

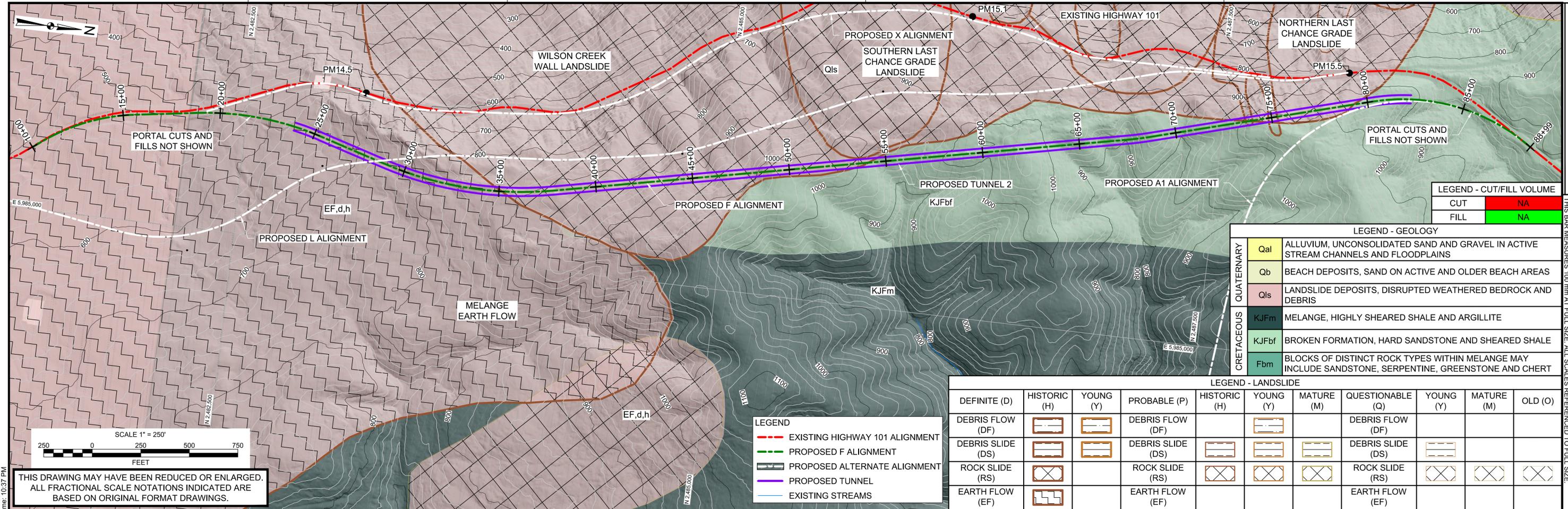
NOTES:

- ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
- THIS DRAWING MUST BE READ IN CONJUNCTION WITH BGC'S REPORT TITLED "LAST CHANCE GRADE EXPERT-BASED RISK ASSESSMENT", AND DATED JUNE 2018.
- BASE TOPOGRAPHIC DATA BASED ON LIDAR PROVIDED BY CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS), DATED 2011 AND 2016. CONTOUR INTERVAL IS 100.0 FT.
- PROJECTION IS STATE PLANE CALIFORNIA ZONE 1 NAD83 US FEET.
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SCALE:	AS SHOWN	BGC ENGINEERING INC. AN APPLIED EARTH SCIENCES COMPANY	PROJECT:	LAST CHANCE GRADE EXPERT-BASED RISK ASSESSMENT		
DATE:	JUN 2018		TITLE:	C3 CONNECTION CONSTRUCTION SEGMENTS CONCEPTUAL DESIGN, GEOLOGY, AND LANDSLIDE PLAN		
DRAWN:	AH	CLIENT:	CALIFORNIA DEPARTMENT OF TRANSPORTATION		PROJECT No.:	1778-001
CHECKED:	CC				DWG No.:	06
APPROVED:	SA					

