

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **R 90 EB CURVE 1**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **60** mph (design speed, mph)  
 Dc = **1.00** (degree of curve of alignment)  
 Radius = **5,729.58** feet (radius of curve of alignment)  
 **$e_d = 0.027$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
**left**  
**right**  
 Curve widening NOT required for WB-50. **0.000** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
 Curve widening NOT required for WB-62. **0.000** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?



**P.C. ROTATION DATA**

**1.60%** From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC = **24** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition = **60**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.45** (maximum relative gradient)  
 G = **222** (maximum relative slope)  
**L(r) = 143.8560** feet (Superelevation Runoff Length to flat)  
**L(t) = 85.2480** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

**1.60%** To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT = **24** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition = **60**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.45** (maximum relative gradient)  
 G = **222** (maximum relative slope)  
**L(r) = 143.8560** feet (Superelevation Runoff Length to flat)  
**L(t) = 85.2480** feet (Tangent Runout Length)

P.C. Station **247+95.6500** Percent of super to achieve at P.C.? **66.67%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station **254+35.2600** Percent of super to achieve at P.T.? **59.26%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

Station	Super Rate
normal crown = <b>246+14.4981</b>	-0.016
flat = <b>246+99.7461</b>	0.000
reverse crown = <b>247+84.9941</b>	0.016
full super = <b>248+43.6021</b>	0.027

**Curve Information**

Full super length = 533.05 ft.  
 Slope at PC = #N/A  
 P.C. L(r) = 143.86  
 G-value of P.C. L(r) = 222  
 P.C. L(t) = 85.25  
 G-value of P.C. L(t) = 222  
 Slope at PT = 0.0160  
 P.T. L(r) = 143.86  
 G-value of P.T. L(r) = 222  
 P.T. L(t) = 85.25  
 G-value of P.T. L(t) = 222  
 Curve length is 10.66 times design speed  
 time at full super = 6.06 seconds

**P.T. SUPER INFORMATION**

Station	Super Rate
full super = <b>253+76.6520</b>	0.027
reverse crown = <b>254+35.2600</b>	0.016
flat = <b>255+20.5080</b>	0.000
normal crown = <b>256+05.7560</b>	-0.016

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve						
P.T. part of curve						

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **90 EB CURVE 2**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **60** mph (design speed, mph)  
 Radius = **10417.41** feet (radius of curve of alignment)  
 Dc = **0.55** (degree of curve of alignment)  
 **$e_d = 0.016$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**



Is the curve to the left or right (in the direction of stationing)?  
 Will the dependent geopak shapes be to the left or right of the baseline?  
**CHECK CURVE WIDENING BY HAND. #N/A** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
**CHECK CURVE WIDENING BY HAND. #N/A** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?

**P.C. ROTATION DATA**

Width of rotating pavement @ PC = **feet** From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Design speed of PC transition = **feet** (do not include curve widening, gore areas or entrance and exit lanes)  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

Width of rotating pavement @ PT = **feet** To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Design speed of PT transition = **feet** (do not include curve widening, gore areas or entrance and exit lanes)  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

P.C. Station **no** Percent of super to achieve at P.C.? **yes**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station **no** Percent of super to achieve at P.T.? **yes**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

Station **#VALUE!** Super Rate **0.000**  
 cross slope rotating from = **#VALUE!**  
 reverse crown = **#N/A** 0.016  
 full super = **#N/A** 0.016

**Curve Information**

Full super length = **#N/A**  
 Slope at PC = **#N/A**  
 P.C. L(r) = **#N/A**  
 G-value of P.C. L(r) = **#N/A**  
 P.C. L(t) = **#VALUE!**  
 G-value of P.C. L(t) = **#VALUE!**  
 Slope at PT = **#N/A**  
 P.T. L(r) = **#VALUE!**  
 G-value of P.T. L(r) = **#VALUE!**  
 P.T. L(t) = **#VALUE!**  
 G-value of P.T. L(t) = **#VALUE!**  
 Curve length is **0.00** times design speed  
 time at full super = **#N/A** seconds

**P.T. SUPER INFORMATION**

Station **#N/A** Super Rate **0.016**  
 full super = **#N/A** 0.016  
 reverse crown = **#N/A** 0.016  
 cross slope rotating to = **#VALUE!** 0.000

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve						
P.T. part of curve						

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

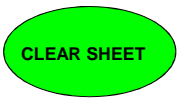
Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>		
Curve name:	<b>R 90 EB CURVE 3</b>		
What e <sub>max</sub> table would you like to use?	<b>0.060 MAX</b>		
V =	<b>60</b>	mph	(design speed, mph)
Dc =	<b>4.08</b>		(degree of curve of alignment)
Radius =	<b>1,403.16</b>	feet	(radius of curve of alignment)
<b>e<sub>d</sub> =</b>	<b>0.060</b>		(design superelevation rate)
normal crown (e <sub>NC</sub> ) =	<b>0.016</b>		
	<b>right</b>		Is the curve to the left or right (in the direction of stationing)?
	<b>right</b>		Will the dependent geopak shapes be to the left or right of the baseline?
Curve widening NOT required for WB-50.	<b>0.792</b>		feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>1.042</b>		feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>		Divided roadway?



**P.C. ROTATION DATA**

	<b>1.60%</b>	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PC =	<b>24</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PC transition =	<b>60</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.45</b>	(maximum relative gradient)
G =	<b>222</b>	(maximum relative slope)
<b>L(r) =</b>	<b>319.6800</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>85.2480</b>	feet (Tangent Runout Length)

**P.T. ROTATION DATA**

	<b>1.60%</b>	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PT =	<b>24</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PT transition =	<b>60</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.45</b>	(maximum relative gradient)
G =	<b>222</b>	(maximum relative slope)
<b>L(r) =</b>	<b>319.6800</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>85.2480</b>	feet (Tangent Runout Length)

P.C. Station	<b>273+59.0300</b>		
Is there a spiral for this curve?	<b>yes</b>	Is the roadway rotating past flat at the P.C. transition?	<b>yes</b>
What is the length of the spiral?	<b>375.00'</b>	Spiral G-value and corresponding design speed:	<b>260; 70-mph</b>
Do you want the tangent runout length recalculated to match the g-value of the spiral?	<b>yes</b>	New L(t) =	<b>99.8400</b>

P.T. Station	<b>285+82.0900</b>		
Is there a spiral for this curve?	<b>yes</b>	Is the roadway rotating past flat at the P.T. transition?	<b>yes</b>
What is the length of the spiral?	<b>375.00'</b>	Spiral G-value and corresponding design speed:	<b>260; 70-mph</b>
Do you want the tangent runout length recalculated to match the g-value of the spiral?	<b>yes</b>	New L(t) =	<b>99.8400</b>

**P.C. SUPER INFORMATION**

	Station	Super Rate
normal crown =	<b>268+84.1900</b>	0.016
flat =	<b>269+84.0300</b>	0.000
full super =	<b>273+59.0300</b>	-0.060

**Curve Information**

Full super length =	1223.06 ft.
Slope at PC =	-0.0600
P.C. Spiral Length =	375.00
G-value of P.C. Spiral =	260
P.C. L(t) =	99.84
G-value of P.C. L(t) =	260
Slope at PT =	-0.0600
P.T. Spiral Length =	375.00
G-value of P.T. Spiral =	260
P.T. L(t) =	99.84
G-value of P.T. L(t) =	260
Curve length is	20.38 times design speed
time at full super =	13.90 seconds

**P.T. SUPER INFORMATION**

	Station	Super Rate
full super =	<b>285+82.0900</b>	-0.060
flat =	<b>289+57.0900</b>	0.000
normal crown =	<b>290+56.9300</b>	0.016

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<b>271+71.5300</b>	-0.0300	<b>-0.0400</b>	<b>272+34.0300</b>	-0.0400	<b>-0.0400</b>
	<b>273+59.0300</b>	-0.0600	<b>-0.0100</b>	<b>273+59.0300</b>	-0.0600	<b>-0.0600</b>
P.T. part of curve	<b>285+82.0900</b>	-0.0600	<b>-0.0100</b>	<b>285+82.0900</b>	-0.0600	<b>-0.0600</b>
	<b>287+69.5900</b>	-0.0300	<b>-0.0400</b>	<b>287+07.0900</b>	-0.0400	<b>-0.0400</b>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

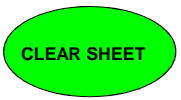
Super Rate	Station in P.C. Area	Station in P.T. Area
<b>-0.0160</b>	<b>270+84.1226</b>	<b>288+56.9974</b>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **t 90 WB CURVE 1**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **60** mph (design speed, mph)  
 Dc = **1.00** (degree of curve of alignment)  
 Radius = **5,729.58** feet (radius of curve of alignment)  
 **$e_d = 0.027$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
**left**  
**right**  
 Curve widening NOT required for WB-50. **0.000** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
 Curve widening NOT required for WB-62. **0.000** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?



**P.C. ROTATION DATA**

**1.60%** From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC = **24** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition = **60**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.45** (maximum relative gradient)  
 G = **222** (maximum relative slope)  
**L(r) = 143.8560** feet (Superelevation Runoff Length to flat)  
**L(t) = 85.2480** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

**1.60%** To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT = **24** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition = **60**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.45** (maximum relative gradient)  
 G = **222** (maximum relative slope)  
**L(r) = 143.8560** feet (Superelevation Runoff Length to flat)  
**L(t) = 85.2480** feet (Tangent Runout Length)

P.C. Station **248+37.6800** Percent of super to achieve at P.C.? **66.67%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station **254+93.3600** Percent of super to achieve at P.T.? **59.26%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

Station	Super Rate
normal crown = <b>246+56.5280</b>	-0.016
flat = <b>247+41.7760</b>	0.000
reverse crown = <b>248+27.0240</b>	0.016
full super = <b>248+85.6320</b>	0.027

**Curve Information**

Full super length = 549.12 ft.  
 Slope at PC = #N/A  
 P.C. L(r) = 143.86  
 G-value of P.C. L(r) = 222  
 P.C. L(t) = 85.25  
 G-value of P.C. L(t) = 222  
 Slope at PT = 0.016  
 P.T. L(r) = 143.86  
 G-value of P.T. L(r) = 222  
 P.T. L(t) = 85.25  
 G-value of P.T. L(t) = 222  
 Curve length is 10.93 times design speed  
 time at full super = 6.24 seconds

**P.T. SUPER INFORMATION**

Station	Super Rate
full super = <b>254+34.7520</b>	0.027
reverse crown = <b>254+93.3600</b>	0.016
flat = <b>255+78.6080</b>	0.000
normal crown = <b>256+63.8560</b>	-0.016

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve						
P.T. part of curve						

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **t 90 WB CURVE 2**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **60** mph (design speed, mph)  
 Radius = **10496.94** feet (radius of curve of alignment)  
 Dc = **0.55** (degree of curve of alignment)  
 **$e_d = 0.016$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**



Is the curve to the left or right (in the direction of stationing)? **right**  
 Will the dependent geopak shapes be to the left or right of the baseline? **right**  
**CHECK CURVE WIDENING BY HAND. #N/A** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
**CHECK CURVE WIDENING BY HAND. #N/A** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?

**P.C. ROTATION DATA**

Width of rotating pavement @ PC = **feet** From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Design speed of PC transition = **feet** (do not include curve widening, gore areas or entrance and exit lanes)  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

Width of rotating pavement @ PT = **feet** To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Design speed of PT transition = **feet** (do not include curve widening, gore areas or entrance and exit lanes)  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

P.C. Station **no** Percent of super to achieve at P.C.? **yes**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station **no** Percent of super to achieve at P.T.? **yes**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

Station **#VALUE!** Super Rate **0.000**  
 cross slope rotating from = **#VALUE!**  
 reverse crown = **#N/A** -0.016  
 full super = **#N/A** -0.016

**Curve Information**

Full super length = **#N/A**  
 Slope at PC = **#N/A**  
 P.C. L(r) = **#N/A**  
 G-value of P.C. L(r) = **#N/A**  
 P.C. L(t) = **#VALUE!**  
 G-value of P.C. L(t) = **#VALUE!**  
 Slope at PT = **#N/A**  
 P.T. L(r) = **#VALUE!**  
 G-value of P.T. L(r) = **#VALUE!**  
 P.T. L(t) = **#VALUE!**  
 G-value of P.T. L(t) = **#VALUE!**  
 Curve length is **0.00** times design speed  
 time at full super = **#N/A** seconds

**P.T. SUPER INFORMATION**

Station **#N/A** Super Rate **-0.016**  
 full super = **#N/A** -0.016  
 reverse crown = **#N/A** -0.016  
 cross slope rotating to = **#VALUE!** 0.000

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve						
P.T. part of curve						

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

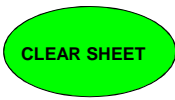
Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>		
Curve name:	<b>t 90 WB CURVE 3</b>		
What $e_{max}$ table would you like to use?	<b>0.060 MAX</b>		
V =	<b>60</b>	mph	(design speed, mph)
Dc =	<b>4.00</b>		(degree of curve of alignment)
Radius =	<b>1,432.39</b>	feet	(radius of curve of alignment)
$e_d$ =	<b>0.060</b>		(design superelevation rate)
normal crown ( $e_{NC}$ ) =	<b>0.016</b>		
	<b>right</b>		Is the curve to the left or right (in the direction of stationing)?
	<b>right</b>		Will the dependent geopak shapes be to the left or right of the baseline?
Curve widening NOT required for WB-50.	<b>0.750</b>		feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>1.000</b>		feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>		Divided roadway?



