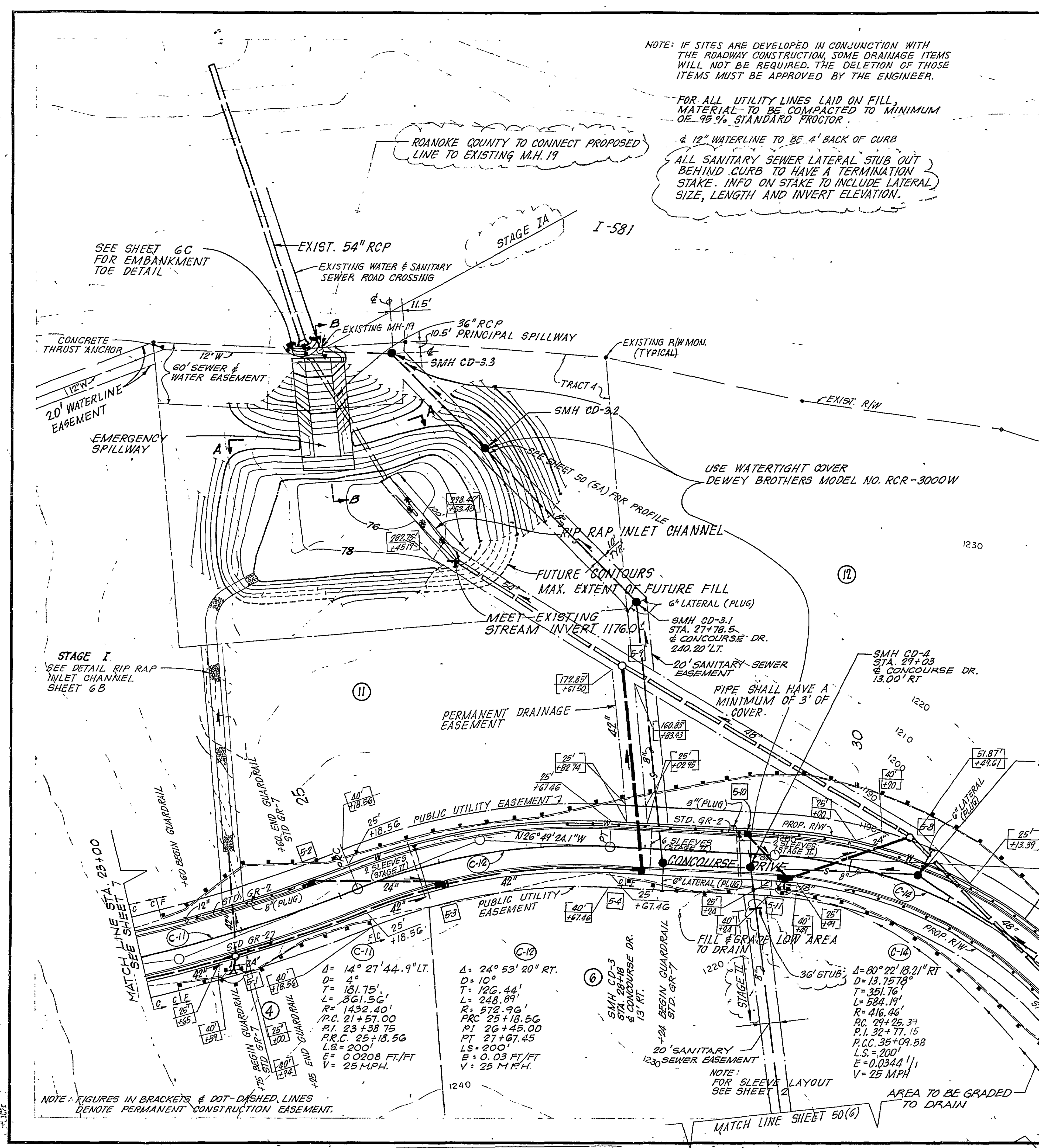




| SANITARY SEWER SCHEDULE      |           |          |         |          |             |           |           |
|------------------------------|-----------|----------|---------|----------|-------------|-----------|-----------|
| MH/LINE DESIGNATION          | TOP ELEV. | MH DEPTH | INV. IN | INV. OUT | LENGTH (FT) | SLOPE (%) | PIPE SIZE |
| EXIST. MH-19 FROM SMH CD-3.3 | 1185.00   | 15.0'    | 1164.50 | 1170.00  | 72'         | 7.64%     | 8"        |
| SMH CD-3.3 FROM SMH CD-3.2   | 1190.00   | 6'       | 1184.50 | 1184.00  | 129'        | 3.88%     | 8"        |
| SMH CD-3.2 FROM SMH CD-3.1   | 1200.00   | 9.8'     | 1191.00 | 1190.50  | 210'        | 2.86%     | 8"        |
| SMH CD-3.1 FROM SMH CD-3     | 1215.26   | 18.76'   | 1200.00 | 1199.50  | 255'        | 3.33%     | 8"        |
| SMH CD-3 FROM SMH CD-4       | 1213.92   | 10.12'   | 1204.00 | 1203.80  | 85'         | 4.47%     | 8"        |
| SMH CD-4 FROM SMH CD-4.2     | 1215.69   | 8.19'    | 1208.00 | 1207.50  | 162'        | 2.16%     | 8"        |
| SMH CD-4.2 FROM SMH CD-4.3   | 1217.87   | 5.10'    | 1212.97 | 1212.77  | 165'        | 2.89%     | 8"        |
| SMH CD-4.3 FROM SMH CD-5     | 1220.80   | 4.40'    | 1216.90 | 1216.40  | 125'        | 2.74%     | 8"        |
| SMH CD-5 FROM SMH CD-5.1     | 1224.57   | 5.77'    | 1218.80 | 1218.80  | 155'        | 1.23%     | 8"        |
| SMH CD-4 FROM ** SMH CD-4.1  | 1213.92   | 10.5'    | 1204.30 | 1226.00  | 322'        | 6.68%     | 8"        |

\* APPROXIMATE ELEVATION - ADJUST TO MATCH EXISTING BENCH. CONNECTION TO MH-19 TO BE CONSTRUCTED BY ROANOKE COUNTY.  
\*\* 36" STAGE 1A