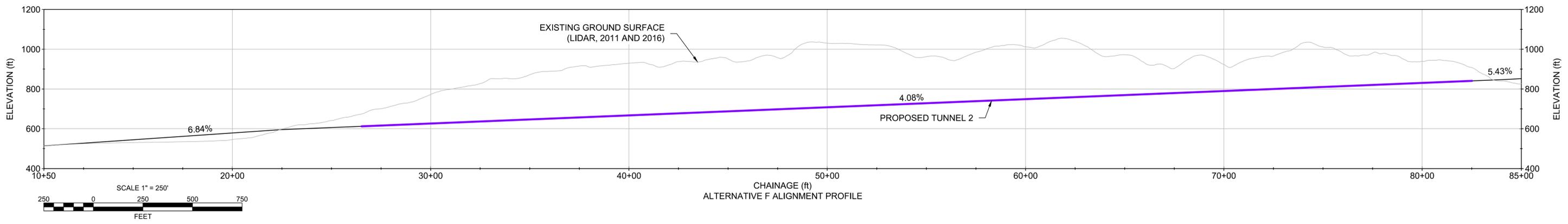
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THIS DRAWING MEASURES 100 mm AT FULL SIZE. ALL SCALES REFERENCED TO FULL SIZE.



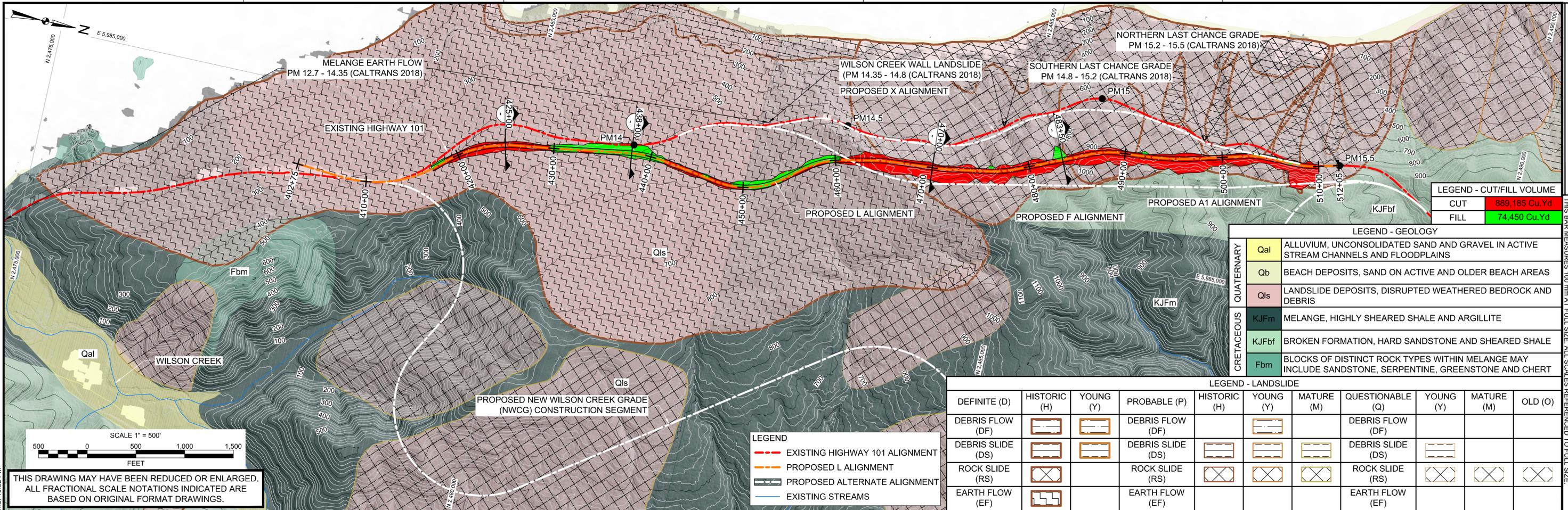
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THIS BAR MEASURES 100 mm AT FULL SIZE. ALL SCALES REFERENCED TO FULL SIZE.



