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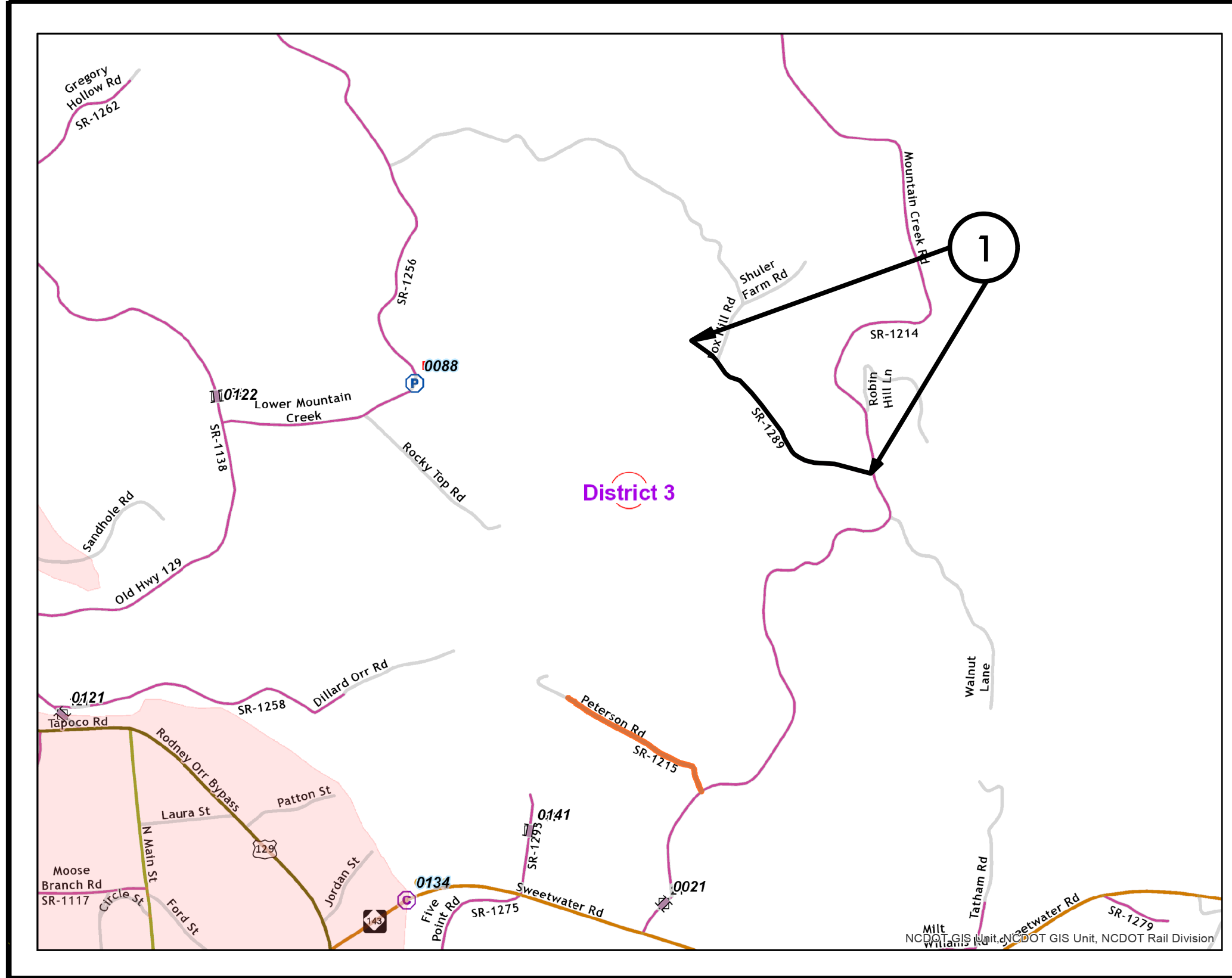
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TIP PROJECT: N/A

CONTRACT: DN00630

# GRAHAM COUNTY

PROJECT REFERENCE NO.	SHEET NO.	
2019CPT.14.01.20381	1	
STATE PROJECT	F.A. PROJECT NO.	DESCRIPTION



SR-1289



BEG

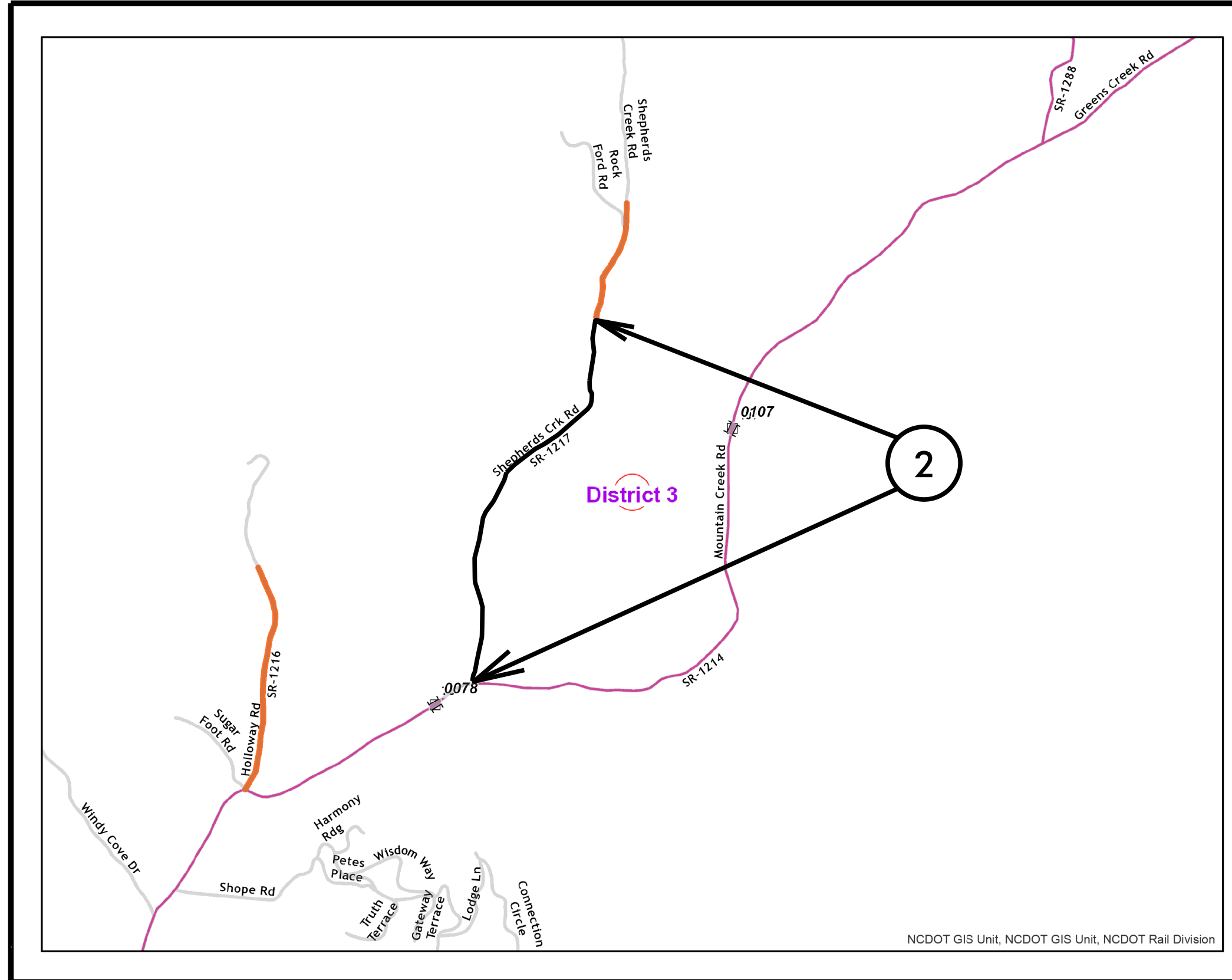
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TIP PROJECT: N/A

