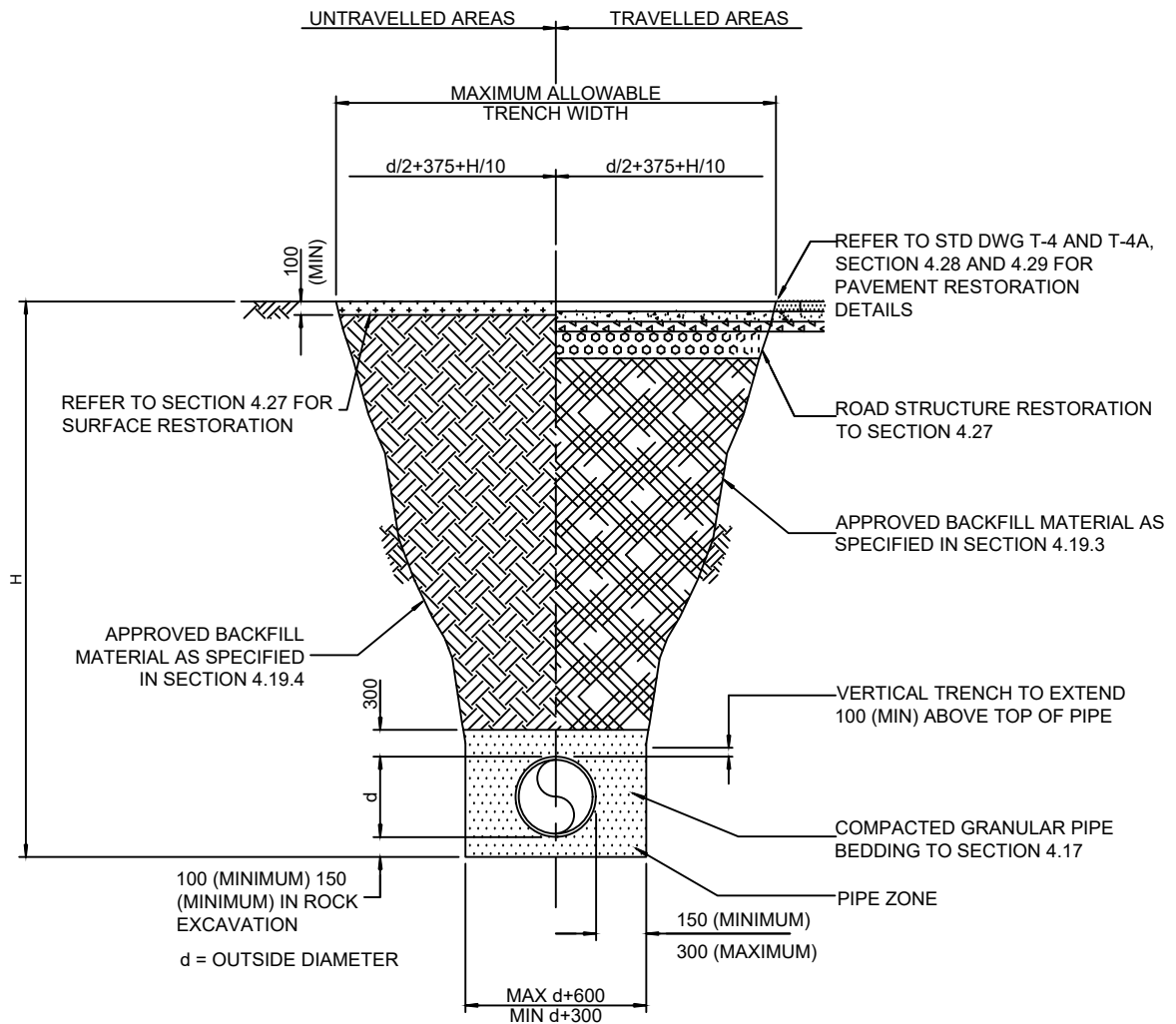
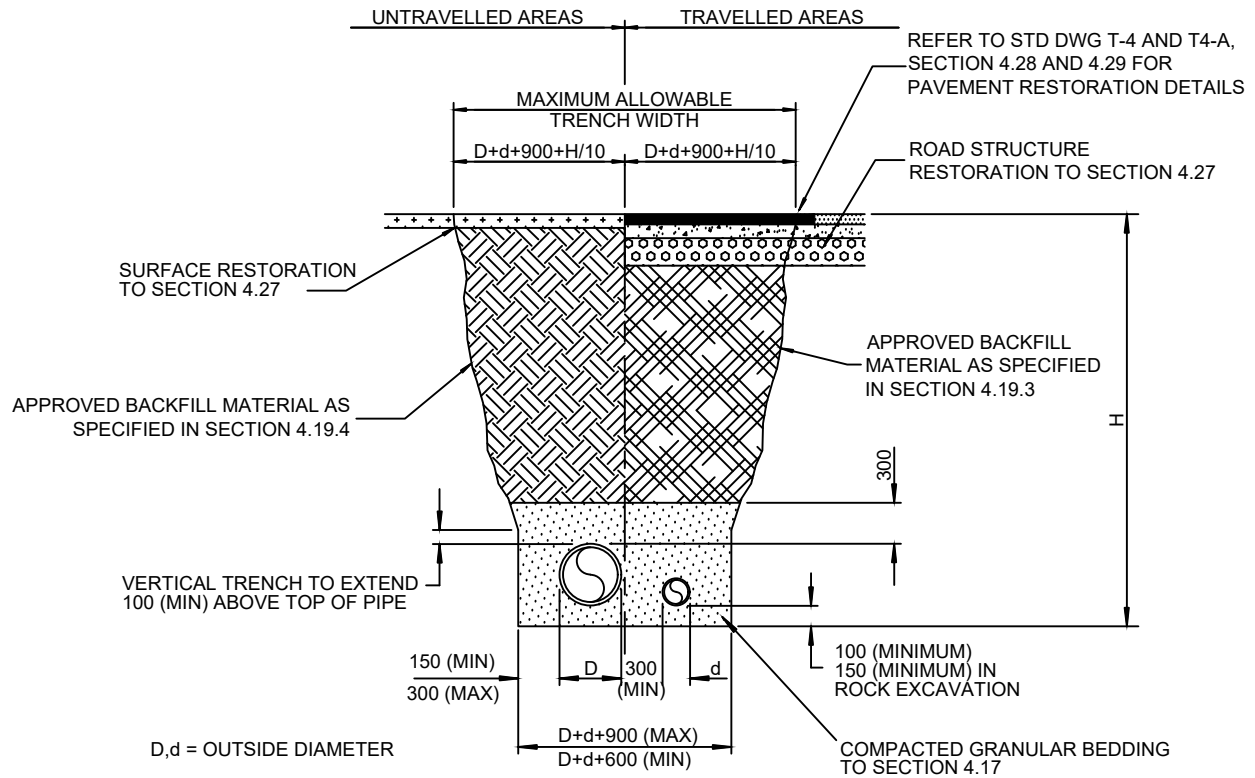
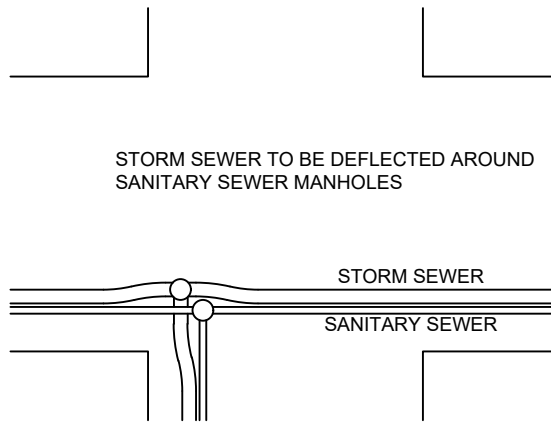




NOTES:

1. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.



