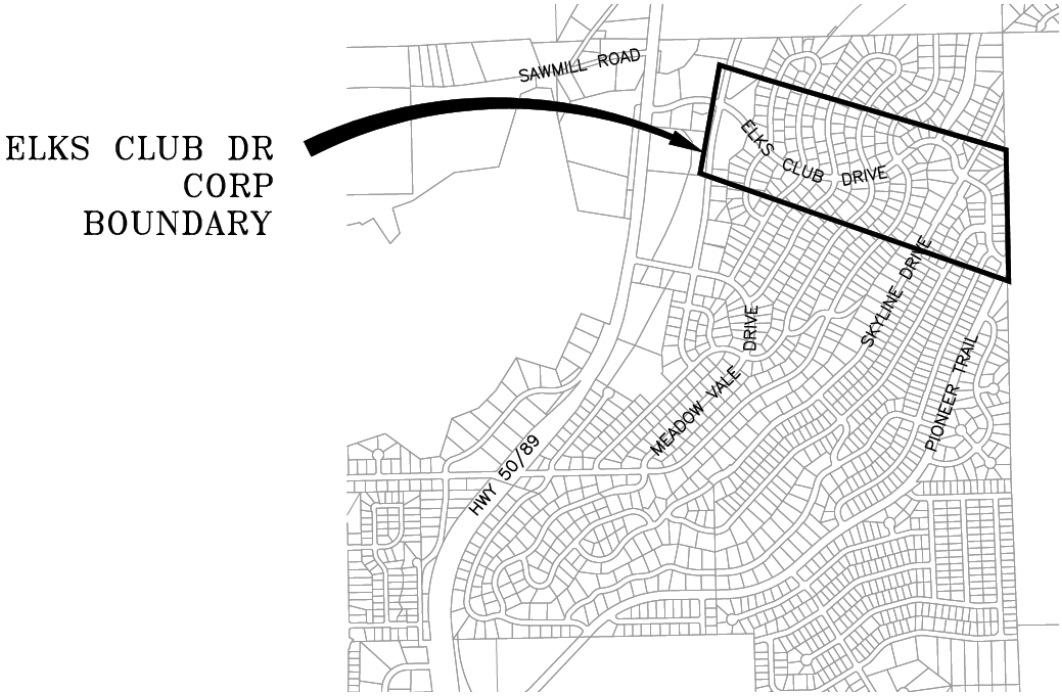
COUNTY OF EL DORADO, CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONTRACT DOCUMENTS

INCLUDING
NOTICE TO BIDDERS, SPECIAL PROVISIONS,
PROPOSAL, AND AGREEMENT
FOR

ELKS CLUB DRIVE CAPITAL OVERLAY AND REHABILITATION PROJECT

CONTRACT PW No. 18-31210, CIP No. 72192, CONTRACT No. 2531



FOR USE WITH
STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION,
2015 STANDARD SPECIFICATIONS AND STANDARD PLANS

BID OPENING DATE: **April 26, 2018**

COUNTY OF EL DORADO, CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONTRACT DOCUMENTS

INCLUDING
NOTICE TO BIDDERS, SPECIAL PROVISIONS,
PROPOSAL, AND CONTRACT
FOR

ELKS CLUB DRIVE CAPITAL OVERLAY AND REHABILITATION PROJECT

April 2018

PW No. 18-31210, CIP No. 72192, CONTRACT No. 2531

The various portions of the Contract Documents have been prepared under the direction of the following licensed Civil Engineer, in accordance with California Business and Professions Code § 6735.

Daniel Kikkert, RCE No. C70168

Date 28 February, 2018

COUNTY OF EL DORADO, CALIFORNIA
DEPARTMENT OF TRANSPORTATION

NOTICE TO BIDDERS

NOTICE IS HEREBY GIVEN by the County of El Dorado, State of California, that sealed bids for Work in accordance with the Project Plans (Plans) and Contract Documents designated:

ELKS CLUB DRIVE CAPITAL OVERLAY AND REHABILITATION PROJECT
CONTRACT NO. PW 18-31210, CIP NO. 72192, CONTRACT 2531

Will be received by the Department of Transportation, at the front counter of 924B Emerald Bay Road, South Lake Tahoe, California, until **April 26 at 2:00 PM,** at which time bids will be publicly opened and read by the County of El Dorado, Department of Transportation.

No Bid may be withdrawn after the time established for receiving bids or before the award and execution of the Contract, unless the award is delayed for a period exceeding sixty (60) calendar days. Bids must be executed in accordance with the instructions given and forms provided in the Contract Documents furnished by the County of El Dorado, Department of Transportation through Quest Construction Data Network (Quest). **The Proposal including the Bidder's Security shall be submitted in a sealed envelope clearly marked:**

"PROPOSAL FOR ELKS CLUB DRIVE CAPITAL OVERLAY AND REHABILITATION PROJECT"
CONTRACT NO. PW 18-31210, CIP NO. 72192, CONTRACT 2531
TO BE OPENED AT 2:00 P.M. ON April 26, 2018

LOCATION/DESCRIPTION OF THE WORK: The Project is located in the Tahoe Basin along Elks Club, Meadowvale, and Boca Raton, in South Lake Tahoe in the County of El Dorado. The Work to be done is shown on the Plans, and generally consists of, but is not limited to:

A. Construction of approximately 0.7 miles of two (2) inches of compacted AC Overlay with a geosynthetic pavement interlayer placed on Elks Club Drive, three (3) inch deep full width grinds along the above streets with two (2) inch grinds at all marked intersections, constructing concrete rolled curb and gutter, traffic control, installation of temporary and permanent pavement markers and construction area signing, and the installation and removal of temporary erosion control measures. Other items or details not mentioned above, that are required by the plans, Standard Plans, Standard Specifications, or these Special Provisions must be performed, constructed or installed.

B. Bids are required for the entire Work described herein.

C. Bids are required for the entire Work described herein.

D. The Contract time is **TWENTY (20) WORKING DAYS.**

E. For bonding purposes the anticipated project cost is less than $750,000.

F. A pre-bid meeting is scheduled for this Project on **Tuesday, April 17 at 1:00 p.m.** at the County of El Dorado, Department of Transportation, 924B Emerald Bay Road, South Lake Tahoe, CA. The meeting will be held in the upstairs conference room. Attendance at the pre-bid meeting is not mandatory.

G. This Project is being formally bid in accordance with Public Contract Code 22032 and County of El Dorado Ordinance Code section 3.14.040.

OBTAINING OR VIEWING CONTRACT DOCUMENTS: The Contract Documents, including the Project Plans, may be viewed and/or downloaded from the Quest website at http://www.questcdn.com. Interested parties may also access the Quest website by clicking on the link next to the Project Name or entering the Quest Project # on

the Department of Transportation's website at https://www.edcgov.us/government/dot/pages/bidshome.aspx.

Interested parties may view the Contract Documents, including the Project Plans, on the Quest website at no charge. The digital Contract Documents, including the Project Plans, may be downloaded for $10.00 by inputting the Quest Project # #5598644 on the websites' Project Search page. Please contact QuestCDN.com at (952) 233-1632 or info@questcdn.com for assistance in free membership, registration, downloading, and working with this digital project information.

To be included on the planholders list, receive notification of addenda, and to be eligible to bid interested parties must download the Contract Documents, including the Project Plans, from Quest. Those downloading the Contract Documents, including the Project Plans, assume responsibility and risk for completeness of the downloaded Contract Documents.

The Contract Documents, including the Project Plans, may be examined in person at the Department of Transportation office at 924B Emerald Bay Road, South Lake Tahoe CA. However, the Department of Transportation will no longer sell paper copies of the Contract Documents.

The cross sections and the following Supplemental Project Information/Information Handout will be provided in pdf format as part of the Contract Documents on Quest's website to all planholders who acquire the Contract Documents digitally through Quest:

CONTRACTORS LICENSE CLASSIFICATION: Bidders must be properly licensed to perform the Work pursuant to the Contractors' State License Law (Business and Professions Code Section 7000 et seq.) and must possess a **CLASS A** license or equivalent combination of Classes required by the categories and type of Work included in the Contract Documents and Plans at the time the Contract is awarded, and must maintain a valid license through completion and acceptance of the Work, including the guarantee and acceptance period. Failure of the successful Bidder to obtain proper adequate licensing will constitute a failure to execute the Contract and will result in the forfeiture of the Bidder's security.

BUSINESS LICENSE: The County Business License Ordinance provides that it is unlawful for any person to furnish supplies or services, or transact any kind of business in the unincorporated territory of the County of El Dorado without possessing a County business license unless exempt under County Ordinance Code Section 5.08.070. The Bidder to whom an award is made must comply with all of the requirements of the County Business License Ordinance, where applicable, prior to beginning Work under this Contract and at all times during the term of this Contract.

CONTRACTOR REGISTRATION: No contractor or subcontractor may bid on any public works project, be listed in a bid proposal for any public works project, or engage in the performance of any contract for public work unless registered with the Department of Industrial Relations pursuant to Labor Code sections 1725.5 and 1771.1.

An inadvertent error in listing a subcontractor who is not registered pursuant to Section 1725.5 in a bid proposal shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the requirements of Labor Code section 1771.1 are met.

SUBCONTRACTOR LIST: Each Proposal must have listed therein the name, contractor's license number, DIR number, and address of each subcontractor to whom the bidder proposes to subcontract portions of the Work in an amount in excess of 0.5% of the total bid or $10,000, whichever is greater, in accordance with the Subletting and Subcontracting Fair Practices Act, commencing with Section 4100 of the Public Contract Code. The Bidder must also describe in the Subcontractor List the Work to be performed by each subcontractor listed. The Work to be performed by the subcontractor must be shown by listing the bid item number, bid item description, and portion of the Work to be performed by the subcontractor in the form of a percentage (not to exceed 100%) calculated by dividing the Work to be performed by the subcontractor by the respective bid item amount(s) (not by the total bid price).

The percentage of each bid item subcontracted may be submitted with the Bidder's bid or sent via email or fax to Daniel Kikkert, County of El Dorado, Department of Transportation, email- Dan.Kikkert@edcgov.us, Fax-(530)

541-7049 by 4:00 p.m. on the first business day after the bid opening. The email or fax must contain the name of each subcontractor submitted with the Bidder's bid along with the bid item number, the bid item description, and the percentage of each bid item subcontracted, as described above. At the time the contract is awarded, all listed subcontractors must be properly licensed to perform their designated portion of the Work. The bidder's attention is directed to other provisions of the Act related to the imposition of penalties for failure to observe its provisions by using unauthorized subcontractors or by making unauthorized substitutions.

An inadvertent error in listing the California Contractor license number on the Subcontractor List will not be grounds for filing a bid protest or grounds for considering the bid non-responsive if the Bidder submits the corrected contractor's license number to Daniel Kikkert via fax or email as noted above within 24 hours after the bid opening, provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor.

NONDISCRIMINATION: Comply with Chapter 5 of Division 4 of Title 2, California Code of Regulations and the following.

NOTICE OF REQUIREMENT FOR NONDISCRIMINATION PROGRAM
(GOVERNMENT CODE SECTION 12990)

> Comply with Section 7-1.02I(2), "Nondiscrimination," of the Standard Specifications, which is applicable to all nonexempt State contracts and subcontracts, and to the "Standard California Nondiscrimination Construction Contract Specifications" set forth therein. The specifications are applicable to all nonexempt State construction contracts and subcontracts of $5,000 or more.

Comply with the additional nondiscrimination and fair employment practices provisions in the *Draft Agreement* contained in these Contract Documents that will apply to this Federal-aid Contract.

The Department of Transportation hereby notifies all Bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, national origin, religion, age, or disability in consideration for the award.

PREVAILING WAGE REQUIREMENTS: In accordance with the provisions of California Labor Code Sections 1770 et seq., including but not limited to Sections 1773, 1773.1, 1773.2, 1773.6, and 1773.7, the general prevailing rate of wages in the county in which the Work is to be done has been determined by the Director of the California Department of Industrial Relations. Interested parties can obtain the current wage information by submitting their requests to the Department of Industrial Relations, Division of Labor Statistics and Research, PO Box 420603, San Francisco CA 94142-0603, Telephone (415) 703-4708 or by referring to the website at http://www.dir.ca.gov/OPRL/PWD. The rates at the time of the bid advertisement date of a project will remain in effect for the life of the project in accordance with the California Code of Regulations, as modified and effective January 27, 1997.

Copies of the general prevailing rate of wages in the county in which the Work is to be done are also on file at the Department of Transportation's principal office, and are available upon request.

In accordance with the provisions of Labor Code 1810, eight (8) hours of labor constitutes a legal day's work upon all work done hereunder, and Contractor and any subcontractor employed under this Contract must conform to and be bound by the provisions of Labor Code Sections 1810 through 1815.

This Project is subject to the requirements of Title 8, Chapter 8, Subchapter 4.5 of the California Code of Regulations including the obligation to furnish certified payroll records directly to the Compliance Monitoring Unit under the Labor Commissioner within the Department of Industrial Relations Division of Labor Standards Enforcement in accordance with Section 16461.

TRAINING: For the Federal training program, the number of trainees or apprentices is 0.

BID SECURITY: A bid security must be provided with each bid. Bid security must be in an amount of not less than ten percent (10%) of the total amount of the Bid for bid and must be cash, a certified check or cashier's check drawn to the order of the County of El Dorado or a Bidder's Bond executed by a surety satisfactory to the County of El Dorado **on the form provided in the Proposal section of these Contract Documents**.

BID PROTEST PROCEDURE: The protest procedure is intended to handle and resolve disputes related to the bid award for this Project pursuant to County of El Dorado policies and procedures.

The protest procedure is an extension of the formal bid process and allows those who wish to protest the recommendation of an award after bid the opportunity to be heard.

Policy: Upon completion of the bid evaluation, the Department of Transportation will notify all bidders of the recommendation of award, the basis therefore, and the date and time on which the recommendation for award will be considered and acted upon by the Board of Supervisors. All bidders may attend the Board of Supervisors meeting at the time the agenda item is considered, address the Board of Supervisors, and be heard.

Procedure: If a bidder wishes to protest the award, this is the procedure:

1. The Department of Transportation Division will review the bids received in a timely fashion under the terms and conditions of the Notice to Bidders, and notify the bidders in writing, at the fax number designated in the Proposal, of its recommendation including for award or rejection of bids ("All Bidders Letter").

2. Within five (5) business days from the date of the "All Bidders Letter," the Bidder protesting the recommendation for award must submit a letter of protest to and must be received by the County of El Dorado, Department of Transportation, Attention Brian Franklin, 2850 Fairlane Court,, Placerville, CA 95667, and state in detail the basis and reasons for the protest. The Bidder must provide facts to support the protest, including any evidence it wishes to be considered, together with the law, rule, regulation, or criteria on which the protest is based.

3. If Department of Transportation finds the protest to be valid, it may modify its award recommendations and notify all bidders of that decision. If the Department of Transportation does not agree with the protest, or otherwise fails to resolve the protest, the Department of Transportation will notify the bid protestor and all interested parties of its decision and the date and time that the recommendation for award will be agendized for the Board of Supervisors' consideration and action. The Department of Transportation will also include in its report to the Board of Supervisors the details of the bid protest.

4. The Bidder may attend the Board of Supervisors meeting at which the recommendation and bid protest will be considered. The Board of Supervisors will take comment from the Bidder, staff, and members of the public who wish to speak on the item. In the event that the Bidder is not in attendance at that time, the bid protest may be dismissed by the Board of Supervisors without further consideration of the merits; and

The decision of the Board of Supervisors on the bid protest will be final.

AWARD OF CONTRACT: Bids will be considered for award by the Board of Supervisors. The County of El Dorado reserves the right after opening bids to reject any or all bids, to waive any irregularity in a bid, or to make award to the lowest responsive, responsible Bidder and reject all other bids, as it may best serve the interests of the County.

As a condition of award, the successful Bidder will be required to submit bonds and evidence of insurance prior to execution of the Agreement by the County. Failure to meet this requirement constitutes abandonment of the Bid by the Bidder and forfeiture of the Bidder's security. Award will then be made to the next lowest, responsive, responsible Bidder.

RETAINAGE FROM PAYMENTS: The Contractor may elect to receive one hundred percent (100%) of payments due under the Contract from time to time, without retention of any portion of the payment by the County, by depositing securities of equivalent value with the County in accordance with the provisions of Section 22300 of the Public Contract Code. Securities eligible for deposit hereunder are be limited to those listed in Section 16430 of the Government Code, or bank or savings and loan certificates of deposit.

PROJECT ADMINISTRATION: Submit all Requests for Information (RFI) during the bid period on the Quest website under the Quest #5598644 under "Project Q&A". If the response does not require an addendum, a response will be posted on the Quest website under the RFI under "Project Q&A". It is the bidders' responsibility to check this website under "Project Q&A" for responses to bidders' inquiries during the bid period. Addenda will be uploaded in pdf format to Quest's website and Quest will issue an automatic email notification to all planholders that have acquired the Contract Documents digitally through Quest. The list of planholders will be available on Quest's website under "View Planholders".

No oral responses to any questions concerning the content of the Contract Documents will be given. All responses will be in the form of written addenda to the Contract Documents or written responses to bidders' inquiries. Responses to bidders' inquiries and addenda will be posted on the Quest website as described above.

BY ORDER OF the Director of the County of El Dorado, State of California.

Authorized by the Board of Supervisors on April 3, at Placerville, California.

By _____
Rafael Martinez, Director
Community Development Services
Department of Transportation

County of El Dorado, State of California
Department of Transportation

Elks Club Drive Capital Overlay and Rehabilitation Project
PW No. 18-31210, CIP No. 72192, Contract 2531

Table of Contents

ORGANIZATION

Special provisions are under headings that correspond with the main-section headings of the *Standard Specifications*. A main-section heading is a heading shown in the table of contents of the *Standard Specifications*.

Each special provision begins with a revision clause that describes or introduces a revision to the *Standard Specifications* as revised by any revised standard specification.

Any paragraph added or deleted by a revision clause does not change the paragraph numbering of the *Standard Specifications* for any other reference to a paragraph of the *Standard Specifications*.

STANDARD PLANS LIST

The standard plan sheets applicable to this Contract include those listed below. The applicable revised standard plans (RSPs) listed below are included in the supplemental project information.

ABBREVIATIONS, LINES, SYMBOLS AND LEGEND

A10A	**Abbreviations (Sheet 1 of 2)**
RSP A10B	**Abbreviations (Sheet 2 of 2)**

PAVEMENT MARKERS, TRAFFIC LINES, AND PAVEMENT MARKINGS

A20A	**Pavement Markers and Traffic Lines, Typical Details**
A20B	**Pavement Markers and Traffic Lines, Typical Details**

DRIVEWAYS

T-509	**Tahoe Basin Driveway Connection (El Dorado County Standard Plan)**

TEMPORARY WATER POLLUTION CONTROL

T59	**Temporary Water Pollution Control Details (Temporary Concrete Washout Facility)**
T60	**Temporary Water Pollution Control Details (Temporary Reinforced Silt Fence) (Modified per Section 13-6.03H)**
T62	**Temporary Water Pollution Control Details (Temporary Drainage Inlet Protection)**
T65	**Temporary Water Pollution Control Details [Temporary Fence (Type ESA)]**

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DIVISION I GENERAL PROVISIONS

1 GENERAL

Add to section 1-1.01:

Nonstandard Bid Items and Applicable Sections

Item Code	Item Description	Applicable Section
390132A	HOT MIX ASPHALT (TYPE A) (TON)	39
393006A	GEOSYNTHETIC PAVEMENT INERLAYER (PAVING GRID)	39
394090A	PLACE HOT MIX ASPHALT (DRIVEWAY R&R)	39
398200A	COLD PLANE ASPHALT CONCRETE PAVEMENT	15
710242A	MODIFY INLET	71
731504A	MINOR CONCRETE (CURB AND GUTTER)	72

Add to the table in section 1-1.06:

Abbreviation	Meaning
BMP	Best Management Practice
CCC	California Conservation Corp
CTC	California Tahoe Conservancy
CVIN	Central Valley Independent Network, LLC
EID	El Dorado Irrigation District
LIBERTY	Liberty Utilities
RWQCB	Regional Water Quality Control Board, Lahontan Region
SEZ	Stream Environment Zone
STPUD	South Tahoe Public Utility District
SWD	Sign Working Day
TRM	Turf Reinforcement Mat
TRPA	Tahoe Regional Planning Agency
USDA	United States Department of Agriculture
USFS	United States Forest Service; Also known as the USDA Forest Service
USPS	United States Postal Service

Replace the corresponding definitions in section 1-1.07B with:

Bid Item List: List of bid items and the associated quantities. The Proposal Pay Items and Bid Price Schedule in the Proposal section is the Bid Item List. The verified Bid Item List is Exhibit A Contractor's Bid and Bid Price Schedule in the fully-executed contract for the project.

Contract acceptance: County Clerk/Recorder's recordation of the executed written Notice of Acceptance of a completed Contract.

Department or Department of Transportation: The Department of Transportation in the Community Development Services of the County of El Dorado or Department of Transportation as defined in St & Hwy Code § 20 and authorized in St & Hwy Code § 90; its authorized representatives.

Engineer: The Director of Transportation for County of El Dorado, or authorized representative (Resident Engineer) responsible for the Contract's administration; the Resident Engineer's authorized representatives.

Federal-aid contract: Contract that has a federal-aid project number on the cover of the book titled Contract Documents.

Informal-bid contract: Contract that is noted as informally bid in the *Notice to Bidders.*

2. revised standard specifications: New or revised standard specifications. These specifications are in a section titled *Revised Standard Specifications* of a book titled *Contract Documents including Notice to Bidders, Special Provisions, Proposal, and Contract.*

3. special provisions: Specifications specific to the project. These specifications are in a section titled *Special Provisions* of a book titled *Contract Documents including Notice to Bidders, Special Provisions, Proposal, and Contract.*

State: The State of California, including its agencies, departments, or divisions, whose conduct or action is related to the work, or County of El Dorado, a political subdivision of the State, and its Community Development Agency, Transportation Division

Structure Design: The Department of Transportation for County of El Dorado or Offices of Structure Design of the Department of Transportation.

Add to section 1-1.07B:

Contract approval: Execution of the Contract by the County of El Dorado.

Contract award package: The Notice of Award of Contract letter, two originals of the Agreement, Payment and Performance bond forms, and other forms the successful Bidder must complete for Contract Execution.

Contract Documents: See Article 2 "Contract Documents" of the Draft Agreement.

County: County of El Dorado, a political subdivision of the State of California.

Laboratory: The established laboratory of the County of El Dorado Department of Transportation or laboratories authorized by the Engineer to test materials and work involved in the contract.

Office Engineer: The Office Engineer in the County of El Dorado, Department of Transportation or, depending on context, Caltrans Office Engineer

Proposal: The Proposal section of the Contract Documents book or the Bidder's bid.

Delete "estimated cost" in section 1-1.07B.

Add to section 1-1.09:

This Project is in a freeze-thaw area.

Add to section 1-1.11:

Reference or agency or department unit	Web site	Address	Telephone no.
County of El Dorado Department of Transportation	http://www.edcgov.us/DOT/	924B Emerald Bay Road, South Lake Tahoe, CA 96150	(530) 573-7900
County of El Dorado Department of Transportation Office Engineer		2850 Fairlane Court Placerville, CA 95667	(530) 621-5311

Replace section 1-1.12 with:

Make checks payable to County of El Dorado. Use the bond forms provided in the book titled *Contract Documents including Notice to Bidders, Special Provisions, Proposal, and Agreement.*

^^

2 BIDDING

Delete the 2nd paragraph of section 2-1.01.

Replace section 2-1.06A with:

The Contract Documents book and project plans may be viewed by subscribers at:

1. Sacramento Regional Builders Exchange at www.srbx.org
2. Placer County Contractors Association & Builders Exchange at www.pccamembers.com
3. Mc Graw-Hill Construction Dodge at www.fwdodge.com
4. Construction Bid Board at www.ebidboard.com
5. iSqFt at www.isqft.com
6. Quest Construction Data Network's website as described in the *Notice to Bidders*

The Notice to Bidders can be viewed at http://www.edcgov.us/Government/DOT/BidsHome.aspx.

The *Notice to Bidders* includes how and where to obtain the Contract Documents book, the project Plans, and the Supplemental Project Information.

The Contract Documents book includes the *Notice to Bidders, Revised Standard Specifications, Special Provisions, Proposal, and Contract.*

Replace the 3rd paragraph of section 2-1.06B with:

If an *Informational Handout* or cross sections are available you may view and/or download them at as described in the *Notice to Bidders.*

Add to section 2-1.06B:

Availability of and requests for rock cores, other supplemental project information, and bridge as-built drawings described in this section apply only to projects on the State Highway System.

You must contact South Tahoe Public Utility District as to the availability and use of water sources for the Project work.

Add between the 1st and 2nd paragraphs of section 2-1.06B:

The Department makes the following supplemental project information available:

Supplemental Project Information

Means	Description
Included in the *Information Handout*	
Available as specified in the *Notice to Bidders*	Cross Sections and Shotcrete Wall Evaluation
Included with the project plans	
Available for inspection at the Transportation Laboratory	
Available for inspection at: Tahoe Engineering Office Telephone no.: (530) 573-7900	Storm Water Pollution Prevention Plan (SWPPP)

Requests for cross sections in Autocad .dwg format may be made by sending the signed Electronic Acknowledgement Usage Form, included in Attachment A of this document, to Brian Franklin at Brian.Franklin@edcgov.us or by fax to (530) 626-0387. Once the signed Electronic Usage Form is received, the County will forward the County's ftp site information to the bidder to download the Autocad .dwg format files.

Replace "Bid Item List" in section 2-1.09 with:

Proposal Pay Items and Bid Price Schedule.

Replace the 2nd paragraph in section 2-1.10 with:

The Subcontractor List in the Proposal must show the name, contractor's license number, address, and work portions to be performed by each subcontractor listed. The work portion to be performed must be shown by listing the bid item number, bid item description, and portion of the work to be performed by the subcontractor in the form of a percentage (not to exceed 100%) calculated by dividing the work to be performed by the subcontractor by the respective bid item amount(s) (not by the total bid price).

An inadvertent error in listing the California Contractor license number on the Subcontractor List will not be grounds for filing a bid protest or grounds for considering the bid non-responsive if the Bidder submits the corrected contractor's license number to Brian Franklin via fax (530) 626-0387 or email Brian.Franklin@edcgov.us within 24 hours after the bid opening, provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor.

Replace section 2-1.15 "DISABLED VETERAN BUSINESS ENTERPRISES" with:

2-1.15 RESERVED

Replace section 2-1.18 "SMALL BUSINESS AND NON-SMALL BUSINESS SUBCONTRACTOR PREFERENCES" with:

2-1.18 RESERVED

Replace section 2-1.27 "CALIFORNIA COMPANIES" with:

2-1.27 RESERVED

Replace section 2-1.33 with:

Except as noted below, complete all pages of the Proposal in the Contract Documents book and submit the completed Proposal with the Bidder's Security as noted in the *Notice to Bidders*.

Submit the forms from the Proposal and form information at the times shown in the following table:

Contract type	Forms to be submitted at the time of bid	Forms to be submitted and received no later than 24 hours after bid opening[a]	Forms to be submitted and received no later than 4 p.m. on the 4th business day after bid opening[a]
All Contracts	All Proposal forms including Business name and address; bid item number and bid item description of subcontracted work on the Subcontractor List	• Subcontractor name bid item number, bid item description shown on the Subcontractor List submitted with Proposal, and the percentage of each bid item [b] Correction for incorrect Contractor License # on Subcontractor List submitted with Proposal	--
Federal-aid Contracts Only (Not applicable to this contract)		--	• Local Agency Bidder - DBE – Commitment (Exhibit 15-G) [c] • DBE Information - Good Faith Efforts (Exhibit 15-H) and Documentation[c]

[a]The percentage of each bid item and the 15-G and 15-H forms may be submitted at the time of bid.

[b]If the information is not submitted at the time of bid email or fax to Office Engineer, email-Brian.Franklin@edcgov.us, Fax-(530) 626-0387. This after-bid submittal does not apply to an informal-bid contract. For an informal bid contract, submit the completed form at the time of bid.

[c]If not submitted at the time of bid, applicable only to the apparent low bidder, 2nd low bidder, and 3rd low bidder. Submit via email or fax to Office Engineer, email-Brian.Franklin@edcgov.us, Fax-(530) 626-0387.

Failure to submit the forms and information as specified results in a nonresponsive bid.

If an agent other than the authorized corporation officer or a partnership member signs the bid, submit a Power of Attorney authorizing the agent to sign on behalf of the principal with the bid. Otherwise, the bid may be disregarded as irregular or unauthorized.

Replace the 4th item of the 1st paragraph of section 2-1.34 with:

(a) Bidder's bond signed by an authorized representative of a surety insurer who is licensed in California. The authorized representative's signature must be notarized and authorization documentation must be provided.

Delete the 5th item of the 1st paragraph and the 3rd paragraph of section 2-1.34.

Replace the last paragraph of section 2-1.34 with:

If using a bidders bond, you must complete the Bidder's bond form included in in the Contract Documents following the Proposal and submit it with your proposal.

Delete the 2nd paragraph of section 2-1.40.

Replace "Reserved" in section 2-1.44 with:

2-1.44 BID PROTEST PROCEDURE

The protest procedure is intended to handle and resolve disputes related to the bid award for this project pursuant to County policies and procedures.

The protest procedure is an extension of the formal bid process and allows those who wish to protest the recommendation of an award after bid the opportunity to be heard.

Policy: Upon completion of the bid evaluation, the Department will notify all bidders of the recommendation of award, the basis therefore, and the date and time on which the recommendation for award will be considered and acted upon by the Board of Supervisors. All bidders may attend the Board of Supervisors meeting at the time the agenda item is considered, address the Board of Supervisors, and be heard.

Procedure: If you wish to protest the award, this is the procedure:

1. The Department will review the bids received in a timely fashion under the terms and conditions of the *Notice to Bidders*, and notify you in writing, at the fax number designated in the Proposal, of its recommendation including for award or rejection of bids ("All Bidders Letter").

2. Within five (5) business days from the date of the "All Bidders Letter," the Bidder protesting the recommendation for award must submit a letter of protest to and must be received by Office Engineer, Attention Brian Franklin, and state in detail the basis and reasons for the protest. The Bidder must provide facts to support the protest, including any evidence it wishes to be considered, together with the law, rule, regulation, or criteria on which the protest is based.

3. If the Department finds the protest to be valid, it may modify its award recommendations and notify all bidders of that decision. If the Department does not agree with the protest, or otherwise fails to resolve the protest, the Department will notify the bid protestor and all interested parties of its decision and the date and time that the recommendation for award will be agendized for the Board of Supervisors' consideration and action. The Department will also include in its report to the Board of Supervisors the details of the bid protest.

4. The Bidder may attend the Board of Supervisors meeting at which the recommendation and bid protest will be considered. The Board of Supervisors will take comment from the Bidder, staff, and members of the public who wish to speak on the item. If the Bidder is not in attendance at that time, the bid protest may be dismissed by the Board of Supervisors without further consideration of the merits; and

The decision of the Board of Supervisors on the bid protest will be final.

Replace the 1st sentence in section 2-1.46 with:

County Board of Supervisors' decision on the bid award is final.

Replace the 1st sentence in the 2nd paragraph section 2-1.46 with:

County Board of Supervisors may reject:

Replace section 2-1.47 with:

2-1.47 BID RELIEF

County Board of Supervisors may grant bid relief under Pub Cont Code § 5100 et seq. Submit any request for bid relief to Office Engineer, email-Brian.Franklin@edcgov.us, Fax-(530) 626-0387. Requests for bid relief must be in writing within 5 business day of the bid opening and must demonstrate:

1. A mistake was made in your bid.
2. The mistake made the bid materially different than what you intended.
3. The mistake was made in filling out the bid and not due to an error in judgment or to carelessness in inspecting the site of work or in reading the plans or specifications.

Delete section 2-1.49.

^^

3 CONTRACT AWARD AND EXECUTION

Delete items 1 and 2 of section 3-1.02B.

Replace section 3-1.04 with:

County Board of Supervisors will consider bids for award. County reserves the right after opening bids to reject any or all bids, to waive any irregularity in a bid, or to make award to the lowest responsive, responsible Bidder and reject all other bids, as it may best serve the interests of County. The award of the Contract, if it be awarded, will be to the lowest, responsive, responsible Bidder who's Proposal complies with all the requirements prescribed. This award, if made, will be made within sixty (60) days after the opening of the bids. This period will be subject to extension as may be agreed upon in writing between the Department and the Bidder concerned.

All bids will be compared on the basis of the Proposal Pay Items and Bid Price Schedule of the quantities of work to be done.

The lowest, responsive, responsible bidder will be the Bidder submitting the lowest additive total of all the bid items and meeting all other requirements. In the event of a discrepancy between the unit price bid and the extended unit total as stated on the Proposal, the Department uses the amount bid for the unit price in calculating the additive total of the bid items for purposes of award, including revisions by Addenda, and as specified in the Proposal instructions.

Replace section 3-1.05 with:

3-1.05 CONTRACT BONDS (PUB CONT CODE § 7103)

The successful Bidder must furnish two bonds:

1. Payment bond to secure the claim payments of laborers, workers, mechanics, or materialmen providing goods, labor, or services under the Contract. This bond must be in a sum not less than one hundred percent (100%) of the total amount payable by the terms of the contract, naming the County as obligee.
2. Performance bond to guarantee faithful performance of the Contract. This bond must be in a sum not less than one hundred percent (100%) of the total amount payable by the terms of the contract, naming the County as obligee.

The Payment and Performance Bond forms are included with the Draft Agreement section of the Contract Documents book. The Department furnishes the successful Bidder bond forms with the Contract award package.

Replace the 1st paragraph and the 1st item of the 2nd paragraph of section 3-1.06 with:

For a federal-aid contract, the Contractor must be properly licensed as a contractor from contract award (Pub Cont Code § 20103.5) through completion and acceptance of the Work, including the guarantee period. Failure to obtain proper and adequate licensing for an award of a Contract constitutes a failure to execute the Contract and results in the forfeiture of the security of the bidder.

1. The Contractor must be properly licensed as a contractor from bid opening (Bus & Prof Code § 7028.15) through completion and acceptance of the Work, including the guarantee period. Failure to obtain proper and adequate licensing constitutes a failure to execute the Contract and results in the forfeiture of the security of the bidder.

Replace section 3-1.08 "SMALL BUSINESS PARTICIPATION REPORT" with:

3-1.08 RESERVED

Replace section 3-1.11 with:

3-1.11 COUNTY PAYEE DATA RECORD FORM

Complete and sign the County *Payee Data Record* form included in the Contract award package.

Replace section 3-1.18 with:

3-1.18 CONTRACT EXECUTION

The successful Bidder must sign the *Agreement.*

Deliver to Office Engineer:

1) Two Original Signed *Agreements*
2) Contract Bonds
3) Documents identified in section 3-1.07 and 7-1.06
4) County *Payee Data Record* form
5) California Form 590-Withholding Exemption Certificate
6) Documents identified in and marked as specified in section 3-1.14, if applicable.

Office Engineer must receive these documents within 5 business days of the date of the Notice of Award of Contract letter.

The Bidder's security may be forfeited for failure to execute the Contract, furnish any bond, or provide the required insurance documents within the time specified.

The Department does not provide hard copies of the Contract Documents, including the Project Plans to the successful bidder.

Replace section 3-1.19 with:

3-1.19 BIDDERS' SECURITIES (Pub Cont Code § 20129)

The Department returns the securities of the unsuccessful Bidders within 60 of days Contract award. The Department returns the successful Bidder's security within 60 days of Contract execution.

^^

4 SCOPE OF WORK

Delete section 4-1.07C.

^^

5 CONTROL OF WORK

Replace the 5th paragraph of section 5-1.01 with:

Ensure the Department's, TRPA, CTC, USFS, RWQCB, STPUD, and SW Gas safe access to the work. Furnish facilities necessary for the Department's, TRPA, CTC, USFS, RWQCB, TCPUD, TCWC, and SW Gas inspection.

Delete section 5-1.09.

Replace the 6th paragraph of section 5-1.13A with:

Each subcontract must include the provisions of this contract and each subcontractor must comply with the applicable terms and conditions of this contract.

Replace the 7th paragraph of section 5-1.13A with:

The Department encourages you to and, for USDOT federal-aid assisted projects, you must include a dispute resolution process in each subcontract.

Replace the last sentence of the 6th paragraph of section 5-1.13B(1) with:

Submit the form with the final estimate acceptance statement, which accompanies the Proposed Final Pay Estimate.

Replace the 2nd sentence of the 7th paragraph of section 5-1.13B(1) with:

Submit the form with the final estimate acceptance statement, which accompanies the Proposed Final Pay Estimate.

Replace section 5-1.13C "DISABLED VETERANS BUSINESS ENTERPRISES" with:

5-1.13C RESERVED

Replace section 5-1.13D "NON-SMALL BUSINESSES" with:

5-1.13D RESERVED

Add to the end of section 5-1.20A:

During the progress of the work under this Contract, work under the following contracts may be in progress at or near the job site of this Contract:

Coincident or Adjacent Contracts

Contract no.	County–Route–Post Mile	Location	Type of work
48919	Elks Club Drive	Btw Highway 50 and and Boca Raton	Road reconstruction Project
95191	Country Club Heights Erosion Control Project	Elks Club Drive and surrounding neighborhood	Erosion Control Project

Add to section 5-1.20B(1):

The Department has obtained and included in Appendix C:

1) California Regional Water Quality Control Board, Lahontan Region, Board Order No. **R6T-2011-101A1**.
2) Tahoe Regional Planning Agency Permit (EIPC20XX-00XX) (pending)

Replace section 5-1.20B(4) with:

Before procuring material, disposing of material, or otherwise using non-highway property, obtain a written agreement from the property owner.

Replace "Reserved" in section 5-1.20G with:

5-1.20G Coordination With Schools

You must provide written notice to the following schools at least one (1) week prior to the start of construction activities, any lane closures, detours, construction staging or any work that may affect traffic or pedestrians through the construction area:

Lake Tahoe Unified School District
1021 Al Tahoe Blvd.
South Lake Tahoe, CA 96150

Written notices must be approved by Engineer prior to being sent by Contractor. Submit notice 3 business days in advance of sending to Engineer for review and approval.

Replace "Reserved" in section 5-1.20H with:

5-1.20H Coordination With Property Owners

You must make every effort to communicate with adjacent property owners and tenants to inform them of required access for construction operations, and must give forty-eight (48) hours' notice to the property owners and tenants when work is to be performed on their property. You must contact adjacent property owners by U.S. Mail or with door hangers of the upcoming Project work 1 week in advance of the Notice to Proceed.

Access to adjacent businesses must be maintained so that the businesses will remain open during all normal business hours.

Replace the 7th paragraph of section 5-1.23B(2) with:

Allow 7 days for review. Allow 5 days for review for complete resubmitted drawings.

Replace the 2nd sentence of the 8th paragraph of section 5-1.23B(2) with:

Allow review time specified plus 5 days for each additional set.

Replace section 5-1.25 with:

5-1.25 AS-CONSTRUCTED PLANS

Contractor must submit a set of "As-Constructed Plans". The "As-Constructed Plans" must contain changes made to the Plans to reflect actual construction of the proposed improvements. The "As-Constructed Plans" must be current and updated in a timely manner so the Plans and its information are made available to the Engineer for review during the weekly meetings. Contractor will make "As-Constructed Plans" corrections and additions using red ink. Corrections and additions are, but not limited to: changes to pipes, channels, drainage structures, and other drainage details; corrected typical sections, base, and surfacing details; changes in vertical and horizontal alignment; establish or re-establish right-of-way markers, monuments, and bench marks; new, replaced, removed or abandoned utilities, especially underground; and, any other construction details or appurtenances not shown on the Plans. When Engineer has made the final inspection as provided in Section 5-1.46, then the Contractor shall submit the complete set of "As-Constructed Plans".

Add item 3 to the 1st paragraph of section 5-1.27B:

1. Closure of all other pending matters under this Contract.

Replace the opening phrase of the 2nd paragraph of section 5-1.27B with:

For at least 4 years after the later of these, retain cost records, including records of:

County's Cooperative Agreement with the State requires records provisions remain in effect until terminated or modified by mutual written agreement. Retain project records, including cost records, until mutually agreed in writing otherwise:

Replace Section 5-1.27C with:

5-1.27C Record Inspection, Copying, and Auditing

Make your records available for inspection, copying, and auditing by representatives of the County, the State Auditor, or their duly authorized representatives, and any duly authorized representative of other government agencies for the same time frame specified under section 5-1.27 B. The records of subcontractors and suppliers must be made available for inspection, copying, and auditing by representatives of the County, the State Auditor, or their duly authorized representatives, and any duly authorized representative of other government agencies for the same period. Make records available for examination during normal business hours at your principal place of business in California, for audit during normal business hours at this place of business. Provide office space, photocopies and other assistance to enable audit or inspection representatives to conduct these audits or inspections.

Incorporate this provision in any subcontract entered into as a result of this Contract. Require subcontractors to agree to cooperate with the listed agencies by making all appropriate and relevant Project records available to those agencies for audit and copying.

Replace section 5-1.27E with:

5-1.27E Change Order Bills

Maintain separate records for change order work costs. Submit paper copy change order bills.

Delete the 2nd and 3rd paragraphs of section 5-1.32:

Add to the end of section 5-1.32:

Add to the 3rd paragraph of section 5-1.36D.

Pothole all underground utilities prior to construction activities. Underground Service Alert Phone: 811

South Tahoe Public Utility District
(water & sewer)
24 Hr # (530) 544-6474
Attn: Chris Stanley
(530) 544-6257
FAX (530) 544-6359
1275 Meadow Crest Drive
South Lake Tahoe, CA 96150

Liberty Utilities
24 Hr # (800) 782-2506
Attn: Andrew Gregorich
(530) 542-5278
FAX (530) 544-4811
933 Eloise Avenue
South Lake Tahoe, CA 96150

Southwest Gas
24 Hr # (800) 772-4555
Attn: Chris Peters
(530) 543-3225
1740 D Street, Unit No. 4
South Lake Tahoe, CA 96150

Charter
Attn: Jake Newnham
9335 Prototype Drive
Reno, NV 89521
(775) 350-1228
FAX (775) 588-0508

AT&T
24 Hr # (866) 346-1168
Astrid Willard
(916) 484-2388
2700 Watt Ave, Room 3473-11
Sacramento, CA 95821

Replace the 1st and 2nd sentence of the 2nd paragraph of section 5-1.46 with:

When the Engineer determines that the work is complete, the Engineer recommends to the Board of Supervisors that the contract be accepted and the Notice of Acceptance be recorded to accept the contract. Immediately after the acceptance by the Board of Supervisors, you are relieved from:

^^

6 CONTROL OF MATERIALS

Add to the beginning of section 6-1.02:

You must furnish replacement plants. The Department does not pay you for the replacement plants.

Replace the 1st sentence of the 3rd paragraph of section 6-2.01E with:

The Department provides an inspection request form and procedures for its submittal.

Replace the 3rd paragraph of section 6-2.01F with:

Submit material to be tested with a *Sample Identification Card* provided by the Department.

^^

7 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

Replace section 7-1.02C "Emissions Reduction" with:

Section 7-1.02C Emissions Reduction

Sign the Emissions Reduction Certification in Article 13 "Emissions Reduction" of the Agreement.

Replace item 1 of the 2nd paragraph of section 7-1.02K(2) with:

1. At the County of El Dorado Department of Transportation's principal office, and are available upon request.

Delete paragraphs 5 through 9 of section 7-1.02K(3).

Add to section 7-1.02K(3):

Submit a copy of all payrolls weekly directly to the Compliance Monitoring Unit (CMU) within the Division of Labor Standards Enforcement of the Department of Industrial Relations, State of California. Submit copy of all payrolls within 10 days of any separate request by the CMU.

Add to section 7-1.02K(4):

It is County policy to encourage the employment and training of apprentices on public works contracts as may be allowed under local apprenticeship standards.

Replace "Reserved" in section 7-1.02M(2) with:

Cooperate with local fire prevention authorities in eliminating hazardous fire conditions.

Obtain the phone numbers of the nearest fire suppression agency, California Department of Forestry and Fire Protection (Cal Fire) unit headquarters, United States Forest Service (USFS) ranger district office, and U.S. Department of Interior (USDI) BLM field office. Submit these phone numbers to the Engineer before the start of job site activities.

Immediately report to the nearest fire suppression agency fires occurring within the project limits.

Prevent project personnel from setting open fires that are not part of the work.

Prevent the escape of and extinguish fires caused directly or indirectly by job site activities.

Locate flammable materials at least 50 feet away from equipment service, parking, and gas and oil storage areas. Each small mobile or stationary engine site must be cleared of flammable material for a radius of at least 15 feet from the engine.

Cal Fire, USFS, and BLM have established the following adjective class ratings for 5 levels of fire danger for use in public information releases and fire protection signing: low, moderate, high, very high, extreme. Obtain the fire danger rating daily for the project area from the nearest Cal Fire unit headquarters, USFS ranger district office, or BLM field office.

If the fire danger rating reaches very high:

1. Falling of dead trees or snags must be discontinued.
2. No open burning is permitted and fires must be extinguished.
3. Welding must be discontinued except in an enclosed building or within an area cleared of flammable material for a radius of 15 feet.
4. Blasting must be discontinued.
5. Smoking is allowed only in automobiles and cabs of trucks equipped with an ashtray or in cleared areas immediately surrounded by a fire break unless prohibited by other authority.

6. Vehicular travel is restricted to cleared areas except in case of emergency.

The Engineer may suspend work wholly or in part due to hazardous fire conditions. The days during this suspension are non–working days.

