.
3. INSTALLATION: RIGIDLY SUPPORT AND SECURE ALL MATERIALS, RACEWAY AND EQUIPMENT TO BUILDING STRUCTURE USING HANGERS, SUPPORTS AND FASTENERS, SUITABLE FOR THE USE, MATERIALS AND LOADS ENCOUNTERED. PROVIDE ALL NECESSARY HARDWARE. PROVIDE CONDUIT SUPPORTS AT MAXIMUM 5 FT. O.C.
4. STRUCTURAL MEMBERS: DO NOT CUT, DRILL OR WELD ANY STRUCTURAL MEMBER EXCEPT AS SPECIFICALLY APPROVED BY THE ENGINEER.
5. INDEPENDENT SUPPORT: DO NOT SUPPORT MATERIALS OR EQUIPMENT FROM OTHER EQUIPMENT, PIPING, DUCTWORK OR SUPPORTS FOR SAME.
6. MISCELLANEOUS SUPPORTS: PROVIDE ANY ADDITIONAL STRUCTURAL SUPPORT STEEL BRACKETS ANGLES, FASTENERS AND HARDWARE AS REQUIRED TO ADEQUATELY SUPPORT ALL ELECTRICAL MATERIALS AND EQUIPMENT.
7. ONE HOLE STRAPS SHALL NOT BE USED FOR CONDUITS LARGER THAN 3/4"Ø.

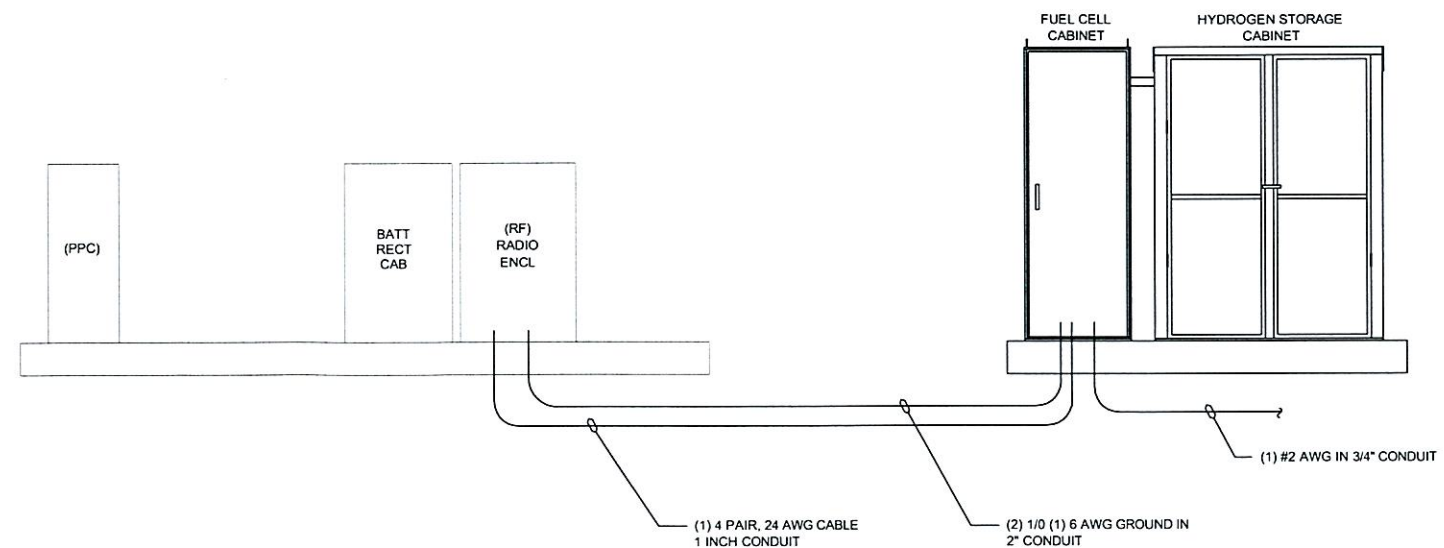


CONDUIT ROUTING



NOTES:

1. FOR CONDUIT STUB UP LOCATIONS AND DETAILS, REFER TO DETAIL A (THIS SHEET) AND SHEET S-2



ELECTRICAL & SIGNAL RISER DIAGRAM

Sprint

6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251



BLACK & VEATCH

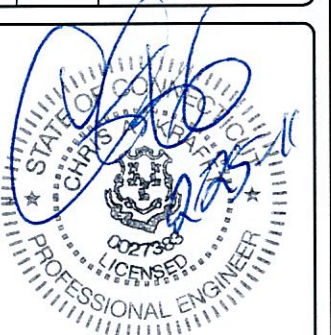
10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO: 168202

DRAWN BY: ASK

CHECKED BY: MB

| REV | DATE | DESCRIPTION |
|-----|------------|-------------------------|
| 0 | 02/25/2011 | ISSUED FOR CONSTRUCTION |



IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE
DIRECTION OF A LICENSED PROFESSIONAL
ENGINEER, TO ALTER THIS DOCUMENT.

EAST LYME
CT03XC110
93 ROXBURY ROAD
EAST LYME, CT 06333
CO-LOCATION

SHEET TITLE
OVERALL CONDUIT
DETAILS

SHEET NUMBER

E-2



6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251



BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

| | |
|-------------|--------|
| PROJECT NO: | 168202 |
| DRAWN BY: | ASK |
| CHECKED BY: | MB |

