

Other items:	(State)
Robe hook locations:	(State)
Bedroom fittings:	
Robe hooks:	Delco No 1023 chrome finish robe hooks to each bathroom, and WC and vanity.
Robe hook locations:	(State)
Wardrobe hanging rails: (Clause H-08)	
Wardrobe hanging rails:	25mm diameter chromed tube with CP pillars and end flanges fixing.
Kitchen fittings:	
Tea-towel rails:	Hafele 450 mm two-rail 'Roll-in' slide mounted (set) towel holders, steel, CP.
Hatch	Hafele type aluminium (double ended) robe hatch version C.
Mould coatings and finishes (Clause H-07):	
Powdercoat finish:	(State)
Colorbond finish:	(State)
Grab rails / Asset rails: (Clause H-10):	
Grab rails generally:	Tubelinears 'Eisegrip' nominal 32 mm diameter stainless steel grab-rails with concealed fixing. (Fix to studs or nogging purpose located). Provide 'IC Claw' type adjustable hand shower attachment (Eisegrip) to shower and bath rails.
Grab rails to showers:	Tubelinears (Eisegrip) S5 Type.
	Shower Grab Rail to be fitted with H. G. Conical type shower attachment to suit hand shower.
Grab rails to baths:	Tubelinears (Eisegrip) S5 Type.
Grab rails to assisted WC's:	Tubelinears (Eisegrip) T13 Type with integral toilet roll holder.
Grab rails to disabled WC's:	Tubelinears (Eisegrip) T3 Type.
Grab rails to ambient WC's:	(Where indicated) Tubelinears (Eisegrip) T2 Type.
Glazed shower screens (Clause H-12):	
Glazed shower screens (En-suite)	Frame: Powder coated aluminium screen, with hinged door. Glass: Clear laminated safety glass, nominal 2000 mm high, site measured to suit base. Refer to Drawings.
Shower seats (Clause H-13):	
Shower seats:	Handrail Industries No. 513 folding shower seat.
Shower seat locations:	(State)
Brackets for internal blinds and curtains: (Clause H-14):	
Curtain tracks:	Refer to Provisional Sums.
Unit numbers: (Clause H-16):	
Street number:	Cast metal numbers, 75 mm high on structure at front of site visible from street and/or drive. Fix to mail box or to

	prominent fixture as directed on site.
House numbers:	Cast metal numbers, 75 mm, located on brickwork at front of (each) unit.
Mail boxes: (Clause H-17):	
Detached dwelling:	Letterboxes of Australia Tel. (03) 9870-1102 (A4 approved).
Mult unit complexes:	Individual mailboxes for each unit. Refer to Drawings for location.
Clothes lines: (Clause H-19):	
Types:	Option A - HBS Super Hoist 5 Rotating Clothes Line (fixed head) No. FD9595.
	Option B - Coopers Clothes Lines 'Rectangle Elevating Lines' non-revolving type.
	Option C (State)
Locations:	Refer to Drawings.
Garden shed: (Clause H-20):	
Description:	Dimensions 2.0 m x 3.0 m x 2.1 m high. Door 800 mm wide and full height. Fit pad-bolt and pad-lock master keyed to unit. Provide concrete floor slab set 50 mm above surrounding paving. Ramp up path to shed door at slope of 1:32 (maximum).
Colour:	Selected Colorbond (State)
Location and number:	Refer Drawings.
Services security enclosures: (Clause H-25):	
Requirement:	Provide security enclosures to all outside services such as hot water services and air heating and cooling equipment, where indicated on the Drawings.
Recessed mat: (Clause H-26):	
Matting:	Not required.
Matting type:	Not applicable.
Pergolas:	
Location:	Refer Drawings.
Product:	Siraco Outback Pergola System Type 1A, in Colorbond finish.
Posts:	Nominal 75 x 75 x 2.5 SHS, galvanized and painted steel.
Beams:	Nominal 120 mm galvanized and painted steel.
Fascia:	Reinforced where attached.
Roof lights:	Provide roof lights at 1000 mm spacing for covered pergola outside living rooms.
Sheeting:	Clear polycarbonate.
Downpipes:	Nominal 75 mm Colorbond downpipes as required to match the adjacent building.

Welded mesh service enclosures (Clause H-25):

Location:	Refer Drawings.
Required:	Yes / No.
Metal verandah posts:	
Location:	Refer Drawings.
Required:	Yes / No.
Metal carpents:	
Location:	Refer Drawings.
Required:	Yes / No.

SECTION I - CARPENTRY

Construction:

Comply with AS 1684, unless otherwise indicated on the Drawings or as follows.

Particular project requirements:

(State)

Timber wall framing (Clause I-11):	
Studs:	Nominal 90 x 45 mm F5 Radiata Pine at maximum 450 mm centres. Reduce to 300 mm centres for units identified for clients with behavioural problems.
Bottom plates:	Nominal 90 x 45 mm F5 Radiata Pine at maximum 300 mm centres.
Top plates:	Two x nominal 90 x 45 mm F5 Radiata Pine
Noggings (generally):	Nominal 90 x 45 mm F5 Radiata Pine at 900 mm centres (minimum three rows) and as required for fixings.
Noggings (grab rails and handrails):	Required to all passages, WC's, bathroom and showers. Provide additional 90x45 MGP-10 or F17 studs and double noggins 90x45 located to coincide with fixing plates.
Noggings (joinery wall sheathing):	Required.
Framing and blocking:	Nominal 90 x 45 mm KDNV.
Roof framing (Clause I-14):	
Roof framing:	Refer to Structural Drawings.
Anchoring:	Secure bottom plates with 10 mm anchor bolts at max 1000 mm centres with additional bolts at each wall bracing point in accordance with AS 1684.

