MEETING NOTICE AND AGENDA

CITIES/COUNTY TRANSPORTATION ADVISORY COMMITTEE (CTAC)
CTAC may take action on any item appearing on this agenda.

Thursday, August 6, 2009
9:30 to 11 a.m.
San Diego Association of Governments, Conference Room 7
401 B Street, Suite 800
San Diego, CA 92101-4231

Chair: Frank Rivera, City of Chula Vista
Vice Chair: Robert Johnson, City of Carlsbad

Staff Contact: Dan Martin
(619) 699-6987
dma@sandag.org

AGENDA HIGHLIGHTS

• 2050 REGIONAL TRANSPORTATION PLAN (RTP): WORK PROGRAM AND SCHEDULE
• UPDATED LOCAL STREET AND ROAD COSTS AND PHASING FOR THE 2050 RTP
• RAIL GRADE SEPARATION EVALUATION CRITERIA
<table>
<thead>
<tr>
<th>ITEM #</th>
<th>RECOMMENDATION</th>
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<tbody>
<tr>
<td>1. INTRODUCTIONS</td>
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<tr>
<td>2. SUMMARY OF JUNE 4, 2009 CTAC MEETING</td>
<td>APPROVE</td>
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<td>CTAC is asked to approve the summary for the June 4, 2009, CTAC meeting. Please see the attached summary.</td>
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<td>3. PUBLIC COMMENTS</td>
<td>COMMENTS</td>
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<td>Members of the public will have the opportunity to address the working group during this time.</td>
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<td>4. 2050 REGIONAL TRANSPORTATION PLAN (RTP): WORK PROGRAM AND SCHEDULE (Heather Werdick)</td>
<td>DISCUSSION</td>
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<td>This report provides an overview of the 2050 RTP work program and schedule. The 2050 RTP will be based on the 2050 Regional Growth Forecast, will incorporate the results of the many regional and corridor studies currently underway, and will include new components as required by Senate Bill 375. Additionally, responsibilities and roles of various working groups and the policy committees are outlined. This report was presented on June 26, 2009, to the Board of Directors for information.</td>
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<td>5. CONGESTION MANAGEMENT PROGRAM (CMP) OPT OUT STATUS UPDATE (Heather Werdick)</td>
<td>DISCUSSION</td>
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<td>At its May 8, 2009, meeting, the San Diego Association of Governments (SANDAG) Board of Directors directed staff to work with local jurisdictions that elect to opt out of the state CMP. If a majority of the local jurisdictions representing a majority of the region's population do not adopt resolutions in support of opting out of the state CMP process by September 2009, SANDAG staff will begin data collection efforts for the 2010 CMP update and will provide a status report on required deficiency plans to the Transportation Committee (TC) in fall 2009 under the streamlined CMP approach. Staff will provide an update on CMP opt out activities and will be available to answer any questions.</td>
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<td>ITEM #</td>
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<td>6.</td>
<td>UPDATED LOCAL STREET AND ROAD COSTS AND PHASING FOR THE 2050 RTP (José Nuncio and Heather Werdick)</td>
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<td>DISCUSSION</td>
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<td>At the June 4, 2009, CTAC meeting, staff requested that local jurisdictions provide updated cost estimate and phasing information for local streets and roads by September 1, 2009, in preparation for the 2050 RTP. CTAC members will be asked to provide a status report on progress to date. SANDAG staff will be available to answer any questions.</td>
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<td>+7.</td>
<td>RAIL GRADE SEPARATION EVALUATION CRITERIA (John Dorow)</td>
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<td>RECOMMEND</td>
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<td>At the request of CTAC, the San Diego Regional Traffic Engineers Council (SANTEC) has developed recommended revisions to the SANDAG Rail Grade Separation Evaluation Criteria documented in the 2007 RTP criteria. Issues such as accident history, safety, traffic effects on adjacent streets, funding request, and impact to truck freight operations are addressed in the proposed revisions. Staff will present the recommended revisions for consideration by CTAC.</td>
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<td>8.</td>
<td>UTILITY UNDERGROUNDING DISTRICTS (Frank Rivera, Chula Vista)</td>
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<td>DISCUSSION</td>
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<td>Jurisdictions have been notified that funding allocations for Rule 20A overhead to underground conversion projects have run out and will potentially result in project delays. CTAC members will discuss how each respective agency is addressing this issue.</td>
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<td>9.</td>
<td>CALIFORNIA DEPARTMENT OF TRANSPORTATION (Caltrans) UPDATES (Luis Medina, Caltrans)</td>
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<td>DISCUSSION</td>
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<td>An update on various Local Programs, funding program deadlines, and announcements regarding upcoming conferences will be provided.</td>
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<td>10.</td>
<td>ANNOUNCEMENTS</td>
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<td>INFORMATION</td>
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<td>CTAC members are encouraged to share items of interest.</td>
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11. UPCOMING MEETING

The next CTAC meeting is tentatively scheduled for Thursday, September 3, 2009, from 9:30 to 11 a.m. in Conference Room 7 of the SANDAG offices located at 401 B Street, Suite 800 in San Diego.

+ next to an item indicates an attachment
SUMMARY OF THE JUNE 4, 2009, CTAC MEETING

Introductions

Frank Rivera, CTAC chairman, chaired the meeting. Meeting participants introduced themselves.

Meeting Summary

CTAC members reviewed and approved the meeting summary for the May 7, 2009, CTAC meeting.

Public Comments

There were no comments from the public.

Regional Transportation Congestion Improvement Plan (RTCIP) Update

Muggs Stoll, SANDAG, provided an overview of the draft TC item attached to the CTAC agenda that discusses the proposed amendment to the TransNet Extension Ordinance regarding audit reporting for the RTCIP. Mr. Stoll explained that the proposed amendment is a “housekeeping” amendment to align the audit requirements for the RTCIP with the annual fiscal and compliance audit requirements for the TransNet program. The recommendation includes a one-time extension of time to September 1, 2009, for jurisdictions to submit financial records pertaining to their RTCIP funding programs. Mr. Stoll discussed the timelines included in the proposed amendment.

Caltrans Updates

Erwin Gojuangco, Caltrans, deferred the announcement of Caltrans updates to the Caltrans team building meeting, which was held immediately following the CTAC meeting.

Updated Local Street and Road Costs and Phasing for the 2050 RTP

Dan Martin, SANDAG, introduced the item and provided an overview of the purpose for updating the cost and phasing information noting that 1999 was the last year that a local streets and roads survey was performed. Mr. Martin reviewed the three forms provided to jurisdictions to gather the information. The forms are organized into the following categories: maintenance and operations, rehabilitation, and capital expansion projects. José Nuncio, SANDAG, was available for questions. Mr. Nuncio stated that information provided for the early years should match the information currently submitted by jurisdictions for the current RTP, the Regional Transportation Improvement
Program, Traffic Model, and Air Quality model. Mr. Nuncio reminded agencies to provide the information by year in current dollars so that SANDAG could provide consistent escalation across all jurisdictions.