NOTES:

1. REFER TO STANDARD DRAWING T-1 FOR ADDITIONAL TRENCH DETAILS.
2. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.

REFER TO STD. DWG. T-4 AND T-4A,
SECTION 4.28 AND 4.29 FOR
PAVEMENT RESTORATION DETAILS

SURFACE RESTORATION
TO SECTION 4.27

CONTROLLED DENSITY
FILL TO SECTION 4.24

100 (MIN)
300 (MAX)

d = OUTSIDE DIAMETER

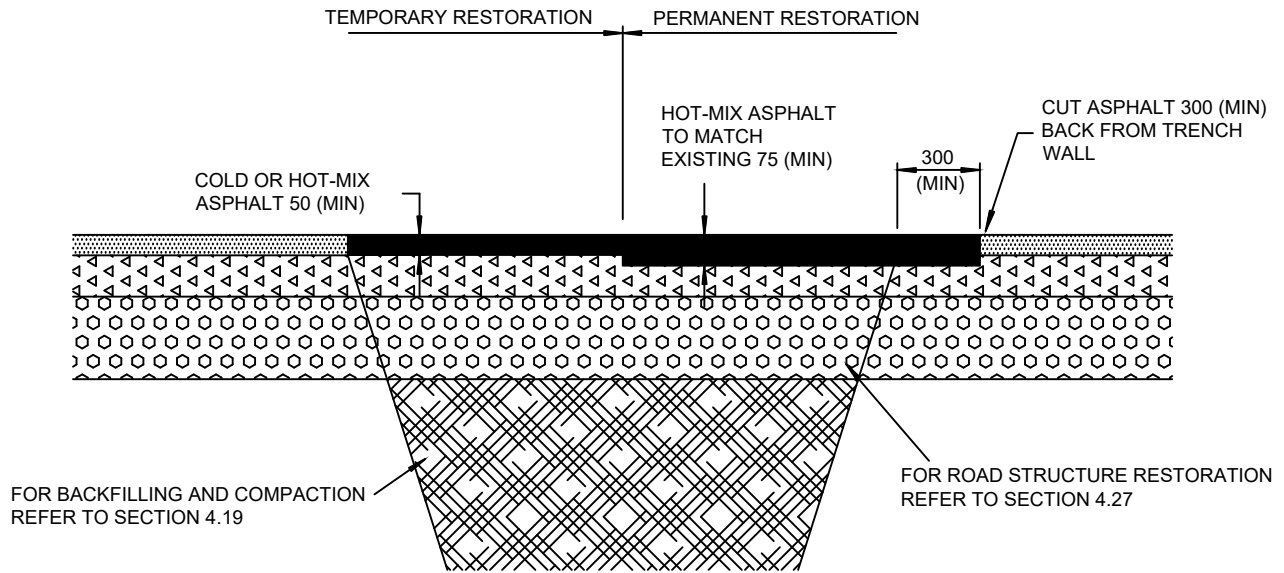
100 (MINIMUM) 150
(MINIMUM) IN ROCK
EXCAVATION

PIPE ZONE

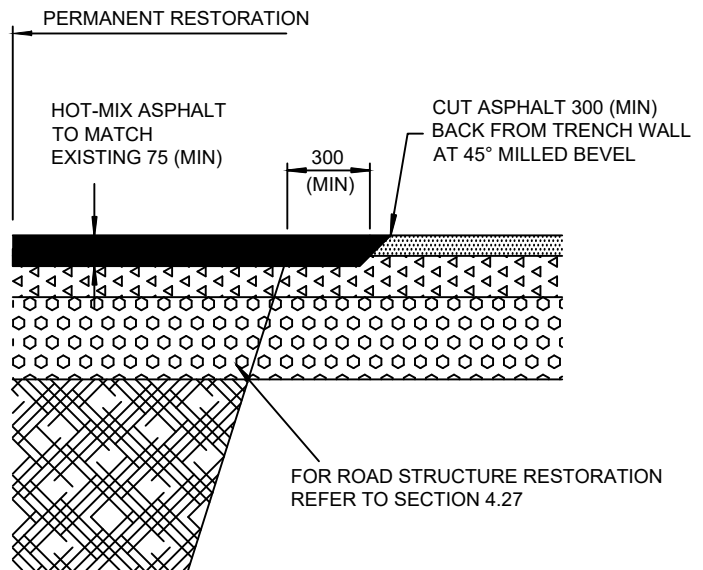
COMPACTED GRANULAR
BEDDING MATERIAL TO
SECTION 4.17

NOTES:

1. REFER TO STANDARD DRAWING T-1 FOR ADDITIONAL TRENCH DIMENSIONS AND DETAILS.
2. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.



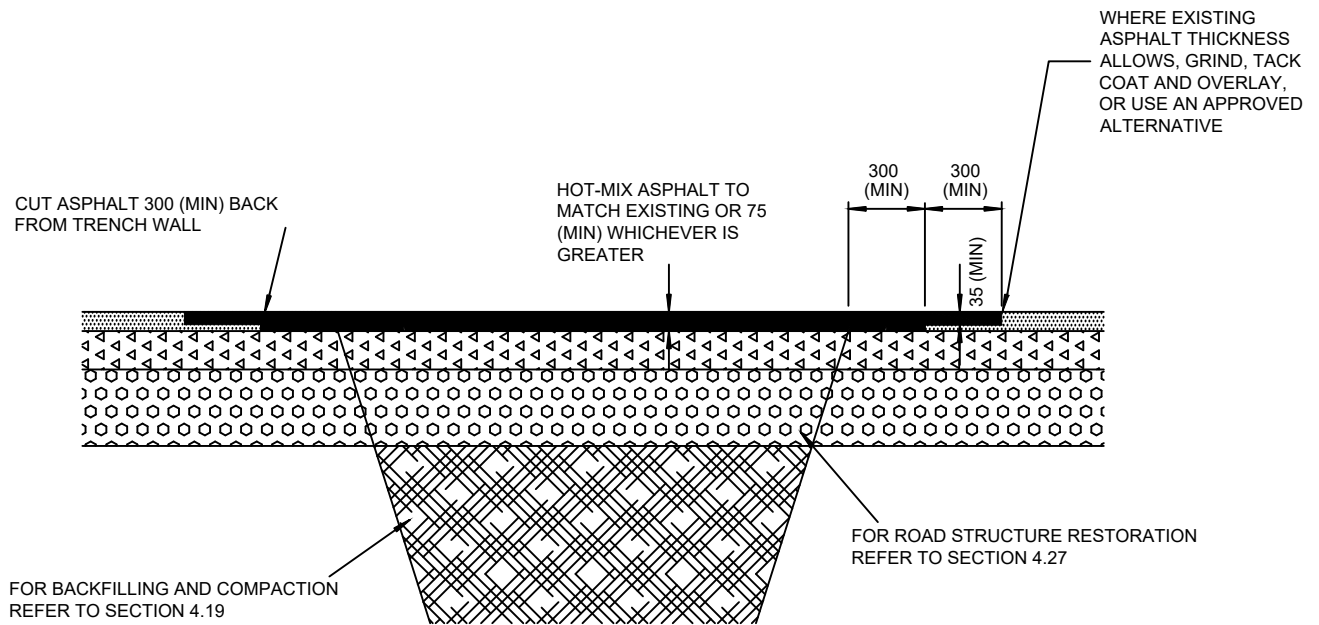
ALTERNATIVE 1 - STRAIGHT CUT



ALTERNATIVE 2 - BEVEL CUT

NOTES:

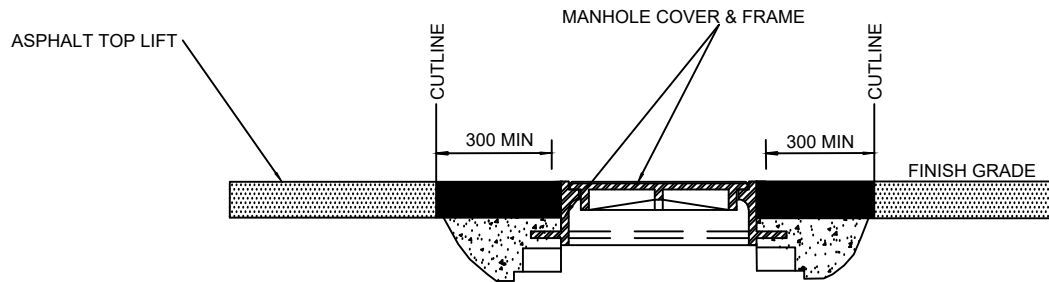
1. REFER TO STANDARD DRAWING T-1 FOR ADDITIONAL TRENCH DIMENSIONS AND DETAILS.
2. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.



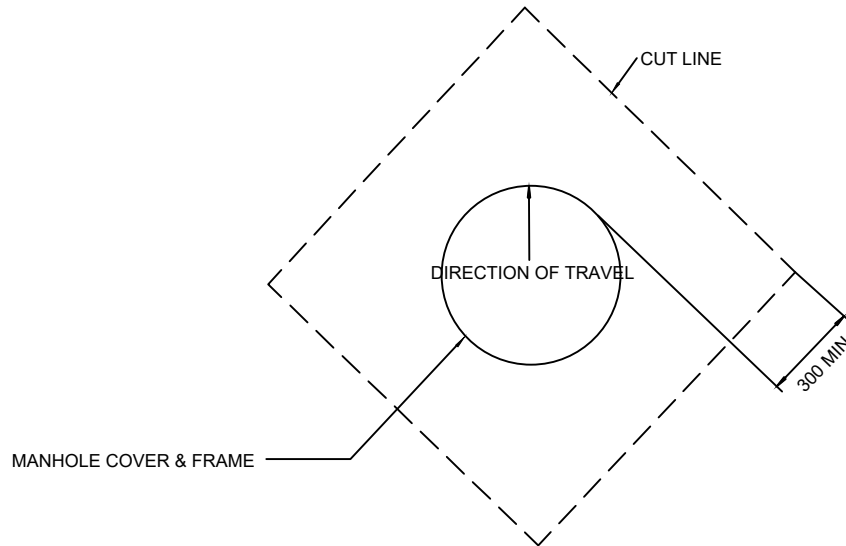
PERMANENT RESTORATION

NOTES:

1. REFER TO STANDARD DRAWING T-1 FOR ADDITIONAL TRENCH DIMENSIONS AND DETAILS.
2. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.



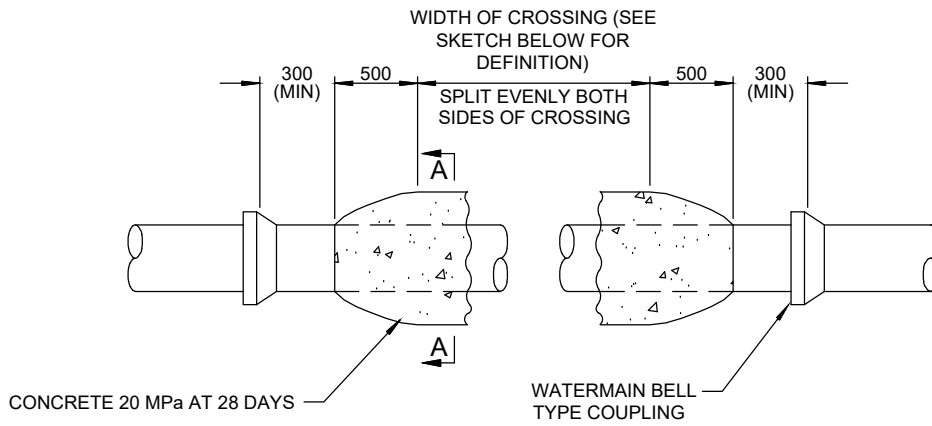
CONCRETE ENCASEMENT
SUPPORT DETAIL



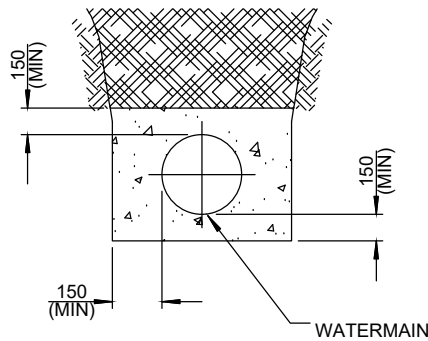
SQUARE CUT PLAN VIEW

NOTES:

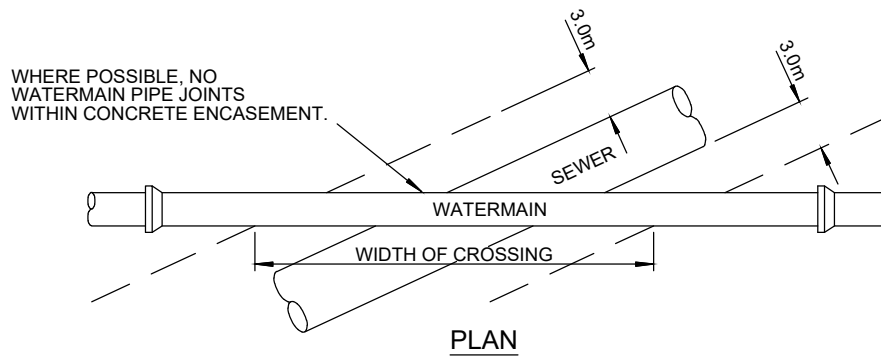
1. COVER MANHOLE WITH BUILDING PAPER AND CONSTRUCTION ASPHALT CONCRETE BASE COURSE AND WEARING COURSES.
2. SAW CUT SQUARE EXCAVATING AROUND MANHOLE 300mm MIN FROM MANHOLE FRAME.
3. RAISE MANHOLE COVER AND FRAME TO FINISH GRADE.
4. APPLY TACK COAT TO EDGES OF EXISTING PAVEMENT BEFORE INSTALLING PATCH.
5. FINISH JOINT WITH ASPHALT SEAL AND SAND.
6. REFER TO STANDARD DRAWINGS AS PER RELEVANT SECTIONS 5, 6, OR 7 FOR OTHER MANHOLE REQUIREMENTS.
7. ONLY PRODUCTS APPROVED BY THE CITY ENGINEER AND LISTED IN THE CITY OF NANAIMO APPROVED PRODUCT LIST WILL BE ACCEPTED FOR INSTALLATION.
8. REFER TO STANDARD DRAWING T-1 FOR ADDITIONAL TRENCH DIMENSIONS AND DETAILS.
9. ALL DIMENSIONS IN MILLIMETERS UNLESS SHOWN OTHERWISE.
10. PAVEMENT RESTORATION AREAS OF NEW ASPHALT (5 YEARS OR LESS) WILL REQUIRE FULL LANE WIDTH ASPHALT REPLACEMENT AND UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.



