

— (Red): GMRS in the horizontal direction
 (Blue): Input Spectrum in the horizontal direction

Figure 3H.6-1 Comparison of GMRS with the Input Spectrum (Horizontal)

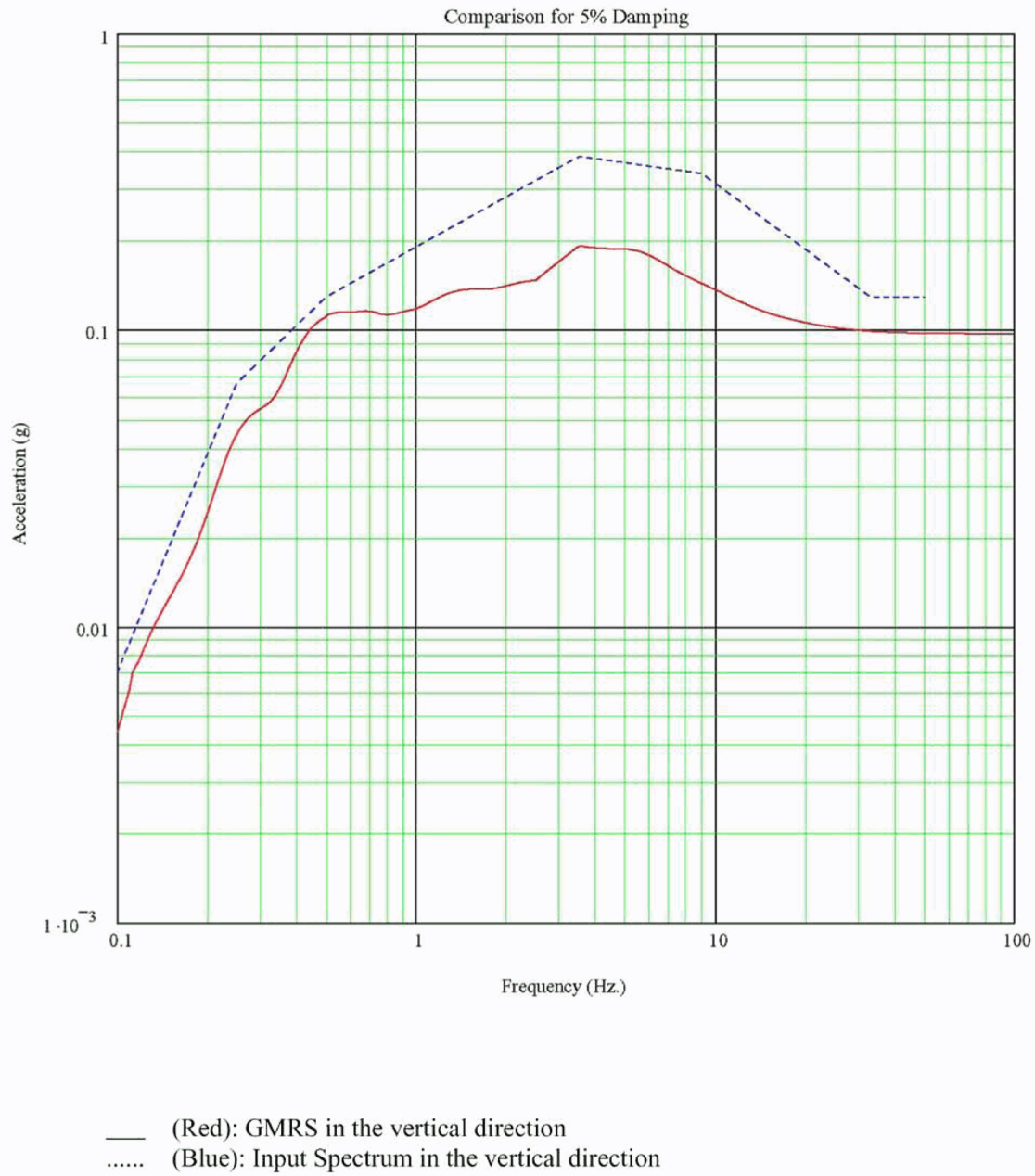


Figure 3H.6-2 Comparison of GMRS with the Input Spectrum (Vertical)

Figure 3H.6-3 Not Used

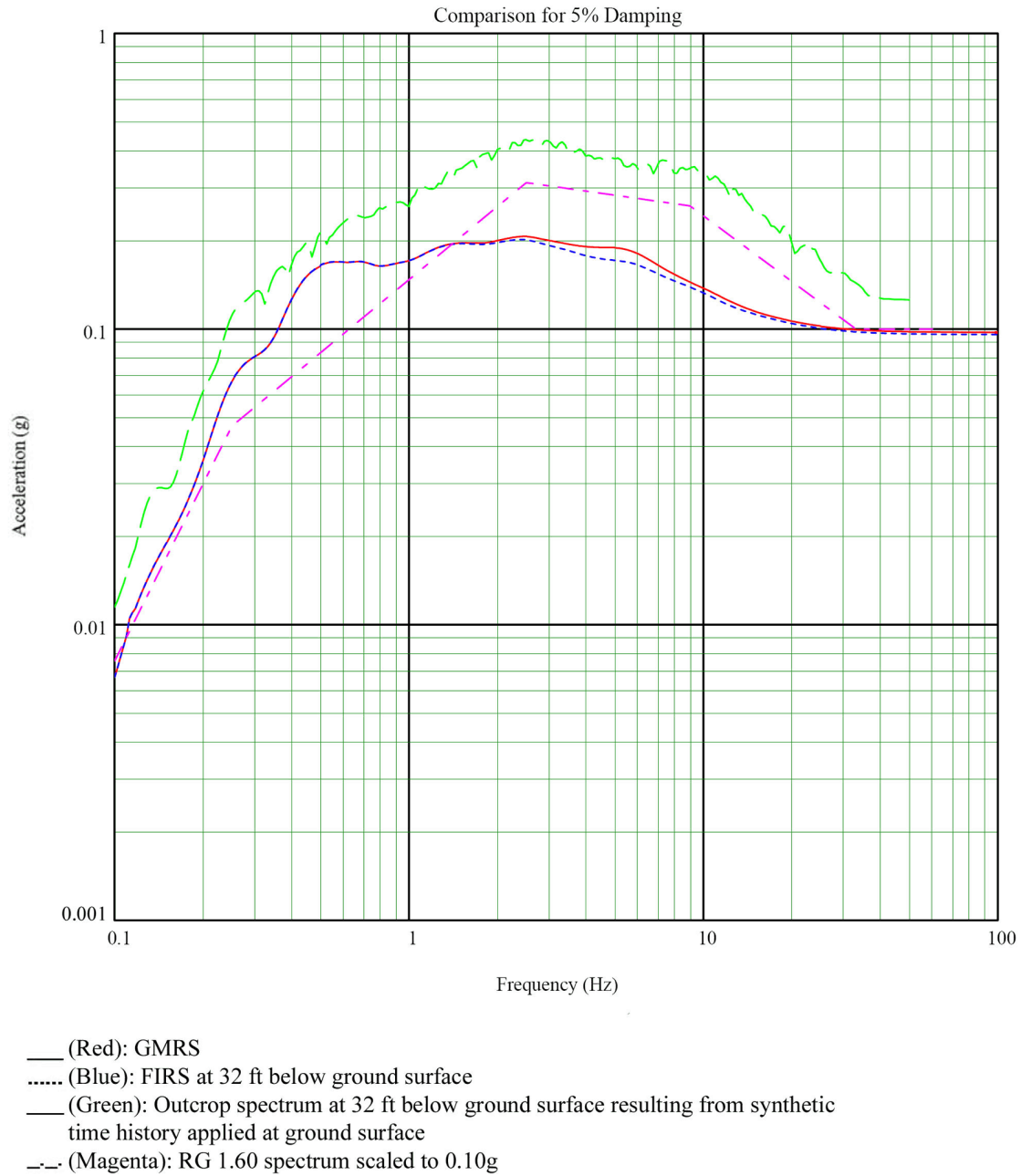


Figure 3H.6-3a Comparison of Spectra at Foundation of UHS Basin (Mean Soil Properties, E-W Direction)

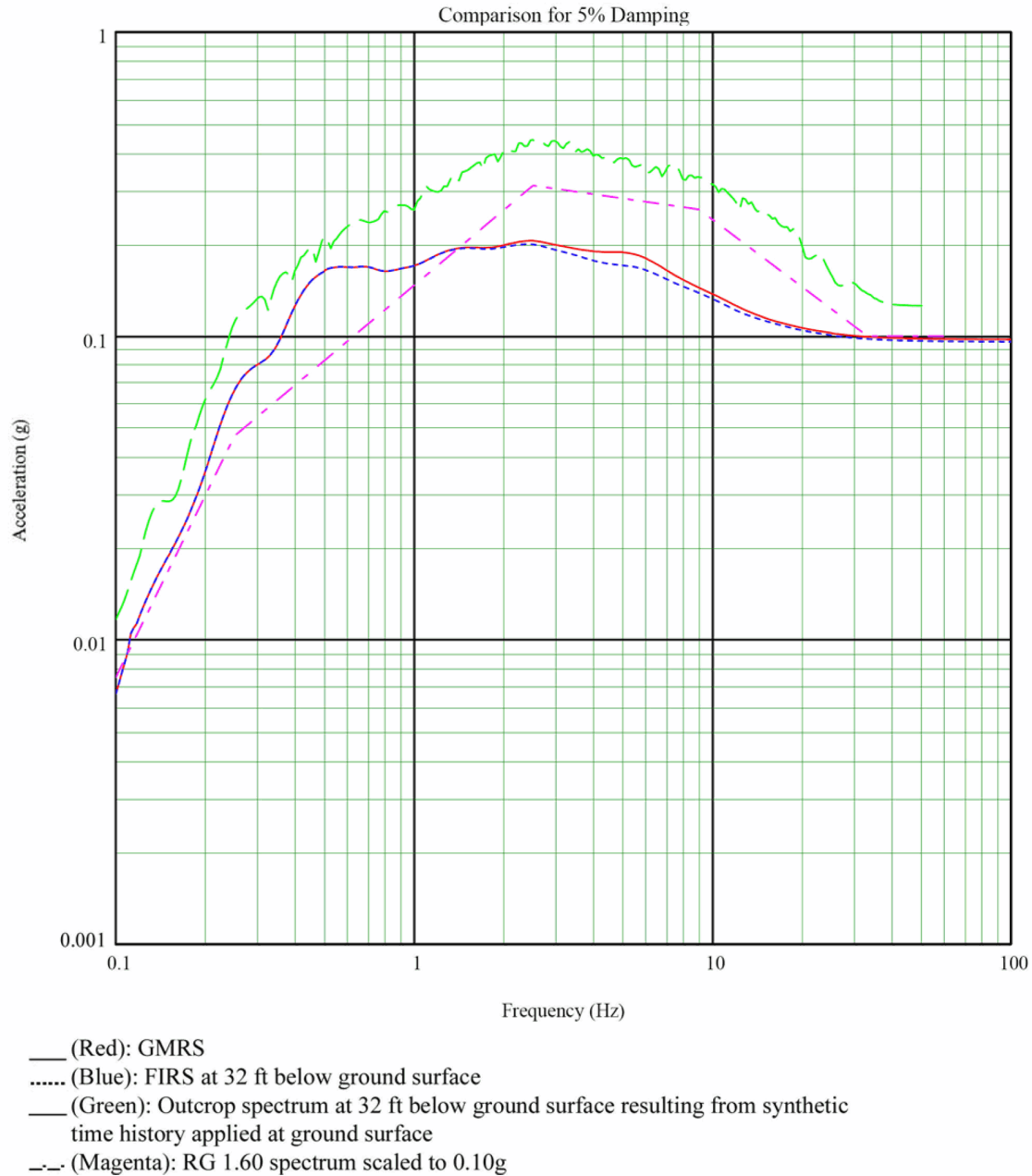


Figure 3H.6-3b Comparison of Spectra at Foundation of UHS Basin (Upper Bound Soil Properties, E-W Direction)

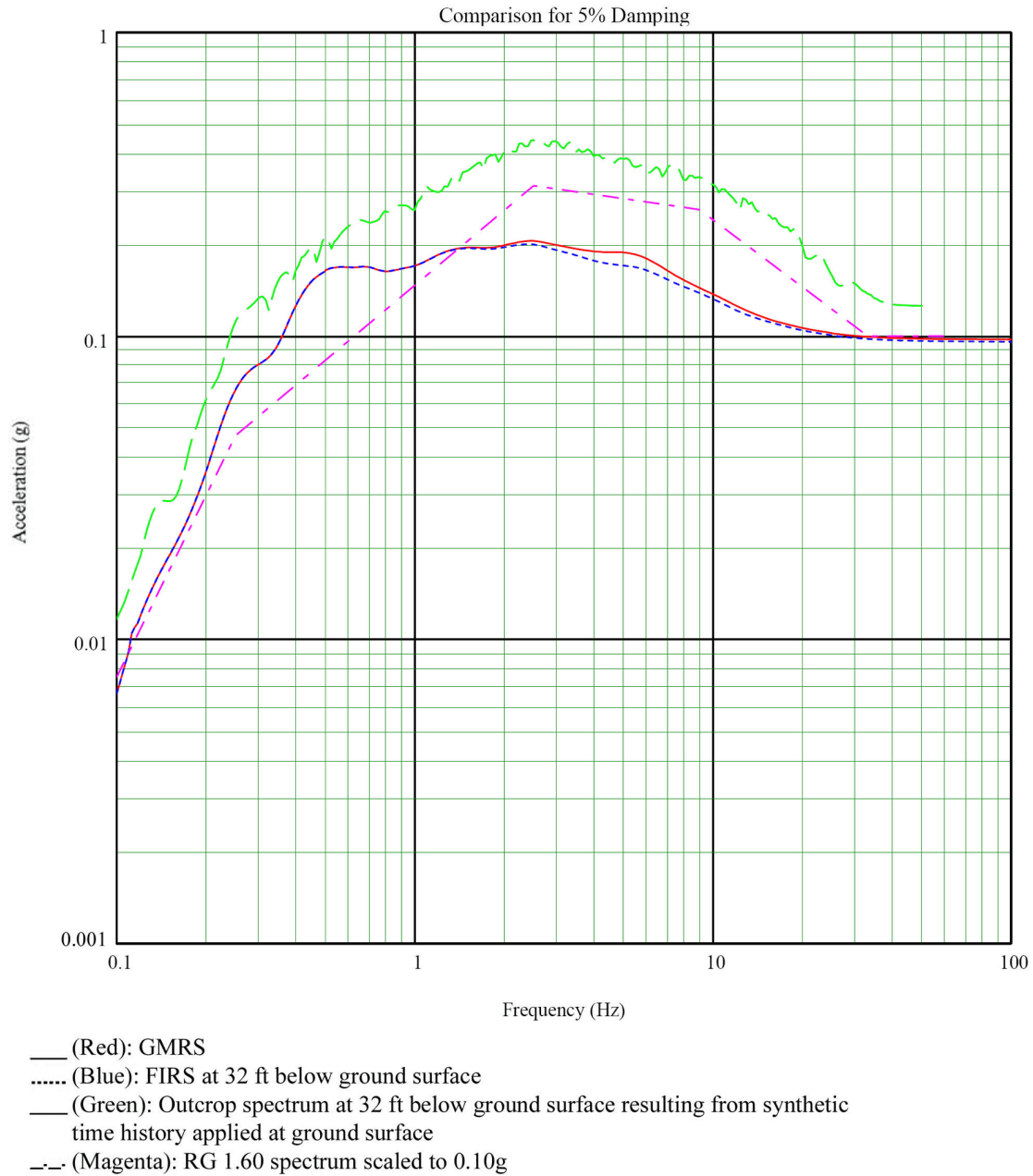
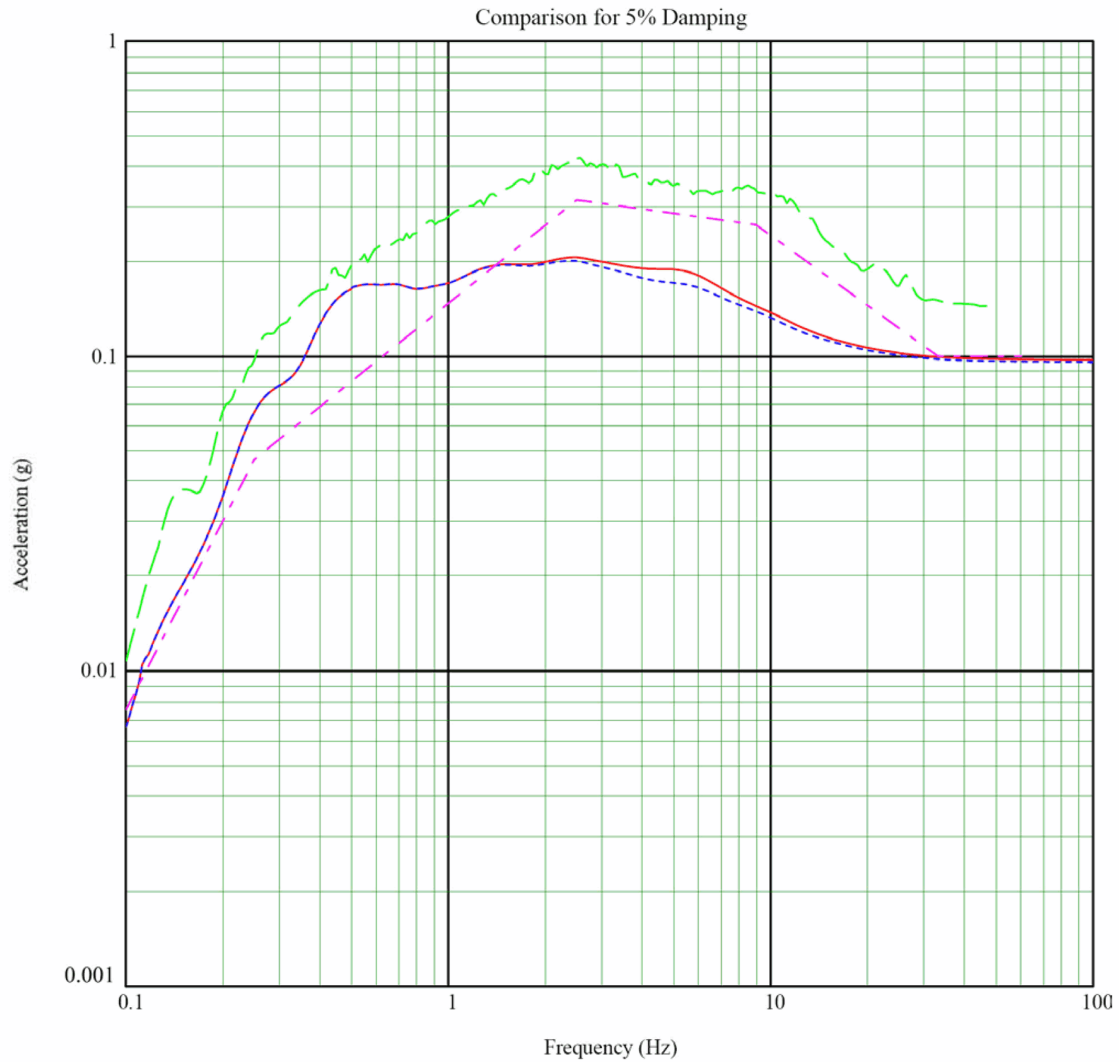


Figure 3H.6-3c Comparison of Spectra at Foundation of UHS Basin (Lower Bound Soil Properties, E-W Direction)

Figure 3H.6-4 Not Used



- (Red): GMRS
- (Blue): FIRS at 32 ft below ground surface
- (Green): Outcrop spectrum at 32 ft below ground surface resulting from synthetic time history applied at ground surface
- (Magenta): RG 1.60 spectrum scaled to 0.10g

Figure 3H.6-4a Comparison of Spectra at Foundation of UHS Basin (Mean Soil Properties, N-S Direction)

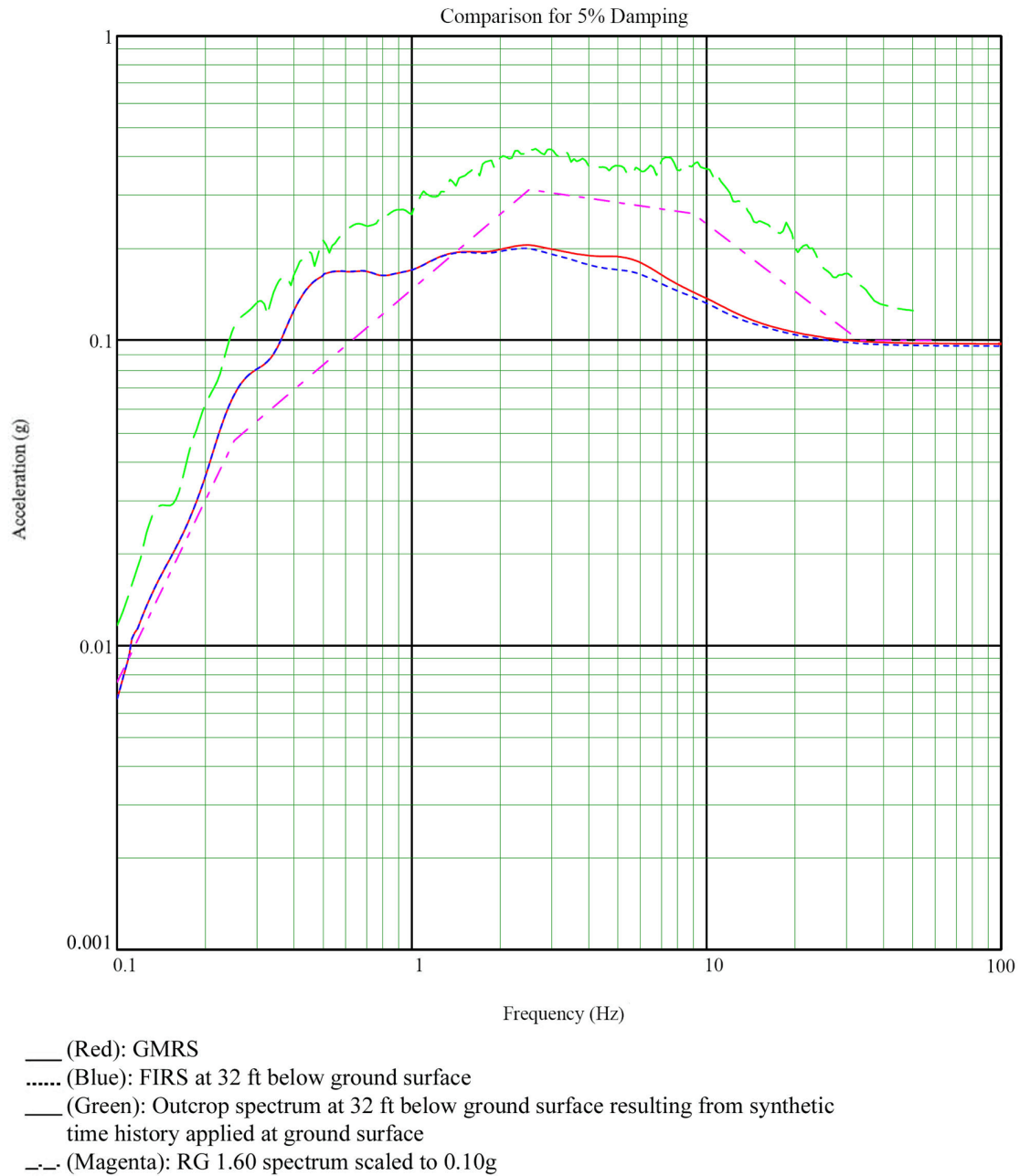


Figure 3H.6-4b Comparison of Spectra at Foundation of UHS Basin (Upper Bound Soil Properties, N-S Direction)

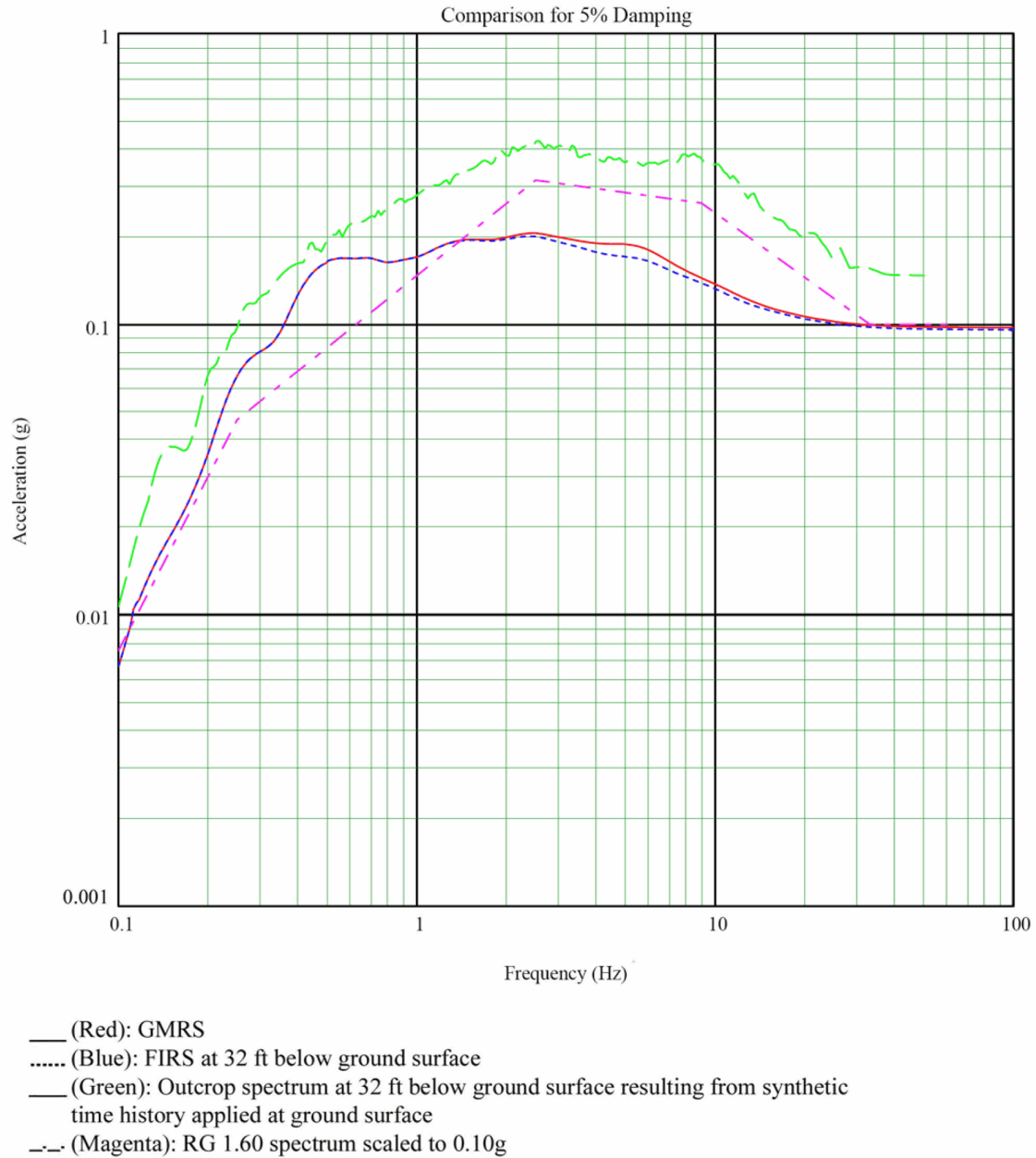


Figure 3H.6-4c Comparison of Spectra at Foundation of UHS Basin (Lower Bound Soil Properties, N-S Direction)

Figure 3H.6-5 Not Used

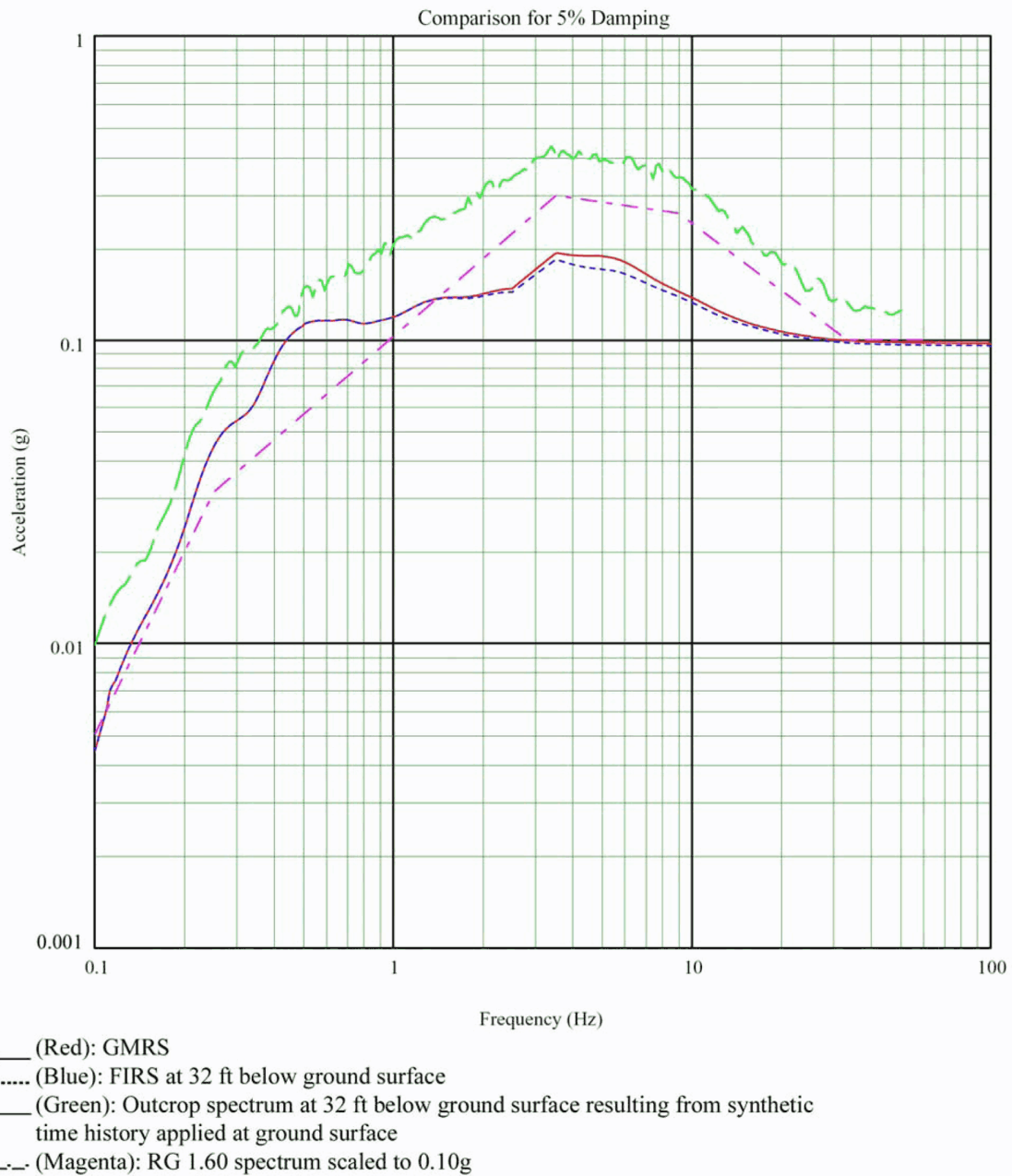


Figure 3H.6-5a Comparison of Spectra at Foundation of UHS Basin (Mean Soil Properties, Vertical Direction)

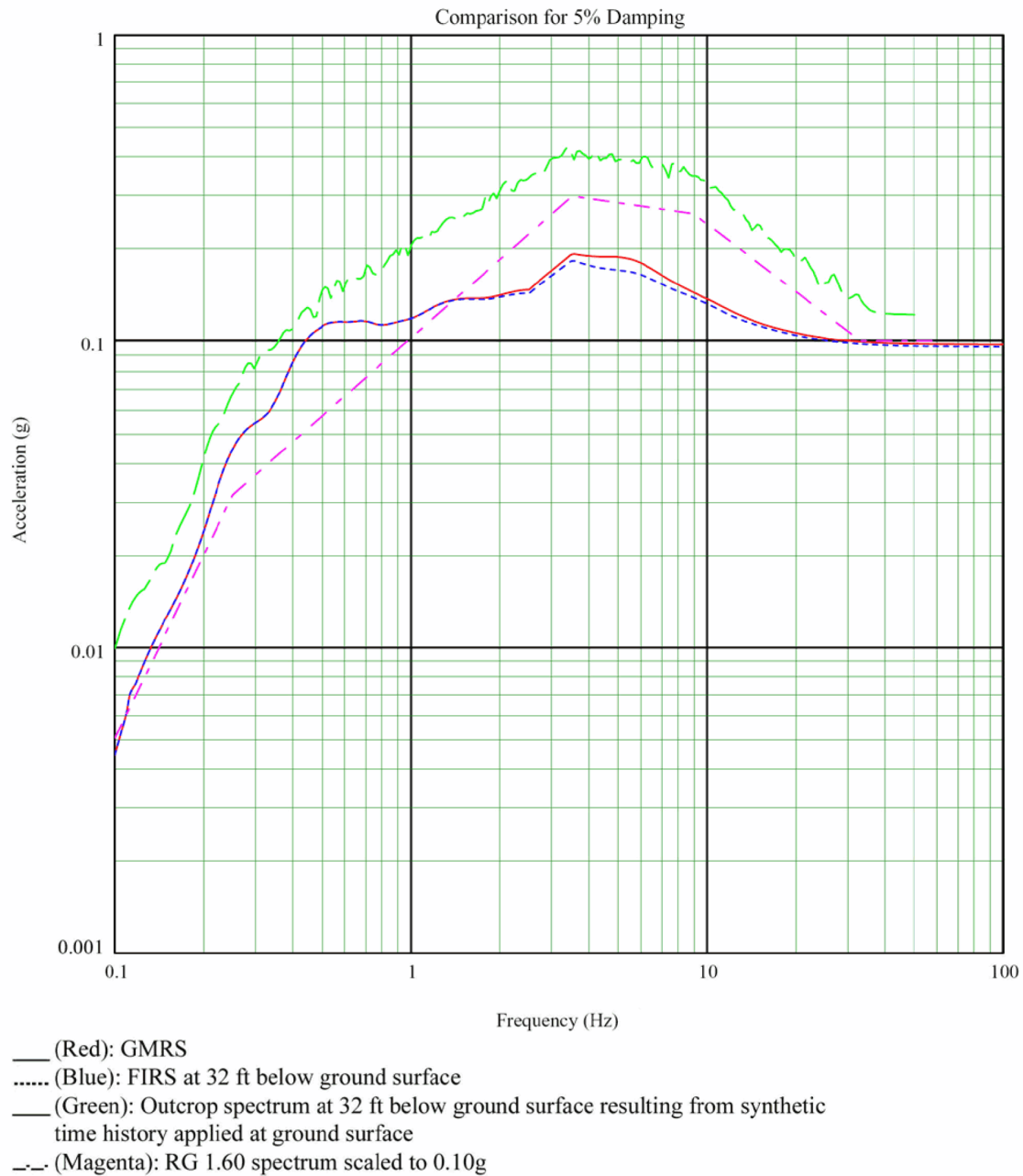


Figure 3H.6-5b Comparison of Spectra at Foundation of UHS Basin (Upper Bound Soil Properties, Vertical Direction)

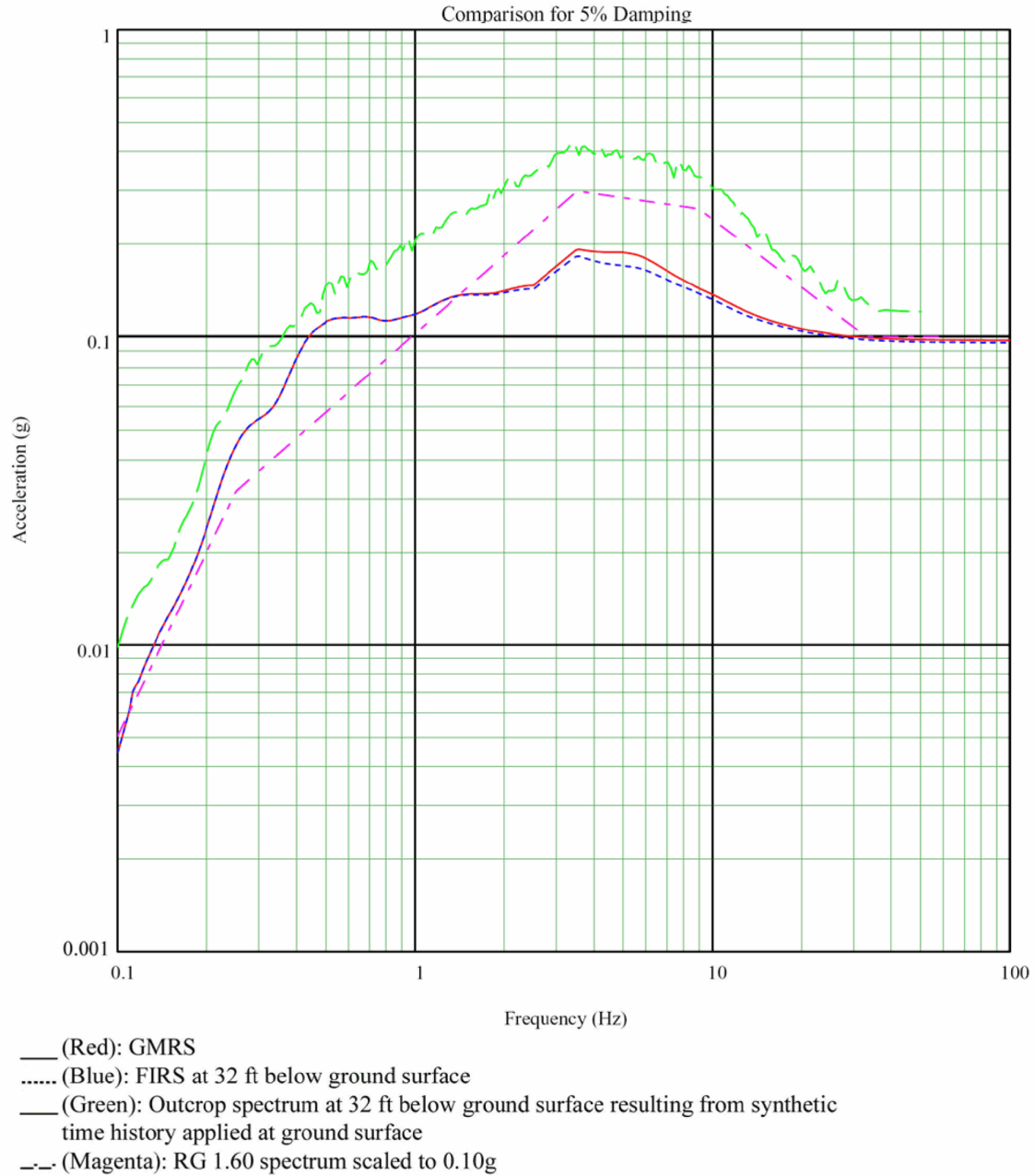
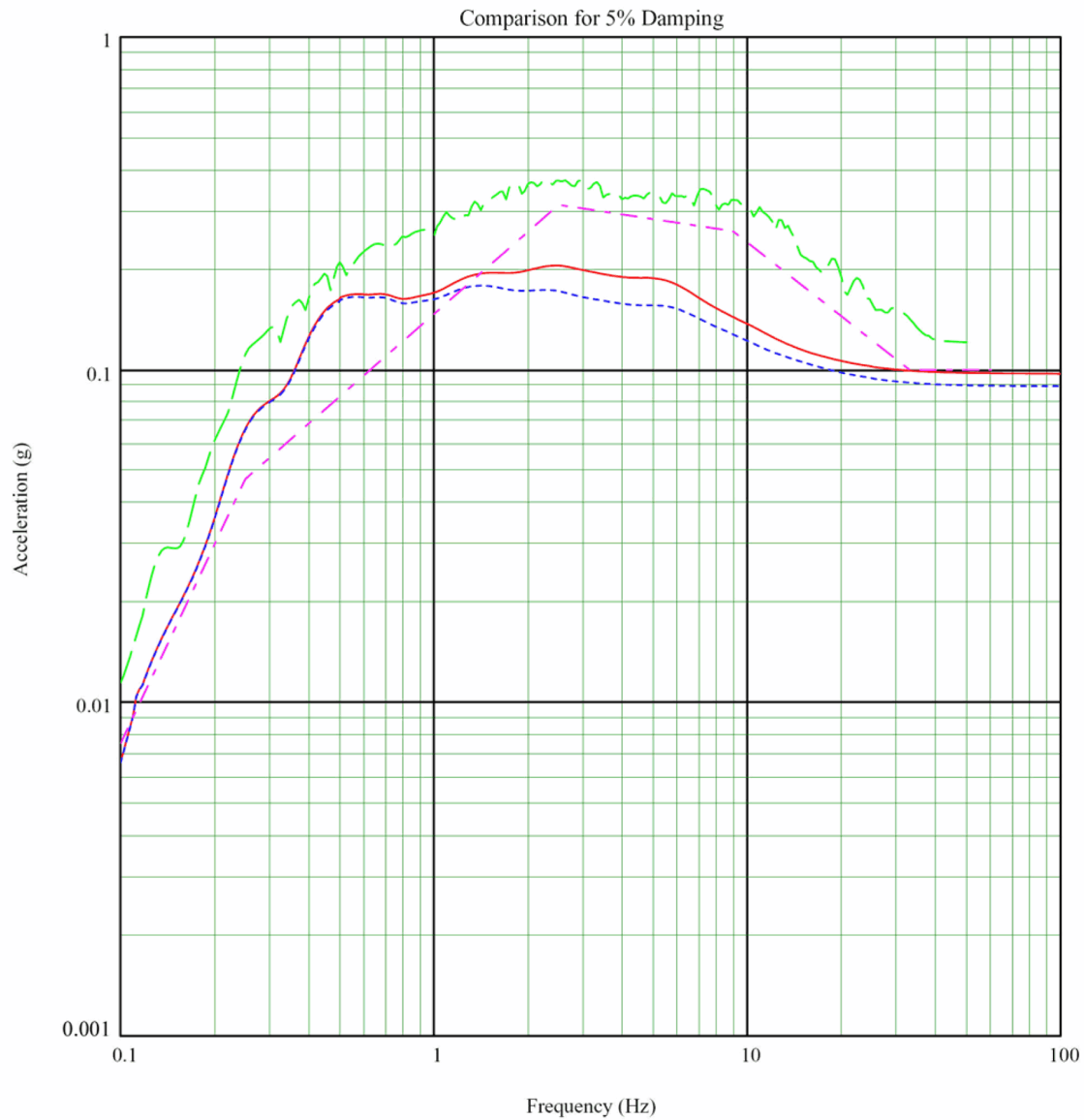


Figure 3H.6-5c Comparison of Spectra at Foundation of UHS Basin (Lower Bound Soil Properties, Vertical Direction)

Figure 3H.6-6 Not Used



- (Red): GMRS
- (Blue): FIRS at 57 ft below ground surface
- (Green): Outcrop spectrum at 57 ft below ground surface resulting from synthetic time history applied at ground surface
- (Magenta): RG 1.60 spectrum scaled to 0.10g

Figure 3H.6-6a Comparison of Spectra at Foundation of RSW Piping Tunnel (Mean Soil Properties, E-W Direction)

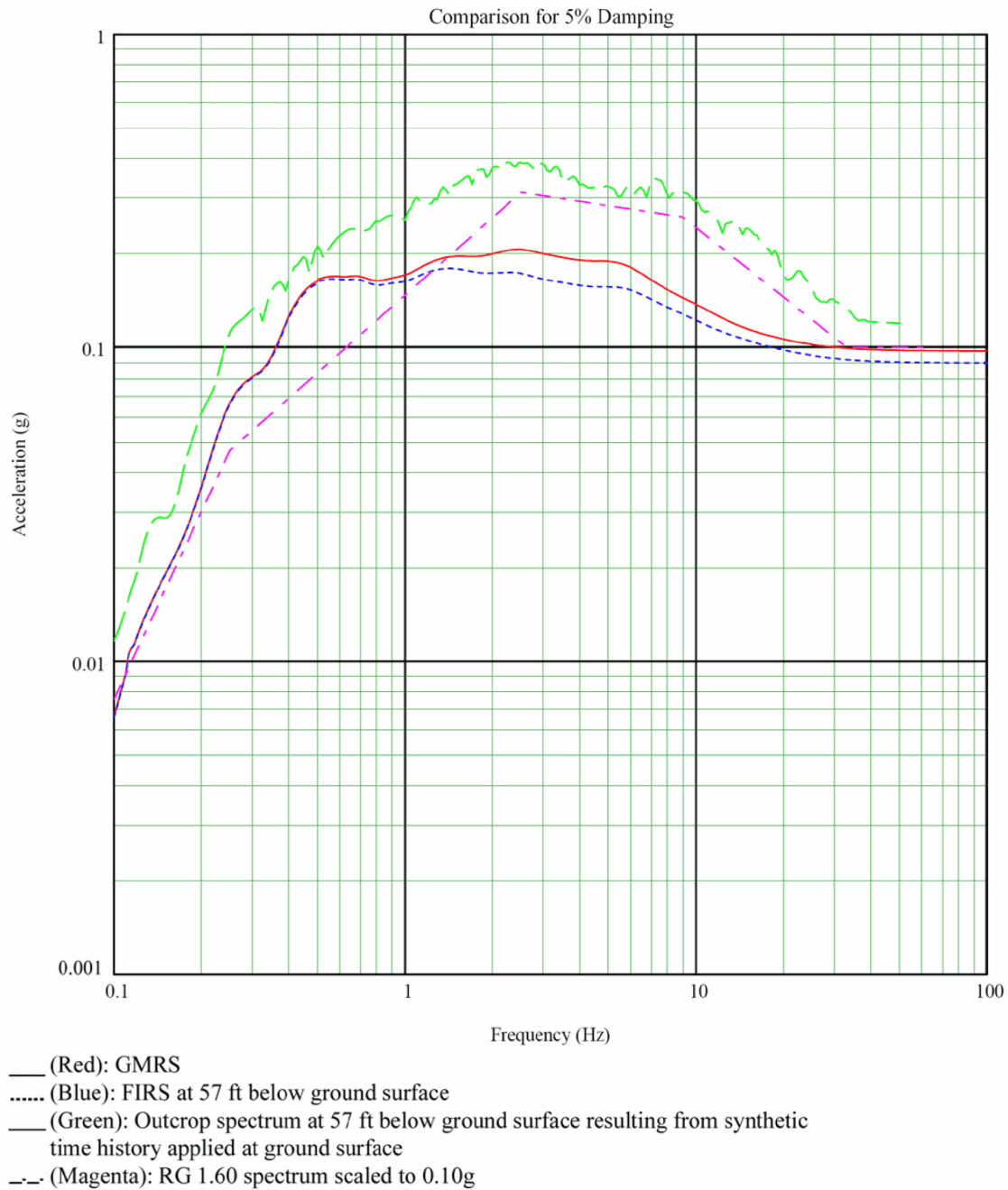


Figure 3H.6-6b Comparison of Spectra at Foundation of RSW Piping Tunnel (Upper Bound Soil Properties, E-W Direction)

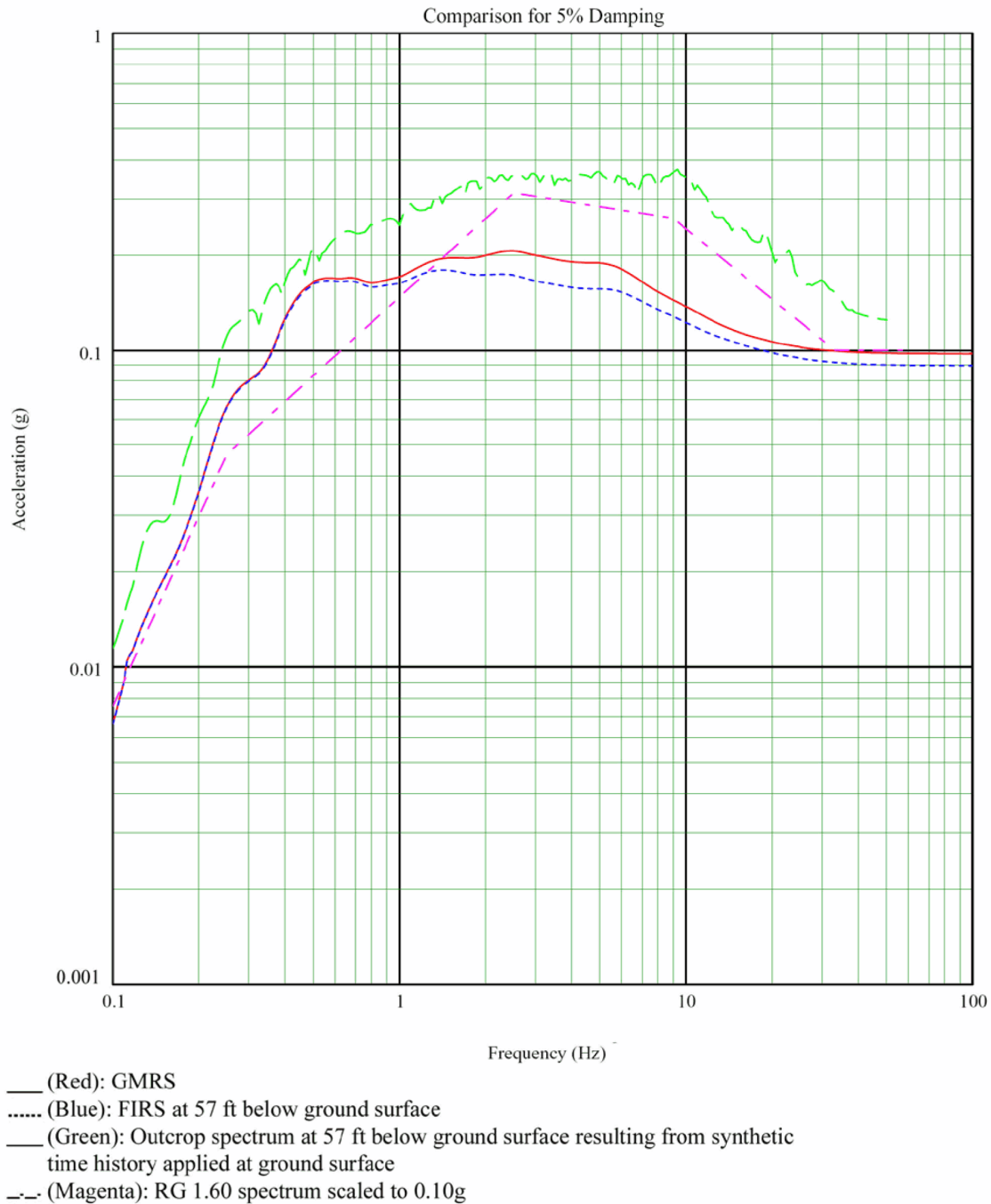
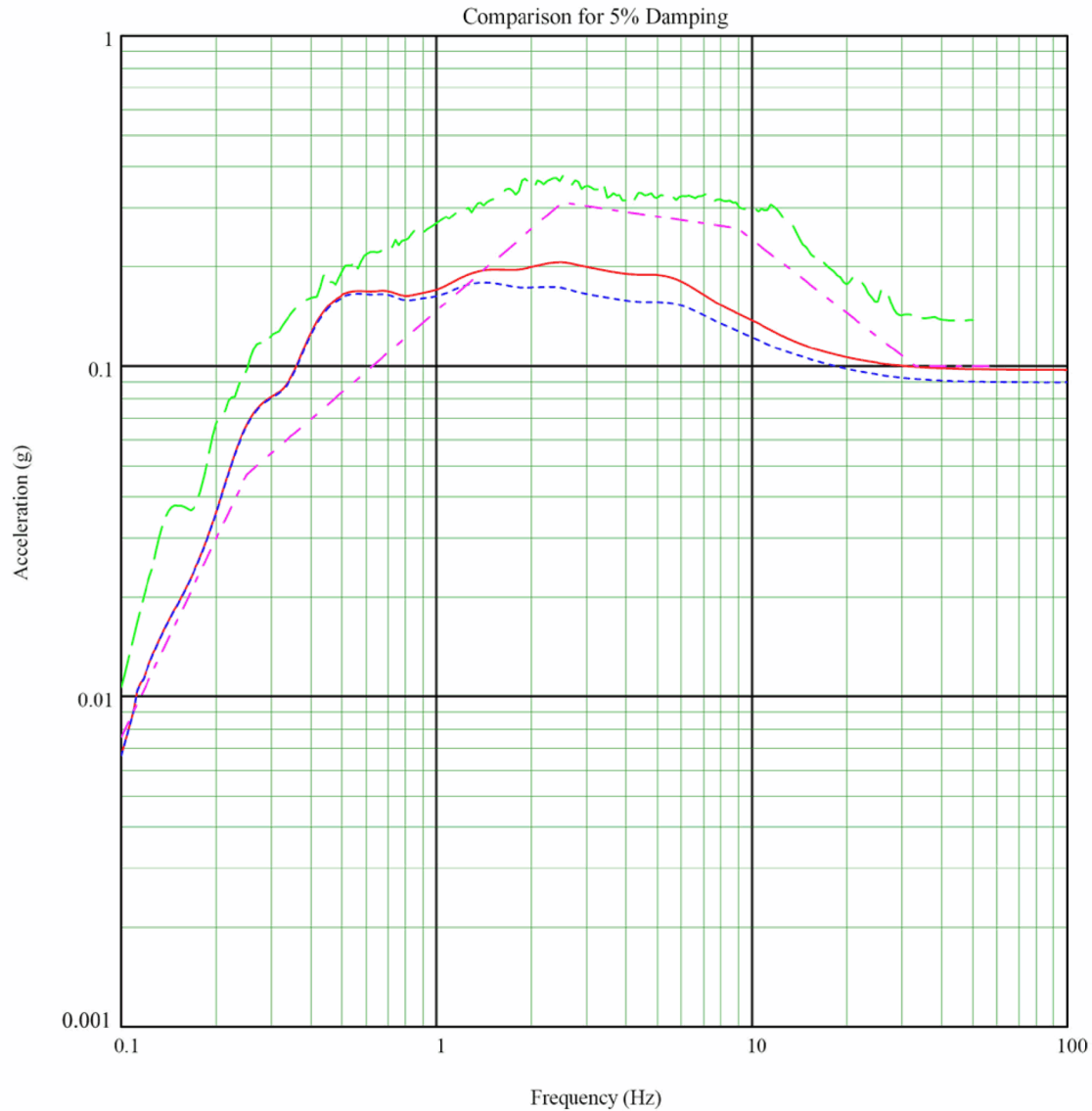


Figure 3H.6-6c Comparison of Spectra at Foundation of RSW Piping Tunnel (Lower Bound Soil Properties, E-W Direction)

Figure 3H.6-7 Not Used



- (Red): GMRS
- (Blue): FIRS at 57 ft below ground surface
- (Green): Outcrop spectrum at 57 ft below ground surface resulting from synthetic time history applied at ground surface
- (Magenta): RG 1.60 spectrum scaled to 0.10g

Figure 3H.6-7a Comparison of Spectra at Foundation of RSW Piping Tunnel (Mean Soil Properties, N-S Direction)

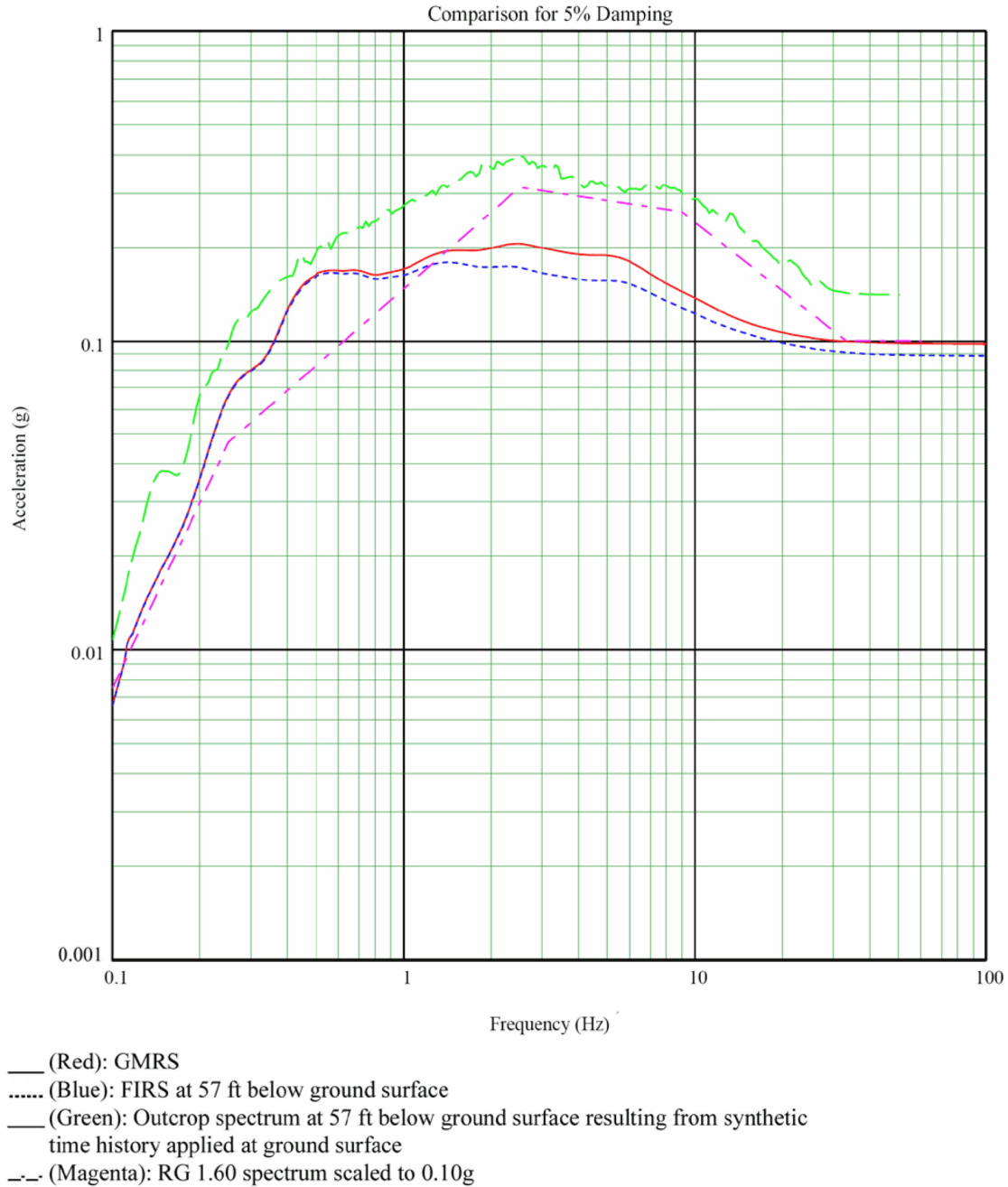


Figure 3H.6-7b Comparison of Spectra at Foundation of RSW Piping Tunnel (Upper Bound Soil Properties, N-S Direction)

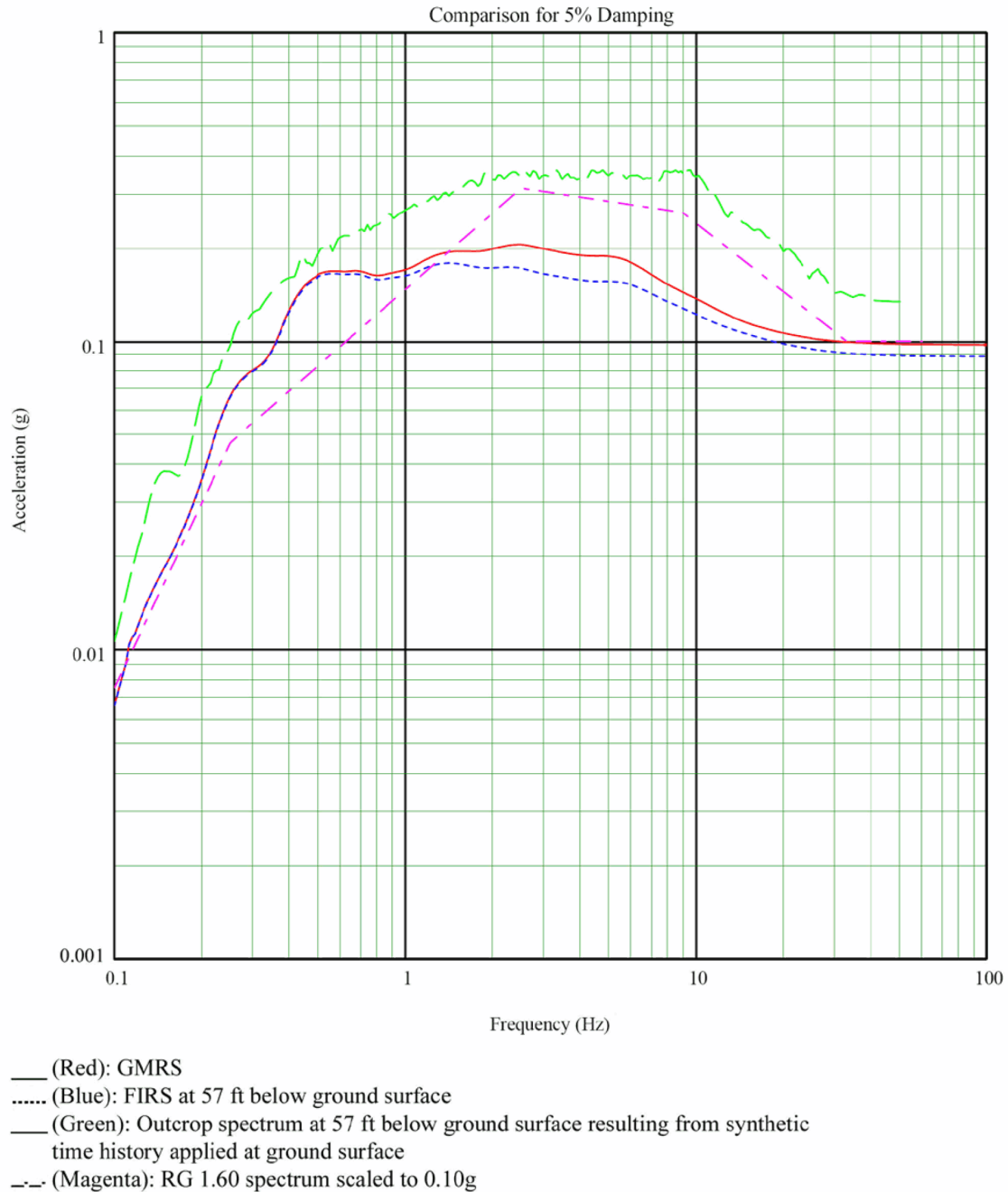


Figure 3H.6-7c Comparison of Spectra at Foundation of RSW Piping Tunnel (Lower Bound Soil Properties, N-S Direction)

Figure 3H.6-8 Not Used

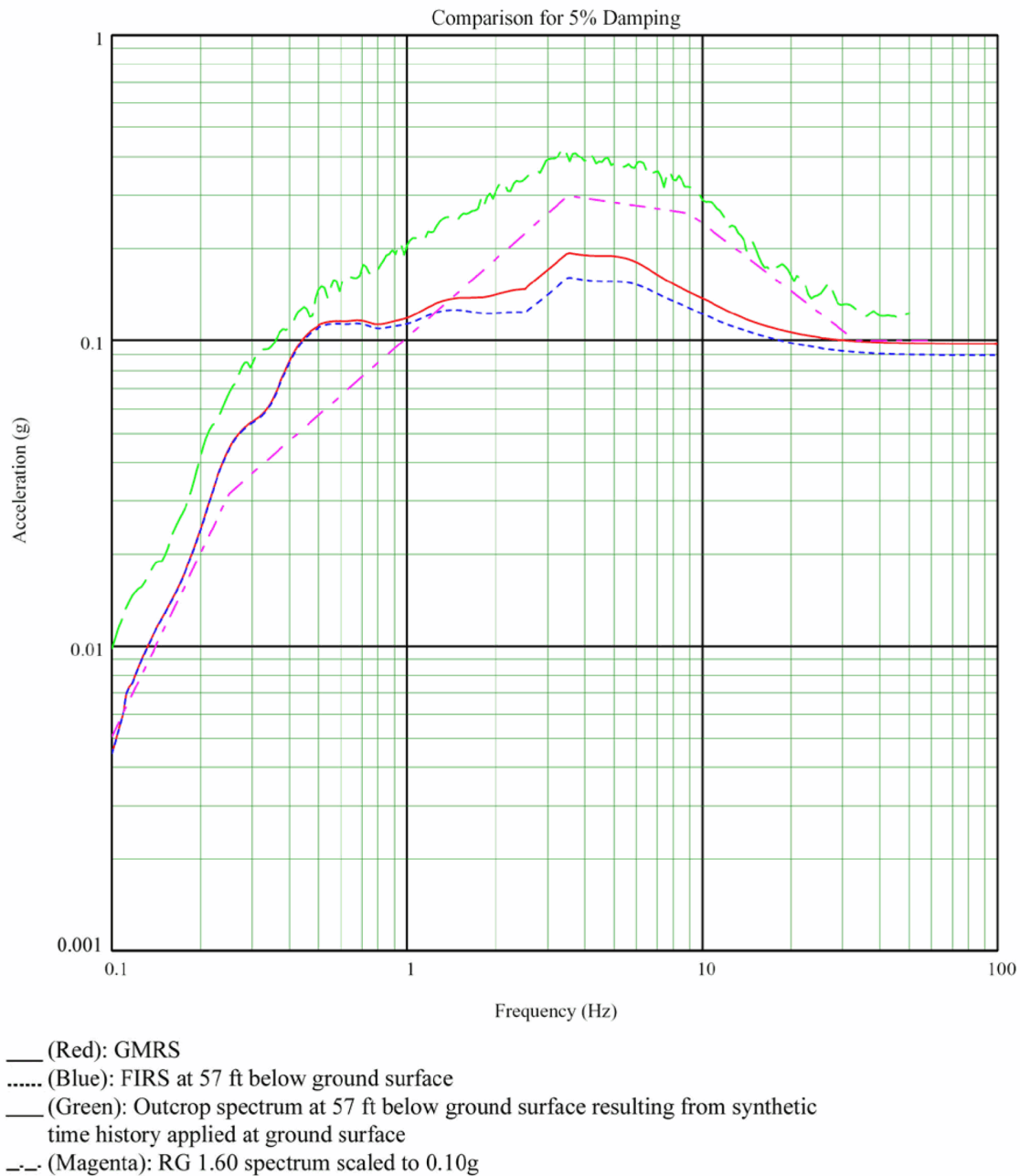


Figure 3H.6-8a Comparison of Spectra at Foundation of RSW Piping Tunnel (Mean Soil Properties, Vertical Direction)

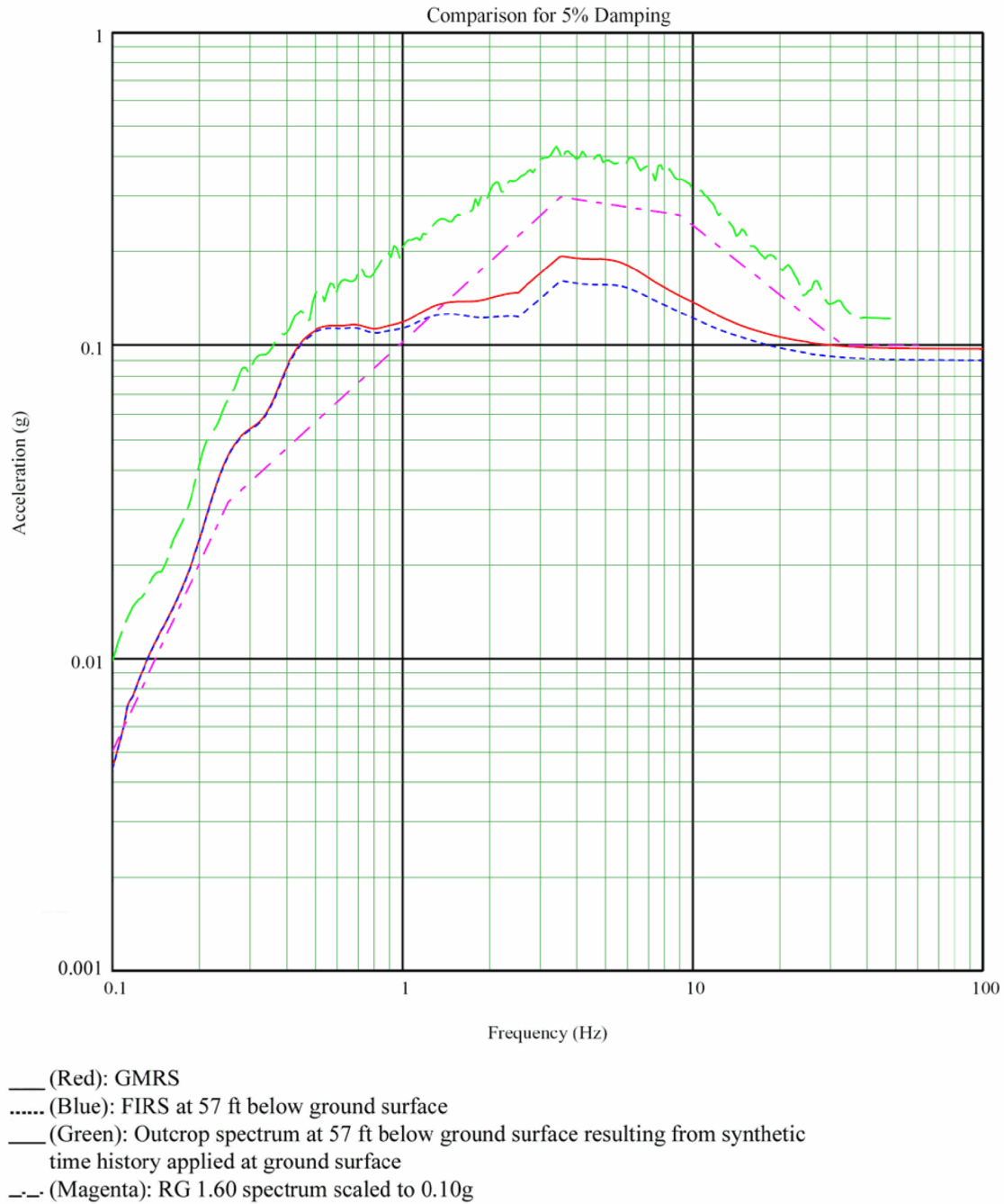


Figure 3H.6-8b Comparison of Spectra at Foundation of RSW Piping Tunnel (Upper Bound Soil Properties, Vertical Direction)

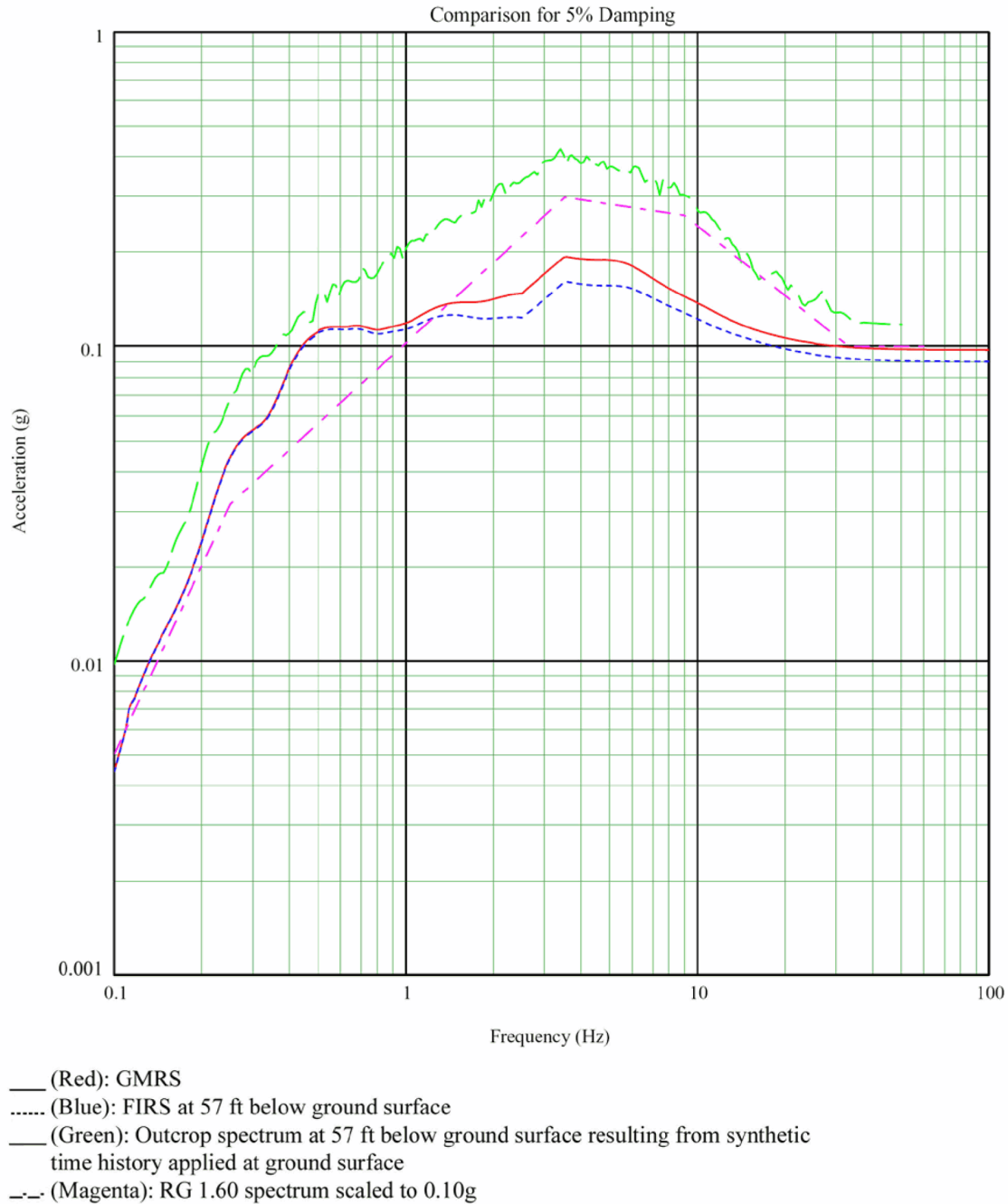


Figure 3H.6-8c Comparison of Spectra at Foundation of RSW Piping Tunnel (Lower Bound Soil Properties, Vertical Direction)

Figure 3H.6-9 Not Used

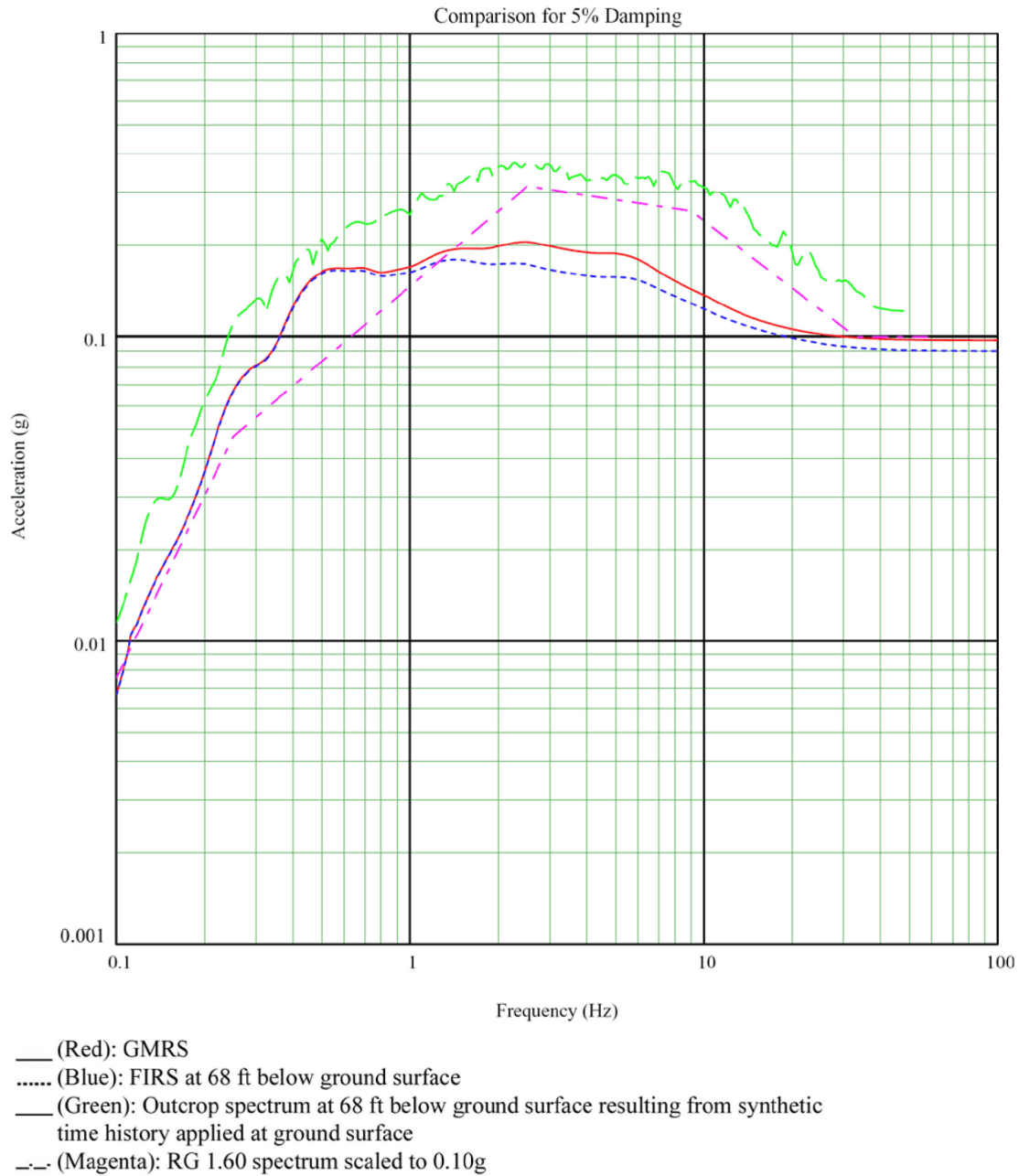


Figure 3H.6-9a Comparison of Spectra at Foundation of RSW Pump House (Mean Soil Properties, E-W Direction)

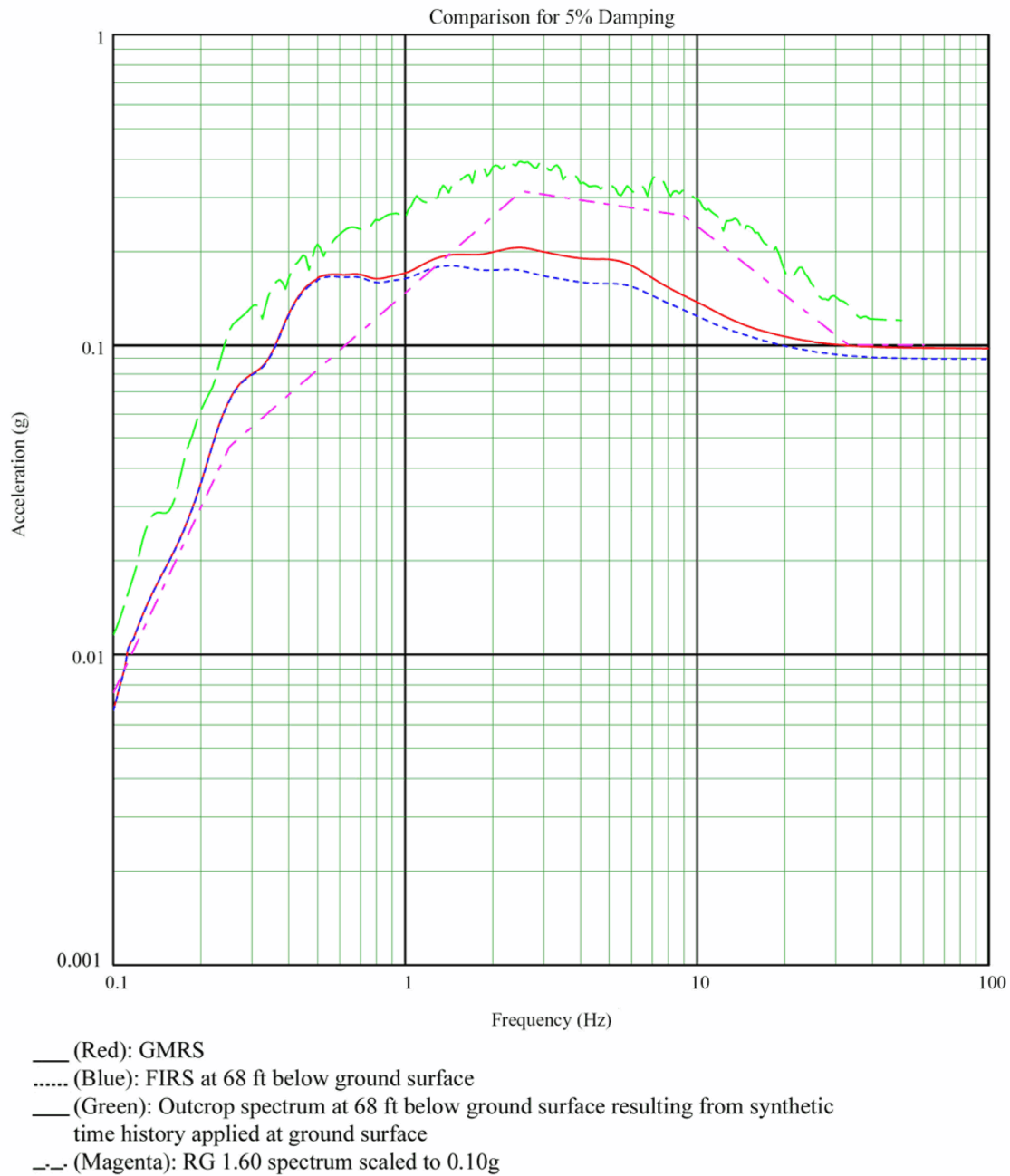


Figure 3H.6-9b Comparison of Spectra at Foundation of RSW Pump House (Upper Bound Soil Properties, E-W Direction)

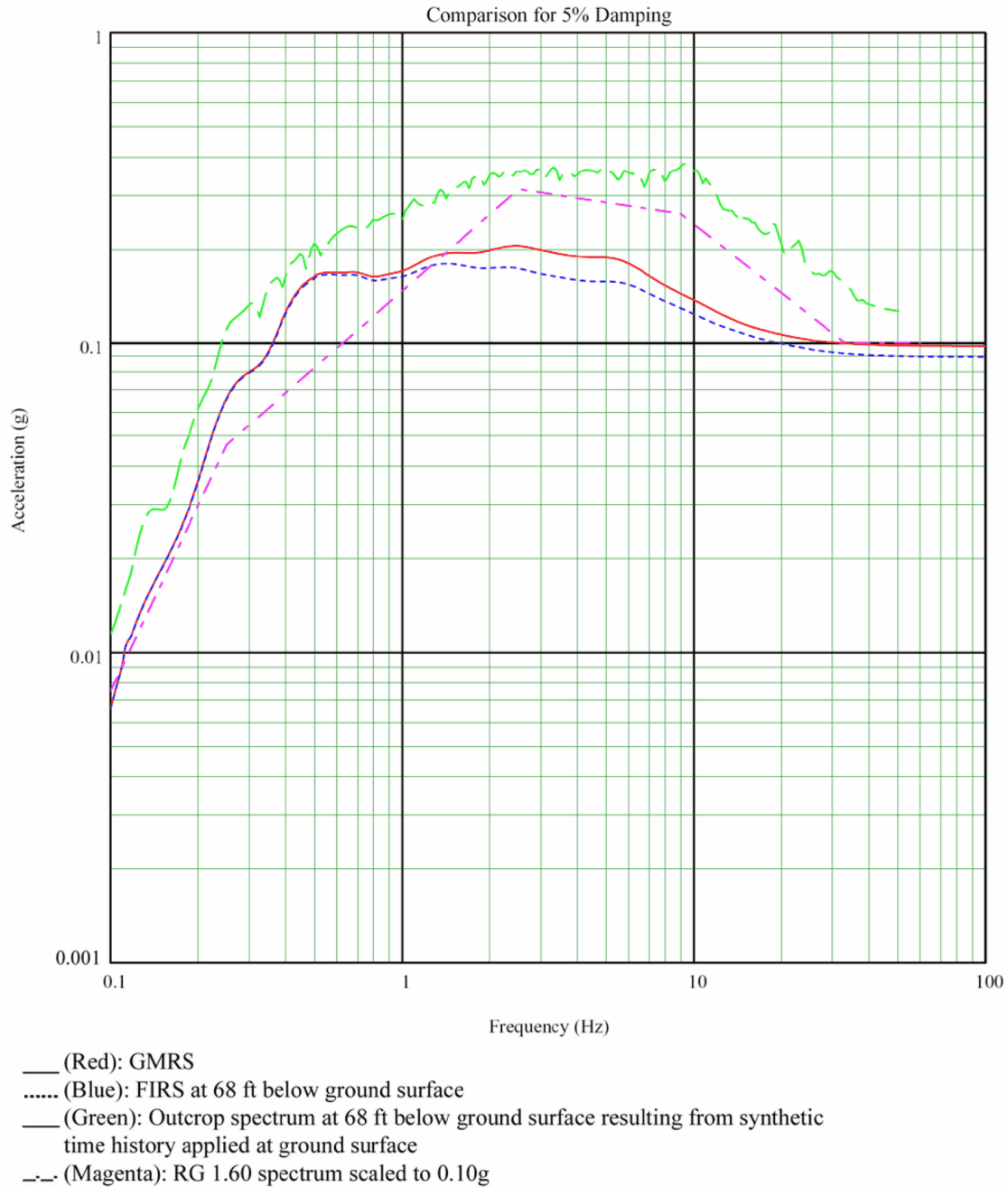


Figure 3H.6-9c Comparison of Spectra at Foundation of RSW Pump House (Lower Bound Soil Properties, E-W Direction)

Figure 3H.6-10 Not Used

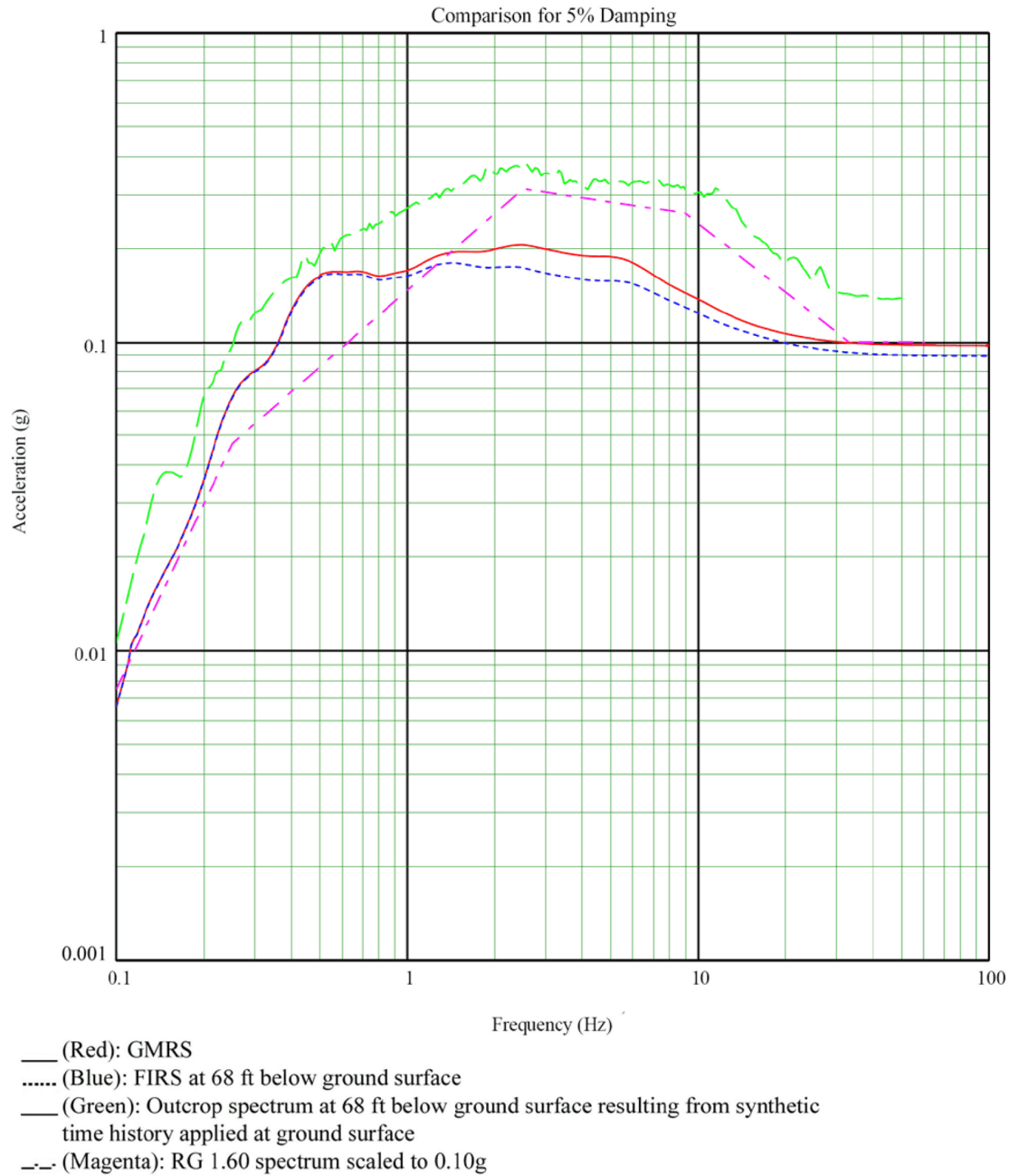


Figure 3H.6-10a Comparison of Spectra at Foundation of RSW Pump House (Mean Soil Properties, N-S Direction)

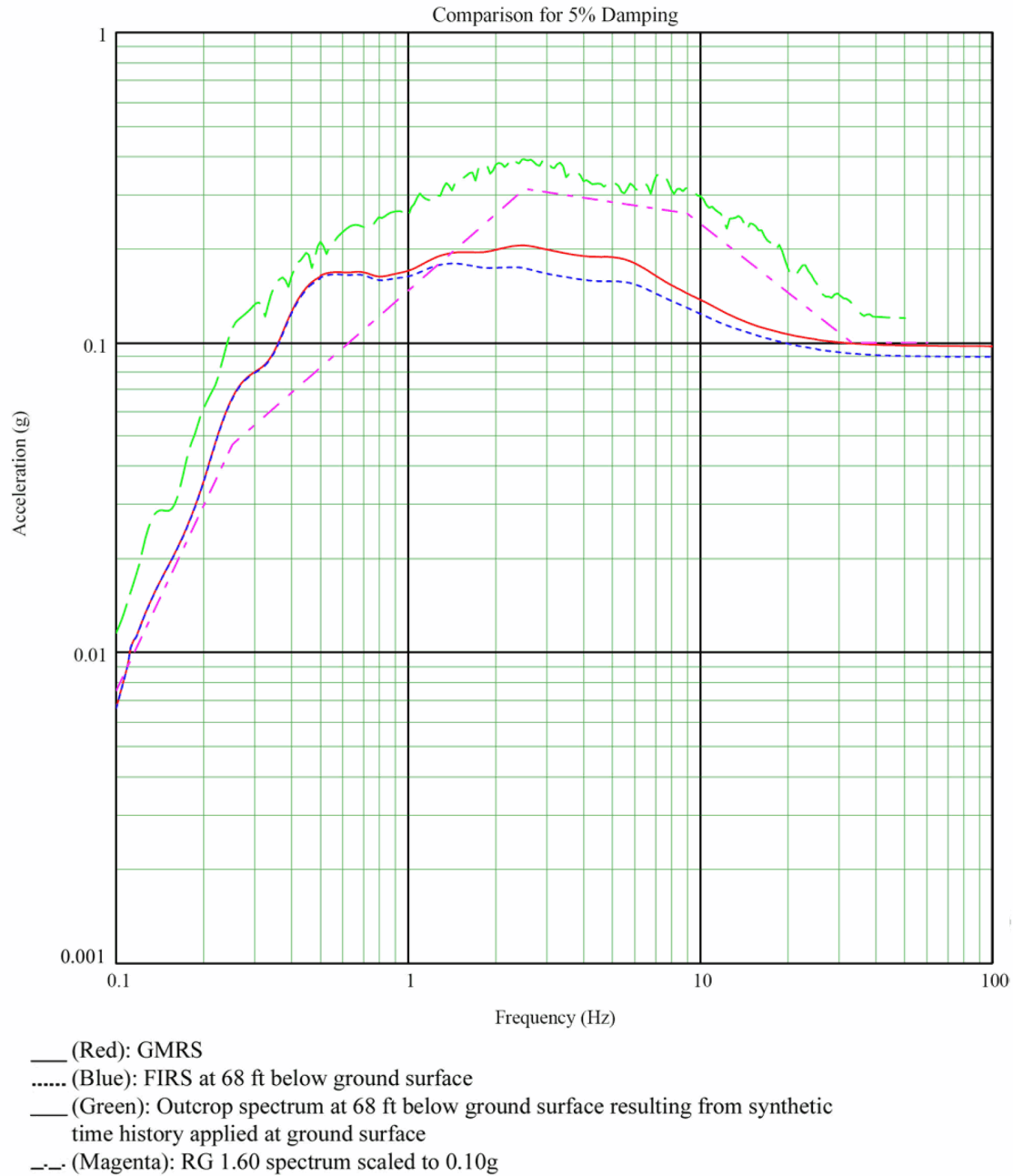


Figure 3H.6-10b Comparison of Spectra at Foundation of RSW Pump House (Upper Bound Soil Properties, N-S Direction)

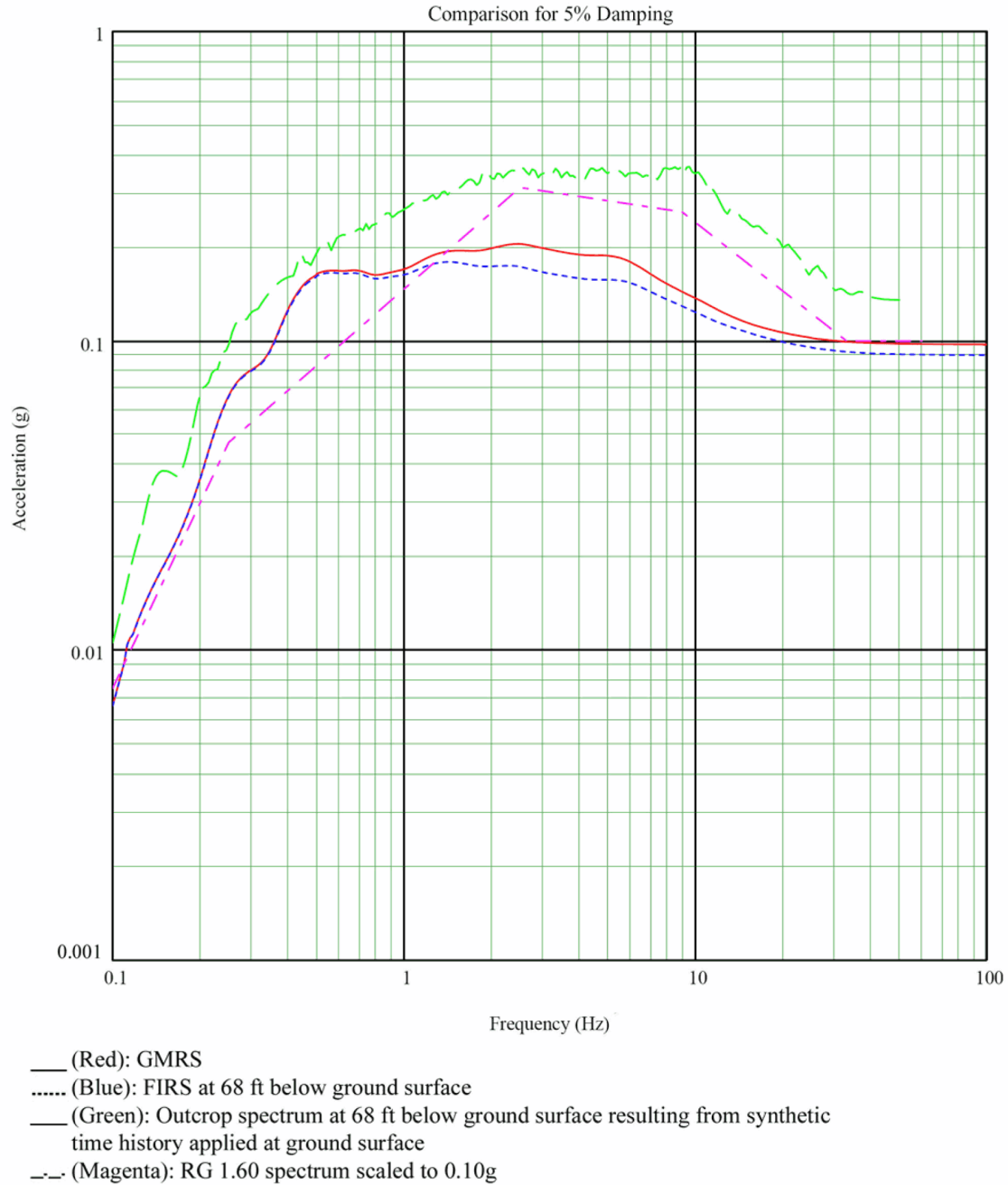


Figure 3H.6-10c Comparison of Spectra at Foundation of RSW Pump House (Lower Bound Soil Properties, N-S Direction)

Figure 3H.6-11 Not Used

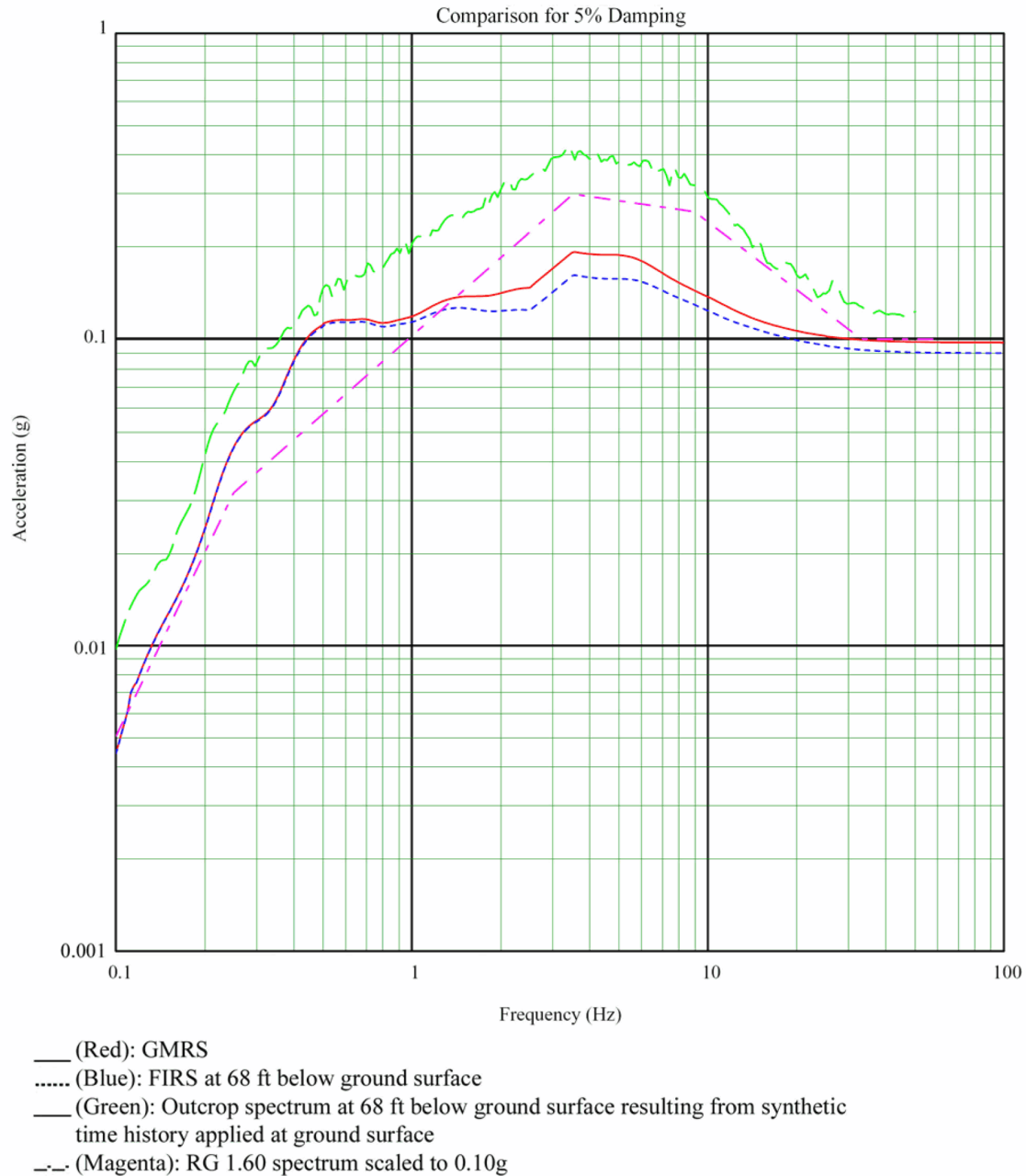


Figure 3H.6-11a Comparison of Spectra at Foundation of RSW Pump House (Mean Soil Properties, Vertical Direction)

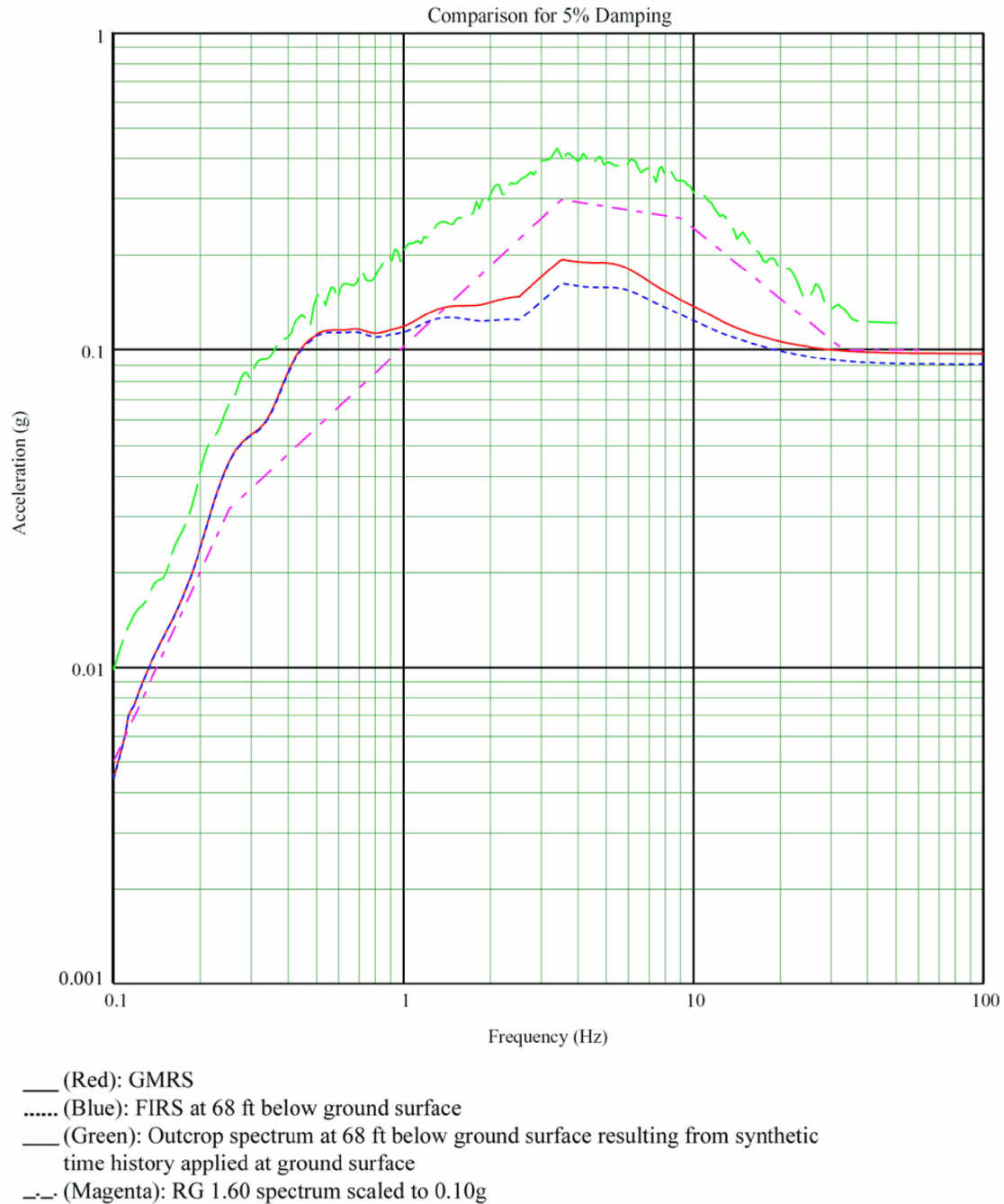


Figure 3H.6-11b Comparison of Spectra at Foundation of RSW Pump House (Upper Bound Soil Properties, Vertical Direction)

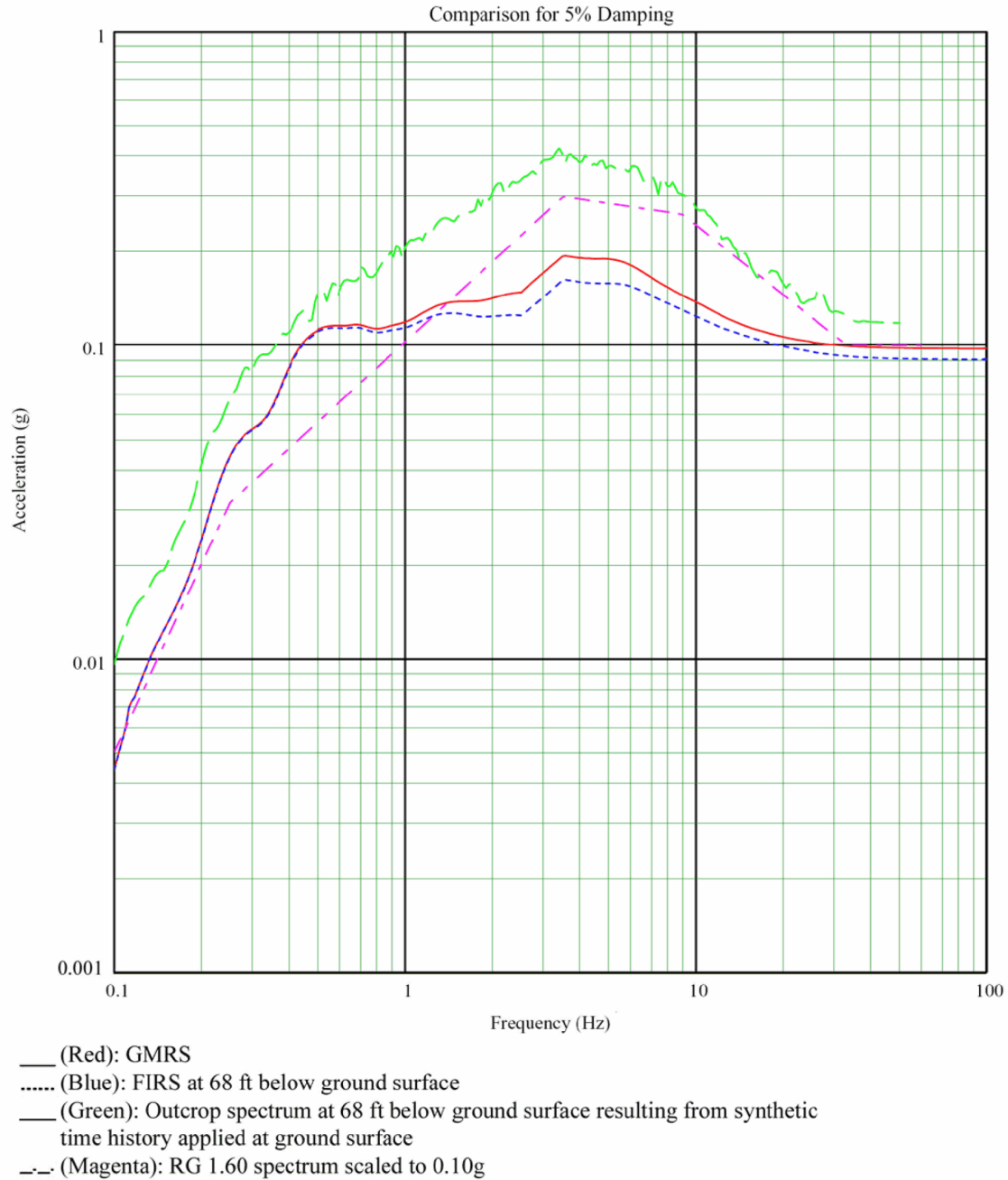


Figure 3H.6-11c Comparison of Spectra at Foundation of RSW Pump House (Lower Bound Soil Properties, Vertical Direction)

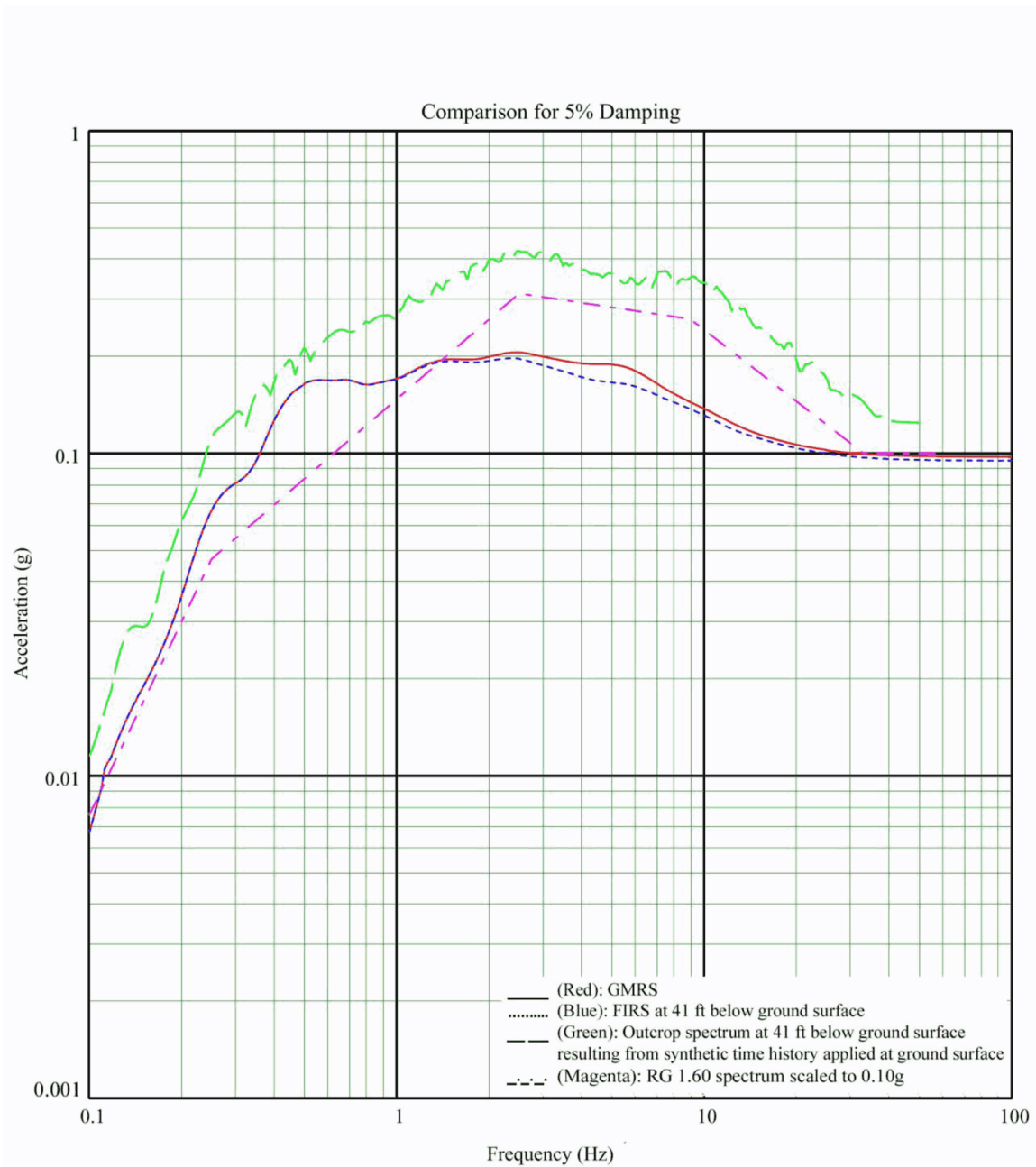


Figure 3H.6-11d Comparison of Spectra at Foundation of Emergency Diesel Generator Fuel Storage Vault – Mean Soil Properties, E-W Direction

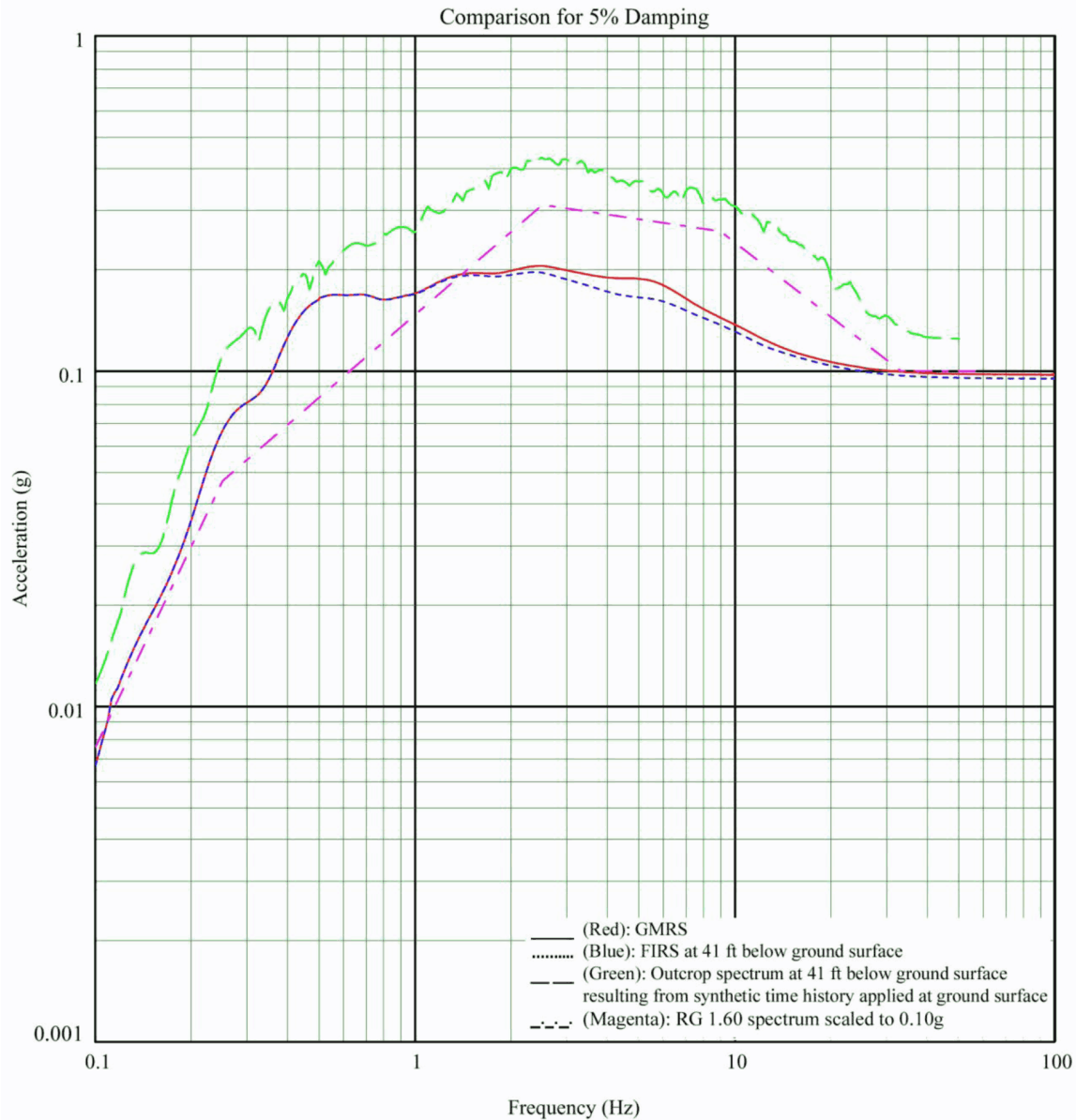


Figure 3H.6-11e Comparison of Spectra at Foundation of Emergency Diesel Generator Fuel Storage Vault – Upper Bound Soil Properties, E-W Direction

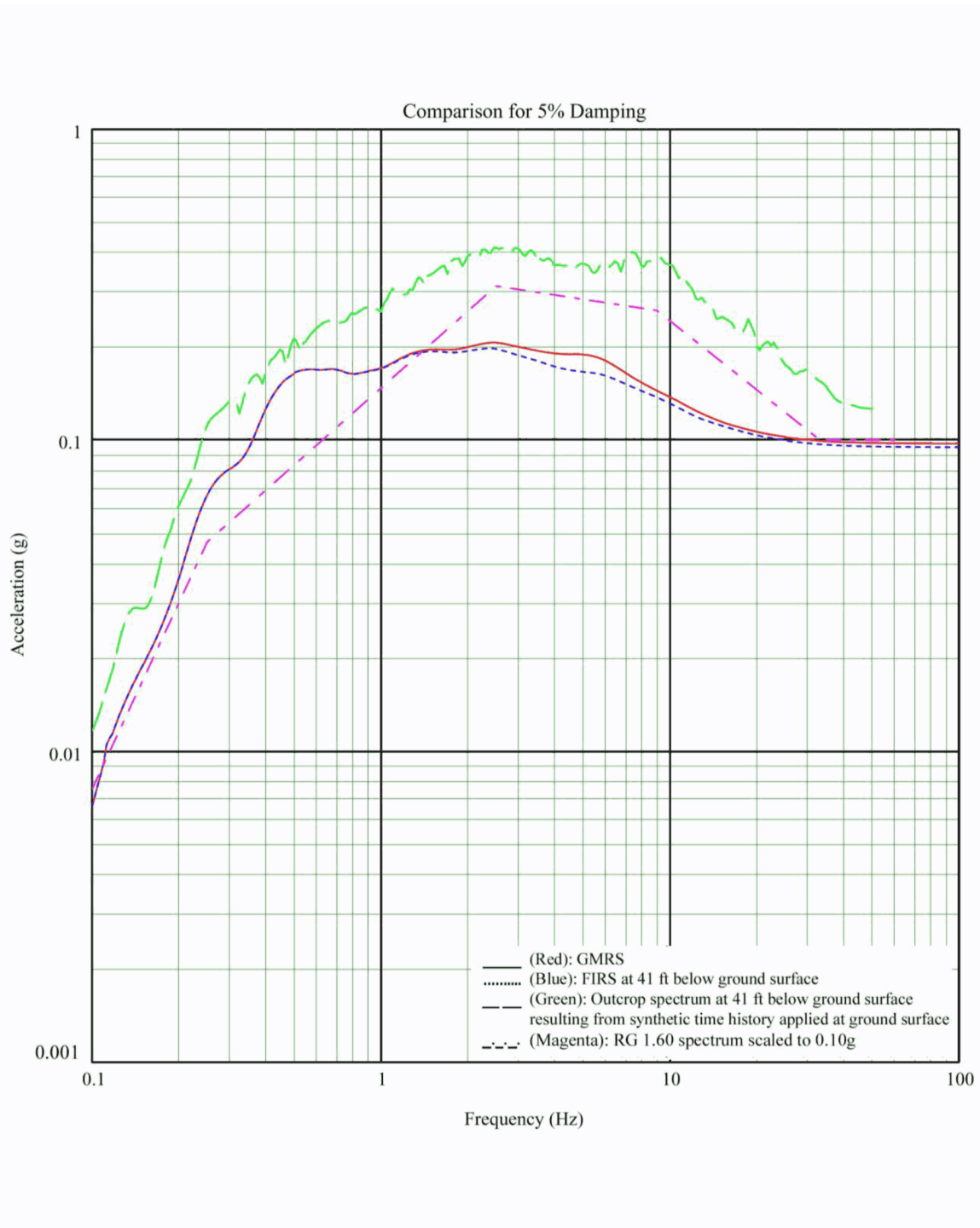


Figure 3H.6-11f Comparison of Spectra at Foundation of Emergency Diesel Generator Fuel Storage Vault – Lower Bound Soil Properties, E-W Direction

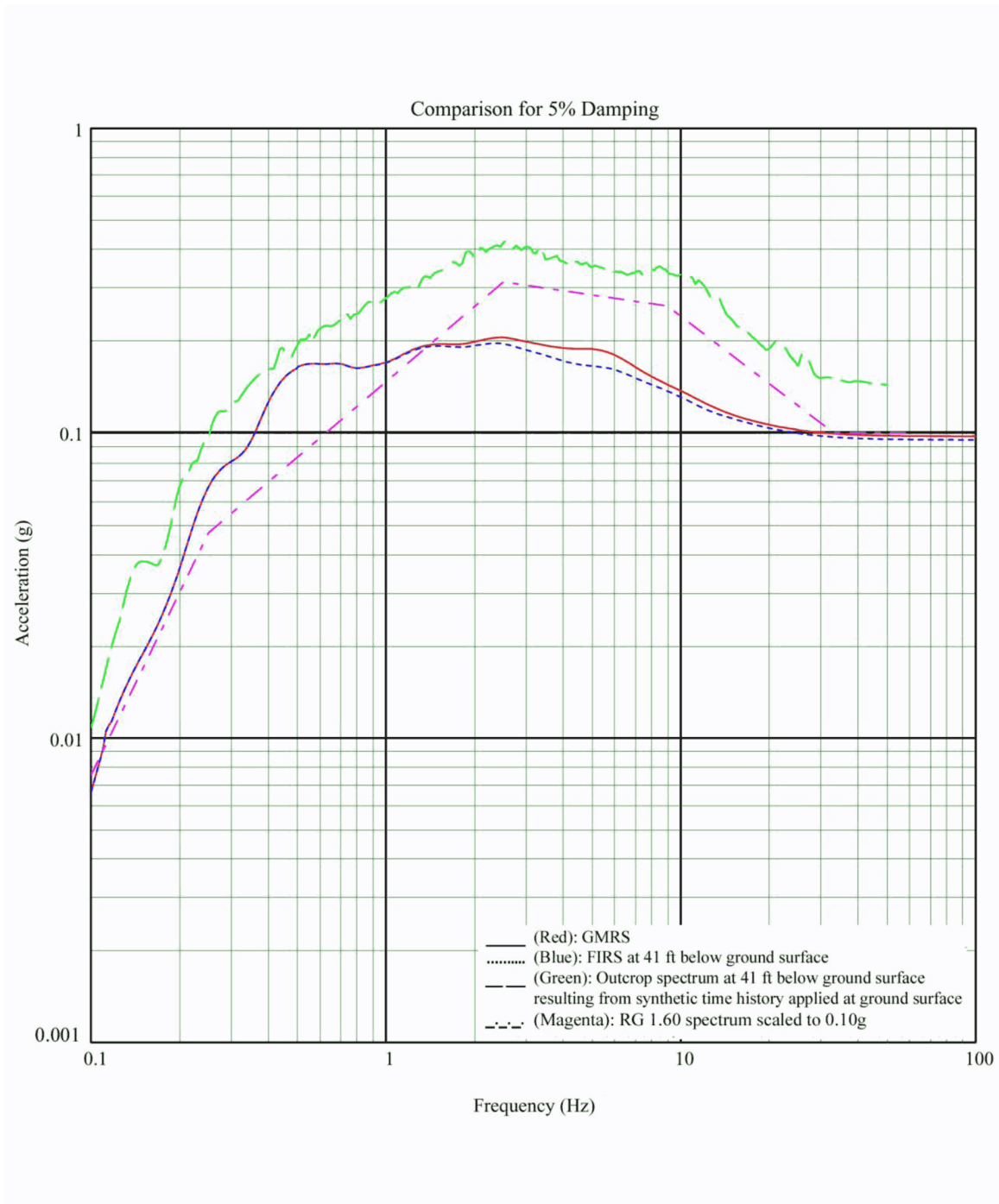


Figure 3H.6-11g Comparison of Spectra at Foundation of Emergency Diesel Generator Fuel Storage Vault – Mean Soil Properties, N-S Direction

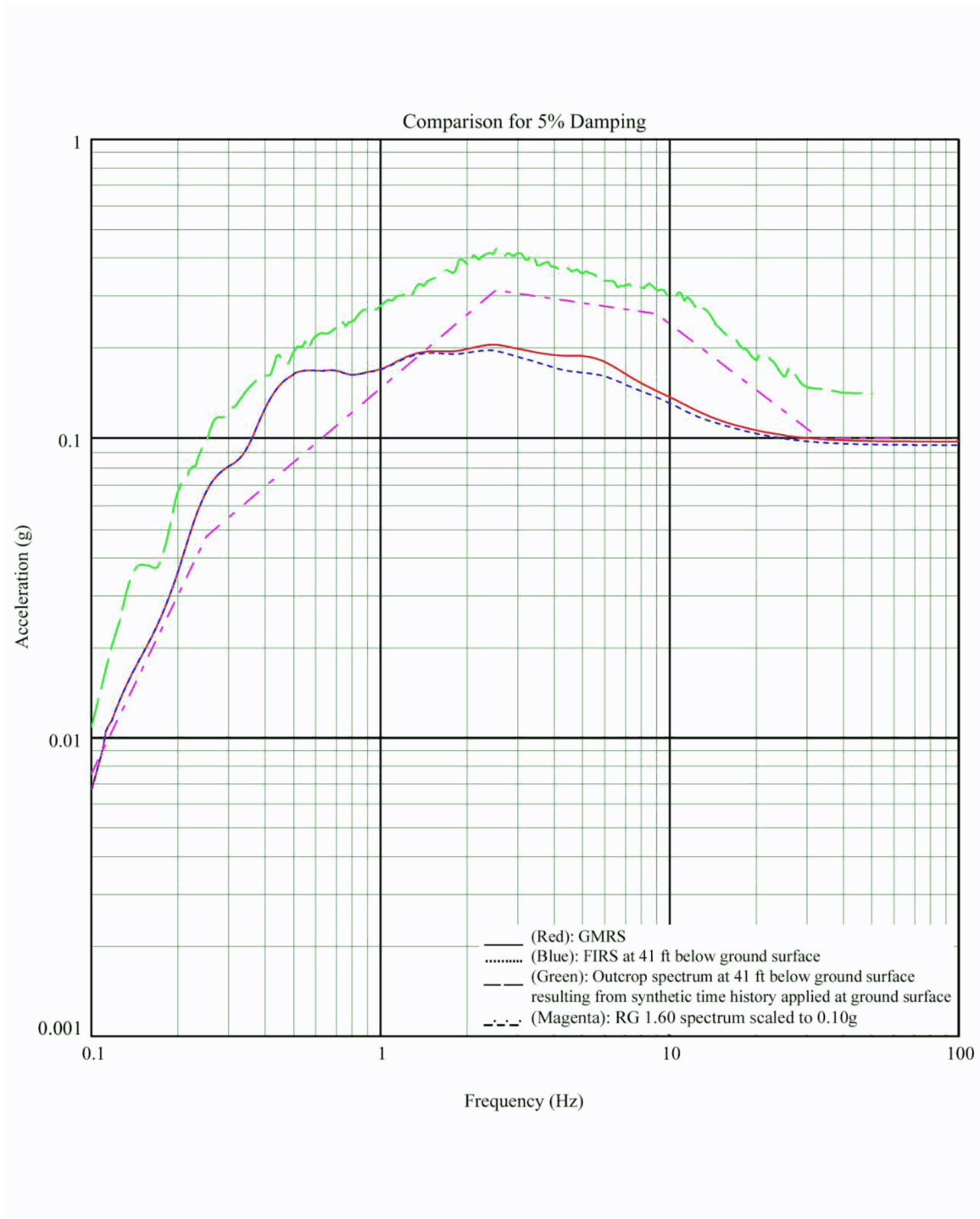


Figure 3H.6-11h Comparison of Spectra at Foundation of Emergency Diesel Generator Fuel Storage Vault – Upper Bound Soil Properties, N-S Direction

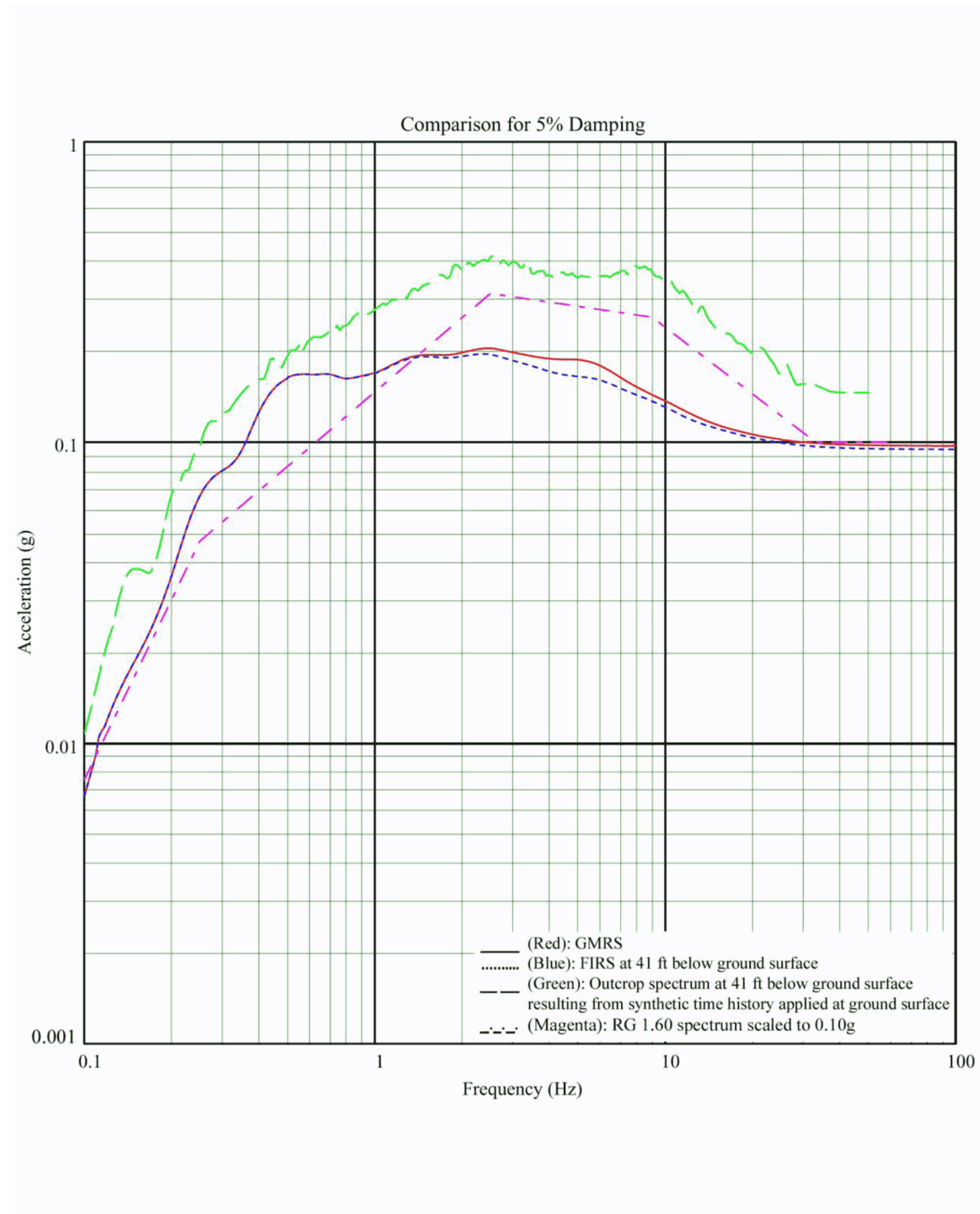


Figure 3H.6-11i Comparison of Spectra at Foundation of Emergency Diesel Generator Fuel Storage Vault – Lower Bound Soil Properties, N-S Direction

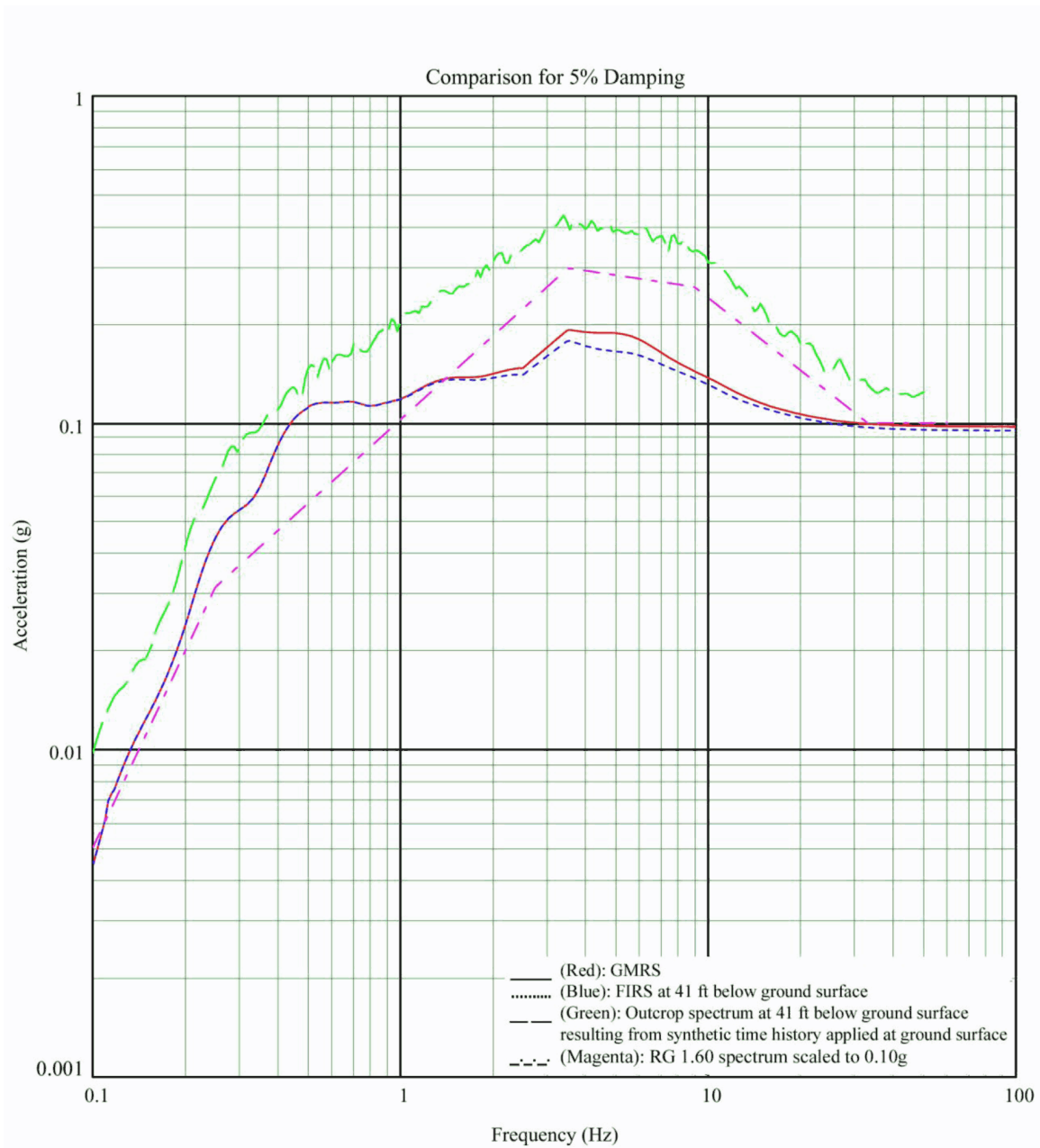


Figure 3H.6-11j Comparison of Spectra at Foundation of Emergency Diesel Generator Fuel Storage Vault – Mean Soil Properties, Vertical Direction

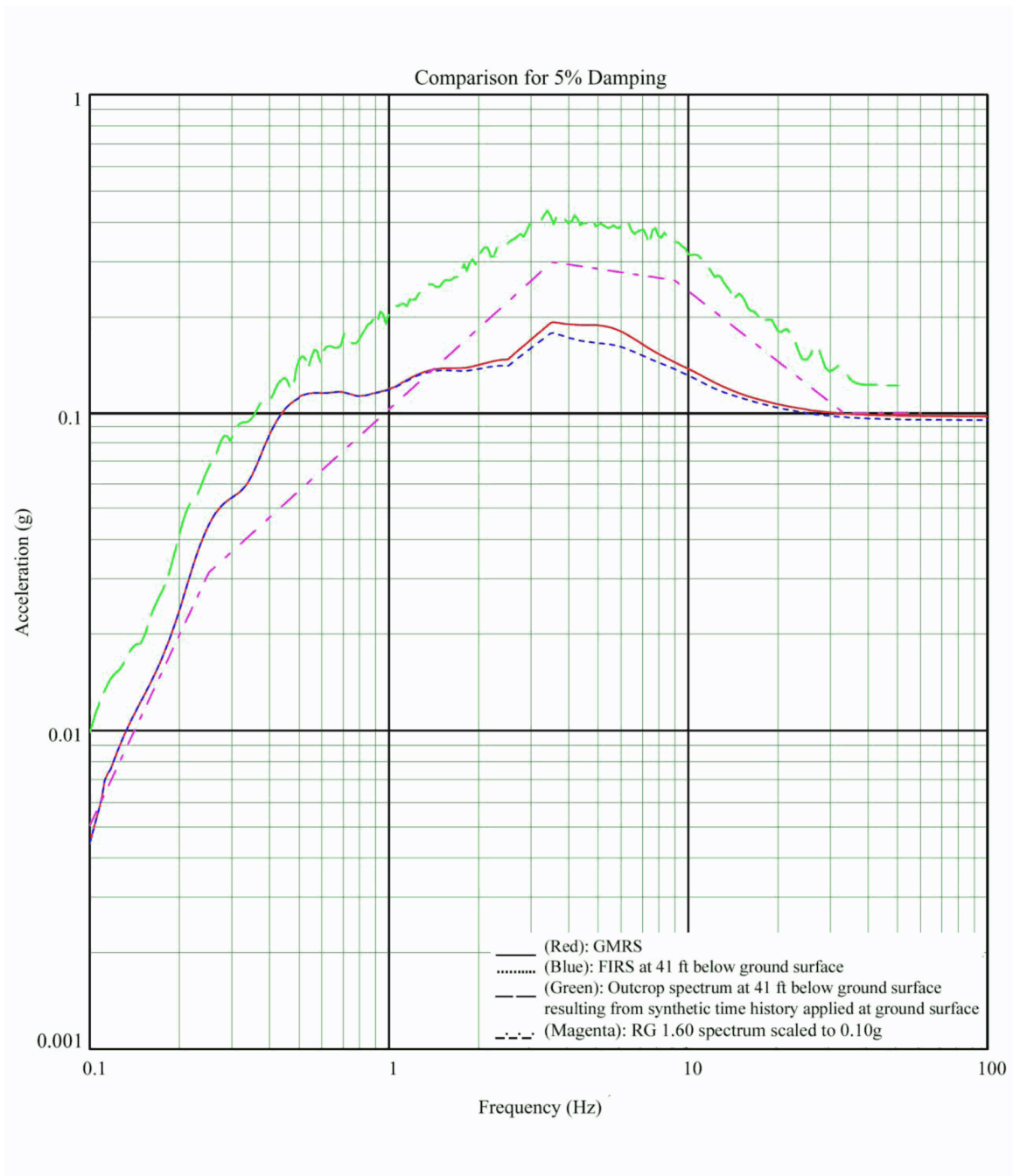


Figure 3H.6-11k Comparison of Spectra at Foundation of Emergency Diesel Generator Fuel Storage Vault – Upper Bound Soil Properties, Vertical Direction

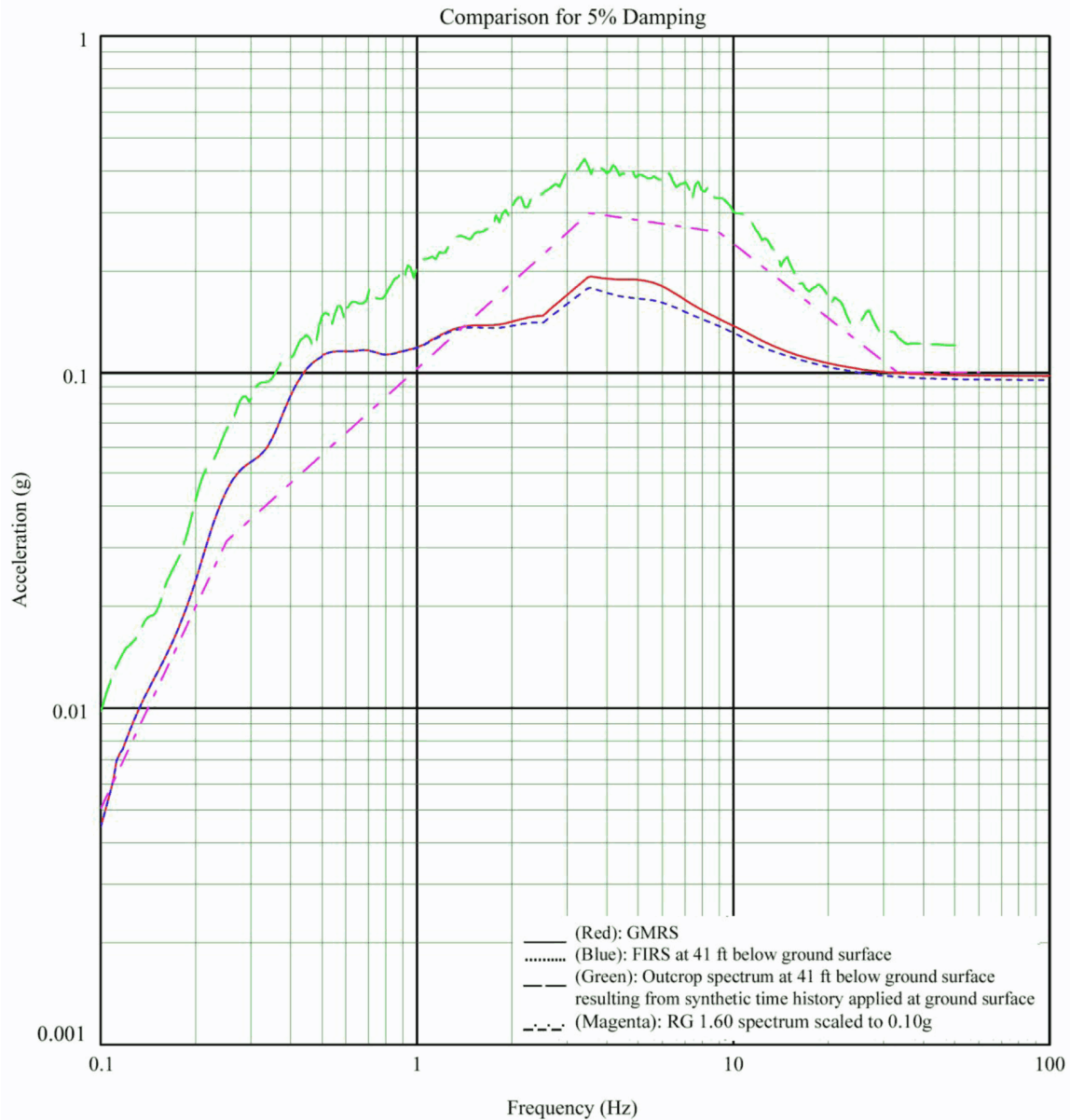


Figure 3H.6-11L Comparison of Spectra at Foundation of Emergency Diesel Generator Fuel Storage Vault – Lower Bound Soil Properties, Vertical Direction

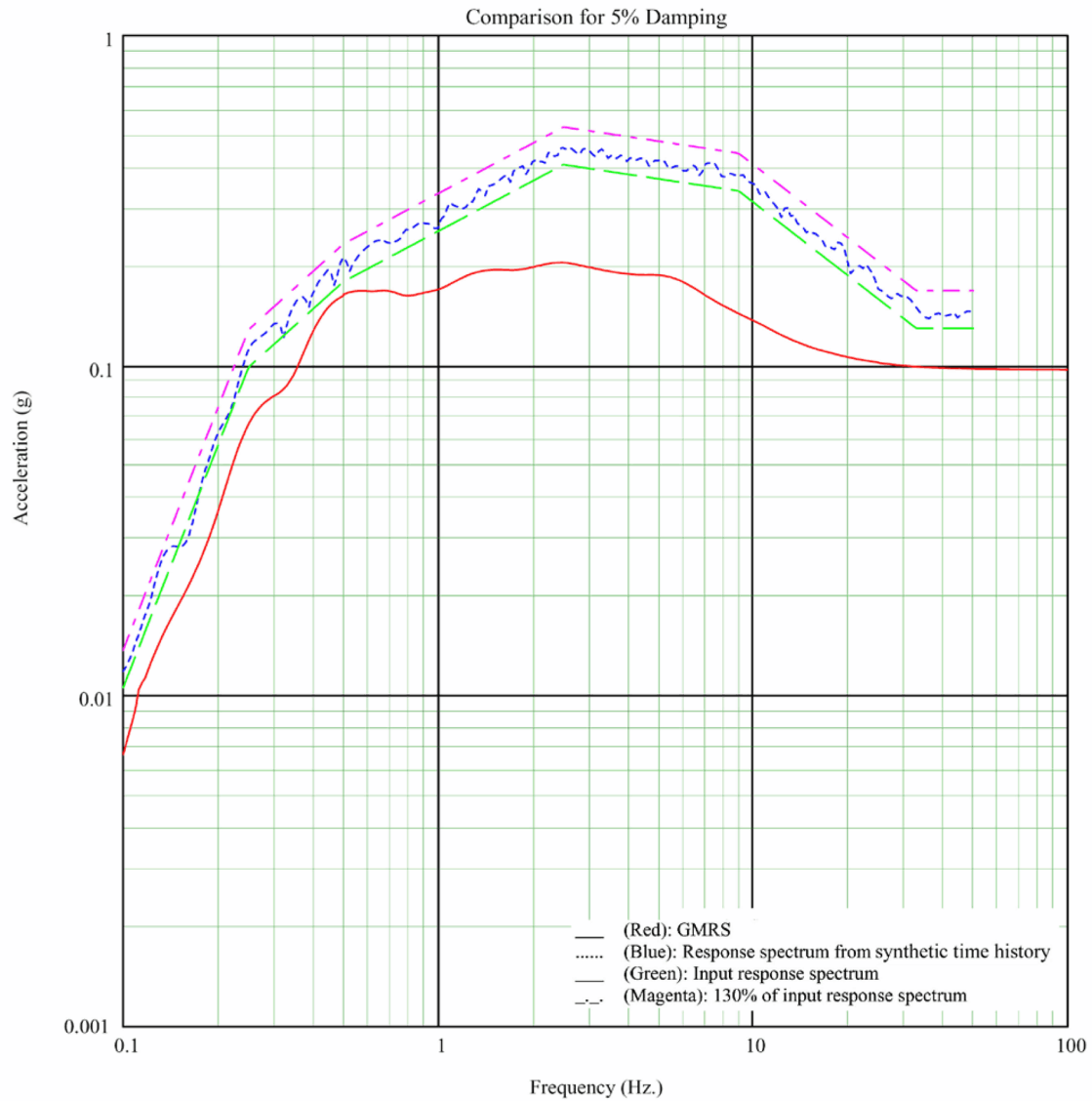


Figure 3H.6-12 Comparison of Spectrum from Synthetic Time History, Input Spectrum, 130% of Input Spectrum, and GMRS (E-W Direction)

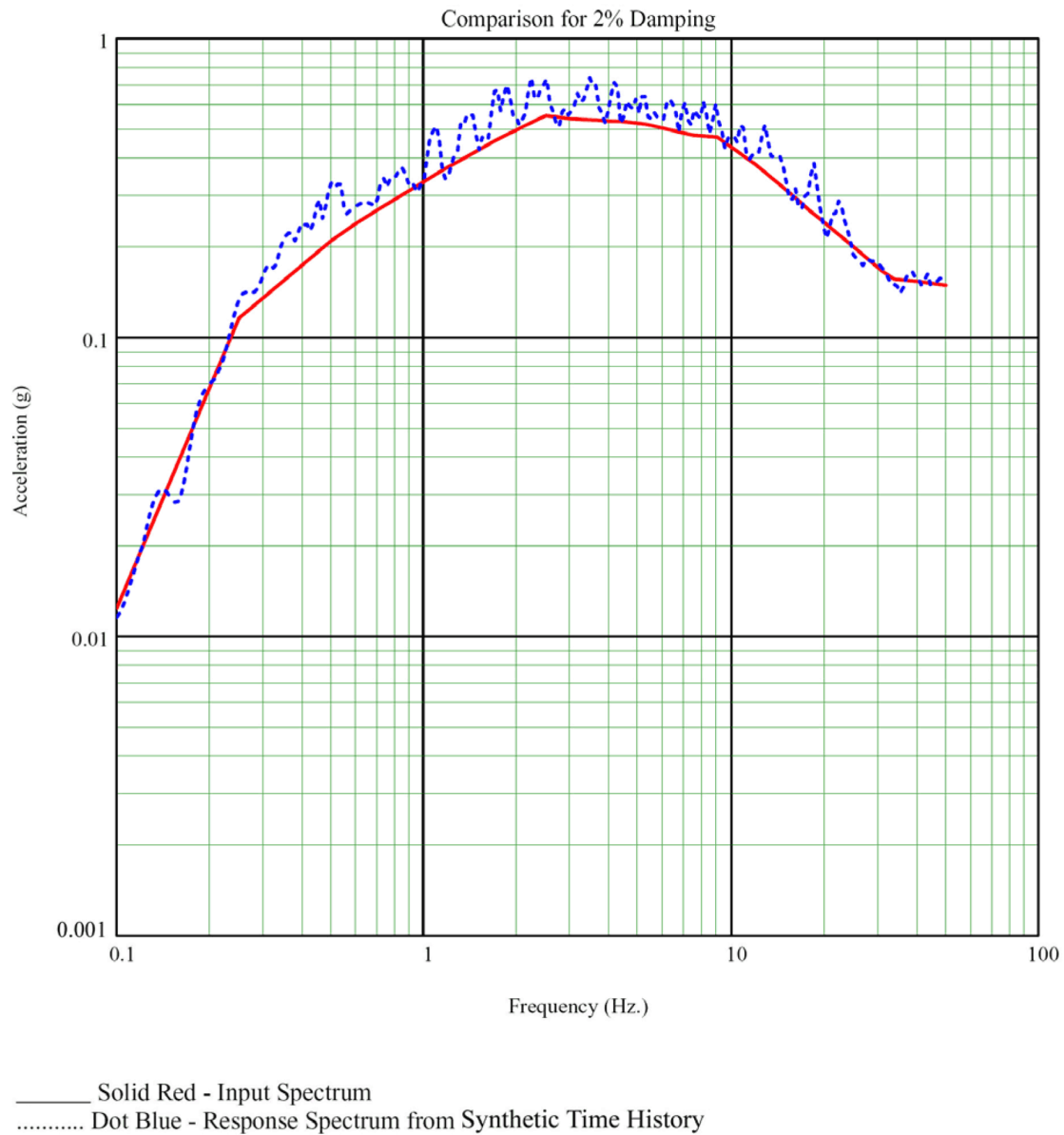


Figure 3H.6-12a Comparison of Input Spectrum and Spectrum from Synthetic Time History, Horizontal (E-W) – 2% Damping