If field and weather conditions become such that the determination of the fire danger rating is suspended, section 7-1.02M(2) will not be enforced for the period of the suspension of the determination of the fire danger rating. The Engineer will notify you of the dates of the suspension and resumption of the determination of the fire danger rating.

Add to 13th paragraph of section 7-1.04:

All haul/dump truck loads shall be covered securely during transport.

Add to the end of section 7-1.04:

Where 2 or more lanes in the same direction are adjacent to the area where the work is being performed, including shoulders, the adjacent lane must be closed under any of the following conditions:

1. Work is off the traveled way but within 6 feet of the edge of the traveled way, and the approach speed is greater than 45 miles per hour
2. Work is off the traveled way but within 3 feet of the edge of the traveled way, and the approach speed is less than 45 miles per hour

Closure of the adjacent traffic lane is not required when performing any of the following:

1. Working behind a barrier
2. Paving, grinding, or grooving
3. Installing, maintaining, or removing traffic control devices except Type K temporary railing

Do not reduce an open traffic lane width to less than 10 feet. When traffic cones or delineators are used for temporary edge delineation, the side of the base of the cones or delineators nearest to traffic is considered the edge of the traveled way.

Replace section 7-1.05 "Indemnification" with:

7-1.05 INDEMNIFICATION

Comply with Article 5 "Indemnity" of the Agreement.

Replace section 7-1.06 "INSURANCE" with:

7-1.06 INSURANCE

7-1.06A General Insurance Requirements

County will not execute this Contract and you are not entitled to any rights, unless certificates of insurances, or other sufficient proof satisfactory to County of El Dorado Risk Management Division that the following provisions have been complied with, and these certificate(s) are filed with the County.

Without limiting your indemnification required by Article 5 "Indemnity" of the Draft Agreement, you must procure and maintain and must require any of your subcontractors to procure and maintain for the duration of the Contract, including the one-year guarantee period, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by you, your agents, representatives, employees or subcontractors. Coverage must be at least as broad as:

Workers' Compensation as required by law in the State of California, with Statutory Limits, and Employer's Liability Insurance with a limit of no less than $1,000,000 per accident for bodily injury or disease.

Commercial General Liability Insurance of not less than Four Million Dollars ($4,000,000) aggregate limit and Two Million Dollars ($2,000,000) combined single limit per occurrence for bodily injury and property damage, including but not limited to endorsements for the following coverage: Premises, personal injury, operations, products and completed operations, blanket contractual, and independent contractors liability. This insurance can consist of a minimum $2 Million primary layer of CGL and the balance as an excess/umbrella layer, but only if the County is provided with written confirmation that the excess/umbrella layer "follows the form" of the CGL policy.

Automobile Liability Insurance of not less than One Million Dollars ($1,000,000) is required in the event motor vehicles are used by the Contractor in performance of the Contract.

In the event Contractor is a licensed professional and is performing professional services under this Contract, Professional Liability Insurance is required with a limit of liability of not less than One Million Dollars ($1,000,000).

Explosion, Collapse and Underground coverage is required when the scope of work includes XCU exposures. For the purpose of this Contract, XCU coverage is not required.

7-1.06B Proof of Insurance Requirements

Furnish proof of coverage satisfactory to the County of El Dorado Risk Management Division as evidence that the insurance required herein is being maintained. The insurance must be issued by an insurance company acceptable to the Risk Management Division, or be provided through partial or total self-insurance likewise acceptable to the Risk Management Division.

The County of El Dorado, its officers, officials, employees, and volunteers must be included as additional insureds, but only insofar as the operations under this Contract are concerned. This provision applies to all general liability and excess liability policies. Proof that the County is named additional insured must be made by providing the Risk Management Division with a certified copy, or other acceptable evidence, of an endorsement to your insurance policy naming the County additional insured.

If you cannot provide an occurrence policy, provide insurance covering claims made as a result of performance of this Contract for not less than three (3) years following completion of performance of this Contract.

Any deductibles or self-insured retentions must be declared to and approved by the County. At the option of the County, either: the insurer must reduce or eliminate such deductibles or self-insured retentions as respects the County, its officers, officials, employees and volunteers; or the Contractor must procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

Require each of your subcontractors to procure and maintain commercial general liability insurance, automobile liability insurance, and workers compensation insurance of the types and in the amounts specified above, or you must insure the activities of your subcontractors in your policy in like amounts. You must also require each of your subcontractors to name you and County of El Dorado, its officers, officials, employees, and volunteers as additional insureds.

7-1.06C Insurance Notification Requirements

You agree no cancellation or material change in any policy will become effective except upon prior written notice to the Department of Transportation, Contract Services Unit, 2850 Fairlane Court, Placerville, CA 95667.

You agree that the insurance required herein will be in effect at all times during the term of this Contract. If this insurance coverage expires at any time or times during the term of this Contract, you must immediately provide a new certificate of insurance as evidence of the required insurance coverage. If you fail to keep in effect at all times insurance coverage as herein provided, County may, in addition to any other remedies it may have, terminate this Contract upon the occurrence of this event. New certificates of insurance are subject to the approval of the Risk Management Division.

7-1.06D Additional Standards
Certificates must meet such additional standards as may be determined by the Department either independently or in consultation with the Risk Management Division, as essential for protection of the County.

7-1.06E Commencement of Performance
Contractor must not commence performance of this Contract unless and until compliance with every requirement of the insurance provisions is achieved.

7-1.06F Material Breach
Failure to maintain the insurance required herein, or to comply with any of the requirements of the insurance provisions, constitutes a material breach of the entire Contract.

7-1.06G Reporting Provisions
Any failure to comply with the reporting provisions of the policies must not affect coverage provided to the County, its officers, officials, employees or volunteers.

7-1.06H Primary Coverage
Your insurance coverage must be primary insurance as respects the County, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the County, its officers, officials, employees or volunteers will be in excess of your insurance and will not contribute with it.

7-1.06I Premium Payments
The insurance companies will have no recourse against the County of El Dorado its officers, agents, employees, or any of them for payment of any premiums or assessments under any policy issued by any insurance company.

7-1.06J Contractor's Obligations
Your indemnity and other obligations are not limited by the insurance required herein and must survive the expiration of this Contract.

Add to section 7-1.11A:

The provisions apply to all work performed on the contract including work performed by subcontract. The Form FHWA 1273 is required to be physically incorporated into each contract, subcontract and subsequent lower-tier subcontracts. The provisions may not be incorporated by reference.

The prime contractor is responsible for compliance with the requirements by all subcontractors and lower tier subcontractors. Failure of the prime contractor to comply with this requirement is grounds for local agency termination of the contract with the contractor and debarment of the contractor by the FHWA.

^^

8 PROSECUTION AND PROGRESS

Replace item 2.1. of the list in the 3rd paragraph of section 8-1.02B(1) with:

2.1 Contract number and CIP number

Replace item 8 of section 8-1.02B(2) with:

8. Start milestone date as Notice of Award letter date

Replace the 1st and last sentences of the 1st paragraph of section 8-1.03 with:

Attend a pre-construction conference with key personnel, including all major superintendents for the work and if requested by the Engineer, major subcontractors. The pre-construction conference will be scheduled after the project is awarded and prior to the issuance of the Notice to Proceed. At this conference, submit in writing, signed by the officers of the corporation, if applicable, the names of two employees who will be the superintendents on the project. The second name serves as an alternate in the absence of the first designee. The superintendent must be on the site at all times that work is in progress.

With the exception of obtaining Department's authorization of the Storm Water Pollution Prevention Plan (SWPPP), or Water Pollution Control Program (WPCP), whichever is applicable, and preparing and obtaining Department's acceptance of the Critical Path Method (CPM) baseline schedule, any work performed in advance of the date stated in the Notice to Proceed is at your risk and as a volunteer. Submit a completed Subcontracting Request form, Exhibit 16-B of the Caltrans Local Assistance Procedures Manual (LAPM), or equivalent and obtain approval before beginning work on a subcontract. Comply with applicable parts of section 5-1.13B(1).

Delete "Partnering" from the table in section 8-1.03.

Add to section 8-1.03:

You must attend weekly meetings to discuss construction issues and scheduling.

Replace section 8-1.04B with:

The contract working days begin on the date stated in the Notice to Proceed.

The Engineer will issue Notice to Proceed within 10 days of Contract approval.

Do not start job site activities until the Department authorizes or accepts your submittal for:

1. CPM baseline schedule schedule in compliance with section 8-1.02.
2. Name and Address of Authorize Representative
3. Traffic Control Plan in compliance with section 12-3.01.
4. Driveway Access Plan in compliance with section 12-4.01.
5. Signed Endorsement and certification page from the SWPPP along with any proposed revisions in compliance with section 13-3.01A.
6. Temporary Erosion Control Plan in compliance with section 13-3.01B(1).
7. Spill Contigency Plan in compliance with section 13-4.03B.
8. Dust Control Plan in compliance with section 14-9.03A(2).
9. Job mix formula for asphalt concrete in compliance with section 39.
10. Shop drawings for corrugated steel pipe inlets and risers in compliance with sections 5-1.23 and 70-2.03.
11. Concrete mix design for all concrete work in compliance with sections 90-1.01C(6) and 90-2.01C.

Do not start jobsite activities until the Department authorizes your SWPPP submittal.

You may enter the job site only to measure controlling field dimensions and locating utilities.

Do not start other job site activities until all the submittals from the above list are authorized or accepted and the following information is received by the Engineer:

1. *Notice of Materials To Be Used*.

Replace the 1st paragraph of section 8-1.05 with:

Contract time starts on the day specified in section 8-1.04B.

Contract working hours are between the hours of 8:00 a.m. to 6:30 p.m. unless otherwise authorized.

Add to the end of section 8-1.06:

The Engineer may suspend work due to environmental permit restrictions and/or inclement weather.

During the suspension, the Department pays for winterization costs or costs associated with water pollution control within the County's project area under section 13-2.04 or 13-3.04, as applicable. The Department pays for any other contract work required to be performed within the County's project area during the suspension under the applicable bid item.

Replace "Reserved" in section 8-1.10D with:

8-1.10D Director Days

If the work is not completed within the working days, the Director may grant director days if it serves the Department's best interest.

By granting director days, the Director adds working days to the Contract. The Director may either grant enough days to eliminate the liquidated damages or fewer. In the latter case, the Department deducts liquidated damages for the remaining overrun in Contract time. The Director may deduct the Department's engineering, inspection, and overhead costs incurred during the period of extension granted as director days.

Replace section 8-1.13 "Contractor's Control Termination" with:

Refer to Article 10 "Termination By County for Cause" of the Agreement.

Replace section 8-1.14 "Contract Termination" with:

Refer to Article 9 "Termination By County for Convenience" of the Agreement.

^^

9 PAYMENT

Add to end of section 9-1.03:

The Department pays 6 percent annual interest for the period of the retention for penalty withholds later determined not owed.

Replace the last paragraph of section 9-1.03 with:

Pay your subcontractors within 7 days of receipt of each progress payment unless otherwise agreed to in writing (Bus & Prof Code § 7108.5). Violation of this section subjects you to the penalties, sanctions and other remedies of Bus and Prof § 7108.5. This section must not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to you in the event of a dispute involving late payment or nonpayment by you, deficient subcontract performance, or noncompliance by a subcontractor.

Replace section 9-1.07 with:

9-1.07 RESERVED

Replace the last sentence of the 3rd paragraph of section 9-1.16E(2) with:

These amounts are shown on the *Pay Estimate.*

Replace the last sentence of the 1st paragraph of section 9-1.16E(3) with:

The documents include QC plans, required forms, schedules, traffic control plans, water pollution control submittals, and dust control submittals.

Add to the 1st paragraph of section 9-1.16E(3):

If you fail to comply with water pollution control or dust control requirements, the Department withholds part of the progress payment.

Replace the 2nd paragraph of section 9-1.16E(4) with:

Stop notice information may be obtained from the Engineer.

Replace section 9-1.16F with:

9-1.16F Retentions

9-1.16F(1) General

The Department will retain 5% of the value of each progress payment (excluding mobilization payments) from each progress payment. After the Engineer determines that the Project is substantially complete, the Department may, at the Engineer's sole discretion, release half of all retention previously withheld and reduce any subsequent retentions withheld from subsequent progress payments to 2.5% of the value of any subsequent progress payments (excluding mobilization payments). The retained funds will be returned within thirty five (35) days after recordation of the Notice of Acceptance. (Pub Cont Code §9203)

You may elect to receive one hundred percent (100%) of payments due under the Contract from time to time, without retention of any portion of the payment by the County, by depositing securities of equivalent value with the County (Pub Cont Code 22300). Securities eligible for deposit hereunder are limited to those listed in Section 16430 of the Government Code, or bank or savings and loan certificates of deposit.

Funds retained from progress payments to ensure performance of the Contract that are eligible for payment into escrow or to an escrow agent pursuant to Section 22300 of the Public Contract Code do not include funds withheld or deducted from payment due to your failure to fulfill a contract requirement.

9-1.16F(2) Prompt Payment of Retained Funds to Subcontractors

Section 9-1.16F(1) describes retainage, acceptances, and release of retainage to you based on these acceptances. You and/or your subcontractor must return all monies withheld in retention from subcontractors within 30 days after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the contract work by the Department. Any delay or postponement of payment over 30 days may take place only for good cause and with the Department's prior written approval (49CFR26.29). Violation of this section subjects you to the penalties, sanctions and other remedies of Bus and Prof § 7108.5. This section must not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to you in the event of a dispute involving late payment or nonpayment by you, deficient subcontract performance, or noncompliance by a subcontractor.

Replace section 9-1.22 "ARBITRATION" with:

9-1.22 DISPUTES RESOLUTION

As permitted by Public Contract Code section 20104, the County has elected to resolve any claims between you and the County pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2 of the Public Contract Code. Sections 5-1.43 and 9-1.17 describe the contract claim procedure. The provisions of these sections constitute a non-judicial claim settlement procedure, and also step one of a two-step claim presentment procedure by agreement under Section 930.2 of the California Government Code. Specifically, step one is compliance with the contract claim procedure in accordance with the Contract Documents, including sections 5-1.43 and 9-1.17. Step two is the filing of a timely Government Code Section 910 et seq. claim in accordance with the California Government Code. Any such claim shall affirmatively indicate your prior compliance with the contract claim procedure and previous dispositions under sections 5-1.43 and 9-1.17. Any claim that fails to conform to the contract claim procedure required in step one may not be asserted in any subsequent Government Code Section 910 et seq. claim.

As a condition precedent to arbitration or litigation, claims must first be mediated. Mediation is non-binding and the services of a mediator mutually acceptable to the parties must be used and, if the parties cannot agree, a mediator will be selected by the American Arbitration Association from its panel of approved mediators trained in construction industry mediation. All statutes of limitations shall be tolled from the date of the demand for mediation until a date two weeks following the mediation's conclusion. The cost of mediation shall be equally shared by the parties.

Your attention is directed to California Public Contract Code section 9204, which describes procedures for the resolution of claims on public works projects. Among other things, section 9204 requires the claimant to furnish reasonable documentation to support a claim, requires the public entity to respond to the claim within 45 days of receipt of the claim, and allows for the claimant to demand an informal meet and confer conference for settlement of the issues in dispute. For any portion of a claim that remains in dispute, section 9204 requires submission of the claim to nonbinding mediation. Additionally, section 9204 requires the public entity to make any payment due on an undisputed portion of the claim within 60 days of the public entity's written response and to pay interest at the rate of 7 percent per annum on any amounts not paid in a timely manner. The claims procedures described within the Contract Documents (including, but not limited to, Sections 5-1.43 and 9-1.17 of the Standard Specifications) are in addition to the procedures required by section 9204 and, in the event of a conflict between those various procedures, the more stringent procedures will control.

If you fail to comply with these claim procedures as to any claim, then you waive your rights to this claim. County must not be deemed to waive or alter any provision of this section or sections 5-1.43 and 9-1.17 if, at County's sole discretion, County administers a claim in a manner not in accord with those provisions.

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DIVISION II GENERAL CONSTRUCTION

10 GENERAL

Add to the end of the RSS for section 10-1.02B:

Add to the end of section 10-1.02C(2):

Protect any irrigation component to be relocated before performing any other construction activity in the area.

Replace *Reserved* in section 10-1.02C(3) with:

Transplant any plant to be transplanted before performing any other construction activity in the area.

Add to section 10-1.02D:

The Contractor is required to place temporary pavement markings per Section 12-6.

Add section 10-1.02F:

10-1.02F Pre-Construction Drainage Patterns

During construction maintain adequate drainage such that pre-construction drainage patterns are not compromised. The Engineer determines pre-construction drainage patterns.

You must implement the following sequence for the work:

- Temporary erosion control must be in place before beginning the work.
- All AC paving must be complete by October 15, 2018.
- All grading must be complete by October 15, 2018.

The California Conservation Corps (CCC), under the Engineer's direction, will perform revegetation work. You will coordinate the mulch and tackifier applications with the Engineer to minimize the need for additional mobilization and demobilization of the mulch and tackifier activities. The CCC will perform this work while you are still fulfilling your construction contract. In areas where the CCC is to follow your work (e.g., after you place and compact topsoil mix), you will notify the Engineer when you have completed that work so revegetation can begin. Disturbance of this revegetation work by your activities will be repaired by the CCC at your expense.

Replace *Reserved* in section 10-1.03 with:

Any work started (i.e., soil disturbance) must be winterized by October 15 unless the Department obtains extensions to the grading deadline from both TRPA and the RWQCB. If extensions are not granted, the Department will negotiate with you to remobilize to complete the remaining work during the 2018 construction season as change order work.

Add to section 10-4:

Contractor is advised to conserve water. Contractor is advised the State has issued water conservation requirements. Contractor is responsible for contacting the local water authorities to determine any impacts the water conservation measures will have on various items of work.

Payment for any water conservation plan is included in the payment for various items of work.

^^^

11 WELDING

^^^

12 TEMPORARY TRAFFIC CONTROL

Replace the 1st paragraph in section 12-1.04 with:

The Department pays for all flagging costs under Traffic Control System.

Replace Item 1.3 of the 1st paragraph of section 12-3.01A(3) with:

- Contract number, CIP number, Caltrans district, county, route and post mile of project limits or County Road name.

Add to section 12-3.01A(3):

You must submit a Traffic Control Plan for review and approval. Your Traffic Control Plan must address each type of temporary traffic control system that will be used. Your Traffic Control Plan must include detailed controls, including flaggers, lane closures, PCMS boards, and signs, as applicable. Your Traffic Control Plan must include signing required on intersecting streets and driveways within the area that will require traffic control as required and must address traffic control related to access to driveways for all residences.

Submit your Traffic Control Plan as early as ten (10) working days after the receipt of the Notice of Award but no later than five (5) working days of receipt of Notice to Proceed. No work will start on County roads until the Traffic Control Plan is approved. Violation of the Traffic Control requirements is justification for the Engineer to stop work until the requirements are met.

Add between "retroreflective" and "orange" in the 1st sentence of the 4th paragraph of section 12-3.11B(1):

nonfluorescent

Add to section 12-3.32C of the RSS dated 04-15-16:

Place and operate two (2) PCMS in advance of any work affecting public traffic. Place and operate PCMS one week in advance of any lane closures, to inform the public of upcoming contract work and related delays.

Place and operate PCMS at the construction site one week prior to the start of the project. The Department's superintendent will review and approve message and placement.

Replace section 12-3.32D with:

The Department pays for Portable changeable message sign under Traffic Control System.

Add to section 12-4.01A:

Local and emergency traffic must be allowed to pass through construction zones at all times with as little inconvenience as possible. At the end of the day's work or if construction is suspended, roadways must be opened for traffic in both directions.

If work is in progress, at least one 10-foot minimum lane must be opened to traffic. Otherwise, two 10-foot lanes of traffic must be maintained.

You must provide access to driveways at all times. No driveways will be out of service unless arrangements are made with the property owner(s). Notify the County 48 hours in advance of work that will affect an owner's driveway. You must submit a plan that describes how you will provide operating driveways with no damage to the curb and gutter. Your Driveway Access Plan must be submitted for acknowledgment at least one (1) week before work affecting driveways.

As an alternative to the provisions of section 10-1, at the end of each working day, the edge of the excavations adjacent to the travel lane for aggregate base shoulder will be delineated with traffic cones or flexible delineators. Excavations for corrugated steel pipe inlets or drainage inlets not backfilled at the end of the work day must be covered with trench plates and delineated with traffic cones or flexible delineators and flashing barricades. You must not excavate more than can be installed and backfilled in one working day. If the backfill for the culvert installation is placed but not compacted by the end of the

work day, the trench must be plated, or otherwise prepared to safely provide a minimum of two ten-foot travel lanes.

If traffic cones or delineators are used to delineate a temporary edge of travel lane, the line of cones or delineators will be considered to be the edge of travel lane, however, you must not reduce the width of the travel lane to less than 10 feet within County right-of-way without written approval.

If work is not in progress on a trench or other excavation that requires reduction or closure of the travel lane, the traffic cones or portable delineators used for the travel lane reduction or closure will be placed off of and adjacent to the edge of the traveled way. The spacing of the cones or delineators must be not more than the spacing used for the lane closure.

If rain or other causes, either within or beyond your control, forces delay of the work, you will in no way be relieved of your responsibility for maintaining traffic through the job site. You will at all times keep on the job site such material, force, equipment as necessary to keep the roads within the project open to traffic and in good repair, and must expedite the passage of traffic using such labor and equipment as may be necessary.

Personal vehicles of your employees must not be parked on the traveled way or shoulders, including sections closed to traffic. You must make your own arrangements relative to keeping the work area clear of parked vehicles, whether belonging to your employees or to private individuals.

Add to section 12-4.01C:

Do not perform work that would require a closure unless the closure has been approved by the County

Add to section 12-4.02A(3)(a):

You must submit a Traffic Control Plan for review and approval. Your Traffic Control Plan must address each type of temporary traffic control system that will be used. Your Traffic Control Plan must include detailed controls, including but not limited to flaggers, lane closures, PCMS boards, and signs, as applicable. Your Traffic Control Plan must include signing required on intersecting streets and driveways within the area that will require traffic control as required and must address traffic control related to access to driveways for all residences.
Submit your Traffic Control Plan as early as ten (10) working days after the receipt of the Notice of Award but no later than five (5) working days of receipt of Notice to Proceed. No work will start on County roads until the Traffic Control Plan is approved. Violation of the Traffic Control requirements is justification for the Engineer to stop work until the requirements are met.

Not more than 1 stationary closure is allowed per direction of travel at one time.

Add to the end of section 12-4.02C(1):

Keep the full width of the traveled way open to traffic when no active construction activities are occurring in the traveled way or within 6 feet of the traveled way and on:

1. Friday after 3:00 p.m.
2. Saturday
3. Sunday
4. Designated holidays
5. Special days

Add to the end of section 12-4.02C(3)(a):

Keep a minimum of 1 paved traffic lane at least ___10__ feet wide open for traffic.

Replace "Reserved" in section 12-4.02C(3)(d) with:

You may request to close Waverly Drive for the limits shown on the Traffic Control plan for a total of twenty (20) consecutive calendar days. This section of Waverly Drive may be used for additional staging by the contractor.

County to be notified 10 days in advance of requested dates of closure.

You may close city-street lanes using a one-way-reversing traffic-control lane closure on Elks Club Drive between Boca Raton and Pioneer Trail as shown on chart no. __1___, Mondays through Fridays.

Replace "Reserved" in section 12-4.02C(3)(m) with:

Comply with the requirements for a _____Elks Club Drive Closure__ shown in the following chart:

Chart No. _1_

Location: Elks Club Drive | Direction:

Closure limits: Boca Raton to Pioneer Trail

Hour 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mon–Thu	N	N	N	N	N	N	1	1	1	1	1	1	1	1	1	1	1	1	1	N	N	N	N	N
Fri	N	N	N	N	N	N	1	1	1	1	1	1	1	1	1	1	1	1	1	N	N	N	N	N
Sat	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Legend:

1	Provide at least 1 city street lane open in the direction of travel.
C	Street may be closed.
N	No work is allowed.
R	Provide at least 1 through traffic lane not less than 10 feet in width for use by both directions of travel. (Reversing Control)

REMARKS: The number of through traffic lanes in each direction of travel is _1_.

For multilane freeway or expressway lane closures, do not place the 2L tangent section shown along lane lines between the lane closure tapers.

Transport bicyclists through the one-way-reversing traffic-control work zone.

Add to section 12-4.02D:

Payment for Traffic Control Plan is paid for under Traffic Control System.

Replace "Not Used" in section 12-4.04D with:

Payment for accommodating pedestrians and bicyclists through the work zone, including through a 1-way reversing traffic control work zone is included in the payment for traffic control system.

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13 WATER POLLUTION CONTROL

Add item 9 to the list in the 5th paragraph of section 13-1.03C:

9. Inspect sanitary and septic waste storage and monitor disposal procedures weekly.

Replace the headings and paragraphs in Section 13-3 with:

13-3 STORM WATER POLLUTION PREVENTION PLAN

13-3.01 GENERAL

13-3.01A Summary

Section 13-3 includes specifications for implementing a SWPPP for project where soil disturbance from work activities will occur as a result of this Project.

Implementation of a SWPPP includes implementing the SWPPP and correcting water pollution control practices.

The discharge of petroleum products or other excavated materials to surface water is prohibited. Activities must not cause visible oil, grease, or foam in the work area or downstream. You must notify the Engineer immediately of any spill of petroleum products or other organic or earthen materials.
You must immediately notify all appropriate authorities of any oil discharge or of the release of a hazardous material in the permit area.

You must not release any hazardous material onto land or into rivers, streams, impoundments, or natural or man-made channels leading to them. All prudent and safe attempts must be made to contain any release of these materials.

13-3.01B Definitions

Reserved

13-3.01CSubmittals

13-3.01C(1) General

Reserved.

13-3.01C(2) Storm Water Pollution Prevention Plan

13-3.01C(2) General

The Department has prepared a storm water pollution prevention plan (SWPPP) and obtained permits from the RWQCB. After you have reviewed the SWPPP, sign the endorsement and certification page enclosed in the document and any amendments. Submit your signed endorsement and certification page as early as ten (10) working days after the receipt of the Notice of Award but no later than five (5) working days of receipt of Notice to Proceed. Submit your acknowledgment of amendments as they occur.

13-3.01C(3) Temporary Erosion Control Plan

13-3.01C(3) General

You are to prepare and submit a Temporary Erosion Control Plan that includes the locations and descriptions of erosion control measures and daily clean up measures in compliance with federal, state, and local agency regulations, the Plans, the SWPPP, and these special provisions. You may use the temporary erosion control measures and details shown in preparing your Temporary Erosion Control Plan. However, your Plan will show specifically where filter fence, weighted fiber rolls or gravel-filled rolls, and gravel bags will be applied, where the tire wash and concrete wash areas will be located, and additional temporary erosion control required due to your method of operation or required to comply with TRPA and Lahontan permits. Your Temporary Erosion Control Plan will also detail specifically what temporary erosion control measures will be applied and where the temporary erosion control measures will be placed in areas used to store materials, equipment, and supplies. Temporary erosion control measures, their implementation, and maintenance must conform to the Plans and the provisions of the SWPPP. You will not propose or use alternative temporary erosion control measures unless the Contract

Documents specify where and which alternatives may be used. Submit your Temporary Erosion Control Plan as early as ten (10) working days after the receipt of the Notice of Award but no later than five (5) working days of receipt of Notice to Proceed. Your Temporary Erosion Control Plan is subject to TRPA review and approval.

13-3.01D Quality Assurance

13-3.01D(1) General

Reserved

13-3.01D(2) Regulatory Requirements

Construction activities that will disturb land greater than one acre, within the Lake Tahoe Hydrologic Unit will comply with the Lake Tahoe regional general permit issued by the Lahontan Regional Water Quality Control Board for Board Order No. R6T-2016-0010, NPDES No. CAG616002, General Waste Discharge Requirements and National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction of Small Commercial, Multi-Family Residential, Utility and Public Works Projects Lake Tahoe Basin. The Lake Tahoe regional general permit governs stormwater and non stormwater discharges resulting from construction activities in the Lake Tahoe Hydrologic Unit. For the permit, go to the website for the State Water Resources Control Board, Storm Water Program, Lahontan Region General Permits.

This Project will not have more than one acre of disturbance.

13-3.01D(3) Water Quality

13-3.01D(3)(a) General

The County will provide personnel to collect water quality samples as required by the permit.

The Engineer will take periodic turbidity readings of the effluent discharging from all filtering devices. If the effluent levels fall below the allowable limits listed above, you must take appropriate measures to bring the effluent levels within the allowable limits. These measures include removing deposited sediment from filter fencing, and other filter materials (e.g. weighted fiber rolls, gravel-filled rolls, rice straw fiber rolls, or corrugated steel pipe inlet sump) after each storm and cleaning or replacing filter materials. Sediment disposal must comply with section 14-10.01.

13-3.01D(3)(b) Numeric Action Levels

Reserved

13-3.01D(3)(c) Receiving-Water Monitoring Triggers

Reserved

13-3.01D(3)(d) Numeric Effluent Limitations

Water quality numerical effluent limits must comply with the following values:

TRPA and Lahontan Water Quality Limits

Constituent	Surface Waters		Infiltration Systems	
	Lahontan	TRPA	Lahontan	TRPA
Total Nitrogen as N	0.5 mg/l		5 mg/l	
Dissolved Nitrogen as N		0.5 mg/l		5 mg/l
Total Phosphate as P	0.1 mg/l		1 mg/l	
Dissolved Phosphate as P		0.1 mg/l		1 mg/l
Total Iron	0.5 mg/l		4 mg/l	
Dissolved Iron		0.5 mg/l		4 mg/l
Turbidity	20 NTU		200 NTU	
Suspended Sediment		250 mg/l		
Grease & Oil	2 mg/l	2 mg/l	40 mg/l	40 mg/l

Source: Storm Water Quality Improvement Committee document
Note: Surface Water values also apply to discharges to SEZs

13-3.02 Materials

Not used

13-3.03 Construction

13-3.03 General

Continue SWPPP implementation during suspension of work activities.

If the Engineer determines that resources sufficient to bring you into compliance with section 13 have not been allocated, the Engineer may redirect any of your resources available at the project site toward this effort. If the Engineer redirects resources due to your non-compliance with the provisions of section 13, the County will not be responsible for any delays to your schedule resulting from the reallocation, and no compensation will made for these delays.

13-3.04 Payment

The Department pays for implementation of the SWPPP under the various specific bid items.

Add to section 13-4.01A:

Temporary Concrete Washouts must comply with section 13-9.

Add to section 13-4.01C:

You are to submit a Spill Contingency Plan in compliance with the information requested in Appendix B, Spill Contingency Plan, of the SWPPP within five (5) working days of receipt of Notice to Proceed.

Add to the 4th paragraph of section 13-4.03B(1):

The WPC manager must notify the Engineer immediately.

Replace 4th paragraph of section 13-4.03D(5) with:

On-site storage of liquid waste containers will not be allowed.

Add to section 13-4.03E(3):

Washing tires of earth moving equipment and vehicles and washing of concrete equipment will be allowed only in the areas shown. Cleaning of vehicles or construction equipment for other purposes will not be allowed within the job site.

No vehicles or heavy equipment will be allowed in any SEZ, or wet area, except as authorized. All construction equipment authorized to work in or near SEZs must be steam cleaned before mobilization to

the SEZ and maintained in clean and good working order with maintenance logs made available upon request.

Submit receipts for steam cleaning to the Department before mobilization to the SEZ, when applicable.

Add to the 3rd paragraph of Section 13-4.03F:

3. 8 hours of predicted rain

Replace 4th paragraph of section 13-4.03F with:

Disposal of materials removed from the sweeper must comply with section 14-10.01.

Replace item 3 of 3rd paragraph of section 13-4.03G with:

3. Discharge the water within the project limits. Dewatering effluent will be discharged from water truck(s) and applied to high land capability areas (Class 3, 4, 5, 6, 7, not SEZ = Class 1b) for dust control, irrigation, or for use in tire wash areas. Dispose of the water if it cannot be discharged within the project limits due to site constraints or contamination.

Add to section 13-5.01:

Temporary soil stabilization provisions will be strictly enforced. It is your responsibility to determine the effect that temporary soil stabilization measures will have on construction activities, and to fully account for this effect in the bid price for the work.

Temporary soil stabilization must continue to be effective through the completion of work and must be maintained as required during the course of work.

Temporary soil stabilization measures must comply with TRPA's "Best Management Practices and Ordinances" and permits for this project, the RWQCB Board Order pertaining to the project, and the California Tahoe Conservancy requirements. Straw bales must not be used for temporary soil stabilization measures.

A fine of $100/day will be levied against you for each day you delay in responding to the Engineer's request to install new temporary soil stabilization devices and/or maintain existing temporary soil stabilization devices.

Add to section 13-5.02G:

Gravel-filled bags must be repaired or replaced on the same day damage occurs. Damage to the gravel bag resulting from your vehicles, equipment, or activities will be repaired or replaced at your expense. Gravel-filled bags must be replaced if the bag material or roll material is ruptured or if the yarn has failed, allowing the gravel to spill out.

Delete the 1st sentence of section 13-5.04 and replace the 2nd paragraph of section 13-5.04 with:

The Department pays for temporary soil stabilization for stockpiles under Job Site Management. The Department pays for temporary soil stabilization for other than stockpiles under all bid items.

Add to section 13-6.01:

You must attend a pre-grade inspection meeting with TRPA before the start of any work, other than temporary sediment control installation. Temporary sediment control facilities as shown must be in place before any soil disturbance or excavation.

In addition to the temporary sediment control facilities shown, you must provide additional temporary sediment control facilities as necessary to prevent adverse water quality impacts.

Throughout the entire construction period you will be responsible for insuring that no material eroded from the work area leaves the job site via the conveyance system. You must provide adequate sediment barriers at storm drain pipe outlets, drainage inlets, and other collection points and provide adequate erosion control at channels and swales that have been graded but fabric or salvaged sod, as applicable, has not been installed.

Temporary sediment control measures must comply with TRPA's "Best Management Practices and Ordinances" and permits for this project, the RWQCB Board Order pertaining to the project, and the California Tahoe Conservancy requirements.

A fine of $100/day will be levied against you for each day you delay in responding to the Engineer's request to install new temporary sediment control devices and/or maintain existing temporary sediment control devices.

Add to section 13-6.02A:

Sediment barriers must comply with the details shown and include weighted fiber rolls, gravel–filled bags or gravel-filled rolls, modified reinforced silt fence, and rice straw fiber rolls. Straw bales must not be used for temporary sediment control measures.

Sediment control at swales and channels must comply with the detail shown and consist of 6 mil polyethylene plastic sheeting held in place with gravel bags or gravel-filled rolls.

Gravel-filled rolls must be wrapped in woven high-density polyethylene with heat welded seams and must contain 1/4 inch gravel.

Remove temporary sediment control measures only if all permanent structural and permanent erosion control measures have been implemented and, if applicable, approval by TRPA is obtained.

Ground disturbance, including holes and depressions, caused by the installation and removal of the temporary erosion control measures must be backfilled and compacted.

Replace "Reserved" in section 13-6.02D with:

13-6.02D Temporary Fiber Rolls

Temporary rice straw fiber rolls must be at least eight inches in diameter and be an Earth Savers wattle as manufactured by R.H. Dyck, Inc. or Rice Straw Fiber Roll as manufactured by Kristar or approved equal. Wood stakes for securing rice straw fiber rolls must be untreated fir, redwood, cedar, or pine, cut from sound timber, and must be straight and free of loose or unsound knots and other defects which would render them unfit for the purpose intended.

Replace "Reserved" in section 13-6.02E with:

13-6.02E Weighted Fiber Rolls and Gravel-Filled Rolls

Weighted fiber rolls or gravel-filled rolls must be a minimum length of 5 feet.

Weighted fiber rolls must be eight inches in diameter and consist of a machined mat or blanket of shaved aspen wood curled excelsior with a weighted inner core contained in a photodegradable, extruded, high visibility netting tube with a handle on each end. Eighty percent of the excelsior material must consist of fibers at least 6 inches in length. The fiber roll must be contained in a tubular orange-colored netting knotted at each end made from 85% high-density polyethylene and 14% ethyl vinyl acetate with titanium oxide for UV inhibition.

Replace "Reserved" in section 13-6.02F with:

13-6.02F Polyethylene Sheeting

Polyethylene sheeting must be 6 mil polyethylene.

Replace the 2nd sentence of the 1st paragraph of section 13-6.03C with:

The drainage inlet protection must be Type 2 or Type 3A, as appropriate for the conditions around the drainage inlet. Weighted fiber rolls are a suitable substitute for gravel filled bags.

Add to section 13-6.03E:

Temporary rice straw fiber rolls must be repaired or replaced on the same day damage occurs. Damage to the temporary fiber rolls resulting from your vehicles, equipment, or activities will be repaired at your expense. If replacement of temporary rice straw fiber rolls is required due to your vehicles, equipment, or activities, replacement will be at your expense.

Replace section 13-6.04 with:

The Department pays for temporary sediment control under the all bid items. Payment quantity for Disposal of material removed during maintenance of the temporary erosion control devices is paid for under Job Site Management.

Add to the end of the 3rd paragraph of section 13-7.02C:

Tracking control applies to streets within the job site area as well as streets adjacent that have the potential to be impacted by tracking from the work.

Replace section 13-7.03D with:

The Department pays for temporary tracking control under job site management.

Replace section 13-9.04 with:

The Department pays for temporary concrete washouts and material disposal under Job Site Management.

Replace first sentence of section 13-10.02B with:

Fiber rolls will be Type B in compliance with section 21-1.02P, except wheat straw will not be accepted and fiber roll for a large sediment barrier must:

Add to section 13-10.03A:

TRPA or Lahontan may require that temporary reinforced silt fence be used at additional locations.

Areas where you temporarily stockpile excavated materials may require reinforced silt fence for temporary sediment control.

Temporary reinforced silt fence must be removed after construction is completed.

Temporary reinforced silt fence must be repaired or replaced on the same day damage occurs. Damage to the silt fence resulting from your vehicles, equipment, or activities will be repaired or replaced at your expense.

Add between the 1st and 2nd paragraph of section 13-10.03E:

Temporary reinforced silt fence must be Type 2 with steel post. Omit anchor and guy wire.

Replace "Reserved" in section 13-10.03J with:

13-10.03J Weighted Fiber Rolls and Gravel-Filled Rolls

Weighted fiber rolls or alternatively, gravel-filled rolls will be used only in areas of compacted soil, concrete, or paved surfaces. The spacing intervals as shown must be maintained and new sections of weighted fiber rolls or gravel-filled rolls added as the installations of these improvements progress.

In addition to placement at the specified spacing intervals, you will place weighted fiber rolls or gravel-filled rolls at the location where each installation is temporarily discontinued. This section of weighted

fiber rolls or gravel-filled rolls will be reused to satisfy the specified intervals once the installation that had been temporarily discontinued is completed. However, payment for the installation and maintenance of this section of weighted fiber rolls or gravel-filled rolls will be made only once. The configuration for the use of weighted fiber rolls or gravel-filled rolls at the sawcut areas is intended to filter sediment from runoff before the runoff enters inlets.

Areas where you store equipment or material on pavement may require the use of weighted fiber rolls or gravel-filled rolls. If a section of weighted fiber rolls or gravel-filled rolls is used in storage/staging more than once, or reset at a single location more than once, payment for installation and maintenance will be made only once.

Weighted fiber rolls or gravel-filled rolls must be maintained to disperse concentrated water runoff and to reduce runoff velocities. Split, torn, or unraveling rolls must be repaired or replaced. Locations where rills and other evidence of concentrated runoff have occurred beneath the rolls must be corrected. Weighted fiber rolls or gravel-filled rolls must be repaired or replaced on the same day damage occurs. Damage to the temporary fiber rolls resulting from your vehicles, equipment, or activities will be repaired at your expense. If replacement of weighted fiber rolls or gravel-filled rolls is required due to your vehicles, equipment, or activities, replacement will be at your expense.

Replace "Reserved" in section 13-10.03K with:

13-10.03K Polyethylene Sheeting

Temporary polyethylene plastic sheeting will be weighted with gravel-filled bags or gravel-filled rolls. Temporary polyethylene plastic sheeting with gravel-filled bags or gravel-filled rolls will be placed in channels along the entire length of the channel after grading is completed when the rolled erosion control product or geosythetic mat cannot be placed in the channel immediately after that section of channel is graded, unless Engineer determines that the interim use of visqueen sheeting weighted with gravel bags or gravel-filled rolls is unnecessary due to weather reports.

Replace section 13-10.04 with:

The Department pays for temporary linear sediment barriers under all bid items.

^^

14 ENVIRONMENTAL STEWARDSHIP

Replace section 14-8.02 with:

The maximum allowable noise for exposure for work is identified in Chapter 68: Noise Limitations in the TRPA Code of Ordinances.

The noise level requirements apply to the equipment on the job or related to the job measured at the affected building facade, including trucks, transit mixers or transient equipment that you may or may not own. Avoid the use of loud sound signals in favor of light warnings except those required by safety laws for the protection of personnel.

In the interest of the public safety and/or public convenience, the allowable noise levels may be waived.

Implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, shutting off idling equipment, rescheduling your activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources such that noise from construction does not exceed the limits specified above. If the existing background noise levels exceed the values above, then the limit for construction noise may be increased from the background noise level by the same percentage that the background noise level exceeds the values above.

Replace section 14-9.02 with:

Comply with applicable State and County Air Quality Management District (AQMD) rules and regulations regarding reduction of construction related impacts on air quality, including the implementation of the following measures:

1. Use low-emission onsite mobile construction equipment.
2. Maintain equipment in tune per manufacturer's specifications.
3. Retard diesel engine injection timing by two to four degrees unless not recommended by manufacturer (due to lower emission output in-place).

- Use reformulated low-emission diesel fuel.
- Substitute electric and gasoline-powered equipment for diesel-powered equipment where feasible.
- Use catalytic converters on gasoline-powered equipment.
- Do not leave inactive construction equipment idling for prolonged periods (i.e., more than 2 minutes).
- Support and encourage ridesharing and transit for the construction workers.
- All construction vehicles and equipment shall be fitted with working mufflers.

Replace section 14-9.04 with:

14-9.04 DUST CONTROL

14-9.04A GENERAL
14-9.04A(1) Summary
Section 14-9.04 includes specifications relating to dust control.

Provide an acceptable plan for preventing the generation of dust due to your activities in construction zones, along haul or traveled routes, or in equipment parking zones. Your Dust Control Plan and daily dust control activities will not conflict with requirements of any agency having jurisdiction in the project area. You are required to have a water truck at the job site at all times during construction.

In the event the control of dust is not satisfactory to the Engineer, the Engineer will take measures as necessary to insure satisfactory salvage and will deduct the cost of those measures from payments due you.

Dust control is a temporary erosion control measure or BMP. A fine of $100/day will be levied against you for each day you delay in responding to the Engineer's request to implement this temporary erosion control measure.

You will post a publicly visible sign at the staging areas shown. The sign will contain the telephone number and name of person to contact for complaints and/or inquiries on dust control and other air quality problems resulting from construction activities.

14-9.04A(2) Submittals
You are to prepare and submit a Dust Control Plan that includes daily clean up measures that comply with federal, state, and local agency regulations, the Plans, the SWPPP / WPCP, and these special provisions. Submit your Dust Control Plan as early as ten (10) working days after the receipt of the Notice of Award but no later than five (5) working days of receipt of Notice to Proceed.

14-9.04B Materials
Not used.

14-9.04C Construction
Implement the measures contained in the FDP to control dust.

Control dust using measures that include the following:

1. Stabilize unpaved areas subject to vehicular traffic by keeping adequately .
2. The speed of vehicles and equipment traveling across unpaved areas must not be more than 15 mph unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment going faster from causing dust that is visible from crossing job site limits.
3. Stockpiles and disturbed areas not subject to vehicular traffic must be located in the plan and stabilized by being kept adequately wetted or covered with plastic sheeting, bonded fiber matrix, erosion control blanket or other WPC measures approved by the Engineer.
4. Conduct activities so that no dirt or mud tracking is visible on any paved roadway open to the public.
5. Use rock track out pads and wheel wash stations at all points of egress from unpaved construction areas.
6. Use a dedicated water truck for each piece of earthmoving equipment (e.g., scrapers, dozers, excavators, loaders, haul trucks, backhoes, compactors, graders, etc),
7. Pre-wet excavations to depths of cuts.
8. Water exposed soil twice daily, or as needed, to control wind borne dust.

Dust control measures that will be required to mitigate dust may impact your productivity during construction activities.

14-9.04D PAYMENT

The Department does not pay for impacts to your productivity from mitigating dust from your activities.

Replace section 14-10.02 with:

i. SOLID WASTE DISPOSAL AND RECYCLING REPORT

Submit a final solid waste disposal and recycling report (CEM-4401) upon completion of the work and prior to acceptance of the Proposed Final Estimate. Show the types and amounts of project-generated solid waste including organic waste taken to or diverted from landfills or reused on the Project.

^^

15 EXISTING FACILITIES

Add to section 15-1.01:

Asphalt concrete and concrete must be disposed of outside the Lake Tahoe Basin. Asphalt concrete and concrete may be disposed of in the Lake Tahoe Basin providing you obtain and submit approvals from all applicable state, local, and federal agencies.

Add to 4th paragraph of section 15-1.01:

If existing facilities such as sprinklers or irrigation lines could be damaged by the work, you are to notify the property owner of your intended schedule so they have sufficient time to disconnect and remove those facilities.

Add to section 15-1.03C :

Salvage CSP inlet frames, grates, and hoods. The Department's salvage location is the Corporation Yard at 1121 Shakori Drive, South Lake Tahoe, California. Coordinate timing and drop location with the Department's staff.

Replace "Not Used" in section 15-1.04 with:

The Department pays for salvaging the frames and grates under the Modify Inlet item.

