



NOTES:

1. DETAIL IS FOR PRESTRESSED CONCRETE CYLINDER PIPE (BAR WRAPPED STEEL CYLINDER PIPE, STEEL PIPE AND D.I.P. ALTERNATE SIMILAR).
2. MINIMUM CLEARANCES SHOWN ON THE PLAN & PROFILE DRAWINGS ARE TO THE O.D. OF TUNNEL LINER. ADJUST PROFILE AS REQUIRED TO MAINTAIN CLEARANCES IDENTIFIED. NO SEPARATE PAY.

NOTES:

1. LENGTH OF ENCASEMENT SHALL BE AS SHOWN ON THE PLAN & PROFILE DRAWINGS.
2. LAY CASING PIPE IN OPEN CUT, TUNNEL OR BORE, AS NOTED ON PLAN & PROFILE DRAWINGS.
3. SEE SPECIFICATIONS FOR APPROPRIATE MODEL ACCORDING TO PIPE DIAMETER OR PIPE MANUFACTURER RECOMMENDATIONS.

NOTE

1. THE ANNULAR SPACE IN ALL TUNNELS IN PPCA IS TO BE GROUTED

1 TUNNEL DETAIL FOR TUNNEL LINER / CASING FOR PCCP OR STEEL PIPE WITH MORTAR BANDS
(FOR WATER MAINS 24 INCHES IN DIAMETER AND LARGER)

2 TUNNEL DETAIL FOR CASING W/ STEEL CARRIER PIPE AND CASING INSULATOR
(FOR WATER MAINS 24 INCHES IN DIAMETER AND SMALLER)

MINIMUM TUNNEL LINER / CASING SIZES AND THICKNESS

LOCATION	WATER MAIN DIA.	PIPE MATERIAL	(1) NOMINAL DIAMETER (CASING O.D.) / WALL THICKNESS (IN.)		
			2-FLANGE (2) LINER PLATE	4-FLANGE LINER PLATE	STEEL CASING

NOTES:

1. DIAMETER OF LINER PLATE IS AT NEUTRAL AXIS.
2. LINER PLATE IS TWO FLANGE AND NOMINALLY 2-INCH CORRUGATION BY 6-INCH PROFILE.

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
STANDARD LDWL TUNNEL & CASING DETAILS (NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: NOV-10-2016	DWG NO: