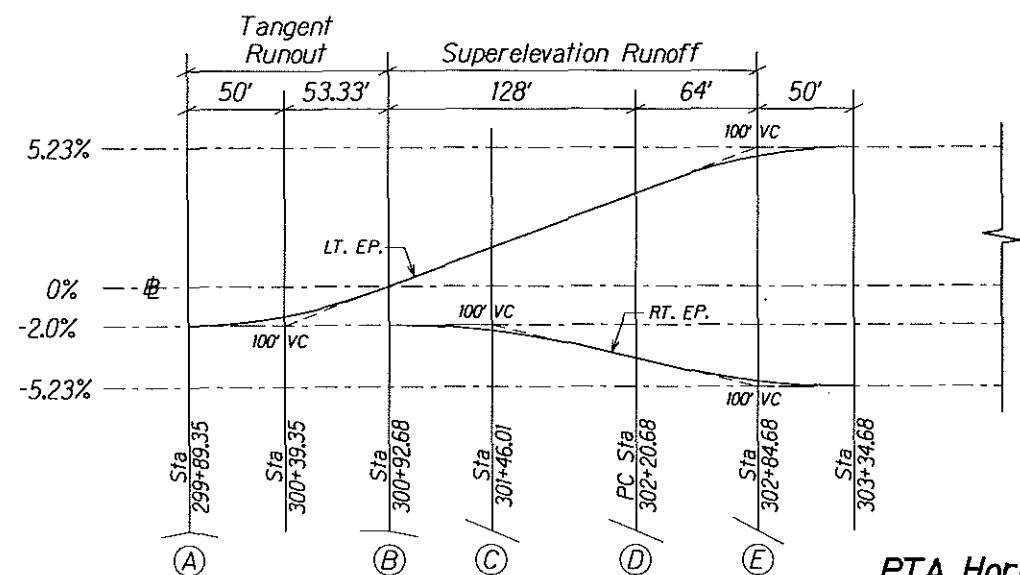
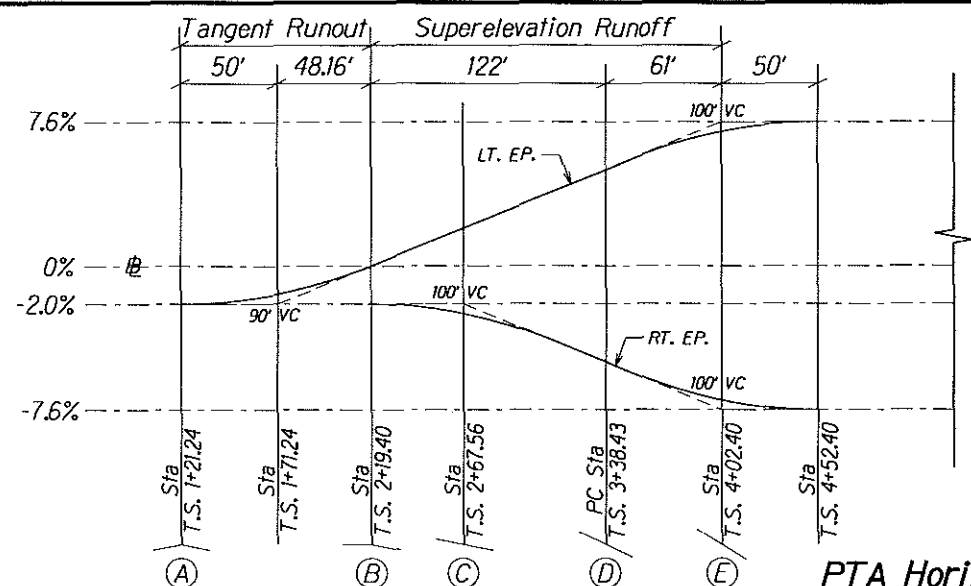
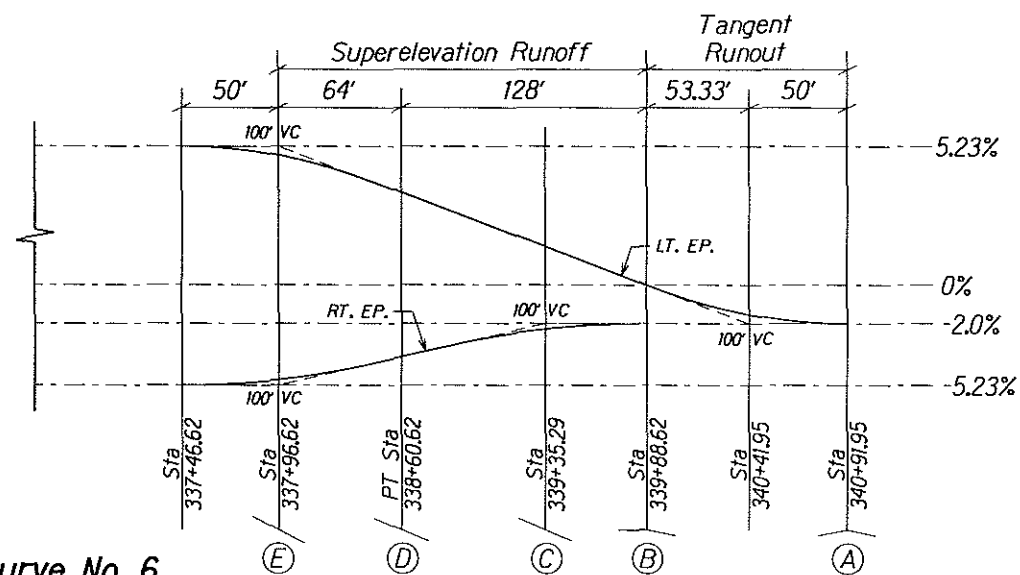


STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI A-AD/STP 6(3) # 200(1)	B9	B18



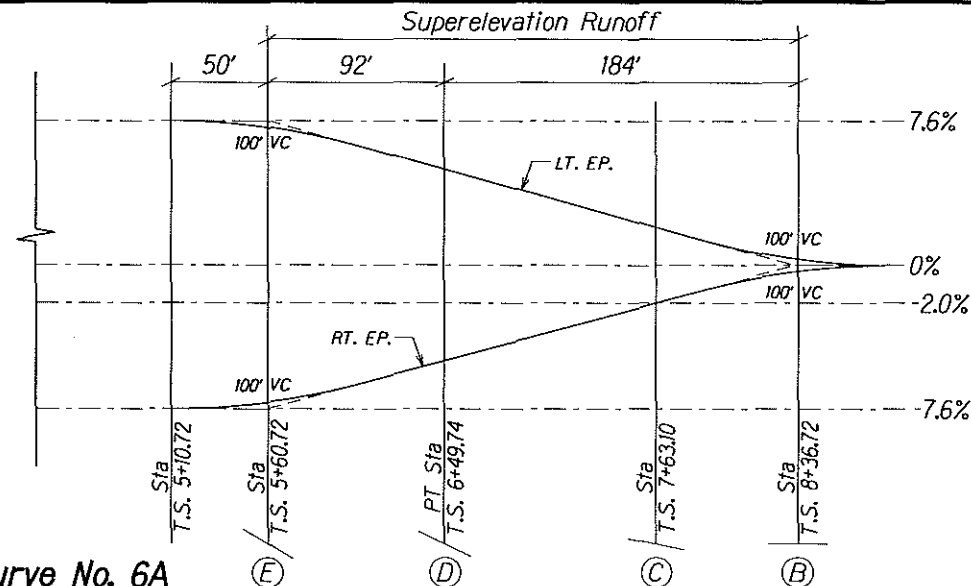
PTA Horizontal Curve No. 6
 $R = 2790'$; $e = 5.23\%$; Right

V=60 mph

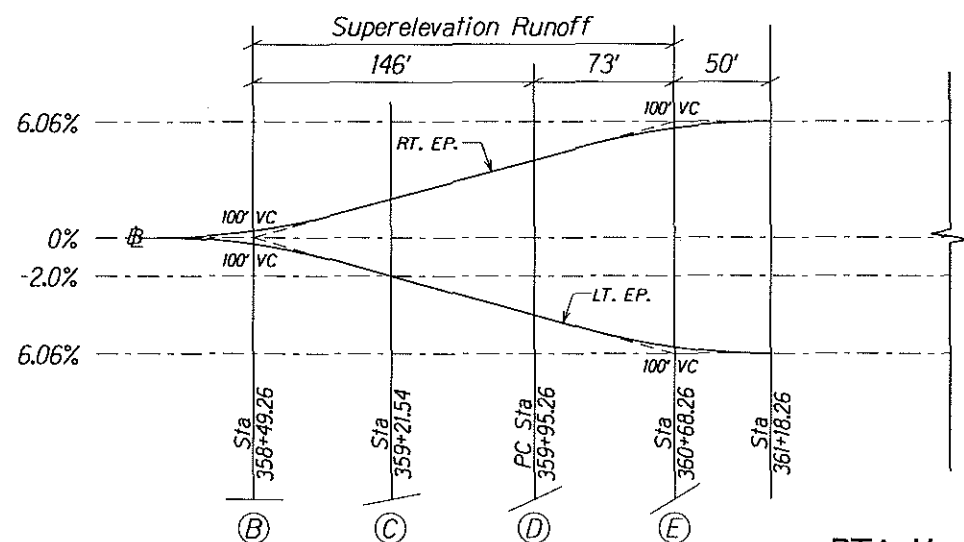


PTA Horizontal Curve No. 6A
 $R = 1000'$; $e = 7.60\%$; Right

V=50 mph

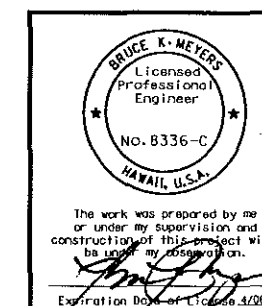
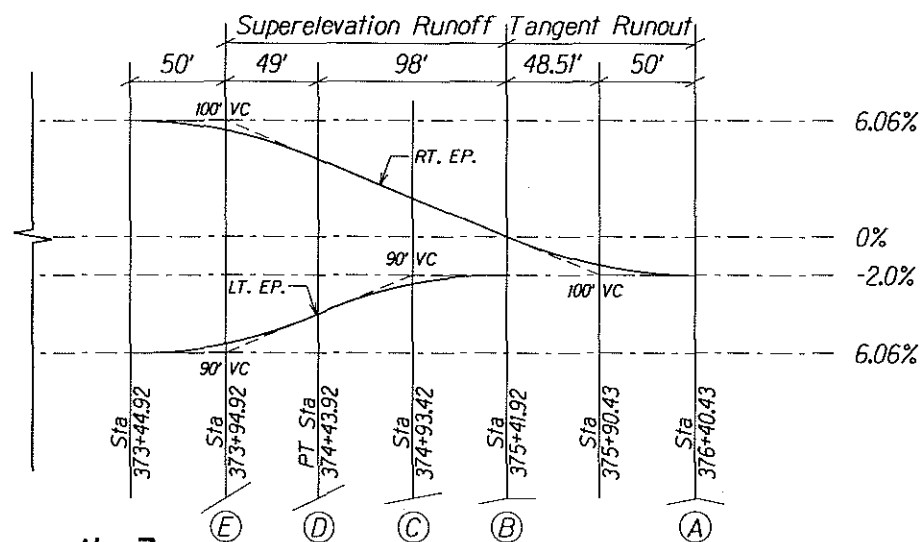


(Temporary Connection to Existing Saddle Road)



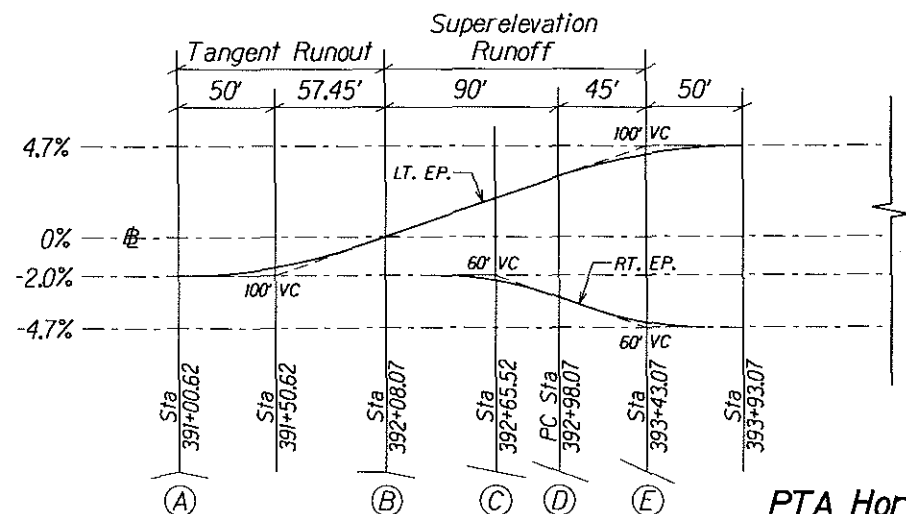
PTA Horizontal Curve No. 7
 $R = 2300'$; $e = 6.06\%$; Left

