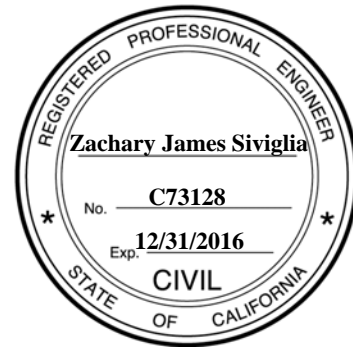


Attachment H
Exceptions to Design Standards (DRAFT)

Fact Sheet Exceptions to Caltrans Design Standards

Prepared by:

REGISTERED CIVIL ENGINEER



Submitted by:

Scott Mann
OVERSIGHT ENGINEER

DATE

TELEPHONE

Recommended for Approval by:

Rodney Murphy
PROJECT MANAGER

DATE

TELEPHONE

District Approval by:

Laurie Lammert P.E.
CHIEF, Office of Design South

DATE

TELEPHONE

HQ DOD Exceptions Approved by:

Timothy B. Sobelman, P.E.
DESIGN COORDINATOR, Division of Design

DATE

1.0 PROPOSED PROJECT

A. Project Description:

Project Type:	<i>Roadway Widening</i>		
Proposed Facility:	<i>Freeway</i>		
County:	Placer	Route:	SR 65
Begin PM:	6.2	End PM:	12.8
Design Vehicle:	(TA) STAA	Design Period:	20 Years

The California Department of Transportation (Caltrans), in cooperation with the Placer County Transportation Planning Agency (PCTPA), Placer County, and the Cities of Roseville, Rocklin, and Lincoln, proposes to widen State Route 65 (SR 65) from north of Galleria Boulevard/Stanford Ranch Road to Lincoln Boulevard (from post miles 6.2 to 12.8).

This project has been assigned the Project Development Processing Category 4A for widening the existing freeway without requiring a revised freeway agreement. The project is subject to federal as well as state environmental review requirements. Caltrans is the lead agency under the National Environmental Policy Act (NEPA) and under the California Environmental Quality Act (CEQA). The posted speed for this segment of SR 65 is 65 miles per hour (mph), and the design speed is 70 mph.

There are three (3) alternatives that were considered for this report; a No Build alternative and two (2) Build alternatives. The alternatives assessment was based on 2040 design year conditions. Both build alternatives will allow inside widening as future projects along SR 65 from north of the Blue Oaks Boulevard interchange to Lincoln Boulevard.

No-Build Alternative:

Both build alternatives described below would allow for inside highway widening as future projects along SR 65 from north of the Blue Oaks Boulevard interchange to Lincoln Boulevard and would accommodate the I-80/SR 65 project and take into consideration the carpool/HOV lane restrictions and weaving volumes from the carpool/HOV lanes proposed by the I-80/SR 65 project.

Carpool Lane Alternative:

This alternative adds a 12-foot carpool/HOV lane in the southbound direction of SR 65 in the median from the Blue Oaks Boulevard interchange to north of Galleria Boulevard/Stanford Ranch Road interchange. The carpool/HOV lane would connect to the carpool/HOV lanes proposed as part of the I-80/SR 65 interchange project.

The separate I-80/SR 65 interchange Improvements project will add a third lane in each direction of SR 65 from I-80 to Pleasant Grove Boulevard. This SR 65 Widening project alternative would also add one 12-foot general purpose lane through the Pleasant Grove Boulevard Interchange, to create a third lane on SR 65 in both directions from I-80 to Blue Oaks Boulevard. This alternative would also add an auxiliary lane in each direction of SR 65 from the Galleria Boulevard interchange to the Pleasant Grove Boulevard interchange, from the Blue Oaks Boulevard interchange to the Sunset Boulevard interchange, and from the Whitney Ranch Parkway interchange to the Twelve Bridges Drive interchange.

Following the recommendation from the Value Analysis (VA) study, this alternative would also include ramp metering modifications for the slip on-ramps to a 2+1 configuration (2 metered lanes plus 1 carpool preferential lane) and a 1+1 (1 metered lane plus 1 carpool preferential lane) for the loop on-ramps along SR 65 from the Galleria Boulevard interchange to Lincoln Boulevard. The southbound Pleasant Grove Boulevard slip and loop on-ramps, Blue Oaks Boulevard slip and loop on-ramps, and Lincoln Boulevard slip on-ramp would be modified to include these ramp metering changes.

General Purpose Lane Alternative:

This alternative would add a 12-foot general purpose lane in southbound direction of SR 65 from the Blue Oaks Boulevard interchange to the Galleria Boulevard/Stanford Ranch Road off-ramp. The separate I-80/SR 65 interchange Improvements project will add a third lane in each direction of SR 65 from I-80 to Pleasant Grove Boulevard. For added capacity on southbound SR 65, as recommended by the VA study, this alternative also includes an additional general purpose lane from the Blue Oaks Boulevard slip on-ramp to the Pleasant Grove Boulevard loop on-ramp. On northbound SR 65, a 12-foot general purpose lane would be added through the Pleasant Grove Boulevard interchange. These improvements would result in a third lane in both directions of SR 65 from I-80 to Blue Oaks Boulevard.

This alternative would also add an auxiliary lane on northbound SR 65 from the Galleria Boulevard interchange to the Pleasant Grove Boulevard interchange; and in both directions of SR 65 from the Blue Oaks Boulevard interchange to the Sunset Boulevard interchange, and from Whitney Ranch Parkway interchange to the Twelve Bridges Drive interchange. Following the recommendation from the Value Analysis (VA) study, this alternative would also include ramp metering modifications for the slip on-ramps to a 2+1 configuration (2 metered lanes plus 1 carpool preferential lane) and a 1+1 (1 metered lane plus 1 carpool preferential lane) for the loop-on ramps along SR 65 from the Galleria Boulevard interchange to Lincoln Boulevard. The southbound Pleasant Grove Boulevard slip and loop-on ramps, Blue Oaks Boulevard slip and loop on-ramps, and Lincoln Boulevard slip on-ramp would be modified to include these ramp metering changes.

