

**FOR CONTRACT NO.: 03-4M1804**  
**PROJECT ID: 030002004**

# **INFORMATION HANDOUT**

## **PERMITS**

STATE OF CALIFORNIA  
DEPARTMENT OF FISH AND GAME  
NOTIFICATION NO. 1600-2013-0069-R2

# **MATERIALS INFORMATION**

## **SOIL ANALYSIS SUMMARY**

**ROUTE: 162-GLE-37.7/51.0**



State of California – The Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
North Central Region  
1701 Nimbus Road, Suite A  
Rancho Cordova, CA 95670-4599  
916-358-2900  
[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

EDMUND G. BROWN, Governor  
CHARLTON H. BONHAM, Director



JUL 25 2013

Date

Michele Lukkarila  
California Department of Transportation, District 3  
2379 Gateway Oaks Drive, Suite 150  
Sacramento, CA 95833

Subject: Final Streambed Alteration Agreement  
Notification No. 1600-2013-0069-R2  
SR 162 Culvert Replacement Project

Dear Ms. Lukkarila:

Enclosed is the final Streambed Alteration Agreement (Agreement) for the SR 162 Culvert Replacement Project (Project). Before the Department of Fish and Wildlife (Department) may issue an Agreement, it must comply with the California Environmental Quality Act (CEQA). In this case, the Department, acting as a lead agency, determined your project is exempt from CEQA and filed a notice of exemption (NOE) on the same date it signed the Agreement.

Under CEQA, filing a NOE starts a 35-day period within which a party may challenge the filing agency's approval of the project. You may begin your project before the 35-day period expires if you have obtained all necessary local, state, and federal permits or other authorizations. However, if you elect to do so, it will be at your own risk.

If you have any questions regarding this matter, please contact Tim Nosal, Environmental Scientist at (916) 358-2853 or [tim.nosal@wildlife.ca.gov](mailto:tim.nosal@wildlife.ca.gov).

Sincerely,

Tina Bartlett  
Regional Manager

ec: Tim Nosal, Environmental Scientist  
[Tim.Nosal@wildlife.ca.gov](mailto:Tim.Nosal@wildlife.ca.gov)

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE  
NORTH CENTRAL REGION  
1701 NIMBUS ROAD, SUITE A  
RANCHO CORDOVA, CA 95670



**STREAMBED ALTERATION AGREEMENT**  
NOTIFICATION No. 1600-2013-0069-R2  
8 UNNAMED EPHEMERAL STREAMS

CALIFORNIA DEPARTMENT OF TRANSPORTATION  
GLE 162 CULVERT REHABILITATION PROJECT

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and California Department of Transportation (Caltrans) (Permittee) as represented by Brian Toepfer.

## RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified CDFW on April 4, 2013, that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC section 1603, CDFW has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

## PROJECT LOCATION

The project is located along State Route 162, at 7 unnamed ephemeral streams (Table 1) between Post Miles (PM) 37.8 and 51.0, in the County of Glenn, State of California; U.S. Geological Survey (USGS) maps Elk Creek, Fruto and Chrome (Attachment A).

**Table 1:** Location and proposed work activities at 7 culvert rehabilitation projects along State Route 162 near Elk Creek in Glenn County, California

Post Mile (PM) (Project Map Location #)	Latitude/Longitude	Proposed Work
PM 37.94 (Location #3)	Lat 39.6541/ Long -122.5868	Install 18" alternative pipe liner

Post Mile (PM) (Project Map Location #)	Latitude/Longitude	Proposed Work
PM 38.26 (Location #4)	Lat 39.6551/ Long -122.5811	Grout invert, replace flared end section
PM 38.40 (Location #5)	Lat 39.6557/ Long -122.5789	Grout invert, supplement existing rock slope protection (RSP)
PM 40.08 (Location #9)	Lat 39.6594/ Long -122.5487	Install 18" alternative pipe liner
PM 40.17 (Location #10)	Lat 39.6594/ Long -122.5471	Install 18" alternative pipe liner
PM 40.46 (Location #11)	Lat 39.6602/ Long -122.5420	Abandon culvert
PM 44.31 (Location #19)	Lat 39.6255/ Long -122.5271	Grout invert and footing

**PROJECT DESCRIPTION**

The proposed project includes the following maintenance actions:

- Existing culverts will be rehabilitated with alternative pipe liners
- Flared End Sections (FES) will be replaced as needed
- Supplemental Rock Slope Protection (RSP) will be placed as needed
- Water Pollution Control Best Management Practices (BMPs) implemented
- Traffic Control will be necessary to complete work

All construction activities will take place from the existing highway right-of-way. Adjacent pullouts to the worksite will be used as the contractor's or equipment staging areas within the Caltrans right-of-way.

