CIS STANDARD – PERMIT-TO-DIG FORM (CIS-ENG-F003)

This permit applies for all excavation and ground penetration works to a depth greater than 150mm.

This permit must be submitted at least 15 working days prior to the proposed commencement of the excavation.

PART A - PROJECT DETAILS			
Type of Works (tick one)	☐ **Project**	☐ **Planned Maintenance**	☐ **Emergency**
Project Name and Location			
Description of Works (Proposed Service/Size)			
Details of Ground Excavation (Length/Width/Depth)			
Excavation Works Programme	**Start date:**	**End date:**	
Head Contractor's Supervisor	**Name:** **Mobile:**	**Company:** **Email:**	
Sub Contractor's Supervisor	**Name:** **Mobile:**	**Company:** **Email:**	
University Representative/ Project Manager	**Name:** **Mobile:**	**Company:** **Email:**	

PART B – EXISTING ASSET INVESTIGATION BY CONTRACTOR

Asset investigations must be conducted before any excavation and/or ground penetration works to identify existing underground assets and services, potential risks and site control measures required for the excavation works.

1. Underground Assets Location Checklist - Authority Owned Utilities (Dial Before You Dig Search)

Utility (include details of owner)	**Current DBYD plans received & attached (issue date < 30 days)**	**DBYD plans indicate assets in vicinity**	**DBYD plans indicate easement in vicinity**	**Assets verified on site by services locating and visibly marking on ground**	**Asset owner requires pot holing due to proximity of works to existing infrastructure**	**Asset owner requires on site presence during excavation works**
Electricity (e.g. Ausgrid)	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**
Gas (e.g. Jemena, AGL)	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**
Water (e.g. Sydney Water, Council)	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**
Sewer (e.g. Sydney Water, Council)	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**
Stormwater (e.g. Sydney Water)	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**
Communications (e.g. Telstra, Optus)	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**
Traffic Signals (e.g. RMS/Council)	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**	☐ **Yes** ☐ **No**

Street Lighting (RMS/Council)	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Other	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

2. Underground Assets Location Checklist – University of Sydney-Owned Utilities

This information must be obtained by contractor from the CIS Information Manager.

Utility	Current University utility plans received and attached	University plans indicate assets in vicinity	Assets verified on site by services locating and visibly marking on ground	University requires pot holing due to proximity of works to existing infrastructure (1)	University requires on site presence during excavation works (1)
Electricity	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Gas	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Water	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Sewer	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Stormwater Drainage	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Communications	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Street Lighting	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Irrigation	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Decommissioned Services	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Other	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

Note 1: Details of when the University requires these actions is determined by the type of asset and available clearances, in strict accordance with **Table B of the WorkCover Work Near Underground Assets Guide 2007 (See Attachment 1 to this Form)**

3. Other Assets in Vicinity

Trees and Tree Roots	☐ Yes ☐ No	**Adjacent Buildings and Structures**	☐ Yes ☐ No	**Overhead Powerlines**	☐ Yes ☐ No
Chemical Stores	☐ Yes ☐ No	**Petroleum Services**	☐ Yes ☐ No	**Above/underground Storage Tanks**	☐ Yes ☐ No
	☐ Yes ☐ No		☐ Yes ☐ No		☐ Yes ☐ No

PART C – POTENTIAL WORKS HAZARDS (other than those listed in Part B)

The following additional hazards have been identified for the proposed works and incorporated into the excavation works plan

Slips, Trips and Falls	☐ Yes ☐ No	**Excavation Collapse**	☐ Yes ☐ No	**Traffic**	☐ Yes ☐ No
Difficult Excavation Access and Egress	☐ Yes ☐ No	**Vibration**	☐ Yes ☐ No	**Pedestrian Control**	☐ Yes ☐ No
Manual Handling	☐ Yes ☐ No	**Soil Contaminants**	☐ Yes ☐ No	**Excavation Flooding**	☐ Yes ☐ No
Heavy Machinery	☐ Yes ☐ No	**Airborne Contaminants**	☐ Yes ☐ No	**Hot Works**	☐ Yes ☐ No

Unauthorised Access to Excavation Site	☐ **Yes** ☐ **No**	**Noise**	☐ **Yes** ☐ **No**	**Accumulation of Dangerous Gases in Excavation**	☐ **Yes** ☐ **No**
Confined Space	☐ **Yes** ☐ **No**		☐ **Yes** ☐ **No**		☐ **Yes** ☐ **No**

PART D – SITE CONTROLS REQUIRED BY CONTRACTOR

The following site controls are required for the excavation works plan to avoid/mitigate hazards identified in Parts B and C.

