900 Northcrest Drive, PMB 16
Crescent City, California 95531
www.dnltc.org

Del Norte Local Transportation Commission

Tamera Leighton, Executive Director
Tamera@DNLTC.org
Desk: (707) 465-3878
Cell: (707) 218-6424

DEL NORTE LOCAL TRANSPORTATION COMMISSION
MEETING AGENDA: TUESDAY, JULY 7, 2020 AT 3 PM

Public Zoom Webinar Registration Link:
https://us02web.zoom.us/webinar/register/WN_F_zG7Dx-Sv21uip-aMsXnA

1. Call Meeting to Order
2. Pledge of Allegiance
3. Public comment period
   Anyone wishing to make public comments regarding matters either on or off the agenda and within the Commission's jurisdiction may do so at this time; however, the Commission is not permitted to act on non-agenda items.
4. Adjourn to the Policy Advisory Committee

CONSENT AGENDA for POLICY and ADMINISTRATIVE

Items are considered routine in nature and voted on in one motion: Consider public comments or requests to pull matters from the consent agenda for separate action.

a) Minutes of June 2, 2020
   Staff recommendation: By consensus, accept minutes of June 2, 2020.

b) California Highway Patrol standard agreement for SAFE System
   Staff recommendation: By polled vote, adopt resolution 2020 12 authorizing the execution of the standard contract with the CHP.

c) Transportation Development Act claim
   Staff recommendation: By polled vote, approve Redwood Coast Transit Authority Transportation Development Act claim and authorize the chair to sign.

d) Adopt Transportation Development Act (TDA) Resolutions for 2020-21.
   Proposed action: By polled vote, adopt the following resolutions per the TDA fund estimate:
   i. 2020 13 Del Norte Local Transportation Commission resolution allocating funds to Redwood Coast Transit Authority for Operating Expenses.
   ii. 2020 14 Del Norte Local Transportation Commission resolution allocating funds for administrative and planning purposes.
   iii. 2020 15 Del Norte Local Transportation Commission resolution allocating funds for pedestrian and bicycle purposes.

POLICY and ADMINISTRATIVE

e) Discussion items
   - Elk Valley Cross Road Corridor Plan
   - SB 743 Implementation Plan
   - Public Outreach: Wonderstump Road
   - Last Chance Grade

5. Commissioner comments and reports
6. Action on the recommendations of the Policy Advisory Committee
   Adjourn as the Policy Advisory Committee, reconvene as the Del Norte Local Transportation Commission, and by polled vote, approve and adopt the actions taken by the Policy Advisory Committee in the items listed above.
7. Adjourn until the regular meeting on Tuesday, August 4, 2020 at 3 p.m.

Anyone requiring reasonable accommodation to participate in the meeting should contact the Executive Director Tamera Leighton, at (707) 465-3878, at least five (5) days prior to the meeting.

900 Northcrest Drive, PMB 16
Crescent City, California 95531
www.dnltc.org

Del Norte Local Transportation Commission

Tamera Leighton, Executive Director
Tamera@DNLTC.org
Desk: (707) 465-3878
Cell: (707) 218-6424

CONSENT AGENDA ITEMS A-D

DATE: JULY 7, 2020
TO: DEL NORTE LOCAL TRANSPORTATION COMMISSION
FROM: TAMERA LEIGHTON, EXECUTIVE DIRECTOR
SUBJECT: CONSENT AGENDA ITEMS

---

a) Minutes of June 2, 2020
Proposed action: By consensus, accept minutes of June 2, 2020.

b) Transportation Development Act claim
Proposed action: By polled vote, approve Redwood Coast Transit Authority Transportation Development Act claim and authorize the chair to sign.

This is routine in nature. The funding authorized by the claim is set by the State and Redwood Coast Transit Authority is the only eligible applicant.

c) Adopt Transportation Development Act (TDA) Resolutions for 2019-20.
Proposed action: By polled vote, adopt the following resolutions per the TDA fund estimate:

i. 2020 13 Del Norte Local Transportation Commission resolution allocating funds to Redwood Coast Transit Authority for Operating Expenses.
ii. 2020 14 Del Norte Local Transportation Commission resolution allocating funds for administrative and planning purposes.
iii. 2020 15 Del Norte Local Transportation Commission resolution allocating funds for pedestrian and bicycle purposes.

This is routine in nature. The funding amounts are approved by prior Commission action in the Overall Work Program and by accepting the TDA claim. The pedestrian and bicycle amounts are established by the State formula.

DEL NORTE TRANSPORTATION COMMISSION
REGULAR MEETING MINUTES: TUESDAY, MAY 5, 2020 AT 4 PM

Present:	Commissioner Roger Gitlin, County
	Commissioner Gerry Hemmingsen, County (3:10 PM)
	Commissioner Chris Howard, County, Chair
	Commissioner Blake Inscore, City
	Commissioner Heidi Kime, City
Absent:	Commissioner Alex Fallman, City, Chair
Also Present:	Susan Brown, Rural Approaches
	Tamara Leighton, Local Transportation Commission
	Kevin Tucker, Caltrans, Policy Advisory Member

1. **CALL MEETING TO ORDER**
   Chair Howard called the meeting to order at 4:00 p.m.

2. **PLEDGE OF ALLEGIANCE**
   Commissioner Gitlin led the Pledge of Allegiance

3. **PUBLIC COMMENT PERIOD**
   Anyone wishing to make public comments regarding matters either on or off the agenda and within the Commission's jurisdiction may do so at this time; however, the Commission is not permitted to act on non-agenda items.
   The following person(s) addressed the Commission: None

4. **ADJOURN TO THE POLICY ADVISORY COMMITTEE**
   Chair Howard adjourned as the Del Norte Local Transportation Commission and immediately reconvened as the Policy Advisory Committee at 4:02 p.m.

CONSENT AGENDA

Items are considered routine in nature and voted on in one motion: Consider public comments or requests to pull matters from the consent agenda for separate action.

a) **MINUTES OF APRIL 7, 2020**
   Staff recommendation: By consensus, accept minutes of April 7, 2020.
b) **2020-21 OVERALL WORK PROGRAM FINAL**
   TAC and Staff recommendation: By polled vote, adopt Resolution 2020 8 approving 2020-21 Overall Work Program.
c) **2020 ECONOMIC AND DEMOGRAPHIC PROFILE**
   TAC and Staff recommendation: By consensus, accept the 2020 Economic and Demographic Profile.

d) **RESOLUTION AUTHORIZING AND APPROVING THE CERTIFICATIONS AND ASSURANCES AND AUTHORIZED AGENT FORMS FOR THE LOW CARBON TRANSIT OPERATIONS PROGRAM (LCTOP) FOR THE *BUS ELECTRIFICATION PROJECT***
Staff recommendation: By polled vote, adopt resolution 2020 11.

e) **CHAMBER OF COMMERCE GOVERNMENT MEMBERSHIP**
Staff recommendation: By polled vote, authorize the expenditure of $85 from the Office Operations/Work Element E1 for a DNLTC Chamber Membership.

f) **SERVICE AUTHORITY FOR FREEWAY EMERGENCIES (SAFE) SYSTEM REPORT STAFF RECOMMENDATION: BY CONSENSUS, ACCEPT THE SAFE SYSTEM REPORT.**
Public Comment: None
On a motion by Commissioner Gitlin, seconded by Commissioner Inscore, and unanimously carried the Del Norte Local Transportation Commission approved by consensus item 4 a-f.

POLICY and ADMINISTRATIVE

g) **AMEND CONTRACT WITH DOKKEN ENGINEERING TO ACCOMMODATE ADDITIONAL COORDINATION WITH CALTRANS FOR US HIGHWAY 199 AT ELK VALLEY CROSS ROAD**
Staff recommendation: Approve the three items below simultaneously with one vote to address the steps needed for a single change in the Overall Work Program.

1. TAC and staff recommendation: By polled vote, authorize the execution of Contract Amendment 2 with Dokken Engineering for the Elk Valley Cross Road Corridor Plan.
2. By polled vote, adopt resolution 2020 9, authorizing the funding strategy for additional consultant coordination with Caltrans for the US 199/Elk Valley Cross Road intersection.
3. By polled vote, adopt resolution 2020 10, amending the 2019-20 Overall Work Program to accommodate additional consultant coordination with Caltrans for the US 199/Elk Valley Cross Road intersection.

Tamera Leighton explained that the Elk Valley Cross Road project has met with some challenges and will require an amendment to the contract with Dokken Engineering. Dokken will produce a Tech Memo working with Caltrans on a unified solution to address the accident numbers that have been in dispute. The amendment agreement has been given to the TAC members for their information and consideration. The amendment provides for additional cost, scope, and schedule to allow Dokken to work with Caltrans on the Elk Valley project.
On a motion by Commissioner Hemmingsen, seconded by Commissioner Kime, and unanimously carried on a polled vote the Del Norte Local Transportation Commission approved amending the contract with Dokken Engineering to accommodate additional coordination with Caltrans for US Highway 199 at Elk Valley Cross Road.

h) DISCUSSION ITEMS

- Highway 199 at Elk Valley Cross Road – Tamera Leighton reported that the document will be completed soon and it will be presented at the June meeting for acceptance at the July meeting.
- Last Chance Grade: March 11 begins night closures for 5 days – Tamera Leighton reported that Last Chance Grade will begin night closures on May 11 to allow Caltrans to move ahead quickly with their maintenance work. Public information notices have been sent out, but Tamera will resend the information and reach out to other communities whose travelers may be affected.
- SAFE System call box theft – Tamer Leighton reported that two call boxes have been stolen; one of the systems was a satellite call box. One call box was at Last Chance Grade and the other at Colliers Tunnel. Plans are in place to replace the missing call boxes and the California Highway Patrol will be on the lookout for suspicious activities around the call boxes.

5. COMMISSIONER COMMENTS AND REPORTS

Commissioner Giltin discussed the recent collision on Highway 199, commenting that speed was the issue, and inquired about addressing the speed issue. Chair Howard suggested additional signs, much like the signs Oregon uses that read "Slow Down and Save Lives."

Chair Howard asked about have future discussions about Highway 101 and North Indian Road citing a high rate of collisions. The Tolowa Tribe should be included in these discussions.

6. ACTION ON THE RECOMMENDATIONS OF THE POLICY ADVISORY COMMITTEE

Adjourn as the Policy Advisory Committee, reconvene as the Del Norte Local Transportation Commission, and by polled vote, approve and adopt the actions taken by the Policy Advisory Committee in the items listed above.

On a motion by Commissioner Inscore, seconded by Commissioner Kime, and unanimously carried on a polled vote the Del Norte Local Transportation Commission approved items 4 a-g.

7. ADJOURN UNTIL THE REGULAR MEETING SCHEDULED ON TUESDAY, JUNE 2, 2020 AT 3 P.M.

With no further business before the Commission, Chair Howard adjourned the meeting at 4:26 p.m., until the next regularly scheduled meeting on Tuesday, June 2, 2020, at 3:00 p.m.

Respectfully submitted

_____

Tamera Leighton, Executive Director

RESOLUTION NO. 2020 12

DEL NORTE LOCAL TRANSPORTATION COMMISSION RESOLUTION
AUTHORIZING THE CALIFORNIA HIGHWAY PATROL AGREEMENT FOR
THE SERVICE AUTHORITY FOR FREEWAY EMERGENCIES

WHEREAS, the Del Norte Local Transportation Commission, as Service Authority for Freeway Emergencies (SAFE), is responsible for the SAFE program;

WHEREAS, the State of California acting by and through Department of California Highway Patrol, hereinafter called "CHP," and Del Norte County Service Authority for Freeway Emergencies, hereinafter called "SAFE," have an agreement, hereinafter called "AGREEMENT," under the provisions of California Vehicle Code Sections 2421.5 and 9250.10, and the Streets and Highway Code Section 131.1 and Chapter 14 (commencing with Section 2550) to Division 3; and

NOW, THEREFORE, SAFE agrees to the following:

A. The executive director is authorized to execute agreement number 20C048005 between CHP and SAFE, including amendments as to the term.
B. Del Norte SAFE complies with its obligation to provide teletypewriter/telecommunications devices for the deaf 5.

PASSED AND ADOPTED by the Del Norte Local Transportation Commission as the Del Norte Service Authority for Freeway Emergencies and a Regional Transportation Planning Agency of the State of California on the 7th day of July 2020 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Chris Howard, Chair
Del Norte Local Transportation Commission

Attest:

_____
Tamera Leighton, Executive Director
Del Norte Local Transportation Commission

AGREEMENT BETWEEN
THE STATE OF CALIFORNIA
DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
AND
DEL NORTE COUNTY SERVICE AUTHORITY FOR FREEWAY EMERGENCIES (SAFE)

THIS AGREEMENT is made and entered into by and between the State of California acting by and through Department of California Highway Patrol, hereinafter called CHP, and Del Norte County Service Authority for Freeway Emergencies, hereinafter called Del Norte County SAFE, under provisions of California Vehicle Code Sections 2421.5 and 9250.10, and the Streets and Highways Code Section 131.1 and Chapter 14 (commencing with Section 2550) to Division 3.

TERMS AND CONDITIONS:

By and in consideration of the covenants and conditions herein contained, CHP and Del Norte County SAFE do hereby agree as follows:

1. The term of this agreement is July 1, 2020, through June 30, 2023.

2. The Agreement is for services and assistance provided by CHP in accordance with the "CHP/Caltrans Call Box and Motorist Aid Guidelines," which is hereby incorporated by reference hereinafter called "GUIDELINES." As these GUIDELINES may be revised from time to time, it is understood that Del Norte County SAFE shall have a current copy on file for the duration of this Agreement.

3. The Agreement shall remain in force subject to the following:

   A. That it shall not become effective until (1) Del Norte County SAFE has submitted to CHP a copy of the minutes, order, motion, resolution, or ordinance from Del Norte County SAFE approving execution of this Agreement and providing the authorization to sign on behalf of Del Norte County SAFE, and (2) that this Agreement is duly signed by both parties and approved by the Department of General Services Office of Legal Services, if applicable.

   B. That it may be modified in writing and signed by both parties and shall be modified through amendment by the parties to conform to any future changes to federal or state law that affects the terms of this Agreement.

   C. Either party may terminate this agreement before the expiration of its term, or any extension, upon six (6) months prior written notice to the other party.

   D. Notwithstanding subparagraph 3 C. above, CHP may terminate this Agreement upon thirty (30) days' advance written notice to Del Norte County SAFE should Del Norte County SAFE be financially unable to reimburse CHP for services rendered under this Agreement.

4. For services and assistance herein, Del Norte County SAFE agrees to reimburse CHP quarterly, in arrears and upon receipt of an itemized invoice, for charges identified in Sections 6 and 10. Upon receipt, payment shall be made to CHP as invoiced within sixty (60) days. If payment is not submitted because of a dispute, Del Norte County SAFE agrees to submit the reasons for the dispute to CHP within sixty (60) days of receiving the invoice charges.

A. Payment shall be made to:

Department of California Highway Patrol
Fiscal Management Section
P.O. Box 942900
Sacramento, CA 94298-2900

B. Invoices shall be sent to:

Del Norte County SAFE
Attn: SAFE Program Manager
900 Northcrest Drive PMB 16
Crescent City, CA 95531

Each quarterly invoice shall include a thorough explanation and justification for any additional charges or changes of the amounts of past charges.

5. The maintenance of the call box system (outside of CHP communications center), including telephone service and line costs, shall be the sole responsibility of Del Norte County SAFE. Upgrades or modifications to Del Norte County SAFE's system shall be in accordance with the GUIDELINES. This notification shall be made to CHP at least thirty (30) days prior to the annual staffing analysis.

6. The Del Norte County SAFE shall reimburse CHP for all personnel costs associated with the number of Public Safety Dispatcher (PSD) positions that CHP and Del Norte County SAFE agree are required to handle call box call traffic. The CHP will only increase or decrease the number of PSDs after receiving a written request/commitment from Del Norte County SAFE stating that Del Norte County SAFE will assume all personnel costs for the additional positions.

7. Six (6) months prior to the beginning of each subsequent fiscal year, if the need arises, CHP will re-evaluate communications center call box PSD staffing requirements. The most recent twelve (12) months (annual average) of call box call activity (when available) will be used with the CHP Reimbursable Position Formula (defined in the GUIDELINES) to determine the current required staffing level. The CHP will submit to Del Norte County SAFE a letter, with applicable substantiating data, indicating any necessary changes in staffing. The Del Norte County SAFE will then respond to CHP within thirty (30) days, in writing, indicating concurrence or disagreement with the recommendation.

8. The Del Norte County SAFE shall advise CHP of any anticipated significant new installations that should be considered into the annual staffing analysis. This notification should be made to CHP at least thirty (30) days prior to the annual staffing analysis.

9. The Del Norte County SAFE may request, or CHP may perform, if the need arises, a staffing analysis at any time during the year. If a change in staffing is required due to a non-predicted need, CHP and/or Del Norte County SAFE may request, in writing, such a change. Staffing changes may be necessary for, but need not be limited to, the following: increases/decreases in the number of call boxes, or significant increases/decreases in the number of call box calls.

10. The Del Norte County SAFE shall pay for its proportional share of the actual wage rate for one half (1/2) of a single CHP SAFE Coordinator position. The SAFE coordinator position will be used for SAFE-related business.

    Each SAFE's proportional share billing "factor" will be determined at the beginning of each fiscal year by comparing the number of motor vehicles registered within each SAFE's boundaries to the total number of motor vehicles registered in all counties which have entered into SAFE agreements with CHP. This proportional share will be billed annually in arrears.

11. Call box calls will be handled by CHP communications centers as third level priority – after 9-1-1 (first priority) and allied agency (second priority) calls. The CHP statewide standard level of service for the handling of call box calls is as follows:

    A. Call box calls shall be handled as rapidly as possible; however, they should be handled ideally no longer than 60 seconds after the first ring at the communications center. Experience has shown that when emergency communications traffic becomes unusually heavy, call box traffic also increases. At these times, motorists may be required to wait extended lengths of time for service.

    B. Call box calls should be handled ideally within 3.5 minutes' (210 seconds) total call handling time. It is understood that the use of such services as the translation service contractor will increase total call handling time to levels above this standard.

12. The CHP agrees to submit an itemized invoice quarterly to Del Norte County SAFE which may include and shall not exceed the following charges:

    A. Personnel costs (salary and benefits) determined under the terms of this Agreement. PSD personnel costs will be based on the third step of the wage scale for PSDs in effect at the time of invoicing. The SAFE Coordinator personnel costs will be based on the actual step of the wage scale for SAFE Coordinator position at the time of invoicing. These costs are subject to change according to increases and/or decreases in State of California salary and benefit rages, which are beyond CHP control. Billing will be calculated based upon the average Personnel Year (PY) for the quarter.

    B. Indirect costs shall be applied to the monthly personnel costs in accordance with California State Administrative Manual Section 8752 and 8752.1. The indirect cost rate is determined by CHP and approved by the California Department of Finance (DOF) and is subject to change each state fiscal year.

    C. Translation service charges directly attributable to call box calls and billed to CHP by the translation service contractor will be reimbursed by SAFE. The CHP will maintain a contract with a translation service to provide necessary interpretation/translation services for call box-related calls. The CHP will bill SAFE, in arrears, quarterly for charges billed by the translation service contractor. All SAFE invoices will be accompanied by copies of billings from the translation services contractor.

D. Telephone system costs (if applicable).

13. The State shall provide a standard communication center telephone system, which shall also be used to handle incoming call box calls. Any agreed upon changes above and beyond the standard phone system design specifically requested by Del Norte County SAFE Program shall be funded by Del Norte County SAFE

14. Call box/motorist aid system enhancements due to changing technology may require changes and/or upgrades to CHP communication center equipment. In such cases, Del Norte County SAFE shall be responsible for the procurement, installation, and maintenance of communication center equipment, unless otherwise agreed to. All equipment procured for CHP dispatch operation shall be designed jointly by CHP and Del Norte County SAFE. No equipment shall be installed in a CHP facility, which does not meet all CHP operational and technical specifications. Communication center equipment purchased by Del Norte County SAFE and designated as CHP's property will be maintained by CHP. Otherwise Del Norte County SAFE accepts responsibility.

15. The CHP shall limit its review to Del Norte County SAFE's specifications for upgrading or modifying Del Norte County SAFE's call box system which include any potential operational affect to CHP communications centers, in accordance with the GUIDELINES.

16. The total amount of this Agreement shall not exceed the Agreement's maximum of Six Hundred Dollars and Zero Cents ($600.00). Estimated FY amounts shown below are as follows:

FY 17/18 (7/01/2020 through 6/30/2021) - $200.00
FY 18/19 (7/01/2021 through 6/30/2022) - $200.00
FY 19/20 (7/01/2022 through 6/30/2023) - $200.00
TOTAL $600.00

Each quarterly invoice shall include a thorough explanation and justification for any new additional charges or changes to the amounts of past charges.

17. Mutual Indemnification: CHP shall defend, indemnify and hold Contractor, its officials, officers, employees, agents, and volunteers free and harmless from any and all liability from loss, damage, or injury to property or persons, including wrongful death, to the extent arising out of or incident to any negligent acts, omissions, or willful misconduct of CHP, its officials, officers, employees, agents, and volunteers arising out of or in connection with CHP performance of this Agreement.

Contractor shall defend, indemnify and hold CHP, its officials, officers, employees, agents, and volunteers free and harmless from any and all liability from loss, damage, or injury to property or persons, including wrongful death, to the extent arising out of or incident to any negligent acts, omissions, or willful misconduct of Contractor, its officials, officers, employees, agents, and volunteers arising out of or in connection with Contractor's performance of this Agreement.

Neither termination of this Agreement nor completion of the acts to be performed under this Agreement shall release any party from its obligation to indemnify as to any claims or cause of action asserted so long as the event(s) upon which such claim or cause of action is predicated shall have occurred subsequent to the effective date of this Agreement and prior to the effective date of termination or completion.

18. All services under this Agreement shall be coordinated by

    Department of the California Highway Patrol
    Communications Centers Support Section
    601 North 7th Street, Building C
    Sacramento, CA 95811
    (916) 843-4280

    The contact person shall be CHP SAFE Coordinator.

19. This Agreement, and any attachments or documents incorporated herein by inclusion or reference, constitutes the complete and entire Agreement between CHP and Del Norte County SAFE and supersedes any prior representations, understandings, communications, commitments, Agreements or proposals, oral or written.

20. Under no circumstances shall SAFE or its subcontractor(s) use the name Department of California Highway Patrol or CHP to promote a product which is part of the call box system without the written consent of CHP.

21. Audits. The auditing parties hereto shall be subject to the examination and audit of the State for a period of three (3) years after final payment under the contract. In addition, SAFE and CHP may be subject to the examination and audit by representatives of either party. The examination and audit shall be confined to those matters connected with the performance of the contract including, but not limited to the costs of administering the contract. The SAFE and CHP agree to allow the auditor(s) access to such records during normal business hours and to allow interviews of any employees who might reasonably have information related to such records (Government Code Section 8546.7, Public Contract Code Section (PCC) 10115 et seq., California Code of Regulations (CCR) Title 2, Section 1896). SAFE agrees to maintain such records for possible audit for a minimum of three (3) years after final payment.

22. Disputes. Except as otherwise provided in this Agreement, any dispute concerning a question of fact arising under this Agreement which is not disposed of by mutual Agreement of the parties may be submitted to an independent arbitrator mutually agreed upon by the CHP and Del Norte County SAFE. The arbitrator's decisions shall be non-binding and advisory only, and nothing herein shall preclude either party, at any time, from pursuing any other legally available course of action, including the filing of a law suit. Pending a final decision of a dispute hereunder, both parties shall proceed diligently with the performance of their duties under this Agreement, and such continued performance of their duties under this Agreement shall not constitute a waiver of any rights, legal or equitable, of either party relating to the dispute.

The remainder of this page is intentionally left blank.

23. This Agreement is entered into by the parties listed below and shall be effective upon approval by the Department of General Services Office of Legal Services. By executing this Agreement, the representatives of CHP and Del Norte County SAFE warrant that they have viewed and fully understand all provisions of this Agreement and are authorized to bind their respective agencies to all terms of the Agreement's provisions.

STATE OF CALIFORNIA Department of California Highway Patrol	DEL NORTE COUNTY Service Authority for Freeway Emergencies
SIGNATURE Jacquelyn Ngo, Commander Business Services Section	SIGNATURE Tamera Leighton, Executive Director
Date	Date
Department of California Highway Patrol 601 North 7th Street Sacramento, CA 95811	Del Norte County SAFE SAFE Program Manager 900 Northcrest Drive PMB 16 Crescent City, CA 95531

EXHIBIT B

BUDGET DETAIL AND PAYMENT PROVISIONS

INVOICING AND PAYMENT

1. For services and assistance herein, satisfactorily rendered and upon receipt and approval of invoices DEL NORTE COUNTY SAFE agrees to compensate California Highway Patrol (CHP) quarterly, in arrears for the rates specified herein. Upon receipt, payment shall be made to CHP as invoiced within thirty (30) days. If payment is not submitted because of a dispute, SAFE agrees to submit the reasons for the dispute to CHP within thirty (30) days or receiving the invoice charges.

The SAFE's proportional share billing "factor" shall be determined at the beginning of each fiscal year by comparing the number of motor vehicles registered within DEL NORTE COUNTY SAFE's boundaries to the total number of motor vehicles registered in all counties who have entered into SAFE agreements with CHP. This proportional share shall be billed over four (4) fiscal quarters annually.

A. The CHP agrees to submit an itemized invoice quarterly to DEL NORTE COUNTY SAFE which may include and shall not exceed the following charges:

1) The CHP SAFE Coordinator personnel costs shall be based on the actual step of the wage scale or CHP SAFE Coordinator position at the time of invoicing. These costs are subject to change according to increases and/or decreases in State of California salary and benefit rates, which are beyond CHP control.

2) Indirect costs shall be applied to the monthly personnel costs in accordance with California State Administrative Manual Section 8752 and 8752.1. The indirect cost rate is determined by CHP and approved by the California Department of Finance and is subject to change each state fiscal year. The re-evaluation of staffing requirements shall include an explanation of the projected upcoming fiscal year indirect cost rate.

3) Telephone system costs (if applicable). The State shall provide a standard communication center telephone system, which shall also be used to handle incoming call box calls. Any agreed upon changes above and beyond the standard phone system design specifically requested by DEL NORTE COUNTY SAFE Program shall be funded by DEL NORTE COUNTY SAFE.

B. The fiscal year funding for this Agreement shall be as follows:

FY	Time Period	Amount	Quarters
20/21	70/1/2020 – 6/30/2021	$200.00	4
21/22	7/01/2021 – 6/30/2022	$200.00	4
22/23	7/01/2022 – 6/30/2023	$200.00	4
	TOTAL	**$600.00**	12

C. The total amount of this Agreement shall not exceed **Six Hundred Dollars and Zero Cents ($600.00)**

EXHIBIT B

BUDGET DETAIL AND PAYMENT PROVISIONS

2. Each quarterly invoice shall include a thorough explanation and justification for any new additional charges or changes of the amounts of past charges (if applicable). Invoices shall include the Agreement Number and shall be submitted in triplicate not more frequently than semi-annually in arrears to:

   DEL NORTE COUNTY SAFE
   Attn: SAFE Program Manager
   1301 B Northcrest Drive #16
   Crescent City, CA 95531

   A. Payment

   Payment shall be made to:

   Department of California Highway Patrol
   P.O. Box 942900
   Sacramento, Ca 94298-2900

   Telephone: (916) 843-3583

   Payment for these services may be made by corporate check, cashier's check, or money order in the invoiced amount. If a cashier's check, corporate check or money order is submitted, it must be made payable to: "CHP Accounting Section." Please note the contract number in the "memo" section of the check, and submit the check with a copy of the invoice so that it can be credited to your contract.

3. BUDGET CONTINGENCY CLAUSE

   A. It is mutually agreed that if the California State Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall be of no further force and effect. In this event, the State shall have no liability to pay any funds whatsoever to Contractor or to furnish any other considerations under this Agreement and Contractor shall not be obligated to perform any provisions of this Agreement.

   B. If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the State shall have the option to either cancel this Agreement with no liability occurring to the State, or offer an Agreement amendment to Contractor to reflect the reduced amount.

4. PROMPT PAYMENT CLAUSE

   Payment will be made in accordance with, and within the time specified in, Government Code Chapter 4.5, commencing with Section 927.

EXHIBIT D
(Standard Agreement)

SPECIAL TERMS AND CONDITIONS

1. Gifts, donations, or gratuities may not be accepted by CHP employees in their own behalf or in behalf of the Department, informal squad club, or other local funds.

GTC 04/2017

EXHIBIT C

GENERAL TERMS AND CONDITIONS

1. APPROVAL: This Agreement is of no force or effect until signed by both parties and approved by the Department of General Services, if required. Contractor may not commence performance until such approval has been obtained.

2. AMENDMENT: No amendment or variation of the terms of this Agreement shall be valid unless made in writing, signed by the parties and approved as required. No oral understanding or Agreement not incorporated in the Agreement is binding on any of the parties.

3. ASSIGNMENT: This Agreement is not assignable by the Contractor, either in whole or in part, without the consent of the State in the form of a formal written amendment.

4. AUDIT: ~~Contractor agrees that the awarding department, the Department of General Services, the Bureau of State Audits, or their designated representative shall have the right to review and to copy any records and supporting documentation pertaining to the performance of this Agreement. Contractor agrees to maintain such records for possible audit for a minimum of three (3) years after final payment, unless a longer period of records retention is stipulated. Contractor agrees to allow the auditor(s) access to such records during normal business hours and to allow interviews of any employees who might reasonably have information related to such records. Further, Contractor agrees to include a similar right of the State to audit records and interview staff in any subcontract related to performance of this Agreement. (Gov. Code Section 8546.7, Pub. Contract Code Section 10115 et seq., CCR Title 2, Section 1896).~~ **Section 4 "Audit" is hereby deleted. Refer to Exhibit A, Point 21.**

5. INDEMNIFICATION: ~~Contractor agrees to indemnify, defend and save harmless the State, its officers, agents and employees from any and all claims and losses accruing or resulting to any and all contractors, subcontractors, suppliers, laborers, and any other person, firm or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by Contractor in the performance of this Agreement.~~ **Section 5 "Indemnification is hereby deleted. Refer to Exhibit A, Point 17.**

6. DISPUTES: ~~Contractor shall continue with the responsibilities under this Agreement during any dispute.~~ **Section 6 "Disputes" is hereby deleted. Refer to Exhibit A, Point 22.**

7. TERMINATION FOR CAUSE: The State may terminate this Agreement and be relieved of any payments should the Contractor fail to perform the requirements of this Agreement at the time and in the manner herein provided. In the event of such termination the State may proceed with the work in any manner deemed proper by the State. All costs to the State shall be deducted from any sum due the Contractor under this Agreement and the balance, if any, shall be paid to the Contractor upon demand.

8. INDEPENDENT CONTRACTOR: Contractor, and the agents and employees of Contractor, in the performance of this Agreement, shall act in an independent capacity and not as officers or employees or agents of the State.

9. RECYCLING CERTIFICATION: The Contractor shall certify in writing under penalty of perjury, the minimum, if not exact, percentage of post consumer material as defined in the Public Contract Code Section 12200, in products, materials, goods, or supplies offered or sold to the State regardless of whether the product meets the requirements of Public Contract Code Section 12209. With respect to printer or duplication cartridges that comply with the requirements of Section 12156(e), the certification required by this subdivision shall specify that the cartridges so comply (Pub. Contract Code Section 12205).

10. NON-DISCRIMINATION CLAUSE: During the performance of this Agreement, Contractor and its subcontractors shall not deny the contract's benefits to any person on the basis of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status. Contractor shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination. Contractor and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code Section12900 et seq.), the regulations promulgated thereunder (Cal. Code Regs., tit. 2, Sections 11000 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Gov. Code Sections 11135-11139.5), and the regulations or standards adopted by the awarding state agency to implement such article. Contractor shall permit access by representatives of the Department of Fair Employment and Housing and the awarding state agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, and all other sources of information and its facilities as said Department or Agency shall require to ascertain compliance with this clause. Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. (See Cal. Code Regs., tit. 2, Section 11105.)

    Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

11. CERTIFICATION CLAUSES: The CONTRACTOR CERTIFICATION CLAUSES contained in the document CCC 04/2017 are hereby incorporated by reference and made a part of this Agreement by this reference as if attached hereto.

12. TIMELINESS: Time is of the essence in this Agreement.

13. COMPENSATION: The consideration to be paid Contractor, as provided herein, shall be in compensation for all of Contractor's expenses incurred in the performance hereof, including travel, per diem, and taxes, unless otherwise expressly so provided.

14. GOVERNING LAW: This contract is governed by and shall be interpreted in accordance with the laws of the State of California.

15. ANTITRUST CLAIMS: The Contractor by signing this agreement hereby certifies that if these services or goods are obtained by means of a competitive bid, the Contractor shall comply with the requirements of the Government Codes Sections set out below.

    a. The Government Code Chapter on Antitrust claims contains the following definitions:

        1) "Public purchase" means a purchase by means of competitive bids of goods, services, or materials by the State or any of its political subdivisions or public agencies on whose behalf the Attorney General may bring an action pursuant to subdivision (c) of Section 16750 of the Business and Professions Code.

        2) "Public purchasing body" means the State or the subdivision or agency making a public purchase. Government Code Section 4550.

    b. In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder. Government Code Section 4552.

    c. If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery. Government Code Section 4553.

    d. Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action. See Government Code Section 4554.

16. CHILD SUPPORT COMPLIANCE ACT: For any Agreement in excess of $100,000, the contractor acknowledges in accordance with Public Contract Code Section 7110, that:

    a. The contractor recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the Family Code; and

b. The contractor, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.

17. UNENFORCEABLE PROVISION: In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.

18. PRIORITY HIRING CONSIDERATIONS: If this Contract includes services in excess of $200,000, the Contractor shall give priority consideration in filling vacancies in positions funded by the Contract to qualified recipients of aid under Welfare and Institutions Code Section 11200 in accordance with Pub. Contract Code Section 10353.

19. SMALL BUSINESS PARTICIPATION AND DVBE PARTICIPATION REPORTING REQUIREMENTS:

    a. If for this Contract Contractor made a commitment to achieve small business participation, then Contractor must within 60 days of receiving final payment under this Contract (or within such other time period as may be specified elsewhere in this Contract) report to the awarding department the actual percentage of small business participation that was achieved. (Govt. Code Section 14841.)

    b. If for this Contract Contractor made a commitment to achieve disabled veteran business enterprise (DVBE) participation, then Contractor must within 60 days of receiving final payment under this Contract (or within such other time period as may be specified elsewhere in this Contract) certify in a report to the awarding department: (1) the total amount the prime Contractor received under the Contract; (2) the name and address of the DVBE(s) that participated in the performance of the Contract; (3) the amount each DVBE received from the prime Contractor; (4) that all payments under the Contract have been made to the DVBE; and (5) the actual percentage of DVBE participation that was achieved. A person or entity that knowingly provides false information shall be subject to a civil penalty for each violation. (Mil. & Vets. Code Section 999.5(d); Govt. Code Section 14841.)

20. LOSS LEADER: If this contract involves the furnishing of equipment, materials, or supplies then the following statement is incorporated: It is unlawful for any person engaged in business within this state to sell or use any article or product as a “loss leader” as defined in Section 17030 of the Business and Professions Code. (PCC Section 10344 (e).)

Transportation Development Act
Redwood Coast Transit Authority

Del Norte Local Transportation Commission
900 Northcrest Drive, PMB 16
Crescent City, CA 95531
(707) 465-3878

TRANSPORTATION DEVELOPMENT ACT FUNDS
CLAIM FORMS: DUE JUNE 30, 2020

Please check the items that are either included with the submitted Transportation Development Act claim package or are on file at Del Norte Local Transportation Commission and return this checklist with the Transportation Development Act claim.

ITEM	SUBMITTED
a) TDA-1 Annual Transportation Development Act Claim	X
b) TDA-2 Project & Financial Plan (for the fiscal year of the claim)	X
c) TDA-3 TDA Funds – Current Status	X
d) TDA-4 Statement of Conformance	X
e) Resolution by governing body that authorizes filing the claim	X
f) CHP Safety Compliance Report	X
g) Statement of projected or estimated revenues and expenditures for prior fiscal year	X
h) Adopted or proposed budget for the fiscal year of the claim	X
i) Signed copy of transit service contract	X
j) Documentation of eligibility under TDA efficiency criteria	X
k) Standard Assurances for Applicants	X

TRANSPORTATON DEVELOPMENT ACT FUNDS
ANNUAL TRANSPORTATION CLAIM

TO: Del Norte Local Transportation Commission
900 Northcrest Drive, PMB 16
Crescent City, CA 95531

FROM: Claimant: Redwood Coast Transit Authority

Address: 140 Williams Drive

City: Crescent City, CA ZIP: 98292

Contact Person: Joseph Rye Phone: 707-235-3078

The Redwood Coast Transit Authority hereby requests, in accordance with TDA article 4 Section 99260(b) and applicable rules and regulations, that its Local Transportation Fund annual transportation claim be approved in the amount of $725,115 for fiscal year 2019-2020 be drawn from the local transportation fund of the County of Del Norte for the purposes and amounts shown on the attached statements.

Approval of the claim and payment by the County Auditor of this application is subject to such monies being on hand and available for distribution, and to the provision that such monies will be used only accordance with terms of the allocation instructions.

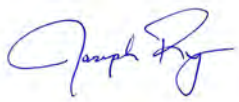
APPROVED:

By _____
Signature

Chair _____
Del Norte Local Transportation Commission

Approval Date _____

SUBMITTED:



By _ _
Claimant's Signature

Title General Manager_
Redwood Coast Transit Authority

Submittal Date _6/30/2020___

TRANSPORTATON DEVELOPMENT ACT FUNDS
ANNUAL PROJECT AND FINANCIAL PLAN

Briefly describe all proposed projects and indicate proposed expenditures of your jurisdiction for the ensuing fiscal year for public transportation operating and capital expenditures, right-of-way acquisition and construction of local street and roads and facilities for the exclusive use by pedestrians and bicycles. Give each project a title and number in sequence.

PROJECT TITLE: RCTA Operating Project #1

BRIEF DESCRIPTION: Operations of RCTA fixed routes, inter-city routes, and Dial-A-Ride (including ADA paratransit) service for Del Norte County

SECTION & SUBSECTION OF ACT: 99262

FUNDING SOURCE AND

1. LTF (SB325) $725,115	4. FARES $123,000
2. STAF $237,537	5. OTHER $52,066
3. SECTION 5311 $488,897	6. TOTAL $1,626,615

PROJECT COST BY FUNDING SOURCE

1. LTF (SB325) $725,115	4. FARES $123,000
2. STAF $237,537	5. OTHER $52,066
3. SECTION 5311 $488,897	6. TOTAL $1,626,615

CLAIMANT TOTAL PROPOSED EXPENDITURES: $1,626,615

TDA FUNDS CLAIM: (LTF AND STAF) $962,652

TRANSPORTATON DEVELOPMENT ACT FUNDS
ANNUAL PROJECT AND FINANCIAL PLAN

Briefly describe all proposed projects and indicate proposed expenditures of your jurisdiction for the ensuing fiscal year for public transportation operating and capital expenditures, right-of-way acquisition and construction of local street and roads and facilities for the exclusive use by pedestrians and bicycles. Give each project a title and number in sequence.

PROJECT TITLE: RCTA CTSA Operating Project #2

BRIEF DESCRIPTION: Operations of RCTA CTSA Projects, including ADA Eligibility Determination and Transit Travel Training for Del Norte County

SECTION & SUBSECTION OF ACT: 99262

FUNDING SOURCE AND

1. LTF (SB325) $38,164	4. FARES $0
2. STAF $0	5. OTHER $0
3. SECTION 5311 $0	6. TOTAL $38,164

PROJECT COST BY FUNDING SOURCE

1. LTF (SB325) $38,164	4. FARES $150,000
2. STAF $0	5. OTHER $0
3. SECTION 5311 $0	6. TOTAL $38,164

CLAIMANT TOTAL PROPOSED EXPENDITURES: $38,164

TDA FUNDS CLAIM: (LTF AND STAF) $38,164

TRANSPORTATON DEVELOPMENT ACT FUNDS
ANNUAL PROJECT AND FINANCIAL PLAN

Briefly describe all proposed projects and indicate proposed expenditures of your jurisdiction for the ensuing fiscal year for public transportation operating and capital expenditures, right-of-way acquisition and construction of local street and roads and facilities for the exclusive use by pedestrians and bicycles. Give each project a title and number in sequence.

PROJECT TITLE: RCTA Capital,Project #3

BRIEF DESCRIPTION: Capital projects for RCTA fixed routes, inter-city routes, and Dial-A-Ride (including ADA paratransit) services for Del Norte County

SECTION & SUBSECTION OF ACT: 99262

FUNDING SOURCE AND

1. LTF (SB325) $0	4. FARES $0
2. STA $0	5. OTHER FTA Section 5339 $416,960 PTMISEA $423,007, SB-1 SGR $38,115
3. SECTION 5311 $0	6. TOTAL $878,082

PROJECT COST BY FUNDING SOURCE

1. LTF (SB325) $0	4. FARES $0
2. STA $0	5. OTHER FTA Section 5339 $416,960 PTMISEA $423,007, SB-1 SGR $38,115
3. SECTION 5311 $0	6. TOTAL $878,082

CLAIMANT TOTAL PROPOSED EXPENDITURES: $878,082

TDA FUNDS CLAIM: (LTF AND STA) $0

TRANSPORTATON DEVELOPMENT ACT FUNDS
CURRENT STATUS

Briefly describe the current fiscal year annual Transportation Claim including: a) Project progress to date; b) Income and expenditures to date. In addition, provide a projection of a) and b) by July 1.

Please see the attached Redwood Coast Transit Authority Amended FY 2019-20 Budget –

Dated June 30, 2020.

The report provides a summary of the performance of the Redwood Coast Transit

Authority system and is a year-to-date financial status report. The attached Fiscal Year

2020-21 Budget includes a summary of projected Fiscal Year 2019-20 year-end revenues

and expenditures.

CERTIFIED:

BY: 

Title: General Manager

Date: June 30, 2020

TRANSPORTATON DEVELOPMENT ACT FUNDS
STATEMENT OF CONFORMANCE

The Redwood Coast Transit Authority (Claimant) hereby certifies that the Local Transportation Fund Annual Transportation Claim for fiscal year 2020-21 in the amount of $962,652, plus $38,164 for CTSA Activities conforms with the requirements of TDA Article 4, Chapter 1400, Section 99260, and applicable rules and regulations.

CERTIFIED:

By: 

Title: General Manager

Date: June 30, 2020

STATE OF CALIFORNIA
DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

SAFETY COMPLIANCE REPORT/ TERMINAL RECORD UPDATE

CHP 343 (Rev 12-17) OPI 062

NEW TERMINAL INFORMATION	CA NUMBER	FILE CODE NUMBER	COUNTY CODE	BED
☑ Yes ☐ No	100967	352297	08	
TERMINAL TYPE	**CODE**	**OTHER PROGRAM(S)**	**LOCATION CODE**	**SUBAREA**
☐ Truck ☑ Bus ☐ Mod Limo	B		120	N89

CARRIER LEGAL NAME	TERMINAL NAME (IF DIFFERENT)	TELEPHONE NUMBER (W/AREA CODE)
First Transit Inc	Same	707-464-6400

TERMINAL STREET ADDRESS (NUMBER, STREET, CITY, ZIP CODE)
140 Williams Dr. Crescent City, CA 95531

MAILING ADDRESS (NUMBER, STREET, CITY, STATE, ZIPCODE) (IF DIFFERENT FROM ABOVE)	INSPECTION LOCATION (NUMBER, STREET, CITY OR COUNTY)
Same	Same

LICENSE, FLEET AND TERMINAL INFORMATION

HM LIC. NO.	HWT. REG. NO.	IMS LIC. NO.	TRUCKS AND TYPES	TRAILERS AND TYPES	PASS VEHS BY TYPE	DRIVERS	BIT FLEET SIZE
					I 12 II Mod Limo	10	Powered
EXP. DATE	**EXP. DATE**	**EXP. DATE**	**REG. CT**	**HW VEH.**	**HW CONT.**	**PPB / CSAT**	**Towed**
						☐ Yes ☑ No ☐ N/A	

TERMINALS IDENTIFIED IN SECTION 34515(b) CVC	FILE CODE NUMBERS OF TERMINALS INCLUDED IN INSPECTION AS A RESULT OF SECTION 34515(b) CVC
☐ Yes ☐ No	

EMERGENCY CONTACTS (*In Calling Order of Preference*)

EMERGENCY CONTACT (NAME)	DAY TELEPHONE NO. (W/AREA CODE)	NIGHT TELEPHONE NO. (W/AREA CODE)
Fernando Hernadez	707-464-6400	707-954-1692
Nick West	707-464-6400	707-951-7066

ESTIMATED CALIFORNIA MILEAGE FOR THIS TERMINAL LAST YEAR [2019]

A	B	C	D	E	F	G	H	I
☐ UNDER 15,000	☐ 15,001 — 50,000	☐ 50,001— 100,000	☑ 100,001— 500,000	☐ 500,001— 1,000,000	☐ 1,000,001— 2,000,000	☐ 2,000,001— 5,000,000	☐ 5,000,001— 10,000,000	☐ MORE THAN 10,000,000

OPERATING AUTHORITIES OR PERMITS

			MOTOR CARRIER OF PROPERTY PERMIT ACTIVE	IMS FITNESS EVALUATION	
PUC	☐ T	☐ TCP ☐ PSC	☐ Yes ☐ No ☑ N/A	☐ Yes ☐ No	
USDOT	USDOT NUMBER 1002211	☐ MC ☐ MX	☐ MC ☐ MX	REASON FOR INSPECTION: Annual Bus Terminal	

INSPECTION FINDINGS		INSPECTION RATINGS: S = Satisfactory U = Unsatisfactory C = Conditional UR = Unrated N/A = Not Applicable				
REQUIREMENTS	**VIOL**	MAINTENANCE PROGRAM	DRIVER RECORDS	REG. EQUIPMENT	HAZARDOUS MATERIALS	TERMINAL
MAINTENANCE PROGRAM		1 S 2 S 3 S 4 S	1 S 2 S 3 S 4 S	1 S 2 S 3 S 4 S	1 2 3 4	1 S 2 S 3 S 4 S
DRIVER RECORDS		No. 4 Time	No. 10 Time	No. 4 Time	TIME N/A	TOTAL TIME
DRIVER HOURS		HAZARDOUS MATERIALS ☑ No H/M Transported ☐ No H/M violations noted		CONTAINERS/TANKS No. Time	VEHICLES PLACED OUT-OF-SERVICE Vehicles Units	
BRAKES		REMARKS				
LAMPS & SIGNALS						
CONNECTING DEVICES						
STEERING & SUSPENSION						
TIRES & WHEELS						
EQUIPMENT REQUIREMENTS						
CONTAINERS & TANKS						
HAZARDOUS MATERIALS						

INSPECTION TYPE	NON-BIT	CPSS	CHP 345	CHP 100D COL	INSPECTION DATE(S)	TIME IN	TIME OUT
☐ I ☐ R	☐	☐ Yes ☐ No	☐		4-21,27-2020		

INSPECTED BY (NAME(S))	ID NUMBER(S)	SUSPENSE DATE
Rick Steele	A12843	☑ Auto ☐ None

MOTOR CARRIER CERTIFICATION

I hereby certify that all violations described hereon and recorded on the attached pages (2 through 10), will be corrected in accordance with applicable provisions of the California Vehicle Code and the California Code of Regulations. I understand that I may request a review of an unsatisfactory rating by contacting the Motor Carrier Safety Unit Supervisor at 530-242-4357 within 5 business days of the rating.

CURRENT TERMINAL RATING	CARRIER REPRESENTATIVE'S SIGNATURE	DATE
SATISFACTORY		4/27/2020

CARRIER REPRESENTATIVE'S PRINTED NAME	TITLE	DRIVER LICENSE NUMBER	STATE
Fernando Hernadez	Safety Manager		

Destroy Previous Editions

US DOT #	Legal: FIRST TRANSIT INC
1002211	Operating (DBA):

MC/MX #: **State #:** 100967 **Federal Tax ID:** 23-1716119 (EIN)

Review Type: Non-ratable Review - Special Study

Scope: Terminal **Location of Review/Audit:** Company facility in the U. S. **Territory:**

Operation Types	Interstate	Intrastate
Carrier:	N/A	Non-HM
Shipper:	N/A	N/A
Cargo Tank:	N/A	

Business: Corporation

Gross Revenue: **for year ending:**

Company Physical Address:

600 VINE STREET
CINCINNATI, OH 45202-2400

Contact Name: Fernando Hernandez
Phone numbers: **(1)** 707-464-6400 **(2)** 707-954-1692 **Fax**
E-Mail Address:

Company Mailing Address:

600 VINE STREET
CINCINNATI, OH 45202-2400

Carrier Classification

Private Passenger, Business | State Government

Cargo Classification

Passengers

Equipment

	Owned	Term Leased	Trip Leased		Owned	Term Leased	Trip Leased
Minibus, 16+	12	0	0	Van, 1-8	1	0	0

Power units used in the U.S.: 13
Percentage of time used in the U.S.: 100

Does carrier transport placardable quantities of HM? No
Is an HM Permit required? N/A

Driver Information

	Inter	Intra
< 100 Miles:		10
>= 100 Miles:		

Average trip leased drivers/month: 0
Total Drivers: 10
CDL Drivers: 10

FIRST TRANSIT INC - Terminal U.S. DOT #: 1002211	State #: 100967	Review Date: 04/27/2020

Part A

QUESTIONS regarding this report may be directed to Motor Carrier Safety Unit at

2485 Sonoma Street
Redding, CA 96001
(530) 242- 4300

This TERMINAL REVIEW deals only with safety compliance at this terminal.

Person(s) Interviewed

Name: Nick West — **Title:** Maintenance Manager

Name: Fernando Hernandez — **Title:** Safety Manager

FIRST TRANSIT INC - Terminal
U.S. DOT #: 1002211 State #: 100967

Review Date: 04/27/2020

Part B Violations

Safety Fitness Rating Information:			
Total Miles Operated	400,000	**OOS Vehicle (CR):**	0
Recordable Accidents	0	**Number of Vehicle Inspected (CR):**	4
		OOS Vehicle (MCMIS):	0
		Number of Vehicles Inspected (MCMIS):	0

Your proposed safety rating is :

This Review is not Rated.

Q95CRECA2NFAA

	FIRST TRANSIT INC - Terminal U.S. DOT #: 1002211 State #: 100967	Review Date: 04/27/2020

Part B Requirements and/or Recommendations

1. Please continue to comply with all statutory and regulatory requirements.

FIRST TRANSIT INC - Terminal U.S. DOT #: 1002211	State #: 100967	Review Date: 04/27/2020

Part C

Reason for Review: Other — Annual Bus Terminal
Planned Action: Compliance Monitoring

Parts Reviewed Certification:
325 382 383 387 390 391 392 393 395 396 397 398 399 171 172 173 177 178 180

Prior Reviews
3/31/2020
3/6/2020
3/5/2020

Prior Prosecutions
1/30/2014

Reason not Rated: Special Study **Study Code:** CA

Unsat/Unfit Information

Is the motor carrier of passengers subject to the safety fitness procedures contained in 49 CFR part 385 subpart A, AND does it transport passengers in a commercial motor vehicle? No

Does carrier transport placardable quantities of hazardous materials?

Unsat/Unfit rule: Not Applicable

Corporate Contact: Fernando Hernandez
Corporate Contact Title: Safety Manager

Special Study Information:

Remarks:

Terminal Name: First Transit Inc CA # - 100967
Terminal Address: 140 Williams Dr. Crescent City, CA 95531 FCN - 352297

Rating Information:
In accordance with 13 CCR 1233, this terminal has been rated Satisfactory at this time.

MAINTENANCE PROGRAM VIOLATIONS:
None noted

DRIVER RECORDS VIOLATIONS:
None noted

HOURS OF SERVICE VIOLATIONS:
None noted

ADDITIONAL INFORMATION:
Provided carrier with excerpts from CHAPTER 7. Commercial Motor Vehicle Safety Program [15200 - 15326] and IB passenger transportation class "C" verses class "B" CDL and endorsements.

Note: Carrier operating Buses on a limited status due to COVID-19 restrictions.

Upload Authorized:	**Yes**	**No**	
Authorized by:			**Date:**
Uploaded:	**Yes**	**No**	**Failure Code:**
Verified by:			**Date:**

DRIVER/VEHICLE EXAMINATION REPORT

California Highway Patrol
2485 Sonoma Street
Redding, CA 96001
Phone: (530) 242-4300
Internationally Accredited Agency CHP407F/343A

Report Number: CAN9WR000241
Inspection Date: 04/21/2020
Start: 10:00 AM PT **End:** 11:00 AM PT
Inspection Level: V - Terminal
HM Inspection Type: None

FIRST TRANSIT INC
600 VINE STREET
CINCINNATI, OH, 45202-2400
USDOT: 1002211 **Phone#:** (513)241-2200
MC/MX#: 576222 **Fax#:** (513)419-8619
State#: 100967
Location: CRESCENT CITY
Highway:
County: DEL NORTE

Driver:
License#: **State:**
Date of Birth:
CoDriver:
License#: **State:**
Date of Birth:
Milepost: **Shipper:** N/A
Origin: N/A **Bill of Lading:** N/A
Destination: N/A **Cargo:** N/A

VEHICLE IDENTIFICATION

Unit	Type	Make	Year	State	Plate	Equipment ID	VIN	GVWR	CVSA Existing	CVSA #
1	BU	CHAM	2019	CA	1578602	231	1FDFE4FS6KDC37322	14500		

BRAKE ADJUSTMENTS

Axle #	1	2
Right	N/A	N/A
Left	N/A	N/A
Chamber	DISC	DISC

VIOLATIONS:No violations were discovered

HazMat: No HM transported **Placard:** **Cargo Tank:**

Special Checks: No data for special checks

State Information:
Beat/Sub Area: N89; Odometer: 9,478; File Code Number: 352297; Regulated Vehicle: Y; Pre-Cleared Vehicle: N; Fuel Type: G; Passenger Capacity: 20; Veh #1 Type: 20; WC Passenger Capacity: 2; Bus Type: 1

Report Prepared By: R. L. STEELE Badge #: A12843

X _____

Copy Received By:

X _____

01002211 CA CAN9WR000241

California Highway Patrol
2485 Sonoma Street
Redding, CA 96001
Phone: (530) 242-4300
Internationally Accredited Agency CHP407F/343A

Report Number: CAN9WR000242
Inspection Date: 04/21/2020
Start: 11:00 AM PT **End:** 12:00 PM PT
Inspection Level: V - Terminal
HM Inspection Type: None

FIRST TRANSIT INC
600 VINE STREET
CINCINNATI, OH, 45202-2400
USDOT: 1002211 **Phone#:** (513)241-2200
MC/MX#: 576222 **Fax#:** (513)419-8619
State#: 100967
Location: CRESCENT CITY
Highway:
County: DEL NORTE

Driver:
License#: **State:**
Date of Birth:
CoDriver:
License#: **State:**
Date of Birth:
Milepost: **Shipper:** N/A
Origin: N/A **Bill of Lading:** N/A
Destination: N/A **Cargo:** N/A

VEHICLE IDENTIFICATION

Unit	Type	Make	Year	State	Plate	Equipment ID	VIN	GVWR	CVSA Existing	CVSA #
1	BU	ELDO	2017	CA	1527236	294	1FDAF5GT7FEA66021	19500		

BRAKE ADJUSTMENTS

Axle #	1	2
Right	N/A	N/A
Left	N/A	N/A
Chamber	DISC	DISC

VIOLATIONS:No violations were discovered

HazMat: No HM transported **Placard:** **Cargo Tank:**

Special Checks: No data for special checks

State Information:
Beat/Sub Area: N89; Odometer: 101,897; File Code Number: 352297; Regulated Vehicle: Y; Pre-Cleared Vehicle: N; Fuel Type: D; Passenger Capacity: 26; Veh #1 Type: 20; WC Passenger Capacity: 1; Bus Type: 1

Report Prepared By: R. L. STEELE Badge #: A12843

Copy Received By:

X _____

X _____

01002211 CA CAN9WR000242

California Highway Patrol
2485 Sonoma Street
Redding, CA 96001
Phone: (530) 242-4300
Internationally Accredited Agency CHP407F/343A

Report Number: CAN9WR000243
Inspection Date: 04/21/2020
Start: 12:00 PM PT **End:** 1:00 PM PT
Inspection Level: V - Terminal
HM Inspection Type: None

FIRST TRANSIT INC
600 VINE STREET
CINCINNATI, OH, 45202-2400
USDOT: 1002211 **Phone#:** (513)241-2200
MC/MX#: 576222 **Fax#:** (513)419-8619
State#: 100967
Location: CRESCENT CITY
Highway:
County: DEL NORTE

Driver:
License#: **State:**
Date of Birth:
CoDriver:
License#: **State:**
Date of Birth:
Milepost: **Shipper:** N/A
Origin: N/A **Bill of Lading:** N/A
Destination: N/A **Cargo:** N/A

VEHICLE IDENTIFICATION

Unit	Type	Make	Year	State	Plate	Equipment ID	VIN	GVWR	CVSA Existing	CVSA #
1	BU	GLAV	2014	CA	1418665	292	4UZADRDU4ECFM6718	26000		

BRAKE ADJUSTMENTS

Axle #	1	2
Right	N/A	N/A
Left	N/A	N/A
Chamber	DISC	DISC

VIOLATIONS:No violations were discovered

HazMat: No HM transported **Placard:** **Cargo Tank:**

Special Checks: No data for special checks

State Information:
Beat/Sub Area: N89; Odometer: 338,705; File Code Number: 352297; Regulated Vehicle: Y; Pre-Cleared Vehicle: N; Fuel Type: D; Passenger Capacity: 31; Veh #1 Type: 20; WC Passenger Capacity: 2; Bus Type: 1

Report Prepared By: R. L. STEELE
Badge #: A12843

Copy Received By:

X _____

X _____

01002211 CA CAN9WR000243

DRIVER/VEHICLE EXAMINATION REPORT

California Highway Patrol
2485 Sonoma Street
Redding, CA 96001
Phone: (530) 242-4300
Internationally Accredited Agency CHP407F/343A

Report Number: CAN9WR000240
Inspection Date: 04/21/2020
Start: 9:00 AM PT **End:** 10:00 AM PT
Inspection Level: V - Terminal
HM Inspection Type: None

FIRST TRANSIT INC
600 VINE STREET
CINCINNATI, OH, 45202-2400
USDOT: 1002211 **Phone#:** (513)241-2200
MC/MX#: 576222 **Fax#:** (513)419-8619
State#: 100967
Location: CRESCENT CITY
Highway:
County: DEL NORTE

Driver:
License#: **State:**
Date of Birth:
CoDriver:
License#: **State:**
Date of Birth:
Milepost: **Shipper:** N/A
Origin: **Bill of Lading:** N/A
Destination: **Cargo:**

VEHICLE IDENTIFICATION

Unit	Type	Make	Year	State	Plate	Equipment ID	VIN	GVWR	CVSA Existing	CVSA #
1	BU	ELDO	2016	CA	1473503	221	1FDFE4FS3GDC07072	14500		

BRAKE ADJUSTMENTS

Axle #	1	2
Right	N/A	N/A
Left	N/A	N/A
Chamber	DISC	DISC

VIOLATIONS:No violations were discovered

HazMat: No HM transported **Placard:** **Cargo Tank:**

Special Checks: No data for special checks

State Information:
Beat/Sub Area: N89; Odometer: 131,368; File Code Number: 352297; Regulated Vehicle: Y; Pre-Cleared Vehicle: N; Fuel Type: G; Passenger Capacity: 18; Veh #1 Type: 20; WC Passenger Capacity: 2; Bus Type: 1

Report Prepared By: R. L. STEELE
Badge #: A12843

Copy Received By:

X _____

X _____

01002211 CA CAN9WR000240

STATE OF CALIFORNIA
DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

TRANSIT OPERATOR COMPLIANCE CERTIFICATE

CHP 339 (Rev. 9-09) OPI 062

TRANSIT OPERATOR NAME

FIRST TRANSIT INC

ADDRESS		TELEPHONE NUMBER
140 WILLIAMS DR.		(707) 464-6400
CITY	ZIP CODE	COUNTY
CRESCENT CITY	95531	DEL NORTE

This is to certify that the above named transit operator was inspected on this date and found to be in compliance with California Vehicle Code Section 1808.1, regarding participation in the Department of Motor Vehicles Pull Notice Program, and with Section 12804.6, regarding transit bus operator certificates.

ISSUED BY	I.D. NUMBER	DATE
RICK STEELE	A12843	04/27/2020

Destroy Previous Editions

Chp339_0809.pdf

STATE OF CALIFORNIA
DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

TRANSIT OPERATOR COMPLIANCE CERTIFICATE

CHP 339 (Rev. 9-09) OPI 062

TRANSIT OPERATOR NAME

FIRST TRANSIT INC

ADDRESS		TELEPHONE NUMBER
140 WILLIAMS DR.		(707) 464-6400
CITY	ZIP CODE	COUNTY
CRESCENT CITY	95531	DEL NORTE

This is to certify that the above named transit operator was inspected on this date and found to be in compliance with California Vehicle Code Section 1808.1, regarding participation in the Department of Motor Vehicles Pull Notice Program, and with Section 12804.6, regarding transit bus operator certificates.

ISSUED BY	I.D. NUMBER	DATE
RICK STEELE	A12843	04/27/2020

Destroy Previous Editions

Chp339_0809.pdf

STATE OF CALIFORNIA
DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

TRANSIT OPERATOR COMPLIANCE CERTIFICATE

CHP 339 (Rev. 9-09) OPI 062

TRANSIT OPERATOR NAME

FIRST TRANSIT INC

ADDRESS		TELEPHONE NUMBER
140 WILLIAMS DR.		(707) 464-6400
CITY	ZIP CODE	COUNTY
CRESCENT CITY	95531	DEL NORTE

This is to certify that the above named transit operator was inspected on this date and found to be in compliance with California Vehicle Code Section 1808.1, regarding participation in the Department of Motor Vehicles Pull Notice Program, and with Section 12804.6, regarding transit bus operator certificates.

ISSUED BY	I.D. NUMBER	DATE
RICK STEELE	A12843	04/27/2020

Destroy Previous Editions

Chp339_0809.pdf

FY 2019-20 RCTA Adopted Budget – Fiscal Year to Date Through March 31, 2020

FY 2019-20 RCTA Budget - Actuals Through March 31, 2020		FY 19-20 Adopted Budget	FY 19-20 Actuals thru 3/2020	FY 19-20 percent spent thru 3/20 (75%)
REVENUE				
	Local Transportation Revenues			
	Passenger Fares	$90,000	$45,259	50.29%
	5311(f) Route 20 Passenger Fares	$49,330	$25,000	50.68%
	Auxilliary Transportation (Advertising) Revenue	$11,000		0.00%
	Local Cash Grants & Reimbursements			#DIV/0!
	TDA Article 4 Local Transportation Fund	$620,793	$355,500	57.27%
	TDA Article 4.5 Local Transportation Fund CTSA	$32,673	$16,336	50.00%
	State Cash Grants & Reimbursements			#DIV/0!
	State Transit Assistance	$279,354	$156,436	56.00%
	State Transit Assistance - SGR Capital			#DIV/0!
	Proposition 1B PTMISEA (carryover+new request)	$644,993		0.00%
	Proposition 1B CTSGP	$18,836		0.00%
	Low Carbon Transit Operations Program (LCTOP)	$53,171		0.00%
	Federal Cash Grants and Reimbursements			#DIV/0!
	Section 5311 -Operating	$157,882	$157,882	100.00%
	Section 5311-F Operating	$158,186	$122,833	77.65%
	Section 5339 Capital (formula + discretionary)	$497,800		0.00%
	TDA Reserves Allocation (RCTA Reserves)	$ (106,499)		$ -
	TOTAL REVENUE	$2,507,519		
	TOTAL OPERATIONS REVENUE	$1,452,389		
OPERATING EXPENSE				
	Accounting Services and Audits	$ 7,500	$5,823	77.64%
	CTSA Program Expenses	$ 32,673		0.00%
	Legal Services	$ 2,000	$745	37.25%
	Bus Stop Maintenance and Repair	$ -		#DIV/0!
	Management Contract	$ 97,867	$53,864	55.04%
	Operations and Maintenance Contract	$ 600,500	$275,615	45.90%
	O& M Contract - Smith River/ Arcata Intercity Route	$ 370,000	$269,289	72.78%
	Marketing/Other Services Expenses	$ 2,000	$4,850	242.50%
	Advertising, Brochures, Printing	$ 18,500	$16,500	89.19%
	Postage			#DIV/0!
	Fuel	$ 113,000	$60,000	53.10%
	Fuel - Smith River/Arcata Intercity Route	$ 76,000	$39,475	51.94%
	Lease Expense	$ 25,850	$21,686	83.89%
	TOTAL OPERATING EXPENSE	$ 1,345,890	$ 747,847	55.57%
	Increase for TDA Reserves	$ 106,499		
CAPITAL EXPENSE				
	Replacement Bus - 2 Buses (FTA 5339 + PTMISEA)	$322,000	$321,089	99.72%
	Replace Bus - (future FTA 5339/5310+ PTMISEA)	$303,000	0	0.00%
	Security Improvements (CTSGP)	$ 18,836	$24,546	130.31%
	Bus Stop Shelters and Signage (SB-1 SGR)	$ 38,115	$6,726	17.65%
	Mobile Radio System Improvements	$ 500		0.00%
	Facility Improvements (PTMISEA)	$ 20,000	$4,121	20.61%
	PTMISEA Capital Balance after FY (balance - expends	$ 496,493		0.00%
	TOTAL CAPITAL EXPENSE	$ 1,198,944	$356,482	29.73%
	TOTAL EXPENDITURES	$ 2,544,834		0.00%

FY 2020-21 RCTA Adopted Budget – Effective June 29th, 2020

FY 2020-21 Draft RCTA Budget - June 29, 2020		FY 19-20 Adopted Budget	FY 19-20 Projected Rev/Exp	FY 20-21 DRAFT Budget	Notes
REVENUE					
	Local Transportation Revenues				
	Passenger Fares	$90,000	$60,000	$80,000	1
	5311(f) Route 20 Passenger Fares	$49,330	$33,000	$43,000	1
	Auxilliary Transportation (Advertising) Revenue	$11,000	$ 20,930	$15,000	2
	Local Cash Grants & Reimbursements				
	TDA Article 4 Local Transportation Fund	$620,793	$480,000	$480,000	3
	TDA Article 4.5 Local Transportation Fund CTSA	$32,673	$28,500	$28,500	4
	State Cash Grants & Reimbursements				
	State Transit Assistance	$279,354	$245,000	$245,000	
	Proposition 1B PTMISEA (carryover+new request)	$644,993	$645,900	$570,000	5
	Proposition 1B CTSGP	$18,836	$97,730	$0	9
	Low Carbon Transit Operations Program (LCTOP)	$53,171	$30,000	$60,000	7
	Federal Cash Grants and Reimbursements				
	Section 5311 -Operating	$157,882	$157,882	$163,897	
	Section 5311 - CARES Act Operating	$0	$150,000	$150,000	13
	Section 5311-F Operating	$158,186	$122,833	$175,000	
	Section 5339 Capital (formula + discretionary)	$497,800	$241,800	$416,960	14
	Section 5310 Capital (discretionary)	$0	$0	$132,700	14
	TDA Reserves Allocation (RCTA Reserves)	$ (96,499)	$ -	$ (120,147)	6
	TOTAL REVENUE	$2,517,519	$2,313,575	$2,439,910	
	TOTAL OPERATIONS REVENUE	$1,452,389	$1,178,145	$1,440,397	
OPERATING EXPENSE					
20241	Accounting Services and Audits	$ 7,500	$6,000	$ 8,250	
	CTSA Program Expenses	$ 32,673	$6,000	$ 28,500	
20237	Marketing Expenses	$ 10,000	$7,680	$ 10,000	
20236	Legal Services	$ 2,000	$1,060	$ 3,000	
20170	Bus Stop Maintenance and Repair	$ -	$1,860	$ -	
20233	Management Contract	$ 97,867	$75,000	$ 99,000	
20242	Operations and Maintenance Contract	$ 600,500	$600,500	$ 620,000	
20243	O& M Contract - Smith River/ Arcata Intercity Route	$ 370,000	$370,000	$ 349,000	
20230	Misc/Other Services Expenses	$ 2,000	$2,500	$ 3,000	
20244	Advertising, Brochures, Printing	$ 18,500	$13,500	$ 15,000	
20231	Postage				
20297	Fuel	$ 113,000	$75,000	$ 90,000	
20297	Fuel - Smith River/Arcata Intercity Route	$ 76,000	$58,333	$ 60,000	
30410	Lease Expense	$ 25,850	$34,500	$ 34,500	
	TOTAL OPERATING EXPENSE	$ 1,355,890	$1,251,933	$ 1,320,250	
	Increase for TDA Reserves	$ 96,499		$ 120,147	
CAPITAL EXPENSE					
40620-001	Replacement Bus - 2 Buses (old FTA 5339 + PTMISEA)	$322,000	$322,000	$0	8
40620-001	Replace Bus - (future FTA 5339+ PTMISEA)	$303,000	$ -	$700,000	14
40620-001	Replace Buses - (5310+ PTMISEA)	$303,000	$ -	$240,000	14
40621	Security Improvements (CTSGP)	$ 18,836	$18,836	$ -	9
40610-500	Bus Stop Shelters and Signage (SB-1 SGR)	$ 38,115	$37,000	$ 38,115	
40620-418	Mobile Radio System Improvements	$ 500	$0	$ 500	10
40610-200	Facility Improvements (PTMISEA)	$ 20,000	$4,121	$ 20,000	11
30411	PTMISEA Capital Balance after FY (balance - expends	$ 496,493	$500,000	$ 136,493	12
	TOTAL CAPITAL EXPENSE	$ 1,501,944	$881,957	$ 998,615	
	TOTAL EXPENDITURES	$ 2,857,834	$2,133,890	$ 2,318,865	

RESOLUTION NO. 2019-20-15

REDWOOD COAST TRANSIT AUTHORITY RESOLUTION APPROVING SUBMITTAL OF FISCAL YEAR 2020-21 TRANSPORTATION DEVELOPMENT ACT CLAIM TO DEL NORTE LOCAL TRANSPORTATION COMMISSION FOR OPERATING EXPENSES

WHEREAS, RCTA submits its annual Transportation Development Act Claim Packet to the Del Norte Local Transportation Commission, which, in its official capacity as the designated Regional Transportation Planning Agency, hereafter referred to as the RTPA, is allocating funds for transportation purposes; and

WHEREAS, there is need for moderately low or low-priced transportation in Del Norte County; and

WHEREAS, the transit services in Del Norte County are successful programs; and

WHEREAS, Redwood Coast Transit Authority provides public transportation services on a dial-a-ride and on a fixed-route basis to the citizens of Del Norte County; and

WHEREAS, the proposed expenditure of funds by the Redwood Coast Transit Authority is in accordance with the approved 2016 Del Norte Regional Transportation Plan;

WHEREAS, the available funds include Local Transportation Fund estimate of $725,115 plus $38,164 in Local Transportation Funds for RCTA's CTSA program, and State Transit Assistance Fund estimate of $237,537;

NOW, THEREFORE, BE IT RESOLVED THAT the RCTA hereby claims the following TDA funding through the RTPA for Fiscal Year 2020-21, an allocation from the Local Transportation Fund a sum not to exceed $763,279 and State Transit Assistance Fund a sum not to exceed $237,537, and adjusted quarterly to actual income, to Redwood Coast Transit Authority for transportation purposes pursuant to Public Utilities Code Section 99262 and Transportation Development Act Articles 4 & 4.5 for use by the Redwood Coast Transit Authority for the purpose of funding the operation of dial-a-ride and fixed-route transit services during fiscal year 2020-21.

PASSED AND ADOPTED by the Redwood Coast Transit Authority on the 29th day of June 2020 by the following polled vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

Alex Fallman, Chair
Redwood Coast Transit Authority

ATTEST:

Joseph Rye, General Manager
Redwood Coast Transit Authority

AGREEMENT FOR TRANSIT OPERATIONS AND MAINTENANCE SERVICES
REDWOOD COAST TRANSIT AUTHORITY

THIS AGREEMENT ("Agreement") is made and entered into as of the 1st day of January 2017, by and between the Redwood Coast Transit Authority ("RCTA"), and First Transit, Inc., an independent Contractor ("Contractor") with its national headquarters at 600 Vine Street, Suite 1400, Cincinnati, Ohio 45202-5755 and local business offices for purposes of this Agreement located at 140 Williams Drive, Crescent City, CA 95531..

RECITALS

WHEREAS, RCTA has an ongoing need to contract with an established operations and maintenance contracting entity/company to furnish services as an Operations and Maintenance Contractor to deliver daily public transportation services in Del Norte County, CA, under the moniker of Redwood Coast Transit; services that Contractor is specially trained and experienced and competent to perform; and

WHEREAS, RCTA issued a RCTA Operations and Maintenance Request for Proposals on September 23, 2016 (the "RFP"), Contractor submitted a timely and complete proposal in response on October 13, 2016 (the "Contractor Proposal"), and RCTA deemed Contractor the most qualified to perform the services of Operations and Maintenance Contractor; and

WHEREAS, RCTA has selected Contractor for the Operations and Maintenance Contractor to deliver daily public transportation services in Del Norte County, under the moniker of Redwood;

NOW THEREFORE, in consideration of the work to be rendered and the sums to be paid for that work, and each and every covenant and condition contained in this Agreement, the parties agree as follows:

1. SERVICES

Contractor is engaged by this Agreement as the duly authorized Operations and Maintenance Contractor of RCTA and must provide operations, operations management, maintenance of vehicles, radios, and other equipment, including the 130 Williams Drive Operations & Maintenance facility, data collection and reporting, and a variety of other generally accepted transit operations tasks in connection with its functions. A detailed Scope of Services is appended to this Agreement as Exhibit A. Exhibit A consists of 1) the RFP and 2) the Contractor Proposal. The Scope of Services may be revised or updated from time to time by mutual written agreement of the parties.

2. TERM AND TERMINATION

This Agreement takes effect on January 1, 2017 and continues until December 31, 2021. This Agreement may be extended unilaterally for up to two additional years, in one-year increments at the sole discretion of RCTA. This section serves to explicitly clarify an ambiguity in the RFP Section 1.1.1, which contained a typographic error. This Agreement may be terminated only in accordance with processes detailed in "Termination of Contract", on page 16 of the RFP.