For a given location where new improvements are being constructed, payment for the removal of subbase, base, and bituminous surface is included in the cost for the improvement being constructed in the Bid Item List that corresponds to that given location.

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16 TEMPORARY FACILITIES

^^

DIVISION III EARTHWORK AND LANDSCAPE

18 DUST PALLIATIVES

Add to section 18-1.01A:

You must contact South Tahoe Public Utility District (STPUD) as to the availability and use of water sources for the Project work.

^^^

19 EARTHWORK

Add to section 19-1.03B with:

The void resulting from the removal of unsuitable material will be backfilled with Class 3 permeable material and compacted to a minimum relative compaction of 95%, except if unsuitable material is overexcavated from the bottom of a sediment basin. In this case a maximum of 90% relative compaction and a minimum of 85% relative compaction will be required.

The void created by stump removal, culvert removal, or rock removal will be filled with native material and compacted to a minimum of 90% relative compaction. Other material may be approved if suitable for the location relative to the improvements.

All unsuitable material must be removed from the Tahoe Basin in compliance with section 14-10.01.

Replace “Not Used” in section 19-1.04 with:

If removal of unsuitable material is described, removing unsuitable material is paid for as the type of excavation involved.

If removal of unsuitable material is not described, removing unsuitable material is paid for as the type of excavation involved, unless before removal activities, (1) removing the material is ordered as change order work or (2) you request the removal to be change order work.

If removal of a buried man-made object is described, payment for removing the object encountered in an excavation is included in the type of excavation involved.

If removal of a buried man-made object is not described, payment for removing a buried man-made object is included in the type of excavation involved, unless before removal activities, (1) removing the object is ordered as change order work or (2) you request the removal to be change order work.

Add to section 19-2.04:

The Department does not pay for an excavation in excess of the limits shown or authorized.

Add to 1st paragraph of section 19-3.01A:

5. Salvaging and stockpiling salvaged soil for topsoil mix.

Add to section 19-3.02E:

Submit a certificate of compliance within ten (10) working days of the Contract start date or within three (3) working days before the slurry cement is to be used, whichever is sooner.

Replace 7th paragraph of section 19-3.03B(5) with:

If rock is encountered in the bottom of a pipe trench or structure excavation, you will immediately notify the Engineer. If the design cannot be modified and the removal of the rock is necessary, the following will apply:

If a point load on the pipe is created by the rock, the rock will be removed to a depth of 6 inches below the trench bottom and the 6 inches will be backfilled with Class 3 permeable material.

If rock is encountered at the bottom of the excavation for an open bottom corrugated steel pipe inlet and infiltration could be achieved if the rock were removed, the rock will be removed and the void backfilled with Class 3 permeable material. Alternatively, the Engineer may allow you to install a sealed base over the rock for the corrugated steel pipe inlet.

Payment for excavating and backfilling below the planned elevation of the bottom of the pipe trench or corrugated steel pipe inlet and the rock removal and disposal will be included in the applicable bid item, unless the rock removal meets the criteria for payment under section 19-4.

Add to 1st paragraph of section 19-3.03E(1):

Compaction by ponding and jetting is not allowed for this project.

Delete 5th paragraph of section 19-3.03E(1).

Replace "Reserved" in section 19-4 with:

19-4.01 GENERAL

19-4.01A Summary

You are advised that hard non-rippable rock exists that may require alternative excavation techniques, including the use of hydraulic rock breaking equipment, coring (for drilling operations), and/or chemical splitting agents. Blasting is not allowed.

Any rock that prohibits the proposed function of improvements or prohibits the installation of improvements to the grades shown and that can't be removed after a reasonable effort with the equipment being used on the job site will be fractured and removed.

The following illustrates the minimum effort that can reasonably be expected from you if rock is encountered and must be removed:

Should you have larger equipment on site, you must make a reasonable effort with the larger equipment to remove the rock and compensation will not be made under this bid item but be included in the item for which the rock was encountered.

19-4.02 MATERIALS

Not Used.

19-4.03 CONSTRUCTION

You must notify the Engineer immediately if rock is encountered that meets the definition described in section 19-4.01A. The Engineer will consider whether the lines and grades can be adjusted to avoid fracturing and removing the rock. If the Engineer determines adjustments are not possible, and that the rock meets the definition described, and that you have made a reasonable effort to remove, fracture and remove, or scrape and remove the rock with the minimum equipment specified above, then the removal and disposal of the rock will be performed with the following methods:

> You may use hydraulic splitters, pneumatic hammers, or other authorized roadway excavation techniques to fracture rock and construct stable final rock cut faces. Blasting is not allowed.

If a cracking agent is used, the cracking agent must be soundless chemical demolition agent such as Bentonamit or Fract.Ag, or approved equal. The non-detonating rock breaking equipment must be Boulder Buster, NoneX, or an approved equal.

Fracture the rock in compliance with the manufacturer's instructions.

You are responsible for any damage to persons, private property, the work, existing structures, or utilities.

You and the Engineer will agree to the number of cubic yards of rock fractured and removed immediately after the removal of the rock from the excavation.

If the fractured rock cannot be used in the construction of other improvements, it is considered unsuitable material and must be disposed of in compliance with section 14-10.01.

The void created by the rock removal will be backfilled in compliance with section 19-1.03B.

19-4.04 PAYMENT
Work performed under this section is change order work.

Add to section 19-5.01:

The Department will, at its expense, except as noted in section 6-3, provide compaction testing to verify that you have achieved the required compaction.

Relative compaction will be based on the maximum dry unit weight as determined by ASTM D1557. Corrections to the Unit Weight for Soil Containing Oversize Particles will comply with ASTM 4718.

Compaction testing will be performed on subgrade, fill, backfill, topsoil mix, and, if applicable, permeable material. You will provide a 24-hour notice to the Engineer stating when you will be completed with an activity that requires compaction testing to allow the Engineer time to schedule testing before you start the next activity. The Department will make every effort to collect native samples and to provide moisture-density curves in a timely manner. However, should you choose to proceed with the work before compaction criteria for native soil or fill material can be verified, you assume the risk of having to remove this work at your expense if subgrade compaction is later found to be inadequate.

All compaction will be accomplished with mechanical compaction.

Subgrade, fill, or backfill that exhibits pumping will not be accepted.

Add to section 19-5.03C:

With the exception of perforated pipe trenches and CSP inlets, areas where asphalt concrete, Portland cement concrete, aggregate base, Class 1 Type B and Class 3 permeable material, fill, backfill, or Class No. 1 rock is to be placed over native material, the native material will be scarified a minimum of 6 inches, thoroughly mixed with water to the optimum moisture for compaction, and compacted to a minimum of 90% relative compaction before placement of fill or other material.

All fill and backfill using native material or excess excavated material will be thoroughly mixed with water to the optimum moisture for compaction. Lifts will be a maximum of 8 inches thick, loose, before compaction. Unless otherwise specified, fill and backfill will be compacted to a minimum relative compaction of 90%. These provisions also apply to imported fill or backfill.

If undisturbed native material becomes disturbed during excavation, the native material will be scarified a minimum of 6 inches, thoroughly mixed with water to the optimum moisture for compaction, and compacted to a minimum of 90% relative compaction before placement of fill or other material as shown.

Permeable material to be placed over native material will be compacted to a minimum of 90% relative compaction. The void created by rock removed from the bottom of a pipe trench or corrugated steel pipe inlet excavation will be backfilled with Class 3 permeable material and compacted to 90% relative compaction. Compaction of permeable material will be verified by an established method agreed upon by you and the Engineer.

The mixture of salvaged soil and humus (i.e. topsoil mix) will be compacted to a maximum of 90% relative compaction and a minimum of 85% relative compaction. Compaction of topsoil mix will be verified by an established method agreed upon by you and the Engineer.

Replace section 19-7.01A with:

Section 19-7 includes specifications for obtaining local and imported borrow material.

Add to section 19-7.01C:

You will notify the Engineer of the imported borrow site location 72 hours before you pick-up the material.

Add to section 19-7.02A:

3. Imported borrow will be a silty sand material designated by SM in the Unified Soil Classification System (USCS).

Add to section 19-7.04:

The Department does not pay for imported borrow that is not used in the work.

The Department does not pay for disposal of surplus imported borrow.

Replace the 1st paragraph of section 19-9.02 with:

Shoulder backing must be clean and consist of virgin AB.

Delete the 3rd paragraph of section 19-9.02.

^^

21 EROSION CONTROL

Add section 21-2.02C(4):

21-2.02C(4) Topsoil Mix

Topsoil mix consists of a blend of salvaged soil and humus. Following clear and grub, you will excavate and stockpile the excess native soil and undecomposed plant material from the drainage inlets, pipes, trenches, and corrugated steel pipe inlets. Imported material must comply with section 19-7.

Topsoil mix will be a blend of humus and salvaged soil in a ratio of 3:1 (soil to humus). Humus and salvaged soil will be mixed together in a separate stockpile at the job site. Do not mix these materials at the locations where the topsoil mix will be placed.

You must notify the Engineer of the proposed location of the source of imported humus 72 hours before you plan to pick-up the material so the Engineer can verify the suitability of the material.

The humus will consist of an amendment that is the result of an aerobic composting process maintaining temperatures greater than 135 degrees Fahrenheit and less than 165 degrees Fahrenheit, for a minimum of ten (10) days. Nitrogen introduction will be derived from dairy manure. The compost feedstock must consist of a minimum of 50% by volume indigenous forest vegetation from the Lake Tahoe Basin. The humus must be 50% Humus Fines (3/8 inch minus) and 50% wood "overs" (3/8 inch to 3 inch). Full Circle Compost (humus is called "Integrated 50%") in Minden,NV, and Tahoe Sand and Gravel in South Lake Tahoe, CA, produce a humus that complies with these specifications.

Submit a certificate of compliance for the humus and certification that the humus is weed free.

Replace section 21-2.02D with:

21-1.02D Mulch

The mulch must be the product of an aerobic composting process maintaining temperatures greater than 130 degrees Fahrenheit and less than 165 degrees Fahrenheit for a minimum of ten (10) days. Nitrogen introduction will be derived from dairy manure. The compost feedstock must consist of a minimum of 50% by volume indigenous forest vegetation from the Lake Tahoe Basin. The resulting finished compost must consist of 75% wood "overs" (from 3/8 inch to 3 inch in size) and 25% humus (fines) (3/8 inch minus). Full Circle Compost (Mulch is called "Integrated 25%") in Minden, NV, and Tahoe Sand and Gravel in South Lake Tahoe, CA, produce a mulch that complies with these specifications.

You must notify the Engineer of the proposed location of the source of imported humus 72 hours before you plan to pick-up the material so the Engineer can verify the suitability of the material.

Submit a certificate of compliance for the mulch and certification that the mulch is weed free.

Add to section 21-2.02E:

The term "tackifier" used here will mean tackifier with wood-cellulose fiber mulch.

The fiber mulch must consist of degradable green-dyed wood-cellulose fiber or 100%-recycled long-fiber pulp (recycled newspaper), free from weeds or other foreign matter toxic to seed germination.

The tackifier material must be of an organic, plant-derived substance containing psyllium, guar gum, cornstarch such as PT-TAC, Reclamare 2400, M-Binder, Eco-tak, Fisch-Stick, or approved equal.

Submit a certificate of compliance.

Replace first paragraph of section 21-2.02H with:

Straw for straw bales must be stalks from rice furnished in air-dry condition.

Add to section 21-2.03D:

The term "tackifier" used here will mean tackifier with wood-cellulose fiber mulch. You will apply tackifier to all areas where mulch has been applied.

The material will form a transparent 3-dimensional film-like crust permeable to water and air and containing no agents toxic to seed germination.

Notify the Engineer of the equipment you propose to use no later than ten (10) days before application.

Hydraulic applications of tackifier must not be conducted during windy conditions greater than 8 mph.

Application of the mulch described in section 21-1.03M and tackifier will consist of a continuous operation where tackifier placement follows the mulch placement. The materials will be applied to individual identified areas on the same day the seed has been placed.

Add to section 21-2.03C:

Compaction of the topsoil mix will comply with section 19-5.03C.

You will place and compact the topsoil mix (2 inch compacted thickness unless noted otherwise below) at the following improvements:

- Behind Rolled Curb & Gutter;
- Revegetation not associated with improvements;

Replace section 21-2.03K with:

21-2.03K Mulch

Apply a 1 inch thick layer of mulch over the compacted topsoil mix after seeding by the CCC is completed and over disturbed areas beyond new facilities but within the silt fence and ESA fence.

Mulch can be applied by non-motorized means or by means of a pneumatic conveying system capable of blowing the mulch at rates between 10 and 15 cubic yards per hour and must be capable of blowing the mulch a distance of 300 feet as necessary to access slopes. If selected, the conveying equipment must have a self-contained dust suppression system.

Notify the Engineer of your mulch application method and equipment that you propose to use no later than ten (10) days before application.

Pneumatic applications of mulch must not be conducted during windy conditions greater than 8 mph.

Application of the mulch and tackifier described in section 21-2.03D will consist of a continuous operation where tackifier placement follows the mulch placement. The materials will be applied to individual identified areas on the same day the seed has been placed. One application will be not completed independent of the other.

The CCC under the direction of the Engineer will provide flagging on the slopes or other means to identify the location of mulch to be supplied and applied by you.

Add to section 21-2.04:

Furnishing and placing humus and mulch are paid for under Humus and Mulch. Salvaging and stockpiling salvaged soil is paid for under the various items of work involving excavation. Mixing the salvaged soil with humus and placing and compacting the topsoil mix will be paid for in the various items of work requiring topsoil mix. Furnishing and placing the rolled erosion control product is paid for in the various items of work requiring rolled erosion control product.

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DIVISION IV SUBBASES AND BASES

26 AGGREGATE BASES

Replace the 2nd paragraph of section 26-1.02A with:

Use 3/4 inch aggregate gradation.

Add to section 26-1.02A:

Class 2 Aggregate Base applies to this project.

Submit a certificate of compliance within ten (10) working days of the Contract start date or within three (3) working days before the aggregate base is to be used, whichever is sooner.

Add to section 26-1.03E:

The Department will, at its expense, except as noted in section 6-2, provide compaction testing to verify that you have achieved the required compaction.

Relative compaction will be based on the maximum dry unit weight as determined by ASTM D1557. Corrections to the Unit Weight for Soil Containing Oversize Particles will comply with ASTM 4718.

Compaction testing will be performed on aggregate base. You will provide a 24-hour notice to the Engineer stating when you will be completed with an activity that requires compaction testing to allow the Engineer time to schedule testing before you start the next activity.

All compaction will be accomplished with mechanical compaction.

Aggregate base that exhibits pumping will not be accepted.

^^

DIVISION V SURFACINGS AND PAVEMENTS

39 ASPHALT CONCRETE

Delete section 39 of the RSS dated 07-15-16.
Replace section 39 with:
39-1 GENERAL

39-1.01 GENERAL

39-1.01A Summary

Section 39-1 includes general specifications for producing and placing HMA by mixing aggregate and asphalt binder at a mixing plant and spreading and compacting the HMA mixture.

HMA includes one or more of the following types:
1. Type A
2. Type B
3. OGFC, including HMA-O, RHMA-O, and RHMA-O-HB
4. RHMA-G

The HMA construction process includes one or more of the following:
1. Standard
2. Method
3. QC/QA

Produce and place HMA Type A under the Method construction process.

Removal of existing asphalt concrete must comply with section 15. Asphalt concrete and concrete must be disposed of outside the Lake Tahoe Basin. Asphalt concrete and concrete may be disposed of in the Lake Tahoe Basin providing you obtain and submit approvals from all applicable state, local, and federal agencies

Preparation of the subgrade must comply with section 19.

Produce and compaction of Aggregate Base must comply with section 26.

Asphalt concrete sawcut limits as shown include the 12 inch “T” patch on each side of pipe trenches. Sawcut to these limits just before final paving of the pipe trench.

39-1.01B Definitions

binder replacement: Amount of RAP binder in OBC in percent.

coarse aggregate: Aggregate retained on a no. 4 sieve.

fine aggregate: Aggregate passing the no. 4 sieve.

processed RAP: RAP that has been fractionated.

substitution rate: Amount of RAP aggregate substituted for virgin aggregate in percent.

supplemental fine aggregate: Aggregate passing the no. 30 sieve, including hydrated lime, portland cement, and fines from dust collectors.

surface course: Upper 0.2 feet of HMA exclusive of OGFC.

39-1.02 MATERIALS

39-1.02A Geosynthetic Pavement Interlayer

Geosynthetic pavement interlayer must comply with the specifications for pavement fabric, paving mat, paving grid, paving geocomposite grid, or geocomposite strip membrane as shown.

39-1.02B Tack Coat

Tack coat must comply with the specifications for asphaltic emulsion or asphalts. Choose the type and grade.

Notify the Engineer if you dilute asphaltic emulsion with water. The weight ratio of added water to asphaltic emulsion must not exceed 1 to 1.

Measure added water either by weight or volume in compliance with section 9-1.02 or you may use water meters from water districts, cities, or counties. If you measure water by volume, apply a conversion factor to determine the correct weight.

With each dilution, submit:

1. Weight ratio of water to bituminous material in the original asphaltic emulsion
2. Weight of asphaltic emulsion before diluting
3. Weight of added water
4. Final dilution weight ratio of water to asphaltic emulsion

39-1.02C Asphalt Binder

Asphalt binder in HMA must comply with the specifications for asphalts or section 39-1.02D.

Asphalt binder for geosynthetic pavement interlayer must comply with the specifications for asphalts.

Asphalt binder used in HMA Type A must be PG 64-22 or PG 64-28..

39-1.02D Asphalt Rubber Binder

Not Used

39-1.02E Aggregate

Aggregate must be clean and free from deleterious substances.

The specified aggregate gradation must be determined before the addition of asphalt binder and includes supplemental fine aggregate. The Department tests for aggregate grading under California Test 202,

modified by California Test 105 if there is a difference in specific gravity of 0.2 or more between the coarse and fine parts of different aggregate blends.

Choose sieve size TV within each TV limit presented in the aggregate gradation tables.

Aggregate used in HMA Type A must comply with 1/2-inch HMA Type A and B gradation.

The proposed aggregate gradation must be within the TV limits for the specified sieve sizes shown in the following tables:

Aggregate Gradation
(Percentage Passing)
HMA Types A and B

3/4-inch HMA Types A and B

Sieve sizes	TV limits	Allowable tolerance
1"	100	--
3/4"	90–100	TV ± 5
1/2"	70–90	TV ± 6
No. 4	45–55	TV ± 7
No. 8	32–40	TV ± 5
No. 30	12–21	TV ± 4
No. 200	2.0–7.0	TV ± 2

1/2-inch HMA Types A and B

Sieve sizes	TV limits	Allowable tolerance
3/4"	100	—
1/2"	95–99	TV ± 6
3/8"	75–95	TV ± 6
No. 4	55–66	TV ± 7
No. 8	38–49	TV ± 5
No. 30	15–27	TV ± 4
No. 200	2.0–8.0	TV ± 2

3/8-inch HMA Types A and B

Sieve sizes	TV limits	Allowable tolerance
1/2"	100	--
3/8"	95–100	TV ± 6
No. 4	58–72	TV ± 7
No. 8	34–48	TV ± 6
No. 30	18–32	TV ± 5
No. 200	2.0–9.0	TV ± 2

No. 4 HMA Types A and B

Sieve sizes	TV limits	Allowable tolerance
3/8"	100	--
No. 4	95–100	TV ± 7
No. 8	72–77	TV ± 7
No. 30	37–43	TV ± 7
No. 200	2.0–12.0	TV ± 4

RHMA-G

Not Used

OGFC

Not Used

Before the addition of asphalt binder and lime treatment, aggregate must have the values for the quality characteristics shown in the following table:

Aggregate Quality

Quality characteristic	Test method	HMA type			
		A	B	RHMA-G	OGFC
Percent of crushed particles Coarse aggregate (% min.) One fractured face Two fractured faces Fine aggregate (% min) (Passing no. 4 sieve and retained on no. 8 sieve.) One fractured face	California Test 205	 90 75 70	 25 -- 20	 -- 90 70	 90 75 90
Los Angeles Rattler (% max.) Loss at 100 rev. Loss at 500 rev.	California Test 211	 12 45	 -- 50	 12 40	 12 40
Sand equivalent (min.) [a]	California Test 217	47	42	47	--
Fine aggregate angularity (% min.) [b]	California Test 234	45	45	45	--
Flat and elongated particles (% max. by weight @ 5:1)	California Test 235	10	10	10	10

[a] Reported value must be the average of 3 tests from a single sample.

[b] The Engineer waives this specification if HMA contains 10 percent or less of nonmanufactured sand by weight of total aggregate. Manufactured sand is fine aggregate produced by crushing rock or gravel.

39-1.02F(1) General

You may produce HMA Type A or B using RAP. HMA produced using RAP must comply with the specifications for HMA, except aggregate quality specifications do not apply to RAP. You may substitute RAP at a substitution rate not exceeding 15 percent of the aggregate blend.

Assign the substitution rate of RAP aggregate for virgin aggregate with the JMF submittal. The JMF must include the percent of RAP used.

Provide enough space for meeting RAP handling requirements at your facility. Provide a clean, graded, well-drained area for stockpiles. Prevent material contamination and segregation.

If RAP is from multiple sources, blend the RAP thoroughly and completely. RAP stockpiles must be homogeneous.

Isolate the processed RAP stockpiles from other materials. Store processed RAP in conical or longitudinal stockpiles. Processed RAP must not be agglomerated or be allowed to congeal in large stockpiles.

39-1.02F(2) Substitution Rate of 15 Percent or Less

For a RAP substitution rate of 15 percent or less, you may stockpile RAP during the entire project.

39-1.03 HOT MIX ASPHALT MIX DESIGN REQUIREMENTS

39-1.03A General

The mix design process consists of performing California Test 367 and laboratory procedures on combinations of aggregate gradations and asphalt binder contents to determine the OBC and HMA mixture qualities. The results become the proposed JMF.

Use the *Contractor Hot Mix Asphalt Design Data* form to record aggregate quality and mix design data. Use the *Contractor Job Mix Formula Proposal* form to present the JMF.

Laboratories testing aggregate qualities and preparing the mix design and JMF must be qualified under the Department's Independent Assurance Program. Take samples under California Test 125.

The Engineer reviews the aggregate qualities, mix design, and JMF and verifies and authorizes the JMF.

You may change the JMF during production. Do not use the changed JMF until it is authorized. Except if adjusting the JMF as specified in section 39-1.03E, perform a new mix design and submit a new JMF submittal if you change any of the following:

1. Target asphalt binder percentage
2. Asphalt binder supplier
3. Asphalt rubber binder supplier
4. Component materials used in asphalt rubber binder or percentage of any component materials
5. Combined aggregate gradation
6. Aggregate sources
7. Substitution rate by more than 5 percent if your assigned RAP substitution rate is 15 percent or less
8. Average binder content by more than 2 percent from the average binder content of the original processed RAP stockpile used in the mix design
9. Maximum specific gravity of processed RAP by more than ±0.060 from the average maximum specific gravity of processed RAP reported on page 4 of your *Contractor Hot Mix Asphalt Design Data* form
10. Any material in the JMF

For OGFC, submit a complete JMF submittal, except for asphalt binder content. The Department determines the asphalt binder content under California Test 368 within 20 days of your complete JMF submittal and provides you a *Caltrans Hot Mix Asphalt Verification* form.

39-1.03B Hot Mix Asphalt Mix Design

Perform a mix design that produces HMA with the values for the quality characteristics shown in the following table:

HMA Mix Design Requirements

Quality characteristic	Test method	HMA type		
		A	B	RHMA-G
Air void content (%)	California Test 367	4.0	4.0	Section 39-1.03B
Voids in mineral aggregate (% min.)	California			
No. 4 grading	Test 367	17.0	17.0	--
3/8" grading		15.0	15.0	--
1/2" grading		14.0	14.0	18.0–23.0
3/4" grading		13.0	13.0	18.0–23.0
Voids filled with asphalt (%)	California			Note a
No. 4 grading	Test 367	65.0–75.0	65.0–75.0	
3/8" grading		65.0–75.0	65.0–75.0	
1/2" grading		65.0–75.0	65.0–75.0	
3/4" grading		65.0–75.0	65.0–75.0	
Dust proportion	California			Note a
No. 4 and 3/8" gradings	Test 367	0.6–1.2	0.6–1.2	
1/2" and 3/4" gradings		0.6–1.2	0.6–1.2	
Stabilometer value (min.)	California			
No. 4 and 3/8" gradings	Test 366	30	30	--
1/2" and 3/4" gradings		37	35	23

[a] Report this value in the JMF submittal.

For HMA with RAP, the maximum binder replacement must be 25.0 percent of OBC for surface course and 40.0 percent of OBC for lower courses.

For HMA with a binder replacement less than or equal to 25 percent of OBC, you may request that the PG asphalt binder grade with upper and lower temperature classifications be reduced by 6 degrees C from the specified grade.

For HMA with a binder replacement greater than 25 percent but less than or equal to 40 percent of OBC, you must use a PG asphalt binder grade with upper and lower temperature classifications reduced by 6 degrees C from the specified grade.

Report the average of 3 tests. If the range of stability for the 3 briquettes is more than 8 points, prepare new briquettes and test again. The average air void content may vary from the specified air void content by ±0.5 percent.

39-1.03C Job Mix Formula Submittal

Each JMF submittal must consist of:

1. Proposed JMF on a *Contractor Job Mix Formula Proposal* form
2. Mix design records on a *Contractor Hot Mix Asphalt Design Data* form dated within 12 months of submittal
3. JMF verification on a *Caltrans Hot Mix Asphalt Verification* form, if applicable
4. JMF renewal on a *Caltrans Job Mix Formula Renewal* form, if applicable
5. MSDS for the following:
   - 5.1. Asphalt binder
   - 5.2. Base asphalt binder used in asphalt rubber binder
   - 5.3. CRM and asphalt modifier used in asphalt rubber binder
   - 5.4. Blended asphalt rubber binder mixture
   - 5.5. Supplemental fine aggregate except fines from dust collectors
   - 5.6. Antistrip additives

If the Engineer requests, sample the following materials in the presence of the Engineer and place in labeled containers weighing no more than 50 lb each:

1. Coarse, fine, and supplemental fine aggregate from stockpiles, cold feed belts, or hot bins. Samples must be at least 120 lb for each coarse aggregate, 80 lb for each fine aggregate, and 10 lb for each type of supplemental fines. The Department combines these aggregate samples to comply with the JMF TVs submitted on a *Contractor Job Mix Formula Proposal* form.
2. RAP from stockpiles or RAP system. Samples must be at least 60 lb.
3. Asphalt binder from the binder supplier. Samples must be in two 1-quart cylindrical-shaped cans with open top and friction lids.
4. Asphalt rubber binder with the components blended in the proportions to be used. Samples must be in four 1-quart cylindrical-shaped cans with open top and friction lids.

Notify the Engineer at least 2 business days before sampling materials. For aggregate and RAP, split the samples into at least 4 parts. Submit 3 parts to the Engineer and use 1 part for your testing.

39-1.03D Job Mix Formula Review

The Engineer reviews each mix design and proposed JMF within 5 business days from the complete JMF submittal. The review consists of reviewing the mix design procedures and comparing the proposed JMF with the specifications.

The Engineer may verify aggregate quality characteristics during this review period.

39-1.03E Job Mix Formula Verification

Submit a Department-verified JMF on a *Caltrans Hot Mix Asphalt Verification* form dated within 12 months before HMA production.

Use the OBC specified on your *Contractor Hot Mix Asphalt Design Data* form. No adjustments to asphalt binder content are allowed. Based on your testing and production experience, you may submit an adjusted aggregate gradation TV on a *Contractor Job Mix Formula Proposal* form before verification testing. Aggregate gradation TV must be within the TV limits specified in the aggregate gradation tables.

For HMA Type A, Type B, and RHMA-G, the Engineer verifies the JMF from samples taken from HMA produced by the plant to be used. Notify the Engineer at least 2 business days before sampling materials.

Asphalt binder set point for HMA must be the OBC specified on your *Contractor Hot Mix Asphalt Design Data* form. When RAP is used, asphalt binder set point for HMA must be:

$$\text{Asphalt Binder Set Point} = \frac{\dfrac{BC_{OBC}}{\left(1-\dfrac{BC_{OBC}}{100}\right)} - R_{RAP}\left[\dfrac{BC_{RAP}}{\left(1-\dfrac{BC_{RAP}}{100}\right)}\right]}{100+\dfrac{BC_{OBC}}{\left(1-\dfrac{BC_{OBC}}{100}\right)}}$$

Where:
BC_{OBC} = optimum asphalt binder content, percent based on total weight of mix
R_{RAP} = RAP ratio by weight of aggregate
BC_{RAP} = asphalt binder content of RAP, percent based on total weight of RAP mix

In the Engineer's presence and from the same production run, take samples of:

1. Aggregate
2. Asphalt binder
3. RAP
4. HMA

Sample aggregate from cold feed belts or hot bins. Sample RAP from the RAP system. Sample HMA under California Test 125, except if you request and if authorized, you may sample from any of the following locations:

1. Plant
2. Truck
3. Windrow
4. Paver hopper
5. Mat behind the paver

You may sample from a different project, including a non-Department project, if you make arrangements for the Engineer to be present during sampling.

For aggregate, RAP, and HMA, split the samples into at least 4 parts and label their containers. Submit 3 split parts and keep 1 part for your testing.

The Engineer verifies each proposed JMF within 20 days of receiving all verification samples and the JMF submittal has been accepted. If you request, the Engineer verifies RHMA-G quality requirements within 3 business days of sampling. Verification is testing for compliance with the specifications for:

1. Aggregate quality
2. Aggregate gradation TVs within the TV limits
3. Asphalt binder content TV within the TV limit
4. HMA quality specified in the table titled "HMA Mix Design Requirements" except:
   4.1. Air void content, design value ±2.0 percent
   4.2. Voids filled with asphalt, report only
   4.3. Dust proportion, report only

The Engineer prepares 3 briquettes from a single split sample. To verify the JMF for stability and air void content, the Engineer tests the 3 briquettes and reports the average of 3 tests. The Engineer prepares new briquettes if the range of stability for the 3 briquettes is more than 8 points.

The Engineer may use the briquettes used for stability testing to determine bulk specific gravity under California Test 308. If the same briquettes are used and the tests using bulk specific gravity fail, the Engineer prepares 3 new briquettes and determines a new bulk specific gravity.

If the JMF is verified, the Engineer provides you a *Caltrans Hot Mix Asphalt Verification* form.

If tests on plant-produced samples do not verify the JMF, the Engineer notifies you and you must submit a new JMF or submit an adjusted JMF based on your testing. JMF adjustments may include a change in aggregate gradation TV within the TV limits specified in the aggregate gradation tables.

You may adjust the JMF only once due to a failed verification test. An adjusted JMF requires a new *Contractor Job Mix Formula Proposal* form and verification of a plant-produced sample.

A verified JMF is valid for 12 months.

For each HMA type and aggregate size specified, the Engineer verifies at the Department's expense up to 2 proposed JMF, including a JMF adjusted after verification failure. The Engineer deducts $3,000 from payments for each verification exceeding this limit. This deduction does not apply to verifications initiated by the Engineer or JMF renewal.

39-1.03F Job Mix Formula Renewal

You may request a JMF renewal by submitting:

1. Proposed JMF on a *Contractor Job Mix Formula Proposal* form
2. Previously verified JMF documented on a *Caltrans Hot Mix Asphalt Verification* form dated within 12 months
3. Mix design documentation on a *Contractor Hot Mix Asphalt Design Data* form used for the previously verified JMF

Target asphalt binder content on your Contractor Job Mix Formula Proposal form and the OBC specified on your Contractor Hot Mix Asphalt Design Data form must be the same.

If the Engineer requests, sample the following materials in the presence of the Engineer and place in labeled containers weighing no more than 50 lb each:

1. Coarse, fine, and supplemental fine aggregate from stockpiles, cold feed belts, or hot bins. Samples must include at least 120 lb for each coarse aggregate, 80 lb for each fine aggregate, and 10 lb for each type of supplemental fines. The Department combines these aggregate samples to comply with the JMF TVs submitted on a *Contractor Job Mix Formula Proposal* form.
2. RAP from stockpiles or RAP system. Samples must be at least 60 lb.
3. Asphalt binder from the binder supplier. Samples must be in two 1-quart cylindrical-shaped cans with open top and friction lids.
4. Asphalt rubber binder with the components blended in the proportions to be used. Samples must be in four 1-quart cylindrical-shaped cans with open top and friction lids.

Notify the Engineer at least 2 business days before sampling materials. For aggregate, RAP, and HMA, split samples into at least 4 parts. Submit 3 parts to the Engineer and use 1 part for your testing.

The Engineer may verify aggregate qualities during this review period.

The Engineer verifies the JMF under section 39-1.03E except:

1. Engineer retains samples until you provide test results for your part on a *Contractor Job Mix Formula Renewal* form.
2. Department tests samples of materials obtained from the HMA production unit after you submit test results that comply with the specifications for the quality characteristics in section 39-1.03E.
3. Engineer verifies each proposed JMF renewal within 20 days of receiving verification samples.
4. You may not adjust the JMF due to a failed verification.
5. For each HMA type and aggregate gradation specified, the Engineer verifies at the Department's expense 1 proposed JMF renewal within a 12-month period.

The most recent aggregate quality test results within the past 12 months may be used for verification of JMF renewal or the Engineer may perform aggregate quality tests for verification of JMF renewal.

If the Engineer verifies the JMF renewal, the Engineer provides you a *Caltrans Hot Mix Asphalt Verification* form.

39-1.03G Job Mix Formula Modification

For an accepted JMF, you may change asphalt binder source one time during production.

Submit your modified JMF request a minimum of 3 business days before production. Each modified JMF submittal must consist of:

1. Proposed modified JMF on Contractor Job Mix Formula Proposal form
2. Mix design records on Contractor Hot Mix Asphalt Design Data form for the accepted JMF to be modified
3. JMF verification on Hot Mix Asphalt Verification form for the accepted JMF to be modified
4. Quality characteristics test results for the modified JMF as specified in section 39-1.03B. Perform tests at the mix design OBC as shown on the Contractor Asphalt Mix Design Data form
5. If required, California Test 371 test results for the modified JMF.

With an accepted modified JMF submittal, the Engineer verifies each modified JMF within 5 business days of receiving all verification samples. If California Test 371 is required, the Engineer tests for California Test 371 within 10 days of receiving verification samples.

The Engineer verifies the modified JMF after the modified JMF HMA is placed on the project and verification samples are taken within the first 750 tons following sampling requirements in section 39-1.03E, "Job Mix Formula Verification." The Engineer tests verification samples for compliance with:

1. Stability as shown in the table titled "HMA Mix Design Requirements"
2. Air void content at design value ±2.0 percent
3. Voids in mineral aggregate as shown in the table titled "HMA Mix Design Requirements"
4. Voids filled with asphalt, report only
5. Dust proportion, report only

If the modified JMF is verified, the Engineer revises your Hot Mix Asphalt Verification form to include the new asphalt binder source. Your revised form will have the same expiration date as the original form.

If a modified JMF is not verified, stop production and any HMA placed using the modified JMF is rejected.

The Engineer deducts $2,000 from payments for each modified JMF verification. The Engineer deducts an additional $2,000 for each modified JMF verification that requires California Test 371.

39-1.03H Job Mix Formula Acceptance

You may start HMA production if:

1. The Engineer's review of the JMF shows compliance with the specifications.
2. The Department has verified the JMF within 6 months before HMA production.
3. The Engineer accepts the verified JMF.

39-1.04 CONTRACTOR QUALITY CONTROL

39-1.04A General

Establish, maintain, and change a quality control system to ensure materials and work comply with the specifications. Submit quality control test results within 3 business days of a request, except if the QC/QA construction process is specified.

You must identify the HMA sampling location in your QC plan. During production, take samples under California Test 125. You may sample HMA from:

1. Plant
2. Truck
3. Windrow
4. Paver hopper
5. Mat behind the paver

39-1.04B Prepaving Conference

Hold a prepaving conference with the Engineer at a mutually agreed time and place. Discuss methods of performing the production and paving work.

39-1.04C Asphalt Rubber Binder

Not Used

39-1.04D Aggregate

Determine the aggregate moisture content and RAP moisture content in continuous mixing plants at least twice a day during production and adjust the plant controller. Determine the RAP moisture content in batch mixing plants at least twice a day during production and adjust the plant controller.

39-1.04E Reclaimed Asphalt Pavement

Perform RAP quality control testing each day.

For RAP substitution rate of 15 percent or less, sample RAP once daily.

Perform QC testing for processed RAP aggregate gradation under California Test 367, appendix B, and submit the results with the combined aggregate gradation.

39-1.04F Density Cores

Not Used

39-1.04G Briquettes

Prepare 3 briquettes for each stability and air void content determination. Report the average of 3 tests. Prepare new briquettes and test again when the range of stability for the 3 briquettes is more than 8 points.

You may use the same briquettes used for stability testing to determine bulk specific gravity under California Test 308. If you use these briquettes and tests using bulk specific gravity fail, you may prepare 3 new briquettes and determine a new bulk specific gravity.

39-1.05 ACCEPTANCE CRITERIA

HMA acceptance is specified in the sections for each HMA construction process.

The Department samples materials for testing under California Test 125 and the applicable test method, except samples may be taken:

1. At the plant from a truck or an automatic sampling device
2. From the mat behind the paver

Sampling must be independent of Contractor quality control, statistically based, and random.

If you request, the Department splits samples and provides you with a part.

HMA acceptance is based on:

1. Authorized JMF
2. Compliance with the HMA acceptance tables
3. Visual inspection

The Department prepares 3 briquettes for each stability and air void content determination. The average of 3 tests is reported. If the range of stability for the 3 briquettes is more than 8 points, new briquettes are prepared and tested.

The Department may use the briquettes used for stability testing to determine bulk specific gravity under California Test 308. If the Engineer uses the same briquettes and the tests using that bulk specific gravity fail, the Engineer prepares 3 new briquettes and determines a new bulk specific gravity.

39-1.06 DISPUTE RESOLUTION

Work with the Engineer to avoid potential conflicts and to resolve disputes regarding test result discrepancies. Notify the Engineer within 5 business days of receiving a test result if you dispute the test result.

If you or the Engineer dispute each other's test results, submit quality control test results and copies of paperwork including worksheets used to determine the disputed test results. An independent third party performs referee testing. Before the independent third party participates in a dispute resolution, the party must be accredited under the Department's Independent Assurance Program. The independent third party must be independent of the project. By mutual agreement, the independent third party is chosen from:

1. Department laboratory
2. Department laboratory in a district or region not in the district or region the project is located
3. Transportation Laboratory
4. Laboratory not currently employed by you or your HMA producer

If split quality control or acceptance samples are not available, the independent third party uses any available material representing the disputed HMA for evaluation.

39-1.07 PRODUCTION START-UP EVALUATION

The Engineer evaluates HMA production and placement at production start-up.

Within the first 750 tons produced on the 1st day of HMA production, in the Engineer's presence and from the same production run, take samples of:

1. Aggregate
2. Asphalt binder
3. RAP
4. HMA

Sample aggregate from cold feed belts or hot bins. Take RAP samples from the RAP system. Sample HMA under California Test 125, except if you request and if authorized, you may sample HMA from any of the following locations:

1. Plant
2. Truck
3. Windrow
4. Paver hopper
5. Mat behind the paver

For aggregate, RAP, and HMA, split the samples into at least 4 parts and label their containers. Submit 3 split parts and keep 1 part.

39-1.08 PRODUCTION

39-1.08A General

Produce HMA in a batch mixing plant or a continuous mixing plant. Proportion aggregate by hot or cold feed control.

HMA plants must be Department qualified. Before production, the HMA plant must have current qualification under the Department's Materials Plant Quality Program.

During production, you may adjust hot or cold feed proportion controls for virgin aggregate and RAP.

During production, asphalt binder set point for HMA Type A, HMA Type B, HMA Type C, and RHMA-G must be the OBC shown in Contractor Hot Mix Asphalt Design Data form. For OGFC, asphalt binder set point must be the OBC shown on Caltrans Hot Mix Asphalt Verification form. If RAP is used, asphalt binder set point for HMA must be calculated as specified in section 39-1.03E.

For RAP substitution rate of 15 percent or less, you may adjust the RAP by -5 percent.

You must request adjustments to the plant asphalt binder set point based on new RAP stockpiles average asphalt binder content. Do not adjust the HMA plant asphalt binder set point until authorized.

39-1.08B Mixing

Mix HMA ingredients into a homogeneous mixture of coated aggregates.

Asphalt binder must be from 275 to 375 degrees F when mixed with aggregate.

Asphalt rubber binder must be from 350 to 425 degrees F when mixed with aggregate.

When mixed with asphalt binder, aggregate must not be more than 325 degrees F, except aggregate for OGFC must be not more than 275 degrees F. These aggregate temperature specifications do not apply if you use RAP.

HMA with or without RAP must not be more than 325 degrees F.

39-1.08C Asphalt Rubber Binder

Not Used

39-1.09 SUBGRADE, TACK COAT, AND GEOSYNTHETIC PAVEMENT INTERLAYER

39-1.09A General

Prepare subgrade or apply tack coat to surfaces receiving HMA. If specified, place geosynthetic pavement interlayer over a coat of asphalt binder.

39-1.09B Subgrade

Subgrade to receive HMA must comply with the compaction and elevation tolerance specifications in the sections for the material involved. Subgrade must be free of loose and extraneous material. If HMA is paved on existing base or pavement, remove loose paving particles, dirt, and other extraneous material by any means including flushing and sweeping.

39-1.09C Tack Coat

For this Project the paint binder must be asphaltic emulsion SS-1.

Apply tack coat:

1. To existing pavement, including planed surfaces
2. Between HMA layers
3. To vertical surfaces of:
   3.1. Curbs
   3.2. Gutters
   3.3. Construction joints

Before placing HMA, apply tack coat in 1 application. The application rate must be the minimum residual rate specified for the underlying surface conditions shown in the following tables:

Tack Coat Application Rates for HMA Type A, Type B, and RHMA-G

HMA overlay over:	Minimum residual rates (gal/sq yd)		
	CSS1/CSS1h, SS1/SS1h and QS1h/CQS1h asphaltic emulsion	CRS1/CRS2, RS1/RS2 and QS1/CQS1 asphaltic emulsion	Asphalt binder and PMRS2/PMCRS2 and PMRS2h/PMCRS2h asphaltic emulsion
New HMA (between layers)	0.02	0.03	0.02
PCC and existing HMA (AC) surfaces	0.03	0.04	0.03
Planed PCC and HMA (AC) surfaces	0.05	0.06	0.04

If you dilute asphaltic emulsion, mix until homogeneous before application.

For vertical surfaces, apply a residual tack coat rate that will thoroughly coat the vertical face without running off.

If you request and if authorized, you may:

1. Change tack coat rates
2. Omit tack coat between layers of new HMA during the same work shift if:
   2.1. No dust, dirt, or extraneous material is present
   2.2. Surface is at least 140 degrees F

Immediately in advance of placing HMA, apply additional tack coat to damaged areas or where loose or extraneous material is removed.

Close areas receiving tack coat to traffic. Do not track tack coat onto pavement surfaces beyond the job site.

Asphalt binder tack coat must be from 285 to 350 degrees F when applied.

39-1.09D Geosynthetic Pavement Interlayer

Place geosynthetic pavement interlayer under the manufacturer's instruction.

Before placing the geosynthetic pavement interlayer and asphalt binder:

1. Repair cracks 1/4 inch and wider, spalls, and holes in the pavement. These repairs are change order work.
2. Clean the pavement of loose and extraneous material.

Immediately before placing the interlayer, apply 0.25 ± 0.03 gal of asphalt binder per square yard of interlayer or until the fabric is saturated. Apply asphalt binder the width of the geosynthetic pavement interlayer plus 3 inches on each side. At interlayer overlaps, apply asphalt binder on the lower interlayer the same overlap distance as the upper interlayer.

Asphalt binder must be from 285 to 350 degrees F and below the minimum melting point of the geosynthetic pavement interlayer when applied.

Align and place the interlayer with no folds that result in a triple thickness, except that triple thickness layers less than 1 inch in width may remain if less than 1/2 inch in height. Folds that result in a triple layer greater than a 1 inch width must be slit and overlapped in a double thickness at least 2 inches in width.

The minimum HMA thickness over the interlayer must be 0.12 foot thick, including conform tapers. Do not place the interlayer on a wet or frozen surface.

Overlap the interlayer borders from 2 to 4 inches. In the direction of paving, overlap the following roll with the preceding roll at any break.

You may use rolling equipment to correct distortions or wrinkles in the interlayer.

If asphalt binder tracked onto the interlayer or brought to the surface by construction equipment causes interlayer displacement, cover it with a small quantity of HMA.

Before placing HMA on the interlayer, do not expose the interlayer to:

1. Traffic, except for crossings under traffic control, and only after you place a small HMA quantity
2. Sharp turns from construction equipment
3. Damaging elements

Pave HMA on the interlayer during the same work shift.

39-1.10 SPREADING AND COMPACTING EQUIPMENT

Paving equipment for spreading must be:

1. Self-propelled
2. Mechanical
3. Equipped with a screed or strike-off assembly that can distribute HMA the full width of a traffic lane
4. Equipped with a full-width compacting device
5. Equipped with automatic screed controls and sensing devices that control the thickness, longitudinal grade, and transverse screed slope

Install and maintain grade and slope references.

The screed must produce a uniform HMA surface texture without tearing, shoving, or gouging.

The paver must not leave marks such as ridges and indentations, unless you can eliminate them by rolling.

Rollers must be equipped with a system that prevents HMA from sticking to the wheels. You may use a parting agent that does not damage the HMA or impede the bonding of layers.

In areas inaccessible to spreading and compacting equipment:

1. Spread the HMA by any means to obtain the specified lines, grades, and cross sections.
2. Use a pneumatic tamper, plate compactor, or equivalent to achieve thorough compaction.

