

CHAPTER I – INTRODUCTION

BACKGROUND

Growth and development pressures continue not only within the Cottonwood area of Shasta County but also within the City of Anderson. Planning an efficient and affordable transportation system to alleviate existing traffic congestion and support future development within the Shasta County Southern Region is the primary focus of this area-wide transportation planning analysis. Shasta County Regional Transportation Planning Agency retained OMNI-MEANS, Ltd. to develop the Traffic Impact Mitigation Fee (TIMF) to mitigate future impacts on the County’s circulation system from new development based on the nexus between new development and the need for additional transportation facilities. The Traffic Impact Mitigation Fee has been determined for the buildout Year 2027, and also for Years 2010, 2015 and 2020 which are 5-year increments.

Without this comprehensive study, transportation improvements within the Shasta County Southern Region that would occur without a framework for interconnection. Over time, increased development within the Shasta County Southern Region would create more auto, truck, and pedestrian traffic, all using the existing limited transportation infrastructure. This study helps provide a planning framework for the necessary transportation improvements that enables the Southern Region to grow and develop in a logical and efficient manner, with infrastructure that emphasizes safety and multi-modal transportation opportunities.

POPULATION GROWTH

Traffic conditions within the Shasta County Southern Region will change dramatically over the next 20-years, primarily due to development within the southern portion of the City of Anderson and the Cottonwood community. Population growth projections for this area was estimated based on historical growth rates, the Shasta County General Plan, the Cottonwood Area Plan, and professional interpretation of existing opportunity and land use constraints within the Southern Region. These projections assume that the existing City and County General Plan land use designations will remain unchanged.

The total residential, commercial, and industrial development that is anticipated to occur during each of the 5-years 2010, 2015, 2020, and 2027 are summarized in Table 1.

**TABLE 1
5-YEAR BAND LAND USE ESTIMATES**

	Residential	Commercial	Industrial
Units	d.u.	ksf	ksf
Year 2010	2,208	480.82	13.88
Year 2015	3,927	861.91	27.77
Year 2020	5,406	958.69	41.65
Year 2027	7,341	1,014.77	55.54

As shown in the above able, at the end of the buildout year 2027, the study area is expected to accommodate 7,341 residential units, 1,014.77 thousand square feet of commercial and 55.54 thousand square feet of industrial development.

PURPOSE OF STUDY

With growth and development pressures continuing in the Cottonwood area of Shasta County and the City of Anderson, the Shasta County Regional Transportation Planning Agency is interested in planning an efficient and affordable transportation system that would solve existing traffic congestion and support future development. The financing mechanism for these transportation improvements would be a development impact fee. A development impact fee is a monetary exaction other than a tax or special assessment that is charged by a local governmental agency to an applicant in connection with approval of a development project for the purpose of defraying all or a portion of the cost of public facilities related to the development project.

The legal requirements of development impact fee program are referred to as “AB 1600” requirements. AB 1600 requires that all public agencies satisfy the following requirements when establishing, increasing, or imposing a fee as a condition of approval for a development project:

1. Identify the purpose of the fee.
2. Identify the specific use of the fee.
3. Determine that there is a reasonable relationship between the fee’s use and the type of development on which the fee is imposed.
4. Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed.
5. Determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.

The “reasonable relationship” test was supplemented by a test of “rough proportionality” in the 1994 United States Supreme Court decision in *Dolan V. City of Tigard*. In this case, the United States Supreme Court decided that, in order to impose and collect any exactions on new developments, the City or the local governing agency should show a relationship between the fees imposed and the impact of the proposed development on which the fee is imposed.

ORGANIZATION OF REPORT

The remainder of this report has been organized into following chapters:

Chapter II – Matrix Evaluation

Provides a detailed explanation regarding how the various alternative transportation improvement plans developed for this study were analyzed and the determination of the most preferred alternative.

Chapter III - Southern Region Development Assumptions and Trip Generation Estimates

Defines the various development assumptions and trip generation estimates.

Chapter IV - Southern Region Transportation Improvement Phasing

Provides intersection and roadway capacity analysis for each of the 5-year bands and transportation improvement phasing for the southern region.