**P.C. ROTATION DATA**

	<b>1.60%</b>	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PC =	<b>24</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PC transition =	<b>60</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.45</b>	(maximum relative gradient)
G =	<b>222</b>	(maximum relative slope)
L(r) =	<b>319.6800</b>	feet (Superelevation Runoff Length to flat)
L(t) =	<b>85.2480</b>	feet (Tangent Runout Length)

**P.T. ROTATION DATA**

	<b>1.60%</b>	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PT =	<b>24</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PT transition =	<b>60</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.45</b>	(maximum relative gradient)
G =	<b>222</b>	(maximum relative slope)
L(r) =	<b>319.6800</b>	feet (Superelevation Runoff Length to flat)
L(t) =	<b>85.2480</b>	feet (Tangent Runout Length)

P.C. Station	<b>274+50.3900</b>		
Is there a spiral for this curve?	<b>yes</b>	Is the roadway rotating past flat at the P.C. transition?	<b>yes</b>
What is the length of the spiral?	<b>375.00'</b>	Spiral G-value and corresponding design speed:	260; 70-mph
Do you want the tangent runout length recalculated to match the g-value of the spiral?	<b>yes</b>	New L(t) =	<b>99.8400</b>

P.T. Station	<b>287+59.4400</b>		
Is there a spiral for this curve?	<b>yes</b>	Is the roadway rotating past flat at the P.T. transition?	<b>yes</b>
What is the length of the spiral?	<b>375.00'</b>	Spiral G-value and corresponding design speed:	260; 70-mph
Do you want the tangent runout length recalculated to match the g-value of the spiral?	<b>yes</b>	New L(t) =	<b>99.8400</b>

**P.C. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
normal crown =	<b>269+75.5500</b>	0.016
flat =	<b>270+75.3900</b>	0.000
full super =	<b>274+50.3900</b>	-0.060

**Curve Information**

Full super length =	1309.05 ft.
Slope at PC =	-0.0600
P.C. Spiral Length =	375.00
G-value of P.C. Spiral =	260
P.C. L(t) =	99.84
G-value of P.C. L(t) =	260
Slope at PT =	-0.0600
P.T. Spiral Length =	375.00
G-value of P.T. Spiral =	260
P.T. L(t) =	99.84
G-value of P.T. L(t) =	260
Curve length is	21.82 times design speed
time at full super =	14.88 seconds

**P.T. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
full super =	<b>287+59.4400</b>	-0.060
flat =	<b>291+34.4400</b>	0.000
normal crown =	<b>292+34.2800</b>	0.016

**SHOULDER INFORMATION FOR CURVE**

	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Left Shoulder Super Rate</b>	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Right Shoulder Super Rate</b>
P.C. part of curve	<b>272+62.8900</b>	-0.0300	<b>-0.0400</b>	<b>273+25.3900</b>	-0.0400	<b>-0.0400</b>
	<b>274+50.3900</b>	-0.0600	<b>-0.0100</b>	<b>274+50.3900</b>	-0.0600	<b>-0.0600</b>
P.T. part of curve	<b>287+59.4400</b>	-0.0600	<b>-0.0100</b>	<b>287+59.4400</b>	-0.0600	<b>-0.0600</b>
	<b>289+46.9400</b>	-0.0300	<b>-0.0400</b>	<b>288+84.4400</b>	-0.0400	<b>-0.0400</b>

**STATION INFORMATION**

<b>Station</b>	<b>Super Rate</b>	<b>% of e(d) Achieved</b>	<b>Left Shoulder Super Rate</b>	<b>Right Shoulder Super Rate</b>

**CROSS SLOPE INFORMATION**

<b>Super Rate</b>	<b>Station in P.C. Area</b>	<b>Station in P.T. Area</b>
<b>-0.0160</b>	<b>271+75.4826</b>	<b>290+34.3474</b>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **R 2 CURVE 1 EB**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **55** mph (design speed, mph)  
 Dc = **3.75** (degree of curve of alignment)  
 Radius = **1,527.89** feet (radius of curve of alignment)  
 **$e_d = 0.056$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
 right  
 right  
 Curve widening NOT required for WB-50. **0.688**  
 Curve widening NOT required for WB-62. **0.938**  
**yes**  
 Is the curve to the left or right (in the direction of stationing)?  
 Will the dependent geopak shapes be to the left or right of the baseline?  
 feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
 feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
 Divided roadway?



**P.C. ROTATION DATA**

**1.60%** From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
**48** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition = **55**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.47** (maximum relative gradient)  
 G = **213** (maximum relative slope)  
**L(r) = 567.4320** feet (Superelevation Runoff Length to flat)  
**L(t) = 163.5840** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

**1.60%** To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
**48** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition = **55**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.47** (maximum relative gradient)  
 G = **213** (maximum relative slope)  
**L(r) = 567.4320** feet (Superelevation Runoff Length to flat)  
**L(t) = 163.5840** feet (Tangent Runout Length)

P.C. Station **69+01.3000** Percent of super to achieve at P.C.? **66.67%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **no**

P.T. Station **74+37.4300** Percent of super to achieve at P.T.? **70.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **no**

**P.C. SUPER INFORMATION**

Station  
 normal crown = **66+86.5960** Super Rate -0.016  
 full super = **70+90.4440** -0.056

**Curve Information**

Full super length = 176.76 ft.  
 Slope at PC = -0.0370  
 P.C. L(r) = 403.85  
 G-value of P.C. L(r) = 213  
 Slope at PT = -0.0389  
 P.T. L(r) = 403.85  
 G-value of P.T. L(r) = 213

**P.T. SUPER INFORMATION**

Station  
 full super = **72+67.2004** Super Rate -0.056  
 normal crown = **76+71.0484** -0.016

Curve length is 9.75 times design speed  
 time at full super = 2.19 seconds

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<b>68+29.7320</b>	-0.0300	<b>-0.0400</b>	<b>69+31.9720</b>	-0.0400	<b>-0.0400</b>
	<b>70+90.4440</b>	-0.0555	<b>-0.0145</b>	<b>70+90.4440</b>	-0.0555	<b>-0.0555</b>
P.T. part of curve	<b>72+67.2004</b>	-0.0555	<b>-0.0145</b>	<b>72+67.2004</b>	-0.0555	<b>-0.0555</b>
	<b>75+27.9124</b>	-0.0300	<b>-0.0400</b>	<b>74+25.6724</b>	-0.0400	<b>-0.0400</b>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

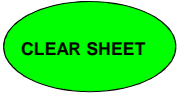
Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **R 2 CURVE 1 WB**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **55** mph (design speed, mph)  
 Dc = **3.75** (degree of curve of alignment)  
 Radius = **1,527.89** feet (radius of curve of alignment)  
 **$e_d = 0.056$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
**right** Is the curve to the left or right (in the direction of stationing)?  
**left** Will the dependent geopak shapes be to the left or right of the baseline?  
 Curve widening NOT required for WB-50. **0.688** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
 Curve widening NOT required for WB-62. **0.938** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?



**P.C. ROTATION DATA**

**2.00%** From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
**36** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition = **55**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.47** (maximum relative gradient)  
 G = **213** (maximum relative slope)  
**L(r) = 425.5740** feet (Superelevation Runoff Length to flat)  
**L(t) = 122.6880** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

**1.60%** To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
**13** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition = **55**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.47** (maximum relative gradient)  
 G = **213** (maximum relative slope)  
**L(r) = 153.6795** feet (Superelevation Runoff Length to flat)  
**L(t) = 44.3040** feet (Tangent Runout Length)

P.C. Station **69+01.3000** Percent of super to achieve at P.C.? **66.67%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **no**

P.T. Station **74+37.4300** Percent of super to achieve at P.T.? **66.67%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

Station **67+70.9440** Super Rate **0.020**  
 cross slope rotating from =  
 full super = **70+43.1580** 0.056

**Curve Information**

Full super length = **343.05** ft.  
 Slope at PC = **0.0370**  
 P.C. L(r) = **272.21**  
 G-value of P.C. L(r) = **213**

**P.T. SUPER INFORMATION**

Station **73+86.2035** Super Rate **0.056**  
 full super =  
 reverse crown = **74+95.5790** 0.016  
 flat = **75+39.8830** 0.000  
 normal crown = **75+84.1870** -0.016

Slope at PT = **0.0370**  
 P.T. L(r) = **153.68**  
 G-value of P.T. L(r) = **213**  
 P.T. L(t) = **44.30**  
 G-value of P.T. L(t) = **213**  
 Curve length is **9.75** times design speed  
 time at full super = **4.25** seconds

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<b>68+47.6240</b>	0.0300	<b>-0.0400</b>	<b>69+24.3040</b>	0.0400	<b>-0.0400</b>
	<b>70+43.1580</b>	0.0555	<b>-0.0145</b>	<b>70+43.1580</b>	0.0555	<b>-0.0555</b>
P.T. part of curve	<b>73+86.2035</b>	0.0555	<b>-0.0145</b>	<b>73+86.2035</b>	0.0555	<b>-0.0555</b>
	<b>74+56.8130</b>	0.0300	<b>-0.0400</b>	<b>74+29.1230</b>	0.0400	<b>-0.0400</b>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate
<b>69+80.7780</b>	<b>0.0474</b>	85.34%	-0.0226	-0.0474
<b>68+11.2000</b>	<b>0.0252</b>	45.50%	-0.0400	-0.0400
<b>69+29.2031</b>	<b>0.0406</b>	73.22%	-0.0294	-0.0406

**CROSS SLOPE INFORMATION**

Super Rate	Station in P.C. Area	Station in P.T. Area
<b>0.0160</b>	N/A	<b>74+95.5790</b>



**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **SR 2 CURVE 3**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **55** mph (design speed, mph)  
 Radius = **8814.74** feet (radius of curve of alignment)  
 Dc = **0.65** (degree of curve of alignment)  
 **$e_d = 0.016$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**



Is the curve to the left or right (in the direction of stationing)?  
 Will the dependent geopak shapes be to the left or right of the baseline?  
**CHECK CURVE WIDENING BY HAND. #N/A** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
**CHECK CURVE WIDENING BY HAND. #N/A** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?

**P.C. ROTATION DATA**

Width of rotating pavement @ PC = **feet** From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Design speed of PC transition = **feet** (do not include curve widening, gore areas or entrance and exit lanes)  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

Width of rotating pavement @ PT = **feet** To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Design speed of PT transition = **feet** (do not include curve widening, gore areas or entrance and exit lanes)  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

P.C. Station **no** Percent of super to achieve at P.C.? **yes**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station **no** Percent of super to achieve at P.T.? **no**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **no**

**P.C. SUPER INFORMATION**

Station **#VALUE!** Super Rate **0.000**  
 cross slope rotating from = **#N/A** Super Rate **0.016**  
 reverse crown = **#N/A** Super Rate **0.016**  
 full super = **#N/A**

**Curve Information**

Full super length = **#N/A**  
 Slope at PC = **#N/A**  
 P.C. L(r) = **#N/A**  
 G-value of P.C. L(r) = **#N/A**  
 P.C. L(t) = **#VALUE!**  
 G-value of P.C. L(t) = **#VALUE!**  
 Slope at PT = **#N/A**  
 P.T. L(r) = **#N/A**  
 G-value of P.T. L(r) = **#N/A**

**P.T. SUPER INFORMATION**

Station **#N/A** Super Rate **0.016**  
 full super = **#N/A** Super Rate **0.016**  
 normal crown = **#N/A**  
 cross slope rotating to = **#N/A** Super Rate **0.000**

Curve length is **0.00** times design speed  
 time at full super = **#N/A** seconds

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve						
P.T. part of curve						

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

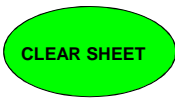
Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **SR 2 CURVE 3**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **55** mph (design speed, mph)  
 Dc = **3.75** (degree of curve of alignment)  
 Radius = **1,527.89** feet (radius of curve of alignment)  
 **$e_d = 0.056$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
**left**  
**right**  
 Curve widening NOT required for WB-50. **0.688** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
 Curve widening NOT required for WB-62. **0.938** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?



**P.C. ROTATION DATA**

**1.60%** From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC = **36** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition = **55**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.47** (maximum relative gradient)  
 G = **213** (maximum relative slope)  
**L(r) = 425.5740** feet (Superelevation Runoff Length to flat)  
**L(t) = 122.6880** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

**6.00%** To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT = **36** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition = **45**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.54** (maximum relative gradient)  
 G = **185** (maximum relative slope)  
**L(r) = 369.6300** feet (Superelevation Runoff Length to flat)  
**L(t) = 106.5600** feet (Tangent Runout Length)

P.C. Station **85+76.1700** Percent of super to achieve at P.C.? **66.67%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station **89+36.9600** Percent of super to achieve at P.T.? **100.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **no**

**P.C. SUPER INFORMATION**

Station	Super Rate
normal crown = <b>81+69.7660</b>	-0.016
flat = <b>82+92.4540</b>	0.000
reverse crown = <b>84+15.1420</b>	0.016
full super = <b>87+18.0280</b>	0.056

**Curve Information**

Full super length = 218.93 ft.  
 Slope at PC = #N/A  
 P.C. L(r) = 425.57  
 G-value of P.C. L(r) = 213  
 P.C. L(t) = 122.69  
 G-value of P.C. L(t) = 213  
 Slope at PT = 0.0555  
 P.T. L(r) = 29.97  
 G-value of P.T. L(r) = 185

**P.T. SUPER INFORMATION**

Station	Super Rate
full super = <b>89+36.9600</b>	0.056
cross slope rotating to = <b>89+66.9300</b>	0.060

Curve length is 6.56 times design speed  
 time at full super = 2.71 seconds

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<b>85+99.1740</b>	0.0400	<b>-0.0400</b>	<b>85+22.4940</b>	0.0300	<b>-0.0400</b>
	<b>87+18.0280</b>	0.0555	<b>-0.0555</b>	<b>87+18.0280</b>	0.0555	<b>-0.0145</b>
P.T. part of curve	<b>89+36.9600</b>	0.0555	<b>-0.0555</b>	<b>89+36.9600</b>	0.0555	<b>-0.0145</b>
	<b>89+06.9900</b>	0.0600	<b>-0.0600</b>	<b>89+06.9900</b>	0.0600	<b>-0.0100</b>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

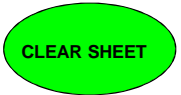
Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>		
Curve name:	<b>AMP E1 CURVE 1</b>		
What $e_{max}$ table would you like to use?	<b>0.060 MAX</b>		
V =	<b>50</b>	mph	(design speed, mph)
Dc =	<b>6.00</b>		(degree of curve of alignment)
Radius =	954.93	feet	(radius of curve of alignment)
$e_d$ =	<b>0.059</b>		(design superelevation rate)
normal crown ( $e_{NC}$ ) =	<b>0.016</b>		
	<b>right</b>		Is the curve to the left or right (in the direction of stationing)?
	<b>right</b>		Will the dependent geopak shapes be to the left or right of the baseline?
<b>Curve widening required for WB-50.</b>	<b>1.250</b>		feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>1.500</b>		feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>		Divided roadway?



