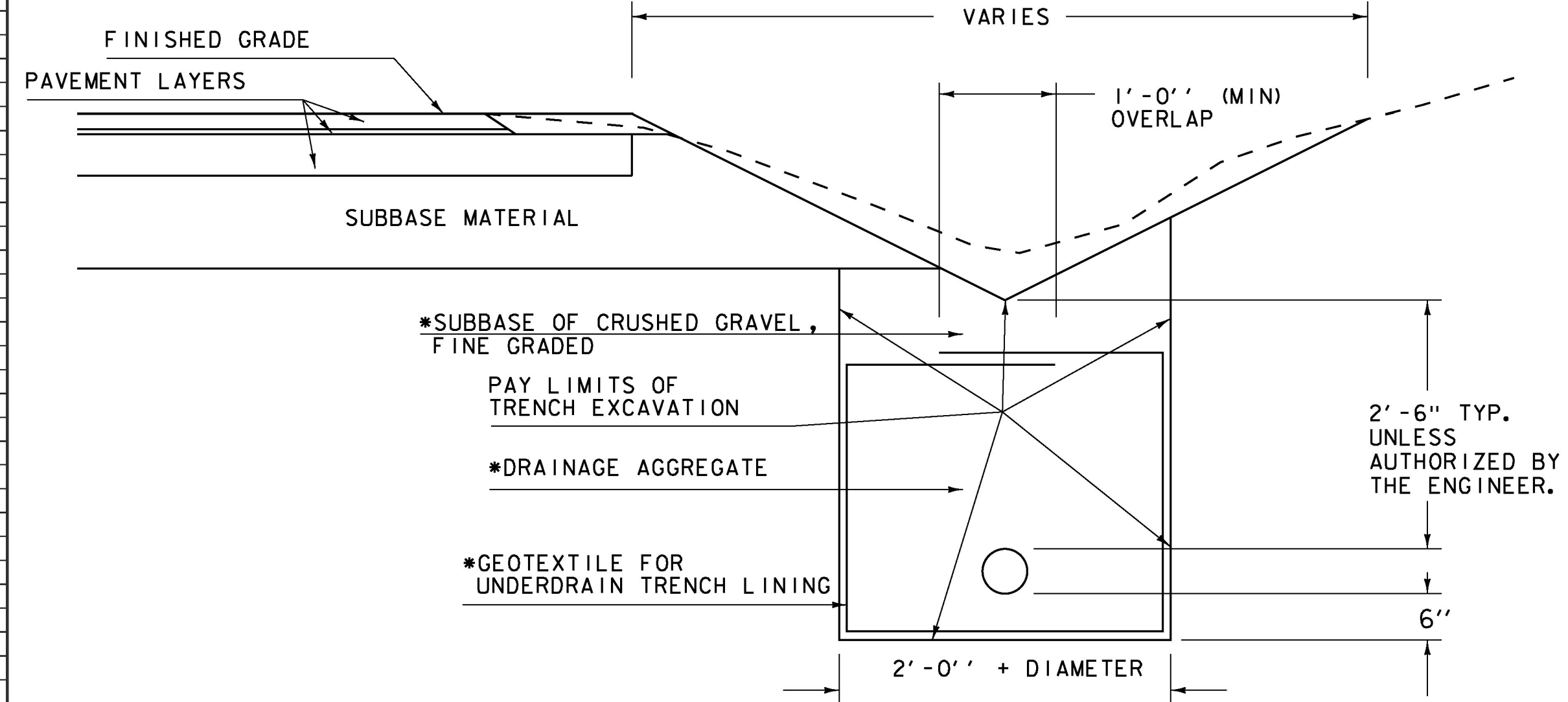


| LOCATION | | | | | MISC. ITEMS | | | | | REMARKS | | | |
|----------|---------|---|---------|--------|-------------|-------------------------------------|----------------------------|-------------------------------|--|---|--|------------------------------------|---|
| SITE | STATION | - | STATION | OFFSET | POS. | 605.10 6 INCH UNDERDRAIN PIPE | * DRAINAGE AGGREGATE | * GEOTEXTILE FOR TRENCH | 204.20 TRENCH EXCAVATION OF EARTH CY | 204.21 TRENCH EXCAVATION OF ROCK CY | * SUBBASE OF CRUSHED GRAVEL, FINE GRADED | 619.17 YIELDING MARKER POSTS | * ITEMS TO BE PAID AS PART OF ITEM 605.10 "6 INCH UNDERDRAIN PIPE" |
| | | | | | | LF | CY | SY | TON | EA | | | |
| 1 | 43+00 | - | 45+75 | 22 | LT | 275.0 | 101.9 | 427.8 | 86.6 | 15.3 | 72.2 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 2 | 44+00 | - | 45+50 | 20 | RT | 150.0 | 55.6 | 233.3 | 47.3 | 8.3 | 39.4 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 3 | 48+00 | - | 53+25 | 20 | LT | 525.0 | 194.4 | 816.7 | 165.2 | 29.2 | 137.8 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 4 | 51+00 | - | 53+00 | 20 | RT | 200.0 | 74.1 | 311.1 | 63.0 | 11.1 | 52.5 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 5 | 53+25 | - | 58+00 | 20 | RT | 475.0 | 175.9 | 738.9 | 149.5 | 26.4 | 124.7 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 6 | 53+50 | - | 58+00 | 18 | LT | 450.0 | 166.7 | 700.0 | 141.7 | 25.0 | 118.1 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 7 | 58+00 | - | 62+50 | 20 | RT | 450.0 | 166.7 | 700.0 | 141.7 | 25.0 | 118.1 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 8 | 58+50 | - | 62+25 | 20 | LT | 375.0 | 138.9 | 583.3 | 118.1 | 20.8 | 98.4 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 9 | 62+50 | - | 67+50 | 20 | LT | 500.0 | 185.2 | 777.8 | 157.4 | 27.8 | 131.3 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 10 | 68+50 | - | 70+25 | 18 | LT | 175.0 | 64.8 | 272.2 | 55.1 | 9.7 | 45.9 | 2 | OUTLET UNDERDRAIN TO DITCH |
| 11 | 68+50 | - | 70+50 | 20 | RT | 200.0 | 74.1 | 311.1 | 63.0 | 11.1 | 52.5 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 12 | 71+00 | - | 76+00 | 20 | RT | 500.0 | 185.2 | 777.8 | 157.4 | 27.8 | 131.3 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 13 | 71+00 | - | 76+00 | 20 | LT | 500.0 | 185.2 | 777.8 | 157.4 | 27.8 | 131.3 | 2 | OUTLET UNDERDRAIN TO DITCH |