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 - BASE TOPOGRAPHIC DATA BASED ON LIDAR PROVIDED BY CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS), DATED 2011 AND 2016. CONTOUR INTERVAL IS 20.0 FT.
 - PROJECTION IS STATE PLANE CALIFORNIA ZONE 1 NAD83 US FEET.
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SCALE:	AS SHOWN		PROJECT:	LAST CHANCE GRADE EXPERT-BASED RISK ASSESSMENT	
DATE:	JUN 2018		TITLE:	LAST CHANCE GRADE TUNNEL F CONSTRUCTION SEGMENT CONCEPTUAL DESIGN, GEOLOGY, AND LANDSLIDE PLAN	
DRAWN:	AH	CLIENT:	CALIFORNIA DEPARTMENT OF TRANSPORTATION		
CHECKED:	CC	PROJECT No.:	1778-001	DWG No.:	07
APPROVED:	SA				

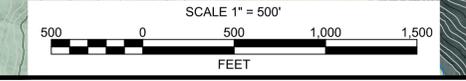


LEGEND - CUT/FILL VOLUME	
CUT	889,185 Cu.Yd
FILL	74,450 Cu.Yd

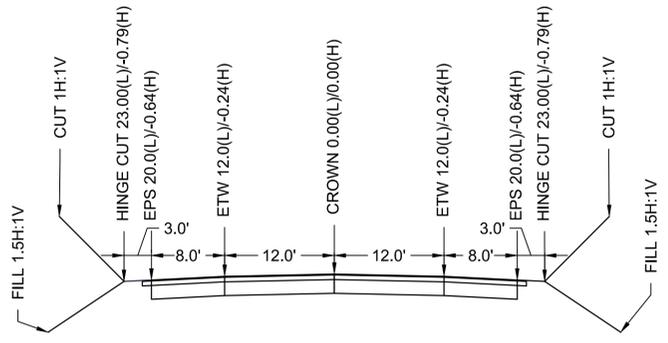
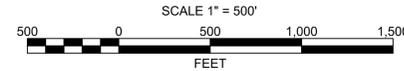
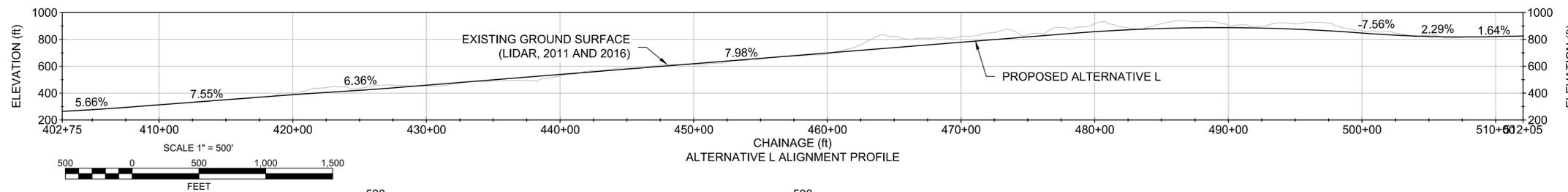
LEGEND - GEOLOGY	
QUATERNARY	Qal ALLUVIUM, UNCONSOLIDATED SAND AND GRAVEL IN ACTIVE STREAM CHANNELS AND FLOODPLAINS
Qb	BEACH DEPOSITS, SAND ON ACTIVE AND OLDER BEACH AREAS
Qls	LANDSLIDE DEPOSITS, DISRUPTED WEATHERED BEDROCK AND DEBRIS
CRETACEOUS	KJFm MELANGE, HIGHLY SHEARED SHALE AND ARGILLITE
KJFbf	BROKEN FORMATION, HARD SANDSTONE AND SHEARED SHALE
Fbm	BLOCKS OF DISTINCT ROCK TYPES WITHIN MELANGE MAY INCLUDE SANDSTONE, SERPENTINE, GREENSTONE AND CHERT