CONTRACT: DN00630

# GRAHAM COUNTY

PROJECT REFERENCE NO.		SHEET NO.
2019CPT14.01.20381		2
STATE PROJECT	F.A. PROJECT NO.	DESCRIPTION



SR-1217



BEG

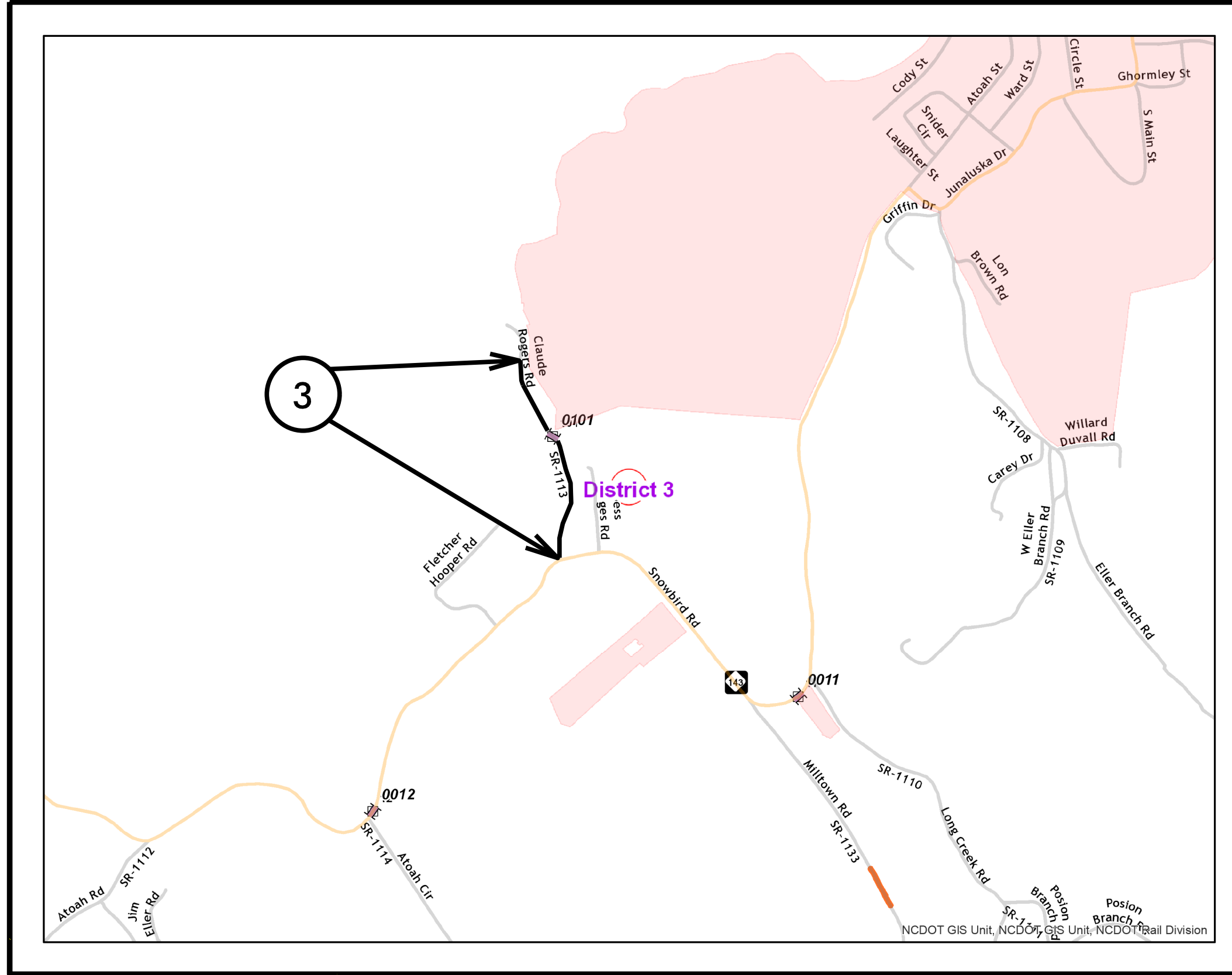
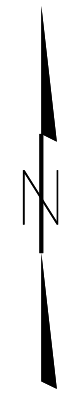
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TIP PROJECT: N/A