The Contractor shall submit the following to the Superintendent before the fabrication of any roof trusses and window lintel beams.

- Schedule of roof trusses and computations for all members and connections.
- Certificates of Compliance. (Form 13 of the Building Act), for the roof trusses.

The roof truss design shall satisfy the following criteria:

- Ceiling and roof heights indicated on the Drawings.
- Accommodate moving point load of 200 kg for future hoist locations (existing / disabled bathrooms WC's and bedrooms).
- Sufficient clearance for all services in the ceilings space
- Sufficient clearance for all electrical fittings and associated duct work in the ceiling space.
- Sufficient space under window lintels and beams for required windows and doors.
- Sufficient space for installation of skylights and shafts (including played shafts) and all penetrations required and indicated on the Drawings.

External cladding (Clause I-18):

External cladding:	N/A
Material:	Fibre cement panel / Fibre cement plank / Corobond.
Location:	(State)

Ceiling access hatches (I-19):

Ceiling access hatches:	Triangular, Nominal 600 x 600 mm, 12 mm MDF board, cam lock. Refer to Drawings for location or as directed on site. Allow one per house and one per unit.
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Overhead hoists (future):

Framing for overhead hoist	Provide roof truss design suitable for the future installation of an overhead hoist in Disabled Bathroom, WC's and bedrooms, and elsewhere indicated on the Drawings.
	Ascertain requirements and coordinate with the hoist supplier - Tree Hoist System, Tel. (03) 8623 0611.

Electronic strikers:

Electronic strikers	The Contractor shall install electronic strikers to required doors and coordinate with the FIRE PROTECTION work and related trades.
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SECTION J - JOINERY

General requirements:	Water-resistant MDF throughout.
Project Requirements:	Refer to Drawings.
Built in cupboards:	Refer to Drawings.
Cabinet work fabrication (Clause J-08):	
Kitchen joinery:	
Top:	Post formed laminate.
Fronts:	Laminate.
Drawer and door pulls:	Satin chrome steel handles, 121 x 29 x 10 mm, Hafele No. 117.72.400.
Cupboard hinges:	Generally spring hinges, 115-degree opening, Blum or Hafele, OR where increased strength required, Hafele No. 31.20.837 continuous piano hinges
Under Bench Waste:	Provide one
	KIMBERLEY KR 808 TWIN BIN WASTE SEPARATOR

SYSTEM

Adjustable shelving (storage room):	Frigitte Krieger 250 mm flat brackets, single slot wall stripping (13 x 16 mm). Powder coated finish.
Bathroom joinery:	
Type:	Post formed laminate.
Fronts:	Laminate.
Drawer and door pulls:	Satin chrome steel handles, 121 x 29 x 10 mm, Hafele, No. 117.72.400.
Cupboard hinges:	Generally spring hinges, 115-degree opening, Blum or Hafele, OR where increased strength required, Hafele No. 31.20.837 continuous piano hinges
Laundry joinery:	
Type:	Post formed laminate.
Fronts:	Laminate.
Drawer and door pulls:	Satin chrome steel handles, 121 x 29 x 10 mm, Hafele, No. 117.72.400.
Cupboard hinges:	Generally spring hinges, 115-degree opening, Blum or Hafele, OR where increased strength required, Hafele No. 31.20.837 continuous piano hinges
Wardrobe and full-height cupboards:	
Door pulls:	Satin chrome steel handles, 153 x 30 x 10 mm, Hafele, No. 117.31.436.
Sleep-over room:	
Keyboard adjuster:	Howard Silvers 'H8-1'.
Bench supports / legs:	Hafslø 'Rondalia' table legs No. 635.06.276, chrome finish.
Wardrobe hanging rods:	
Type:	25 mm diameter DALCO chrome plated heavy-duty steel with matching wardrobe hanger brackets.
Poison cabinet (Clause J-09):	
Poison cabinet:	Required.
Mirrors (Clause J-011):	
Mirrors:	Mirrors shall be 6 mm laminated glass mounted on 18 mm HMR board with satin stainless steel or powder-coated aluminium edging to all sides. Mirrors shall not be angled.
Mirror size (bathroom)	Minimum 950 x 600 mm.
Mirror size (other)	Minimum 850 x 450 mm.
Trim (Clause J-13):	
Architraves:	Nominal 70 x 19 mm, played top, Tasmanian Oak.
Skirting:	Nominal 90 x 19 mm, played top, Tasmanian Oak.
Picture rails:	As detailed, Tasmanian Oak.

Peimets (Clause J-14):

Peimets:	As detailed, Tasmanian Oak.
Peimets locations:	To all windows to living rooms and bedrooms, including sleepover room.

SECTION K - ROOFING

Roofing	(Select) Cement tile / Colorbond steel decking, nominal 0.47 mm thick.
Colour / style:	To be selected.
Carports:	As above.
Gutters and downpipes: (Clause K-07):	
Eaves gutters:	Colorbond quad gutter.
Valley gutters:	Colorbond.
Fashing:	Colorbond.
Downpipes:	(Select) Rectangular / Circular Colorbond.
Stylights: (Clause K-08):	
Stylight:	Schedule 400 with 'Duraclite' highly reflective anodized rigid aluminium nose (400 mm diameter) and curved prismatic diffuser. Refer to Drawings for locations.
Fascia and barge verges: (Clause K-09):	
Fascia and barge:	(Select) Colorbond / Timber.