| STORM DRAIN SCHEDULE |         |        |         |        |            |          |           |        |         |          |       |              |                     |
|----------------------|---------|--------|---------|--------|------------|----------|-----------|--------|---------|----------|-------|--------------|---------------------|
| STRUCT. NO.          | TYPE    | LENGTH | INV.    | H or D | FROM POINT | TO POINT | PIPE SIZE | LENGTH | INV. IN | INV. OUT | SLOPE | HEIGHT COVER | REMARKS             |
| 5-1                  | MH-10x2 | -      | 1205.57 | 19.16  | INLET      | 5-1      | 24"       | 121    | 1215.0  | 1214.8   | .0167 | 7'           | ST. ES-1 REQ'D. RT. |
| 5-2                  | DI-35   | 18'    | 1217.56 | 4.67   | 5-2        | 5-3      | 40"       | 206'   | 1205.57 | 1204.33  | .006  | 15'          | I-MH Only           |
| 5-3                  | DI-48B  | 14'    | 1204.33 | 15.23  | 5-3        | 5-4      | 24"       | 124'   | 1217.56 | 1216.0   | .0126 | 2'           | II                  |
| 5-4                  | DI-48B  | 12'    | 1202.10 | 13.76  | 5-4        | 5-5      | 40"       | 172'   | 1204.33 | 1202.10  | .0130 | 13'          | II                  |
| 5-5                  | DI-30   | 6'     | 1117.84 | 3.92   | 5-5        | 5-6      | 36"       | 146'   | 1202.10 | 1198.71  | .0328 | 20'          | ST. ES-1 REQ'D. RT. |
| 5-6                  | DI-30   | 6'     | 1117.84 | 3.92   | 5-6        | 5-7      | 36"       | 146'   | 1217.84 | 1216.84  | .0072 | 2'           | II                  |
| 5-7                  | MH-10x2 | -      | 1198.61 | 20.66  | 5-7        | 5-8      | 30"       | 308'   | 1204.20 | 1194.21  | .0331 | 19'          | ST. ES-1 REQ'D. RT. |
| 5-8                  | MH-2    | -      | 1188.40 | 26.60  | 5-8        | 5-9      | 48"       | 140'   | 1193.56 | 1188.40  | .0359 | 22'          | ST. ES-1 REQ'D. RT. |
| 5-9                  | MH-2    | -      | 1180.5  | 34.53  | 5-9        | 5-10     | 54"       | 180'   | 1180.5  | 1176.0   | .0250 | 24'          | ST. ES-1 AT OUTLET  |
| 5-10                 | DI-30   | 12'    | 1207.87 | 6.00   | 5-10       | 5-11     | 24"       | 124'   | 1207.87 | 1206.50  | .0110 | 5'           | FOR TEMP. DRAIN     |
| 5-11                 | DI-30   | 12'    | 1207.87 | 6.00   | 5-11       | 5-12     | 18"       | 6'     | 1210.0  | 1209.50  | .0083 | 4'           | TEMPORARY PIPE      |
| 5-12                 | DI-30   | 12'    | 1207.87 | 6.00   | 5-12       | 5-13     | 42"       | 100'   | 1205.57 | 1204.77  | .008  | 15'          | II                  |

\*\* STRUCT. NO. 5-5 SHALL BE A DI-7A INLET TO DRAIN TEMP. CUL-DE-SAC.  
TEMP. STRUCT. 5-5 DI-7A INV. 1198.61 4" x 22.09 GRATE ELEV. 1220.70 GRATE A, TYPE II.  
\* MH 5-9 TO BE RAISED WHEN FUTURE FILL IS PLACED.

| REVISION                                                                                 | DATE  | DESCRIPTION                                                      | BY                                | APP.             |
|------------------------------------------------------------------------------------------|-------|------------------------------------------------------------------|-----------------------------------|------------------|
| 1                                                                                        | 5/90  | REMOVED RESEARCH ROAD - REVISED CONCOURSE DRIVE                  | JLS                               | JSH              |
| 2                                                                                        | 3/89  | ADDED 48" PIPE & RIP-RAP INLET CHANNEL                           | JLS                               | JSH              |
| 3                                                                                        | 11/88 | UTILITY SLEEVES ADDED                                            | JLS                               | JSH              |
| 4                                                                                        | 11/88 | VALLEY POINTE DRIVE REMOVED & CONCOURSE DR. & RESEARCH RD. ADDED | JLS                               | JSH              |
| DESIGNED: J.L.S.                                                                         |       |                                                                  |                                   |                  |
| DRAWN: J.L.S.                                                                            |       |                                                                  |                                   |                  |
| CHECKED: J.L.S.                                                                          |       |                                                                  |                                   |                  |
| APPROVED: J.P.B.                                                                         |       |                                                                  |                                   |                  |
| SUBMITTED: J.P.B.                                                                        |       |                                                                  |                                   |                  |
| LINGERFELT DEVELOPMENT CORPORATION<br>VALLEY POINTE - PHASE I<br>STAGE 1A                |       |                                                                  | SITE UTILITIES<br>CONCOURSE DRIVE |                  |
| HAYES, SEAY, MATTERN & MATTERN<br>ARCHITECTS - ENGINEERS - PLANNERS<br>ROANOKE, VIRGINIA |       |                                                                  | SCALE: 1"=50'                     | COMM. NO. 5268 B |
|                                                                                          |       |                                                                  | DATE: JUNE 1988                   | SHEET 50(5)      |