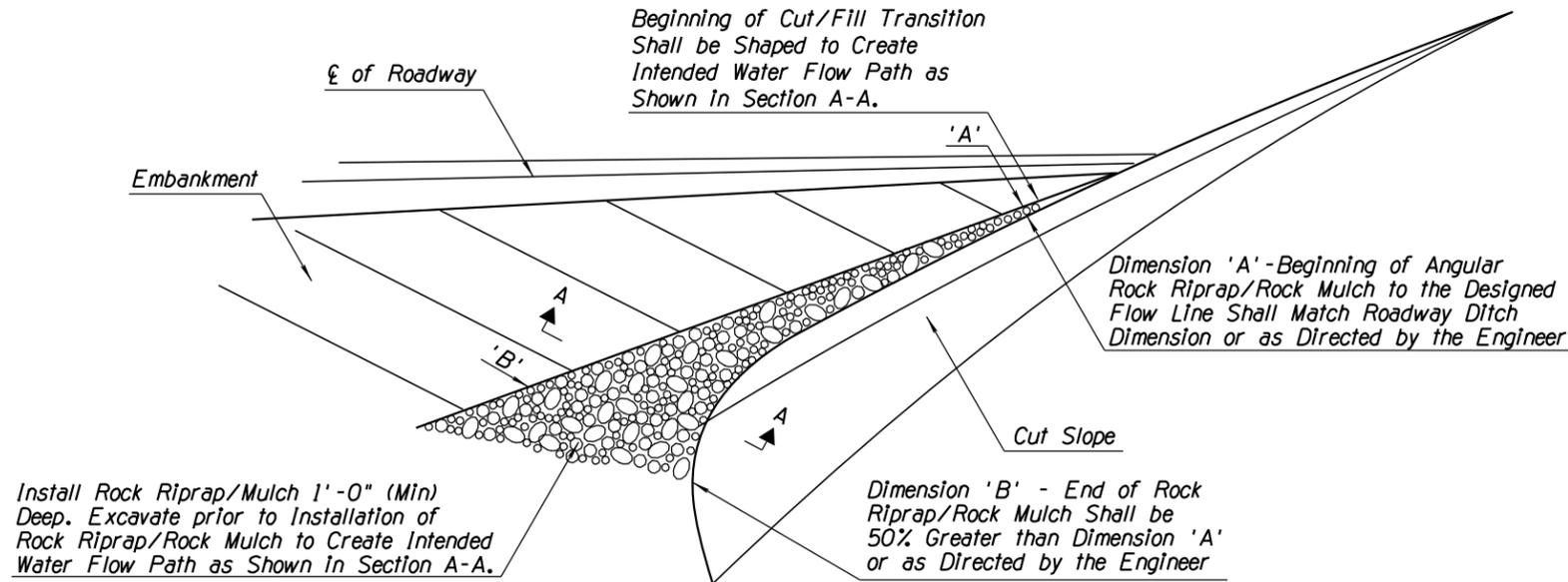
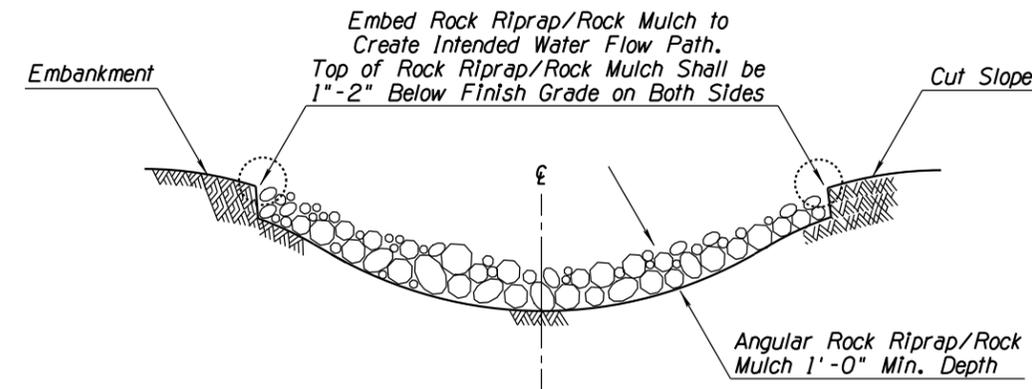


F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.				