3. INDEPENDENT CONTRACTOR

Contractor is an independent contractor and not an employee of RCTA. At all times during the term of this Agreement, Contractor will be responsible for his/her own property and income taxes, worker's compensation insurance, and any other costs and expenses in connection with the performance of services under this Agreement. RCTA does not have the right to control the means by which Contractor accomplishes services rendered pursuant to this Agreement.

Contractor must provide all his/her own general overhead necessary to perform the required services, including but not limited to office equipment, clerical assistance, utilities, telephone charges, local travel, insurance, and office supplies, and is not entitled to reimbursement for these. Details at this level are contained in the RFP and the Contractor Proposal and are enforceable herein.

4. COMPENSATION

As compensation for the services provided hereunder, RCTA will pay Contractor in accordance with Contractor's Cost Proposal, which is an element of the Contractor Proposal and incorporated herein by this reference and attached hereto as Exhibit A. Contractor will submit invoices reflecting work performed prior to payment for services. Invoices will be submitted to RCTA once per month. Contractor's invoicing procedure must comply with all federal, state, and local laws, policies, and guidelines.

5. RECORDS

Contractor must file and keep all records pertinent to RCTA activities. These are the property of RCTA and Contractor must transfer all records to RCTA upon termination of this Agreement. Contractor will develop and follow a records retention policy that complies with applicable State of California, Caltrans, and Federal Transit Administration laws and policies. Contractor will make all records available to state and local agencies and the public as appropriate and in compliance with California law.

6. INSURANCE

During the term of this Agreement, Contractor must maintain insurance of the types and amounts designated below. Certificates of insurance in the form approved by the Risk Manager of Del Norte County must be filed with the County Risk Manager concurrent with the execution of this Agreement. The insurance must name RCTA as an additional insured on a primary basis for General Liability Insurance and must state that the policy will not be canceled nor the scope of coverage reduced by the insurer except after filing written notice thereof with RCTA 30 days in advance. No work is authorized until the insurance certificates are filed.

a. Commercial General Liability (CGL): Insurance Services Office (ISO) Form CG 00 01 covering CGL on an "occurrence" basis, including products-completed operations, personal & advertising injury, with limits no less than Ten Million Dollars ($10,000,000) per occurrence. If general aggregate limit applies, either the general

aggregate limit will apply separately to this Agreement or the general aggregate limit will be twice the required occurrence limit.

b. Worker's Compensation. As required by the State of California, within Statutory Limits, and Employer's Liability Insurance with limits of no less than One Million Dollars ($1,000,000.00) per accident for bodily injury or disease.

c. Automobile Liability Insurance. ISO Form Number CA 00 01 covering any auto (Code 1), or if Contractor has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limits no less than Ten Million Dollars ($10,000,000.00) per accident for bodily injury and property damage.

7. LICENSES, PERMITS, ETC.

Contractor represents and warrants to RCTA that he/she/it has all licenses, permits, qualifications, and approvals legally required for Contractor perform the services required by this Agreement. If at any time Contractor ceases to have the licenses, permits, qualifications, or approvals required for Contractor to perform the services, Contractor will immediately notify RCTA and this Agreement may be terminated at RCTA's discretion.

8. STANDARD OF PERFORMANCE

Contractor must perform all services required by this Agreement in a manner and according to the standards observed by competent practitioners of the profession in which Contractor is engaged. Failure to perform services in such a manner is grounds for termination of this Agreement.

9. INDEMNITY

Contractor must defend, indemnify, and hold harmless RCTA and its elected and appointed officers, agents, and employees from any liability for damage or claims for damage for personal injury, including death, as well as for property damage, which may arise from the intentional or negligent acts or omissions of Contractor in the performance of services rendered under this Agreement.

10. THE CIVIL RIGHTS, HCD, AND AGE DISCRIMINATION ACTS

During the performance of this Agreement, Contractor ensures that no otherwise qualified person will be excluded from participation or employment, denied program benefits, or be subjected to discrimination on the basis of race, color, national origin, sex, age, or handicap, under any program or activity funded by this contract, as required by Title VI of the Civil Rights Act of 1964, Title I of the Housing and Community Development Act of 1974, as amended, and the Age Discrimination Act of 1975, and all implementing regulations.

11. STATE NONDISCRIMINATION CLAUSE

During the performance of the services required by this Agreement, Contractor and any subcontractors must not discriminate against any employee or applicant for employment on the basis of race, religion, color, national origin, ancestry, physical handicap, medical condition, marital status, age (over 40), or sex. Contractor and any subcontractors will ensure that the evaluation and treatment of any employees and applicants for employment are free of such

discrimination. Contractor and any subcontractors will comply with the provisions of the Fair Employment and Housing Act and the applicable regulations, which are incorporated by this reference. Contractor and any subcontractors will give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining agreement.

12. CONFLICT OF INTEREST

No Congressional representative and no resident commissioner may receive any benefit from this grant agreement or activity. None of the Contractor's officers, members or employees, designees or agents, governing board members, or other officials of Contractor have any interest in any contracts or proceeds for the work done in conjunction with this Agreement other than payment for services provided under this Agreement.

13. DRUG-FREE WORKPLACE CERTIFICATION

The Contractor certifies, when signing this Agreement, that it complies with the Drug-Free Workplace Act of 1990 and will take the following actions, if necessary:

a. Publish a statement to notify the Contractor's employees, if any, of prohibition of the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance and tell them what actions may be taken against them for violations;
b. Establish a Drug-Free Awareness Program to inform employees, if any, of the danger of drug abuse at work, the Contractor's drug-free workplace policy, and available employee assistance programs, and the penalties for violation of the drug-abuse policies; and
c. Give every employee, if any, a copy of the drug-free policy statement and require they abide by its terms as a condition of employment.

14. AMERICANS WITH DISABILITIES ACT (ADA) OF 1990

Contractor must comply with the ADA and applicable regulations and guidelines thereof, which prohibit discrimination on the basis of disability in employment, state and local government service, and in public accommodations and commercial facilities.

15. NOTICE TO PARTIES

All notices to be given by the parties to this Agreement shall be in writing and served by depositing same in the United States mail, postage prepaid, registered or certified mail.

Notices to RCTA shall be addressed to:

TMTP Consulting
1275 4th Street, #733
Santa Rosa, CA 95404

Notices to Contractor shall be addressed to:

First Transit
140 Williams Drive.
Crescent City, CA 95531

Attention: General Manager

With a copy to:

FirstGroup America
600 Vine Street, Suite 1400
Cincinnati, OH 45202
Attention: General Counsel

RCTA or Contractor may change its address of record for receipt of official notice by giving the other written notice of such change and any necessary mailing instructions.

16. COMPLIANCE WITH LAWS.

Contractor will comply with all federal, state, and local laws and ordinances applicable to the work performed under this Agreement. Contractor is responsible for understanding and adhering to laws and policies specific to the work performed under this Agreement. The exclusion of an applicable law, policy, or guideline from this Agreement does not excuse Contractor from responsibility for knowing and following such law, policy, or guideline. Contractor's failure to comply with applicable law, policy, or guideline is grounds for early termination of this Agreement.

17. MONITORING AND AUDITING

Contractor agrees to be subject to monitoring and auditing by RCTA and any other entity legally entitled to account for funds expended for performance under the terms of this Agreement. Such monitoring may include, but not be limited to, monitoring for compliance with RCTA's state and federal contracts.

18. GOVERNING LAW AND CHOICE OF FORUM

This Agreement will be administered and interpreted under California law. Any litigation arising from this Agreement must be brought in Superior Court of Del Norte County.

19. COSTS AND ATTORNEYS FEES

If any party commences any legal action against the other party arising out of this Agreement of the performance thereof, the prevailing party in such action may recover its reasonable litigation expenses, including court costs, expert witness fees, discovery expenses, and attorneys' fees.

20. SEVERABILITY

If any court of competent jurisdiction or subsequent preemptive legislation holds or renders any of the provisions of this Agreement unenforceable or invalid, the validity and enforceability of the remaining provisions, or portions thereof, will not be affected.

21. ENTIRE AGREEMENT

This Agreement, along with the RFP, and the Contractor Proposal, combine to form the entire agreement between the parties with respect to its subject matter. This Agreement may be amended from time to time by the written approval of both parties; however exercise of the extension option years is a unilateral right held solely by RCTA.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement to commence on January 1, 2017.

REDWOOD COAST TRANSIT AUTHORITY:

By: Roger Gitlin, Board Chair

Date: 2/15/17

APPROVED AS TO FORM:

Autumn E. Luna, Counsel
Redwood Coast Transit Authority

CONTRACTOR:

Nick Promponas, First Transit

Date: 2/7/17

RESOLUTION NO. 2020 13

DEL NORTE LOCAL TRANSPORTATION COMMISSION RESOLUTION ALLOCATING FUNDS TO REDWOOD COAST TRANSIT AUTHORITY FOR OPERATING EXPENSES

WHEREAS, the Del Norte Local Transportation Commission in its official capacity as the designated Regional Transportation Planning Agency, hereafter referred to as the RTPA, is allocating funds for transportation purposes; and

WHEREAS, there is need for moderately low or low priced transportation in Del Norte County; and

WHEREAS, the operation of dial-a-ride and fixed-route transit services in Del Norte County are successful transportation programs; and

WHEREAS, Redwood Coast Transit Authority provides public transportation services on a dial-a-ride and on a fixed-route basis to the citizens of Del Norte County; and

WHEREAS, the proposed expenditure of funds by the Redwood Coast Transit Authority is in accordance with the approved 2016 Del Norte Regional Transportation Plan;

WHEREAS, the available funds include Local Transportation Fund estimate of $725,115, $38,164 in Local Transportation Funds for RCTA's CTSA program, and State Transit Assistance Fund estimate of $237,537;

NOW, THEREFORE, BE IT RESOLVED THAT the RTPA hereby allocates the following TDA funding for Fiscal Year 2020-21: From the Local Transportation Fund a sum not to exceed $763,279 and State Transit Assistance Fund a sum not to exceed $237,537, and adjusted quarterly to actual income, to Redwood Coast Transit Authority for transportation purposes pursuant to Public Utilities Code Section 99262 and Transportation Development Act Articles 4 & 4.5 for use by the Redwood Coast Transit Authority for the purpose of funding the operation of dial-a-ride and fixed-route transit services during fiscal year 2020-21.

PASSED AND ADOPTED by the Del Norte Local Transportation Commission on the 7th day of July 2020 by the following polled vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Chris Howard, Chair
Del Norte Local Transportation Commission

ATTEST:

_____
Tamera Leighton, Executive Director
Del Norte Local Transportation Commission

RESOLUTION NO. 2020 14

DEL NORTE LOCAL TRANSPORTATION COMMISSION
ALLOCATION FOR ADMINISTRATIVE AND PLANNING PURPOSES

WHEREAS, the Del Norte Local Transportation Commission in its official capacity as the designated Regional Transportation Planning Agency, hereafter referred to as the RTPA, is allocating funds for administrative and planning purposes; and

WHEREAS, the projected reasonable administrative and planning expenses for the RTPA for fiscal year 2020-21 will be approximately the sum of $76,000; and

WHEREAS, the projected expenses are necessary and reasonable;

NOW, THEREFORE, BE IT RESOLVED THAT the RTPA hereby allocates the sum of $76,000 for administrative and planning purposes pursuant to the Public Utilities Code Section 99233.1 and hereby authorizes the RTPA to expend said funds on all reasonable and necessary administrative and planning purposes, including the following:

Work Element B1: Overall Work Program Development	$10,000
Work Element C2: Partnerships and Planning Agreements	$10,000
Work Element E1-3: TDA Administration and Fiscal Management	$56,000

PASSED AND ADOPTED by the Del Norte Local Transportation Commission on the 7nd day of July 2020, by the following polled vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Chris Howard, Chair
Del Norte Local Transportation Commission

ATTEST:

_____
Tamera Leighton, Executive Director
Del Norte Local Transportation Commission

RESOLUTION NO. 2020 15

DEL NORTE LOCAL TRANSPORTATION COMMISSION RESOLUTION ALLOCATING FUNDS FOR PEDESTRIAN AND BICYCLE PURPOSES

WHEREAS, the Del Norte Local Transportation Commission, in its official capacity as the designated Regional Transportation Planning Agency, hereafter referred to as the RTPA, is allocating funds for pedestrian and bicycle purposes; and

WHEREAS, bicyclists and pedestrians have special needs in Del Norte County; and

WHEREAS, the RTPA has adopted an Active Transportation Plan;

NOW, THEREFORE, BE IT RESOLVED THAT the RTPA hereby allocates an amount not to exceed $15,577, and adjusted quarterly to actual income, for bicycle and pedestrian purposes pursuant to Public Utilities Code Section 99233.3 and directs that such funds be held until approval of a specific claim utilizing said funds pursuant to California Administrative Code Section 6655.2.

PASSED AND ADOPTED by the Del Norte Local Transportation Commission on the 7th day of July 2020, by the following polled vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Chris Howard, Chair
Del Norte Local Transportation Commission

ATTEST:

_____
Tamera Leighton, Executive Director
Del Norte Local Transportation Commission

Del Norte Local Transportation Commission

Elk Valley Cross Road Corridor Plan

01-DN-EVCR
PM 0.0-1.5
May 2020

In Del Norte County, along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive, Crescent City, California
PM 0.0 to 1.5

I have reviewed the information contained in this Plan and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate:

Brian R Stephenson

Brian Stephenson, Dokken Engineering

Date: 06/09/20

I hereby certify that according to the provisions of Government Code Section 25103, delivery of this document has been made.

Clerk of the Board

By: Kylie Gorshnova

Tamera Leighton

Tamera Leighton, Executive Director
Del Norte Local Transportation Commission

Gerry Hemmingsen

Gerry Hemmingsen, Chair
Board of Supervisors

06/09/20

Date

This Corridor Plan has been prepared under the direction of the following Registered Engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

Brian R Stephenson

REGISTERED CIVIL ENGINEER

5/28/2020

DATE

Table of Contents

1. INTRODUCTION

Brief Project Description:

The Elk Valley Cross Road Corridor Plan proposes to improve safety and address traffic crash rates. The Corridor Plan includes improvements to pedestrian and bicycle facilities, lateral sight distance improvements and intersection improvement alternatives.

See the cost estimates for specific work items included in each alternative.

Project Limits (Dist., Co., Rte., PM)	01-DN-EVCR-PM 0.0-1.5
Number of Alternatives:	10, Roadway Segments and Intersections
Programmed or Proposed Capital Construction Costs	Varies
Programmed or Proposed Capital Right of Way Costs:	Varies
Programmed or Proposed Support Costs:	Varies
Funding Source:	To Be Determined
Type of Facility (conventional, expressway, freeway):	Conventional
Number of Structures:	0
Anticipated Environmental Determination/Document	Initial Study/Mitigated Negative Declaration /Categorical Exclusion
Legal Description	In Del Norte County, along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive, Crescent City, California.

2. BACKGROUND

Elk Valley Cross Road (EVCR) is a 1.5 mile stretch of roadway between Lake Earl Drive and Parkway Drive. Within this segment of roadway, US Highway 101 (US-101) and US Highway 199 (US-199) intersect Elk Valley Cross Road with at-grade intersections. Elk Valley Cross Road is classified as a Rural Major Collector for its entirety and currently consists of a two lane cross section with 12' standard lanes and shoulder widths 8' wide from Lake Earl Drive to Wonder Stump Road, 0'-1' wide from Wonder Stump Road to US 199 and 4' wide from US 199 to Parkway Drive. This roadway serves residential neighborhoods, Sunset High School, Kings Valley Golf Course, Florence Keller Regional Park, and is the direct connecting route from US 199 eastbound to northbound US 101. EVCR indirectly serves traffic commuting to the Pelican Bay State Prison which is located off Lake Earl Drive. Bicycles and pedestrian traffic were observed along EVCR even though a continuous paved shoulder does not exist. The Elk Valley Cross Road Corridor Plan is a product of the Del Norte Local Transportation Commission. Alternatives have been evaluated for the roadway segments defined in this report, for each at-grade intersection of EVCR and US 101 and US 199, and for two local road connections.

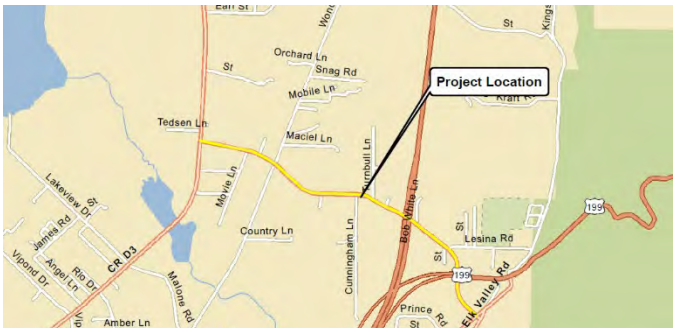


Figure 1 Project Location Map

3. PURPOSE AND NEED STATEMENT

Need:

Improvements along Elk Valley Cross Road are needed to address safety. The existing major intersections have a collision rate higher than the local, county and statewide averages for similar roadways. The existing corridor does not meet current design standards.

Purpose:

The purpose of the Elk Valley Cross Road Corridor Plan is to provide conceptual engineering design alternatives to improve safety for all users (motorists, bicyclists, and pedestrians) along Elk Valley Cross Road.

Other Goals and Objectives

- Provide a paved shoulder for bicycle and pedestrian use.
- Identify collision rates at intersections.

- Identify sight distance deficiencies along the existing corridor.
- Identify existing environmental constraints along the corridor.
- Identify existing Right of Way constraints along the corridor.

4. DEFICIENCIES

The existing alignment was compared to the December 2018 version of the Caltrans Highway Design Manual (HDM). Based on the standards and guidance set forth by the HDM, there are geometric features present along the Elk Valley Cross Road that do not meet the HDM standards. Several road intersections along EVCR do not offer the minimum corner sight distant required for the posted speed limit of 45 mph on EVCR.

There are nonstandard shoulder width and non-motorized facility deficiencies along the current corridor between Wonder Stump Lane and Elk Valley Road. Alternatives in this Plan propose to provide paved shoulder widening to the 4' wide standard width for use by bicycle and pedestrian traffic.

At the intersection of EVCR and US 101, the unsignalized at-grade intersection configuration with a median refuge serves as a nonstandard intersection between a multilane highway and two-lane rural connector. At the intersection of EVCR and US 199, the unsignalized at-grade intersection lane configuration was modified between 2005 and 2009 to reduce approaching westbound US 199 traffic from two approaching lanes to one approaching through lane before entering the intersection. Since those modifications, the intersection continues to have collisions and in 2014 one of those crashes resulted in a fatality. The existing corner sight distance from the southern EVCR approach to eastbound US 199 approaching vehicles does not meet the current HDM Section 405.1(2) Corner Sight Distance for approaching speeds of 55 MPH (due to right of way limitations) or 45 MPH (due to vegetation limitations and road signs blocking view).

For the minor roadway intersections along EVCR, deficiencies in sight distance have resulted in concentrations of crashes, discussed in the Collision Data below.

Traffic Data

Intersection and traffic volumes were monitored on Tuesday, May 7, 2019 at both AM and PM peak hour period. Roadway traffic volumes were conducted on the same day with continuous 24-hour traffic volume counts. The Level of Service (LOS) was evaluated as B, signifying no increase in capacity is required for this roadway. A few traffic generators observed include Sunset High School, Florence Keller Regional Park, Kings Valley Golf Course and Pelican Bay State Prison located north of EVCR off Lake Early Drive. One noted traffic generator for the segment located between US 199 and US 101 is that

westbound US 199 traffic must travel EVCR to go northbound on US 101. That required movement generated more truck traffic (3.9% of total) in this segment over other segments.

Collison Data

Historical crash data for EVCR between 2009-2019 was gathered using the State Wide Integrated Records System (SWITRS). Table 1 below discusses crash data by intersection location and Table 2 details crash data by roadway segment. More details and an exhibit showing the segments can be found in the Existing Conditions Report, Attachment F. Tables 3 and 4 show the comparison of roadway and intersection crash rates to the regional averages for rural 2 and 3 lane roadways statewide, district wide, and county wide.

Roadway segment crash rates exceed Statewide average in the segment between Wonder Stump Road and US 101. The existing sight distance limitations, limited clear recovery area and narrow shoulder widths could be contributing factors along this segment. Five of the six intersection crash rates along EVCR are higher than State and County averages, in collisions per million vehicle miles (mvm), when compared to similar intersection types. Both major intersections; US 101 and US 199, exceed the statewide averages. The US 101 intersection being over 2 times the statewide average crash rates and US 199 being 7 to 8 times the Statewide Average. The intersection of EVCR with US 199 should be the focus of improvements made to EVCR to optimize the safety benefits initiated by this corridor plan.

Supplemental information can be found in Attachment F, Elk Valley Cross Road Existing Conditions Report, along with a collision summary table.

TABLE 1: Elk Valley Cross Road - Crash Data by Intersection Location

2009 to 2018 Includes Crashes on Cross Streets Within 200 Feet of the Intersection
Does not include crashes on Elk Valley Cross Road greater than 200' from the intersections listed

			Crashes By Severity				Crashes by Type							Weather			Lighting				
Intersecting Street	Total Study Intersection Crashes	% Total Crashes	Property Damage Only	Injury	Fatality	Alcohol Involved	Broadside	Sideswipe	Rear End	Hit Object	Head-On	Auto/Ped	Other	Clear	Cloudy	Raining	Daylight	Dusk/Dawn	Dark- ST LTS	Dark- NO ST LTS	Other
Lake Earl Drive	7	12%	6	1	0	1	2	0	0	4	0	0	1	2	3	2	4	0	0	2	1
Wonder Stump Road	5	8%	3	2	0	0	0	0	1	2	0	0	2	4	1	0	4	0	1	0	0
High School Driveway	1	2%	1	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0
Cunningham Lane	1	2%	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0
US 101	18	31%	10	8	0	1	13	1	1	3	0	0	0	11	6	1	14	0	3	1	0
SR 199	21	36%	10	10	1	0	12	1	1	7	0	0	0	11	5	5	18	0	2	1	0
Parkway Drive	5	9%	3	2	0	0	1	0	1	2	1	0	0	4	1	0	4	0	0	1	0
TOTAL	**58**	**100%**	**34**	**23**	**1**	**2**	**28**	**2**	**4**	**20**	**1**	**0**	**3**	**33**	**16**	**9**	**45**	**0**	**6**	**6**	**1**
% Study Intersection Crashes			**58%**	**40%**	**2%**	**3%**	**49%**	**3%**	**7%**	**34%**	**2%**	**0%**	**5%**	**56%**	**28%**	**16%**	**78%**	**0%**	**10%**	**10%**	**2%**

Note: No crashes invloving bicyclists or pedestrians were reported at the intersections.

Source: SWITRS, NHTSA

Source: LSC Transportation Consultants Inc. EVCR Crash Tables.xls

TABLE 2: Elk Valley Cross Road - Crash Data by Roadway Segment

2009 to 2018 Includes Crashes on Street Segments Greater than 200 Feet From Intersections
Does not include crashes within 200' of the study intersections

On Elk Valley Cross Road Between	And	Total Study Segment Crashes	Property Damage Only	Injury	Fatality	Bike/Ped Involved	Alcohol Involved	Crashes by Type							Weather				Lighting			
								Broadside	Sideswipe	Rear End	Hit Object	Head-On	Auto/Ped	Other	Clear	Cloudy	Raining	Fog	Daylight	Dusk/Dawn	Dark-ST LTS	Dark-NO ST LTS
Lake Earl Drive	Wonder Stump Road	1	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0
Wonder Stump Road	US 101	7	1	6	0	1	2	0	0	2	4	0	0	1	2	5	0	0	6	0	0	1
US 101	SR 199	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SR 199	Parkway Drive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		**8**	**1**	**7**	**0**	**1**	**2**	**0**	**0**	**3**	**4**	**0**	**0**	**1**	**2**	**6**	**0**	**0**	**7**	**0**	**0**	**1**
% Roadway Segment Crashes								**0%**	**0%**	**38%**	**50%**	**0%**	**0%**	**12%**	**25%**	**75%**	**0%**	**0%**	**88%**	**0%**	**0%**	**12%**

Note 1: ST LTS = Street lights
Source: SWITRS
Source: LSC Transportation Consultants, Inc.

TABLE 3: Intersection Crash Rates

2009 to 2018 Includes Crashes on Cross Streets Within 200 Feet of the Intersection

Intersecting Street with Elk Valley Cross Road	Intersection Crashes			Actual Crash Rate (Crashes per MV)[1]		Percent of Statewide Average Rate		Statewide Average Crash Rate By Intersection Type (Crashes per MV) [1]	
	Total	Injury or Fatality	% Injury Crashes	Total	Injury or Fatality	Total	Injury or Fatality	Total	Injury or Fatal
Lake Earl Drive	7	1	14%	**0.35**	0.05	**219%**	76%	0.16	0.07
Wonder Stump Road	5	2	40%	**0.46**	**0.19**	**211%**	**184%**	0.22	0.10
Cunningham Lane	1	0	0%	0.10	0	60%	0%	0.16	0.07
US 101	18	8	44%	**0.53**	**0.24**	**241%**	**234%**	0.22	0.10
SR 199	21	11	52%	**1.56**	**0.82**	**711%**	**811%**	0.22	0.10
Parkway Drive	5	2	40%	**0.63**	**0.25**	**287%**	**250%**	0.22	0.10
TOTAL	**58**	**24**	**41%**						
% Study Intersection Crashes									

Note: MV = Million Vehicles entering intersection
Note 1: Bold indicates a crash rate higher than the average rate
Source: SWITRS, NHTSA, 2015 Collision Data on California State Highways
Source: LSC Transportation Consultants Inc.
EVCR Crash Tables.xls

TABLE 4: Roadway Segment Crash Rates

2009 to 2018 Includes Crashes on Street Segments Greater than 200 Feet From Intersections

Between	And	Total Study Segment Crashes	Crashes By Severity: Property Damage Only	Injury	Fatality	Bike/Ped Involved	Total Persons Injured	Crashes Per Million Vehicle Miles (MVM): Total Crash Rate	Injury Crash Rate
Lake Earl Drive	Wonder Stump Road	1	0	1	0	0	0	0.41	0.41
Wonder Stump Road	US 101	7	1	6	0	1	1	**1.28**	**1.1**
US 101	SR 199	0	0	0	0	0	0	0	0
SR 199	Parkway Drive	0	0	0	0	0	0	0	0
TOTAL		**8**	**1**	**7**	**0**	**1**	**1**		
% Roadway Segment Crashes			**13%**	**88%**	**0%**	**13%**	**13%**		
Regional Averages (Rural 2 and 3 Lane)									
Statewide								1.04	0.48
Caltrans District 1								1.48	0.68
Del Norte County								1.38	0.71

Note: **Bold** indicates an exceedance of at least one average rate

Source: SWITRS, Statewide and Del Norte County crash rates are from Caltrans's 2015 Collision Data on California Highways Publication

Note: Statewide and District 1 Injury Crash Rate reflects Injury + Fatality Accident Rate.

Source: LSC Transportation Consultants, Inc.

TABLE 5: Intersection Crash Rates

2009 to 2018 Includes Crashes on Cross Streets Within 200 Feet of the Intersection

Intersecting Street with Elk Valley Cross Road	Intersection Crashes: Total	Injury or Fatality	% Injury Crashes	Actual Crash Rate (Crashes per MV)[1]: Total	Injury or Fatality	Percent of Statewide Average Rate: Total	Injury or Fatality	Statewide Average Crash Rate By Intersection Type (Crashes per MV) [1]: Total	Injury or Fatal
Lake Earl Drive	7	1	14%	**0.35**	0.05	**219%**	76%	0.16	0.07
Wonder Stump Road	5	2	40%	**0.46**	**0.19**	**211%**	**184%**	0.22	0.10
Cunningham Lane	1	0	0%	0.10	0	60%	0%	0.16	0.07
US 101	18	8	44%	**0.53**	**0.24**	**241%**	**234%**	0.22	0.10
SR 199	21	11	52%	**1.56**	**0.82**	**711%**	**811%**	0.22	0.10
Parkway Drive	5	2	40%	**0.63**	**0.25**	**287%**	**250%**	0.22	0.10
TOTAL	**58**	**24**	**41%**						
% Study Intersection Crashes									

Note: MV = Million Vehicles entering intersection

Note 1: Bold indicates a crash rate higher than the average rate

Source: SWITRS, NHTSA, 2015 Collision Data on California State Highways

Source: LSC Transportation Consultants Inc.

EVCR Crash Tables.xls

5. CORRIDOR AND SYSTEM COORDINATION

Elk Valley Cross Road Corridor Plan was developed to initiate multimodal and intersection safety improvements along the adjacent Elk Valley Cross Road. This conceptual document will complement the Elk Valley Road Multimodal Corridor Plan in providing for safer multimodal travel in the rural area north of the Crescent City limits.

Elk Valley Cross Road is classified as a Major Collector county road by the 2016 Del Norte County Regional Transportation Plan. Major collectors connect to arterials or regional destinations. Elk Valley Cross Road serves as a connector between US 101 and US 199.

6. ALTERNATIVES

Alternatives have been developed for the Corridor Plan that include lane and shoulder widening, intersection improvements, sight distance improvements, re-striping and no-build. The following description of the alternatives gives location, types and limits of the improvements. Following the alternatives, is the planning level cost estimates associated with each alternative that has estimated costs for construction, right of way, environmental mitigation, preliminary engineering, and construction engineering for a total estimated cost. All alternatives increase the shoulder width and the distance from the edge of traveled way to any fixed object to improve the Clear Recovery Zone (CRZ).

Segments developed are shown in the Attachment B, described as follows:

- Segment 1 - Lake Earl Drive to Wonder Stump Road (1,677 ft)
- Segment 2 – Wonder Stump Road to US 101 (3,340 ft)
- Segment 3 – US 101 to Parkway Drive (2,720 ft)
- Intersection of Movie Lane/Wonder Stump Road with EVCR
- Intersection of Cunningham Lane with EVCR
- Intersection of EVCR and US 101
- Intersection of EVCR and US 199

Alternatives have been developed for both roadway segments and intersections separately to differentiate the improvement options available for the EVCR. Intersection improvements involving the State Right of Way (US 101 and US 199) will require approval by Caltrans, District 1, as alternatives are advanced through the project development process.

Roadway Segment 1 <u>Lake Earl Drive to Wonder Stump Road</u> (1,677 ft) Alternatives

Roadway Segment 1 Improvement Alternative A: Shoulder widening would not require any changes. The existing shoulder widths of 6’ to 8’ satisfy current design standards resulting in no proposed improvement to this segment under Alternative A.

Roadway Segment 1 Improvement Alternative B: Two-Way Left Turn Lane will begin restriping the roadway west of the Movie Lane intersection. Additional widening would need to occur to accommodate the new 12’ left turn lane for westbound traffic turning onto Movie Lane. Continue widening for the

left turn lane for eastbound traffic turning onto Wonder Stump Road. Widening would require tree and vegetation removal, utility pole relocations and potential fence line relocations to establish a 60' wide County Right of Way width. Road connections would be reconstructed to connect to the widened roadway.

Roadway Segment 2 <u>Wonder Stump Road to US 101</u> (3,340 ft) Alternatives

Roadway Segment 2 Improvement Alternative A: Shoulder widening construct standard 4' shoulder widths on both sides of the EVCR from Wonder Stump Road to US 101. The existing roadside utilities and drainage ditch will need to be relocated to construct the standard shoulder widths. A 60-foot wide Right of Way corridor would be secured for lengths that have deficient width to contain the standard lane, shoulders, drainage ditches and utility pole relocations. The 4' paved shoulder would be striped and signed as a Class 2 bike lane.

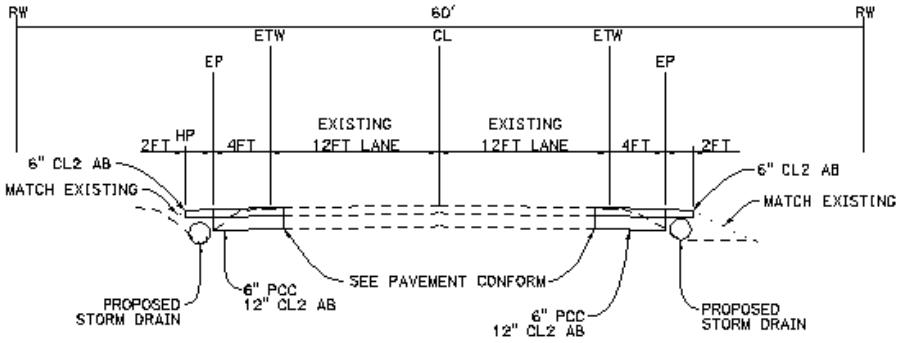


Figure 2 Alternative A, Roadway Segment 2

Roadway Segment 2 Improvement Alternative B: Two-Way Left Turn Lane will continue the widening and restriping of EVCR from Wonder Stump Road to the Park Exit road connection before US 101. This length of two-way left turn lane would improve the intersection sight distance of all connecting roads along this segment, as well as allow for safer movement of vehicles to and from the EVCR corridor. This length would require utility pole relocations, right of way acquisitions, ditch excavation and vegetation removal.

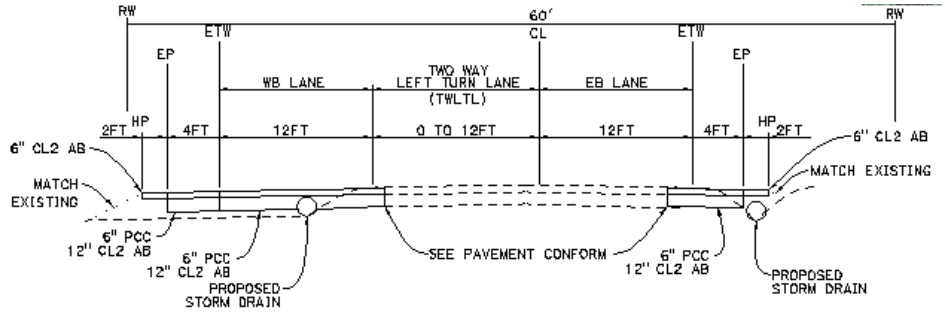


Figure 3 Alternative B, Roadway Segment 2

Roadway Segment 3 US 101 to Parkway Drive (2,720 ft) Alternatives

Roadway Segment 3 Improvement Alternative A: Shoulder widening construct standard 4' shoulder widths on both sides of the EVCR from US 101 to US 199. Elk Valley Cross Road from US 199 to Parkway Drive already has sufficient shoulder width and therefore does not need further improvement with this alternative. The 4-foot paved shoulders would be striped and signed as a Class 2 bike lane.

The following alternatives address improvements at specific intersections along the corridor that have been identified as needing improvement.

Intersection Improvement: Movie Lane & Wonder Stump Road and EVCR Turn Pocket

The Movie Lane and Wonder Stump Road turn pocket would widen the EVCR corridor from Movie Lane to east of Wonder Stump Road as shown on the exhibit. Restriping would be necessary to allow for a left merge lane for traffic merging onto EVCR moving westbound from Movie Lane, and eastbound from Wonder Stump Road.

Intersection Improvement: Cunningham Lane Turn Pocket

The Cunningham Lane turn pocket would widen the EVCR corridor from Sunset High School to the exit for Florence Keller Regional Park. This length of widening will require right of way acquisition, tree removal and utility pole relocations. A dedicated turning movement for westbound EVCR traffic turning into Cunningham Lane is provided with the turn pocket. The widening west of the intersection allows for a safety refuge for Cunningham Lane traffic turning westbound onto EVCR.

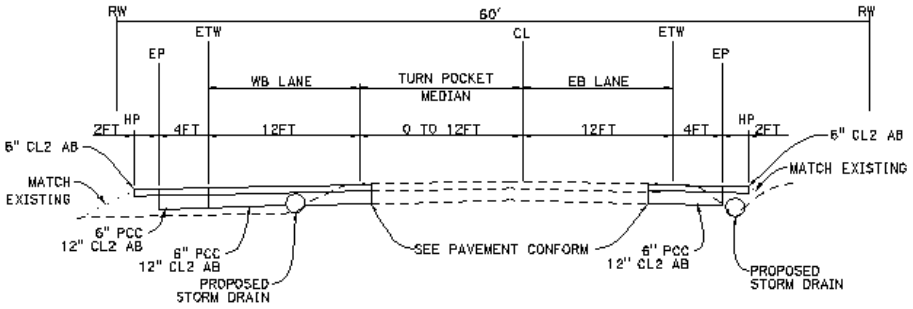


Figure 4 Cunningham Lane Turn Pocket, Intersection Improvement

Intersection Improvement: US 101 and EVCR Alternative A, Signing and Striping Improvements

The existing intersection of US 101 and EVCR is a nonstandard at-grade intersection configuration which involves a refuge area in the median of the US 101 traffic. Proposed signing and striping to improve the median refuge area by delineating the refuge space available to both directions of traffic.

Signing will assist the drivers in understanding traffic flow patterns of this configuration; only one vehicle space is available in the median refuge for each direction of traffic. EVCR traffic must yield to major road traffic and median refuge traffic. This alternative is proposed to improve the traffic pattern in the median refuge area.

Intersection Improvement: US 101 and EVCR Alternative B, Restricted Crossing U-Turn (RCUT)

The restricted Crossing U-Turn configuration at the intersection of US 101 and EVCR will require signing, striping, early lane reduction of the northbound US 101 traffic, late lane addition of the southbound US 101 traffic, and additional median paving for the separated U-turn crossing locations. This alternative is based on FHWA design standards.

Restricted Crossing U-Turn (RCUT)/Superstreet Intersection – RCUT is an intersection design to improve safety and operations while not changing any of the movements possible from the major road. Drivers stopped on Elk Valley Cross Road (EVCR) waiting to cross or turn left onto US 101 would not have to navigate an intersection of two directions of traffic traveling at high speeds along US 101. Through and left turn EVCR traffic makes a right turn onto US 101, followed by a U-TURN to continue in the desired direction. The RCUT is used as an alternative to signalization and would maintain US 101 as an unsignalized expressway/major highway. The RCUT intersection configuration will reduce the vehicle to vehicle conflict points and reduce the potential conflict severity (reduces the number of potential broadside impact conflict points). The RCUT can support multimodal goals with bicycle crossings that are provided with bike lanes and bike lane buffers with a refuge island in the median to provide through and left turn movements for the bikes.

Intersection Improvement: US 101 and EVCR Alternative C, US 101 Single Lane Through Intersection, Signing and Striping Improvements

This alternative proposes to reduce the northbound US 101 traffic down to one lane before the intersection and postpone the increase in lanes for traffic traveling southbound on US 101. The reduction of through lanes entering into the US 101 and EVCR intersection reduces the conflict points at this location. EVCR traffic stop bars would move closer into the center of the intersection to reduce the distance needed to cross the highway. This would improve sight distance for the traffic on EVCR and greater stopping sight distance for US 101 highway traffic. Additional signing and striping would occur in the median refuge area to improve the path of travel for the traveling public, as discussed in Alternative A, Intersection Improvement for this intersection.

Intersection Improvement: US 101 and EVCR Alternative D, Roundabout

This alternative proposes to construct a 160 ft diameter inscribed circle, single lane roundabout located at the intersection of US 101 and EVCR. The roundabout would require updated intersection lighting and approach signing on both the EVCR and US 101 approaches. The roundabout may include a crosswalk for safe multimodal travel. This alternative would allow for yield controlled separated right turning movement from northbound US 101 to eastbound EVCR which includes a high volume of traffic generated from the connection between westbound US 199 and northbound US 101. A roundabout could handle the future traffic volume growth on US 101. The design speed for the roundabout would be per current guidelines (20 mph) and approaching roadway geometrics adjusted to reduce the approaching vehicle speeds before reaching the entrance yield line.

Intersection Improvement: US 199 and EVCR Alternative A, Signing, Striping and Glare Reduction

This alternative proposes to clear the Clear Recovery Zone (CRZ) within the corner sight distance length for the westbound EVCR traffic looking west at the northbound US 199 on-ramp. The existing corner sight distance is obstructed by the "Do Not Enter" ramp signs, the tall grass length, and tree limbs. The additional clearing proposed for corner sight distance is for the design speed of the northbound US 199 ramp of 45 mph.

To further implement the existing advisory 45mph speed limit, a speed radar feedback has been installed. Additional efforts to reduce traffic speed on this ramp include adding a flashing beacon to the "Cross Traffic Ahead" sign and implementing the Speed Reduction Markings as supported by Section 3B.22 of the MUTCD. Speed reduction markings (see figure below) are transverse markings that are placed on the roadway within a lane, perpendicular to the lane lines, in a pattern of progressively reduced spacing to give drivers the impression that their speed is increasing. These markings might be placed in advance of an unexpectedly severe horizontal or vertical curve or other roadway feature where drivers need to decelerate prior to reaching the feature and where the desired reduction in speeds has not been achieved by the installation of warning signs and/or other traffic control devices. Del Norte County performed a speed survey for northbound US 199 vehicles on March 26 at the intersection. The results indicate that the 85th percentile speed observed that day for 100 vehicles was 58 mph, which is above the posted 55 mph and the advisory 45 mph.

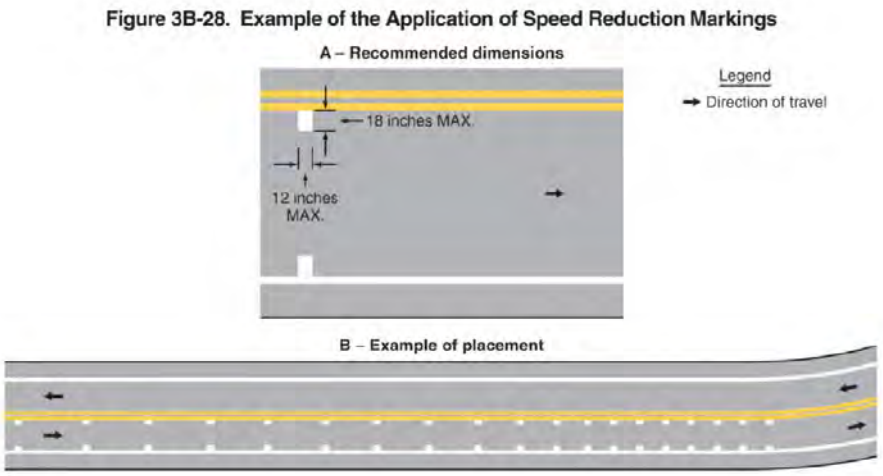


Figure 5 Speed Reduction Striping per MUTCD Fig 3B-28

Other additional improvements include yield striping on the US 199 to US 101 turn movement which is serves as a connection between both routes for traffic traveling from westbound US 199 to northbound US 101. This yield striping will ensure that the connecting traffic is acknowledging and yielding to the intersection traffic and will prevent the broadside and sideswipe collisions for this short merge distance.

Intersection Improvement: US 199 and EVCR Alternative B, Traffic Signal

This improvement would require the installation of traffic signals at all four branches of the four-way intersection, as well as restriping and resigning at the approaches of each roadway.

Signals offer the maximum control at intersections and the primary function is to assign right-of-way to conflicting movements. Low traffic counts suggest no objectionable backup would occur at any of the intersecting branches. This alternative allows for the minor movements, such as EVCR local traffic crossing the US 199 route, to navigate through the intersection with right of way *if* the traveling public complies to the signal. However, as described in the Table 6 below, adding a traffic signal may increase collision rates at this intersection. This alternative was analyzed to provide a comparison of a more traditional intersection configuration to that of a roundabout.

Intersection Improvement: US 199 and EVCR Alternative C, Roundabout

This alternative proposes to construct a 150 ft diameter inscribed circle roundabout located at the intersection of US 199 and EVCR. The roundabout would require additional Right of Way and updated intersection lighting and approach signing on both the EVCR and US 199 approaches. The roundabout

may include a crosswalk on one approach for safe multimodal travel. The nearby private driveways would be modified to conform to the new road geometrics. This alternative would allow for yield controlled separated right turning movement from westbound US 199 to westbound EVCR which includes a high volume of traffic generated from the connection between westbound US 199 and northbound US 101. A roundabout could handle the future traffic volume growth on US 199. The design speed of the roundabout would be 20 mph. The comparison of traffic control options at EVCR and US 199 is described below.

COMPARISON OF TRAFFIC CONTROL OPTIONS AT ELK VALLEY CROSS ROAD / US 199 -- IMPACTS ON TRAFFIC SAFETY

Traffic safety at the key intersection of Elk Valley Cross Road and US Highway 199 would be impacted by changes in the traffic controls. Table 6 below presents an analysis of the existing controls (Stop signs on the Elk Valley Cross Road approaches only) in comparison with a traffic signal and with a roundabout. Key results are as follows:

- Over the most recent 10-year period, there were a total of 21 crashes at or within 200' of the intersection, of which 11 resulted in injuries and the remaining 10 resulted in property damage only. This corresponds to a rate of 1.56 total crashes per Million Vehicle Movements (MVM) and 0.82 injury or fatal crashes per MVM. In comparison with statewide averages for four-legged intersections in rural areas with side-street Stop controls, the observed rates at this location are 711 percent above statewide average for total crashes, and 811 percent above the statewide average for injury/fatal crashes.
- The California statewide crash rate data indicates that conversion to a traffic signal would increase the expected total crash rate by 164 percent and increase the injury/fatal crash rate by 286 percent. Crash rates would therefore increase significantly if a traffic signal is installed at the intersection.
- A detailed analysis of crash data for modern U.S. roundabouts yields an estimation equation, as documented in the National Cooperative Highway Research Program's Report 672: Roundabouts – An Informational Guide. Entering the geometrics and volumes for a roundabout at the subject location, the expected annual crashes would be substantially lower than today, for both total crashes and for injury/fatal crashes.
- As shown in the bottom portion of the table, conversion to a **Traffic Signal** control would increase the expected number of crashes over a 10-year period by 34, of which 32 would be injury or fatal crashes.

- Conversion to a **Roundabout** control would reduce the number of crashes from that expected under the current control by 16 total crashes, of which 10 would be injury or fatal crashes.

This analysis clearly depicts the traffic safety benefits of a roundabout, as well as the negative safety impacts of a traffic signal. From a traffic safety perspective, a roundabout would be the optimal modification to this intersection to address the poor existing traffic safety condition.

Table 6 US 199 and EVCR Comparison

Elk Valley Cross Rd/State Route 199 Traffic Control Options -- Safety Impacts

Annual Average Daily Traffic	3680
Annual Million Vehicles Entering Intersection (MV)	1.34

	Crashes	
	Total	Injury or Fatal
Existing (Over 10 Years)	21	11
Crash Rate (Per MV)	1.56	0.82
Statewide Avg. for Rural 4-Leg Intx with Side-Street Stop (1)	0.22	0.10
Ratio of Observed to Statewide Average	7.11	8.11
Annual Expected Crashes		
Existing Side-Street Stop	2.10	1.10
Traffic Signal (1)	5.54	4.25
Roundabout (2)	0.5	0.10
Impact of Traffic Control Change		
Convert to Traffic Signal		
Change in Crash Rate	164%	286%
Change in Crashes Over 10 Years	34	32
Convert to Roundabout		
Change in Crash Rate	-75%	-91%
Change in Crashes Over 10 Years	-16	-10

Source 1: 2015 Collision Data on California State Highways (Caltrans).

Source 2: NCHRP Report 672: Roundabouts - An Informational Guide

Source: LSC Transportation Consultants, Inc. 2018 EVCR Crash Tables.xlsx

ELK VALLEY CROSS ROAD / US 199 & US 101 SIGNAL WARRANT ANALYSIS

A signal warrant analysis was performed for the US 101/Elk Valley Cross Road and US 199/Elk Valley Cross Road intersections. A signal warrant analysis is required for each intersection with the State Highway to evaluate the need for a roundabout per Caltrans standard protocol. Nine warrants exist in the 2014 MUTCD – none of which are met by the current volumes, location, or crash experience criteria for the EVCR/199 intersection and EVCR/101 intersection. More details on this warrant analysis can be found as Attachment H.

Alternative 7: No-Build Alternative

The No-Build Alternative proposes to maintain the existing configuration of Elk Valley Cross Road in its current configuration. However, this alternative does not allow Elk Valley Cross Road to comply with standard shoulder widths, stopping sight distances, intersection configuration or multimodal safety standards. The crash rates along this corridor are above local, County and State averages for the given classification and volume of traffic. The No-Build option would not address any issues or concerns with the safety of this transportation facility.

Supplemental: 60-foot-wide Corridor Right of Way

In the event that funding for right of way is secured, an estimate to acquire the 60-foot wide Right of Way along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive in all areas not already secured to the 60-foot width was estimated. Estimated square footages and estimated costs for parcels requiring additional right of way can be found in Attachment E. Based on preliminary right of way record search, it is estimated an additional 109,505 SQFT at an estimated cost of $4 per square foot would cost approximately $440,000.

This estimate is based on available right of way records for existing roadway easements as recorded in the County Recorder's office. Preliminary Title Reports were not generated for this Corridor, so there is the possibility that certain easements along Elk Valley Cross Road are not shown on the maps and records of surveys gathered for this effort.

Access to and from all existing parcels is proposed to be maintained for drivers traveling in either direction along the roadway.

7. ALTERNATIVES COMPARISON MATRIX

For each alternative generated, a scale of 1 to 5 was given for the safety factor of each alternative with respect to each safety aspect. A value of 1 signifies minimal safety improvements; a value of 5 signifies a large safety improvement value. A Cost per Improvement Score ratio calculated for each

alternative result in Roadway Alternative A, US 101/EVCR Alternative C, and US 199/EVCR Alternative C having the most beneficial improvements per dollar spent.

Table 7 Alternative Comparison Matrix

Alternative	Description	Vehicle Safety Improvement	Pedestrian Safety	Bicycle Safety	Transportation Safety	Total	Total Cost
Roadway Segments							
Roadway Alternative A	Shoulder Widening	3	4	4	3	14	$ 10,186
Roadway Alternative B	Two-Way Left Turn Lane	3	3	3	3	12	$ 11,348
Intersection Improvements							
Movie Lane & Wonder Stump Road	Turn Pockets	**4**	**3**	**3**	**3**	13	$ 4,182
Cunningham Lane	Turn Pockets	4	3	3	3	13	$ 4,213
US 101 and EVCR - Alt A	Signing and Striping Improvements	2	2	2	2	8	$ 320
US 101 and EVCR - Alt B	Restricted Crossing U-Turn	2	1	2	1	6	$ 1,964
US 101 and EVCR - Alt C	One Through Lane, Signing and Striping Improvements	4	3	3	4	14	$ 508
US 101 and EVCR - Alt D	Roundabout	5	4	4	5	18	$ 6,380
US 199 and EVCR - Alt A	Signing, Sight Line and Glare Reduction	1	0	0	1	2	$ 735
US 199 and EVCR - Alt B	Traffic Signal	0	1	1	0	2	$ 1,063
US 199 and EVCR - Alt C	Roundabout	5	4	4	5	18	$ 5,985

8. ALTERNATIVE COST ESTIMATES

The following table is the summary of the alternative cost estimates. See Attachment C for individual detailed alternative cost estimates.

Table 8 Alternative Cost Estimates Summary

Alternative	Description	Construction Cost	Right of Way	Permits & Environmental Mitigation	PA&ED/PS&E	Construction Engineering	Total Cost
		Costs in $1,000's					
Roadway Segments							
Roadway Alternative A - Segment 2	Shoulder Widening	$4,805	$418	$300	$721	$577	**$6,820**
Roadway Alternative A - Segment 3	Shoulder Widening	$2,398	$20	$300	$360	$288	**$3,365**
Roadway Alternative B - Segment 1	Two-Way Left Turn Lane	$1,422	$20	$125	$213	$171	**$1,951**
Roadway Alternative B - Segment 2	Two-Way Left Turn Lane	$6,874	$418	$250	$1,031	$825	**$9,398**
Intersection Improvements							
Movie Lane & Wonder Stump Road	Turn Pockets	$3,097	$125	$125	$464	$372	**$4,182**
Cunningham Lane Turn Pocket	Turn Pockets	$2,957	$333	$125	$444	$355	**$4,213**
US 101 and EVCR - Alt A	Signing and Striping Improvements	$244	$10	$0	$37	$29	**$320**
US 101 and EVCR - Alt B	Restricted Crossing U-Turn	$1,530	$20	$0	$230	$184	**$1,964**
US 101 and EVCR - Alt C	One Through Lane, Signing and Striping Improvements	$392	$10	$0	$59	$47	**$508**
US 101 and EVCR - Alt D	Roundabout	$4,935	$27	$85	$740	$592	**$6,380**
US 199 and EVCR - Alt A	Signing, Striping and Glare Reduction	$575	$5	$0	$86	$69	**$735**
US 199 and EVCR - Alt B	Traffic Signal	$829	$10	$0	$124	$100	**$1,063**
US 199 and EVCR - Alt C	Roundabout	$4,629	$21	$85	$694	$555	**$5,985**

9. COMMUNITY INVOLVEMENT

A preliminary public workshop was conducted on June 26, 2019 at Sunset High School off Elk Valley Cross Road to inform the community of the corridor plan investigation. The information and public input can be found in Attachment G.

A second public workshop was conducted on February 27, 2020 at Sunset High School to inform the community about the proposed alternative elements and to allow the opportunity for community members to comment on the proposed alternatives. A summary of comments received from this workshop can also be found in Attachment G.

To inform the public of these workshops, direct emailing of local officials, posting on DNLTC project website, social media, flyers and roadside banners were displayed in and around Elk Valley Cross Road and Crescent City. After each public workshop the website was updated with the current information presented at the workshop so the public could review the information presented.

10. ENVIRONMENTAL DETERMINATION/DOCUMENT

An Environmental Constraints Overview Report was completed for the Elk Valley Cross Road Corridor Plan. Various potential environmental constraints exist along the corridor, such as jurisdictional waters summer low flow considerations, potential wetlands, and special status wildlife species habitat. Marbled Murrelet Critical Habitat is directly adjacent to the proposed ECVR corridor and potentially suitable marbled murrelet habitat exists along the EVCR corridor. In addition, fish passage within jurisdictional waters that provide connection to Jordon Creek, and potentially suitable habitat for Western lily are also environmental constraints to be considered. Finally, cultural resource sensitivity has been identified within the EVCR corridor, and collaboration with the Elk Valley Rancheria would be required for work activities in these areas. Further alternative review will be prepared for alternative advancement. See Attachment D.

11. FUNDING

The specific funding source for this project has yet to be determined. The current federal authorization is Fixing America's Surface transportation (FAST) Act, which include Highway Safety Improvement Program (HSIP) and Congestion Mitigation & Air Quality (CMAQ). State funding options range from the Caltrans Senate Bill 1 (SB1) program to the State Active Transportation Program (ATP), High Risk Rural Roads Program (HR3) and the State

Transportation Improvement Program (STIP). The purpose of this corridor plan is to provide the County and DNLTC the needed information to program future projects to improve Elk Valley Cross Road. Different funding sources have different application cycles, and due to Elk Valley Cross Road's collision history, HSIP and ATP funding are two of the more likely viable funding options.

12. SCHEDULE

Milestones	**Delivery Date (Month, Day, Year)**
Draft Corridor Plan	3/5/2020
Final Corridor Plan	5/28/20

Advancement of alternatives is dependent on future funding as it becomes available.

13. FHWA COORDINATION

FHWA coordination will depend on the funding type for this project. The specific funding source for future projects has yet to be determined.

14. DEVELOPMENT TEAM

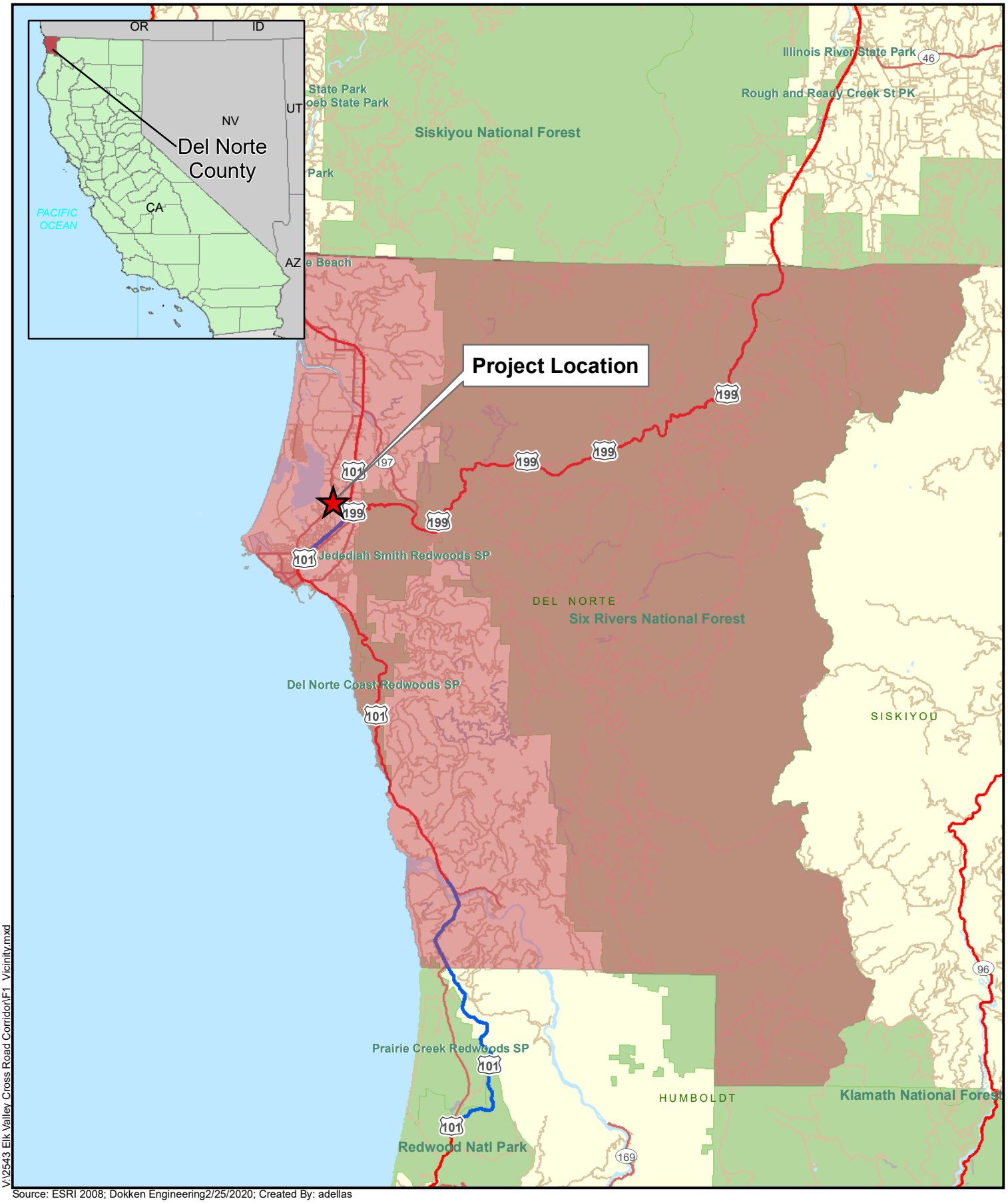
Name	Title	Telephone
Heidi Kunstal	Director Community Development, DNC	707-464-7254
Rosanna Bower	Assist. County Engineer, Del Norte County	707-464-7229
Tamera Leighton	Executive Director, DNLTC	707-465-3878
Brian Stephenson	Project Engineer, Dokken Engr.	530-768-2420
Namat Hosseinion	Enviro. Coordinator, Dokken Engr.	916-858-0642
Tim Chamberlain	Assoc. Enviro. Planner, Dokken Engr.	916-274-0557

ATTACHMENTS:

- A Project Location Map
- B Alternatives Exhibits
- C Alternatives Cost Estimates
- D Environmental Constraints Overview Report
- E Existing Right of Way Records Sheet
- F Existing Conditions Report
- G Public Meeting Records
- H Signal Warrant Analysis (101 & 199)
- I Northbound US 199 Speed Survey at Elk Valley Cross Road
- J Intersections (199 & 101) Technical Memorandum

Attachment A

Project Location Map



V:\2543 Elk Valley Cross Road Corridor\F1_Vicinity.mxd

Source: ESRI 2008; Dokken Engineering2/25/2020; Created By: adellas

0 5 10 15 Miles

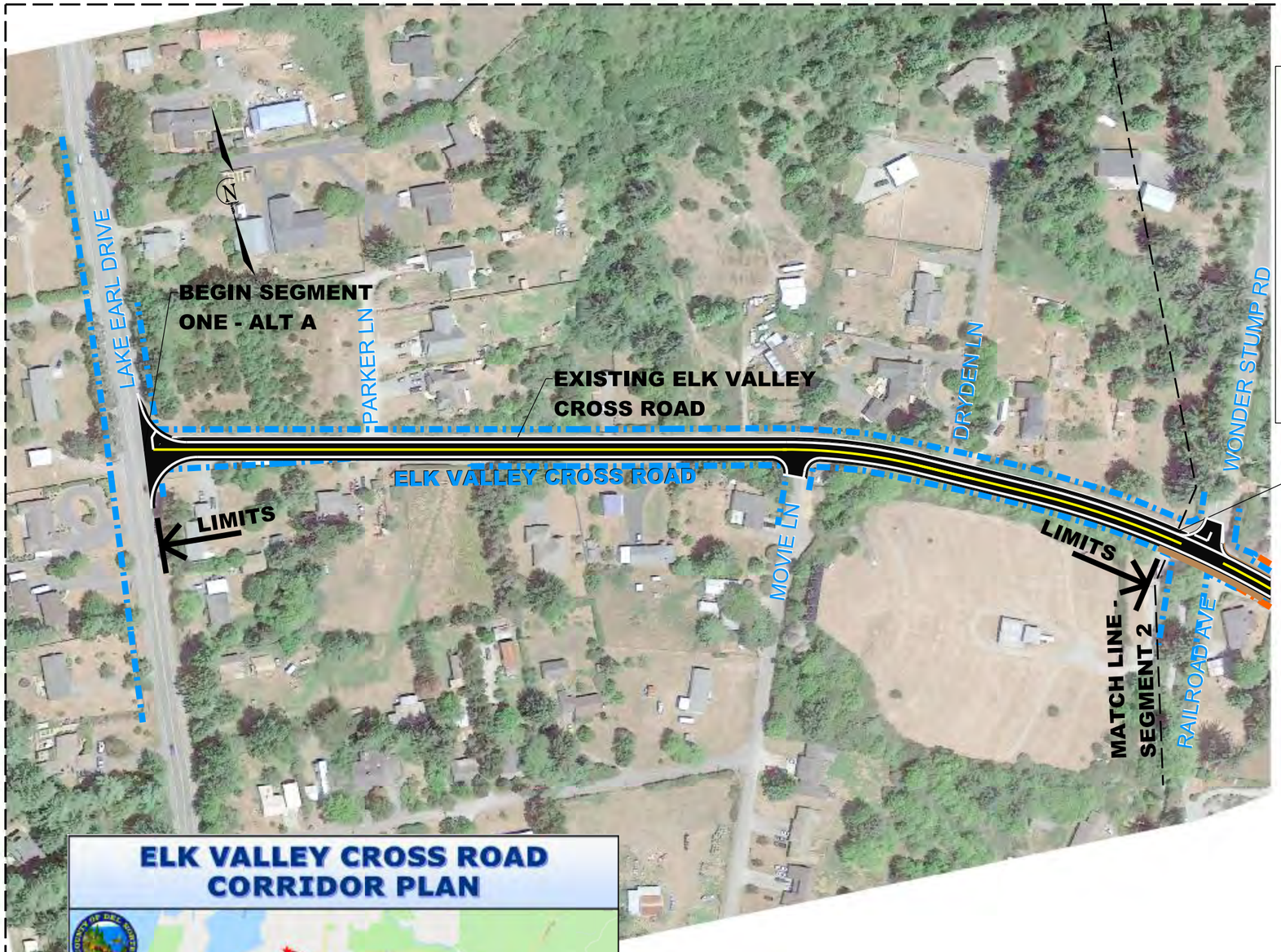
FIGURE 1
Project Vicinity

Elk Valley Cross Road
Del Norte County, California


Project Location
Lake Earl
Park Ave
Yonkers Ln
Laguna St
Buzzini Rd
Siskiyou St
Boyds Way
Skycrest Dr
White Ln
Lassen Rd
Earl St
Orchard Ln
Wonderstump Rd
Wila Jean Dr
Flint Ln
Bow Ln
Kings Valley Rd
Snag Rd
Mobile Ln
Tedsen Ln
Maciel Ln
Turnbull Ln
Bois White Ln
Lakeview Dr
James Rd
Vipond Dr
Angel Ln
Rio Dr
CR D3
Malone Rd
Movie Ln
Country Ln
Cunningham Ln
Lesina Rd
199
101
Elk Valley Rd
Prince Rd
Clyde St
Cooke St
English Ln
Parkway Dr
Jedediah Smith Redwoods SP
Amber Ln
Vipond Ct
Ebba Ln
Alder Rd
Boulder Rd
Railroad Ave
Moore Pl
Richardson Rd
Downing St
Fern Ln
Hobbs Wall Rd
Sunrise Ave
Blackwell Ln
Tanbark Ln
Sandman Rd
Ranch Creek Rd
Church Tree Rd
Ranch Rd
CR D2
Granite Rd
Early Ln
Fernwood Ln
Elk Creek Rd
Courtney Ln
Miracle Ln

Attachment B

Alternatives Exhibits



Alternative A, Roadway Segment 1:

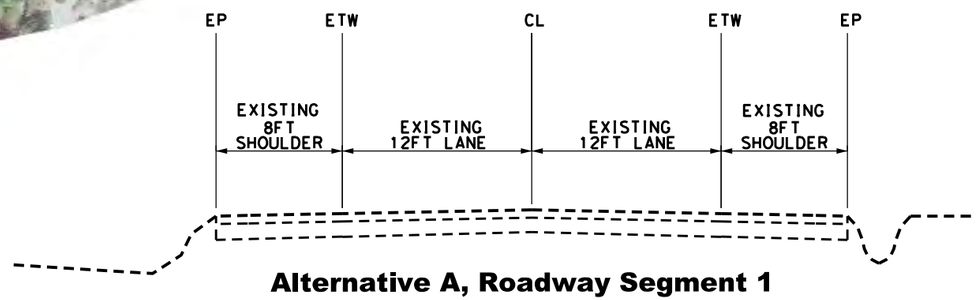
8' SHOULDERS ALREADY EXIST

NO CHANGES PROPOSED
FOR THIS SEGMENT

LENGTH = 1,677 FT

LEGEND

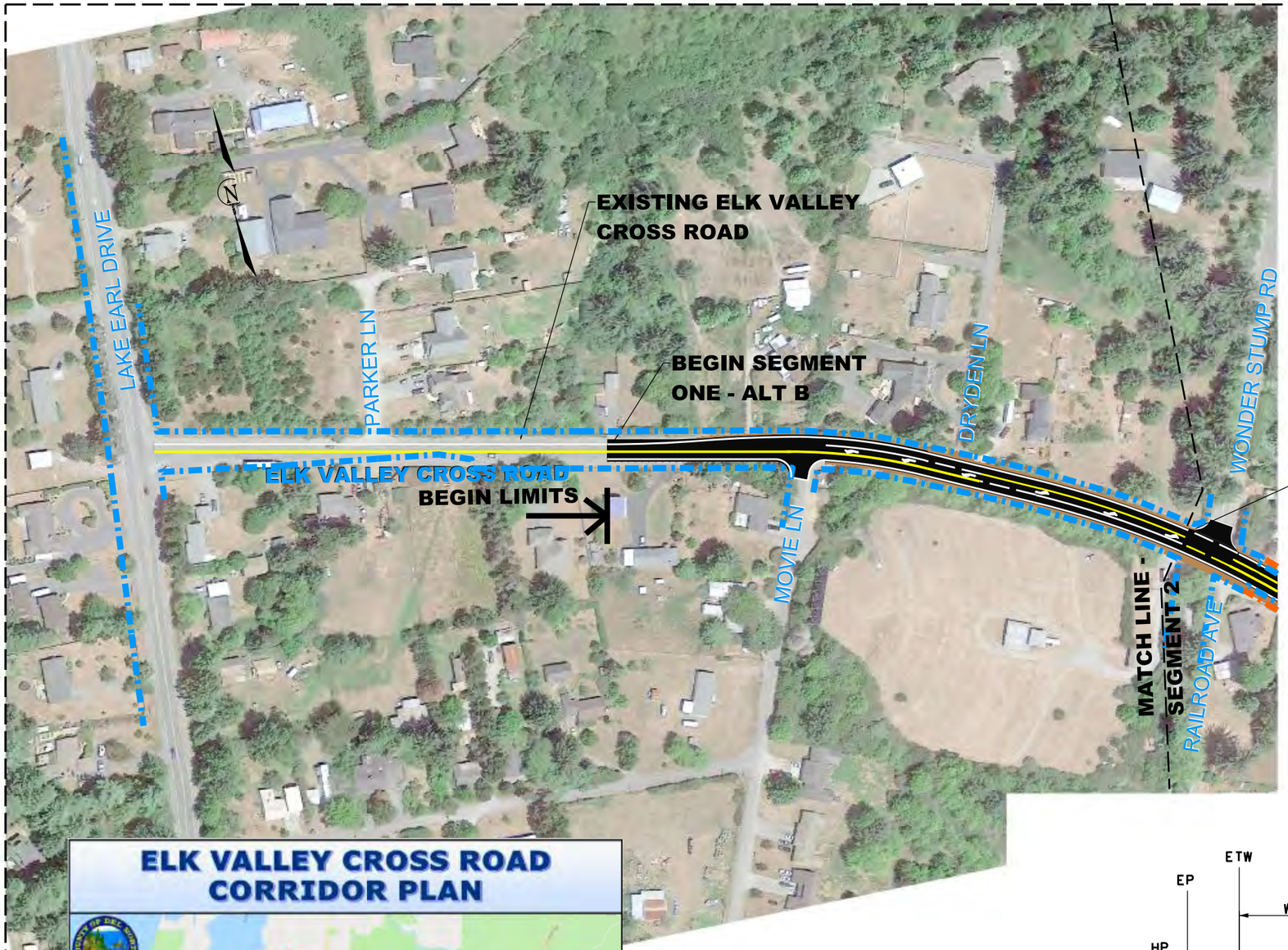
- **Existing Right of Way**
- **New Proposed Right of Way**



Alternative A, Roadway Segment 1

1000' 0' 1000' 2000' 3000'

GRAPHIC SCALE



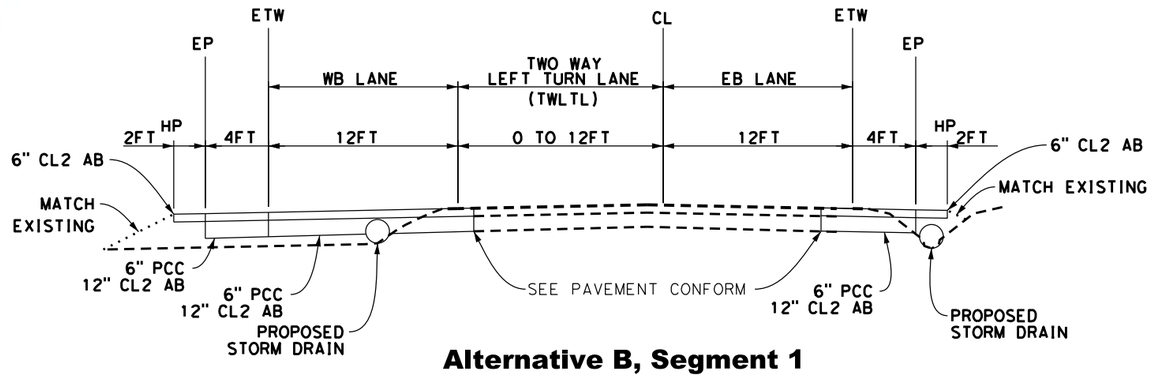
Alternative B, Segment 1:

MEDIAN WIDENING FOR TWO-WAY
LEFT TURN LANE FROM
MOVIE LANE TO US 101

LENGTH = 1,000 FT (THIS SEGMENT)

LEGEND:

- Existing Right of Way
- Proposed New Right of Way



Alternative B, Segment 1

1000' 0' 1000' 2000' 3000'
GRAPHIC SCALE

Alternative A, Roadway Segment 2:

4' PAVED SHOULDER ON
BOTH SIDES OF ROAD FROM
WONDERSTUMP LANE TO HIGHWAY 101

LENGTH = 3,340 FT

- Tree and shrub removal
- Utility pole relocations

LEGEND
- Existing Right of Way
- New Proposed Right of Way

MATCH LINE - SEGMENT 1

WONDER STUMP RD

LIMITS

60' R/W

RAILROAD AVE

TREE REMOVAL

DEAR MEADOW WAY

APPLE CT

SUNSET HIGH SCHOOL

4' PAVED SHOULDERS

ELK VALLEY CROSS ROAD

COHO LN

CROSSWALK

CUNNINGHAM LANE

TURNBULL LN

LYNWOOD LN

PARK EXIT RD

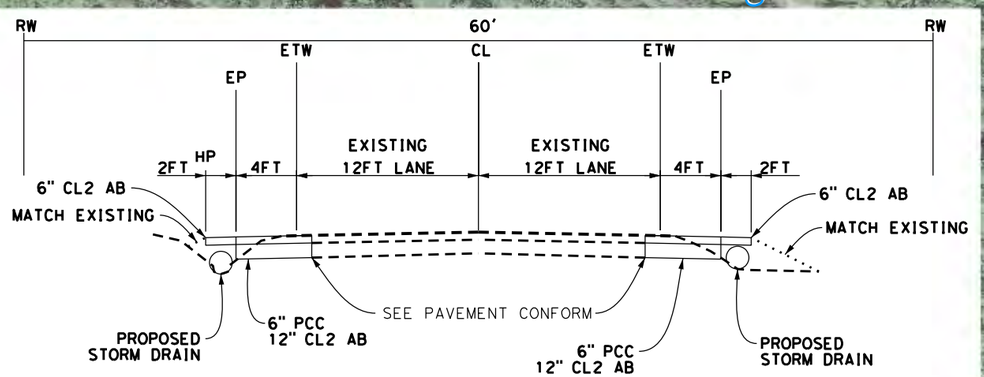
LIMITS

US 101

4' PAVED SHOULDERS

ELK VALLEY CROSS ROAD CORRIDOR PLAN

Del Norte Local Transportation Commission



Alternative A, Roadway Segment 2

1000' 0' 1000' 2000' 3000'
GRAPHIC SCALE

Alternative B, Segment 2

4' PAVED SHOULDERS,
WIDEN TO THE NORTH
MEDIAN TWO-WAY LEFT TURN LANE

LENGTH = 3,000 FT, AREA = 176,000 SQFT

- Tree and shrub removal
- Utility pole relocations

LEGEND

- Existing Right of Way
- New Proposed Right of Way

MATCH LINE - SEGMENT 1

WONDER STUMP RD

RAILROAD AVE

60' R/W

TREE REMOVAL AND RIGHT OF WAY ACQUISITION

TREE REMOVAL

SUNSET HIGH SCHOOL

APPLE CT

DEAR MEADOW WAY

4' PAVED SHOULDERS

ELK VALLEY CROSS ROAD

COHO LN

CUNNINGHAM LANE

TREE REMOVAL AND RIGHT OF WAY ACQUISITION

TURNBULL LN

LYNWOOD LN

END LIMITS

4' PAVED SHOULDERS AND TURN POCKET

PARK EXIT RD

US 101

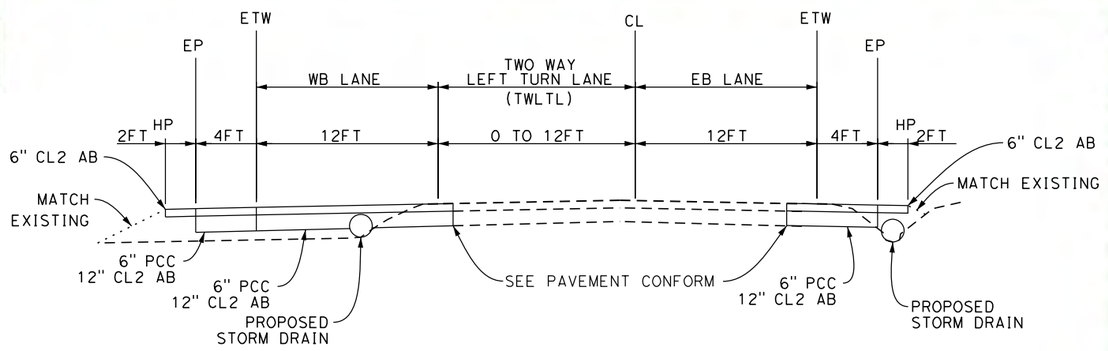
US-101

1000' 0' 1000' 2000' 3000'

GRAPHIC SCALE

ELK VALLEY CROSS ROAD CORRIDOR PLAN

Del Norte Local Transportation Commission



Alternative B, Segment 2

Alternative A, Roadway Segment 3

4' PAVED SHOULDER ON
BOTH SIDES OF ROAD FROM
HIGHWAY 101 TO PARKWAY DR

IMPROVEMENT LENGTH = 1,690 FT
SEGMENT LENGTH = 2,720 FT

- Tree and shrub removal
- Utility pole relocations

LEGEND
- Existing Right of Way
- New Proposed Right of Way

See separate intersection improvements exhibits for details

BOB-WHITE LN

OUR RD

TITUS RD

4' PAVED SHOULDERS

ELK VALLEY CROSS ROAD

4' PAVED SHOULDERS

LIMITS

SCHLACK LN

See separate intersection improvements exhibits for details

NO ADDITIONAL PAVING NECESSARY

US 199

LIMITS

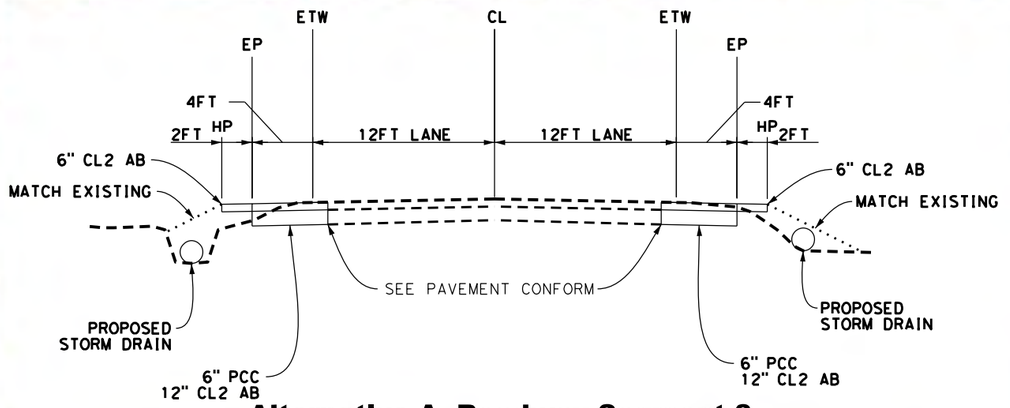
EXISTING 4' PAVED SHOULDERS

PARKWAY DR

1000' 0' 1000' 2000' 3000'
GRAPHIC SCALE

ELK VALLEY CROSS ROAD CORRIDOR PLAN

Del Norte Local Transportation Commission



Alternative A, Roadway Segment 3

Movie Lane & Wonder Stump Road Intersection

4' PAVED SHOULDERS,
WIDEN TO THE NORTH
LEFT TURN POCKET AT MOVIE LANE &
WONDER STUMP ROAD

LENGTH = 1,650 FT
- Tree and shrub removal
- Utility pole relocations

LEGEND
- Existing Right of Way
- New Proposed Right of Way

PARKER LN
BEGIN LIMITS
MOVIE LN
DRYDEN LN
WONDER STUMP RD
RAILROAD AVE
DEAR MEADOW WAY
APPLE CT
COHO LN
ELK VALLEY CROSS ROAD
SUNSET HIGH SCHOOL
N

4' PAVED SHOULDERS AND TURN POCKET

TREE REMOVAL AND RIGHT OF WAY ACQUISITION

END LIMITS

TREE REMOVAL

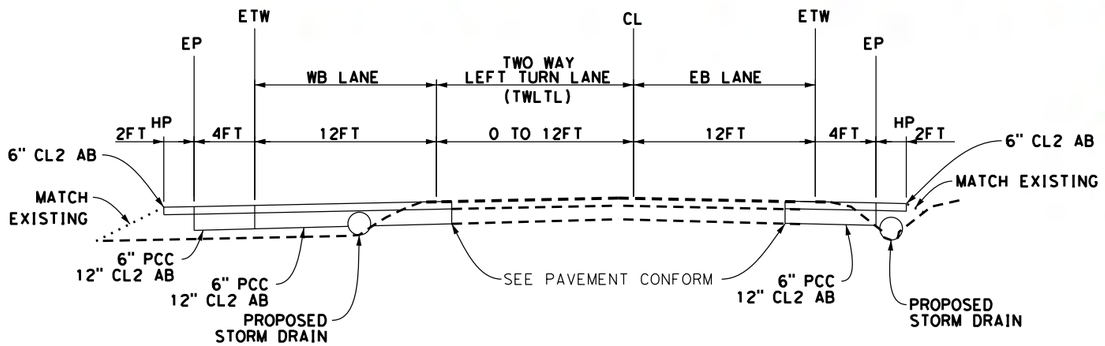
4' PAVED SHOULDERS

60' R/W

1000' 0' 1000' 2000' 3000'
GRAPHIC SCALE

ELK VALLEY CROSS ROAD CORRIDOR PLAN

Del Norte Local Transportation Commission



Intersection Improvement at Movie Ln & Wonder Stump Rd

Cunningham Lane Intersection

4' PAVED SHOULDERS,
WIDEN TO THE NORTH
WB LEFT TURN POCKET AT CUNNINGHAM LANE

LENGTH = 1,800 FT, AREA = 63,000 SQFT

- Tree and shrub removal
- Utility pole relocations

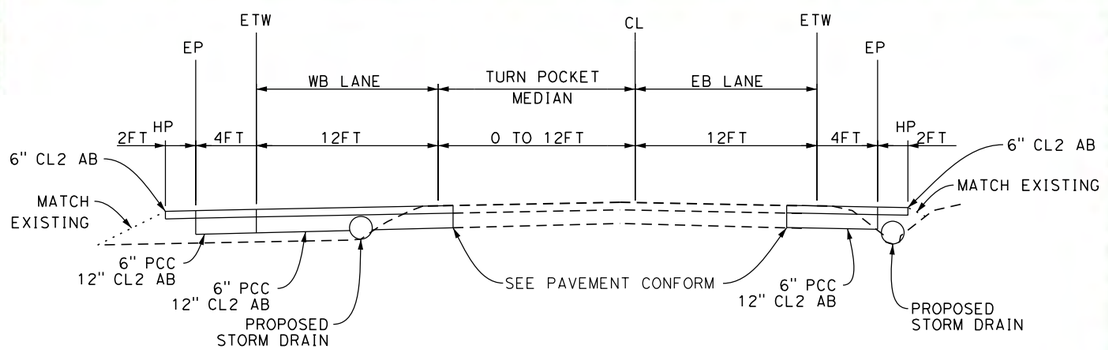
LEGEND

- **Existing Right of Way**
- **New Proposed Right of Way**

WONDER STUMP RD
RAILROAD AVE
60' R/W
APPLE CT
DEAR MEADOW WAY
SUNSET HIGH SCHOOL
LIMITS
ELK VALLEY CROSS ROAD
COHO LN
CUNNINGHAM LANE
TREE REMOVAL AND RIGHT OF WAY ACQUISITION
4' PAVED SHOULDERS AND TURN POCKET
TURNBULL LN
LYNWOOD LN
PARK EXIT RD
LIMITS
US 101

ELK VALLEY CROSS ROAD CORRIDOR PLAN

Del Norte Local Transportation Commission



1000' 0' 1000' 2000' 3000'
GRAPHIC SCALE

Cunningham Lane Intersection

ELK VALLEY CROSS ROAD & US 101 INTERSECTION

Alt A:
SIGNING & STRIPING IMPROVEMENTS

LEGEND:
- Existing Right of Way
- Proposed New Striping

YIELD SIGN

YIELD

STOP

US 101

US 101

ALT A:
MEDIAN STRIPING

ELK VALLEY CROSS ROAD

BOB-WHITE LN

ELK VALLEY CROSS ROAD CORRIDOR PLAN

Del Norte Local Transportation Commission

ELK VALLEY CROSS ROAD & US 101 INTERSECTION

Alt B:
RESTRICTED CROSSING U-TURN (RCUT)

LEGEND:
- Existing Right of Way
- Proposed New Right of Way

ALT B:
ACCELERATION LANE
BECOMES LANE 1

ALT B:
LIMITED LEFT TURN MOVEMENTS
AND CONCRETE BARRIER

ALT B:
SINGLE THRU LANE

ALT B:
SEPARATED MEDIAN U-TURN

ALT B:
SINGLE THRU LANE

BIKE PATH

ALT B:
SEPARATED MEDIAN U-TURN

ALT B:
ACCELERATION LANE

PARK EXIT RD

US 101

US 101

BOB-WHITE LN

ELK VALLEY CROSS ROAD

1000' 0' 1000' 2000' 3000'
GRAPHIC SCALE

ELK VALLEY CROSS ROAD CORRIDOR PLAN

Del Norte Local Transportation Commission

ELK VALLEY CROSS ROAD & US 101 INTERSECTION

Alt C:
SIGNING & STRIPING IMPROVEMENTS
SINGLE LANE THROUGH INTERSECTION

LEGEND:
- Existing Right of Way
- Proposed New Striping

ALT C:
ACCELERATION LANE
BECOMES LANE 1

YIELD SIGN

ALT C:
SINGLE LANE THROUGH
INTERSECTION

US 101

US 101

ALT C:
MEDIAN STRIPING
YIELD SIGN IN CENTER OF INTERSECTION

ALT C:
SINGLE LANE THROUGH
INTERSECTION

ALT C:
ACCELERATION LANE
TO LATER MERGE

ELK VALLEY CROSS ROAD

BOB-WHITE LN

1000' 0' 1000' 2000' 3000'
GRAPHIC SCALE

ELK VALLEY CROSS ROAD CORRIDOR PLAN

Del Norte Local Transportation Commission

ELK VALLEY CROSS ROAD & US 101 INTERSECTION

Alt D:
Roundabout

LEGEND
- Existing Right of Way
- New Proposed Right of Way

PARK EXIT RD

FREE RIGHT FROM
EVCR TO US 101 SB
TO BEGIN LANE 1

YIELD CONTROLLED RIGHT FROM
US 101 TO WB EVCR

US 101

YIELD CONTROLLED RIGHT FROM
US 101 TO EB EVCR

FREE RIGHT FROM
EVCR TO US 101 NB
WITH LOW SPEED MERGING

BOB-WHITE LN

ELK VALLEY CROSS ROAD

1000' 0' 1000' 2000' 3000'
GRAPHIC SCALE

ELK VALLEY CROSS ROAD CORRIDOR PLAN

Del Norte Local Transportation Commission

ELK VALLEY CROSS ROAD & US 199 INTERSECTION

-Alt A:
SIGNING & STRIPING IMPROVEMENTS

LEGEND
- Existing Right of Way
- New Proposed Right of Way

ALT A:
OPEN GRADED SURFACE PAVEMENT
TREATMENT FOR REFLECTION REDUCTION

ALT A:
YIELD MARKINGS

ALT A:
REGULAR MAINTENANCE MOWING
FOR CLEAR CORNER SIGHT
DISTANCE

ALT A:
SPEED REDUCTION MARKINGS

US 199 TO SB US 101

US 199 TO NB US 101

US 199

US 101 OFF RAMP/ US 199 NB

ELK VALLEY CROSS ROAD

760' CORNER SIGHT DISTANCE FOR 55MPH RAMP PER HDM 405.1

760' CORNER SIGHT DISTANCE FOR 55MPH RAMP PER HDM 405.1

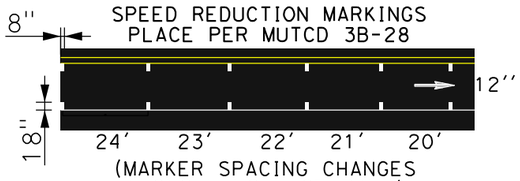
ELK VALLEY CROSS ROAD CORRIDOR PLAN

Del Norte Local Transportation Commission

YIELD MARKINGS
PLACE PER MUTCD 3B-14

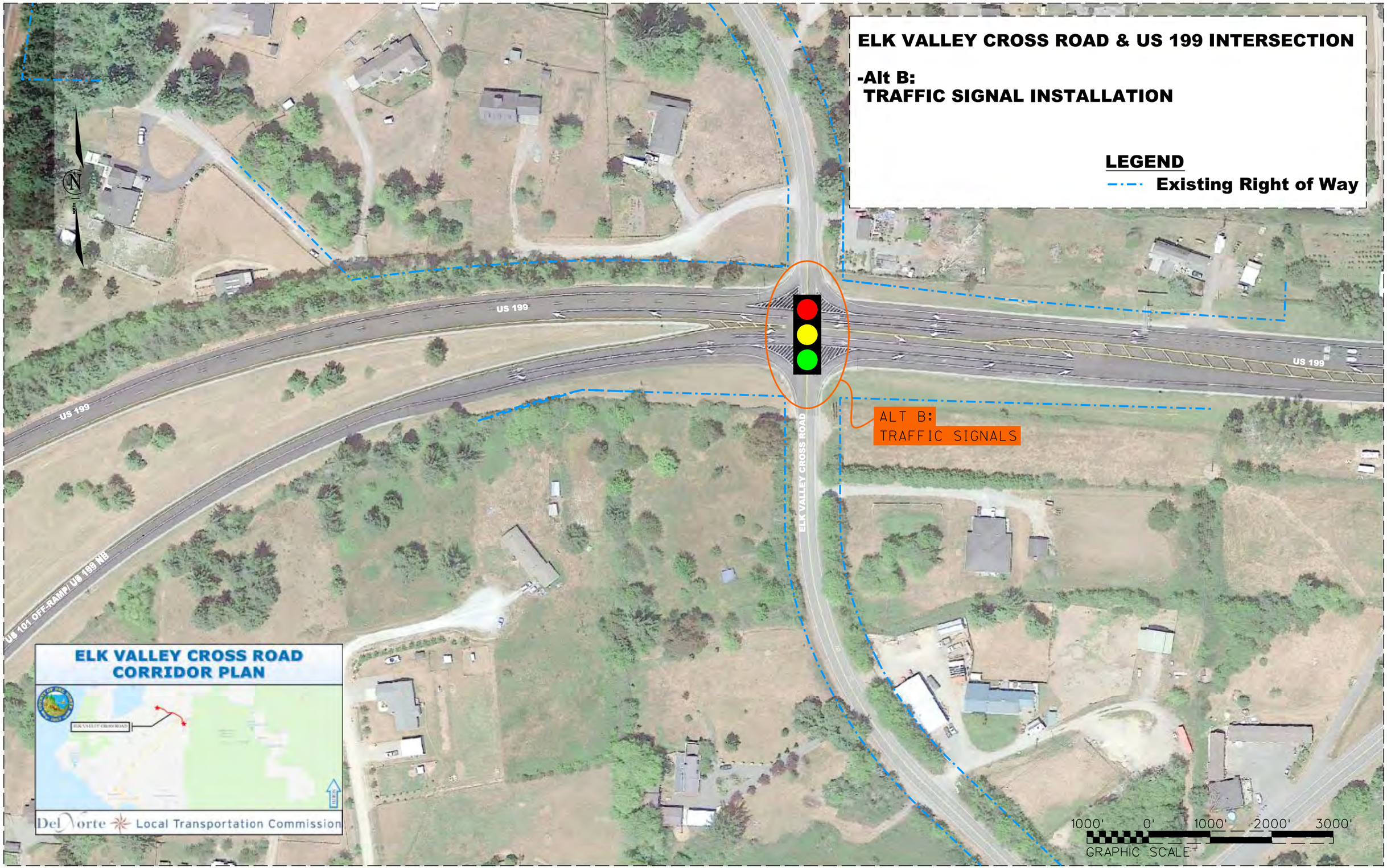
(DIMENSIONS MAY VARY PER MUTCD FIG 3B-14)

SPEED REDUCTION MARKINGS
PLACE PER MUTCD 3B-28



(MARKER SPACING CHANGES
ALONG LENGTH OF RAMP)

1000' 0' 1000' 2000' 3000'
GRAPHIC SCALE


ELK VALLEY CROSS ROAD & US 199 INTERSECTION
-Alt B:
TRAFFIC SIGNAL INSTALLATION
LEGEND
Existing Right of Way
US 199
US 199
US 199
US 101 OFF-RAMP/ US 199 NB
ELK VALLEY CROSS ROAD
ALT B:
TRAFFIC SIGNALS
ELK VALLEY CROSS ROAD
CORRIDOR PLAN
Del Norte Local Transportation Commission
1000' 0' 1000' 2000' 3000'
GRAPHIC SCALE

ELK VALLEY CROSS ROAD & US 199 INTERSECTION

Alt C:
ROUNDABOUT

LEGEND

- Existing Right of Way
- New Proposed Right of Way

SINGLE EXITING LANE

FREE RIGHT FROM
TO EVCR (WEST)

US 199 TO SB US 101

US 199 TO NB US 101

US 101 OFF-RAMP/ US 199 NB

FREE RIGHT
TO EVCR (EAST)
YIELD CONTROLLED

SINGLE EXITING LANE

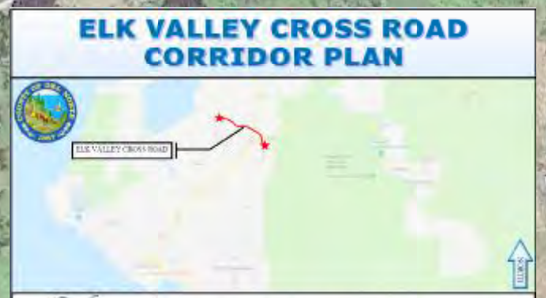
ICD = 150 FT

POTENTIAL
PEDESTRIAN
ROUTE LOCATION

ELK VALLEY
CROSS ROAD

1000' 0' 1000' 2000' 3000'
GRAPHIC SCALE

ELK VALLEY CROSS ROAD CORRIDOR PLAN



Del Norte Local Transportation Commission

Attachment C

Alternatives Cost Estimates

PROJECT

PLANNING COST ESTIMATE

EA: 01-LOCAL PID: EVCRCP

EA: 01-LOCAL

PID: EVCRCP

District-County-Route: 01-DN-EVCR

PM: 0.0 - 1.5

Type of Estimate : Programming

Program Code : k

Project Limits : Along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive

Project Description: Widen roadway to have 12' Lanes, 4' Paved Shoulders and 2' graded soft shoulder.

Scope :

Alternative : **Alternative A, Roadway Segment 2 (L=3,340ft)**

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 4,324,200	$ 4,805,347
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 4,324,200	$ 4,805,347
TOTAL RIGHT OF WAY COST	$ 417,600	$ 417,600
TOTAL CAPITAL OUTLAY COSTS	**$ 4,742,000**	**$ 5,223,000**
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL SUPPORT COST	**$ -**	**$ -**
TOTAL PROJECT COST	**$ 4,750,000**	**$ 5,250,000**

If Project has been programmed enter Programmed Amount

	Month	/	Year
Date of Estimate (Month/Year)	1	/	2020
Estimated Construction Start (Month/Year)	4	/	2024
Number of Working Days =	120		
Estimated Mid-Point of Construction (Month/Year)	8	/	2024
Estimated Construction End (Month/Year)	12	/	2024
Number of Plant Establishment Days	261		

Estimated Project Schedule

PID Approval	6/1/2021
PA/ED Approval	7/1/2022
PS&E	10/1/2023
RTL	12/1/2023
Begin Construction	4/1/2024

Reviewed by District O.E.

Office Engineer	xx/xx/xxxx	(xxx) xxx-xxxx
	Date	**Phone**

Approved by Project Manager

Project Manager	xx/xx/xxxx	(xxx) xxx-xxxx
	Date	**Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	158,200
2	**Pavement Structural Section**	$	308,500
3	**Drainage**	$	1,252,500
4	**Specialty Items**	$	155,000
5	**Environmental**	$	224,700
6	**Traffic Items**	$	171,100
7	**Detours**	$	-
8	**Minor Items**	$	227,000
9	**Roadway Mobilization**	$	249,700
10	**Supplemental Work**	$	149,900
11	**State Furnished**	$	85,000
12	**Time-Related Overhead**	$	149,900
13	**Roadway Contingency**	$	1,192,700
	TOTAL ROADWAY ITEMS	**$**	**4,324,200**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	1,484	x	83.00	=	$	123,172
19010X	Roadway Excavation (Type X) ADL	CY		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
16010X	Clearing & Grubbing	LS/ACRE	1	x	35,000.00	=	$	35,000
170101	Develop Water Supply	LS		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS $ 158,200

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY		x		=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	1,253	x	130.00	=	$	162,890
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY	1,484	x	90.00	=	$	133,560
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON	6	x	2,000.00	=	$	12,000
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731530	Minor Concrete (Textured Paving)	CY		x		=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY		x		=	$	-
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
150860	Remove Base and Surfacing	CY		x		=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x		=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS $ 308,500

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		=	$	-
641107	18" Plastic Pipe	LF	5,010	x	250.00	=	$	1,252,500
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS $ 1,252,500

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS	1	x	5,000.00	=	$	5,000
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	10,000.00	=	$	10,000
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF		x		=	$	-
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Metal Beam Guard Railing	LF		x		=	$	-
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Relocate Utility Pole	EA	14	x	10,000.00	=	$	140,000

TOTAL SPECIALTY ITEMS $ 155,000

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
	Biological Mitigation	LS		x		=	$	-		
160120	Remove Tree	EA	200	x	250.00	=	$	50,000		
141000	Temporary Fence (Type ESA)	LF	6,680	x	5.00	=	$	33,400		
								Subtotal Environmental Mitigation	$	*83,400*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
20XXXX	Highway Planting	LS		x		=	$	-		
20XXXX	Irrigation System	LS		x		=	$	-		
204099	Plant Establishment Work	LS	1	x	10,000.00	=	$	10,000		
204101	Extend Plant Establishment Work	LS		x		=	$	-		
20XXXX	Follow-up Landscape Project	LS		x		=	$	-		
150685	Remove Irrigation Facility	LS		x		=	$	-		
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		=	$	-		
206400	Check and Test Existing Irrigation Facilities	LS		x		=	$	-		
21011X	Imported Topsoil (X)	CY/TON		x		=	$	-		
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		=	$	-		
200122	Weed Germination	SQYD		x		=	$	-		
208304	Water Meter	EA		x		=	$	-		
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		=	$	-		
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		=	$	-		
								Subtotal Landscape and Irrigation	$	*10,000*

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)			Cost		
210010	Move In/Move Out (Erosion Control)	EA		x		=	$	-		
210350	Fiber Rolls	LF	6680	x	5	=	$	33,400		
210360	Compost Sock	LF		x		=	$	-		
2102XX	Rolled Erosion Control Product (X)	SQFT		x		=	$	-		
21025X	Bonded Fiber Matrix	SQFT/ACRE		x		=	$	-		
210300	Hydromulch	SQFT		x		=	$	-		
210420	Straw	SQFT		x		=	$	-		
210430	Hydroseed	SQFT		x		=	$	-		
210600	Compost	SQFT		x		=	$	-		
210630	Incorporate Materials	SQFT		x		=	$	-		
								Subtotal Erosion Control	$	*33,400*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost		
130300	Prepare SWPPP	LS	1	x	10,000.00	=	$	10,000		
130200	Prepare WPCP	LS		x		=	$	-		
130100	Job Site Management	LS	1	x	7,500.00	=	$	7,500		
130330	Storm Water Annual Report	EA	2	x	2,000.00	=	$	4,000		
130310	Rain Event Action Plan (REAP)	EA	4	x	550.00	=	$	2,200		
130320	Storm Water Sampling and Analysis Day	EA	4	x	575.00	=	$	2,300		
130520	Temporary Hydraulic Mulch	SQYD		x		=	$	-		
130550	Temporary Hydroseed	SQYD		x		=	$	-		
130505	Move-In/Move-Out (Temporary Erosion Control)	EA	2	x	1,500.00	=	$	3,000		
130640	Temporary Fiber Roll	LF	6,680	x	5.00	=	$	33,400		
130900	Temporary Concrete Washout	LS	1	x	2,500.00	=	$	2,500		
130710	Temporary Construction Entrance	EA	2	x	4,000.00	=	$	8,000		
130610	Temporary Check Dam	LF		x		=	$	-		
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-		
130730	Street Sweeping	LS	1	x	25,000.00	=	$	25,000		
								Subtotal NPDES	$	*97,900*

			$	**224,700**
			TOTAL ENVIRONMENTAL	

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS	1	x	10,000.00	=	$	10,000		
066596	Additional Water Pollution Control**	LS	1	x	10,000.00	=	$	10,000		
066597	Storm Water Sampling and Analysis***	LS	1	x	10,000.00	=	$	10,000		
XXXXXX	Some Item	LS		x		=	$	-		
								Subtotal Supplemental Work for NDPS	$	*30,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS	1	x	10,000.00	=	$	10,000
860201	Signal and Lighting	LS		x		=	$	-
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *10,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA	9	x	500.00	=	$	4,500
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF		x		=	$	-
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT		x		=	$	-
150742	Remove Roadside Sign	EA	9	x	500.00	=	$	4,500
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF	10,020	x	3.30	=	$	33,066
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT		x		=	$	-
120090	Construction Area Signs	LS	1	x	10,000.00	=	$	10,000
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-

Subtotal Traffic Signing and Striping $ *52,066*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS	6	x	$ 1,500	=	$	9,000

Subtotal Traffic Management Plan $ *9,000*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	100,000.00	=	$	100,000
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *100,000*

TOTAL TRAFFIC ITEMS **$ 171,100**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Type X)	LF		x		=	$	-
XXXXXX	Some Item	LS		x	5,000,000	=	$	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1 through 7 $ 2,270,000

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items						
	ADA Items		1.0%	$	22,700	
8B - Bike Path Items						
	Bike Path Items		1.0%	$	22,700	
8C - Other Minor Items						
	Other Minor Items		8.0%	$	181,600	
	Total of Section 1-7	$ 2,270,000	x 10.0%	= $	227,000	

TOTAL MINOR ITEMS **$ 227,000**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$ 2,497,000	x	10%	= $	249,700	

TOTAL MOBILIZATION **$ 249,700**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		=	$	-
066094	Value Analysis	LS	1	x	10,000.00	=	$	10,000
066070	Maintain Traffic	LS	1	x	10,000.00	=	$	10,000
066919	Dispute Resolution Board	LS		x		=	$	-
066921	Dispute Resolution Advisor	LS		x		=	$	-
066015	Federal Trainee Program	LS		x		=	$	-
066610	Partnering	LS		x		=	$	-
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					=	$	30,000
	Total Section 1-8	$ 2,497,000			4%	=	$	99,880

TOTAL SUPPLEMENTAL WORK **$ 149,900**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS	1	x	10,000.00	=	$10,000
066063	Traffic Management Plan - Public Information	LS	1	x	10,000.00	=	$10,000
066901	Water Expenses	LS	1	x	10,000.00	=	$10,000
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS	1	x	5,000.00	=	$5,000
XXXXXX	Some Item	Unit		x		=	$0

Total Section 1-8	$	2,497,000		2%	= $	49,940

TOTAL STATE FURNISHED **$85,000**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $2,497,000 (used to calculate TRO)

Total Construction Cost (excluding TRO and Contingency) $2,981,600 (used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	120	X	$1,249	=	$149,900

TOTAL TIME-RELATED OVERHEAD **$149,900**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$	2,981,600	x	**40%**	=	$1,192,640

TOTAL CONTINGENCY **$1,192,700**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$150		$150		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES	**$0**
TOTAL COST OF BUILDINGS	**$0**
Structures Mobilization Percentage 10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage 10%	**$0**
TOTAL COST OF STRUCTURES	**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ------ Division of Structures Date

EA: 01-LOCAL PID: EVCRCP

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	377,600
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	40,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$417,600**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$417,600**
N)	**RIGHT OF WAY SUPPORT**	**$0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

EA: 01-LOCAL PID: EVCRCP

IV. SUPPORT COST ESTIMATE SUMMARY

Note: Use PRSM project data.

Total by FY		Escalated Support Cost for Estimate To Completion (ETC) PA&ED	PS&E	RW	CON	Total $
< 2010	Expended					
	ETC					
2011	Expended					
	ETC					
2012	Expended					
	ETC					
2013	Expended					
	ETC					
2014	Expended					
	ETC					
2015	Expended					
	ETC					
2016	Expended					
	ETC					
2017	Expended					
	ETC					
2018	Expended					
	ETC					
2019	Expended					
	ETC					
2020	Expended					
	ETC					
2021	Expended					
	ETC					
2022	Expended					
	ETC					
2023	Expended					
	ETC					
2024	Expended					
	ETC					
2025 >	Expended					
	ETC					
EAC (Expended + ETC)		$0	$0	$0	$0	$0
Approved Budget (PRSM)						
Difference (Budget - EAC)		$0	$0	$0	$0	$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	**$4,742,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

PRSM workplan hours/costs verified against approved MWA:

Office Chief - _____ Date _____

Approved by:

Project Control - _____ Date _____

PROJECT

PLANNING COST ESTIMATE

EA: 01-LOCAL PID: EVCRCP

EA: 01-LOCAL

PID: EVCRCP

District-County-Route: 01-DN-EVCR

PM: 0.0 - 1.5

Type of Estimate : Programming

Program Code : k

Project Limits : Along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive

Project Description: Widen roadway to have 12' Lanes, 4' Paved Shoulders and 2' graded soft shoulder

Scope :

Alternative : **Alternative A, Roadway Segment 3 (L=1,690 ft)**

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 2,157,900	$ 2,398,006
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 2,157,900	$ 2,398,006
TOTAL RIGHT OF WAY COST	$ 20,000	$ 20,000
TOTAL CAPITAL OUTLAY COSTS	**$ 2,178,000**	**$ 2,419,000**
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL SUPPORT COST	**$ -**	**$ -**
TOTAL PROJECT COST	**$ 2,200,000**	**$ 2,450,000**

If Project has been programmed enter Programmed Amount

	Month	/	Year
Date of Estimate (Month/Year)	1	/	2020
Estimated Construction Start (Month/Year)	4	/	2024
Number of Working Days =	80		
Estimated Mid-Point of Construction (Month/Year)	8	/	2024
Estimated Construction End (Month/Year)	12	/	2024
Number of Plant Establishment Days	261		

Estimated Project Schedule

PID Approval	6/1/2021
PA/ED Approval	7/1/2022
PS&E	10/1/2023
RTL	12/1/2023
Begin Construction	4/1/2024

Reviewed by District O.E.

Office Engineer	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

Approved by Project Manager

Project Manager	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	82,400
2	**Pavement Structural Section**	$	240,900
3	**Drainage**	$	528,300
4	**Specialty Items**	$	45,000
5	**Environmental**	$	114,300
6	**Traffic Items**	$	164,800
7	**Detours**	$	-
8	**Minor Items**	$	117,600
9	**Roadway Mobilization**	$	129,400
10	**Supplemental Work**	$	101,800
11	**State Furnished**	$	45,900
12	**Time-Related Overhead**	$	-
13	**Roadway Contingency**	$	587,500
	TOTAL ROADWAY ITEMS	**$**	**2,157,900**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	751	x	83.00	=	$	62,333
19010X	Roadway Excavation (Type X) ADL	CY		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
16010X	Clearing & Grubbing	LS	1	x	20,000.00	=	$	20,000
170101	Develop Water Supply	LS		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS	**$**	**82,400**

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY		x		=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	1,394	x	120.00	=	$	167,280
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x		=	$	-
26020X	Class 2 Aggregate Base	CY	751	x	90.00	=	$	67,590
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON	3	x	2,000.00	=	$	6,000
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731530	Minor Concrete (Textured Paving)	CY		x		=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY		x		=	$	-
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
150860	Remove Base and Surfacing	CY		x		=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x		=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS	**$**	**240,900**

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		=	$	-
641107	18" Plastic Pipe	LF	2,113	x	250.00	=	$	528,250
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS $ 528,300

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS	1	x	5,000.00	=	$	5,000
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	10,000.00	=	$	10,000
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF		x		=	$	-
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Metal Beam Guard Railing	LF		x		=	$	-
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Relocate Utility Pole	EA	3	x	10,000.00	=	$	30,000

TOTAL SPECIALTY ITEMS $ 45,000

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
	Biological Mitigation	LS		x		=	$	-		
130670	Remove Tree	LF	30	x	250.00	=	$	7,500		
141000	Temporary Fence (Type ESA)	LF	3,380	x	5.00	=	$	16,900		
								Subtotal Environmental Mitigation	$	*24,400*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
20XXXX	Highway Planting	LS		x		=	$	-		
20XXXX	Irrigation System	LS		x		=	$	-		
204099	Plant Establishment Work	LS		x		=	$	-		
204101	Extend Plant Establishment Work	LS		x		=	$	-		
20XXXX	Follow-up Landscape Project	LS		x		=	$	-		
150685	Remove Irrigation Facility	LS		x		=	$	-		
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		=	$	-		
206400	Check and Test Existing Irrigation Facilities	LS		x		=	$	-		
21011X	Imported Topsoil (X)	CY/TON		x		=	$	-		
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		=	$	-		
200122	Weed Germination	SQYD		x		=	$	-		
208304	Water Meter	EA		x		=	$	-		
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		=	$	-		
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		=	$	-		
								Subtotal Landscape and Irrigation	$	-

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)			Cost		
210010	Move In/Move Out (Erosion Control)	EA		x		=	$	-		
210350	Fiber Rolls	LF	1690	x	5	=	$	8,450		
210360	Compost Sock	LF		x		=	$	-		
2102XX	Rolled Erosion Control Product (X)	SQFT		x		=	$	-		
21025X	Bonded Fiber Matrix	SQFT/ACRE		x		=	$	-		
210300	Hydromulch	SQFT		x		=	$	-		
210420	Straw	SQFT		x		=	$	-		
210430	Hydroseed	SQFT		x		=	$	-		
210600	Compost	SQFT		x		=	$	-		
210630	Incorporate Materials	SQFT		x		=	$	-		
								Subtotal Erosion Control	$	*8,450*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost		
130300	Prepare SWPPP	LS	1	x	10,000.00	=	$	10,000		
130200	Prepare WPCP	LS		x		=	$	-		
130100	Job Site Management	LS	1	x	7,500.00	=	$	7,500		
130330	Storm Water Annual Report	EA	2	x	2,000.00	=	$	4,000		
130310	Rain Event Action Plan (REAP)	EA	4	x	550.00	=	$	2,200		
130320	Storm Water Sampling and Analysis Day	EA	4	x	575.00	=	$	2,300		
130520	Temporary Hydraulic Mulch	SQYD		x		=	$	-		
130550	Temporary Hydroseed	SQYD		x		=	$	-		
130505	Move-In/Move-Out (Temporary Erosion Control)	EA	2	x	1,500.00	=	$	3,000		
130640	Temporary Fiber Roll	LF	3,380	x	5.00	=	$	16,900		
130900	Temporary Concrete Washout	LS	1	x	2,500.00	=	$	2,500		
130710	Temporary Construction Entrance	EA	2	x	4,000.00	=	$	8,000		
130610	Temporary Check Dam	LF		x		=	$	-		
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-		
130730	Street Sweeping	LS	1	x	25,000.00	=	$	25,000		
								Subtotal NPDES	$	*81,400*

								TOTAL ENVIRONMENTAL	**$**	**114,300**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS	1	x	10,000.00	=	$	10,000		
066596	Additional Water Pollution Control**	LS	1	x	10,000.00	=	$	10,000		
066597	Storm Water Sampling and Analysis***	LS	1	x	10,000.00	=	$	10,000		
XXXXXX	Some Item	LS		x		=	$	-		
								Subtotal Supplemental Work for NDPS	$	*30,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS	1	x	5,000.00	=	$	5,000
860201	Signal and Lighting	LS		x		=	$	-
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *5,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA	9	x	500.00	=	$	4,500
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF		x		=	$	-
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT		x		=	$	-
150742	Remove Roadside Sign	EA	9	x	500.00	=	$	4,500
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF	5,070	x	3.30	=	$	16,731
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT		x		=	$	-
120090	Construction Area Signs	LS	1	x	5,000.00	=	$	5,000
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-

Subtotal Traffic Signing and Striping $ *30,731*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS	6	x	$ 1,500	=	$	9,000

Subtotal Traffic Management Plan $ *9,000*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	120,000.00	=	$	120,000
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *120,000*

TOTAL TRAFFIC ITEMS **$ 164,800**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Type X)	LF		x		=	$	-
XXXXXX	Some Item	LS		x		=	$	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1 through 7 $ 1,175,700

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
	ADA Items			1.0%	$	11,757	
8B - Bike Path Items							
	Bike Path Items			1.0%	$	11,757	
8C - Other Minor Items							
	Other Minor Items			8.0%	$	94,056	
	Total of Section 1-7	$	1,175,700	x 10.0%	= $	117,570	

TOTAL MINOR ITEMS **$ 117,600**

SECTIONS 9: MOBILIZATION

Item code								
999990	Total Section 1-8	$	1,293,300	x	10%	=	$	129,330

TOTAL MOBILIZATION **$ 129,400**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		=	$	-
066094	Value Analysis	LS	1	x	10,000.00	=	$	10,000
066070	Maintain Traffic	LS	1	x	10,000.00	=	$	10,000
066919	Dispute Resolution Board	LS		x		=	$	-
066921	Dispute Resolution Advisor	LS		x		=	$	-
066015	Federal Trainee Program	LS		x		=	$	-
066610	Partnering	LS		x		=	$	-
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					=	$	30,000
	Total Section 1-8	$	1,293,300		4%	=	$	51,732

TOTAL SUPPLEMENTAL WORK **$ 101,800**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS	1	x	10,000.00	=	$10,000
066063	Traffic Management Plan - Public Information	LS	1	x	10,000.00	=	$10,000
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS		x		=	$0
XXXXXX	Some Item	Unit		x		=	$0

Total Section 1-8	$	1,293,300	2%	= $	25,866

TOTAL STATE FURNISHED **$45,900**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization	$1,293,300	(used to calculate TRO)
Total Construction Cost (excluding TRO and Contingency)	$1,570,400	(used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **10%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	80	X	$0	=	$0

TOTAL TIME-RELATED OVERHEAD **$0**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$	1,468,600	x	**40%**	=	$587,440	

TOTAL CONTINGENCY **$587,500**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$150		$150		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES	**$0**
TOTAL COST OF BUILDINGS	**$0**
Structures Mobilization Percentage 10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage 10%	**$0**
TOTAL COST OF STRUCTURES	**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ------ Division of Structures Date

EA: 01-LOCAL PID: EVCRCP

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	0
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	20,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$20,000**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$20,000**
N)	**RIGHT OF WAY SUPPORT**	**$0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

EA: 01-LOCAL PID: EVCRCP

IV. SUPPORT COST ESTIMATE SUMMARY

Note: Use PRSM project data.

Total by FY		Escalated Support Cost for Estimate To Completion (ETC) PA&ED	PS&E	RW	CON	Total $
< 2010	Expended					
	ETC					
2011	Expended					
	ETC					
2012	Expended					
	ETC					
2013	Expended					
	ETC					
2014	Expended					
	ETC					
2015	Expended					
	ETC					
2016	Expended					
	ETC					
2017	Expended					
	ETC					
2018	Expended					
	ETC					
2019	Expended					
	ETC					
2020	Expended					
	ETC					
2021	Expended					
	ETC					
2022	Expended					
	ETC					
2023	Expended					
	ETC					
2024	Expended					
	ETC					
2025 >	Expended					
	ETC					
EAC (Expended + ETC)		$0	$0	$0	$0	$0
Approved Budget (PRSM)						
Difference (Budget - EAC)		$0	$0	$0	$0	$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	**$2,178,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

PRSM workplan hours/costs verified against approved MWA:

Office Chief - _____ Date _____

Approved by:

Project Control - _____ Date _____

PROJECT

PLANNING COST ESTIMATE

EA: 01-LOCAL PID: EVCRCP

EA: 01-LOCAL

PID: EVCRCP

District-County-Route: 01-DN-EVCR

PM: 0.0 - 1.5

Type of Estimate : Programming

Program Code : k

Project Limits : Along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive

Project Description: Median widening for Two-Way Left Turn Lane

Scope :

Alternative : Alternative B, Roadway Segment 1

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 1,279,400	$ 1,421,757
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 1,279,400	$ 1,421,757
TOTAL RIGHT OF WAY COST	$ 20,000	$ 20,000
TOTAL CAPITAL OUTLAY COSTS	$ 1,300,000	$ 1,442,000
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL SUPPORT COST	$ -	$ -
TOTAL PROJECT COST	$ 1,300,000	$ 1,450,000

If Project has been programmed enter Programmed Amount $ 250,000,000

	Month	/ Year
Date of Estimate (Month/Year)	1	/ 2020
Estimated Construction Start (Month/Year)	4	/ 2024
Number of Working Days =	40	
Estimated Mid-Point of Construction (Month/Year)	8	/ 2024
Estimated Construction End (Month/Year)	12	/ 2024
Number of Plant Establishment Days	261	

Estimated Project Schedule

PID Approval	6/1/2024
PA/ED Approval	7/1/2022
PS&E	10/1/2023
RTL	12/1/2023
Begin Construction	4/1/2024

Reviewed by District O.E.

Office Engineer	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

Approved by Project Manager

Project Manager	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	86,600
2	**Pavement Structural Section**	$	133,000
3	**Drainage**	$	375,000
4	**Specialty Items**	$	35,000
5	**Environmental**	$	49,700
6	**Traffic Items**	$	77,100
7	**Detours**	$	-
8	**Minor Items**	$	75,700
9	**Roadway Mobilization**	$	-
10	**Supplemental Work**	$	83,300
11	**State Furnished**	$	22,200
12	**Time-Related Overhead**	$	-
13	**Roadway Contingency**	$	341,800
	TOTAL ROADWAY ITEMS	**$**	**1,279,400**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	741	x	83.00	=	$	61,503
19010X	Roadway Excavation (Type X) ADL	CY		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
16010X	Clearing & Grubbing	LS/ACRE	1	x	25,000.00	=	$	25,000
170101	Develop Water Supply	LS		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS	**$**	**86,600**

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY		x		=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	788	x	120.00	=	$	94,560
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY	204	x	90.00	=	$	18,360
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON	10	x	2,000.00	=	$	20,000
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731530	Minor Concrete (Textured Paving)	CY		x		=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY		x		=	$	-
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
150860	Remove Base and Surfacing	CY		x		=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x		=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS	**$**	**133,000**

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		=	$	-
641107	18" Plastic Pipe	LF	1,500	x	250.00	=	$	375,000
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS $ 375,000

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS	1	x	5,000.00	=	$	5,000
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	10,000.00	=	$	10,000
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF		x		=	$	-
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Metal Beam Guard Railing	LF		x		=	$	-
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Relocate Utility Pole	EA	2	x	10,000.00	=	$	20,000

TOTAL SPECIALTY ITEMS $ 35,000

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
	Biological Mitigation	LS		x		=	$	-		
160120	Remove Tree	EA	1	x	10,000.00	=	$	10,000		
141000	Temporary Fence (Type ESA)	LF	1,000	x	5.00	=	$	5,000		
								Subtotal Environmental Mitigation	$	*15,000*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
20XXXX	Highway Planting	LS		x		=	$	-		
20XXXX	Irrigation System	LS		x		=	$	-		
204099	Plant Establishment Work	LS		x		=	$	-		
204101	Extend Plant Establishment Work	LS		x		=	$	-		
20XXXX	Follow-up Landscape Project	LS		x		=	$	-		
150685	Remove Irrigation Facility	LS		x		=	$	-		
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		=	$	-		
206400	Check and Test Existing Irrigation Facilities	LS		x		=	$	-		
21011X	Imported Topsoil (X)	CY/TON		x		=	$	-		
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		=	$	-		
200122	Weed Germination	SQYD		x		=	$	-		
208304	Water Meter	EA		x		=	$	-		
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		=	$	-		
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		=	$	-		
								Subtotal Landscape and Irrigation	$	-

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)			Cost		
210010	Move In/Move Out (Erosion Control)	EA		x		=	$	-		
210350	Fiber Rolls	LF	1000	x	5	=	$	5,000		
210360	Compost Sock	LF		x		=	$	-		
2102XX	Rolled Erosion Control Product (X)	SQFT		x		=	$	-		
21025X	Bonded Fiber Matrix	SQFT/ACRE		x		=	$	-		
210300	Hydromulch	SQFT		x		=	$	-		
210420	Straw	SQFT		x		=	$	-		
210430	Hydroseed	SQFT		x		=	$	-		
210600	Compost	SQFT		x		=	$	-		
210630	Incorporate Materials	SQFT		x		=	$	-		
								Subtotal Erosion Control	$	*5,000*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost		
130300	Prepare SWPPP	LS		x		=	$	-		
130200	Prepare WPCP	LS	1	x	2,500.00	=	$	2,500		
130100	Job Site Management	LS	1	x	7,500.00	=	$	7,500		
130330	Storm Water Annual Report	EA	1	x	2,000.00	=	$	2,000		
130310	Rain Event Action Plan (REAP)	EA	1	x	550.00	=	$	550		
130320	Storm Water Sampling and Analysis Day	EA	1	x	575.00	=	$	575		
130520	Temporary Hydraulic Mulch	SQYD		x		=	$	-		
130550	Temporary Hydroseed	SQYD		x		=	$	-		
130505	Move-In/Move-Out (Temporary Erosion Control)	EA	1	x	1,500.00	=	$	1,500		
130640	Temporary Fiber Roll	LF		x		=	$	-		
130900	Temporary Concrete Washout	LS		x		=	$	-		
130710	Temporary Construction Entrance	EA		x		=	$	-		
130610	Temporary Check Dam	LF		x		=	$	-		
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-		
130730	Street Sweeping	LS	1	x	15,000.00	=	$	15,000		
								Subtotal NPDES	$	*29,625*

								TOTAL ENVIRONMENTAL	**$**	**49,700**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS	1	x	10,000.00	=	$	10,000		
066596	Additional Water Pollution Control**	LS	1	x	10,000.00	=	$	10,000		
066597	Storm Water Sampling and Analysis***	LS	1	x	10,000.00	=	$	10,000		
XXXXXX	Some Item	LS		x		=	$	-		
								Subtotal Supplemental Work for NDPS	$	*30,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS	1	x	10,000.00	=	$	10,000
860201	Signal and Lighting	LS		x		=	$	-
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *10,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA	3	x	10,000.00	=	$	30,000
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF		x		=	$	-
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT		x		=	$	-
150742	Remove Roadside Sign	EA	3	x	500.00	=	$	1,500
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF	2,900	x	3.30	=	$	9,570
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT		x		=	$	-
120090	Construction Area Signs	LS	1	x	10,000.00	=	$	10,000
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-

Subtotal Traffic Signing and Striping $ *51,070*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS	4	x	$ 1,500	=	$	6,000

Subtotal Traffic Management Plan $ *6,000*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	10,000.00	=	$	10,000
129110	Temporary Crash Cushion	EA		x		=	$	-
129000		LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *10,000*

TOTAL TRAFFIC ITEMS **$ 77,100**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Type X)	LF		x		=	$	-
XXXXXX	Some Item	LS		x	5,000,000	=	$	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1 through 7 $ 756,400

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items						
	ADA Items		1.0%	$	7,564	
8B - Bike Path Items						
	Bike Path Items		1.0%	$	7,564	
8C - Other Minor Items						
	Other Minor Items		8.0%	$	60,512	
	Total of Section 1-7	$ 756,400	x 10.0%	= $	75,640	

TOTAL MINOR ITEMS **$ 75,700**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$ 832,100	x	10%	=	$	-

TOTAL MOBILIZATION **$ -**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		=	$	-
066094	Value Analysis	LS	1	x	10,000.00	=	$	10,000
066070	Maintain Traffic	LS	1	x	10,000.00	=	$	10,000
066919	Dispute Resolution Board	LS		x		=	$	-
066921	Dispute Resolution Advisor	LS		x		=	$	-
066015	Federal Trainee Program	LS		x		=	$	-
066610	Partnering	LS		x		=	$	-
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					=	$	30,000
	Total Section 1-8	$ 832,100			4%	=	$	33,284

TOTAL SUPPLEMENTAL WORK **$ 83,300**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS	1	x	500.00	=	$500
066063	Traffic Management Plan - Public Information	LS	1	x	2,500.00	=	$2,500
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS	1	x	2,500.00	=	$2,500
XXXXXX	Some Item	Unit		x		=	$0

Total Section 1-8	$	832,100	2%	= $	16,642

TOTAL STATE FURNISHED **$22,200**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $832,100 (used to calculate TRO)

Total Construction Cost (excluding TRO and Contingency) $937,600 (used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **10%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	40	X	$0	=	$0

TOTAL TIME-RELATED OVERHEAD **$0**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$	854,300	x	**40%**	=	$341,720	

TOTAL CONTINGENCY **$341,800**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$150		$150		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES	**$0**
TOTAL COST OF BUILDINGS	**$0**
Structures Mobilization Percentage 10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage 10%	**$0**
TOTAL COST OF STRUCTURES	**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ------ Division of Structures Date

EA: 01-LOCAL PID: EVCRCP

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	0
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	20,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$20,000**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$20,000**
N)	**RIGHT OF WAY SUPPORT**	**$0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

EA: 01-LOCAL PID: EVCRCP

IV. SUPPORT COST ESTIMATE SUMMARY

Note: Use PRSM project data.

Total by FY		Escalated Support Cost for Estimate To Completion (ETC) PA&ED	PS&E	RW	CON	Total $
< 2010	Expended					
	ETC					
2011	Expended					
	ETC					
2012	Expended					
	ETC					
2013	Expended					
	ETC					
2014	Expended					
	ETC					
2015	Expended					
	ETC					
2016	Expended					
	ETC					
2017	Expended					
	ETC					
2018	Expended					
	ETC					
2019	Expended					
	ETC					
2020	Expended					
	ETC					
2021	Expended					
	ETC					
2022	Expended					
	ETC					
2023	Expended					
	ETC					
2024	Expended					
	ETC					
2025 >	Expended					
	ETC					
EAC (Expended + ETC)		$0	$0	$0	$0	$0
Approved Budget (PRSM)						
Difference (Budget - EAC)		$0	$0	$0	$0	$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	**$1,300,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

PRSM workplan hours/costs verified against approved MWA:

Office Chief - _____ Date _____

Approved by:

Project Control - _____ Date _____

PROJECT

PLANNING COST ESTIMATE

EA: 01-LOCAL PID: EVCRCP

EA: 01-LOCAL

PID: EVCRCP

District-County-Route: 01-DN-EVCR

PM: 0.0 - 1.5

Type of Estimate : Programming

Program Code : k

Project Limits : Along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive

Project Description: Median widening for Two-Way Left Turn Lane.

Scope :

Alternative : **Alternative B, Roadway Segment 2 (L=3,340ft)**

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 6,185,800	$ 6,874,084
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 6,185,800	$ 6,874,084
TOTAL RIGHT OF WAY COST	$ 417,600	$ 417,600
TOTAL CAPITAL OUTLAY COSTS	**$ 6,604,000**	**$ 7,292,000**
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL SUPPORT COST	**$ -**	**$ -**
TOTAL PROJECT COST	**$ 6,650,000**	**$ 7,300,000**

If Project has been programmed enter Programmed Amount

	Month	/	Year
Date of Estimate (Month/Year)	1	/	2020
Estimated Construction Start (Month/Year)	1	/	2023
Number of Working Days =			1305
Estimated Mid-Point of Construction (Month/Year)	6	/	2020
Estimated Construction End (Month/Year)	12	/	2023
Number of Plant Establishment Days			261

Estimated Project Schedule

PID Approval	6/1/2021
PA/ED Approval	71/2022
PS&E	10/1/2023
RTL	12/1/2023
Begin Construction	4/1/2024

Reviewed by District O.E.		xx/xx/xxxx	(xxx) xxx-xxxx
	Office Engineer	**Date**	**Phone**
Approved by Project Manager		xx/xx/xxxx	(xxx) xxx-xxxx
	Project Manager	**Date**	**Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	378,500
2	**Pavement Structural Section**	$	618,000
3	**Drainage**	$	1,670,000
4	**Specialty Items**	$	135,000
5	**Environmental**	$	282,800
6	**Traffic Items**	$	182,100
7	**Detours**	$	-
8	**Minor Items**	$	326,700
9	**Roadway Mobilization**	$	359,400
10	**Supplemental Work**	$	193,800
11	**State Furnished**	$	111,900
12	**Time-Related Overhead**	$	215,600
13	**Roadway Contingency**	$	1,712,000
	TOTAL ROADWAY ITEMS	**$**	**6,185,800**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

EA: 01-LOCAL PID: EVCRCP

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	3,897	x	83.00	=	$	323,451
19010X	Roadway Excavation (Type X) ADL	CY		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
16010X	Clearing & Grubbing	LS/ACRE	1	x	55,000.00	=	$	55,000
170101	Develop Water Supply	LS		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS	**$**	**378,500**

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY		x		=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	2,630	x	130.00	=	$	341,900
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x		=	$	-
26020X	Class 2 Aggregate Base	CY	2,845	x	90.00	=	$	256,050
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON	10	x	2,000.00	=	$	20,000
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731530	Minor Concrete (Textured Paving)	CY		x		=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY		x		=	$	-
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
150860	Remove Base and Surfacing	CY		x		=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x		=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS	**$**	**618,000**

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		=	$	-
641107	18" Plastic Pipe	LF	6,680	x	250.00	=	$	1,670,000
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS $ 1,670,000

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS	1	x	5,000.00	=	$	5,000
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	10,000.00	=	$	10,000
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF		x		=	$	-
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Metal Beam Guard Railing	LF		x		=	$	-
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Relocate Utility Pole	EA	12	x	10,000.00	=	$	120,000

TOTAL SPECIALTY ITEMS $ 135,000

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
	Biological Mitigation	LS		x		=	$	-		
130670	Remove Tree	LF	400	x	250.00	=	$	100,000		
141000	Temporary Fence (Type ESA)	LF	5,845	x	5.00	=	$	29,225		
								Subtotal Environmental Mitigation	$	*129,225*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
20XXXX	Highway Planting	LS		x		=	$	-		
20XXXX	Irrigation System	LS		x		=	$	-		
204099	Plant Establishment Work	LS	1	x	10,000.00	=	$	10,000		
204101	Extend Plant Establishment Work	LS		x		=	$	-		
20XXXX	Follow-up Landscape Project	LS		x		=	$	-		
150685	Remove Irrigation Facility	LS		x		=	$	-		
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		=	$	-		
206400	Check and Test Existing Irrigation Facilities	LS		x		=	$	-		
21011X	Imported Topsoil (X)	CY/TON		x		=	$	-		
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		=	$	-		
200122	Weed Germination	SQYD		x		=	$	-		
208304	Water Meter	EA		x		=	$	-		
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		=	$	-		
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		=	$	-		
								Subtotal Landscape and Irrigation	$	*10,000*

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)			Cost		
210010	Move In/Move Out (Erosion Control)	EA		x		=	$	-		
210350	Fiber Rolls	LF	6680	x	5	=	$	33,400		
210360	Compost Sock	LF		x		=	$	-		
2102XX	Rolled Erosion Control Product (X)	SQFT		x		=	$	-		
21025X	Bonded Fiber Matrix	SQFT/ACRE		x		=	$	-		
210300	Hydromulch	SQFT		x		=	$	-		
210420	Straw	SQFT		x		=	$	-		
210430	Hydroseed	SQFT		x		=	$	-		
210600	Compost	SQFT		x		=	$	-		
210630	Incorporate Materials	SQFT		x		=	$	-		
								Subtotal Erosion Control	$	*33,400*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost		
130300	Prepare SWPPP	LS	1	x	10,000.00	=	$	10,000		
130200	Prepare WPCP	LS		x		=	$	-		
130100	Job Site Management	LS	1	x	7,500.00	=	$	7,500		
130330	Storm Water Annual Report	EA	2	x	2,000.00	=	$	4,000		
130310	Rain Event Action Plan (REAP)	EA	6	x	550.00	=	$	3,300		
130320	Storm Water Sampling and Analysis Day	EA	6	x	575.00	=	$	3,450		
130520	Temporary Hydraulic Mulch	SQYD		x		=	$	-		
130550	Temporary Hydroseed	SQYD		x		=	$	-		
130505	Move-In/Move-Out (Temporary Erosion Control)	EA	2	x	1,500.00	=	$	3,000		
130640	Temporary Fiber Roll	LF	6,680	x	5.00	=	$	33,400		
130900	Temporary Concrete Washout	LS	1	x	2,500.00	=	$	2,500		
130710	Temporary Construction Entrance	EA	2	x	4,000.00	=	$	8,000		
130610	Temporary Check Dam	LF		x		=	$	-		
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-		
130730	Street Sweeping	LS	1	x	35,000.00	=	$	35,000		
								Subtotal NPDES	$	*110,150*

								TOTAL ENVIRONMENTAL	**$**	**282,800**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS	1	x	10,000.00	=	$	10,000		
066596	Additional Water Pollution Control**	LS	1	x	10,000.00	=	$	10,000		
066597	Storm Water Sampling and Analysis***	LS	1	x	10,000.00	=	$	10,000		
XXXXXX	Some Item	LS		x		=	$	-		
								Subtotal Supplemental Work for NDPS	$	*30,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS	1	x	10,000.00	=	$	10,000
860201	Signal and Lighting	LS		x		=	$	-
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *10,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA	9	x	500.00	=	$	4,500
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF		x		=	$	-
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT		x		=	$	-
150742	Remove Roadside Sign	EA	9	x	500.00	=	$	4,500
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF	13,360	x	3.30	=	$	44,088
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT		x		=	$	-
120090	Construction Area Signs	LS	1	x	10,000.00	=	$	10,000
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-

Subtotal Traffic Signing and Striping $ *63,088*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS	6	x	$ 1,500	=	$	9,000

Subtotal Traffic Management Plan $ *9,000*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	100,000.00	=	$	100,000
129110	Temporary Crash Cushion	EA		x		=	$	-
129000		LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *100,000*

TOTAL TRAFFIC ITEMS $ **182,100**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Type X)	LF		x		=	$	-
XXXXXX	Some Item	LS		x		=	$	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1 through 7 $ 3,266,400

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
	ADA Items			1.0%	$	32,664	
8B - Bike Path Items							
	Bike Path Items			1.0%	$	32,664	
8C - Other Minor Items							
	Other Minor Items			8.0%	$	261,312	
	Total of Section 1-7	$	3,266,400	x 10.0%	= $	326,640	

TOTAL MINOR ITEMS **$ 326,700**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$	3,593,100	x 10%	= $	359,310	

TOTAL MOBILIZATION **$ 359,400**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		=	$	-
066094	Value Analysis	LS	1	x	10,000.00	=	$	10,000
066070	Maintain Traffic	LS	1	x	10,000.00	=	$	10,000
066919	Dispute Resolution Board	LS		x		=	$	-
066921	Dispute Resolution Advisor	LS		x		=	$	-
066015	Federal Trainee Program	LS		x		=	$	-
066610	Partnering	LS		x		=	$	-
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					=	$	30,000
	Total Section 1-8	$	3,593,100		4%	=	$	143,724

TOTAL SUPPLEMENTAL WORK **$ 193,800**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS	1	x	10,000.00	=	$10,000
066063	Traffic Management Plan - Public Information	LS	1	x	10,000.00	=	$10,000
066901	Water Expenses	LS	1	x	10,000.00	=	$10,000
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS	1	x	10,000.00	=	$10,000
XXXXXX	Some Item	Unit		x		=	$0

Total Section 1-8	$ 3,593,100	2%	=	$ 71,862	
				TOTAL STATE FURNISHED	**$111,900**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization	$3,593,100	(used to calculate TRO)
Total Construction Cost (excluding TRO and Contingency)	$4,258,200	(used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	1,305	X	$165	=	$215,600

TOTAL TIME-RELATED OVERHEAD	**$215,600**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$ 4,280,000	x	**40%**	=	$1,712,000	
					TOTAL CONTINGENCY	**$1,712,000**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$150		$150		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES	**$0**
TOTAL COST OF BUILDINGS	**$0**
Structures Mobilization Percentage 10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage 10%	**$0**
TOTAL COST OF STRUCTURES	**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ------ Division of Structures Date

EA: 01-LOCAL PID: EVCRCP

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	377,600
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	40,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$417,600**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$417,600**
N)	**RIGHT OF WAY SUPPORT**	**$0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

EA: 01-LOCAL PID: EVCRCP

IV. SUPPORT COST ESTIMATE SUMMARY

Note: Use PRSM project data.

Total by FY		Escalated Support Cost for Estimate To Completion (ETC) PA&ED	PS&E	RW	CON	Total $
< 2010	Expended					
	ETC					
2011	Expended					
	ETC					
2012	Expended					
	ETC					
2013	Expended					
	ETC					
2014	Expended					
	ETC					
2015	Expended					
	ETC					
2016	Expended					
	ETC					
2017	Expended					
	ETC					
2018	Expended					
	ETC					
2019	Expended					
	ETC					
2020	Expended					
	ETC					
2021	Expended					
	ETC					
2022	Expended					
	ETC					
2023	Expended					
	ETC					
2024	Expended					
	ETC					
2025 >	Expended					
	ETC					
EAC (Expended + ETC)		$0	$0	$0	$0	$0
Approved Budget (PRSM)						
Difference (Budget - EAC)		$0	$0	$0	$0	$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	**$6,604,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

PRSM workplan hours/costs verified against approved MWA:

Office Chief - _____ Date _____

Approved by:

Project Control - _____ Date _____

PROJECT

PLANNING COST ESTIMATE

EA: 01-LOCAL PID: EVCRCP

EA: 01-LOCAL

PID: EVCRCP

District-County-Route: 01-DN-EVCR

PM: 0.0 - 1.5

Type of Estimate : Programming

Program Code : k

Project Limits : Along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive

Project Description: 4' paved shoulders, widen to the north, turn pocket

Scope :

Alternative : Intersection Improvements - Movie Lane and Wonder Stump Road

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 2,786,600	$ 3,096,661
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 2,786,600	$ 3,096,661
TOTAL RIGHT OF WAY COST	$ 124,548	$ 124,548
TOTAL CAPITAL OUTLAY COSTS	**$ 2,912,000**	**$ 3,222,000**
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL SUPPORT COST	**$ -**	**$ -**
TOTAL PROJECT COST	**$ 2,950,000**	**$ 3,250,000**

If Project has been programmed enter Programmed Amount $ 250,000,000

	Month	/	Year
Date of Estimate (Month/Year)	1	/	2020
Estimated Construction Start (Month/Year)	4	/	2024
Number of Working Days =	50		
Estimated Mid-Point of Construction (Month/Year)	8	/	2024
Estimated Construction End (Month/Year)	12	/	2024
Number of Plant Establishment Days	261		

Estimated Project Schedule

PID Approval	6/1/2024
PA/ED Approval	7/1/2022
PS&E	10/1/2023
RTL	12/1/2023
Begin Construction	4/1/2024

Reviewed by District O.E.

Office Engineer	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

Approved by Project Manager

Project Manager	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	144,400
2	**Pavement Structural Section**	$	207,600
3	**Drainage**	$	905,000
4	**Specialty Items**	$	5,000
5	**Environmental**	$	157,300
6	**Traffic Items**	$	99,900
7	**Detours**	$	-
8	**Minor Items**	$	152,000
9	**Roadway Mobilization**	$	167,200
10	**Supplemental Work**	$	116,900
11	**State Furnished**	$	68,500
12	**Time-Related Overhead**	$	-
13	**Roadway Contingency**	$	762,800
	TOTAL ROADWAY ITEMS	**$**	**2,786,600**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	1,378	x	83.00	=	$	114,374
19010X	Roadway Excavation (Type X) ADL	CY		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
16010X	Clearing & Grubbing	LS/ACRE	1	x	30,000.00	=	$	30,000
170101	Develop Water Supply	LS		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS $ 144,400

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY		x		=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	1,238	x	120.00	=	$	148,560
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY	611	x	90.00	=	$	54,990
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON	2	x	2,000.00	=	$	4,000
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731530	Minor Concrete (Textured Paving)	CY		x		=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY		x		=	$	-
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
150860	Remove Base and Surfacing	CY		x		=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x		=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS $ 207,600

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF	200	x	25.00	=	$	5,000
641107	18" Plastic Pipe	LF	3,600	x	250.00	=	$	900,000
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS $ 905,000

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS	1	x	5,000.00	=	$	5,000
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS		x		=	$	-
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF		x		=	$	-
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Metal Beam Guard Railing	LF		x		=	$	-
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL SPECIALTY ITEMS $ 5,000

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
	Biological Mitigation	LS		x		=	$	-		
130670	Remove Tree	LF	20	x	250.00	=	$	5,000		
141000	Temporary Fence (Type ESA)	LF	1,650	x	5.00	=	$	8,250		
								Subtotal Environmental Mitigation	$	*13,250*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
20XXXX	Highway Planting	LS		x		=	$	-		
20XXXX	Irrigation System	LS		x		=	$	-		
204099	Plant Establishment Work	LS		x	5,000.00	=	$	-		
204101	Extend Plant Establishment Work	LS		x		=	$	-		
20XXXX	Follow-up Landscape Project	LS		x		=	$	-		
150685	Remove Irrigation Facility	LS		x		=	$	-		
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		=	$	-		
206400	Check and Test Existing Irrigation Facilities	LS		x		=	$	-		
21011X	Imported Topsoil (X)	CY/TON		x		=	$	-		
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		=	$	-		
200122	Weed Germination	SQYD		x		=	$	-		
208304	Water Meter	EA		x		=	$	-		
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		=	$	-		
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		=	$	-		
								Subtotal Landscape and Irrigation	$	-

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)			Cost		
210010	Move In/Move Out (Erosion Control)	EA		x		=	$	-		
210350	Fiber Rolls	LF	3600	x	5	=	$	18,000		
210360	Compost Sock	LF		x		=	$	-		
2102XX	Rolled Erosion Control Product (X)	SQFT		x		=	$	-		
21025X	Bonded Fiber Matrix	SQFT/ACRE		x		=	$	-		
210300	Hydromulch	SQFT		x		=	$	-		
210420	Straw	SQFT		x		=	$	-		
210430	Hydroseed	SQFT		x		=	$	-		
210600	Compost	SQFT		x		=	$	-		
210630	Incorporate Materials	SQFT		x		=	$	-		
								Subtotal Erosion Control	$	*18,000*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost		
130300	Prepare SWPPP	LS	1	x	10,000.00	=	$	10,000		
130200	Prepare WPCP	LS		x		=	$	-		
130100	Job Site Management	LS	1	x	75,800.00	=	$	75,800		
130330	Storm Water Annual Report	EA	2	x	2,000.00	=	$	4,000		
130310	Rain Event Action Plan (REAP)	EA	4	x	550.00	=	$	2,200		
130320	Storm Water Sampling and Analysis Day	EA	4	x	575.00	=	$	2,300		
130520	Temporary Hydraulic Mulch	SQYD		x		=	$	-		
130550	Temporary Hydroseed	SQYD		x		=	$	-		
130505	Move-In/Move-Out (Temporary Erosion Control)	EA	2	x	1,500.00	=	$	3,000		
130640	Temporary Fiber Roll	LF	1,650	x	5.00	=	$	8,250		
130900	Temporary Concrete Washout	LS	1	x	2,500.00	=	$	2,500		
130710	Temporary Construction Entrance	EA	2	x	4,000.00	=	$	8,000		
130610	Temporary Check Dam	LF		x		=	$	-		
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-		
130730	Street Sweeping	LS	1	x	10,000.00	=	$	10,000		
								Subtotal NPDES	$	*126,050*

	TOTAL ENVIRONMENTAL	**$**	**157,300**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS	1	x	10,000.00	=	$	10,000		
066596	Additional Water Pollution Control**	LS	1	x	10,000.00	=	$	10,000		
066597	Storm Water Sampling and Analysis***	LS	1	x	10,000.00	=	$	10,000		
XXXXXX	Some Item	LS		x		=	$	-		
								Subtotal Supplemental Work for NDPS	$	*30,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS	1	x	10,000.00	=	$	10,000
860201	Signal and Lighting	LS		x		=	$	-
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *10,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA	1	x	3,000.00	=	$	3,000
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF		x		=	$	-
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT		x		=	$	-
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF	6,936	x	3.30	=	$	22,889
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT		x		=	$	-
120090	Construction Area Signs	LS	1	x	5,000.00	=	$	5,000
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-

Subtotal Traffic Signing and Striping $ *30,889*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS	6	x	$ 1,500	=	$	9,000

Subtotal Traffic Management Plan $ *9,000*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	50,000.00	=	$	50,000
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *50,000*

TOTAL TRAFFIC ITEMS $ **99,900**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Type X)	LF		x		=	$	-
XXXXXX	Some Item	LS		x	5,000,000	=	$	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1 through 7 $ 1,519,200

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items						
	ADA Items		1.0%	$	15,192	
8B - Bike Path Items						
	Bike Path Items		1.0%	$	15,192	
8C - Other Minor Items						
	Other Minor Items		8.0%	$	121,536	
	Total of Section 1-7	$ 1,519,200	x 10.0%	= $	151,920	

TOTAL MINOR ITEMS **$ 152,000**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$ 1,671,200	x	10%	= $	167,120	

TOTAL MOBILIZATION **$ 167,200**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		=	$	-
066094	Value Analysis	LS	1	x	10,000.00	=	$	10,000
066070	Maintain Traffic	LS	1	x	10,000.00	=	$	10,000
066919	Dispute Resolution Board	LS		x		=	$	-
066921	Dispute Resolution Advisor	LS		x		=	$	-
066015	Federal Trainee Program	LS		x		=	$	-
066610	Partnering	LS		x		=	$	-
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					=	$	30,000
	Total Section 1-8	$ 1,671,200			4%	=	$	66,848

TOTAL SUPPLEMENTAL WORK **$ 116,900**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS	1	x	10,000.00	=	$10,000
066063	Traffic Management Plan - Public Information	LS	1	x	10,000.00	=	$10,000
066901	Water Expenses	LS	1	x	10,000.00	=	$10,000
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x	7,000.00	=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS	1	x	5,000.00	=	$5,000
XXXXXX	Some Item	Unit		x		=	$0

Total Section 1-8	$	1,671,200	2%	=	$	33,424

TOTAL STATE FURNISHED $68,500

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $1,671,200 (used to calculate TRO)

Total Construction Cost (excluding TRO and Contingency) $2,023,800 (used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	50	X	$0	=	$0

TOTAL TIME-RELATED OVERHEAD $0

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$	1,906,900	x	**40%**	=	$762,760

TOTAL CONTINGENCY $762,800

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$150		$150		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES	**$0**
TOTAL COST OF BUILDINGS	**$0**
Structures Mobilization Percentage 10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage 10%	**$0**
TOTAL COST OF STRUCTURES	**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ------ Division of Structures Date

EA: 01-LOCAL PID: EVCRCP

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	84,548
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	40,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$124,548**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$124,548**
N)	**RIGHT OF WAY SUPPORT**	**$0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

EA: 01-LOCAL PID: EVCRCP

IV. SUPPORT COST ESTIMATE SUMMARY

Note: Use PRSM project data.

Total by FY		Escalated Support Cost for Estimate To Completion (ETC) PA&ED	PS&E	RW	CON	Total $
< 2010	Expended					
	ETC					
2011	Expended					
	ETC					
2012	Expended					
	ETC					
2013	Expended					
	ETC					
2014	Expended					
	ETC					
2015	Expended					
	ETC					
2016	Expended					
	ETC					
2017	Expended					
	ETC					
2018	Expended					
	ETC					
2019	Expended					
	ETC					
2020	Expended					
	ETC					
2021	Expended					
	ETC					
2022	Expended					
	ETC					
2023	Expended					
	ETC					
2024	Expended					
	ETC					
2025 >	Expended					
	ETC					
EAC (Expended + ETC)		$0	$0	$0	$0	$0
Approved Budget (PRSM)						
Difference (Budget - EAC)		$0	$0	$0	$0	$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	**$2,912,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

PRSM workplan hours/costs verified against approved MWA:

Office Chief - _____ Date _____

Approved by:

Project Control - _____ Date _____

PROJECT

PLANNING COST ESTIMATE

EA: 01-LOCAL PID: EVCRCP

EA: 01-LOCAL

PID: EVCRCP

District-County-Route: 01-DN-EVCR

PM: 0.0 - 1.5

Type of Estimate : Programming

Program Code : k

Project Limits : Along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive

Project Description: 4' paved shoulders, widen to the north, westbound left turn pocket at Cunningham Lane.