| REV | DATE | DESCRIPTION |
|-----|------------|-------------------------|
| 0 | 02/25/2011 | ISSUED FOR CONSTRUCTION |

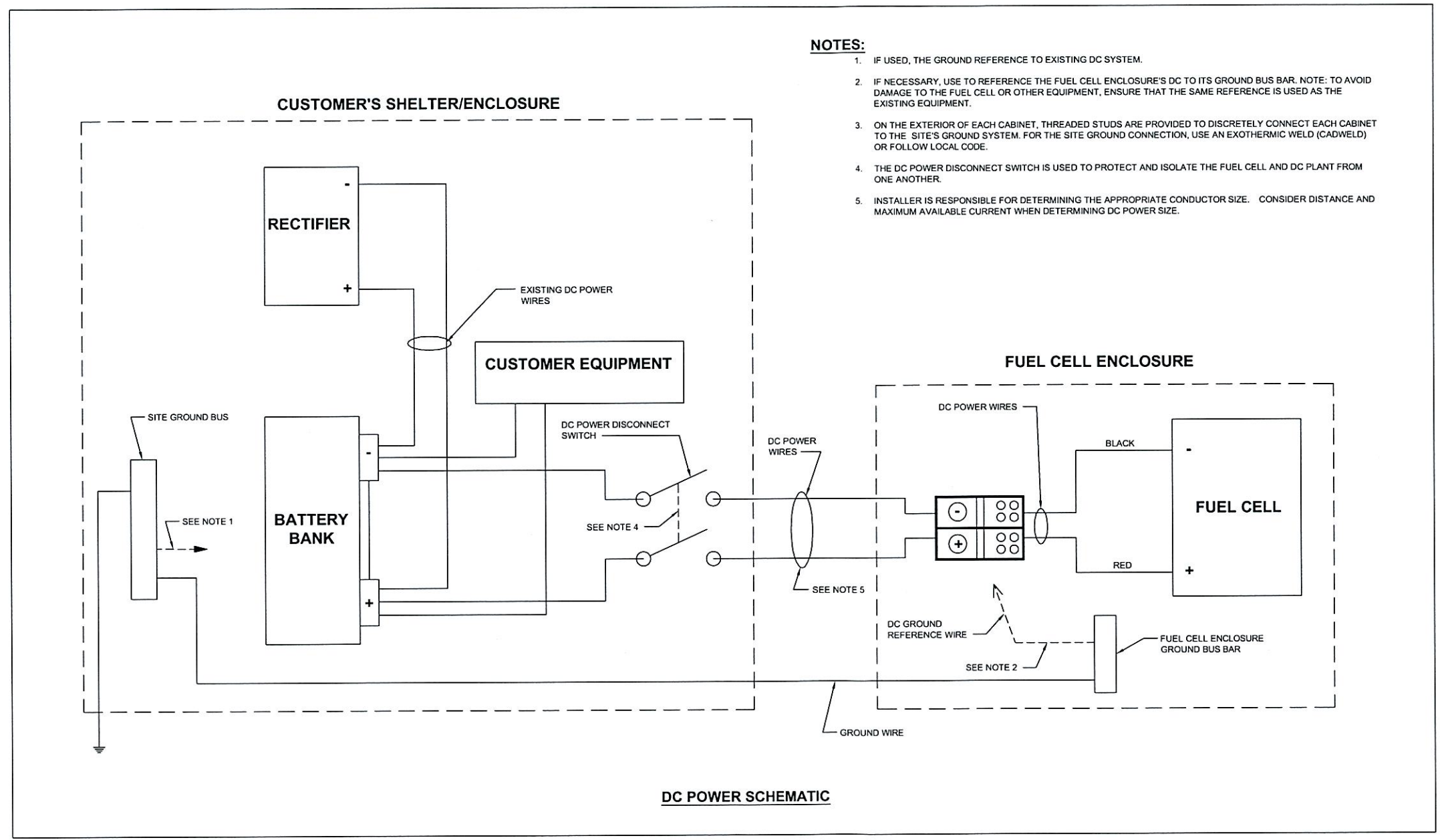


IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

**EAST LYME
CT03XC110
93 ROXBURY ROAD
EAST LYME, CT 06333
CO-LOCATION**

SHEET TITLE
**ELECTRICAL
WIRING DIAGRAM**

SHEET NUMBER
E-3





6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251



BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO: 168202

DRAWN BY: ASK

CHECKED BY: MB

| | | |
|-----|------------|-------------------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| 0 | 02/25/2011 | ISSUED FOR CONSTRUCTION |
| REV | DATE | DESCRIPTION |



IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE
DIRECTION OF A LICENSED PROFESSIONAL
ENGINEER, TO ALTER THIS DOCUMENT.

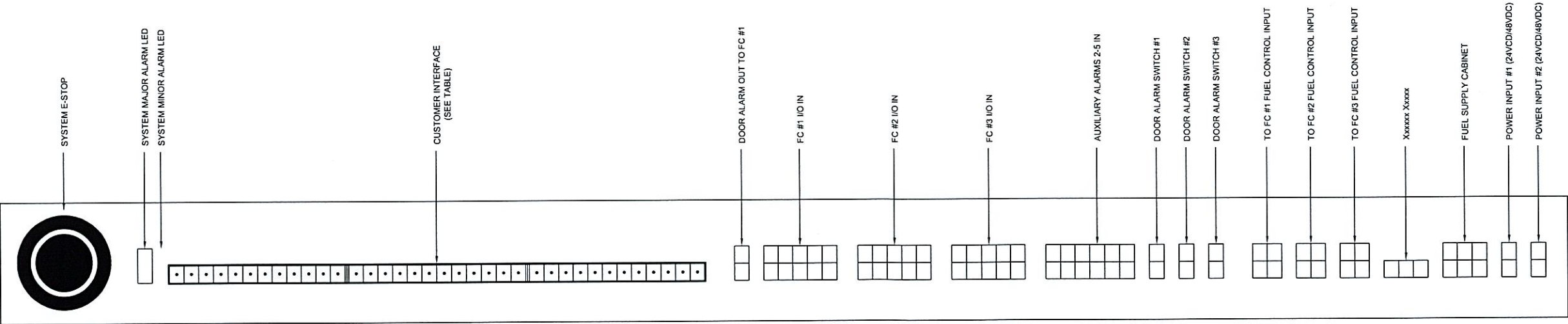
EAST LYME
CT03XC110
93 ROXBURY ROAD
EAST LYME, CT 06333
CO-LOCATION

