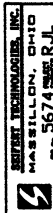


| APPLICATION                                            | READ OUT | REM READ OUT | RUN TIME METER | RUN LIGHT | REM RUN LIGHT | ALARM LIGHT | ALARM LIGHT | REM AL LIGHT | REM AL LIGHT | CONTROL | SENSOR | LOOP |
|--------------------------------------------------------|----------|--------------|----------------|-----------|---------------|-------------|-------------|--------------|--------------|---------|--------|------|
| SCUM CONCENTRATOR COLLECTOR SCC-1                      |          |              | KQI-410        | EL-411    | EL-412        | IAH-413     |             | IAH-414      |              | HS-415  |        | 23   |
| FIRST STAGE SCREW PUMP FSSP-1                          |          |              | KQI-418        | EL-419    | EL-420        | XAH-421     |             | XAH-422      |              | HS-423  | XS-424 | 24A  |
| FIRST STAGE SCREW PUMP FSSP-2                          |          |              | KQI-426        | EL-427    | EL-428        | XAH-429     |             | XAH-430      |              | HS-431  | XS-433 | 24B  |
| SECOND STAGE SCREW PUMP SSSP-1                         |          |              | KQI-434        | EL-435    | EL-436        | XAH-437     |             | XAH-438      |              | HS-439  | XS-440 | 25A  |
| SECOND STAGE SCREW PUMP SSSP-2                         |          |              | KQI-442        | EL-443    | EL-444        | XAH-445     |             | XAH-446      |              | HS-447  | XS-448 | 25B  |
|                                                        |          |              |                |           |               |             |             |              |              |         |        |      |
| AERATION TANK BLOWER ATB-1                             |          |              | KQI-458        | EL-459    | EL-460        | IAH-461     |             | IAH-462      |              | HS-463  |        | 26A  |
| AERATION TANK BLOWER ATB-2                             |          |              | KQI-466        | EL-467    | EL-468        | IAH-469     |             | IAH-470      |              | HS-471  |        | 26B  |
| AERATION TANK BLOWER ATB-3                             |          |              | KQI-474        | EL-475    | EL-476        | IAH-477     |             | IAH-478      |              | HS-479  |        | 26C  |
| AERATION TANK BLOWER ATB-4 (FUTURE)                    |          |              | KQI-482        | EL-483    | EL-484        | IAH-485     |             | IAH-486      |              | HS-487  |        | 26D  |
| AERATION TANK #1 DISSOLVED OXYGEN                      | AI-489   | AI-490       |                |           |               | LAL-491     |             | LAL-492      |              |         |        | 27A  |
| AERATION TANK #2 DISSOLVED OXYGEN                      | AI-494   | AI-495       |                |           |               | LAL-496     |             | LAL-497      |              |         |        | 27B  |
| AERATION TANK #3 DISSOLVED OXYGEN                      | AI-499   | AI-500       |                |           |               | LAL-501     |             | LAL-502      |              |         |        | 27C  |
|                                                        |          |              |                |           |               |             |             |              |              |         |        |      |
| SECONDARY CLARIFIER COLLECTOR SC-1                     |          |              | KQI-508        | EL-509    | EL-510        | XAH-511     |             | XAH-512      |              | HS-513  | XS-514 | 30A  |
| SECONDARY CLARIFIER COLLECTOR SC-2                     |          |              | KQI-516        | EL-517    | EL-518        | XAH-519     |             | XAH-520      |              | HS-521  | XS-522 | 30B  |
| SECONDARY CLARIFIER COLLECTOR SC-3                     |          |              | KQI-524        | EL-525    | EL-526        | XAH-527     |             | XAH-528      |              | HS-529  | XS-530 | 30C  |
| SECONDARY CLARIFIER COLLECTOR SC-4                     |          |              | KQI-532        | EL-533    | EL-534        | XAH-535     |             | XAH-536      |              | HS-537  | XS-538 | 30D  |
| SECONDARY CLARIFIER COLLECTOR SC-5                     |          |              | KQI-540        | EL-541    | EL-542        | XAH-543     |             | XAH-544      |              | HS-545  | XS-539 | 30E  |
|                                                        |          |              |                |           |               |             |             |              |              |         |        |      |
| AERATION TANK #1 DISSOLVED OXYGEN                      | FI-550   | FI-551       |                |           |               |             |             |              |              |         |        |      |
| AERATION TANK #2 DISSOLVED OXYGEN                      | FI-554   | FI-555       |                |           |               |             |             |              |              |         |        |      |
