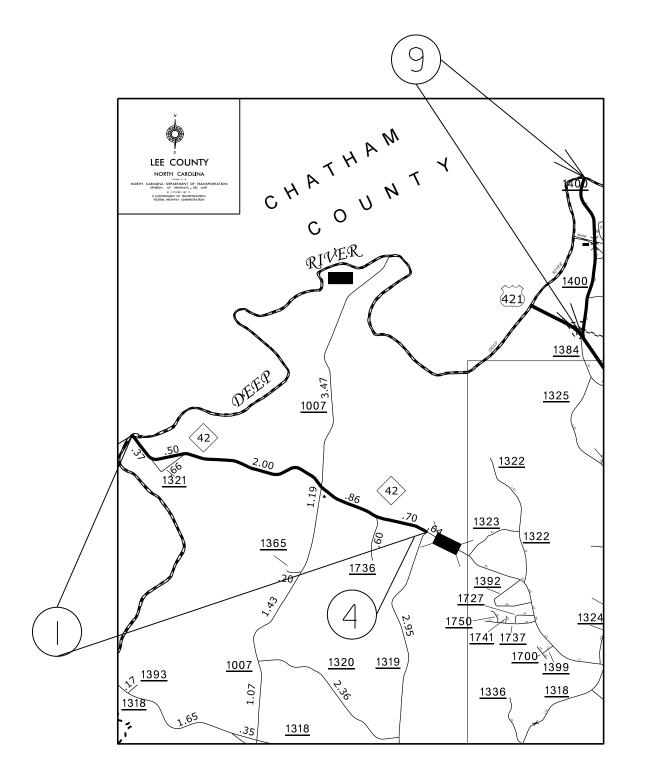
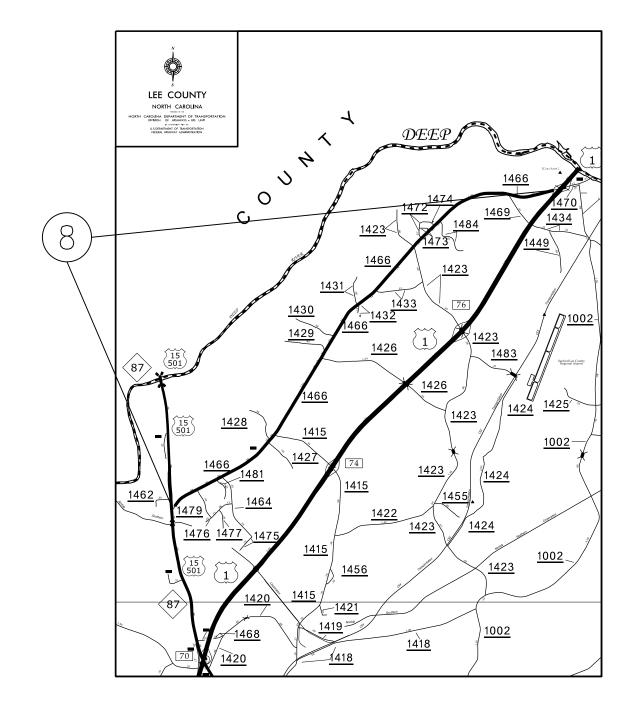


WBS ELEMENT SHEET NO.

2019CPT.08.05.10531
2019CPT.08.05.20191

2



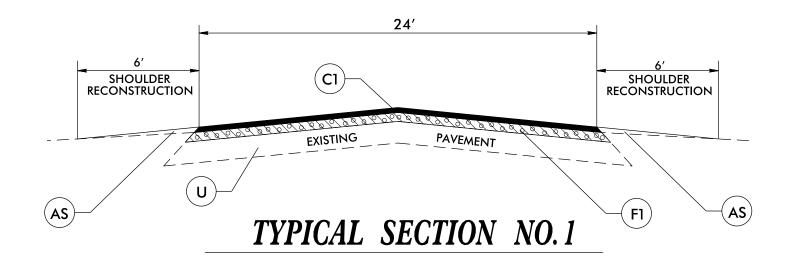


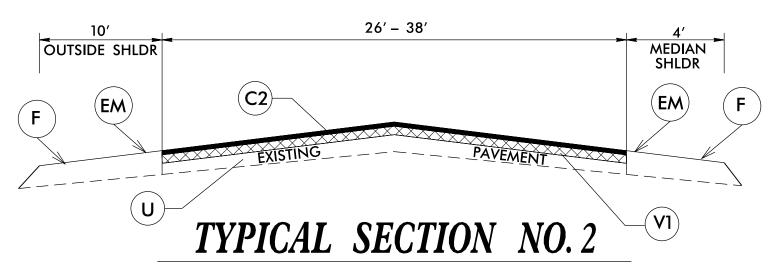
WBS ELEMENT SHEET NO. 2019CPT.08.05.10531 2019CPT.08.05.20531 3 1537 1537 1537 <u>1525</u> <u>1529</u> 421 1529\

<u> 1508</u> <u> 1415 |</u> BYP 421 1002 <u>1588</u> LEE COUNTY NORTH CAROLINA <u>1002</u>/ CAROLINA DEPARTMENT OF TRANSPO DWISION OF HIGHWAYS - GIS UNIT <u>1509</u> 1002 1510 <u>1521</u> <u> 1561</u> 150/9 1510 1415 1559 1558 1586 ์1009` <u>1585</u> <u>/1521</u> 6 1519 42 1523 1593 87 1239 1001 <u>1526</u>/ 1239 <u>1240</u> BÝP 1527 421 <u> 1263</u> <u>1138</u> 1131 <u> 1528</u> / 1133 <u>1146</u> 1138 <u>1148</u> (<u>1150</u> <u>/1149</u> <u>1290</u> <u>1133</u> 87 <u>1258</u> 1001 <u>1162</u> <u>1139</u> 115/6 1001 <u>1146</u> 1160 1283 1284 1284 <u>1147</u> <u>1163</u> <u>1162</u> <u>1142</u>~ 1292 <u>1144</u> <u> 1160</u>

WBS ELEMENT SHEET NO.

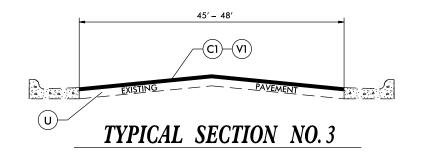
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2019CPT.08.05.20531

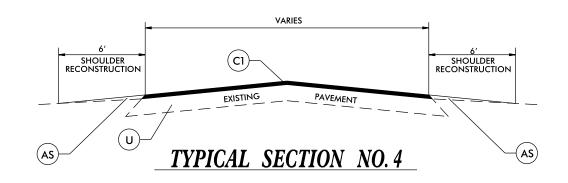


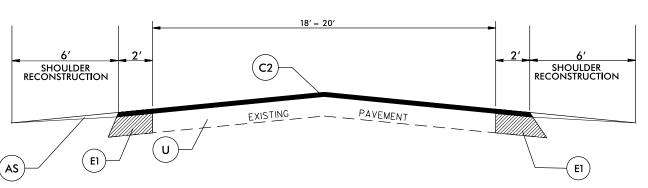


*Note Mill and Fill between rumble strips and fog seal paved shoulder

| | PAVEMENT SCHEDULE |
|------------|--|
| C1 | PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE \$9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. |
| C2 | PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE \$9.5C, AT AN AVERAGE RATE OF 168 LBS. PER \$Q. YD. |
| F | PROPOSED ASPHALT SURFACE TREATMENT, FOG SEAL |
| F1 | PROPOSED ASPHALT SURFACE TREATMENT, SINGLE SEAL |
| EM | EXIST. MILLED RUMBLE STRIPS |
| AS | AGGREGATE SHOULDER BORROW |
| U | EXISTING PAVEMENT. |
| V 1 | MILLING 1.5" IN DEPTH |