39-1.11 CONSTRUCTION

39-1.11A General

Do not pave HMA on wet pavement or a frozen surface.

You may deposit HMA in a windrow and load it in the paver if:

1. Paver is equipped with a hopper that automatically feeds the screed
2. Loading equipment can pick up the windrowed material and deposit it in the paver hopper without damaging base material
3. Activities for deposit, pickup, loading, and paving are continuous
4. HMA temperature in the windrow does not fall below 260 degrees F

You may place HMA in 1 or more layers on areas less than 5 feet wide and outside the traveled way, including shoulders. You may use mechanical equipment other than a paver for these areas. The equipment must produce uniform smoothness and texture.

HMA handled, spread, or windrowed must not stain the finished surface of any improvement, including pavement.

Do not use petroleum products such as kerosene or diesel fuel to release HMA from trucks, spreaders, or compactors.

HMA must be free of:

1. Segregation
2. Coarse or fine aggregate pockets
3. Hardened lumps

Place additional HMA along the pavement's edge to conform to paved private roads and drives. Hand rake, if necessary, and compact the additional HMA to form a smooth conform taper.

39-1.11B Longitudinal Joints

39-1.11B(1) General

Longitudinal joints in the top layer must match specified lane edges. Alternate the longitudinal joint offsets in the lower layers at least 0.5 foot from each side of the specified lane edges. You may request other longitudinal joint placement patterns.

A vertical longitudinal joint of more than 0.15 ft is not allowed at any time between adjacent lanes open to traffic.

Place HMA on adjacent traveled way lanes so that at the end of each work shift the distance between the ends of HMA layers on adjacent lanes is from 5 to 10 feet. Place additional HMA along the transverse edge at each lane's end and along the exposed longitudinal edges between adjacent lanes. Hand rake and compact the additional HMA to form temporary conforms. You may place Kraft paper or another authorized bond breaker under the conform tapers to facilitate the taper removal when paving operations resume.

39-1.11B(2) Tapered Notched Wedge

Not Used

39-1.11C Widening Existing Pavement

If widening existing pavement, construct new pavement structure to match the elevation of the existing pavement's edge before placing HMA over the existing pavement.

39-1.11D Shoulders, Medians, and Other Road Connections

Until the adjoining through lane's top layer has been paved, do not pave the top layer of:

1. Shoulders
2. Tapers
3. Transitions
4. Road connections
5. Driveways
6. Curve widenings
7. Chain control lanes
8. Turnouts
9. Turn pockets

If the number of lanes changes, pave each through lane's top layer before paving a tapering lane's top layer. Simultaneous to paving a through lane's top layer, you may pave an adjoining area's top layer, including shoulders. Do not operate spreading equipment on any area's top layer until completing final compaction.

Pave shoulders and median borders adjacent to the lane before opening a lane to traffic.

39-1.11E Leveling

If leveling with HMA is specified, fill and level irregularities and ruts with HMA before spreading HMA over the base, existing surfaces, or bridge decks. You may use mechanical equipment other than a paver for these areas. The equipment must produce uniform smoothness and texture. HMA used to change an existing surface's cross slope or profile is not paid for as HMA (leveling).

If placing HMA against the edge of existing pavement, sawcut or grind the pavement straight and vertical along the joint and remove extraneous material.

39-1.11F Compaction

Rolling must leave the completed surface compacted and smooth without tearing, cracking, or shoving. Complete finish rolling activities before the pavement surface temperature is:

1. Below 150 degrees F for HMA with unmodified binder
2. Below 140 degrees F for HMA with modified binder
3. Below 200 degrees F for RHMA-G

If a vibratory roller is used as a finish roller, turn the vibrator off.

Spread and compact HMA under sections 39-3.03 and 39-3.04 if any of the following applies:

1. Specified paved thickness is less than 0.15 foot.
2. Specified paved thickness is less than 0.20 foot and 3/4-inch aggregate grading is specified and used.
3. You spread and compact at:

3.1. Asphalt concrete surfacing replacement areas
3.2. Leveling courses
3.3. Areas for which the Engineer determines conventional compaction and compaction measurement methods are impeded

Do not open new HMA pavement to public traffic until its mid-depth temperature is below 160 degrees F.

39-1.12 SMOOTHNESS

39-1.12A General

Determine HMA smoothness with a profilograph and a straightedge.

Smoothness specifications do not apply to OGFC placed on existing pavement not constructed under the same project.

If concrete pavement is placed on HMA:

1. Cold plane the HMA finished surface to within specified tolerances if it is higher than the grade ordered.
2. Remove and replace HMA if the finished surface is lower than 0.05 foot below the grade ordered.

39-1.12B Straightedge

The top layer of HMA pavement must not vary from the lower edge of a 12-foot straightedge:

1. More than 0.01 foot when the straightedge is laid parallel with the centerline
2. More than 0.02 foot when the straightedge is laid perpendicular to the centerline and extends from edge to edge of a traffic lane
3. More than 0.02 foot when the straightedge is laid within 24 feet of a pavement conform

39-1.12C Profilograph

For the top layer of HMA Type A, Type B, and RHMA-G pavement, determine the PI_0 and must-grinds under California Test 526. Take 2 profiles within each traffic lane, 3 feet from and parallel with the edge of each lane.

A must-grind is a deviation of 0.3 inch or more in a length of 25 feet. You must correct must-grinds.

For OGFC, only determine must-grinds if placed over HMA constructed under the same project. The top layer of the underlying HMA must comply with the smoothness specifications before placing OGFC.

Profile the pavement in the Engineer's presence.

On tangents and horizontal curves with a centerline radius of curvature of 2,000 feet, the PI_0 must be at most 3 inches per 0.1-mile section.

On horizontal curves with a centerline radius of curvature from 1,000 to 2,000 feet, including pavement within the superelevation transitions, the PI_0 must be at most 6 inches per 0.1-mile section.

Before the Engineer accepts HMA pavement for smoothness, submit final profilograms.

Submit 1 copy of profile information in Microsoft Excel and 1 copy of longitudinal pavement profiles in ".erd" format or other ProVAL compatible format to the Engineer and to:

Smoothness@dot.ca.gov

The following HMA pavement areas do not require a PI_0. You must measure these areas with a 12-foot straightedge and determine must-grinds with a profilograph:

1. New HMA with a total thickness less than 0.25 foot
2. HMA sections of city or county streets and roads, turn lanes, and collector lanes less than 1,500 feet in length

The following HMA pavement areas do not require a PI_0 and you must measure them with a 12-foot straightedge:

1. Horizontal curves with a centerline radius of curvature less than 1,000 feet, including pavement within the superelevation transitions of those curves
2. Within 12 feet of a transverse joint separating the pavement from:
   2.1. Existing pavement not constructed under the same project
   2.2. A bridge deck or approach slab
3. Exit ramp termini, truck weigh stations, and weigh-in-motion areas
4. If steep grades and superelevation rates greater than 6 percent are present:
   4.1. Ramps
   4.2. Connectors
5. Turn lanes
6. Areas within 15 feet of manholes or drainage transitions
7. Acceleration and deceleration lanes for at-grade intersections
8. Shoulders and miscellaneous areas
9. HMA pavement within 3 feet from and parallel to the construction joints formed between curbs, gutters, or existing pavement

39-1.12D Smoothness Correction

If the top layer of HMA Type A, Type B, or RHMA-G pavement does not comply with the smoothness specifications, grind the pavement to within specified tolerances, remove and replace it, or place an overlay of HMA. Do not start corrective work until your choice of methods is authorized.

Remove and replace areas of OGFC not in compliance with the must-grind and straightedge specifications, except you may grind OGFC for correcting smoothness:

1. At transverse joints separating the OGFC from pavement not constructed under the same project
2. Within 12 feet of a transverse joint separating the OGFC from a bridge deck or approach slab

Corrected HMA pavement areas must be uniform rectangles with edges:

1. Parallel to the nearest HMA pavement edge or lane line
2. Perpendicular to the pavement centerline

Measure the corrected HMA pavement surface with a profilograph and a 12-foot straightedge and correct the pavement to within specified tolerances. If a must-grind area or straightedged pavement cannot be corrected to within specified tolerances, remove and replace the pavement.

On areas ground but not overlaid with OGFC, apply fog seal coat under section 37-2.

39-1.13 HOT MIX ASPHALT ON BRIDGE DECKS

Produce and place HMA on bridge decks under the Method construction process.

Aggregate must comply with the 1/2-inch HMA Types A and B gradation.

If authorized, aggregate may comply with the no. 4 HMA Types A and B gradation for a section or taper at a bridge end that is less than 1 inch in total depth.

If a concrete expansion dam is to be placed at a bridge deck expansion joint, tape oil-resistant construction paper to the deck over the area to be covered by the dam before placing the tack coat and HMA across the joint.

Do not leave a vertical joint more than 0.15 foot high between adjacent lanes open to traffic.

The tack coat application rate must be the minimum residual rate specified in section 39-1.09C. For HMA placed on a deck seal, use the minimum residual rate specified for a PCC underlying surface.

HMA placed on a deck seal must be placed in at least 2 approximately equal layers. The 1st layer must be at least 1 inch thick after compaction. Protect the deck seal throughout all operations.

For placement of the 1st HMA layer on a deck seal:

1. Comply with the HMA application temperature recommended by the deck seal manufacturer.
2. Deliver and place HMA using equipment with pneumatic tires or rubber-faced wheels. Do not operate other vehicles or equipment on the bare deck seal.
3. Deposit HMA on the deck seal in such a way that the deck seal is not damaged. Do not windrow the HMA material on the bridge deck seal.
4. Place HMA in a downhill direction on bridge decks with grades over 2 percent.
5. Spreading equipment need not be self-propelled.

39-1.14 MISCELLANEOUS AREAS AND DIKES

The following specifications in section 39 do not apply to miscellaneous areas and dikes:

1. HMA construction process
2. HMA mix design requirements
3. Contractor quality control
4. Production start-up evaluation

Miscellaneous areas are outside the traveled way and include:

1. Median areas not including inside shoulders
2. Island areas
3. Sidewalks
4. Gutters
5. Gutter flares
6. Ditches
7. Overside drains
8. Aprons at the ends of drainage structures

Spread miscellaneous areas in 1 layer and compact to the specified lines and grades.

For miscellaneous areas and dikes:

1. Do not submit a JMF.
2. Choose the 3/8-inch or 1/2-inch HMA Type A and Type B aggregate gradations.
3. Minimum asphalt binder content must be 6.8 percent for 3/8-inch aggregate and 6.0 percent for 1/2-inch aggregate. If you request and if authorized, you may reduce the minimum asphalt binder content.
4. Choose asphalt binder Grade PG 64-22, PG 64-28, or PG 70-10or the same grade specified for HMA.

39-1.15 MINOR HOT MIX ASPHALT

Not Used

39-1.16 RUMBLE STRIPS

Reserved

39-1.17 DATA CORES

Reserved

39-1.18 HOT MIX ASPHALT AGGREGATE LIME TREATMENT—DRY LIME METHOD

Reserved

39-1.19 HOT MIX ASPHALT AGGREGATE LIME TREATMENT—SLURRY METHOD

Reserved

39-1.20 LIQUID ANTISTRIP TREATMENT

Reserved

39-1.21 REPLACE ASPHALT CONCRETE SURFACING

Reserved

39-1.22 LIQUID ASPHALT PRIME COAT

Reserved

39-1.23 HOT MIX ASPHALT TYPE C

Reserved

39-1.24 BONDED WEARING COURSE—GAP GRADED

Reserved

39-1.25 RUBBERIZED BONDED WEARING COURSE—GAP GRADED

Reserved

39-1.26 RUBBERIZED BONDED WEARING COURSE—OPEN GRADED

Reserved

39-1.27 BONDED WEARING COURSE—OPEN GRADED

Reserved

39-1.28 ROADSIDE PAVING

Reserved

39-1.29 SOIL TREATMENT

Reserved

39-1.30 EDGE TREATMENT, HOT MIX ASPHALT PAVEMENT

39-1.30A General

Section 39-1.30 includes specifications for constructing the edges of HMA pavement as shown.

39-1.30B Materials

For the safety edge, use the same type of HMA used for the adjacent lane or shoulder.

39-1.30C Construction

The edge of roadway where the safety edge treatment is to be placed must have a solid base, free of debris such as loose material, grass, weeds, or mud. Grade areas to receive the safety edge as required.

The safety edge treatment must be placed monolithic with the adjacent lane or shoulder and shaped and compacted with a device attached to the paver.

The device must be capable of shaping and compacting HMA to the required cross section as shown. Compaction must be by constraining the HMA to reduce the cross sectional area by 10 to 15 percent. The device must produce a uniform surface texture without tearing, shoving, or gouging and must not leave marks such as ridges and indentations. The device must be capable of transition to cross roads, driveways, and obstructions.

For safety edge treatment, the angle of the slope must not deviate by more than ± 5 degrees from the angle shown. Measure the angle from the plane of the adjacent finished pavement surface.

If paving is done in multiple lifts, the safety edge treatment can be placed either with each lift or with the final lift.

Short sections of hand work are allowed to construct transitions for safety edge treatment.

For more information on the safety edge treatment, go to:

http://safety.fhwa.dot.gov/roadway_dept/pavement/safedge/

You can find a list of commercially available devices at the above Web site under "Frequently Asked Questions" and "Construction Questions."

39-1.30D Payment

Not Used

39-2 STANDARD CONSTRUCTION PROCESS

Not Used

39-3 METHOD CONSTRUCTION PROCESS

39-3.01 GENERAL

Section 39-3 includes specifications for HMA produced and constructed under the Method construction process.

39-3.02 ACCEPTANCE CRITERIA

39-3.02A Testing

The Department samples for acceptance testing and tests for the quality characteristics shown in the following table:

HMA Acceptance—Method Construction Process

Quality characteristic	Test method	HMA type			
		A	B	RHMA-G	OGFC
Aggregate gradation [a]	California Test 202	JMF ± tolerance [b]	JMF ± tolerance [b]	JMF ± tolerance [b]	JMF ± tolerance [b]
Sand equivalent (min) [c]	California Test 217	47	42	47	--
Asphalt binder content (%)	California Test 379 or 382	JMF±0.40	JMF±0.40	JMF ± 0.40	JMF ± 0.40
HMA moisture content (%, max)	California Test 226 or 370	1.0	1.0	1.0	1.0
Stabilometer value (min) [c]	California Test 366				
No. 4 and 3/8" gradings		30	30	--	--
1/2" and 3/4" gradings		37	35	23	--
Percent of crushed particles	California Test 205				
Coarse aggregate (% min)					
One fractured face		90	25	--	90
Two fractured faces		75	--	90	75
Fine aggregate (% min) (Passing no. 4 sieve and retained on no. 8 sieve.)					
One fractured face		70	20	70	90
Los Angeles Rattler (% max)	California Test 211				
Loss at 100 rev.		12	--	12	12
Loss at 500 rev.		45	50	40	40
Air void content (%) [c, d]	California Test 367	4 ± 2	4 ± 2	TV ± 2	--
Fine aggregate angularity (% min)[e]	California Test 234	45	45	45	--
Flat and elongated particles (% max by weight @ 5:1)	California Test 235	Report only	Report only	Report only	Report only
Voids filled with asphalt (%) [f]	California Test 367				
No. 4 grading		65.0–75.0	65.0–75.0	Report only	--
3/8" grading		65.0–75.0	65.0–75.0		
1/2" grading		65.0–75.0	65.0–75.0		
3/4" grading		65.0–75.0	65.0–75.0		
Voids in mineral aggregate (% min) [f]	California Test 367				
No. 4 grading		17.0	17.0	--	--
3/8" grading		15.0	15.0	--	
1/2" grading		14.0	14.0	18.0–23.0	
3/4" grading		13.0	13.0	18.0–23.0	
Dust proportion [f]	California Test 367				
No. 4 and 3/8" gradings		0.6–1.2	0.6–1.2	Report only	--
1/2" and 3/4" gradings		0.6–1.2	0.6–1.2		
Moisture susceptibility (minimum dry strength, psi)[g]	California Test 371	120	120	--	--
Moisture susceptibility (tensile strength ration, %)[g]	California Test 371	70	70	--	--

Smoothness	Section 39-1.12	12-foot straight-edge and must-grind	12-foot straight-edge and must-grind	12-foot straight-edge and must-grind	12-foot straight-edge and must-grind
Asphalt binder	Various	Section 92	Section 92	Section 92	Section 92
Asphalt rubber binder	Various	--	--	Section 92-1.01D(2) and section 39-1.02D	Section 92-1.01D(2) and section 39-1.02D
Asphalt modifier	Various	--	--	Section 39-1.02D	Section 39-1.02D
CRM	Various	--	--	Section 39-1.02D	Section 39-1.02D

[a] The Engineer determines combined aggregate gradations containing RAP under California Test 367.
[b] The tolerances must comply with the allowable tolerances in section 39-1.02E.
[c] The Engineer reports the average of 3 tests from a single split sample.
[d] The Engineer determines the bulk specific gravity of each lab-compacted briquette under California Test 308, Method A, and theoretical maximum specific gravity under California Test 309.
[e] The Engineer waives this specification if HMA contains 10 percent or less of non-manufactured sand by weight of total aggregate. Manufactured sand is fine aggregate produced by crushing rock or gravel.
[f] Report only.
[g] Applies to RAP substitution rate greater than 15 percent.

No single test result may represent more than 750 tons or 1 day's production, whichever is less.

For any single quality characteristic except smoothness, if 2 consecutive acceptance test results do not comply with the specifications:

1. Stop production.
2. Take corrective action.
3. Take samples and split each sample into 4 parts in the Engineer's presence. Test 1 part for compliance with the specifications and submit 3 parts to the Engineer. The Department tests 1 part for compliance with the specifications and reserves and stores 2 parts.
4. Demonstrate compliance with the specifications before resuming production and placement.

39-3.03 SPREADING AND COMPACTING EQUIPMENT

Each paver spreading HMA Type A and Type B must be followed by 3 rollers as follows:

1. One vibratory roller specifically designed to compact HMA. The roller must be capable of at least 2,500 vibrations per minute and must be equipped with amplitude and frequency controls. The roller's gross static weight must be at least 7.5 tons.
2. One oscillating type pneumatic-tired roller at least 4 feet wide. Pneumatic tires must be of equal size, diameter, type, and ply. The tires must be inflated to 60 psi minimum and maintained so that the air pressure does not vary more than 5 psi.
3. One steel-tired, 2-axle tandem roller. The roller's gross static weight must be at least 7.5 tons.

Each roller must have a separate operator. Rollers must be self-propelled and reversible.

Compact RHMA-G as specified for HMA Type A and Type B except do not use pneumatic-tired rollers.

Compact OGFC with steel-tired, 2-axle tandem rollers. If placing 300 tons or more of OGFC per hour, use at least 3 rollers for each paver. If placing less than 300 tons of OGFC per hour, use at least 2 rollers for each paver. Each roller must weigh from 126 to 172 lb per linear inch of drum width. Turn the vibrator off.

39-3.04 TRANSPORTING, SPREADING, AND COMPACTING

Pave HMA in maximum 0.25-foot thick and minimum 0.15-foot thick compacted layers.

If the surface to be paved is both in sunlight and shade, pavement surface temperatures must be taken in the shade.

Spread HMA Type A and Type B at the atmospheric and surface temperatures shown in the following table:

Minimum Atmospheric and Surface Temperatures

Compacted layer thickness, feet	Atmospheric, °F		Surface, °F	
	Unmodified asphalt binder	Modified asphalt binder[a]	Unmodified asphalt binder	Modified asphalt binder[a]
< 0.15	55	50	60	55
0.15–0.25	45	45	50	50

[a] Except asphalt rubber binder.

If the asphalt binder for HMA Type A and Type B is unmodified asphalt binder, complete:

1. First coverage of breakdown compaction before the surface temperature drops below 250 degrees F
2. Breakdown and intermediate compaction before the surface temperature drops below 200 degrees F
3. Finish compaction before the surface temperature drops below 150 degrees F

If the asphalt binder for HMA Type A and Type B is modified asphalt binder, complete:

1. First coverage of breakdown compaction before the surface temperature drops below 240 degrees F
2. Breakdown and intermediate compaction before the surface temperature drops below 180 degrees F
3. Finish compaction before the surface temperature drops below 140 degrees F

For RHMA-G:

1. Only spread and compact if the atmospheric temperature is at least 55 degrees F and the surface temperature is at least 60 degrees F.
2. Complete the 1st coverage of breakdown compaction before the surface temperature drops below 285 degrees F.
3. Complete breakdown and intermediate compaction before the surface temperature drops below 250 degrees F.
4. Complete finish compaction before the surface temperature drops below 200 degrees F.
5. Cover loads in trucks with tarpaulins, if the atmospheric temperature is below 70 degrees F. The tarpaulins must completely cover the exposed load until you transfer the mixture to the paver's hopper or to the pavement surface.

For HMA-O with unmodified asphalt binder:

1. Only spread and compact if the atmospheric temperature is at least 55 degrees F and the surface temperature is at least 60 degrees F.
2. Complete the 1st coverage using 2 rollers before the surface temperature drops below 240 degrees F.
3. Complete all compaction before the surface temperature drops below 200 degrees F.
4. Cover loads in trucks with tarpaulins, if the atmospheric temperature is below 70 degrees F. The tarpaulins must completely cover the exposed load until you transfer the mixture to the paver's hopper or to the pavement surface.

For HMA-O with modified asphalt binder, except asphalt rubber binder:

1. Only spread and compact if the atmospheric temperature is at least 50 degrees F and the surface temperature is at least 50 degrees F.
2. Complete the 1st coverage using 2 rollers before the surface temperature drops below 240 degrees F.
3. Complete all compaction before the surface temperature drops below 180 degrees F.
4. Cover loads in trucks with tarpaulins, if the atmospheric temperature is below 70 degrees F. The tarpaulins must completely cover the exposed load until you transfer the mixture to the paver's hopper or to the pavement surface.

For RHMA-O and RHMA-O-HB:

1. Only spread and compact if the atmospheric temperature is at least 55 degrees F and surface temperature is at least 60 degrees F.

2 Complete the 1st coverage using 2 rollers before the surface temperature drops below 280 degrees F.
3. Complete compaction before the surface temperature drops below 250 degrees F.
4. Cover loads in trucks with tarpaulins, if the atmospheric temperature is below 70 degrees F. The tarpaulins must completely cover the exposed load until you transfer the mixture to the paver's hopper or to the pavement surface.

For RHMA-G and OGFC, tarpaulins are not required if the time from discharging to the truck until transfer to the paver's hopper or the pavement surface is less than 30 minutes.

HMA compaction coverage is the number of passes needed to cover the paving width. A pass is 1 roller's movement parallel to the paving in either direction. Overlapping passes are part of the coverage being made and are not a subsequent coverage. Do not start a coverage until completing the prior coverage.

Start rolling at the lower edge and progress toward the highest part.

Perform breakdown compaction of each layer of HMA Type A, Type B, and RHMA-G with 3 coverages using a vibratory roller. The speed of the vibratory roller in miles per hour must not exceed the vibrations per minute divided by 1,000. If the thickness of the HMA layer is less than 0.08 foot, turn the vibrator off. The Engineer may order fewer coverages if the thickness of the HMA layer is less than 0.15 foot.

Perform intermediate compaction of each layer of HMA Type A and Type B with 3 coverages using a pneumatic-tired roller at a speed not exceeding 5 mph.

Perform finish compaction of HMA Type A, Type B, and RHMA-G with 1 coverage using a steel-tired roller.

Compact OGFC with 2 coverages using steel-tired rollers.

39-4 QUALITY CONTROL/QUALITY ASSURANCE CONSTRUCTION PROCESS

Not Used

39-5 EXISTING ASPHALT CONCRETE

39-5.01 GENERAL

39-5.01A General

Section 39-3.01 includes general specifications for performing work on existing asphalt concrete facilities.

Work performed on existing asphalt concrete facilities must comply with section 15.

39-5.01B Materials

Not Used

39-5.01C Construction

Before removing a portion of an asphalt concrete facility, make a 2-inch deep saw cut to a true line along the limits of the removal area.

39-5.01D Payment

Not Used

39-5.02 REPLACE ASPHALT CONCRETE SURFACING

39-5.02A General

Section 39-3.02 includes specifications for replacing asphalt concrete surfacing.

39-5.02B Materials

HMA to be used for replacing asphalt concrete surfacing must comply with Type A HMA as specified in section 39-2.02.

The grade of asphalt binder must be PG 64-10 or PG 64-16.

Tack coat must comply with section 39-2.01B(10).

39-5.02C Construction

Where replace asphalt concrete surfacing is shown, remove the full depth of the existing asphalt concrete surfacing and replace with HMA. The Engineer determines the exact limits of asphalt concrete surfacing to be replaced.

Replace asphalt concrete in a lane before the lane is specified to be opened to traffic.

Before removing asphalt concrete, outline the replacement area and cut neat lines with a saw or grind to full depth of the existing asphalt concrete. Do not damage asphalt concrete and base remaining in place.

If you excavate the base beyond the specified plane, replace it with HMA.

Do not use a material transfer vehicle for replacing asphalt concrete surfacing.

Before placing HMA, apply a tack coat as specified in section 39-2.01C(3)(f).

Place HMA using method compaction as specified in section 39-2.01C(2)(c).

39-5.02D Payment

The payment quantity for replace asphalt concrete surfacing is the volume determined from the dimensions shown.

39-5.03 REMOVE ASPHALT CONCRETE DIKES

39-5.03A General

Section 39-3.03 applies to removing asphalt concrete dikes outside the limits of excavation.

39-5.03B Materials

Not Used

39-5.03C Construction

Reserved

39-5.03D Payment

Not Used

39-5.04 COLD PLANING ASPHALT CONCRETE PAVEMENT

39-5.04A General

Section 39-3.05 includes specifications for cold planning asphalt concrete pavement.

Cold planning asphalt concrete pavement includes the removal of pavement markers, traffic stripes, and pavement markings within the area of cold planning.

Submit a cold planning work plan. The work plan must include construction methods and address protecting the existing box structure shown in the plans.

Schedule cold planing activities so that not more than the following time elapses between the time the pavement is cold planed and the time HMA placement begins:

- Elks Club Drive – 48 Hours

If you do not complete HMA placement before opening the area to traffic, you must:

1. Construct a temporary HMA taper to the level of the existing pavement
2. Place HMA during the next work shift
3. Submit a corrective action plan that shows you will complete cold planing and placement of HMA in the same work shift. Do not restart cold planing activities until the Engineer approves the corrective action plan.

39-5.04B Materials

HMA for temporary tapers must be of the same quality that is used for the HMA overlay or comply with the specifications for minor HMA in section 39-2.07.

39-5.04C Construction

39-5.04C(1) General

Cold Plane AC to a depth of 0.25 feet across the full width of the road. Do not use a heating device to soften the pavement. Do not damage surfacing to remain in place including lip of concrete gutters and concrete surrounding drainage inlets.

The cold planing machine must be:

1. Equipped with a cutter head width that matches the planing width unless a wider cutter head is authorized.

2. Equipped with automatic controls for the longitudinal grade and transverse slope of the cutter head and:

2.1. If a ski device is used, it must be at least 30 feet long, rigid, and a 1-piece unit. The entire length must be used in activating the sensor.

2.2. If referencing from existing pavement, the cold planing machine must be controlled by a self-contained grade reference system. The system must be used at or near the centerline of the roadway. On the adjacent pass with the cold planing machine, a joint-matching shoe may be used.

3. Equipped to effectively control dust generated by the planing operation

4. Operated such that no fumes or smoke is produced.

5. Equipped with a ¼" micro mill pattern

Replace broken, missing, or worn machine teeth.

If you do not complete placing the HMA surfacing before opening the area to traffic, you must:

1. Construct a temporary HMA taper to the level of the existing pavement.

2. Place HMA during the next work shift.

3. Submit a corrective action plan that shows you will complete cold planing and placement of HMA in the same work shift. Do not restart cold planing activities until the corrective action plan is authorized.

39-5.04C(2) Grade Control and Surface Smoothness

Furnish, install and maintain grade and transverse slope references.

The final cut must result in a neat and uniform surface.

The completed surface of the planed pavement must not vary more than 0.02 foot when measured with a 12-foot straightedge parallel with the centerline. With the straightedge at right angles to the centerline, the transverse slope of the planed surface must not vary more than 0.03 foot.

Where lanes are open to traffic, the drop-off of between adjacent lanes must not be more than 0.15 foot.

39-5.04C(3) Planed Material

Remove cold planed material concurrently with planing activities such that the removal does not lag more than 50 feet behind the planer.

39-5.04C(4) Temporary HMA Tapers

If a drop-off between the existing pavement and the planed area at transverse joints cannot be avoided before opening to traffic, construct a temporary HMA taper. The HMA temporary taper must be:

1. Placed to the level of the existing pavement and tapered on a slope of 30:1 (horizontal:vertical) or flatter to the level of the planed area

2. Compacted by any method that will produce a smooth riding surface

Completely remove temporary tapers before placing permanent surfacing.

39-5.04D Payment

Payment for removal of pavement markers, thermoplastic traffic stripe, painted traffic stripe, and pavement marking within the area of cold planing is included in the payment for cold plane asphalt concrete pavement.

The Department does not pay for any cold planing outside the limits marked in the field by the Engineer.

39-5.05 REMOVE BASE AND SURFACING

39-5.05A General

Section 39-3.06 includes specifications for removing base and asphalt concrete surfacing.

39-5.05B Materials

Not Used

39-5.05C Construction

Where base and surfacing are described to be removed, remove base and surfacing to a depth of at least 6 inches below the grade of the existing surfacing. Backfill resulting holes and depressions with embankment material under section 19.

39-5.05D Payment

The payment quantity for remove base and surfacing is the volume determined from the dimensions shown.

39-5.06–39-5.08 RESERVED

39-6 PAYMENT

Section 39-6 includes specifications for HMA payment. The weight of each HMA mixture designated in the Bid Item List must be the combined mixture weight.

If recorded batch weights are printed automatically, the bid item for HMA is measured by using the printed batch weights, provided:

1. Total aggregate and supplemental fine aggregate weight per batch is printed. If supplemental fine aggregate is weighed cumulatively with the aggregate, the total aggregate batch weight must include the supplemental fine aggregate weight.
2. Total asphalt binder weight per batch is printed.
3. Each truckload's zero tolerance weight is printed before weighing the 1st batch and after weighing the last batch.
4. Time, date, mix number, load number, and truck identification is correlated with a load slip.
5. Copy of the recorded batch weights is certified by a licensed weighmaster and submitted to the Engineer.

If tack coat, asphalt binder, and asphaltic emulsion are paid with separate contract items, their contract items are measured under section 92 or section 94.

The Department does not adjust the unit price for an increase or decrease in the tack coat quantity. Section 9-1.06 does not apply to tack coat.

Place hot mix asphalt dike of the type specified is measured along the completed length.

HMA dike is paid for as place hot mix asphalt dike of the type specified in the Bid Item List and by weight for hot mix asphalt.

HMA specified to be placed in miscellaneous areas is paid for as place hot mix asphalt (miscellaneous areas) and by area placed.

If the dispute resolution independent third party determines the Department's test results are correct, the Engineer deducts the independent third party's testing costs from payments. If the independent third party determines your test results are correct, the Department pays the independent third party's testing costs.

Payment for the sawcut, removal of existing asphalt concrete, subgrade, placement and compaction of aggregate base, tack coat, and placement of HMA is included in the HMA (Type A) item.

For a given location where new improvements are being constructed, payment for the sawcut of pavement, removal of subbase, base, and bituminous surface is included in the cost for the improvement being constructed in the Bid Item List that corresponds to that given location.

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DIVISION VII DRAINAGE FACILITIES

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71 EXISTING DRAINAGE FACILITIES

Add to section 71-4.02C:

For existing pipe near STA 47+94 Elks Club Drive, remove 1.0' of existing 18" inlet pipe to allow installation of 18" 45 degree bend.

Replace section 71-4.02D:

Removal of existing inlet pipe and replacement with 45 degree bend is included in the Modify Inlet item.

Add to section 71-5.01:

Concrete curb around corrugated steel pipe inlets will be CIP.

Submit shop drawings for corrugated steel pipe inlet modification within five (5) working days of the Notice to Proceed for review.

Section 75 includes specifications for the inlet grates.

Add to section 71-5.02:

Concrete for placement around the corrugated steel pipe inlets must comply with the specifications for minor concrete. CSP extensions and couplers must comply with section 66.

Add to section 71-5.03A:

It is your responsibility to verify the top of grate elevation shown before excavation and to notify the Engineer of discrepancies. Rim elevations will be elevated through use of CSP material with couplers.

A mechanical power driven internal vibrator will be used for concrete consolidation.

Near STA 47+94 Elks Club Drive remove existing CSP inlet below invert of existing inlet pipe. Cut new hole in CSP inlet extension to receive the 45 degree bend. Install concrete collar around connection to CSP inlet.

Add to section 71-5.04:

Removal of sediment accumulated in the drainage inlets and CSP inlets during construction is paid for under the respective Items. Sediment must be removed just before demobilization. Disposal of sediment accumulated in the drainage inlets during construction is paid for under job site management. Disposal of sediment must comply with section 14-10.01.

The Department pays for furnishing all labor, tools, equipment, and material necessary to modify the grade of elevation, including couplers, 36" corrugated steel pipe extension, frame, grate, and fill material behind inlet under the Modify Inlet Grate item.

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DIVISION VIII MISCELLANEOUS CONSTRUCTION

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73 CONCRETE CURBS AND SIDEWALKS

Add to section 73-1.01:

Interpret "curb" to mean curb and gutter.

Replace 1st paragraph of section 73-1.02A with:

Minor concrete must comply with section 90-2.

Add to 2nd paragarph of section 73-1.02A:

For this project, aggregate will be 3/4 inch.

Add to section 73-1.03A:

Fill behind curb and gutter will comply with Section 19.

Add to 1st paragraph of section 73-1.03A:

If you repair any part of a curb, curb end transition, sidewalk, gutter depression, valley gutter, driveway, or curb ramp, remove and replace the entire section between contraction or expansion joints.

Add to section 73-1.03A:

Native material will be used for backfill behind curb and gutter. Backfill will contain less than 2% by volume nondecomposed organic material and material no larger than 1 1/2 inches in the largest dimension. Placement and compaction will comply with section 19-5.03C.

Replace 2nd sentence of 2nd paragraph of section 73-1.03A:

Fill expansion joints with 1/2-inch thick preformed joint filler placed at right angles to the line of curbs at 200 foot intervals, at curb returns, at the transition from machine extruded curb to formed curb, at locations where curb placement is against existing concrete, and at locations where curb placement or other concrete placement will stop long enough for concrete to set before continuing with additional curb or concrete. If the above locations occur within 5 feet of a driveway, place 3 - #4 by 18 inch rebar at each of these expansion joints.

Add to 1st paragraph of section 73-1.03B:

The void resulting from the removal of unsuitable material will be backfilled in compliance with section 19 Scarify subgrade in compliance with section 19-5.03C.

Add to section 73-2.03A:

Construction control lines for curb will be set by you based on horizontal control and vertical control staked by the Engineer.

The string line for curb will be set sufficiently in advance of the scheduled pour, but in no case less than two (2) hours to allow the Engineer to check the line against cut sheet grades and field conditions and provide time for adjustment if necessary.

All curb will be water tested and must drain without ponding. If ponding does occur, you will be responsible for removal and replacement of enough curb to eliminate the ponding. Grinding of the flowline will not be allowed.

You are responsible for protecting the lip of the gutter after it is constructed and before AC paving is in place.

Replace 2nd sentence of 4th paragraph of section 73-2.03A with:

Space contraction joints at 10 foot intervals.

Replace section 73-2.04 with:

The Department pays for furnishing all labor, tools, equipment, and material necessary to construct the concrete curb and gutter with 1' foot of temporary tie-in asphalt concrete pavement and fill material behind curb under Minor Concrete (Curb and Gutter) item.

The Department pays for constructing the curb transition to aCSP inlet, and constructing an expansion joint using 3 - #4 by 24 inch rebar at the seam between existing curb and gutter and proposed curb and gutter under Minor Concrete (Curb and Gutter).

^^

75 MISCELLANEOUS METAL

Add to section 75-2.02B:

For this project CSP inlet grates will be raw steel.

CSP Inlet grates must be of an approved "bicycle-proof" type as shown.

Replace section 75-2.04 with:

The Department pays for miscellaneous iron and steel for metal frames, lids, grates, and hoods under the type of Inlet.

^^

78 INCIDENTAL CONSTRUCTION

Replace item 2 of the 1st paragraph of section 78-21.03 with:

During construction install mailboxes with temporary portable foundations authorized by the USPS.

Add to section 78-21.03:

Work with the USPS and the property owners/residents to ensure the temporary and permanent locations of the mailboxes are acceptable.

^^

DIVISION XI MATERIALS

90 CONCRETE

Add to section 90-1.01A:

Portland cement must be Type II with no mineral admixtures.

An air-entraining agent conforming to section 90-1.02E will be added to the concrete at the rate required to result in an air content of 4-7% in the freshly mixed concrete.

Slump for Portland cement concrete must be no more than 2 inches nor less than 1 inch.

Add to section 90-1.01C(6):

You must supply concrete mix designs for all items of work requiring concrete within fifteen (15) working days of the receipt of the Notice to Proceed and at least five (5) working days before the start of the concrete work associated with these items.

Add to section 90-2.01C:

You must supply concrete mix designs for all items of work requiring concrete within fifteen (15) working days of the receipt of the Notice to Proceed and at least five (5) working days before the start of the concrete work associated with these items.

Replace section 90-2.02B:

Minor concrete must contain at least 564 pounds of cementitious material per cubic yard. Portland Cement concrete for curb and gutter, concrete curb ends, and drainage inlets shall have a compressive strength of a minimum of 4000 PSI at 28 days.

^^

96 GEOSYNTHETICS

Add to section 96-1.02A:

The table below specifies the materials for this work.

	APPLICATION	MATERIAL
FILTER FABRIC (woven)	Silt fence material.	Per section 88-1.02E

Add to section 96-1.02L with:

The paving grid for this Project will be Class II and manufactured in widths of 12' minimum.

Replace "Not Used" in section 96-1.04 with:

Payment for filter fabric (woven) is under Temporary Reinforced Silt Fence.

APPENDIX A

REVISED STANDARD SPECIFICATIONS
dated 09-02-16

AVAILABLE:

1. **DOWNLOAD FROM QUEST**
2. **TAHOE ENGINEERING OFFICES**

APPENDIX B

NOT USED

APPENDIX C

PERMITS

APPENDIX C1

TRPA PERMIT

TAHOE REGIONAL PLANNING AGENCY

OFFICE
128 Market St.
Stateline, NV

Phone: (775) 588-4547
Fax: (775) 588-4527

MAIL
PO Box 5310
Stateline, NV 89449-5310

trpa@trpa.org
www.trpa.org

HOURS
Mon. Wed. Thurs. Fri
9 am-12 pm/1 pm-4 pm
Closed Tuesday

New Applications Until 3:00 pm

ATTACHMENT Q
STANDARD CONDITIONS OF APPROVAL FOR GRADING PROJECTS

This handout on the standard conditions that must be met in all projects involving grading is divided into the following three sections:

I. Pre-Grading Conditions (Pre-activity, where applicable)
II. Construction/Grading Conditions
III. General Conditions/Design Standards

Please read all of the conditions carefully to avoid any delays in construction of your project.

NOTE: Your plans have been reviewed and approved as required under Tahoe Regional Planning Agency (TRPA) Rules, Regulations and Ordinances only. TRPA has not reviewed and shall not be responsible for any elements contained in your plans, i.e., structural, electrical, mechanical, etc., which are not required for review under said Rules, Regulations and Ordinances.

I. PRE-GRADING/PRE-ACTIVITY CONDITIONS:

The following conditions must be completely complied with prior to any site disturbance or commencement of activity.

A. Final Construction Plans:

Final construction plans must be submitted to and reviewed by TRPA to determine conformance with the approval. Said plans shall clearly depict the following:

1. Slope stabilization methods to stabilize all existing and proposed cut and fill slopes.
2. Areas to be revegetated, including complete specifications for such revegetation.
3. Fencing for vegetation protection.
4. Temporary and permanent erosion control devices.
5. Utility trenches.
6. Dust control measures.
7. All water quality improvements (BMPs) required in the conditional approval. Drainage facilities shall be designed to be capable of retaining runoff water for a two (2) year, six (6) hour storm.
8. The final plans shall contain equipment specifications necessary to establish compliance with Standard Conditions III. A-F.

B. Securities:

A security shall be posted with the TRPA to insure compliance with all permit conditions. The security shall include an amount equal to 110 percent of the cost of the BMPs and other erosion control and water quality improvements required. For further information on the acceptable types of securities, see Attachment J.

C. Mitigation Fees:

All required air quality, water quality, and excess coverage and offsite coverage mitigation fees shall be paid to TRPA.

D. Temporary BMPs:

The following temporary BMPs are required to be installed onsite prior to any grading activity occurring:

1. Installation of temporary erosion controls.

2. Installation of vegetation protection measures.

3. Installation of construction site boundary fencing.

E. Required Inspection:

An onsite inspection by TRPA staff is required prior to any construction or grading activity occurring. TRPA staff shall determine if the onsite improvements required by Condition II (1), above, have been properly installed. No grading or construction shall be undertaken by the permittee until receipt of TRPA notification that the pre-grading/pre-activity conditions of approval have been satisfied.

F. Required Notices:

The following notices to the TRPA are required prior to any grading or construction occurring on the project site:

1. Notice for Pre-Grading Inspection: The permittee shall notify the TRPA when all onsite improvements required under Condition II(1), above, have been installed so that the required pre-grading inspection may be scheduled.

2. Notice of Commencement of Construction: The permittee shall notify the TRPA at least 48 hours prior to commencement of construction or grading on the project site. Said notice shall include the date when construction will commence.

II. CONSTRUCTION/GRADING CONDITIONS:

The following conditions shall be complied with during the grading and construction phase of the project.

A. All construction shall be accomplished in strict compliance with the plans approved by TRPA.

B. The TRPA permit and the final construction drawings bearing the TRPA stamp of approval shall be present on the construction site from the time construction commences to final TRPA site inspection. The permit and plans shall be available for inspection upon request by any TRPA employee. Failure to present the TRPA permit and approved plans may result in the issuance of a Cease and Desist Order by the TRPA.

C. Whenever possible, utilities shall occupy common trenches to minimize site disturbance.

D. There shall be no grading or land disturbance performed with respect to the project between October 15 and May 1, except as follows:

1. The grading or land disturbance is for excavation and backfilling for a volume not in excess of three cubic yards.

2. The activity is completed within a 48-hour period.

3. The excavation site is stabilized to prevent erosion.

4. The pregrade inspection is performed by TRPA staff, and the activity passes the inspection.

5. The grading/project does not represent or involve a series of excavations, which, when viewed as a whole, would exceed the provisions of this Standard Condition of Approval, and Subsection 2.3 of the TRPA Code of Ordinances.

Grading is prohibited any time of the year during periods of precipitation and for the resulting period of time when the site is covered with snow, or is in a saturated, muddy, or unstable condition (pursuant to Subsection 33.3.1.A of the TRPA Code of Ordinances.)

E. All material obtained from any excavation work that is not contained within foundations, retaining walls, or by other methods approved by TRPA shall be removed form the subject parcel and disposed of at a site approved by TRPA.

F. Replanting of all exposed surfaces, in accordance with the revegetation and slope stabilization plan, shall be accomplished within the first growing season following disturbance, unless an approved construction/inspection schedule establishes otherwise.

G. All trees and natural vegetation to remain on the site shall be fenced for protection. Scarring of trees shall be avoided and, if scarred, damaged areas shall be repaired with tree seal.

1. Fencing specified shall be at least 48 inches high and shall be constructed of metal posts and either orange construction fencing or metal mesh fencing also at least 48 inches high (Section 33.6.1). Job sites with violations of the fencing standards will be required to re-fence the job site with a high gauge metal fencing.

2. No material or equipment shall enter or be placed in the areas protected by fencing or outside the construction areas without prior approval from TRPA. Fences shall not be moved without prior approval (Section 33.6).

3. To reduce soil disturbance and damage to vegetation, the area of disturbance during the construction of a structure shall be limited to the area between the footprint of the building and the public road. For the remainder of the site the disturbance areas shall not exceed 12 feet from the footprint of the structure, parking area or cut/fill slope. The approved plans should show the fencing and approved exceptions (Section 36.2).

H. Soil and construction material shall not be tracked off the construction site. Grading operations shall cease in the event that a danger of violating this condition exists. The site shall be cleaned up and road right-of-way swept clean when necessary.

I. During grading and construction, environmental protection devices such as erosion control devices, dust control, and vegetation protection barriers shall be maintained.

J. Loose soil mounds or surfaces shall be protected from wind or water erosion by being appropriately covered when construction is not in active progress or when required by TRPA.

K. Excavated material shall be stored upgrade from the excavated areas to the extent possible. No material shall be stored in any stream zone or wet areas.

L. Only equipment of a size and type that, under prevailing site conditions, and considering the nature of the work to be performed, will do the least amount of damage to the environment shall be used.

M. Limit idling time for diesel powered vehicles exceeding 10,000 GVW and self-propelled equipment exceeding 25 hp to no more than 15 minutes in Nevada and 5 minutes in California, or as otherwise required by state or local permits.

N. Utilize existing power sources (e.g. power poles) or clean-fuel generators rather than temporary diesel power generators wherever feasible.

O. No washing of vehicles or construction equipment, including cement mixers, shall be permitted anywhere on the subject property unless authorized by TRPA in writing.

P. No vehicles or heavy equipment shall be allowed in any stream environment zone or wet areas, except as authorized by TRPA.

Q. Locate construction staging areas as far as feasible from sensitive air pollution receptors (e.g. schools or hospitals).

