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| Site InformationFeature Name: STR-1Latitude: 35.237373 N, Longitude: -85.873489 W |
| Minimization / Alternative Analysis:The following alternatives have been considered during the design of the roadway plans:Alternative 1: Temporarily relocate the stream.Reason why not chosen: This is not a feasible alternative as STR-1 runs off mountainous terrain (off existing ROW) into the I-24 Eastbound roadside channel within the rockfall mitigation work zone and leaving the project site by way of catch basin and cross drain. Temporarily relocating the stream would most likely cause additional ROW and stream impacts.Alternative 2: Place enhanced rock check dams in the stream and clean sediment as construction progresses.Reason why not chosen: This alternative would impede the rockfall mitigation work zone and would not allow for protection against damage to the stream from construction equipment or debris falling from mountainous terrain that could do considerable damage to the stream bed, which could prevent restoration back to its original condition. Additionally, this alternative would involve instream measures thus altering stream flow and minimizing aquatic passage if present.Alternative 3: Install a pipe diversion to protect stream during construction. Reason why this is the preferred alternative: Install a pipe diversion along the existing stream and remove falling debris from rockfall mitigation construction activities. Place geo-membrane in existing stream with a temporary pipe casing and cover the pipe with a stone pad for protection against falling debris during scaling & trimming operations. Once scaling & trimming operations are complete and all debris removed, temporary diversion materials can be removed and exposing existing stream. |