SHEET TITLE
**FUEL CELL INSTALL
DETAIL**

SHEET NUMBER
E-4






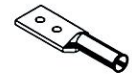
CUSTOMER CONNECTIONS

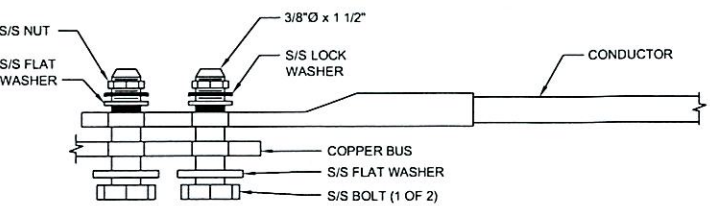
| PIN | SIGNAL NAME | NOTES | PIN | SIGNAL NAME | NOTES | PIN | SIGNAL NAME | NOTES |
|-----|-----------------------------|--|-----|----------------------------------|--|-----|-----------------------------|--|
| 1 | DOOR SWITCH ALARM | THERE IS 1.1 k OHM SERIES RESISTANCE BETWEEN PINS 1 & 2 | 13 | FC #1 AUX. ALARM RELAY (N.O.) | THERE IS 1.1 k OHM SERIES RESISTANCE BETWEEN PINS 1 & 2 | 25 | AUX. 2 ALARM RELAY (N.O.) | AUXILIARY RELAYS 2 THROUGH 5 ARE AVAILABLE WITH THE ADDITION OF AN OPTIONAL ALARM CARD OR COMM CARD INSTALLED ONTO ONE OF THE FUEL CELLS |
| 2 | DOOR SWITCH ALARM RETURN | | 14 | FC #1 AUX. ALARM RELAY (COMMON) | | 26 | AUX. 2 ALARM RELAY (COMMON) | |
| 3 | NOT USED | | 15 | FC #1 AUX. ALARM RELAY (N.C.) | | 27 | AUX. 2 ALARM RELAY (N.C.) | |
| 4 | NOT USED | | 16 | FC #2 AUX. ALARM RELAY (N.O.) | | 28 | AUX. 2 ALARM RELAY (N.O.) | |
| 5 | SYSTEM MAJOR ALARM (N.O.) | THESE ARE WETTED CONTACTS; USE A CLOSED SWITCH TO ACTIVATE. | 17 | FC #2 AUX. ALARM RELAY (COMMON) | | 29 | AUX. 3 ALARM RELAY (COMMON) | |
| 6 | SYSTEM MAJOR ALARM (COMMON) | | 18 | FC #2 AUX. ALARM RELAY (N.C.) | | 30 | AUX. 3 ALARM RELAY (N.C.) | |
| 7 | SYSTEM MAJOR ALARM (N.C.) | | 19 | FC #3 AUX. ALARM RELAY (N.O.) | | 31 | AUX. 3 ALARM RELAY (N.O.) | |
| 8 | SYSTEM MINOR ALARM (N.O.) | | 20 | FC #3 AUX. ALARM RELAY (COMMON) | | 32 | AUX. 4 ALARM RELAY (COMMON) | |
| 9 | SYSTEM MINOR ALARM (COMMON) | | 21 | FC #3 AUX. ALARM RELAY (N.C.) | | 33 | AUX. 4 ALARM RELAY (N.C.) | |
| 10 | SYSTEM MINOR ALARM (N.C.) | | 22 | PRESSURE SW ALARM RELAY (N.O.) | | 34 | AUX. 5 ALARM RELAY (N.O.) | |
| 11 | CONTACT START | | 23 | PRESSURE SW ALARM RELAY (COMMON) | | 35 | AUX. 5 ALARM RELAY (COMMON) | |
| 12 | CONTACT START RETURN | | 24 | PRESSURE SW ALARM RELAY (N.C.) | | 36 | AUX. 5 ALARM RELAY (N.C.) | |



T-SERIES SIGNAL AND CONTROL CONNECTIONS

THE DETAILS ON THIS SHEET APPLY ONLY AS CALLED OUT ON SITE PLANS OR SITE SPECIFIC DRAWINGS.