This is a freeway capacity and operational improvement project and there are no pedestrian facilities proposed in this project. The existing pedestrian facilities closest to the project include the sidewalk and crosswalks at the intersections of SB off-ramp and SB loop on-ramp at Pleasant Grove Boulevard and at intersection of SB loop on-ramp at Blue Oaks Boulevard. No records of previous design exceptions on the ADA standards for Pleasant Grove Boulevard and Blue Oaks Boulevard are found. The design team reviewed the existing features and found them to meet ADA standards. The existing sidewalks along WB Pleasant Gove Boulevard and WB Blue Oaks Boulevard are 6 feet wide with maximum cross slopes of 2%. The existing crosswalks all have 2% cross slopes with longitudinal profile varying from 3% to 4%.

B. Existing Highway:

SR 65 Mainline

Existing Facility:	Highway	Design Speed:	80 mph
Truck Route Network:	Terminal Access (STAA)	Climate Region:	Inland Valley
Number of Lanes:	4	Posted Speed:	65 mph
Lane Width:	12 ft.	Sidewalk Width:	N/A
Shoulder Width:	10 ft outside and 5 ft inside	Median Width:	Vary 22 ft to 78 ft
Concept Facility:	F/6 and F/4	Ultimate Facility:	F/8 and F/6

SR 65 begins at the I-80 junction and is an important interregional route that serves both local and regional traffic. SR 65 generally runs north/south and serves as a major connector for both automobile and truck traffic originating from the I-80 corridor in the Roseville/Rocklin area to the SR 70/99 corridor in the Marysville/Yuba City area. SR 65 is a vital economic link from residential areas to shopping and employment centers in southern Placer County. It is also an important route for transporting aggregate, lumber, and other commodities. SR 65 is characterized by a significant growth of industrial, commercial, and residential development. The southern Placer County region is one of the fastest growing areas in California, both in terms of housing and economic development.

SR 65 was constructed as a two-lane expressway in 1971. The I-80/SR 65 Roseville Bypass to Blue Oaks Boulevard was constructed in 1985. SR 65 from Blue Oaks Boulevard to Twelve Bridges Drive was widened to a 4-lane facility in 1999. In 2009, Caltrans Corridor System Management Plan (CSMP) for SR-65 identified major mobility challenges including highway and roadway traffic congestion, lack of roadway capacity, and inadequate transit funding. A Supplemental Traffic Report was completed in June 2012 by Caltrans District 3 Office of Freeway Operations. The report indicated that the segment of SR 65 from Galleria Boulevard/Stanford Ranch Road to Lincoln Boulevard was experiencing operational problems caused by high peak period traffic volumes, vehicles hours of delay, average speeds, travel time, and other traffic performance measures that were

deteriorating by the increasing growth in the surrounding areas. In 2013, a Project Study Report-Project Development Support (PSR-PDS) for Capital Support of adding one vehicle lane in each direction in the median of SR 65 from 0.5 miles north of Galleria Boulevard/Stanford Ranch Road to Lincoln Boulevard was approved.

C. Safety Improvements:

The project will improve traffic operations and safety in this segment of the highway. The added new lanes will add capacity to reduce congestion related accidents and the added auxiliary lanes will reduce weaving maneuvers between vehicles entering freeway and exiting to local roads.

D. Total Project Cost:

The estimated project cost for the interchange project is summarized below:

Item	<i>Carpool Lane Alternative</i>	<i>GP Lane Alternative</i>
Roadway	\$44,948,300	\$43,777,600
Structure	\$651,884	\$644,215
Right-of-Way & Utilities	\$250,000	\$250,000
Total Capital Cost	\$45,851,000	\$44,672,000

2.0 FEATURES REQUIRING AN EXCEPTION

Approval of the following design exceptions are in accordance with the Design Stewardship Agreement dated January 20, 2015.

2.1 FEATURES REQUIRING AN ADVISORY EXCEPTION

A. Advisory Design Exception Feature #1: Superelevation Runoff Length

To document nonstandard features for each ramp being proposed for ramp metering modification, the design team has reviewed the existing superelevation runoff length of each ramp, from the ramp intersection to the gore, and found them to meet design standards. The ramps with non-standard superelevation runoff lengths are summarized below:

Ramp	Superelevation Transition	Curve Number/ Location	Standard Runoff Length	Proposed Runoff Length	Existing Runoff Length	Transition Rate (Maximum 0.06)
Blue Oaks NB Loop On-Ramp ("B1")	10%	C24	240 ft	167 ft	162 ft	0.060
Pleasant Grove SB Off-Ramp ("P3")	12%	C11	300 ft	223 ft	220 ft	0.054
Pleasant Grove SB Off-Ramp ("P3")	10%	C12	210 ft	186 ft	180 ft	0.054

Non-Standard Feature:

Three (3) non-standard superelevation runoff lengths are proposed: one on the Blue Oaks Boulevard northbound loop on-ramp ("B1") and the other two on the Pleasant Grove Boulevard southbound off-ramp ("P3"), see Figure 1 in Attachment D for exhibits.

The alignment of SR65 NB loop on-ramp from EB Blue Oaks Boulevard "B1" starts the superelevation at 0.5% to match overcrossing profile and transition into 10% cross slope in a non-standard runoff length of 167 ft.

The alignment of SR65 SB off-ramp at Pleasant Grove Boulevard "P3" starts the superelevation at 12% superelevation for curve C11 and transition into 10% superelevation of curve C12 with n non-standard runoff lengths of 223 ft and 186 ft.

Standard For Which Exception Is Requested:

Topic 202 – Superelevation, Index 202.5(1): “A superelevation transition should be designed in accordance with the diagram and tabular data shown in Figure 202.5A to satisfy the requirements of safety, comfort and pleasing appearance. The length of superelevation transition should be based upon the combination of superelevation rate and width of rotated plane in accordance with the tabulated superelevation runoff lengths on the bottom of Figure 202.5A.”