**P.C. ROTATION DATA**

	<b>6.00%</b>	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PC =	<b>16</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PC transition =	<b>50</b>	
b(w) =	1	(adjustment factor for number of lanes rotated)
% =	0.5	(maximum relative gradient)
G =	200	(maximum relative slope)
<b>L(r) =</b>	<b>188.8000</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>51.2000</b>	feet (Tangent Runout Length)

**P.T. ROTATION DATA**

	<b>5.90%</b>	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PT =	<b>16</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PT transition =	<b>25</b>	
b(w) =	1	(adjustment factor for number of lanes rotated)
% =	0.7	(maximum relative gradient)
G =	143	(maximum relative slope)
<b>L(r) =</b>	<b>134.9920</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>36.6080</b>	feet (Tangent Runout Length)

P.C. Station **500+00.0000** Percent of super to achieve at P.C.? **70.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **no**

P.T. Station **504+03.2000** Is the roadway rotating past flat at the P.T. transition? **no**  
 Is there a spiral for this curve? **yes** Spiral G-value and corresponding design speed: G-value is 0; 70+ mph  
 What is the length of the spiral? **200.00'**  
**#DIV/0!**

**P.C. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
cross slope rotating from =	<b>500+53.4400</b>	-0.060
full super =	<b>500+56.6400</b>	-0.059

**Curve Information**

Full super length = 346.56 ft.  
 Slope at PC = #N/A  
 P.C. L(r) = 3.20  
 G-value of P.C. L(r) = 200

**P.T. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
full super =	<b>504+03.2000</b>	-0.059
cross slope rotating to =	<b>506+03.2000</b>	-0.059

Slope at PT = -0.0590  
 P.T. Spiral Length = 200.00  
 G-value of P.T. Spiral = #DIV/0!

Curve length is 8.06 times design speed  
 time at full super = 4.73 seconds

**SHOULDER INFORMATION FOR CURVE**

	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Left Shoulder Super Rate</b>	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Right Shoulder Super Rate</b>
P.C. part of curve	<b>500+59.8400</b>	-0.0600	<b>-0.0100</b>	<b>500+59.8400</b>	-0.0600	<b>-0.0600</b>
	<b>500+56.6400</b>	-0.0590	<b>-0.0110</b>	<b>500+56.6400</b>	-0.0590	<b>-0.0590</b>
P.T. part of curve	<b>504+03.2000</b>	-0.0590	<b>-0.0110</b>	<b>504+03.2000</b>	-0.0590	<b>-0.0590</b>
	<b>504+03.2000</b>	-0.0590	<b>-0.0110</b>	<b>504+03.2000</b>	-0.0590	<b>-0.0590</b>

**STATION INFORMATION**

<b>Station</b>	<b>Super Rate</b>	<b>% of e(d) Achieved</b>	<b>Left Shoulder Super Rate</b>	<b>Right Shoulder Super Rate</b>

**CROSS SLOPE INFORMATION**

<b>Super Rate</b>	<b>Station in P.C. Area</b>	<b>Station in P.T. Area</b>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **AMP E1 CURVE 2**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **25** mph (design speed, mph)  
 Dc = **32.50** (degree of curve of alignment)  
 Radius = **176.29** feet (radius of curve of alignment)  
 **$e_d = 0.059$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
**right** Is the curve to the left or right (in the direction of stationing)?  
**right** Will the dependent geopak shapes be to the left or right of the baseline?  
 Curve widening NOT required for WB-50. 0.000 feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
 Curve widening NOT required for WB-62. 0.000 feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?



**P.C. ROTATION DATA**

**5.90%** From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC = **16** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition = **25**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.7** (maximum relative gradient)  
 G = **143** (maximum relative slope)  
**L(r) = 133.8480** feet (Superelevation Runoff Length to flat)  
**L(t) = 36.6080** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

**5.60%** To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT = **16** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition = **45**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.54** (maximum relative gradient)  
 G = **185** (maximum relative slope)  
**L(r) = 173.1600** feet (Superelevation Runoff Length to flat)  
**L(t) = 47.3600** feet (Tangent Runout Length)

P.C. Station **506+03.2000** Percent of super to achieve at P.C.? **100.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **no**  
 P.T. Station **510+80.5000** Percent of super to achieve at P.T.? **95.73%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **no**

**P.C. SUPER INFORMATION**

Station **506+02.0560** Super Rate **-0.059**  
 cross slope rotating from =  
 full super = **506+03.2000** -0.059

**Curve Information**

Full super length = 469.90 ft.  
 Slope at PC = -0.0585  
 P.C. L(r) = 1.14  
 G-value of P.C. L(r) = 143  
 Slope at PT = #N/A  
 P.T. L(r) = 7.40  
 G-value of P.T. L(r) = 185

**P.T. SUPER INFORMATION**

Station **510+73.1000** Super Rate **-0.059**  
 full super =  
 cross slope rotating to = **510+80.5000** -0.056

Curve length is 19.09 times design speed  
 time at full super = 12.82 seconds

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<b>506+04.3440</b>	-0.0590	<b>-0.0110</b>	<b>506+04.3440</b>	-0.0590	<b>-0.0590</b>
	<b>506+03.2000</b>	-0.0585	<b>-0.0115</b>	<b>506+03.2000</b>	-0.0585	<b>-0.0585</b>
P.T. part of curve	<b>510+73.1000</b>	-0.0585	<b>-0.0115</b>	<b>510+73.1000</b>	-0.0585	<b>-0.0585</b>
	<b>510+80.5000</b>	-0.0560	<b>-0.0140</b>	<b>510+80.5000</b>	-0.0560	<b>-0.0560</b>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

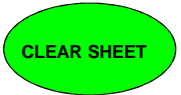
Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **AMP E2 CURVE 1**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **45** mph (design speed, mph)  
 Radius = **636.62** feet (radius of curve of alignment)  
 Dc = **9.00** (degree of curve of alignment)  
 **$e_d = 0.060$**  (design superelevation rate)



normal crown ( $e_{NC}$ ) = **0.016**  
**left** Is the curve to the left or right (in the direction of stationing)?  
**right** Will the dependent geopak shapes be to the left or right of the baseline?  
**Curve widening required for WB-50. 1.500** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
**Curve widening required for WB-62. 2.000** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?

**P.C. ROTATION DATA**

**5.60%** From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC = **24** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition = **45**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.54** (maximum relative gradient)  
 G = **185** (maximum relative slope)  
**L(r) = 266.4000** feet (Superelevation Runoff Length to flat)  
**L(t) = 71.0400** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT = **24** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition = **45**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
**L(r) = #N/A** feet (Superelevation Runoff Length to flat)  
**L(t) = #N/A** feet (Tangent Runout Length)

P.C. Station **602+81.0800** Percent of super to achieve at P.C.? **107.14%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **no**

P.T. Station **SEE HAND CALCS** Percent of super to achieve at P.T.? **50.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **no**

**P.C. SUPER INFORMATION**

Station **602+44.2914** Super Rate **0.056**  
 cross slope rotating from = **602+44.2914**  
 full super = **603+00.1086** 0.060

**Curve Information**

Full super length = #VALUE!  
 Slope at PC = 0.0586  
 P.C. L(r) = 55.82  
 G-value of P.C. L(r) = 581.428571

**P.T. SUPER INFORMATION**

Station **#VALUE!** Super Rate **0.060**  
 full super = **#VALUE!**  
 normal crown = **#VALUE!** 0.016  
 cross slope rotating to = **#VALUE!** 0.000

Slope at PT = #VALUE!  
 P.T. L(r) = #VALUE!  
 G-value of P.T. L(r) = #VALUE!

Curve length is #VALUE! times design speed  
 time at full super = #VALUE! seconds

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<b>602+82.3486</b>	0.0560	<b>-0.0560</b>	<b>602+82.3486</b>	0.0560	<b>-0.0140</b>
	<b>603+00.1086</b>	0.0600	<b>-0.0600</b>	<b>603+00.1086</b>	0.0600	<b>-0.0100</b>
P.T. part of curve	<b>#VALUE!</b>	0.0600	<b>-0.0600</b>	<b>#VALUE!</b>	0.0600	<b>-0.0100</b>
	<b>#VALUE!</b>	0.0400	<b>-0.0400</b>	<b>#VALUE!</b>	0.0300	<b>-0.0400</b>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

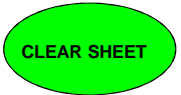
Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **AMP E2 CURVE 2**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **45** mph (design speed, mph)  
 Radius = **636.62** feet (radius of curve of alignment)  
 Dc = **9.00** (degree of curve of alignment)  
 $e_d$  = **0.060** (design superelevation rate)



normal crown ( $e_{NC}$ ) = **0.016**  
**right** Is the curve to the left or right (in the direction of stationing)?  
**right** Will the dependent geopak shapes be to the left or right of the baseline?  
**Curve widening required for WB-50. 1.500** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
**Curve widening required for WB-62. 2.000** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?

**P.C. ROTATION DATA**

From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC = **24** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition = **45**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT = **24** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition = **45**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.54** (maximum relative gradient)  
 G = **185** (maximum relative slope)  
 L(r) = **266.4000** feet (Superelevation Runoff Length to flat)  
 L(t) = **71.0400** feet (Tangent Runout Length)

P.C. Station **SEE HAND CALCS** Percent of super to achieve at P.C.? **no**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **no**

P.T. Station **614+05.6000**  
 Is there a spiral for this curve? **yes** Is the roadway rotating past flat at the P.T. transition? **no**  
 What is the length of the spiral? **200.00'** Spiral G-value and corresponding design speed: **189; 45-mph**

**P.C. SUPER INFORMATION**

Station **#VALUE!** Super Rate **0.000**  
 cross slope rotating from = **#VALUE!**  
 normal crown = **#VALUE!** -0.016  
 full super = **#VALUE!** -0.060

**Curve Information**

Full super length = **#VALUE!**  
 Slope at PC = **#VALUE!**  
 P.C. L(r) = **#VALUE!**  
 G-value of P.C. L(r) = **#VALUE!**

**P.T. SUPER INFORMATION**

Station **614+05.6000** Super Rate **-0.060**  
 full super = **614+05.6000**  
 normal crown = **616+05.6000** -0.016

Slope at PT = **-0.0600**  
 P.T. Spiral Length = **200.00**  
 G-value of P.T. Spiral = **189**

Curve length is **#VALUE!** times design speed  
 time at full super = **#VALUE!** seconds

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<b>#VALUE!</b>	-0.0300	<b>-0.0400</b>	<b>#VALUE!</b>	-0.0400	<b>-0.0400</b>
	<b>#VALUE!</b>	-0.0600	<b>-0.0100</b>	<b>#VALUE!</b>	-0.0600	<b>-0.0600</b>
P.T. part of curve	<b>614+05.6000</b>	-0.0600	<b>-0.0100</b>	<b>614+05.6000</b>	-0.0600	<b>-0.0600</b>
	<b>615+05.6000</b>	-0.0300	<b>-0.0400</b>	<b>614+72.2667</b>	-0.0400	<b>-0.0400</b>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

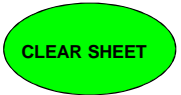
Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **AMP F3 CURVE 1**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **50** mph (design speed, mph)  
 Dc = **1.50** (degree of curve of alignment)  
 Radius = **3,819.72** feet (radius of curve of alignment)  
 **$e_d = 0.028$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
**right** Is the curve to the left or right (in the direction of stationing)?  
**left** Will the dependent geopak shapes be to the left or right of the baseline?  
 Curve widening NOT required for WB-50. **0.125** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
 Curve widening NOT required for WB-62. **0.250** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?



**P.C. ROTATION DATA**

**1.60%** From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC = **24** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition = **50**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.5** (maximum relative gradient)  
 G = **200** (maximum relative slope)  
**L(r) = 134.4000** feet (Superelevation Runoff Length to flat)  
**L(t) = 76.8000** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

**0.00%** To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT = **24** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition = **50**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.5** (maximum relative gradient)  
 G = **200** (maximum relative slope)  
**L(r) = 134.4000** feet (Superelevation Runoff Length to flat)  
**L(t) = 76.8000** feet (Tangent Runout Length)

P.C. Station **405+58.1900** Percent of super to achieve at P.C.? **50.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **no**

P.T. Station **405+58.1900** Percent of super to achieve at P.T.? **69.31%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **no**

**P.C. SUPER INFORMATION**

Station **00+09.6000** Super Rate **0.016**  
 normal crown = **00+09.6000**  
 full super = **00+67.2000** **0.028**

**Curve Information**

Full super length = **40449.74** ft.  
 Slope at PC = **#N/A**  
 P.C. L(r) = **57.60**  
 G-value of P.C. L(r) = **200**  
 Slope at PT = **0.0194**  
 P.T. L(r) = **134.40**  
 G-value of P.T. L(r) = **200**  
 Curve length is **811.16** times design speed  
 time at full super = **551.59** seconds

**P.T. SUPER INFORMATION**

Station **405+16.9359** Super Rate **0.028**  
 full super = **405+16.9359**  
 normal crown = **405+74.5359** **0.016**  
 cross slope rotating to = **406+51.3359** **0.000**

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve						
P.T. part of curve						

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

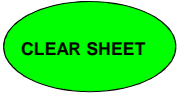
Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>		
Curve name:	<b>AMP F3 CURVE 2</b>		
What $e_{max}$ table would you like to use?	<b>0.060 MAX</b>		
V =	<b>50</b>	mph	(design speed, mph)
Radius =	<b>954.93</b>	feet	(radius of curve of alignment)
Dc =	<b>6.00</b>		(degree of curve of alignment)
$e_d$ =	<b>0.059</b>		(design superelevation rate)
normal crown ( $e_{NC}$ ) =	<b>0.016</b>		
	<b>right</b>		Is the curve to the left or right (in the direction of stationing)?
	<b>left</b>		Will the dependent geopak shapes be to the left or right of the baseline?
<b>Curve widening required for WB-50.</b>	<b>1.250</b>		feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>1.500</b>		feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>		Divided roadway?



