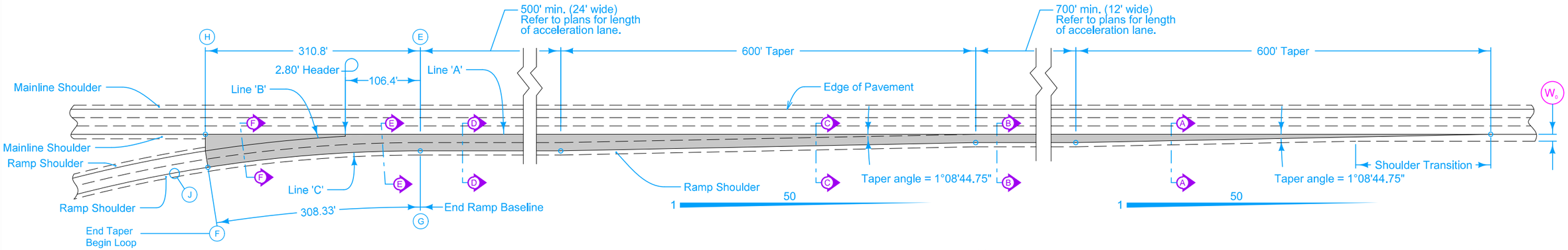
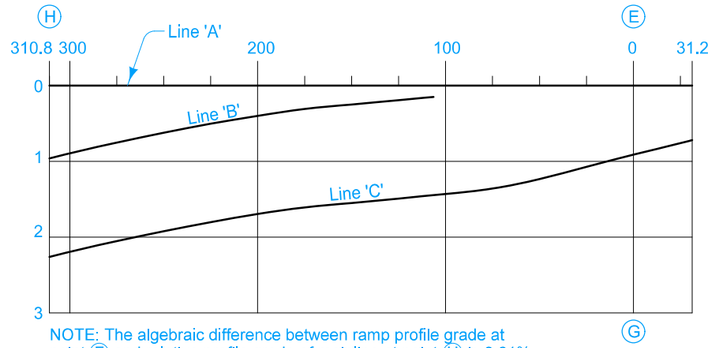


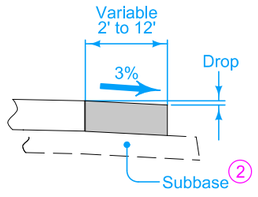
Pt. 'G' to Pt. 'J'
△ = 09°31'13.98"
T = 166.55'
L = 332.33'
E = 6.92'
R = 2000.00'



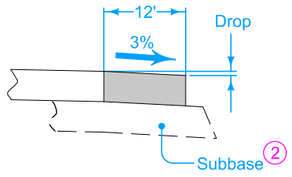
NOTE: The algebraic difference between ramp profile grade at point Ⓕ and relative profile grade of mainline at point Ⓗ is 0.61%

TABLE OF OFFSETS AND DROPS FOR 16' RAMP TAPER																				
DISTANCE FROM POINT Ⓗ	ALONG LINE 'A' (Ft.)	310.8	300	275	250	225	200	175	150	125	106.4	100	75	65	50	25	0	25	31.2
From Line 'A' To Line 'B'	OFFSET (Ft.)	24.00	22.36	18.77	15.50	12.55	9.91	7.58	5.57	3.86	2.80								
	SLOPE (%)	← Constant 4.0% Slope →							4.51	5.02	5.40								
	DROP (Ft.)	0.96	0.89	0.75	0.62	0.50	0.40	0.30	0.25	0.19	0.15								
From Line 'B' To Line 'C'	OFFSET (Ft.)	← Constant 24' Offset →																	
	SLOPE (%)	← Constant 5.4% Slope →																	
	DROP (Ft.)	← Constant 1.30' Drop →																	
From Line 'A' To Line 'C'	OFFSET (Ft.)											26.50	25.41	25.06	24.63	24.16	24.00	24.00	24.00
	SLOPE (%)											5.40	5.40	5.40	5.04	4.41	3.78	3.15	3.00
	DROP (Ft.)	2.26	2.19	2.05	1.92	1.80	1.69	1.60	1.55	1.49	1.45	1.43	1.37	1.35	1.24	1.07	0.91	0.76	0.72
DISTANCE FROM POINT Ⓕ	ALONG LINE 'C' (Ft.)	308.30	297.54	272.58	247.67	202.79	197.95	173.14	148.36	123.60	105.21	100.04	75.02	65.01	50.01	25.00	0.00		