Reasons For Requesting Exceptions:

An exception to the superelevation transition standards is requested for the Blue Oaks Boulevard northbound loop on-ramp ("B1"), and the Pleasant Grove Boulevard southbound off-ramp ("P3").

The proposed project includes retrofitting the existing NB loop on-ramp for ramp metering as a result of the VA Study. The ramp needs to be realigned to accommodate an added mixed flow lane while holding the existing configuration at the ramp intersection and at the gore area. The non-standard superelevation transition is located along the tangent section at the ramp entrance conforming to the Blue Oaks Boulevard roadway profile. Vehicle speeds are expected to be low (30 mph or less) in this area.

Similarly, for the southbound off-ramp (“P3”), the non-standard superelevation transition is located along the existing tangent section, between the curves C11 and C12, near the ramp terminal exit and is needed to conform to the roadway profile of Pleasant Grove Boulevard. Vehicle speeds are expected to be low (35 mph or less) in this area.

All proposed transition rates are less than or equal to 6% per 100 feet (0.06), the maximum superelevation transition rate required per HDM Section 202.5(3) under restrictive situations.

Added Cost to Make Standard:

The ramp geometry of the Blue Oaks northbound ramps restricts the standard superelevation rate of change. To make it standard, substantial reconstruction of the ramp intersection including both the ramp structures and the northbound exit lanes is needed. The reconstruction cost of ramp realignment for both Blue Oaks Boulevard and Pleasant Grove Boulevard will be in excess of 10 million in structure, roadway, and electrical items.

B. Advisory Design Exception Feature #2: Side Slope

Non-Standard Feature:

The following locations have proposed embankment slopes steeper than 4:1 (H:V):

- Galleria Boulevard SB Off-Ramp from Station 164+00 to 171+50 (750 LF)
- SR 65 SB direction from Station 191+00 to 202+00 (1100 LF)
- SR 65 NB direction from Station 191+00 to 200+00 (900 LF)
- SR 65 SB direction from Station 241+50 to 248+00 (650 LF)

See Figure 2 in the Attachment D for exhibits.

Standard For Which Exception Is Requested:

Topic 304 - Side Slopes, Index 304.1 “Slopes should be designed as flat as is reasonable. For new construction, widening, or where slopes are otherwise being modified, embankment (fill) slopes should be 4:1 or flatter.”

Reasons For Requesting Exceptions:

No right-of-way (ROW) acquisition was included in this project to avoid direct and indirect impact to the vernal pool and wetlands next to the right of way. Segments of existing slope were already substandard with variable slopes that range from 2:1 to 3:1 for the same environmental concerns.

Added Cost to Make Standard:

In order to achieve the standard embankment slope of 4:1 (H:V), mitigation to the impacted wetland, vernal pools, and open space set aside for permitting requirements alone will be millions of dollars plus the project delay for the review and approval of permitting agencies. Option to install retaining walls has been considered. The construction costs for the retaining wall are in excess of \$800,000, but the construction of retaining walls would not be able to avoid the indirect impact to the adjacent environmental sensitive areas due to their larger footprint to the disturbed soils.

**FEATURES REQUIRING A HEADQUARTERS APPROVED
MANDATORY EXCEPTION**

A. HQ Mandatory Design Exception Feature #1: Shoulder Standards

Non-Standard Feature:

The following locations have proposed shoulder of less than 10 feet where proposed concrete barrier type 60 will be placed to protect the existing columns at the overcrossing structures:

- SR-65 SB direction Pleasant Grove OC from Station 218+50 to 219+50
- SR-65 SB direction Blue Oaks Boulevard. OC at Station 269+30 to 270+30
- SR-65 SB direction Blue Oaks Boulevard. Off-Ramp OC at Station 273+90 to 274+40

See Attachment C for exhibits.

Standard For Which Exception Is Requested:

Topic 302 - Highway Shoulder Standards: Index 302.1 Width, “The shoulder widths given in Table 302.1 shall be the minimum continuous usable width of paved shoulder on highways.” Table 302.1, Mandatory Standards for Paved Shoulder Widths on Highways, shows the paved left shoulder on Freeways with six or more lanes is 10 feet.

Reasons For Requesting Exceptions:

For southbound SR 65 at Pleasant Grove Boulevard. from station 218+50 to 219+50, Blue Oaks Boulevard. from station 269+30 to 270+30 and Blue Oaks Boulevard. off-ramp from station 273+90 to 274+40, the inside shoulder width would be less than 10 feet next to a concrete barrier at the column, it will be a short transition before it goes back to standard width of 10 feet.

To provide the standard 10 ft inside shoulder, the SB SR 65 widening will be shifting toward west and impacting the configuration of the SB on ramps and overcrossing bridge abutments at Pleasant Grove Boulevard and Blue Oak Boulevard.

Added Cost to Make Standard:

The estimated costs to reconstruct ramps and ground anchor walls to avoid the bridge abutments will be approximately \$8.0 million.

B. HQ Mandatory Design Exception Feature #2: Superelevation Rate

To document nonstandard features for each ramp being proposed for ramp metering modification, the design team has reviewed the existing superelevation rate of each ramp, from the ramp intersection to the gore, and found them to meet design standards. The ramps with non-standard superelevation rate have been documented below for design exception.

Non-Standard Feature:

The proposed Blue Oaks Boulevard NB loop on-ramp ("B1" Line) with curve C24 radius of 159 ft has a non-standard superelevation rate of 10% instead of 12%. See Attachment C for exhibits.

Standard For Which Exception Is Requested:

Topic 202.2(1) Highways: "Based on an emax selected by the designer for one of the conditions, superelevation rates from Table 202.2 shall be used within the given range of curve radii. If less than standard superelevation rates are approved (see Index 82.1), Figure 202.2 shall be used to determine superelevation based on the curve radius and maximum comfortable speed."

