#### **GENERAL SPECIFICATION NOTES**

- ALL WORKS SHALL BE CO-ORDINATED AND APPROVIED BY KOSCIUSZKO THREDBO (KT) ENGINEERING DEPARTMENT AND INSTALLED AS PER KT GUIDELINES
- SUB CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS, SERVICES AND STRUCTURES ON SITE PRIOR TO COMMENCEMENT OF WORK.
- SUB CONTRACTOR SHALL ARRANGE FOR ALL SURVEY SETOUT TO BE CAR RIEDOUT BY A
- ON COMPLETION OF PROPOSED WORKS ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AND GRASSED AREAS AND ROAD PAVEMENTS UNLESS NOTED OTHERWISE.
- MAKE SMOOTH TRANSITION TO EXISTING SERVICES AND MAKE GOOD WHERE REQUIRED.
- WHERE NEW WORKS ABUT EXISTING THE SUB CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
- CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER OR IN CLOSE PROXIMITY TO THESE SERVICES. HAND
- THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL AND COMMUNICATION/SECURITY DRAWINGS AND
- SUB CONTRACTOR TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS VARIOUS PIPE ADAPTORS TO ENSURE PROPER NON CORROSIVE CONNECTION BETWEEN DISSIMILAR PIPEWORK
- ALL ELEVATED SERVICES PIPEWORK SHALL BE CLEARLY LABELLED IN ACCORDANCE WITH REQUIREMENTS OF AS3500:2003 - AS 2419-2021 AND AS1345:1995.
- ALL SERVICES SHALL BE CHARGED AND TESTED PRIOR TO CONCEALMENT
- ALL SERVICE SHOWN ARE INDICATIVE ONLY AND FINAL PIPE DETAILS AND LOCATIONS ARE TO BE OBTAINED BY THE SUB CONTRACTOR CO-ORDINATING WITH AND GAINING CONFIRMATION FROM THE RELEVANT SERVICES.
- ELECTRICAL CONDUITS FOR HYDRAULIC SERVICES PLANT & EQUIPMENT SHALL BE ORANGE HEAVY DUTY RIGID TYPE IN ACCORDANCE WITH CATEGORY 'A' OF AS3000 AND AS DESCRIBED IN THE ELECTRICAL SPECIFICATION AND DOCUMENTATION.
- WHERE REQUIRED CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED TO ALL BENDS, T's, END POINTS AND ALL OTHER FITTINGS THAT MAY IMPART LOADS INTO THE ADJACENT GROUND. THRUST BLOCKS SHALL BE CONSTRUCTED TO AS3500 REQUIREMENTS AND LOCAL WATER AUTHORITY STANDARDS AND TO SUIT THE BEARING OF THE SOILS IN WHICH THEY ARE CONSTRUCTED.
- ON COMPLETION, ALL PIPEWORK SHALL BE SUBJECT TO A PRESSURE TEST REQUIRED BY MANAGING CONTRACTOR. ANY DEFECTS FOUND IN THE SYSTEM SHALL BE REMEDIED AND THE TEST RE-APPLIED.

### EARTHWORKS NOTES

SHALL BE COMPLETED IN ACCORDANCE WITH PROJECT SPECIFIC GEOTECH REPORT 1) EXCAVATION IS ANTICIPATED TO BE PREDOMINANTLY WITHIN SOILS OF VARIABLE NATURE INCLUDING FILL AND POSSIBLY COMPLETELY WEATHERED GRANITE AND COBBLES AND

