



Doosan Fuel Cell America, Inc.
195 Governor's Highway
South Windsor, CT 06074
T - 860 727 2200

June 24, 2016

Proof of Notification-Update to PE 1235

RE: PE1235-(7/21/16 Notice) -Update to Notification List for officials and abutters to the Middletown High School

RE: Petition of Doosan Fuel Cell America, Inc. to the Connecticut Siting Council for a Declaratory Ruling for the Location and Construction of one 440 kW Fuel Cell at Middletown High School, 200 La Rosa Ln, Middletown., CT.

Pursuant to Section 16-50j-40 of the Connecticut Siting Council's (the "Council") regulations, we are notifying you that Doosan Fuel Cell America, Inc. intends to file June 15, 2016 a petition for declaratory ruling with the Council. The petition will request the Council's approval of the installation of one (1) 440 kW Fuel Cell in support of a customer-side distribution resources project at the Middletown High School, 200 La Rosa, Middletown, CT. Each of the Fuel Cell units is 28'-8" x 8'-4" x 9'-11"; in addition there will be ancillary equipment including cooling fans. Electricity generated by the facility will be consumed primarily at the site, and any excess electricity will be exported to the electric grid. The Fuel Cell will be fueled by natural gas.

If you have any questions regarding the proposed Facility, please contact any of the following:

Josh Abrams
195 Governor's Highway
South Windsor, CT 06074
(860) 727-2200
Josh.abrams@doosan.com

Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051 Telephone: (860) 827-2935

Sincerely,
Doosan Fuel Cell America, Inc.

A handwritten signature in black ink, appearing to read "Dawn Mahoney".

Dawn Mahoney, Esq.

General Counsel
Doosan Fuel Cell America, Inc.

ORIGINAL

PROOF OF NOTICE

This is to certify that on the 15th day of December 2016, the foregoing notice was sent via first class mail to the following officials and abutters:

AGENCY	NAME/ADDRESS
Mayor of Middletown, CT	Daniel Drew-Mayor 245 deKoven Drive Middletown, CT 06457
Zoning Enforcement Officer	Linda Reed, Zoning Enforcment Officier 245 deKoven Drive Middletown, CT 06457
Chief Building Official	Dean Listiano Chief Building Official 245 deKoven Drive Middletown, CT 06457
State Senator	Paul R Doyle Senate District 9 38 Thornbush Rd Wethersfield, CT 06109
State Senator	Dante Bartolomeo Senate District 13 167 Reynolds Dr Meriden, CT 06450
State House	Matthew Lesser House district 100 2 Mazzotta Pl Middletown, CT 06457
State House	Joseph Serra House district 33 PO Box 233 Middletown, CT 06457
United Congressman	Rosa DeLauro 59 Elm Street New Haven, CT 06510
United State Senator	Christopher S. Murphy One Constitution Plaza, 7th Floor Hartford, CT 06103
United State Senator	Richard Blumenthal 90 State House Square Hartford, CT 06103
State Department of Energy and Environmental Protection	Robert Klee, Commissioner 79 Elm Street Hartford, CT 06106
State Department of Public Health	Dr. Jewel Mullen Commissioner 410 Capitol Avenue Hartford, CT 06134
State Council on Environmental Quality	Susan Merrow, Chair 79 Elm Street Hartford, CT 06106
State Department of Agriculture	Steven K. Reviczky Commissioner 165 Capitol Avenue Hartford, CT 06106

(continued)

Office of Policy and Management	Benjamin Barnes, Secretary 450 Capitol Avenue Hartford, CT 06106-1379
State Department of Economic and Community Development	Catherine Smith, Commissioner 505 Hudson Street Hartford, CT 06106-7106
City of Middletown-Dept. of Planning and Conservation and Development	Michiel Wackers, Director of Planning, Conservation and Development 245 deKoven Drive Middletown, CT 06457
River COG	Samuel S. Gold RiverCOG 145 Dennison Road Essex, CT 06426
Attorney General	George Jepsen, Attorney General Office of the Attorney General 55 Elm Street Hartford, CT 06106
Public Utilities Regularity Authority	Arthur House, Chairman Public Utilities Regularity Authority Ten Franklin Square, New Britain, CT 06051
Department of Transportation	James P. Redeker, Commissioner Department of Transportation 2800 Berlin Turnpike, Newington, CT 06111
City of Middletown Conservation Commission	Kate Miller, Chair City of Middletown Conservation Commission 245 deKoven Drive Middletown, CT 06457
City of Middletown Inland Wetland and Watercourses Agency	Joseph Carta, Chair Middletown Inland Wetland/Watercourses Agency 245 deKoven Drive Middletown, CT 06457
Department of Emergency Services and Public Protection	Dora B. Schriro, Commissioner State of Connecticut Dept. of Emergency Services and Public Protection 1111 Country Club Road Middletown, CT 06457
Department of Cosumer Protection	Jonathan A. Harris, Commissioner Department of Cosumer Protection 165 Capitol Avenue Hartford, CT 06106-1630
Department of Administrative Services	Melody A. Currey, Commissioner Department of Administrative Services 165 Capitol Avenue, #491 Hartford, CT 06106
Connecticut Department of labor	Scott D. Jackson, Commissioner Connecticut Department of labor 200 Folly Brokk Boulevard Wethersfield, CT 06109

*Add to list and sent on June 23, 2016

(Continue to list of abutters)

Middletown Abutters

1

Owner Name	Address Number	City	State	zip
1) DUCHARME JOHN D & LISA A	146 ASPEN DR	Middletown	CT	06457
2) SPADA SEBASTIAN G & GROEPER MARIA E	136 ASPEN DR	Middletown	CT	06457
3) DIETRICHSEN MEGAN R	126 ASPEN DR	Middletown	CT	06457
4) PRESTASH ANDREW M & HEIDI K	85 BLACKSMITH DR	Middletown	CT	06457
5) KING WILLIAM G	458 RIDGEWOOD RD	Middletown	CT	06457
6) BAILEY ROBERT M	94 CYNTHIA LA	Middletown	CT	06457
7) GARDNER BELINDA	92 CYNTHIA LA	Middletown	CT	06457
8) WALTON YVONNE R	92 CYNTHIA LA	Middletown	CT	06457
9) ROVELLI DAVID L	92 CYNTHIA LA	Middletown	CT	06457
10) GRISWOLD TERRY L	92 CYNTHIA LA	Middletown	CT	06457
11) GARRITY PATRICK J & NANCY	94 CYNTHIA LA	Middletown	CT	06457
12) MOSELEY GLENDA A	92 CYNTHIA LA	Middletown	CT	06457
13) MARTURANO MELISSA	94 CYNTHIA LA	Middletown	CT	06457
14) WALLACE NANCY & EDWARD	94 CYNTHIA LA	Middletown	CT	06457
15) SEAGRAVE GERALD A	92 CYNTHIA LA	Middletown	CT	06457
16) POGONELSKI TODD C &	92 CYNTHIA LA	Middletown	CT	06457
17) BRETON LEO R	94 CYNTHIA LA	Middletown	CT	06457
18) HAIGH NORMAN M	94 CYNTHIA LA	Middletown	CT	06457
19) MARKHAM CATRINA A	92 CYNTHIA LA	Middletown	CT	06457
20) GORDON JOSEPH JR	94 CYNTHIA LA	Middletown	CT	06457
21) HUNTER JAMIE & KEITH	94 CYNTHIA LA	Middletown	CT	06457
22) MARTOCCI MARK J & RATAIC BETHANY M	92 CYNTHIA LA	Middletown	CT	06457
23) RED STANG PROPERTY ENTERPRISES LLC	94 CYNTHIA LA	Middletown	CT	06457
24) VADASZ ANDREW G & PATRICIA A	92 CYNTHIA LA	Middletown	CT	06457
25) CRL REALTY LLC	94 CYNTHIA LA	Middletown	CT	06457
26) KANE CAROL P	92 CYNTHIA LA	Middletown	CT	06457
27) GIGLIETTI DEAN R & MANTER MICHELLE L	94 CYNTHIA LA	Middletown	CT	06457
28) SHARPE LOONEY NOLA A	92 CYNTHIA LA	Middletown	CT	06457
29) WITT THOMAS D	92 CYNTHIA LA	Middletown	CT	06457
30) PRIME HOMES OF CT LLC	94 CYNTHIA LA	Middletown	CT	06457
31) CONTE ERMANNA	94 CYNTHIA LA	Middletown	CT	06457
32) MOTES JAMES I & DELMASTRO KRISTY L	94 CYNTHIA LA	Middletown	CT	06457
33) AUGERI ROSE ANN (LU) THEN TO	92 CYNTHIA LA	Middletown	CT	06457
34) SANDERS ADRIENNE M	94 CYNTHIA LA	Middletown	CT	06457
35) WOODWARD CAROL ANN	92 CYNTHIA LA	Middletown	CT	06457
36) FILANDA PETER J & ROSEMARIE	92 CYNTHIA LA	Middletown	CT	06457
37) ROSADO MARGARITA & EDWARD C	94 CYNTHIA LA	Middletown	CT	06457
38) SIROIS JEFFREY	94 CYNTHIA LA	Middletown	CT	06457
39) BRUZIK DAVID M & SIOBHAN R	92 CYNTHIA LA	Middletown	CT	06457
40) KAWKA JACEK P & MARZENA	94 CYNTHIA LA	Middletown	CT	06457
41) THIESEN RAYMOND B III	94 CYNTHIA LA	Middletown	CT	06457
42) TAYLOR KIMBERLY M	94 CYNTHIA LA	Middletown	CT	06457
43) SALIHOVIC MERIMA	94 CYNTHIA LA	Middletown	CT	06457
44) GOOD JOYCE E	94 CYNTHIA LA	Middletown	CT	06457
45) SMALL DOREEN B	94 CYNTHIA LA	Middletown	CT	06457
46) RAND SETH K & MICHELLE	94 CYNTHIA LA	Middletown	CT	06457
47) MURPHY PATRICK C & CARBONE COLLEEN C	94 CYNTHIA LA	Middletown	CT	06457
48) DAVISON KRISTINE	92 CYNTHIA LA	Middletown	CT	06457
49) CREMINS JEAN E	94 CYNTHIA LA	Middletown	CT	06457
50) GOSLEE KAITLIN E	94 CYNTHIA LA	Middletown	CT	06457
51) BUSCA LINDA	92 CYNTHIA LA	Middletown	CT	06457
52) DYKAS WILLIAM J & LORETTA C	92 CYNTHIA LA	Middletown	CT	06457
53) EXPOSTO NATHALIE	94 CYNTHIA LA	Middletown	CT	06457
54) BEEM BRUCE J & PATRICIA A	92 CYNTHIA LA	Middletown	CT	06457
55) DYKA PAUL	92 CYNTHIA LA	Middletown	CT	06457
56) FORD EDWARD C & SHERYL R	94 CYNTHIA LA	Middletown	CT	06457
57) FREMUT CHELSEA A	92 CYNTHIA LA	Middletown	CT	06457
58) FREEMAN GAIL	92 CYNTHIA LA	Middletown	CT	06457
59) GIGLIETTI DEAN R & MANTER MICHELLE L	94 CYNTHIA LA	Middletown	CT	06457
60) DAVINO JEREMY M	92 CYNTHIA LA	Middletown	CT	06457