CONTRACT: DN00630

# GRAHAM COUNTY

PROJECT REFERENCE NO.	SHEET NO.
2019CPT 14.01.20381	3
STATE PROJECT	F.A. PROJECT NO. DESCRIPTION



SR-1113



BEG

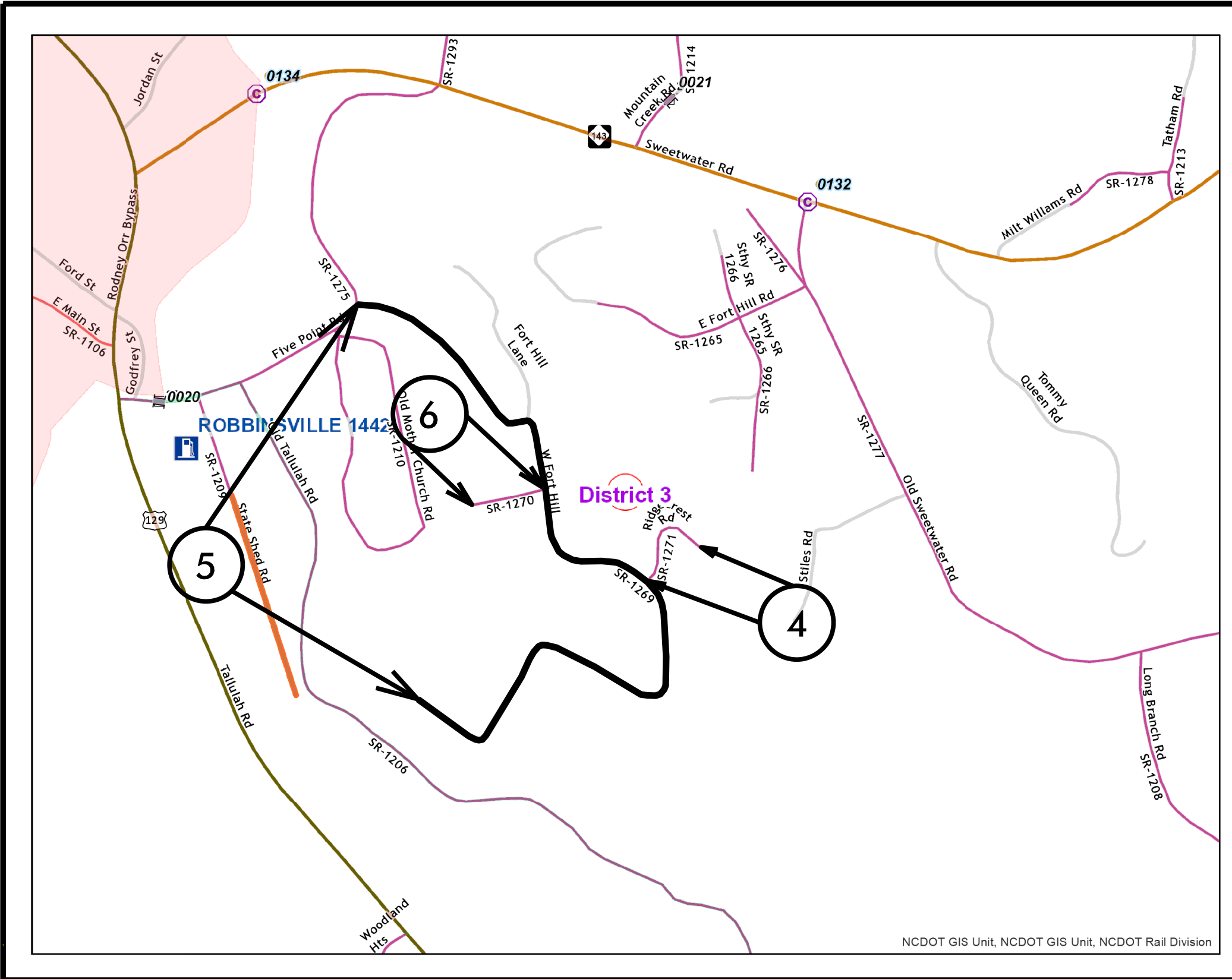
END

TIP PROJECT: N/A

CONTRACT: DN00630

# GRAHAM COUNTY

PROJECT REFERENCE NO.	SHEET NO.
2019CPI.14.01.20381	4
STATE PROJECT	F.A. PROJECT NO. DESCRIPTION



SR-1271



BEG

END

SR-1269



BEG

END

SR-1270



BEG

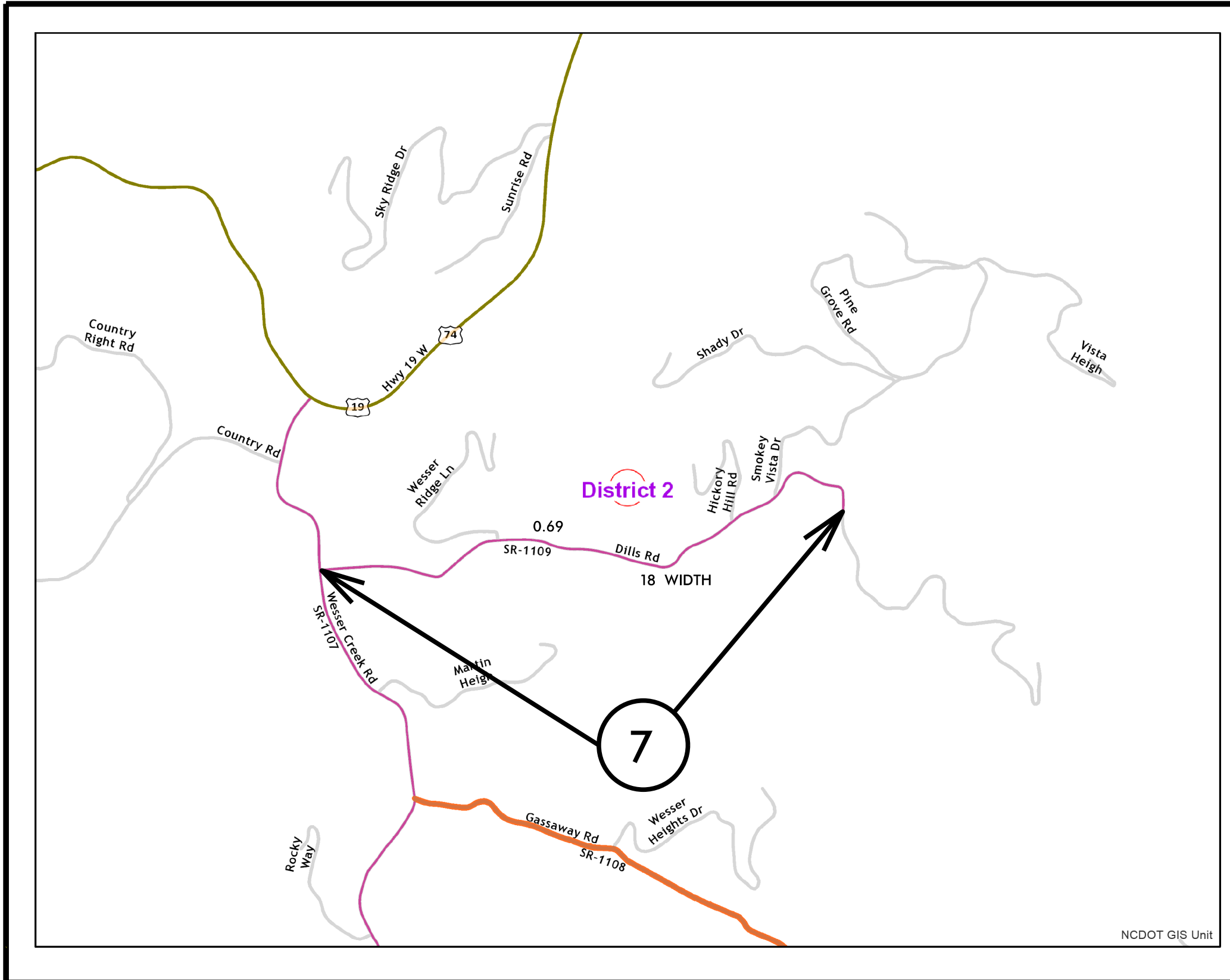
END

TIP PROJECT: N/A

CONTRACT: DN00630

# SWAIN COUNTY

PROJECT REFERENCE NO.	SHEET NO.	
2019CPT14.01.20871	5	
STATE PROJECT	F.A. PROJECT NO.	DESCRIPTION



SR-1109



BEG

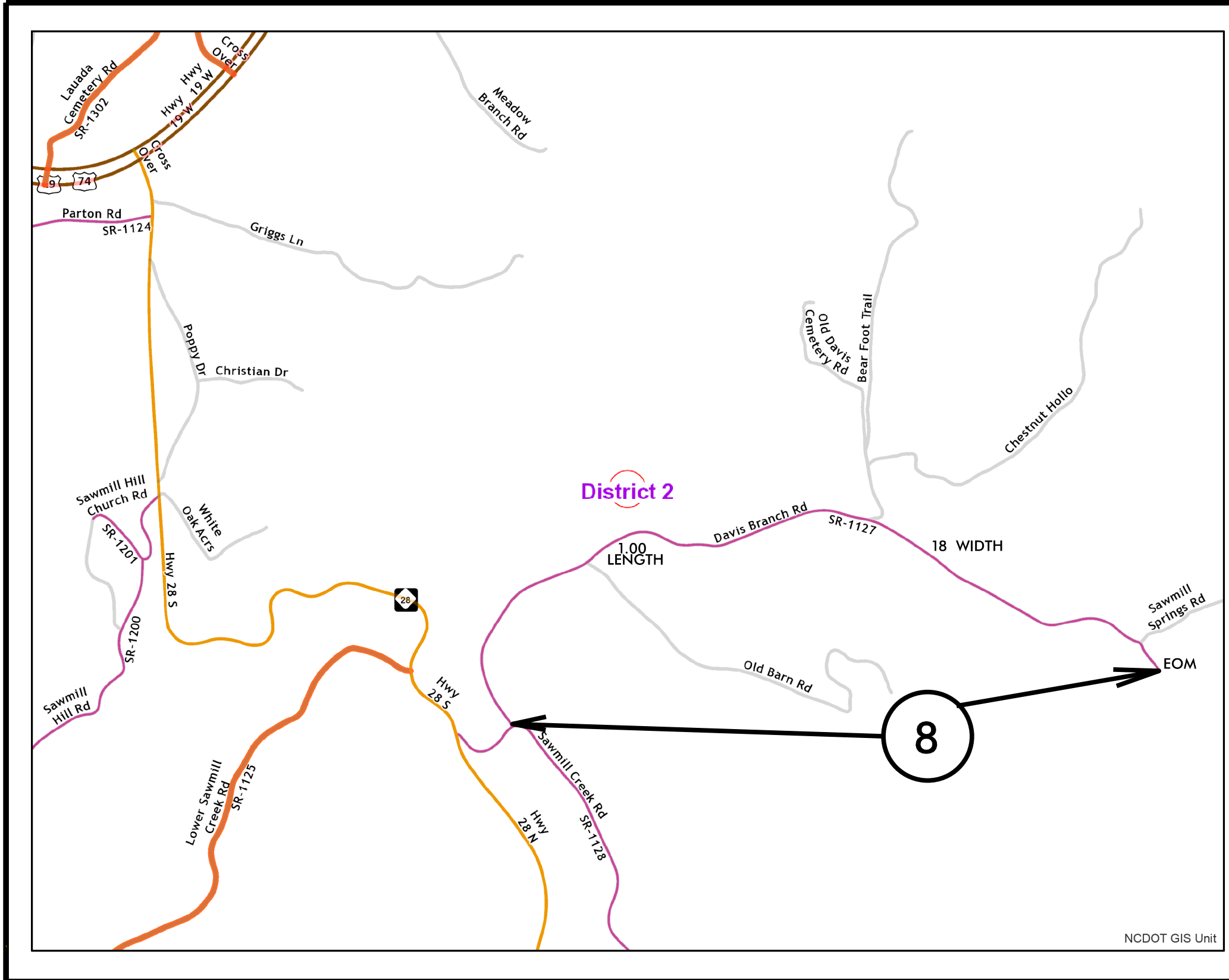