Chairman Rivera asked if they could use the totals included in the local agency five-year Capital Improvement Project budget. Mr. Nuncio confirmed that this is acceptable. Deborah Van Wanseele, City of San Diego, asked about clear definitions for the projects included in the forms. Mr. Nuncio stated that agencies should follow the definitions for Local Streets and Roads as defined by TransNet. Jurisdictions were encouraged to use the best information available to estimate the project in the out years.

Mr. Martin clarified confusion over the Roadway Capacity Expansion Budget Form as provided in the handouts. Bob Johnson, City of Carlsbad, noted that an overview of the Air Quality model would be a good topic for a future CTAC meeting.

Announcements

There were no announcements.

Next Meeting

The next planned meeting of CTAC will be Thursday, July 2, 2009, at 09:30 a.m. It will be held at the SANDAG offices in conference room 7.

Key Staff Contact: Dan Martin, (619) 699-6987; dma@sandag.org
2050 REGIONAL TRANSPORTATION PLAN: WORK PROGRAM AND SCHEDULE

Introduction

The current 2030 Regional Transportation Plan (RTP) was adopted in 2007. Federal law requires that SANDAG prepare a long-range transportation plan and make an air quality conformity determination every four years. SANDAG staff has prepared a draft work program and schedule to develop the 2050 RTP, which is slated for adoption in 2011. SANDAG is the first major metropolitan planning organization that will prepare an RTP according to provisions of Senate Bill (SB) 375 (Steinberg, 2008). Additionally, proposed roles and responsibilities of various working groups and Policy Advisory Committees are outlined. The purpose of this informational report is to provide an overview of the proposed work plan and its key elements to the Board of Directors. This informational report also was presented at the June 5, 2009, joint meeting of the Regional Planning and Transportation Committees.

Discussion

2050 RTP Work Program: Key Inputs and Components

At the April 24, 2009, Board of Directors meeting, staff provided an overview of the proposed FY 2010 Integrated Work Plan to comply with SB 375. SANDAG staff now has developed a more detailed work program and schedule for the 2050 RTP that incorporates a variety of planning efforts. In accordance with state and federal guidelines, the 2050 RTP is scheduled for adoption by the Board of Directors in July 2011. The 2050 RTP Work Program and Schedule are included as Attachments 1 and 2, respectively. A number of key inputs and components that will shape the development of a 2050 RTP are highlighted below.

2050 Regional Growth Forecast

Work already is underway to produce the 2050 Regional Growth Forecast, which will be used in the preparation of the 2050 RTP. The forecast is being developed in two phases. The first phase takes into account existing land uses, planned land uses, and potential redevelopment and infill areas. The second phase involves preparing alternative land use scenarios that can be applied beyond the horizon year of local general plans. The Board of Directors will be asked to approve the 2050 Regional Growth Forecast for planning purposes in early 2010. Additional information about the forecast, including possible transportation and transportation demand management (TDM) measures and upcoming public outreach activities, will be presented for Board discussion at the July 10, 2009, Board Policy meeting.
Updated Goals and Objectives

The Board of Directors adopted seven policy goals to guide the development of the 2030 RTP. Policy objectives also were established to help the region achieve those goals. As part of the 2050 RTP development, the Board of Directors will be asked to review and update the goals and objectives from the 2030 RTP based on emerging issues such as the implementation of SB 375.

Urban Core Transit Strategy

In summer 2009, SANDAG will begin the development of an Urban Core Transit Strategy to evaluate possible regional transit strategies that maximize peak-period transit mode share in the urban core. The strategy will result in three or four long-range strategic transit network alternatives that will be factored into the 2050 RTP. Additionally, the study will include short-term action plans and implementation strategies. The Board of Directors will be asked to approve these alternatives for use in the 2050 RTP development in spring 2010.

Sustainable Communities Strategy

The Sustainable Communities Strategy (SCS) will be a new element of the RTP, as required by SB 375, and will be designed to show how regional greenhouse gas (GHG) reduction targets, to be established by the California Air Resources Board, would be achieved through development patterns, infrastructure investments, and/or transportation measures or policies that are determined to be feasible. Additionally, the SCS must be consistent with the Regional Housing Needs Assessment (RHNA) and must address protection of sensitive resource areas. If the SCS does not meet regional GHG reduction targets, an Alternative Planning Strategy (APS) must be developed to demonstrate how the targets can be achieved.

The adopted Smart Growth Concept Map, which identifies existing and planned smart growth areas linked to existing and planned public transit, along with the identified habitat conservation areas, will serve as a basis for the SCS. Additionally, the results of the Regional Climate Action Plan (RCAP) will provide options for additional measures that could reduce GHG emissions.

Other Key 2050 RTP Tasks

The results of related work efforts, such as the Regional Energy Strategy Update, RCAP, Regional Bicycle Plan, Comprehensive Freight Gateway Forecast, new border crossing at Otay Mesa East, airport multimodal planning, high-speed rail planning, corridor and subregional studies, collaborative projects with Tribal Nations, as well as interregional and binational strategies, will be incorporated.

Other major tasks include updates to the project evaluation criteria and plan performance measures, economic analysis of investment strategies, enhanced environmental justice analysis, new revenue projections, revised cost estimates for projects and services, and integration of technology and TDM measures into investment strategies. Additionally, the 2050 RTP will be subject to any new requirements established in the upcoming federal surface transportation reauthorization, which is anticipated to be passed in 2010, and will incorporate updated California Transportation Commission RTP Guidelines.
RTP/SCS Public Participation Plan

SANDAG regularly involves the public in regional planning efforts. A public participation plan is being prepared to help develop the 2050 RTP. On May 22, 2009, the Board of Directors approved the creation of a new Regional Planning Stakeholders Working Group to provide input on the development of key work elements in the planning process, including the public participation plan. Additionally, there will be a series of public presentations and workshops and other means for involving the public and receiving input on the work products and draft 2050 RTP. The Board of Directors will be asked to approve the Public Participation Plan in winter 2009.

2050 RTP Environmental Impact Report

The Environmental Impact Report (EIR) for the 2050 RTP will require analysis beyond what has been included in previous RTP EIRs. The RTP environmental analysis will include GHG emissions baseline measurements and projections, as well as potential mitigation measures that could reduce emissions. The EIR also will include analysis of the additional elements required by SB 375, such as the SCS.

