PERMIT – TRENCHING

based on Approved Codes of Practice for: Excavations & Shafts for Foundations, Manual Handling and Operator Protective Structures

SPARROW Construction Limited REGISTERED MASTER BUILDERS

This permit must be completed prior to any trenching taking place

PROJECT: **STAGE:**

ENSURE THE SCOPE OF THE WORK IS UNDERSTOOD AND CONSTRUCTION DOCUMENTS *being used are current, have been fully read and understood and are adhered to, including drawings, specification and contract notices.*

REFERENCE DRAWINGS: **DATE:**

COMMENTS:

ENSURE AUTHORITIES ARE NOTIFIED

	YES	NO	
People are required to work in the trench	☐	☐	STOP
Notifiable works – excavation deeper than 1.5m and is deeper than it is wide at the top	☐	☐	STOP
Ministry of Business, Innovation and Employment (DoL) notified	☐	☐	STOP

ENSURE GEOTECHNICAL CONDITIONS OF THE SITE ARE UNDERSTOOD

Review all available geotechnical information and consider carrying out geotechnical investigations if no information

		YES	NO
Soil conditions	TYPE A – Unsaturated ground; soils above ground water table or level	☐	☐
	TYPE B – Saturated ground; soils below ground water table or level	☐	☐

Angle of repose cohesionless soils (gravels and sands): °

V: H:

Water table depth

Gas risk

		YES		NO
Peaty ground	methane, hydrogen sulphide	☐	STOP	☐
Filled and made ground	carbon dioxide, hydrogen sulphide	☐	STOP	☐
Reclaimed land and tip fills	carbon dioxide, methane	☐	STOP	☐
City streets	Natural gas, carbon dioxide, steam	☐	STOP	☐
Thermal area	carbon monoxide, carbon dioxide, hydrogen sulphide, sulphur dioxide, methane	☐	STOP	☐
Petroleum installations, service stations	Petrol fumes, LPG, kerosene	☐	STOP	☐

If yes to any of the above, describe the special measures that have to be taken:

ENSURE THE IMPACT AND IMPLICATIONS OF WORKING ON THE SITE ARE UNDERSTOOD

		YES	NO	
Impact below the ground	Has the ground disturbance permit been issued?	☐	☐	STOP
Impact of overhead services, structures	Are there any overhead services, structures?	☐ STOP	☐	
	Methods of isolating, minimising risk to and from overhead services and structures:			
Impact on adjacent structures	Are there any adjacent structures?	☐	☐	
	Excavation below level of adjacent foundation	☐ STOP	☐	
	If YES, specific engineering advice required			
	Dewatering is required	☐ STOP	☐	
	If YES, specific engineering advice required			
	Specific engineering design obtained from:			
	Engineering design requirements:			
Impact on users of the site – vehicle and foot traffic safety	Is a traffic management plan required?	☐ STOP	☐	
	If YES, obtain TMP			
	Has a traffic management plan been obtained?	☐	☐	

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ENSURE ISOLATION OF AREA TO PROTECT AGAINST PEOPLE FALLING INTO THE TRENCH/EXCAVATION

Fencing or barricades in position YES ☐ NOT REQUIRED ☐

ENSURE A SAFE TRENCHING METHOD IS USED TO PREVENT THE TRENCH COLLAPSING ON PEOPLE IN THE TRENCH

		YES		N/A
Excavations 1m or deeper	more stringent than CoP 1.5m	☐	STOP	☐
	If YES, one of the following methods must be used			
Excavations less than 1m	are any special precautions or work methods necessary? (eg undermining a foundation)	☐	STOP	☐
	If YES, one of the following methods must be used			

METHOD OF EXCAVATION SELECTED FOR ELIMINATION OF RISK OF COLLAPSE YES NO

1 Shoring ☐ STOP ☐

Shoring system type:

Shoring as per Table 3, CoP Excavation and Shafts for Foundations ☐ ☐

Specifically designed shoring certifying engineer CPEng #:

Shields certifying engineer CPEng #:

Surcharge loads allowed ☐ ☐ STOP

If NO, refer to Surcharges below

2 Battering banks to safe slopes YES ☐ NO ☐

2.1 Above water table YES ☐ NO ☐

Slope to be less than the lesser of 1V:1H (45%) or the angle of repose: °

V: H:

2.2 Saturated or submerged soils or trenches greater than 3m YES ☐ NO ☐

Slope to be less than the lesser of 1V:1.5H (33%) or the angle of repose: °

V: H:

3 Benched as figure 2 YES ☐ STOP NO ☐ STOP

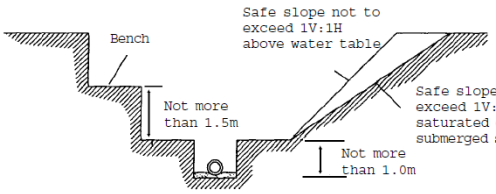

Fig.2 Excavation faces benched and battered to a safe slope.

3.1 Above water table

Slope to be less than the lesser of 1V:1H (45%) or the angle of repose: ° YES ☐ NO ☐

V: H:

3.2 Below water table

Slope to be less than the lesser of 1V:1.5H (33%) or the angle of repose: ° YES ☐ NO ☐

V: H:

4 Alternatives outside Code of Practice YES ☐ NO ☐

Design – refer attached

SAFE ACCESS METHOD Ladder ☐ Steps ☐ Other ☐

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ENSURE CONTROL OF LOCATION OF MATERIALS AND LOADS NEXT TO THE TRENCH (SURCHARGE MANAGEMENT)

Exclusion zone adjacent to trench for materials and loads clearly identified YES ☐ NO ☐ STOP

How:

CASE A: YES ☐ NO ☐

Shoring designed for soil loads only applies

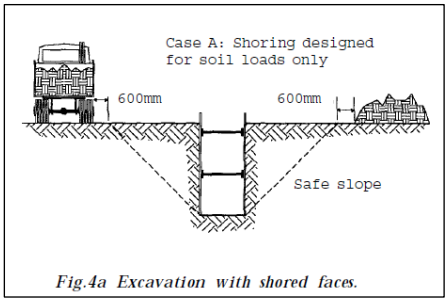

Fig.4a Excavation with shored faces.

Safe slope =

Distance from edge =

CASE B: YES ☐ NO ☐

Shoring designed for soil and surcharge loads applies

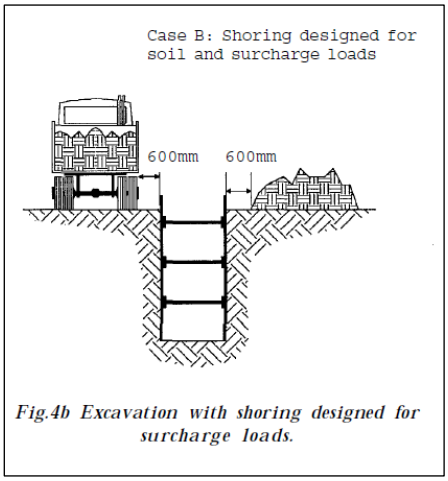

Fig.4b Excavation with shoring designed for surcharge loads.

CASE C: YES ☐ NO ☐

Excavation with battered faces applies

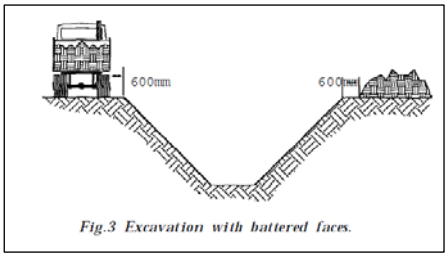

Fig.3 Excavation with battered faces.

ENSURE SURFACE WATER CONTROLLED

	YES	NO
Does surface water require control (eg trench in water catchment area)?	☐	☐

Method:

DEWATERING REQUIRED

	YES	NO
Is dewatering required?	☐	☐

Method:

Water discharge points:

ENSURE EXCAVATOR AND LIFTING EQUIPMENT ADEQUATE TO LIFT LOAD

	YES	NO
Weight of pipes	☐	☐
Capacity of machine	☐	☐
Rating of slings (5 x weight of load)	☐	☐

ENSURE CORRECT MANUAL HANDLING PRACTICES FOLLOWED

	YES	NO	
Staff familiar with and follow Code of Practice for Manual Handling	☐	☐	STOP

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ENSURE EXCAVATOR OPERATOR PROTECTED *(refer table below)*

Risk of plant

Risk of work situation

Nominate minimum operator protection required

Type of operator protection system provided

Operator protection system meets or better than minimum nominated requirement YES ☐ NO ☐ STOP

Recommendation for Operator Protective Structures in the Construction Industry			
Risk of work situation **Risk of plant**	**LOW** Level stable ground	**MEDIUM** Road shoulders Stockpiles Low embankments	**HIGH** Steep and/or unstable ground Clearing operations Demolition
Category 1 (HIGH) Rollers Loaders Skid steer Motor scraper	TOPS/FOPS/COPS Caution required Protective structure advisable	TOPS/ROPS/FOPS/OPS/COPS Protective structure strongly recommended	ROPS/FOPS/OPS Extreme risk Protective structure strongly recommended
Category 2 (MEDIUM) Excavators Dozers Tractors Commercial lawn mowers	Not essential	TOPS/ROPS/FOPS/OPS/COPS Protective structure advisable	TOPS/ROPS/FOPS/OPS/COPS Protective structure strongly recommended
Category 3 (LOW) Graders Road sweepers	Not essential	TOPS/FOPS/COPS Caution required Protective structure advisable	TOPS/ROPS/FOPS/OPS/COPS Protective structure advisable

ROPS may include FOPS and/or OPS. TOPS may include FOPS and/or OPS. COPS may include FOPS and/or OPS.

This list is not exclusive. *(For further information, consult an OSH inspector or the New Zealand Contractors' Federation.)*

Abbreviations:

ROPS: *Roll Over Protective Structure*
FOPS: *Fall Over Protective Structure*
OPS: *Operator Protective Structure*
TOPS: *Tip Over Protective Structure*
COPS: *Cabin Operator Protective Structure*

This permit must be completed and signed off by the nominated responsible person below prior to any trenching work taking place.

AUTHORISATION TO TRENCH	***I have reviewed the work authorised by this permit and the information pertaining to each item. Safety procedures have been received and are understood by all personnel.*** SCL person responsible: _____ Date: _____

Person responsible for excavation

and prestart inspections: _____ Date: _____