END

TIP PROJECT: N/A

CONTRACT: DN00630

# SWAIN COUNTY

PROJECT REFERENCE NO.		SHEET NO.
2019CPT 14.01.20871		6
STATE PROJECT	F.A. PROJECT NO.	DESCRIPTION



## SR-1127



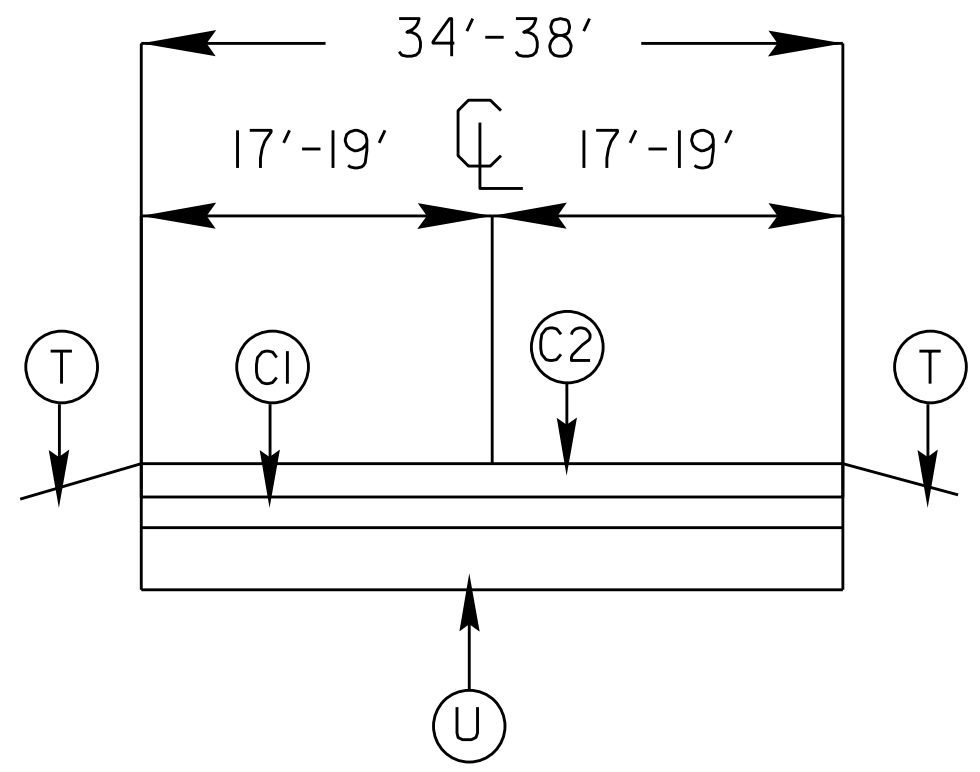
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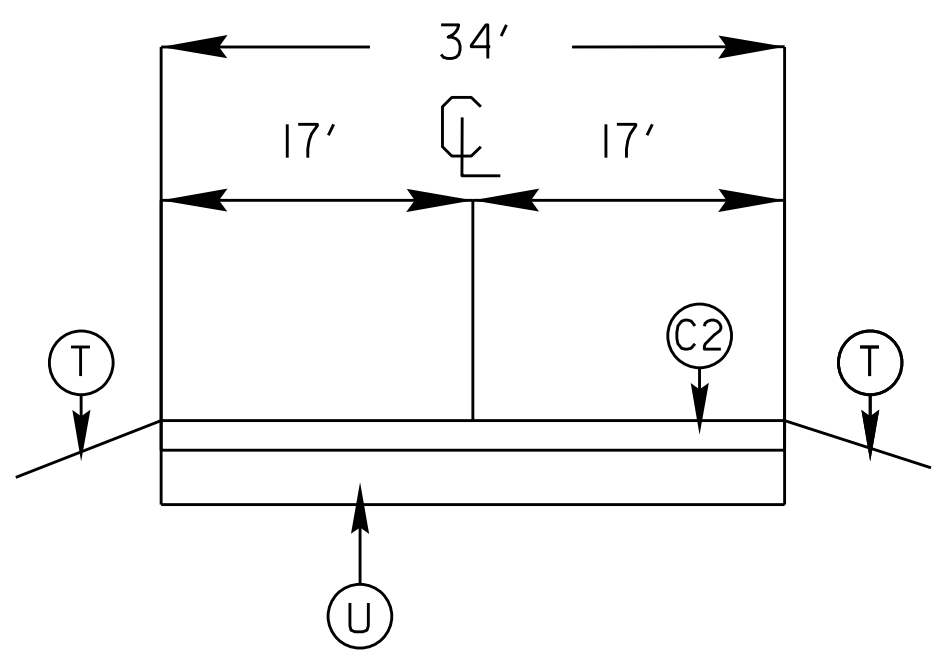
END