Are all directives of asset owners been complied with? (This includes but is not limited to any site survey requirements prior to excavation and on site supervision during all excavation works)	☐ **Yes** ☐ **No**
Is a traffic/pedestrian control plan developed by an RMS-accredited person required? (If yes, a traffic/pedestrian management plan needs to be submitted with this permit)	☐ **Yes** ☐ **No**
Are services isolations required for the excavation works? (If yes, a services isolation plan needs to be submitted indicating services affected, proposed outage period and controls to be adopted during outage)	☐ **Yes** ☐ **No**
Are adequate controls in place for powered excavation works in accordance with the Table B of the WorkCover Work Near Underground Assets Guide 2007 (See Attachment 1 to this Form)? (This includes incorporation of adequate clearances, no go zones and controls such as pot holing and spotters, into the excavation works plan)	☐ **Yes** ☐ **No**
Are all persons appropriately trained and competent to perform their task? (This includes site specific inductions and information relating to the visible ground markings of existing underground services in the vicinity of the excavation together with the controls and clearances required for powered excavation works)	☐ **Yes** ☐ **No**
Are barricades, fencing, road plates, signage proposed to prevent unauthorised access to the excavation site and to protect persons working in the vicinity of the excavation? (If yes, a fencing, hoarding and signage plan must be submitted)	☐ **Yes** ☐ **No**

PART E – SURFACE REINSTATEMENT AND BACKFILLING (also refer to CIS Excavation Standard)

The following items must be incorporated into a surface reinstatement and backfilling plan.

Existing surfaces affected by excavation shown on plan	☐ **Yes** ☐ **No**
Designated safe stockpiling areas for excavated materials	☐ **Yes** ☐ **No**
Confirmation of proposed end-use of excavated material	☐ **Yes** ☐ **No**
All existing services discovered during excavation works must be surveyed and documented prior to backfilling in as accordance with AS/NZS 5488 to Quality Level A and included in work as executed drawings.	☐ **Yes** ☐ **No**
New services installed during excavation works must be documented prior to backfilling in accordance with AS/NZS 5488 Quality Level A and included in work as executed drawings	☐ **Yes** ☐ **No**
Full details of all backfilling materials together with compaction details in compliance with CIS Excavation Standards.	☐ **Yes** ☐ **No**
Full details of surface reinstatement provided, including details of the contractor performing the works, proposed materials, finishes and plans indicating the extent of the resurfacing.	☐ **Yes** ☐ **No**

PART F – ATTACHED DOCUMENTS

The following documents must be submitted with this Permit for Ground Excavation/Penetration.

WARNING! The Permit will not be processed without these documents being attached.

Consolidated, coordinated construction plans showing proposed works including location of existing underground assets, surfaces affected, stockpile areas, backfilling specifications and extent of surface reinstatement details.	☐ **Yes** ☐ **No**
Risk assessments, Safe work Method Statements (SWMS) and Safety Management Plans addressing the hazards identified in Parts B & C and the site controls required under Part D	☐ **Yes** ☐ **No**
Evidence that the contractor responsible for the works has $20 million Public Liability Insurance Certificate?	☐ **Yes** ☐ **No**
Evidence that the contractor responsible for the works has adequate Workers Compensation Insurance?	☐ **Yes** ☐ **No**
Surface Backfilling and Reinstatement Plan	☐ **Yes** ☐ **No**
Part D may require the following documents with the Permit for Ground Excavation/Penetration	
Traffic/pedestrian control plan provided by an RMS-accredited person	☐ **Yes** ☐ **No**
Services Isolation Plan	☐ **Yes** ☐ **No**
Fencing, Hoarding and Signage Plan	☐ **Yes** ☐ **No**

PART G – CONTRACTOR ACKNOWLEDGEMENT AND AUTHORISATION

The information contained in this document is intended as a guide only as is not intended to identify all hazards and site controls required for the excavation works. The Head Contractor and all Sub Contractors working on the excavation site are responsible and liable to ensure all hazards are identified adequately eliminated or controlled to protect the safety of all persons and any assets affected by the works.

The proposed excavation works have been assessed as safe if performed in accordance with all conditions and attachments indicated in this permit. Persons working under this permit have been instructed about site control measures to be implemented and supervision is in place to ensure the control measures identified in this permit will be complied with.

Company	**Name**	**Title**	**Signature**	**Date**
Sub Contractor		Site Supervisor		
Sub Contractor		Project Manager		
Head Contractor		Site Supervisor		
Head Contractor		Project Manager		

The Head Contractor must submit this Permit-to-dig form to the University of Sydney Project Manager for completion of subsequent sections and authorisation.

PART H – UNIVERSITY AUTHORISATION

1. Project manager check and review

The assigned University Project Manager has assessed the contractor submission for completeness and confirms adequate Risk Analysis and Site Controls have been incorporated and all required information has been submitted and is attached to the permit for review by internal stakeholders.

Company	**Project Manager Name**	**Signature**	**Date**

2. Internal stakeholder review

The information contained on this permit has been reviewed and assessed by the following persons with regards to the area of responsibility indicated.

Area of Responsibility	**Name**	**Title**	**Signature**	**Date**
CIS Underground Services Information				

CIS Hydraulic Services				
CIS Electrical Services				
ICT Communications				
CIS WHS				
CIS Traffic and Parking				
CIS Grounds				
CIS Precinct Manager				

3. Project manager recommendation

The assigned University Project Manager has assessed the internal stakeholder review of the contractor's documented Risk Analysis and Site Controls attached to this permit. Authorisation of the permit-to-excavate is recommended.