61) BEDNARZ DAVID JR	92 CYNTHIA LA	Middletown	CT	06457
62) GREENE CLARKE V & VIRGINIA A	92 CYNTHIA LA	Middletown	CT	06457
63) THOMPSON KELLY A	92 CYNTHIA LA	Middletown	CT	06457
64) RUSH PRECIOUS	161 CYNTHIA LA	Middletown	CT	06457
65) CLAVET JAMES & JENNIFER	94 CYNTHIA LA	Middletown	CT	06457
66) KOCUR STANISLAJ & KOCUR EWA	92 CYNTHIA LA	Middletown	CT	06457
67) MELO ODETE SOUSA	94 CYNTHIA LA	Middletown	CT	06457
68) ZUERBLIS NICOLE R	92 CYNTHIA LA	Middletown	CT	06457
69) BLOOM MICHELE	92 CYNTHIA LA	Middletown	CT	06457
70) QUIGLEY NICOLE & ROBERT D	92 CYNTHIA LA	Middletown	CT	06457
71) DOAN AMBER & RAYMOND	92 CYNTHIA LA	Middletown	CT	06457
72) ROBERTSON A KATHRYN	92 CYNTHIA LA	Middletown	CT	06457
73) SIVIGNY LESLIE	94 CYNTHIA LA	Middletown	CT	06457
74) CALVO JAMIE	92 CYNTHIA LA	Middletown	CT	06457
75) ZALONSKI THOMAS	92 CYNTHIA LA	Middletown	CT	06457
76) GARY SIRTYRA	94 CYNTHIA LA	Middletown	CT	06457
77) CARRON CHARLES W JR	92 CYNTHIA LA	Middletown	CT	06457
78) ALLISON BRIDGET K	92 CYNTHIA LA	Middletown	CT	06457
79) WATSON LETA D	94 CYNTHIA LA	Middletown	CT	06457
80) JAMES ROBERT JR & CYNTHIA	94 CYNTHIA LA	Middletown	CT	06457
81) CONNOLLY ROBERTA	94 CYNTHIA LA	Middletown	CT	06457
82) CHLASTA THOMAS M	92 CYNTHIA LA	Middletown	CT	06457
83) FRANCA GERALDO J	92 CYNTHIA LA	Middletown	CT	06457
84) CREED MICHAEL E	92 CYNTHIA LA	Middletown	CT	06457
85) CACCAMO MICHAEL A	92 CYNTHIA LA	Middletown	CT	06457
86) TUCKER MARILYN	94 CYNTHIA LA	Middletown	CT	06457
87) PERRY BERNADETTE G	94 CYNTHIA LA	Middletown	CT	06457
88) KUSY JR RICHARD	94 CYNTHIA LA	Middletown	CT	06457
89) GWOREK THOMAS S	675 NEWFIELD ST	Middletown	CT	06457
90) ZEBORA JOHN & DIANE	675 NEWFIELD ST	Middletown	CT	06457
91) C A CIAFFAGLIONE REALTY LLC	675 NEWFIELD ST	Middletown	CT	06457
92) SCHIRALDI JUDITH TRUSTEE	675 NEWFIELD ST	Middletown	CT	06457
93) CIARDULLO EMILIA M	675 NEWFIELD ST	Middletown	CT	06457
94) CAHILL TERRENCE S	675 NEWFIELD ST	Middletown	CT	06457
95) WORRELL NICOLE J	675 NEWFIELD ST	Middletown	CT	06457
96) NEWFIELD COMMONS	675 NEWFIELD ST	Middletown	CT	06457
97) NEWFIELD MIDDLETOWN LLC	675 NEWFIELD ST	Middletown	CT	06457
98) MONTAUTI ELENA	675 NEWFIELD ST	Middletown	CT	06457
99) CIARDULLO EMILIA	675 NEWFIELD ST	Middletown	CT	06457
100) BOLDEN YOLANDA	675 NEWFIELD ST	Middletown	CT	06457
101) DRUMMOND EGLIN (1/2 INT) &	675 NEWFIELD ST	Middletown	CT	06457
102) PEKRUL JASON D & SKOGLUND ARLEY E	675 NEWFIELD ST	Middletown	CT	06457
103) PIXTON SHEENA M	675 NEWFIELD ST	Middletown	CT	06457
104) LESERVOT TYPHAINE & GOLDMAN ERIC	675 NEWFIELD ST	Middletown	CT	06457
105) GRASSO VIRGINIA	675 NEWFIELD ST	Middletown	CT	06457
106) HUNT VERNON & WENDY	675 NEWFIELD ST	Middletown	CT	06457
107) WILLAMETZ REBECCA	675 NEWFIELD ST	Middletown	CT	06457
108) CLAYTON ARTHUR L	675 NEWFIELD ST	Middletown	CT	06457
109) WELKA JAN & GABRIELA	163 CYNTHIA LA	Middletown	CT	06457
110) LANDOLINA DAWN	161 CYNTHIA LA	Middletown	CT	06457
111) CHIONCHIO ANGELA L	161 CYNTHIA LA	Middletown	CT	06457
112) COLLIN MARC E & TRACEY A	161 CYNTHIA LA	Middletown	CT	06457
113) LOMBARDO TONI M	161 CYNTHIA LA	Middletown	CT	06457
114) DLUGOSZ EDWARD & KRISTYNA	163 CYNTHIA LA	Middletown	CT	06457
115) RUSSO JOANNE L	161 CYNTHIA LA	Middletown	CT	06457
116) GALANTY BRENDA	163 CYNTHIA LA	Middletown	CT	06457
117) WINKLER BRYAN D	161 CYNTHIA LA	Middletown	CT	06457
118) CLARKE KAREN T	161 CYNTHIA LA	Middletown	CT	06457
119) TAYLOR JAMES E III	161 CYNTHIA LA	Middletown	CT	06457
120) HILL STEPHEN A & SCOFFONE SHERON A	161 CYNTHIA LA	Middletown	CT	06457
121) ZAGALA RICHARD	161 CYNTHIA LA	Middletown	CT	06457

122) VAZZANO SEBASTIAN & JO-ANNE	161 CYNTHIA LA	Middletown	CT	06457
123) BUTTARO JOSEPH C & CYNTHIA L	161 CYNTHIA LA	Middletown	CT	06457
124) LINEHAN RAYMOND E JR	161 CYNTHIA LA	Middletown	CT	06457
125) DORVAL RICHARD & YOLANDA Y	163 CYNTHIA LA	Middletown	CT	06457
126) FRANCINI JESSICA C	163 CYNTHIA LA	Middletown	CT	06457
127) ELLIOTT PERRY C	161 CYNTHIA LA	Middletown	CT	06457
128) THOMPSON ANN MARIE	161 CYNTHIA LA	Middletown	CT	06457
129) AUCLAIR PAULA	161 CYNTHIA LA	Middletown	CT	06457
130) SARANITA GRACE ANN &	161 CYNTHIA LA	Middletown	CT	06457
131) JAMES ROBERT	161 CYNTHIA LA	Middletown	CT	06457
132) COSTA DAVID A	161 CYNTHIA LA	Middletown	CT	06457
133) JOHNSON ROLAND J	163 CYNTHIA LA	Middletown	CT	06457
134) CARNICELLI DEVIN J	161 CYNTHIA LA	Middletown	CT	06457
135) KLICPERA JESSICA	161 CYNTHIA LA	Middletown	CT	06457
136) JPMORGAN CHASE BANK NA	163 CYNTHIA LA	Middletown	CT	06457
137) BURKE PETER F	161 CYNTHIA LA	Middletown	CT	06457
138) MARTINO GARRETT R	163 CYNTHIA LA	Middletown	CT	06457
139) PITITTO GAETANO	161 CYNTHIA LA	Middletown	CT	06457
140) KRAJEWSKI RICHARD & ROSANNE	161 CYNTHIA LA	Middletown	CT	06457
141) JUSZCZYK GRAZYNA	161 CYNTHIA LA	Middletown	CT	06457
142) DOWNING BRENDA L	163 CYNTHIA LA	Middletown	CT	06457
143) JOSEPH JUNE J	161 CYNTHIA LA	Middletown	CT	06457
144) GRECO NICHOLAS F	161 CYNTHIA LA	Middletown	CT	06457
145) DAIGNAULT CARMEN L	161 CYNTHIA LA	Middletown	CT	06457
146) ARESO OLGA	161 CYNTHIA LA	Middletown	CT	06457
147) WOLFE DAVID	161 CYNTHIA LA	Middletown	CT	06457
148) VALERY VICKY A	163 CYNTHIA LA	Middletown	CT	06457
149) BENZI CONCETTINA	163 CYNTHIA LA	Middletown	CT	06457
150) SOBCZAK JOHN B (1/2) &	161 CYNTHIA LA	Middletown	CT	06457
151) BOTTI JOHN M & DAGMAR B	161 CYNTHIA LA	Middletown	CT	06457
152) COUTURE ERIN E	163 CYNTHIA LA	Middletown	CT	06457
153) RUDNICKI STEFAN & MARZENA	161 CYNTHIA LA	Middletown	CT	06457
154) HOUSTON JR SCOTT R & GACEK REBECCA W	163 CYNTHIA LA	Middletown	CT	06457
155) BOWMAN ANA	161 CYNTHIA LA	Middletown	CT	06457
156) GERAGHTY JOSEPH P	163 CYNTHIA LA	Middletown	CT	06457
157) LUDECKE CHRISTOPHER K	161 CYNTHIA LA	Middletown	CT	06457
158) GALLUS BEATA	163 CYNTHIA LA	Middletown	CT	06457
159) BORDEAU EMILY L	163 CYNTHIA LA	Middletown	CT	06457
160) WILSON MICHELLE M	161 CYNTHIA LA	Middletown	CT	06457
161) GLUECK SUSAN M	163 CYNTHIA LA	Middletown	CT	06457
162) LITTLEFIELD STODDARD LAUREN TRUSTEE	161 CYNTHIA LA	Middletown	CT	06457
163) MATTHEWS JESSIE K	163 CYNTHIA LA	Middletown	CT	06457
164) LAMBERT JENNIFER J	161 CYNTHIA LA	Middletown	CT	06457
165) PIATTI JESSICA L	163 CYNTHIA LA	Middletown	CT	06457
166) SALAFIA JOSEPH S & ELLEN G	161 CYNTHIA LA	Middletown	CT	06457
167) COLLIN CARRIE A	163 CYNTHIA LA	Middletown	CT	06457
168) JACKSON DIANE M	163 CYNTHIA LA	Middletown	CT	06457
169) DELGALA CANDELARIA &	163 CYNTHIA LA	Middletown	CT	06457
170) DEARBORN CHARLES CLARKE	161 CYNTHIA LA	Middletown	CT	06457
171) KEHOE JUDY F	161 CYNTHIA LA	Middletown	CT	06457
172) ANDERSON KATHLEEN J	163 CYNTHIA LA	Middletown	CT	06457
173) CARBONELLA JOANNE M	163 CYNTHIA LA	Middletown	CT	06457
174) STARR EDWARD W (EST)	163 CYNTHIA LA	Middletown	CT	06457
175) GASIENICA SZYMKOW EWA &	163 CYNTHIA LA	Middletown	CT	06457
176) SIMONETTA MICHAEL A	163 CYNTHIA LA	Middletown	CT	06457
177) WILSON BRENDA J	163 CYNTHIA LA	Middletown	CT	06457





STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

COPY

June 21, 2016

Josh Abrams
Installation Manager
Doosan Fuel Cell America, Inc.
195 Governor's Highway
South Windsor, CT 06074

RE: **PETITION NO. 1235** – Doosan Fuel Cell America, Inc. petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the construction, maintenance, and operation of a 440-kilowatt customer-side combined heat and power fuel cell facility to be located at Middletown High School, 200 La Rosa Lane, Middletown, Connecticut.

Dear Mr. Abrams:

The Connecticut Siting Council (Council) received the petition for the above-referenced facility on June 16, 2016.

According to Section 16-50j-39a of the Regulations of Connecticut State Agencies, "no declaratory ruling shall be issued to any person until a complete petition containing all information relevant by the Council has been filed." Staff has reviewed this petition for completeness and has identified the following deficiencies in the filing:

1. notice to the City of Middletown Conservation and Inland Wetland Commissions;
2. notice to the Department of Emergency Services and Public Protection, the Department of Consumer Protection, the Department of Administrative Services and the Labor Department; and
3. the lack of a clearly labeled abutters' map that corresponds to the list of abutters provided.

