# Training Reference Manual 2022

***NOTE**: This document includes many examples of Kordon® installation details/procedures. It is not a full complement of all likely situations where Kordon can be installed. It is designed as a reference manual for Kordon Installers, architects, engineers, building designers, building certifiers and building contractors.*

**www.es.bayer.com.au**
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ABN 87 000 226 022

## Contents

***Termites in Australia***

Termites have been a natural part of the ecosystem on earth for more than 150 million years. Although commonly called ‘white ants’, they are not ants and in fact are more closely related to cockroaches.

Australia has approximately 300 species of termites, fortunately only about 15 attack timber important to humans, the rest are mainly grass feeders. Termites can be roughly divided into 3 groups: dampwood, drywood and subterranean. Dampwood termites generally feed on moist rotten logs on the forest floor and rarely cause a nuisance to humans. Drywood termites live in small pockets in the dead wood of trees and timber in houses. They obtain their moisture from the timber they eat and require no contact with the soil. Subterranean termites are generally ground-dwelling and require soil contact or some external source of moisture. Subterranean termites cause the most damage to timber- in-service in Australia and will be the type of termite talked about below.

***Termite Biology***

Termites are social insects in that they live and work together in large colonies with each individual having a specific task to perform to enable the colony to function. These tasks can be divided into three main roles – working, protecting and reproducing. Each task falls to different types (castes) of termite (i.e. worker, soldier and reproductive) with each caste having a specialised body shape and behaviour to enable it to perform its tasks.

The worker does as its name suggests and does so 24 hours a day, 7 days a week. Workers build the nest and galleries, tend the eggs and young, gather food and feed the rest of the colony. Workers are wingless, sterile, blind and are white to translucent in appearance.

The soldiers are distinguished from other castes by their heads, which are heavily armoured and coloured. They also are wingless, sterile and blind. Because their mandibles are so specialised, soldiers must be fed by the workers. The primary function of the soldier is to defend the colony against predators such as ants. Soldiers rely on chemical as well as physical weapons. Some soldiers bite their attacker whilst others spray or inject a poison. Some have strongly built heads, which may be used as plugs to seal the nest from predators.  The soldier caste is the most distinctive and is usually used to identify a particular species.

The reproductive or alate castes are the potential kings and queens of new colonies. They possess eyes, functional reproductive systems and wings. They usually swarm (leave the colony) in spring to early summer, or late summer to early autumn, often through specially constructed flight exits. They normally swarm at dusk and may be attracted to lights at night. Termite alates are commonly found in spider webs.

After swarming, the alates break off their wings and if the conditions are right, begin building a new colony. The original mating pair becomes the new king and queen. The king does not change shape during this phase. The queen's abdomen becomes enormously enlarged until she is completely immobile, becoming an egg laying machine. In some species, the queen is capable of laying up to 2000 eggs a day.

***Nests***

Termites build various types of nests. Some termite species have a total underground existence without a central nest whilst others build a central nest in the soil, or in dead or living trees. Some species attach their nest to the outside of a tree but maintain soil contact via galleries running down the outside of the trunk.
A termite mound is the most familiar form of termite nest. Mounds are often very distinctive in form depending on the species of termite. They can vary in size and shape from hardened flat lumps of soil to tall, columnar structures, which may be more than 7m high.

***Feeding behaviour***

Termites feed on dead or living plant material containing cellulose. Cellulose is digested by intestinal protozoa or bacteria, which also contain essential amounts of nitrogen. Often termites dispose of excess, dead and diseased members of the colony by cannibalism, thereby conserving nitrogen.

Some species of timber are resistant to termites, but none is 'termite proof'. Termites will often damage materials they cannot digest, for example, plastics, rubber, metal or mortar. Primarily, this damage occurs when the indigestible items are encountered in the termite's search for food.

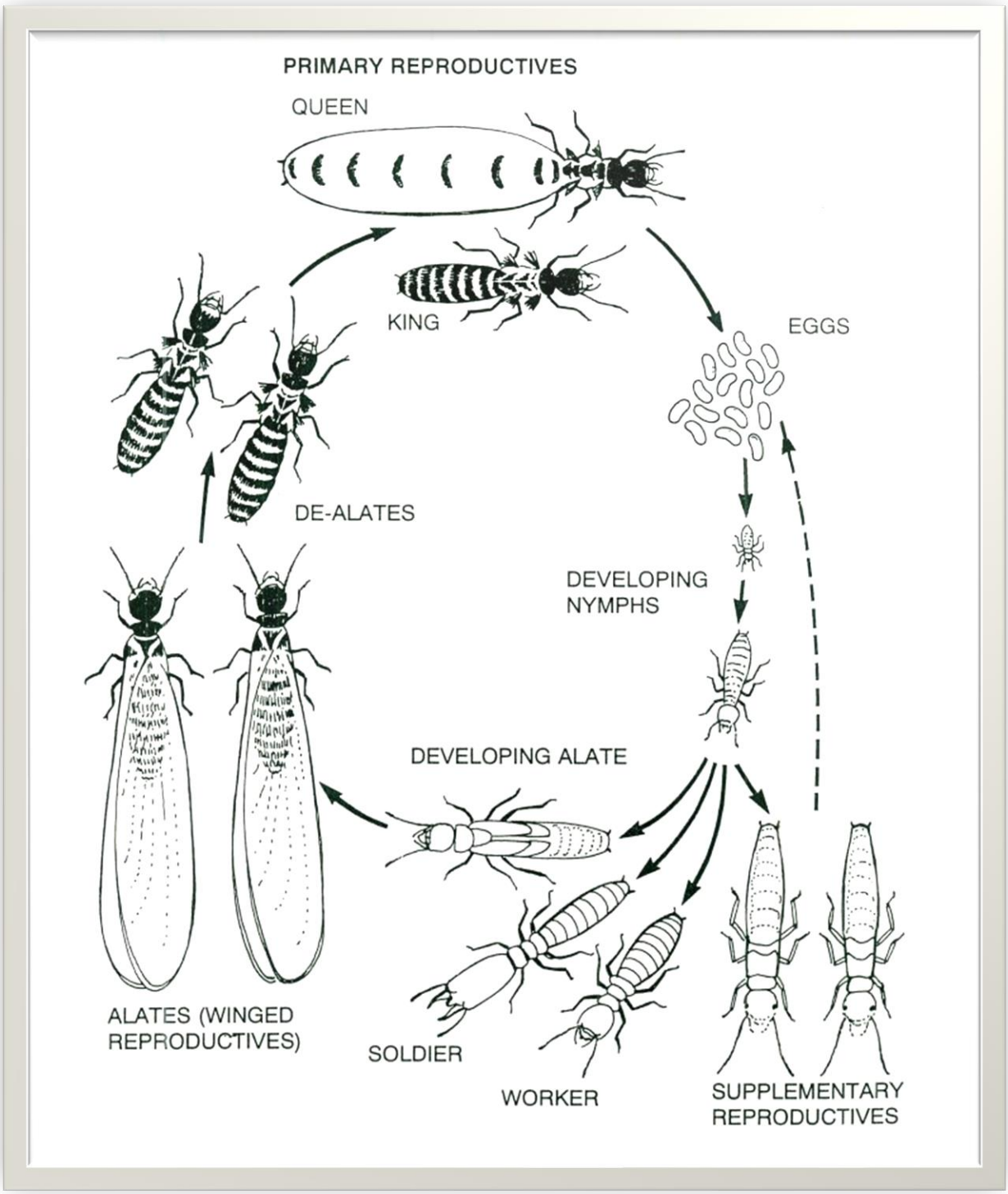
Most termites forage for food by means of underground galleries or covered runways which extend from the central nest to food sources above or below ground.
The gallery system of a single colony may exploit food sources over as much as one hectare, with individual galleries extending up to 50m in length.

Apart from grass-eating species, which forage in the open, all termites remain within a closed system of galleries where they are protected from natural enemies such as ants and from temperature/humidity extremes.

***Distribution and importance***

There are about 15 species of subterranean termites which commonly attack timber-in-service throughout Australia with the most common being *Coptotermes* spp., *Schedorhinotermes* spp., *Nasutitermes* spp. and the giant northern termite *Mastotermes darwiniensis*.

Generally the amount of termite activity and therefore damage, increases the further north in Australia you go, with soil type also having an important influence on termite distribution. In reality, any structure containing wood is exposed to possible subterranean termite invasion unless protective measures are taken.



Bayer is one of the world's most trusted names in life, health and environmental sciences. The wealth of technical and commercial expertise which Bayer provides offers Kordon installers, builders and homeowners the reassurance, support and backing of one of the world's largest, most progressive and innovative organisations. Kordon is proudly developed and manufactured by Bayer in Australia and is a licensed ‘Australian-Made’ product.

The Environmental Science business unit of Bayer, is the world's largest environmental science business group and the most innovative creator of responsible pest and disease management solutions.

Our range includes products combining high performance with low toxicity and environmental sustainability. We serve a mosaic of different customers across both the non-agricultural professional market and the urban consumer market.

Our goal is to increase our lead as the most innovative creator of responsible pest control solutions. We are continually developing new low-dose technology and integrated pest management techniques to replace older, less desirable methods. Our resources and capabilities enable us to set higher standards for the industry as a whole.

The extensive testing of Kordon by Bayer and various independent authorities has established that the blanket will remain effective for over **50 years** - the commercial life of a building.

Kordon Termite System has been assessed to provide a 50 year durability and design life.

From an environmental perspective, Kordon offers a host of advantages. As Kordon is safely encapsulated between the two plastic sheets, Kordon is the ideal choice for allergen free housing or environmentally sensitive sites. It is for this very reason Kordon has been chosen for a large number of schools, hospitals and public buildings over the last 25 years.

Kordon Termite System is a uniquely flexible building product that provides a combined physical and repellant termite blanket - and can easily be moulded cut and joined to fit complex design features.

Complete under slab installation of Kordon provides an impermeable moisture blanket for the entire building as well.

Developed and manufactured in Australia, Kordon is backed by the global resources of Bayer - the world's largest life science business and most innovative source of responsible pest and disease management solutions.

In ongoing assessment since 1989 by Bayer, Kordon has achieved 100% success as a physical termite blanket. Kordon has also been tested and evaluated by the **CSIRO,** Australian Building Codes Board, State Forestry Departments, State Building Authorities and experts in building design.

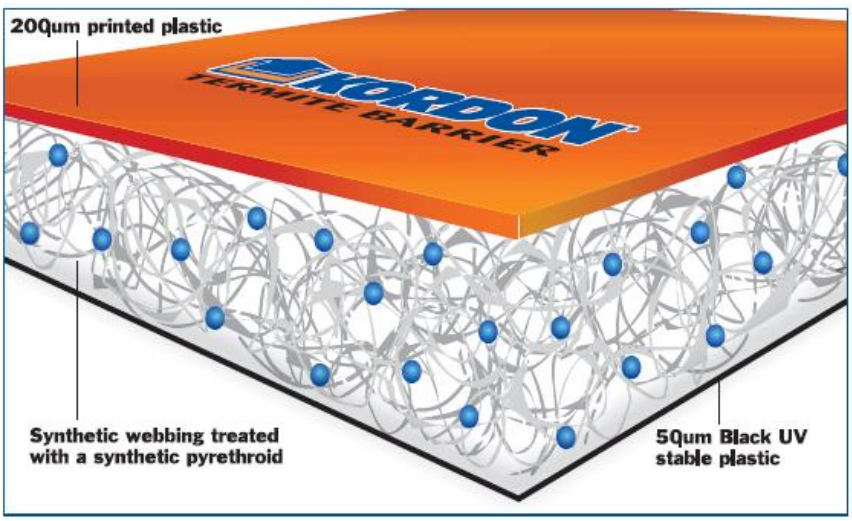
**Kordon The Product**

Kordon contains deltamethrin, a synthetic pyrethroid that kills termites which come into contact with it. Equally importantly, though, deltamethrin is a powerful termite repellent, so termites are very unlikely even to approach the barrier and attempt to breach it.

The deltamethrin is impregnated into a fibrous webbing which is then laminated on both sides.

The top orange UV stabilised 200- micron plastic layer provides the moisture vapour barrier, while the bottom black UV stabilised plastic layer encapsulates, protects and completes the physical termite barrier.

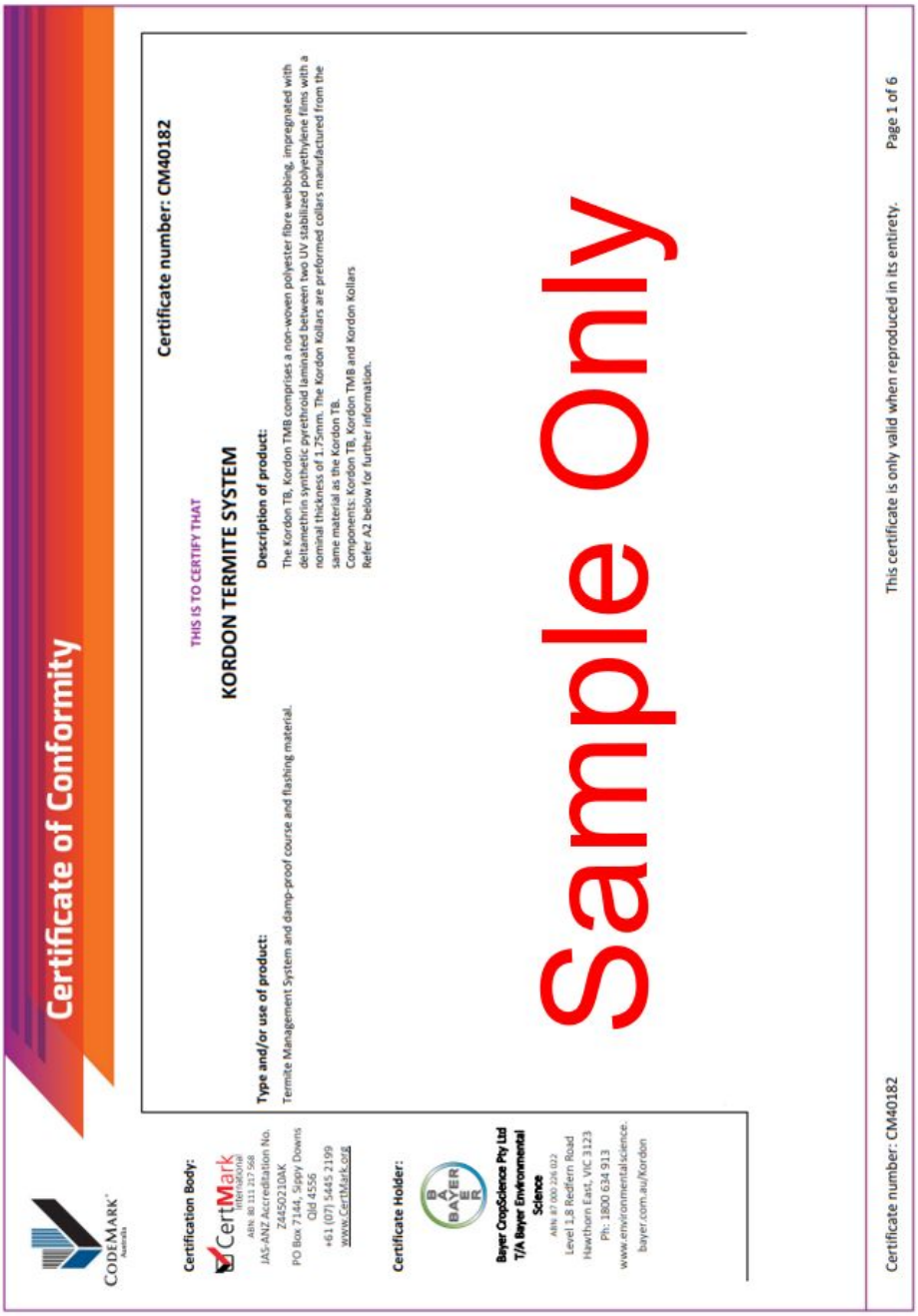
Kordon is classified as a building product and it is approved for use in local government areas where soil termiticide treatments have been prohibited.



**Compliance**

Kordon Termite System complies to Building Code of Australia and Australian Standards 3660.1:2014

Kordon has a current CodeMark Certificate of Conformity Certificate number: CM40182
Download a copy at https://register.certmark.org/?filter_1=40182&filter_2&mode=all



Certificate of Conformity

CODEMARK Australia

Certification Body:
CertMark International
ABN: 80 111 317 568
JAS-ANZ Accreditation No. Z445021OAK
PO Box 7144, Sippy Downs Qld 4556
+61 (07) 5445 2199
www.CertMark.org

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Level 1,8 Redfern Road
Hawthorn East, VIC 3123
Ph: 1800 634 913
www.environmentalscience.bayer.com.au/Kordon

Certificate number: CM40182

THIS IS TO CERTIFY THAT

KORDON TERMITE SYSTEM

Description of product:
The Kordon TB, Kordon TMB comprises a non-woven polyester fibre webbing, impregnated with deltamethrin synthetic pyrethroid laminated between two UV stabilized polyethylene films with a nominal thickness of 1.75mm. The Kordon Kollars are preformed collars manufactured from the same material as the Kordon TB.
Components: Kordon TB, Kordon TMB and Kordon Kollars
Refer A2 below for further information.

Type and/or use of product:
Termite Management System and damp-proof course and flashing material.

Sample Only

Certificate number: CM40182

This certificate is only valid when reproduced in its entirety.

Page 1 of 6

**Suggested Specification Details**

I. www.kordonwarrantycentre.com.au
II. Kordon Installers and Inspectors
III. Installation details

There are many section details listed.
The Building Contractor should contact his selected Accredited Installer to discuss just what Kordon installation is required for a particular building project.
The Installer will peruse the construction plans and provide a summary of the installation details and outline the program to the completion of the structure.

Item: **TERMITE CONTROL**

Kordon Termite System is to be used as a Perimeter and Service Penetration System. (AS 3660.1,2014.)

It is to be installed by a Manufacturer's Accredited Installer, as per the Manufacturer's installation instructions. The builder is to provide all relevant slab details to the installer for pricing etc.

The Builder is to treat the building's termite protection as part of the building process and therefore included in the construction program.

Item: **TERMITE CONTROL AND MOISTURE SYSTEM**

Kordon Termite System is to be used as termite protection (AS 3660.1,2014) and as a damp proof membrane as per (AS 2870) (AS 3600)

It is to be installed by a Manufacture's Accredited Installer as per the Manufacture's installation instructions. The builder to provide all relevant slab details to the Installer for pricing etc.

The Builder is to treat the building's termite protection as a part of the building process and therefore included in the construction program.

## Installation Design Principle

**Kordon® is installed securely between two building products – it is required to be compressed, so as to deter concealed termite access.**

**Kordon Termite and Moisture System**

This system is installed after slab preparation is completed including external / internal structural beams and installation of all plumbing and service penetrations.

This system complies to AS 2870 or AS 3600 which means Kordon replaces the need to install conventional moisture membrane.

As such Kordon is overlapped  200mm and taped over the complete footprint of the slab.

The plumbing and service penetrations are protected with Kordon Kollars and Kordon wraps to specifications.

**Please Note**

The external finish of Kordon Termite and Moisture System will depend on the external structural  plan sectional details. Slab edge exposure - rebated slabs - brick veneer – cladding – ramps- landscaping.

In most cases some external perimeter installation is required which is discussed before the installation is commenced with the building contractor and during the building process as some variations to plans may be requested / required.

**Important Builders Notice**

This document needs to be observed to ensure the completed final installation is compliant.

**Kordon Termite System complies with AS3660.1, 2014 Termite Management Part 1 (amended 2017)**
New Building Work: Requires a 75mm inspection zone below the level of the termite system.

Whilst there are some exceptions, the time to address this situation is during construction, but most importantly, BEFORE EXTERNAL FINISHING TOUCHES are completed e.g. pathways, patios, piers, steps, access ramps, nib walls installed directly to the structure, landscaping etc.

*Below are some examples where Kordon Termite System has been compromised*

**CHECKLIST OF PRECAUTIONS**

| | |
|---|---|
| Will the pathways allow for a 75mm inspection zone? | **YES** |
| Will the patios have the necessary inspection zone? | **YES** |
| Will the entry have the required inspection zone? | **YES** |
| Will abutting walls / attachments breach Kordon? | **NO** |
| Will external steps breach Kordon? | **NO** |
| Will external decking breach Kordon? | **NO** |
| Will driveway slabs compromise Kordon? | **NO** |
| Will landscaping compromise Kordon? | **NO** |
| Will carports, hot water systems affect Kordon? | **NO** |
| Will internal step down installations comply? | **YES** |
| Does the V joint on the rendered wall comply? | **YES** |

**Refer to Sections 3.5 & 3.6 of AS 3660.1:** If your answers do not agree with all of the above, please contact your Kordon Accredited Installer, immediately. Given the correct time frame he/she can address any situation to ensure the completed building has a Kordon Termite System, which complies with the Australian Standard and to our specifications.

**Solution:** Install Kordon to detail Kd041b – refer to accredited Kordon installer for further information before installing pathway

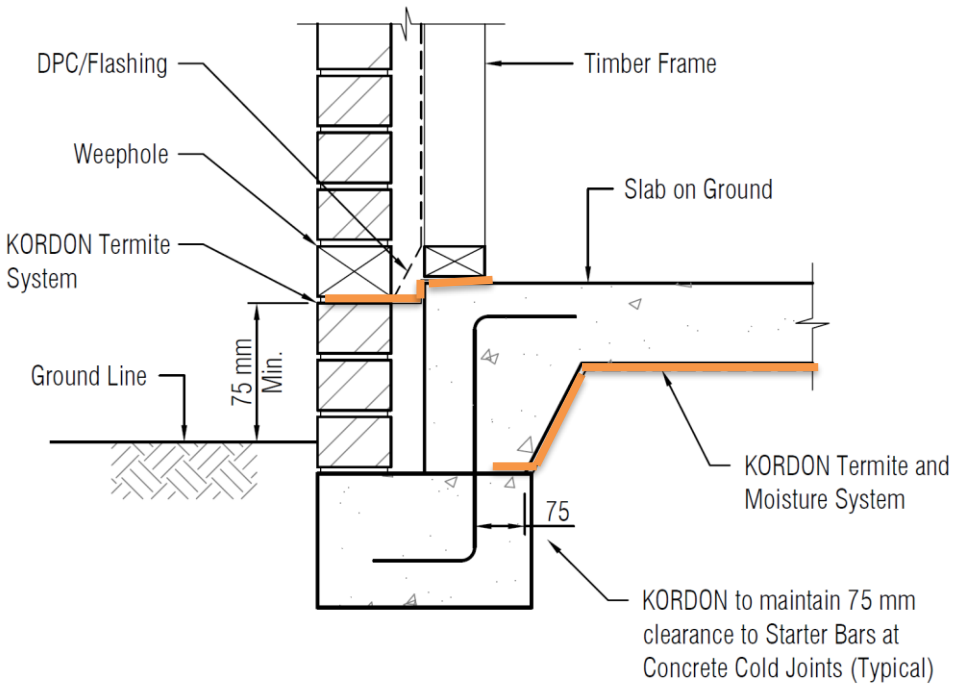
**Solution:** Install Kordon to detail Kd041b – refer to accredited Kordon installer for further information before pouring driveway

**Solution:** Install Kordon to detail Kd041b – refer to accredited Kordon installer for further information before pouring entry

**Solution:** Install Kordon to detail Kd041b – refer to accredited Kordon installer for further information before installing pathway

**Solution:** Install Kordon to the vertical between brickwork and structure

**Solution:** Install Kordon to the vertical between nib wall and structure



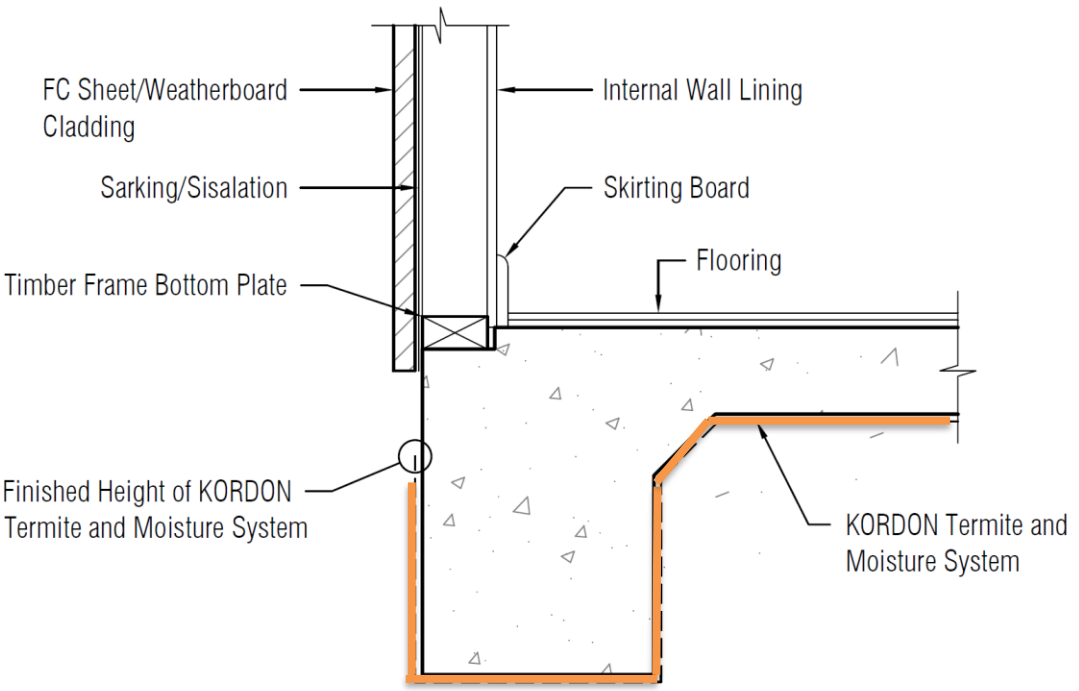

Section Detail 1

Subject:

**Termite and Moisture System**

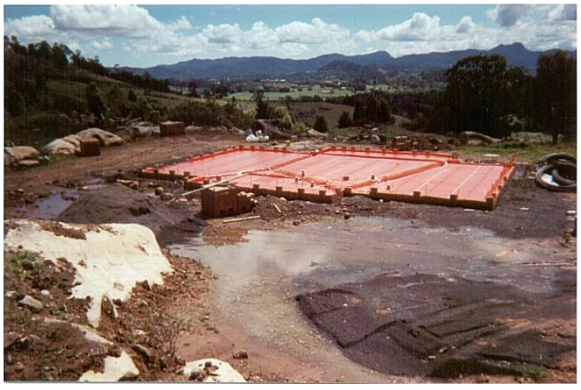
Sheet No.

**kd 000**




The Finished Height of the External Installation will depend on the External Wall Structure:

- Masonry installed to Top of Slab
- Cladding installed to Timber/Metal Framing
- Is the Builder/Owner expecting a neat exposed Slab Edge
- Are there External Paths/Landscaping
- A Mandatory Inspection Zone

Subject:

Sheet No.

**Kd 000b**

# Termite and Moisture System

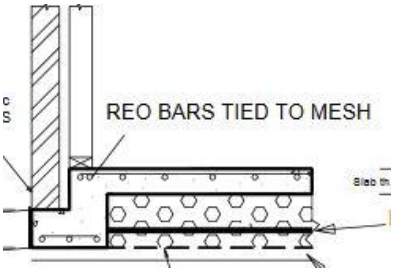
Exterior walls can be finished with a wide array of materials and techniques. They are installed to footings, on ground slabs which may have a variation of rebates, bearer and joist construction. Internal finish include brick veneer, double brick, blockwork.

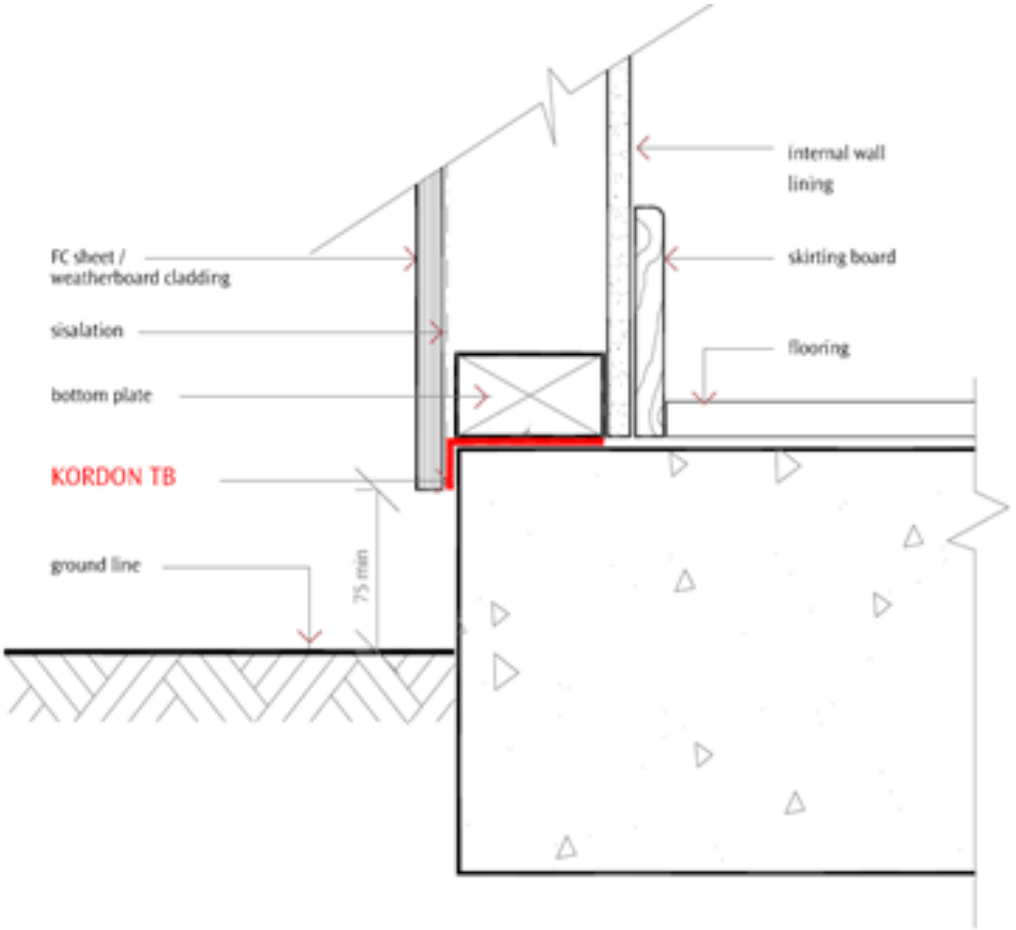
A list although not comprehensive of these materials include: -

Tilt up walls; Gypsum Separation Walls; Insulated Vinyl Siding; ICF Walls; James Hardie range; Permaform Plastic System; Hebel Range- Cladding; House Wrap Lightweight Materials; Structural Insulated Panels; Zego Cladding; traditional weather board;

A description of many: Autoclaved Aerated Concrete.

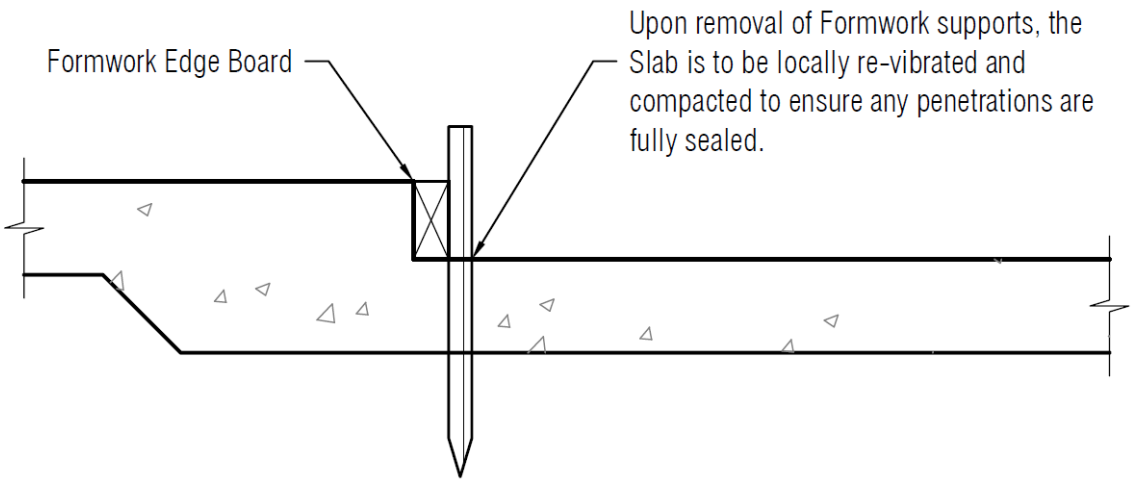
Kordon Termite System can be installed to any External Wall Material. The Accredited Installer will seek a section detail where the product is required to be installed with the finish to comply to Kordon Installation Design Principle and allowing for the mandatory inspection zone.




**Cladding needs careful consideration**

1. There are many variations of cladding including light weigh cladding, the above is only one section detail. The accredited installer is required to discuss the external cladding installation at the design / quotation stage
2. After cladding is installed will a compliant inspection zone be achieved?
3. Will the cladding be installed down into the soil level?
4. Is it intended to pour concrete paths against the structure?
5. What will be the height of lawns / landscaping in relation to the finished height of the cladding?
6. Will the finished installation comply to Kordon Installation Design Principal?




Step Down or Wet Areas in Slabs typically require formwork materials to be fixed and supported in place, usually by Star Pickets or Timber Pegs. Shortly after slab pour the Slabs are stripped of the formwork materials. At this stage it is critical that any Star Picket or Peg holes are completely filled with concrete to eliminate possible Termite entry points.

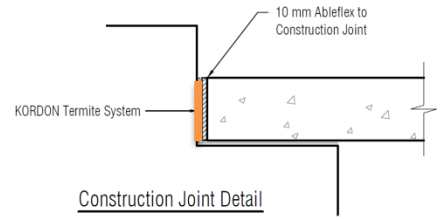
## Step Down or Wet Areas in Slabs

Sheet No.