V=60 mph



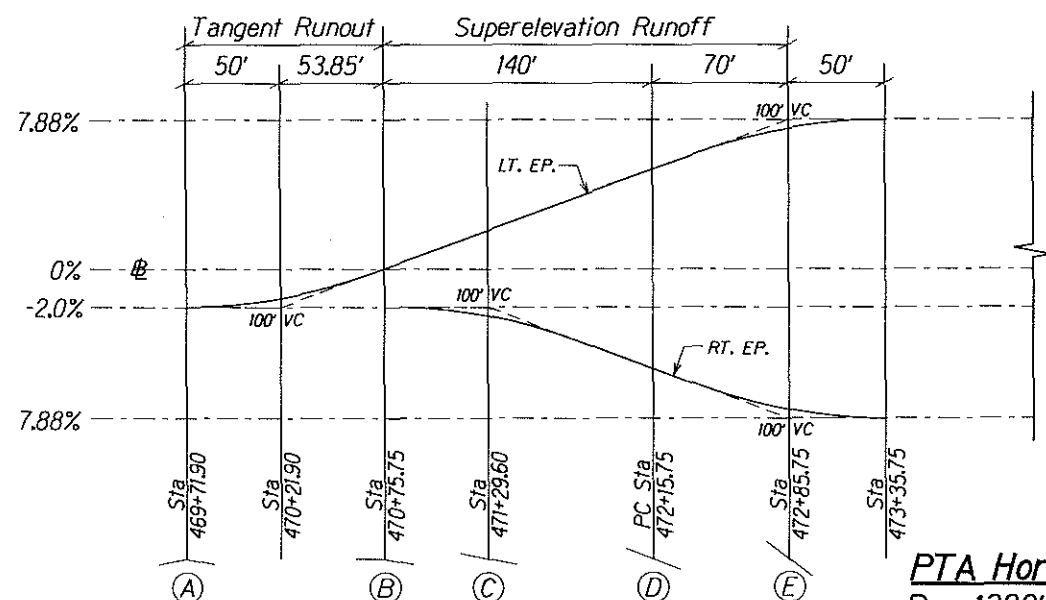
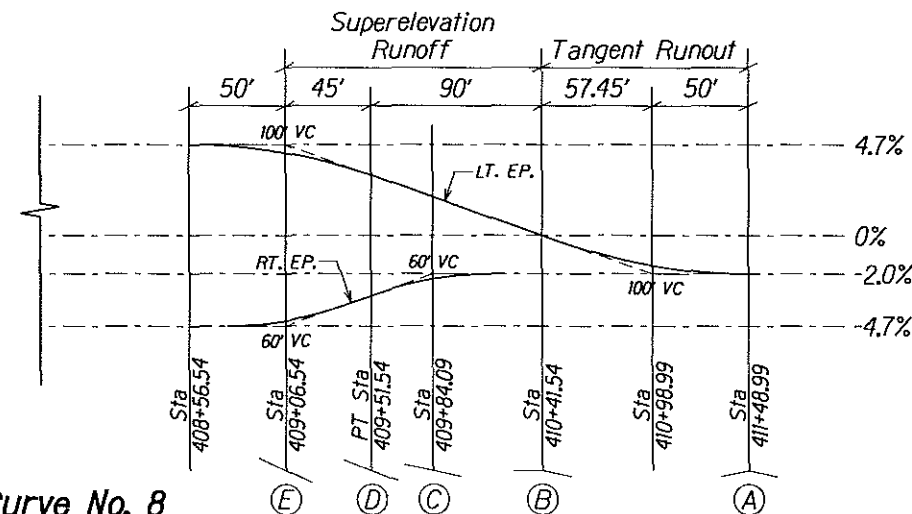
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
PTA SADDLE ROAD SUPERELEVATION DIAGRAMS	
Scale: 1"=100'	Date: December 5, 2005
SHEET No. 1 OF 10	

STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI A-AD/STP 6(3) # 200(1)	B10	B18



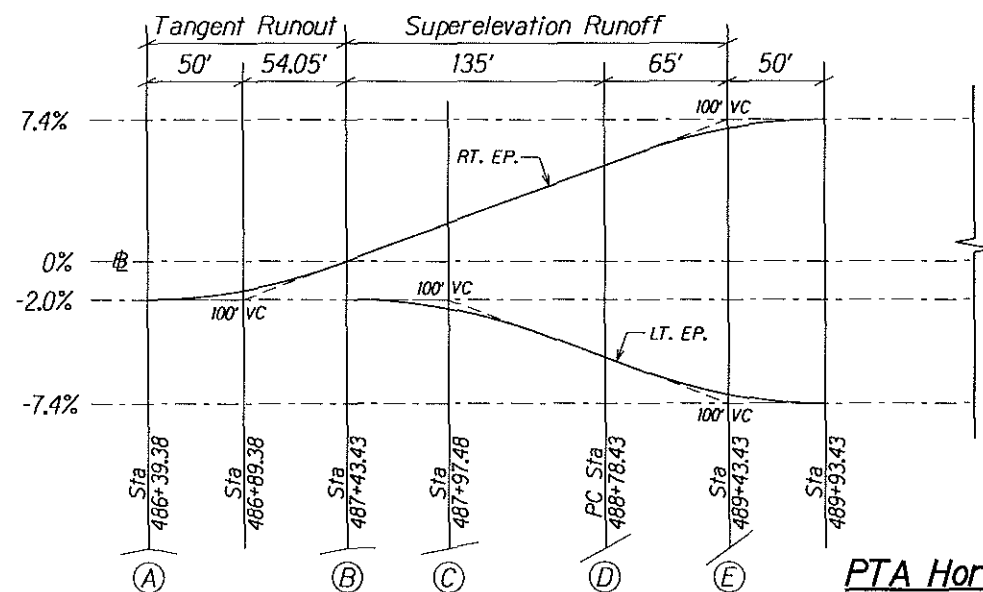
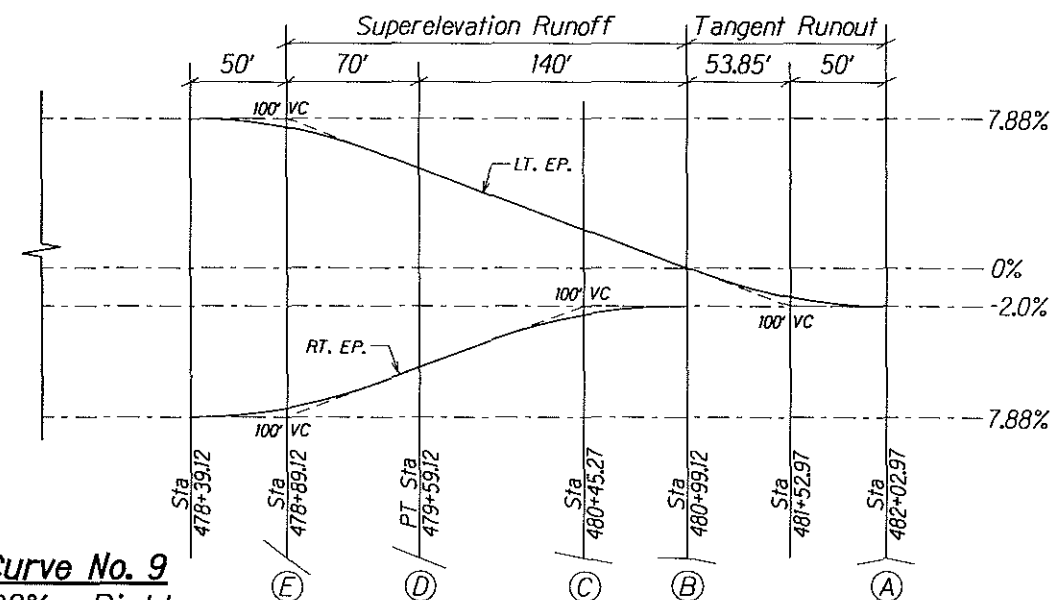
PTA Horizontal Curve No. 8
 $R = 3280'$; $e = 4.70\%$; Right

V=60 mph



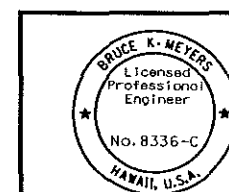
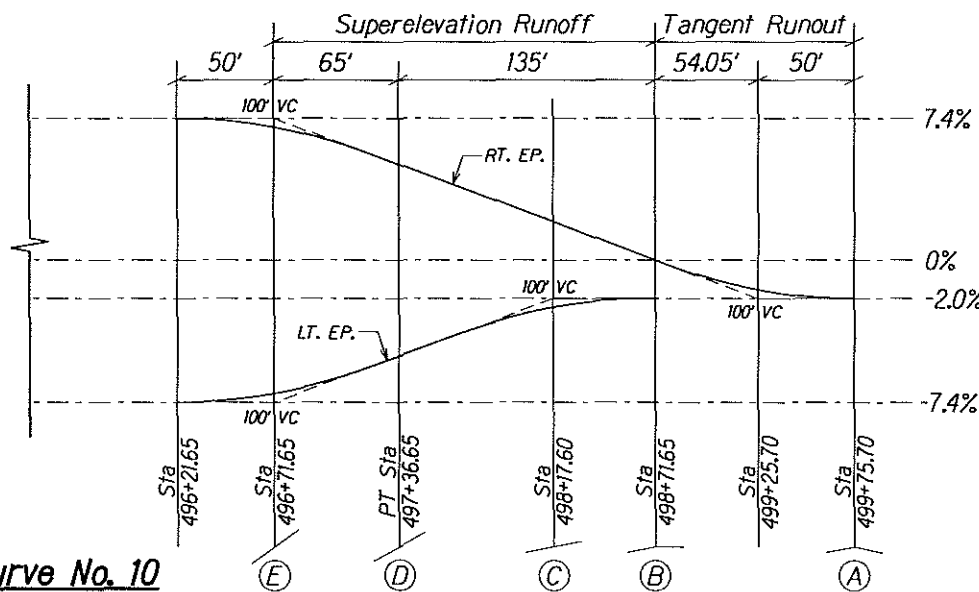
PTA Horizontal Curve No. 9
 $R = 1320'$; $e = 7.88\%$; Right

V=60 mph



PTA Horizontal Curve No. 10
 $R = 1640'$; $e = 7.40\%$; Left

V=60 mph



The work was prepared by me or under my supervision and construction of this project will be under my supervision.
 Expiration Date of License 4/26.

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 CENTRAL FEDERAL LANDS HIGHWAY DIVISION

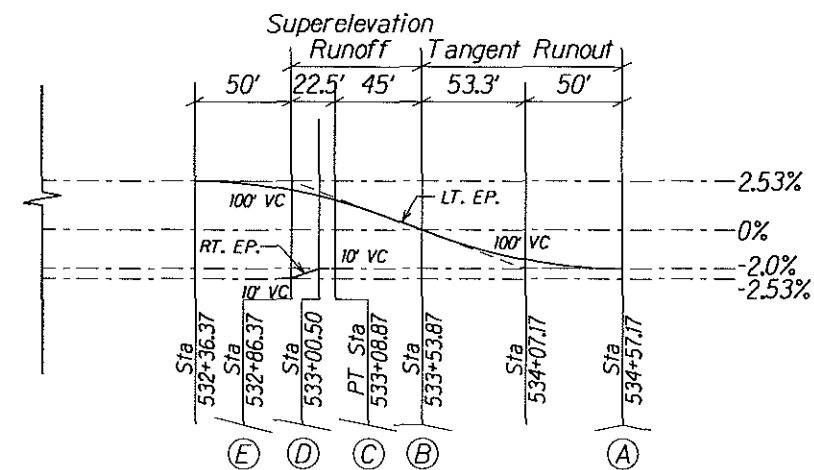
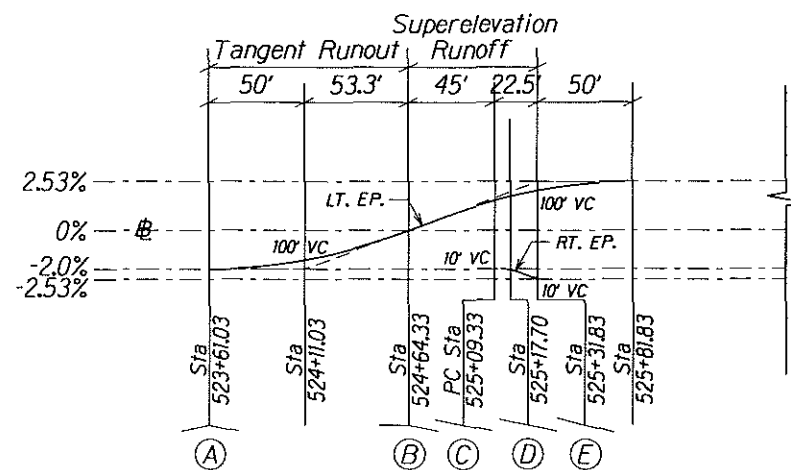
PTA SADDLE ROAD SUPERELEVATION DIAGRAMS