**P.C. ROTATION DATA**

	<b>0.00%</b>	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PC =	<b>24</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PC transition =	<b>50</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.5</b>	(maximum relative gradient)
G =	<b>200</b>	(maximum relative slope)
L(r) =	<b>283.2000</b>	feet (Superelevation Runoff Length to flat)
L(t) =	<b>76.8000</b>	feet (Tangent Runout Length)

**P.T. ROTATION DATA**

	<b>0.00%</b>	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PT =	<b>24</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PT transition =	<b>50</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.5</b>	(maximum relative gradient)
G =	<b>200</b>	(maximum relative slope)
L(r) =	<b>283.2000</b>	feet (Superelevation Runoff Length to flat)
L(t) =	<b>76.8000</b>	feet (Tangent Runout Length)

P.C. Station	<b>409+71.3300</b>		
Is there a spiral for this curve?	<b>yes</b>	Is the roadway rotating past flat at the P.C. transition?	<b>no</b>
What is the length of the spiral?	<b>320.00'</b>	Spiral G-value and corresponding design speed:	<b>226; 60-mph</b>
P.T. Station	<b>412+86.7900</b>		
Is there a spiral for this curve?	<b>yes</b>	Is the roadway rotating past flat at the P.T. transition?	<b>no</b>
What is the length of the spiral?	<b>320.00'</b>	Spiral G-value and corresponding design speed:	<b>226; 60-mph</b>

**P.C. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
cross slope rotating from =	<b>406+51.3300</b>	0.000
full super =	<b>409+71.3300</b>	0.059

**Curve Information**

Full super length =	315.46 ft.
Slope at PC =	0.0590
P.C. Spiral Length =	320.00
G-value of P.C. Spiral =	226

**P.T. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
full super =	<b>412+86.7900</b>	0.059
cross slope rotating to =	<b>416+06.7900</b>	0.000

Slope at PT =	0.0590	
P.T. Spiral Length =	320.00	
G-value of P.T. Spiral =	226	
Curve length is	6.31	times design speed
time at full super =	4.30	seconds

**SHOULDER INFORMATION FOR CURVE**

	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Left Shoulder Super Rate</b>	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Right Shoulder Super Rate</b>
P.C. part of curve	<b>408+14.0419</b>	0.0300	<b>-0.0400</b>	<b>408+68.2792</b>	0.0400	<b>-0.0400</b>
	<b>409+71.3300</b>	0.0590	<b>-0.0110</b>	<b>409+71.3300</b>	0.0590	<b>-0.0590</b>
P.T. part of curve	<b>412+86.7900</b>	0.0590	<b>-0.0110</b>	<b>412+86.7900</b>	0.0590	<b>-0.0590</b>
	<b>414+44.0781</b>	0.0300	<b>-0.0400</b>	<b>413+89.8408</b>	0.0400	<b>-0.0400</b>

**STATION INFORMATION**

<b>Station</b>	<b>Super Rate</b>	<b>% of e(d) Achieved</b>	<b>Left Shoulder Super Rate</b>	<b>Right Shoulder Super Rate</b>

**CROSS SLOPE INFORMATION**

<b>Super Rate</b>	<b>Station in P.C. Area</b>	<b>Station in P.T. Area</b>

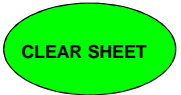


**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>		
Curve name:	<b>AMP F3 CURVE 3</b>		
What $e_{max}$ table would you like to use?	<b>0.060 MAX</b>		
V =	<b>50</b>	mph	(design speed, mph)
Dc =	<b>6.75</b>		(degree of curve of alignment)
Radius =	<b>848.83</b>	feet	(radius of curve of alignment)
$e_d$ =	<b>0.060</b>		(design superelevation rate)
normal crown ( $e_{NC}$ ) =	<b>0.016</b>		
	<b>right</b>		Is the curve to the left or right (in the direction of stationing)?
	<b>left</b>		Will the dependent geopak shapes be to the left or right of the baseline?
<b>Curve widening required for WB-50.</b>	<b>1.437</b>		feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>1.875</b>		feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>		Divided roadway?



**P.C. ROTATION DATA**

	<b>0.00%</b>	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PC =	<b>24</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PC transition =	<b>50</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.5</b>	(maximum relative gradient)
G =	<b>200</b>	(maximum relative slope)
<b>L(r) =</b>	<b>288.0000</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>76.8000</b>	feet (Tangent Runout Length)

**P.T. ROTATION DATA**

	<b>2.43%</b>	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PT =	<b>24</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PT transition =	<b>50</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.5</b>	(maximum relative gradient)
G =	<b>200</b>	(maximum relative slope)
<b>L(r) =</b>	<b>288.0000</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>76.8000</b>	feet (Tangent Runout Length)
P.C. Station	<b>419+06.7900</b>	
Is there a spiral for this curve?	<b>yes</b>	Is the roadway rotating past flat at the P.C. transition? <b>no</b>
What is the length of the spiral?	<b>300.00'</b>	Spiral G-value and corresponding design speed: 208; 50-mph
P.T. Station	<b>423+20.2900</b>	
Is there a spiral for this curve?	<b>yes</b>	Is the roadway rotating past flat at the P.T. transition? <b>yes</b>
What is the length of the spiral?	<b>300.00'</b>	Spiral G-value and corresponding design speed: 208; 50-mph
Do you want the tangent runout length recalculated to match the g-value of the spiral?	<b>yes</b>	New L(t) = <b>79.8720</b>

**P.C. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
cross slope rotating from =	<b>416+06.7900</b>	0.000
full super =	<b>419+06.7900</b>	0.060

**Curve Information**

Full super length =	413.50 ft.
Slope at PC =	0.0600
P.C. Spiral Length =	300.00
G-value of P.C. Spiral =	208
Slope at PT =	0.0600
P.T. Spiral Length =	300.00
G-value of P.T. Spiral =	208
P.T. L(t) =	79.87
G-value of P.T. L(t) =	208
Curve length is	8.27
time at full super =	5.64
	times design speed
	seconds

**P.T. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
full super =	<b>423+20.2900</b>	0.060
flat =	<b>426+20.2900</b>	0.000
normal crown =	<b>427+00.1620</b>	-0.016
cross slope rotating to =	<b>427+41.5956</b>	-0.024

**SHOULDER INFORMATION FOR CURVE**

	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Left Shoulder Super Rate</b>	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Right Shoulder Super Rate</b>
P.C. part of curve	<b>417+56.7900</b>	0.0300	<b>-0.0400</b>	<b>418+06.7900</b>	0.0400	<b>-0.0400</b>
	<b>419+06.7900</b>	0.0600	<b>-0.0100</b>	<b>419+06.7900</b>	0.0600	<b>-0.0600</b>
P.T. part of curve	<b>423+20.2900</b>	0.0600	<b>-0.0100</b>	<b>423+20.2900</b>	0.0600	<b>-0.0600</b>
	<b>424+70.2900</b>	0.0300	<b>-0.0400</b>	<b>424+20.2900</b>	0.0400	<b>-0.0400</b>

**STATION INFORMATION**

<b>Station</b>	<b>Super Rate</b>	<b>% of e(d) Achieved</b>	<b>Left Shoulder Super Rate</b>	<b>Right Shoulder Super Rate</b>
<b>423+49.3061</b>	0.0542	90.33%	-0.0158	-0.0542
<b>423+61.5994</b>	0.0517	86.23%	-0.0183	-0.0517
<b>423+52.5990</b>	0.0535	89.23%	-0.0165	-0.0535
<b>423+42.8563</b>	0.0555	92.48%	-0.0145	-0.0555

**CROSS SLOPE INFORMATION**

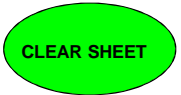
<b>Super Rate</b>	<b>Station in P.C. Area</b>	<b>Station in P.T. Area</b>
<b>0.0076</b>	<b>416+44.7900</b>	<b>425+82.1692</b>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>		
Curve name:	<b>AMP F4 CURVE 1</b>		
What $e_{max}$ table would you like to use?	<b>0.060 MAX</b>		
V =	<b>35</b>	mph	(design speed, mph)
Dc =	<b>13.00</b>		(degree of curve of alignment)
Radius =	<b>440.74</b>	feet	(radius of curve of alignment)
$e_d$ =	<b>0.058</b>		(design superelevation rate)
normal crown ( $e_{NC}$ ) =	<b>0.016</b>		
	<b>left</b>		Is the curve to the left or right (in the direction of stationing)?
	<b>left</b>		Will the dependent geopak shapes be to the left or right of the baseline?
<b>Curve widening required for WB-50.</b>	<b>2.000</b>		feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>2.750</b>		feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>		Divided roadway?



**P.C. ROTATION DATA**

	<b>5.60%</b>	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PC =	<b>16</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PC transition =	<b>45</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.54</b>	(maximum relative gradient)
G =	<b>185</b>	(maximum relative slope)
<b>L(r) =</b>	<b>171.6800</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>47.3600</b>	feet (Tangent Runout Length)

**P.T. ROTATION DATA**

	<b>5.70%</b>	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PT =	<b>16</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PT transition =	<b>35</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.62</b>	(maximum relative gradient)
G =	<b>161</b>	(maximum relative slope)
<b>L(r) =</b>	<b>149.4080</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>41.2160</b>	feet (Tangent Runout Length)

P.C. Station **700+00.0000** Percent of super to achieve at P.C.? **96.55%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **no**

P.T. Station **702+50.7900** Percent of super to achieve at P.T.? **98.28%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **no**

**P.C. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
cross slope rotating from =	<b>700+00.0000</b>	-0.056
full super =	<b>700+05.9200</b>	-0.058

**Curve Information**

Full super length = 242.29 ft.  
 Slope at PC = -0.0560  
 P.C. L(r) = 5.92  
 G-value of P.C. L(r) = 185

**P.T. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
full super =	<b>702+48.2140</b>	-0.058
cross slope rotating to =	<b>702+50.7900</b>	-0.0570

Slope at PT = #N/A  
 P.T. L(r) = 2.58  
 G-value of P.T. L(r) = 161

Curve length is 7.17 times design speed  
 time at full super = 4.72 seconds

**SHOULDER INFORMATION FOR CURVE**

	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Left Shoulder Super Rate</b>	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Right Shoulder Super Rate</b>
P.C. part of curve	<b>700+00.0000</b>	-0.0560	<b>-0.0560</b>	<b>700+00.0000</b>	-0.0560	<b>-0.0140</b>
	<b>700+05.9200</b>	-0.0580	<b>-0.0580</b>	<b>700+05.9200</b>	-0.0580	<b>-0.0120</b>
P.T. part of curve	<b>702+48.2140</b>	-0.0580	<b>-0.0580</b>	<b>702+48.2140</b>	-0.0580	<b>-0.0120</b>
	<b>702+50.7900</b>	-0.0570	<b>-0.0570</b>	<b>702+50.7900</b>	-0.0570	<b>-0.0130</b>

**STATION INFORMATION**

<b>Station</b>	<b>Super Rate</b>	<b>% of e(d) Achieved</b>	<b>Left Shoulder Super Rate</b>	<b>Right Shoulder Super Rate</b>

**CROSS SLOPE INFORMATION**

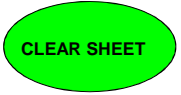
<b>Super Rate</b>	<b>Station in P.C. Area</b>	<b>Station in P.T. Area</b>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>	
Curve name:	<b>AMP F4 CURVE 2</b>	
What $e_{max}$ table would you like to use?	<b>0.060 MAX</b>	
V =	<b>30</b>	mph (design speed, mph)
Dc =	<b>17.50</b>	(degree of curve of alignment)
Radius =	<b>327.40</b>	feet (radius of curve of alignment)
<b><math>e_d</math> =</b>	<b>0.0570</b>	(design superelevation rate)
normal crown ( $e_{NC}$ ) =	<b>0.016</b>	
	<b>left</b>	Is the curve to the left or right (in the direction of stationing)?
	<b>left</b>	Will the dependent geopak shapes be to the left or right of the baseline?
<b>Curve widening required for WB-50.</b>	<b>2.708</b>	feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>3.667</b>	feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>	Divided roadway?



