ATTACHMENT 1

Summary of Earth Retaining Systems

District ERS ID	Begin Station	End Station	ERS Type	Design Height (ft)		Comments/Notes
				Min.	Max.	

ATTACHMENT 2

Preliminary Foundation Data Table for Special Design ERS

District ERS ID	Begin Station	End Station	Proposed ERS Type	Design Height (ft)		Preliminary External Load @ Top of the Wall (Kips)[1]	Comments/Notes
				Min.	Max.		

[1] External load due to sign structure, light pole, soundwall, or other type of load placed on top of the ERS. Use N/A when none will be applied.

ATTACHMENT 2

Preliminary Foundation Data Table - Modified Standard Plan on Spread Footing

District ERS ID	Begin Station	End Station	Standard Plan, Type	Finished Grade Elevation (ft)	Bottom of Footing Elevation (ft)	Min. Footing Size		Comments/Notes
						B (ft)	L (ft)	

Preliminary Foundation Data Table - Modified Standard Plan on Piles

District ERS ID	Begin Station	End Station	Standard Plan, Type	Pile Type(s) Considered	Comments/Notes

ATTACHMENT 3

Geotechnical Design Data Table - Shallow Foundation Part 1 of 2

District ERS ID or Bridge No	Segment (ft)		Design Height (ft)	Bottom of Footing Elevation (ft)	Minimum Footing Embedment Depth (ft)	Footing or Base Width (ft)	Total Permissible Settlement (in.)
	Begin Station	End Station					

ATTACHMENT 3

Geotechnical Design Data Table - Shallow Foundation Part 2 of 2

District ERS ID or Bridge No	Segment (ft)		Strength 1A Limit State		Strength 1B Limit State		Extreme I Limit State Factored		Extreme II Limit State Factored	
	Begin Station	End Station	Effective Foundation Width (ft)	Gross Uniform Bearing Stress (psf)	Effective Foundation Width (ft)	Gross Uniform Bearing Stress (psf)	Effective Foundation Width (ft)	Gross Uniform Bearing Stress (psf)	Effective Foundation Width (ft)	Gross Uniform Bearing Stress (psf)

ATTACHMENT 3

Geotechnical Design Data Table - Standard Plan On Piles

District ERS ID or Bridge No	Segment (ft)		Service-I Limit State			Strength Limit State (Controlling Group)				Extreme Event Limit State (Controlling Group)			
			Total load (kips)	Perm. load (kips)		Compression (kips)		Tension (kips)		Compression (kips)		Tension (kips)	
	Begin Station	End Station	Per Segment[1]	Max. Segment		Per Segment[1]	Max. Per Pile	Per Segment[1]	Max. Per Pile	Per Segment[1]	Max. Per Pile	Per Segment[1]	Max. Per Pile

[1] A wall segment is defined as a portion of a wall between two expansion joints, footing step or the beginning/end of a wall and an expansion joint. Where there are no expansion joints, use the entire wall length.

ATTACHMENT 4

Shallow Foundation Design Recommendations - Part 1 of 2

District ERS ID or Bridge No	Segment (ft)		Design Height (ft)	Bottom of Footing Elevation (ft)	Footing or Base Width (ft)	Min. Footing Embedment Depth (ft)	Service Limit State		Settlement	
	Begin Station	End Station					Effective Foundation Width (ft)	Net Bearing Stress (psf)	Calculated at Net Bearing Pressure (in.)	Total Permissible (in.)

ATTACHMENT 4

Shallow Foundation Design Recommendations - Part 2 of 2

District ERS ID or Bridge No	Segment (ft)		Strength 1A Limit State			Strength 1B Limit State			Extreme I Limit State			Extreme II Limit State		
	Begin Station	End Station	Effective Found. Width (ft)	Gross Uniform Bearing Stress (psf)	Factored Bearing Resist. (psf)	Effective Found. Width (ft)	Gross Uniform Bearing Stress (psf)	Factored Bearing Resist. (psf)	Effective Found. Width (ft)	Gross Uniform Bearing Stress (psf)	Factored Bearing Resist. $\phi\, qn$, "ϕ = ____ (psf)"	Effective Found. Width (ft)	Gross Uniform Bearing Stress (psf)	Factored Bearing Resist. $\phi\, qn$, $\phi = 1.0$ (psf)

ATTACHMENT 4

Shallow Foundation Data Table

District ERS ID or Bridge No	Segment (ft)		Design Height (ft)	Service Limit State Permissible Net Contact Stress (ksf)	Strength Gross Nominal Bearing Resistance for Controlling Load Case, ϕ_b = _____ (ksf)	Extreme Event Gross Nominal Bearing Resistance ϕ_b = 1.00 (ksf)
	Begin Station	End Station				

ATTACHMENT 4

Pile Design Recommendations

District ERS ID or Bridge No	Segment (ft)		Pile Type	Cut-off Elev. (ft)	Service-I Limit State Load per Segment		Total Permissible Support Settlement (in.)	Nominal Resistance (kips)				Nominal Driving Resistance (kips)	Design Tip Elevations (ft)	Specified Tip Elevations (ft)
								Strength Limit		Extreme Limit				
	Begin Station	End Station			Total (kips)	Permanent (kips)		Comp. ($\phi = 0.7$)	Tension ($\phi = 0.7$)	Comp. ($\phi = 1.0$)	Tension ($\phi = 1.0$)			

ATTACHMENT 4

Pile Data Table

District ERS ID or Bridge No	Segment (ft)		Pile Type	Nominal Resistance (kips)			Design Tip Elevation[2] (ft)	Specified Tip Elevation[3] (ft)
	Begin Station	End Station		Compression	Tension	Driving[1]		

[1] Unsuitable soil layers (very soft, liquefiable, scourable, etc.) that do not contribute to the nominal resistance exist at _____ extending to elevations ___ ft and ___ ft, respectively. Use N/A when not applicable.
[2] Design tip elevations are controlled by: (a) Compression, (b) Tension, (c) Settlement, (d) Lateral Load.
[3] The specified tip elevation shall not be raised above the design tip elevations for tension load, lateral load, and tolerable settlement.