



FORMATION	Trabuco (Ktr)		Santiago Peak Volcanics (Kvsp)		Bedford Canyon Formation (Jbc)				Santiago Peak Volcanics (Kvsp)							
LITHOLOGY	Massive conglomerate containing clasts from the Jbc and Kvsp.		Basaltic andesite, andesite, dacite, rhyolite, volcaniclastic breccia, welded tuff, and epiclastic rocks.		80% Metasandstone & Argillite 20% Calcareous Metasandstone		75% Metasandstone/Argillite 15% Pebbly Mudstone 7% Calcareous Metasandstone 3% Metasandstone		65% Metasandstone 35% Pebbly Mudstone		60% Metasandstone 15% Pebbly Mudstone 15% Argillite 10% Fault Gouge		Basaltic andesite, andesite, dacite, rhyolite, volcaniclastic breccia, welded tuff, and epiclastic rocks.			
KEY FEATURES	Highly weathered, clasts up to 1 m in diameter, poorly cemented		Andesite flows and flow breccias are most common.		Thinly interbedded metasandstone and argillite with some local shearing				Local shearing/fault gouge		Local shearing					
INTACT ROCK STRENGTH	Conglomerate: very weak to weak		Mod. strong to very strong		Metasandstone & Argillite: Weak to very strong Metasandstone: Mod. strong to extremely strong		Metasandstone & Argillite: Weak to very strong Metasandstone: Mod. strong to extremely strong Pebbly Mudstone: Very weak – mod. strong				Metasandstone: Mod. strong – extremely strong Pebbly Mudstone: Very weak–mod. strong		Pebbly Mudstone: Very weak –mod. strong Metasandstone: Mod. strong – extremely strong Fault Gouge: Very weak		Mod. strong – very strong	
FRACTURING/ BEDDING/ STRUCTURE	Cross-bedded to massive		Jointed, shears, locally stratified, highly angular clasts		Dip: 56 deg (SSE)		Variable – Dip: 56 deg (SSE) to 45° (E)				Dip: 45 deg (E)		Variable – Dip: 45° – 42° (E)			
POTENTIAL GROUNDWATER INFLOWS	Mod. low to high		Low (fracture controlled)		Low. May be locally high in highly fractured zones.											
LIKELY GROUND CONDITION	Raveling with flowing potential if below the water table, overbreak		Massive with local shears. Potential for raveling		Blocky and seamy with local raveling. Squeezing expected in sheared zones and in argillite and pebbly mudstone lithologies										Blocky ground	
ROCK CLASSIFICATION (RMR)	Poor rock		Poor to fair rock		Fair				Fair to poor							
ANTICIPATED GROUNDWATER HEAD	0 to 60 ft (0 to 1.8 Bar)		0 to 640 ft (0 to 19.1 Bar)		540 to 700 ft (16.1 to 20.9 Bar)		460 to 660 ft (13.7 to 19.7 Bar)				440 to 460 ft (13.1 to 13.7 Bar)		360 to 640 ft (10.8 to 19.1 Bar)			
CONCEPTUAL LINING REQUIREMENTS	Class I	Class II		Class III												
MUCK RE-USE POTENTIAL	Fill															
GEOLOGICAL/ NATURAL HAZARDS	Corrosive groundwater and hydrogen sulfide															

NOTE: REFER TO FIGURE 2-1B FOR EXPLANATION OF GEOLOGIC UNITS.

CONCEPTUAL - NOT FOR CONSTRUCTION

REVISIONS	DESCRIPTION	BY	CK.	APP.	DATE	DESCRIPTION	BY	CK.	APP.	DATE	DRAWN BY	X. XXXXX	XX-XX	JACOBS ASSOCIATES Engineers/Consultants	IRVINE CORONA EXPRESSWAY		SCALE AS NOTED	REV. A
											CHECKED				GENERALIZED GEOLOGIC PROFILE & TUNNELING CONDITIONS - 3 OF 4		JOB NUMBER 4090	
																	DRAWING NUMBER 2-3C	
											APPROVED							