Scale: 1"=100'

Date: December 5, 2005

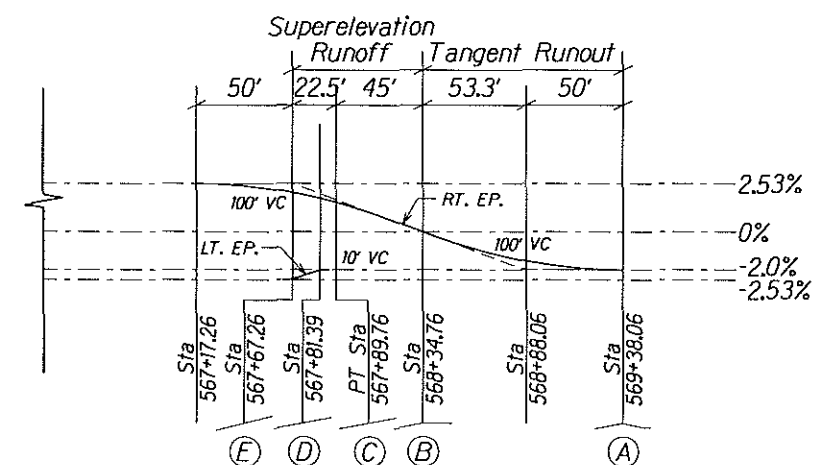
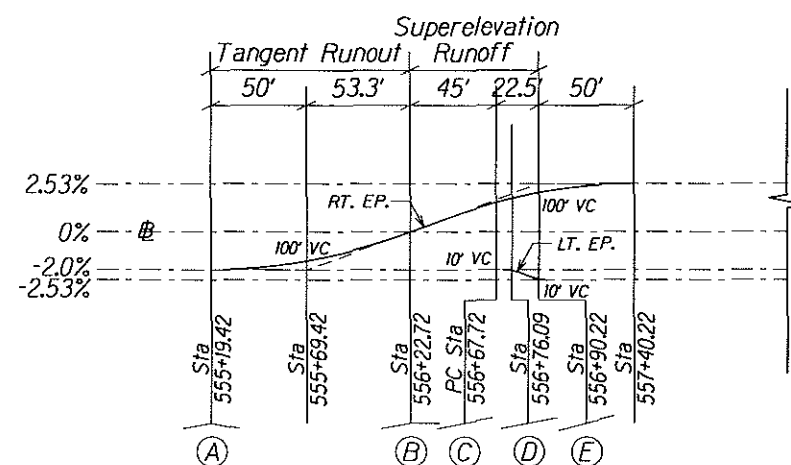
SHEET No. 2 OF 10

STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI A-AD/STP 6(3) § 200(1)	B11	B18



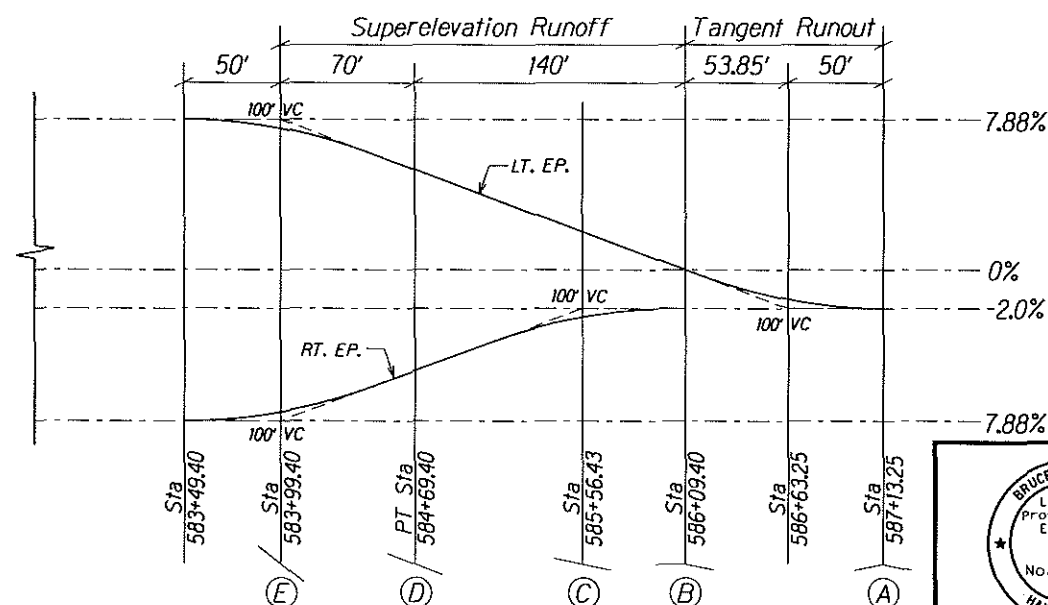
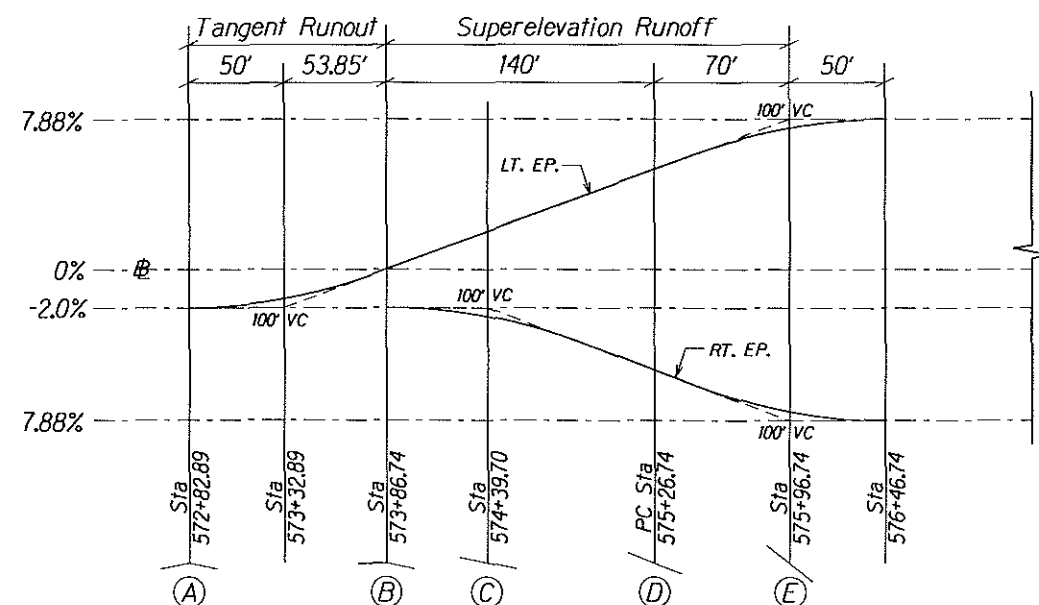
PTA Horizontal Curve No. 11
 $R = 6560'$; $e = 2.53\%$; Right

V=60 mph



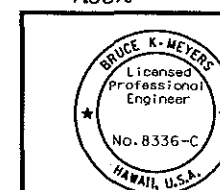
PTA Horizontal Curve No. 12
 $R = 6560'$; $e = 2.53\%$; Left

V=60 mph



PTA Horizontal Curve No. 13
 $R = 1320'$; $e = 7.88\%$; Right

V=60 mph



The work was prepared by me
or under my supervision and
construction of this project will
be under my control.
Expiration Date of License 12/05.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

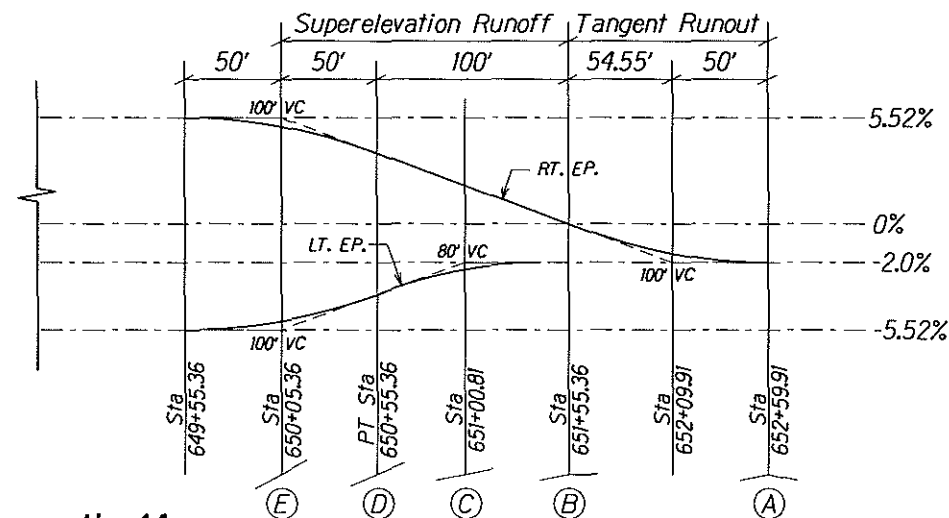
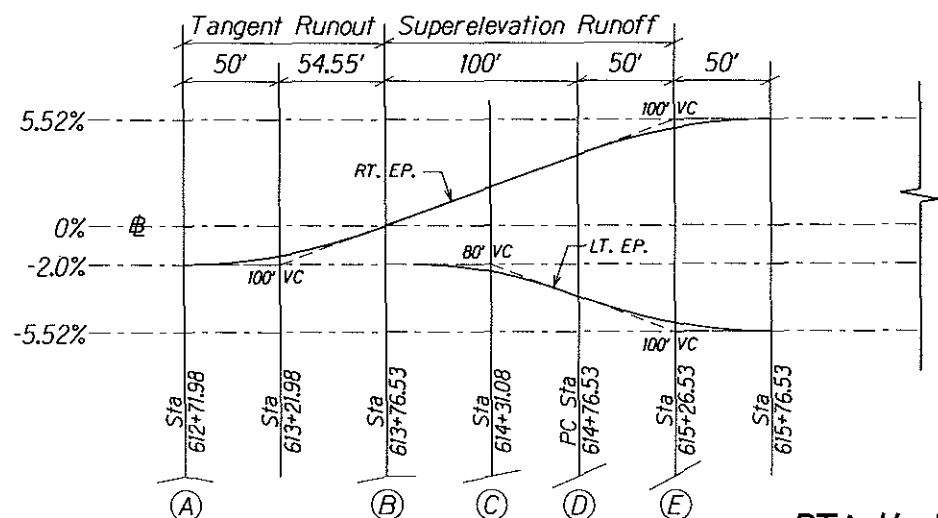
PTA SADDLE ROAD SUPERELEVATION DIAGRAMS

Scale: 1"=100'

Date: December 5, 2005

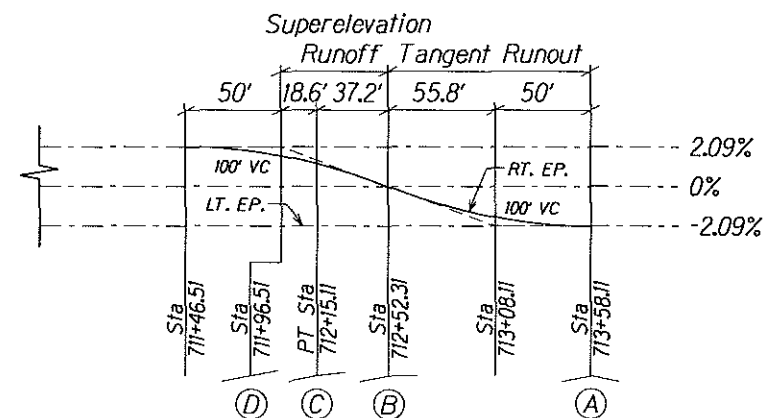
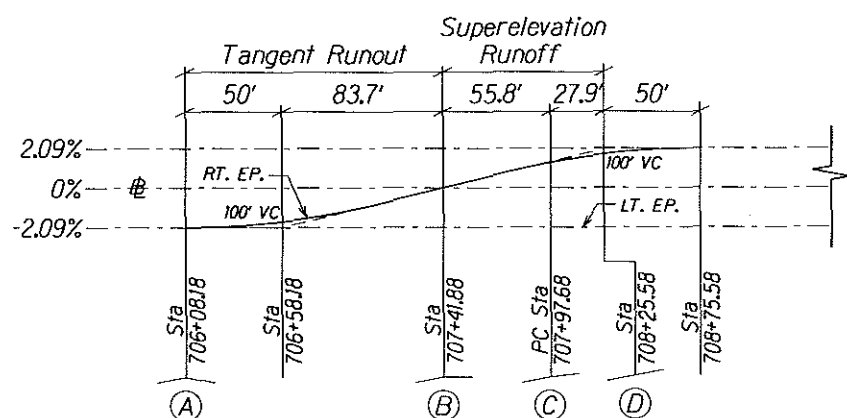
SHEET No. 3 OF 10

STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI A-AD/STP 6(3) # 200(1)	B12	B18



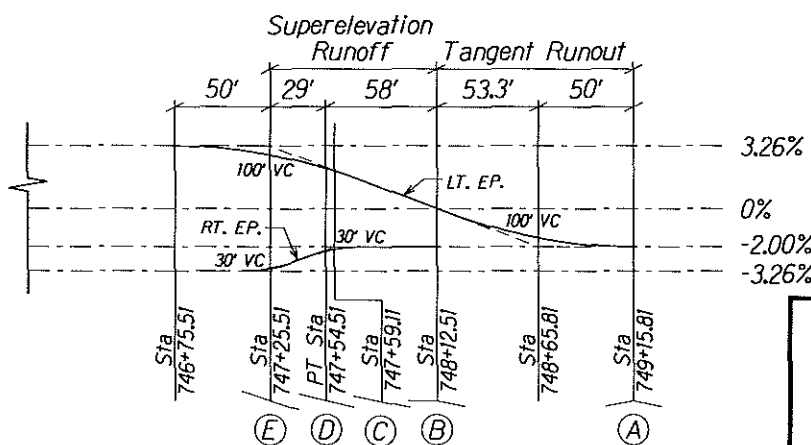
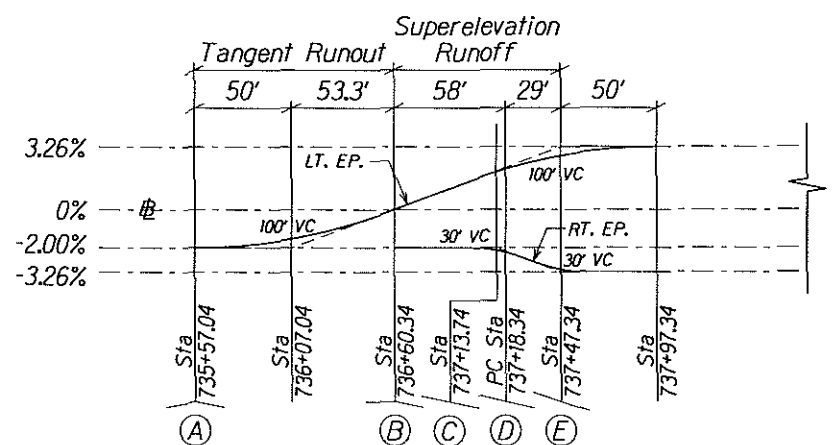
PTA Horizontal Curve No. 14
 $R = 2630'$; $e = 5.52\%$; Left

V=60 mph



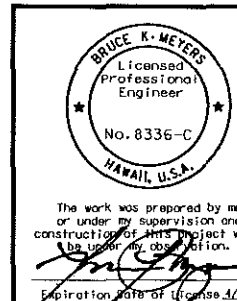
East Horizontal Curve No. 15
 $R = 8200'$; $e = 2.09\%$; Left

V=60 mph



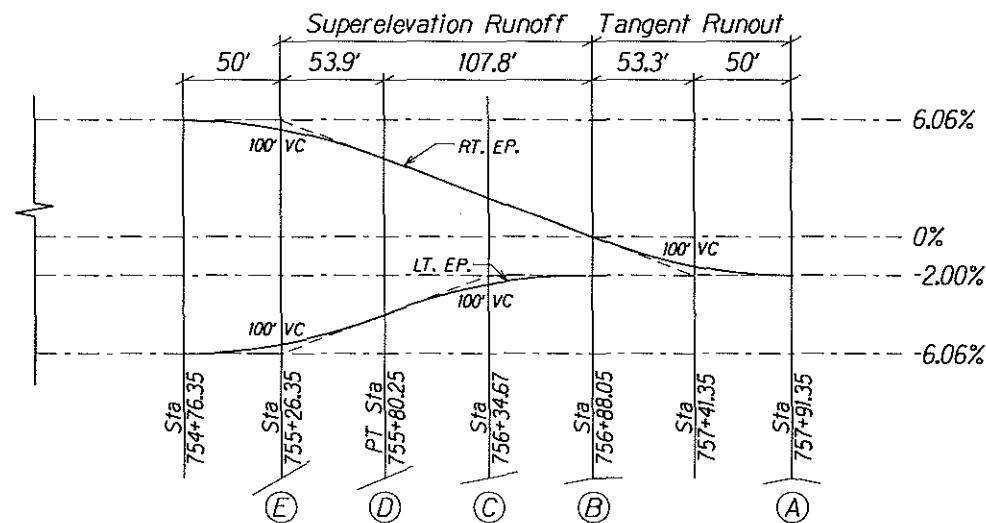
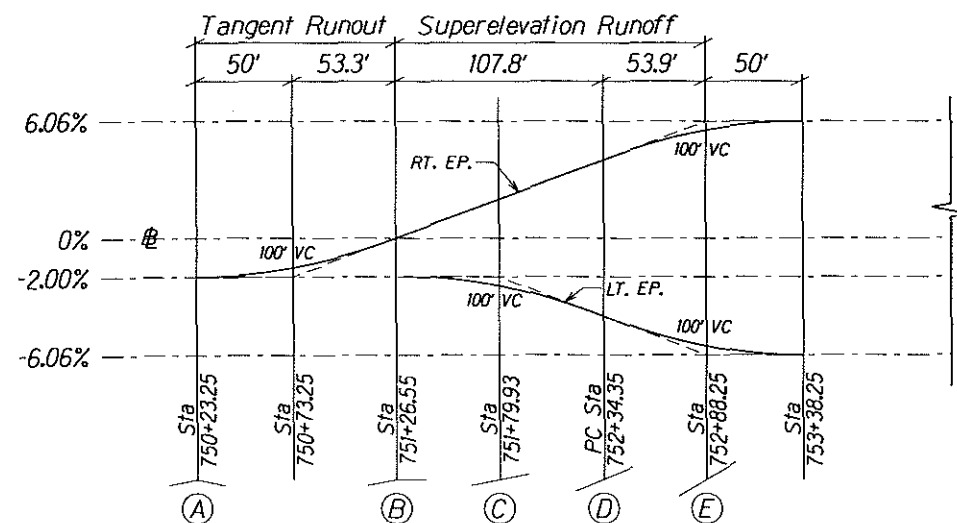
East Horizontal Curve No. 16
 $R = 4920'$; $e = 3.26\%$; Right

V=60 mph



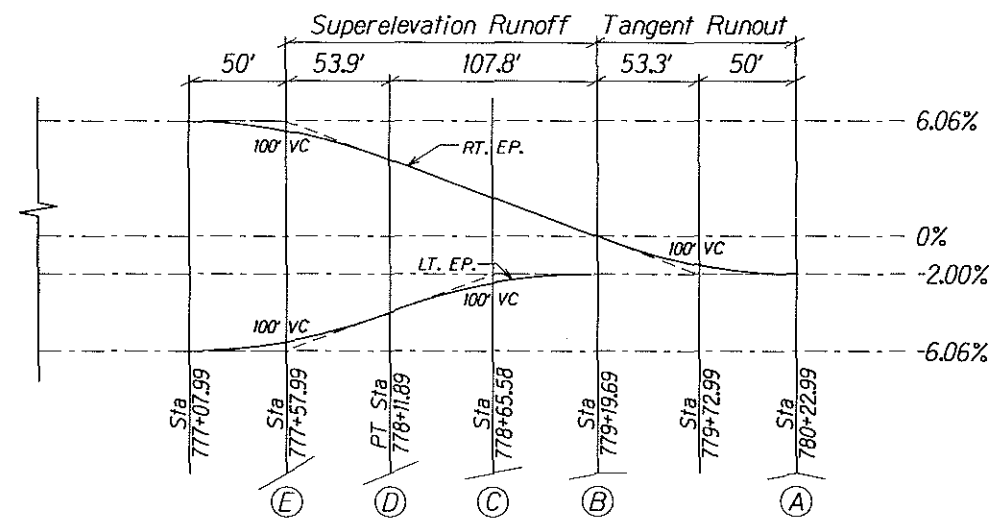
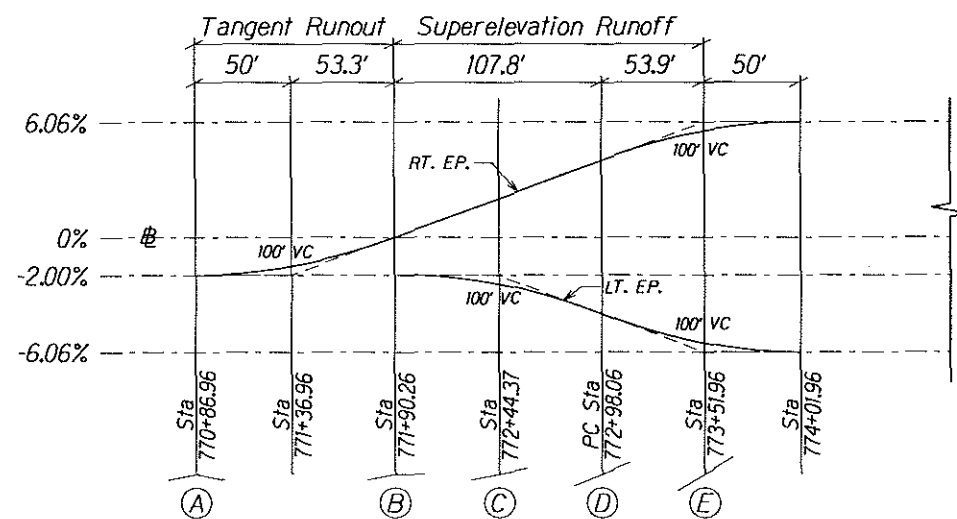
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
PTA & EAST SADDLE ROAD SUPERELEVATION DIAGRAMS	
Scale: 1"=100'	Date: December 5, 2005
SHEET No. 4 OF 10	

STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI A-AD/STP 6(3) # 200(1)	B13	B18



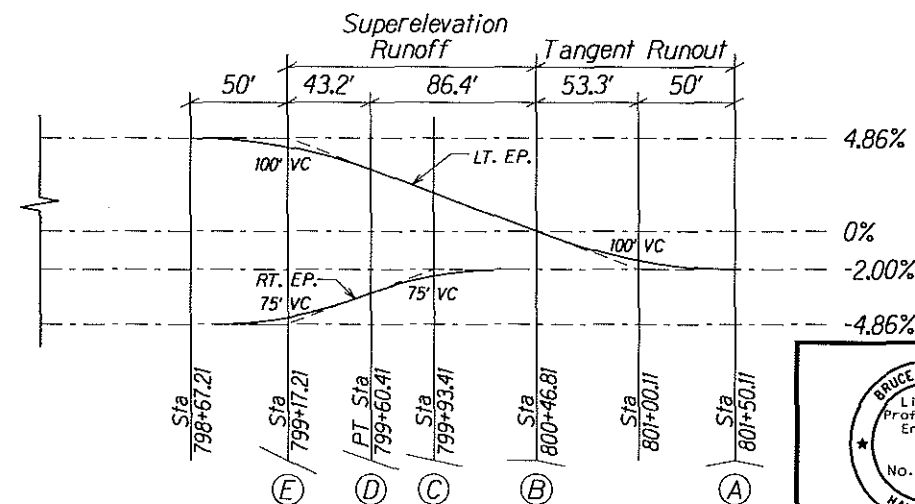
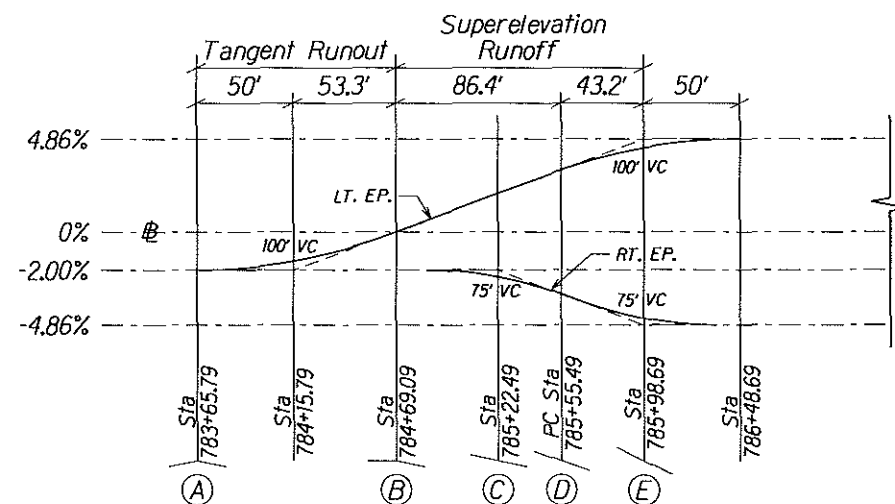
East Horizontal Curve No. 17
 $R = 2300'$; $e = 6.06\%$; Left

V=60 mph



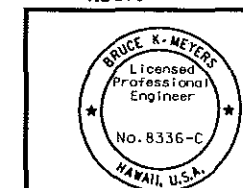
East Horizontal Curve No. 18
 $R = 2300'$; $e = 6.06\%$; Left

V=60 mph



East Horizontal Curve No. 19
 $R = 3120'$; $e = 4.86\%$; Right

V=60 mph



The work was prepared by me or under my supervision and construction of this project will be in accordance with my signature.
 Expiration Date of License 4/26.