Company	**Project Manager Name**	**Signature**	**Date**

4. Director CIS Authorisation

Excavation work for this project is authorised to commence. All works must be performed in accordance with the information supplied on this permit.

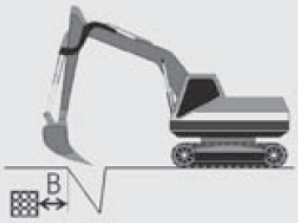
Name	**Title**	**Signature**	**Date**

WARNING!

Excavation work must be suspended immediately and site made safe if persons are injured or if assets are damaged and the incident immediately reported to the University Project Manager.

A copy of this permit must be kept by Head Contractor on site.

ATTACHMENT 1
TYPES OF ASSETS AND LIMITS OF UNDERGROUND APPROACH
(Source: Table B of the WorkCover Work Near Underground Assets Guide 2007)

Assets	Clearances	No Go Zone For Powered Excavation	Controls	Typical Depths
Types of underground assets **(Note:** The owners of assets registered with the Dial Before You Dig service and covered by this Guideline require an enquiry through this free service and the compliance with any directive issued with information regarding the asset)	The minimum approach distance for individuals carrying out work near underground assets	Distance 'B' is the minimum approach distance for powered excavating machines  For directional boring across the line of an asset a minimum clearance of **300 mm** from the asset shall be maintained For directional boring parallel to the asset and at the level of the asset, a clearance of **500 mm** shall be maintained from the edge of the nearest asset. It may be necessary to dig trial holes to prove the location of the nearest asset at points along the route. See Section 6.10	If the risk assessment identifies a potential risk of making contact with both underground and overhead assets, two safety observers would be required. One observer to ensure that the machinery maintains a safe distance from underground assets, the other observer to ensure a safe distance from the overhead powerlines In the case of gas or electricity assets, an appropriate fire extinguishing system must be at the worksite If the width and/or depth of the excavation will expose the asset, the asset owner must be contacted prior to commencing work	

Assets	Clearances	No Go Zone For Powered Excavation	Controls	Typical Depths
Low and Medium Pressure services and Low pressure mains	N/A	**300 mm**	Pot-hole to confirm location of service The position of the asset will not appear on the maps	**300 – 450 mm**
Medium Pressure mains	N/A	**300 mm**	Pot-hole to confirm location of asset The code of practice for shafts, tunnels and trenches, and the guide to dangers of poorly ventilated workplaces Only one individual at a time should be excavating if hand excavation is being undertaken in a confined space. Another should act as an observer and be able to operate any breathing, escape or fire equipment required The elimination of an ignition source in the event of an escape Excavation below underground assets should not be undertaken within a distance of **300 mm** below the asset located at the lowest level **Note:** All transmission pipelines involving gas, oil and petrochemical have separate requirements and the asset owners should be contacted.	**450 – 750 mm**

Assets	Clearances	No Go Zone For Powered Excavation	Controls	Typical Depths
High Pressure services, mains and pipelines	**300 mm** with hand tools and supervision from Network Authority	**1000 mm**	Powered excavation within 300 – 1000 mm is only permitted under supervision and with a Permit to Work from Asset Owner Also see **Controls** for medium pressure mains immediately above	**750 – 1200 mm**
Low Voltage Electricity cables – voltages less than or equal to 1000V (1kV)	Close proximity with use of hand tools	**300 mm**	Must contact asset owner for specific conditions	**450 – 750 mm**
Electricity conductors from 11,000V (11kV) up to 33,000V (33kV)	Close proximity with use of hand tools	**600 mm**	Must contact asset owner for specific conditions	**900 mm**
Underground sub-transmission cables 33,000V up to 132,000V (132kV)	Must contact asset owner	Must contact asset owner	Must be carried out under the supervision of the asset owner	**900 mm**
High Voltage Electricity cables – voltages from 1000V (1kV) up to 33kV	Close proximity with use of hand tools	Must contact asset owner	Must contact asset owner for specific conditions	**600 – 1000 mm**
Extra High Voltage Electricity Transmission cables – voltages above (132kV) and 330,000V (330kV)	Must contact asset owner	Must contact asset owner	Work must be carried out under the supervision of the asset owner	**800 – 1200 mm**
Telecommunications cables	Contact asset owner for specific conditions	Contact asset owner for specific conditions	Must contact the asset owner for specific conditions	Typically **450 – 600 mm**, other assets to **1200 mm**
Water pipelines	N/A	**300 mm** (if pipeline is **200 mm** or greater in diameter)	Pot-hole to confirm location of asset	Min **450 mm**
Sewerage pipelines	N/A	**300 mm** (if pipeline is **200 mm** or greater in diameter)	Pot-hole to confirm location of asset	Between **600 mm** to **10 (ten) metres**