In addition, as part of the environmental review process for the RTP, SB 375 includes California Environmental Quality Act (CEQA) streamlining provisions as an incentive to encourage certain types of projects that help achieve the GHG reduction target and are consistent with the SCS (e.g., residential or mixed-use projects that conform to SCS and transit priority projects that meet specified criteria). Cities and counties that find the CEQA streamlining provisions useful will have the opportunity to align their planning policies with those of the regional SCS. It should be noted, however, that the CEQA streamlining provisions are not mandatory and are intended to be a tool that local jurisdictions may use, if desired.

2050 RTP Proposed Roles and Responsibilities

A number of Policy Advisory Committees will provide oversight and policy direction for the development of the 2050 RTP. Several working groups also will provide input throughout the preparation of the plan. The new Regional Planning Stakeholders Working Group will play an integral role in the development of the 2050 RTP, along with the region’s public works directors and planning directors, who are represented in the Cities/County Transportation Advisory Committee (CTAC) and Regional Planning Technical Working Group (TWG), respectively. The San Diego Region Conformity Working Group (CWG) will be consulted on the development of the air quality conformity analysis. Additionally, staff will make sure that key elements of the 2050 RTP development are brought to the Tribal Transportation Working Group to allow for substantive feedback and input. Finally, the TransNet Independent Taxpayer Oversight Committee’s responsibilities include participating in the ongoing refinement of the SANDAG transportation system performance measurement process and the project evaluation criteria used in the development of the RTP. Attachment 3 outlines the proposed roles and responsibilities of the Policy Advisory Committees and their working groups related to the development of the 2050 RTP.
Next Steps

In order to implement the proposed work plan, SANDAG will benefit from substantial work that is already underway. The adopted Smart Growth Concept Map together with regional habitat conservation areas will serve as a basis for the SCS. A number of planning efforts that will be incorporated in the 2050 RTP development have been initiated, such as the Interstate 5 South Multimodal Corridor Study, and Freight Gateway Forecast. Additionally, a discussion on new goals and policy objectives for the 2050 RTP will be brought to a future Board of Directors Policy meeting.

GARY L. GALLEGOS
Executive Director

Attachments: 1. 2050 RTP Work Program
          2. 2050 RTP Schedule

Key Staff Contact: Heather Werdick, (619) 699-6967; hwe@sandag.org

Funds are budgeted in Work Element #3000400
2050 RTP WORK PROGRAM

1. Develop Regional Transportation Plan (RTP) Work Program
   - Review work program with core working groups, Policy Advisory Committees, and Board of Directors

2. Review and Update RTP Goals and Policy Objectives
   - Confirm consistency with updated Regional Comprehensive Plan (RCP) directives and Strategic Initiatives
   - Monitor and incorporate new transportation act/bill and other legislation, including Senate Bill (SB) 375 (as needed)
   - Monitor and incorporate updated California Transportation Commission RTP Guidelines (as needed)

3. Public Outreach and Involvement
   - Set up 2050 RTP Project Web page and maintain throughout RTP development and adoption
   - Create new Regional Planning Stakeholders Working Group and issue mini-grants for outreach to community based organizations
   - Develop Public Participation Plan (PPP) that meets federal transportation bill requirements and SB 375
   - Schedule events and develop outreach products
   - Conduct subregional workshops (3) on Draft 2050 RTP
   - Conduct public hearings (2) on Draft 2050 RTP
   - Analyze ongoing feedback and respond to comments received via the Web page, phone, e-mail, etc.

4. Prepare 2050 Regional Growth Forecast
   - Collect Existing Plans and Policies land use inputs (Phase 1)
   - Create demographic, housing, and economic estimates for Existing Plans and Policies
   - Generate New Growth Forecast (Population and Employment) for Existing Plans and Policies
   - Create and test alternative land use scenarios for capacity to 2050 (Phase 2) and review results with working group and Policy Committees
   - Conduct public workshops on select alternative land use scenarios
   - Generate preliminary draft Growth Forecast for review
   - Finalize 2050 Regional Growth Forecast
5. Incorporate Recommendations from Regional/Corridor/Subregional Studies into Development of Transportation Networks
   • Studies include the Interstate 5 (I-5) South Multimodal Corridor Study, Downtown Transportation Plan, Urban Core Transit Strategy, Regional Bicycle Plan, Impediments to Public Transit, Safe Routes to School Strategy, Regional Climate Action Plan (RCAP), Regional Energy Strategy, State Route (SR) 11 and Otay Mesa East Port of Entry Financing Strategy, I-15 Interregional Partnership and Imperial Valley Association of Governments (IVAG) I-8 Corridor Strategic Plan, Tribal Transportation Plans, Corridor System Management Plans, TransNet Early Action project development, Otay Mesa-Mesa de Otay Binational Corridor Strategic Plan, California-Baja California Border Master Plan, and the Federal Transit Administration (FTA)/Federal Highway Administration (FHWA) Guidebook on Congestion Management Process (as needed)

6. Develop Sustainable Communities Strategy (SCS) and Alternative Planning Strategy (APS) (if needed)
   • Conduct workshop for SB 375 Implementation/Greenhouse Gases (GHG) Regional Targets/SCS development
   • Information meeting(s) with elected officials to obtain input on SCS
   • Develop draft SCS based on the adopted Smart Growth Concept Map and results from the Urban Core Transit Strategy and the RCAP
   • Generate alternative(s) land use/transportation scenario for an APS (if needed)
   • Develop draft APS if the SCS does not meet the regional GHG targets (if needed)

7. Update Revenue and Cost Projections for Projects and Services
   • Develop or revise cost estimates for all Unconstrained highway and transit projects based on requirements from federal transportation bill
   • Incorporate revised cost estimates for local streets and roads projects provided by the local jurisdictions
   • Incorporate SR 11–Otay Mesa East Port of Entry Financing Strategy
   • Develop initial revenue projections for the various local, state, and federal revenue sources for the Revenue Constrained and Reasonably Expected scenarios
   • Refine and finalize initial revenue projections and cost estimates for the Revenue Constrained and Reasonably Expected scenarios

8. Update Regional Arterial System (as needed)

9. Airport Multimodal and Rail Planning
   • Incorporate recommendations from the Airport Multimodal Action Plan (AMAP)
   • Incorporate Air-Rail Network Plan
   • Incorporate Regional Aviation Strategic Plan (RASP), including Destination Lindbergh
10. Develop Technology and Innovation Updates for the RTP
   - Incorporate transportation system management and monitoring systems into the RTP
   - Research future transportation infrastructure and architecture needs and incorporate into the RTP
   - Incorporate assumptions from Regional Energy Strategy Update relating to alternative fuels and vehicles into the RTP