PROJECT REFERENCE NO.		SHEET NO.
2019CPT.14.01.20381		7
STATE PROJECT	F.A. PROJECT NO.	DESCRIPTION
2019CPT.14.01.2087		

# TYPICAL 1



# TYPICAL 2

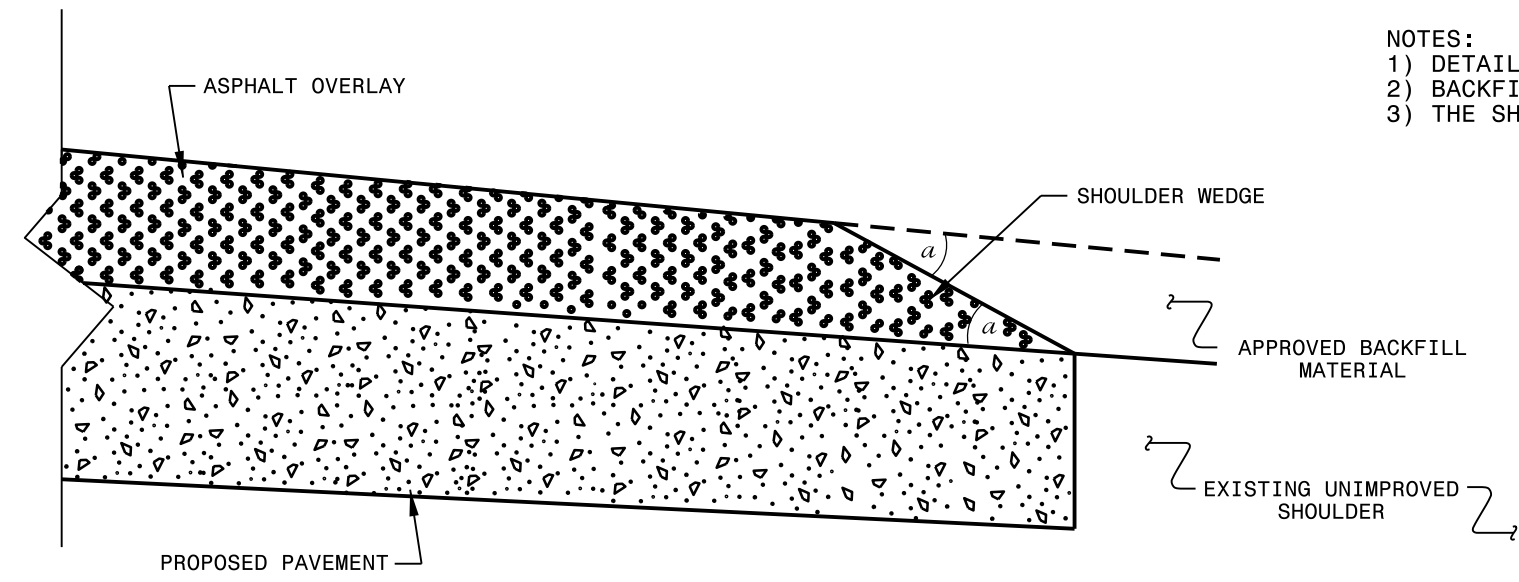


## SURFACING SCHEDULE

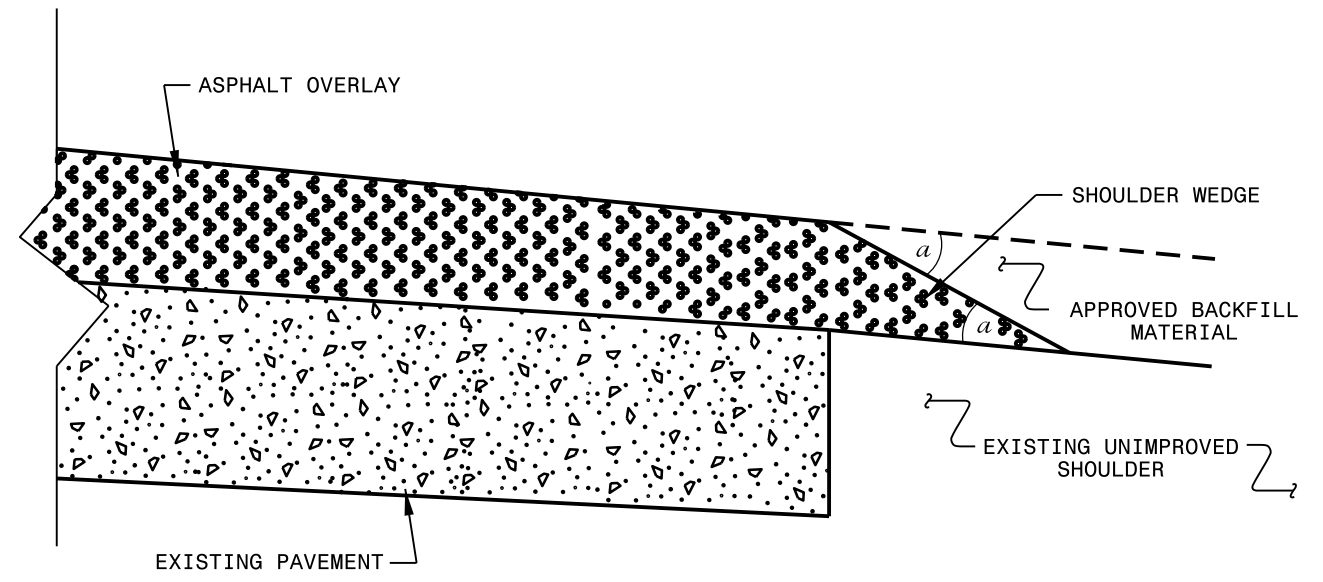
ITEM NO	DESCRIPTION
C1	PROP. APPROX. 3/4" ASPHALT CONCRETE SURFACE COURSE, (LEVELING) TYPE S9.5B AT AN AVERAGE RATE OF 82.5 LBS.PER.SQ.YD
C2	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 137.5 LBS.PER.SQ.YD
U	U EXISTING ASPHALT
T	SHOULDER RECONSTRUCTION



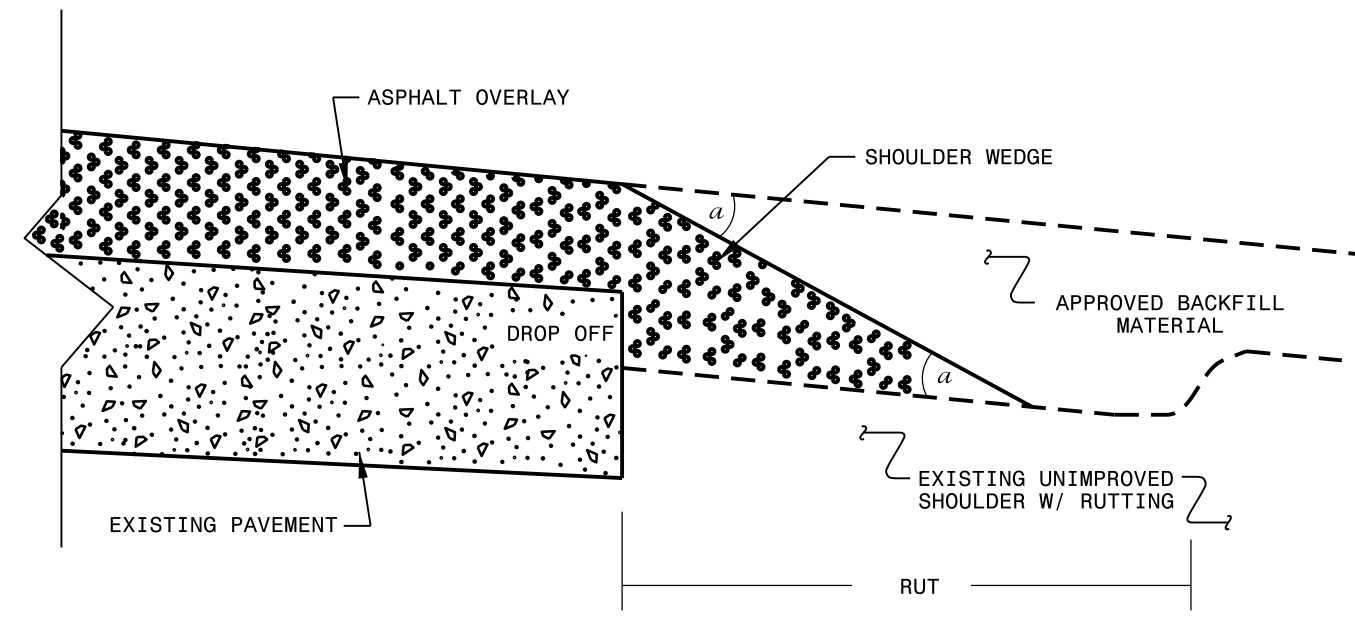
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFc AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Projects w/ Widening or  
 with Existing Paved Shoulder having no dropoffs)