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 CENTRAL FEDERAL LANDS HIGHWAY DIVISION

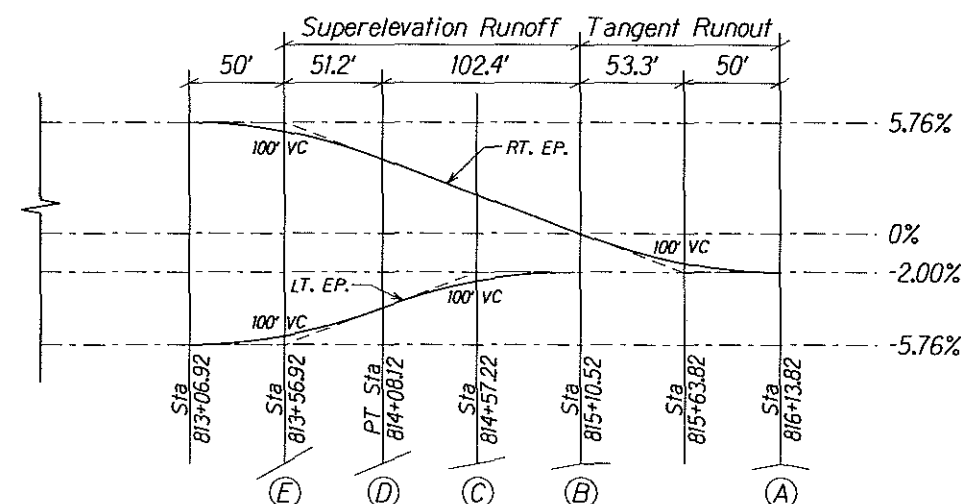
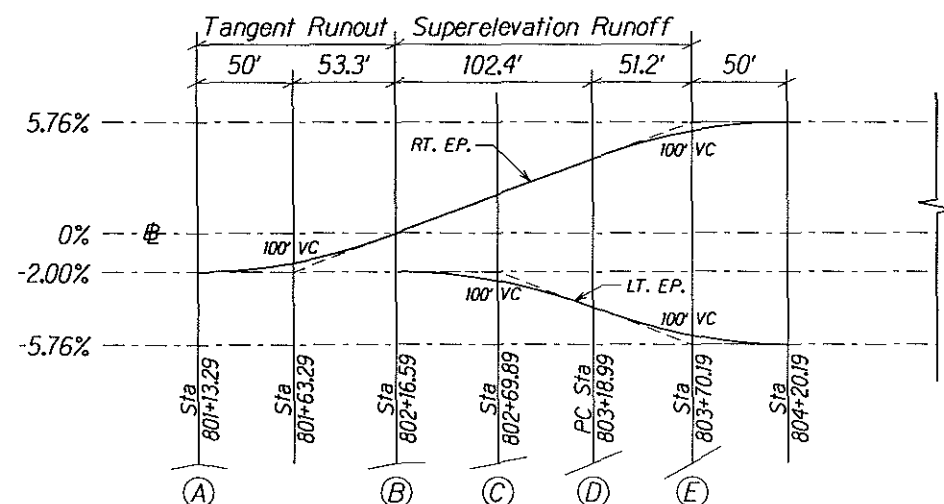
EAST SADDLE ROAD SUPERELEVATION DIAGRAMS

Scale: 1"=100'

Date: December 5, 2005

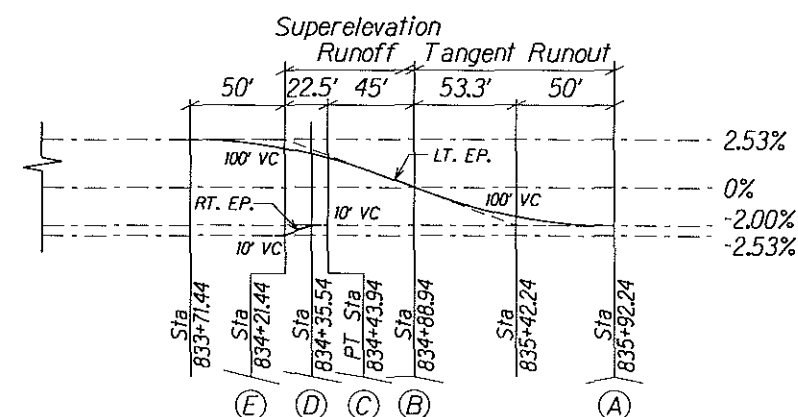
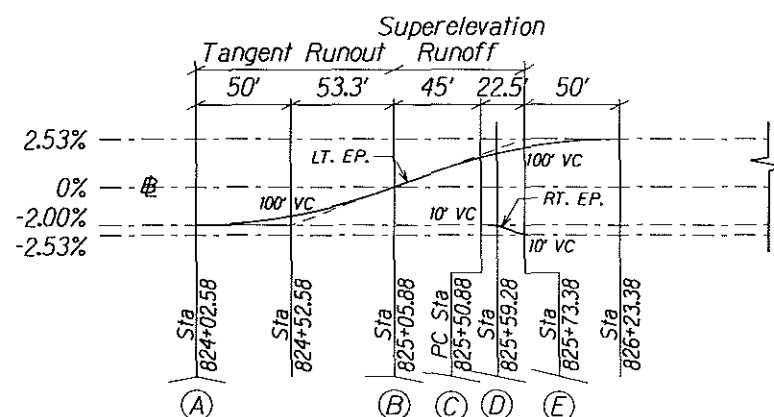
SHEET No. 5 OF 10

STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI A-AD/STP 6(3) # 200(1)	B14	B18



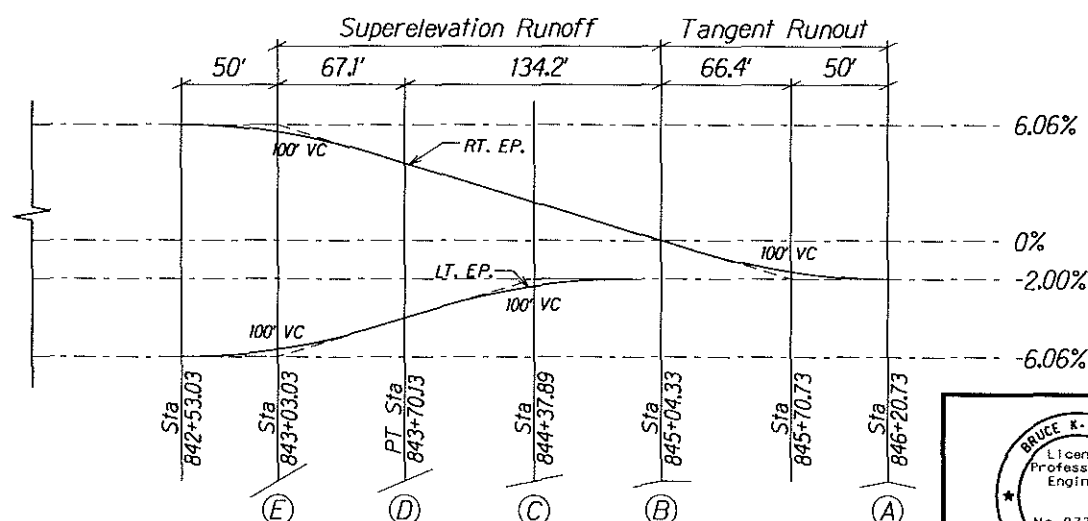
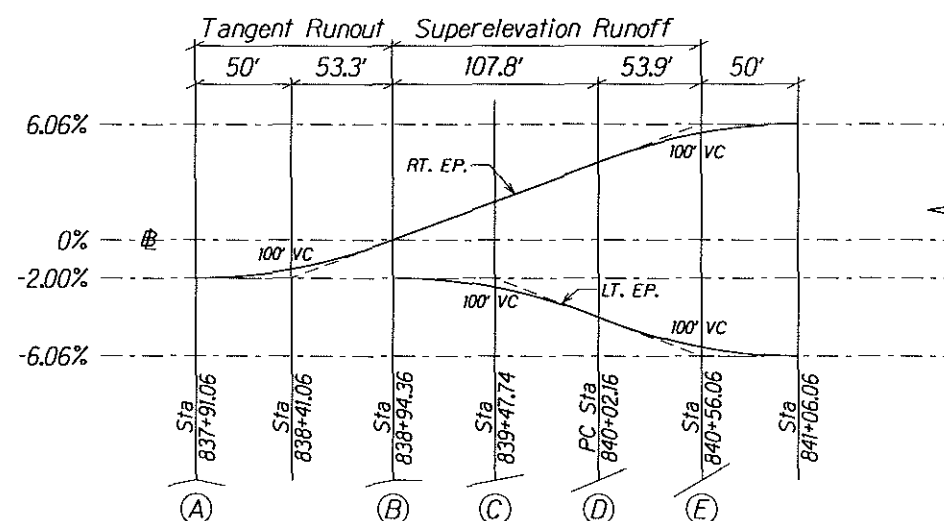
East Horizontal Curve No. 20
 $R = 2460'$; $e = 5.76\%$; Left

V=60 mph



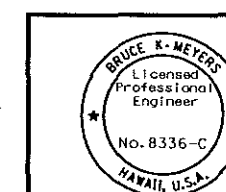
East Horizontal Curve No. 21
 $R = 6560'$; $e = 2.53\%$; Right

V=60 mph



East Horizontal Curve No. 22
 $R = 2300'$; $e = 6.06\%$; Left

V=60 mph



The work was prepared by me or under my supervision and construction of this project will be in accordance with my observation.
 Expiration Date of License 4/06.

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 CENTRAL FEDERAL LANDS HIGHWAY DIVISION

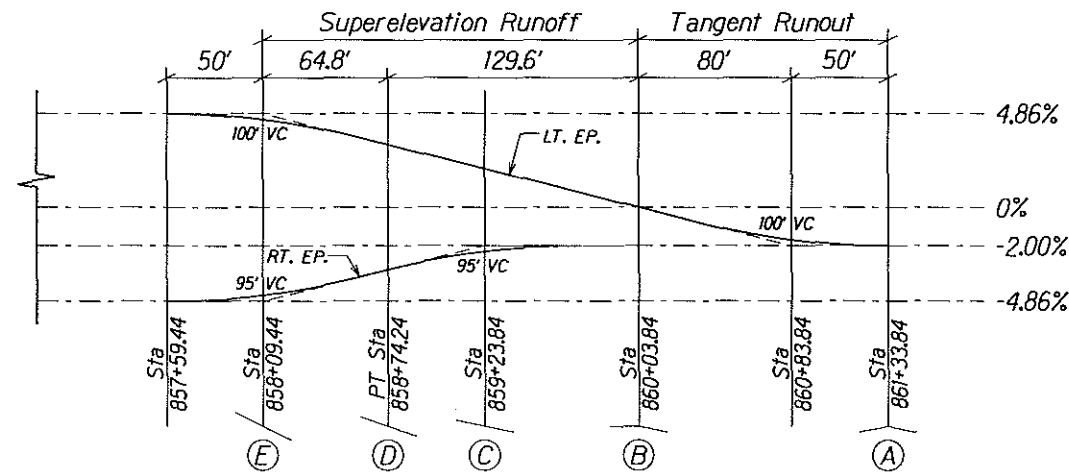
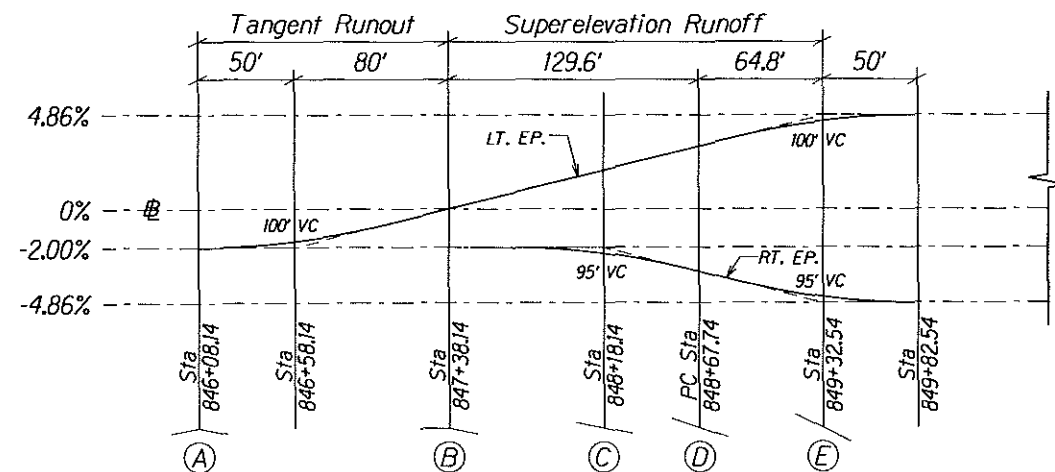
EAST SADDLE ROAD SUPERELEVATION DIAGRAMS