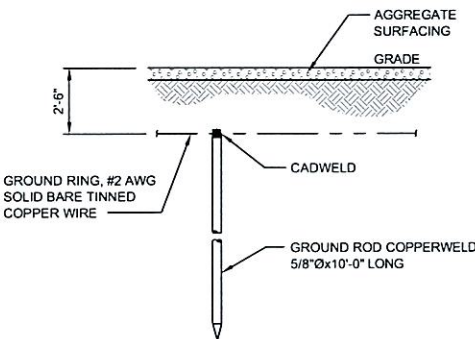
| CADWELD CONNECTIONS OR APPROVED EQUAL | | BURNDY CONNECTIONS OR APPROVED EQUAL |
|--|--|--|
|  PARALLEL HORIZONTAL CONDUCTORS PARALLEL THROUGH CONNECTION OF HORIZONTAL CABLES TYPE PT |  HORIZONTAL STEEL SURFACE TO FLAT STEEL SURFACE OR HORIZONTAL PIPE TYPE HS |  BOND JUMPER FIELD FABRICATED GREEN STRANDED INSULATED TYPE 2-YA-2 |
|  THROUGH CABLE TO GROUND ROD THROUGH CABLE TO TOP OF GROUND ROD TYPE GT |  VERTICAL STEEL SURFACE CABLE DOWN AT 45° TO VERTICAL STEEL SURFACE INCLUDING PIPE TYPE VS |  COPPER LUGS TWO HOLE - LONG BARREL LENGTH TYPE YA-2 |



LUG DETAIL
NO SCALE

- NOTES:
- ALL HARDWARE 18-8 STAINLESS STEEL COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATING.
 - FOR GROUND BOND TO STEEL ONLY: INSERT A DRAGON TOOTH WASHER BETWEEN LUG AND STEEL. COAT ALL SURFACES WITH ANTI-OXIDATION COMPOUND (BURNDY PENETROX E, OR THOMAS & BETTS KOPR-SHIELD).