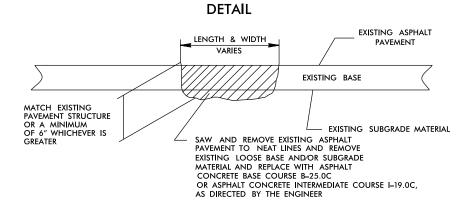


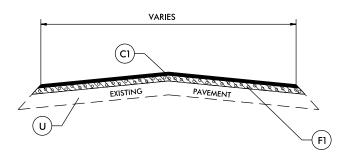


TYPICAL SECTION NO. 6

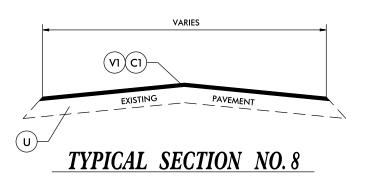
TYPICAL SECTION NO. 5

DETAILS OF PATCHING EXISTING PAVEMENT PRIOR TO RESURFACING





TYPICAL SECTION NO. 7



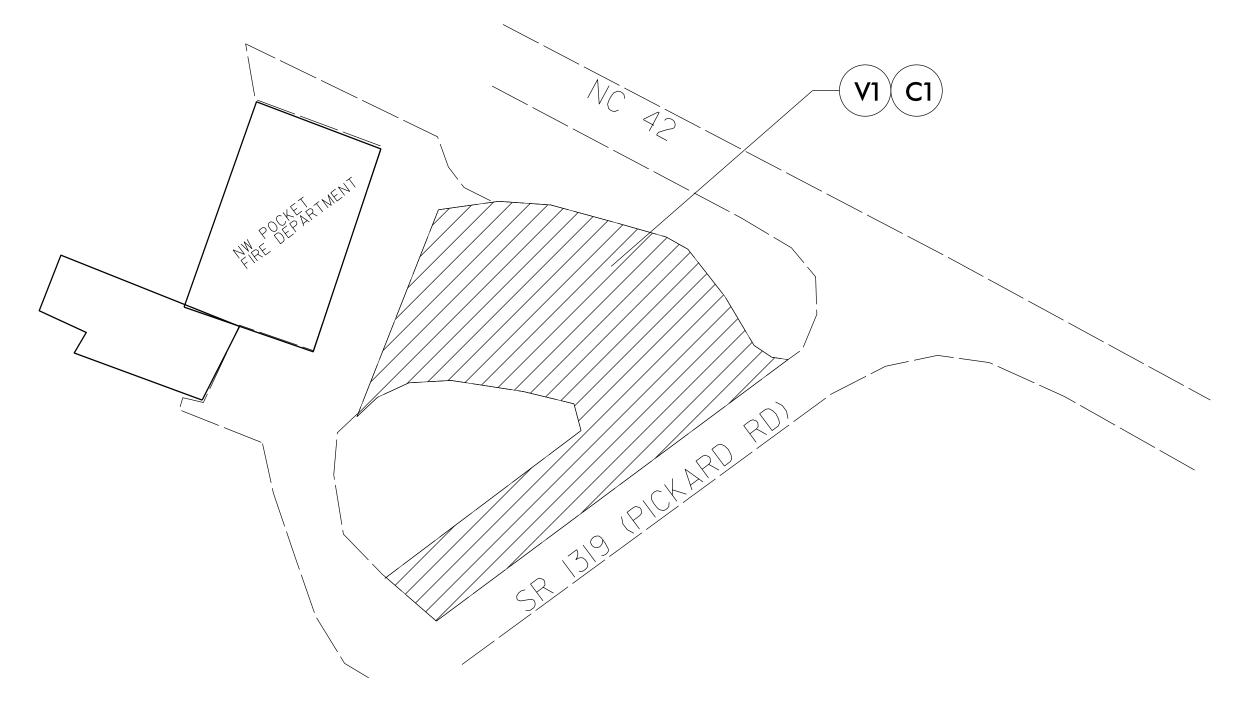
| | PAVEMENT SCHEDULE |
|----|---|
| C1 | PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. |
| C2 | PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE \$9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. |
| E1 | PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.OC, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. |
| F1 | PROPOSED ASPHALT SURFACE TREATMENT, SINGLE SEAL |
| AS | AGGREGATE SHOULDER BORROW |
| U | EXISTING PAVEMENT. |
| V1 | MILLING 1.5" IN DEPTH |

WBS ELEMENT

2019CPT.08.05.10531

6

MAP #4 DETAIL AND TYPICAL #8



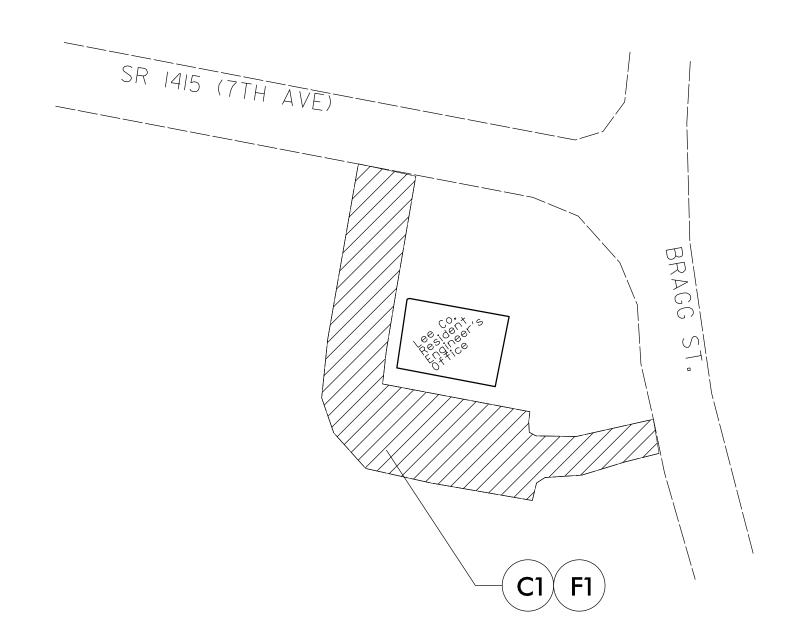
| | PAVEMENT SCHEDULE |
|----|---|
| C1 | PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE \$9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. |
| V1 | 1.5" MILLING |

WBS ELEMENT

019CPT.08.05.10531

7

MAP #10 DETAIL AND TYPICAL #7

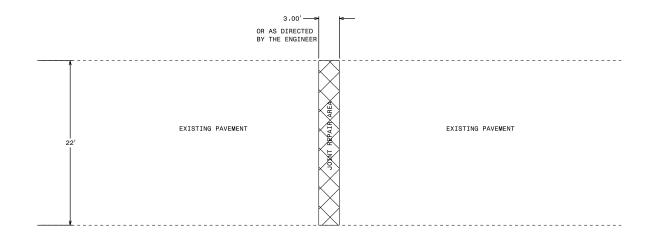


| | PAVEMENT SCHEDULE |
|----|---|
| C1 | PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE \$9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. |
| F1 | ASPHALT SURFACE TREATMENT, SINGLE SEAL |

JOINT REPAIR

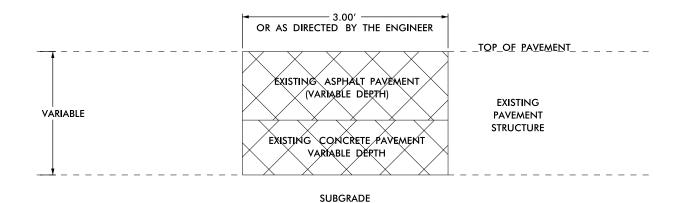
2019CPT.08.05.10531 2019CPT.08.05.20531

8



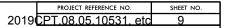
CONTRACTOR SHALL COORDINATE WITH RESIDENT ENGINEER'S OFFICE FOR LOCATION OF JOINTS TO BE REPAIRED.

