Ground Support PLLC

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February 12, 2026 Our ref: 25-17

Warren Company
2201 E Newton Street
Seattle, WA 98112

ATTENTION: Mr. Dana Warren

RE: REVISION 1 TEMPORARY SHORING WALL DESIGN SUBMITTAL
BARNABIE POINT PROJECT
3700 EAST MERCER WAY, MERCER ISLAND, WA

Dear Dana:

The purpose of this letter is to document changes to the shoring design in response to recent review comments. We had previously misunderstood the requirement for over-excavation that was mentioned in the AESI letter, dated November 14, 2025, of shoring design recommendations that was issued a couple of days after our Revision 0 design was completed on November 12, 2025. That is, that there may be over-excavation below the footings along the shoring wall, up to perhaps 5 feet deeper than designed. In order to deal with this issue, the geotechnical engineer has issued a set of recommendations for multi-staged slot-cutting and immediate replacement with CDF, in their recent letter dated February 12, 2026. As a result, we have re-run our analyses for the shoring wall, including a zone of reduced passive resistance of 200 pcf in the zone between elevations 90 and 85, along with the usual 2-ft neglect depth, which then indicate that all the piles must be deeper by 1 foot. See analysis summary in Figure A-1, attached. Furthermore, we have referenced the recent AESI letter of slot-cutting requirements directly on our plans. These changes are seen on sheets SH3.0 and SH4.0. If you have any questions, please call us anytime at 425-922-1501.

Sincerely,

GROUND SUPPORT PLLC

Chris J. Wolschlag, S.E., Ph.D.
Partner

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APPENDIX A

REVISED CANTILEVERED SOLDIER PILE DESIGN CALCULATIONS

CANTILEVER ANALYSIS SUMMARY

Pile(s)	Vertical Height H (ft)	Passive Diameter B (ft)	Pile Spacing S (ft)	Soil Self-Weight EFDA (pcf)	Below Base EFDA (pcf)	Live Lateral Surch (psf)	Seismic Lateral Surch (psf)	Top Shear (lb/ft)	Factored Upper EFDP (pcf)	Factored Lower EFDP (pcf)	Ignore Depth (ft)	Change Depth (ft)	Base Shear (lb)	Base Moment (ft-lb)	Limiting Moment Factor	Req'd D (ft)	Embed Moment (ft-lb)
9.5-FT	9.5	2.0	8.0	40	25	80	0	0	200	300	2	5	13,760	43,093	4.0	14.8	160,390
5-FT	5.0	2.0	8.0	40	25	80	0	0	200	300	2	5	7,200	14,667	4.0	10.0	44,022
6.5-FT	6.5	2.0	8.0	40	25	80	0	0	200	300	2	5	13,760	43,093	4.0	12.3	94,025
8-FT	8.0	2.0	8.0	40	25	80	0	0	200	300	2	5	13,760	43,093	4.0	13.5	122,991
8.5-FT	8.5	2.0	8.0	40	25	80	0	0	200	300	2	5	13,760	43,093	4.0	14.0	134,323
9.5-FT	9.5	2.0	8.0	40	25	80	0	0	200	300	2	5	13,760	43,093	4.0	14.8	160,390

Pile(s)	Computed Embed Moment Factor	Design Moment M (ft-k)	Steel Section	Steel Grade (ksi)	Pipe O.D. (in)	Wall Thick (in)	Pipe I.D. (in)	Section Modulus (in3)	fB (ksi)	Factored FB (ksi)	Design Ratio	Design Embed D (ft)	
5-FT	3.0	44.0	W14x30	50				42.0	12.6	33.0	0.38	10.0	9.0
6.5-FT	2.2	94.0	W14x30	50				42.0	26.9	33.0	0.81	12.5	11.5
8-FT	2.9	123.0	W14x34	50				48.6	30.4	33.0	0.92	13.5	12.5
8.5-FT	3.1	134.3	W14x38	50				54.6	29.5	33.0	0.89	14.0	13.0
9.5-FT	3.7	160.4	W14x43	50				62.7	30.7	33.0	0.93	15.0	14.0

FIGURE A-1
Cantilever Analysis Summary