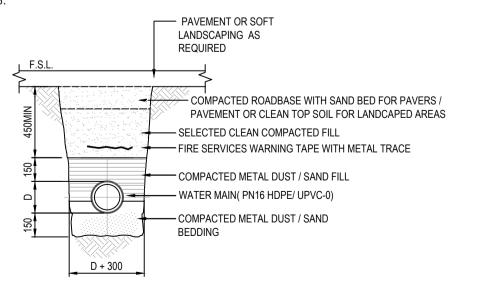
- BOULDERS, EXCAVATION COULD BE ACHIEVED BY SUITABLY SIZED EXCAVATOR. TEMPORARY EXCAVATION UP TO ABOUT 1M DEPTH MAY BE CUT VERTICAL IN CLAYEY SOILS AND NOMINALLY 1H:1V IN SANDS AND GRAVELS. DEEPER TEMPORARY EXCAVATIONS UP TO ABOUT 2M DEPTH SHOULD BE BENCHED / BATTERED AT NO STEEPER THAN 1.5H:1V, OR PROVIDED WITH TEMPORARY SHORING (E.G., BY PROPRIETARY BOX SHORING).
- PERMANENT EXCAVATIONS SHOULD BE FORMED NO STEEPER THAN 2H:1V AND SHOULD BE PROVIDED WITH EROSION PROTECTION.
- CORING THROUGH THE FOOTING OF THE CONCRETE BLOCK RETAINING WALL ALONG THE WESTERN SIDE OF SASHAS APARTMENT MUST BE CARRIED OUT WITH CARE TO ENSURE THAT THE RETAINING WALL IS NOT ADVERSELY IMPACTED
- WHERE FILING IS REQUIRED, IT SHOULD BE PLACED IN HORIZONTAL LAYERS OVER PREPARED SUBGRADE AND COMPACT AS PER TABLE 1 BELOW.

#### Table 1 - Compaction Specifications

Parameter	Cohesive Fill	Non-Cohesive Fill
Fill layer thickness (loose measurement):  Within 1.5m of the rear of retaining walls  Elsewhere	0.2m 0.3m	0.2m 0.3m
Density:      Beneath Pavements     Beneath Structures     Upper 150mm of subgrade	≥ 95% Std ≥ 98% Std ≥ 100% Std	≥ 70% ID ≥ 80% ID ≥ 80% ID
Moisture content during compaction	± 2% of optimum	Moist but not wet

#### SUBGRADE PREPARATION

- SUBGRADE FOR PIPE LAYING SHOULD BE PREPARED AS FOLLOWS: 6) STRIP EXISTING FILL AND TOPSOIL. REMOVE UNSUITABLE MATERIALS FROM THE SITE (E.G., MATERIAL CONTAINING DELETERIOUS MATTER). STOCKPILE REMAINDER FOR RE-USE AS LANDSCAPING MATERIAL OR REMOVE FROM SITE.
- 7) EXCAVATE SOILS TO DESIGN SUBGRADE LEVEL, STOCKPILING FOR RE-USE AS ENGINEERED FILL OR REMOVE TO SPOIL
- 8) COMPACT THE UPPER 150MM DEPTH TO A DRY DENSITY RATIO (AS1289.5.4.1-2007) NOT LESS THAN 100% STANDARD.
- 9) AREAS WHICH SHOW VISIBLE HEAVE UNDER COMPACTION EQUIPMENT SHOULD BE
- OVER-EXCAVATED A FURTHER 0.3M AND REPLACED WITH APPROVED FILL COMPACTED TO A DRY DENSITY RATIO NOT LESS THAN 100%.