ELEVATION

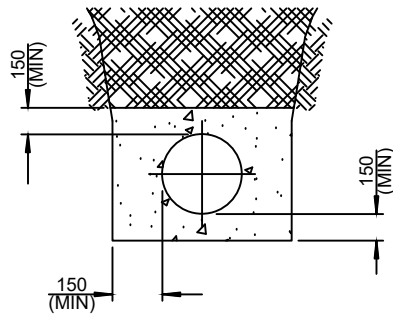


SECTION A-A

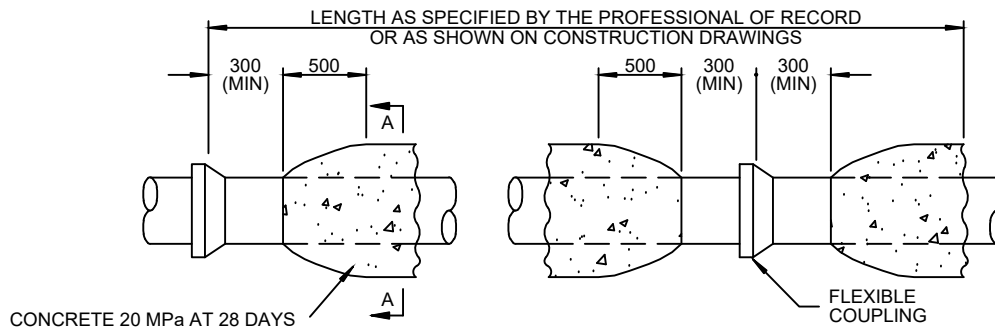


NOTES:

1. WHERE WATER AND SEWER SEPARATION OFFSETS CANNOT MEET SECTION 5.10.3, APPLY PROTECTION MEASURES REQUIRED TO OBTAIN PROVINCIAL PERMIT APPROVAL (SEE SECTION 5.10.4).
2. FOR PIPE PROTECTION WITH CONCRETE REFER TO STANDARD DRAWING T-6.
3. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.

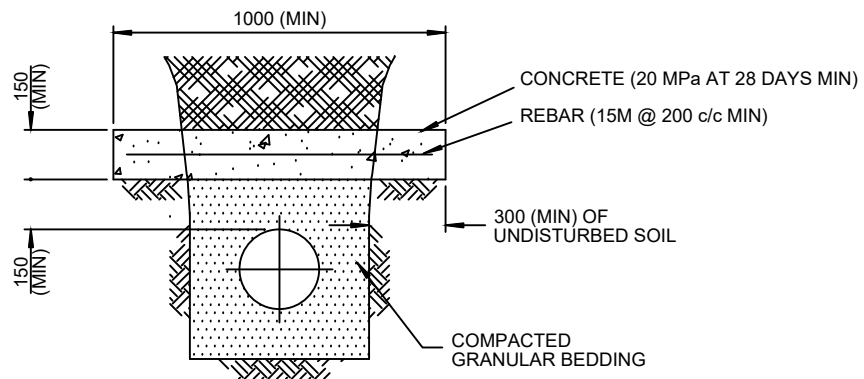


SECTION A-A



ELEVATION

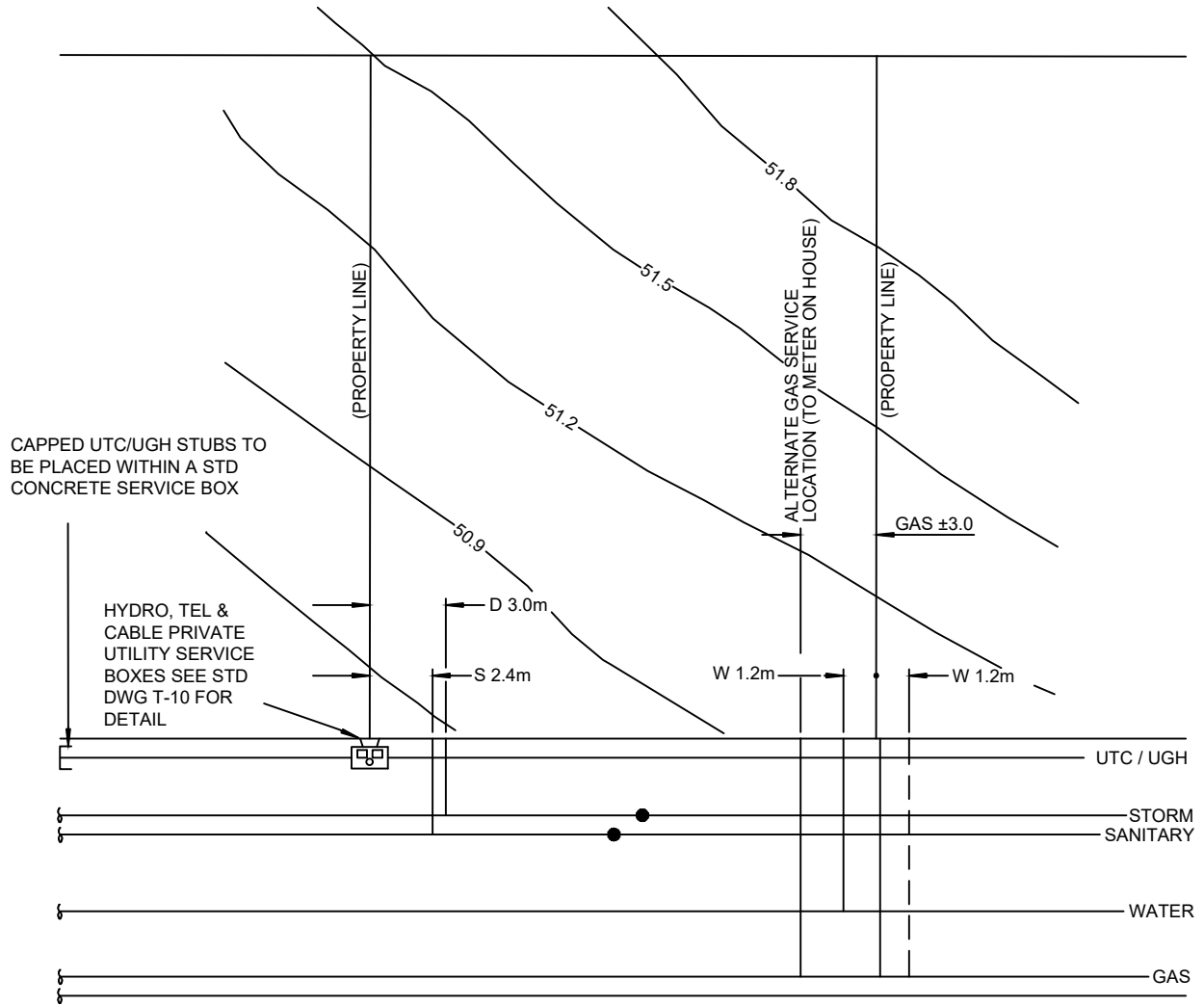
ALTERNATIVE 1 - ENCASEMENT



ALTERNATIVE 2 - PROTECTIVE SLAB

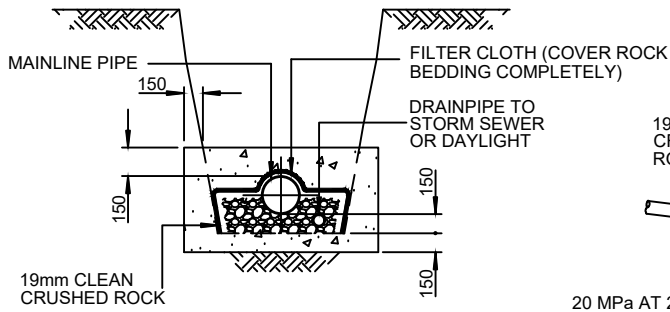
NOTES:

1. THE REQUIREMENT FOR CONCRETE PIPE PROTECTION SHALL BE DETERMINED BY THE PROFESSIONAL OF RECORD. DIMENSIONS SHOWN ARE MINIMUM REQUIREMENTS AND SHALL BE MODIFIED TO SUIT PIPE LOADING CONDITIONS.
2. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.