CROSS-SECTION



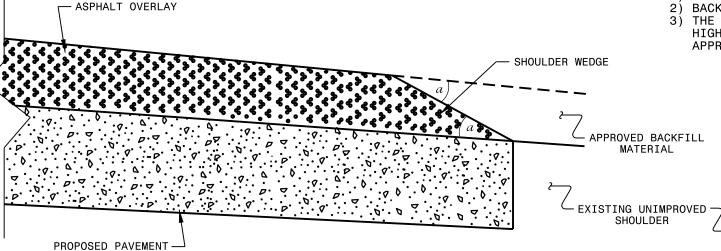
NOTE:

REMOVE ASPHALT AND CONCRETE AT JOINT LOCATIONS AS DIRECTED BY THE ENGINEER (BY SAWING CLEAN JOINTS).
REMOVE A TOTAL WIDTH OF 3' (APPROX. 1.5' EACH SIDE OF JOINT).
REMOVE AND REPLACE WITH ASPHALT CONCRETE BASE COURSE, TYPE B25.OC.
THERE WILL BE NO DIRECT PAY FOR THIS WORK AS IT WILL BE CONSIDERED INCIDENTAL TO TO THE LINE ITEM, JOINT REPAIR (TONNAGE)



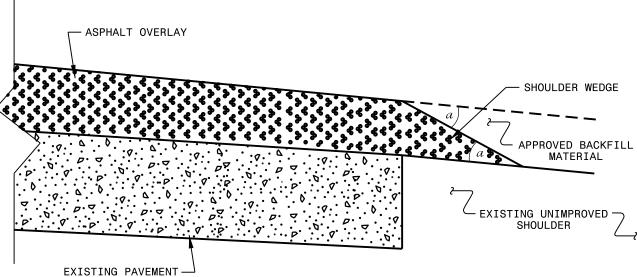
NOTES:

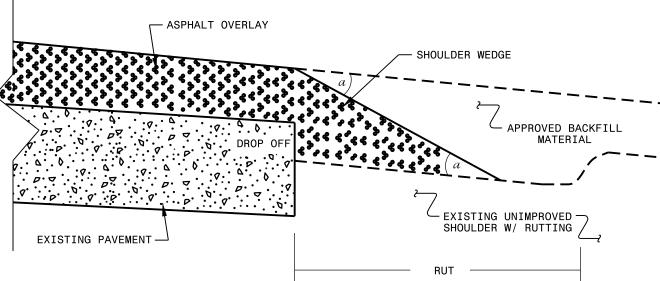
- 1) DETAIL DOES NOT APPLY TO OGAFC AND ULTRA-THIN BONDED WEARING COURSE.
- 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



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 ANGLE = 30°

CONTRACT STANDARDS AND DEVELOPMENT UNIT Office 919-707-6950 FAX 919-250-4119

SHOULDER WEDGE **DETAILS**

| OR | GINAL | BY: | T.SPELL | DATE: | 7-19-11 |
|-----|-------|------|----------------------|--------------|-------------|
| MOE | IFIED | BY: | | DATE: | 2/2/16 |
| CHE | CKED | BY:_ | | DATE: | |
| FIL | E SPE | C | :usr/details/stand/s | houlderwedge | edetail dgn |

SHOULDER WEDGE DETAIL

(Resurfacing Adjacent to Rutted Shoulder)

22-JAN-2018 09:41 5:\Contracts\Contracts\IResu ojporter AT CSD-292592

| PROJECT NO. | SHEET NO. | TOTAL NO. |
|--------------------------|-----------|-----------|
| 2019CPT.08.05.10531, etc | 10 | |