Chapter V - Fee Methodology

Provides a detailed explanation regarding calculating the Transportation Impact Mitigation Fee for the various land use categories.

Chapter VI - Transportation Fee Calculations

Provides fee calculations based on net transportation improvement costs.

Chapter VII - Transportation Fee Justification, Implementation and Administration

Provides information on fee justification, implementation, and administrative requirements.

CHAPTER II – MATRIX EVALUATION

Background - The Summary of Matrix Evaluation working paper was the third working paper prepared for the Shasta County Southern Area study. Prior to this working paper, two working papers were prepared for this study region. The first working paper titled *Transportation Issues and Options* presented a summary of existing conditions, forecasts of future traffic volumes, an assessment of improvement needs, and four transportation sketch plans that are reiterated below. Working Paper No. 2 entitled *Summary of Matrix Evaluation Process* presented a discussion of the matrix evaluation process which is a screening process designed to provide an objective method to compare the alternative transportation improvement plans developed for this study and to determine the most preferred alternative. Four alternative plans were identified in the initial *Transportation Issues and Options* working paper as follows:

Transportation Alternative 1 consists of new north/south arterial facility having its origin at the Shasta County/Tehama County line, continuing northwards, intersecting Gas Point Road and finally tying into West Anderson Drive. This alternative also includes an east/west arterial facility between West Anderson Drive and Rhonda Road. This alternative does not assume the development of the Vineyards project.

Transportation Alternative 2 is identical to alternative 1 but assumes the development of the Vineyards project.

Transportation Alternative 3 consists of new north/south arterial facility having its origin at the Shasta County/Tehama County line, continuing northwards, intersecting Gas Point Road and finally tying into West Anderson Drive. This alternative also includes an east/west arterial facility having its western terminus at West Anderson Drive and its eastern terminus at the Main Street/Interstate 5 interchange. The new east/west arterial would tie into the Main Street interchange providing a partial interchange with I-5. With the construction of a partial interchange at Main Street/I-5, realignment of Rhonda Road would be required. This alternative does not assume the development of Vineyards project.

Transportation Alternative 4 is identical to Alternative 3 but assumes the development of the Vineyards project.

Analysis of each of these alternatives provided insight regarding transportation facility sizing. The conclusion reached in Working Paper No. 1 indicates that modification of the Main Street interchange to allow full freeway access was necessary to relieve peak hour traffic demands at the Gas Point Road/I-5 interchange. Without modification of the Main Street interchange, a four lane interchange would be required at Gas Point Road.

Subsequent to completion of Working Paper No. 2, additional analysis was completed to determine the affects of converting the Main Street interchange into a I-5 northbound off and I-5 northbound on facility. Currently approved projects in the vicinity of the interchange would significantly complicate construction of southbound ramps at this interchange.

Constraints Mapping – To facilitate the determination of preferred roadway alignments, an areawide constraints mapping procedure was completed. The following constraint items were included within this analysis:

1. Steep slopes
2. Recorded and proposed maps
3. Known wetlands (NWI)
4. Archaeological sensitive areas (NE) – [Note: record search did not yield any known sites.]