Pursuant to Section 16-50j-40 of the Regulations of Connecticut State Agencies, "Prior to submitting a petition for a declaratory ruling to the Council, the petitioner shall, where applicable, provide notice to each person other than the petitioner appearing as record as an owner of property which abuts the proposed primary or alternative sites of the proposed facility, each person appearing of record as an owner of the property or properties on which the primary or alternative proposed facility is to be located, and the appropriate municipal officials and government agencies. Proof of such notice shall be submitted with the petition for declaratory ruling."

Therefore, the petition is incomplete at this time. The Council recommends that the petitioner provide proof of service of a copy of the petition for a declaratory ruling on the City of Middletown Conservation and Inland Wetland Commissions, the Department of Emergency Services and Public Protection, the Department of Consumer Protection, the Department of Administrative Services and the Labor Department and provide to the Council a clearly labeled abutters' map of the proposed site on or before July 5, 2016.



Thank you for your attention to this matter. Should you have any questions, please feel free to contact me at 860-827-2951.

Sincerely,



Melanie A. Bachman

Acting Executive Director/Staff Attorney

c: Dawn Mahoney, Esq., General Counsel, Doosan Fuel Cell America, Inc.
Council Members



Doosan Fuel Cell America, Inc.
195 Governor's Highway
South Windsor, CT 06074
T - 860 727 2200

June 29, 2016

Responses to PE 1235-(6/27/16 Notice) Interrogatories

RE: Petition of Doosan Fuel Cell America, Inc. to the Connecticut Siting Council for a Declaratory Ruling for the Location and Construction of one 440 kW Fuel Cell at Middletown High School, 200 La Rosa Ln, Middletown, CT.

Please see the attached responses to the interrogatories with exhibits to the questions posed by the Connecticut Siting Council on 6/27/16 for PE 1235.

Address additional question to:

Josh Abrams

195 Governor's Highway

South Windsor, CT 06074

(860) 727-2200

Josh.abrams@doosan.com

Sincerely,

Doosan Fuel Cell America, Inc.

A handwritten signature in blue ink, appearing to read "Dawn Mahoney", is written over the printed name.

Dawn Mahoney, Esq.

General Counsel

Doosan Fuel Cell America, Inc.

ORIGINAL

Petition No. 1235
Doosan Fuel Cell America, Inc.
Middletown High School
200 La Rosa Ln, Middletown, CT
Responses to Interrogatories

11. On page 2 of Doosan Fuel Cell of America, Inc.'s (Doosan) Petition (Petition) dated June 14, 2016, Doosan notes that the proposed fuel cell would provide backup power. In the event of a power outage, would the fuel cell first shut down and then automatically "black start" to restore power, or would it continue running seamlessly despite the loss of grid power (i.e. provide uninterruptible power)? Explain.
- R1. A "dual mode" fuel cell normally operates 24/7 in Grid Connected mode. Upon loss of Utility Grid, the fuel cell continues to operate in "IDLE" (powering its own internal loads only) mode while it transfers to Grid Independent operating mode within a few (< 10 seconds, usually about 3) seconds. The mode transfer consists of disconnecting from the Utility Grid, running in "IDLE mode while disconnecting, and then re-connecting to the dedicated Grid Independent customer load. During the several seconds of transition between modes, customer loads are not powered so there is a short (about 3 second) outage during the mode transfer.
- I2. Would the fuel cell facility also include the cooling module as indicated on back of the specifications sheet (Attachment B of the Petition)? Would the cooling module release the waste heat when it is not being used for supplementing the building's heating? Was the cooling module factored into the noise analysis on page 5 of the Petition?
- R2. The cooling module is included as part of the fuel cell facility. The cooling module releases heat the high school does not utilize and provides a means to maintain optimal temperatures within the fuel cell operating system. The noise analysis on page 5 includes both the fuel cell plant and the cooling module.
- I3. Please provide an Emergency Response Plan for the proposed facility in accordance with Public Act 11-101, An Act Adopting Certain Safety Recommendations of the Thomas Commission.
- R3. Please see attached Exhibit M-1-Emergency Response Plan.
- I4. Please identify media to be used for pipe cleaning procedures at the proposed facility in accordance with Public Act 11-101, An Act Adopting Certain Safety Recommendations of the Thomas Commission.
- R4. Piping is flushed with clean tap water from the building and then blown clear with a high pressure water and air cleaner.

15. Provide a site plan to depict the proposed fuel cell's location, utility connections and other items such as cooling module, bollards, fencing, etc.

R5. Please see attached M-2-Middletown Site Plan.

16. Would the proposed fuel cell be located within a 100-year or 500-year flood zone?

R6. Please see attached M-3-Flood Zone Map: The fuel cell facility will not be located in a designated flood zone.

17. Does the Model 400 Fuel Cell being installed have full heat recovery capability? If so, does the emission data on page 5 account for full heat recovery?

R7. The Fuel Cell will provide full heat recovery capability of the Fuel Cell system to the Middletown High School: High Grade Heat will feed the heating boiler system and the Low Grade Heat will provide nearly all of the pool heating. The emission data on page 5 takes this into account in utilizing the heat recovery while generating electricity.

18. Provide a table showing state criteria thresholds and projected emissions from the proposed facility for all greenhouse gasses listed in the Regulations of Connecticut State Agencies Section 22a-174-1(49).

R8. Please see the table below.

The Model 400 is certified by the CARB to meet the Distributed Generation Regulation 2007 Fossil Fuel Emission Standard.

Table 2-5. PureCell® Model 400 Emissions Data

	<i>lb/MWh</i>	<i>PPMvd @ 15.4% O₂</i>
NO _x	0.01	0.32
CO	0.02	0.67
VOC	0.02	1.36
CO ₂	1050	

19. When does Doosan anticipate commencement of construction and completion of the fuel cell facility? Provide anticipated construction hours.

R9. We plan to start work by early August in order to get a lot of the underground completed before major school activities begin. The work is to be completed and commissioned by the end of January 2017. Work hours are as permitted by the school: Monday through Friday 7:00am to 5:00pm—to adjust as the school requires.

110. Natural gas has sulfur dioxide injected as an odorant. Please submit a desulfurization plan narrative for the proposed fuel cell facility containing the following information:

- a) Chemical reaction overview concerning what substances are produced from the desulfurization process, as well as plans for their containment and transport;

R10a. The Model 400 desulfurizer system removes sulfur used as an odorant in natural gas, and, by design, creates zinc-sulfide—a non-toxic hazard which is sealed in an inaccessible vessel within the fuel cell. The sulfur cleanup system is designed to last for the 10 year life of the unit without need for maintenance or waste removal. At the end of 10 years of life (or longer should the customer wish to keep the unit running), the entire ILS unit is removed and sent back to the manufacturer for refurbishment and catalyst recharge. The waste zinc sulfide is removed and returned to the catalyst vendor for reclaim at their facility or disposal at a licensed vendor.

Fundamental reaction: $\text{H}_2\text{S} + \text{ZnO} \rightleftharpoons \text{H}_2\text{O} + \text{ZnS}_{(s)}$

- b) How much solid sulfur oxide would result from the desulfurization process, and methods and locations for containment, transport, and disposal;
- R10b. There is no solid sulfur oxide produced from the desulfurization process—The Model 400 was designed not generate or retain solid sulfur oxide. This question applies to a competing technology and not to Doosan Fuel Cell's approach to desulfurization; all natural gas odorant, as noted above, converts to zinc-sulfide and remains sealed within the fuel cell. The desulfurization unit is transported back to the manufacturing facility in its sealed and inaccessible vessel. It is safe for transport per DOT requirements.
- c) Whether any of these desulfurization substances are considered hazardous, and if so, plans for the containment, transport, and disposal of hazardous substances;
- R10c. The byproduct, zinc-sulfide, is non-hazardous. As noted above, when the desulfurized system is overhauled, it is sealed and transported back to the manufacturing facility for recycling.
- d) Anticipated method of disposal for any other desulfurization substances; and
- R10d. As noted above, the by product is zinc-sulfide, which is transported back to the manufacturing facility in its sealed and inaccessible vessel. It is safe for transport per DOT requirements.
- e) Whether any gaseous substances resulting from desulfurization can be expected to vent from the fuel cells, as well as the applicable DEEP limits regarding discharge of these gasses.
- R10e. No gaseous substances resulting from desulfurization are expected to vent from the fuel cell—as noted above, the desulfurization process is sealed within the fuel cell system. The fuel cells conform to CARB emissions requirements.



Doosan Fuel Cell America, Inc. Fuel Cell Emergency Response Guide

Middletown High School
200 La Rosa Lane
Middletown, CT



DISCLAIMER

Doosan Fuel Cell America reserves the right to change or modify, without notice, the design or equipment specifications of the PureCell® system Model 400 without obligation with respect to equipment either previously sold or to be sold. This guide is provided by Doosan Fuel Cell America, and no liability will accrue to Doosan Fuel Cell America based on the information or specifications included herein. No warranties or representations are made by this guide and no warranties or representations shall apply to the equipment except as stated in Doosan Fuel Cell America's standard terms and conditions of sale applicable at the time of purchase, a copy of which will be provided upon request. The Model 400 is designed to provide safe and reliable service when operated within design specifications, according to all applicable instructions, and with the appropriate operating materials. When operating this equipment, use good judgment and follow safety precautions to avoid damage to equipment and property or injury to personnel. Be sure to understand and follow the procedures and safety precautions contained in all applicable instructions, operating materials, and those listed in this guide. All information in this document is as of May 30, 2015.

COPYRIGHTED WORK © DOOSAN FUEL CELL AMERICA. THIS DOCUMENT CONTAINS THE PROPERTY OF DOOSAN FUEL CELL AMERICA. YOU MAY NOT POSSESS, USE, COPY OR DISCLOSE THIS DOCUMENT OR ANY INFORMATION IN IT FOR ANY PURPOSE, INCLUDING WITHOUT LIMITATION TO DESIGN, MANUFACTURE, OR REPAIR PARTS, WITHOUT EXPRESS WRITTEN PERMISSION. NEITHER RECEIPT FROM ANY SOURCE, NOR POSSESSION OF THIS DOCUMENT, CONSTITUTES SUCH PERMISSION. POSSESSION, USE, COPYING OR DISCLOSURE BY ANYONE WITHOUT EXPRESS WRITTEN PERMISSION OF DOOSAN FUEL CELL AMERICA CORPORATION IS NOT AUTHORIZED AND MAY RESULT IN CIVIL LIABILITY.



Policy

The following plan has been developed to minimize the severity of damage to human health, the environment, and property in the event of an unexpected failure.

Scope

This Emergency Response Guide shall be integrated into the site Emergency Response Plan. Information contained in this document shall be customized to meet local requirements and shall be shared with local responders as necessary. This guide is only a template and in no way assumes or transfers liability or ownership. Doosan Fuel Cell America should be contacted if clarification is needed.

