

## Strawberry Creek Culvert Maintenance Project FAQ

1. Why does the City project only rehabilitate portions of creek culvert in City right-of-way?

*Creek culverts carry water along the general historic location of creeks and as such are considered appurtenant to the property(s) on which they are located and in many cases the culverts were constructed to facilitate future private development. As such, it is the property owner(s)'s responsibility to maintain the culvert unless maintenance responsibilities have been assigned to another party via recorded easements or other agreements.*

2. The City is currently performing Phase 1 of the project. Are there future phases in the works?

*Phase 1 of the project focuses on extending the service life of City maintained culvert sections exhibiting the highest degree of deterioration. Additional phases will be completed in future fiscal years as funding becomes available. These future phases would focus on culvert sections shown to have less deterioration based on the City's structural assessment.*

3. What permits are required to perform private creek rehabilitation inspection, testing, and rehabilitation?

*Below is a table summarizing the permits needed for all phases of a private creek culvert rehabilitation project.*

Project Phase	Description	City Building Permit	City Engineering Permit	Other Agency Permits
Inspection/Visual assessment	Access creek culvert for the purpose of visual inspection	Not required	<b>Required</b> <ul style="list-style-type: none"> <li>• Traffic and pedestrian control plan at point of entry.</li> <li>• Confined space entry notification.</li> </ul>	Not required
Concrete sampling	Concrete coring for material testing	Not required	<b>Required</b> <ul style="list-style-type: none"> <li>• Traffic and pedestrian control plan at point of entry.</li> <li>• Confined space entry notification.</li> </ul>	Not required
Rehabilitation Work	Minor point repair and lining	Not required	<b>Required</b> <ul style="list-style-type: none"> <li>• Creek permit</li> <li>• Traffic and pedestrian control plan at point of entry.</li> <li>• Confined space entry notification.</li> </ul>	<b>Required</b> <ul style="list-style-type: none"> <li>• <a href="#">California Department of Fish and Wildlife</a></li> <li>• <a href="#">Regional Water Quality Control Board</a></li> <li>• <a href="#">US Army Corps of Engineers</a></li> </ul>
Rehabilitation Work	Partial/full culvert replacement, or major culvert restoration (Failed walls and floor)	<b>Required</b>		

4. Should private culvert owners plan to have their contractor perform a detailed structural assessment similar to what the City did in order to develop a repair plan that can be approved for an engineering permit? (i.e. concrete compressive strength core sample and test; thickness measurements; petrographic analysis; loading analysis; and identification of areas needing repair prior to lining.) How much might this cost?

*The City performed extensive material testing to have the data needed to prioritize repairs throughout the Strawberry Creek culvert alignment. The extent of material testing needed for a private repair may be less extensive but its scope would ultimately be determined by the licensed engineer(s) designing the repair. As a point of reference, the City spent approximately \$150k performing material sampling (20 cores), testing, and structural assessment of the entire length of culvert analyzed in the City's "Structural Assessment and Project Scoping Report". The \$150k does not include City staff costs, including the cost of City Operations crews which provided traffic control and confined space entry support for the City's consultants. The majority of the coring and testing work performed as part of the City's project was performed by Inspection Services, Inc.*

*Private parties undertaking similar work would have the advantage of greater flexibility in negotiating and contracting with material testing and engineering firms, as they are not bound by the procurement, contracting, and labor regulations that public agencies must follow. This flexibility may enhance price competitiveness for private projects.*

5. Are the bids submitted for the City culvert work available to the public? If so, how do we access that information?

*Detailed bid proposals can be made available to property owners upon request. Please contact [rsalcedo@berkeleyca.gov](mailto:rsalcedo@berkeleyca.gov) if you'd like to receive this information. Property owners looking to use the unit costs from the City's project as a reference should keep in mind that private projects may be more price competitive. As noted in question 4, private parties have greater flexibility in negotiating with and hiring contractors. Public agencies are also bound by labor regulations, including prevailing wage requirements, which can drive up construction costs relative to private work.*

6. Would the City be able to share the information used to obtain all the required permit(s) from the other agencies i.e. Regional Water Quality Control Board, California Department of Fish and Wildlife, and US Army Corps of Engineers?

*Permit application documentation can be provided upon request to property owners interested in pursuing culvert rehabilitation in a manner similar to that performed by the City. Please contact [rsalcedo@berkeleyca.gov](mailto:rsalcedo@berkeleyca.gov) if you'd like to receive this information.*

7. Can the City share a short list of contractors who are certified to install the specified repair materials?

*The City does not maintain a list of certified installers nor can it endorse specific firms. Property owners may reach out to geopolymer lining manufacturers for a list of certified installers. The City project's contractor will be using a geopolymer liner manufactured by GeoTree Solutions. There are*

*other manufacturers that produce geopolymer materials meeting the City's specifications however the use of these materials would be contingent on manufacturer demonstrating product compliance with acute toxicity testing required by the Regional Water Quality Control Board. Additional information can be provided upon request. The design professional hired for the design of the private culvert repair would also be able to support property owners in identifying qualified contractors.*

8. Can I schedule a meeting to come in and discuss the project in person?

*Meeting requests can be sent to Ricardo Salcedo via email at [rsalcedo@berkeleyca.gov](mailto:rsalcedo@berkeleyca.gov).*

9. Is it possible to have private work adjacent to the public work at the same time?

*While coordinating a combination of private and public work is potentially feasible, it presents significant challenges. To provide a thorough assessment and offer detailed feedback, we would require more specific information about the private work involved.*

10. Will a construction schedule and work plan be provided to the owners of the private sections adjacent to City's work?

*The City will send a construction notification mailer to residents in the vicinity of the project at least 1 month before construction begins. The mailer will include an invitation for property owners to submit a request to be added to the project email list. The email list will be used to provide interested residents with project schedule updates and other information.*

*Property owners can request to be added to this list at any time by sending an email with the subject heading "Request to be added to the Strawberry Creek Culvert Maintenance Project email list" to Assistant Public Works Engineer, Stephanie Angcla, at [sangcla@berkeleyca.gov](mailto:sangcla@berkeleyca.gov).*

11. Are there any challenges with creating a seamless transition between geopolymer lining in public culverts and that placed in private culverts at a later date?

*The geopolymer within the public culvert will typically end with a tapered transition. The City's project design team does not see foresee any issues with future geopolymer applications within the private culverts although there may need to be some cleaning and preparation at the conform edges to allow for a sound material bond. The final design thickness for the geopolymer in the private culvert shall not impede flow of water and provide continuous flow. The design professional for private culvert repairs would need to detail this transition and specify any prep work required per the manufacturer's recommendation for the City's review during the permitting phase.*

12. Will City and their contractors be providing additionally insured documentation specific to each of the private culvert owners which the City's contractors will be accessing?

*Private culvert owners are not named additional insured in contractor's insurance. The City is requesting access agreements for properties on which contractor plans to install cofferdams and*

*bypass piping as needed to complete the work in the right-of-way. These agreements include language that clarify that the property owners do not waive their rights to make claims and/or bring actions for damage from the City's work.*

13. For those damaged areas of the culvert that need repair prior to the application of the geopolymer, will those repairs made with traditional concrete require a 28-day cure time? If so, will water need to be diverted away from the repair area for the full period of repair and cure time?

*The 28-day cure period is the industry standard but there are several primers that can be applied to concrete to help withstand moisture and alkalinity levels if the 28-day period is not possible.*

*Ultimately it will be up to the design professional to specify the concrete requirements for the City's review.*