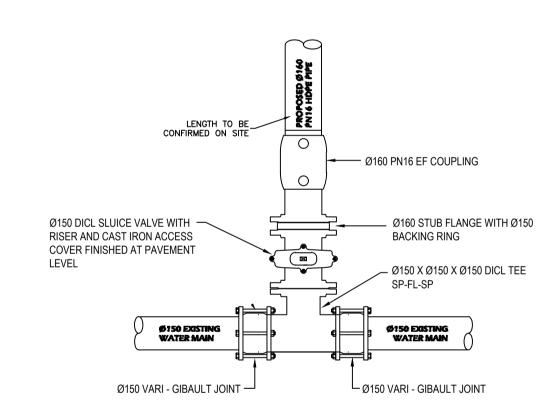


## **DETAIL 1- TRENCH DETAIL**

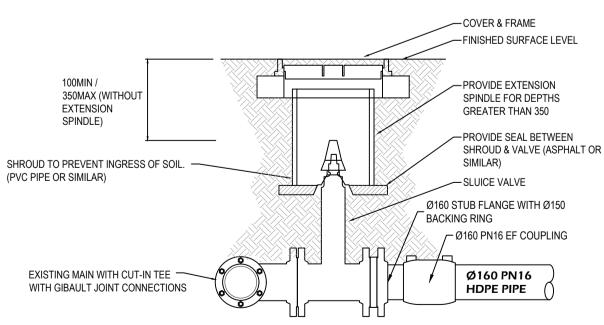
# KOSCIUSZKO THREDBO LOTS 794 (BLACKBEAR) & 795 (CANDLELIGHT) SEWER AND WATER SERVICING PROVISIONS

GN16 PIPEWORK RETICULATING / PASSING THROUGH PLAY ROOMS, PLAY AREA'S, COT ROOMS, ENCLOSED AREAS AND AREAS NOMINATED BY THE ACOUSTIC CONSULTANT SHALL BE ACOUSTICALLY INSULATED TO SATISFY THE NATIONAL CONSTRUCTION CODE (NCC) AND ACOUSTIC ENGINEER'S

- GN17 TRENCHES THROUGH EXISTING ROAD AND CONCRETE AREAS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MINIMUM OF 50mm IN BITUMINOUS PAVING. REINSTATE WITH ADDITIONAL REINFORCEMENT AND DOWELLING AS REQUIRED BY STRUCTURAL ENGINEERS.
- GN18 SUB CONTRACTOR SHALL PROVIDE ALL TIMBERING, SHORING AND SHUTTERING AS NECESSARY TO CONSTRUCT PIPEWORK INCLUDING THE REMOVAL OF SAME UPON COMPLETION OF PIPEWORK.
- GN19 SUB CONTRACTOR SHALL OBTAIN ALL AUTHORITY APPROVALS AND PAY ALL FEES
- GN20 ALL WORK TO BE IN ACCORDANCE WITH LOCALE WATER SUPPLY AUTHORITY, FIRE AND RESCUE NSW, AS3500, AS2118, AS2444, AS2419 AND RELATED STANDARDS AS APPROPRIATE
- GN21 SUB CONTRACTOR TO PROVIDE 'AS BUILT' DOCUMENTATION UPON PRACTICAL COMPLETION OF THE PROJECT AND SHALL BE IN CAD FORMAT (AUTOCAD).
- GN22 ORIGIN OF LEVELS:-AUSTRALIAN HEIGHT DATUM AND SHALL BE CONFIRMED ON SITE.
- GN23 ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT
- GN24 ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH SAND OR AN APPROVED GRANULAR MATERIAL AND COMPACTED TO 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289 E1.1.
- GN25 ALL SERVICES THAT CROSS FOOTINGS ETC. SHALL BE BACKFILLED WITHGRANULAR MATERIAL TO SUBGRADE LEVEL AND COMPACTED TO 95% M.M.D.D.
- GN26 PIPEWORK ADJACENT TO BUILDING STRUCTURE SHALL BE INSTALLED AS PER DETAIL 4 AND/OR STRUCTURAL ENGINEERING APPROVALS



**PLAN VIEW** 



**DETAIL 2 150mm CONNECTION WITH SLUICE VALVE INSTALLATION** 

Client/Architect

#### **DRAWING LIST**

- COVER SHEET, SPECIFICATION NOTES AND DETAIL SHEET 1
- SERVICES LOCATION / LAYOUT PLAN DETAIL SHEET 2 (WATER LONG SECTION)
- DETAIL SHEET 3 (SEWER LONG SECTION)

#### WATER SERVICES NOTES

1) ALL WORKS TO BE COMPLETED AS DETAILED AND IN ACCORDANCE WITH, AS-3500-1, WATER SERVICES ASSOCIATION OF AUSTRALIA WATER SUPPLY CODE AND RELEVANT AUSTRALIAN / **AUTHORITY STANDARDS** 