Reasons For Requesting Exceptions:

The exiting loop on-ramp was designed with non-standard superelevation rate of 10% and to provide standard rate of 12%, the ramp alignment needs to be reconfigured including lengthening the curve and tangent on each side of curve

C24 to develop standard runoff transition. The free right onto the on-ramp from EB Blue Oaks will be eliminated for having nonstandard algebraic difference in cross slope with adjacent lanes on EB Blue Oaks Boulevard. The ramp intersection will be reconstructed including signal modification and the reconstruction of the bridge structure. Lacking the existing NB slip on-ramp at Blue Oaks Boulevard, the intersection of this ramp intersection will impact the operation and safety of the freeway and the interchange.

Based on Figure 202.2, a comfortable speed of approximately 25 miles per hour can be provided using the 10% superelevation rate on 159 ft radius curve. This comfortable speed exceeds the posted speed of 20 miles per hour at the existing loop on-ramp. Accident records at the existing loop on-ramp from TASAS are low and do not provide justification for high construction cost for ramp and intersection reconstruction.

Added Cost to Make Standard:

The reconstruction of the loop on-ramp and bridge structure at the ramp intersection is estimated to be approximately \$10.0 million.

3.0 TRAFFIC DATA

A Final Transportation Analysis Report was prepared by Fehr & Peers (September 2015) to document the traffic forecasts and operations analysis. Existing traffic volumes and design year projections are summarized in the table below and are documented in the "State Route 65 Capacity and Operational Improvements Transportation Analysis Report" dated September 2015. The base year is 2012, construction year is 2020 and design year is 2040.

TABLE 1: AVERAGE ANNUAL DAILY TRAFFIC VOLUME								
Segment	Existing Conditions¹		Design Year Conditions					
			Alternative 1 (Carpool Lane)		Alternative 2 (GP Lane)		Alternative 3 (No Build)	
	Total	Trucks	Total	Trucks	Total	Trucks	Total	Trucks
I-80 to Galleria Boulevard	106,100	3,500	168,100	6,300	169,000	6,400	158,000	6,200
Stanford Ranch Rd/ Galleria Boulevard to Pleasant Grove Boulevard	104,400	3,500	169,200	6,600	170,900	6,700	152,400	6,300
Pleasant Grove Boulevard to Blue Oaks Boulevard	83,400	3,100	159,800	6,300	162,300	6,400	140,800	6,000
Blue Oaks Boulevard to Sunset Boulevard	65,300	2,400	134,600	4,900	135,700	4,900	112,100	4,600

Sunset Boulevard to Whitney Ranch Pkwy/ Placer Pkwy	54,000	1,900	114,000	3,700	114,600	3,700	96,900	3,300
Whitney Ranch Pkwy/Placer Pkwy to Twelve Bridges Dr			126,500	3,500	127,000	3,500	112,700	3,400
Twelve Bridges Dr to Lincoln Boulevard ²	48,800	1,900	104,300	3,200	104,500	3,200	93,600	3,000
Lincoln Boulevard to Ferrari Ranch Rd	-	-	61,100	2,700	61,400	2,700	56,300	2,600
Notes: ¹ The existing conditions total volume data is from 2009 as reported in the PeMS database. The existing truck volumes are estimated from the base year SACMET model. ² The existing condition total volume data from Twelve Bridges Dr to Lincoln Boulevard is estimated based on 2009 PeMS data at Sunset Boulevard and the base year SACMET model. Source: Fehr & Peers, 2015								

4.0 COLLISION ANALYSIS

Table 2 summarizes traffic collision data on SR-65 near the project. The data was obtained from the TASAS-TSN database maintained by Caltrans. The data shown is for the three-year period between beginning October 1, 2010 and ending September 30, 2013.

Table 2 –State Route 65 Accident Data Summary October 1, 2010 through September 30, 2013										
Location	Number of Accidents				Accident Rates (Acc/MVM)*					
					Actual			Statewide Average		
	Fatal	Injury	F&I**	Total	Fatal	F&I	Total	Fatal	F&I**	Total
SR 65 NB Galleria Boulevard./ Stanford Ranch Rd.(PM 5.5) to Lincoln Boulevard. (PM 12.9)	1	39	40	122	0.003	0.14	0.43	0.007	0.24	0.72
SR 65 SB Galleria Boulevard./ Stanford Ranch Rd.(PM 5.5) to Lincoln Boulevard. (PM 12.9)	2	57	59	151	0.007	0.21	0.53	0.007	0.24	0.72

* Accidents per Million Vehicle Miles

** Fatal Plus Injury

Source: Caltrans District 3 TASAS Table B Data

The table above shows that the actual accident rate on the SR-65 mainline is less than the average rate for similar freeway facilities. During the three year period, 122 accidents occurred on the northbound segment of SR-65 resulting 1 fatality and 39 injuries, and 151 accidents occurred on the southbound segment of SR-65 resulting 2 fatalities and 57 injuries.

In reviewing the individual accident records, the majority of these types of accidents along SR 65 occurred during the peak commute periods, which could be indicative of the traffic congestion observed along the corridor. The proposed improvements will reduce current and projected traffic congestion along the corridor.

5.0 INCREMENTAL IMPROVEMENTS

There are no practical incremental improvements that would eliminate the need for the proposed design exceptions.

6.0 FUTURE CONSTRUCTION

As mentioned in the proposed project above, a future MTP update will program the extension of the new lane in the northbound direction of SR 65 from north of Galleria Boulevard/Stanford Ranch Road interchange to Lincoln Boulevard, and in the southbound direction from Lincoln Boulevard to Blue Oaks Boulevard.

7.0 PROJECT REVIEWS, CONCURRENCE

The exception included in this fact sheet is being submitted for review.

8.0 FEDERAL ACTION

This project is not part of the Interstate System or the National Highway System and there is no federal administration action related to approval of this fact sheet. The project will use federal-aid funding and a federal environmental determination/document will be approved specifically for this project.

9.0 ATTACHMENTS

Attachment A: Location Map
Attachment B: Project Geometric Approval Drawing (GAD)
Attachment C: Mandatory Design Exception Exhibit
Attachment D: Advisory Design Exception Exhibit



LINCOLN BLVD.

TWELVE BRIDGES DR.

SR-65

WHITNEY RANCH PKWY.

INDUSTRIAL AVE.

SUNSET BLVD.

SR 65

BLUE OAKS BLVD.

PLEASANT GROVE BLVD.

SR 65

STANFORD RANCH RD.

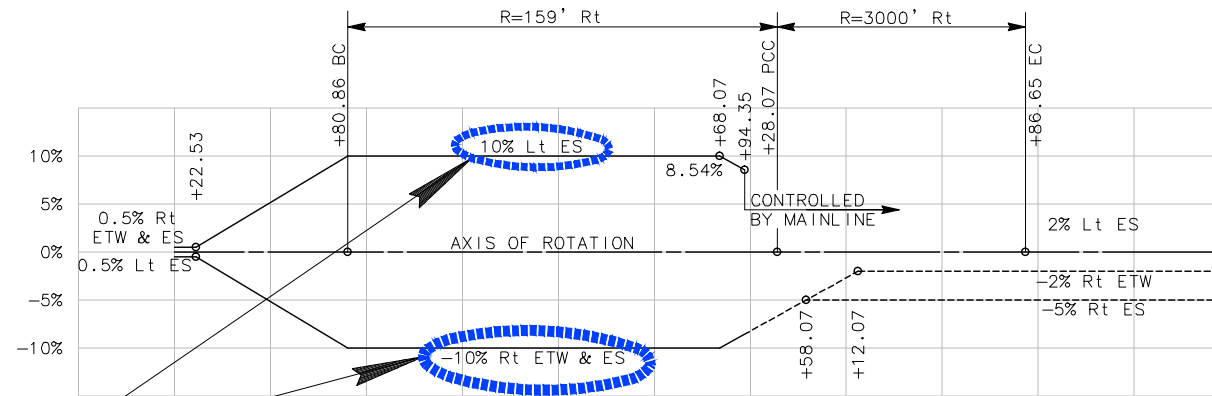
GALLERIA BLVD.