11. Update the Goods Movement Action Plan (as needed)
   - Incorporate findings from the Comprehensive Freight Gateway Study

12. Update Transportation Project Evaluation Criteria
   - Review/revise criteria with a focus on updated goals and policy objectives

13. Update Performance Measures for RTP
   - Re-evaluate and update performance measures to be consistent with 2050 RTP goals and policy objectives
   - Develop measurable objectives consistent with updated RTP performance measures
   - Update base year and projected Levels of Service (LOS), Vehicle Miles Traveled (VMT), GHG emissions, travel time, speed, and other indicator data for the RTP

14. Develop Network and/or Land Use Alternatives
   - Develop multimodal (transit, high-occupancy vehicle [HOV], Managed Lanes, highway, bicycle, and pedestrian) network alternatives in conjunction with SCS/APS
   - Select networks and land use alternatives to be included in the different financial scenarios of the RTP and in the EIR

15. Analyze Alternatives and Select Preferred Unconstrained Network for RTP
   - Perform travel forecasts and evaluate overall performance
   - Apply updated performance measures, such as overall LOS, VMT, GHG emissions, economic indicators, and average corridor travel times, to provide a grid of overall effectiveness of each alternative
   - Develop Draft Preferred Network for review

16. Conduct Economic Analysis of Transportation Investment Scenarios

17. Develop Environmental Justice Assessment

18. Create Final RTP/SCS and EIR Scenarios
   - Create new Revenue Constrained and Reasonably Expected funding scenarios
   - Apply revised evaluation criteria to assist in project selection for RTP scenarios
• Develop transportation networks for Revenue Constrained and Reasonably Expected Scenarios for review
• Create EIR alternatives

19. Perform Air Quality (AQ) Forecasts
• Discuss conformity criteria and procedures with San Diego Region Conformity Working Group (CWG)
• Address new Environmental Protection Agency (EPA)/FTA/FHWA requirements for AQ analysis (as needed)
• Prepare draft air quality conformity determination for Draft RTP for review
• Assist with AQ analysis for Draft and Final EIR
• Prepare final air quality determination

20. Produce Draft RTP

21. EIR Preparation
• Prepare and circulate Notice of Preparation for EIR
• Prepare Draft EIR, including enhanced analysis per SB 375
• Prepare Final EIR

22. Release Draft RTP/EIR for Public Comment

23. Prepare Draft Final RTP

24. Prepare Final EIR

25. Final RTP/EIR Adoption

26. Air Quality Conformity Determination by United States Department of Transportation
### 2050 Regional Transportation Plan Schedule

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<th>MAJOR TASKS</th>
<th>2009</th>
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<td>2050 RTP Work Program</td>
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<td>Goals &amp; Objectives</td>
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<td>Regional Bicycle Plan</td>
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<td>Energy / Climate Change Planning</td>
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<td>Project Evaluation Criteria / Performance Measures</td>
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<td>Revenue &amp; Cost Projections</td>
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<td>Initial 2050 RTP / SCS / RHNA Alternatives</td>
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<td>Evaluation of Alternatives</td>
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<td>Economic Analysis</td>
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<td>Environmental Justice Analysis</td>
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# Roles and Responsibilities for the 2050 Regional Transportation Plan

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<th>Major Tasks</th>
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<td>Regional Transportation Plan (RTP) Work Program</td>
<td>CTAC TWG SWG CWG ITOC Tribal TWG EWG BC RPC TC BOD</td>
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<td>Comprehensive Freight Gateway Forecast</td>
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<td>Regional Energy Strategy Update/Regional Climate Action Plan</td>
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<td>Public Outreach</td>
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<td>Initial RTP/Sustainable Communities Strategy (SCS)/Regional Housing Needs Assessment (RHNA) Scenarios</td>
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<td>Draft 2050 Environmental Impact Report (EIR)</td>
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<td>Proposed Changes for the Draft Final 2050 RTP</td>
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<td>Adopt Final 2050 RTP/EIR/AQ Conformity</td>
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</tr>
</tbody>
</table>

## Board of Directors (BOD)
- Cities/County Transportation Advisory Committee (CTAC)
- Regional Planning Stakeholders Working Group (SWG)
- Regional Planning Technical Working Group (TWG)
- Regional Working Group (EWG)
- San Diego Region Conformity Working Group (CWG)
- Tribal Transportation Technical Working Group (Tribal TWG)

## Policy Advisory Committees
- Borders Committee (BC)
- Regional Planning Committee (RPC)
- Transportation Committee (TC)

## TransNet Independent Taxpayer Oversight Committee (ITOC)
Introduction

The Transportation Committee (TC), at its May 16, 2008, meeting, raised a technical concern regarding the criteria used to recommend grade separation projects to be submitted to the California Public Utilities Commission for its bi-annual grade separation list. SANDAG staff used the SANDAG Rail Grade Separation Evaluation Criteria documented in the 2030 RTP criteria. The TC requested additional information to assure the evaluation criteria considered traffic impacts on the adjacent streets when an at-grade rail crossing is evaluated in San Diego County. At the January 8, 2009, CTAC meeting, CTAC discussed the evaluation criteria and noted that greater weighting should be considered for public safety in the overall criteria. CTAC recommended that the San Diego Regional Traffic Engineers Council (SANTEC) review the criteria to determine if the criteria considered impacts to adjacent streets, and if the criteria allocated the appropriate amount of weight to factors affecting public safety.

SANTEC formed an ad hoc working group to review the evaluation criteria. During the working group sessions, the focus of the review expanded and the recommendations being presented in this report address all of the content under the “Project-Specific Criteria” section of the existing document.

Discussion

The existing evaluation criteria contain nine warrants under “Project-Specific Criteria.” Points are accumulated for each warrant based on formulas and/or tables. Higher point totals equate to a higher grade separation priority ranking. Each warrant was reviewed and assessed by the working group. Recommendations for each warrant are as follows. The recommended revisions are contained in the attached document entitled “Draft Rail Grade Separation Evaluation Criteria.” The existing “Rail Grade Separation Evaluation Criteria” is also attached for comparison purposes.

1. **Peak-period Exposure Index**: this warrant awards points for factors that contribute to traffic congestion. The two factors are vehicular traffic volume and blocking delay time. Vehicular traffic volumes from adjacent streets impacted by the operation of train are included in the calculation. No changes to this warrant are recommended at this time.