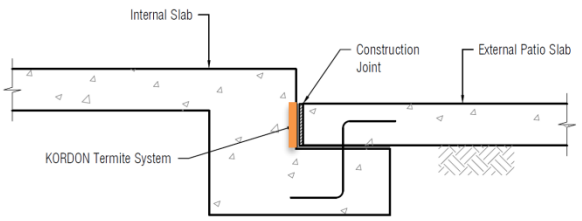
**kd 000 step**

Subject:

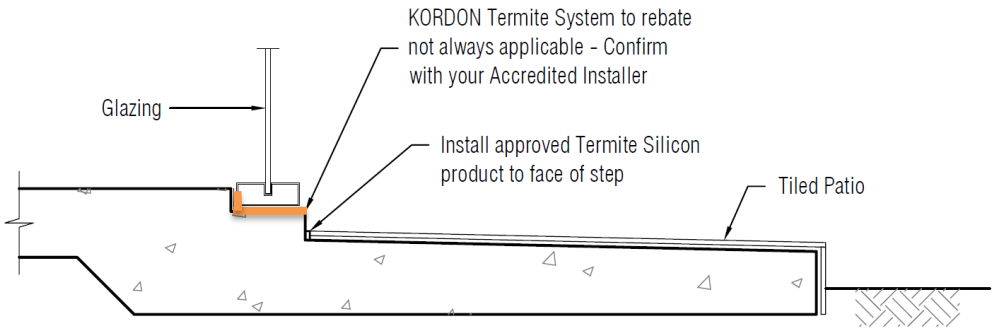
# Step Down or Wet Areas in Slabs




Construction Joint Detail




Patio Construction Joint Detail



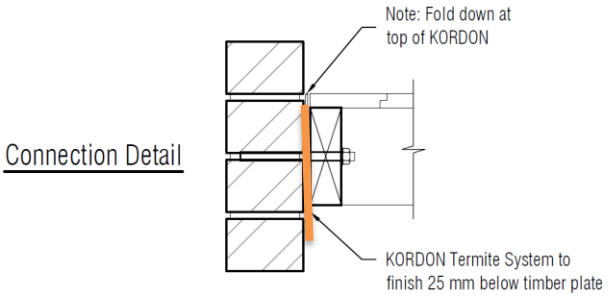

Patio Step Down Detail

Subject:

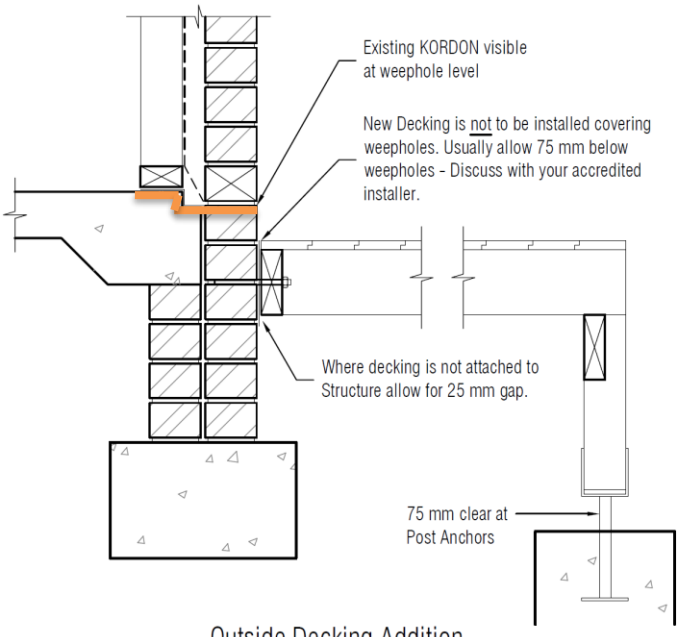
**Patio slabs**

Sheet No.

**kd 005 patio**




Connection Detail




Outside Decking Addition

CM40182

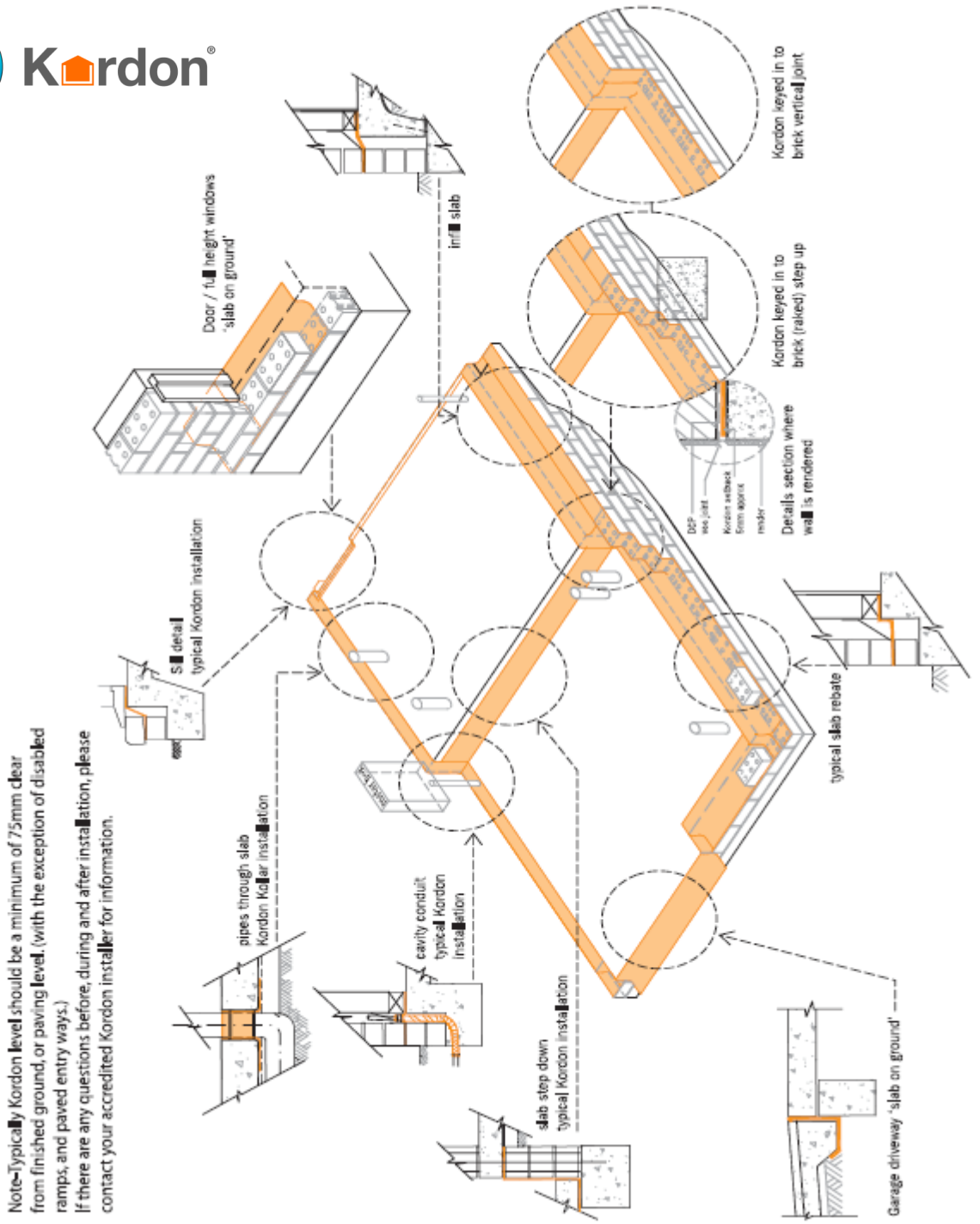
AUSTRALIAN MADE

Sheet No.

Subject:

**kd 000 deck**

# Decking to external perimeters




CodeMark Australia CM40182

CertMark International

AUSTRALIAN MADE

Sheet No.

**kd 005**

Date:27/11/2003

Subject:

# Kordon perimeter installations

# Building design and construction requires various installation procedures. Consult with your builder/plans

Perimeter installation process – Brick veneer construction

- Protect all service penetrations prior to initial concrete pour
- KD 231a; KD 009; KD 010a; ( kordonwarrantycentre.com.au) Installation details.
- After the pour chalk lines to be in place for positioning of timber frames prior to Kordon installation.
- Determine your width of product as to height & number of bricks to be installed to the footing and or slab rebate to weep hole level.
- Install Kordon to chalk lines fixed with both spray adhesive and concrete nails @ approx. 350mm centres.
- Ensure you overlap to specifications and nail Kordon to corners and bay windows to minimise product movement when timber frames are stood.
- Nailing with power tools is an option, be aware that the nail heads are to finish flush with the slab so as not to create gaps or undulations when timber frames are stood.
- The bricks are now laid to the footing and or the slab rebate to the weep hole height.
- You now carry out stage two and secure the Kordon to the bricks after determining whether the brickwork is finished as face brick or rendered. Face brick install 3-5 mm inside the perimeter edge or flush if the bricks are to be rendered.

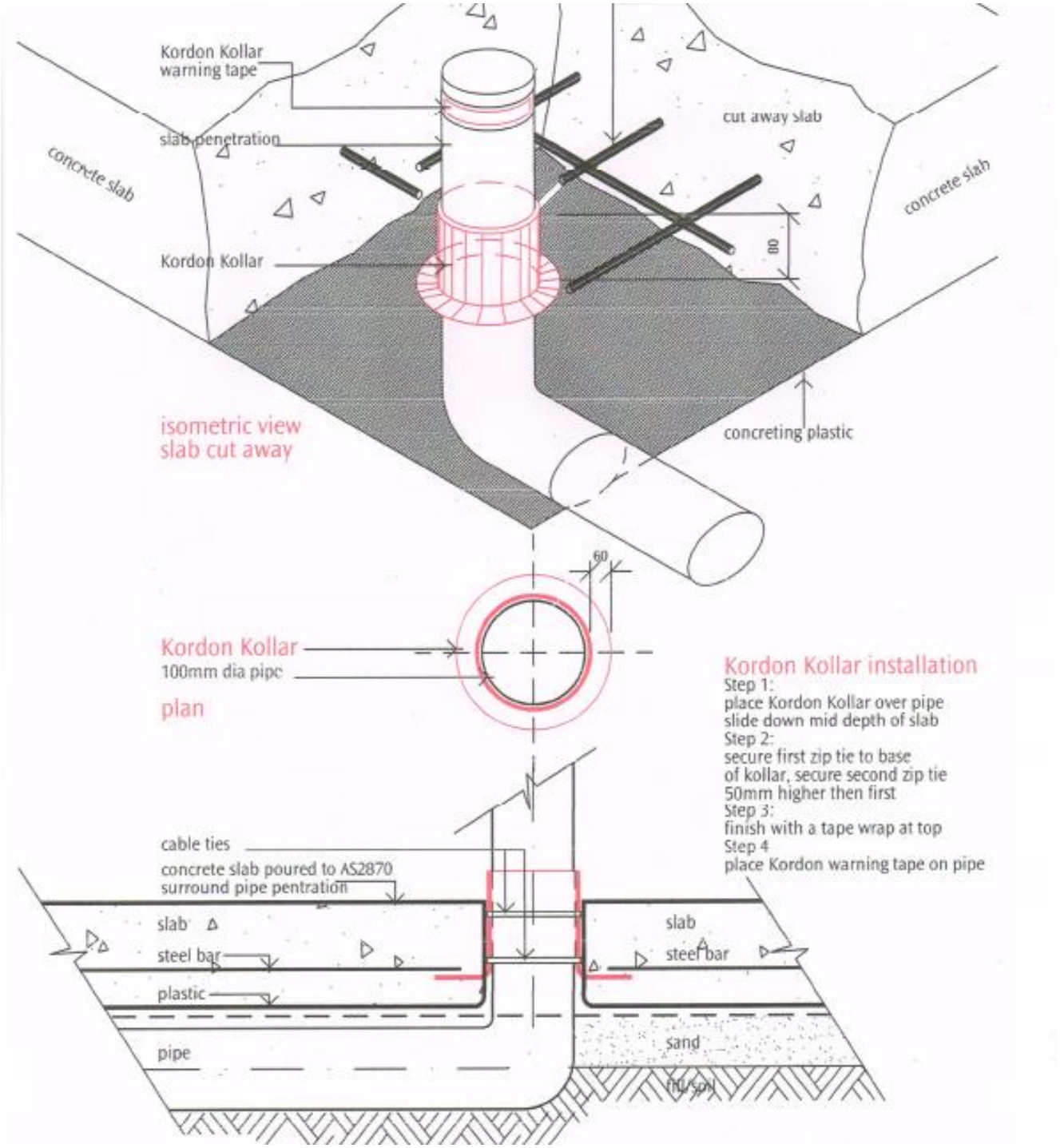
*…continued*

# Building design and construction requires various installation procedures. Consult with your builder/plans

**Perimeter installation process – Brick veneer construction**
(*continued*)

**Attention to sill / entries / sliding doors**

- There are many variations and different options when installing Kordon to the above. One option is KD 048f. ( kordonwarrantycentre.com.au) Installation details.
- Other options require variations depending on the finished height / makeup of the tiles and just how the sills are seen on completion.
- This requires discussion with the builder/tiler.
- The end result is to ensure Kordon is installed as per the “Installation Design Principle” which is “to deter concealed termite access”.
- During this perimeter installation stage you will have the opportunity to observe if any disturbance to your previous installation has taken place as well as any ‘new’ extra pipes / slab penetrations that may have been added.
- This is now the time to observe if any external perimeter installation is required to piers, access ramps, patios, entries, driveways, external decking, nib walls ----
- Check to ensure the required inspection zones are compliant.
- Only at this stage do you sign off the installation as complete.
- Any Kordon off-cuts are removed from the site, NOT placed in skips.




Subject:

# Kordon Kollar Conventional

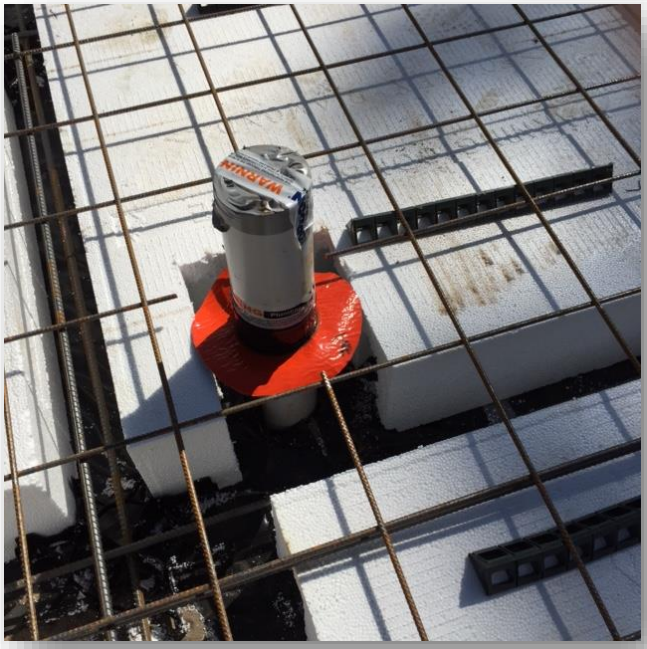
Sheet No.

**kd 231a**

Date:
Aug/15

1. Remove plumber able flex.
2. Position Kollar approx. 50mm off the plastic
3. Secure Kollar with 2 quality zip ties
4. Apply Warning Tape
5. Refit plumbing able flex
6. After the concrete pour the Kollar will be cast in the slab.