| 14 | 76+50 | - | 81+50 | 20 | LT | 500.0 | 185.2 | 777.8 | 157.4 | 27.8 | 131.3 | 2 | OUTLET UNDERDRAIN TO DITCH |
| 15 | 76+50 | - | 82+00 | 20 | RT | 550.0 | 203.7 | 855.6 | 173.1 | 30.6 | 144.4 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 16 | 82+00 | - | 87+00 | 20 | LT | 500.0 | 185.2 | 777.8 | 157.4 | 27.8 | 131.3 | 2 | OUTLET UNDERDRAIN TO DITCH |
| 17 | 87+50 | - | 89+75 | 20 | LT | 225.0 | 83.3 | 350.0 | 70.8 | 12.5 | 59.1 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 18 | 90+25 | - | 93+50 | 20 | LT | 325.0 | 120.4 | 505.6 | 102.3 | 18.1 | 85.3 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 19 | 95+00 | - | 97+00 | 18 | LT | 200.0 | 74.1 | 311.1 | 63.0 | 11.1 | 52.5 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 20 | 102+00 | - | 106+00 | 20 | LT | 400.0 | 148.1 | 622.2 | 125.9 | 22.2 | 105.0 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 21 | 106+50 | - | 110+75 | 20 | LT | 425.0 | 157.4 | 661.1 | 133.8 | 23.6 | 111.6 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 22 | 107+00 | - | 110+75 | 18 | RT | 375.0 | 138.9 | 583.3 | 118.1 | 20.8 | 98.4 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 23 | 113+00 | - | 116+00 | 20 | LT | 300.0 | 111.1 | 466.7 | 94.4 | 16.7 | 78.8 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 24 | 116+50 | - | 122+00 | 20 | LT | 550.0 | 203.7 | 855.6 | 173.1 | 30.6 | 144.4 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 25 | 123+00 | - | 125+00 | 20 | LT | 200.0 | 74.1 | 311.1 | 63.0 | 11.1 | 52.5 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 26 | 126+00 | - | 132+20 | 18 | LT | 620.0 | 229.6 | 964.4 | 195.2 | 34.4 | 162.8 | 1 | CONNECT UNDERDRAIN TO CATCH BASIN (SP. PROV. "CORING CONCRETE") |
| 27 | 132+50 | - | 136+20 | 18 | LT | 370.0 | 137.0 | 575.6 | 116.5 | 20.6 | 97.1 | 1 | CONNECT UNDERDRAIN TO CATCH BASIN (SP. PROV. "CORING CONCRETE") |
| 28 | 136+50 | - | 138+00 | 20 | LT | 150.0 | 55.6 | 233.3 | 47.3 | 8.3 | 39.4 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 29 | 138+50 | - | 140+25 | 20 | LT | 175.0 | 64.8 | 272.2 | 55.1 | 9.7 | 45.9 | 2 | OUTLET UNDERDRAIN TO DRIVE PIPE |
| 30 | 140+75 | - | 142+75 | 18 | LT | 200.0 | 74.1 | 311.1 | 63.0 | 11.1 | 52.5 | 2 | OUTLET UNDERDRAIN TO DRIVE PIPE |