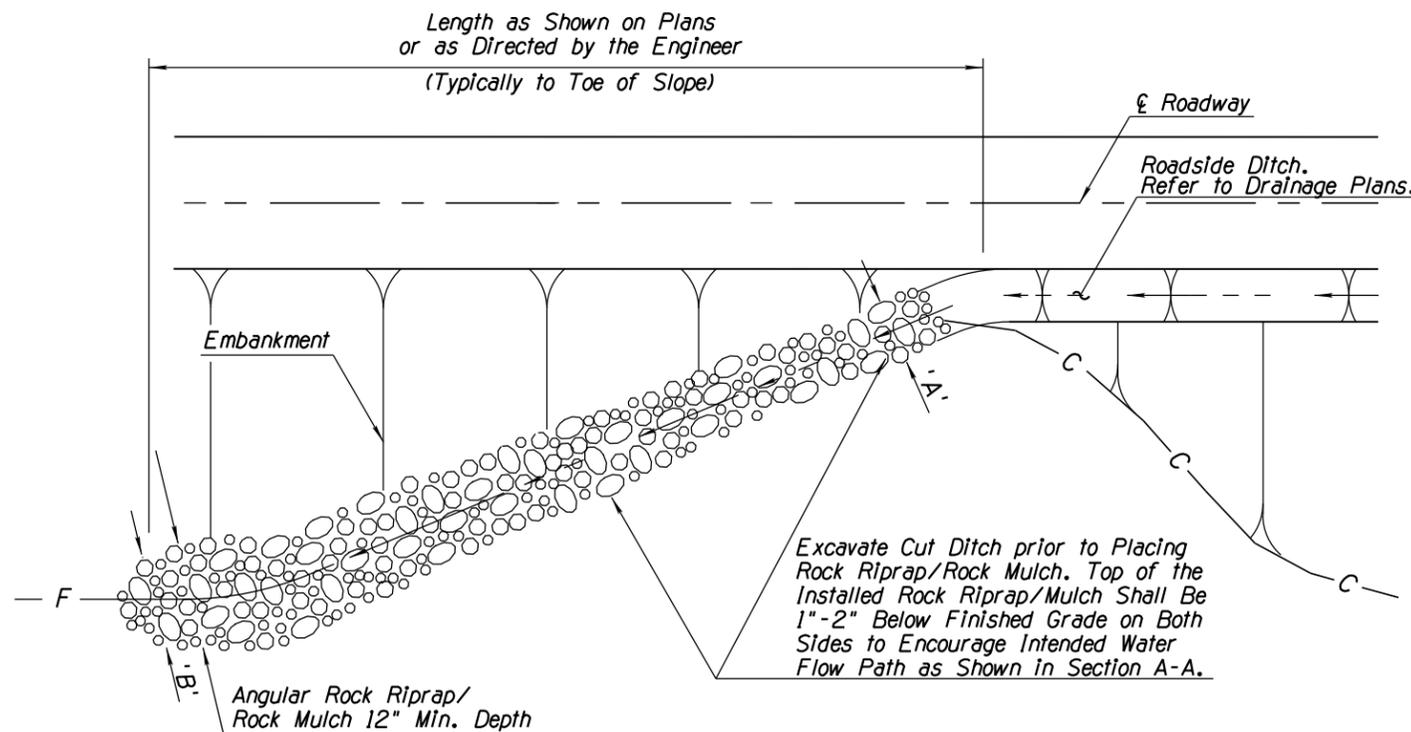
ROCK RIPRAP/ROCK MULCH FLOW PATH PERSPECTIVE (NTS)



ROCK RIPRAP/ROCK MULCH FLOW PATH EMBEDMENT SECTION A-A (NTS)

NOTES:

1. Rock Riprap/Rock Mulch shall be angular shaped, crushed rock materials. Natural river-run materials such as rounded river rocks/cobblestones and pebbles are NOT acceptable.
2. Rock Riprap/Rock Mulch within the traffic Clear Zone/Recovery Area shall conform to the requirements of Section 810-2.03 Sieve Size Gradation A and/or Gradation C, and Section 913 of the Specifications and project special provisions.
3. Install Rock Riprap/Rock Mulch to a minimum depth of 12" for Channel Lining and Cut/Fill Transition. Excavate ground surface to a depth that the top of Rock is 1"-2" below the grade of the ditch to encourage Intended Flow Path as shown in Section A-A.
4. Embed any rock into the finished grade so that any portion of the Rock is less than 4" above grade, within traffic recovery area/clear zone.
5. The installation and maintenance of Rock Protection CMs/BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities. Rock Protection CMs/BMPs shall be installed and maintained to carry the stormwater of at least 2-year, 24-hour events.
6. Make field adjustments and corrections of Rock Protection CM/BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
7. Make field adjustments to ensure the top surface of Rock Riprap/Rock Mulch is graded lower than the surrounding finished grade to collect surface stormwater runoff and concentrated flow.
8. The Rock Protection CM/BMP's pay/bid item shall include all materials used for this CM/BMP: all ground preparation, furnishing, installing, maintaining, as well as returning the area to an acceptable condition as approved by the Engineer.
9. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.



ROCK RIPRAP/ROCK MULCH FLOW PATH PLAN VIEW (NTS)

NOTE:
Cut and fill transition shall be placed as shown on plans or where the length of the roadside ditch is 50 feet or greater. Field adjust per direction of Engineer.

DETAIL ES5

ROCK PROTECTION FOR CUT & FILL TRANSITION AND CHANNEL LINING

DESIGN	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADSIDE DEVELOPMENT SECTION
DESIGN	TAO ZI FONG	6-2020	
DESIGN	HAN MENG	6-2020	
DRAWN	TAO ZI FONG	6-2020	
DRAWN	HAN MENG	6-2020	
CHECKED	JOHN R. HUCKO	6-2020	STORMWATER QUALITY PROTECTION & EROSION/SEDIMENT CONTROL DETAILS
TEAM LEADER	E LEROY BRADY	6-2020	

ROUTE	MP	LOCATION	SHEET OF
			___ OF ___

TRACS NO.