INTERSTATE 80

STATE ROUTE 65 WIDENING IMPROVEMENTS

**STATE ROUTE 65 WIDENING
ATTACHMENT A: LOCATION MAP**





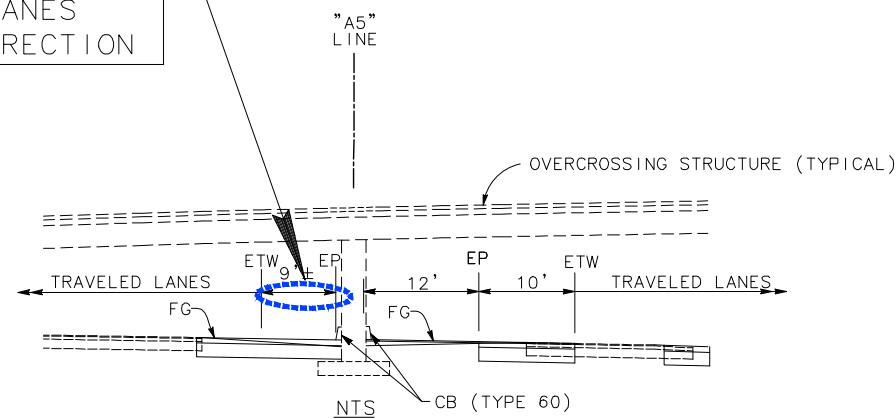
"B1" LINE SUPERELEVATION DIAGRAM

SUPERELEVATION RATE

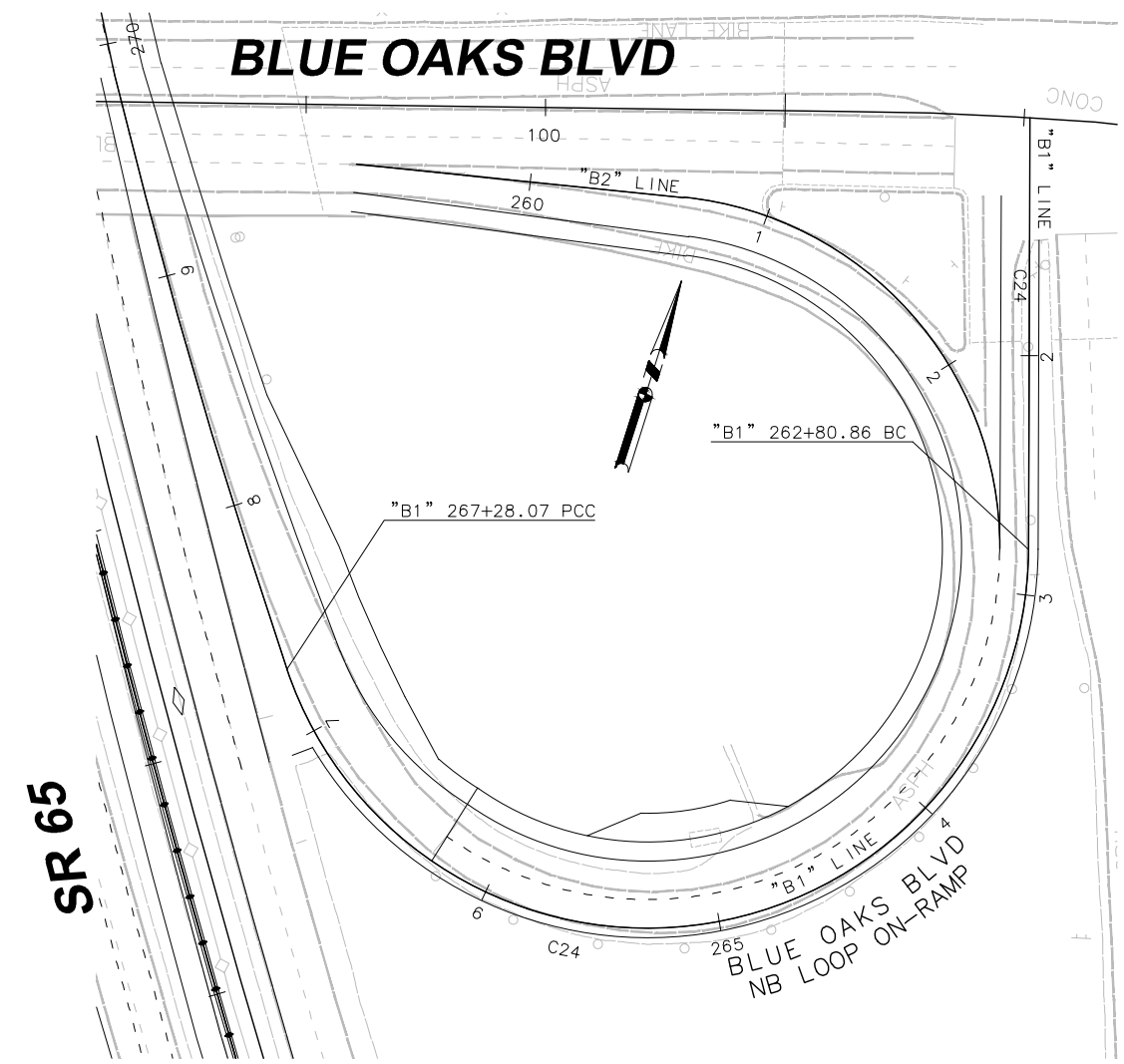
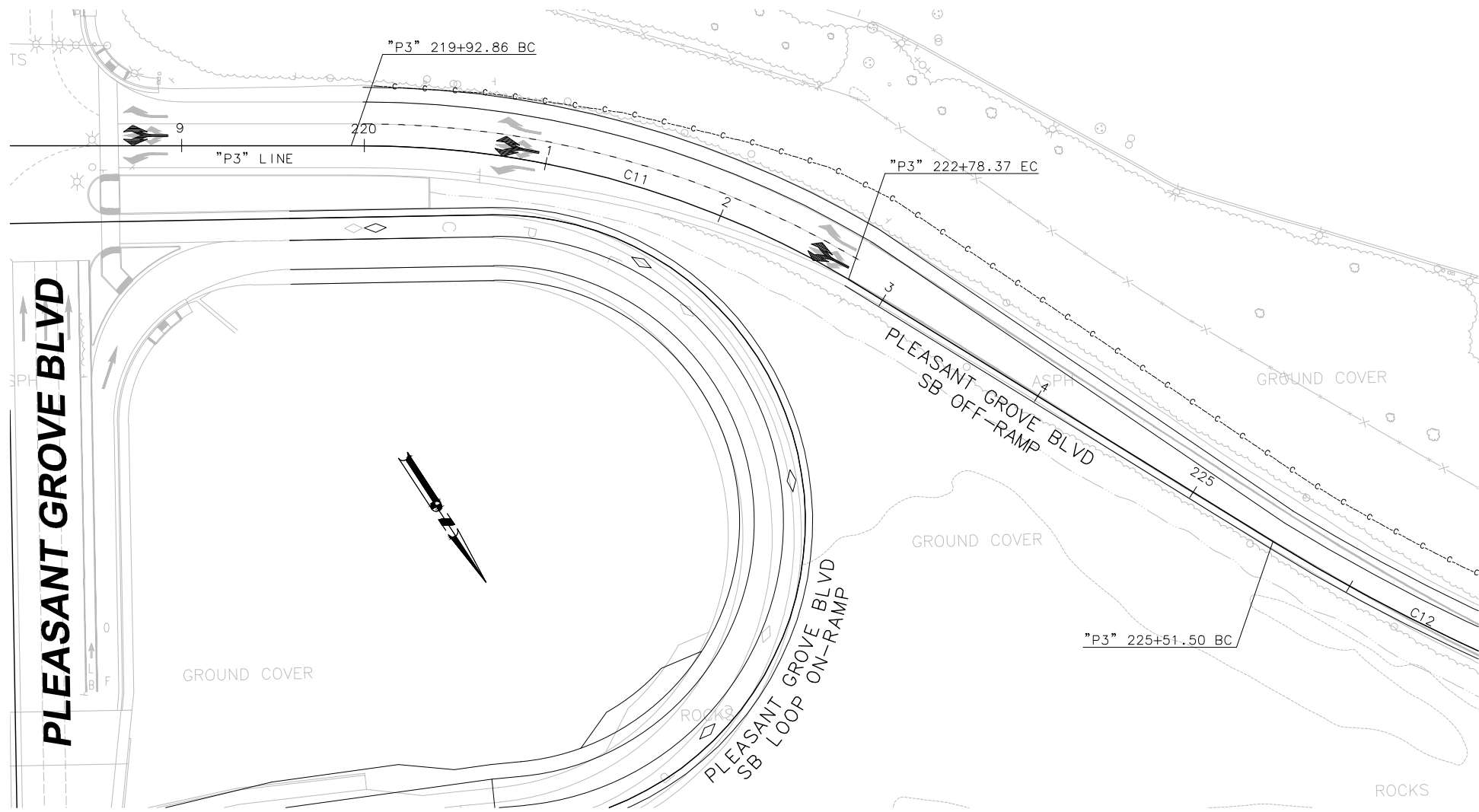
INDEX 202.2(1)
 STANDARD: 12% FOR RADIUS UNDER 625'
 PROPOSED: 10% FOR NB LOOP ON-RAMP