SECTION L - DOORS AND WINDOWS

Doors (Clause L-03):	
Doors generally:	Refer to Door Schedule
External timber doors:	Solid core type.
Internal timber doors:	Generally semi-solid core type as manufactured by M&J Quality Doors, Tel. (03) 9308-6922
Special requirements:	For CRUs with high behavioural residents, internal timber doors shall be solid core doors. Verify before commencing.
Cupboards doors:	Refer to Door Schedule and Drawings.
Garage doors:	Aluprof Doors roller doors, Colorbond steel, manual operation, key locking, centre lift / lock. Refer to Door Schedule.
Door frames (Clause L-07):	
Door frames (generally):	Frames for single leaf timber doors shall be steel OR timber. Frames for aluminium framed glazed doors shall be aluminium.
...	
Door frames (fire exits):	(For primary and secondary fire exits) Frames shall be primed steel or aluminium of sufficient cross section to accommodate two electric door strikers (one for security

door, and one for main door) without any weakening or
fixing of the frame. Frames shall be 'Brodie' interior
New Generation doorframes. Provide three heavy-duty
loose pin steel hinges and universal strikers.

Electric door strikes:

Electric Door Strikes
Provide Radda 24V DC electric door release strikes
and/or magnetic locks where shown on the drawings.
Refer www.radda.com.au for available units.

No other product is acceptable.

Door control devices shall be activated by the MANUAL
OVERRIDE MODULE in the Brocks 2000 RFP upon
activation of the general alarm.

Refer drawings, Part 2 References Specification and Part
3 Project Schedules Sections Z (a) and Z (b).

Door hardware (Clause L-09):

Front doors:

Lockwood Glass Door Locking Latch No. 3574XZ (with
fixed handle to outside - remove outside spindle).
Lockwood Knob 40, SCP, outside and Lockwood Lever
80, SCP, inside.

Other exterior sliding doors:
Lockwood Glass Door Locking Latch No. 3574XZ
(standard installation - not modified). Lockwood Lever
80, SCP, both sides.

Glazed sliding doors:
(Aluminium / timber frames) Lockwood Glass Short
Backset Door Locking Latch No. 3584ZZ and 3594ZZ.
Lockwood Lever 60, SCP, both sides.

Sliding doors (wet areas):
Lockwood 3573 Sliding Door Through Fix Privacy Latch.

Commercial sliding patio doors:
Lockwood Short Backset 581 Series Mortise Lock,
double cylinder.

Commercial sliding security doors:
Lockwood Short Backset 591 Series Mortise Lock,
single cylinder (internal).

Sleep-over room doors:
Lockwood 929 Series Exterior Escape Dead Latch.

Bedroom doors to be lockable:
Lockwood 929 Series Exterior Escape Dead Latch.

Bedroom doors not lockable:
Lockwood 831 Series Passage Set.

Security doors:
Refer Part 2 Specification Clause L-10C with electric
strike.

Cupboards / drawers:
Lockwood 491 Series Pin Tumbler Cupboard Lock,
master keyed.

Sliding patio doors:
Lockwood Macquarie 800 Series - key lockable both
sides with Macquarie 800 Series 'D' type inner handle
and extra large snib.

Interconnecting door:
(Between adjoining units) Lockwood 934 Series Glass
Door Dead Latch.

Locking systems (Clause L-09):

Provide a master-key system throughout. The master key shall open all locks, including external
gates and padlocks.

Keying and master keying (Clause L-09):

Master keying:
Required for all CRUs. Grand master key all locks.
Supply two keys for each lock.

Location:
All lockable doors including cupboard doors, gates and
padlocks.

Keying:
Verify with Superintendent before commencing

Security doors (Clause L-10):

Security doors:
Install powder coated steel security / fly screen to
swinging and sliding doors. Doors to be constructed with
steel frame and Lysaght restricted vision mesh.

Sliding Security Doors:
Sliding doors shall be fitted to track of aluminium sliding
door unit. (Modify the aluminium frame to suit the fitting
of the steel security doorframe.) Provide a keyed lock
that is master keyed to main door system. Refer to Door
Schedule.

Preferred supplier:
Hyland and Son.

Emergency access hinges:
Delco Escape Set system. Refer to Door Schedule.

Windows and external sliding doors (Clause L-14):

Construction:
Aluminium framed.

Rylock 800 Series OR

James Hardie Quantum Collection sliding windows
(wheechair travelable sills).

MTM

Window frames shall be capable of accommodating
10mm thick glass where required.

Window operation:

Sliding windows to be restricted opening to 200 mm
maximum. Where required windows shall be lockable
and keyed alike.

Glass:

Minimum 6.38 mm thick laminated safety glass to all
windows, glazed doors and sidelights.

or

Minimum 10 mm thick toughened safety glass with 3M
film to all glazing throughout including windows,
sidelights, glazed doors.

or

Glazing to bathrooms and toilets shall be obscure glass
6.78 mm thick AQUALITE LAMINATED SAFETY
GLASS 8. (Available from Alternate Glass 03 9761
7977. www.alternateglass.com.au)

Reveal linings:

Windows and doors shall be supplied with factory-fitted
klin dried hardwood reveals to head jamb and sills. The
width of the linings shall be to suit specified wall

Fly wire screens:
Provide fly wire Screens to all opening windows. Frame to be heavy-duty aluminum with heavy-duty fly-wire. Frame to be powder coated to match windows.