**PROJECT IMPACTS**

Existing fish or wildlife resources the project could substantially adversely affect include: nesting migratory birds and other aquatic and terrestrial plant and wildlife species.

The adverse effects the project could have on the fish or wildlife resources identified above include: increased sedimentation from adjacent construction; short-term release of sediment (e.g. incidental from construction); disturbance from project activity; direct take of terrestrial species and of non-fish aquatic species and disruption to nesting birds and other wildlife.

**MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES**

**1. Administrative Measures**

Permittee shall meet each administrative requirement described below.

- 1.1 **Documentation at Project Site.** Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.
- 1.2 **Providing Agreement to Persons at Project Site.** Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 **Notification of Conflicting Provisions.** Permittee shall notify CDFW if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, CDFW shall contact Permittee to resolve any conflict.
- 1.4 **Project Site Entry.** Permittee agrees that CDFW personnel may enter the project site at any time to verify compliance with the Agreement.
- 1.5 **Notification of Project Modification.** Permittee agrees to notify CDFW of any modifications made to the project plans submitted to CDFW.

## **2. Avoidance and Minimization Measures**

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

- 2.1 **Work Period.** The time period for completing the work within the project area shall be restricted to periods when flows have ceased and the streambed is dry and shall be confined to the period of June 15 to October 15. Construction activities shall be timed with awareness of precipitation forecasts and likely resumption in stream flow. Construction activities within the project area shall cease until all reasonable erosion control measures, inside and outside of the project area, have been implemented prior to all storm events. Revegetation, restoration and erosion control work is not confined to this time period.
- 2.2 **Work Period Modifications.** If Permittee needs more time to complete the project activity, the work may be permitted outside of the work period and extended on a day-to-day basis (or for some other set period of time) by the CDFW representative who reviewed the project, or if unavailable, through contact with the Regional office. Permittee shall submit a written request for a work period variance to the CDFW. The work period variance request shall: 1) describe the extent of work already completed; 2) detail the activities that remain to be completed; 3) detail the time required to complete each of the remaining activities; and 4) provide

photographs of both the current work completed and the proposed site for continued work. The work period variance request should consider the effects of increased stream flows and rain delays. Work period variances are issued at the discretion of the CDFW. The CDFW will review the written request to work outside of the established work period. The CDFW reserves the right to require additional measures to protect fish and wildlife resources as a condition for granting the variance. The CDFW will have ten (10) calendar days to review the proposed work period variance.

- 2.3 **Bird Nests.** It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by the Fish and Game Code. No trees that contain active nests of birds shall be disturbed until all eggs have hatched and young birds have fledged without prior consultation and approval of a CDFW representative.
- 2.4 **Vegetation Removal.** Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations. Except for the trees specifically identified for removal in the notification, no native trees with a trunk diameter at breast height (DBH) in excess of four (4) inches shall be removed or damaged without prior consultation and approval of a CDFW representative. Using hand tools (clippers, chain saw, etc.), trees may be trimmed to the extent necessary to gain access to the work sites. All cleared material/vegetation shall be removed out of the riparian/stream zone.
- 2.5 **Sediment Control.** Precautions to minimize turbidity/siltation shall be taken into account during project planning and implementation. This may require the placement of silt fencing, coir logs, coir rolls, straw bale dikes, or other siltation barriers so that silt and/or other deleterious materials are not allowed to pass to downstream reaches. Materials composing the silt barrier shall not pose an entanglement risk to fish or wildlife such as monofilament mesh and non-biodegradable synthetic erosion blankets. Passage of sediment beyond the sediment barrier(s) is prohibited. If any sediment barrier fails to retain sediment, corrective measures shall be taken. The sediment barrier(s) shall be maintained in good operating condition throughout the construction period and the following rainy season. Maintenance includes, but is not limited to, removal of accumulated silt and/or replacement of damaged siltation barriers. The Permittee is responsible for the removal of non-biodegradable silt barriers (such as plastic silt fencing) after the disturbed areas have been stabilized with erosion control vegetation (usually after the first growing season). Upon CDFW determination that turbidity/siltation levels resulting from project related activities constitute a threat to aquatic life, activities associated with the turbidity/siltation shall be halted until effective CDFW approved control devices are installed or abatement procedures are initiated.
- 2.6 **Pollution Control.** Utilize Best Management Practices (BMPs) to prevent spills and leaks into water bodies. If maintenance or refueling of vehicles or equipment must