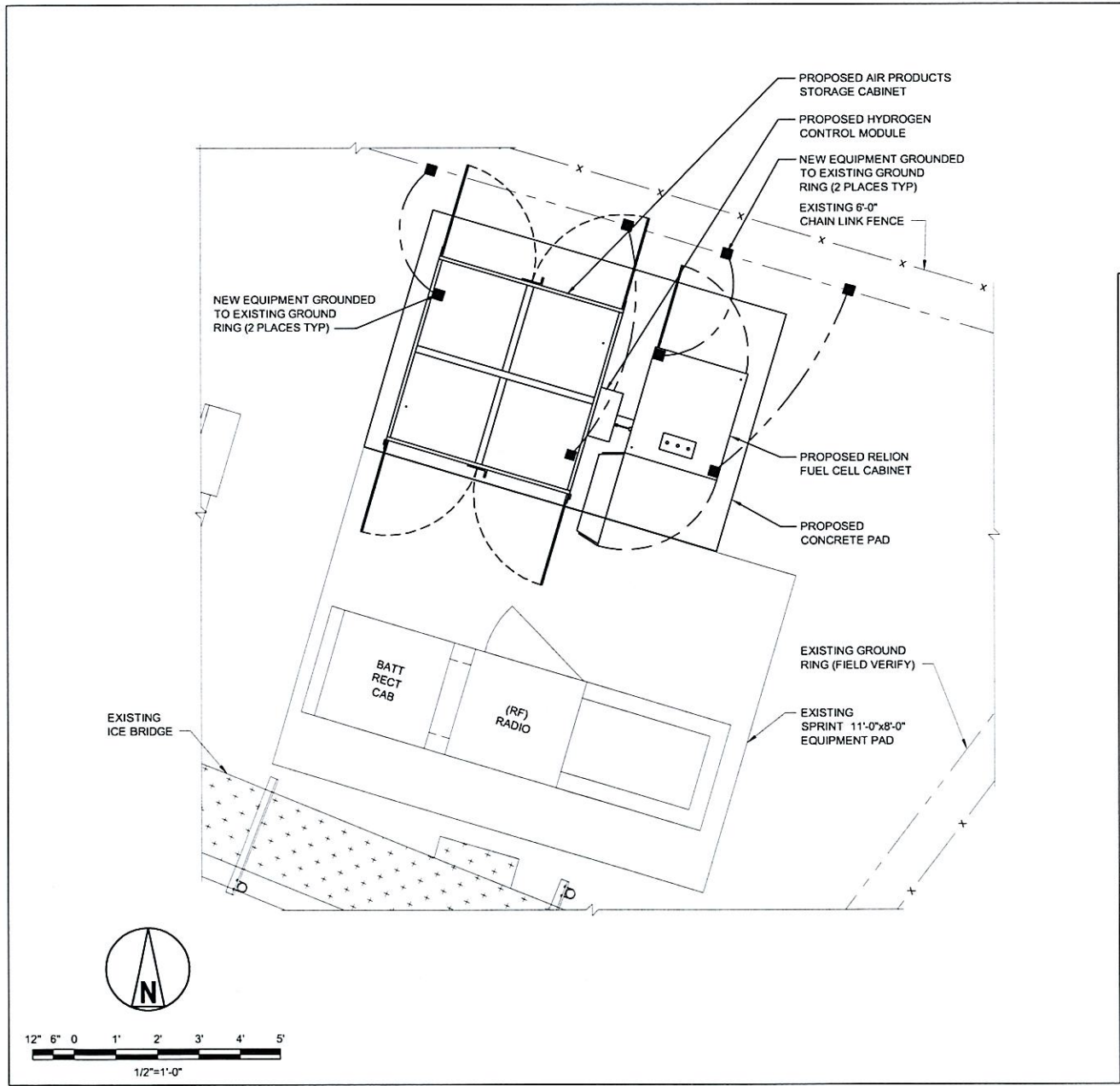
- GROUNDING NOTES:
- THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT.
 - ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR & EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
 - ALL EXTERIOR GROUNDING CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
 - ALL EXTERIOR GROUNDING CONDUCTORS SHALL BE 2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
 - CONNECTIONS TO THE GROUNDING BUS SHALL NOT BE DOUBLED UP OR STACKED. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
 - USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
 - MAXIMUM RESISTANCE OF THE COMPLETED GROUND SYSTEM SHALL NOT EXCEED 5 OHMS. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR FACILITY GROUNDING, USING FALL OF POTENTIAL METHOD.