R. All construction sites shall be winterized by October 15 to reduce the water quality impacts associated with winter weather as follows:

1. For the sites that will be inactive between October 15 and May 1:

(a) Temporary erosion controls shall be installed;

(b) Temporary vegetation protection fencing shall be installed;

(c) Disturbed areas shall be stabilized;

(d) Onsite construction slash and debris shall be cleaned up and removed;

(e) Where feasible, mechanical stabilization and drainage improvements shall be installed; and

(f) Spoil piles shall be removed from the site.

2. For sites that will be active between October 15 and May 1, in addition to the above requirements:

(a) Permanent mechanical erosion control devices shall be installed, including paving of driveway and parking areas; and

(b) Parking of vehicles and storage of building materials shall be restricted to paved areas.

III. GENERAL CONDITIONS/DESIGN STANDARDS:

A. Projects approved by TRPA shall be subject to inspections by TRPA at any reasonable time. The permittee shall be responsible for making the project area accessible for inspection purposes. TRPA shall not be liable for any expense incurred by the permittee as a result of TRPA inspections.

B. Construction shall be completed in accordance with an approved construction schedule. An extension of a completion schedule for a project may be granted provided the request is made in writing prior to the expiration of the completion schedule, a security is posted to ensure completion or abatement of the project, and TRPA makes either of the following findings:

1. The project was diligently pursued, as defined in Subparagraph 2.2.4.C of the Code of Ordinances, during each building season (May 1 - October 15) since commencement of construction.

2. That events beyond the control of the permittee, which may include engineering problems, labor disputes, natural disasters, or weather problems, have prevented diligent pursuit of the project.

C. Water conservation appliances and fixtures shall be installed in all new facilities or, when replaced, in existing facilities: low flow flush toilets; low flow showerheads (3 gpm rated maximum flow); faucet aerators; and water-efficient appliances (e.g., washing machines and dishwaters).

D. Water heaters shall not emit nitrogen oxides greater than 40 nanograms of nitrogen oxide (NO2) per joule of heat output.

E. Space heaters shall not emit greater than 40 nanograms of nitrogen oxides (as NO2) per joule of useful heat delivered to the heated space.

F. Wood heaters to be installed in the Region shall meet the safety regulations established by applicable city, county, and state codes. Coal shall not be used as a fuel source.

1. Emission Standards: Wood heaters installed in the Region shall not cause emissions of more than 7.5 grams of particulates per hour for noncatalytic wood heaters or 4.1 grams per hour for catalytically equipped wood heaters.

2. Limitations: Wood heaters shall be sized appropriately for the space they are designed to serve. Multi-residential projects of five or more units, tourist accommodations, commercial, recreation and public service projects shall be limited to one wood heater per project area.

3. List of Approved Heaters: TRPA shall maintain a list of wood heaters which may be installed in the Region. The list shall include the brand names, model number, description of the model and the name and address of the manufacturer. Wood heaters certified for use in either Colorado or Oregon shall be considered in compliance with 6(a), above.

G. Construction materials shall be secured to prevent them from rolling, washing, or blowing off the project site. Rehabilitation and clean-up of the site following construction must include removal of all construction waste and debris.

H. Plant species on the TRPA Recommended Native and Adapted Plant List shall be used for lawns and landscaping.

I. The following sizes and spacing shall be required for woody plant materials at time of planting:

1. Trees shall be a minimum six feet tall or 1-1/2 inch caliper size or diameter at breast height;

2. Shrubs shall be a minimum three gallon pot size where upright shrubs have a minimum height of 18 inches and a minimum spread of 18 inches; and spreading shrubs have a minimum spread of 18-24 inches.

3. Groundcovers shall be a minimum four inch pot size or one gallon container and shall be maximum 24 inches on center spacing.

J. Plant species not found on the TRPA Recommended Native and Adapted Plant List may be used for landscaping as accent plantings but shall be limited to borders, entryways, flower-beds, and other similar locations to provide accent to the overall native or adapted landscape design.

K. The following exterior lighting standards shall apply:

1. Exterior lights shall not blink, flash or change intensity. String lights, building or roofline tube lighting, reflective or luminescent wall surfaces are prohibited.

2. Exterior lighting shall not be attached to trees except for Christmas season.

3. Parking lot, walkway, and building lights shall be directed downward.

4. Fixture mounting height shall be appropriate to the purpose. The height shall not exceed the limitations set forth in Chapter 37 of the Code.

5. Outdoor lighting shall be used for purposes of illumination only, and shall not be designed for, or used as, an advertising display. Illumination for aesthetic or dramatic purposes of any building or surrounding landscape utilizing exterior light fixtures projected above the horizontal is prohibited.

6. The commercial operation of searchlights for advertising or any other purpose is prohibited. Seasonal lighting displays and lighting for special events which conflict with other provisions of this section may be permitted on a temporary basis.

L. Any normal construction activities creating noise in excess of the TRPA noise standards shall be considered exempt from said standards provided all such work is conducted between the hours of 8:00 a.m. and 6:30 p.m.

M. Engine doors shall remain closed during periods of operation except during necessary engine maintenance.

N. Stationary equipment (e.g. generators or pumps) shall be located as far as feasible from noise-sensitive receptors and residential areas. Stationary equipment near sensitive noise receptors or residential areas shall be equipped with temporary sound barriers.

O. Sonic pile driving shall be utilized instead of impact pile driving, wherever feasible. Pile driving holes shall be predrilled to the extent feasible subject to design engineer's approval.

P. Fertilizer use on this property shall be managed to include the appropriate type of fertilizer, rate, and frequency of application to avoid release of excess nutrients and minimize use of fertilizer.

Q. No trees shall be removed or trimmed without prior TRPA written approval unless otherwise specifically exempted under Chapter 2 of the Code of Ordinances.

R. The architectural design of this project shall include elements that screen from public view all external mechanical equipment, including refuse enclosures, satellite receiving disks, communication equipment, and utility hardware on roofs, buildings or the ground. Roofs, including mechanical equipment and skylights, shall be constructed of nonglare finishes that minimize reflectivity.

S. The permittee is responsible for insuring that the project, as built, does not exceed the approved land coverage figures shown on the site plan. The approved land coverage figures shall supersede scaled drawings when discrepancies occur.

T. The adequacy of all required BMPs as shown on the final construction plans shall be confirmed at the time of the TRPA pre-grading inspection. Any required modifications, as determined by TPRA, shall be incorporated into the project permit at that time.

U. It is the permittee's obligation to locate all subsurface facilities and/or utilities prior to any grading, dredging or other subsurface activity. The permittee is responsible for contacting the Northern Underground Service Alert (USA, usually known as USA DIGS 1-800-227-2600) prior to commencement of any activity on the site.

V. This approval is based on the permittee's representation that all plans and information contained in the subject application are true and correct. Should any information or representation submitted in connection with the project application be incorrect or untrue, TRPA may rescind this approval or take other appropriate action.

APPENDIX C2

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD-LAHONTAN REGION

BOARD ORDER R6T-2017-0010

STATE OF CALIFORNIA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

ORDER NO. R6T-2017-0010
NPDES NO. CAG616001

RENEWED WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR STORM WATER/URBAN RUNOFF DISCHARGES FROM EL DORADO COUNTY, PLACER COUNTY, AND THE CITY OF SOUTH LAKE TAHOE WITHIN THE LAKE TAHOE HYDROLOGIC UNIT

FINDINGS

The California Regional Water Quality Control Board, Lahontan Region (hereinafter referred to as the Water Board) finds that:

A. Discharger Information and Permit History

1. The City of South Lake Tahoe (City), El Dorado County, and Placer County discharge storm water/urban runoff to surface waters of the Lake Tahoe Hydrologic Unit (LTHU). These discharges occur within various hydrologic sub-areas (watersheds) throughout the LTHU. The City, El Dorado County, and Placer County are considered Co-Permittees under this National Pollutant Discharge Elimination System (NPDES) Permit and are referred to collectively as "Permittees".

2. These Renewed Waste Discharge Requirements and NPDES Permit for Storm Water/Urban Runoff Discharges from El Dorado County, Placer County, and the City of South Lake Tahoe will be referred to throughout this Order as the "Permit."

3. Prior to issuance of this Permit, storm water discharges from the Permit Area were covered under Order No. R6T-2011-0101A1, originally adopted by the Water Board on December 6, 2011 and amended on October 10, 2012.

   Previously, the discharges were regulated by Order No. R6T-2005-0026, adopted by the Water Board in 2005 which replaced Order No. 6-00-82, adopted by the Water Board in 2000.

4. The Permittees submitted Reports of Waste Discharge and preliminary Pollutant Load Reduction Plans in June 2016 requesting renewal of waste discharge requirements under the NPDES program to permit

storm water discharges from municipal storm collection, conveyance, and treatment facilities within their jurisdictions.

B. Permit Area

1. The jurisdictional areas of the City, El Dorado County, and Placer County that fall within the LTHU are considered the "Permit Area." The Permittees are responsible for all storm water/urban runoff discharges in the Lake Tahoe watershed within the LTHU of their respective City and Counties except for runoff generated and conveyed through facilities owned, operated and maintained by federal, state, regional, or local entities where Permittees lack legal jurisdiction. The Water Board recognizes the permittees should not be held responsible for such facilities and/or discharges.

   The Water Board will coordinate with the entities not named in this Permit that operate storm drain facilities and/ or discharge storm water to storm drains and receiving waters covered by this NPDES Permit to implement programs that are consistent with the requirements of this Permit.

2. Permittees should work cooperatively to control the contribution from pollutants from one jurisdiction to an adjacent jurisdiction through inter-agency agreements or other formal arrangements.

C. Nature of Discharge

1. Municipal point source runoff discharges from urbanized areas remain a leading cause of impairment of California surface waters. Urban runoff contains wastes, as defined in the California Water Code, and pollutants, as defined in the federal Clean Water Act, and adversely affects the waters of the State and their designated beneficial uses. The most common pollutant categories in urban runoff within the LTHU include total suspended solids, sediment (due to anthropogenic activities); pathogens (e.g., bacteria, viruses, protozoa); nutrients (e.g., nitrogen and phosphorus); oxygen demanding substances (decaying vegetation, animal waste); oil, grease, and other petroleum hydrocarbons; and trash. In general, the pollutants found in municipal storm water runoff can harm human health and aquatic ecosystems.

2. In addition, the high volumes and high velocities of storm water discharged from municipal separate storm sewer systems (MS4s) into receiving waters can adversely impact aquatic ecosystems and stream habitat and cause stream bank erosion and physical modifications. These changes are collectively termed "hydromodification".

3. Lake Tahoe's deep water transparency, as measured by the Secchi disk, has been declining since transparency measurement began in the late 1960's. The Lake Tahoe TMDL Report (November 2010) identified elevated levels of very fine sediment (particles less than 16 microns) and increased algal growth rates as the causes of transparency loss. Consequently, the primary pollutants of concern for storm water treatment in the LTHU are the number of fine sediment particles (less than 16 microns) and the mass of nutrients that support algal growth (total nitrogen and total phosphorus).

4. One of the leading sources of very fine sediment particles is roadways. To enhance the safety of motorists in the winter months, the Permittees' winter roadway operations include the application of traction abrasive and deicing materials. If not properly applied and recovered, traction abrasives can be a significant source of the pollutants of concern.

5. Storm water runoff within the Permittees jurisdiction generally flows into pipes and open channels and often passes through pretreatment vaults, treatment basins, and other treatment structures before being discharged to surface waters or land. This Permit describes all storm water management infrastructure maintained by the Permittees as "collection, conveyance, and treatment facilities". For purposes of this Permit, collection, conveyance, and treatment facilities are synonymous with "municipal separate storm sewer systems" or MS4s.

D. Federal, State and Regional Regulations

1. The Water Quality Act of 1987 added § 402(p) to the Clean Water Act (CWA) (33U.S.C. § 1251-1387). This section requires the United States Environmental Protection Agency (U.S. EPA) to establish regulations setting forth NPDES requirements for storm water discharges in two phases.

    a. U.S. EPA Phase I storm water regulations were directed at MS4s serving a population of 100,000 or more, and storm water discharges associated with ten categories of industrial activities, including construction activities disturbing more than five acres. In addition, municipalities whose storm water discharges contribute to violations of water quality standards or is a signification contributor of pollutants to waters of the United States may also be issued a NPDES permit under Phase I. Consequently, some MS4s that serve a population below 100,000, such as the Permittees, were brought into the Phase I program by NPDES permitting authorities. The Phase 1 regulations were published on November 16, 1990 (55 Fed. Reg. 47990).

b. U.S. EPA Phase II storm water regulations are directed at storm water discharges not covered in Phase I, including small MS4s (population of less than 100,000) in urbanized areas, small construction projects (less than five acres, but greater than one acre), municipal facilities with delayed coverage under the Intermodal Surface Transportation Efficiency Act of 1991, and other discharges for which the U.S. EPA Administrator or the State determines that the storm water discharge contributes to a violation of a water quality standard, or is a significant contributor of pollutants to waters of the U.S. The Phase II Final Rule was published on December 8, 1999 (64 Fed. Reg. 68722).

2. The CWA allows the U.S. EPA to authorize states with an approved environmental regulatory program to administer the NPDES program in lieu of the U.S. EPA. The State of California is an authorized State. The Porter-Cologne Water Quality Control Act (California Water Code) authorizes the State Water Resources Control Board (State Water Board), through the Regional Water Boards, to regulate and control the discharge of wastes that could affect the quality of waters of the State, including waters of the United States, and tributaries thereto.

3. Under CWA § 303(d), States are required to identify a list of impaired water bodies and develop and implement Total Maximum Daily Loads (TMDLs) for these waterbodies (33 USC § 1313(d)(1)). Lake Tahoe is listed on the CWA § 303(d) impaired water bodies list. On November 16, 2010 the Water Board adopted an amendment to its Water Quality Control Plan to incorporate a TMDL for Lake Tahoe. The amendment was approved by the State Water Board on April 19, 2011 and the TMDL was approved by the U.S. EPA on August 17, 2011. The Basin Plan amendment established pollutant load reduction requirements for urban storm water discharges for fine sediment particles, total nitrogen, and total phosphorus. Permit Section IV incorporates approved load reduction requirements as effluent limits for municipal storm water discharges in the LTHU and requires the preparation of Pollutant Load Reduction Plans to meet established waste load reduction requirements.

4. This Permit does not constitute an unfunded local government mandate subject to subvention under Article XIIIB, Section (6) of the California Constitution for several reasons, including, but not limited to, the following.

   First, the Permit does not impose a new program or higher level of service. This Permit continues the requirements of the 2011 permit largely unchanged, effectively continuing previously established TMDL

implementation requirements. The 2011 permit required the Permittees to meet the TMDL's load reduction requirements for all subsequent years based on updated baseline calculations, whether the requirements applied during or after the permit term. While the Permit establishes new interim targets for meeting the five-year load reductions, U.S. EPA and the Permittees agree the interim targets provide an effective means to track implementation progress and more effectively distribute the administrative burden associated with documenting load reduction progress. The interim targets (equal to one-half of the five-year load reductions required by the TMDL) will not require the Permittees to take actions they would not otherwise taken to comply with the TMDL targets. Established treatment facility and roadway assessment methods and targeted water quality sample collection provide a robust monitoring framework to align actual field conditions with modeled estimates. These modified requirements were developed in coordination with the State of Nevada, U.S. EPA and the Permittees, and are intended to be cost-neutral while more precisely representing progress toward improved Lake Tahoe's transparency and effectively protecting tributary water quality.

The Permit allows Permittees to establish inspection frequency for priority construction sites. Compared to the previous weekly inspection requirement, the new provision allows the Permittees to devote more resources to controlling discharges from the highest priority sites and provide an overall increase in the level of water quality protection without significantly increasing program costs.

Second, this Permit implements federally mandated requirements under CWA § 402, subdivision (p)(3)(B)(33 U.S.C. § 1342(p)(3)(B)). This includes federal requirements to (1) effectively prohibit non-storm water discharges; (2) reduce the discharge of pollutants to the maximum extent practicable by implementing management practices, control techniques, and system, design, and engineering methods; and (3) include such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. The authority exercised under this Permit is not reserved state authority under the Clean Water Act's savings clause (cf. *Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 627-628 [relying on 33 U.S.C. § 1370, which allows a state to develop requirements which are not "less stringent" than federal requirements]), but instead, is part of a federal mandate to develop pollutant reduction requirements for municipal separate storm sewer systems. To this extent, it is entirely federal authority that forms the legal basis to establish the permit provisions. (See, *City of Rancho Cucamonga v. Regional Water Quality Control Bd.-Santa Ana Region* (2006) 135 Cal.App.4th 1377,

1389; *Building Industry Ass'n of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 882-883.)

Likewise, this Permit implements federally mandated requirements under 303(d) of the CWA and section 122.44(d)(1)(vii)(B) of the Code of Federal Regulations. Specifically, the provisions of this Permit to implement the Lake Tahoe TMDL are federal mandates. The CWA requires TMDLs to be developed for waterbodies that do not meet federal water quality standards (33 U.S.C. § 1313(d)). Once the U.S. EPA or a state develops a TMDL, federal law requires that permits must contain effluent limitations consistent with the assumptions and requirements of any applicable waste load allocation. (40 CFR 122.44(d)(1)(vii)(B)).

Third, the Permittees' obligations under this Permit are similar to, and in many respects less stringent than, the obligations of non-governmental dischargers who are issued NPDES permits for storm water discharges. With a few inapplicable exceptions, the Clean Water Act regulates the discharge of pollutants from point sources (33 U.S.C. § 1342) and the Porter-Cologne regulates the discharge of waste (Water Code, § 13263), both without regard to the source of the pollutant or waste. As a result, the "costs incurred by local agencies" to protect water quality reflect an overarching regulatory scheme that places similar requirements on governmental and nongovernmental dischargers. (See *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58 [finding that comprehensive workers compensation scheme did not create a cost for local agencies that was subject to state subvention].)

The Clean Water Act and the Porter-Cologne Water Quality Control Act largely regulate storm water with an even hand, but to the extent there is any relaxation of this even-handed regulation, it is in favor of the local agencies. Except for municipal separate storm sewer systems, the Clean Water Act requires point source dischargers, including discharges of storm water associated with industrial or construction activity, to comply strictly with water quality standards. (33 U.S.C. § 1311(b)(1)(C), *Defenders of Wildlife v. Browner* (1999) 191 F.3d 1159, 1164-1165 [noting that industrial storm water discharges must strictly comply with water quality standards].) As discussed in prior State Water Resources Control Board decisions, in many respects this Permit does not require strict compliance with water quality standards. (SWRCB Order No. WQ 2001-15, p. 7.) The Permit, therefore, regulates the discharge of waste in municipal storm water more leniently than the discharge of waste from non-governmental sources.

Fourth, the Permittees have the authority to levy service charges, fees, or assessments sufficient to pay for compliance with this Order subject

to certain voting requirements contained in the California Constitution. (See California Constitution XIII D, section 6, subdivision (c); see also *Howard Jarvis Taxpayers Association v. City of Salinas* (2002) 98 Cal. App. 4th 1351, 1358-1359.). The ability of a local agency to defray the cost of a program without raising taxes indicates that a program does not entail a cost subject to subvention. (*County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487-488.)

Fifth, the Permittees have requested permit coverage in lieu of compliance with the complete prohibition against the discharge of pollutants contained in federal Clean Water Act section 301, subdivision (a) (33 U.S.C. § 1311(a)). To the extent that the local agencies have voluntarily availed themselves of the permit, the program is not a state mandate. (Accord *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 107-108.) The local agencies' voluntary decision to file a report of waste discharge proposing a program based permit is a voluntary decision not subject to subvention. (See *Environmental Defense Center v. USEPA* (9th Cir. 2003) 344 F.3d 832, 845-848.)

Sixth, the local agencies' responsibility for preventing discharges of waste that can create conditions of pollution or nuisance from conveyances that are within their ownership or control under state law predates the enactment of Article XIIIB, Section (6) of the California Constitution.

5. The Water Board adopted a Water Quality Control Plan (Basin Plan) for the Lahontan Region on March 31, 1995. The Basin Plan specifies the beneficial uses of water bodies within the LTHU and contains both narrative and numerical water quality objectives for these waters. The following beneficial uses identified in the Basin Plan apply to all watersheds covered by this Permit:

   a. Municipal and domestic supply,
   b. Agricultural supply,
   c. Water contact recreation,
   d. Non-contact water recreation,
   e. Ground water recharge,
   f. Freshwater replenishment,
   g. Navigation,
   h. Commercial and sport fishing,
   i. Cold freshwater habitat,
   j. Wildlife habitat,
   k. Preservation of biological habitats of special significance,
   l. Rare, threatened, or endangered species,
   m. Migration of aquatic organisms,
   n. Spawning, reproduction, and development,

o. Water quality enhancement, and
p. Flood peak attenuation/flood water storage

6. State Water Board Resolution No. 68-16 contains the state Antidegradation Policy, titled "Statement of Policy with Respect to Maintaining High Quality Waters in California" (Resolution 68-16), which applies to all waters of the state, including ground waters of the state, whose quality meets or exceeds (is better than) water quality objectives. Resolution No. 68-16 is considered to incorporate the federal Antidegradation Policy (40 CFR131.12) where the federal policy applies, (State Water Board Order WQO 86-17). Administrative policies that implement both federal and state antidegradation policies acknowledge that an activity that results in a minor water quality lowering, even if incrementally small, can result in violation of Antidegradation Policies through cumulative effects, for example, when the waste is a cumulative, persistent, or bioaccumulative pollutant.

   Federal Antidegradation Policy (40 CFR131.12) states that the State shall develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy pursuant to this subpart. The antidegradation policy and implementation methods shall, at a minimum, be consistent with the following:

   a. Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

   b. Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully.

   c. Where high quality waters constitute an outstanding National resource, including waters of exceptional recreational or ecological significance like Lake Tahoe, that water quality shall be maintained and protected.

   The proposed Permit requirements are consistent with both state and federal antidegradation policies. Permittees storm water management and pollutant load reduction plan actions will reduce pollutant loading

to Lake Tahoe consistent with established TMDL requirements to maintain and improve water quality.

7. The requirements in this Permit may be more specific or detailed than those enumerated in federal regulations under 40 CFR122.26 or in U.S. EPA guidance. However, the requirements have been designed to implement and be consistent with the federal statutory mandates described in CWA § 402(p)(3)(B)(ii) and (iii) and the related federal regulations and to implement the TMDL for Lake Tahoe through the implementation of the pollutant load reduction requirements for urban storm water discharges for fine sediment particles, total nitrogen, and total phosphorus. Consistent with federal law, all of the conditions in this permit could have been included in a permit adopted by U.S. EPA in the absence of the in lieu authority of California to issue NPDES permits.

8. On April 7, 2015 the State Water Board adopted an Amendment to the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries that added "Final Part 1 Trash Provisions" (Trash Amendments). The Trash Amendments require the Water Board to implement these new provisions through NPDES permits issued pursuant to Federal Clean Water Act section 402(p), including this Permit. The Trash Amendments give the Water Board two options for implementation, either of which must commence within 18 months of the Trash Amendments' effective date, December 2, 2015:

   a. Modify, re-issue, or adopt NPDES permits to add requirements to implement the Trash Amendments. Within three months of the effective date of the applicable permit, Permittees must select from the Trash Amendments' two methods of compliance and notify the Water Board of its selection.

   b. Issue orders pursuant to Water Code section 13267 or 13383 requiring each Permittee to submit, within three months from receipt of the orders, written notice to the Water Board selecting from the Trash Amendments' two methods of compliance.

   The Water Board intends to implement the Trash Amendments pursuant to Option b, above. The effective date of this Permit therefore does not trigger a three-month deadline for Permittees to notify the Water Board of a compliance method under the Trash Amendments.

E. Storm Water Management Programs

1. Previous Permits required the Permittees to develop and implement comprehensive, activity-based storm water management programs

that include construction, commercial, industrial, and residential site controls coupled with a facilities inspection program and thorough public outreach and education plans.

2. Previously submitted Storm Water Management Plans adequately describe Permittees' programs and associated control measures. Although there is no current need to revise the previously submitted plans, Permittees may need to make programmatic adjustments to reflect future conditions.

F. Total Maximum Daily Loads – Lake Tahoe

1. On November 16, 2010 the Water Board adopted Resolution R6T-2010-0058, amending the Basin Plan to incorporate the Total Maximum Daily Load (TMDL) for sediment and nutrients for Lake Tahoe to restore Lake Tahoe to meet the lake's deep water transparency water quality objective. The TMDL identified pollutant loads by source category, set load allocations at a basin-wide scale, and identified an implementation plan for achieving needed sediment and nutrient load reductions.

2. The approved Basin Plan amendment requires the Permittees and the California Department of Transportation (CalTrans) to meet pollutant load reduction requirements specified by the Lake Tahoe TMDL. Pollutant load allocation tables are included in Attachment B of this Permit. The Basin Plan acknowledges that these agencies will likely consider a variety of alternative treatment options, roadway operations practices, and local ordinances to reduce average annual pollutant loads to meet load reduction requirements.

3. The Permit incorporates numeric and narrative effluent limitations consistent with 40 CFR 122.44(d) that implement Lake Tahoe TMDL pollutant load reduction requirements. The approved Basin Plan amendment replaced some of the concentration-based storm water effluent limits with effluent limits expressed as annual average pollutant load reduction requirements for the primary pollutants of concern.

4. The Basin Plan amendment and the Lake Tahoe TMDL require Lake Tahoe basin municipalities and CalTrans to develop and implement comprehensive Pollutant Load Reduction Plans (PLRPs) to describe how proposed operations and maintenance activities, capital improvements, facilities retrofit projects, ordinance enforcement, and other actions are expected to meet required pollutant load reduction requirements. PLRPs provide the Permittees the opportunity to prioritize pollutant load reduction efforts and target sub-watersheds that generate the highest annual average pollutant loads.

5. Permittees have primarily relied upon state and federal grant sources to fund water quality improvement infrastructure programs and generally use in-house resources for water quality operations and maintenance practices. As of December 2016 there are fewer grant funds available and economic conditions have negatively impacted local government budgets. Consequently, Permittees need to (1) effectively prioritize future infrastructure and operations and maintenance actions to maximize pollutant load reductions that can be achieved with available funding; and (2) work to establish dedicated storm water program revenue sources.

6. The Water Board developed the Lake Clarity Crediting Program (see Attachment D) to establish protocols for accounting and tracking pollutant load reductions within the urban environment.

7. The Lake Tahoe TMDL baseline pollutant loading and load reduction requirements are provided as average annual estimates. For consistency with the TMDL requirements, the Lake Clarity Crediting Program uses average annual pollutant load estimates generated by numeric models. Verification of field conditions and water quality monitoring are needed to ensure that on-the-ground, measured variables are in line with model input parameters and that measured pollutant loading is consistent with modeled estimates.

8. Prior to previous Permit adoption, the Permittees developed jurisdiction-specific baseline load estimates for the Lake Tahoe TMDL pollutants of concern. The submitted baseline pollutant load estimates provided the basis for translating percentage based pollutant load reduction requirements defined by the TMDL into jurisdiction-specific, particle and mass-based pollutant load reduction requirements.

9. The modeling tool used to initially estimate baseline pollutant loads was refined as part of a stakeholder-driven TMDL tool improvement process. A revised model was released in May 2015. The Permittees have used the revised model (Pollutant Load Reduction Model Version 2.1) to update the previously developed jurisdiction-specific fine sediment particle, total nitrogen, and total phosphorus baseline load estimates.

10. The Lake Tahoe TMDL requires new development and re-development project proponents and private property retrofit efforts to first consider opportunities to infiltrate storm water runoff from impervious surfaces. At a minimum, permanent storm water infiltration facilities must be designed and constructed to infiltrate runoff generated by the 20 year, 1-hour storm, which equates to approximately one inch of runoff over

all impervious surfaces during a 1-hour period. Infiltrating runoff volumes generated by the 20 year, 1-hour storm may not be possible in some locations due to shallow depth to seasonal groundwater levels, unfavorable soil conditions, or other site constraints such as existing infrastructure or rock outcroppings. In the event that site constraints prohibit opportunities to infiltrate the runoff volume generated by a 20 year, 1-hour storm, project proponents must either (1) meet the numeric effluent limits contained in Basin Plan Table 5.6-1, or (2) document coordination with one of the Permittees or CalTrans to demonstrate that storm water treatment facilities treating private property discharges and public right-of-way storm water are sufficient to meet the Permittees' or CalTrans'; average annual fine sediment and nutrient load reduction requirements.

11. The Basin Plan amendment and the Lake Tahoe TMDL require municipalities to demonstrate on a catchment (i.e. sub-watershed) basis that no increased loading in fine sediment particle, total nitrogen, and total phosphorus will result from any land-disturbing activity permitted in the catchment. The permit includes a narrative effluent limitation to implement this provision.

12. The Basin Plan amendment recognizes the need for a comprehensive program to adaptively manage the Lake Tahoe TMDL program. Future research and monitoring findings, coupled with implementation experience and fiscal realities, may cause the Water Board to revisit the Lake Tahoe TMDL and associated regulatory activities. The Lake Tahoe TMDL Management System provides the framework for synthesizing and reporting new information and for identifying the need for policy changes.

    The Basin Plan amendment further acknowledges the need for adaptive management of the Lake Tahoe TMDL program by explicitly stating "should funding and implementation constraints impact the ability to meet the load reduction milestones, the Regional Board will consider amending the implementation plan and load reduction schedules."

G. Public Notification

1. The issuance of waste discharge requirements pursuant to California Water Code section 13370 et seq. is exempt from the California Environmental Quality Act in accordance with California Water Code section 13389. *County of Los Angeles et al., v. California Water Boards et al.*, (2006), 143 Cal.App.4th 985.

2. The Water Board has notified the Permittees, and interested agencies and persons of its intent to issue waste discharge requirements for this discharge, and has provided them with an opportunity to make statements and submit their comments.

3. This Permit shall serve as a NPDES permit, pursuant to CWA § 402, and shall take effect 90 days from Order adoption date provided the Regional Administrator of the U.S. EPA has no objections.

4. Pursuant to Cal. Water Code § 13320, any aggrieved party may seek review of this Permit by filing a petition with the State Board within 30 days of the date of adoption of the Permit by the Regional Water Board. A petition must be sent to:

   State Water Resources Control Board
   Office of the Chief Counsel
   P.O. Box 100
   Sacramento, CA 95812-0100

5. This Permit may be modified or alternatively revoked or reissued prior to its expiration date or any administrative extension thereto, in accordance with 40 CFR122.41(f) and 122.62.

IT IS HEREBY ORDERED that Order No. R6T-2011-0101A is rescinded, and to meet the provisions contained in Division 7 of the Cal. Water Code and regulations adopted thereunder, and the provisions of the CWA and regulations adopted thereunder, the Permittees shall comply with the following:

I. Non-Storm Water Discharges

A. The Permittees shall, within their respective jurisdictions, effectively prohibit non-storm water discharges into its collection, conveyance, and treatment facilities and receiving waters, except where such discharges:

   1. Originate from a State, Federal, or other source for which they are pre-empted from regulating by State or Federal law; or

   2. Are covered by a separate individual or general NPDES permit, or conditional waivers; or

   3. Flows from firefighting activities.

B. Pursuant to 40 CFR 122.26(d)(2)(iv)(B)(1) the following categories of non-storm water discharges need only be prohibited from entering the Permittees storm water collection, conveyance, and treatment facilities and receiving waters if such categories of discharges are identified by the Permittee (in its

SWMP) as a source of pollutants to waters of the United States and the State of California:

1. Waterline flushing
2. Landscape irrigation
3. Diverted stream flows
4. Rising groundwater
5. Uncontaminated groundwater infiltration [as defined by 40 CFR 35.2005(20)]
6. Uncontaminated pumped groundwater
7. Discharges from potable water sources
8. Fountain drains
9. Air conditioning condensation
10. Irrigation water
11. Springs
12. Water from crawl space pumps
13. Footing drains
14. Individual residential car washing
15. Flows from riparian habitats and wetlands
16. Dechlorinated swimming pool and spa discharges

C. When a non-storm water discharge category listed above is identified as a source of pollutants to waters of the State, Permittees shall either:

1. Prohibit the discharge category from entering its storm water collection, conveyance, and treatment system; or

2. Authorize the discharge category and require implementation of appropriate or additional Best Management Practices to ensure that the discharge will not be a source of pollutants; or

3. Require or obtain coverage under separate Regional or State Water Board permit for the discharge.

II. Other Prohibitions

A. Unless specifically granted, authorization pursuant to this Permit does not constitute an exemption to applicable discharge prohibitions prescribed in the Basin Plan.

B. Discharges from the Permittees' collection, conveyance, and treatment facilities that cause or contribute to a violation of narrative or numeric water quality standards or objectives, as listed in Attachment E and F, are prohibited.

C. Discharges from the Permittees' collection, conveyance, and treatment facilities shall not cause or contribute to a condition of nuisance.

D. Storm water discharges regulated by this Permit shall not contain a hazardous substance equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.

E. The removal of vegetation or disturbance of ground surface conditions between October 15 of any year and May 1 of the following year is prohibited. Where it can be shown that granting a variance would not cause or contribute to the degradation of water quality, a variance to the dates stated above may be granted in writing by the Executive Officer.

F. The discharge attributable to human activities of any waste or deleterious material to surface waters of the LTHU is prohibited.

G. The discharge attributable to human activities of any waste or deleterious material to lands below the high-water rim of Lake Tahoe or within the 100-year floodplain of any tributary to Lake Tahoe is prohibited.

H. The discharge attributable to human activities of any waste or deleterious material to Stream Environment Zones (SEZs) in the LTHU is prohibited.

I. Waste discharge prohibitions in this Section do not apply to discharges of storm water when wastes in the discharge are controlled through the application of management practices or other means and the discharge does not cause a violation of water quality objectives.

III. Storm Water Program Implementation

A. Legal Authority

1. Permittees shall maintain adequate legal authority to:

   a. Prohibit illicit connections and illicit discharges to its collection, conveyance, and treatment facilities,

   b. Prohibit the discharge of non-storm water to the Permittees' storm water collection, conveyance, and treatment facilities.

   c. Control through interagency agreement, the contribution of pollutants from one municipal jurisdiction to another

   d. Require persons within their jurisdiction to comply with conditions in the Permittees' ordinances, permits, or orders (i.e. hold dischargers to

its collection, conveyance, and treatment facilities accountable for their contributions of pollutants and flows)

e. Remove illicit connections to public storm water collection, conveyance, and treatment facilities

f. Control the discharge of spills, dumping, or material disposal other than storm water to public storm water collection, conveyance, and treatment facilities

g. Utilize enforcement measures (e.g., stop work orders, notice of violations, fines, referral to City, County, and/ or District Attorneys, etc.) by ordinances, permits, contracts, orders, administrative authority, and civil and criminal prosecution to enforce Permit requirements

h. Control the quality of storm water runoff from industrial and construction sites

i. Carry out all inspections, surveillance and monitoring procedures necessary to determine compliance and non-compliance with permit conditions including the prohibition on illicit discharges.

j. Require the use of control measures to prevent or reduce the discharge of pollutants to the maximum extent practicable.

2. No later than **March 15, 2018** each Permittee shall submit a statement certified by its legal counsel confirming the Permittee possesses all necessary legal authority to comply with this Permit. The statement shall include:

   a. Identification of all departments within the jurisdiction that conduct urban runoff related activities and their roles and responsibilities under this Order.

   b. Citation of urban runoff related ordinances and the reasons they are enforceable.

   c. Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances.

   d. Description of how these ordinances or other legal mechanisms are implemented and actions taken can be appealed.

   e. Description of how the municipality can issue administrative orders and injunctions, or if it must go through the court system for enforcement actions.

B. Storm Water Management Program

Federal Regulations (40 CFR 122.26(d)(2)(iv)) require the Permittees to develop and implement a Storm Water Management Program (SWMP) during the term of this Order. Each Permittee shall maintain and implement a SWMP to include components 1-9 below.

1. Construction Component

Each Permittee shall implement a Construction Component of its SWMP to reduce pollutants in runoff from construction sites that involve more than three cubic yards of soil disturbance during all construction phases. The SWMP shall include a description of procedures for identifying inspection priorities and enforcing control measures. At a minimum the construction component shall address the following:

a. Construction Site Inventory

Permittees shall develop and update, at least annually, a complete inventory of construction sites within its jurisdiction that involve more than three cubic yards of soil disturbance. This requirement is applicable to all construction sites regardless of whether the construction site is subject to the Water Board's General Construction Permit (Order R6T-2016-0010). The use of a Geographical Information System (GIS) database is highly recommended, but not required.

b. Construction Site Outreach

Permittees shall conduct construction site outreach efforts that include, at a minimum, measures to educate construction site operators about local ordinance and other regulatory requirements and applicable enforcement mechanisms prior to construction commencement.

c. Construction Site Prioritization and Inspection

Permittees shall develop a prioritization process for its watershed-based inventory (developed pursuant to III.B.1.a above) by threat to water quality. Each construction site shall be classified as a high, medium, or low threat to water quality. In evaluating threat to water quality each Permittee shall consider (1) the magnitude of fine sediment particle discharge potential; (2) site slope; (3) project size and type; (4) stage of construction; (5) proximity and connectivity to

receiving water bodies; and (6) any other factors the Permittee deems relevant.

Each Permittee shall conduct construction site inspections for compliance with its ordinances (grading, storm water, etc.), permits (construction, grading, etc.), and discharge prohibitions contained in this Permit in accordance with Section II.B of the Monitoring and Reporting Program (Attachment C). Inspections shall include review of site erosion control and BMP implementation plans. Inspection frequencies and priorities shall be determined by the threat to water quality prioritization.

d. Construction Site Enforcement

Permittees shall enforce their storm water ordinances and other regulatory mechanisms for all construction sites to maintain compliance with local ordinances and discharge prohibitions contained in this Permit. Permittees shall document any non-compliance with Permit or ordinance requirements and report identified compliance issues as part of their Annual Report as described under Section IV.C of the Monitoring and Reporting Program (Attachment C).

Each Permittee shall follow up on identified compliance issues and take actions necessary for construction sites to comply with Permit requirements.

e. Oversight by Others

Permittees may make use of construction site outreach, inspection, and enforcement actions taken by other responsible agencies (such as the Tahoe Regional Planning Agency or the Water Board). If a Permittee chooses to use the efforts of other agencies to meet Permit requirements, Permittees must provide detailed documentation of the outreach, inspection, and/or enforcement action taken by others.

2. Commercial, Industrial, Municipal and Residential Component

Each Permittee shall implement SWMP elements to reduce, to the maximum extent practicable, pollutants in runoff from commercial, industrial, municipal, and residential properties within its jurisdiction. The purpose of this component is to identify potential pollutant sources, prioritize existing or potential water quality threats associated with different land uses, and provide outreach, education, and

enforcement measures to reduce and/or eliminate storm water pollution from these sources.

a. Commercial, Industrial, and Municipal Site Inventory and Prioritization

Each Permittee shall develop and annually update an inventory of high priority commercial, industrial, and municipal activities and pollutant sources. The high priority commercial, industrial, and municipal site inventory shall consider including the following business types and activities:

(1) Automobile mechanical repair, maintenance, or cleaning;
(2) Automobile and other vehicle body repair or painting;
(3) Retail or wholesale fueling;
(4) Eating or drinking establishments;
(5) Mobile carpet, drape or furniture cleaning;
(6) Concrete mixing or cutting;
(7) Painting and coating;
(8) Mobile pool and spa cleaning;
(9) Snow removal and storage activities;
(10) Parking areas with more than 30 parking spaces;
(11) Off-pavement parking and storage yards;
(12) Municipal maintenance yards.

The use of a Geographical Information System (GIS) database is highly recommended, but not required.

b. Commercial, Industrial, and Municipal Site Outreach

Permittee outreach efforts shall include, at a minimum, educating commercial, industrial, and municipal site operators about local ordinances and other regulatory measure and associated tiered enforcement mechanisms applicable to commercial, industrial, or municipal site runoff problems.

c. Commercial, Industrial, and Municipal Site Inspections

Each Permittee shall implement a program to inspect high priority commercial, industrial, and municipal sites at least once per year in accordance with Section II.C of the Monitoring and Reporting Program (Attachment C).

d. Commercial, Industrial, and Municipal Site Enforcement

Permittees shall enforce their storm water ordinances and other regulatory mechanisms for all commercial, industrial, and municipal sites to maintain compliance with applicable local ordinances and discharge prohibitions contained in this Permit. Permittees shall document any non-compliance with ordinance and/or Permit requirements and report inspection findings as part of their Annual Report as described under Section IV.D of the Monitoring and Reporting Program (Attachment C).

Each Permittee shall follow up on inspection findings and take actions necessary for commercial, industrial, and municipal sites to comply with Permit and local ordinance requirements.

e. Oversight by Others

Permittees may make use of commercial and industrial site outreach, inspection, and enforcement actions taken by other responsible agencies (such as the Tahoe Regional Planning Agency or the Water Board). If a Permittee chooses to use the efforts of other agencies to meet Permit requirements, Permittees must provide detailed documentation of the outreach, inspection, and/or enforcement action taken by others.

f. Residential Property – Outreach and Education

Each Permittee shall identify high priority residential areas and activities continue to implement targeted outreach and education activities. These areas/activities should include:

(1) Automobile repair and maintenance;
(2) Off-pavement automobile parking;
(3) Home and garden care activities and product use (pesticides, herbicides, and fertilizers);
(4) Disposal of household hazardous waste (e.g., paints, cleaning products);
(5) Snow removal activities

Outreach program should include coordination with other Lake Tahoe Basin agencies involved with BMP implementation, including but not limited to the Tahoe Resource Conservation District and the Tahoe Regional Planning Agency Erosion Control Team.

3. Storm Water Facilities Inspection Component

Each Permittee shall develop and implement an inspection program to assess the condition of its storm water collection, conveyance and treatment facilities and identify maintenance needs on a catchment, or sub-watershed basis in accordance with the following requirements, and Section II.A of the Monitoring and Reporting Program (Attachment C).

a. Each Permittee shall inspect its storm water collection, conveyance and treatment systems at least once annually and maintain a database of inspection findings.

b. As part of its storm water collection, conveyance, and treatment system inspections, each Permittee shall evaluate and identify potential pollutant sources including but not limited to: private property/residential runoff, commercial site runoff, eroding cut slopes, eroding road shoulders, intercepted groundwater discharges, excessive traction abrasive application, and construction site tracking.

c. Each Permittee shall document and prioritize identified maintenance needs and perform needed maintenance to ensure storm water systems effectively collect, convey, and treat urban runoff as designed.

4. Illicit Discharge Detection and Elimination Component

Permittees shall implement an Illicit Discharge Detection and Elimination Component containing measures to actively seek and eliminate illicit discharges and connections. At a minimum the Illicit Discharge Detection and Elimination Component shall include the following elements:

a. Each Permittee shall visually inspect all storm water collection, conveyance, and treatment systems at least once annually as described in Section II.A of the Monitoring and Reporting Program (Attachment C) for evidence of illicit discharges, illicit connections, or other sources of non-storm water discharges.

b. Each Permittee shall establish and implement a program to investigate and inspect any portion of the storm water collection and conveyance system that indicates a reasonable potential for illicit discharges, illicit connections, or other sources of non-storm water. Each Permittee shall establish criteria to identify portions of the system where follow-up investigations are needed to determine

whether illicit discharges, illicit connections, or other sources of non-storm water have occurred or are likely to occur.

c. Each Permittee shall implement and enforce its ordinances, orders, or other legal authority or regulatory mechanism to prevent and eliminate illicit discharges and connections to its storm water collection and conveyance system.

d. Each Permittee shall promote, publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from its storm water collection and conveyance system. Each Permittee shall facilitate public reporting through development and operation of a public hotline. Public hotlines can be Permittee-specific or shared by Permittees. All storm water hotlines should be capable of receiving reports in both English and Spanish 24 hours per day, seven days per week. Permittees shall respond to and resolve each reported incident. Each Permittee shall keep a record of all reported incidents and how each was resolved.

5. New Development and Redevelopment Component

For new development and redevelopment projects, Permittees shall require project proponents to incorporate permanent storm water treatment facilities that are designed to infiltrate, at a minimum, runoff generated by the 20 year, 1-hour storm, or approximately one inch of runoff over all impervious surfaces during a 1-hour period.

If infiltrating the entire volume of the 20 year, 1-hour storm is not possible at a given new development or redevelopment site, the Permittee shall require project proponents to infiltrate as much runoff as possible and either:

a. Document how the project proponent will treat runoff to meet the numeric effluent limits described in Table III.B.1 below; or

b. Document coordination with the project proponent to demonstrate that shared storm water treatment facilities treating private property discharges and public right-of-way storm water are sufficient to meet the municipality's average annual fine sediment and nutrient load reduction requirements described in Section IV.B of this Permit.

Table III.B.1 – Numeric effluent limits for runoff discharges

Constituent	Units	Land Treatment/ Infiltration Systems	Surface Waters
Total Nitrogen	mg/L as N	5.0	0.5
Total Phosphorus	mg/L as P	1.0	0.1
Turbidity	NTU	200	20
Oil and Grease	mg/L	40	2.0
Total Iron	mg/L	4.0	0.5

6. Public Education Component

Permittees shall implement a public education program using any appropriate media to increase the community's knowledge of the effect of urban runoff on surface waters and the measures the public can take to help control storm water pollution and encourage behavior to reduce pollutant discharges.

7. Municipal Personnel Training and Education Component

Permittees shall ensure that all municipal personnel and contractors responsible for implementing Permit requirements, for operating municipal facilities covered under Section III.B.2 of this Permit, and for conducting inspections required under Section III.B1-5 of this Permit are adequately trained and educated to perform such tasks.