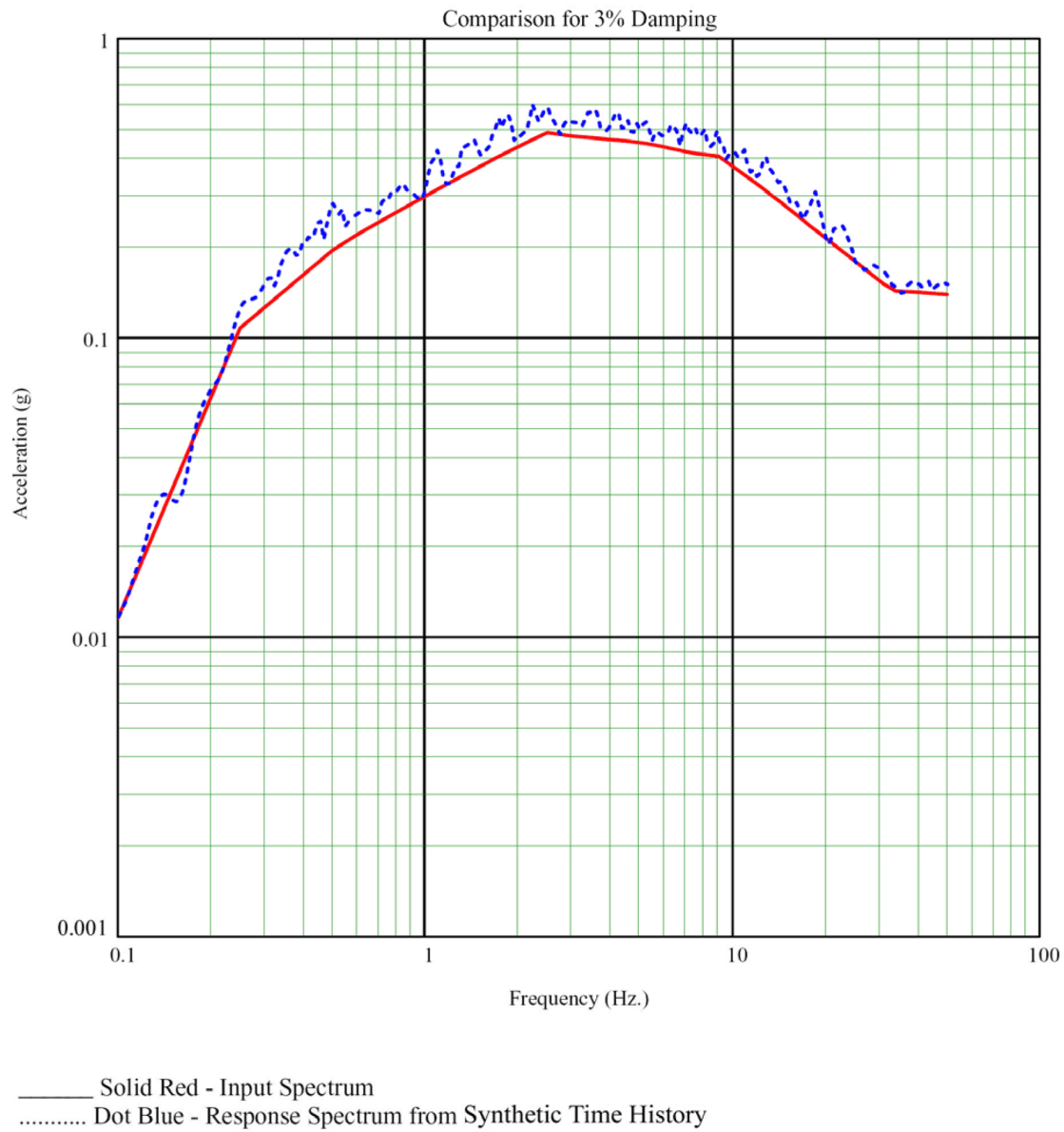


Figure 3H.6-12b Comparison of Input Spectrum and Spectrum from Synthetic Time History, Horizontal (E-W) – 3% Damping

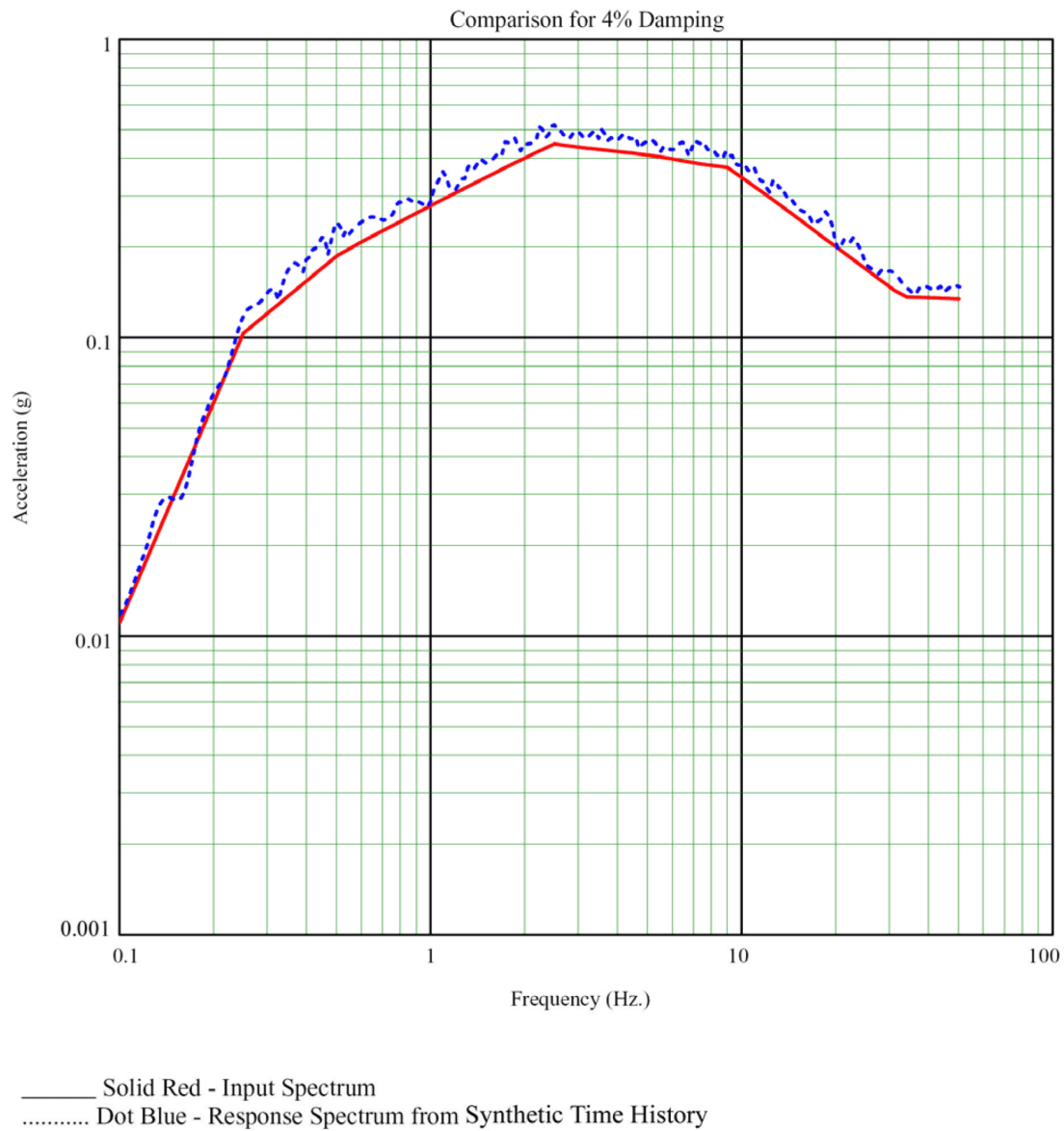


Figure 3H.6-12c Comparison of Input Spectrum and Spectrum from Synthetic Time History, Horizontal (E-W) – 4% Damping

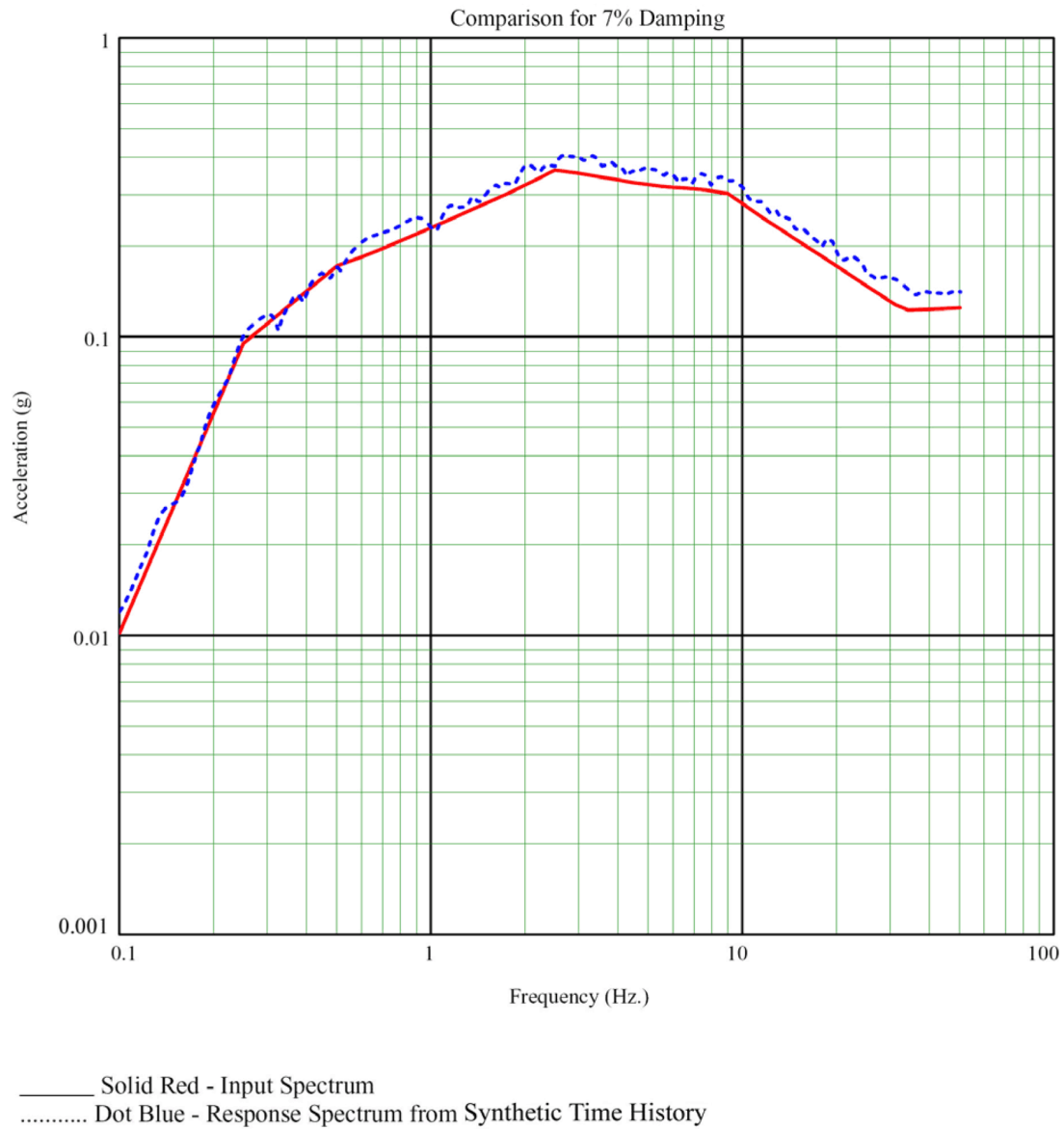


Figure 3H.6-12d Comparison of Input Spectrum and Spectrum from Synthetic Time History, Horizontal (E-W) – 7% Damping

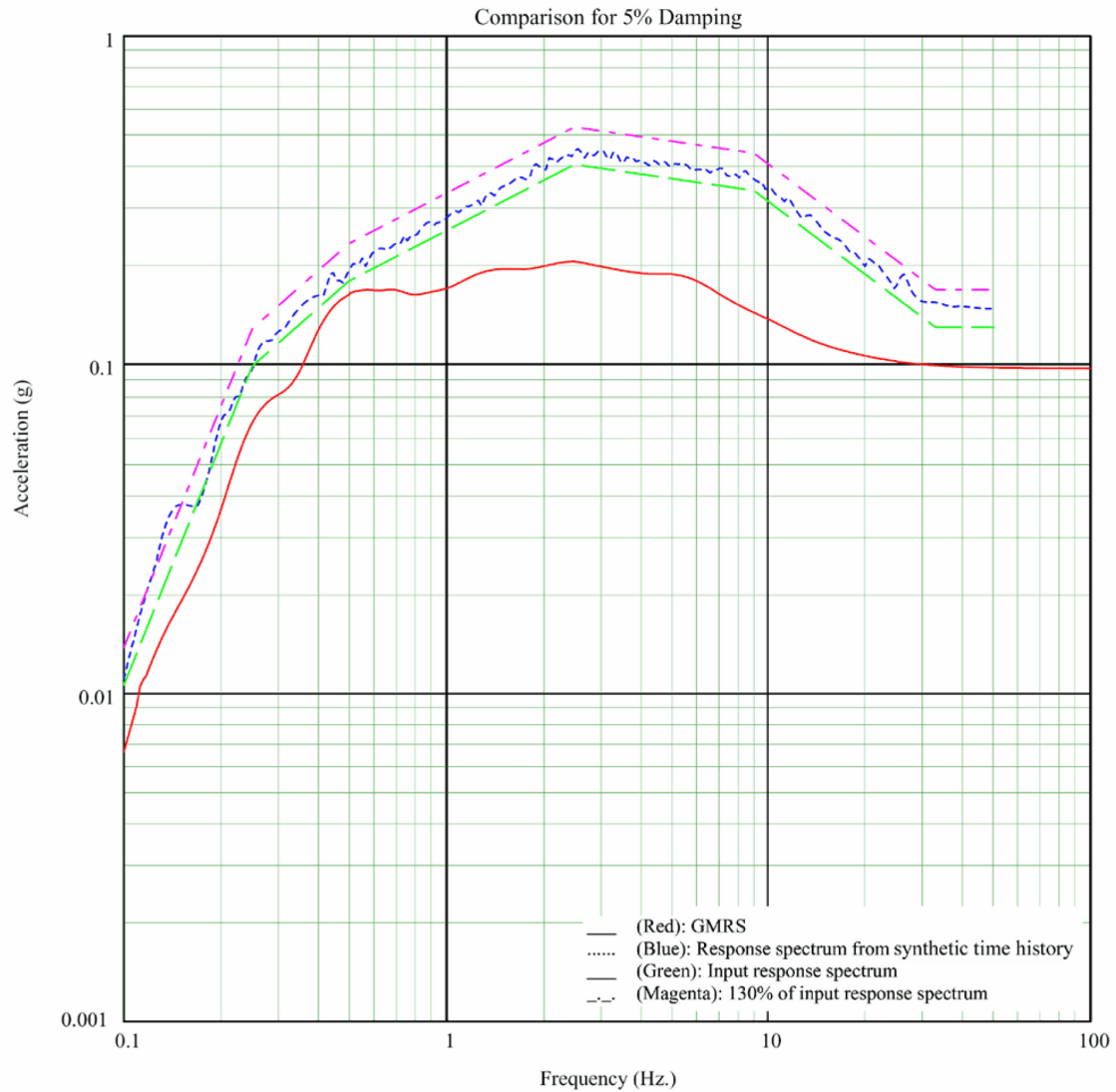


Figure 3H.6-13 Comparison of Spectrum from Synthetic Time History, Input Spectrum, 130% of Input Spectrum, and GMRS (N-S Direction)

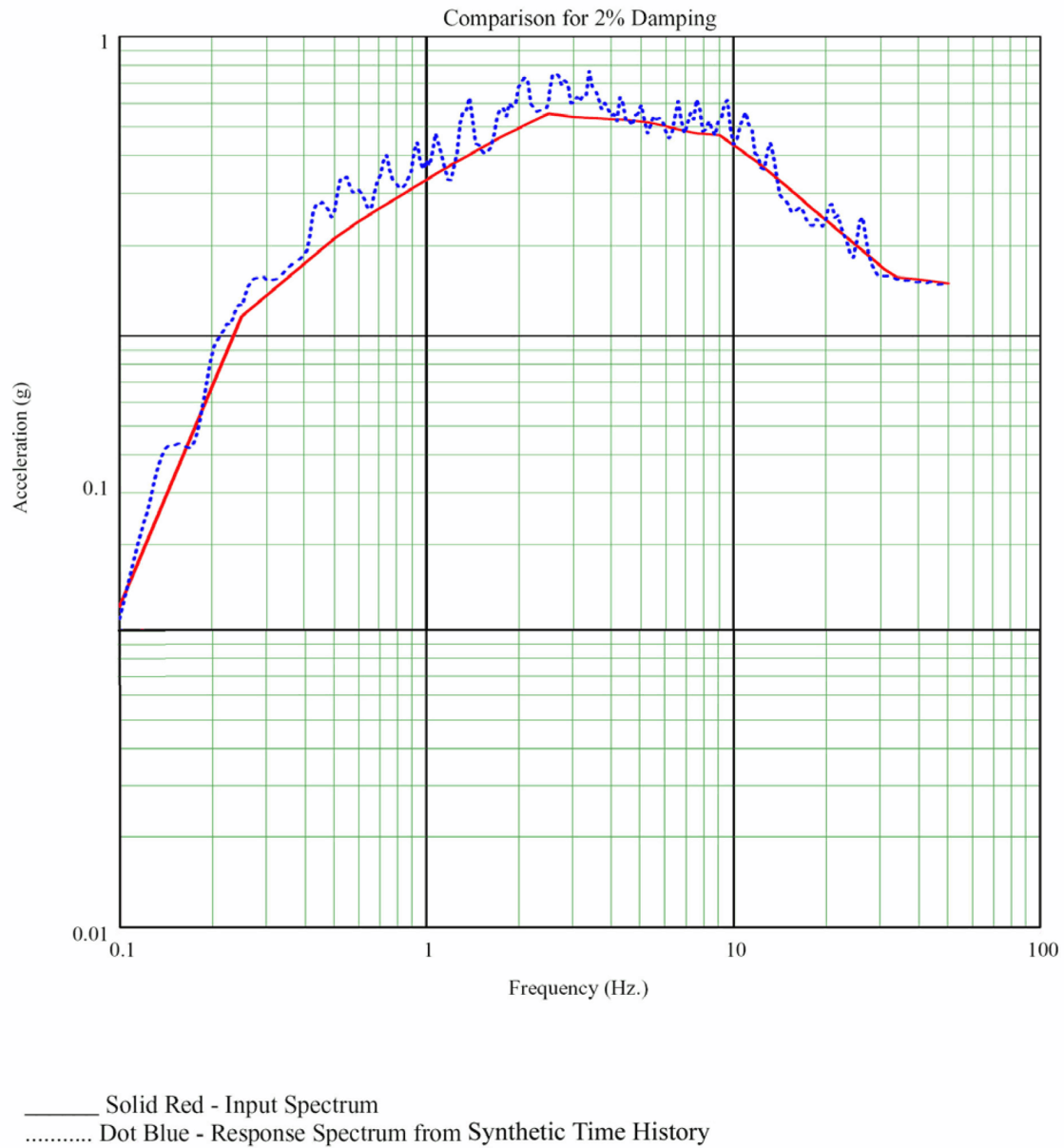


Figure 3H.6-13a Comparison of Input Spectrum and Spectrum from Synthetic Time History, Horizontal (N-S) – 2% Damping

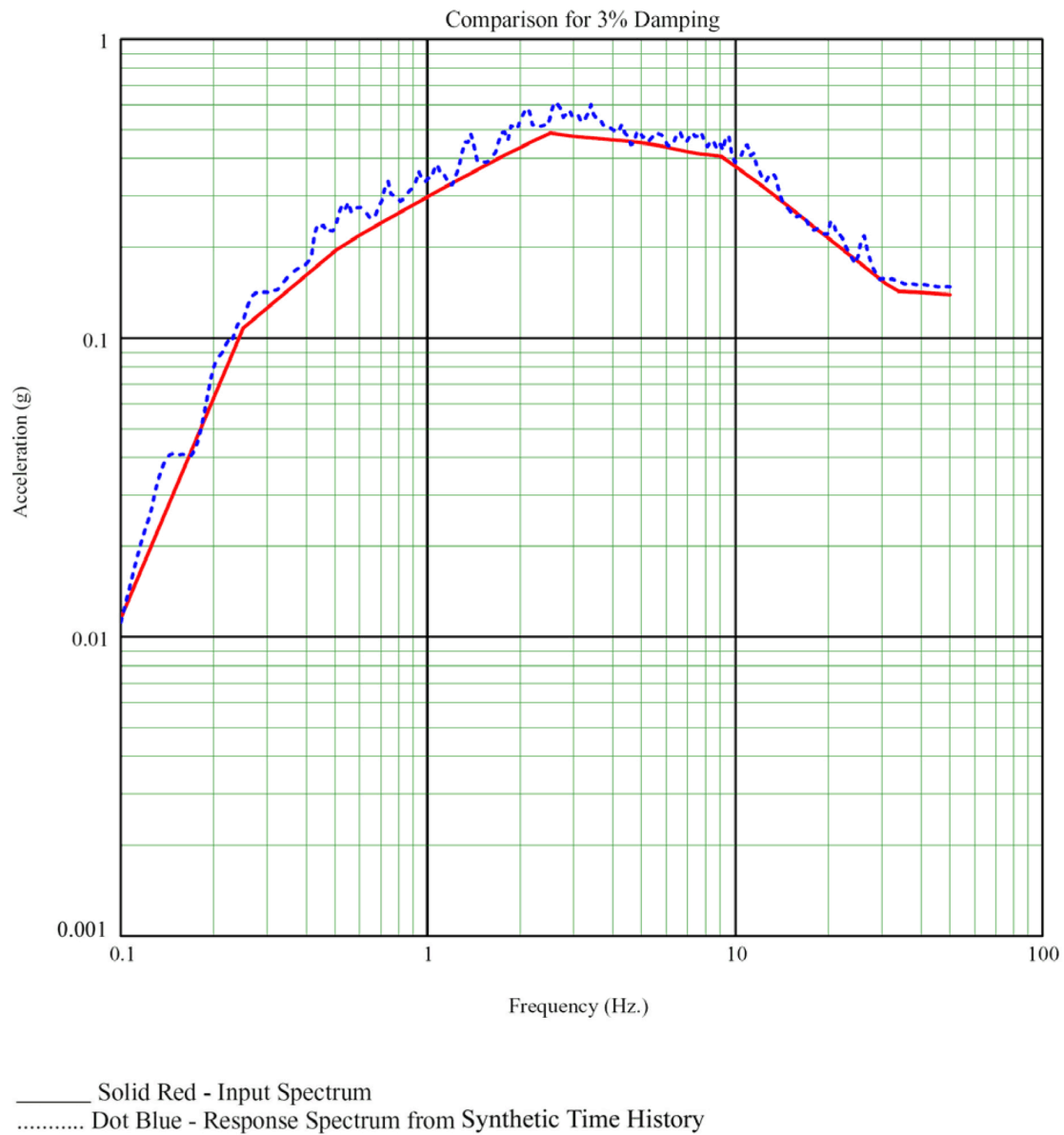


Figure 3H.6-13b Comparison of Input Spectrum and Spectrum from Synthetic Time History, Horizontal (N-S) – 3% Damping

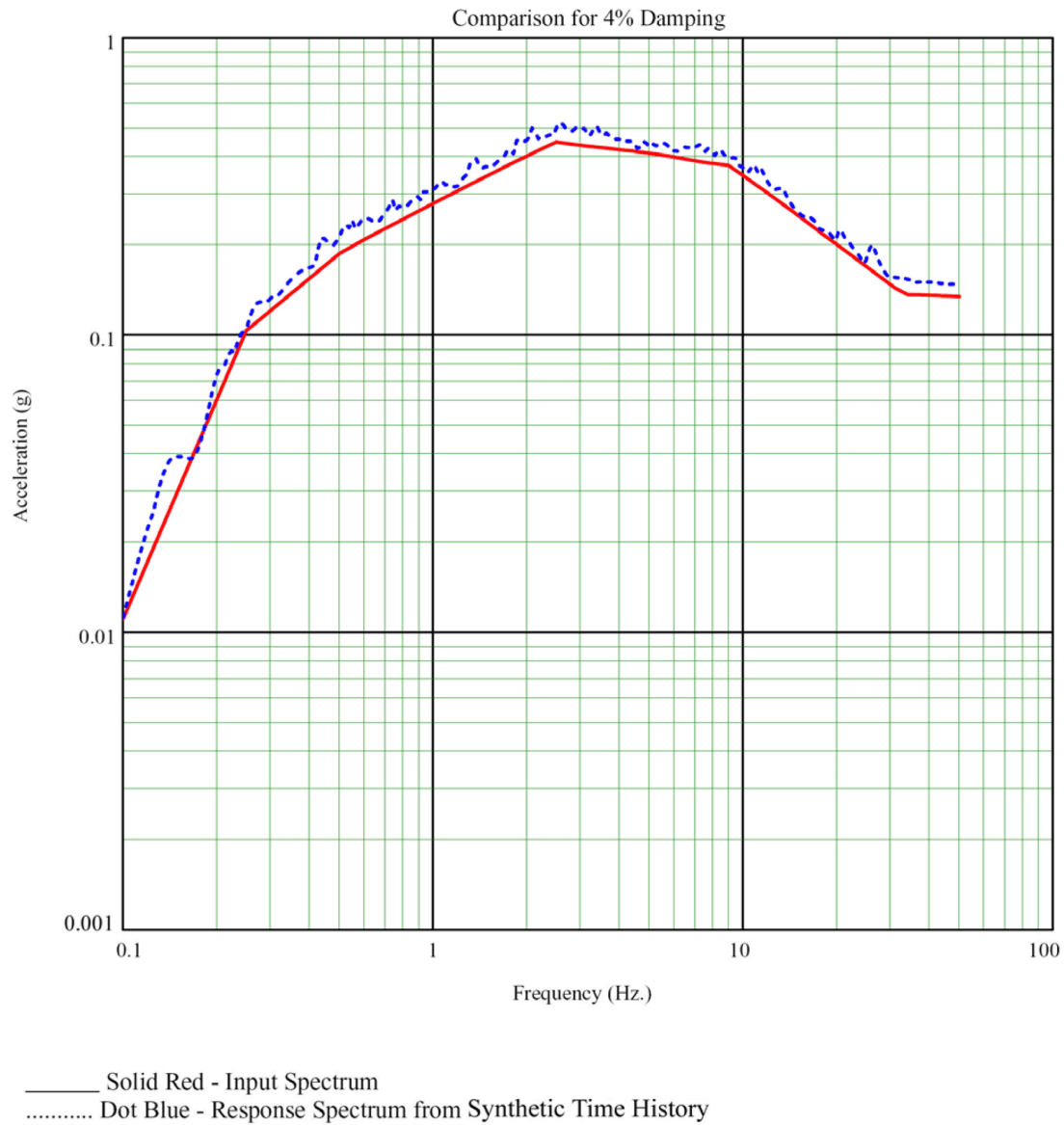


Figure 3H.6-13c Comparison of Input Spectrum and Spectrum from Synthetic Time History, Horizontal (N-S) – 4% Damping

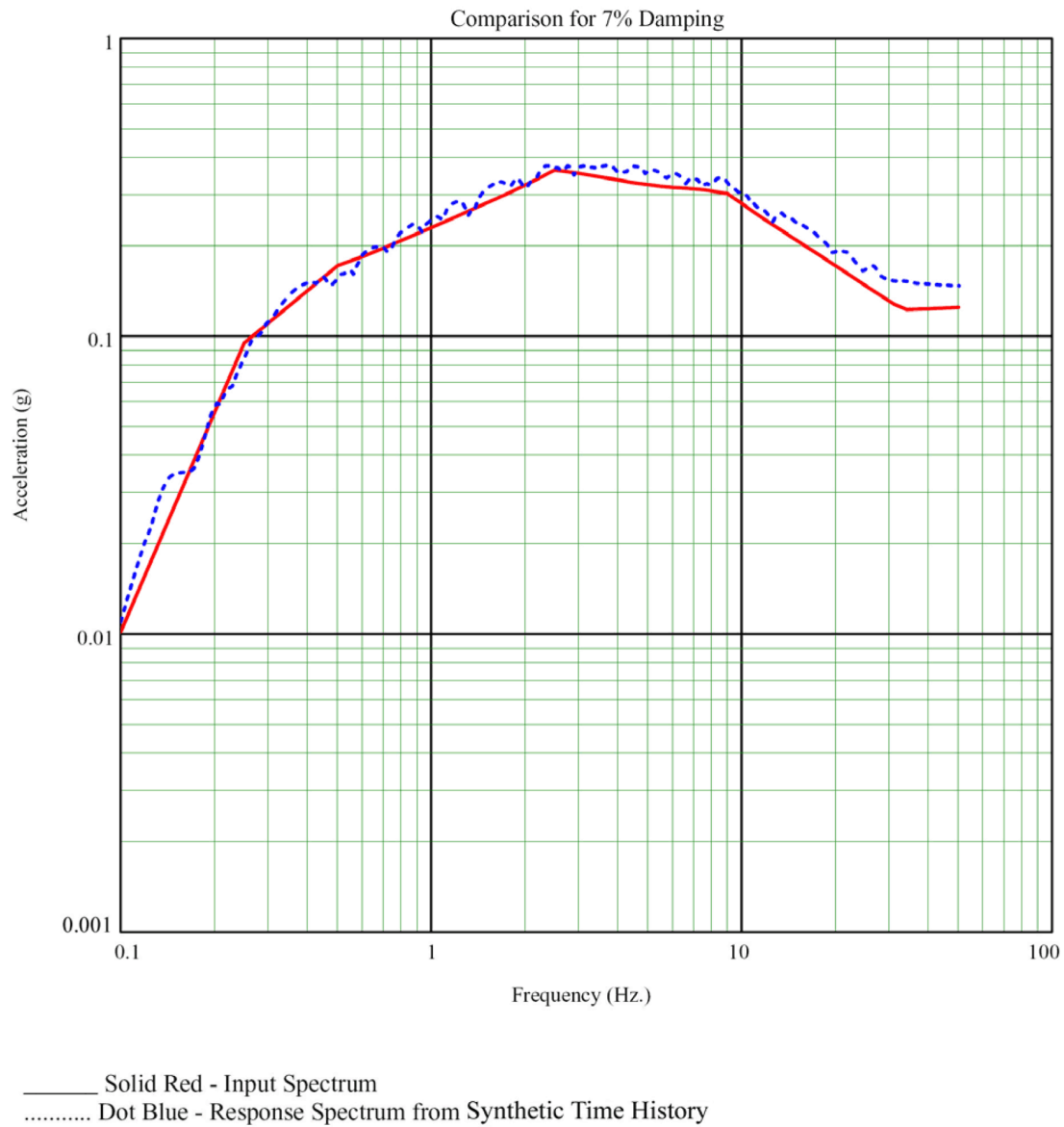


Figure 3H.6-13d Comparison of Input Spectrum and Spectrum from Synthetic Time History, Horizontal (N-S) – 7% Damping

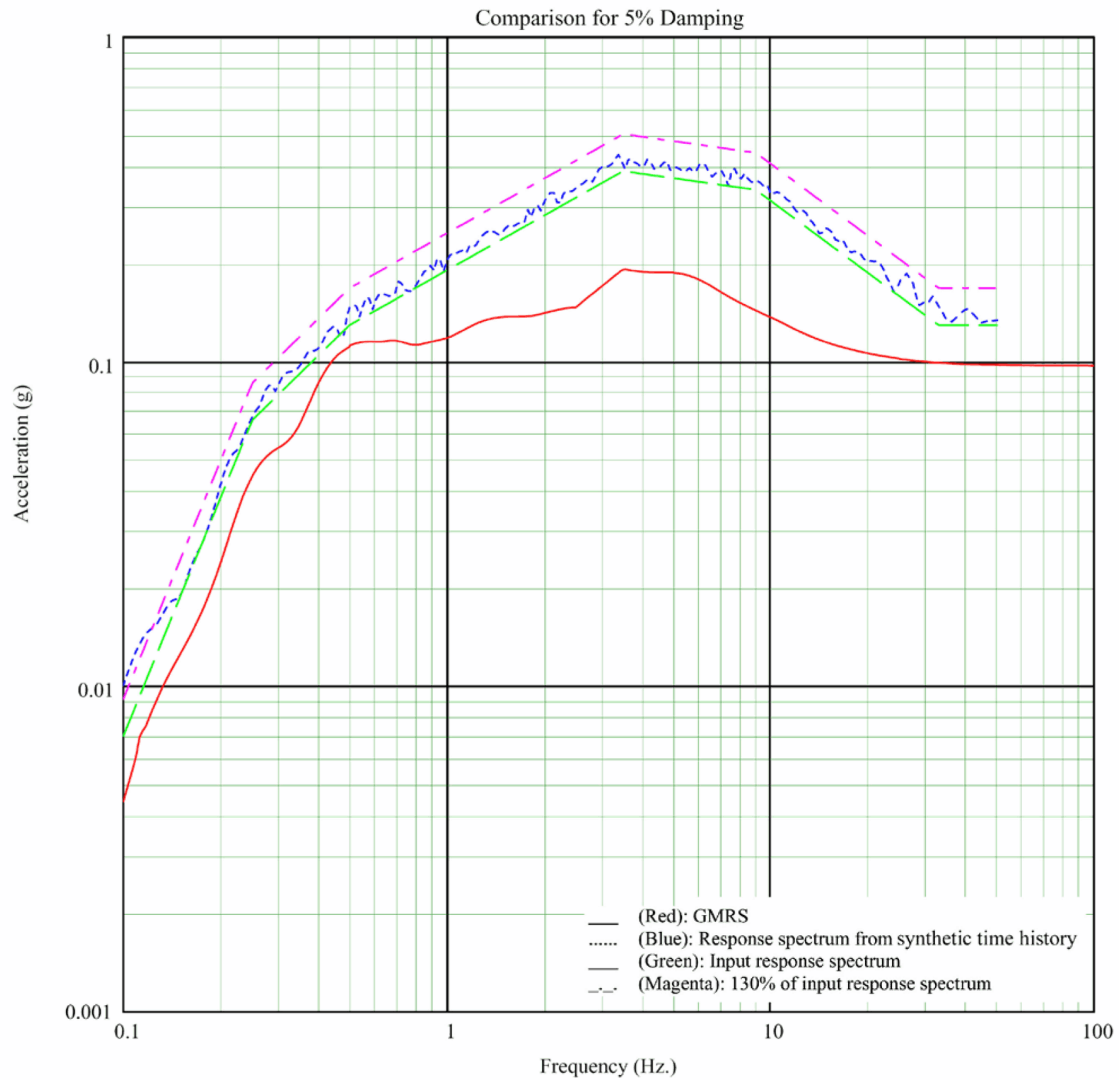


Figure 3H.6-14 Comparison of Spectrum from Artificial Time History, Input Spectrum, 130% of Input Spectrum, and GMRS (Vertical Direction)

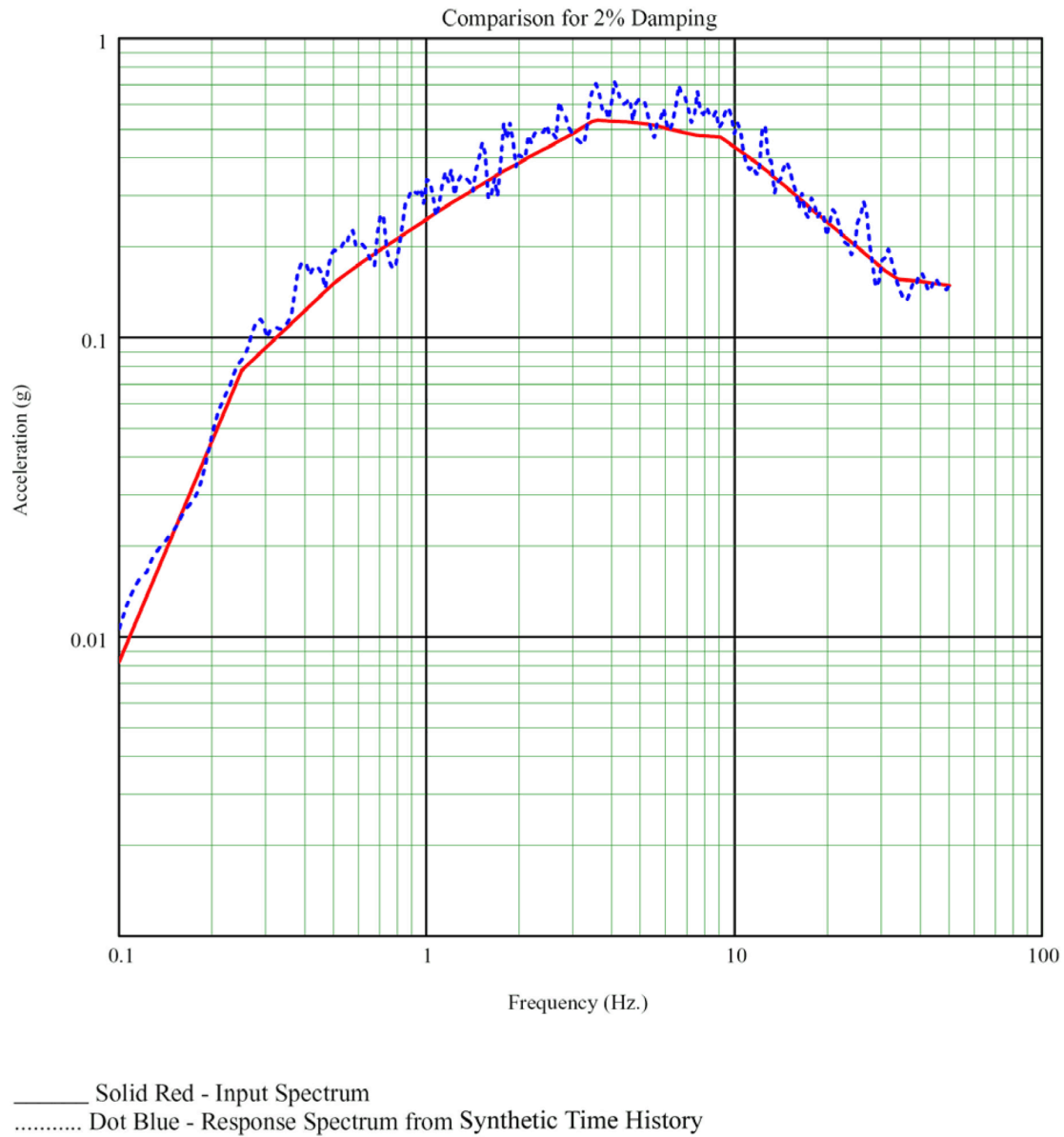


Figure 3H.6-14a Comparison of Input Spectrum and Spectrum from Synthetic Time History, Vertical – 2% Damping

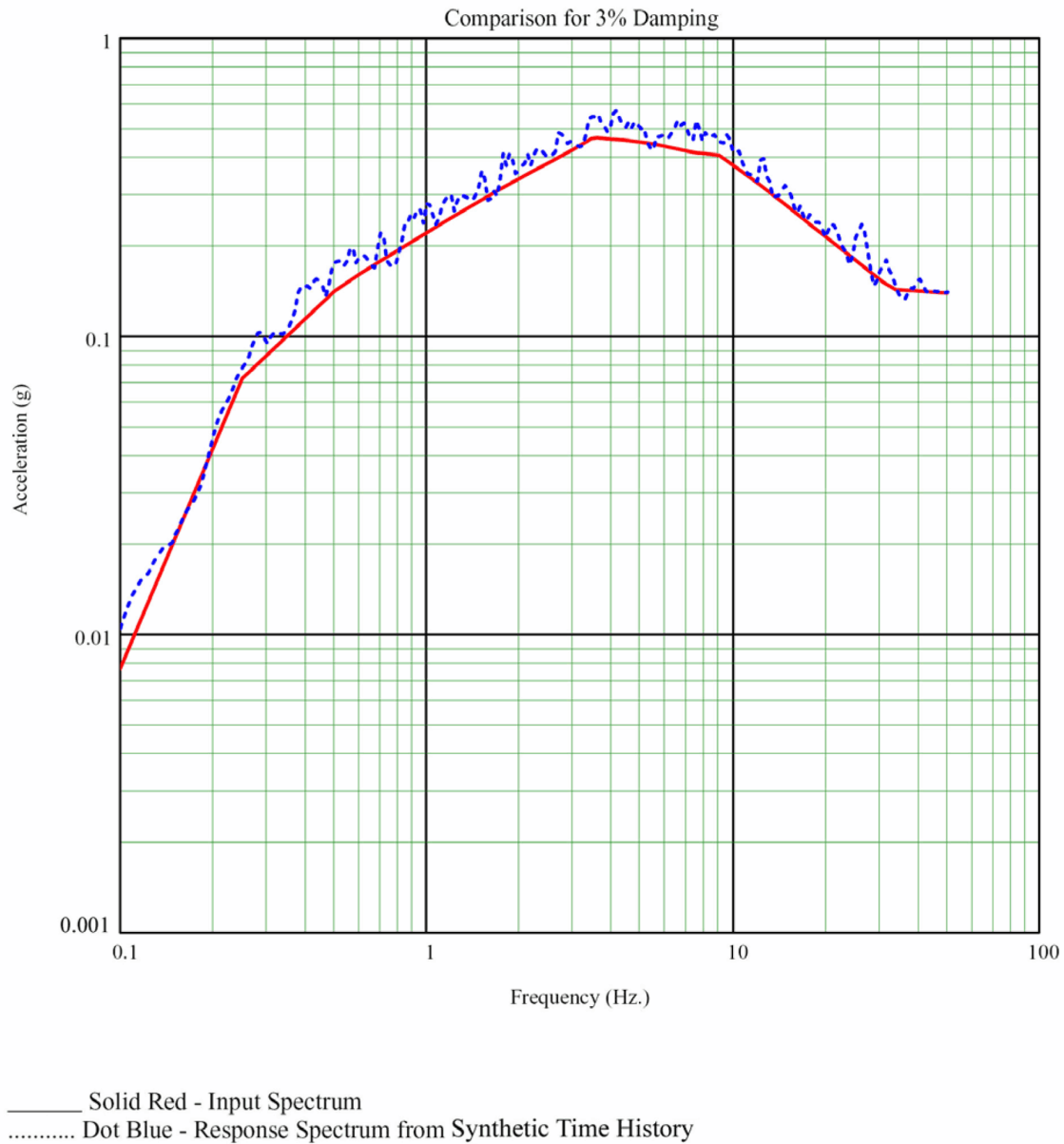


Figure 3H.6-14b Comparison of Input Spectrum and Spectrum from Synthetic Time History, Vertical – 3% Damping

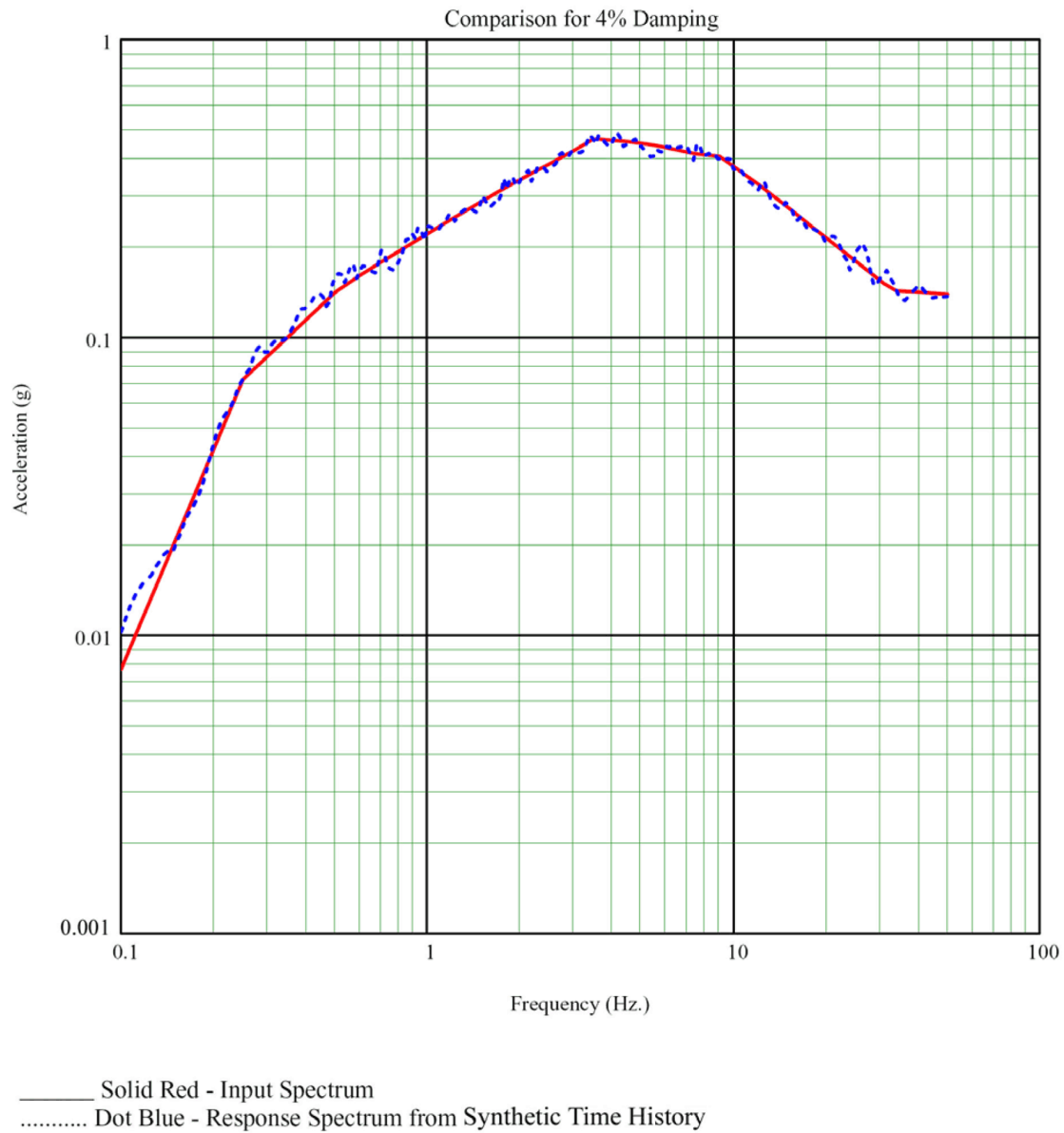


Figure 3H.6-14c Comparison of Input Spectrum and Spectrum from Synthetic Time History, Vertical – 4% Damping

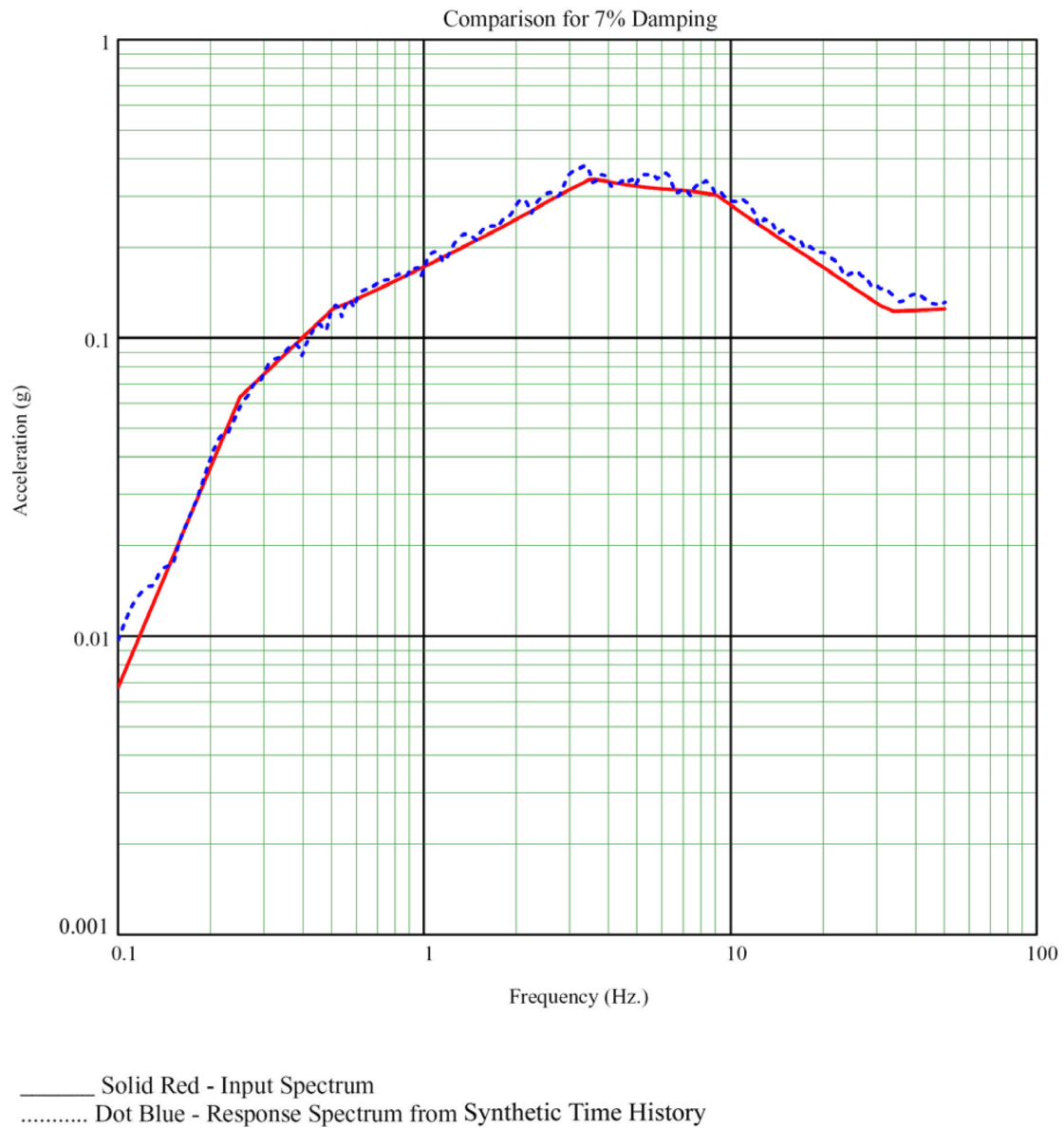


Figure 3H.6-14d Comparison of Input Spectrum and Spectrum from Synthetic Time History, Vertical – 7% Damping

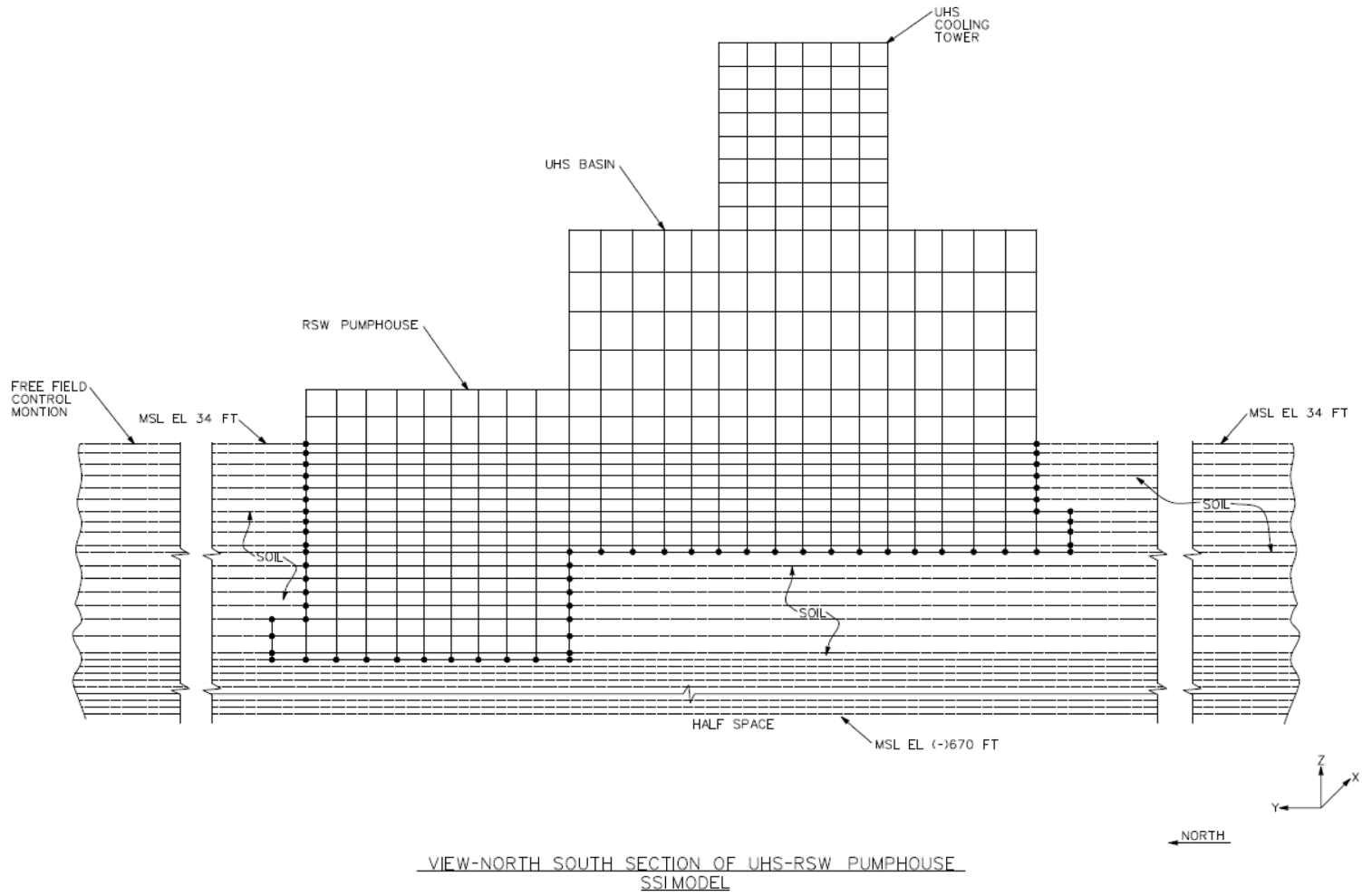


Figure 3H.6-15 SASSI2000 Model of UHS and RSW Pump House

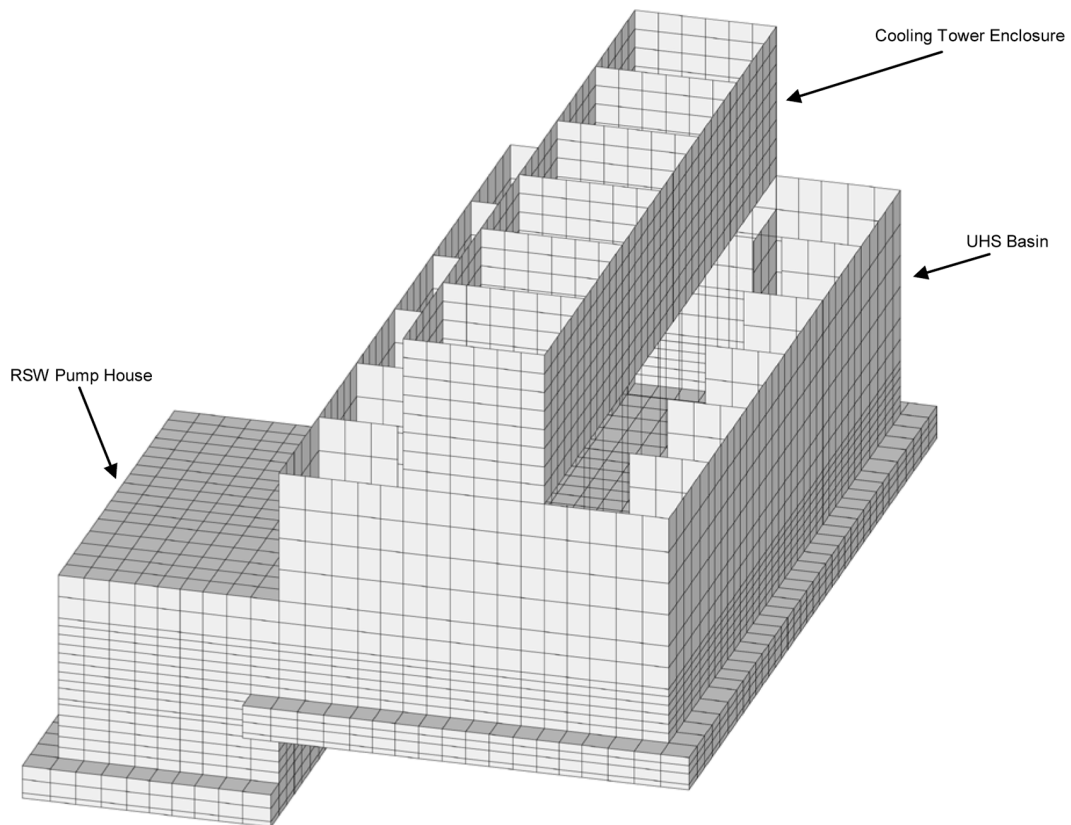
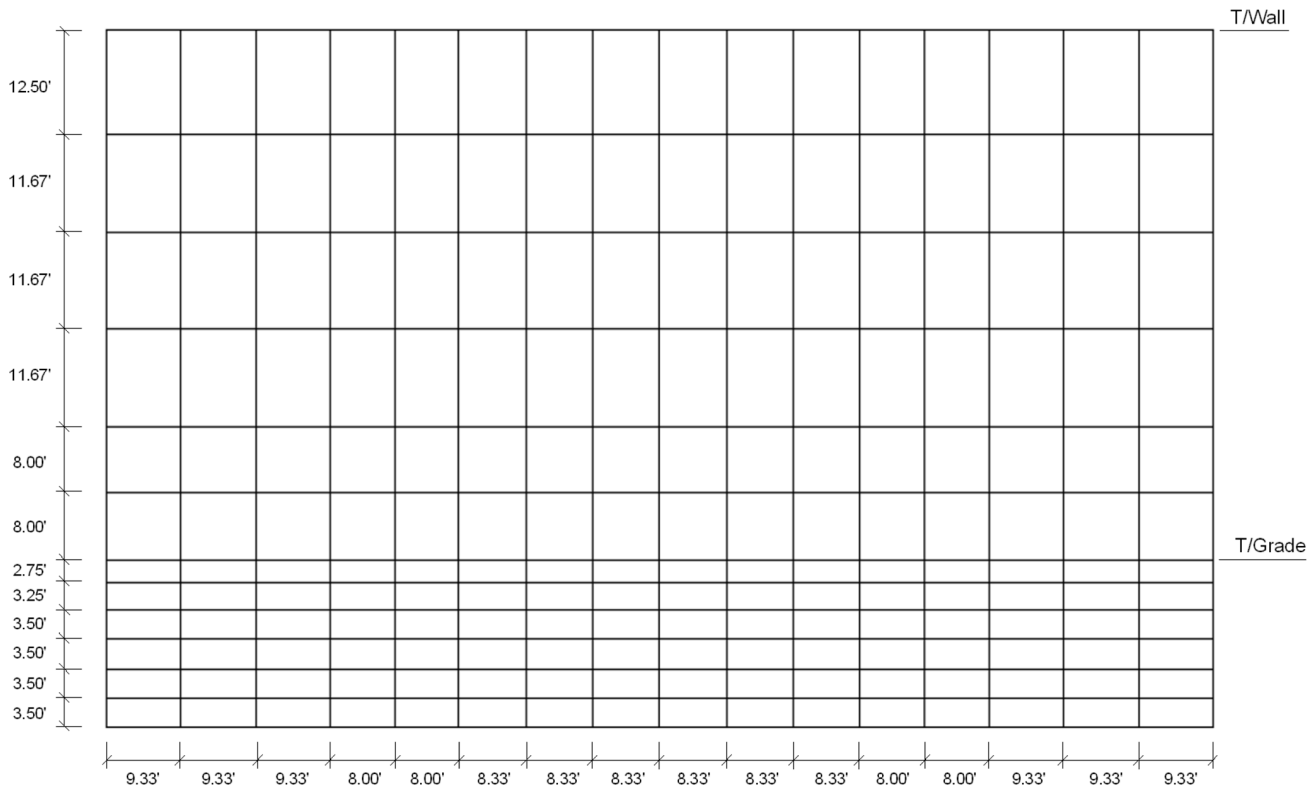
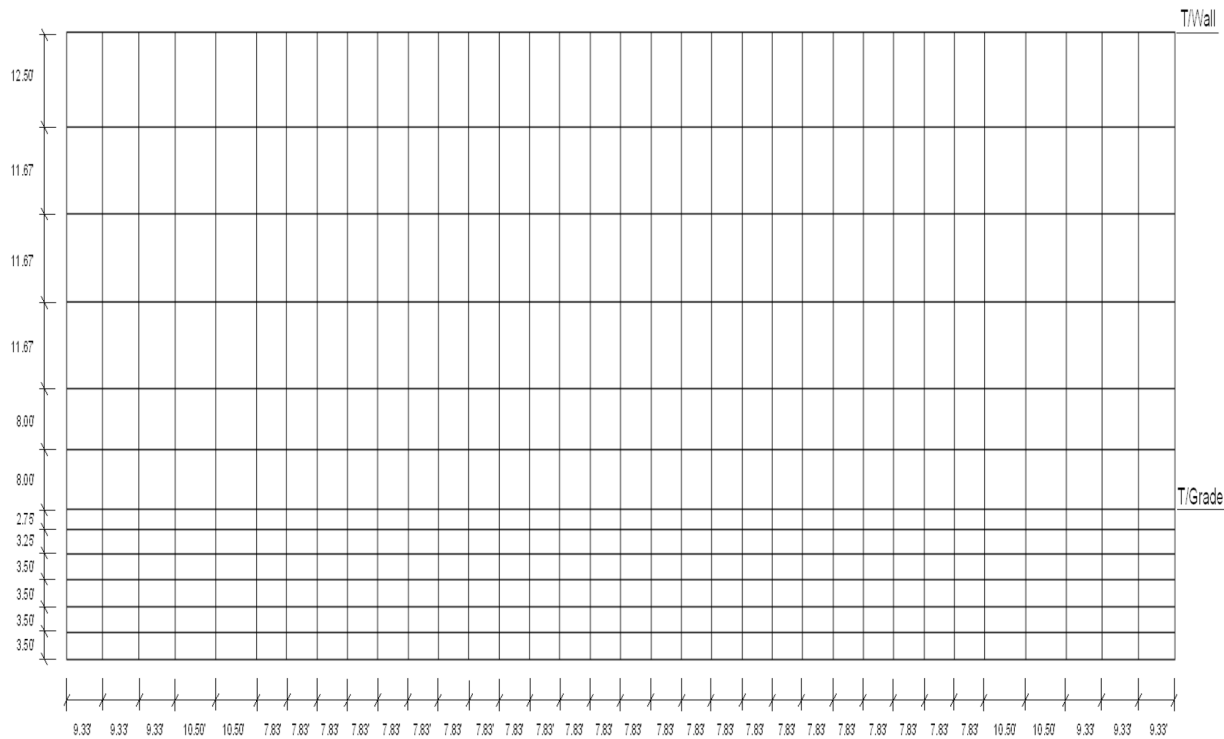


Figure 3H.6-15a SSI Model (structure only)



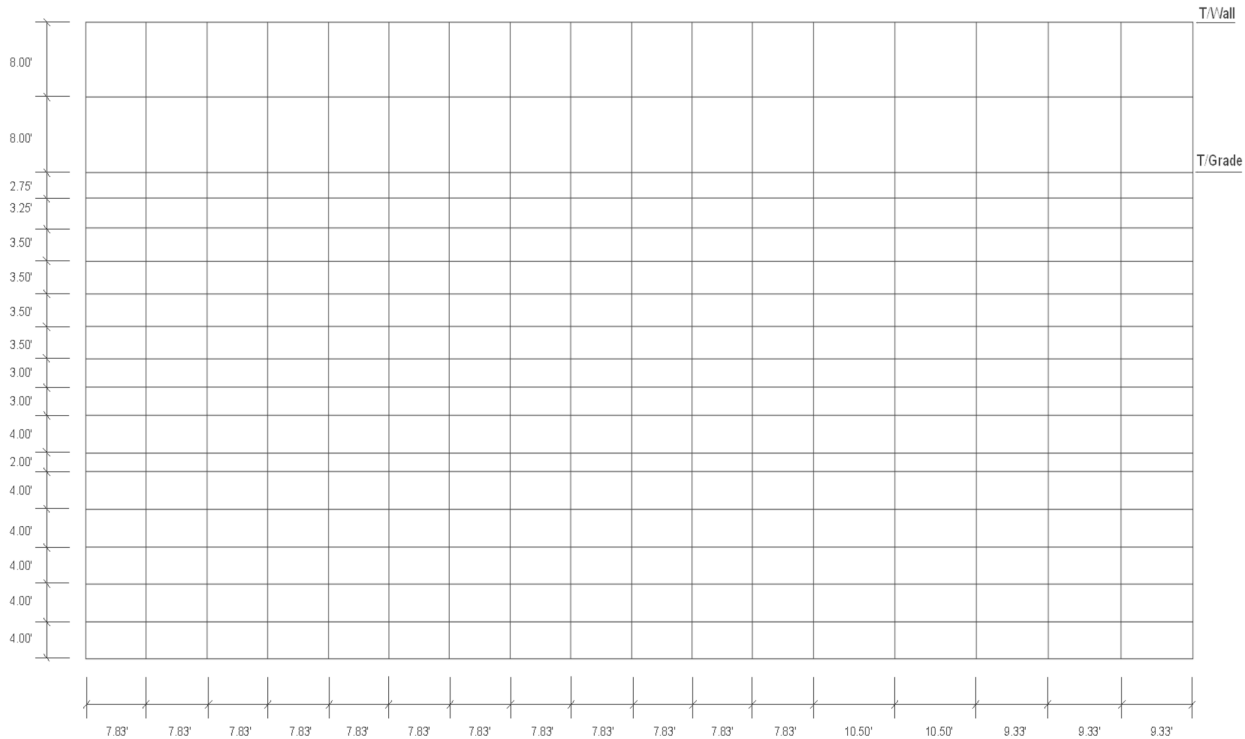
Note: Basin East and West Walls have the same mesh. The mesh is symmetrical about the vertical axis such that the view is the same whether looking at the wall from the inside or outside of the basin.

Figure 3H.6-15b UHS Basin East and West Wall – SSI Model



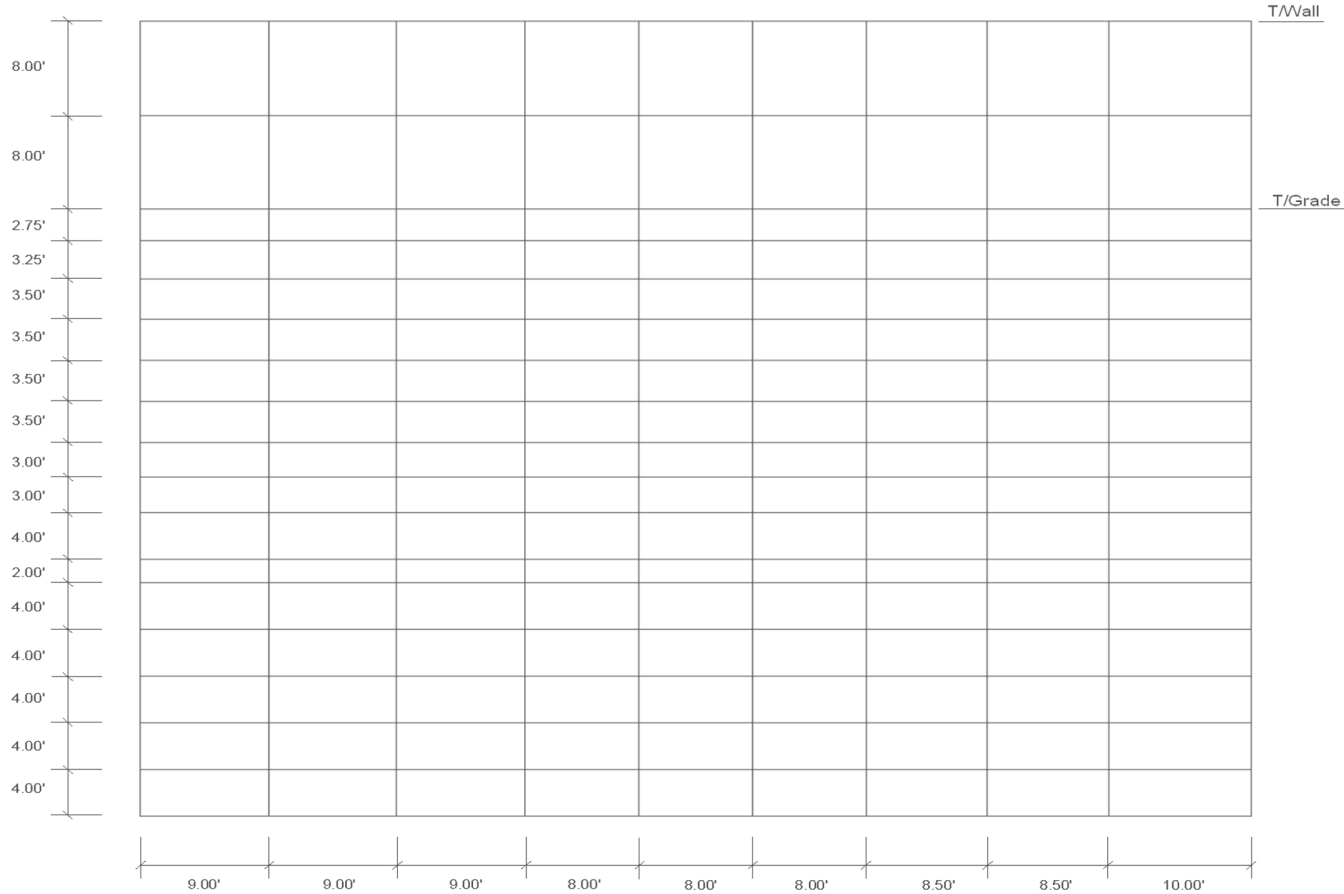
Note: Basin North and South Walls have the same mesh. The mesh is symmetrical about the vertical axis such that the view is the same whether looking at the wall from the inside or outside of the basin.

Figure 3H.6-15c UHS Basin North and South Wall – SSI Model



Note: The view is looking south at the outside face of the RSW pump house north wall.

Figure 3H.6-15d RSW Pump House North Wall – SSI Model



Note: The view above is looking east at the outside face of the RSW pump house west wall. The RSW pump house east wall mesh is the mirror image of the RSW pump house west wall mesh with the same dimensions

Figure 3H.6-15e RSW Pump House East and West Wall – SSI Model

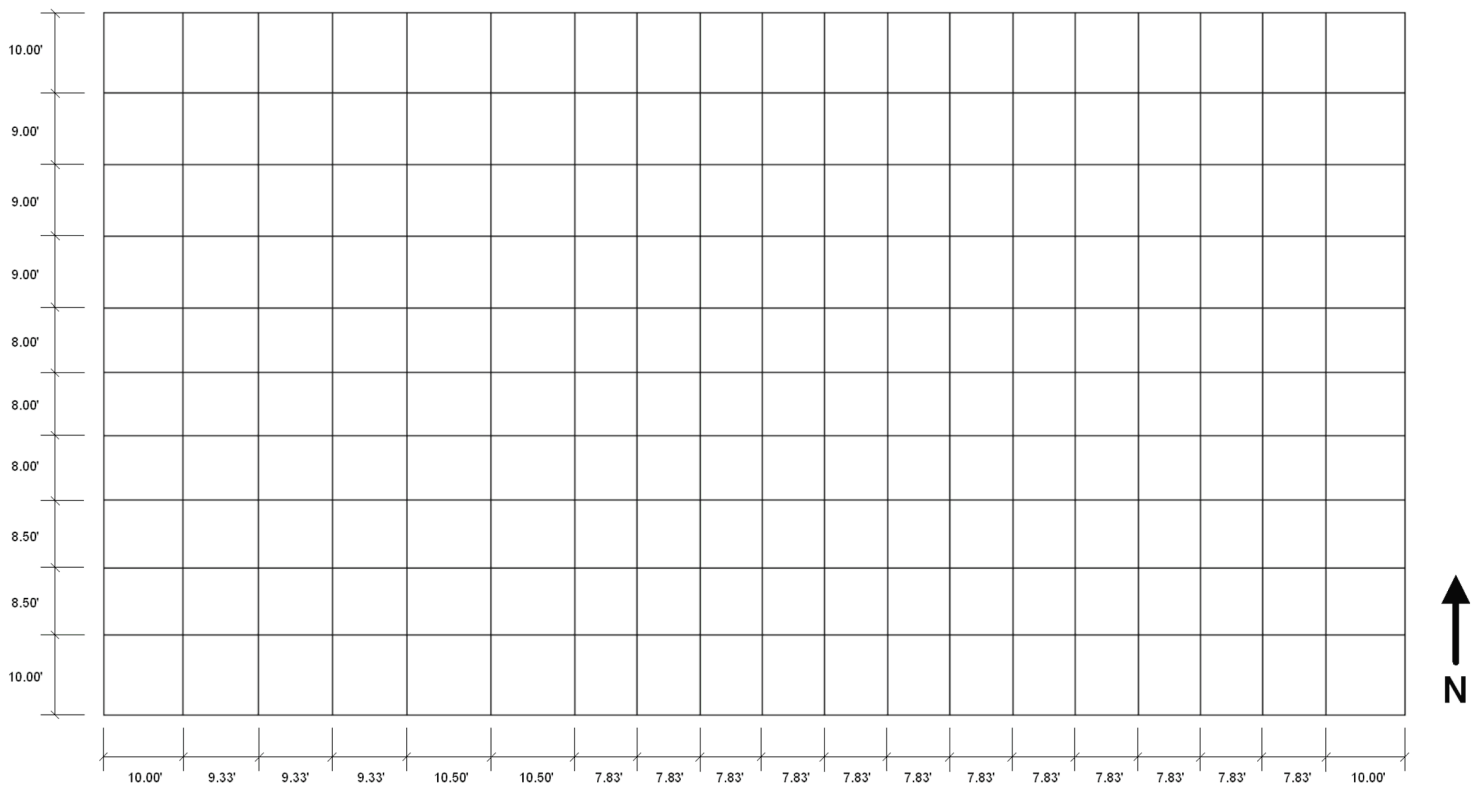


Figure 3H.6-15g RSW Pump House Basemat – SSI Model

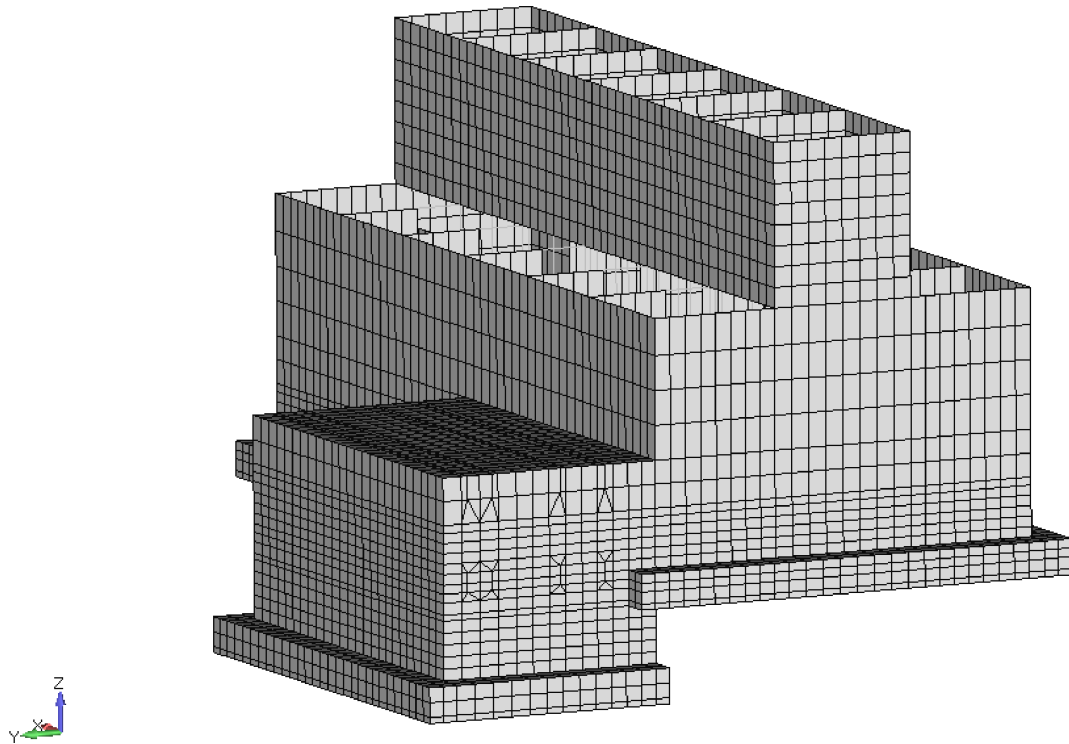


Figure 3H.6-15h SSI Refined Mesh Model of UHS/RSW Pump House

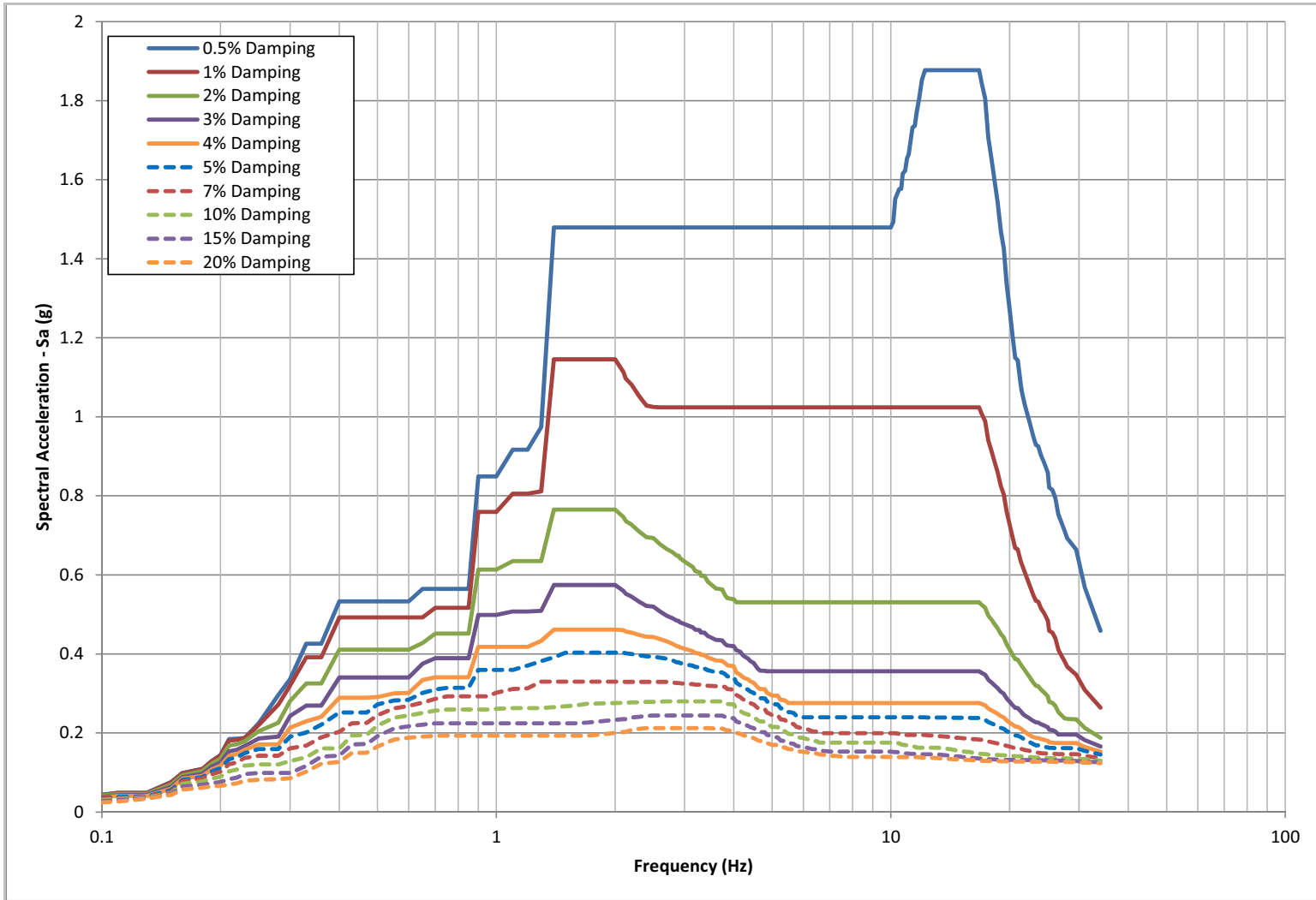


Figure 3H.6-16 Broadened FRS in E-W (X) Direction at the Top of RSW Pump House Mat (Elevation -18 ft MSL)

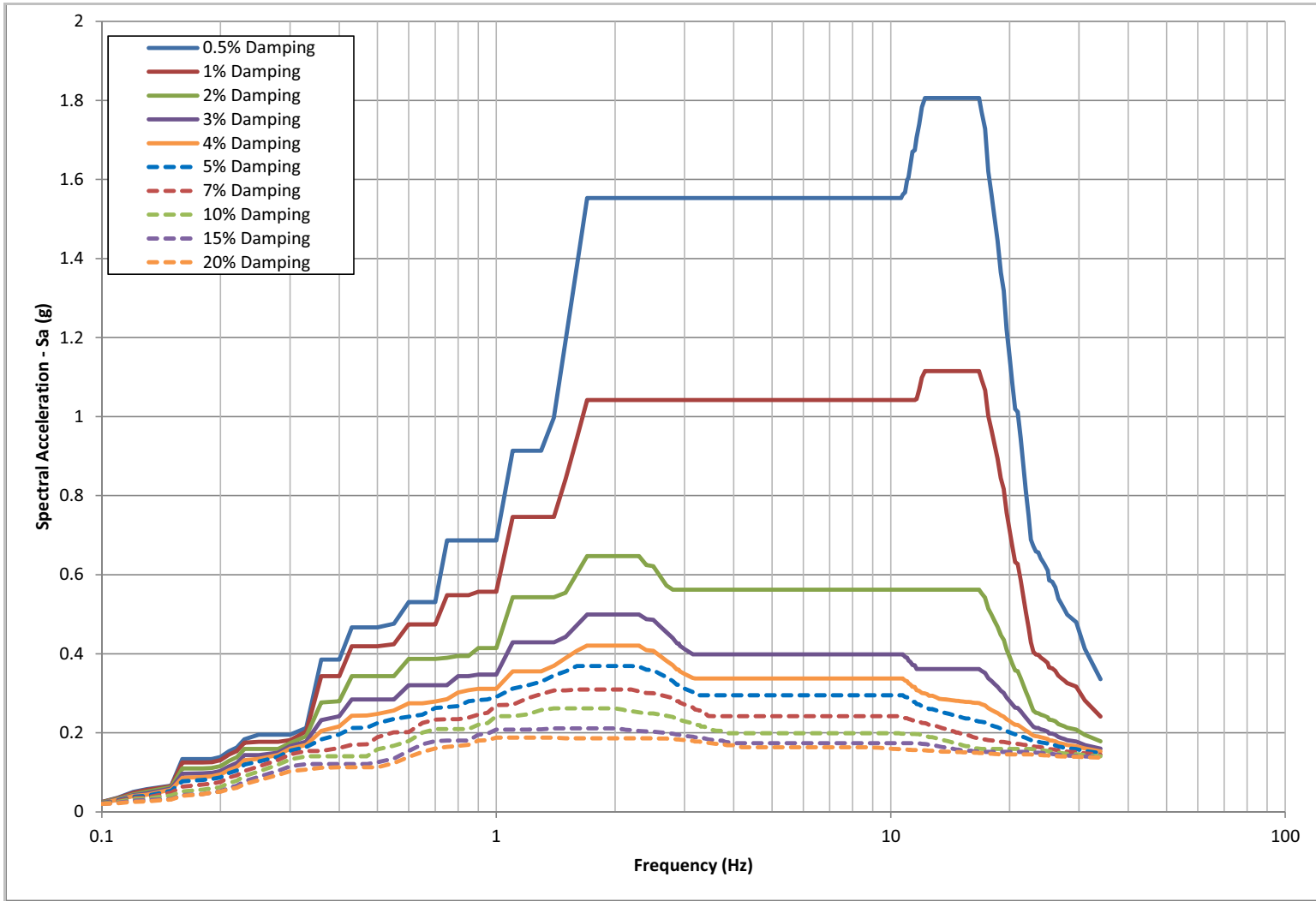


Figure 3H.6-17 Broadened FRS in N-S (Y) Direction at the Top of RSW Pump House Mat (Elevation -18 ft MSL)

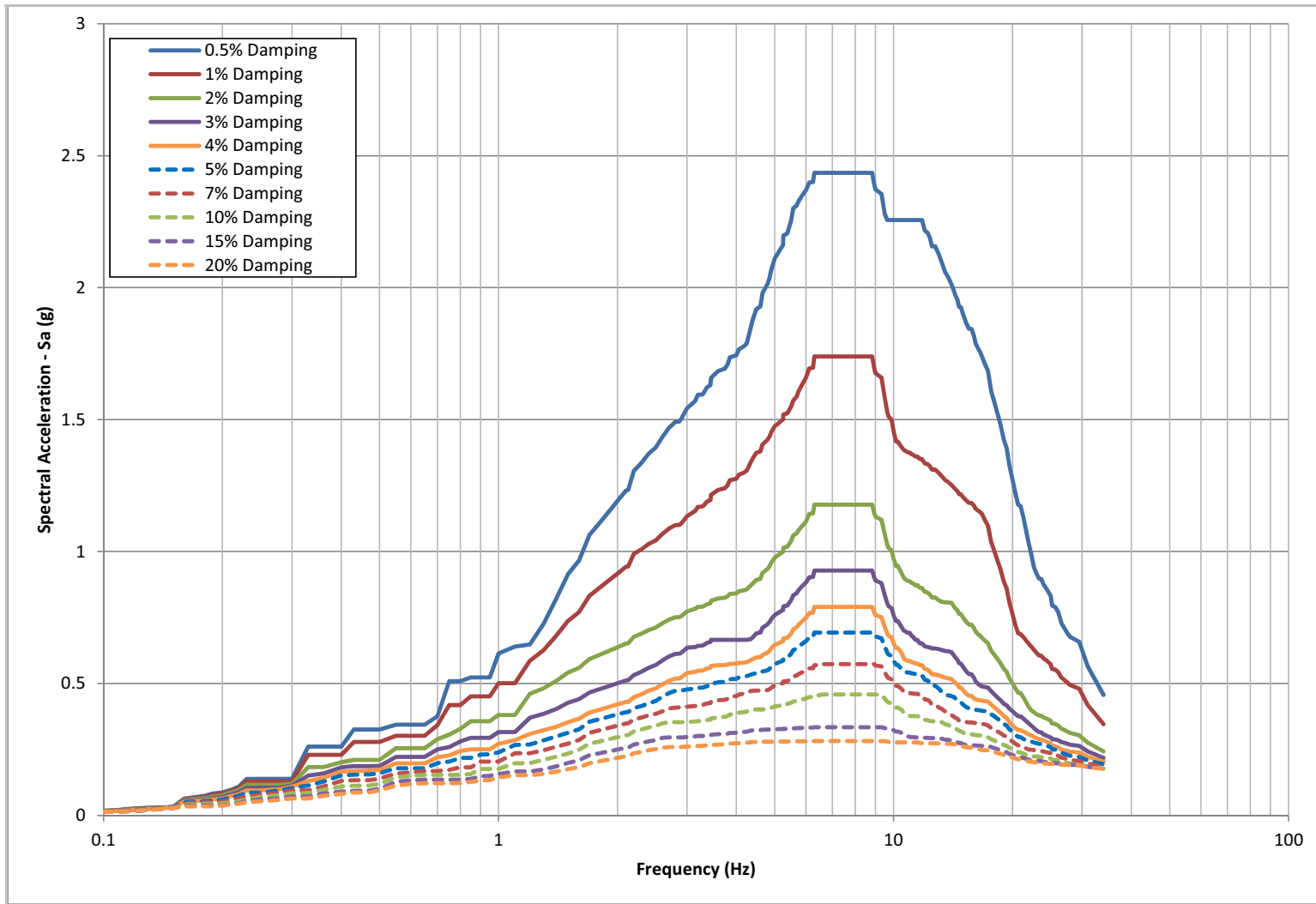


Figure 3H.6-18 Broadened FRS in Vertical (Z) Direction at the Top of RSW Pump House Mat (Elevation -18 ft MSL)

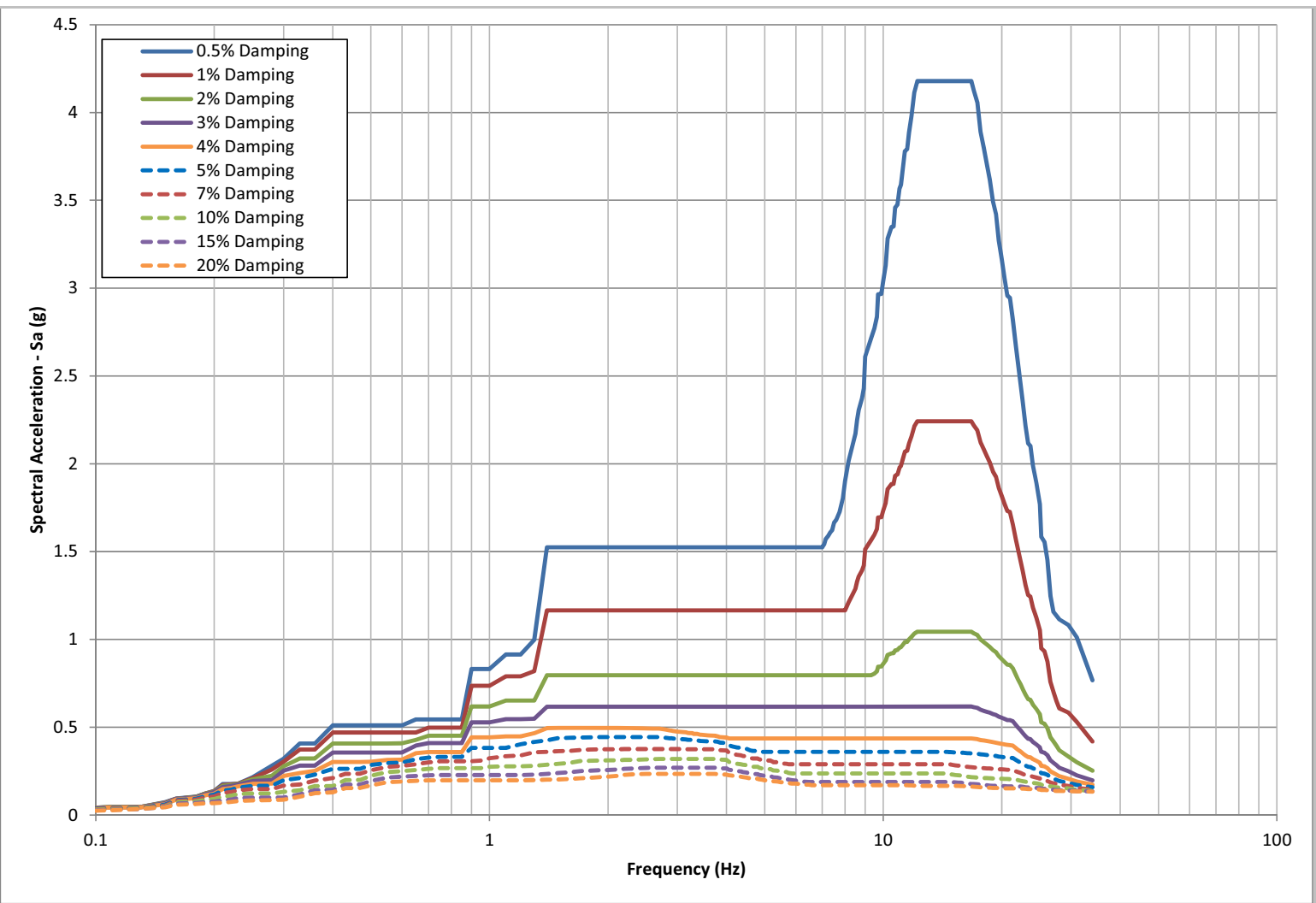


Figure 3H.6-19 Broadened FRS in E-W (X) Direction at the RSW Pump House Operating Floor (Elevation 14 ft MSL)

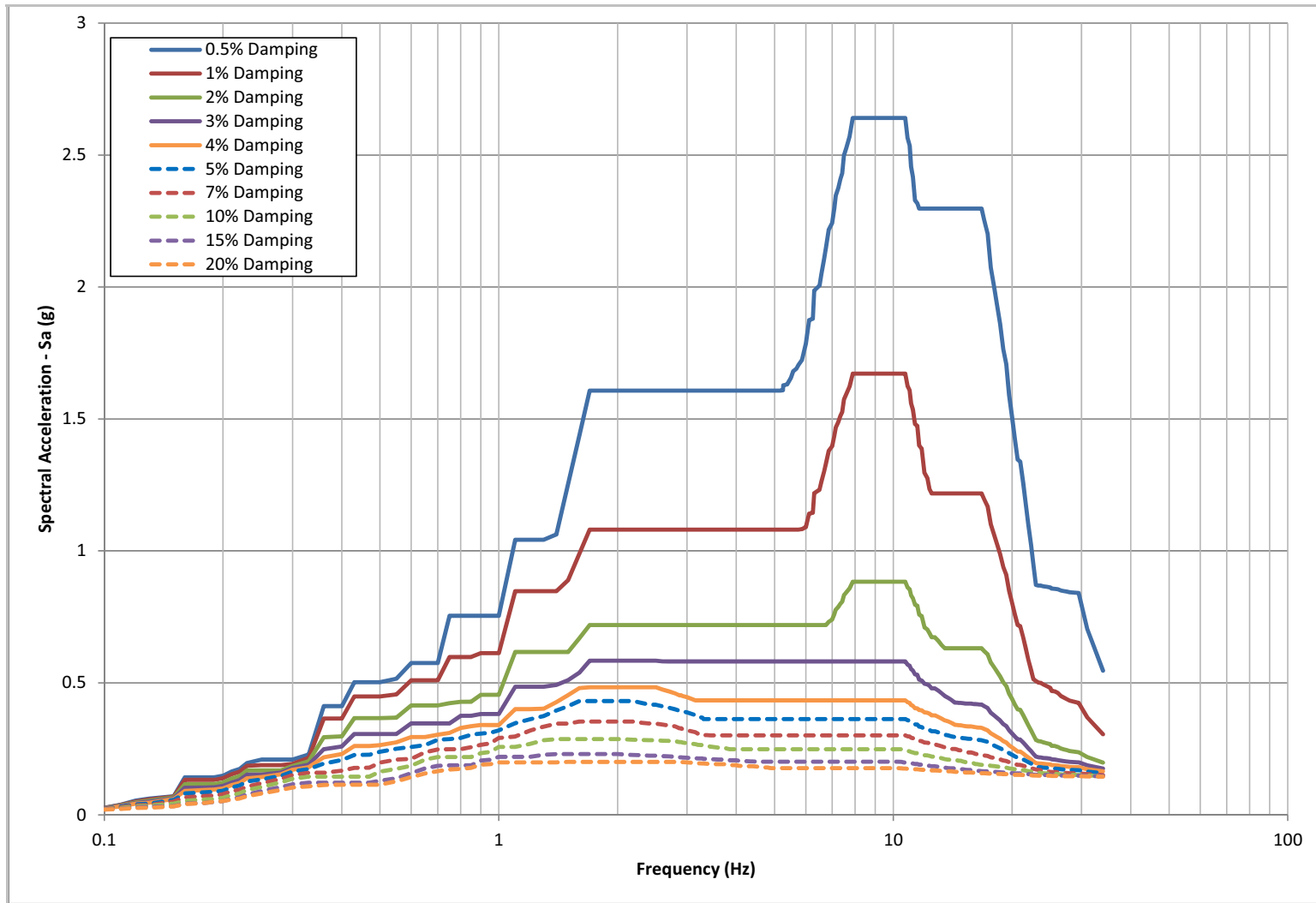


Figure 3H.6-20 Broadened FRS in N-S (Y) Direction at the RSW Pump House Operating Floor (Elevation 14 ft MSL)

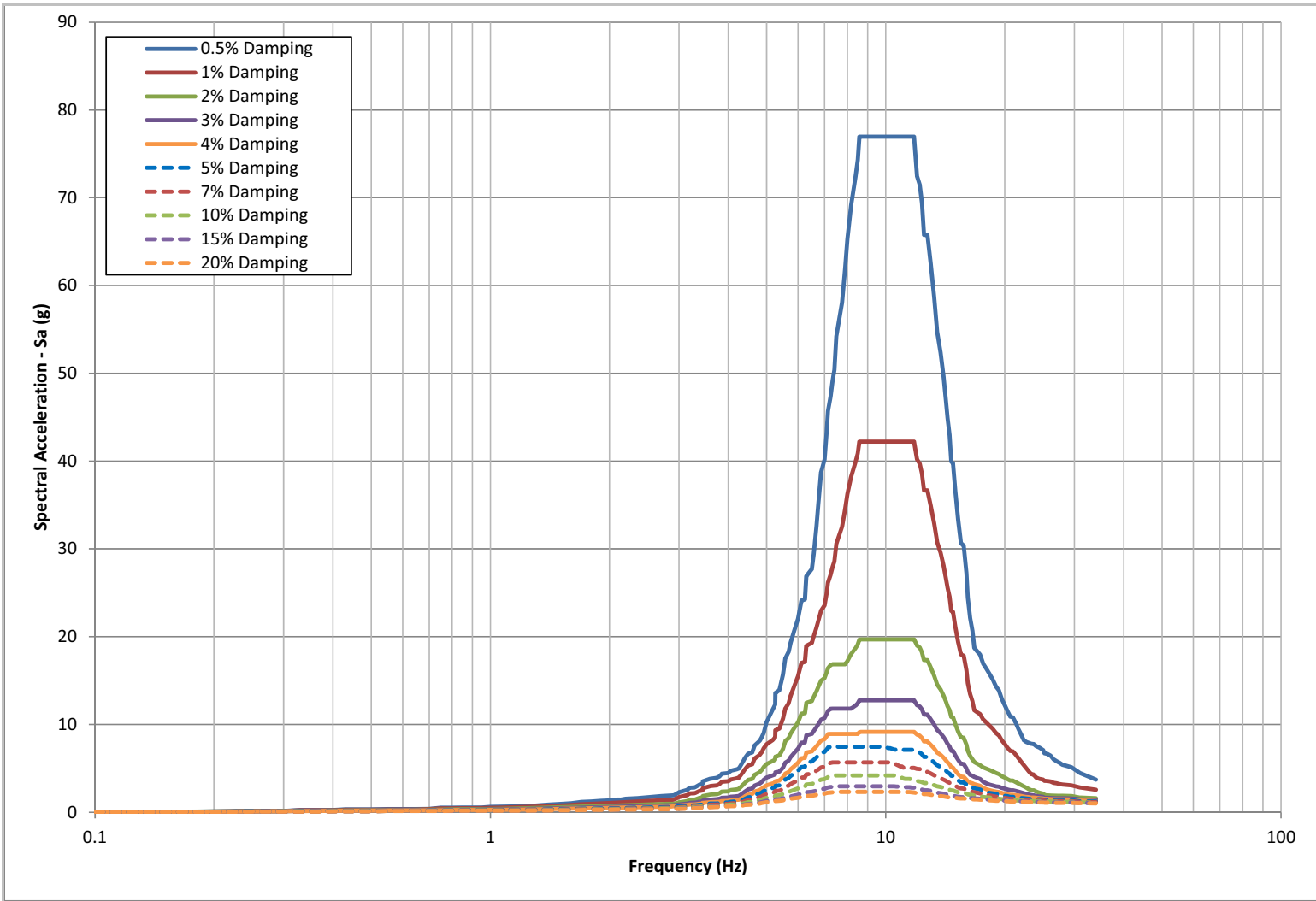


Figure 3H.6-21 Broadened FRS in Vertical (Z) Direction at the RSW Pump House Operating Floor (Elevation 14 ft MSL)

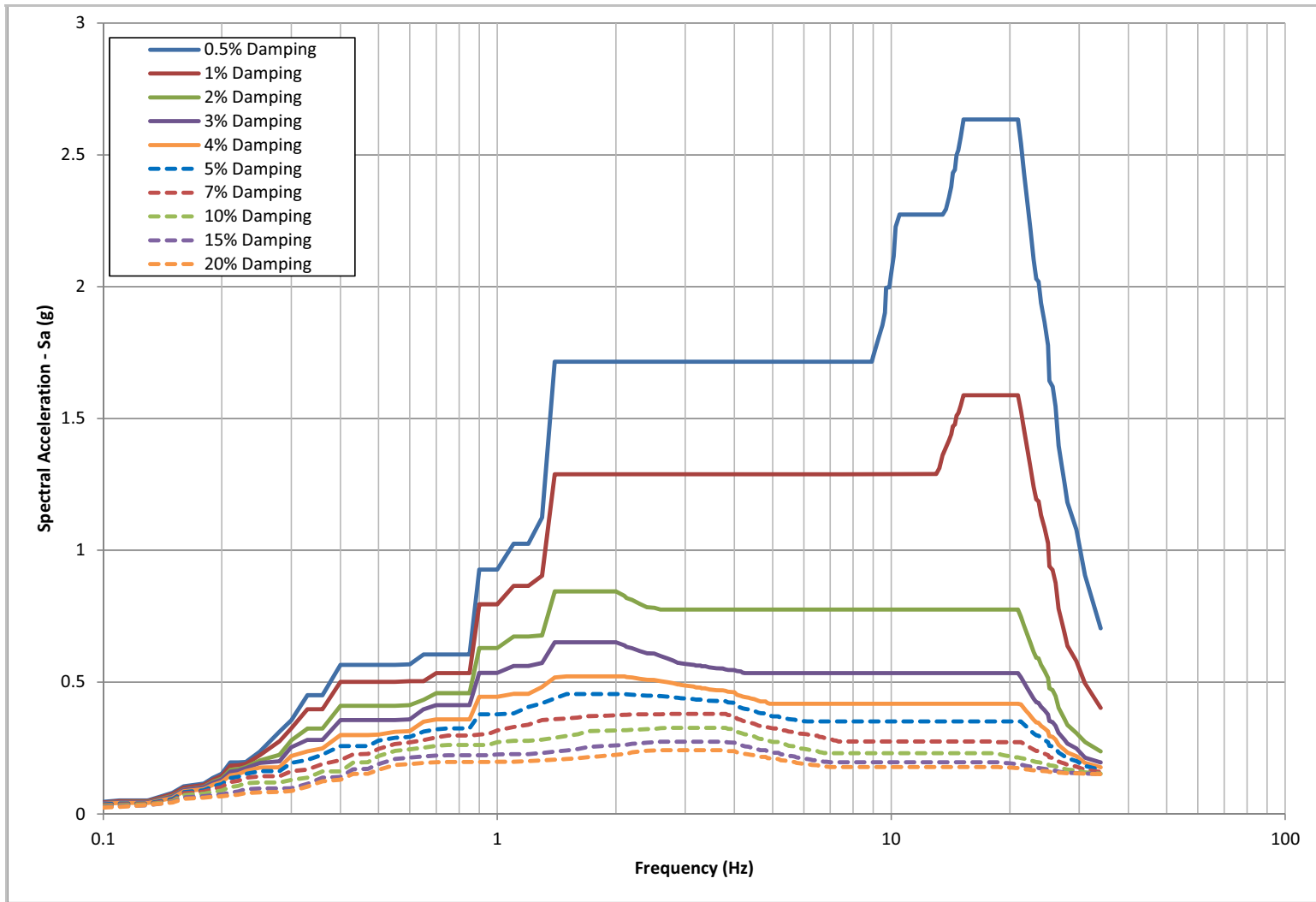


Figure 3H.6-22 Broadened FRS in E-W (X) Direction at the RSW Pump House Roof (Elevation 50 ft MSL)

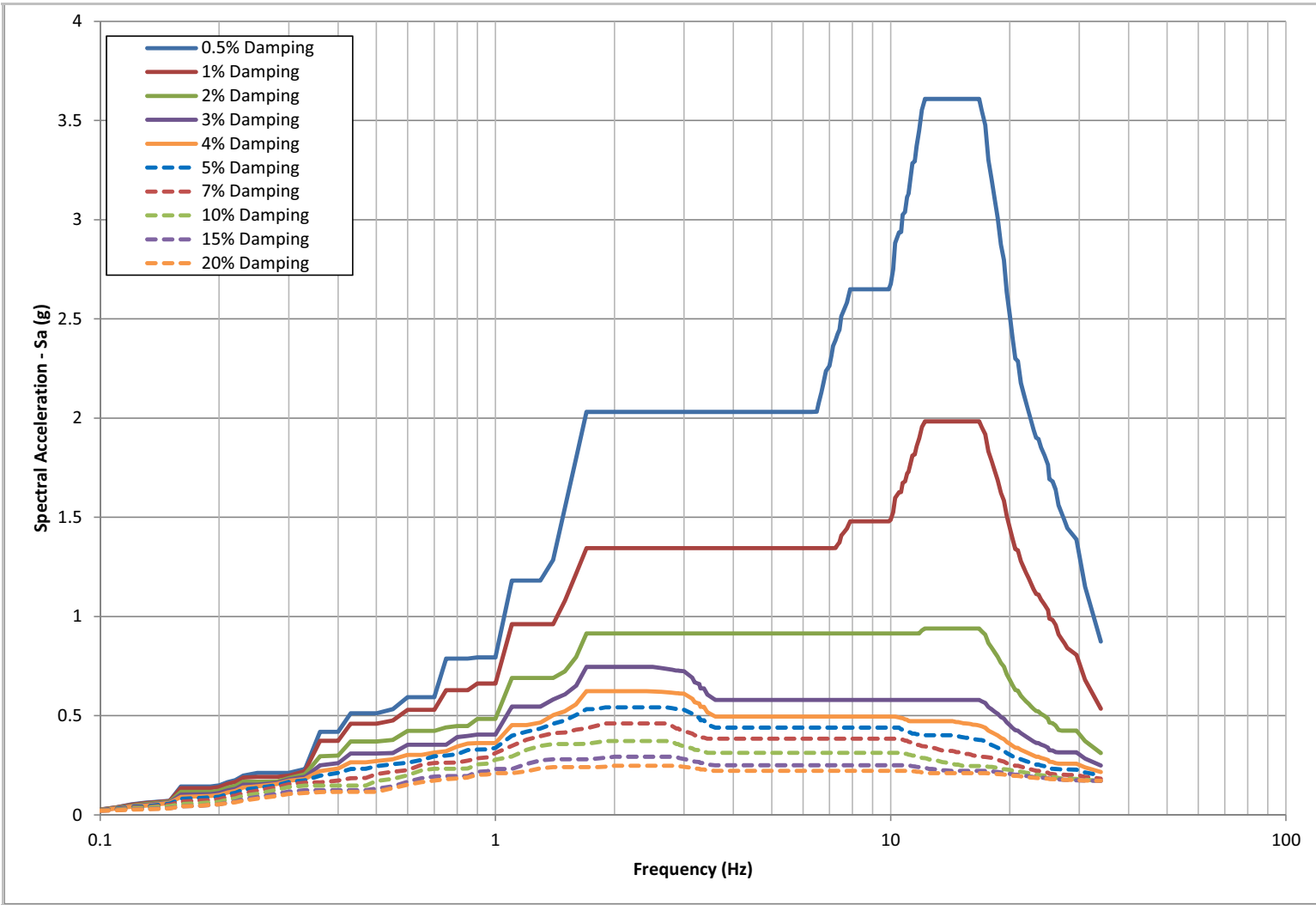


Figure 3H.6-23 Broadened FRS in N-S (Y) Direction at the RSW Pump House Roof (Elevation 50 ft MSL)

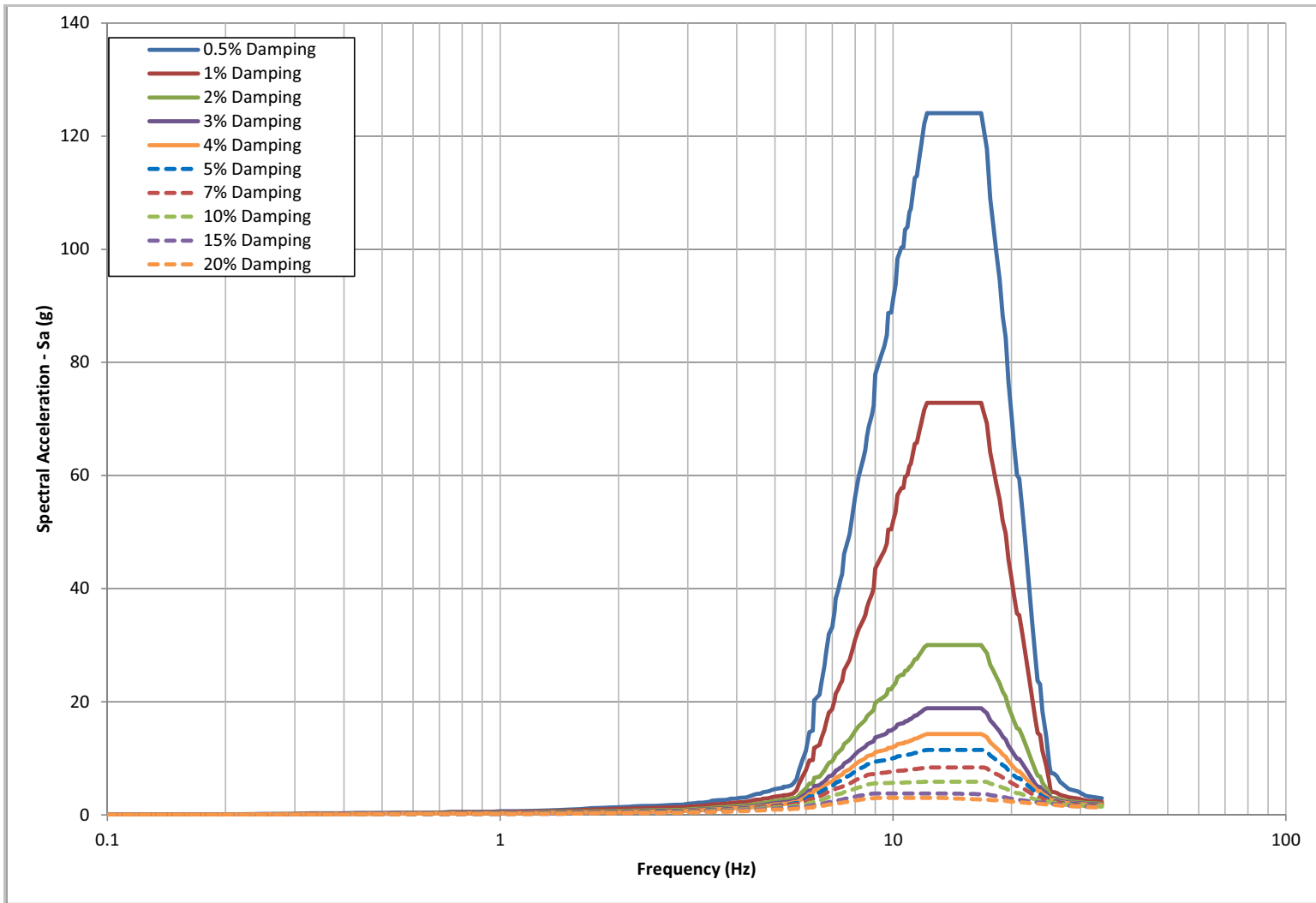


Figure 3H.6-24 Broadened FRS in Vertical (Z) Direction at the RSW Pump House Roof (Elevation 50 ft MSL)

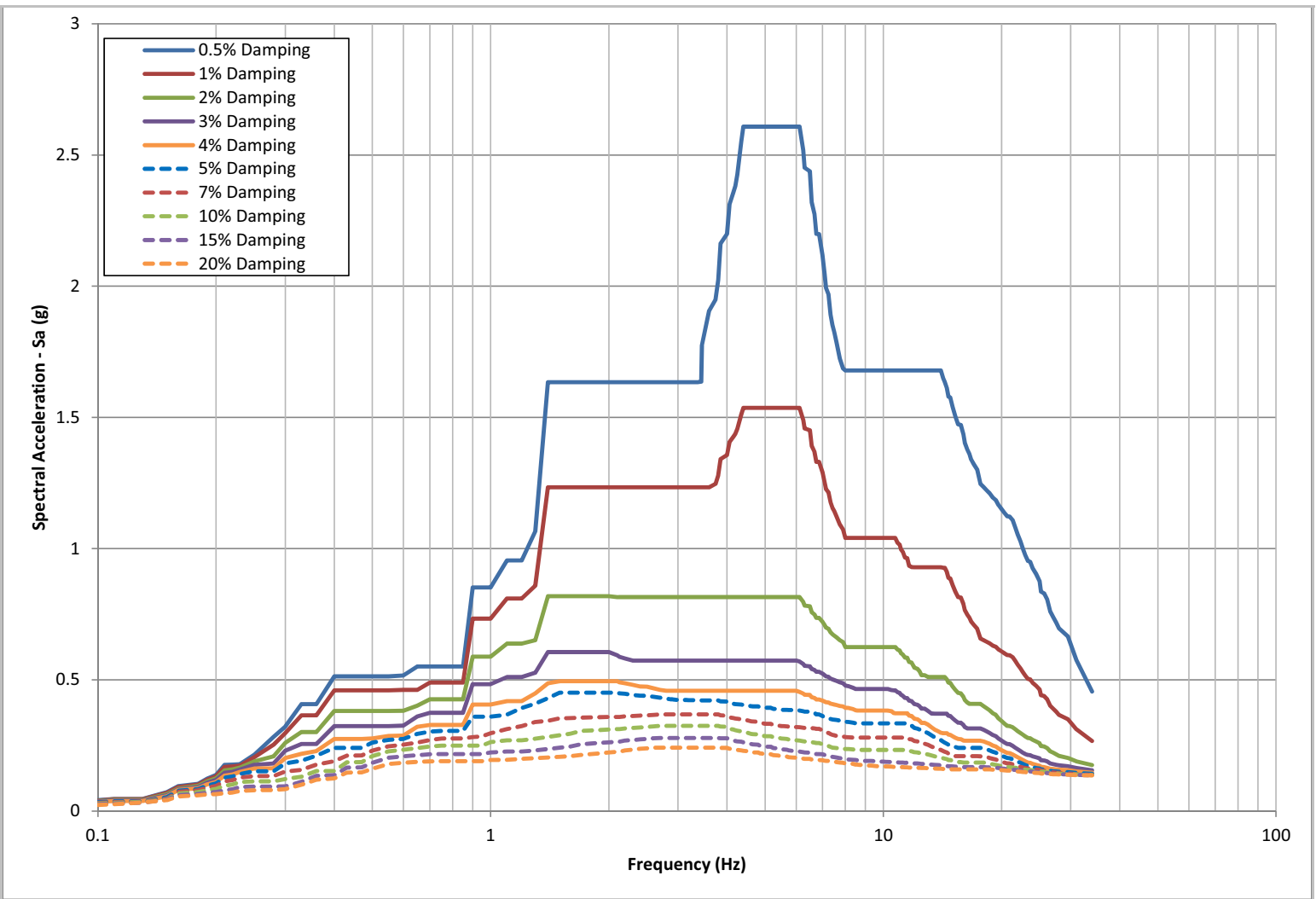


Figure 3H.6-25 Broadened FRS in E-W (X) Direction at the Top of UHS Basin Mat (Elevation 14 ft MSL)

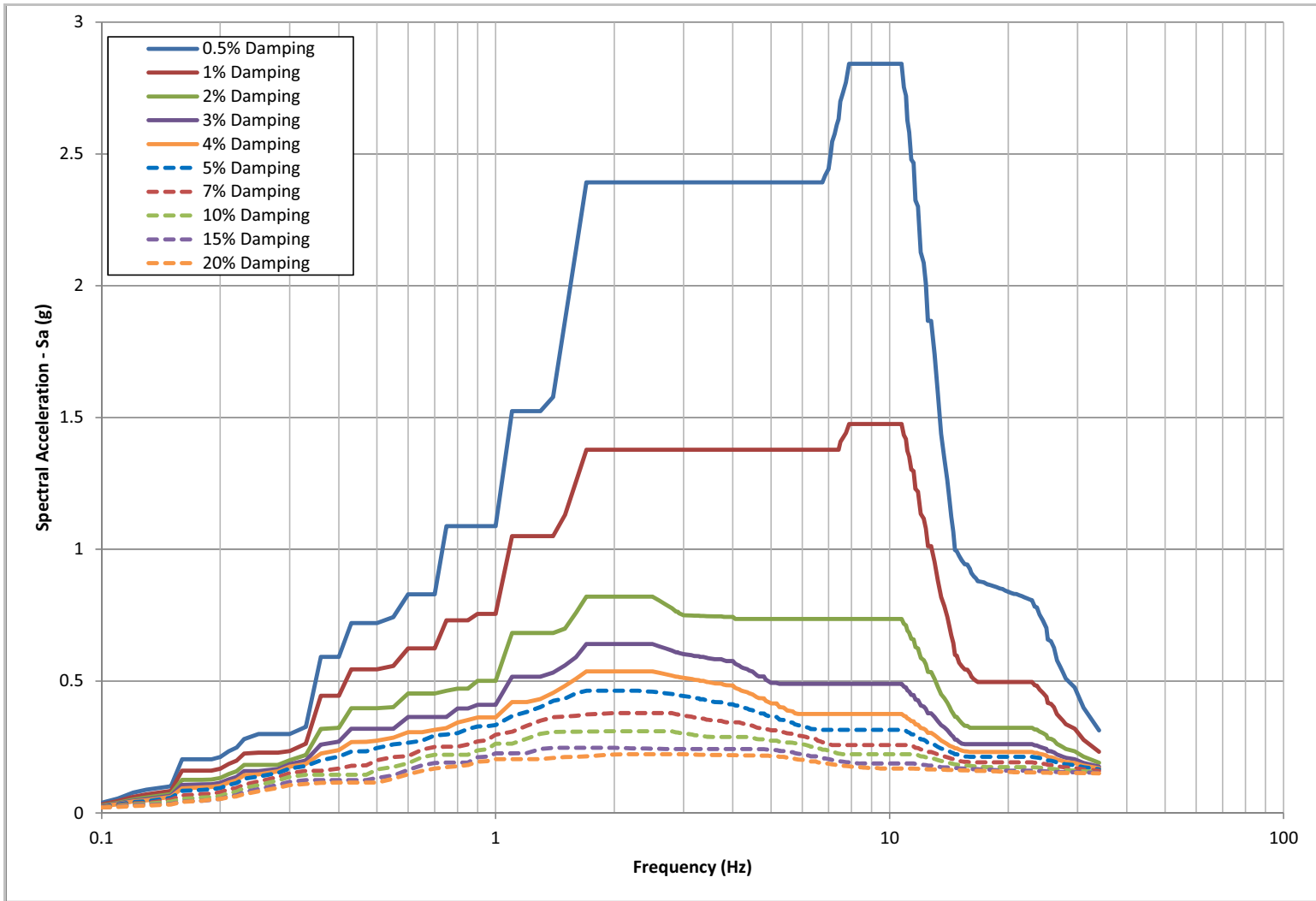


Figure 3H.6-26 Broadened FRS in N-S (Y) Direction at the Top of UHS Basin Mat (Elevation 14 ft MSL)

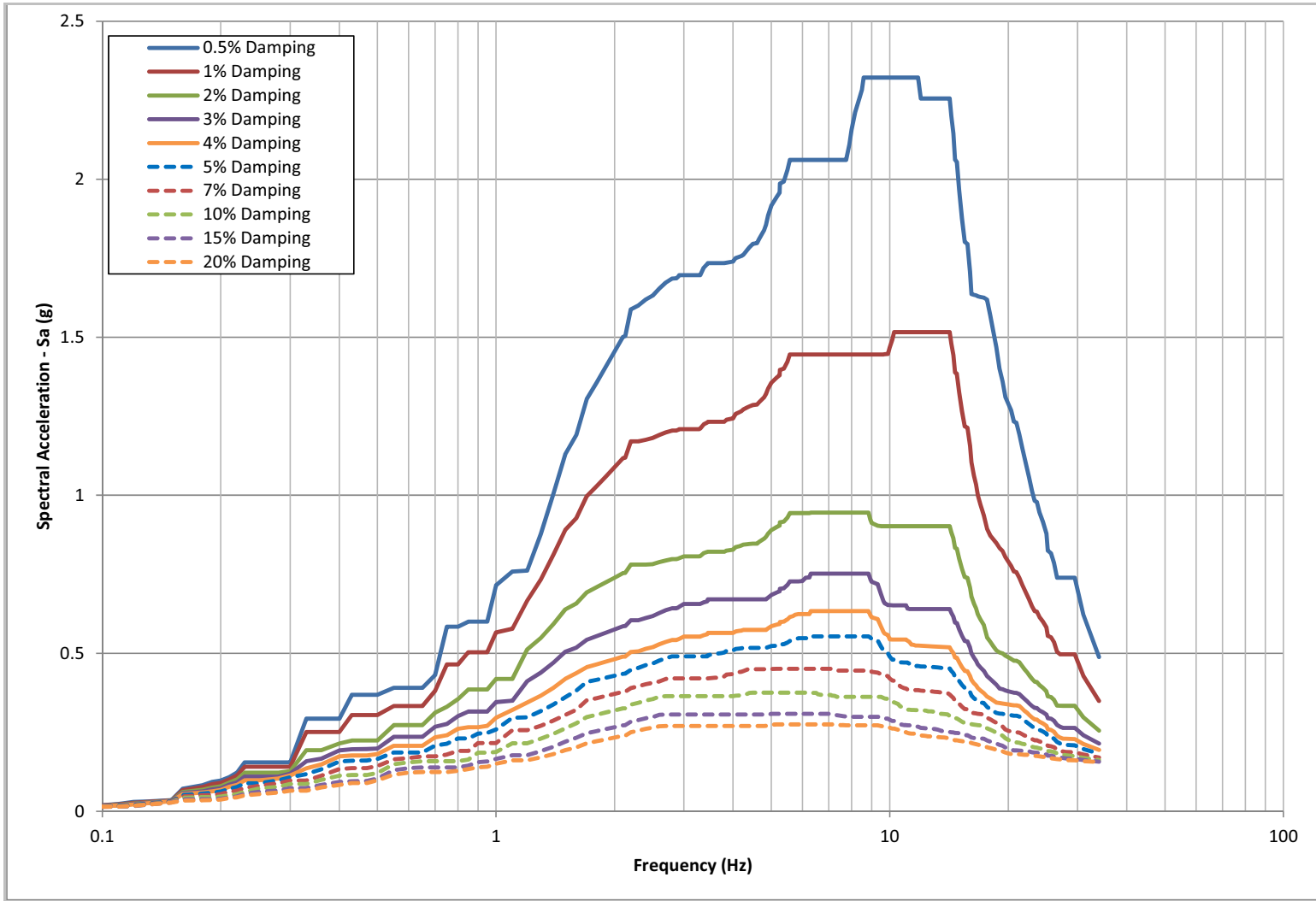


Figure 3H.6-27 Broadened FRS in Vertical (Z) Direction at the Top of UHS Basin Mat (Elevation 14 ft MSL)

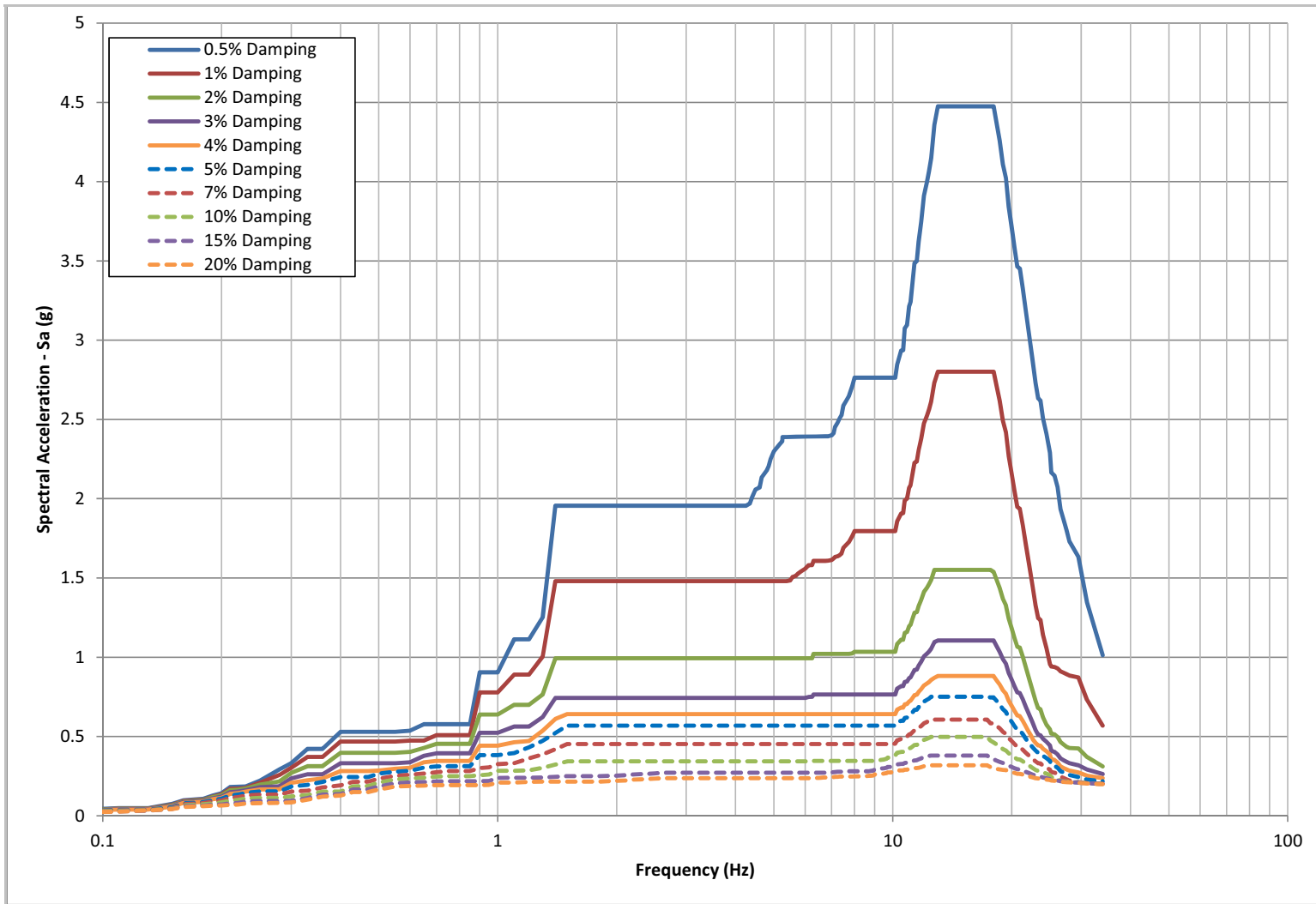


Figure 3H.6-28 Broadened FRS in E-W (X) Direction at the Top of the UHS Basin Walls (Elevation 97.5 ft MSL)

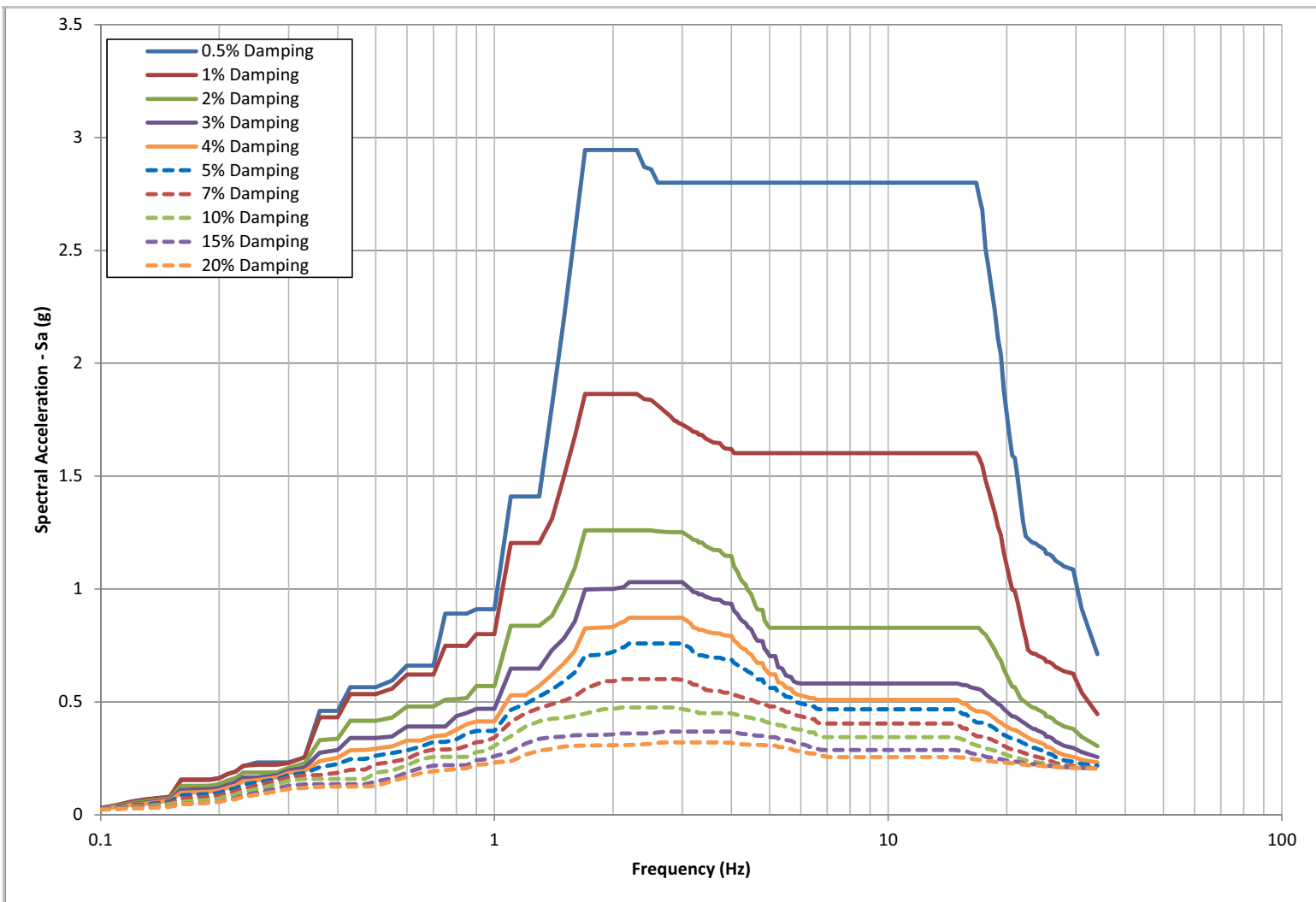


Figure 3H.6-29 Broadened FRS in N-S (Y) Direction at the Top of the UHS Basin Walls (Elevation 97.5 ft MSL)

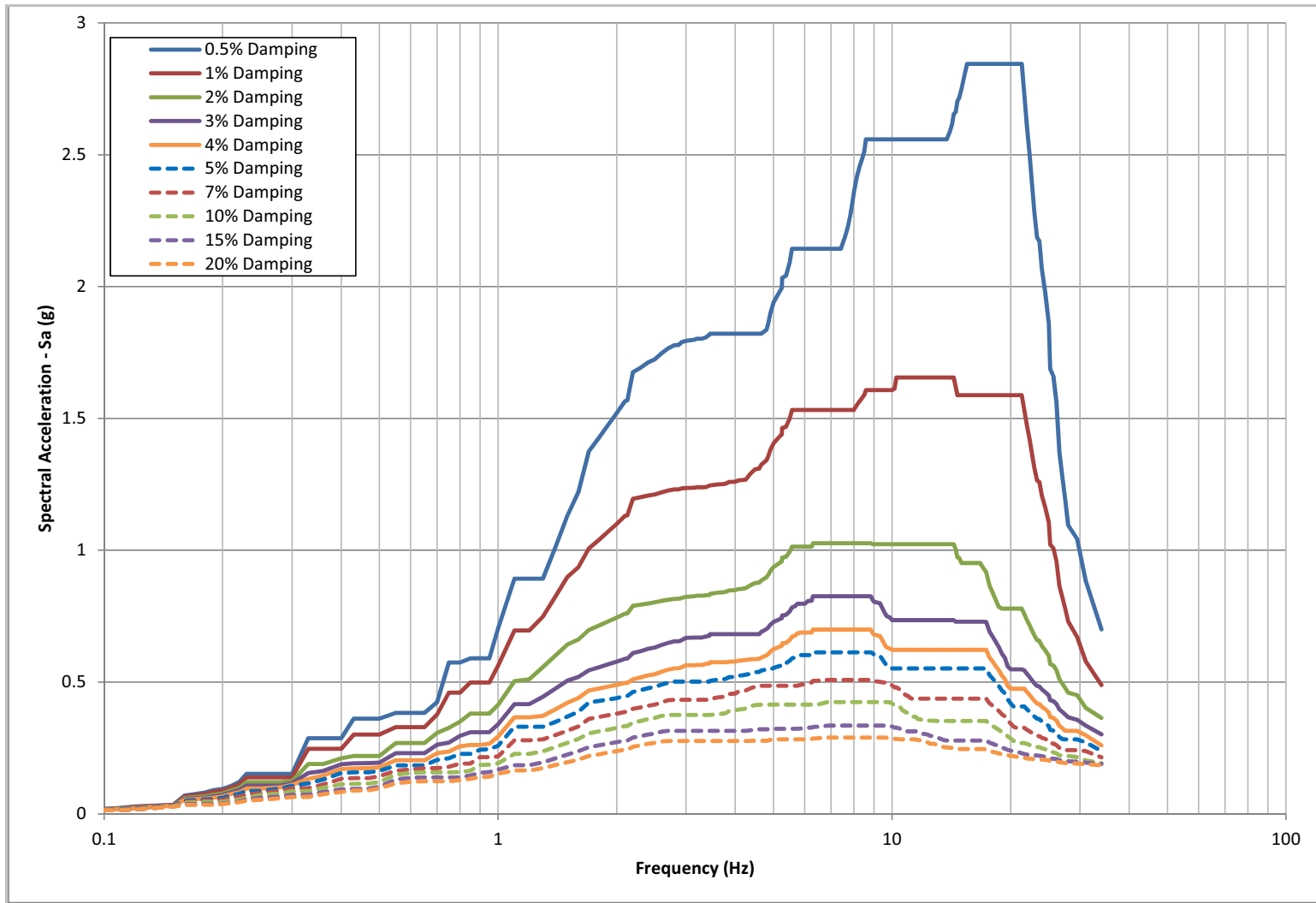


Figure 3H.6-30 Broadened FRS in Vertical (Z) Direction at the Top of the UHS Basin Walls (Elevation 97.5 ft MSL)

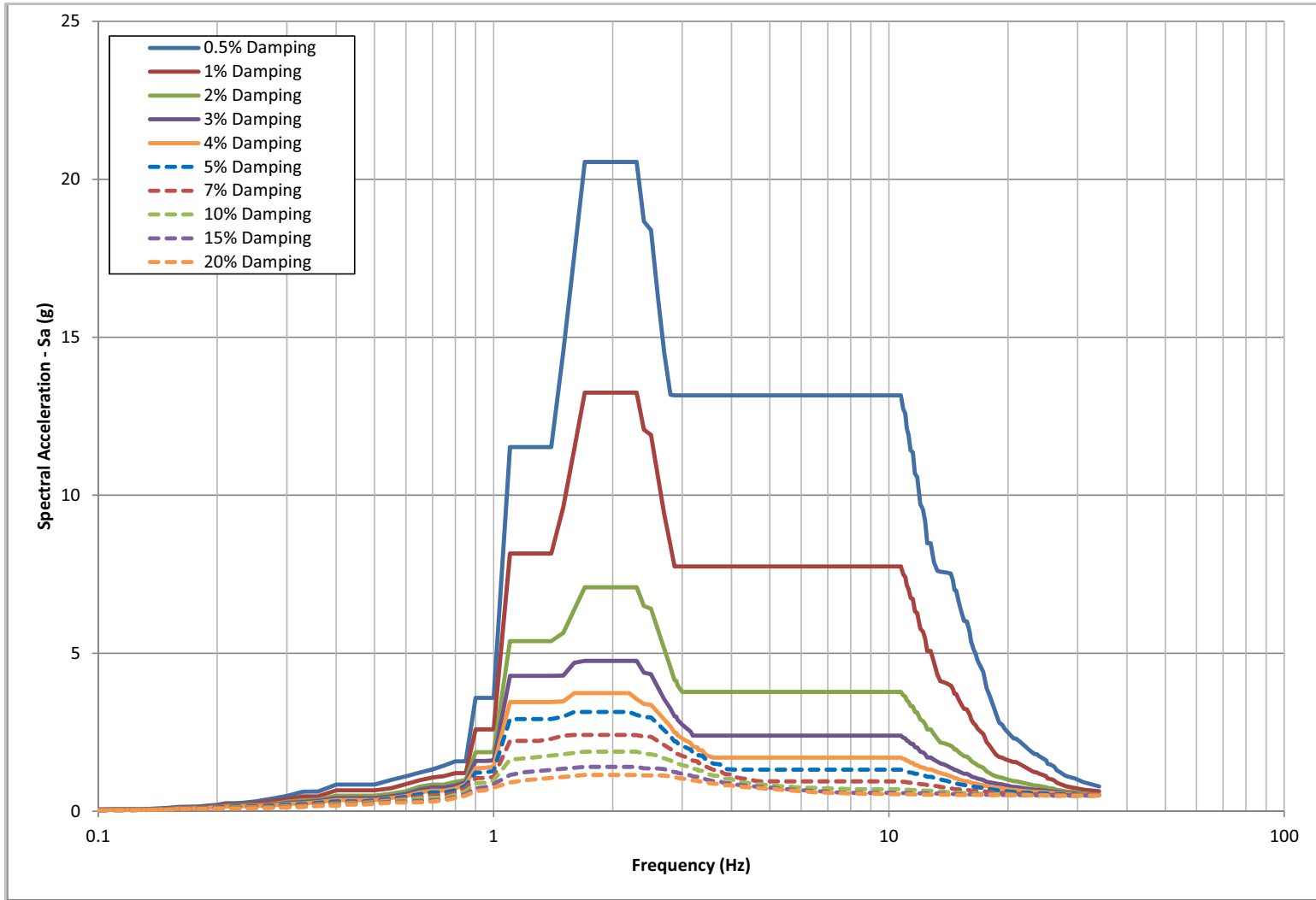


Figure 3H.6-31 Broadened FRS in E-W (X) Direction at the Bottom of Cooling Towers (Elevation 97.5 ft MSL)

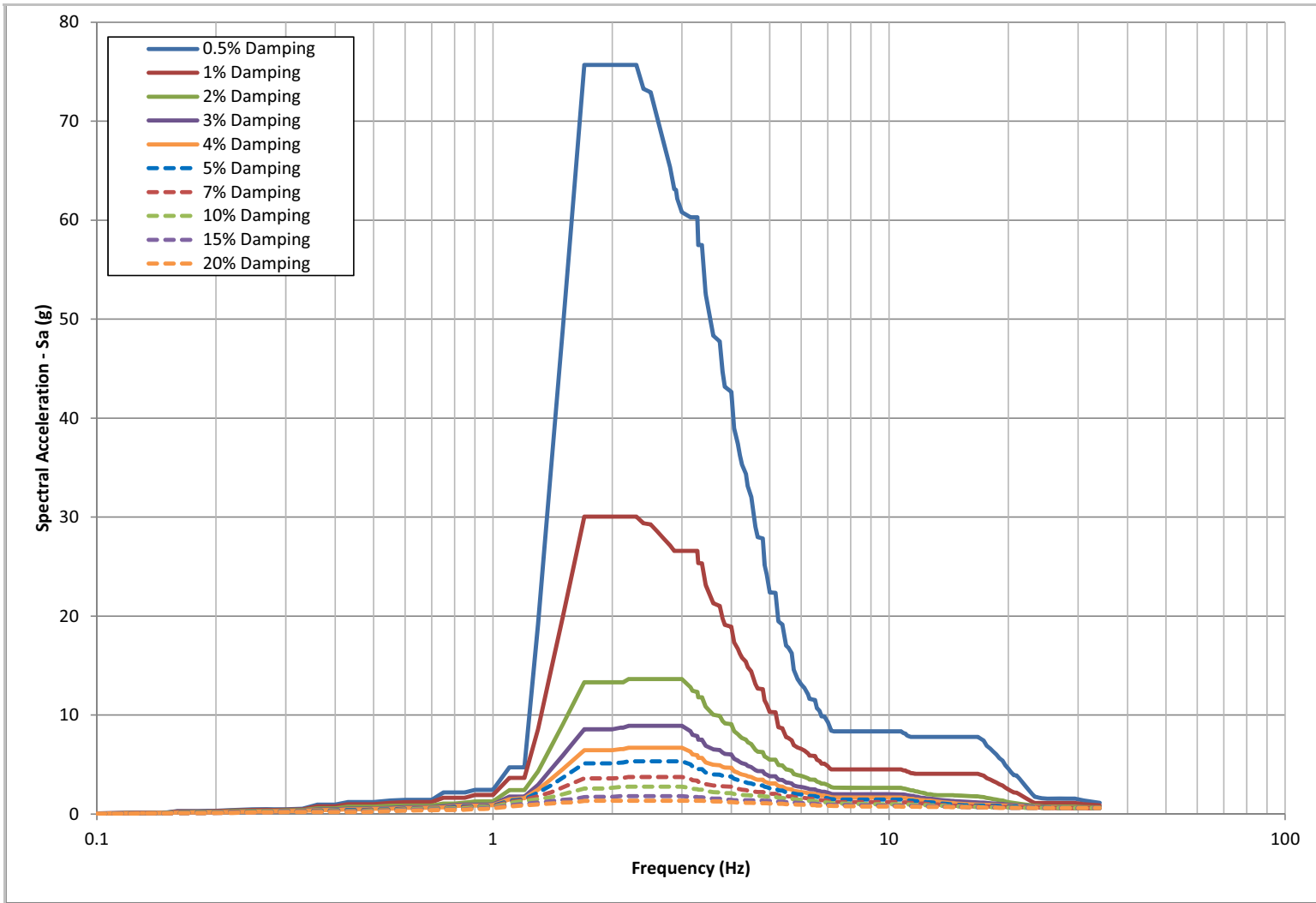


Figure 3H.6-32 Broadened FRS in N-S (Y) Direction at the Bottom of Cooling Towers (Elevation 97.5 ft MSL)

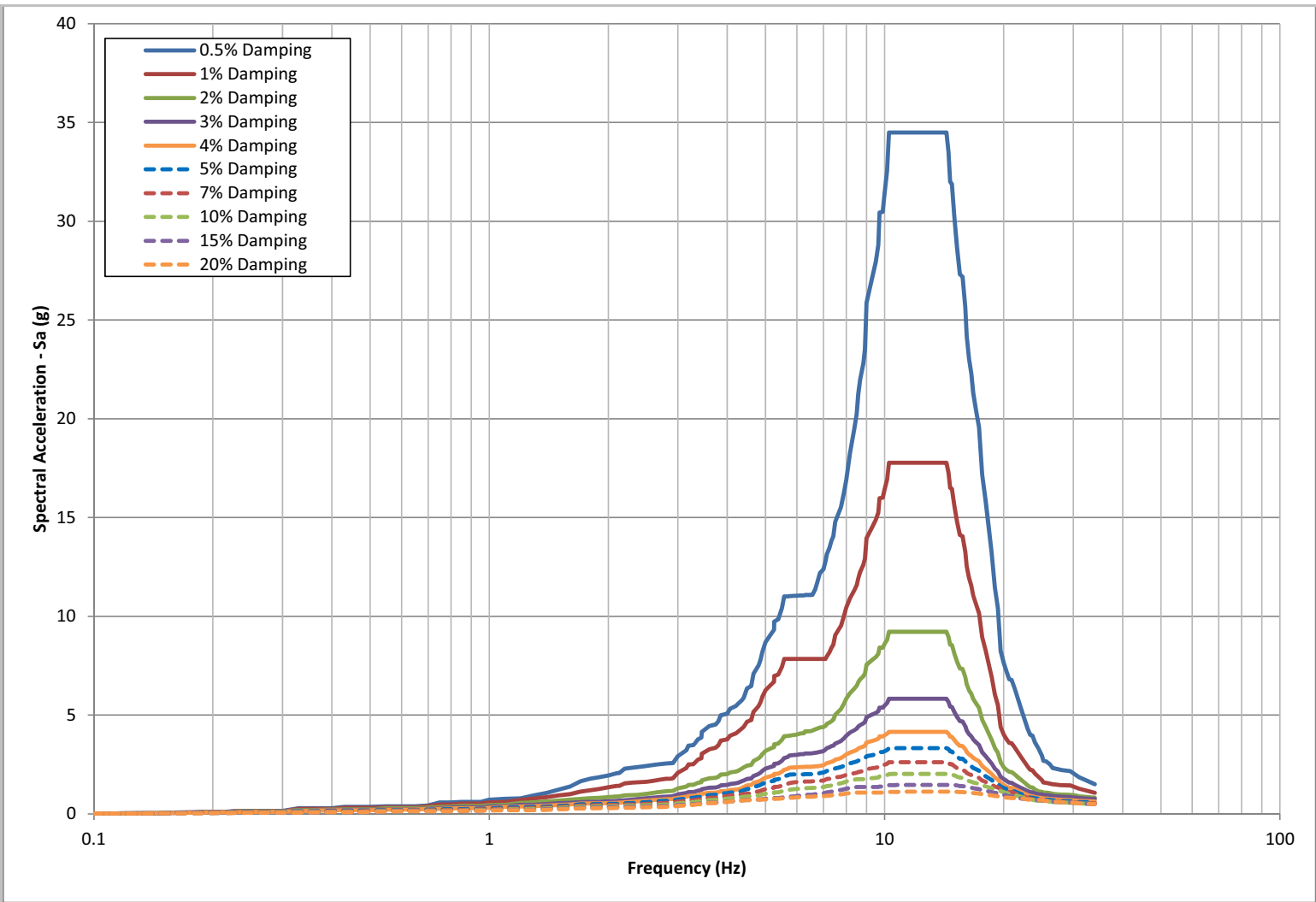


Figure 3H.6-33 Broadened FRS in Vertical (Z) Direction at the Bottom of Cooling Towers (Elevation 97.5 ft MSL)

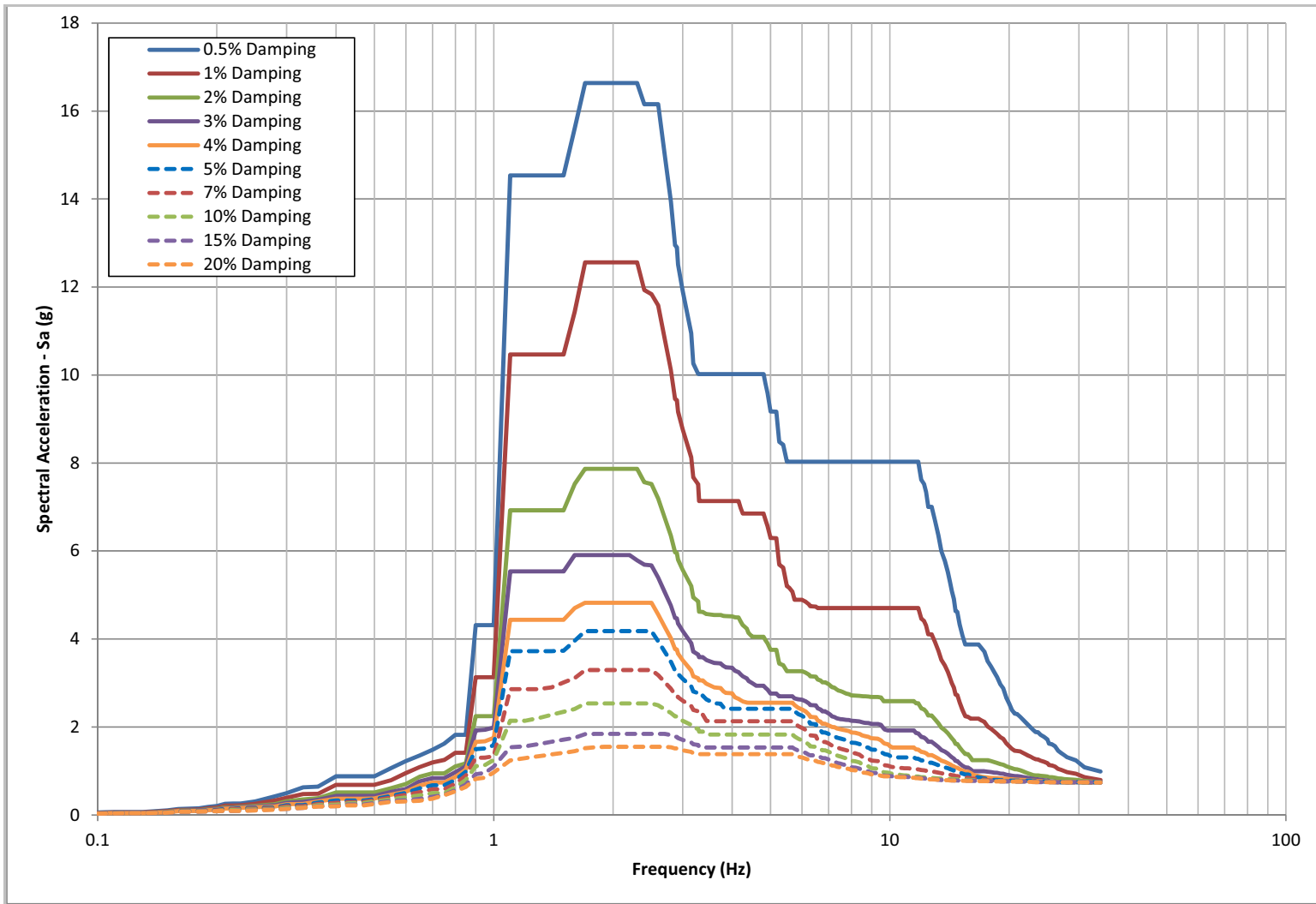


Figure 3H.6-34 Broadened FRS in E-W (X) Direction at the Mid-Level of Cooling Towers (Elevation 125.25 ft MSL)