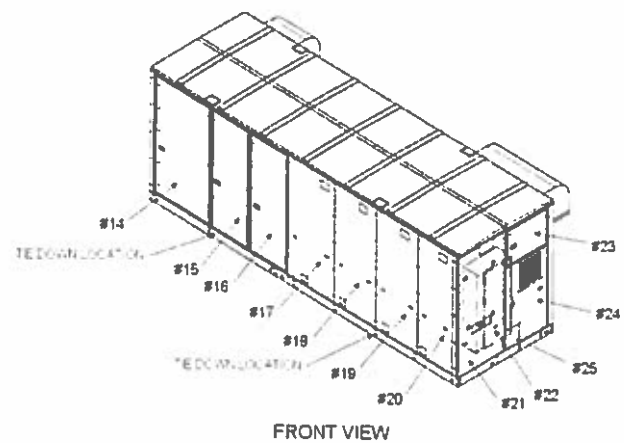
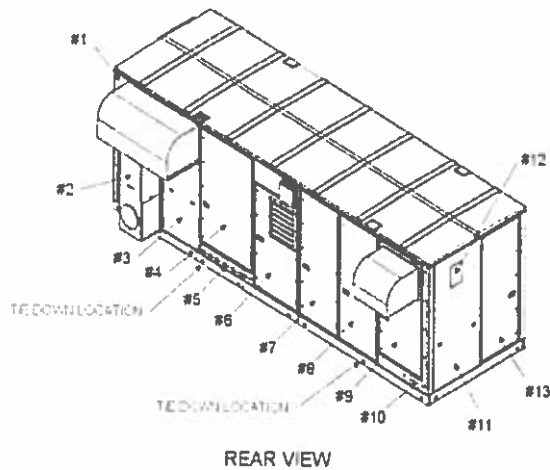
Emergency Contacts and Numbers

Local Emergency Number	911
Doosan Fuel Cell America Control Center	(860) 727-2847
Clean Harbors Emergency Cleanup Response	(800) 645-8265
Fire Department – Non-emergency number	Middletown Fire Department (860) 638-3200
Hospital – Non-emergency number	Middlesex Hospital 28 Crescent St, Middletown, CT 06457 (860) 225-6244
Electric Utility Name: Eversource Energy	 800-286-5000
Gas Utility Name: CNG/Eversource Energy	 860-727-3000 *Gas Leaks Only: <u>877-944-5325</u>
Local Oil & Chemical Spill Response Division	800-645-8265
EPA - Environmental Protection Agency Region 1	(800) 424-8802 Environmental Emergency
OSHA - Occupational Safety and Health Admin. Emergency Number	 (800) 321-6742 National Emergency Number
Poison Control Center	(800) 222-1222 National Emergency Number

COPYRIGHTED WORK © DOOSAN FUEL CELL AMERICA. THIS DOCUMENT CONTAINS THE PROPERTY OF DOOSAN FUEL CELL AMERICA. YOU MAY NOT POSSESS, USE, COPY OR DISCLOSE THIS DOCUMENT OR ANY INFORMATION IN IT FOR ANY PURPOSE, INCLUDING WITHOUT LIMITATION TO DESIGN, MANUFACTURE, OR REPAIR PARTS, WITHOUT EXPRESS WRITTEN PERMISSION. NEITHER RECEIPT FROM ANY SOURCE, NOR POSSESSION OF THIS DOCUMENT, CONSTITUTES SUCH PERMISSION. POSSESSION, USE, COPYING OR DISCLOSURE BY ANYONE WITHOUT EXPRESS WRITTEN PERMISSION OF DOOSAN FUEL CELL AMERICA CORPORATION IS NOT AUTHORIZED AND MAY RESULT IN CIVIL LIABILITY.



Fuel Cell Hazard Overview



480 V Grid Disconnect



Emergency Stop Button

COPYRIGHTED WORK © DOOSAN FUEL CELL AMERICA. THIS DOCUMENT CONTAINS THE PROPERTY OF DOOSAN FUEL CELL AMERICA. YOU MAY NOT POSSESS, USE, COPY OR DISCLOSE THIS DOCUMENT OR ANY INFORMATION IN IT FOR ANY PURPOSE, INCLUDING WITHOUT LIMITATION TO DESIGN, MANUFACTURE, OR REPAIR PARTS, WITHOUT EXPRESS WRITTEN PERMISSION. NEITHER RECEIPT FROM ANY SOURCE, NOR POSSESSION OF THIS DOCUMENT, CONSTITUTES SUCH PERMISSION. POSSESSION, USE, COPYING OR DISCLOSURE BY ANYONE WITHOUT EXPRESS WRITTEN PERMISSION OF DOOSAN FUEL CELL AMERICA CORPORATION IS NOT AUTHORIZED AND MAY RESULT IN CIVIL LIABILITY.



Rear View Panel	Primary Hazard	Front View Panel	Primary Hazard
1 (Computer Terminal)	Electrical = 120 VAC	14 (Reformer)	Electrical = 480 VAC Chemical = Air sensitive catalyst / combustibles Thermal = 600°F Reformer Pressure = 150 psi steam
2 (Air Conditioner)	Electrical = 480 VAC Chemical = Refrigerant	15 (Reformer)	Electrical = 480 VAC Chemical = Air sensitive catalyst / combustibles Thermal = 600°F Reformer Pressure = 150 psi steam
3 (Swing Door)	Electrical = 480 VAC	16 (Reformer)	Electrical = 480 VAC Chemical = Air sensitive catalyst / combustibles Thermal = 600°F Reformer Pressure = 150 psi steam
4 (Mechanical Entry)	Electrical = 480 VAC Chemical = Propylene Glycol Thermal = 350°F Steam Pressure = 150 psi Steam	17 (DC Cell Stack)	Electrical = 300 VDC Chemical = Solid phosphoric acid / combustibles
5 (Mechanical Entry)	Chemical = Propylene Glycol Thermal = 350°F Steam Pressure = 150 psi Steam	18 (DC Cell Stack)	Electrical = 300 VDC Chemical = Solid phosphoric acid / combustibles
6 (TMS)	Electrical = 480 VAC Chemical = Propylene Glycol / Deionized Water / Resin Thermal = 350°F Steam Pressure = 150 psi Steam	19 (DC Cell Stack)	Electrical = 300 VDC Chemical = Solid phosphoric acid / combustibles
7 (ILS)	Electrical = 480 VAC Chemical = Air sensitive catalyst / combustibles Thermal = 600°F Reformer Pressure = 150 psi steam	20 (DC Cell Stack)	Electrical = 300 VDC Chemical = Solid phosphoric acid / combustibles
8 (Fuel Processing Area)	Electrical = 480 VAC Chemical = Air sensitive catalyst / combustibles Thermal = 600°F Reformer Pressure = 150 psi steam	21	Not accessible
9 (Fuel Processing Area)	Electrical = 480 VAC Chemical = Air sensitive catalyst / combustibles Thermal = 600°F Reformer Pressure = 150 psi steam	22 (Grid Connect Disconnect)	Electrical = 480 VAC
10 (Gas/Nitrogen Inlet)	Chemical = combustibles	23 (Blower 110)	Electrical = 300 VDC Mechanical = Blower
11 (Reformer)	Electrical = 480 VAC Chemical = Air sensitive catalyst / combustibles Thermal = 600°F Reformer Pressure = 150 psi steam	24 (Inverter)	Electrical = 1400 VDC / 480 VAC
12 (Reformer)	Electrical = 480 VAC Chemical = Air sensitive catalyst / combustibles Thermal = 600°F Reformer Pressure = 150 psi steam	25 (Grid Independent Circuit)	Electrical = 480 VAC
13 (Reformer)	Electrical = 480 VAC Chemical = Air sensitive catalyst / combustibles Thermal = 600°F Reformer Pressure = 150 psi steam	ALL Roof Panels	Multiple Hazards DO NOT WALK ON ROOF!

COPYRIGHTED WORK © DOOSAN FUEL CELL AMERICA. THIS DOCUMENT CONTAINS THE PROPERTY OF DOOSAN FUEL CELL AMERICA. YOU MAY NOT POSSESS, USE, COPY OR DISCLOSE THIS DOCUMENT OR ANY INFORMATION IN IT FOR ANY PURPOSE, INCLUDING WITHOUT LIMITATION TO DESIGN, MANUFACTURE, OR REPAIR PARTS, WITHOUT EXPRESS WRITTEN PERMISSION. NEITHER RECEIPT FROM ANY SOURCE, NOR POSSESSION OF THIS DOCUMENT, CONSTITUTES SUCH PERMISSION. POSSESSION, USE, COPYING OR DISCLOSURE BY ANYONE WITHOUT EXPRESS WRITTEN PERMISSION OF DOOSAN FUEL CELL AMERICA CORPORATION IS NOT AUTHORIZED AND MAY RESULT IN CIVIL LIABILITY.



Conditional Assessment

Normal Condition	Potential Abnormal Condition	Response
<u>Fuel Cell</u> White steam exiting power plant at exhaust chimney, above panel #6 (It can be a large amount of white steam depending on ambient conditions)	Dark colored smoke exiting chimney or any other part of enclosure	1. Establish safe perimeter 2. Contact Doosan Fuel Cell America Control Center (860) 727-2847
	Observable fire or heavy smoke at any point on fuel cell	1. Press Fuel Cell 'Stop Button' – Only if safely accessible! 2. Dial 911 or Local Emergency Response Number 3. Establish safe perimeter 4. Contact Doosan Fuel Cell America Control Center (860) 727-2847
<u>Fuel Cell</u> Moderate humming, clicking and fan sounds	Grinding or loud intermittent noises	1. Contact Doosan Fuel Cell America Control Center (860) 727-2847
	Observable fire or heavy smoke at any point on fuel cell	1. Press Fuel Cell 'Stop Button' – Only if safely accessible! 2. Dial 911 or Local Emergency Response Number 3. Establish safe perimeter 4. Contact Doosan Fuel Cell America Control Center (860) 727-2847
<u>Cooling Module</u> Fan humming	Smoke or fire coming from module	1. Press Fuel Cell 'Stop Button' – Only if safely accessible! 2. Dial 911 or Local Emergency Response Number 3. Establish safe perimeter 4. Contact Doosan Fuel Cell America Control Center (860) 727-2847
	Grinding or loud noise coming from fans	1. Contact Doosan Fuel Cell America Control Center (860) 727-2847
<u>Cooling Module</u> No leaking from cooling loop piping or coils	Small leak dripping from joint, valve or connection	1. Contact Doosan Fuel Cell America Control Center (860) 727-2847
	Medium to large leak	1. Follow local spill response protocol or contact Clean Harbors Emergency Cleanup Response (800) 645-8265 2. Contact Doosan Fuel Cell America Control Center (860) 727-2847
<u>Mechanical Hi/Lo Grade Piping</u> Small amounts of condensate dripping from piping	Small leak dripping from joint, valve or connection	1. Contact Doosan Fuel Cell America Control Center (860) 727-2847
	Medium to large leak	1. Follow local spill response protocol or contact Clean Harbors Emergency Cleanup Response (800) 645-8265 2. Contact Doosan Fuel Cell America Control Center (860) 727-2847
<u>Disconnects/Other Equipment</u> No leaks or smoke	Smoke or fire coming from equipment	1. Dial 911 or Local Emergency Response Number 2. Establish safe perimeter 3. Contact Doosan Fuel Cell America Control Center (860) 727-2847

COPYRIGHTED WORK © DOOSAN FUEL CELL AMERICA. THIS DOCUMENT CONTAINS THE PROPERTY OF DOOSAN FUEL CELL AMERICA. YOU MAY NOT POSSESS, USE, COPY OR DISCLOSE THIS DOCUMENT OR ANY INFORMATION IN IT FOR ANY PURPOSE, INCLUDING WITHOUT LIMITATION TO DESIGN, MANUFACTURE, OR REPAIR PARTS, WITHOUT EXPRESS WRITTEN PERMISSION. NEITHER RECEIPT FROM ANY SOURCE, NOR POSSESSION OF THIS DOCUMENT, CONSTITUTES SUCH PERMISSION. POSSESSION, USE, COPYING OR DISCLOSURE BY ANYONE WITHOUT EXPRESS WRITTEN PERMISSION OF DOOSAN FUEL CELL AMERICA CORPORATION IS NOT AUTHORIZED AND MAY RESULT IN CIVIL LIABILITY.