SUMMARY OF QUANTITIES

| | | | | | | | | O F | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---------------------------------------|-----------------|---------------------|--------|-------|---------------------|---------------------|---------|---------------------|--|--|---|--|--|--|--|---|--|--|--|--|---|---|---|--|--|
| ROUTE | DESCRIPTION | TYP | LA LANE | FINAL | WARM | LENGTH | WIDTH | SH. | ASB | 1.5" | INC. | BASE | SUR- | SUR- | AS- | PATCH- | AST, | AST, | EMUL- | VAC- | | ADJ. | ADJ. | IN- LI | EAD-IN | LAW | WZ | TEMP. |
| | | NO | NES TYPE | SUR- | MIX | | | RECON | | MILLING | MILLING | COURS | FACE | FACE | PHALT | ING | SINGLE | FOG | SION | UUM | JOIN | OF | METE D | UCTI CA | ABLE (14- | ENFORC | ADV/GE | TRAFFIC |
| | | | | FACE | ASPHALT | | | | | | | Ε, | COURSE, | COURSE, | BINDER | EXIST- | SEAL | SEAL | FOR AST | TRUC | Т | MAN | R OR | VE 2 | PAIR) | EMENT | N | CONTRO |
| | | | | TESTING | REQUIRE | | | | | | | B25.0C | S9.5B | S9.5C | FOR | ING | | | | К | REPA | HOLE | VALV L | ООР | | | WARN. | L |
| | | | | REQUIR | D | | | | | | | | | | PLANT | PAVEM | | | | | IR | S | E S | AWC | | | SIGNIN | |
| | | | | ED | | | | | | | | | | | MIX | ENT | | | | | | | BOXE | UT | | | G | |
| | | | | | | MI | FT | SMI | TON | SY | SY | TONS | TONS | TONS | TONS | TONS | SY | SY | GAL | WK | TON | EA | EA | LF | LF | HR | SF | LS |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | , | 1 | 2 2WL | NO | NO | 4.45 | 24 | 8.90 | 1,246 | | 1,020 | | 6,125 | | 410 | | 69,921 | | 24,473 | 3 | | | | | | | 498 | |
| US 421 SOUTH | | 2 | 2 MD | NO | NO | 1.89 | 26 | | | 28,829 | | | | 2,665 | 160 | | | 11,088 | | | | | | | | 20 | 162 | |
| US 421 NORTH | FROM NC 42 TO SR 1521 (KELLY RD) | 2 | 2 MD | NO | NO | 1.92 | 26 | | | 29,286 | | | | 2,705 | 162 | | | 11,264 | | | | | | | | 20 | 215 | * |
| | FIRE DEPT AT INT OF SR 1319 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NW POCKET VFD | (PICKARD RD) AND NC 42 | 8 | 2 2WL | NO | NO | 0.02 | 110 | | | 1,320 | | | 110 | | 7 | | | | | | | | | | | | | |
| TOTAL FOR PROJ NO. | 2019CPT.08.05.10531 | | | | | 8.28 | | 8.90 | 1,246 | 59,435 | 1,020 | | 6,235 | 5,370 | 739 | | 69,921 | 22,352 | 24,473 | 3 | | | | | | 40 | 875 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | • | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SR 1415 (S 7TH STREET) | , | 3 | 2 MU | NO | NO | 1.4 | 45 | | | 37,155 | 2,500 | | 3,605 | | 242 | | | | | | | 26 | 12 | 800 | 800 | 40 | 283 | |
| | FROM SR 1415 (S. SEVENTH ST) TO | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SR 1516 (E. ROSE ST) | 421 (HORNER BLVD) | 3 | 2 2WL | NO | NO | 0.41 | 48 | | | 12,510 | 600 | | 1,135 | | 76 | | | | | | | | | | | | 126 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SR 1002 (CHARLOTTE AVE) | FROM OLD US 1 TO EIGHTH ST | 3 | 2 2WL | NO | NO | 0.72 | 45 | | | 19,008 | 900 | | 1,980 | | 133 | | | | | | | 15 | 12 | | | | 168 | |
| SR 1466 (DEEP RIVER) | FROM 15-501 TO US1 | 4 | 2 2WL | NO | NO | 7.15 | 22 | 14.30 | 2,005 | | 852 | | 8,300 | | 556 | 1,500 | | | | | 300 | | | | | | 802 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | * |
| SR 1400 (CUMNOCK RD) | FROM 421 BYPASS TO CHATHAM CO. | 5 | 2 2WL | NO | NO | 1.965 | 24 | 3.93 | 550 | | | 1,155 | 2,505 | | 220 | 685 | | | | | | | | | | | 432 | |
| LEE COUNTY RESIDENT | CORNER OF SR 1415 (7TH STREET) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ENGINEERS OFFICE | AND BRAGG ST | 7 | 2 2WL | NO | NO | 0.08 | 50 | | | | 100 | | 195 | | 13 | | 2,652 | | 929 | 1 | | | | | | | | |
| | FROM CJ 540 FEET SOUTH OF US 421 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SR 1133 (LEE AVE) | BUS. (HORNER BLVD TO NC 78 | 6 | 2 2WL | NO | NO | 0.71 | 34 | | | 14,562 | 600 | | 1,285 | | 86 | | | | | | | | | | | | 80 | |
| | FROM SR 1119 (WOODLAND AVE) TO | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SR 1122 (COURTLAND DR) | US 421 BUS (HORNER BLVD) | 3 | 2 2WL | NO | NO | 0.14 | 38 | | | 4,081 | 100 | | 200 | | 13 | | | | | | | | | | | | 80 | |
| TOTAL FOR PROJ NO. | 2019CPT.08.05.20531 | | | | | 12.575 | | 18.23 | 2,555 | 87,316 | 5,652 | 1,155 | 19,205 | | 1,339 | 2,185 | 2,652 | | 929 | 1 | 300 | 41 | 24 | 800 | 800 | 40 | 1,971 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GRAND | | | | | 20.855 | | 27.13 | 3,801 | 146,751 | 6,672 | 1,155 | 25,440 | 5,370 | 2,078 | 2,185 | 72,573 | 22,352 | 25,402 | 4 | 300 | 41 | 24 | 800 | 800 | 80 | 2,846 | 1 | |
| | NW POCKET VFD TOTAL FOR PROJ NO. SR 1415 (S 7TH STREET) SR 1516 (E. ROSE ST) SR 1002 (CHARLOTTE AVE) SR 1466 (DEEP RIVER) SR 1400 (CUMNOCK RD) LEE COUNTY RESIDENT ENGINEERS OFFICE SR 1133 (LEE AVE) SR 1122 (COURTLAND DR) TOTAL FOR PROJ NO. | FROM CHATHAM CO. TO SR 1319 NC 42 (PICKARD RD) US 421 SOUTH FROM SR 1521 (KELLY RD) TO NC 42 US 421 NORTH FROM NC 42 TO SR 1521 (KELLY RD) FIRE DEPT AT INT OF SR 1319 (PICKARD RD) AND NC 42 TOTAL FOR PROJ NO. 2019CPT.08.05.10531 FROM SR 1514 (BRAGG ST) TO PVMNT JOINT N OF SR 1560 (E WEATHERSPOON) FROM SR 1415 (S. SEVENTH ST) TO 421 (HORNER BLVD) SR 1516 (E. ROSE ST) FROM OLD US 1 TO EIGHTH ST SR 1466 (DEEP RIVER) FROM 15-501 TO US1 SR 1400 (CUMNOCK RD) LEE COUNTY RESIDENT CORNER OF SR 1415 (7TH STREET) AND BRAGG ST FROM CJ 540 FEET SOUTH OF US 421 BUS. (HORNER BLVD TO NC 78 FROM SR 1119 (WOODLAND AVE) TO | NO NO NO NO NO NO NO NO | NO NES TYPE | ROUTE DESCRIPTION | ROUTE | ROUTE | ROUTE DESCRIPTION | ROUTE DESCRIPTION | ROUTE | ROUTE DESCRIPTION | ROUTE DESCRIPTION TYP LA LANE FINAL WARM NLES TYPE SUR-FINAL TESTING REQUIRE ED MILLING MILLING MILLING SUR-FINAL TESTING REQUIRE ED MILLING M | ROUTE DESCRIPTION NO NES TYPE LA LANE NES TYPE LA LANE NO NES TYPE LA LANE N | ROUTE DESCRIPTION NO NEST TYPE LA LANE FINAL WARM MIXED SURFIGURE FACE SURFIGURE FACE FACE FACE FACE FACE FACE FACE FAC | ROUTE DESCRIPTION TYP LA LANE NEST TYPE SUR. FACE SUR. FACE SUR. FACE SUR. FACE FACE COURSE, FACE FACE FACE FACE FACE FACE FACE FACE | ROUTE DESCRIPTION 179 LA LANE FINAL WARM LENGTH WIDTH SH. NO NES 150 L MILLING REQUIRE REQUIRE REQUIRE PLANT TESTING REQUIRE PLANT MIX | ROUTE DESCRIPTION NO LAST TYPE LA LANE FINAL TYPE SUR. FACE ASPALT FESTING REQUIRE FOR MILLING COURSE, COURSE, BINDER EMISTRATIVE STRIP FOR MILLING COURSE, SS.5B 89.5C FOR MILLING COURSE, COURSE, BINDER EMISTRATIVE STRIP FOR MILLING COURSE, COURSE, BINDER EMISTRATIVE STRIP FOR MILLING COURSE, SS.5B 89.5C FOR MILLING COURSE, BINDER EMISTRATIVE STRIP FOR MILLING COURSE, BINDER EMISTRATIVE STRIP FOR MILLING COURSE, SS.5B 89.5C FOR MILLING COURSE, BINDER EMISTRATIVE STRIP FOR MILLING COURSE, BINDER EMISTRATIV | ROUTE DESCRIPTION NO NES TYPE LA LANKE FINAL WARM RECORD NES TYPE SUR- AST, STATE AST, S | ROUTE DESCRIPTION NO NES TYPE LA LANE FINAL NORM NO NES TYPE ESTITUS REQUIR PACE PROMISE STATE OF THE DESTRICT OF STATE | ROUTE DESCRIPTION NO NES TYPE IA LANE FINAL WARM LENGTH WIDTH SH. ASB 1.5" INC. BASE SUB- SUR- SUR- ASC COURSE, GASE COURS | ROUTE DESCRIPTION TYP LA LAKE FINAL WARM LENGTH NO NES TYPE SUM MIX FACE ASPHALT THE THING REQUIRE REQUIR BLUE AND | ROUTE DESCRIPTION TYP LA LAME FINAL WARM LENGTH WIDTH SH. ASB 1.5° NIC. BASE SUR. ASB SUR. | ROUTE DESCRIPTION NO NES TYPE SUB-FACE ASPHALT TESTING REQUIRE REQUIR FOR MILLING FACE ASPHALT TESTING REQUIRE REQUIR FACE ASPHALT TESTING REQUIRE REQUIR FACE ASPHALT TESTING REQUIRE REQUIR FACE ASPHALT THE MILLING F | POUTE DESCRIPTION TYP LA LAME FINAL WARM LENSTH WIDTH RECO. NO NET DESCRIPTION NO NO NO NO NO NO NO | ROUTE DESCRIPTION TYP LA LANE FRANK NO NES TYPE SUR MIX NES MIX | ROUTE DESCRIPTION TP LA LAME FINAL NAME MERCH WIDTH SAL SAL | BOUTE DESCRIPTION TYP LA LAME FAMAL WARM LOTH NO NO NO 1.55 TOWN 1.5 TOWN 1 | BOUTE DESCRIPTION TYP LA LANG FAILA WARM INCOME NO NO 1975 SUP- NO NO 1975 SUP- NO NO 1975 SUP- NO NO 1975 SUP- FAILAND FAILAN |

