

DCD Tier 2 Chapter 3 Revision 3 to Revision 4 Change List
(Appendices 3A – 3F)

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1.	Acronym List	Updated to list only the acronyms used in Appendices 3A thru 3F.
2.	Generic	Spelled out acronyms where appropriate.

Tier 2 Appendix 3A Revision 3 to Revision 4 Change List

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1.	S3A, General	Spelled out acronyms the first time used in this section.
2.	S3A, General	Replaced “Section” with “Subsection” and vice versa where necessary.
3.	S3A, General	Replaced “SASSI” with “SASSI2000”.
4.	S3A.1, 1 st para, 1 st sent.	Replaced “and Control Building (CB)” with “Control Building (CB) and Fire Water Service Complex (FWSC)” and additional minor changes.
5.	S3A.1, 1 st para.	Added a new sentence after the 3 rd sentence describing the FWSC building.
6.	S3A.1, 1 st para.	Replaced “and CB” with “CB and FWSC” in two places.
7.	S3A.1, 2 nd para., last sent.	Changed tense from future to present.
8.	S3A.1, last para.	Corrected the number of RBFB cases, and added the FWSC cases for SASSI analysis.
9.	S3A.2, 1 st para., 1 st sent.	Minor editorial changes.
10.	S3A.2, 1 st para., 3 rd sent.	Replaced “and the CB” with “CB and FWSC”.
11.	T3A.2-1	Added the FWSC building dimensions.
12.	S3A.3.1, 1 st para., last sent.	Editorial change.
13.	S3A.3.2, 1 st sent.	Added “for the RBFB and CB” at the end.
14.	T3A.3-3	Added the FWSC building in layered site figure.
15.	S3A.4.1, 3 rd para, 1 st sent.	Replaced “all the buildings” with “the RBFB and CB”.
16.	S3A.4.1, new 4 th para.	Added the description of the application of factored input motion for FWSC.
17.	S3A.5.1, 2 nd para., last sent.	Replaced “and 3A.5-2” with “through 3A.5-3” and “and the CB” with “CB and FWSC”.

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
18.	T3A.5-2	Replaced soil spring and damping coefficients due to the CB design change (making entire CB Seismic Category I).
19.	T3A.5-3	Added new table for the FWSC soil spring properties.
20.	F3A.5-1	Replaced figure with higher resolution.
21.	S3A.6, 1 st para.	Added the description of the SSI analysis cases for the FWSC.
22.	T3A.6-1	Editorial changes and added FWSC.
23.	S3A.7.1, 1 st para., 2 nd bullet	Inserted “(21.53 ft ²)” after “2.0 m ² ”.
24.	S3A.7.1, 11 th para.	Changed “50 psf” to “2394 Pa (50 psf)” and additional editorial change.
25.	S3A.7.2, new 4 th para.	Added the description of the seismic model for FWSC.
26.	S3A.7.2, last para., last sent.	Added reference to Tables 3A.7-15 through 3A.7-18 for the FWSC model.
27.	S3A.7.3, 2 nd para., 1 st sent.	Replaced “Figure 3A.7-7” with “Figure 3A.7-8”.
28.	S3A.7.3, 2 nd para., 2 nd sent.	Added “(13.12 ft)” at the end of the sentence.
29.	S3A.7.3, 2 nd para, 3 rd sent.	Replaced “Figure 3A.7-8” with “Figure 3A.7-9”.
30.	S3A.7.3, 2 nd para., 4 th sent.	Inserted “(6.56 ft)” after “2.0 m”.
31.	S3A.7.3, 3 rd para., last sent.	Replaced “Figure 3A.7-9” with “Figure 3A.7-10”.
32.	S3A.7.3, 4 th para., 1 st sent.	Replaced “Figure 3A.7-10” with “Figure 3A.7-11”
33.	S3A.7.3, 4 th para., 2 nd sent.	Added “(9.84 ft)” at the end of the sentence.
34.	S3A.7.3, 4 th para., 3 rd sent.	Replaced “Figures 3A.7-11” with “Figure 3A.7-12”.
35.	S3A.7.3, 4 th para., 4 th sent.	Added “(2.95 ft)” after “0.9 m”.

