

SR 88, MP 222-229: ALTERNATIVES DESCRIPTIONS

Technical Category	Alternative 1 Higher Resilience/Lower Risk of Future Closures	Alternative 2 Medium Resilience/Medium Risk of Future Closures	Alternative 3 Lower Resilience/Higher Risk of Future Closures	Alternative 3A Re-open SR 88 No Resilience Improvements/ Highest Risk of Future Closures	ADOT's Preferred Hybrid Alternative
Roadway Cross Section	<ul style="list-style-type: none"> No improvements to roadway curves or grades Widen roadway to 24 ft to provide two 10-ft travel lanes and two 2-ft shoulders Add concrete barrier along Fish Creek Hill and add modern guard rail throughout to meet current guidelines Lay back slopes for sight distance improvements Add signs and pavement marking. 	<ul style="list-style-type: none"> No improvements to roadway curves or grades Widen roadway to 20 ft to provide two 10-ft travel lanes, no shoulders Stabilize existing shoulders Add pull-outs Replace existing guardrail with concrete barrier along Fish Creek Hill Add reflectors along curves Add signs throughout 	<ul style="list-style-type: none"> No improvements to roadway curves or grades No widening Remove rockslide that blocks road Add concrete barrier along Fish Creek Hill Add reflectors along curves Add signs throughout 	<ul style="list-style-type: none"> No improvements to roadway curves or grades No widening Add concrete barrier on Fish Creek Hill. Remove rockslide that blocks road at MP 223.2 	<ul style="list-style-type: none"> No improvements to roadway curves or grades Minor widening to allow space for barrier and ditch. 15-ft minimum width includes barrier width. Remove rockslide that blocks road Add concrete barrier along Fish Creek Hill Add reflectors along curves and signs throughout. Add pull-outs
Roadway Widening (geotech)					
20'	• N/A	• Would require moderate widening of existing roadway through combination of cut widening, cut slope treatments, and/or fill slopes	• N/A	• N/A	• N/A
24'	• Would require moderate widening of existing roadway through combination of cut widening, cut slope treatments, and fill slopes	• N/A	• N/A	• N/A	• N/A
Roadway Surface	• Asphalt pavement	• Stabilized aggregate	• Grade existing dirt road	• Grade existing dirt road	• Match pavement of project to the east (MP 229 to Roosevelt Dam): <ul style="list-style-type: none"> Steep roadway segments: asphalt Less steep roadway segments: chip seal
Bridges					
Fish Creek	• Replace with new 1-lane bridge	• Repair/rehab – bridge deck, increase strength, service life	• Necessary repairs only (localized corrosion or damage, paint, curbs)	• None (pending bridge inspection)	• Repair/rehab – bridge deck, increase strength, service life
Lewis and Pranty Creek	• Replace with new 1-lane bridge	• Since bridge has been overtopped, raise bridge up to two feet	• Necessary repairs only (localized corrosion or damage, paint, curbs)	• None (pending bridge inspection)	• Since bridge has been overtopped, raise bridge up to two feet
Dry Wash	• Replace with new 1-lane bridge	• Repair/rehab – bridge deck, increase strength, service life	• Necessary repairs only (localized corrosion or damage, paint, curbs)	• None (pending bridge inspection)	• Repair/rehab – bridge deck, increase strength, service life
Cut Slopes - Upslope					
Rockfall Debris	• Flatten slopes and install debris flow barriers upslope	• Flatten slopes and install isolated debris flow barriers	• Scaling only as needed	• None	• Scaling only as needed
Rock Slopes	• Flatten slopes with scaling	• Scaling	• Scaling only as needed	• None	• Scaling only as needed
Rockfall					
Rock Bolts	• Identify potentially unstable rocks < 50 feet from the road. Isolated rockfall from high slopes will be evaluated	• Limited to isolated rocks < 20 feet from the road that shouldn't be removed to maintain overall slope stability	• N/A	• None	• Identify potentially unstable rocks < 50 feet from the road. Isolated rockfall from high slopes will be evaluated
Retaining Walls	<ul style="list-style-type: none"> More prevalent to establish wider roadway section. Add walls to avoid encroachment into wilderness 	<ul style="list-style-type: none"> Prevalent to establish wider roadway section. Add walls to avoid encroachment into wilderness 	• Limited use only to reestablish eroded roadway.	• None	• Limited use only to reestablish eroded roadway and confine improvements to non-wilderness.
Drainage Culverts / Headwalls / Outlet Protection	<ul style="list-style-type: none"> Upsize pipes as needed to allow sediment to more easily pass through the system. Include debris flow barriers to retain cobbles and boulders. Upsize culverts to pass large predicted future storms Add outlet protection where downstream erosion is occurring Steepen flatter culverts where possible to improve self-cleaning 	<ul style="list-style-type: none"> Upsize pipes as needed to allow sediment to more easily pass through the system. Upsize culverts to pass medium predicted future storms Add outlet protection where downstream erosion is occurring 	<ul style="list-style-type: none"> Clean inlets/pipes as needed. Will require ongoing maintenance Repair/replace damaged culverts Replace currently undersized culverts (today flows) 	• No action	<ul style="list-style-type: none"> Upsize pipes as needed to allow sediment to more easily pass through the system. Upsize culverts to pass medium predicted future storms Add outlet protection where downstream erosion is occurring Clean out and line existing pipes as needed
Roadside Ditches	<ul style="list-style-type: none"> Add roadside ditches where flow over roadway will cause potential damage Add crown ditches to direct flows away from rock slopes 	• Add roadside ditches where flow over roadway will cause potential damage	• Clean and re-establish existing ditches	• No action	• Add roadside ditches where flow over roadway will cause potential damage:

Yellow highlight = Elements of Preferred Hybrid Alternative