HIGHWAY SHOULDER STANDARD WIDTHS

INDEX 302.1
 STANDARD: 10' FOR 6 OR MORE LANES
 PROPOSED: 9±' FOR SR 65 SB DIRECTION

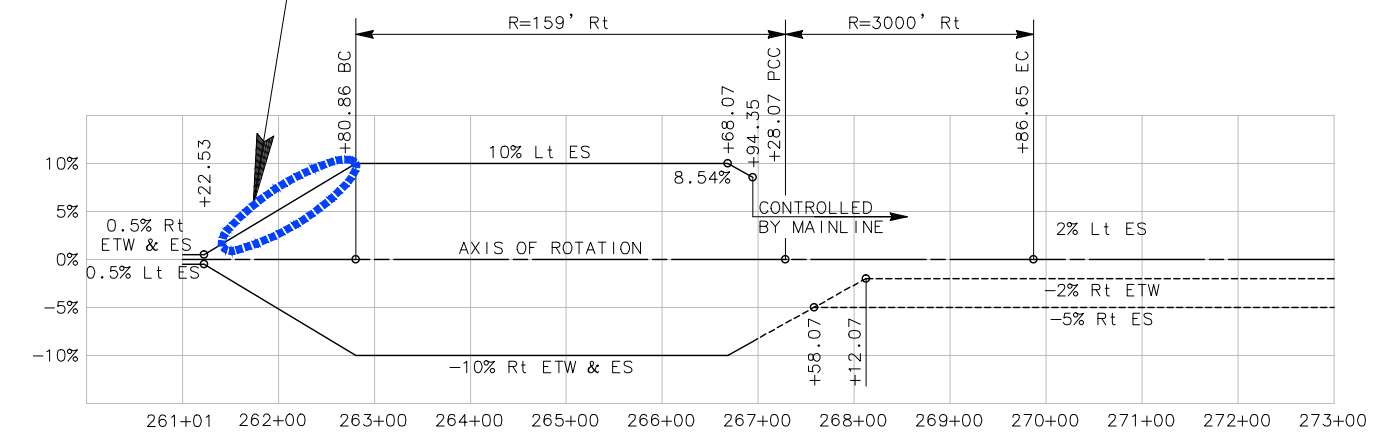
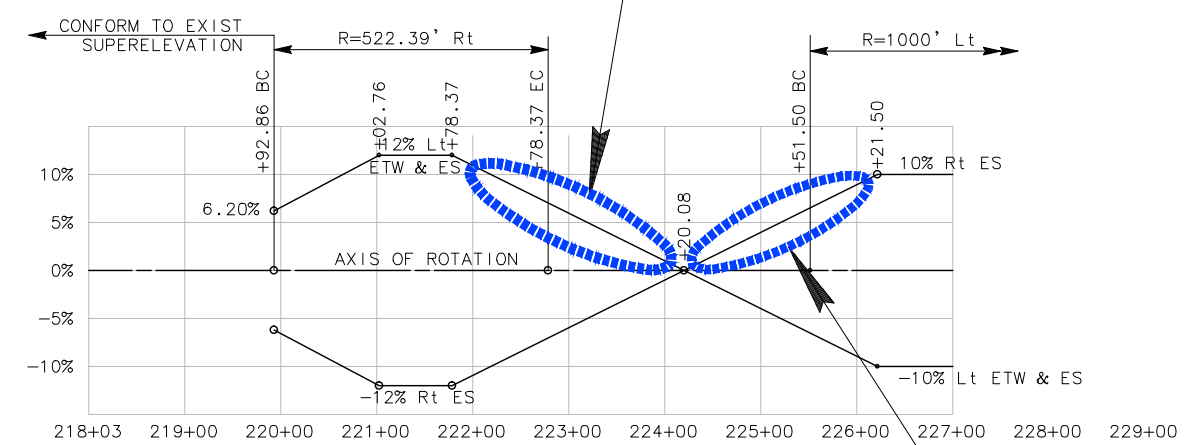


**ROUTE 65 AT
 PLEASANT GROVE BLVD. OC STATION 218+50 TO 219+50
 BLUE OAKS BLVD. OC AT STATION 269+30 TO 270+30
 BLUE OAKS BLVD OFF-RAMP OC AT STATION 273+90 TO 274+40**