| AERATION TANK #3 DISSOLVED OXYGEN                      | FI-558   | FI-559       |                |           |               |             |             |              |              |         |        |      |
|                                                        |          |              |                |           |               |             |             |              |              |         |        |      |
| TOTAL SECONDARY CLARIFIER UNDERFLOW                    | FI-571   | FI-572       |                |           |               | FAL-573     |             | FAL-574      |              | FIC-575 |        |      |
|                                                        |          |              |                |           |               |             |             |              |              |         |        |      |
| RETURN ACTIVATED SLUDGE PUMP RASP-4                    |          |              | KQI-576        | EL-577    | EL-578        | IAH-579     |             | IAH-580      |              | HS-581  |        | 32D  |
| RETURN ACTIVATED SLUDGE PUMP RASP-1                    |          |              | KQI-586        | EL-587    | EL-588        | IAH-589     |             | IAH-590      |              | HS-591  |        | 32A  |
| RETURN ACTIVATED SLUDGE PUMP RASP-2                    |          |              | KQI-594        | EL-595    | EL-596        | IAH-597     |             | IAH-598      |              | HS-599  |        | 32B  |
| RETURN ACTIVATED SLUDGE PUMP RASP-3                    |          |              | KQI-602        | EL-603    | EL-604        | IAH-605     |             | IAH-606      |              | HS-607  |        | 32C  |
|                                                        |          |              |                |           |               |             |             |              |              |         |        |      |
| AERATION TANK #1 RETURN SLUDGE FLOW                    | FI-610   | FI-611       |                |           |               | FAL-612     |             | FAL-613      |              | FE-609  | FT-614 | 33A  |
| AERATION TANK #2 RETURN SLUDGE FLOW                    | FI-615   | FI-616       |                |           |               | FAL-617     |             | FAL-618      |              | FE-619  | FT-636 | 33B  |
| AERATION TANK #3 RETURN SLUDGE FLOW                    | FI-620   | FI-621       |                |           |               | FAL-622     |             | FAL-623      |              | FE-624  | FT-641 | 33C  |
| TOTAL RETURN SLUDGE FLOW                               | FI-625   | FI-626       |                |           |               | FAL-627     |             | FAL-628      |              |         |        |      |
| WASTE ACTIVATED SLUDGE FLOW                            | FI-630   | FI-631       |                |           |               | FAL-632     |             | FAL-633      |              |         |        | 34   |
|                                                        |          |              |                |           |               |             |             |              |              |         |        |      |
|                                                        |          |              |                |           |               |             |             |              |              |         |        |      |
| ULTRAVIOLET DISINFECTION                               |          |              |                | EL-647    | EL-648        | LAL-649     |             | LAL-650      |              |         |        |      |
|                                                        |          |              |                |           |               |             |             |              |              |         |        |      |
| PLANT EFFLUENT FLOW                                    | FI-652   | FI-653       |                |           |               | LAL-654     |             | LAL-655      |              |         |        |      |
| PLANT EFFLUENT SAMPLER                                 | FI-657   | FI-658       |                |           |               | LAL-659     |             | LAL-660      |              |         |        |      |
| PLANT EFFLUENT WATER TEMPERATURE                       | TI-662   | TI-663       |                |           |               |             |             |              |              |         |        |      |
| PLANT EFFLUENT PH                                      | AI-667   | AI-668       |                |           |               | LAH-669     |             | LAH-670      |              |         |        |      |
| PLANT EFFLUENT DISSOLVED OXYGEN                        | AI-671   | AI-672       |                |           |               | LAL-673     |             | LAL-674      |              |         |        |      |