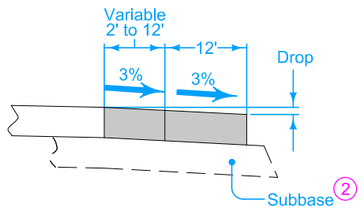
Ⓗ Ⓔ Ⓕ Ⓖ



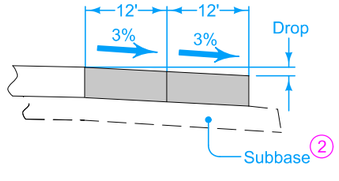
SECTION A-A



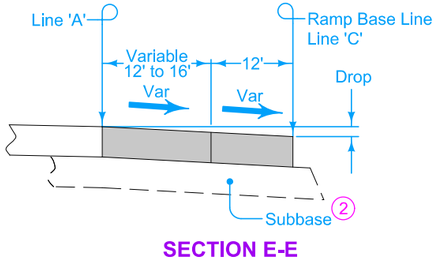
SECTION B-B



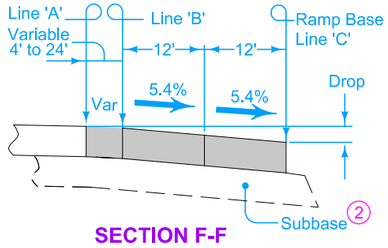
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

TABLE OF SHOULDER TRANSITION LENGTHS WITH 6' SHOULDER ON RAMP			
W_0	Shoulder Width beyond Edge of Mainline Pavement		
	8'	10'	12'
12'	NA	200'	300'

NOTE: W_0 is the width of the outside lane to the Edge of Pavement.

Construct ramp entrance pavement the same thickness as mainline pavement.

For joint detail, see PV-101.

1. For header construction detail at the end of taper See Typical 7101 or Typical 7102.
2. Construct subbase for ramp entrance pavement the same thickness as mainline subbase.

IOWA DOT

REVISION	
3	04-20-21

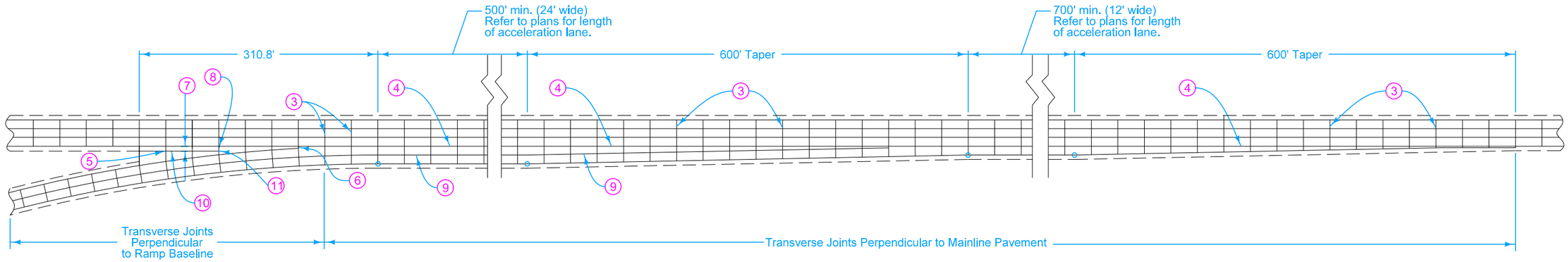
ROAD DESIGN DETAIL

533-05

SHEET 1 of 2

REVISIONS: Added Point J and Ramp Profile note.

PARALLEL ACCELERATION TAPER FOR 24' RAMP (60 MPH DESIGN SPEED)



(3) 'CD ' Joints at 17' spacing.

(4) 'BT-2' or 'KT-2' Joint.

(5) 'C' Joint.

(6) 'B' Joint. 2' minimum, 4' maximum.

(7) 10' minimum or equal to mainline shoulder width.

(8) Construct transverse joints through the gore perpendicular to mainline pavement.

(9) 'L-2' Joint.

(10) 'C' Joint parallel to mainline pavement.

(11) 'B' or 'C' Joint. 2' minimum, 4' maximum.

IOWA DOT

REVISION

3	04-20-21

ROAD DESIGN DETAIL

533-05

SHEET 2 of 2

REVISIONS: Added Point J and Ramp Profile note.

PARALLEL ACCELERATION TAPER FOR 24' RAMP (60 MPH DESIGN SPEED)