Scale: 1"=100'

Date: December 5, 2005

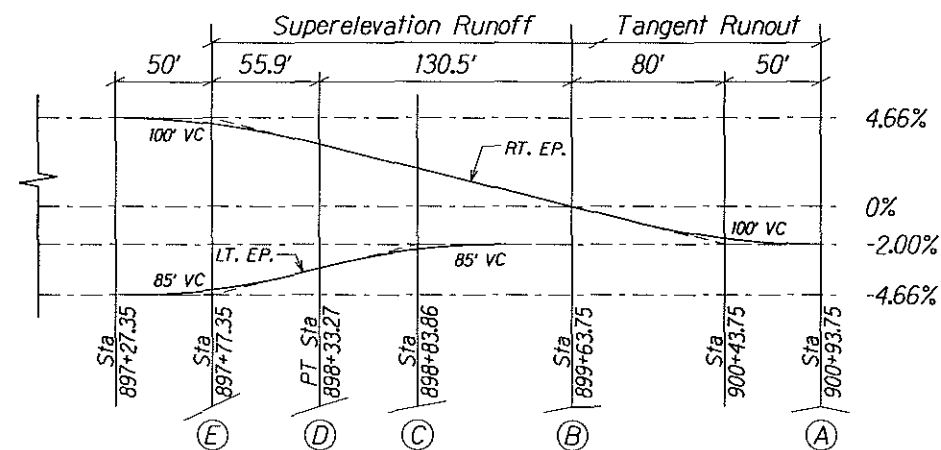
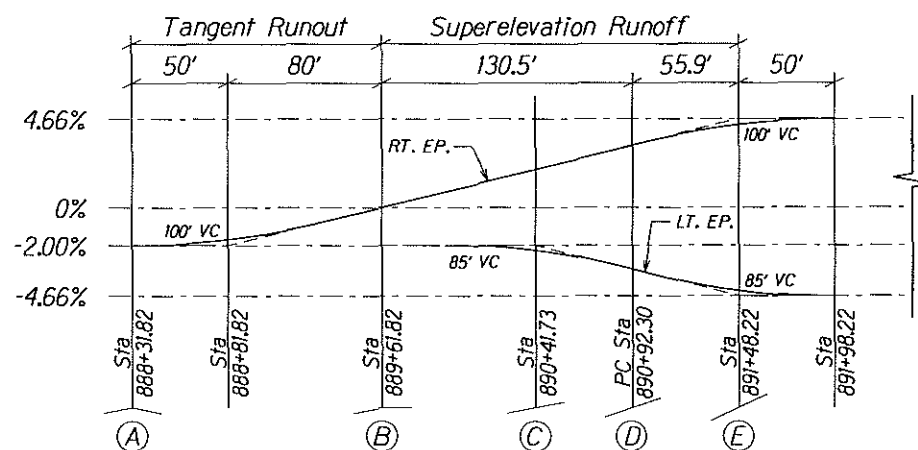
SHEET No. 6 OF 10

STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI A-AD/STP 6(3) # 200(1)	B15	B18



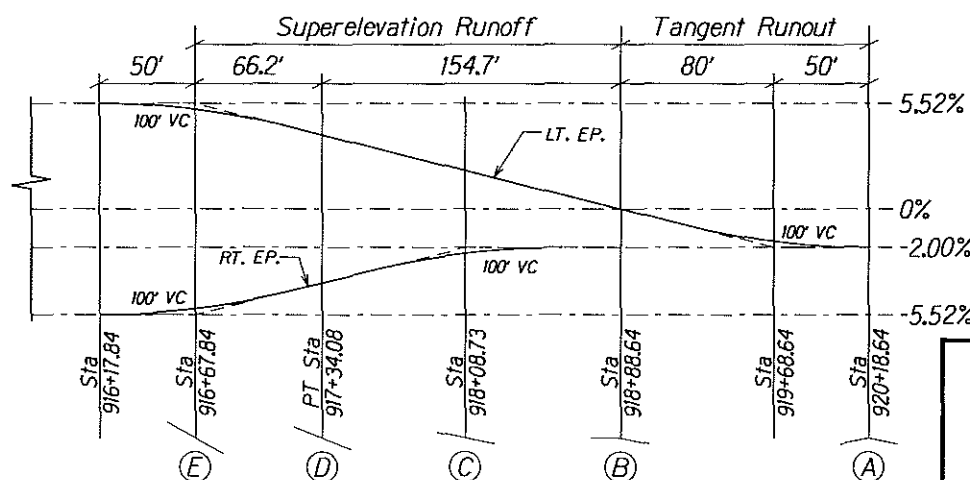
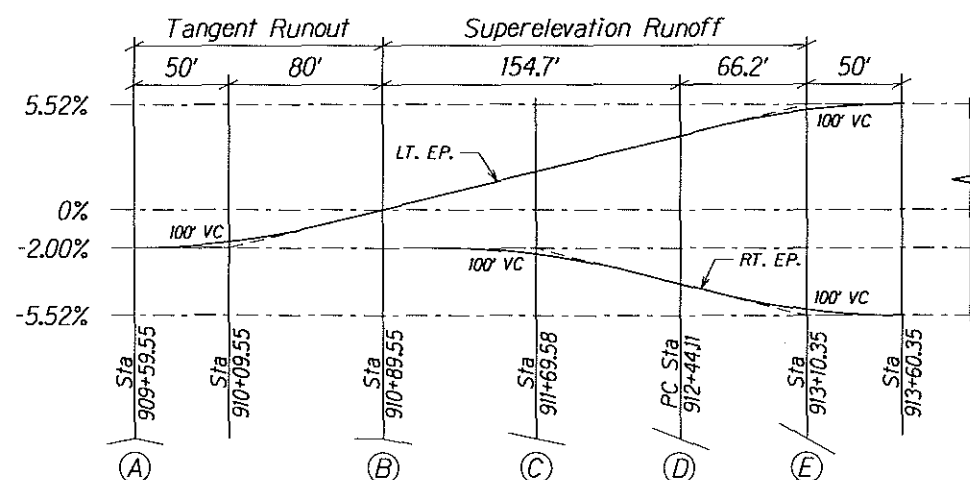
East Horizontal Curve No. 23
 $R = 3120'$; $e = 4.86\%$; Right

V=60 mph



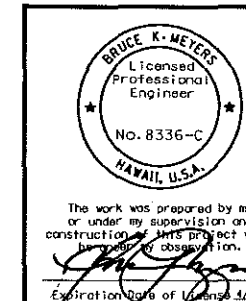
East Horizontal Curve No. 24
 $R = 3280'$; $e = 4.66\%$; Left

V=60 mph



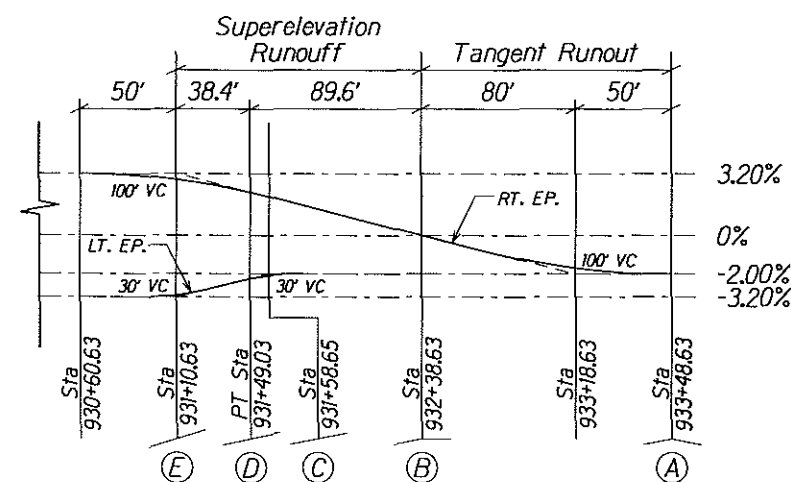
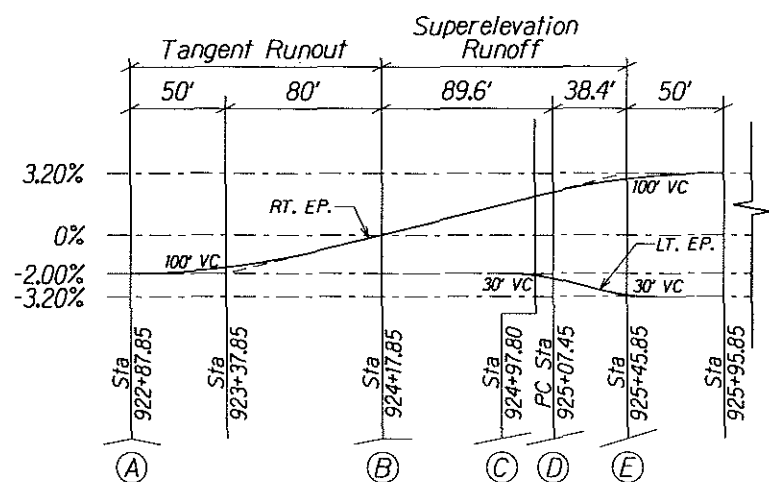
East Horizontal Curve No. 25
 $R = 2630'$; $e = 5.52\%$; Right

V=60 mph



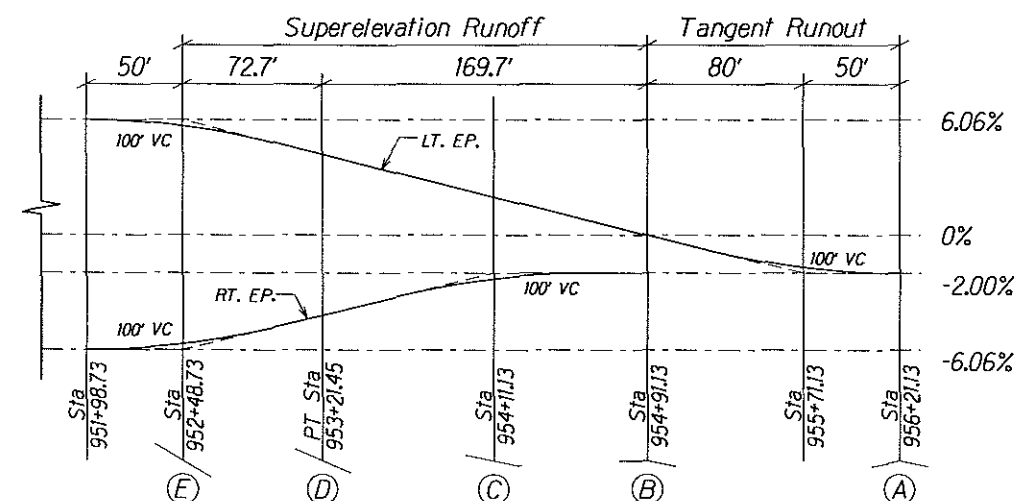
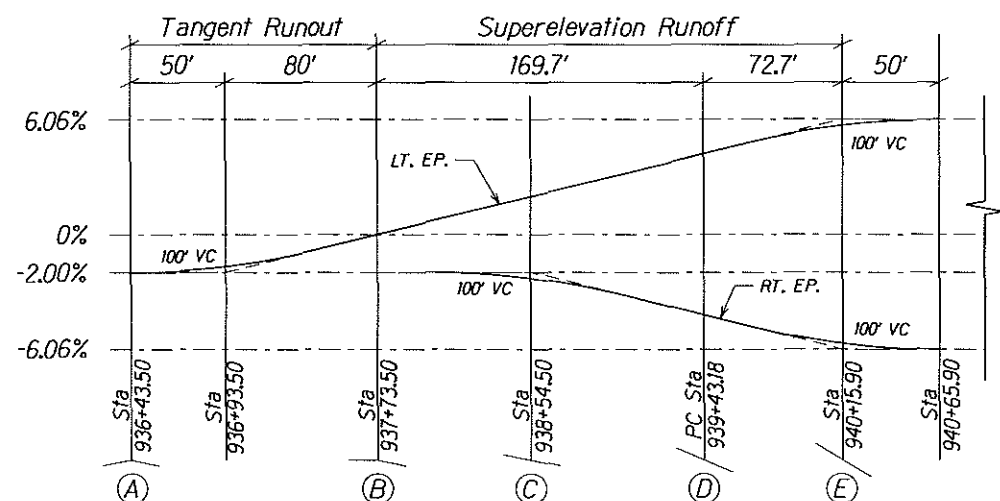
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
EAST SADDLE ROAD SUPERELEVATION DIAGRAMS	
Scale: 1"=100'	Date: December 5, 2005
SHEET No. 7 OF 10	

STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI A-AD/STP 6(3) # 200(1)	B16	B18



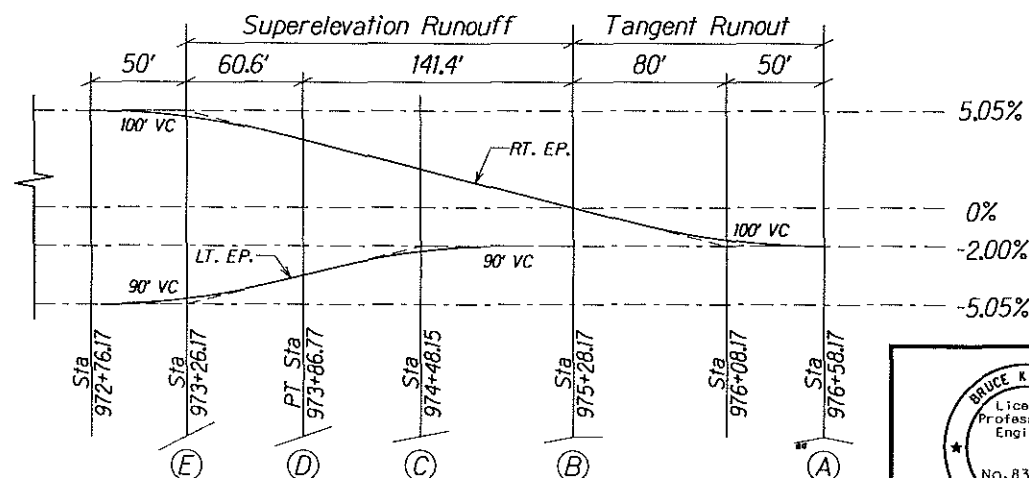
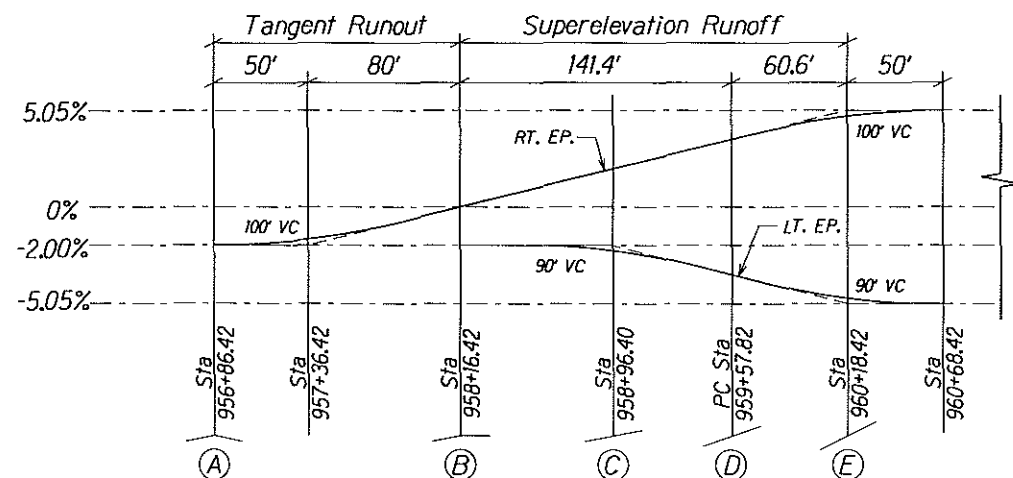
East Horizontal Curve No. 26
 $R = 5000'$; $e = 3.20\%$; Left

V=60 mph



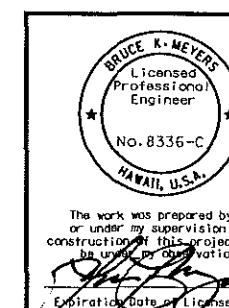
East Horizontal Curve No. 27
 $R = 2300'$; $e = 6.06\%$; Right

V=60 mph



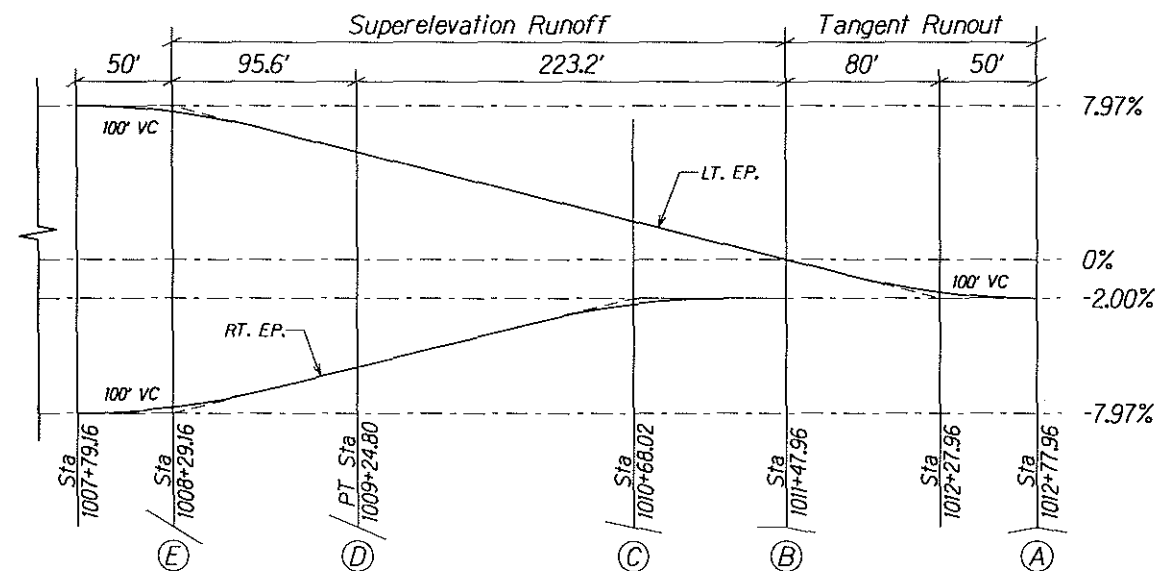
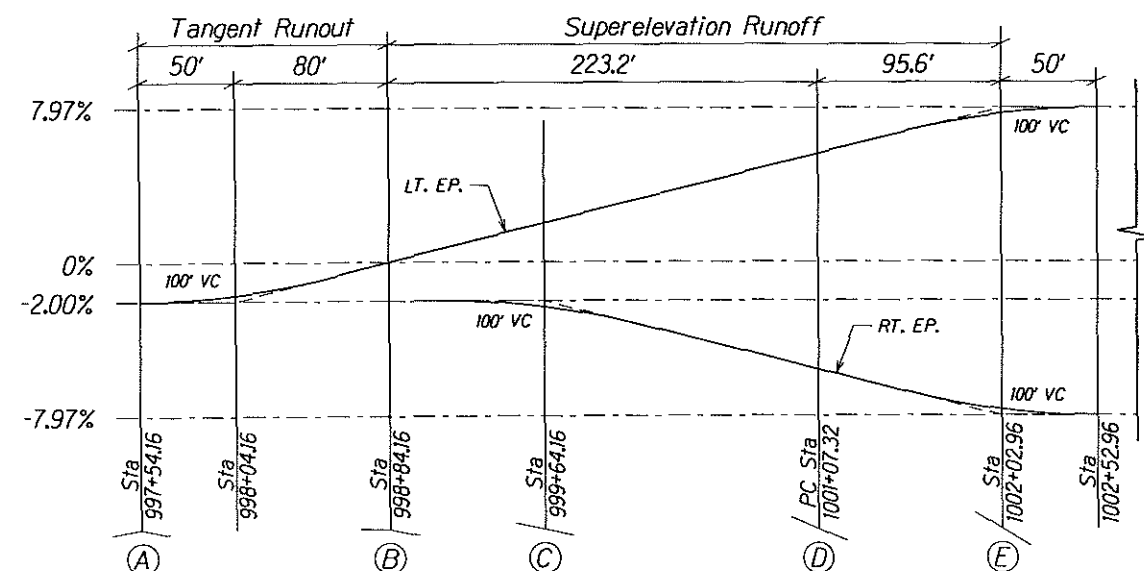
East Horizontal Curve No. 28
 $R = 2960'$; $e = 5.05\%$; Left

V=60 mph



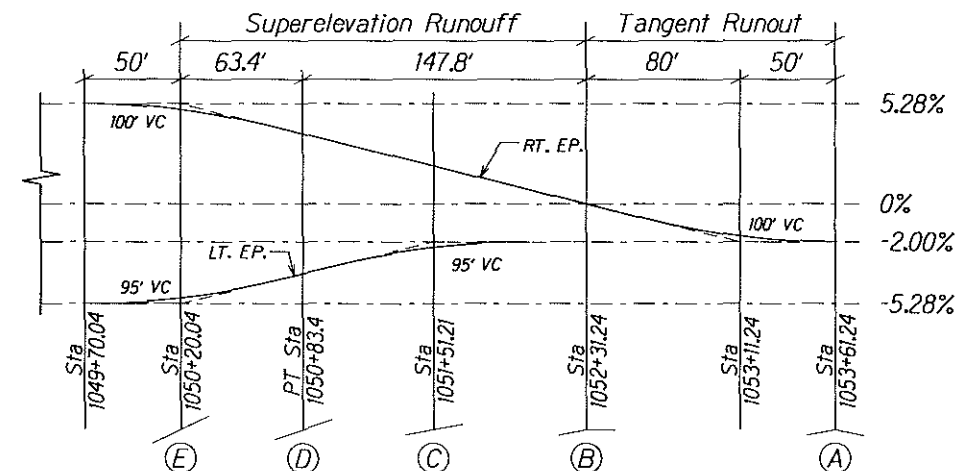
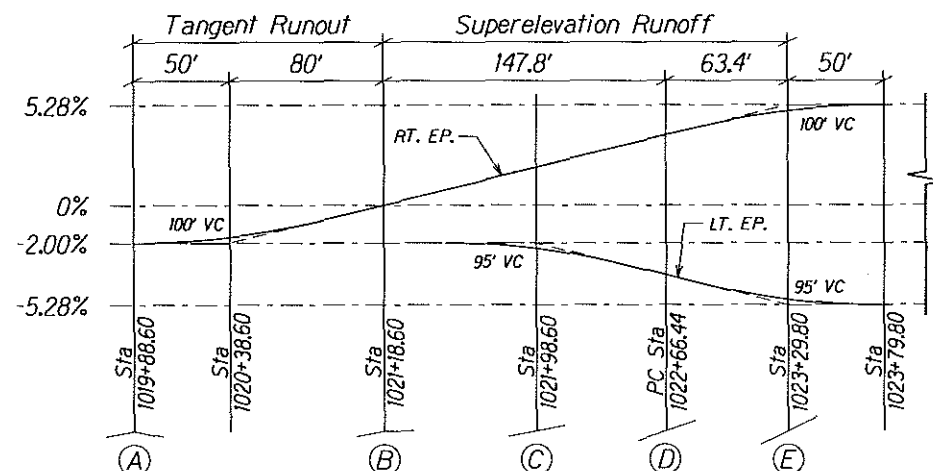
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
EAST SADDLE ROAD SUPERELEVATION DIAGRAMS	
Scale: 1"=100'	Date: December 5, 2005
SHEET No. 8 OF 10	

STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI A-AD/STP 6(3) § 200(1)	B17	B18



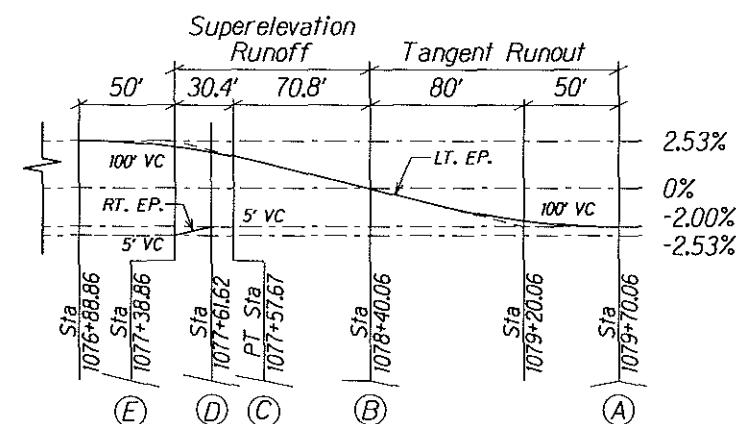
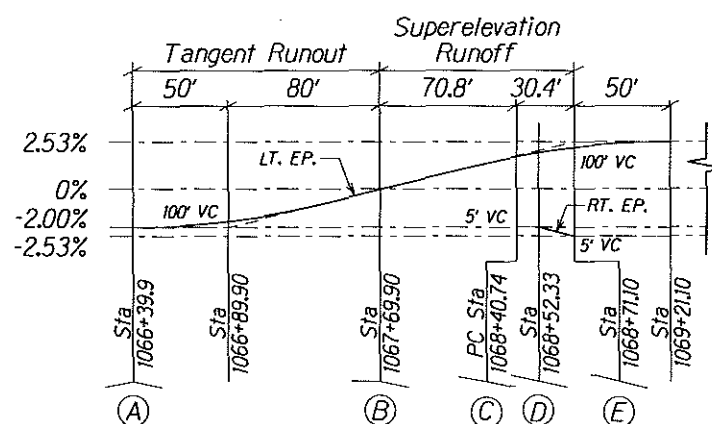
East Horizontal Curve No. 29
 $R = 1230'$; $e = 7.97\%$; Right