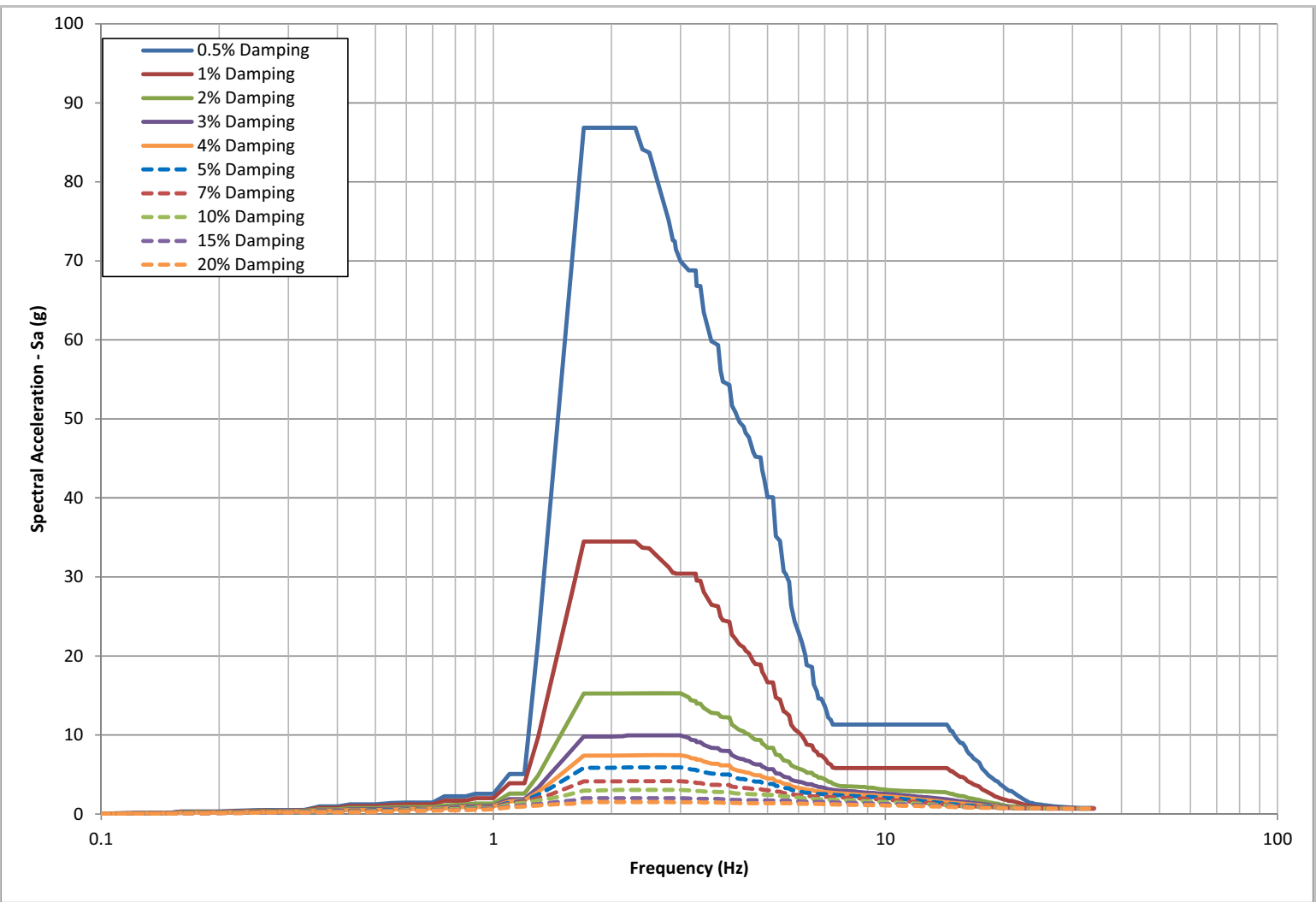


Figure 3H.6-35 Broadened FRS in N-S (Y) Direction at the Mid-Level of Cooling Towers (Elevation 125.25 ft MSL)

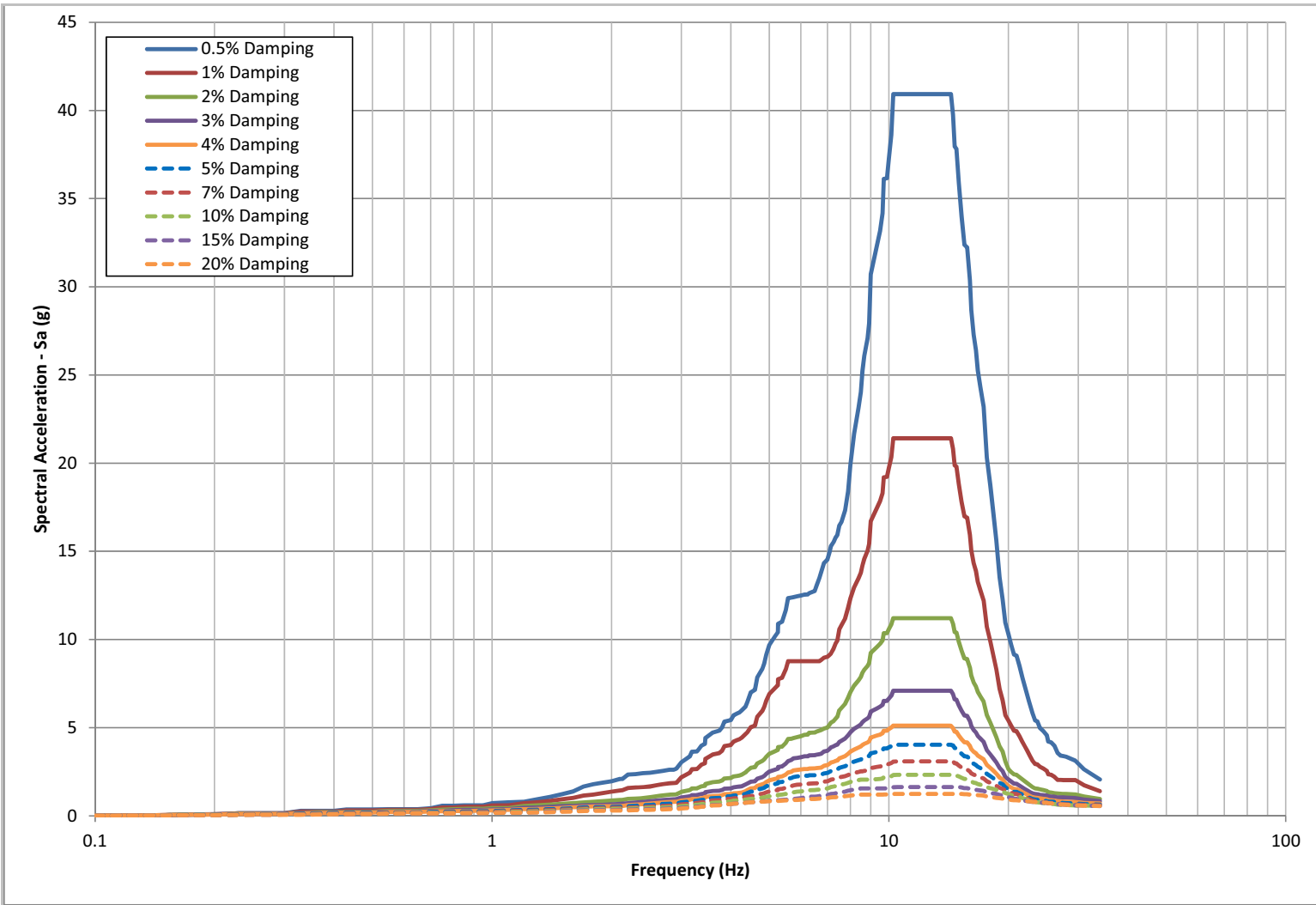


Figure 3H.6-36 Broadened FRS in Vertical (Z) Direction at the Mid-Level of Cooling Towers (Elevation 125.25 ft MSL)

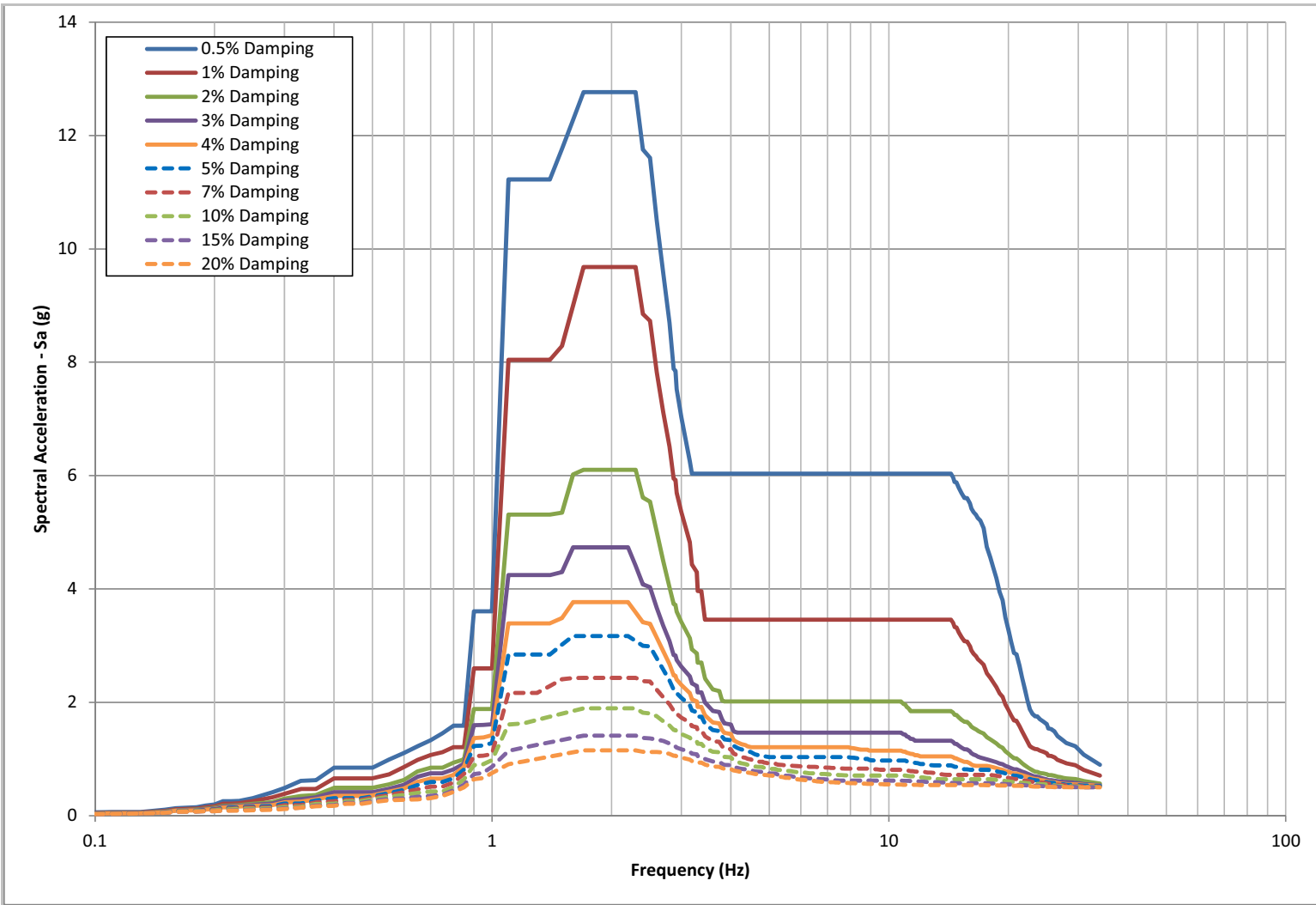


Figure 3H.6-37 Broadened FRS in E-W (X) Direction at the Top of Cooling Towers (Elevation 153 ft MSL)

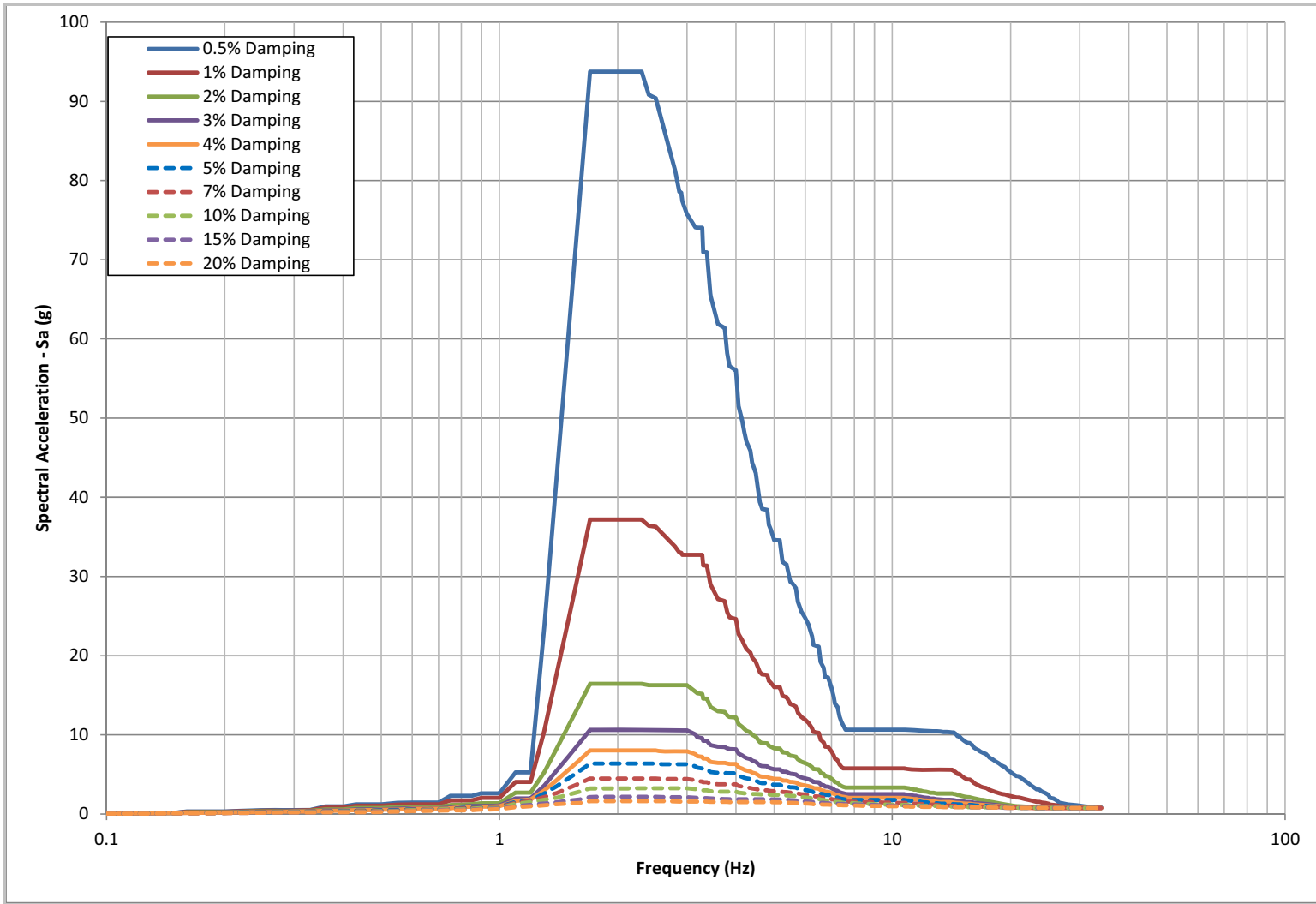


Figure 3H.6-38 Broadened FRS in N-S (Y) Direction at the Top of Cooling Towers (Elevation 153 ft MSL)

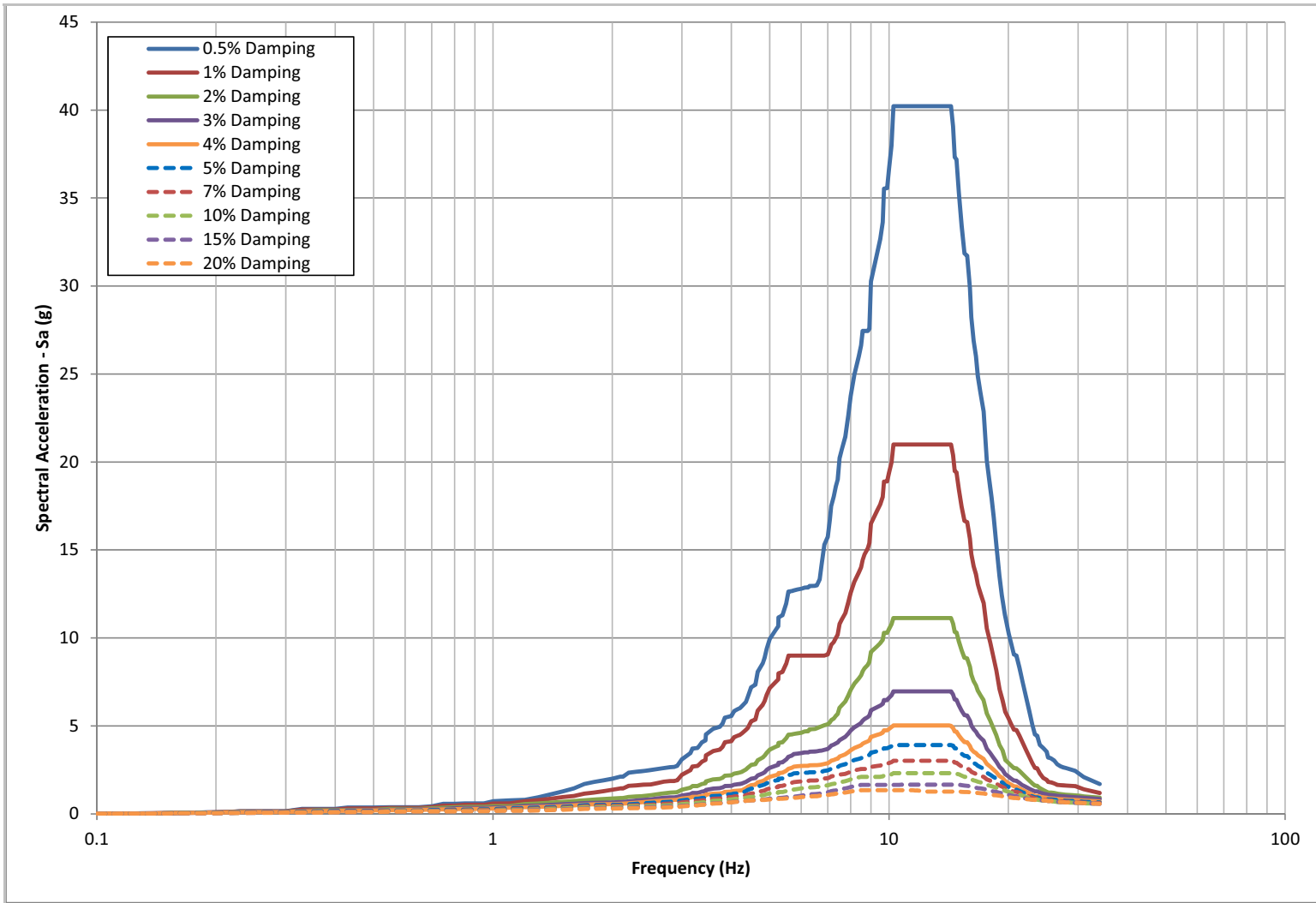


Figure 3H.6-39 Broadened FRS in Vertical (Z) Direction at the Top of Cooling Towers (Elevation 153 ft MSL)

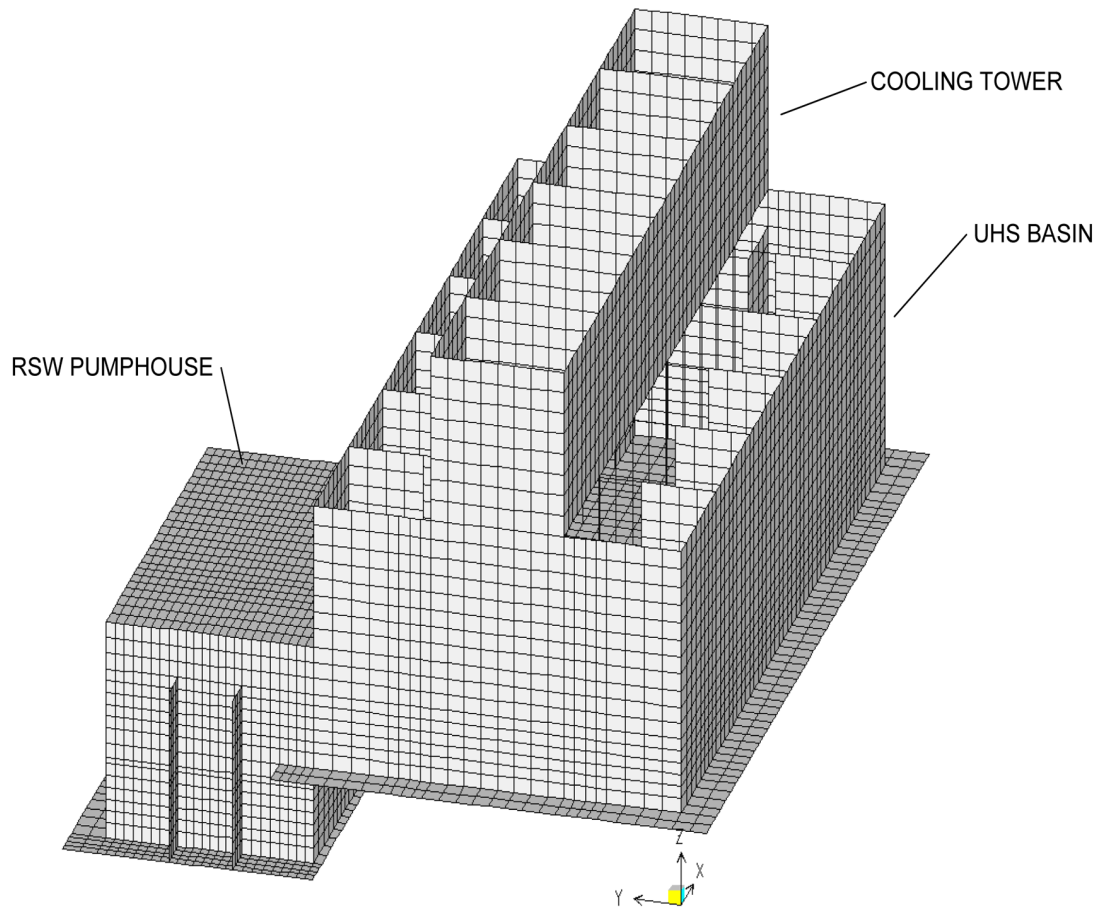


Figure 3H.6-40 SAP Finite Element Model for UHS and RSW Pump House Design

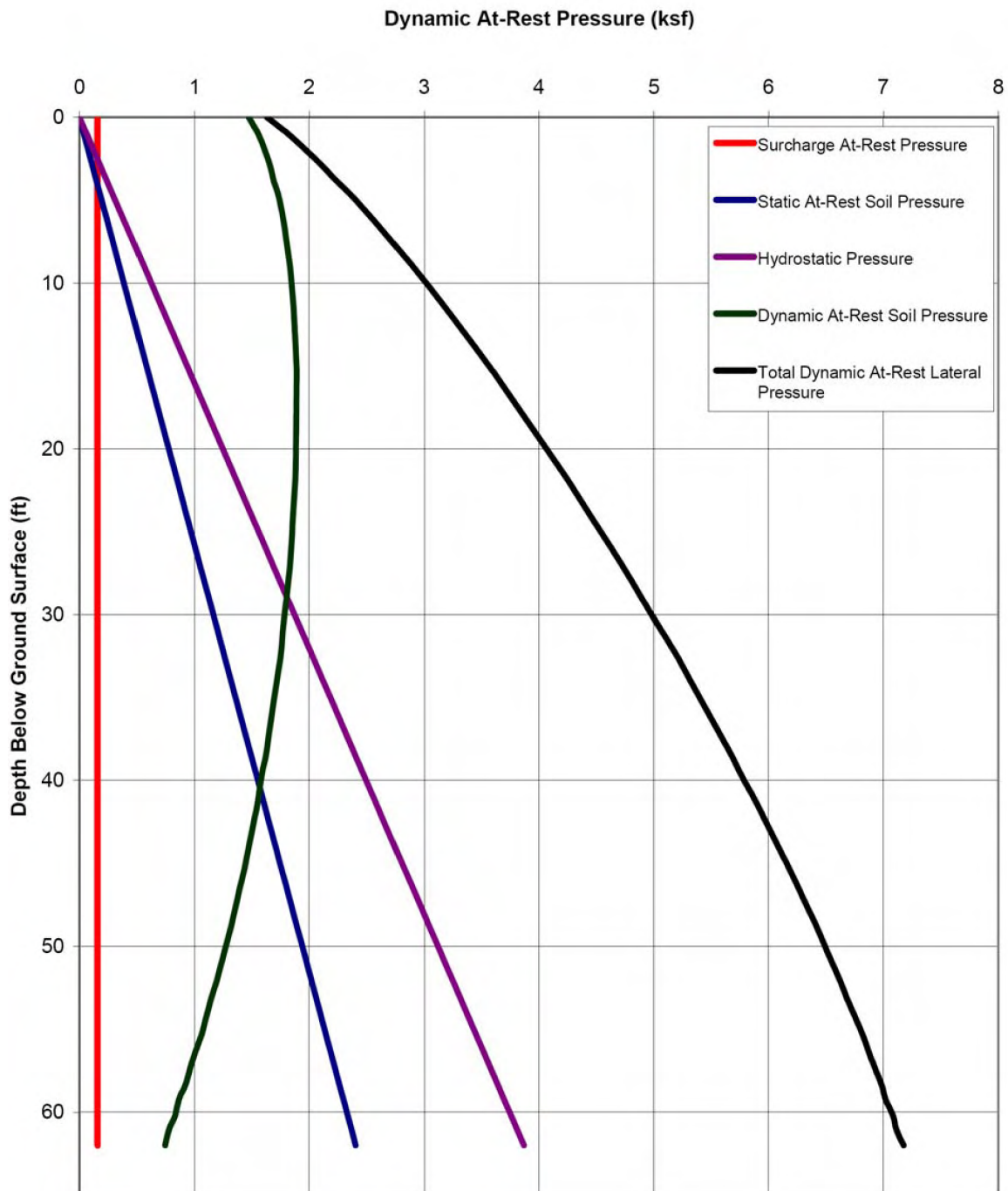


Figure 3H.6-41 Dynamic At-Rest Lateral Earth Pressure (Excluding SSI and SSSI Seismic Soil Pressures) on the East, West, and North Walls of Pump House

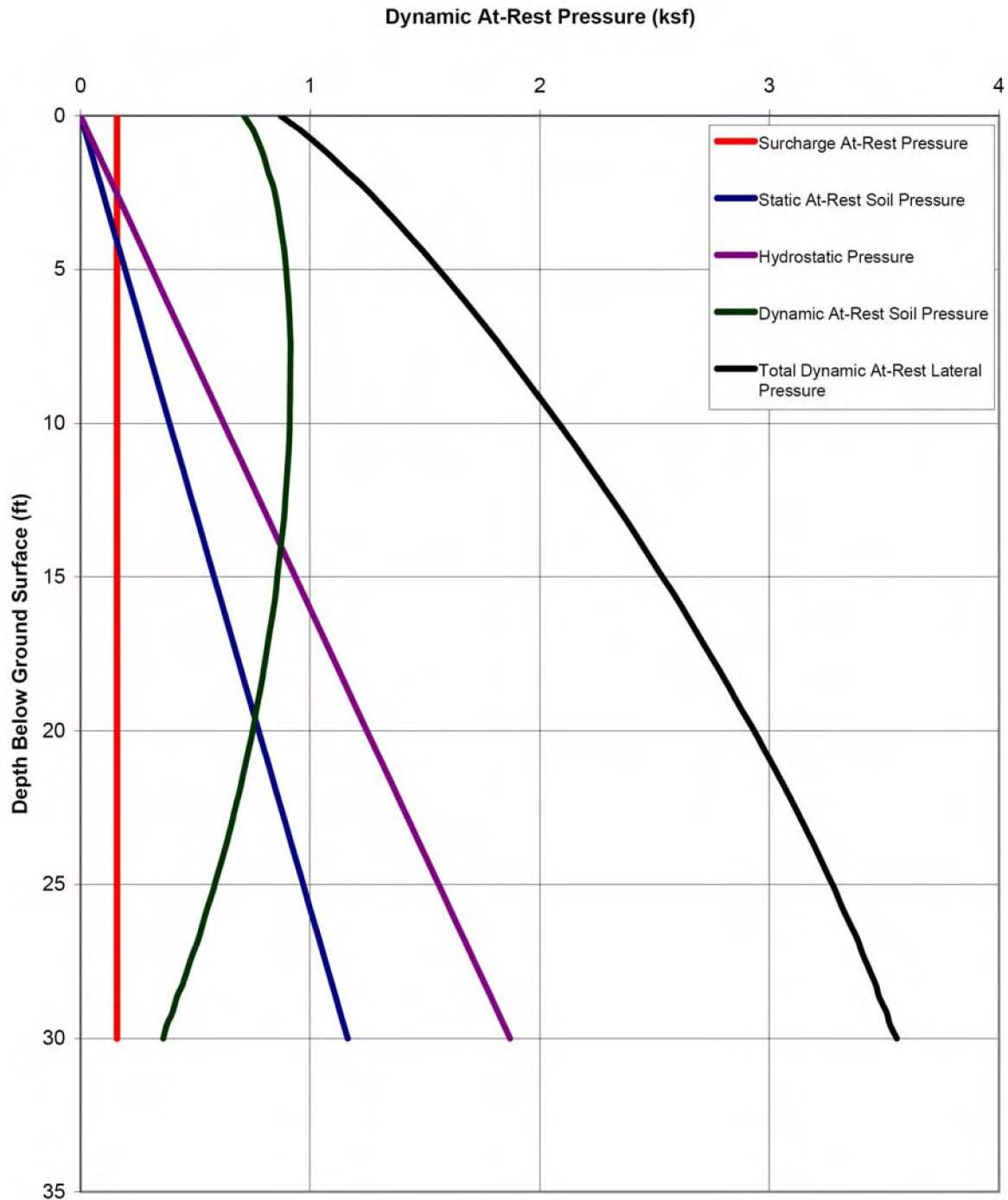


Figure 3H.6-42 Dynamic At-Rest Lateral Earth Pressure (Excluding SSI and SSSI Seismic Soil Pressures) on the UHS Basin Walls

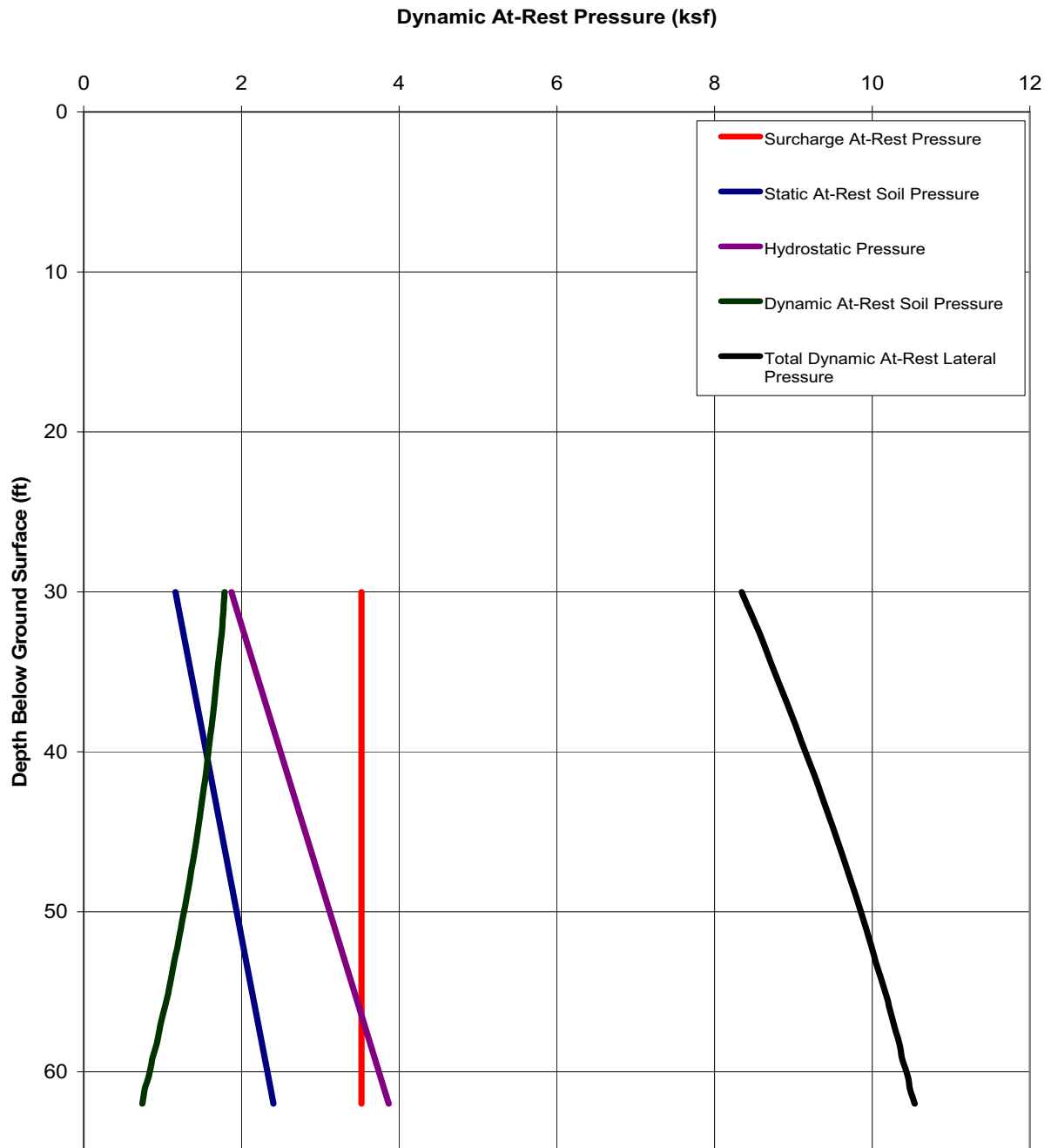


Figure 3H.6-43 Dynamic At-Rest Lateral Earth Pressure (Excluding SSI and SSSI Seismic Soil Pressures) on the South Wall of RSW Pump House

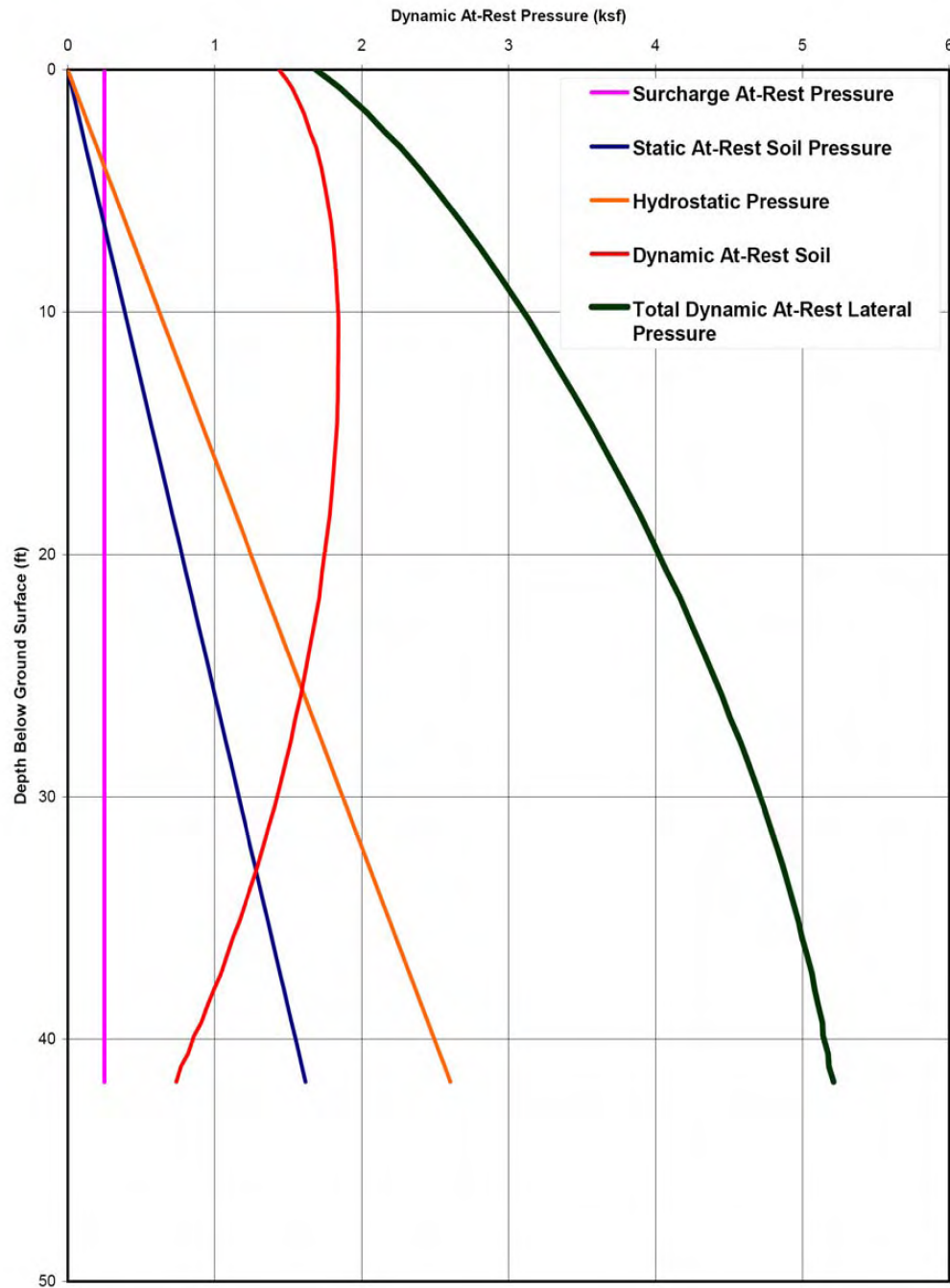


Figure 3H.6-44 Dynamic At-Rest Lateral Earth Pressure Diagrams (Excluding SSI and SSSI Seismic Soil Pressures) for Typical Section of RSW Tunnel

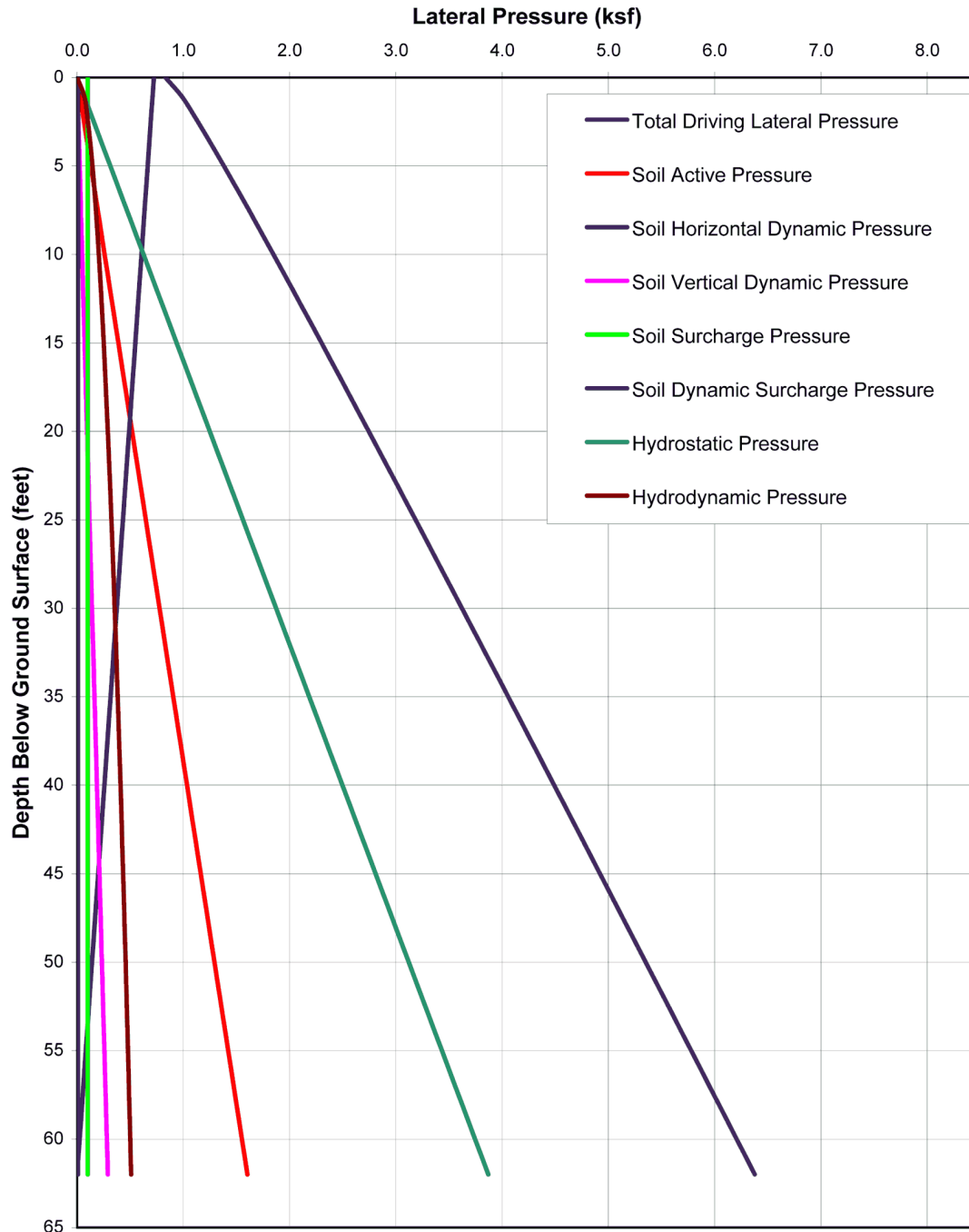


Figure 3H.6-45 Driving Lateral Pressure on the East, West, and North Walls of Pump House (for Stability Evaluation)

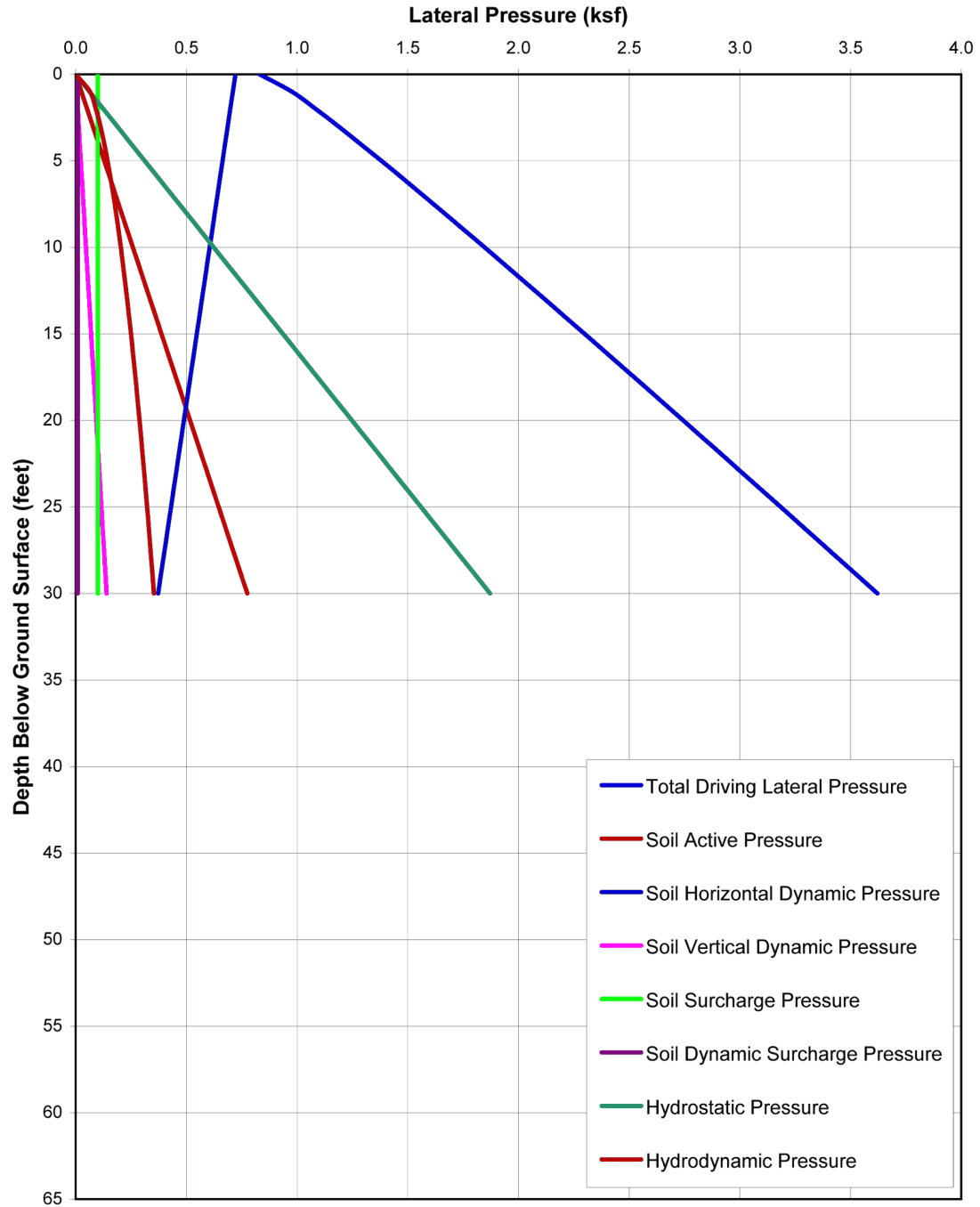


Figure 3H.6-46 Driving Lateral Pressure on Basin Walls (for Stability Evaluation)

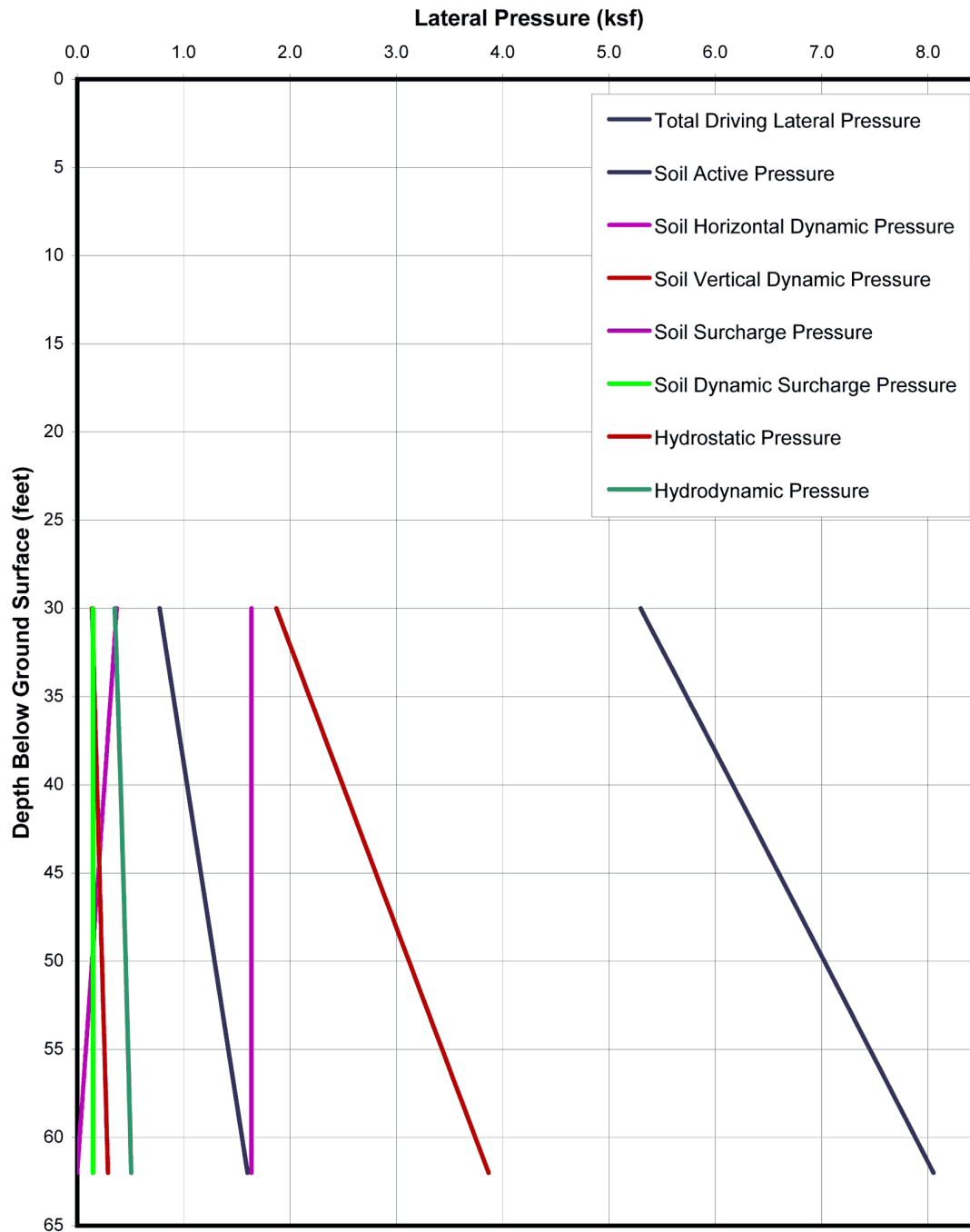


Figure 3H.6-47 Driving Lateral Pressure on the South Wall of Pump House (for Stability Evaluation)

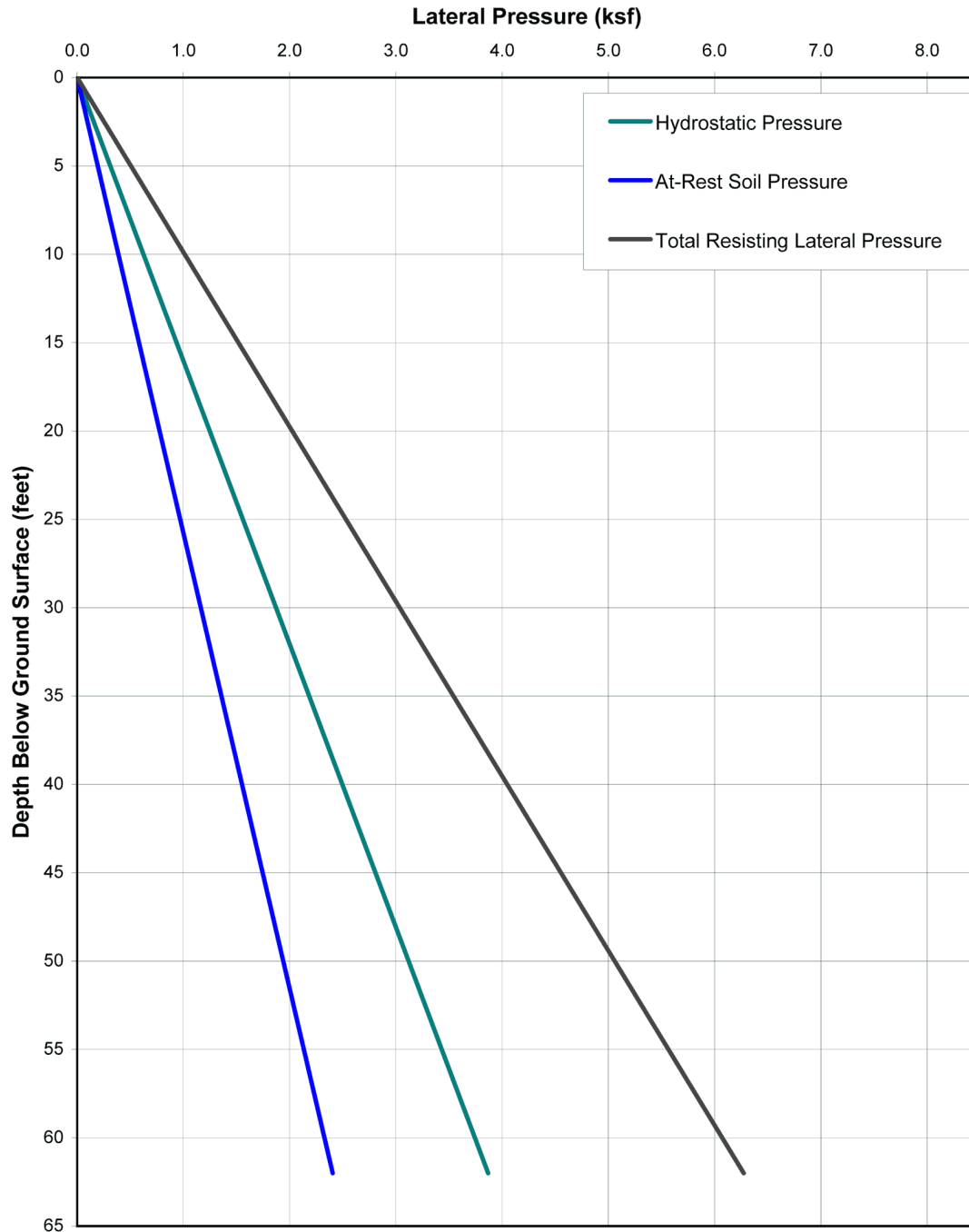


Figure 3H.6-48 Resisting Lateral Pressure on the East, West, and North Walls of Pump House (for Stability Evaluation)

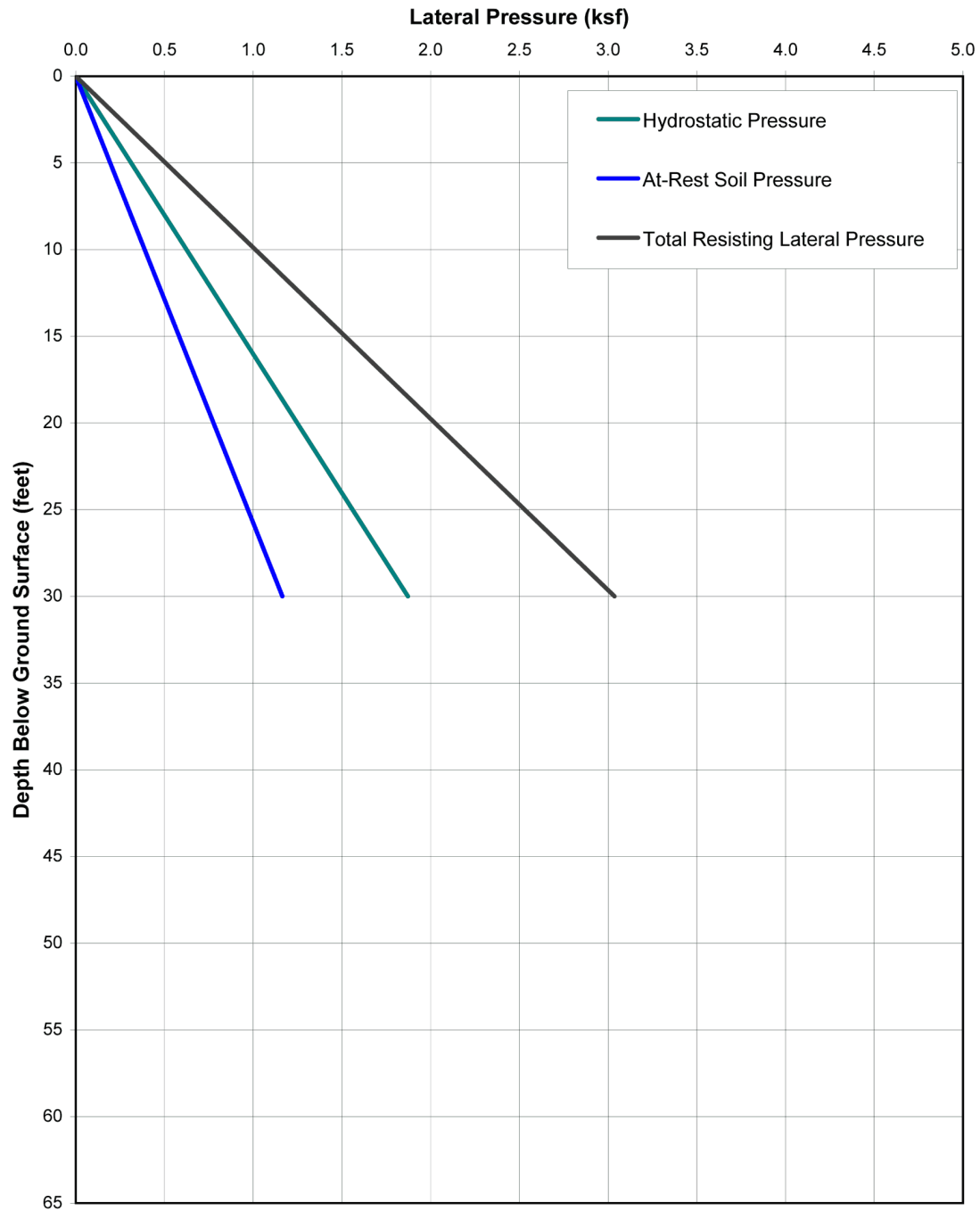


Figure 3H.6-49 Resisting Lateral Pressure on Basin Walls (for Stability Evaluation)

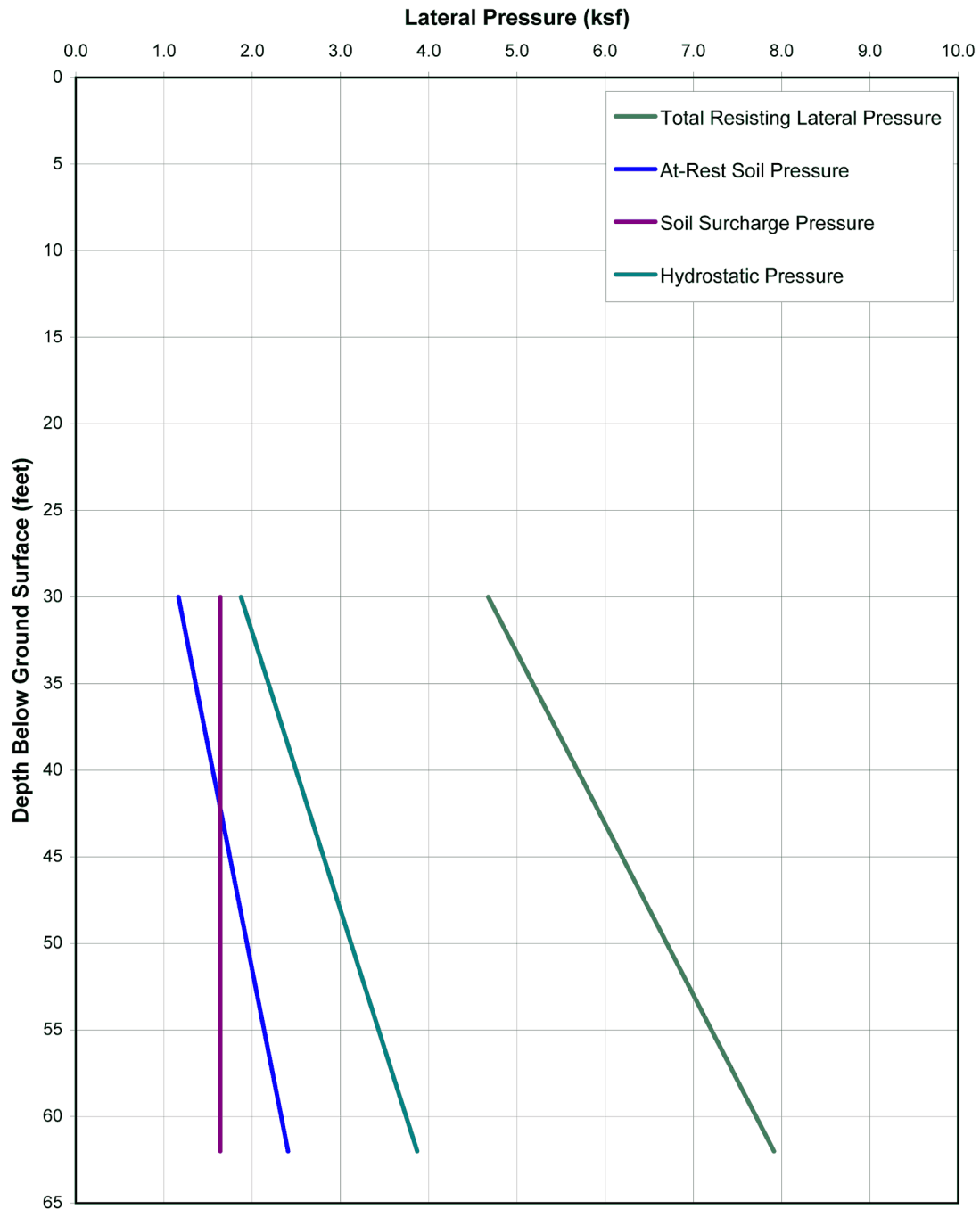


Figure 3H.6-50 Resisting Lateral Pressure on the South Wall of Pump House (for Stability Evaluation)

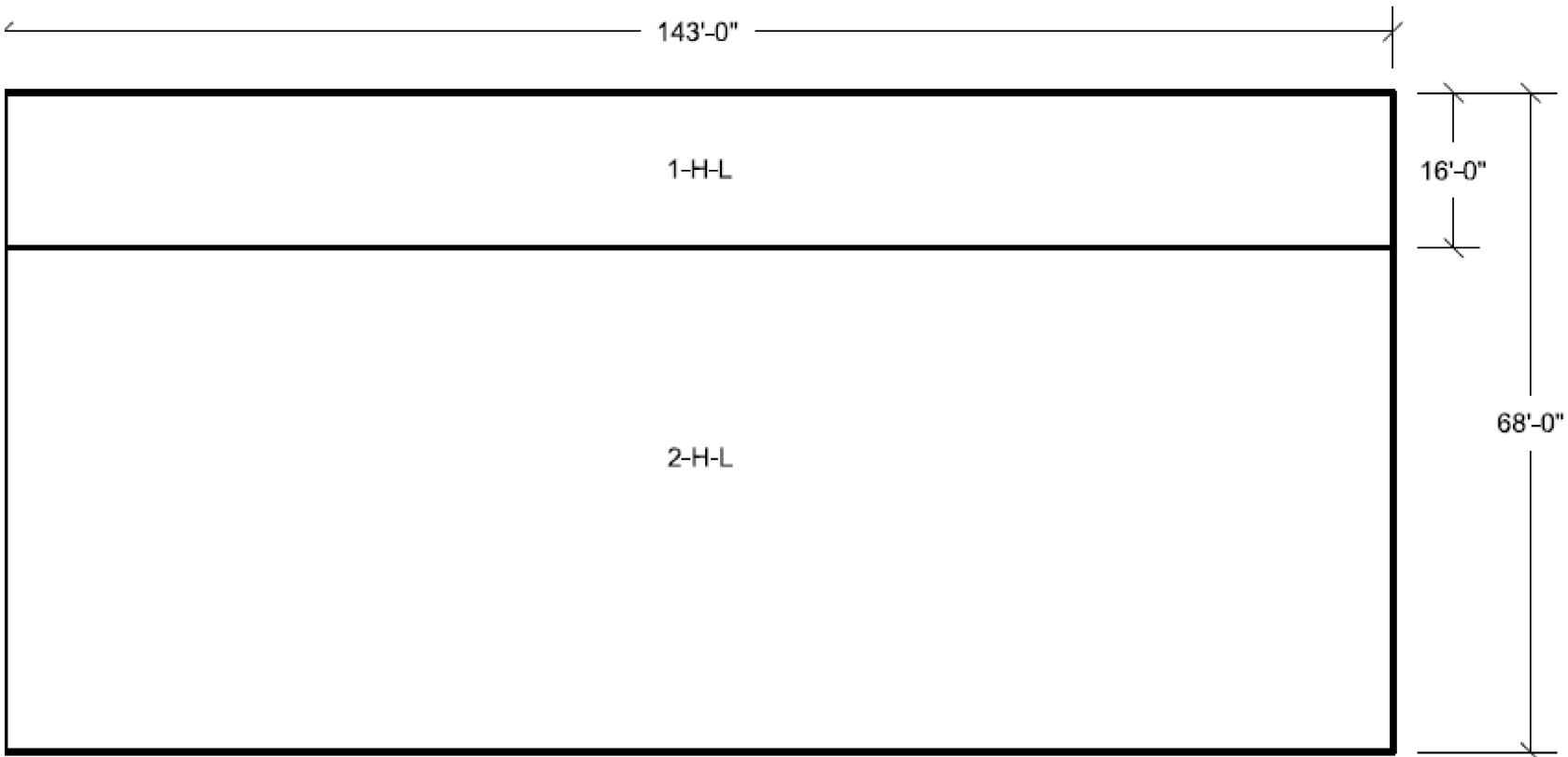


Figure 3H.6-51 Pump House Roof North Wall Looking South Horizontal Reinforcement Zones Near Side Face

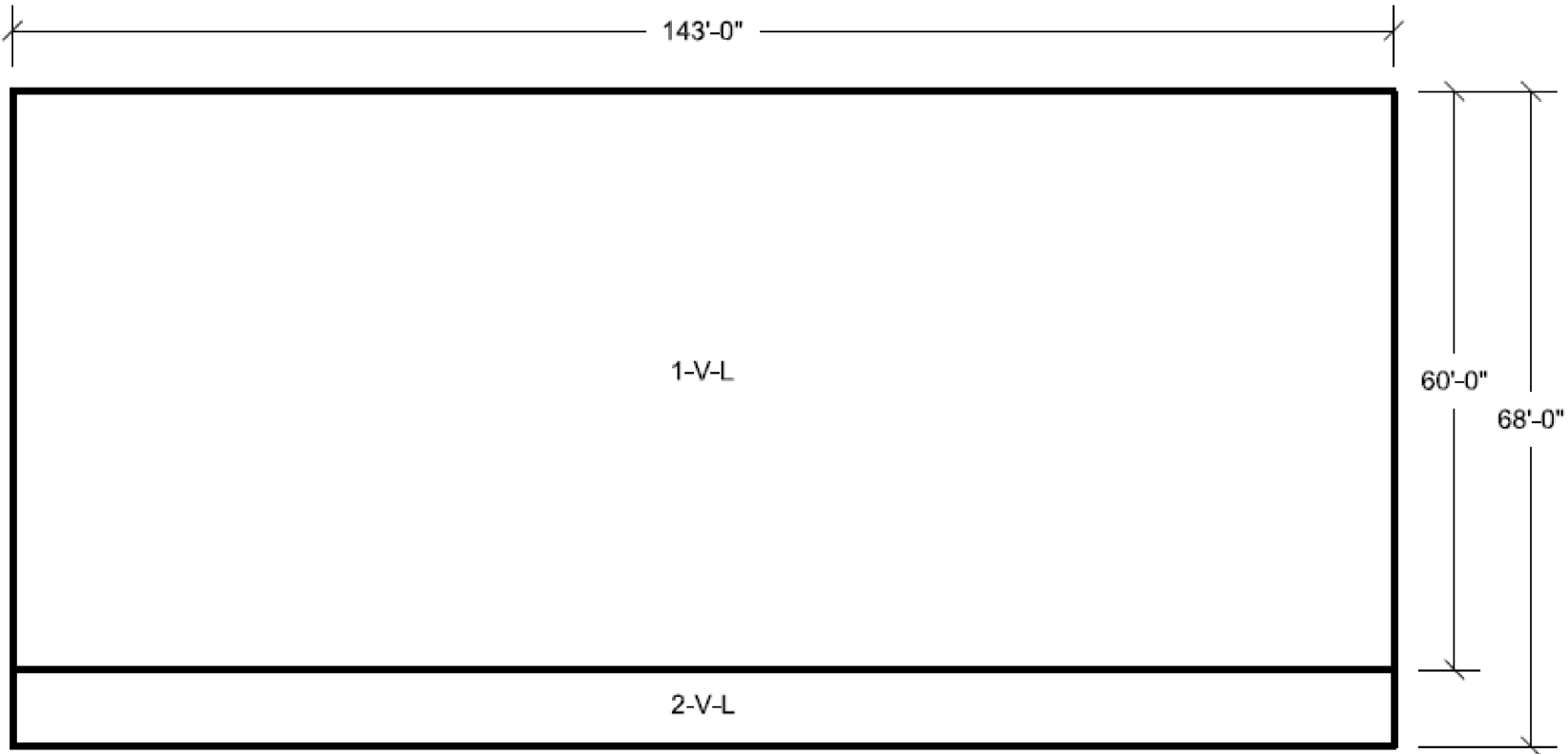


Figure 3H.6-52 Pump House North Wall Looking South Vertical Reinforcement Zones Near Side Face

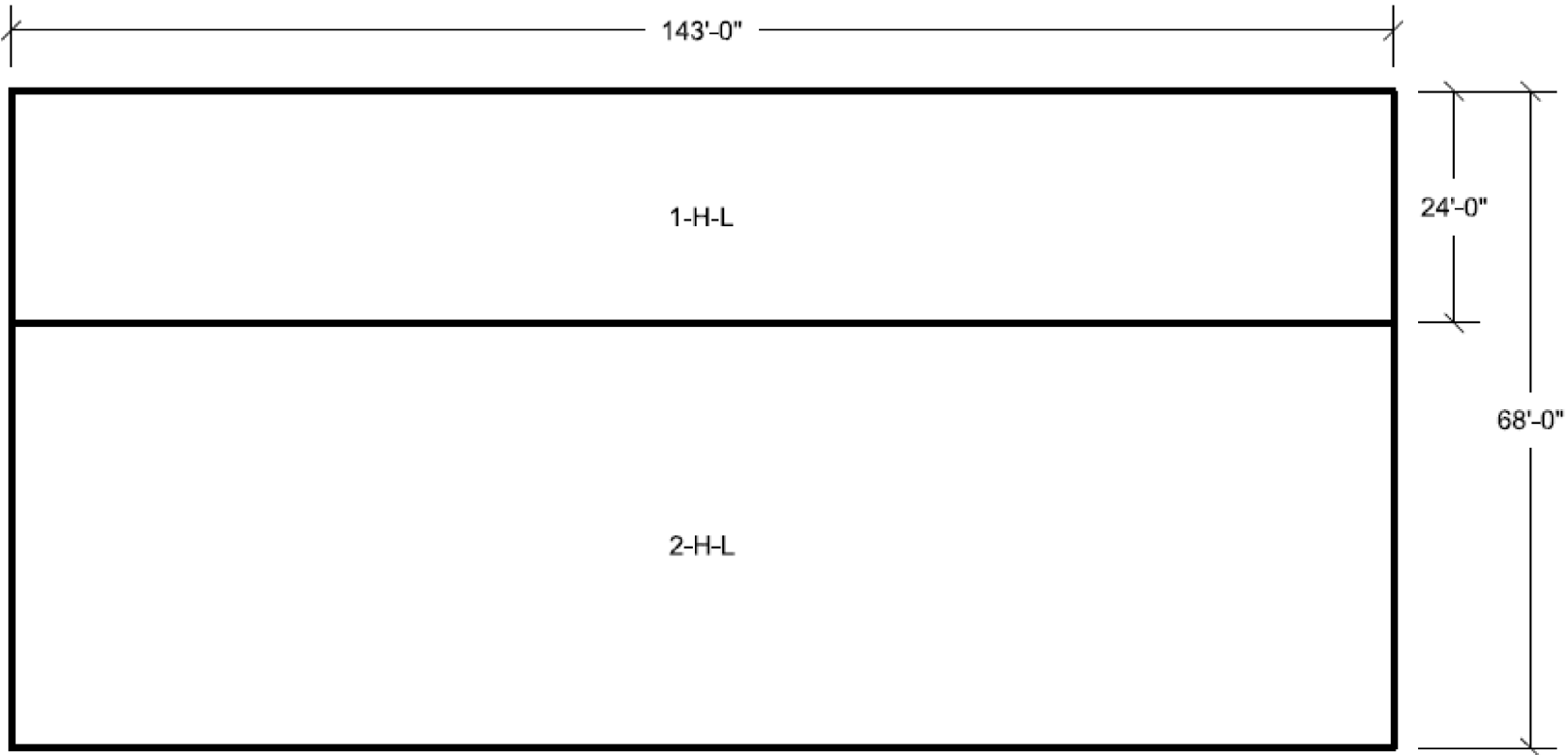


Figure 3H.6-53 Pump House North Wall Looking South Horizontal Reinforcement Zones Far Side Face

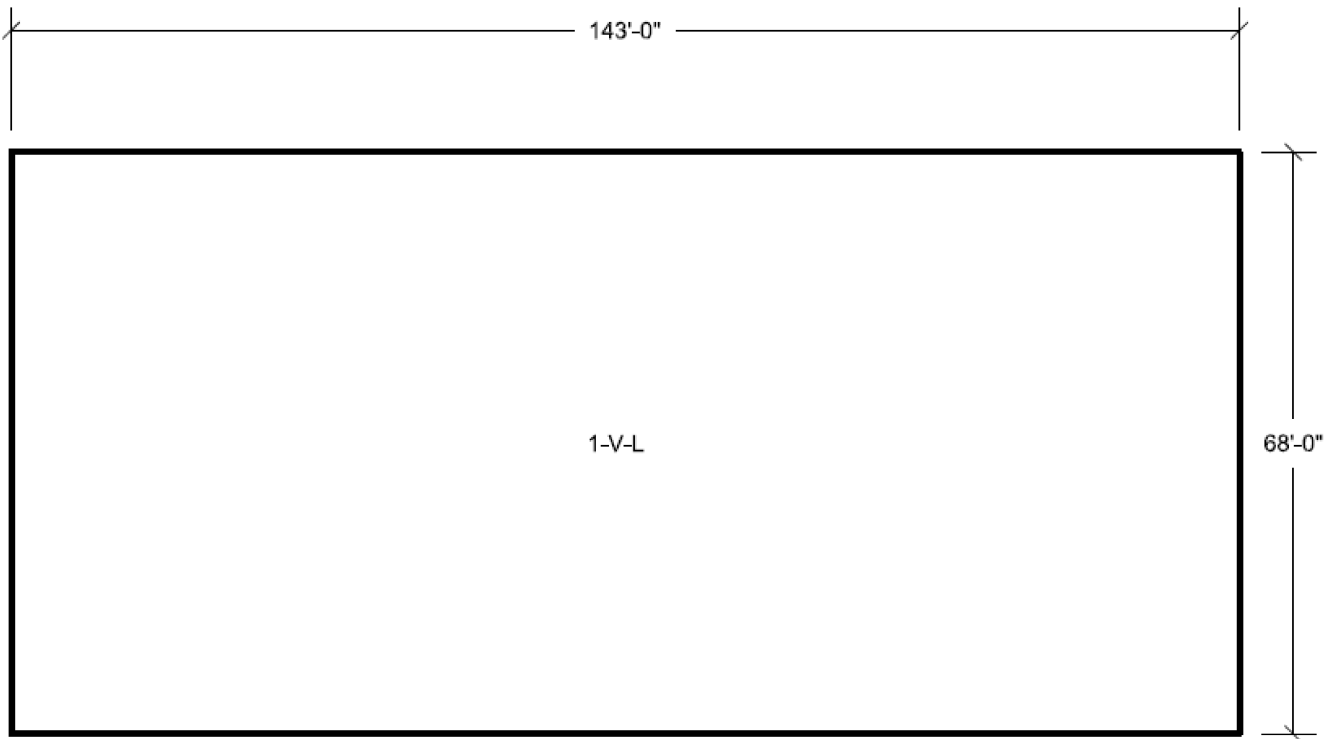


Figure 3H.6-54 Pump House North Wall Looking South Vertical Reinforcement Zones Far Side Face

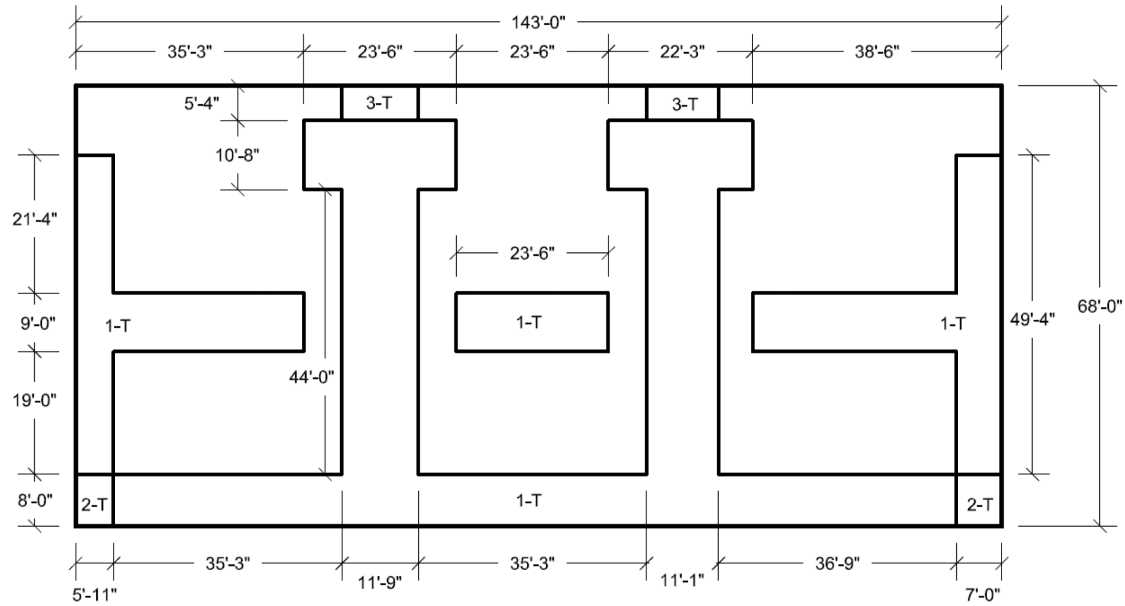


Figure 3H.6-55 Pump House North Wall Looking South Transverse ~~Horizontal~~ Reinforcement Zones

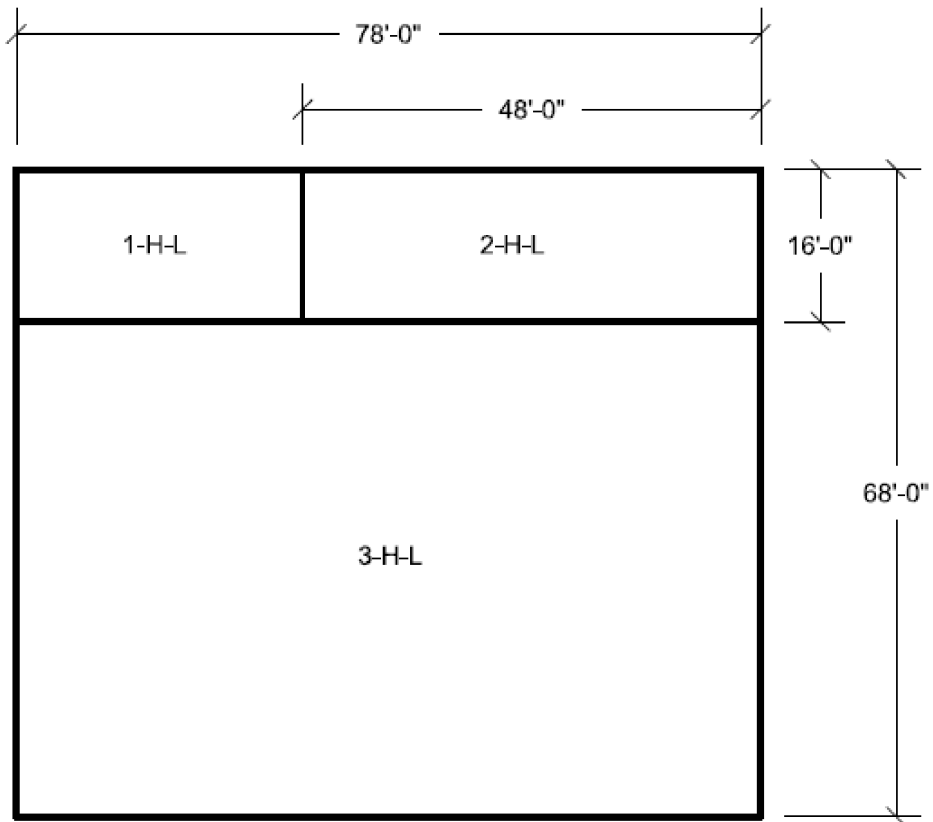


Figure 3H.6-56 Pump House East Wall Looking West
Horizontal Reinforcement Zones Near Side Face

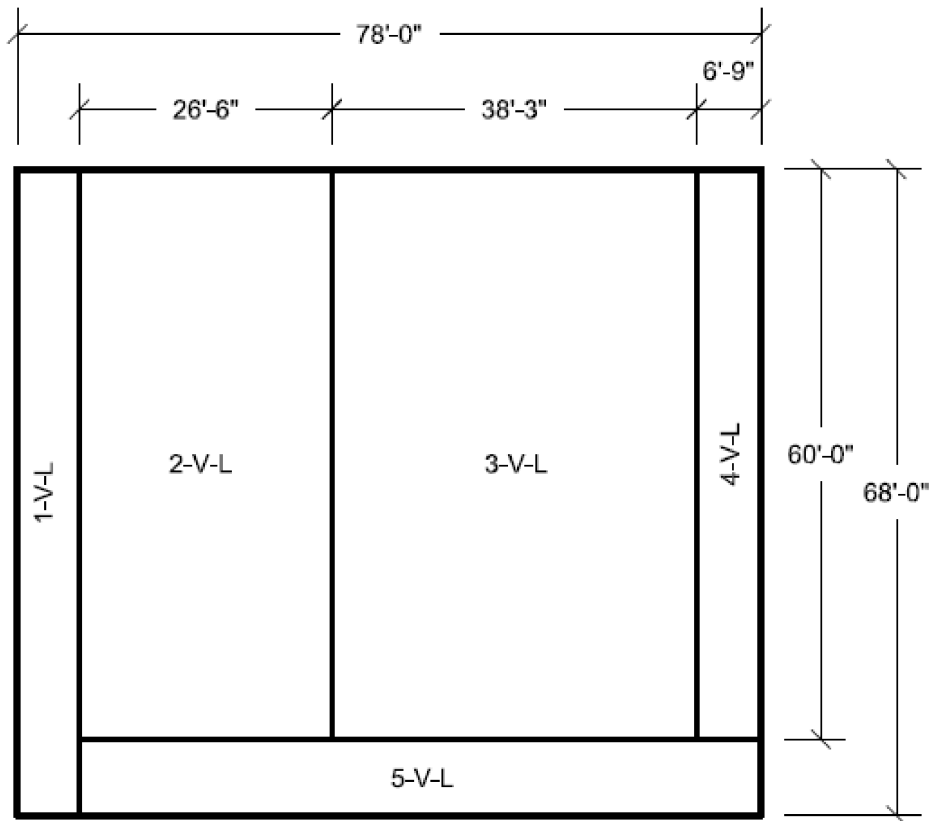


Figure 3H.6-57 Pump House East Wall Looking West Vertical Reinforcement Zones Near Side Face

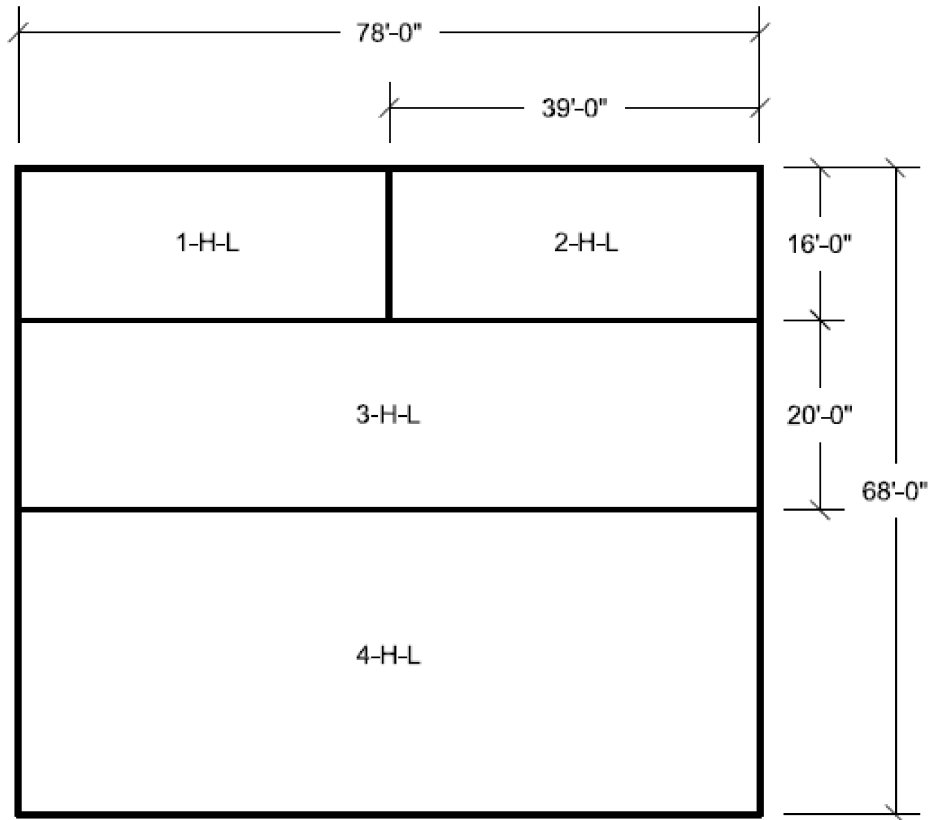


Figure 3H.6-58 Pump House East Wall Looking West Horizontal Reinforcement Zones Far Side Face

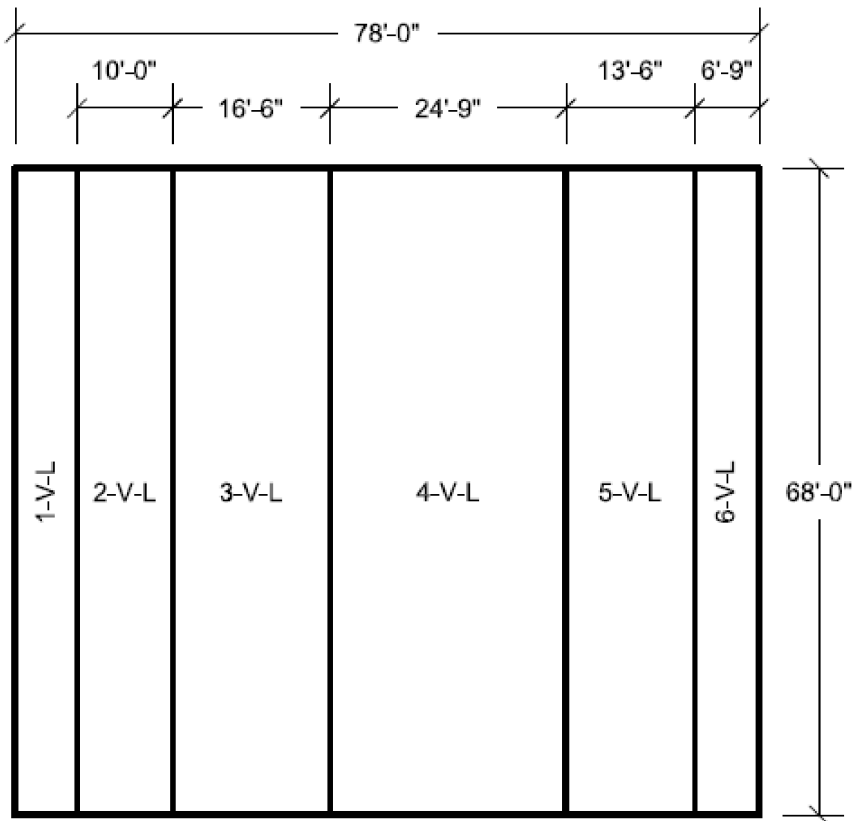


Figure 3H.6-59 Pump House East Wall Looking West Vertical Reinforcement Zones Far Side Face

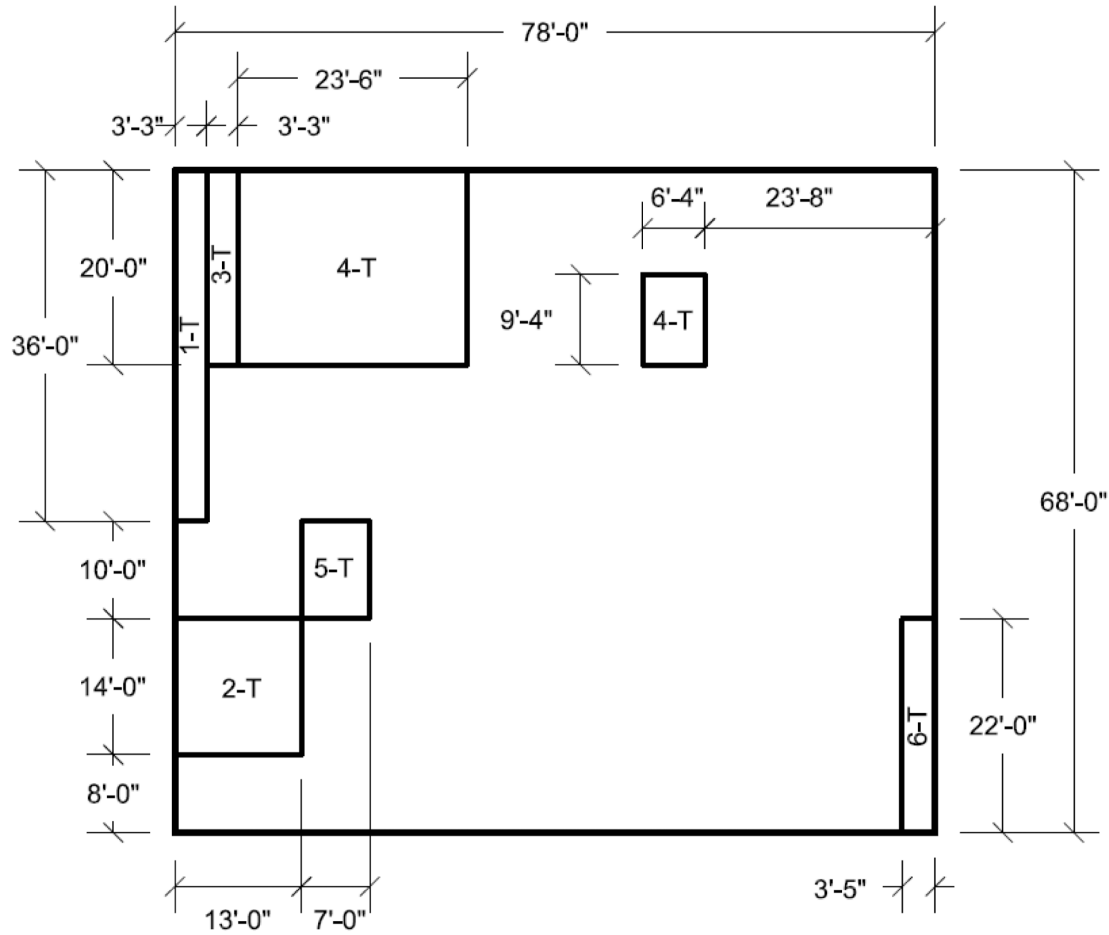


Figure 3H.6-60 Pump House East Wall Looking West ~~Vertical and Horizontal~~ Transverse Reinforcement Zones

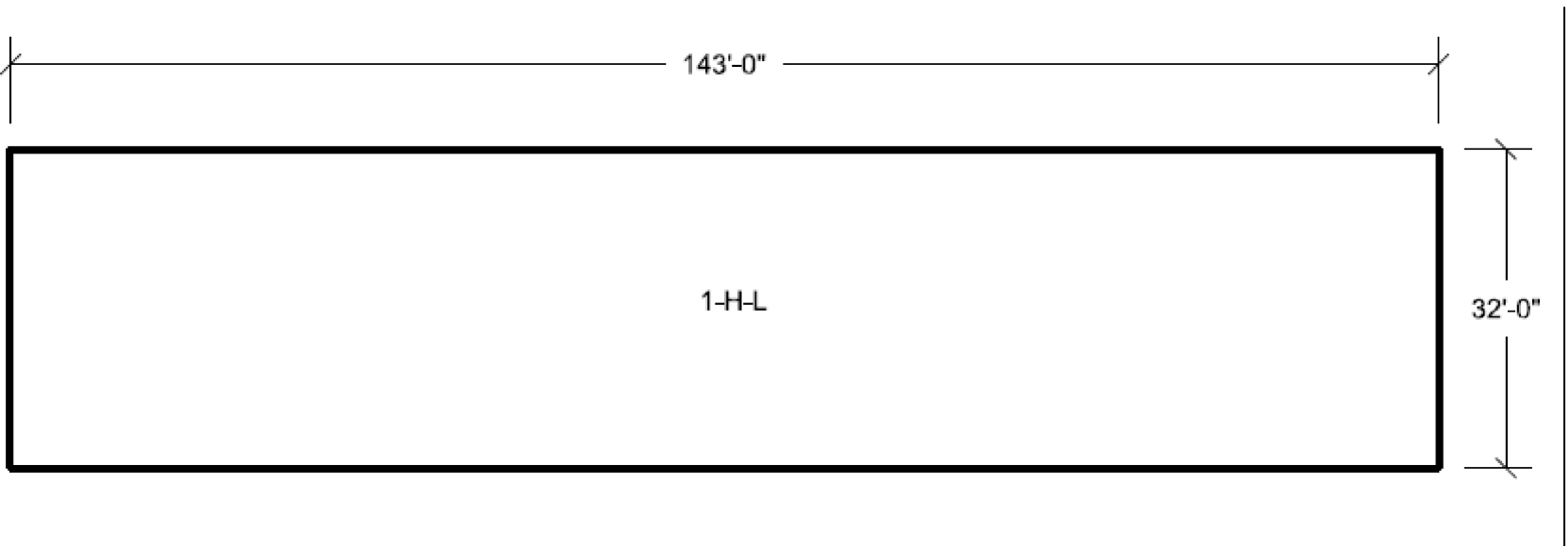


Figure 3H.6-61 Pump House South Wall Looking South Horizontal Reinforcement Zones Near Side Face

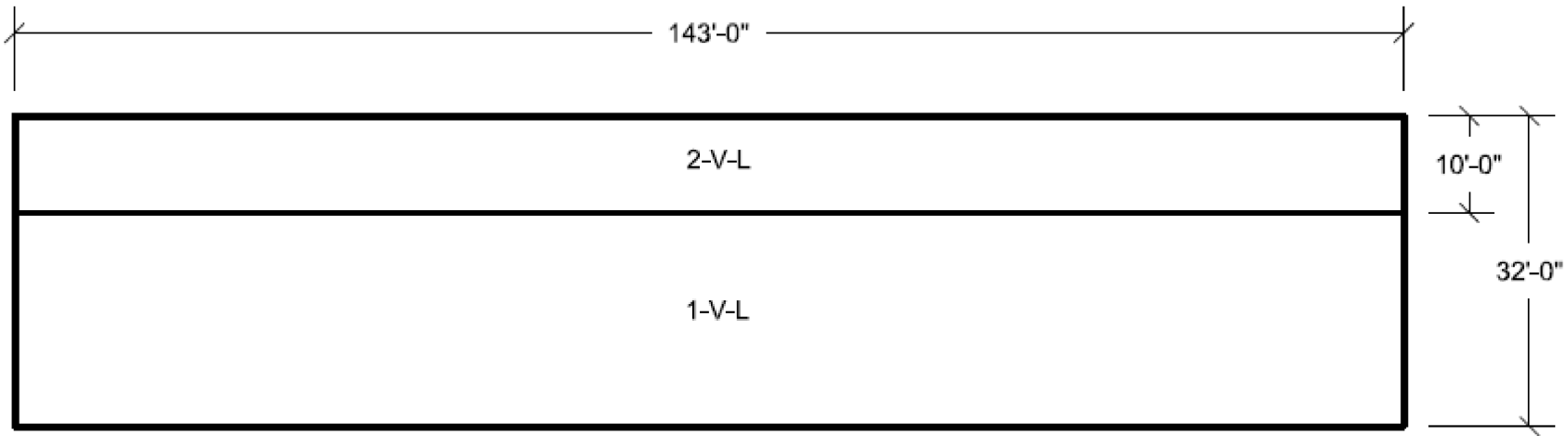


Figure 3H.6-62 Pump House South Wall Looking South Vertical Reinforcement Zones Near Side Face

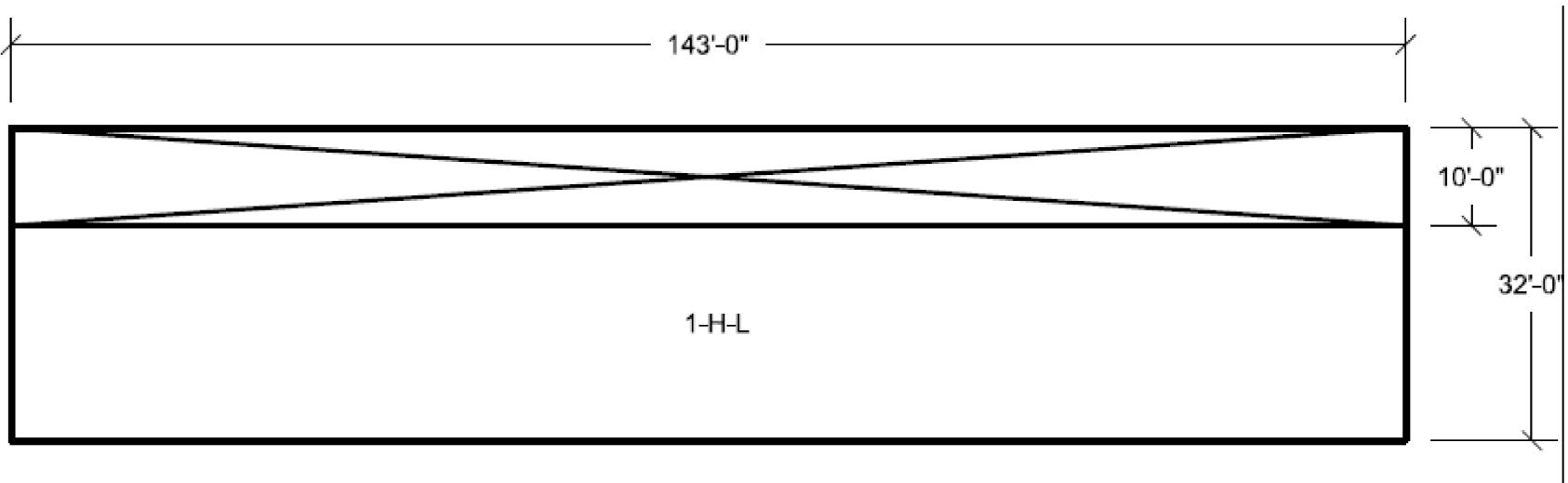


Figure 3H.6-63 Pump House South Wall Looking South Horizontal Reinforcement Zones Far Side Face

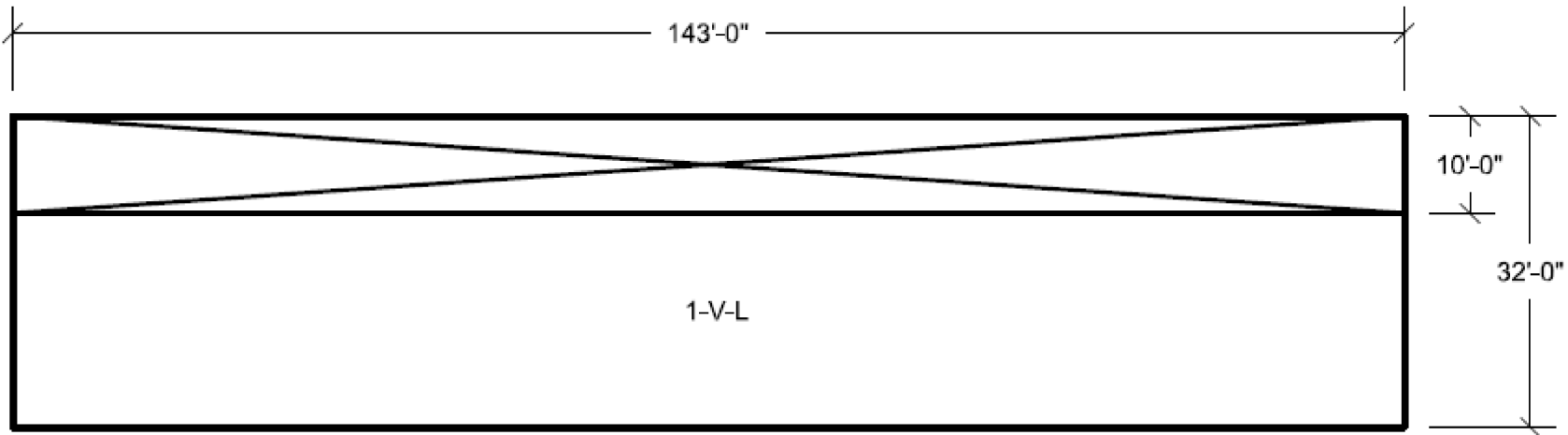
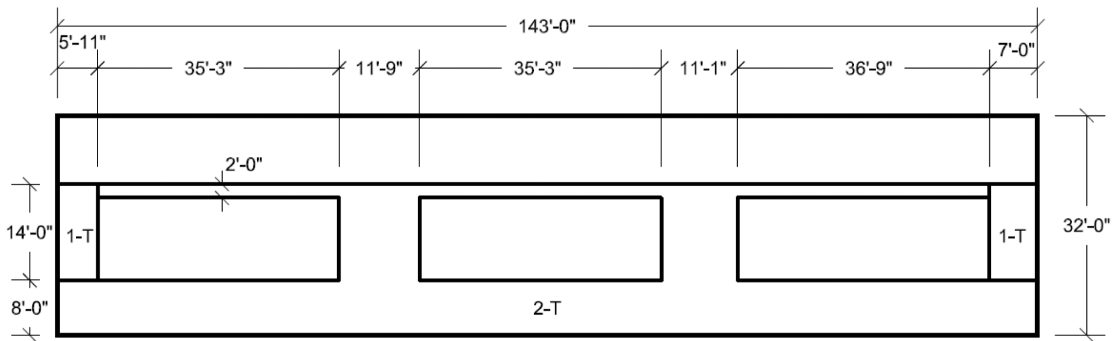


Figure 3H.6-64 Pump House South Wall Looking South Vertical Reinforcement Zones Far Side Face



Note: 1 V-L, unless noted otherwise.

Figure 3H.6-65 Pump House South Wall Looking South Transverse ~~Horizontal~~ Reinforcement Zones

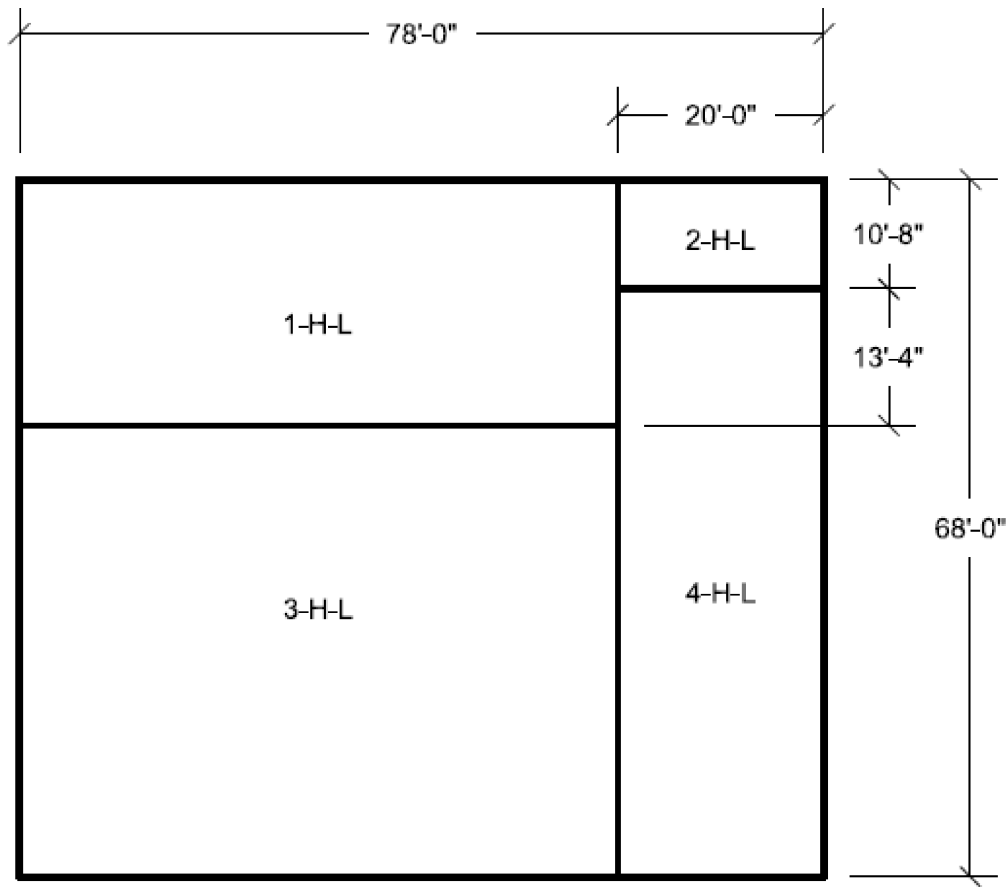


Figure 3H.6-66 Pump House West Wall Looking East
Horizontal Reinforcement Zones Near Side Face

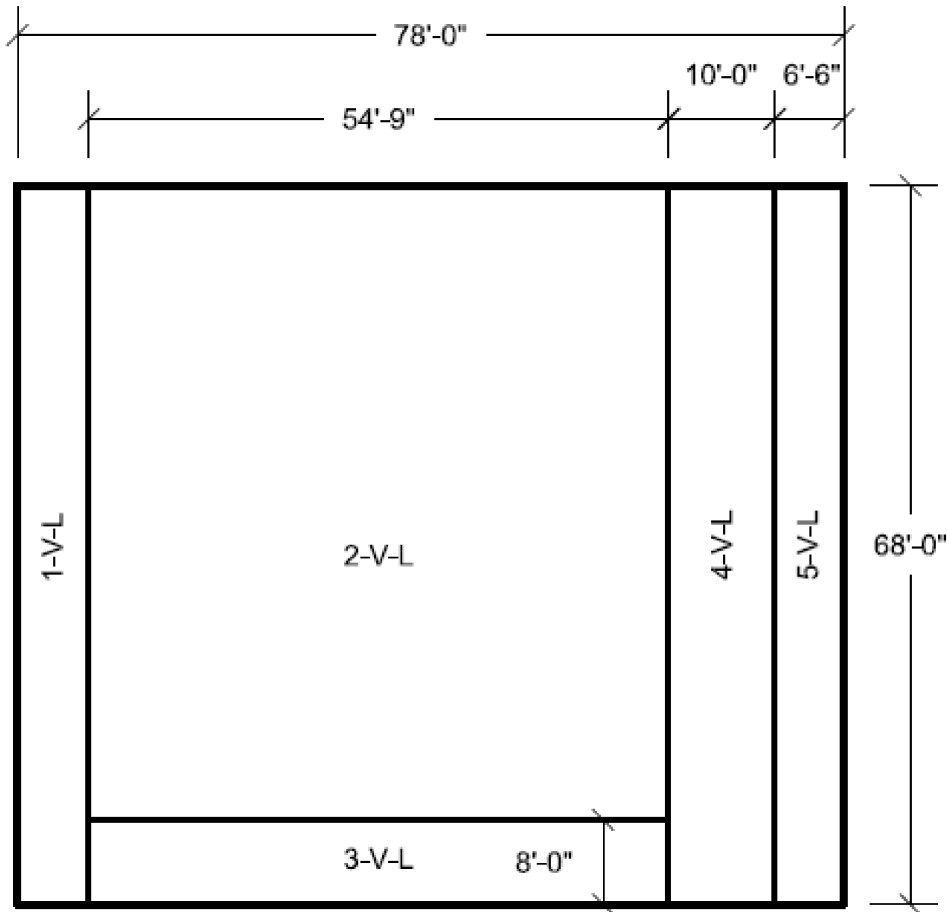


Figure 3H.6-67 Pump House West Wall Looking East Vertical Reinforcement Zones Near Side Face

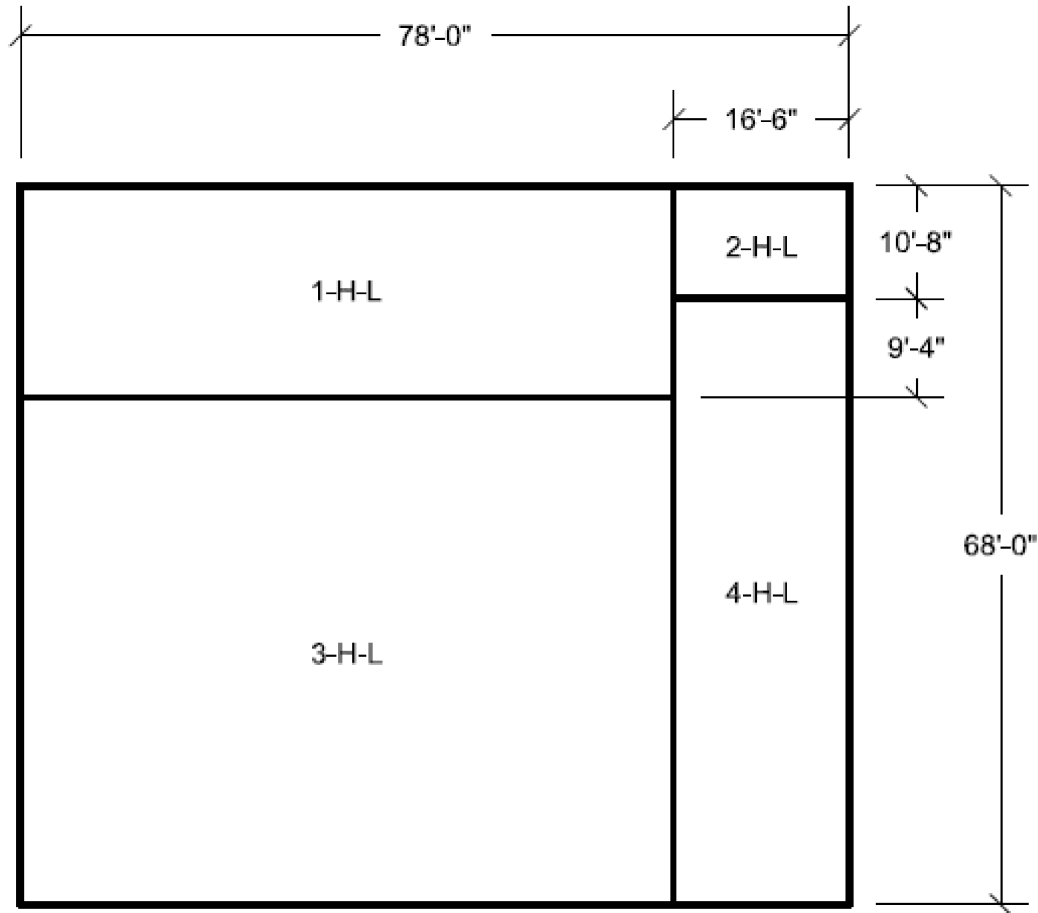


Figure 3H.6-68 Pump House West Wall Looking East Horizontal Reinforcement Zones Far Side Face

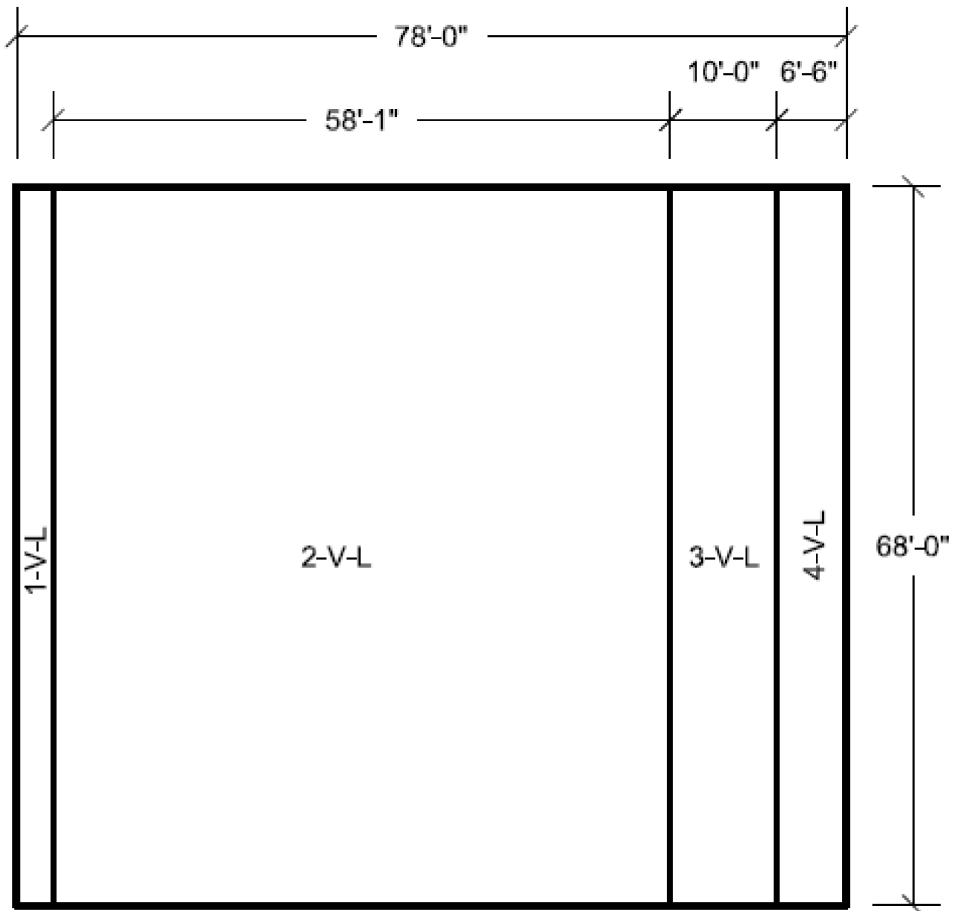


Figure 3H.6-69 Pump House West Wall Looking East Vertical Reinforcement Zones Far Side Face

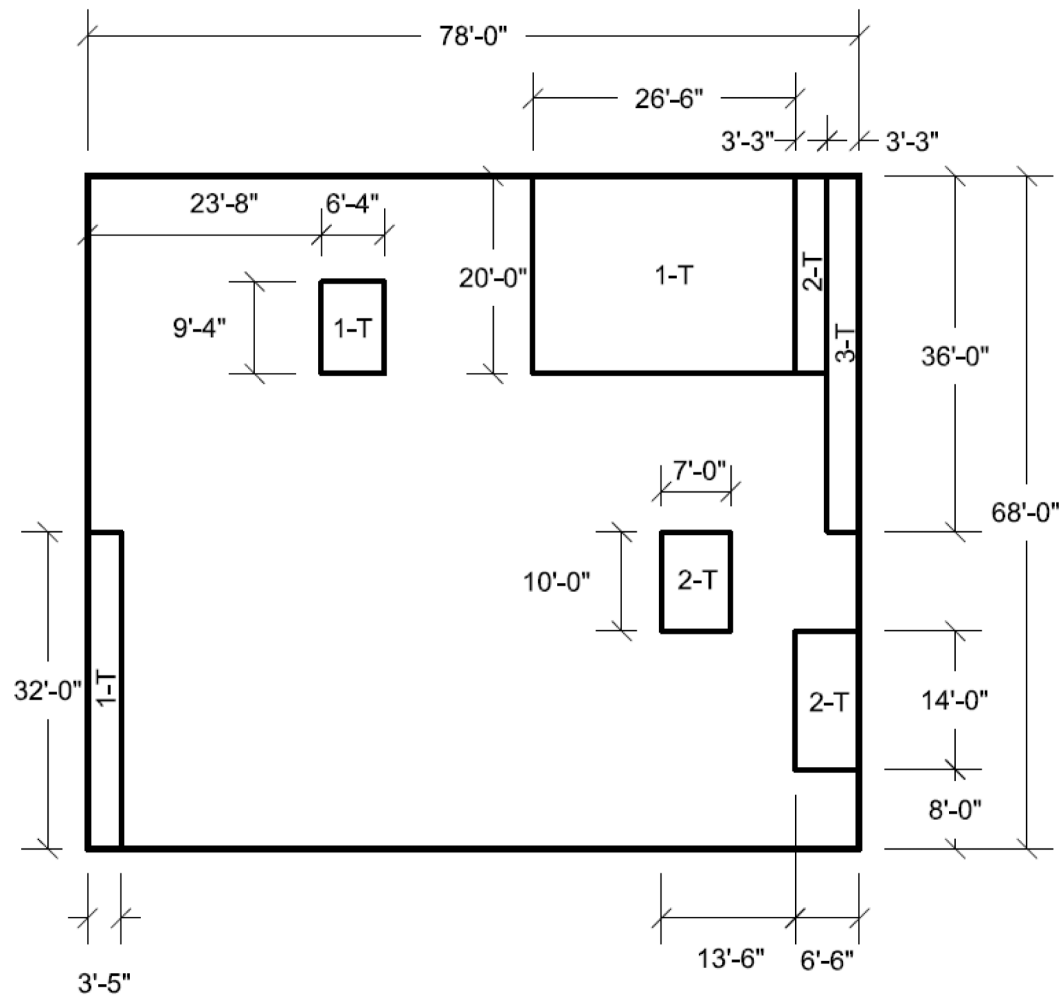


Figure 3H.6-70 Pump House West Wall Looking East Transverse ~~Vertical~~ Reinforcement Zones

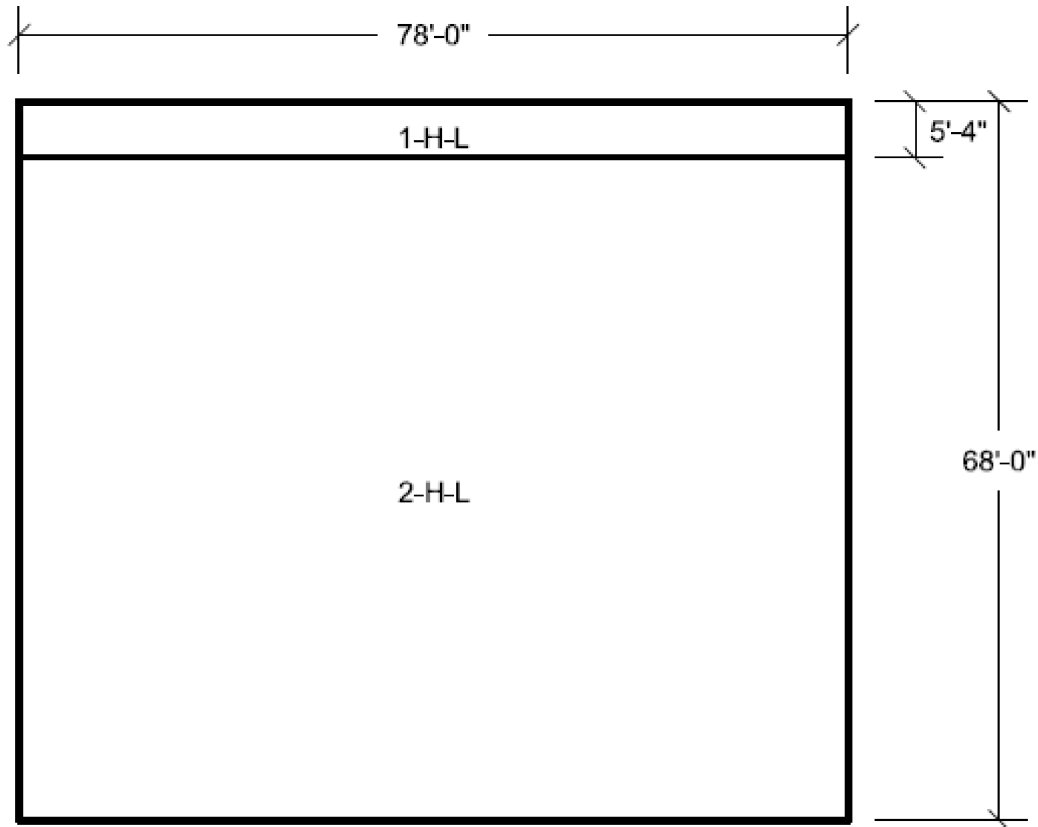


Figure 3H.6-71 Pump House Internal East Wall Looking West
Horizontal Reinforcement Zones Near Side Face

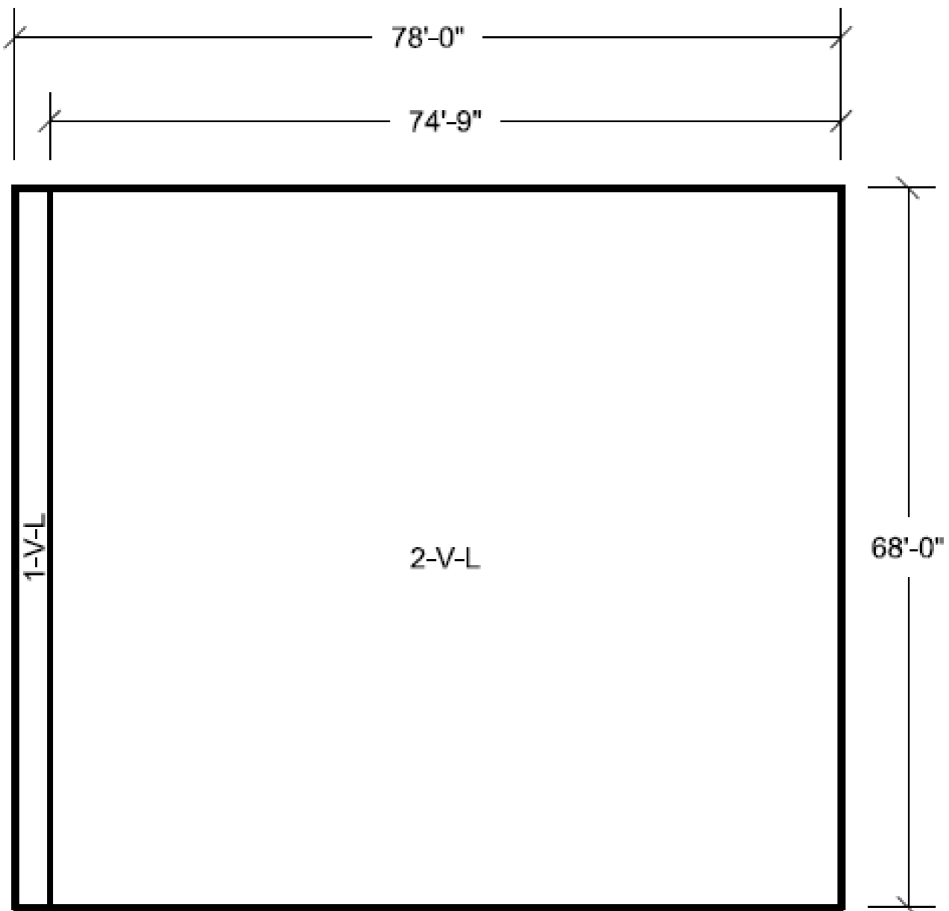


Figure 3H.6-72 Pump House Internal East Wall Looking West
Vertical Reinforcement Zones Near Side Face

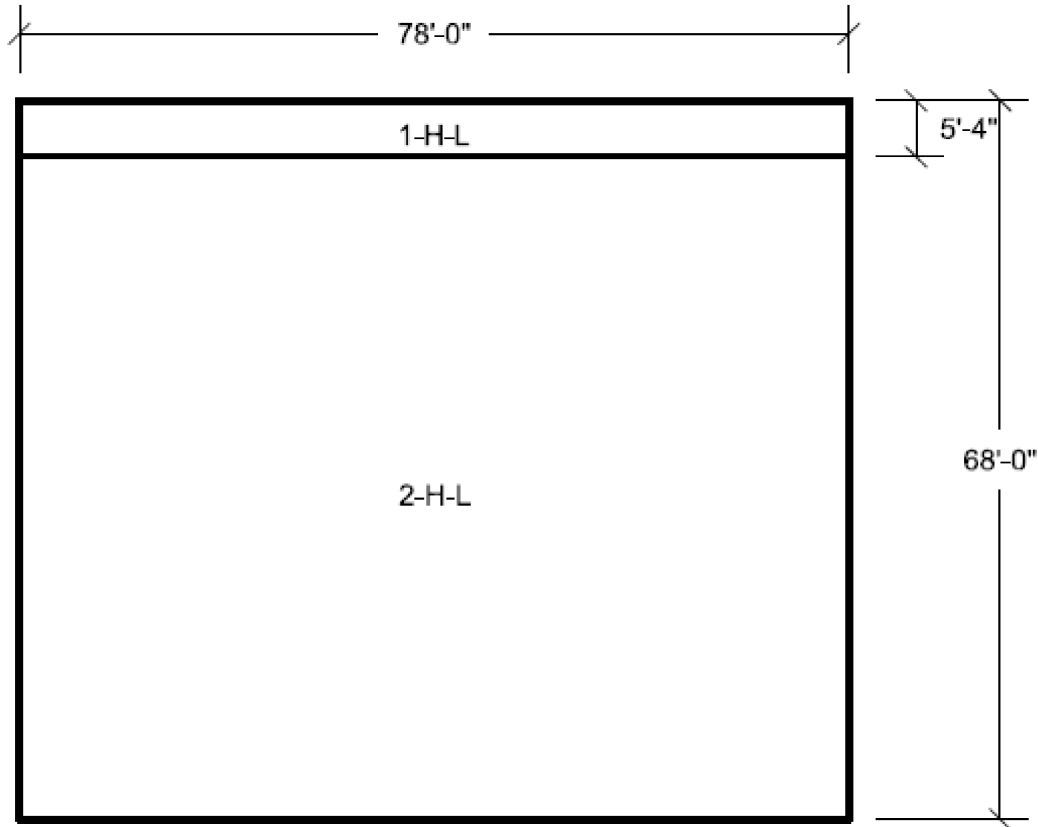


Figure 3H.6-73 Pump House Internal East Wall Looking West Horizontal Reinforcement Zones Far Side Face

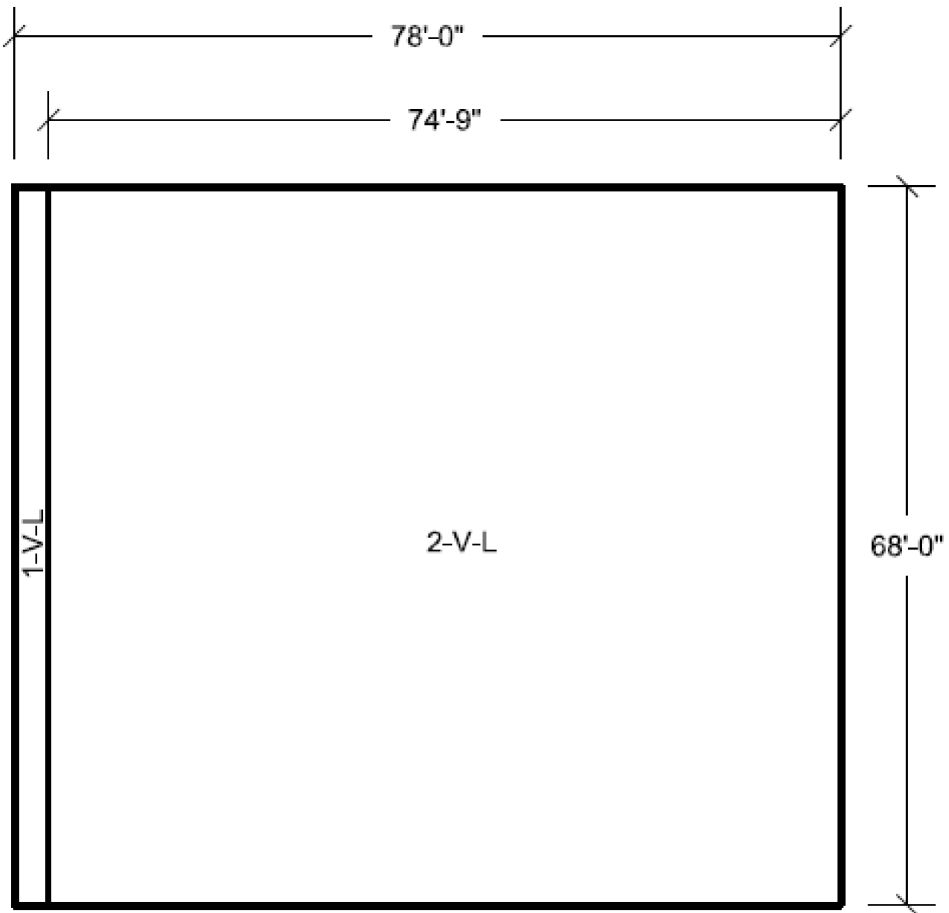


Figure 3H.6-74 Pump House Internal East Wall Looking West Vertical Reinforcement Zones Far Side Face

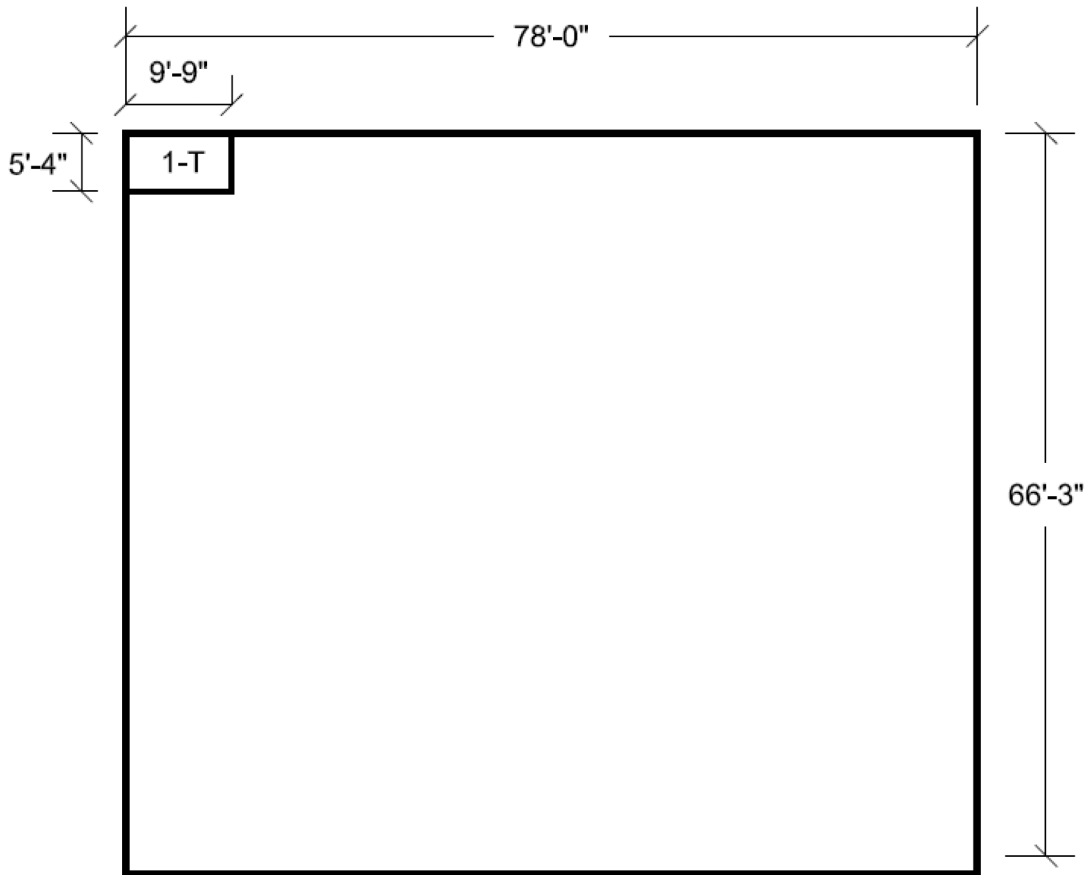


Figure 3H.6-74A Pump House Internal East Wall Looking West Transverse Reinforcement Zones

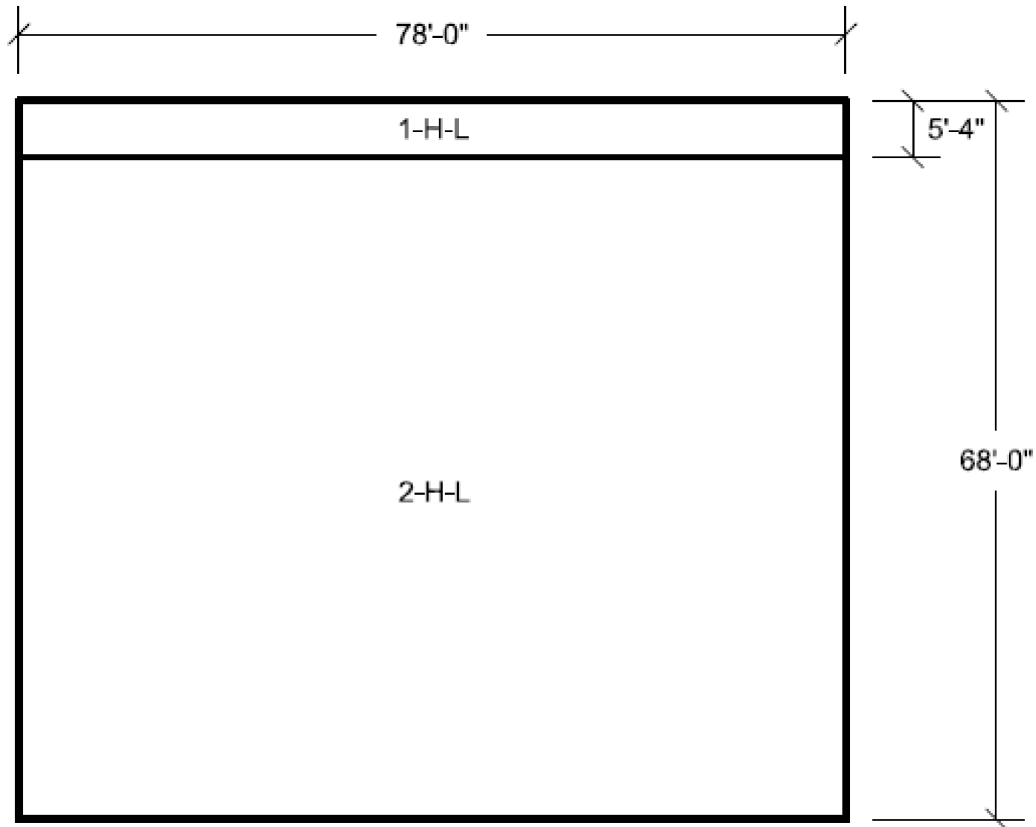


Figure 3H.6-75 Pump House Internal West Wall Looking West
Horizontal Reinforcement Zones Near Side Face

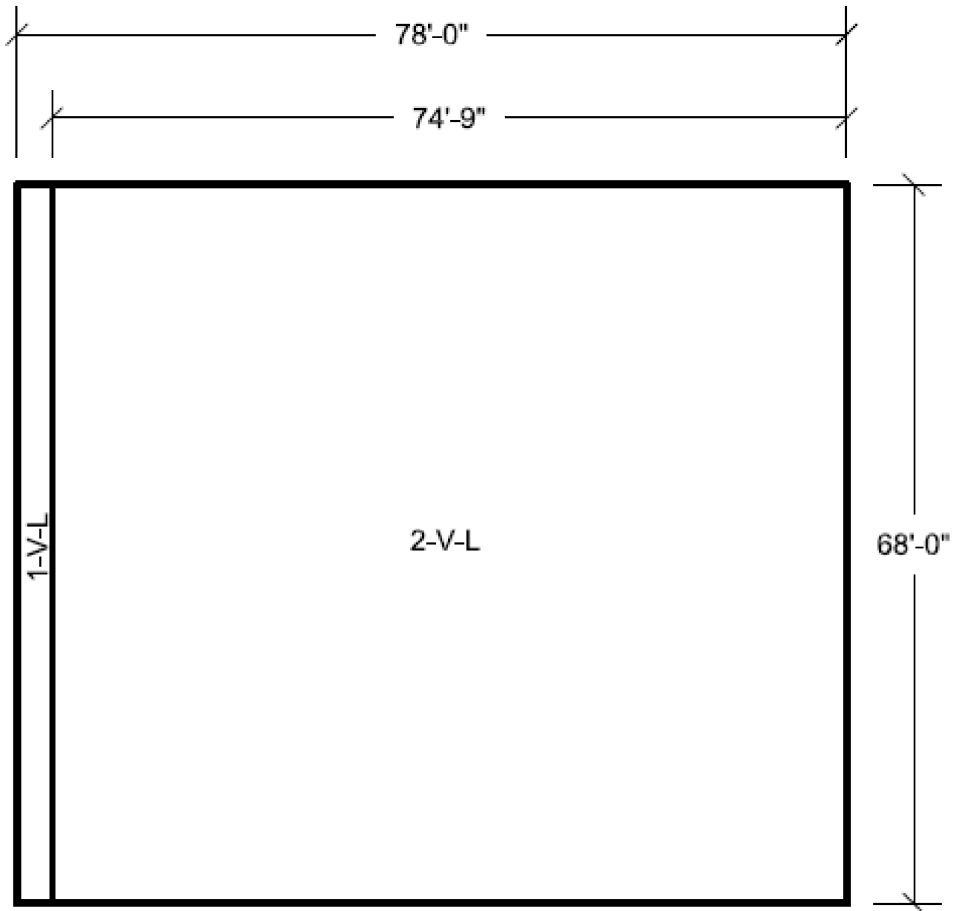


Figure 3H.6-76 Pump House Internal West Wall Looking West Vertical Reinforcement Zones Near Side Face

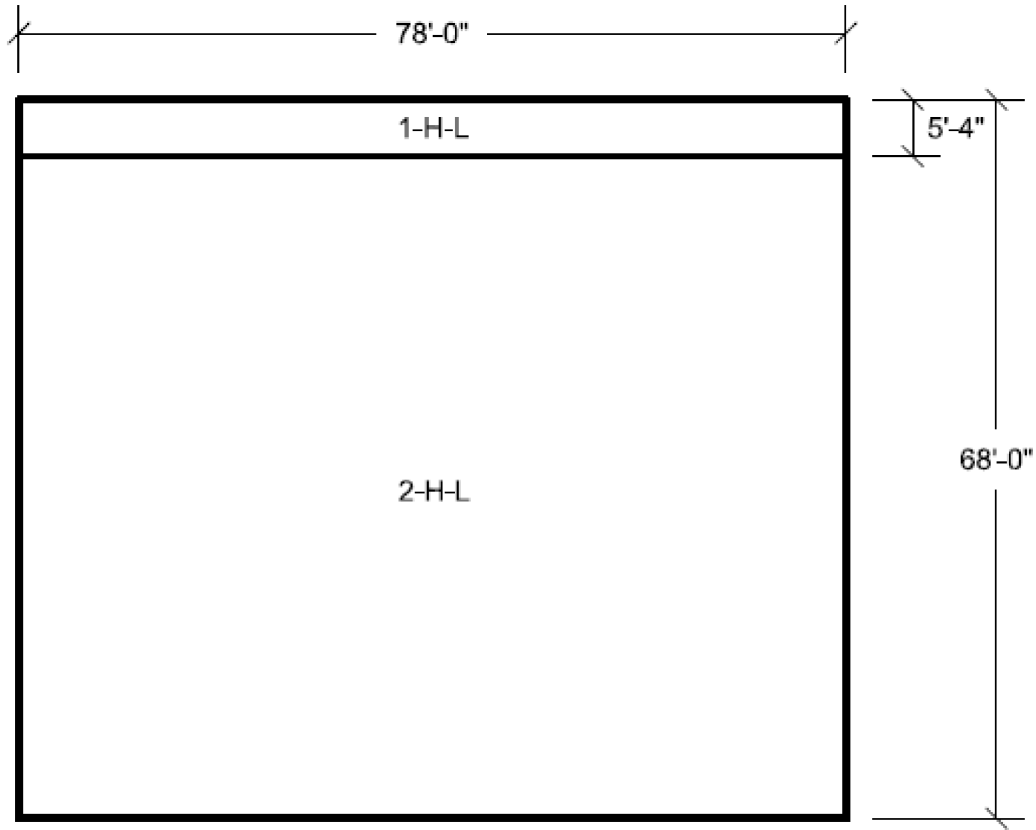


Figure 3H.6-77 Pump House Internal West Wall Looking West Horizontal Reinforcement Zones Far Side Face

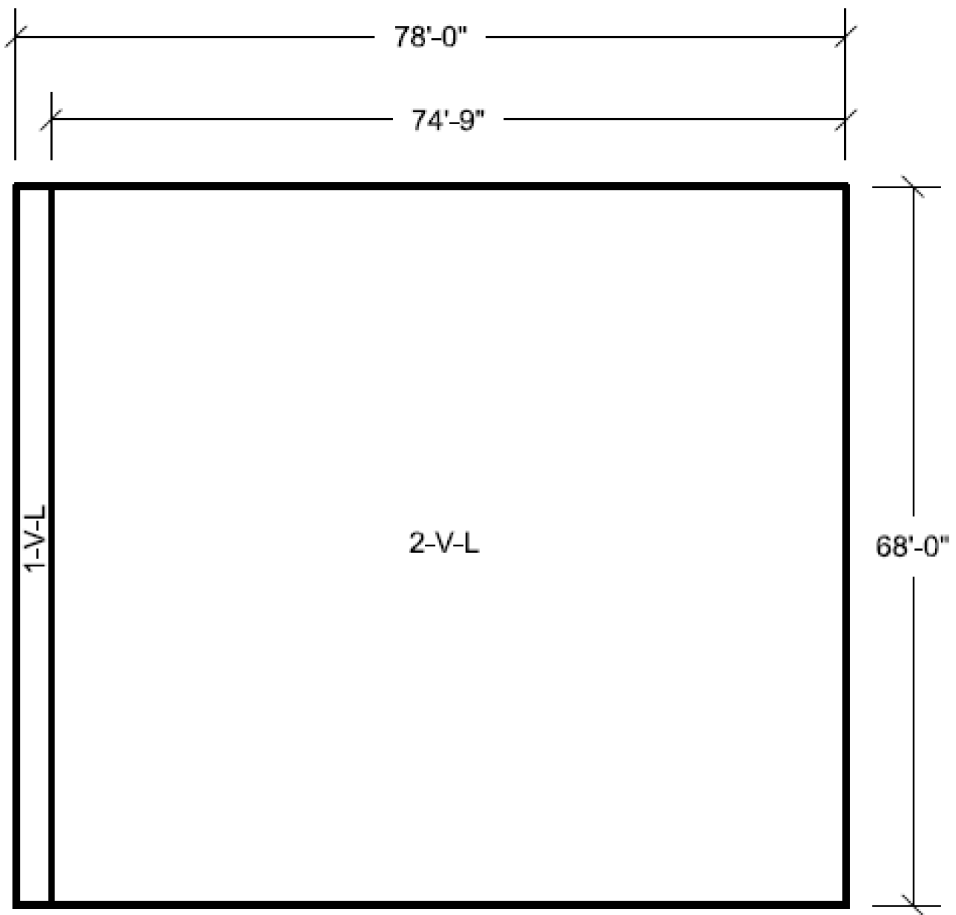


Figure 3H.6-78 Pump House Internal West Wall Looking West Vertical Reinforcement Zones Far Side Face

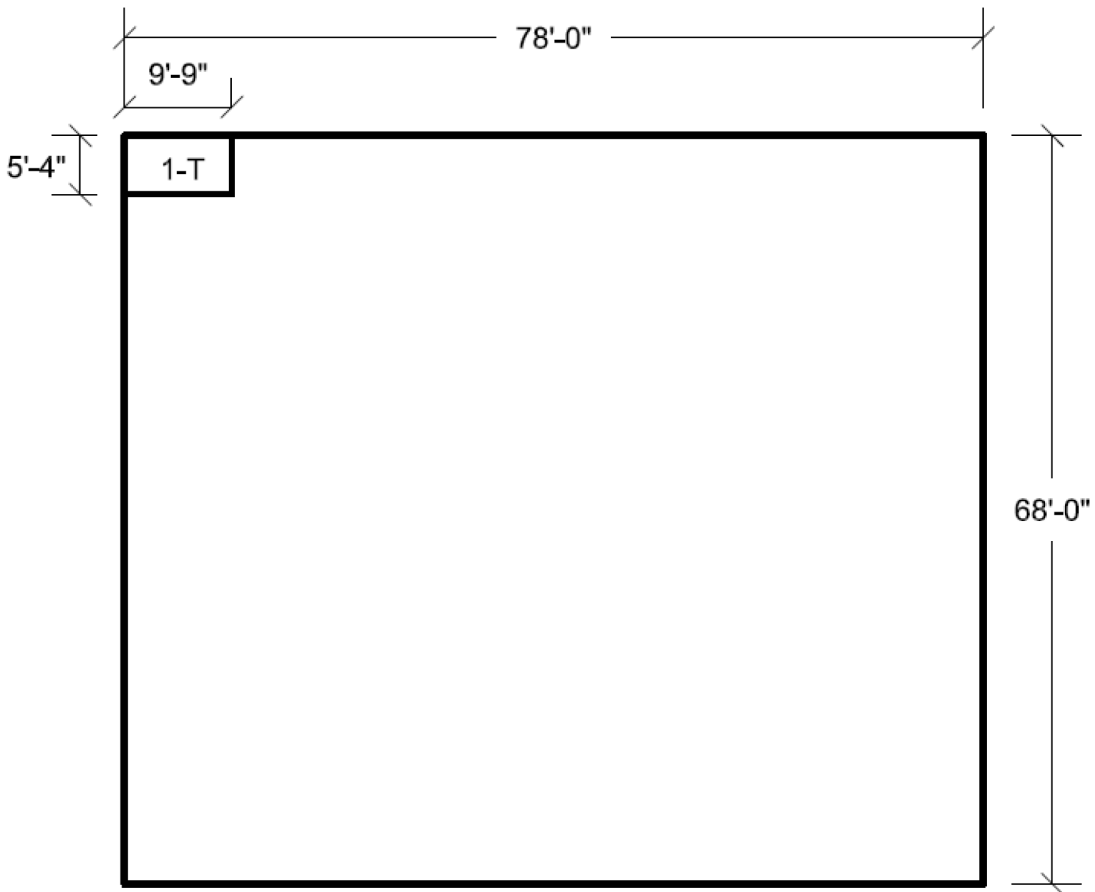


Figure 3H.6-78A Pump House Internal West Wall Looking West Transverse Reinforcement Zones

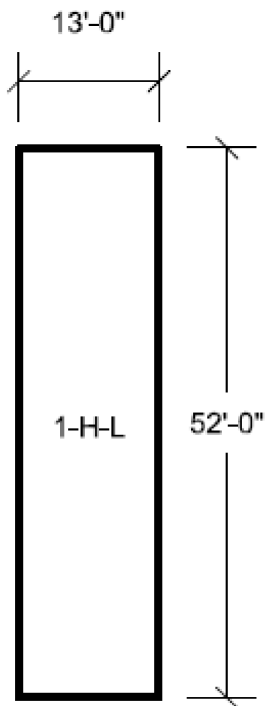


Figure 3H.6-79 Pump House East Buttress Looking North & Pump House West Buttress Looking South
Horizontal Reinforcement Zones Near and Far Side Faces

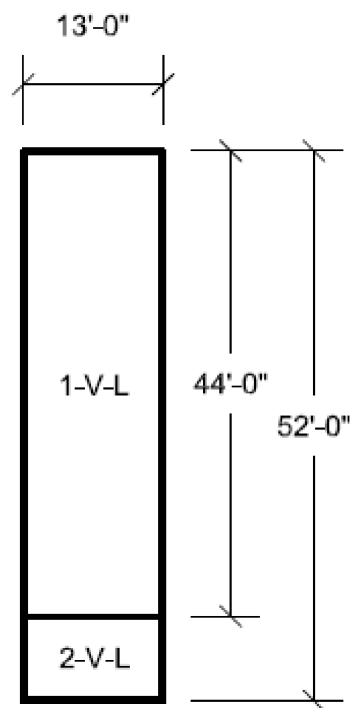


Figure 3H.6-80 Pump House East Butress Looking North & Pump House West Butress Looking South Vertical Reinforcement Zones Near and Far Side Faces

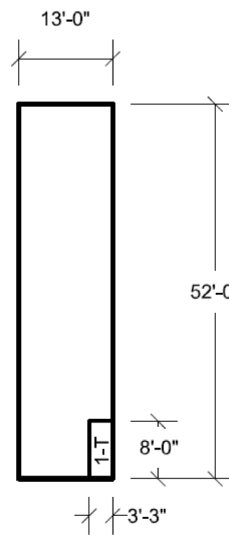


Figure 3H.6-81 Pump House East Buttress Looking North & Pump House West Buttress Looking South Transverse-~~Horizontal~~ Reinforcement Zones

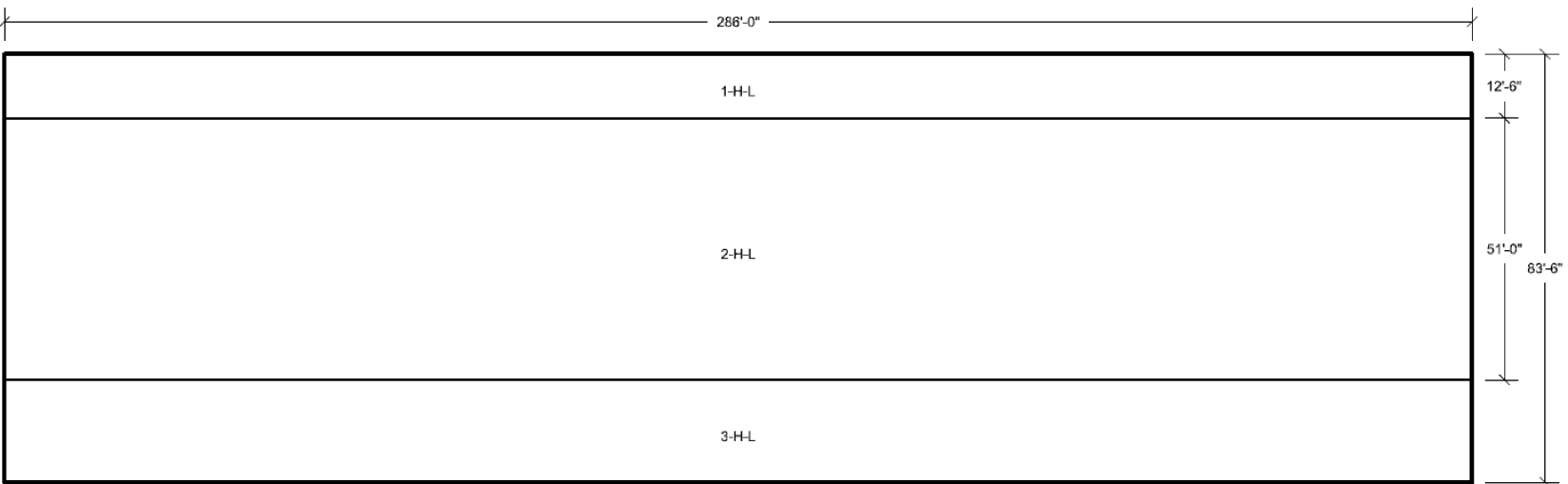


Figure 3H.6-82 UHS Basin North Wall Looking South Horizontal Reinforcement Zones Near Side Face

