



- NOTES**
1. AT THE TRANSITION BETWEEN TYPE A AND TYPE B WATER LINE INSTALLATION, CONTRACTOR SHALL INSTALL A FULL LENGTH OF PIPE BETWEEN THE 1 1/4 DEGREE FITTING AND THE NEAREST PUSH-ON JOINT.
  2. INSTALLATION OF THE SUSPENDED PORTION OF PIPE UNDER BRIDGE SHALL BE COMPLETED FIRST AND THIS PORTION PRESSURE TESTED TO FULLY EXTEND THE RESTRAINED JOINTS AS DESCRIBED IN THE SPECIFICATIONS SECTION "HYDROSTATIC TESTING-GUARANTEE". AFTER SATISFACTORY PRESSURE TESTING OF THIS PORTION OF PIPE, THE INSTALLATION OF THE REMAINDER OF THE WATER LINE MAY PROCEED. IF THIS PORTION OF PIPE IS EXPECTED TO BE EXPOSED TO SUBFREEZING TEMPERATURES PRIOR TO BEING CONNECTED AT THE ENDS AND PLACED INTO SERVICE, IT MUST BE DRAINED COMPLETELY TO AVOID FREEZING.
  3. INSTALLATION OF THE SECTION OF PIPE PENETRATING THE ABUTMENT WALL AT EACH END WILL BE DEPENDENT ON TEMPERATURE AT THE TIME OF INSTALLATION. IF THE AMBIENT TEMPERATURE IS BELOW 32 DEGREES F., THE LAST EXPOSED JOINT SHALL BE FULLY EXTENDED INTO THE LOCKED POSITION. IF THE AMBIENT TEMPERATURE IS BETWEEN 32 DEGREES AND 68 DEGREES F., THE LAST EXPOSED JOINT SHALL BE INSTALLED IN THE FULLY "HOME" POSITION (I.E., ALL THE WAY IN) TO ALLOW PULLOUT FOR THERMAL CONTRACTION AFTER INSTALLATION. THIS SECTION OF PIPE SHALL NOT BE INSTALLED WHEN THE AMBIENT TEMPERATURE IS ABOVE 68 DEGREES F.
  4. PIPE SEAL AT ABUTMENT OPENINGS TO BE LINK-SEAL LS-600 INSTALLED IN 20" DIAMETER STEEL WALL SLEEVE AS AVAILABLE FROM THUNDERLINE LINK-SEAL, HOUSTON, TX (PHONE 1-800-288-0404). INSTALL STEEL SLEEVE PARALLEL TO PIPE IN CONCRETE FORMWORK FOR ABUTMENT IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION PROCEDURES. LOCATION OF OPENING MUST BE CAREFULLY ALIGNED WITH PIPE SO THAT PIPE CENTERLINE WILL MATCH CENTERLINE OF OPENING IN ABUTMENT WALL WITHIN 1/2".
  5. IN DETERMINING WHERE TO PLACE PROTECTION SADDLES, CONTRACTOR MUST ALLOW FOR PIPE EXTENSION DURING HYDROSTATIC TESTING. IF EACH SECTION OF PIPE IS NOT FULLY EXTENDED AT TIME OF INSTALLATION, EACH JOINT MAY EXTEND UP TO 3/4" FROM THE FULL "HOME" POSITION TO THE FULLY RESTRAINED (EXTENDED) POSITION.

**WATER LINE ALIGNMENT**

STATION	ITEM	HORIZONTAL PIPE C OFFSET	VERTICAL PIPE C ELEVATION
510+89.60	22 1/2° (HORIZ) BEND	159.11' LT	685.00 (EXISTING)
511+32.76	11 1/4° (VERT) BEND	119.33' LT	685.00
511+73.27	22 1/2° (VERT) BEND	84.85' LT	674.92
512+30.84	11 1/4° (VERT) BEND	40.04' LT	688.15
	22 1/2° (HORIZ) BEND		
512+56.43	11 1/4° (VERT) BEND	39.24' LT	688.03
512+70.36	11 1/4° (VERT) BEND	38.87' LT	690.77
515+04.16	11 1/4° (VERT) BEND	39.79' LT	689.81
515+18.10	11 1/4° (VERT) BEND	40.27' LT	686.95
515+44.05	11 1/4° (VERT) BEND	41.29' LT	686.85
	45° (HORIZ) BEND		
516+19.64	11 1/4° (VERT) BEND	126.79' LT	659.08
516+69.13	45° (HORIZ) BEND	185.51' LT	653.60 (EXISTING)