Colour: Windows and doors, security grills, mesh and fly wire frames shall be powder coated from manufacturer's standard colour range.

Sizes: _____ Refer to window and door schedule and drawings.

Other requirements:

COULES

SCHEDULE-DOORS

Address.....

Works No.

Notes: Sizes are nominal, refer to Drawings

Jail / House No. (e) _____

Address.....

Works No.

Notes: Sizes are nominal, refer to Drawings

Unit / House No. (5) _____

[illegible]

SECTION III - LININGS AND PLASTERING

Plasterboard sheet (Clause M-06):

Internal Cellings:	Boral N'System v-1
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10 mm thick. Edge finish to be recessed.

Tape and flush joint for paint finish to

manufacturer's specification.

FOUR SEVEN EIGHTY-ONE (CUBAN REV. 07);

Hardie Flex, 4.5 mm thick; edge finish square.

Provide PVC joint strips and edge angles.

Gable ends:
Hardie Flow 8 mm thick solid finish on...

[illegible]

Wet area walls:
Walls generally:
Villaboard, 6 mm thick edge finish recessed.
Villaboard Lining
9 mm
9 mm thick
recessed edges for flush jointing.
Tape and flush joint for paint finish to
manufacturer's specification.
Lining to be both adhesive fixed and screw fixed.
*Delete non-applicable thickness and delete this
sentence.

Special requirements:

Expansion joints:
Allow for expansion and movement joints to Villaboard
walls as required by manufacturer.
Fire rated dry wall construction:
(State) Location / Details
in stud walls between separate occupancies in
accordance with BCA
Acoustic dry wall construction walls:
(State) Location / Details
in stud walls between separate occupancies in
accordance with BCA. See INSULATION.

SECTION N - INSULATION

Insulation and sarking:

Walls generally:
Reflective foil sarking to line exterior of studs and R 1.5
Tontine 'Insulot' polyester insulation batts between
studs.
Not required.
Steel roof:
Bradford 'Thermofol' medium duty anti-glare sarking, R
1.5 Tontine 'Insulot' polyester building batten/insulated
with aluminium foil (integral sarking).
Tontine R3.0 'Insulot'.
Acoustic Insulation:
Locations:
In all stud walls and adjacent ceilings between separate
occupancies in accordance with BCA and in stud walls
between bedrooms, sleep-over rooms and living rooms.
Refer to Drawings.
Installation:
The external face of batts shall be flush with external
face of studs. Do not compress batts.
Insulation to ceilings shall extend 1000 mm past internal
walls of rooms.
Walls between separate units:
Tontine Polyester Sound Batts (TSB5 (Rw 45) 80 mm
thick.
Internal walls (other):
Tontine Partition Batts, polyester.
Ceilings between separate units:
Tontine Acoustisol 2 or Soundbatts, 75 mm thick.

SECTION O - FLOOR AND WALL FINISHES

Generally:

Note: Verify concrete gradients and tolerances before commencing.

Ordering materials:
Cobbles to be selected by Superintendent before
commencing work. Place orders within 48 hours of
commencing work on site.
Responsibility:
The Contractor shall ensure that the quality and finish of
the bases for applied finishes meet all the Product
Information before installation.
Preparation:
Remove bumps and knobs. Grind off high spots. Fill low
spots and depressions with proprietary substrate
levelling compound such as Arcl. Grind whole floor
smooth.
Substrate moisture test:
Concrete floors shall be properly cured and dried to
below the level required by the applicable covering
manufacturer before tiling. Undertake moisture tests
using an approved authority and instruments and submit
satisfactory tests to the Superintendent before
commencing installation of coverings.
Transition strips:
Changes that occur in doorways shall be located directly
under the door and covered with a transition strip.
External doors (For vinyl):
(State)
External doors (For carpet):
(State)
Transition from vinyl to carpet:
George Low DTC24 carpet to vinyl trim.
Wall coverings:
Living and bedrooms:
Paint.
Kitchen:
Paint and ceramic tiling.
Sleep-over room en-suite:
Paint and ceramic tiling to shower, basin.
Assisted bathroom:
Wall vinyl, paint.
Shower room:
Wall vinyl, paint.
Laundry:
Paint and ceramic tiling.
WCs:
Paint, wall vinyl and ceramic tiling.
Store Rooms:
Paint.
Floor covering:
Bathroom:
Non-slip vinyl with 80-pencil covered up walls 100 mm.
Shower room:
Non-slip vinyl with 80-pencil covered up walls 100 mm.
Kitchen:
Vinyl with 80-pencil covered up joinery 'kickers' and cover
up skirting wide 100 mm.
Meals area:
Vinyl.
Laundry:
Vinyl with 80-pencil covered up joinery 'kickers'.
Entry:
Vinyl for 1200 mm.