CHAPTER II – MATRIX EVALUATION

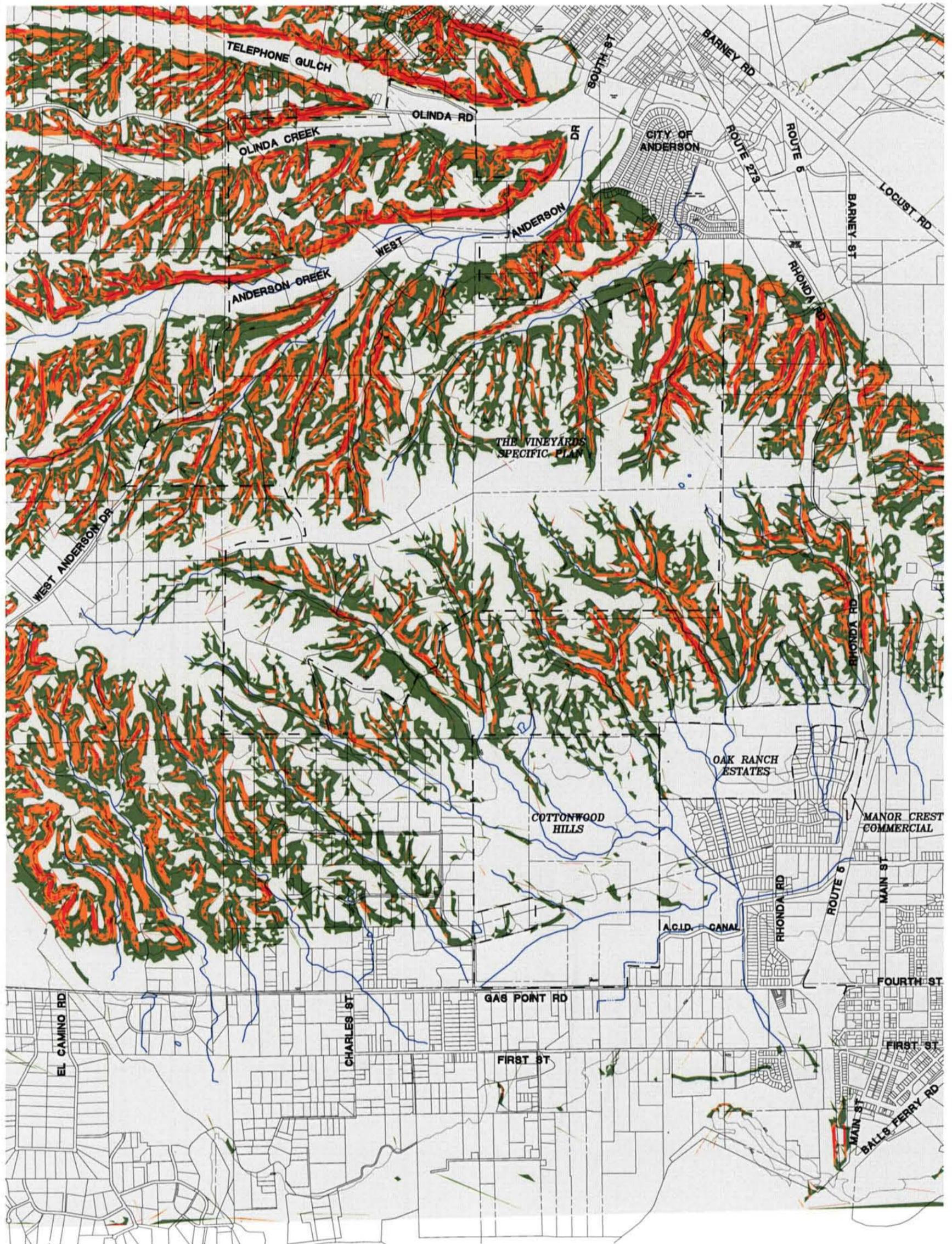
5. Known endangered species and sensitive habitats – [Note: record search did not yield any known sites.]
6. USGS “blue-line” streams
7. Canals
8. Parcels and structures
9. Existing right-of-way

Figure 1 provides an overview of the various constraints mapping items superimposed on the study area roadway facility route locations. This map was used in selecting the alternative roadway alignment routes as presented in the working paper.

Matrix Evaluation Approach - The focus of Working Paper No. 3 was to present the full matrix evaluation of various north/south and east/west alignments (consistent with guidelines contained within the Shasta County General Plan). The end result of this procedure identified the preferred transportation circulation alternative that would serve as a backbone to support the existing and future transportation needs within the Shasta County Southern Region.

To facilitate a more direct and not overly complicated matrix evaluation, the project team has chosen to analyze future Year 2027 conditions with full development of the Vineyards, modification to the Main Street Interchange, and modification to the Gas Point Road interchange. In addition, the north/south and east/west alternative alignments were analyzed separately within the matrix analysis. A preferred alignment for both the north/south and east/west alternative alignments were first determined, then both of these alignments were combined to form the overall preferred facility alignments.

Five different alignment options for the north/south corridor and four different alignment options for the east/west corridor were developed for analysis in this study. These alignments are illustrated on **Figure 2** and **Figure 3**, respectively.