Compressed Gas Manifold (N₂/H₂) No leaks, May hear intermittent gas flow during purges	Leaks – may be able to hear hissing sound.	1. If Indoors – Evacuate Immediately! Dial 911 or Local Emergency Response Number 2. Establish safe perimeter 3. Contact Doosan Fuel Cell America Control Center (860) 727-2847
--	--	---

Fuel Cell Related Material Safety Data Sheets (MSDS)

1. Propylene Glycol – DowFrost®
2. Phosphoric Acid – Solid
3. Reformer/ILS Catalysts
4. Anion/Cation Resin
5. Nitrogen / Hydrogen Compressed Gas Mixture (non-flammable)

Inspections

Inspection Type	Equipment Requirements	Frequency Required
General Maintenance	Laptop, Service Vehicle	Monthly
General Housekeeping	N/A	Monthly
Waste and Chemical Storage*	N/A	Weekly
Internal Combustible Gas Monitor	AT-160 Calibration Kit	Annual
Fire Prevention	N/A	Monthly

*When applicable

Fuel Cell operation is monitored and controlled remotely 24 hours a day 7 days a week by the Doosan Fuel Cell America Control Center. Upset or abnormal occurrences outside of normal operating parameters are immediately identified and service technicians are dispatched within 24 hours to respond when required.

Emergency Procedures

Alarms	There are no audible or visual alarms on Fuel Cell. Alarm conditions are relayed immediately to the Doosan Fuel Cell America Control Center. The Doosan Fuel Cell America Control Center will then contact the appropriate site personnel on the site's emergency contact list.
Emergency Shut Down Onsite	Actuate Fuel Cell Stop Button
Emergency Area Egress - Gas Odor	Evacuate 330 Feet in all directions
Emergency Area Egress - Fire	Evacuate 330 Feet in all directions – CV000 automatic natural gas supply shut off
Emergency Egress - General	Fuel cell is unmanned remotely monitored and controlled. No Doosan Fuel Cell America employees attending unit unless service or maintenance is required.

COPYRIGHTED WORK © DOOSAN FUEL CELL AMERICA. THIS DOCUMENT CONTAINS THE PROPERTY OF DOOSAN FUEL CELL AMERICA. YOU MAY NOT POSSESS, USE, COPY OR DISCLOSE THIS DOCUMENT OR ANY INFORMATION IN IT FOR ANY PURPOSE, INCLUDING WITHOUT LIMITATION TO DESIGN, MANUFACTURE, OR REPAIR PARTS, WITHOUT EXPRESS WRITTEN PERMISSION. NEITHER RECEIPT FROM ANY SOURCE, NOR POSSESSION OF THIS DOCUMENT, CONSTITUTES SUCH PERMISSION. POSSESSION, USE, COPYING OR DISCLOSURE BY ANYONE WITHOUT EXPRESS WRITTEN PERMISSION OF DOOSAN FUEL CELL AMERICA CORPORATION IS NOT AUTHORIZED AND MAY RESULT IN CIVIL LIABILITY.

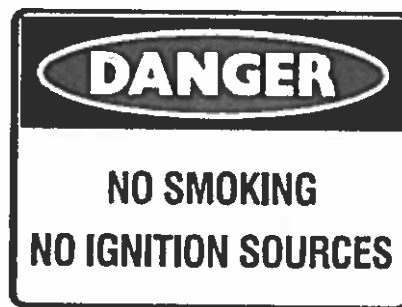


Signage and Labeling

External service lines will be clearly identified. Labeling will be in accordance with ANSI A13.1. Labeling will be similar to example below:



Perimeter fencing will have signage clearly identifying that "No smoking, no ignition sources" on every side of the fence. Signage will be similar to the sign below:





General

Safety Hazard Analysis

The PureCell® Model 400 fuel cell system has been designed to meet strict ANSI/CSA safety standards to protect against risks from electrical, mechanical, chemical, and combustion safety hazards. The following items are a few of the safety measures incorporated into the design.

Fire Detection and Protection:

The power plant design incorporates a combustible gas sensor as well as thermal fuses located throughout the power module cabinet to detect fire. The detection of a potential flammable gas mixture, a fire, or the failure of this detection circuit will result in a power plant shutdown and a subsequent inert gas (nitrogen) purge of the fuel cell stack and fuel processing system. This event will also result in an alarm callout notification to Doosan Fuel Cell America service personnel. The power plant is designed with an integral emergency-stop button on the outside of the enclosure to enable immediate shutdown in the event of an emergency. There is also a gas shut-off valve and electrical disconnect switch easily accessible to emergency personnel. There are no restrictions for type of fire suppression equipment.

Gas Leak:

Augmenting the internal combustible gas sensor, the power plant also monitors the flow rate of natural gas. If the gas flow rate exceeds the equivalent power production of the power plant then a shutdown will result. The largest possible accumulation from a leak prior to shutdown is below combustible limits. Fuel valves inside the power plant are "fail safe" and will return to their normally closed position upon loss of power. The power plant is designed to have a physical barrier that separates the equipment handling combustible gases (fuel compartment) from electrical or potential spark-creating equipment (motor compartment). The fuel compartment is kept at a negative pressure to contain and remove any potential gas leaks, whereas the motor compartment is pressurized by a fan source to prevent combustible gases from entering.

Hydrogen:

Hydrogen is lighter than air and thus does not pool like other fuels and will readily dissipate with proper ventilation making it less likely to ignite. Although hydrogen has low self-ignition characteristics, the fuel in the power plant is not pure hydrogen. Also, the power plant is not producing or storing hydrogen, it consumes hydrogen-rich gas equal to what it requires to produce power. The fuel cell stack is wrapped in a fire retardant blanket. There are no materials inside the unit that would sustain a flame. There is no large volume of gas or any ignition that occurs within the cell stack.

Phosphoric Acid:

Phosphoric acid is integral part of the fuel cell system, acting as the electrolyte within the fuel cell stack. Phosphoric acid is a surprisingly common substance that is contained in common cola drinks. A leak of phosphoric acid is not possible because phosphoric acid is not in liquid form once applied in the equipment. There is no reservoir of liquid. Phosphoric acid is contained in the porous structure of the fuel cell stack material by capillary action, similar to how ink is absorbed into a blotter.

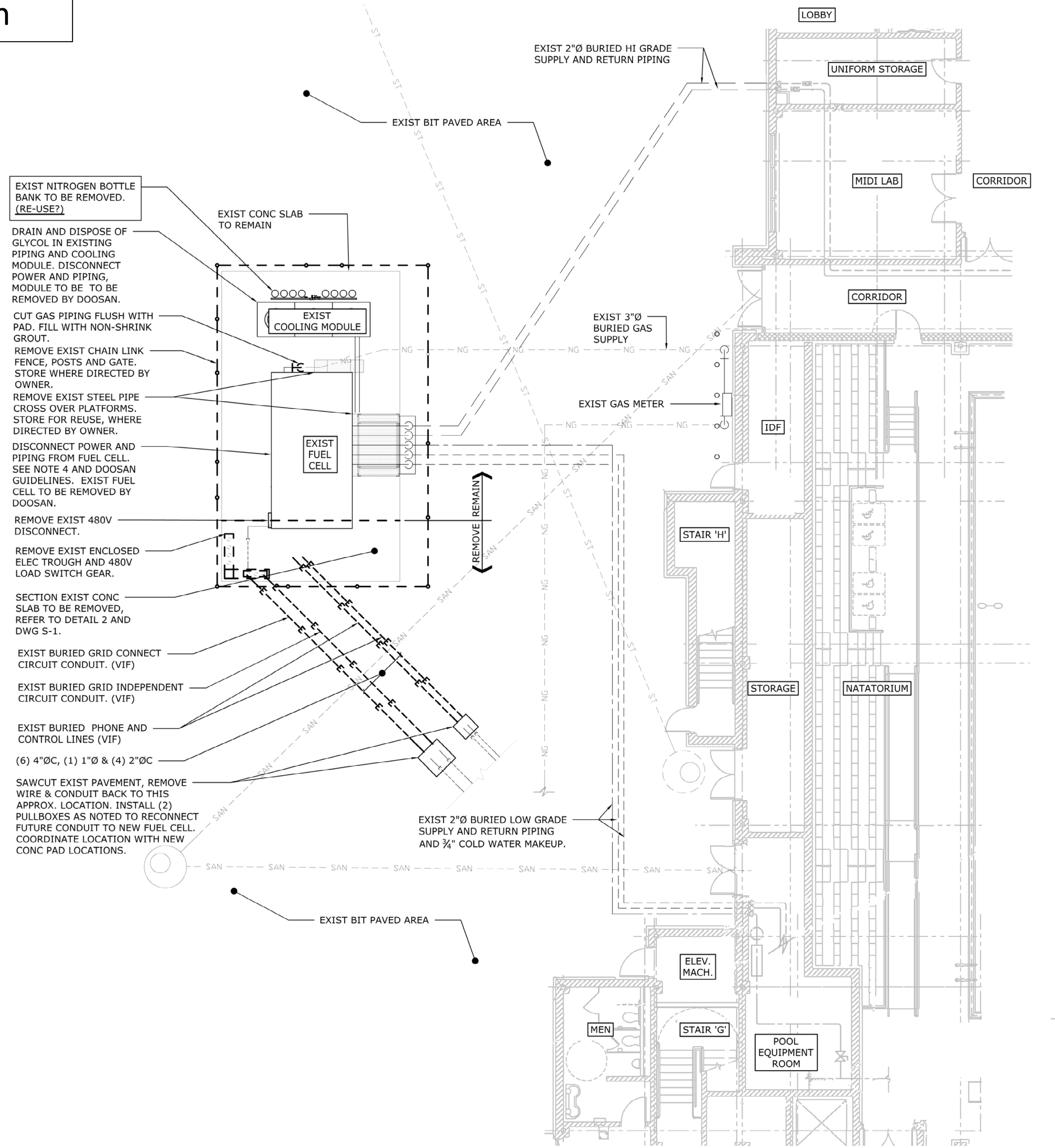
Fluid Leak:

The only fluid source is water. All pressurized water vessels are designed to ASME boiler codes and inspected annually. All piping, welds, etc. meet pressurized piping standards. Water produced through the electrochemical process is "pure" water and is reclaimed and reused by the process. The other source of water is water used in the external cooling module, which is mixed with a polypropylene glycol and a rust inhibitor to prevent rust and freezing in colder climates.

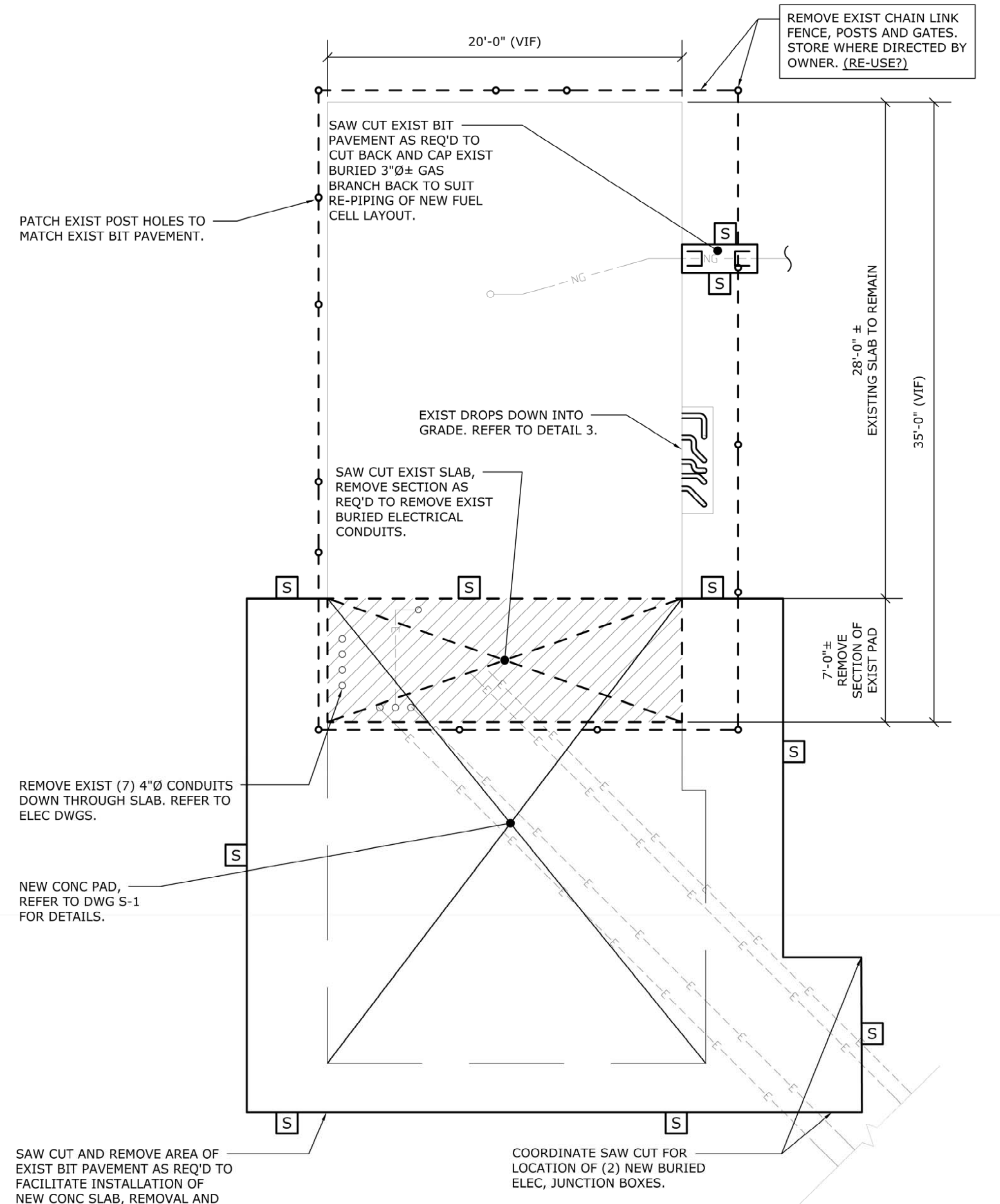
Hazardous Waste:

The fuel cell does not produce any hazardous waste. Standard Material Safety Data Sheets (MSDS) are available upon request.

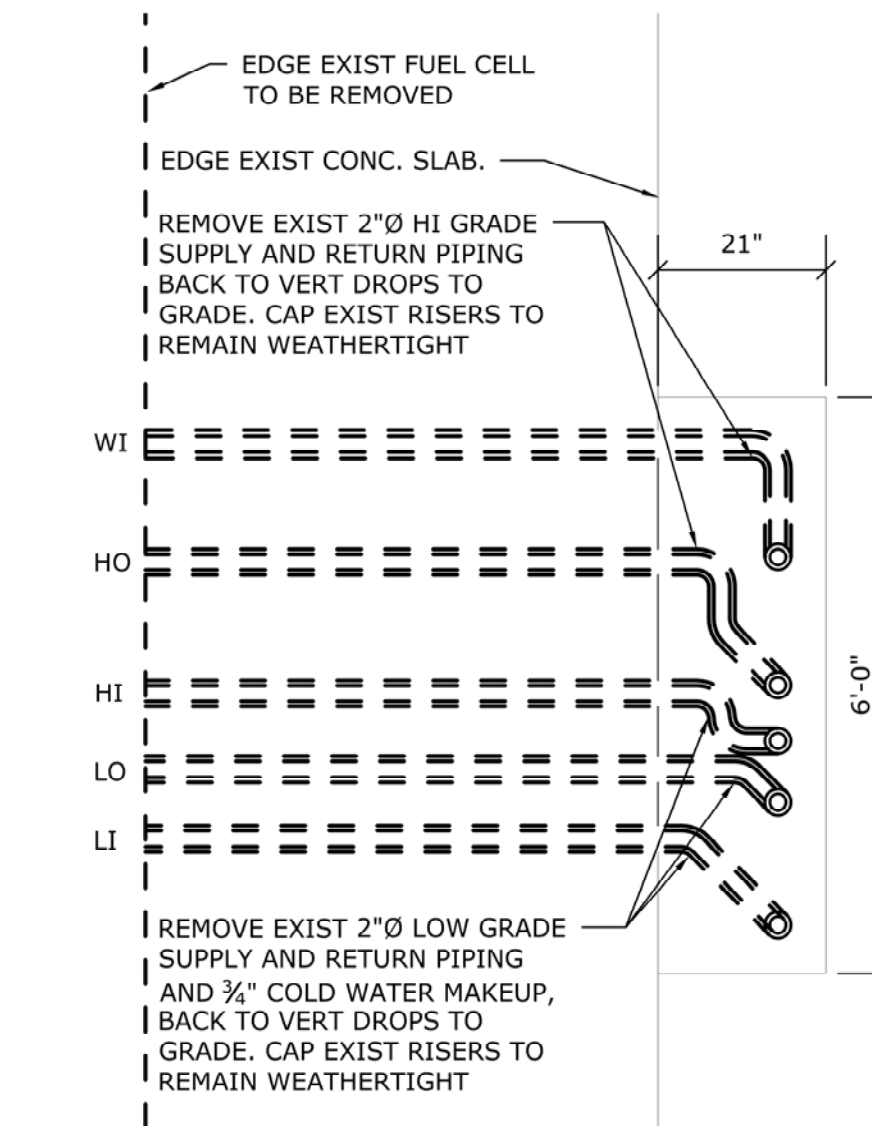
Exhibit M-2 Site Plan



1 PART SITE PLAN
1/8"=1'-0"



2 DEMO PLAN
3/16"=1'-0"



3 DETAIL
1/2"=1'-0"

NOTES:

- DRAWING IS SCHEMATIC IN NATURE, SIZE AND LOCATION OF BURIED PIPING AND CONDUITS BEING RELOCATED TO BE VERIFIED BY CONTRACTOR.
- LOCATION OF FENCING, WALKWAYS, SPOT ELEVATIONS TAKEN FROM EXISTING REFERENCE DRAWINGS, CONTRACTOR TO VERIFY ALL CONDITIONS PRIOR TO THE START OF CONSTRUCTION.
- ALL DISTURBED AREAS AND TRENCHES SURFACES SHALL BE TURF ESTABLISHED AND/OR RETURNED TO ORIGINAL CONDITION.
- ISOLATE LOW GRADE AND HIGH GRADE HEAT RECOVERY PIPING AT INTERIOR ISOLATION VALVES PRIOR TO REMOVING SECTIONS OF PIPING. DRAIN PIPING AS NECESSARY. REMOVE INTERIOR COMPONENTS AS NEEDED AND ADD BYPASS PIPING TO ALLOW FOR FLUSHING THE ENTIRE RUN OF REMAINING INTERIOR AND EXTERIOR PIPING PRIOR TO FILLING WITH NEW GLYCOL SOLUTION. CONTRACTOR IS RESPONSIBLE FOR PROPER DISPOSAL OF ALL FLUSHING SOLUTION.

PROGRESS 6-30-16
NOT FOR CONSTRUCTION



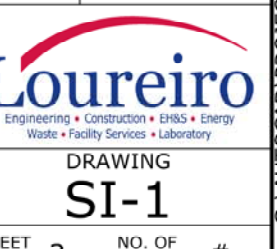
Loureiro Engineering Associates, Inc.
100 Northwest Drive • Plainville, Connecticut 06062
Phone: 860-747-6181 • Fax: 860-747-8822
An Employee Owned Company • www.Loureiro.com