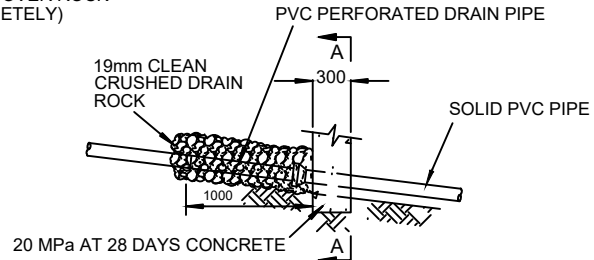
NOTES:

1. SANITARY AND STORM SEWER SERVICES TO BE INSTALLED ON THE LOWER SIDE OF THE LOT, AND WHERE POSSIBLE, SHALL BE FROM THE THE FRONT PROPERTY LINE.
2. POLE RESERVE, IF REQUIRED, TO BE AT ALTERNATE LOT CORNER TO WATER SERVICES.
3. GAS SERVICES SHALL BE 1.0m MINIMUM SEPARATION FROM SANITARY, STORM AND WATER UTILITIES.
4. ALL DIMENSIONS IN METERS UNLESS OTHERWISE SHOWN.
5. CAPPED UTH/UGH STUBS MUST BE PLACED WITHIN A STANDARD CONCRETE SERVICE BOX.
6. ONLY PRODUCTS LISTED IN THE CITY OF NANAIMO APPROVED PRODUCTS LIST WILL BE ACCEPTED FOR INSTALLATION.



SECTION A-A

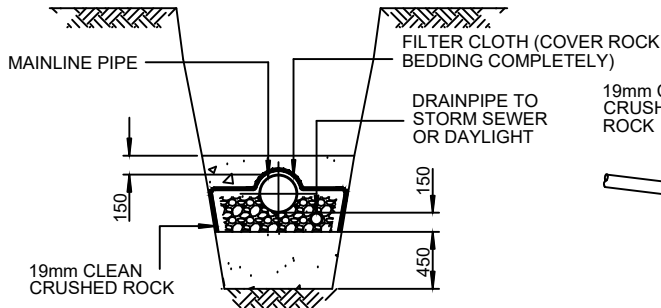
DETAIL OF DRAIN PIPE



PROFILE

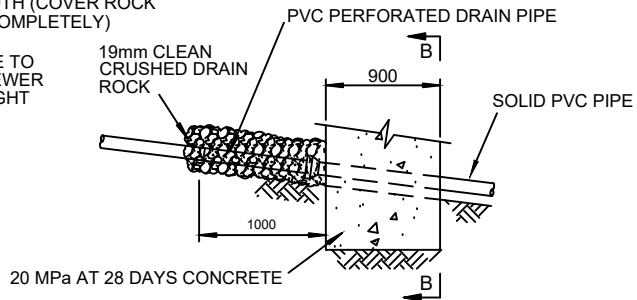
ALTERNATIVE 1
FOR USE IN TILLS AND OTHER STABLE,
WELL COMPACTED NATIVE MATERIALS.

NOTE: MAINLINE PIPE &
FILTER CLOTH NOT
SHOWN FOR CLARITY.



SECTION B-B

DETAIL OF DRAIN PIPE



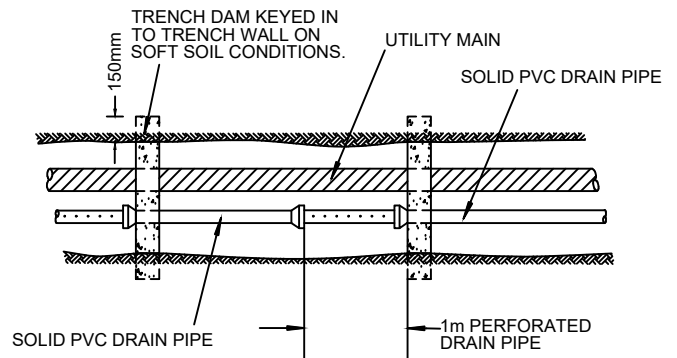
PROFILE

ALTERNATIVE 2
FOR USE IN CLEAN GRAVELS, SANDS AND
OTHER LOOSE, PERMEABLE NATIVE MATERIALS.

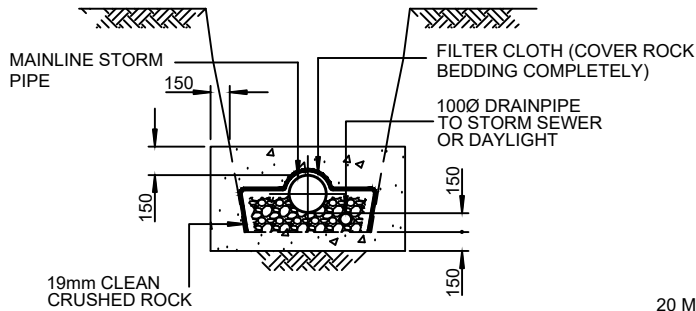
NOTE: MAINLINE PIPE &
FILTER CLOTH NOT
SHOWN FOR CLARITY.

NOTES:

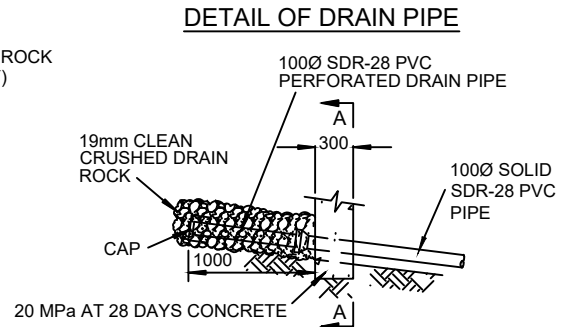
1. IF APPROVED BY THE ENGINEER, IN AREAS INACCESSIBLE BY CONSTRUCTION EQUIPMENT, WET, PRE-MIXED CONCRETE FILLED SANDBAGS MAY BE USED.
2. REFER TO SECTION 4.18 FOR TRENCH DAM SPACING.
3. PROVIDE TRENCH DRAINAGE TO AN ACCEPTABLE WATERCOURSE OR STORM COLLECTION SYSTEM FROM EVERY TRENCH DAM. HIGHEST END OF THE TRENCH DAM DRAIN PIPE SHALL BE CAPPED.
4. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.
5. ALL DRAIN PIPE TO BE SDR 35 PVC.



