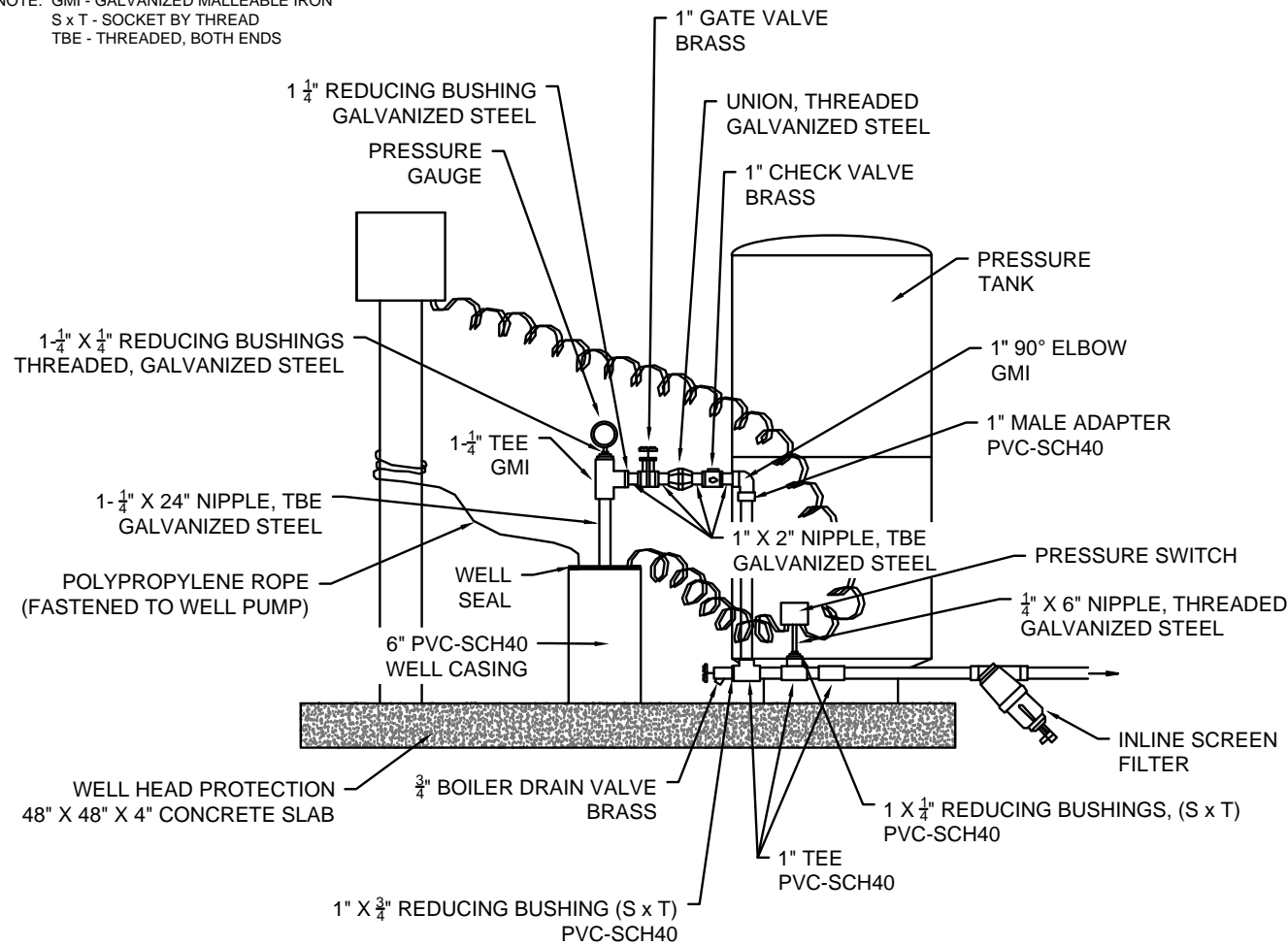


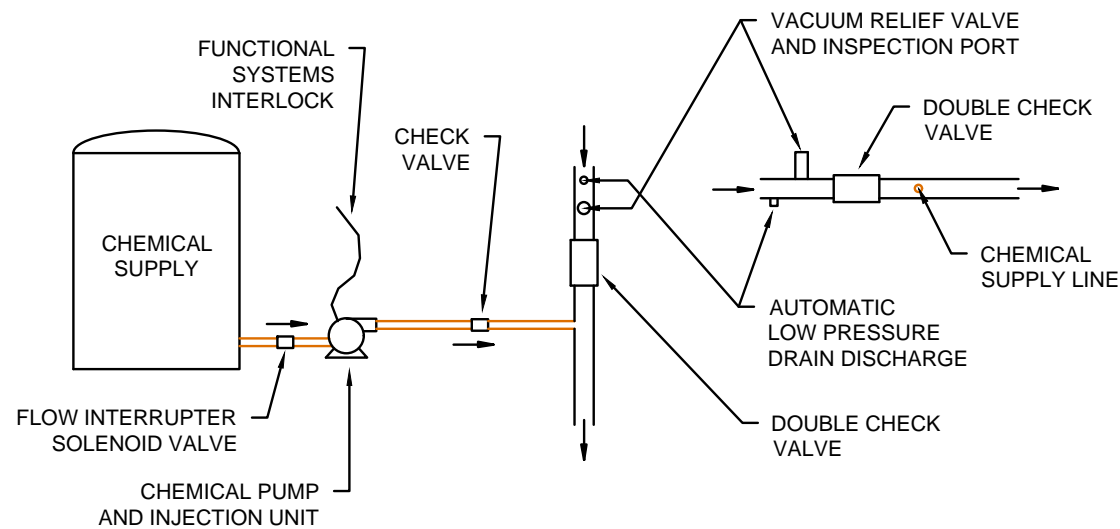
NOTE: GMI - GALVANIZED MALLEABLE IRON  
S x T - SOCKET BY THREAD  
TBE - THREADED, BOTH ENDS



**TYPICAL PUMPING STATION DETAIL**

NOT TO SCALE

PIPE & FITTING SIZES VARY WITH WELL AND IRRIGATION SYSTEM REQUIREMENTS



**TYPICAL FERTIGATION/CHEMIGATION DETAIL**

NOT TO SCALE

PIPE & FITTING SIZES VARY WITH WELL AND IRRIGATION SYSTEM REQUIREMENTS

**WELL CONSTRUCTION**

ALL WELLS MUST BE CONSTRUCTED BY A NC LICENSED WELL DRILLER WITH SETBACKS ACCORDING TO THE GREATER OF NRCS STANDARD 642 OR NCAC 15A 2C WELL CONSTRUCTION STANDARDS. THE WELL MUST BE CONSTRUCTED IN ACCORDANCE WITH NC LAW BY A CERTIFIED WELL DRILLER.

**SETBACK REQUIREMENTS**

|   |        |
|---|--------|
| SANITARY LANDFILL   | 500 ft |
| WASTE DISPOSAL LAGOON OR HOLDING POND   | 300 ft |
| SEPTIC TANK AND DISPOSAL FIELD  | 100 ft |
| PERMANENT LIVESTOCK FEEDING AREA (CONCRETE PADS OR HEAVY USE AREAS, ETC.)                     | 100 ft |
| LIVESTOCK BARN  | 100 ft |
| MANURE PILE   | 100 ft |
| WASTE IRRIGATION SITES  | 100 ft |
| FERTILIZER, PESTICIDE, OR OTHER CHEMICAL STORAGE AREAS  | 100 ft |
| NON-HAZARDOUS/INERT DEBRIS LANDFILLS (SLUMP DUMPS)  | 100 ft |
| GRAVITY SEWER LINE OR TRANSFER STATION (NON WATER TIGHT)                                      | 100 ft |
| REGULATED FUEL OR CHEMICAL STORAGE TANKS (WITHOUT SECONDARY CONTAINMENT)                      | 100 ft |
| AGRICHEMICAL HANDLING AND MIXING FACILITY   | 100 ft |
| REGULATED FUEL OR CHEMICAL STORAGE TANKS (WITH SECONDARY CONTAINMENT)                         | 50 ft  |
| GRAVITY SEWER LINE OR TRANSFER STATION (WATER TIGHT)  | 50 ft  |
| HEATING FUEL STORAGE STANKS (ABOVE AND BELOW GROUND)  | 50 ft  |
| PONDS, LAKES, RESERVOIRS  | 50 ft  |
| OTHER POSSIBLE SOURCES OF CONTAMINATION (LIVESTOCK WATERING TANK, EQUIPMENT WASH AREAS, ETC.) | 50 ft  |
| STREAMS, CREEKS, RIVERS, ETC.   | 25 ft  |
| BUILDING FOUNDATIONS  | 25 ft  |

**GENERAL WELL SITING NOTES**

- IF POSSIBLE, WELLS SHALL BE LOCATED IN GROUND THAT IS HIGHER THAN ANY SOURCE OF CONTAMINATION.
- WELLS SHALL NOT BE LOCATED IN A FLOOD PRONE AREA OR WHERE SURFACE FLOW OF ANY VOLUME SHOULD BE EXPECTED. AREAS TO BE AVOIDED INCLUDE: CONCAVE SLOPE, ALLUVIAL OR COLLUVIAL SOILS, GULLIES, DEPRESSIONS AND DRAINAGE WAYS.
- SURFACE RUNOFF THAT MIGHT REACH THE WELL FROM AN AREA USED BY LIVESTOCK SHALL BE DIVERTED AWAY FROM THE WELL HEAD.
- AREAS WITH OVERHEAD AND/OR UNDERGROUND UTILITIES SHOULD BE AVOIDED.
- WELLS MUST BE READILY ACCESSIBLE FOR MAINTENANCE AND REPAIR.
- IF REQUIRED, WELL SHALL BE PERMITTED, INSPECTED, AND SAMPLED BY THE COUNTY HEALTH DEPARTMENT.