Pasages:	Carpet.
Living rooms:	Carpet.
Bedrooms:	Carpet.
WCs:	Non-slip vinyl with 90-pencil-round radius covered up walls 100 mm.
Sleep-over room en-suite:	Non-slip vinyl with 90-pencil-round radius covered up walls 100 mm.
Trim	
Joint between vinyl covered floor ALTRO CB Captile.	
Joint tiled walls:	
Joint between vinyl covered flooring ALTRO C7 Capping strip.	
Resilient materials:	
Vinyl sheet flooring (non-wet area 'Tarkett Grant' and 'Accent Wood' ranges, Tel (03) 9764-1711, and 'George Low 'Salotread Dimensions' telephone 9587-4222.	
	Armstrong Accolado Safe Plus 2.00mm
Slip resistant vinyl sheet flooring: Tarsale with SparClean - Genler Tel 8832 1333.	
(wet area mandatory)	George Low 'Salotread Dimension' Tel. 9587-4222.
	Armstrong Salotread 2.00mm
	Other equivalent as approved for the project.
Wall vinyl:	Tarkett 'Aquarelle Walguard' range, Tel. (03) 9764-1711 and George Low 'Silver Vap' and Bard Tel. 9587-4222.
Installation:	By a specialist installer recommended by manufacturer.
Joints:	Weld all joints (beams) of vinyl wall and floor sheet at internal and external corners using 45-degree seams as per Product Information.
Wall Vinyl to covered floor junction:	Lapped joint as per Tarkett Product Information.
Floor vinyl to joinery:	Panel-round radius covered floor vinyl up 'kickers' to all joinery in wet areas.
Covered vinyl floor:	Where indicated to be covered up walls, extend flooring up walls with 90-degree pencil-round radius covering to a height of 100-mm. Trim top with a neat straight edge.
Carpet:	
Waterproof carpet:	Suitable locked, solution-dyed nylon carpet (Intatasec World-Gamma II range System-6, Manning 'Carpetex 1112 III (20 ounce) Commercial with HP High Performance Backing, or equivalent). Submit details of proposed carpet for approval before commencing.
Installation:	Seal entire area to be carpeted with 'Carson 280 Top Method' before laying carpet.
Laying method:	Direct stick. Joints between carpet's shall ensure pattern matching.

Location:	Refer Drawings and Schedules.
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SECTION P - CERAMIC TILING

Wall tiling:	
Kitchen:	Ceramic glazed tiles, Johnson 'Watings' 200 x 100, 150 x 150 or 100 x 100 mm. Splash-back to benches, sink and behind cookers to the extent shown in Drawings.
Laundry:	Ceramic glazed tiles, Johnson 'Watings' 200 x 100, 150 x 150 or 100 x 100 mm. Splash-back to benches, troughs and behind washer and dryer to height indicated on Drawings.
Shower / en-suite:	Ceramic glazed tiles, Johnson 'Watings' 200 x 100, 150 x 150 or 100 x 100 mm to 2100 mm above floor level. Allow for covered floor vinyl.

SECTION Q - PAVING

Requirements:	Refer to Drawings, Specification Part 2.
Driv:	(Select) Reinforced Concrete / Bitumen
Kerbs:	(State) Type / Location
Porch:	(State)
Rear all-out area / terrace:	(State)
Granolithic:	Non-Slip Type / Location
Crossovers:	To Council's requirements.
Footpaths on site:	Refer Structural Drawings.
Concrete paving - on site (Clause Q-36)	
Concrete paths (Clause Q-35):	Minimum width 1200 mm, reinforced with F82 mesh. Control joints every 8000 mm and ruled joints every 1500 mm.
Surface finish:	Slip resistant broom finish.
Colouring:	Full depth.
Concrete colouring:	'Ablox' admixture to concrete pathways and driveways. Date rate in accordance with Product Information.
Council footpaths:	
Public footpath:	To Council's requirements.
Council footpaths (before):	Inspect footpaths before commencement. Make a photographic record of existing conditions. Submit copies to Superintendent. Obtain and submit Council's Asset Protection Permit Application, and pay fee and deposit before commencing.
Council footpaths (after):	Make good damage to paths, crossings, nature-strips at commencement and before completion. Obtain Council's certificate that all work has been completed satisfactorily and submit original to Superintendent.

Bitumen paving (Clause O-06)

Bitumen sealed pavement	Subgrade stabilisation Where the subgrade strength is below 100 kPa or CSR 7 stabilise using lime or cement to m2
Base course:	(Slate)
Location:	Minimum thickness
Surface seal:	(Slate)
Type of seal:	(Slate)

SECTION R - PAINTING

Colour Schedule:	To be provided on site.
External painted areas:	Full gloss acrylic latex exterior grade system, Solergard.
Internal walls and ceilings:	Low sheen acrylic latex washable system.
Wet area walls and ceilings:	Low sheen acrylic latex washable system.
Internal timber and metal trim:	Semi gloss enamel.
Other:	>
Colours:	

Allow four colours as follows:

Colour 1:	(Slate) Ceilings
Colour 2:	(Slate) Walls
Colour 3:	(Slate) Skirting / architrave / door frames, window linings.
Colour 4:	(Slate) Doors

SECTION S - FENCING

Boundary fencing:	Construction by Contractor
Extent:	Provide new 2000 high boundary fencing throughout.
Front fences:	Refer to Drawings. Required / Not required.
Wing fences:	Lytaght Colorbond 'Neoscreen' or 'Miniscreen' to match height of boundary fencing unless otherwise indicated on Drawings.
Paling Fence:	
Construction:	Pickets, 150 x 38 mm x 4500 mm long hardwood.
Posts to gates and corners:	Nominal 100 x 100 mm Hardwood.
Posts to fences:	Nominal 125 x 75.
Top rails:	Nominal 75 x 50 mm Hardwood.
Other rails:	Nominal 75x38 mm Hardwood.
Palings:	Nominal 125 x 12 under, 100 x 12 over, Hardwood.