occur on-site, use a designated area and/or a secondary containment, located away from drainage courses to prevent the runoff of storm water and the runoff of spills. Ensure that all vehicles and equipment are in good working order (no leaks). Place drip pans or absorbent materials under vehicles and equipment when not in use. Ensure that all construction areas have proper spill clean up materials (absorbent pads, sealed containers, booms, etc.) to contain the movement of any spilled substances. Any other substances which could be hazardous to aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering the waters of the state. Any of these materials, placed within or where they may enter a stream or lake by the Applicant or any party working under contract or with the permission of the Permittee, shall be removed immediately. CDFW shall be notified immediately by the Permittee of any spills and shall be consulted regarding clean-up procedures.

### **3. Reporting Measures**

Permittee shall meet the reporting requirement described below.

- 3.1 The Permittee shall notify CDFW within two working days of beginning work within the project area. Notification shall be submitted as instructed in Contact Information section below. Email notification is preferred.
- 3.2 Upon completion of the project activities described in this agreement, the project area shall be digitally photographed. Photographs shall be submitted to CDFW within fifteen (15) days of project completion. Photographs and notification of project completion shall be submitted as instructed in Contact Information section below. Email submittal is preferred.

### **CONTACT INFORMATION**

Any communication that Permittee or CDFW submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or CDFW specifies by written notice to the other.

To Permittee:

California Department of Transportation  
Michelle Lukkarila  
2379 Gateway Oaks Drive, Suite 150  
Sacramento CA, 95833  
Fax: (916) 274-0602  
Email: Michele\_Lukkarila@dot.ca.gov

To CDFW:

Department of Fish and Wildlife  
North Central Region  
1701 Nimbus Road, Suite A  
Rancho Cordova, CA 95670  
Attn: Lake and Streambed Alteration Program – Tim Nosal  
Notification #1600-2013-0069 R2

Fax: 916-358-2912  
Email: r2lsa@wildlife.ca.gov

**LIABILITY**

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute CDFW's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

**SUSPENSION AND REVOCATION**

CDFW may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before CDFW suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.

**ENFORCEMENT**

Nothing in the Agreement precludes CDFW from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects CDFW's enforcement authority or that of its enforcement personnel.

### **OTHER LEGAL OBLIGATIONS**

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other federal, state, or local laws or regulations before beginning the project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC sections 2050 *et seq.* (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

### **AMENDMENT**

CDFW may amend the Agreement at any time during its term if CDFW determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

### **TRANSFER AND ASSIGNMENT**

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form

and include with the completed form payment of the minor amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

## **EXTENSIONS**

In accordance with FGC section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to CDFW a completed CDFW "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). CDFW shall process the extension request in accordance with FGC 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & Game Code, § 1605, subd. (f)).

## **EFFECTIVE DATE**

The Agreement becomes effective on the date of CDFW's signature, which shall be: 1) after Permittee's signature; 2) after CDFW complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC section 711.4 filing fee listed at [http://www.wildlife.ca.gov/habcon/ceqa/ceqa\\_changes.html](http://www.wildlife.ca.gov/habcon/ceqa/ceqa_changes.html).

## **TERM**

This Agreement shall expire within five (5) years of CDFW's signature, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC section 1605(a)(2) requires.

## **EXHIBIT**

Attachment A: Project Map

## AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

## AUTHORIZATION

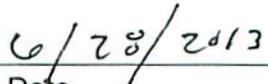
This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify CDFW in accordance with FGC section 1602.