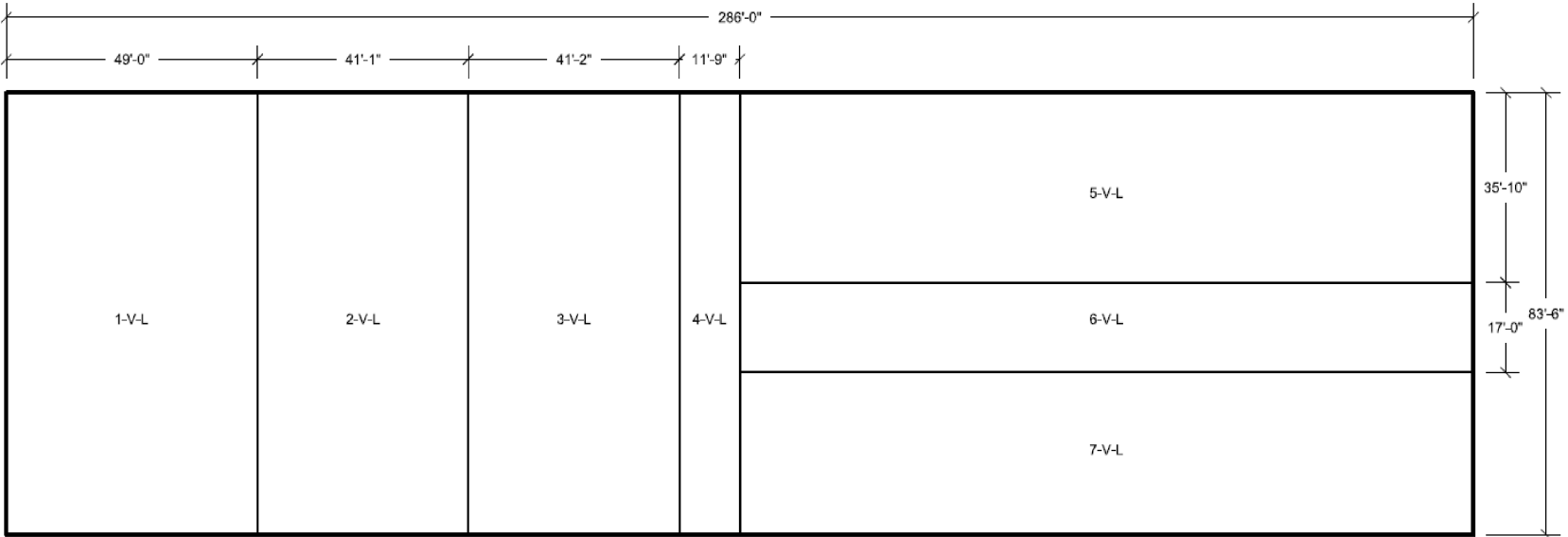


Figure 3H.6-83 UHS Basin North Wall Looking South Vertical Reinforcement Zones Near Side Face

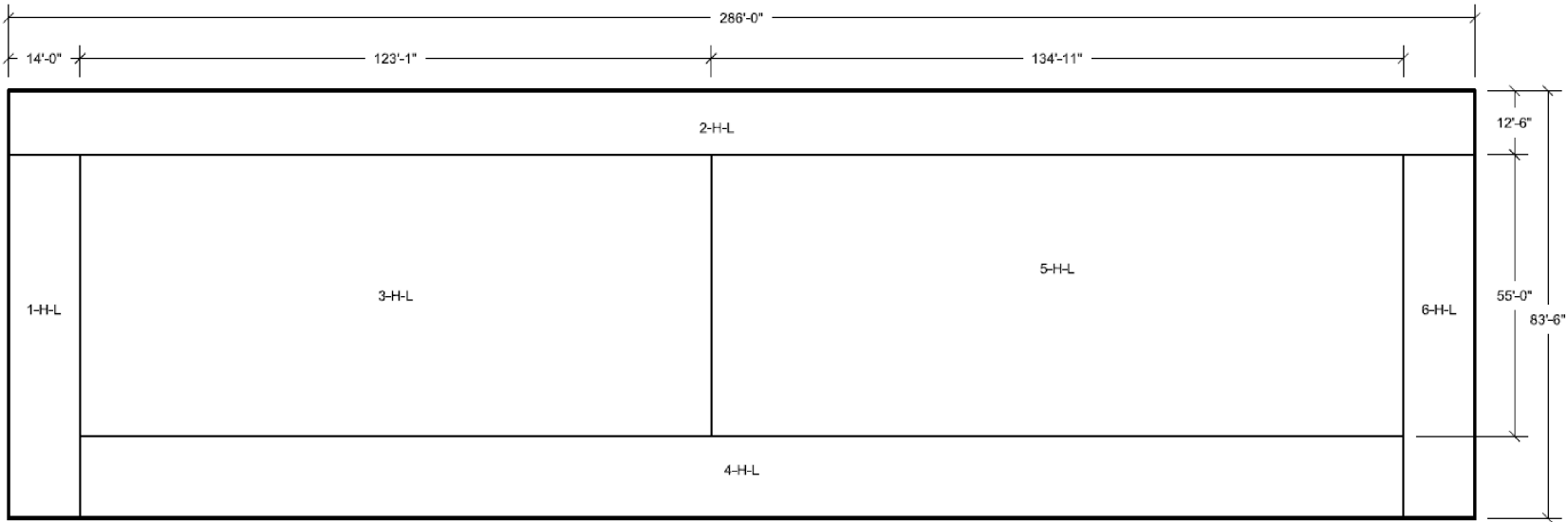


Figure 3H.6-84 UHS Basin North Wall Looking South Horizontal Reinforcement Zones Far Side Face

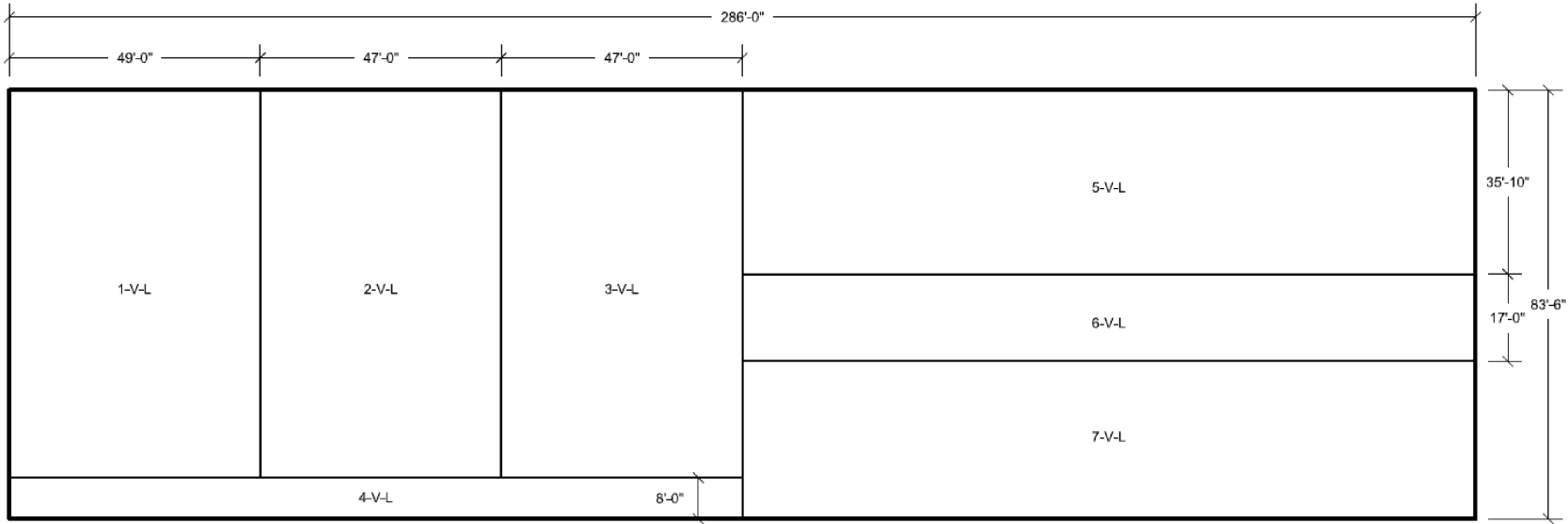


Figure 3H.6-85 UHS Basin North Wall Looking South Vertical Reinforcement Zones Far Side Face

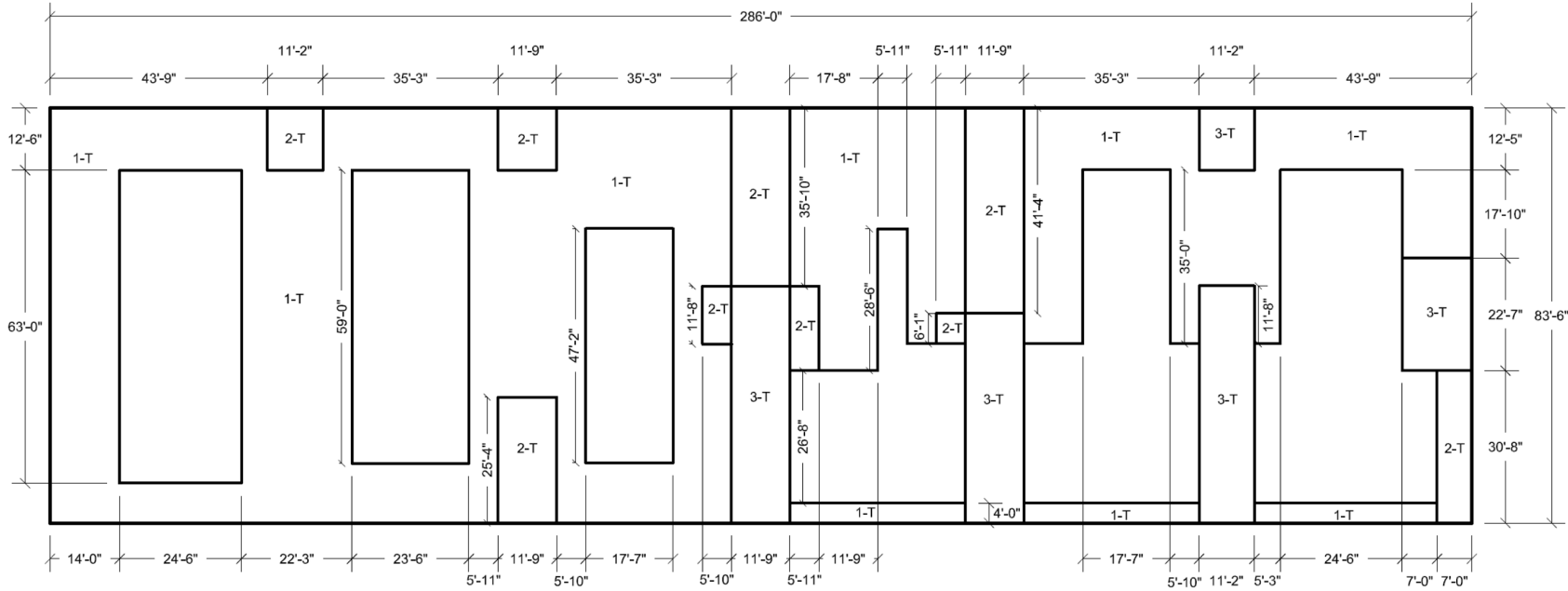


Figure 3H.6-86 UHS Basin North Wall Looking South Transverse ~~Horizontal and Vertical~~ Reinforcement Zones

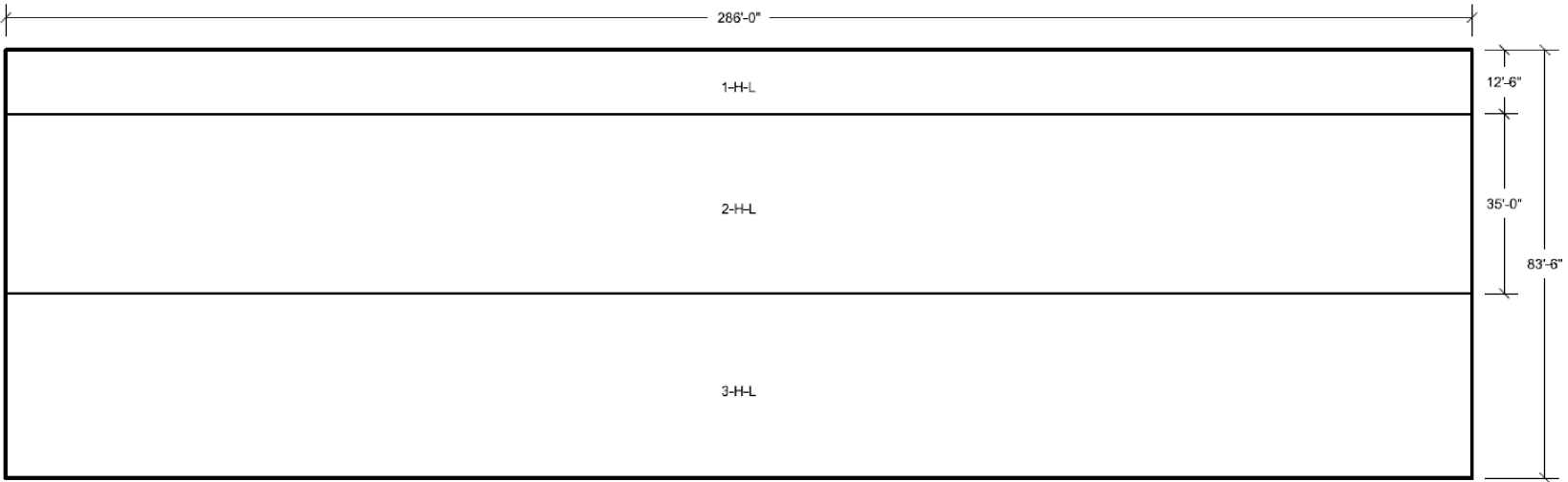


Figure 3H.6-87 UHS Basin South Wall Looking North Horizontal Reinforcement Zones Near Side Face

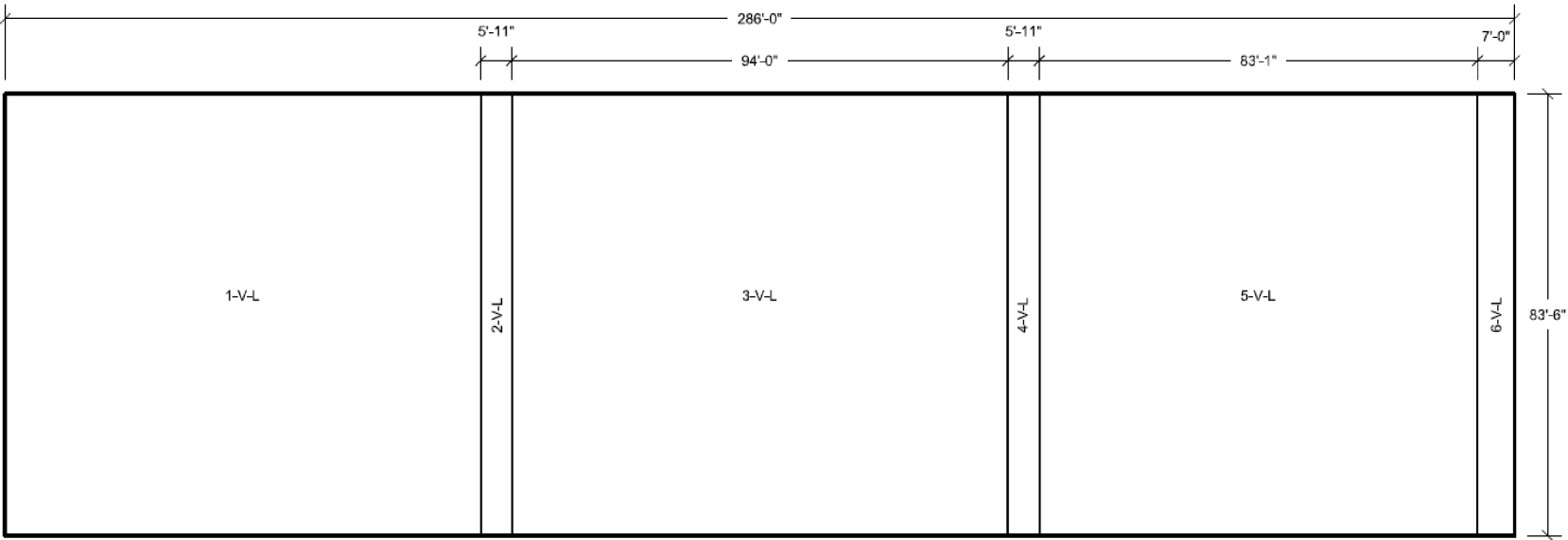


Figure 3H.6-88 UHS Basin South Wall Looking North Vertical Reinforcement Zones Near Side Face

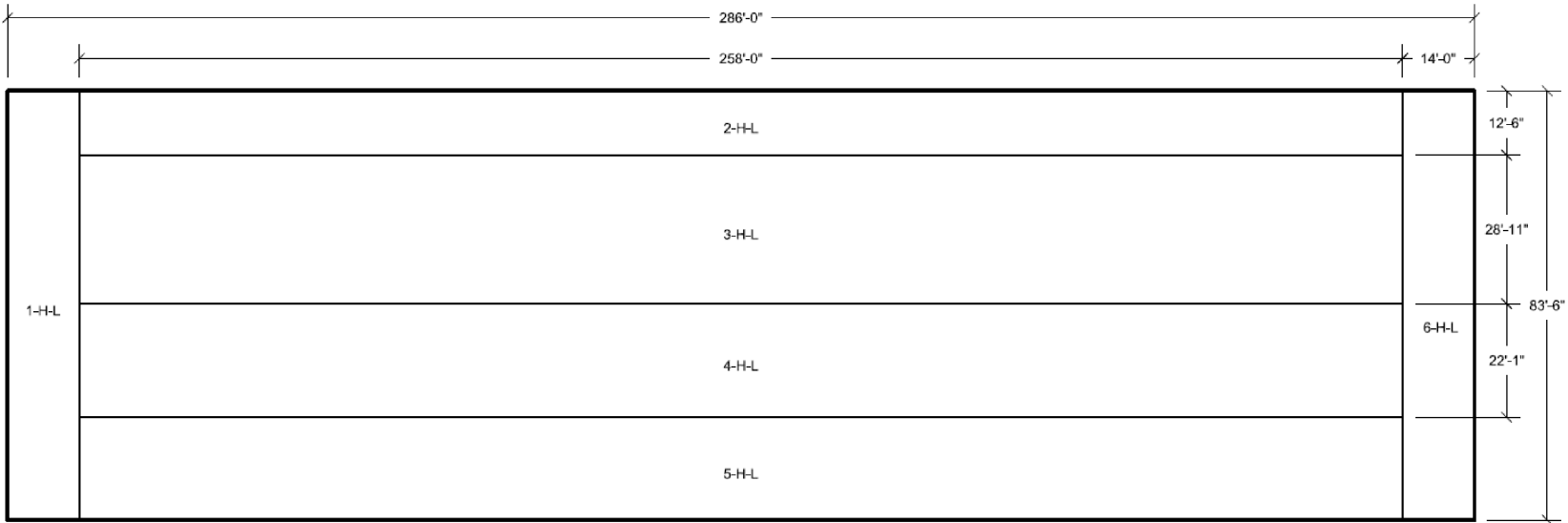


Figure 3H.6-89 UHS Basin South Wall Looking North Horizontal Reinforcement Zones Far Side Face

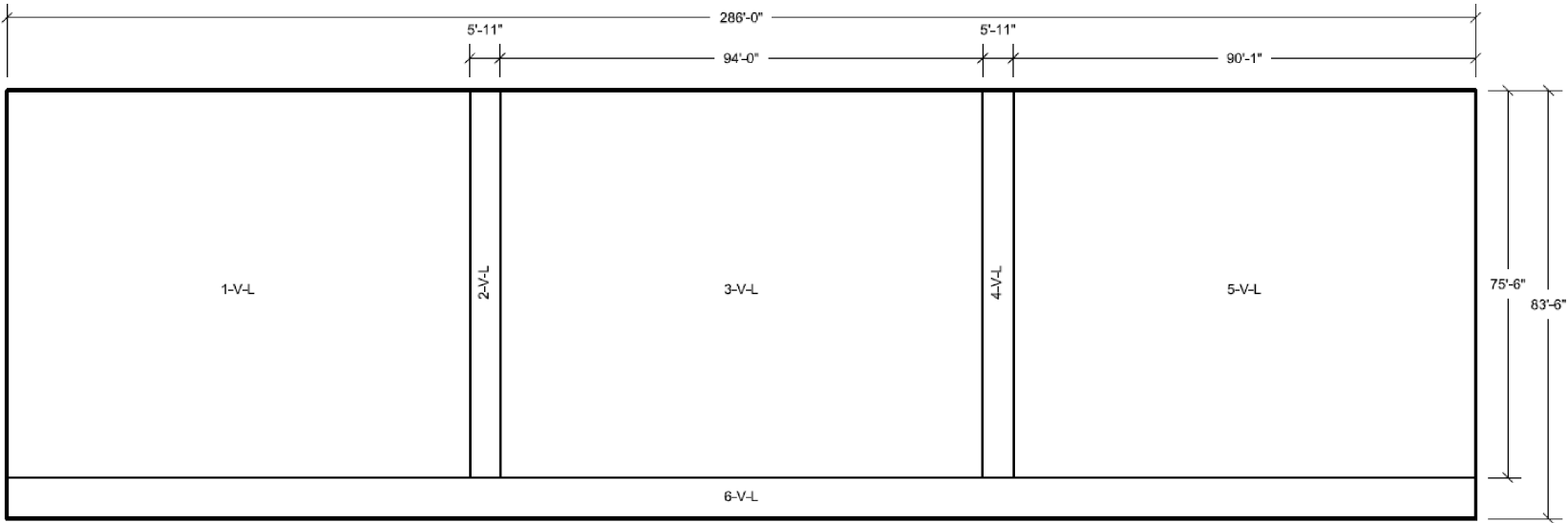


Figure 3H.6-90 UHS Basin South Wall Looking North Vertical Reinforcement Zones Far Side Face

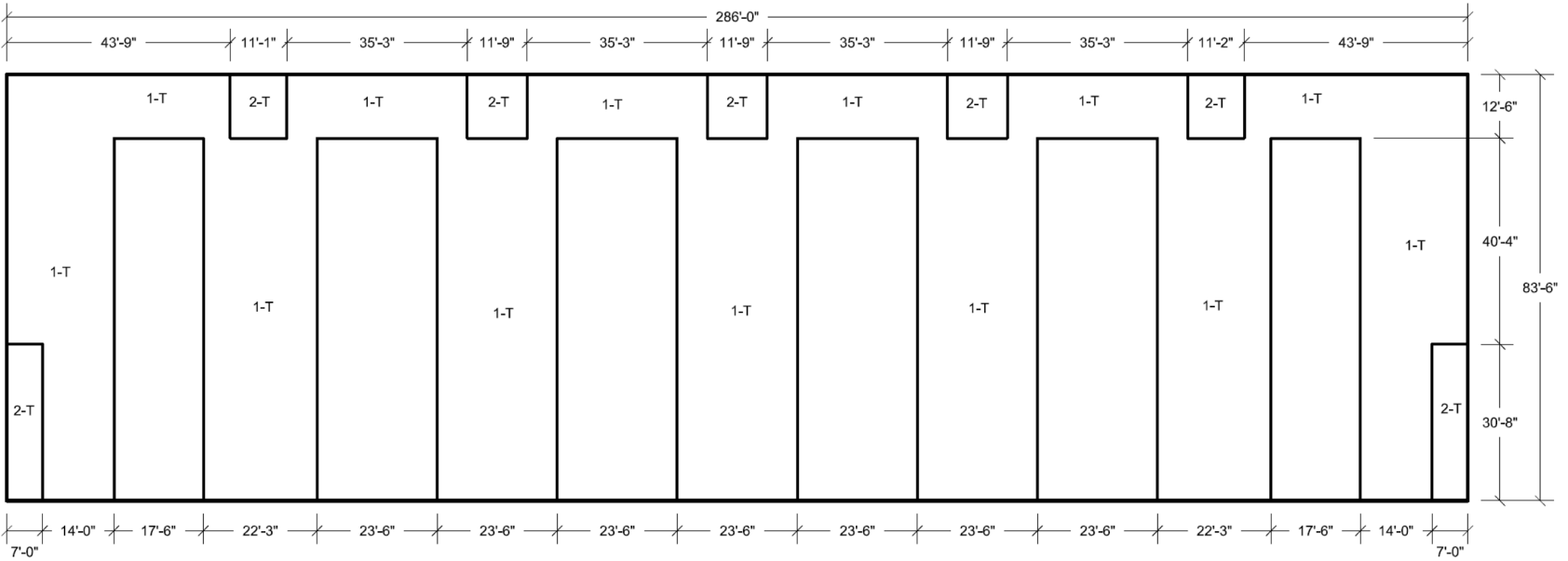


Figure 3H.6-91 UHS Basin South Wall Looking North Transverse ~~Horizontal Reinforcing~~ Reinforcement Zones

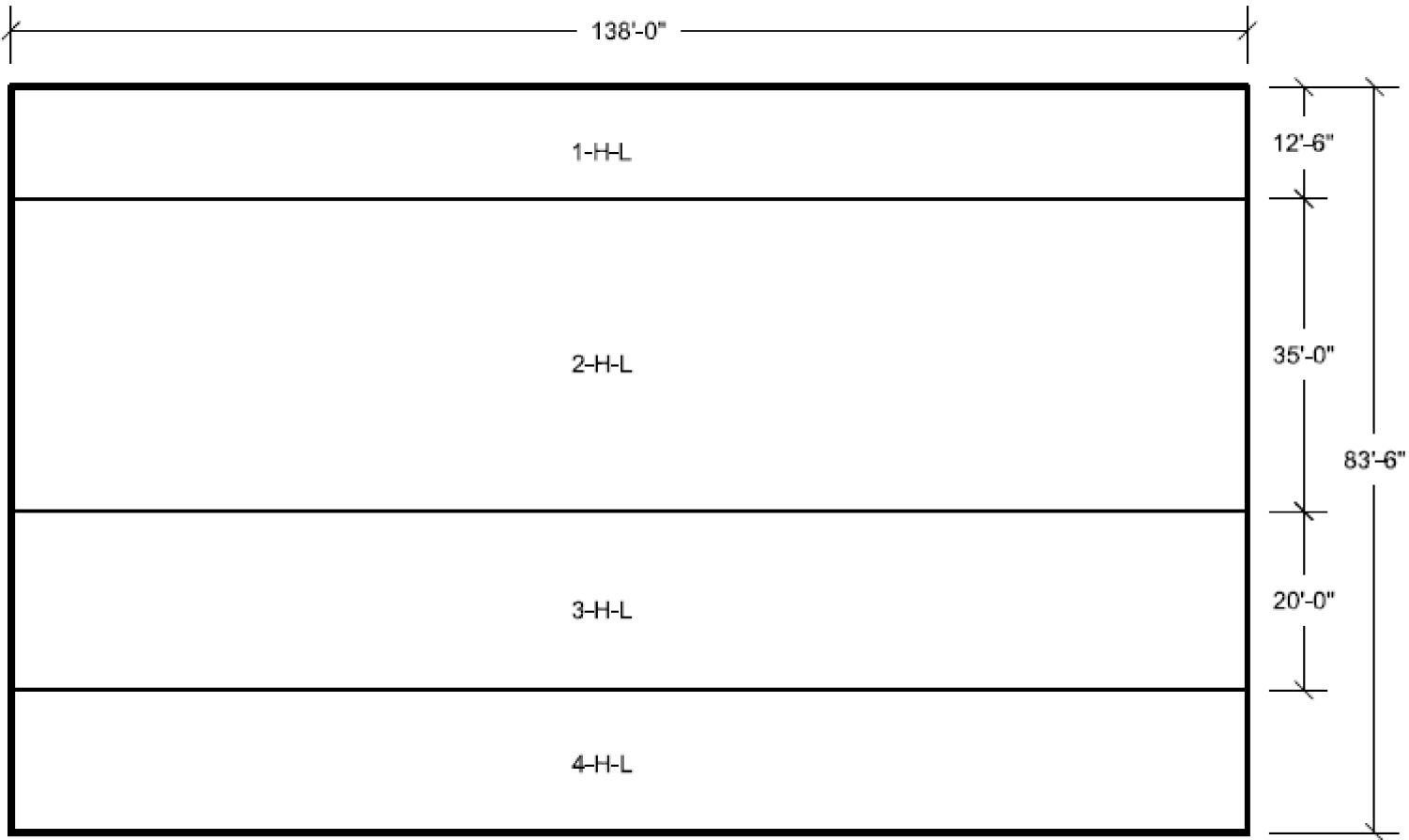


Figure 3H.6-92 UHS Basin East Wall Looking West Horizontal Reinforcement Zones Near Side Face

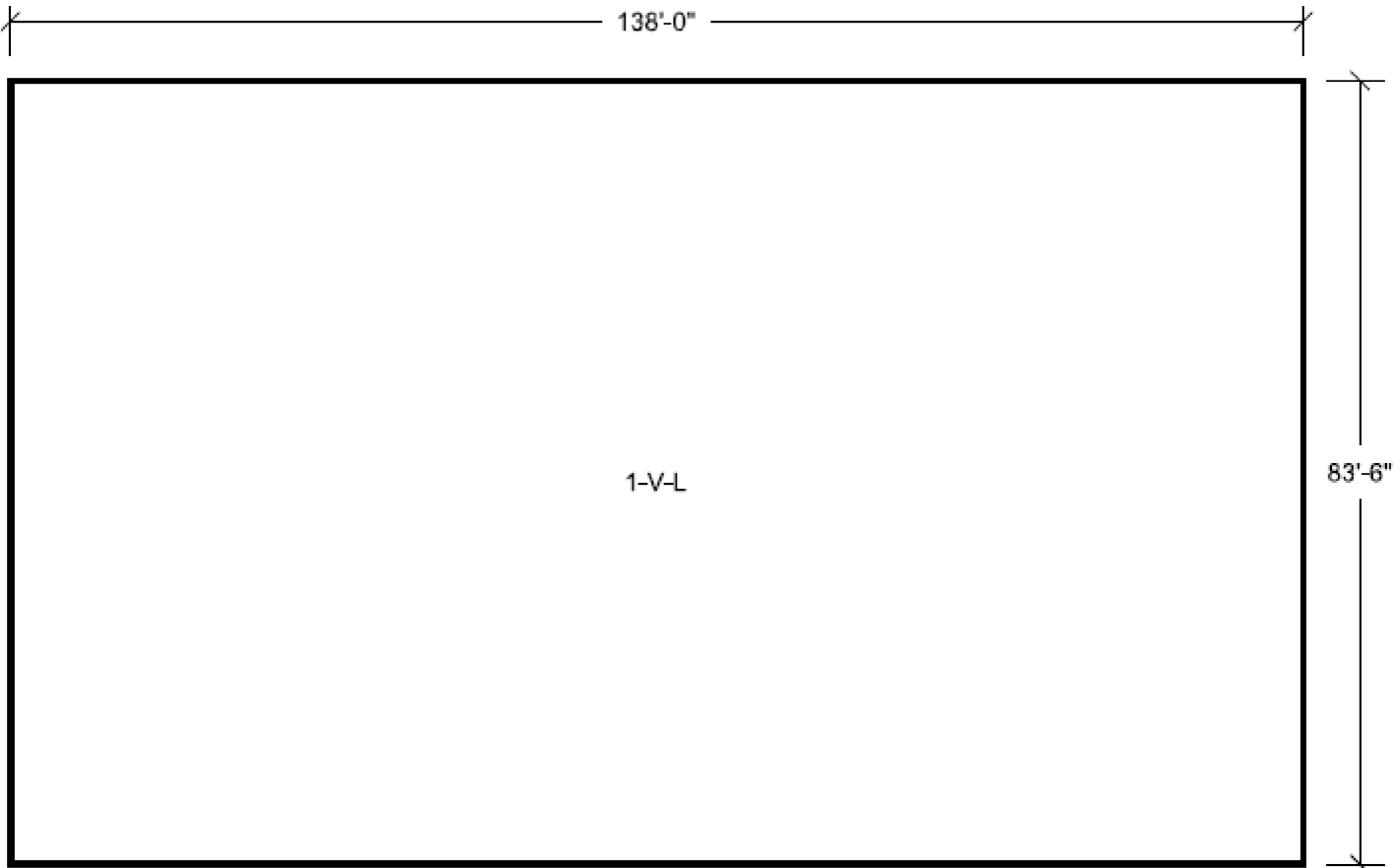


Figure 3H.6-93 UHS Basin East Wall Looking West Vertical Reinforcement Zones Near Side Face

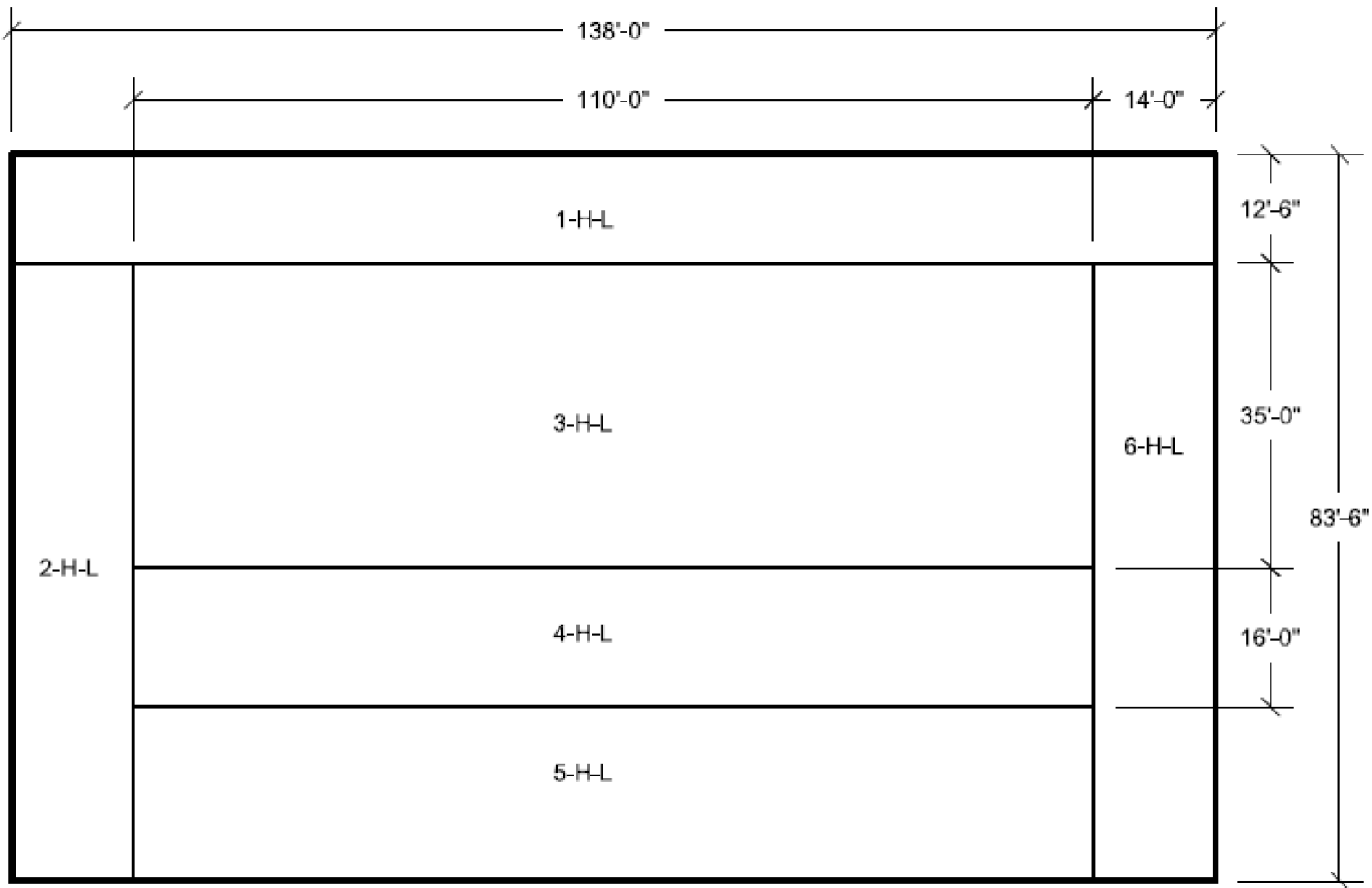


Figure 3H.6-94 UHS Basin East Wall Looking West Horizontal Reinforcement Zones Far Side Face

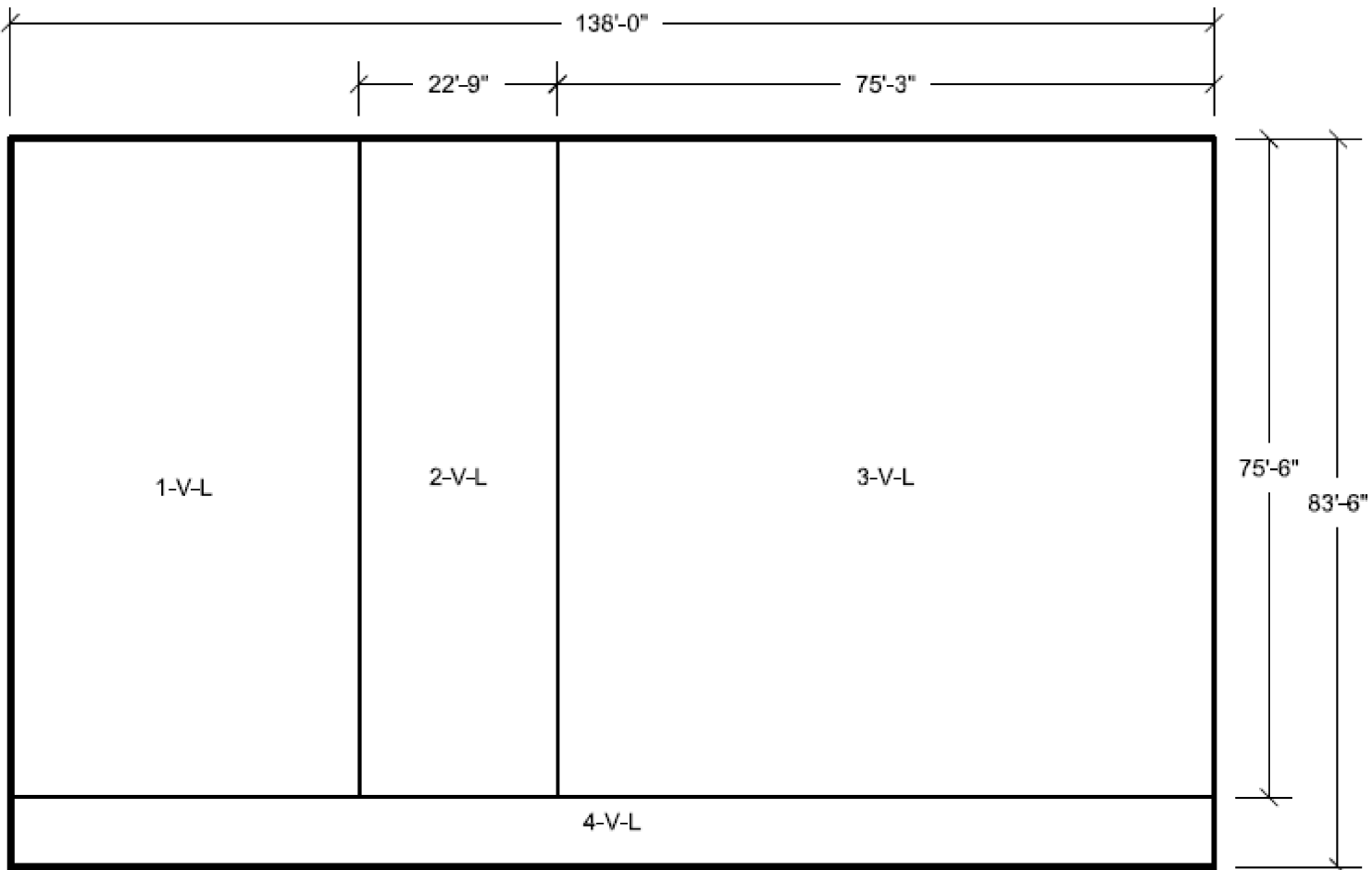


Figure 3H.6-95 UHS Basin East Wall Looking West Vertical Reinforcement Zones Far Side Face

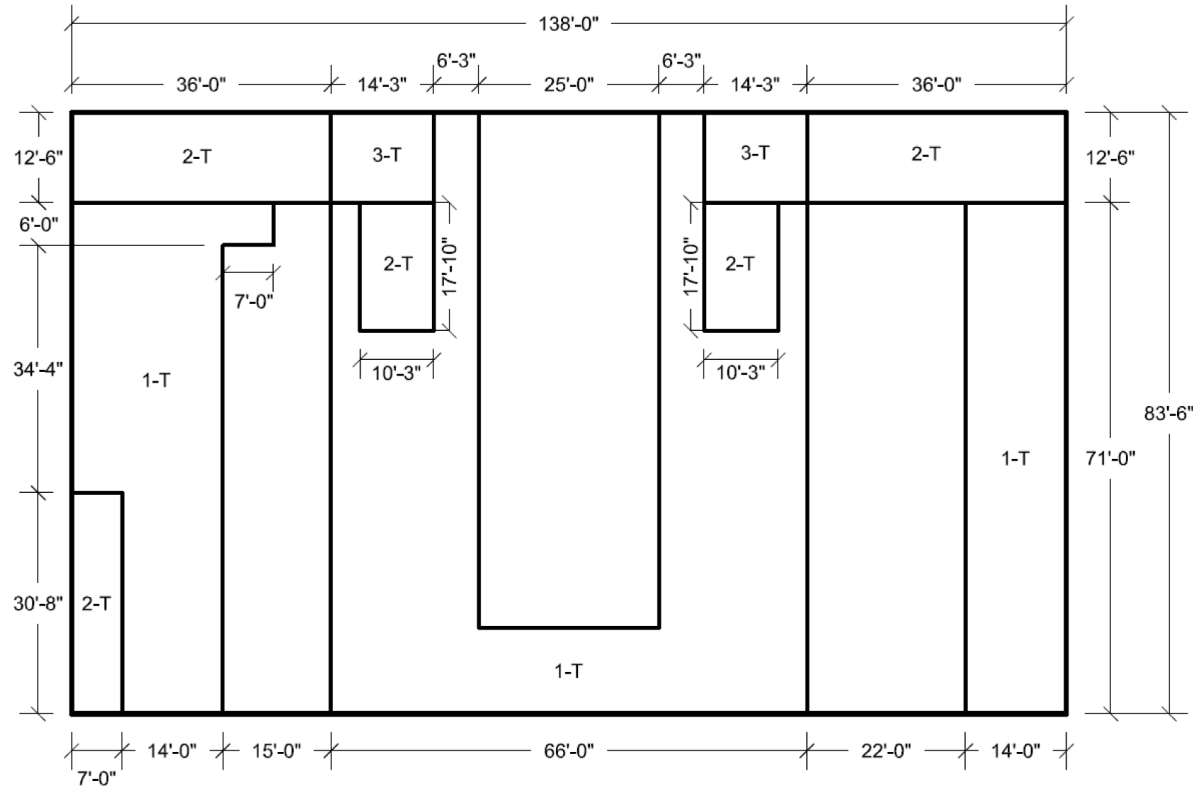


Figure 3H.6-96 UHS Basin East Wall Looking West Transverse ~~Horizontal and Vertical~~ Reinforcement Zones

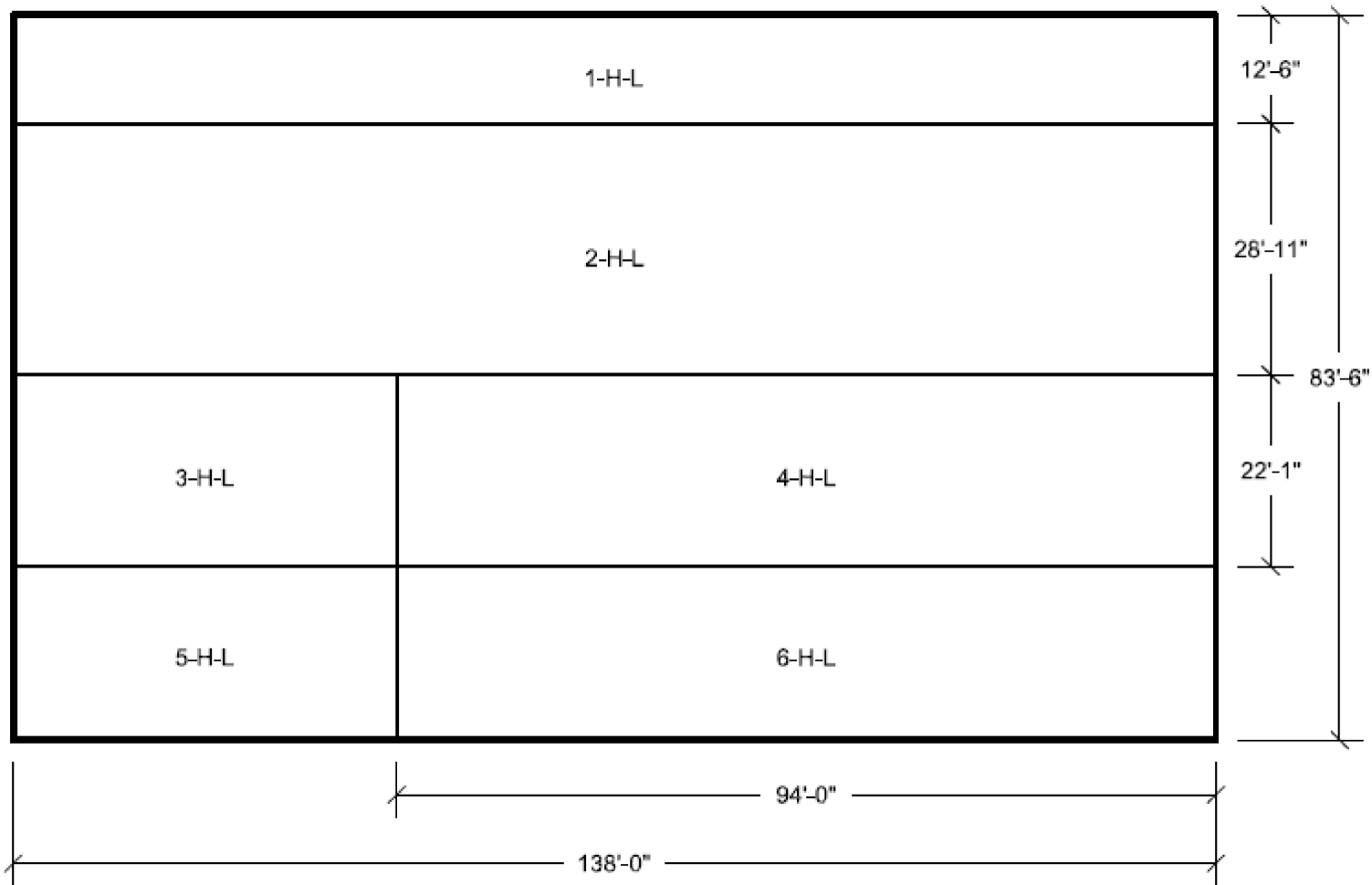


Figure 3H.6-97 UHS Basin West Wall Looking East Horizontal Reinforcement Zones Near Side Face

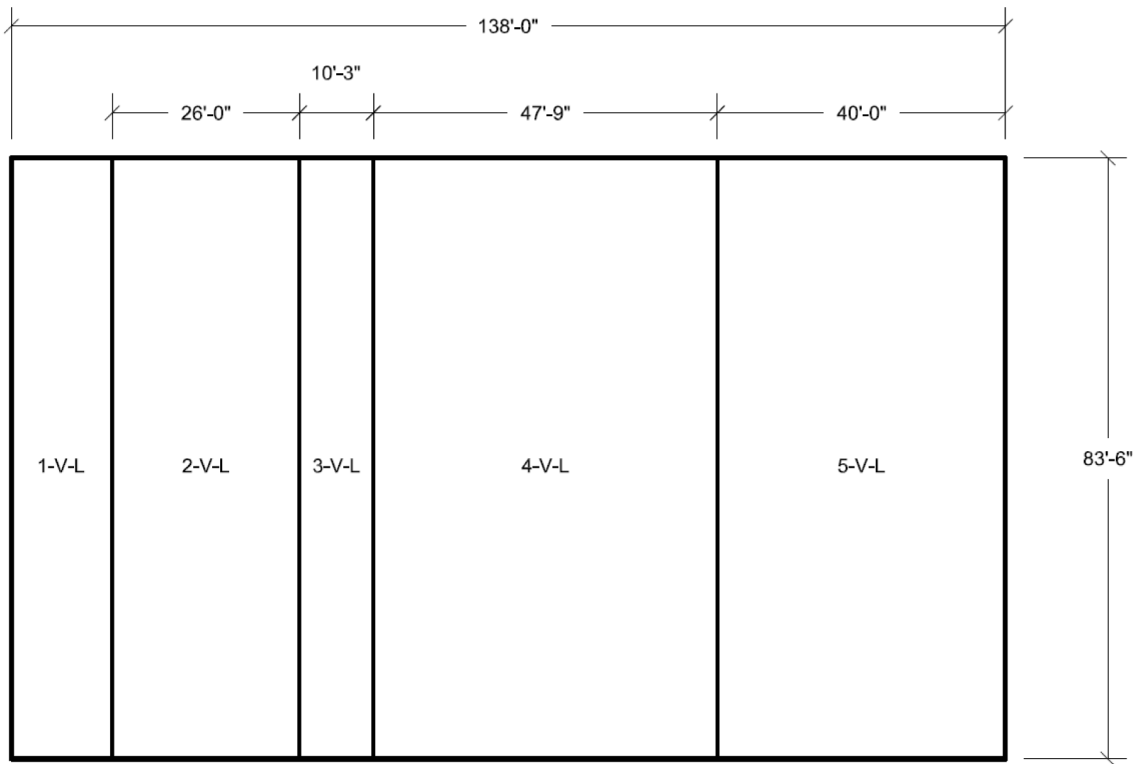


Figure 3H.6-98 UHS Basin West Wall Looking East Vertical Reinforcement Zones Near Side Face

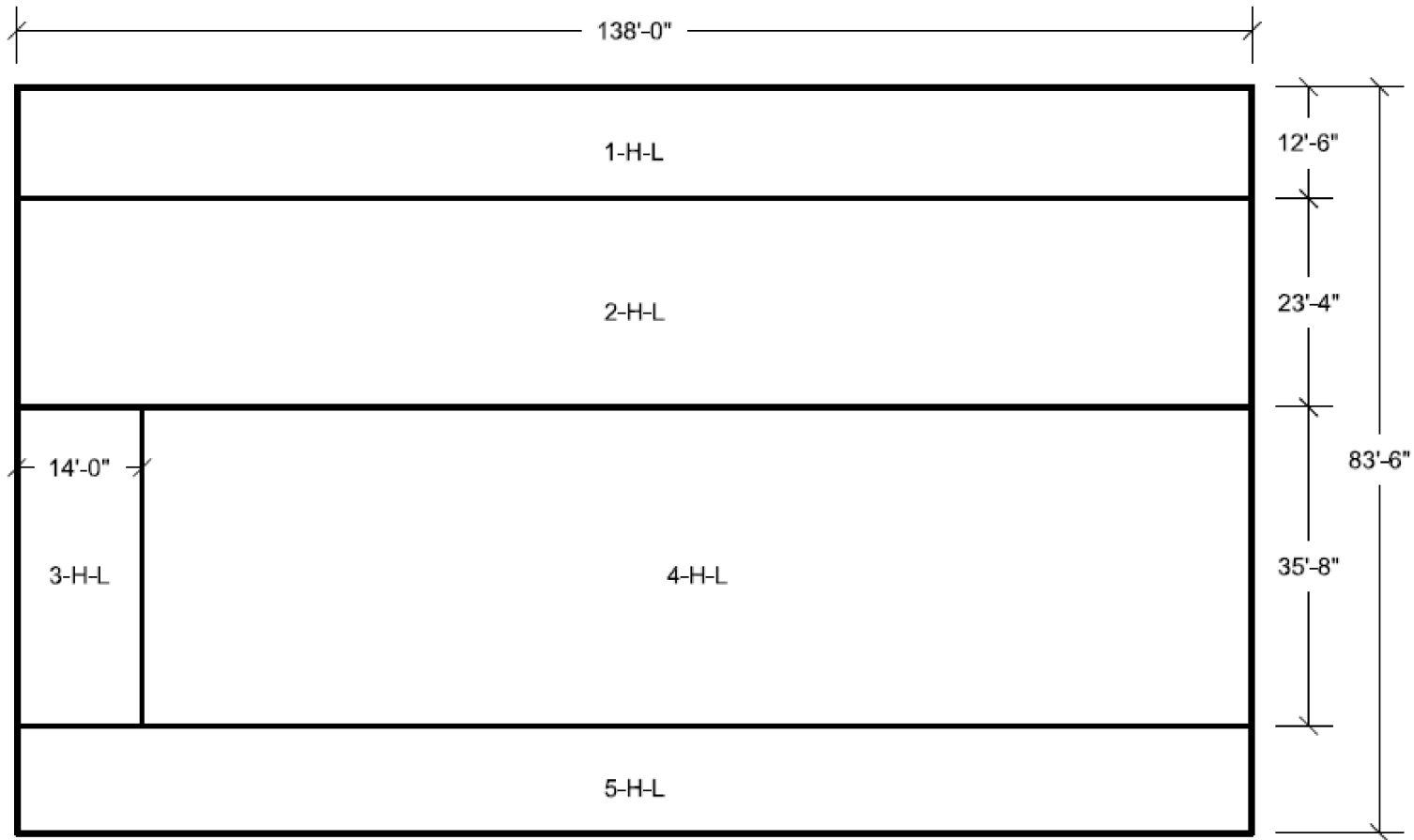


Figure 3H.6-99 UHS Basin West Wall Looking East Horizontal Reinforcement Zones Far Side Face

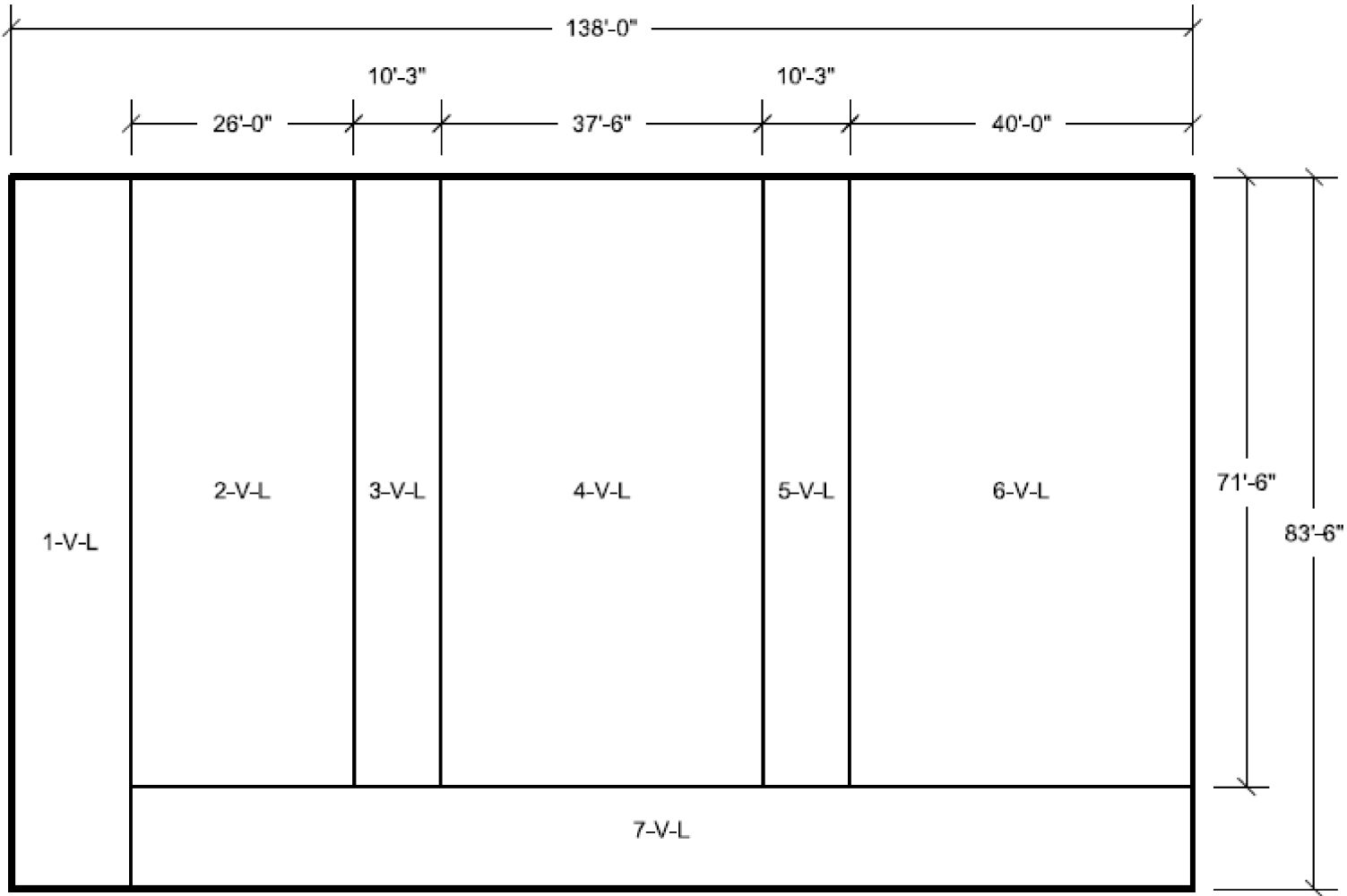


Figure 3H.6-100 UHS Basin West Wall Looking East Vertical Reinforcement Zones Far Side Face

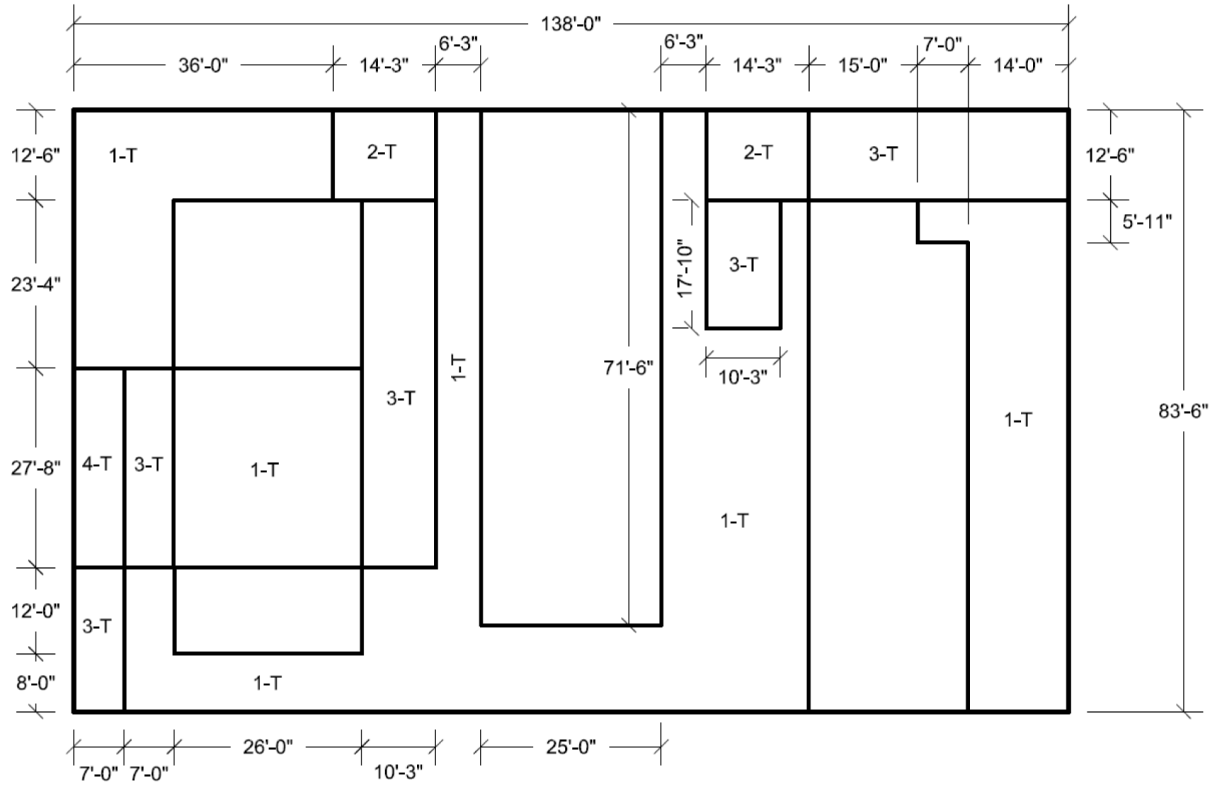


Figure 3H.6-101 UHS Basin West Wall Looking East
Transverse ~~Horizontal and Vortical~~ Reinforcement Zones

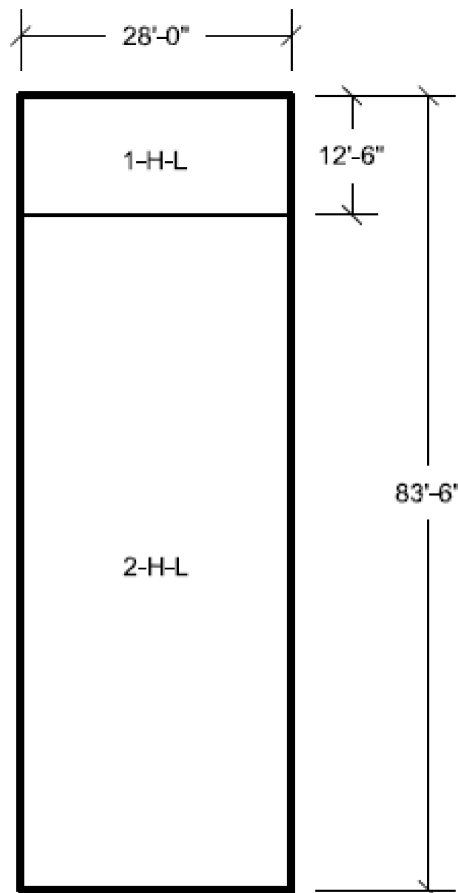


Figure 3H.6-102 UHS Basin North Buttress Looking West & UHS Basin South Buttress Looking East Horizontal Reinforcement Zones Near & Far Side Faces

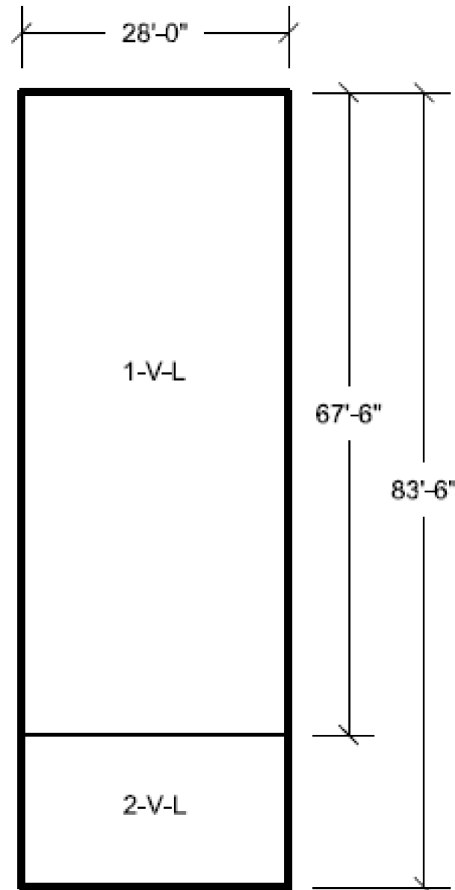


Figure 3H.6-103 UHS Basin North Buttrесс Looking West & UHS Basin South Buttrесс Looking East Vertical Reinforcement Zones Near & Far Side Faces

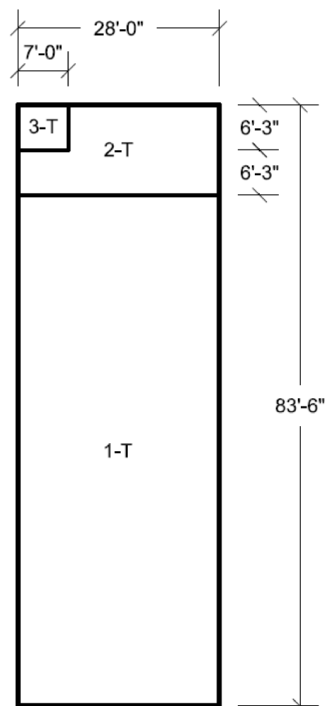


Figure 3H.6-104 UHS Basin North Buttress Looking West & UHS Basin South Buttress Looking East Transverse ~~Horizontal~~ Reinforcement Zones

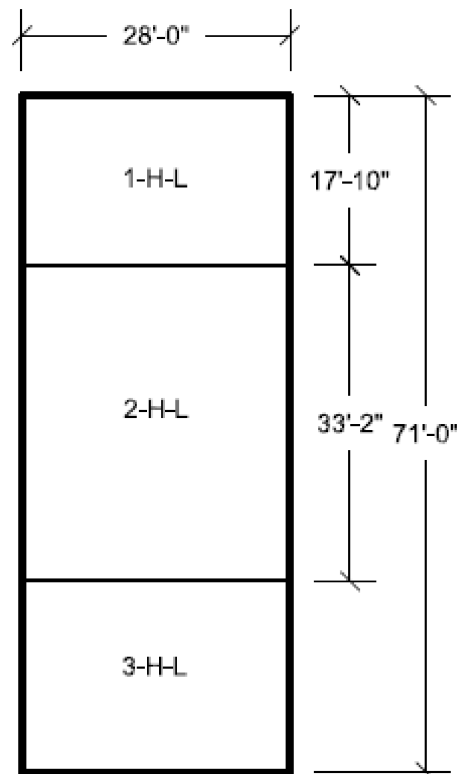


Figure 3H.6-105 UHS Basin East Buttress Looking North & UHS Basin West Buttress Looking South Horizontal Reinforcement Zones Near and Far Side Faces

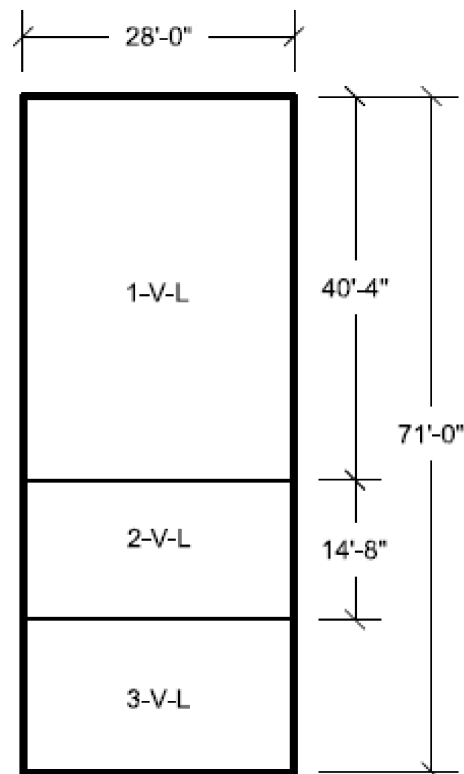


Figure 3H.6-106 UHS Basin East Buttress Looking North & UHS Basin West Buttress Looking South Vertical Reinforcement Zones Near and Far Side Faces

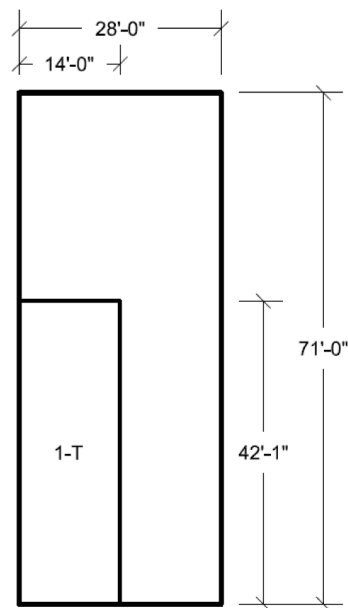


Figure 3H.6-107 UHS Basin East Buttress Looking North & UHS Basin West Buttress Looking South Transverse-~~Horizontal~~ Reinforcement Zones

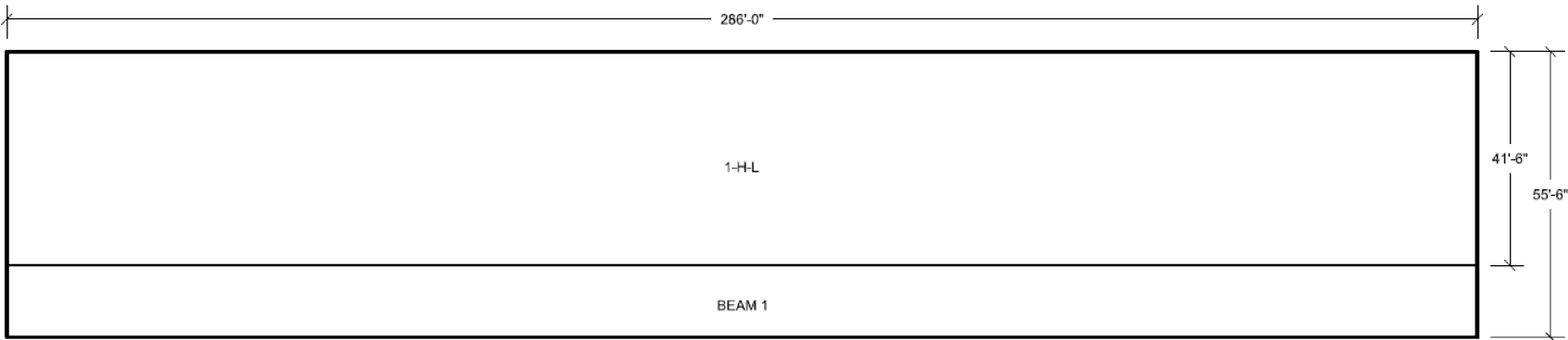
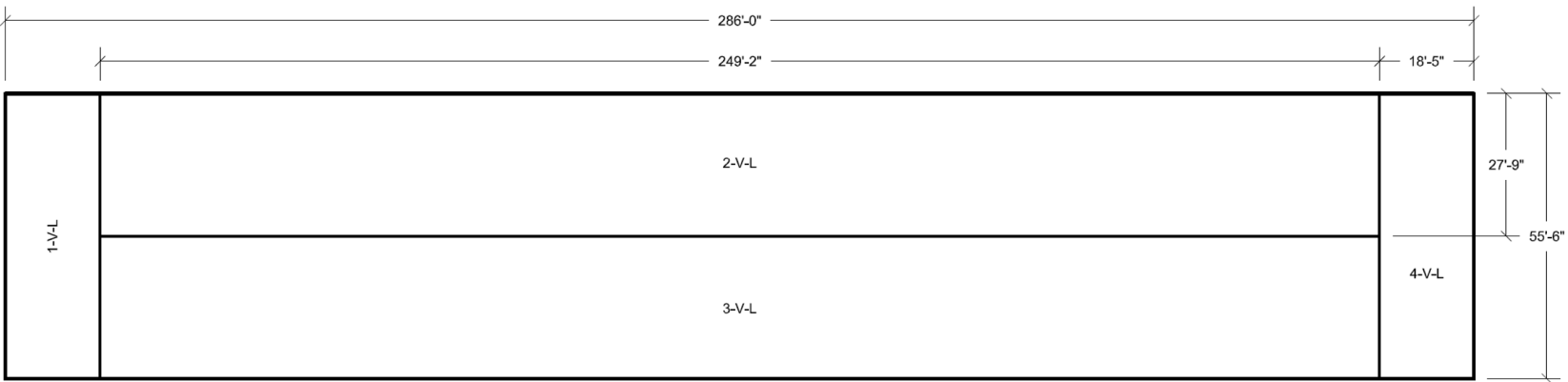


Figure 3H.6-108 Cooling Tower North (and South) Wall Looking South (North)
Horizontal Reinforcement Zones Near Side Face



**Figure 3H.6-109 Cooling Tower North (and South) Wall Looking South (North)
Vertical Reinforcement Zones Near Side Face**

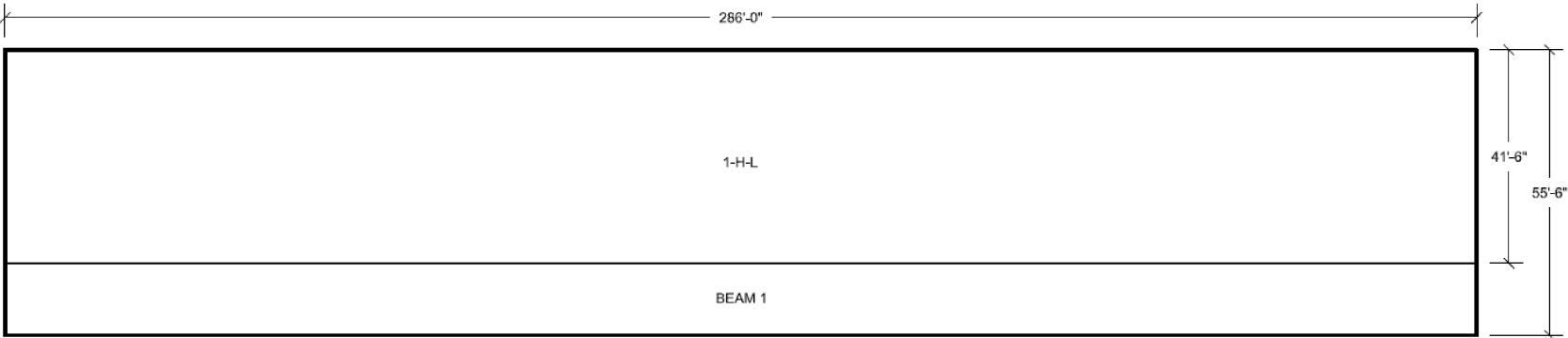
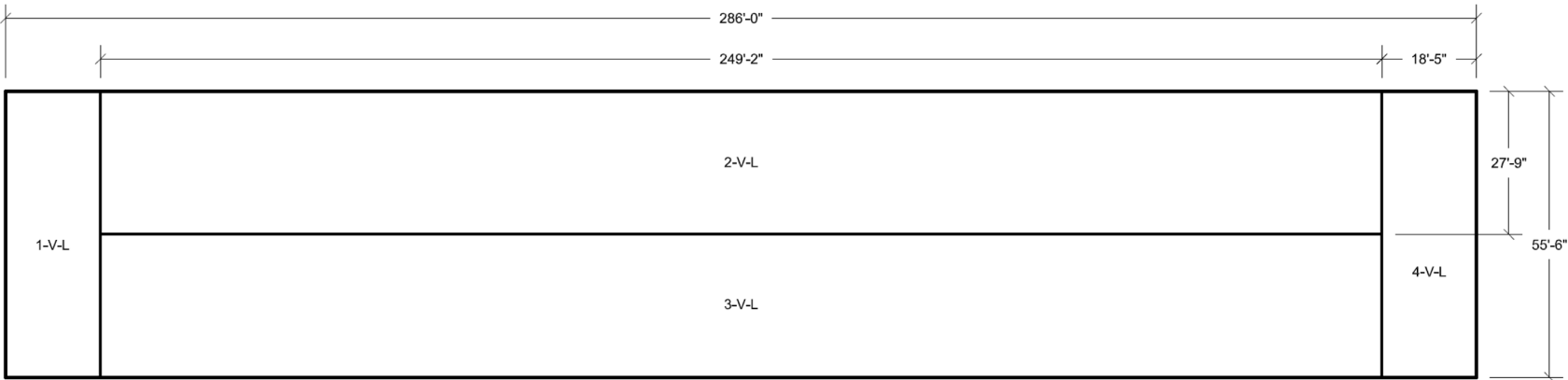


Figure 3H.6-110 Cooling Tower North (and South) Wall Looking South (North)
Horizontal Reinforcement Zones Far Side Face



**Figure 3H.6-111 Cooling Tower North (and South) Wall Looking South (North)
Vertical Reinforcement Zones Far Side Face**

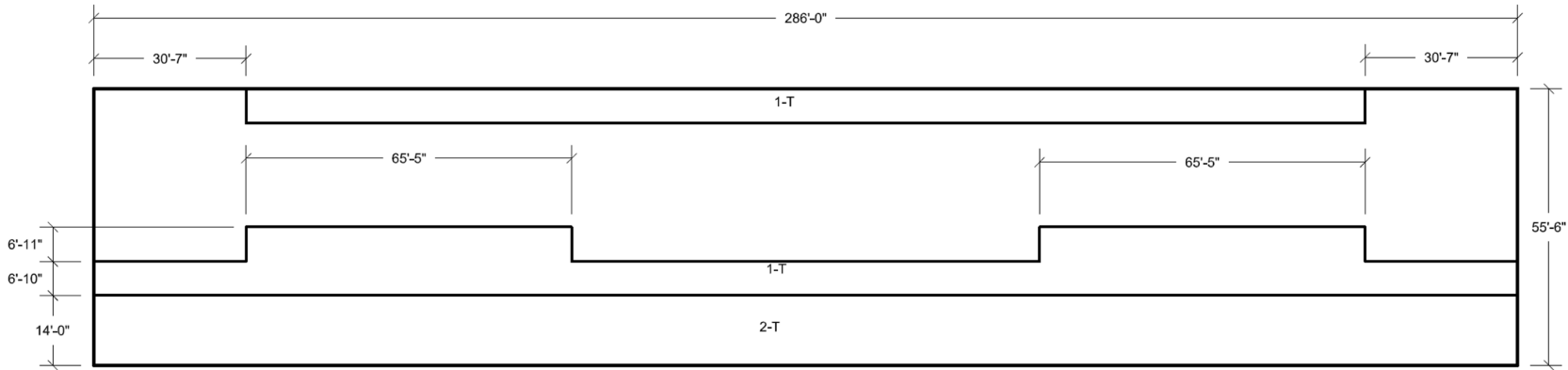


Figure 3H.6-112 Cooling Tower North (and South) Wall Looking South (North)
Transverse ~~Vertical~~ Reinforcement Zones

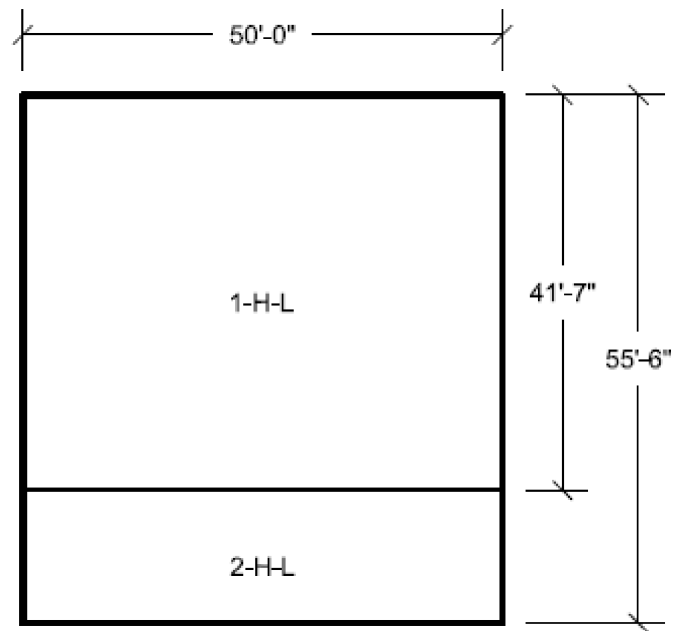


Figure 3H.6-113 Cooling Tower ~~Enclosure~~ East Wall Looking West
Horizontal Reinforcement Zones Near Side Face

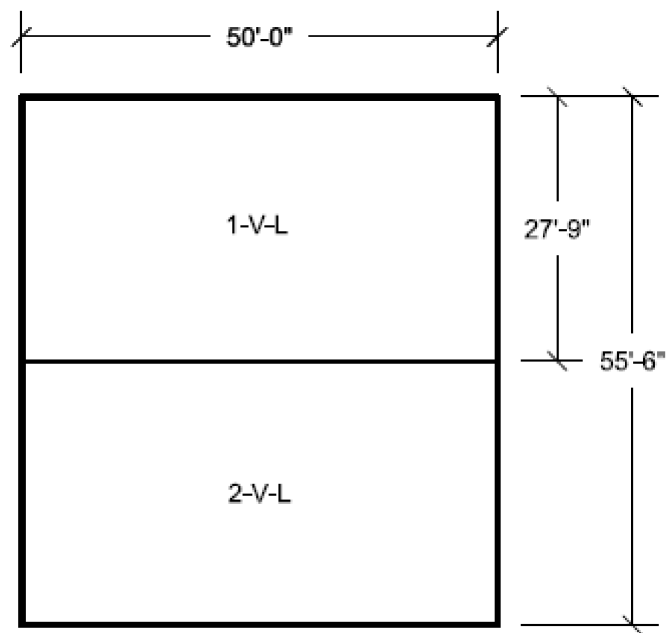


Figure 3H.6-114 Cooling Tower ~~Enclosure~~ East Wall Looking West
Vertical Reinforcement Zones Near Side Face

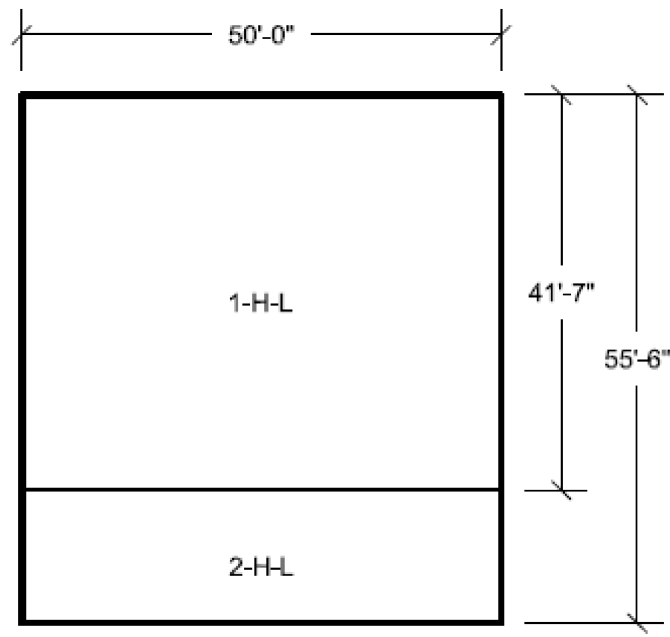


Figure 3H.6-115 Cooling Tower ~~Enclosure~~ East Wall Looking West
Horizontal Reinforcement Zones Far Side Face

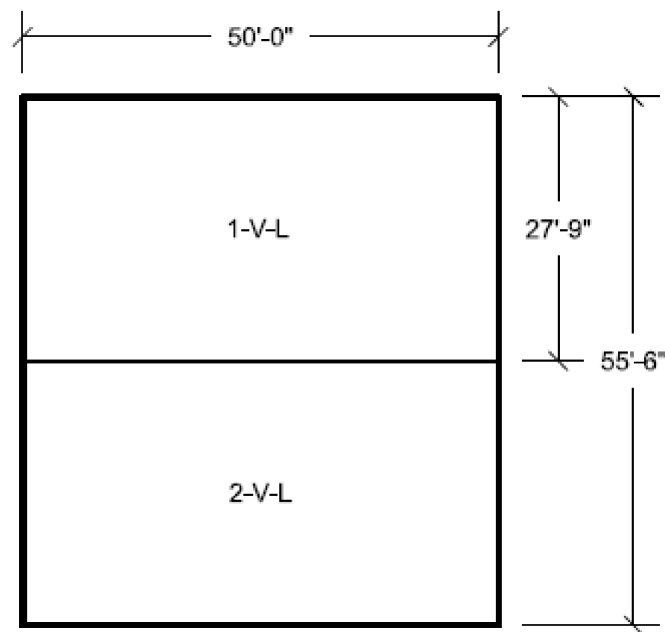


Figure 3H.6-116 Cooling Tower ~~Enclosure~~ East Wall Looking West
Vertical Reinforcement Zones Far Side Face

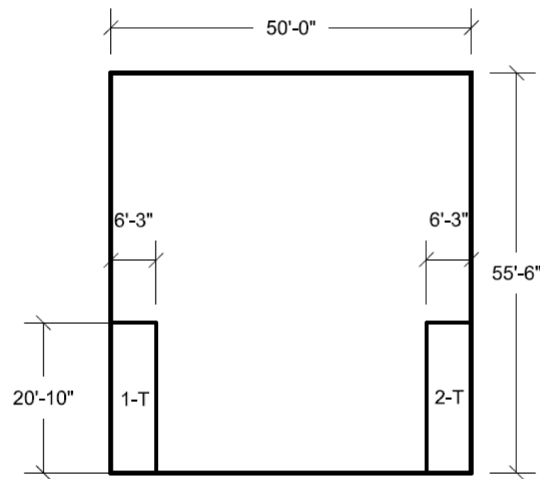
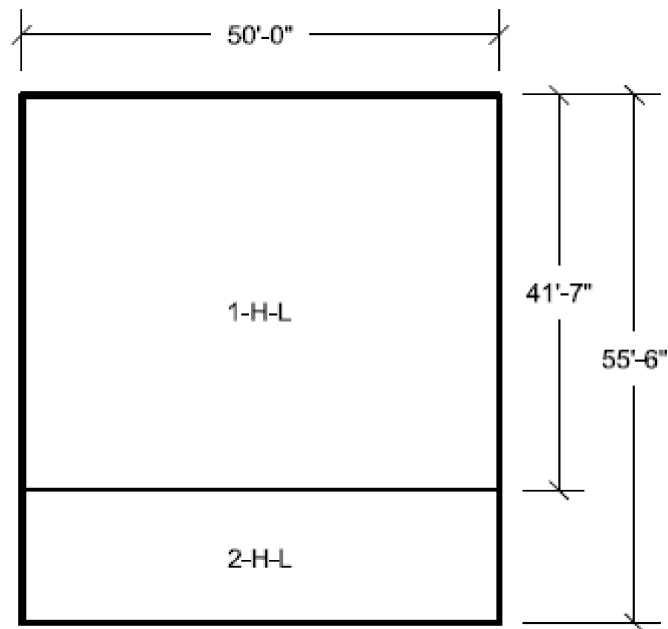
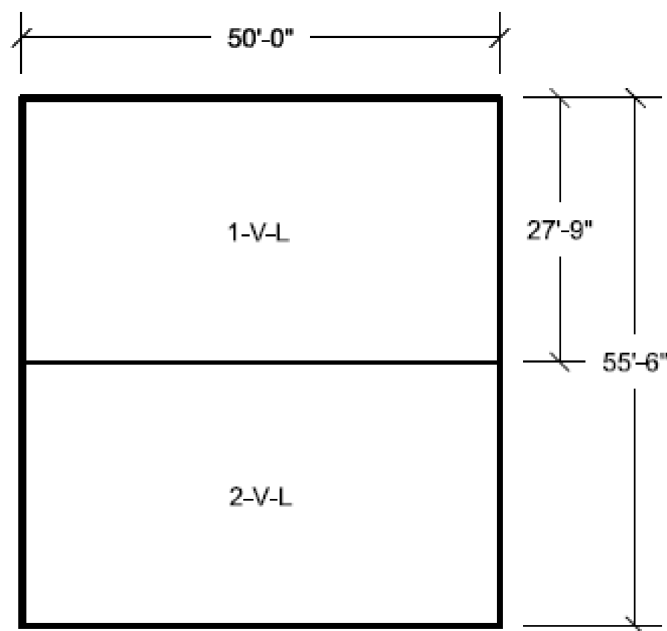


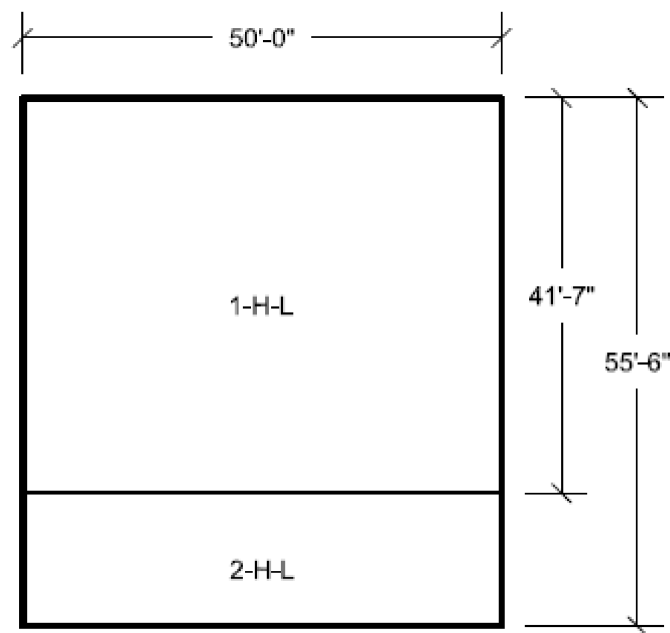
Figure 3H.6-116A Cooling Tower East Wall Looking West
Transverse Reinforcement Zones



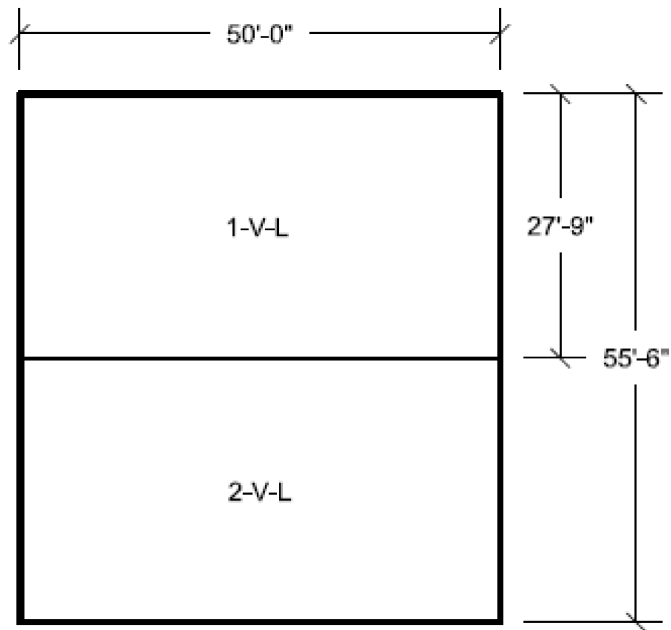
**Figure 3H.6-117 Cooling Tower West Wall Looking East
Horizontal Reinforcement Zones Near Side Face**



**Figure 3H.6-118 Cooling Tower West Wall Looking East
Vertical Reinforcement Zones Near Side Face**



**Figure 3H.6-119 Cooling Tower West Wall Looking East
Horizontal Reinforcement Zones Far Side Face**



**Figure 3H.6-120 Cooling Tower West Wall Looking East
Vertical Reinforcement Zones Far Side Face**

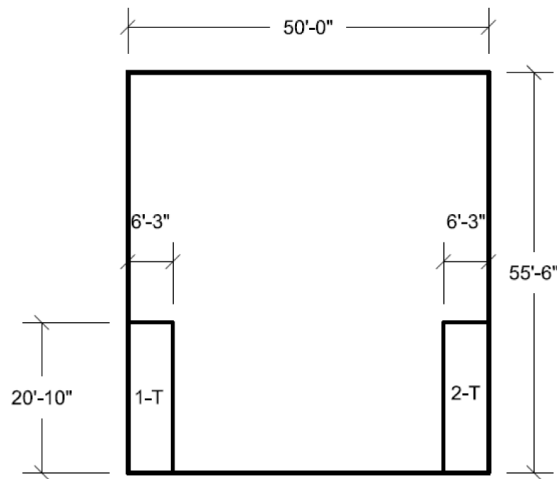


Figure 3H.6-120A Cooling Tower West Wall Looking East
Transverse Reinforcement Zones

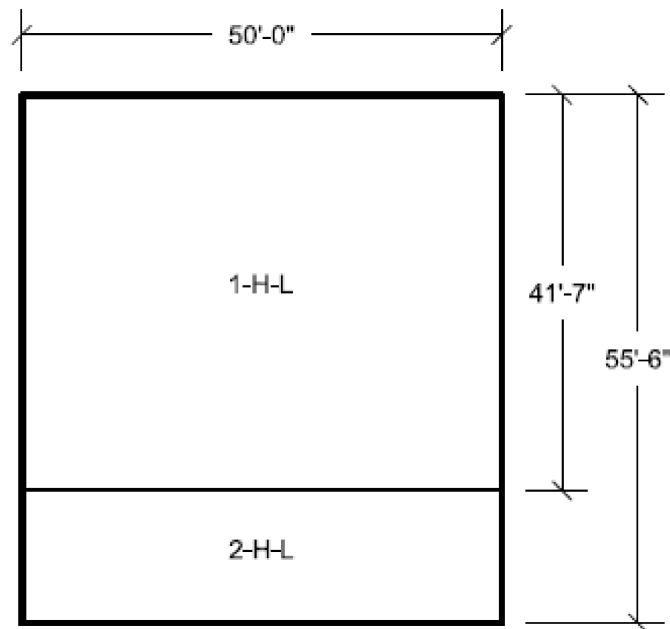


Figure 3H.6-121 Cooling Tower Internal Wall Looking West
Horizontal Reinforcement Zones Near and Far Side Faces

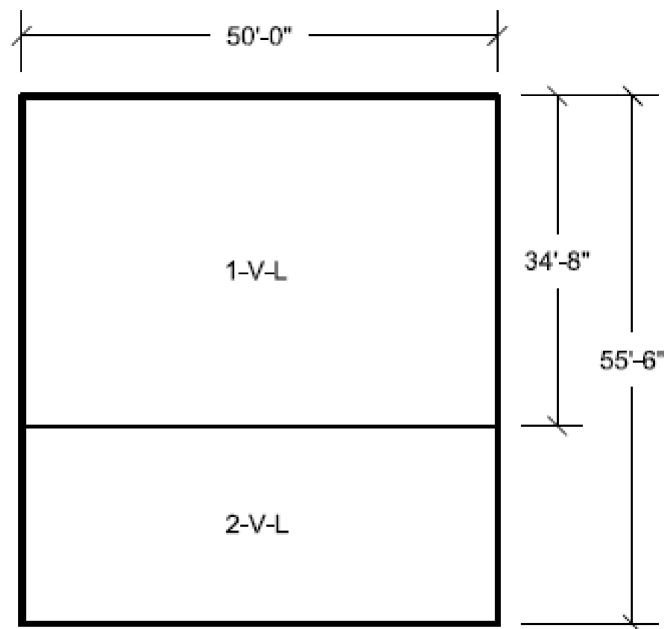


Figure 3H.6-122 Cooling Tower Internal Wall Looking West
Vertical Reinforcement Zones Near and Far Side Faces

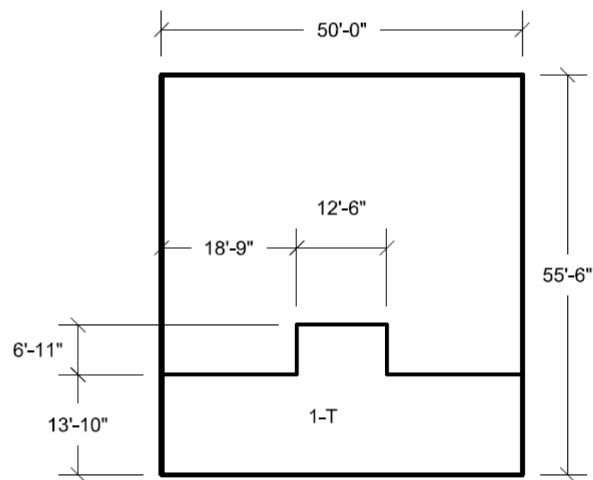


Figure 3H.6-122A Cooling Tower Internal Wall Looking West
Transverse Reinforcement Zones

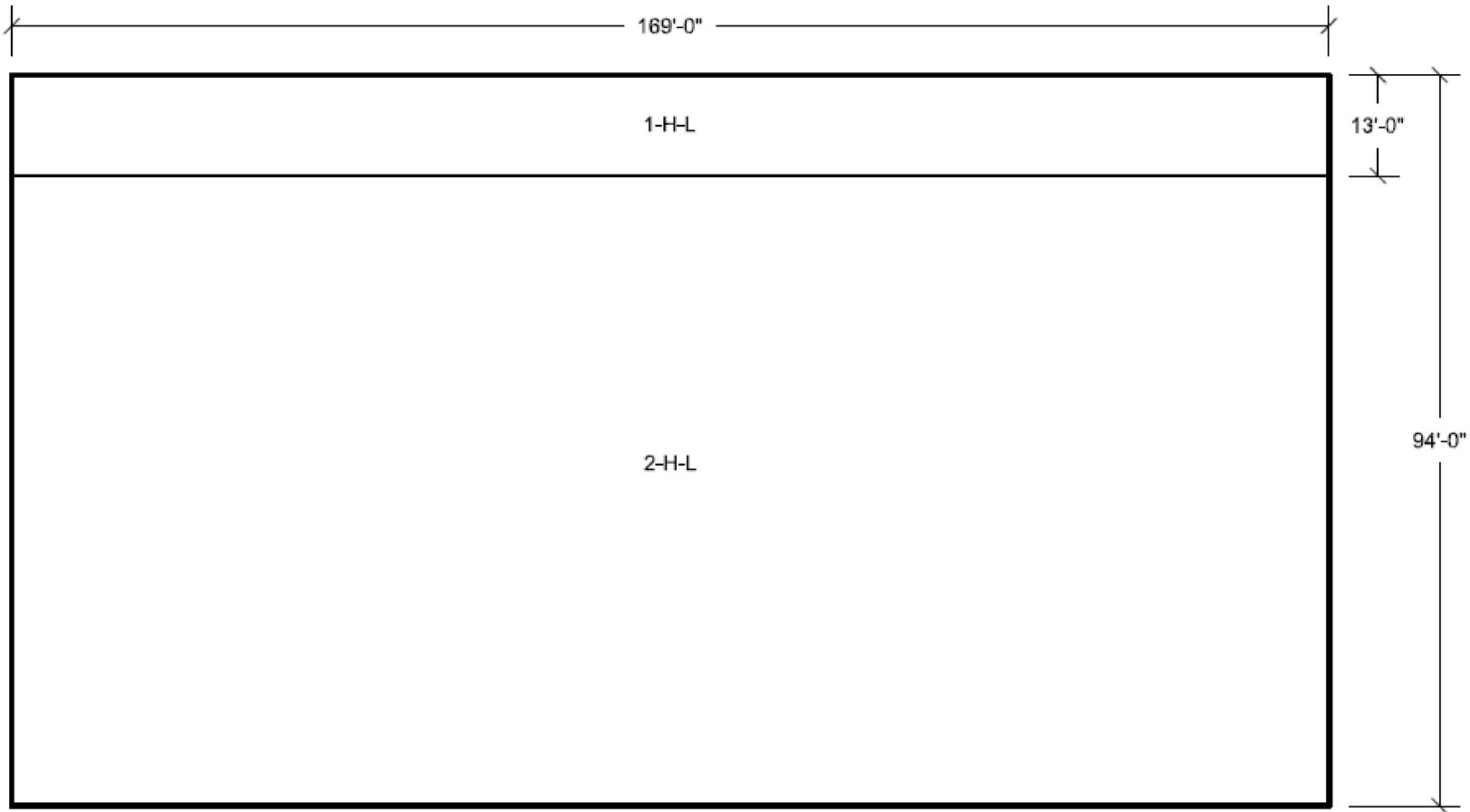


Figure 3H.6-123 Pump House Foundation Mat East/West Reinforcement Zones Top Face

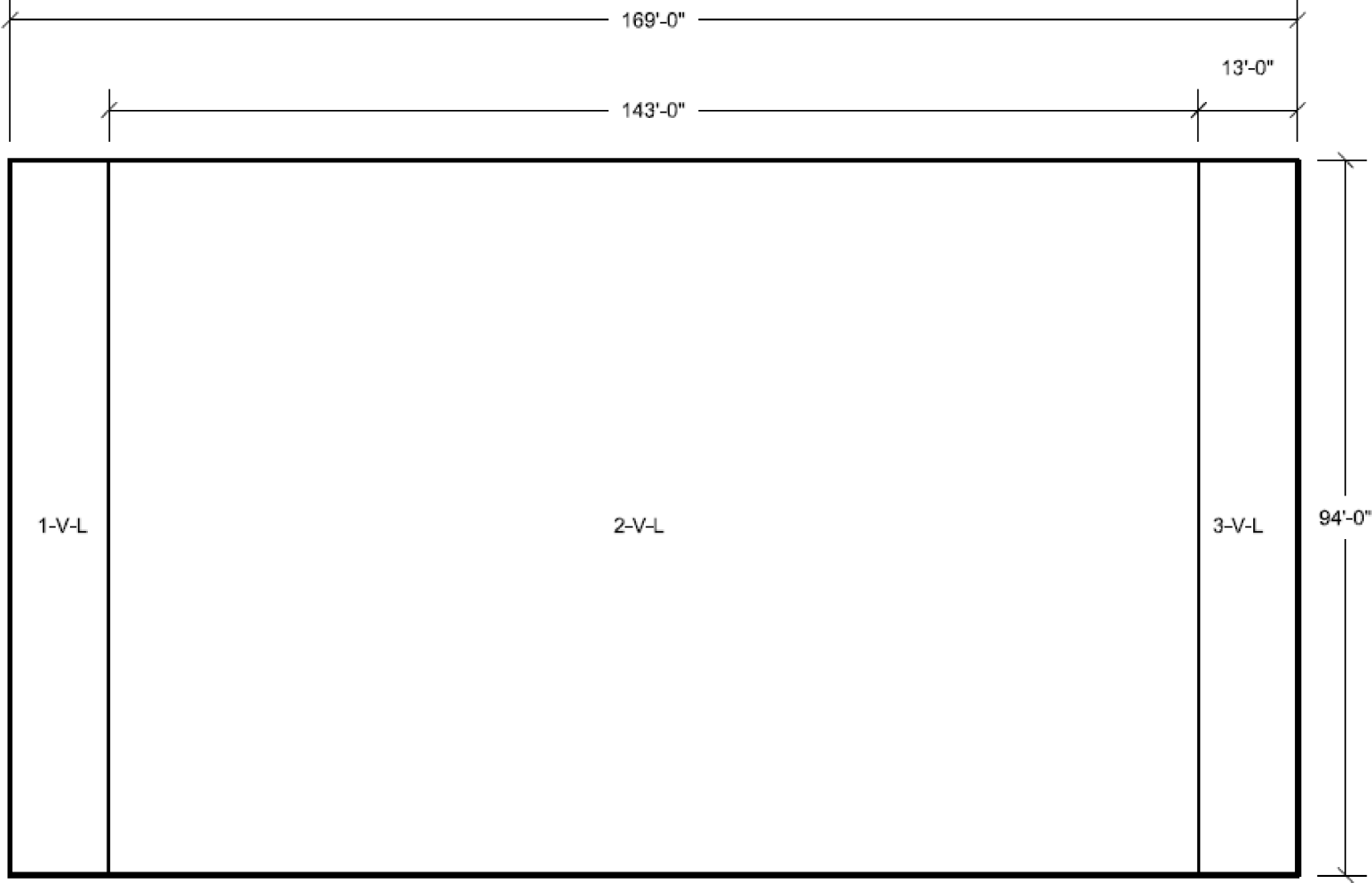


Figure 3H.6-124 Pump House Foundation Mat North/South Reinforcement Zones Top Face

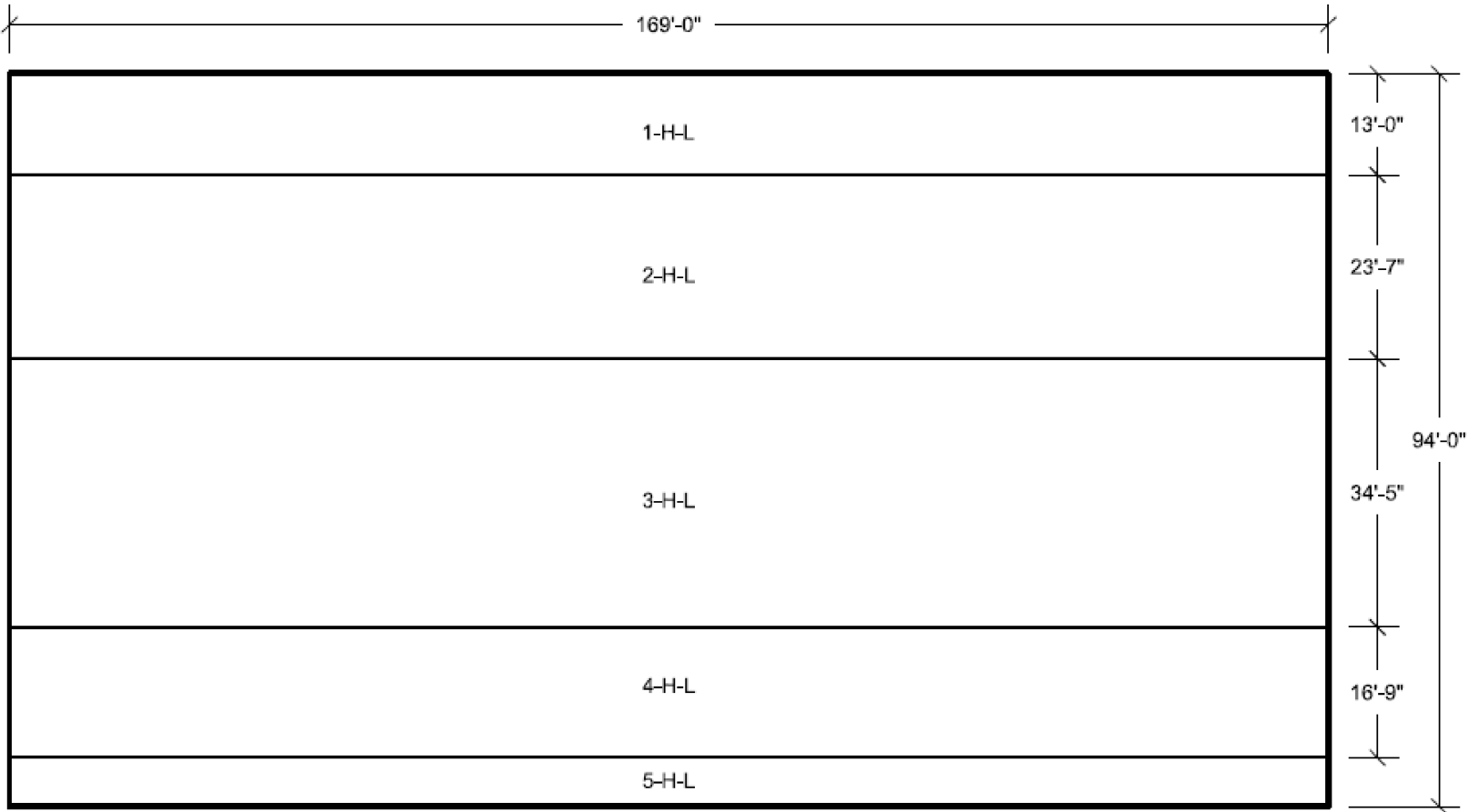


Figure 3H.6-125 Pump House Foundation Mat East/West Reinforcement Zones Bottom Face

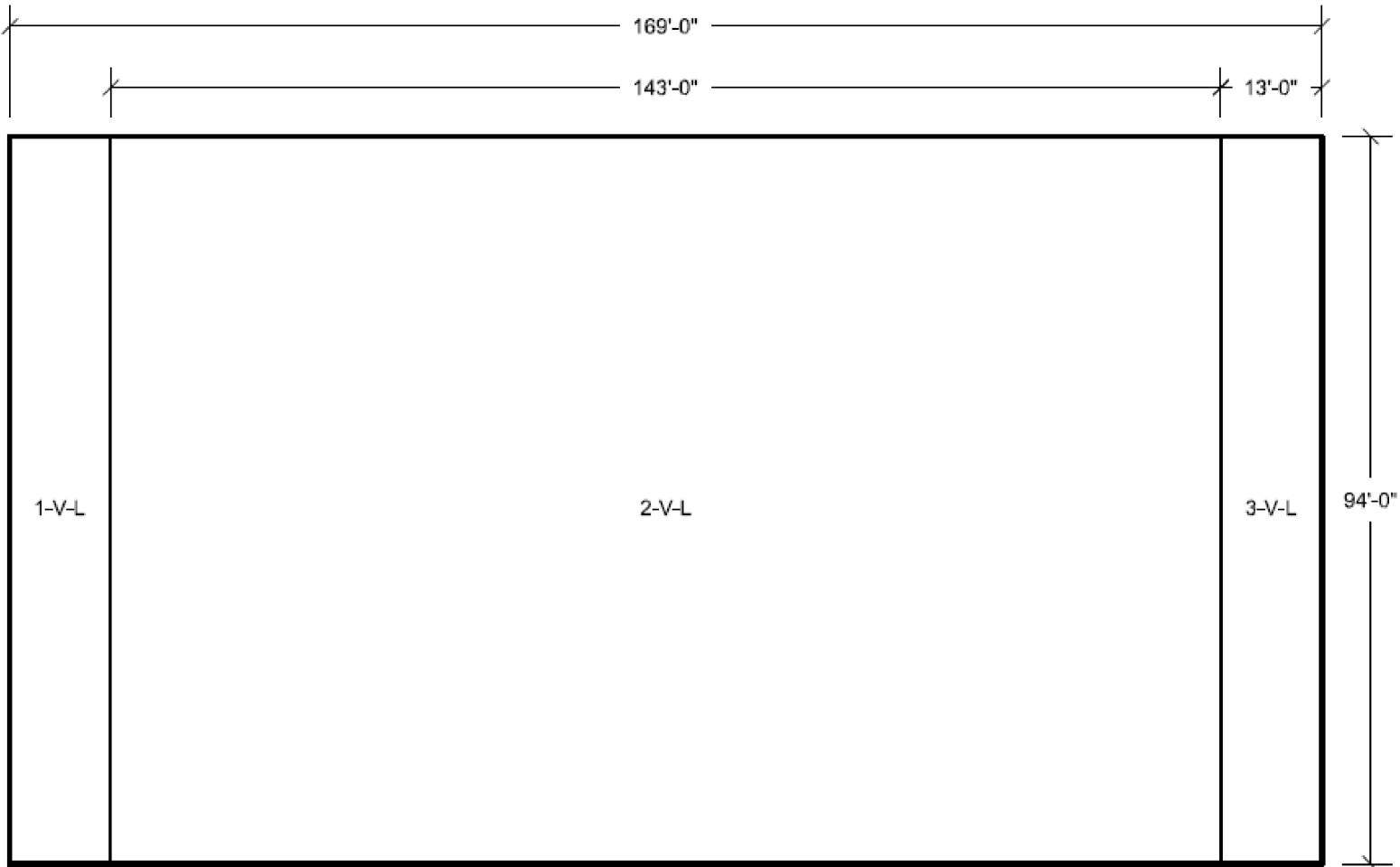


Figure 3H.6-126 Pump House Foundation Mat North/South Reinforcement Zones Bottom Face

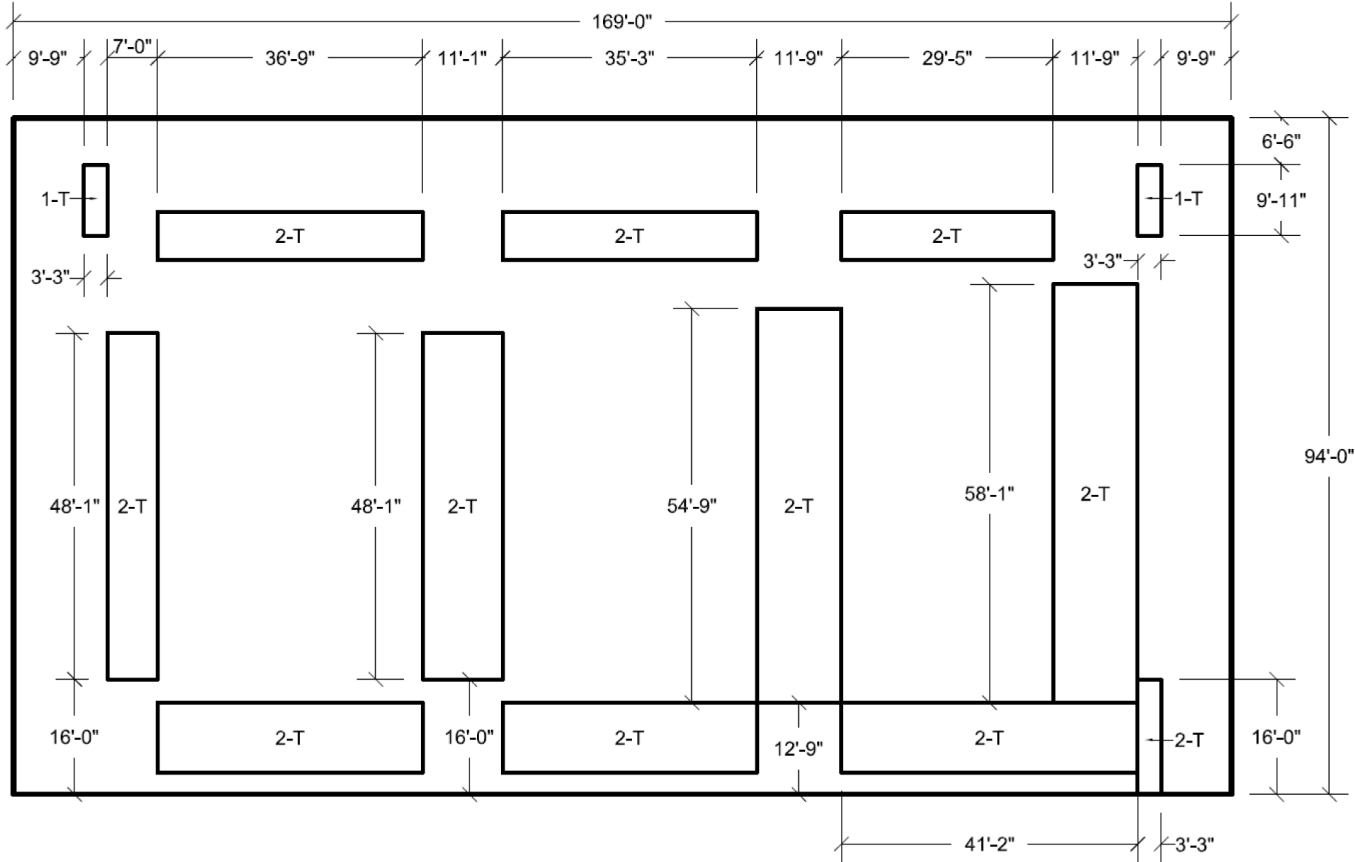


Figure 3H.6-126A Pump House Foundation Mat Transverse Reinforcement Zones

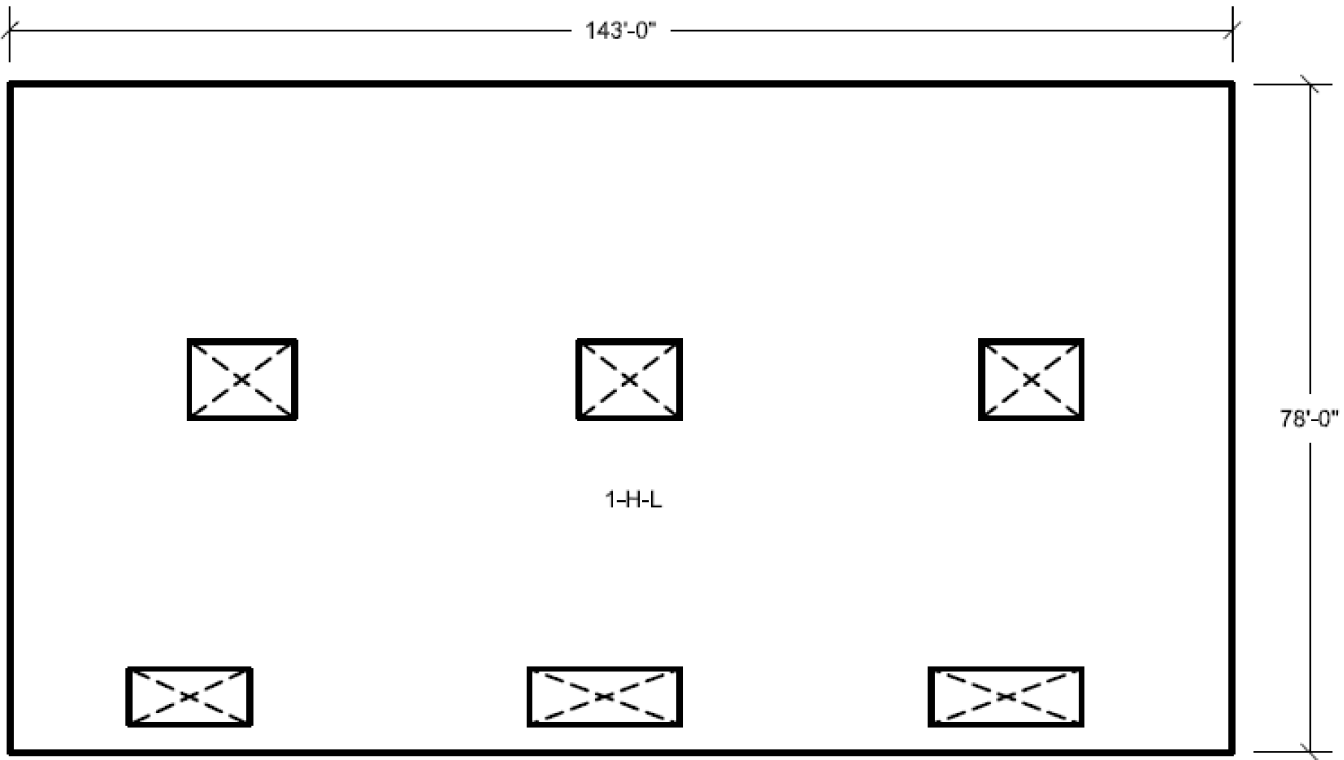


Figure 3H.6-127 Pump House Floor El 15'-2" East/ West Reinforcement Zones Top Face

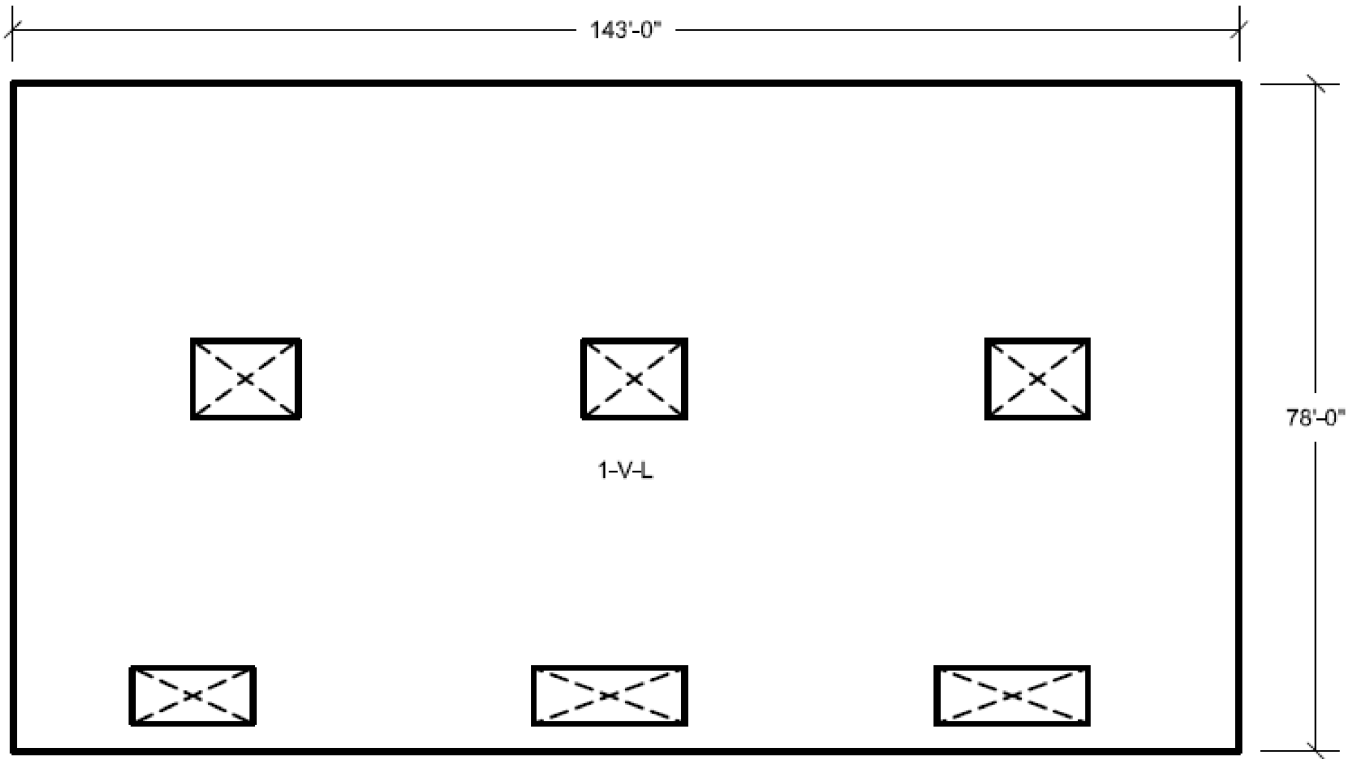


Figure 3H.6-128 Pump House Floor EI 15'-2" North/South Reinforcement Zones Top Face

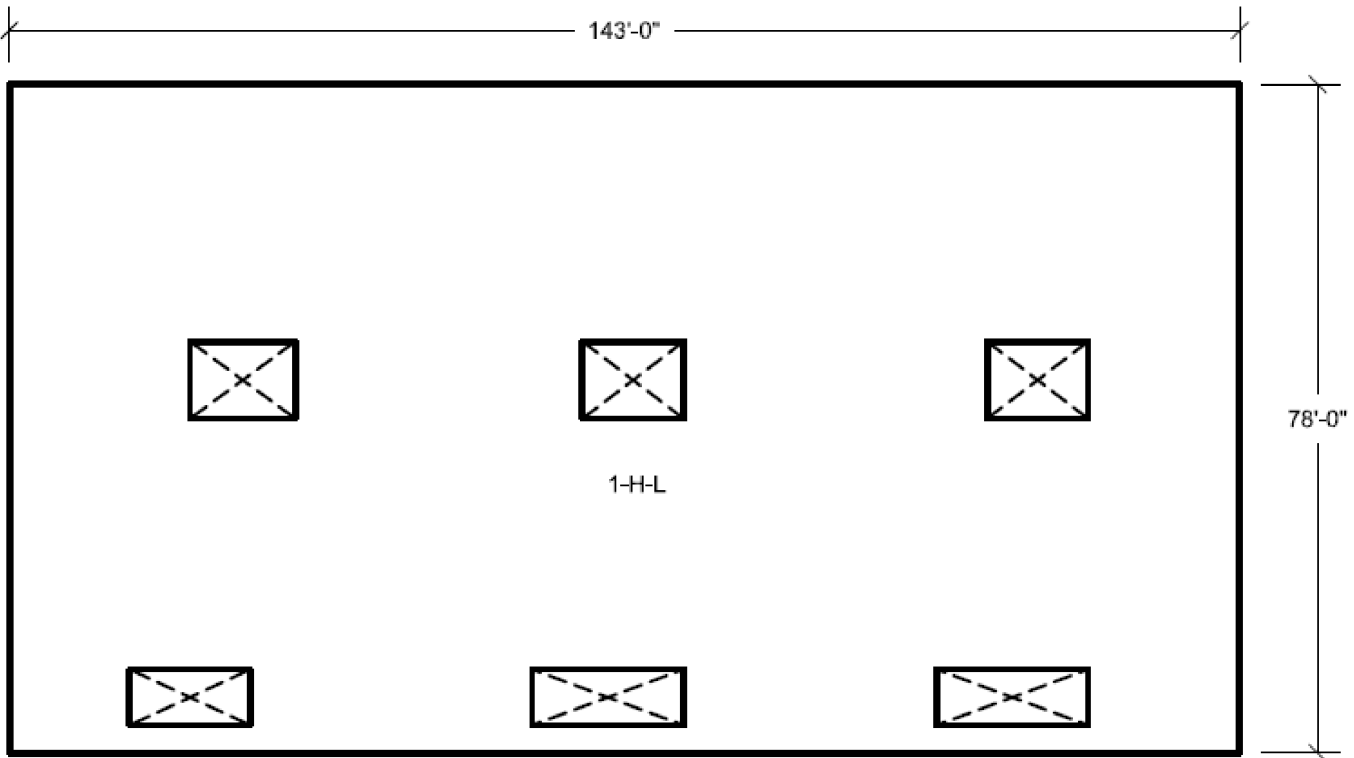


Figure 3H.6-129 Pump House Floor El 15'-2"
East/West Reinforcement Zones Bottom Face

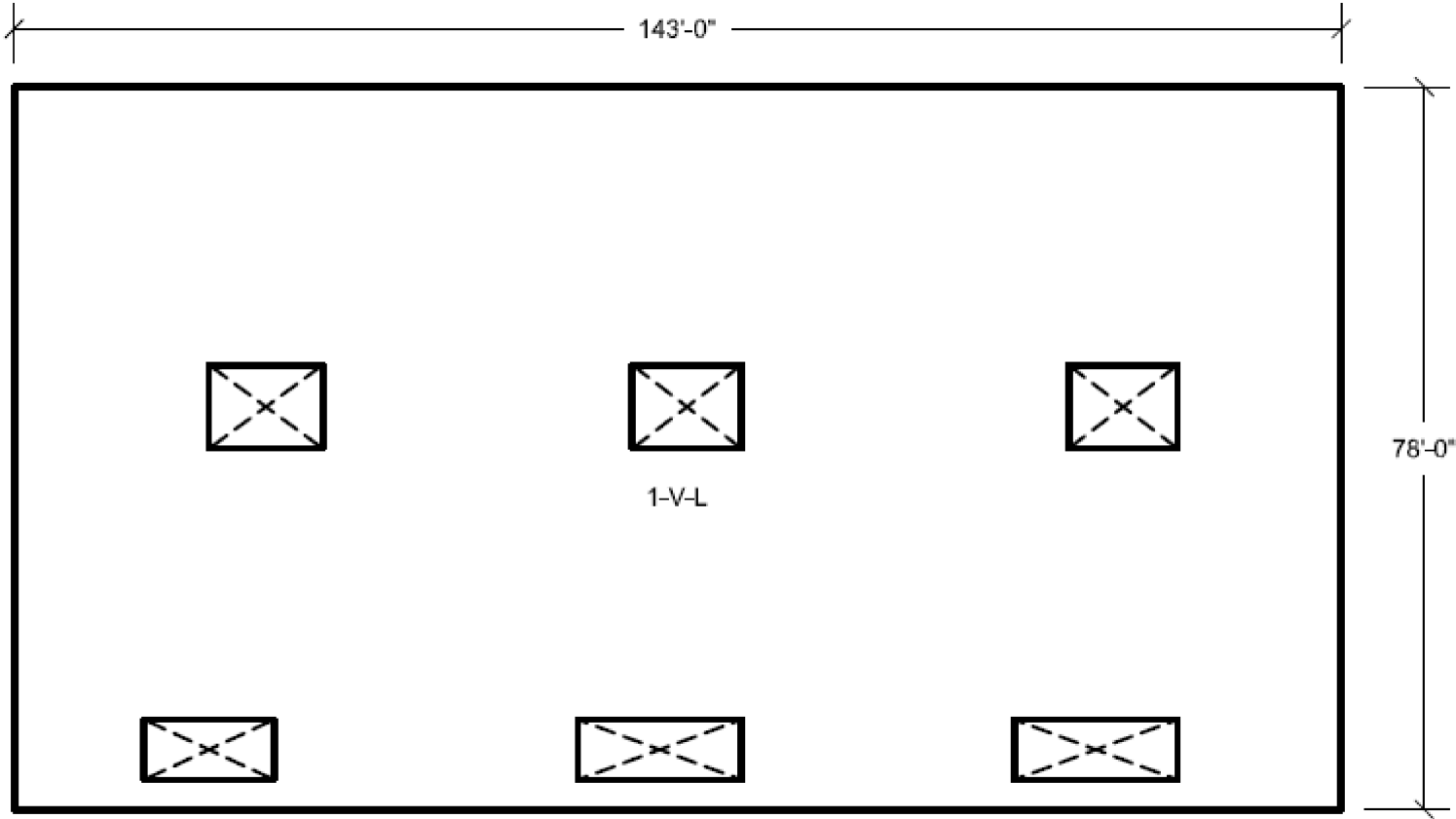


Figure 3H.6-130 Pump House Floor EI 15'-2"
North/South Reinforcement Zones Bottom Face

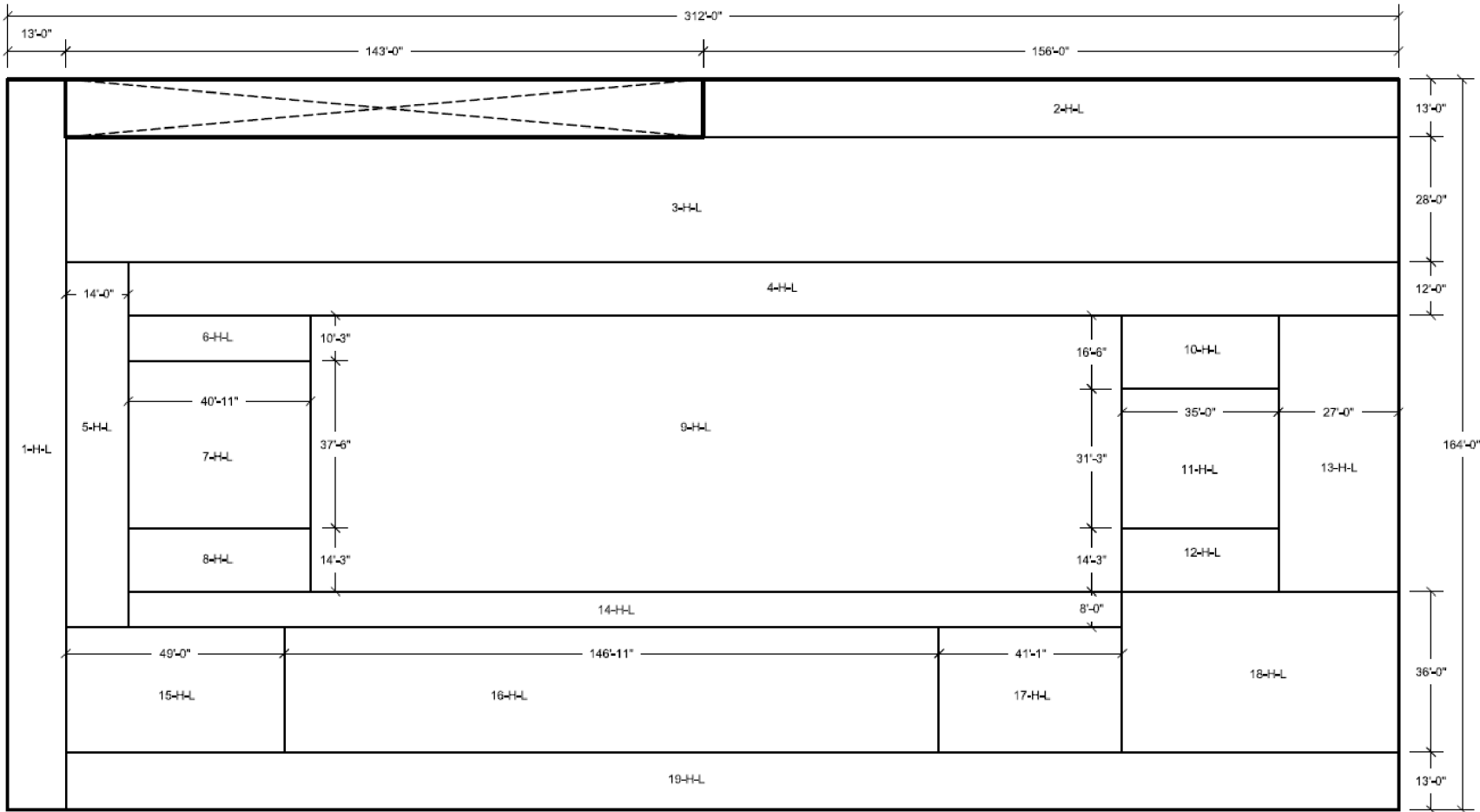


Figure 3H.6-131 UHS Basin Foundation Mat
East/West Reinforcement Zones Top Face

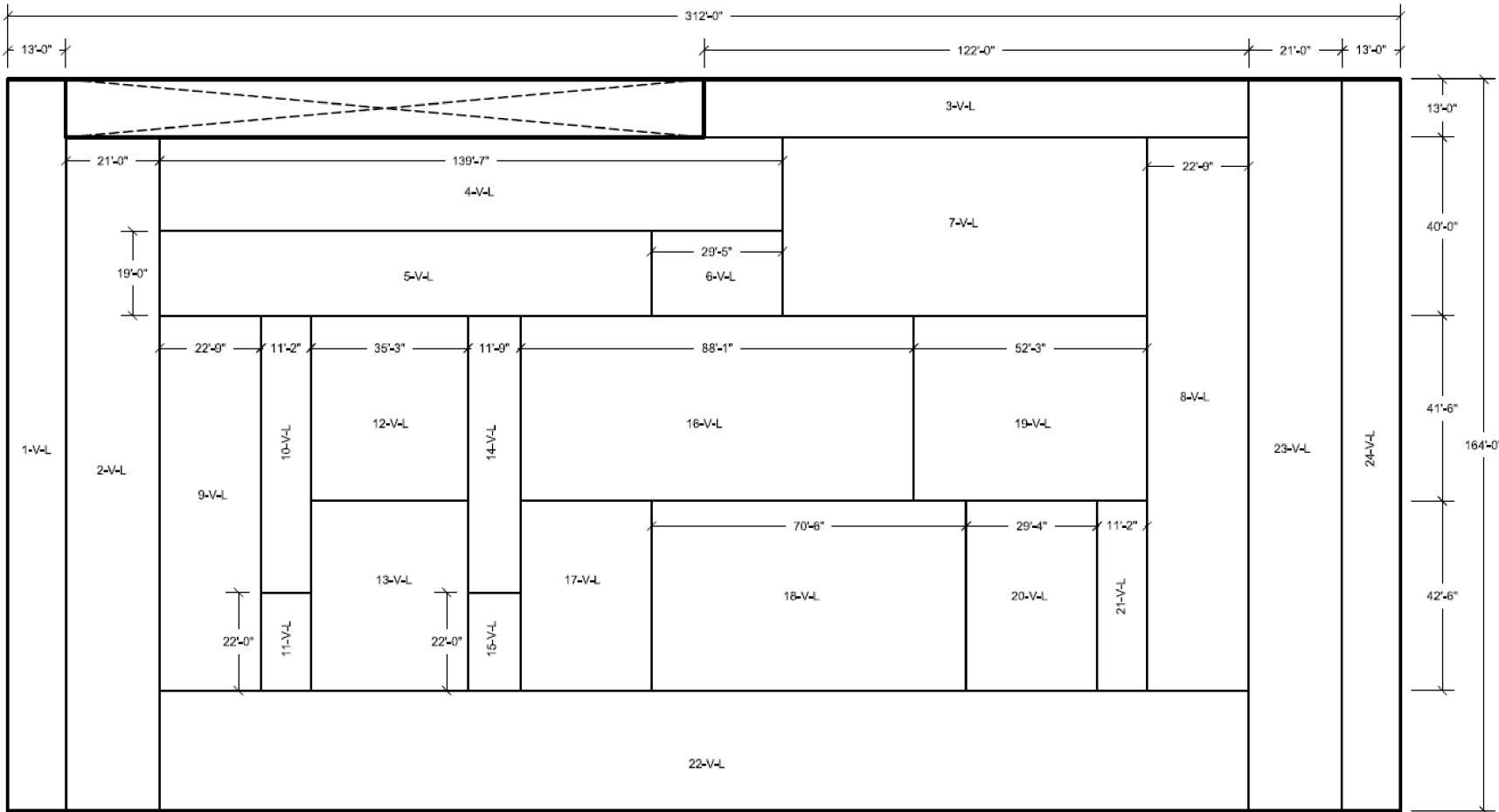


Figure 3H.6-132 UHS Basin Foundation Mat-Plan
North/South Reinforcement Zones Top Face

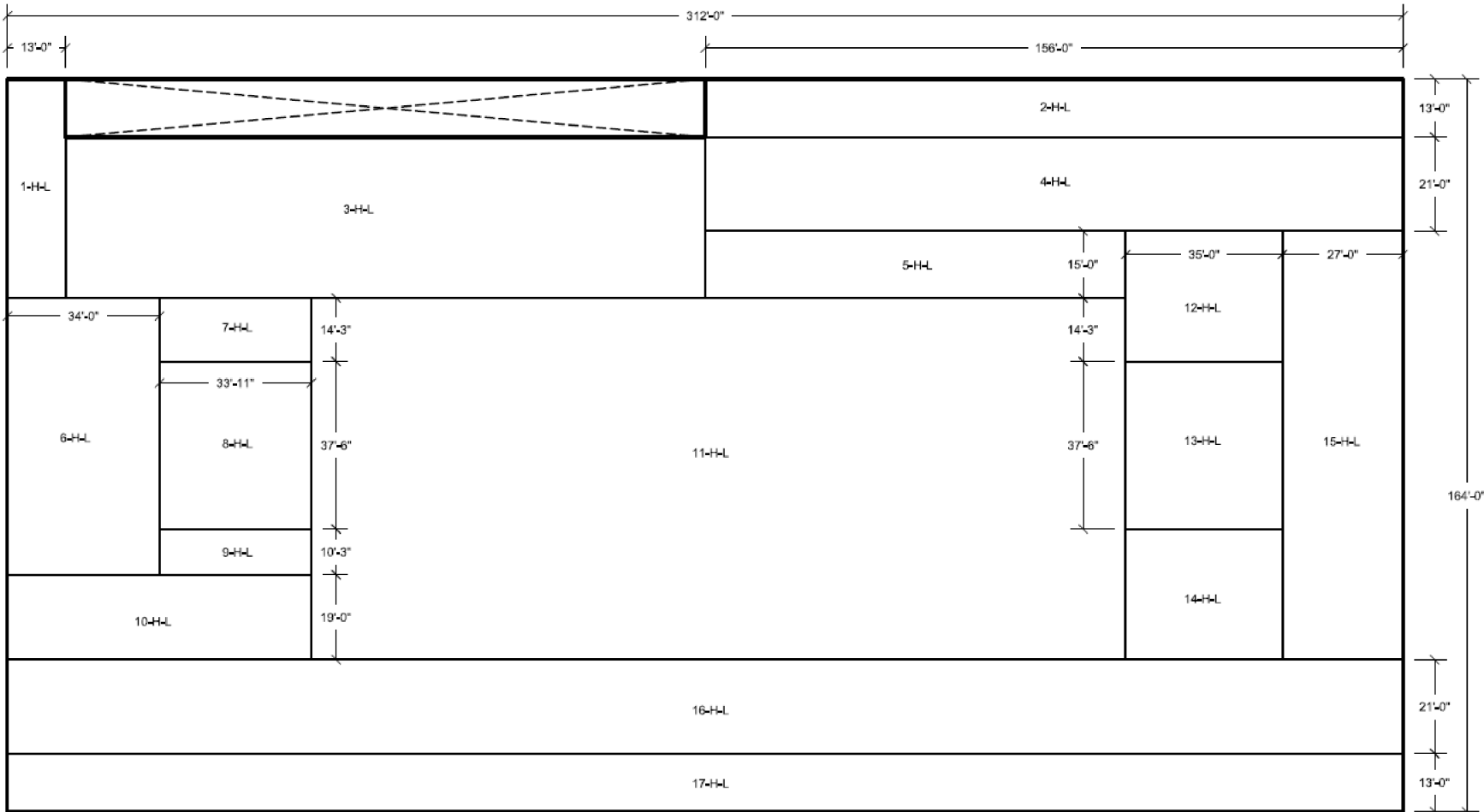


Figure 3H.6-133 UHS Basin Foundation Mat East/West Reinforcement Zones Bottom Face

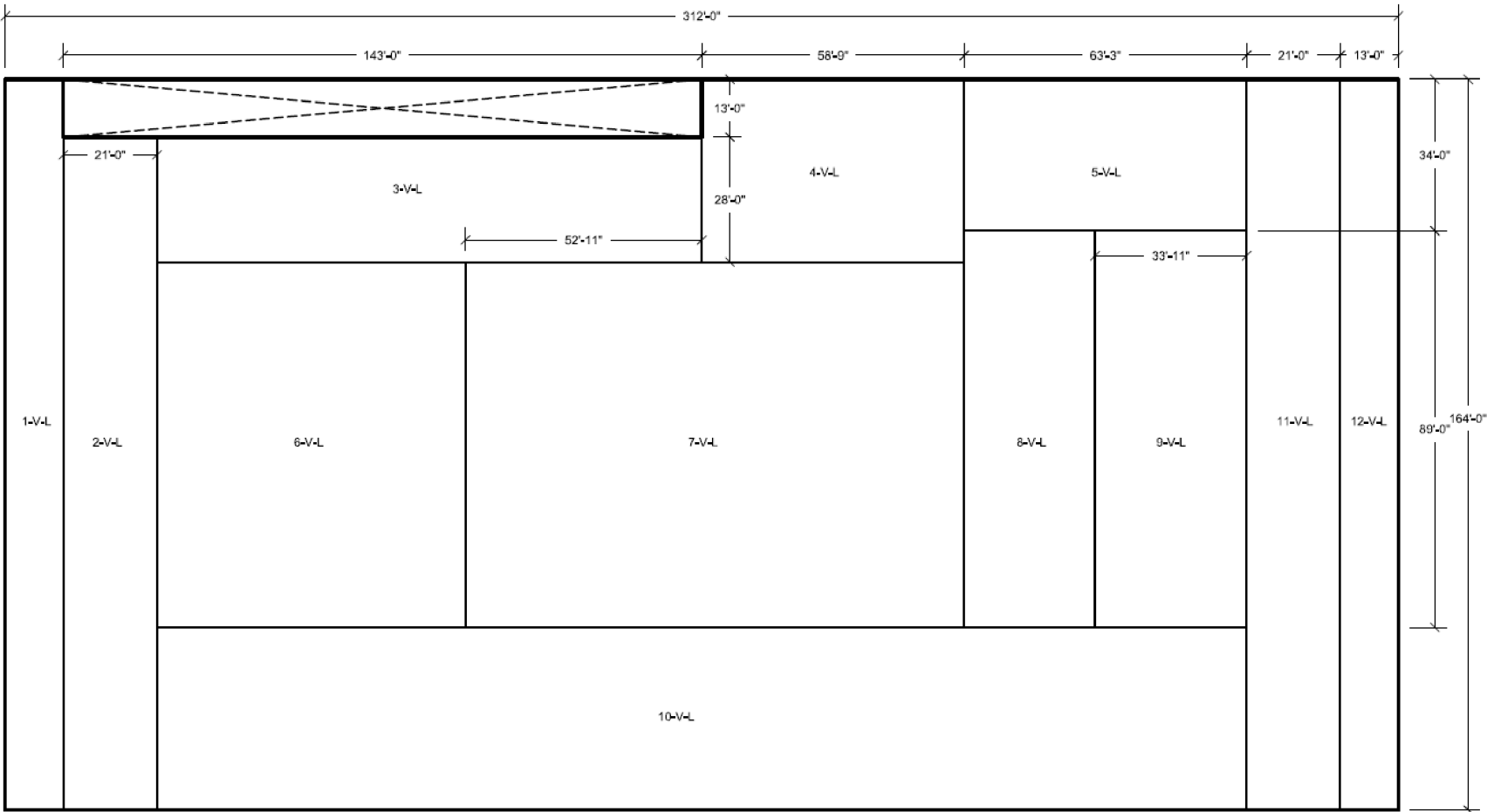


Figure 3H.6-134 ~~Pump House~~ UHS Basin Foundation Mat North/South Reinforcement Zones Bottom Face

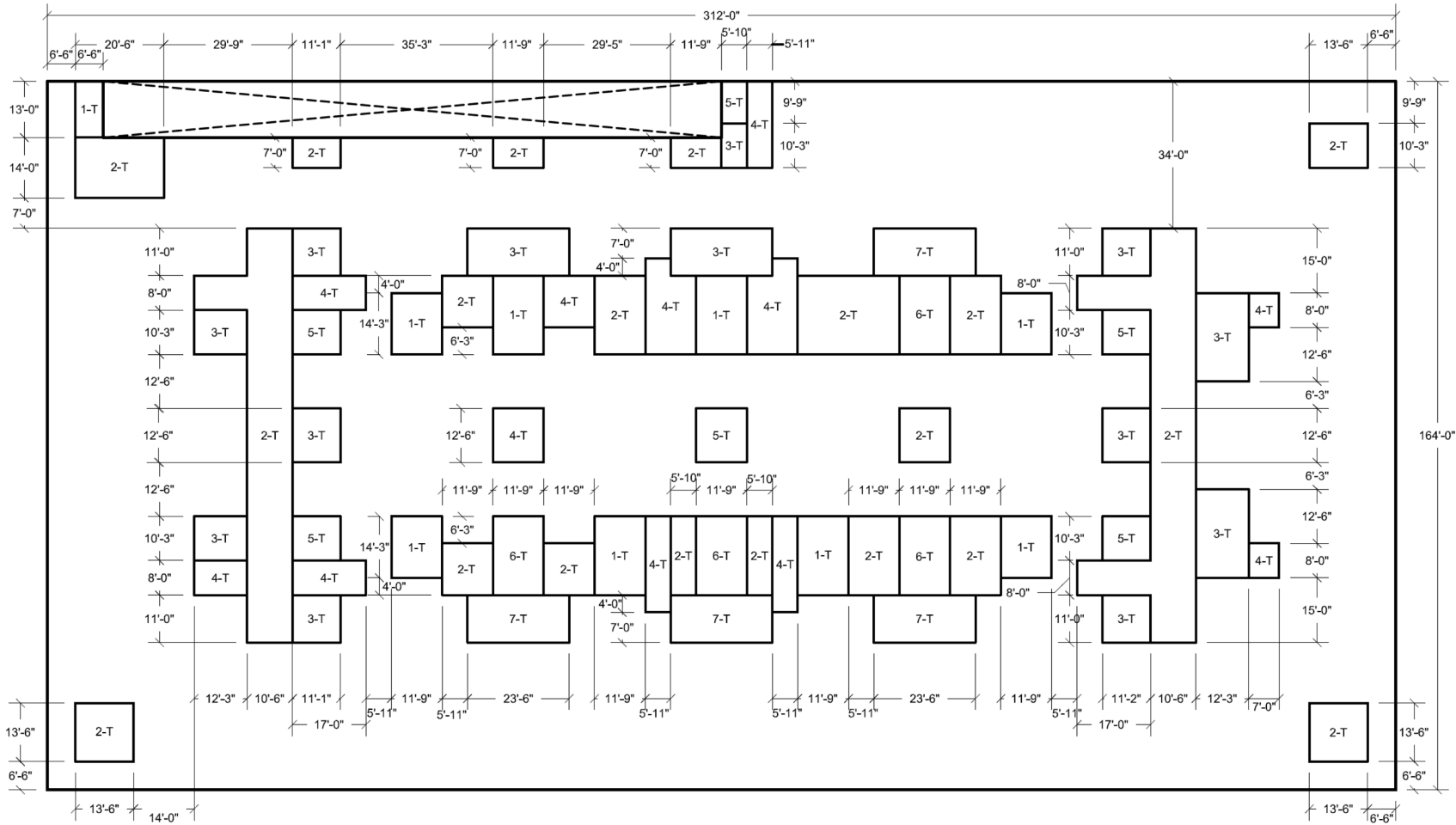


Figure 3H.6-134A UHS Basin Foundation Mat Transverse Reinforcement Zones

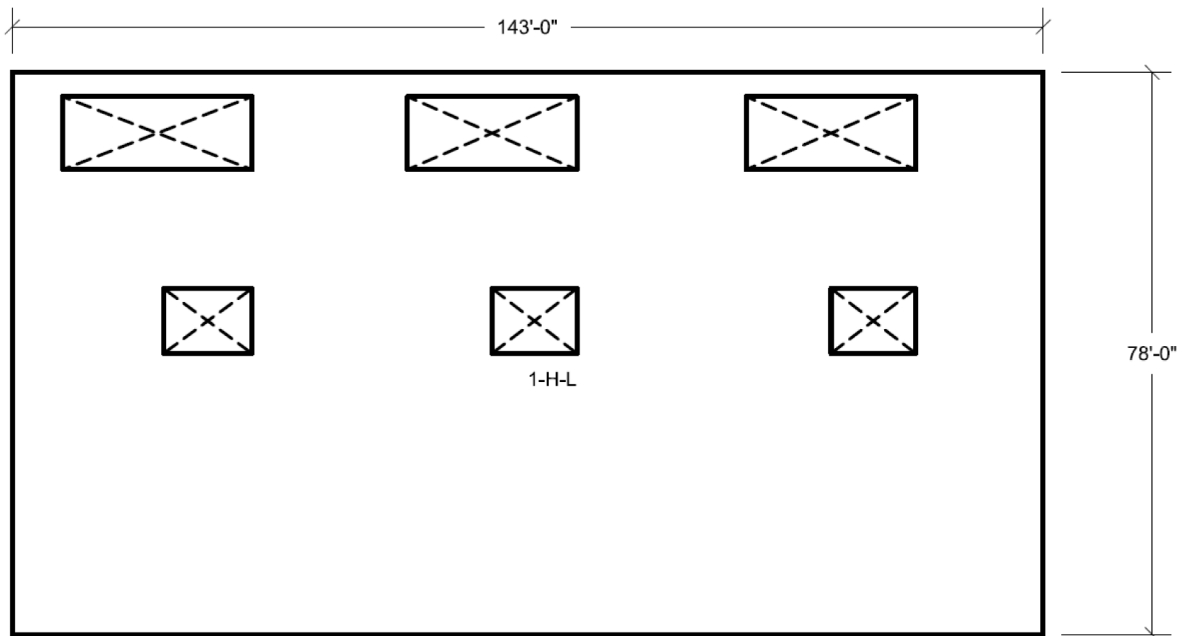


Figure 3H.6-135 Pump House Roof East/West Reinforcement Zones Top Face

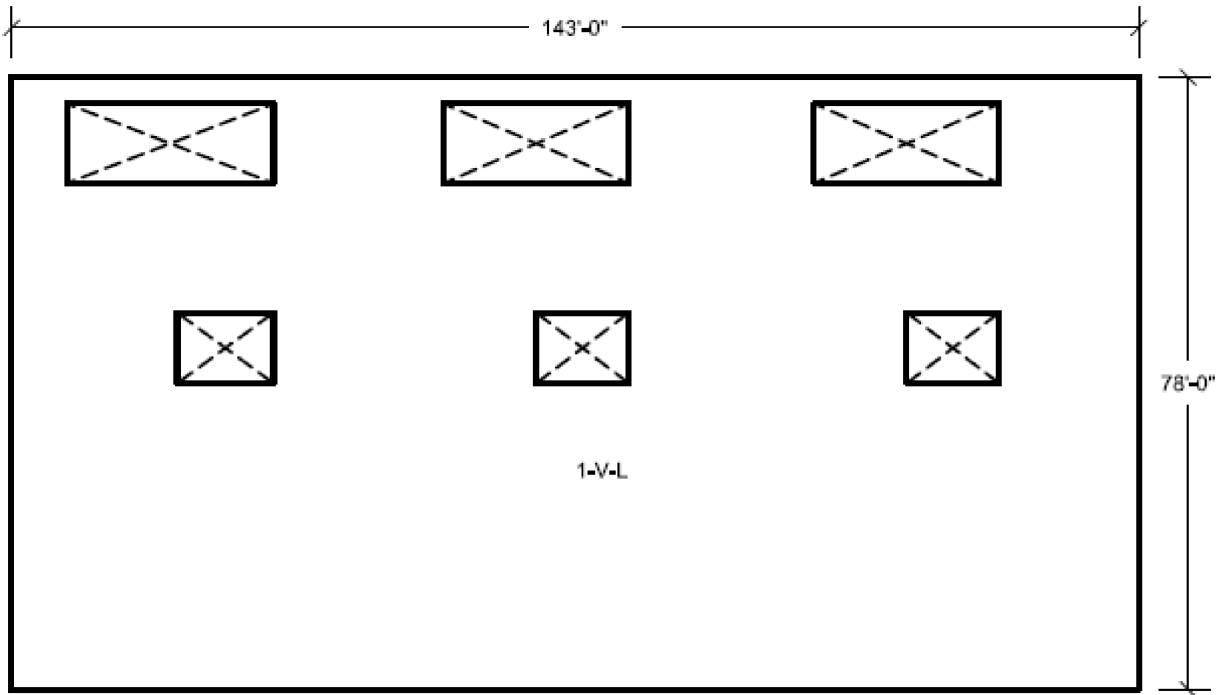


Figure 3H.6-136A Pump House Roof North/South Reinforcement Zones Top Face

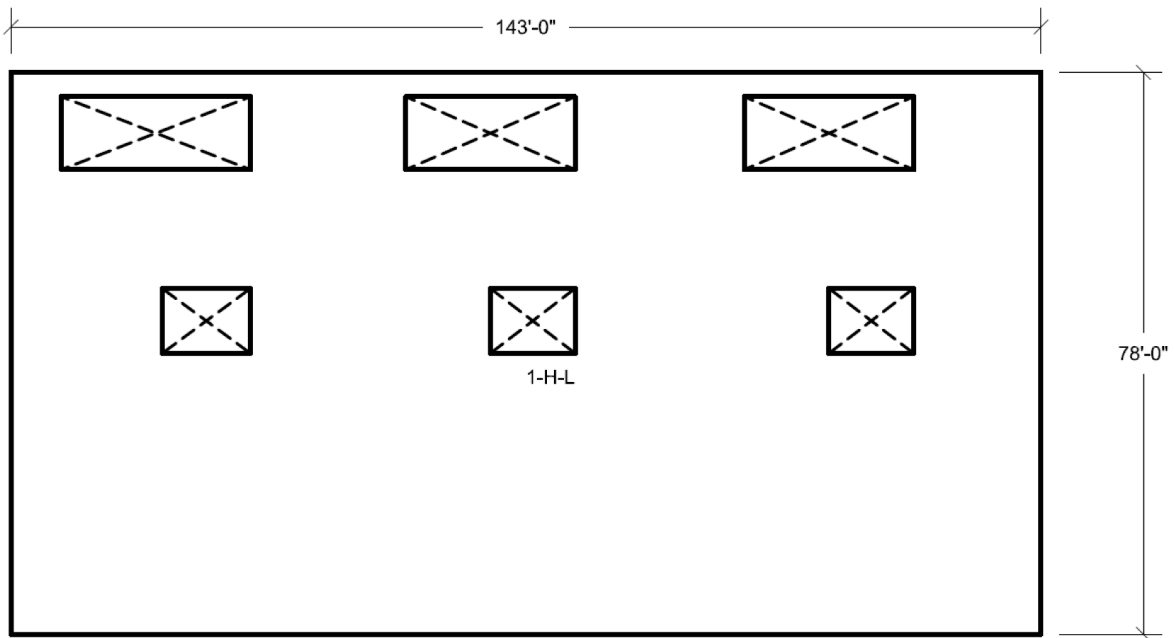


Figure 3H.6-136B Pump House Roof East/West Reinforcement Zones Bottom Face

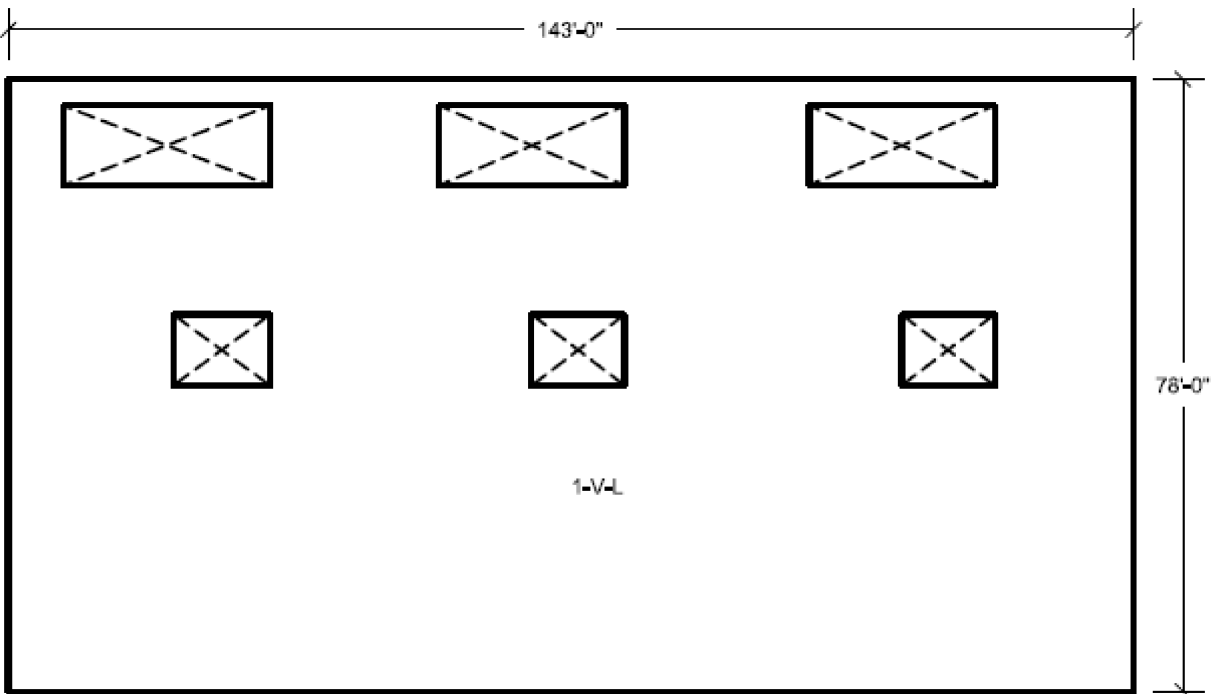


Figure 3H.6-136C Pump House Roof North/South Reinforcement Zones Bottom Face

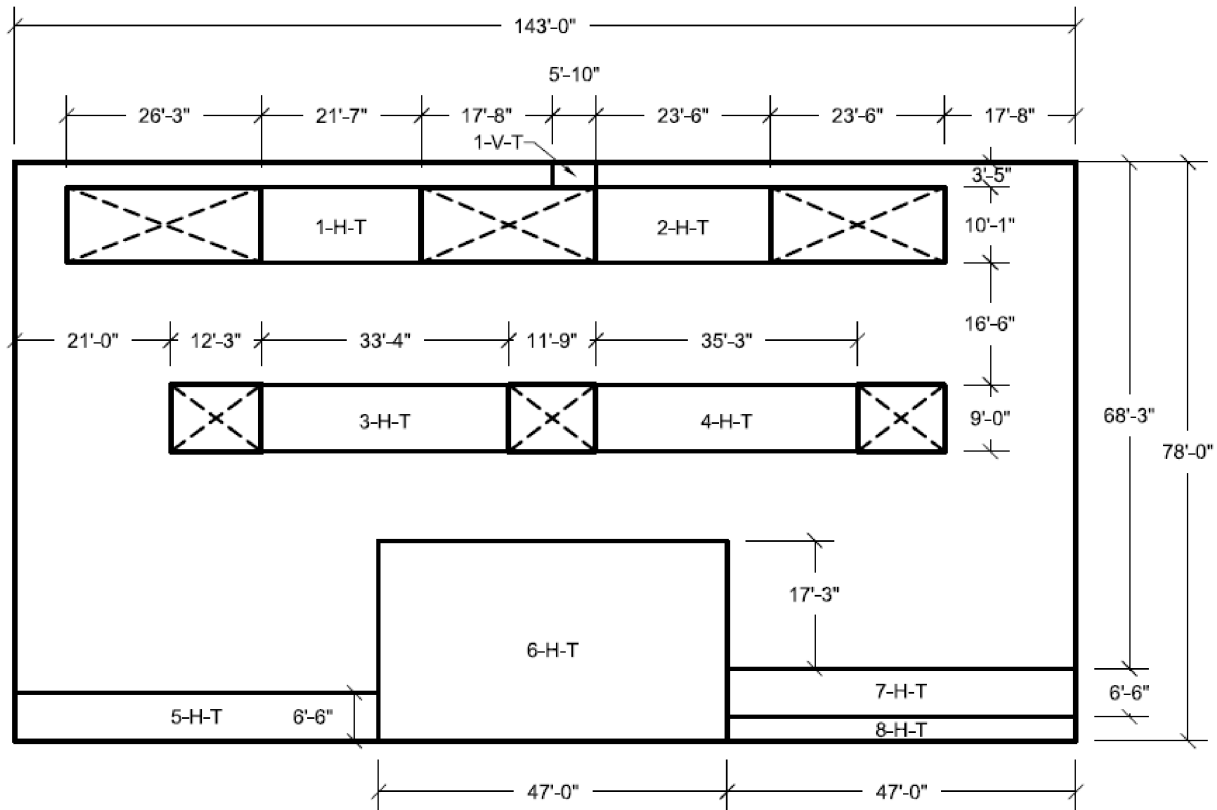
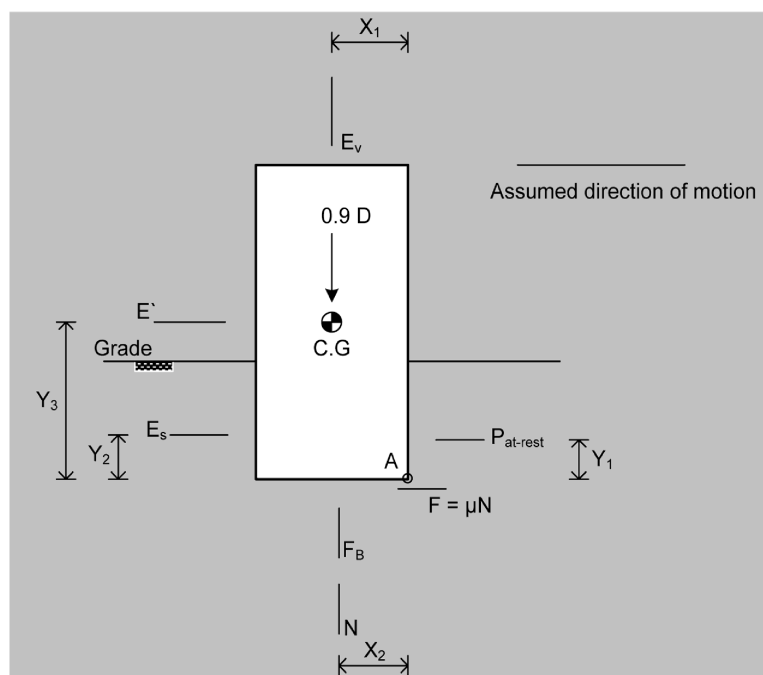


Figure 3H.6-136D Pump House Roof Transverse Vertical and Horizontal Reinforcement Zones



Factors of Safety against Sliding and Overturning about point A are calculated as follows:

$$SF_{\text{sliding}} = \frac{P_{\text{at-rest}} + F}{E_s + E'}$$

$$SF_{\text{OT}_A} = \frac{(P_{\text{at-rest}})(Y_1) + (0.9D)(X_1)}{(F_B)(X_2) + (E_s)(Y_2) + (E')(Y_3) + (E_v)(X_1)}$$

Where:

SF_{sliding} = Safety factor against sliding

SF_{OT_A} = Safety factor against overturning about "A"

D = Dead load

$P_{\text{at-rest}}$ = Total at-rest soil pressure (see Figures 3H.6-48 through 3H.6-50)

$F = \mu N$ = friction force and μ is the coefficient of friction

E_s = Static and dynamic soil pressure (see Figures 3H.6-45 through 3H.6-47)

E' = Self weight excitation in the horizontal direction

E_v = Self weight excitation in the vertical direction

F_B = Buoyancy force

N = Vertical reaction = $0.9D - F_B - E_v$

Note: ~~If passive pressure is utilized, P_{passive} should be used instead of $P_{\text{at-rest}}$.~~

- (1) If passive pressure is utilized, P_{passive} is used instead of $P_{\text{at-rest}}$
- (2) E' represents the inertia of the structure and it is either determined from equivalent static method or response spectrum analysis.
- (3) E_s represents the static and dynamic loads from soil which includes seismic loads from soil and hydrodynamic pressure from groundwater. These loads are computed in accordance with Section 2.5S4.10.5.