| 31 | 143+00 | - | 147+00 | 20 | LT | 400.0 | 148.1 | 622.2 | 125.9 | 22.2 | 105.0 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 32 | 147+75 | - | 149+25 | 20 | LT | 150.0 | 55.6 | 233.3 | 47.3 | 8.3 | 39.4 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 33 | 149+75 | - | 151+00 | 20 | LT | 125.0 | 46.3 | 194.4 | 39.4 | 6.9 | 32.8 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 34 | 151+25 | - | 157+00 | 20 | LT | 575.0 | 213.0 | 894.4 | 181.1 | 32.0 | 150.9 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 35 | 158+50 | - | 163+50 | 18 | LT | 500.0 | 185.2 | 777.8 | 157.4 | 27.8 | 131.3 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 36 | 162+00 | - | 167+00 | 20 | RT | 500.0 | 185.2 | 777.8 | 157.4 | 27.8 | 131.3 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 37 | 168+50 | - | 173+75 | 20 | RT | 525.0 | 194.4 | 816.7 | 165.2 | 29.2 | 137.8 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 38 | 169+50 | - | 173+50 | 18 | LT | 400.0 | 148.1 | 622.2 | 125.9 | 22.2 | 105.0 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 39 | 178+00 | - | 181+45 | 20 | LT | 345.0 | 127.8 | 536.7 | 108.6 | 19.2 | 90.6 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 40 | 182+50 | - | 186+00 | 18 | RT | 350.0 | 129.6 | 544.4 | 110.2 | 19.4 | 91.9 | 2 | OUTLET UNDERDRAIN TO DITCH |
| 41 | 182+50 | - | 188+25 | 18 | LT | 575.0 | 213.0 | 894.4 | 181.1 | 32.0 | 150.9 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 42 | 186+50 | - | 188+25 | 20 | RT | 175.0 | 64.8 | 272.2 | 55.1 | 9.7 | 45.9 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 43 | 188+50 | - | 193+50 | 20 | RT | 500.0 | 185.2 | 777.8 | 157.4 | 27.8 | 131.3 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 44 | 194+00 | - | 198+00 | 20 | RT | 400.0 | 148.1 | 622.2 | 125.9 | 22.2 | 105.0 | 2 | OUTLET UNDERDRAIN TO DITCH |
| 45 | 198+50 | - | 204+00 | 20 | RT | 550.0 | 203.7 | 855.6 | 173.1 | 30.6 | 144.4 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 46 | 204+25 | - | 206+75 | 18 | LT | 250.0 | 92.6 | 388.9 | 78.7 | 13.9 | 65.6 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 47 | 204+25 | - | 207+25 | 20 | RT | 300.0 | 111.1 | 466.7 | 94.4 | 16.7 | 78.8 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 48 | 207+50 | - | 209+00 | 20 | RT | 150.0 | 55.6 | 233.3 | 47.3 | 8.3 | 39.4 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |

| | | | | | | | | | | | | | |
|-----------------|--------|---|--------|----|----|----------------|----------------|----------------|---------------|---------------|---------------|--------------|---|
| 49 | 211+00 | - | 213+75 | 20 | RT | 275.0 | 101.9 | 427.8 | 86.6 | 15.3 | 72.2 | 2 | OUTLET UNDERDRAIN TO STREAM |