Scope :

Alternative : Intersection Improvement - Cunningham Lane

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 2,660,900	$ 2,956,974
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 2,660,900	$ 2,956,974
TOTAL RIGHT OF WAY COST	$ 333,052	$ 333,052
TOTAL CAPITAL OUTLAY COSTS	**$ 2,994,000**	**$ 3,291,000**
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL SUPPORT COST	**$ -**	**$ -**
TOTAL PROJECT COST	**$ 3,000,000**	**$ 3,300,000**

If Project has been programmed enter Programmed Amount

	Month	/	Year
Date of Estimate (Month/Year)	1	/	2020
Estimated Construction Start (Month/Year)	4	/	2024
Number of Working Days =			120
Estimated Mid-Point of Construction (Month/Year)	8	/	2024
Estimated Construction End (Month/Year)	12	/	2024
Number of Plant Establishment Days			261

Estimated Project Schedule

PID Approval	6/1/2021
PA/ED Approval	7/1/2022
PS&E	10/1/2023
RTL	12/1/2023
Begin Construction	4/1/2024

Reviewed by District O.E.		xx/xx/xxxx	(xxx) xxx-xxxx
	Office Engineer	**Date**	**Phone**
Approved by Project Manager		xx/xx/xxxx	(xxx) xxx-xxxx
	Project Manager	**Date**	**Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	196,000
2	**Pavement Structural Section**	$	176,500
3	**Drainage**	$	562,500
4	**Specialty Items**	$	70,000
5	**Environmental**	$	153,500
6	**Traffic Items**	$	217,800
7	**Detours**	$	-
8	**Minor Items**	$	137,700
9	**Roadway Mobilization**	$	151,400
10	**Supplemental Work**	$	110,600
11	**State Furnished**	$	65,300
12	**Time-Related Overhead**	$	90,900
13	**Roadway Contingency**	$	728,700
	TOTAL ROADWAY ITEMS	**$**	**2,660,900**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	2,000	x	83.00	=	$	166,000
19010X	Roadway Excavation (Type X) ADL	CY		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
16010X	Clearing & Grubbing	LS	1	x	30,000.00	=	$	30,000
170101	Develop Water Supply	LS		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS $ 196,000

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY		x		=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	1,024	x	120.00	=	$	122,880
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY	506	x	90.00	=	$	45,540
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x	63.00	=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON	4	x	2,000.00	=	$	8,000
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731530	Minor Concrete (Textured Paving)	CY		x		=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY		x		=	$	-
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
150860	Remove Base and Surfacing	CY		x		=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x		=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS $ 176,500

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		=	$	-
641107	18" Plastic Pipe	LF	2,250	x	250.00	=	$	562,500
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS $ 562,500

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS	1	x	5,000.00	=	$	5,000
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	5,000.00	=	$	5,000
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x	50.00	=	$	-
150662	Remove Metal Beam Guard Railing	LF		x	75.00	=	$	-
150668	Remove Flared End Section	EA		x	200.00	=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Metal Beam Guard Railing	LF		x		=	$	-
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Relocate Utility Pole	EA	6	x	10,000.00	=	$	60,000

TOTAL SPECIALTY ITEMS $ 70,000

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
	Biological Mitigation	LS		x		=	$	-		
130670	Remove Tree	LF	100	x	250.00	=	$	25,000		
141000	Temporary Fence (Type ESA)	LF	3,600	x	5.00	=	$	18,000		
								Subtotal Environmental Mitigation	$	*43,000*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
20XXXX	Highway Planting	LS		x		=	$	-		
20XXXX	Irrigation System	LS		x		=	$	-		
204099	Plant Establishment Work	LS	1	x	10,000.00	=	$	10,000		
204101	Extend Plant Establishment Work	LS		x		=	$	-		
20XXXX	Follow-up Landscape Project	LS		x		=	$	-		
150685	Remove Irrigation Facility	LS		x		=	$	-		
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		=	$	-		
206400	Check and Test Existing Irrigation Facilities	LS		x		=	$	-		
21011X	Imported Topsoil (X)	CY/TON		x		=	$	-		
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		=	$	-		
200122	Weed Germination	SQYD		x		=	$	-		
208304	Water Meter	EA		x		=	$	-		
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		=	$	-		
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		=	$	-		
								Subtotal Landscape and Irrigation	$	*10,000*

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)			Cost		
210010	Move In/Move Out (Erosion Control)	EA		x		=	$	-		
210350	Fiber Rolls	LF	3600	x	5	=	$	18,000		
210360	Compost Sock	LF		x		=	$	-		
2102XX	Rolled Erosion Control Product (X)	SQFT		x		=	$	-		
21025X	Bonded Fiber Matrix	SQFT/ACRE		x		=	$	-		
210300	Hydromulch	SQFT		x		=	$	-		
210420	Straw	SQFT		x		=	$	-		
210430	Hydroseed	SQFT		x		=	$	-		
210600	Compost	SQFT		x		=	$	-		
210630	Incorporate Materials	SQFT		x		=	$	-		
								Subtotal Erosion Control	$	*18,000*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost		
130300	Prepare SWPPP	LS	1	x	10,000.00	=	$	10,000		
130200	Prepare WPCP	LS		x		=	$	-		
130100	Job Site Management	LS	1	x	7,500.00	=	$	7,500		
130330	Storm Water Annual Report	EA	2	x	2,000.00	=	$	4,000		
130310	Rain Event Action Plan (REAP)	EA	4	x	550.00	=	$	2,200		
130320	Storm Water Sampling and Analysis Day	EA	4	x	575.00	=	$	2,300		
130520	Temporary Hydraulic Mulch	SQYD		x		=	$	-		
130550	Temporary Hydroseed	SQYD		x		=	$	-		
130505	Move-In/Move-Out (Temporary Erosion Control)	EA	2	x	1,500.00	=	$	3,000		
130640	Temporary Fiber Roll	LF	3,600	x	5.00	=	$	18,000		
130900	Temporary Concrete Washout	LS	1	x	2,500.00	=	$	2,500		
130710	Temporary Construction Entrance	EA	2	x	4,000.00	=	$	8,000		
130610	Temporary Check Dam	LF		x		=	$	-		
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-		
130730	Street Sweeping	LS	1	x	25,000.00	=	$	25,000		
								Subtotal NPDES	$	*82,500*

								TOTAL ENVIRONMENTAL	**$**	**153,500**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS	1	x	10,000.00	=	$	10,000		
066596	Additional Water Pollution Control**	LS	1	x	10,000.00	=	$	10,000		
066597	Storm Water Sampling and Analysis***	LS	1	x	10,000.00	=	$	10,000		
XXXXXX	Some Item	LS		x		=	$	-		
								Subtotal Supplemental Work for NDPS	$	*30,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS	1	x	15,000.00	=	$	15,000
860201	Signal and Lighting	LS		x		=	$	-
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x	100,000.00	=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *15,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA	6	x	10,000.00	=	$	60,000
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF		x		=	$	-
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT		x		=	$	-
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF	7,200	x	3.30	=	$	23,760
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT		x		=	$	-
120090	Construction Area Signs	LS	1	x	10,000.00	=	$	10,000
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-

Subtotal Traffic Signing and Striping $ *93,760*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS	6	x	$ 1,500	=	$	9,000

Subtotal Traffic Management Plan $ *9,000*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	100,000.00	=	$	100,000
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *100,000*

TOTAL TRAFFIC ITEMS $ **217,800**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Type X)	LF		x		=	$	-
XXXXXX	Some Item	LS		x	5,000,000	=	$	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1 through 7 $ 1,376,300

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items						
	ADA Items		1.0%	$	13,763	
8B - Bike Path Items						
	Bike Path Items		1.0%	$	13,763	
8C - Other Minor Items						
	Other Minor Items		8.0%	$	110,104	
	Total of Section 1-7	$ 1,376,300	x 10.0%	= $	137,630	

TOTAL MINOR ITEMS **$ 137,700**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$ 1,514,000	x	10%	= $	151,400	

TOTAL MOBILIZATION **$ 151,400**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		=	$	-
066094	Value Analysis	LS	1	x	10,000.00	=	$	10,000
066070	Maintain Traffic	LS	1	x	10,000.00	=	$	10,000
066919	Dispute Resolution Board	LS		x		=	$	-
066921	Dispute Resolution Advisor	LS		x		=	$	-
066015	Federal Trainee Program	LS		x		=	$	-
066610	Partnering	LS		x		=	$	-
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					=	$	30,000
	Total Section 1-8	$ 1,514,000			4%	=	$	60,560

TOTAL SUPPLEMENTAL WORK **$ 110,600**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS	1	x	10,000.00	=	$10,000
066063	Traffic Management Plan - Public Information	LS	1	x	10,000.00	=	$10,000
066901	Water Expenses	LS	1	x	10,000.00	=	$10,000
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS	1	x	5,000.00	=	$5,000
XXXXXX	Some Item	Unit		x		=	$0

Total Section 1-8	$	1,514,000		2%	= $	30,280

TOTAL STATE FURNISHED **$65,300**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization	$1,514,000	(used to calculate TRO)
Total Construction Cost (excluding TRO and Contingency)	$1,841,300	(used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	120	X	$758	=	$90,900

TOTAL TIME-RELATED OVERHEAD **$90,900**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$	1,821,600	x	**40%**	=	$728,640

TOTAL CONTINGENCY **$728,700**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$150		$150		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES	**$0**
TOTAL COST OF BUILDINGS	**$0**
Structures Mobilization Percentage 10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage 10%	**$0**
TOTAL COST OF STRUCTURES	**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ------ Division of Structures Date

EA: 01-LOCAL PID: EVCRCP

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	293,052
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	40,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$333,052**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$333,052**
N)	**RIGHT OF WAY SUPPORT**	**$0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

EA: 01-LOCAL PID: EVCRCP

IV. SUPPORT COST ESTIMATE SUMMARY

Note: Use PRSM project data.

Total by FY		Escalated Support Cost for Estimate To Completion (ETC) PA&ED	PS&E	RW	CON	Total $
< 2010	Expended					
	ETC					
2011	Expended					
	ETC					
2012	Expended					
	ETC					
2013	Expended					
	ETC					
2014	Expended					
	ETC					
2015	Expended					
	ETC					
2016	Expended					
	ETC					
2017	Expended					
	ETC					
2018	Expended					
	ETC					
2019	Expended					
	ETC					
2020	Expended					
	ETC					
2021	Expended					
	ETC					
2022	Expended					
	ETC					
2023	Expended					
	ETC					
2024	Expended					
	ETC					
2025 >	Expended					
	ETC					
EAC (Expended + ETC)		$0	$0	$0	$0	$0
Approved Budget (PRSM)						
Difference (Budget - EAC)		$0	$0	$0	$0	$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	**$2,994,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

PRSM workplan hours/costs verified against approved MWA:

Office Chief - _____ Date _____

Approved by:

Project Control - _____ Date _____

PROJECT

PLANNING COST ESTIMATE

EA: 01-LOCAL PID: EVCRCP

EA: 01-LOCAL

PID: EVCRCP

District-County-Route: 01-DN-EVCR

PM: 0.0 - 1.5

Type of Estimate : Programming

Program Code : k

Project Limits : Along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive

Project Description:

Scope : Signing and striping improvements at intersection of US 101 and Elk Valley Crossroad, median striping and yield sign in center of intersection.

Alternative : Alternative A, Intersection Improvement at US 101 and Elk Valley Cross Road

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 219,300	$ 243,701
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 219,300	$ 243,701
TOTAL RIGHT OF WAY COST	$ 10,000	$ 10,000
TOTAL CAPITAL OUTLAY COSTS	$ 230,000	$ 254,000
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL SUPPORT COST	$ -	$ -
TOTAL PROJECT COST	$ 230,000	$ 255,000

If Project has been programmed enter Programmed Amount $ 250,000,000

	Month	/	Year
Date of Estimate (Month/Year)	1	/	2020
Estimated Construction Start (Month/Year)	4	/	2024
Number of Working Days =	25		
Estimated Mid-Point of Construction (Month/Year)	8	/	2024
Estimated Construction End (Month/Year)	12	/	2024
Number of Plant Establishment Days	261		

Estimated Project Schedule

PID Approval	6/1/2021
PA/ED Approval	7/1/2022
PS&E	10/1/20223
RTL	12/1/2023
Begin Construction	4/1/2024

Reviewed by District O.E.

Office Engineer	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

Approved by Project Manager

Project Manager	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	-
2	**Pavement Structural Section**	$	-
3	**Drainage**	$	-
4	**Specialty Items**	$	2,500
5	**Environmental**	$	18,000
6	**Traffic Items**	$	105,900
7	**Detours**	$	-
8	**Minor Items**	$	12,700
9	**Roadway Mobilization**	$	-
10	**Supplemental Work**	$	6,600
11	**State Furnished**	$	12,800
12	**Time-Related Overhead**	$	-
13	**Roadway Contingency**	$	60,800
	TOTAL ROADWAY ITEMS	**$**	**219,300**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)		Cost
190101	Roadway Excavation	CY		x	=	$	-
19010X	Roadway Excavation (Type X) ADL	CY		x	=	$	-
194001	Ditch Excavation	CY		x	=	$	-
19801X	Imported Borrow	CY/TON		x	=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x	=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x	=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x	=	$	-
16010X	Clearing & Grubbing	LS/ACRE		x	=	$	-
170101	Develop Water Supply	LS		x	=	$	-
19801X	Imported Borrow	CY/TON		x	=	$	-
210130	Duff	ACRE		x	=	$	-
XXXXXX	Some Item	Unit		x	=	$	-

TOTAL EARTHWORK SECTION ITEMS $ -

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)		Cost
401050	Jointed Plain Concrete Pavement	CY		x	=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x	=	$	-
404092	Seal Pavement Joint	LF		x	=	$	-
404093	Seal Isolation Joint	LF		x	=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x	=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x	=	$	-
280010	Rapid Strength Concrete Base	CY		x	=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x	=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x	=	$	-
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x	=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x	=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x	=	$	-
290201	Asphalt Treated Permeable Base	CY		x	=	$	-
250401	Class 4 Aggregate Subbase	CY		x	=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x	=	$	-
397005	Tack Coat	TON		x	=	$	-
377501	Slurry Seal	TON		x	=	$	-
3750XX	Screenings (Type XX)	TON		x	=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x	=	$	-
370001	Sand Cover (Seal)	TON		x	=	$	-
731530	Minor Concrete (Textured Paving)	CY		x	=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY		x	=	$	-
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x	=	$	-
150771	Remove Asphalt Concrete Dike	LF		x	=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x	=	$	-
150860	Remove Base and Surfacing	CY		x	=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x	=	$	-
15312X	Remove Concrete	LF/CY/LS		x	=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x	=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x	=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x	=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x	=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x	=	$	-
390136	Minor Hot Mix Asphalt	TON		x	=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x	=	$	-
XXXXXX	Some Item	Unit		x	=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS $ -

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		=	$	-
6411XX	XX" Plastic Pipe	LF		x		=	$	-
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS $ -

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS		x		=	$	-
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	2,500.00	=	$	2,500
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF		x		=	$	-
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Metal Beam Guard Railing	LF		x		=	$	-
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL SPECIALTY ITEMS $ 2,500

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost
	Biological Mitigation	LS		x		= $	-
130670	Temporary Reinforced Silt Fence	LF		x		= $	-
141000	Temporary Fence (Type ESA)	LF		x		= $	-
						Subtotal Environmental Mitigation	*$* -

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost
20XXXX	Highway Planting	LS		x		= $	-
20XXXX	Irrigation System	LS		x		= $	-
204099	Plant Establishment Work	LS		x		= $	-
204101	Extend Plant Establishment Work	LS		x		= $	-
20XXXX	Follow-up Landscape Project	LS		x		= $	-
150685	Remove Irrigation Facility	LS		x		= $	-
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		= $	-
206400	Check and Test Existing Irrigation Facilities	LS		x		= $	-
21011X	Imported Topsoil (X)	CY/TON		x		= $	-
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		= $	-
200122	Weed Germination	SQYD		x		= $	-
208304	Water Meter	EA		x		= $	-
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		= $	-
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		= $	-
						Subtotal Landscape and Irrigation	*$* -

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)		Cost
210010	Move In/Move Out (Erosion Control)	EA		x		= $	-
210350	Fiber Rolls	LF		x		= $	-
210360	Compost Sock	LF		x		= $	-
2102XX	Rolled Erosion Control Product (X)	SQFT		x		= $	-
21025X	Bonded Fiber Matrix	SQFT/ACRE		x		= $	-
210300	Hydromulch	SQFT		x		= $	-
210420	Straw	SQFT		x		= $	-
210430	Hydroseed	SQFT		x		= $	-
210600	Compost	SQFT		x		= $	-
210630	Incorporate Materials	SQFT		x		= $	-
						Subtotal Erosion Control	*$* -

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)		Cost
130300	Prepare SWPPP	LS		x		= $	-
130200	Prepare WPCP	LS	1	x	1,500.00	= $	1,500
130100	Job Site Management	LS	1	x	1,500.00	= $	1,500
130330	Storm Water Annual Report	EA		x		= $	-
130310	Rain Event Action Plan (REAP)	EA		x		= $	-
130320	Storm Water Sampling and Analysis Day	EA		x		= $	-
130520	Temporary Hydraulic Mulch	SQYD		x		= $	-
130550	Temporary Hydroseed	SQYD		x		= $	-
130505	Move-In/Move-Out (Temporary Erosion Control)	EA		x		= $	-
130640	Temporary Fiber Roll	LF		x		= $	-
130900	Temporary Concrete Washout	LS		x		= $	-
130710	Temporary Construction Entrance	EA		x		= $	-
130610	Temporary Check Dam	LF		x		= $	-
130620	Temporary Drainage Inlet Protection	EA		x		= $	-
130730	Street Sweeping	LS	1	x	15,000.00	= $	15,000
						Subtotal NPDES	*$* *18,000*

TOTAL ENVIRONMENTAL	**$**	**18,000**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS		x		= $	-
066596	Additional Water Pollution Control**	LS		x		= $	-
066597	Storm Water Sampling and Analysis***	LS		x		= $	-
XXXXXX	Some Item	LS		x		= $	-
						Subtotal Supplemental Work for NDPS	*$* -

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS	1	x	10,000.00	=	$	10,000
860201	Signal and Lighting	LS		x		=	$	-
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *10,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA	1	x	10,000.00	=	$	10,000
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF		x		=	$	-
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT		x		=	$	-
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF		x		=	$	-
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT	771	x	11.00	=	$	8,481
120090	Construction Area Signs	LS	1	x	15,000.00	=	$	15,000
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-

Subtotal Traffic Signing and Striping $ *33,481*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS	8	x	$ 1,500	=	$	12,000

Subtotal Traffic Management Plan $ *12,000*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	50,000.00	=	$	50,000
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA	20	x	20.00	=	$	400
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *50,400*

TOTAL TRAFFIC ITEMS **$ 105,900**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Type X)	LF		x		=	$	-
XXXXXX	Some Item	LS		x		=	$	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1 through 7 $ 126,400

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
	ADA Items			1.0%	$	1,264	
8B - Bike Path Items							
	Bike Path Items			1.0%	$	1,264	
8C - Other Minor Items							
	Other Minor Items			8.0%	$	10,112	
	Total of Section 1-7	$	126,400	x 10.0%	= $	12,640	

TOTAL MINOR ITEMS **$ 12,700**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$	139,100	x 10%	= $	-	

TOTAL MOBILIZATION **$ -**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		=	$	-
066094	Value Analysis	LS		x		=	$	-
066070	Maintain Traffic	LS	1	x	1,000.00	=	$	1,000
066919	Dispute Resolution Board	LS		x		=	$	-
066921	Dispute Resolution Advisor	LS		x		=	$	-
066015	Federal Trainee Program	LS		x		=	$	-
066610	Partnering	LS		x		=	$	-
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

*Cost of **NPDES** Supplemental Work specified in Section 5D* = $ -

Total Section 1-8 $ 139,100 4% = $ 5,564

TOTAL SUPPLEMENTAL WORK **$ 6,600**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS		x		=	$0
066063	Traffic Management Plan - Public Information	LS	1	x	10,000.00	=	$10,000
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS		x		=	$0
XXXXXX	Some Item	Unit		x		=	$0
	Total Section 1-8		$ 139,100		2%	=	$ 2,782

TOTAL STATE FURNISHED **$12,800**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $139,100 (used to calculate TRO)

Total Construction Cost (excluding TRO and Contingency) $158,500 (used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	25	X	$0	=	$0

TOTAL TIME-RELATED OVERHEAD **$0**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$	151,900	x	**40%**	=	$60,760

TOTAL CONTINGENCY **$60,800**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$150		$150		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES	**$0**
TOTAL COST OF BUILDINGS	**$0**
Structures Mobilization Percentage 10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage 10%	**$0**
TOTAL COST OF STRUCTURES	**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ------ Division of Structures Date

EA: 01-LOCAL PID: EVCRCP

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	0
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	10,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$10,000**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$10,000**
N)	**RIGHT OF WAY SUPPORT**	**$0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

EA: 01-LOCAL PID: EVCRCP

IV. SUPPORT COST ESTIMATE SUMMARY

Note: Use PRSM project data.

Total by FY		Escalated Support Cost for Estimate To Completion (ETC) PA&ED	PS&E	RW	CON	Total $
< 2010	Expended					
	ETC					
2011	Expended					
	ETC					
2012	Expended					
	ETC					
2013	Expended					
	ETC					
2014	Expended					
	ETC					
2015	Expended					
	ETC					
2016	Expended					
	ETC					
2017	Expended					
	ETC					
2018	Expended					
	ETC					
2019	Expended					
	ETC					
2020	Expended					
	ETC					
2021	Expended					
	ETC					
2022	Expended					
	ETC					
2023	Expended					
	ETC					
2024	Expended					
	ETC					
2025 >	Expended					
	ETC					
EAC (Expended + ETC)		$0	$0	$0	$0	$0
Approved Budget (PRSM)						
Difference (Budget - EAC)		$0	$0	$0	$0	$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	**$230,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

PRSM workplan hours/costs verified against approved MWA:

Office Chief - _____ Date _____

Approved by:

Project Control - _____ Date _____

PROJECT

PLANNING COST ESTIMATE

EA: 01-LOCAL PID: EVCRCP

EA: 01-LOCAL

PID: EVCRCP

District-County-Route: 01-DN-EVCR

PM: 0.0 - 1.5

Type of Estimate : Programming

Program Code : k

Project Limits : Along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive

Project Description: Restricted Crossing U-turn at the intersection of US 101 and Elk Valley Cross Road

Scope :

Alternative : Alternative B, Intersection Improvements at US 101 and Elk Valley Cross Road

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 1,377,200	$ 1,530,439
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 1,377,200	$ 1,530,439
TOTAL RIGHT OF WAY COST	$ 20,000	$ 20,000
TOTAL CAPITAL OUTLAY COSTS	$ 1,398,000	$ 1,551,000
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL SUPPORT COST	$ -	$ -
TOTAL PROJECT COST	$ 1,400,000	$ 1,600,000

If Project has been programmed enter Programmed Amount $ 250,000,000

	Month	/ Year
Date of Estimate (Month/Year)	1	/ 2020
Estimated Construction Start (Month/Year)	4	/ 2024
Number of Working Days =	50	
Estimated Mid-Point of Construction (Month/Year)	8	/ 2024
Estimated Construction End (Month/Year)	12	/ 2024
Number of Plant Establishment Days	0	

Estimated Project Schedule

PID Approval	6/1/2024
PA/ED Approval	7/1/2022
PS&E	10/1/2023
RTL	12/1/2023
Begin Construction	4/1/2024

Reviewed by District O.E.

Office Engineer	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

Approved by Project Manager

Project Manager	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	20,100
2	**Pavement Structural Section**	$	200,200
3	**Drainage**	$	9,300
4	**Specialty Items**	$	30,000
5	**Environmental**	$	32,200
6	**Traffic Items**	$	450,400
7	**Detours**	$	-
8	**Minor Items**	$	74,300
9	**Roadway Mobilization**	$	81,700
10	**Supplemental Work**	$	82,700
11	**State Furnished**	$	26,400
12	**Time-Related Overhead**	$	-
13	**Roadway Contingency**	$	369,900
	TOTAL ROADWAY ITEMS	**$**	**1,377,200**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	1,114	x	9.00	=	$	10,026
19010X	Roadway Excavation (Type X) ADL	CY		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
16010X	Clearing & Grubbing	LS/ACRE		x		=	$	-
170101	Develop Water Supply	LS	1	x	10,000.00	=	$	10,000
19801X	Imported Borrow	CY/TON		x		=	$	-
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS	**$**	**20,100**

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY		x		=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	752	x	120.00	=	$	90,240
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x		=	$	-
26020X	Class 2 Aggregate Base	CY	743	x	90.00	=	$	66,870
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON	1	x	2,000.00	=	$	2,000
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY	24	x	1,300.00	=	$	31,200
731504	Minor Concrete (Curb and Gutter)	LF	197	x	50.00	=	$	9,850
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
150860	Remove Base and Surfacing	CY		x		=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x		=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS	**$**	**200,200**

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF	1,154	x	8.00	=	$	9,232
6411XX	XX" Plastic Pipe	LF		x		=	$	-
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x	1,000.00	=	$	-

TOTAL DRAINAGE ITEMS $ 9,300

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS	1	x	10,000.00	=	$	10,000
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	5,000.00	=	$	5,000
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF		x		=	$	-
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Metal Beam Guard Railing	LF		x		=	$	-
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Aesthetic Treatment	ls	1	x	15,000.00	=	$	15,000

TOTAL SPECIALTY ITEMS $ 30,000

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost
	Biological Mitigation	LS		x		= $	-
130670	Temporary Reinforced Silt Fence	LF		x		= $	-
141000	Temporary Fence (Type ESA)	LF		x		= $	-
					Subtotal Environmental Mitigation		*$* -

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost
20XXXX	Highway Planting	LS		x		= $	-
20XXXX	Irrigation System	LS		x		= $	-
204099	Plant Establishment Work	LS		x		= $	-
204101	Extend Plant Establishment Work	LS		x		= $	-
20XXXX	Follow-up Landscape Project	LS		x		= $	-
150685	Remove Irrigation Facility	LS		x		= $	-
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		= $	-
206400	Check and Test Existing Irrigation Facilities	LS		x		= $	-
21011X	Imported Topsoil (X)	CY/TON		x		= $	-
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		= $	-
200122	Weed Germination	SQYD		x		= $	-
208304	Water Meter	EA		x		= $	-
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		= $	-
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		= $	-
					Subtotal Landscape and Irrigation		*$* -

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)		Cost
210010	Move In/Move Out (Erosion Control)	EA	1	x	$ 500.00	= $	500
210350	Fiber Rolls	LF	600	x	$ 5.00	= $	3,000
210360	Compost Sock	LF		x		= $	-
2102XX	Rolled Erosion Control Product (X)	SQFT		x		= $	-
21025X	Bonded Fiber Matrix	SQFT/ACRE	5769	x	$ 1.50	= $	8,654
210300	Hydromulch	SQFT		x		= $	-
210420	Straw	SQFT		x		= $	-
210430	Hydroseed	SQFT		x		= $	-
210600	Compost	SQFT		x		= $	-
210630	Incorporate Materials	SQFT		x		= $	-
						Subtotal Erosion Control	*$* *12,154*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)		Cost
130300	Prepare SWPPP	LS	1	x	15,000.00	= $	15,000
130200	Prepare WPCP	LS		x		= $	-
130100	Job Site Management	LS	1	x	5,000.00	= $	5,000
130330	Storm Water Annual Report	EA		x		= $	-
130310	Rain Event Action Plan (REAP)	EA		x		= $	-
130320	Storm Water Sampling and Analysis Day	EA		x		= $	-
130520	Temporary Hydraulic Mulch	SQYD		x		= $	-
130550	Temporary Hydroseed	SQYD		x		= $	-
130505	Move-In/Move-Out (Temporary Erosion Control)	EA		x		= $	-
130640	Temporary Fiber Roll	LF		x		= $	-
130900	Temporary Concrete Washout	LS		x		= $	-
130710	Temporary Construction Entrance	EA		x		= $	-
130610	Temporary Check Dam	LF		x		= $	-
130620	Temporary Drainage Inlet Protection	EA		x		= $	-
130730	Street Sweeping	LS		x		= $	-
						Subtotal NPDES	*$* *20,000*

TOTAL ENVIRONMENTAL	**$**	**32,200**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS		x		= $	-
066596	Additional Water Pollution Control**	LS	1	x	10,000.00	= $	10,000
066597	Storm Water Sampling and Analysis***	LS		x		= $	-
XXXXXX	Some Item	LS	1	x	15,000.00	= $	15,000
						Subtotal Supplemental Work for NDPS	*$* *25,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS		x		=	$	-
860201	Signal and Lighting	LS	1	x	250,000.00	=	$	250,000
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *250,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA		x	10,000.00	=	$	-
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF	15,900	x	1.50	=	$	23,850
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT	1,422	x	6.50	=	$	9,243
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF	15,746	x	3.30	=	$	51,962
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT	3,841	x	11.00	=	$	42,251
120090	Construction Area Signs	LS	1	x	25,000.00	=	$	25,000
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-

Subtotal Traffic Signing and Striping $ *152,306*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS	6	x	$ 1,500	=	$	9,000

Subtotal Traffic Management Plan $ *9,000*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	LF	960	x	25.00	=	$	24,000
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	15,000.00	=	$	15,000
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *39,000*

TOTAL TRAFFIC ITEMS **$ 450,400**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Type X)	LF		x		=	$	-
XXXXXX	Some Item	LS		x	5,000,000	=	$	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1 through 7 $ 742,200

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items						
	ADA Items		1.0%	$	7,422	
8B - Bike Path Items						
	Bike Path Items		1.0%	$	7,422	
8C - Other Minor Items						
	Other Minor Items		8.0%	$	59,376	
	Total of Section 1-7	$ 742,200	x 10.0%	= $	74,220	

TOTAL MINOR ITEMS **$ 74,300**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$ 816,500	x	10%	=	$	81,650

TOTAL MOBILIZATION **$ 81,700**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		=	$	-
066094	Value Analysis	LS		x		=	$	-
066070	Maintain Traffic	LS		x		=	$	-
066919	Dispute Resolution Board	LS	1	x	25,000.00	=	$	25,000
066921	Dispute Resolution Advisor	LS		x		=	$	-
066015	Federal Trainee Program	LS		x		=	$	-
066610	Partnering	LS		x		=	$	-
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					=	$	25,000
	Total Section 1-8	$ 816,500			4%	=	$	32,660

TOTAL SUPPLEMENTAL WORK **$ 82,700**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS		x		=	$0
066063	Traffic Management Plan - Public Information	LS	1	x	10,000.00	=	$10,000
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS		x		=	$0
XXXXXX	Some Item	Unit		x		=	$0
	Total Section 1-8		$ 816,500		2%	=	$ 16,330

TOTAL STATE FURNISHED **$26,400**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $816,500 (used to calculate TRO)

Total Construction Cost (excluding TRO and Contingency) $1,007,300 (used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	50	X	$0	=	$0

TOTAL TIME-RELATED OVERHEAD **$0**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$	924,600	x	**40%**	=	$369,840

TOTAL CONTINGENCY **$369,900**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$150		$150		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES	**$0**
TOTAL COST OF BUILDINGS	**$0**
Structures Mobilization Percentage 10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage 10%	**$0**
TOTAL COST OF STRUCTURES	**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ------ Division of Structures Date

EA: 01-LOCAL PID: EVCRCP

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	0
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	20,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$20,000**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$20,000**
N)	**RIGHT OF WAY SUPPORT**	**$10,000**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

EA: 01-LOCAL PID: EVCRCP

IV. SUPPORT COST ESTIMATE SUMMARY

Note: Use PRSM project data.

Total by FY		Escalated Support Cost for Estimate To Completion (ETC) PA&ED	PS&E	RW	CON	Total $
< 2010	Expended					
	ETC					
2011	Expended					
	ETC					
2012	Expended					
	ETC					
2013	Expended					
	ETC					
2014	Expended					
	ETC					
2015	Expended					
	ETC					
2016	Expended					
	ETC					
2017	Expended					
	ETC					
2018	Expended					
	ETC					
2019	Expended					
	ETC					
2020	Expended					
	ETC					
2021	Expended					
	ETC					
2022	Expended					
	ETC					
2023	Expended					
	ETC					
2024	Expended					
	ETC					
2025 >	Expended					
	ETC					
EAC (Expended + ETC)		$0	$0	$0	$0	$0
Approved Budget (PRSM)						
Difference (Budget - EAC)		$0	$0	$0	$0	$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	**$1,398,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

PRSM workplan hours/costs verified against approved MWA:

Office Chief - _____ Date _____

Approved by:

Project Control - _____ Date _____

PROJECT

PLANNING COST ESTIMATE

EA: 01-LOCAL PID: EVCRCP

EA: 01-LOCAL

PID: EVCRCP

District-County-Route: 01-DN-EVCR

PM: 0.0 - 1.5

Type of Estimate : Programming

Program Code : k

Project Limits : Along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive

Project Description: Lane drop along US 101 to allow single lane through intersection, signing and striping.

Scope :

Alternative : Alternative C, Intersection Improvements at US 101 and Elk Valley Cross Road

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 352,900	$ 392,167
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 352,900	$ 392,167
TOTAL RIGHT OF WAY COST	$ 10,000	$ 10,000
TOTAL CAPITAL OUTLAY COSTS	$ 363,000	$ 403,000
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL SUPPORT COST	$ -	$ -
TOTAL PROJECT COST	$ 365,000	$ 405,000

If Project has been programmed enter Programmed Amount $ 250,000,000

	Month	/ Year
Date of Estimate (Month/Year)	1	/ 2020
Estimated Construction Start (Month/Year)	1	/ 2023
Number of Working Days =		1305
Estimated Mid-Point of Construction (Month/Year)	6	/ 2020
Estimated Construction End (Month/Year)	12	/ 2023
Number of Plant Establishment Days		261

Estimated Project Schedule

PID Approval	1/15/2014
PA/ED Approval	12/10/2016
PS&E	6/25/2016
RTL	12/18/2017
Begin Construction	1/19/2018

Reviewed by District O.E.

Office Engineer	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

Approved by Project Manager

Project Manager	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	-
2	**Pavement Structural Section**	$	-
3	**Drainage**	$	-
4	**Specialty Items**	$	10,000
5	**Environmental**	$	23,000
6	**Traffic Items**	$	135,300
7	**Detours**	$	-
8	**Minor Items**	$	16,900
9	**Roadway Mobilization**	$	18,600
10	**Supplemental Work**	$	32,500
11	**State Furnished**	$	13,800
12	**Time-Related Overhead**	$	11,200
13	**Roadway Contingency**	$	91,600
	TOTAL ROADWAY ITEMS	**$**	**352,900**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)		Cost
190101	Roadway Excavation	CY		x	=	$	-
19010X	Roadway Excavation (Type X) ADL	CY		x	=	$	-
194001	Ditch Excavation	CY		x	=	$	-
19801X	Imported Borrow	CY/TON		x	=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x	=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x	=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x	=	$	-
16010X	Clearing & Grubbing	LS/ACRE		x	=	$	-
170101	Develop Water Supply	LS		x	=	$	-
19801X	Imported Borrow	CY/TON		x	=	$	-
210130	Duff	ACRE		x	=	$	-
XXXXXX	Some Item	Unit		x	=	$	-

TOTAL EARTHWORK SECTION ITEMS $ -

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)		Cost
401050	Jointed Plain Concrete Pavement	CY		x	=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x	=	$	-
404092	Seal Pavement Joint	LF		x	=	$	-
404093	Seal Isolation Joint	LF		x	=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x	=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x	=	$	-
280010	Rapid Strength Concrete Base	CY		x	=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x	=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x	=	$	-
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x	=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x	=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x	=	$	-
290201	Asphalt Treated Permeable Base	CY		x	=	$	-
250401	Class 4 Aggregate Subbase	CY		x	=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x	=	$	-
397005	Tack Coat	TON		x	=	$	-
377501	Slurry Seal	TON		x	=	$	-
3750XX	Screenings (Type XX)	TON		x	=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x	=	$	-
370001	Sand Cover (Seal)	TON		x	=	$	-
731530	Minor Concrete (Textured Paving)	CY		x	=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY		x	=	$	-
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x	=	$	-
150771	Remove Asphalt Concrete Dike	LF		x	=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x	=	$	-
150860	Remove Base and Surfacing	CY		x	=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x	=	$	-
15312X	Remove Concrete	LF/CY/LS		x	=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x	=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x	=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x	=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x	=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x	=	$	-
390136	Minor Hot Mix Asphalt	TON		x	=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x	=	$	-
XXXXXX	Some Item	Unit		x	=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS $ -

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		=	$	-
6411XX	XX" Plastic Pipe	LF		x		=	$	-
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS $ -

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS	1	x	5,000.00	=	$	5,000
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	5,000.00	=	$	5,000
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF		x		=	$	-
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Metal Beam Guard Railing	LF		x		=	$	-
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL SPECIALTY ITEMS $ 10,000

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost
	Biological Mitigation	LS		x		= $	-
130670	Temporary Reinforced Silt Fence	LF		x		= $	-
141000	Temporary Fence (Type ESA)	LF		x		= $	-
						Subtotal Environmental Mitigation	*$* -

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost
20XXXX	Highway Planting	LS		x		= $	-
20XXXX	Irrigation System	LS		x		= $	-
204099	Plant Establishment Work	LS		x		= $	-
204101	Extend Plant Establishment Work	LS		x		= $	-
20XXXX	Follow-up Landscape Project	LS		x		= $	-
150685	Remove Irrigation Facility	LS		x		= $	-
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		= $	-
206400	Check and Test Existing Irrigation Facilities	LS		x		= $	-
21011X	Imported Topsoil (X)	CY/TON		x		= $	-
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		= $	-
200122	Weed Germination	SQYD		x		= $	-
208304	Water Meter	EA		x		= $	-
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		= $	-
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		= $	-
						Subtotal Landscape and Irrigation	*$* -

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)		Cost
210010	Move In/Move Out (Erosion Control)	EA		x		= $	-
210350	Fiber Rolls	LF		x		= $	-
210360	Compost Sock	LF		x		= $	-
2102XX	Rolled Erosion Control Product (X)	SQFT		x		= $	-
21025X	Bonded Fiber Matrix	SQFT/ACRE		x		= $	-
210300	Hydromulch	SQFT		x		= $	-
210420	Straw	SQFT		x		= $	-
210430	Hydroseed	SQFT		x		= $	-
210600	Compost	SQFT		x		= $	-
210630	Incorporate Materials	SQFT		x		= $	-
						Subtotal Erosion Control	*$* -

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)		Cost
130300	Prepare SWPPP	LS		x		= $	-
130200	Prepare WPCP	LS	1	x	1,500.00	= $	1,500
130100	Job Site Management	LS	1	x	1,500.00	= $	1,500
130330	Storm Water Annual Report	EA		x		= $	-
130310	Rain Event Action Plan (REAP)	EA		x		= $	-
130320	Storm Water Sampling and Analysis Day	EA		x		= $	-
130520	Temporary Hydraulic Mulch	SQYD		x		= $	-
130550	Temporary Hydroseed	SQYD		x		= $	-
130505	Move-In/Move-Out (Temporary Erosion Control)	EA		x		= $	-
130640	Temporary Fiber Roll	LF		x		= $	-
130900	Temporary Concrete Washout	LS		x		= $	-
130710	Temporary Construction Entrance	EA		x		= $	-
130610	Temporary Check Dam	LF		x		= $	-
130620	Temporary Drainage Inlet Protection	EA		x		= $	-
130730	Street Sweeping	LS	1	x	20,000.00	= $	20,000
						Subtotal NPDES	*$* *23,000*

TOTAL ENVIRONMENTAL	**$**	**23,000**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS		x		= $	-
066596	Additional Water Pollution Control**	LS		x		= $	-
066597	Storm Water Sampling and Analysis***	LS		x		= $	-
XXXXXX	Some Item	LS		x		= $	-
						Subtotal Supplemental Work for NDPS	*$* -

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS	1	x	10,000.00	=	$	10,000
860201	Signal and Lighting	LS		x		=	$	-
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *10,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA	1	x	10,000.00	=	$	10,000
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF	12,900	x	1.50	=	$	19,350
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT	1,472	x	6.50	=	$	9,568
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF	10,400	x	3.30	=	$	34,320
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT	1,801	x	6.25	=	$	11,256
120090	Construction Area Signs	LS	1	x	15,000.00	=	$	15,000
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-

Subtotal Traffic Signing and Striping $ *99,494*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS	6	x	$ 1,500	=	$	9,000

Subtotal Traffic Management Plan $ *9,000*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA	86	x	20.00	=	$	1,720
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	15,000.00	=	$	15,000
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *16,720*

TOTAL TRAFFIC ITEMS **$ 135,300**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Type X)	LF		x		=	$	-
XXXXXX	Some Item	LS		x	5,000,000	=	$	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS	**$**	**-**

SUBTOTAL SECTIONS 1 through 7	$	168,300

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
ADA Items				1.0%	$	1,683	
8B - Bike Path Items							
Bike Path Items				1.0%	$	1,683	
8C - Other Minor Items							
Other Minor Items				8.0%	$	13,464	
Total of Section 1-7	$	168,300	x	10.0%	=	$	16,830

TOTAL MINOR ITEMS	**$**	**16,900**

SECTIONS 9: MOBILIZATION

Item code								
999990	Total Section 1-8	$	185,200	x	10%	=	$	18,520

TOTAL MOBILIZATION	**$**	**18,600**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		=	$	-
066094	Value Analysis	LS		x		=	$	-
066070	Maintain Traffic	LS		x		=	$	-
066919	Dispute Resolution Board	LS		x		=	$	-
066921	Dispute Resolution Advisor	LS		x		=	$	-
066015	Federal Trainee Program	LS		x		=	$	-
066610	Partnering	LS		x		=	$	-
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit	1	x	25,000.00	=	$	25,000
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					=	$	-
	Total Section 1-8	$	185,200		4%	=	$	7,408

TOTAL SUPPLEMENTAL WORK	**$**	**32,500**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS		x		=	$0
066063	Traffic Management Plan - Public Information	LS	1	x	10,000.00	=	$10,000
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS		x		=	$0
XXXXXX	Some Item	Unit		x		=	$0

Total Section 1-8	$	185,200	2%	= $	3,704

TOTAL STATE FURNISHED **$13,800**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $185,200 (used to calculate TRO)

Total Construction Cost (excluding TRO and Contingency) $250,100 (used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	1,305	X	$9	=	$11,200

TOTAL TIME-RELATED OVERHEAD **$11,200**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$	228,800	x	**40%**	=	$91,520

TOTAL CONTINGENCY **$91,600**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$150		$150		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES	**$0**
TOTAL COST OF BUILDINGS	**$0**
Structures Mobilization Percentage 10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage 10%	**$0**
TOTAL COST OF STRUCTURES	**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ------ Division of Structures Date

EA: 01-LOCAL PID: EVCRCP

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	0
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	10,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$10,000**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$10,000**
N)	**RIGHT OF WAY SUPPORT**	

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

EA: 01-LOCAL PID: EVCRCP

IV. SUPPORT COST ESTIMATE SUMMARY

Note: Use PRSM project data.

Total by FY		Escalated Support Cost for Estimate To Completion (ETC) PA&ED	PS&E	RW	CON	Total $
< 2010	Expended					
	ETC					
2011	Expended					
	ETC					
2012	Expended					
	ETC					
2013	Expended					
	ETC					
2014	Expended					
	ETC					
2015	Expended					
	ETC					
2016	Expended					
	ETC					
2017	Expended					
	ETC					
2018	Expended					
	ETC					
2019	Expended					
	ETC					
2020	Expended					
	ETC					
2021	Expended					
	ETC					
2022	Expended					
	ETC					
2023	Expended					
	ETC					
2024	Expended					
	ETC					
2025 >	Expended					
	ETC					
EAC (Expended + ETC)		$0	$0	$0	$0	$0
Approved Budget (PRSM)						
Difference (Budget - EAC)		$0	$0	$0	$0	$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	**$363,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

PRSM workplan hours/costs verified against approved MWA:

Office Chief - _____ Date _____

Approved by:

Project Control - _____ Date _____

PROJECT

PLANNING COST ESTIMATE

EA: 01-LOCAL PID: EVCRCP

EA: 01-LOCAL

PID: EVCRCP

District-County-Route: 01-DN-EVCR

PM: 0.0 - 1.5

Type of Estimate : Programming

Program Code : k

Project Limits : Along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive

Project Description: Roundabout at US 101 and EVCR

Scope :

Alternative : Alternative C, Intersection Improvements at US 101 and Elk Valley Cross Road

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 4,441,000	$ 4,935,143
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 4,441,000	$ 4,935,143
TOTAL RIGHT OF WAY COST	$ 27,212	$ 27,212
TOTAL CAPITAL OUTLAY COSTS	**$ 4,469,000**	**$ 4,963,000**
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL SUPPORT COST	**$ -**	**$ -**
TOTAL PROJECT COST	**$ 4,500,000**	**$ 5,000,000**

If Project has been programmed enter Programmed Amount

	Month	/	Year
Date of Estimate (Month/Year)	1	/	2020
Estimated Construction Start (Month/Year)	4	/	2024
Number of Working Days =			160
Estimated Mid-Point of Construction (Month/Year)	4	/	2025
Estimated Construction End (Month/Year)	10	/	2025
Number of Plant Establishment Days			261

Estimated Project Schedule

PID Approval	6/1/2024
PA/ED Approval	7/1/2022
PS&E	10/1/2023
RTL	12/1/2023
Begin Construction	4/1/2024

Reviewed by District O.E.

Office Engineer	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

Approved by Project Manager

Project Manager	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	309,500
2	**Pavement Structural Section**	$	1,658,200
3	**Drainage**	$	8,000
4	**Specialty Items**	$	10,000
5	**Environmental**	$	47,600
6	**Traffic Items**	$	345,000
7	**Detours**	$	-
8	**Minor Items**	$	237,900
9	**Roadway Mobilization**	$	261,700
10	**Supplemental Work**	$	104,700
11	**State Furnished**	$	62,400
12	**Time-Related Overhead**	$	157,000
13	**Roadway Contingency**	$	1,239,000
	TOTAL ROADWAY ITEMS	**$**	**4,441,000**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	3,991	x	60.00	=	$	239,460
19010X	Roadway Excavation (Type X) ADL	CY		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
16010X	Clearing & Grubbing	LS	1	x	60,000.00	=	$	60,000
170101	Develop Water Supply	LS	1	x	10,000.00	=	$	10,000
19801X	Imported Borrow	CY/TON		x		=	$	-
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS	$	309,500

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY		x		=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	3,440	x	120.00	=	$	412,800
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x		=	$	-
26020X	Class 2 Aggregate Base	CY	2,831	x	80.00	=	$	226,480
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON		x		=	$	-
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731530	Minor Concrete (Textured Paving)	CY		x		=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY	104	x	900.00	=	$	93,600
731521	Minor Concrete (Sidewalk)	CY	124	x	500.00		$	62,000
731501	Minor Concrete (Curb & Gutter)	LF	2,571	x	325.00		$	835,575
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
150860	Remove Base and Surfacing	CY		x		=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x		=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
XXXXXX	GreenSpace	SQFT	18,459	x	1.5	=	$	27,689

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS	$	1,658,200

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF	1,000	x	8.00	=	$	8,000
6411XX	XX" Plastic Pipe	LF		x		=	$	-
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS $ 8,000

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS	1	x	5,000.00	=	$	5,000
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	5,000.00	=	$	5,000
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF		x		=	$	-
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Metal Beam Guard Railing	LF		x		=	$	-
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x	1,000.00	=	$	-

TOTAL SPECIALTY ITEMS $ 10,000

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Biological Mitigation	LS		x		=	$	-
130670	Temporary Reinforced Silt Fence	LF		x		=	$	-
141000	Temporary Fence (Type ESA)	LF		x		=	$	-
						Subtotal Environmental Mitigation	$	-

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
20XXXX	Highway Planting	LS	1	x	10,000.00	=	$	10,000
20XXXX	Irrigation System	LS		x		=	$	-
204099	Plant Establishment Work	LS		x		=	$	-
204101	Extend Plant Establishment Work	LS		x		=	$	-
20XXXX	Follow-up Landscape Project	LS		x		=	$	-
150685	Remove Irrigation Facility	LS		x		=	$	-
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		=	$	-
206400	Check and Test Existing Irrigation Facilities	LS		x		=	$	-
21011X	Imported Topsoil (X)	CY/TON		x		=	$	-
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		=	$	-
200122	Weed Germination	SQYD		x		=	$	-
208304	Water Meter	EA		x		=	$	-
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		=	$	-
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		=	$	-
						Subtotal Landscape and Irrigation	$	*10,000*

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)			Cost
210010	Move In/Move Out (Erosion Control)	EA	2	x	500	=	$	1,000
210350	Fiber Rolls	LF	660	x	5	=	$	3,300
210360	Compost Sock	LF		x		=	$	-
2102XX	Rolled Erosion Control Product (X)	SQFT		x		=	$	-
21025X	Bonded Fiber Matrix	SQFT/ACRE	44967	x	0.15	=	$	6,745
210300	Hydromulch	SQFT		x		=	$	-
210420	Straw	SQFT		x		=	$	-
210430	Hydroseed	SQFT		x		=	$	-
210600	Compost	SQFT		x		=	$	-
210630	Incorporate Materials	SQFT		x		=	$	-
						Subtotal Erosion Control	$	*11,045*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost
130300	Prepare SWPPP	LS	1	x	10,000.00	=	$	10,000
130200	Prepare WPCP	LS		x		=	$	-
130100	Job Site Management	LS	1	x	1,500.00	=	$	1,500
130330	Storm Water Annual Report	EA		x		=	$	-
130310	Rain Event Action Plan (REAP)	EA		x		=	$	-
130320	Storm Water Sampling and Analysis Day	EA		x		=	$	-
130520	Temporary Hydraulic Mulch	SQYD		x		=	$	-
130550	Temporary Hydroseed	SQYD		x		=	$	-
130505	Move-In/Move-Out (Temporary Erosion Control)	EA		x		=	$	-
130640	Temporary Fiber Roll	LF		x		=	$	-
130900	Temporary Concrete Washout	LS		x		=	$	-
130710	Temporary Construction Entrance	EA		x		=	$	-
130610	Temporary Check Dam	LF		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
130730	Street Sweeping	LS	1	x	15,000.00	=	$	15,000
						Subtotal NPDES	$	*26,500*

	TOTAL ENVIRONMENTAL	**$**	**47,600**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS		x	100,000.00	=	$	-
066596	Additional Water Pollution Control**	LS		x	10,000.00	=	$	-
066597	Storm Water Sampling and Analysis***	LS		x		=	$	-
XXXXXX	Some Item	LS		x		=	$	-
						Subtotal Supplemental Work for NDPS	$	-

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS	1	x	75,000.00	=	$	75,000
860201	Signal and Lighting	LS		x		=	$	-
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *75,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA	1	x	15,000.00	=	$	15,000
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF	12,900	x	1.50	=	$	19,350
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT	1,472	x	6.50	=	$	9,568
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF	10,400	x	3.30	=	$	34,320
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT	1,801	x	6.25	=	$	11,256
120090	Construction Area Signs	LS	1	x	15,000.00	=	$	15,000
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-

Subtotal Traffic Signing and Striping $ *104,494*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS	7	x	$ 1,500	=	$	10,500

Subtotal Traffic Management Plan $ *10,500*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	15,000.00	=	$	15,000
129110	Temporary Crash Cushion	EA	2	x	35,000.00	=	$	70,000
129000	Temporary Railing (Type K)	LF	2,000	x	35.00	=	$	70,000
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *155,000*

TOTAL TRAFFIC ITEMS **$ 345,000**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Type X)	LF		x		=	$	-
XXXXXX	Some Item	LS		x	5,000,000	=	$	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS	**$**	**-**

SUBTOTAL SECTIONS 1 through 7	$	2,378,300

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
ADA Items				1.0%	$	23,783	
8B - Bike Path Items							
Bike Path Items				1.0%	$	23,783	
8C - Other Minor Items							
Other Minor Items				8.0%	$	190,264	
Total of Section 1-7	$	2,378,300	x	10.0%	= $	237,830	

TOTAL MINOR ITEMS	**$**	**237,900**

SECTIONS 9: MOBILIZATION

Item code								
999990	Total Section 1-8	$	2,616,200	x	10%	=	$	261,620

TOTAL MOBILIZATION	**$**	**261,700**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		=	$	-
066094	Value Analysis	LS		x		=	$	-
066070	Maintain Traffic	LS		x		=	$	-
066919	Dispute Resolution Board	LS		x		=	$	-
066921	Dispute Resolution Advisor	LS		x		=	$	-
066015	Federal Trainee Program	LS		x		=	$	-
066610	Partnering	LS		x		=	$	-
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					=	$	-
	Total Section 1-8	$	2,616,200		4%	=	$	104,648

TOTAL SUPPLEMENTAL WORK	**$**	**104,700**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS		x		=	$0
066063	Traffic Management Plan - Public Information	LS	1	x	10,000.00	=	$10,000
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS		x		=	$0
XXXXXX	Some Item	Unit		x		=	$0

Total Section 1-8	$	2,616,200	2%	= $	52,324

TOTAL STATE FURNISHED **$62,400**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization	$2,616,200	(used to calculate TRO)
Total Construction Cost (excluding TRO and Contingency)	$3,045,000	(used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	160	X	$981	=	$157,000

TOTAL TIME-RELATED OVERHEAD **$157,000**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$	3,097,300	x	**40%**	=	$1,238,920	

TOTAL CONTINGENCY **$1,239,000**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$150		$150		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES	**$0**
TOTAL COST OF BUILDINGS	**$0**
Structures Mobilization Percentage 10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage 10%	**$0**
TOTAL COST OF STRUCTURES	**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ------ Division of Structures Date

EA: 01-LOCAL PID: EVCRCP

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	7,212
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	20,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$27,212**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$27,212**
N)	**RIGHT OF WAY SUPPORT**	**$25,000**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

EA: 01-LOCAL PID: EVCRCP

IV. SUPPORT COST ESTIMATE SUMMARY

Note: Use PRSM project data.

Total by FY		Escalated Support Cost for Estimate To Completion (ETC) PA&ED	PS&E	RW	CON	Total $
< 2010	Expended					
	ETC					
2011	Expended					
	ETC					
2012	Expended					
	ETC					
2013	Expended					
	ETC					
2014	Expended					
	ETC					
2015	Expended					
	ETC					
2016	Expended					
	ETC					
2017	Expended					
	ETC					
2018	Expended					
	ETC					
2019	Expended					
	ETC					
2020	Expended					
	ETC					
2021	Expended					
	ETC					
2022	Expended					
	ETC					
2023	Expended					
	ETC					
2024	Expended					
	ETC					
2025 >	Expended					
	ETC					
EAC (Expended + ETC)		$0	$0	$0	$0	$0
Approved Budget (PRSM)						
Difference (Budget - EAC)		$0	$0	$0	$0	$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	**$4,469,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

PRSM workplan hours/costs verified against approved MWA:

Office Chief - _____ Date _____

Approved by:

Project Control - _____ Date _____

PROJECT

PLANNING COST ESTIMATE

EA: 01-LOCAL PID: EVCRCP

EA: 01-LOCAL

PID: EVCRCP

District-County-Route: 01-DN-EVCR

PM: 0.0 - 1.5

Type of Estimate : Programming

Program Code : k

Project Limits : Along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive

Project Description: Signing, Striping, Anti-Glare treatment, Clearing and Grubbing

Scope :

Alternative : Alternative A, Intersection Improvements at US 199 and Elk Valley Cross Road

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 517,500	$ 575,081
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 517,500	$ 575,081
TOTAL RIGHT OF WAY COST	$ 5,000	$ 5,000
TOTAL CAPITAL OUTLAY COSTS	$ 523,000	$ 581,000
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL SUPPORT COST	$ -	$ -
TOTAL PROJECT COST	$ 525,000	$ 585,000

If Project has been programmed enter Programmed Amount $ 250,000,000

	Month	/	Year
Date of Estimate (Month/Year)	1	/	2020
Estimated Construction Start (Month/Year)	4	/	2024
Number of Working Days =	30		
Estimated Mid-Point of Construction (Month/Year)	8	/	2024
Estimated Construction End (Month/Year)	12	/	2024
Number of Plant Establishment Days	0		

Estimated Project Schedule

PID Approval	6/1/2021
PA/ED Approval	7/1/2022
PS&E	10/1/2023
RTL	12/1/2023
Begin Construction	4/1/2024

Reviewed by District O.E.

Office Engineer	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

Approved by Project Manager

Project Manager	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	10,000
2	**Pavement Structural Section**	$	149,900
3	**Drainage**	$	-
4	**Specialty Items**	$	5,000
5	**Environmental**	$	10,500
6	**Traffic Items**	$	140,600
7	**Detours**	$	-
8	**Minor Items**	$	31,600
9	**Roadway Mobilization**	$	-
10	**Supplemental Work**	$	14,000
11	**State Furnished**	$	12,000
12	**Time-Related Overhead**	$	-
13	**Roadway Contingency**	$	143,900
	TOTAL ROADWAY ITEMS	**$**	**517,500**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19010X	Roadway Excavation (Type X) ADL	CY		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
16010X	Clearing & Grubbing	LS/ACRE	1	x	10,000.00	=	$	10,000
170101	Develop Water Supply	LS		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS	**$**	**10,000**

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY		x		=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON	7	x	2,000.00	=	$	14,000
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731530	Minor Concrete (Textured Paving)	CY		x		=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY		x		=	$	-
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
150860	Remove Base and Surfacing	CY		x		=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x		=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
390401	Hot Mix Asphalt-Open Graded (Open Graded Fricti	TON	1,617	x	84	=	$	135,828

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS	**$**	**149,900**

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		=	$	-
6411XX	XX" Plastic Pipe	LF		x		=	$	-
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS $ -

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS	1	x	5,000.00	=	$	5,000
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS		x		=	$	-
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF		x		=	$	-
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Metal Beam Guard Railing	LF		x		=	$	-
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL SPECIALTY ITEMS $ 5,000

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost	
	Biological Mitigation	LS		x		= $	-	
130670	Temporary Reinforced Silt Fence	LF		x		= $	-	
141000	Temporary Fence (Type ESA)	LF		x		= $	-	
						Subtotal Environmental Mitigation	*$*	-

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost	
20XXXX	Highway Planting	LS		x		= $	-	
20XXXX	Irrigation System	LS		x		= $	-	
204099	Plant Establishment Work	LS		x		= $	-	
204101	Extend Plant Establishment Work	LS		x		= $	-	
20XXXX	Follow-up Landscape Project	LS		x		= $	-	
150685	Remove Irrigation Facility	LS		x		= $	-	
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		= $	-	
206400	Check and Test Existing Irrigation Facilities	LS		x		= $	-	
21011X	Imported Topsoil (X)	CY/TON		x		= $	-	
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		= $	-	
200122	Weed Germination	SQYD		x		= $	-	
208304	Water Meter	EA		x		= $	-	
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		= $	-	
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		= $	-	
						Subtotal Landscape and Irrigation	*$*	-

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)		Cost	
210010	Move In/Move Out (Erosion Control)	EA		x		= $	-	
210350	Fiber Rolls	LF		x		= $	-	
210360	Compost Sock	LF		x		= $	-	
2102XX	Rolled Erosion Control Product (X)	SQFT		x		= $	-	
21025X	Bonded Fiber Matrix	SQFT/ACRE		x		= $	-	
210300	Hydromulch	SQFT		x		= $	-	
210420	Straw	SQFT		x		= $	-	
210430	Hydroseed	SQFT		x		= $	-	
210600	Compost	SQFT		x		= $	-	
210630	Incorporate Materials	SQFT		x		= $	-	
						Subtotal Erosion Control	*$*	-

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)		Cost	
130300	Prepare SWPPP	LS		x		= $	-	
130200	Prepare WPCP	LS	1	x	10,000.00	= $	10,000	
130100	Job Site Management	LS	1	x	500.00	= $	500	
130330	Storm Water Annual Report	EA		x		= $	-	
130310	Rain Event Action Plan (REAP)	EA		x		= $	-	
130320	Storm Water Sampling and Analysis Day	EA		x		= $	-	
130520	Temporary Hydraulic Mulch	SQYD		x		= $	-	
130550	Temporary Hydroseed	SQYD		x		= $	-	
130505	Move-In/Move-Out (Temporary Erosion Control)	EA		x		= $	-	
130640	Temporary Fiber Roll	LF		x		= $	-	
130900	Temporary Concrete Washout	LS		x		= $	-	
130710	Temporary Construction Entrance	EA		x		= $	-	
130610	Temporary Check Dam	LF		x		= $	-	
130620	Temporary Drainage Inlet Protection	EA		x		= $	-	
130730	Street Sweeping	LS		x		= $	-	
						Subtotal NPDES	*$*	*10,500*

TOTAL ENVIRONMENTAL	**$**	**10,500**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS		x	100,000.00	= $	-	
066596	Additional Water Pollution Control**	LS		x	10,000.00	= $	-	
066597	Storm Water Sampling and Analysis***	LS		x		= $	-	
XXXXXX	Some Item	LS		x		= $	-	
						Subtotal Supplemental Work for NDPS	*$*	-

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS		x		=	$	-
860201	Signal and Lighting	LS		x		=	$	-
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x	100,000.00	=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ -

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA		x	10,000.00	=	$	-
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF	6,559	x	1.50	=	$	9,839
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT	4,574	x	6.50	=	$	29,731
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF	6,559	x	3.30	=	$	21,645
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT	4,574	x	11.00	=	$	50,314
120090	Construction Area Signs	LS	1	x	5,000.00	=	$	5,000
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-

Subtotal Traffic Signing and Striping $ 116,528

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS	6	x	$ 1,500	=	$	9,000

Subtotal Traffic Management Plan $ 9,000

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	15,000.00	=	$	15,000
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ 15,000

TOTAL TRAFFIC ITEMS **$ 140,600**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)		Cost
190101	Roadway Excavation	CY		x		= $	-
19801X	Imported Borrow	CY/TON		x		= $	-
390132	Hot Mix Asphalt (Type A)	TON		x		= $	-
26020X	Class 2 Aggregate Base	TON/CY		x		= $	-
250401	Class 4 Aggregate Subbase	CY		x		= $	-
130620	Temporary Drainage Inlet Protection	EA		x		= $	-
129000	Temporary Railing (Type K)	LF		x		= $	-
128601	Temporary Signal System	LS		x		= $	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		= $	-
80010X	Temporary Fence (Type X)	LF		x		= $	-
XXXXXX	Some Item	LS		x		= $	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1 through 7 $ 316,000

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items						
	ADA Items		1.0%	$	3,160	
8B - Bike Path Items						
	Bike Path Items		1.0%	$	3,160	
8C - Other Minor Items						
	Other Minor Items		8.0%	$	25,280	
	Total of Section 1-7	$ 316,000 x	10.0%	= $	31,600	

TOTAL MINOR ITEMS **$ 31,600**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$ 347,600	x	10%	= $	-	

TOTAL MOBILIZATION **$ -**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)		Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		= $	-
066094	Value Analysis	LS		x		= $	-
066070	Maintain Traffic	LS		x		= $	-
066919	Dispute Resolution Board	LS		x		= $	-
066921	Dispute Resolution Advisor	LS		x		= $	-
066015	Federal Trainee Program	LS		x		= $	-
066610	Partnering	LS		x		= $	-
066204	Remove Rock and Debris	LS		x		= $	-
066222	Locate Existing Crossover	LS		x		= $	-
XXXXXX	Some Item	Unit		x		= $	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					= $	-
	Total Section 1-8	$ 347,600			4%	= $	13,904

TOTAL SUPPLEMENTAL WORK **$ 14,000**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS		x		=	$0
066063	Traffic Management Plan - Public Information	LS	1	x	5,000.00	=	$5,000
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS		x		=	$0
XXXXXX	Some Item	Unit		x		=	$0
	Total Section 1-8		$ 347,600		2%	=	$ 6,952

TOTAL STATE FURNISHED **$12,000**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $347,600 (used to calculate TRO)

Total Construction Cost (excluding TRO and Contingency) $373,600 (used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	30	X	$0	=	$0

TOTAL TIME-RELATED OVERHEAD **$0**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$	359,600	x	**40%**	=	$143,840

TOTAL CONTINGENCY **$143,900**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$150		$150		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES	**$0**
TOTAL COST OF BUILDINGS	**$0**
Structures Mobilization Percentage 10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage 10%	**$0**
TOTAL COST OF STRUCTURES	**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ------ Division of Structures Date

EA: 01-LOCAL PID: EVCRCP

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	0
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	5,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$5,000**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$5,000**
N)	**RIGHT OF WAY SUPPORT**	**$5,000**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

EA: 01-LOCAL PID: EVCRCP

IV. SUPPORT COST ESTIMATE SUMMARY

Note: Use PRSM project data.

Total by FY		Escalated Support Cost for Estimate To Completion (ETC) PA&ED	PS&E	RW	CON	Total $
< 2010	Expended					
	ETC					
2011	Expended					
	ETC					
2012	Expended					
	ETC					
2013	Expended					
	ETC					
2014	Expended					
	ETC					
2015	Expended					
	ETC					
2016	Expended					
	ETC					
2017	Expended					
	ETC					
2018	Expended					
	ETC					
2019	Expended					
	ETC					
2020	Expended					
	ETC					
2021	Expended					
	ETC					
2022	Expended					
	ETC					
2023	Expended					
	ETC					
2024	Expended					
	ETC					
2025 >	Expended					
	ETC					
EAC (Expended + ETC)		$0	$0	$0	$0	$0
Approved Budget (PRSM)						
Difference (Budget - EAC)		$0	$0	$0	$0	$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	**$523,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

PRSM workplan hours/costs verified against approved MWA:

Office Chief - _____ Date _____

Approved by:

Project Control - _____ Date _____

PROJECT

PLANNING COST ESTIMATE

EA: 01-LOCAL PID: EVCRCP

EA: 01-LOCAL

PID: EVCRCP

District-County-Route: 01-DN-EVCR

PM: 0.0 - 1.5

Type of Estimate : Programming

Program Code : k

Project Limits : Along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive

Project Description: Traffic Signals installed at the intersection of US 199 and Elk Valley Cross Road.

Scope :

Alternative : Alternative B, Intersection Improvements at SR 199 and Elk Valley Cross Road

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 746,400	$ 829,451
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 746,400	$ 829,451
TOTAL RIGHT OF WAY COST	$ 10,000	$ 10,000
TOTAL CAPITAL OUTLAY COSTS	**$ 757,000**	**$ 840,000**
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL SUPPORT COST	**$ -**	**$ -**
TOTAL PROJECT COST	**$ 760,000**	**$ 840,000**

If Project has been programmed enter Programmed Amount

	Month	/	Year
Date of Estimate (Month/Year)	1	/	2020
Estimated Construction Start (Month/Year)	4	/	2024
Number of Working Days =	25		
Estimated Mid-Point of Construction (Month/Year)	8	/	2024
Estimated Construction End (Month/Year)	12	/	2024
Number of Plant Establishment Days	261		

Estimated Project Schedule

PID Approval	6/1/2021
PA/ED Approval	7/1/2022
PS&E	10/1/2023
RTL	12/1/2023
Begin Construction	4/1/2024

Reviewed by District O.E.

Office Engineer	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

Approved by Project Manager

Project Manager	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	-
2	**Pavement Structural Section**	$	-
3	**Drainage**	$	-
4	**Specialty Items**	$	7,500
5	**Environmental**	$	17,000
6	**Traffic Items**	$	417,100
7	**Detours**	$	-
8	**Minor Items**	$	44,200
9	**Roadway Mobilization**	$	-
10	**Supplemental Work**	$	24,500
11	**State Furnished**	$	29,800
12	**Time-Related Overhead**	$	-
13	**Roadway Contingency**	$	206,300
	TOTAL ROADWAY ITEMS	**$**	**746,400**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)		Cost
190101	Roadway Excavation	CY		x	=	$	-
19010X	Roadway Excavation (Type X) ADL	CY		x	=	$	-
194001	Ditch Excavation	CY		x	=	$	-
19801X	Imported Borrow	CY/TON		x	=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x	=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x	=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x	=	$	-
16010X	Clearing & Grubbing	LS/ACRE		x	=	$	-
170101	Develop Water Supply	LS		x	=	$	-
19801X	Imported Borrow	CY/TON		x	=	$	-
210130	Duff	ACRE		x	=	$	-
XXXXXX	Some Item	Unit		x	=	$	-

TOTAL EARTHWORK SECTION ITEMS $ -

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)		Cost
401050	Jointed Plain Concrete Pavement	CY		x	=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x	=	$	-
404092	Seal Pavement Joint	LF		x	=	$	-
404093	Seal Isolation Joint	LF		x	=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x	=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x	=	$	-
280010	Rapid Strength Concrete Base	CY		x	=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x	=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x	=	$	-
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x	=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x	=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x	=	$	-
290201	Asphalt Treated Permeable Base	CY		x	=	$	-
250401	Class 4 Aggregate Subbase	CY		x	=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x	=	$	-
397005	Tack Coat	TON		x	=	$	-
377501	Slurry Seal	TON		x	=	$	-
3750XX	Screenings (Type XX)	TON		x	=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x	=	$	-
370001	Sand Cover (Seal)	TON		x	=	$	-
731530	Minor Concrete (Textured Paving)	CY		x	=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY		x	=	$	-
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x	=	$	-
150771	Remove Asphalt Concrete Dike	LF		x	=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x	=	$	-
150860	Remove Base and Surfacing	CY		x	=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x	=	$	-
15312X	Remove Concrete	LF/CY/LS		x	=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x	=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x	=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x	=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x	=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x	=	$	-
390136	Minor Hot Mix Asphalt	TON		x	=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x	=	$	-
XXXXXX	Some Item	Unit		x	=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS $ -

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		=	$	-
6411XX	XX" Plastic Pipe	LF		x		=	$	-
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS $ -

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS	1	x	5,000.00	=	$	5,000
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	2,500.00	=	$	2,500
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF		x		=	$	-
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Metal Beam Guard Railing	LF		x		=	$	-
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL SPECIALTY ITEMS $ 7,500

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost
	Biological Mitigation	LS		x		= $	-
130670	Temporary Reinforced Silt Fence	LF		x		= $	-
141000	Temporary Fence (Type ESA)	LF		x		= $	-
						Subtotal Environmental Mitigation	*$* -

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost
20XXXX	Highway Planting	LS		x		= $	-
20XXXX	Irrigation System	LS		x		= $	-
204099	Plant Establishment Work	LS		x		= $	-
204101	Extend Plant Establishment Work	LS		x		= $	-
20XXXX	Follow-up Landscape Project	LS		x		= $	-
150685	Remove Irrigation Facility	LS		x		= $	-
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		= $	-
206400	Check and Test Existing Irrigation Facilities	LS		x		= $	-
21011X	Imported Topsoil (X)	CY/TON		x		= $	-
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		= $	-
200122	Weed Germination	SQYD		x		= $	-
208304	Water Meter	EA		x		= $	-
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		= $	-
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		= $	-
						Subtotal Landscape and Irrigation	*$* -

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)		Cost
210010	Move In/Move Out (Erosion Control)	EA		x		= $	-
210350	Fiber Rolls	LF		x		= $	-
210360	Compost Sock	LF		x		= $	-
2102XX	Rolled Erosion Control Product (X)	SQFT		x		= $	-
21025X	Bonded Fiber Matrix	SQFT/ACRE		x		= $	-
210300	Hydromulch	SQFT		x		= $	-
210420	Straw	SQFT		x		= $	-
210430	Hydroseed	SQFT		x		= $	-
210600	Compost	SQFT		x		= $	-
210630	Incorporate Materials	SQFT		x		= $	-
						Subtotal Erosion Control	*$* -

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)		Cost
130300	Prepare SWPPP	LS		x		= $	-
130200	Prepare WPCP	LS	1	x	5,000.00	= $	5,000
130100	Job Site Management	LS		x		= $	-
130330	Storm Water Annual Report	EA		x		= $	-
130310	Rain Event Action Plan (REAP)	EA		x		= $	-
130320	Storm Water Sampling and Analysis Day	EA		x		= $	-
130520	Temporary Hydraulic Mulch	SQYD		x		= $	-
130550	Temporary Hydroseed	SQYD		x		= $	-
130505	Move-In/Move-Out (Temporary Erosion Control)	EA		x		= $	-
130640	Temporary Fiber Roll	LF		x		= $	-
130900	Temporary Concrete Washout	LS		x		= $	-
130710	Temporary Construction Entrance	EA		x		= $	-
130610	Temporary Check Dam	LF		x		= $	-
130620	Temporary Drainage Inlet Protection	EA		x		= $	-
130730	Street Sweeping	LS	1	x	12,000.00	= $	12,000
						Subtotal NPDES	*$* *17,000*

TOTAL ENVIRONMENTAL	**$**	**17,000**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS		x		= $	-
066596	Additional Water Pollution Control**	LS		x		= $	-
066597	Storm Water Sampling and Analysis***	LS		x		= $	-
XXXXXX	Some Item	LS		x		= $	-
						Subtotal Supplemental Work for NDPS	*$* -

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS		x		=	$	-
860201	Signal and Lighting	LS	1	x	300,000.00	=	$	300,000
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *300,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA	12	x	500.00	=	$	6,000
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF	6,559	x	1.50	=	$	9,839
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT	4,574	x	6.50	=	$	29,731
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF	6,559	x	3.30	=	$	21,645
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT	4,530	x	11.00	=	$	49,830
120090	Construction Area Signs	LS		x		=	$	-
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-

Subtotal Traffic Signing and Striping $ *117,044*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS		x	$ 1,500	=	$	-

Subtotal Traffic Management Plan $ -

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS		x		=	$	-
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ -

TOTAL TRAFFIC ITEMS **$ 417,100**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Type X)	LF		x		=	$	-
XXXXXX	Some Item	LS		x		=	$	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1 through 7 $ 441,600

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
	ADA Items			1.0%	$	4,416	
8B - Bike Path Items							
	Bike Path Items			1.0%	$	4,416	
8C - Other Minor Items							
	Other Minor Items			8.0%	$	35,328	
	Total of Section 1-7	$	441,600	x 10.0%	= $	44,160	

TOTAL MINOR ITEMS **$ 44,200**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$	485,800	x 10%	= $	-	

TOTAL MOBILIZATION **$ -**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		=	$	-
066094	Value Analysis	LS		x		=	$	-
066070	Maintain Traffic	LS	1	x	5,000.00	=	$	5,000
066919	Dispute Resolution Board	LS		x		=	$	-
066921	Dispute Resolution Advisor	LS		x		=	$	-
066015	Federal Trainee Program	LS		x		=	$	-
066610	Partnering	LS		x		=	$	-
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					=	$	-
	Total Section 1-8	$	485,800		4%	=	$	19,432

TOTAL SUPPLEMENTAL WORK **$ 24,500**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS		x		=	$0
066063	Traffic Management Plan - Public Information	LS		x		=	$0
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS	1	x	20,000.00	=	$20,000
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS		x		=	$0
XXXXXX	Some Item	Unit		x		=	$0

Total Section 1-8	$	485,800	2%	= $	9,716

TOTAL STATE FURNISHED	**$29,800**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization	$485,800	(used to calculate TRO)
Total Construction Cost (excluding TRO and Contingency)	$540,100	(used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	25	X	$0	=	$0

TOTAL TIME-RELATED OVERHEAD	**$0**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$	515,600	x	**40%**	=	$206,240	

TOTAL CONTINGENCY	**$206,300**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$150		$150		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES	**$0**
TOTAL COST OF BUILDINGS	**$0**
Structures Mobilization Percentage 10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage 10%	**$0**
TOTAL COST OF STRUCTURES	**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ------ Division of Structures Date

EA: 01-LOCAL PID: EVCRCP

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	0
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	10,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$10,000**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$10,000**
N)	**RIGHT OF WAY SUPPORT**	**$5,000**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

EA: 01-LOCAL PID: EVCRCP

IV. SUPPORT COST ESTIMATE SUMMARY

Note: Use PRSM project data.