Figure 3H.6-137 Formulations Used for Calculation of Factors of Safety Against Sliding and Overturning for Category I Site-Specific Structures

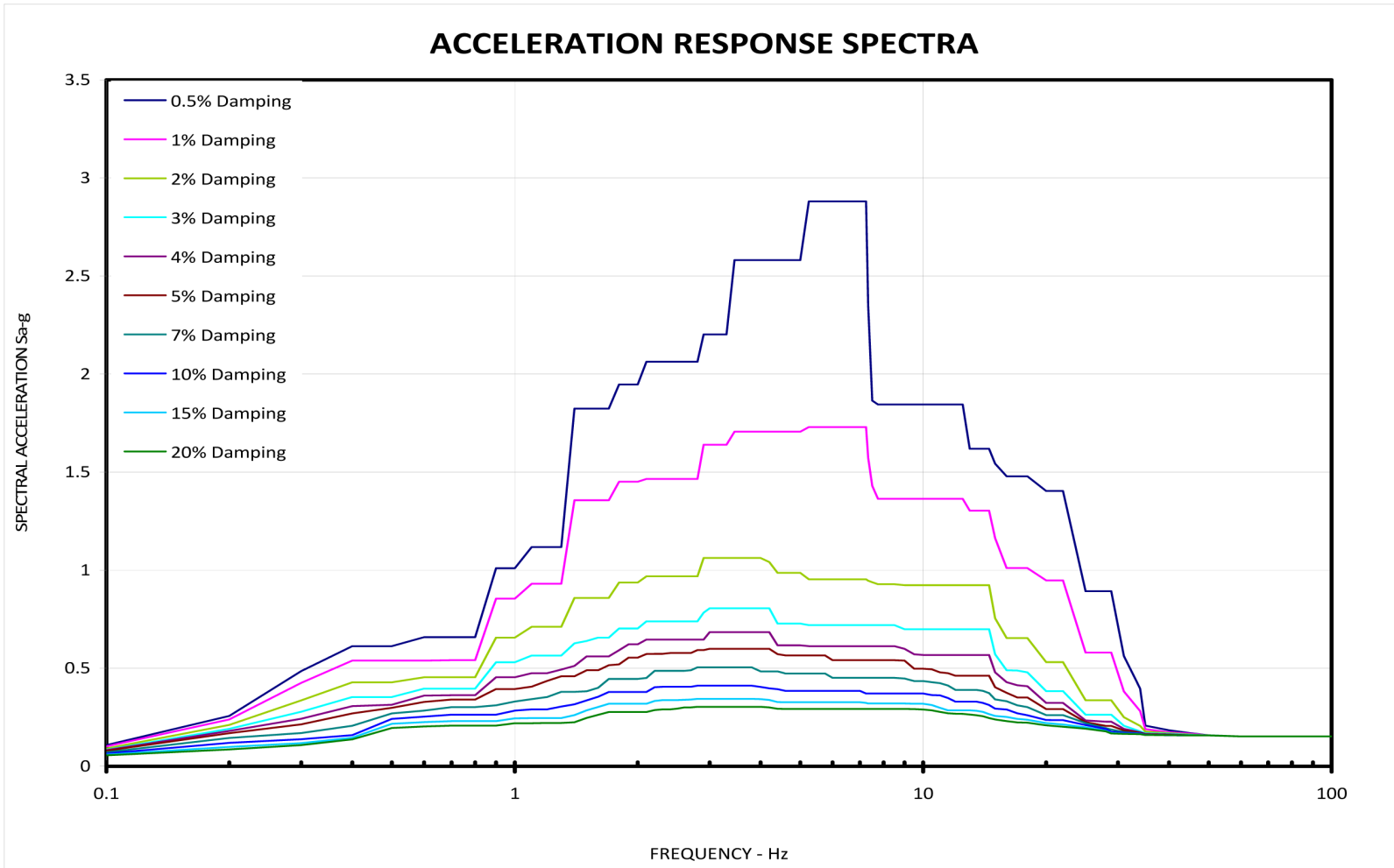


Figure 3H.6-138 RSW Piping Tunnel, Horizontal Response Spectra

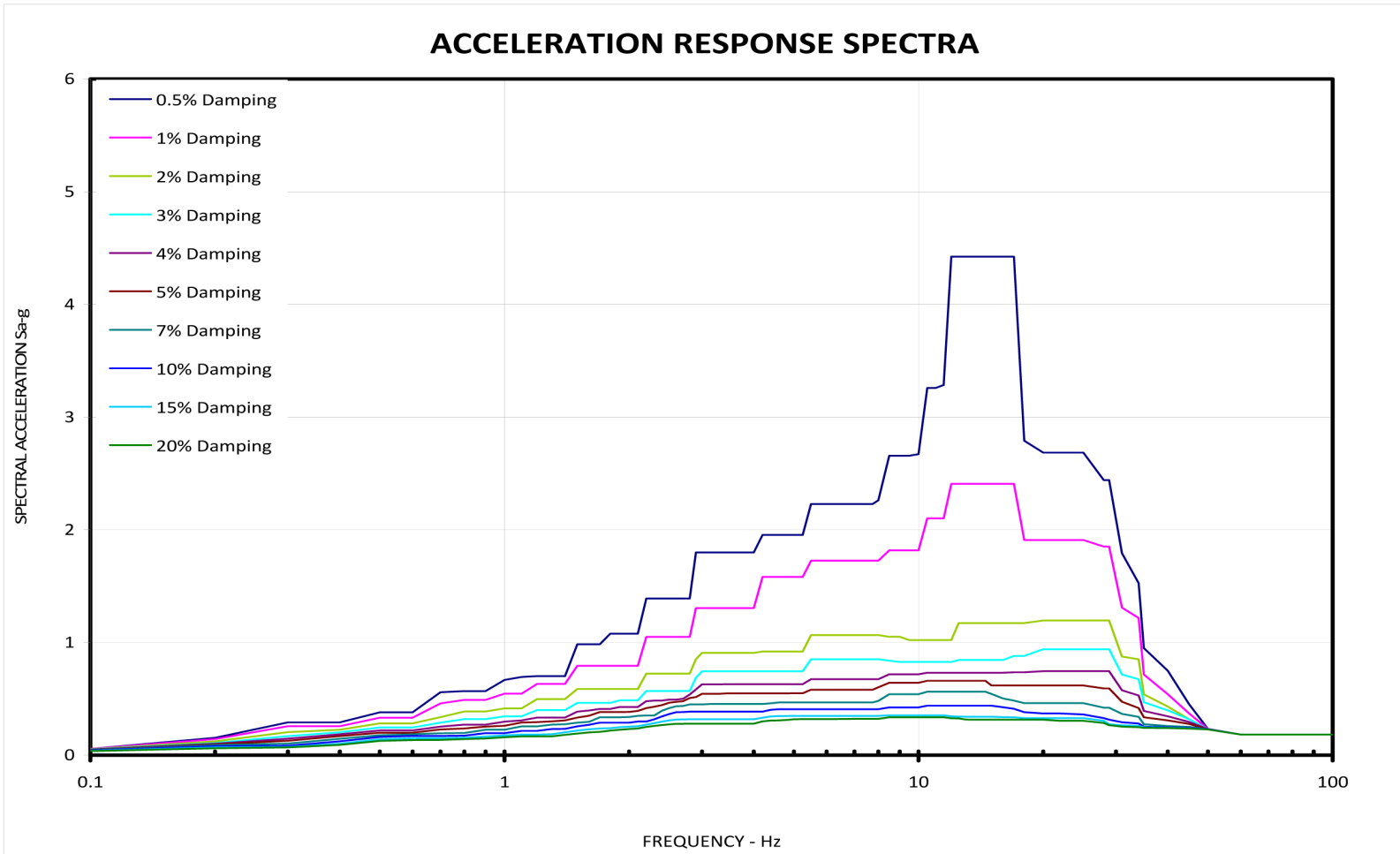
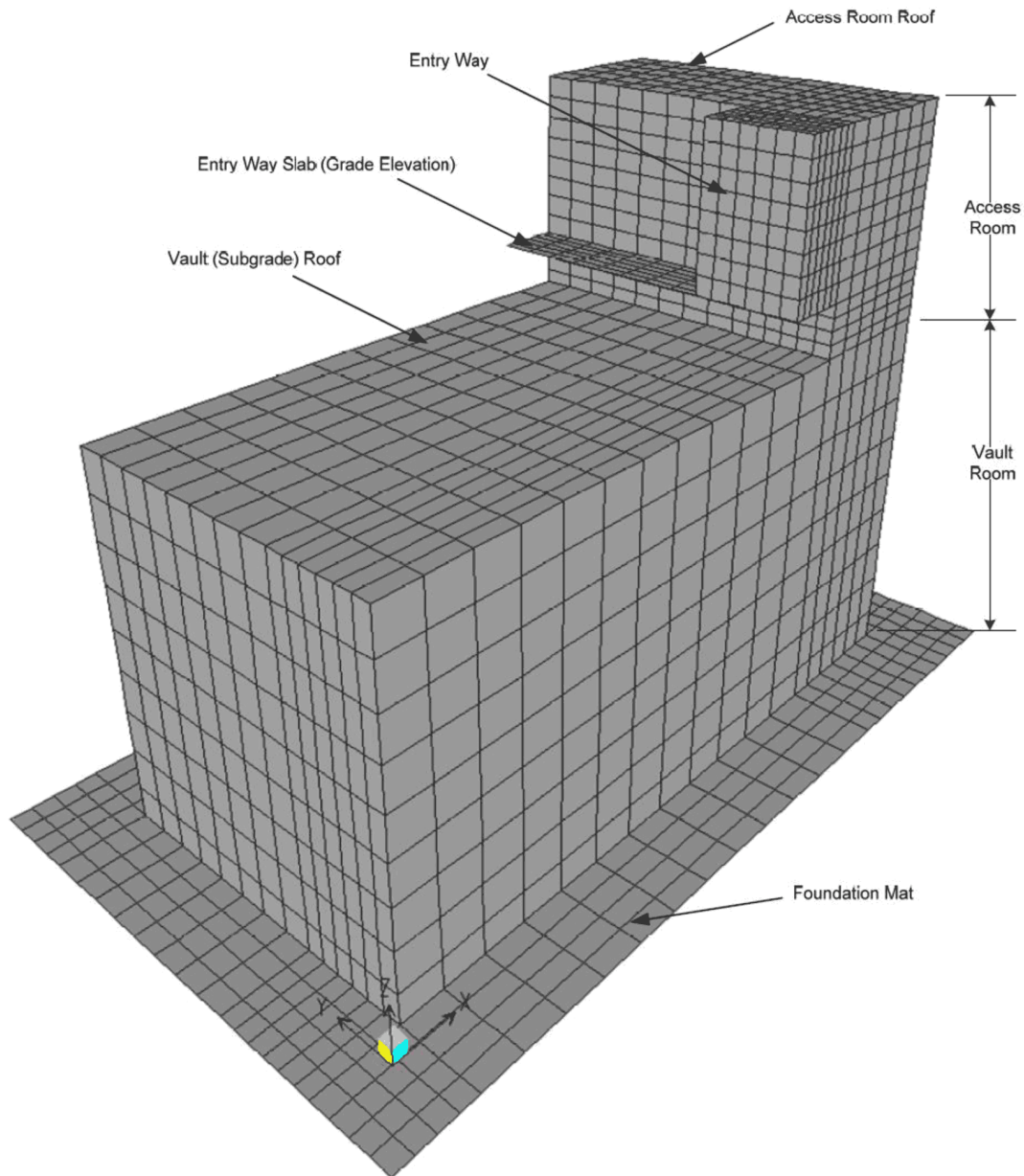


Figure 3H.6-139 RSW Piping Tunnel, Vertical Response Spectra

**Figure 3H.6-140 DGFSV SAP2000 Model**

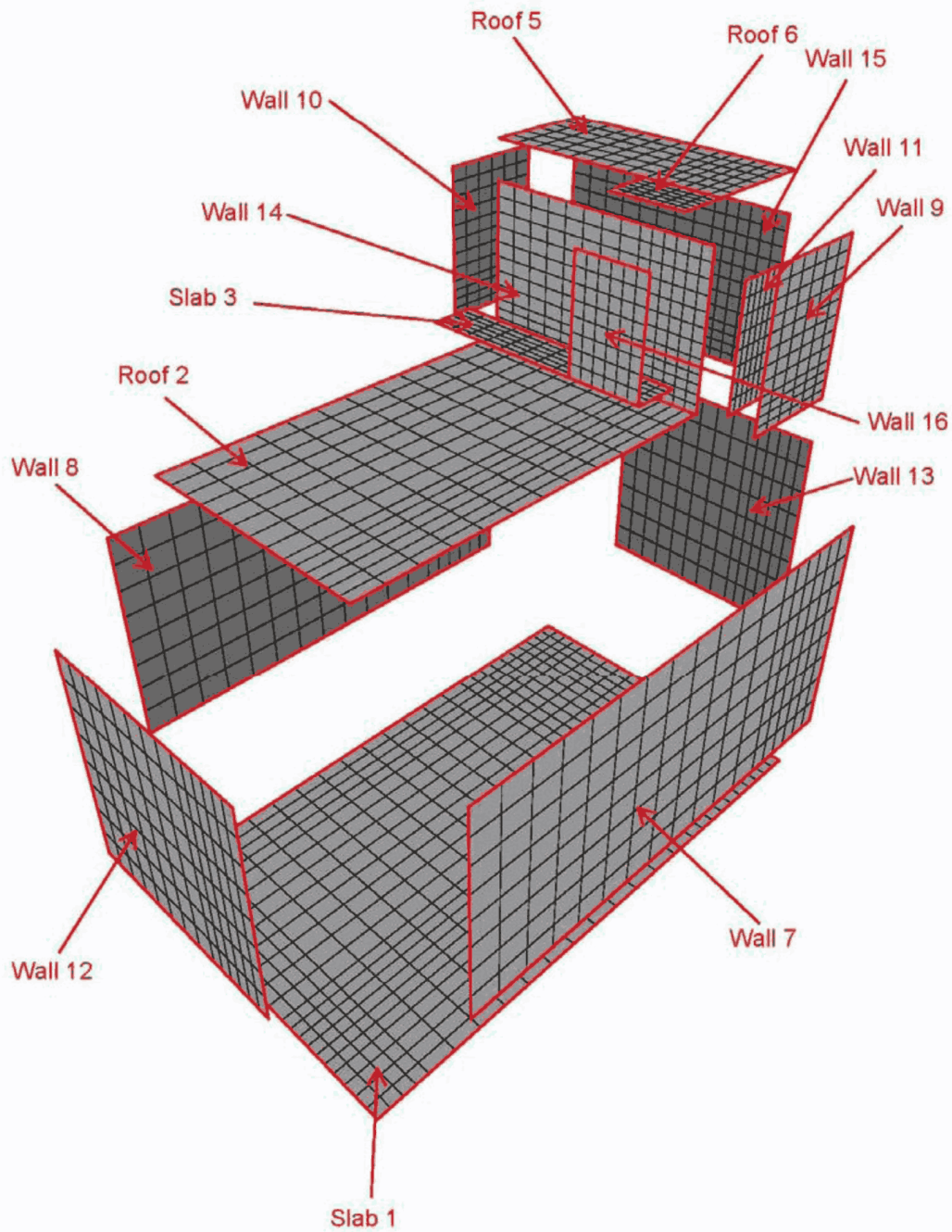
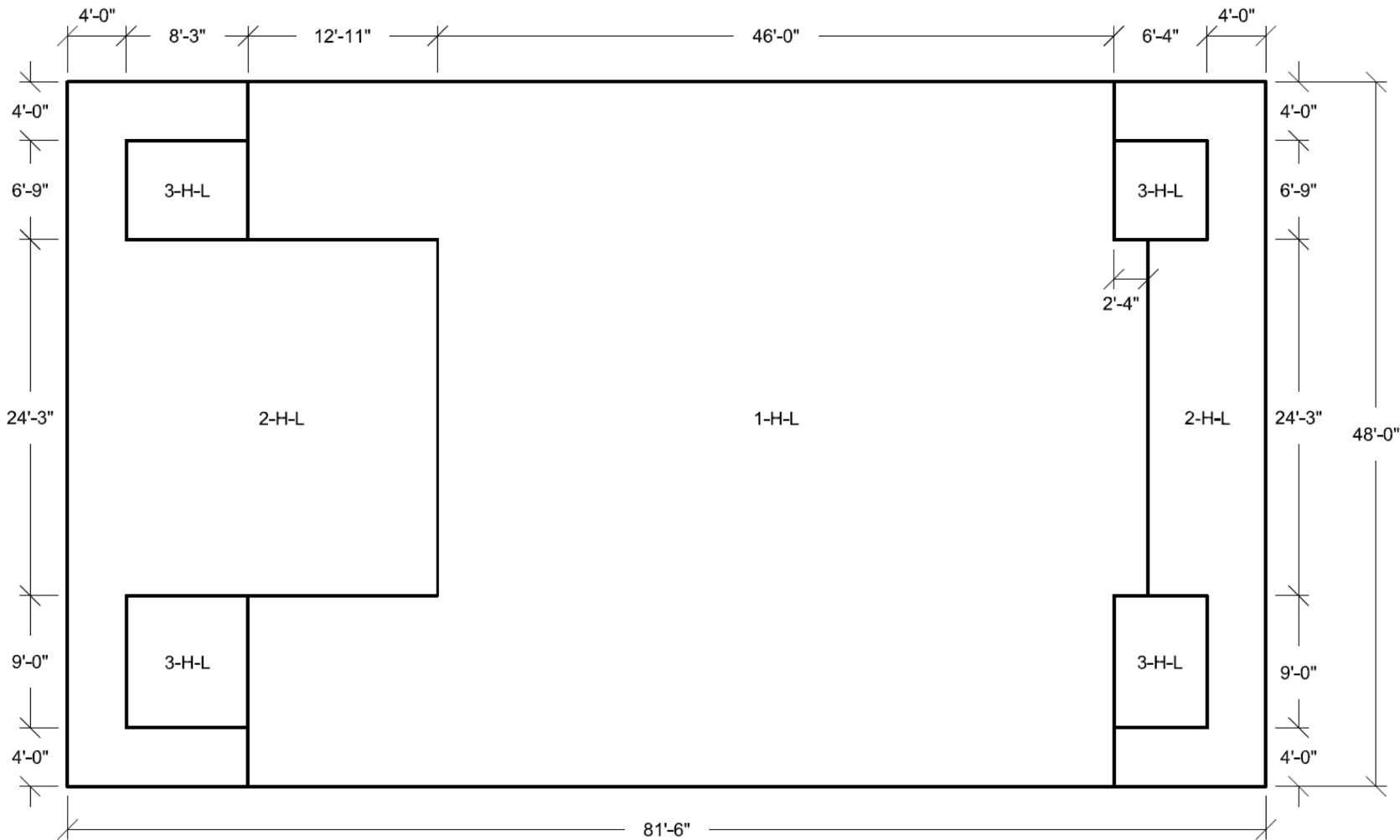


Figure 3H.6-141 DGFSV Wall and Slab Labeling Convention



**Figure 3H.6-142 Slab 1 Looking Down
Horizontal Reinforcement Zones
Near Side Face**

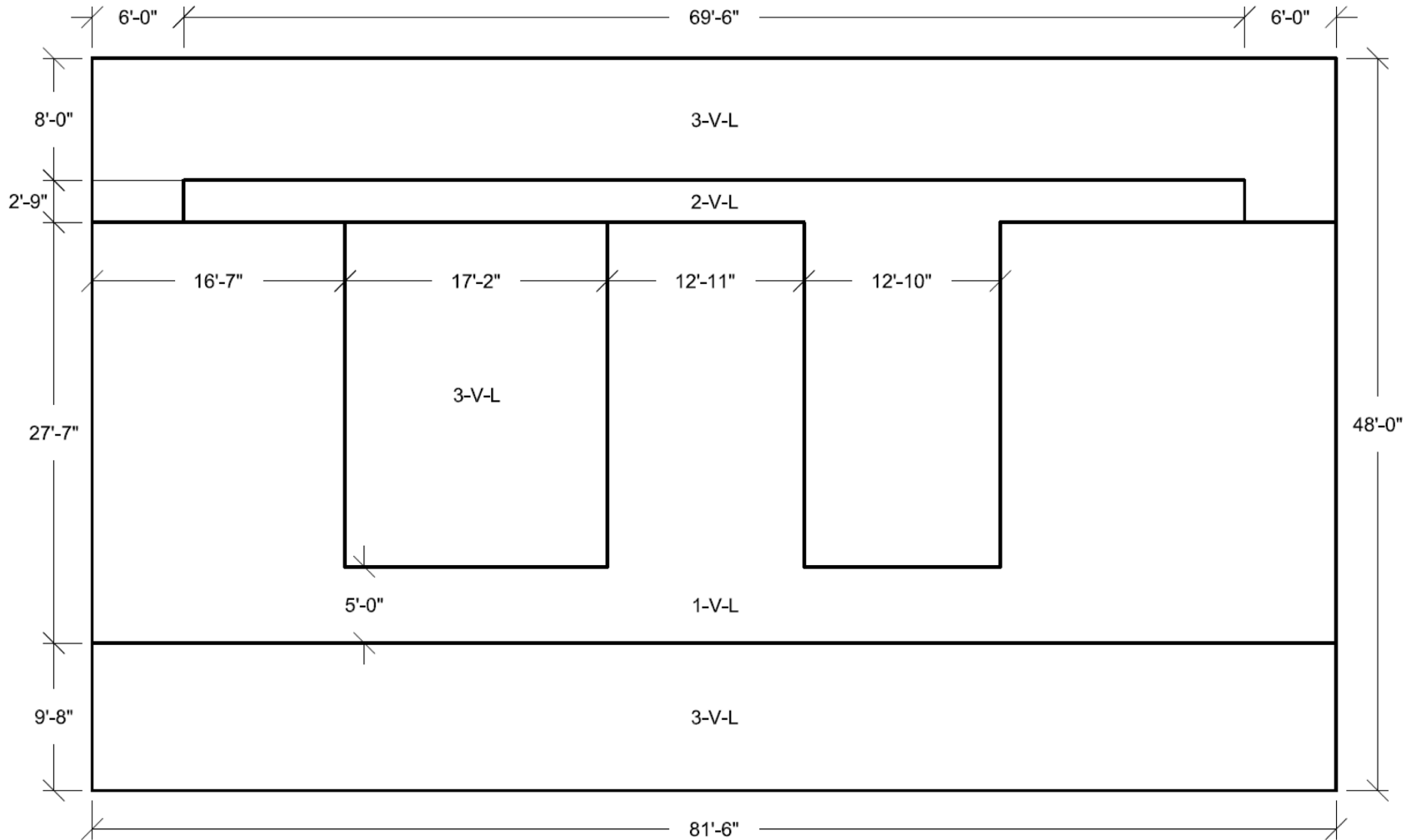


Figure 3H.6-143 Slab 1 Looking Down Vertical Reinforcement Zones Near Side Face

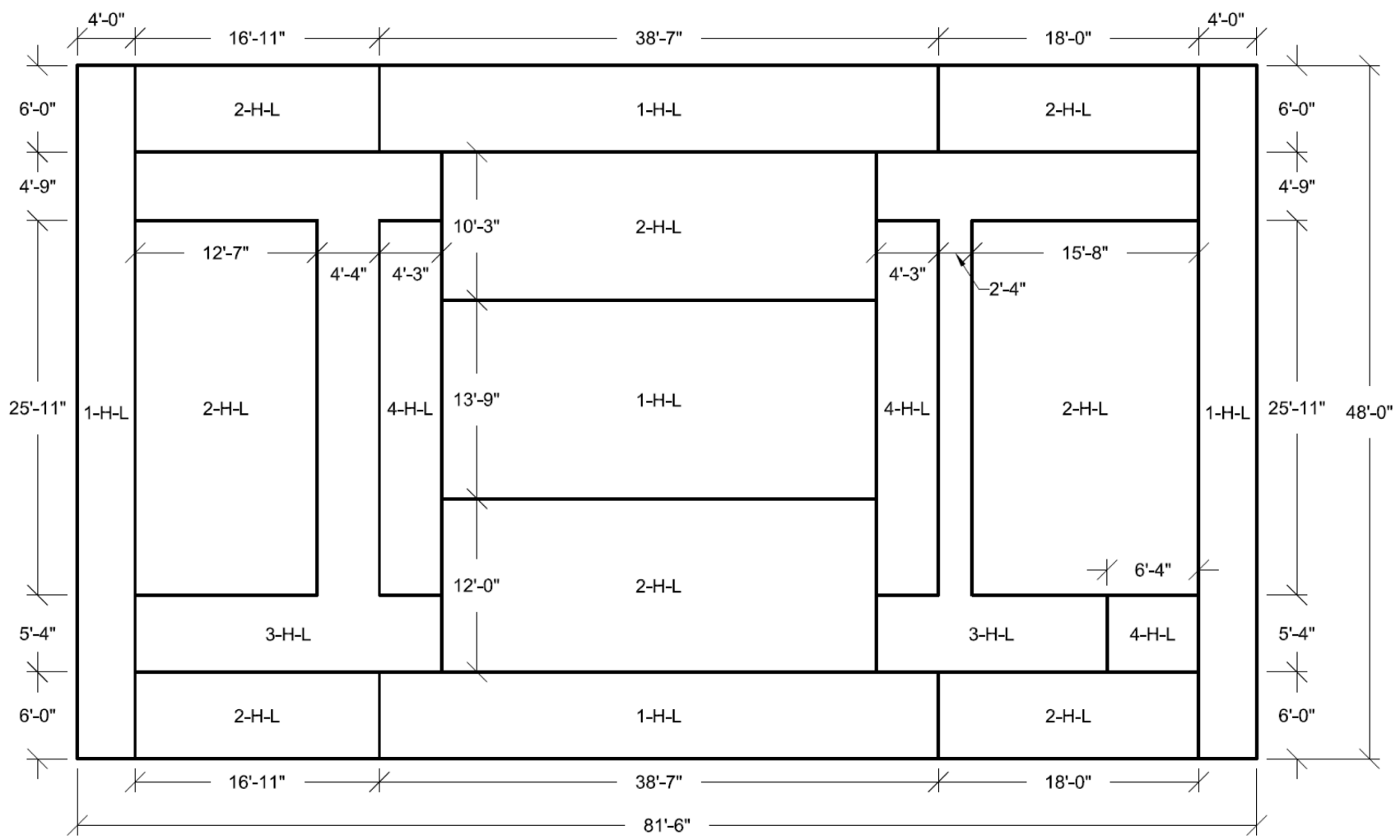


Figure 3H.6-144 Slab 1 Looking Down
Horizontal Reinforcement Zones
Far Side Face

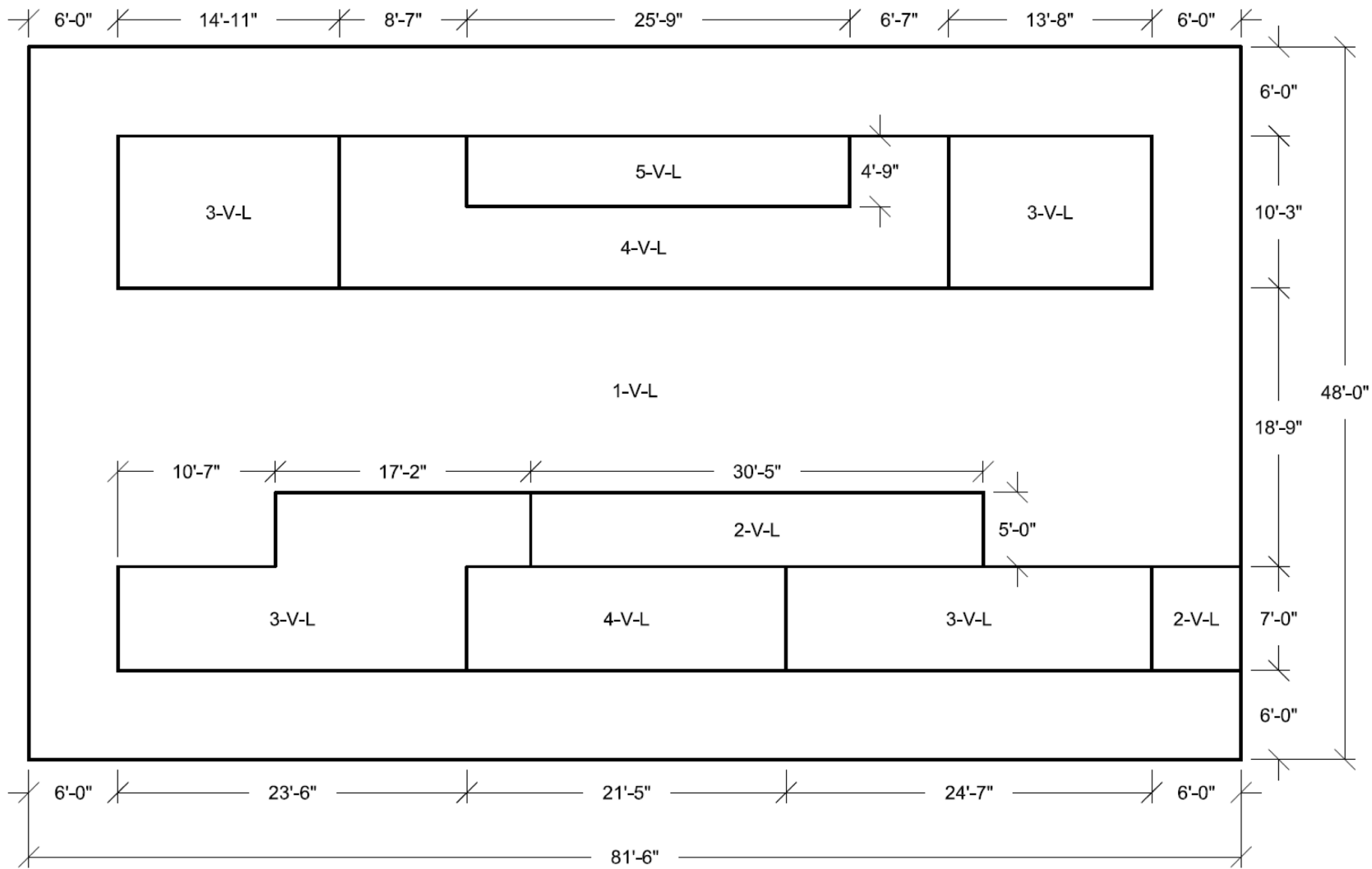


Figure 3H.6-145 Slab 1 Looking Down Vertical Reinforcement Zones Far Side Face

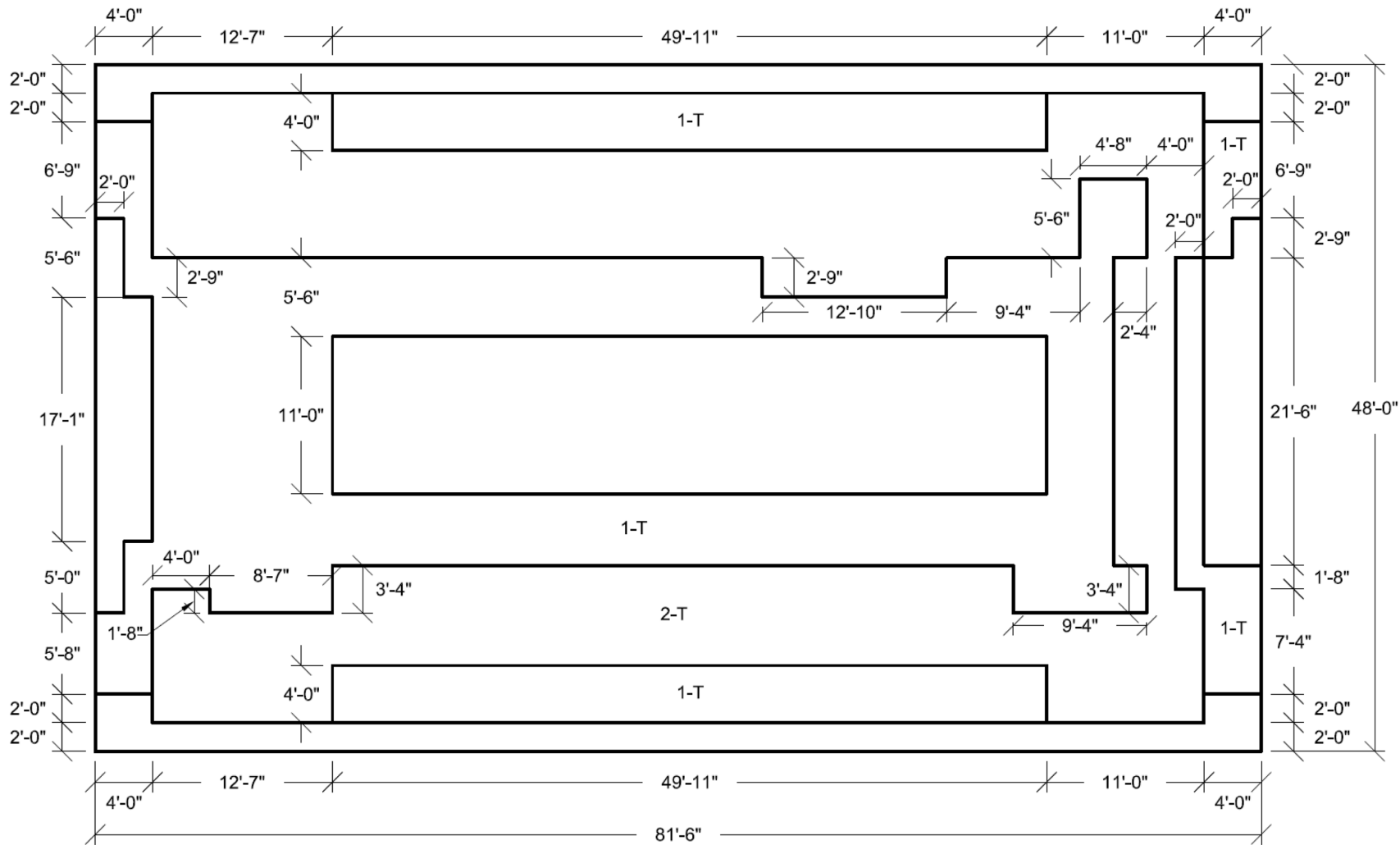


Figure 3H.6-146 ~~Not Used~~ Slab 1 Looking Down Transverse Reinforcement Zones



Figure 3H.6-147 Roof 2 Looking Down Horizontal Reinforcement Zones Near Side Face

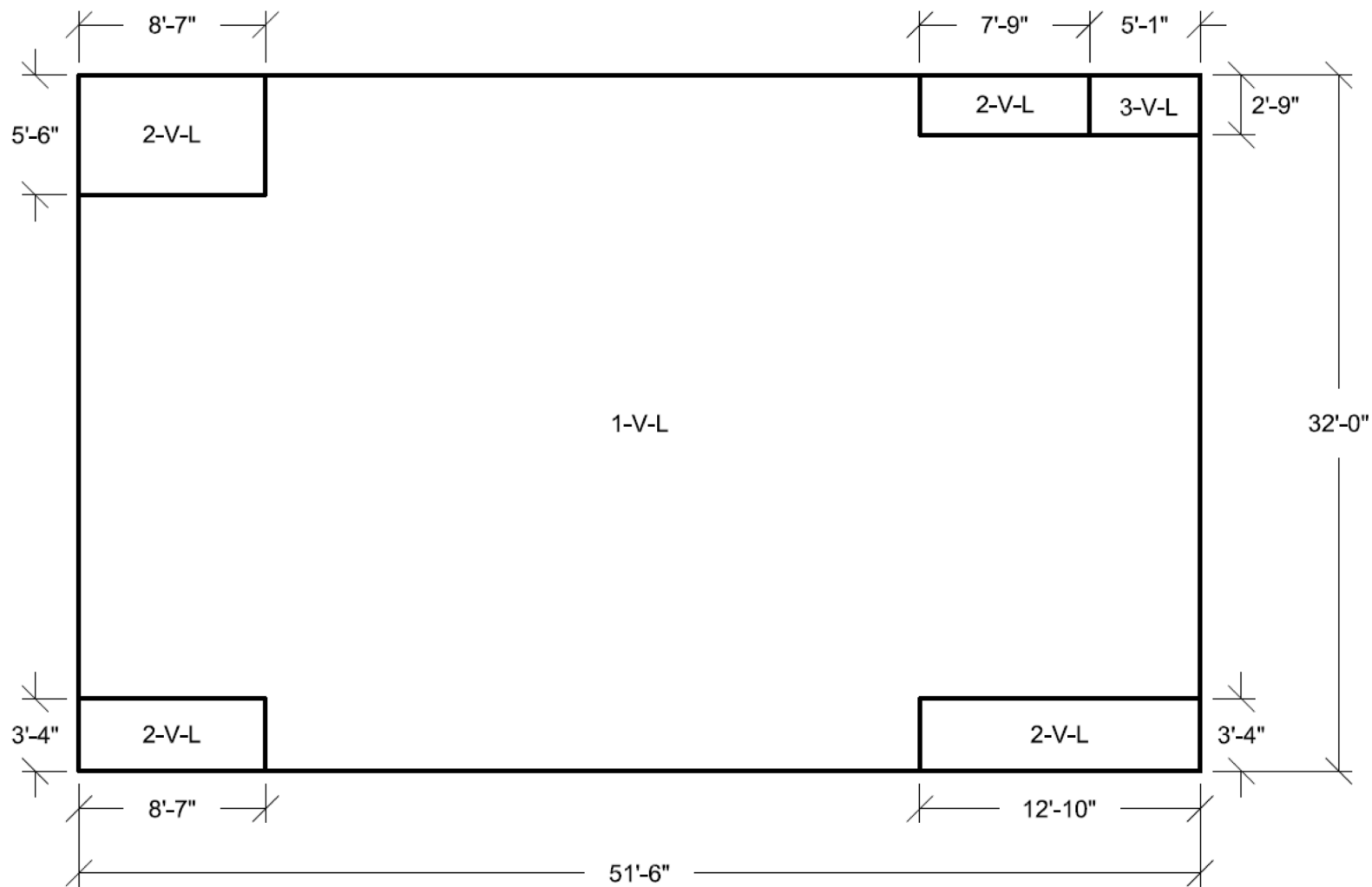


Figure 3H.6-148 Roof 2 Looking Down Vertical Reinforcement Zones Near Side Face

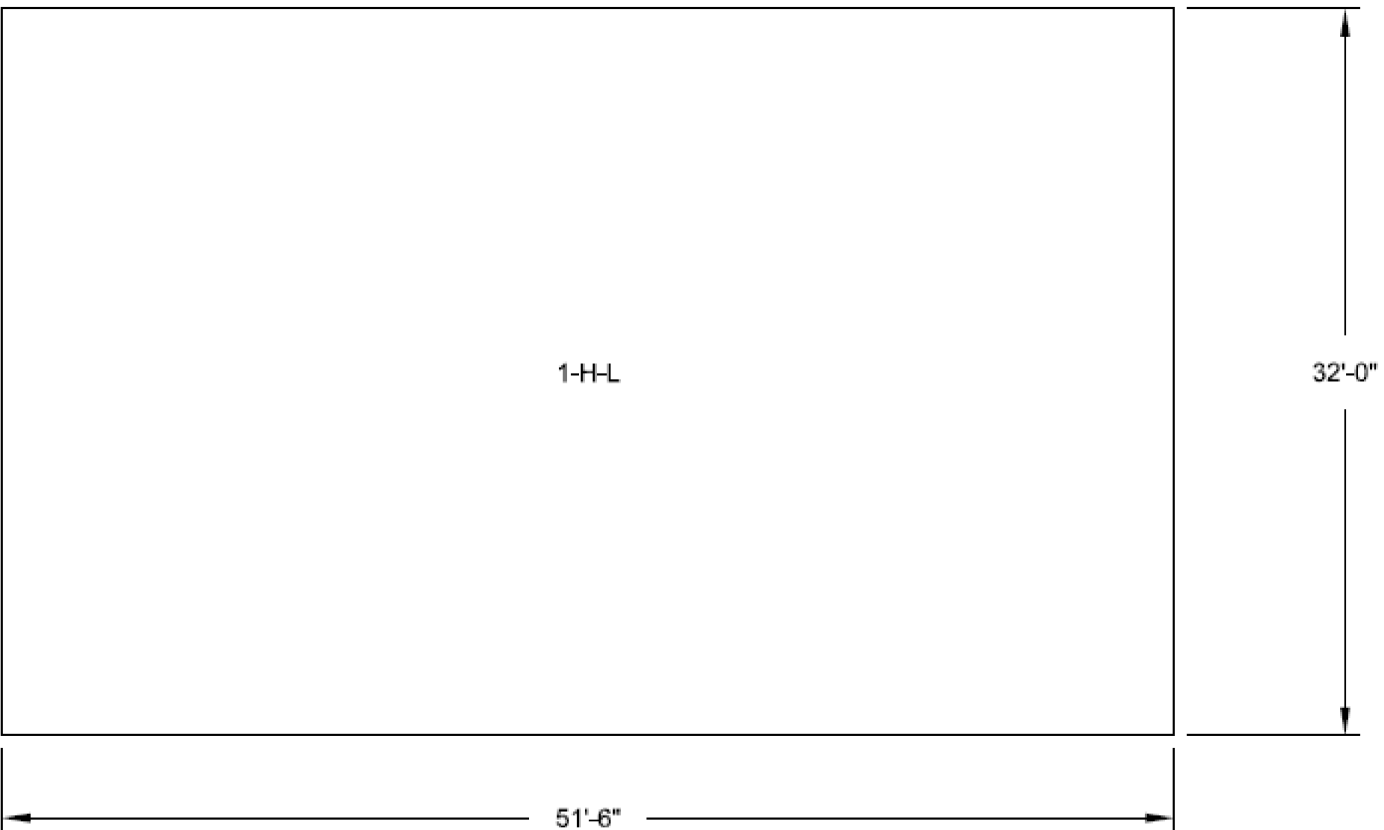
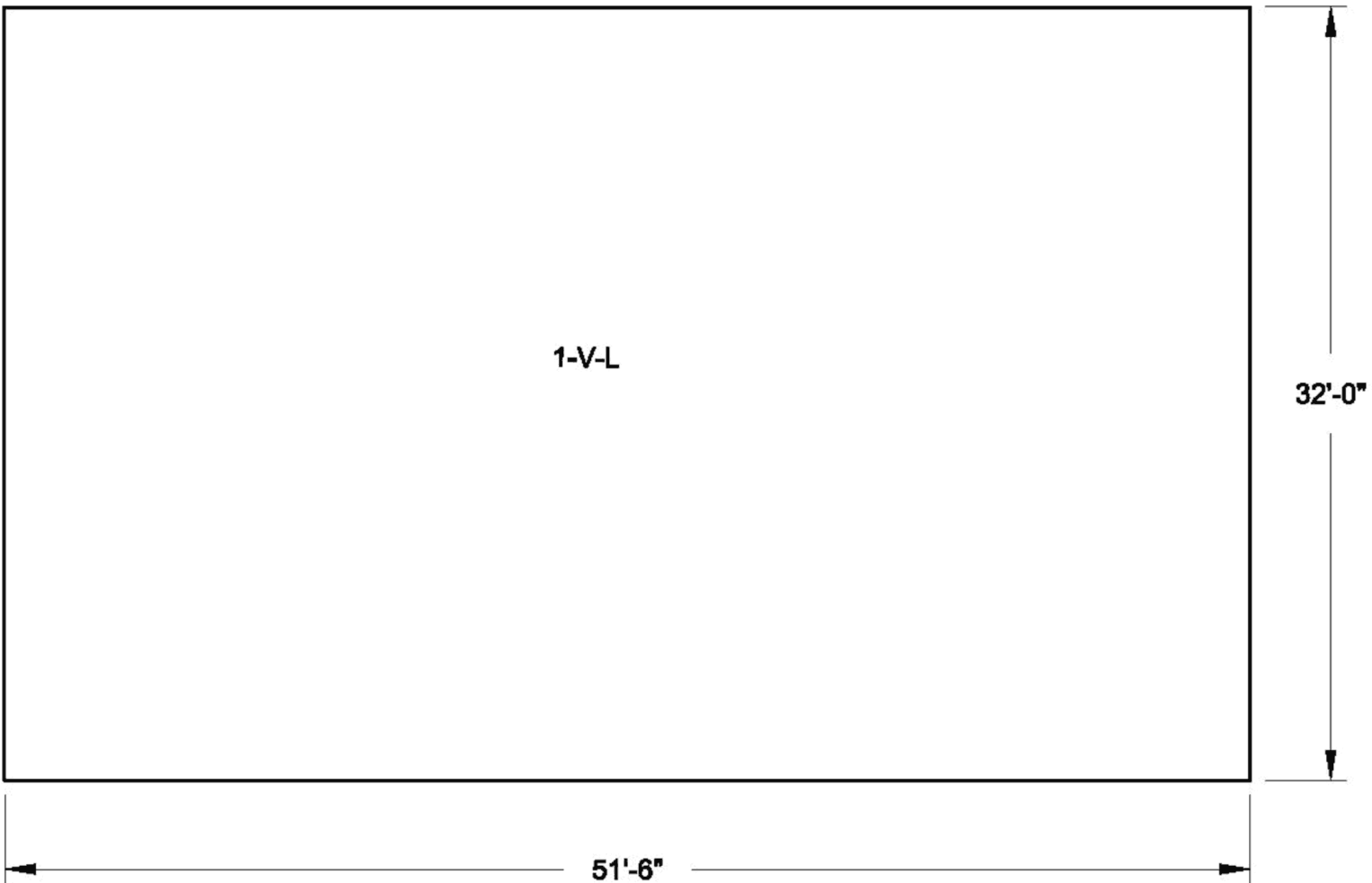
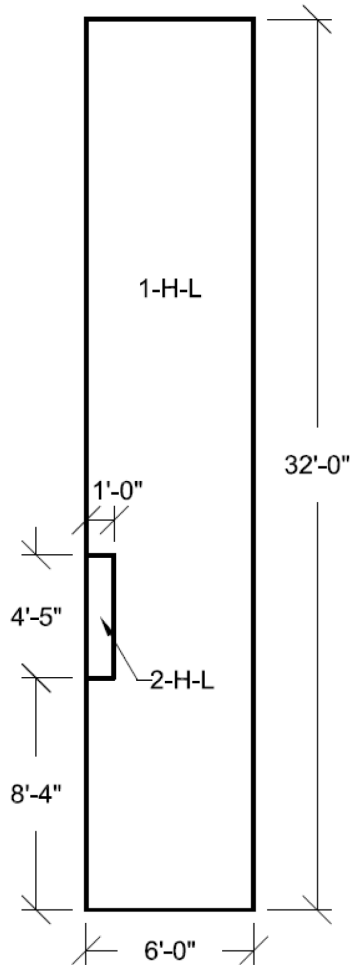


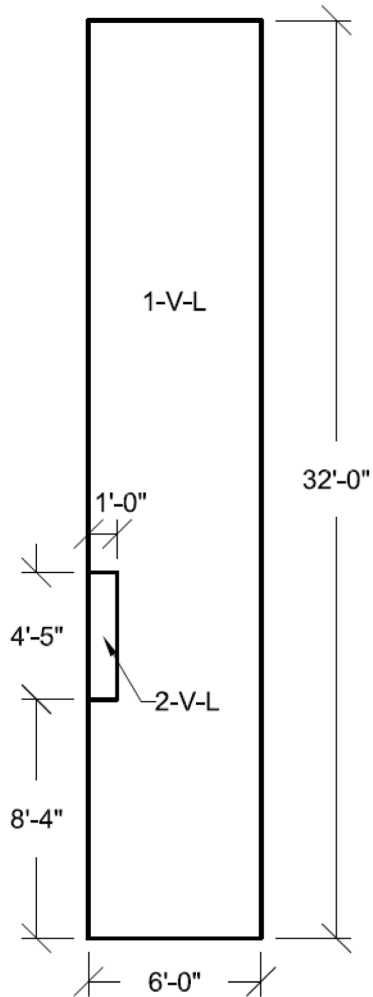
Figure 3H.6-149 Roof 2 Looking Down Horizontal Reinforcement Zones Far Side Face



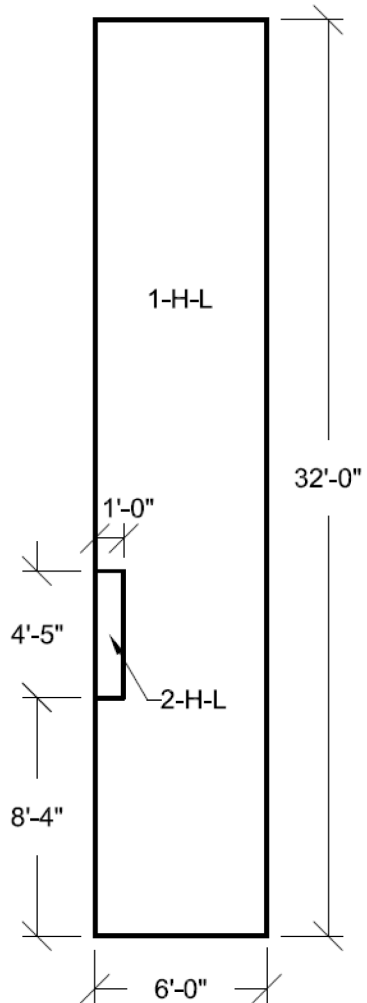
**Figure 3H.6-150 Roof 2 Looking Down
Vertical Reinforcement Zones
Far Side Face**



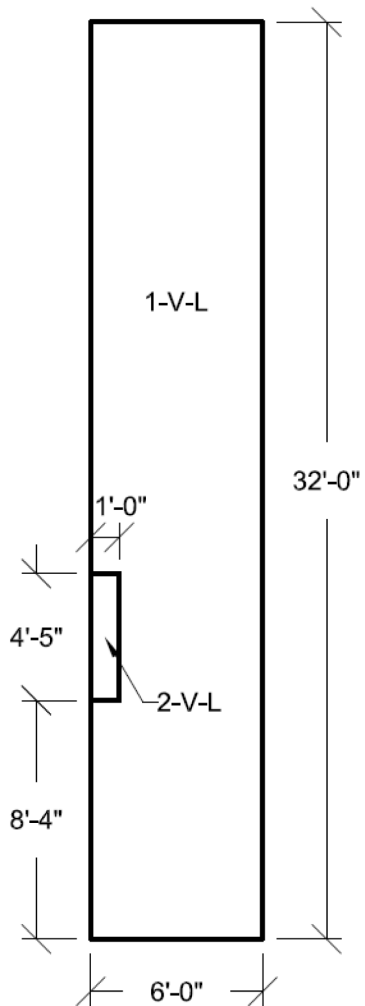
**Figure 3H.6-151 Slab 3 Looking Down
Horizontal Reinforcement Zones
Near Side Face**



**Figure 3H.6-152 Slab 3 Looking Down
Vertical Reinforcement Zones
Near Side Face**



**Figure 3H.6-153 Slab 3 Looking Down
Horizontal Reinforcement Zones
Far Side Face**



**Figure 3H.6-154A Slab 3 Looking Down
Vertical Reinforcement Zones
Far Side Face**

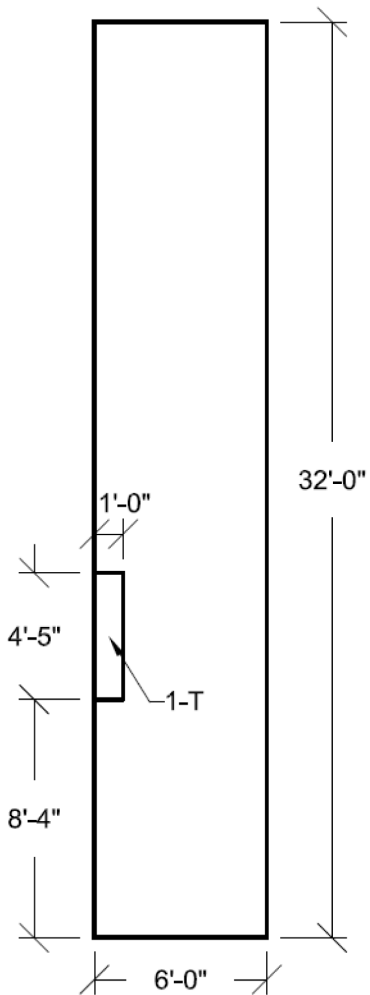


Figure 3H.6-154B Slab 3 Looking Down
Transverse Reinforcement Zones

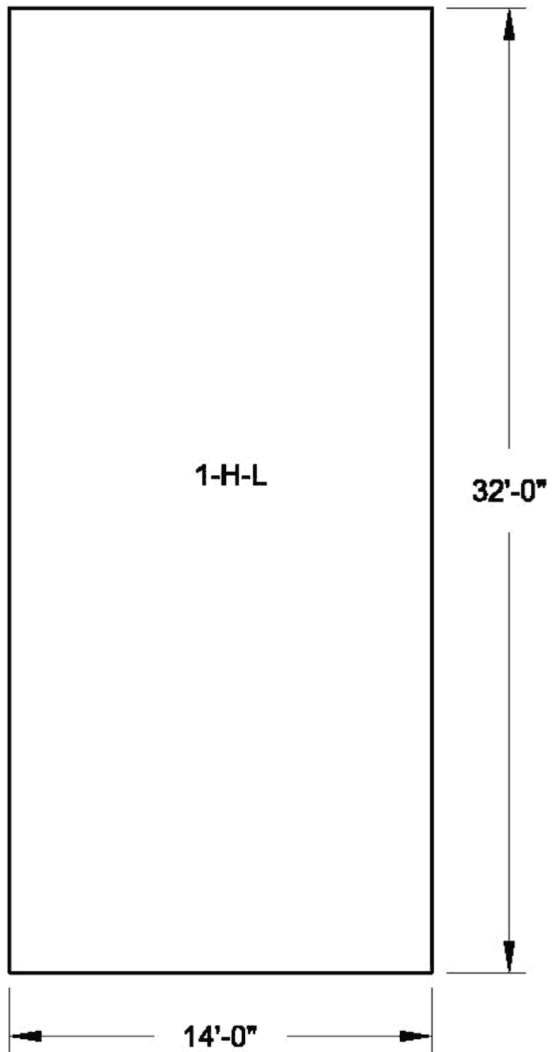
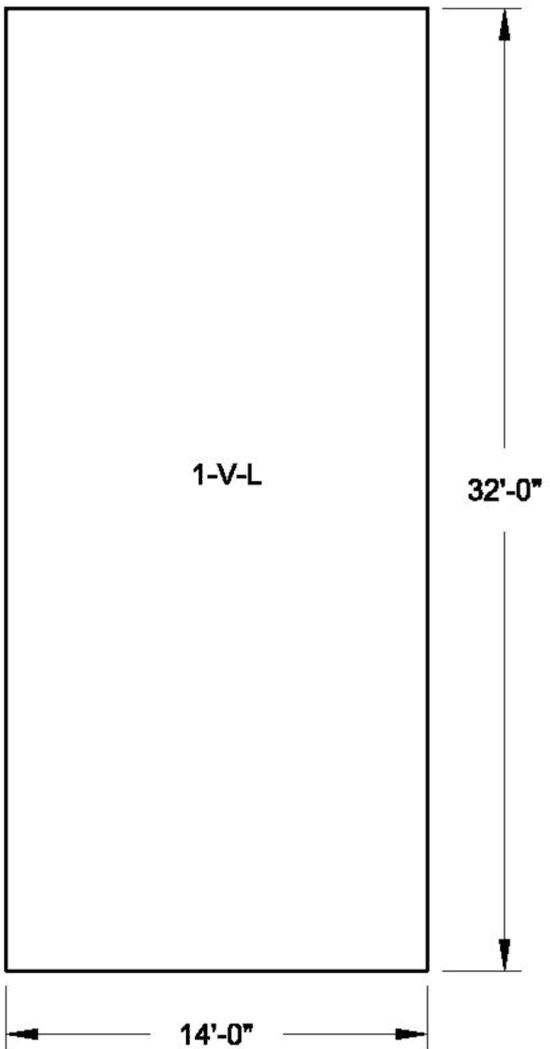


Figure 3H.6-155 Roof 5 Looking Down
Horizontal Reinforcement Zones
Near Side Face



**Figure 3H.6-156 Roof 5 Looking Down
Vertical Reinforcement Zones
Near Side Face**

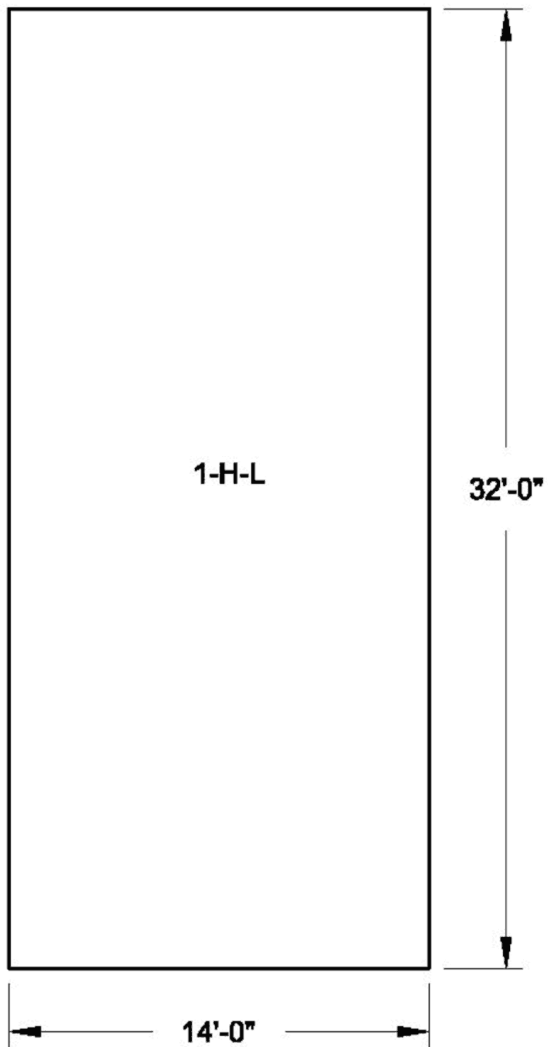
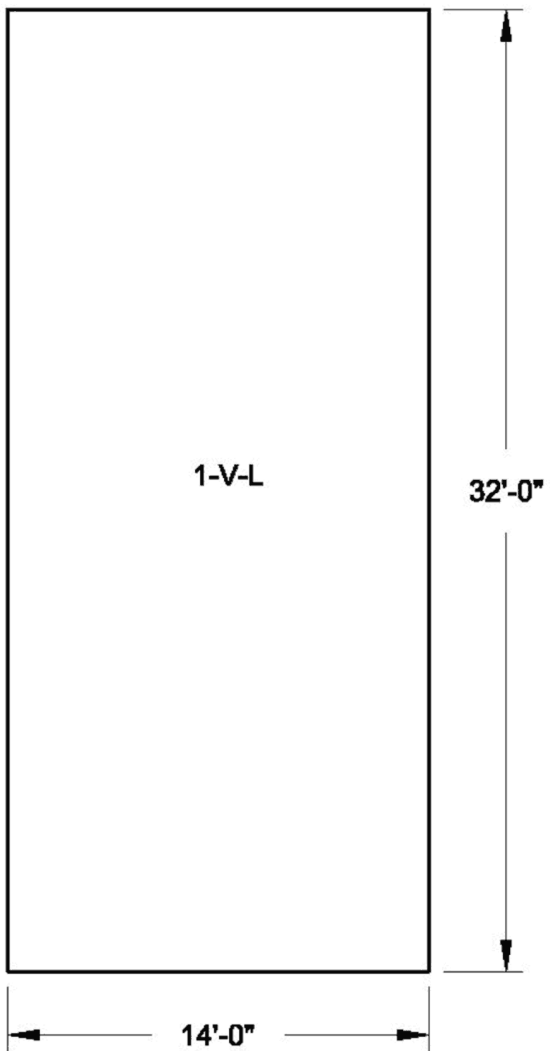


Figure 3H.6-157 Roof 5 Looking Down
Horizontal Reinforcement Zones
Far Side Face



**Figure 3H.6-158 Roof 5 Looking Down
Vertical Reinforcement Zones
Far Side Face**

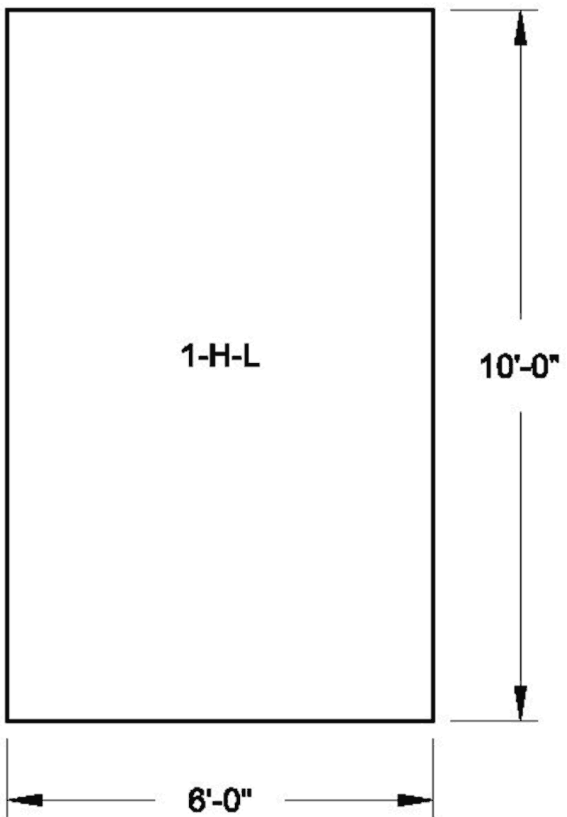


Figure 3H.6-159 Roof 6 Looking Down
Horizontal Reinforcement Zones
Near Side Face

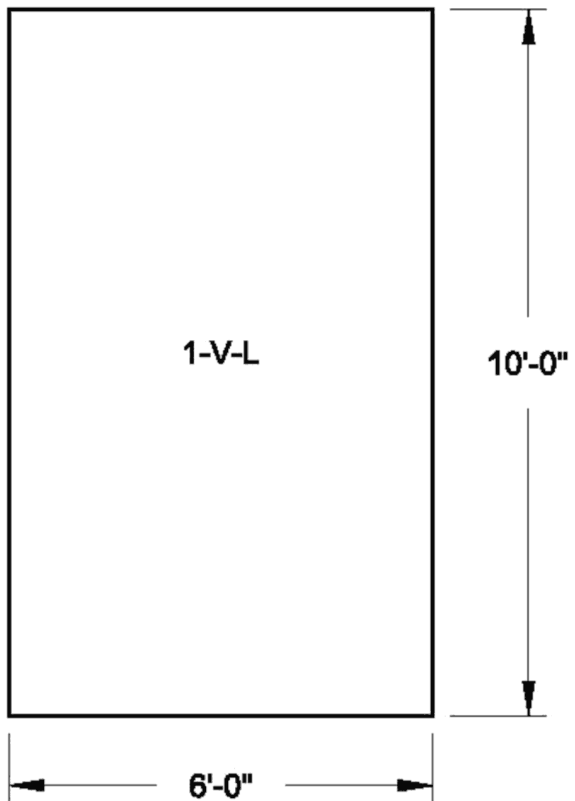


Figure 3H.6-160 Roof 6 Looking Down
Vertical Reinforcement Zones
Near Side Face

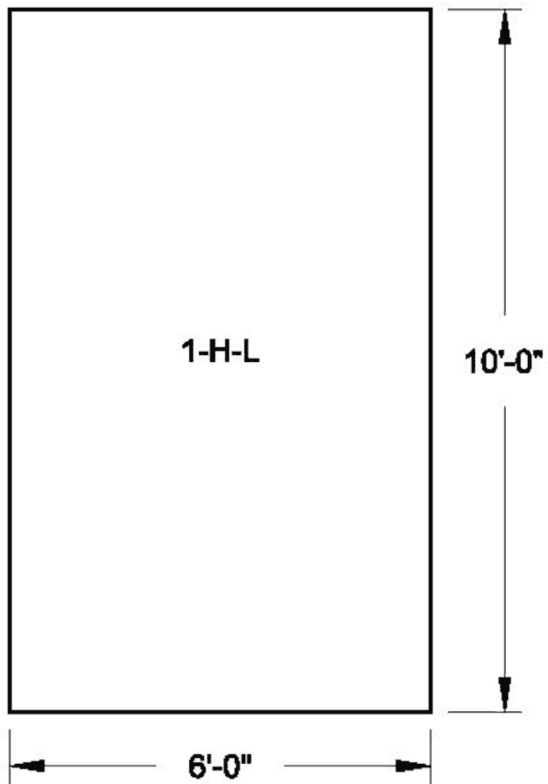


Figure 3H.6-161 Roof 6 Looking Down
Horizontal Reinforcement Zones
Far Side Face

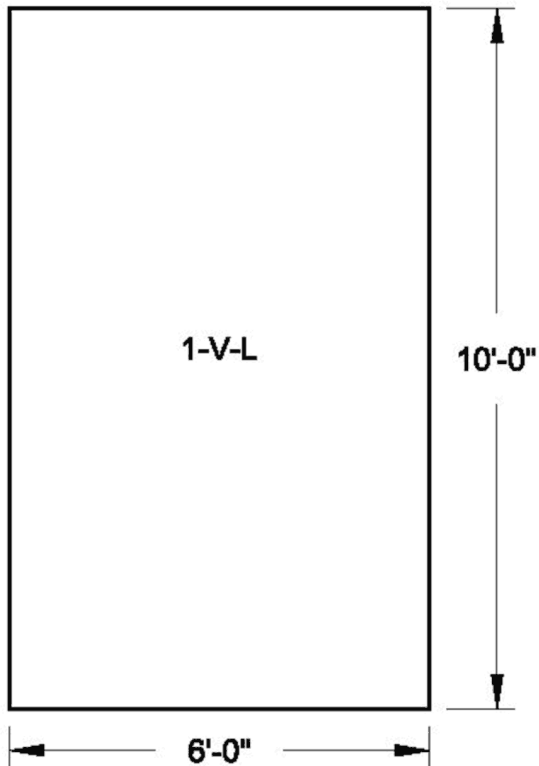


Figure 3H.6-162 Roof 6 Looking Down
Vertical Reinforcement Zones
Far Side Face

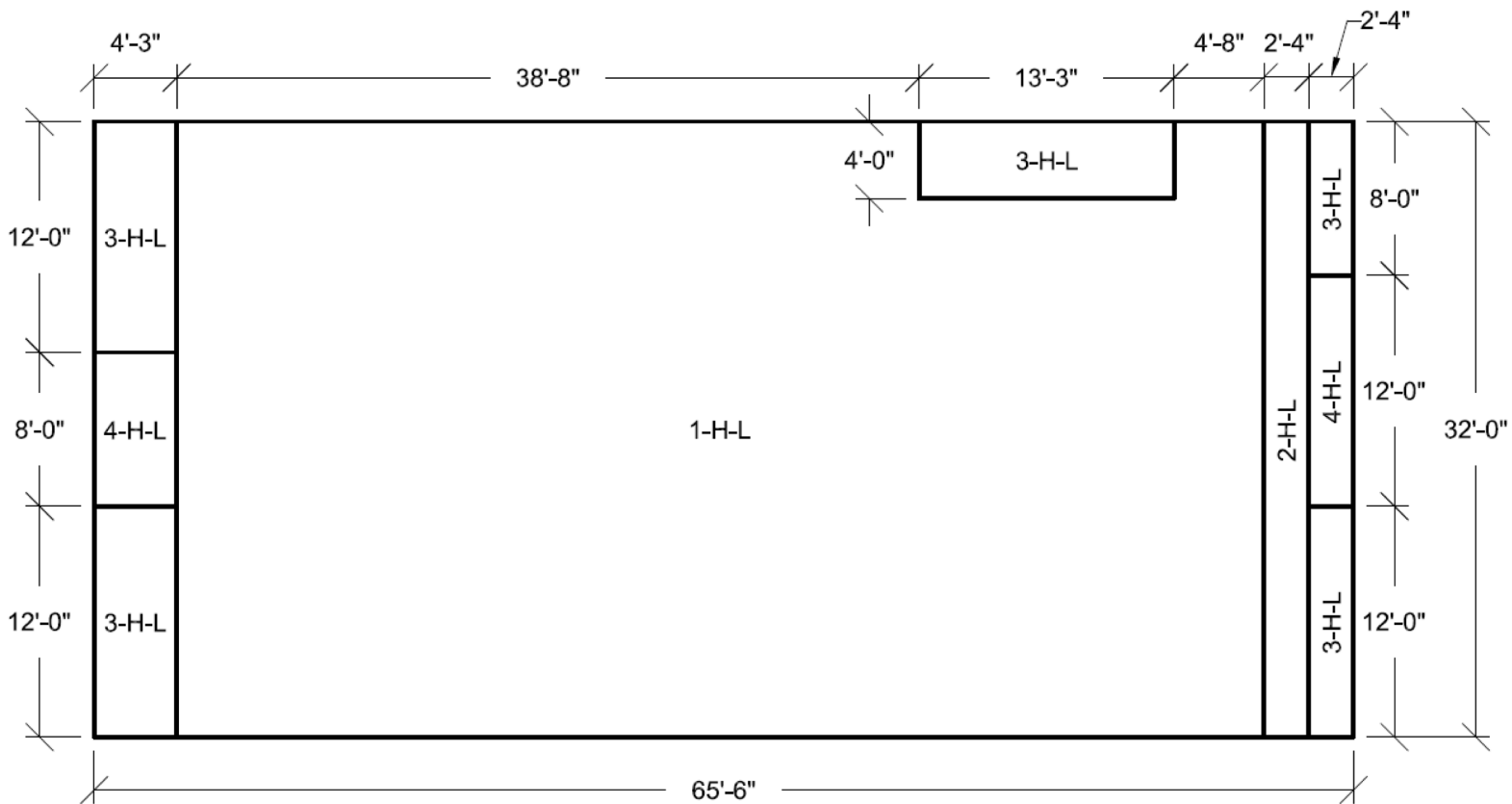


Figure 3H.6-163 Wall 7 Looking From Outside Horizontal Reinforcement Zones Near Side Face

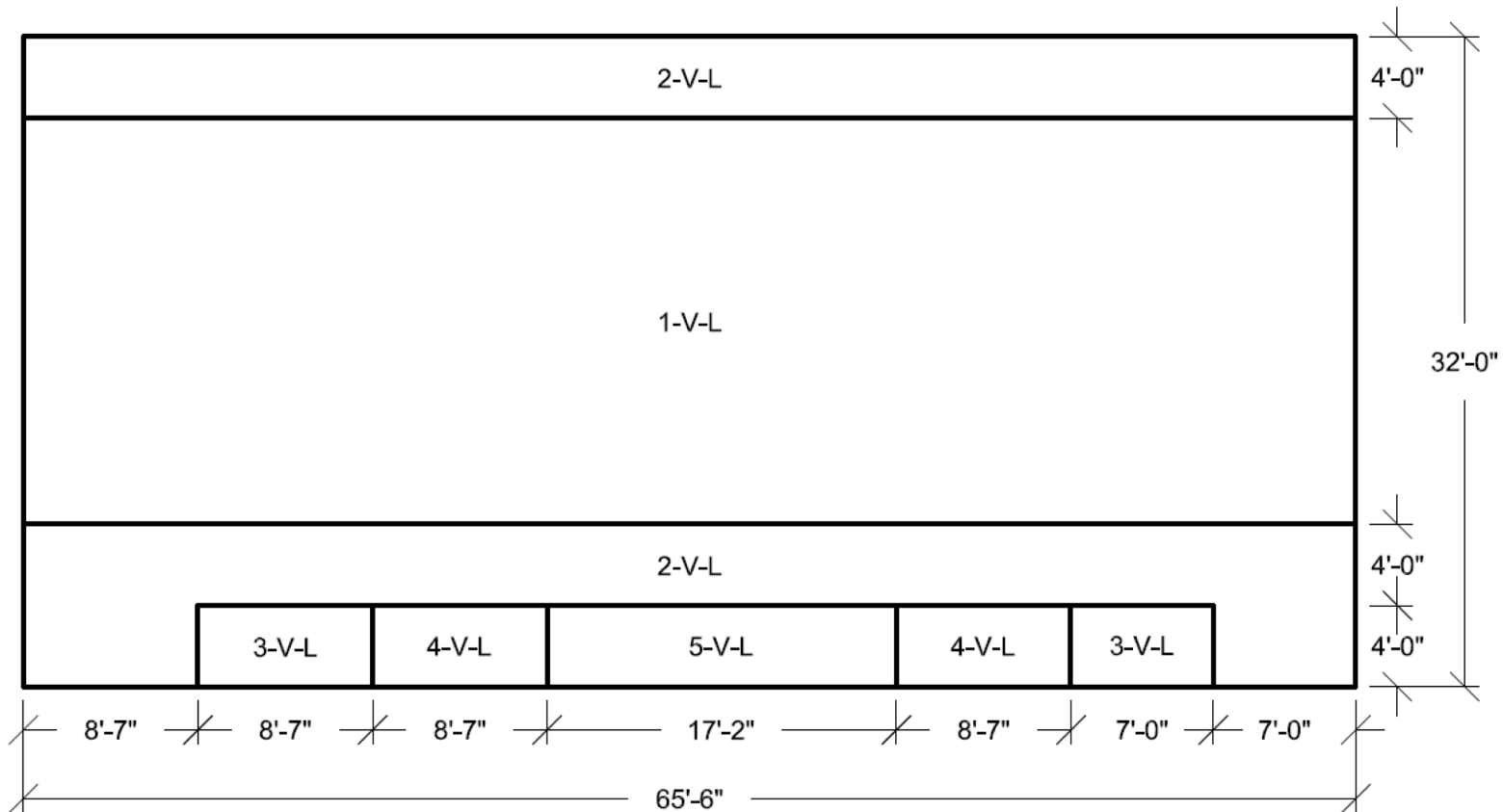
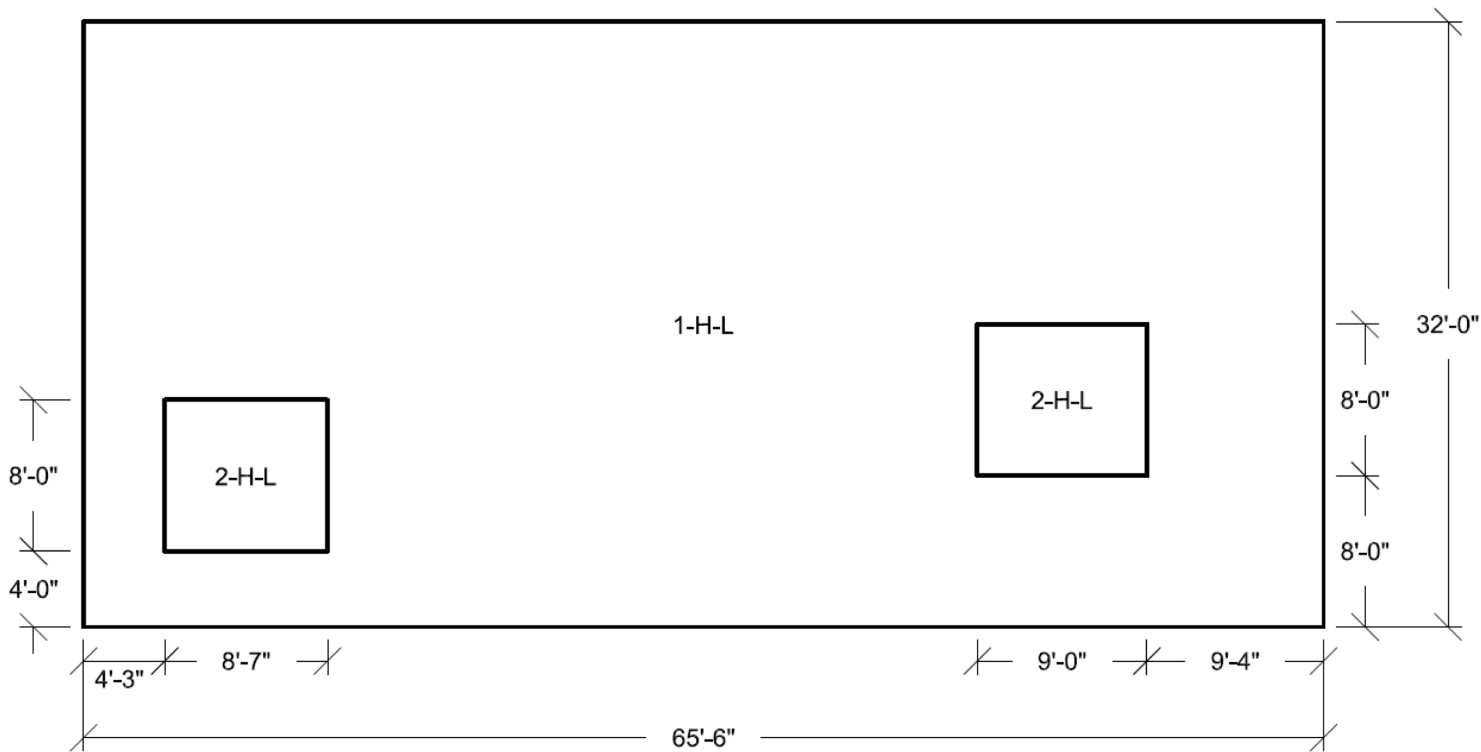


Figure 3H.6-164 Wall 7 Looking From Outside
Vertical Reinforcement Zones
Near Side Face



**Figure 3H.6-165 Wall 7 Looking From Outside
Horizontal Reinforcement Zones
Far Side Face**

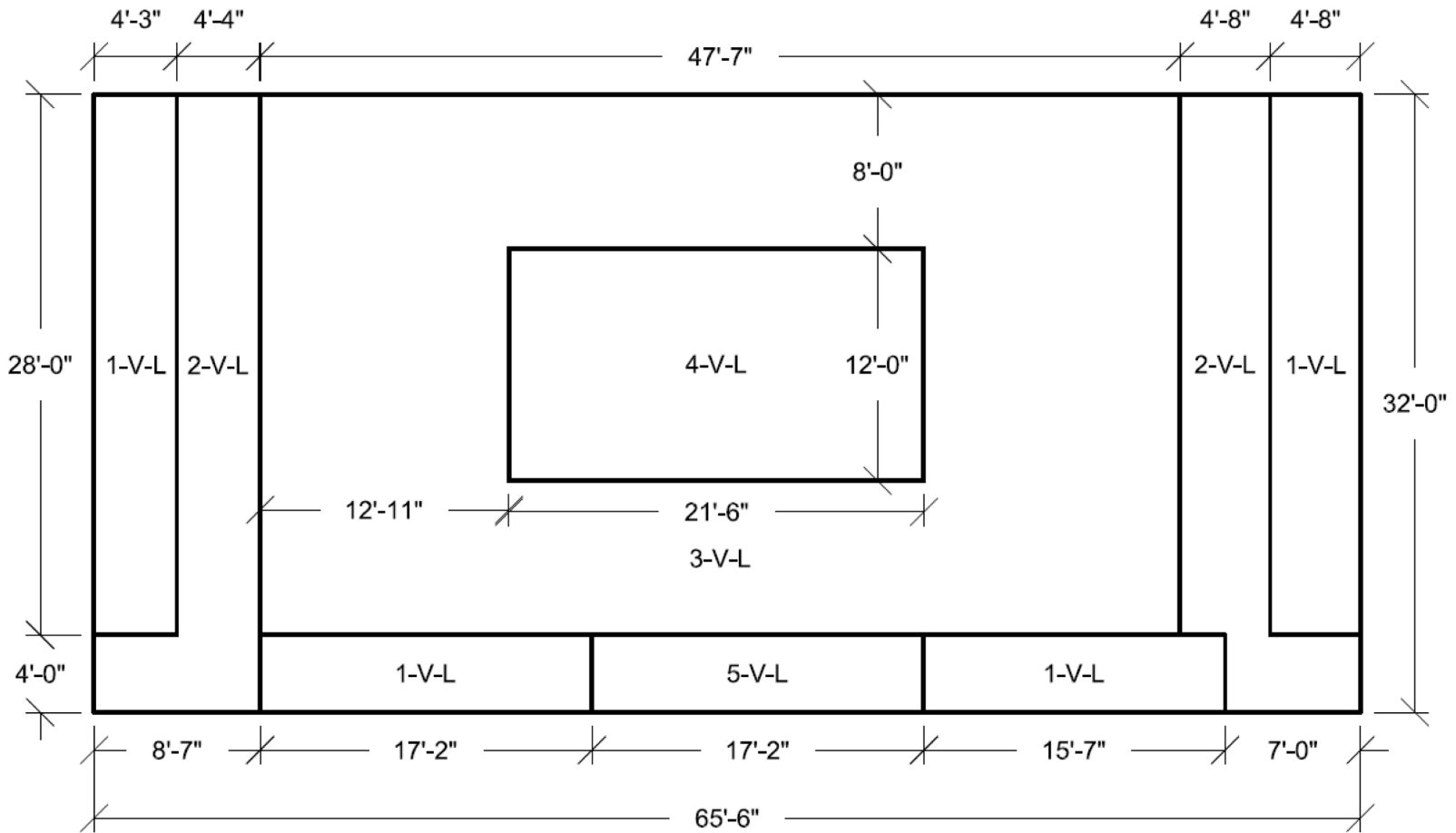


Figure 3H.6-166 Wall 7 Looking From Outside
Vertical Reinforcement Zones
Far Side Face

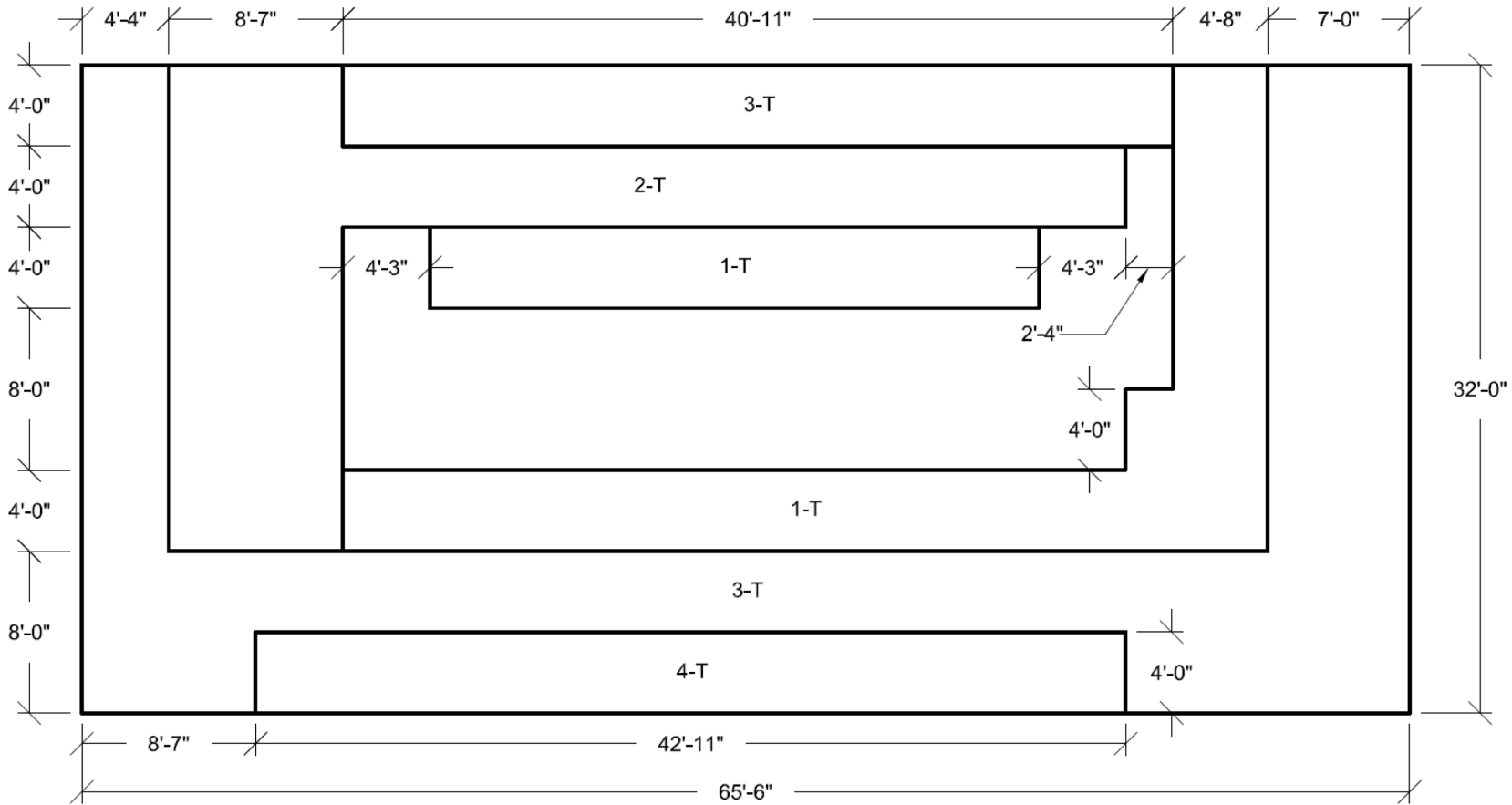
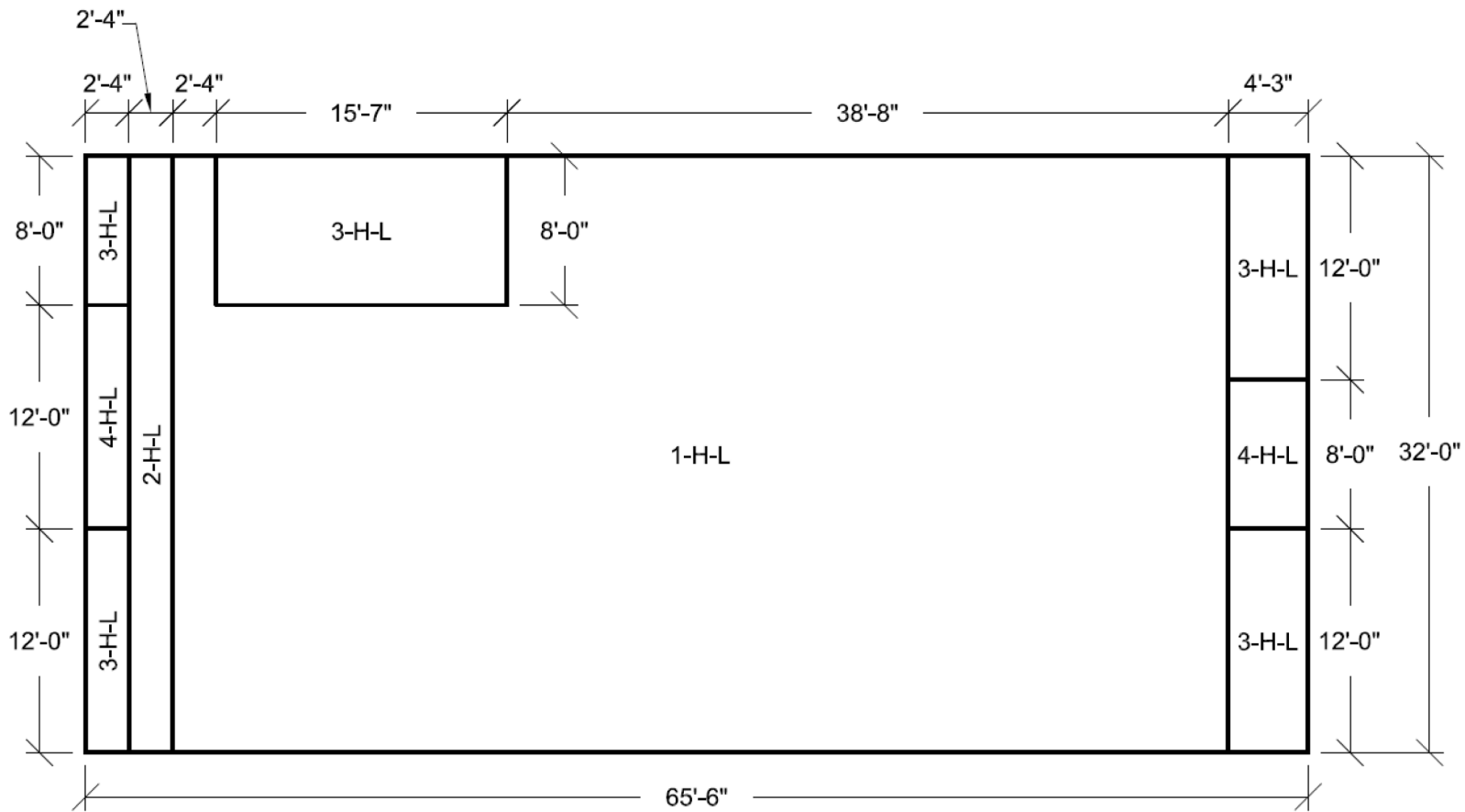
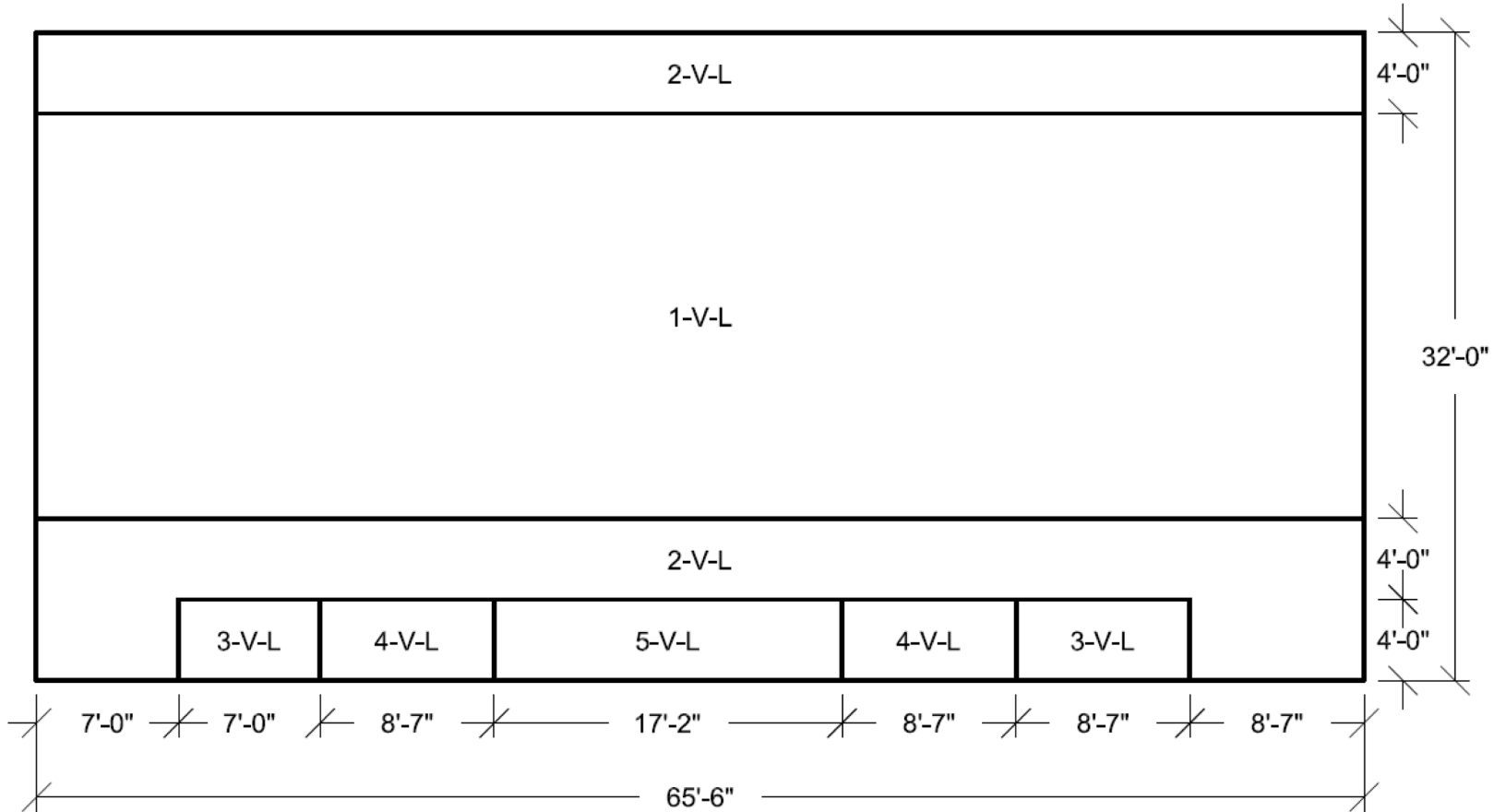


Figure 3H.6-167 Wall 7 Looking From Outside Transverse Reinforcement Zones



**Figure 3H.6-168 Wall 8 Looking From Outside
Horizontal Reinforcement Zones
Near Side Face**



**Figure 3H.6-169 Wall 8 Looking From Outside
Vertical Reinforcement Zones
Near Side Face**

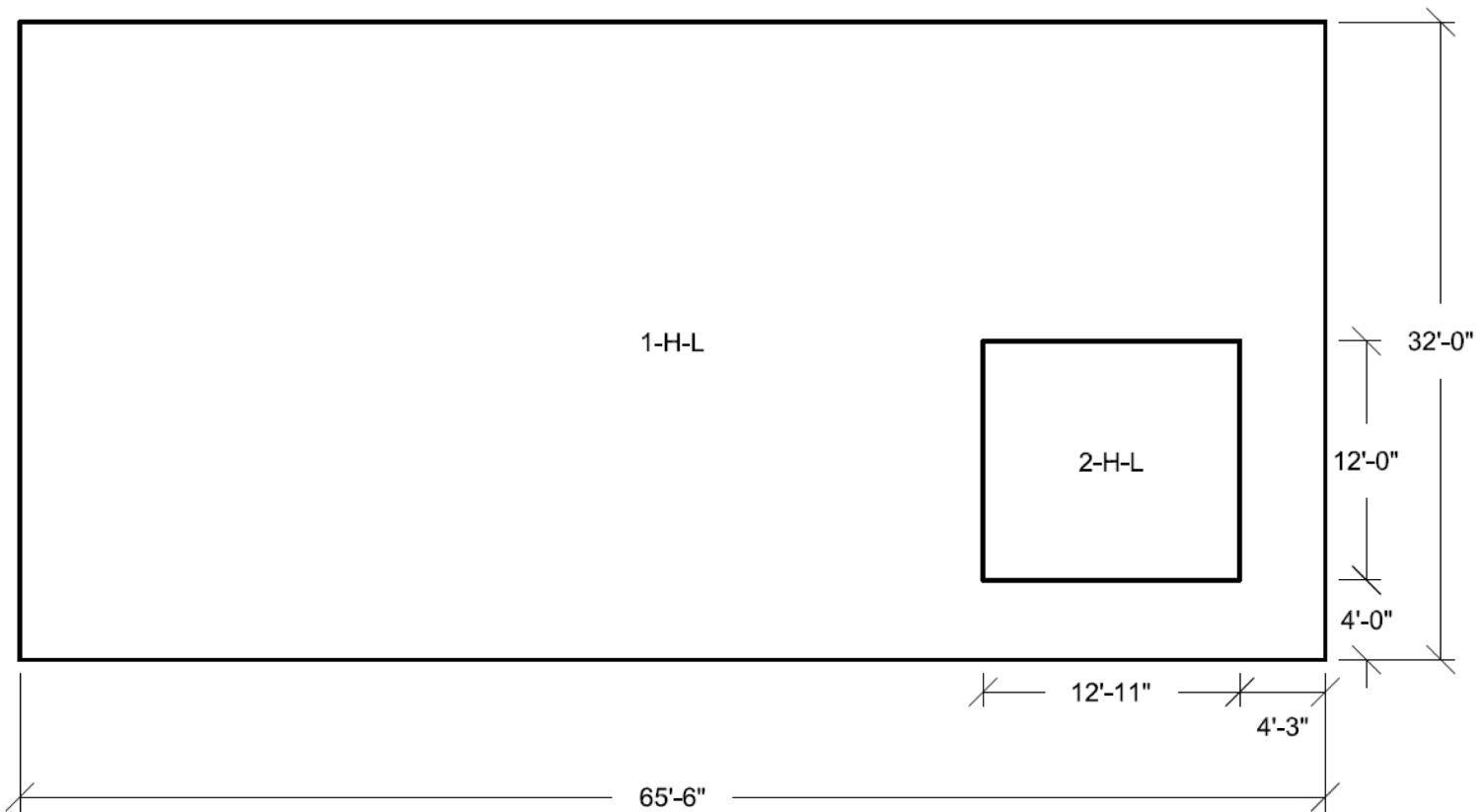


Figure 3H.6-170 Wall 8 Looking From Outside Horizontal Reinforcement Zones Far Side Face

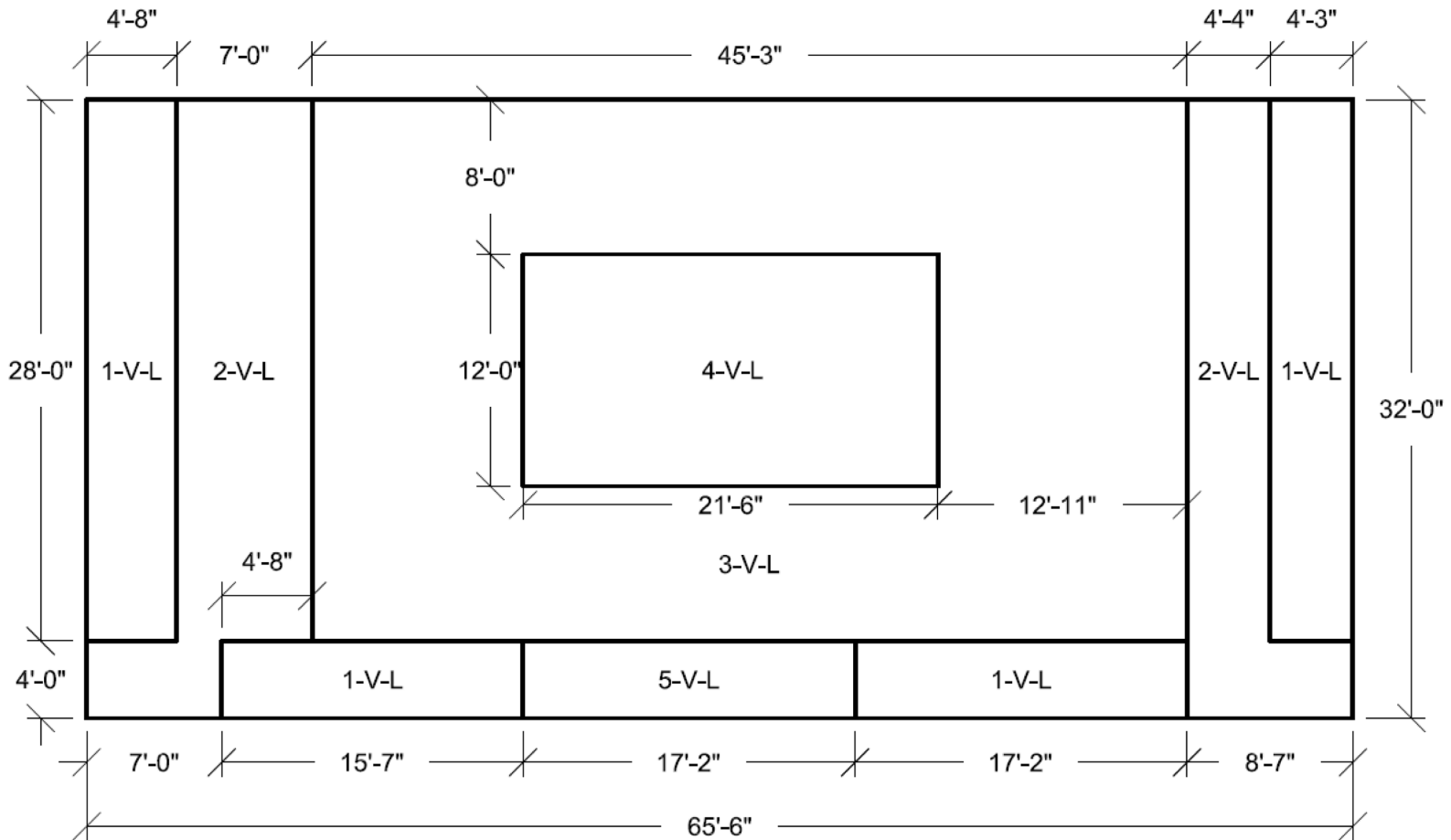


Figure 3H.6-171 Wall 8 Looking From Outside
Vertical Reinforcement Zones
Far Side Face

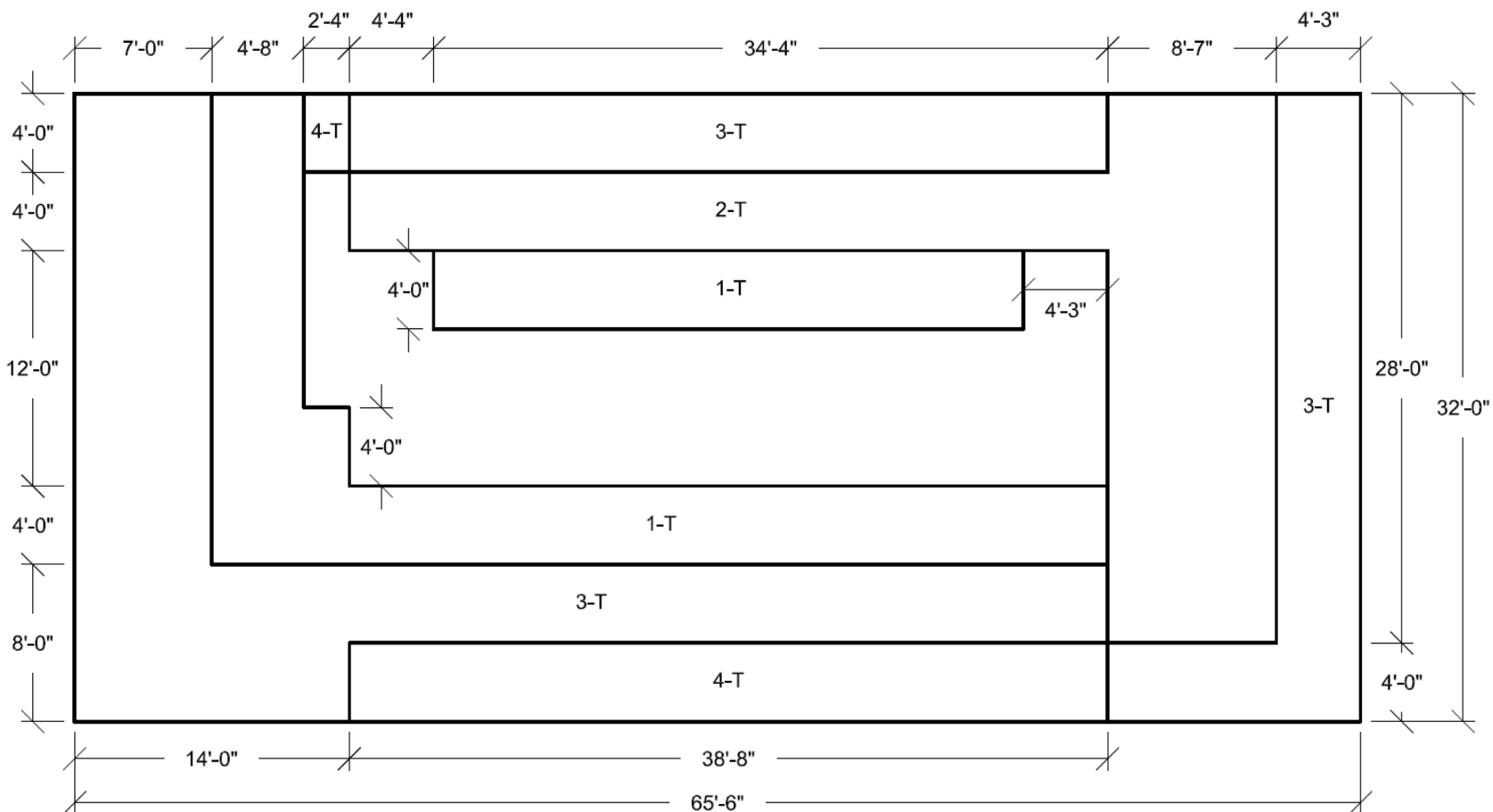


Figure 3H.6-172 Wall 8 Looking From Outside Transverse Reinforcement Zones

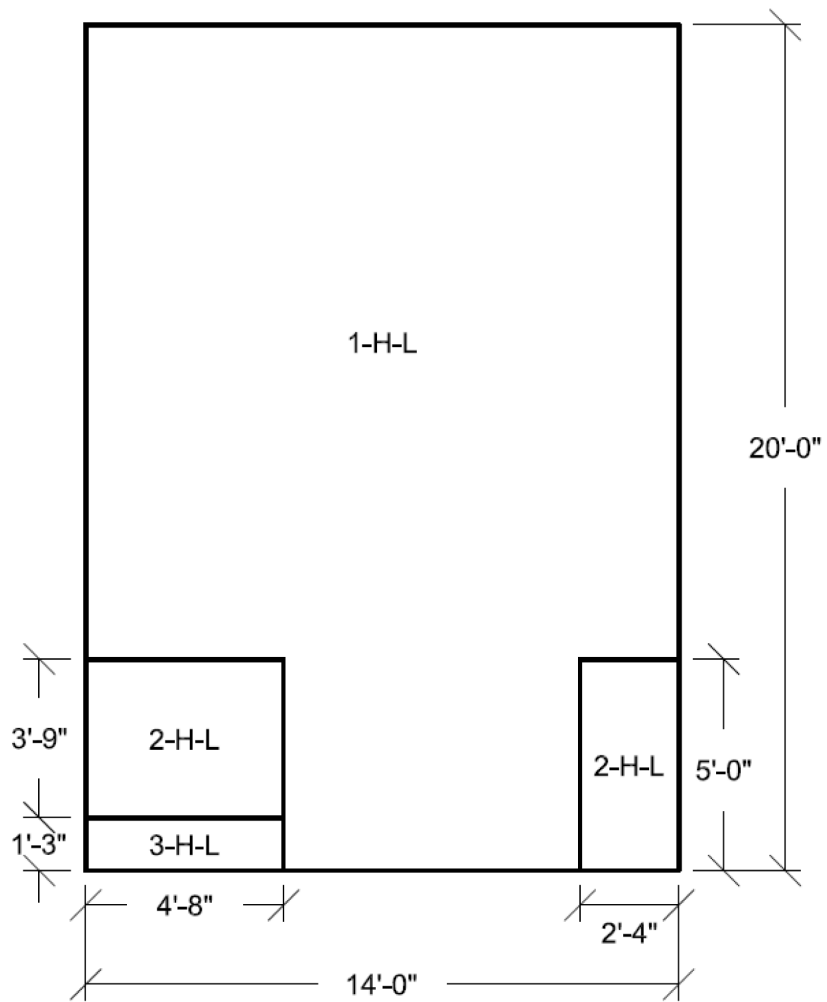


Figure 3H.6-173 Wall 9 Looking From Outside Horizontal Reinforcement Zones Near Side Face

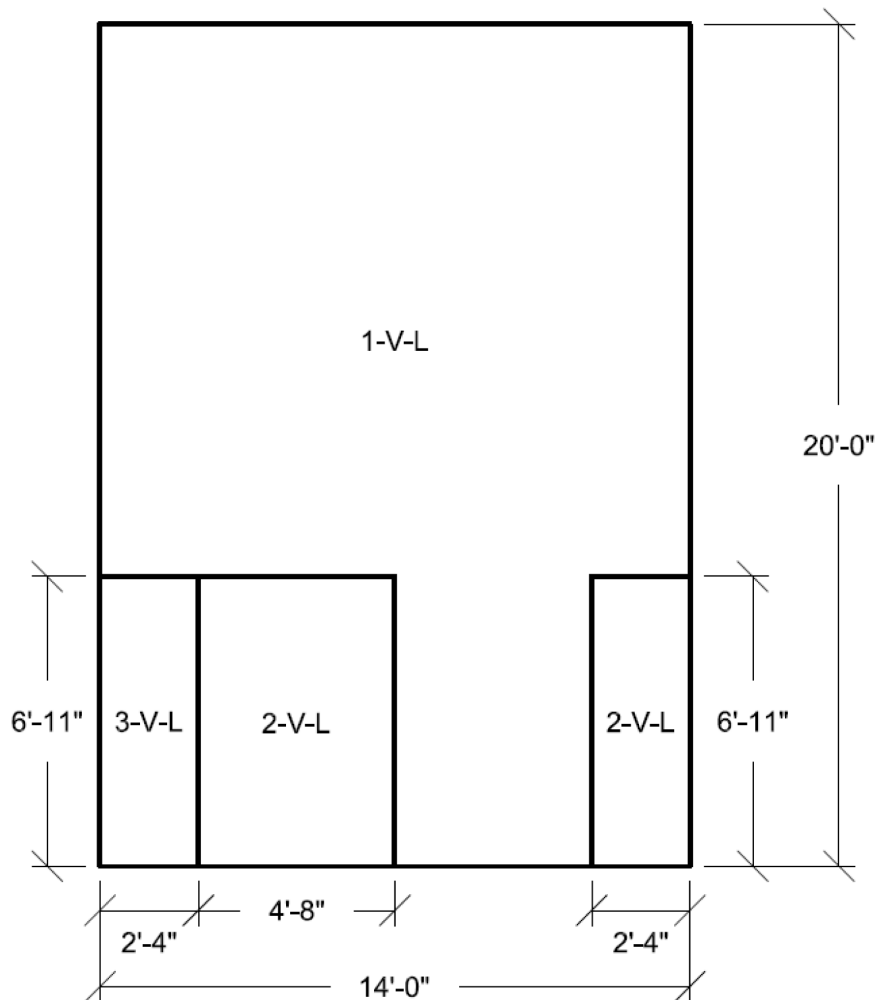


Figure 3H.6-174 Wall 9 Looking From Outside Vertical Reinforcement Zones Near Side Face

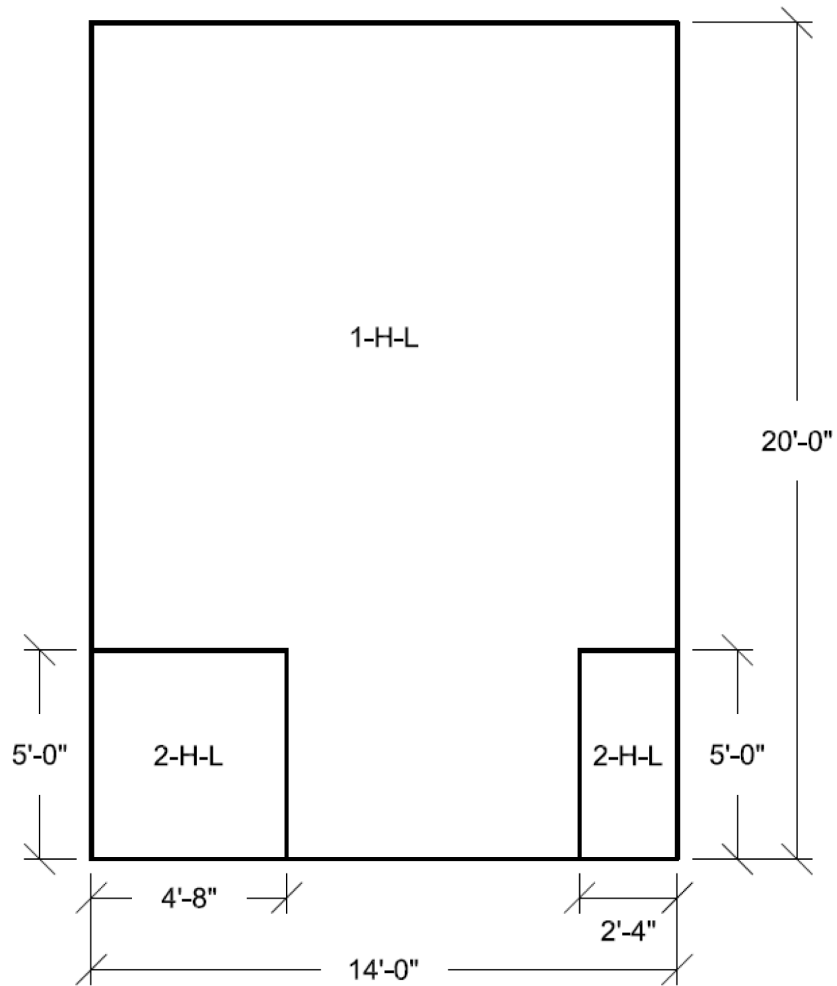


Figure 3H.6-175 Wall 9 Looking From Outside Horizontal Reinforcement Zones Far Side Face

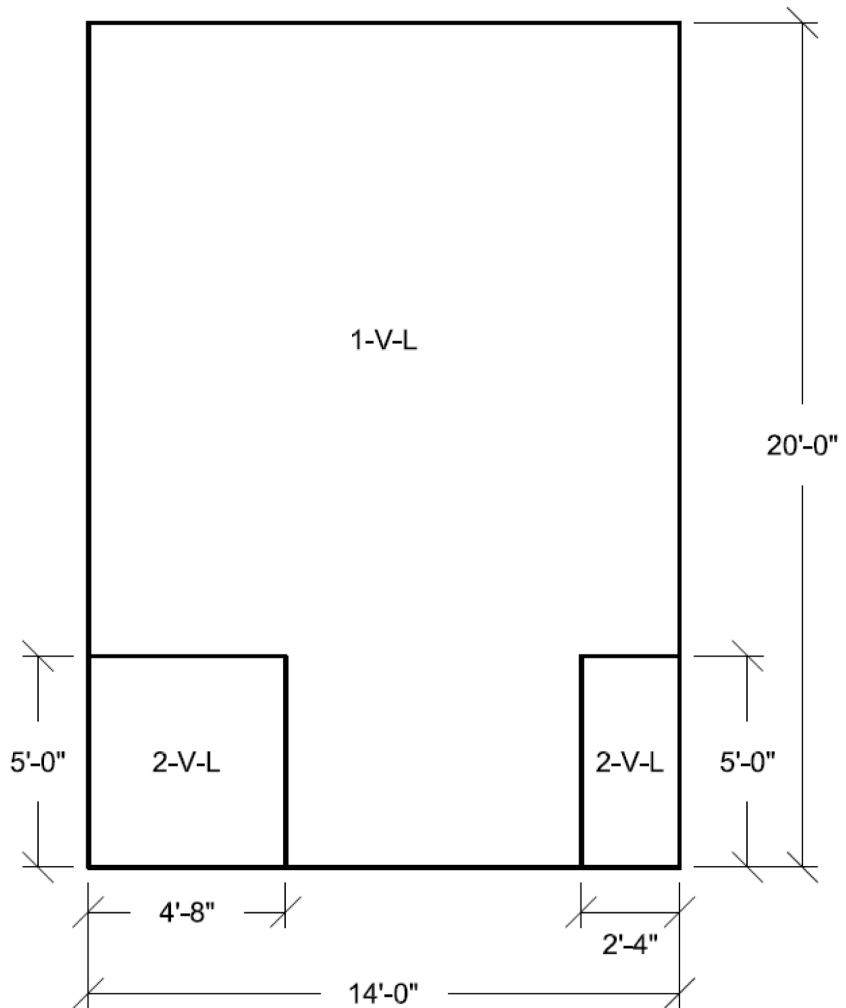


Figure 3H.6-176A Wall 9 Looking From Outside Vertical Reinforcement Zone Far Side Face

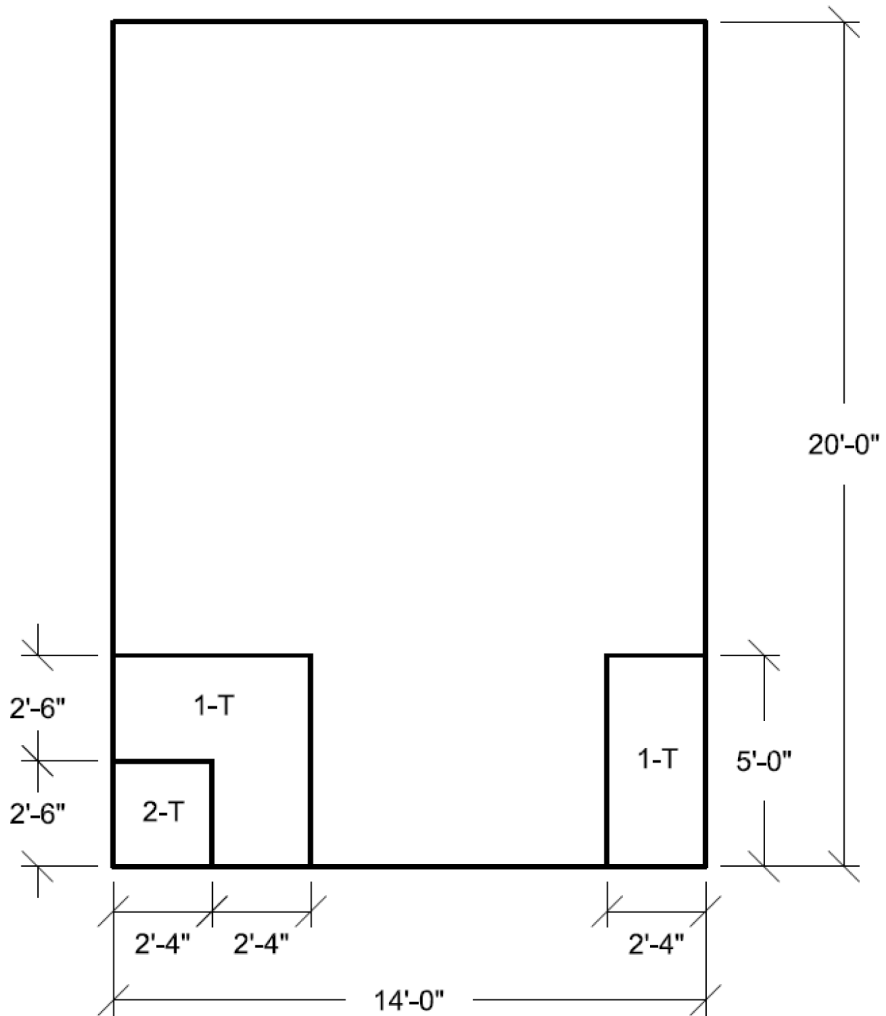


Figure 3H.6-176B Wall 9 Looking From Outside Transverse Reinforcement Zone

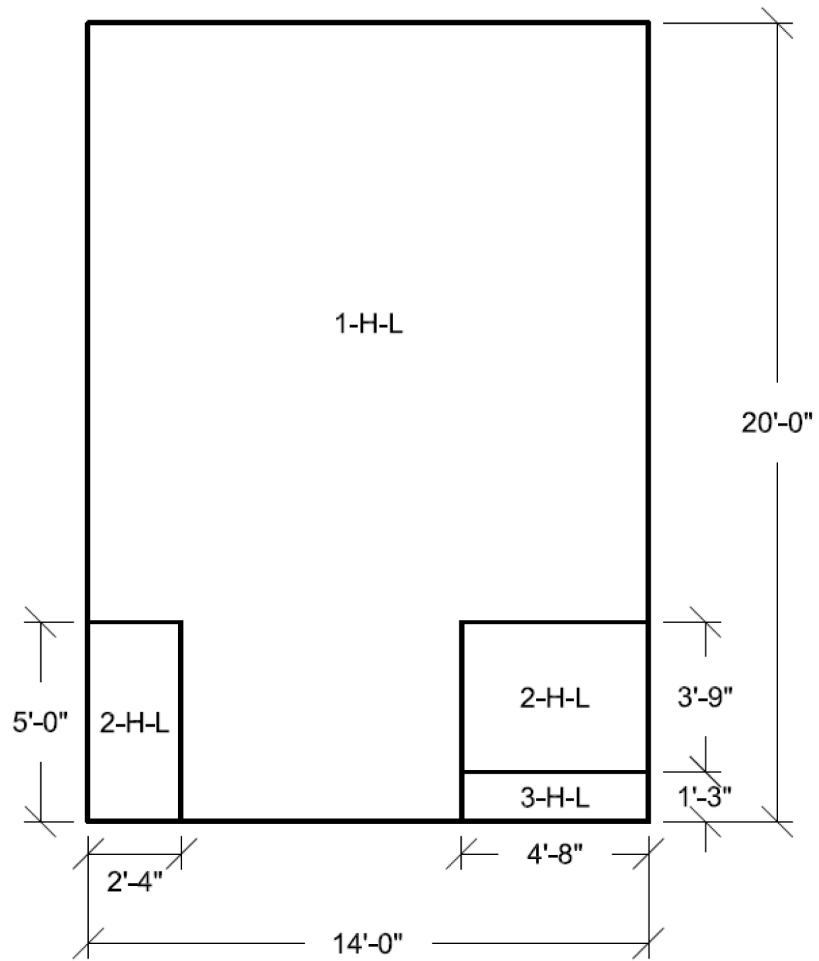


Figure 3H.6-177 Wall 10 Looking From Outside Horizontal Reinforcement Zones Near Side Face

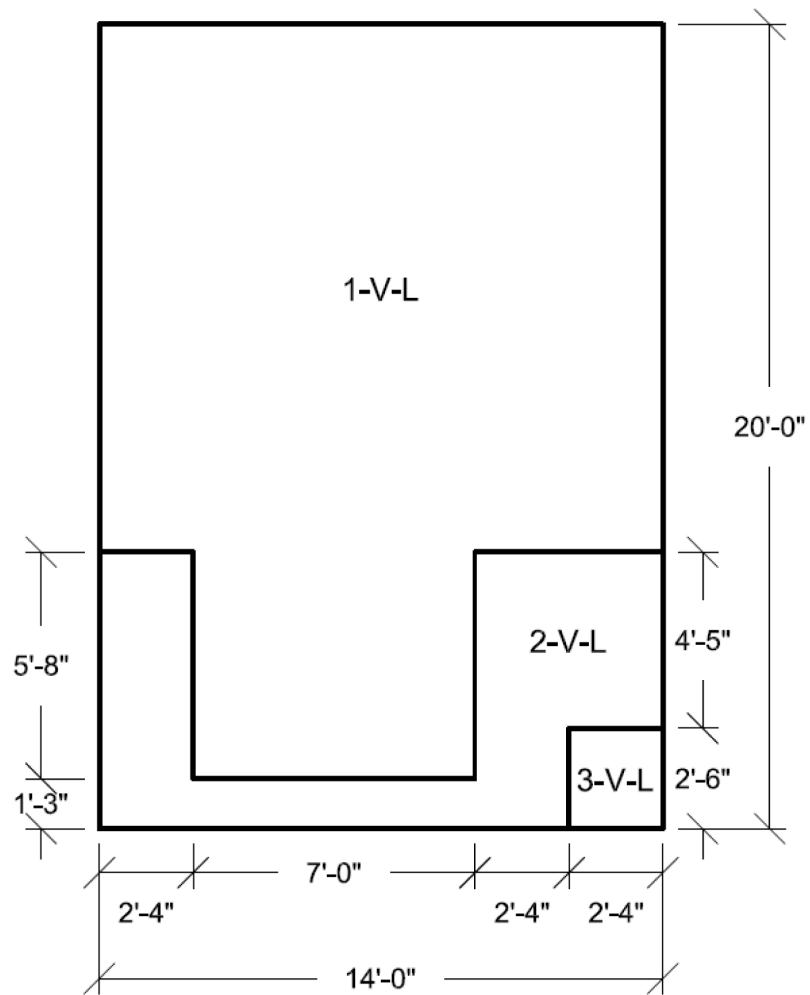


Figure 3H.6-178 Wall 10 Looking From Outside Vertical Reinforcement Zones Near Side Face

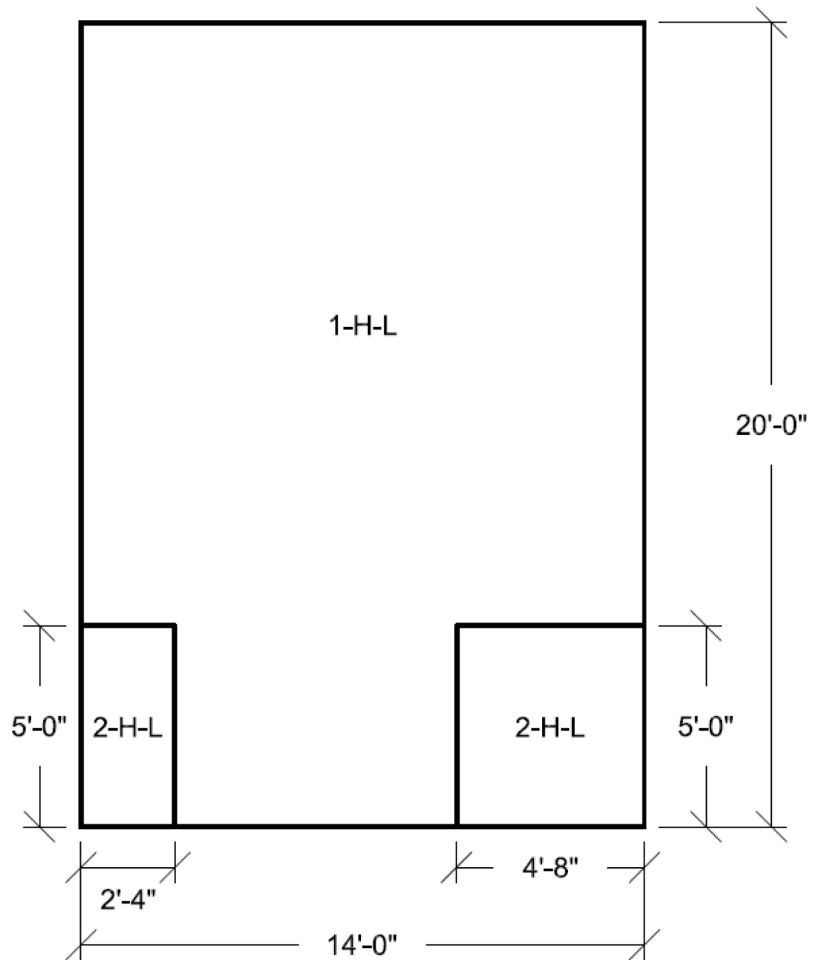


Figure 3H.6-179 Wall 10 Looking From Outside Horizontal Reinforcement Zones Far Side Face

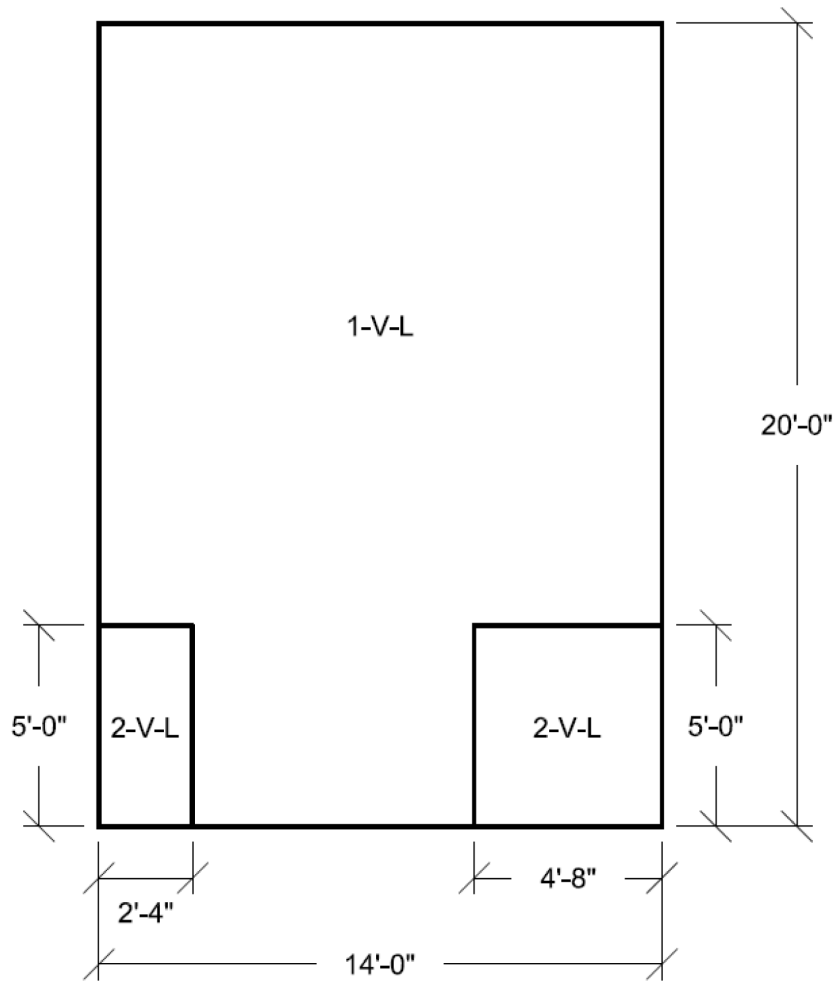


Figure 3H.6-180A Wall 10 Looking From Outside Vertical Reinforcement Zones Far Side Face

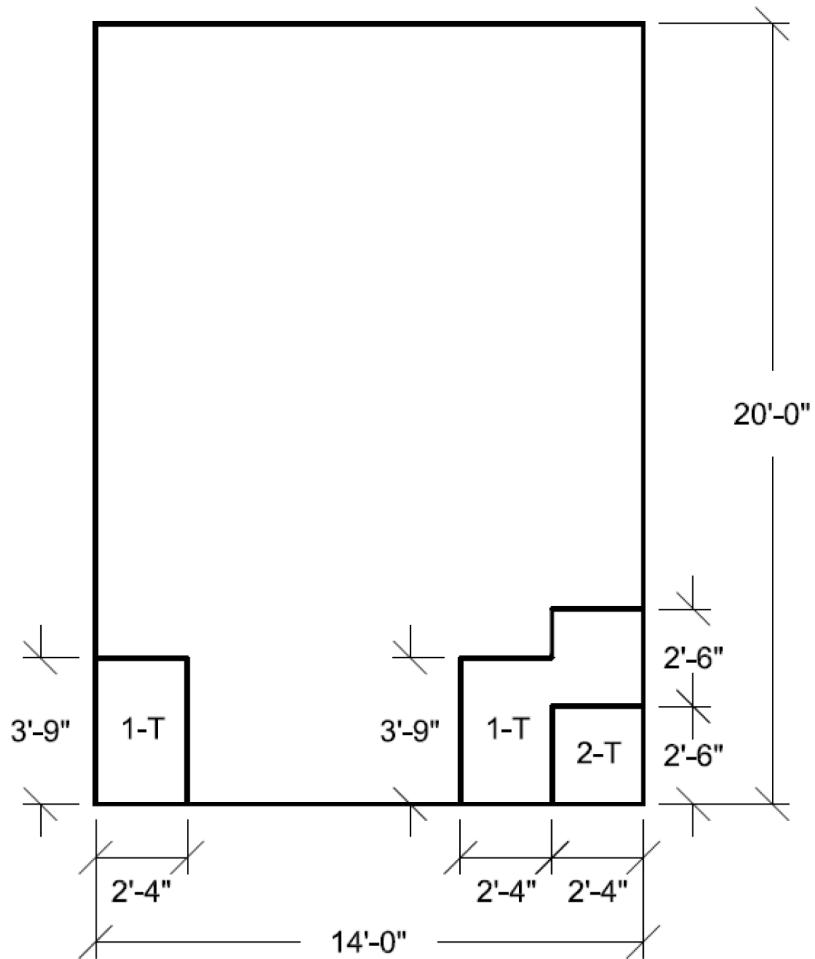


Figure 3H.6-180B Wall 10 Looking From Outside Transverse Reinforcement Zones

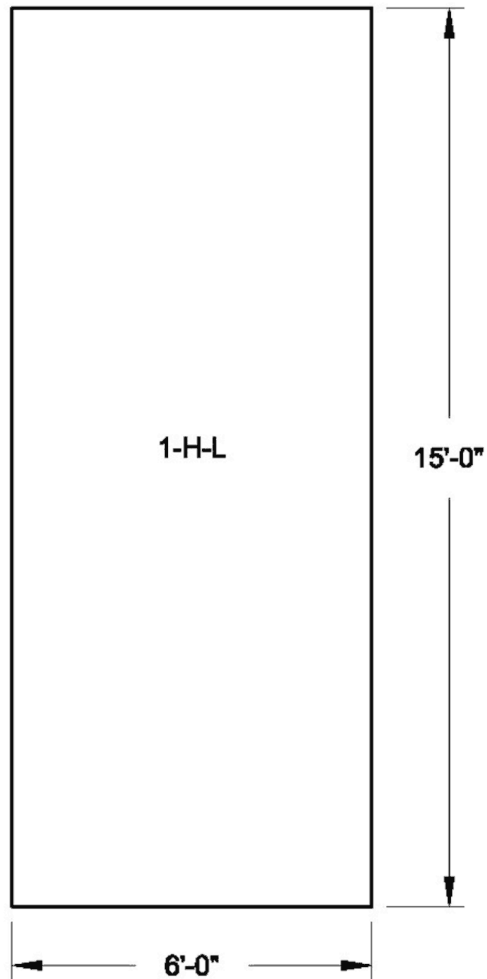


Figure 3H.6-181 Wall 11 Looking From Outside
Horizontal Reinforcement Zones
Near Side Face

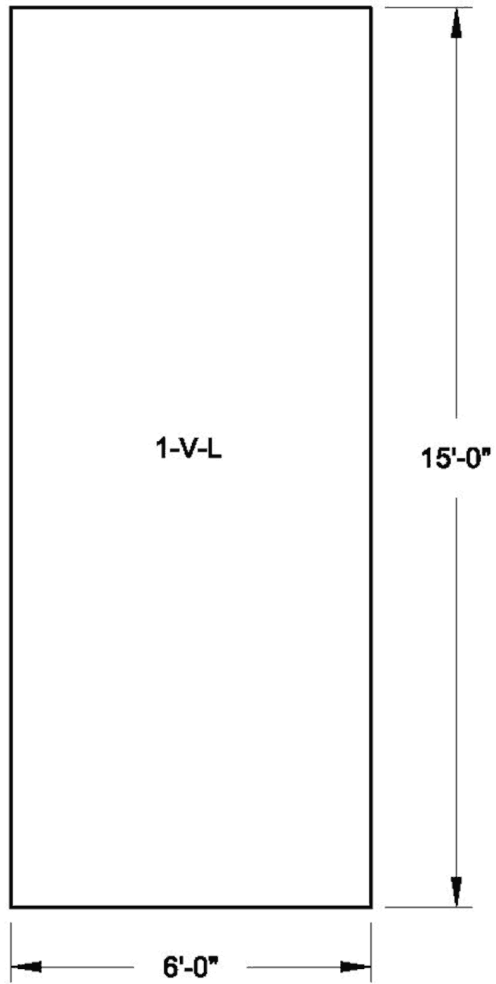


Figure 3H.6-182 Wall 11 Looking From Outside
Vertical Reinforcement Zones
Near Side Face

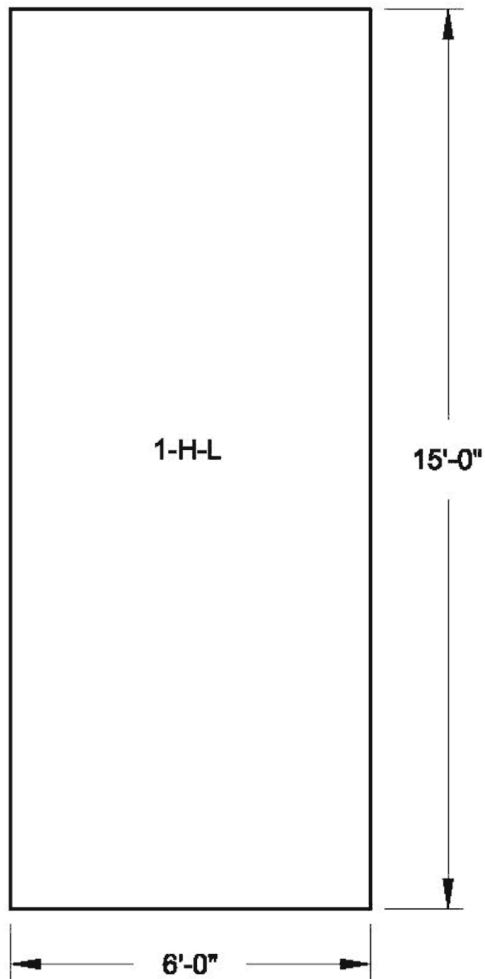
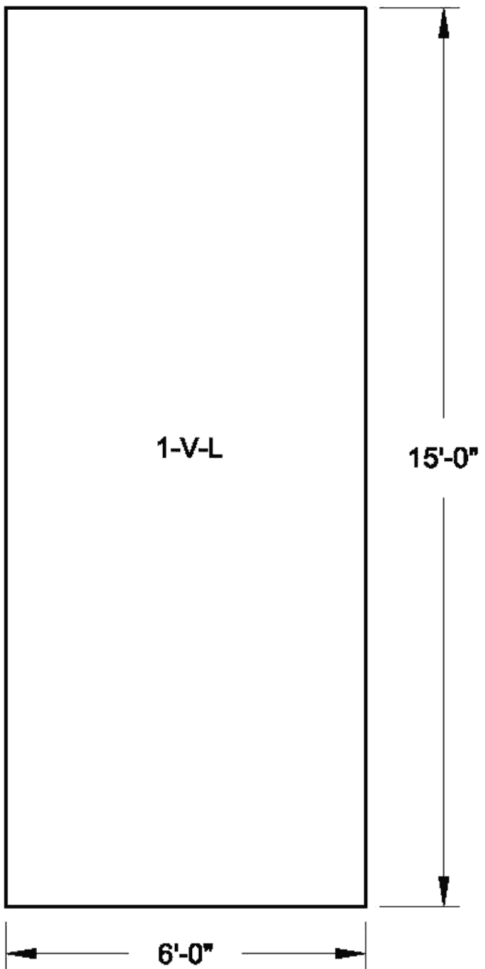
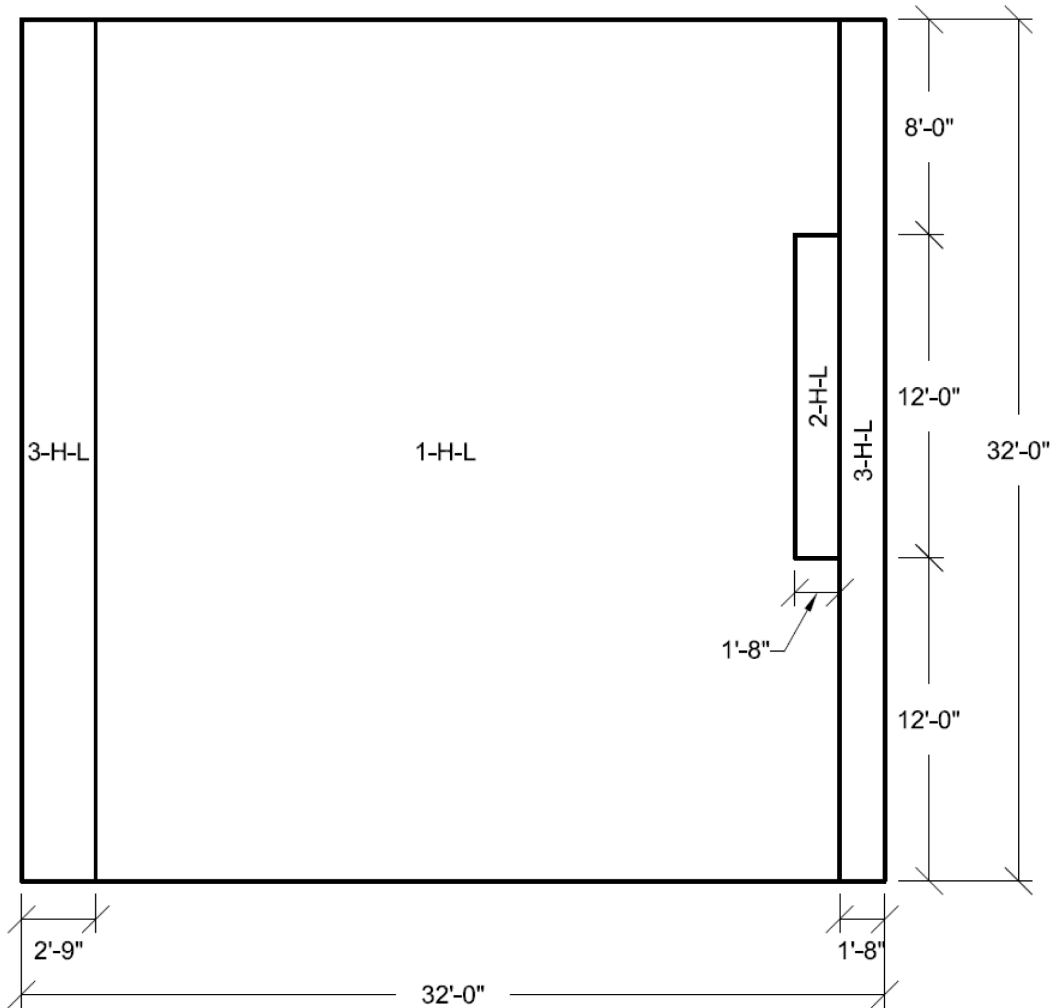