## CONCURRENCE

The undersigned accepts and agrees to comply with all provisions contained herein.

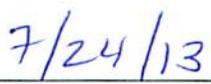
## FOR CALTRANS

  
\_\_\_\_\_  
Brian Toepfer  
Project Manager

  
\_\_\_\_\_  
Date

## FOR DEPARTMENT OF FISH AND WILDLIFE

  
\_\_\_\_\_  
Tina Bartlett  
Regional Manager

  
\_\_\_\_\_  
Date

Prepared by: Tim Nosal  
Environmental Scientist

**Attachment A:  
Project Maps**

**Caltrans: SR 162 Culvert Replacement Project  
Glenn County**

**LSA#1600-2013-0069-R2**

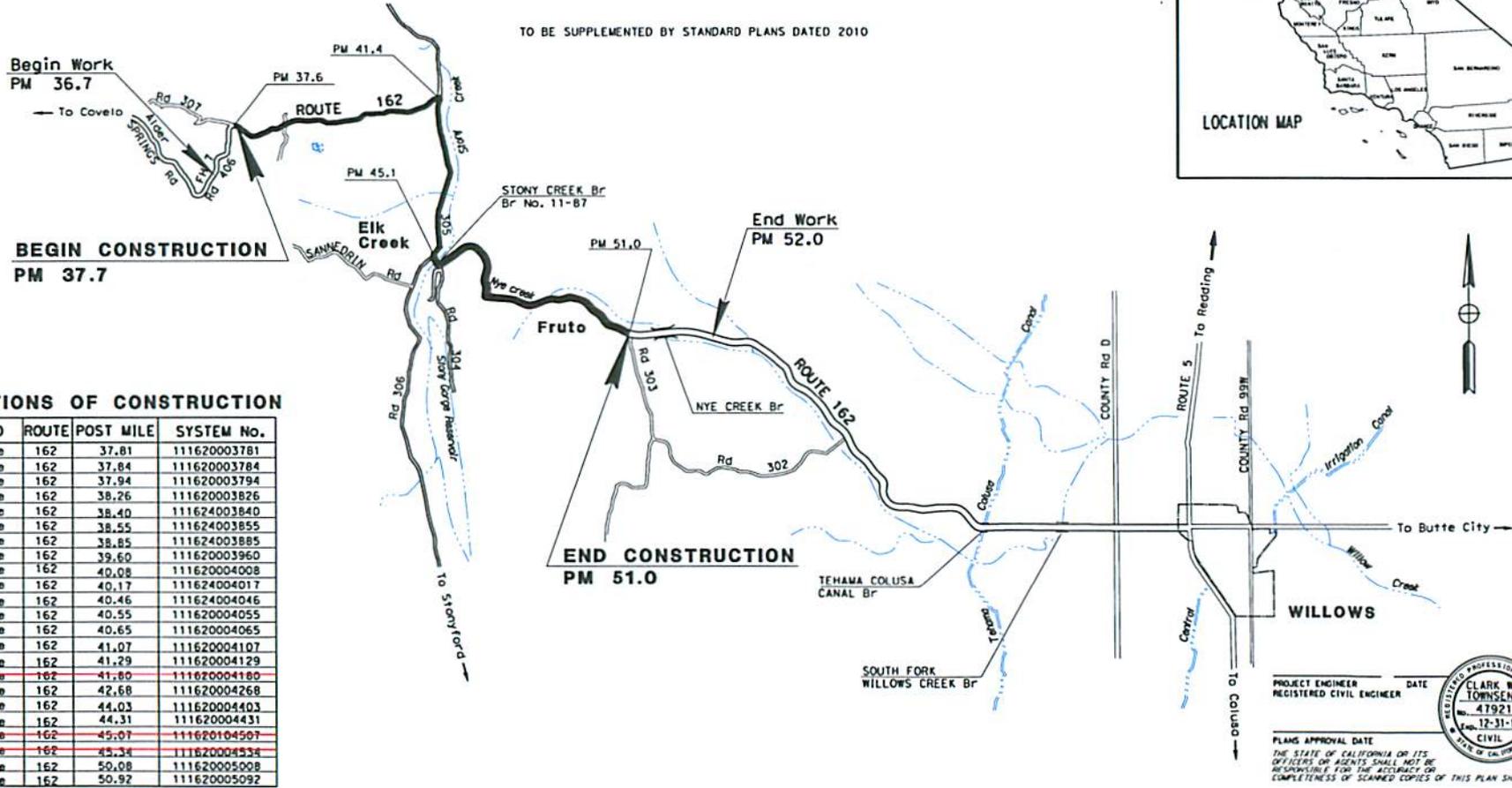
INDEX OF PLANS

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
PROJECT PLANS FOR CONSTRUCTION ON  
STATE HIGHWAY  
IN GLENN COUNTY  
AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	162	PM 37.8/51.0		

LOCATION MAP



Begin Work  
PM 36.7

BEGIN CONSTRUCTION  
PM 37.7

End Work  
PM 52.0

END CONSTRUCTION  
PM 51.0

LOCATIONS OF CONSTRUCTION

LOC	CO	ROUTE	POST MILE	SYSTEM No.
1	Gle	162	37.81	111620003781
2	Gle	162	37.84	111620003784
3	Gle	162	37.94	111620003794
4	Gle	162	38.26	111620003826
5	Gle	162	38.40	111624003840
6	Gle	162	38.55	111624003855
7	Gle	162	38.85	111624003885
8	Gle	162	39.60	111620003960
9	Gle	162	40.08	111620004008
10	Gle	162	40.17	111624004017
11	Gle	162	40.46	111624004046
12	Gle	162	40.55	111620004055
13	Gle	162	40.65	111620004065
14	Gle	162	41.07	111620004107
15	Gle	162	41.29	111620004129
16	Gle	162	41.80	111620004180
17	Gle	162	42.68	111620004268
18	Gle	162	44.03	111620004403
19	Gle	162	44.31	111620004431
20	Gle	162	45.07	111620104507
21	Gle	162	45.34	111620004534
22	Gle	162	50.08	111620005008
23	Gle	162	50.92	111620005092

PROJECT MANAGER  
BRIAN TORREFFER

DESIGN ENGINEER  
CLARK W. TOWNSEND

PROJECT ENGINEER DATE  
REGISTERED CIVIL ENGINEER

CLARK W. TOWNSEND  
No. 47921  
Exp. 12-31-13  
CIVIL  