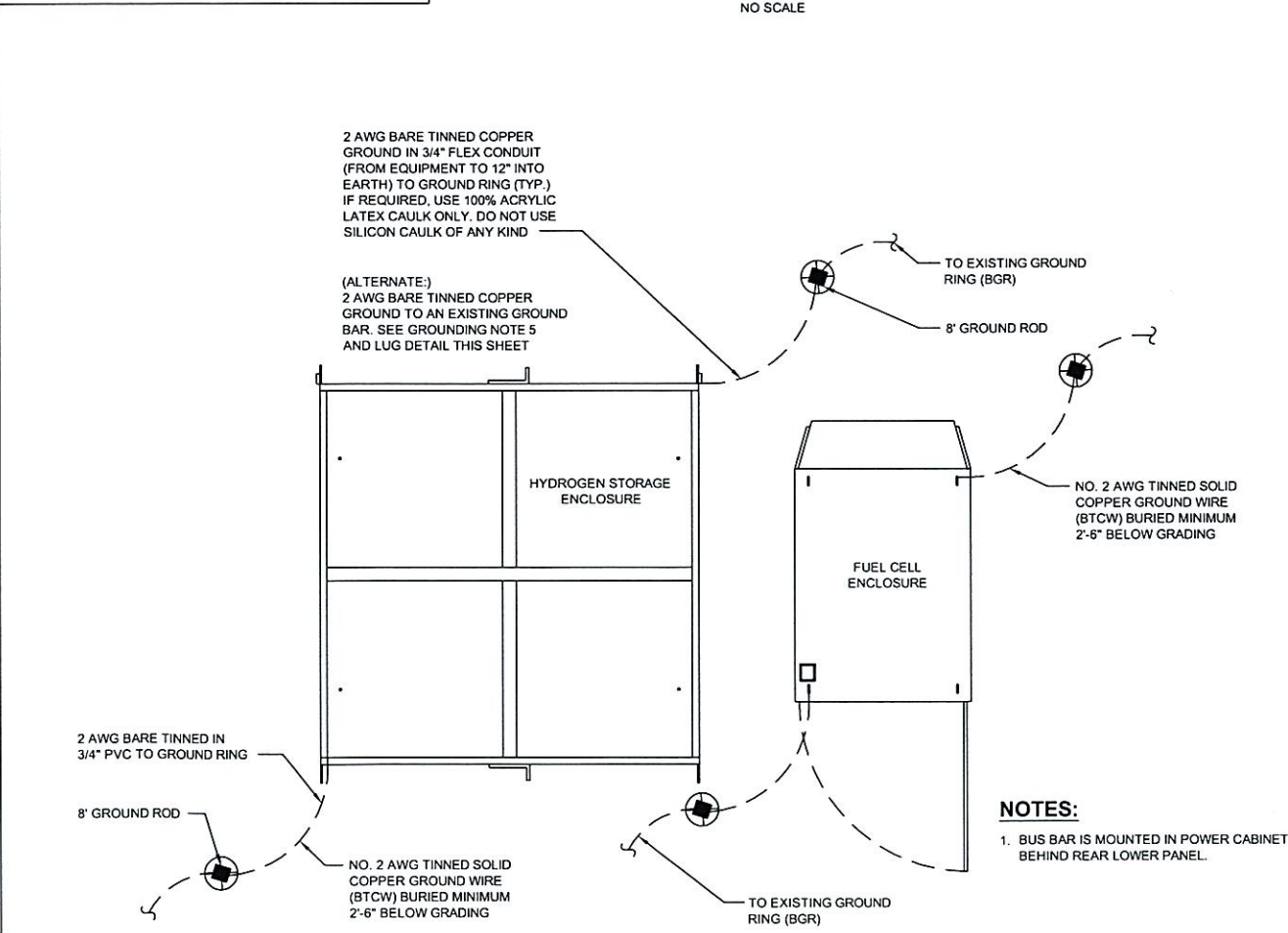
GROUND ROD DETAIL
NO SCALE

GROUNDING LEGEND

- EXISTING GROUND RING
- NEW GROUND ROD
- CADWELD CONNECTION (EXOTHERMIC WELD)
- NEW GROUND RING



GROUNDING PLAN



HYDROGEN TANKS AND ENGINE STAND ALONE
GROUNDING DETAIL (IF APPLICABLE)

- NOTES:
- BUS BAR IS MOUNTED IN POWER CABINET BEHIND REAR LOWER PANEL.



6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

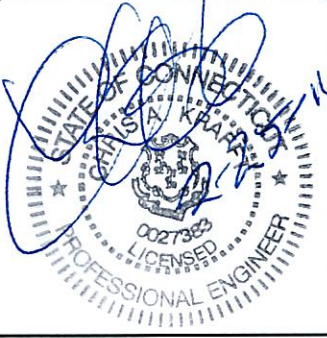


BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

| | |
|-------------|--------|
| PROJECT NO: | 168202 |
| DRAWN BY: | ASK |
| CHECKED BY: | MB |

| REV | DATE | DESCRIPTION |
|-----|------------|-------------------------|
| 0 | 02/25/2011 | ISSUED FOR CONSTRUCTION |



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

EAST LYME
CT03XC110
93 ROXBURY ROAD
EAST LYME, CT 06333
CO-LOCATION

SHEET TITLE
GROUNDING PLAN
AND DETAILS

SHEET NUMBER
G-1