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
36.	S3A.7.3, 5 th para., last sent.	Replaced “Figure 3A.7-12” with “Figure 3A.7-13”.
37.	S3A.7.3	Added two new paragraphs at the end describing the FWSC SASSI model.
38.	T3A.7-8 through T3A.7-14	Replaced Eigenvalue analysis results to reflect the CB re-analysis (making entire CB Seismic Category I).
39.	T3A.7-15 through T3A.7-18	Added the FWSC Eigenvalue analysis results.
40.	F3A.7-1	Added a footnote for the elevation for the top of RBFB.
41.	F3A.7-4	Added a footnote for the elevation for the top of RBFB and corrected typo errors at node numbers.
42.	F3A.7-5 & 3A.7-6	Replaced figures to reflect CB revised seismic model (making entire CB Seismic Category I).
43.	F3A.7-7	Added new Figure 3A.7-7, “ESBWR FWSC Seismic Model”.
44.	F3A.7-9	Replaced figure with higher resolution.
45.	F3A.7-7 thru F3A.7-11	Shifted figure numbers.
46.	F3A.7-12	Replaced figure to reflect CB revised seismic model (making entire CB Seismic Category I) and changed figure number to “Figure 3A.7-13”.
47.	F3A.7-14	Added new Figure 3A.7-14, “SASSI Plate Elements for FWSC Basemat”.
48.	F3A.7-15	Added new Figure 3A.7-15, “Overview of FWSC SASSI Model”.
49.	S3A.8, 2 nd para.	Corrected CB Top Node number to “6” and added additional location of analysis result for CB Basemat, FWS and FPE.
50.	S3A.8, 4 th para.	Added additional location of analysis result for FWS and FPE.
51.	S3A.8.1, 1 st para., 1 st sent.	Inserted “and CU-1” after “RU-1”; “and CU-2” after “RU-2”; “of the RBFB and CB” after “...motion cases”; and replaced “3A.8.1-1g” with “3A.8.1-1h”.

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
52.	S3A.8.1, 1 st para., 2 nd sent.	Replaced “3A.8.1-2g” with “3A.8.1-2h”.
53.	S3A.8.1, 1 st para., 3 rd sent.	Replaced “3A.8.1-3g” with “3A.8.1-3h”.
54.	S3A.8.1, 2 nd para., 1 st sent.	Inserted “of the RBFB and CB” after “...seismic forces”.
55.	S3A.8.1, 2 nd para., last sent.	Deleted entire sentence.
56.	S3A.8.1	Added two new paragraphs at the end describing the analysis results of the FWSC.
57.	S3A.8.2, 2 nd para.	Replaced “3A.8.2-1g” with “3A.8.2-1h”; “3A.9.2-2g” with “3A.8.2-2h” and “3A.9.2-3g” with “3A.8.2-3h”.
58.	S3A.8.2, 3 rd para., last sent.	Editorial change.
59.	S3A.8.3, 1 st para.	Editorial change.
60.	S3A.8.3, 2 nd para., 1 st sent.	Replaced “3A.8.2-3a” with “3A.8.3-3a” and “3A.8.2-3f” with “3A.8.3-3f”.
61.	S3A.8.4, 1 st para.	Editorial change.
62.	S3A.8.5, 1 st para.	Editorial change.
63.	S3A.8.6, 1 st para.	Added the analysis cases for FWSC.
64.	S3A.8.6, 2 nd para.	Replaced “3A.8.6-1g” with “3A.8.6-1l”; “3A.8.6-2g” with “3A.8.6-2l”; and “3A.8.6-3g” with “3A.8.6-3l”.
65.	S3A.8.6, 3 rd para., 1 st sent.	Added “As for the case of the RBFB and CB,” at the beginning of the sentence.
66.	S3A.8.6, 3 rd para., last sent.	Deleted entire sentence.
67.	S3A.8.6	Added two new paragraphs at the end describing the analysis results of the FWSC.
68.	S3A.8.7, 1 st para., 1 st sent.	Editorial change.
69.	S3A.8.7, 3 rd para., last sent.	Added “[131.23 ft]” in two places.