TYPE 1-PLAN VIEW



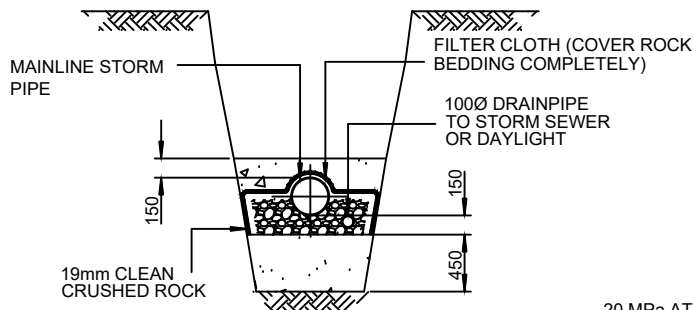
SECTION A-A



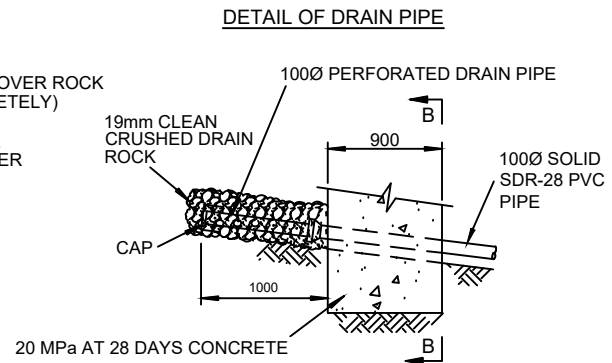
PROFILE

ALTERNATIVE 1
FOR USE IN TILLS AND OTHER STABLE,
WELL COMPACTED NATIVE MATERIALS.

NOTE: MAINLINE PIPE &
FILTER CLOTH NOT
SHOWN FOR CLARITY.



SECTION B-B



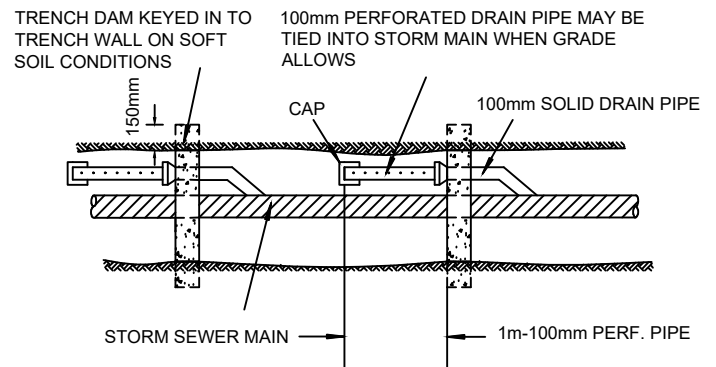
PROFILE

ALTERNATIVE 2
FOR USE IN CLEAN GRAVELS, SANDS AND
OTHER LOOSE, PERMEABLE NATIVE MATERIALS.

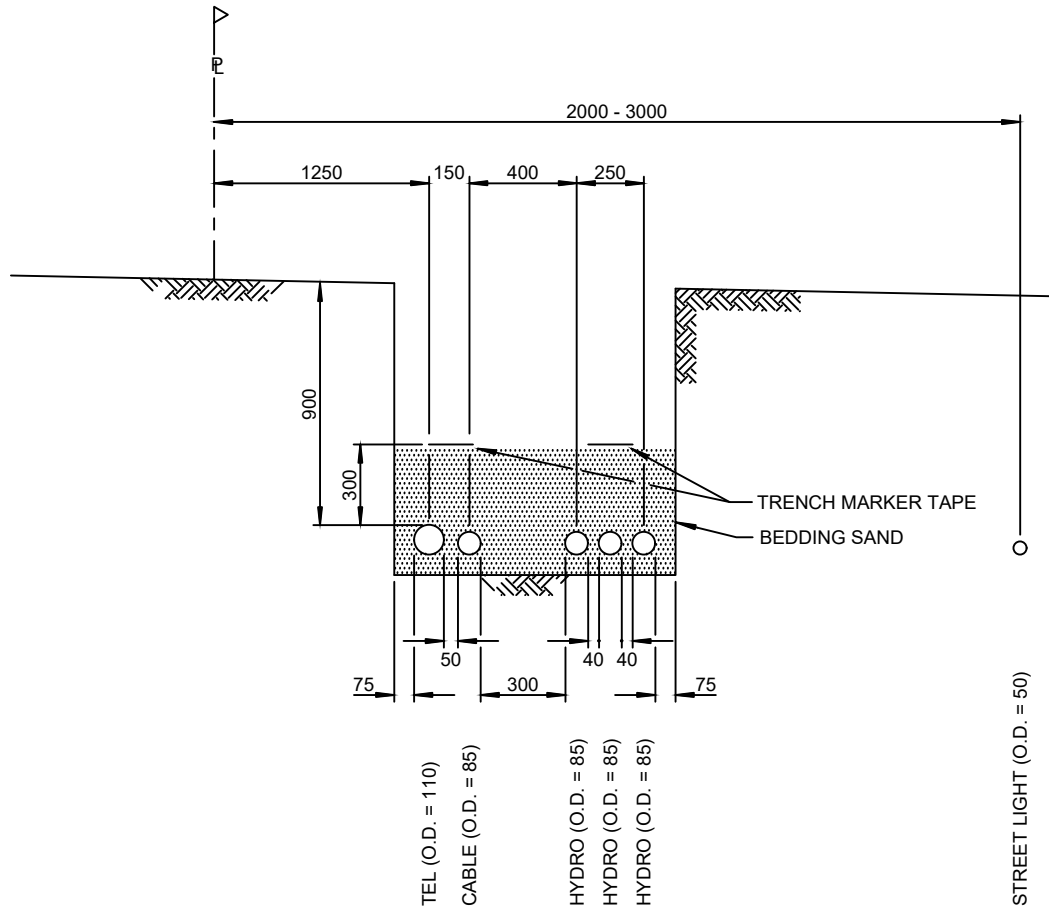
NOTE: MAINLINE PIPE &
FILTER CLOTH NOT
SHOWN FOR CLARITY.

NOTES:

1. IF APPROVED BY THE ENGINEER, IN AREAS INACCESSIBLE BY CONSTRUCTION EQUIPMENT, WET, PRE-MIXED CONCRETE FILLED SANDBAGS MAY BE USED.
2. REFER TO SECTION 4.18 FOR TRENCH DAM SPACING.
3. PROVIDE TRENCH DRAINAGE TO AN ACCEPTABLE WATERCOURSE OR STORM COLLECTION SYSTEM FROM EVERY TRENCH DAM. HIGHEST END OF THE TRENCH DAM DRAIN PIPE SHALL BE CAPPED.
4. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.
5. ALL DRAIN PIPE TO BE SDR-28 PVC.