LEGEND - LANDSLIDE										
DEFINITE (D)	HISTORIC (H)	YOUNG (Y)	PROBABLE (P)	HISTORIC (H)	YOUNG (Y)	MATURE (M)	QUESTIONABLE (Q)	YOUNG (Y)	MATURE (M)	OLD (O)
DEBRIS FLOW (DF)	[Symbol]	[Symbol]	DEBRIS FLOW (DF)	[Symbol]	[Symbol]	[Symbol]	DEBRIS FLOW (DF)	[Symbol]	[Symbol]	[Symbol]
DEBRIS SLIDE (DS)	[Symbol]	[Symbol]	DEBRIS SLIDE (DS)	[Symbol]	[Symbol]	[Symbol]	DEBRIS SLIDE (DS)	[Symbol]	[Symbol]	[Symbol]
ROCK SLIDE (RS)	[Symbol]	[Symbol]	ROCK SLIDE (RS)	[Symbol]	[Symbol]	[Symbol]	ROCK SLIDE (RS)	[Symbol]	[Symbol]	[Symbol]
EARTH FLOW (EF)	[Symbol]	[Symbol]	EARTH FLOW (EF)	[Symbol]	[Symbol]	[Symbol]	EARTH FLOW (EF)	[Symbol]	[Symbol]	[Symbol]

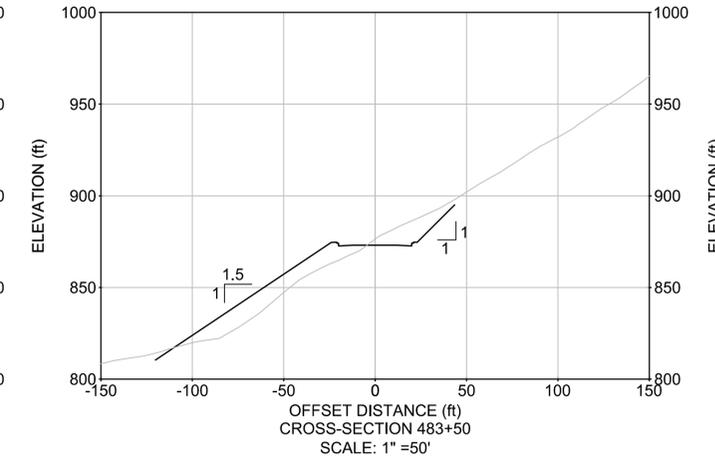
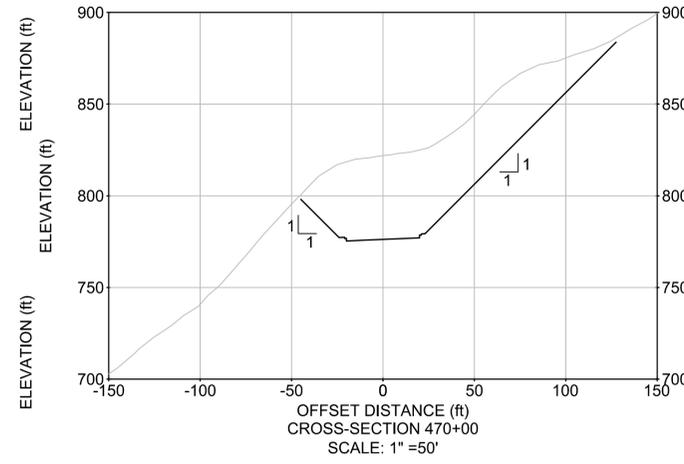
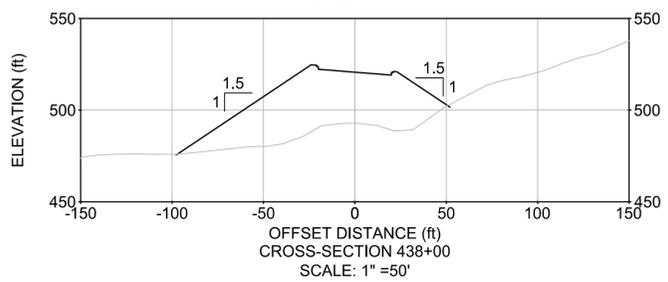
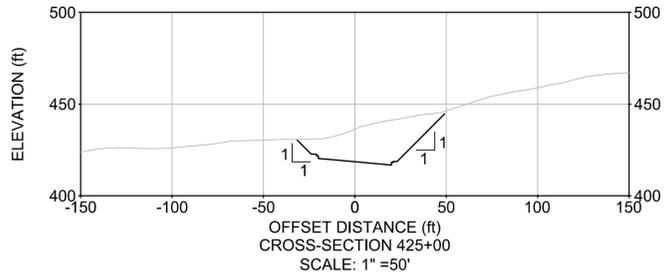
LEGEND	
[Symbol]	EXISTING HIGHWAY 101 ALIGNMENT
[Symbol]	PROPOSED L ALIGNMENT
[Symbol]	PROPOSED ALTERNATE ALIGNMENT
[Symbol]	EXISTING STREAMS