8. Fiscal Analysis

Each Permittee shall conduct a fiscal analysis of its urban runoff management program in its entirety, including development and implementation of both SWMP and Pollutant Load Reduction Plans (IV.C below), along with operations and maintenances costs. Such analysis shall include a description of the source(s) of funds that are proposed to meet the necessary expenditures, including legal restrictions on the use of such funds.

IV. Lake Tahoe Total Maximum Daily Load Implementation – Pollutant Load Reduction Requirements

A. Baseline Pollutant Loads

The Lake Tahoe TMDL expresses waste load allocations for the urban upland source, including discharges from the Permittee's municipal storm water collection, conveyance, and treatment facilities, as percent reductions from a basin-wide baseline load. The baseline basin-wide pollutant loads for the

TMDL reflect conditions as of water year 2003/2004 (October 1, 2003 – September 30, 2004), hereafter referred to as "baseline".

To translate basin-wide urban runoff load reduction requirements into jurisdiction-specific load reduction requirements, the Permittees have conducted jurisdiction-scale baseline load analyses using the most up-to-date version of the Pollutant Load Reduction Model (Version 2.1). The submitted baseline pollutant load estimates are the basis for the particle number- and mass-based effluent limits in this Permit (Table IV.B.1).

Permittees may gather additional information in the future to enhance the accuracy of the baseline load analysis. Similarly, numeric models used to estimate pollutant loads may be improved over time. Should a Permittee determine that updated load estimation tools or other information are expected to change its baseline pollutant load estimate, they may request the Water Board amend its baseline load estimate. Requests for baseline load estimate amendment must include a description of any new information informing the estimate, the magnitude of the proposed adjustment, and a discussion of how the baseline load estimate adjustment will (or will not) change the Permittees Pollutant Load Reduction Plan.

B. Pollutant Load Reduction Requirements and Water Quality-Based Effluent Limits

For the second five-year TMDL milestone, jurisdiction-specific waste load reduction requirements, incorporated into this Permit as average annual particle number- and mass-based effluent limits (Table IV.B.1), are calculated by multiplying the percent reduction specified for the urban uplands source category for each pollutant by each jurisdiction's individual baseline load.

Each jurisdiction must reduce fine sediment particle (FSP), total phosphorus (TP), and total nitrogen (TN) loads by 21%, 14%, and 14%, respectively, by **September 30, 2020.**

Table IV.B.1 – Maximum average annual particle number- and mass-based effluent limits for Fine Sediment Particles (FSP) Total Phosphorus (TP) and Total Nitrogen (TN) to meet the second five-year TMDL milestone

Jurisdiction	Baseline FSP (# of particles)	FSP Allowable Load	Baseline TP (lbs/year)	TP Allowable Load	Baseline TN (lbs/year)	TN Allowable Load
El Dorado County	1.63E19	1.29E19	1,170	1,006	4,170	3,586
Placer County	2.64E19	2.09E19	2,280	1,961	8,860	7620
City of South Lake Tahoe	2.44E19	1.93E19	2,063	1,774	8,185	7039

Pollutant load reductions shall be measured in accordance with the processes outlined in the Lake Clarity Crediting Program Handbook (Attachment D). To demonstrate compliance with the average annual fine sediment particle pollutant load reduction requirements outlined in Table IV.B.1, each Permittee must earn and maintain Lake Clarity Credits in accordance with Table IV.B.2 for the 2020 water year (October 1, 2019 - September 30, 2020), and for subsequent water years.

To demonstrate interim progress at achieving required pollutant load reductions, each Permittee shall earn and maintain enough Lake Clarity Credits to demonstrate a 15% FSP reduction as specified in Table IV.B.2 below by **September 30, 2018** and for subsequent water years.

Table IV.B.2 – Minimum Lake Clarity Credit Requirements

Jurisdiction	Interim Lake Clarity Credit* Requirement (Sept. 30, 2018)	Second 5-year Lake Clarity Credit* Requirement (Sept. 30, 2020)
El Dorado County	245	342
Placer County	396	554
City of South Lake Tahoe	372	521

*The Lake Clarity Crediting Program Handbook defines one (1) Lake Clarity Credit as equal to 1.0 x 10^{16} fine sediment particles with a diameter less than 16 micrometers

To ultimately achieve the deep water transparency standard, Permittees shall reduce FSP, TP, and TN loading according to the requirements in the Lake Tahoe TMDL outlined for the "Urban Upland" pollutant source (Attachment B). In accordance with the TMDL, incremental pollutant load reductions will result in attaining the deep water transparency standard by the year 2076.

C. Pollutant Load Reduction Plans

Each Permittee shall update previously submitted Pollutant Load Reduction Plans (PLRPs) to describe how it expects to meet the pollutant load reduction requirements described in Section IV.B above. Permittees shall submit an updated plan no later than **March 15, 2018** that shall include, at a minimum, the following elements:

1. Catchment registration schedule

   Each PLRP shall include a list of catchments and/or roadway areas the Permittee plans to register pursuant to the Lake Clarity Crediting Program (see Attachment D) to meet load reduction requirements.

2. Proposed pollutant control measures

   For each proposed registered area, the Permittees shall describe storm water program activities to reduce fine sediment particle, total phosphorus, and total nitrogen loading.

3. Pollutant load reduction estimates

   For each proposed registered area, Permittees shall provide estimates of both baseline pollutant loading and expected pollutant loading to demonstrate that proposed actions will, over the course of this Permit term, reduce the Permittee's jurisdiction-wide pollutant load by the amounts specified in Section IV.B above.

4. Annual adaptive management

   The PLRP shall include a description of the internal process and procedures to annually assess storm water management activities and associated load reduction progress. The adaptive management discussion shall describe how the Permittee will use information from the previous years' monitoring and implementation efforts to make needed adjustments to ensure compliance with the load reduction requirements specified in Section IV.B.

D. Land Use Changes and Management Practices

If either land use changes or management practices associated with development or re-development result in a reduction of pollutant loads from the estimated baseline, then this reduction can be counted toward meeting pollutant load reduction requirements. Conversely, actions to eliminate any pollutant load *increase* from these changes will not be counted towards the annual load reduction requirements.

In accordance with the Basin Plan, Permittees must ensure that changes in land use, impervious coverage, or operations and maintenance practices do not increase a catchment's average annual baseline pollutant load.

E. Storm Water Facility Operations and Maintenance

Permittees shall operate and maintain storm water collection, conveyance, and treatment facilities to ensure, at a minimum, the baseline pollutant loading specified in Table IV.B.1 does not increase.

F. Pollutant Load Reduction Monitoring Requirements

Permittees shall comply with all monitoring and reporting requirements specified in Section I of the attached Monitoring and Reporting Program (Attachment C).

V. Receiving Water Limitations

The Permittees shall comply with discharge prohibitions specified in Sections I and II of this Permit through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the Permittees' SWMPs and other requirements of this Permit, including any modifications. The Permittees' SWMPs shall be designed to achieve compliance with the requirements of Sections I and II of this Permit. If exceedances of water quality objectives or water quality standards (collectively, WQS) persist notwithstanding implementation of the SWMPs and other requirements of this Permit, the Permittees shall assure compliance with discharge prohibitions and receiving water limitations in Sections I and II of this Permit by complying with the following procedure:

1. Upon a determination by either the Permittee or the Water Board that discharges are causing or contributing to an exceedance of an applicable WQS, the Permittee shall notify and thereafter submit a report to the Water Board that describes Best Management Practices (BMPs) that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of WQSs. The report may be incorporated into the annual report required under Section IV of the Monitoring and Reporting Program (Attachment C) unless the Water Board directs an earlier submittal. The report shall include an implementation schedule. The Water Board may require modifications to the report.

   If program modifications are needed to incorporate new or revised BMPs, adjust implementation schedules, or add additional monitoring, the Permittee will make such changes and notify the Water Board of any programmatic adjustments made.

2. If changes have been made, implement the revised SWMP and monitoring program in accordance with the approved schedule.

So long as the Permittee has complied with the procedures set forth above and is implementing its revised SWMP, the Permittee does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the Water Board to develop additional BMPs.

VI. Administrative Provisions

A. The Water Board reserves the right to revise any portion of this Order upon legal notice to, and after opportunity to be heard is given to, all concerned parties.

B. Permittees may request the Water Board consider Permit revisions if new information arises that would influence Permittees ability to comply with pollutant load reduction requirements. Such a request must include and be supported by information consistent with that developed pursuant to Permit Sections III.B.8 and IV.C.

C. All terms of the attached Monitoring and Reporting Program (Attachment C) are hereby incorporated by reference as requirements under this Permit.

D. Each Permittee shall comply with the Standard Provisions, Reporting Requirements, and Notifications contained in Attachment G of this Order. This includes 24 hour/5 day reporting requirements for any instance of non-compliance with this Order as described in section B.6 of Attachment G.

E. All plans, reports, and subsequent amendments submitted in compliance with this Order shall be implemented immediately (or as otherwise specified) and shall be an enforceable part of this Order upon submission to the Regional Board. All Permittee submittals must be responsive to, and consistent with the requirements of this Order.

F. This Order expires on **March 9, 2022.** The Permittees must file a report of waste discharge in accordance with Title 23, California Code of Regulations, no later than 180 days in advance of such date as application for an updated Municipal NPDES Permit.

   The report of waste discharge must include a preliminary Pollutant Load Reduction Plan as outlined in Permit Sections IV.C.2 and IV.C.3. The preliminary Pollutant Load Reduction Plan shall describe how each Permittee could meet the pollutant load reduction requirements for the third five-year TMDL implementation period, defined as the ten-year load reduction milestone in Attachment B. Specifically, the preliminary Pollutant Load Reduction Plans shall demonstrate how each Permittee could reduce baseline fine sediment particle, total nitrogen, and total phosphorus loads by 34 percent, 19 percent, and 21 percent, respectively, by the end of the next permit term.

G. Table of Required Submittals

Permit Submittal	Permit Section	Submittal/Required Completion Date
Statement of Legal Authority	III.A.4	March 15, 2018
Updated Pollutant Load Reduction Plan	IV.C	March 15, 2018
Report of Waste Discharge and preliminary Pollutant Load Reduction Plan	VI.D	September 10, 2021
Monitoring and Reporting Program Submittal	**Attach. C Section**	**Submittal/Required Completion Date**
Annual Report	IV	March 15, 2018 and annually thereafter

I, Patty Z. Kouyoumdjian, Executive Officer, do herby certify that the forgoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on March 9, 2017.

Patty Z. Kouyoumdjian

PATTY Z. KOUYOUMDJIAN
EXECUTIVE OFFICER

Attachments:
A. Fact Sheet
B. Pollutant Load Allocation Tables
C. Monitoring and Reporting Program
D. Lake Clarity Crediting Program Handbook
E. Water Quality Objectives
F. Compliance with Water Quality Objectives
G. Standard Provisions, Reporting Requirements, and Notifications

FACT SHEET
FOR

RENEWED WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
FOR
STORM WATER/URBAN RUNOFF DISCHARGES FROM
EL DORADO COUNTY, PLACER COUNTY,
AND THE CITY OF SOUTH LAKE TAHOE

ORDER NO. R6T-2017-0010
NPDES NO. CAG616001

Pursuant to the requirements of section 124.8 and 124.56 of title 40 the Code of Federal Regulations (CFR), this Fact Sheet briefly sets forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit.

Background

In 1972, the federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]) was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a NPDES permit. The 1987 amendments to CWA added section 402(p), which established a framework for regulating storm water discharges under the NPDES Program. Subsequently, in 1990, the U.S. Environmental Protection Agency (U.S. EPA) promulgated regulations for permitting storm water discharges from industrial sites (including construction sites that disturb five acres or more) and from municipal separate storm sewer systems (MS4s) serving a population of 100,000 people or more. (40 C.F.R. 122.26.) These regulations, known as the Phase I regulations, require operators of medium and large MS4s to obtain storm water permits. On December 8, 1999, U.S. EPA promulgated regulations, known as Phase II, requiring permits for storm water discharges from Small MS4s and from construction sites disturbing between one and five acres of land. (40 C.F.R. 122.30 - 122.37.) The Phase I regulations provide that States, such as California, with approved NPDES programs, may require any discharger who contributes to a violation of water quality standards or is a significant contributor of pollutants to waters of the United States to obtain storm water permits regardless of population size. (40 C.F.R. 122.26(a)(v).)

Portions of El Dorado County and Placer County and the entire jurisdiction of the City of South Lake Tahoe (hereafter referred to as “municipalities,” “urban jurisdictions” or “Permittees”) lie within the Lake Tahoe Hydrologic Unit. Because Lake Tahoe is an Outstanding National Resource Water negatively impacted by urban runoff discharged from these municipalities, the Lahontan Regional Water

Quality Control Board adopted Order 6-92-02 in January 1992 as part of the Phase I NPDES program to regulate MS4s on the California side of the Lake Tahoe watershed. The NPDES Storm Water Permit provided the Water Board a mechanism to work with the local municipalities to improve storm water management practices in the Tahoe area.

Legal Authority

The CWA authorized the USEPA to permit a state to serve as the NPDES permitting authority in lieu of the USEPA. The State of California has in-lieu authority for the NPDES program. The Porter-Cologne Water Quality Control Act authorized the State Water Resources Control Board (State Board), through the Water Boards, to regulate and control the discharge of pollutants into waters of the State. The State Board entered into a Memorandum of Agreement with the USEPA on September 22, 1989 to administer the NPDES Program governing discharges to waters of the United States.

The terms of this permit solely implement the federal requirements under the CWA sections 402(p) and 303(d), and the associated regulations.

Lake Tahoe Total Maximum Daily Load

Lake Tahoe is designated an Outstanding National Resource Water (ONRW) by the State Board and the USEPA due to its extraordinary deep water transparency. However, the lake's deep water transparency has been impaired over the past four decades by increased fine sediment particle inputs and stimulated algal growth caused by elevated nitrogen and phosphorus loading.

The Water Board, and the Nevada Division of Environmental Protection (NDEP) developed the bi-state Lake Tahoe Total Maximum Daily Load (TMDL) to identify the pollutants responsible for deep water transparency decline, quantify the major pollutant sources, assess the lake's assimilative capacity, and develop a plan to reduce pollutant loads and restore Lake Tahoe's deep water transparency, as measured by the Secchi depth, to the annual average levels recorded in 1967-1971.

The ongoing decline in Lake Tahoe's water quality is a result of light scatter from fine sediment particles (primarily particles less than 16 micrometers in diameter) and light absorption by phytoplankton. The addition of nitrogen and phosphorus to Lake Tahoe contributes to phytoplankton growth. Fine sediment particles are the most dominant pollutant contributing to the impairment of lake waters, accounting for roughly two thirds of the lake's impairment. Consequently, fine sediment particles, total nitrogen, and total phosphorus are the pollutants of concern at Lake Tahoe.

To achieve the transparency standard, estimated fine sediment particle, phosphorus, and nitrogen loads must be reduced by 65 percent, 35 percent, and 10 percent, respectively. Given the magnitude of the needed load reductions and the current available understanding of load reduction options, achieving the load reductions needed to meet the transparency standard is expected to take 65 years. A 20-year interim transparency goal, known as the Clarity Challenge, requires basinwide pollutant load reductions to be achieved within 15 years, followed by five years of monitoring to confirm that 24 meters of Secchi depth transparency has been reached. Implementation efforts must reduce basin-wide fine sediment particle, phosphorus, and nitrogen loads by 32 percent, 14 percent, and 4 percent, respectively, to achieve this goal.

The TMDL pollutant source analysis identified runoff from urban land uses as the primary source of fine sediment particle loading to Lake Tahoe, and the pollutant load allocations establish needed pollutant load reductions as a percent reduction from baseline pollutant load levels. The most significant and currently quantifiable load reduction opportunities are within the urban land uses. Because urbanized areas discharge the overwhelming bulk of the average annual fine sediment particle load reaching Lake Tahoe, much of the load reductions must be accomplished from this urban upland source. Even if it were feasible to completely eliminate the fine sediment particle load from the other three sources, (forest upland, atmospheric deposition, and stream channel erosion), the transparency standard would never be met.

Consequently, the Lake Tahoe TMDL implementation plan emphasizes actions to reduce fine sediment particle and associated nutrient loading from urban storm water runoff. Due to the magnitude of both the pollutant source and related control opportunities, the Water Board has devoted time and resources to develop detailed tools and protocols to quantify, track, and account for pollutant loads associated with urban runoff.

This NPDES Storm Water Permit is an important implementation tool that holds the municipal jurisdictions on the California side of the Lake Tahoe Basin accountable for achieving water quality improvements required by the Lake Tahoe TMDL. The Permit is also critical for maintaining consistency with the implementation tracking effort on the Nevada side of Lake Tahoe.

The renewed NPDES Storm Water Permit implements the second five-year pollutant load reduction milestone established by the Lake Tahoe TMDL. To ensure progress at achieving water quality improvement goals, the renewed Permit includes an interim compliance point at the second year of the permit term. The renewed permit also accelerates the TMDL five-year target into a four-year compliance point to ensure load reductions can be verified within the permit term.

Baseline Load Estimates

The Lake Tahoe TMDL expresses waste load allocations for the urban upland source as percent reductions from a basin-wide baseline pollutant load. The basin-wide baseline pollutant load reflects conditions as of water year 2003/2004 (October 1, 2003 – September 30, 2004). To translate basin-wide waste load allocations for urban runoff into jurisdiction-specific waste load allocations for each of the municipalities, the Water Board required each of the municipalities to conduct a jurisdiction-scale baseline load analysis as the first step in the TMDL implementation process. To ensure comparability between the basin-wide baseline pollutant load estimates and the jurisdiction-scale baseline pollutant load estimates, municipalities have used a set of standardized baseline condition values consistent with those used to estimate the 2003/2004 basin-wide pollutant loads. Specifically, baseline pollutant load estimate calculations reflect infrastructure, land development conditions, and operations and maintenance practices that were in effect in October 2004. Due to the differences in analyzing hydrology at basin-wide and jurisdiction-specific scales, different modeling tools were needed to estimate average annual baseline pollutant loads.

The Pollutant Load Reduction Model (PLRM) provides pollutant load estimates at an appropriate scale for assessing jurisdiction-specific baseline fine sediment, total nitrogen, and total phosphorus loads. With guidance in support from the Permitees, the PLRM was revised during the previous permit term to better align roadway assessment methods with model variables and to address identified user inefficiencies. The Permittees re-assessed previously developed jurisdiction-specific baseline pollutant load estimates using the updated model version and provided revised values to the Water Board for inclusion in the renewed permit. The updated baseline load numbers were used to re-calculated needed load pollutant load reduction using percentages specified by the Lake Tahoe TMDL. In most instances the overall adjustment was minor.

Table IV.B.1 of the permit identifies the most recent baseline pollutant load estimates for each municipality and sets out the allowable load.

Lake Clarity Crediting Program

The Lake Clarity Crediting Program provides a system of tools and methods to allow urban jurisdictions to link projects, programs, and operations and maintenance activities to estimated pollutant load reductions. In addition to providing a consistent method to track compliance with TMDL pollutant load reduction requirements, the Lake Clarity Crediting Program provides specific technical guidance for calculating jurisdiction-scale baseline load estimates. The Lake Clarity Crediting Program makes use of cutting-edge numeric modeling tools and field inspection methods to estimate water quality benefits and link modeled estimates to actual on-the-ground conditions. This program, the first of its kind in the nation, provides a robust method to hold municipalities responsible

for required water quality improvements and offers transparent protocols for demonstrating progress.

This NPDES Storm Water Permit requires the municipalities to use the Lake Clarity Crediting Program Handbook (Attachment D) to assess compliance with load reduction requirements specified in the Lake Tahoe TMDL (Attachment B).

Pollutant Load Reduction Plans

The Lake Tahoe TMDL requires Lake Tahoe basin municipalities to develop and implement comprehensive Pollutant Load Reduction Plans (PLRPs) describing how proposed operations and maintenance activities, capital improvements, facilities retrofit projects, ordinance enforcement, and other actions will meet required pollutant load reduction requirements. PLRPs provide the Permittees the opportunity to prioritize pollutant load reduction efforts and target sub-watersheds, or catchments that generate the highest annual average pollutant loads in a cost effective manner.

By necessity, the PLRPs are expected to provide only a general implementation plan that identifies specific catchments targeted for implementation and expected load reduction measures. The Permit requires the municipalities to estimate the anticipated cumulative water quality benefit over a five year period and support those estimates with representative modeling results. As implementation progresses, these estimates will be refined as the municipalities declare credits pursuant to the Lake Clarity Crediting Program. Over time, the Permittees will likely need to adjust their individual PLRPs to reflect updated information regarding implementation progress and load reduction estimate refinement.

This NPDES Storm Water Permit implements the requirement to develop and submit PLRPs consistent with Lake Tahoe TMDL requirements. While the PLRPs do not alter pollutant load reduction requirements or other performance standards, they do describe the municipalities' proposed methods and plans to achieve compliance with pollutant load reduction requirements and associated mass- and particle-based effluent limits listed in Section IV.B of the Permit.

Order R6T-2011-0101A required the Permittees to develop and submit detailed PLRPs consistent with Lake Tahoe TMDL requirements. The Permittees submitted the necessary documents by March 15, 2013. Water Board staff reviewed the submitted PLRPs, circulated them for public comment, and brought them before the Water Board for approval at its June 2013 meeting.

Order R6T-2011-0101A also required the Permittees to submit preliminary PLRPs prior to the 2016 permit expiration date. Although the preliminary plans provide a framework for achieving the next load reduction milestone, the renewed permit requires the Permittees to conduct a more robust update during the first year of the permit term.

Section IV.A of the Monitoring and Reporting Program requires the Permittees to annually assess PLRP progress and, if necessary, propose changes.

Control of Pollutants of Concern

The CWA provides that storm water permits for MS4 discharges shall contain controls to reduce the discharge of pollutants to the "maximum extent practicable including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." (CWA 402(p)(3)(B)(iii).) Under this provision, the Water Board has the authority to include requirements for reducing pollutants in storm water discharges as necessary for compliance with water quality standards. (*Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1166 (9th Cir. 1999).)

Where MS4 discharges have the reasonable potential to cause or contribute to a water quality standard excursion, EPA recommends that MS4 permits "place a greater emphasis on clear, specific measureable permit requirements" and, where feasible, that MS4 permits include numeric effluent limitations." ("Revisions to the November 22, 2002 Memorandum 'Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs'," November 26, 2014 (hereafter referred to as "US EPA 2014 Memorandum"), at pp. 2, 5.)) "'[N]umeric' effluent limitations refer to limitations with a quantifiable or measurable parameter related to a pollutant (or pollutants). Numeric WQBELs may include other types of numeric limits in addition to end-of-pipe limits. Numeric WQBELs may include, among others, limits on pollutant discharges by specifying parameters such as on-site storm water retention volume or percentage or amount of effective impervious cover, as well as the more traditional pollutant concentration limits and pollutant loads in the discharge" (US EPA 2014 Memorandum at p. 4, fn. 5.). The purpose of including numeric requirements is "to establish a more objective and accountable means for reducing pollutant discharges that contribute to water quality problems" (US EPA 2014 Memorandum at p. 5.). The numeric load reduction requirements in this NPDES Storm Water Permit provide the referenced "objective and accountable means" that effectively link Permittee actions to expected water quality benefit and track progress in restoring Lake Tahoe's historic transparency.

Where a State or EPA has established a TMDL for an impaired water that includes WLAs for storm water discharges, permits for MS4 discharges must contain effluent limits and conditions consistent with the requirements and assumptions of the WLAs in the TMDL. (40 CFR 122.44(d)(1)(vii)(B).) U.S. EPA recommends that WLAs for NPDES-regulated storm water discharges should be disaggregated into specific categories, as was done for the Lake Tahoe TMDL (US EPA 2014 Memorandum at p. 7). WLAs were established for four source categories – urban uplands, forest uplands, atmospheric deposition, and stream

channel erosion. This permit maintains particle- and mass-based effluent limits for fine sediment particles, total nitrogen, and total phosphorus based on requirements in the Lake Tahoe TMDL. By defining water quality improvement requirements in terms average annual loading of the pollutants of concern, this renewed permit is consistent with recent US EPA guidance and provides a direct link to the transparency impairment, the Lake Tahoe TMDL, and all associated research and monitoring findings.

Heavy metals, pesticides, and pathogens are typically of concern in MS4 discharges. Extensive monitoring conducted as required by previous NPDES Storm Water Permits concluded these common storm water pollutants are not prevalent in Lake Tahoe urban runoff. Furthermore, the receiving waters in the Lake Tahoe Hydrologic Unit are in attainment with all applicable water quality standards and there is no evidence storm water discharges are causing or have reasonable potential to cause or contribute to beneficial use impairment other than transparency loss. The stringent control actions required to achieve pollutant load reductions for fine sediment particles, total nitrogen, and total phosphorus will prevent any unanticipated increase in the discharge of metals, pesticides, and pathogens.

Under State Water Board precedent, MS4 permits must include numeric receiving water limitations (Order WQ 99-05 (*Environmental Health Coalition*). Where dischargers need time to meet receiving water limitations, a permit can allow permittees to meet those limitations through an alternative compliance path that ensures an appropriate level of “rigor, transparency and accountability.” (Order WQ 2015-0075 (*MS4 Discharges Within the Coastal Watersheds of Los Angeles County*), p. 33.) The alternative compliance path must be as short as possible. (See *id.*, pp. 34-35, 60.) Order WQ 2015-0075 recognizes that the alternative compliance path approach in the Los Angeles permit is not appropriate for every situation.

This permit is unique in California as the only MS4 Permit that primarily regulates discharges to an ONRW. The TMDL load reduction effluent limitations and associated requirements already incorporate a compliance path toward meeting the water quality standards for lake clarity, total nitrogen and phosphorus. Dischargers in Nevada and California are implanting this program through a cooperative, bi-state process with U.S. EPA. The TMDL program requires compliance with interim load reduction requirements based on estimates of BMP performance developed through the Lake Clarity Crediting Program, and not on in-stream or end-of-pipe water quality measurements. These requirements are equivalent to the alternative compliance path the State Water Board upheld in Order WQ 2015-0075. No alternative compliance path is necessary or appropriate for meeting receiving water limitations for non-TMDL constituents. The Permittees are already in compliance with those limitations and do not need time to implement new stormwater controls to avoid immediate non-compliance.

Storm Water Management Plans

To provide consistency with federal regulations (40 CFR 122.26(d)(2)(iv)) and address deficiencies noted by a United States Environmental Protection Agency audit of Order 6-00-82, the primary goal of the previous NPDES Storm Water Permits (R6T-2005-0026 and R6T-2011-0101A) was to require the Permittees to develop and implement comprehensive storm water management programs. The pervious permits required the jurisdictions to prepare and implement a Storm Water Management Plan to (1) continue erosion control and storm water treatment project implementation; (2) inspect and control runoff from construction, industrial, commercial, and residential sites; (3) develop a storm water education program for municipal staff and the public; (4) detect and eliminate illicit discharges; (5) provide for public participation; (6) assess program effectiveness; (6) inspect roadways and other municipal storm water facilities; (7) manage traction abrasive and deicing application and recovery; and (8) evaluate program funding needs and provide fiscal management plan.

Order R6T-2011-0101A required the Permittees to submit updated Storm Water Management Plans to align programmatic efforts with permit requirements. The three Permittees submitted plans by October 1, 2013 as required. Water Board staff reviewed the submitted material and found the plans compliant with permit requirements, posted the plans on the Water Board website for public access, and accepted the plans as submitted.

The 2013 Storm Water Management Plans provide the needed programmatic framework for implementing necessary storm water management activities, and Section III.B of this renewed permit requires the Permittees to continue implementing current programs and revisit and update their existing Storm Water Management Plans as needed.

Monitoring Requirements

The Lake Clarity Crediting Program relies on numeric modeling tools to provide estimates of average annual pollutant loading and of water quality benefit associated with various management strategies. A series of condition assessment methods have been developed to link on-the-ground field conditions to model input variables to determine whether actual treatment facility and roadway conditions are consistent with modeled assumptions. Monitoring and Reporting Section I.E requires Permittees to conduct condition assessments of all roadways and runoff treatment facilities consistent with established methods for all catchments registered under the Lake Clarity Crediting Program. By emphasizing field condition assessments, the Permit requires the Permittees to focus limited staff resources on gathering meaningful information to verify model estimate parameters. If field conditions are consistent with modeled variables, then it is more likely that actual pollutant loading is consistent with modeled pollutant load estimates.

Effective implementation and pollutant load reduction tracking requires a well-designed water quality monitoring program that can be applied with an adaptive management framework. The Lake Tahoe Regional Storm Water Monitoring Program (RSWMP) was developed to meet this purpose for urban storm water. In collaboration with Lake Tahoe basin stakeholders and agency representatives, the RSWMP established a series of goals and objectives to guide urban storm water monitoring, crafted a detailed Framework and Implementation Guidance document, and prepared and implemented an effective monitoring program on behalf of the Permittees.

The Permit requires Permittees to continue supporting the RSWMP effort to gather data at a catchment scale to help assess whether modeled water quality improvements are being realized and monitor the effectiveness of selected water quality improvement practices to inform model input parameters and improve treatment facility design and operations and maintenance efforts. Data collection conducted by RSWMP with Permittee support provides critical data to inform future TMDL and NPDES Storm Water Permit programmatic adjustment and evaluate long-term load reduction accomplishments.

Anti-degradation Objective

On October 28, 1968, the State Water Resources Control Board adopted Resolution No. 68-16, “Statement of Policy with Respect to Maintaining High Quality of Waters in California,” establishing a policy for the protection of water quality. This policy, referred to in the Basin Plan as the Anti-degradation Objective, requires continued maintenance of existing high quality waters.

Under the Anti-degradation Objective, whenever the existing quality of water is better than that needed to protect all existing and probable future beneficial uses, the existing high quality shall be maintained until or unless it has been demonstrated to the State that any change in water quality will be consistent with the maximum benefit of the people of the State, and will not unreasonably affect present and probable future beneficial uses of such water. Therefore, unless these conditions are met, background water quality concentrations (the concentrations of substances in natural waters as they existed in 1968, when the degradation policy was adopted, that are unaffected by waste management practices or contamination incidents) are appropriate water quality goals to be maintained. In accordance with 40 CFR 131.12(a)(3), no permanent or long term reduction in water quality is allowed in areas, like Lake Tahoe, that have been given special protection as Outstanding National Resource Waters.

Storm water discharges from the municipal jurisdictions are contributing to the degradation of Lake Tahoe’s transparency, which violates the above-referenced objective, as documented by the Lake Tahoe TMDL. This NPDES Storm Water

Permit is intended to improve storm water quality and reduce the negative impacts associated with urban runoff.

Public Participation

The Lahontan Water Board encourages public participation in the Permit adoption process. This proposed Municipal NPDES Permit has been developed for review and comment by the public. As a step in the Water Board approval process, the Lahontan Water Board staff developed a “tentative” Permit for circulation and engaged directly with co-permittees and interested stakeholders during the 45-day comment period.

Notification of Interested Parties

On January 6, 2017 the Water Board notified dischargers, interested agencies, and other interested parties of its intent to renew the Municipal NPDES Permit for storm water discharges from the City of South Lake Tahoe and portions of El Dorado and Placer Counties within the Lake Tahoe Hydrologic Unit. The Water Board provided interested parties with the opportunity to submit written comments and recommendations on the draft tentative permit by February 20, 2017. Notification was provided through electronic mailing, list serve system emails, and posting on the Lahontan Water Board website. Lahontan Water Board staff made non-substantive adjustments to the permit based on comments received on the tentative draft. On February 24, 2017 the Lahontan Water Board notified dischargers, interested agencies, and other interested parties of the Water Board’s intent to consider adopting the revised permit at its March 9, 2017 meeting in South Lake Tahoe. Notification was provided through mailing, list serve system emails, newspaper notifications, and posting on the Lahontan Water Board website.

Public Workshop

The Lahontan Water Board conducted a public workshop on November 10, 2017 to discuss issues relating to the Permit renewal process with the Board and interested parties.

Public Hearing

The Lahontan Water Board has scheduled a public hearing to consider adopting the renewed permit. The Board meeting is scheduled as follows:

Date:	March 9, 2017
Time:	8:30 AM
Location:	Lahontan Water Board Annex Hearing Room 971 Silver Dollar Avenue South Lake Tahoe, CA 96150

Interested persons are invited to attend. At the public meeting, the Lahontan Water Board will hear testimony, if any, pertinent to the discharge and the Permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. The public can access the current agenda for changes in dates and locations at the Water Board website: www.waterboards.ca.gov/lahontan

Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Lahontan Water Board regarding the final Permit. The petition must be submitted within 30 days of the Lahontan Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

Information and Copying

The proposed Permit, comments received, and other information are on file and may be inspected at the Lahontan Water Board at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday, at 2501 Lake Tahoe Boulevard, South Lake Tahoe, CA 96150. Copying of documents may be arranged through the Lahontan Water Board by calling (530) 542-5400.

Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Lahontan Water Board, reference this Permit, and provide a name, email address, and phone number.

Additional Information

Requests for additional information or questions regarding this order should be directed to Robert Larsen, Senior Environmental Scientist, at 530-542-5439 or by email at Robert.Larsen@waterboards.ca.gov.

ATTACHMENT B

POLLUTANT LOAD ALLOCATION TABLES

Fine Sediment Particle Load Allocations by Pollutant Source Category.

	Baseline Load		Milestone Load Reductions												Standard Attainment
	Basin-Wide Load (Particles/yr)	% of Basin-Wide Load	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	40 yrs	45 yrs	50 yrs	55 yrs	60 yrs	65 yrs
Forest Upland	4.1E+19	9%	6%	9%	12%	12%	13%	14%	15%	16%	17%	18%	19%	20%	20%
Urban Upland*	3.5E+20	72%	10%	21%	34%	38%	41%	45%	48%	52%	55%	59%	62%	66%	71%
Atmosphere	7.5E+19	16%	8%	15%	30%	32%	35%	37%	40%	42%	45%	47%	50%	52%	55%
Stream Channel	1.7E+19	3%	13%	26%	53%	56%	60%	63%	67%	70%	74%	77%	81%	85%	89%
Basin Wide Total	4.8E+20	100%	10%	19%	32%	35%	38%	42%	44%	47%	51%	55%	58%	61%	65%

Total Nitrogen Load Allocations by Pollutant Source Category.

Nitrogen	Baseline Load		Milestone Load Reductions												Standard Attainment
	Basin-Wide Nitrogen Load (MT/yr)	% of Basin-Wide Load	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	40 yrs	45 yrs	50 yrs	55 yrs	60 yrs	65 yrs
Forest Upland	62	18%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Urban Upland*	63	18%	8%	14%	19%	22%	25%	28%	31%	34%	37%	40%	43%	46%	50%
Atmosphere	218	63%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Stream Channel	2	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Basin Wide Total	345	100%	2%	3%	4%	5%	6%	6%	7%	7%	8%	8%	9%	9%	10%

Total Phosphorus Load Allocations by Pollutant Source Category.

Phosphorus	Baseline Load		Milestone Load Reductions												Standard Attainment
	Basin-Wide Phosphorus Load (MT/yr)	% of Basin-Wide Load	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	40 yrs	45 yrs	50 yrs	55 yrs	60 yrs	65 yrs
Forest Upland	12	32%	1%	1%	1%	2%	1%	1%	2%	2%	2%	2%	2%	3%	3%
Urban Upland*	18	47%	7%	14%	21%	23%	26%	28%	31%	33%	36%	38%	41%	44%	46%
Atmosphere	7	18%	9%	17%	33%	36%	39%	42%	45%	48%	51%	53%	56%	58%	61%
Stream Channel	1	3%	8%	15%	30%	32%	34%	36%	38%	40%	42%	44%	46%	48%	51%
Basin Wide Total	38	100%	5%	10%	17%	19%	22%	24%	26%	28%	30%	32%	33%	34%	35%

* Urban upland load reduction requirements constitute waste load allocations for the City of South Lake Tahoe, El Dorado County, Placer County, and the California Department of Transportation.

ATTACHMENT C

STATE OF CALIFORNIA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MONITORING AND REPORTING PROGRAM
ORDER NO. R6T-2017-0010
NPDES NO. CAG616001

RENEWED WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR STORM WATER/URBAN RUNOFF DISCHARGES FROM EL DORADO COUNTY, PLACER COUNTY, AND THE CITY OF SOUTH LAKE TAHOE WITHIN THE LAKE TAHOE HYDROLOGIC UNIT

I. Pollutant Load Reduction Monitoring Requirements

A. Lake Clarity Crediting Program

The Lake Tahoe Total Maximum Daily Load (TMDL) established average annual pollutant load estimates and load reduction targets for total nitrogen, total phosphorus, and fine sediment particles for the major pollutant source categories. The Lake Clarity Program (Crediting Program) defines a system to evaluate and track pollutant load reductions to demonstrate compliance with the load reduction requirements for pollutants generated in the urban uplands. The program provides methods for consistently linking implementation of pollutant controls to average annual pollutant load reduction estimates using numeric modeling tools. It establishes Lake Clarity Credits (Credits) for actions taken to reduce pollutant loads as required by the Lake Tahoe TMDL.

Credits are used in this Monitoring and Reporting Program to provide a consistent metric for assessing compliance with average annual pollutant load reduction requirements. The Crediting Program guides interaction between the Water Board and Permittees regarding load reduction progress assessment.

Load reductions are defined as the difference between the estimated average annual amount of pollutants entering Lake Tahoe under standardized baseline conditions and the estimated average annual amount of pollutants entering the lake under expected conditions following management practice implementation.

Effective implementation of any pollutant control can generate credits, provided that the Permittees effectively demonstrate to the Water Board that the action (1) will reduce the load of the pollutants of concern to Lake Tahoe from urban land uses, (2) is supported by reasonable load reduction estimate, and (3) is implemented and maintained over time.

Effective implementation of pollutant controls results in actual conditions of treatment best management practices (BMPs) and/or roadways that are at or better-than the conditions used as the basis for modeled load reduction estimates, referred to as "expected" conditions. Actual conditions, as assessed during annual inspections outlined in Section I.E of this Monitoring and Reporting Program, are compared to the expected conditions to determine the appropriate amount of credit to award in a given year. When actual conditions are at or better-than expected conditions, the actual pollutant loading is considered to be the same or better than the expected pollutant loading and full Credit will be awarded. If actual conditions are worse than expected, the actual loading is considered to be higher than expected loading and the Credit award will be less than the full Credit potential amount.

The credit accounting period is a water year, October 1 through September 30. Each year is a unique accounting period – credits awarded in one year cannot be used to meet load reduction requirements in a subsequent or prior year.

The following sections briefly describe components of the Crediting Program protocols and establish phased Crediting Program implementation requirements.

B. Credit Definition and Credit Requirements

The Crediting Program Handbook (Attachment D) defines one (1) Lake Clarity Credit as equal to 1.0×10^{16} fine sediment particles with a diameter smaller than 16 micrometers (µm).

To demonstrate compliance with the pollutant load reduction requirements outlined in Permit Table IV.B.1, each Permittee must earn and maintain Lake Clarity Credits in accordance with Permit Table IV.B.2.

C. Crediting Program Handbook

The Lake Clarity Crediting Program Handbook (Crediting Program Handbook) defines the protocols for implementing the Crediting Program. The Crediting Program Handbook provides detailed technical

guidance for estimating load reductions, preparing catchment credit schedules, reporting conditions and awarding credits.

Crediting Program Handbook is incorporated into the Permit as Attachment D and all Lake Clarity Crediting Program procedures are incorporated as enforceable requirements under this Permit. Within the context of this Monitoring and Reporting Program, all Crediting Program Handbook references to “regulator” should be understood to mean the Water Board.

D. Condition Assessments

Credits are awarded by the Water Board for ongoing implementation of effective pollutant control measures that result in actual, observable conditions of treatment BMPs and roadways that are consistent with the expected conditions used to estimate pollutant load reductions. Actual conditions, as determined by field inspection findings, are compared to expected conditions to determine the appropriate credit award. In some instances, partial credit may be awarded when actual conditions are worse than expected.

Actual field conditions are evaluated and compared with expected conditions used to estimate pollutant load reductions. Each Permittee shall conduct treatment BMP and roadway condition assessments as described in the Crediting Program Handbook for all registered catchments.

The Crediting Program Handbook describes the process for defining inspection needs, performing facilities inspections, and recording results for registered catchments.

Permittees shall use the Best Management Practices Maintenance Rapid Assessment Methodology (BMP RAM) and the Road Rapid Assessment Methodology (Road RAM) or their equivalents (subject to Water Board acceptance) to annually assess, score, and document the actual condition of treatment BMPs and roadways.

F. Condition Assessment Method Alternatives

Should a Permittee consider using a treatment facility assessment method other than the BMP RAM, the Permittee must submit a proposal to the Water Board Executive Officer for approval. The submittal must describe how the Permittee will demonstrate that the proposed equivalent method will effectively evaluate treatment facility condition based on treatment process (infiltration, particle settling, media filtration, or nutrient cycling), is capable of evaluating the condition of the BMP on

a 0-5 scale, with 5 representing the highest functioning condition, and produces repeatable results that are consistent with the BMP RAM.

Should a Permittee consider using a roadway condition assessment method other than the established Road RAM, it must submit a detailed proposal to the Water Board Executive Officer. The submittal must demonstrate that any proposed equivalent method will effectively evaluate roadway condition based on field observations of sediment accumulation, can demonstrably extrapolate results to other roadway areas, is capable of evaluating the condition of representative roadway segments on a 0-5 scale, with 5 representing the cleanest condition, and produces repeatable results consistent with the Road RAM.

The initial submittal for alternative condition assessment methods need not contain all technical information of the proposed alternative methods, but must establish a schedule for fully developing and submitting details for Water Board approval. Water Board staff and the Executive Officer will review any proposed alternatives and will bring the proposals before the Water Board for consideration.

G. Impacts Influencing Baseline Pollutant Loads

In accordance with the Basin Plan and Permit Section IV.D, Permittees must ensure that changes in land use, impervious coverage, or operations and maintenance practices do not increase a catchment's average annual baseline pollutant load.

For the 2017 water year (October 1 2016 – September 30, 2017) each Permittee shall conduct a general assessment of the changes in land use, impervious coverage, and operations and maintenance practices within their jurisdiction to determine whether such changes have increased the baseline average annual pollutant loading as described in Permit Table IV.B. The assessment need only consider land use, impervious cover, and operations and maintenance changes that have occurred in hydraulically connected areas not registered as part of the Crediting Program that may have occurred since the last assessment was conducted for the 2014 water year.

If Permittees determine that changes in baseline loading have occurred, each Permittee shall identify the specific areas where pollutant loads have changes and ensure those areas have been registered under the Crediting Program.

II. Inspection Requirements

A. Storm Water System Inspections

Visual inspection of storm water collection, conveyance, and treatment facilities is the most efficient tool to assess facility function and evaluate maintenance needs.

For portions of a Permittee's jurisdiction not included in a Crediting Program registered area, Permittees shall inspect its storm water collection, conveyance, and treatment systems **annually.** Permittees shall conduct facilities inspections between the period of time following spring snow melt and before fall rain and snow storms each year to provide the opportunity to perform facilities maintenance as needed.

Storm water facilities shall be inspected for signs of needed maintenance, evidence of erosion, damage from snow removal equipment, and accumulated sediment and debris. During inspections, Permittees shall also consider potential storm water pollutant sources including but not limited to:

- Private property/residential runoff
- Commercial property runoff
- Eroding cut slopes
- Eroding road shoulders
- Traction abrasive application
- Dislodged sediment from snow removal activities
- Vehicles tracking sediment onto the roadway
- Parking related erosion

Permittees shall implement an inspection documentation and tracking system to record inspection findings and prioritize maintenance needs. At a minimum, the tracking system shall provide mechanisms to document the following:

- Inspector's name
- Date and time of inspection
- Mapped inspection location (i.e. catchment)
- Observed system condition at time of inspection
- An assessment of needed maintenance or other follow-up actions
- Prioritization of needed maintenance

B. Construction Site Inspections

Permittees shall establish construction site inspection frequencies based on the water quality prioritization described in Permit Section

III.B.1. Permittees shall inspect each construction site at a frequency sufficient to ensure that sediment and other pollutants are properly controlled and that unauthorized, non-storm water discharges are prevented.

Permittees shall implement a construction site inspection documentation and tracking system to record inspection findings. At a minimum, the tracking system shall provide mechanisms to document the following:

- Inspector's name
- Date and time of inspection
- Inspection location
- Observed facility conditions
- A summary of follow up and enforcement actions taken, if violations are observed.

C. Commercial, Industrial, and Municipal Site Inspections

Permittees shall establish commercial, industrial, and municipal site inspection frequencies based on the water quality prioritization described in Permit Section III.B.2. Each Permittee shall inspect each high priority commercial, industrial, and municipal site at least once annually.

Permittees shall implement a commercial, industrial, and municipal site inspection documentation and tracking system to record inspection findings. At a minimum, the tracking system shall provide mechanisms to document the following:

- Inspector's name
- Date and time of inspection
- Inspection location
- Observed facility conditions
- A summary of follow up and enforcement actions taken, if violations are observed.

D. Traction Abrasive and Deicing Material

The goal of traction abrasive monitoring program is to measure the quality and quantity of material applied and recovered. To meet that objective, Permittees shall implement a program that, at a minimum, includes the following:

1. Specifications for the amounts of fine sediment particles, total nitrogen, and total phosphorus allowable in material the Permittee applies as traction abrasives.

2. A program to sample supplied traction abrasive materials to determine whether materials meet the specifications defined according to II.D.1 above.

3. A system to track and record the total amount of abrasive and deicing material applied to its roads and parking areas per winter season. Materials applied to Permittee roads by other authorized entities shall be tracked and recorded along with Permittee applied material.

4. A system to track and record the location and amount that maintenance crews, Permittee contractors, or other authorized entities apply abrasive and deicing material (i.e. amount applied per "zone").

5. A system to track and record the amount of sediment and other material recovered from sweeping and vacuum extraction operations. Permittees shall report separate sediment amounts recovered by sweeping and vacuum equipment, per "zone".