2. **Peak-Day Total Delay Exposure Index**: this warrant also awards points for factors that contribute to traffic congestion. The factors include vehicular traffic volume, number of trains, and blocking delay time. Vehicular traffic volumes from adjacent streets affected by
the operations of the train are included in the calculation. No changes to this warrant are recommended at this time. Note that a typographical error showing Warrant 3 as “Rounding up to the next whole number…” has been corrected and the following warrants have been reassigned different numbers.

3. **Accident History and Safety**: the SANTEC working group is recommending that the points table for “Accident History” be revised so as to increase the weight of safety when evaluating grade crossings. The maximum points would be revised from 20 points to 25 points. Five points would be awarded for one or more fatal accidents at the crossing in the past five years. Points would be awarded for each accident, injury, or fatality, in accordance with the table included in the “Draft Rail Grade Separation Evaluation Criteria” up to a maximum of 18 points. A maximum of 2 points would be awarded for special conditions. Heavy rail versus light rail would no longer be a consideration. Additional weight has been added to safety to reinforce the concept of safety as an important priority in the evaluation of potential grade separation projects.

4. **Funding Request**: the SANTEC working group is recommending that the points table for “Funding Request” be revised so as to decrease the weight of local funding when evaluating grade crossings. The maximum points allowed would be revised from 20 points to 15 points. Weight has been removed from funding and added to safety to reinforce the concept that safety is a higher priority than funding. The revised table would also eliminate dollar values and use the proposed local contribution percentage as opposed to actual dollar values. This would eliminate the effects of fluctuating construction prices over time. The distinction between planning-level and National Environmental Policy Act-level estimates would also be eliminated.

5. **Pedestrian Benefits**: no changes recommended.

6. **Bus Operations Effects**: no changes recommended.

7. **Noise Reduction**: no changes recommended.

8. **Benefit to Emergency Services**: no changes recommended.

9. **Impact to Truck Freight Operations**: the working group is recommending a revised table based on percentage of trucks verses trucks per day. This would eliminate the effects of increasing/decreasing volumes of trucks over time as roadway capacities increase and/or the amount of economic activity fluctuates. Percentage of trucks will also be data which is more readily available to the local agencies preparing funding applications. Trucks would now be defined as Class 4 and above to Class 13 as defined by the Federal Highway Administration.

Also note that “Step 2” listed after the warrants has been moved to the left margin with bold type for clarity. Step 2 addresses project readiness. Warrants 1-9 should have now been labeled “Step 1: Warrants.”
Recommendation

SANTEC is recommending that CTAC recommend approval of the Draft Rail Grade Separation Evaluation Criteria to the SANDAG TC.

Attachments: 1. Draft Rail Grade Separation Evaluation Criteria  
2. Rail Grade Separation Evaluation Criteria

Key Staff Contact: John Dorow, (619) 699-1915, jdo@sandag.org
DRAFT RAIL GRADE SEPARATION EVALUATION CRITERIA

The Cities/County Transportation Advisory Committee (CTAC) developed regional rail grade separation prioritization criteria that stress congestion relief, safety, and funding needs as the primary elements with additional consideration of other factors, including effects on pedestrian traffic, bus transit operations, emergency services, truck freight operations, and noise.

In preparation for the development of the criteria, staff conducted a literature search of other rail grade separation prioritization criteria. These included the California Public Utilities Commission criteria, other states’ criteria, the federal government, as well as articles published in research journals. The findings formed the basis for the initial discussions within CTAC.

The intent of the implementation of a regional rail grade separation program is to provide funding for construction of significant traffic congestion relief projects through the implementation of rail grade separations where other more economical alternatives are demonstrably not feasible or practical. Elimination of crossings is considered a potentially practical alternative. Program allocations will need to be considered in conjunction with other regional transportation funding priorities and needs, and will be dependent on the availability of funding from federal, state, and local sources.

The rail grade separation prioritization criteria were accepted by the San Diego Association of Governments (SANDAG) Board of Directors for inclusion in the 2030 Regional Transportation Plan (RTP) on October 13, 2006. This document has incorporated minor revisions to the criteria after a review was conducted by a working group formed by the San Diego Regional Traffic Engineers Council. To date, a regional list of potential grade separations has not been created or prioritized.

Projects will be prioritized based on two criteria categories: project-specific criteria and Regional Housing Needs Assessment (RHNA) housing production. The project-specific criteria will be worth 75 percent, and the RHNA housing production criteria will comprise 25 percent of the total project score.

Project-Specific Criteria

These criteria take into account existing vehicular and train traffic, accident history, cost, noise, access to emergency services, and other factors.

Step 1: Warrants

The following criteria and point system will be implemented with a potential maximum of 100 points. The total project-specific criteria score will be multiplied by 0.75 to produce a scaled, 75-point score for the total regional rail grade separation project score.

1. Peak-Period Exposure Index (PPEI) Factor, measured as the product of the existing high directional traffic and the total measured blocking delay during the same three hours of the day experiencing the highest congestion at the crossing. MAXIMUM POINTS = 20
PPEI = VT3 x BD3 x C3

Where the score is the product of the above formula, rounded to the next whole number, up to a maximum of 20; and, where

VT3 = Vehicular traffic in high direction during selected three-hour period
BD3 = Total blocking delay during same three-hour period selected
C3 = 1/1,350,000, a mathematical constant used for the three-hour peak-period calculation

Notes

a. For crossings where two or more streets that are adjacent to each other that are affected simultaneously by the operation of the train, the vehicular traffic volume on those streets is cumulative for purposes of the calculation of this congestion relief factor

b. Selected three-hour period consists of three one-hour periods which may be consecutive. However, the selected three-hour period shall be the same when counting vehicular and train traffic

c. Blocking delay shall be measured as the time period beginning when the warning devices are activated to the time when the warning devices are de-activated

Example

At a crossing, there are 5400 total cars in the high direction counted between 6:30 and 7:30 a.m., 8 and 9 a.m., and 5 and 6 p.m., with eight trains per hour during those same hours and a 60-second delay time per train during those same hours.

VT3 = 5400 cars in high direction-selected, three-hour period
BD3 = 8 trains x 2 directions x 3 hours x 60-second delay = 2880
PPEI = 5400 x 2880 x \left[\frac{1}{1,350,000}\right] = 11.52

Rounding up to the next whole number: PPEI score = 12

2. \textbf{Peak-Day Total Delay Exposure Index (PDEI) Factor}, measured as the product of the existing average daily traffic (ADT), the total number of trains, and an average train crossing delay time factor.