**P.C. ROTATION DATA**

	<b>5.80%</b>	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PC =	<b>16</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PC transition =	<b>35</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.62</b>	(maximum relative gradient)
G =	<b>161</b>	(maximum relative slope)
<b>L(r) =</b>	<b>146.8320</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>41.2160</b>	feet (Tangent Runout Length)

**P.T. ROTATION DATA**

	<b>4.45%</b>	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PT =	<b>16</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PT transition =	<b>30</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.66</b>	(maximum relative gradient)
G =	<b>152</b>	(maximum relative slope)
<b>L(r) =</b>	<b>138.6240</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>38.9120</b>	feet (Tangent Runout Length)

P.C. Station **702+50.7900** Percent of super to achieve at P.C.? **100.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **no**

P.T. Station **711+14.1100**  
 Is there a spiral for this curve? **yes** Is the roadway rotating past flat at the P.T. transition? **no**  
 What is the length of the spiral? **200.00'** Spiral G-value and corresponding design speed: **1000; 70-mph**

**P.C. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
cross slope rotating from =	<b>702+48.2140</b>	<b>-0.0580</b>
full super =	<b>702+50.7900</b>	<b>-0.0570</b>

**Curve Information**

Full super length =	<b>863.32 ft.</b>
Slope at PC =	<b>-0.0570</b>
P.C. L(r) =	<b>2.58</b>
G-value of P.C. L(r) =	<b>161</b>

**P.T. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
full super =	<b>711+14.1100</b>	<b>-0.0570</b>
cross slope rotating to =	<b>713+14.1100</b>	<b>-0.045</b>

Slope at PT =	<b>-0.0570</b>
P.T. Spiral Length =	<b>200.00</b>
G-value of P.T. Spiral =	<b>1000</b>
Curve length is	<b>28.78</b> times design speed
time at full super =	<b>19.62</b> seconds

**SHOULDER INFORMATION FOR CURVE**

	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Left Shoulder Super Rate</b>	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Right Shoulder Super Rate</b>
P.C. part of curve	<b>702+53.3660</b>	<b>-0.0580</b>	<b>-0.0580</b>	<b>702+53.3660</b>	<b>-0.0580</b>	<b>-0.0120</b>
	<b>702+50.7900</b>	<b>-0.0570</b>	<b>-0.0570</b>	<b>702+50.7900</b>	<b>-0.0570</b>	<b>-0.0130</b>
P.T. part of curve	<b>711+14.1100</b>	<b>-0.0570</b>	<b>-0.0570</b>	<b>711+14.1100</b>	<b>-0.0570</b>	<b>-0.0130</b>
	<b>711+57.9696</b>	<b>-0.0445</b>	<b>-0.0445</b>	<b>711+57.9696</b>	<b>-0.0445</b>	<b>-0.0255</b>

**STATION INFORMATION**

<b>Station</b>	<b>Super Rate</b>	<b>% of e(d) Achieved</b>	<b>Left Shoulder Super Rate</b>	<b>Right Shoulder Super Rate</b>

**CROSS SLOPE INFORMATION**

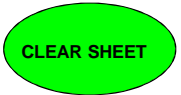
<b>Super Rate</b>	<b>Station in P.C. Area</b>	<b>Station in P.T. Area</b>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **AMP F4 CURVE 3**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **45** mph (design speed, mph)  
 Dc = **3.75** (degree of curve of alignment)  
 Radius = **1,527.89** feet (radius of curve of alignment)  
 **$e_d = 0.0445$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
**left** Is the curve to the left or right (in the direction of stationing)?  
**left** Will the dependent geopak shapes be to the left or right of the baseline?  
 Curve widening NOT required for WB-50. **0.500** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
 Curve widening NOT required for WB-62. **0.750** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?



**P.C. ROTATION DATA**

**4.45%** From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC = **16** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition = **45**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.54** (maximum relative gradient)  
 G = **185** (maximum relative slope)  
 L(r) = **131.7200** feet (Superelevation Runoff Length to flat)  
 L(t) = **47.3600** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

**6.00%** To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT = **16** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition = **45**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.54** (maximum relative gradient)  
 G = **185** (maximum relative slope)  
 L(r) = **131.7200** feet (Superelevation Runoff Length to flat)  
 L(t) = **47.3600** feet (Tangent Runout Length)

P.C. Station **713+14.1100** Percent of super to achieve at P.C.? **100.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **no**

P.T. Station **718+01.2700**  
 Is there a spiral for this curve? **yes** Is the roadway rotating past flat at the P.T. transition? **no**  
 What is the length of the spiral? **200.00'** Spiral G-value and corresponding design speed: **806; 70-mph**

**P.C. SUPER INFORMATION**

**Station** **Super Rate**  
 cross slope rotating from = **713+14.1100** -0.0445  
 full super = **713+14.1100** -0.0445

**Curve Information**

Full super length = 487.16 ft.  
 Slope at PC = -0.0445  
 P.C. L(r) = 0.00  
 G-value of P.C. L(r) = #DIV/0!

**P.T. SUPER INFORMATION**

**Station** **Super Rate**  
 full super = **718+01.2700** -0.0445  
 cross slope rotating to = **720+01.2700** -0.060

Slope at PT = -0.0445  
 P.T. Spiral Length = 200.00  
 G-value of P.T. Spiral = 806

Curve length is 10.83 times design speed  
 time at full super = 7.38 seconds

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	713+14.1100	-0.0445	-0.0445	713+14.1100	-0.0445	-0.0255
	713+14.1100	-0.0445	-0.0445	713+14.1100	-0.0445	-0.0255
P.T. part of curve	718+01.2700	-0.0445	-0.0445	718+01.2700	-0.0445	-0.0255
	717+31.6071	-0.0600	-0.0600	717+31.6071	-0.0600	-0.0100

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

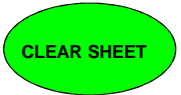
Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>		
Curve name:	<b>AMP G5 CURVE 1</b>		
What $e_{max}$ table would you like to use?	<b>0.060 MAX</b>		
V =	<b>40</b>	mph	(design speed, mph)
Dc =	<b>10.75</b>		(degree of curve of alignment)
Radius =	532.98	feet	(radius of curve of alignment)
$e_d$ =	<b>0.0595</b>		(design superelevation rate)
normal crown ( $e_{NC}$ ) =	<b>0.016</b>		
	<b>right</b>		Is the curve to the left or right (in the direction of stationing)?
	<b>left</b>		Will the dependent geopak shapes be to the left or right of the baseline?
<b>Curve widening required for WB-50.</b>	<b>1.938</b>		feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>2.625</b>		feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>		Divided roadway?



**P.C. ROTATION DATA**

	<b>6.00%</b>	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PC =	<b>16</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PC transition =	<b>50</b>	
b(w) =	1	(adjustment factor for number of lanes rotated)
% =	0.5	(maximum relative gradient)
G =	200	(maximum relative slope)
<b>L(r) =</b>	<b>190.4000</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>51.2000</b>	feet (Tangent Runout Length)

**P.T. ROTATION DATA**

	<b>3.20%</b>	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PT =	<b>16</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PT transition =	<b>40</b>	
b(w) =	1	(adjustment factor for number of lanes rotated)
% =	0.58	(maximum relative gradient)
G =	172	(maximum relative slope)
<b>L(r) =</b>	<b>163.7440</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>44.0320</b>	feet (Tangent Runout Length)

P.C. Station	<b>800+00.0000</b>	Percent of super to achieve at P.C.?	<b>100.00%</b>
Is there a spiral for this curve?	<b>no</b>	Is the roadway rotating past flat at the P.C. transition?	<b>no</b>
P.T. Station	<b>802+91.3200</b>	Percent of super to achieve at P.T.?	<b>53.78%</b>
Is there a spiral for this curve?	<b>no</b>	Is the roadway rotating past flat at the P.T. transition?	<b>no</b>

**P.C. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
cross slope rotating from =	<b>799+98.4000</b>	0.0600
full super =	<b>800+00.0000</b>	0.0595

**Curve Information**

Full super length =	215.64 ft.	
Slope at PC =	0.0595	
P.C. L(r) =	1.60	
G-value of P.C. L(r) =	200	
Slope at PT =	#N/A	
P.T. L(r) =	75.68	
G-value of P.T. L(r) =	172	
Curve length is	7.28	times design speed
time at full super =	3.68	seconds

**P.T. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
full super =	<b>802+15.6400</b>	0.0595
cross slope rotating to =	<b>802+91.3200</b>	0.032

**SHOULDER INFORMATION FOR CURVE**

	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Left Shoulder Super Rate</b>	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Right Shoulder Super Rate</b>
P.C. part of curve	<b>800+01.6000</b>	0.0600	<b>-0.0100</b>	<b>800+01.6000</b>	0.0600	<b>-0.0600</b>
	<b>800+00.0000</b>	0.0595	<b>-0.0105</b>	<b>800+00.0000</b>	0.0595	<b>-0.0595</b>
P.T. part of curve	<b>802+15.6400</b>	0.0595	<b>-0.0105</b>	<b>802+15.6400</b>	0.0595	<b>-0.0595</b>
	<b>802+91.3200</b>	0.0320	<b>-0.0380</b>	<b>802+69.3040</b>	0.0400	<b>-0.0400</b>

**STATION INFORMATION**

<b>Station</b>	<b>Super Rate</b>	<b>% of e(d) Achieved</b>	<b>Left Shoulder Super Rate</b>	<b>Right Shoulder Super Rate</b>
<b>802+72.5624</b>	0.0388	65.24%	-0.0312	-0.0400
<b>802+54.3368</b>	0.0454	76.37%	-0.0246	-0.0454
<b>802+63.8055</b>	0.0420	70.58%	-0.0280	-0.0420

**CROSS SLOPE INFORMATION**

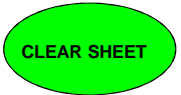
<b>Super Rate</b>	<b>Station in P.C. Area</b>	<b>Station in P.T. Area</b>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **AMP G5 CURVE 2**  
 What  $e_{max}$  table would you like to use? **0.060 MAX**  
 V = **40** mph (design speed, mph)  
 Dc = **2.75** (degree of curve of alignment)  
 Radius = **2,083.48** feet (radius of curve of alignment)  
 **$e_d = 0.0320$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
**right** Is the curve to the left or right (in the direction of stationing)?  
**left** Will the dependent geopak shapes be to the left or right of the baseline?  
 Curve widening NOT required for WB-50. **0.438** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
 Curve widening NOT required for WB-62. **0.688** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?



**P.C. ROTATION DATA**

**5.95%** From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC = **16** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition = **40**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.58** (maximum relative gradient)  
 G = **172** (maximum relative slope)  
**L(r) = 88.0640** feet (Superelevation Runoff Length to flat)  
**L(t) = 44.0320** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

**1.60%** To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT = **16** feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition = **40**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **0.58** (maximum relative gradient)  
 G = **172** (maximum relative slope)  
**L(r) = 88.0640** feet (Superelevation Runoff Length to flat)  
**L(t) = 44.0320** feet (Tangent Runout Length)

P.C. Station **802+91.3200** Percent of super to achieve at P.C.? **100.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **no**

P.T. Station **807+04.5600** Percent of super to achieve at P.T.? **66.67%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **no**

**P.C. SUPER INFORMATION**

Station **802+15.6400** Super Rate **0.0595**  
 cross slope rotating from =  
 full super = **802+91.3200** **0.0320**

**Curve Information**

Full super length = **383.89** ft.  
 Slope at PC = **0.0320**  
 P.C. L(r) = **75.68**  
 G-value of P.C. L(r) = **172**

**P.T. SUPER INFORMATION**

Station **806+75.2053** Super Rate **0.0320**  
 full super =  
 normal crown = **807+19.2373** **0.016**

Slope at PT = **0.0213**  
 P.T. L(r) = **44.03**  
 G-value of P.T. L(r) = **172**

Curve length is **10.33** times design speed  
 time at full super = **6.54** seconds

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<b>803+67.0000</b>	<b>0.0595</b>	<b>-0.0105</b>	<b>803+67.0000</b>	<b>0.0595</b>	
	<b>802+91.3200</b>	<b>0.0320</b>	<b>-0.0380</b>			
P.T. part of curve	<b>806+75.2053</b>	<b>0.0320</b>	<b>-0.0380</b>			
	<b>806+80.7093</b>	<b>0.0300</b>	<b>-0.0400</b>			

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

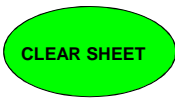
Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>	
Curve name:	<b>AMP G5 CURVE 3</b>	
What $e_{max}$ table would you like to use?	<b>0.060 MAX</b>	
V =	<b>35</b>	mph (design speed, mph)
Dc =	<b>16.00</b>	(degree of curve of alignment)
Radius =	<b>358.10</b>	feet (radius of curve of alignment)
<b><math>e_d</math> =</b>	<b>0.0600</b>	(design superelevation rate)
normal crown ( $e_{NC}$ ) =	<b>0.016</b>	
	<b>left</b>	Is the curve to the left or right (in the direction of stationing)?
	<b>left</b>	Will the dependent geopak shapes be to the left or right of the baseline?
<b>Curve widening required for WB-50.</b>	<b>2.583</b>	feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>3.417</b>	feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>	Divided roadway?



**P.C. ROTATION DATA**

	<b>1.60%</b>	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PC =	<b>16</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PC transition =	<b>35</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.62</b>	(maximum relative gradient)
G =	<b>161</b>	(maximum relative slope)
<b>L(r) =</b>	<b>154.5600</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>41.2160</b>	feet (Tangent Runout Length)

**P.T. ROTATION DATA**

	<b>6.00%</b>	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PT =	<b>16</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PT transition =	<b>35</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.62</b>	(maximum relative gradient)
G =	<b>161</b>	(maximum relative slope)
<b>L(r) =</b>	<b>154.5600</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>41.2160</b>	feet (Tangent Runout Length)

P.C. Station **810+67.7200** Percent of super to achieve at P.C.? **66.67%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station **812+92.1600** Percent of super to achieve at P.T.? **100.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **no**

**P.C. SUPER INFORMATION**

	Station	Super Rate
normal crown =	<b>809+23.4640</b>	0.0160
flat =	<b>809+64.6800</b>	0.000
reverse crown =	<b>810+05.8960</b>	-0.016
full super =	<b>811+19.2400</b>	-0.0600

**Curve Information**

Full super length =	172.92 ft.
Slope at PC =	#N/A
P.C. L(r) =	154.56
G-value of P.C. L(r) =	161
P.C. L(t) =	41.22
G-value of P.C. L(t) =	161
Slope at PT =	-0.0600
P.T. L(r) =	0.00
G-value of P.T. L(r) =	#DIV/0!