Figure 3H.6-183 Wall 11 Looking From Outside
Horizontal Reinforcement Zones
Far Side Face



**Figure 3H.6-184 Wall 11 Looking From Outside
Vertical Reinforcement Zones
Far Side Face**



**Figure 3H.6-185 Wall 12 Looking From Outside
Horizontal Reinforcement Zones
Near Side Face**

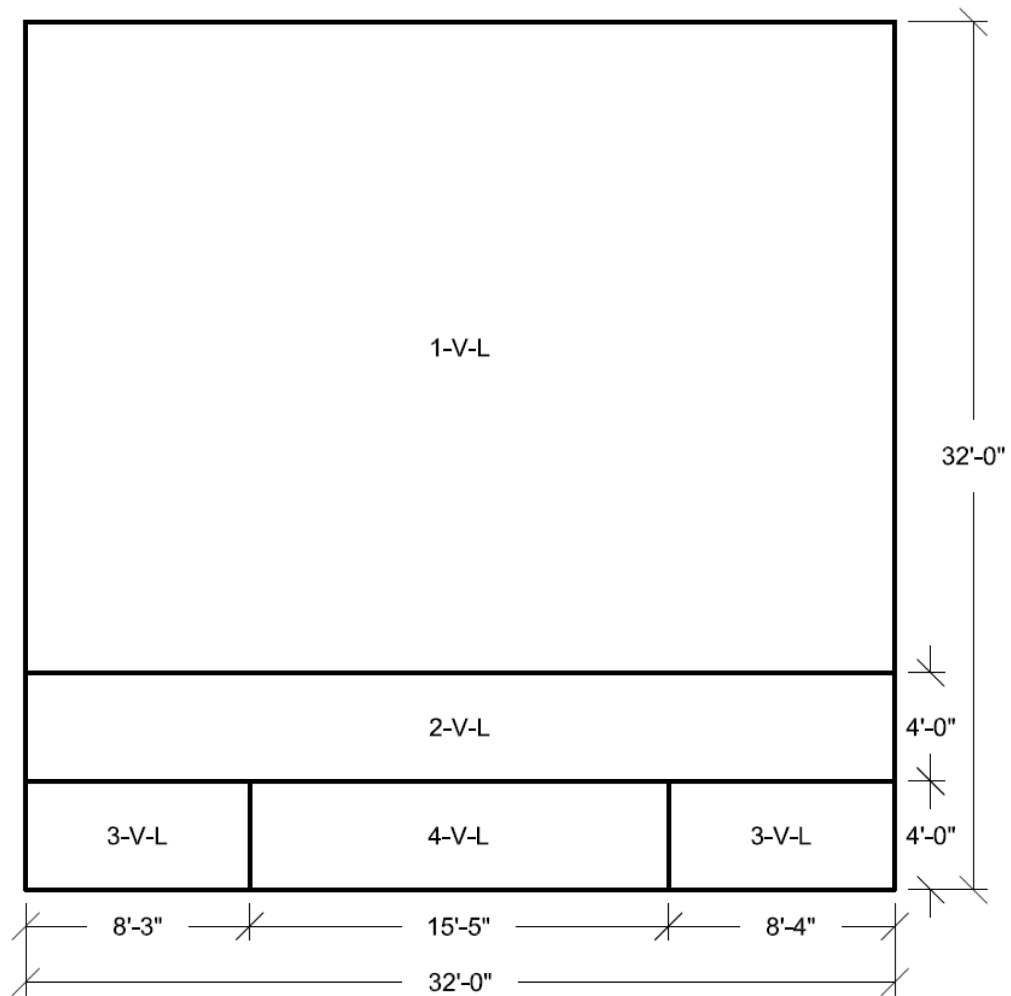


Figure 3H.6-186 Wall 12 Looking From Outside Vertical Reinforcement Zones Near Side Face

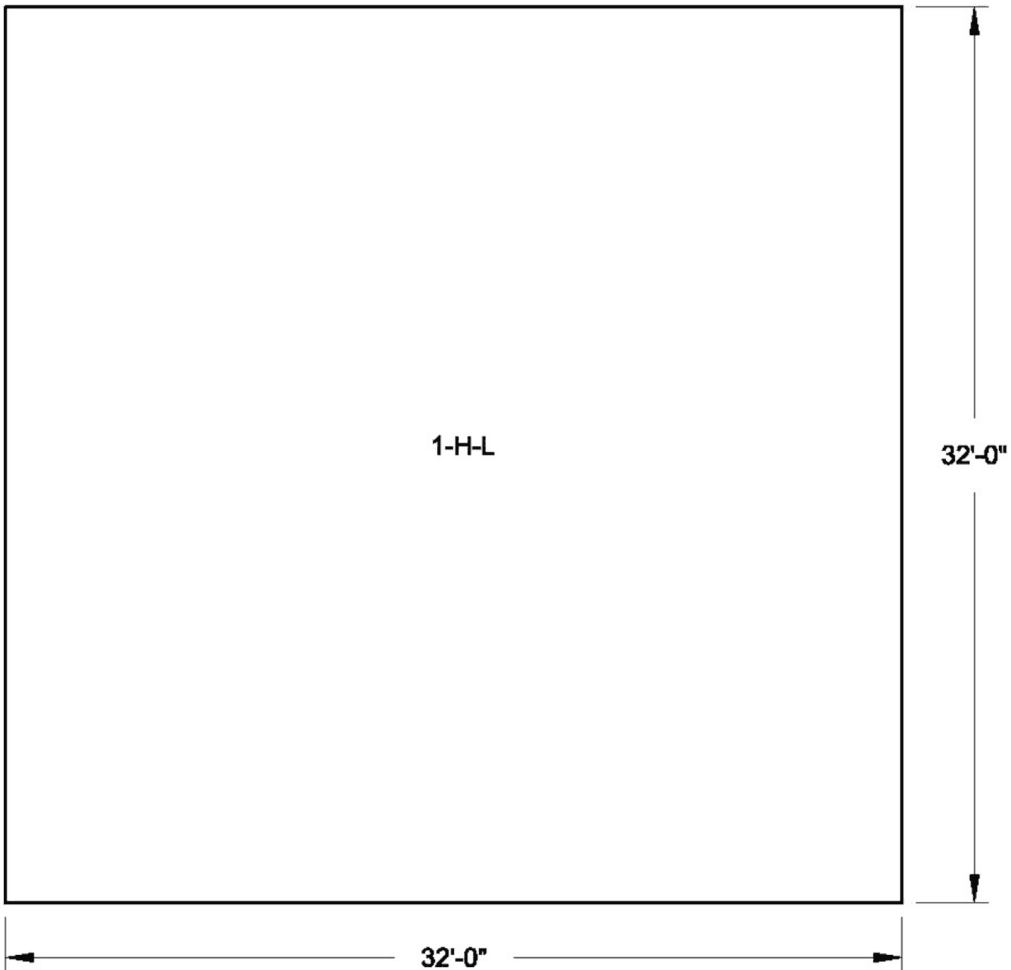
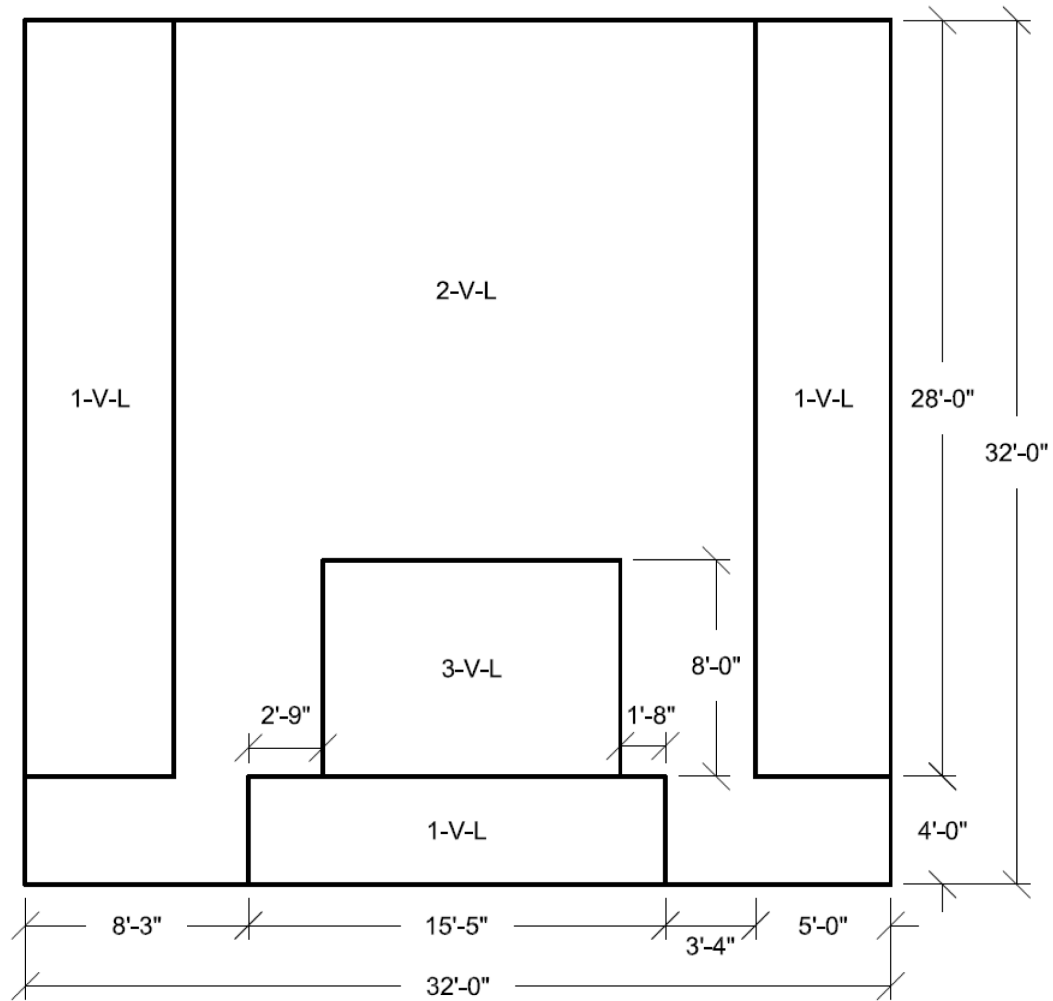


Figure 3H.6-187 Wall 12 Looking From Outside
Horizontal Reinforcement Zones
Far Side Face



**Figure 3H.6-188 Wall 12 Looking From Outside
Vertical Reinforcement Zones
Far Side Face**

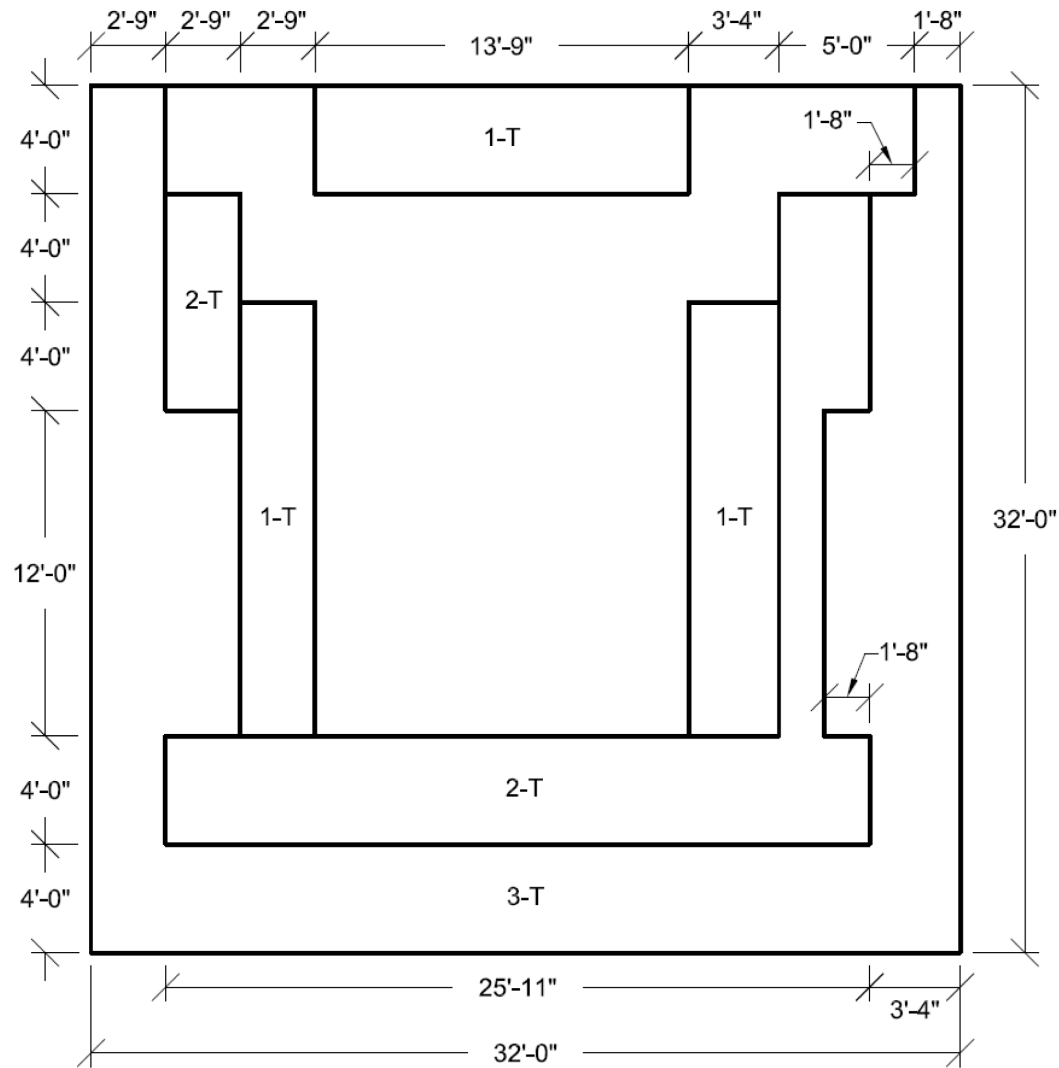


Figure 3H.6-189 Wall 12 Looking From Outside Transverse Reinforcement Zones

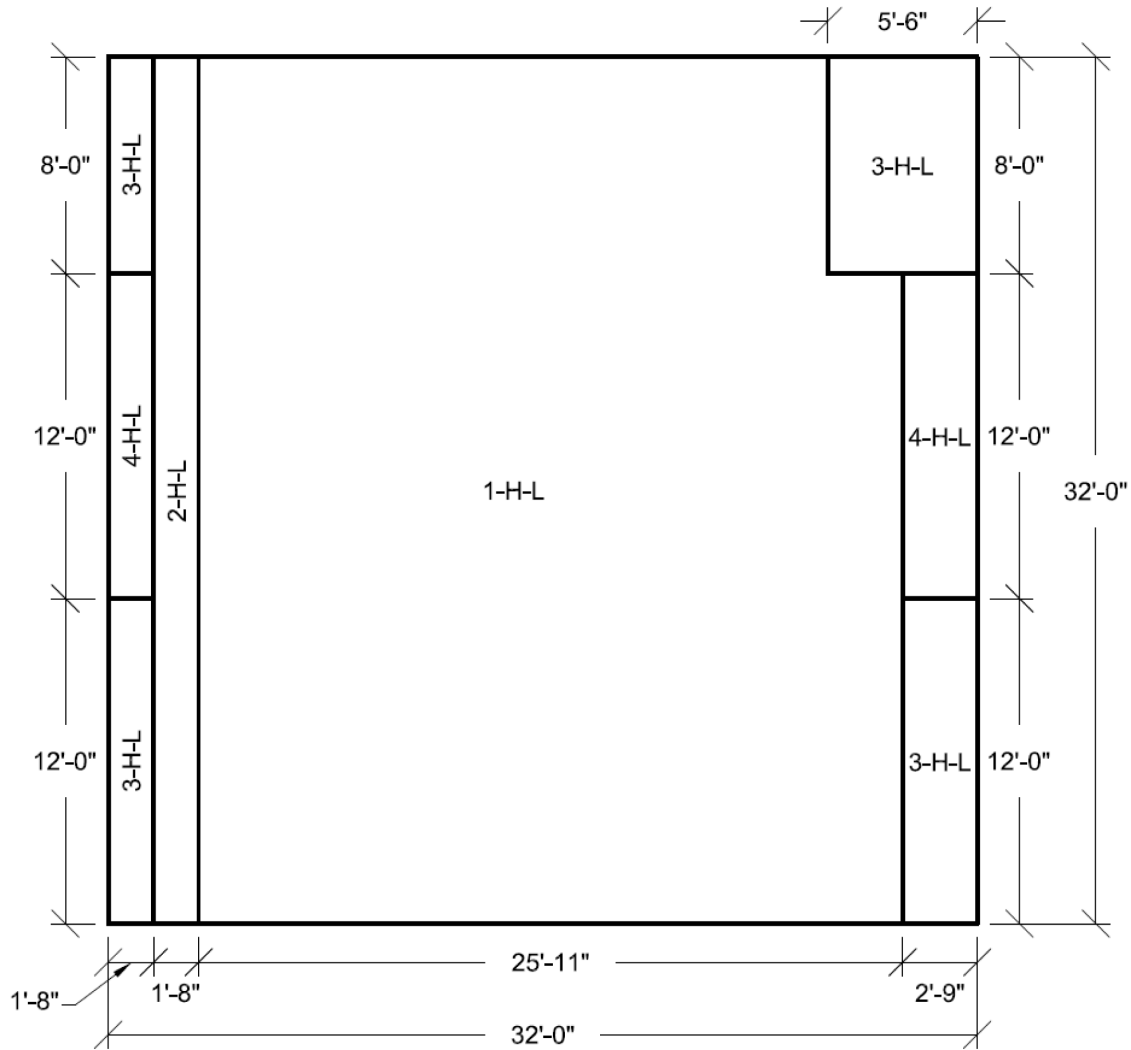


Figure 3H.6-190 Wall 13 Looking From Outside Horizontal Reinforcement Zones Near Side Face

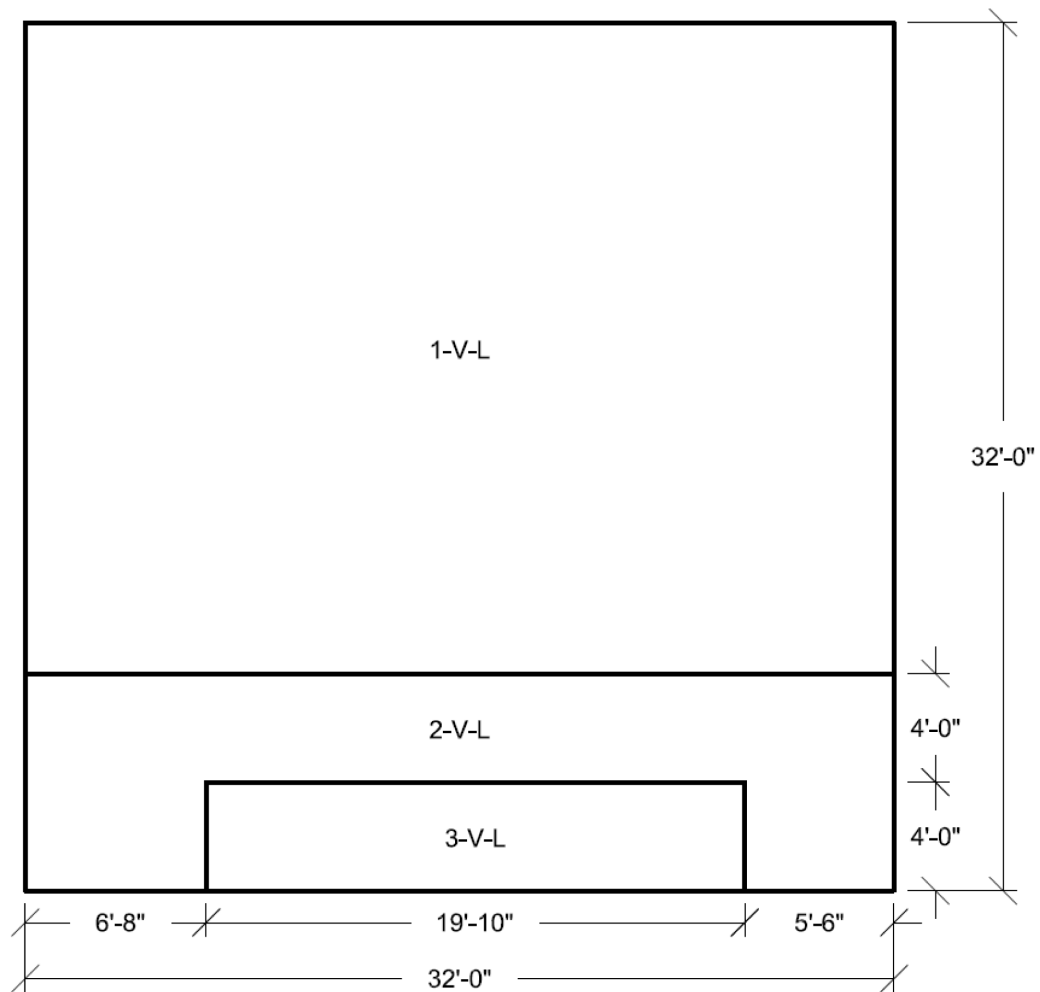
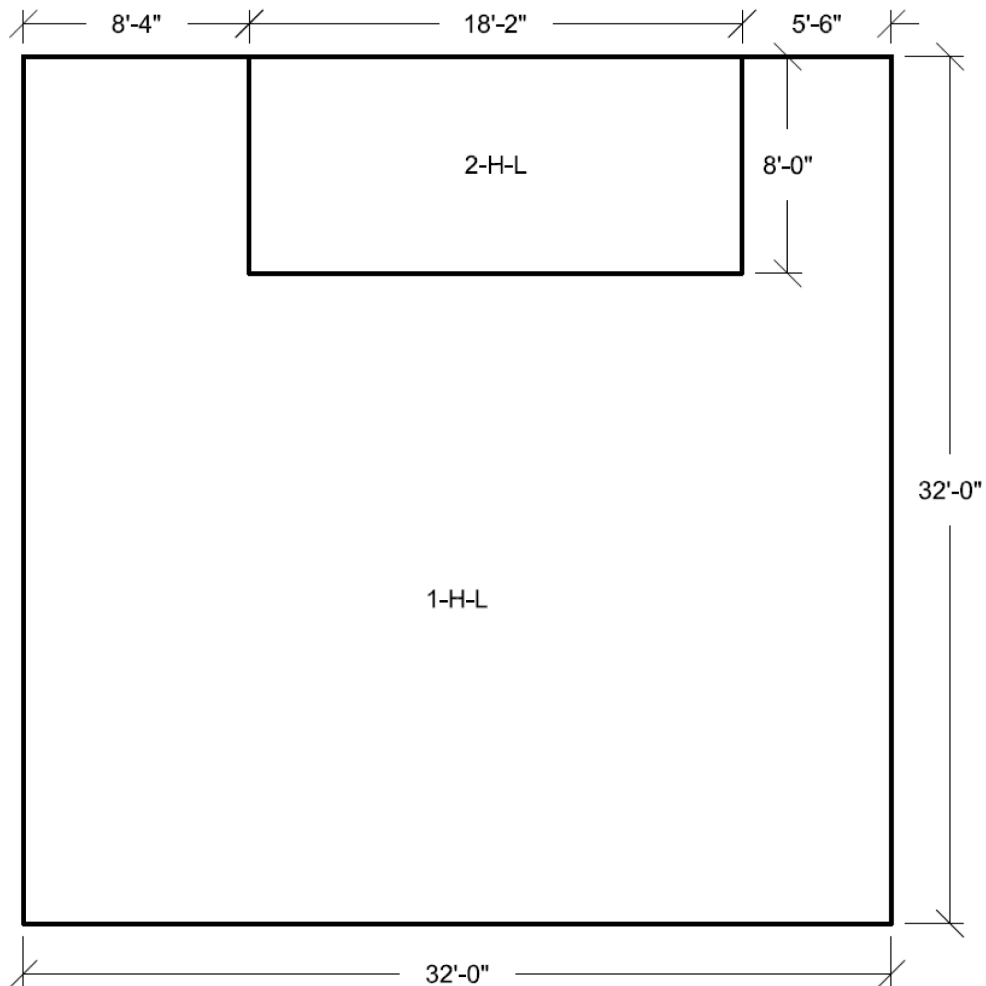
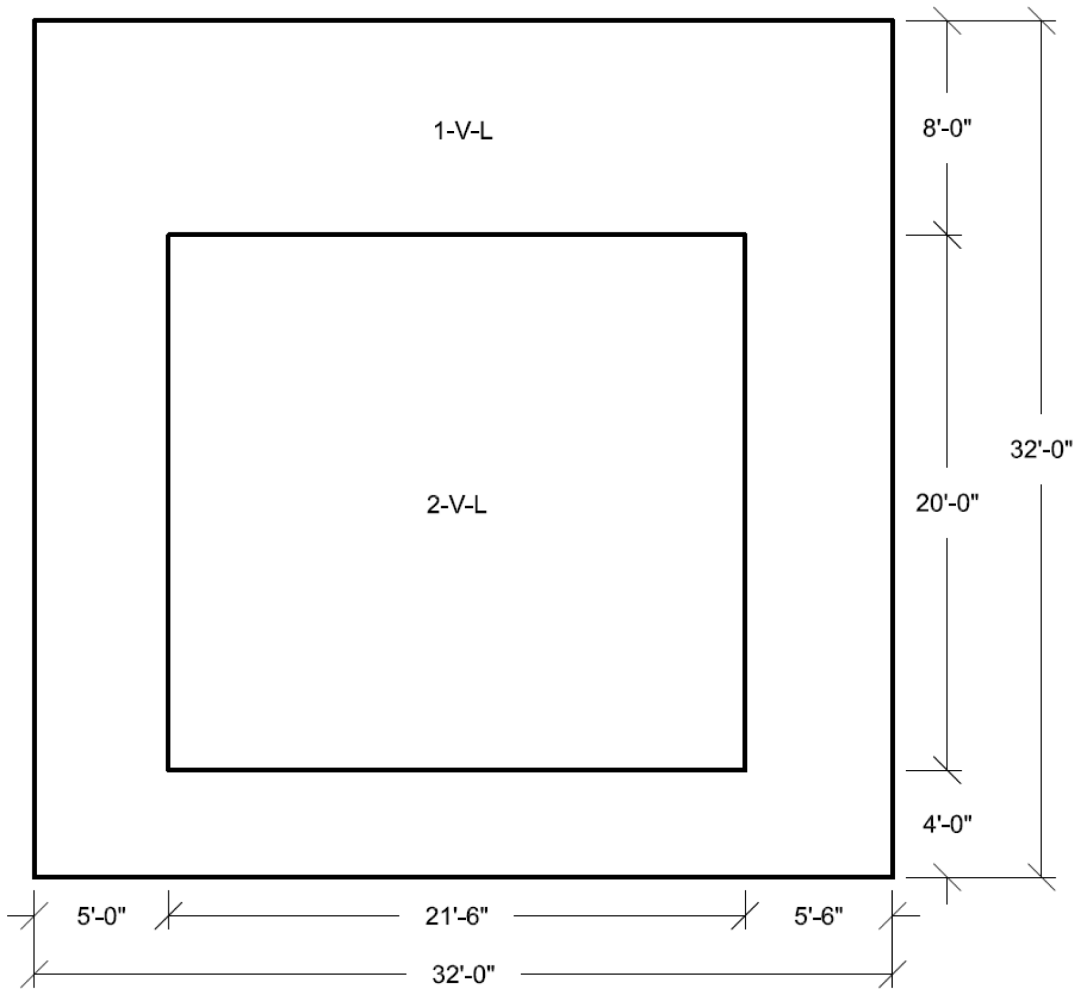


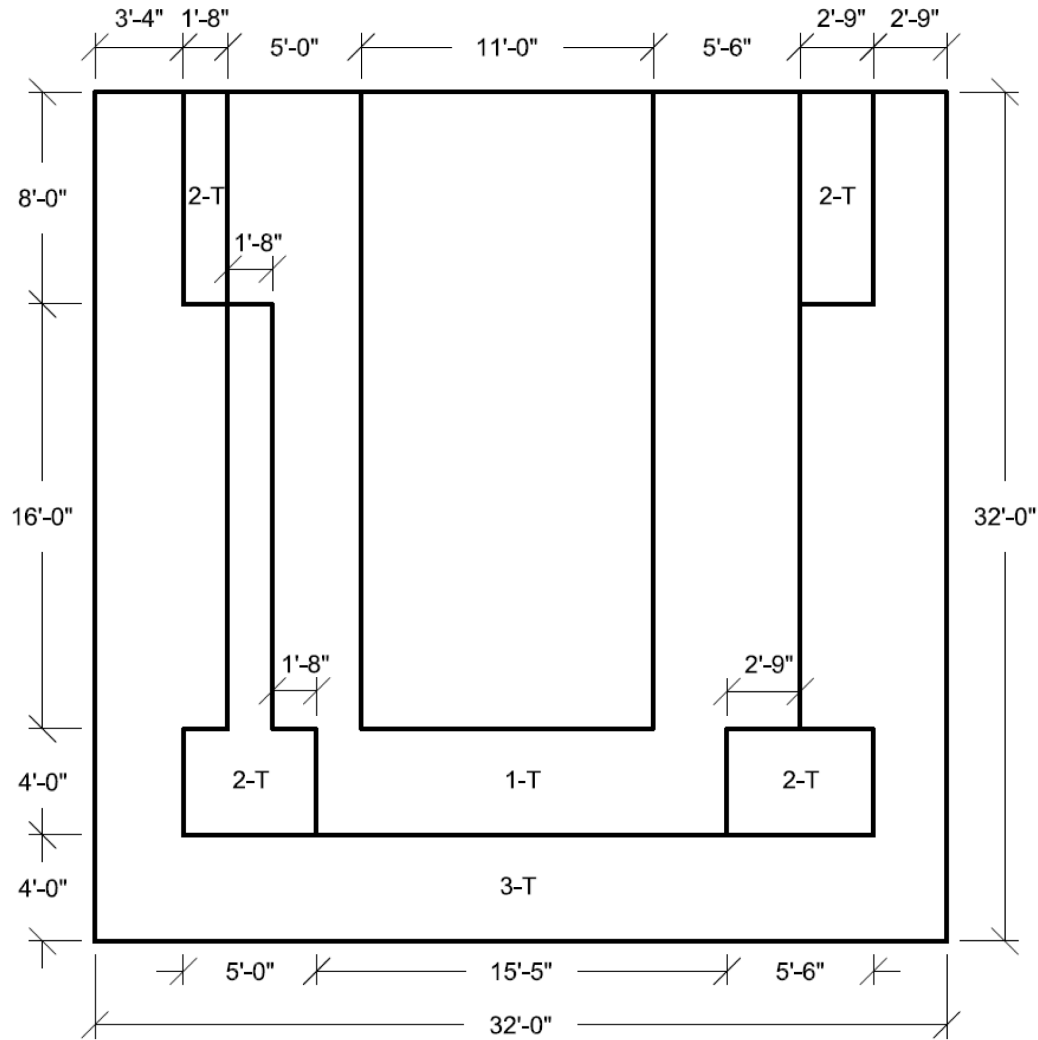
Figure 3H.6-191 Wall 13 Looking From Outside Vertical Reinforcement Zones Near Side Face



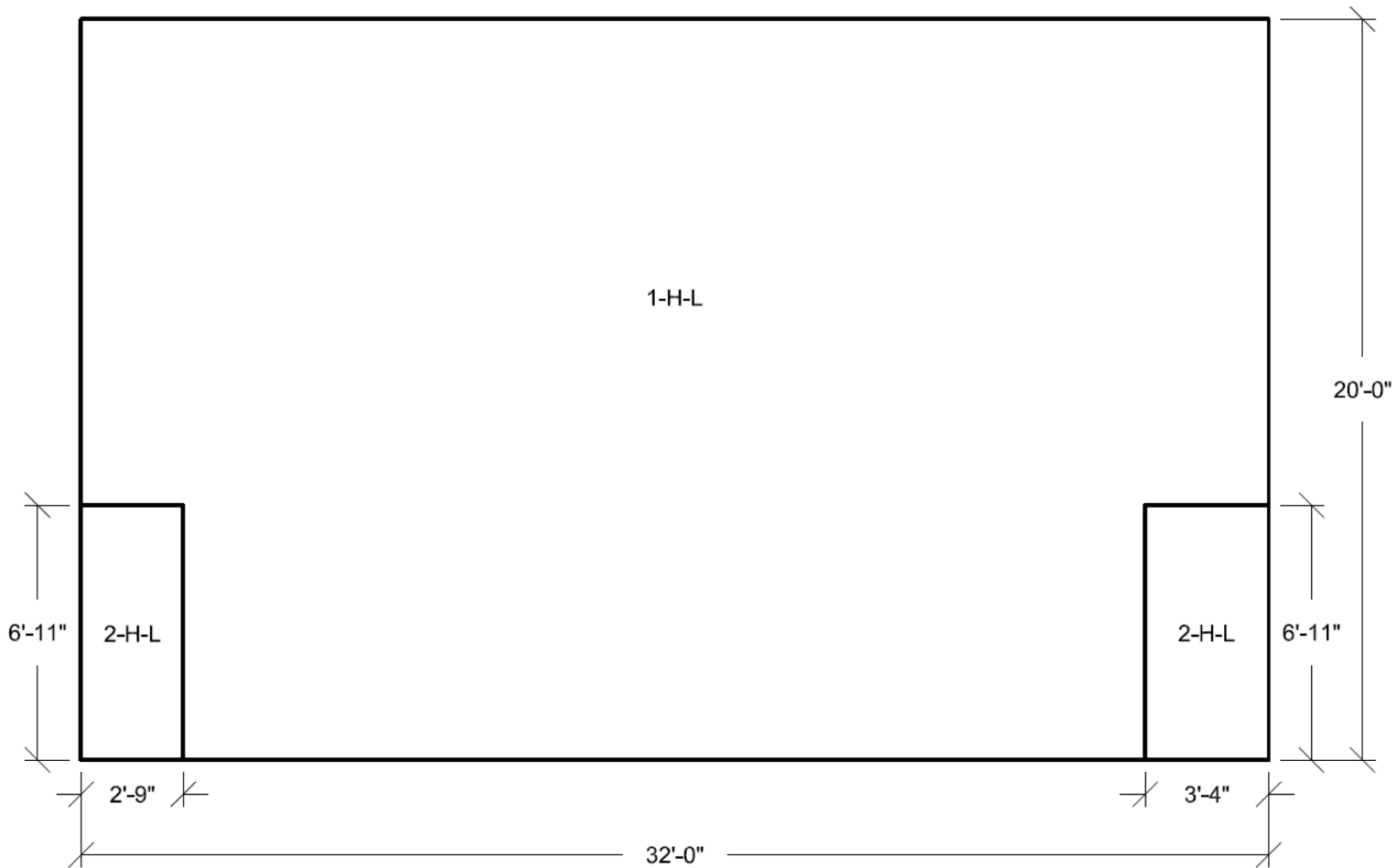
**Figure 3H.6-192 Wall 13 Looking From Outside
Horizontal Reinforcement Zones
Far Side Face**



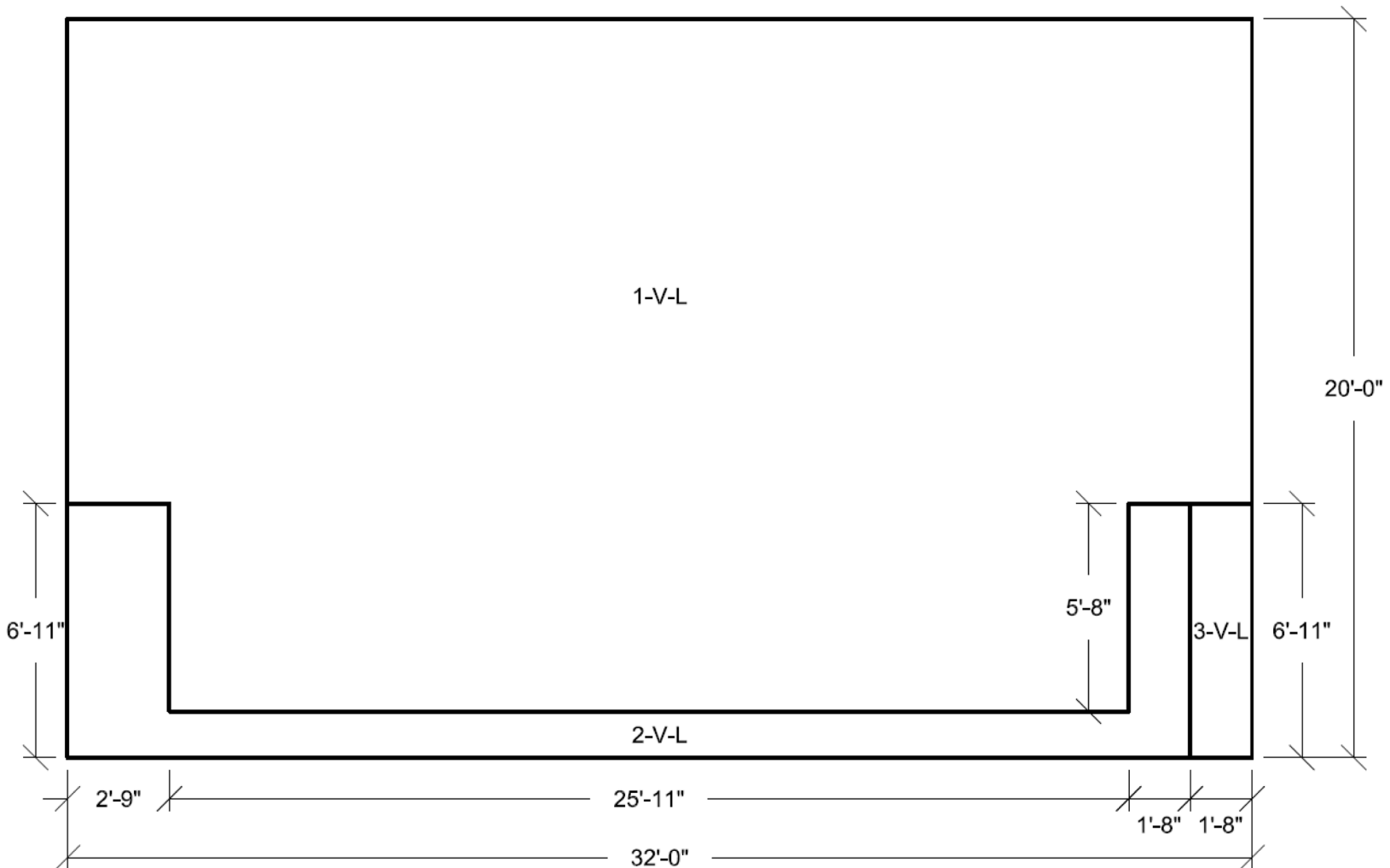
**Figure 3H.6-193 Wall 13 Looking From Outside
Vertical Reinforcement Zones
Far Side Face**



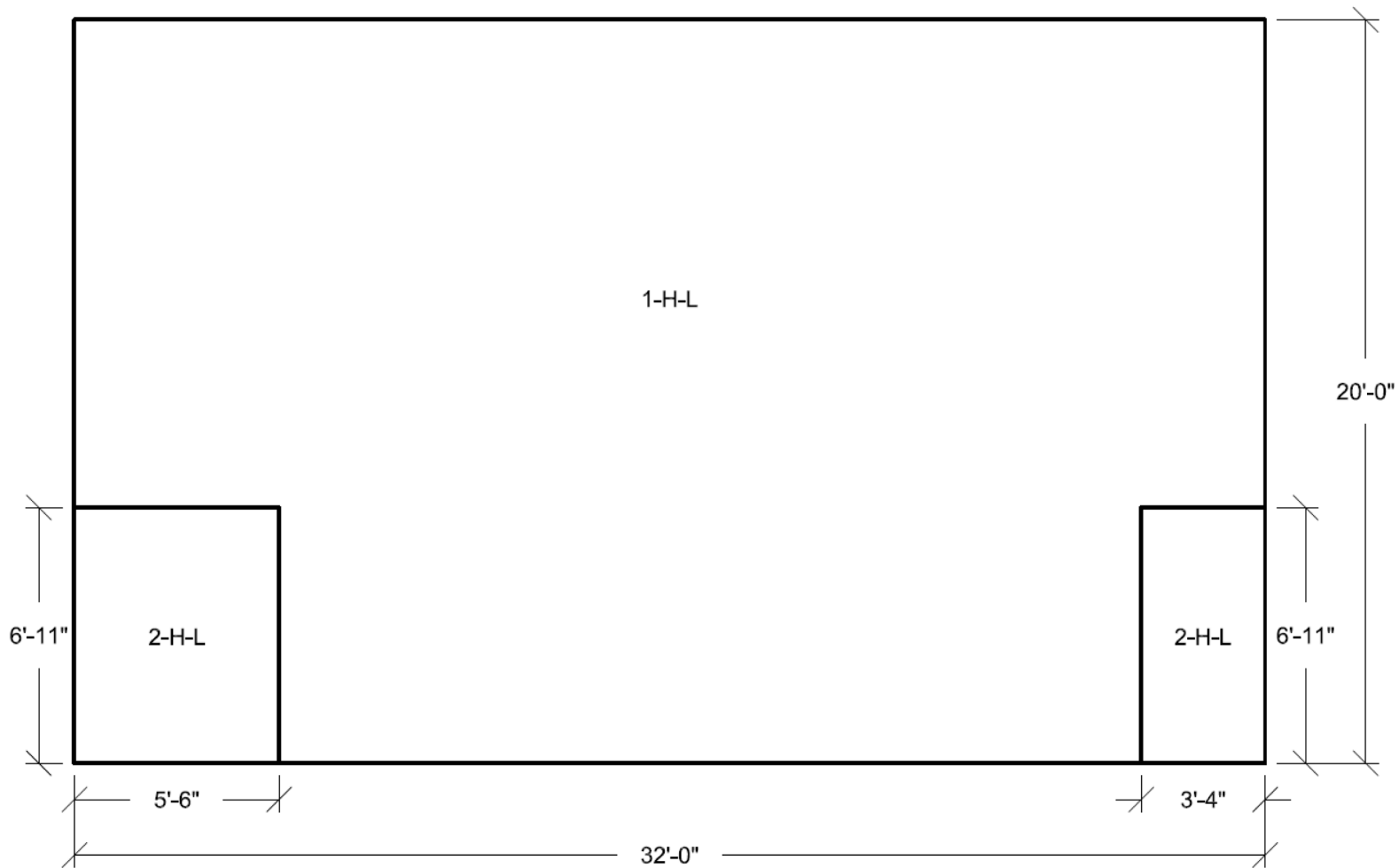
**Figure 3H.6-194 Wall 13 Looking From Outside
Transverse Reinforcement Zones**



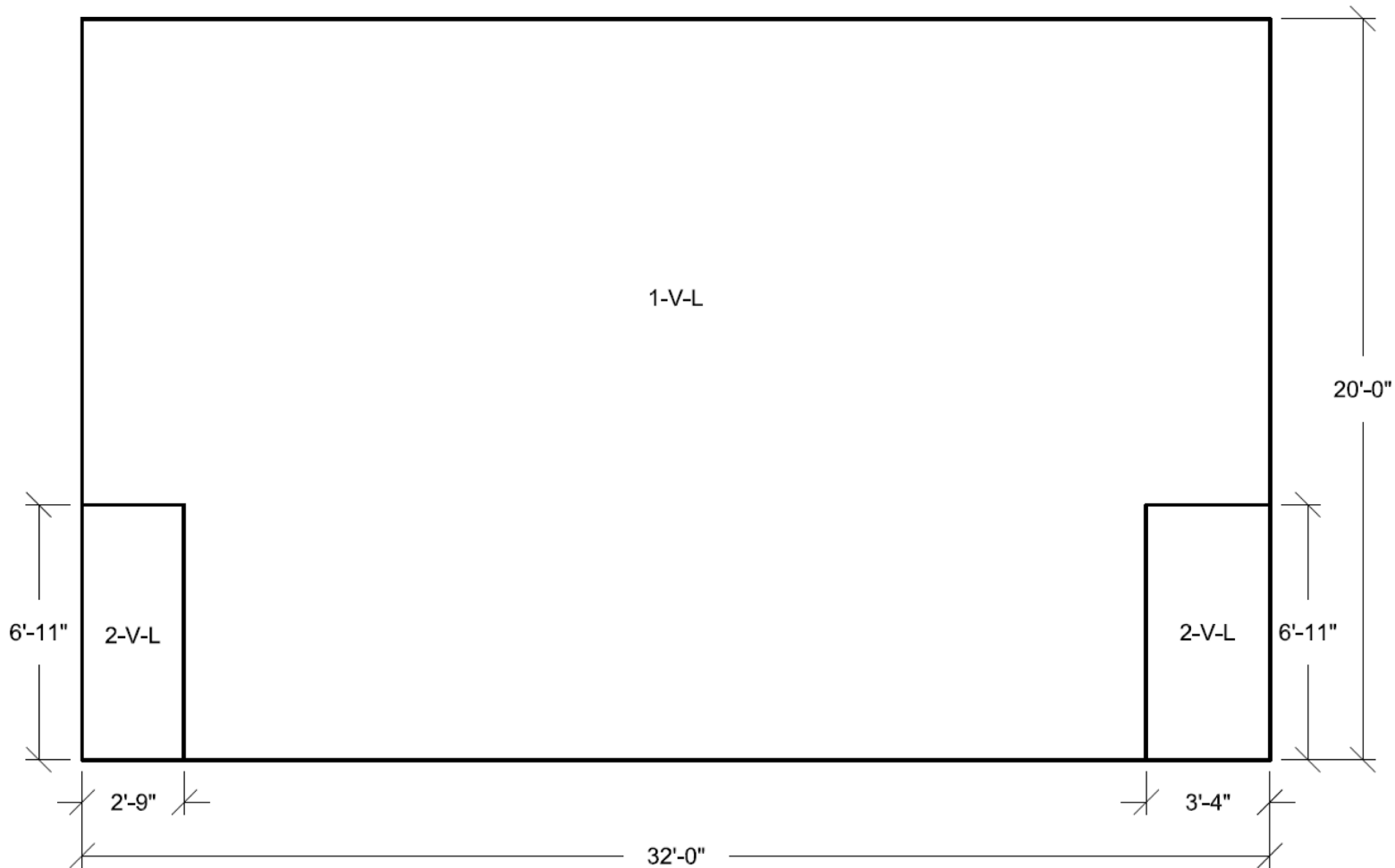
**Figure 3H.6-195 Wall 14 Looking From Outside
Horizontal Reinforcement Zones
Near Side Face**



**Figure 3H.6-196 Wall 14 Looking From Outside
Vertical Reinforcement Zones
Near Side Face**



**Figure 3H.6-197 Wall 14 Looking From Outside
Horizontal Reinforcement Zones
Far Side Face**



**Figure 3H.6-198 Wall 14 Looking From Outside
Vertical Reinforcement Zones
Far Side Face**

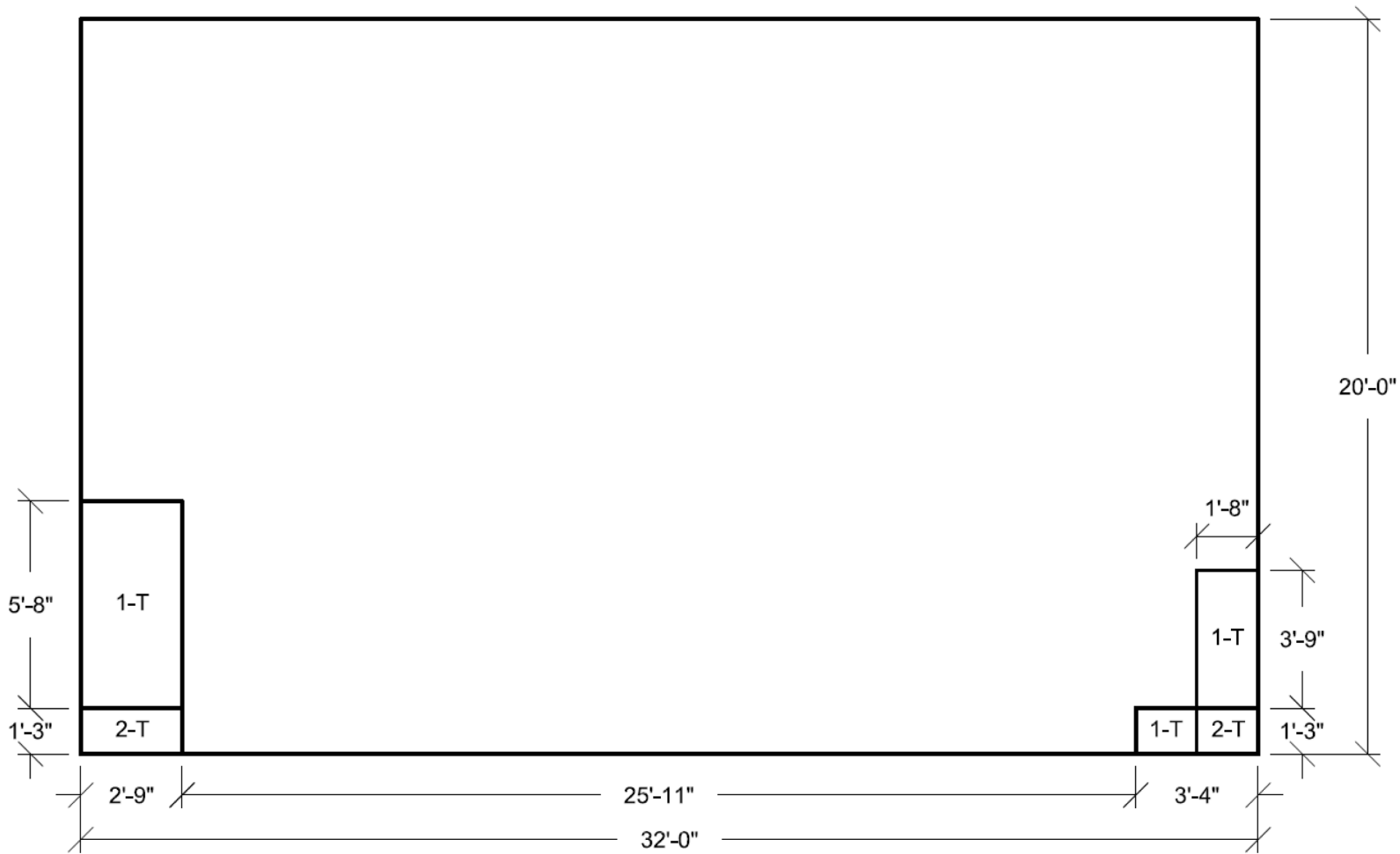


Figure 3H.6-199 ~~Not Used~~ Wall 14 Looking From Outside
Transverse Reinforcement Zones

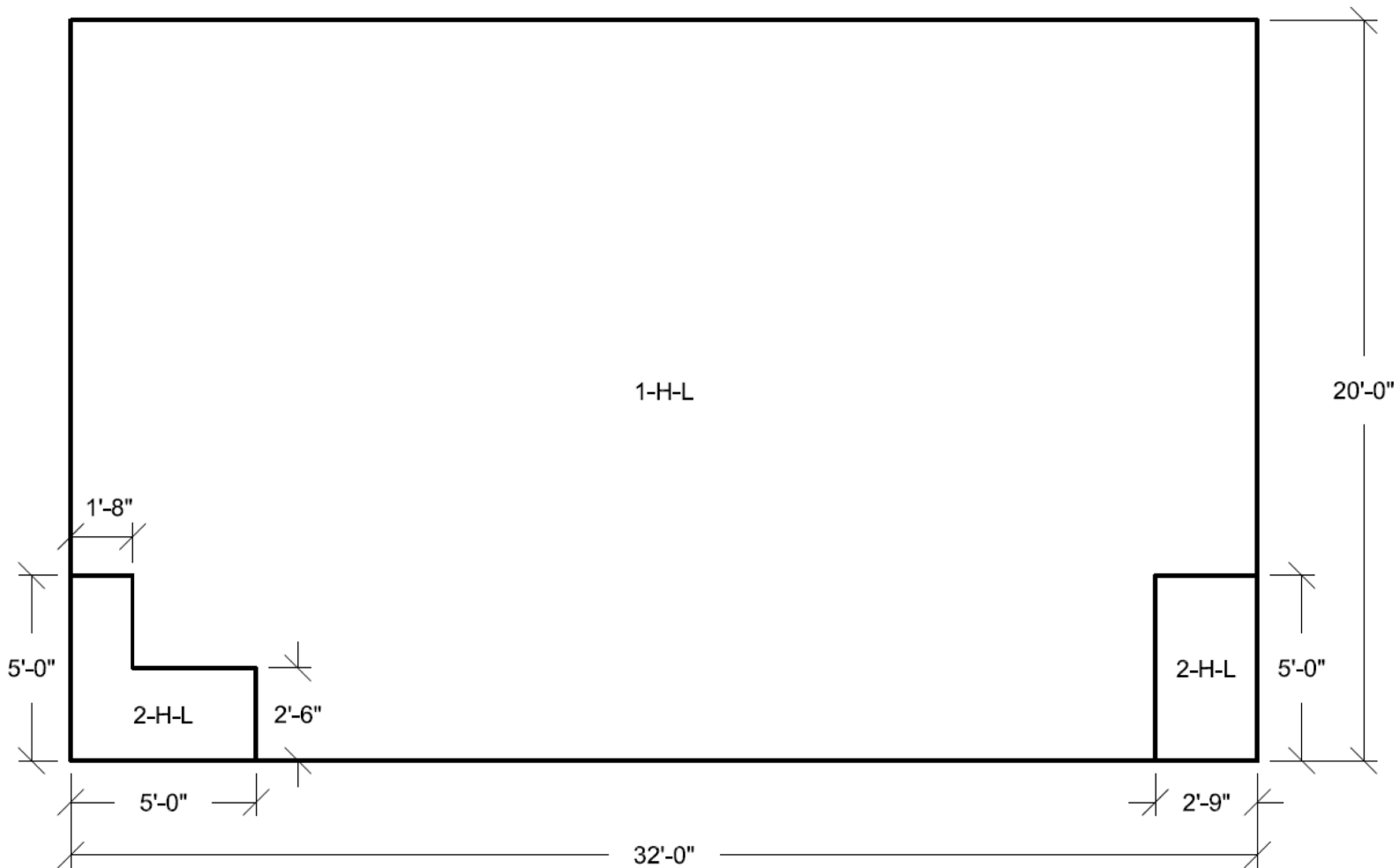
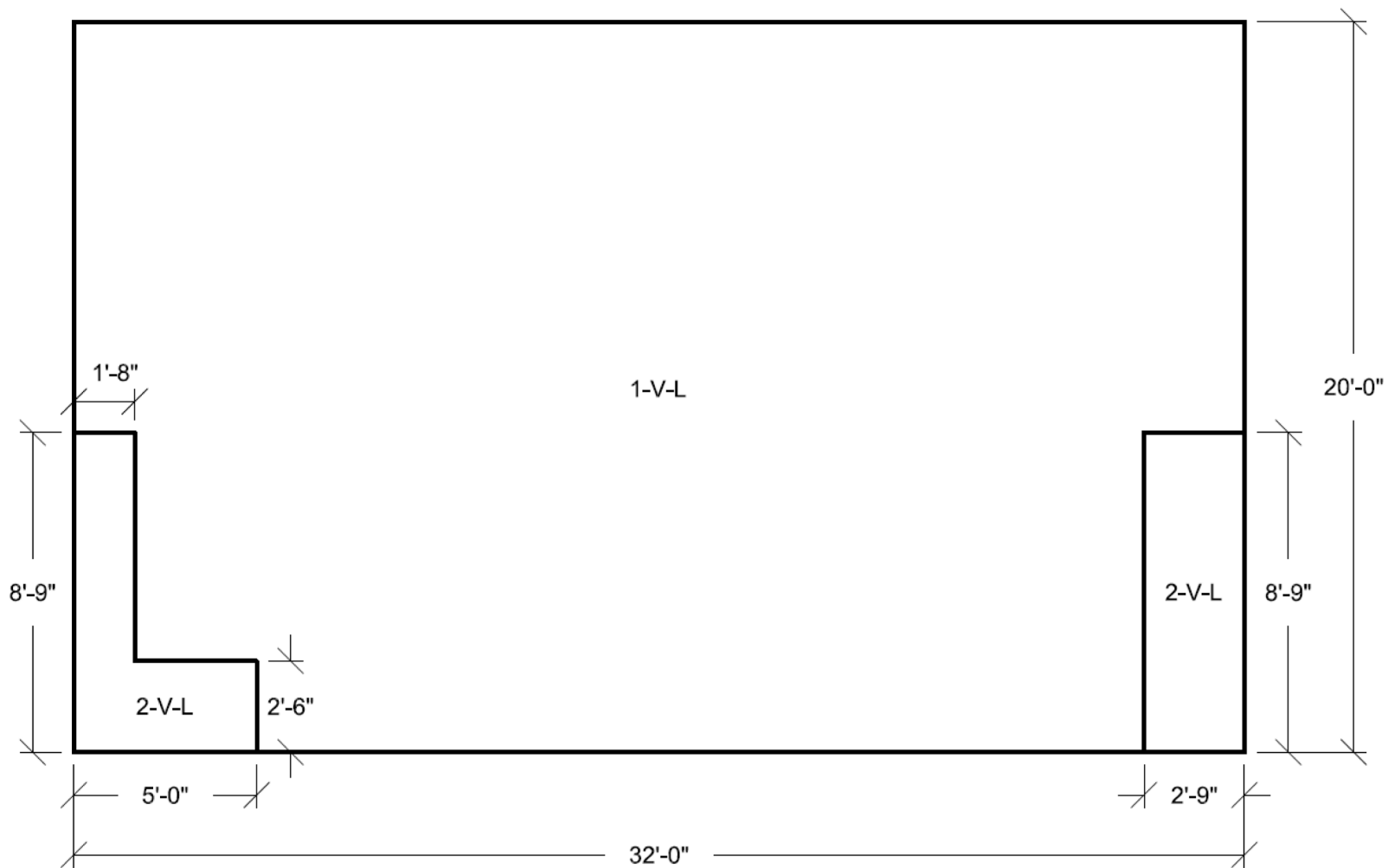
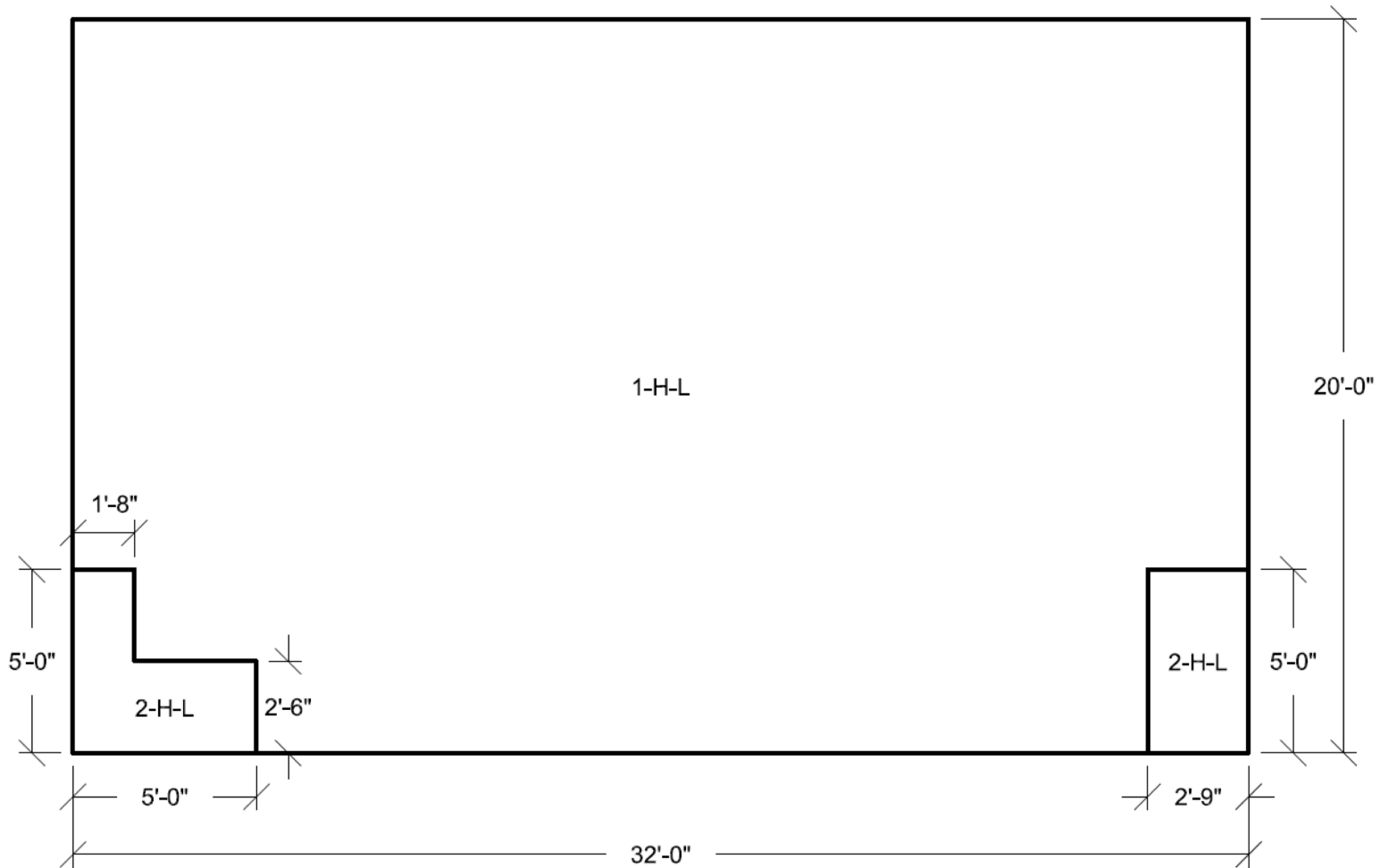


Figure 3H.6-200 Wall 15 Looking From Outside
Horizontal Reinforcement Zones
Near Side Face



**Figure 3H.6-201 Wall 15 Looking From Outside
Vertical Reinforcement Zones
Near Side Face**



**Figure 3H.6-202 Wall 15 Looking From Outside
Horizontal Reinforcement Zones
Far Side Face**

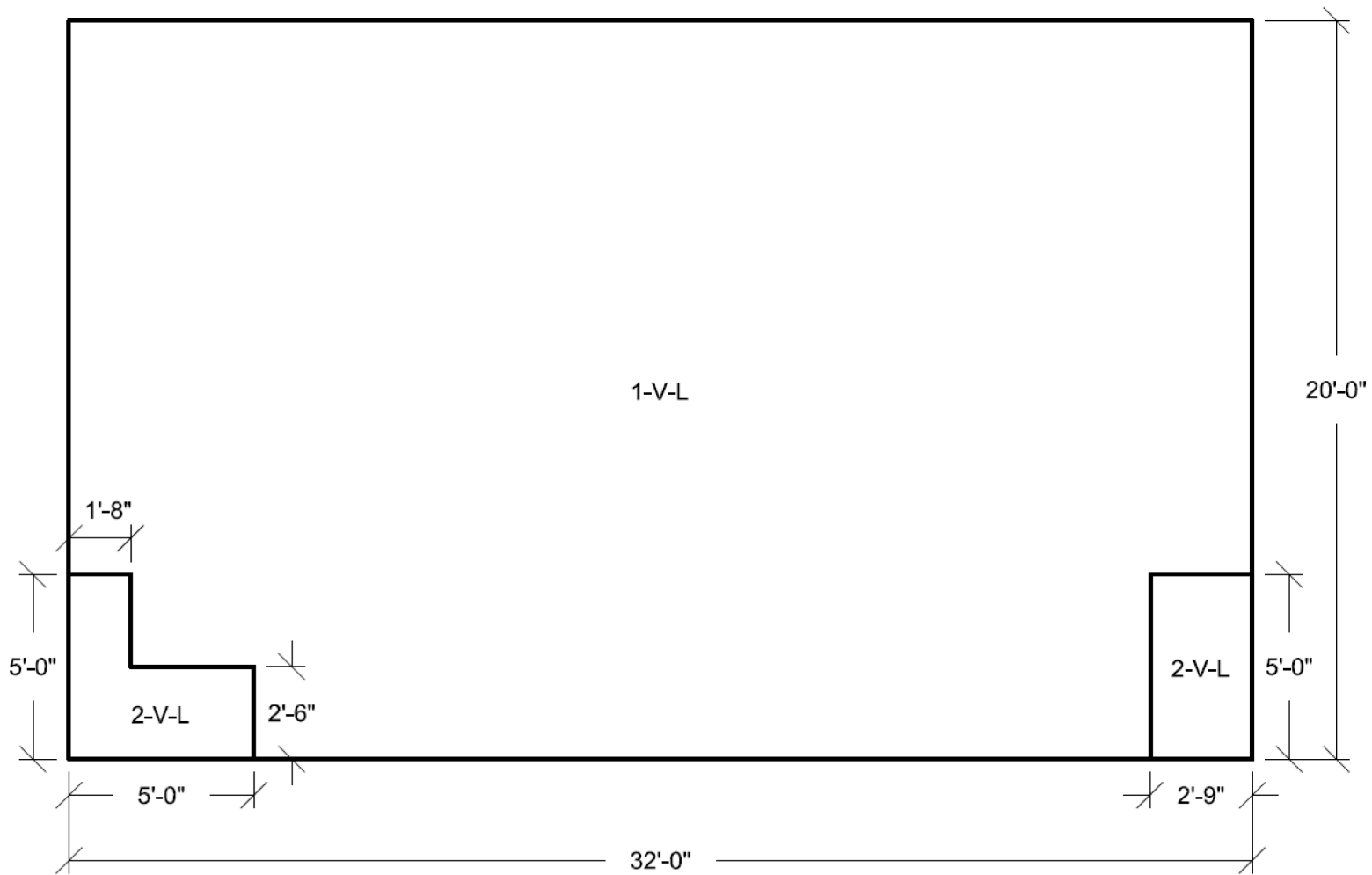


Figure 3H.6-203A Wall 15 Looking From Outside
Vertical Reinforcement Zones
Far Side Face

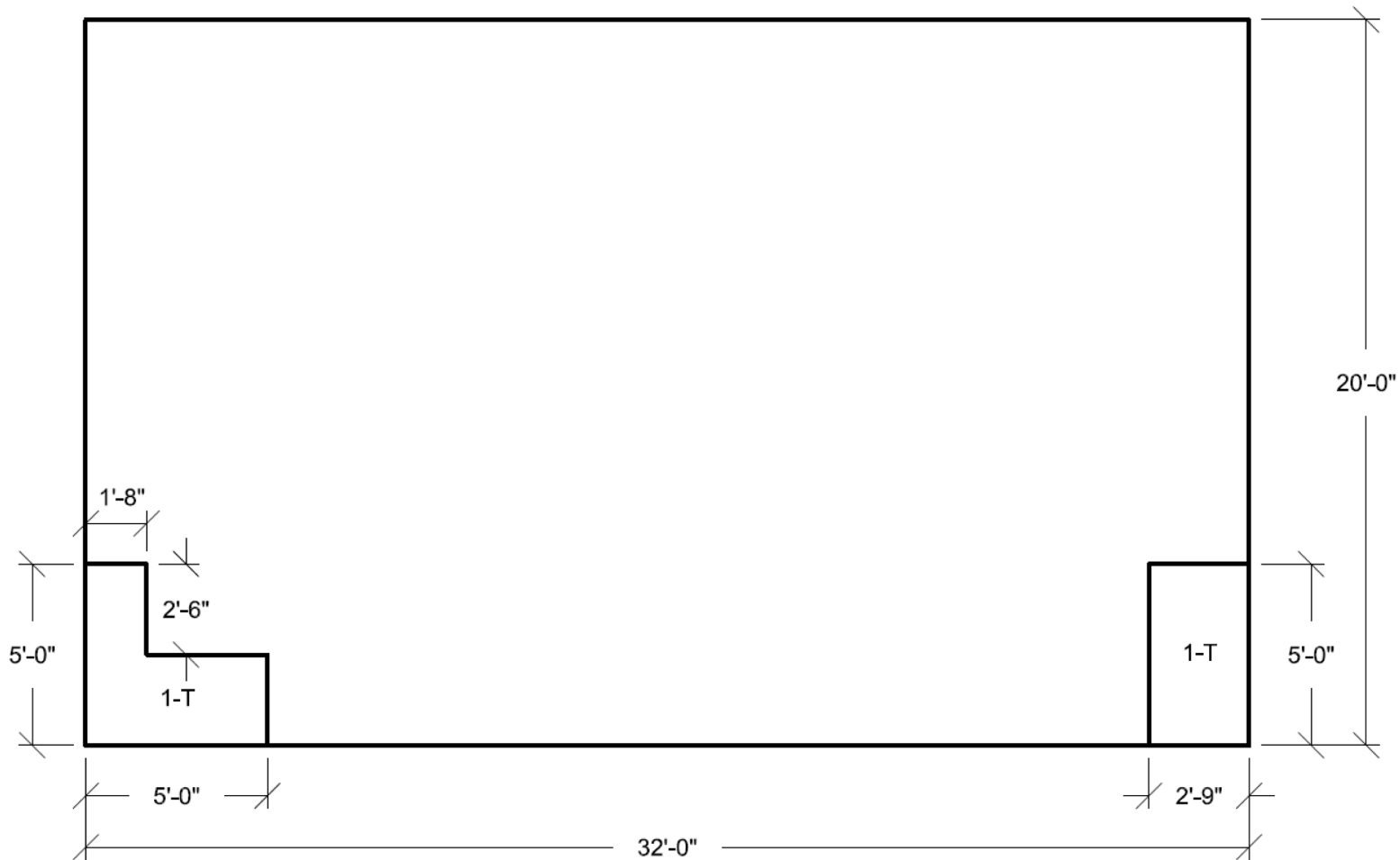


Figure 3H.6-203B Wall 15 Looking From Outside
Transverse Reinforcement Zones

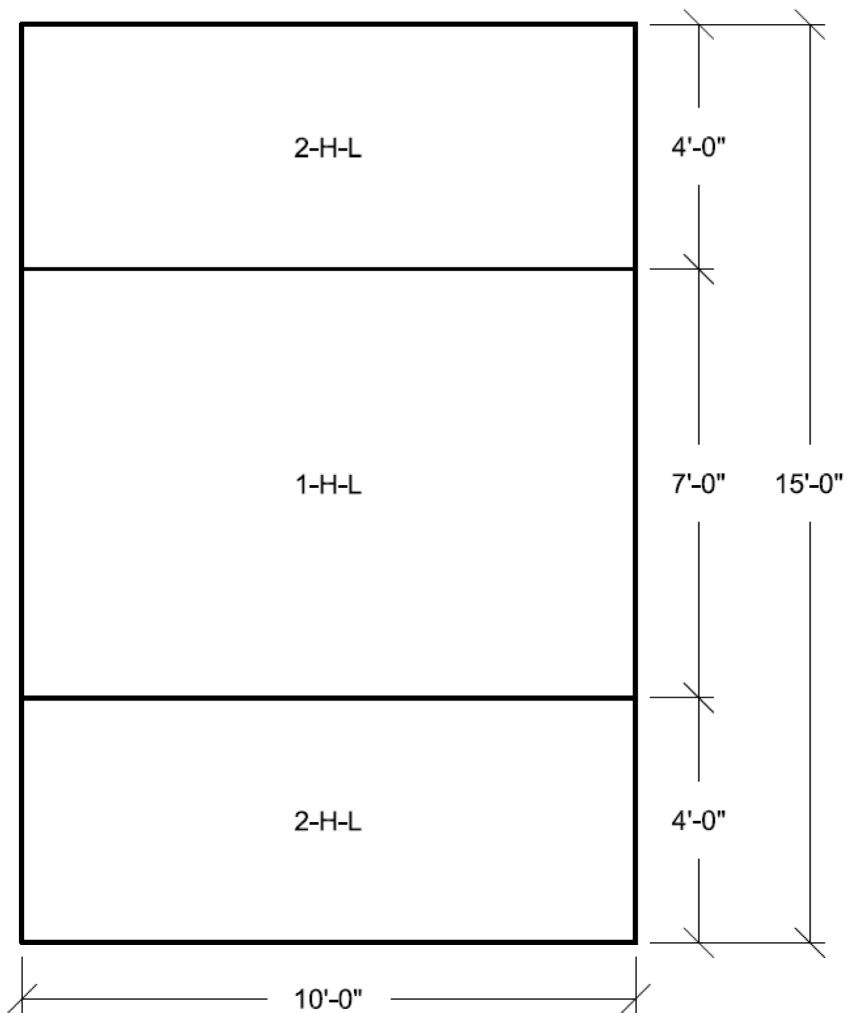
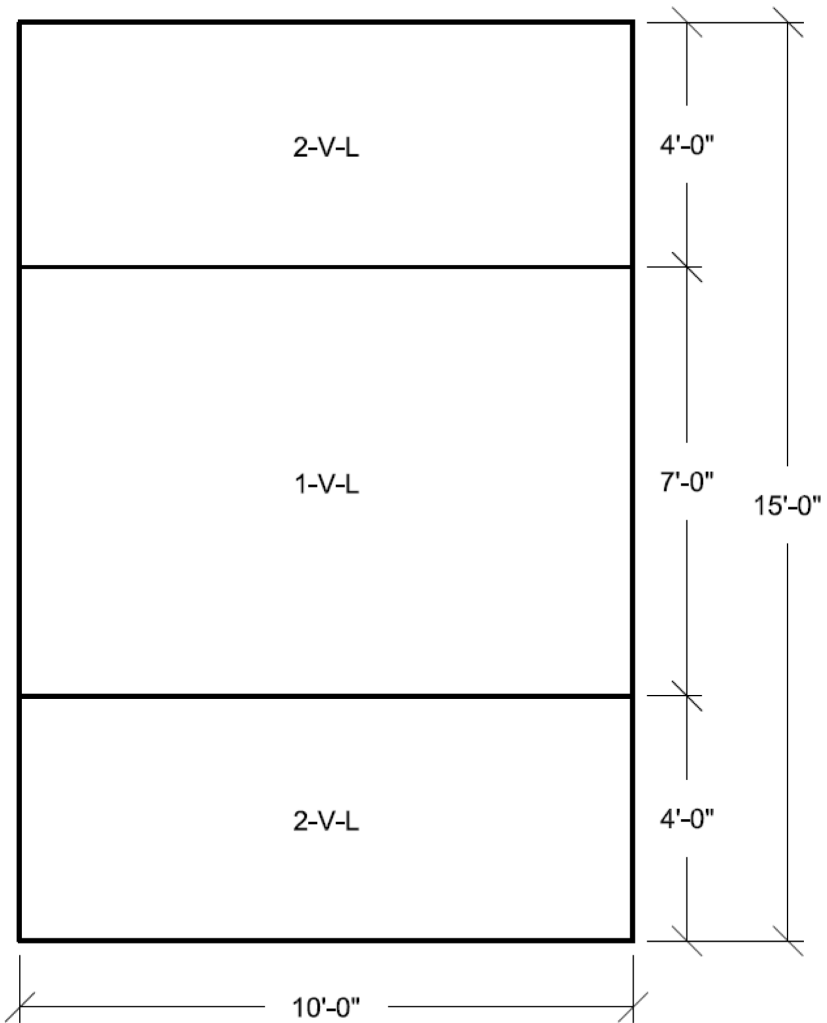
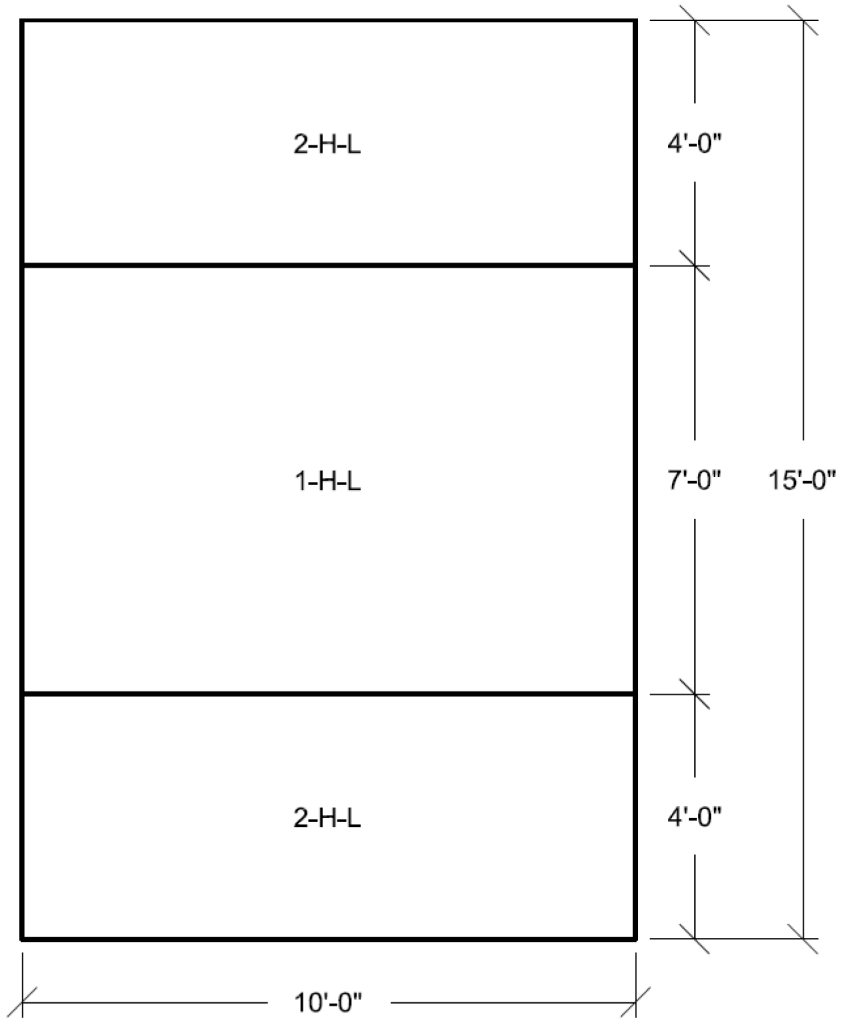


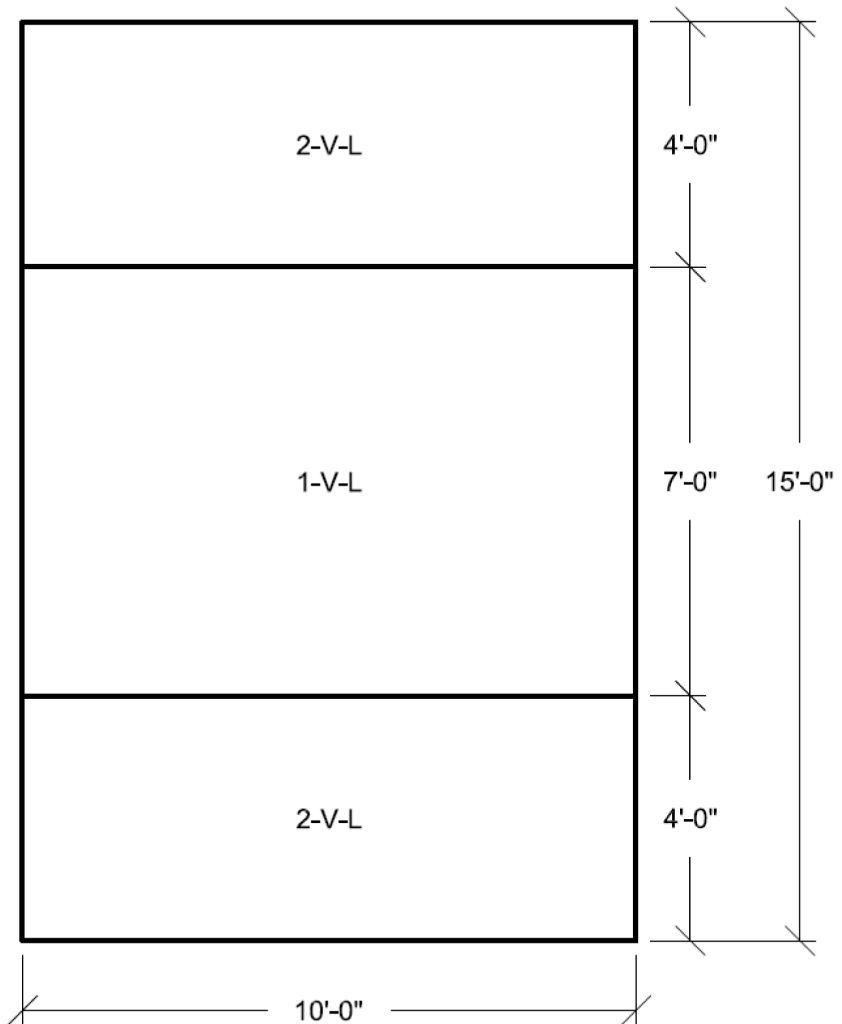
Figure 3H.6-204 Wall 16 Looking From Outside
Horizontal Reinforcement Zones
Near Side Face



**Figure 3H.6-205 Wall 16 Looking From Outside
Vertical Reinforcement Zones
Near Side Face**



**Figure 3H.6-206 Wall 16 Looking From Outside
Horizontal Reinforcement Zones
Far Side Face**



**Figure 3H.6-207 Wall 16 Looking From Outside
Vertical Reinforcement Zones
Far Side Face**

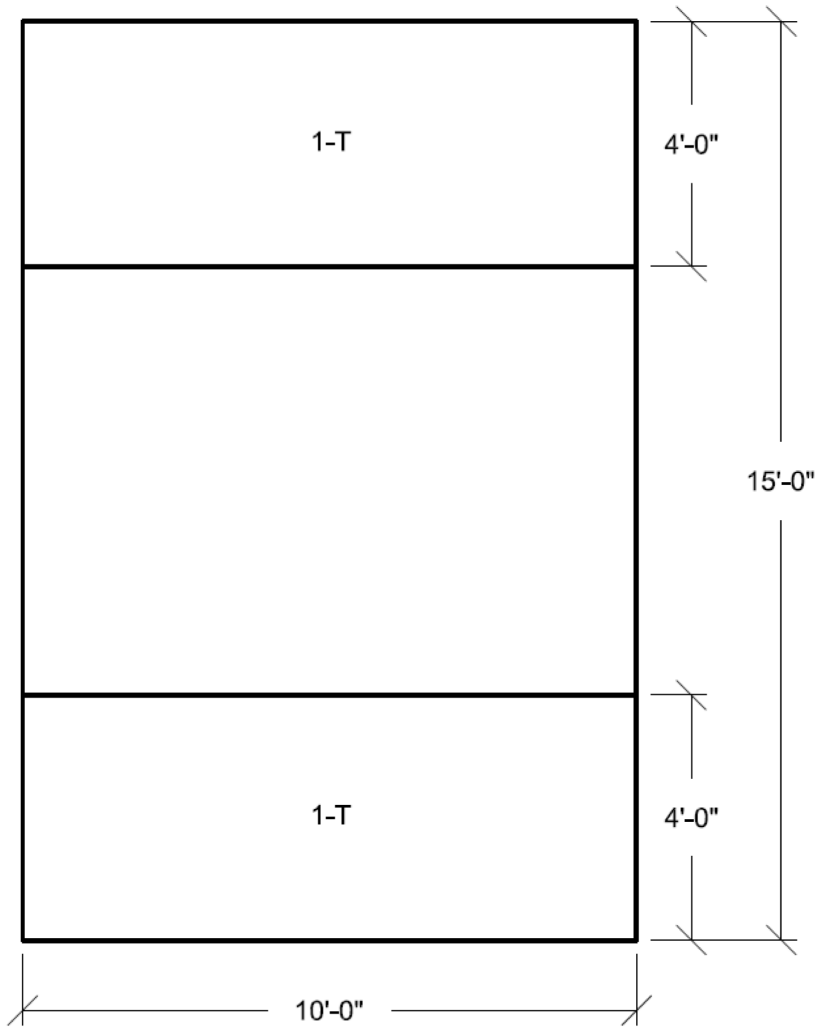


Figure 3H.6-208 Wall 16 Looking From Outside Transverse Reinforcement Zones

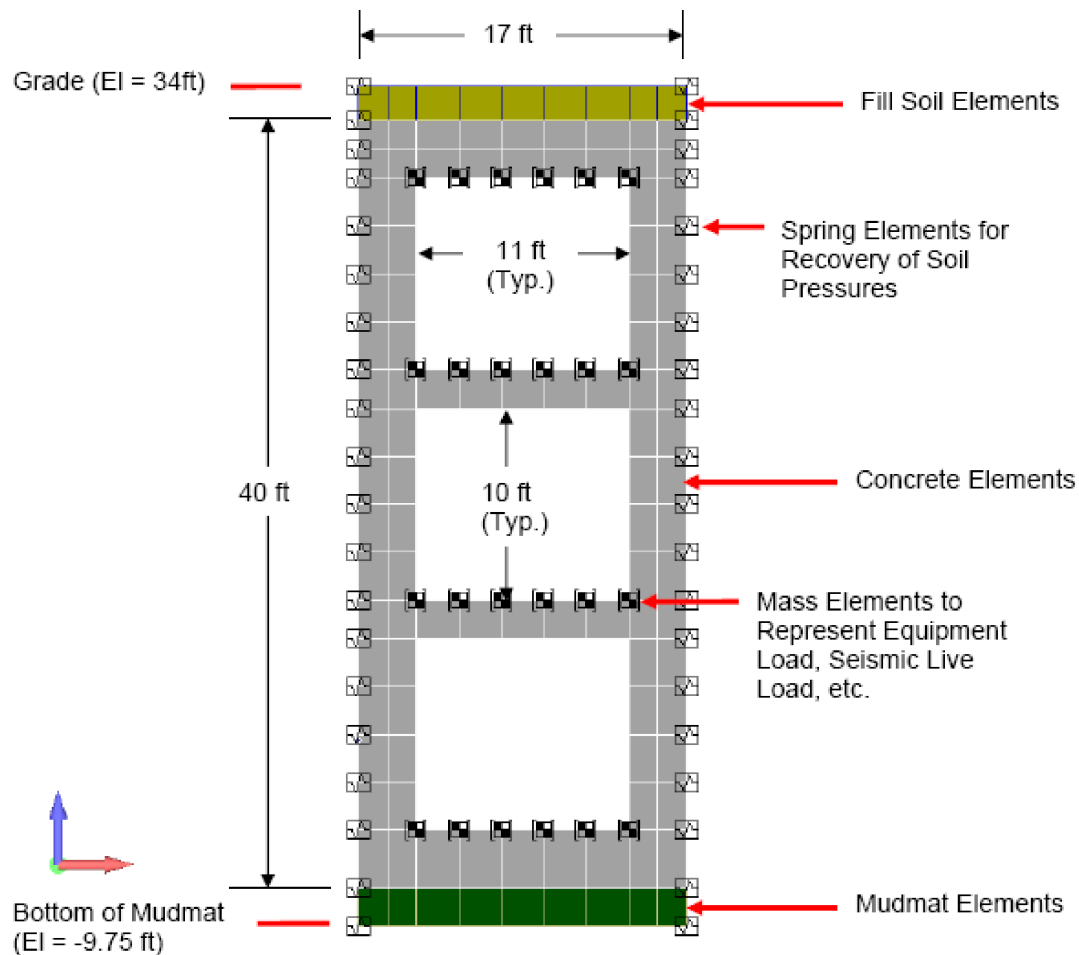
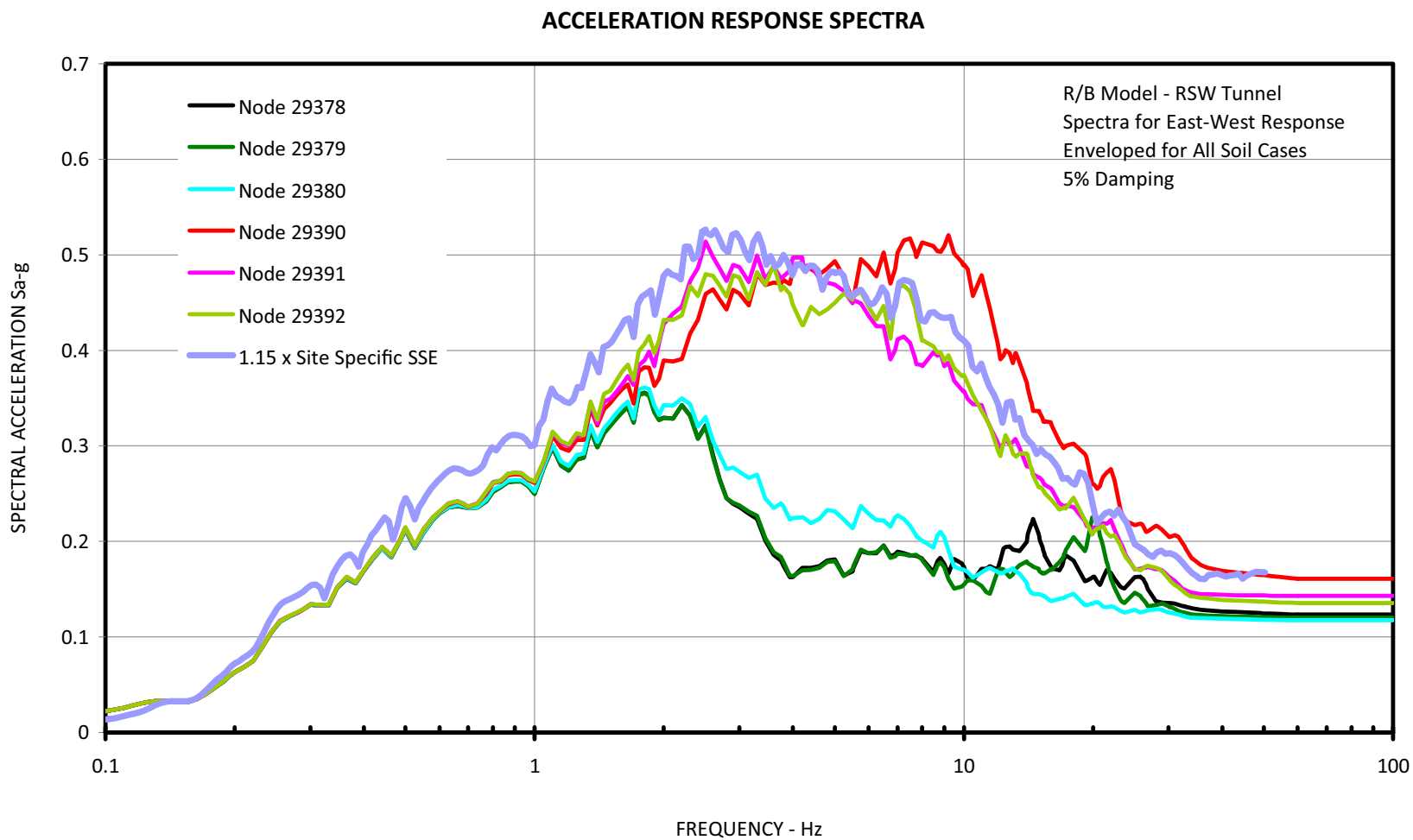
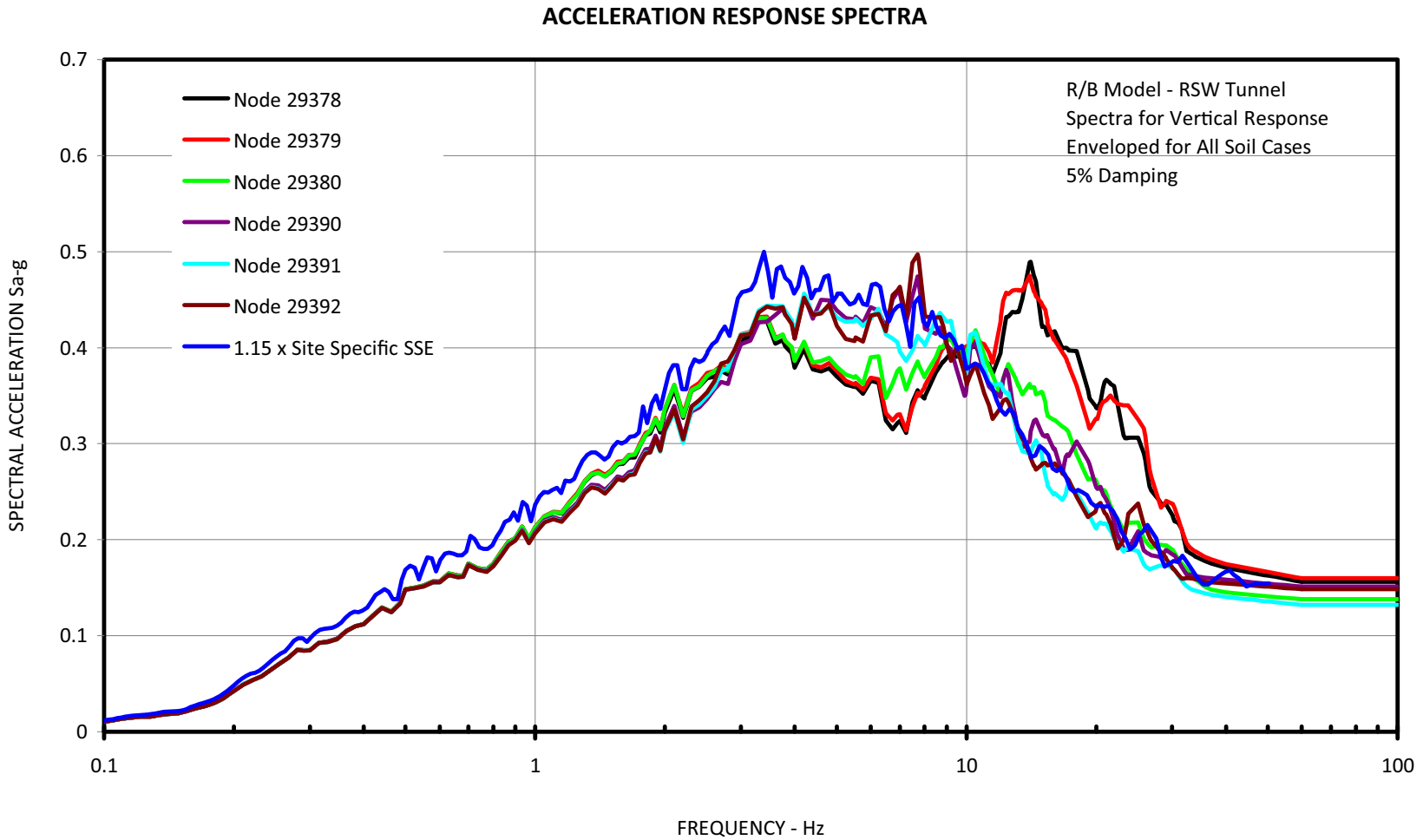


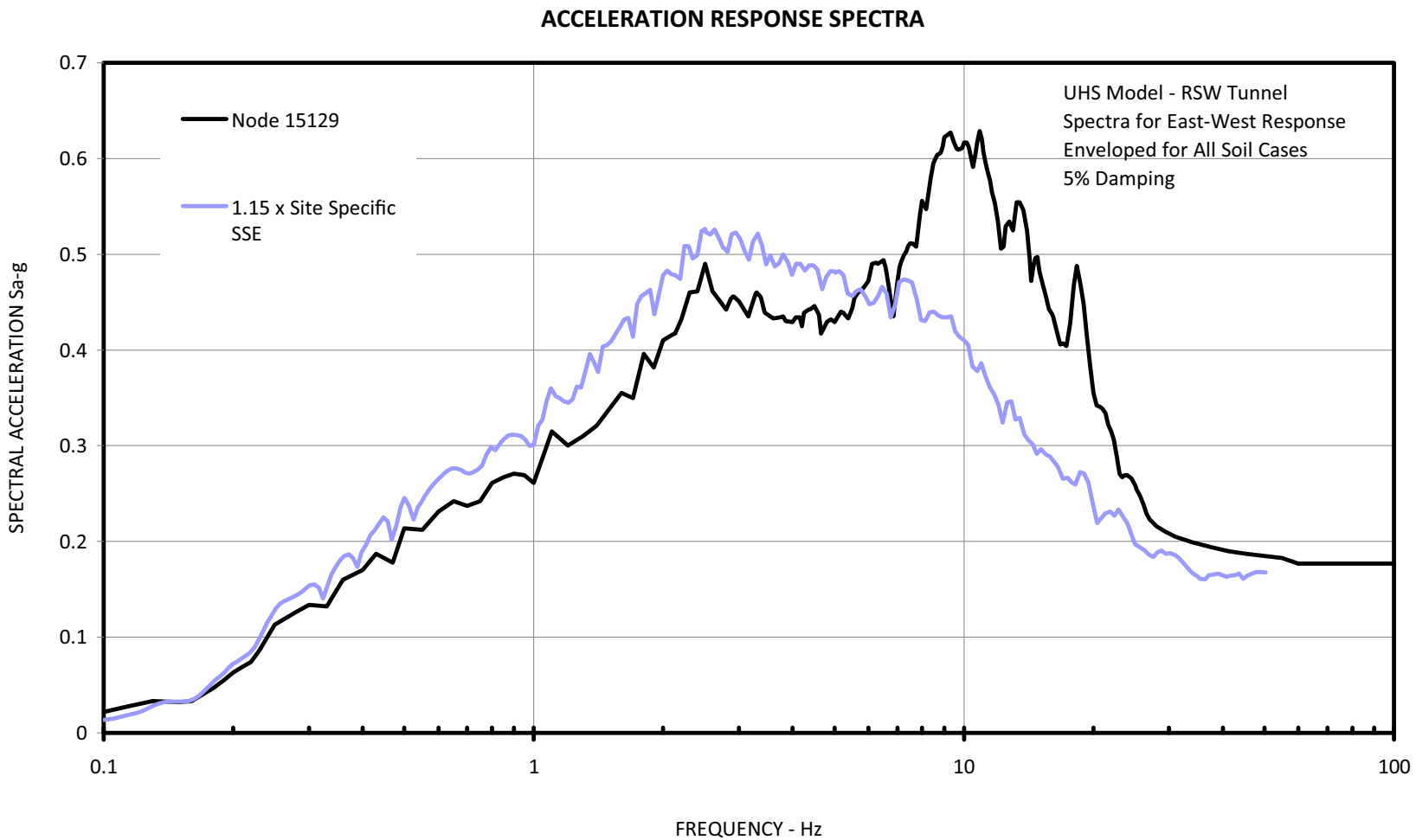
Figure 3H.6-209 SSI Model of RSW Piping Tunnel



**Figure 3H.6-209a Amplified E-W Site-Specific Response Spectra for
Reactor Service Water (RSW) Piping Tunnel
(Based on SSI Analysis of Reactor Building)**



**Figure 3H.6-209b Amplified Vertical Site-Specific Response Spectra for
Reactor Service Water (RSW) Piping Tunnel
(Based on SSI Analysis of Reactor Building)**



**Figure 3H.6-209c Amplified E-W Site-Specific Response Spectra for
Reactor Service Water (RSW) Piping Tunnel
(Based on SSI Analysis of UHS/RSW Pump House)**

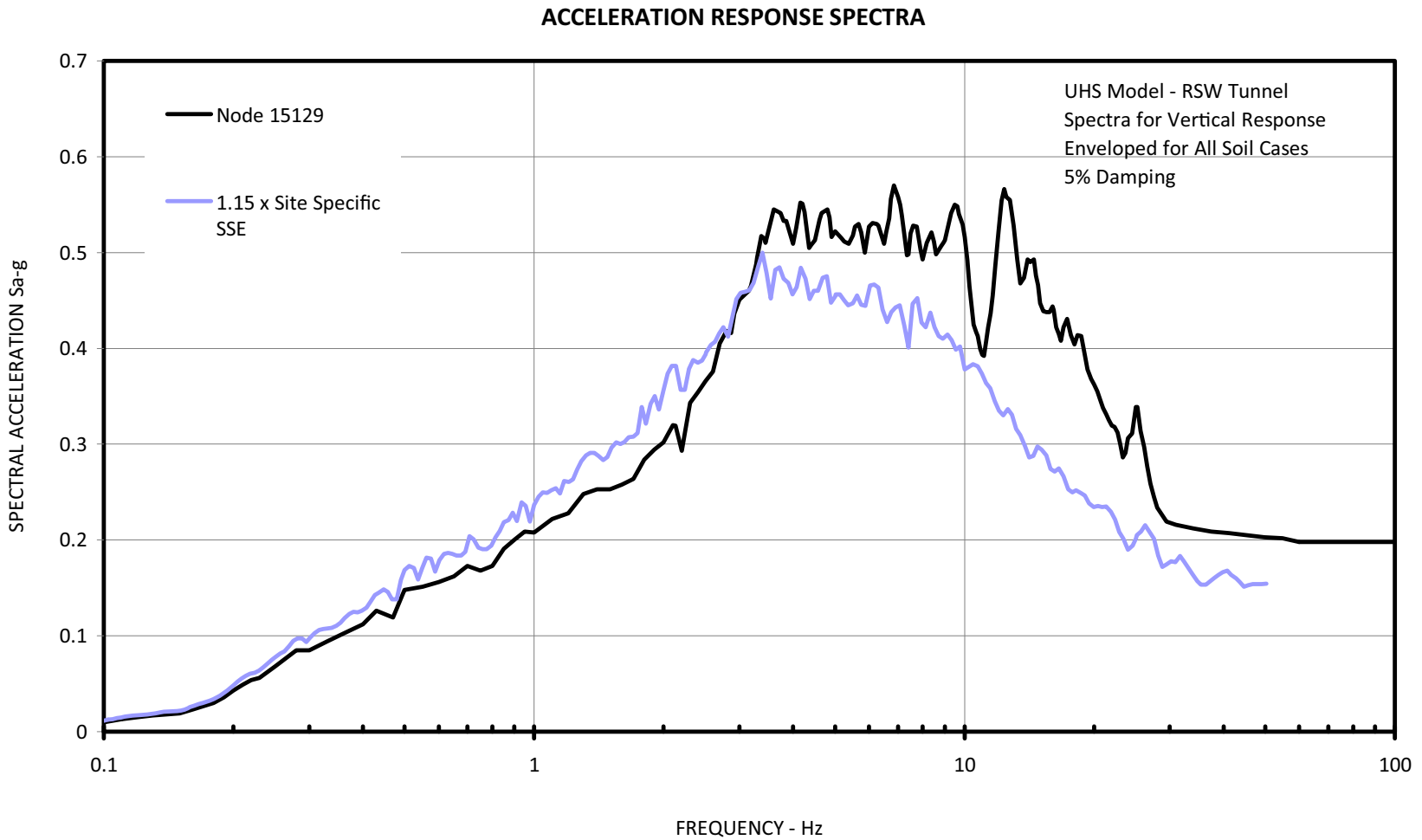


Figure 3H.6-209d Amplified E-W Site-Specific Response Spectra for Reactor Service Water (RSW) Piping Tunnel (Based on SSI Analysis of UHS/RSW Pump House)

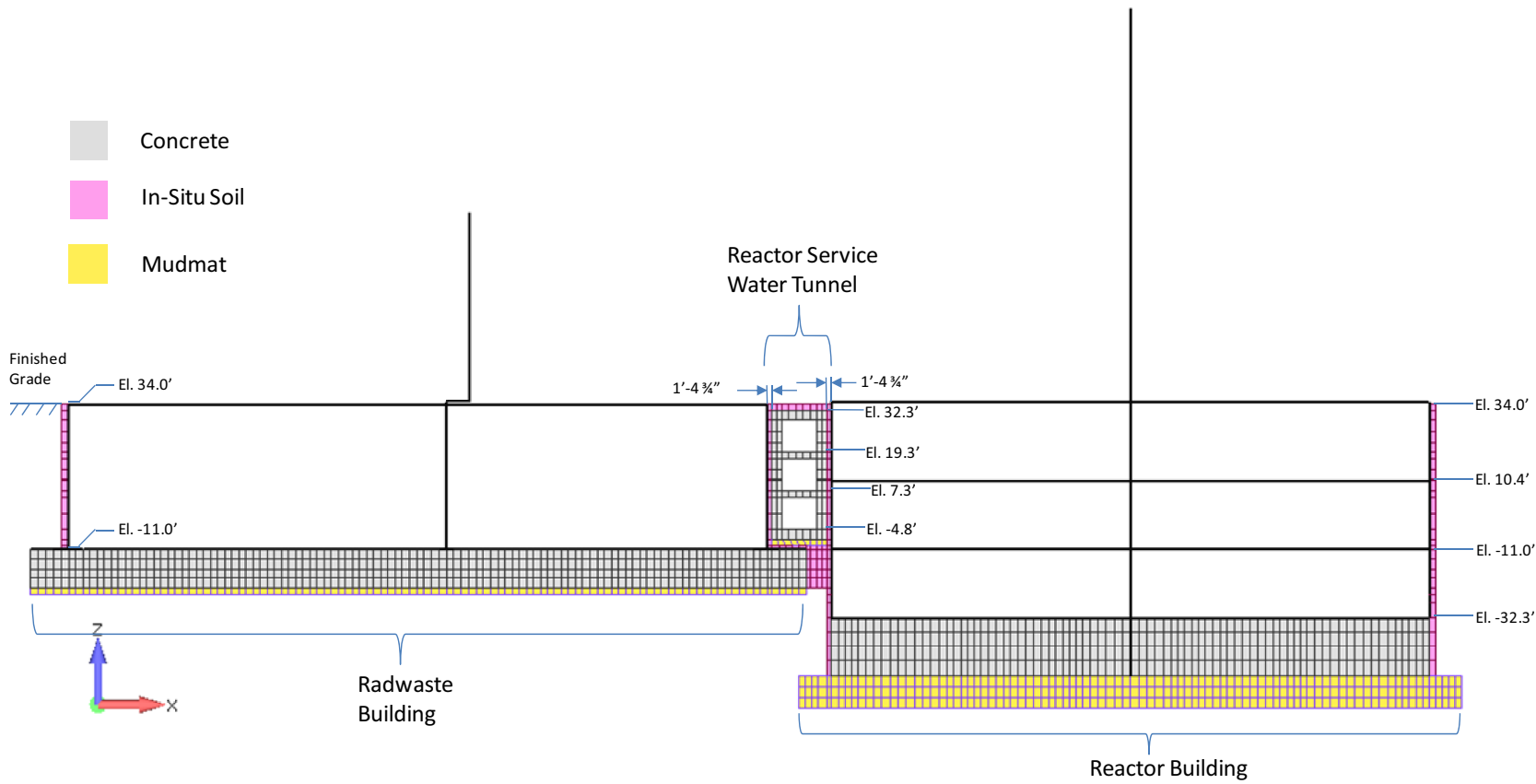


Figure 3H.6-210 SSSI 2D Model of RB + RSW Piping Tunnel + RWB

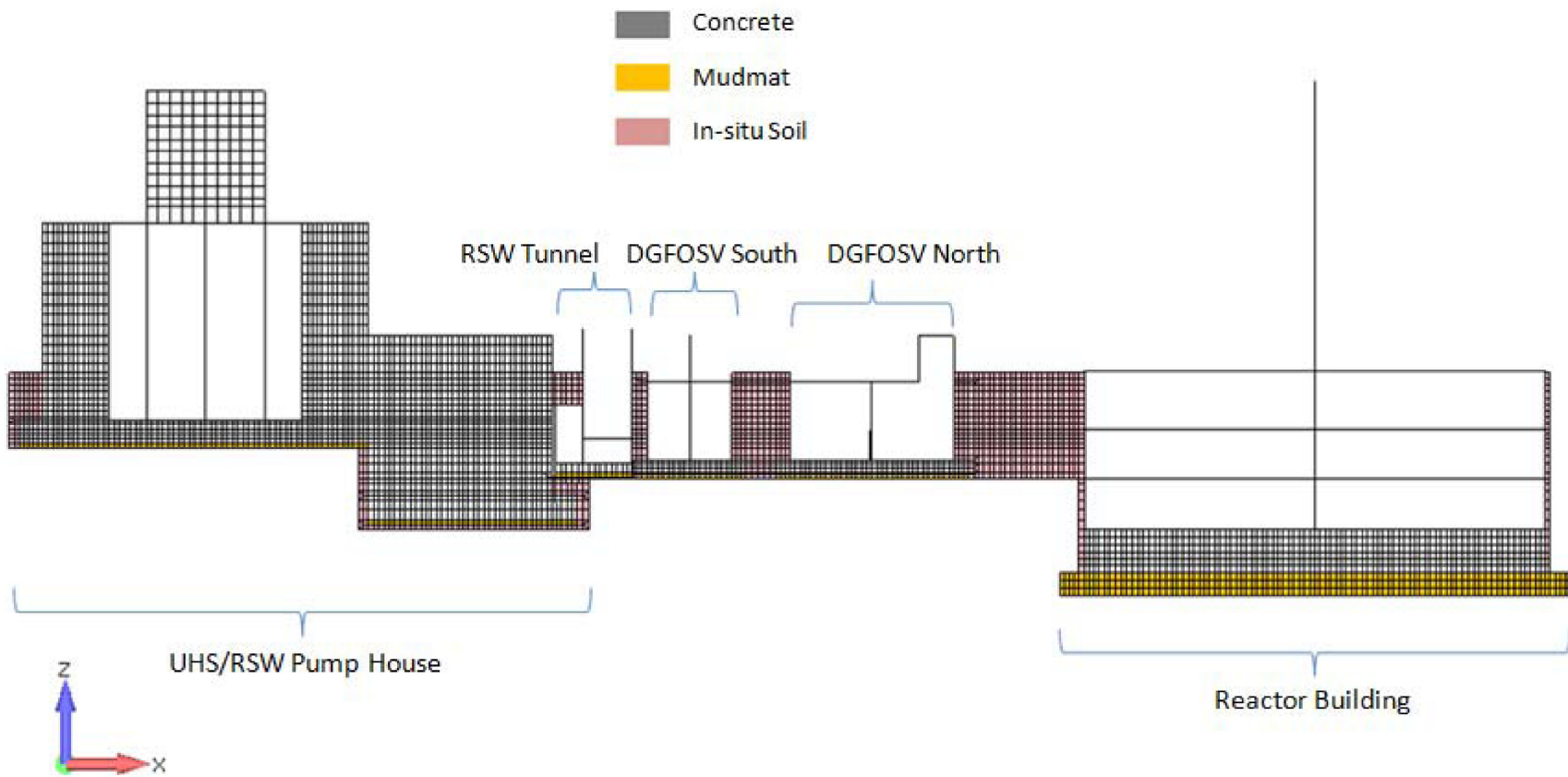
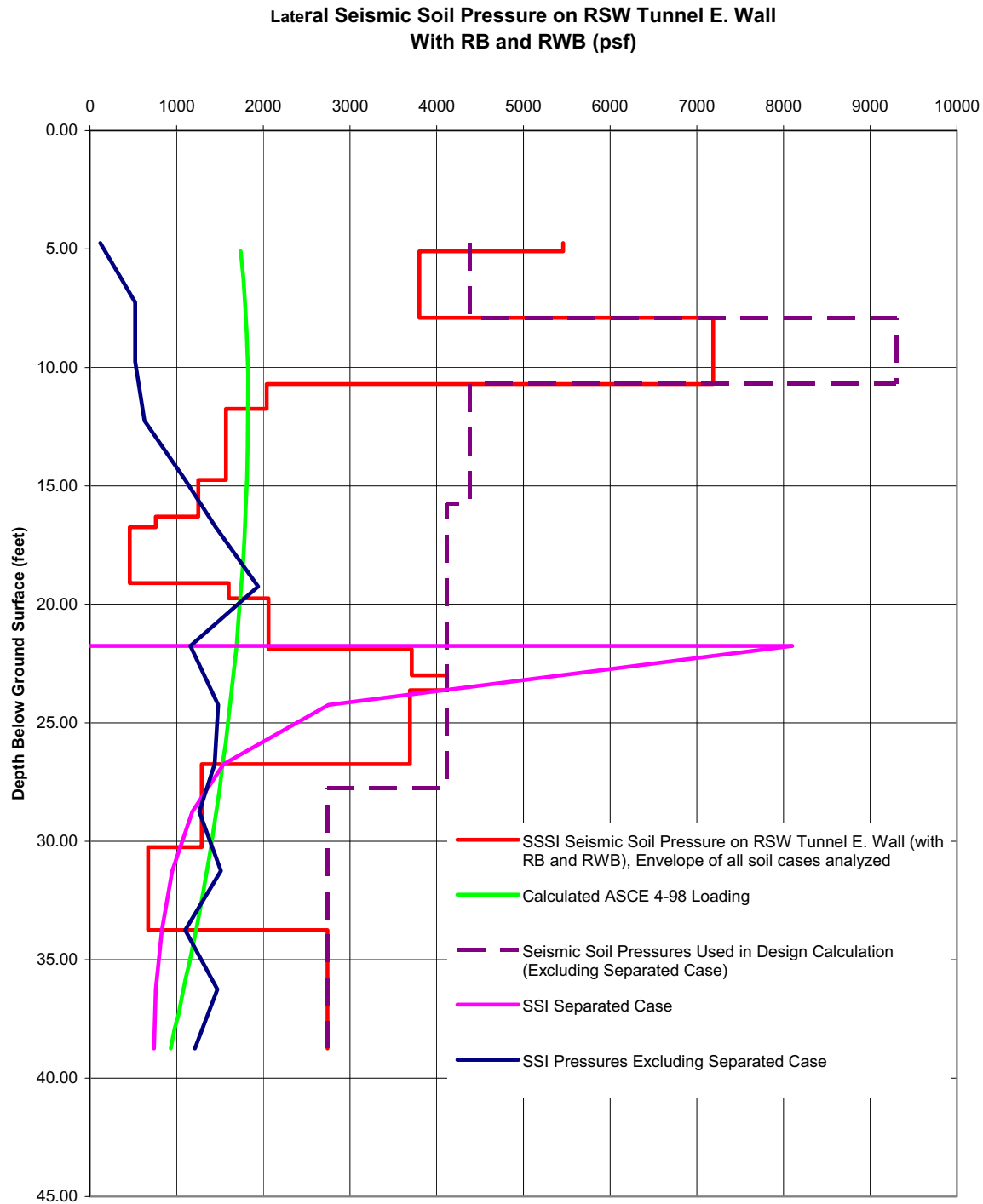


Figure 3H.6-211 2D Model of UHS/RSW Pump House, RSW Piping Tunnel, DGFOVs and RB



**Figure 3H.6-212 Lateral Seismic Soil Pressures (psf) on RSW Piping
Tunnel East Wall (Main Cross Section of RSW Piping Tunnel)**

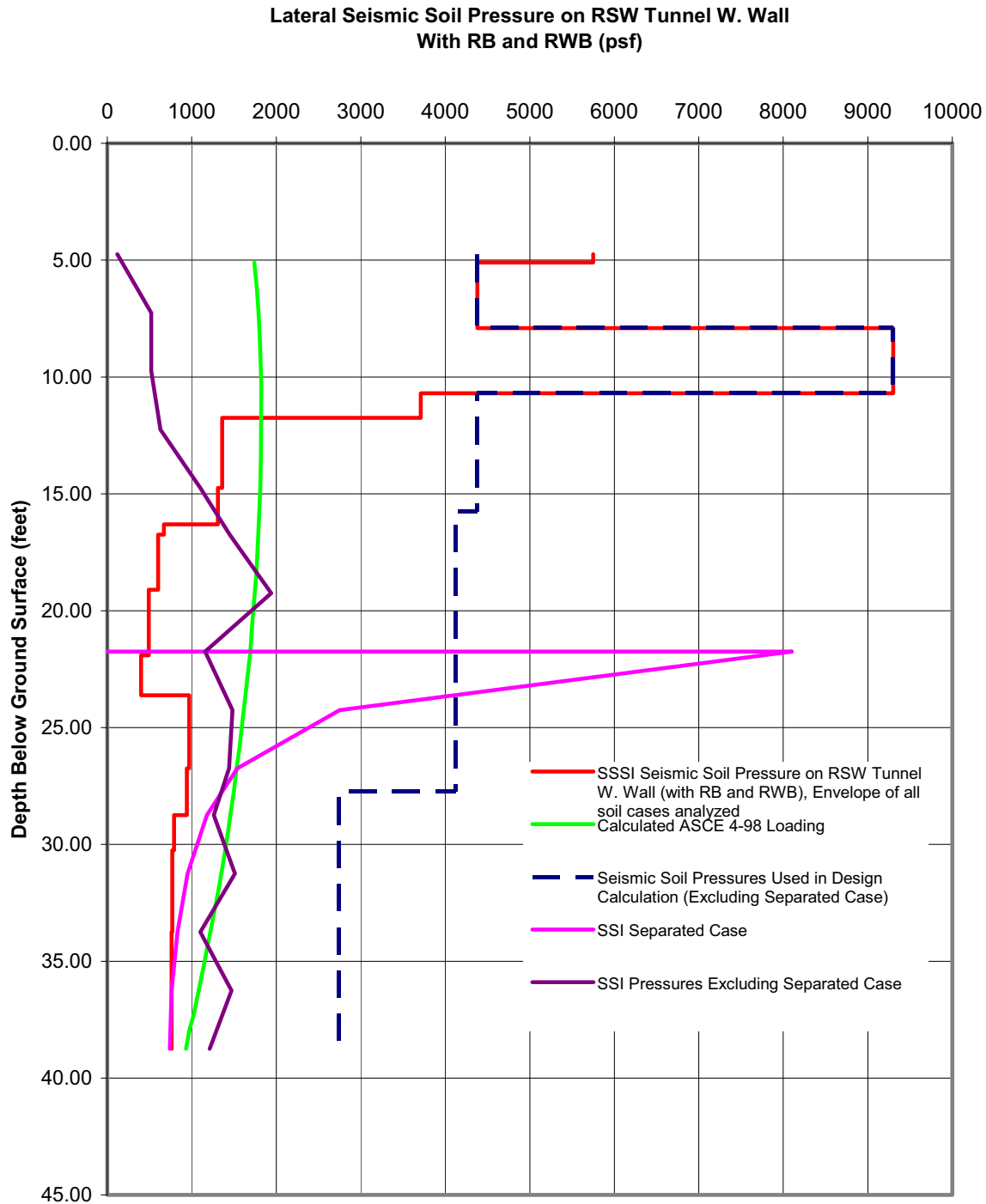


Figure 3H.6-213 Lateral Seismic Soil Pressures (psf) on RSW Piping Tunnel West Wall (Main Cross Section of RSW Piping Tunnel)

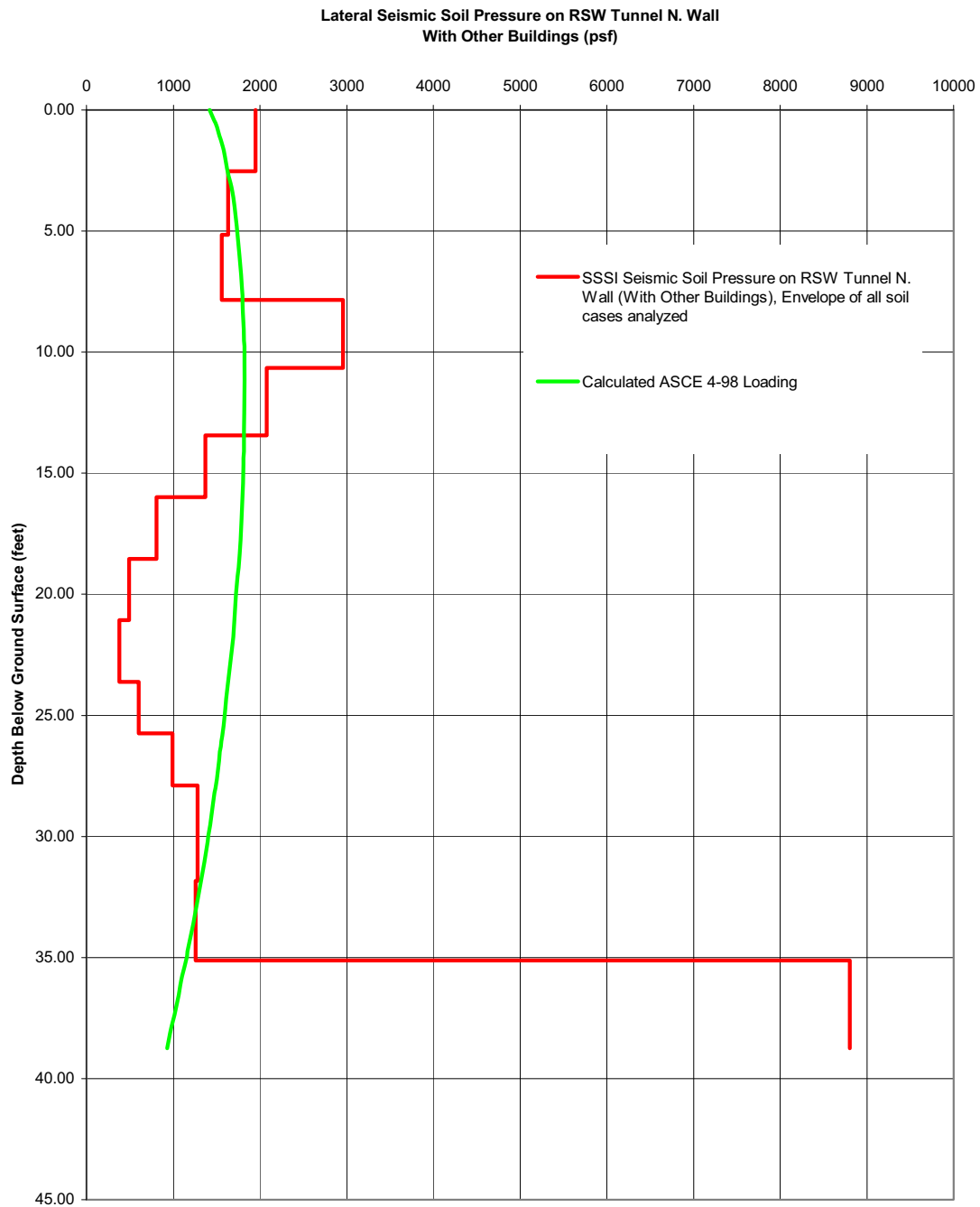


Figure 3H.6-214 Lateral Seismic Soil Pressures (psf) on RSW Piping Tunnel North Wall (RSW Piping Tunnel near UHS/RSW Pump House)

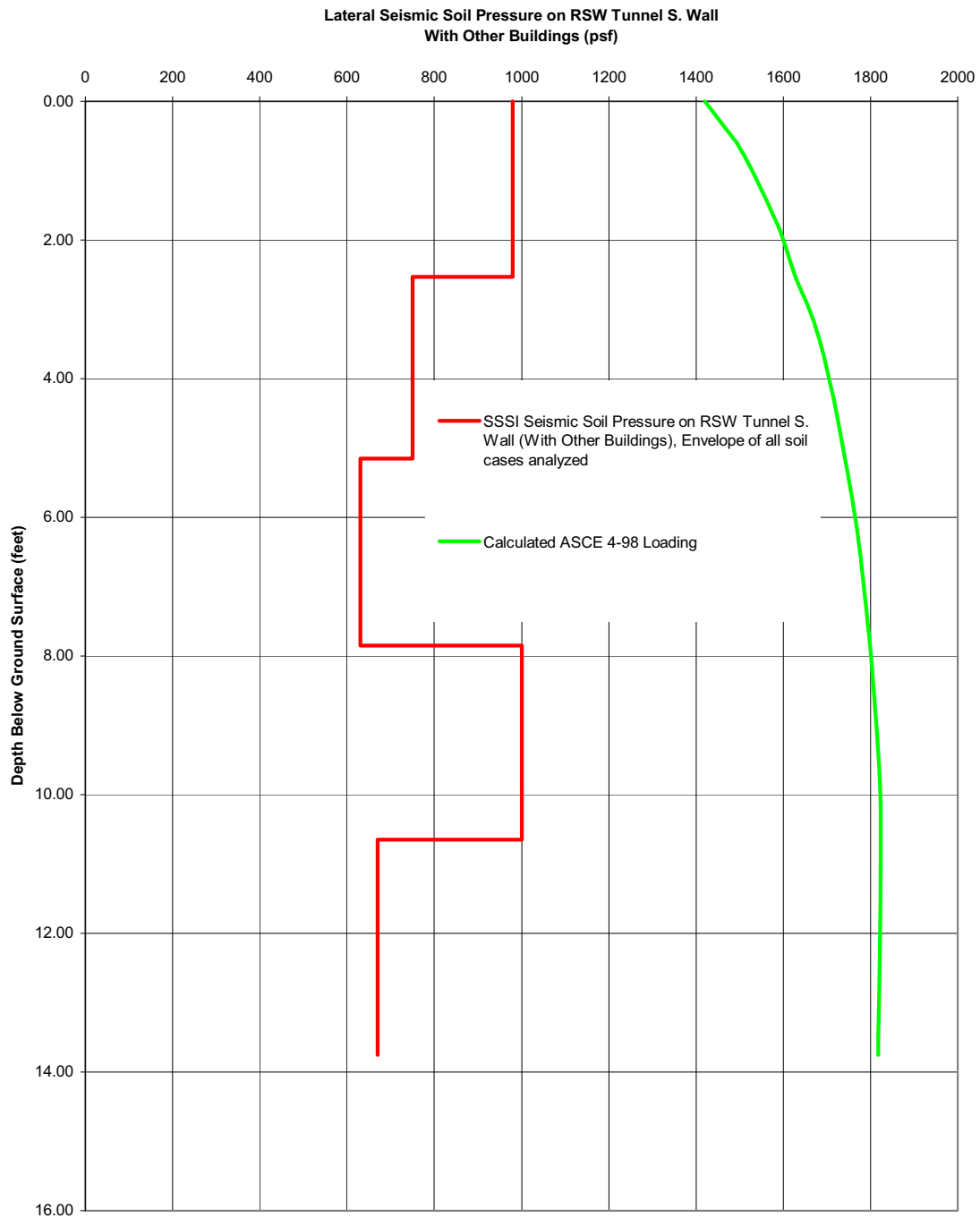


Figure 3H.6-215 Lateral Seismic Soil Pressures (psf) on RSW Piping Tunnel South Wall (RSW Piping Tunnel near UHS/RSW Pump House)

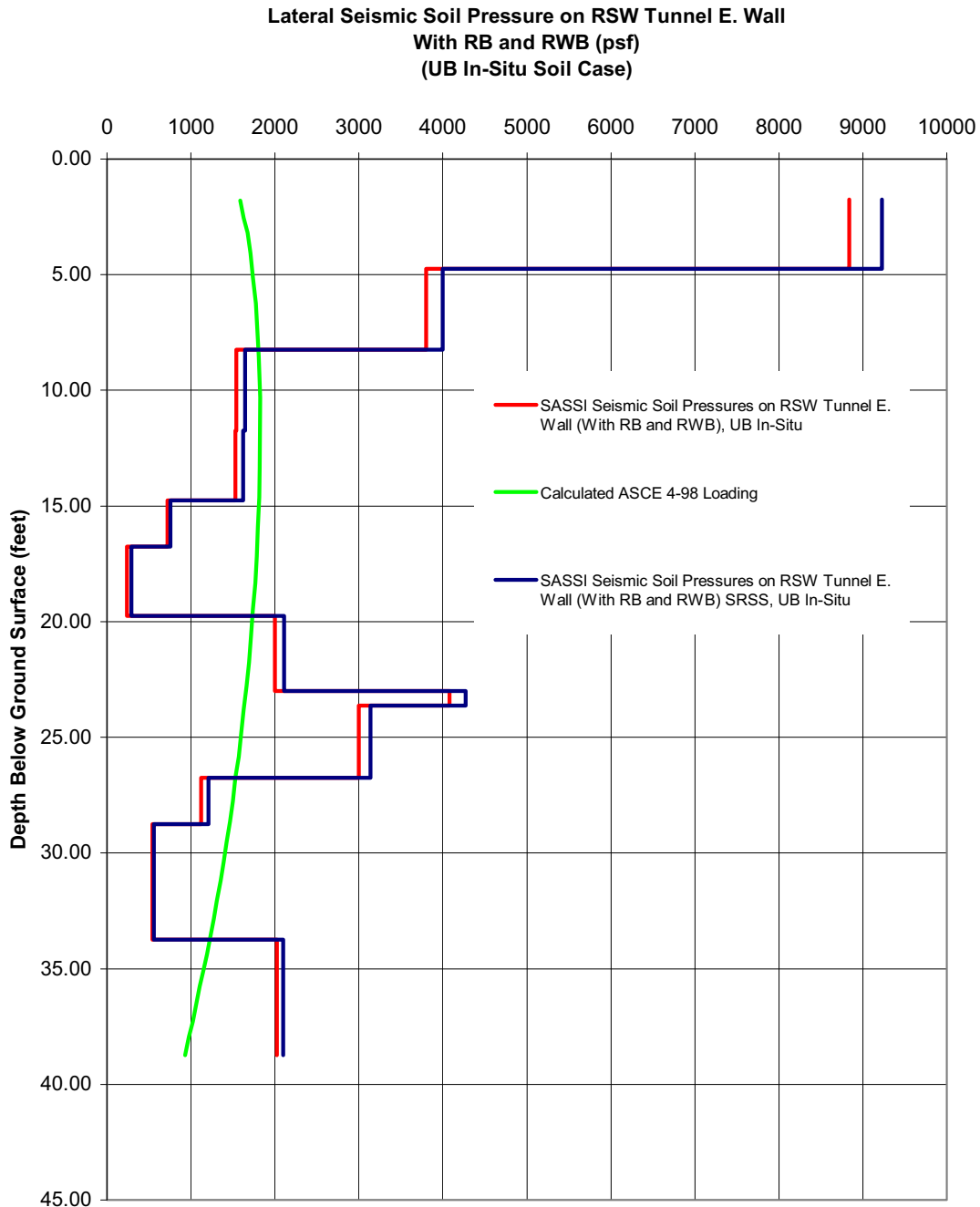


Figure 3H.6-216 Lateral Seismic Soil Pressures (psf) on RSW Piping Tunnel East Wall For UB In-Situ Soil Case (Main Cross Section of RSW Piping Tunnel, Including Effect of Vertical Excitation)

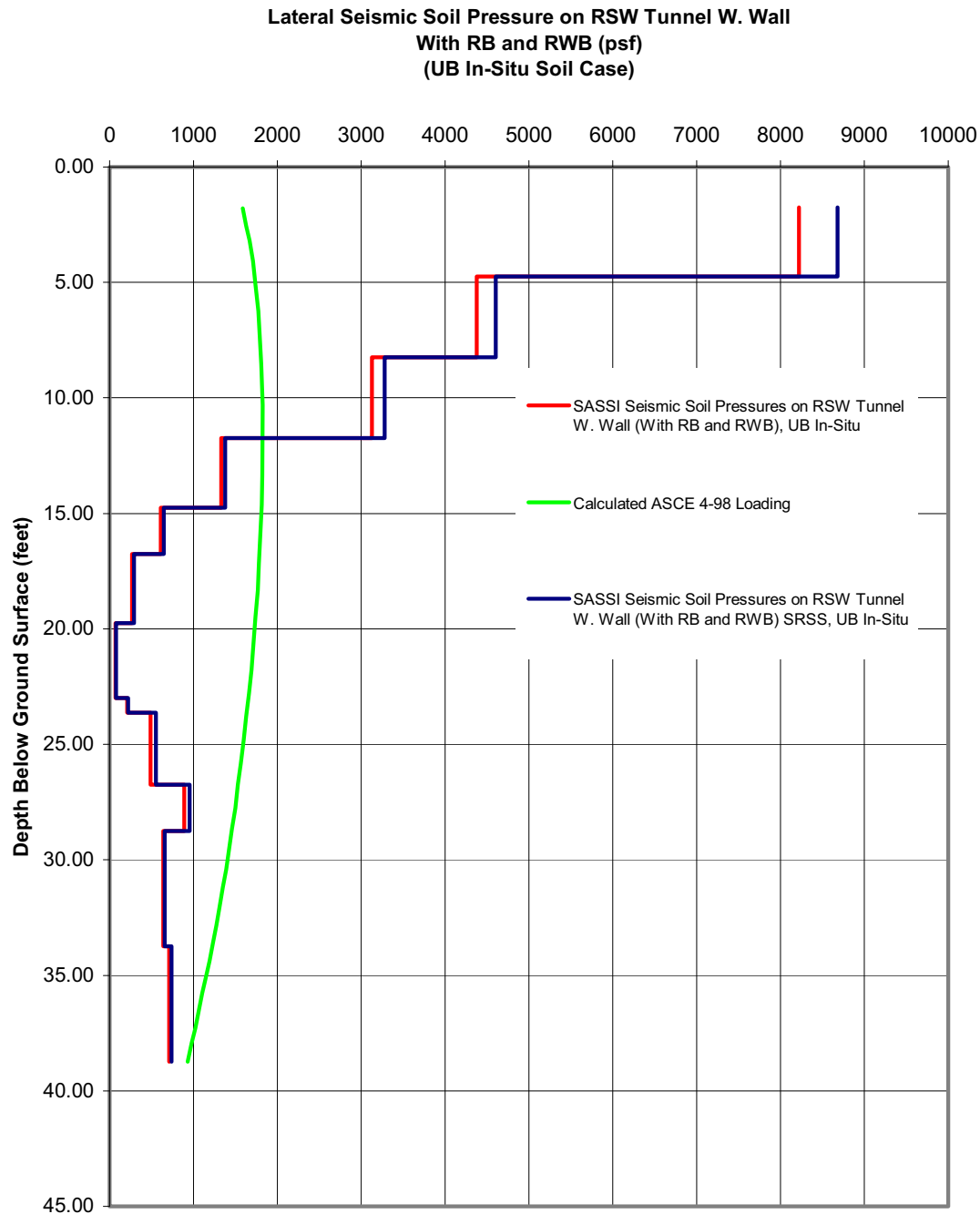


Figure 3H.6-217 Lateral Seismic Soil Pressures (psf) on RSW Piping Tunnel West Wall For UB In-Situ Soil Case (Main Cross Section of RSW Piping Tunnel, Including Effect of Vertical Excitation)

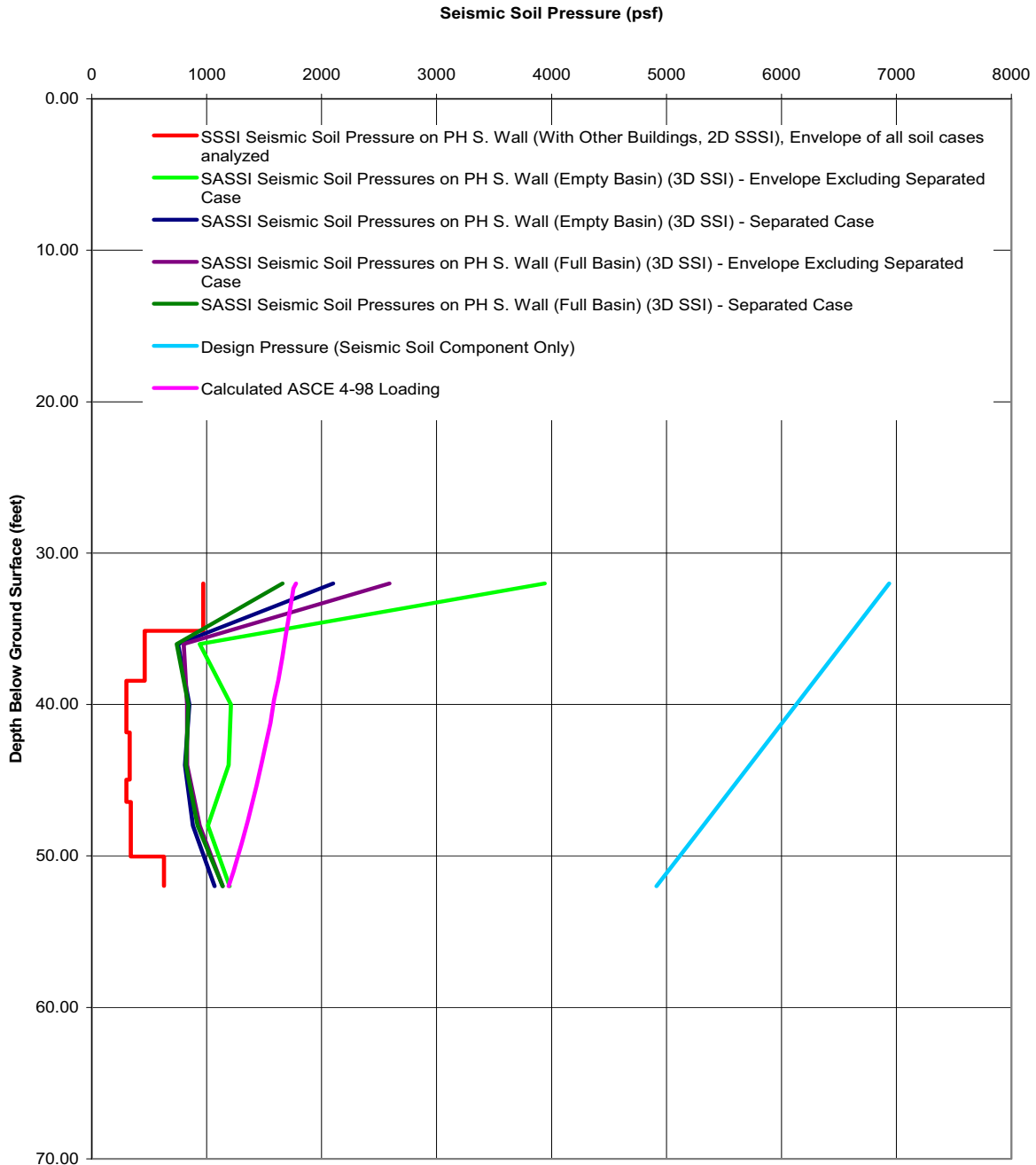


Figure 3H.6-218 SSI, SSSI, ASCE 4-98 and Design Lateral Seismic Soil Pressures on RSW Pump House South Wall

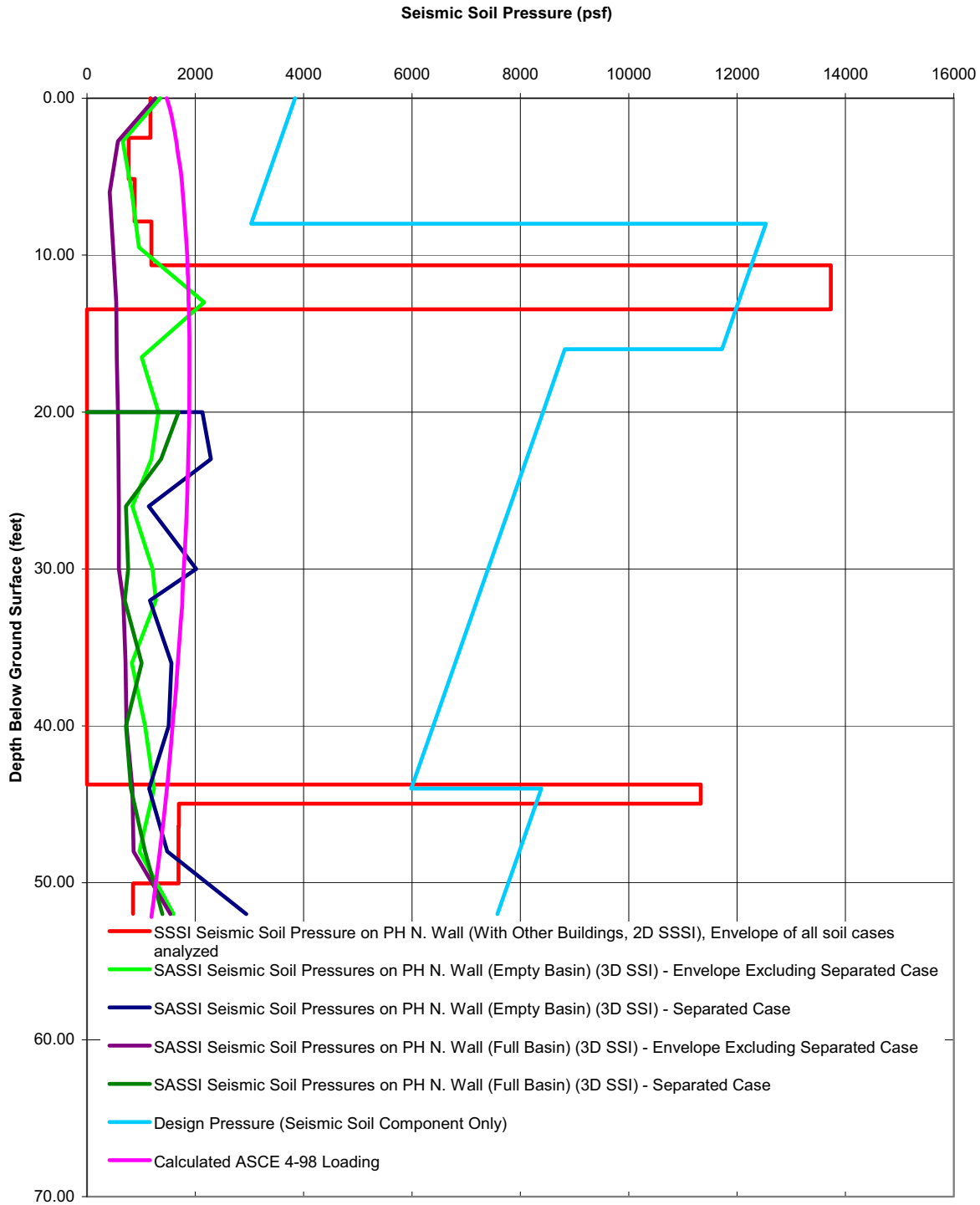


Figure 3H.6-219 SSI, SSSI, ASCE 4-98 and Design Lateral Seismic Soil Pressures on RSW Pump House North Wall

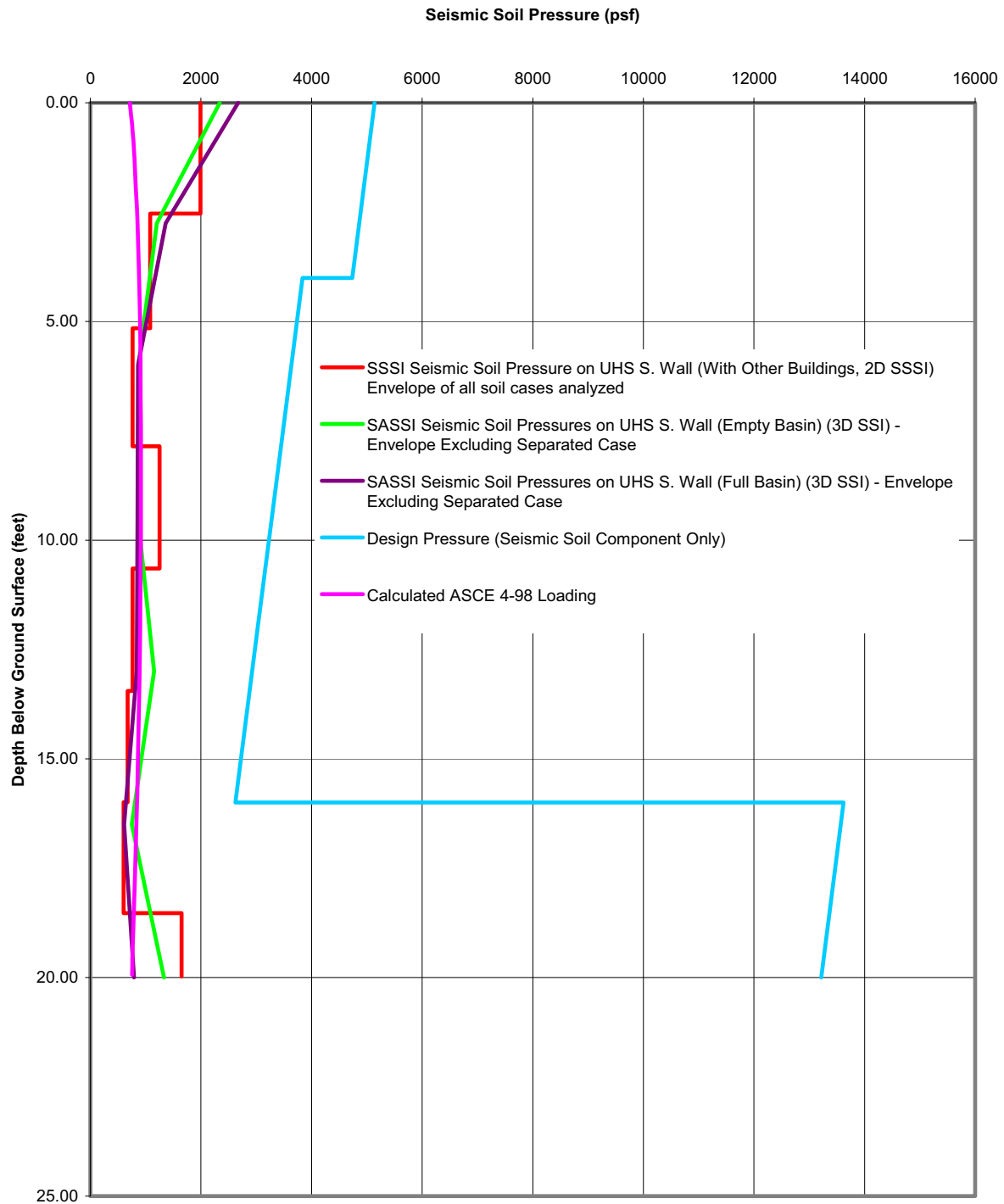


Figure 3H.6-220 SSI, SSSI, ASCE 4-98 and Design Lateral Seismic Soil Pressures on Ultimate Heat Sink Basin South Wall



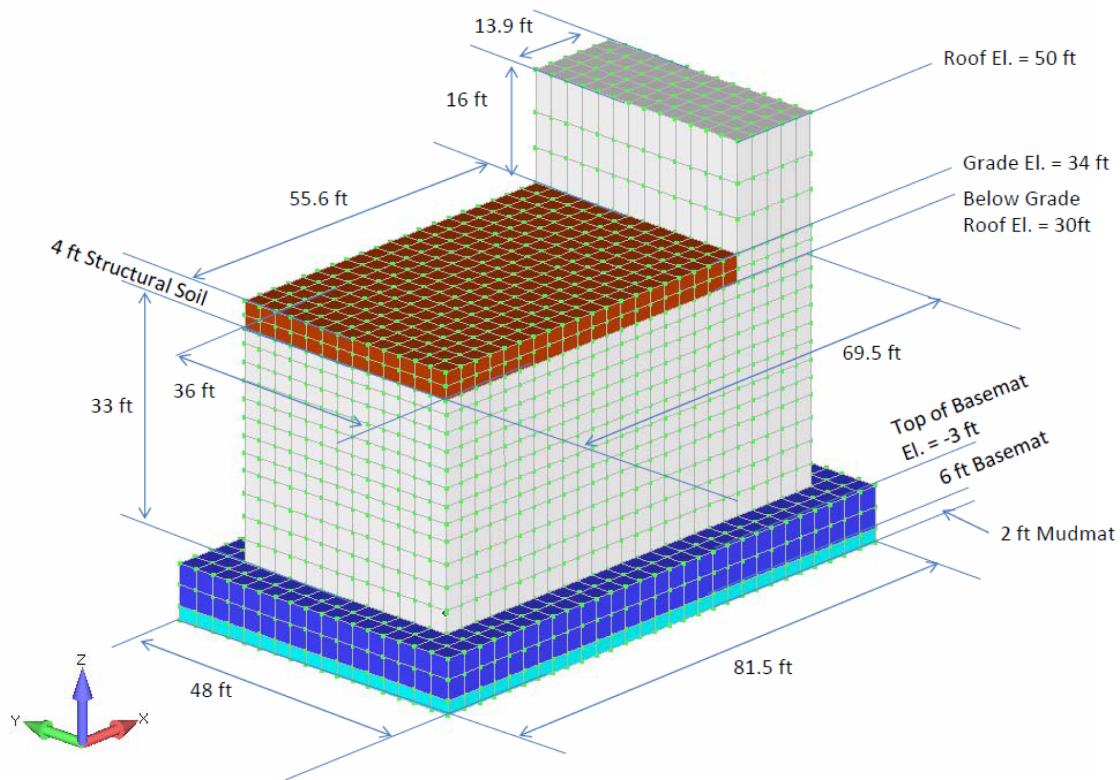
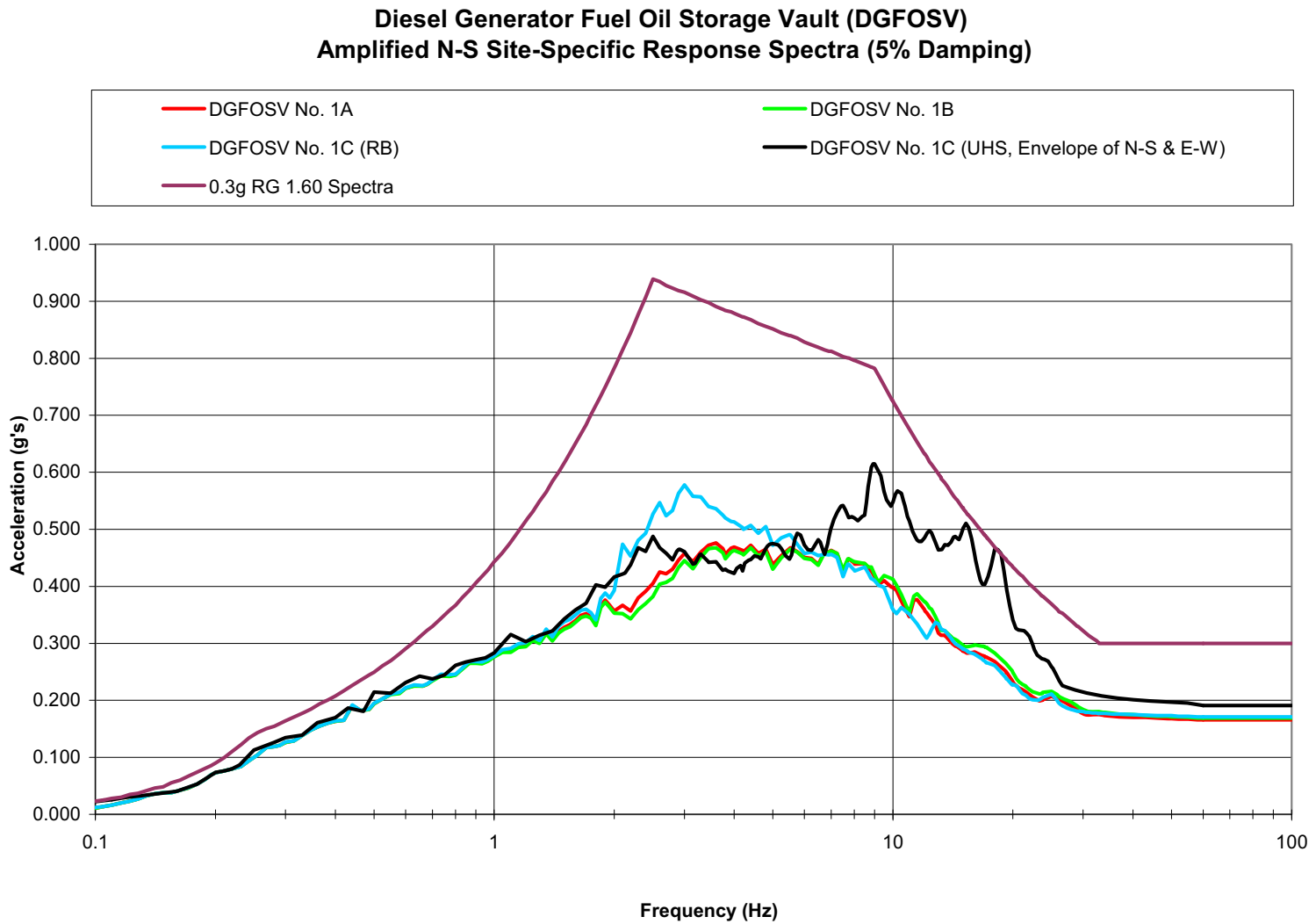
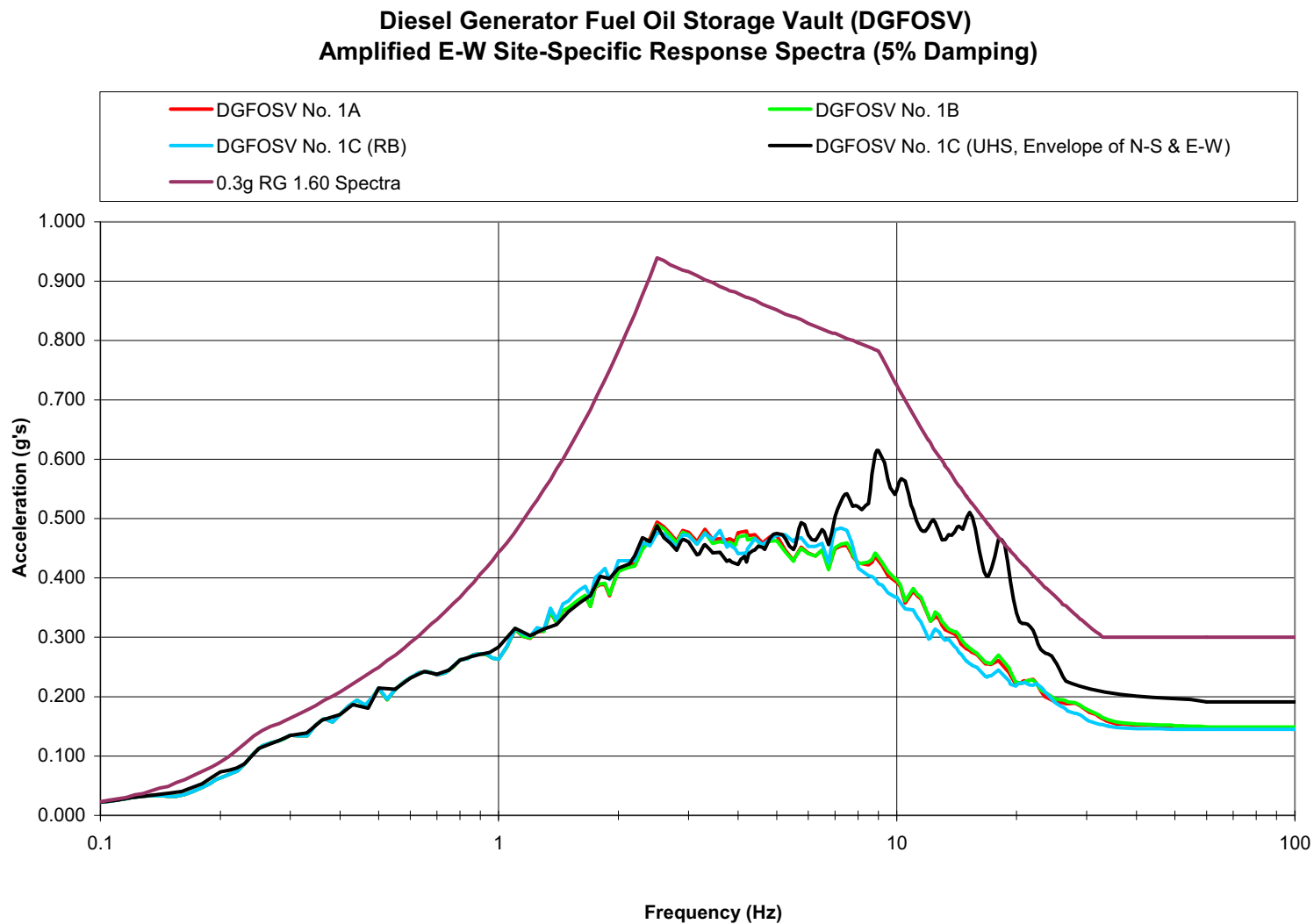