THIS DRAWING MAY HAVE BEEN REDUCED OR ENLARGED. ALL FRACTIONAL SCALE NOTATIONS INDICATED ARE BASED ON ORIGINAL FORMAT DRAWINGS.



TYPICAL CROSS SECTION DETAIL NTS

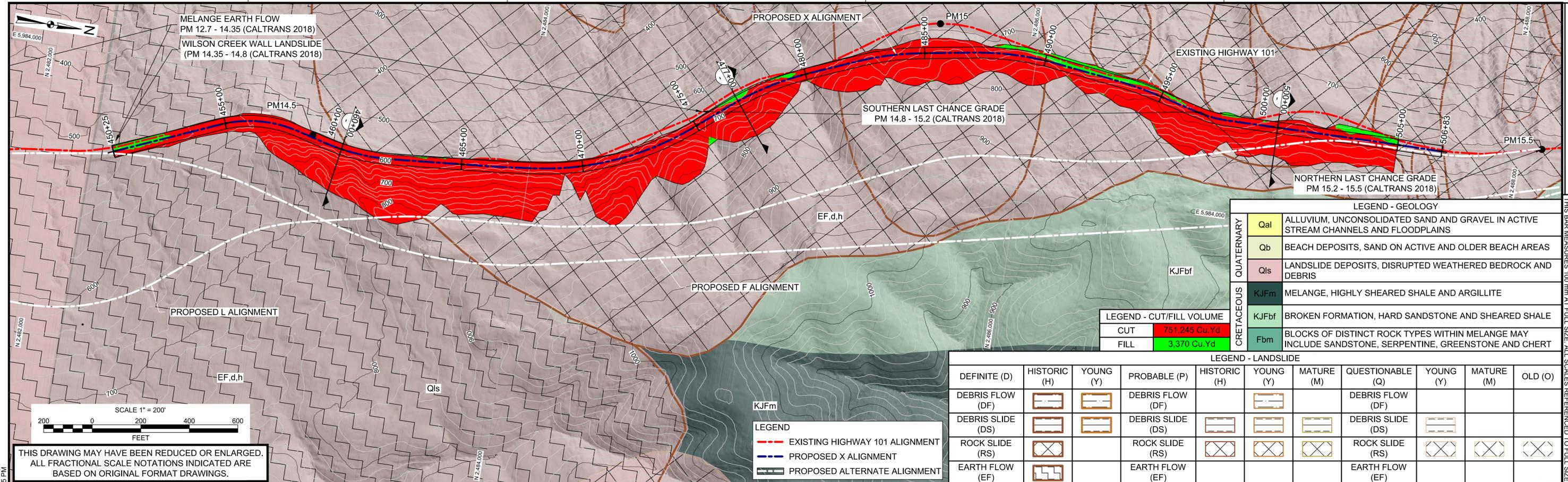


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 - SEE DRAWING 01 NOTES FOR ADDITIONAL EXPLANATION AND REFERENCE FOR THIS DRAWING.
 - CONCEPTUAL DESIGN INCLUDES SURFACE AND SUBSURFACE DRAINAGE NOT SHOWN HERE. ANTICIPATED ELEMENTS INCLUDE LINED DITCHES AND DRILLED DRAINS, AND POSSIBLY SHAFTS AND TUNNELS, TO CONTROL SHALLOW, PERCHED, AND REGIONAL WATER LEVELS WITHIN AND BELOW SLIP SURFACES. SCOPE OF INSTALLED DRAINAGE IS ASSUMED TO BE PRECEDENT-SETTING FOR HIGHWAY WORK.