III. Water Quality Monitoring Requirements

A. Catchment Scale Runoff Water Quality Monitoring

The Crediting Program and associated load estimation tools, including the Pollutant Load Reduction Model (PLRM), estimate the average annual pollutant load reductions as a result of pollutant control actions. Storm water monitoring is needed to verify that implementing cumulative pollutant control actions is resulting in measurable pollutant load reductions at the catchment scale. Documenting and reporting pollutant load reductions at select runoff outlets will help verify that the jurisdictions cumulative pollutant control actions are effective and confirm credit awards are warranted.

To assess the water quality at the urban catchment outfalls and provide load estimation tool comparison data, each Permittee shall, at a minimum:

1. Establish monitoring locations at storm water outfalls of no less than two (2) catchment areas that discharge directly to surface waters.

2. Obtain continuous flow data at the catchment outfall and report data as seasonal [Fall/Winter (October 1 – February 28) Snow melt (March 1 –

May 31) and Summer (June 1 – September 30)] total outflow volumes (in cubic feet).

3. Collect six (6) to twelve (12) samples every 24 hours, per event.

   Collect samples for each seasonal event type (rain-on-snow, snowmelt, summer thunderstorm, fall rain) spanning storm event hydrographs. Due to the large total volume of the spring snowmelt, collect supplemental samples periodically throughout the snow melt hydrograph. Use the range of samples collected to estimate the snowmelt event mean concentration (mg/L) for each year sampled.

4. Analyze all collected water samples for the Lake Tahoe TMDL pollutants of concern – fine sediment particles, total suspended sediment, total nitrogen, and total phosphorus. The priority pollutant is fine sediment particles (FSP) less than 16 micrometers (μm) in diameter, that should be reported as both concentration by mass (mg/L) and the number of particles per liter of water. Samples collected and analyzed for FSP shall span the range of expected FSP concentrations experienced at the selected outfall.

5. Total nitrogen, total phosphorus, and total suspended solids sample analyses may be conducted with lesser frequency than FSP analyses. Permittees must demonstrate the proposed approach will adequately reflect the range of nutrient and total suspended solid concentrations at the outfall. The sampling strategy shall include a range of event types that is proportional to their frequency of occurrence and total seasonal volume contributions.

6. Use collected data to estimate the average flow-weighted concentration of each pollutant for each season monitored.

7. Calculate the total load (mass in kilograms for total nitrogen, total phosphorus, and total suspended solids and number of particles for FSP) of each pollutant for each season monitored as the product of the total seasonal volume and the average seasonal concentration.

8. Use long-term regional meteorological data to identify whether the data were collected during dry, average, or wet seasons.

9. Follow quality assurance and sampling protocols established by the Regional Storm Water Monitoring Program (RSWMP) Quality Assurance Project Plan (May 2011) and Framework and Implementation Guidance Document (March 2015) for all sampling activities.

10. Maintain monitoring locations and collect samples for each water year (October 1 – September 30) of this Permit term.

B. Best Management Practice (BMP) Effectiveness Monitoring

The PLRM and other pollutant load estimation tools use the best available information to assess water quality benefits expected from implementing storm water treatment devices and other BMPs. Condition assessments are used to verify that the condition of a BMP or specific land use is being maintained at an acceptable condition. BMP effectiveness monitoring is needed to verify that each Permittee's BMP implementation and maintenance practices are resulting in actual measured pollutant load reductions. BMP effectiveness monitoring is also needed to improve installation and maintenance practices for various BMPs to optimize water quality benefits.

Each Permittee must, at a minimum:

1. Select at least one (1) storm water treatment device or other BMP and monitor effectiveness for at least three successive years.

2. If the selected BMP is a flow-through structure/device, obtain continuous flow at the inlet and outlet to support seasonal [Fall/Winter (October 1 – February 28) Snow melt (March 1 – May 31) and Summer (June 1 – September 30)] inflow and outflow volume reporting.

   If the selected BMP is not a flow-through device, devise a reasonable method to obtain continuous flow at the inlet to support seasonal volume reporting of storm water treated/infiltrated/contained by the BMP.

   If the selected BMP is a pollutant source control measure, the Permittee need not report hydrology and the monitoring plan shall describe methods to calculate the mass of pollutant controlled per land surface area.

3. Collect influent (or up gradient) and effluent (or down gradient) storm water samples to assess treatment device/activity performance.

4. Analyze all collected water samples for the Lake Tahoe TMDL pollutants of concern – fine sediment particles, total nitrogen, and total phosphorus. The priority pollutant is FSP reported as the number of particles per liter of water. Samples collected and analyzed for FSP shall span the range of expected FSP concentrations experienced at the inlet and outlet.

Total nitrogen, total phosphorus, and total suspended solids sample analyses may be conducted with lesser frequency than FSP analyses provided Permittees demonstrate the proposed approach will provide a representative sampling of the range of pollutant concentrations. The sampling strategy should include a range of event types that is proportional to their frequency of occurrence and total seasonal volume contributions.

5. Use collected data to estimate the average concentration of each pollutant for each season monitored.

6. If evaluating a pollutant or hydrologic source control BMP, describe a data collection approach and reasonable extrapolation method to estimate volume of runoff eliminated (hydrologic source control) or the mass of the pollutant, or number of particles eliminated per unit area of the land surface affected (pollutant source control). Describe how this value will be used to estimate pollutant loads controlled per season [Fall/Winter (October 1 – February 28) Snow melt (March 1 – May 31) and Summer (June 1 – September 30)].

7. Use long-term regional meteorological data to identify whether the data were collected during dry, average, or wet seasons.

8. Follow quality assurance and sampling protocols established by the RSWMP Quality Assurance Project Plan (May 2011) and Framework and Implementation Guidance Document (March 2015) for all sampling activities.

C. Monitoring Plan

By **March 15, 2018** each Permittee shall prepare and submit to the Water Board a storm water monitoring plan to implement the requirements described in Sections III.A and III.B above.

For catchment outfall monitoring, the plan shall describe how the requirements in Section III.A above will be met, including which catchments the Permittee proposes to monitor, proposed monitoring instrumentation, proposed sampling frequency, data management and proposed analysis and reporting methods. The monitoring plan shall include a detailed discussion of the rationale for the chosen sampling sites, methods, and frequency and a discussion of how the proposed monitoring will support, enhance, or otherwise inform the Permittee's existing load estimation or condition assessment methods and the Permittee's pollutant load reduction program.

For the BMP effectiveness monitoring, the plan shall describe how the requirements in Section III.B above will be met, including a description of the selected storm water treatment device or BMP, a discussion of influent (or upstream) and effluent (downstream) monitoring locations, and a description of how the proposed monitoring will evaluate the effectiveness of the chosen BMP and provide information to improve the collective understanding of how the chosen BMP should be installed and maintained over time.

The submitted monitoring plans must be reviewed and approved by the Water Board to ensure compliance with Permit and Monitoring and Reporting Program requirements.

D. Storm Water Monitoring Data Management

Electronic data shall be in a format compatible with the Surface Water Ambient Monitoring Program (SWAMP) database (See http://mpsl.mlml.calstate.edu/swdataformats.htm) and the *California Environmental Data Exchange Network* (*CEDEN*) at www.ceden.org.

Permittees shall make all monitoring data and associated analytical reports available to managers of the RSWMP regional data center. Permittees shall notify stakeholders and members of the general public about the availability of electronic and paper monitoring reports through notices distributed through appropriate means, such as an electronic mailing list or posting on Permittee websites.

E. Storm Water Monitoring Compliance Options

To promote cost savings through economies of scale and avoid monitoring redundancy, Permittees may choose to comply with the storm water monitoring requirements by supporting the RSWMP effort to maintain no fewer than six (6) catchment monitoring sites and support ongoing monitoring to assess performance of no fewer than two (2) BMPs.

Should the Permittees chose to conduct monitoring described in Sections III.A and III.B above as part of the collaborative RSWMP effort, the group may submit a single storm water monitoring plan to fulfill the requirement contained in Section III.C above.

For each monitoring component that is conducted collaboratively, Permittees shall prepare a single report on behalf of all contributing Permittees; separate water quality monitoring reports are not required.

IV. Annual Reporting Requirements

For each water year (October 1-September 30), Permittees shall develop and submit an Annual Report by **March 15, 2018** and by **March 15** of each subsequent year of the permit term. Annual Reports shall include the following elements:

A. Pollutant Load Reduction Reporting

Each Permittee must describe actions taken to fulfill the requirements of Monitoring and Reporting Section I. Specifically, each Permittee's annual report must include a list of areas registered under this and previous Permits and a summary of applicable condition assessment results for all registered area pursuant to Section I.D above.

Each Permittee shall list its total credit award for the previous water year to demonstrate progress at meeting pollutant load reduction requirements.

Each Permittee shall describe load reduction progress in context of its Pollutant Load Reduction Plan (PLRP), including a discussion of whether Credit registration, load reduction estimates, and implementation actions are consistent with the submitted PLRP. Permittees shall discuss any deviations from submitted PLRPs, provide rationale for those deviations, and, if necessary, describe how the Permittee will compensate for any noted shortfalls in expected pollutant load reductions.

B. Storm Water Facilities Inspection Report

The annual report shall include a summary report of all storm water facility inspections performed pursuant to Section II.A of this Monitoring and Reporting Program. The report shall include a list of all areas inspected, a description of identified pollutant sources and/or problem areas, and a discussion of any planned or completed maintenance and/or enforcement follow up activities.

C. Construction Site Inspection Report

The annual report shall include a summary report of all construction inspections performed pursuant to Section II.B of this Monitoring and Reporting Program. The summary report shall include a list of all construction sites inspected, a description of identified problems, and a discussion of any planned or completed enforcement follow up activities.

D. Commercial, Industrial, and Municipal Site Inspection Report

The annual report shall include a summary of all commercial, industrial, and municipal site inspections performed pursuant to Section II.C of this Monitoring and Reporting Program. The summary shall include a list of all commercial, industrial, and municipal sites inspected, a description of identified problems, and a discussion of any planned or completed enforcement follow up activities.

E. Traction Abrasive and Deicing Material Report

The annual report shall include a summary report of the monitoring data collected pursuant to Section II.C of this Monitoring and Reporting Program.

F. Storm Water Monitoring Report

By March 15, 2018 and by **March 15** of each subsequent year of the Permit term, each Permittee shall submit a comprehensive electronic report that summarizes cumulative storm water monitoring results from the catchment load monitoring and BMP effectiveness evaluations conducted during the previous water year (October 1 – September 30).

The storm water monitoring report shall include, at a minimum, the following:

1. A discussion of monitoring purpose and study design and the underlying rationale.

2. Details of the data collection methods, sampling protocols and analytical methods including detection limits.

3. Quality Assurance/Quality Control summaries.

4. Maps and descriptions of all monitoring locations including latitude and longitude coordinates and data obtained at each location.

5. Raw analytical data that includes sample identification, collection date, time and analytical reporting results for all collected samples.

6. Documentation of data management procedure.

7. Details of data analysis, calculations and assumptions used to obtain results and draw conclusions.

8. Catchment outlet monitoring - data tables and graphical data summaries that include seasonal total volume (cubic feet),

seasonal average concentrations (milligrams/liter and number of particles/liter) and load (kilograms and number of particles) of each pollutant outlined in section III.A.4 of this Monitoring and Reporting Program.

9. Catchment outlet monitoring – provide interpretation of annually collected data relative to modeled average annual estimates and conduct an assessment of this data in the context of the water year type (wet, average, dry) using the regional meteorological analysis.

10. For long-term catchment monitoring, provide recent data in context with cumulative comparable results from previous years, noting trends. Consider the season type (wet, average, dry,) for each seasonal data point when evaluating trends and inter-annual variability in catchment results. Compare measured pollutant loads with modeled average annual variables and model outputs.

11. For flow-through BMPs - data tables and graphical data summaries of seasonal volume (cubic feet), average inlet and outlet pollutant concentrations (milligrams/liter and number of particles/liter) and pollutant loads (kilograms and number of particles) for each pollutant outlined in section III.B.4 of this Monitoring and Reporting Program. Permittees shall report the seasonal storm water volume (cubic feet) and pollutant load reduced (kilograms and number of particles) for each pollutant for each season of measure.

12. For hydrologic or pollutant source control BMPs - data tables and graphical summaries of seasonal storm water volumes (cubic feet) (hydrologic source control) as a result of the BMP implementation and maintenance or seasonal pollutant mass (kilograms and number of particles) reduced over the area of land surface subject to the chosen BMP for each pollutant described in Section III.B.4. For multi-year BMP evaluations, provide recent data in context with cumulative comparable results from previous years, noting trends.

13. For BMP monitoring – provide interpretation of annually collected data relative to applicable model parameters and conduct an assessment of this data in the context of the water year type (wet, average, dry) using the regional meteorological analysis.

14. A final monitoring summary including the following values for each monitored location.

Season	Seasonal Volume (cf)	Pollutant	Seasonal Concentration (mg/L)	Seasonal Concentration (# particles/L)	Seasonal Load (kg)
Fall Winter (Oct 1-Feb 28)	x	FSP	x	x	x
		TSS	x		x
		TP	x		x
		TN	x		x
Spring Melt (Mar 1-May 31)	x	FSP	x	x	x
		TSS	x		x
		TP	x		x
		TN	x		x
Summer (June 1-Sept 31)	x	FSP	x	x	x
		TSS	x		x
		TP	x		x
		TN	x		x
Water Year Totals: Total WY precipitation (in/yr) Water year type: very dry, dry, average, wet, very wet					
Water Year Total	x	FSP			x
		TSS			x
		TP			x
		TN			x

15. A discussion of lessons learned from storm water monitoring efforts including, but not limited to, catchment water quality improvement strategies, pollutant sources analyses, pollutant fate and transport within sampled catchments, BMP design and/or implementation improvements, and maintenance strategy effectiveness (including techniques or frequency).

16. A discussion of any proposed changes to the storm water monitoring program and the rationale for each proposed change.

    If Permittees are working collaboratively to meet the requirements specified in Section III of this Monitoring and Reporting Program, a single report for participating Permittees will be accepted.

G. Illicit Discharge Report

To assess compliance with Permit Sections I.A and III.B.5 each Permittee's annual report shall describe actions taken to prevent unauthorized non-storm water discharges and report any identified illicit discharges to its collection, conveyance, and treatment facilities. The report shall include a description of any education, outreach, or inspection activities conducted pursuant to Permit Sections III.B.1, III.B.2, III.B.3 and III.B.4 that support the Permittee's program to prohibit unauthorized non-storm water discharges.

H. Education Component Report

Each Permittee's annual report shall summarize all training and education activities conducted during the previous year, including a list of all education materials distributed and training provided to the public, to municipal employees, and to construction, commercial, industrial, or municipal site operators.

I. Impacts Influencing Baseline Pollutant Loads Report

In the annual report for the 2017 water year, each Permittee shall summarize the assessment conducted pursuant to Monitoring and Reporting Program Section I.G to demonstrate compliance with Permit Order IV.D.

J. Provisions

Permittees shall comply with the "Standard Provisions, Reporting Requirements, and Notifications for NPDES Permits" that is attached to and made part of this Monitoring and Reporting Program as Attachment G.

ATTACHMENT D

LAKE CLARITY CREDITING PROGRAM HANDBOOK

Available on the Lake Tahoe TMDL Program Website:

https://www.enviroaccounting.com/TahoeTMDL/Program/Display/ForUrbanJurisdictions

ATTACHMENT E

WATER QUALITY OBJECTIVES
LAKE TAHOE HYDROLOGIC UNIT

Bacteria, Coliform - Waters shall not contain concentrations of coliform organisms attributable to anthropogenic sources, including human and livestock wastes. The fecal coliform concentration during any 30-day period shall not exceed a log mean of 20/100 ml, nor shall more than 10 percent of all samples collected during any 30-day period exceed 40/100 ml. The log mean shall ideally be based on a minimum of not less than five samples collected as evenly spaced as practicable during any 30-day period. However, a log mean concentration exceeding 20/100 ml for any 30-day period shall indicate violation of this objective even if fewer than five samples were collected.

Biostimulatory Substances - Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect the water for beneficial uses.

Chemical Constituents - Waters designated as MUN shall not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the following provisions of Title 22 of the California Code of Regulations which are incorporated by reference into the Basin Plan: Table 64431-A of Section 64431 (Inorganic Chemicals), Table 64431-B of Section 64431 (Fluoride), Table 64444-A of Section 64444 (Organic Chemicals), Table 64449-A of Section 64449 (Secondary Maximum Contaminant LevelsConsumer Acceptance Limits), and Table 64449-B of Section 64449 (Secondary Maximum Contaminant Levels-Ranges). This corporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.

Waters designated as AGR shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes).

Waters shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses.

Chlorine, Total Residual - For the protection of aquatic life, total chlorine residual shall not exceed either a median value of 0.002 mg/L or a maximum value of 0.003 mg/L. Median values shall be based on daily measurements taken within any six-month period.

Color - Waters shall be free of coloration that causes nuisance or adversely affects the water for beneficial uses.

Dissolved Oxygen - The dissolved oxygen concentration, as percent saturation, shall not be depressed by more than 10 percent, nor shall the minimum dissolved oxygen concentration be less than 80 percent of saturation.

For waters with the beneficial uses of COLD, COLD with SPWN, WARM, and WARM with SPWN, the minimum dissolved oxygen concentration shall not be less than that specified in Table 5.1-8.

Floating Materials - Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect the water for beneficial uses.

For natural high quality waters, the concentrations of floating material shall not be altered to the extent that such alterations are discernible at the 10 percent significance level.

Oil and Grease - Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect the water for beneficial uses.

For natural high quality waters, the concentration of oils, greases, or other film or coat generating substances shall not be altered.

Nondegradation of Aquatic Communities and Populations - All wetlands shall be free from substances attributable to wastewater or other discharges that produce adverse physiological responses in humans, animals, or plants; or which lead to the presence of undesirable or nuisance aquatic life.

All wetlands shall be free from activities that would substantially impair the biological community as it naturally occurs due to physical, chemical and hydrologic processes.

Pesticides - For the purposes of this Basin Plan, pesticides are defined to include insecticides, herbicides, rodenticides, fungicides, piscicides and all other economic poisons. An economic poison is any substance intended to prevent, repel, destroy, or mitigate the damage from insects, rodents, predatory animals, bacteria, fungi or weeds capable of infesting or harming vegetation, humans, or animals (CA Agriculture Code § 12753).

Pesticide concentrations, individually or collectively, shall not exceed the lowest detectable levels, using the most recent detection procedures available.

There shall not be an increase in pesticide concentrations found in bottom sediments. There shall be no detectable increase in bioaccumulation of pesticides in aquatic life.

Waters designated as MUN shall not contain concentrations of pesticides or herbicides in excess of the limiting concentrations specified in Table 64444-A of Section 64444 (Organic Chemicals) of Title 22 of the California Code of Regulations which is incorporated by reference into this plan. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.

pH - In fresh waters with designated beneficial uses of COLD, changes in normal ambient pH levels shall not exceed 0.5 pH units. For all other waters, the pH shall not be depressed below 6.5 nor raised above 8.5.

The Regional Board recognizes that some waters of the Region may have natural pH levels outside of the 6.5 to 8.5 range. Compliance with the pH objective for these waters will be determined on a case-by-case basis.

In Lake Tahoe, the pH shall not be depressed below 7.0 nor raised above 8.4.

Radioactivity - Radionuclides shall not be present in concentrations which are deleterious to human, plant, animal, or aquatic life or which result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life.

Waters designated as MUN shall not contain concentrations of radionuclides in excess of the limits specified in Table 4 of Section 64443 (Radioactivity) of Title 22 of the California Code of Regulations which is incorporated by reference into this plan. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.

Sediment - The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect the water for beneficial uses.

Settleable Materials - Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or that adversely affects the water for beneficial uses. For natural high quality waters, the concentration of settleable materials shall not be raised by more than 0.1 milliliter per liter.

Suspended Materials - Waters shall not contain suspended materials in concentrations that cause nuisance or that adversely affects the water for beneficial uses.

For natural high quality waters, the concentration of total suspended materials shall not be altered to the extent that such alterations are discernible at the 10 percent significance level.

Suspended Sediment - Suspended sediment concentrations in streams tributary to Lake

Tahoe shall not exceed a 90th percentile value of 60 mg/L. (This objective is equivalent to the Tahoe Regional Planning Agency's regional "environmental threshold carrying capacity" standard for suspended sediment in tributaries.) The Regional Board will consider revision of this objective in the future if it proves not to be protective of beneficial uses or if review of monitoring data indicates that other numbers would be more appropriate for some or all streams tributary to Lake Tahoe.

Taste and Odor- Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish or other edible products of aquatic origin, that cause nuisance, or that adversely affect the water for beneficial uses. For naturally high quality waters, the taste and odor shall not be altered.

Temperature - The natural receiving water temperature of all waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such an alteration in temperature does not adversely affect the water for beneficial uses.

For waters designated COLD, the temperature shall not be altered.

Temperature objectives for COLD interstate waters and WARM interstate waters are as specified in the "Water Quality Control Plan for Control of Temperature in The Coastal and Interstate Waters and Enclosed Bays and Estuaries of California" including any revisions. This plan is summarized in Basin Plan Chapter 6 (Plans and Policies) and included in Appendix B.

Toxicity - All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration and/or other appropriate methods as specified by the Regional Board. The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge, or when necessary, for other control water that is consistent with the requirements for "experimental water" as defined in Standard Methods for the Examination of Water and Wastewater (American Public Health Association, et al. 1998).

Turbidity - Waters shall be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. Increases in turbidity shall not exceed natural levels by more than 10 percent.

Algal Growth Potential - For Lake Tahoe, the mean algal growth potential at any point in the Lake shall not be greater than twice the mean annual algal growth potential at the limnetic reference station. The limnetic reference station is located in the north central portion of Lake Tahoe. It is shown on maps in annual reports of the Lake Tahoe

Interagency Monitoring Program. Exact coordinates can be obtained from the U.C. Davis Tahoe Research Group.

Biological Indicators - For Lake Tahoe, algal productivity and the biomass of phytoplankton, zooplankton, and periphyton shall not be increased beyond the levels recorded in 1967-71, based on statistical comparison of seasonal and annual means. The "1967-71 levels" are reported in the annual summary reports of the "CaliforniaNevada-Federal Joint Water Quality Investigation of Lake Tahoe" published by the California Department of Water Resources.

Clarity - For Lake Tahoe, the vertical extinction coefficient shall be less than 0.08 per meter when measured below the first meter. When water is too shallow to determine a reliable extinction coefficient, the turbidity shall not exceed 3 Nephelometric Turbidity Units (NTU). In addition, turbidity shall not exceed 1 NTU in shallow waters not directly influenced by stream discharges. The Regional Board will determine when water is too shallow to determine a reliable vertical extinction coefficient based upon its review of standard limnological methods and on advice from the U.C. Davis Tahoe Research Group.

Conductivity, Electrical - In Lake Tahoe, the mean annual electrical conductivity shall not exceed 95 umhos/cm at 50°C at any location in the Lake.

Plankton Counts - For Lake Tahoe, the mean seasonal concentration of plankton organisms shall not be greater than 100 per ml and the maximum concentration shall not be greater than 500 per ml at any point in the Lake.

WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
LAKE TAHOE HYDROLOGIC UNIT

	Surface Waters	Objective (mg/L except as noted) [1,2]						
		TDS	Cl	SO_4	B	N	P	Fe
1	Lake Tahoe	60 65	3.0 4.0	1.0 2.0	0.01 -	0.15 -	0.008 -	--
2	Fallen Leaf Lake	50 -	0.30 0.50	1.3 1.4	0.01 0.02	See Table 5.1-4 for additional objectives		
3	Griff Creek	80 -	0.40 -	--	--	0.19 -	0.010 -	0.03 -
4	Carnelian Bay Creek	80 -	0.40 -	--	--	0.19 -	0.015 -	0.03 -
5	Watson Creek	80 -	0.35 -	--	--	0.22 -	0.015 -	0.04 -
6	Dollar Creek	80 -	0.30 -	--	--	0.16 -	0.030 -	0.03 -
7	Burton Creek	90 -	0.30 -	--	--	0.16 -	0.015 -	0.03 -
8	Ward Creek	70 85	0.30 0.50	1.4 2.8	--	0.15 -	0.015 -	0.03 -
9	Blackwood Creek	70 90	0.30 -	--	--	0.19 -	0.015 -	0.03 -
10	Madden Creek	60 -	0.10 0.20	--	--	0.18 -	0.015 -	0.015 -
11	McKinney Creek	55 -	0.40 0.50	--	--	0.19 -	0.015 -	0.03 -
12	General Creek	50 90	1.0 1.5	0.4 0.5	--	0.15 -	0.015 -	0.03 -
13	Meeks Creek	45 -	0.40 -	--	--	0.23 -	0.010 -	0.07 -
14	Lonely Gulch Creek	45 -	0.30 -	--	--	0.19 -	0.015 -	0.03 -
	continued...							

See Fig. 5.1-1	Surface Waters	Objective (mg/L except as noted) [1,2]						
		TDS	Cl	SO_4	B	N	P	Fe
15	Eagle Creek	35 -	0.30 -	--	--	0.20 -	0.010 -	0.03 -
16	Cascade Creek	30 -	0.40 -	--	--	0.21 -	0.005 -	0.01 -
17	Tallac Creek	60 -	0.40 -	--	--	0.19 -	0.015 -	0.03 -
18	Taylor Creek	35 -	0.40 0.50	--	--	0.17 -	0.010 -	0.02 -
19	Upper Truckee River	55 75	4.0 5.5	1.0 2.0		0.19 -	0.015 -	0.03 -
20	Trout Creek	50 60	0.15 0.20	--	--	0.19 -	0.015 -	0.03 -

[1] Annual average value/90th percentile value.
[2] Objectives are as mg/L and are defined as follows:
B Boron
Cl Chloride
SO_4 Sulfate
Fe Iron, Total
N Nitrogen, Total
P Phosphorus, Total
TDS Total Dissolved Solids (Total Filterable Residues)

Compliance with Water Quality Objectives

This section includes general direction on determining compliance with the nondegradation, narrative and numerical objectives described in this Chapter. (Specific direction on compliance with certain objectives is included, in italics, following the text of the objective.) It is not feasible to cover all circumstances and conditions which could be created by all discharges. Therefore, it is within the discretion of the Regional Board to establish other, or additional, direction on compliance with objectives of this Plan. Where more than one objective is applicable, the **stricter objective shall apply**. (The only exception is where a regionwide objective has been superseded by the adoption of a site-specific objective by the Regional Board.) Where objectives are not specifically designated, downstream objectives apply to upstream tributaries.

Narrative and Numerical Objectives

The sections below provide additional direction on determining compliance with the narrative and numerical objectives of this Basin Plan.

Pollution and/or Nuisance

In determining compliance with narrative objectives which include the terms "pollution" and or "nuisance," the Regional Board considers the following definitions from the Porter-Cologne Water Quality Control Act.

Pollution -- an alteration of the waters of the State by waste to the degree which unreasonably affects either of the following:

- such waters for beneficial uses.
- facilities which serve these beneficial uses.

"Pollution" may include "contamination." Contamination means an impairment of the quality of the waters of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. Contamination includes any equivalent effect resulting from the disposal of waste, whether or not waters of the State are affected.

Nuisance -- Anything which meets all of the following requirements:

- Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
- Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
- Occurs during or as a result of the treatment or disposal of wastes.

References to Taste and Odor, Human Health and Toxicity (also see "acute toxicity" and "chronic toxicity," below):

In determining compliance with objectives including references to Taste and Odor, Human Health or Toxicity, the Regional Board will consider as evidence relevant and scientifically valid water quality goals from sources such as drinking water standards from the California Department of Health Services (State "Action Levels"), the National Interim Drinking Water Standards, Proposition 65 Lawful Levels, National Ambient Water Quality Criteria (USEPA's "Quality Criteria for Water" for the years 1986, 1976 and 1972; "Ambient Water Quality Criteria," volumes 1980, 1984, 1986, 1987 and 1989), the National Academy of Sciences' Suggested No-Adverse- Response Levels (SNARL), USEPA's Health and Water Quality Advisories, as well as other relevant and scientifically valid evidence.

References to Agriculture or AGR designations:

In determining compliance with objectives including references to the AGR designated use, the Regional Board will refer to water quality goals and recommendations from sources such as the Food and Agriculture Organization of the United Nations, University of California Cooperative Extension, Committee of Experts, and McKee and Wolf's "Water Quality Criteria" (1963).

References to "Natural High Quality Waters":

The Regional Board generally considers "natural high quality water(s)" to be those waters with ambient water quality equal to, or better than, current drinking water standards. However, the Regional Board also recognizes that some waters with poor chemical quality may support important ecosystems (e.g., Mono Lake).

References to "10 percent significance level":

A statistical hypothesis is a statement about a random variable's probability distribution, and a decision-making procedure about such a statement is a hypothesis test. In testing a hypothesis concerning the value of a population mean, the null hypothesis is often used. The null hypothesis is that there is no difference between the population means (e.g., the mean value of a water quality parameter after the discharge is no different than before the discharge.) First a level of significance to be used in the test is specified, and then the regions of acceptance and rejection for evaluating the obtained sample mean are determined.

At the **10 percent significance level**, assuming normal distribution, the acceptance region (where one would correctly accept the null hypothesis) is the interval which lies under 90 percent of the area of the standard normal curve. Thus, a level of **significance of 10 percent** signifies that when the population mean is correct as specified, the sample mean will fall in the areas of rejection only 10 percent of the time.

If the hypothesis is rejected when it should be accepted, a Type I error has been made. In choosing a **10 percent level of significance**, there are 10 chances in 100 that a Type I error was made, or the hypothesis was rejected when it should have been accepted (i.e., one is 90 percent confident that the right decision was made.)

The **10 percent significance level** is often incorrectly referred to as the 90 percent significance level. As explained above, the significance level of a test should be low, and the confidence level of a confidence interval should be high.

References to "Means" (e.g., annual mean, mean of monthly means), "Medians" and "90th percentile values":
"**Mean**" is the arithmetic mean of all data. "**Annual mean**" is the arithmetic mean of all data collected in a one-year period. "**Mean of monthly mean**" is the arithmetic mean of 30-day averages (arithmetic means). The **median** is the value which half of the values of the population exceed and half do not. The **average value** is the arithmetic mean of all data. For a **90th percentile value**, only 10% of data exceed this value.

Compliance determinations shall be based on available analyses for the time interval associated with the discharge. If only one sample is collected during the time period associated with the water quality objective, (e.g., monthly mean), that sample shall serve to characterize the discharge for the entire interval. Compliance based upon multiple samples shall be determined through the application of appropriate statistical methods.

Standard Analytical Methods to Determine Compliance with Objectives Analytical methods to be used are usually specified in the monitoring requirements of the waste discharge permits. Suitable analytical methods are:

- those specified in 40 CFR Part 136, and/or
- those methods determined by the Regional Board and approved by the USEPA to be equally or more sensitive than 40 CFR Part 136 methods and appropriate for the sample matrix, and/or
- where methods are not specified in 40 CFR Part 136, those methods determined by the Regional Board to be appropriate for the sample matrix

All analytical data shall be reported uncensored with method detection limits and either practical quantitation levels or limits of quantitation identified. Acceptance of data should be based on demonstrated laboratory performance.

For **bacterial analyses**, sample dilutions should be performed so the range of values extends from 2 to 16,000. The detection method used for each analysis shall be reported with the results of the analysis. Detection methods used for coliforms (total and fecal) shall be those presented in Standard Methods for the Examination of Water and Wastewater (American Public Health Association et al. 1992), or any alternative method determined by the Regional Board to be appropriate.

For **acute toxicity**, compliance shall be determined by short-term toxicity tests on undiluted effluent using an established protocol (e.g., American Society for Testing and Materials [ASTM], American Public Health Association, USEPA, State Board).

For **chronic toxicity**, compliance shall be determined using the critical life stage (CLS) toxicity tests. At least three approved species shall be used to measure compliance with the toxicity objective. If possible, test species shall include a vertebrate, an invertebrate, and an aquatic plant. After an initial

screening period, monitoring may be reduced to the most sensitive species. Dilution and control waters should be obtained from an unaffected area of the receiving waters. For rivers and streams, dilution water should be obtained immediately upstream of the discharge. Standard dilution water can be used if the above sources exhibit toxicity greater than 1.0 Chronic Toxicity Units. All test results shall be reported to the Regional Board in accordance with the "Standardized Reporting Requirements for Monitoring Chronic Toxicity" (State Board Publication No. 93-2 WQ).

Application of Narrative and Numerical Water Quality Objectives to Wetlands

Although not developed specifically for wetlands, many surface water **narrative objectives** are generally applicable to most wetland types. However, the Regional Board recognizes, as with other types of surface waters such as saline or alkaline lakes, that natural water quality characteristics of some wetlands may not be within the range for which the narrative objectives were developed. The Regional Board will consider site-specific adjustments to the objectives for wetlands (bacteria, pH, hardness, salinity, temperature, or other parameters) as necessary on a case-by-case basis.

The **numerical criteria** to protect one or more beneficial uses of surface waters, where appropriate, may directly apply to wetlands. For example, wetlands which actually are, or which recharge, municipal water supplies should meet human health criteria. The USEPA numeric criteria for protection of freshwater aquatic life, as listed in Quality Criteria for Water—1986, although not developed specifically for wetlands, are generally applicable to most wetland types. As with other types of surface waters, such as saline or alkaline lakes, natural water quality characteristics of some wetlands may not be within the range for which the criteria were developed. Adjustments for pH, hardness, salinity, temperature, or other parameters may be necessary. The Regional Board will consider developing site-specific objectives for wetlands on a case-by-case basis.

ATTACHMENT G

STANDARD PROVISIONS, REPORTING REQUIREMENTS, AND NOTIFICATIONS FOR NPDES PERMITS

A. Standard Permit Provisions

Code of Federal Regulations Title 40 section 122.41 (40 CFR 122.41) includes conditions, or provisions, that apply to all National Pollution Discharge Elimination System (NPDES) permits. Additional provisions applicable to NPDES permits are in 40 CFR 122.42. All applicable provisions in 40 CFR 122.41 and 40 CFR 122.42 shall be incorporated into this Order and NPDES permit. The applicable 40 CFR 122.41 and 40 CFR 122.42 provisions are as follows:

1. Duty to Comply [CFR 122.41(a)]

The Permittees shall comply with all of the provisions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

a. The Permittees shall comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement. [40 CFR 122.41(a)(1); California Water Code (Water Code) sections 13261, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350, 13385)]

b. The CWA provides that any person who violates Section 301, 302, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under Section 402(a)(3) or 402(b)(8) of the CWA, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who negligently violates Section 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any condition or limitation implementing any of such sections in a permit issued under Section 402 of the CWA, or any requirement imposed in a pretreatment program approved under Section

402(a)(3) or 402(b)(8) of the CWA, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates Section 301, 302, 303, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under of the CWA, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than fifteen (15) years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than thirty (30) years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions. [40 CFR 122.41(a)(2)].

c. Any person may be assessed an administrative penalty by the Lahontan Regional Water Quality Control Board (Water Board), State Water Resources Control Board (State Water Board), or United States Environmental Protection Agency (USEPA) for violating Section 301, 302, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000. [40 CFR 122.41(a)(3)].

2. Duty to Reapply [40 CFR 122.41(b)]

If the Permittees wish to continue an activity regulated by this permit after the expiration date of this permit, the Permittee shall apply for and obtain a new permit.

3. Need to Halt or Reduce Activity Not A Defense [40 CFR 122.41(c)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. Duty to Mitigate [40 CFR 122.41(d)]

The Permittees shall take all reasonable steps to minimize or prevent any discharge or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

5. Proper Operation and Maintenance [40 CFR 122.41(e)]

The Permittees shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

6. Permit Actions [40 CFR 122.41(f)]

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by a Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7. Property Rights [40 CFR 122.41(g)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

8. Duty to Provide Information [40 CFR 122.41(h)]

Permittees shall furnish to the Lahontan Water Board, State Water Board, or USEPA within a reasonable time, any information which the Lahontan Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee shall also furnish to the Lahontan Water Board, State Water Board, or USEPA upon request, copies of records required to be kept by this permit.

9. Inspection and Entry [40 CFR 122.41(i)]

The Permittees shall allow the Lahontan Water Board, State Water Board, USEPA, and/or their authorized representative (including an authorized contractor acting as their representative), upon presentation of credentials and other documents as may be required by law, to [33 United States Code section 1318(a)(4)(B); 40 CFR 122.41(i); California Water Code sections 13267 and 13383]:

a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this permit; [40 CFR 122.41(i)(1)]

b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this permit; [40 CFR 122.41(i)(2)]

c. Inspect and photograph at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; [40 CFR 122.41(i)(3)] and

d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location. [40 CFR 122.41(i)(4)]

10. Monitoring and Records [40 CFR 122.41(j); 40 CFR 122.44(i)]

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. [40 CFR 122.41(j)(1)]

b. The Permittees shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation,

copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Lahontan Water Board at any time. [40 CFR 122.41(j)(2)]

c. Records for monitoring information shall include: [40 CFR 122.41(j)(3)]

   i. The date, exact place, and time of sampling or measurements; [40 CFR 122.41(j)(3)(i)] i

   ii. The individual(s) who performed the sampling or measurements; [40 CFR 122.41(j)(3)(ii)]

   iii. The date(s) analyses were performed; [40 CFR 122.41(j)(3)(iii)]

   iv. The individual(s) who performed the analyses; [40 CFR 122.41(j)(3)(iv)]

   v. The analytical techniques or methods used; [40 CFR 122.41(j)(3)(v)] and

   vi. The results of such analyses. [40 CFR 122.41(j)(3)(vi)]

d. Monitoring shall be conducted according to test procedures under 40 CFR Part 136 unless another method is required under 40 CFR Subchapters N or O. [40 CFR 122.41(j)(4)] In the case of pollutants for which there are no approved methods under 40 CFR Part 136 or otherwise required under 40 CFR Subchapters N and O, monitoring shall be conducted according to a test procedure specified in the permit for such pollutants. [40 CFR 122.44(i)(1)(iv)]

e. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or both. [40 CFR 122.41(j)(5)]

11. Signatory Requirement [40 CFR 122.41(k); 40 CFR 122.22(a)-(d)]

a. All applications, reports, or information submitted to the Lahontan Board, State Water Board, or USEPA shall be signed and certified. (See 40 CFR 122.22) [40 CFR 122.41(k)(1)]

i. For a municipality, State, Federal, or other public agency. [All applications shall be signed] [b]y either a principal executive officer or ranking elected official. [40 CFR 122.22(a)(3)]

ii. All reports required by permits, and other information requested by the Lahontan Water Board, State Water Board, or USEPA shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if: [40 CFR 122.22(b)]

(1) The authorization is made in writing by a person described in paragraph (a) of this section; [40 CFR 122.22(b)(1)]

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company, (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) [40 CFR 122.22(b)(2)] and,

(3) The written authorization is submitted to the Lahontan Water Board and State Water Board. [40 CFR 122.22(b)(3)].

iii. Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section shall be submitted to the Lahontan Water Board prior to or together with any reports, information, or applications to be signed by an authorized representative. [40 CFR 122.22(c)]

iv. Certification. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." [40 CFR 122.22(d)]

b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both. [40 CFR 122.41(k)(2)]

12. Reporting Requirements [40 CFR 122.41(l)]

a. Planned changes. The Permittee shall give notice to the Lahontan Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when: [40 CFR 122.41(l)(1)]

i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); [40 CFR 122.41(l)(1)(i)] or

ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1). [40 CFR 122.41(l)(1)(ii)]

iii. The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. [40 CFR 122.41(l)(1)(iii)]

b. Anticipated noncompliance. The Permittee shall give advance notice to the Lahontan Water Board of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. [40 CFR 122.41(l)(2)]

c. Transfers. This permit is not transferable to any person except after notice to the Lahontan Water Board. The Lahontan Water Board may require modification or revocation and reissuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the CWA. [40 CFR 122.41(l)(3)]

d. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit. [40 CFR 122.41(l)(4)]

i. Monitoring results shall be reported as specified by the Lahontan Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. [40 CFR 122.41(l)(4)(i)]

ii. If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or another method required for an industry-specific waste stream under 40 CFR Subchapters N or O, the results of this monitoring shall be included in the calculation and reporting of the data submitted to the Lahontan Water Board or State Water Board.

iii. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit. [40 CFR 122.41(l)(4)(iii)]

e. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date. [40 CFR 122.41(l)(5)]

f. Twenty-four hour reporting.

i. The Permittees shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written

submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6)(i)]

ii. The Lahontan Water Board may waive the written report on a case-by-case basis if the oral report has been received within twenty-four (24) hours. [40 CFR 122.41(l)(6)(iii)]

g. Other noncompliance. The Permittees shall report all instances of noncompliance not reported in accordance with the standard provisions required under 40 CFR 122.41(l)(4), (5), and (6), at the time monitoring reports are submitted. The reports shall contain the information listed in the standard provisions required under 40 CFR 122.41(l)(6). [40 CFR 122.41(l)(7))]

h. Other information. When the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Lahontan Water Board, State Water Board, or USEPA, the Permittee shall promptly submit such facts or information.

13. Bypass [40 CFR 122.41(m)]

a. Definitions.

i. *Bypass* means the intentional diversion of waste streams from any portion of a treatment facility. [40 CFR 122.41(m)(1)(i)] or

ii. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. [40 CFR 122.41(m)(1)(ii)]

b. Bypass not exceeding limitations. The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the standard provisions required under 40 CFR 122.41(m)(3) and (4). [40 CFR 122.41(m)(2)]

c. Notice.

i. Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it shall submit a notice, if possible at least ten (10) days before the date of the bypass. [40 CFR 122.41(m)(3)(i)] or

ii. Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass in accordance with the standard provisions required under 40 CFR 122.41(l)(6) (24-hour notice). [40 CFR 122.41(m)(3)(ii)]

d. Prohibition of Bypass.

i. Bypass is prohibited, and the Lahontan Water Board may take enforcement action against a Permittee for bypass, unless: [40 CFR 122.41(m)(4)(i)]

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; [40 CFR 122.41(m)(4)(i)(A)]

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; [40 CFR 122.41(m)(4)(i)(B)] and,

(3) The Permittee submitted notices in accordance with the standard provisions required under 40 CFR 122.41(m)(3). [40 CFR 122.41(m)(4)(i)(C)]

ii. The Lahontan Water Board may approve an anticipated bypass, after considering its adverse effects, if the Lahontan Water Board determines that it will meet the three (3) conditions listed above. [40 CFR 122.41(m)(4)(ii)]

14. Upset [40 CFR 122.41(n)]

a. Definition. *Upset* means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include

noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. [40 CFR 122.41(n)(1)]

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the standard provisions required under 40 CFR 122.41(n)(3) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. [40 CFR 122.41(n)(2)]

c. Conditions necessary for a demonstration of upset. A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that: [40 CFR 122.41(n)(3)]

   i. An upset occurred and that the Permittee can identify the cause(s) of the upset; [40 CFR 122.41(n)(3)(i)]

   ii. The permitted facility was at the time being properly operated; [40 CFR 122.41(n)(3)(ii)] and

   iii. The Permittee submitted notice of the upset in accordance with the standard provisions required under 40 CFR 122.41(l)(6)(ii)(B) (24-hour notice). [40 CFR 122.41(n)(3)(iii)]

   iv. The Permittee complied with any remedial measures pursuant to the standard provisions required under 40 CFR 122.41(d). [40 CFR 122.41(n)(3)(iii)]

d. Burden of proof. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof. [40 CFR 122.41(n)(4)]

15. Standard Permit Provisions For Municipal Separate Storm Sewer Systems [40 CFR 122.42(c)]

The operator of a small, medium, or large MS4 or a municipal separate storm sewer that has been designated by the Lahontan Water Board under 40 CFR 122.26(a)(1)(v) shall submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include:

a. The status of implementing the components of the Storm Water Management Program that are established as permit conditions; [40 CFR 122.42(c)(1)]

b. Proposed changes to the Storm Water Management Program that are established as permit conditions. Such proposed changes shall be consistent with 40 CFR 122.26(d)(2)(iii); [40 CFR 122.42(c)(2)] and

c. Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under 40 CFR 122.26(d)(2)(iv) and (v); [40 CFR 122.42(c)(3)]

d. A summary of data, including monitoring data, that is accumulated throughout the reporting year; [40 CFR 122.42(c)(4)]

e. Annual expenditures and budget for year following each annual report; [40 CFR 122.42(c)(5)]

f. A summary describing the number and nature of enforcement actions, inspections, and public education programs; [40 CFR 122.42(c)(6)]

g. Identification of water quality improvements or degradation. [40 CFR 122.42(c)(7)]

16. Standard Permit Provisions For Storm Water Discharges [40 CFR 122.42(d)]

The initial permits for discharges composed entirely of storm water issued pursuant to 40 CFR 122.26(e)(7) shall require compliance with the conditions of the permit as expeditiously as practicable, but in no event later than three (3) years after the date of issuance of the permit.

B. General Provisions

In addition to the standard provisions required to be incorporated into the Order and NPDES permit pursuant to 40 CFR 122.22, 122.41, 122.42, 122.44, and 40 CFR Part 136 several other general provisions apply to this Order. The general provisions applicable to this Order and NPDES permit are as follows:

1. Discharge of Waste Is a Privilege

No discharge of waste into the waters of the State, whether or not such discharge is made pursuant to waste discharge requirements, shall create a vested right to continue the discharge. All discharges of waste into waters of the State are privileges, not rights. [Water Code section 13263(g)]

2. Duration of Order and NPDES Permit

a. Effective date. This Order and NPDES permit becomes effective on 100 days after its adoption provided the USEPA has no objection. If the USEPA objects to its issuance, this Order shall not become effective until such objection is withdrawn.