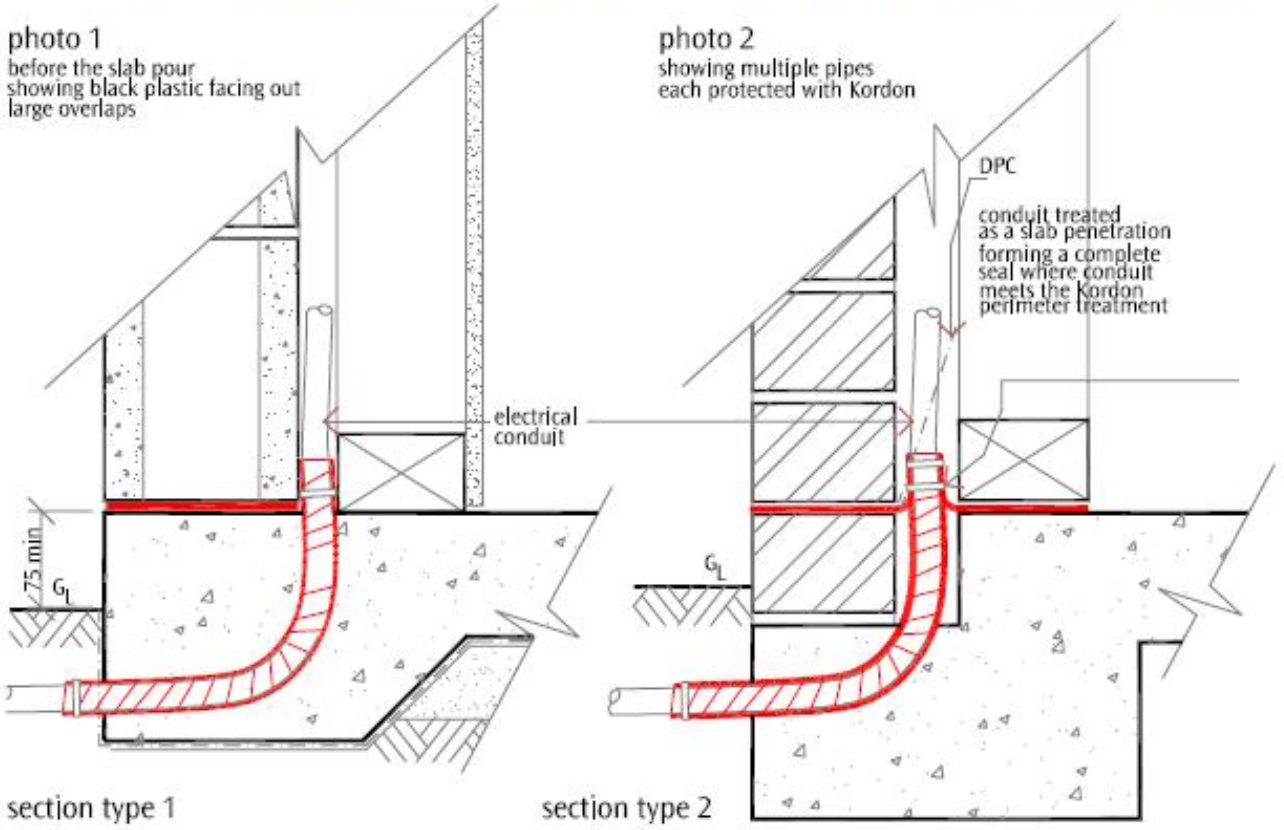
Kordon Kollar KD 231a
to conventional slab




Kordon Kollar installed to waffle pod slab just under the steel mesh KD 228a

photo 1
before the slab pour
showing black plastic facing out
large overlaps

photo 2
showing multiple pipes
each protected with Kordon




section type 1

section type 2

Notes:
- wrap Kordon TB around (with overlap) electrical conduits penetrating the slab at length of 300mm approx.
- Kordon TB should be visible after the pour on any conduit /water pipe.
- a cable tie is to be secured at the start and at the finish of the wrap
- where possible place a 300x300 Kordon TB patch at the base of the slab penetration.
- where a cluster of conduits are installed - each conduit must be wrapped separately as above.

BAYER Kordon®

CODEMARK Australia CM40182

CertMark International

AUSTRALIAN MADE

Sheet No.

kd 009

Subject:

# Conduits

- NOTE;
  Our current installation principal is as per this detail. Kordon is wrapped with the black side out and is required to be wrapped approx 300mm minimum length, thus allowing 100mm under slab, 100mm through the slab and 100mm protruding on top of the slab
  Further protection is provided to these wraps when the horizontal barrier is installed

- Pre slab pour conduit wrap

- Post slab pour conduit wrap


- Installation progress to
  Horizontal barrier - conduit wrap
  quality cloth tape to secure product overlap

- penetration Kordon TB overlapping

BAYER Kordon®

CodeMark Australia CM40182 CertMark International

AUSTRALIAN MADE

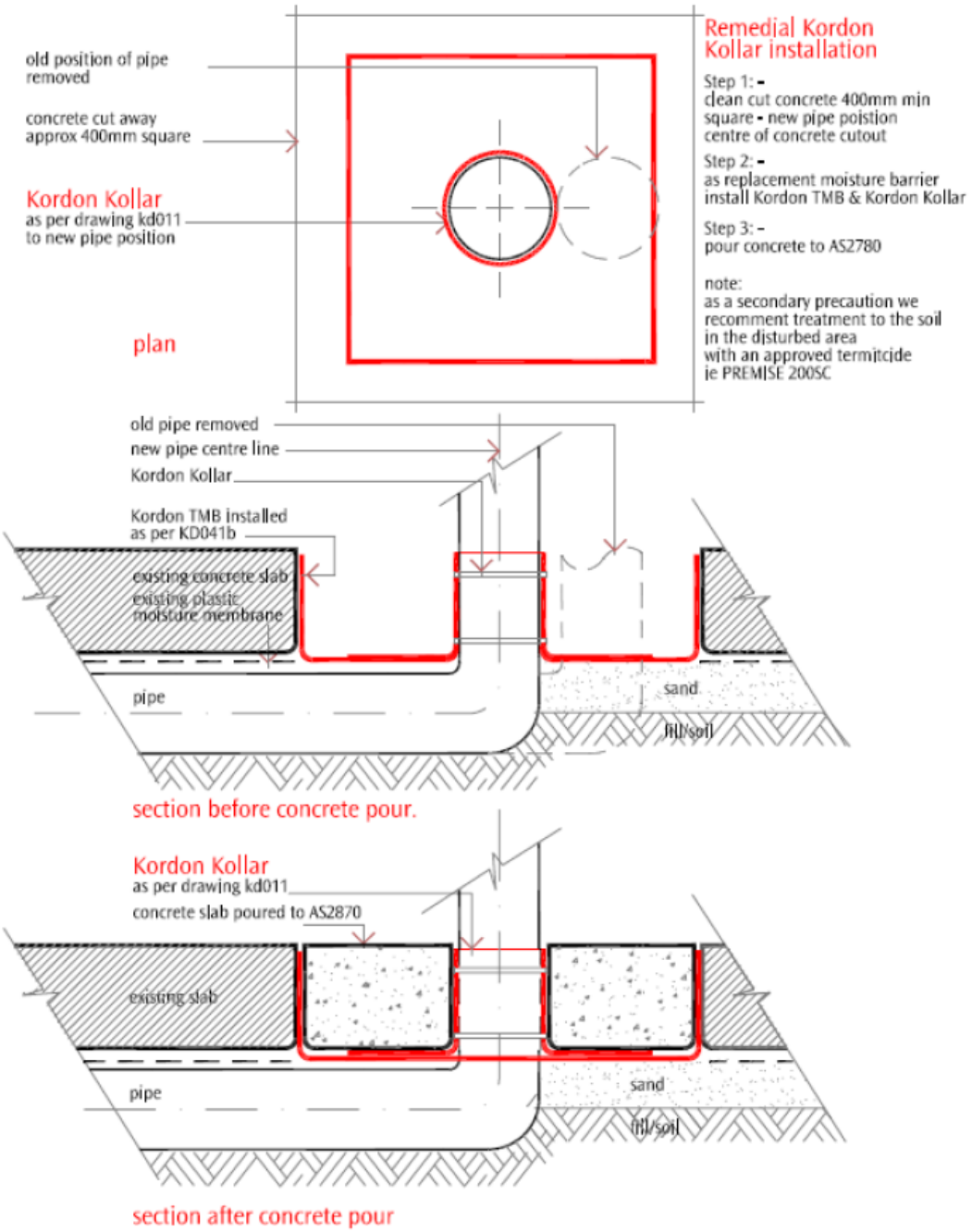
Sheet No.

Subject:

**kd 010a**

# Conduits to Waffle Pods

Occasionally slab / plumbing penetrations are required to be re-sited. This detail outlines the recommended rectification process.

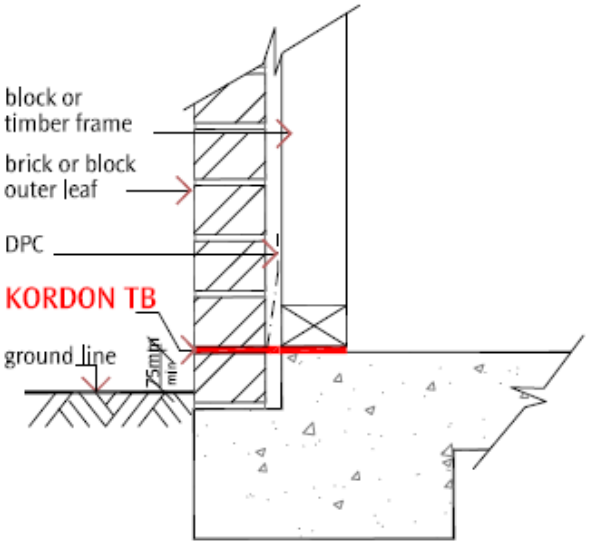



Subject:

# Slab penetration rectification

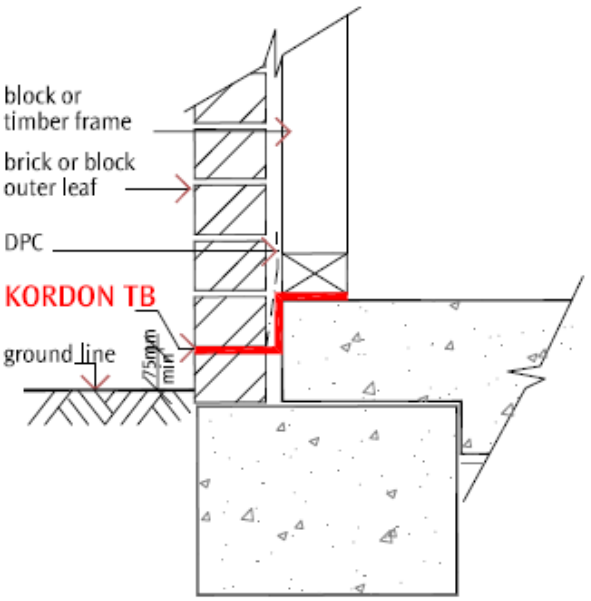
Sheet No.

**kd 072**



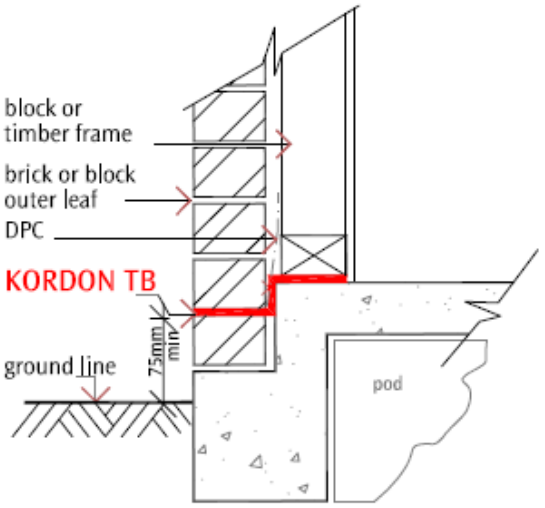

## section detail 1

1 brick rebate



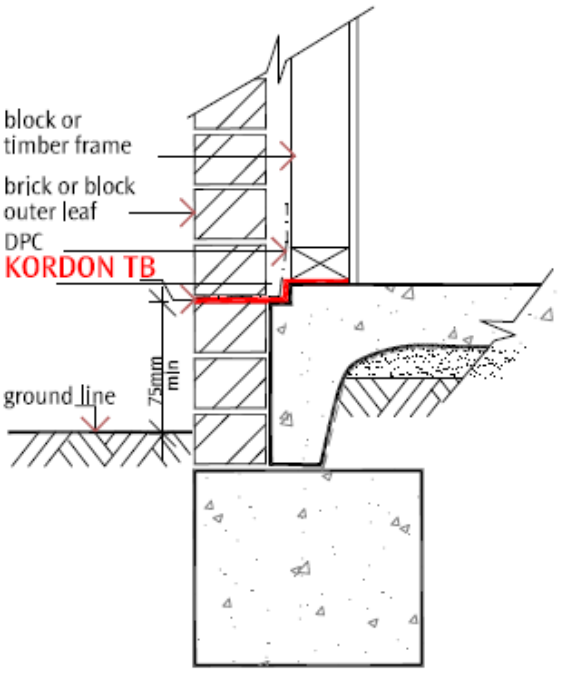

## section detail 2

2 brick rebate




## section detail 3

waffle pod




## section detail 4

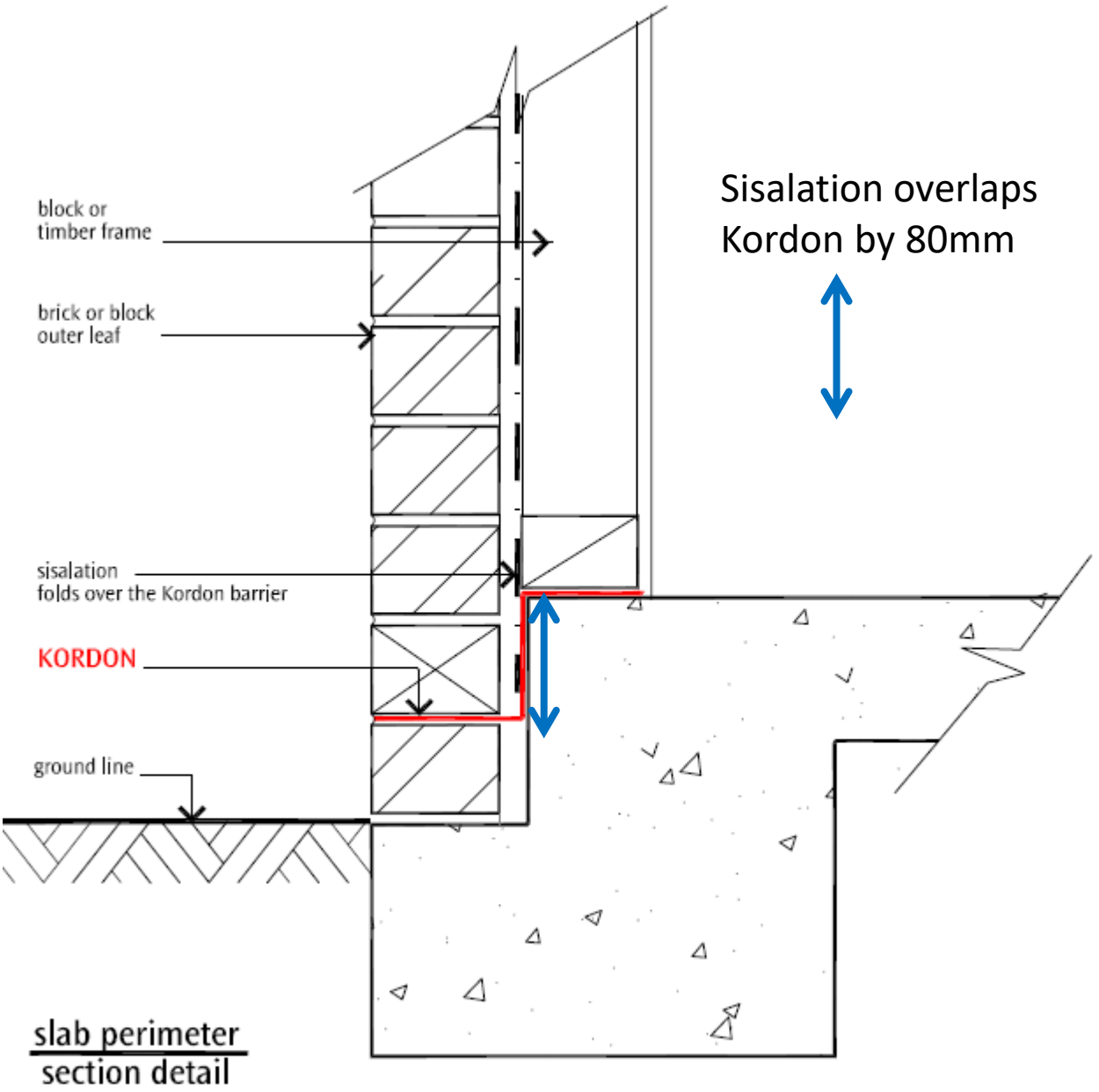
infill slab

Subject:

# External Perimeter Installations

Sheet No.

**Kd**
**001a**




Subject:

# Kordon - DPC Detail

Sheet No.

**kd 212**

Date:
18/10/2011

When joining Kordon to a perimeter installation  it is a requirement to upgrade the tape to a Single Side Butyl Cloth Tape ( Tenacious Tapes Product Code: K9940) which will provide durability as proposed in AS3660.1,2014.


The overlap join is to remain at 200mm, it will be sealed by both 3M spray adhesive (or similar) then secured with the Butyl Tape.



**Metal strapping**

There are many instances during Kordon installation where strapping is required to ensure to obtain a suitable compression between 2 building products.

The first photo is a split level. The strapped section is where a staircase will be installed. In some instances internal tiles extend to the slab edge. The horizontal section will be secured under the timber frames.

The second photo demonstrates strapping where you are not convinced there is suitable compression and in some instances Kordon may not be installed under some of the timber frames at all. In some situations the conduits are positioned very close to the perimeter making horizontal compression impossible – use strapping to the vertical of the slab edge under these penetrations. This will eliminate a possible termite entry point.

The third photo is Kordon strapped vertically as shown due to the builder installing his timber frames before calling the installer, a lack of communication.

Installation details of metal strapping . Section details listed comply whereby Kordon has been installed to the Installation Design Principle and to Bayer approved specifications.