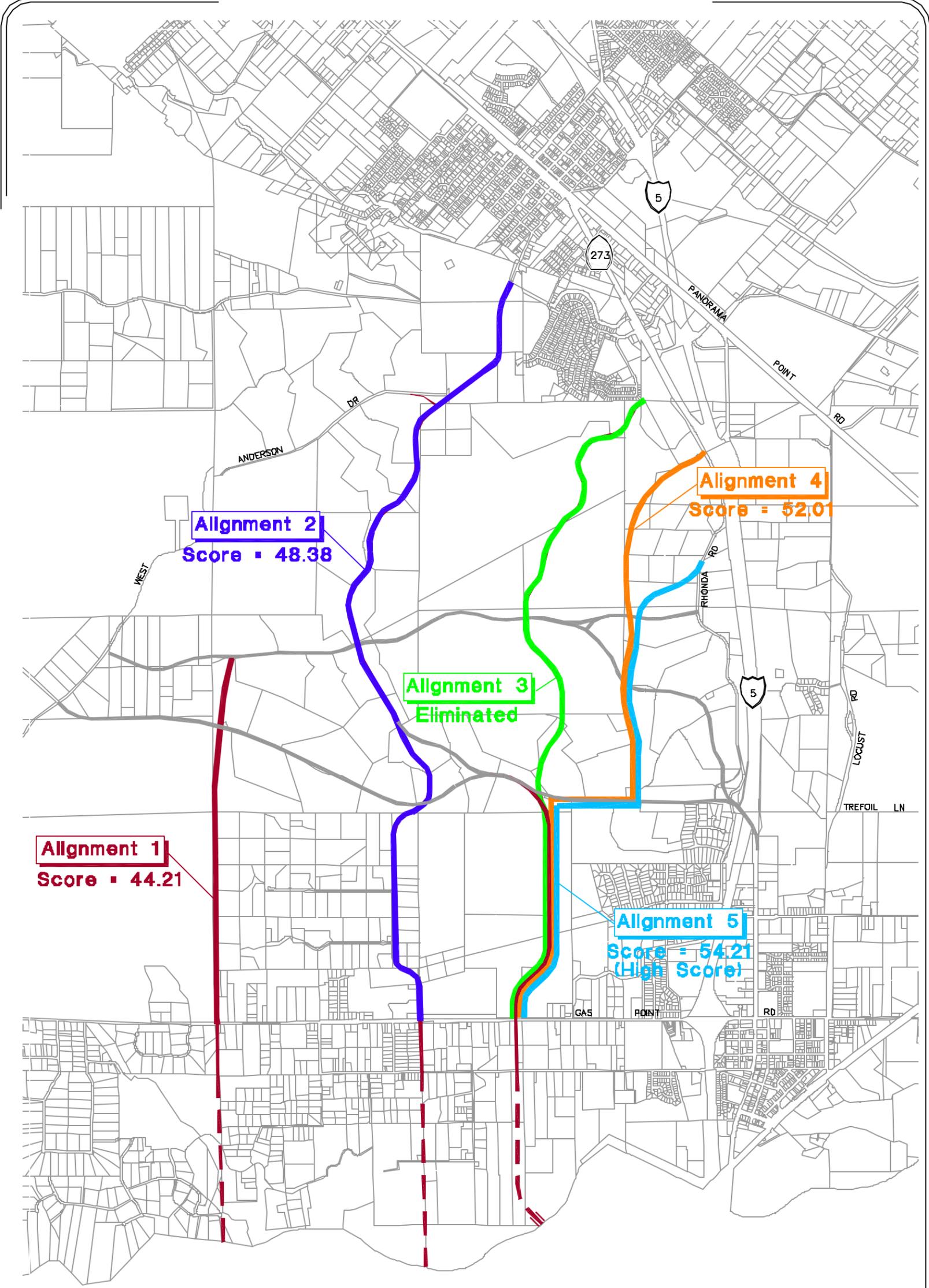


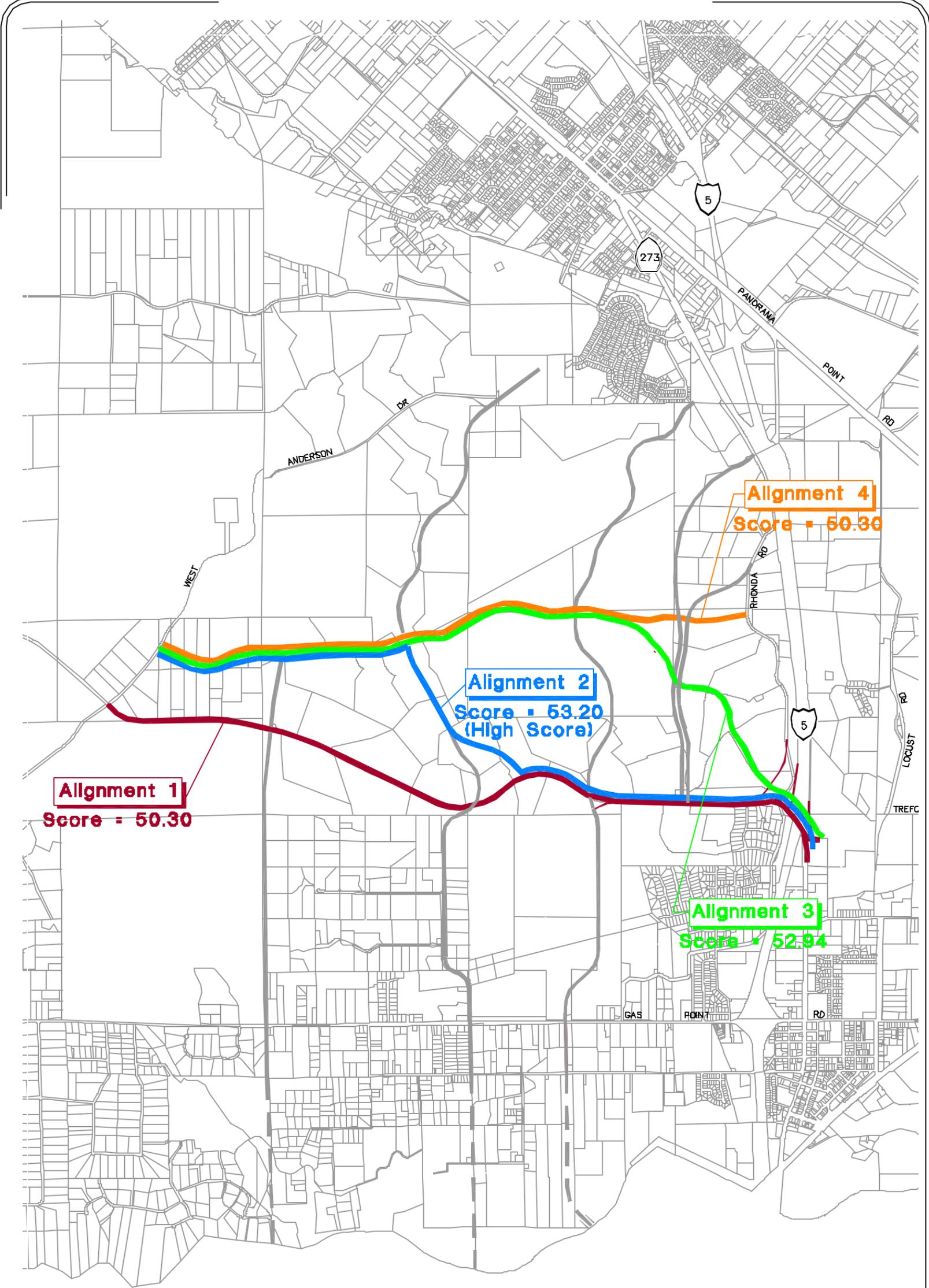
LEGEND:

Color	Slope Range	Percent	Area (ft ²)
Green	0 - 10%	70.7	406078990.39
Orange	10% - 20%	18.3	105101312.90
Red	20% - 30%	8.3	47836271.74
Red	30% & OVER	2.6	15150869.68
Blue line	USGS "BLUELINES" (WATERWAYS)		

CONSTRAINTS MAP







East/West Arterial Alignments