   As of the effective coverage date specified in the Permittee's application for coverage, this Order shall supersede the applicability of any preexisting order or permit regulating the operation of, and discharges from, the Permittee's MS4. The Lahontan Water Board retains continuing authority to take enforcement action for violations of such preexisting orders or permits that occurred prior to the Permittee's effective coverage date under this Order.

b. Expiration. This Order and NPDES permit expires five (5) years after its effective date. [40 CFR 122.46(a)]
c. Continuation of expired order. After this Order and NPDES permit expires, the terms and conditions of this Order and NPDES permit are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations on the continuation of expired permits (40 CFR 122.6) are complied with.

3. Availability

A copy of this Order shall be kept at a readily accessible location and shall be available to on-site personnel at all times.

4. Confidentiality of Information

Except as provided for in 40 CFR 122.7, no information or documents submitted in accordance with or in application for this Order will be considered confidential and all such information and documents shall be available for review by the public at the Lahontan Water Board office. Claims of confidentiality for the following information will be denied: [40 CFR 122.7(b)]

a. The name and address of any permit applicant or Permittee; [40 CFR 122.7(b)(1)] and

b. Permit applications and attachments, permits, and effluent data. [40 CFR 122.7(b)(2)]

5. Effluent Limitations

a. Interim effluent limitations. The Permittee shall comply with any interim effluent limitations as established by addendum, enforcement action, or revised waste discharge requirements which have been, or may be, adopted by the Lahontan Water Board.

b. Other effluent limitations and standards of sections 301, 302, 303, 307, 318 and 405 of CWA. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in the permit, the Lahontan Water Board shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition. [40 CFR 122.44(b)(1)]

6. Permit Actions

The filing of a request by the Permittee for modification, revocation and reissuance, or termination of this Order, or a notification of planned change in or anticipated noncompliance with this Order does not stay any condition of this Order. (See 40 CFR 122.41(f)) In addition, the following provisions apply to this Order:

a. Upon application by any affected person, or on its own motion, the Lahontan Water Board may review and revise the requirements in this Order. All requirements shall be reviewed periodically. [Water Code section 13263(e)]

b. This Order may be terminated or modified for cause, including, but not limited to, all of the following: [Water Code section 13381]

   i. Violation of any condition contained in the requirements of this Order. [Water Code section 13381(a)]

   ii. Obtaining the requirements in this Order by misrepresentation, or failure to disclose fully all relevant facts. [Water Code section 13381(b)]

iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge. [Water Code section 13381(c)]

c. When this Order is transferred to a new owner or operator, such requirements as may be necessary under the Water Code can be incorporated into this Order.

7. Monitoring

In addition to the standard provisions required under 40 CFR 122.41(j) and (l)(4), the following general monitoring provisions apply to this Order:

a. Where procedures are not otherwise specified in Order, sampling, analysis and quality assurance/quality control shall be conducted in accordance with the Quality Assurance Management Plan (QAMP) for the State of California's Surface Water Ambient Monitoring Program (SWAMP), adopted by the State Water Resources Control Board.

b. Pursuant to 40 CFR 122.41(j)(2) and Water Code section 13383(a), the Permittees shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least five (5) years from the date of the sample, measurement, report or application. This period may be extended by request of the Lahontan Water Board at any time.

c. All chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Public Health or a laboratory approved by Lahontan Water Board staff.

d. Each monitoring report submitted with an Annual Report to the Lahontan Water Board shall include flow measurements for each sampling event and a spreadsheet of water quality monitoring with the sampling event identifier, site code, sample type, date and time sampled, analyte and fraction, methods, results, including nondetections, reporting and minimum detection limits, units, laboratory names and locations, lowest water quality objective and source, and whether or not the result was an exceedance.

8. Enforcement

a. The Lahontan Water Board is authorized to enforce the terms of this Order under several provisions of the Water Code, including, but not limited to, Water Code sections 13385, 13386, and 13387.

b. Nothing in this Order shall be construed to protect the Permittee from its liabilities under federal, state, or local laws.

c. The Water Code provides for civil and criminal penalties comparable to, and in some cases greater than, those provided for under the CWA.

d. Except as provided in the standard conditions required under 40 CFR 122.41(m) and (n), nothing in this Order shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance.

e. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject to under Section 311 of the CWA.

f. Nothing in this Order shall be construed to preclude institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authoring preserved by Section 510 of the CWA.

9. Severability

The provisions of this Order are severable, and if any provision of this Order, or the application of any provisions of this Order to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected thereby.

10. Applications

Any application submitted by the Permittee for reissuance or modification of this Order shall satisfy all applicable requirements specified in federal regulations as well as any additional requirements for submittal of a Notice of Intent specified in the Water Code and the California Code of Regulations.

11. Implementation

All plans, reports and subsequent amendments submitted in compliance with this Order shall be implemented immediately (or as otherwise specified). All submittals by the Permittee shall be adequate to implement the requirements of this Order.

12. Modification of Order

This Order may be modified, revoked, and reissued, or terminated for cause due to promulgation of amended regulations, receipt of USEPA guidance concerning regulated activities, judicial decision, or in accordance with 40 CFR 122.62, 122.63, 122.64, and 124.5. The Lahontan Water Board may additionally reopen and modify this Order at any time prior to its expiration, after opportunity for public comment and a public hearing in accordance with the following circumstances:

a. If the Lahontan Water Board determines that revisions are warranted to those provisions of the Order (a) addressing compliance with water quality objectives or water quality standards in the receiving water; and/or (b) those provisions of the Order establishing an iterative process for implementation of management practices to assure compliance with water quality standards in the receiving waters.

b. Minor modifications to the Order may be made by the Lahontan Water Board where the proposed modification complies with all the prohibitions and limitations, and other requirements of this Order.

c. Proposed modifications to the Order that are not minor require amendment of this Order in accordance with this Order's rules, policies, and procedures.

d. New or revised water quality objectives come into effect, or any TMDL is adopted or revised (i.e., TMDL-specific permit requirements) that is applicable to the Permittee. E

e. New programs, policies or plans come into effect that are applicable to the Permittee.

13. Report Submittals

a. All report submittals shall include an executive summary, introduction, conclusion, recommendations, and signed certified statement.

b. Each Permittee shall submit a signed certified statement covering its responsibilities for each applicable submittal.

c. The Permittee shall submit a signed certified statement covering its responsibilities for each applicable submittal and the sections of the submittals for which it is responsible.

d. Unless otherwise directed, the Permittee shall submit electronic copies of each report required under this Order to the Lahontan Water Board,

e. The Permittee shall submit reports and provide notifications as required by this Order to the following:

EXECUTIVE OFFICER
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION
2501 LAKE TAHOE BOULEVARD
SOUTH LAKE TAHOE, CA 96150
Telephone: (530) 542-5400 Fax: (530) 544-2271

County of El Dorado, State of California
Department of Transportation

PW 18-31210, CIP No. 72192, Contract 2531

ELKS CLUB DRIVE CAPITAL OVERLAY AND REHABILITATION PROJECT

THIS AGREEMENT ("Agreement") approved by the Board of Supervisors this ___ st day of _____, in the year of 20_, made and concluded, in duplicate, between the COUNTY OF EL DORADO, a political subdivision of the State of California, by the Department of Transportation thereof, the party of the first part hereinafter called "County," and [CONTRACTOR], party of the second part hereinafter called "Contractor."

RECITALS:

WHEREAS, County has caused the above-captioned project to be let to formal bidding process; and

WHEREAS, Contractor has duly submitted a bid response for the captioned project upon which County has awarded this Contract;

NOW, THEREFORE, the parties hereto have mutually covenanted and agreed, and by these presents do covenant and agree, each with the other, as follows:

Article 1. THE WORK

The improvement contemplated in the performance of this Contract is an improvement over which the County shall exercise general supervision. The County, therefore, shall have the right to assume full and direct control over this Contract whenever the County, at its sole discretion, shall determine that its responsibility is so required.

Contractor shall complete the Work as specified or indicated under the Bid Schedule(s) of County's Contract Documents entitled:

ELKS CLUB DRIVE CAPITAL OVERLAY AND REHABILITATION PROJECT

The Project is located in County of El Dorado in the Tahoe Basin along Elks Club Drive in South Lake Tahoe. The Work to be done is shown on the Plans, described in the Special Provisions and generally consists of, but is not limited to:
Construction of approximately 07 miles of two (2) inches of compacted AC Overlay with a geosynthetic pavement interlayer placed on Elks Club Drive, three (3) inch deep full width grinds along the above streets with two (2) inch grinds at all marked intersections, constructing concrete rolled curb and gutter, traffic control, installation of temporary pavement markers and construction area signing, and the installation and removal of temporary erosion control measures. Other items or details not mentioned above, that are required by the plans, Standard Plans, Standard Specifications, or these Special Provisions must be performed, constructed or installed.

Article 2. CONTRACT DOCUMENTS

The Contract Documents consist of: the Notice to Bidders; the bid forms which include the accepted Proposal, Bid Price Schedule and Total Bid, Subcontractor List, Section 10285.1 Statement, Section 10162 Questionnaire, Section 10232 Statement, Noncollusion Affidavit, Iran Contracting Act Certification, the Contract which includes this Agreement with all Exhibits thereto, including the, the Performance Bond, and Payment Bond, the drawings listed and identified as the Project Plans; the Special Provisions which incorporate by reference the State of California Department of Transportation (Caltrans) Standard Plans 2015, and Standard Specifications 2015, Revised Standard Specifications, and standard drawings from the Design and Improvement Standards Manual of the County of El Dorado, revised March 8, 1994 including

Resolution 199-91 and Resolution 58-94 to adopt changes to the Design and Improvement Standards Manual; all Addenda incorporated in those documents before their execution, and all Contract Change Orders issued in accordance with the Contract Documents which may be delivered or issued after the Effective Date of this Agreement and are not attached hereto; the prevailing Labor Surcharge And Equipment Rental Rates (when required) as determined by the Caltrans to be in effect on the date the Work is accomplished; all the obligations of County and of Contractor which are fully set forth and described therein; and all Contract Documents which are hereby specifically referred to and by such reference made a part hereof. All Contract Documents are intended to cooperate so that any Work called for in one and not mentioned in the other is to be executed the same as if mentioned in all Contract Documents. Contractor agrees to perform all of its promises, covenants, and conditions set forth in the Contract Documents, and to abide by and perform all terms and conditions set forth therein. In case of conflict between this Agreement and any other Contract Document, this Agreement shall take precedence.

Article 3. COVENANTS AND CONTRACT PRICE

County hereby promises and agrees with said Contractor to employ, and does hereby employ, said Contractor to provide the material and to do the Work according to the terms and conditions of the Contract Documents herein contained and referred to, for the prices hereinafter set forth, and hereby contracts to pay the same at the time, in the manner and upon the conditions herein set forth; and the said parties for themselves, their heirs, executors, administrators, successors and assigns, do hereby agree to the full performance of the covenants herein contained. County shall pay Contractor for the completion of the Work in accordance with the Contract Documents in current funds the Contract Prices named in Contractor's Bid and Bid Price Schedule, a copy of which is attached hereto as Exhibit A.

Article 4. COMMENCEMENT AND COMPLETION

The Work to be performed under this Contract shall commence on the date specified in the Notice to Proceed issued by County, and the Work shall be fully completed within the time specified in the Notice to Proceed pursuant to Section 8 of the Special Provisions.

County and Contractor recognize that time is of the essence of the Agreement and that County will suffer financial loss if the Work is not completed within the time specified in the Notice to Bidders annexed hereto, plus any extensions thereof allowed in accordance with Section 8 of the Standard Specifications and Special Provisions. They also recognize the delays, expense, and difficulties involved with proving in a legal proceeding the actual loss suffered by County if the Work is not completed on time. Accordingly, instead of requiring any such proof, County and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay County the sum of **$1,900** , as liquidated damages and not as a penalty, for each and every calendar day's delay in finishing the Work in excess of the Contract time prescribed herein. . If only Schedule A Work is awarded, liquidated damages will be assessed for each and every calendar day's delay in finishing the Work in Schedule A in excess of the **twenty (20) working days** prescribed herein. If both Schedule A and Schedule B Work are awarded, liquidated damages will be assessed for each and every calendar day's delay in finishing the Work in both Schedules A and B in excess of the **thirty (30) working days** prescribed herein.

Article 5. INDEMNITY

To the fullest extent allowed by law, Contractor shall defend, indemnify, and hold County, its (their) officers, directors, and employees, and the State of California (State), its officers, directors, agents (excluding agents who are design professionals), and any Federal government agencies associated with this Contract harmless against and from any and all claims, suits, losses, damages, and liability for damages, including attorney's fees and other costs of defense brought for or on account of injuries to or death of any person, including but not limited to, workers and the public, or on account of injuries to or death of County, State, or Federal government agency employees, or damage to property, or any economic, consequential or special damages which are claimed or which shall in any way arise out of or be connected with Contractor's services, operations or performance hereunder, regardless of the existence or degree of fault or negligence on the part of the County, the State of California, or any Federal government agencies, the Contractor, subcontractors or employees of any of these, except for the active, or sole negligence of the County, the State of California or any Federal government agencies their officers and employees, or where expressly prescribed by statute.

The duty to indemnify and hold harmless the County, the State, and any Federal government agencies associated with this Contract specifically includes the duties to defend set forth in Section 2778 of the Civil Code. The insurance obligations of Contractor are separate, independent obligations under the Contract Documents, and the provisions of this defense and indemnity are not intended to modify nor should they be construed as modifying or in any way limiting the insurance obligations set forth in the Contract Documents.

This indemnification will remain in effect until terminated or modified in writing by mutual agreement.

Article 6. VENUE

Any litigation arising out of this Contract shall be brought in El Dorado County and governed by California law.

Article 7. NOTIFICATION OF SURETY COMPANY

The surety company shall familiarize itself with all of the conditions and provisions of this Contract, and shall waive the right of special notification of any change or modifications of this Contract or extension of time, or of decreased or increased work, or of the cancellation of the Contract, or of any other act or acts by County or its authorized agents, under the terms of this Contract; and failure to so notify the aforesaid surety company of changes shall in no way relieve the surety company of its obligation under this Contract.

Article 8. ASSIGNMENT OF ANTITRUST ACTIONS

In entering into a public works Contract or a Subcontract to supply goods, services, or materials pursuant to a public works Contract, the Contractor offers and agrees and will require all of its subcontractors and suppliers to agree to assign to the awarding 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. Sec. 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, services, or materials pursuant to the public works Contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to Contractor, without further acknowledgment by the parties.

If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under Government Code Sections 4550-4554, 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. Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under Government Code Sections 4550-4554 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.

Article 9. TERMINATION BY COUNTY FOR CONVENIENCE

County reserves the right to terminate the Contract at any time upon determination by County's representative that termination of the Contract is in the best interest of County. County shall issue Contractor a written notice specifying that the Contract is to be terminated.

Upon receipt of said written notice, Contractor shall stop all Work under the Contract except: (1) Work specifically directed to be completed prior to termination, (2) Work the Inspector deems necessary to secure the project for termination, (3) removal of equipment and plant from the site of the Work, (4) action that is necessary to protect materials from damage, (5) disposal of materials not yet used in the Work as directed by County, and (6) clean-up of the site.

If the Contract is terminated for County's convenience as provided herein, all finished or unfinished Work and materials previously paid for shall, at the option of County, become its property. Contractor shall be paid an amount which reflects costs incurred for Work provided to the date of notification of termination. In addition, Contractor shall be paid the reasonable cost, as solely judged by County, and without profit, for all Work performed to secure the project for termination.

Article 10. TERMINATION BY COUNTY FOR CAUSE

If Contractor is adjudged as bankrupt or insolvent, or makes a general assignment for the benefit of its creditors or if a trustee or receiver is appointed for Contractor or for any of its property, or if Contractor files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or on more than one occasion fails to supply sufficient skilled workmen or suitable material or equipment, or on more than one occasion fails to make prompt payments to subcontractors for labor, materials, or equipment, or disregards the authority of the County's representative, or otherwise violates any provision of the Contract Documents, then County may, without prejudice to any other right or remedy and after giving Contractor and its Surety a minimum of ten (10) days from delivery of a written termination notice, terminate the services of Contractor and take equipment and machinery thereon owned by Contractor and finish the Work by whatever method County may deem expedient. In such case, Contractor shall not be entitled to receive any further payment until the Work is finished.

Without prejudice to other rights or remedies County may have, if Contractor fails to begin delivery of materials and equipment, to commence Work within the time specified, to maintain the rate of delivery of material, to execute the Work in the manner and at such locations as specified, or fails to maintain a Work program which will ensure County's interest, or, if Contractor is not carrying out the intent of the Contract, an Inspector's written notice may be served upon Contractor and the Surety on its faithful performance bond demanding satisfactory compliance with the Contract. If Contractor or its Surety does not comply with such notice within five (5) days after receiving it, or after starting to comply, fails to continue, County may exclude it from the premises and take possession of all material and equipment, and complete the Work by County's own forces, by letting the unfinished Work to another Contractor, or by a combination of such methods.

Where Contractor's services have been so terminated by County, said termination shall not affect any right of County against Contractor then existing or which may thereafter accrue. Any retention or payment of monies by County due Contractor will not release Contractor from compliance with the Contract Documents.

If the unpaid balance of the Contract price exceeds the direct and indirect costs of completing the Work, including compensation for additional professional services, such excess shall be paid to Contractor. If the sums under the Contract are insufficient for completion, Contractor or Surety shall pay to County within five (5) days after the completion, all costs in excess of the Contract price. In any event, the cost of completing the Work shall be charged against Contractor and its Surety and may be deducted from any money due or becoming due from County.

The provisions of this Article shall be in addition to all other rights and remedies available to County under law.

If after notice of termination, it is determined for any reason that Contractor was not in default, the rights and obligations of the parties shall be the same as if the notice of termination had not been issued. The Contract shall be equitably adjusted to compensate for such termination.

Article 11. SUCCESSORS AND ASSIGNS

This Agreement shall bind and inure to the heirs, devisees, assignees, and successors in interest of Contractor and to the successors in interest of County in the same manner as if such parties had been expressly named herein.

Article 12. REPORTING ACCIDENTS

Contractor shall prepare and submit (within 24 hours of such incidents) reports of accidents at the site and anywhere else the Work is in progress in which bodily injury is sustained or property loss in excess of Five Hundred Dollars ($500.00) occurs.

Article 13. EMISSIONS REDUCTION

Contractor shall comply with emission reduction regulations mandated by the California Air Resources Board, and sign a certification of knowledge thereof:

CERTIFICATE OF KNOWLEDGE – EMISSIONS REDUCTION REGULATIONS

I am aware of the emissions reduction regulations being mandated by the California Air Resources Board. I will comply with such regulations before commencing the performance of the Work and maintain compliance throughout the duration of this Contract.

Signed: _____Date_____

Article 14. WORKERS' COMPENSATION CERTIFICATION

Contractor shall comply with Labor Code Sections 3700 et seq., requiring it to obtain Workers' Compensation Insurance, and sign a certificate of knowledge thereof.

CERTIFICATE OF KNOWLEDGE - LABOR CODE SECTION 3700

I am aware of the provisions of Section 3700 of the Labor Code, which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of Work of this Contract.

Signed: _____Date_____

Article 15. WARRANTY

Contractor warrants to County that materials and equipment furnished for the Work will be of good quality and new, unless otherwise required or permitted under the Contract Documents, that the Work will be free from defects or flaws and is of the highest quality of workmanship and that the Work will conform with the requirements herein. Work not conforming to these requirements, including substitutions not properly approved and authorized, shall be considered defective.

Article 16. RETAINAGE

The retainage from payment is set forth in Section 9-1.16F(1) of the Special Provisions. Contractor may elect to receive one hundred percent (100%) of payments due as set forth in the Contract Documents, without retention, by depositing securities of equivalent value with County, in accordance with, and as set forth in Section 22300 of the Public Contract Code. Securities eligible for deposit hereunder shall be limited to those listed in Section 16430 of the Government Code, or bank or savings and loan certificates of deposit.

Article 17. RESERVED

Article 18. PREVAILING WAGE REQUIREMENTS

In accordance with the provisions of California Labor Code Sections 1770 et seq., including but not limited to Sections 1773, 1773.1, 1773.2, 1773.6, and 1773.7, the general prevailing rate of wages in the county in which the Work is to be done has been determined by the Director of the California Department of Industrial Relations. Interested parties can obtain the current wage information by submitting their requests to the Department of Industrial Relations, Division of Labor Statistics and Research, PO Box 420603, San Francisco CA 94142-0603, Telephone (415) 703-4708 or by referring to the website at

http://www.dir.ca.gov/ OPRL/PWD. The rates at the time of the bid advertisement date of a project will remain in effect for the life of the project in accordance with the California Code of Regulations, as modified and effective January 27, 1997.

Copies of the general prevailing rate of wages in the county in which the Work is to be done are also on file at the Department of Transportation's principal office, and are available upon request.

In accordance with the provisions of Labor Code 1810, eight (8) hours of labor constitutes a legal day's work upon all work done hereunder, and Contractor and any Subcontractor employed under this Contract must conform to and be bound by the provisions of Labor Code Sections 1810 through 1815.

This project is subject to the requirements of Title 8, Chapter 8, Subchapter 4.5 of the California Code of Regulations including the obligation to furnish certified payroll records directly to the Compliance Monitoring Unit under the Labor Commissioner within the Department of Industrial Relations Division of Labor Standards Enforcement in accordance with Section 16461.

Article 19. NONDISCRIMINATION

A. In connection with its performance under this Contract, Contractor shall comply with all applicable nondiscrimination statutes and regulations during the performance of this Contract including, but not limited to the following: Contractor, its employees, subcontractors and representatives shall not unlawfully discriminate against any employee or applicant for employment because of race, color, sex, sexual orientation, religion, ancestry or national origin, physical disability, medical condition, marital status, political affiliation, family and medical care leave, pregnancy leave or disability leave. Contractor will take affirmative action to ensure that employees are treated during employment, without regard to their race, color, sex, sexual orientation, religion, ancestry or national origin, physical disability, medical condition, marital status, political affiliation, family and medical care leave, pregnancy leave or disability leave. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Contractor shall post in conspicuous places, available to employees for employment, notices to be provided by State setting forth the provisions of this Fair Employment section. Contractor shall, unless exempt, comply with the applicable provisions of the Fair Employment and Housing Act (Government Code, Sections 12900 et seq.) and applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Sections 7285.0 et seq.); the applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12990, set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations incorporated into this Agreement by reference and made a part hereof as if set forth in full; and Title VI of the Civil Rights Act of 1964, as amended. Contractor, its employees, subcontractors and representatives shall give written notice of their obligations under this clause as required by law.

B. Where applicable, Contractor shall include these nondiscrimination and compliance provisions in any of its subcontracts that affect or are related to the Work performed herein.

C. Reserved

D. Contractor's signature executing this Contract shall provide any certifications necessary under the Federal laws and the laws of the State of California, including but not limited to Government Code Section 12990 and Title 2, California Code of Regulations, Section 8103.

Article 20. CONTRACTOR ASSURANCES

By executing this Contract, Contractor certifies that it:

a. Will abide by all administrative, contractual or legal remedies in instances where Contractor violates or breaches Contract terms, and will comply with sanctions and penalties as the Contract Administrator deems appropriate.

b. Will comply with the termination for cause and termination for convenience provisions of the Contract including the manner by which such termination may be effected and the basis for settlement afforded by those provisions.

g. Will comply with County, State of California and FHWA requirements and regulations pertaining to: (a) reporting; (b) patent rights with respect to any discovery or invention which arises or is developed in the course of or under this Contract; and (c) copyrights and rights in data.

j. Will comply with: (i) Section 504 of the Rehabilitation Act of 1973 (Rehabilitation Act) which prohibits discrimination on the basis of disability in Federally assisted programs; (ii) the Americans with Disabilities Act (ADA) of 1990 which prohibits discrimination on the basis of disability irrespective of funding; and (iii) all applicable regulations and guidelines issued pursuant to both the Rehabilitation Act and the ADA.

k. Will comply with the Department of Industrial Relations pursuant to Labor Code sections 1725.5 and 1771.1.

Any Subcontract entered into as a result of this Contract shall contain all of the provisions of this Article.

Article 21. BUSINESS LICENSE

The County Business License Ordinance provides that it is unlawful for any person to furnish supplies or services, or transact any kind of business in the unincorporated territory of County of El Dorado without possessing a County business license unless exempt under County Ordinance Code Section 5.08.070. Contractor warrants and represents that it shall comply with all of the requirements of the County Business License Ordinance, where applicable, prior to beginning Work under this Contract and at all times during the term of this Contract.

Article 22. TAXES

Contractor certifies that as of today's date, it is not in default on any unsecured property taxes or other taxes or fees owed by Contractor to County. Contractor agrees that it shall not default on any obligations to County during the term of this Agreement.

Article 23. CONTRACT ADMINISTRATOR

The County Officer or employee with responsibility for administering this Agreement is John Kahling, Deputy Director Engineering, Headington Unit, Department of Transportation, or successor.

Article 24. AUTHORIZED SIGNATURES

The parties hereto represent that the undersigned individuals executing this Agreement on behalf of their respective parties are fully authorized to do so by law or other appropriate instrument and to bind upon said parties the obligations set forth herein.

Article 25. PARTIAL INVALIDITY

If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will continue in full force and effect without being impaired or invalidated in any way.

Article 26. NO THIRD PARTY BENEFICIARIES

Nothing in this Agreement is intended, nor will be deemed, to confer rights or remedies upon any person or legal entity not a party to this Agreement.

Article 27. COUNTERPARTS

This Agreement may be executed in one or more counterparts, each of which shall be an original and all of which together shall constitute one and the same instrument.

Article 28. ENTIRE AGREEMENT

This document and the documents referred to herein or exhibits hereto are the entire Agreement between the parties and they incorporate or supersede all prior written or oral agreements or understandings.

IN WITNESS WHEREOF, the said Department of Transportation of the County of El Dorado, State of California, has caused this Agreement to be executed by County's Board of Supervisors, on its behalf, and the said Contractor has signed this Agreement the day and year written below.

COUNTY OF EL DORADO

Dated:_____ _____

Chair, Board of Supervisors

Board Date:_____

Attest:
James S. Mitrisin
Clerk of the Board of Supervisors

Dated:_____ _____

Board Date:_____ _____
Deputy Clerk

CONTRACTOR

Dated:_____ _____ _____
License No. Federal Employee Identification Number

By:_____
President

By:_____
Corporate Secretary

NOTE: If Contractor is a corporation, the legal name of the corporation shall be set forth above together with the signature of the officer or officers authorized to sign Contracts on behalf of the corporation; if Contractor is a co-partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign Contracts on behalf of the co-partnership; and if Contractor is an individual, his/her signature shall be placed above. Contractor executing this document on behalf of a corporation or partnership shall be prepared to demonstrate by resolution, article, or otherwise that it is appropriately authorized to act in these regards. For such corporation or partnership, such authority shall be demonstrated to the satisfaction of County. If signature is by an agent, other than officer of a corporation or a member of a partnership, an appropriate Power of Attorney shall be on file with the County prior to signing this document.

Mailing Address: _____

Business Address: _____

Email Address: _____

Phone: _____ Fax: _____

EXHIBIT A

CONTRACTOR'S BID AND BID PRICE SCHEDULE

PROJECT NAME

CONTRACT NO. PW 18-31210, CIP NO. 72192, Contract 2532

ITEM NO.	ITEM CODE		ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	UNIT PRICE (IN FIGURES)	ITEM TOTAL (IN FIGURES)
1	999990		MOBILIZATION	LS	1		
2	120100		TRAFFIC CONTROL SYSTEM	LS	1		
3	130100		JOB SITE MANAGEMENT	LS	1		
4	130730		STREET SWEEPING	LS	1		
5	152438		ADJUST FRAME AND COVER TO GRADE	EA	13		
6	390132 A		HOT MIX ASPHALT (TYPE A)	TON	1,606		
7	393006 A		GEOSYNTHETIC PAVEMENT INTERLAYER (PAVING GRID)	SQYD	13,641		
8	394090 A		PLACE HOT MIX ASPHALT (DRIVEWAY R&R)	SF	1,188		
9	398200 A		COLD PLANE ASPHALT CONCRETE PAVEMENT	SQYD	13,641		
10	710242 A		MODIFY INLET	EA	4		
11	731504 A		MINOR CONCRETE (CURB AND GUTTER)	LF	1,800		
12	840655		PAINT TRAFFIC STRIPE (1-COAT)	LF	10,663		
					TOTAL BID		

(F) Final Pay Quantity
(P) Eligible for Partial Payment
(LS) Lump Sum

COUNTY OF EL DORADO

PAYMENT BOND

(Section 3247, Civil Code)

Bond No. _____

WHEREAS, the County of El Dorado, a political subdivision of the State of California, hereafter referred to as "Obligee", has awarded to Contractor

_____

_____

hereafter referred to as "Principal", a Contract for the Work described as follows:

ELKS CLUB DRIVE CAPITAL OVERLAY AND REHABILITATION PROJECT

CONTRACT No. PW 18-31210, CIP No. 72192, Contract 2531

AND, WHEREAS, said Principal is required to furnish a bond in connection with said Contract, guaranteeing the faithful performance thereof:

NOW, THEREFORE, we the undersigned Principal and Surety are held and firmly bound unto the Obligees, in the sum of

_____

Dollars,

($_____) to be paid to the Obligees, for which payment we bind ourselves, jointly and severally.

THE CONDITION OF THIS OBLIGATION IS SUCH,

That if said Principal or its Subcontractors shall fail to pay any of the persons named in Civil Code Section 3181, or amounts due under the Unemployment Insurance Code with respect to Work or labor performed by such claimant, or any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the Principal and his Subcontractors pursuant to Section 18806 of the Revenue and Taxation Code, with respect to such Work and labor, that the Surety herein will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the Surety will pay a reasonable attorney's fee to be fixed by the court.

This bond shall inure to the benefit of any of the persons named in Civil Code Section 3181 as to give a right of action to such persons or their assigns in any suit brought upon this bond.

Dated:_____

Correspondence or Claims relating to this bond should be sent to the Surety at the following address:

	PRINCIPAL
	SURETY
	ATTORNEY-IN-FACT

NOTE: Signatures of those executing for the Principal and for the Surety must be properly acknowledged, and a Power of Attorney attached for the Surety.

NOTARY ACKNOWLEDGMENTS ATTACHED

PRINCIPAL

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of _____

On _____before me, _____,

(here insert name and title of the officer)

personally appeared _____

_____

_____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

(Seal)

SURETY

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of _____

On_____ before me, _____,

(here insert name and title of the officer)

personally appeared _____

_____

_____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

(Seal)

COUNTY OF EL DORADO

PERFORMANCE BOND

Bond No._____

KNOW ALL MEN BY THESE PRESENTS, that we _____

the Contractor in the Contract hereto annexed, as Principal, and _____

as Surety, are held firmly bound unto the County of El Dorado, a political subdivision of the State of California, hereinafter called the "Obligee"

in the sum of_____DOLLARS,

($_____) lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, jointly and severally, firmly by these presents.

Signed, sealed and dated: _____

The condition of the above obligation is such that if said Principal as Contractor in the Contract hereto annexed shall faithfully perform each and all of the conditions of said Contract to be performed by him, and shall furnish all tools, equipment, apparatus, facilities, transportation, labor and material, other than material, if any, agreed to be furnished by the Obligees, necessary to perform and complete, and to perform and complete in a good and workmanlike manner, the Work of **Contract No. PW 18-31210, CIP No. 72192, Contract 2531 for the Elks Club Drive Capital Overlay and Pavement Rehabilitation Project** in strict conformity with the terms and conditions set forth in the Contract hereto annexed, then this obligation shall be null and void; otherwise this bond shall remain in full force and effect and the said Surety will complete the Contract Work under its own supervision, by Contract or otherwise, and pay all costs thereof for the balance due under terms of the Contract, and the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work.

In the event suit is brought upon this bond by the Obligees and judgment is recovered, the Surety shall pay all costs incurred by the Obligees in such suit, including a reasonable attorney's fee to be fixed by the court.

This guarantee shall insure the Obligees during the Work required by any Contract and for a period of one (1) year from the date of acceptance of the Work against faulty or improper materials or workmanship that may be discovered during that time.

No right of action shall accrue under this bond to or for the use of any person other than the Obligees named herein.

Dated:_____, 20_____.

Correspondence or Claims relating to this bond should be sent to the Surety at the following address:

_____ _____

PRINCIPAL

_____ _____

SURETY

_____ _____

ATTORNEY-IN-FACT

NOTE: Signatures of those executing for the Principal and the Surety must be properly acknowledged, and a Power of Attorney attached for the Surety.

NOTARY ACKNOWLEDGMENTS ATTACHED

PRINCIPAL

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of _____

On_____ before me, _____,

(here insert name and title of the officer)

personally appeared _____

_____

_____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

(Seal)

SURETY

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of _____

On _____ before me, _____,

(here insert name and title of the officer)

personally appeared _____

_____

_____ ,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

(Seal)

COMPLETING BID IN PENCIL, ERASURES, OVERWRITES, AND USE OF CORRECTION FLUID OR TAPE ARE NOT ACCEPTABLE. BID PROPOSALS WITH PENCIL, ERASURES, OVERWRITES, OR USE OF CORRECTION FLUID OR TAPE WILL BE REJECTED. ALL CHANGES MUST BE LINED OUT AND CORRECTIONS INSERTED ADJACENT TO AND INITIALED BY THE BIDDER'S AUTHORIZED REPRESENTATIVE.

PROPOSAL

(to be submitted with Bidder's Security)

TO: COUNTY OF EL DORADO,
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION,

for the construction of the

ELKS CLUB DRIVE CAPITAL OVERLAY AND REHABILITATION PROJECT
CONTRACT No. PW 18-31210, CIP No. 72192, Contract 2531

NAME OF BIDDER _____

MAILING ADDRESS _____

CITY, STATE, ZIP _____

PHYSICAL ADDRESS _____

(Please include even if Mailing Address used)

CITY, STATE, ZIP _____

TELEPHONE NO: AREA CODE ( ) _____

FAX NO: AREA CODE ( ) _____

EMAIL ADDRESS _____

The Work for which this Proposal is submitted is for the construction in accordance with these Contract Documents (including the payment of not less than the State general prevailing wage rates set forth herein), the Project Plans described below, including any addenda thereto, the Contract annexed hereto, and also in accordance with the California Department of Transportation Standard Plans 2015, the Standard Specifications 2015, Revised Standard Specifications**,** standard drawings from the Design and Improvement Standards Manual of the County of El Dorado, revised March 8, 1994 including Resolutions 199-91 and 58-94 to adopt changes to the Design and Improvement Standards Manual; the Labor Surcharge and Equipment Rental Rates in effect on the date the Work is accomplished, and in accordance with the General Prevailing Wage rates. The Project Plans and Contract Documents for the Work to be done are entitled:

Bids are to be submitted for the entire Work. The amount of the bid for comparison purposes will be the total of all the items.

The Bidder shall set forth for each unit basis item of work a unit price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for this purpose. In the case of unit basis items, the amount set forth under the "Item Total" column shall be the product of the unit price bid and the estimated quantity for the item.

In case of discrepancy between the item price and the total set forth for a unit basis item, the unit price shall prevail, except as provided in (a) or (b), as follows:

(a) If the amount set forth as a unit price is unreadable or otherwise unclear, or is omitted, or is the same as the amount as the entry in the item total column, then the amount set forth in the total column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price;

(b) (Decimal Errors) If the product of the entered unit price and the estimated quantity is exactly off by a factor of ten, one hundred, etc., or one-tenth, or one-hundredth, etc., from the entered total, the discrepancy will be resolved by using the entered unit price or item total, whichever most closely approximates percentage wise the unit price or item total in the Department of Transportation's Final Estimate of cost.

If this Proposal is accepted and the undersigned Bidder shall fail to enter into the Contract and furnish the two bonds in the sums required by the State Contract Act, with surety satisfaction to the County of El Dorado and in accordance with the Special Provisions within five (5) business days, not including Saturdays, Sundays, and legal holidays, of the date of the letter notice from the County of El Dorado that the Contract has been awarded, the County of El Dorado may, at its option, determine that the Bidder has abandoned the Contract, and thereupon this Proposal and the acceptance thereof shall be null and void and the forfeiture of such security accompanying this Proposal shall operate and the same shall be the property of the County of El Dorado.

The undersigned, as Bidder, declares under penalty of perjury under the laws of the State of California that the only persons or parties interested in this Proposal, as principals, are those named herein; that this Proposal is made without collusion with any other person, firm, or corporation; that it has carefully examined the location of the proposed work, the annexed proposed form of Contract, and the Plans therein referred to; and that it proposes, and agrees if this Proposal is accepted, that it will contract with the County of El Dorado, in the form of the copy of the Draft Contract annexed hereto, to provide all necessary machinery, tools, apparatus, and other means of construction, and to do all the work and furnish all the materials specified in the Contract, in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that it will take in full payment therefore the following item prices, to wit:

PROPOSAL PAY ITEMS AND BID PRICE SCHEDULE
ELKS CLUB DRIVE CAPITAL OVERLAY AND REHABILITATION PROJECT
CONTRACT NO. PW 18-31210, CIP NO. 72192, Contract 2531

ITEM NO.	ITEM CODE		ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	UNIT PRICE (IN FIGURES)		ITEM TOTAL (IN FIGURES)	
1	999990		MOBILIZATION	LS	1				
2	120100		TRAFFIC CONTROL SYSTEM	LS	1				
3	130100		JOB SITE MANAGEMENT	LS	1				
4	130730		STREET SWEEPING	LS	1				
5	152438		ADJUST FRAME AND COVER TO GRADE	EA	13				
6	390132A		HOT MIX ASPHALT (TYPE A)	TON	1,606				
7	393006A		GEOSYNTHETIC PAVEMENT INTERLAYER (PAVING GRID)	SQYD	13,641				
8	394090A		PLACE HOT MIX ASPHALT (DRIVEWAY R&R)	SF	1,188				
9	398200A		COLD PLANE ASPHALT CONCRETE PAVEMENT	SQYD	13,641				
10	710242A		MODIFY INLET	EA	4				
11	731504A		MINOR CONCRETE (CURB AND GUTTER)	LF	1,800				
12	840655		PAINT TRAFFIC STRIPE (1-COAT)	LF	10,663				
TOTAL BID									

(F) Final Pay Quantity
(LS) Lump Sum

(NOTICE: Bidders failure to execute the questionnaires and statements contained in this proposal as required by applicable laws and regulations, or the determinations by County of El Dorado based upon those questionnaires and statements, may prohibit award of the subject Contract to the bidder.)

SUBCONTRACTOR LIST

The Bidder must list the name, address, license number, and DIR number of each subcontractor to whom the Bidder proposes to subcontract portions of the Work in excess of 0.5% of the total bid, or $10,000, whichever is greater, as required by the Contract Documents. The Bidder must also list the Work portion to be performed by each subcontractor by listing the bid item number, bid item description, and portion of the Work to be performed by the subcontractor in the form of a percentage calculated by dividing the Work to be performed by the subcontractor by the respective bid item amount(s) (not by the total bid price).

Firm Name Address City, State, Zip Code	**Phone Fax**	**License No. DIR No.**	**Bid Item Number Bid Item Description**	**Percentage of Each Bid Item Subcontracted**
Name *Address* *City, State, Zip Code*	*Phone* *Fax*	*License No.* *DIR No.*		
Name *Address* *City, State, Zip Code*	*Phone* *Fax*	*License No.* *DIR No.*		
Name *Address* *City, State, Zip Code*	*Phone* *Fax*	*License No.* *DIR No.*		
Name *Address* *City, State, Zip Code*	*Phone* *Fax*	*License No.* *DIR No.*		

Public Contract Code Section 10285.1 Statement

In conformance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the Bidder hereby declares under penalty of perjury under the laws of the State of California that the Bidder has ____ , has not ____been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any State or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "Bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

Note: The Bidder must place a check mark after "has" or "has not" in one of the blank spaces provided. The above statement is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Public Contract Code Section 10162 Questionnaire

In conformance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the Bidder, any officer of the Bidder, or any employee of the Bidder who has a proprietary interest in the Bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, State, or local government project because of a violation of law or a safety regulation?

Yes _____ No _____

If the answer is yes, explain the circumstances in the following space.

Public Contract Code Section 10232 Statement

In conformance with Public Contract Code Section 10232, the Bidder, hereby states under penalty of perjury under the laws of the State of California, that no more than one final unappealable finding of contempt of court by a Federal Court has been issued against the Bidder within the immediately preceding two year period because of the Bidder's failure to comply with an order of a Federal Court which orders the Bidder to comply with an order of the National Labor Relations Board.

Note: The above statement and Questionnaire are part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this statement and Questionnaire.
Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

NONCOLLUSION AFFIDAVIT

(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

In conformance with Title 23 United States Code Section 112 and Public Contract Code 7106 the Bidder declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the Contract of anyone interested in the proposed Contract; that all statements contained in the bid are true; and, further, that the Bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

NOTE:

The above Noncollusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Noncollusion Affidavit.

Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Accompanying this proposal is_____ (NOTICE: INSERT THE WORDS "CASH($___),"CASHIER'S CHECK," "CERTIFIED CHECK," OR "BIDDERS BOND," AS THE CASE MAY BE)

in amount equal to at least ten percent of the amount of the total bid.

The names of all persons interested in the forgoing Proposal as principals are as follows:

IMPORTANT NOTICE: If the Bidder or other interested person is a corporation, state legal name of corporation and place of incorporation, also names of the president, secretary, treasurer, and executive officer thereof; if a partnership, state name of partnership, also names of all individual partners; if Bidder or other interested person is an individual, state first and last names in full.

_____

_____

_____

Licensed in accordance with an act providing for the registration of Contractors,

License No. _____ Classification(s) _____

(A Copy of the afore-referenced license must be attached hereto.)

ADDENDA: This Proposal is submitted with respect to the changes to the Contract included in addenda number (s)_____

(Fill in addenda numbers if addenda have been received and insert, in this Proposal, any Proposal Pay Items and Bid Price Schedules that were received as part of the addenda)

By my signature on this Proposal I certify, under penalty of perjury under the laws of the State of California, that the foregoing questionnaire and statements of Public Contract Code Sections 10162, 10232, and 10285.1 are true and correct and that the Bidder has complied with the requirements of Sections 4104 of the Subletting and Subcontracting Fair Practices Act and of Section 8103 of the Fair Employment and Housing Commission Regulations (Chapter 5 of Division 4 of Title 2 of the California Code of Regulations). By my signature on this Proposal I further certify, under penalty of perjury under the laws of the State of California and the United States of America, that the Noncollusion Affidavit required by Title 23 United States Code, Section 112 and Public Contract Code Section 7106; and the Equal Employment Opportunity Certification; Iran Contracting Act Certification, and the Debarment Suspension, Ineligibility and Voluntary Exclusion Certification; the Non-lobbying Certification for Federal-Aid Contracts and the Disclosure of Lobbying Activities (Standard Form LLL); the Fair Employment Practice Addendum, and the Nondiscrimination Assurances. are true and correct.

The person or persons executing this Proposal on behalf of a corporation or partnership shall be prepared to demonstrate by resolution, article, or otherwise, that such person is or that such persons are appropriately authorized to act in these regards for such corporation or partnership. Such authority shall be demonstrated to the satisfaction of the County of El Dorado.

If the signature is by an agent other than an officer of a corporation or a member of a partnership, a power of attorney authorizing said act by the agent on behalf of his principal shall be submitted with the bid forms; otherwise, the bid may be disregarded as irregular and unauthorized.

The Bidder's execution on the signature portion of this Proposal shall constitute an endorsement and execution of those affidavits, declarations and certifications which are part of this Proposal.

Executed this _____ day of _____, 20___

at _____ County, State of _____

Sign Here

_____

_____

_____

Name and Title of Bidder _____

Name of Firm _____

END OF PROPOSAL

COUNTY OF EL DORADO

BIDDER'S BOND

this form MUST be used

KNOW ALL PEOPLE BY THESE PRESENTS, THAT WE _____

_____as **PRINCIPAL**, and

_____

_____

as Surety are held and firmly bound unto the County of El Dorado, a political subdivision of the State of California (hereinafter referred to as "Obligee"), in the penal sum of **TEN (10) PERCENT OF THE AMOUNT OF THE TOTAL BID PRICE** of the Principal above named, submitted by said Principal to the Obligee for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made to the Obligee, we the Principal and Surety bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents. In no case shall the liability of the Surety hereunder exceed the sum of

TEN PERCENT (10%) OF THE AMOUNT OF THE TOTAL BID PRICE

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT:

WHEREAS, the Principal has submitted the above-mentioned Bid to the Obligee, as aforesaid, for certain construction specifically described as follows, for which bids are to be opened at Placerville, El Dorado County, California, for the construction of the

ELKS CLUB DRIVE CAPITAL OVERLAY AND REHABILITATION PROJECT
CONTRACT No. PW 18-31210 / CIP No. 72192

NOW, THEREFORE, if the aforesaid Principal is awarded the Contract and, within the time and manner required under the Contract Documents, after the prescribed forms are presented to it for signature, enters into a written contract, in the prescribed form, in accordance with the Bid, and files two bonds with the Obligee, one to guarantee faithful performance and the other to guarantee payment for labor and materials, as required by law, then this obligation shall be null and void; otherwise, it shall remain in full force and virtue.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the Court.

IN WITNESS WHEREOF, we have set our hands and seals on this _____ day of _____ 20__

Bond No. _____

(seal) _____
Principal

_____

(seal) _____
Surety

Address: _____

_____

(NOTE: Signature of those executing for the Surety shall be properly acknowledged, and accompanied by a Certificate of Acknowledgment.)

SURETY

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of _____

On _____ before me, _____,
(here insert name and title of the officer)

personally appeared_____

_____

_____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

(Seal)