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SCALE:	AS SHOWN		PROJECT:	LAST CHANCE GRADE EXPERT-BASED RISK ASSESSMENT	
DATE:	JUN 2018		TITLE:	MÉLANGE EARTH FLOW (L) AND LAST CHANCE GRADE LANDSLIDES (L) CONSTRUCTION SEGMENTS CONCEPTUAL DESIGN, GEOLOGY, AND LANDSLIDE PLAN	
DRAWN:	AH		CLIENT:	CALIFORNIA DEPARTMENT OF TRANSPORTATION	
CHECKED:	CC		PROJECT No.:	1776-001	DWG No.:
APPROVED:	SA				



LEGEND - GEOLOGY

QUATERNARY	Qal	ALLUVIUM, UNCONSOLIDATED SAND AND GRAVEL IN ACTIVE STREAM CHANNELS AND FLOODPLAINS
	Qb	BEACH DEPOSITS, SAND ON ACTIVE AND OLDER BEACH AREAS
	Qls	LANDSLIDE DEPOSITS, DISRUPTED WEATHERED BEDROCK AND DEBRIS
CRETACEOUS	KJFm	MELANGE, HIGHLY SHEARED SHALE AND ARGILLITE
	KJFbf	BROKEN FORMATION, HARD SANDSTONE AND SHEARED SHALE
	Fbm	BLOCKS OF DISTINCT ROCK TYPES WITHIN MELANGE MAY INCLUDE SANDSTONE, SERPENTINE, GREENSTONE AND CHERT