**P.T. SUPER INFORMATION**

	Station	Super Rate
full super =	<b>812+92.1600</b>	-0.0600
cross slope rotating to =	<b>812+92.1600</b>	-0.060

Curve length is 6.41 times design speed  
 time at full super = 3.37 seconds

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<b>810+67.7200</b>	-0.0400	<b>-0.0400</b>	<b>810+41.9600</b>	-0.0300	<b>-0.0400</b>
	<b>811+19.2400</b>	-0.0600	<b>-0.0600</b>	<b>811+19.2400</b>	-0.0600	<b>-0.0100</b>
P.T. part of curve	<b>812+92.1600</b>	-0.0600	<b>-0.0600</b>	<b>812+92.1600</b>	-0.0600	<b>-0.0100</b>
	<b>812+92.1600</b>	-0.0600	<b>-0.0600</b>	<b>812+92.1600</b>	-0.0600	<b>-0.0100</b>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

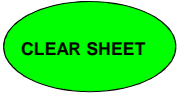
Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>	
Curve name:	<b>MUNI LOT ROAD CURVE 1 NB</b>	
What $e_{max}$ table would you like to use?	<b>0.060 MAX</b>	
V =	<b>30</b>	mph (design speed, mph)
Dc =	<b>21.50</b>	(degree of curve of alignment)
Radius =	266.49	feet (radius of curve of alignment)
<b><math>e_d</math> =</b>	<b>0.0588</b>	(design superelevation rate)
normal crown ( $e_{NC}$ ) =	<b>0.016</b>	
	<b>right</b>	Is the curve to the left or right (in the direction of stationing)?
	<b>right</b>	Will the dependent geopak shapes be to the left or right of the baseline?
<b>Curve widening required for WB-50.</b>	<b>3.250</b>	feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>4.500</b>	feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>	Divided roadway?



**P.C. ROTATION DATA**

	<b>1.60%</b>	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PC =	<b>14</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PC transition =	<b>30</b>	
b(w) =	1	(adjustment factor for number of lanes rotated)
% =	0.66	(maximum relative gradient)
G =	152	(maximum relative slope)
<b>L(r) =</b>	<b>125.0200</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>34.0480</b>	feet (Tangent Runout Length)

**P.T. ROTATION DATA**

	<b>5.70%</b>	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PT =	<b>14</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PT transition =	<b>30</b>	
b(w) =	1	(adjustment factor for number of lanes rotated)
% =	0.66	(maximum relative gradient)
G =	152	(maximum relative slope)
<b>L(r) =</b>	<b>125.0200</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>34.0480</b>	feet (Tangent Runout Length)

P.C. Station **14+58.5100** Percent of super to achieve at P.C.? **50.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **no**

P.T. Station **18+77.1100** Percent of super to achieve at P.T.? **100.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **no**

**P.C. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
normal crown =	<b>14+30.0480</b>	-0.0160
full super =	<b>15+21.0200</b>	-0.0588

**Curve Information**

Full super length =	356.09 ft.
Slope at PC =	-0.0294
P.C. L(r) =	90.97
G-value of P.C. L(r) =	152
Slope at PT =	-0.0588
P.T. L(r) =	3.72
G-value of P.T. L(r) =	152

**P.T. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
full super =	<b>18+77.1100</b>	-0.0588
cross slope rotating to =	<b>18+80.8340</b>	-0.057

Curve length is 13.95 times design speed  
 time at full super = 8.09 seconds

**SHOULDER INFORMATION FOR CURVE**

	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Left Shoulder Super Rate</b>	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Right Shoulder Super Rate</b>
P.C. part of curve	<b>14+59.8400</b>	-0.0300	<b>-0.0400</b>	<b>14+81.1200</b>	-0.0400	<b>-0.0400</b>
	<b>15+21.0200</b>	-0.0588	<b>-0.0113</b>	<b>15+21.0200</b>	-0.0588	<b>-0.0588</b>
P.T. part of curve	<b>18+77.1100</b>	-0.0588	<b>-0.0113</b>	<b>18+77.1100</b>	-0.0588	<b>-0.0588</b>
	<b>18+80.8340</b>	-0.0570	<b>-0.0130</b>	<b>18+80.8340</b>	-0.0570	<b>-0.0570</b>

**STATION INFORMATION**

<b>Station</b>	<b>Super Rate</b>	<b>% of e(d) Achieved</b>	<b>Left Shoulder Super Rate</b>	<b>Right Shoulder Super Rate</b>

**CROSS SLOPE INFORMATION**

<b>Super Rate</b>	<b>Station in P.C. Area</b>	<b>Station in P.T. Area</b>

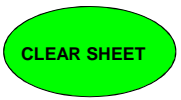


**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>	
Curve name:	<b>MUNI LOT ROAD CURVE 1 SB</b>	
What $e_{max}$ table would you like to use?	<b>0.060 MAX</b>	
V =	<b>30</b>	mph (design speed, mph)
Dc =	<b>21.50</b>	(degree of curve of alignment)
Radius =	266.49	feet (radius of curve of alignment)
<b><math>e_d</math> =</b>	<b>0.0588</b>	(design superelevation rate)
normal crown ( $e_{NC}$ ) =	<b>0.016</b>	
	<b>right</b>	Is the curve to the left or right (in the direction of stationing)?
	<b>left</b>	Will the dependent geopak shapes be to the left or right of the baseline?
<b>Curve widening required for WB-50.</b>	<b>3.250</b>	feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>4.500</b>	feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>	Divided roadway?



**P.C. ROTATION DATA**

	<b>1.60%</b>	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PC =	<b>14</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PC transition =	<b>30</b>	
b(w) =	1	(adjustment factor for number of lanes rotated)
% =	0.66	(maximum relative gradient)
G =	152	(maximum relative slope)
<b>L(r) =</b>	<b>125.0200</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>34.0480</b>	feet (Tangent Runout Length)

**P.T. ROTATION DATA**

	<b>6.00%</b>	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PT =	<b>14</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PT transition =	<b>30</b>	
b(w) =	1	(adjustment factor for number of lanes rotated)
% =	0.66	(maximum relative gradient)
G =	152	(maximum relative slope)
<b>L(r) =</b>	<b>125.0200</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>34.0480</b>	feet (Tangent Runout Length)

P.C. Station **14+58.5100** Percent of super to achieve at P.C.? **50.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station **18+77.1100** Percent of super to achieve at P.T.? **100.00%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **no**

**P.C. SUPER INFORMATION**

	Station	Super Rate
normal crown =	<b>13+61.9520</b>	-0.0160
flat =	<b>13+96.0000</b>	0.000
reverse crown =	<b>14+30.0480</b>	0.016
full super =	<b>15+21.0200</b>	0.0588

**Curve Information**

Full super length =	356.09 ft.
Slope at PC =	#N/A
P.C. L(r) =	125.02
G-value of P.C. L(r) =	152
P.C. L(t) =	34.05
G-value of P.C. L(t) =	152
Slope at PT =	0.0588
P.T. L(r) =	2.66
G-value of P.T. L(r) =	152

**P.T. SUPER INFORMATION**

	Station	Super Rate
full super =	<b>18+77.1100</b>	0.0588
cross slope rotating to =	<b>18+79.7700</b>	0.060

Curve length is 13.95 times design speed  
 time at full super = 8.09 seconds

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<b>14+59.8400</b>	0.0300	<b>-0.0400</b>	<b>14+81.1200</b>	0.0400	<b>-0.0400</b>
	<b>15+21.0200</b>	0.0588	<b>-0.0113</b>	<b>15+21.0200</b>	0.0588	<b>-0.0588</b>
P.T. part of curve	<b>18+77.1100</b>	0.0588	<b>-0.0113</b>	<b>18+77.1100</b>	0.0588	<b>-0.0588</b>
	<b>18+74.4500</b>	0.0600	<b>-0.0100</b>	<b>18+74.4500</b>	0.0600	<b>-0.0600</b>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

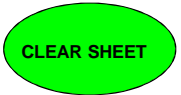
Super Rate	Station in P.C. Area	Station in P.T. Area

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **SOUTH MARGINAL CURVE 1**  
 What  $e_{max}$  table would you like to use? **0.040 MAX**  
 V = **40** mph (design speed, mph)  
 Dc = **4.00** (degree of curve of alignment)  
 Radius = **1,432.39** feet (radius of curve of alignment)  
 $e_s$  = **#N/A** (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
**right** Is the curve to the left or right (in the direction of stationing)?  
**left** Will the dependent geopak shapes be to the left or right of the baseline?  
 Curve widening NOT required for WB-50. **0.500** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
 Curve widening NOT required for WB-62. **0.750** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?



**P.C. ROTATION DATA**

From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition =   
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition =   
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

P.C. Station  Percent of super to achieve at P.C.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station  Percent of super to achieve at P.T.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

Station  Super Rate   
 cross slope rotating from = **#VALUE!** 0.0000  
 reverse crown = **#N/A** 0.016  
 full super = **#N/A** #N/A

**Curve Information**

Full super length = **#N/A**  
 Slope at PC = **#N/A**  
 P.C. L(r) = **#N/A**  
 G-value of P.C. L(r) = **#N/A**  
 P.C. L(t) = **#VALUE!**  
 G-value of P.C. L(t) = **#VALUE!**  
 Slope at PT = **#N/A**  
 P.T. L(r) = **#VALUE!**  
 G-value of P.T. L(r) = **#VALUE!**  
 P.T. L(t) = **#VALUE!**  
 G-value of P.T. L(t) = **#VALUE!**  
 Curve length is 0.00 times design speed  
 time at full super = **#N/A** seconds

**P.T. SUPER INFORMATION**

Station  Super Rate   
 full super = **#N/A** #N/A  
 reverse crown = **#N/A** 0.016  
 cross slope rotating to = **#VALUE!** 0.000

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
P.T. part of curve	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate
<b>          </b>	<b>          </b>	<b>          </b>	<b>          </b>	<b>          </b>

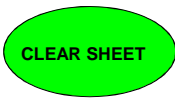
**CROSS SLOPE INFORMATION**

Super Rate	Station in P.C. Area	Station in P.T. Area
<b>          </b>	<b>          </b>	<b>          </b>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**



Designer name: **ALR**  
 Curve name: **SOUTH MARGINAL CURVE 2**  
 What  $e_{max}$  table would you like to use? **0.040 MAX**  
 V = **40** mph (design speed, mph)  
 Dc = **4.00** (degree of curve of alignment)  
 Radius = **1,432.39** feet (radius of curve of alignment)  
 $e_d$  = **#N/A** (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
     **left**  
     **left**  
 Curve widening NOT required for WB-50. **0.500** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
 Curve widening NOT required for WB-62. **0.750** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
     **yes** Divided roadway?

**P.C. ROTATION DATA**

Width of rotating pavement @ PC =  feet From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Design speed of PC transition =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

Width of rotating pavement @ PT =  feet To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Design speed of PT transition =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

P.C. Station  Percent of super to achieve at P.C.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station  Percent of super to achieve at P.T.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

cross slope rotating from = **#VALUE!** Station  Super Rate **0.0000**  
 reverse crown = **#N/A** **-0.016**  
 full super = **#N/A** **#N/A**

**Curve Information**

Full super length = **#N/A**  
 Slope at PC = **#N/A**  
 P.C. L(r) = **#N/A**  
 G-value of P.C. L(r) = **#N/A**  
 P.C. L(t) = **#VALUE!**  
 G-value of P.C. L(t) = **#VALUE!**  
 Slope at PT = **#N/A**  
 P.T. L(r) = **#VALUE!**  
 G-value of P.T. L(r) = **#VALUE!**  
 P.T. L(t) = **#VALUE!**  
 G-value of P.T. L(t) = **#VALUE!**  
 Curve length is **0.00** times design speed  
 time at full super = **#N/A** seconds

**P.T. SUPER INFORMATION**

full super = **#N/A** Station  Super Rate **#N/A**  
 reverse crown = **#N/A** **-0.016**  
 cross slope rotating to = **#VALUE!** **0.000**

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>
	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>
P.T. part of curve	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>
	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate
<b> </b>	<b> </b>	<b> </b>	<b> </b>	<b> </b>

**CROSS SLOPE INFORMATION**

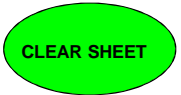
Super Rate	Station in P.C. Area	Station in P.T. Area
<b> </b>	<b> </b>	<b> </b>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>		
Curve name:	<b>SOUTH MARGINAL CURVE 3</b>		
What $e_{max}$ table would you like to use?	<b>0.040 MAX</b>		
V =	<b>40</b>	mph	(design speed, mph)
Dc =	<b>9.00</b>		(degree of curve of alignment)
Radius =	<b>636.62</b>	feet	(radius of curve of alignment)
$e_d$ =	<b>0.0160</b>		(design superelevation rate)
normal crown ( $e_{NC}$ ) =	<b>0.016</b>		
	<b>left</b>		Is the curve to the left or right (in the direction of stationing)?
	<b>left</b>		Will the dependent geopak shapes be to the left or right of the baseline?
<b>Curve widening required for WB-50.</b>	<b>1.500</b>		feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>2.000</b>		feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>		Divided roadway?



