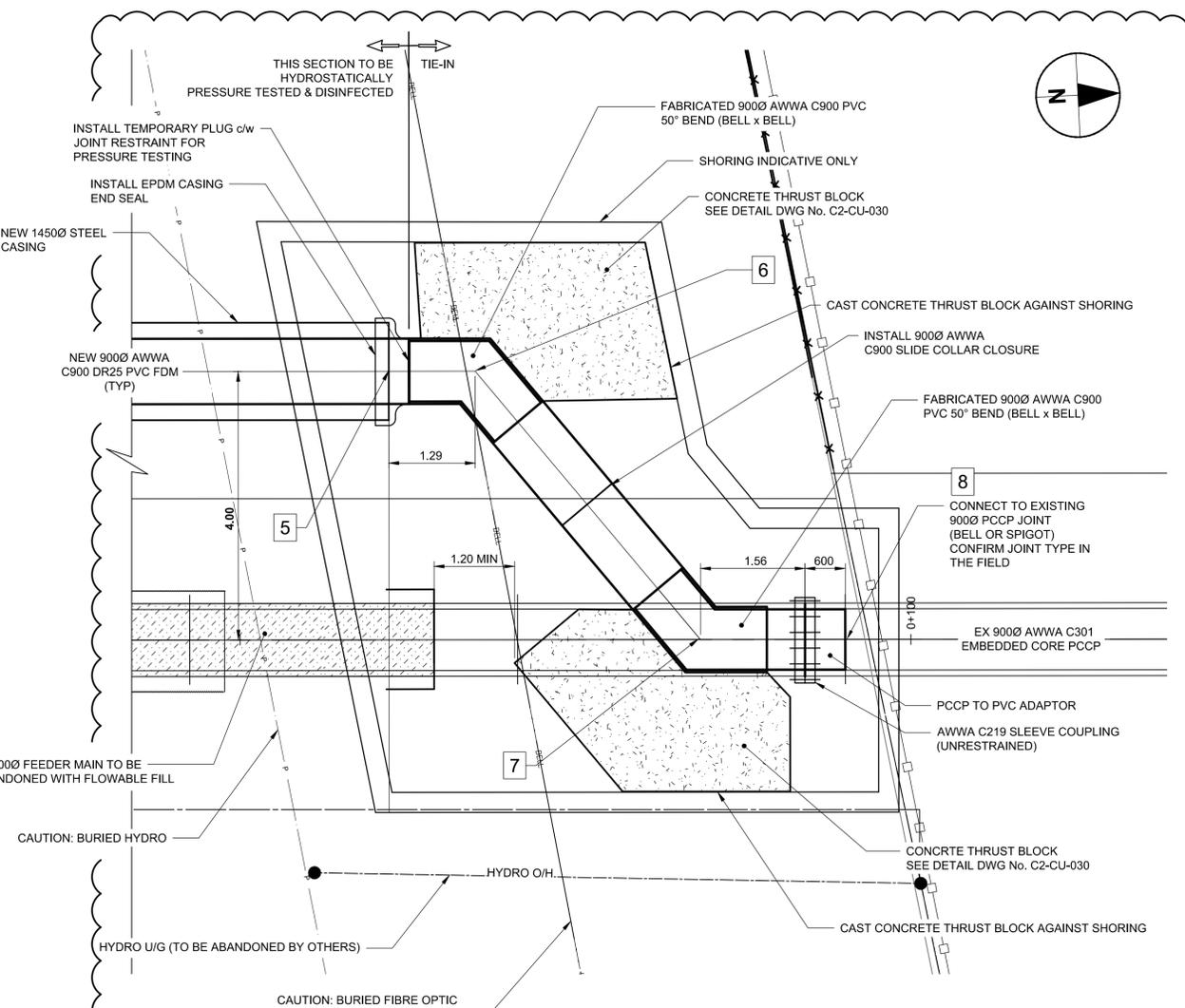


NEW FEEDER MAIN CONNECTION - SOUTH END

Scale 1:50



NEW FEEDER MAIN CONNECTION - NORTH END

Scale 1:50

SHORING NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR DESIGN & LAYOUT OF SHORING SYSTEMS
- THE CONTRACTOR SHALL CONSTRUCT A TIGHT SHORING SYSTEM TO A MINIMUM OF 150 ABOVE THE TOP OF THE EXISTING FEEDER MAIN TO PROTECT THE EX FEEDER MAIN AND EMBEDMENT SOILS FROM MOVEMENT & UNDERMINING UNTIL COMMENCEMENT OF EXCAVATION FOR THE FINAL TIE-INS
- SHAFTS SHALL BE BACKFILLED WITH CW2030 TYPE 2 MATERIAL, COMPACTED TO 95% SPMDD TO A MINIMUM OF 300 ABOVE THE TOP OF THE THRUST BLOCKS
- SHORING REMOVAL AND BACKFILLING SHALL BE STAGED TO PROCLUDE VOIDS BEHIND AND ADJACENT TO THE THRUST BLOCKS EXCEPT WHERE NOTED
- SHORING TO BE LEFT IN PLACE WHERE THRUST BLOCKS ARE CAST AGAINST THE SHORING WALL. SHORING TO BE CUT-OFF WITHIN 0.3 OF THE TOP OF THE THRUST BLOCK. ALL OTHER SHORING TO BE REMOVED
- IF TIMBER LAGGING IS USED, IT SHALL BE REMOVED (WHERE SHORING LEFT-IN-PLACE) PRIOR TO CASTING CONCRETE THRUST BLOCKS. TIMBER LAGGING MAY REMAIN ELSEWHERE