Palings to be fixed to inside of fence to face the Owner's property.	
Height:	Generally 2000 mm high. Wing fences shall match the height of the adjacent boundary fence.
Location:	As shown on the plan.
Material Fencing and gates:	
Construction:	Lytaght Colorbond Neoscreen or Mini Series, complete with all components and installed in accordance with the Product Information.
Height:	Generally 2000 mm high.
Side gates:	Lytaght Colorbond Neoscreen or Mini Series, to match height of adjoining fence.
Locations:	As shown on Drawings.
Other requirements:	
Trails:	(Slate)
Gates:	(Slate)
Special requirement:	(Slate)

SECTION T - DRAINAGE

Legal point of Discharge:	Refer to Civil Drawings.
Drainage services requirements:	Refer to Civil Drawings.
Additional requirements:	Refer to Civil Drawings.
Pits:	No pit shall be less than Size 300 x 300 mm. All pit covers to be securely fixed to prevent unauthorised removal.
	Refer to Civil Drawings.
Additional information:	Refer to Civil Drawings.

SECTION U - PLUMBING

Water Supply:	
Pressure Limiting Valve:	Allow for pressure limiting valve where water supply pressure exceeds 625 kPa.
Cold water:	Copper.
Hot water:	Copper.
Hot water services:	
Gas Main Pressure Storage HWS:	Provide a 130-litre Rheem 'Optima' No. 811170 external storage heater to supply hot water to kitchen and laundry and sleepover en-suite. 10 year warranty on

the cylinder	
Provide a tempering valve to reduce temperature to 55 degrees centigrade.	
Locate the unit externally in the location shown in the drawings.	
Connect the FRV to a copper pipe to drain to a Waste vent.	
Provide a Rinnai Intifity 28' External Recess Box Mounted Temperature Control RWS with Electronic Keypads, to supply hot water to the shower room, WC, and bathroom fittings and including hand basins.	
Electronic keypad shall be located in the sleepover room.	
Refer to the drawings for the location of Unit or locate as directed on site.	
Dish washing machine:	
Provider:	Contractor to provide.
Type	Fisher & Paykel Double Dishwasher.
Installation:	Install domestic type washer including connection to under-bench waste, water supply and power.
	Note: Where GRUs are in a 'duplex' configuration, the Fisher and Paykel shall be split with one single dishwasher drawer in each unit (of the Fisher & Paykel Double Dishwasher).
Dryer to Laundry:	
Provider:	Client to provide / Contractor to install.
Type:	Commercial type.
Installation:	Contractor to supply and install vent kit in cavity wall to outside air via wall and ceiling space to roof eave, or to eaves vent. Provide power supply connections. Install dryer.
Clothes washing machine:	
Provider:	Client to provide / Contractor to install.
Type:	Commercial type.
Installation:	Contractor to install including 'rough by pass' waste kit. Provide power connection.
Floor waste:	
Type:	Provide 103 x 50 mm diameter copper alloy floor waste gully suitable for sheet vinyl flooring (Galc Waste Type W1002/FCA floor drain) complete with chrome plated brass removable floor grate, fixed with vandal proof screws.
Sanitary fixtures and taps and outlets:	
Installation of WCs:	Install all WCs in silicon bedding.

Fixtures:	
Toilet Suite (Disabled Toilet):	Caroma Leda 2000 Disabled Pan with 75 mm screw fittings, with Coloni Rehabilitation Seat double lap with Lock Hinges Water Water Claret, with large panel to suite Mk 2 buttons (Code 227114W). Buttons - Water Water Mk 2 Code 227119S. Comply with AS 1428.
Location and numbers:	Refer to Drawings.
Toilet Suite (Assisted Toilet):	
Toilet Suite (Assisted Toilet):	As for Disabled Toilet Suite except install pan to project maximum of 610 to 680 mm from wall face to suite swing around grab rails.
Location and numbers:	Refer to Drawings except install pan to standard installation requirements.
Toilet Suite (Standard):	
Toilet Suite (Standard):	As for Disabled Toilet Suite.
Location and numbers:	Refer to Drawings.
Toilet Suite (En-suite Sleep-over):	
Toilet Suite (En-suite Sleep-over):	Caroma Trident Sovereign 2000 vitreous china 6 / 3 with Trident seat.
Location and numbers:	Refer to Drawings.
Shower base:	
Shower base (En-suite Sleep-over):	Marble Trend Industries 'Maribelle' polymarble shower base with slip resistant pattern.
Kitchen sinks:	Colour (State)
Kitchen sinks:	Clark 'Carnet' stainless steel, 1538 x 470 mm 1-1 / 2 bowl, single drainer, with angle tap hole complete with timber preparation board.
Laundry troughs:	
Wash trough (large laundry):	Clark Venice Flushline, 47 litres with bypass on washing machine side (see plan) Connect bypass to sewer drain.
Wash trough (small laundry):	Clark 6510 Flushline, 45 litres with reversible single rinse bypass on washing machine side (see plan) Connect bypass to sewer drain.
Baths:	
Standard bath:	Imperial Ware 'Daphne Deluxe' with anti-slip base and chrome handles. Colour White.
Optional Hydraulic lift bath:	Easy Way hydraulic lift bath unit from G & Y Lita, Tel. (03) 5228-7008.
Required:	Yes / No.
Hand basins:	
Semi-recessed (Assisted bathroom):	Caroma Leda 600 vitreous china semi recessed 3 tap