Total by FY		Escalated Support Cost for Estimate To Completion (ETC) PA&ED	PS&E	RW	CON	Total $
< 2010	Expended					
	ETC					
2011	Expended					
	ETC					
2012	Expended					
	ETC					
2013	Expended					
	ETC					
2014	Expended					
	ETC					
2015	Expended					
	ETC					
2016	Expended					
	ETC					
2017	Expended					
	ETC					
2018	Expended					
	ETC					
2019	Expended					
	ETC					
2020	Expended					
	ETC					
2021	Expended					
	ETC					
2022	Expended					
	ETC					
2023	Expended					
	ETC					
2024	Expended					
	ETC					
2025 >	Expended					
	ETC					
EAC (Expended + ETC)		$0	$0	$0	$0	$0
Approved Budget (PRSM)						
Difference (Budget - EAC)		$0	$0	$0	$0	$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	**$757,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

PRSM workplan hours/costs verified against approved MWA:

Office Chief - _____ Date _____

Approved by:

Project Control - _____ Date _____

PROJECT

PLANNING COST ESTIMATE

EA: 01-LOCAL PID: EVCRCP

EA: 01-LOCAL

PID: EVCRCP

District-County-Route: 01-DN-EVCR

PM: 0.0 - 1.5

Type of Estimate : Programming

Program Code : k

Project Limits : Along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive

Project Description: Roundabout at the intersection of US 199 and Elk Valley Cross Road.

Scope :

Alternative : Alternative C, Roundabout at US 199 and Elk Valley Cross Road

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 4,165,200	$ 4,628,655
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 4,165,200	$ 4,628,655
TOTAL RIGHT OF WAY COST	$ 21,325	$ 21,325
TOTAL CAPITAL OUTLAY COSTS	$ 4,187,000	$ 4,650,000
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL SUPPORT COST	$ -	$ -
TOTAL PROJECT COST	$ 4,200,000	$ 4,650,000

If Project has been programmed enter Programmed Amount

	Month	/	Year
Date of Estimate (Month/Year)	1	/	2020
Estimated Construction Start (Month/Year)	1	/	2024
Number of Working Days =			160
Estimated Mid-Point of Construction (Month/Year)	4	/	2024
Estimated Construction End (Month/Year)	10	/	2025
Number of Plant Establishment Days			261

Estimated Project Schedule

PID Approval	6/1/20247
PA/ED Approval	7/1/2022
PS&E	10/1/2023
RTL	12/1/2023
Begin Construction	4/1/2024

Reviewed by District O.E.

Office Engineer	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

Approved by Project Manager

Project Manager	Date	Phone
	xx/xx/xxxx	(xxx) xxx-xxxx

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	163,700
2	**Pavement Structural Section**	$	1,619,900
3	**Drainage**	$	30,000
4	**Specialty Items**	$	60,000
5	**Environmental**	$	45,000
6	**Traffic Items**	$	311,600
7	**Detours**	$	-
8	**Minor Items**	$	223,100
9	**Roadway Mobilization**	$	245,400
10	**Supplemental Work**	$	98,200
11	**State Furnished**	$	59,100
12	**Time-Related Overhead**	$	147,200
13	**Roadway Contingency**	$	1,162,000
	TOTAL ROADWAY ITEMS	**$**	**4,165,200**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	4,104	x	35.00	=	$	143,640
19010X	Roadway Excavation (Type X) ADL	CY		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
16010X	Clearing & Grubbing	LS/ACRE	2	x	5,000.00	=	$	10,000
170101	Develop Water Supply	LS	1	x	10,000.00	=	$	10,000
19801X	Imported Borrow	CY/TON		x		=	$	-
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS	$	163,700

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY		x		=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	2,065	x	120.00	=	$	247,800
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY	2,317	x	80.00	=	$	185,360
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON	3	x	2,000.00	=	$	6,000
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731530	Minor Concrete (Textured Paving)	CY	59	x	615.00	=	$	36,285
731521	Minor Concrete (Sidewalk)	CY	89	x	750	=	$	66,750
731501	Minor Concrete (Curb)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
150860	Remove Base and Surfacing	CY		x		=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x		=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
731504	Minor Concrete (Curb and Gutter)	LF	3,316	x	325	=	$	1,077,700

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS	$	1,619,900

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF	600	x	50.00	=	$	30,000
6411XX	XX" Plastic Pipe	LF		x		=	$	-
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS $ 30,000

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS	1	x	5,000.00	=	$	5,000
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	5,000.00	=	$	5,000
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF		x		=	$	-
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Metal Beam Guard Railing	LF		x		=	$	-
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	LS	1	x	50,000.00	=	$	50,000
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL SPECIALTY ITEMS $ 60,000

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost
	Biological Mitigation	LS		x		= $	-
130670	Temporary Reinforced Silt Fence	LF		x		= $	-
141000	Temporary Fence (Type ESA)	LF		x		= $	-
						Subtotal Environmental Mitigation	*$* -

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost
20XXXX	Highway Planting	LS		x		= $	-
20XXXX	Irrigation System	LS		x		= $	-
204099	Plant Establishment Work	LS	1	x	10,000.00	= $	10,000
204101	Extend Plant Establishment Work	LS		x		= $	-
20XXXX	Follow-up Landscape Project	LS		x		= $	-
150685	Remove Irrigation Facility	LS		x		= $	-
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		= $	-
206400	Check and Test Existing Irrigation Facilities	LS		x		= $	-
21011X	Imported Topsoil (X)	CY/TON		x		= $	-
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		= $	-
200122	Weed Germination	SQYD		x		= $	-
208304	Water Meter	EA		x		= $	-
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		= $	-
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		= $	-
						Subtotal Landscape and Irrigation	*$* *10,000*

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)		Cost
210010	Move In/Move Out (Erosion Control)	EA	2	x	500	= $	1,000
210350	Fiber Rolls	LF	900	x	5	= $	4,500
210360	Compost Sock	LF		x		= $	-
2102XX	Rolled Erosion Control Product (X)	SQFT		x		= $	-
21025X	Bonded Fiber Matrix	SQFT/ACRE	20000	x	0.15	= $	3,000
210300	Hydromulch	SQFT		x		= $	-
210420	Straw	SQFT		x		= $	-
210430	Hydroseed	SQFT		x		= $	-
210600	Compost	SQFT		x		= $	-
210630	Incorporate Materials	SQFT		x		= $	-
						Subtotal Erosion Control	*$* *8,500*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)		Cost
130300	Prepare SWPPP	LS	1	x	10,000.00	= $	10,000
130200	Prepare WPCP	LS		x		= $	-
130100	Job Site Management	LS	1	x	1,500.00	= $	1,500
130330	Storm Water Annual Report	EA		x		= $	-
130310	Rain Event Action Plan (REAP)	EA		x		= $	-
130320	Storm Water Sampling and Analysis Day	EA		x		= $	-
130520	Temporary Hydraulic Mulch	SQYD		x		= $	-
130550	Temporary Hydroseed	SQYD		x		= $	-
130505	Move-In/Move-Out (Temporary Erosion Control)	EA		x		= $	-
130640	Temporary Fiber Roll	LF		x		= $	-
130900	Temporary Concrete Washout	LS		x		= $	-
130710	Temporary Construction Entrance	EA		x		= $	-
130610	Temporary Check Dam	LF		x		= $	-
130620	Temporary Drainage Inlet Protection	EA		x		= $	-
130730	Street Sweeping	LS	1	x	15,000.00	= $	15,000
						Subtotal NPDES	*$* *26,500*

TOTAL ENVIRONMENTAL	**$**	**45,000**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS		x	100,000.00	= $	-
066596	Additional Water Pollution Control**	LS		x	10,000.00	= $	-
066597	Storm Water Sampling and Analysis***	LS		x		= $	-
XXXXXX	Some Item	LS		x		= $	-
						Subtotal Supplemental Work for NDPS	*$* -

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS		x		=	$	-
860201	Signal and Lighting	LS	1	x	75,000.00	=	$	75,000
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *75,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA	1	x	10,000.00	=	$	10,000
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF	9,433	x	1.50	=	$	14,150
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT	4,354	x	6.50	=	$	28,301
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF	11,000	x	3.30	=	$	36,300
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT	775	x	11.00	=	$	8,525
120090	Construction Area Signs	LS		x		=	$	-
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-

Subtotal Traffic Signing and Striping $ *97,276*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS	7	x	$ 1,500	=	$	10,500

Subtotal Traffic Management Plan $ *10,500*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x	100,000.00	=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	15,000.00	=	$	15,000
129110	Temporary Crash Cushion	EA	2	x	35,000.00	=	$	70,000
129000	Temporary Railing (Type K)	LF	1,250	x	35.00	=	$	43,750
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *128,750*

TOTAL TRAFFIC ITEMS **$ 311,600**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Type X)	LF		x		=	$	-
XXXXXX	Some Item	LS		x	5,000,000	=	$	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS	$	-

SUBTOTAL SECTIONS 1 through 7	$	2,230,200

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items						
ADA Items			1.0%	$	22,302	
8B - Bike Path Items						
Bike Path Items			1.0%	$	22,302	
8C - Other Minor Items						
Other Minor Items			8.0%	$	178,416	
Total of Section 1-7	$	2,230,200	x 10.0%	= $	223,020	

TOTAL MINOR ITEMS	$	223,100

SECTIONS 9: MOBILIZATION

Item code								
999990	Total Section 1-8	$	2,453,300	x	10%	=	$	245,330

TOTAL MOBILIZATION	$	245,400

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		=	$	-
066094	Value Analysis	LS		x		=	$	-
066070	Maintain Traffic	LS		x		=	$	-
066919	Dispute Resolution Board	LS		x	25,000.00	=	$	-
066921	Dispute Resolution Advisor	LS		x		=	$	-
066015	Federal Trainee Program	LS		x		=	$	-
066610	Partnering	LS		x		=	$	-
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

*Cost of **NPDES** Supplemental Work specified in Section 5D*	=	$	-

Total Section 1-8	$	2,453,300	4%	= $	98,132

TOTAL SUPPLEMENTAL WORK	$	98,200

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS		x		=	$0
066063	Traffic Management Plan - Public Information	LS	1	x	10,000.00	=	$10,000
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x	7,000.00	=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS		x		=	$0
XXXXXX	Some Item	Unit		x		=	$0

Total Section 1-8	$	2,453,300	2%	= $	49,066

TOTAL STATE FURNISHED **$59,100**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization	$2,453,300	(used to calculate TRO)
Total Construction Cost (excluding TRO and Contingency)	$2,856,000	(used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	160	X	$920	=	$147,200

TOTAL TIME-RELATED OVERHEAD **$147,200**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11	$	2,905,000	x	**40%**	=	$1,162,000	

TOTAL CONTINGENCY **$1,162,000**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$150		$150		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES	**$0**
TOTAL COST OF BUILDINGS	**$0**
Structures Mobilization Percentage 10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage 10%	**$0**
TOTAL COST OF STRUCTURES	**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ------ Division of Structures Date

EA: 01-LOCAL PID: EVCRCP

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	1,325
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	20,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$21,325**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$21,325**
N)	**RIGHT OF WAY SUPPORT**	**$25,000**

Support Cost Estimate Prepared By _____ Project Coordinator[1] _____ Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] _____ Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] _____ Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

EA: 01-LOCAL PID: EVCRCP

IV. SUPPORT COST ESTIMATE SUMMARY

Note: Use PRSM project data.

Total by FY		Escalated Support Cost for Estimate To Completion (ETC) PA&ED	PS&E	RW	CON	Total $
< 2010	Expended					
	ETC					
2011	Expended					
	ETC					
2012	Expended					
	ETC					
2013	Expended					
	ETC					
2014	Expended					
	ETC					
2015	Expended					
	ETC					
2016	Expended					
	ETC					
2017	Expended					
	ETC					
2018	Expended					
	ETC					
2019	Expended					
	ETC					
2020	Expended					
	ETC					
2021	Expended					
	ETC					
2022	Expended					
	ETC					
2023	Expended					
	ETC					
2024	Expended					
	ETC					
2025 >	Expended					
	ETC					
EAC (Expended + ETC)		$0	$0	$0	$0	$0
Approved Budget (PRSM)						
Difference (Budget - EAC)		$0	$0	$0	$0	$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	**$4,187,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

PRSM workplan hours/costs verified against approved MWA:

Office Chief - _____ Date _____

Approved by:

Project Control - _____ Date _____

Attachment D

Environmental Constraints Overview Report

Environmental Constraints Overview Report

Elk Valley Cross Road Corridor Plan

Attention:	Tamera Leighton, Executive Director, Del Norte Local Transportation Commission
From:	Tim Chamberlain, Senior Environmental Planner, Dokken Engineering
Subject:	Elk Valley Cross Road Multimodal Corridor Project
Date:	February 10, 2020

Project Introduction

The Del Norte Local Transportation Commission (DNLTC) is evaluating Elk Valley Cross Road to determine potential transportation improvements along the corridor to improve safety, traffic and multimodal use. Elk Valley Cross Road is located in Del Norte County (see Figures 1 and 2). The Elk Valley Cross Road Corridor Plan is evaluating potential improvements that would improve the safety and multimodal use of Elk Valley Cross Road. Corridor improvements are expected to be proposed as individual project packages which may include adding shoulders, changing the roadway profile, improving sight distance, and realigning curves.

Elk Valley is a northwest/southeast roadway between US Highway 101 (US 101) and US Highway 199 (US 199). In the project area, Elk Valley Cross Road is a two-lane roadway between Elk Valley Road and Parkway Drive. Between Lake Earl Drive and Railroad Avenue Extension/Wonder Stump Road also has 8-foot paved shoulders. Numerous residents live off of Elk Valley Cross Road or attached side streets. The roadway is also used as a route from US-199 to US-101 north of Crescent City (Figure 3).

Need: Improvements along Elk Valley Cross Road are needed to address safety issues. The existing major intersections have a collision rate higher than the local, county and statewide averages for similar roadways. The existing corridor does not meet current design standards.

Purpose: The purpose of the Elk Valley Cross Road Corridor Plan is to provide conceptual engineering design solutions to improve safety for all users (motorists, bicyclists, and pedestrians) along Elk Valley Cross Road.

<u>Other Goals and Objectives</u>

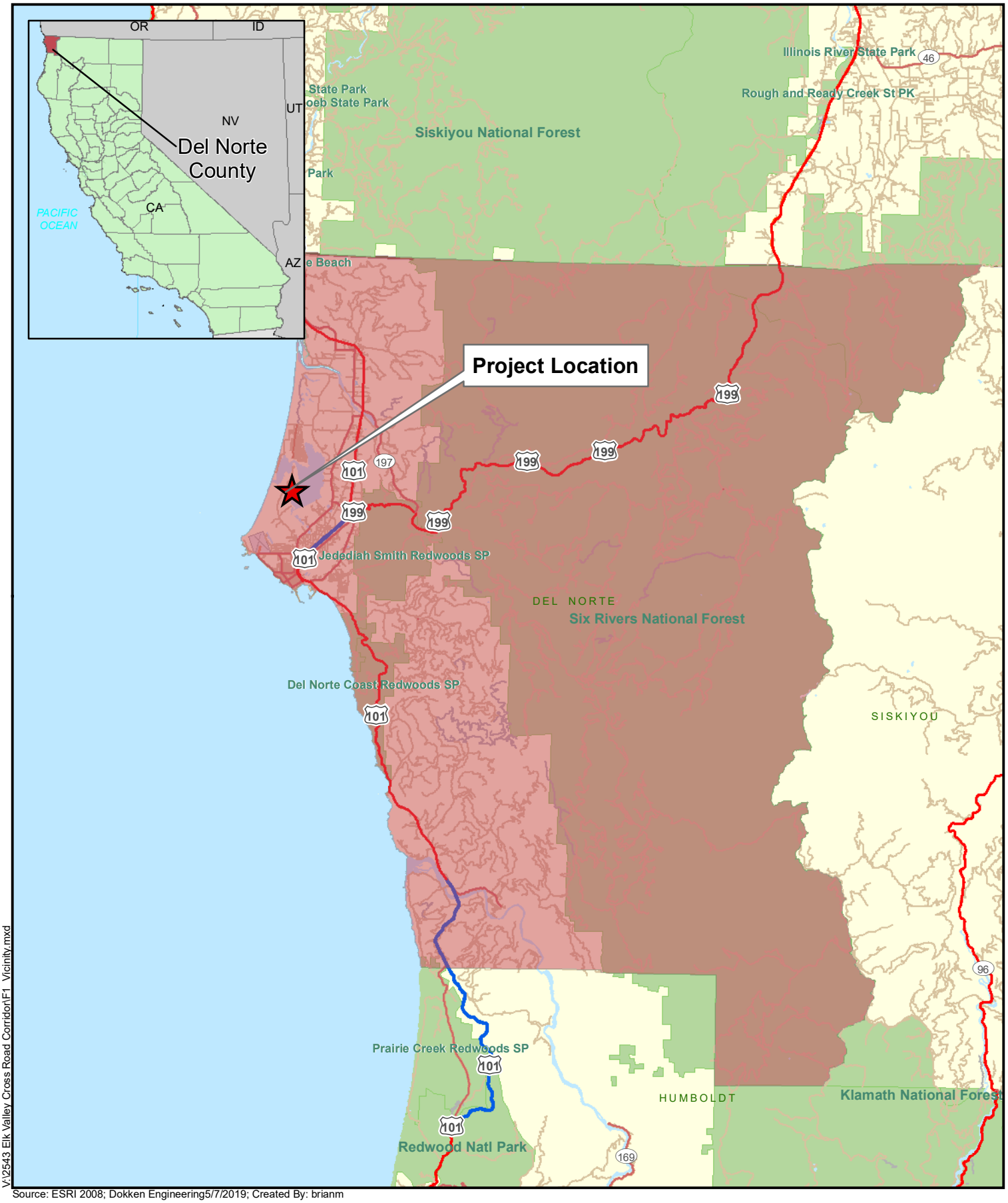
- Provide a paved shoulder for safe bicycle and pedestrian use.
- Identify collision rates at intersections.
- Identify horizontal and vertical sight distance deficiencies along the existing corridor.
- Identify existing environmental constraints along the corridor.
- Identify existing Right of Way constraints along the corridor.

Deficiencies

The existing alignment was compared to the December 2018 version of the Caltrans Highway Design Manual (HDM). There are geometric deficiencies present along the Elk Valley Cross Road corridor. Many intersection roads do not offer the minimum corner sight distant required for the posted speed limit of 45 mph.

There are nonstandard shoulder width and non-motorized facility deficiencies along the current corridor between Wonder Stump Road and Parkway Drive. Improvements to be made will require paved shoulder widening to the 4' standard for bike and pedestrian traffic.

At the intersection of EVCR and US 101, the unsignalized at-grade intersection configuration with a median refuge serves as a nonstandard intersection between a multilane highway and two-lane rural connector. At the intersection of EVCR and US 199, the unsignalized at-grade intersection configuration was modified between 2005 and 2009 to reduce WB US 199 traffic from two lanes down to one before entering the intersection. This modification has not yielded beneficial results with the existing collision data. This intersection lacks the corner sight distance needed per the current HDM, along with stopping sight distance for traffic traveling along the major route.



V:\2543 Elk Valley Cross Road Corridor\F1_Vicinity.mxd

Source: ESRI 2008; Dokken Engineering5/7/2019; Created By: brianm

0 5 10 15 Miles

FIGURE 1
Project Vicinity

Elk Valley Cross Road
Del Norte County, California

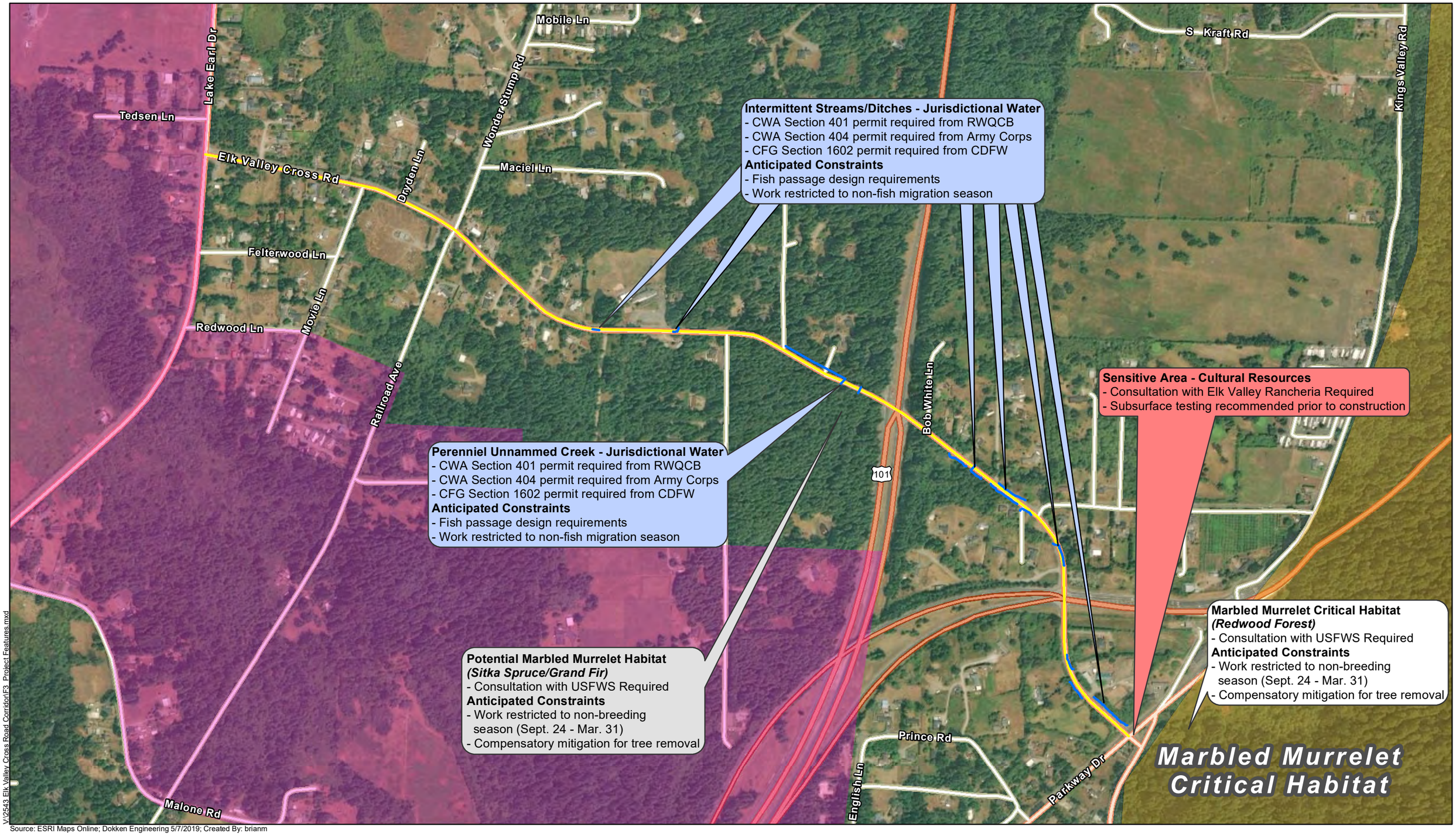
v:\1836 11thStBridge\Cultural\F2 Loc 10-12-10.mxd

Source: ESRI World Street Maps Online; Dokken Engineering 5/7/2019; Created By: brianm

0 0.25 0.5 0.75 1 Miles

FIGURE 2
Project Location

Elk Valley Cross Road
Del Norte County, California



V:\2543 Elk Valley Cross Road Corridor\F3_Project Features.mxd

Source: ESRI Maps Online; Dokken Engineering 5/7/2019; Created By: brianm

1 inch = 600 feet

0 300 600 900 1,200 1,500 Feet

Stream Channels and Roadside Ditches
Elk Valley Cross Road Corridor
California Coastal Commission
Critical Habitat

Figure 3
Project Features

Elk Valley Cross Road
Del Norte County, California

ALTERNATIVES

Alternatives have been developed for the Corridor Plan that include lane and shoulder widening, intersection improvements, sight distance improvements, re-striping and no-build. The following description of the alternatives gives location, types and limits of the improvements. All alternatives increase the shoulder width and the distance from the edge of traveled way to any fixed object to improve the Clear Recovery Zone (CRZ) area.

Segments have been developed which are described as follows:

- Segment 1 - Lake Earl Drive to Wonder Stump Road (1,677 ft)
- Segment 2 – Wonder Stump Road to US 101 (3,340 ft)
- Segment 3 – US 101 to Parkway Drive (2,720 ft)
- Intersection of Movie Lane/Wonder Stump Road with EVCR
- Intersection of Cunningham Lane with EVCR
- Intersection of EVCR and US 101
- Intersection of EVCR and US 199

Alternatives have been developed for both roadway segments and intersections separately to differentiate the improvement options available for the EVCR. Intersections involving the State Right of Way (US 101 and US 199) will require approval by District 1.

Roadway Segment 1 Lake Earl Drive to Wonder Stump Road (1,677 ft) Alternatives

Alternative A, **Roadway Segment 1 Improvement Alternative A: Shoulder widening** would not require any changes. The existing shoulder widths of 6’ to 8’ satisfy current design standards making this segment exempt from improvements under Alternative A.

Alternative B, **Roadway Segment 1 Improvement Alternative B: Two-Way Left Turn Lane** will begin restriping the roadway west of the Movie Lane intersection. Additional widening would need to occur to accommodate the new 12’ left turn lane for westbound traffic turning onto Movie Lane. Continue widening for the left turn lane for eastbound traffic turning onto Wonder Stump Road. Widening would require tree and vegetation removal, utility pole relocations and potential fence line relocations to establish a 60’ Right of Way width. Road connections would be reconstructed to connect to the widened roadway.

Roadway Segment 2 Wonder Stump Road to US 101 (3,340 ft) Alternatives

Roadway Segment 2 Improvement Alternative A: Shoulder widening construct standard 4’ shoulder widths on both sides of the EVCR from Wonder Stump Road to US 101. The existing roadside utilities and drainage ditch will need to be relocated to construct the standard shoulder widths. A 60-foot wide Right of Way corridor would be secured for lengths that have deficient width to contain the standard lane, shoulders, drainage ditches and utility pole relocations. The 4’ paved shoulder would be striped and signed as a Class 2 bike lane.

Roadway Segment 2 Improvement Alternative B: Two-Way Left Turn Lane will continue the widening and restriping of EVCR from Wonder Stump Road to the exit to Florence Keller Regional Park before US 101. This length of two-way left turn lane would increase the intersection sight distance of all connecting roads along this segment, as well as allow for safer movement of vehicles to and from the EVCR corridor. This length would require utility pole relocations, right of way acquisitions, ditch excavation and vegetation removal.

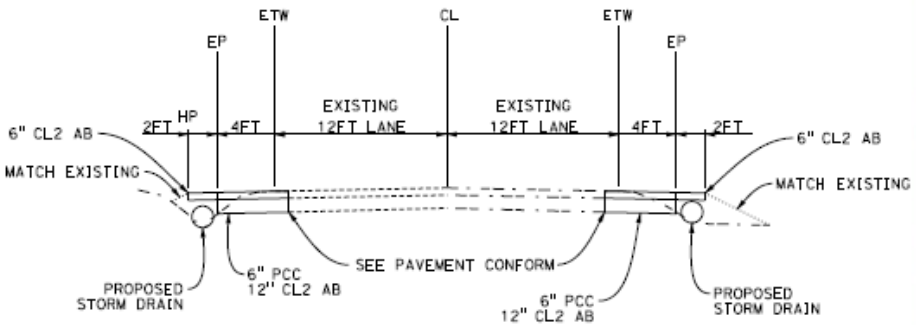


Figure 4 Alternative A, Roadway Segment 2

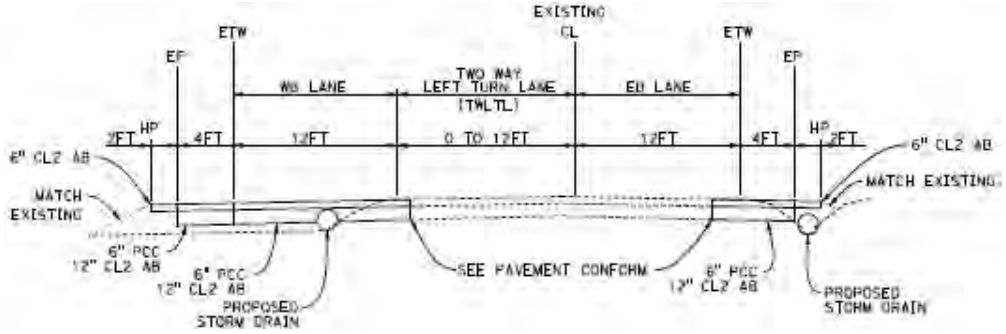


Figure 5 Alternative B, Roadway Segment 2

Roadway Segment 3 <u>US 101 to Parkway Drive</u> (2,720 ft) Alternatives

Roadway Segment 3 Improvement Alternative A: Shoulder widening construct standard 4' shoulder widths on both sides of the EVCR from US 101 to US 199. Elk Valley Cross Road from US 199 to Parkway Drive already has sufficient shoulder width and therefore does not need further improvement with this alternative. The 4-foot paved shoulders would be striped and signed as a Class 2 bike lane.

The following alternatives address improvements at specific intersections along the corridor that have been identified as needing improvement.

Intersection Improvement: <u>Movie Lane & Wonder Stump Road and EVCR</u> Turn Pocket

The Movie Lane and Wonder Stump Road turn pocket would widen the EVCR corridor from Movie Lane to east of Wonder Stump Road as shown on the exhibit. Restriping would be necessary to allow for a left merge lane for traffic merging onto EVCR moving westbound from Movie Lane, and eastbound from Wonder Stump Road.

Intersection Improvement: <u>Cunningham Lane</u> Turn Pocket

The Cunningham Lane turn pocket would widen the EVCR corridor from Sunset High School to the Park Exit Road connection. This length of widening will require right of way acquisition, tree removal and utility pole relocations. A dedicated turning movement for westbound EVCR traffic turning into Cunningham Lane is provided with the turn pocket. The widening west of the intersection allows for a safety refuge for Cunningham Lane traffic turning westbound onto EVCR.

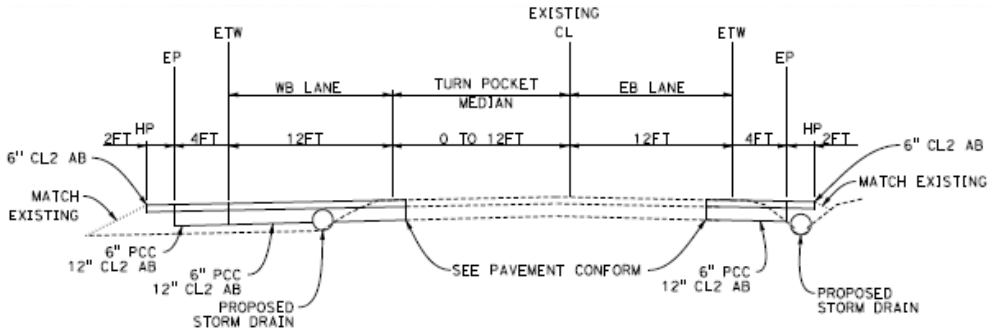


Figure 6 Cunningham Lane Turn Pocket, Intersection Improvement

Intersection Improvement: <u>US 101 and EVCR</u> Alterative A, **Signing and Striping Improvements**

The existing intersection of US 101 and EVCR is a nonstandard at-grade intersection configuration which involves a refuge area in the median of the US 101 traffic. Proposed signing and striping to improve the median refuge area by delineating the refuge space available to both directions of traffic. Signing will assist the drivers in understanding traffic flow patterns of this configuration; only one vehicle space is available in the median refuge for each direction of traffic. EVCR traffic must yield to major road traffic and median refuge traffic. This alternative is proposed to improve the traffic pattern in the median refuge area.

Intersection Improvement: <u>US 101 and EVCR</u> Alterative B, **Restricted Crossing U-Turn (RCUT)**

The restricted Crossing U-Turn configuration at the intersection of US 101 and EVCR will require signing, striping, early lane reduction of the northbound US 101 traffic, late lane addition of the southbound US 101 traffic, and additional median paving for the separated U-turn crossing locations. This alternative is based on FHWA design standards.

Restricted Crossing U-Turn (RCUT)/Superstreet Intersection – RCUT is an intersection design to improve safety and operations while not changing any of the movements possible from the major road. Drivers stopped on Elk Valley Cross Road (EVCR) waiting to cross or turn left onto US 101 would not have to navigate an intersection of two directions of traffic traveling at high speeds along US 101. Through and left turn EVCR traffic makes a right turn onto US 101, followed by a U-TURN to continue in the desired direction. The RCUT is used as an alternative to signalization and would maintain US 101 as an unsignalized expressway/major highway. The RCUT intersection configuration will reduce the vehicle to vehicle conflict points and reduce the potential conflict severity (reduces the number of potential broadside impact conflict points). The RCUT can support multimodal goals with bicycle crossings that are provided with bike lanes and bike lane buffers with a refuge island in the median to provide through and left turn movements for the bikes.

Intersection Improvement: <u>US 101 and EVCR</u> Alternative C, **US 101 Single Lane Through Intersection, Signing and Striping Improvements**

This alternative proposes to construct a 160 ft diameter inscribed circle, single lane roundabout located at the intersection of US 101 and EVCR. The roundabout would require updated intersection lighting and approach signing on both the EVCR and US 101 approaches. The roundabout may include a crosswalk for safe multimodal travel. This alternative would allow for yield controlled separated right turning movement from northbound US 101 to eastbound EVCR which includes a high volume of traffic generated from the

connection between westbound US 199 and northbound US 101. A roundabout could handle the future traffic volume growth on US 101. The design speed for the roundabout would be per current guidelines (20 mph) and approaching roadway geometrics adjusted to reduce the approaching vehicle speeds before reaching the entrance yield line.

Intersection Improvement: <u>US 101 and EVCR</u> Alternative D, **Roundabout**

This alternative proposes to construct a 160 ft diameter inscribed circle, single lane roundabout located at the intersection of US 101 and EVCR. The roundabout would require updated intersection lighting and approach signing on both the EVCR and US 101 approaches. The roundabout may include a crosswalk for safe multimodal travel. This alternative would allow for yield controlled separated right turning movement from northbound US 101 to eastbound EVCR which includes a high volume of traffic generated from the connection between westbound US 199 and northbound US 101.

Intersection Improvement: <u>US 199 and EVCR</u> Alternative A, **Signing, Striping and Glare Reduction**

This alternative proposes to clear the Clear Recovery Zone (CRZ) within the corner sight distance length for the westbound EVCR traffic looking west at the eastbound US 199 on-ramp. The existing corner sight distance is obstructed by the "Do Not Enter" ramp signs, the tall grass length, and tree limbs. The additional clearing proposed for corner sight distance is for the design speed of the eastbound US 199 ramp of 45 mph.

To further implement the existing advisory 45mph speed limit, a speed radar feedback has been installed. Additional efforts to reduce traffic speed on this ramp include adding a flashing beacon to the "Cross Traffic Ahead" sign and implementing the Speed Reduction Markings as supported by Section 3B.22 of the MUTCD. Speed reduction markings (see figure below) are transverse markings that are placed on the roadway within a lane, perpendicular to the lane lines, in a pattern of progressively reduced spacing to give drivers the impression that their speed is increasing. These markings might be placed in advance of an unexpectedly severe horizontal or vertical curve or other roadway feature where drivers need to decelerate prior to reaching the feature and where the desired reduction in speeds has not been achieved by the installation of warning signs and/or other traffic control devices. Del Norte County performed a speed survey for northbound US 199 vehicles on March 26 at the intersection. The results indicate that the 85th percentile speed observed that day for 100 vehicles was 58 mph, which is above the posted 55 mph and the advisory 45 mph.

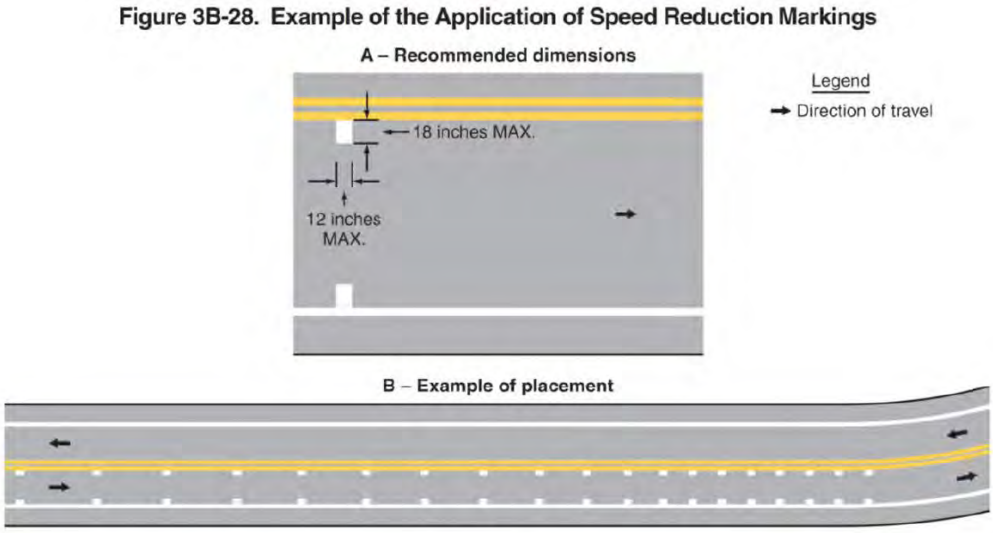


Figure 1 Speed Reduction Striping per MUTCD Fig 3B-28

Other additional improvements include yield striping on the US 199 to US 101 turn movement which is serves as a connection between both routes for traffic traveling from westbound US 199 to northbound US 101. This yield striping will ensure that the connecting traffic is acknowledging and yielding to the intersection traffic and will prevent the broadside and sideswipe collisions for this short merge distance.

Intersection Improvement: <u>US 199 and EVCR</u> Alternative B, **Traffic Signal**

This improvement would require the installation of traffic signals at all four branches of the four-way intersection, as well as restriping and resigning at the approaches of each roadway.

Signals offer the maximum control at intersections and the primary function is to assign right-of-way to conflicting movements. Low traffic counts suggest no objectionable backup would occur at any of the intersecting branches. This alternative allows for the minor movements, such as EVCR local traffic crossing the US 199 route, to navigate through the intersection with right of way if the traveling public complies to the signal. However, as described in the Table 1 below, adding a traffic signal may increase collision rates at this intersection. This alternative was analyzed to provide a comparison of a more traditional intersection configuration to that of a roundabout.

Intersection Improvement: <u>US 199 and EVCR</u> Alternative C, **Roundabout**

This alternative proposes to construct a 150 ft diameter inscribed circle roundabout located at the intersection of US 199 and EVCR. The roundabout would require additional Right of Way and updated intersection lighting and approach signing on both the EVCR and US 199 approaches. The roundabout may include a crosswalk on one approach for safe multimodal travel. The nearby private driveways would be modified to conform to the new road geometrics. This alternative would allow for yield controlled separated right turning movement from westbound US 199 to westbound EVCR which includes a high volume of traffic generated from the connection between westbound US 199 and northbound US 101. A roundabout could handle the future traffic volume growth on US 199. The design speed of the roundabout would be 20 mph. The comparison of traffic control options at EVCR and US 199 is described below.

Comparison of Traffic Control Options at Elk Valley Cross Road / US 199 – Impacts on Traffic Safety

Traffic safety at the key intersection of Elk Valley Cross Road and US 199 would be impacted by changes in the traffic controls. The table below presents an analysis of the existing controls (Stop signs on the Elk Valley Cross Road approaches only) in comparison with a traffic signal and with a roundabout. Key results are as follows:

- Over the most recent 10-year period, there were a total of 21 crashes at or within 200' of the intersection, of which 11 resulted in injuries and the remaining 10 resulted in property damage only. This corresponds to a rate of 1.56 total crashes per Million Vehicle Movements (MVM) and 0.82 injury or fatal crashes per MVM. In comparison with statewide averages for four-legged intersections in rural areas with side-street Stop controls, the observed rates at this location are 711 percent above statewide average for total crashes, and 811 percent above the statewide average for injury/fatal crashes.
- The California statewide crash rate data indicates that conversion to a traffic signal would increase the expected total crash rate by 164 percent and increase the injury/fatal crash rate by 286 percent. Crash rates would therefore increase significantly if a traffic signal is installed at the intersection.
- A detailed analysis of crash data for modern U.S. roundabouts yields an estimation equation, as documented in the National Cooperative Highway Research Program's Report 672: Roundabouts – An Informational Guide. Entering the geometrics and volumes for a roundabout at the subject

location, the expected annual crashes would be substantially lower than today, for both total crashes and for injury/fatal crashes.

- As shown in the bottom portion of the table, conversion to a **Traffic Signal** control would increase the expected number of crashes over a 10-year period by 34, of which 32 would be injury or fatal crashes.
- Conversion to a **Roundabout** control would reduce the number of crashes from that expected under the current control by 16 total crashes, of which 10 would be injury or fatal crashes.

This analysis clearly depicts the traffic safety benefits of a roundabout, as well as the negative safety impacts of a traffic signal. From a traffic safety perspective, a roundabout would be the optimal modification to this intersection to address the poor existing traffic safety condition.

Table 1 US 199 and EVCR Comparison

Elk Valley Cross Rd/State Route 199 Traffic Control Options -- Safety Impacts

Annual Average Daily Traffic	3680
Annual Million Vehicle Movements	1.34

	Crashes	
	Total	Injury or Fatal
Existing (Over 10 Years)	21	11
Crash Rate (Per Million Vehicle Movements)	1.56	0.82
Statewide Avg. for Rural 4-Leg Intx with Side-Street Stop (1)	0.22	0.10
Ratio of Observed to Statewide Average	7.11	8.11
Annual Expected Crashes		
Existing Side-Street Stop	2.10	1.10
Traffic Signal (1)	5.54	4.25
Roundabout (2)	0.5	0.10
Impact of Traffic Control Change		
Convert to Traffic Signal		
Change in Crash Rate	164%	286%
Change in Crashes Over 10 Years	34	32
Convert to Roundabout		
Change in Crash Rate	-75%	-91%
Change in Crashes Over 10 Years	-16	-10

Source 1: 2015 Collision Data on California State Highways (Caltrans).
Source 2: NCHRP Report 672: Roundabouts - An Informational Guide
Source: LSC Transportation Consultants, Inc. 2018 EVCR Crash Tables.xlsx

Alternative 7: No-Build Alternative

The No-Build Alternative proposes to maintain the existing configuration of Elk Valley Cross Road in its current configuration. However, this alternative does not allow Elk Valley Cross Road to comply with standard shoulder widths, stopping sight distances, intersection configuration or multimodal safety standards. The crash rates along this corridor are above local, County and State averages for the given classification and volume of traffic. The No-Build option would not address any issues or concerns with the safety of this transportation facility.

Supplemental: 60-foot wide Corridor Right of Way

In the event that funding for right of way is secured, an estimate to acquire the 60-foot wide Right of Way along Elk Valley Cross Road from Lake Earl Drive to Parkway Drive in all areas not already secured to the 60-foot width was estimated. Estimated square footages and estimated costs for parcels requiring additional right of way can be found in Attachment E. Based on preliminary right of way record search, it is estimated an additional 109,505 SQFT at an estimated cost of $4 per square foot would cost approximately $440,000.

This estimate is based on available right of way records for existing roadway easements as recorded in the County Recorder's office. Preliminary Title Reports were not generated for this Corridor, so there is the possibility that certain easements along Elk Valley Cross Road are not shown on the maps and records of surveys gathered for this effort.

Access to and from all existing parcels is proposed to be maintained for drivers traveling in either direction along the roadway.

ENVIRONMENTAL TECHNICAL SUMMARIES

Land Use

As designated in the Del Norte County General Plan Land Use Map, the area between Parkway Drive and Lake Earl Drive, the land uses surrounding Elk Valley Cross Road in the project area include the following: Resource Conservation Area, Rural Residential, Timberland, Agriculture Prime, Public Lands, and Rural Neighborhood.

Future transportation improvement projects are expected to require varying amounts of right-of-way acquisition and conversion to a transportation land-use, these conversions are consistent with the Del Norte County General Plan goal to provide a safe and adequate transportation system throughout the region. Acquisitions would be expected to be predominantly small slivers directly adjacent to the existing road right-of-way. The proposed changes in land use designation would not be substantial in terms of overall direction of the General Plans and is anticipated to only be a minor environmental impact. The right-of-way acquisition would not result in the displacement or relocation of any residents.

The project is also included in the list of Long Term Projects (11-20 years) of the Del Norte County 2019 Regional Transportation Plan, and local general plans. Consistency with state, regional, and local plans will be included and discussed further in the Land Use portion of the environmental document.

Growth

Each of the build alternatives are designed to improve roadway safety and traffic operations along the EVCR corridor and would not cause growth as a result of project implementation. In addition, the proposed improvements would be in a semi-rural area, therefore the additional capacity would not encourage future growth. No impacts to growth are anticipated.

Farmlands/Timberlands

According to the National Resources Conservation Service (NRCS), the entire roadway is located within soils designated as Prime Farmland if irrigated. No Williamson Act Contract lands were identified adjacent to EVCR, or within Del Norte County.

Community Impacts

As the project will not be capacity increasing, there would be no community impacts in terms of substantive changes in access and the transportation network, changes in visual environment, increases in noise, and housing displacements. There is the potential for some nuisance noise impacts during construction

Section 4(f) Resources

A preliminary review of the project area identified one Section 4(f) resource that could be affected by the proposed project. The Florence Keller Regional Park is adjacent to the southwestern corner of the intersection of EVCR and US 101 along approximately 1,100 feet of the project. The proposed project is anticipated to impact approximately 11,000 square feet (1/4 acre) of Florence Keller Regional Park. Considering the 26-acre (1,136,000 square feet) size of the Park, project related impacts would have little to no effect on the function of the park and, if impacts did occur, they would be anticipated to result in a *de minimus* impact to this Section 4(f) resource.

If other sensitive cultural resources are located during future investigations, evaluation of these resources may be necessary to determine if they are eligible for inclusion on the NRHP. If the sites are determined to be eligible, a Section 4(f) evaluation of these properties will also be necessary.

Traffic and Operations Analysis

An analysis of existing traffic conditions and operations analysis for future conditions has been prepared as part of the preliminary engineering effort. This analysis includes data review from prior studies and as well as State Wide Integrated Traffic Records Systems (SWITRS). Data collection has been done to determine an existing baseline condition including existing levels-of-service (LOS) volume to capacity ratios, average delay and queuing. Using the baseline as a comparison, traffic forecast volumes will be modeled for an opening day as well as the design year 2030. The assumptions, methodologies, and findings of the traffic forecast results will be used to prepare a Traffic Operational Analysis for the existing condition, the opening day condition, as well as the design year condition for each of the build alternatives and compared to the conditions modeled for the No-Build Alternative. The final report would include recommendations for design changes (if necessary) based on the results of the traffic operations analysis.

Visual/Aesthetics

Depending on the modifications proposed for EVCR, there would be negligible to minor changes to the views of the surrounding area. The roadway is visible to residents and users of the roadway. The addition of shoulders to the roadway would not change the overall visual characteristic of the roadway, and the proposed changes would likely result in no further analysis beyond the Visual Impact Assessment Questionnaire. However, a change in elevation profile may require a higher level document such as a Visual Impact Assessment. Other minor changes could occur if any trees that are adjacent to the existing roadway were removed. Although these types of impacts are expected to be minor, specific impacts by project should be evaluated individually to confirm that no substantial impacts would occur.

Cultural Resources

As part of this environmental constraints overview, a cultural resources records search was obtained from the Northwestern Information Center (NWIC) at the Sonoma State University on October 3, 2016. The record search revealed no previously recorded resources within the corridor, as well as two previously recorded resources adjacent to the corridor. The previously recorded resources adjacent to the corridor is the Crescent City Plank and Turnpike Road (P-08-0469), which roughly followed the current alignment of Elk Valley Road and is identified as California Historical Landmark #643. The other resources include the old school property (P-08-0366) and the Native American ceremonial site (C-33) located on the east side of Elk Valley Road, approximately 120 feet south of the intersection of EVCR and Parkway Drive. In conjunction with this search, a letter requesting a search of the Sacred Land File at Native American Heritage Commission was obtained revealing that Native American sites were found on the Sacred Land File (location is confidential).

The project has little potential to impact the Crescent City Plank and Turnpike Road but could have moderate potential to impact known and unknown prehistoric archaeological resources. The potential of effect on these resources depends on the type of changes that will occur to EVCR. Based on current knowledge of resources within the area, it is unlikely the project will impact prehistoric cultural resources; however, additional resource investigation and testing will be required on a project by project basis to ensure that the sensitive cultural materials would be identified and avoided wherever possible.

In order to ensure that all cultural resources in the project area are identified and all potential impacts to those resources are evaluated, full archaeological and historic resource surveys and reports will be prepared for each future project. Identification of an Area of Potential Effects, additional background research, Native American Consultation, and a pedestrian survey of the project by a professionally qualified staff would be part of these technical studies. Additional surveys and subsurface testing may be necessary and could include Extended Phase 1 or Phase 2 archaeological investigations.

Consistent with Caltrans' policy, the County intends to consider avoidance of sensitive cultural resources during the preliminary environmental evaluations of any project. After avoidance alternatives are considered and an Area of Potential Effects has been determined, each cultural resource will be evaluated to determine if it is eligible for inclusion in the National Register of Historic Places. Any eligible resources that would be impacted by project construction will require a Finding of Effect Report documenting what impacts are expected and determining if those impacts would be considered adverse. Consultation with SHPO would be required and if impacts are determined to be adverse, a Memorandum of Agreement would be prepared to minimize those adverse effects to the cultural resource in compliance with Section 106 of the National Historic Preservation Act.

Hydrology and Floodplain

No floodplains identified on FEMA's floodplain maps occur within the proposed study. As a result, future project are not expected to encroach into any floodplain.

Water Quality and Storm Water Runoff

Most of EVCR is flanked by drainage ditches that convey storm water runoff either to the unnamed creeks that cross at Florence Keller Regional Park, east of Cunningham Lane. This creek flows into Jordan Creek, which flows north and empties into Lake Earl. Elk Creek flows south, emptying into the Pacific Ocean.

Future projects are expected to have increases in impervious surfaces which would increase stormwater run-off from the roadway. Drainage improvements may need to be incorporated into the proposed design as necessary to control additional runoff, and further investigation would be necessary to determine if the existing flood control facilities would be adequate for diverting the extra runoff. With the appropriate storm

water design features incorporated, any additional runoff created by the improvements is not expected to exceed the facility's capacity.

Future projects over 1 acre would be required to comply with the National Pollutant Discharge Elimination System (NPDES) General Permit with BMPs as required by the County and the Regional Water Quality Control Board to minimize water erosion of exposed soils and resultant sediment and surface contaminant loading into the storm drain system and downstream water bodies. As part of the NPDES General Permit, a SWPPP would be prepared. Consequently, the proposed project is not expected to violate any water quality or waste discharge standard, in this regard.

Using the Caltrans Highway Design Manual as a guide, storm water management strategies would be incorporated. Construction site BMPs would also be implemented for temporary construction impacts. A more thorough discussion of water quality and associated BMPs will be provided in a Water Quality Study and will be included in the environmental document.

Geology, Soils, Seismic, and Topography

The proposed project would improve the safety of the existing EVCR and would be designed to be consistent with Caltrans and federal guidelines for safety and design standards. However, the overall change to the roadway and depth of excavation is expected to be minimal. Should more substantial earthwork or structures be required for a future project (retaining walls or drainage culverts) a Preliminary Geotechnical Report would be prepared for this project. The report would consist of archival research of pre-existing data, field reconnaissance, and preliminary analysis and recommendations. The study would evaluate existing topography, site geology, subsurface soil conditions, groundwater, seismicity, and the potential for impacts as a result of this project's ground disturbing activities.

Paleontology

The project area is underlain by the Quaternary-aged Battery Formation. The Battery formation is a thin marine terrace and is known to contain invertebrate fossils.

Future projects are expected to have a relatively small depth of excavation to complete the roadway improvements. If more substantial earthwork is necessary for a future project, a Paleontological Identification Report may be necessary to evaluate if paleontological monitoring would be recommended during construction.

Hazardous Waste/Materials

Future project will require a Phase I Hazardous Waste Initial Site Assessment in order to assess the potential for hazardous waste or other hazardous materials in the study area. The report will include an evaluation of the study area history through review of available reports and historic maps/aerial photographs etc., field reconnaissance to document the potential occurrence of and contamination by waste or hazardous materials in the study area, and review of regulatory agency files and databases regarding the use, storage, unauthorized release and remediation of hazardous materials in the project area. If any sites are found additional testing may be required. During preliminary field investigations, no major hazardous sites were observed or otherwise identified along the EVCR Corridor.

Air Quality

Future projects are not expected to be capacity increasing and would be exempt from regional air quality conformity review. Temporary air quality impacts would be minimized by requiring BMPs during construction to minimize construction vehicle emissions and generation of particulate matter (dust). No Air Quality Reports are expected to be necessary for future projects.

Noise and Vibration

Future projects are not expected to be Type 1 for noise analysis as they would not include additional through lanes and would not substantially change the vertical or horizontal alignment of the roadway. Temporary noise increases will occur during construction activities, as such, only a brief technical memo evaluating the predicted construction noise is expected to be required and the results would be included in the project specific environmental document.

Energy and Climate Change

The range of transportation improvements proposed are not expected to have any substantial change in energy usage or generation of greenhouse gasses associated with climate change. No additional study for these resources is expected to be necessary.

Biological Environment

The proposed project could have potentially significant impacts on sensitive biological habitat and resources present adjacent to EVCR. It is anticipated that a biological technical report would be required for any transportation improvement project to fully document biological resources present along EVCR.

Description of Vegetation Communities along EVCR

Vegetation communities along EVCR include: coastal redwood forest, Sitka spruce/grand fir forest, coastal riparian forest, and landscaped areas. These vegetation communities may provide suitable habitat for rare, threatened, or endangered species protected by the Endangered Species Act or State Regulations.

Coastal Redwood Forest

Coastal redwood forest is present across from the intersection of EVCR and Parkway Drive and in the area of Florence Keller Regional Park, just west of US 101 for 1,100 feet along EVCR. Dominant overstory species of this community include coast redwood (*Sequoia sempervirens*), and coastal Douglas fir (*Pseudotsuga menziesii*). Understory trees include red alder (*Alnus rubra*), and immature overstory trees. The shrub/vine layer consists of a mix coast rhododendron (*Rhododendron macrophyllum*), Western sword fern (*Polystichum munitum*), and Himalayan blackberry (*Rubus armeniacus*).

Sitka Spruce/Grand Fir Forest

Sitka spruce/grand fir forest is found in three distinct locations along EVCR (see Biological Constraints Map). Dominant overstory species in this vegetation community include Sitka spruce (*Picea sitchensis*), and grand fir (*Abies grandis*). Occasional coast redwoods and lodgepole pine (*Pinus contorta*) are also present in this community but are not dominant. Understory trees include red alder and immature overstory trees. The shrub/vine layer primarily consists of Western sword fern (*Polystichum munitum*), and Himalayan blackberry (*Rubus armeniacus*).

Redwood Riparian Forest

Redwood riparian forest associated with the area around Florence Keller Regional Park, west of US 101. The overstory is comprised of coast redwood and red alder with an understory Himalayan blackberry, and mixed forbs.

Landscaped areas Along EVCR

Landscaped areas along EVCR consist primarily of planted hedgerow, planted trees, and Residential landscapes. Common planted species include red alder, cherry-plum (*Prunus cerasifera*), Himalayan blackberry, and redwood.

Sensitive Habitats along EVCR

Jurisdictional Waters and Wetlands

Jurisdictional waters are present directly adjacent to EVCR in multiple locations along four individual stream channels that cross under the roadway. There are no named creeks with in the Project area. There is one unnamed stream that flows through Florence Keller Regional Park that connects to Jordan Creek which flows south to north before terminating at Lake Earl. The other three culverts carried stormwater ditches underneath the roadway where necessary. All culverts were corrugated metal culverts between 18 and 24 inches in diameter. All four of the creek channels are under the jurisdiction of the United States Army Corps of Engineers (USACE). Project related impacts to these creeks will require permitting under Section 404 of the Clean Water Act (CWA). It is anticipated that future projects would be able to obtain a Nationwide 14 Permit for impacts to Waters of the U.S.

The bed, bank, channel, active floodplains, and associated riparian vegetation of each of these creeks are under the jurisdiction of the California State Water Resources Control Board and California Department of Fish and Wildlife (CDFW). Project related impacts to these areas would require a Section 401 Water Quality Certification and Section 1600 Lake or Streambed Alteration Agreement from CDFW.

Additionally, potential wetland features were identified direct adjacent to EVCR in multiple locations. These locations may be associated with waters of the U.S or State and may be defined as jurisdictional features. A formal jurisdictional delineation would be conducted during the environmental document phase of a future project to define the specific boundaries of jurisdictional waters that could be affected during construction.

Marbled Murrelet Critical Habitat

Final designated marbled murrelet critical habitat is present adjacent to EVCR near the intersection of EVCR and Parkway Drive, which is approximately 120 feet southeast of Parkway Drive (see Biological Constraints Map). Prior to any work in this area within or adjacent to marbled murrelet critical habitat, the County will need to consult with the United States Fish and Wildlife Service (USFWS), as required under Section 7 or Section 10 of the Federal Endangered Species Act. Consultation would likely result in work timing restrictions and compensatory mitigation if the project has impacts to marbled murrelet critical habitat.

Potential Threatened or Endangered Species along EVCR

Based on a review of the USFWS Information for Planning and Conservation (IPaC) official species list, CDFW California Natural Diversity Database (CNDDB) species occurrences, and the habitat requirements of each species, the following two threatened or endangered species were determined to have potential to occur along EVCR:

Marbled Murrelet (Brachyramphus marmoratus)

The marbled murrelet is a small sea bird that nests in mature coniferous forests along the coast of Northern California, Oregon, Washington, British Columbia, and Alaska. Marbled murrelet is listed as threatened under the Federal Endangered Species Act and as endangered under the California Endangered Species Act. The species nests in the upper portion of large conifers during their nesting season (Defined as April 1st – September 23rd) before returning to the sea, where it spends the remaining months of the year (USFWS 2012). Marbled murrelet has potential to occur within the Coastal Redwood Forest and Sitka Spruce/Grand Fir Forest vegetation communities found along EVCR. Prior to construction, the County will need to consult with USFWS for potential project related impacts to marbled murrelet, as required under Section 7 or Section 10 of the Endangered Species Act.

It is likely that construction work in the vicinity of potential marbled murrelet habitat would be limited to the non-nesting season (September 24th – March 31st) to avoid potential direct impacts to the species. If large trees are removed from potential marbled murrelet habitat, compensatory mitigation may be required.

Western Lily (Lilium occidentale)
The Western lily is a perennial bulb found in fens, poorly drained forests, riparian habitats, and coastal prairies. The species is listed as endangered under the Federal Endangered Species Act and by California State Law. Fens, and coastal prairies are not found adjacent to EVCR, but the Sitka Spruce/Grand Fir Forest and Coastal Riparian Forest vegetation communities may provide potentially suitable habitat for the species. A botanical survey should be conducted during the blooming season for the species prior to construction by a qualified botanist. If the species is present in the project area and direct or indirect impacts would occur, consultation with USFWS and CDFW would be required.

Environmental Document Type
For locally funded projects, the most likely CEQA documents would be either a Categorical Exemption or an Initial Study with Mitigated Negative Declaration. A mitigated negative declaration would be required when potentially significant environmental impacts are identified which would require mitigation measures to reduce them to a less than significant level.

If federal funds are used for future projects, compliance with the National Environmental Policy Act (NEPA) would also be required. For most transportation projects in California, NEPA is administered by Caltrans Local Assistance under delegation from the Federal Highways Administration. All of the proposed transportation improvements along EVCR would be processed with a NEPA Categorical Exclusion supported by environmental technical studies.

Permits and Other Approvals
Depending on the location and type of improvements proposed, the following permits listed below may be necessary to ensure compliance with federal, state, and local environmental laws.

- Section 7 or Section 10 Consultation with USFWS would be required for potential project related impacts to marbled murrelet and designated critical habitat. Consultation would result in USFWS issuing a Letter of Concurrence or Biological Opinion that will include final avoidance/minimization measures and compensatory mitigation recommended by USFWS to reduce potential project related impacts to marbled murrelet to less than significant levels. If Western Lily is discovered adjacent to EVCR during botanical surveys, Consultation with USFWS will also be required for this species.
- A 2080.1 consistency determination will be required from CDFW for potential project related impacts to species protected under the California Endangered Species Act after consultation with USFWS for the same species has been completed.
- Clean Water Act Section 404 Permit would be required for fill activities within Waters of the U.S. and within the Army Corps of Engineers jurisdiction. It is anticipated that Del Norte County will be able to obtain a Nationwide 14 permit for this project.
- Clean Water Act Section 401 Water Quality Certification is required from the Regional Water Quality Control Board to ensure that construction activities are managed such that water quality is not substantially impacted.
- Clean Water Act Section 402 General Construction Permit through the State Water Resources Control Board is required for all project over one acre in construction impacts. This permit enforces the requirements of the NPDES.
- A Section 1602 Streambed Alteration Agreement is required before work can commence within areas under CDFW jurisdiction. The 1602 permit issued by CDFW will include final

avoidance/minimization measures and compensatory mitigation recommended by CDFW to avoid, minimize, or mitigate for potential project related impacts to jurisdictional waters of the state and associated sensitive species.

- Coastal Development Permit/Coastal Grading Permit issued by Del Norte County for development within the California Coastal Zone.
- Grading Permit issued by Del Norte County for project activities.
- Encroachment Permit issued by Del Norte County for work in the County right-of-way.

Attachment A

Environmental Studies Required

Environmental Studies that may be Required

- Community Impact Assessment
- Section 4(f) Evaluation
- Traffic and Operations Study
- Visual Impact Assessment
- Cultural Resources Report
    - Archaeological Survey Report
    - Historic Resources Evaluation Report
    - Extended Phase 1 Testing*
    - Phase 2 Testing*
    - Finding of Effect Report*
    - Memorandum of Agreement*
- Water Quality Study
- Preliminary Geotechnical Report
- Paleontological Identification Report
- Phase 1 Hazardous Waste Initial Site Assessment
- Construction Noise Memorandum
- Biological Resources Report
- Biological Assessment (Marbled Murrelet, Western Lily)
- Wetland Delineation Report

*Additional cultural reports noted above will only be required if resources are identified within the APE and cannot be avoided by the project. Some or all of these studies may not be required if resources can be avoided.

Attachment B

California Natural Diversity Database Species List

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Crescent City (4112472) OR Smith River (4112482) OR Sister Rocks (4112462))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
alpine marsh violet *Viola palustris*	PDVIO041G0	None	None	G5	S1S2	2B.2
arctic starflower *Lysimachia europaea*	PDPRI0A020	None	None	G5	S1	2B.2
bald eagle *Haliaeetus leucocephalus*	ABNKC10010	Delisted	Endangered	G5	S3	FP
bank swallow *Riparia riparia*	ABPAU08010	None	Threatened	G5	S2	
black crowberry *Empetrum nigrum*	PDEMP03020	None	None	G5	S1?	2B.2
black-crowned night heron *Nycticorax nycticorax*	ABNGA11010	None	None	G5	S4	
bluff wallflower *Erysimum concinnum*	PDBRA160E3	None	None	G3	S2	1B.2
cackling (=Aleutian Canada) goose *Branta hutchinsii leucopareia*	ABNJB05035	Delisted	None	G5T3	S3	WL
Chace juga *Juga chacei*	IMGASK4180	None	None	G1	S1	
coast checkerbloom *Sidalcea oregana ssp. eximia*	PDMAL110K9	None	None	G5T1	S1	1B.2
coast cutthroat trout *Oncorhynchus clarkii clarkii*	AFCHA0208A	None	None	G4T4	S3	SSC
Coastal and Valley Freshwater Marsh *Coastal and Valley Freshwater Marsh*	CTT52410CA	None	None	G3	S2.1	
Coastal Brackish Marsh *Coastal Brackish Marsh*	CTT52200CA	None	None	G2	S2.1	
dark-eyed gilia *Gilia millefoliata*	PDPLM04130	None	None	G2	S2	1B.2
Del Norte buckwheat *Eriogonum nudum var. paralinum*	PDPGN08498	None	None	G5T2	S1	2B.2
Del Norte pyrrocoma *Pyrrocoma racemosa var. congesta*	PDASTDT0F4	None	None	G5T4	S2	2B.3
Del Norte salamander *Plethodon elongatus*	AAAAD12050	None	None	G4	S3	WL
double-crested cormorant *Phalacrocorax auritus*	ABNFD01020	None	None	G5	S4	WL
eulachon *Thaleichthys pacificus*	AFCHB04010	Threatened	None	G5	S3	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
fibrous pondweed *Potamogeton foliosus ssp. fibrillosus*	PMPOT030B1	None	None	G5T2T4	S1S2	2B.3
foothill yellow-legged frog *Rana boylii*	AAABH01050	None	Candidate Threatened	G3	S3	SSC
fork-tailed storm-petrel *Oceanodroma furcata*	ABNDC04010	None	None	G5	S1	SSC
Fort Dick limnephilus caddisfly *Limnephilus atercus*	IITRI15020	None	None	G3G4	S1	
ghost-pipe *Monotropa uniflora*	PDMON03030	None	None	G5	S2	2B.2
great blue heron *Ardea herodias*	ABNGA04010	None	None	G5	S4	
great burnet *Sanguisorba officinalis*	PDROS1L060	None	None	G5?	S2	2B.2
great egret *Ardea alba*	ABNGA04040	None	None	G5	S4	
green yellow sedge *Carex viridula ssp. viridula*	PMCYP03EM5	None	None	G5T5	S2	2B.3
Greenland cochlearia *Cochlearia groenlandica*	PDBRA0S020	None	None	G4	S1	2B.3
horned butterwort *Pinguicula macroceras*	PDLNT01040	None	None	G4	S2	2B.2
Howell's jewelflower *Streptanthus howellii*	PDBRA2G0N0	None	None	G2G3	S2	1B.2
Howell's sandwort *Sabulina howellii*	PDCAR0G0F0	None	None	G4	S3	1B.3
Humboldt marten *Martes caurina humboldtensis*	AMAJF01012	None	Endangered	G5T1	S1	SSC
lagoon sedge *Carex lenticularis var. limnophila*	PMCYP037A7	None	None	G5T5	S1	2B.2
Langsdorf's violet *Viola langsdorffii*	PDVIO04100	None	None	G4	S1	2B.1
leafy-stemmed mitrewort *Mitellastra caulescens*	PDSAX0N020	None	None	G5	S4	4.2
little willow flycatcher *Empidonax traillii brewsteri*	ABPAE33041	None	Endangered	G5T3T4	S1S2	
Lyngbye's sedge *Carex lyngbyei*	PMCYP037Y0	None	None	G5	S3	2B.2
maple-leaved checkerbloom *Sidalcea malachroides*	PDMAL110E0	None	None	G3	S3	4.2
marbled murrelet *Brachyramphus marmoratus*	ABNNN06010	Threatened	Endangered	G3G4	S1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
marsh pea *Lathyrus palustris*	PDFAB250P0	None	None	G5	S2	2B.2
North American porcupine *Erethizon dorsatum*	AMAFJ01010	None	None	G5	S3	
northern clustered sedge *Carex arcta*	PMCYP030X0	None	None	G5	S1	2B.2
Northern Coastal Salt Marsh *Northern Coastal Salt Marsh*	CTT52110CA	None	None	G3	S3.2	
northern harrier *Circus hudsonius*	ABNKC11011	None	None	G5	S3	SSC
northern meadow sedge *Carex praticola*	PMCYP03B20	None	None	G5	S2	2B.2
northern red-legged frog *Rana aurora*	AAABH01021	None	None	G4	S3	SSC
obscure bumble bee *Bombus caliginosus*	IIHYM24380	None	None	G4?	S1S2	
Oregon coast paintbrush *Castilleja litoralis*	PDSCR0D012	None	None	G3	S3	2B.2
Oregon polemonium *Polemonium carneum*	PDPLM0E050	None	None	G3G4	S2	2B.2
Oregon silverspot butterfly *Speyeria zerene hippolyta*	IILEPJ6087	Threatened	None	G5T1	S1	
osprey *Pandion haliaetus*	ABNKC01010	None	None	G5	S4	WL
Pacific gilia *Gilia capitata ssp. pacifica*	PDPLM040B6	None	None	G5T3	S2	1B.2
Pacific tailed frog *Ascaphus truei*	AAABA01010	None	None	G4	S3S4	SSC
pink sand-verbena *Abronia umbellata var. breviflora*	PDNYC010N4	None	None	G4G5T2	S2	1B.1
rhinoceros auklet *Cerorhinca monocerata*	ABNNN11010	None	None	G5	S3	WL
rocky coast Pacific sideband *Monadenia fidelis pronotis*	IMGASC7032	None	None	G4G5T1	S1	
sand dune phacelia *Phacelia argentea*	PDHYD0C070	None	None	G2	S1	1B.1
Sanford's arrowhead *Sagittaria sanfordii*	PMALI040Q0	None	None	G3	S3	1B.2
Scouler's catchfly *Silene scouleri ssp. scouleri*	PDCAR0U1MC	None	None	G5T4T5	S2S3	2B.2
seacoast ragwort *Packera bolanderi var. bolanderi*	PDAST8H0H1	None	None	G4T4	S2S3	2B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
seaside bittercress *Cardamine angulata*	PDBRA0K010	None	None	G4G5	S3	2B.1
seaside pea *Lathyrus japonicus*	PDFAB250C0	None	None	G5	S2	2B.1
serpentine sedge *Carex serpenticola*	PMCYP03KM0	None	None	G4	S3	2B.3
short-leaved evax *Hesperevax sparsiflora var. brevifolia*	PDASTE5011	None	None	G4T3	S2	1B.2
Siskiyou checkerbloom *Sidalcea malviflora ssp. patula*	PDMAL110F9	None	None	G5T2	S2	1B.2
snowy egret *Egretta thula*	ABNGA06030	None	None	G5	S4	
Sonoma tree vole *Arborimus pomo*	AMAFF23030	None	None	G3	S3	SSC
southern torrent salamander *Rhyacotriton variegatus*	AAAAJ01020	None	None	G3G4	S2S3	SSC
spiral-spored gilded-head pin lichen *Calicium adspersum*	NLT0005640	None	None	G3G4	S1	2B.2
Thurber's reed grass *Calamagrostis crassiglumis*	PMPOA17070	None	None	G3Q	S2	2B.1
tidewater goby *Eucyclogobius newberryi*	AFCQN04010	Endangered	None	G3	S3	SSC
Tracy's romanzoffia *Romanzoffia tracyi*	PDHYD0E030	None	None	G4	S2	2B.3
tufted puffin *Fratercula cirrhata*	ABNNN12010	None	None	G5	S1S2	SSC
twisted horsehair lichen *Bryoria spiralifera*	NLTEST5460	None	None	G1G2	S1S2	1B.1
vanilla-grass *Anthoxanthum nitens ssp. nitens*	PMPOA0F041	None	None	G5	S2	2B.3
western bumble bee *Bombus occidentalis*	IIHYM24250	None	Candidate Endangered	G2G3	S1	
western lily *Lilium occidentale*	PMLIL1A0G0	Endangered	Endangered	G1	S1	1B.1
western pond turtle *Emys marmorata*	ARAAD02030	None	None	G3G4	S3	SSC
western snowy plover *Charadrius alexandrinus nivosus*	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
white-tailed kite *Elanus leucurus*	ABNKC06010	None	None	G5	S3S4	FP
Wolf's evening-primrose *Oenothera wolfii*	PDONA0C1K0	None	None	G2	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
woodnymph	PDPYR02010	None	None	G5	S2	2B.2
Moneses uniflora						
yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Coturnicops noveboracensis						
yellow-tubered toothwort	PDBRA0K0R3	None	None	G5T3Q	S2	3.3
Cardamine nuttallii var. gemmata						
Yontocket satyr	IILEPN6035	None	None	G5T1T2	S1	
Coenonympha tullia yontockett						

Record Count: 86

Attachment E

Existing Right of Way Records

Elk Valley Cross Road Corridor Plan
60' wide County Road Easement Needs

ID #	APN	Width (ft)	Area (sqft)	Description
1	110-222-026	10	1782	North Side, West of 101
2	110-222-028	10	1424	North Side, West of 101
3	110-222-032	10	3291	North Side, West of 101
4	110-222-031	10	1025	North Side, West of 101
5	110-222-033	10	1662	North Side, West of 101
6	110-222-034	10	1549	North Side, West of 101
7	110-032-032	10	5593	North Side, West of 101
8	110-380-003	10	1835	North Side, West of 101
9	110-380-004	10	1784	North Side, West of 101
10	110-380-002	10-12	577	North Side, West of 101
11	110-380-009	12-65	14363	North Side, West of 101
12	110-380-017	60-65	14545	North Side, West of 101
13	110-380-026	60	16499	North Side, West of 101
14	110-380-027	60	1803	North Side, West of 101
15	110-222-039	10	1504	South Side, West of 101
16	110-222-027	10	1317	South Side, West of 101
17	110-222-047	10	1361	South Side, West of 101
18	110-222-048	10	1179	South Side, West of 101
19	110-330-017	10	2225	South Side, West of 101
20	110-330-016	10	2080	South Side, West of 101
21	110-330-019	10	738	South Side, West of 101
22	110-330-025	10	1357	South Side, West of 101
23	110-330-026	10	5530	South Side, West of 101
24	110-330-027	10	5022	South Side, West of 101
25	110-330-028	10	4355	South Side, West of 101
26	110-210-053	varies	331	SW Quadrant, US 199

Total Acquisition Area	94731	ft^2
Estimated Acquisition Price	$ 4.00	per ft^2
Right of Way Total Cost	$ 378,925	

Attachment F

Existing Conditions Report

ELK VALLEY CROSS ROAD CORRIDOR PLAN

EXISTING TRANSPORTATION CONDITIONS

Introduction

Elk Valley Cross Road is a 1.5-mile long roadway located in the Crescent City area of Del Norte County, California. The road lies outside the City Limits. Elk Valley Cross Road has a general northwest-southeast orientation. According to the Del Norte County General Plan, this roadway is classified as a Rural Collector for its entirety. According to the County Road System Map, Elk Valley Cross Road is a Major Collector.