STATE OF CALIFORNIA

PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONTRACT No. 03-4M1804  
PROJECT ID 03000200431

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

DIS#	COUNTY	ROUTE	TOTAL PROJECT SHEET TOTAL
03	Glenn	162	37.0/51.0

REGISTERED CIVIL ENGINEER	DATE
CLASS NO.	EXPIRES
NO.	NO.
CIVIL	CIVIL

PLANS APPROVAL DATE
BY
FOR
DATE



**Environmental Study Plans  
GLENN 162 CULVERTS - 2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 FUNCTIONAL SUPERVISOR  
 CALCULATED BY  
 CHECKED BY  
 DESIGNED BY  
 REVISION BY  
 DATE REVISION

SCALE: 1" = 100'

RELATIVE NUMBER SCALE

UNIT 0359

PROJECT NUMBER & PHASE

03000206431



DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
03	Glenn	162	37.8/51.0	SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

NO. 41921

EXPIRES 12/31/13

CIVIL

STATE OF CALIFORNIA

THE ACCURACY OF THIS PLAN SHEET IS THE RESPONSIBILITY OF THE ENGINEER. THE USER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF THIS PLAN SHEET.

MATCH TO SHEET 4



SCALE: 1" = 100'



RELATIVE BORDER SCALE 15' IN INCHES

USERNAME: glenn03.dgn  
DGN FILE: 43.BUILDOUT

glenn03.dgn 6/5/2013 4:00:45 PM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR BY	DATE REVISED
		CHECKED BY		

**Environmental Study Plans  
GLENN 162 CULVERTS - 3**

UNIT 0359

PROJECT NUMBER & PHASE

03000200431

DATE PLOTTED: 6/5/13  
TIME PLOTTED: 3:11 PM  
LAYOUT: 06-05-13

DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
03	016	162	37.8/51.0	NO. SHEETS
REGISTERED CIVIL ENGINEER DATE				
PLANS APPROVAL DATE				
THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS FOR THE ACCURACY OF THIS PLAN SHEET, I HEREBY CERTIFY THAT I AM A REGISTERED CIVIL ENGINEER IN THE STATE OF CALIFORNIA. CLASS # 10056200 No. 41981 Exp. 12-31-13 CIVIL ENGINEER STATE OF CALIF.				