Figure 3H.6-222 3D Model of DGFOV for SSI Analysis

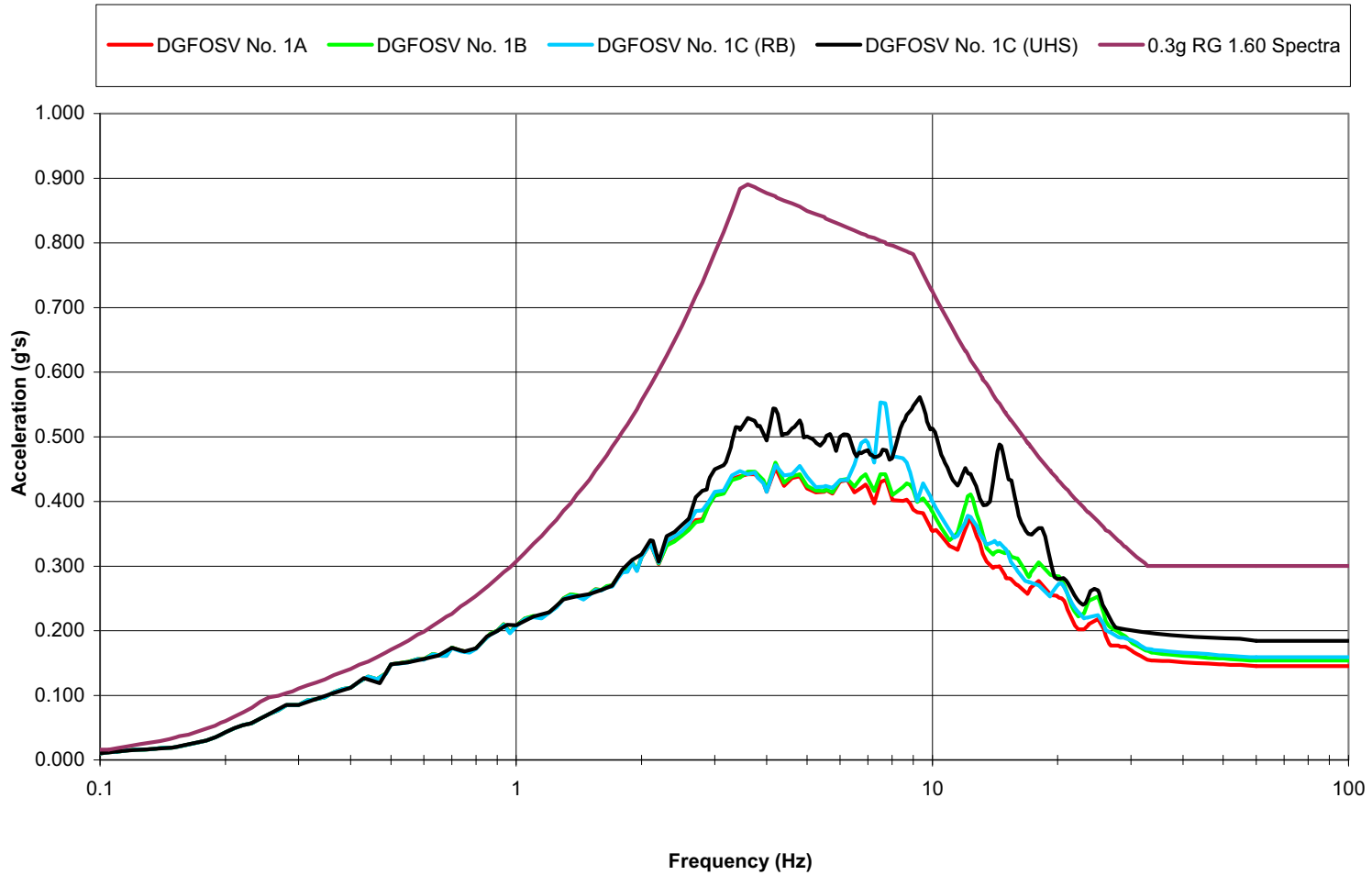


**Figure 3H.6-222a Amplified N-S Site-Specific Response Spectra
Diesel Generator Fuel Oil Storage Vault (DGFOSV)**



**Figure 3H.6-222b Amplified E-W Site-Specific Response Spectra
Diesel Generator Fuel Oil Storage Vault (DGFOSV)**

**Diesel Generator Fuel Oil Storage Vault (DGFOSV)
Amplified Vertical Site-Specific Response Spectra (5% Damping)**



**Figure 3H.6-222c Amplified Vertical Site-Specific Response Spectra
Diesel Generator Fuel Oil Storage Vault (DGFOSV)**

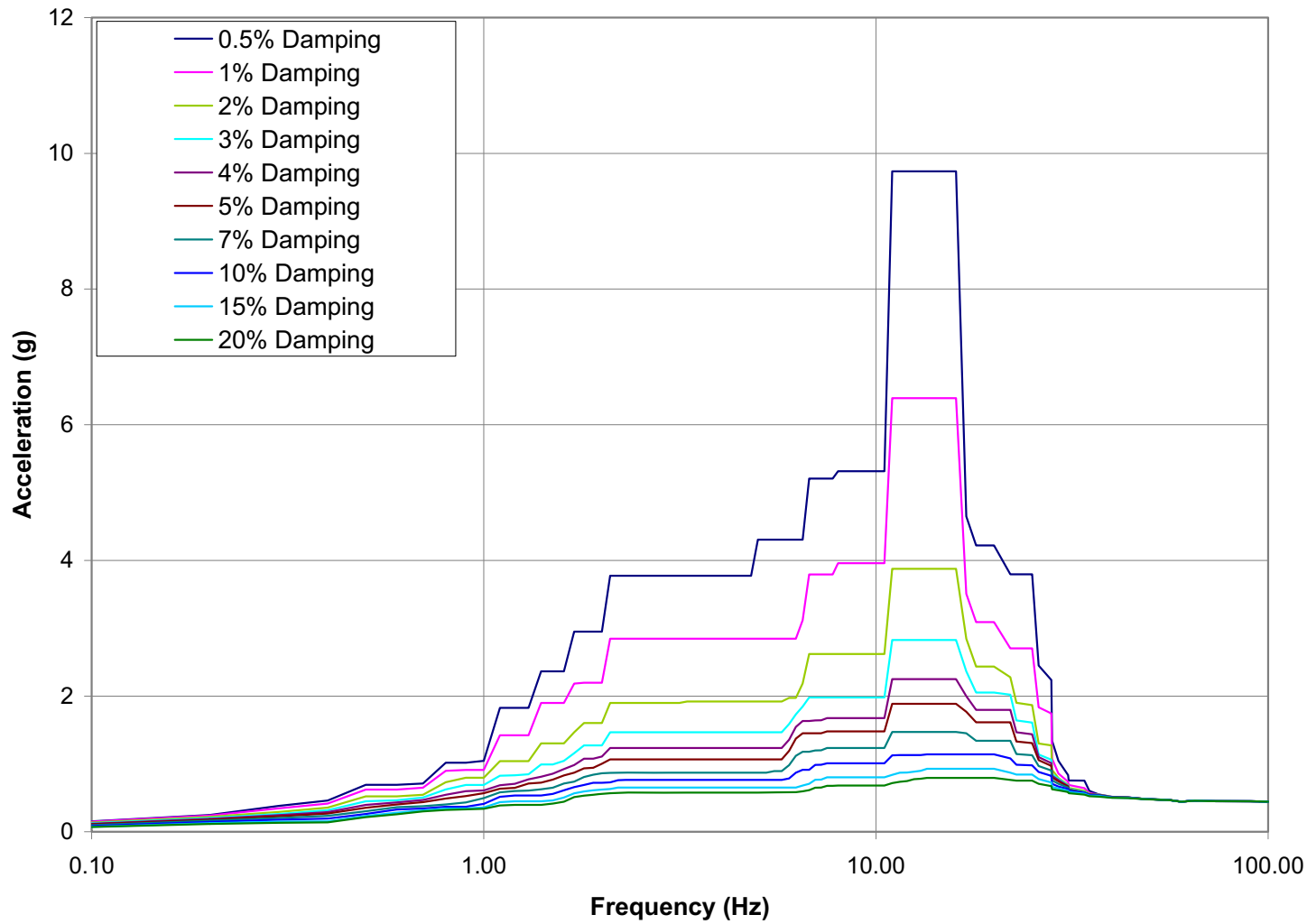


Figure 3H.6-223 Enveloped Broadened Horizontal Direction Response Spectra for DGFOV

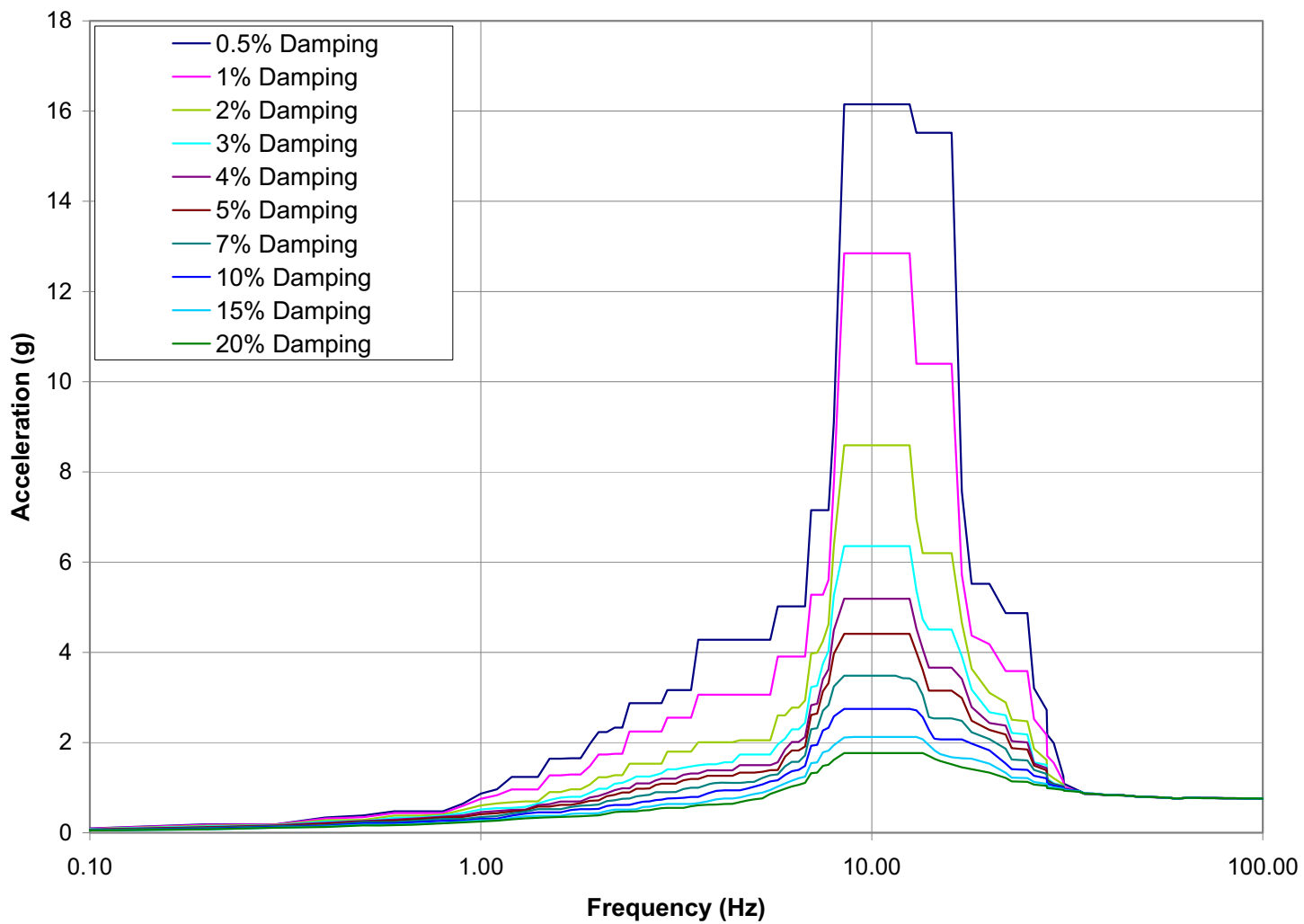


Figure 3H.6-224 Enveloped Broadened Vertical Direction Response Spectra for DGFOVS

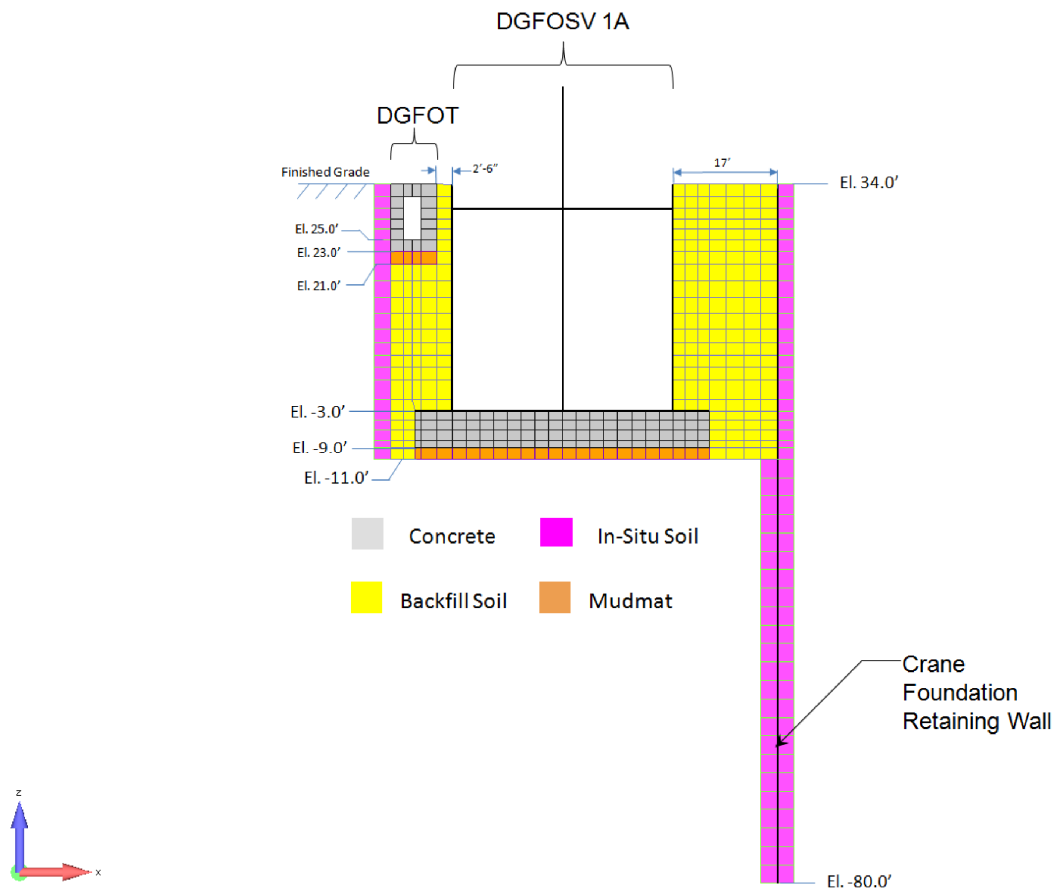


Figure 3H.6-225 2D SSSI Model of DGFOV, DGFOV 1A and Crane Foundation Retaining Wall

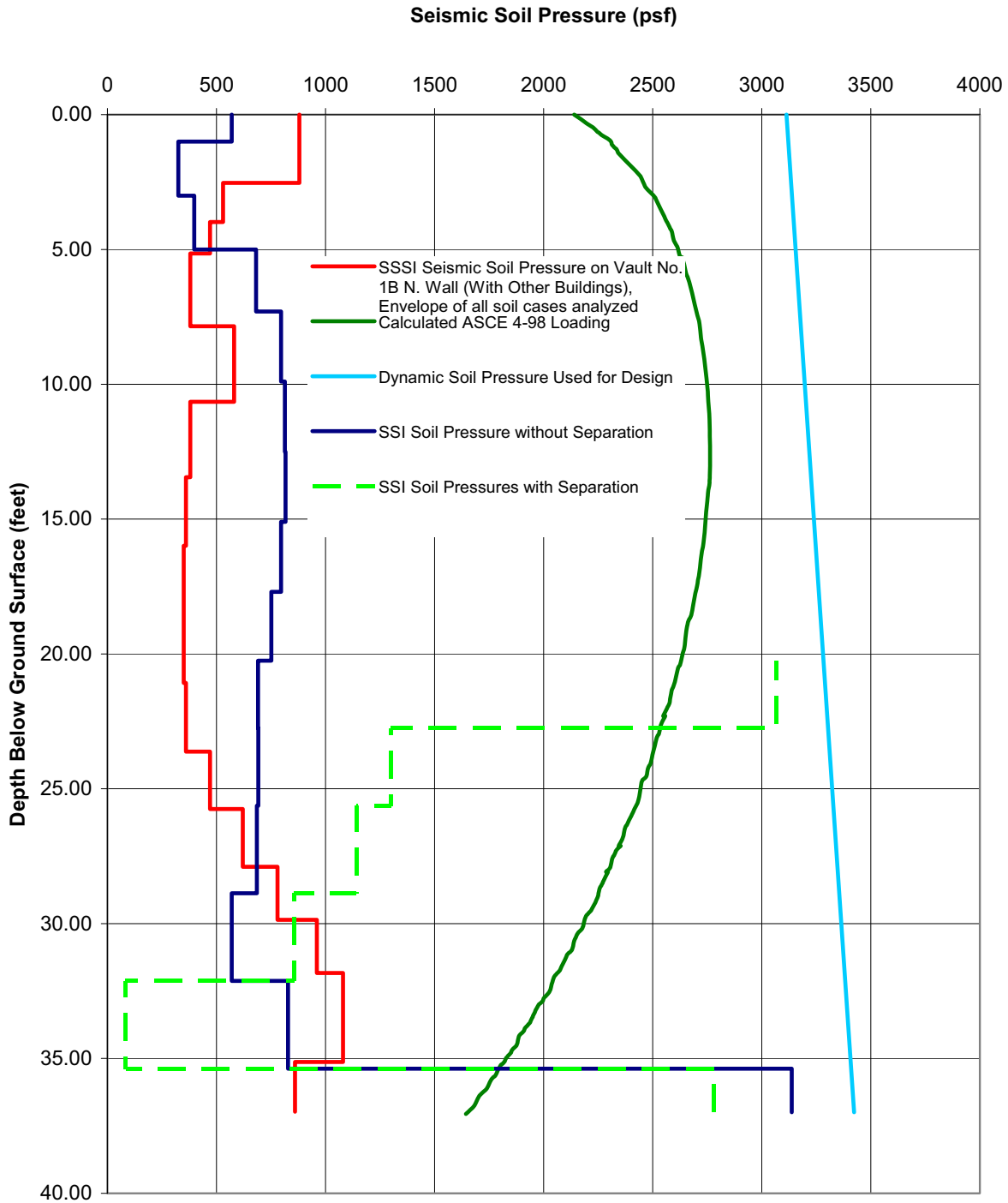


Figure 3H.6-226 SSI, SSSI, ASCE 4-98 and Design Lateral Seismic Soil Pressures on Diesel Generator Fuel Oil Storage Vault No. 1B North Wall

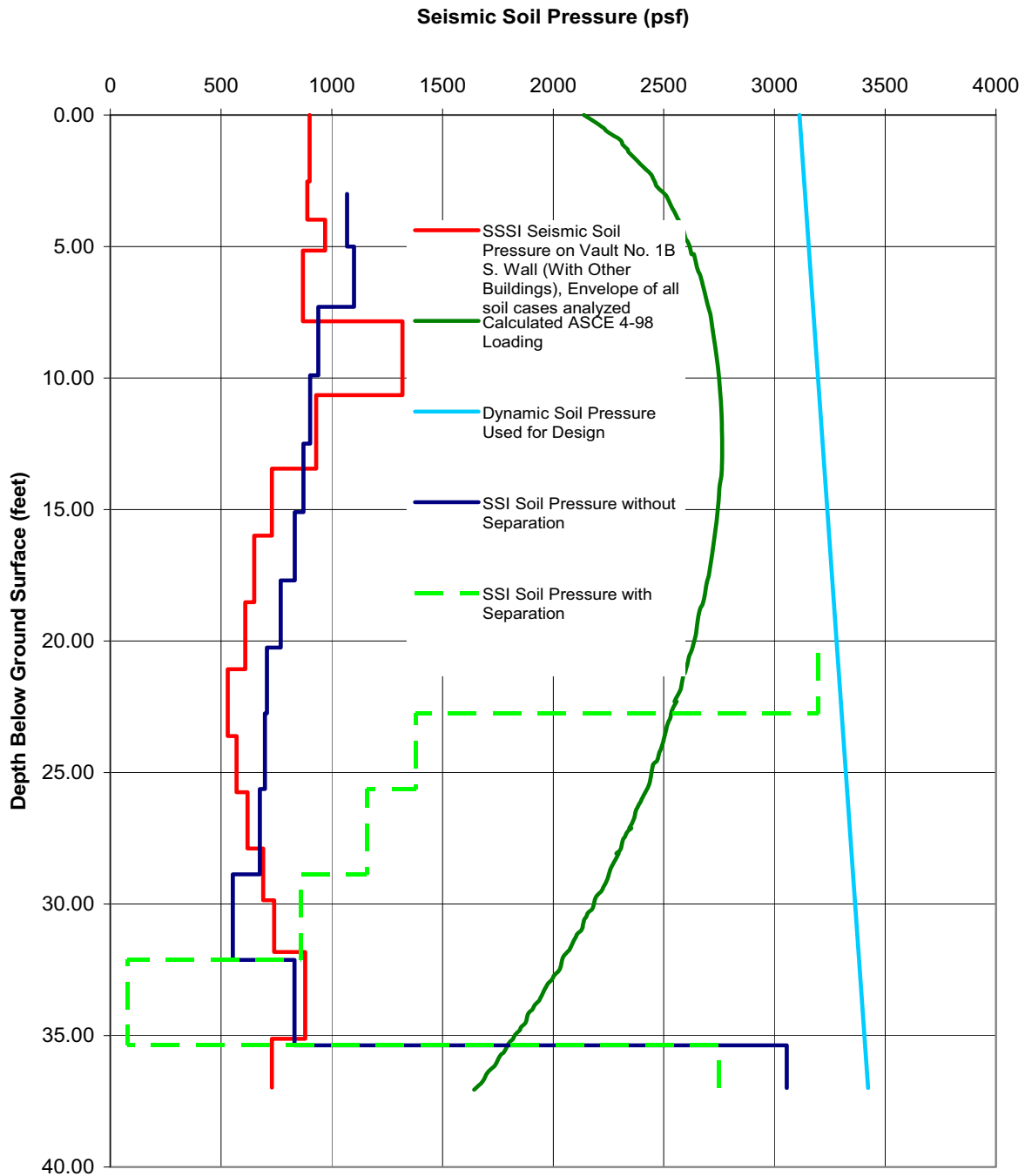


Figure 3H.6-227 SSI, SSSI, ASCE 4-98 and Design Lateral Seismic Soil Pressures on Diesel Generator Fuel Oil Storage Vault No. 1B South Wall

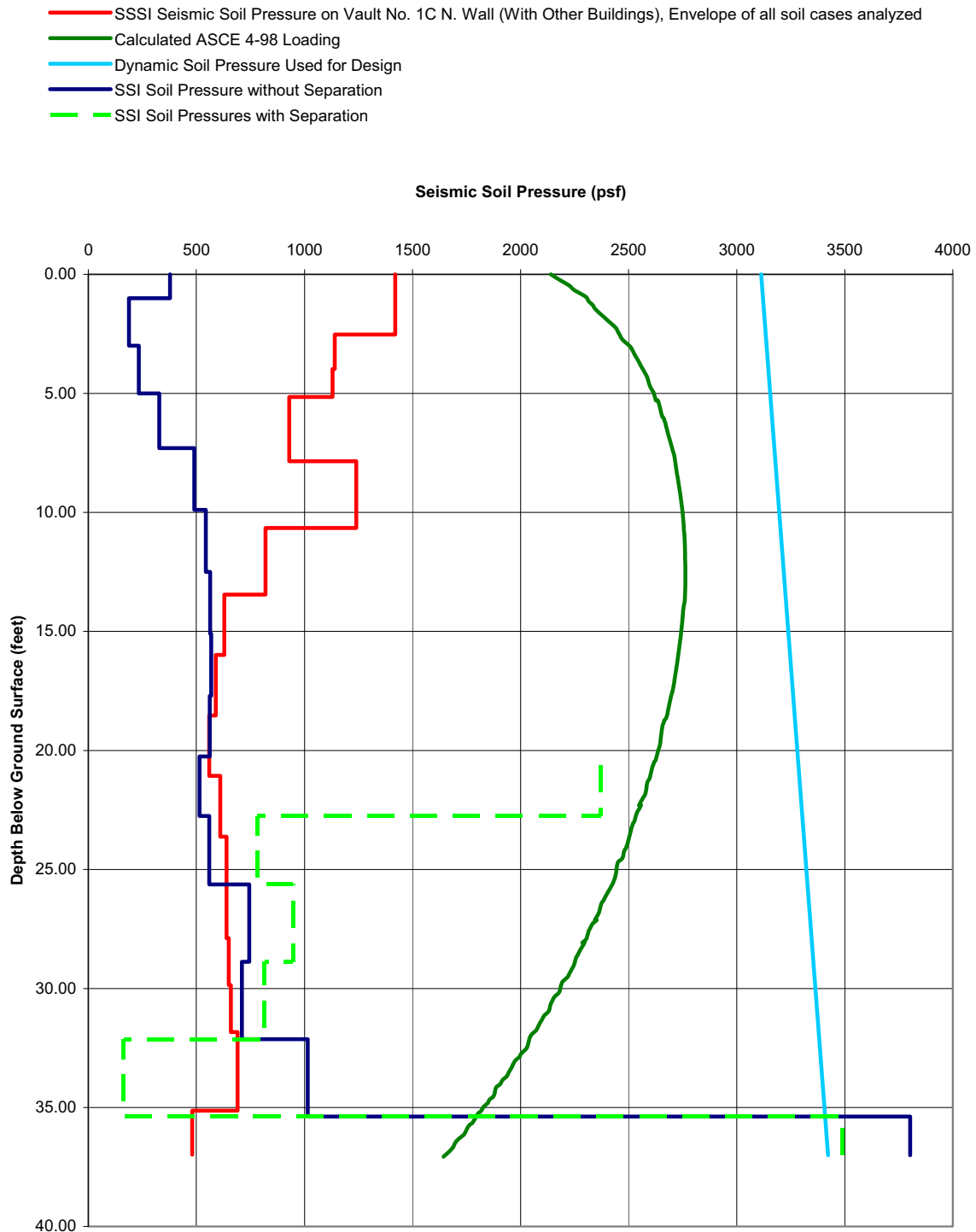


Figure 3H.6-228 SSI, SSSI, ASCE 4-98 and Design Lateral Seismic Soil Pressures on Diesel Generator Fuel Oil Storage Vault No. 1C North Wall

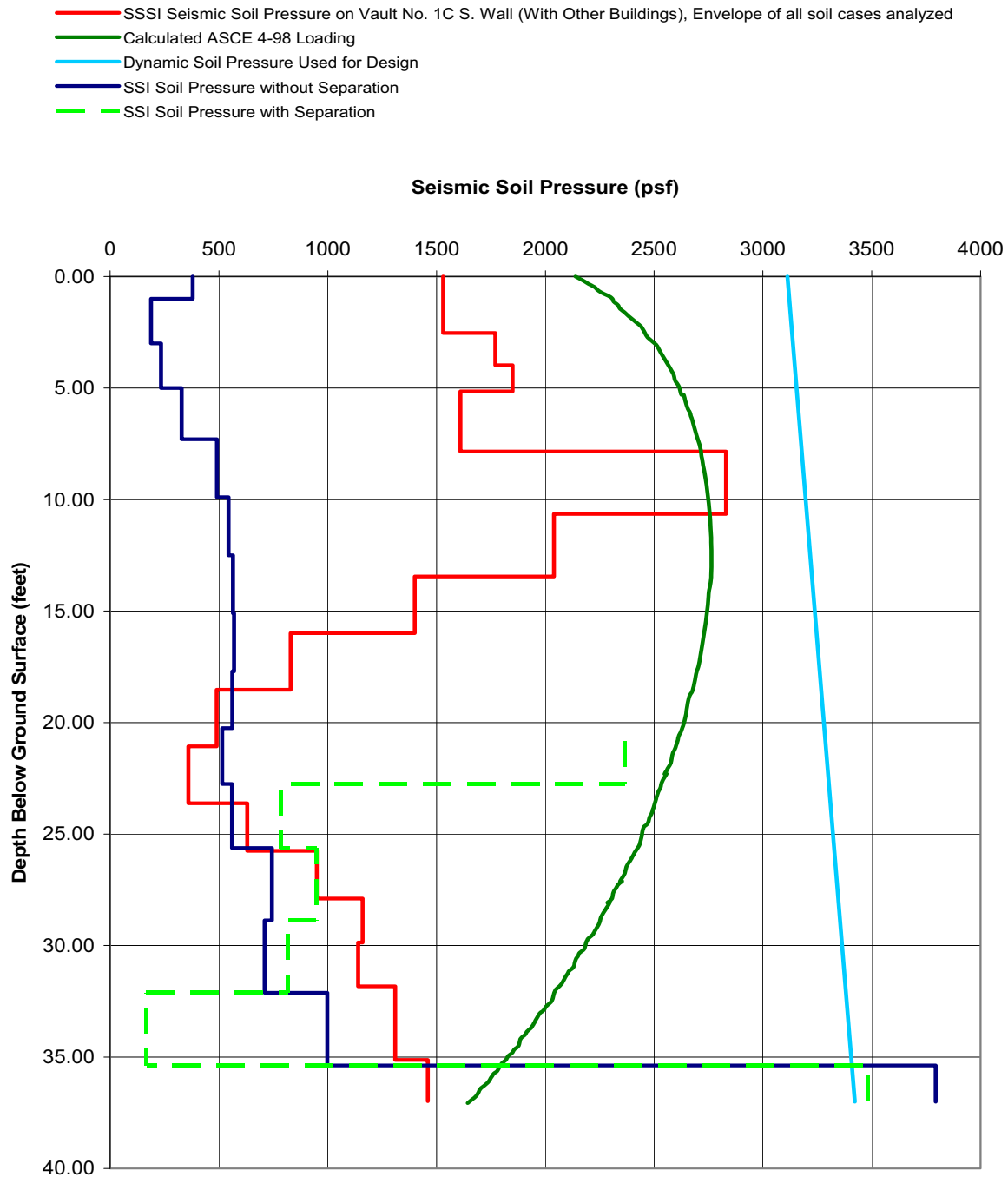


Figure 3H.6-229 SSI, SSSI, ASCE 4-98 and Design Lateral Seismic Soil Pressures on Diesel Generator Fuel Oil Storage Vault No. 1C South Wall

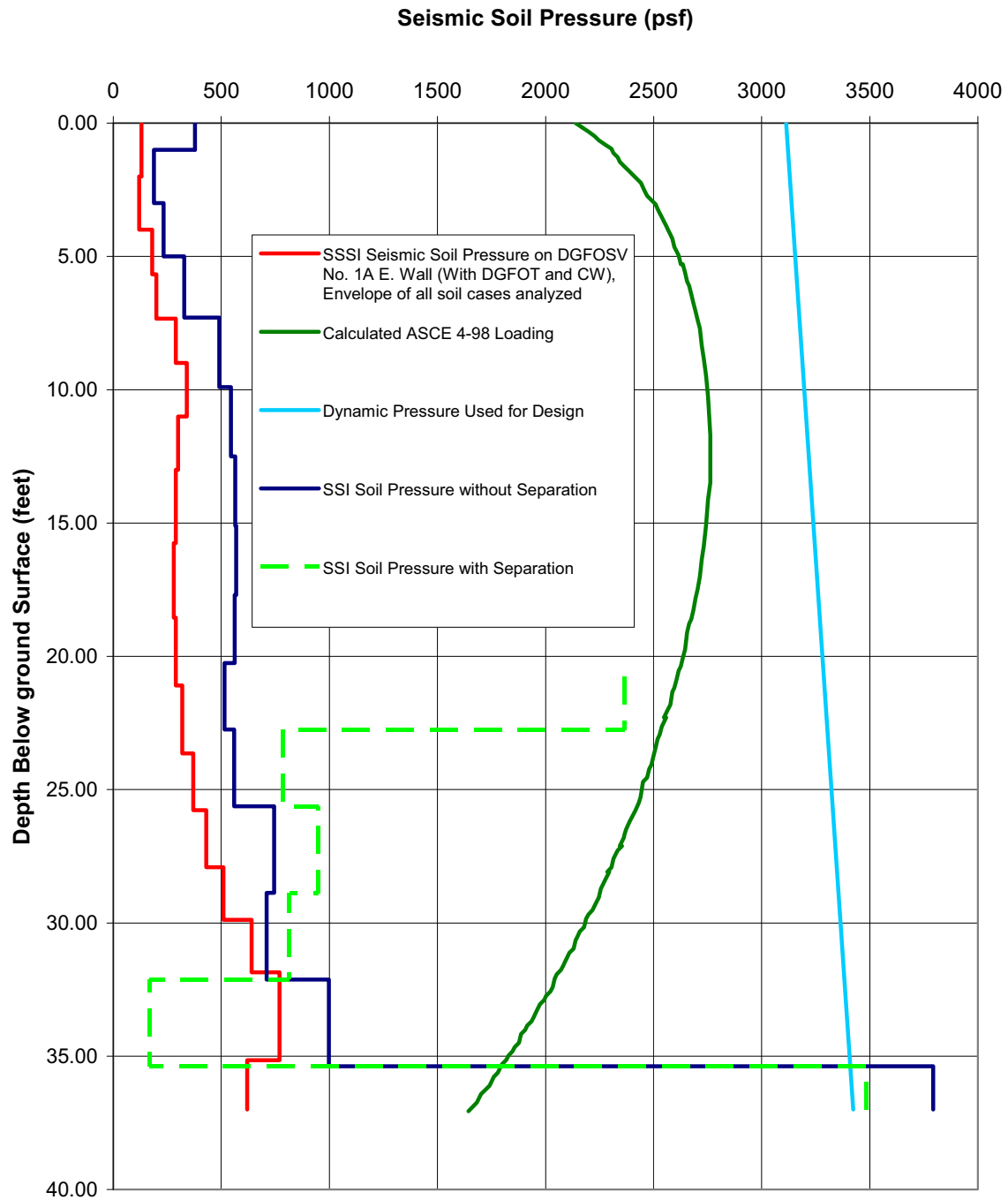


Figure 3H.6-230 SSI, SSSI, ASCE 4-98 and Design Lateral Seismic Soil Pressures on Diesel Generator Fuel Oil Storage Vault No. 1A East Wall

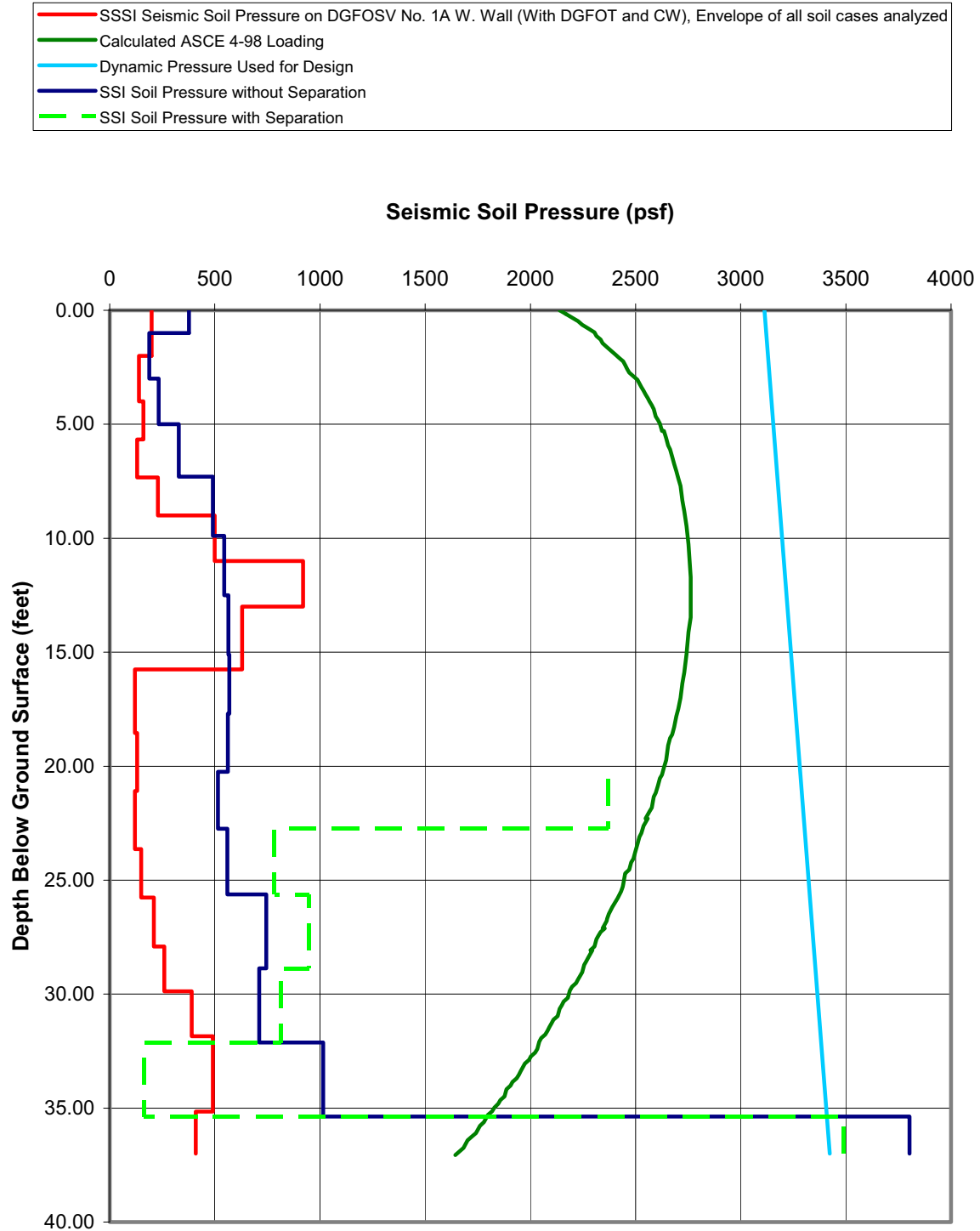


Figure 3H.6-231 SSI, SSSI, ASCE 4-98 and Design Lateral Seismic Soil Pressures on Diesel Generator Fuel Oil Storage Vault No. 1A West Wall

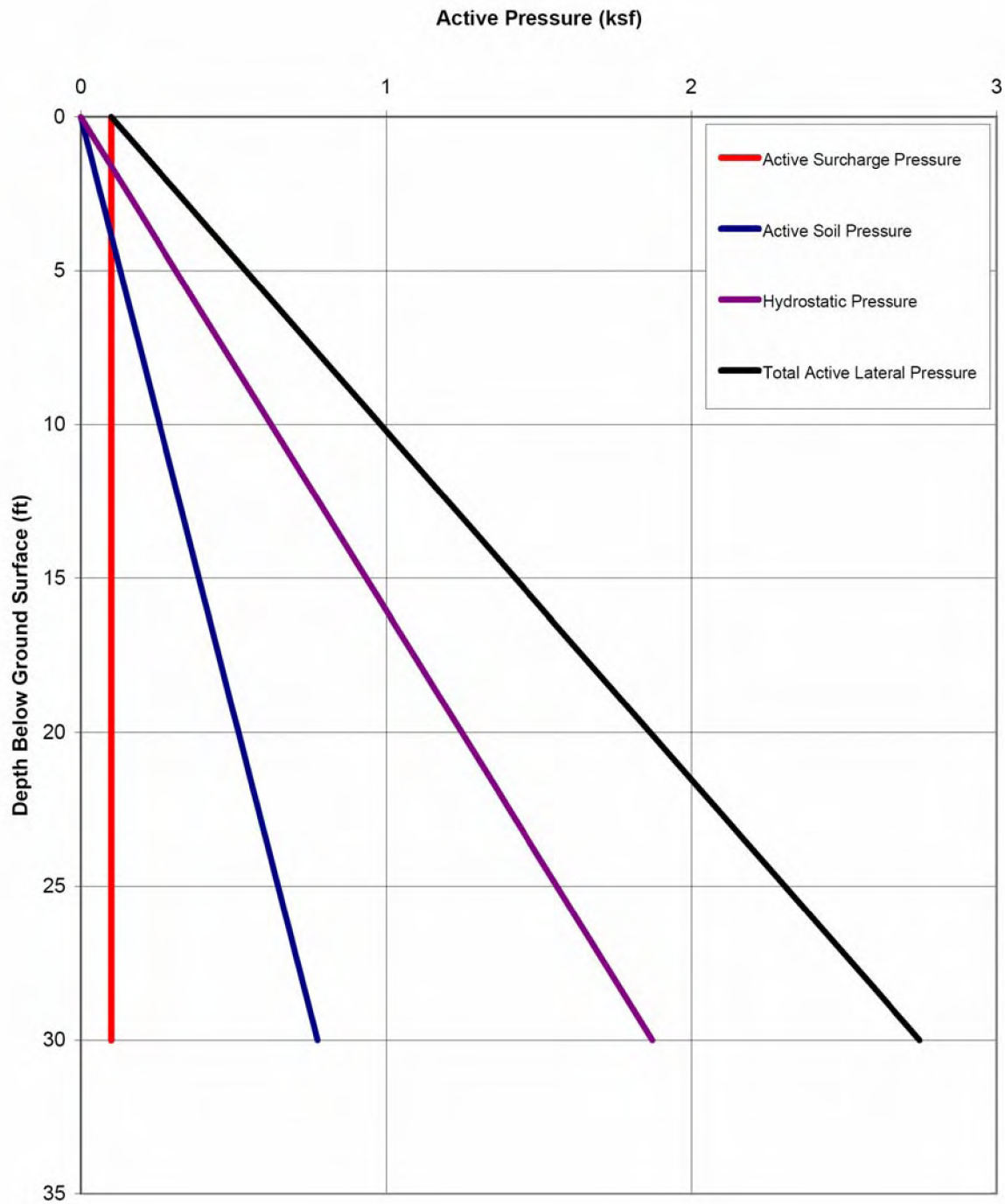


Figure 3H.6-232 Active Lateral Earth Pressure on the UHS Basin Walls

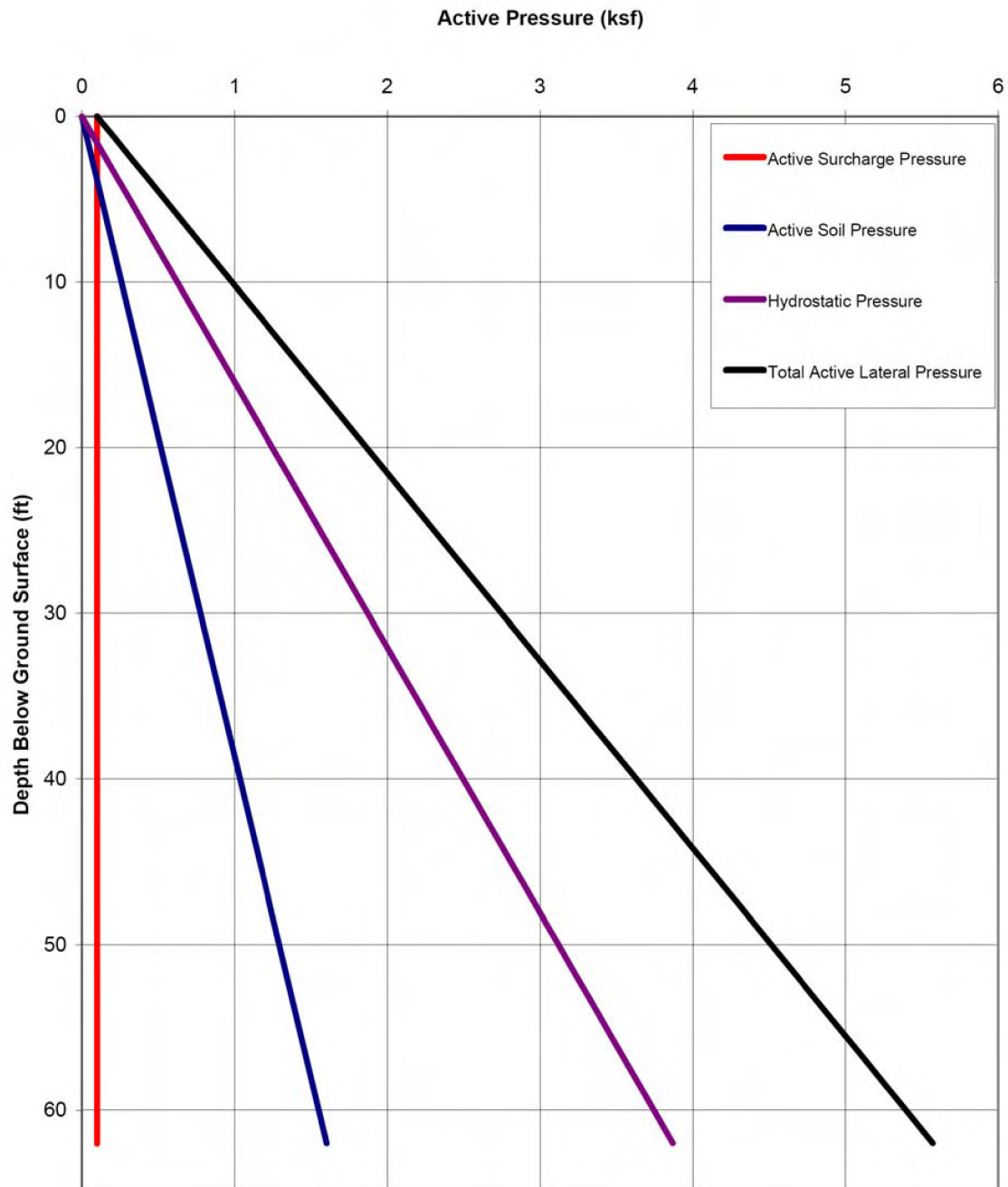


Figure 3H.6-233 Active Lateral Earth Pressure on the North, East and West Walls of the RSW Pump House

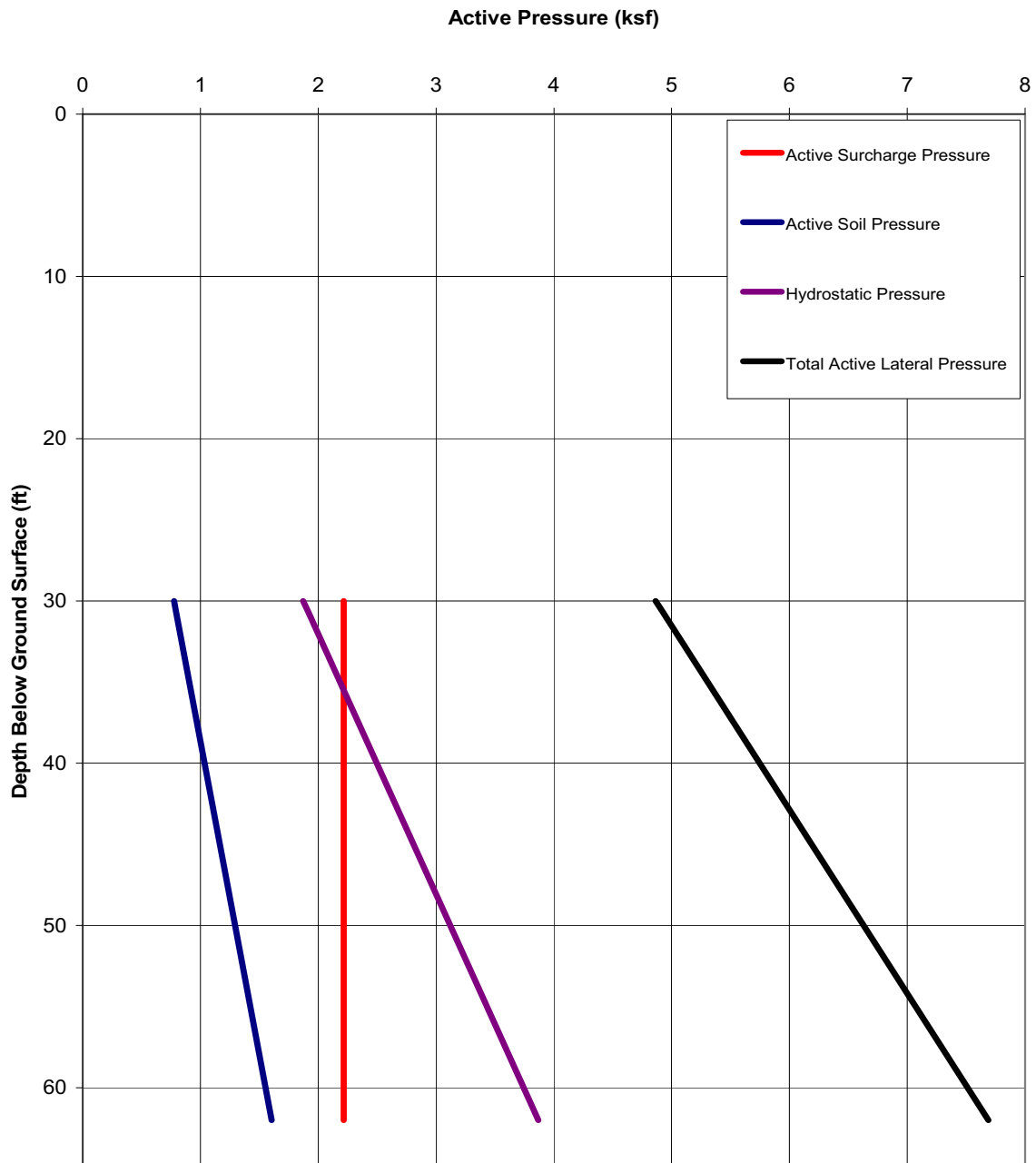


Figure 3H.6-234 Active Lateral Earth Pressure on the South Wall of the RSW Pump House

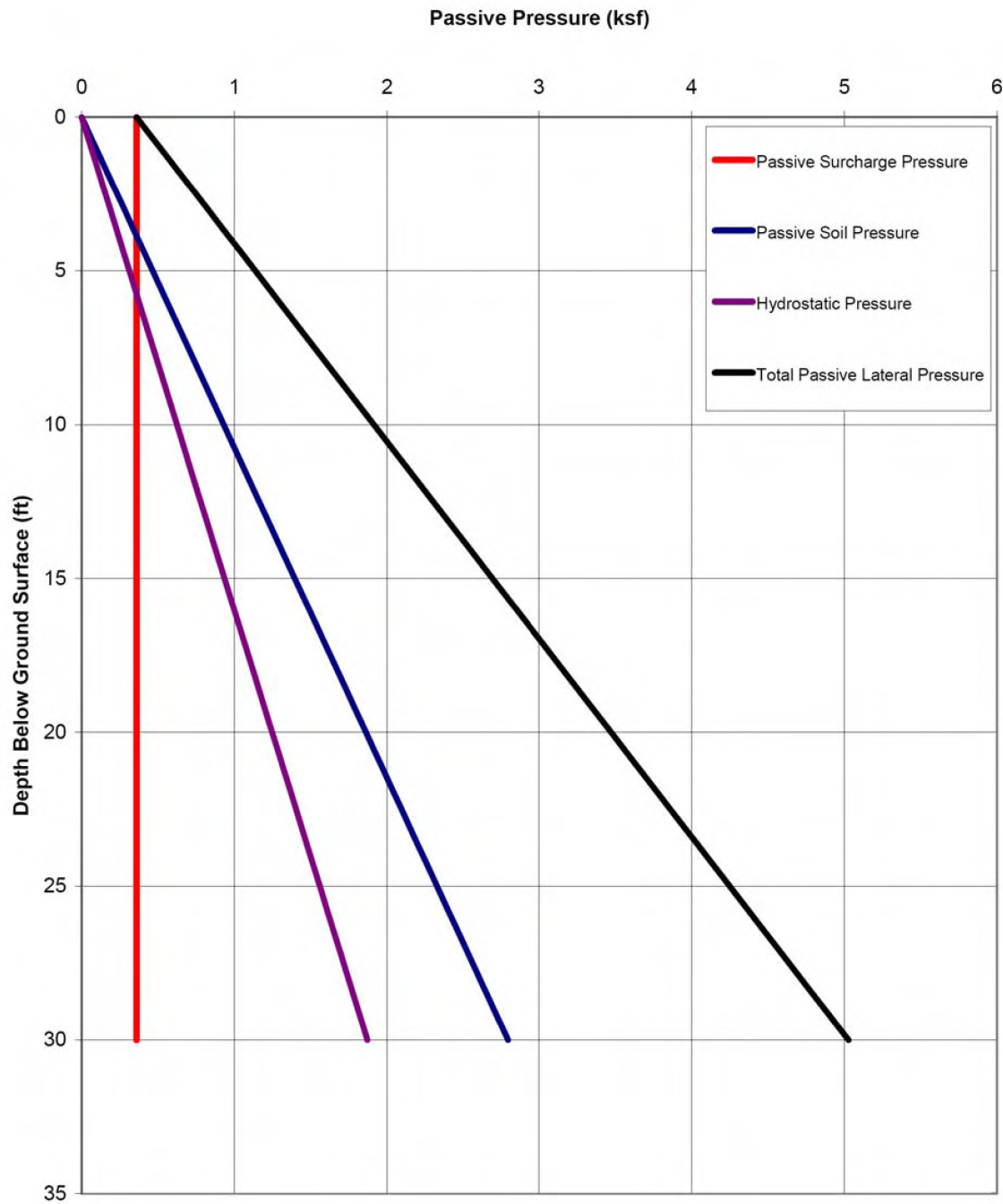


Figure 3H.6-235 Passive Lateral Earth Pressure on the UHS Basin Walls

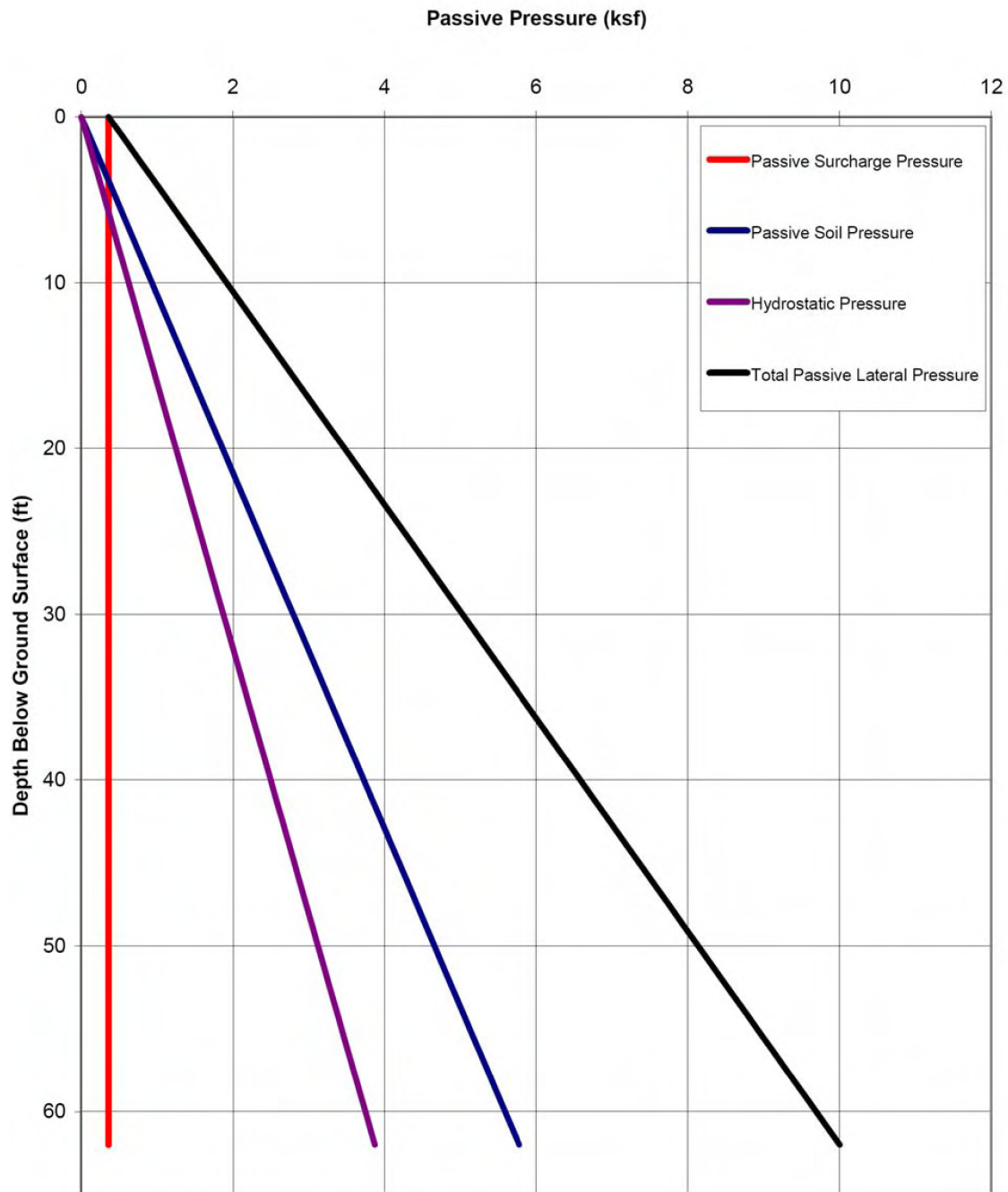


Figure 3H.6-236 Passive Lateral Earth Pressure on the North, East and West Walls of the RSW Pump House

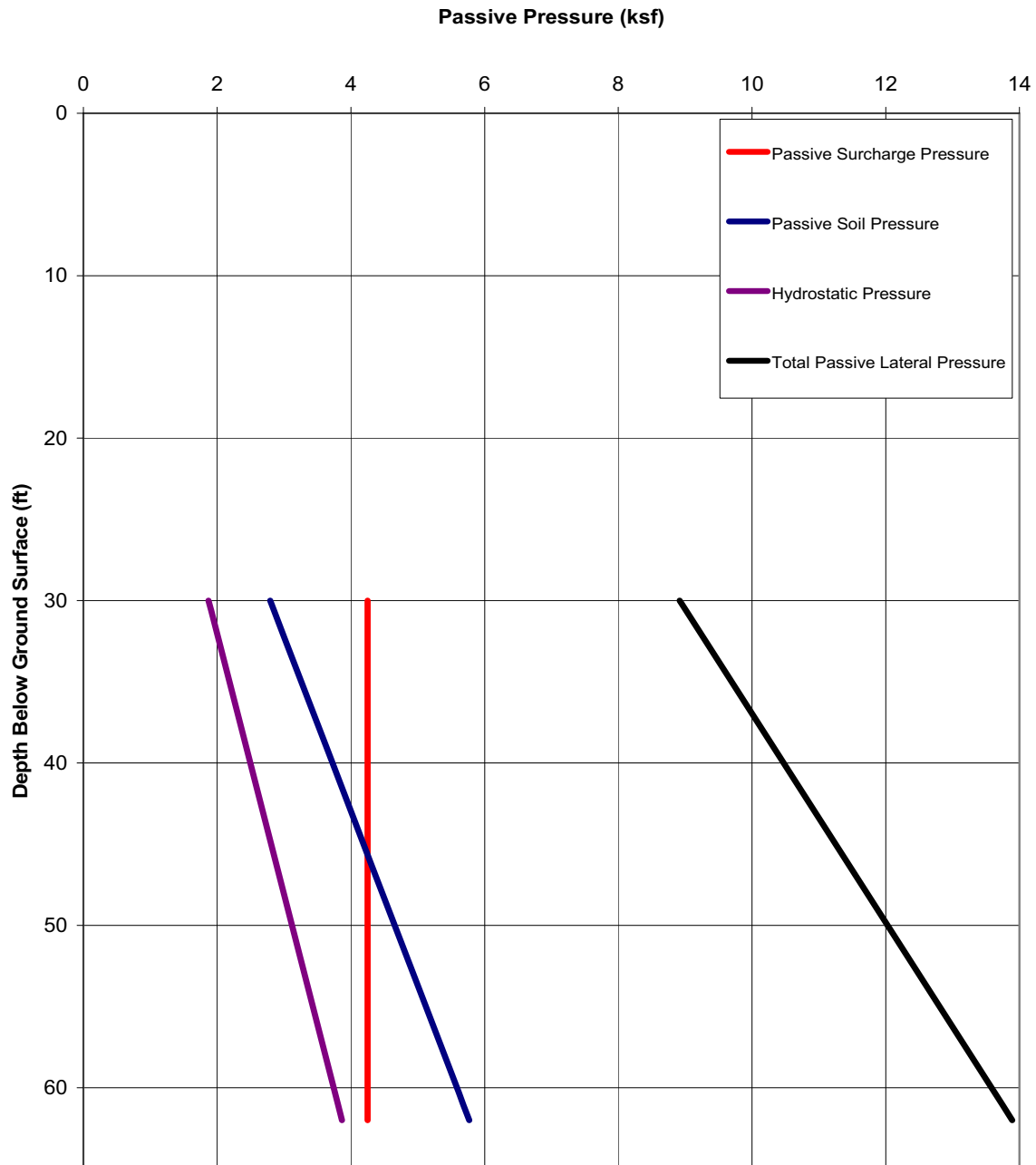


Figure 3H.6-237 Passive Lateral Earth Pressure on the South Wall of the RSW Pump House

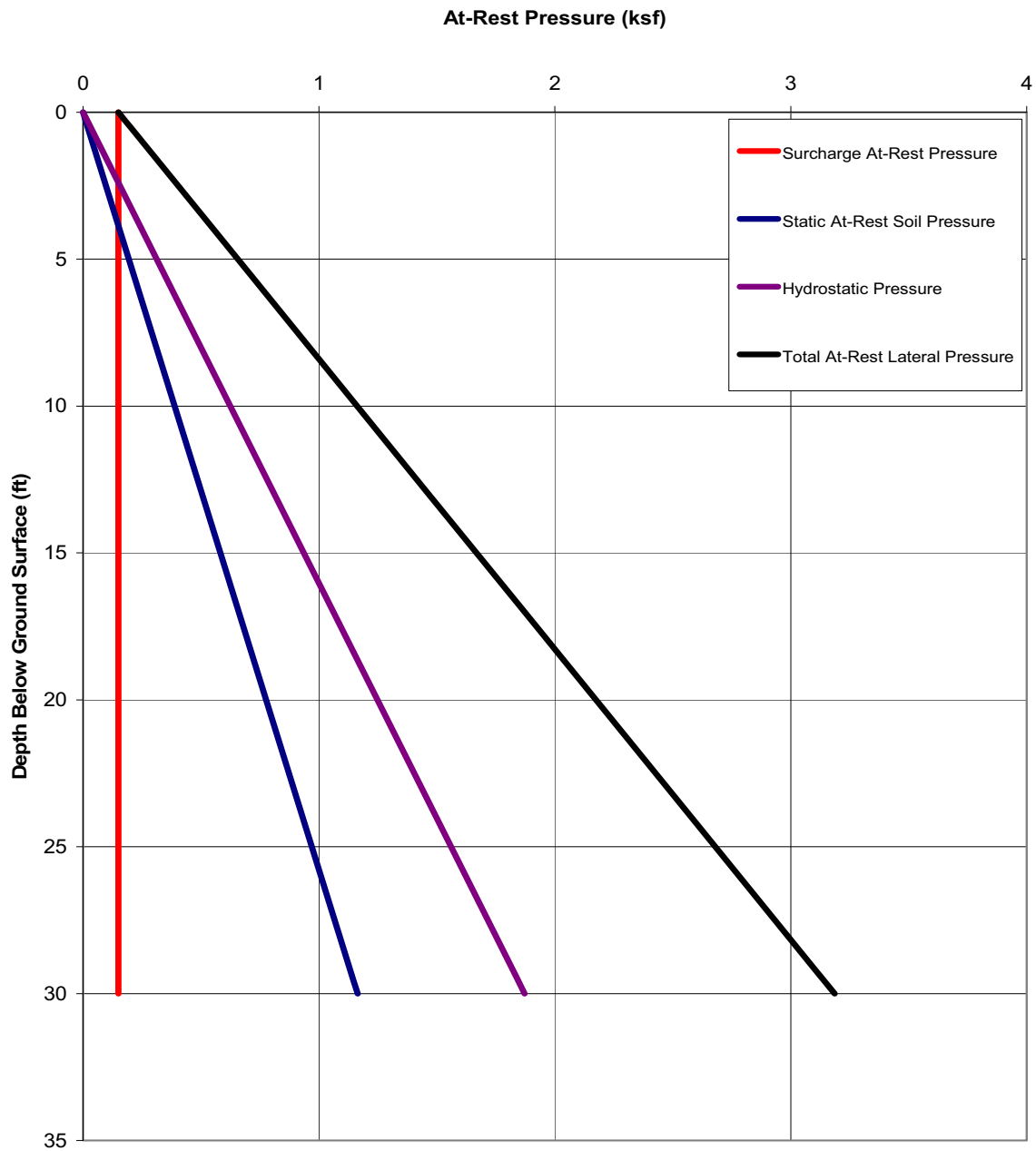


Figure 3H.6-238 At-Rest Lateral Earth Pressure on the UHS Basin Walls

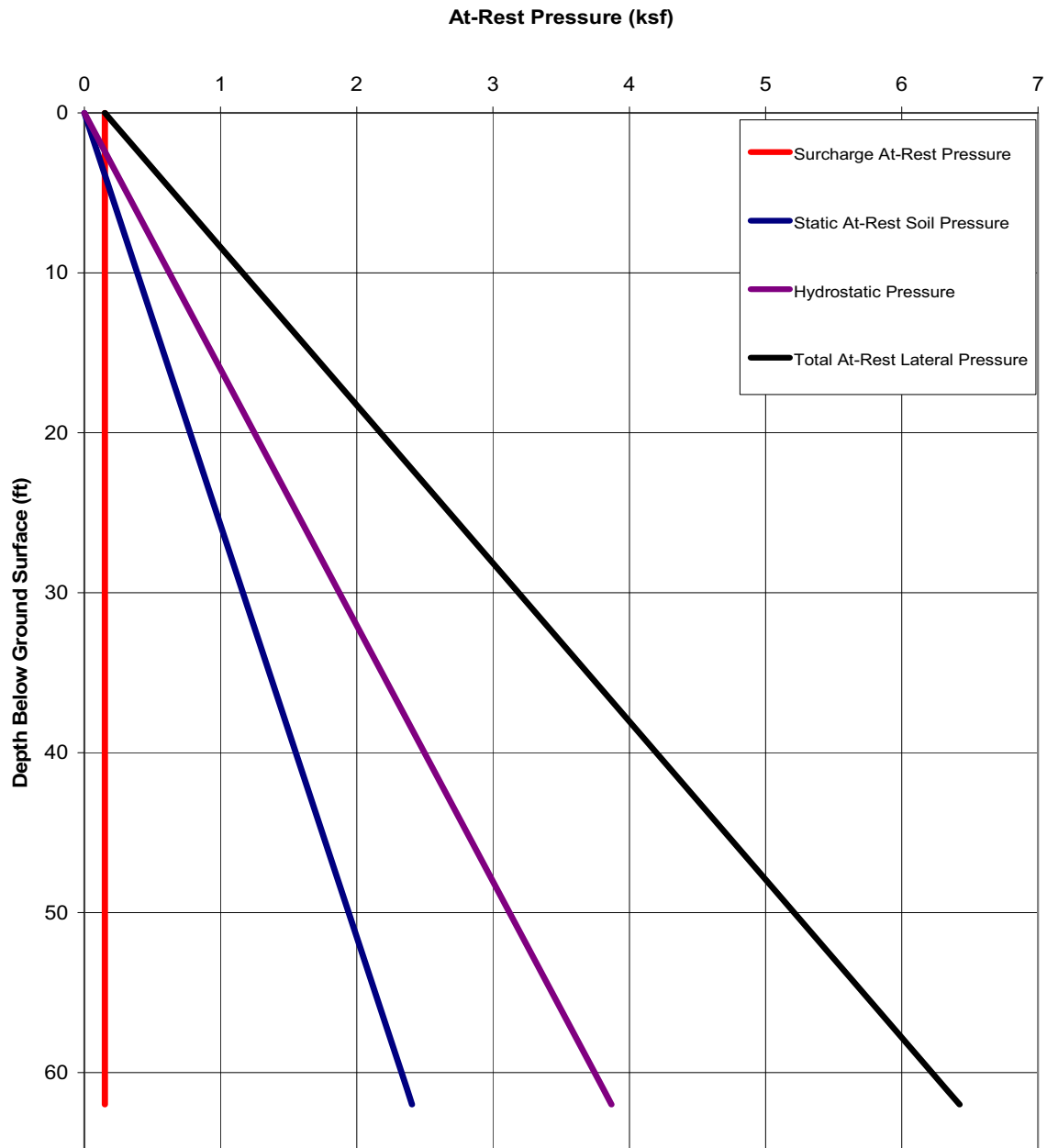


Figure 3H.6-239 At-Rest Lateral Earth Pressure on the North, East and West Walls of the RSW Pump House

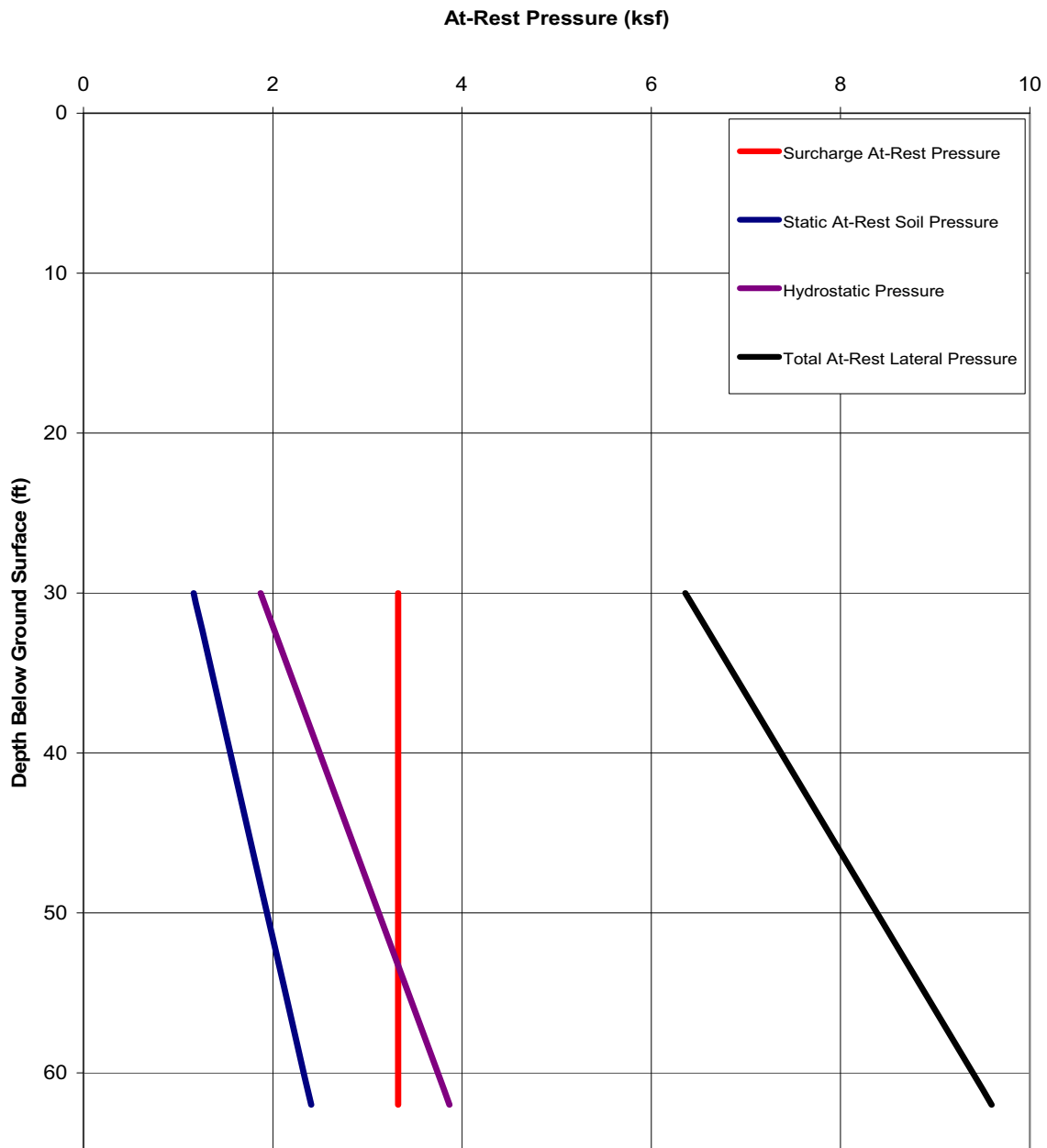


Figure 3H.6-240 At-Rest Lateral Earth Pressure on the South Wall of the RSW Pump House

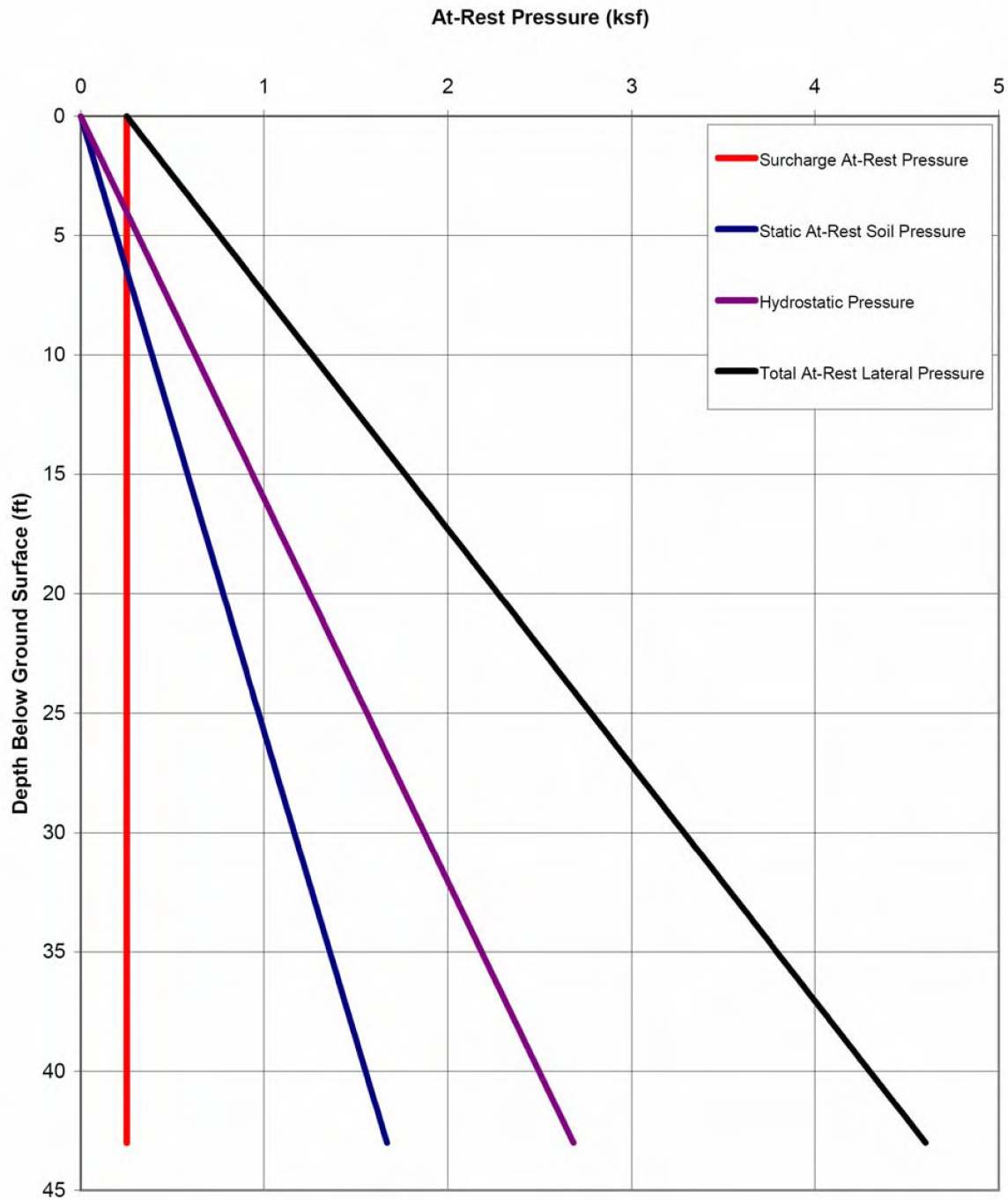


Figure 3H.6-241 At-Rest Lateral Earth Pressure on the Diesel Generator Fuel Oil Storage Vault Walls

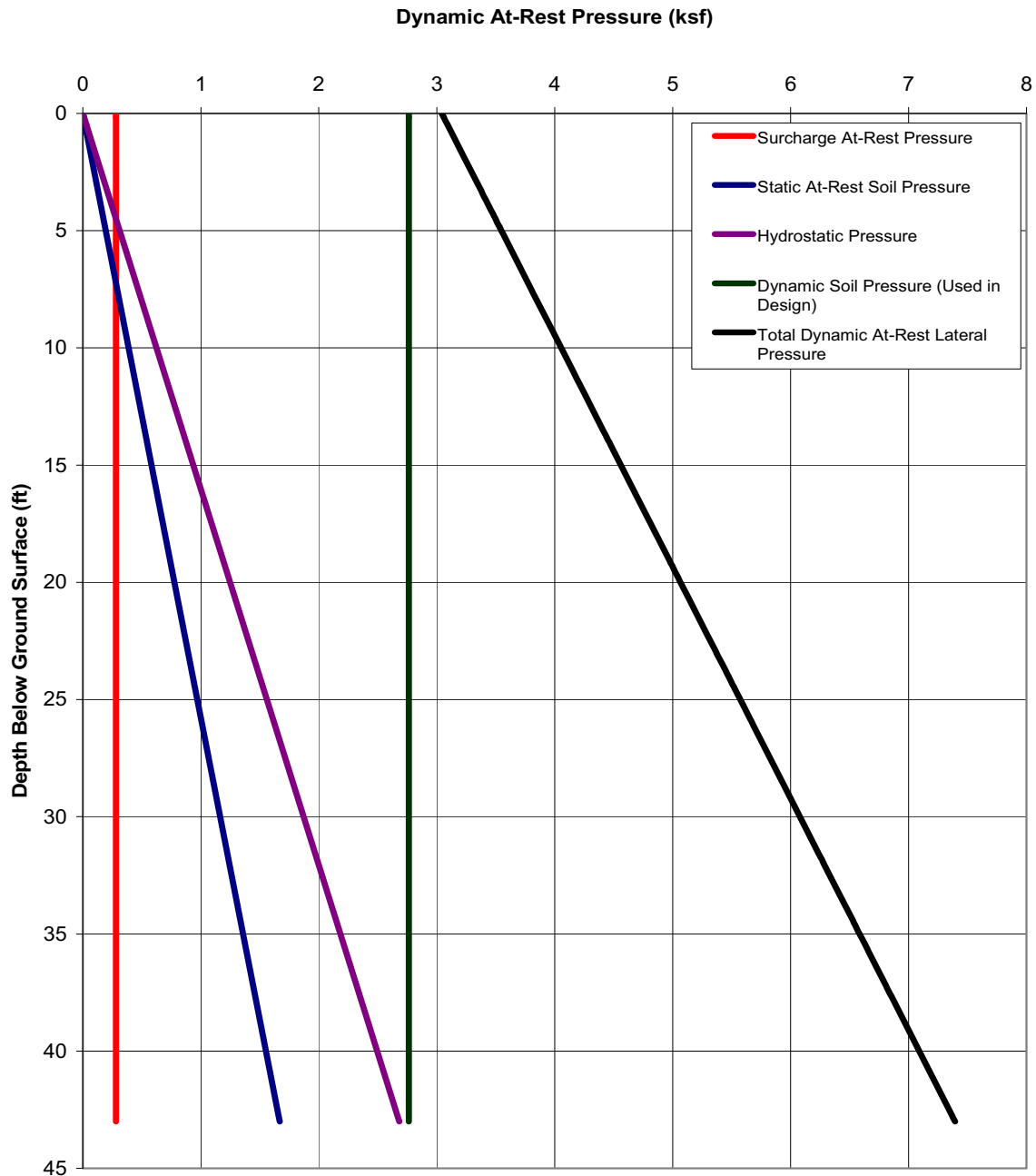


Figure 3H.6-242 Dynamic At-Rest Lateral Earth Pressure on the Diesel Generator Fuel Oil Storage Vault Walls

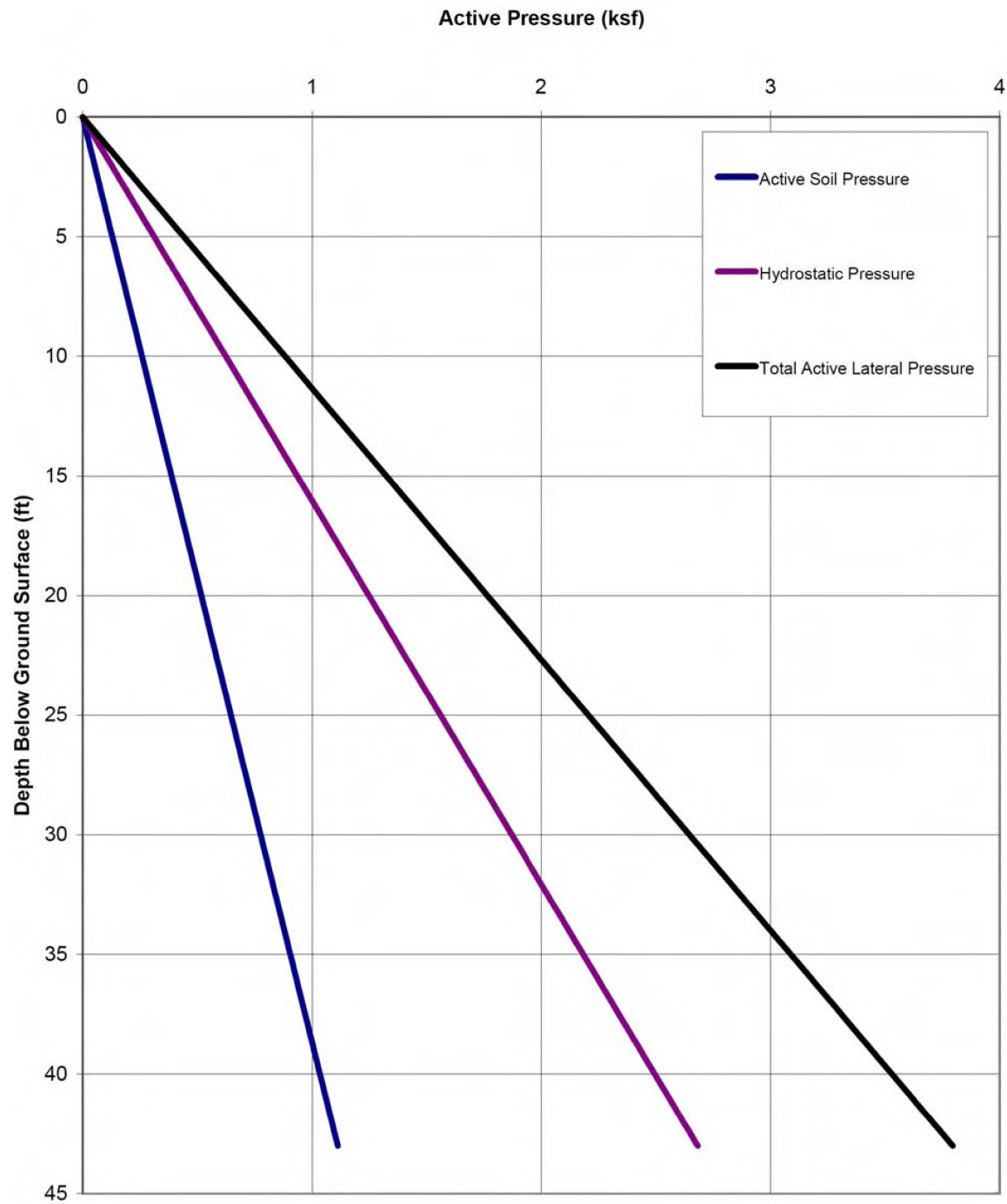


Figure 3H.6-243 Active Lateral Earth Pressure on the Diesel Generator Fuel Oil Storage Vault Walls

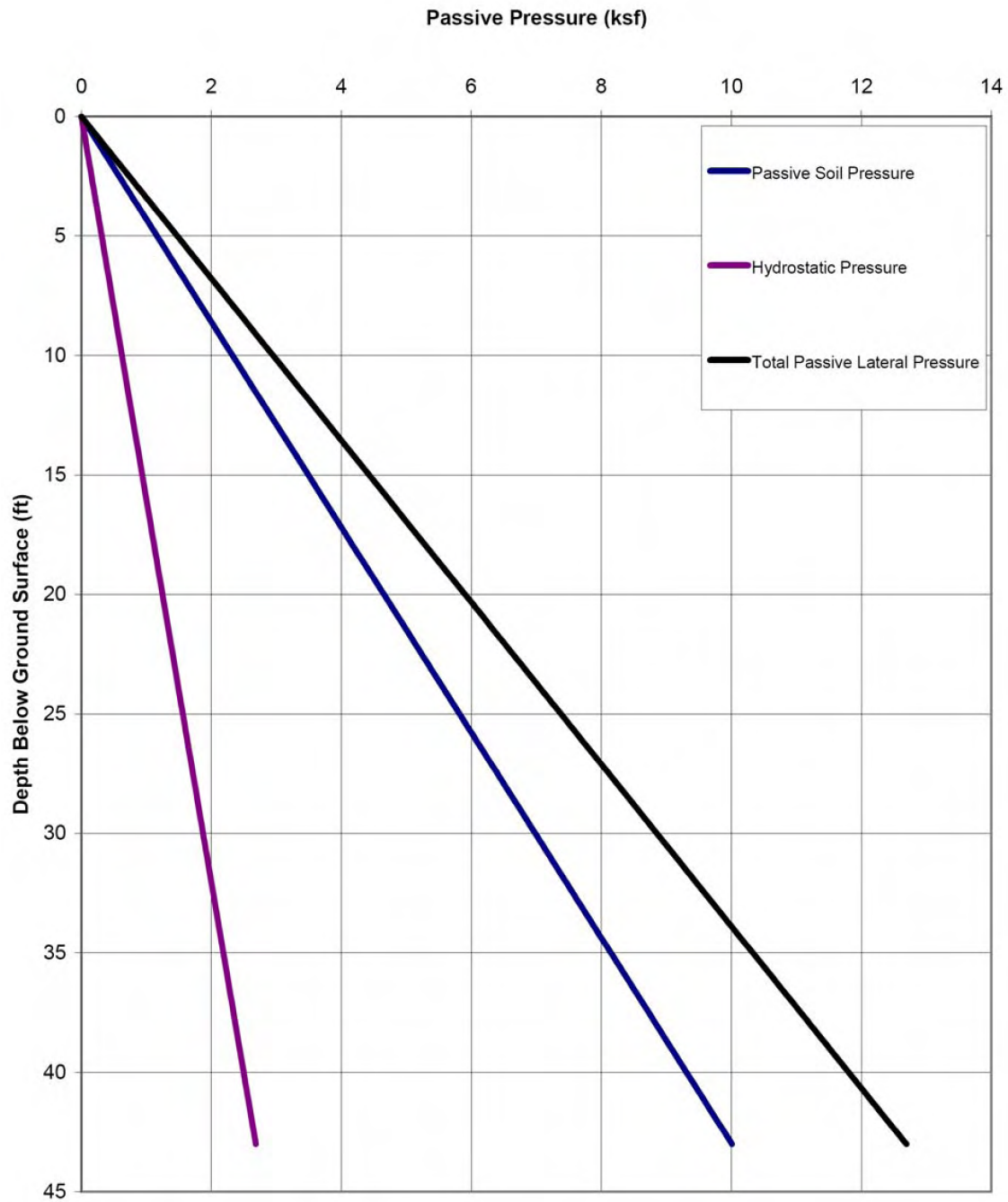


Figure 3H.6-244 Passive Lateral Earth Pressure on the Diesel Generator Fuel Oil Storage Vault Walls

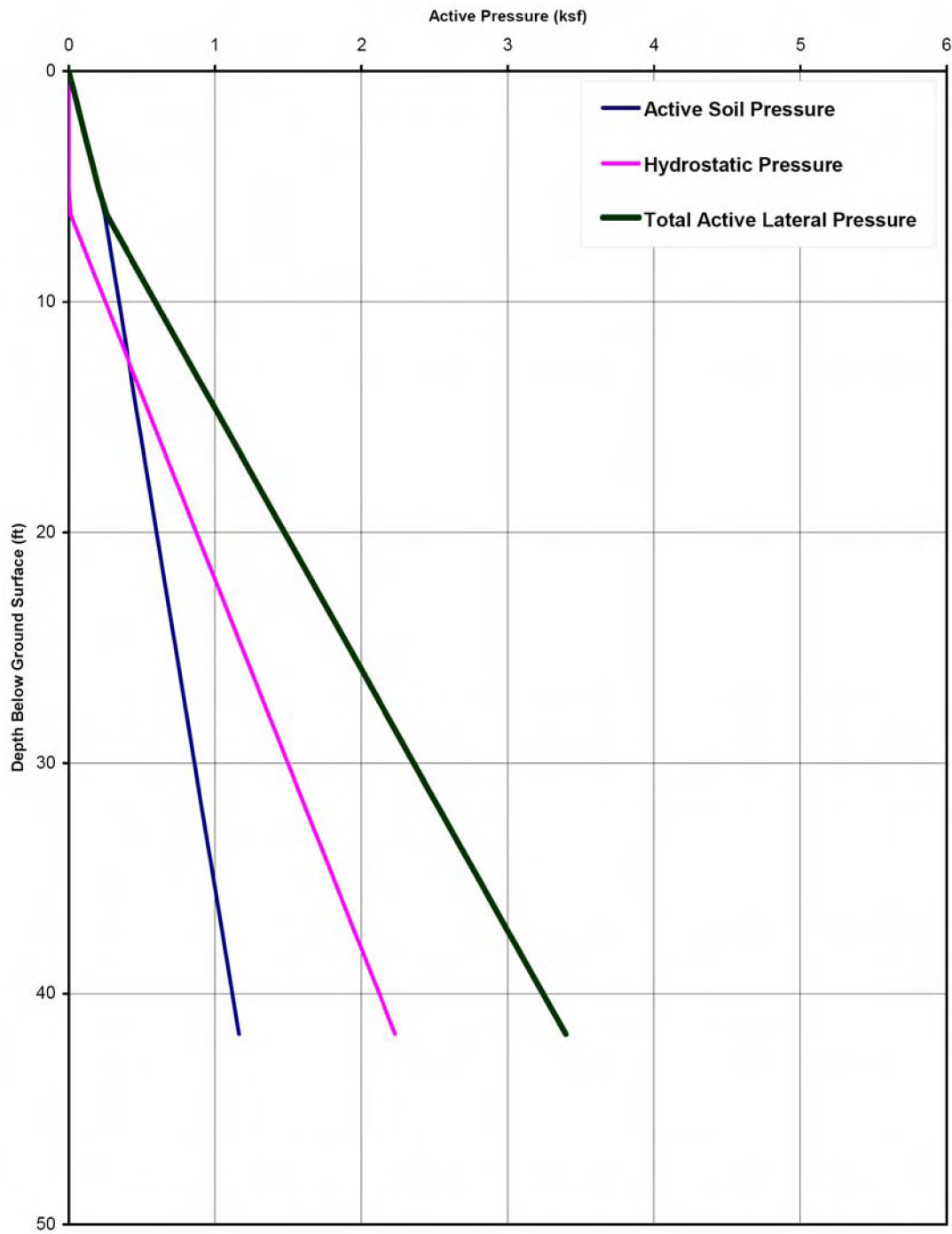


Figure 3H.6-245 Active Lateral Earth Pressure Diagrams for Typical Section of RSW Tunnel

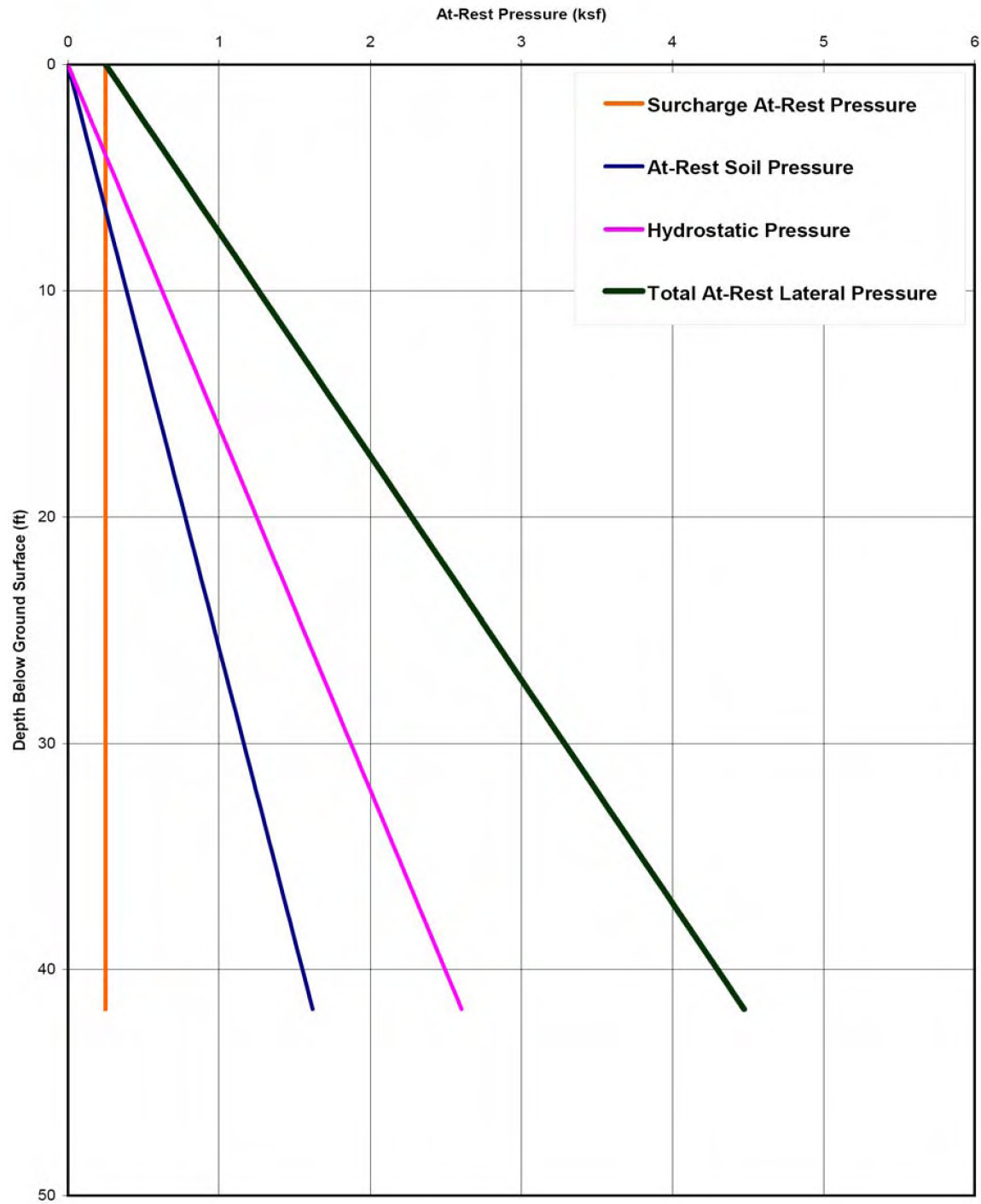


Figure 3H.6-246 At-Rest Lateral Earth Pressure Diagrams for Typical Section of RSW Tunnel

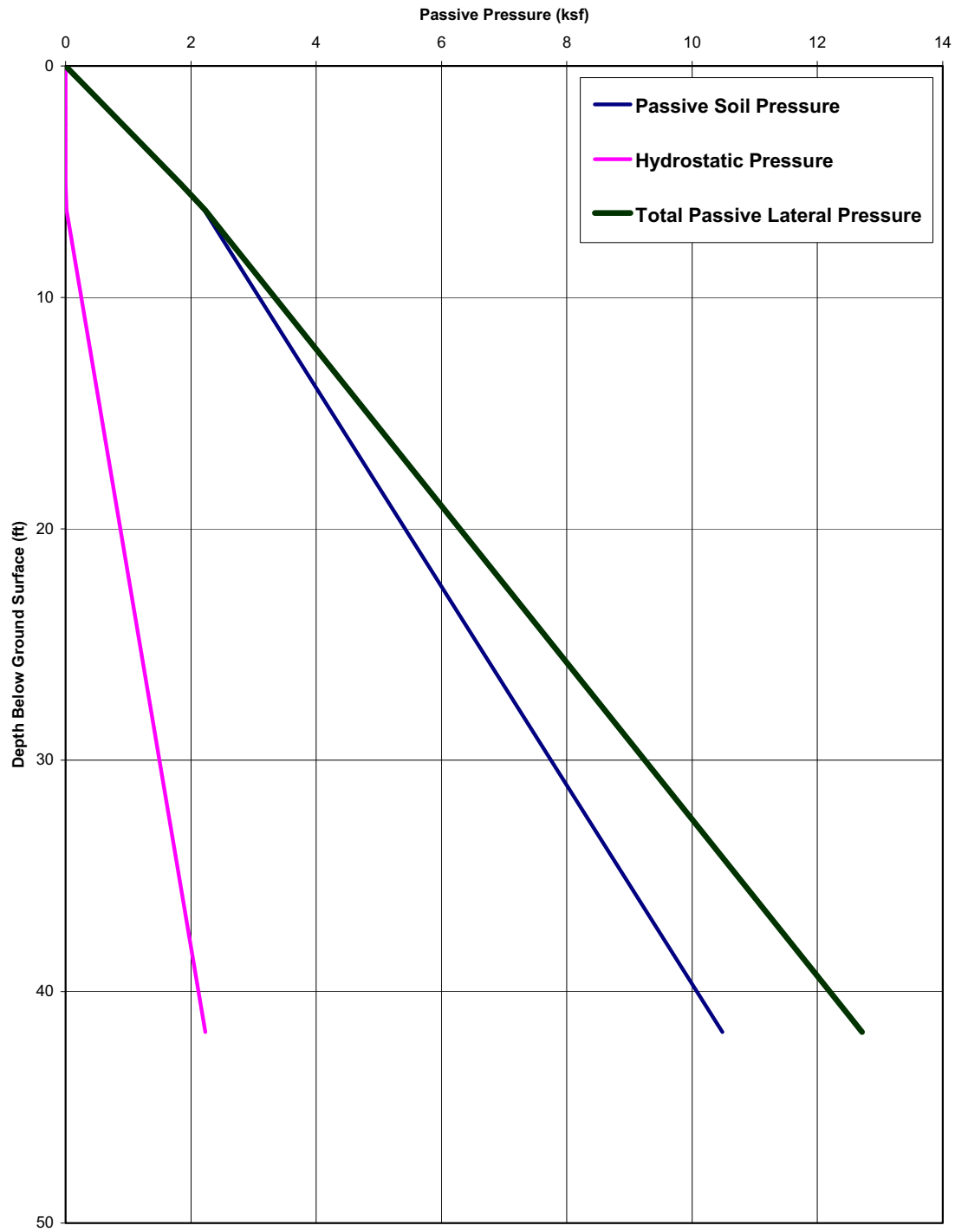


Figure 3H.6-247 Passive Lateral Earth Pressure Diagrams for Typical Section of RSW Tunnel

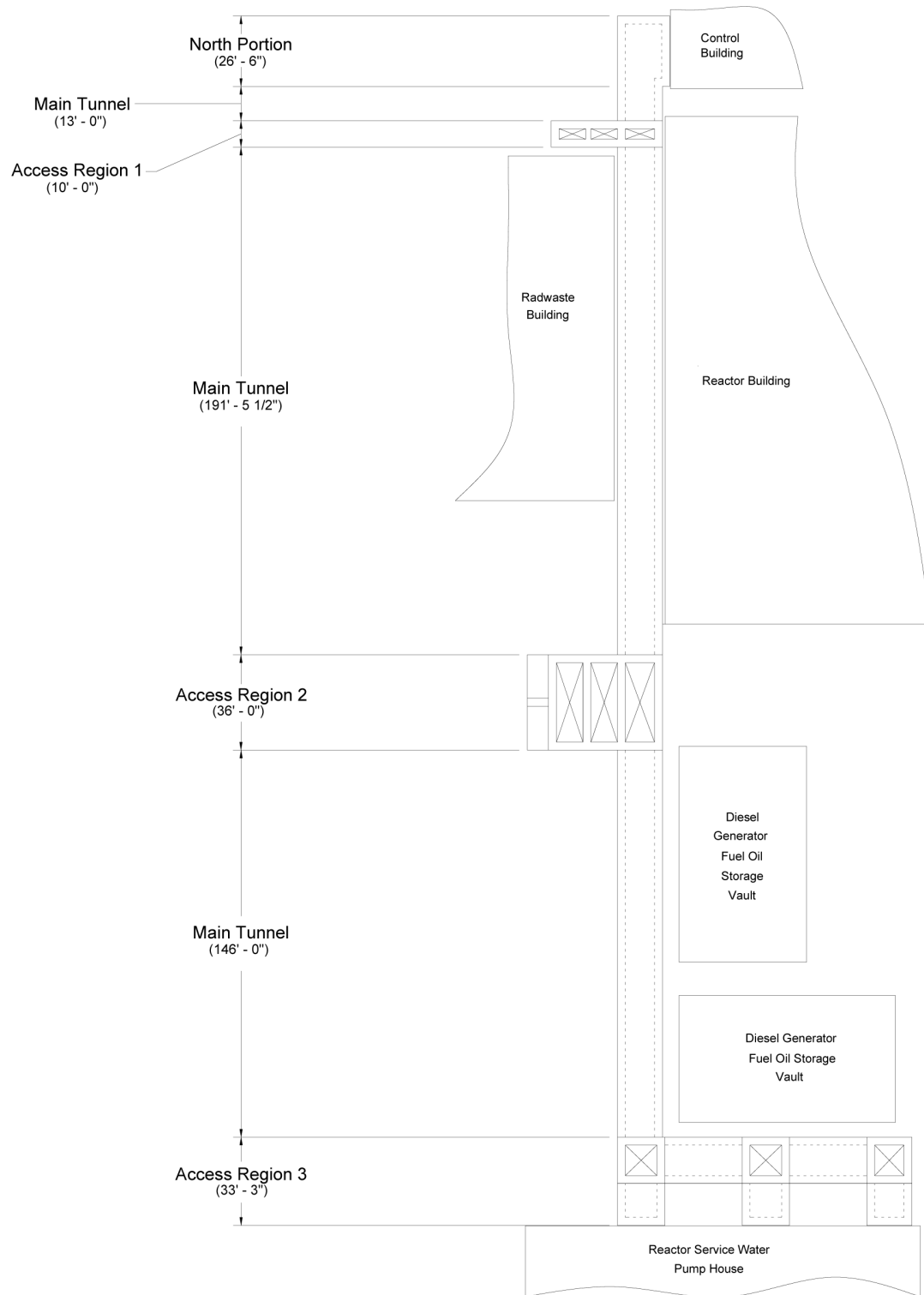


Figure 3H.6-248 RSW Tunnel Plan View

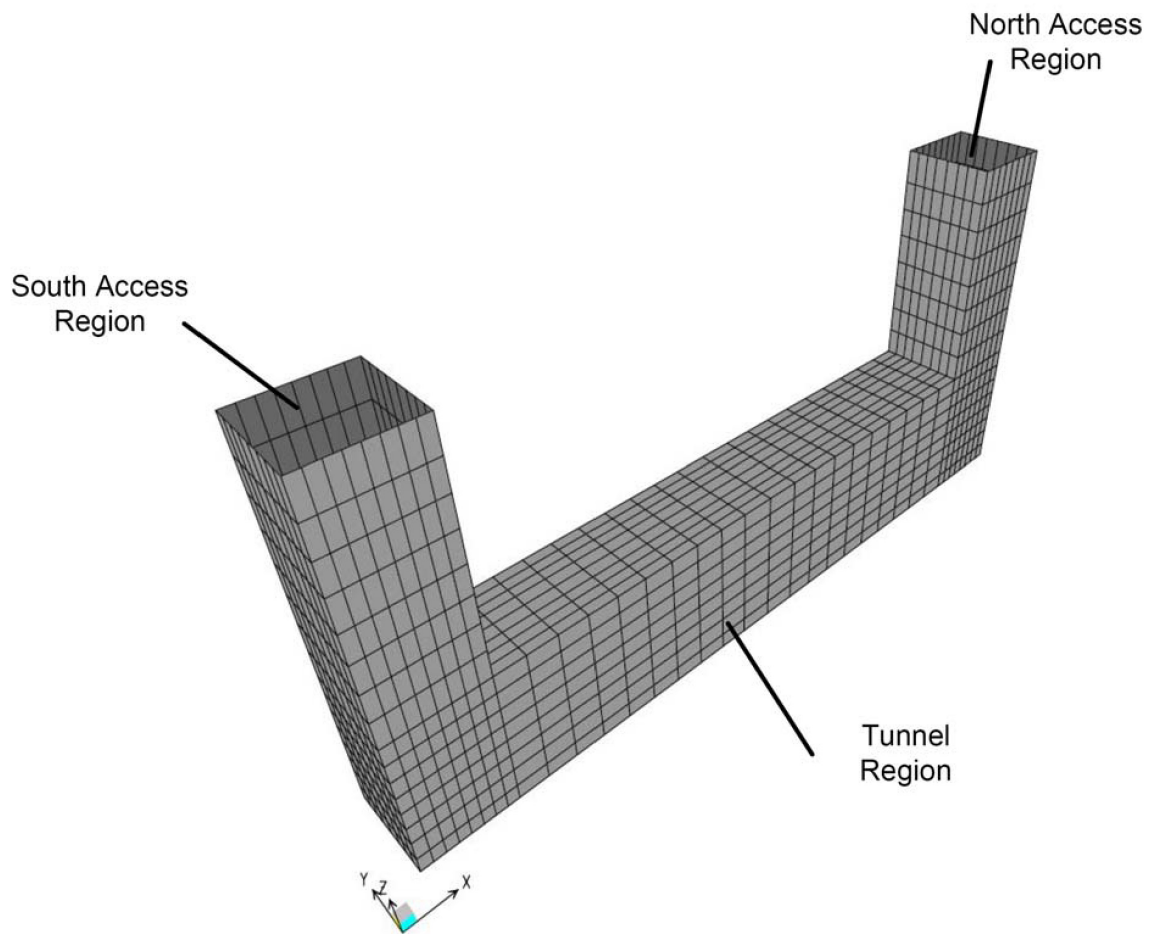


Figure 3H.7-1 SAP2000 Finite Element Analysis Model for DGFOT

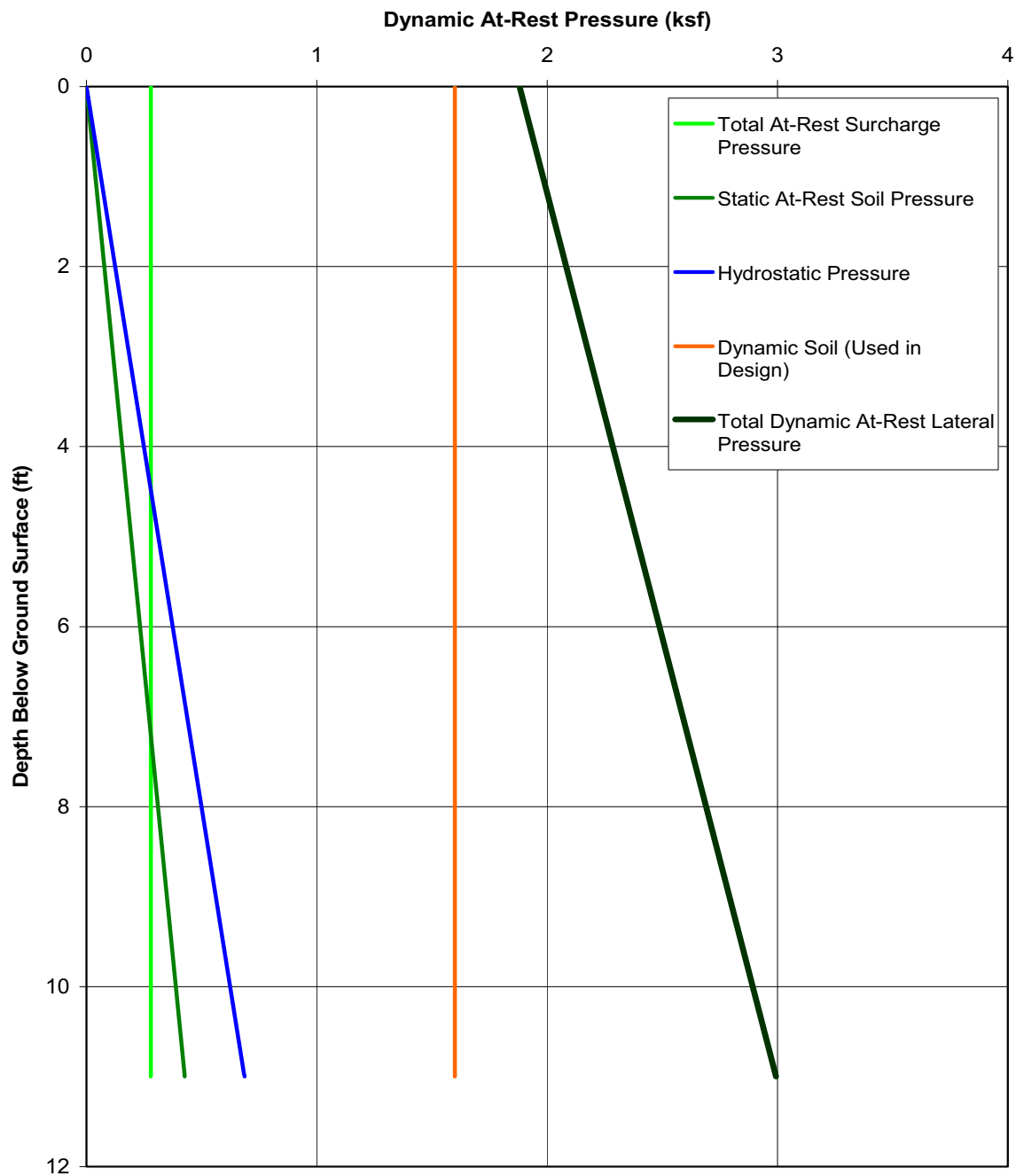


Figure 3H.7-2 Dynamic At-Rest Lateral Earth Pressure (psf) on the Walls of the Fuel Oil Tunnel DGFOT Walls

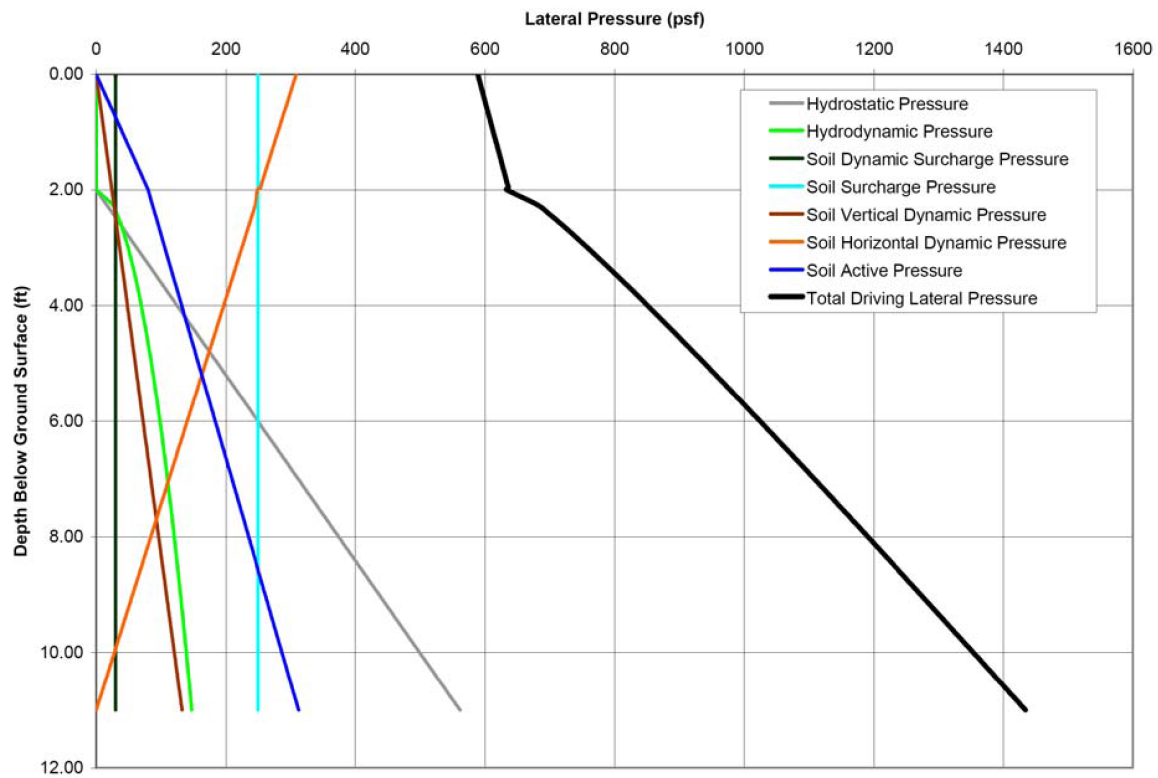


Figure 3H.7-3 Driving Lateral Earth Pressure (psf) on the Walls of the Fuel Oil Tunnel

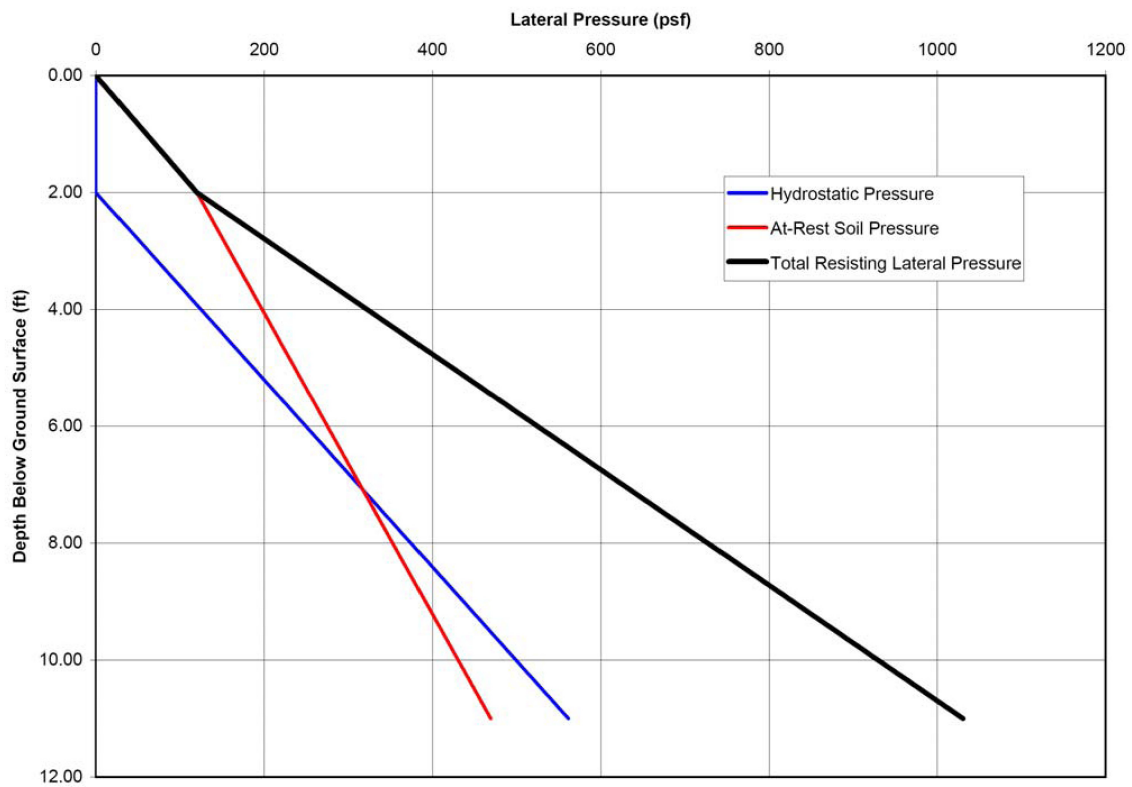


Figure 3H.7-4 Resisting Lateral Earth Pressure (psf) on the Walls of the Fuel Oil Tunnel

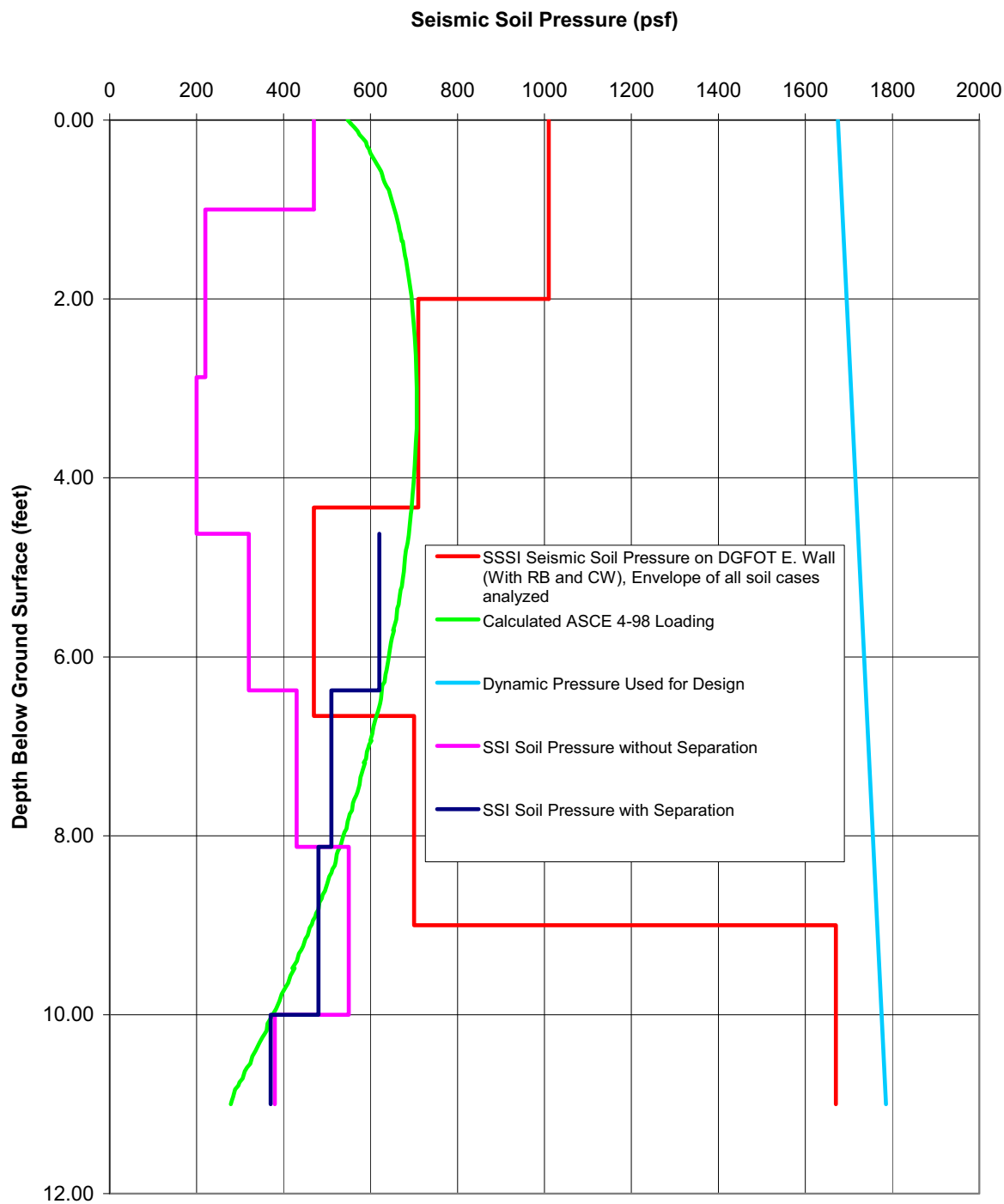


Figure 3H.7-5 SSI, SSSI, ASCE 4-98 and Design Lateral Seismic Soil Pressures (psf) on Fuel Oil Tunnel East Wall with Reactor Building and Crane Wall

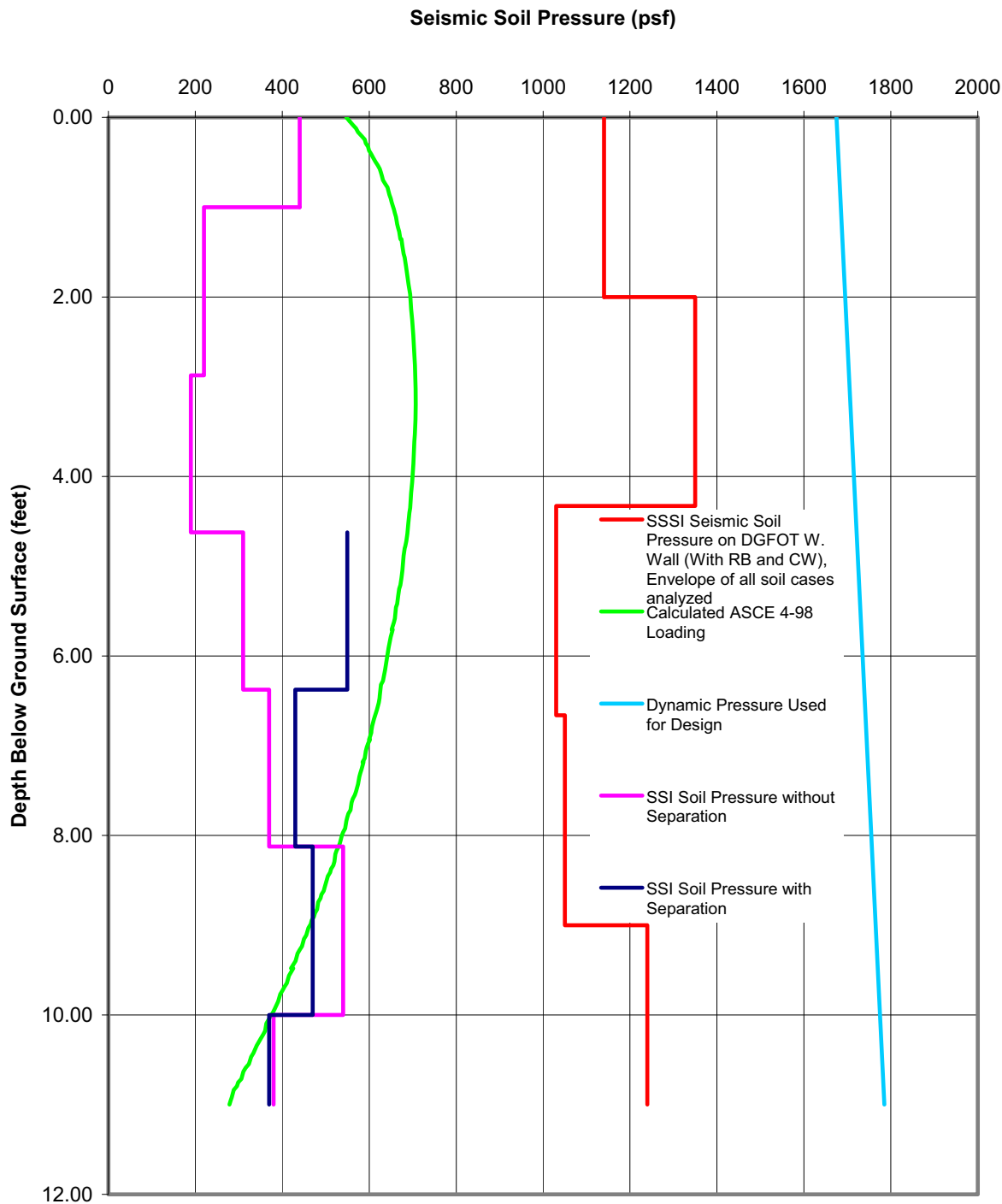


Figure 3H.7-6 SSI, SSSI, ASCE 4-98 and Design Lateral Seismic Soil Pressures (psf) on Fuel Oil Tunnel West Wall with Reactor Building and Crane Wall

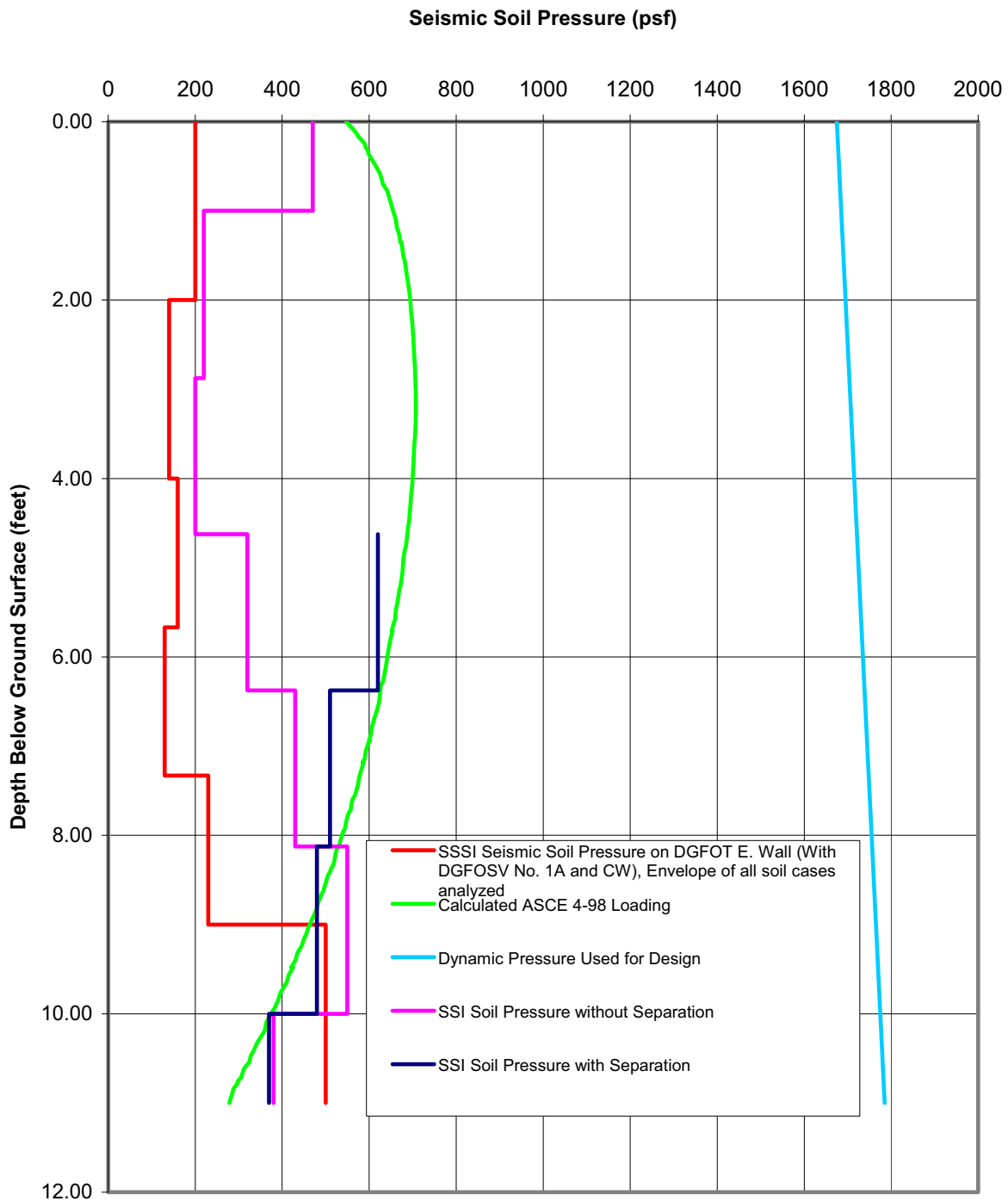


Figure 3H.7-7 SSI, SSSI, ASCE 4-98 and Design Lateral Seismic Soil Pressures (psf) on Fuel Oil Tunnel East Wall with Diesel Generator Fuel Oil Storage Vault and Crane Wall

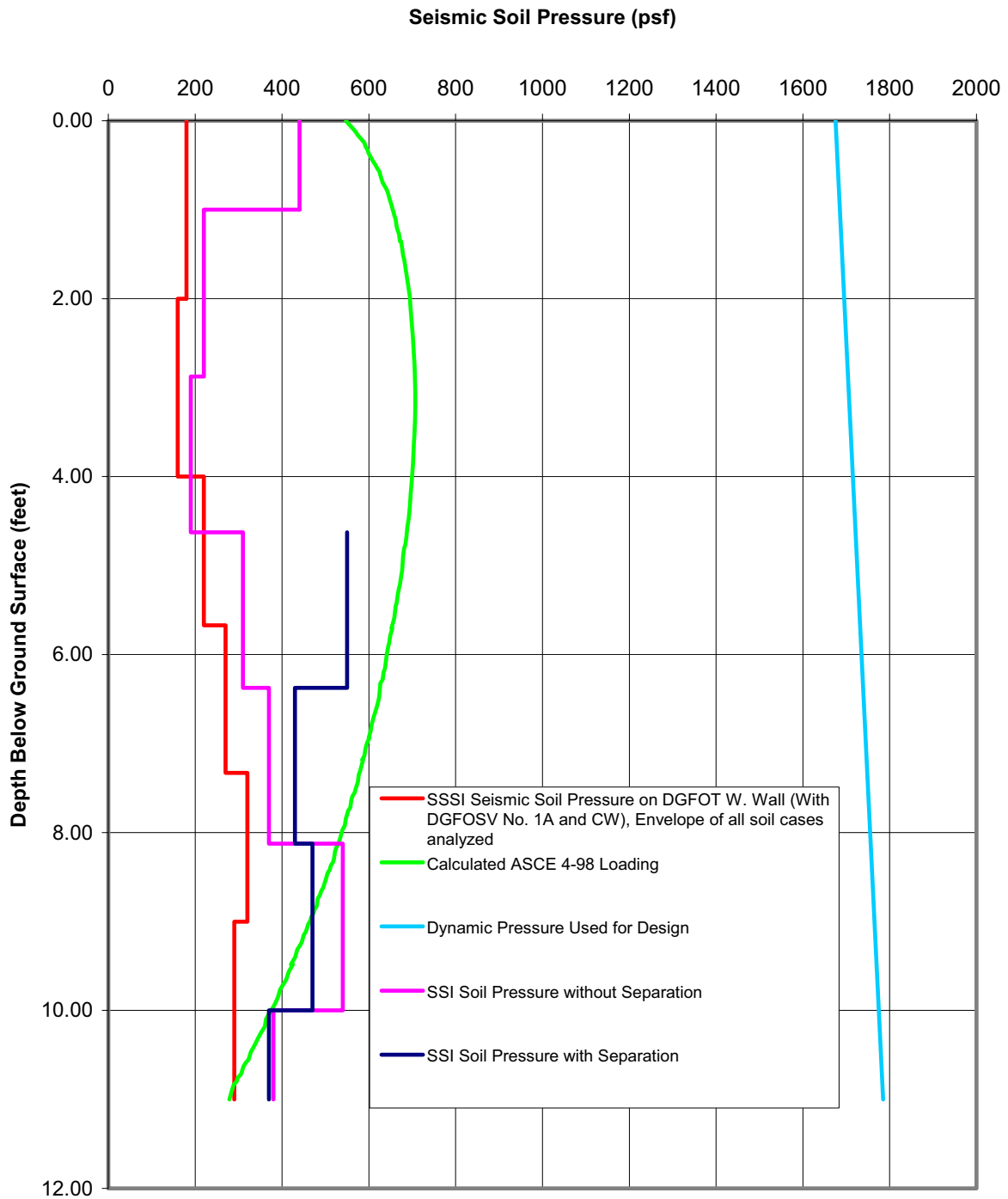


Figure 3H.7-8 SSI, SSSI, ASCE 4-98 and Design Lateral Seismic Soil Pressures (psf) on Fuel Oil Tunnel West Wall with Diesel Generator Fuel Oil Storage Vault and Crane Wall

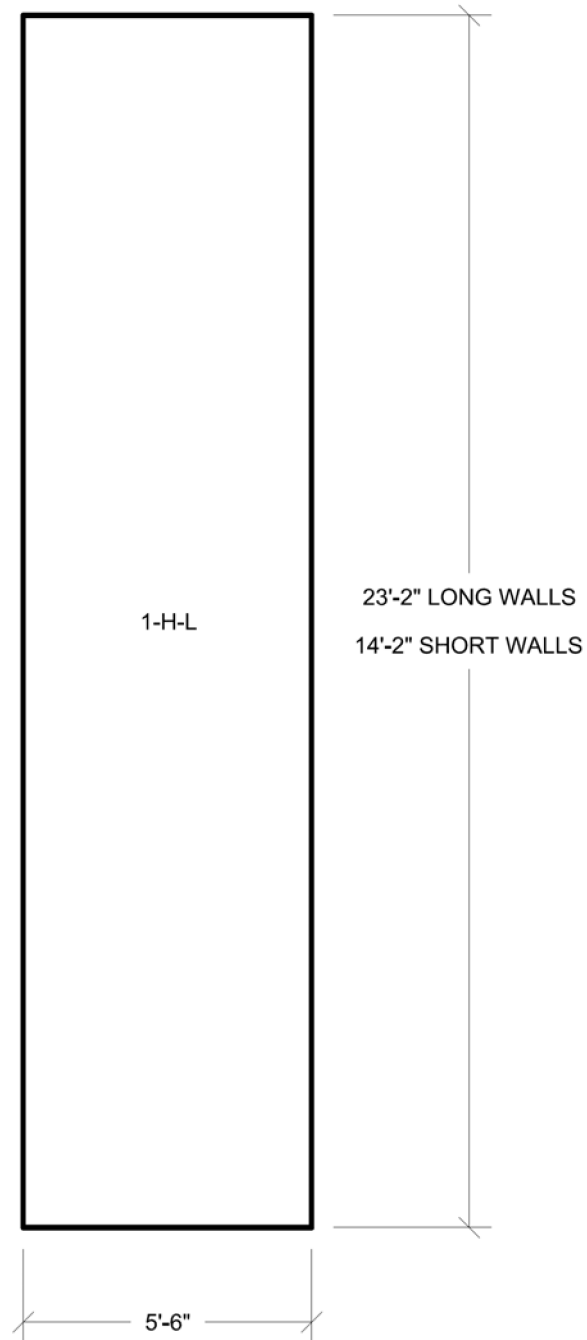


Figure 3H.7-9 Access Region Walls Looking From Outside Horizontal Reinforcement Zones Near Side and Far Side Faces

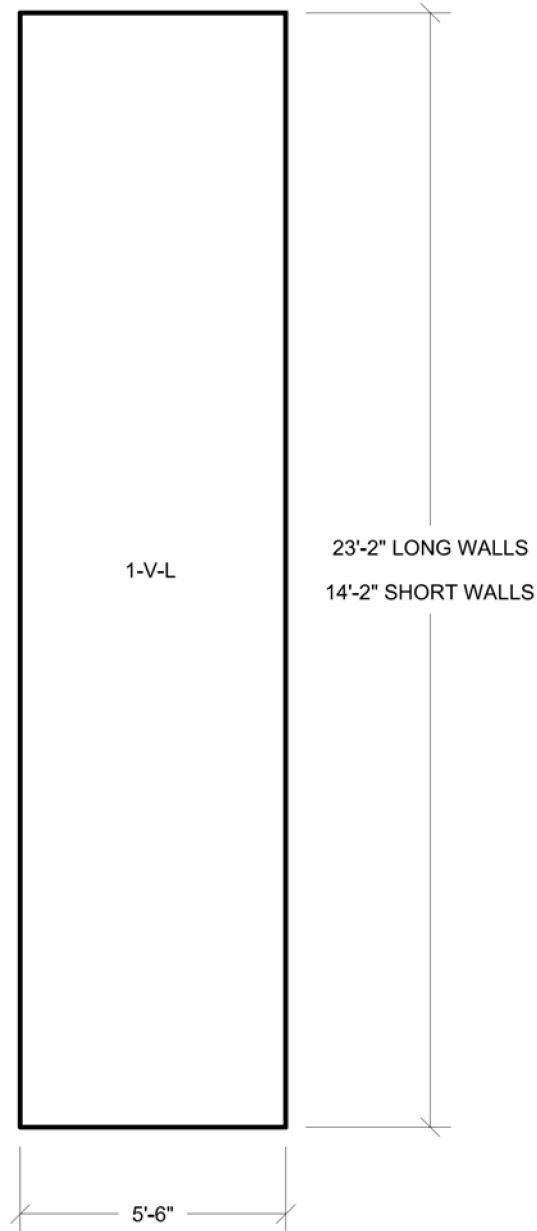


Figure 3H.7-10 Access Region Walls Looking From Outside Vertical Reinforcement Zones Near Side and Far Side Faces

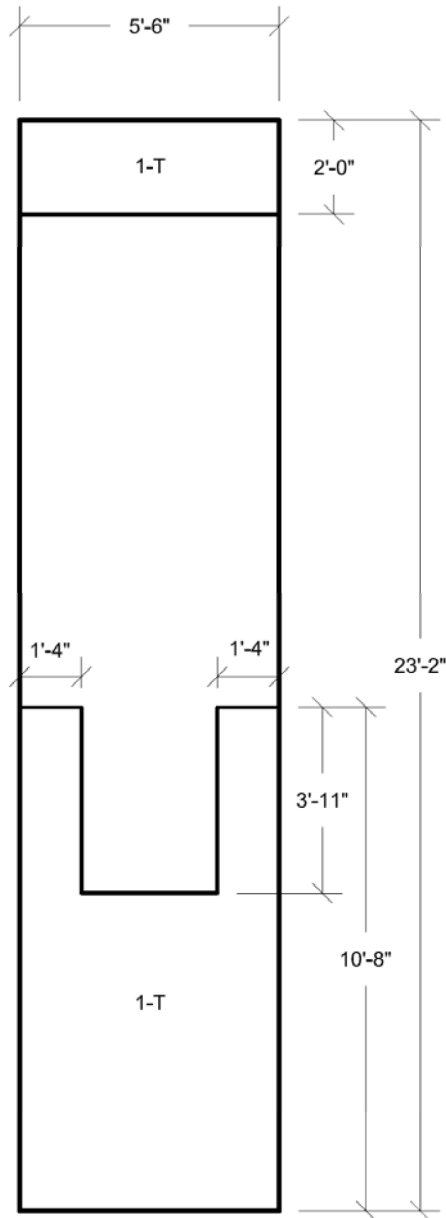


Figure 3H.7-10A Access Region Walls Looking From Outside
Transverse Reinforcement Zones

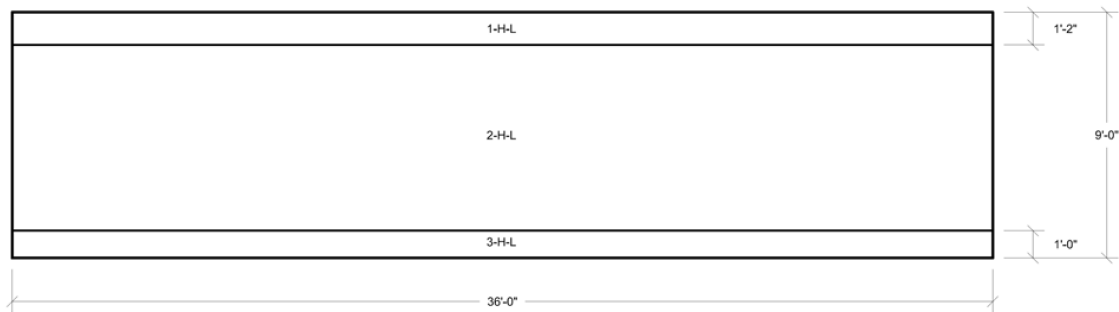


Figure 3H.7-11 Tunnel Walls Looking From Outside Horizontal Reinforcement Zones Near Side Face

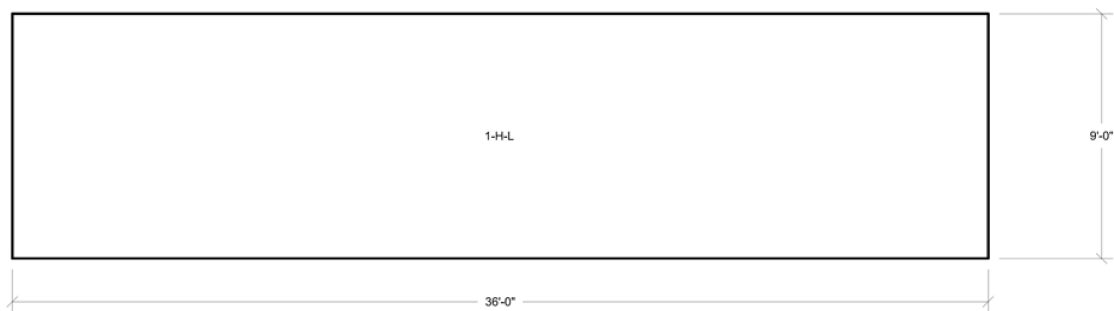
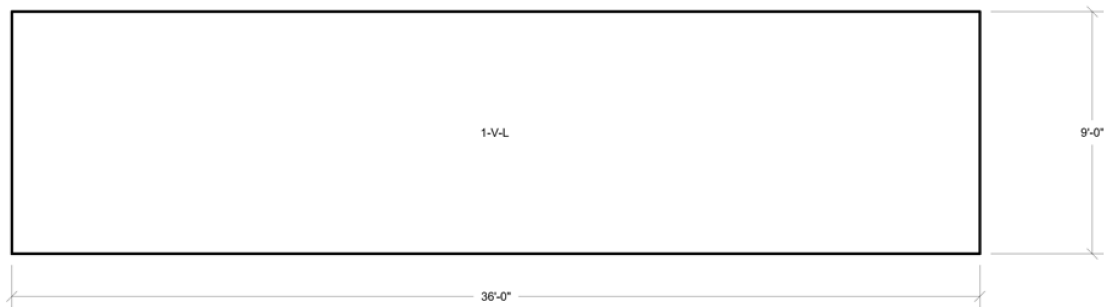


Figure 3H.7-12 Tunnel Walls Looking From Outside Horizontal Reinforcement Zones Far Side Face



**Figure 3H.7-13 Tunnel Walls Looking From Outside Vertical Reinforcement Zones
Near Side Face**



**Figure 3H.7-14 Tunnel Walls Looking From Outside Vertical Reinforcement Zones
Far Side Face**

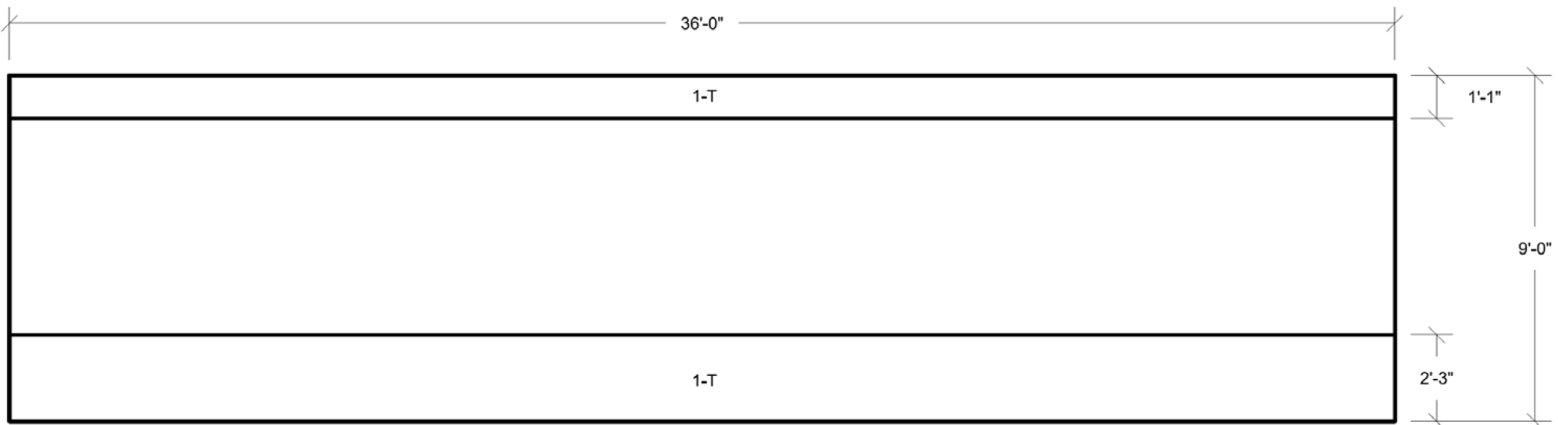


Figure 3H.7-14A Tunnel Walls Looking From Outside Transverse Reinforcement Zones

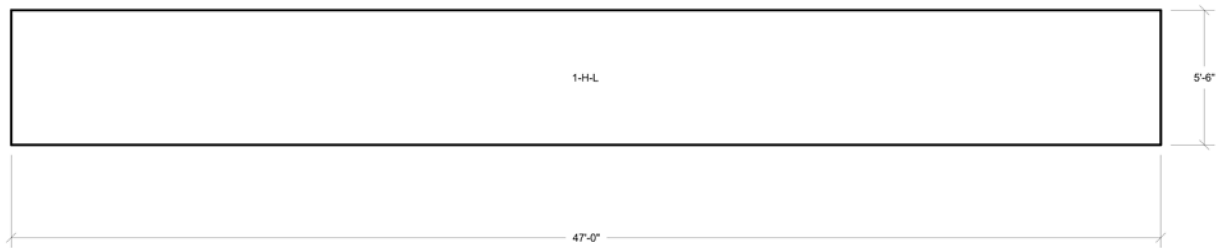


Figure 3H.7-15 Tunnel and Access Region Basemat Looking Down Horizontal Reinforcement Zones Near Side and Far Side Faces



Figure 3H.7-16 Tunnel and Access Region Basemat Looking Down Vertical Reinforcement Zones Near Side and Far Side Faces