\textbf{MAXIMUM POINTS} = 20

PDEI = PD–ADT \times PD–NT \times ATCDF \times PD-C

Where the score is the product of the above formula, rounded to the next whole number, up to a maximum of 20; and, where

PD-ADT = Peak-Day Average Daily Traffic
PD-NT = Peak-Day Total Number of Trains
ATCDF = Average Train Crossing Delay Factor, corresponds to point scale as shown in table below
PD-C = 1/1,000,000, a mathematical constant used for peak-day period calculation
ATCDF Table

<table>
<thead>
<tr>
<th>From (minutes)</th>
<th>To (minutes)</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>0.75</td>
<td>1</td>
</tr>
<tr>
<td>0.75</td>
<td>1.00</td>
<td>2</td>
</tr>
<tr>
<td>1.00</td>
<td>1.25</td>
<td>3</td>
</tr>
<tr>
<td>1.25</td>
<td>1.50</td>
<td>4</td>
</tr>
<tr>
<td>1.50</td>
<td>2.00</td>
<td>5</td>
</tr>
<tr>
<td>2.00</td>
<td>3.00</td>
<td>6</td>
</tr>
<tr>
<td>3.00</td>
<td>4.00</td>
<td>7</td>
</tr>
<tr>
<td>4.00</td>
<td>6.00</td>
<td>8</td>
</tr>
<tr>
<td>6.00</td>
<td>8.00</td>
<td>9</td>
</tr>
<tr>
<td>8.00</td>
<td>10.00</td>
<td>10</td>
</tr>
</tbody>
</table>

Notes

a. For crossings where two or more streets that are adjacent to each other that are affected simultaneously by the operation of the train, the vehicular traffic volume on those streets is cumulative for purposes of the calculation of this congestion relief factor.

b. Average annual daily traffic can be used for peak-day, but ADT for weekday or weekend day may be used as appropriate, if available. However, the selected day period shall be the same when counting vehicular and train traffic. As an example, if ADT for weekday is available, the highest train traffic of any day between Monday and Friday can be used for the calculations, and not the weekend day train traffic.

c. Blocking delay shall be measured as the time period beginning when the warning devices are activated to the time when the warning devices are de-activated.

Example

At a crossing, there is an arterial with an ADT of 30,000 vehicles on weekdays, 144 daily trains in both directions also on weekdays, averaging 55 seconds per crossing.

\[
PDEI = PD-ADT \times PD-NT \times ATCDF \times PD-C
\]

PD-ADT = 30,000 vehicles on weekdays
PD-NT = 144 trains in both directions, on weekdays
ATCDF = 2 points
PDEI = 30,000 \times 144 \times 2 \times [1/1,000,000] = 8.64

Rounding up to the next whole number: PDEI score = 9

3. **Accident History:** accident history in the past five years involving vehicles, pedestrians, and bicycles with trains, not including accidents involved in attempted suicides.

**MAXIMUM POINTS = 25**
Assign points according to the following schedule

<table>
<thead>
<tr>
<th>Number of Qualifying Accidents</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Points</td>
<td>2</td>
<td>6</td>
<td>10</td>
<td>14</td>
<td>18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fatal Accidents</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1+</td>
<td>5</td>
</tr>
</tbody>
</table>

**Special Conditions (maximum 2 points)**

More than one traffic signal is pre-empted: 1 point
More than two tracks cross the roadway: 1 point
The crossing is skewed more than 20 degrees: 1 point
Offset roadway intersections are present: 1 point

4. **Funding Request:** The funding request criterion awards points for the percentage of total project costs contributed by the local agency. **MAXIMUM POINTS = 15**

Assign points according to the following schedule

<table>
<thead>
<tr>
<th>Local Contribution</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10%</td>
<td>0</td>
</tr>
<tr>
<td>10% to 25%</td>
<td>5</td>
</tr>
<tr>
<td>More than 25% to less than 50%</td>
<td>10</td>
</tr>
<tr>
<td>50% or more</td>
<td>15</td>
</tr>
</tbody>
</table>

5. **Pedestrian Benefits**  
**MAXIMUM POINTS = 4**

Assign points according to the following criteria

a. Grade separation will serve 1-50 pedestrians during top four hours: 1 point
b. Grade separation will serve 51-100 pedestrians during top four hours: 2 points
c. Grade separation will serve 101-150 pedestrians during top four hours: 3 points
d. Grade separation will serve more than 150 pedestrians during top four hours: 4 points

6. **Bus Operations Effects**  
**MAXIMUM POINTS = 4**

Assign points according to the following criteria

a. Grade separation will serve up to four buses an hour: 1 point
b. Grade separation will serve from four to eight buses an hour: 2 points
c. Grade separation will serve from eight to sixteen buses an hour: 3 points
d. Grade crossing is adjacent to a transit center: 1 point
7. **Noise Reduction**  
MAXIMUM POINTS = 4

Assign points according to the following criteria

a. Rail crossing area located within 200 feet of sensitive receptors: 4 points
b. Rail crossing area located between 200-500 feet of sensitive receptors: 2 points
c. Rail crossing area located more than 500 feet away from sensitive receptors: 0 points

Sensitive receptors include: residential areas, hospitals, schools, and houses of worship. Rail crossing area includes crossing plus 200 feet along track in either direction away from crossing.

8. **Benefit to Emergency Services**  
MAXIMUM POINTS = 4

Assign points according to the following criteria

a. Rail crossing located within ½ mile of emergency service provider and no alternative grade-separated crossing exists within ½ half mile: 4 points
b. Rail crossing located between ½ and 1 mile of emergency service provider and no alternate grade-separated crossing exists within ½ mile: 2 points
c. Rail crossing located between 1 and 1½ miles of emergency service provider and no alternate grade-separated crossing exists within ½ mile: 1 point
d. Rail crossing located further than 1½ miles of emergency service provider and no alternate grade-separated crossing exists within ½ mile: 0 points

Emergency service providers include services such as police, fire, paramedic, ambulance, and hospital services. Distance is measured as driven distance from crossing.

9. **Impact to Truck Freight Operations**  
MAXIMUM POINTS = 4

Assign points according to the following table

<table>
<thead>
<tr>
<th>% Trucks</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5</td>
<td>4</td>
</tr>
<tr>
<td>2 to 5</td>
<td>2</td>
</tr>
<tr>
<td>Less than 2</td>
<td>0</td>
</tr>
</tbody>
</table>

**Step 2:** Once the projects have been prioritized according to the criteria above, consideration for funding would include the following project readiness elements

a. Project feasibility (e.g., physical constraints and reliability of cost estimate)
b. Environmental document status
c. Right-of-Way acquisition status
d. Permits (e.g., Public Utilities Commission, Coastal Commission, or the Department of Fish and Game)
**RHNA Criteria**

As dictated in SANDAG Board Policy Number 033, rail grade separation projects must include incentive points (a minimum of 25 points out of 100 possible) to be given to projects in jurisdictions in which lower-income housing units are being produced in accordance with the housing unit figures contained in Alternative 3 of the Board RHNA Memo.