TYPE 2-PLAN VIEW

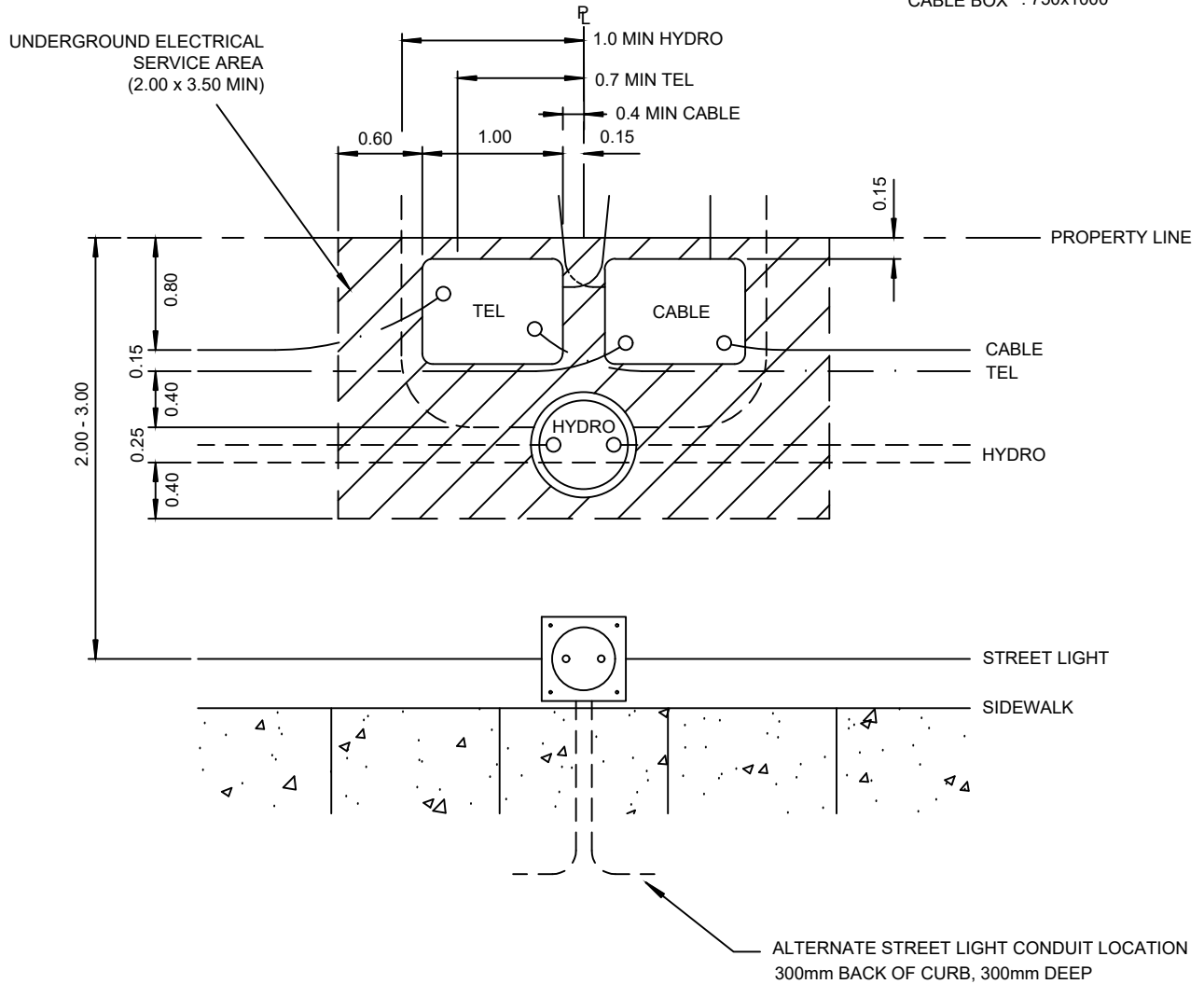


NOTE:

1. DIMENSIONS ARE SUGGESTIONS ONLY, DETAILS ARE TO BE DETERMINED BY PRIVATE UTILITY.
2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
3. REFER TO UTILITY CONSTRUCTION DRAWINGS FOR DUCT SIZE AND OTHER CONSTRUCTION REQUIREMENTS.
4. ALL UTILITIES SHALL BE TRACEABLE ELECTRONICALLY.

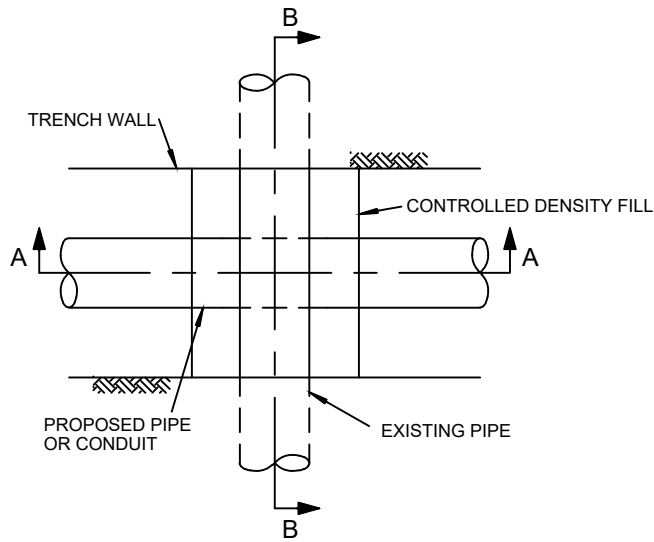
APPROXIMATE DIMENSIONS (mm)

HYDRO BOX : 750Ø
 TEL BOX : 750x1000
 CABLE BOX : 750x1000

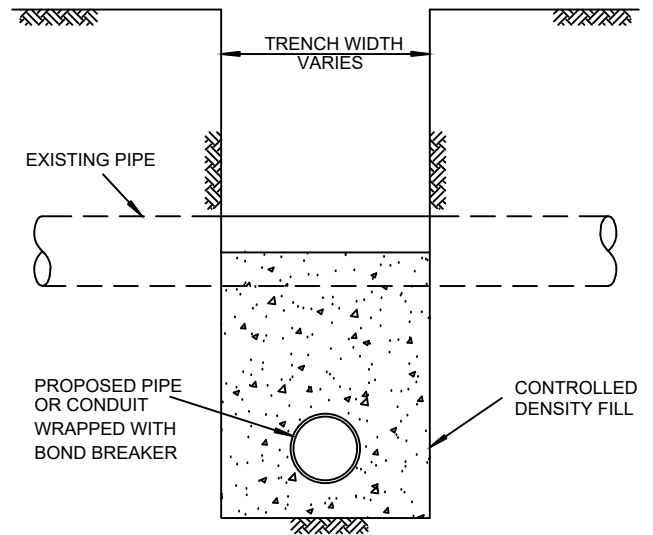


NOTES:

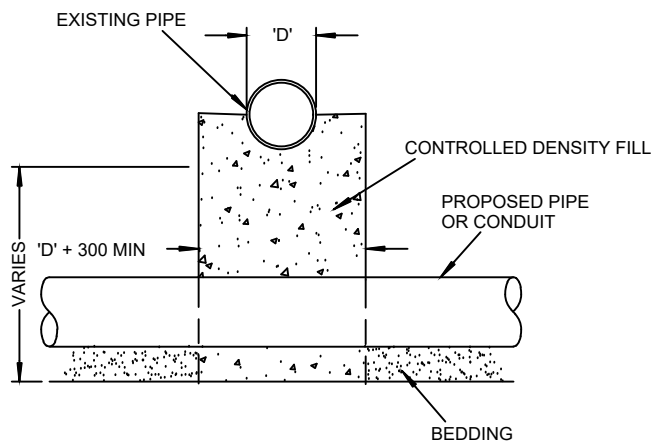
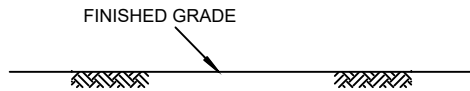
1. REFER TO SECTION 8 FOR STREET LIGHT AND SIDEWALK OFFSETS.
2. REFER TO SECTION 5.07.7 FOR HYDRANT OFFSETS.
3. SERVICE BOXES SHALL HAVE MINIMUM SEPARATION OF 300mm.
4. REFER TO UTILITY CONSTRUCTION DRAWINGS FOR FURTHER DETAILS.
5. ALL UTILITIES SHALL BE TRACEABLE ELECTRONICALLY.
6. DIMENSIONS ARE SUGGESTIONS ONLY, DETAILS TO BE DETERMINED BY PRIVATE UTILITY.
7. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.