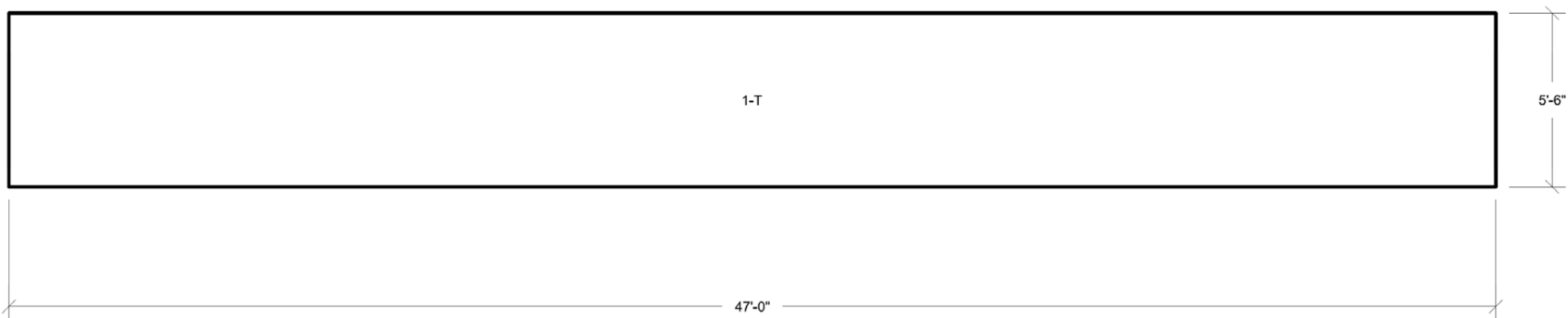
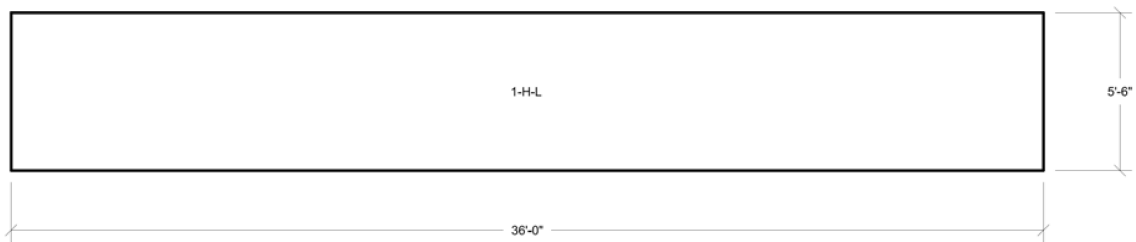


Figure 3H.7-17 Tunnel and Access Region Basemat Looking Down Transverse Reinforcement Zones



**Figure 3H.7-18 Roof of Tunnel Looking Down Horizontal Reinforcement Zones
Near Side and Far Side Faces**



**Figure 3H.7-19 Roof of Tunnel Looking Down Vertical Reinforcement Zones
Near Side and Far Side Faces**

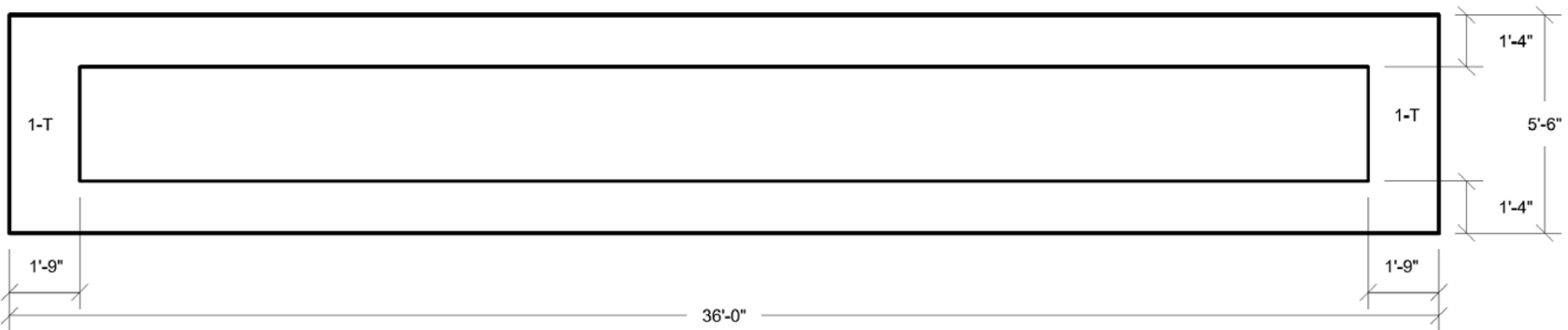


Figure 3H.7-19A Roof of Tunnel Looking Down Transverse Reinforcement Zones

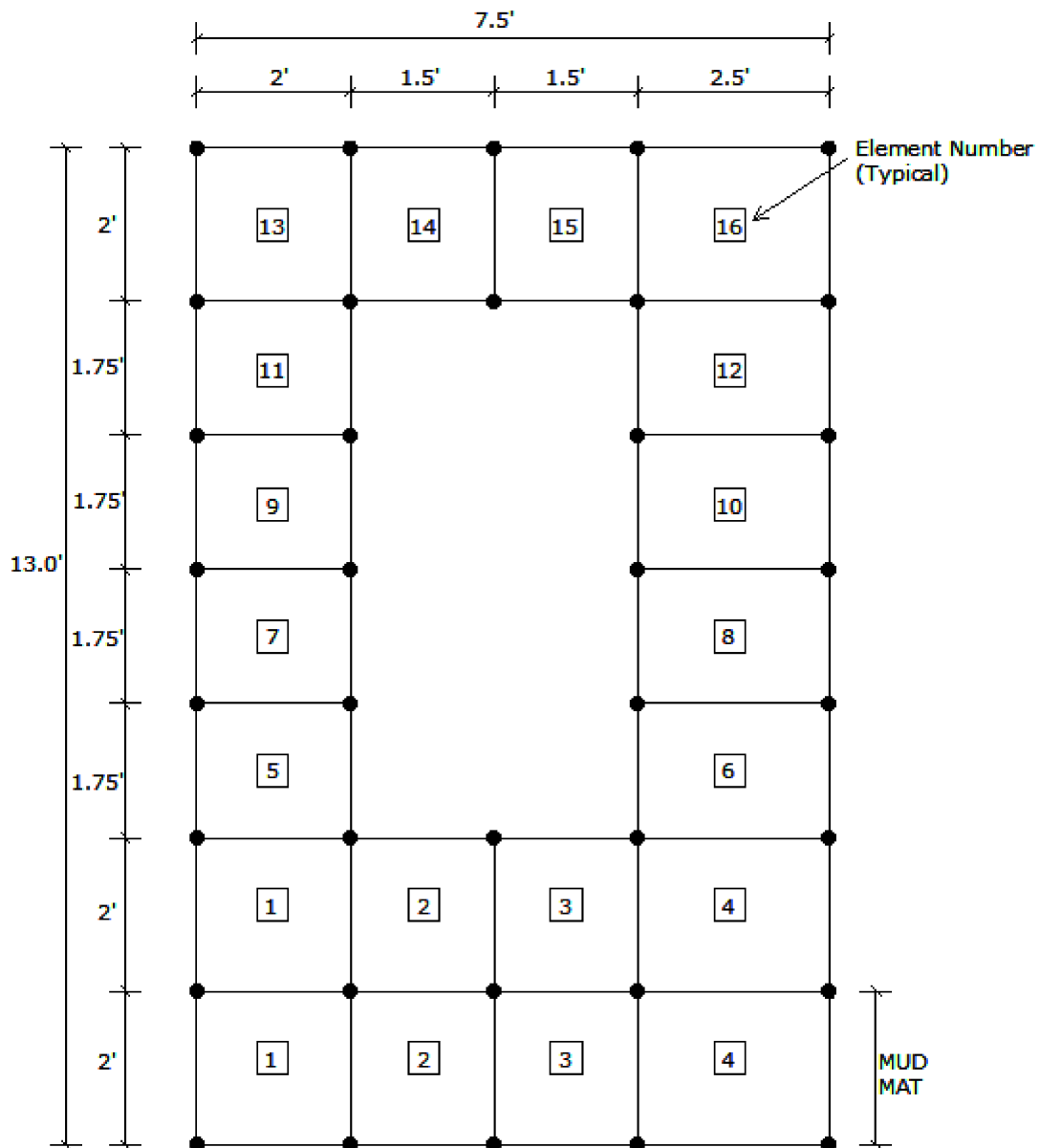


Figure 3H.7-20 2D Model for SSI Analysis of a Typical Cross section of DGFOT

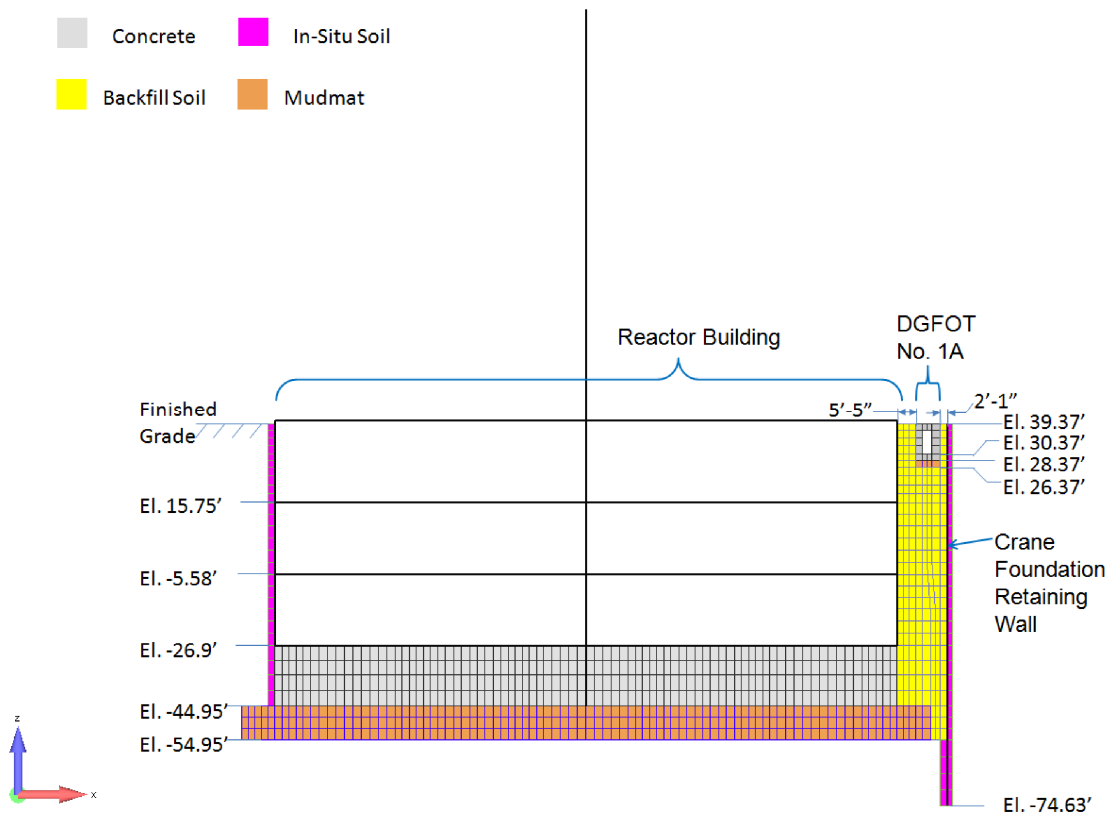


Figure 3H.7-21 2D SSSI Model of RB, DGFOT and Crane Foundation Retaining Wall

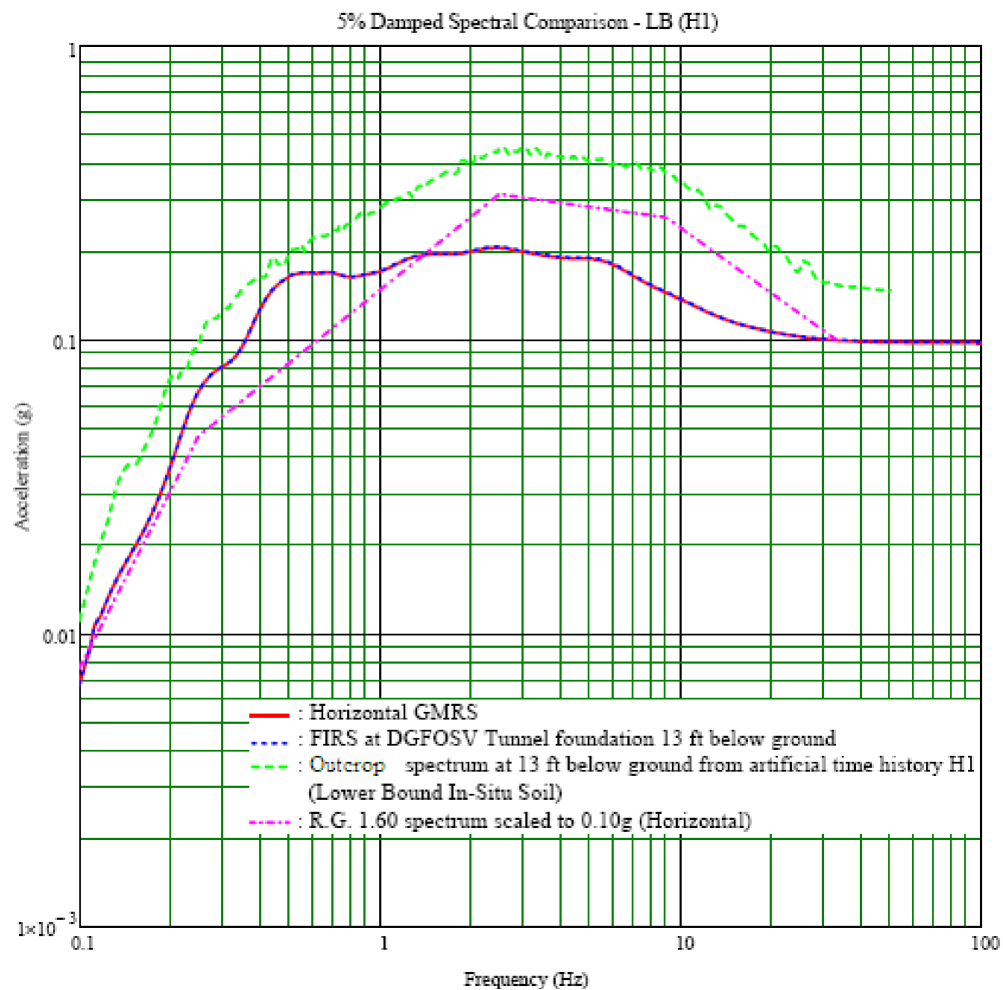


Figure 3H.7-22 Comparison of Spectra at Foundation of DGFOT – Lower Bound Soil Properties, Horizontal X Direction

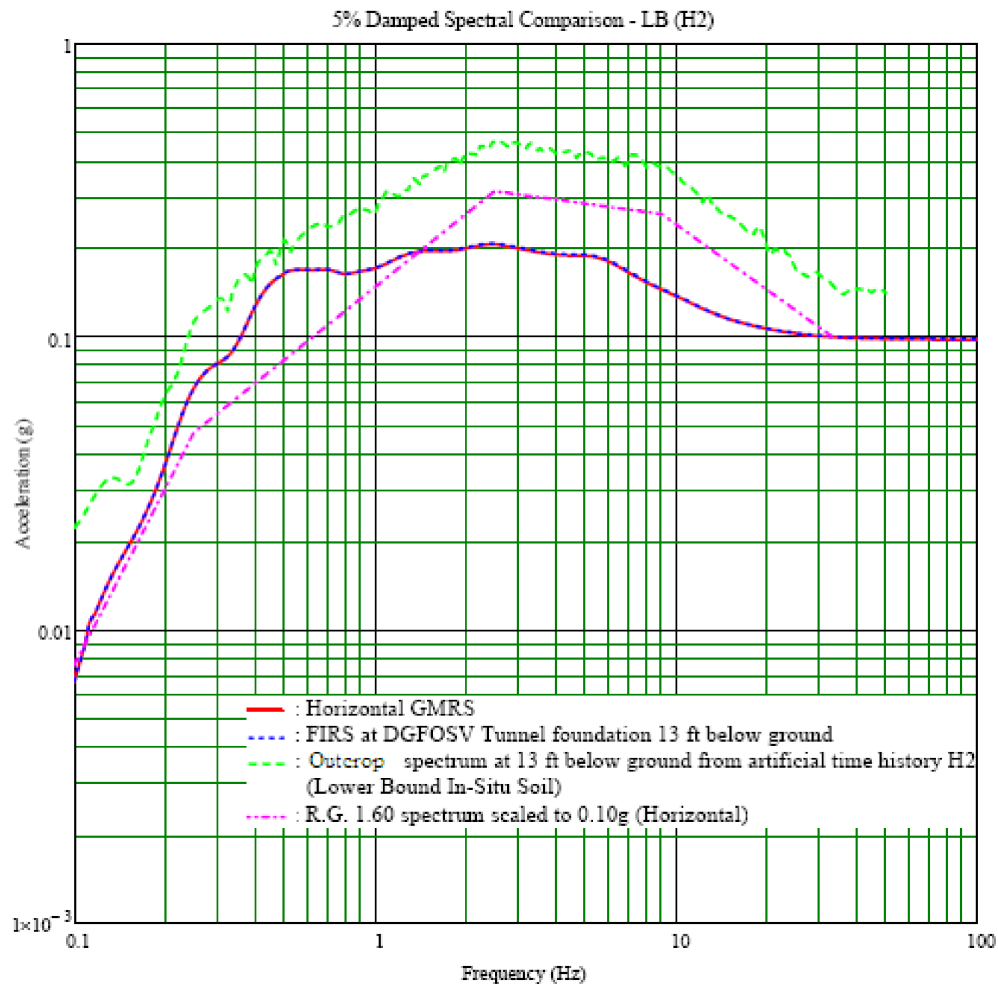


Figure 3H.7-23 Comparison of Spectra at Foundation of DGFOT – Lower Bound Soil Properties, Horizontal Y Direction

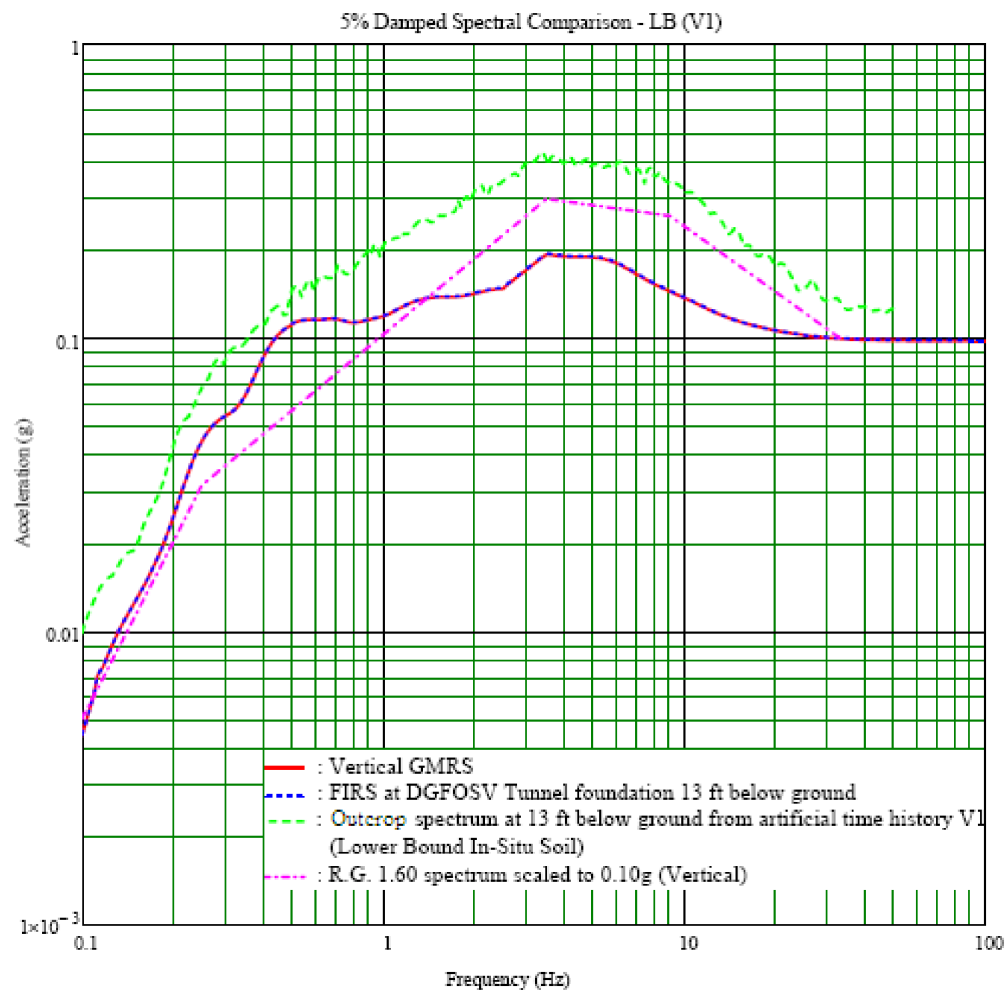


Figure 3H.7-24 Comparison of Spectra at Foundation of DGFOT – Lower Bound Soil Properties, Vertical Direction

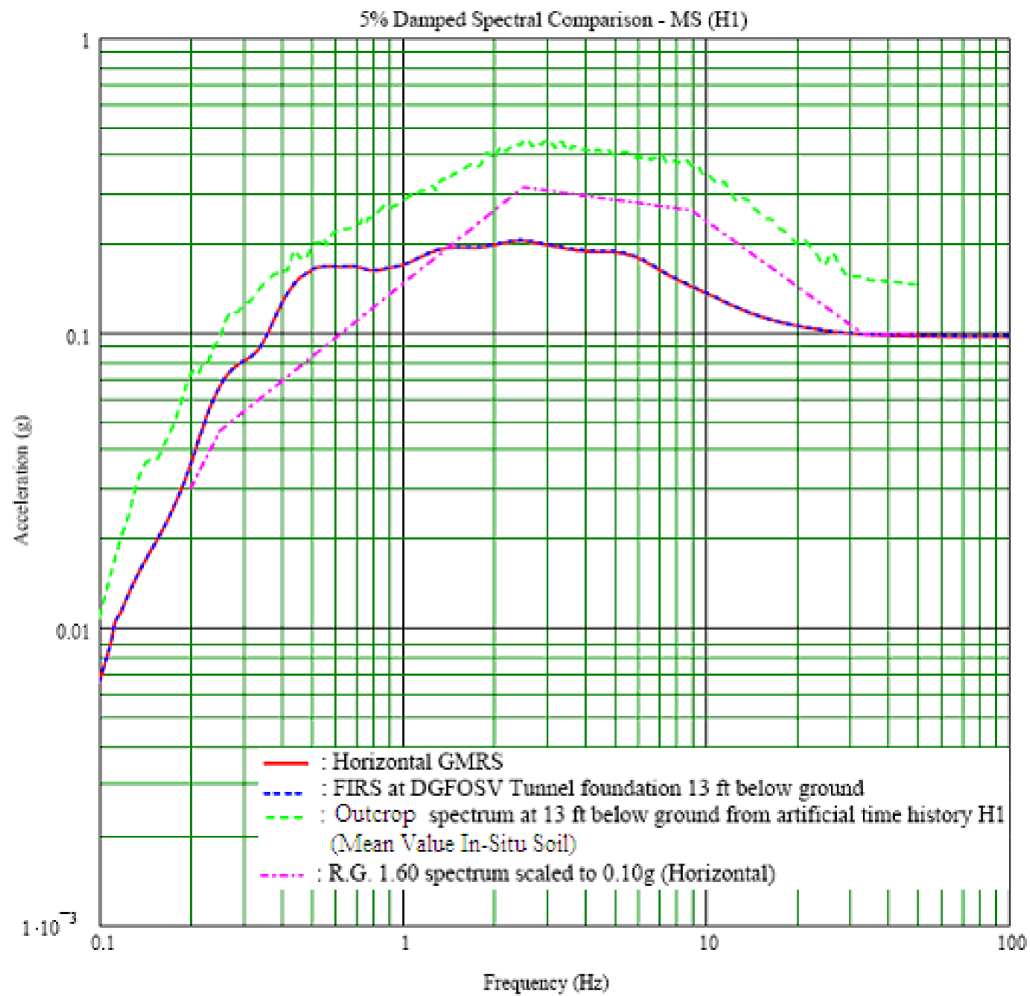


Figure 3H.7-25 Comparison of Spectra at Foundation of DGFOT – Mean Soil Properties, Horizontal X Direction

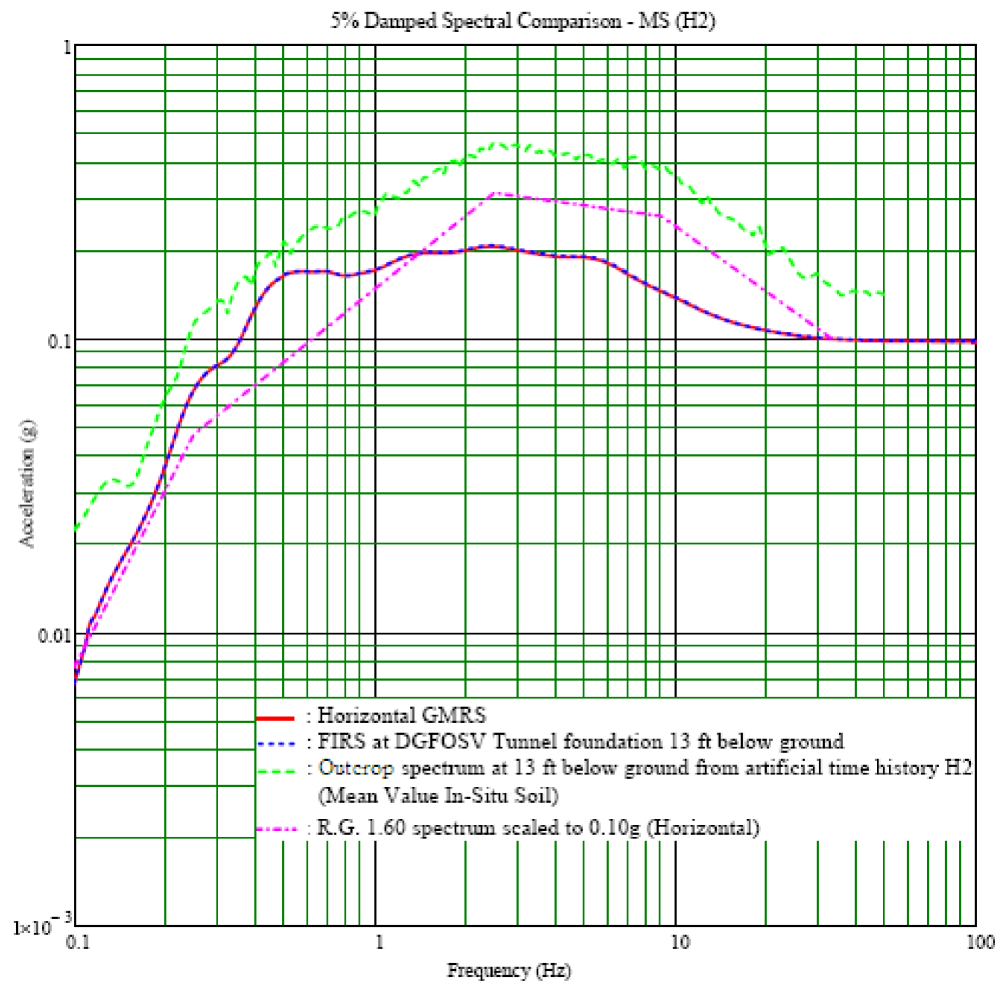


Figure 3H.7-26 Comparison of Spectra at Foundation of DGFOT – Mean Soil Properties, Horizontal Y Direction

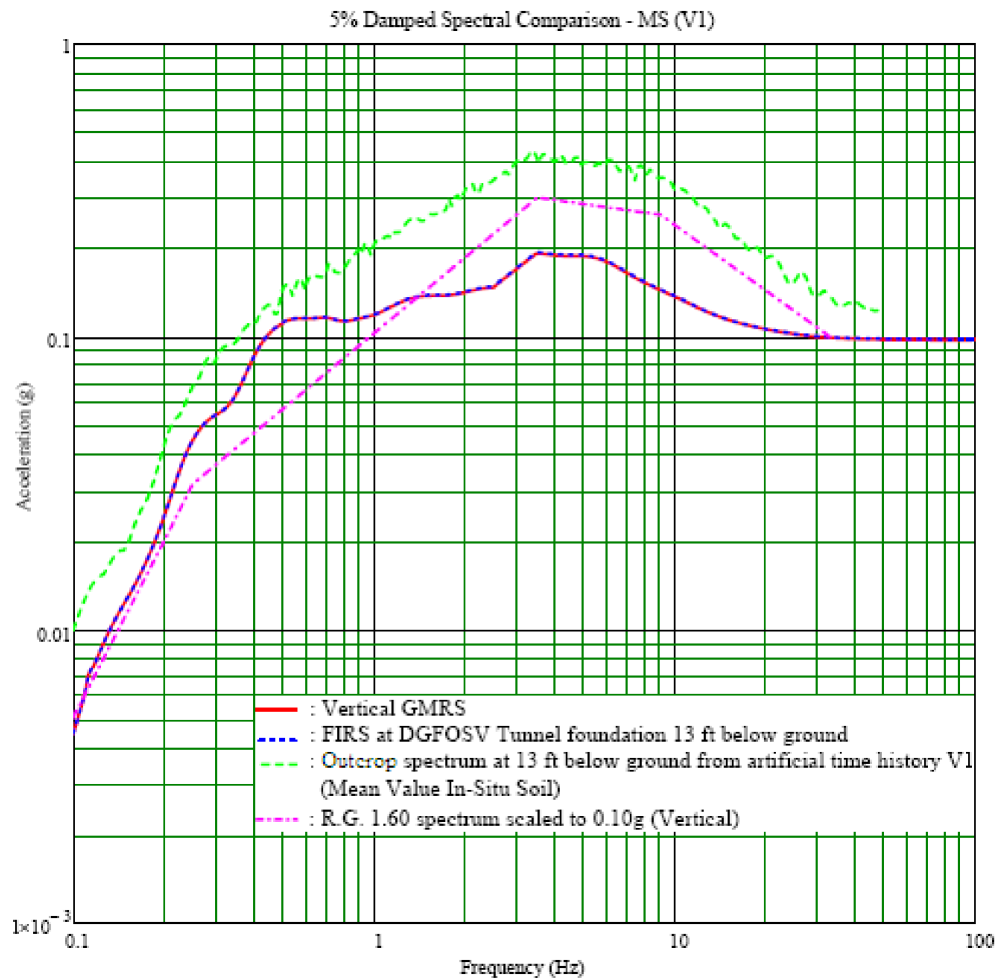


Figure 3H.7-27 Comparison of Spectra at Foundation of DGFOT – Mean Soil Properties, Vertical Direction

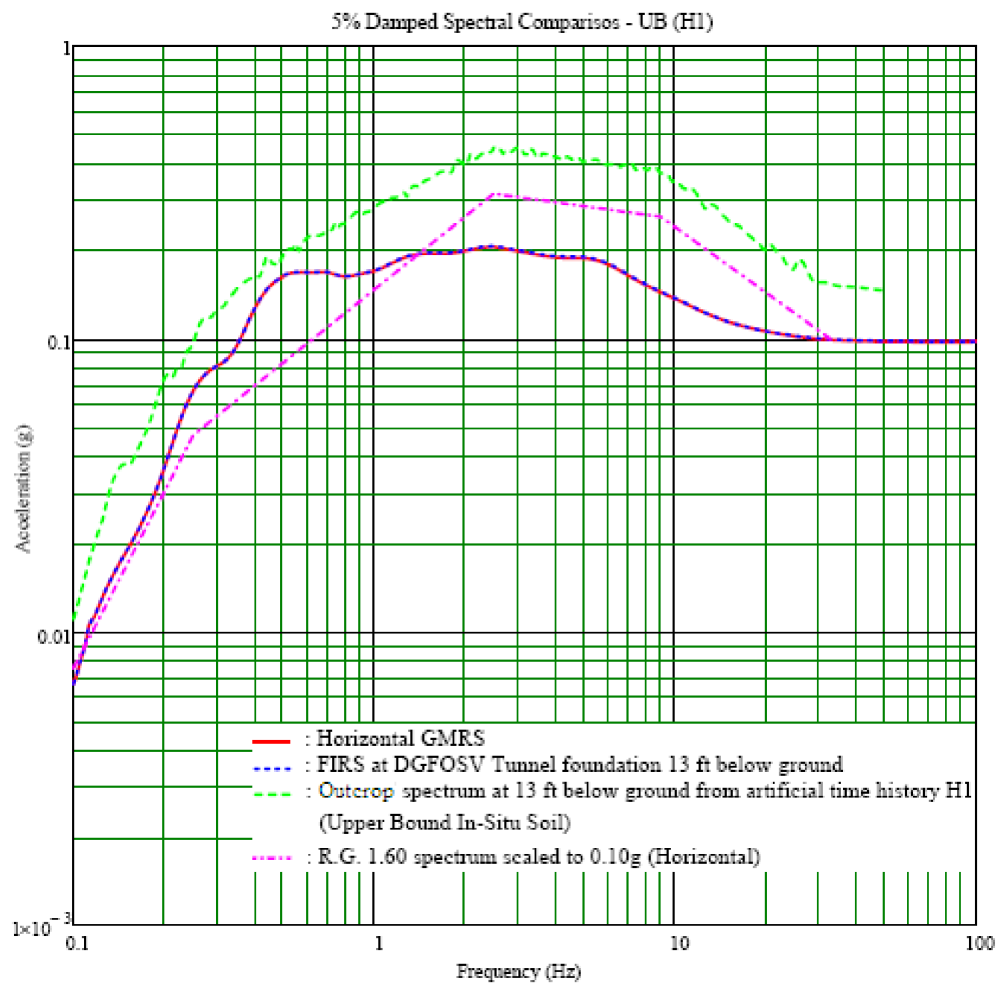


Figure 3H.7-28 Comparison of Spectra at Foundation of DGFOT – Upper Bound Soil Properties, Horizontal X Direction

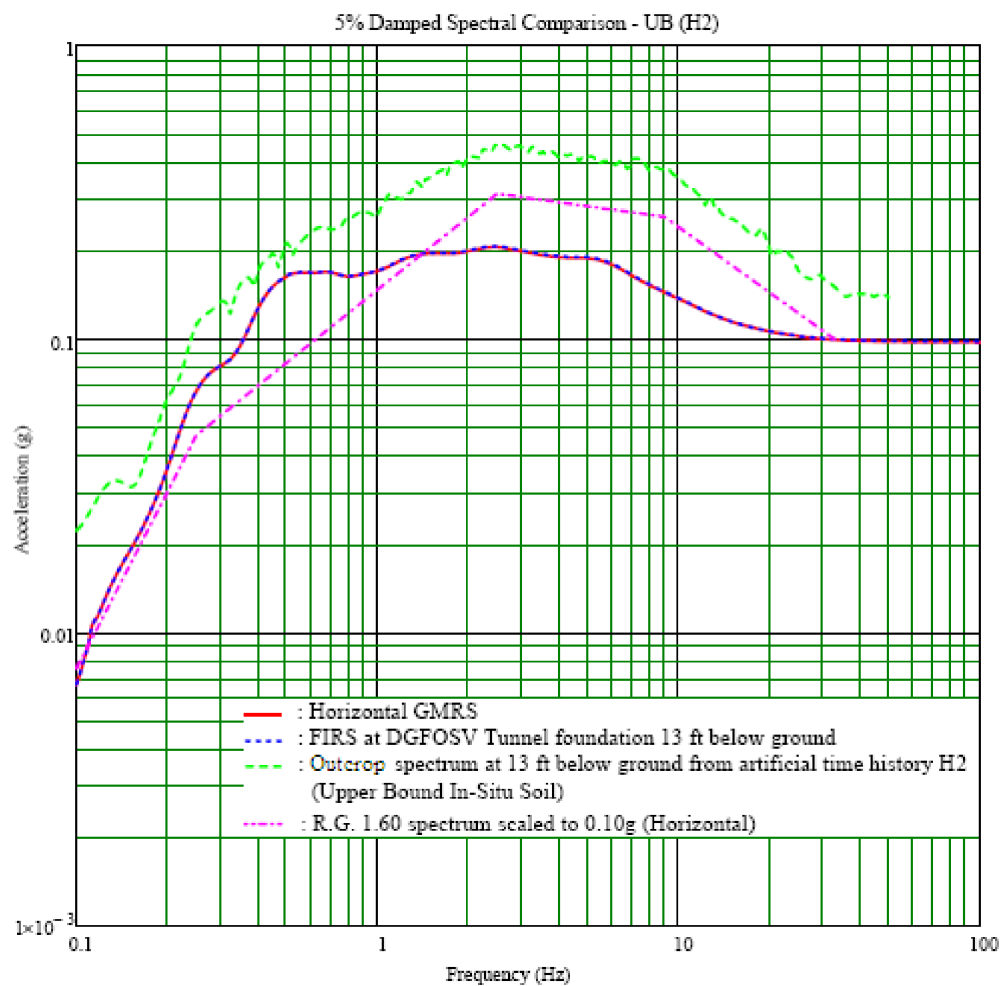


Figure 3H.7-29 Comparison of Spectra at Foundation of DGFOT – Upper Bound Soil Properties, Horizontal Y Direction

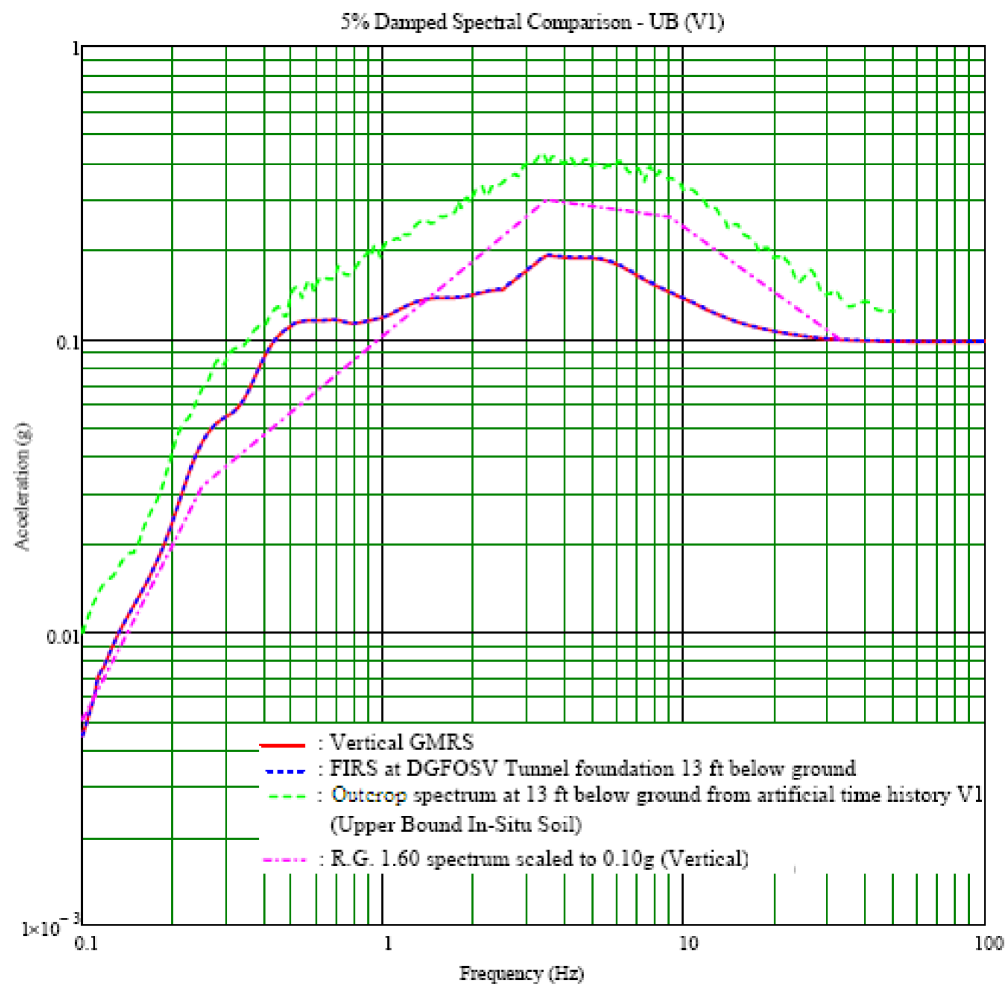
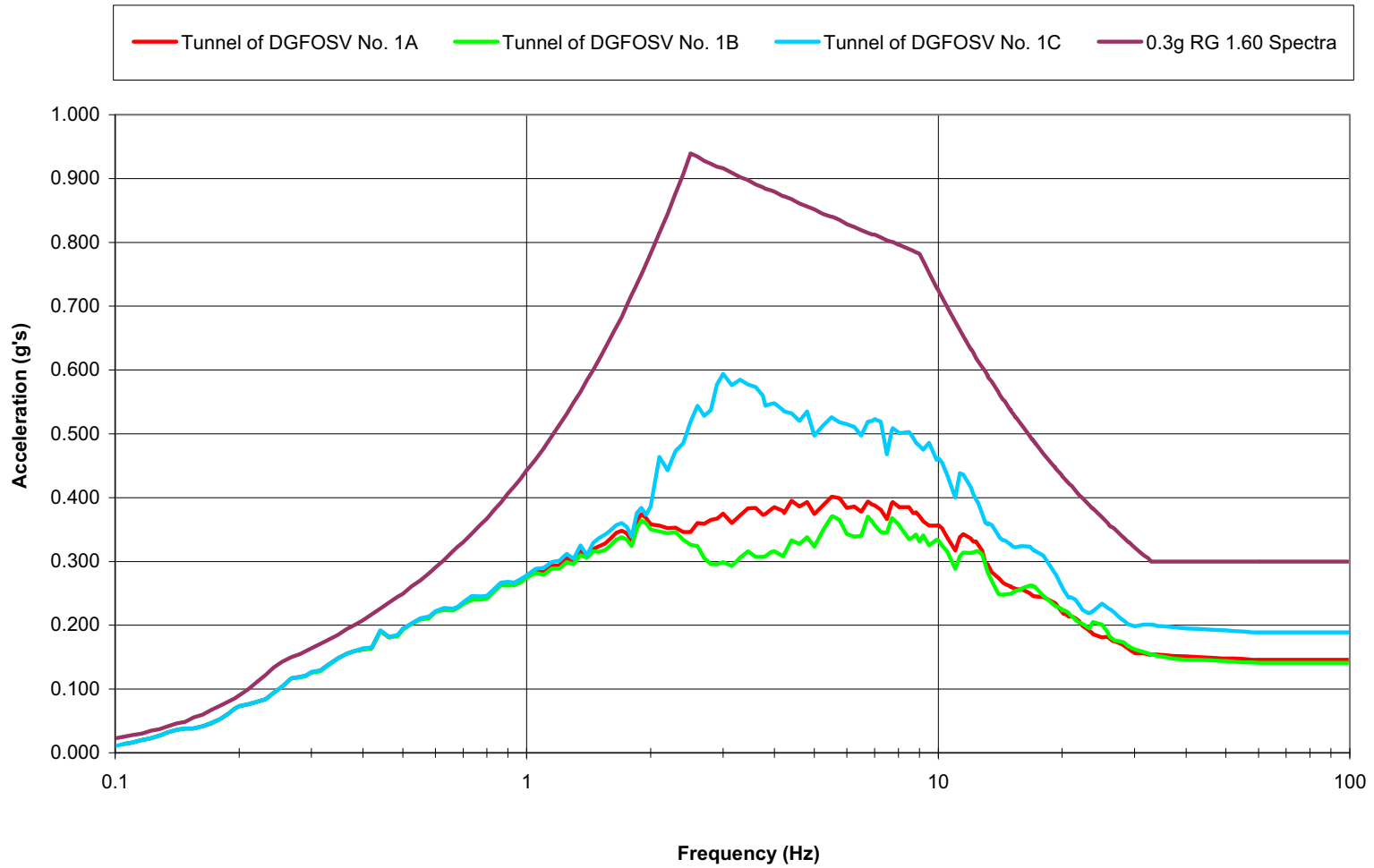


Figure 3H.7-30 Comparison of Spectra at Foundation of DGFOT – Upper Bound Soil Properties, Vertical Direction

**Diesel Generator Fuel Oil Tunnel (DGFOT)
Amplified N-S Site-Specific Response Spectra (5% Damping)**



**Figure 3H.7-30a Amplified N-S Site-Specific Response Spectra
Diesel Generator Fuel Oil Tunnel (DGFOT)**

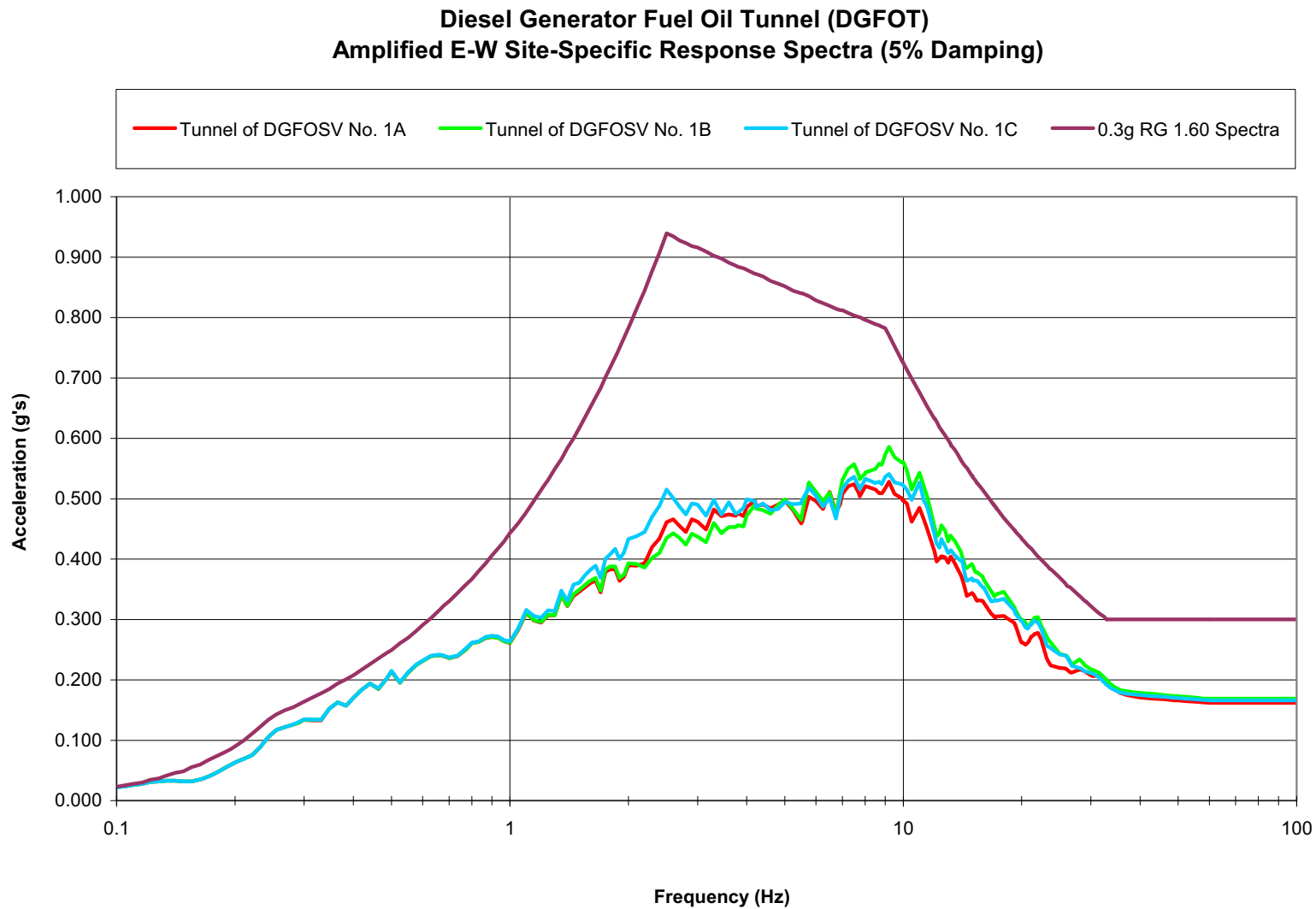
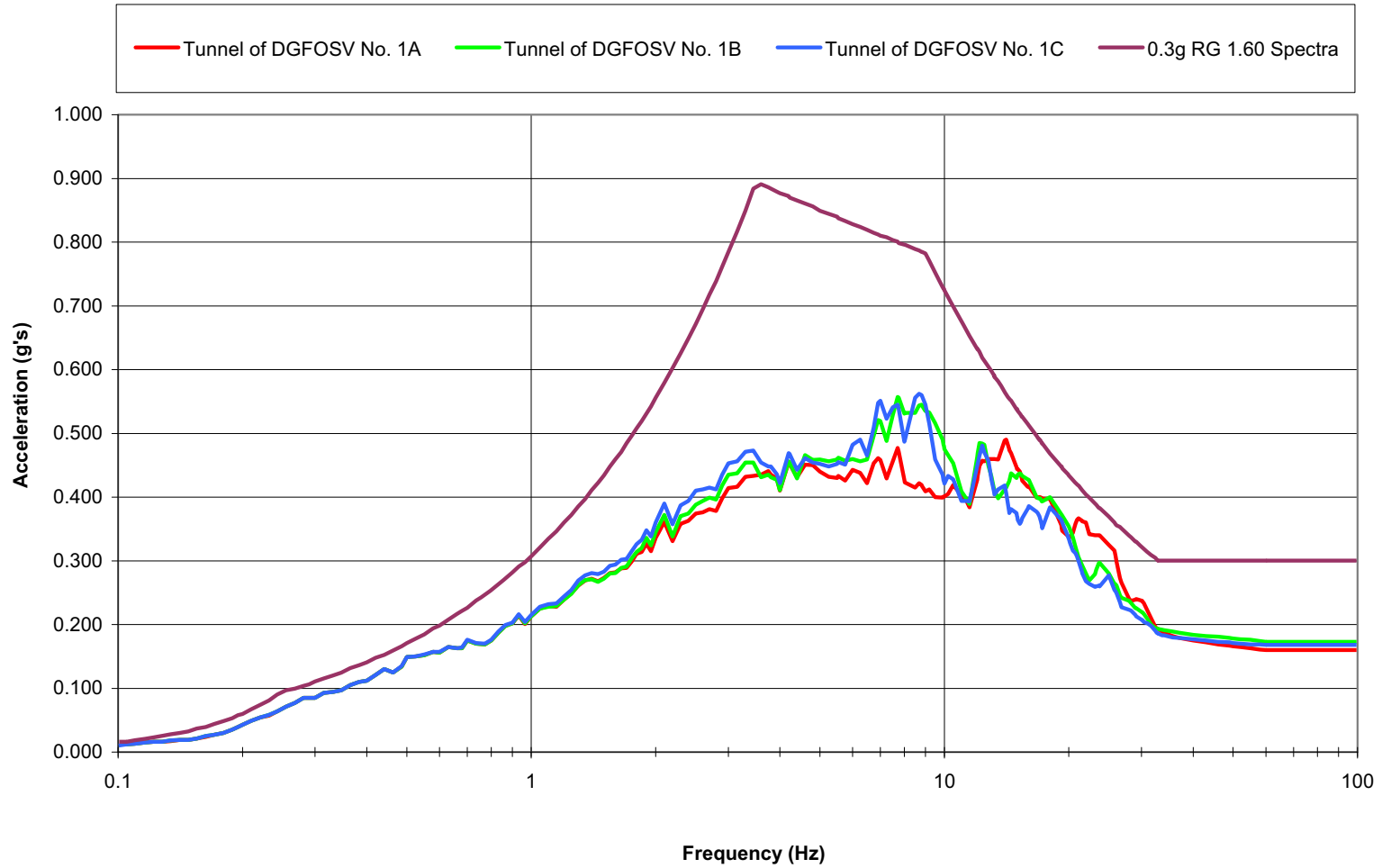


Figure 3H.7-30b Amplified E-W Site-Specific Response Spectra
Diesel Generator Fuel Oil Tunnel (DGFOT)

**Diesel Generator Fuel Oil Tunnel (DGFOT)
Amplified Vertical Site-Specific Response Spectra (5% Damping)**



**Figure 3H.7-30c Amplified Vertical Site-Specific Response Spectra
Diesel Generator Fuel Oil Tunnel (DGFOT)**

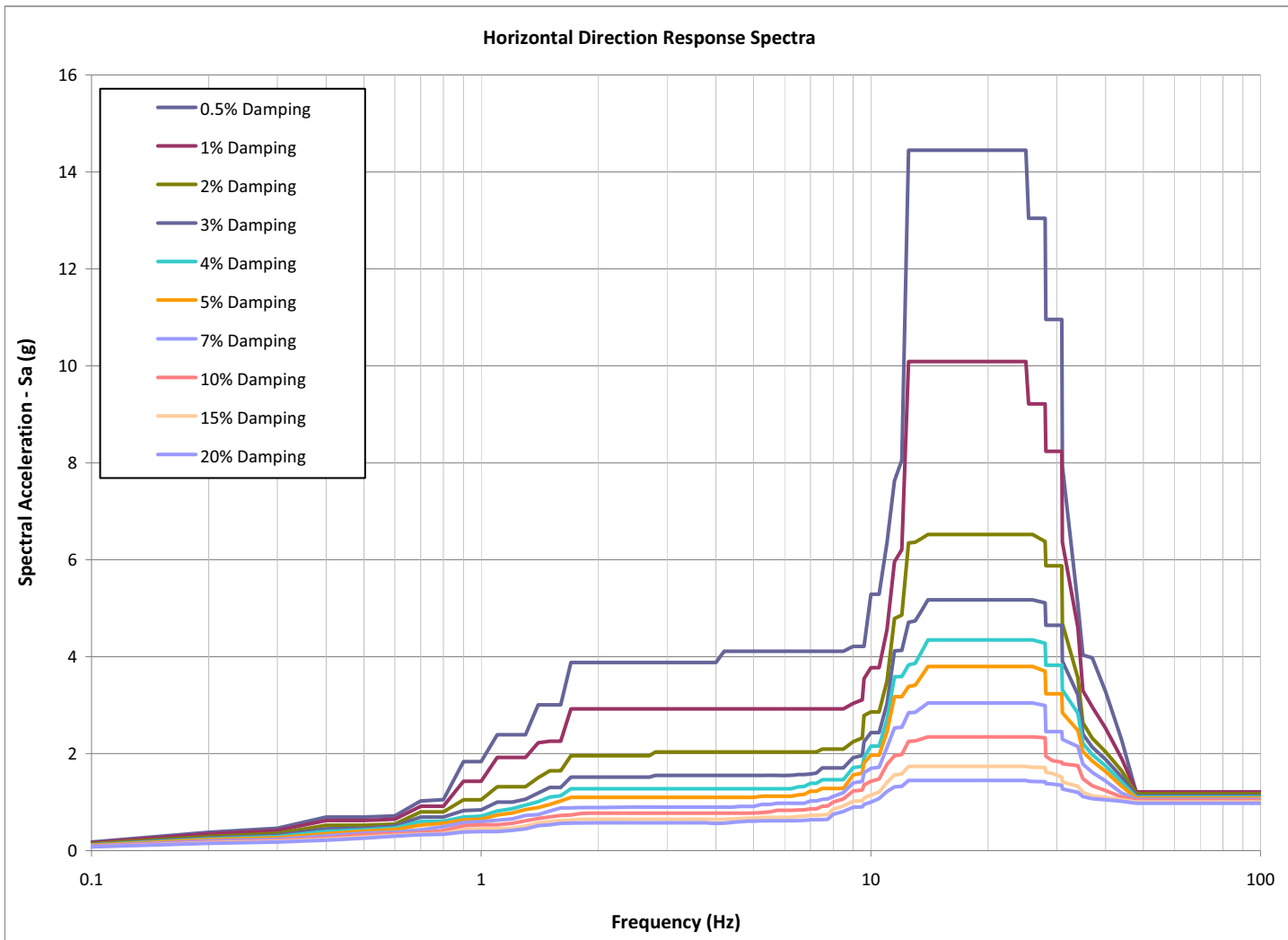


Figure 3H.7-31 Enveloped, Broadened Horizontal Response Spectra for DGFOTs

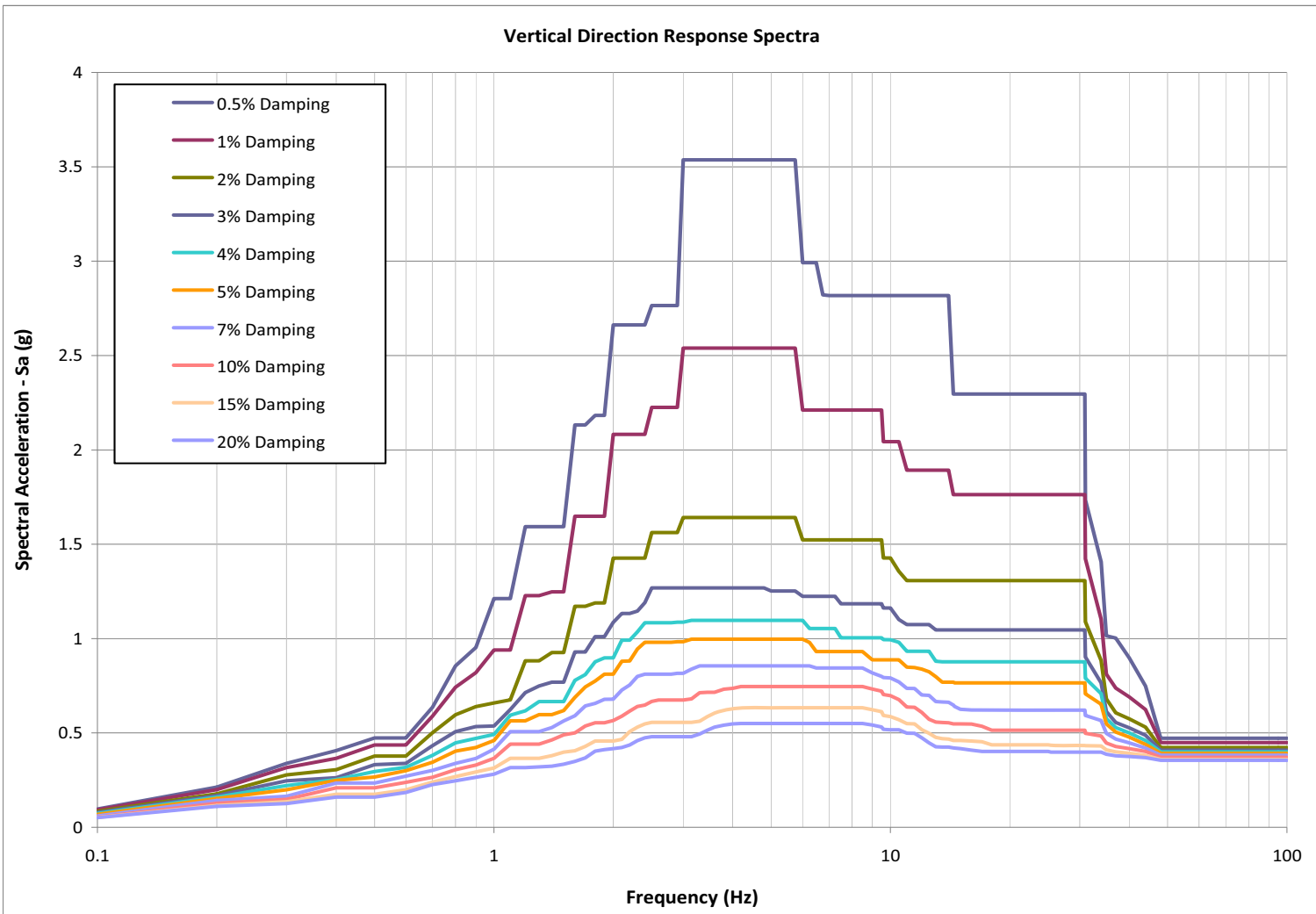


Figure 3H.7-32 Enveloped, Broadened ~~Horizontal~~Vertical Response Spectra for DGFOTs

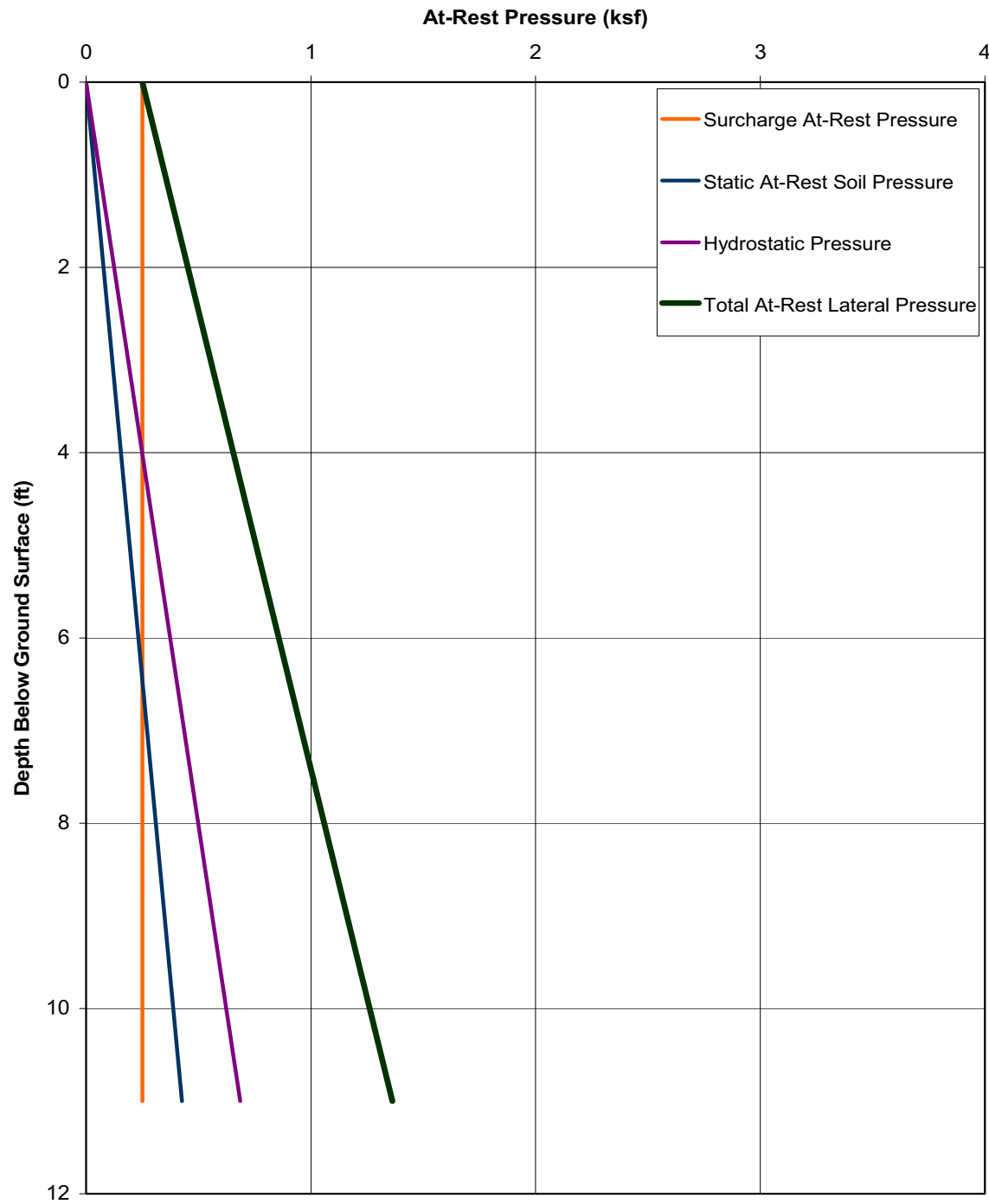


Figure 3H.7-33 At-Rest Lateral Earth Pressure on the DGFOT Walls

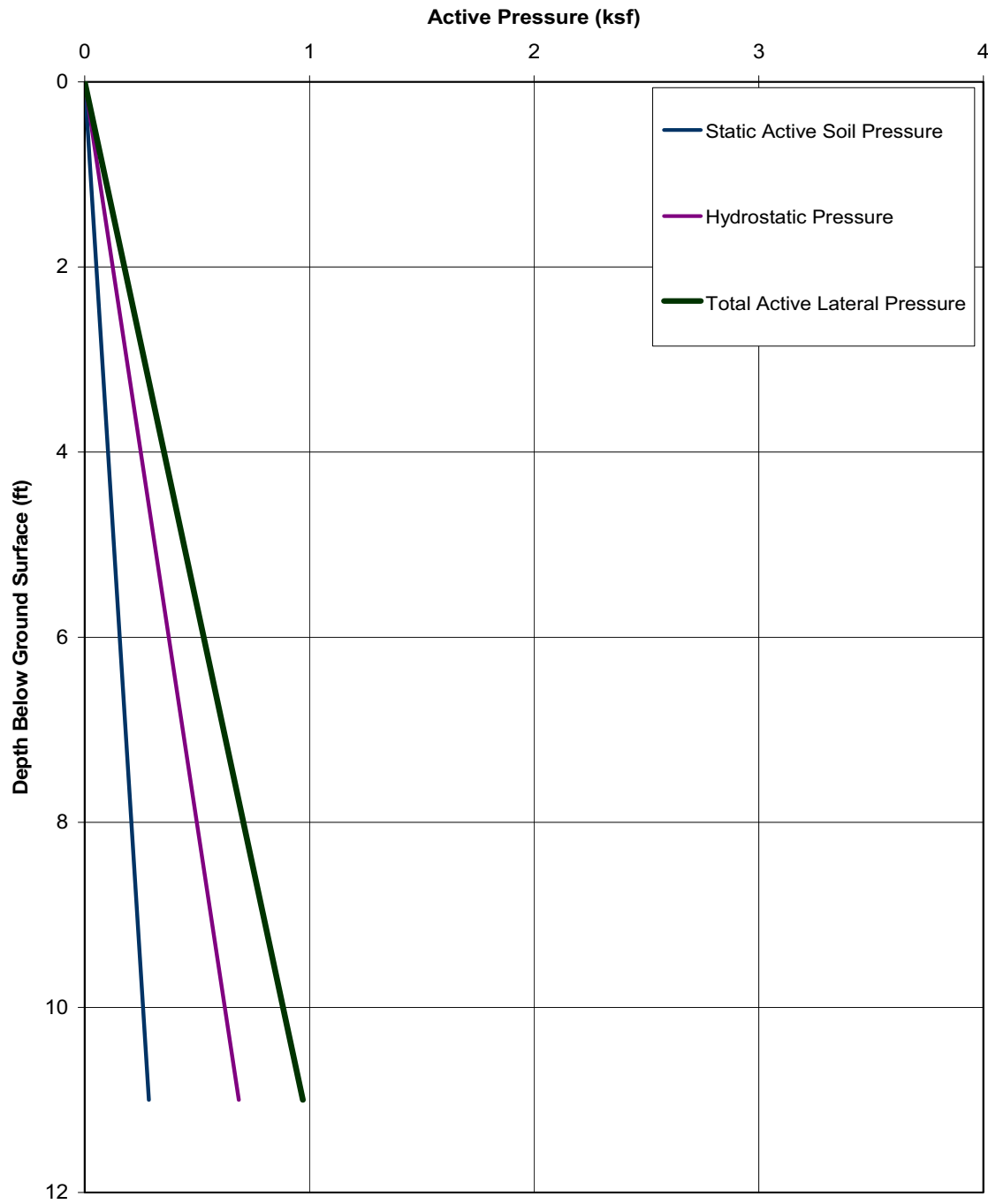
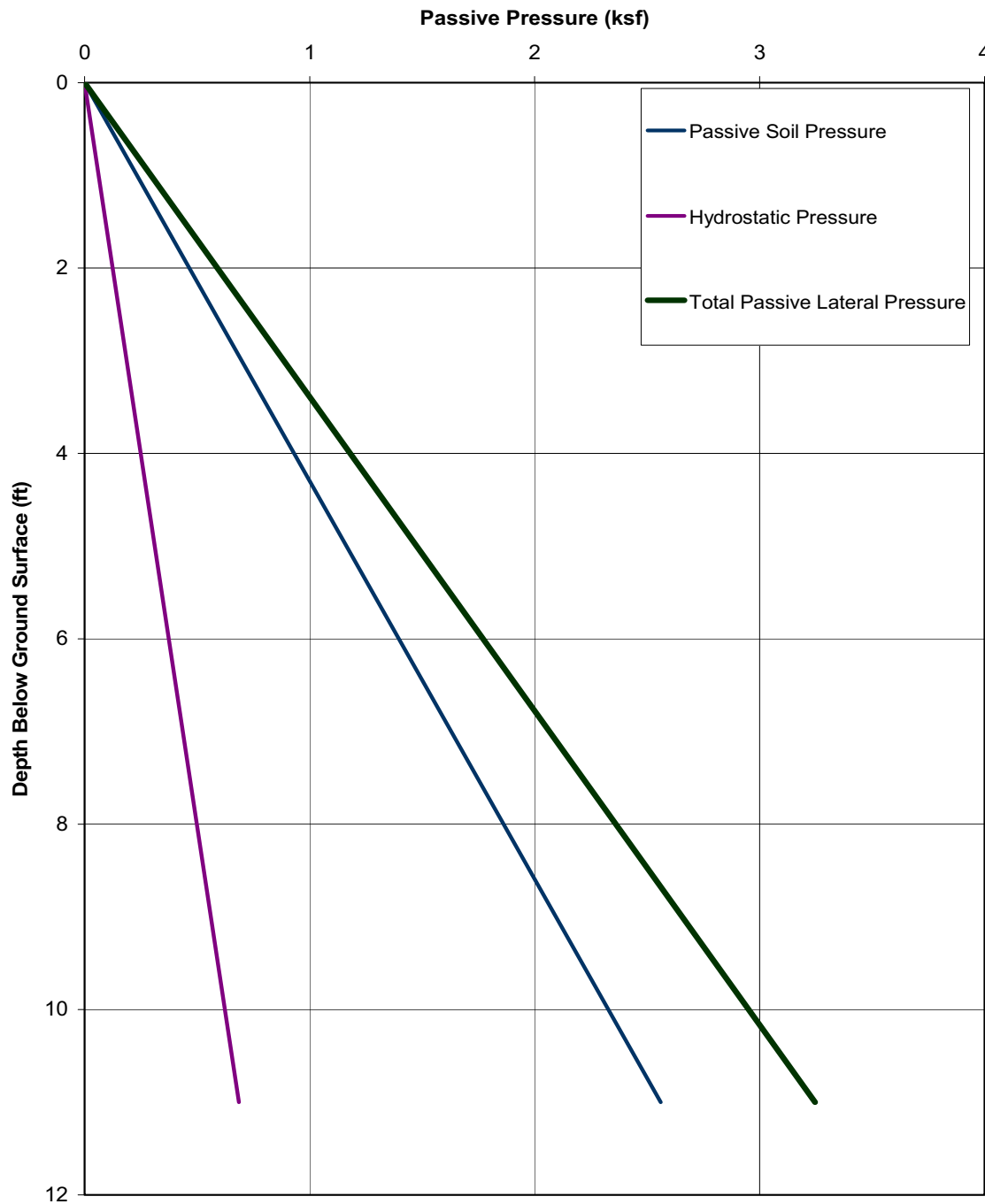


Figure 3H.7-34 Active Lateral Earth Pressure on the DGFOT Walls

**Figure 3H.7-35 Passive Lateral Earth Pressure on the DGFOT Walls**

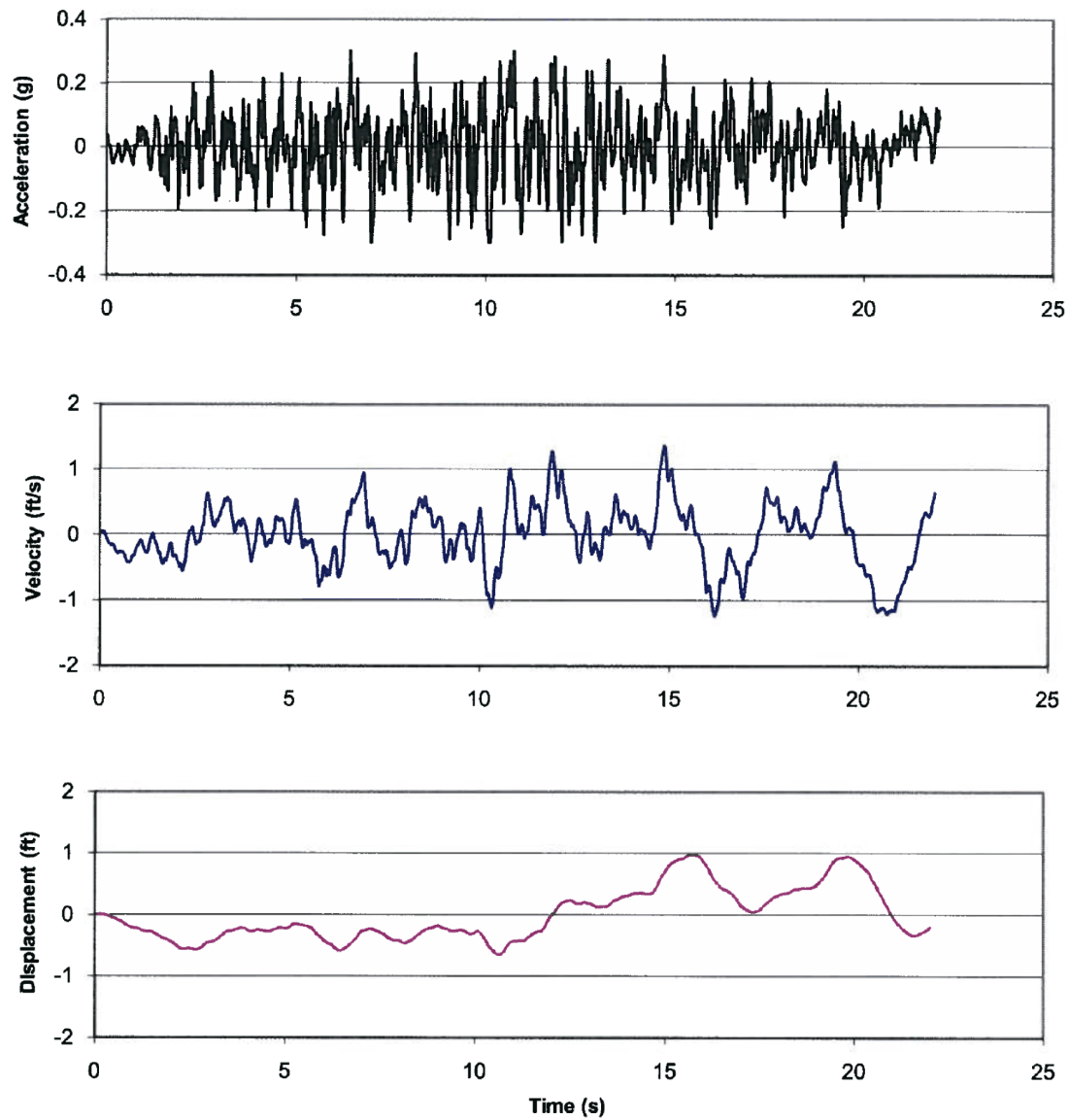


Figure 3H.8-1 Horizontal H1 Time History, Matching Horizontal R.G. 1.60 Response Spectrum

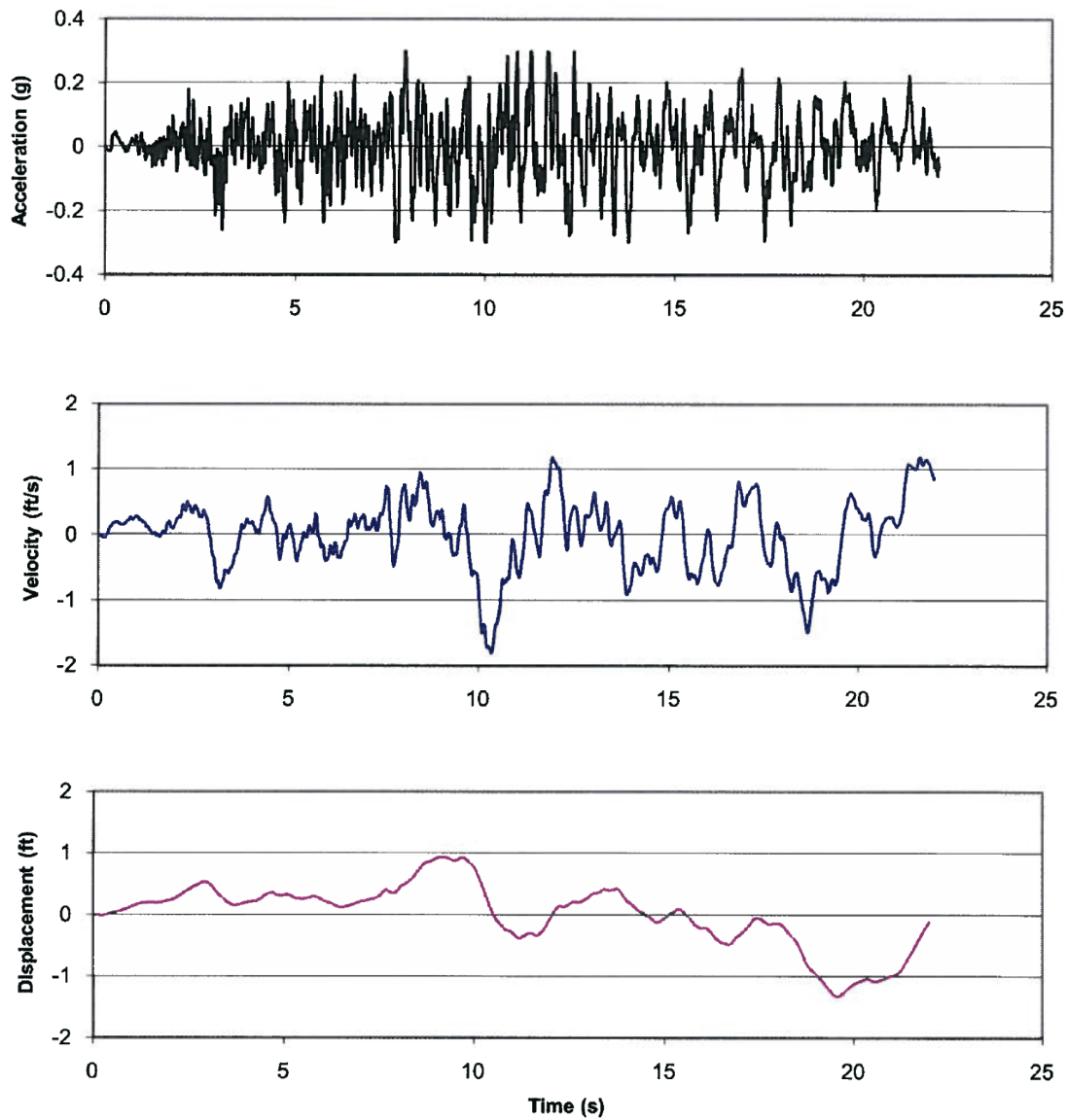


Figure 3H.8-2 Horizontal H2 Time History, Matching Horizontal R.G. 1.60 Response Spectrum

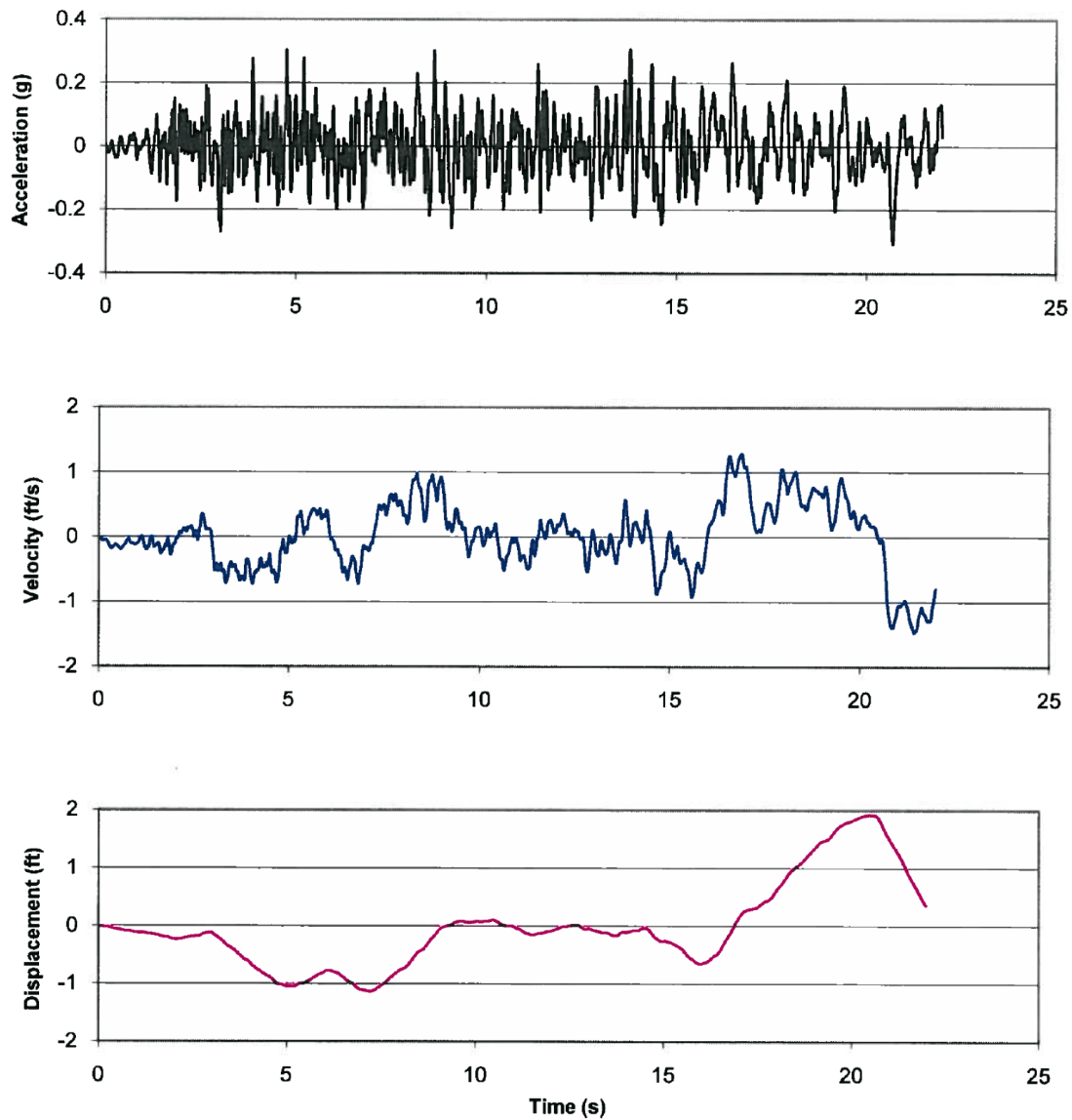


Figure 3H.8-3 Vertical V1 Time History, Matching Vertical R.G. 1.60 Response Spectrum

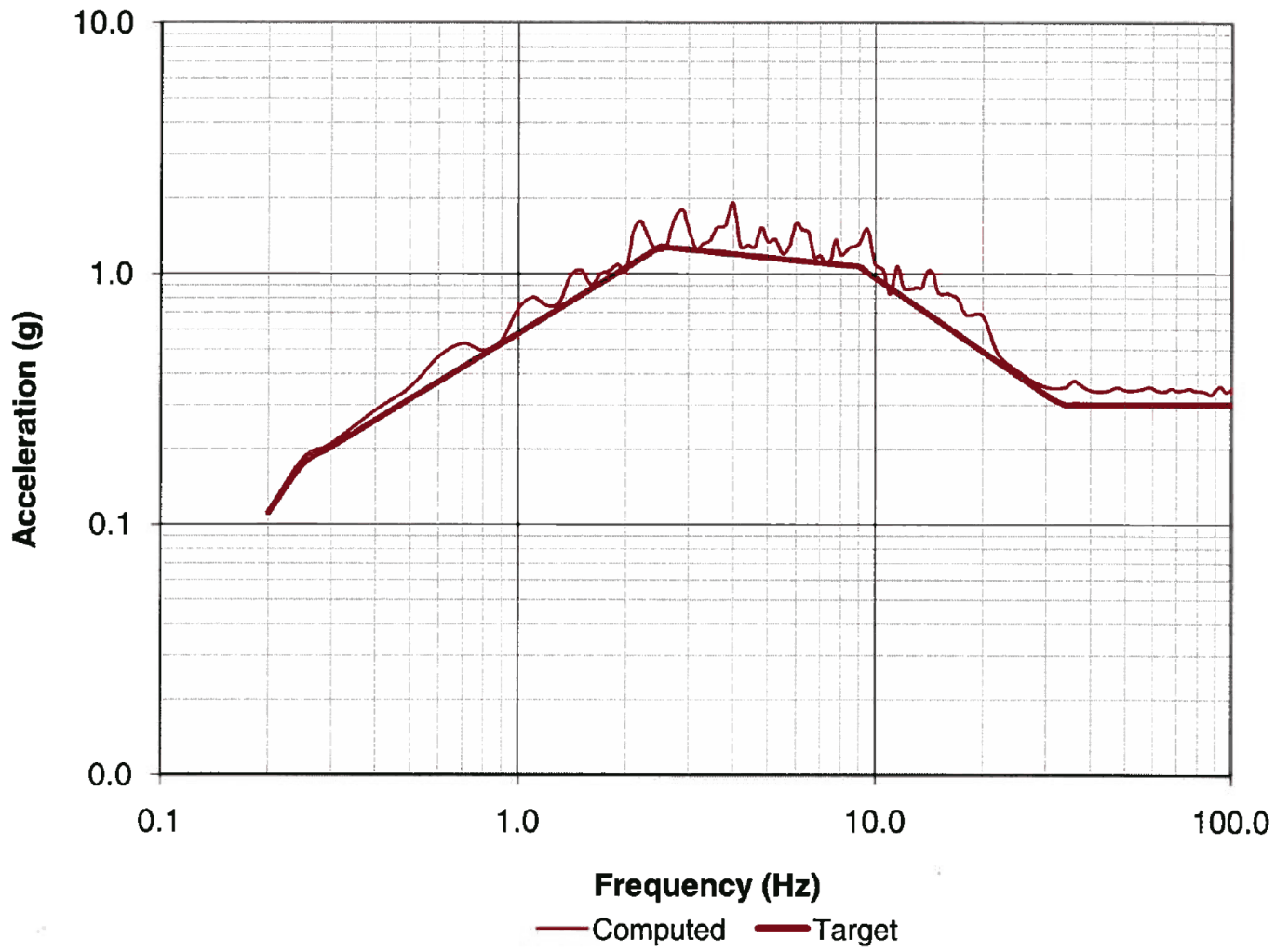


Figure 3H.8-4 Target vs. Computed Response Spectra, H1 Component, 2% damping

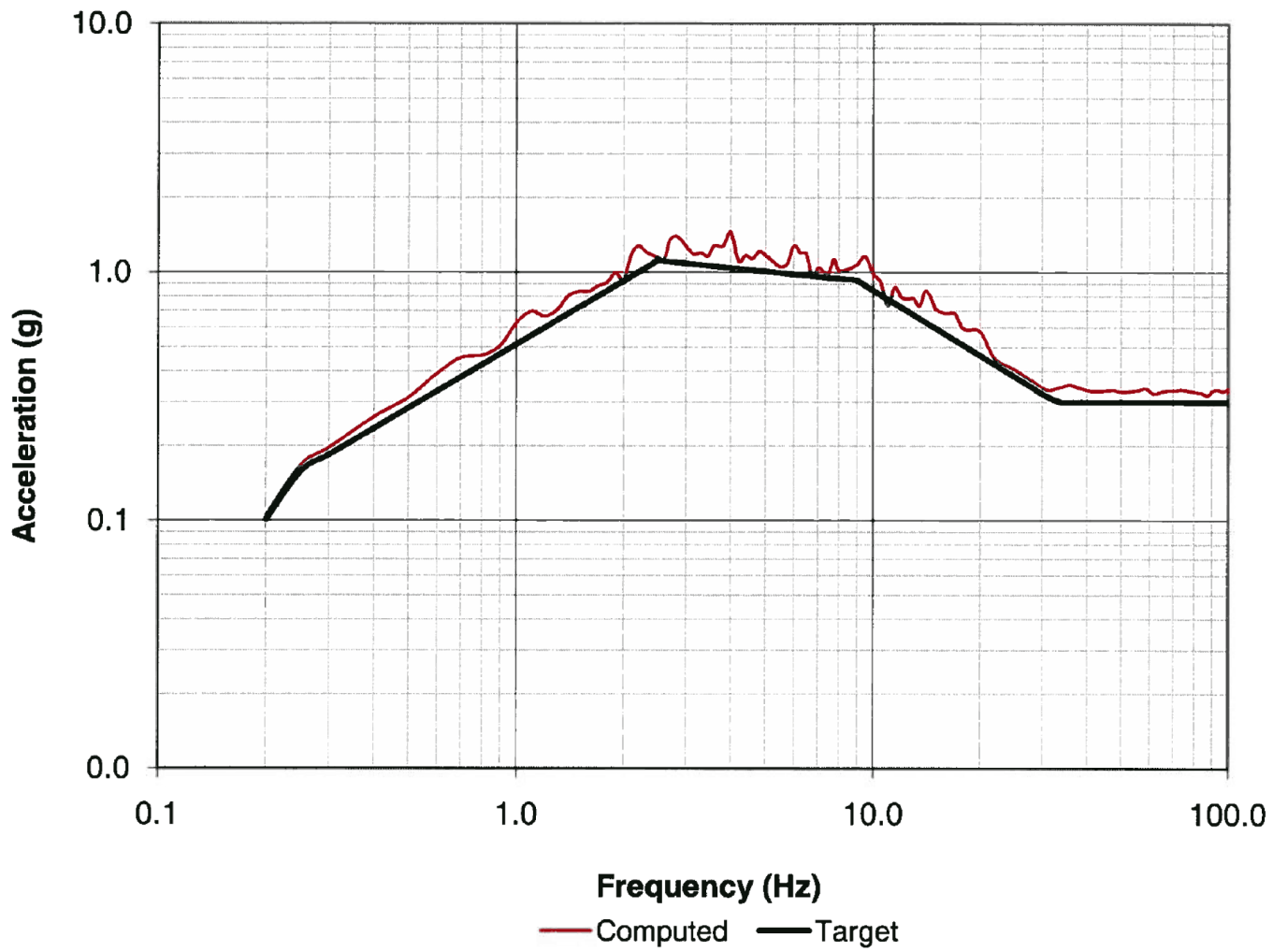


Figure 3H.8-5 Target vs. Computed Response Spectra, H1 Component, 3% damping

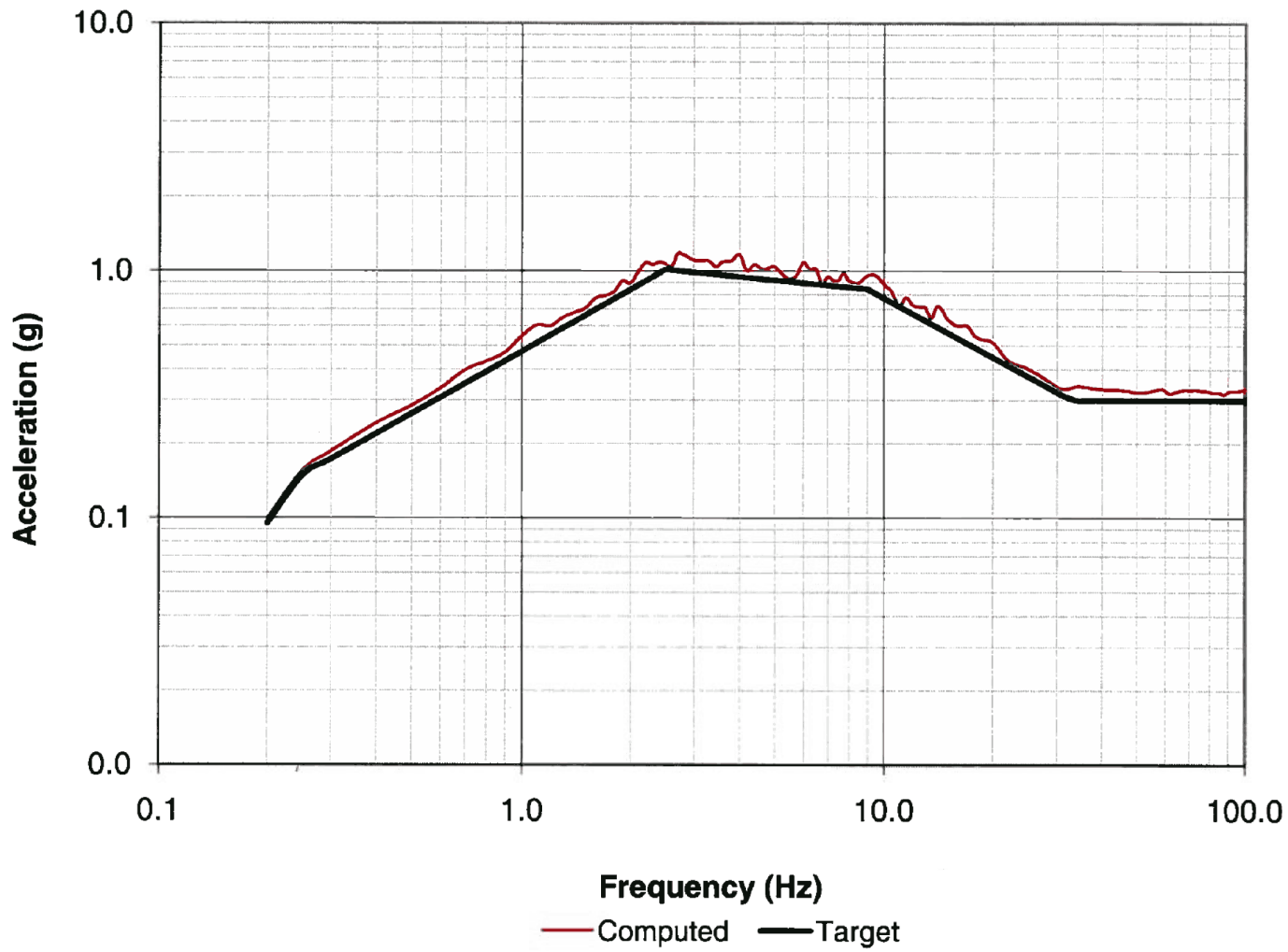


Figure 3H.8-6 Target vs. Computed Response Spectra, H1 Component, 4% damping

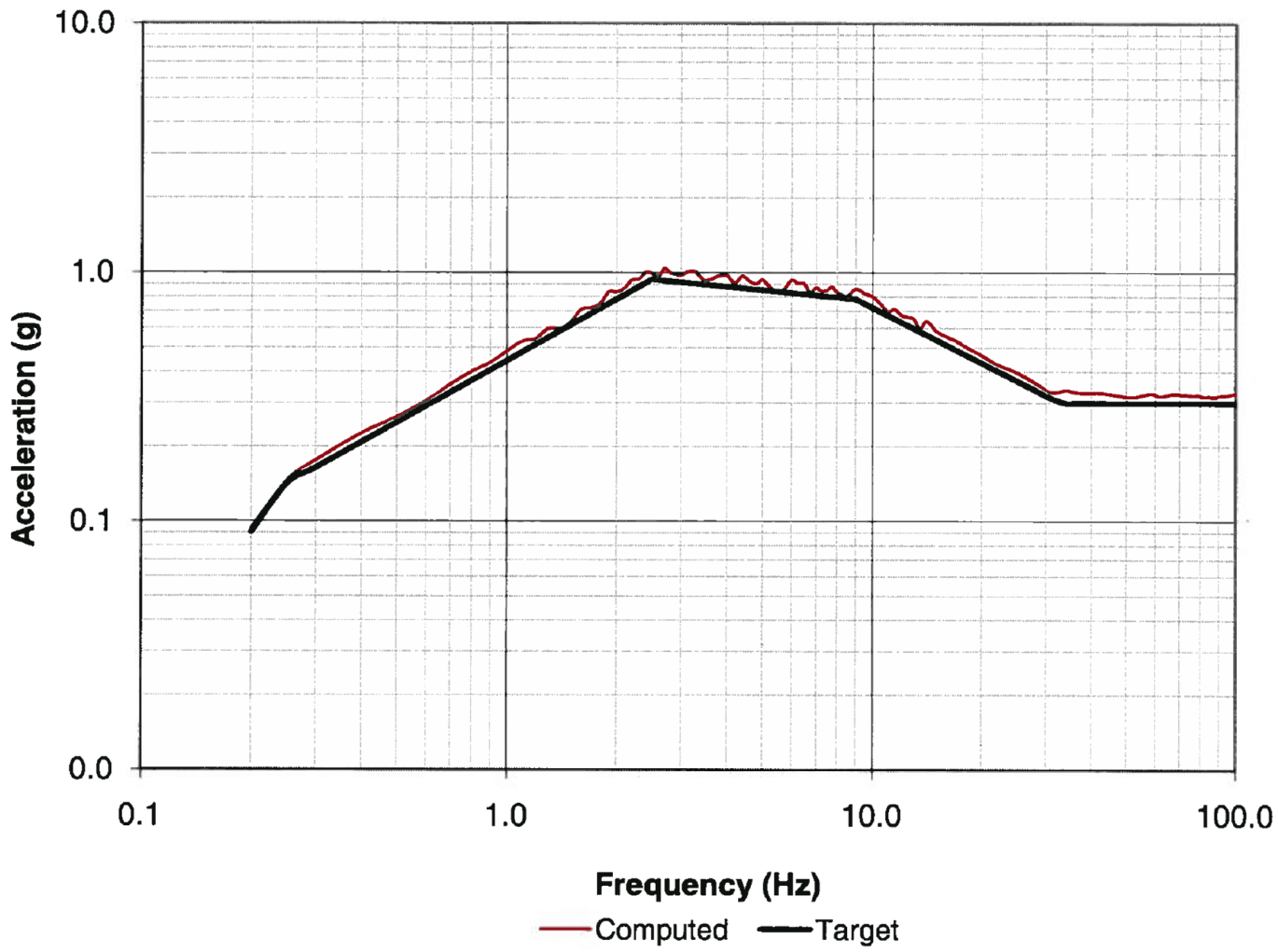


Figure 3H.8-7 Target vs. Computed Response Spectra, H1 Component, 5% damping

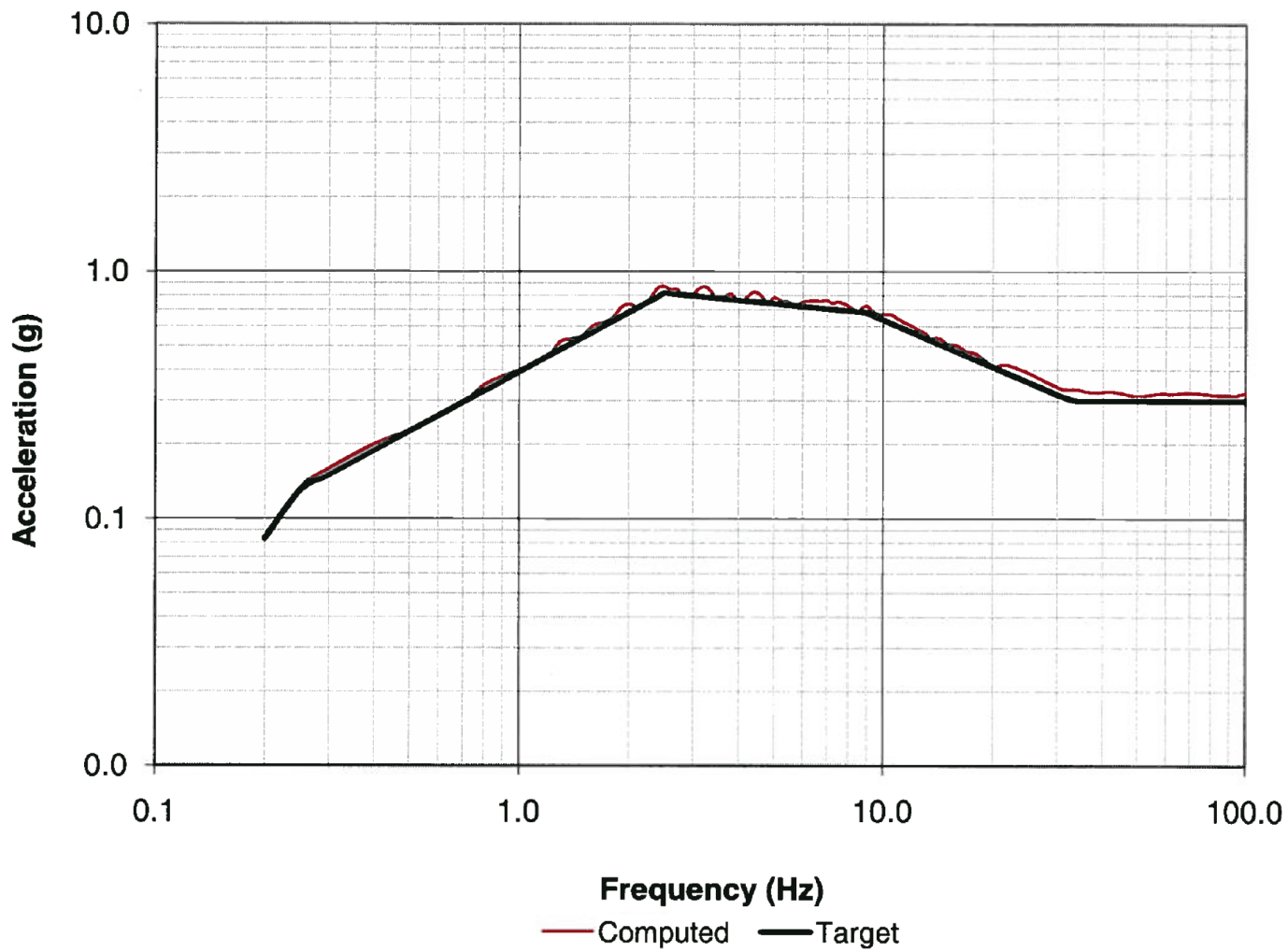


Figure 3H.8-8 Target vs. Computed Response Spectra, H1 Component, 7% damping

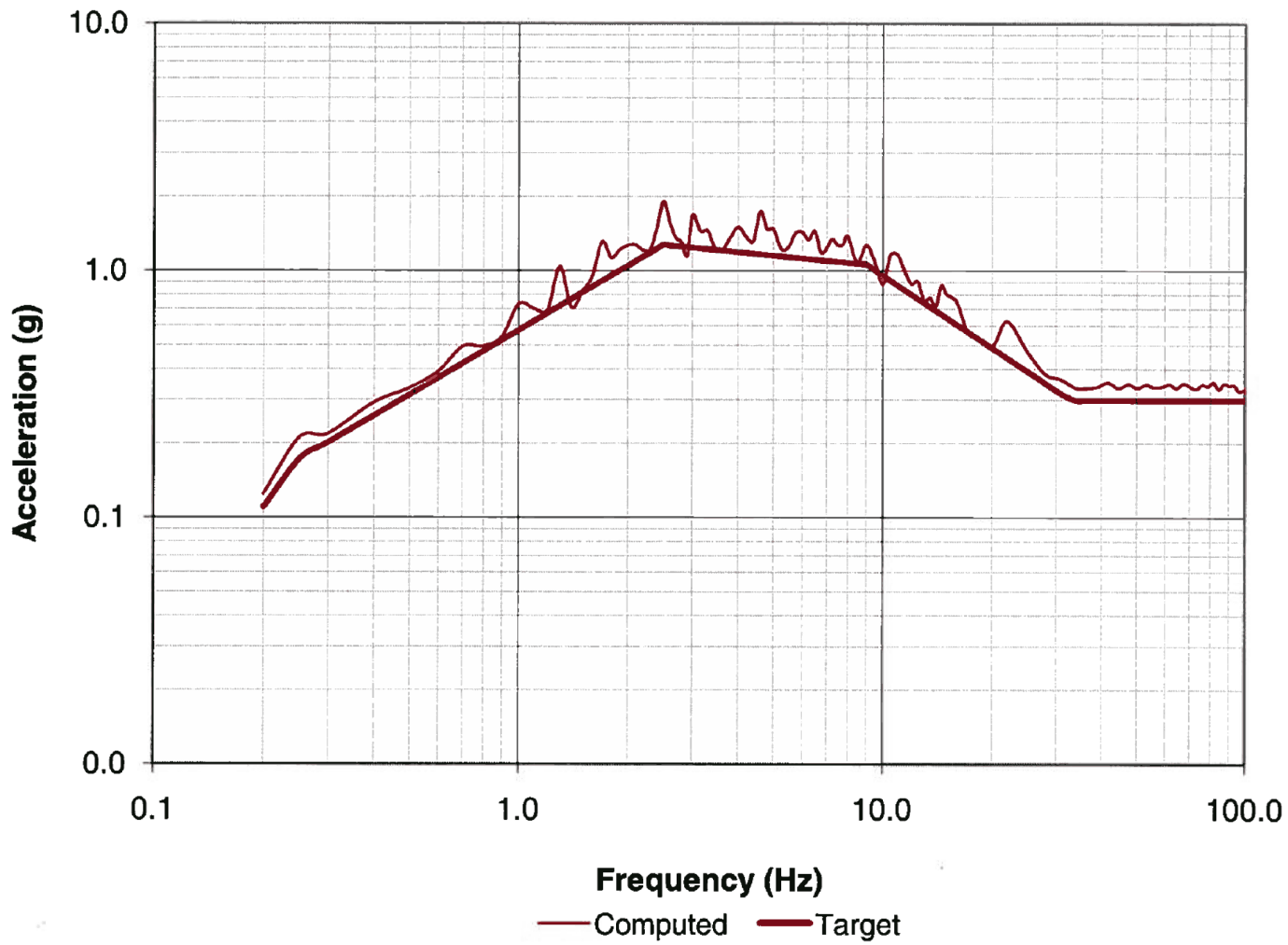


Figure 3H.8-9 Target vs. Computed Response Spectra, H2 Component, 2% Damping

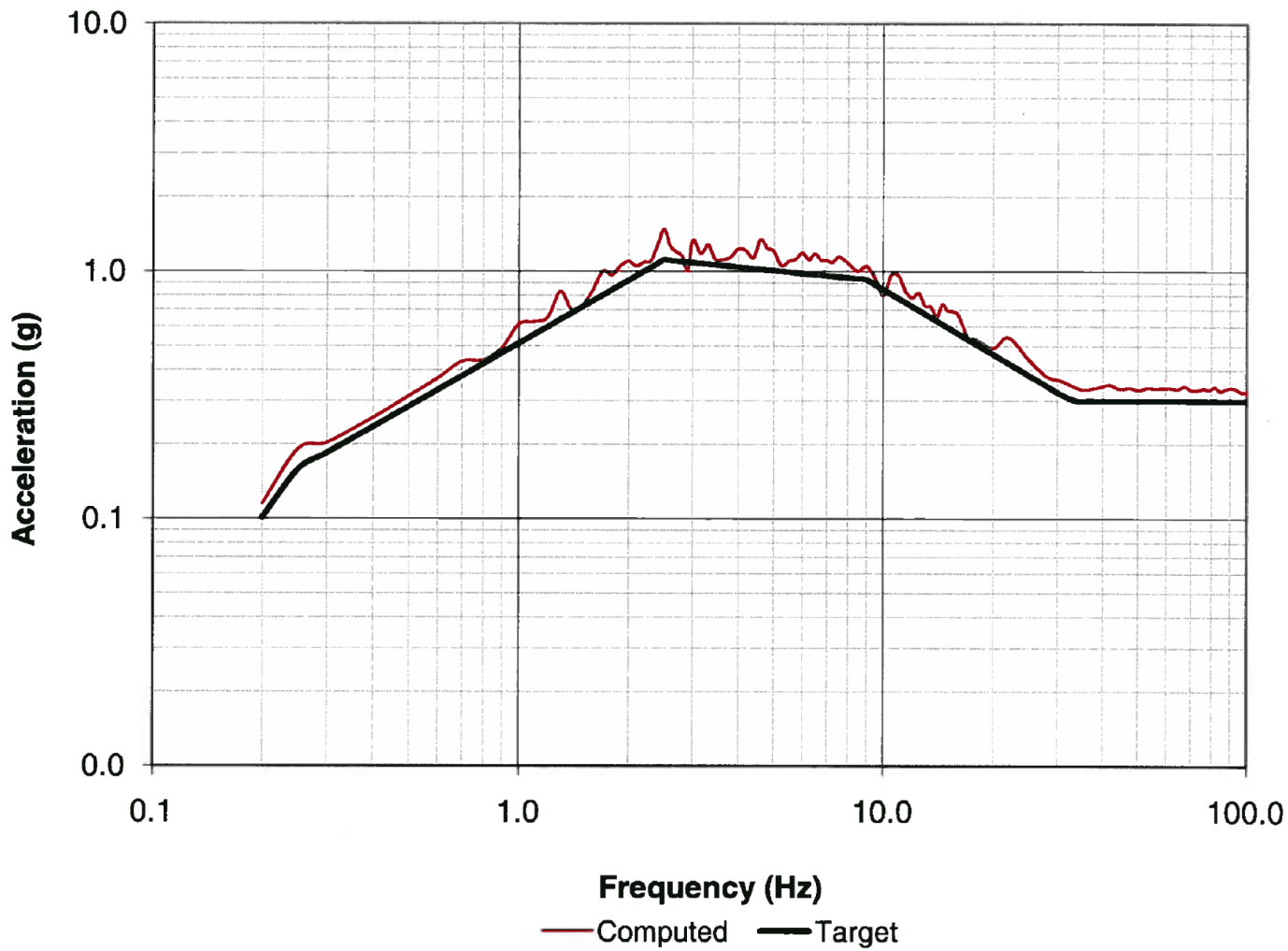


Figure 3H.8-10 Target vs. Computed Response Spectra, H2 Component, 3% Damping

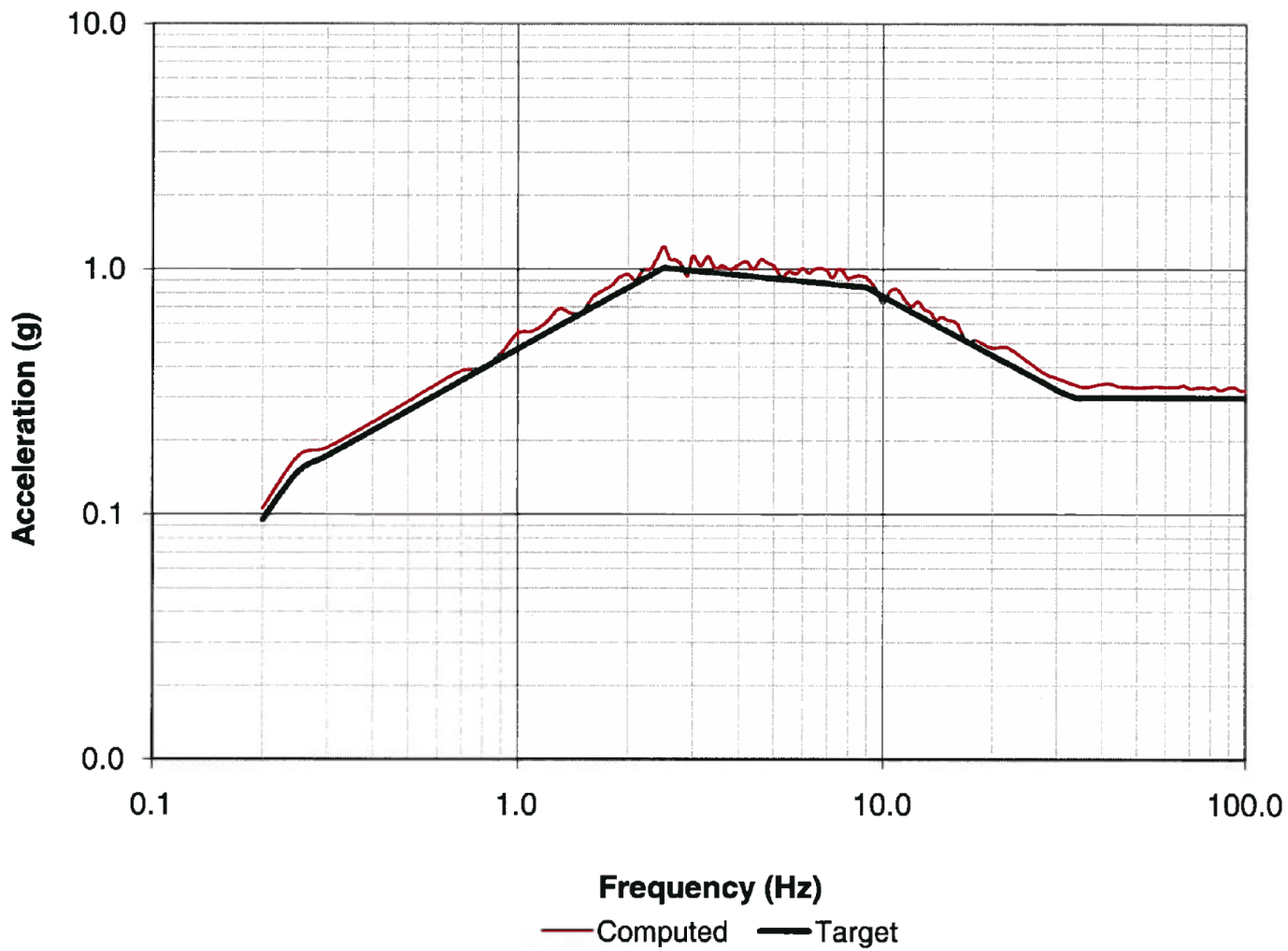


Figure 3H.8-11 Target vs. Computed Response Spectra, H2 Component, 4% Damping

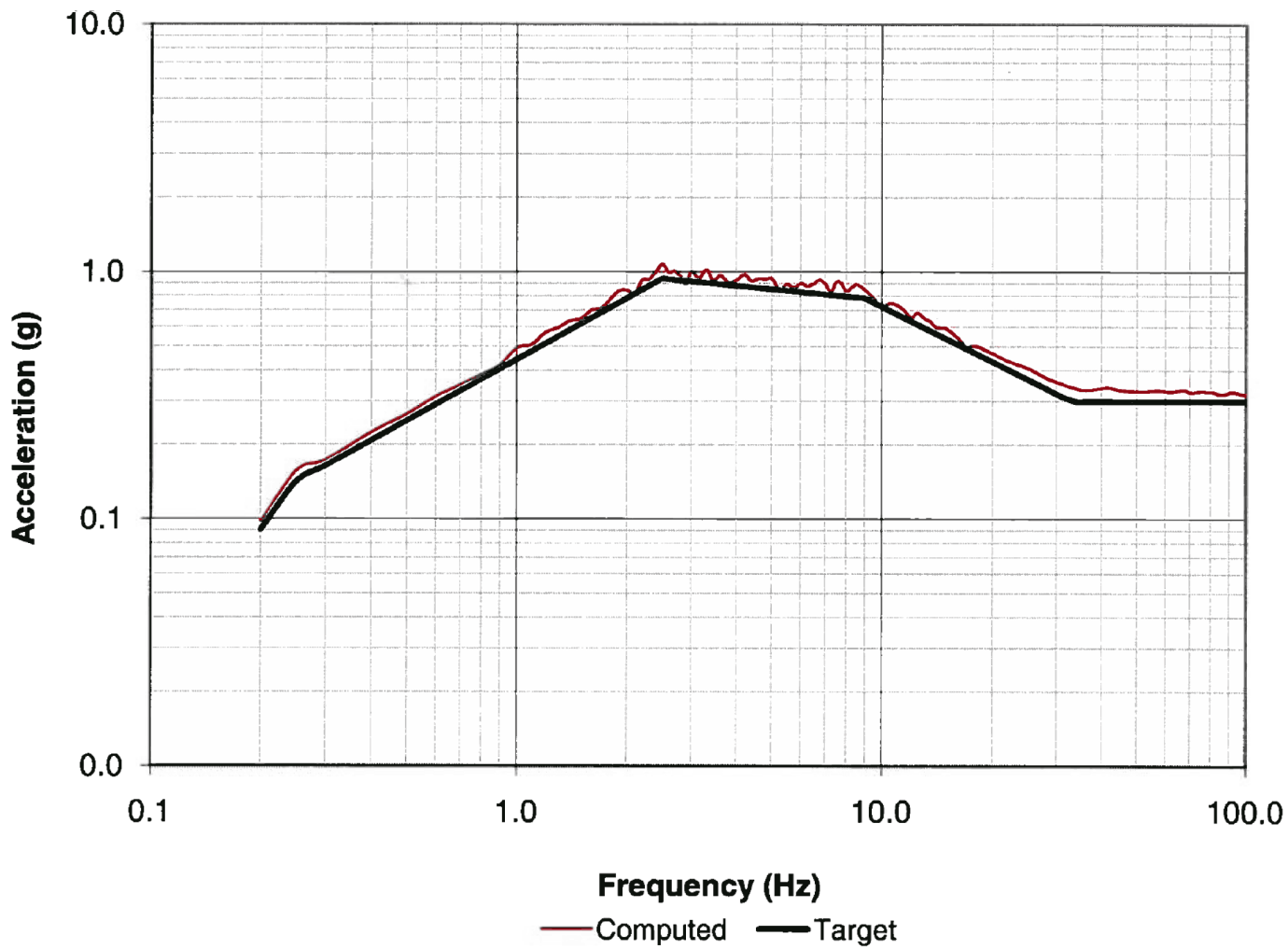


Figure 3H.8-12 Target vs. Computed Response Spectra, H2 Component, 5% Damping

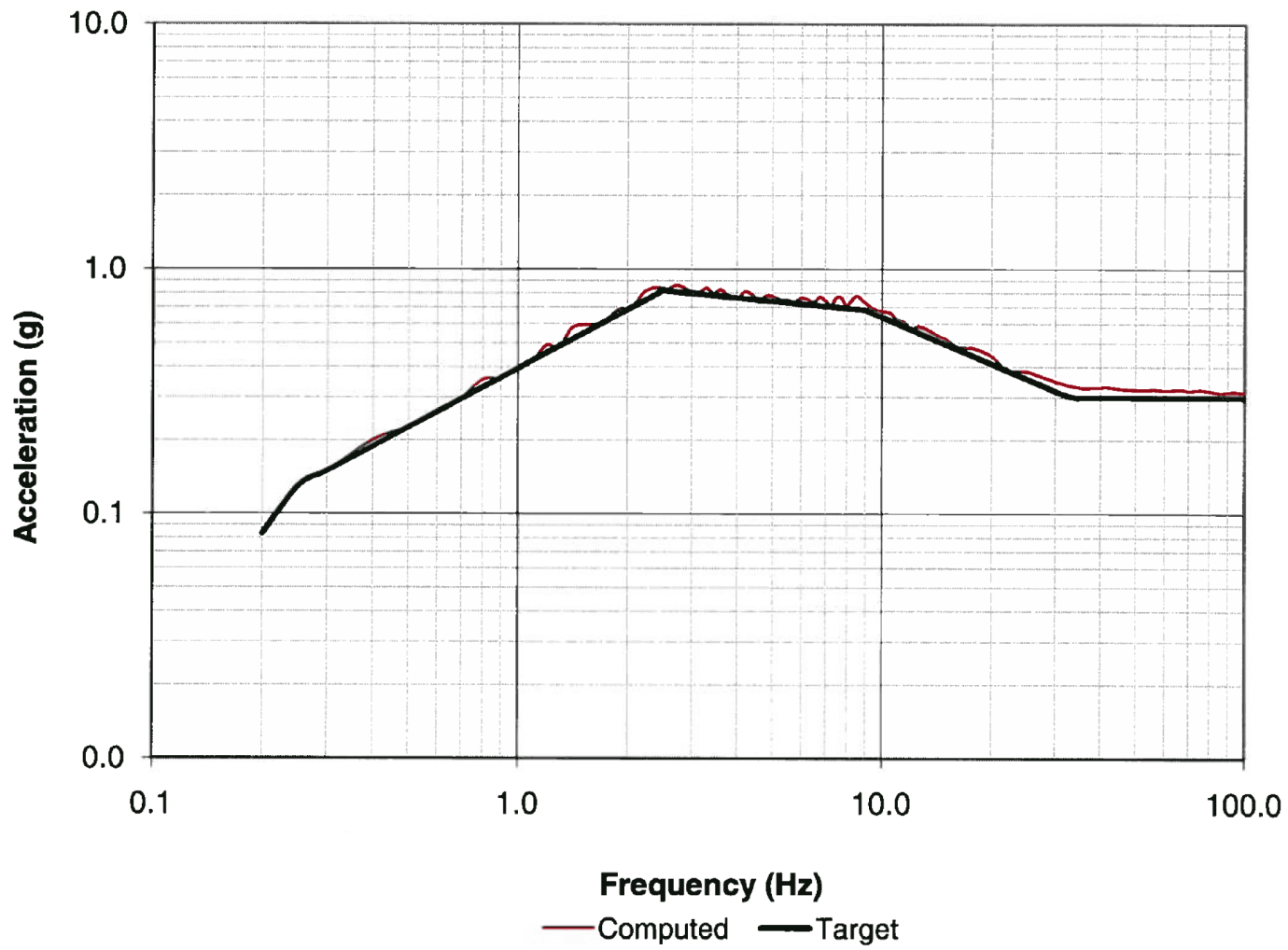


Figure 3H.8-13 Target vs. Computed Response Spectra, H2 Component, 7% Damping

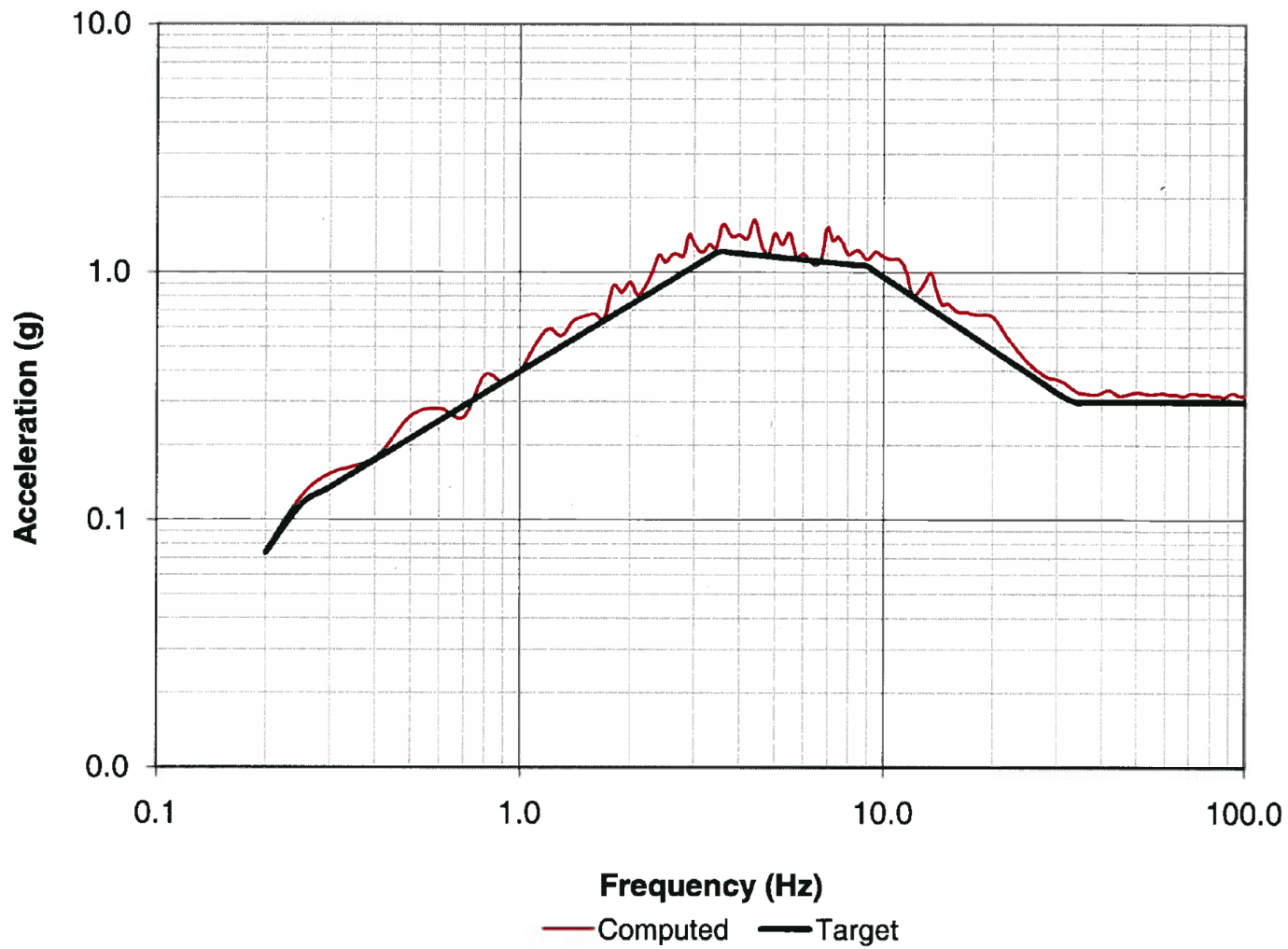


Figure 3H.8-14 Target vs. Computed Response Spectra, V1 Component, 2% Damping

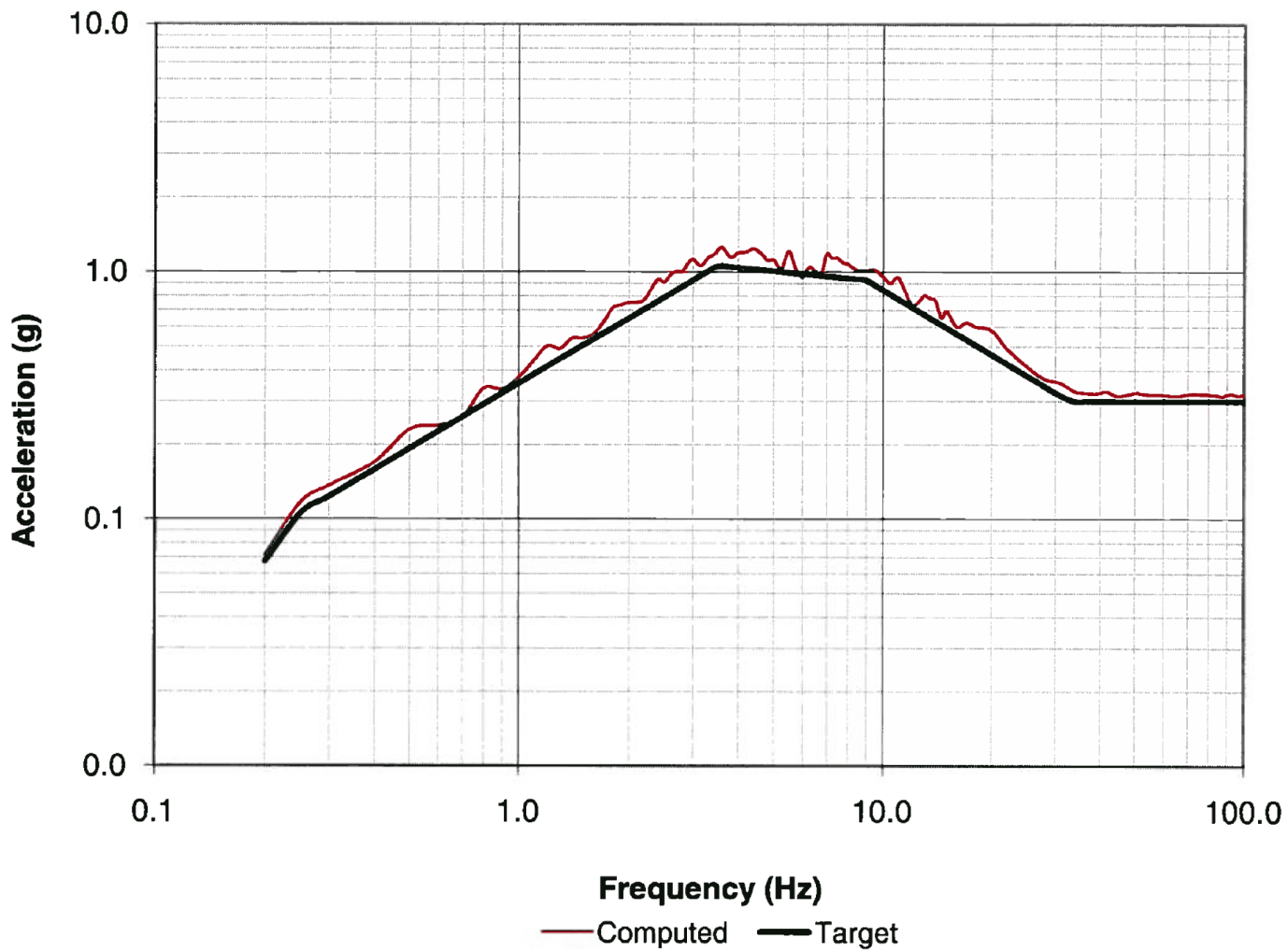


Figure 3H.8-15 Target vs. Computed Response Spectra, V1 Component, 3% Damping

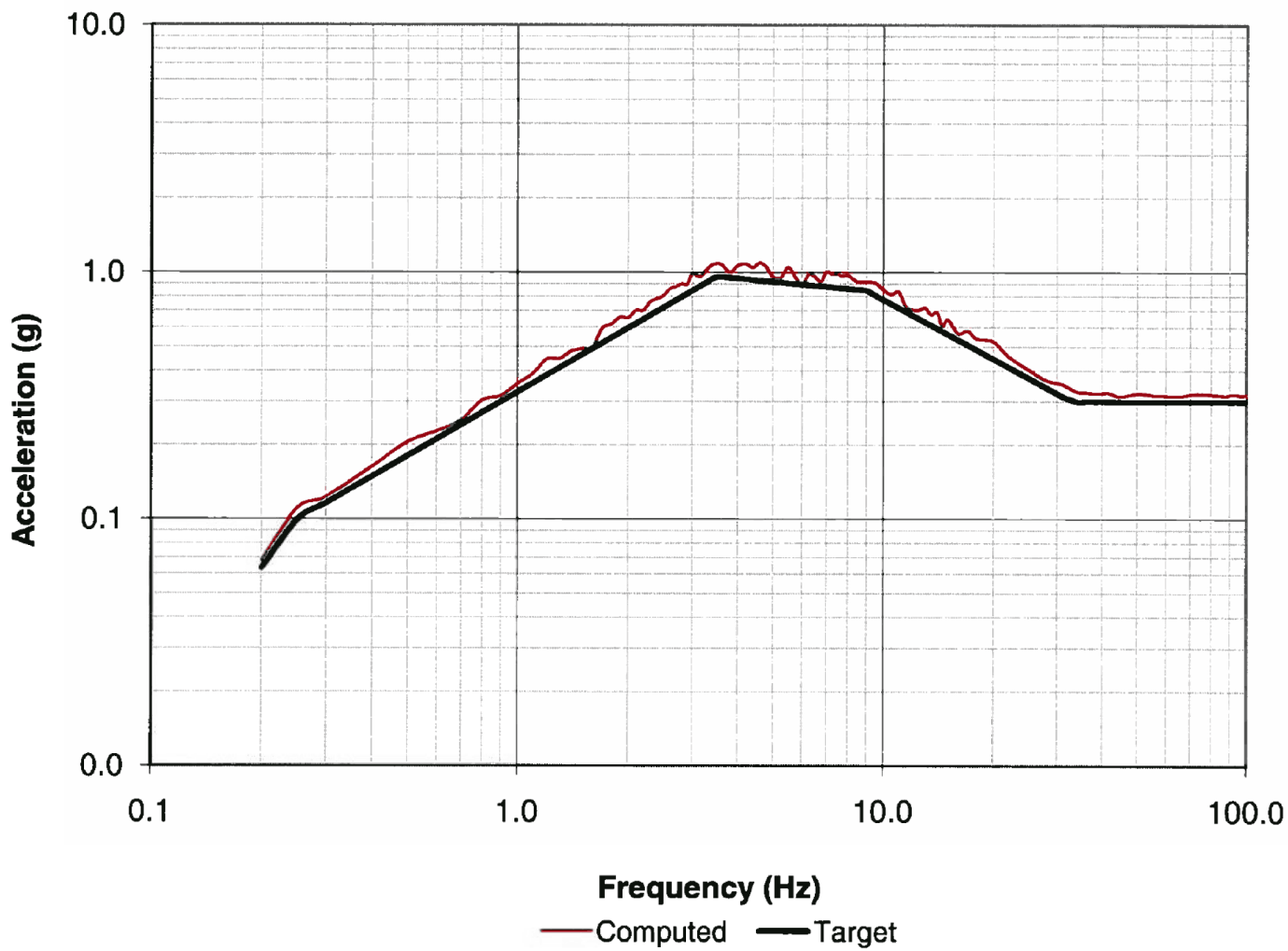


Figure 3H.8-16 Target vs. Computed Response Spectra, V1 Component, 4% Damping

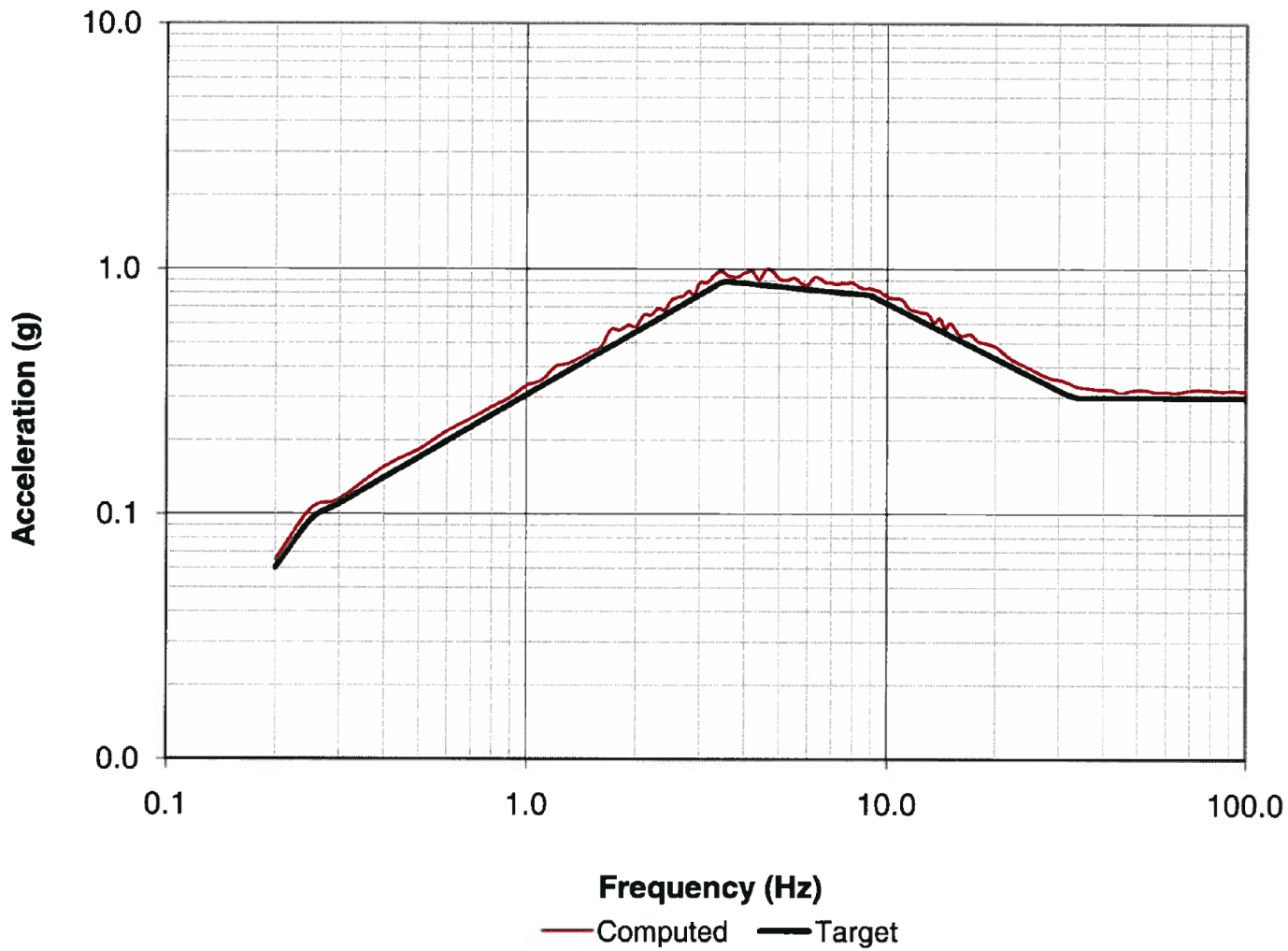


Figure 3H.8-17 Target vs. Computed Response Spectra, V1 Component, 5% Damping

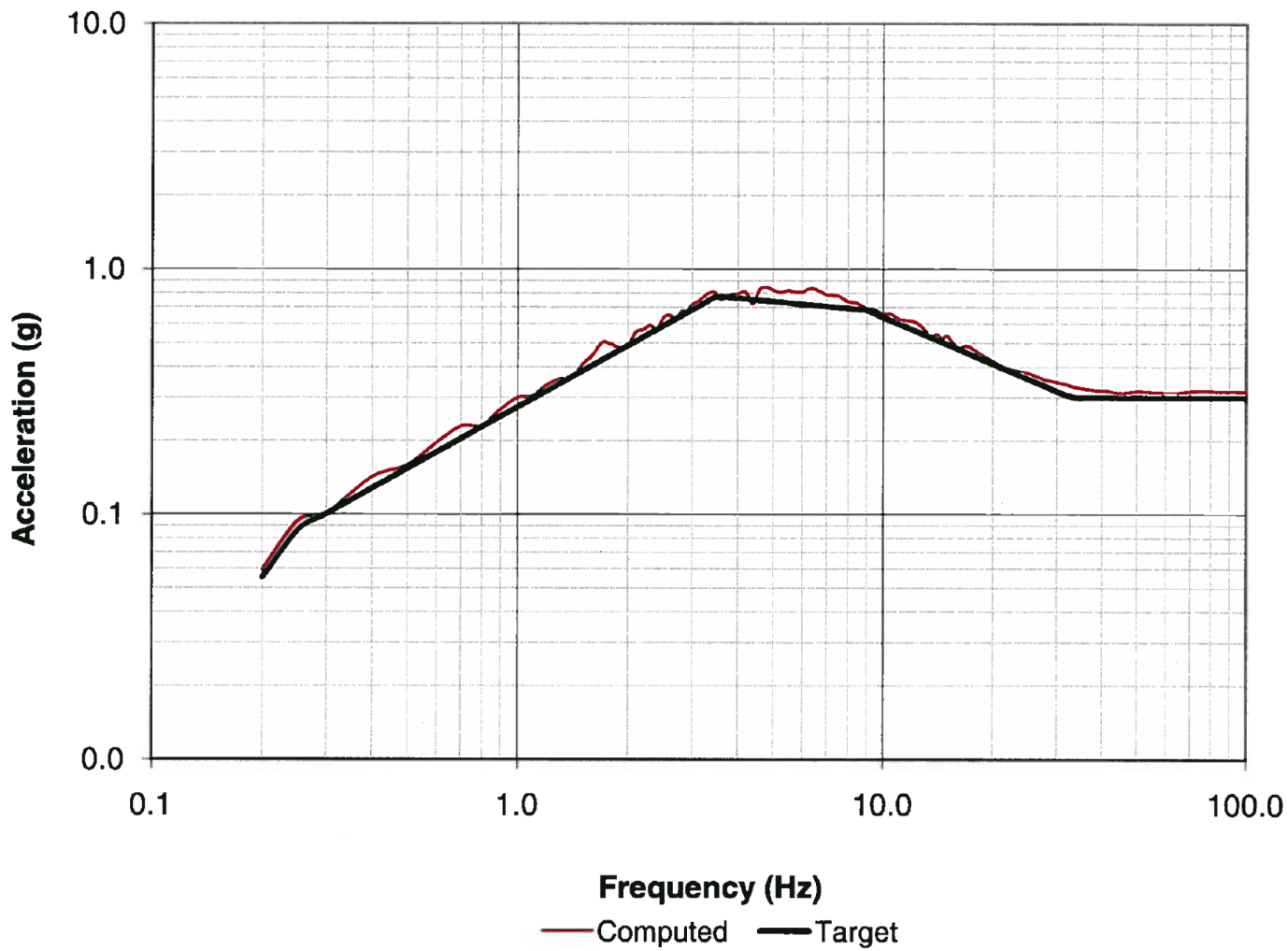


Figure 3H.8-18 Target vs. Computed Response Spectra, V1 Component, 7% Damping

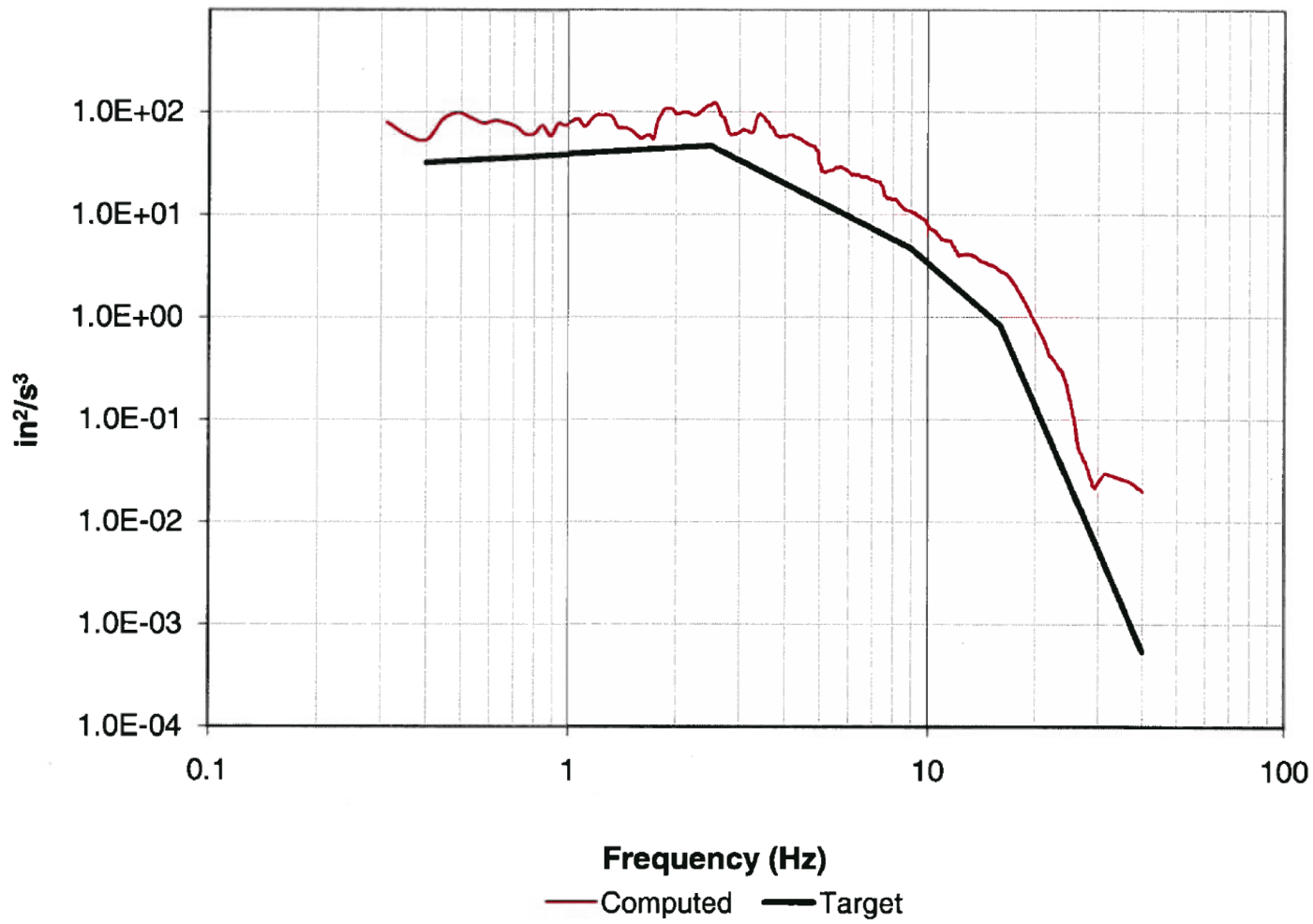


Figure 3H.8-19 Target vs. Computed Power Spectral Density, Horizontal H1 Component

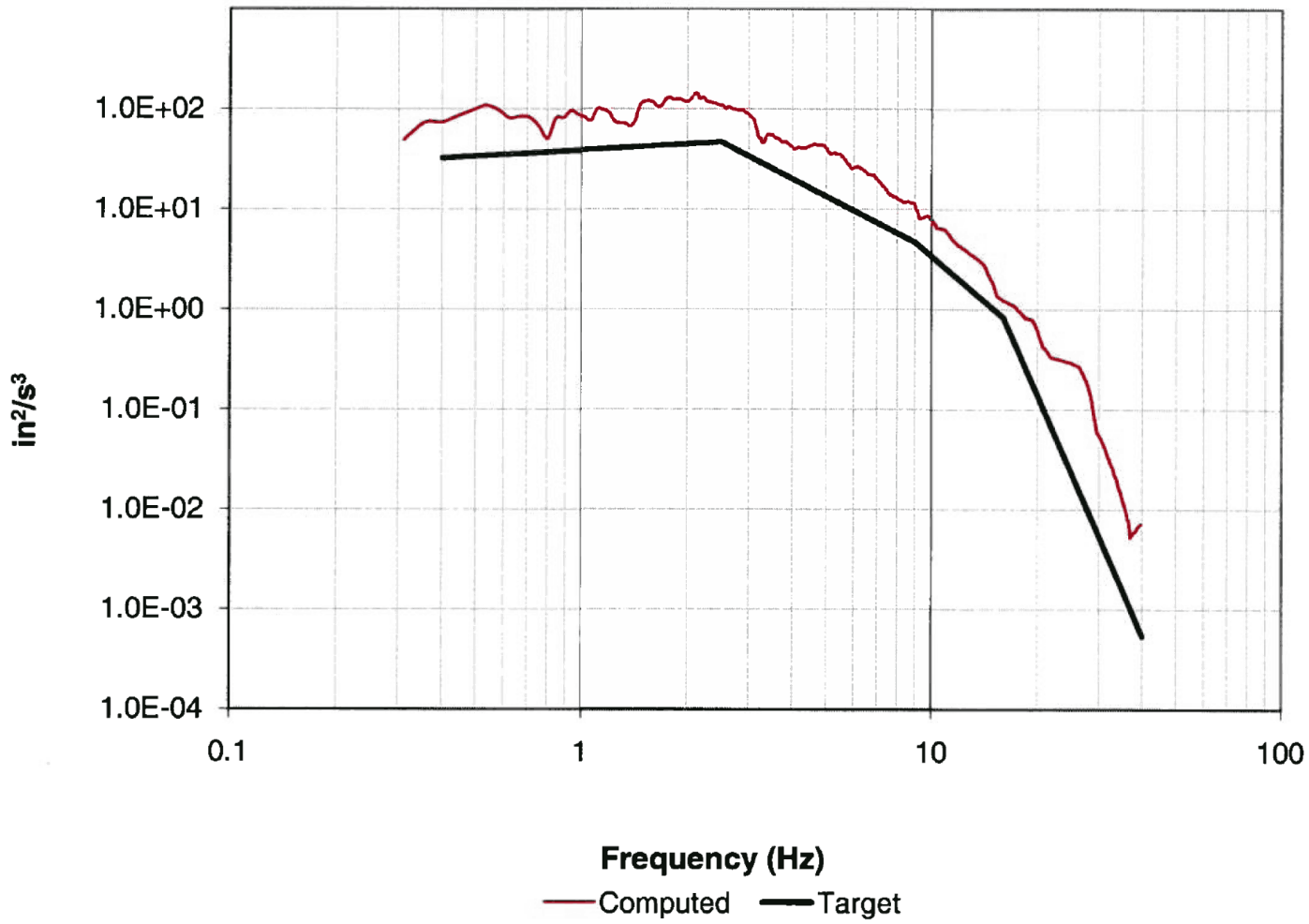


Figure 3H.8-20 Target vs. Computed Power Spectral Density, Horizontal H2 Component

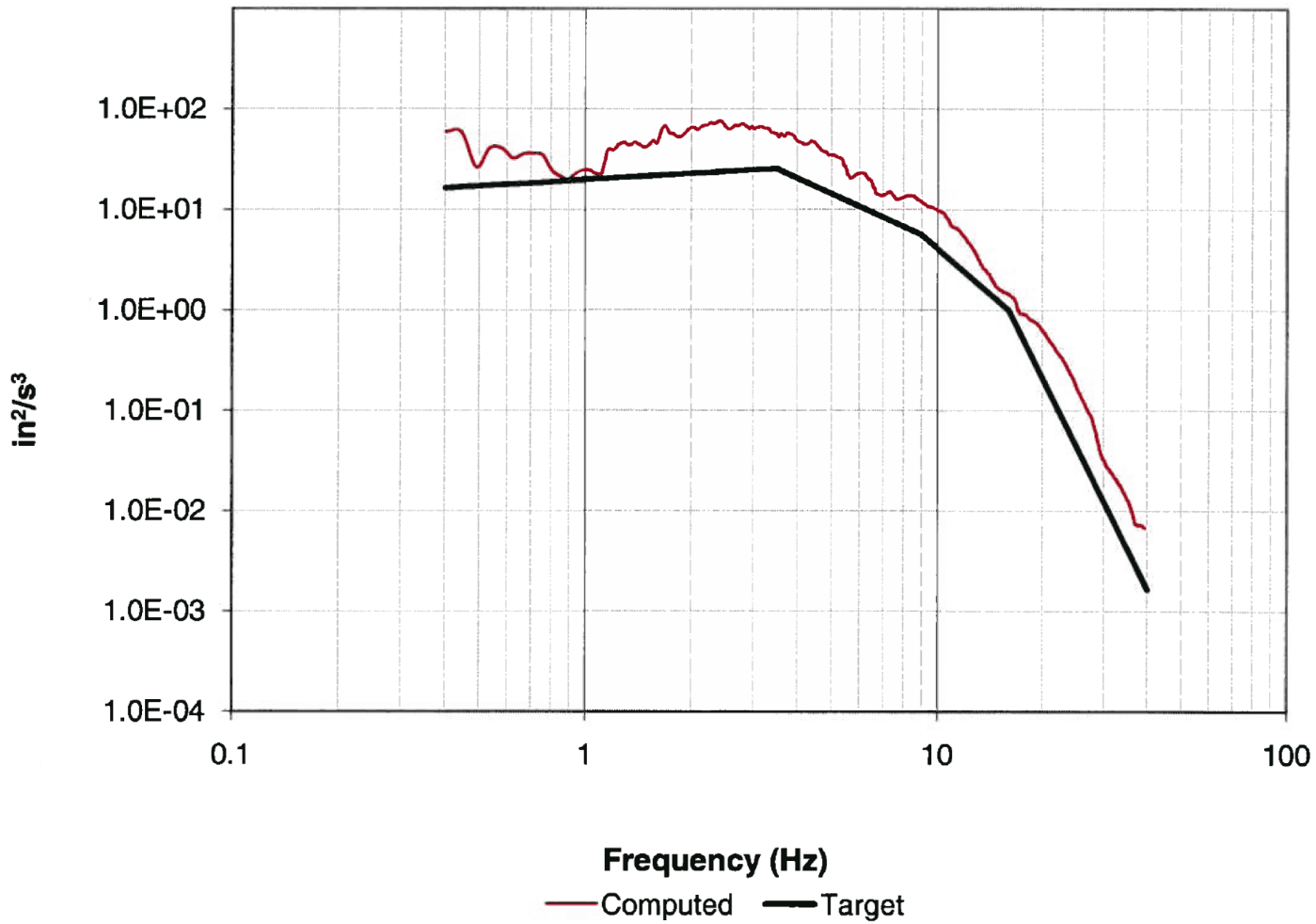


Figure 3H.8-21 Target vs. Computed Power Spectral Density, Vertical V1 Component