Roadway Characteristics

Elk Valley Cross Road can be divided into two distinct segments. For the western 0.8-mile immediately east of Lake Earl Drive, Elk Valley Cross Road primarily serves rural residential uses and the high school. The remaining 0.7 mile provides both residential access and primary corridor access, with at-grade intersections accessing US Highway 101 and State Route US Highway 199. Elk Valley Cross Road is a two-lane undivided roadway with approximately 11-foot wide travel lanes and generally little to no shoulders, except the western segment between Lake Earl Drive and Wonder Stump Road, which has paved shoulders about 6 to 8 feet wide. The posted speed limit along Elk Valley Cross Road is 45 mph, with a 25-mph school zone extending approximately 1,000 feet west and east of Sunset High School.

Note that the County Road Standards (Section 12.04.070B) call for a minimum pavement width of 24 feet with 4-foot graded shoulders for this type of roadway. The existing roadway to the east of Wonder Stump Road does not meet these standards. Turn pockets are not present along Elk Valley Cross Road, except channelized right-turn lanes are provided at the intersections with US 101 and US 199.

Intersection Traffic Volumes

Intersection turning-movement volumes were conducted at the following intersections along Elk Valley Cross Road during the AM and PM peak hours on Tuesday May 7, 2019:

- Lake Earl Drive
- Wonder Stump Road
- Cunningham Lane
- US 101
- US 199
- Parkway Drive

The traffic counts included vehicles, heavy trucks, bicyclists, pedestrians, and other non-motorized trips. The peak-hour traffic volumes are summarized in Table 1. The AM peak hour for all the intersections

started at 7:30 AM and the PM peak hour started at 4:00 PM at all the intersections except US 101/Elk Valley Cross Road, where the PM peak hour started at 4:30 PM.

In addition to the 2019 counts, traffic counts were conducted at the Lake Earl Drive/Elk Valley Cross Road intersection on Thursday May 3, 2018 as a part of Del Norte Data Collection Project and at the Parkway Drive/Elk Valley Road/Elk Valley Cross Road intersection on Friday October 21, 2016 as a part of the Elk Valley Road Multimodal Corridor study. A comparison of these counts with the 2019 counts is provided in Table 2. In general, the traffic distributions at both intersections did not change over time. However, the 2019 volumes are higher than the previous volumes. Specifically, the total intersection volumes at Lake Earl Drive are 15% higher in the AM and 8% higher in the PM, while the volumes at Parkway Drive are 35% higher in the AM and 19% higher in the PM.

Traffic Generators

In addition to residential neighborhoods, the following properties are identified as key traffic generators along the study corridor:

- Sunset High School, located along the north side of the corridor west of Cunningham Lane
- Florence Keller Regional Park, located along south side of the corridor east of Cunningham Lane
- Kings Valley Golf Course, accessed via the Elk Valley Cross Road/Lesina Road intersection

Students access the Sunset High School site by various travel modes (private auto, walk, bike, skateboard) and some ride the school bus. The high school site also functions as a drop-off/pick-up location for students living in nearby residential neighborhoods that attend other schools in the area (such as Redwood Elementary School).

There was a drive-in movie theater located in the southwest corner of the Elk Valley Cross Road/ Railroad Avenue Extension intersection, which was closed in 2015. Finally, although not situated on the study corridor, Pelican Bay State Prison to the north on Lake Earl Drive is accessed via Elk Valley Cross Road. Some traffic generators have peak traffic periods which occur outside the traffic count periods in this study. For example, a shift change at the State Prison occurs at 6:00 AM (although the traffic volumes on Elk Valley Cross Road on the day of the counts in May were substantially higher during the 7:30 AM to 8:30 AM hour).

Roadway Traffic Volumes

Continuous 24-hour traffic volume counts were conducted on Tuesday May 7, 2019 at the following three locations along Elk Valley Cross Road:

- Between Lake Earl Drive and Wonder Stump Road
- Between Wonder Stump Road and US 101
- Between US 101 and US 199

Table 3 shows the total two-way traffic volumes on Elk Valley Cross Road at the three count locations for both the entire 24-hour period and the peak hours. The highest volumes occurred between Wonder

Stump Road and US 101, with a total daily volume of 2,768 one-way trips, 268 of which occurred in the PM peak hour and 253 in the AM peak hour. On this segment, traffic is highest in the eastbound direction in the AM peak hour and in the westbound direction in the PM peak hour. Conversely, on the other two segments of Elk Valley Cross Road, there is more westbound traffic in the AM and eastbound traffic in the PM peak hour.

The AM peak hour of total 2-way traffic occurred from 7:30 AM to 8:30 AM on all three segments, while the PM peak hour fell between 3:15 PM and 5:00 PM. The traffic volumes along the corridor tend to gradually increase throughout the early morning hours. For example, the total 2-way volume from 5:30 AM to 6:30 AM (the hour surrounding the 6:00 shift change at the State Prison) is only roughly 35% to 40% of that during the AM peak hour.

Roadway Level of Service

Level of Service (LOS) is a quantitative and qualitative measure of traffic conditions on isolated sections of roadway or intersections. LOS ranges from "A" (with no congestion) to "F" (where the system fails with gridlock or stop-and-go conditions prevailing). Roadway LOS was evaluated for Elk Valley Cross Road using the standard set forth in the 2016 Regional Transportation Plan (Del Norte Local Transportation Commission). For a Rural Major Collector (2-lane) such as Elk Valley Cross Road, the LOS and correlating daily traffic volumes (ADT) are as follows:

- LOS A - 1,300
- LOS B - 3,900
- LOS C - 7,500
- LOS D - 12,600
- LOS F - 16,900

Based on the data collected by LSC as a part of this study, a maximum volume of about 2,770 ADT was observed on Elk Valley Cross Road, which correlates to LOS B. Compared to the County's LOS threshold for this type of roadway, which is LOS C (Del Norte County General Plan, 2003), the roadway currently operates at an acceptable LOS.

Speed Survey

Speed surveys were conducted using pneumatic road tube counters at the following three locations along Elk Valley Cross Road:

- Between Lake Earl Drive and Wonder Stump Road
- Between Wonder Stump Road and US 101
- Between US 101 and US 199

The posted speed limit at all locations is 45 mph, except between Wonder Stump Road and US 101 where it additionally has a 25-mph school speed zone when children are present. The survey results are presented in Table 4. In general, the segment between Lake Earl Drive and Wonder Stump Road has the highest speeds and noticeably more vehicles exceeding 50 mph, though the average and 85th-percentile

speeds are only slightly higher than those recorded east of US 101. This may be due to the fact that the segment between US 101 and US 199 is only about one-third mile long, and there are "Stop Ahead" signs about 600 feet before the highway intersections, while there are no Stop signs or traffic signals along Elk Valley Cross Road between the Lake Earl Drive and US 101 intersections.

The speeds near Turnbull Lane are much slower than those in the other two locations, likely due to the school zone and the shorter sight distance (limited by denser trees). The traffic volume at this location is also the highest (as shown in Table 3). However, the average speed at this location is 37 mph, significantly higher than the posted school zone speed limit of 25 mph. Between 7:50 AM and 8:10 AM is the school morning peak traffic time (Sunset High School starts at 8:10 AM), but the average speed during this period was 35 mph, only 2 mph less than daily average speed, and 56% of vehicles travelled over 35 mph in this period.

Moreover, westbound vehicles exhibit faster travel speeds than eastbound vehicles in all surveyed locations. The roads at all three locations curve towards the south, so the visibility/sight distance for westbound drivers is better than that of eastbound drivers.

Truck Traffic

The volume of heavy truck traffic was collected using pneumatic tube counters at the same three locations where the traffic volume and speed surveys were collected for the 24-hour period from 12:00 AM to 11:59 PM Tuesday May 7, 2019. The daily truck volumes were analyzed and are shown in Table 5. The truck volumes between Lake Earl Drive and US 101 are approximately 2.3% of total daily traffic. The truck volume between US 101 and US 199 is higher, at approximately 3.9% of total traffic.

Transit Conditions

Redwood Coast Transit provides public transportation in Crescent City and the surrounding area. There are no public transit facilities or routes located along the Elk Valley Cross Road study corridor. However, Redwood Coast Transit's Route 20 provides service along Lake Earl Drive with a stop at J & L Market, located at Lake Earl Drive and Alder Road (approximately 0.8 miles south of the study corridor). Route 20 provides service to this stop every 2 to 2 ½ hours northbound and southbound, Monday through Saturday from 6:45 AM to 8:45 PM.

In addition, Greyhound provides service along Lake Earl Drive with a stop located at Lake Earl Drive and Alder Road. Similar to Route 20, Greyhound service continues north on Lake Earl Drive with another stop located near the Pelican Bay Prison. Greyhound operates 24 hours a day 7 days a week, however this particular stop must be booked in advance.

Bicycle and Pedestrian Conditions

A Class II bicycle facility is provided along Elk Valley Cross Road between Lake Earl Drive and Wonder Stump Road. There are no existing bicycle or pedestrian facilities along the remaining segments of the corridor. Bicycle and pedestrian counts were conducted at the three locations where the roadway traffic counts and speed surveys were conducted. The volumes were recorded over a 15-hour period from 6

AM to 9 PM, and the results are summarized in Table 6. In general, bike and pedestrian activity is minimal along Elk Valley Cross Road. There were 2-3 bicyclists and 2 pedestrians over the 15-hour period at each location, except at the western end of the corridor: between Lake Earl Drive and Wonder Stump Road, there were 3 total bicyclists and 12 pedestrians.

Bike and pedestrian counts were also recorded as a part of the intersection turning-movement counts shown in Table 1. Minimal activity was observed as well, except at the intersection of Elk Valley Cross Road/Cunningham Lane where 36 pedestrians crossed during the morning peak hour. This intersection is near the high school and all 36 pedestrians travelled between 7:50 AM and 8:10 AM, which corresponds to the high school starting time (8:10 AM). According to the recorded data, all of the pedestrians crossed the southern leg (the Cunningham Lane leg). There is a trail in the southeast corner of this intersection providing unofficial access to portions of the park.

Driver Sight Distance

There are two types of driver sight distance criteria to consider in the study area: stopping sight distance (SSD) and corner sight distance (CSD). Stopping sight distance is the minimum distance required by the driver of a vehicle to bring his/her vehicle to a stop after an object on the road becomes visible. This is the minimum distance needed for a driver on the main roadway approaching an intersection or driveway to see an object in his/her travel path (such as a vehicle exiting a driveway) and safely come to a stop. SSD is measured from the center of the travel lane on Elk Valley Cross Road at a height of 3.5 feet to an object on the road with a height of 0.5 feet. The Caltrans Highway Design Manual specifies minimum stopping sight distance requirements as a function of roadway design speed.

Corner sight distance (CSD) is the minimum distance that a driver waiting at a cross street should be able to see in either direction along the main roadway in order to accurately identify an acceptable gap in through traffic. CSD is measured from a point on the side of Elk Valley Cross Road at a 15-foot setback from the edge of traveled way at a height of 3.5 feet, to a point in the center of each approaching travel lane at a height of 4.25 feet. The Caltrans Highway Design Manual sets forth minimum CSD values as a function of design speed.

Driver sight distance was reviewed along the study corridor. In general, the horizontal curvature of Elk Valley Cross Road hinders the driver sight distance at various locations, as well as trees and other vegetation along the roadway. Some examples are as follows:

- The CSD from Railroad Avenue Extension looking to the west along Elk Valley Cross Road is about 140 feet short of the minimum value (minimum value of 550 feet, assuming a speed of 50 mph for eastbound traffic on Elk Valley Cross Road), due to both the horizontal curvature of the roadway and the vegetation along the south side of the road. Looking to the east, the CSD is about 165 feet short of the minimum value (minimum value of 495 feet, assuming a speed of 45 mph for westbound traffic on Elk Valley Cross Road), due to the presence of a large tree infringing on the traveled way on the south side of the road.

- Similarly, the CSD from Coho Lane looking to the east is only about 120 feet, which is 375 feet short of the minimum value (minimum value of 495 feet, assuming a speed of 45 mph for westbound traffic), due to a large tree and vegetation along the south side of the road.

- At the high school, the CSD looking to the west from the exit driveway is about 155 feet short of the minimum value of 495 feet (assuming a speed of 45 mph for eastbound traffic).

- The CSD from Cunningham Lane looking to the west is about 400 feet, which is 95 feet short of the minimum value. The CSD looking to the east is only 234 feet, or about 260 feet short of the minimum value.

Some flexibility in corner sight distance is allowed. The Caltrans standards state that where restrictive conditions exist (such as horizontal and vertical curvature of an existing roadway), the minimum value for corner sight distance at unsignalized intersections shall be equal to the stopping sight distance value. Based on speeds of 45 mph and 50 mph, the required minimum stopping sight distances are 360 feet and 430 feet, respectively. As the CSD at the locations described above do not meet these minimum values (except the CSD looking west from Cunningham), these are considered existing driver sight distance deficiencies.

Historical Crash Data

SWITRS Crash Data 2009-2018

Crash data for Elk Valley Cross Road over the last 10 years (January 2009-December 2018) was obtained from the Statewide Integrated Traffic Records System (SWITRS). This data base centrally stores crash information submitted by county and statewide agencies such as Highway Patrol, Sheriffs, and local law enforcement. In addition, the National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS) data was reviewed regarding fatal crashes. The crash data for this period of time is summarized in Tables 7 and 8. Table 7 includes crashes within 200 feet of the key intersections and Table 8 reports crashes on the remaining segments. The total number of reported crashes on Elk Valley Cross Road over the last ten years is 65, 58 of which occurred within 200 feet of an intersection. The following findings are made based on the data:

- One fatality occurred over the 10-year period. This incident occurred at the Elk Valley Cross Road/US 199 intersection in July 2014. A vehicle crossing the intersection (Vehicle 1) was struck by another vehicle (Vehicle 2) proceeding straight along US 199. Vehicle 2 had a reported travel speed of 55 mph. Vehicle 1 was reported to have previously "successfully avoided another event". A third vehicle (Vehicle 3) was reported to have been previously stopped in the roadway, and the front end of Vehicle 3 was damaged after the crash (although the vehicle was still functional). The crash occurred during the daylight and the weather was clear. None of the vehicles were reported to have pre-existing defects or maintenance conditions that may have contributed to the crash. None of the drivers received a traffic violation in this crash.

- About 40% of intersection crashes resulted in injuries, while almost all (7 of 8) roadway crashes had injuries.

- No pedestrian-related crashes were recorded.

- Only one crash involved a bicyclist. This crash occurred along the segment of Elk Valley Cross Road between Wonder Stump Road and Cunningham Lane. The bicyclist was reported to be under the influence of alcohol. Although the bicyclist was injured, no vehicles were involved.

- To no surprise, the majority (67%) of the intersection crashes occurred at the two intersections with highways (the US 101 and US 199 intersections), which also have the highest speeds and greatest traffic volumes.

- Most (7 of 8) of the roadway crashes occurred on the segment between Wonder Stump Road and US 101, which is the longest segment. Two (2) of the 7 crashes on this segment involved alcohol.

- Most crashes took place in the daylight and under clear or cloudy conditions (not raining, foggy and/ or with poor lighting).

- "Hit Object" was the primary collision type at most of the intersections and roadway segments (which is not surprising, given the lack of shoulders and close proximity of fencing, trees and mailboxes) except the two intersections with Highways 101 and 199, where 24 crashes (or 63 percent) were "Broadside" crashes. Most "Broadside" collisions were due to violation of automobile right of way. Finally, "Rear End" crashes represent 38% of the total roadway crashes.

Crash Rates

Crash rates are analyzed and compared to average crash rates for similar facilities. Caltrans publishes an annual *Collision Data on California State Highways* report (2015 is the latest year available) containing crash rates for various roadway and intersection types and counties within California. The Statewide average crash rates for the key intersections are shown in the far right columns of Table 9. The estimated actual crash rates for each intersection were calculated and are shown in the middle columns of the table. The following intersections along Elk Valley Cross Road have crash rates exceeding the Statewide average rates:

- Lake Earl Drive ("total" crash rate only)
- Wonder Stump Road ("total" and "injury" crash rates)
- US 101 ("total" and "injury/fatal")
- US 199 ("total" and "injury/fatal")
- Parkway Drive ("total" and "injury/fatal")

The crash rates at these intersections are more than double the Statewide average rates for similar facilities, except that the Elk Valley Cross Road/US 199 intersection has crash rates that are about 7 to 8 times higher than the Statewide average crash rates for similar intersections.

Table 10 presents crash rates for the roadway segments. The average crash rates for rural 2- and 3- lane highways with values for the State of California, Caltrans District 1, and Del Norte County are shown in the lower portion of the table. Del Norte County and Caltrans District 1 have higher average crash rates than the Statewide average. The segment of Elk Valley Cross Road between Wonder Stump Road and US 101 has a total crash rate exceeding the Statewide average, although it's lower than that of the County and Caltrans District 1. However, the injury crash rate on this segment is higher than all of the regional average rates.

Attachments: Tables 1-10

TABLE 1: Elk Valley Cross Road - Intersection Peak-Hour Traffic Volumes

Intersection	Northbound			Southbound			Eastbound			Westbound			Total			Peak Hour Start Time
AM Peak Hour	L	T	R	L	T	R	L	T	R	L	T	R	Vehicles	Peds	Bikes	
Lake Earl Dr/Elk Valley Cross Rd	0	154	53	37	159	0	0	0	0	56	0	63	522	0	0	7:30 AM
Wonder Stump Rd/Elk Valley Cross Rd	1	0	1	30	0	16	7	94	1	0	102	8	260	0	0	7:30 AM
Cunningham Ln/Elk Valley Cross Rd	1	0	3	0	0	0	0	139	2	1	130	0	276	36	0	7:30 AM
US Hwy 101/Elk Valley Cross Rd	53	213	2	39	342	27	23	37	90	4	47	59	936	0	0	7:30 AM
US Hwy 199/Elk Valley Cross Rd	6	69	1	0	169	23	11	66	7	5	87	0	444	0	0	7:30 AM
Parkway Dr/Elk Valley Cross Rd	30	12	1	0	8	2	0	54	14	1	57	0	179	0	0	7:30 AM
PM Peak Hour																
Lake Earl Dr/Elk Valley Cross Rd	0	143	57	53	153	0	0	0	0	64	0	40	510	0	1	4:00 PM
Wonder Stump Rd/Elk Valley Cross Rd	0	0	1	16	0	11	18	91	1	3	104	28	273	0	0	4:00 PM
Cunningham Ln/Elk Valley Cross Rd	2	0	2	0	0	0	0	108	3	6	139	0	260	0	0	4:00 PM
US Hwy 101/Elk Valley Cross Rd	63	342	4	59	268	33	16	41	41	3	41	37	948	0	0	4:30 PM
US Hwy 199/Elk Valley Cross Rd	5	136	8	2	103	26	13	76	3	5	59	0	436	0	0	4:00 PM
Parkway Dr/Elk Valley Cross Rd	19	21	3	0	15	2	2	59	26	1	42	0	190	0	0	4:00 PM

Note: Based on intersection traffic counts conducted from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM on Tuesday May 7, 2019.

Note: For the intersections at US Hwy 199 and Parkway Dr, the eastbound and westbound traffic indicated traffic on Elk Valley Cross Rd.

Source: LSC Transportation Consultants, Inc.

Table 2: Intersection Traffic Volumes Compared with Previous Studies

Intersection, Time	Northbound			Southbound			Eastbound			Westbound			Total			Peak Hour Start Time
AM Peak Hour	L	T	R	L	T	R	L	T	R	L	T	R	Vehicles	Peds	Bikes	
Lake Earl Dr/Elk Valley Cross Rd, 2019[1]	0	154	53	37	159	0	0	0	0	56	0	63	522	0	0	7:30 AM
Lake Earl Dr/Elk Valley Cross Rd, 2018[2]	0	136	47	32	139	0	0	0	0	61	0	40	455	0	2	7:30 AM
Parkway Dr/Elk Valley Cross Rd, 2019[3]	30	12	1	0	8	2	0	54	14	1	57	0	179	0	-	7:30 AM
Parkway Dr/Elk Valley Rd/Elk Valley Cross Rd, 2016[4]	29	4	2	-	4	0	0	46	13	2	33	-	133	0	-	7:30 AM
PM Peak Hour																
Lake Earl Dr/Elk Valley Cross Rd, 2019	0	143	57	53	153	0	0	0	0	64	0	40	510	0	1	4:00 PM
Lake Earl Dr/Elk Valley Cross Rd, 2018	0	114	36	56	172	0	0	0	0	54	0	40	472	0	4	4:00 PM
Parkway Dr/Elk Valley Cross Rd, 2019	19	21	3	0	15	2	2	59	26	1	42	0	190	0	-	4:00 PM
Parkway Dr/Elk Valley Rd/Elk Valley Cross Rd, 2016	15	12	5	-	9	4	2	44	31	1	36	-	159	0	-	3:30 PM

[1]Based on traffic counts conducted on Tuesday May 7, 2019.

[2]Based on traffic counts conducted on Thursday May 3, 2018.

Note: Parkway Drive, Elk Valley Road, and Elk Valley Cross Road were viewed as one intersection in the previous study, and it is essentially the same as the intersection of Parkway Dr/Elk Valley Cross Rd.

[3]Based on traffic counts conducted on Tuesday May 7, 2019. The left-turn southbound traffic and right-turn westbound traffic would use intersection of Parkway Dr/Elk Valley Rd, which were not recorded in this study.

[4]Based on traffic counts conducted on Friday October 21, 2016. The left-turn southbound traffic and right-turn westbound traffic counts are hidden for comparisons.

Source: LSC Transportation Consultants, Inc.

TABLE 3: Roadway Traffic Volumes on Elk Valley Cross Road

Location	Time Period	Eastbound	Westbound	Total 2-way	% Trucks
West of Wonder Stump Rd	Daily Volume	1,231	1,256	2,487	2.3%
(between Lake Earl Drive and Wonder Stump Rd)	AM (7:30-8:30)	101	117	218	
	PM (3:45-4:45)	128	104	232	
West of Turnbull Lane	Daily Volume	1,339	1,429	2,768	2.3%
(between Wonder Stump Road and US 101)	AM (7:30-8:30)	137	131	268	
	PM (4:00-5:00)	109	144	253	
West of Lesina/Titus Rd	Daily Volume	1,124	1,088	2,212	3.9%
(between US 101 and US 199)	AM (7:30-8:30)	81	117	198	
	PM (3:15-4:15)	111	83	194	

Note: Based on surveys conducted during 24-hour period from 12:00 AM to 11:59 PM Tuesday May 7th, 2019.

Note: Percent trucks includes buses and vehicles with 3 or more axles.

Source: LSC Transportation Consultants, Inc.

Table 4: Speed Survey Results on Elk Valley Cross Road

Location	Speed (mph)							Number of Vehicles	Percent of Vehicles
	Eastbound		Westbound		Total				
	Average	85th%	Average	85th%	Average	85th%	Max	> 50 mph	> 50 mph
West of Wonder Stump Rd (between Lake Earl Drive and Wonder Stump Rd)	40	46	42	48	41	47	79[1]	174	7%
AM Peak hour (7:30-8:30)	39	45	40	47	40	46	56	9	5%
PM Peak hour (3:45-4:45)	41	47	42	49	41	48	56	13	6%
West of Turnbull Lane (between Wonder Stump Road and US 101)	37	43	37	44	37	43	60	38	1%
AM Peak hour (7:30-8:30)	35	42	34	41	35	41	50	0	0%
PM Peak hour (4:00-5:00)	38	43	39	44	39	44	52	5	2%
West of Lesina/Titus Rd (between US 101 and US 199)	39	44	42	48	40	47	59	127	5%
AM Peak hour (7:30-8:30)	38	45	42	48	40	48	55	11	6%
PM Peak hour (3:15-4:15)	39	46	43	49	41	48	54	14	7%

Note: Based on speed surveys conducted during 24-hour period with dry road conditions from 12:00 AM to 11:59 PM Tuesday May 7th, 2019.

Note: Posted speed limit on Elk Valley Cross Road is 45 mph, and there is a 25 mph school zone between Wonder Stump Road and US 101.

[1]It was the only car exceeding 65 mph in the 24-hour period and this maximum speed was recorded at 10:00 PM.

Source: LSC Transportation Consultants, Inc.

TABLE 5: Truck Traffic on Elk Valley Cross Road

Location		Eastbound	Westbound	Daily Total
West of Wonder Stump Rd	# of Heavy Trucks	30	29	59
(between Lake Earl Drive and Wonder Stump Rd)	% of Heavy Trucks	2.4%	2.3%	2.3%
West of Turnbull Lane	# of Heavy Trucks	29	34	63
(between Wonder Stump Road and US 101)	% of Heavy Trucks	2.1%	2.4%	2.3%
West of Lesina/Titus Rd	# of Heavy Trucks	52	35	87
(between US 101 and US 199)	% of Heavy Trucks	4.6%	3.2%	3.9%

Note: Based on surveys conducted during 24-hour period from 12:00 AM to 11:59 PM Tuesday May 7th, 2019.
Heavy trucks are any trucks with 3 or more axles and buses.

Source: LSC Transportation Consultants, Inc.

TABLE 6: Bicycle and Pedestrian Volumes Along Elk Valley Cross Road

	Pedestrian			Bicycle		
Location	Eastbound	Westbound	Total	Eastbound	Westbound	Total
West of Wonder Stump Rd (between Lake Earl Drive and Wonder Stump Rd)	5	7	12	1	2	3
West of Turnbull Lane (between Wonder Stump Road and US 101)	1	1	2	1	1	2
West of Lesina/Titus Rd (between US 101 and US 199)	1	1	2	2	1	3

Note: Based on counts conducted from 6:00 AM to 9:00 PM Tuesday May 7, 2019.

Source: LSC Transportation Consultants, Inc.

TABLE 7: Elk Valley Cross Road - Crash Data by Intersection Location

2009 to 2018 Includes Crashes on Cross Streets Within 200 Feet of the Intersection

Does not include crashes on Elk Valley Cross Road greater than 200' from the intersections listed

			Crashes By Severity				Crashes by Type							Weather			Lighting				
Intersecting Street	Total Study Intersection Crashes	% Total Crashes	Property Damage Only	Injury	Fatality	Alcohol Involved	Broadside	Sideswipe	Rear End	Hit Object	Head-On	Auto/Ped	Other	Clear	Cloudy	Raining	Daylight	Dusk/Dawn	Dark- ST LTS	Dark- NO ST LTS	Other
Lake Earl Drive	7	12%	6	1	0	1	2	0	0	4	0	0	1	2	3	2	4	0	0	2	1
Wonder Stump Road	5	8%	3	2	0	0	0	0	1	2	0	0	2	4	1	0	4	0	1	0	0
High School Driveway	1	2%	1	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0
Cunningham Lane	1	2%	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0
US 101	18	31%	10	8	0	1	13	1	1	3	0	0	0	11	6	1	14	0	3	1	0
US 199	21	36%	10	10	1	0	12	1	1	7	0	0	0	11	5	5	18	0	2	1	0
Parkway Drive	5	9%	3	2	0	0	1	0	1	2	1	0	0	4	1	0	4	0	0	1	0
TOTAL	**58**	**100%**	**34**	**23**	**1**	**2**	**28**	**2**	**4**	**20**	**1**	**0**	**3**	**33**	**16**	**9**	**45**	**0**	**6**	**6**	**1**
% Study Intersection Crashes			**58%**	**40%**	**2%**	**3%**	**49%**	**3%**	**7%**	**34%**	**2%**	**0%**	**5%**	**56%**	**28%**	**16%**	**78%**	**0%**	**10%**	**10%**	**2%**

Note: No crashes invloving bicyclists or pedestrians were reported at the intersections.

Source: SWITRS, NHTSA

Source: LSC Transportation Consultants Inc.

EVCR Crash Tables.xls

TABLE 8: Elk Valley Cross Road - Crash Data by Roadway Segment

2009 to 2018 Includes Crashes on Street Segments Greater than 200 Feet From Intersections
Does not include crashes within 200' of the study intersections

								Crashes by Type							Weather				Lighting			
On Elk Valley Cross Road Between	And	Total Study Segment Crashes	Property Damage Only	Injury	Fatality	Bike/Ped Involved	Alcohol Involved	Broadside	Sideswipe	Rear End	Hit Object	Head-On	Auto/Ped	Other	Clear	Cloudy	Raining	Fog	Daylight	Dusk/Dawn	Dark- ST LTS	Dark- NO ST LTS
Lake Earl Drive	Wonder Stump Road	1	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0
Wonder Stump Road	US 101	7	1	6	0	1	2	0	0	2	4	0	0	1	2	5	0	0	6	0	0	1
US 101	US 199	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
US 199	Parkway Drive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		**8**	**1**	**7**	**0**	**1**	**2**	**0**	**0**	**3**	**4**	**0**	**0**	**1**	**2**	**6**	**0**	**0**	**7**	**0**	**0**	**1**
% Roadway Segment Crashes								**0%**	**0%**	**38%**	**50%**	**0%**	**0%**	**12%**	**25%**	**75%**	**0%**	**0%**	**88%**	**0%**	**0%**	**12%**

Note 1: ST LTS = Street lights
Source: SWITRS
Source: LSC Transportation Consultants, Inc.

TABLE 9: Intersection Crash Rates

2009 to 2018 Includes Crashes on Cross Streets Within 200 Feet of the Intersection

Intersecting Street with Elk Valley Cross Road	Intersection Crashes			Actual Crash Rate (Crashes per MV)[1]		Percent of Statewide Average Rate		Statewide Average Crash Rate By Intersection Type (Crashes per MV) [1]	
	Total	Injury or Fatality	% Injury Crashes	Total	Injury or Fatality	Total	Injury or Fatality	Total	Injury or Fatal
Lake Earl Drive	7	1	14%	**0.35**	0.05	**219%**	76%	0.16	0.07
Wonder Stump Road	5	2	40%	**0.46**	**0.19**	**211%**	**184%**	0.22	0.10
Cunningham Lane	1	0	0%	0.10	0	60%	0%	0.16	0.07
US 101	18	8	44%	**0.53**	**0.24**	**241%**	**234%**	0.22	0.10
US 199	21	11	52%	**1.56**	**0.82**	**711%**	**811%**	0.22	0.10
Parkway Drive	5	2	40%	**0.63**	**0.25**	**287%**	**250%**	0.22	0.10
TOTAL	**58**	**24**	**41%**						
% Study Intersection Crashes									

Note: MV = Million Vehicles entering intersection

Note 1: Bold indicates a crash rate higher than the average rate

Source: SWITRS, NHTSA, 2015 Collision Data on California State Highways

Source: LSC Transportation Consultants Inc.

EVCR Crash Tables.xls

TABLE 10: Roadway Segment Crash Rates

2009 to 2018 Includes Crashes on Street Segments Greater than 200 Feet From Intersections

Between	And	Total Study Segment Crashes	Crashes By Severity				Total Persons Injured	Crashes Per Million Vehicle Miles (MVM)	
			Property Damage Only	Injury	Fatality	Bike/Ped Involved		Total Crash Rate	Injury Crash Rate
Lake Earl Drive	Wonder Stump Road	1	0	1	0	0	0	0.41	0.41
Wonder Stump Road	US 101	7	1	6	0	1	1	**1.28**	**1.1**
US 101	US 199	0	0	0	0	0	0	0	0
US 199	Parkway Drive	0	0	0	0	0	0	0	0
TOTAL		**8**	**1**	**7**	**0**	**1**	**1**		
% Roadway Segment Crashes			**13%**	**88%**	**0%**	**13%**	**13%**		
Regional Averages (Rural 2 and 3 Lane)									
Statewide								1.04	0.48
Caltrans District 1								1.48	0.68
Del Norte County								1.38	0.71

Note: **Bold** indicates an exceedance of at least one average rate

Source: SWITRS, Statewide and Del Norte County crash rates are from Caltrans's 2015 Collision Data on California Highways Publication

Note: Statewide and District 1 Injury Crash Rate reflects Injury + Fatality Collision Rate.

Source: LSC Transportation Consultants, Inc.

Attachment G

Public Meeting Records

Add to mailing list?	Full Name	E-Mail Address	Site/Mailing Address	City	State	ZIP
YES	Brian Stephenson	bstephenson@dokkenengineering.com	2192 Civic Center Dr.	Redding	CA	96001
YES	Rosanna Bower	rbowers@co.del-norte.ca.us	981 H Street, Suite 1b	Crescent City	CA	95531
YES	Ron Sandler	DNAMB@aol.com	PO Box 306	Crescent City	CA	95531
YES	Don Micheletti	d.micheletti@charter.net	130 Vivienne Lane	Crescent City	CA	95531
YES	Barbara Lee	barbarajLee.LMFT@gmail.com	PO Box 1543	Crescent City	CA	95531
NO	Yvonne O'Neill	ypoTpo@aol.com	1940 Malone Rd	Crescent City	CA	95531
YES	Melvin Haggard	Haggardm@charter.net	150 Turnbull Ln	Crescent City	CA	95531
YES	Laura Haban	lhaban@charter.net	PO Box 1344	Crescent City	CA	95531
NO	Darrel Parlasca		PO Box 1344	Crescent City	CA	95531
	Loe Cowan	lcowan@co.del-norte.ca.us	424 N. Pebble Beach	Crescent City	CA	95531
NO	Bill Cook	Surferbill@charter.net		Crescent City	CA	95531
	Suresh Ralnam	Suresh.ralnam@dot.ca.gov		Eureka	CA	95521
YES	Kimberley Haban	kmhaban@aol.com	2980 Elk Valley Cross Rd	Crescent City	CA	95531
YES	Tim Haban	mudman02@habanconstruction.com	2980 Elk Valley Cross Rd	Crescent City	CA	95531
YES	Beth Reyman	b_reyman@yahoo.com	181 Apple Ct.	Crescent City	CA	95531
YES	Lonnie Reyman	lpreyman@gmail.com	181 Apple Ct.	Crescent City	CA	95531
YES	Chuck Sherman	CLSE7488@gmail.com	3725 Wonder Stump Rd	Crescent City	CA	95531
YES	Linda Sherman	LindaSherman31@gmail.com	3725 Wonder Stump Rd	Crescent City	CA	95531
YES	Chuck Clarkson	Chuck.Clarkson@firsTgroup.com	150 Williams	Crescent City	CA	95531
YES	Kristen Zumeta	dividedsky1984@gmail.com	2440 Elk Valley Cross Rd	Crescent City	CA	95531
	John Roberts			Smith River	CA	95567
YES	Karen Haban	karenhaban@gmail.com	PO Box 1292	Crescent City	CA	95531
	Phil Jamieson	karenhaban@gmail.com	PO Box 1292	Crescent City	CA	95531
	Randy Pincombe	rpincombe@charter.net	400 Critter's Way	Crescent City	CA	95531
	Chris Howard	choward@co.del-norte.ca.us	1625 Ashford Rd	Crescent City	CA	95531
YES	Ryan Forsht	greenscapes707@gmail.com	2401 Elk Valley Cross Rd	Crescent City	CA	95531
YES	Ben Zumeta	bzumeta@frcredwoods.org	2440 Elk Valley Cross Rd	Crescent City	CA	95531
NO	Janet Haley	unlear@earthlink.att	361 Critter's Way	Crescent City	CA	95531
YES	Susie Hawkins	Srhawki@msn.com	113 Apple Ct.	Crescent City	CA	95531
YES	Star Blackburn	shifteight@charter.net	275 Elk Valley Cross Rd	Crescent City	CA	95531
YES	Dan Blackburn	shifteight@charter.net	275 Elk Valley Cross Rd	Crescent City	CA	95531
YES	Tawesa Leighton	Tawesa@DNCTC.org		Crescent City	CA	95531
YES	Jill Lewis	rnj6162@aol.com		Crescent City	CA	95531
YES	Gene Hilger	hilgerharley@yahoo.com	Parkway Dr.	Crescent City	CA	95531
YES	Mary Anne Buckles	mabuckles2@hotmail.com	4531 Wonder Stump Rd	Crescent City	CA	95531
YES	Gerry Hemmingsen	ghemmingsen@co.del-norte.ca.us	981 H Street	Crescent City	CA	95531
	David Williams		PO Box 387	Smith River	CA	95567
NO	Leslie Bower	lehbower@gmail.com	451 Critter's Way	Crescent City	CA	95531
	Heidi Kunstal	hkunstal@co.del-norte.ca.us	981 H Street	Crescent City	CA	95531
NO	Mario Westpaal			Crescent City	CA	95531
NO	Jeamnce Westpaal			Crescent City	CA	95531

Elk Valley Cross Road Corridor Plan Public Workshop No. 1

Wednesday, June 26, 2019

Name	Telephone	Address	Email Address	Individual/Group Representative	Comments	Add to contact list?
Zumeta		2450 Elk Valley Cross Rd			Our neighbors share a driveway w/ us and asked us to submit a comment on their behalf. They also have close calls pulling in/out of our drive way on a daily basis. Speed limit needs to be lowered and shoulders for people to walk.	
Jill Lewis	(707)-464-4076	155 Deer Meadow Way	rnj6162@aol.com		1. Speed Limit to high 2. Need sidewalks 3. No semi trucks	YES
Patrick Hawkins	(707)-218-2086	113 Apple Ct.	patrick@firstservice.cc	Individual	We have buried two animals, had incidents with traffic getting in and out of driveway onto Elk Valley Cross Road. The road needs to be slowed to 30 miles an hour highway to Northcrest. We have seen many times where traffic comes off the highway speeds up to 45 miles per hour and narrowly avoids high school students walking to school. Someone is going to get killed!	YES
Ron Sandler	(707)-487-1116		DNAMB@aol.com	Del Norte Ambulance	1. Major blindspot at cross road and 199. A post of units block view 100% of 101 offramp. 2. Brush on/near fog line block views on cross road.	YES
Richard Lewis	(707)-464-4076	155 Deer Meadow Way	rnj6162@aol.com		1. Speed Limit to high 2. Need sidewalks 3. No semi trucks	YES
Kim Haban		2980 Elk Valley Cross Rd			I would like to see something done to slow down traffic, I have lived at this address for 37 years have seen countless accidents and the death of my mother in law coming to our house to pick blackberries, cars speed through 199 and cross road intersection 60-65 mph constantly, confused by all the turn lanes then last minute lane change is what causes it all if a overpass or not crossing at all would be to my liking. The amount of traffic stats are not correct. From my house I can hear theam accelerating across the intersection by the time they are passing my driveway they're going 50 MPH, don't even bother to stop at parkway stop sign. I truly think this project is needed and completed before more accidents and lifes are taken.	
Laura Haban		PO Box 1344	lhaban@charter.net	Haban Family	I travel the HWY 199/ Elk Valley Cross Road corridor daily and almost on a daily basis I witness a close call or stupid manuever by a driver, both in northbound and southbound lanes. I know it is probably cost prohibitive, but an overpass at this intersection would eliminate any cross traffic interaction. My mother was killed in an accident at this intersection. This is my motivation for hoping that safety issues along this corridor will be addressed.	YES
Chuck Sherman	(949)-689-7748		CLSE7488@gmail.com		School children and pedestrians need a shoulder to walk on, in particular where road narrows in curves (e.g. tree eastbound side just east of Wonder Stump Rd.)	YES
Pat Hawkins	(707)-218-2086			Individual	We need to slow this road down, we cannot get out of our driveways without having a near miss from traffic. On top of that there are no shoulders.	YES
Darrel Parlasca		PO Box 1344	lhaban@charter.net	Haban Family	Please refer to comments by Laura Haban. Also traffic signals which control all east, west, north, and south bound traffic.	YES
Ryan Forsht	(707)-954-7157	2401 Elk Valley Cross Rd	greenscapes707@gmail.com	self/neighbors	The confusion of crossing from HWY 101 and Elk Valley Cross Rd has caused several accidents/year. There should be a pedestrian walkway/ bike lanes between Florence Keller and Lake Earl Dr. kids at school or walking home are in danger daily. There needs to be flashing lights and a crosswalk. I've also seen on average 3-4 accidents between Sunset High and Deer Meadow Way, low visibilty and high speed is a problem there.	YES
Ben Zumeta	(206)-913-3359	2440 Elk Valley Cross Rd	bzumeta@frcredwoods.org	Individual	My dog, Wilson, was hit by a truck with a trailer that apperared to be going the speed limit and which stopped as quickly as possible but still hit him. Our dog got out by accident, but he likely would not have been hit if they were going 35 MPH instead of 45 MPH. The difference in travel time between 45 MPH and 30 MPH would be a matter of 30 seconds, but costs lives and property damage. I have seen 5 accidents in 5 years in person in front of my house. Moreover, tourists in RVs looking for tourist destinations are often lost on Elk Valley Cross Road but think they are on Elk Valley Road (which leads to National and State Parks), making greater hazards than would be normal on such a road.	YES
Tim Haban	(707)-464-7686	2980 Elk Valley Cross Rd	mudman02@habanconstruction.com	Individual	Moving into my current location in 1985 I can't count the amount of accidents I've seen on the 199 and Cross Road intersection, 3 fatalities that I know of one being my mother 4 years ago. I run my construction business out of my shop daily. Crossing this intersection on a average of 10-12 times a day. I'm extremely cautious when crossing but still seem to have close calls very often, traffic has to slow down! I think a round about at each intersection of 199 and 101 is a answer, some may not like it but it will save lives,maybe one yours. What ever your decision the speed needs to decrease, safety has to be #1, at any cost, also the freeway needs to start southbound 101 after Elk Valley Cross Rd, and merge to one lane northbound before the Cross Rd. Line of site is critical when placing road signs so traffic can not be impaired!	YES
Bryan Fraser, Dokken					Talking with contractor prior to meeting. Driving cattle trailer across 101, almost get tagged every time due to people speeding/ not realizing how big the trailer is.	
Beth Reyman	(707)-951-0795	181 Apple Ct.	b_reyman@yahoo.com		Speed needs to decrease to 35/ 40 MPH max. Need shoulders, cannot walk to school bus safely. If no shoulders than sidewalks. Take down large tree on south side of Wonder Stump Rd/ Elk Valley Cross Rd, it creates a blind corner. Better paint/ markings for the 101/ Elk Valley Cross Rd intersection. More signage for speed. School (flashing school sign) Florence Keller. Without better shoulders there will be a school kid hit.	
Mario Westpaal	(707)-954-1315	191 Church Tree	lafireresq@yahoo.com		Flashing warning lights on 101 and 199 ahead of Elk Valley Cross Rd to warn drivers on a highway to upcoming cross traffic. Increased shoulder/ bike lane the lengths of the corridor.	
Bryan Fraser, Dokken					Concrete sidewalk would not fit surroundings. Gravel/ decomposed granite path would fit the surroundings better	
Leslie Bower	(707)-464-9169	451 Critters's Way	lehbower@gmail.com		I've lived at my present address for 15 years, My concerns are: I cant make a left hand turn from Cunningham Ln onto Elk Valley due to a lack of visibility. A convex mirror would be huge. The road needs the bike lanes completed. Young children are dropped at Sunset High School and walk along the verge.The traffic is too fast, especially with all the driveways/ roads that come onto Elk Valley. The 101/ Elk Valley middle intersection is not understood by many drivers and leads to dangerous decisions. The bike lane on parkway needs to be extended to include the Elk Valley Cross Rd corridor, all the way to Lake Earl Dr (I know the last part has a lane).	
Kristen Zumeta	(757)-285-7881	2440 Elk Valley Cross Rd	dividedsky1984@gmail.com	Individual	I have a close call pulling in/ out of my driveway every single day! We desperately need shoulders and reduced speed! Please.	YES
Linda Sherman	(949)-689-7758	3725 Wonder Stump Rd	lindasherman31@gmail.com		There is a problem on Wonder Stump with speeding cars, one solution could be a "caution" sign with the speed limit clearly displayed. Kids exiting school bus at several stops on Elk Valley Cross Rd, there is no sidewalk or enough shoulder for the school kids to walk. Idea = flashing lights displaying cars actual speed. Please no traffic signals or speed bumps.	

Barbara Lee	(707)-954-0124	2345 Elk Valley Cross Rd	barbarajlee.LMFT@gmail.com		We need to slow the traffic, the visibility is poor and with increased houses/ traffic it is difficult to pull out of driveways. There are many more pedestrians due to the school and no safe way to walk along the street. I have a difficulty pulling out of my driveway. I am almost hit 2-3 times per week. Speed at night is especially a problem. Traffic at shift change is high at the same time kids are going and leaving school. Some type of traffic control at 101 and Elk Valley Cross Rd intersection. Clear instructions for the on ramp/ entry lanes and control for turns. Move the start of 65 MPH zone south of the intersection.	YES
Yvonne O'Neill	(707)-464-3200	1940 Malone Rd			Suggestions: 1.) Rumble strips at Wonder Stump Rd and Elk Valley Cross Rd. 2.) Sidewalks for students from Sunset High School to walk on. 3.) Flashing lights at either side of school. 4.) I love "roundabouts" but not at 199 and Elk Valley Cross Rd, 55 MPH is hard to slow for "roundabout". 5.) Better lighting at 101 and Elk Valley Cross Road. 6.) Better lighting and flashers at 199 and Elk Valley Cross Rd. Other: Speed limit changes from 55 MPH to 65 MPH just past Elk Valley Cross Rd and 101 exchange, people start speeding up sooner.	
Susie Hawkins	(707)-218-7087	113 Apple Ct.	Srhawki@msn.com		Pulling out of our driveway is always a crap shoot. We move out such a ways then gun it and hope we make it. Getting the mail is always a little scary. And trying to take a walk...is taking your life out of your hands. I'm always concerned for the school kids walking by, cars going around those curves! Very dangerous. The 101 and Cross road intersection is down right scary. It's a regular occurence when people convey into the intersection from all 4 directions and have a complete look of confusion as to what they are supposed to do. Many don't know how to turn, where to go or what to do. Scary! Almost got T-boned waiting at the 199 and Cross road intersection from 101 towards Parkway. A truck coming from Hiouchi in the right lane didn't realize it turned off and ended. He came straight through and barely missed us.	YES
Karen Haban		PO Box 1292	karenhaban@gmail.com	Haban Family - In memory of Patti M. Haban	Would like to see a speed study done on both highways at the crossroads intersections. It is the highway speed that makes both intersections so dangerous. Reduce the speed! Should be a 45 MPH zone on 199 coming out of the Redwoods. Change the 199 Intersection to make crossing it easier, the markings on the 199 highway are extremely confusing coming out of the trees.	YES
Chuck Clarkson		150 Williams Dr	chuck.clarkson@firsTgroup.com	Redwood Coast Transit	A straighter road and wider road would help public transport. Our big concern on the road is blind spots and the speed of other vehicles.	
Mary Anne Buckles	(562)-533-4810				One of my main concerns is the intersection at 101 and Wonder Stump going south. The bit is not paved adequately and if you're turning into Wonder Stump sometimes you take your life in your hands as cars and trucks behind you aren't slowing down.	
Gene Hilger					Speed is the biggest problem...	

Elk Valley Cross Road Cooridor Plan

Public Workshop #2

February 27, 2020

Add to mailing list?	Full Name	E-Mail Address	Site/Mailing Address	City	State	ZIP
	Roanna Bower	rbowers@co.del-norte.ca.us	981 H Street, Suite 1b	Cresent City	CA	95531
	Linda Sherman	lindasherman31@gmail.com	3725 Wonder Stump Rd	Cresent City	CA	95531
	Chuck Sherman	CLSE7488@gmail.com	3725 Wonder Stump Rd	Cresent City	CA	95531
	David Morgan	Caltrans D1				
	Suresh Rutman	Suresh.Rutman@dot.ca.gov	Caltrans D1			
YES	Janet Jones	Mapiglet@yahoo.com	2145 Laurel Lane 2155 Elk Valley Rd	Cresent City	CA	95531
YES	Laura Haban	lhaban@charter.net	PO box 1344	Cresent City	CA	95531
YES	Karen Haban	KarenHaban@gmail.com	PO Box 1929	Cresent City	CA	95531
	Robert T. Bucks	Wonderstump@hotmail.com	4531 Wonder Stump Rd	Cresent City	CA	95531
YES	Mike Vessels	mikalvessels@gmail.com	2133 Elk Valley x Rd	Cresent City	CA	95531
	Don Michelelti	d.micheleti@charter.net	130 Viviena Ln	Cresent City	CA	95531
	Tamera Leighton	Tamera@dnctc.org	900 Northcrest	Cresent City	CA	95531
NO	Chris Howard	choward@co.del-norte.ca.us				
	Corhiss Jones		2375 Elk Valley Cross Rd	Cresent City	CA	95531
	Paul Reyman	paulreyman@gmail.com	181 Apple Ct	Cresent City	CA	95531
YES	Troy Wakefield	Twake5557@gmail.com	400 Coho Ln	Cresent City	CA	95531
YES	Kim Chareht	canthookem@gmail.com	2580 Elk Valley Cross Rd	Cresent City	CA	95531
YES	Elizabeth Kim	eliz.art@gmail.com	2380 Elk Valley Cross Rd	Cresent City	CA	95531
YES	Venny Bayon	lejardinart@hotmail.com	2901 Elk Valley Cross Rd	Cresent City	CA	95531
YES	Leslie Bower	lehbower@gmail.com	451 Critter's Way	Cresent City	CA	95531
NO	Heidi Kunstal	hkunstal@dhco.org	981 H St. Ste 110	Cresent City	CA	95531

Name	Telephone	Address	Email Address	vidual/Group Representa	Comments	Add to contact list?
NA	NA	NA	NA	NA	Crosswalk should not be at Cunningham Lane. Visibility too poor. Place crosswalk at Sunset High school or none crosswalk.	
Elizabeth Kim	NA	2380 Elk Valley Cross Rd.	NA	NA	I live in segment 2, I would love sidewalks with limited impact to property line…I DON'T think Alternative B is necessary. Elk Valley Cross @ US 101 - I like Alt. C or Alt. A Elk Valley Cross @ SR 199 - L like Alt. A or C	Yes
Mike Vessels	707-460-1477	2133 Elk valley Cross Rd Cresent City, CA 95531	mikalvessels@gmail.com	NA	Lower and monitor speed between Lake Earl and 101, relocate drainage grate @ Wonder Stump. Better walking & bike paths. Start with painted lines at 101 for Elk Valley Crossing. Limited signage also (don't overwhelm drivers)	Yes
Kim Charette	707-465-3006	2580 Elk Valley Cross Rd	canthookem@gmail.com	NA	Any existing improvements should have minimal change to existing trees or environmentals but should be implemented with the intention to slow increasing congestion to 25 mph. Improve safety for bikes and peds. Restrict commercial truck traffic, 10,000 pounds or more forbidden. Will City replace water meters hookups? Will law enforcement take speeding seriously as it will increase if road is widened. Roundabouts, speedbumps!	Yes
Don Micheletti	NA	NA	D.micheletti@charter.net	NA	Put a no U turn sign on Hwy 101 at Elk Valley Cross Rd. People driving north make U turns onto 101 South. They hug the left side and mess up the intersection. Preferred alternatives is roundabout at both locations.	Yes
C. Charles (Chuck) Sherman	949-689-7748	3725 Wonder Stump Rd	CLSE7488@gmail.com	NA	Segment 2: Widening Road will encourage speeding. No pedestrian/bike lane, if a ped/bike lane is added these should be a traffic barrier to deter car/truck crossover (line do not work). I suggest a path on other side of drainage ditch.	Yes
Mary Anne Buckles	562-533-4810	4531 Wonder Stump	NA	NA	No roundabouts please, no signal! Love the U turn lanes Currently-no speed limit signs by Sunset High School	
Laura Haban	707-457-3294	PO box 1344 CCC 95531	lhaban@charter.net	Family of Patti Haban	Patti Haban killed at the intersection of Elk Valley Cross Road and Hwy 199. I prefer the roundabout alternative for this intersection.	Yes
Chris Howard	NA	1625 Ashford Rd	Chris.forrest.howard@gmail.com	NA	EV & 199 => Alt. C EVCR & 101 => Alt. D	
Beth Reyman	NA	181 Apple Ct	NA	NA	Alternative A roadway segment 2 is preferred for roadway. Should allow for enough walkway.	
Karen Haban	457-3207	PO box 1292 CCC	Karenhaban@gmail.com	Haban Family	What slows traffic down on 199 is the most important thing. The roundabout would accomplish this. The accident rate MUST be reduced.	
Linda Sherman	949-689-7758	3725 Wonder Stump Rd	NA	NA	Options that might work and what I prefer as follows: Segment 1: alt A no changes Seg 2: Seg 3: EVCR & 101: Alt "A" or Alt "C" are very good in my opinion, Alt "B" or Alt "D" not desired EVCR & SR 199: Stripping Alt "A"	
Robert T. Buckles	NA	4531 Wonder Stump Rd. CC CA 95531	Wonderstump@hotmail.com	NA	Adding Restricted Crossing U turn on US 101 is a very good idea. No Roundabout No Signal	Yes
Tauera Leighton	NA	NA	NA	NA	Alt C on 101 at Elk Valley Cross road is best alternative to start. Alt C on 199 at Elk Valley crossroad is best Alternative.	

Attachment H

Signal Warrant Analysis

Elk Valley Cross Road – Signal Warrant Analysis

A signal warrant analysis is performed for the US 101/Elk Valley Cross Road and US 199/Elk Valley Cross Road intersections. The investigation of the need for a traffic control signal should include analysis of factors related to the existing operation and safety at the study location and the potential to improve these conditions with installation of a signal. A traffic control signal warrant study is the first step in determining whether to consider the provision of a traffic signal (or roundabout) at an intersection. The *2014 California Manual on Uniform Traffic Control Devices (CA MUTCD), Revision 4* (published by Caltrans, last updated on March 29, 2019 and based on the federal MUTCD published by the Federal Highway Administration) specifies nine traffic signal warrants, as follows:

- Warrant 1 - Eight-Hour Vehicular Volume
- Warrant 2 - Four-Hour Vehicular Volume
- Warrant 3 - Peak-Hour Vehicular Volume
- Warrant 4 - Pedestrian Volume Warrant
- Warrant 5 - School Crossing Warrant
- Warrant 6 - Coordinated Signal System Warrant
- Warrant 7 - Crash Experience Warrant
- Warrant 8 - Roadway Network Warrant
- Warrant 9 - Intersection Near a Grade Crossing

Most of the traffic signal warrants are based on vehicular and pedestrian traffic volumes. The nine warrants have been developed to identify those locations where a signal would provide an overall benefit. Locating traffic signals consistent with the conclusions of a warrant analysis is important in limiting the potential liability of the authorizing jurisdiction. The California MUTCD states that, "The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal." A signal can be considered if at least one of the warrants are met and an engineering study indicates that installing a traffic signal will improve the overall safety and/or operation of the intersection.

The Peak Hour volume warrant (Warrant 3) is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street. The peak-hour warrant is the most commonly used, as it is usually the first warrant to be met. The Crash Experience warrant (Warrant 7) is also applied in this analysis, as it is intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal.

US 101 Intersection

The AM and PM peak-hour traffic volumes at the US 101/Elk Valley Cross Road intersection do not meet the Peak-Hour Volume Warrant (Warrant 3) criteria.

Warrant 7 indicates all of the following three criteria should be met for a traffic signal to be considered:

1. An adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and

2. Five (5) or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

3. For each of any 8 hours of an average day, the vehicles per hour on the major street and the higher-volume minor-street approach to the intersection meet the conditions in the Eight-Hour Vehicular Volume Warrant (Warrant 1), or the volume of pedestrian traffic is not less than the requirements specified in the Pedestrian Volume Warrant (Warrant 4).

Criteria 1 could potentially be met at this intersection. Criteria 2 does not appear to be met, as there are 15 recorded crashes over the 5-year period from 2014 through 2018, for an average of 3 crashes per year. Most (80%) of these crashes are broadside crashes. Based on a review of the movements preceding the crashes, most crashes appear to involve conflicts between vehicles either pulling out from Elk Valley Cross Road or departing the median refuge area and through vehicles on the highway. Based on a review of the continuous daily roadway count data on Elk Valley Cross Road, Criteria 3 is not met. As such, Warrant 7 is not met.

It can be concluded that the signal warrant criteria is not met at the US 101/Elk Valley Cross Road intersection.

US 199 Intersection

The AM and PM peak-hour traffic volumes at the US 199 / Elk Valley Cross Road intersection are well below meeting the signal warrant criteria. (The major street volumes are too small to be charted.)

Regarding the Crash Experience Warrant (Warrant 7), Criteria 1 could potentially be met at this intersection. Criteria 2 does not appear to be met, as there are 10 recorded crashes over the 5-year period from 2014 through 2018, for an average of 2 crashes per year. Most (80%) of these crashes are broadside crashes. Based on a review of the continuous daily roadway count data on Elk Valley Cross Road, Criteria 3 is not met. As such, Warrant 7 is not met.

It can be concluded that the signal warrant criteria is not met at the US 199/Elk Valley Cross Road intersection.

Attachment I

Speed Survey, Northbound 101 traffic at Elk Valley Cross Road intersection

March 26, 2020

1:15 PM to 2:38 PM

ENGINEERING AND TRAFFIC SURVEY	
STREET NAME	US 199 EASTBOUND
LIMITS	US 101 TO ELK VALLEY CROSS ROAD
COLLECTION LOCATION	SOUTHEAST CORNER OF US 199 AT ELK VALLEY CROSS ROAD
ROAD DESCRIPTION	2 LANE (1-WESTBOUND, 1-EASTBOUND)
POSTED SPEED	55 MPH
85TH PERCENTILE SPEED	58 MPH
DATE OF SURVEY	2020-03-26.
START TIME	13:15.
END TIME	14:38.
WEATHER	CLEAR
ROAD SURFACE	DRY
ROADWAY CONDITION	NO UNUSUAL CONDITION
FUNCTIONAL CLASSIFICATION	OTHER PRINCIPAL ARTERIAL
OBSERVER	MIKE PEEPLES
CHP RADAR #	137377
RADAR SERIAL #	AS001222

ENGINEERING AND TRAFFIC SURVEY			
STREET NAME	US 199 EASTBOUND		
LIMITS	US 101 TO ELK VALLEY CROSS ROAD		
SPEED	# OF VEHICLES	% OF VEHICLES	CUMMULATIVE % OF VEHICLES
70	0	0%	100%
69	0	0%	100%
68	0	0%	100%
67	0	0%	100%
66	0	0%	100%
65	4	4%	100%
64	1	1%	96%
63	0	0%	95%
62	2	2%	95%
61	5	5%	93%
60	1	1%	88%
59	1	1%	87%
58	2	2%	86%
57	8	8%	84%
56	10	10%	76%
55	8	8%	66%
54	12	12%	58%
53	11	11%	46%
52	5	5%	35%
51	4	4%	30%
50	5	5%	26%
49	1	1%	21%
48	4	4%	20%
47	1	1%	16%
46	5	5%	15%
45	1	1%	10%
44	3	3%	9%
43	1	1%	6%
42	4	4%	5%
41	0	0%	1%
40	1	1%	1%
TOTAL	100		
~ SPEEDS GREATER THAN 70 MPH INCLUDED AT 70 MPH ~			
~ SPEEDS LESS THAN 40 MPH INCLUDED AT 40 MPH ~			

Attachment J

Intersections (199 & 101) Technical Memorandum

DOKKEN ENGINEERING
www.dokkenengineering.com

TECHNICAL MEMORANDUM

Company:	**Del Norte Local Transportation Commission**
Attention:	**Tamera Leighton, Executive Director**
From:	**Brian Stephenson, PE**
Subject:	**Elk Valley Cross Road Intersections (US 199 & US 101)**
Date:	**May 27, 2020**

The purpose of this technical memorandum is to document the coordination efforts between Caltrans District 1, Del Norte Local Transportation Commission (DNLTC) and Del Norte County regarding the Elk Valley Cross Road (EVCR)/US 199 intersection and the EVCR/US 101 intersection.

Background

The Elk Valley Cross Road Corridor Plan (EVCRCP) was produced for the Del Norte Local Transportation Commission. During the development of the EVCRCP the latest 5 years of collision history (2014-2018) for the US 199 and US 101 intersections of EVCR were analyzed and summarized in the EVCRCP. Of concern to the DNLTC was the high collision rate at the EVCR/US 199 intersection, which was eight to ten times the state average for similar intersection types. A further detailed analysis was performed at the EVCR/US 199 intersection and based on collision data from the 2014 calendar year, collision diagrams were developed for the 5 collisions documented in that year. This analysis and other project information was used to create a slide show presentation that was presented to Caltrans District 1 Management on March 30th, 2020 (see Attachment to this memo). Based on the collision data from 2014, all five of the collisions involved a vehicle proceeding north on US 199 from US 101, approaching the EVCR intersection. The results of the March 30th presentation was to schedule a field meeting with Caltrans staff to discuss options at the EVCR/US 199 intersection.

Field Meeting

On May 6th, 2020 a field meeting at the EVCR/US 199 was held and attended by:

- **David Morgan (Chief, Office of Traffic Safety, Dist. 1)**
- **Tom Fitzgerald (Deputy District Director, Maintenance & Operations, Dist. 1)**
- **Tamera Leighton (Executive Director, DNLTC)**
- **Heidi Kunstal (Director, Del Norte County Community Development Department)**
- **Rosanna Bower (Assistant County Engineer)**
- **Brian Stephenson (Project Manager, Dokken Engineering)**

At this field meeting, it was observed that westbound vehicle on EVCR waiting at the stop sign to enter the US 199 intersection had impaired sight distance to the approaching northbound US 199 traffic. A field measurement was performed with a rolling wheel measurement device and at a distance of 690 feet from the

intersection, approaching vehicles are not visible. Per Table 405.1A of the Highway Design Manual, a Corner Sight Distance Time Gap for Unsignalized Intersections, Single Unit Truck, crossing 4 lanes (2 through lanes, 2 left turn lanes) should be 10.9 seconds, and approaching traffic at 45 MPH should have 721 feet of sight distance, and at 55 MPH should have 881 feet of sight distance.

The County performed a speed survey in late February 2020 and determined the northbound US 199 traffic continuing through the EVCR intersection had an 85th percentile speed of 58 MPH (see EVCRCP Attachment I). The current posted speed is 55 MPH and there is a 45 MPH advisory (black text on yellow background) radar speed feedback sign prior to the intersection.

The EVCRCP determined there are two major contributing factors to the limited sight distance at the EVCR/US 199 intersection. The first factor is the tall grass and vegetation in the southwest quadrant of the intersection and along the approaching northbound US 199 leg. The second factor is the placement and height of the existing "DO NOT ENTER" sign on the left-hand side of the approaching northbound US 199 roadway. The participants of the field meeting also observed traffic at the intersection and determined that the northbound 199 approaching traffic was visible for 7 seconds before entering the intersection.

In Figures 1 and 2 are photos of the intersection, from the point of view of EVCR traffic waiting at the stop sign to cross the US 199 intersection.

Figure 1: February 27th, 2020-EVCR looking at approaching north bound US 199 traffic

Northbound US 199 traffic is blocked from sight of the EVCR waiting vehicle by the two factors mentioned above and identified by the red arrows in the photos.

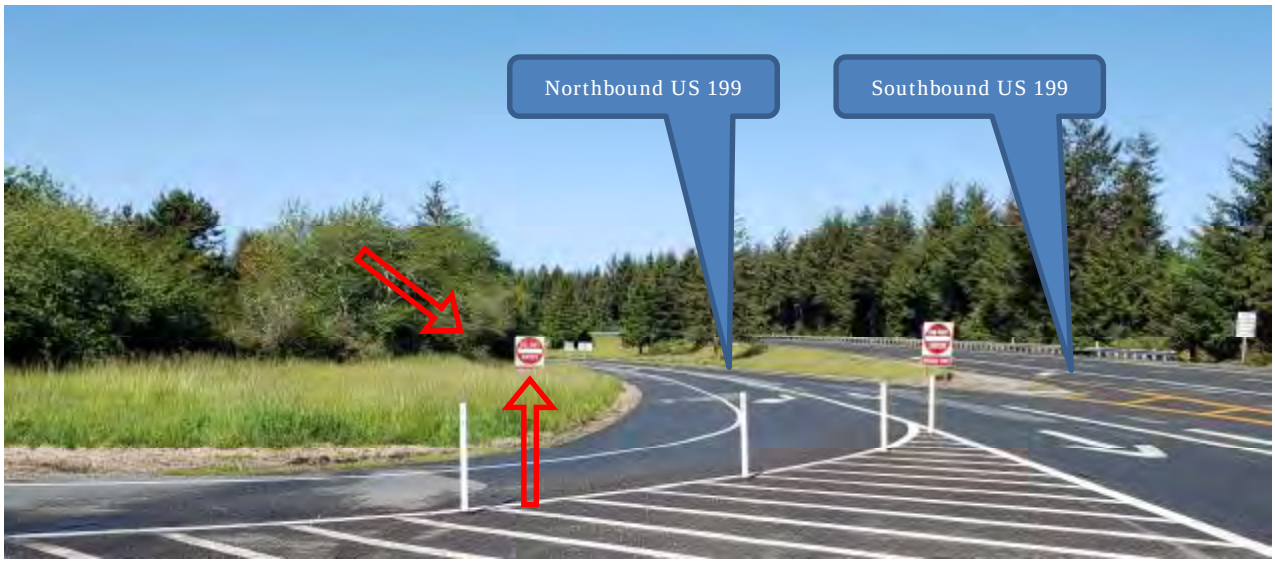


Figure 2: May 6th, 2020-EVCR looking at approaching northbound US 199 traffic

Proposed Intersection Improvements

During the field meeting on May 6th several ideas were discussed about how to improve the EVCR/US 199 intersection, and the EVCR/US 101 intersection. These ideas are broken down into two classifications, Maintenance and Design. Maintenance actions are those items that are based on current operating procedures at Caltrans for maintenance of the State Right of Way and roadways. Design actions are those items that will require further development and proceed through the standard Caltrans project delivery process.

Maintenance Actions

The first maintenance item identified at the EVCR/US 199 was to mow the existing grass along the roadside, up to the right of way fence and/or vegetation. As seen in the Figure 1 and Figure 2 above, the existing grass grows and blocks the view of approaching traffic and blocks the view of the "Do Not Enter" sign on the left side of US 199. David Morgan and Tom Fitzgerald contacted the local Caltrans Maintenance yard and requested that the mowing be performed as soon as possible. For the future, Caltrans needs to maintain the mowing schedule at this intersection to keep the grass from obstructing the sight distance.

The second maintenance item identified at the EVCR/US 199 was the trimming of the vegetation encroaching into the State Right of Way to improve sight distance. David Morgan and Tom Fitzgerald contacted the local Caltrans Maintenance yard and requested that the trimming be performed as soon as possible. For the future, Caltrans needs to maintain the vegetation trimming at this intersection to keep any new vegetation growth from obstructing the sight distance.

Below in Figure 3 is a photo of the intersection after Caltrans Maintenance performed the mowing and trimming operation on May 7th, 2020.

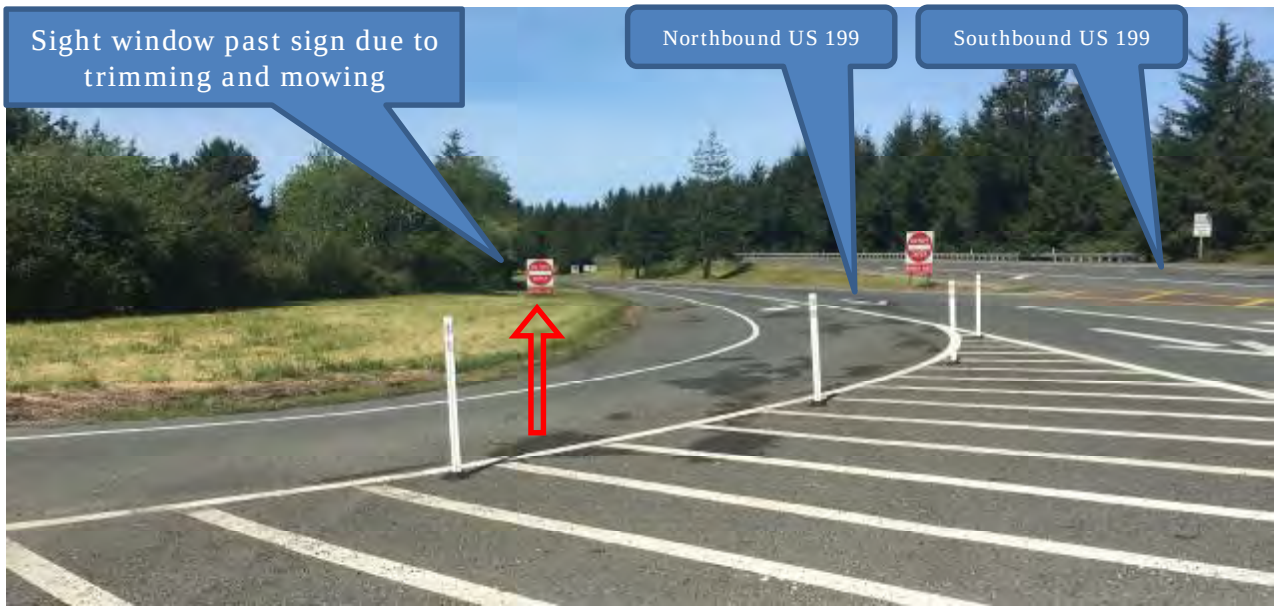


Figure 3: May 15th, 2020-EVCR looking at approaching northbound US 199

Notice that there is a sight window past the left-hand side of the "Do Not Enter" sign located on the left side of US 199. This is the result of the mowing and trimming operations of Caltrans Maintenance, but the "Do Not Enter" sign is still an obstruction to sight distance and needs to be relocated. With the sign relocated the sight distance would approach the distance prescribed in Table 405.1A for a 45 MHP design speed.

At the EVCR/US 101 intersection the only maintenance item identified was to apply traffic striping to better delineate the suggested traffic pattern in the median area of the intersection. On May 6th 2020 Dokken Engineering sent to David Morgan and Tom Fitzgerald, a proposed striping layout of the median area for the Caltrans Maintenance striping crew to install (See Figure 4).

Figure 4: EVCR/US 101 Intersection Striping

Design Actions

Several items were discussed in the field regarding design actions to improve the EVCR/US 199 intersection.

The first item discussed was for Caltrans to initiate a project to secure the additional right of way needed to provide for the Corner Sight Distance Time Gap, per Table 405.1A of the Highway Design Manual of 55 MPH. The additional right of way is required to remove the vegetation that obscures the sight line for a 55 MPH design speed (881 feet from the EVCR Stop Bar to approaching northbound US 199 traffic). See Figure 5 below. This improvement is also described in the *EVCRCP, Intersection Improvement: US 199 & EVCR, Alternative A*.

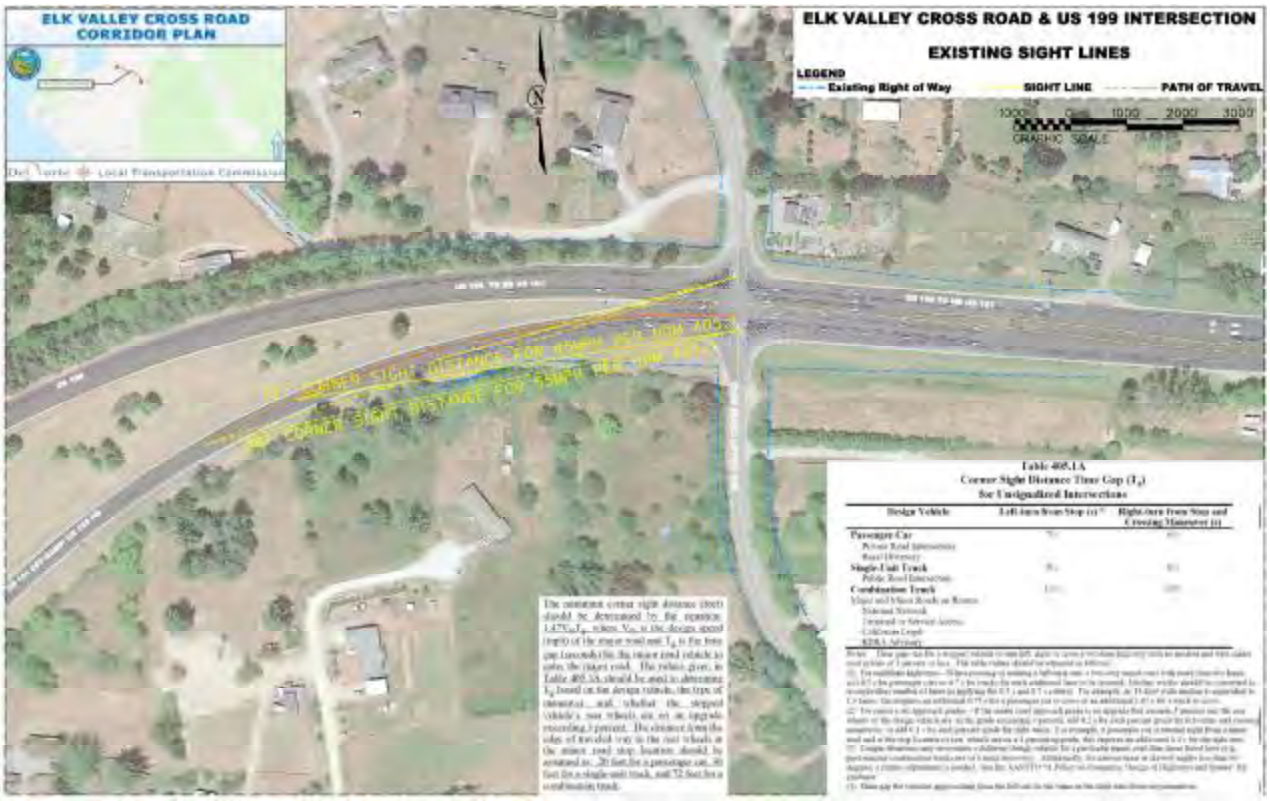


Figure 5: Corner Sight Distance

The second item discussed was the installation of on-demand advanced flashing beacons for northbound US 199 traffic approaching the EVCR intersection. The design of this advanced beacon would be as follows: EVCR traffic that approaches the intersection to cross US 199 from either direction would be detected by in-pavement induction loops (or other means) located near the stop bars. That would trigger the advanced beacons located approximately 900 to 1,200 feet before the intersection along northbound US 199. The flashing beacons would also have the appropriate signage alerting US 199 drivers of the intersection and cross traffic ahead. See Figure 6 below for conceptual layout.