A prioritized list of regional rail grade separation projects has not been created for the 2030 RTP. When a call for projects is made, local jurisdictions must satisfy the requirements of Board Policy Number 033 in order to be eligible for project funding. The policy states that prior to January 1, 2007, jurisdictions shall have submitted a draft of its housing element to the state department of housing and community development (HCD) or have self-certified its housing element in compliance with state law by the due date for the grant application. As of January 1, 2007, jurisdictions are required to have an adopted housing element that has been found in compliance with state law by HCD or has been self-certified. Additionally, those jurisdictions that were not able to identify adequate sites to meet their RHNA goals and were required to include a program in their housing elements to identify additional sites by rezoning must be able to demonstrate that they are making progress toward implementing the rezoning program in conformance with the schedule contained in their housing elements. “Making progress” toward implementing the rezoning program is defined as having demonstrated a good-faith effort in undertaking the rezoning program described in the housing element.

Incentive points shall be calculated as follows

1. The jurisdiction has an adopted housing element that has been found in compliance with state law by HCD or has been self-certified: **Pass/Fail**
2. Percentage of Alternative 3 low-/very low income units produced to be calculated as follows:
   \[ \text{Percentage of Allocated Low-/Very Low Income Units} \times 25 = \text{Incentive Points} \]

The score is the product of the above formula, rounded to the next whole number, up to a maximum of 25.

**Example**

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Alt. 3 Low/Very Low Income Units*</th>
<th>Annual Number Year 1</th>
<th>Number Produced Year 1</th>
<th>Percentage of Alt. 3 Year 1</th>
<th>Incentive Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4322</td>
<td>864</td>
<td>300</td>
<td>35%</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Alt. 3 Low/Very Low Income Units*</th>
<th>Cum. Annual Number Year 2</th>
<th>Cum. Number Produced Year 2**</th>
<th>Percentage of Alt. 3 Cum. Year 2**</th>
<th>Incentive Points Year 2**</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4322</td>
<td>1728</td>
<td>400</td>
<td>23%</td>
<td>6</td>
</tr>
</tbody>
</table>

*7.5 year number in RHNA Alternative 3 may be modified based on five-year number included in local housing elements

**These percentages and numbers are hypothetical for the purpose of explaining the methodology.
RAIL GRADE SEPARATION EVALUATION CRITERIA

The Cities/County Transportation Advisory Committee (CTAC) developed regional rail grade separation prioritization criteria that stress congestion relief, safety and funding needs as the primary elements, with additional consideration of other factors including impacts to pedestrian traffic, bus transit operations, emergency services, truck freight operations and noise.

In preparation for the development of the criteria staff conducted a literature search of other rail grade separation prioritization criteria. These included the California Public Utilities Commission criteria, other states’ criteria, the federal government as well as articles published in research journals. The findings formed the basis for the initial discussions within CTAC.

The intent of the implementation of a regional rail grade separation program is to provide funding for construction of significant traffic congestion relief projects through the implementation of rail grade separations where other more economical alternatives are demonstrably not feasible or practical. Elimination of crossings is considered a potentially practical alternative. Program allocations will need to be considered in conjunction with other regional transportation funding priorities and needs, and will be dependent on the availability of funding from federal, state and local sources.

The rail grade separation prioritization criteria were accepted by the SANDAG Board of Directors for inclusion in the 2030 RTP on October 13, 2006. To date, a regional list of potential grade separations has not been created or prioritized.

Projects will be prioritized based on two criteria categories: Project Specific Criteria and Regional Housing Needs Assessment (RHNA) Housing Production. The Project Specific Criteria will be worth 75 percent and the RHNA Housing Production criteria will compose 25 percent of the total project score.

**Project-Specific Criteria**

These criteria take into account existing vehicular and train traffic, accident history, cost, noise, access to emergency services and other factors.

The following criteria and point system will be implemented, with a potential maximum of 100 points. The total Project Specific Criteria score will be multiplied by .75 to produce a scaled 75 point score for the total regional rail grade separation project score.

1. **Peak-period Exposure Index** (PPEI) factor, measured as the product of the existing high directional traffic and the total measured blocking delay during the same three hours of the day experiencing the highest congestion at the crossing.

\[
\text{PPEI} = \text{VT3} \times \text{BD3} \times \text{C3}
\]

Where the score is the product of the above formula, rounded to the next whole number, up to a maximum of 20; and, where

- \(\text{VT3}\) = Vehicular traffic in high direction during selected three hour period
- \(\text{BD3}\) = Total blocking delay during same three hour period selected
- \(\text{C3}\) = 1/1,350,000, a mathematical constant used for the three hour peak-period calculation

MAXIMUM POINTS = 20
Notes:

a. For crossings where two or more streets that are adjacent to each other that are impacted simultaneously by the operation of the train, the vehicular traffic volume on those streets is cumulative for purposes of the calculation of this congestion relief factor.

b. Selected three hour period consists of three, one-hour periods which may be consecutive. However, the selected three-hour period shall be the same when counting vehicular and train traffic.

c. Blocking delay shall be measured as the time period beginning when the warning devices are activated to the time when the warning devices are de-activated.

Example:

At a crossing, there are 5,400 total cars in the high direction counted between 6:30 am and 7:30 am, 8:00 am and 9:00 am and between 5:00 pm and 6:00 pm, with eight trains per hour during those same hours and 60 seconds delay time per train during those same hours.

\[
\begin{align*}
VT3 &= 5,400 \text{ cars in high direction selected three hour period} \\
BD3 &= 8 \text{ trains x 2 directions x 3 hours x 60 second delay} = 2,880 \\
PPEI &= 5,400 \times 2,880 \times \left[\frac{1}{1,350,000}\right] = 11.52
\end{align*}
\]

Rounding up to next whole number: PPEI Score = 12

2. Peak Day Total Delay Exposure Index (PDEI) factor, measured as the product of the existing average daily traffic (ADT), the total number of trains, and an average train crossing delay time factor.

\[
PDEI = \text{PD-ADT} \times \text{PD-NT} \times \text{ATCDF} \times \text{PD-C}
\]

Where the score is the produce of the above formula, rounded to the next whole number, up to a maximum of 20; and, where

- PD-ADT = Peak Day Average Daily Traffic
- PD-NT = Peak Day Total Number of Trains
- ATCDF = Average Train Crossing Delay Factor, corresponds to point scale as shown in table below.
- PD-C = 1/1,000,000, a mathematical constant used for peak day period calculation