V=60 mph



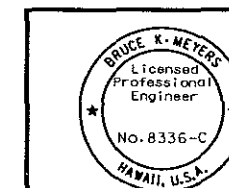
East Horizontal Curve No. 30
 $R = 2800'$; $e = 5.28\%$; Left

V=60 mph



East Horizontal Curve No. 31
 $R = 6560'$; $e = 2.53\%$; Right

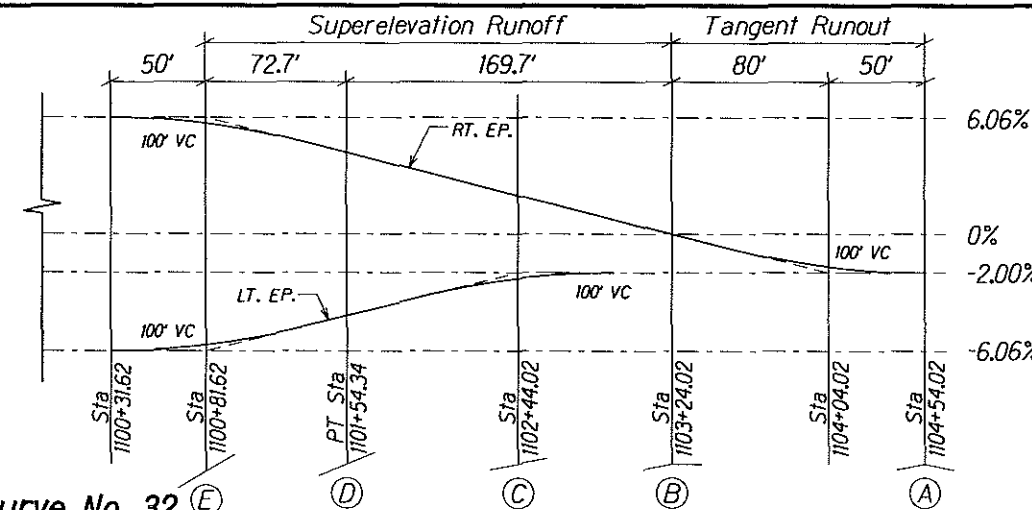
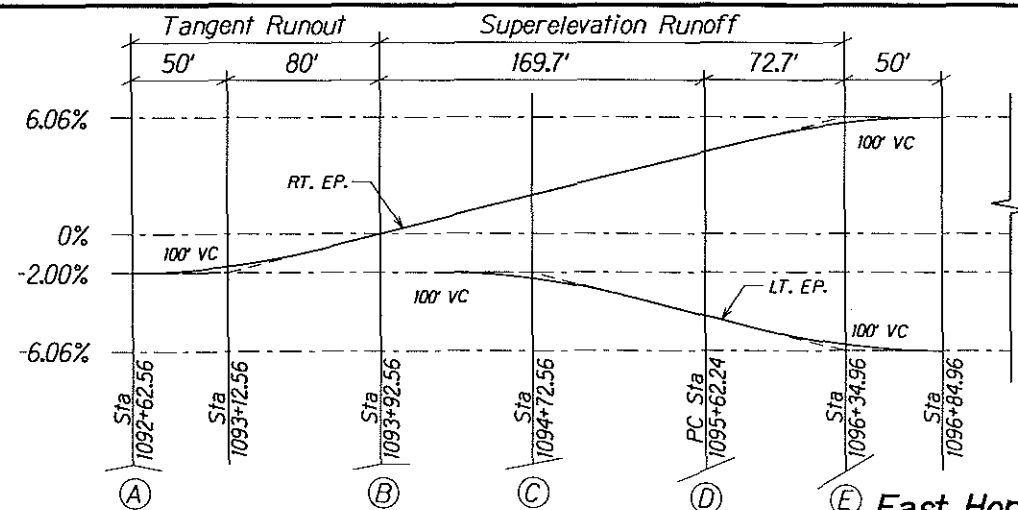
V=60 mph



The work was prepared by me or under my supervision and construction of this project will be in accordance with the provisions of the Hawaii Engineering Law.

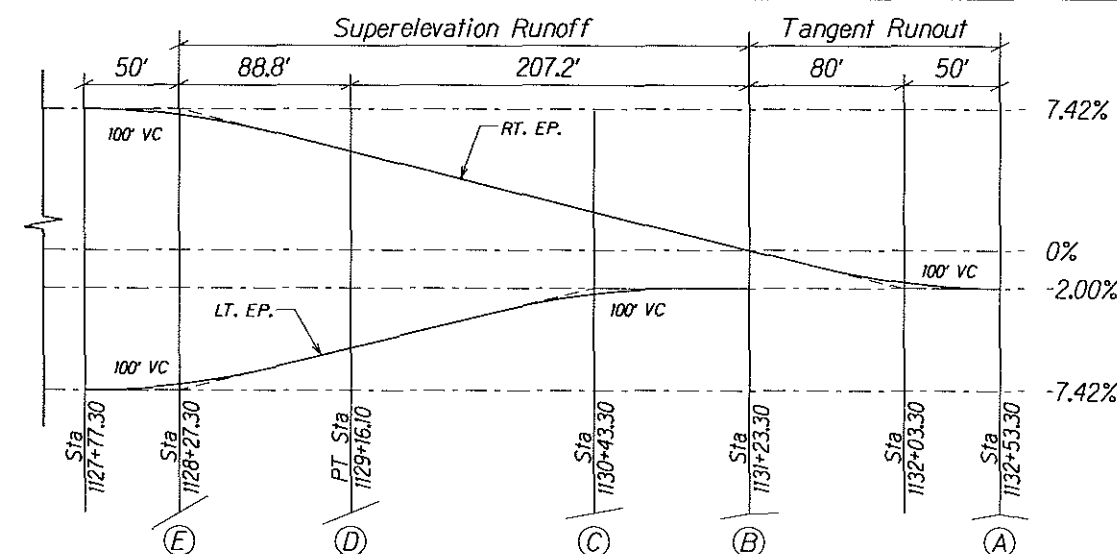
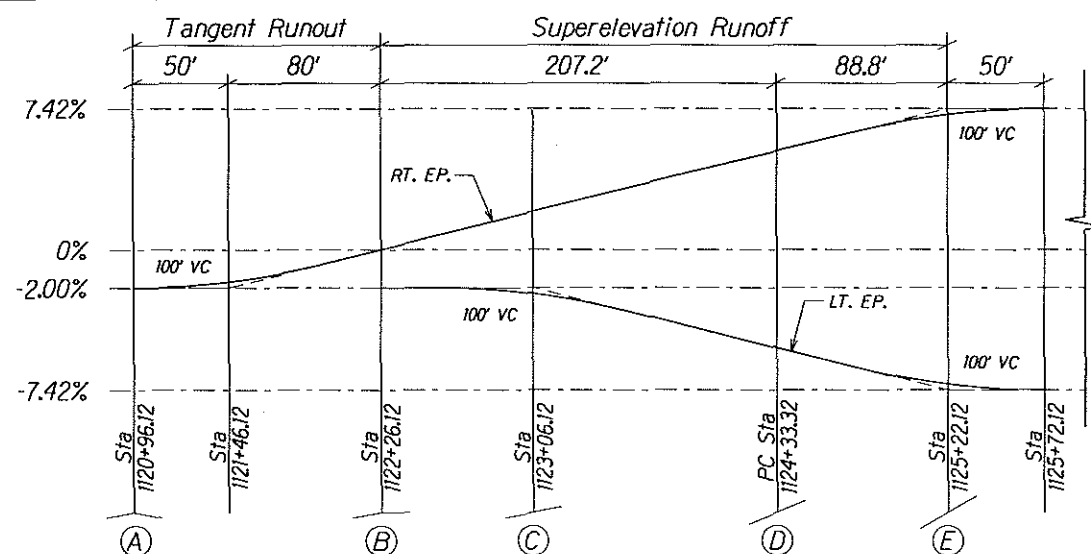
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
EAST SADDLE ROAD SUPERELEVATION DIAGRAMS	
Scale: 1"=100'	Date: December 5, 2005
SHEET No. 9 OF 10	

STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI A-AD/STP 6(3) # 200(1)	B18	B18



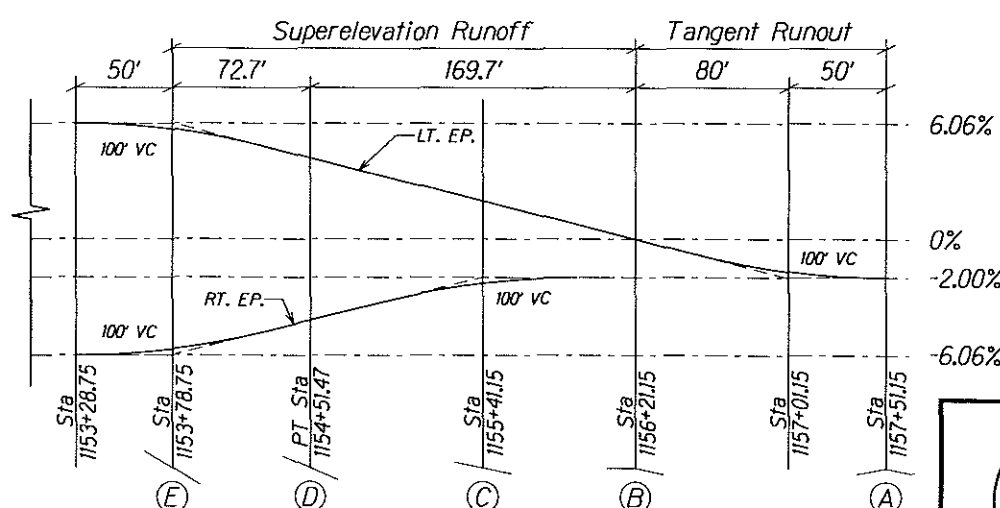
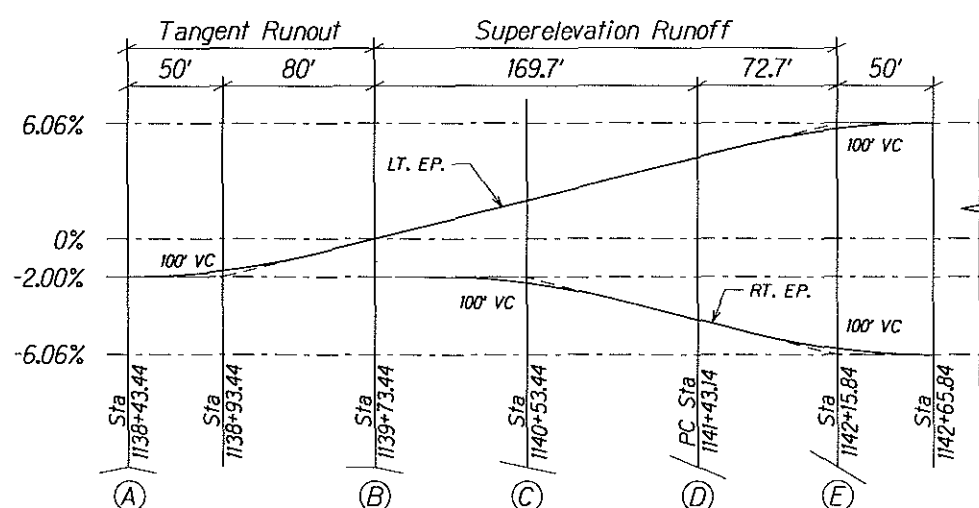
East Horizontal Curve No. 32
 $R = 2300'$; $e = 6.06\%$; Left

V=60 mph



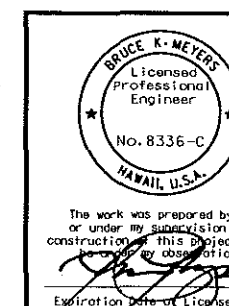
East Horizontal Curve No. 33
 $R = 1640'$; $e = 7.42\%$; Left

V=60 mph



East Horizontal Curve No. 34
 $R = 2300'$; $e = 6.06\%$; Right

V=60 mph



U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
EAST SADDLE ROAD SUPERELEVATION DIAGRAMS	
Scale: 1"=100'	Date: December 5, 2005
SHEET No. 10 OF 10	