Figure 6: Advanced Flashing Beacon Conceptual Layout

The third option discussed in the field was to perform grading in the roadside area located in the southwest quadrant (approaching NB US 199 traffic, right hand side) lowering the existing grade and moving the existing roadside swale (currently located 3 feet from edge of pavement) as close to the existing right of way as feasible. This would result in a lower of the existing grade in the sight line path of approximately 2 feet vertically. See Figure 7 below.

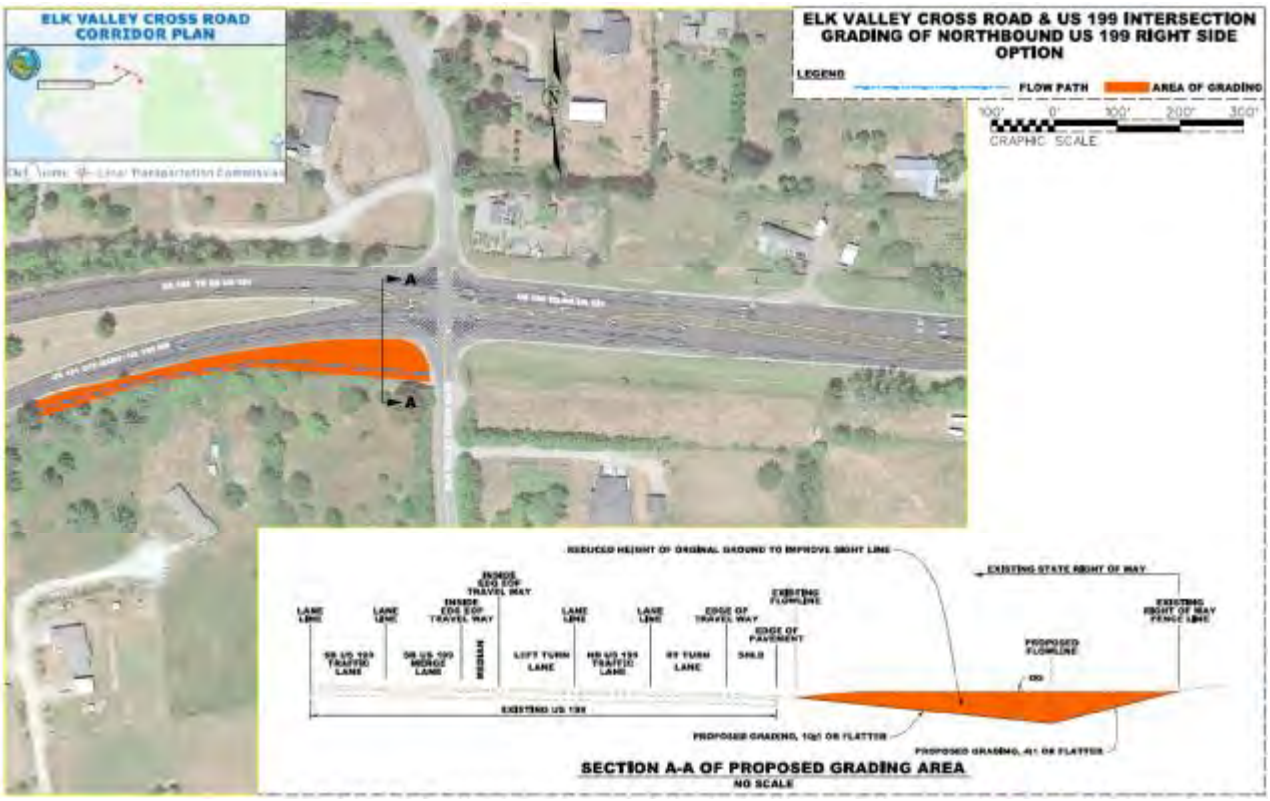


Figure 7: Roadside grading to improve sight line

The fourth option discussed in the field was to change the intersection control type. A traffic signal, or a roundabout are the two feasible modifications to the cross-street stop-controlled intersection. Per *Attachment H of the EVCRCP,* a traffic signal at the EVCR/US 199 intersection does not meet the signal warrants. The use of a roundabout at this intersection would have to be supported by the collision severity reduction, and the reduction in approach speeds. Caltrans stated that the cost of the roundabout ($6.3 million, per *EVCRCP, Section 7*) would not be covered by safety funding, and other means of funding would need to be secured by the local agencies.

DOKKEN ENGINEERING
www.dokkenengineering.com

Conclusions and future actions

The intersection of Elk Valley Cross Road and US 199 has a higher than average collision rate, as does the Elk Valley Cross Road and US 101 intersection, that needs to be addressed. Based on the field meeting on May 6th, Caltrans has two maintenance activities to perform at the EVCR/US 199 intersection, and one maintenance activity to perform at the EVCR/US 101 intersection as outlined above. As of May 19, 2020, the mowing and trimming of vegetation at the EVCR/US 199 intersection has been performed, but the relocation of the "DO NOT ENTER" sign is still needing to be done. The striping work at the EVCR/US 101 intersection is still needing to be done.

The Del Norte Local Transportation Commission and Del Norte County Community Development Department are supportive of advancing the Design Actions outlined in this memorandum. The advanced flashing beacon system that is activated by Elk Valley Cross Road traffic at the intersection of US 199 is an incremental improvement that the local agencies believe Caltrans should advance through the Project Development Process as quickly as possible. The grading of the roadside area to lower the existing grade has the benefits of improving the sight lines and providing a dedicated stormwater treatment area. The regular maintenance mowing and vegetation trimming to improve and maintain the maximum possible sight distance at the intersection also needs to be diligently performed.

Attachment: Elk Valley Cross Road @ US 199 Intersection Presentation, 3/30/2020

cc: Rosanna Bower, Del Norte County
David Morgan, Caltrans District 1
Tom Fitzgerald, Caltrans District 1

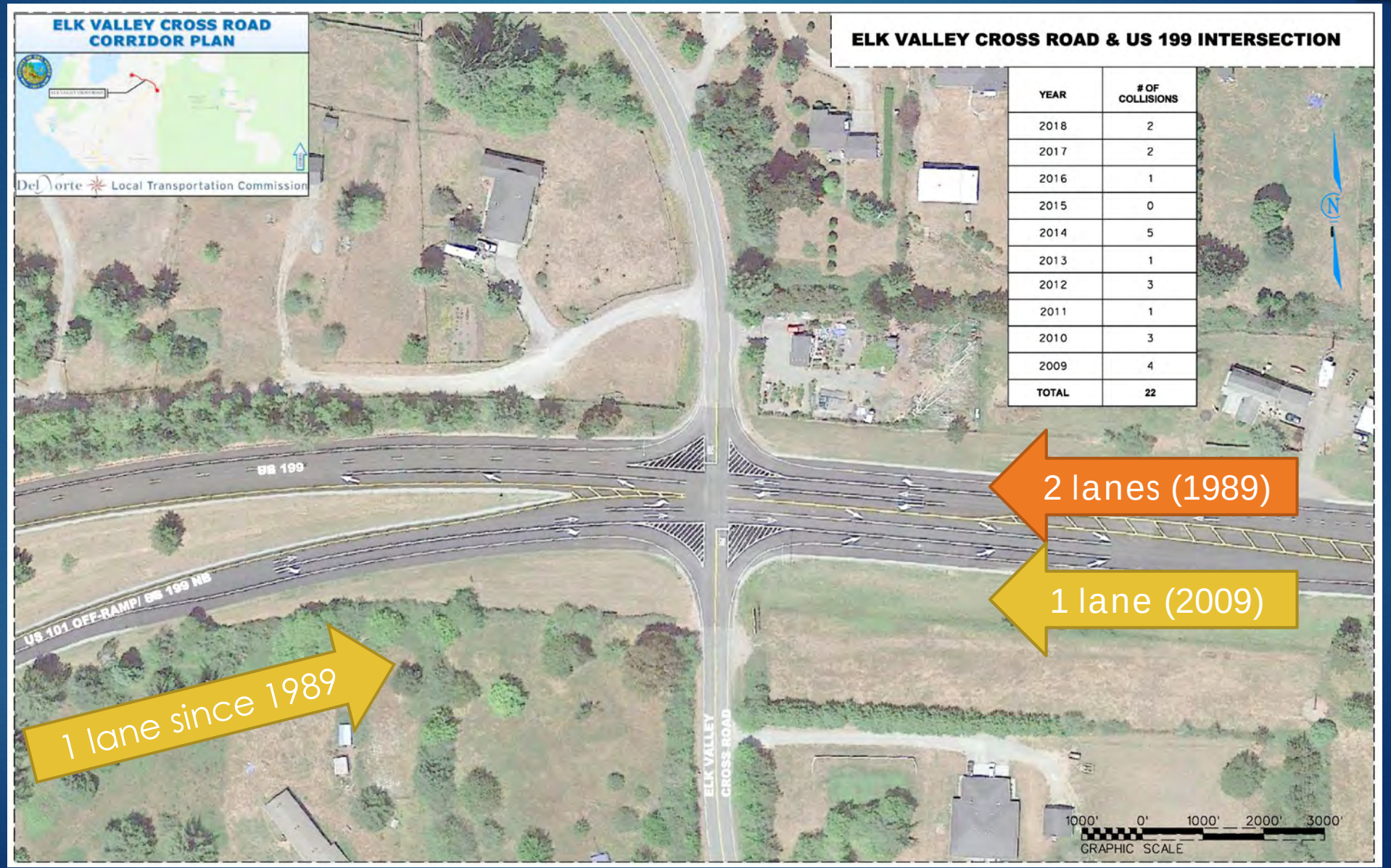
File: 2543-200/brs

Elk Valley Cross Road @ US 199 Intersection

DISCUSSION BETWEEN COUNTY, DNLTC AND CALTRANS DISTRICT 1 STAFF

MARCH 30, 2020

Intersection Overview



2014-2018 Collision Data

No.	CAH's Incident No	CASE_ID	ACCIDENT_YEAR	PROC_DATE	JURIS	COLLISION_DATE	COLLISION_TIME	OFFICER_ID	DAY_OF_WEEK	CHP_SHIFT	POPULATION	CNTY_CITY_LOC	SPECIAL_COND	BEAT_TYPE	CHP_BEAT_TYPE	CITY_DIVISION_LAPD	CHP_BEAT_CLASS	BEAT_NUMBER	PRIMARY_RD	SECONDARY_RD
1	1355	6505815	2014	20160509	9120	20140526	1230	15557	1	1	9	800	0	1	2		2	3	RT 199	ELK VALLEY CROSS RD
2	1358	6512602	2014	20160324	9120	20140616	1028	15557	1	1	9	800	0	1	2		2	3	RT 199	ELK VALLEY CROSS RD
3	1381	6555083	2014	20160423	9120	20140703	1555	15913	4	2	9	800	0	1	2		2	3	RT 199	ELK VALLEY CROSS RD
4	1464	6669127	2014	20160611	9120	20141007	1643	13564	2	2	9	800	0	1	2		2	3	RT 199	ELK VALLEY CROSS RD
5		6291236	2014	10/20/2014	9120	7/25/2014	1250	13388	5	1	9	800	0	1	2		2	3	RT 199	ELK VALLEY CROSS RD
6	743	90178633	2016	20160513	9120	20160423	1320	21221	6	1	9	800	0	1	2		2	3	UNITED STATES HIGHWAY 199	ELK VALLEY CROSS RD
7	367	90404858	2017	20170302	9120	20170225	2500	19072	6	4	9	800	0	1	2		2	1	ELK VALLEY CROSS RD	UNITED STATES HIGHWAY 199
8		90408997	2017	3/9/2017	9120	3/4/2017	1300	18748	6	1	9	800	0	1	2		2	3	RT 199	ELK VALLEY CROSS RD
9	23	90661411	2018	20180214	9120	20180203	1047	21863	6	1	9	800	0	1	2		2	3	US-199	ELK VALLEY CROSS RD
10		90795164	2018	20180821	9120	20180816	20	21221	4	3	9	800	0	1	2		2	3	UNITED STATES HIGHWAY 199	ELK VALLEY CROSS RD

No.	DISTANCE	DIRECTION	INTERSECTION	WEATHER_1	WEATHER_2	STATE_HWY_IND	CALTRANS_COUNTY	CALTRANS_DISTRICT	STATE_ROUTE	ROUTE_SUFFIX	POSTMILE_PREFIX	POSTMILE	LOCATION_TYPE	RAMP_INTERSECTION	SIDE_OF_HWY	TOW_AWAY	COLLISION_SEVERITY	NUMBER_KILLED	NUMBER_INJURED	PARTY_COUNT	PRIMARY_COLL_FACTOR	PCF_CODE_OF_VIOL	PCF_VIOL_CATEGORY	PCF_VIOLATION
1	0		Y	A	-	Y	DN	1	199	-	T	0.797	I	5	N	Y	4	0	1	2	A	-	9	21802
2	86	N	N	A	-	Y	DN	1	199	-	T	0.82	H	-	N	Y	0	0	0	2	A	-	9	21802
3	0		Y	A	-	Y	DN	1	199	-	T	80.797	I	6	N	Y	0	0	0	2	A	-	1	23152
4	0		Y	B	-	Y	DN	1	199	-	T	0.797	I	5	N	Y	3	0	3	3	A	-	9	21802
5	0		Y	A	-	Y	DN	1	199	-	T	0.797	I	5	N	Y	1	1	5	3	A	-	9	21802
6	0		Y	B	-	Y			199							Y	2	0	5	2	A	-	9	21802
7	70	N	N	B	-	N			199							N	0	0	0	1	A	-	8	22107
8	0		Y	C	-	Y			199							Y	4	0	2	2	A	-	9	21801
9	0		Y	A	-	Y			199							Y	4	0	1	2	A	-	9	21802
10	0		Y	B	-	Y			199							N	0	0	0	1	A	-	8	22107

No.	PCF_VIOL_SUBSECTION	HIT_AND_RUN	TYPE_OF_COLLISION	MVIW	PED_ACTION	ROAD_SURFACE	ROAD_COND_1	ROAD_COND_2	LIGHTING	CONTROL_DEVICE	CHP_ROAD_TYPE	PEDESTRIAN_ACCIDENT	BICYCLE_ACCIDENT	MOTORCYCLE_ACCIDENT	TRUCK_ACCIDENT	NOT_PRIVATE_PROPERTY	ALCOHOL_INVOLVED	STWD_VEHTYPE_AT_FAULT	CHP_VEHTYPE_AT_FAULT	COUNT_SEVERE_INJ	COUNT_VISIBLE_INJ	COUNT_COMPLAINT_PAIN
1	A	N	D	C	A	A	H	-	A	A	1					Y		A	1	0	0	1
2	A	N	B	C	A	A	H	-	A	A	1				Y	Y		F	26	0	0	0
3	E	N	D	C	A	A	H	-	A	A	0					Y		A	7	0	0	0
4	A	N	D	C	A	A	D	H	A	A	1					Y		A	7	0	1	2
5	A	N	D	C	A	A	H	-	A	A	1					Y		A	1	0	4	1
6	A	N	D	C	A	B	H	-	A	A	0					Y		A	7	1	1	3
7		M	E	I	A	B	H	-	D	D	0					Y		D	22	0	0	0
8	A	N	D	C	A	B	H	-	A	D	0					Y		A	7	0	0	2
9	A	N	D	C	A	A	H	-	A	A	0					Y		A	1	0	0	1
10		M	E	I	A	A	H	-	C	D	0					Y		-	99	0	0	0

2014-2018 Collisions and Rates

TABLE 7A: Elk Valley Cross Road - Crash Data by Intersection Location

2014 to 2018 Includes Crashes on Cross Streets Within 200 Feet of the Intersection
Does not include crashes on Elk Valley Cross Road greater than 200' from the intersections listed

			Crashes By Severity				Crashes by Type							Weather			Lighting				
Intersecting Street	Total Study Intersection Crashes	% Total Crashes	Property Damage Only	Injury	Fatality	Alcohol or Drugs Involved	Broadside	Sideswipe	Rear End	Hit Object	Head-On	Auto/Ped	Other	Clear	Cloudy	Raining	Daylight	Dusk/Dawn	Dark- ST LTS	Dark- NO ST LTS	Other
US 101	15	60%	9	6	0	2	12	0	1	2	0	0	0	8	6	1	4	6	5	0	0
SR 199	10	40%	3	6	1	2	8	1	0	1	0	0	0	5	4	1	9	0	1	0	0
TOTAL	25	100%	12	12	1	4	20	1	1	3	0	0	0	13	10	2	13	6	6	0	0
% Study Intersection Crashes			48%	48%	4%	16%	80%	4%	4%	12%	0%	0%	0%	52%	40%	8%	52%	24%	24%	0%	0%

Note: No crashes invloving bicyclists or pedestrians were reported at the intersections.

Source: SWITRS, NHTSA, TIMS.

Source: LSC Transportation Consultants Inc.

EVCR Crash Tables.xls

TABLE 9A: Intersection Crash Rates

2014 to 2018 Includes Crashes on Cross Streets Within 200 Feet of the Intersection

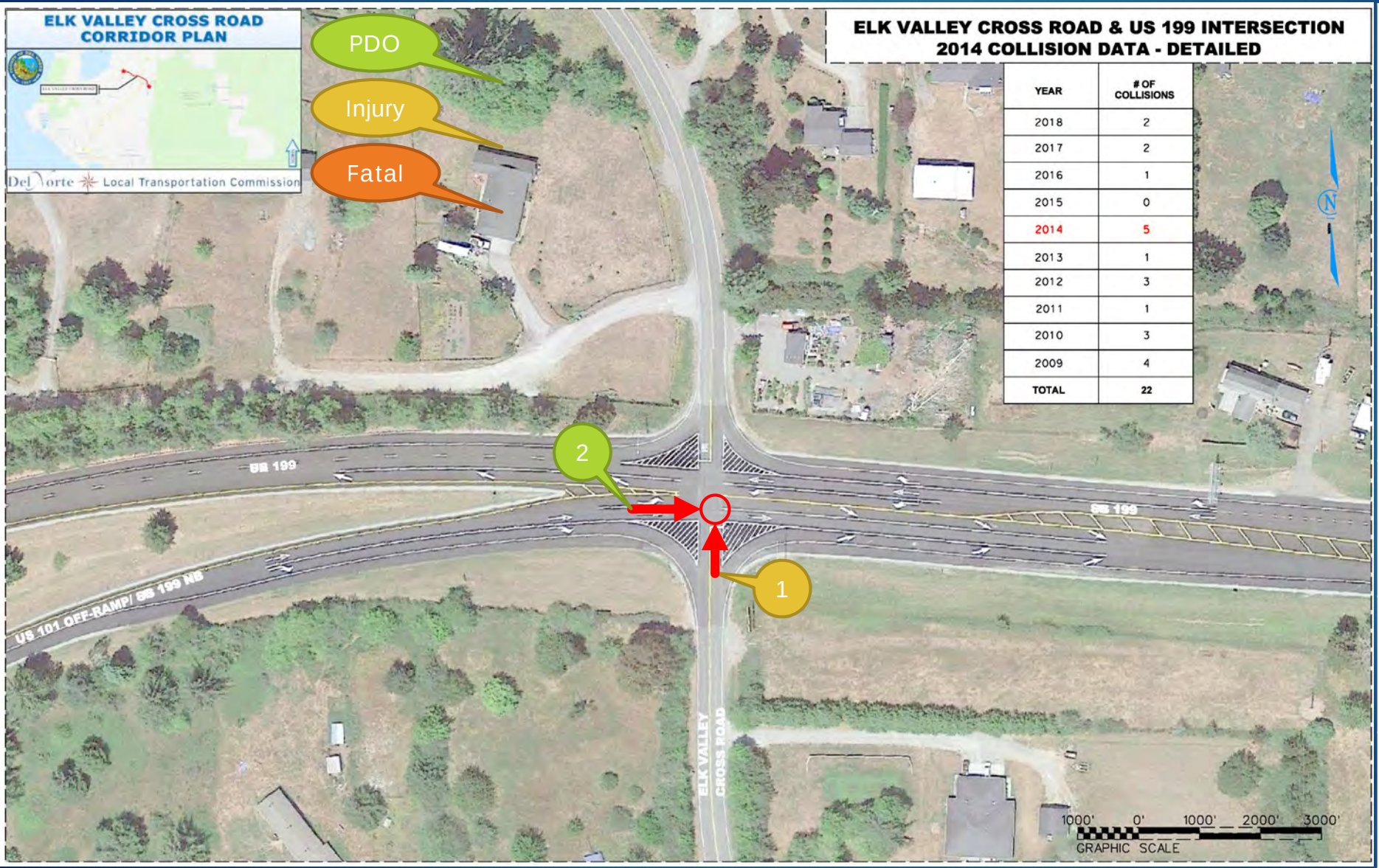
	Intersection Crashes			Actual Crash Rate (Crashes per MV)		Percent of Statewide Average Rate		Statewide Average Crash Rate By Intersection Type (Crashes per MV)	
Intersecting Street with Elk Valley Cross Road	Total	Injury or Fatality	% Injury or Fatal Crashes	Total	Injury or Fatality	Total	Injury or Fatality	Total	Injury or Fatal
US 101	15	6	40%	**0.88**	**0.35**	**402%**	**350%**	0.22	0.10
SR 199	10	7	70%	**1.49**	**1.04**	**677%**	**1032%**	0.22	0.10
TOTAL	**25**	**13**	52%						

Note: MV = Million Vehicles entering intersection
Note: Bold indicates a crash rate higher than the average rate

Source: SWITRS, NHTSA, TIMS, 2015 Collision Data on California State Highways
Source: LSC Transportation Consultants Inc.

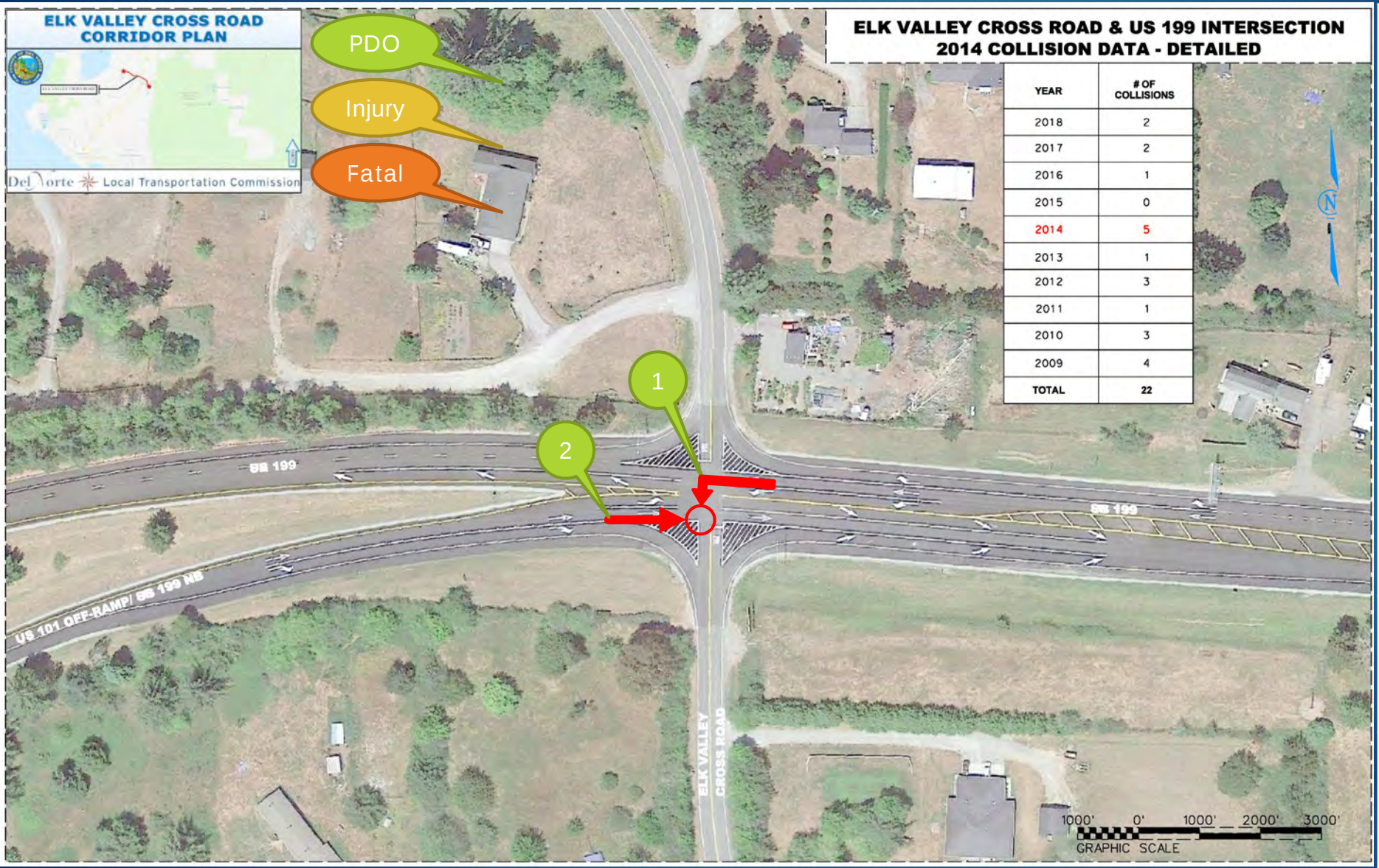
EVCR Crash Tables.xls

2014 Detailed look



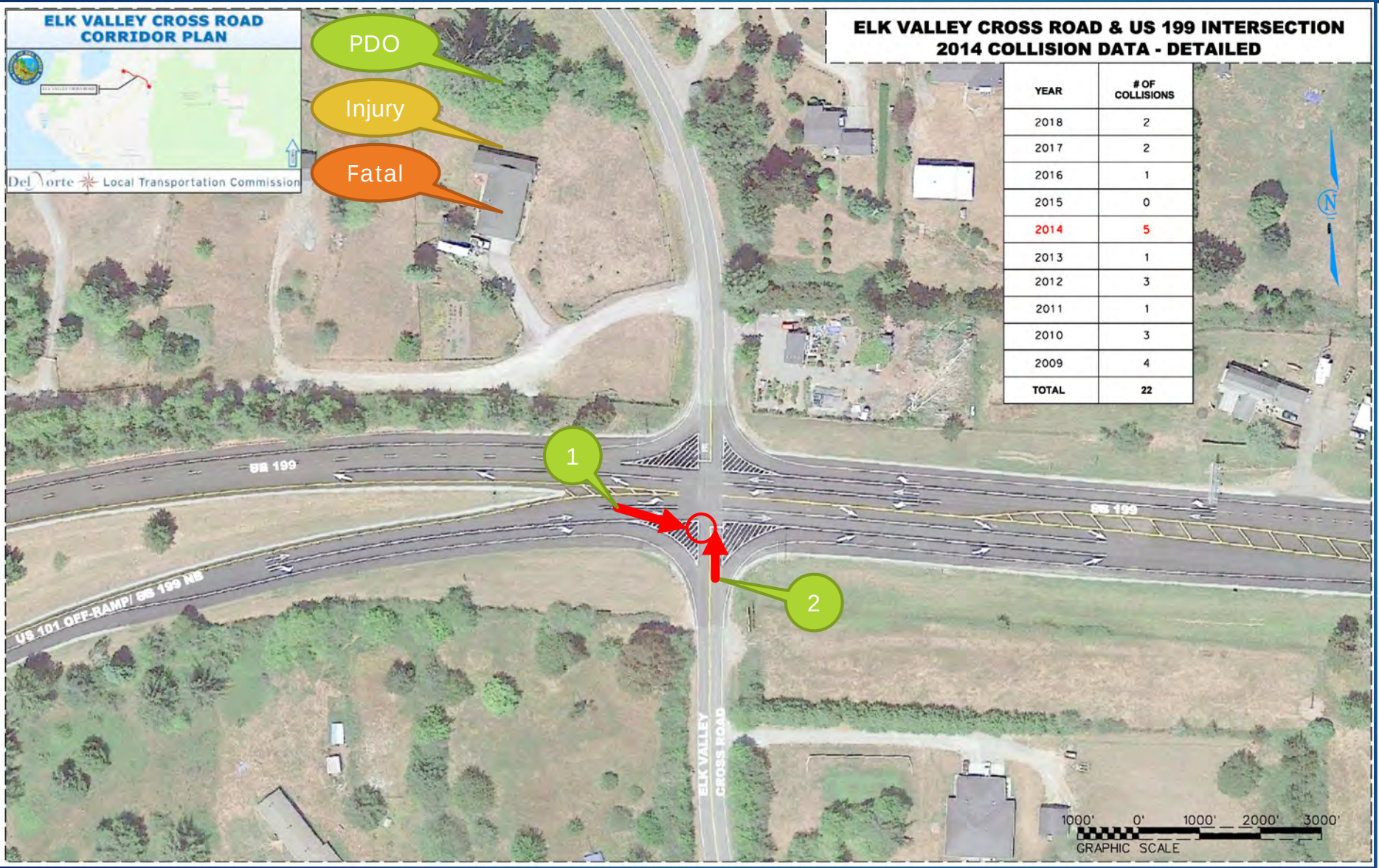
CASE_ID	TIME	Weather	Road
6505815	**1230**	**Clear**	**Dry**
6512602	1028	Clear	Dry
6555083	1555	Clear	Dry
6669127	1643	Cloudy	Dry
6291236	1250	Clear	Dry

2014 Detailed look



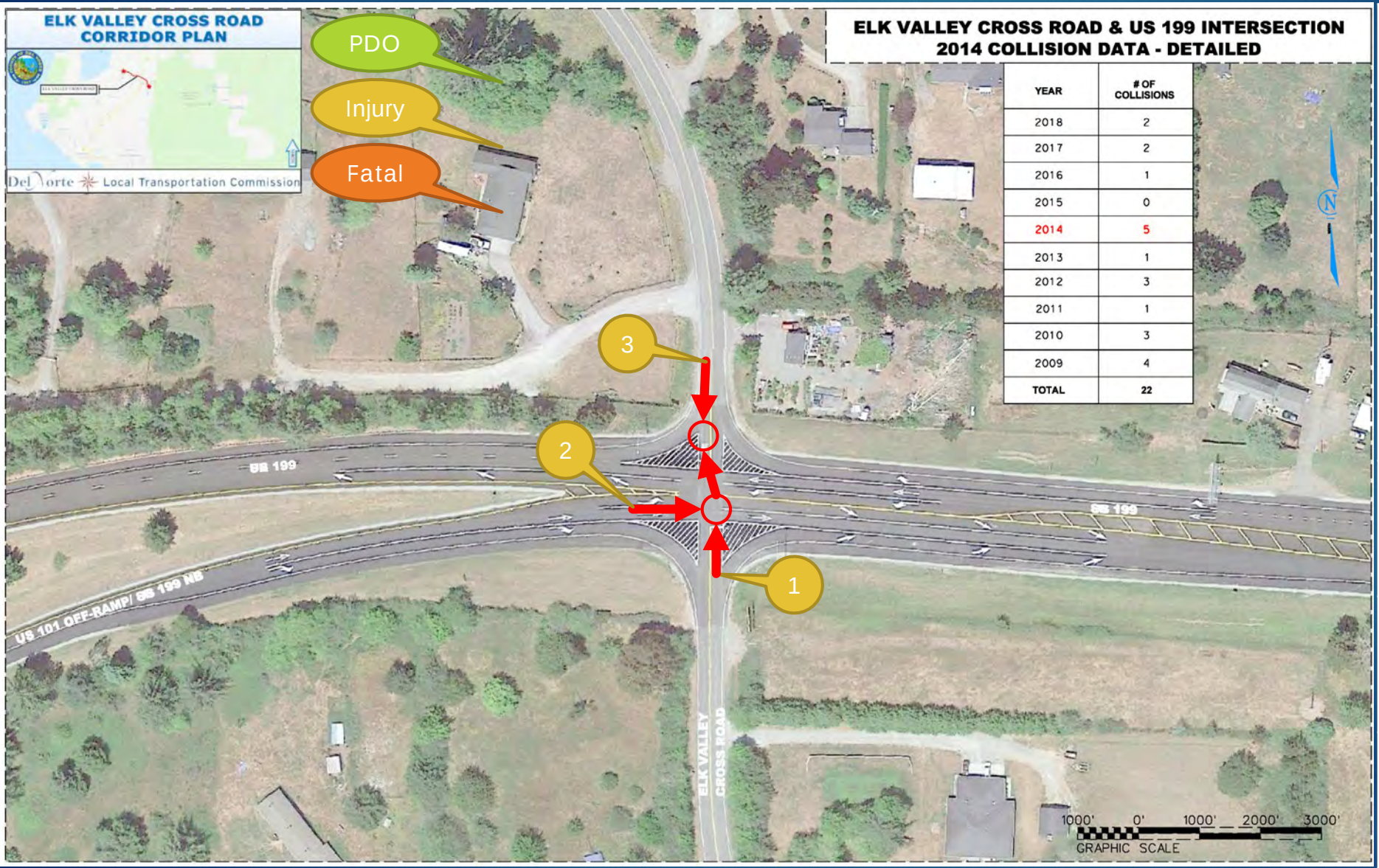
CASE_ID	TIME	Weather	Road
6505815	1230	Clear	Dry
6512602	**1028**	**Clear**	**Dry**
6555083	1555	Clear	Dry
6669127	1643	Cloudy	Dry
6291236	1250	Clear	Dry

2014 Detailed look



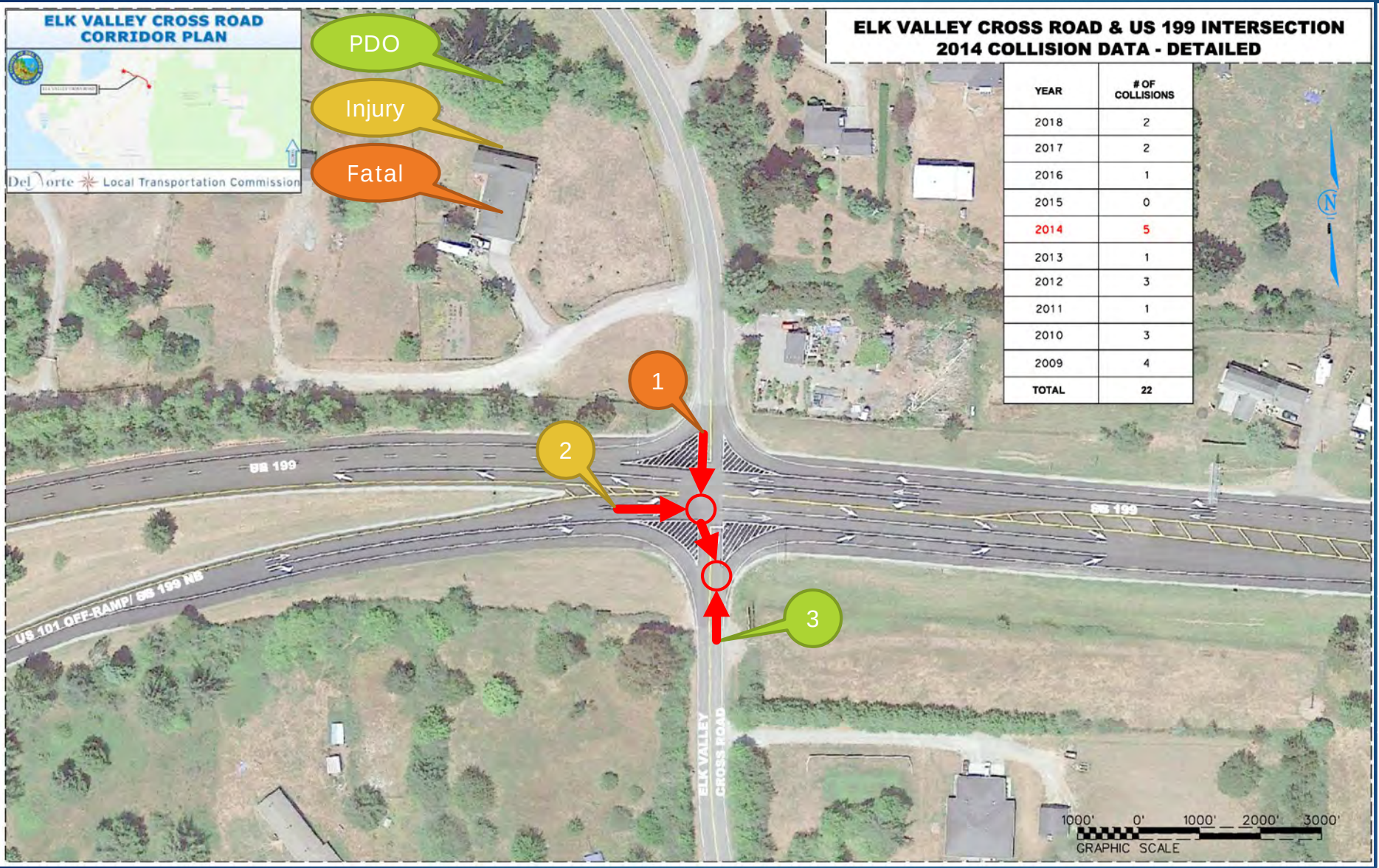
CASE_ID	TIME	Weather	Road
6505815	1230	Clear	Dry
6512602	1028	Clear	Dry
6555083	**1555**	**Clear**	**Dry**
6669127	1643	Cloudy	Dry
6291236	1250	Clear	Dry

2014 Detailed look



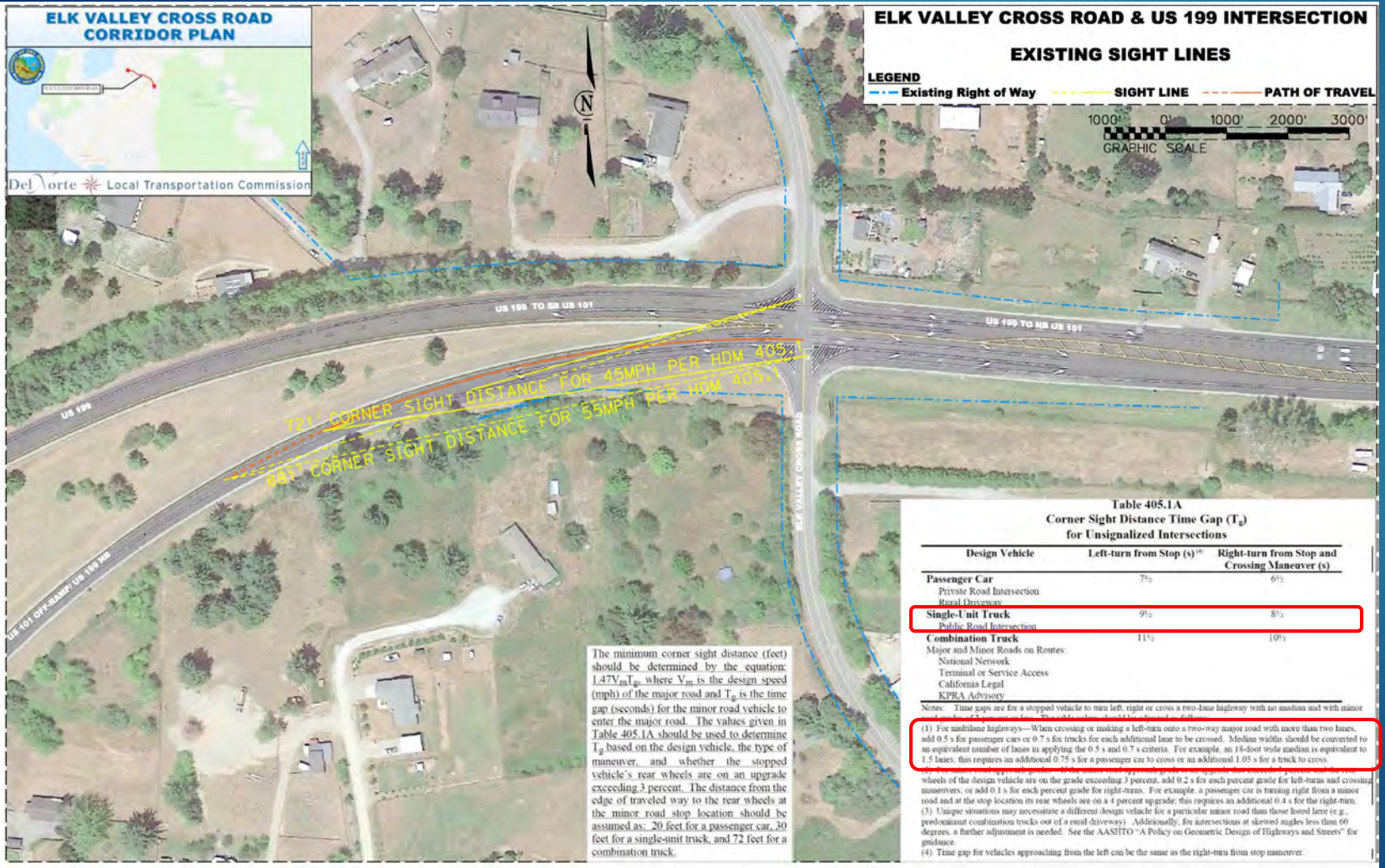
CASE_ID	TIME	Weather	Road
6505815	1230	Clear	Dry
6512602	1028	Clear	Dry
6555083	1555	Clear	Dry
6669127	**1643**	**Cloudy**	**Dry**
6291236	1250	Clear	Dry

2014 Detailed look



CASE_ID	TIME	Weather	Road
6505815	1230	Clear	Dry
6512602	1028	Clear	Dry
6555083	1555	Clear	Dry
6669127	1643	Cloudy	Dry
6291236	**1250**	**Clear**	**Dry**

Elk Valley Cross Road @ US 199 Sight Distance



Corner Sight Distance, per HDM 405.1				Design Speed, MPH		
Design Vehicle	Left Turn from Stop	Median Additional Time (2 lanes)	Total	45	50	55
	Sec	Sec	Sec	Distance, Ft		
Passenger Car	7.5	1.0	8.5	562	625	687
Single Unit Truck	9.5	1.4	10.9	721	801	881
Combination Truck	11.5	1.4	12.9	853	948	1043

Steps moving forward

Del Norte Region

SB 743 IMPLEMENTATION PLAN

June 2020

Del Norte Region SB 743 Implementation Plan

Prepared for:

Del Norte Local Transportation Commission
900 Northcrest Drive, PMB 16
Crescent City, CA 95531

City of Crescent City
377 J Street
Crescent City, CA 95531

County of Del Norte
981 H Street, Suite 110
Crescent City, CA 95531

Prepared By:

VRPA Technologies, Inc.
9747 Businesspark Avenue, Suite 210
San Diego, CA 92131
(858) 566-1766

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

APPENDICES

1 BACKGROUND

This chapter provides background information on Senate Bill 743 (SB 743) and the need to conduct vehicle miles traveled (VMT) analyses for CEQA transportation studies.

1.1 SB 743 Legislation

SB 743 was passed by the legislature and signed into law in the fall of 2013. This legislation led to a change in the way that transportation impacts will be measured under the California Environmental Quality Act (CEQA). Starting on July 1, 2020, automobile delay and level of service (LOS) may no longer be used as the performance measure to determine the transportation impacts of land development projects under CEQA. Instead, an alternative metric that supports the goals of the SB 743 legislation will be required. Although there is no requirement to use any particular metric, the use of VMT has been recommended by the Governor's Office of Planning and Research (OPR). This requirement does not modify the discretion lead agencies have to develop their own methodologies or guidelines, or to analyze impacts to other components of the transportation system, such as walking, bicycling, transit, and safety. SB 743 also applies to transportation projects, although agencies were given flexibility in the determination of the performance measure for these types of projects. SB 743 does not affect General Plans, traffic impact fee programs, or the Subdivision Act.

The intent of SB 743 is to bring CEQA transportation analyses into closer alignment with other statewide policies regarding greenhouse gases, complete streets, and smart growth. It is also intended to promote public health through active transportation such as bicycling and walking. Using VMT as a performance measure instead of LOS is intended to discourage suburban sprawl, reduce greenhouse gas emissions, and encourage the development of smart growth, complete streets, and multimodal transportation networks.

1.2 Governor's Office of Planning and Research (OPR) Technical Advisory

The SB 743 legislation designated OPR to write detailed guidelines for implementation. The process of writing guidelines started in January 2014 and concluded in 2018. SB 743 was incorporated into CEQA by the Natural Resources Agency in December 2018 with a required implementation date of July 1, 2020. The incorporation documents included a December 2018 Technical Advisory written by OPR which represents the current statewide guidance for the implementation of SB 743.

Under CEQA, lead agencies can determine their own methodologies and significance thresholds for CEQA technical analyses, but they are also required to provide substantial evidence as a basis of their decisions, if challenged. In its Technical Advisory, OPR generally provides substantial evidence for its recommendation. However, even OPR's recommendations are subject to challenge, and if an agency were to rely on the Technical Advisory recommendations, that agency would need to be prepared to defend the recommendations and produce the substantial evidence. OPR is not in a position to defend the Technical Advisory recommendations for agencies that choose to use it.

While OPR provides recommendations on many aspects of conducting a CEQA transportation analysis using VMT, OPR's guidance is not comprehensive and some key decisions are left for lead agencies to determine. Examples of key decisions left to the discretion of lead agencies include

VMT analysis methodology, significance thresholds for land development projects in rural areas, and significance thresholds for transportation projects in all areas.

1.3 Previous Transportation Studies in the Del Norte Region

Overall planning for transportation facilities in the Del Norte region is guided by the Regional Transportation Plan (RTP), which was completed in 2016. The RTP provides traffic analysis of existing conditions and a future planning horizon of 2036. It also provides a prioritized set of transportation improvements that the region will be pursuing in the future.

Future traffic forecasts for the RTP were prepared using the Del Norte County Travel Demand Model (DNCTDM) which was developed by Caltrans District 1. While the DNCTDM may have applications in traffic forecasting or other purposes, this report recommends using the California Statewide Travel Demand Model (CSTDM) for VMT analysis of typical projects. Caltrans has provided base-year (2010) and horizon year (2040) VMT/capita and VMT/employee values for the entire state broken down by county and by geographical units known as traffic analysis zones (TAZ's) within each county. The CSTDM was considered a better choice due to a couple of considerations:

- The DNCTDM would have to be modified to produce VMT/capita and VMT/employee values that are already available from the CSTDM.
- The CSTDM incorporates travel to other California counties (primarily Humboldt County) that is an important consideration in VMT analysis and the DNCTDM does not.

Although this report does not recommend use of the DNCTCM for VMT analysis of typical projects at this time, it is possible that the current version of the DNCTDM could be modified to be appropriate for VMT analysis or a future version of the DNCTDM could be developed that would be appropriate for VMT analysis.

1.4 Regulatory Environment

The adoption of SB 743 into CEQA requires a change in the way that lead agencies throughout California conduct transportation studies for CEQA environmental documents. This report provides recommendations for accommodating this change. Examples of current lead agencies in the Del Norte Region include the following:

- Del Norte County
- Del Norte County Local Agency Formation Commission
- Del Norte County Local Hospital District
- Del Norte County Unified School District
- Del Norte County Local Transportation Commission
- Del Norte Solid Waste Management Authority
- City of Crescent City
- Crescent City Harbor District

2 PURPOSE AND OBJECTIVE OF VMT ANALYSIS

2.1 Purpose of VMT Analysis

Given the information provided in Chapter 1, the purposes of VMT analysis can be stated as follows:

- VMT analysis is needed to meet statewide requirements for transportation analyses conducted under CEQA.
- VMT analysis (along with efforts to reduce VMT) can support statewide goals for climate change, sustainability, multimodal transportation networks and active transportation.

2.2 Purpose of SB 743 Implementation Plan

The SB 743 Implementation Plan provides recommendations at a regional level for the conduct of CEQA transportation analyses using VMT to incorporate SB 743. While this plan provides recommendations, CEQA leaves the final authority to determine methodologies and thresholds to lead agencies (i.e. the City of Crescent City, Del Norte County, and other local agencies). Lead agencies within the Del Norte region may wish to adopt the recommendation included in this plan or write their own guidelines based on concepts described in this plan. Lead agencies should be prepared to provide justification to support their decisions regarding VMT analysis and thresholds. Both OPR's Technical Advisory and this Implementation Plan may be used in providing justification.

Although this plan is intended to be comprehensive, not all aspects of VMT analysis can be addressed in a single document. Lead agency staff will need to use judgment in applying the information in this plan to specific projects and situations. Exceptions and additions to the recommendations may need to occur on a case-by-case basis.

2.3 Coordination with Other Agencies

Preparation of a VMT analysis will require coordination with other agencies as follows:

- Caltrans will review and provide comments on certain VMT analyses, particularly if the project requires a Caltrans encroachment permit to modify a state highway or if it is considered to have a substantial effect on state highway facilities. Caltrans is currently developing guidance to determine how to select projects that have a substantial effect on state highway facilities. Lead agencies have the obligation to respond to comments made by Caltrans, but they can decide how best to incorporate comments into the analysis and the decision process.
- Although most VMT analyses are expected to be conducted using the methodology included in these guidelines, it may be decided that a regional travel demand model is the most appropriate methodology for some projects. The Del Norte County Travel Demand Model described in Chapter 1 may be used for VMT analysis in these cases. Prior to using the model, consideration should be given as to whether updates to the model are needed to reflect roadway network or land use changes that have occurred since 2016.
- Detailed coordination with adjacent counties and jurisdictions will not normally be required unless a proposed mitigation measure crosses jurisdictional boundaries.

3 LAND DEVELOPMENT PROJECTS

This chapter provides guidance on conducting VMT analyses for land development projects, including single-use projects, mixed-use projects, redevelopment projects, and specific plans.

3.1 Overview of Analysis

The VMT analysis methodology for land development projects was developed in order to accomplish the following:

- Meet the requirements of CEQA, including the new SB 743 regulations that were adopted into CEQA in December 2018 and go into effect on July 1, 2020.
- Provide for transportation improvements to be built that benefit residents of the Del Norte region and facilitate travel by walking, bicycling, and transit.
- Provide for analysis and mitigation of VMT impacts in a way that does not create an undue burden for project applicants and lead agencies in the Del Norte region.

The starting point for the VMT analysis provided in these guidelines was OPR's December 2018 technical advisory. OPR recommends determining the project VMT/capita or VMT/employee and comparing it to regional and/or city-wide averages. For urban, suburban, and rural areas within counties that are part of Metropolitan Planning Areas (MPO's), OPR recommends use of VMT/capita and VMT/employee significance thresholds that are 15% below the appropriate averages. OPR also states that for rural areas outside MPO's, significance thresholds may be best determined on a case-by-case basis.

Building on the OPR guidance, these guidelines provide a refined VMT analysis specifically tailored to the Del Norte region. Since Del Norte County is a non-MPO county, OPR's recommendation of determining significance thresholds on a case-by-case basis apply directly to the Del Norte region.

Project VMT/capita and VMT/employee can be most easily determined using a travel demand model, either by running the model for each specific project VMT analysis or by creating maps and tables showing average VMT/capita and VMT/employee values for the area of interest. The Del Norte County Travel Demand Model described in Chapter 1 was considered for use in conducting VMT analysis, but it was decided not to use this model for the following reasons:

- While the Del Norte regional model was set up to provide traffic forecasts on individual roadways and regional VMT values, modifications or additions to the model would be needed to provide the VMT/capita and VMT/employee values recommended as performance measures for SB 743 analyses.
- OPR's technical advisory recommends that VMT calculations include VMT generated outside regional boundaries and the Del Norte regional model truncates trips at the regional boundary.

In its Technical Advisory, OPR refers to the process described above for small projects as "map-based screening". OPR recommends this methodology for determining which projects are located in VMT-efficient areas and can therefore be "screened out" from requiring a VMT analysis. For the

Del Norte region, this process is extended to allow for the map-based analysis of VMT/capita and VMT/employee values.

Thresholds of significance for VMT analysis are also based on OPR's recommendations, but some refinements have been made to reflect conditions in the Del Norte region:

- OPR recommends that residential and office projects compare project VMT/capita or VMT/employee to regional or city-wide averages. For the Del Norte region, these comparisons are made between project VMT and the average VMT/capita or VMT/employee for the traffic analysis zone (TAZ) in which the project is located. A TAZ typically represents an area with common travel characteristics throughout the geographic area of the TAZ.

- OPR recommends a significance threshold of 15% below average. For the Del Norte region, the significance threshold is below the TAZ average. Therefore, projects that have a VMT/capita or VMT/employee equal to or above the TAZ average would be presumed to have a significant transportation impact.

- OPR recommends that local-serving retail projects can be presumed to have a less than significant transportation impact. This is because local-serving retail typically reduces trip lengths by providing additional destinations that tend to replace trips to more distant retail locations. For the Del Norte region, this concept is also used and it is extended to other types of local-serving projects such as public facilities, parks, and local-serving medical offices. Nearly all retail projects expected to be developed in the Del Norte region are expected to be local serving. An exception may occur if a retail development were to be built that would serve a large number of customers traveling into the Del Norte region for the purpose of visiting the retail facility (for example, a Walmart or Home Depot retail store). OPR recommends that a retail development greater than 50,000 sq. ft. in size may be considered regional rather than local-serving and lead agencies may use this guidance in determining the status of retail projects.

- OPR does not recommend a specific threshold for industrial projects. For the Del Norte region, an industrial project has a significant impact if its VMT/employee equals or exceeds average VMT/employee for the TAZ in which the project is located. It should be noted that goods movement is not subject to VMT analysis. Therefore, goods movement trips associated with an industrial project would not be included when determining VMT/employee.

While many projects will go through the process described above to analyze VMT, some projects will be determined to be "screened out" due to project size or project type. These projects are described in Section 3.2.

Figure 3-1 shows a flow chart that summarizes the VMT analysis process. The most recent Del Norte region Traffic Zone Analysis Maps are shown in Figure 3-2. These maps provide a general indication of the location of TAZ's within The Del Norte region. At the time of preparation of this report, more detailed TAZ maps were available on the website of the Northern California Section of the Institute of Transportation Engineers (www.norcalite.org). In the future these maps may be

available from the Caltrans SB 743 website (https://dot.ca.gov/programs/transportation-planning/office-of-smart-mobility-climate-change/sb-743). The lead agency should be consulted if different there is a discrepancy in Caltrans and ITE maps posted for the same area. VMT/capita and VMT/employee values for base year conditions based on the CSTDM are shown in Table 3-1.

It should be noted that some projects include a mix of land uses. For these projects, one way to conduct the VMT analysis would be to use the methodology described above and analyze VMT impacts and mitigation for each land use type separately. An alternative approach would be to conduct an analysis to determine the VMT reduction that would occur due to internal capture (i.e. trips between different land uses that occur within the project site).

Table 3-1 Vehicle Miles Traveled Analysis for Del Norte Region Traffic Analysis Zone

Zone Number	Base Year Daily VMT Per Capita	Base Year Daily VMT Per Employee
100	5.08	23.07
101	7.0	20.92
102	7.96	21.62
103	24.71	22.33
104	30.13	39.79

(1) Source: California Statewide Travel Demand Model. See Caltrans SB 743 Website https://dot.ca.gov/programs/transportation-planning/office-of-smart-mobility-climate-change/sb-743 and Northern California Institute of Transportation Engineers website www.norcalite.org. .

(2) This table is current as of the time of preparation of this report and should be updated whenever Caltrans provides updated VMT per capita and VMT per employee information.

3.2 Screening Criteria

Following is a description of projects that would have a less than significant transportation impact due to project size or project type. If a project meets at least one of the following screening criteria, it would not require a detailed VMT analysis. However, a discussion summarizing the applicability of relevant screening criteria should be prepared for projects for traffic generating projects in excess of 60 trips per day.

It should be noted that, in addition to the list below, OPR's Technical Advisory recommends that projects in Transit Priority Areas (TPA's) may be screened out from consideration to conduct a VMT analysis. However, TPA's require the presence of a rail station or buses running at headways of 15 minutes or less and there are no TPA's in the Del Norte region.

3.2.1 Small Projects

Some projects are small enough that they can be presumed to have a less than significant transportation impact without doing a detailed VMT analysis. For The Del Norte region, projects that generate less than 110 trips per day can be presumed to have a less than significant impact, per OPR's technical Advisory. Trip generation would normally be determined using the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. Other potential sources include the San Diego Association of Governments (SANDAG) trip generation guide (Not So Brief Guide of Vehicular Traffic Generation Rates in the San Diego Region, April 2002), articles in the ITE Journal, and customized trip generation rates based on individual research.

3.2.2 Local-Serving Retail and Similar Land Uses

Per OPR's Technical Advisory, local-serving retail uses are presumed to have a less than significant impact on VMT since they tend to attract trips from adjacent areas that would have otherwise been made to more distant retail locations. This presumption also applies in the Del Norte region.

Other developments that are not technically retail may fall under this category such as medical offices, insurance agents, and other offices that are intended to serve the general public. Project applicants may submit a written analysis to the lead agency for a determination on whether the local serving status applies.

3.2.3 Local-Serving Public Facilities (Excluding Schools)

Similar to retail land uses, local-serving public facilities other than schools are presumed to have a less than significant impact on VMT. This would include government facilities intended to serve the local public, and parks.

3.2.4 Affordable Housing Projects

OPR's Technical Advisory allows for a less than significant finding for transportation impacts of residential projects that that are 100% affordable housing located in infill areas.

3.2.5 Redevelopment Projects That Result in a Net Reduction of VMT

Per CEQA, projects are considered to have a less than significant impact if they result in a net reduction in the relevant performance measure (in this case VMT). Therefore, redevelopment projects in the Del Norte region that generate less VMT than the existing project they are replacing would be considered to have a less than significant impact on VMT. Since VMT/capita and VMT/employee are efficiency metrics, a redevelopment project that would produce more VMT than the existing project it is replacing would need to conduct a VMT analysis assuming the proposed land use (with no credit taken for the existing land use) to determine whether the proposed project meets the applicable significance thresholds (i.e. a value below the appropriate average VMT/capita or VMT/employee).

3.3 Significance Thresholds

Significance thresholds for land development projects are summarized below. Additional discussion and substantial evidence can be found in Appendix A.

- Residential Projects: A significant transportation impact occurs if the project VMT per capita equals or exceeds the average VMT per capita for the TAZ where the project is located.
- Office Projects: A significant transportation impact occurs if the project VMT per employee equals or exceeds the average VMT per employee for the TAZ where the project is located.
- Regional Retail Projects: A significant transportation impact occurs if the project results in a net increase in VMT.
- Industrial Projects: A significant transportation impact occurs if the project VMT per employee exceeds the average VMT per employee for the TAZ where the project is located.

Table 3-2 includes information on project types not described above.

Table 3-2 VMT Analysis of Various Land Use Types

VMT Analysis Methodology	Applicable Project Types	
Residential	• Congregate Care Facility • Estate Housing • Mobile Home	• Multiple Dwelling Unit (all sizes) • Retirement/Senior Citizen Housing • Single Family Detached
Office/Employment	• Agriculture • Hospital: Convalescent/Nursing • Hospital: General • Industrial/Business Park • Scientific Research and Development • Hotel (w/convention facilities/restaurants) • Motel • Resort Hotel • Military Base	• Commercial Office • Corporate Headquarters/Single Tenant Office • Medical Office • Government Office (Primarily Office with Employees) • Industrial: Manufacturing/Assembly • Industrial: Rental Storage • Industrial: Truck Terminal • Industrial: Warehousing
Retail and Public Facilities	• Shopping Center • Automobile Services • Convenience Market Chain • Discount Store/Discount Club • Drugstore • Furniture Store	• Racquetball/Tennis/Health Club • Sport Facility (Indoor or Outdoor) • Winery • Special Event Facility • Schools (unless determined to draw students from outside the local area

VMT Analysis Methodology	Applicable Project Types	
	• Lumber/Home Improvement Store • Nursery • Restaurant • Specialty Retail Center/Strip Commercial • Supermarket • Financial Institution (Bank or Credit Union) • Bowling Center • Movie Theater	• Day Care Center/Child Care Center • Library • Department of Motor Vehicles • Government Offices (Primarily Serving Customers? • Post Office • Park & Ride Lot • Transit Station • Neighborhood Park (developed or undeveloped)

3.4 Mitigation

Using the methodology described above, most projects that do not meet the screening criteria would be expected to have a significant VMT impact. The recommended method of VMT mitigation is for projects to provide transportation improvements that facilitate travel by walking, bicycling, or transit. This can be accomplished as follows:

- A survey may be conducted within one half mile of the project site to determine any gaps in facilities for walking, bicycling, or transit. For example, this could include repair of damaged sidewalks, installation of curb ramps, provision of bicycle lanes, or improvement to transit stops or access to transit stops.
- If suitable improvements are not found within one half mile of the project site, improvements could be suggested in more distant locations as long as they support walking, bicycling, and transit in the unincorporated area of the Del Norte region.
- The project list in Appendix B based on the Del Norte region Active Transportation Plan can be consulted for potential projects that could be used for VMT mitigation.
- In order to provide VMT mitigation for CEQA purposes, the improvements and/or payments provided must be substantial and in proper scale with the proposed development. The lead agency has the authority to determine whether a particular set of mitigation measures is appropriate for a particular project. However, the recommendations listed below are provided to assist lead agencies in making decisions regarding mitigation.
- A VMT mitigation cost per single family home (or the equivalent), consisting of the following improvements (or a combination thereof) is recommended as both substantial and in scale with the development:

  - 0.5 new curb ramps

  - 15 linear feet of sidewalk with no curb and gutter

- 7.5 linear feet of sidewalk with curb, gutter, and asphalt patch

- The improvements recommended above are based on the scenario of a single-family home in Crescent City with a typical lot size (60 ft. by 120 ft.) that is required to build sidewalk as a frontage improvement on a street that already has curb and gutter. It is estimated that 60 ft. of sidewalk would be needed at a cost of $85 per linear foot or a total of $5,100. For offsite mitigation for VMT impacts, it is recommended that 25% of this value be used or $1,275. This is equal to the estimated cost of the three improvements described above. Al costs are in 2020 dollars.

- The intended location of improvements may be relocated by lead agency staff if all or a portion of the improvements are completed but not by the permittee or a different location is agreeable between the permittee and lead agency staff or a comparable improvement is agreeable between the permittee and lead agency staff. At the time of design and/or construction, up to an additional 25% increase in area of the constructed improvements can be required by lead agency staff if it would result in an infrastructure gap closure. facilities may be used instead of the improvements identified above if a suitable project is approved by the lead agency.

- If the lead agency is willing to accept a payment instead of the construction of physical improvements, recommended values are $1,275 per single family home (or equivalent), plus 25% for infrastructure gap closures, and an additional 50% for administration and compliance with public works construction obligations for public agencies applied to the (single family home (or equivalent) plus infrastructure gap closure) project amount. It would be understood that the improvements would be made by the lead agency. In cases where a payment is accepted in lieu of transportation improvements, the payment must be adjusted for inflation based on the date of project approval using the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). Also, when a payment is used for mitigation, the lead agency must be prepared to provide assurances that the payment will be used for appropriate transportation improvements.

- Bicycle facilities may be used instead of the improvements identified above if a suitable project is approved by the lead agency.

- For project types other than single family homes, trip generation should be used to determine the amount of development equivalent to single family homes. For example, if single family homes generate trips at a rate of 10 trips per day and office generates trips at a rate of 20 trips per day per 1,000 sq. ft., a 10,000 sq. ft. office would generate the same number of daily trips as 20 single family homes (i.e. each would generate 200 daily trips). The level of mitigation recommended for either of these developments would be two new curb ramps. 200 linear feet of sidewalk (with no curb and gutter), or 120 feet of sidewalk (with curb, gutter, and asphalt patch).

- Trip generation would normally be determined using an accepted trip generation guide such as the Institute of Transportation Engineers (ITE) Trip Generation Manual. Other potential sources include the San Diego Association of Governments (SANDAG) trip generation guide (Not So Brief Guide of Vehicular Traffic Generation Rates in the San Diego

Region, April 2002), articles in the ITE Journal, and customized trip generation rates based on individual research.

- It should be noted that projects proposed for mitigation may not exactly match the number of curb ramps or linear feet of improvements noted above and rounding up may be needed to create a viable project or logical endpoint. For example, development of anywhere from 11 to 20 single family homes would require the installation of two curb ramps as mitigation since it is not practical to install a partial curb ramp. As an additional example, if a development of 20 single family homes is proposed, and a gap in sidewalks 220 feet (with no curb and gutter) is found near the project site, the recommended mitigation would be 220 feet of sidewalk in order completely fill the gap rather than building 200 feet of sidewalk and leaving a 20 foot gap. As mentioned above, an increase of up to 25% in the area of the improvement is considered reasonable for gap closures.
- Implementing mitigation along the frontage of a vacant parcel is discouraged as development of vacant parcels should result in improvements.
- Gap closures and accessible curb ramps are a priority for mitigation. The focus should be on (in descending order) arterials, major collectors, minor collectors, and local roadways.
- If a project provides mitigation that meets the recommended mitigation costs described above (or similar mitigation approved by the lead agency), it can presume a 1% reduction in VMT for reporting purposes. In most cases, this will be sufficient to reduce a project's VMT impacts to insignificant levels.

3.5 Step by Step Summary of VMT Analysis for Land Development Projects

Following is a step by step summary of the process for VMT analysis of land development projects. Several case study examples are provided in Appendix C:

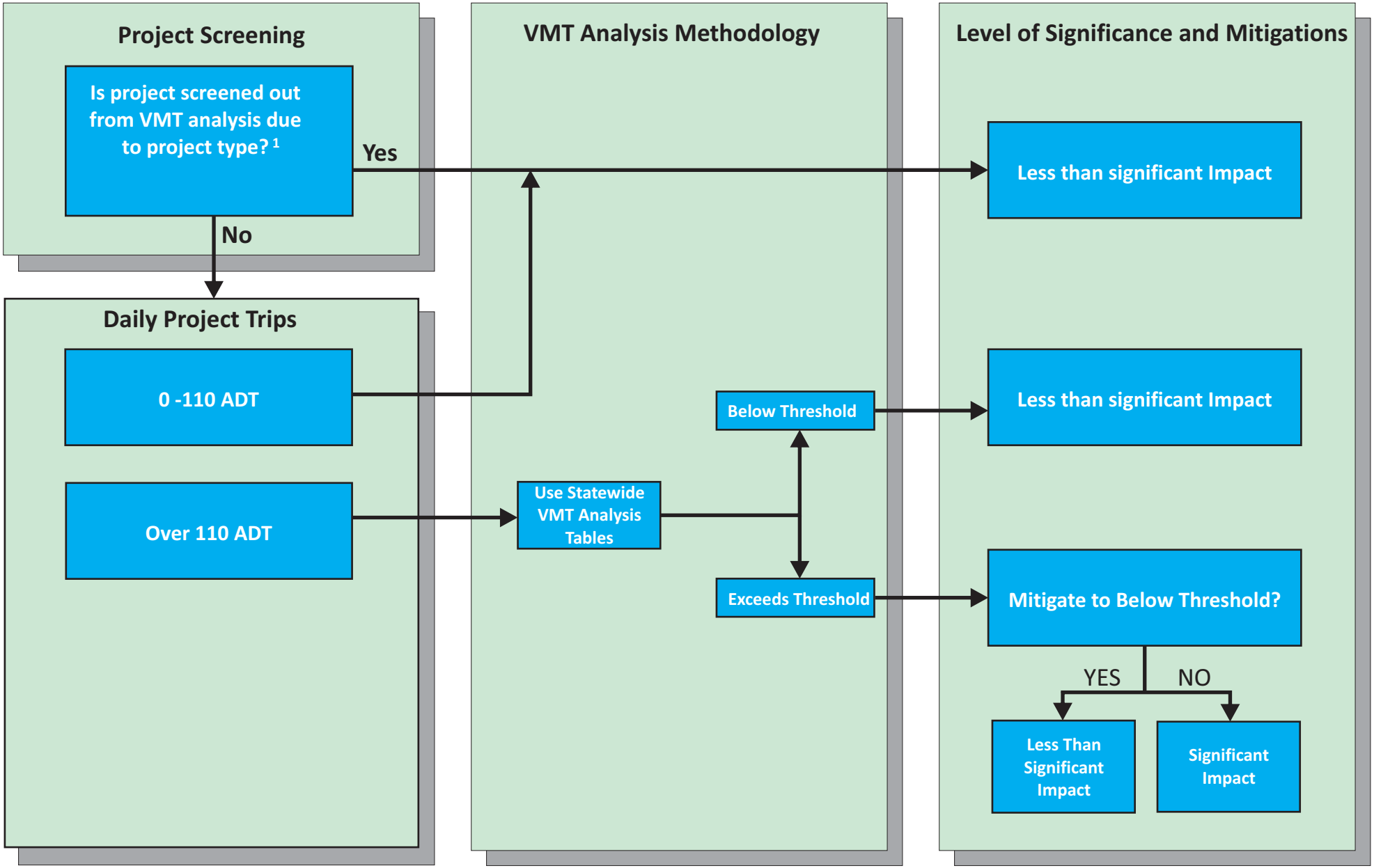
- Determine whether the project is screened out of the requirements to conduct a VMT analysis using the screening criteria described in Section 3.2.
- If the project is not screened out, determine the TAZ where the project is located based on the maps shown in Figure 3-2 or the more detailed maps as described in Section 3.1.
- Determine the average VMT/capita or VMT/employee for the TAZ in which the project is located based on Table 3-1.
- Unless the project has unusual characteristics that would result in less VMT generation than a typical project, assume the project VMT/capita or VMT/employee is the same as the average for the TAZ in which the project is located. This would normally result in a significant VMT impact.
- Provide VMT mitigation as described in Section 3.4.

3.6 Additional VMT Methodologies for Unusual Situations

For some projects, it may be appropriate to conduct VMT analysis in a manner different than what is described above. This could apply to very large projects that are considered to require a model

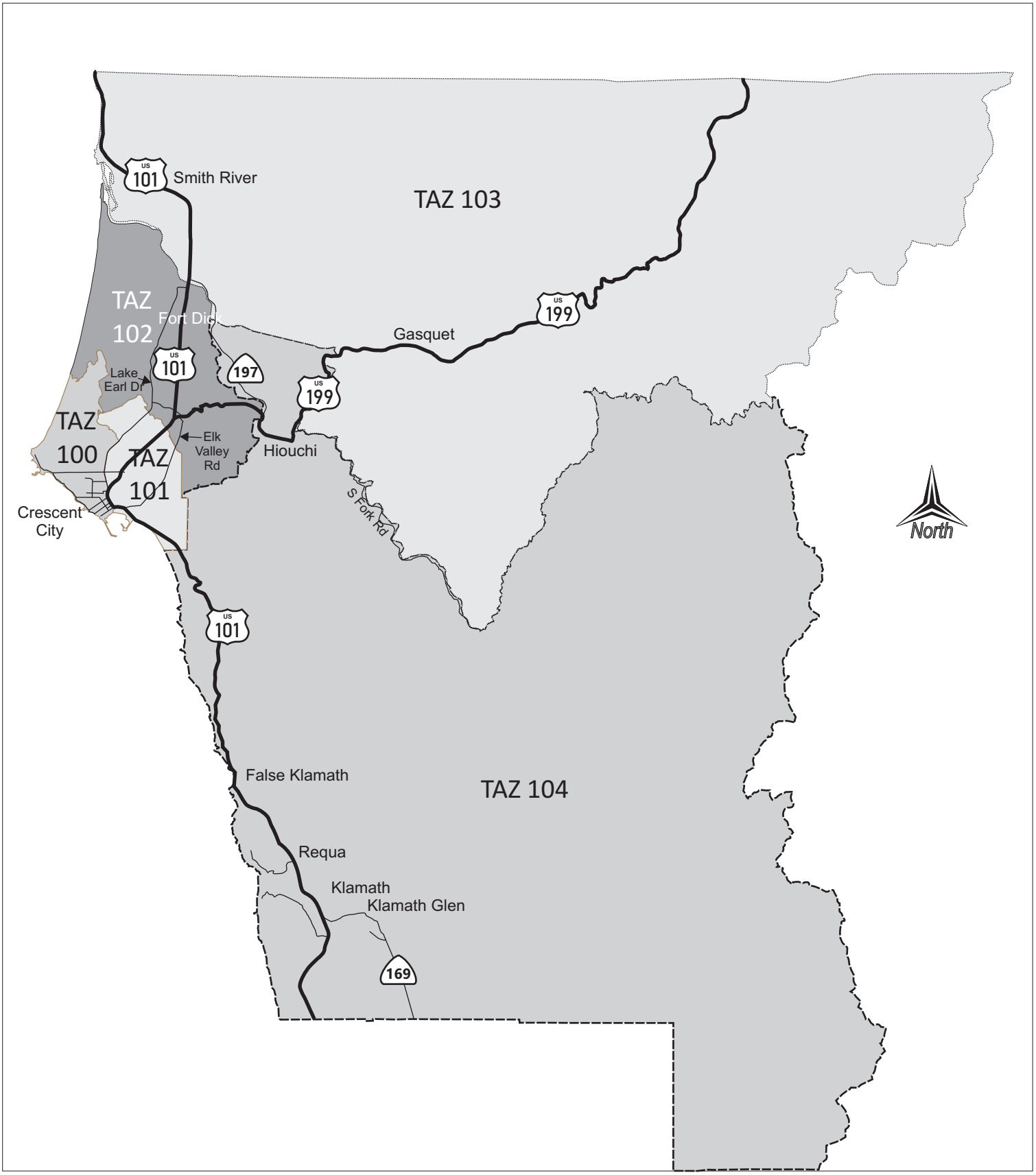
run rather than the methodology described above. It could also apply to projects that have unusual VMT characteristics for which the average VMT/capita or VMT/employee in the TAZ where the project is located would not be applicable.