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
70.	S3A.8.9, 2 nd para., 1 st sent.	Editorial change.
71.	S3A.8.9, new 3 rd para.	Added description of the FWSC analysis case.
72.	S3A.8.9, 3 rd para., 1 st sent.	Replaced “3A.8.9-1g” with “3A.8.9-1l” and “3A.8.9-2g” with “3A.8.9-2l”.
73.	S3A.8.9, 3 rd para., last sent.	Inserted “/FU-1” after “CU-3”.
74.	S3A.8.9, 4 th para., 1 st sent.	Replaced “; however, both” with “in all the buildings. As for the case of the RBFB and CB”.
75.	S3A.8.9, 4 th para.	Added new last sentence describing the FWSC analysis result.
76.	S3A.8.10, 1 st para., 1 st & 2 nd sent.	Editorial changes.
77.	S3A.8.11, 1 st para., 1 st sent.	Editorial changes.
78.	S3A.8.11, 2 nd para., 1 st sent.	Editorial change.
79.	S3A.8.11, 3 rd para., 1 st sent.	Replaced “3A.8.11-3” with “3A.8.11-6”.
80.	S3A.8.11, new last para.	Added effect of structure-structure interaction on FWSC.
81.	T3A.8.1-1 & T3A.8.1-2	Replaced CB maximum forces to reflect the CB re-analysis result (making entire CB Seismic Category I).
82.	T3A.8.1-3 & T3A.8.1-4	Added new tables for the FWSC maximum forces.
83.	T3A.8.2-1 & T3A.8.2-2	Replaced CB maximum forces to reflect the CB re-analysis result (making entire CB Seismic Category I) and added FWT and FPE.
84.	T3A.8.8-2	Replaced lateral soil pressure to reflect the CB re-analysis result (making entire CB Seismic Category I).
85.	F3A.8.1-1g, -2g & -3g	Replaced CB FRS to reflect the CB re-analysis result (making entire CB Seismic Category I).
86.	F3A.8.1-1h, -2h & -3h	Added new FRS at the CB basemat figures.

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
87.	F3A.8.1-3c, Title	Replaced “Stiffness” with “Soil Stiffness”.
88.	F3A.8.1-4a thru F3A.8.1-4d	Added new FWSC FRS figures.
89.	F3A.8.1-5a thru F3A.8.1-5d	Added new FWSC FRS figures.
90.	F3A.8.1-6a thru F3A.8.1-6d	Added new FWSC FRS figures.
91.	F3A.8.2-1g, -2g & -3g	Replaced CB FRS to reflect the CB re-analysis result (making entire CB Seismic Category I).
92.	F3A.8.2-1h, -2h & -3h	Added new FRS at the CB basemat figures.
93.	F3A.8.6-1g, -2g & -3g	Replaced CB FRS to reflect the CB re-analysis result (making entire CB Seismic Category I).
94.	F3A.8.6-1h, -2h & -3h	Added new FRS at the CB basemat figures.
95.	F3A.8.6-1i thru F3A.8.6-1l	Added new FWSC FRS figures.
96.	F3A.8.6-2i thru F3A.8.6-2l	Added new FWSC FRS figures.
97.	F3A.8.6-3i thru F3A.8.6-3l	Added new FWSC FRS figures.
98.	F3A.8.8-3 & -4	Replaced soil pressure to reflect the CB re-analysis result (making entire CB Seismic Category I).
99.	F3A.8.9-1a thru F3A.8.9-1f	Corrected typo error: replaced “RL-9 (cracked)” with “RL-5 (cracked)”.
100.	F3A.8.9-1g	Replaced CB FRS to reflect the CB re-analysis result (making entire CB Seismic Category I).
101.	F3A.8.9-1h	Added new figure of FRS at the CB Basemat.
102.	F3A.8.9-1i thru F3A.8.9-1l	Added new FWSC FRS figures.
103.	F3A.8.9-2a thru F3A.8.9-2f	Corrected a typo error: replaced “RL-9 (cracked)” with “RL-5 cracked)”.
104.	F3A.8.9-2g	Replaced CB FRS to reflect the CB re-analysis result (making entire CB Seismic Category I).

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
105.	F3A.8.9-2h	Added new figure of FRS at the CB basemat.
106.	F3A.8.9-2i thru F3A.8.9-2l	Added new FWSC FRS figures.
107.	F3A.8.11-1	Replaced CB FRS to reflect the CB re-analysis result (making entire CB Seismic Category I).
108.	F3A.8.11-2	Re-number figure to “3A.8.11-3” and replaced CB FRS to reflect the CB re-analysis result (making entire CB Seismic Category I).
109.	F3A.8.11-3	Re-number figure to “3A.8.11-5” and replaced CB FRS to reflect the CB re-analysis result (making entire CB Seismic Category I).
110.	F3A.8.11-2, new	Added new figure of FRS at the CB basemat.
111.	F3A.8.11-4, new	Added new figure of FRS at the CB basemat.
112.	F3A.8.11-6, new	Added new figure of FRS at the CB basemat.
113.	S3A.9, 2 nd sent.	Editorial change.
114.	S3A.9.1, 1 st para., 1 st sent.	Replaced “and the CB walls” with “CB walls, and FWSC walls” and “3A.9-1f” with “3A.9-1h”.
115.	S3A.9.1, 2 nd para., 2 nd sent.	Replaced “3A.9-3g” with “3A.9-3i”.
116.	S3A.9.2, 2 nd para., 1 st sent.	Replaced “and CB” with “CB and FWSC”; “3A.9-1g” with “3A.9-1l”; “3A.9-2g” with “3A.9-2l”; and “3A.9-3g” with “3A.9-3l”.
117.	T3A.9-1a	Added a footnote for the elevation for the top of RBFB.
118.	T3A.9-1f	Replaced CB seismic loads to reflect the CB re-analysis result (making entire CB Seismic Category I).
119.	T3A.9-1g & T3A.9-1h	Added new tables of the FWSC seismic loads.
120.	T3A.9-2a	Deleted basemat forces to keep consistency with the other tables and added a footnote for the elevation for the top of RBFB.
121.	T3A.9-3a	Added a footnote for the elevation for the top of RBFB.
122.	T3A.9-3e	Added a footnote for the elevation for the top of RBFB.
123.	T3A.9-3g, Title	Replaced “Acceleration” with “Vertical Acceleration”.