THERMOPLASTIC AND PAINT QUANTITIES

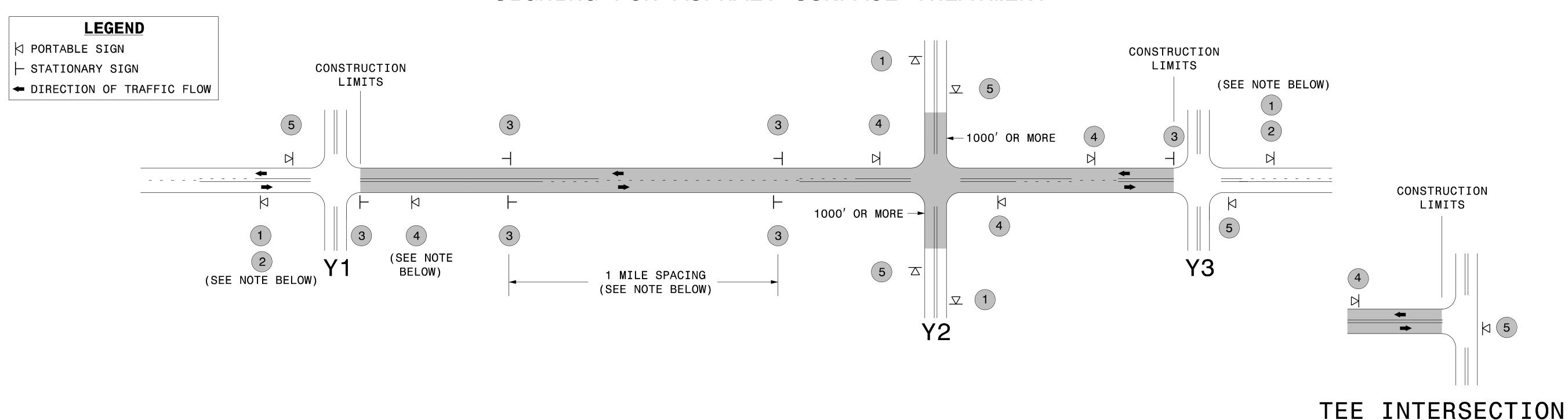
| Part | | | | | | | | 4685000 | | | | 688000000 | | | | | | | | | | | 1725000 | 1000.5 | | | 4810000 | 1000-F | 4820000 | 48250000 | 48300 | 48350 | 4840d | 4845000 | 000- 491 | 000000 | 1-N 490 | .000000-N |
|---|------|----------------------------|------------------------------------|-----|----------|--------|-------|----------|-----------|-------|--------|-----------|--------|-------|----------|-----|-----|-----|----|---------|--------------|---------|---------|--------|---|------|---------|--------|---------|--|-------------------|-------|--------------------------|---------|-------------------------|--------|---------|-----------|
| Part | | POLITE | DESCRIPTION | TVD | IA IANE | LENGTH | WIDTH | | | | | | | | | | | | | | | | | | | TUED | | | | | | | | | | | | |
| | _ | | DESCRIPTION | | | | | | | | | | | | | | 1 | | | | | | | | | | | | _ | | | | | | - | - | | |
| No. C. 2 | 일 | 0 | | " | INLS THE | | | | | | | | | _ | | | 1 | | | | | | | | | - | FAINT | | | | | | | | | | | |
| No. C. 2 | 티돌 | 2 | | | | | | | | | | THERIVIO | | | IIILINIO | | | | | | | | | | _ | E | | 1 7 | 1 7 | | | | | - | | | | |
| No. C. 2 | 징징 | \$ | | | | | | | TITERIVIO | | | | 0 | | | | | 0 | | 120 141 | | | | | | VDDU | | | | | | | | ** ' | - | | | |
| FROM CLATIMAN CO. TO SET 319 1 | E | - | | | | | | " | | " | | | 0 | " | | | | U | | | 30 101 | | | | | | | | | | 1 ' | ' | 1005 | | " | | | 3 |
| Fig. | | | | | | МІ | FT | LF | LF | LF | LF | LF | LF | LF | LF | LF | LF | LF | EA | EA | EA | | | | | | LF | LF | LF | LF | LF | LF | EA | EA | EA E | | | EA |
| No. C. 2 | õ | | FROM CHATHAM CO. TO SR 1319 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | += | += | 1 |
| Value Valu |)5.1 | 1 NC 42 | | 1 | 2 2WU | 4.45 | 24 | 47.882 | 47.882 | 30 | | | | | | | 50 | 75 | 2 | | | | | | | | | | | | 1 | | | | | | 294 | |
| 3 US 421 NORTH FROM NC 421 CREATE MAY BE FOR MINE AT CREATE STATE MAY BE FOR MINE AT CREATE MAY | e 18 | 2 US 421 SOUTH | FROM SR 1521 (KELLY RD) TO NC 42 | 2 | 2 MD | 1.89 | | | | | 10,000 | 10,350 | | 2,500 | | 400 | | | | | | | | | | 3 | 20,350 | 2,500 | 400 | | | | | | | | 1 | 125 |
| 4 NW POCKET UP NC. 42 8 2 2 2 2 2 2 2 2 | PT. | 3 US 421 NORTH | ` , | | | | 26 | | | | | 10,150 | 10,150 | 2,535 | | 400 | | | | | | | | | | 3 | 20,660 | 2,535 | 400 | | | | | | | | 1 | _ |
| TOTAL FOR PROJ NO. 2019CPT.08.05.10531 | 190 | | FIRE DEPT AT INT OF PICKARD RD AND | | | | | | 1 | | | , | | | | | | | | | | | | | | | · | | | | | | | | | | 1 | 1 |
| TOTAL FOR PRION DOLLAR DEPTH NO. 10 10 10 10 10 10 10 1 | 203 | 4 NW POCKET VFD | NC 42 | 8 | 2 2WU | 0.02 | 110 | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| FROM SE 134 (BRAGG ST) TO PV/MST 5 | | TOTAL FOR DROUNG | 2010CDT 09 0F 10F21 | | | 8.28 | | 47,882 | 47,882 | 30 | 10,000 | 20,500 | 10,150 | 5,035 | | 800 | 50 | 75 | 2 | | | | | | | 6 | 41,010 | 5,035 | 800 | | | | | | | | 294 | 252 |
| 5 SR 1415 (S 7TH STREET) | | TOTAL FOR PROJ NO. | . 2019CP1.08.05.10531 | | | | | | 47, | 912 | | 40,650 | | | | | | | | 2 | | | | | | | 46,0 | 45 | | | | | | | | | | 546 |
| 5 SR 1415 (S 7TH STREET) | | | | | • | | • | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| \$ \$ \$8.1415 (5.7TH STREET) \$ \$WEATHERSPOON! \$ 3 2 \$ \$W\$ \$ \$1.44 \$ 5 \$ \$ \$1.4862 \$ \$2.500 \$ \$ \$ \$ \$ \$1.56 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | | | FROM SR 1514 (BRAGG ST) TO PVMNT | Г | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 SR 1516 (E. ROSE ST) FROM SR 1415 (S. SEVENTH ST) TO 421 (HORNER BLVD) 3 2 2 WU 0.41 48 3,650 620 | | | JOINT N OF SR 1560 (E | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| 6 SR 1516 (E.ROSEST) 421 (HORNER BLVD) 3 2 2 WU 0.41 48 3,650 620 | | 5 SR 1415 (S 7TH STREET) | , | 3 | 2 MU | 1.4 | 45 | | 14,862 | 2,500 | | | | | | | | 175 | | | 10 | 8 | 5 | 2 | 2 | | 2,500 | 14,870 | | | | 175 | | | | | Ш. | |