<table>
<thead>
<tr>
<th>Average Train Crossing Delay Factor (ATCDF) Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>From (minutes)</td>
</tr>
<tr>
<td>0.00</td>
</tr>
<tr>
<td>0.75</td>
</tr>
<tr>
<td>1.00</td>
</tr>
<tr>
<td>1.25</td>
</tr>
<tr>
<td>1.50</td>
</tr>
<tr>
<td>2.00</td>
</tr>
<tr>
<td>3.00</td>
</tr>
<tr>
<td>4.00</td>
</tr>
<tr>
<td>6.00</td>
</tr>
<tr>
<td>8.00</td>
</tr>
</tbody>
</table>

2007 Regional Transportation Plan – Technical Appendices
Notes:

a. For crossings where two or more streets that are adjacent to each other that are impacted simultaneously by the operation of the train, the vehicular traffic volume on those streets is cumulative for purposes of the calculation of this congestion relief factor.

b. Average Annual Daily Traffic can be used for peak day, but ADT for weekday or week-end day may be used as appropriate if available. However, the selected day period shall be the same when counting vehicular and train traffic. As an example, if ADT for weekday is available, the highest train traffic of any day between Monday and Friday can be used for the calculations, and not the week-end day train traffic.

c. Blocking delay shall be measured as the time period beginning when the warning devices are activated to the time when the warning devices are de-activated.

Example:

At a crossing, there is an arterial with an ADT of 30,000 vehicles on weekdays, 144 daily trains in both directions also on weekdays, averaging 55 seconds per crossing.

\[
PDEI = PD-ADT \times PD-NT \times ATCDF \times PD-C
\]

\[
PD-ADT = 30,000 \text{ vehicles on weekdays}
\]

\[
PD-NT = 144 \text{ trains in both directions, on weekdays}
\]

\[
ATCDF = 2 \text{ points}
\]

\[
PDEI = 30,000 \times 144 \times 2 \times \left( \frac{1}{1,000,000} \right) = 8.64
\]

3. Rounding up to the next whole number: PDEI Score = 9

4. Accident History: Accident History in the past five years involving vehicles, pedestrians and bicycles with trains, not including accidents involved in attempted suicides.

   MAXIMUM POINTS = 20

Assign points to according to the following schedule

<table>
<thead>
<tr>
<th>Number of Qualifying Accidents</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Points</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>

Increase the number of points for an accident or accidents by 100% when heavy rail is involved.

5. Funding Request: The funding request criterion awards points for amount of funds requested from the program as an equivalent cost benefit criterion by awarding a higher score for those projects that request a lower amount of funds. Score points are based on the total request for funds, with a cap of $45 million.

   MAXIMUM POINTS = 20

Note: Minimum 10% participation is required.
Assign points according to the following schedule:

<table>
<thead>
<tr>
<th>Funding Request ($millions)</th>
<th>Points (Planning-Level Estimate)</th>
<th>Points (NEPA-Level Estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.0 - $15.0</td>
<td>10.0</td>
<td>20.0</td>
</tr>
<tr>
<td>$15.1 - $20.0</td>
<td>8.5</td>
<td>17.0</td>
</tr>
<tr>
<td>$20.1 - $25.0</td>
<td>7.0</td>
<td>14.0</td>
</tr>
<tr>
<td>$25.1 - $30.0</td>
<td>5.5</td>
<td>11.0</td>
</tr>
<tr>
<td>$30.1 - $35.0</td>
<td>4.0</td>
<td>8.0</td>
</tr>
<tr>
<td>$35.1 - $40.0</td>
<td>2.5</td>
<td>5.0</td>
</tr>
<tr>
<td>$40.1 - $45.0</td>
<td>1.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

NEPA: National Environmental Protection Act

6. Pedestrian Benefits

Assign points according to following criteria:

a. Grade separation would serve 1-50 pedestrians during top 4 hours: 1 point
b. Grade separation would serve 51-100 pedestrians during top 4 hours: 2 points
c. Grade separation would serve 101-150 pedestrians during top 4 hours: 3 points
d. Grade separation would serve more than 150 pedestrians during top 4 hours: 4 points

MAXIMUM POINTS = 4

7. Bus Operations Impacts

Assign points according to following criteria:

e. Grade separation would serve up to four buses an hour: 1 point
f. Grade separation would serve from four to eight buses an hour: 2 points
g. Grade separation would serve from eight to sixteen buses an hour: 3 points
a. Additional point if the grade crossing is adjacent to a transit center.

MAXIMUM POINTS = 4

8. Noise Reduction

Assign points according to following criteria:

a. Rail crossing area located within 200 feet of sensitive receptors: 4 points
b. Rail crossing area located between 200-500 feet of sensitive receptors: 2 points
c. Rail crossing area located more than 500 feet away from sensitive receptors: 0 points
d. Sensitive receptors include: Residential areas, hospital, school, house of worship.

Rail crossing area includes crossing plus 200 feet along track in either direction away from crossing.

MAXIMUM POINTS = 4
9. Benefit to Emergency Services

Assign points according to following criteria:

a. Rail crossing located within ½ mile of emergency service provider and no alternate grade-separated crossing exists within ½ mile: 4 points

b. Rail crossing located between ½ and 1 mile of emergency service provider and no alternate grade-separated crossing exists within ½ mile: 2 points

c. Rail crossing located between 1 and 1½ miles of emergency service provider and no alternate grade-separated crossing exists within ½ mile: 1 point

d. Rail crossing located further than 1½ miles of emergency service provider and no alternate grade-separated crossing exists within ½ mile: 0 points

Emergency service providers include services such as police, fire, paramedic, ambulance, and hospital services. Distance is measured as driven distance from crossing.

10. Impact to Truck Freight Operations

Assign points according to the following criteria:

a. Rail crossing located between freeway and major truck freight transfer point (200+ trucks per day): 4 points

b. Rail crossing located between freeway and medium sized truck freight transfer point (100-200 trucks per day): 2 points

c. Rail crossing located between freeway and medium sized truck freight transfer point (0-100 trucks per day): 0 points

Step 2: Once the projects have been prioritized according to the criteria above, consideration for funding would include the following project readiness elements:

a. Project feasibility (e.g., physical constraints, reliability of cost estimate)

b. Environmental document status

c. Right-of-way acquisition status

d. Permits (e.g., PUC, Coastal Commission, Dep’t of Fish & Game, etc.)

Regional Housing Needs Assessment (RHNA) Criteria

As dictated in SANDAG Board Policy Number 033, rail grade separation projects must include incentive points (a minimum of 25 points out of 100 possible) to be given to projects in jurisdictions in which lower income housing units are being produced in accordance with the housing unit figures contained in Alternative 3 of the Board RHNA Memo.