2) ALLOW TO CO-ORDINATE NEW SITE PROVISIONS WITH BLACKBEAR

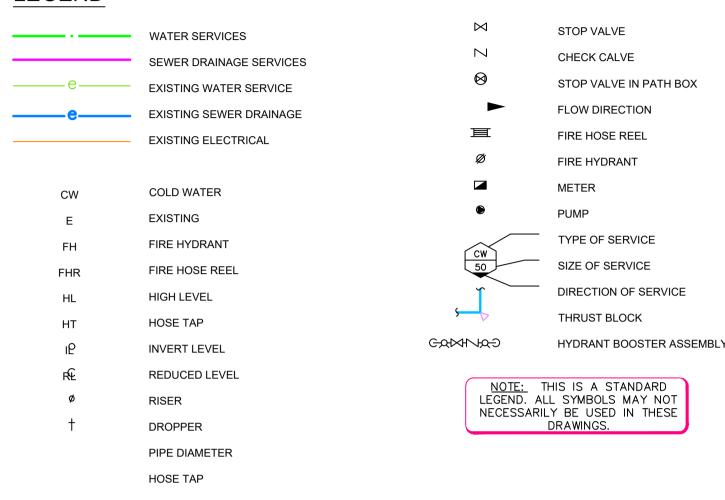
#### SEWER DRAINAGE SERVCIES NOTES

1) ALL WORKS TO BE COMPLETED AS DETAILED AND IN ACCORDANCE WITH, AS-3500- 2 AND WATER SERVICES ASSOCIATION OF AUSTRALIA SEWERAGE DRAINAGE CODE AND RELEVANT AUSTRALIAN / AUTHORITY STANDARDS

2) ALLOW TO CO-ORDINATE NEW SITE CONNECTION PROVISIONS WITH BLACKBEAR AND CANDLELIGHT SITE CONTRACTORS

#### MATERIAL SCHEDULE IN GROUND: Ø110 PN16 HDPE PRESSURE PIPE WITH ELECTRO-FUSION FITTINGS. WATER MAIN PIPE WORK TO SERVICES HAVE WIRE TRACE AS PER DETAIL 1 -H0-01 ABOVE GROUND: Ø110- PRE INSULATED PIPING EQUAL TO PERMAPIPE (PH 07 3200 2801) WITH PN16 HDPE CARRIER PIPE, CLOSED CELL RIDGED POLYURETHANE INSULATION WITH LOCKED SEAM GALVANIZED STEEL METAL SHEATH OUTER CASING AS PER DETAIL 6 H2-01 IN GROUND: Ø150 UPVC DWV CLASS EQUAL TO AS/NS1260 WITH SOLVENT WELD FITTING

## LEGEND



## WARNING CO-ORDINATE WITH EXISTING IN GROUND SERVICES



THIS DRAWING HAS BEEN PRODUCED FOR THE

PURPOSE OF INDICATING THE DIAGRAMMATIC DESIGN INTENT AND

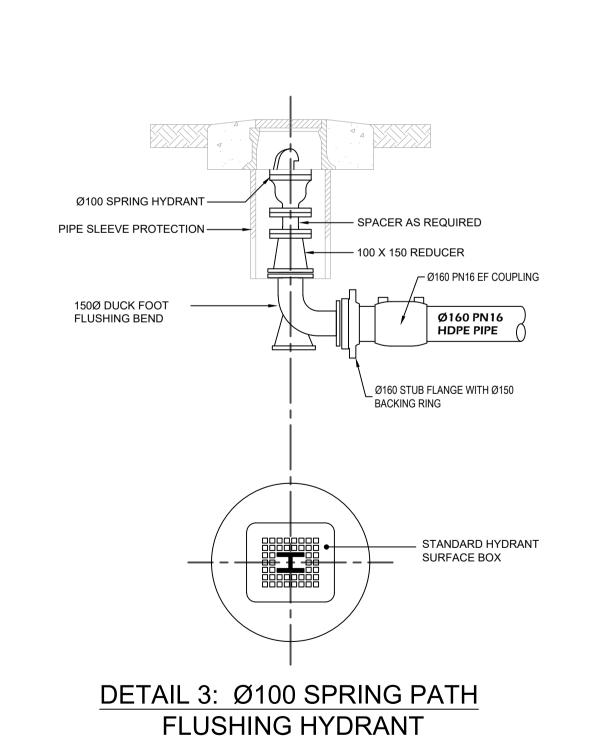
SERVICES AS DETAILED AND SHOULD NOT BE INTERPRETED AS

