

**SECTION 328423
UNDERGROUND SPRINKLERS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Evaluation and adjustment of the existing irrigation system heads, valves/boxes, and piping.
- B. Evaluation of irrigation pump pressures and determination if they need to be adjusted.

1.02 RELATED REQUIREMENTS

- A. Section 329117 - Athletic Field Natural Grass Root Zone
- B. Section 312316.13 - Trenching: Excavating and backfilling for irrigation system components.

1.03 REFERENCE STANDARDS

- A. ASTM D2241 - Standard Specification for Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series); 2015.
- B. ASTM D2564 - Standard Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems; 2012.

1.04 QUALITY ASSURANCE

- A. All work is to be done by the Sports Field Contractor (Contractor) as defined in Section 312217.

PART 2 PRODUCTS

2.01 IRRIGATION SYSTEM

- A. Irrigation system is existing and components are to be field verified by the Sports Field Contractor.

2.02 PIPE MATERIALS

- A. PVC Pipe: ASTM D2241; 200 psi pressure rated upstream from controls, 160 psi downstream; solvent welded sockets.
- B. Pipe Risers at Valves: 160 psi PVC pipe.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify location of existing utilities.
- B. Verify that required utilities are available, in proper location, and ready for use.

3.02 PREPARATION

- A. Review existing irrigation system for operation and coverage of new sod installation.
- B. Existing irrigation system has experience random pipe failures since installation. Evaluation of existing pipe material and pump operation and pressure, as well as zoning and valving are to be evaluated and recommendations made for eliminating the pipe failures.
- C. Locate and mark all heads, valves, boxes, and other irrigation items located within the construction area and protect from damage during excavation, and root zone material and sod installation.

3.03 INSTALLATION, REPAIR, AND ADJUSTMENT

- A. Adjust all heads, valves, boxes, and other irrigation items located in the construction area as necessary for new work and elevations.

- B. Replace pipe fittings at eight (8) valves locations. Owner will identify specific valve locations to be addressed.
- C. After any adjustments and/or repairs have been completed, but before backfilling commences, open valves and flush system with full head of water and ensure no leakage in adjustment/repair areas.

3.04 BACKFILLING

- A. Provide 3 inch sand cover over piping in all areas. Backfill with root zone material in new sod areas and in accordance with Section 329117, and with sand or soil backfill in areas outside of the new sod area. When sand is used for backfill, densify sand with water to eliminate settlement.
- B. Backfill trenches and excavations and densify/compact to specified subgrade elevation. Protect piping, valves, and boxes from displacement during backfill operations.

3.05 SYSTEM STARTUP

- A. Prepare and start system in accordance with manufacturer's instructions.
- B. Ensure all valves and heads are fully operational and provide the required coverage.

END OF SECTION