Location and Number:	Holes with brackets and chrome waste - white. (Refer drawings).
Semi-recessed (3-way bathroom):	Caroma Concordia 600 vitreous china semi recessed 3 tap holes with brackets and chrome waste - white. (Refer drawings).
Location and Number:	Caroma Integra 600 vitreous china wall basin 3 tap holes with brackets and chrome waste - white. (Refer drawings).
Wall hand basin (Assisted WC):	Caroma Integra 500 vitreous china wall basin 3 tap holes with brackets and chrome waste - white. (Refer drawings).
Location and Number:	Caroma Integra 500 vitreous china wall basin 3 tap holes with brackets and chrome waste - white. (Refer drawings).
Location and Number:	Caroma Integra 500 vitreous china wall basin 3 tap holes with brackets and chrome waste - white. (Refer drawings).
Taps and outlets (Clause U-10):	
Internal:	
General:	All tapware to be Caroma Laser Range, (except for kitchen sink, laundry tub and concealed stop cocks) with colour hot and cold indicators. Taps shall be 1/2 turn type operation.
Basin taps:	Basin taps to have tap handles contra rotating with oil position pointing away from outlet and on position pointing in to outlet positions. All fittings to have bright chrome finish.
Shower:	Caroma Laser Hot and cold tap set
Basin outlet:	Hot and cold tap sets with Caroma 'Trident' goose-neck basin outlet.
Kitchen sink:	Sink mounted Caroma 'Nordic' sink mixer 240 mm.
Laundry:	Tub mounted Caroma 'Nordic' sink mixer 240 mm.
Washing machine cocks:	Wall mounted Caroma Laser R / A hot and cold threaded stops.
Bath outlet:	Wall mounted Caroma 'Trident' bath spout.
Hand held shower mixer / diverter:	Wall-mounted Caroma 'Nordic' No. 30349C bath or shower mixer - diverter.
Cistern Stop Cocks:	Cold-water mini cistern stop mounted at side of pan, 800 mm high.
En-suite Shower Head:	Caroma Laser Shower Head.
Hand Held Shower Heads:	
Shower:	Tubengineers (Energip) shower handset No. HSK-01 complete with 1.7 metre reinforced vinyl hose to suite Energip HC Claw hand shower slider attachment. Shower Grab Rail to be fitted with H. G. Conical type shower attachment to suite hand shower.
Bath:	Ditto. Connect to outlet from - wall-mounted mixer-diverter.
External:	
Supply to blocks of units:	Brass stopcock, 20 mm in valve box (colour red).

Supply to individual:	Provide one per block of units. Brass stopcock, 20 mm in valve box (colour yellow). Provide one per unit located in pavement or garden bed at rear of unit.
At the meter:	Provide valve as required by authority plus filter and PL valve.
Garden Taps:	
Quantity to be provided:	Refer Drawing / Number shown on drawing OR:
Front:	(State)
Rear:	(State)
Car parking area:	(State)
Location:	Fix taps on posts in garden beds, not on building walls.

SECTION V - MASTER ANTENNA TELEVISION SYSTEM

System:	MATV Amplifier required.
Aerial:	Eaves mounted antennae Hitec Telay TLI complete with coaxial cable to TV Points. Exact location to be determined on site.
Outlets:	Outlets to living rooms and to each bedroom including sleepover room in locations within rooms as shown.
Power requirements:	240 Volt power supply to Amplifier Unit.

SECTION W - TELEPHONE

Community Residential Units (CRUs):

Requirement:	Provide 18 pair cable into residence. Telex shall be the provider.
Emergency Number:	Arrange for the installation of handsets and connections in the name of the proposed occupants. (DHS or non-government organization) before hand-over, so that if a telephone is available for immediate use at hand-over. To the wall adjacent to each handset or on the handset, provide a printed display of emergency numbers including Fire Equipment 24 hour Maintenance Call Out Service.
Lines:	1. Sleepover room with extension to Kitchen. 2. Sleepover room dedicated Internet line

Emergency phones	3. Sleepover room dedicated fax line.
	4. Spare.
	One near each Inlet Primary exit as required by FMG 5.34
	Provide a Telex, lockable "Touch phone" with free access to emergency numbers.
	Provide telephone connection points where shown on the drawings.
	Exit 1
	Exit 2
	Exit 3
Remote off site dialling via monitor for security system.	Verify requirements with Superintendent.
Multiple Unit Complexes:	Verify requirements with Superintendent.