DOOSAN FUEL CELL AMERICA, INC
195 GOVERNOR'S HIGHWAY
SOUTH WINDSOR, CT 06074

DOOSAN - 400kW FUEL CELL INSTALLATION
MIDDLETOWN HIGH SCHOOL, MIDDLETOWN, CT

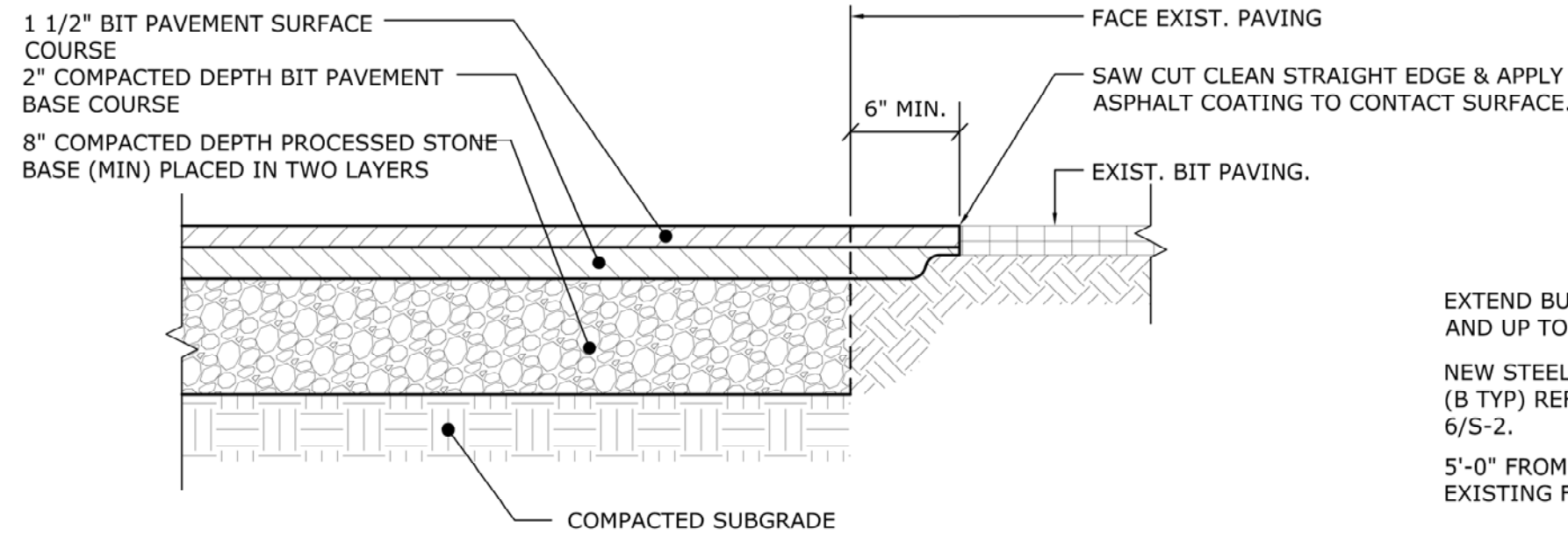
SITE DEMOLITION PLANS
AND DETAILS



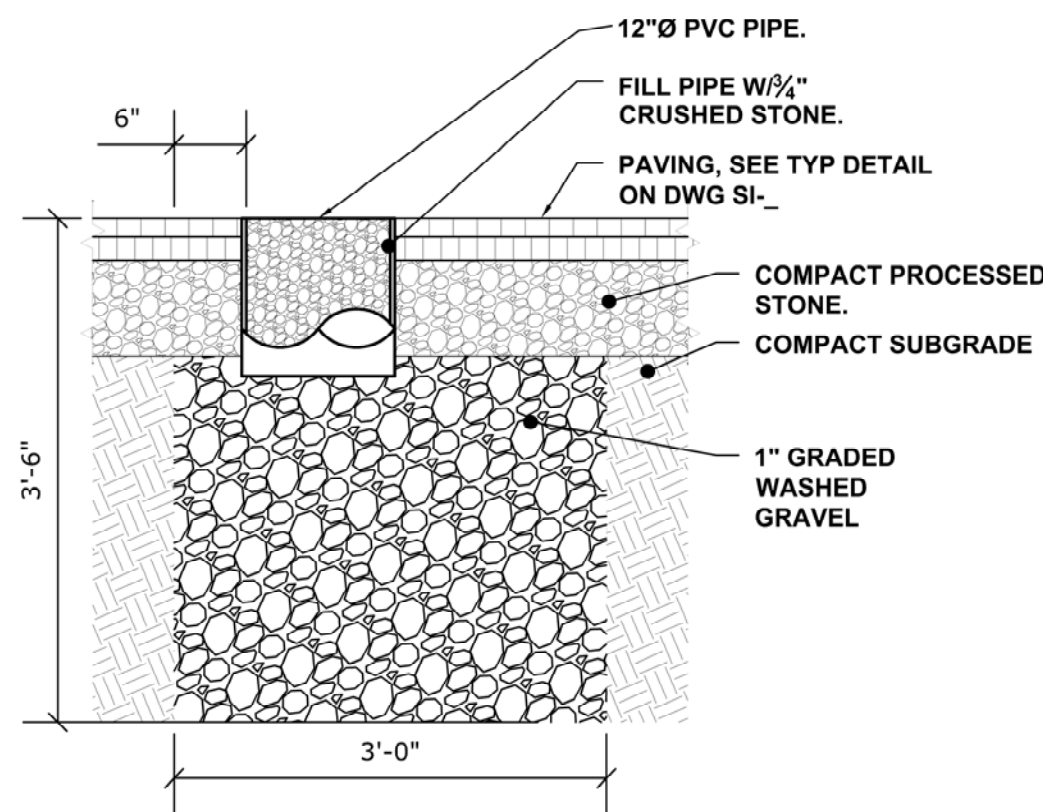
DRAWING
SI-1

SHEET NO. 2 NO. OF SHEETS #

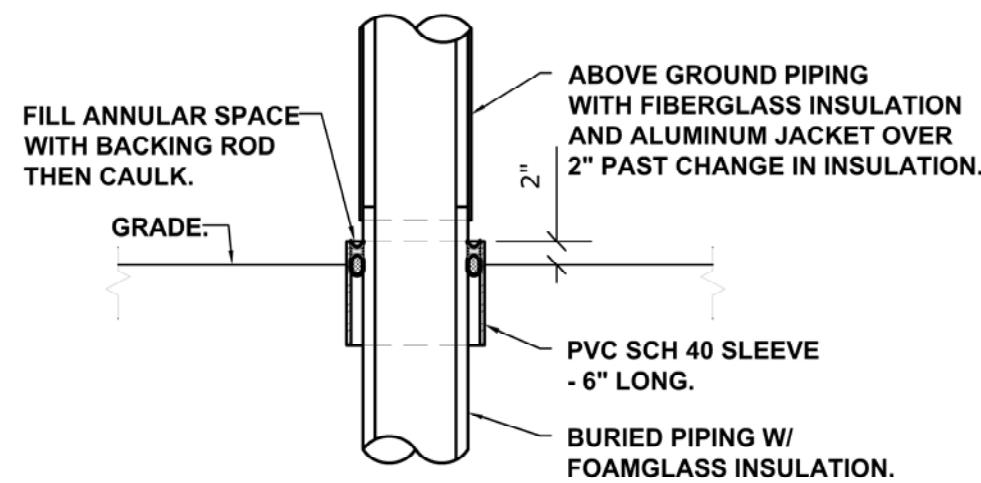
G:\AU\OCAD\PROJECT\SI\24DF602\TASK 1 MIDDLETOWN HS\DWGS\24DF602.001 SI-1, 2.DWG 1457 SI-1 Saved: 6/30/2016 5:46 PM Plotted: 7/17/2016 10:47 AM



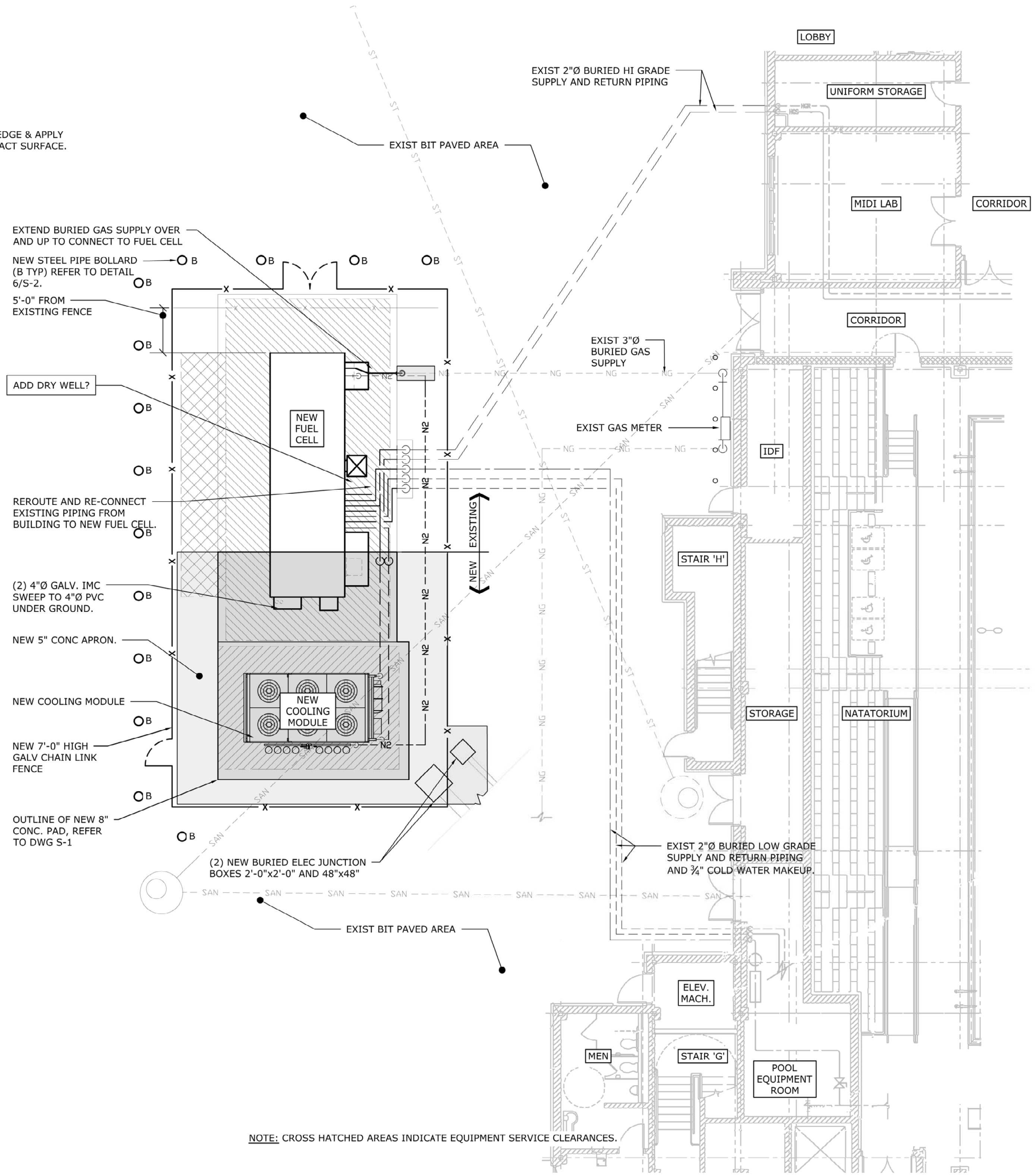
2 DETAIL - TYPICAL PAVEMENT CUT
NTS



3 DETAIL - DRY WELL
3/4"=1'-0"



4 DETAIL - PIPE GROUND PENETRATION
3/4"=1'-0"



1 PART SITE PLAN
1/8"=1'-0"

LEGEND	
SYMBOL	DESCRIPTION
---	COLD WATER
DWV	HI GRADE WATER RETURN
HWS	HI GRADE WATER SUPPLY
NG	NATURAL GAS
E	ELECTRICAL CONDUIT
---	COOLING MODULE SUPPLY & RETURN
X	FENCE LINE
G-	PIPE / CONDUIT DOWN
S	SAWCUT

- NOTES:
- DRAWING IS SCHEMATIC IN NATURE, SIZE AND LOCATION OF BURIED PIPING AND CONDUITS BEING RELOCATED TO BE VERIFIED BY CONTRACTOR.
 - LOCATION OF FENCING, WALKWAYS, SPOT ELEVATIONS TAKEN FROM EXISTING REFERENCE DRAWINGS, CONTRACTOR TO VERIFY ALL CONDITIONS PRIOR TO THE START OF CONSTRUCTION.
 - ALL DISTURBED AREAS AND TRENCHES SURFACES SHALL BE TURF ESTABLISHED AND/OR RETURNED TO ORIGINAL CONDITION.

PROGRESS 6-30-16
NOT FOR CONSTRUCTION



DOOSAN - 400kW FUEL CELL INSTALLATION
MIDDLETOWN HIGH SCHOOL, MIDDLETOWN, CT

NEW WORK SITE PLAN
AND DETAILS

Loureiro
Engineering • Construction • Design • Survey
Utility • Safety Services • Laboratory

DRAWING
SI-2

SHEET NO. 3 NO. OF SHEETS #

Loureiro
Engineering Associates, Inc.
100 Northwest Drive • Plainville, Connecticut 06062
Phone: 860-747-6181 • Fax: 860-747-8822
An Employee Owned Company • www.Loureiro.com