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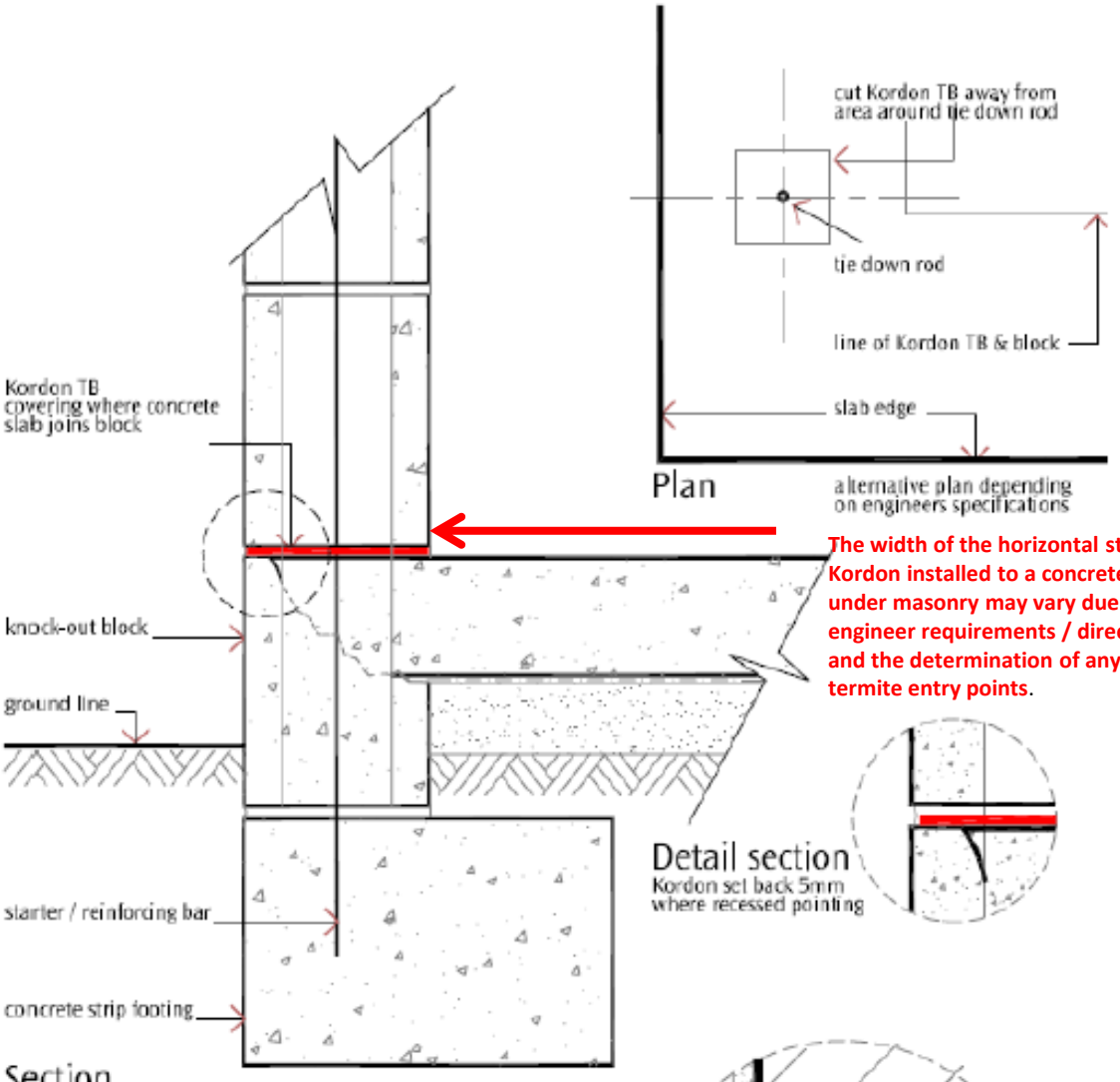
Sheet No.

**kd 316.1**

Subject:

# Metal Strapping

Date: 14/4/17



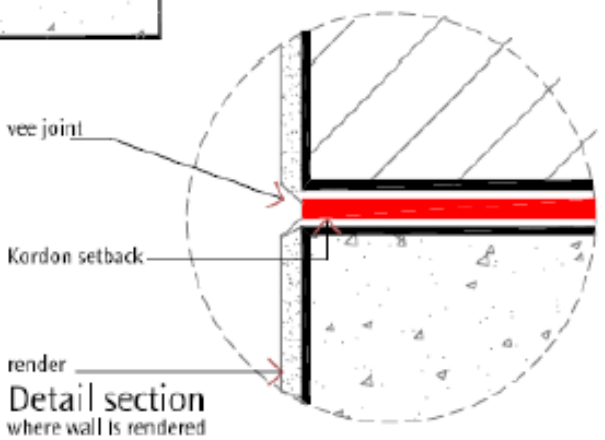

**The width of the horizontal strip of Kordon installed to a concrete slab under masonry may vary due to engineer requirements / directions and the determination of any likely termite entry points.**

## Note:

where rendering occurs a 'vee joint' is recommended render may vary according to geographic locations eg reactive soil sites

Brick work Y joint statement:

"where open edge of Kordon is concealed by a skim coat of render or sealent, the nominal coverage of the thickness of the skim coat is to be 2-3mm. construction tolerence may result in local increase of thickness of up to 5mm. in this context local variations shall not exceed more than 10% of the perimeter of a given installation."

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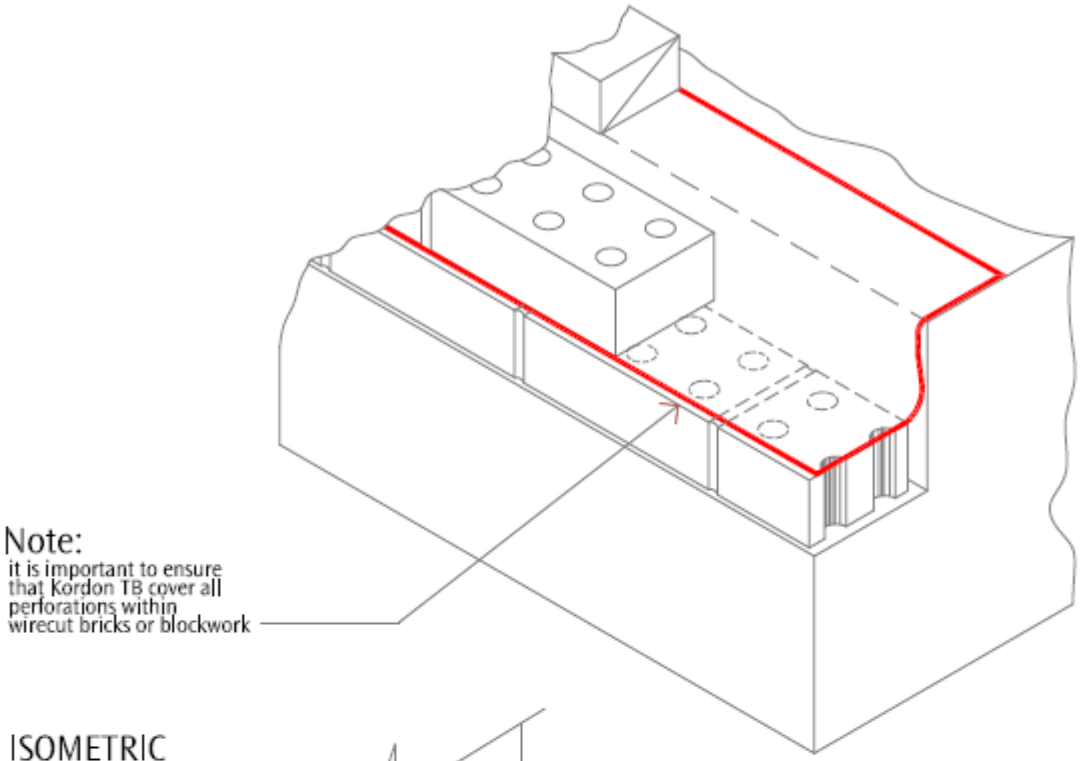
Sheet No.

**kd 008**

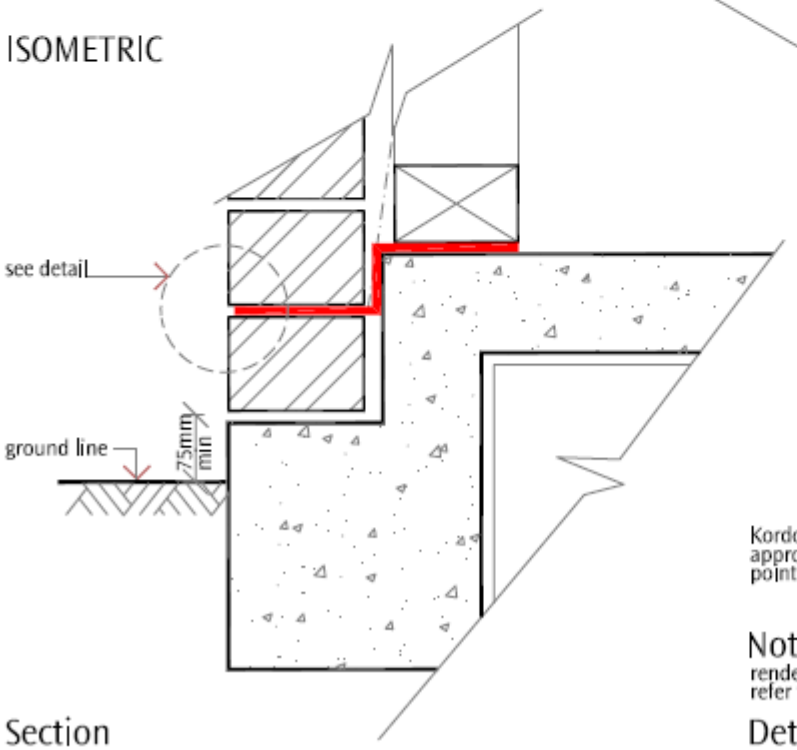
Subject:

# Blockwork Installation

Date:
27/11/2003




ISOMETRIC




Section

Kordon TB set back 3mm
approximately where recessed
pointing / raking occurs

Note:
rendered wall
refer to 008/d

Detail

Subject:

# Kordon Install Brick Façade Detail

Sheet No.

**kd 008e**

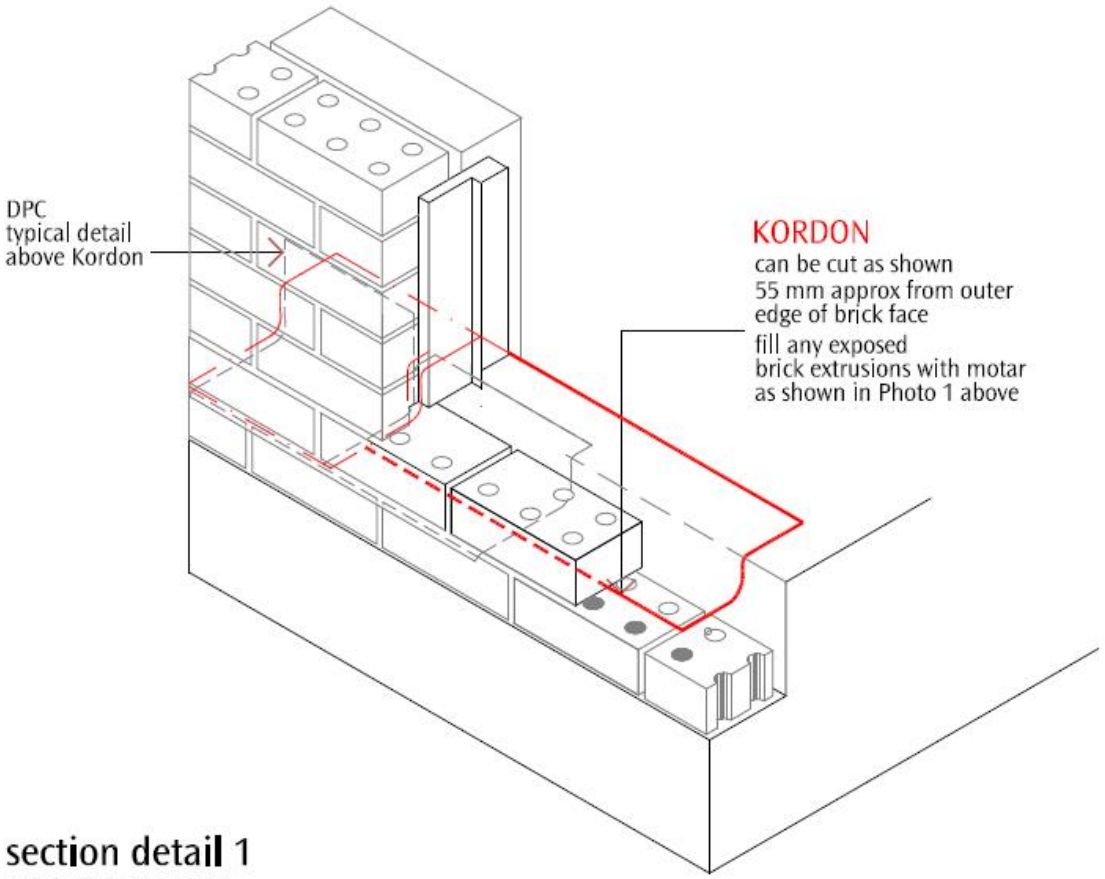
Date:
27/11/2003

**Photo 1**

shows Kordon cut back from
brick face to allow secure fixing

**Photo 2 (option)**

shows Kordon orange plastic
cut back brick face to allow secure fixing




**section detail 1**

typical wall opening at
2 brick rebate construction

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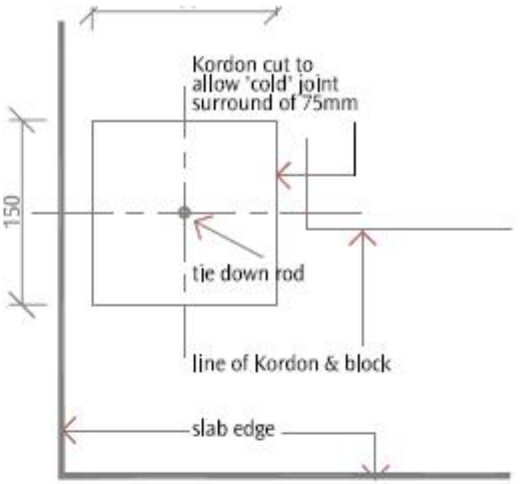
Sheet No.

**kd 048f**

Subject:

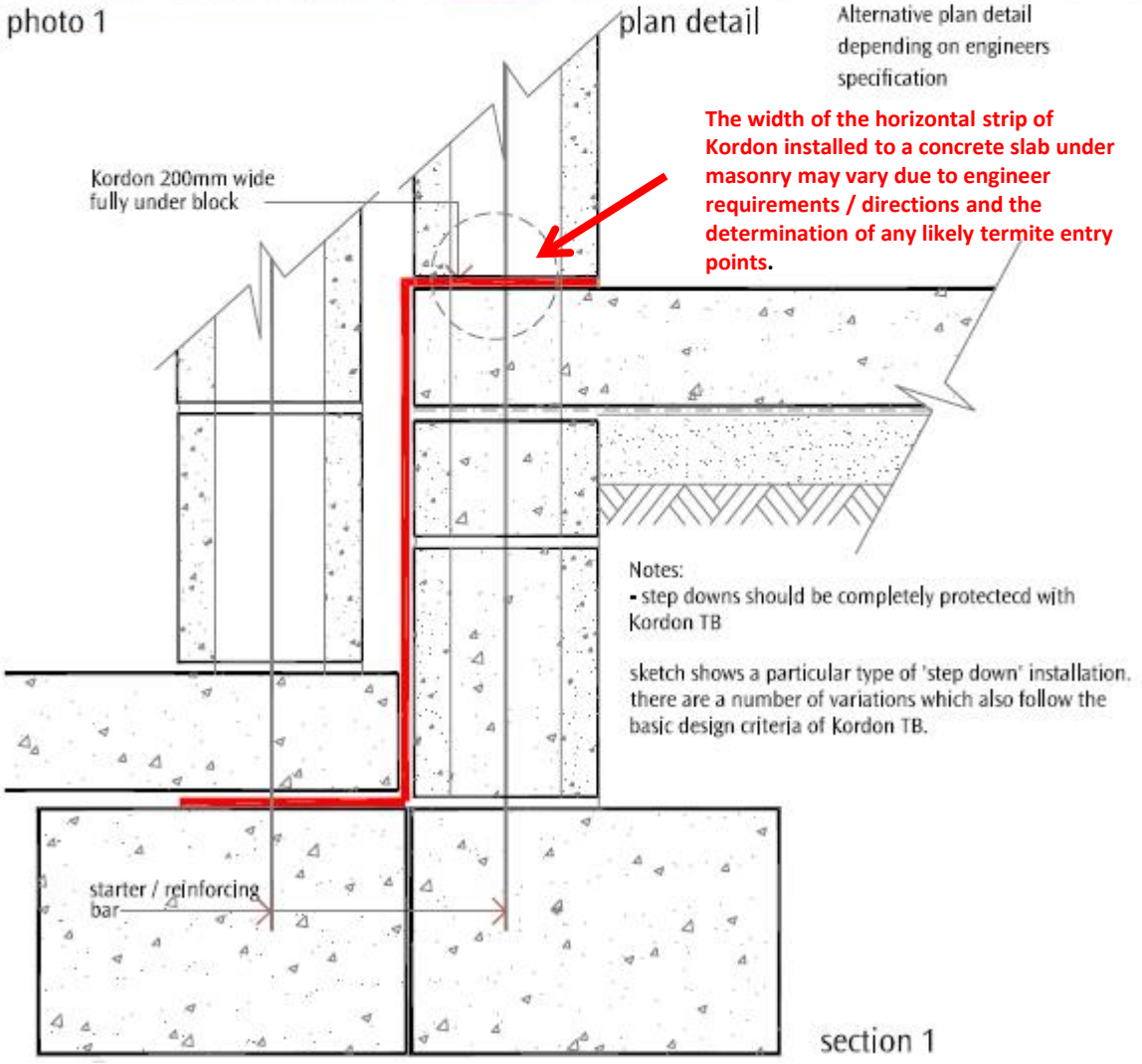
# Door Sill – Detail 3

photo 1




plan detail

Alternative plan detail depending on engineers specification




**The width of the horizontal strip of Kordon installed to a concrete slab under masonry may vary due to engineer requirements / directions and the determination of any likely termite entry points.**

Notes:
- step downs should be completely protecteod with Kordon TB

sketch shows a particular type of 'step down' installation. there are a number of variations which also follow the basic design criteria of Kordon TB.