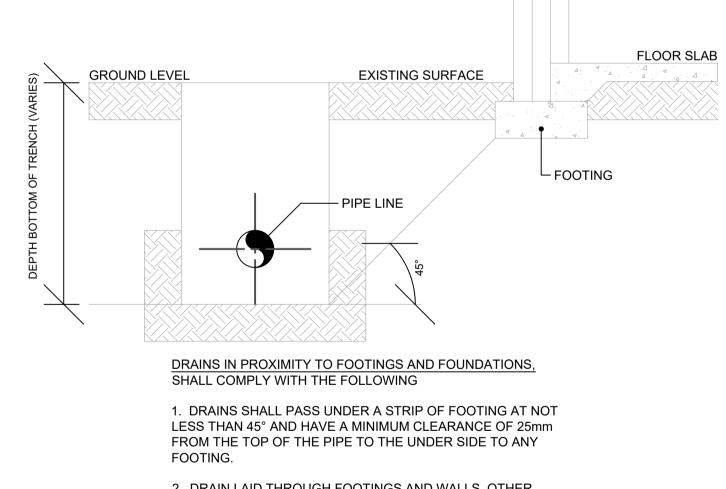
BEING FINAL. THIS DOCUMENT SHOULD BE READ IN CONJUNCTION

EXISTING SERVICES SHALL BE INVESTIGATED AND CONFIRMED ON

CONSENT OF SCOTT HARRIS & ASSOCIATES, PH 0411 512 887

WITH THE ARCHITECTURAL DRAWINGS





- 2. DRAIN LAID THROUGH FOOTINGS AND WALLS, OTHER THAN BELOW GROUND EXTERNAL WALLS, SHALL BE INSTALLED WITH AN ANNULAR SPACE OF NOT LESS THAN
- 25mm FILLED WITH A LINER OF FLEXIBLE MATERIAL. 3. WHERE A DRAIN IS TO BE LAID PARALLEL TO A FOOTING. THE EXCAVATION SHALL COMPLY WITH AS3500 CLAUSE 5.2 PART 2 AND ABOVE DETAIL.
- 4. DRAINS AND PIPES PASSING THROUGH WALLS AND FOOTINGS SHALL COMPLY WITH THE STRUCTURAL ENGINEERING SPECIFICATIONS FOR THE PROJECT.

**DETAIL 4: PIPEWORK IN RELATION TO FOOTINGS AND FOUNDATIONS** 

7/3/25 | SEWER SITE COORDINATION / GEOTECH REF SEWER SITE COORDINATION 12/2/25 CONSTRUCTION / APPROVAL 28/6/24 14/6/24 DESIGN FINALISATION PRELIMINARY DESIGN 8/4/24 Date Details

KOSCIUSZKO **THREDBO** PTY/LTD

No. | Date | Details



**SCOTT HARRIS &** ASSOCIATES p/I

Hydraulic Consultant

Hydraulic (plumbing) - Fire Protection - Civil (stormwater) - Building Services - Design & Documentation - Project Management - Consultancy Services -

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SH Engineering Consultants

THREDBO VILLAGE LOTS 794 & 795 KOSCIUSZKO THREDBO P/L WATER AND SEWER SERVICES

Drawing HYDRAULIC SERVICES **COVER SHEET SPECIFICATION NOTES DETAIL SHEET 1** 

Project No. Drawing No. 2023048

H0-01 1:150 (@ A1) Date Designed S.H. Dip Engineering Plumbing Services m.AHSCA

Revision