**Environmental Study Plans  
GLENN 162 CULVERTS - 7**

SCALE: 1" = 100'



RELATIVE BORDER SCALE  
15 IN INCHES

USERNAME: J3 KUSER  
DWG FILE: J3 REQ001

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PROJECT NUMBER & PHASE  
03000200431

UNIT 0359

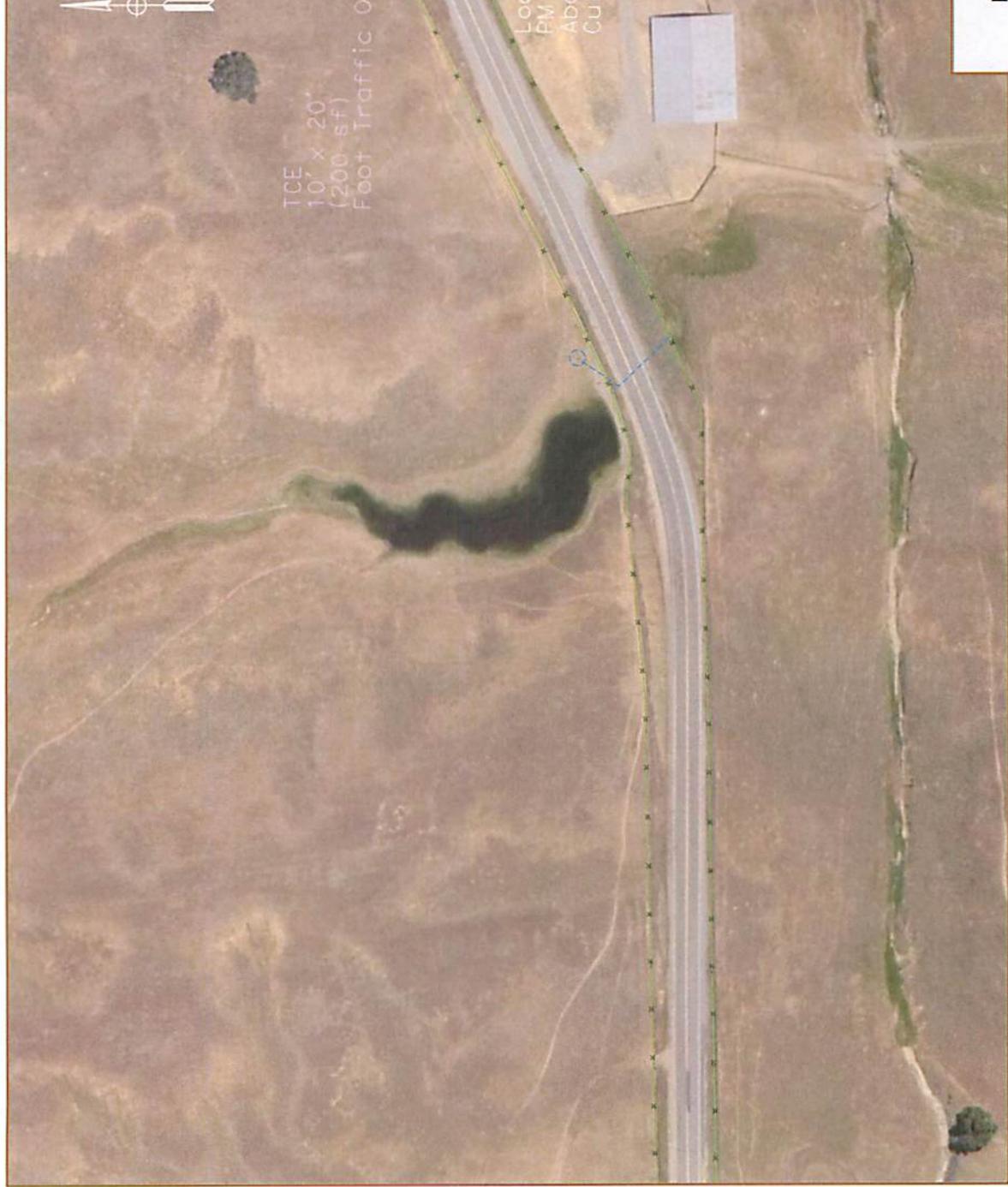
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CHECKED BY	DATE REVISION
Glenn	DESIGNED BY	REVISION	