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Projects w/ NO Widening)



**SHOULDER WEDGE DETAIL**  
 (Resurfacing Adjacent to  
 Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>			
Office 919-707-6950		FAX 919-250-4119	
<b>SHOULDER WEDGE DETAILS</b>			
ORIGINAL BY: T.SPELL	DATE: 7-19-11		
MODIFIED BY:	DATE: 10/16/12		
CHECKED BY:	DATE:		
FILE SPEC.: susr/details/stand/shoulderwedgedetail.dgn			

SYSTEMS DESIGN  
 USER NAME

PROJECT NO.	SHEET NO.	TOTAL NO.
2019CPT.14.01.20381	8	
2019CPT.14.01.2087		

## SUMMARY OF QUANTITIES

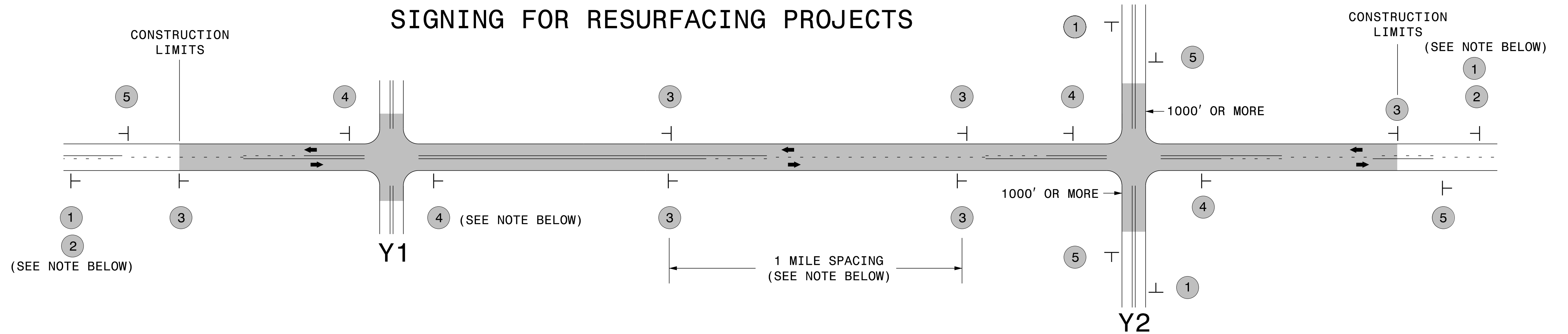
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	1245000000-E	1330000000-E	1503000000-E	1519000000-E	1520000000-E	1575000000-E	1704000000-E	2830000000-N	6084000000-E	
												SHOULDER RECONSTRUCTION	INCIDENTAL MILLING	INTERMEDIATE COURSE, WEDGING 119.0C	SURFACE COURSE, S9.5B	SURFACE COURSE, LEVELING, S9.5B	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	ADJ. OF MANHOLES	SEED & MULCHING	
												MI	FT	SMI	SY	TONS	TONS	TON	TONS	TONS	EA
2019CPT.14.01.20381	Graham	1	SR-1289 (FOX HILL RD)	FROM SR-1214 TO EOM	1	2	2WU	NO	NO	0.31	18	0.62			285	140	26	20		0.23	
<b>TOTAL FOR MAP NO. 1</b>											<b>0.31</b>	<b>18</b>	<b>0.62</b>		<b>285</b>	<b>140</b>	<b>26</b>	<b>20</b>		<b>0.23</b>	
2019CPT.14.01.20381	Graham	2	SR-1217 (SHEPHERDS CREEK RD)	FROM SR-1214 TO EOP	1	2	2WU	NO	NO	0.59	19	1.18		140	556	260	58	163		0.07	
<b>TOTAL FOR MAP NO. 2</b>											<b>0.59</b>	<b>19</b>	<b>1.18</b>		<b>140</b>	<b>556</b>	<b>260</b>	<b>58</b>	<b>163</b>		<b>0.07</b>
2019CPT.14.01.20381	Graham	3	SR-1113 (CLAUDE ROGERS RD)	FROM NC-143 TO EOM	1	2	2WU	NO	NO	0.31	17	0.62	16	70	270	128	28	89		0.03	
<b>TOTAL FOR MAP NO. 3</b>											<b>0.31</b>	<b>17</b>	<b>0.62</b>	<b>16</b>	<b>70</b>	<b>270</b>	<b>128</b>	<b>28</b>	<b>89</b>		<b>0.03</b>
2019CPT.14.01.20381	Graham	4	SR-1271 (RIDGECREST RD)	FROM SR-1269 TO EOM	1	2	2WU	NO	NO	0.1	18	0.20			90	50	9			0.04	
<b>TOTAL FOR MAP NO. 4</b>											<b>0.1</b>	<b>18</b>	<b>0.20</b>			<b>90</b>	<b>50</b>	<b>9</b>			<b>0.04</b>
2019CPT.14.01.20381	Graham	5	SR-1269 (WEST FORT HILL)	FROM SR-1279 TO EOM	1	2	2WU	NO	NO	0.84	18	1.67			780	370	72	10	1	0.31	
<b>TOTAL FOR MAP NO. 5</b>											<b>0.84</b>	<b>18</b>	<b>1.67</b>			<b>780</b>	<b>370</b>	<b>72</b>	<b>10</b>	<b>1</b>	<b>0.31</b>
2019CPT.14.01.20381	Graham	6	SR-1270 (WEST FORT HILL)	FROM SR-1269 TO EOM	1	2	2WU	NO	NO	0.1	18	0.20			90	50	9			0.00	
<b>TOTAL FOR MAP NO. 6</b>											<b>0.1</b>	<b>18</b>	<b>0.20</b>			<b>90</b>	<b>50</b>	<b>9</b>			<b>0.00</b>
<b>TOTAL FOR PROJ NO. 2019CPT.14.01.20381</b>											<b>2.25</b>	<b>117</b>	<b>4.49</b>	<b>16</b>	<b>210</b>	<b>2,071</b>	<b>998</b>	<b>202</b>	<b>282</b>	<b>1</b>	<b>0.69</b>
2019CPT.14.01.20871	Swain	7	SR-1109 (DILLS RD)	FROM SR-1107 TO EOM	2	2	2WU	NO	NO	0.75	17	1.90			875		52			0.20	
<b>TOTAL FOR MAP NO. 7</b>											<b>0.75</b>	<b>17</b>	<b>1.90</b>			<b>875</b>		<b>52</b>			<b>0.20</b>
2019CPT.14.01.20871	Swain	8	SR-1127 (DAVIS BRANCH RD)	FROM SR-1128 TO EOM	1	2	2WU	NO	NO	0.95	18	1.90		105	706	310	68			0.33	
<b>TOTAL FOR MAP NO. 8</b>											<b>0.95</b>	<b>18</b>	<b>1.90</b>		<b>105</b>	<b>706</b>	<b>310</b>	<b>68</b>			<b>0.33</b>
<b>TOTAL FOR PROJ NO. 2019CPT.14.01.20871</b>											<b>1.7</b>	<b>35</b>	<b>3.80</b>		<b>105</b>	<b>1,581</b>	<b>310</b>	<b>120</b>			<b>0.54</b>
<b>GRAND TOTAL</b>											<b>3.95</b>	<b>332</b>	<b>8.29</b>	<b>16</b>	<b>315</b>	<b>3,652</b>	<b>1,308</b>	<b>322</b>	<b>282</b>	<b>1</b>	<b>1.22</b>