DOOSAN FUEL CELL AMERICA, INC
195 GOVERNOR'S HIGHWAY
SOUTH WINDSOR, CT 06074

SCALE
NOTED
CONV. NO.
24DF602.001
DATE
DRAWN BY
JTF
DATE
APPROVED BY
JTP/JKH
DATE

#/#/#/#
#/#/#/#
#/#/#/#
#/#/#/#

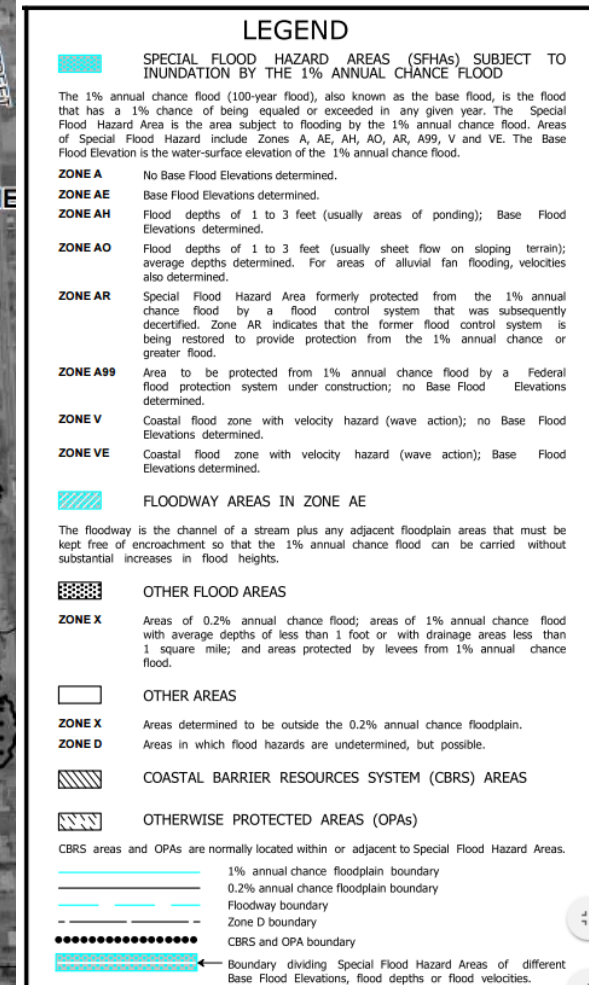
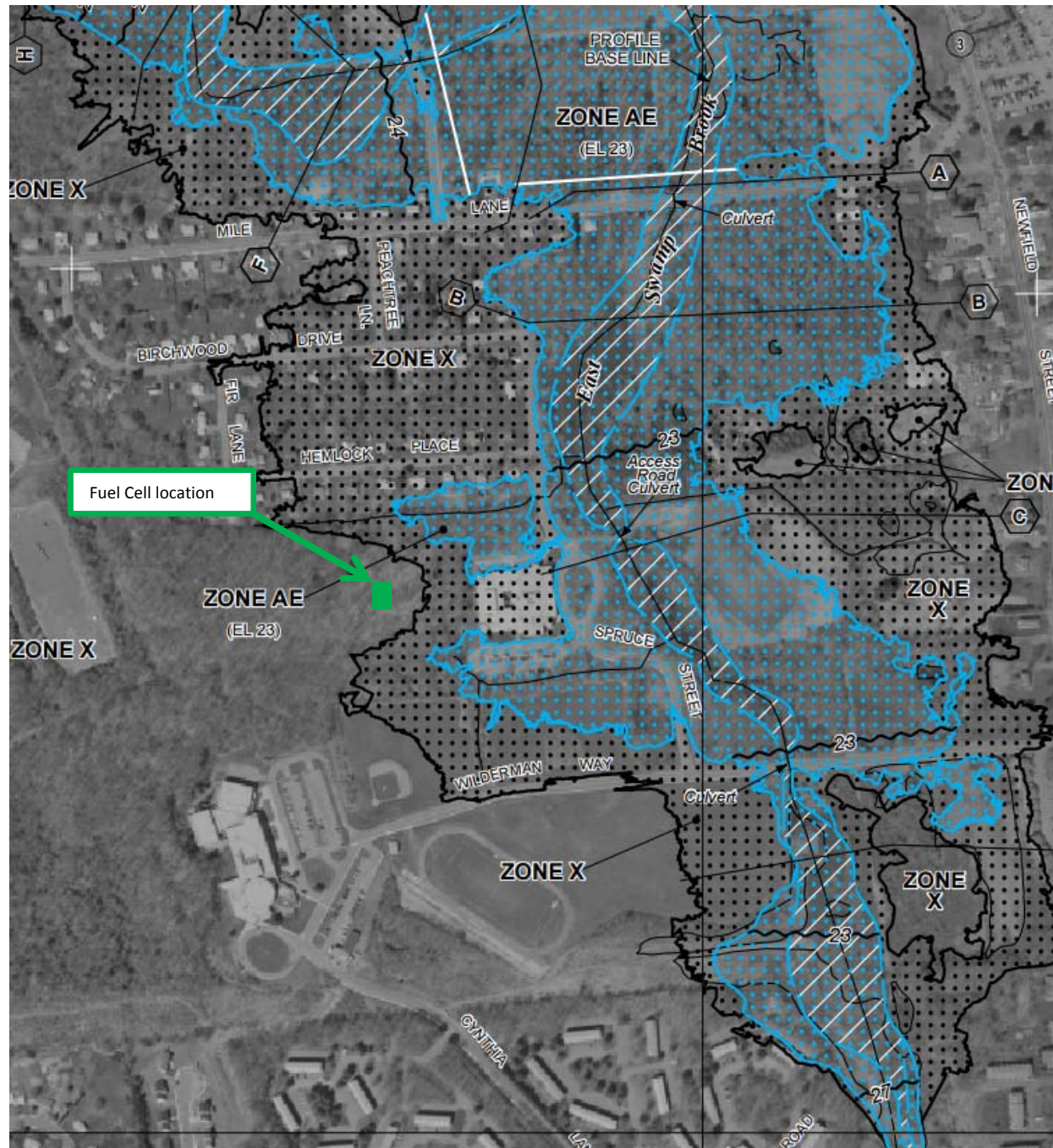
7/17/2016 10:47 AM

6/30/2016 5:46 PM Saved: 7/17/2016 10:47 AM

PROJECT: 24DF602 TASK: 1 MIDDLETOWN HS 400KWS 24DF602.001 SI-1, 2 DWG 1657

REV. DATE DESCRIPTION OF REVISION

APPR.



NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Connecticut State Plane (FIPSZONE 0600). The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NNGS12
National Geodetic Survey
SSMVC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at <http://www.ngs.noaa.gov/>.

Base map information shown on this FIRM was provided in digital format by the Connecticut Department of Environmental Protection. This information was derived from digital orthophotos produced at a scale of 1:12,000 from aerial photography flown in 2004 supplemented with aerial photography from 2000.

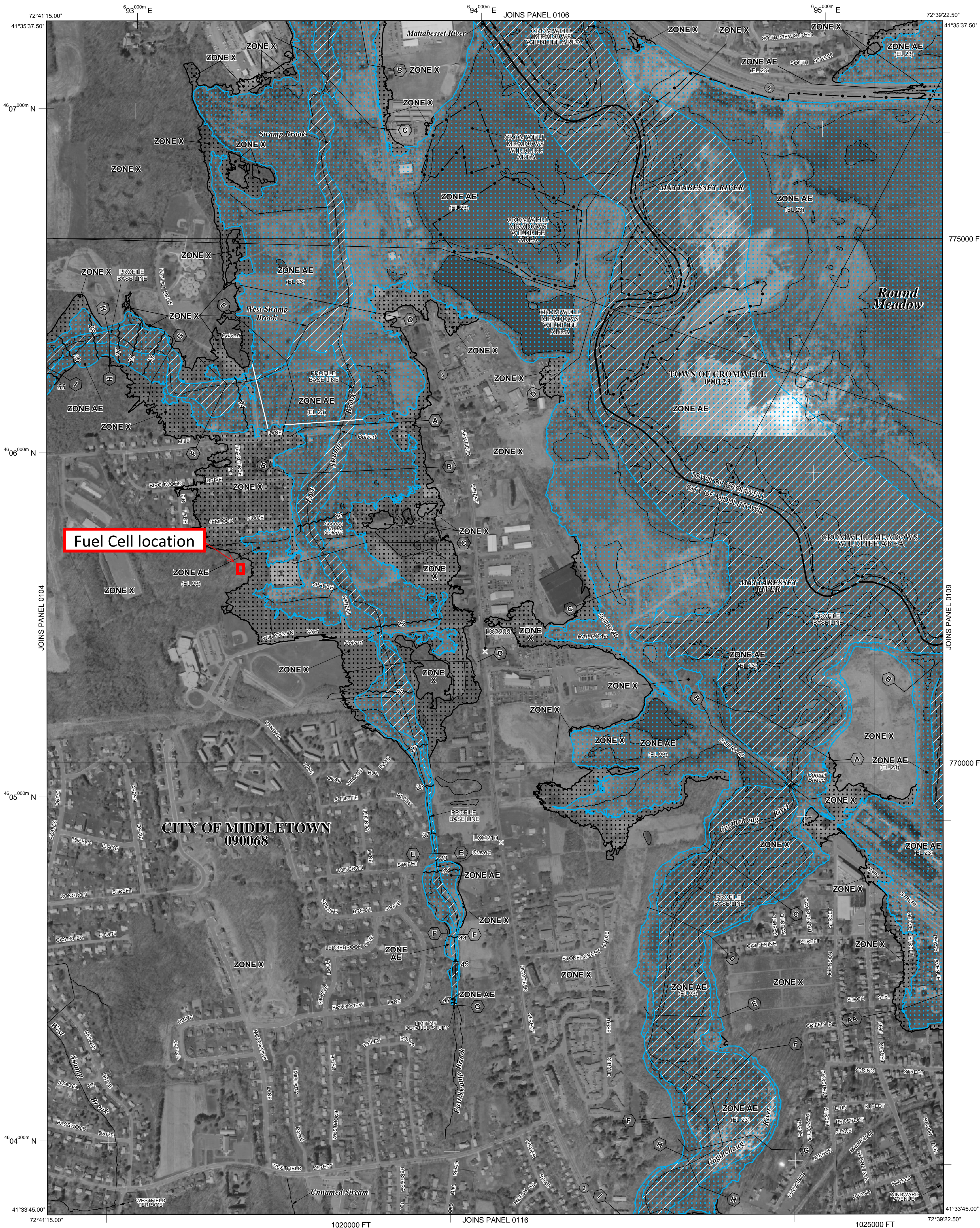
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the *Flood Insurance Study report* (which contains authoritative hydraulic data may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at <http://www.msc.fema.gov/>.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/>.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

Base Flood Elevation line and value; elevation in feet*

Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

Cross section line

Transect line

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)

1000-meter Universal Transverse Mercator grid, zone 18

5000-foot grid : Connecticut State Plane coordinate system, (FIPSZONE 0600), Lambert Conformal Conic

Bench mark (see explanation in Notes to Users section of this FIRM panel)

River Mile

MAP REPOSITORIES

Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP

August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting_council@ct.gov

www.ct.gov/csc

COPY

VIA ELECTRONIC MAIL

June 27, 2016

Josh Abrams
Doosan Fuel Cell America, Inc.
195 Governor's Highway
South Windsor, CT 06074

RE: **PETITION NO. 1235** – Doosan Fuel Cell America, Inc. petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the construction, maintenance, and operation of a 440-kilowatt customer-side combined heat and power fuel cell facility to be located at Middletown High School, 200 La Rosa Lane, Middletown, Connecticut.

Dear Mr. Abrams:

The Connecticut Siting Council (Council) requests your responses to the enclosed questions no later than July 11, 2016. To help expedite the Council's review, please file individual responses as soon as they are available.

Please forward an original and 15 copies to this office, as well as send a copy via electronic mail. In accordance with the State Solid Waste Management Plan and in accordance with Section 16-50j-12 of the Regulations of Connecticut State Agencies the Council is requesting that all filings be submitted on recyclable paper, primarily regular weight white office paper. Please avoid using heavy stock paper, colored paper, and metal or plastic binders and separators. Fewer copies of bulk material may be provided as appropriate.

Yours very truly,

Melanie Bachman
Acting Executive Director

MB/RM

c: Dawn Mahoney, Esq., General Counsel, Doosan Fuel Cell America, Inc.
Council Members



CONNECTICUT SITING COUNCIL
Affirmative Action / Equal Opportunity Employer



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting-council@ct.gov

www.ct.gov/csc

Doosan Fuel Cell America, Inc.

Middletown High School

200 La Rosa Lane, Middletown, CT

Interrogatories

1. On page 2 of Doosan Fuel Cell of America, Inc.'s (Doosan) Petition (Petition) dated June 14, 2016, Doosan notes that the proposed fuel cell would provide backup power. In the event of a power outage, would the fuel cell first shut down and then automatically "black start" to restore power, or would it continue running seamlessly despite the loss of grid power (i.e. provide uninterruptible power)? Please explain.
2. Would the fuel cell facility also include the cooling module as indicated on back of the specifications sheet (Attachment B of the Petition)? What is the purpose of the cooling module and under what conditions would it operate? Was the cooling module factored into the noise analysis on page 5 of the Petition?
3. Please provide an Emergency Response Plan for the proposed facility in accordance with Public Act 11-101, An Act Adopting Certain Safety Recommendations of the Thomas Commission.
4. Please identify media to be used for pipe cleaning procedures at the proposed facility in accordance with Public Act 11-101, An Act Adopting Certain Safety Recommendations of the Thomas Commission.
5. Provide a site plan that depicts the proposed fuel cell's location, utility connections and other related project components such as cooling module, bollards, fencing, etc.
6. Would the proposed fuel cell be located within a 100-year or 500-year flood zone?
7. Does the Model 400 Fuel Cell being installed have full heat recovery capability? If so, does the emission data on page 5 account for full heat recovery?
8. Provide a table showing state criteria thresholds and projected emissions from the proposed facility for all greenhouse gasses listed in the Regulations of Connecticut State Agencies Section 22a-174-1(49).
9. When does Doosan anticipate commencement of construction and completion of the fuel cell facility? Provide anticipated construction hours.



10. Natural gas has sulfur dioxide injected as an odorant. Please submit a desulfurization plan narrative for the proposed fuel cell facility containing the following information:
- a) Chemical reaction overview concerning what substances are produced from the desulfurization process, as well as plans for their containment and transport;
 - b) How much solid sulfur oxide would result from the desulfurization process, and methods and locations for containment, transport, and disposal;
 - c) Whether any of these desulfurization substances are considered hazardous, and if so, plans for the containment, transport, and disposal of hazardous substances;
 - d) Anticipated method of disposal for any other desulfurization substances; and
 - e) Whether any gaseous substances resulting from desulfurization can be expected to vent from the fuel cells, as well as the applicable DEEP limits regarding discharge of these gasses.