FEEDER MAIN CONNECTION NOTES:

- ALL PVC PIPE JOINTS TO BE RESTRAINED
- THRUST BLOCKS SHALL ACHIEVE A MINIMUM COMPRESSIVE STRENGTH OF 20MPa PRIOR TO PUTTING THE FEEDER MAIN INTO SERVICE
- CONTRACTOR TO CONFIRM GEOMETRY & LAYOUT OF TIE-IN PIPING & FITTINGS PRIOR TO ASSEMBLY/INSTALLATION & CONSTRUCTION OF THE CONCRETE THRUST BLOCKS

WARNING

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:

1. NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
2. TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.
3. OBTAIN EXCAVATION PERMITS PRIOR TO CONSTRUCTION.

COORDINATE TABLE

POINT NUMBER	NORTHING	EASTING
1 - SOUTH END CONNECTION	5523566.705	631069.184
2 - 45° BEND	5523570.642	631069.304
3 - 45° BEND	5523574.761	631065.429
4 - BEGIN CASING	5523576.177	631065.472
5 - END CASING	5523618.679	631066.768
6 - 50° BEND	5523619.966	631066.808
7 - 50° BEND	5523623.199	631070.908
8 - NORTH END CONNECTION	5523625.355	631070.974
9 - AIR RELEASE CHAMBER	5523566.405	631069.175
10 - 500 BLOW-OFF VALVE	5523567.004	631069.194

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES



BID OPPORTUNITY NO. 473-2016

150 WM	150 WM	150 WM	150 WM	150 WM	150 WM	150 WM	150 WM
HYDRANT	HYDRANT	PIPE ABANDONMENTS	PIPE ABANDONMENTS	WATER MAIN	WATER MAIN	WATER MAIN	WATER MAIN
VALVE	VALVE	SURVEY BAR	SURVEY BAR	HYDRANT	HYDRANT	VALVE	VALVE
LAND DRAINAGE SEWER	LAND DRAINAGE SEWER	CURB STOP	CURB STOP	WASTE WATER SEWER	WASTE WATER SEWER	REDUCER	REDUCER
WASTE WATER SEWER	WASTE WATER SEWER	COUPLING	COUPLING	PAVEMENT CROWN	PAVEMENT CROWN	N/W PROPERTY LINE	N/W PROPERTY LINE
SEWER SERVICE PIPE	SEWER SERVICE PIPE	ANODE	ANODE	S/E PROPERTY LINE	S/E PROPERTY LINE	N/W GUTTER	N/W GUTTER
DRAINAGE CONNECTION PIPE	DRAINAGE CONNECTION PIPE	HYDRO	HYDRO	S/E GUTTER	S/E GUTTER		
MANHOLE	MANHOLE	MTS	MTS				
CATCH BASIN	CATCH BASIN	GAS	GAS				
CURB INLET	CURB INLET	TESTHOLE	TESTHOLE				
CULVERT	CULVERT	LAMP STANDARD	LAMP STANDARD				
EXISTING	LEGEND - PLAN	NEW	LEGEND - PLAN	NEW	LEGEND - PROFILE	NEW	LEGEND - PROFILE

UNDERGROUND STRUCTURES	B.M. ELEV.
SUPV. U/G STRUCTURES	DATE

NO.	REVISIONS	DATE	BY
2	ISSUED FOR ADDENDUM 6	17/03/09	WJd
1	ISSUED FOR ADDENDUM 5	17/03/02	WJd
0	ISSUED FOR TENDER	17/01/09	WJd

DESIGNED BY	CHECKED BY
ADB	
DRAWN BY	APPROVED BY
WJd	
HOR. SCALE	RELEASED FOR CONSTRUCTION
AS NOTED	
VERTICAL	DATE
AS NOTED	

CONSULTANT PROJECT NUMBER
60321148

THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT

WAVERLEY STREET UNDERPASS AT CN MILE 3.89 RIVERS SUB
CONTRACT 2: UNDERPASS STRUCTURE, RAILWORKS,
ROADWORKS, LAND DRAINAGE SEWER, PUMPING STATION
AND LANDSCAPING WORKS

EXISTING MIDTOWN FEEDER MAIN
RAIL CROSSING
FM OFF-LINE REPLACEMENT DETAILS 1

CITY DRAWING NUMBER
U239-2016-C2-CU-029

SHEET 29 OF 41

CONSULTANT DRAWING NUMBER
C2-CU-029

PA:60321148;900-Work\9100-DD CAD-DWG-SHEETS\Municipal\63353-C2-CON-CU-Midtown FM Off-line Replacement.dwg