SECTION 02813 - LAWN SPRINKLER PIPING

1.1 SUMMARY

A. Piping, valves, sprinklers, specialties, accessories, controls, and wiring for irrigation systems.

1.2 GENERAL

A. Irrigation systems should be considered for all landscape renovations and new building installations.

1.3 SYSTEM PERFORMANCE

A. Minimum Water Coverage: 100 percent of turf and planting areas.

1.4 SUBMITTALS

A. Engineering Drawings: For a complete installation, indicate locations of valves, sprinkler heads, and controls. Provide engineering calculations for water flow, pipe sizes, coverage, etc.

1.5 MATERIALS

A. Piping:

1. To external point on connection, Pressure Piping: Type M (Type C) hard copper tube

2. Underground, Main Line Pressure Piping: Class 200 SDR21 PVC Pipe

3. Circuit Piping: 3408 HDPE or SDR21 PVC Pipe

4. Underground Branches at Sprinklers and Devices:
   - 1 to 6 gallons of flow at sprinkler- Unitized polyethylene Swing Joint
   - 7 gallons and above flow- Schedule 40 unitized PVC Swing Joint

5. Point of connection Winterization Device: Bronze quick coupler connection

B. Valves:

1. Aboveground, Shut-off Duty: Bronze non-rising stem gate valve underground rated

2. Underground, Shut-off Duty:
   - 1 to 2 ½” – Underground rated bronze non-rising stem gate valve
   - 3” + - Cast iron resilient wedge gate valve

3. Control: Glass-filled nylon solenoid valve

4. Service Boxes: Structural Foam (Ametek or Carson)

5. Sprinklers: Flush surface; Bubbler; Shrubbery; pop-up, fixed-pattern spray; Pop-up, rotary spray, Pop-up, rotary impact; or Aboveground, rotary impact as anticipated service area require. To be Rainbird- Models to be reviewed by owner.
6. Specialties: Water regulators, Pressure gauges, Pressure regulators, Single outlet emitters, Multiple-outlet emitters and Drip tubes, to be reviewed by owner.

7. Automatic Control System: Low voltage, with exterior or interior control enclosure, transformer, timing device and wiring to be a Rainbird Maxicom Compatible Controller.

1.6 FIELD QUALITY CONTROL

A. Mainline Hydrostatic Testing @ 150% of system operating pressure

B. Commissioning activities

END OF SECTION 02813