Figure 3-1
VMT Analysis for Land Development Projects



1. VMT impacts presumed to be less than significant for certain projects, including local-serving retail projects, other local-serving projects, and affordable housing projects. See section 3.2. In addition, projects that are exempt from CEQA would not require a VMT analysis.

Figure 3-2
Del Norte Region Traffic Analysis Zones



4 UPDATE OF THE GENERAL PLAN AND COMMUNITY PLANS

This chapter provides guidance on VMT analysis for updates to the General Plans and Community Plans.

4.1 VMT Analysis

VMT analysis for General Plans or Community Plans would generally be conducted by comparing the total VMT/capita of the study area with the plan in the horizon year to the VMT/capita of the study area in the base year. This analysis would be conducted using a travel demand model or sketch planning techniques.

4.2 Significance Thresholds

A significant impact would result if the VMT/capita of the study area with the plan in the horizon year exceeds the VMT/capita of the study area in the base year.

4.3 Mitigation

VMT mitigation for the General Plan and Community Plans would typically consist of adding improvements to facilitate walking, bicycling, or transit or by reducing the level of roadway improvements included in the plan.

5 TRANSPORTATION PROJECTS

SB 743 also applies to transportation projects. Per the adoption language when SB 743 was incorporated into CEQA by the Natural Resources Agency, lead agencies have the discretion to continue using level of service and delay as the performance measure to determine the impacts of transportation projects or to choose a different performance measure. As recommended in OPR's Technical Advisory, the recommendation for the Del Norte region is to use VMT as the performance measure for transportation projects.

5.1 Screening Criteria

Per OPR's Technical Advisory, certain types of transportation projects are presumed to have a less than significant impact on transportation. Additional project types that have similar VMT characteristics to the projects described below can also be presumed to have a less than significant impact. Certain roadway projects would also have a less than significant impact. This could occur when a new roadway is proposed that would reduce the lengths required between local origins and destinations. For example, a proposed new bridge crossing a river could reduce VMT if it allowed for less out of direction travel to get to existing bridges.

The projects that meet the screening criteria include the following:

- Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways; roadways; bridges; culverts; Transportation Management System field elements such as cameras, message signs, detection, or signals; tunnels; transit systems; and assets that serve bicycle and pedestrian facilities) and that do not add additional motor vehicle capacity
- Roadside safety devices or hardware installation such as median barriers and guardrails
- Roadway shoulder enhancements to provide "breakdown space," dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes
- Addition of an auxiliary lane of less than one mile in length designed to improve roadway safety
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, or emergency breakdown lanes that are not utilized as through lanes
- Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit
- Conversion of existing general purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not substantially increase vehicle travel
- Addition of a new lane that is permanently restricted to use only by transit vehicles

- Reduction in number of through lanes
- Grade separation to separate vehicles from rail, transit, pedestrians or bicycles, or to replace a lane in order to separate preferential vehicles (e.g., HOV, HOT, or trucks) from general vehicles
- Installation, removal, or reconfiguration of traffic control devices, including Transit Signal Priority (TSP) features
- Installation of traffic metering systems, detection systems, cameras, changeable message signs and other electronics designed to optimize vehicle, bicycle, or pedestrian flow
- Timing of signals to optimize vehicle, bicycle, or pedestrian flow
- Installation of roundabouts or traffic circles
- Installation or reconfiguration of traffic calming devices
- Adoption of or increase in tolls
- Addition of tolled lanes, where tolls are sufficient to mitigate VMT increase
- Initiation of new transit service
- Conversion of streets from one-way to two-way operation with no net increase in number of traffic lanes
- Removal or relocation of off-street or on-street parking spaces
- Adoption or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs)
- Addition of traffic wayfinding signage
- Rehabilitation and maintenance projects that do not add motor vehicle capacity
- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way
- Addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve non-motorized travel
- Installation of publicly available alternative fuel/charging infrastructure
- Addition of passing lanes, truck climbing lanes, or truck brake-check lanes in rural areas that do not increase overall vehicle capacity along the corridor

5.2 Vehicle Miles Traveled Analysis

VMT analysis of roadway projects that do not meet the screening criteria described above is conducted by determining whether the project was included in the General Plan Transportation and Circulation Element. A less than significant impact can be presumed if the project was included in the General Plan Transportation and Circulation Element or if it is replacing a project in the

Transportation and Circulation Element that would generate more VMT than the subject project. This is due to the fact that projects in the Transportation and Circulation Element have already been incorporated into the planning process and have been analyzed and adopted through a public process. For projects that do require VMT analysis, the typical approach would be to use sketch planning techniques or run a travel demand model.

5.3 Significance Thresholds

The significance thresholds for transportation projects is the following:

- Transportation Projects: A significant transportation impact occurs if the proposed project would result in a higher level of VMT than was anticipated for the project in the General Plan Transportation and Circulation Element or Community Plan or if a capacity increasing project is proposed that was not included in the General Plan Transportation and Circulation Element

5.4 Mitigation

VMT mitigation measures for roadway projects could include the provision of improvements that facilitate walking, bicycling, or transit or restrictions to roadway travel such as tolls or vehicle occupancy requirements.

6 TRANSPORTATION ANALYSIS

Although SB 743 changes the CEQA transportation performance measure from level of service to vehicle miles traveled, it does not affect a local agency's ability to analyze roadway operations and require land development projects to provide improvements when the traffic generated by a project will affect the local roadway system. In the Del Norte region, it is recommended that a transportation analysis (TA) be provided for land development and transportation projects to analyze traffic generated by a project and recommend transportation improvements. While the focus of the analysis will typically be on the roadway system, the TA should also recommend any improvements needed to facilitate walking, bicycling, and transit in the area of the project site, regardless of whether the project has significant or less than significant impact on VMT. While this type of analysis is noted as a Transportation Analysis in this report, there are many similar names that have been used locally and statewide to describe similar types of analyses, including traffic analysis, traffic impact analysis, traffic impact study, etc. This section describes the recommended methodology for analysis of local roadway conditions.

The purpose of an TA is to forecast, describe, and analyze how a development will affect existing and future circulation infrastructure for users of the roadway system, including vehicles, bicycles, pedestrians, and transit. The TA assists transportation engineers and planners in both the development community and public agencies when making land use, mobility infrastructure, and other development decisions. An TA quantifies the expected changes in transportation conditions and translates these changes into transportation system effects in the vicinity of a project.

The roadway transportation analysis included in an TA is separate from the transportation impact analysis conducted as part of the environmental (CEQA) project review process. The purpose of the TA is to ensure that all projects provide appropriate transportation infrastructure improvements in order to accommodate their multimodal transportation demands.

Special situations may call for variation from these guidelines. It is recommended that consultants who prepare an TA conduct early coordination with lead agency staff. This could include submitting a scoping letter (methodology memo) for review by the lead agency to verify the application of these guidelines and to identify any analysis needed to address special circumstances. Caltrans and lead agencies should agree on the specific methods used in local transportation analysis studies involving any state highway facilities

6.1 Need for a Study

A TA should be prepared for all projects which generate traffic greater than 60 trips per day. Any project generating more than 60 trips per day should estimate the peak-hour trips in the AM and PM peak-hours and include this information with the traffic analysis required by the General Plan Transportation and Circulation Element. Regardless of the number of trips generated by a project, the lead agency may request a TA to analyze the transportation safety aspects of a project.

6.2 Study Parameters

It is recommended that the geographic area examined in the TA include all key intersections, local roadway segments between signalized intersections, intersections, freeway entry and exit ramps, and mainline freeway locations where the proposed project will add 50 or more peak hour trips in either direction to the existing roadway traffic.

The data used in the TA should generally not be more than two years old and should not reflect a temporary interruption (special events, construction detour, etc.) in the normal traffic patterns unless that is the nature of the project itself. If recent traffic data is not available, current counts should be made by the project applicant's consultant.

The recommended goal for roadway level of service (LOS) for roadways other than state highways is level of service C. For state highways and intersections of local roadways with state highways, the appropriate level of service target should be determined by the lead agency in consultation with Caltrans. Roadway capacity analysis should be conducted for the study area described above and improvements should be considered for locations which are projected to operate worse than level of service C (i.e. level of service D, E, or F). In general, a project should provide physical improvements or a fair share payment toward physical improvements when it contributes a substantial amount of traffic to a roadway facility expected to operate at level of service D, E, or F.

6.3 Analysis of Project Effects on the Roadway System

The TA should include a roadway analysis to determine the effect that a project will have for each of the previously outlined study scenarios. Daily or peak-hour capacity analyses for freeways and roadway segments. Intersections and freeway ramp merge/diverge areas should be conducted based on AM and PM peak hour conditions. The capacity analysis should be conducted for all of the traffic analysis scenarios described above. The analysis would normally be conducted using the latest edition of the Highway Capacity Manual for intersections and freeway ramp merge/diverge areas. Generalized capacity analysis tables may be used for roadway segment and freeway mainline analysis.

6.4 Project Trip Generation and Distribution

Project trip generation would normally be determined using the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. Other potential sources include the San Diego Association of Governments (SANDAG) trip generation guide (Not So Brief Guide of Vehicular Traffic Generation Rates in the San Diego Region, April 2002), articles in the ITE Journal, and customized trip generation rates based on individual research.

Reasonable reductions to trip rates may also be considered with proper analysis of pass-by and diverted traffic on adjacent roadways and for mixed-use developments.

Project trips can be assigned and distributed either based on estimated trip distribution patterns or through use of a travel demand model. The magnitude of the proposed project will usually determine which method is employed.

If the manual method is used, the trip distribution percentages could be derived from existing local traffic patterns or optionally (with local agency approval) by professional judgement. If the computer model is used, the trip distribution percentages could be derived from a select zone assignment. The centroid connectors should accurately represent project access to the street network. Preferably the project would be represented by its own traffic zone. Some adjustments to the output volumes may be needed (especially at intersections) to smooth out volumes, quantify peak volumes, adjust for pass-by and diverted trips, and correct illogical output.

6.5 Scenarios to be Studied

The following scenarios are recommended to be addressed in the roadway analysis (unless there is concurrence with the lead agency that one or more of these scenarios may be omitted). Some exceptions are noted at the end of this list:

Existing Conditions: Document existing traffic levels and peak-hour levels of service in the study area. Identify locations where roadways do not meet target levels of service for existing conditions.

Existing Plus Project Conditions: Analyze the effect of the proposed project in addition to existing conditions. This scenario identifies the effect of a project on the transportation network with no other changes in conditions.

Near-term (approved and pending): Analyze the cumulative conditions resulting from the development of other approved and reasonably foreseeable pending projects that are expected to influence the study area. This is the baseline against which project effects are assessed. The lead agency or adjacent jurisdictions may be able to provide copies of the traffic studies for the other projects if they are already approved. If data is not available for near-term cumulative projects, an ambient growth factor (i.e. percent per year increase) is recommended. If applicable, transportation network improvements should also be included in this scenario. This would include programmed and fully funded network improvements that are scheduled to open prior to the project's expected opening day.

Near-term + Proposed Project: Analyze the effects of the proposed project at its expected opening day in addition to near-term baseline conditions.

Horizon Year: Identify traffic forecasts, typically approximately 20 years in the future, through the use of a traffic forecast methodology approved by the lead agency.

Horizon Year + Proposed Project: Analyze the additional project traffic effect to the horizon year condition.

6.6 Need for Roadway Improvements

Roadway improvements or a fair share contribution for roadway improvements should generally be recommended for any roadway facilities that are expected to operate worse than the target of level of service C. Following is specific guidance for individual situations:

- For unsignalized intersections that are expected to operate at LOS D, E, or F, a signal warrant analysis should be conducted using peak hour warrants. If this analysis indicates that a traffic signal is not warranted, the intersection should generally be assumed to operate at LOS C and no improvements would be needed.
- For roadway segments that are expected to operate at LOS D, E, or F using roadway segment analysis, consideration can be given to the operation of the traffic signals at either end of the segment (if applicable). If the adjacent traffic signals are expected to operate at LOS C or better, the roadway segment would generally not need improvements.

- For all facilities, roadway improvements would generally not be needed if the project traffic is less than 5% of total traffic with the project.
- In cases where a fair share payment is recommended it should be based on the project's share of total future traffic with the project.

6.7 Effect of Trucks on Roadway Pavements

For projects with large concentrations of truck traffic, the TA should include an analysis of the effect of truck traffic on the pavement condition of affected roadways. Such projects would include industrial developments of all types, sand and gravel mining, landfills, and batch processing plants. The pavement analysis should be conducted for the same study area as the remainder of the TA. Improvements should be recommended whenever the project would have a substantial effect on the roadway pavement and the intent of the improvement would be to restore the pavement to the pre-project condition or better.

7 ADDITIONAL RESOURCES FOR VEHICLE MILES TRAVELED ANALYSIS

This chapter provides locations of websites that can be used to locate additional resources that may be useful in conducting VMT analyses in the Del Norte region:

- Detailed TAZ Maps for the California Statewide Model (Northern California Institute of Transportation Engineers website): www.norcalite.org
- Governor's Office of Planning and Research (ORP): http://www.opr.ca.gov/ceqa/updates/sb-743/
- California Air Pollution Control Officers Association (CAPCOA). This organization has provided one of the most widely used resources for VMT mitigation (Quantifying Greenhouse Gas Mitigation Measures, August2010). It can be found at the following website: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf
- SANDAG Mobility Management Project and VMT Reduction Tool: https://www.icommutesd.com/planners/tdm-local-governments
- Caltrans SB 743 Website: https://dot.ca.gov/programs/transportation-planning/office-of-smart-mobility-climate-change/sb-743

APPENDIX A
SCREENING CRITERIA AND THRESHOLD EVIDENCE

SCREENING CRITERIA AND THRESHOLD EVIDENCE

This appendix provides context and evidence for the screening criteria and threshold evidence included in Chapters 3 for Land Development Projects, Chapter 4 for Update of the General Plan and Community plans, and Chapter 5 for Transportation Projects.

Screening Criteria

Certain types of development projects are presumed to have less than significant impacts to the transportation system, and therefore would not be required to conduct a VMT analysis if any of the following criteria are established, based on substantial evidence.

Small Projects

Small projects, which are whole projects with independent utility that would generate less than 110 average daily vehicle trips (ADT), would also not result in significant transportation impacts on the transportation system:

Evidence – The OPR Technical Advisory states that "projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant impact." This is supported by the fact that CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development, and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301(e)(2). Typical project types for which trip generation increases relatively linearly with building footprint (e.g., general office building, single tenant office building, office park, or business park) generate or attract an additional 110- 124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.

Local-Serving Retail and Similar Uses

Local-serving retail is defined in the Del Norte region as any retail development, regardless of size, that is expected to serve customers within the region. These types of developments would reduce trip lengths (and therefore VMT) by offering additional retail choices allowing customers to make shorter trips than they would make to more distant retail developments. This would apply to retail developments intended to serve customers in the immediate area (such as a convenience store located in a rural portion of the region). It would also apply to retail developments that would serve customers in the entire Del Norte region, reducing the need for travel to travel to more distant retail developments in adjacent counties.

Evidence – The OPR Technical Advisory provides that "because new retail development typically redistributes shopping trips rather than creating new trips, estimating the total change in VMT (i.e., the difference in total VMT in the area affected with and without the project) is the best way to analyze a retail project's transportation impacts." Local serving retail generally shortens trips as longer trips from regional retail are redistributed to new local retail.

Local-Serving Public Facilities (Excluding Schools)

Similar to local-serving retail, local-serving public facilities other than schools such as government offices, medical offices, and parks serve the community and either produce very low VMT or divert existing trips from established local facilities.

Evidence – Similar to local serving retail, local serving public facilities would redistribute trips and would not create new trips. Thus, similar to local serving retail, trips are generally shortened as longer trips from a regional facility are redistributed to the local serving public facility. The evidence from the OPR Technical Advisory described above also applies to local-serving public facilities.

Affordable Housing Projects

Residents of affordable residential projects typically generate less VMT than residents in market rate residential projects. In recognition of this effect, and in accordance with the OPR Technical Advisory, deed-restricted affordable housing projects meet the region's screening criteria and would not require a VMT analysis.

Projects that provide affordable housing affordable to persons with a household income equal to or less than 50 percent of the area median income as defined by California Health and Safety Code Section 50093, housing for senior citizens (as defined in Section 143.0720(e)), housing for transitional foster youth, disabled veterans, or homeless persons (as defined in 143.0720(f)) are not required to complete a VMT analysis.

Evidence –Affordable residential projects generate fewer trips than market rate residential projects. This supports the assumption that the rate of vehicle ownership is expected to be less for persons that qualify for affordable housing. Additionally, senior citizens, transitional foster youth, disabled veterans, and homeless individuals also have low vehicle ownership rates.

Redevelopment Projects That Cause a Net Reduction in VMT

A redevelopment project that demonstrates that the total project VMT is less than the existing land use's total VMT is not required to complete a VMT analysis.

Evidence – Consistent with the OPR Technical Advisory, "[w]here a project replaces existing VMT-generating land uses, if the replacement leads to a net overall decrease in VMT, the project would lead to a less-than-significant transportation impact. If the project leads to a net overall increase in VMT, then the thresholds described above should apply."

Thresholds

If a project is required to complete a VMT analysis, the project's impacts to the transportation system would be significant if the VMT would exceed the average VMT/capita or VMT/employee of the traffic analysis zone (TAZ) in which the project is located.

Residential Projects

Threshold – below average household VMT/capita in the TAZ where the project is located.

Evidence – The OPR Technical Advisory recommends the use of VMT/capita as the performance measure for VMT analysis of residential projects. It provides specific recommendations for numerical thresholds to be used on a statewide basis, but also includes the following statement: "In rural areas of non-MPO counties (i.e., areas not near established or incorporated cities or towns), fewer options may be available for reducing VMT, and significance thresholds may be best determined on a case-by-case basis. Note, however, that clustered small towns and small town main streets may have substantial VMT benefits compared to isolated rural development, similar to the transit oriented development described above." Del Norte County is a non-MPO county and these guidelines recommend the use of significance thresholds developed for the local characteristics of the Del Norte region. These guidelines extend the concept of rural guidelines developed on a case by case basis to Crescent City and other portions of the Del Norte region that may not be considered rural by other definitions. For the purpose of VMT analysis, the same characteristics of rural areas of non-MPO counties mentioned by OPR apply to all of the Del Norte region. These include lack of a high concentration of transit, pedestrian, and bicycle facilities and a high degree of reliance on the automobile mode for basic transportation. However, these guidelines acknowledge the VMT benefits of providing transit, bicycle, and pedestrian improvements in small towns and small town main streets by encouraging the use of these types of improvements as mitigation measures.

Office/Employment Projects

Threshold – below average VMT/employee in the TAZ where the project is located.

Evidence – See evidence provided above for residential projects.

Transportation Project Screening Criteria

This section provides discussion of transportation projects that are listed in Chapter 5 and would be presumed to have a less than significant impact., These projects would not be required to conduct VMT analysis as well as significance thresholds for projects that would require a VMT analysis.

Evidence – The list of projects in Chapter 5 is consistent with recommendations in the OPR Technical Advisory that indicates projects that can be presumed to have a less than significant impact on VMT due to overall project characteristics.

Threshold

For transportation projects, significant impact occurs if the project results in a net increase in VMT as compared with the level of VMT expected to occur through implementation of the Circulation Element of the General Plan. In practice, this means that projects included in the General Plan Circulation would have a less than significant VMT impact and VMT-increasing projects that are not included in the General Plan Circulation Element would have a significant impact. Projects that replace a project in the General Plan Circulation Element would have a significant impact if they would be expected to generate more VMT than the project they are replacing.

Evidence – OPR's Technical Advisory does not have a recommended threshold for transportation projects and leaves this determination up to lead agencies. VMT analysis for roadway projects can best be considered at a planning level when developing regional or agency-specific transportation plans. The transportation plan for the region or agency is developed in consideration of the need to reduce

automobile travel and the plan provides a coordinated effort to achieve this goal. Projects approved at the planning level are considered to support regional or agency-specific goals with respect to VMT.

APPENDIX B
POTENTIAL PROJECTS FOR USE IN VMT MITIGATION

Table B-1
Del Norte Region - Transit, Bicycle & Pedestrian Projects

TAZ	Project Description	Project Type	Cost ($1,000s)	Source Document	Project Status
100	Bus Pullout at Washington and Arlington	Transit	$ 36	RTP	Long Term
100	Bench at Northcrest Dr @ Shop Smart	Transit	$ 1	RTP	Long Term
100	El Dorado Street - Bess Maxwell School SRTS	Ped	$ 1,076	RTP	Short Term
100	Front Street - A St. to L St. Pedestrian Improvements	Ped	$ 1,800	RTP	Short Term
100	Pebble Beach Dr - 6th St. to 9th St. Pedestrian Improvements	Ped	$ 750	RTP	Long Term
100	8th Street/K Street - Class 2 Bike Lanes	Bike	$ 60	RTP	Long Term
101	Parkway Drive	Ped	$ 332	RTP	Short Term
101	Sunset Circle Class 1 Bikeway	Bike	$ 800	RTP	Short Term
100/101	City Wide Priority Pedestrian Improvements	Ped	$ 1,500	RTP	Long Term
100/101	US 101 Crescent City Non Motorized Improvement Project	Ped/Bike	TBD	RTP	Long Term
All	Security Improvements	Transit	$ 62	RTP	Near Term
All	Replace Buses (3)	Transit	$ 270	RTP	Near Term
All	Replace Intercity Bus	Transit	$ 200	RTP	Near Term
All	Replace Buses (3)	Transit	$ 270	RTP	Near Term
All	Replace Intercity Bus	Transit	$ 200	RTP	Near Term
All	Security Improvements	Transit	$ 59	RTP	Near Term
All	Replace Buses (3)	Transit	$ 401	RTP	Near Term
All	Replace Intercity Bus	Transit	$ 200	RTP	Near Term
All	Continued Vehicle Replacement	Transit	$ 3,276	RTP	Long Term
All	Mobile Communications Equipment	Transit	$ 75	RTP	Long Term
All	Bus Shelter Improvements to Top Priority Locations	Transit	$ 65	RTP	Long Term
All	Passenger Facility Improvements to Top Priority Locations (landscape, trash receptacle, accessible pathway etc.)	Transit	$ 105	RTP	Long Term
All	Other Bus Shelter Improvements	Transit	$ 19	RTP	Long Term
All	Signage Improvements	Transit	$ 15	RTP	Long Term
All	Accessibility Improvements	Transit	$ 39	RTP	Long Term
All	Regional Bike Map	Bike	$ 10	RTP	Short Term
All	Bicycle Racks - 8 Locations	Bike	$ 8	RTP	Long Term
100	Arlington Avenue - Sidewalk, Washington Blvd and Adams Ave	Ped	$ 500	ATP Priority	Short Term
100	Front Street - A St to N St	Multi-Use	$ 9,000	ATP Priority	Short Term
100	Glen Street- Sidewalk, Small to Hamilton	Ped	$ 254	ATP Priority	Short Term
100	Eldorado Street - Sidewalk, Pacific Ave & Copper Ave	Ped	$ 900	ATP Priority	Short Term

100	Northcrest Dr - Sidewalk/Class II Washington to Harding	Ped/Bike	$ 1,250	ATP Priority	Short Term
100	West Harding Ave - Sidewalk, El Dorado to Breen	Ped	N/A	ATP Priority	Short Term
101	Blackwell Lane - Class II Bike Lane from Lake Earl Dr to Railroad Ave	Bike	$ 1,363	ATP Priority	Short Term
101	Hwy 101 Gateway Projects	Multi-Use	$ 1,153	ATP Priority	Short Term
101	Sunset Circle- Existing Gap on CA Coastal	Multi-Use	N/A	ATP Priority	Short Term
103	First St & Sarina Rd - Class II Bike Lane Hwy 101/Sarina Rd to First St to Fred Haight Dr	Bike	$ 2,200	ATP Priority	Short Term
103	Fred Haight Drive - Class III Bike Lane Hwy 101 to Wilson Ave	Bike	$ 65	ATP Priority	Short Term
100	9th, Front, K, and 2nd Streets Class II	Bike	$ 59	ATP	Long Term
100	Harding Avenue - Within City Limits, Class II	Bike	N/A	ATP	Long Term
100	Old Mill Road - Dillman Rd to Wild Life Area, Class I/II	Bike	$ 1,484	ATP	Long Term
100	Riverside Street - Washington Blvd to Dead Lake, Class I/II	Bike	$ 201	ATP	Long Term
101	Enderts Beach Road - Hwy 101 to National Parks Service, Class I/II	Bike	$ 209	ATP	Long Term
101	Harding Avenue - Outside City Limits, Class II	Bike	N/A	ATP	Long Term
101	Hobbs Wall Trail - M St to DFG	Multi-Use	$ 2	ATP	Long Term
101	Hobbs Wall Trail - 2nd St to Howland Hill	Multi-Use	$ 728	ATP	Long Term
101	Hobbs Wall Trail - Oxbow Pond to Parkway Dr	Multi-Use	$ 1,725	ATP	Long Term
101	Humboldt Road - Roy Ave to Hwy 101, Sidewalk	Ped	$ 1,049	ATP	Long Term
101	Railroad Avenue - Parkway Dr to Blackwell, Class II	Bike	$ 1,293	ATP	Long Term
102	Elk Valley Crossroad - Hwy 101 to Lake Earl Dr Class II	Bike	$ 1,030	ATP	Long Term
101/102	Elk Valley Road - Howland Hill to Parkway, Class II/III	Bike	$ 3,300	ATP	Long Term
101/102	Railroad Avenue - Parkway Dr to Blackwell, Class II	Bike	$ 481	ATP	Long Term
102	Kellogg Road - Lower Lake to Beach, Class II	Bike	$ 5	ATP	Long Term
102	Lower Lake Road - Lake Earl to Kellogg, Class III	Bike	$ 10	ATP	Long Term
102	Lower Lake Road - Kellogg to Pala, Class III	Bike	$ 5,655	ATP	Long Term
102	Lower Lake Road - Lake Earl to Kellogg, Class II	Bike	$ 4,807	ATP	Long Term
102	Morehead Road - Lake Earl to Lower Lake, Class II	Bike	$ 2,745	ATP	Long Term
103	Gasquet Flat Road - US 199 to Middle Fork Gasquet Rd, Class II	Bike	$ 3,793	ATP	Long Term
103	Middle Fork Gasquet Road - US 199 to Gasquet Flat, Class II	Bike	$ 165	ATP	Long Term

103	Ocean View Drive - Hwy 101 N to Indian Rd, Class II	Bike	$ 2,682	ATP	Long Term
103	Ocean View Drive - Hwy 101 S to Indian Rd, Class II	Bike	$ 5,226	ATP	Long Term
103	Rowdy Creek Road - Hwy 101 to Smith RiverRec Area, Class III	Bike	$ 29	ATP	Long Term
103	Timbers Blvd - Hwy 101 to Fred Haight Dr	Bike	$ 811	ATP	Long Term
101/104	Pacific Coast Bike Route - **5 Projects**	Bike	$ 8,500	ATP	Long Term
104	South Fork Road - Big Fla Intersection to Douglas Park Rd, Class III	Bike	$ 47	ATP	Long Term
All	Elk Valley Connector Trail - Mill Creek TH to Martin Ranch	Multi-Use	N/A	ATP	Long Term
All	Coast to Caves Trailway	Multi-Use	N/A	ATP	Long Term
All	Coast to Crest Trailway	Multi-Use	N/A	ATP	Long Term

APPENDIX C
CASE STUDIES

APPENDIX C

CASE STUDIES

Introduction

This appendix summarizes analysis of VMT impacts of five case study projects in the Del Norte region. The first three are hypothetical projects (two residential, the other office). The final two are retail projects already approved and built. They are reanalyzed as though they were submitted after SB 743 implementation.

Case Study 1: Residential Project

This case study project is presumed to be located in the City of Crescent City west of US 101 between an RV Park and the harbor (coordinates 41.751, -124.189). It consists of 214 multifamily rental dwelling units and 24 single family dwelling owner-occupied units.

Analysis overview

The analysis uses data from the California Statewide Travel Demand Model (CSTDM).

This residential project is located in Traffic Analysis Zone 101 (TAZ 101) with an average VMT/capita of 7.00 (see Table 3-1). This is a typical project and there is no reason to expect that it would have a higher or lower VMT/capita than the average for the TAZ. Since project VMT/capita is assumed to be equal to or above the VMT/capita of the zone in which the project is located, it has a significant VMT impact

Mitigation of Residential Project VMT

A survey of pedestrian facilities near the project site indicates that the installation of curb ramps and sidewalk repairs are needed. Based on the ITE Trip Generation Manual, this project is expected to generate 1,857 daily trips. This is the equivalent of 179 single-family dwelling units. The city and the applicant agree on a set of off-site pedestrian improvements including three curb ramps, 1,320 linear feet of sidewalk, and 660 feet of sidewalk with curb, gutter, and asphalt patch. The applicant provides the pedestrian improvements as a condition of approval of the project. For reporting purposes, the assumed VMT/capita reduction is 1% of 7.00 or 0.07. The resulting VMT/capita after mitigation is 6.93 which is below the average VMT/capita in the TAZ which the project is located. After mitigation, the project has a less than significant impact.

Case Study 2: Office Project

This case study provides an example of a VMT estimate for an office project. This hypothetical project would be located west of Highway 101 immediately south of the Dollar General Store on in the unincorporated community of Smith River in Del Norte County (coordinates 41.924, -124.141). It is an office building consisting of 110,000 square feet of office space.

Analysis overview

The analysis used data from the California Statewide Travel Demand Model (CSTDM).

This office project is located in Traffic Analysis Zone (TAZ 103) with an average VMT/employee of 22.33 (see Table 3-1). This is a typical project and there is no reason to expect that it would have a higher or lower VMT/employee than the average for the TAZ. Since project VMT/employee is assumed to be equal to or above the VMT/employee of the zone in which the project is located, it has a significant VMT impact

Mitigation of Office Project VMT

Based on the ITE Trip Generation Manual, this project is expected to generate 1,124 daily trips. This is the equivalent of 108 single-family dwelling units. At a mitigation cost of $1,275 per equivalent single-family dwelling unit, the target value of pedestrian/bike/transit mitigation is 137,700. A survey of transit, bicycle, and pedestrian facilities near the project site indicates that there are no suitable improvement projects in the vicinity of the project site. However, a review of Table B-1 in Appendix B indicates that TAZ 103 includes a project to install a Class II bikeway on Middle Fork Gasquet Road from US 99to Gasquet Flat at a cost of $165,000 Class III bikeway on Rowdy Creek Road between US 101 and the Smith River Recreation Area. The applicant agrees to implement this project as a condition of approval of the project. For reporting purposes, the assumed VMT/employee reduction is 1% of 22.33 or 0.22. The resulting VMT/capita after mitigation is 23.11 which is below the average VMT/capita in the TAZ in which the project is located. After mitigation, the project has a less than significant impact.

Case Study 3: “Rolling” Rural Residential Project

This project is envisioned as a 10-year rollout of 200 acres of timberland zoning converting into Rural Residential lots, presumed to be located in TAZ 104. The only access is off the state highway via an underdeveloped county road with no feasible opportunity to improve it. The rezone by definition of the rollout will not take place for a decade, and after that, it is unlikely that a single developer will submit a subdivision proposal for any substantial amount of the property. More likely, based on local development practices, a minor subdivision creating 4 parcels and a remainder will occur; the process will repeat for up to a half century. A maximum 50 residential lots are anticipated.

The rural residential project is located in Traffic Analysis Zone (TAZ 104) with an average VMT/capita of 30.13 (see Table 3-1). This is a typical project and there is no reason to expect that it would have a higher or lower VMT/capita than the average for the TAZ. Since project VMT/capita is assumed to be equal to or above the VMT/capita of the zone in which the project is located, it has a significant VMT impact

Mitigation of Rural Residential Project VMT

The recommended total mitigation cost is $1,275 per unit or a total of $63,750.

If this project were owned by a single applicant who would be selling homes to individual landowners, typical practice would be to provide $63,750 worth of mitigation at the time of occupancy of the first home. However, in the case of this project, homes are expected to be built gradually over time and each homeowner is expected to pay a share of the total mitigation cost (i.e. $1,275) at the time of occupancy. Since payment of $1,275 is too small to fund an individual improvement project, the county conditions the project to provide one of the following forms of mitigation (to be determined by the county at the time of development):

- If a single dwelling unit or multiple dwelling units are planned to be built together and the mitigation payments at a rate of $1,275/dwelling unit would be too small to pay for a physical transportation improvement, the county will collect a development fee of $1,275 to be used for general maintenance of bicycle and pedestrian facilities on a county-wide basis.

- If a large number of dwelling units are planned to be built as a group by a single owner, the County could require that a physical transportation improvement be built with the specific improvement to be determined at the time of development.

Either of the scenarios described above would be sufficient to mitigate the project's VMT impacts. For reporting purposes, the assumed VMT/employee reduction is 1% of 30.13 or 0.30. The resulting VMT/capita after mitigation is 29.83 which is below the average VMT/capita in the TAZ in which the project is located. After mitigation, the project has a less than significant impact.

The rate of $1,275 per dwelling unit would be adjusted for inflation beginning at the date of project approval using the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

Case Study 4: Smith River Dollar General Store Project

This is an existing project, reanalyzed as if it were a new project under SB 743. The project is a 9,100 square foot retail store to be located along US 101 just south of the Del Norte County community of Smith River (coordinates 41.925, -125.141). The project is located in TAZ 103 of the Statewide Travel Demand Model.

Project Trip Generation

This analysis utilized trip generation rates from the Institute of Transportation Engineers (ITE) publication Trip Generation, 10th Edition, specifically rates for "Variety Store" (Code 813). The project is expected to generate approximately 578 daily trips on a weekday basis.

Need for SB 743 Analysis

OPR recommends that local-serving retail projects can be presumed to have a less than significant transportation impact. This is because local-serving retail typically reduces trip lengths by providing additional destinations that tend to replace trips to more distant retail locations. As local-serving retail it

would be exempted from VMT analysis if Del Norte County believes the project would serve to shorten shopping trips.

Case Study 5: Wal-Mart Expansion Project

Project Description

This is an existing project, reanalyzed as if it were a new project under SB 743. The project is a proposed 87,035 sq. ft. expansion of the existing Wal-Mart, located on East Washington Boulevard near US 101 in Del Norte County just north of Crescent City (coordinate 41.774, -124.190). The project is located in TAZ 101 of the Statewide Travel Demand model.

Project Trip Generation

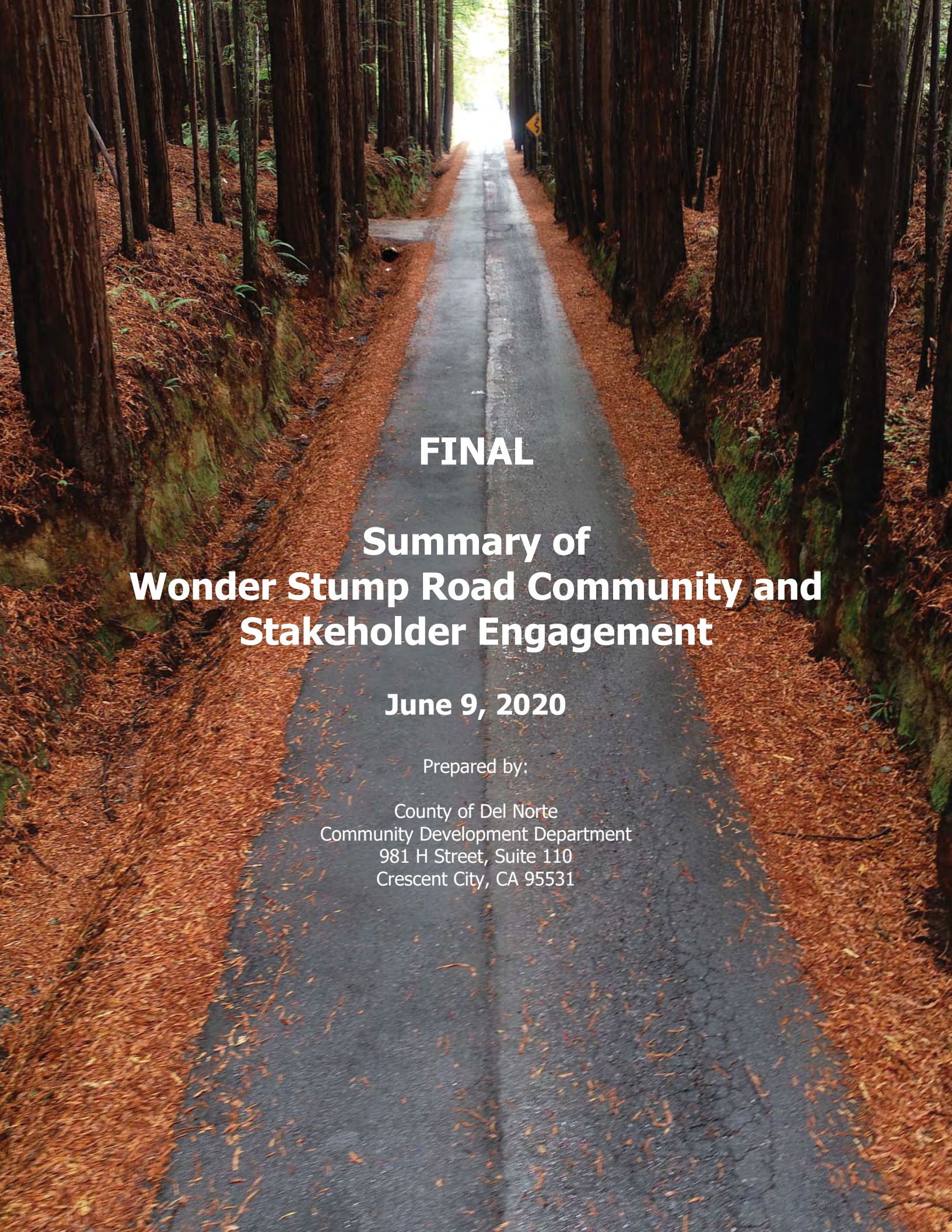
The trip generation of the proposed project was based on the Institute of the Transportation Engineers Trip Generation Manual, 10th Edition. The proposed project expansion would generate 6,252 daily trips.

Need for SB 743 Analysis

OPR recommends that local-serving retail projects can be presumed to have a less than significant transportation impact. This is because local-serving retail typically reduces trip lengths by providing additional destinations that tend to replace trips to more distant retail locations. For this project, the key question is whether it fits into the category of local-serving. Expressed in terms of VMT generation, the question is whether the project would attract local shoppers who would otherwise travel to more distant retail locations. The county requests a market survey.

If the market survey shows that the project would attract local trips and would shorten trip lengths, the project is considered to decrease VMT and the impact of the project is considered less than significant. No mitigation measures are needed.

If the market survey shows that the project would attract travelers from throughout the Del Norte region and it is presumed that these trips would be drawn from shoppers who are currently traveling to more local shopping destinations rather than destinations outside the region, additional VMT analysis is necessary. Using the market survey, sketch planning techniques are used to estimate the VMT increase due to the project and the resulting increase is 20,000 VMT/day. It is not considered feasible to fully mitigate this VMT increase and a significant transportation impact is noted. It is decided that the project provide mitigation at the rate recommended in this guide. The project is estimated to generate 1,014 daily trips which is the equivalent of 98 single-family dwelling units. If the county decides to approve the project, appropriate bicycle and pedestrian projects in the amount of at least $124,950 ($1,275 per equivalent single-family dwelling unit) would be provided and an EIR and a statement of overriding considerations would be needed.



FINAL

Summary of Wonder Stump Road Community and Stakeholder Engagement

June 9, 2020

Prepared by:

County of Del Norte
Community Development Department
981 H Street, Suite 110
Crescent City, CA 95531

Table of Contents

Appendices

1. PROJECT OBJECTIVE

   The objective of the Summary of Wonder Stump Road Community and Stakeholder Engagement (Summary of Engagement) is to assess present conditions, ongoing maintenance, and future options for the less than two-lane portion of Wonder Stump Road.

   The segment of Wonder Stump Road referenced in this document includes all of the Wonder Stump Road property belonging to the County of Del Norte from the Younkers Creek Bridge to Highway 101.

2. ORIGIN OF THE PLANNING ACTIVITY

   The primary goal of this process and resulting document is to be transparent in the need for maintenance activities to occur, discuss the potential future of the Wonder Stump Road corridor, and dispel rumors of plans for mass tree removal without public input. A pattern of mistrust and negative interactions between the Wonder Stump Road Community the County Road Division has persisted far too long and the intent of this document is to capture all perspectives.

3. TIMELINE OF COMMUNITY AND STAKEHOLDER ENGAGEMENT

   The Summary of Engagement timeline is presented below.

   July 2019

   - Project was posted on County website with a link included on the main County webpage. (http://www.co.del-norte.ca.us/departments/community-development-department/engineering-division/community-input)
   - Project contact list commenced. Anyone desiring to be included was included.
   - Comment cards were posted to the County website, handed out by County field staff, made available at the Community Development Department, and mailed to property owners using any portion of Wonder Stump Road to access their property.
   - An online survey was created using the same content as the comment card and made available on the County website, County of Del Norte Facebook webpage, and shared amongst the general public.
   - 1st Letter to the Community sent to residents who use any portion of Wonder Stump Road to access their property, sent to project contact list, and posted to County website.

   August 2019

   - Invitations to 1st Stakeholder meeting mailed.

September 2019

- Nothing to document.

November 2019

- 1st Stakeholder meeting held.
- Notice of 1st Community Meeting posted at each end of Wonder Stump Road, posted to County website, sent to residents using any portion of Wonder Stump Road to access their property, sent to project contact list, and sent to the list of agencies and businesses who receive notifications of road closures.

December 2019

- 1st Community meeting held.

January 2020 – March 2020

- Preliminary Draft of Wonder Stump Road Community and Stakeholder Engagement prepared.
- Anticipated 2nd Community and Stakeholder Engagement meeting which became unallowable due to COVID-19 pandemic.

April 2020

- Preliminary Draft of Summary of Wonder Stump Road Community and Stakeholder Engagement finalized.

May 2020

- 2nd Letter to the Community sent to contact list releasing Preliminary Draft of Summary of Wonder Stump Road Community and Stakeholder Engagement. With comments due the same month.

June 2020

- Draft Summary of Wonder Stump Road Community and Stakeholder Engagement submitted to Board of Supervisors for acceptance.

    - Appendix 1 – County Website
    - Appendix 2 – Project Contact Lists
    - Appendix 3 – Comment Card
    - Appendix 4 – Online Survey
    - Appendix 5 – 1st Letter to the Community
    - Appendix 6 – Invitation to 1st Stakeholder Meeting
    - Appendix 7 – Notice for 1st Community Meeting

4. COMMUNITY AND STAKEHOLDER INPUT

Staff intended to initiate the Wonder Stump Community and Stakeholder Engagement process using the typical practice of gathering data before reaching out to the public. However, the public desired to be included at the initiation of fact finding. This made communication difficult for both County staff and the public since there were many unknowns and few answers to assist with responding to questions prior to the 1st Stakeholder Meeting held November 13, 2019. Regardless, public comment was accepted throughout the entire process, beginning in July 2019 and terminating in May 2020.

- Appendix 8 – Comments Received
- Appendix 9 – Media
- Appendix 10 – Petition and Petition Comments
- Appendix 11 – Letters from Stakeholders

Input received during the 1st Stakeholder Meeting and 1st Community Meeting is contained in those sections of this document.

5. CONCEPTUAL ALTERNATIVES

Seven conceptual alternatives were identified for consideration by County staff. Additional alternatives would have been added during the planning process if they had been identified and there was a general consensus that they should be included. However, none were suggested. A description of each conceptual alternative is below and an analysis of each is included in Section 12 of this document.

- Alternative 1 – No Improvements (Existing Conditions)

  The existing Wonder Stump Road corridor from the Younkers Creek Bridge to Highway 101 is a less than two-lane roadway with three islands which allow passing of two-way traffic. The islands include a northbound and southbound lane separated by a vegetated median that allows vehicles to queue if oncoming traffic is observed in the less than two-lane portion of the roadway. The road width averages 18 feet and narrows to 13.5 feet. Trees along the roadway have grown reducing the capacity of existing ditches.

- Alternative 2 – Urban and Rural Public Road Standards (24 Foot Paved Surface with 4 Foot Shoulders)

  Urban and Rural Public Road Standards included in the Del Norte County Code desire for the ultimate roadway width to be at least 24 feet wide with 4

foot shoulders and a right-of-way width of at least 60 feet. Drainage improvements would be designed to carry runoff from a ten-year storm.

- Alternative 3 – One-Way Northbound

  A one-way road northbound would eliminate two-way traffic on a less than two-lane roadway. Drainage improvements would be designed to carry runoff from a ten-year storm.

- Alternative 4 – One-Way Southbound

  A one-way road southbound would eliminate two-way traffic on a less than two-lane roadway. Drainage improvements would be designed to carry runoff from a ten-year storm.

- Alternative 5 – Drainage Improvements with Paved Surface

  Convert open ditches to underground storm drains, pave surface of the underground storms drains and roadway resulting in a wider roadway and reduced maintenance needs for the drainage facility. Drainage improvements would be designed to carry runoff from a ten-year storm.

- Alternative 6 – SRA Fire Safe Regulations (22 Foot Paved Surface with No Shoulders)

  Widen roadway to meet State Responsibility Area (SRA) Fire Safe Regulations which requires at least two 10 foot travel lanes, not including shoulder and striping. The additional 2 feet of paving is to accommodate striping. No shoulder improvements would be proposed as part of this alternative. Drainage improvements would be designed to carry runoff from a ten-year storm.

- Alternative 7 – 24 Foot Paved Surface with No Shoulders

  Widen paved surface to 24 foot wide paved surface meeting Urban and Rural Public Road Standards for road width. No shoulder improvements would be proposed as part of this alternative. Drainage improvements would be designed to carry runoff from a ten-year storm.

6. CONTENT FOR 1ST STAKEHOLDER MEETING AND 1ST COMMUNITY MEETING

The content prepared for the 1st Stakeholder Meeting and 1st Community Meeting was the same with the exception of the 1st Community Meeting Handout. Seven conceptual alternatives were presented along with eight planimetry (a.k.a. aerial

view or plan view) boards. The planimetry boards depict the project corridor in plan view and identify existing culverts, ditches, edges of paving and paving width, trees, and other features. Several of the trees were observed with scuffs or gouges assumed to be from collisions or with roots pushing up the roadway. Any trees numbered on the planimetry were photographed and there is at least one photograph of the corresponding tree included in the project record.

- Appendix 12 – Alternatives Poster Board Content
- Appendix 13 – Planimetry Poster Board Content
- Appendix 14 – Photos of Trees on Planimetry

7. 1ST STAKEHOLDER MEETING

The 1st Stakeholder Meeting was held on November 13, 2019 at the County Road Yard (500 East Cooper Avenue, Crescent City, CA). The following stakeholders, primarily public agencies and utilities, were invited:

- Cal Fire (did not attend)
- California Highway Patrol (attended)
- Caltrans (did not attend)
- City of Crescent City (attended)
- County of Del Norte, Roads Division (attended)
- County Supervisor for District 3 (attended)
- County Supervisors for District 4 (attended)
- Crescent Fire Protection District (did not attend)
- Del Norte Ambulance (attended)
- Del Norte County Sheriff's Office (did not attend)
- Del Norte County Unified School District (attended)
- Del Norte Local Transportation Commission (did not attend)
- Fort Dick Fire Protection District (attended)
- Frontier Communications (did not attend)
- Pacific Power (attended)
- Recology (did not attend)
- Spectrum (did not attend)

The general discussion included:

- Emergency services respond to medical calls and often find it difficult for the ambulance to be the first to leave, commonly other emergency services vehicles must leave to open the roadway for the ambulance. This results in loss of critical time.
- Emergency services respond to fires with insufficient onsite or nearby water to fight fires. Water tenders must make laps and other emergency response vehicles become hazards that decrease efficiency if they create

an obstruction within the less than two-lane portion of Wonder Stump Road.

- The school bus drops students at the islands on the less than two-lane portion of Wonder Stump Road so that if the bus breaks down the road is not blocked. According to the Del Norte County Unified School District's Director of Transportation, the decision to pickup and drop-off at the islands was made years ago at the request of emergency services. Stopping at islands results in students choosing to walk in the ditch of the less than two-lane portion of Wonder Stump Road. It is assumed that students perceive walking in the ditch to be safer than walking on the roadway.
- The group did not recall any collisions within the past five years.
- The Roads Division stated that drainage improvements are needed to mitigate the natural encroachment of trees into the existing ditches. Tree growth has narrowed the ditches resulting in mechanized equipment no longer being able to efficiently clean the ditches. Redwood boughs and branches frequently plug culverts along the roadway. It is unsafe for maintenance crews to climb into a flooded ditch to unplug a culvert.
- Fort Dick Fire Protection District responds to Wonder Stump Road from both the northbound and southbound directions since resources commonly deploy from both the Lake Earl Fire Station and Kings Valley Fire Station for the same event. A one-way road is not desirable.

Ultimately, four sticky notes were affixed to the poster boards by the Stakeholder Group.

- Appendix 15 – Sticky Note Comments (from 1st Stakeholder Meeting)
- Appendix 16 – Photos of Alternatives and Planimetry Boards (post 1st Stakeholder Meeting) and General Meeting Photos
- Appendix 17 – Sign-In Sheet (from 1st Stakeholder Meeting)

8. 1ST COMMUNITY MEETING

The 1st Community Meeting was held on December 12, 2019 at the Crescent Fire Protection District Office (255 West Washington Boulevard, Crescent City, CA). Anyone interested in the project was invited to attend and about 50 people attended.

The meeting was intended to be a brief 5-10 minute presentation describing and clarifying the extent of the project followed by public comments being written on sticky notes and placed on poster boards or submitted on comment cards.

Instead, the meeting turned into a 1 hour open discussion amongst County staff and community members with the final 30 minutes dedicated to submitting

written input. Community members were reminded that the open discussion was not being documented and that all input needed to be submitted in writing. The meeting went very well; everyone conducted themselves in a civil manner considering the passion filling the room.

There were two items specific to the Wonder Stump Road Community and Stakeholder Engagement process that were brought up during the open discussion. The first was a request for more fact finding, and the second, was a request for the 2nd Stakeholder Meeting to be combined with the 2nd Community Meeting. County staff directed community members to leave written questions behind and that answers would be sought. Additionally, County staff agreed to try to combine the 2nd Stakeholder and Community Meetings.

- Appendix 18 – Sticky Note Comments (from 1st Community Meeting)
- Appendix 19 – Photos of Alternatives and Planimetry Boards (post 1st Stakeholder and 1st Community Meetings) and General Meeting Photos
- Appendix 20 – Sign-In Sheet (from 1st Community Meeting)
- Appendix 21 – 1st Community Meeting Handout

9. CIRCULATE PRELIMINARY DRAFT (ALTERNATIVE TO 2ND STAKEHOLDER AND COMMUNITY MEETING)

The County intended to hold a second community meeting in February or March 2020. However, this was not possible due to the COVID-19 pandemic. On March 4, 2020 the Governor of the State of California, Gavin Newsom, issued a Proclamation of a State of Emergency with respect to COVID-19 documenting the commencement of a response by California dating back to December 2019. And, on March 12, 2020 the President of the United States of America, Donald J. Trump, issued Emergency Declaration EM-3428 for COVID-19 with an incident period beginning January 20, 2020. Due to social distancing guidelines and stay at home orders a 2nd Stakeholder and Community Meeting was not held.

As an alternative to the 2nd Stakeholder and Community Meeting, previously used and additionally collected contact information was used to inform the community that the Preliminary Draft of the Summary of Community and Stakeholder Engagement had been posted to the project webpage for review and comment. Comments were due by May 22, 2020 for inclusion in the document being submitted to the Board for acceptance in June 2020.

- Appendix 22 – 2nd Letter to the Community

10. COLLISION DATA (01/01/2014 – 04/08/2020)

Following the 1st Stakeholder meeting and 1st Community meeting collision data was collected from the Transportation Injury Mapping System (TIMS) at UC Berkeley. Data was available through December 31, 2018. Between January 1, 2014 and December 31, 2018, a five year period, two collisions were documented on Wonder Stump Road between Younkers Creek and Highway 101.

Date and Time:	04/02/2014 07:50 AM
Location:	Wonder Stump Road and Star Trek Drive
Intersection Collision:	No
Distance and Direction from Intersection:	406 feet north
Collision Severity:	Injury (Complaint of Pain)
Type of Collision:	Hit Object
Involved With:	Fixed Object: Tree
Pedestrian Involved:	No
Bicycle Involved:	No

Date and Time:	12/22/2014 08:30 AM
Location:	Wonder Stump Road and Coulson Lane
Intersection Collision:	No
Distance and Direction from Intersection:	62 feet south
Collision Severity:	Injury (Other Visible)
Type of Collision:	Hit Object
Involved With:	Fixed Object: Tree
Pedestrian Involved:	No
Bicycle Involved:	No

No data beyond December 31, 2018 is available in the Transportation Injury Mapping System. The County receives Collision Reports from the California Highway Patrol; more recent data includes two additional Traffic Collision Reports and a known traffic collision that did not include a Traffic Collision Report.

Date and Time:	02/08/2020 11:43 AM
Location:	Wonder Stump Road and Orchard Lane
Intersection Collision:	Yes
Distance and Direction from Intersection:	No
Collision Severity:	Injury (Suspected Serious)

Type of Collision:	Broadside
Involved With:	Other Motor Vehicle
Pedestrian Involved:	No
Bicycle Involved:	No

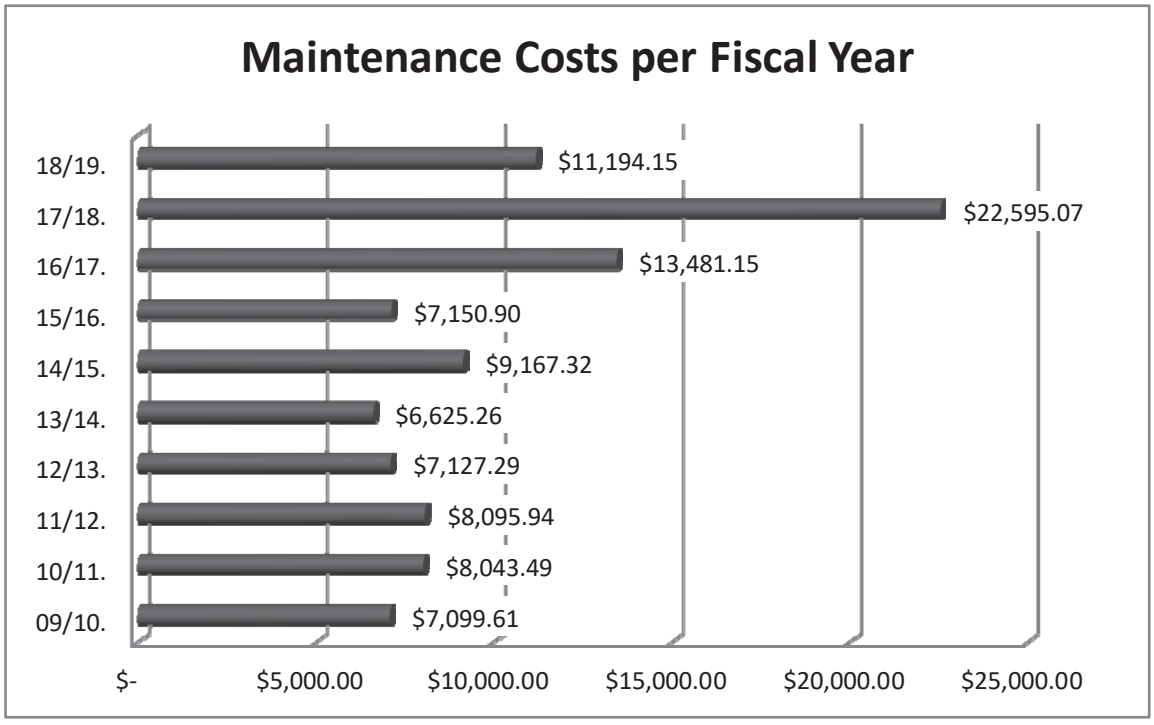
Date and Time:	02/16/2020 1:55 PM
Location:	Wonder Stump Road and Ecnav Lane
Intersection Collision:	No
Distance and Direction from Intersection:	189 feet south
Collision Severity:	Injury (Suspected Minor)
Type of Collision:	Hit Object
Involved With:	Fixed Object: Tree
Pedestrian Involved:	No
Bicycle Involved:	No

Date and Time:	04/08/2020 1:30 PM
Location:	Wonder Stump Road
Intersection Collision:	Assumed no
Distance and Direction from Intersection:	Near Younkers Creek Bridge, precise location unknown
Collision Severity:	Assumed property damage only
Type of Collision:	Unknown
Involved With:	Unknown
Pedestrian Involved:	No
Bicycle Involved:	No
The collision on 04/08/2020 is included in this report because it was included in the Preliminary Draft with a placeholder for future data. The Community Development Department reached out to the California Highway Patrol (CHP) and they did not have a record of the collision. The Community Development Department then reached out to the Sheriff's Department and confirmed that CHP does all Traffic Collision Reports within the unincorporated County. Upon further inquiry to the Sheriff's Department the collision was found in their online Call Log and had the Community Development Department not been aware of it, it would not have been found for inclusion in this record. It is an example of why it is not uncommon to be missing data when someone can recall an event. As best we can assume the collision was a property damage only collision, the Sheriff's Department shared that an ambulance was called but the occupants of the single-vehicle collision refused medical assistance and no law enforcement responded to the collision.	

The four collisions with Traffic Collision Reports indicate that all four collisions occurred during daylight, no unusual roadway conditions existed, cell phones were not in use, and drivers were sober.

11. MAINTENANCE COSTS

One of the requests from the 1st Community Meeting was a summary of maintenance costs. Below are the maintenance costs to the Road Fund over the past ten years. They do not include labor contributions from the Northern California Indian Development Council, Inc. or Siskiyou Training and Employment Program, Inc. both of which have provided significant amounts of no cost labor to the Road Fund. The County has not tracked the hours or financial benefit provided by the aforementioned crews. Additionally, the County's time tracked for Wonder Stump Road reflects Wonder Stump Road from Elk Valley Cross Road to Highway 101. However, the majority of maintenance occurs along Wonder Stump Road from the Younkers Creek Bridge to Highway 101.



12. ANALYSIS OF CONCEPTUAL ALTERNATIVES

- Alternative 1 – No Improvements (Existing Conditions)

  The existing Wonder Stump Road corridor from the Younkers Creek Bridge to Highway 101 is a less than two-lane roadway with three islands which allow passing of two-way traffic. The islands include a northbound and southbound

lane separated by a vegetated median that allows vehicles to queue if oncoming traffic is observed in the less than two-lane portion of the roadway. The road width averages 18 feet and narrows to 13.5 feet. Trees along the roadway have grown reducing the capacity of existing ditches.

ANALYSIS OF ALTERNATIVE 1
COLLISIONS
• Collision types and rates would be unchanged.
COMMUNITY RESPONSE
• Most favorable to the majority of commenters. • Wonder Stump Road's scenic value including contributions to local tourism would be unaffected.
DRAINAGE
• Drainage problems would increase as existing drainage infrastructure loses further capacity to trees and tree roots. Leaf litter and branches from the tree canopy would continue to obstruct open ditches. • Impacts resulting from loss of drainage capacity along Wonder Stump Road may include ponding water and failure of leach fields on private property.
EFFORT AND EXPENSE
• Implementation would consume no effort and expense relative to other alternatives. • Maintenance would consume the most effort and expense. • Maintenance effort would increase as mechanized equipment became inoperable within the ditches and would be replaced with manual labor. • Manual labor commonly results in more workers' compensation claims than labor with mechanized equipment.
ROAD STANDARDS
• Wonder Stump Road would not meet State Responsibility Area (SRA) Fire Safe Regulations. • Wonder Stump Road would not meet Urban and Rural Public Road Standards. • Emergency response would continue to be hindered by a less than two lane road serving two-way traffic.
SPEED
• Speeds would remain the same. • Residents feel existing conditions provide a traffic calming effect. • Existing traffic speeds are acceptable to neighborhood.
TREES
• No impacts to trees, roots, or canopies.

- Alternative 2 – Urban and Rural Public Road Standards (24 Foot Paved Surface with 4 Foot Shoulders)

Urban and Rural Public Road Standards included in the Del Norte County Code desire for the ultimate roadway width to be at least 24 feet wide with 4 foot shoulders and a right-of-way width of at least 60 feet. Drainage improvements would be designed to carry runoff from a ten-year storm.

ANALYSIS OF ALTERNATIVE 2
COLLISIONS
• Collision types and rates would decrease as lane width and clear recovery zone increased.
COMMUNITY RESPONSE
• Unacceptable impacts to trees including roots and canopy. • Undesirable increase in vehicle speeds anticipated.
DRAINAGE
• Drainage improvements could be either underground storm drains or open ditches, both would meet County Code. However, open ditches would widen the roadway cross section wider than underground storm drains resulting in greater impacts to trees and require greater maintenance effort to remove leaf litter and branches. • Underground storm drains are preferable since the road surface could be placed upon the underground storm drain which would result in fewer impacts to trees and allow for the removal of leaf litter and branches on the road surface rather than in an open ditch resulting in less maintenance effort. • Impacts to private properties including ponding water and failure of leach fields would be avoided.
EFFORT AND EXPENSE
• Implementation would consume the greatest effort and expense relative to other alternatives. • Maintenance effort and expense would decrease substantially. Undergrounding open ditches is anticipated to reduce debris removal maintenance effort by 50%.
ROAD STANDARDS
• Wonder Stump Road would exceed State Responsibility Area (SRA) Fire Safe Regulations. • Wonder Stump Road would meet Urban and Rural Public Road Standards. • Emergency response would improve with a two lane road serving two-way traffic.
SPEED
• Speeds would increase as road width increased. • This alternative would result in the greatest speed increase because it would result in the widest road surface.
TREES

• Greatest volume of tree removal and impacts to tree roots and canopies. • Underground drainage in lieu of open ditches to reduce impacts to trees.

- Alternative 3 – One-Way Northbound

  A one-way road northbound would eliminate two-way traffic on a less than two-lane roadway. Drainage improvements would be designed to carry runoff from a ten-year storm.

ANALYSIS OF ALTERNATIVE 3
COLLISIONS
• Collision types and rates would decrease as continuously available lane width was established. • Unreported collisions resulting in scuffs and gouges of trees would decrease as the need to pass two-way traffic on a less than two lane road is eliminated. • Head on collisions may increase as a result of wrong way drivers. • Improvements at Highway 101, such as acceleration or merge lanes, may be needed to accommodate additional traffic at this intersection.
COMMUNITY RESPONSE
• Unacceptable to hinder emergency response further. • Inconvenient to road users. • Undesirable increase in vehicle speeds anticipated.
DRAINAGE
• Drainage improvements could be either underground storm drains or open ditches, both would meet County Code. However, open ditches would widen the roadway cross section wider than underground storm drains resulting in greater impacts to trees and require greater maintenance effort to remove leaf litter and branches. • Underground storm drains are preferable since the road surface could be placed upon the underground storm drain which would result in fewer impacts to trees and allow for the removal of leaf litter and branches on the road surface rather than in an open ditch resulting in less maintenance effort. • Impacts to private properties including ponding water and failure of leach fields would be avoided.
EFFORT AND EXPENSE
• Implementation would consume minor effort and expense relative to other alternatives. • Maintenance effort and expense would decrease substantially. Undergrounding open ditches is anticipated to reduce debris removal maintenance effort by 50%.

ROAD STANDARDS
• Wonder Stump Road would not meet State Responsibility Area (SRA) Fire Safe Regulations. • Wonder Stump Road would not meet Urban and Rural Public Road Standards. • Fort Dick Fire Protection District jurisdiction includes this section of Wonder Stump Road and they responds from both their Lake Earl Drive Fire Station and Kings Valley Road Fire Station. A one way road would hinder their emergency response. Likely Del Norte Ambulance would have similar concerns. • Potential enforcement headache resulting from habitual wrong way drivers.
SPEED
• Speed would likely increase as two-way traffic is eliminated. • Through traffic may increase resulting in increased speeds.
TREES
• Minor to moderate tree removal and impacts to tree roots and canopies. • Underground drainage in lieu of open ditches to reduce impacts to trees.

- Alternative 4 – One-Way Southbound

  A one-way road southbound would eliminate two-way traffic on a less than two-lane roadway. Drainage improvements would be designed to carry runoff from a ten-year storm.

ANALYSIS OF ALTERNATIVE 4
COLLISIONS
• Collision types and rates would decrease as continuously available lane width was established. • Unreported collisions resulting in scuffs and gouges of trees would decrease as the need to pass two-way traffic on a less than two lane road is eliminated. • Head on collisions may increase as a result of wrong way drivers. • Improvements at Highway 101, such as turn pockets, may be needed to accommodate additional traffic at this intersection.
COMMUNITY RESPONSE
• Unacceptable to hinder emergency response further. • Inconvenient to road users. • Undesirable increase in vehicle speeds anticipated.
DRAINAGE
• Drainage improvements could be either underground storm drains or open ditches, both would meet County Code. However, open ditches

would widen the roadway cross section wider than underground storm drains resulting in greater impacts to trees and require greater maintenance effort to remove leaf litter and branches. • Underground storm drains are preferable since the road surface could be placed upon the underground storm drain which would result in fewer impacts to trees and allow for the removal of leaf litter and branches on the road surface rather than in an open ditch resulting in less maintenance effort. • Impacts to private properties including ponding water and failure of leach fields would be avoided.
EFFORT AND EXPENSE
• Implementation would consume minor effort and expense relative to other alternatives. • Maintenance effort and expense would decrease substantially. Undergrounding open ditches is anticipated to reduce debris removal maintenance effort by 50%.
ROAD STANDARDS
• Wonder Stump Road would not meet State Responsibility Area (SRA) Fire Safe Regulations. • Wonder Stump Road would not meet Urban and Rural Public Road Standards. • Fort Dick Fire Protection District jurisdiction includes this section of Wonder Stump Road and they responds from both their Lake Earl Drive Fire Station and Kings Valley Road Fire Station. A one way road would hinder their emergency response. Likely Del Norte Ambulance would have similar concerns. • Potential enforcement headache resulting in decrease safety along corridor.
SPEED
• Speed would likely increase as two-way traffic is eliminated. • Through traffic may increase resulting in increased speeds.
TREES
• Minor to moderate tree removal and impacts to tree roots and canopies. • Underground drainage in lieu of open ditches to reduce impacts to trees.

- Alternative 5 – Drainage Improvements with Paved Surface

  Convert open ditches to underground storm drains, pave surface of the underground storms drains and roadway resulting in a wider roadway and reduced maintenance needs for the drainage facility. Drainage improvements would be designed to carry runoff from a ten-year storm.

ANALYSIS OF ALTERNATIVE 5
COLLISIONS
• Collision types and rates would decrease as lane width and clear recovery zone increased. • Unreported collisions resulting in scuffs and gouges of trees would decrease.
COMMUNITY RESPONSE
• Most palatable two-way road improvement. • Minimize impacts to trees including roots and canopy. • Undesirable increase in vehicle speed anticipated.
DRAINAGE
• Drainage improvements could be either underground storm drains or open ditches, both would meet County Code. However, open ditches would widen the roadway cross section wider than underground storm drains resulting in greater impacts to trees and require greater maintenance effort to remove leaf litter and branches. • Underground storm drains are preferable since the road surface could be placed upon the underground storm drain which would result in fewer impacts to trees and allow for the removal of leaf litter and branches on the road surface rather than in an open ditch resulting in less maintenance effort. • Impacts to private properties including ponding water and failure of leach fields would be avoided.
EFFORT AND EXPENSE
• Implementation would consume moderate effort and expense relative other alternatives. • Maintenance effort and expense would decrease substantially. Undergrounding open ditches is anticipated to reduce debris removal maintenance effort by 50%.
ROAD STANDARDS
• Wonder Stump Road would not meet State Responsibility Area (SRA) Fire Safe Regulations. • Wonder Stump Road would not meet Urban and Rural Public Road Standards. • Emergency response would continue to be hindered by a less than two lane road serving two-way traffic. This alternative would still result in a betterment benefitting emergency response.
SPEED
• Speeds would increase as road width increased.
TREES
• Moderate tree removal and impacts to tree roots and canopies. • Underground drainage in lieu of open ditches to reduce impacts to trees.

- Alternative 6 – SRA Fire Safe Regulations (22 Foot Paved Surface with No Shoulders)

  Widen roadway to meet State Responsibility Area (SRA) Fire Safe Regulations which requires at least two 10 foot travel lanes, not including shoulder and striping. The additional 2 feet of paving is to accommodate striping. No shoulder improvements would be proposed as part of this alternative. Drainage improvements would be designed to carry runoff from a ten-year storm.

ANALYSIS OF ALTERNATIVE 6
COLLISIONS
• Collision types and rates would decrease as lane width and clear recovery zone increased. • Unreported collisions resulting in scuffs and gouges of trees would decrease.
COMMUNITY RESPONSE
• Unacceptable impacts to trees including roots and canopy. • Undesirable increase in vehicle speed anticipated.
DRAINAGE
• Drainage improvements could be either underground storm drains or open ditches, both would meet County Code. However, open ditches would widen the roadway cross section wider than underground storm drains resulting in greater impacts to trees and require greater maintenance effort to remove leaf litter and branches. • Underground storm drains are preferable since the road surface could be placed upon the underground storm drain which would result in fewer impacts to trees and allow for the removal of leaf litter and branches on the road surface rather than in an open ditch resulting in less maintenance effort. • Impacts to private properties including ponding water and failure of leach fields would be avoided.
EFFORT AND EXPENSE
• Implementation would consume substantial effort and expense relative to other alternatives. • Maintenance effort and expense would decrease substantially. Undergrounding open ditches is anticipated to reduce debris removal maintenance effort by 50%.
ROAD STANDARDS
• Wonder Stump Road would meet State Responsibility Area (SRA) Fire Safe Regulations. • Wonder Stump Road would not meet Urban and Rural Public Road Standards. • Emergency response would improve with a two lane road serving two-

way traffic.
SPEED
• Speeds would increase as road width increased.
TREES
• Substantial tree removal and impacts to tree roots and canopies. • Underground drainage in lieu of open ditches to reduce impacts to trees.

- Alternative 7 – 24 Foot Paved Surface with No Shoulders

  Widen paved surface to 24 foot wide paved surface meeting Urban and Rural Public Road Standards for road width. No shoulder improvements would be proposed as part of this alternative. Drainage improvements would be designed to carry runoff from a ten-year storm.

ANALYSIS OF ALTERNATIVE 7
COLLISIONS
• Collision types and rates would decrease as lane width and clear recovery zone increased. • Unreported collisions resulting in scuffs and gouges of trees would decrease.
COMMUNITY RESPONSE
• Unacceptable impacts to trees including roots and canopy. • Undesirable increase in vehicle speed anticipated.
DRAINAGE
• Drainage improvements could be either underground storm drains or open ditches, both would meet County Code. However, open ditches would widen the roadway cross section wider than underground storm drains resulting in greater impacts to trees and require greater maintenance effort to remove leaf litter and branches. • Underground storm drains are preferable since the road surface could be placed upon the underground storm drain which would result in fewer impacts to trees and allow for the removal of leaf litter and branches on the road surface rather than in an open ditch resulting in less maintenance effort. • Impacts to private properties including ponding water and failure of leach fields would be avoided.
EFFORT AND EXPENSE
• Implementation would consume substantial effort and expense relative to other alternatives. • Maintenance effort and expense would decrease substantially. Undergrounding open ditches is anticipated to reduce debris removal maintenance effort by 50%.
ROAD STANDARDS

• Wonder Stump Road would exceed State Responsibility Area (SRA) Fire Safe Regulations. • Wonder Stump Road would not meet Urban and Rural Public Road Standards. • Emergency response would improve with a two lane road serving two-way traffic.
SPEED
• Speed would increase as road width increased.
TREES
• Substantial tree removal and impacts to tree roots and canopies. • Underground drainage in lieu of open ditches to reduce impacts to trees.

13. WONDER STUMP ROAD PROPERTY

The Wonder Stump Road property was purchased in fee by the County of Del Norte in 1996 from Rellim Redwood Co. using Road Funds and was recorded by the Del Norte County Recorder on July 1, 1996 in Book 459, Page 628-636. Purchasing the Wonder Stump Road property eliminated the need for the County to continue to lease a narrow strip of land over which County maintained Wonder Stump Road existed.

- Appendix 23 – Corporation Grant Deed; July 1, 1996; Book 459, Page 628-636

14. FUNDING THE PLANNING ACTIVITY

The Summary of Engagement was funded with Rural Planning Assistance (RPA) funds allocated to the County of Del Norte by the Del Norte Local Transportation Commission through the 2019-2020 Overall Work Program; additional RPA funds were requested and allocated during the 2019-2020 fiscal year after a higher than anticipated volume of public input was received.

The Summary of Engagement was undertaken with no funding identified or anticipated for environmental studies, right-of-way acquisition, design, or construction of a project.

- Appendix 24 – Del Norte Local Transportation Commission Fiscal Year 2019-2020 Overall Work Program, Work Element I, Community and Stakeholder Engagement
- Appendix 25 – Resolution 2019-15 Del Norte Local Transportation Commission Resolution Approving Amendment #1 of the 2019-20 Overall Work Program

15. REASONABLE EXPECTATIONS

The Summary of Engagement gathered input into potential improvements to Wonder Stump Road from the Younkers Creek Bridge to US Highway 101. The planning activity did not result in any promises or absolutes. Any future projects along Wonder Stump Road, meeting the definition of a "project" under Public Resources Code §21065, will comply with the California Environmental Quality Act (CEQA) which may include a process with a public comment period. The Road Division of the County will continue to maintain Wonder Stump Road. Maintenance has and will continue to require the periodic removal of trees and impacts to tree roots and canopies.

16. ACCEPTANCE OF SUMMARY OF ENGAGEMENT

The Summary of Engagement was submitted to the Board of Supervisors for acceptance at their June 9, 2020 meeting. The recommendation of staff was "Accept the Summary of Wonder Stump Road Community and Stakeholder Engagement as complete and direct staff to maintain the status quo."

- Appendix 26 – Board Order