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
124.	T3A.9-3g	Replaced CB maximum acceleration to reflect the CB re-analysis result (making entire CB Seismic Category I).
125.	T3A.9-3h & T3A.9-3i	Added new tables for the FWSC maximum accelerations.
126.	T3A.9-4a	Added a footnote for the elevation for the top of RBFB.
127.	T3A.9-4e	Added a footnote for the elevation for the top of RBFB.
128.	F3A.9-1a through F3A.9-1f	Added structure and elevation information in the legend box.
129.	F3A.9-1g	Revised CB FRS to reflect the CB re-analysis result (making entire CB Seismic Category I).
130.	F3A.9-1h	Added new Figure 3A.9-1h, “Enveloping Floor Response Spectra – CB Basemat X”.
131.	F3A.9-1i thru F3A.9-1l	Added new FWSC Enveloping FRS figures.
132.	F3A.9-2a through F3A.9-2f	Added structure and elevation information in the legend box.
133.	F3A.9-2g	Revised CB FRS to reflect the CB re-analysis result (making entire CB Seismic Category I).
134.	F3A.9-2h	Added new Figure 3A.9-2h, “Enveloping Floor Response Spectra – CB Basemat Y”.
135.	F3A.9-2i thru F3A.9-2l	Added new FWSC Enveloping FRS figures.
136.	F3A.9-3a through 3A.9-3f	Added structure and elevation information in the legend box.
137.	F3A.9-3g	Revised CB FRS to reflect the CB re-analysis result (making entire CB Seismic Category I).
138.	F3A.9-3h	Added new Figure 3A.9-3h, “Enveloping Floor Response Spectra – CB Basemat Z”.
139.	F3A.9-3i thru F3A.9-3l	Added new FWSC Enveloping FRS figures.

Tier 2 Appendix 3B Revision 3 to Revision 4 Change List

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1.	S3B, General	Revised to use acronyms all through out this appendix.
2.	S3B, General	Changed reference to the figures to Reference 3B-1.
3.	S3B.1.1, Title	Editorial change.
4.	S3B.2, 4 th para.	Replaced “needed” with “described in Reference 3B-1” in the 1 st sentence and deleted 2 nd & 3 rd sentences.
5.	S3B.2	Deleted entire 5 th paragraph and additional editorial changes all through out this subsection.
6.	S3B,3, new	Added new Subsection 3B.3, “COL INFORMATION”.
7.	S3B.3	Changed Subsection number to “3B.4 and replaced “May” with “September” due to revision.
8.	F3B-1 thru F3B-11	Figures deleted.

Tier 2 Appendix 3C Revision 3 to Revision 4 Change List

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1.	S3C.1	Added new Item (5), “Fire Water Service Complex (FWSC)”.
2.	S3C.2.3	Changed “the RB, the FB, and the CB” to “RB, FB, CB and FWSC”.
3.	S3C.4.3	Changed “the RB, the FB, and the CB” to “RB, FB, CB and FWSC”.
4.	S3C.7.1.3	Changed “the RB, the FB, and the CB” to “RB, FB, CB and FWSC”.