PROJECT NO.	SHEET NO.	TOTAL NO.
2019CPT.14.01.20381	9	
2019CPT.14.01.20871		

## THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	4413000000-E		4457000000-N	4810000000-E		4835000000-E	
								LENGTH	WIDTH	WORK ZONE ADVANCE/GENERAL WARNING SIGNING	4" WHITE PAINT	4" YELLOW PAINT	24" WHITE PAINT	
								MI	FT	SF	LS	LF	LF	LF
2019CPT.14.01.20381	Graham	1	SR-1289 (FOX HILL RD)	FROM SR-1214 TO EOM	1	2	2WU	0.31	18	35	1	6,547	6,547	18
<b>TOTAL FOR MAP NO. 1</b>								<b>0.31</b>		<b>35</b>	<b>1</b>	<b>6,547</b>	<b>6,547</b>	<b>18</b>
2019CPT.14.01.20381	Graham	2	SR-1217 (SHEPHERDS CREEK RD)	FROM SR-1214 TO EOP	1	2	2WU	0.59	19	66		12,461	12,461	20
<b>TOTAL FOR MAP NO. 2</b>								<b>0.59</b>		<b>66</b>		<b>12,461</b>	<b>12,461</b>	<b>20</b>
2019CPT.14.01.20381	Graham	3	SR-1113 (CLAUDE ROGERS RD)	FROM NC-143 TO EOM	1	2	2WU	0.31	17			6,547	6,547	20
<b>TOTAL FOR MAP NO. 3</b>								<b>0.31</b>				<b>6,547</b>	<b>6,547</b>	<b>20</b>
2019CPT.14.01.20381	Graham	4	SR-1271 (RIDGECREST RD)	FROM SR-1269 TO EOM	1	2	2WU	0.1	18			2,112	2,112	20
<b>TOTAL FOR MAP NO. 4</b>								<b>0.1</b>				<b>2,112</b>	<b>2,112</b>	<b>20</b>
2019CPT.14.01.20381	Graham	5	SR-1269 (WEST FORT HILL)	FROM SR-1279 TO EOM	1	2	2WU	0.84	18	96		17,741	17,741	20
<b>TOTAL FOR MAP NO. 5</b>								<b>0.84</b>		<b>96</b>		<b>17,741</b>	<b>17,741</b>	<b>20</b>
2019CPT.14.01.20381	Graham	6	SR-1270 (WEST FORT HILL)	FROM SR-1269 TO EOM	1	2	2WU	0.1	18			2,112	2,112	18
<b>TOTAL FOR MAP NO. 6</b>								<b>0.1</b>				<b>2,112</b>	<b>2,112</b>	<b>18</b>
<b>TOTAL FOR PROJ NO. 2019CPT.14.01.20381</b>								<b>2.25</b>		<b>197</b>	<b>1</b>	<b>47,520</b>	<b>47,520</b>	<b>116</b>
											<b>95,040</b>			
2019CPT.14.01.20871	Swain	7	SR-1109 (DILLS RD)	FROM SR-1107 TO EOM	2	2	2WU	0.75	17			15,840	15,840	20
<b>TOTAL FOR MAP NO. 7</b>								<b>0.75</b>				<b>15,840</b>	<b>15,840</b>	<b>20</b>
2019CPT.14.01.20871	Swain	8	SR-1127 (DAVIS BRANCH RD)	FROM SR-1128 TO EOM	1	2	2WU	0.95	18			20,064	20,064	20
<b>TOTAL FOR MAP NO. 8</b>								<b>0.95</b>				<b>20,064</b>	<b>20,064</b>	<b>20</b>
<b>TOTAL FOR PROJ NO. 2019CPT.14.01.20871</b>								<b>1.7</b>				<b>35,904</b>	<b>35,904</b>	<b>40</b>
											<b>71,808</b>			
<b>GRAND TOTAL</b>								<b>3.95</b>		<b>197</b>	<b>1</b>	<b>83,424</b>	<b>83,424</b>	<b>156</b>
											<b>166,848</b>			

# SIGNING FOR RESURFACING PROJECTS



LEGEND	
T	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

## MAINLINE (-L-) SIGNING

## -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	MAINLINE (-L-) SIGNING		-Y- LINE SIGNING	
	1	 <small>W20-1 48" X 48"</small>	<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p>	<p><b>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</b></p> <ol style="list-style-type: none"> <li>LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>SUBDIVISION ROADS</li> <li>DEAD END ROADS</li> </ol> <p>WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">   <small>W20-1 48" X 48"</small> </div> <div style="text-align: center;">   <small>W20-7 A 48" X 48"</small> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
	2	 <small>W7-3aP 24" X 18"</small>	<p>#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)</p>	
	3	 <small>SP 13107 48" X 48"</small>	<p>PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.</p>	
	4	 <small>SP 13106 48" X 48"</small>	<p>THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</p>	
5	 <small>G20-2 A 48" X 24"</small>	<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>		

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**RESURFACING  
ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2 LANE ROADWAYS**