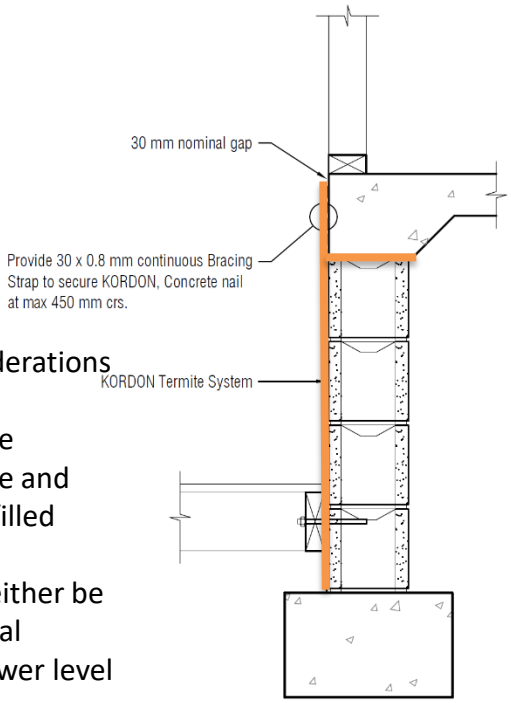
section 1

Subject:

# 2 Slab Levels

Sheet No.

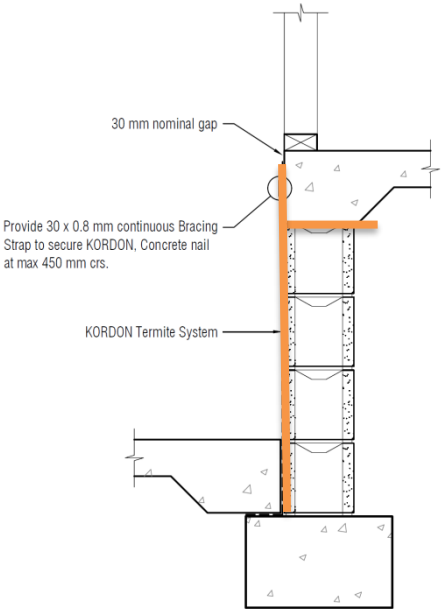
**kd 002**




Split-Level Floor Detail

Termite protection to this detail will depend on a few considerations

- Is this area habitable
- If the brickwork remains visible the vertical Kordon to the blockwork is not necessary except between the pole plate and blockwork and the horizontal Kordon on top of the core filled blockwork (trowelled finish) is essential
- The Kodon installation photos indicate the product can either be installed under the timber framing or vertically with metal strapping. This would ne necessary where steps to the lower level are required.

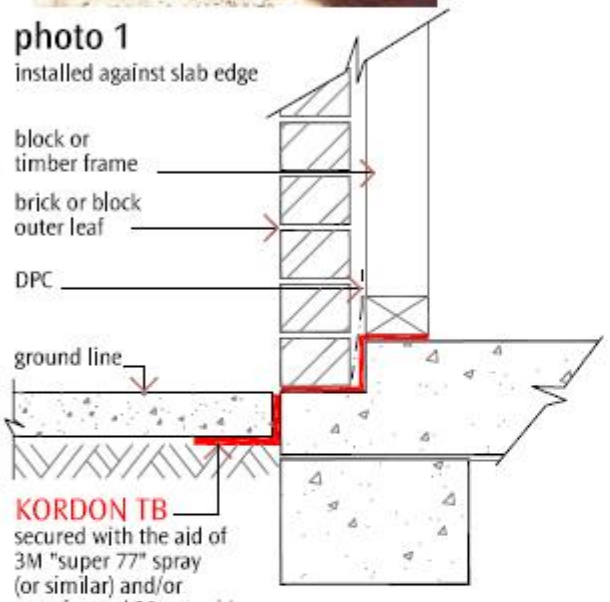



Split-Level Slab Detail

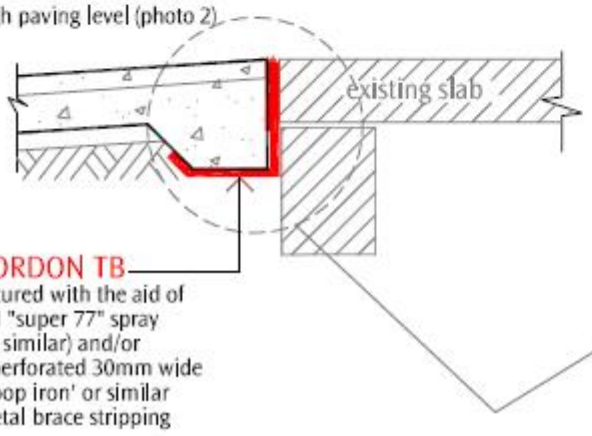
Termite protection to this detail obviously requires identical considerations and include

- Is this an external wall
- Is the external finish a cladding
- What height is the external finish
- Will the blockwork be rendered
- Your Accredited Kordon Installer will discuss just what is required to provide compliant protection

## photo 1
installed against slab edge



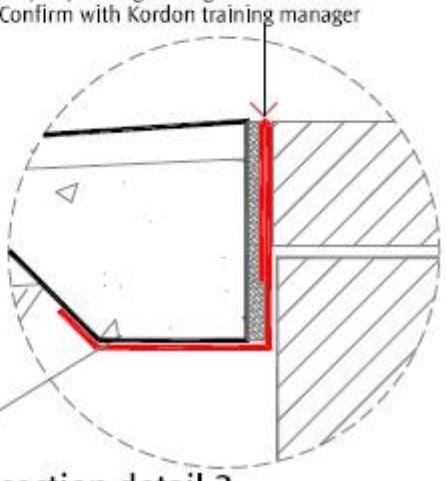

## section detail 1
high paving level (photo 2)




## photo 2 garage entry detail

secured with the aid of 3M "super 77" spray or similar
Note:
where various slab conditions prevail i.e.
rough or damaged:-
It is important to establish a full seal to
the perimeter is achieved

KORDON TB
a minimium width of 300mm Kordon TB
is to be installed with a foldback of
100mm approx, as shown.
where dowelling occurs: installation may
vary depending on engineer's instructions
Confirm with Kordon training manager



## section detail 2
driveway, disabled ramp & entry

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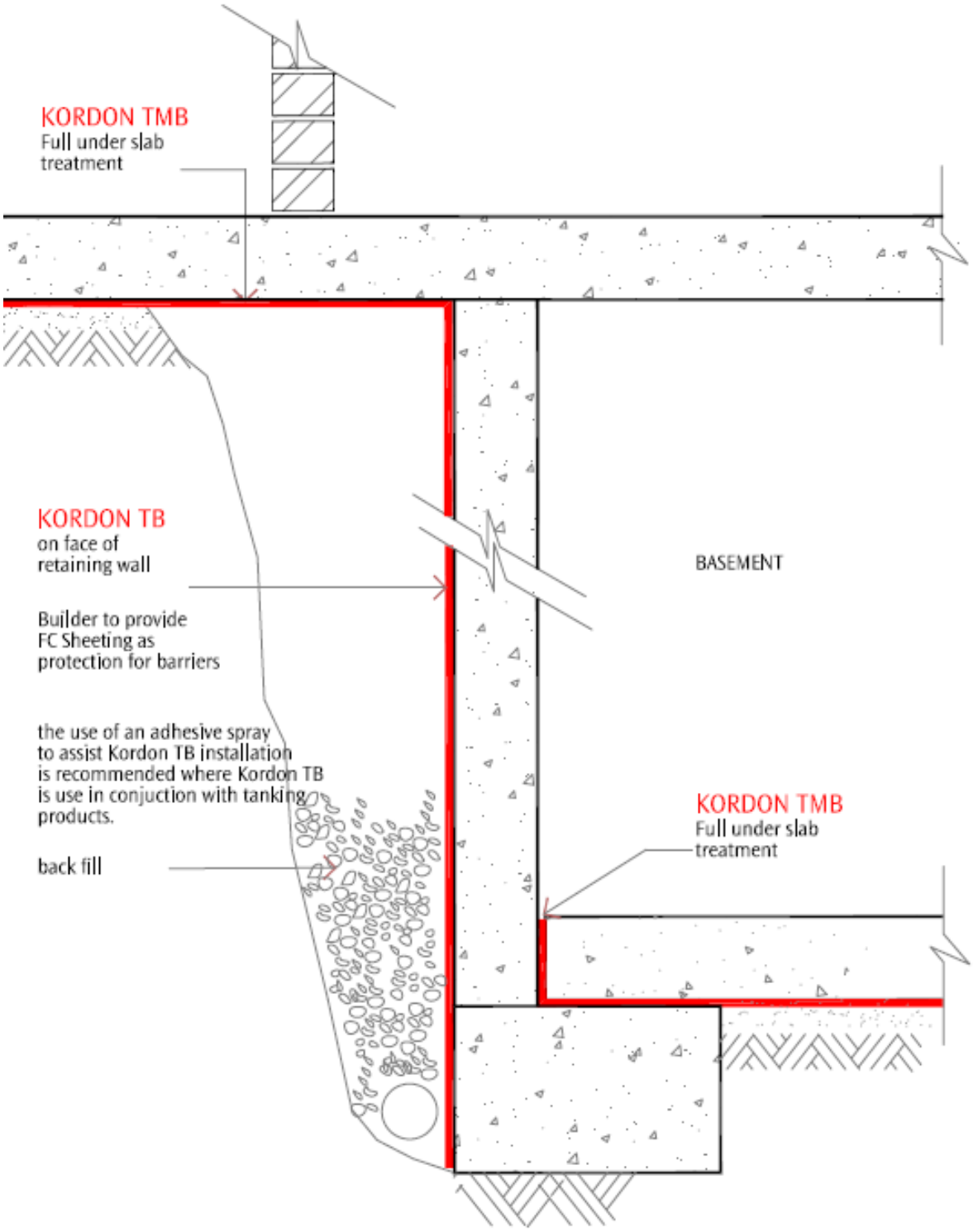
Sheet No.

**kd 041b**

Subject:

# Perimeter Paving/Slab (cold joint)

Date:
27/11/2003

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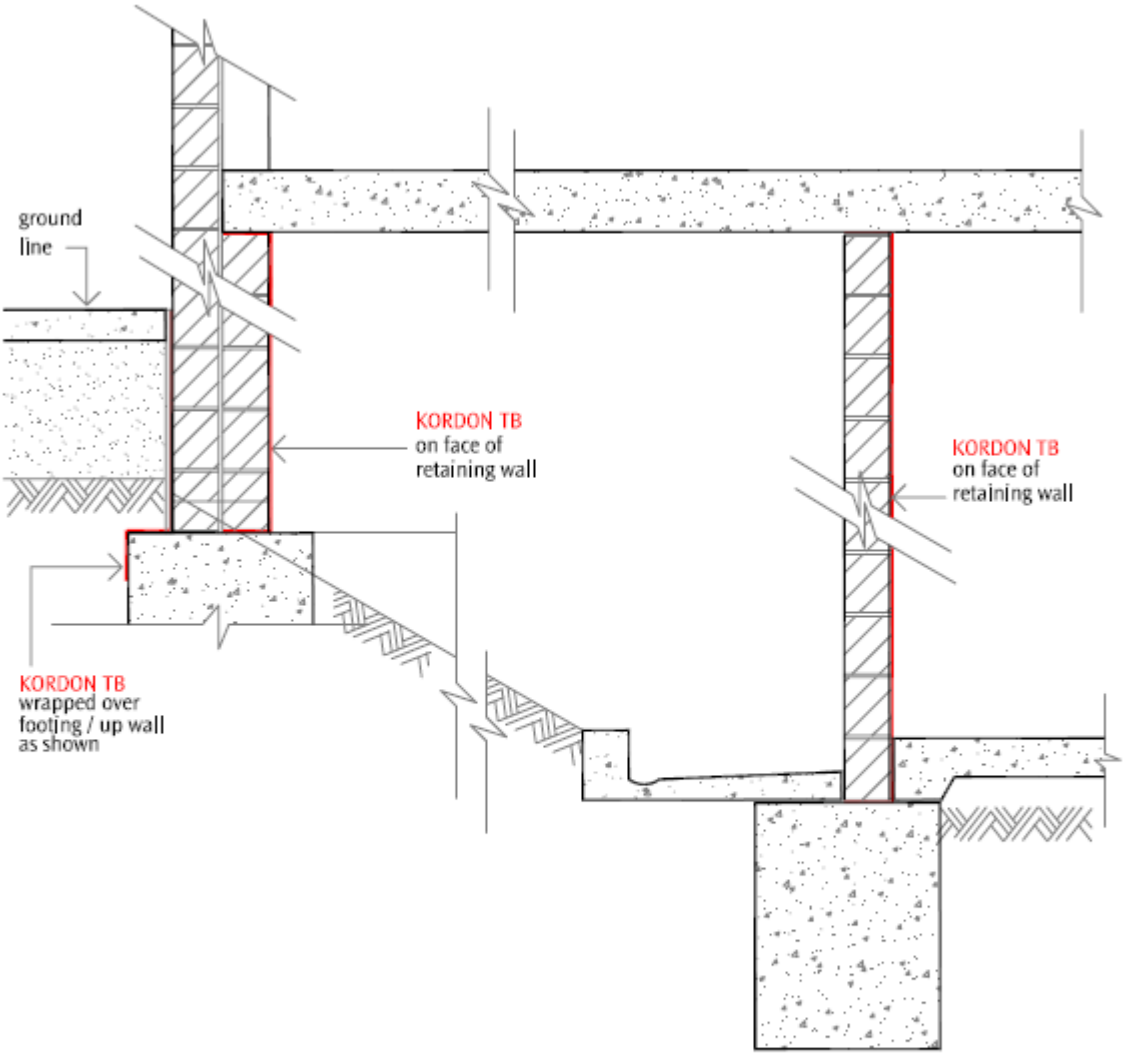
Sheet No.

**kd 024**

Subject:

# Retaining Wall – Detail 4




Note:
in the above installation. Kordon TB
would be installed using additional installation
tools of adheshive spray and Hoop iron bracing.

Subject:

Sheet No.

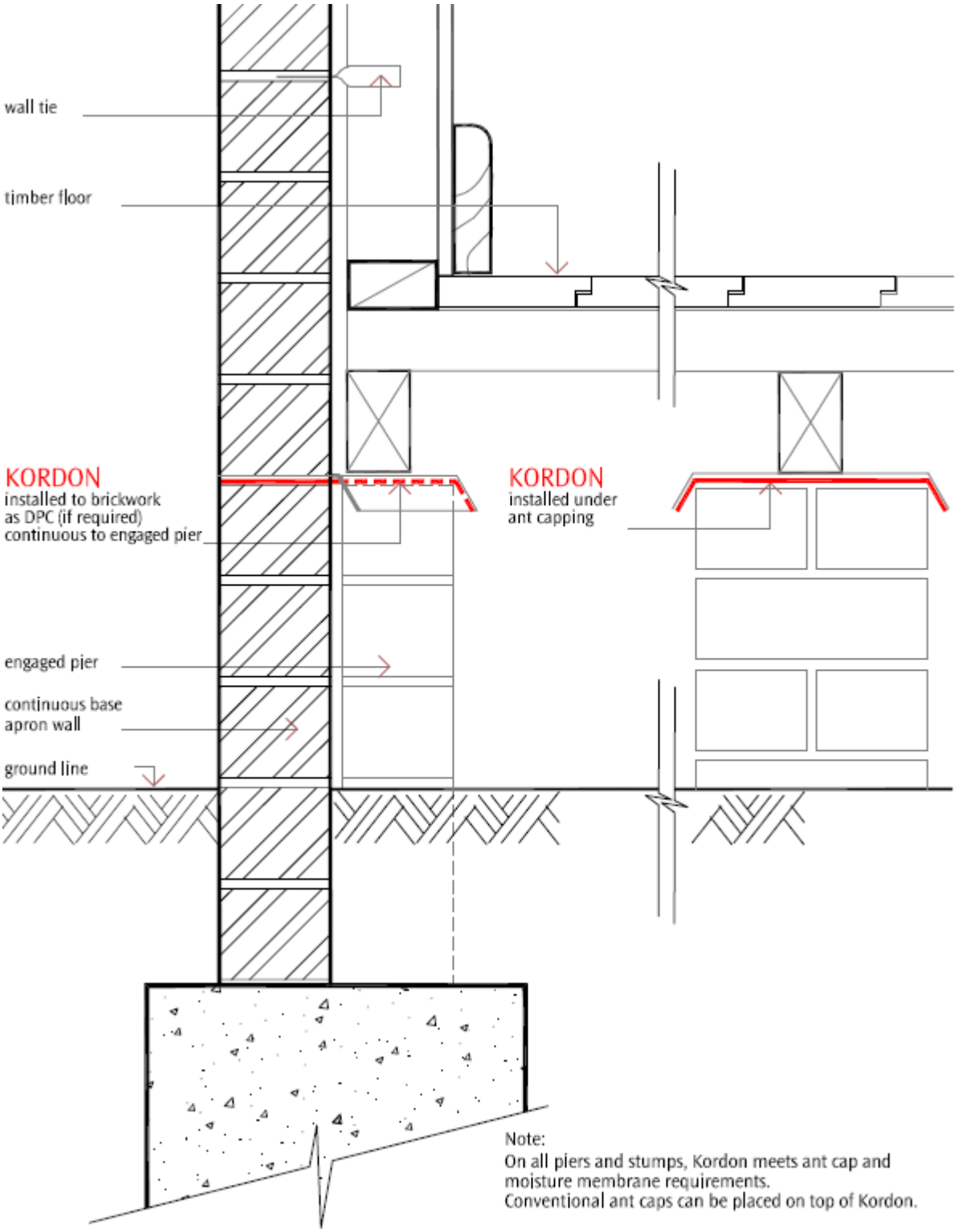
**kd 027**

# Retaining Wall – Detail 7

Sheet No.