PLAN



SECTION B-B



SECTION A-A

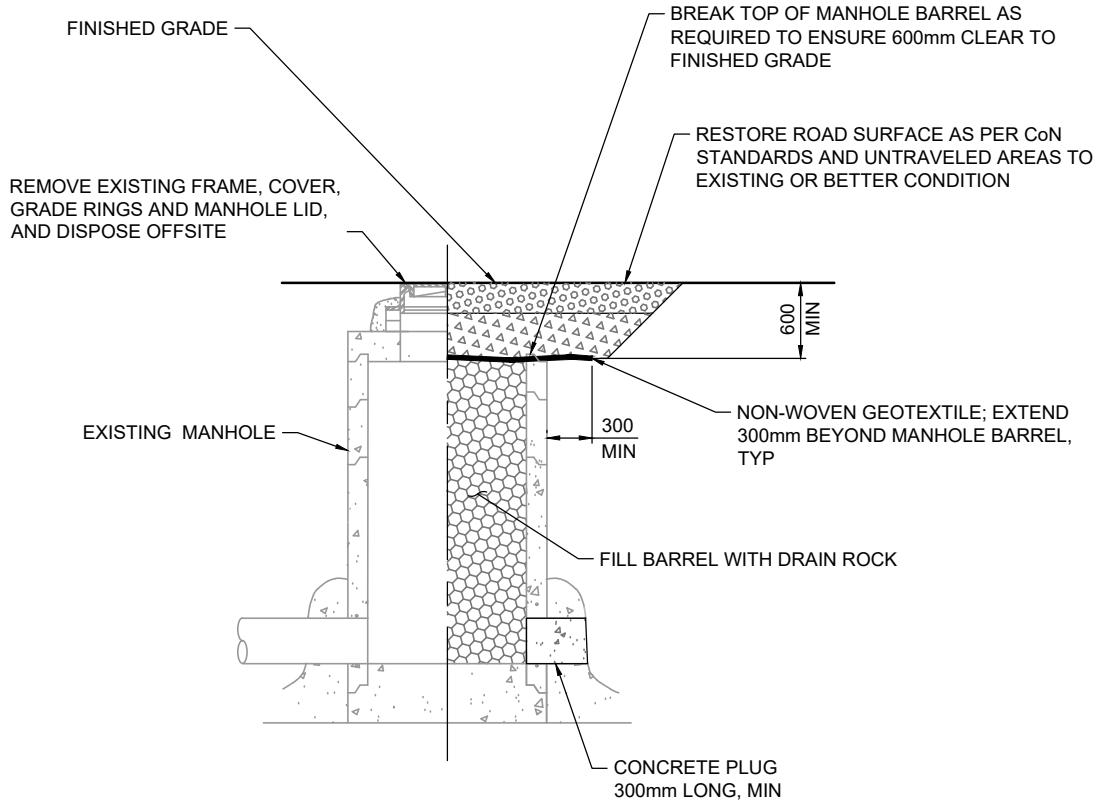
NOTES:

1. ALL DIMENSION IN MILLIMETERS UNLESS SHOWN OTHERWISE.
2. ONLY PRODUCTS LISTED IN THE CITY OF NANAIMO APPROVED PRODUCTS LIST WILL BE ACCEPTED FOR INSTALLATION.
3. CONTROLLED DENSITY FILL AS PER SECTION 4.24.

DETAIL OF SUPPORT FOR
EXISTING UTILITIES

Scale: NTS
Created: MAY 1998
Rev Date: JUNE 2026
Dwg No: T-11

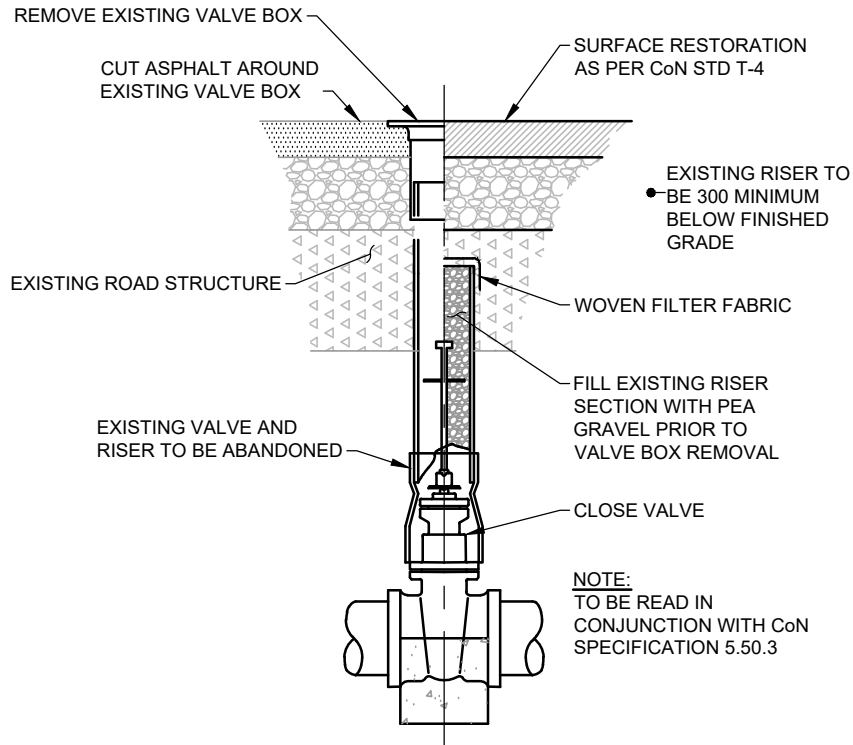




ABANDON EXISTING MANHOLE DETAIL

NOTES:

1. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHER WISE SHOWN.
2. ONLY PRODUCTS LISTED IN THE CITY OF NANAIMO APPROVED PRODUCTS LIST WILL BE ACCEPTED FOR INSTALLATION.
3. CONCRETE AS PER SECTION 4.21 AND SECTION 11.31.
4. LANDSCAPING AS PER SECTION 14.0.
5. REFER TO STD. DWG. T-4 AND T-4A, SECTION 4.28 AND 4.29 FOR PAVEMENT RESTORATION DETAILS.
6. PAVED ROADWAY STRUCTURE AS PER SECTION 9.0 BASED ON STREET CLASSIFICATION.



ABANDON VALVE DETAIL

NOTES:

1. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHER WISE SHOWN.
2. ONLY PRODUCTS LISTED IN THE CITY OF NANAIMO APPROVED PRODUCTS LIST WILL BE ACCEPTED FOR INSTALLATION.
3. CONCRETE AS PER SECTION 4.21 AND SECTION 11.31.
4. LANDSCAPING AS PER SECTION 14.0.
5. REFER TO STD. DWG. T-4 AND T-4A, SECTION 4.28 AND 4.29 FOR PAVEMENT RESTORATION DETAILS.
6. PAVED ROADWAY STRUCTURE AS PER SECTION 9.0 BASED ON STREET CLASSIFICATION.