SUPERELEVATION TRANSITION
 INDEX 202.5
 STANDARD: 300 FEET FOR 12%
 PROPOSED: 223 FEET

SUPERELEVATION TRANSITION
 INDEX 202.5
 STANDARD: 240 FEET FOR 10%
 PROPOSED: 170 FEET

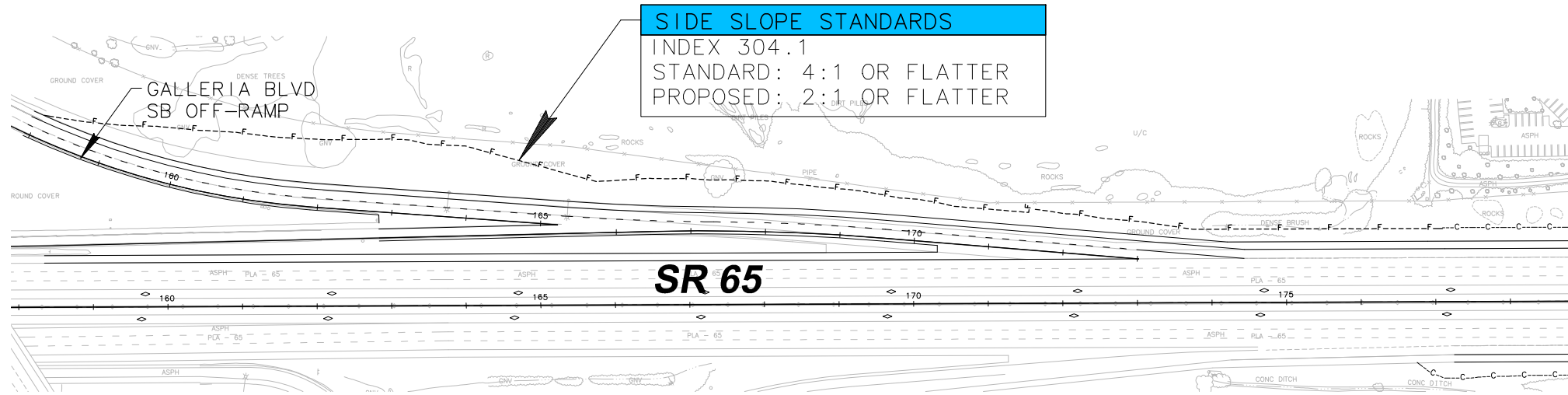


"P3" LINE SUPERELEVATION DIAGRAM

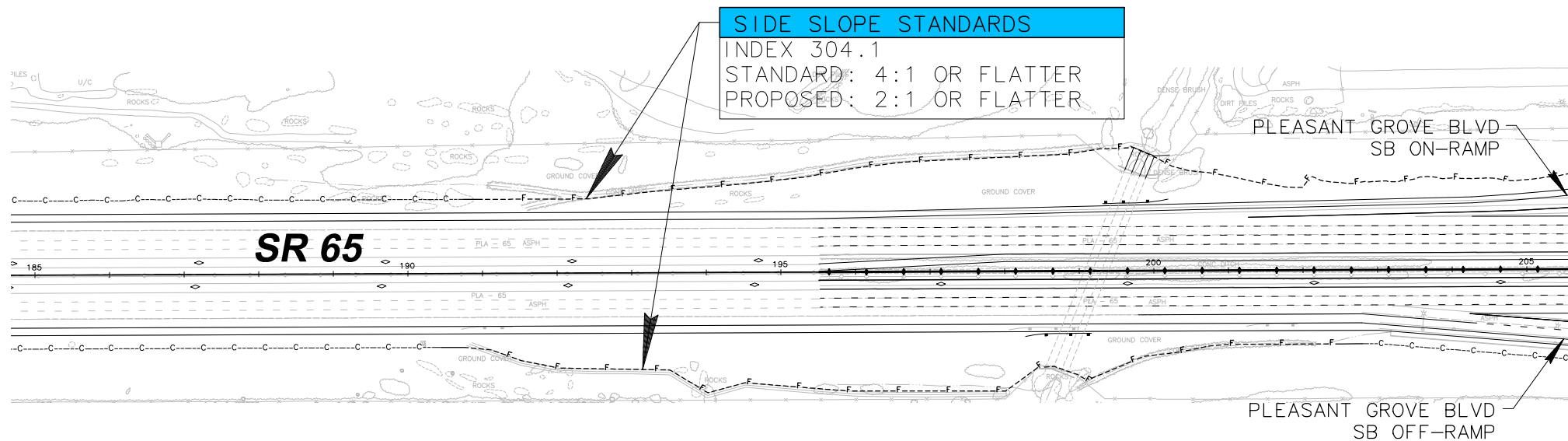
"B1" LINE SUPERELEVATION DIAGRAM

SUPERELEVATION TRANSITION
 INDEX 202.5
 STANDARD: 210 FEET FOR 10%
 PROPOSED: 186 FEET

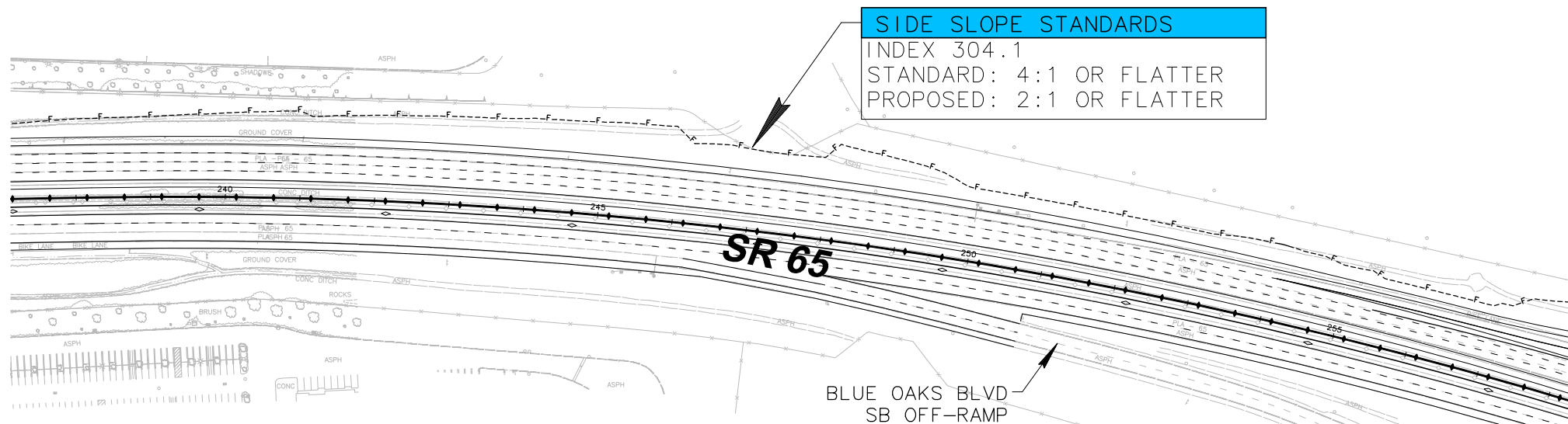
**STATE ROUTE 65 WIDENING
 ATTACHMENT D: FEATURE 1
 ADVISORY DESIGN EXCEPTION**



LOCATION 1: GALLERIA SB OFF-RAMP 164+00 TO 171+50





LOCATION 2: SR-65 STATION 191+00 TO 202+00



LOCATION 3: SR-65 STATION 241+50 TO 248+00

**STATE ROUTE 65 WIDENING
ATTACHMENT D: FEATURE 2
ADVISORY DESIGN EXCEPTION**

 <p>PLACER COUNTY TRANSPORTATION PLANNING AGENCY</p>	 <p>MARK THOMAS & COMPANY Providing Engineering, Surveying & Planning Services</p>
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