| 7 SR 1002 (CHARLOTTE AVE) FROM OLD US 1 TO EIGHTH ST 3 2 2WU 0.72 45 420 7,603 1,900 | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| 8 SR 1466 (DEEP RIVER) FROM 15-501 TO US1 4 2 2 2WU 7.15 22 | 11 | 6 SR 1516 (E. ROSE ST) | 421 (HORNER BLVD) | 3 | 2 2WU | 0.41 | 48 | | 3,650 | 620 | | | | | | | 200 | 200 | 8 | | 4 | 4 | | | | | 620 | 3,650 | | <u> </u> | 200 | 200 | | | 6 | J 30 | Д | |
| 8 SR 1466 (DEEP RIVER) FROM 15-501 TO US1 4 2 2 2WU 7.15 22 | 023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| 9 SR 1400 (CUMNOCK RD) FROM 421 BYPASS TO CHATHAM CO. 5 2 2WU 1.965 24 | 5.2 | ` , | | | | | | 420 | 7,603 | 1,900 | | | | | 794 | | 100 | 400 | 4 | 4 | 12 | 12 | | 2 | | | | | | ļ! | | | $\perp \perp \downarrow$ | | | | | |
| LEE COUNTY RESIDENT ST 7 2 2WU 0.08 50 50 50 50 50 50 50 | ee _ | 8 SR 1466 (DEEP RIVER) | FROM 15-501 TO US1 | 4 | 2 2WU | 7.15 | 22 | | | | | | | | | | | | | | | | | | | | 75,854 | 39,314 | 62 | 389 | igspace | 100 | 12 | 6 | 3 2 | 5 475 | j | |
| LEE COUNTY RESIDENT ST 7 2 2WU 0.08 50 50 50 50 50 50 50 | J. [| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| 10 ENGINEERS OFFICE ST 7 2 2WU 0.08 50 | 126 | , , | | | 2 2WU | 1.965 | 24 | | | | | | | | | | | | | | | | - | | | | 21,150 | 13,000 | | <u> </u> | \longmapsto | | 1 | | $-\!\!\!\!+\!\!\!\!\!-$ | | | _ |
| TOTAL FOR PROJ NO. 2019CPT.08.05.20531 TOTAL FOR PROJ NO. 2019CPT.08.05.20531 TOTAL FOR PROJ NO. 2019CPT.08.05.20531 CRAND TOTAL FOR PROJ NO. 2019CPT.08.05.20531 TOTAL FOR PROJ NO. 2019CPT.08 | 201 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| 11 SR 1133 (LEE AVE) BUS. (HORNER BLVD TO NC 78 6 2 2WU 0.71 34 3,052 7,640 | 1 - | 10 ENGINEERS OFFICE | | | 2 2WU | 0.08 | 50 | | 1 | | | | | | | | | | | | | 1 | | | | | | | | | \longmapsto | | ₩ | <u></u> | $-\!\!\!\!+\!\!\!\!-$ | | 4— | |
| 12 SR 1122 (COURTLAND DR) FROM SR 1119 (WOODLAND AVE) TO US 421 BUS (HORNER BLVD) 3 2 2WU 0.14 38 460 1,450 40 U U D D D D D D D | | 44 CD 4432 /LEE AVEV | | | 2 214/11 | 0.74 | 24 | 2.052 | 7.640 | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| 12 SR 1122 (COURTLAND DR) US 421 BUS (HORNER BLVD) 3 2 2WU 0.14 38 460 1,450 40 | 1 - | 11 SR 1133 (LEE AVE) | , | | 2 2WU | 0.71 | 34 | 3,052 | 7,640 | | | | | | | | | | | 1 | | - | - | | - | | | | | | \longrightarrow | | +-+ | -+ | + | 50 | + | + |
| TOTAL FOR PROJ NO. 2019CPT.08.05.20531 | | 13 SP 1133 (COLIPTIAND DR) | ` ' | | 2 2/4/11 | 0.14 | 20 | 460 | 1 450 | 40 | | | | | | | | | | | | | | | | | | | | | 1) | | | | | 10 | . | |
| GRAND TOTAL 20.855 51,814 83,087 5,090 10,000 20,500 10,150 5,035 794 800 350 850 14 4 26 24 5 4 2 6 143,454 83,472 862 389 300 875 12 6 3 181 613 294 252 | | • | , | 3 | 2 2000 | | | | | | | | - | 1 | 704 | | 200 | 775 | 12 | 1 | 26 | 24 | _ | 4 | , | | 102 444 | 70 /27 | 62 | 200 | 200 | 075 | 12 | _ | 2 1 | | | + |
| GRAND TOTAL 20.855 51,814 83,087 5,090 10,000 20,500 10,150 5,035 794 800 350 850 14 4 2 6 24 5 4 2 6 143,454 83,472 862 389 300 875 12 6 3 181 613 294 252 | | TOTAL FOR PROJ NO. | . 2019CPT.08.05.20531 | - | | 12.5/5 | | 3,332 | | | | | 1 | 1 | /94 | | 300 | //3 | | | 20 | | | 4 | | | | | 02 | 202 | 300 | 8/3 | 12 | | | | + | |
| $(\mathfrak{g}(\Delta N)) (1) \Delta 1$ | | | | | | l | -1 | <u> </u> | 40, | 203 | l | | | 1 | l | l | 1 | l | | 10 | | | OI. | | | | 100,0 | 901 | 1 | | | | | | | 134 | | |
| $(\mathfrak{g}(\Delta N)) (1) \Delta 1$ | | | | | | 20.855 | | 51.814 | 83.087 | 5.090 | 10.000 | 20.500 | 10.150 | 5.035 | 794 | 800 | 350 | 850 | 14 | 4 | 26 | 24 | 5 | 4 | 2 | 6 | 143.454 | 83.472 | 862 | 389 | 300 | 875 | 12 | 6 | 3 1/ | 31 61: | 3 294 | 252 |
| | | GRAND | D TOTAL | | | 20.000 | 1 | 52,014 | | | 20,000 | 40.650 | | , | | | | | | 1 | | <u></u> | | | | | | | | | | | | 9 | - - | 794 | + | 546 |



TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

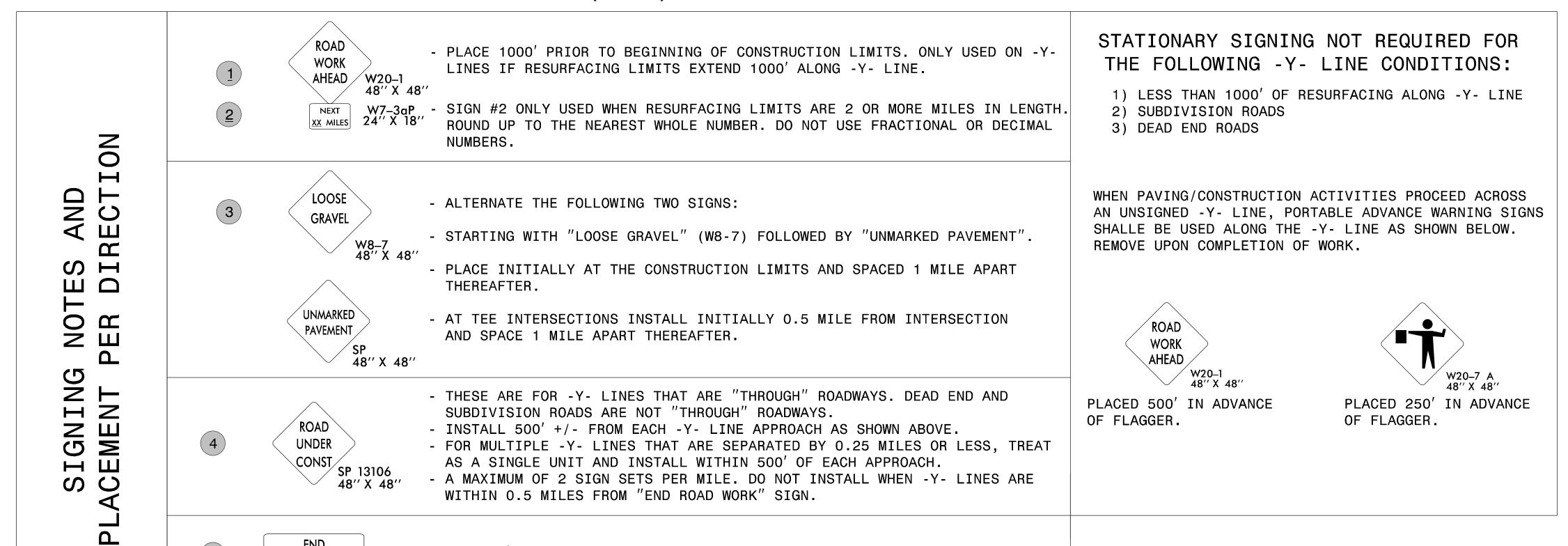
PROJ. REFERENCE NO. SHEET NO. 2019CPT.08.05.10531, etc TMP-2

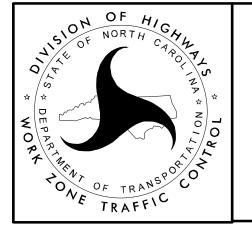
SIGNING FOR ASPHALT SURFACE TREATMENT



MAINLINE (-L-) SIGNING

-Y- LINE SIGNING





ADVANCE WARNING SIGNS
FOR
2-LANE ROADWAY
ASPHALT SURFACE TREATMENT

:/TMU/WZIC/Resurfacing/2L2W & AST Resurfacing Details/Resurfacing_AdvWa

MAPS LESS THAN 2 MILES ROAD WORK

G20–2 A 48'' X 24''

START OF CONTRACT WORK.

FOR AST RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, USE A STATIONARY "LOOSE GRAVEL" SIGN AT THE BEGINNING CONSTRUCTION LIMIT FOLLOWED BY AN "UNMARKED PAVEMENT" SIGN MIDWAY THROUGH AND AN "END ROAD WORK" SIGN AT THE END CONSTRUCTION LIMIT.

WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE

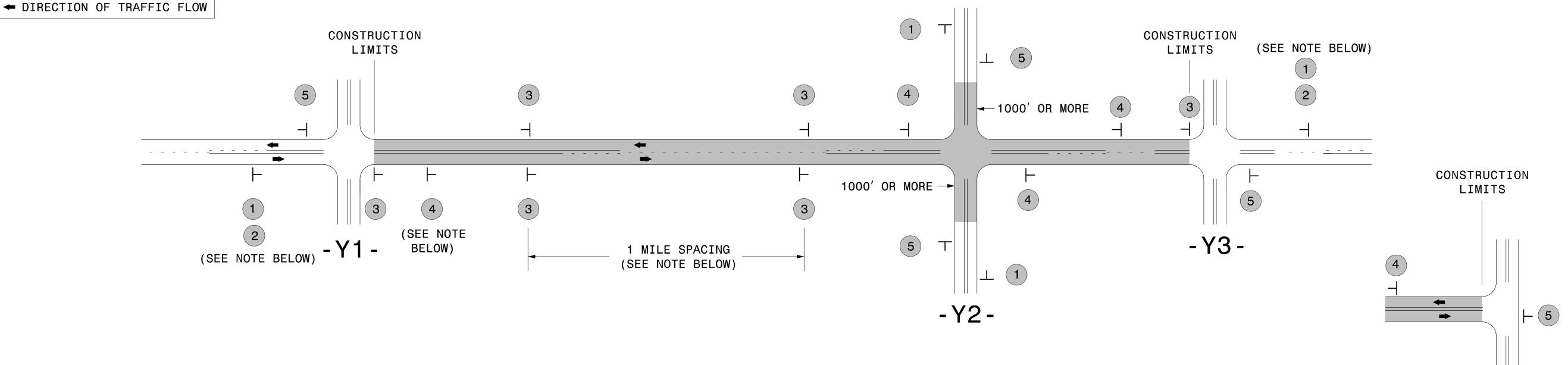
PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN

PROJ. REFERENCE NO. SHEET NO. 2019CPT.08.05.10531, etc TMP-3

TEE INTERSECTION

SIGNING FOR RESURFACING PROJECTS



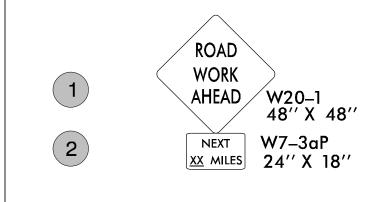


MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

IGNING NOTES AND EMENT PER DIRECTION

SO



PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS.
ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.

#2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH.
ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)

- SP 13107 48" X 48"
- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.
- AT TEE INTERSECTIONS INSTALL INITIALLY ½ MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.
- ROAD UNDER CONST SP 13106
- 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.
 FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.
- END ROAD WORK G20-2 A 48" X 24"

PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.