LEGEND - CUT/FILL VOLUME

CUT	751,245 Cu.Yd
FILL	3,370 Cu.Yd

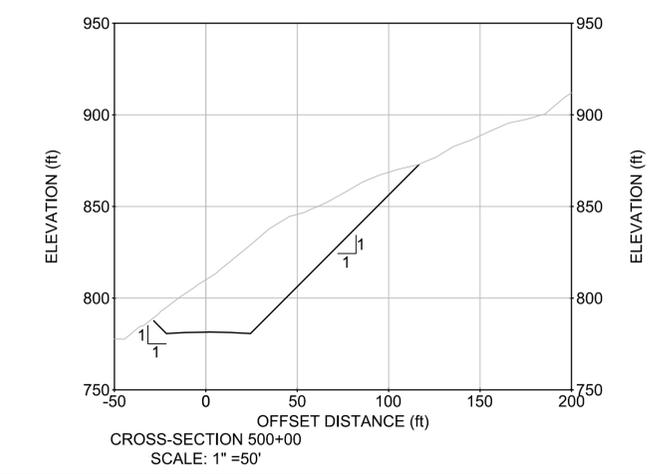
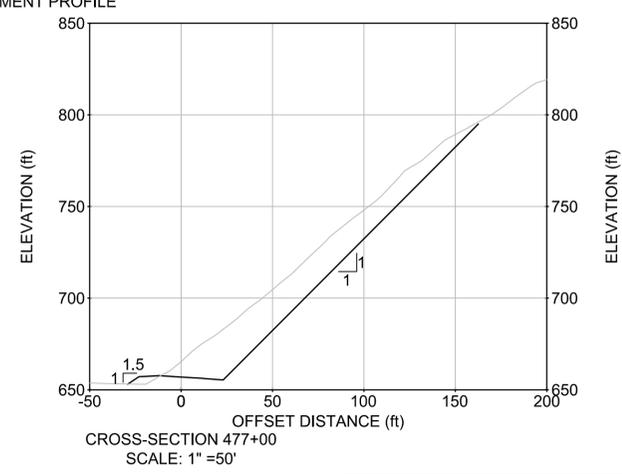
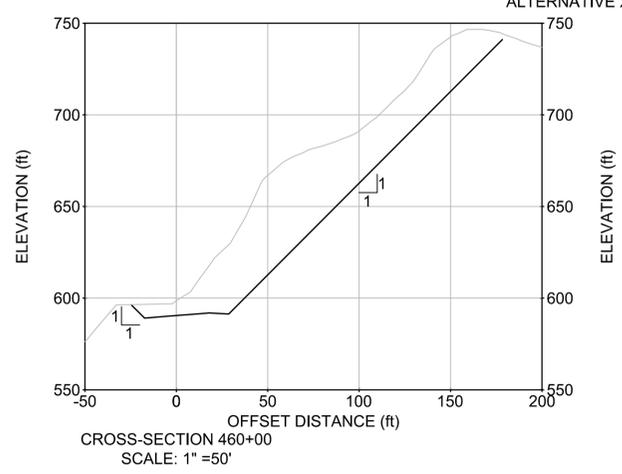
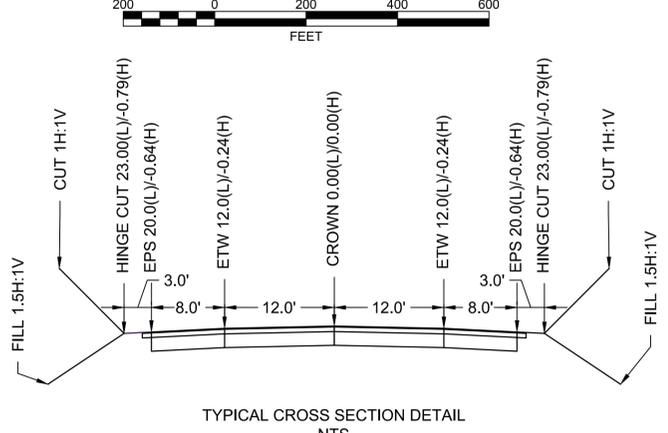
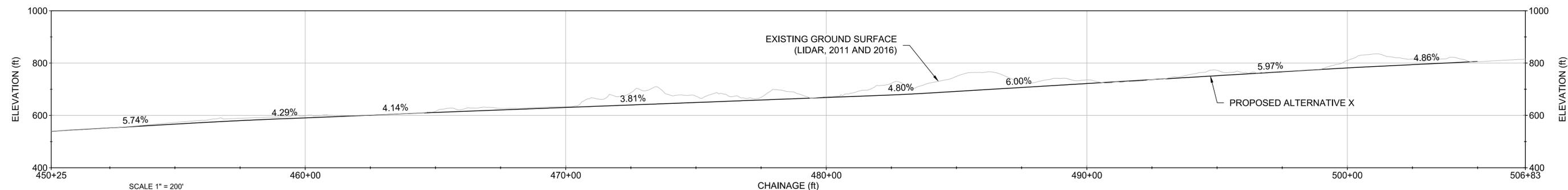
LEGEND - LANDSLIDE

	DEFINITE (D)	HISTORIC (H)	YOUNG (Y)	PROBABLE (P)	HISTORIC (H)	YOUNG (Y)	MATURE (M)	QUESTIONABLE (Q)	YOUNG (Y)	MATURE (M)	OLD (O)
DEBRIS FLOW (DF)	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]
DEBRIS SLIDE (DS)	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]
ROCK SLIDE (RS)	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]
EARTH FLOW (EF)	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]

LEGEND

- EXISTING HIGHWAY 101 ALIGNMENT
- PROPOSED X ALIGNMENT
- PROPOSED ALTERNATE ALIGNMENT

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SCALE:	AS SHOWN		PROJECT:	LAST CHANCE GRADE EXPERT-BASED RISK ASSESSMENT	
DATE:	JUN 2018		TITLE:	LAST CHANCE GRADE LANDSLIDES (X) CONSTRUCTION SEGMENT CONCEPTUAL DESIGN, GEOLOGY, AND LANDSLIDE PLAN	
DRAWN:	AH		CLIENT:	CALIFORNIA DEPARTMENT OF TRANSPORTATION	
CHECKED:	CC		PROJECT No.:	1778-001	DWG No.:
APPROVED:	SA				

X:\Projects\1778\CAD\Production\Report\Memo\20171211_LAST CHANCE GRADE EXPERT-BASED RISK ASSESSMENT\T09.dwg Layout: 09 Plot Date Jun 7 18 Time: 10:45 PM

THIS BAR MEASURES 100 mm AT FULL SIZE. ALL SCALES REFERENCED TO FULL SIZE.