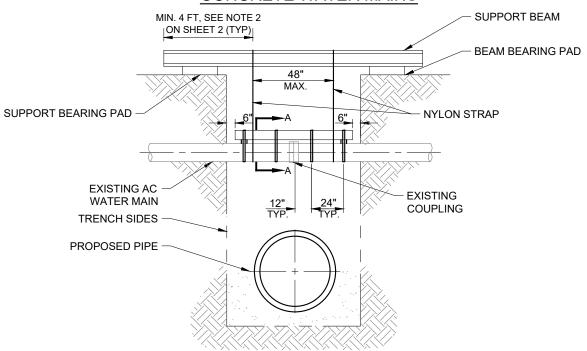


DUCTILE OR CAST IRON & STEEL CYLINDER CONCRETE WATER MAINS

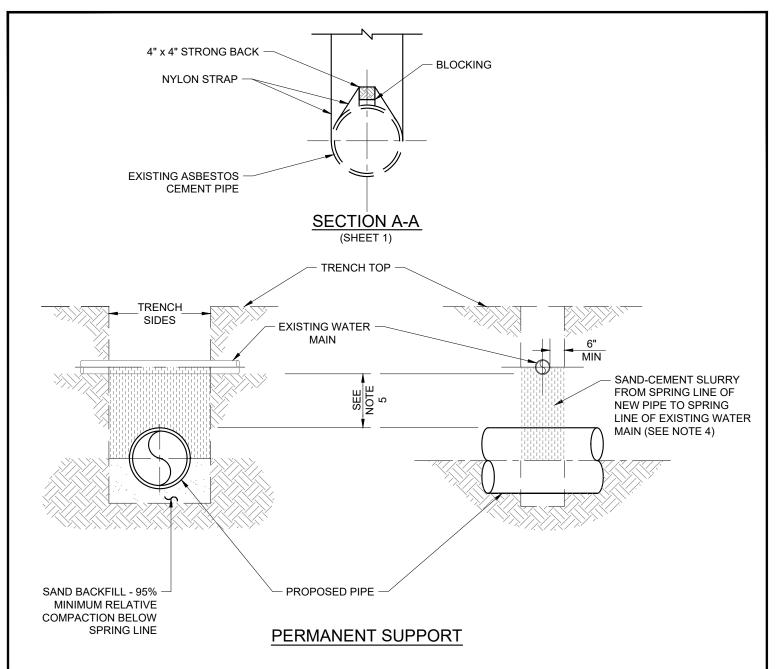


ASBESTOS CEMENT WATER MAIN TEMPORARY SUPPORT

NOTES:

1. IF MORE THAN ONE COUPLING IS EXPOSED, ADEQUATE LATERAL RESTRAINT SHALL BE DESIGNED AND SUBMITTED FOR APPROVAL.

SUPPORTS FOR EXISTING WATER MAIN			WDS - 123	
LONGBEACH Utilities	APPROVED .	DIRECTOR OF ENGINEERING / CHIEF ENGINEER		
Water · Gas · Sewer	DATE: 02-2	2020	SCALE: N.T.S.	SHEET 1 OF 2



NOTES:

- PROVIDE TEMPORARY AND PERMANENT SUPPORTS FOR ASBESTOS CEMENT WATER MAINS WHEN TRENCH WIDTH EXCEEDS 6'
 AND FOR STEEL CYLINDER CONCRETE PIPE WHEN TRENCH WIDTH EXCEEDS 9'.
- 2. DRAWINGS OF TEMPORARY SUPPORTS SHOWING SIZE OF BEAM, SIZE AND TYPE OF BEAM BEARING PAD, STRAP SIZE, WIDTH OF TRENCH AT WATER MAIN AND SPAN OF SUPPORTING BEAM SHALL BE SUBMITTED FOR LBUD APPROVAL PRIOR TO EXCAVATION.
- 3. WIRE ROPE SLINGS OR NYLON STRAPS FOR TEMPORARY SUPPORTS SHALL BE INSTALLED AND TIGHTENED SUFFICIENTLY TO TAKE THE FULL LOAD OF PIPE PRIOR TO REMOVING SUPPORTING SOIL FROM WATER MAINS. SUPPORTING BEAMS SHALL HAVE ADEQUATE BEARING ON A FIRM FOUNDATION.
- 4. PERMANENT SUPPORTS SHALL BE CONSTRUCTED OF SAND-CEMENT SLURRY CONSISTING OF PORTLAND CEMENT AND WASHED CONCRETE SAND. SLURRY SHALL CONTAIN TWO SACKS OF CEMENT PER CUBIC YARD AND SHALL BE MACHINE MIXED.
- 5. PERMANENT SUPPORTS SHALL BE CONSTRUCTED IN TWO POURS IF THE DISTANCE BETWEEN THE BOTTOM OF THE EXISTING WATER MAIN AND TOP OF THE NEW PIPE IS GREATER THAN 4'. THE FIRST POUR SHALL BE TO A POINT 1' BELOW THE BOTTOM OF THE EXISTING WATER MAIN.