Tier 2 Appendix 3D Revision 3 to Revision 4 Change List

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1.	S3D.1, Introduction	Added reference to new table 3D.1-1
2.	S3D.2, Title	Editorial change.
3.	S3D.2.2.3, 2 nd para.	Editorial change.
4.	S3D.3.1.2, 1 st para.	Revised paragraph to read “ANSYS applicability and validity are demonstrated by running a series of verification cases that exercise the elements and options used in the finite element code. The verification cases provided by ANSYS, Inc. are extracted from textbooks in which classical or theoretical solutions are published or can readily be obtained by simple hand calculations.” per RAI 3.9-12.
5.	S3D.3.1.3, 1 st sent.	Inserted “and inelastic” after “...the elastic” per RAI 3.9-12.
6.	S3D.3.1.3,	Inserted following sentence after the 1 st sentence per RAI 3.9-12: “The extent and limitation are determined by verification cases performed to qualify ANSYS as an Approved Production Program that is verified and documented for design applications or for all technical activities used in developing design-related information.”
7.	S3D.3.1.3, 2 nd sent.	Inserted “and inelastic” after “...calculates elastic” per RAI 3.9-12.
8.	S3D.3.1.3, last sent.	Replaced last sentence with the following sentence per RAI 3.9-12: “The computer program may be used for calculating stress and Cumulative Usage Factors (CUF) for Class 1, 2, or 3 components, but the environmental effects are addressed outside ANSYS.”
9.	S3D.3.2.3, 1 st sent.	Changed tense from future to present.
10.	S3D.3.2.3, last sent.	Editorial changes.
11.	S3D.3.3.3, 1 st sent	Changed tense from future to present.
12.	S3D.3.4.3, 1 st sent.	Changed tense from future to present.

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
13.	S3D.3.5.1	Editorial changes.
14.	S3D.3.5.3, 1 st sent.	Changed tense from future to present.
15.	S3D.3.6.3, 1 st sent.	Changed tense from future to present.
16.	S3D.3.6.3, last sent.	Editorial changes.
17.	S3D.3.7, Title	Deleted “03” revision from the title.
18.	S3D.3.7.3, 1 st sent.	Changed tense from future to present.
19.	S3D.4.1.1, 2 nd para., 4 th sent.	Editorial changes.
20.	S3D.4.1.2, 1 st para.	Deleted “(Reference 3D-2)”.
21.	S3D.4.1.3, 1 st sent.	Changed tense from future to present.
22.	S3D.4.2.3, 1 st sent.	Changed tense from future to present.
23.	S3D.4.4.1.3, 1 st sent.	Changed tense from future to present.
24.	S3D.4.6.1.3	Editorial change.
25.	S3D.4.6.2.3, 1 st sent.	Changed tense from future to present.
26.	S3D.4.7, Title	Revised to read “Pipe Dynamic Analysis (PDA) Program” for clarification.
27.	S3D.4.7.2	Editorial change.
28.	S3D.4.9, Title	Deleted “05” revision from the title.
29.	S3D.4.10.1, 1 st sent.	Replaced “program” with “programs”.
30.	S3D.4.10.1, last sent.	Replaced “capability” with “ability”.
31.	S3D.4.11	Added “Description”, “Validation”, and “Extent of Application” for the E/PD STRUDL computer program.
32.	S3D.5	Replaced “assure” with “ensure”.
33.	S3D.5.1.5, 3 rd sent.	Editorial change.
34.	S3D.6	Added Heading “COL INFORMATION”.
35.	S3D.7, Item 3D-2	Deleted since reference is already fully identified in DCD Chapter 1.
36.	T3D.1-1	Added new table 3D.1-1 to show computer programs, versions and users.

Tier 2 Appendix 3E Revision 3 to Revision 4 Change List

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1.	None.	

Tier 2 Appendix 3F Revision 3 to Revision 4 Change List

Item	Location (e.g., subsection with paragraph/sentence/item, table with column/row, or figure)	Description of Change
1.	S3F.1, 3 rd sent.	Editorial change.
2.	S3F.2, Item 2, 2 nd sent.	Inserted “corresponding to” after “...pressure loads” for clarity.
3.	S3F.2.2, Item 1, 1 st para., 2 nd sent.	Editorial change: deleted “to be”.
4.	S3F.2.2, Item 1, 2 nd para.	Editorial change.
5.	S3F.3, last para.	Revised to read: “The results shown in Tables 3F-1 through 3F-4 and Figures 3F-4 through 3F-25 envelop the two models of Vent Wall and Diaphragm Floor in-fill concrete stiffness. As described in Subsection 3F.2.2, these are Analysis Models with (i) no stiffness and (ii) 50% stiffness.” For clarity (no technical changes).
6.	F3F-2 & 3F-3	Replaced figures with higher resolution to meet NRC requirements.
7.	F3F-5 & F3F-8	Corrected editorial errors.