Subject:

# Retaining Wall – Step Down Photos

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Sheet No.

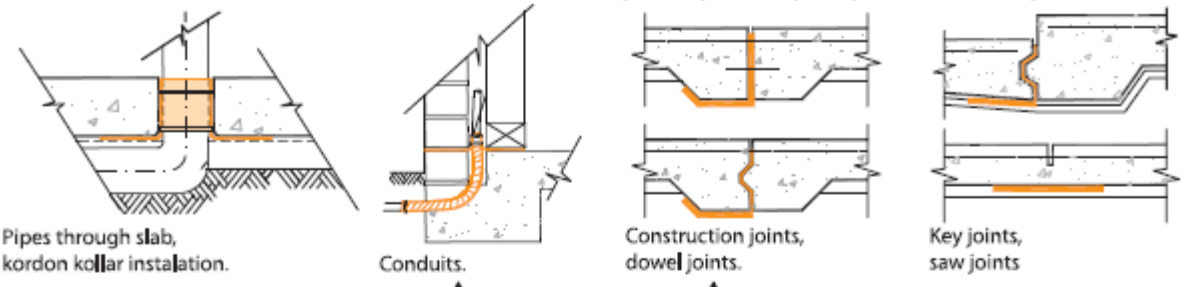
**kd 052a**

Subject:

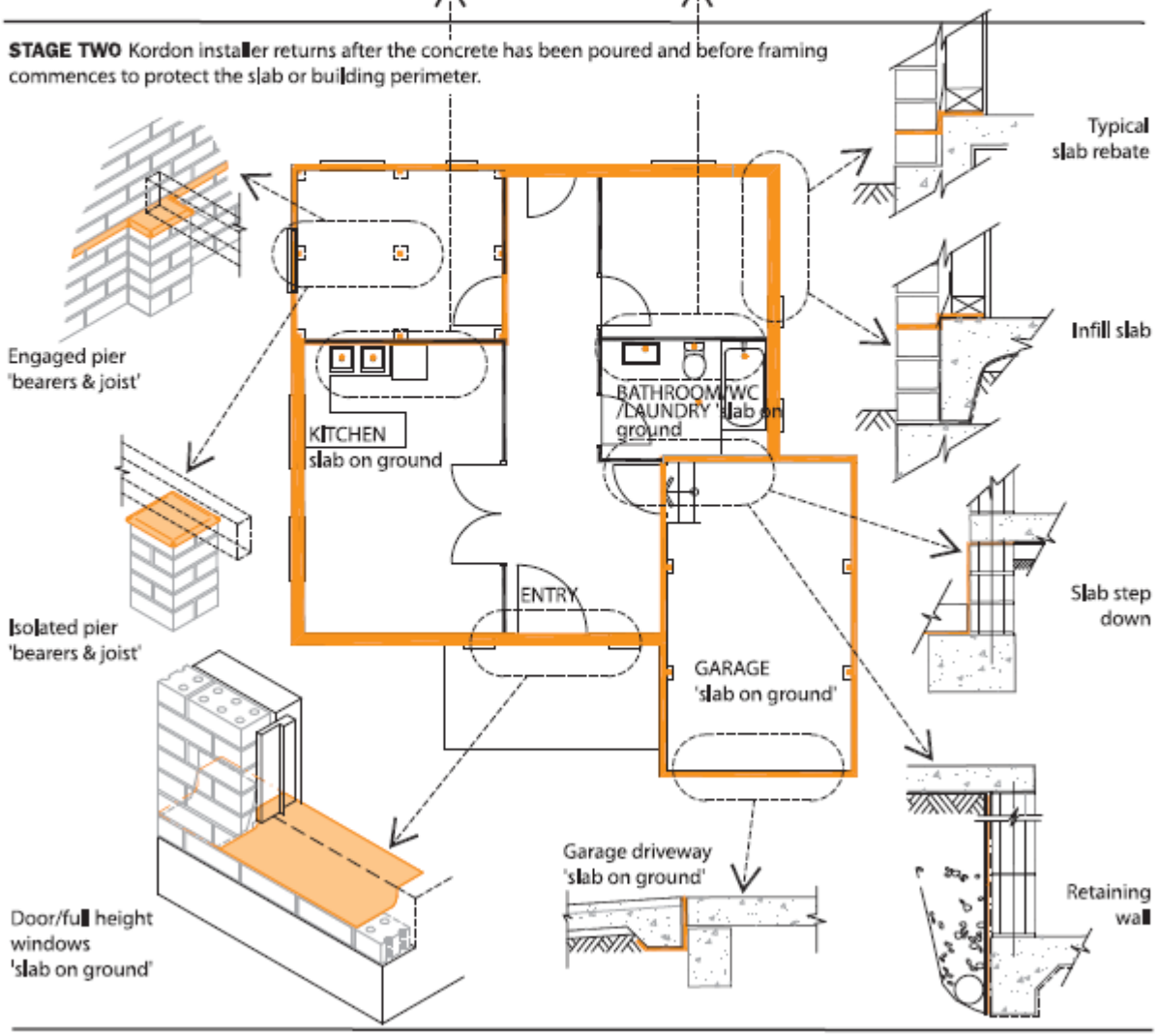
# Brick Veneer Bearers & Joists

## Kordon installation process Installation of a typical domestic perimeter installation

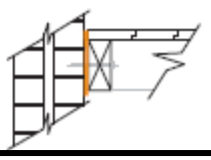
**STAGE ONE:** Kordon installer arrives before the concrete mesh is in place to protect any slab penetrations & slab joints.




**STAGE TWO** Kordon installer returns after the concrete has been poured and before framing commences to protect the slab or building perimeter.




**STAGE THREE:** Note-Ensure finished external surface level, eg paving, garden beds, ground levels -maintain the 75mm inspection zone requirement (AS 3660.1-2000). Doorways, ramps & patios allow inspection zone variations-Always refer to your accredited Kordon installer.

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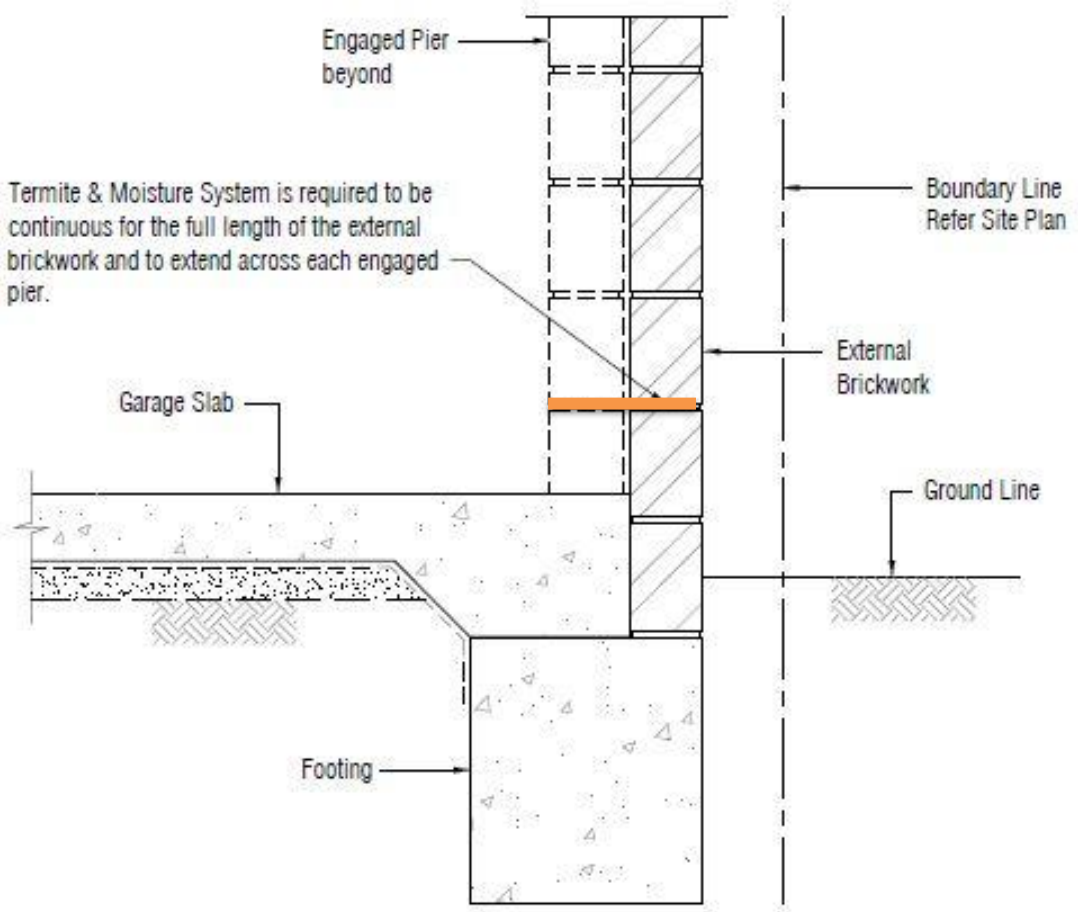
Sheet No.

**kd 052a**

Subject:

# Brick Veneer Bearers & Joists

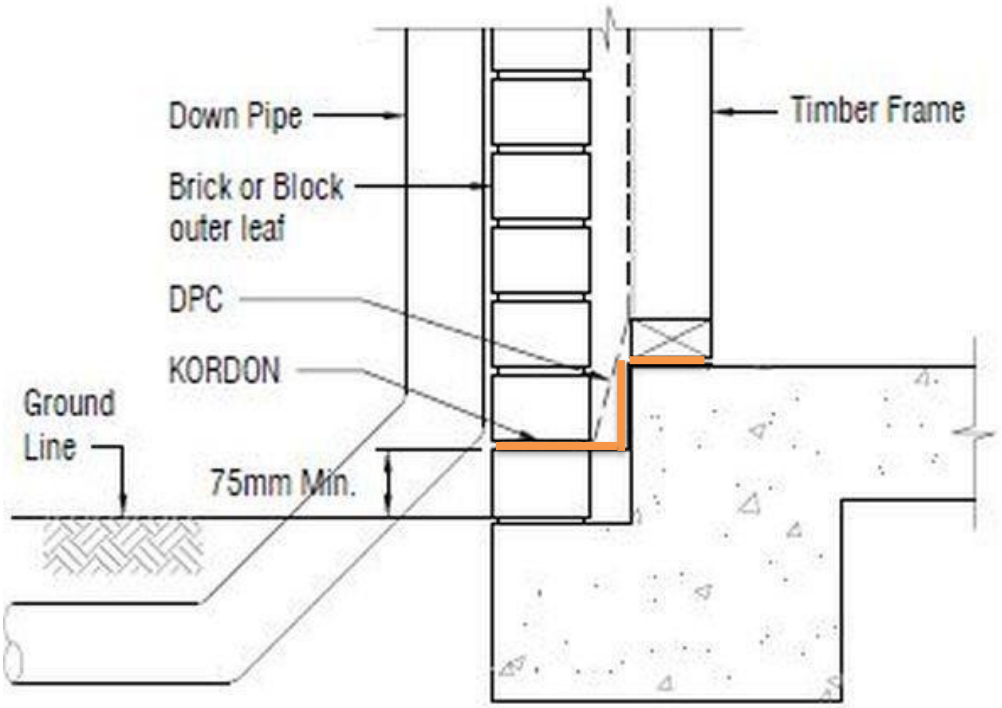



ZERO LOT LINE TERMITE BARRIER - SINGLE LEAF WALL

Subject:

**Kordon Installation single leaf brick**

Sheet No.
KD 001 single leaf brickwork
Date:08/11/2018




## Section Detail 1

75mm Inspection Zone - to Soil/Garden

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Sheet No.
KD 001 Down pipe
Date:08/11/2018

Subject:

# External down pipe detail

photo 1

showing existing structure with Kordon TB secured as per sketch

RL 70.25

RL 69.75

RL 68.80

RL 67.35

Notes:

where a 'zero' abutment or building extension occurs Kordon TB can be used effectively to protect the new building from termite infestation from the existing structure.

A number of additional Kordon installation tools and principles are required for this specific type of installation

- 'hoop iron' bracing is required to create a secure permanent fixing for the Kordon TB to the existing structure. to be applied along the 50mm overlap lines.
- adhesive spray can also be used to aid 'tie down' ot the product, especially where strong winds may occur.

KORDON TB

installed by an accredited Kordon installer

KORDON TB

drain

existing building

new building

BAYER Kordon®

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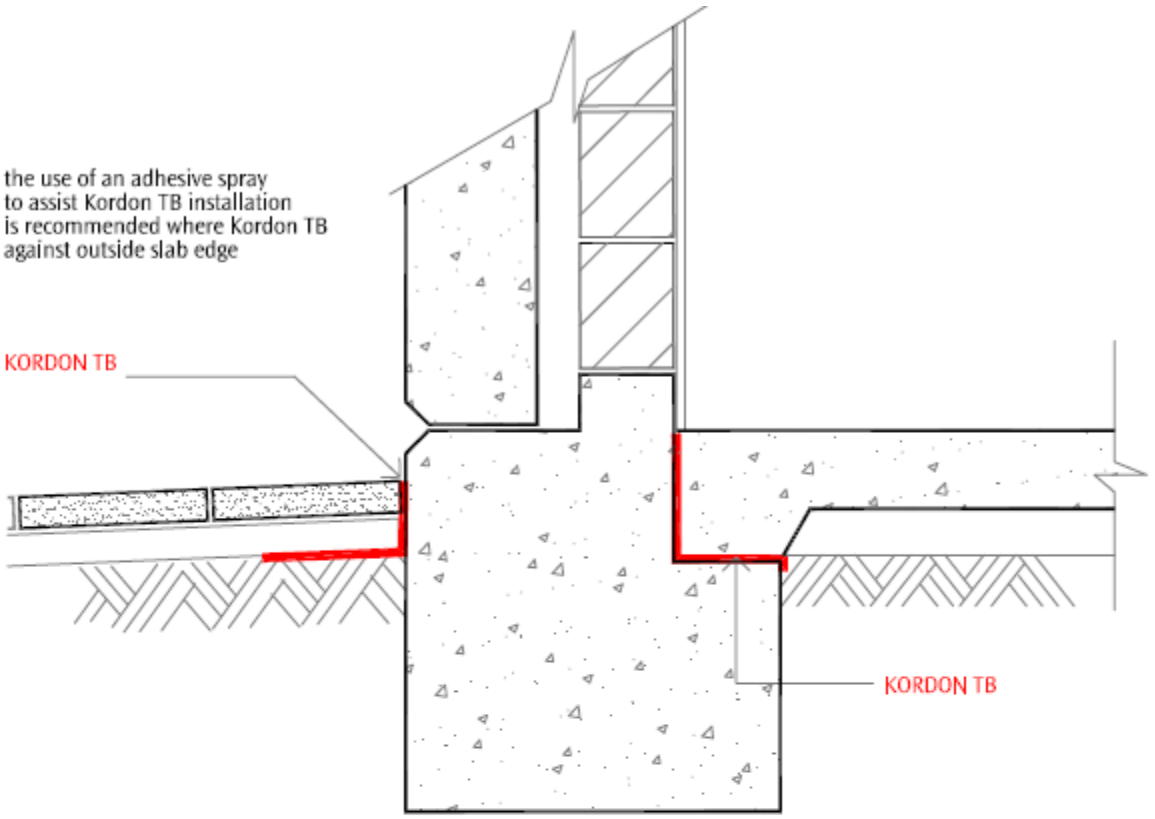
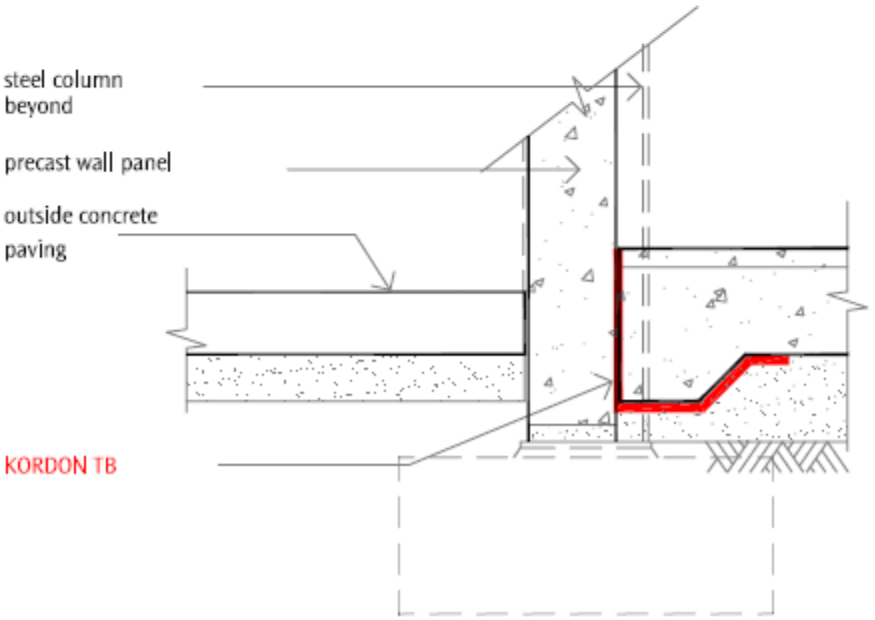
Sheet No.