| 50 | 216+00 | - | 218+25 | 18 | LT | 225.0 | 83.3 | 350.0 | 70.8 | 12.5 | 59.1 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 51 | 216+75 | - | 218+25 | 20 | RT | 150.0 | 55.6 | 233.3 | 47.3 | 8.3 | 39.4 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 52 | 219+00 | - | 224+75 | 18 | RT | 575.0 | 213.0 | 894.4 | 181.1 | 32.0 | 150.9 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 53 | 225+00 | - | 230+25 | 22 | RT | 525.0 | 194.4 | 816.7 | 165.2 | 29.2 | 137.8 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 54 | 230+50 | - | 233+50 | 20 | RT | 300.0 | 111.1 | 466.7 | 94.4 | 16.7 | 78.8 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 55 | 234+00 | - | 239+00 | 20 | LT | 500.0 | 185.2 | 777.8 | 157.4 | 27.8 | 131.3 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 56 | 234+50 | - | 239+50 | 20 | RT | 500.0 | 185.2 | 777.8 | 157.4 | 27.8 | 131.3 | 2 | OUTLET UNDERDRAIN TO DRIVE PIPE |
| 57 | 239+50 | - | 244+75 | 20 | LT | 525.0 | 194.4 | 816.7 | 165.2 | 29.2 | 137.8 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 58 | 250+50 | - | 253+25 | 18 | RT | 275.0 | 101.9 | 427.8 | 86.6 | 15.3 | 72.2 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 59 | 253+90 | - | 255+50 | 22 | RT | 160.0 | 59.3 | 248.9 | 50.4 | 8.9 | 42.0 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 60 | 258+35 | - | 263+00 | 18 | RT | 465.0 | 172.2 | 723.3 | 146.4 | 25.8 | 122.1 | 2 | OUTLET UNDERDRAIN TO DITCH |
| 61 | 270+00 | - | 275+00 | 18 | LT | 500.0 | 185.2 | 777.8 | 157.4 | 27.8 | 131.3 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE |
| 62 | 320+00 | - | 321+90 | 22 | LT | 190.0 | 70.4 | 295.6 | 59.8 | 10.6 | 49.9 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 63 | 322+00 | - | 326+50 | 18 | LT | 450.0 | 166.7 | 700.0 | 141.7 | 25.0 | 118.1 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 64 | 327+00 | - | 328+45 | 20 | LT | 145.0 | 53.7 | 225.6 | 45.6 | 8.1 | 38.1 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 65 | 328+60 | - | 333+50 | 18 | LT | 490.0 | 181.5 | 762.2 | 154.3 | 27.2 | 128.6 | 2 | OUTLET UNDERDRAIN TO CROSS PIPE |
| 66 | 333+50 | - | 337+00 | 18 | LT | 350.0 | 129.6 | 544.4 | 110.2 | 19.4 | 91.9 | 2 | OUTLET UNDERDRAIN TO DITCH |
| 67 | 339+50 | - | 344+50 | 18 | LT | 515.0 | 190.7 | 801.1 | 162.1 | 28.6 | 131.3 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE RT (24' OFF) |