03	03	162	37.8/51.0	37	51
03	03	162	37.8/51.0	37	51

REGISTERED CIVIL ENGINEER  
 CLARK R. TOMPOLENO  
 No. 41921  
 State of California  
 CIVIL  
 REGISTERED PROFESSIONAL ENGINEER

PLANS APPROVAL DATE  
 06/12/2013

FOR ANY CHANGES TO THIS PLAN SHEET  
 OR ANY OTHER SHEETS OF THIS PROJECT  
 THE USER SHALL NOTIFY THE SUPERVISOR  
 OF THE PROJECT OF ANY CHANGES TO BE MADE  
 PRIOR TO THE NEXT MEETING OF THE BOARD



REVISION BY	DATE REVISION	CHECKED BY	DESIGNED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 FUNCTIONAL SUPERVISOR  
 glenn08.dgn 6/5/2013 4:06:07 PM

**Environmental Study Plans  
 GLENN 162 CULVERTS - 8**

PROJECT NUMBER & PHASE 03000200431

UNIT 0359

SCALE: 1" = 100'

RELATIVE BORDER SCALE IS IN INCHES

USERNAME: USER  
 DOW FILE: BIDDIST

DATE	COUNTY	ROUTE	PROJECT	SHEET NO.	TOTAL SHEETS
03	Glenn	162	37.8/31.0		

REGISTERED CIVIL ENGINEER	DATE
CLARENCE A. BIRNBAUM	03/20/2013

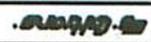
PLANS APPROVED BY	DATE
FOR THE STATE OF CALIFORNIA	



**Environmental Study Plans  
GLENN 162 CULVERTS - 15**

SCALE: 1" = 100'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		FUNCTIONAL SUPERVISOR		CALCULATED/DESIGNED BY		CHECKED BY		DATE REVISION	



03-4M180  
 03-Gle-162-PM 37.6-51.0  
 Culvert Rehab

Soils Analysis Summary

PM	Card No	Ph	Temp	Min Resistivity	Description
			°C	K Ohm/CM	
37.94	C696490	6.2	21.2	3.60	Native Soil
38.26	C695052	6.1	20.4	2.40	Native Soil
38.38	C696490	5.7	21.2	5.40	Native Soil
38.40	C695052	6.5	20.4	3.40	Native Soil
38.55	C696490	5.7	21.2	2.70	Native Soil
38.85	C696490	5.6	21.2	2.70	Native Soil
39.13	C695053	5.8	20.4	3.15	Native Soil
40.17	C695053	6.1	20.4	2.61	Native Soil
40.46	C695053	6.3	20.4	1.60	Native Soil
41.29	C695054	6.4	20.6	2.70	Native Soil
41.80	C695052	6.4	20.4	2.40	Native Soil
42.68	C695054	5.6	20.6	5.10	Native Soil
43.29	C695055	5.8	20.6	5.80	Native Soil
43.33	C695055	5.7	20.6	5.60	Native Soil
41.03	C695052	6.4	20.3	3.00	Native Soil
44.29	C695055	5.7	20.6	5.60	Native Soil
44.31	C696489	6.9	21.1	2.50	Native Soil
44.63	C696489	5.6	21.1	2.30	Native Soil
44.78	C696489	6.1	21.1	2.30	Native Soil
45.07	C696489	6.7	21.6	6.60	Native Soil
45.34	C696489	6.1	21.6	2.10	Native Soil
45.38	C696489	6.0	21.6	4.40	Native Soil
50.37	C695052	6.6	20.3	3.30	Native Soil