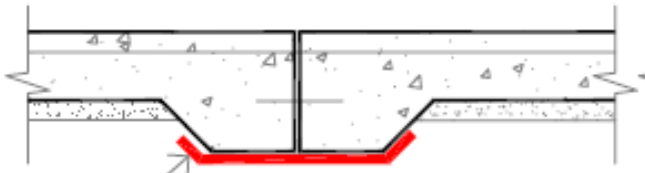
kd 029

Subject:

# New Extension To Existing Wall

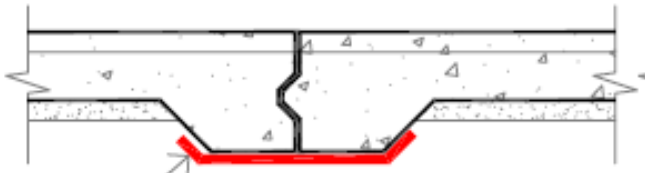

the use of an adhesive spray
to assist Kordon TB installation
is recommended where Kordon TB
against outside slab edge
KORDON TB
KORDON TB


steel column
beyond
precast wall panel
outside concrete
paving
KORDON TB



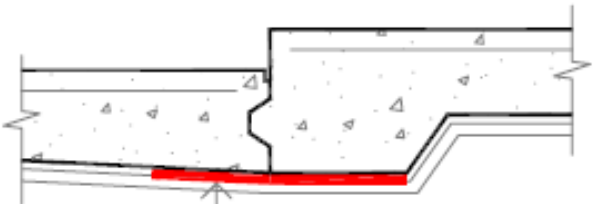
KORDON TB
dowel joint – option A

KORDON TB
dowel joint – option B

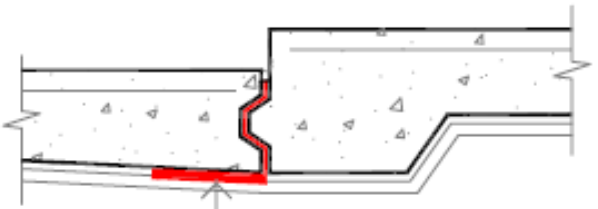


KORDON TB
key joint - option A

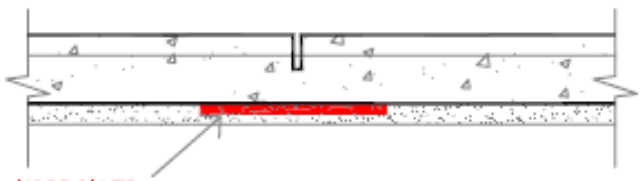
KORDON TB
key joint - option B



KORDON TB
taped on top
of DPM - option A



KORDON TB
taped on top
of DPM - option B



KORDON TB
saw joint

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Sheet No.

**kd 034 a**

Subject:

# Commercial Detail - 4

# Extract from CSIRO Technical Assessment 216

**This document lists exceptions where the 75mm inspection zones can be amended. Individual section details are outlined on next page.**



**Tape:**
This is a 50 mm wide PVC tape labelled with warnings to other building trades that the Kordon System is installed and should not be damaged.

**Installation:**
Installation instructions are provided in the Bayer Environmental Science "Reference Manual – Kordon Termite Barrier" and in the section "Installation Details" on the web site www.kordontmb.com.au.
www.kordonwarrantycentre.com.au
The membrane is installed with the orange side up. Where necessary the membrane is joined by PVC Duct tape (not less than 30mm wide) with overlaps not less than 200mm for Kordon TMB and 50mm for Kordon TB.

Sealing penetrations through concrete slabs is achieved by using prefabricated Kordon Kollars or 'collars and patches'. The instructions are summarised below.

1. **Slab on-ground - termite barrier incorporating a vapour barrier.**
   The Kordon blanket is installed after the footings and plumbing have been completed and before steel reinforcing is laid for the concrete slab. The Kordon blanket is generally limited to under slab application and edge termination details are as for vapour barriers.

   There are two installation options:
   (a) The Kordon blanket is placed beneath the slab so that the bottom surface of the slab and beams are entirely underlaid, or
   (b) Where edge or internal beams are deeper than 150 mm, the Kordon blanket is placed beneath the bottom surface of the slab only. Beams are underlaid with conventional vapour barrier or damp-proofing membrane, joined to the under surface of the Kordon blanket with PVC duct tape. In this case, slab perimeters should be protected against termite entry by the Kordon System or by maintaining exposed edges or other options as specified in AS 3660.1-2000.

**Service Penetrations.**

**2.1 Manual Method**
**Vertical penetrations.** Two slits are cut in the membrane to form a cross, which is then fitted over the penetration. A separate piece of Kordon blanket (approximately 40 mm wide and 20 mm longer than the perimeter of the pipe) is then wrapped around the pipe and secured with duct tape. A separate piece of Kordon blanket approximately 300 mm square with a hole slightly less than the pipe diameter is forced over the penetration to fit firmly on the collar. The collar is secured with cable ties, clamps or similar and covered with duct tape. The edges of the patch are also taped with duct tape.

**Horizontal penetrations.** The membrane is cut and moulded around the penetration. It is joined with PVC tape and then 'collared' with a second strip of Kordon blanket. A preformed Kordon sleeve is placed over the penetration and collar. All edges are taped with PVC Duct tape and cable ties are used to ensure complete contact with the penetration.

In situations where the slab area immediately surrounding the service penetration for a bath or premoulded shower tray is to be poured independently, the method of installation is modified by laying the membrane 100 mm below the corresponding fill height and then joining it as for vertical penetrations.

**2.2 Pre-fabricated Method**
**Kordon Kollars – Horizontal and Vertical penetrations.** Install the prefabricated Kollar over the service penetration. The Kollar is secured with two cable ties, clamps or similar. A strip of duct tape is used to seal the top of the vertical section of the Kollar to the pipe. For horizontal penetrations all edges are taped with PVC duct tape and cable ties are used to ensure complete contact with the penetration.

3. **Cavity walls.**
   Kordon blanket can be installed to the horizontal surface of the slab edge and secured either under the timber base plate or internal brick, depending on the type of construction.

   **At edge rebates,** on brick veneer construction the Kordon blanket is installed along the rebate. The damp proof course is installed on top of the Kordon blanket. Brickwork is then laid on top of the DPC. The Kordon blanket may be visible or within 5 mm of the external face depending on the finish of the external brick/brickwork.

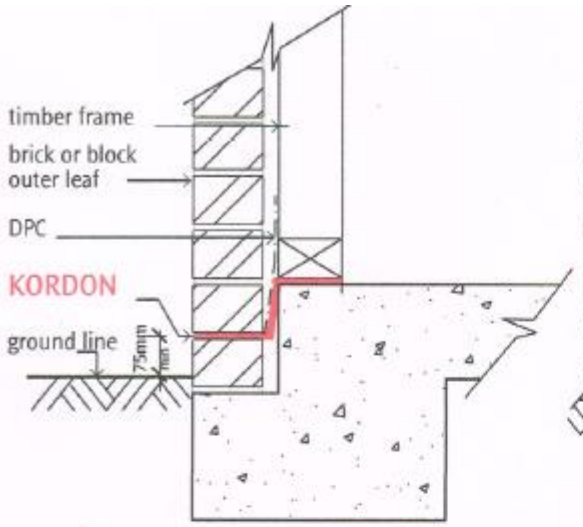
   **At doorways** with a rebate or where a tile tread is fixed under the doorway, the Kordon blanket is fixed to the vertical face of the slab rebate with a steel strap or other termite resistant material. The Kordon blanket must extend 15 cm either side of the doorway. When the door is positioned onto the slab, the Kordon blanket is cut so that it comes up to the edge of the doorway frame.

   **Encroachment on the 75 mm inspection zone.** Where there is a permanent hard surface below the membrane the Kordon blanket can be finished with less than a 75 mm inspection clearance to the finished level. At doorways a minimum of 20 mm would be adequate provided doormats are not located against the edge of the threshold. If a doormat is used the clearance should be 35 mm.

   Over a hard surface patio area a 30 mm clearance is adequate.

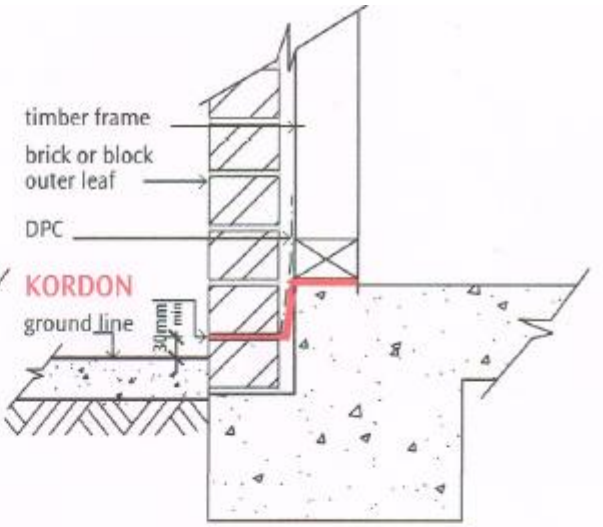
4. **Cold-joint installation between an existing structure and a new slab.**
   Kordon blanket is adhered onto the existing structure without any gaps and then sandwiched between the concrete being poured and the existing structure.

5. **Perimeter attachment.**
   Details are provided for pathways, driveways, etc where a minimum 300 mm wide strip of Kordon blanket is installed to the vertical of the slab, folded back on itself, secured with an approved spray adhesive and both nailed and glued to the slab edge prior to the concrete pour. If an expansion material is used it will be installed to the Kordon blanket and not the slab edge.



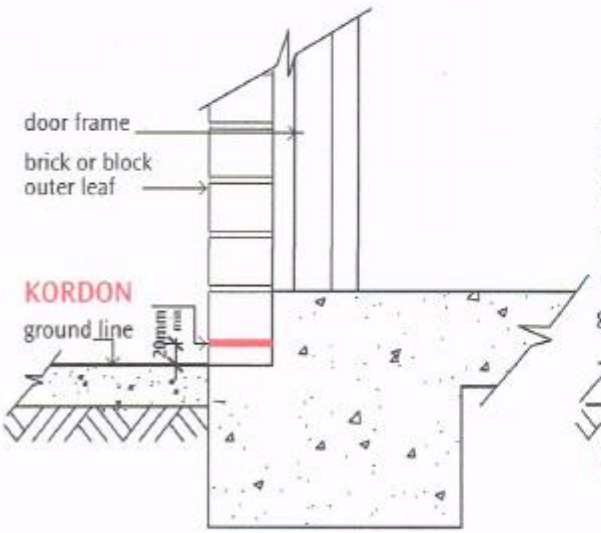

## section detail 1

75mm inspection zone - to soil / garden



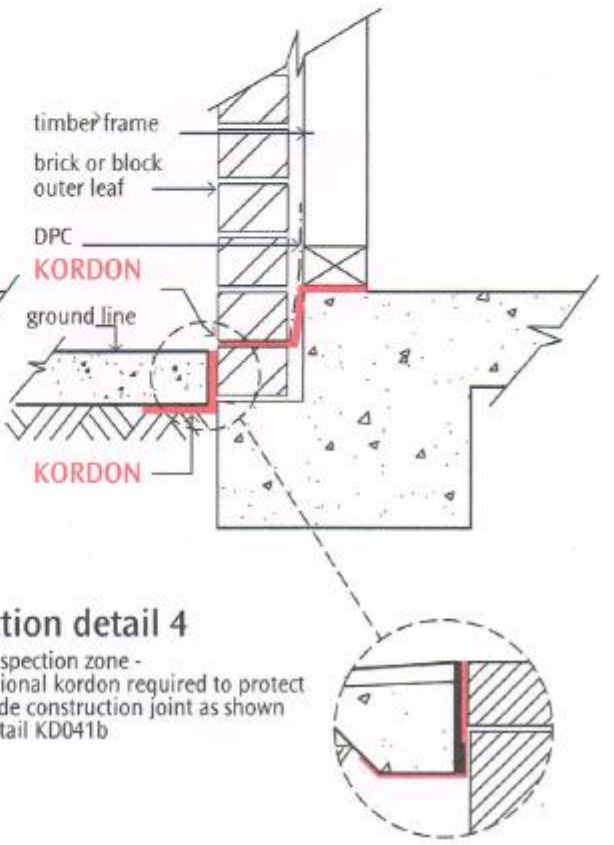

## section detail 2

30mm inspection zone - to hard surface, concrete path, apron




## section detail 3

20mm inspection zone - exterior doorways




## section detail 4

no inspection zone - additional kordon required to protect outside construction joint as shown in detail KD041b

All Kordon Installations are registered on the Bayer website and the following documents are available for the Building Contractor to provide to his client / homeowner

1. Warranty Document
2. Certificate of Compliance
3. Form 16 (Queensland only)
4. Site installation diagram
5. Meter box sticker
6. Warranty conditions and options

www.kordonwarrantycentre.com.au

# Personal Protective Equipment

| | |
|---|---|
| 2.2.1 | First Aid Kit appropriate to the task and location |
| 2.2.2 | Communication equipment |
| 2.2.3 | Drinking fluids |
| 2.2.4 | Ear protection |
| 2.2.5 | Eye wash |
| 2.2.6 | Face shield |
| 2.2.7 | Hair nets |
| 2.2.8 | Hard hats |
| 2.2.9 | Washable sun hat |
| 2.2.10 | Gloves |
| 2.2.11 | Long sleeve shirts |
| 2.2.12 | Long pants |
| 2.2.13 | Overalls, coveralls / protective clothing |
| 2.2.14 | Steel cap boots |
| 2.2.15 | Sun glasses |
| 2.2.16 | Safety glasses |
| 2.2.17 | Safety harness (if required) |
| 2.2.18 | Sunscreen |
| 2.2.19 | Supply of barrier cream or similar product |
| 2.2.20 | Eye protection |
| 2.2.21 | Soap and Towel |

# Kordon Installer's Tool Box

| | |
|---|---|
| 2.2.1 | Carpenter's work pouch |
| 2.2.2 | Eight metre tape measure |
| 2.2.3 | Three Metre tape measure |
| 2.2.4 | Pocket sized note pad |
| 2.2.5 | Chalk line |
| 2.2.6 | Level |
| 2.2.7 | Hammer |
| 2.2.8 | Ramset, Track fast or similar |
| 2.2.9 | Quantity of approx 20mm concrete nails |
| 2.2.10 | Quantity of 15mm concrete nails / washer |
| 2.2.11 | Stanley knife |
| 2.2.12 | Wiltshire Stay sharp Scissors |
| 2.2.13 | Kordon Kutters |
| 2.2.14 | Good quality pliers |
| 2.2.15 | Stapler |
| 2.2.16 | Quality duct tape |
| 2.2.17 | Quality cloth duct tape |
| 2.2.18 | Quantity of various sized quality zip ties |
| 2.2.19 | Marking pen / carpenter's pencil |
| 2.2.20 | Set of wad punches |
| 2.2.21 | 3M Spray adhesive or other approved product |
| 2.2.22 | Supply of galvanised hoop iron 30mm wide x 8 gauge |
| 2.2.23 | Supply of Kordon product as required from work orders / work schedule |
| 2.2.24 | Flat blade trowel |
| 2.2.25 | Bolster |
| 2.2.26 | Wire brush |
| 2.2.27 | Screwdrivers |
| 2.2.28 | Tin cutters |
| 2.2.29 | Dust pan and brush |
| 2.2.30 | Kordon warning tape |
| 2.2.31 | Kordon Termite System site signs |
| 2.2.32 | Camera |
| 2.2.33 | Nail gun |

**www.es.bayer.com.au**
**Technical Enquiries: 1800 804 479**

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