| PLANT EFFLUENT PUMP PEP-1                              |          |              | KQI-676        | EL-677    | EL-678        | IAH-679     |             | IAH-680      |              | HS-681  |        |      |
| PLANT EFFLUENT PUMP PEP-2                              |          |              | KQI-684        | EL-685    | EL-686        | IAH-687     |             | IAH-688      |              | HS-689  |        |      |
| PLANT EFFLUENT PUMP PEP-3                              |          |              | KQI-690        | EL-691    | EL-692        | IAH-693     |             | IAH-694      |              | HS-695  |        |      |
| COMBINED SLUDGE WET WELL CSWW-1                        |          |              |                |           |               | LAH-696     |             | LAH-697      |              |         |        |      |
| COMBINED SLUDGE WET WELL CSWW-2                        |          |              |                |           |               | LAH-698     |             | LAH-699      |              |         |        |      |
| COMBINED SLUDGE WET WELL BLOWER CSWWB-1                |          |              | KQI-702        | EL-703    | EL-704        | IAH-705     |             | IAH-706      |              | HS-707  |        |      |
| COMBINED SLUDGE WET WELL BLOWER CSWWB-2                |          |              | KQI-710        | EL-711    | EL-712        | IAH-713     |             | IAH-714      |              | HS-715  |        |      |
|                                                        |          |              |                |           |               |             |             |              |              |         |        |      |
| GRAVITY BELT THICKENER FEED PUMP GBTFP-1               |          |              | KQI-718        | EL-719    | EL-720        | IAH-721     |             | IAH-722      |              | HS-723  |        | 50A  |
| GRAVITY BELT THICKENER FEED PUMP GBTFP-2               |          |              | KQI-726        | EL-727    | EL-728        | IAH-729     |             | IAH-730      |              | HS-731  |        | 50B  |
| GRAVITY BELT THICKENER FEED PUMP GBTFP-3               |          |              | KQI-732        | EL-733    | EL-734        | IAH-735     |             | IAH-736      |              | HS-737  |        | 50C  |
| GRAVITY BELT THICKENER GBT-1                           |          |              | KQI-742        | EL-743    | EL-744        | IAH-745     |             | IAH-746      |              | HS-747  |        | 51A  |
| GRAVITY BELT THICKENER GBT-2                           |          |              | KQI-750        | EL-751    | EL-752        | IAH-753     |             | IAH-754      |              | HS-755  |        | 51B  |
|                                                        |          |              |                |           |               |             |             |              |              |         |        |      |
| ADMIN BLDG PUMP HIGH WATER LEVEL                       |          |              |                |           |               | LAH-760     |             | LAH-761      |              | LIC-762 |        |      |
|                                                        |          |              |                |           |               |             |             |              |              |         |        |      |
| RIVER LEVEL                                            |          |              |                |           |               | LAH-767     |             | LAH-768      |              | LIC-769 |        |      |
|                                                        |          |              |                |           |               |             |             |              |              |         |        |      |
| GRAVITY BELT THICKENER #1 FLOW                         | FI-779   | FI-780       |                |           |               | LAL-781     |             | LAL-782      |              |         |        | 52A  |
| GRAVITY BELT THICKENER #2 FLOW                         | FI-784   | FI-785       |                |           |               | LAL-786     |             | LAL-787      |              |         |        | 52B  |
| GRAVITY BELT THICKENER WASHWATER BOOSTER PUMP GBTWBP-1 |          |              | KQI-790        | EL-791    | EL-792        | IAH-793     |             | IAH-794      |              | HS-795  |        | 53A  |
| GRAVITY BELT THICKENER WASHWATER BOOSTER PUMP GBTWBP-2 |          |              | KQI-798        | EL-799    | EL-800        | IAH-801     |             | IAH-802      |              | HS-803  |        | 53B  |

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ENGINEERS IN WATER AND EARTH SCIENCES  
UNIONTOWN, OHIO

CITY OF MASSILLON, OHIO  
WWTP UPGRADE 2000  
INSTRUMENT AND CONTROLS LIST



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| CHECKED BY  | SI/R/L |              |      |    |       |
| APPROVED BY | SI/R/L |              |      |    |       |

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