**IDENTIFICATION PLATES**

THE WELL CONTRACTOR MUST ATTACH AN IDENTIFICATION PLATE TO THE WELL HEAD AND A PUMP INSTALLATION INFORMATION PLATE ON THE PUMP THAT COMPLIES WITH CURRENT NORTH CAROLINA WELL LAW.

**FERTIGATION AND CHEMIGATION**

**WATER SUPPLY MAIN LINE**

- AUTOMATIC LOW PRESSURE DRAIN - LOCATED BETWEEN DISCHARGE SIDE OF IRRIGATION PUMP AND THE INLET SIDE OF DOUBLE CHECK VALVES PRECEDING PESTICIDE SUPPLY. SHALL DISCHARGE AT LEAST 20 FT FROM ANY WATER SUPPLY AND CONTROLLED FROM RE-ENTERING THE WATER SUPPLY
- INSPECTION PORT - LOCATED BETWEEN IRRIGATION PUMP DISCHARGE AND INLET OF MAINLINE CHECK VALVES. ALLOWS INSPECTION FOR MAINLINE CHECK VALVE LEAKAGE
- VACUUM RELIEF VALVE - LOCATED ON TOP OF THE IRRIGATION PIPELINE BETWEEN IRRIGATION PUMP DISCHARGE AND INLET OF MAINLINE CHECK VALVES. ORIFICE SIZE SHALL BE 3/16 THE DIAMETER OF THE MAIN LINE PIPE. PREVENTS CHEMICAL BACKSIPHONING
- DOUBLE CHECK VALVE - LOCATED BETWEEN VACUUM RELIEF VALVE AND THE POINT OF CHEMICAL/FERTILIZER INJECTION. MUST BE WITHIN 10° OF HORIZONTAL. MUST HAVE POSITIVE CLOSING ACTION AND A WATERTIGHT SEAL. PREVENTS CHEMICAL BACKSIPHONING.

**FERTIGATION/CHEMIGATION SUPPLY LINE**

- CHECK VALVE - LOCATED BETWEEN LINE CONNECTION TO WATER SUPPLY AND CHEMICAL INJECTION UNIT. PREVENTS WATER BACKFLOW INTO CHEMICAL SUPPLY. SHALL BE CONSTRUCTED OF CHEMICAL RESISTANT MATERIAL. FLUSH WITH CLEAN WATER AFTER CHEMICAL INJECTION TO CLEAR CHEMICAL PRECIPITATES.
- FLOW INTERRUPTION DEVICE, SOLENOID VALVE - LOCATED BETWEEN CHEMICAL INJECTION UNIT AND CHEMICAL CONTAINER. PROVIDES POSITIVE SHUT OFF ON THE SUPPLY LINE AND PREVENTS CHEMICALS AND WATER FROM FLOWING IN EITHER DIRECTION IF CHEMICAL PUMP IS STOPPED.

**NOTES**

- FUNCTIONAL SYSTEMS INTERLOCK - THE WATER SUPPLY PUMP AND CHEMICAL INJECTION PUMP MUST BE CONNECTED SO THAT IF THE WATER SUPPLY PUMP STOPS, THE CHEMICAL INJECTION PUMP WILL STOP. THIS ENSURES THAT CHEMICALS/FERTILIZER IS APPLIED WITH WATER THROUGH THE SYSTEM.
- MEDIA FILTERS - CHEMICAL/FERTILIZER INJECTION MUST OCCUR ON THE OUTLET SIDE OF ALL MEDIA FILTERS. A CHECK VALVE IS REQUIRED BETWEEN MEDIA FILTERS AND POINT OF INJECTION.

**SITE INFORMATION AND WELL FLOW ESTIMATE**

APPROXIMATE LOCATION:

LAT \_\_\_\_\_ LONG \_\_\_\_\_

LANDOWNER: \_\_\_\_\_

LIVESTOCK TYPE: \_\_\_\_\_

NUMBER OF HEAD: \_\_\_\_\_

MONTHLY DEMAND: \_\_\_\_\_ AC-FT

WELL FLOW RATE: \_\_\_\_\_ GPM (ESTIMATE)

ACTUAL WELL FLOW RATE SHALL BE DETERMINED BY THE WELL DRILLER AT THE TIME OF DRILLING.

NOTES:

Date \_\_\_\_\_  
 Designed \_\_\_\_\_  
 AGWRAP IRRIGATION WELL  
 COUNTY, NORTH CAROLINA  
 DIVISION OF SOIL AND WATER CONSERVATION  
 WELL SITING AND DETAILS  
 NORTH CAROLINA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES  
 DSWC Address: 216 West Jones St., Raleigh, NC 27604  
 Phone: 919-707-3770

| REVISIONS |          |       |
|-----------|----------|-------|
| DATE      | APPROVED | TITLE |
|           |          |       |
|           |          |       |
|           |          |       |

Sheet No. 1  
of 1