**P.C. ROTATION DATA**

	<b>1.60%</b>	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PC =	<b>12</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PC transition =	<b>40</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.58</b>	(maximum relative gradient)
G =	<b>172</b>	(maximum relative slope)
<b>L(r) =</b>	<b>33.0240</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>33.0240</b>	feet (Tangent Runout Length)

**P.T. ROTATION DATA**

	<b>1.60%</b>	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PT =	<b>12</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PT transition =	<b>40</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.58</b>	(maximum relative gradient)
G =	<b>172</b>	(maximum relative slope)
<b>L(r) =</b>	<b>33.0240</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>33.0240</b>	feet (Tangent Runout Length)

P.C. Station **31+60.0700** Percent of super to achieve at P.C.? **66.67%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station **36+65.5900** Percent of super to achieve at P.T.? **66.67%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
normal crown =	<b>31+05.0300</b>	0.0160
flat =	<b>31+38.0540</b>	0.000
reverse crown =	<b>31+71.0780</b>	-0.016
full super =	<b>31+71.0780</b>	-0.0160

**Curve Information**

Full super length =	483.50 ft.
Slope at PC =	-0.0160
P.C. L(r) =	33.02
G-value of P.C. L(r) =	172
P.C. L(t) =	33.02
G-value of P.C. L(t) =	172
Slope at PT =	#DIV/0!
P.T. L(r) =	33.02
G-value of P.T. L(r) =	172
P.T. L(t) =	33.02
G-value of P.T. L(t) =	172
Curve length is	12.64 times design speed
time at full super =	8.24 seconds

**P.T. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
full super =	<b>36+54.5820</b>	-0.0160
reverse crown =	<b>36+54.5820</b>	-0.016
flat =	<b>36+87.6060</b>	0.000
normal crown =	<b>37+20.6300</b>	0.016

**SHOULDER INFORMATION FOR CURVE**

	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Left Shoulder Super Rate</b>	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Right Shoulder Super Rate</b>
P.C. part of curve						
P.T. part of curve						

**STATION INFORMATION**

<b>Station</b>	<b>Super Rate</b>	<b>% of e(d) Achieved</b>	<b>Left Shoulder Super Rate</b>	<b>Right Shoulder Super Rate</b>

**CROSS SLOPE INFORMATION**

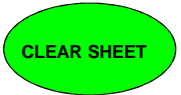
<b>Super Rate</b>	<b>Station in P.C. Area</b>	<b>Station in P.T. Area</b>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>		
Curve name:	<b>SOUTH MARGINAL CURVE 4</b>		
What $e_{max}$ table would you like to use?	<b>0.040 MAX</b>		
V =	<b>40</b>	mph	(design speed, mph)
Dc =	<b>9.00</b>		(degree of curve of alignment)
Radius =	<b>636.62</b>	feet	(radius of curve of alignment)
<b><math>e_d</math> =</b>	<b>0.0160</b>		(design superelevation rate)
normal crown ( $e_{NC}$ ) =	<b>0.016</b>		
	<b>right</b>		Is the curve to the left or right (in the direction of stationing)?
	<b>left</b>		Will the dependent geopak shapes be to the left or right of the baseline?
<b>Curve widening required for WB-50.</b>	<b>1.500</b>		feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>2.000</b>		feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>		Divided roadway?



**P.C. ROTATION DATA**

	<b>1.60%</b>	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PC =	<b>12</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PC transition =	<b>40</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.58</b>	(maximum relative gradient)
G =	<b>172</b>	(maximum relative slope)
<b>L(r) =</b>	<b>33.0240</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>33.0240</b>	feet (Tangent Runout Length)

**P.T. ROTATION DATA**

	<b>1.60%</b>	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Width of rotating pavement @ PT =	<b>12</b>	feet (do not include curve widening, gore areas or entrance and exit lanes)
Design speed of PT transition =	<b>40</b>	
b(w) =	<b>1</b>	(adjustment factor for number of lanes rotated)
% =	<b>0.58</b>	(maximum relative gradient)
G =	<b>172</b>	(maximum relative slope)
<b>L(r) =</b>	<b>33.0240</b>	feet (Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>33.0240</b>	feet (Tangent Runout Length)

P.C. Station **38+87.4200** Percent of super to achieve at P.C.? **66.67%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station **43+54.0900** Percent of super to achieve at P.T.? **66.67%**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
normal crown =	<b>38+32.3800</b>	-0.0160
flat =	<b>38+65.4040</b>	0.000
reverse crown =	<b>38+98.4280</b>	0.016
full super =	<b>38+98.4280</b>	0.0160

**Curve Information**

Full super length =	444.65 ft.
Slope at PC =	0.0160
P.C. L(r) =	33.02
G-value of P.C. L(r) =	172
P.C. L(t) =	33.02
G-value of P.C. L(t) =	172
Slope at PT =	#DIV/0!
P.T. L(r) =	33.02
G-value of P.T. L(r) =	172
P.T. L(t) =	33.02
G-value of P.T. L(t) =	172
Curve length is	11.67
time at full super =	7.58

times design speed  
seconds

**P.T. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
full super =	<b>43+43.0820</b>	0.0160
reverse crown =	<b>43+43.0820</b>	0.016
flat =	<b>43+76.1060</b>	0.000
normal crown =	<b>44+09.1300</b>	-0.016

**SHOULDER INFORMATION FOR CURVE**

	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Left Shoulder Super Rate</b>	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Right Shoulder Super Rate</b>
P.C. part of curve						
P.T. part of curve						

**STATION INFORMATION**

<b>Station</b>	<b>Super Rate</b>	<b>% of e(d) Achieved</b>	<b>Left Shoulder Super Rate</b>	<b>Right Shoulder Super Rate</b>

**CROSS SLOPE INFORMATION**

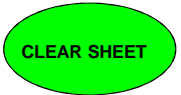
<b>Super Rate</b>	<b>Station in P.C. Area</b>	<b>Station in P.T. Area</b>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name:	<b>ALR</b>		
Curve name:	<b>NORTH MARGINAL CURVE 1</b>		
What $e_{max}$ table would you like to use?	<b>0.040 MAX</b>		
V =	<b>35</b>	mph	(design speed, mph)
Dc =	<b>7.50</b>		(degree of curve of alignment)
Radius =	<b>763.94</b>	feet	(radius of curve of alignment)
<b><math>e_d</math> =</b>	<b>0.0160</b>	NC	(design superelevation rate)
normal crown ( $e_{NC}$ ) =	<b>0.016</b>		
	<b>right</b>		Is the curve to the left or right (in the direction of stationing)?
	<b>left</b>		Will the dependent geopak shapes be to the left or right of the baseline?
<b>Curve widening required for WB-50.</b>	<b>1.125</b>		feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)
<b>Curve widening required for WB-62.</b>	<b>1.625</b>		feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)
	<b>yes</b>		Divided roadway?



**P.C. ROTATION DATA**

Width of rotating pavement @ PC =		feet	From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Design speed of PC transition =			(do not include curve widening, gore areas or entrance and exit lanes)
b(w) =	<b>1</b>		(adjustment factor for number of lanes rotated)
% =	<b>#N/A</b>		(maximum relative gradient)
G =	<b>#N/A</b>		(maximum relative slope)
<b>L(r) =</b>	<b>#N/A</b>	feet	(Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>#N/A</b>	feet	(Tangent Runout Length)

**P.T. ROTATION DATA**

Width of rotating pavement @ PT =		feet	To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)
Design speed of PT transition =			(do not include curve widening, gore areas or entrance and exit lanes)
b(w) =	<b>1</b>		(adjustment factor for number of lanes rotated)
% =	<b>#N/A</b>		(maximum relative gradient)
G =	<b>#N/A</b>		(maximum relative slope)
<b>L(r) =</b>	<b>#N/A</b>	feet	(Superelevation Runoff Length to flat)
<b>L(t) =</b>	<b>#N/A</b>	feet	(Tangent Runout Length)

P.C. Station		Percent of super to achieve at P.C.?	
Is there a spiral for this curve?	<b>no</b>	Is the roadway rotating past flat at the P.C. transition?	<b>yes</b>

P.T. Station		Percent of super to achieve at P.T.?	
Is there a spiral for this curve?	<b>no</b>	Is the roadway rotating past flat at the P.T. transition?	<b>yes</b>

**P.C. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
cross slope rotating from =	<b>#VALUE!</b>	0.0000
reverse crown =	<b>#N/A</b>	0.016
full super =	<b>#N/A</b>	0.0160

**Curve Information**

Full super length =	<b>#N/A</b>
Slope at PC =	<b>#N/A</b>
P.C. L(r) =	<b>#N/A</b>
G-value of P.C. L(r) =	<b>#N/A</b>
P.C. L(t) =	<b>#VALUE!</b>
G-value of P.C. L(t) =	<b>#VALUE!</b>
Slope at PT =	<b>#N/A</b>
P.T. L(r) =	<b>#VALUE!</b>
G-value of P.T. L(r) =	<b>#VALUE!</b>
P.T. L(t) =	<b>#VALUE!</b>
G-value of P.T. L(t) =	<b>#VALUE!</b>
Curve length is	0.00 times design speed
time at full super =	<b>#N/A</b> seconds

**P.T. SUPER INFORMATION**

	<b>Station</b>	<b>Super Rate</b>
full super =	<b>#N/A</b>	0.0160
reverse crown =	<b>#N/A</b>	0.016
cross slope rotating to =	<b>#VALUE!</b>	0.000

**SHOULDER INFORMATION FOR CURVE**

	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Left Shoulder Super Rate</b>	<b>Station</b>	<b>Mainline Super Rate</b>	<b>Right Shoulder Super Rate</b>
P.C. part of curve						
P.T. part of curve						

**STATION INFORMATION**

<b>Station</b>	<b>Super Rate</b>	<b>% of e(d) Achieved</b>	<b>Left Shoulder Super Rate</b>	<b>Right Shoulder Super Rate</b>

**CROSS SLOPE INFORMATION**

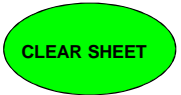
<b>Super Rate</b>	<b>Station in P.C. Area</b>	<b>Station in P.T. Area</b>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **NORTH MARGINAL CURVE 2**  
 What  $e_{max}$  table would you like to use? **0.040 MAX**  
 V = **40** mph (design speed, mph)  
 Dc = **6.25** (degree of curve of alignment)  
 Radius = **916.73** feet (radius of curve of alignment)  
 **$e_d = 0.0160$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
**right** Is the curve to the left or right (in the direction of stationing)?  
**left** Will the dependent geopak shapes be to the left or right of the baseline?  
**Curve widening required for WB-50. 1.000** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
**Curve widening required for WB-62. 1.313** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?



**P.C. ROTATION DATA**

From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition =   
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition =   
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

P.C. Station  Percent of super to achieve at P.C.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station  Percent of super to achieve at P.T.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

	Station	Super Rate
cross slope rotating from =	<b>#VALUE!</b>	0.0000
reverse crown =	<b>#N/A</b>	0.016
full super =	<b>#N/A</b>	0.0160

**Curve Information**

Full super length =	#N/A
Slope at PC =	#N/A
P.C. L(r) =	#N/A
G-value of P.C. L(r) =	#N/A
P.C. L(t) =	#VALUE!
G-value of P.C. L(t) =	#VALUE!
Slope at PT =	#N/A
P.T. L(r) =	#VALUE!
G-value of P.T. L(r) =	#VALUE!
P.T. L(t) =	#VALUE!
G-value of P.T. L(t) =	#VALUE!
Curve length is	0.00 times design speed
time at full super =	#N/A seconds

**P.T. SUPER INFORMATION**

	Station	Super Rate
full super =	<b>#N/A</b>	0.0160
reverse crown =	<b>#N/A</b>	0.016
cross slope rotating to =	<b>#VALUE!</b>	0.000

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
P.T. part of curve	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**CROSS SLOPE INFORMATION**

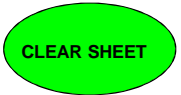
Super Rate	Station in P.C. Area	Station in P.T. Area
<input type="text"/>	<input type="text"/>	<input type="text"/>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **NORTH MARGINAL CURVE 3**  
 What  $e_{max}$  table would you like to use? **0.040 MAX**  
 V = **40** mph (design speed, mph)  
 Radius = **1074.30** feet (radius of curve of alignment)  
 Dc = **5.33** (degree of curve of alignment)  
 **$e_d = 0.0160$**  (design superelevation rate)



normal crown ( $e_{NC}$ ) = **0.016**  
**right** Is the curve to the left or right (in the direction of stationing)?  
**left** Will the dependent geopak shapes be to the left or right of the baseline?  
 Curve widening NOT required for WB-50. **0.833** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
**Curve widening required for WB-62. 1.083** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?

**P.C. ROTATION DATA**

From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC = **feet** (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition = **feet**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT = **feet** (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition = **feet**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

P.C. Station **Percent of super to achieve at P.C.?**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station **Percent of super to achieve at P.T.?**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

Station **Super Rate**  
 cross slope rotating from = **#VALUE!** 0.0000  
 reverse crown = **#N/A** 0.016  
 full super = **#N/A** 0.0160

**Curve Information**

Full super length = **#N/A**  
 Slope at PC = **#N/A**  
 P.C. L(r) = **#N/A**  
 G-value of P.C. L(r) = **#N/A**  
 P.C. L(t) = **#VALUE!**  
 G-value of P.C. L(t) = **#VALUE!**  
 Slope at PT = **#N/A**  
 P.T. L(r) = **#VALUE!**  
 G-value of P.T. L(r) = **#VALUE!**  
 P.T. L(t) = **#VALUE!**  
 G-value of P.T. L(t) = **#VALUE!**  
 Curve length is **0.00** times design speed  
 time at full super = **#N/A** seconds

**P.T. SUPER INFORMATION**

Station **Super Rate**  
 full super = **#N/A** 0.0160  
 reverse crown = **#N/A** 0.016  
 cross slope rotating to = **#VALUE!** 0.000

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve						
P.T. part of curve						

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

Super Rate	Station in P.C. Area	Station in P.T. Area

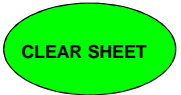


**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **NORTH MARGINAL CURVE 4**  
 What  $e_{max}$  table would you like to use? **0.040 MAX**  
 V = **40** mph (design speed, mph)  
 Dc = **1.50** (degree of curve of alignment)  
 Radius = **3,819.72** feet (radius of curve of alignment)  
 $e_s$  = **#N/A** (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
**right** Is the curve to the left or right (in the direction of stationing)?  
**left** Will the dependent geopak shapes be to the left or right of the baseline?  
 Curve widening NOT required for WB-50. 0.125 feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
 Curve widening NOT required for WB-62. 0.250 feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?