MAPS LESS THAN 2 MILES

FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

- 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE
- 2) SUBDIVISION ROADS
- 3) DEAD END ROADS

WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.



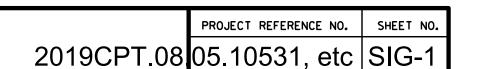
PLACED 500' IN ADVANCE OF FLAGGER.



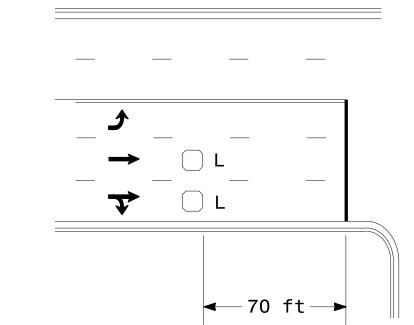
PLACED 250' IN ADVANCE
OF FLAGGER.

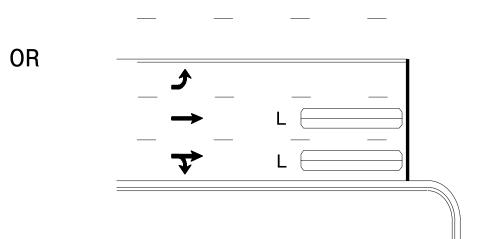


ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2-LANE ROADWAY
RESURFACING



Low Speed Detection (≤35 mph)





 $L = 6ft \times 6ft$ Wired in series

L = 6ft X 40ftQuadrupole loop, wired separately

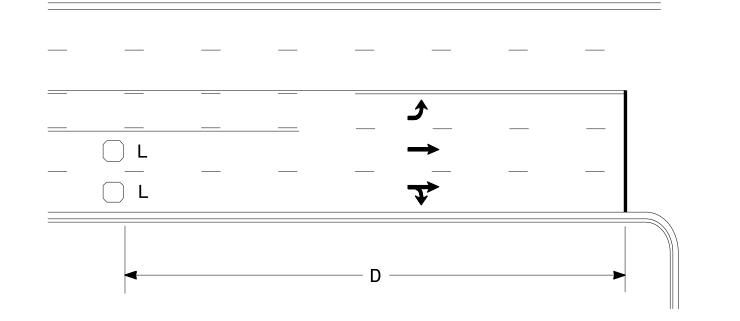
Right Turn Lane Detection

L2 = 6ft X 6ft [Minimum] Presence loop

L1 = 6ft X 40ft Quadrupole loop

Wired separately

High Speed Detection (≥40 mph)



| OD | | |
|----|----------|---------------|
| OR | | |
| | | → □L2 |
| | | |
| | | |
| | | ⋖ D2 — |
| | 4 | D1 |

| Speed Limit | D |
|-------------|-----|
| mph | ft |
| 40 | 250 |
| 45 | 300 |
| 50 | 355 |
| 55 | 420 |
| | |

L = 6ft X 6ftWired in series for TS1 Controllers Wired separately for TS2, 170, and 2070L Controllers

Speed Limit ft 250 80 300 90 50 355 100 110

"Stretch" Operation

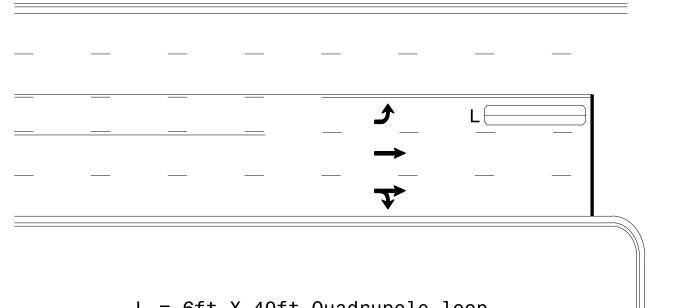
L1 = 6ft X 6ft

 $L2 = 6ft \times 6ft$

Wired in series

Wired in series

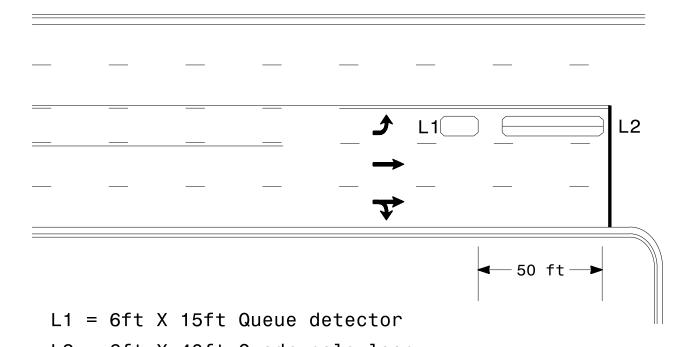
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

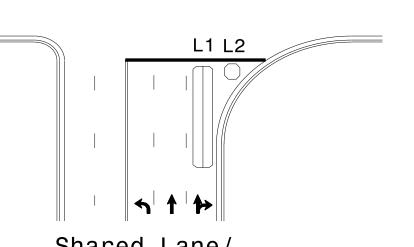
Volume Density Operation

Presence Loop Detection

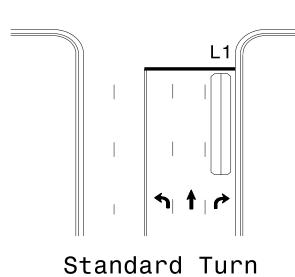


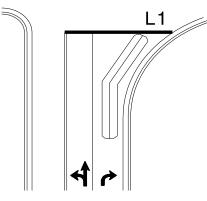
L2 = 6ft X 40ft Quadrupole loop

Queue Loop Detection



Shared Lane/ Wide Radius Turn

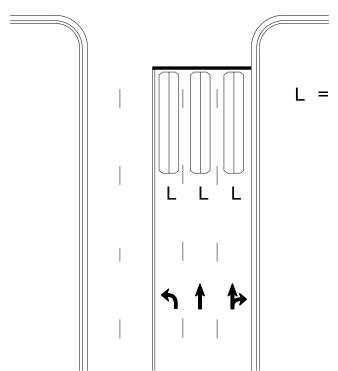




Wide Radius Turn

Channelized Turn

Side Street Detection



L = 6ft X 40ftQuadrupole loop Wired to separate detectors/channels Locate loop slightly behind leading edge of stop line —— Inductive Loop

Presence Loop Placement at Stop Lines

Note: Loop may be located in advance of stop line under any of the

- following conditions: 1) stop line is greater than 15' from edge of intersecting roadway
- 2) loop detects a permissive or protected/permissive left turn
- 3) for an exclusive right turn lane

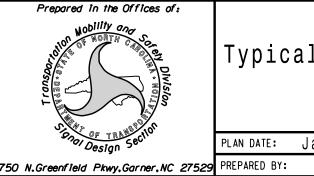
Recommended Number of Turns

Single 6' X 6' loop (when wired separately):

| TOTT WEI GO | paracory, i |
|----------------------------|--------------------|
| Length of Lead-in ft | Number of Turns |
| < 250 | 3 |
| 250-375 | 4 |
| 375-525 | 5 |
| > 525 | 6 |

Quadrupole loops: Use 2-4-2 turns

6' X 15' Loops: Lead-in < 150', use 2 turns Lead-in > 150', use 3 turns



SCALE

N/A

Typical Signal Loop Locations

PLAN DATE: January 2015 REVIEWED BY: REVIEWED BY: PLA REVISIONS INIT. DATE

PL Alexander