| 68 | 345+00 | - | 349+95 | 18 | LT | 515.0 | 190.7 | 801.1 | 162.1 | 28.6 | 129.9 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE RT (24' OFF) |
| 69 | 350+25 | - | 353+75 | 18 | LT | 365.0 | 135.2 | 567.8 | 114.9 | 20.3 | 91.9 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE RT (24' OFF) |
| 70 | 353+75 | - | 356+50 | 18 | LT | 295.0 | 109.3 | 458.9 | 92.9 | 16.4 | 72.2 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE RT (24' OFF) |
| 71 | 360+25 | - | 362+00 | 18 | LT | 190.0 | 70.4 | 295.6 | 59.8 | 10.6 | 45.9 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE RT (24' OFF) |
| 72 | 362+50 | - | 364+75 | 18 | LT | 245.0 | 90.7 | 381.1 | 77.1 | 13.6 | 59.1 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE RT (24' OFF) |
| 73 | 365+00 | - | 368+25 | 18 | LT | 325.0 | 120.4 | 505.6 | 102.3 | 18.1 | 85.3 | 2 | CONNECT UNDERDRAIN TO CATCH BASIN (SP. PROV. "CORING CONCRETE") |
| 74 | 368+25 | - | 370+50 | 18 | LT | 225.0 | 83.3 | 350.0 | 70.8 | 12.5 | 59.1 | 2 | CONNECT UNDERDRAIN TO CATCH BASIN (SP. PROV. "CORING CONCRETE") |
| 75 | 370+50 | - | 374+00 | 18 | LT | 365.0 | 135.2 | 567.8 | 114.9 | 20.3 | 91.9 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE RT (24' OFF) |
| 76 | 374+00 | - | 376+50 | 18 | LT | 265.0 | 98.1 | 412.2 | 83.4 | 14.7 | 65.6 | 2 | OUTLET UNDERDRAIN TO SIDE SLOPE RT (24' OFF) |
| SUBTOTAL | | | | | | 27515.0 | 10191.0 | 42801.3 | 8662.4 | 1528.7 | 7187.3 | 150.0 | |
| ROUNDING | | | | | | 485.0 | | | | | | | |
| TOTAL | | | | | | 28000.0 | 10191.0 | 42801.3 | ** | ** | 7187.3 | ** | ** SEE QUANTITY SHEETS FOR TOTAL QUANTITIES. |



DRAINAGE AGGREGATE SHALL MEET THE REQUIREMENTS OF SUBSECTION 704.16.
 * MATERIALS ARE INCLUDED IN THE UNIT PRICE BID FOR PAY ITEM 605.10 "6 INCH UNDERDRAIN PIPE"

UNDERDRAIN DETAIL

- NOTES:**
1. GEOTEXTILE FOR UNDERDRAIN TRENCH LINING SHALL NOT BE PLACED AROUND UNDERDRAIN WHEN COVER ABOVE UNDERDRAIN IS LESS THAN 1 FOOT.
 2. THE END OF THE UNDERDRAIN PIPE AT THE BEGINNING OF ALL UNDERDRAIN RUNS SHALL BE WRAPPED IN GEOTEXTILE FABRIC. PAYMENT FOR THE WORK IS INCLUDED IN THE UNIT PRICE BID FOR ITEM 605.10 "6 INCH UNDERDRAIN PIPE".

| | |
|-------------------------|----------------|
| PROJECT NAME: | HANCOCK |
| PROJECT NUMBER: | STP 2923 (1) |
| FILE NAME: | z10c252det.dgn |
| DESIGNED BY: | B. MARTIN |
| CHECKED BY: | C. LATHROP |
| UNDERDRAIN DETAIL SHEET | |
| PLOT DATE: | 3/18/2015 |
| DRAWN BY: | J. GOODALL |
| SHEET | 31 OF 207 |