**P.C. ROTATION DATA**

From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition =   
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition =   
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

P.C. Station  Percent of super to achieve at P.C.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station  Percent of super to achieve at P.T.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

Station  Super Rate   
 cross slope rotating from = **#VALUE!** 0.0000  
 reverse crown = **#N/A** 0.016  
 full super = **#N/A** #N/A

**Curve Information**

Full super length = **#N/A**  
 Slope at PC = **#N/A**  
 P.C. L(r) = **#N/A**  
 G-value of P.C. L(r) = **#N/A**  
 P.C. L(t) = **#VALUE!**  
 G-value of P.C. L(t) = **#VALUE!**  
 Slope at PT = **#N/A**  
 P.T. L(r) = **#VALUE!**  
 G-value of P.T. L(r) = **#VALUE!**  
 P.T. L(t) = **#VALUE!**  
 G-value of P.T. L(t) = **#VALUE!**  
 Curve length is 0.00 times design speed  
 time at full super = **#N/A** seconds

**P.T. SUPER INFORMATION**

Station  Super Rate   
 full super = **#N/A** #N/A  
 reverse crown = **#N/A** 0.016  
 cross slope rotating to = **#VALUE!** 0.000

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>
P.T. part of curve	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>	<b>#N/A</b>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**CROSS SLOPE INFORMATION**

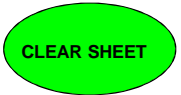
Super Rate	Station in P.C. Area	Station in P.T. Area
<input type="text"/>	<input type="text"/>	<input type="text"/>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **AIRPORT ACCESS ROAD CURVE 1**  
 What  $e_{max}$  table would you like to use? **0.040 MAX**  
 V = **30** mph (design speed, mph)  
 Dc = **11.00** (degree of curve of alignment)  
 Radius = **520.87** feet (radius of curve of alignment)  
 **$e_d = 0.0160$**  (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**



Is the curve to the left or right (in the direction of stationing)?  
 Will the dependent geopak shapes be to the left or right of the baseline?  
**Curve widening required for WB-50. 1.750** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
**Curve widening required for WB-62. 2.500** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?

**P.C. ROTATION DATA**

From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition =   
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition =   
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

P.C. Station  Percent of super to achieve at P.C.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station  Percent of super to achieve at P.T.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

	Station	Super Rate
cross slope rotating from =	<b>#VALUE!</b>	0.0000
reverse crown =	<b>#N/A</b>	0.016
full super =	<b>#N/A</b>	0.0160

**Curve Information**

Full super length = **#N/A**  
 Slope at PC = **#N/A**  
 P.C. L(r) = **#N/A**  
 G-value of P.C. L(r) = **#N/A**  
 P.C. L(t) = **#VALUE!**  
 G-value of P.C. L(t) = **#VALUE!**  
 Slope at PT = **#N/A**  
 P.T. L(r) = **#VALUE!**  
 G-value of P.T. L(r) = **#VALUE!**  
 P.T. L(t) = **#VALUE!**  
 G-value of P.T. L(t) = **#VALUE!**  
 Curve length is **0.00** times design speed  
 time at full super = **#N/A** seconds

**P.T. SUPER INFORMATION**

	Station	Super Rate
full super =	<b>#N/A</b>	0.0160
reverse crown =	<b>#N/A</b>	0.016
cross slope rotating to =	<b>#VALUE!</b>	0.000

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
P.T. part of curve	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**CROSS SLOPE INFORMATION**

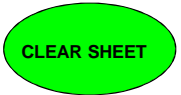
Super Rate	Station in P.C. Area	Station in P.T. Area
<input type="text"/>	<input type="text"/>	<input type="text"/>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **AIRPORT ACCESS ROAD CURVE 2**  
 What  $e_{max}$  table would you like to use? **0.040 MAX**  
 $V = 30$  mph (design speed, mph)  
 $Dc = 6.50$  (degree of curve of alignment)  
 Radius = 881.47 feet (radius of curve of alignment)  
 $e_d = 0.0160$  (design superelevation rate)



normal crown ( $e_{NC}$ ) = **0.016**  
**right** Is the curve to the left or right (in the direction of stationing)?  
**left** Will the dependent geopak shapes be to the left or right of the baseline?  
**Curve widening required for WB-50. 1.000** feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
**Curve widening required for WB-62. 1.375** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?

**P.C. ROTATION DATA**

From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition =   
 $b(w) = 1$  (adjustment factor for number of lanes rotated)  
 $\% = \#N/A$  (maximum relative gradient)  
 $G = \#N/A$  (maximum relative slope)  
 $L(r) = \#N/A$  feet (Superelevation Runoff Length to flat)  
 $L(t) = \#N/A$  feet (Tangent Runout Length)

**P.T. ROTATION DATA**

To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition =   
 $b(w) = 1$  (adjustment factor for number of lanes rotated)  
 $\% = \#N/A$  (maximum relative gradient)  
 $G = \#N/A$  (maximum relative slope)  
 $L(r) = \#N/A$  feet (Superelevation Runoff Length to flat)  
 $L(t) = \#N/A$  feet (Tangent Runout Length)

P.C. Station  Percent of super to achieve at P.C.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station  Percent of super to achieve at P.T.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

Station	Super Rate
cross slope rotating from = <b>#VALUE!</b>	0.0000
reverse crown = <b>#N/A</b>	0.016
full super = <b>#N/A</b>	0.0160

**Curve Information**

Full super length = **#N/A**  
 Slope at PC = **#N/A**  
 P.C.  $L(r) = \#N/A$   
 $G$ -value of P.C.  $L(r) = \#N/A$   
 P.C.  $L(t) = \#VALUE!$   
 $G$ -value of P.C.  $L(t) = \#VALUE!$   
 Slope at PT = **#N/A**  
 P.T.  $L(r) = \#VALUE!$   
 $G$ -value of P.T.  $L(r) = \#VALUE!$   
 P.T.  $L(t) = \#VALUE!$   
 $G$ -value of P.T.  $L(t) = \#VALUE!$   
 Curve length is 0.00 times design speed  
 time at full super = **#N/A** seconds

**P.T. SUPER INFORMATION**

Station	Super Rate
full super = <b>#N/A</b>	0.0160
reverse crown = <b>#N/A</b>	0.016
cross slope rotating to = <b>#VALUE!</b>	0.000

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
P.T. part of curve	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**STATION INFORMATION**

Station	Super Rate	% of $e(d)$ Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**CROSS SLOPE INFORMATION**

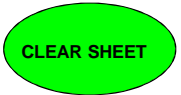
Super Rate	Station in P.C. Area	Station in P.T. Area
<input type="text"/>	<input type="text"/>	<input type="text"/>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **AIRPORT ACCESS ROAD CURVE 3**  
 What  $e_{max}$  table would you like to use? **0.040 MAX**  
 $V = 30$  mph (design speed, mph)  
 $Dc = 5.25$  (degree of curve of alignment)  
 Radius = 1,091.35 feet (radius of curve of alignment)  
 $e_d = 0.0160$  (design superelevation rate)



normal crown ( $e_{NC}$ ) = **0.016**  
**right** Is the curve to the left or right (in the direction of stationing)?  
**left** Will the dependent geopak shapes be to the left or right of the baseline?  
 Curve widening NOT required for WB-50. 0.813 feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
**Curve widening required for WB-62. 1.063** feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?

**P.C. ROTATION DATA**

From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition =   
 $b(w) = 1$  (adjustment factor for number of lanes rotated)  
 $\% = \#N/A$  (maximum relative gradient)  
 $G = \#N/A$  (maximum relative slope)  
 $L(r) = \#N/A$  feet (Superelevation Runoff Length to flat)  
 $L(t) = \#N/A$  feet (Tangent Runout Length)

**P.T. ROTATION DATA**

To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT =  feet (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition =   
 $b(w) = 1$  (adjustment factor for number of lanes rotated)  
 $\% = \#N/A$  (maximum relative gradient)  
 $G = \#N/A$  (maximum relative slope)  
 $L(r) = \#N/A$  feet (Superelevation Runoff Length to flat)  
 $L(t) = \#N/A$  feet (Tangent Runout Length)

P.C. Station  Percent of super to achieve at P.C.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station  Percent of super to achieve at P.T.?   
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

	Station	Super Rate
cross slope rotating from =	<b>#VALUE!</b>	0.0000
reverse crown =	<b>#N/A</b>	0.016
full super =	<b>#N/A</b>	0.0160

**Curve Information**

Full super length =	<b>#N/A</b>
Slope at PC =	<b>#N/A</b>
P.C. L(r) =	<b>#N/A</b>
G-value of P.C. L(r) =	<b>#N/A</b>
P.C. L(t) =	<b>#VALUE!</b>
G-value of P.C. L(t) =	<b>#VALUE!</b>
Slope at PT =	<b>#N/A</b>
P.T. L(r) =	<b>#VALUE!</b>
G-value of P.T. L(r) =	<b>#VALUE!</b>
P.T. L(t) =	<b>#VALUE!</b>
G-value of P.T. L(t) =	<b>#VALUE!</b>
Curve length is	0.00 times design speed
time at full super =	<b>#N/A</b> seconds

**P.T. SUPER INFORMATION**

	Station	Super Rate
full super =	<b>#N/A</b>	0.0160
reverse crown =	<b>#N/A</b>	0.016
cross slope rotating to =	<b>#VALUE!</b>	0.000

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
P.T. part of curve	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**CROSS SLOPE INFORMATION**

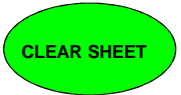
Super Rate	Station in P.C. Area	Station in P.T. Area
<input type="text"/>	<input type="text"/>	<input type="text"/>

**SUPERELEVATION TRANSITION LENGTH**

ODOT L&D VOL. 1 - FIGURES 202-7E, 202-8E, 202-9E, FIGURE 202-10E, FIGURE 301-5B AND FIGURE 301-5C

**SIMPLE CURVE CONFIGURATION**

Designer name: **ALR**  
 Curve name: **AIRPORT ACCESS ROAD CURVE 3**  
 What  $e_{max}$  table would you like to use? **0.040 MAX**  
 V = **30** mph (design speed, mph)  
 Dc = **2.00** (degree of curve of alignment)  
 Radius = **2,864.79** feet (radius of curve of alignment)  
 $e_s$  = **#N/A** (design superelevation rate)  
 normal crown ( $e_{NC}$ ) = **0.016**  
**right** Is the curve to the left or right (in the direction of stationing)?  
**left** Will the dependent geopak shapes be to the left or right of the baseline?  
 Curve widening NOT required for WB-50. 0.000 feet of pavement widening per lane (for 12' lane and WB-50 design vehicle; L&D Fig. 301-5b)  
 Curve widening NOT required for WB-62. 0.000 feet of pavement widening per lane (for 12' lane and WB-62 design vehicle; L&D Fig. 301-5c)  
**yes** Divided roadway?



**P.C. ROTATION DATA**

From what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PC = **feet** (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PC transition = **feet**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

**P.T. ROTATION DATA**

To what cross slope is the roadway being rotated? (i.e. 1.6% for NC, etc.)  
 Width of rotating pavement @ PT = **feet** (do not include curve widening, gore areas or entrance and exit lanes)  
 Design speed of PT transition = **feet**  
 b(w) = **1** (adjustment factor for number of lanes rotated)  
 % = **#N/A** (maximum relative gradient)  
 G = **#N/A** (maximum relative slope)  
 L(r) = **#N/A** feet (Superelevation Runoff Length to flat)  
 L(t) = **#N/A** feet (Tangent Runout Length)

P.C. Station **Percent of super to achieve at P.C.?**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.C. transition? **yes**

P.T. Station **Percent of super to achieve at P.T.?**  
 Is there a spiral for this curve? **no** Is the roadway rotating past flat at the P.T. transition? **yes**

**P.C. SUPER INFORMATION**

**Station** **Super Rate**  
 cross slope rotating from = **#VALUE!** 0.0000  
 reverse crown = **#N/A** 0.016  
 full super = **#N/A** #N/A

**Curve Information**

Full super length = **#N/A**  
 Slope at PC = **#N/A**  
 P.C. L(r) = **#N/A**  
 G-value of P.C. L(r) = **#N/A**  
 P.C. L(t) = **#VALUE!**  
 G-value of P.C. L(t) = **#VALUE!**  
 Slope at PT = **#N/A**  
 P.T. L(r) = **#VALUE!**  
 G-value of P.T. L(r) = **#VALUE!**  
 P.T. L(t) = **#VALUE!**  
 G-value of P.T. L(t) = **#VALUE!**  
 Curve length is 0.00 times design speed  
 time at full super = **#N/A** seconds

**P.T. SUPER INFORMATION**

**Station** **Super Rate**  
 full super = **#N/A** #N/A  
 reverse crown = **#N/A** 0.016  
 cross slope rotating to = **#VALUE!** 0.000

**SHOULDER INFORMATION FOR CURVE**

	Station	Mainline Super Rate	Left Shoulder Super Rate	Station	Mainline Super Rate	Right Shoulder Super Rate
P.C. part of curve	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
P.T. part of curve	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

**STATION INFORMATION**

Station	Super Rate	% of e(d) Achieved	Left Shoulder Super Rate	Right Shoulder Super Rate

**CROSS SLOPE INFORMATION**

Super Rate	Station in P.C. Area	Station in P.T. Area