SECTION X - MECHANICAL SERVICES

Sub-consultant's name if applicable:	(State)
Exhaust Fans (W/C):	Provide XL Vent and Lite Deluxe (Model No. 10362.) with automatic fan timer to vent to outside air with ductwork via roof cowl or eaves grill.
Exhaust Fan Heater (Bathroom):	Provide Lite / Exhaust / Heater IXL Tastic Deluxe, 3 switch operation vented to outside air with ductwork via roof cowl or eaves grill.
Exhaust Fan Heater (Shower / Ensuite):	Provide Lite / Exhaust / Heater IXL Triumph 11312, 3 switch operation vented to outside air with ductwork via roof cowl or eaves grill.
Ducts to Fan Exhausts:	Provide ducts to outside air via roof cowl or eaves grill to at exhaust fans, range hood, drier, flue, etc.
Evaporative Cooling:	Provide Evaporative Cooling throughout. Refer to MECHANICAL SERVICES Drawings. Evaporative cooling unit shall be Bressler "ES Harmony" or "EV Harmony" or approved equivalent.
	Evaporative Cooling shall shut down in the event of a fire alarm. Refer also Part 3 Project Schedules Section Z(b)
Ducted Central Heating:	Provide Gas powered central heating ducted in ceiling throughout. Refer to MECHANICAL SERVICES Drawings. Heating system shall be controlled by fully programmable seven day, electronic timer / controller. Ducted Central Heating shall shut down in the event of a fire alarm. Refer also Part 3 Project Schedules Section

Controls:	Z(b)
	Provide suitable lockable polycarbonate security boxes for heater and cooler control panels and thermostats.
	Control shall be fitted to wall in carter room or in location as directed by Superintendent.
	Provide wiring with the required contacts and connect to the RFP to automatically cut-off the heating and cooling unit/s when a smoke alarm or sprinkler head is activated.
	Alternatively, run the main power wiring to the Central Heating system via the RFP to shut down the system in the event of a fire alarm signal.
	Ensure the relay contacts are sized to accommodate the system starting and running currents. Refer also to the attached drawings. Part 2 Reference Specification and Part 3 Project Schedules Section Z(b)

Fire Safety Cut-Off / Release:

Where shown on the drawings. Ducted Central Heating system and Evaporative Cooling shall include Fire Safety Cut-Off/Release that is required to be manually reset.

Air handling unit change over switch:	Where there are two air-handling systems, such as ducted central heating system and an evaporative cooling system, provide a change over on-off manual switch to prevent both systems running at once. Locate the switch adjacent to the controls in the sleepover room.
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Additional Information:

(State)

SECTION Y - ELECTRICAL SERVICES

Refer to relevant drawings for location and quantities of specified equipment.

Sub-Contractors name if applicable:	(State)
Particular requirements:	
Main Supply Connection:	240-Volt Supply.
Location of main supply:	Overhead / underground (Refer Drawings)
Safety devices:	Provide earth leakage circuit breakers to all socket outlets and lighting circuits in the Main Switchboard located within a lockable cupboard adjacent to main entry doorway.
Refrigerator Circuit:	Provide a dedicated RCO protected power supply to the refrigerator socket outlet unless indicated otherwise on the drawings.

Outlets:

Electrical Installation:	Refer to drawings, Part 2 - Reference Specification and Part 3 Project Schedules Section 2(b)
Meter box:	See METALWORK
Light switches:	Clipsal Prestige P2000 range, to all areas except Carer's room and associated en-suite. For Carer's room and en-suite, install PDL Designer Series square unit. Allow for gang switches as required.
Height of light switches:	Nominal 900 mm above floor.
Socket Outlets:	Use either Clipsal P2015N or P2025ZH to all areas except to Carer's room and en-suite. Use PDL 500 Designer Series square design or similar to Carer's room and en-suite. Allow for gang switches as required.
Height of power points:	Nominal 300 mm above floor on walls.
Appliances:	
Electric Oven: (Note: Gas appliance not permitted.)	Chief Select Electric Oven, Fan Forced, Side Opening Door, Model EOSL831/EOSR831. Provide a local isolator for the electric oven located on wall above bench in proximity to Oven as required by AS 3000/2000. The isolator switch shall have a illuminated neon indicator light. Chief Electric Ceramic Cooktop Model EHC840 (S). Provide a local isolator for the electric oven located on wall above bench in proximity to Oven as required by AS 3000/2000. The isolator switch shall have a illuminated neon indicator light. In addition to the isolator above provide a lockable isolator switch located in an overhead cupboard in close proximity to the hot plate. The lock shall be keyed to master key system. The switch shall have embossed lettering on - off indicator.
Range hood:	Quasair Foldaway Range hood Model FA80-IT (Top ducted complete with duct to roof and BDIRC-1 Roof Cowl.
Door bell:	Colour match roof cowl to roof.
Refrigerator:	Friedland Frost including Model 107 light spot door button with transformer to be ceiling mounted or mounted in the Main Switchboard. Wire to mains power. Locate bell where shown on the drawings. Supplied by Client (Provide power on separate circuit). Locate socket outlet in cupboard adjacent to refrigerator recess.
Microwave Oven:	Supplied by Client (Provide power to local socket outlet where shown on the drawings).

Light fittings:

Bedrooms	Provide, Pierlite 'Townhouse' 32watt Circular fluorescent 300mm diameter diffuser c/w (2,500 - 3000 K) lamp.
Small Living Room	Provide, Pierlite 'Townhouse' 32watt Circular fluorescent 300mm diameter diffuser c/w (2,500 - 3000 K) lamp. Note - Separate switching for fittings.
Kitchen	Provide, Pierlite 'Townhouse' 32watt Circular fluorescent 300mm diameter diffuser c/w (2,500 - 3000 K) lamp. (Centrally)
Meals	Provide 2 No Pierlite GLW 50FP 50watt low voltage downlights over sink bench and 1 No 50watt 50-degree bulb low voltage downlight over island bench.
Large Living	Provide, 1 No Pierlite 'Townhouse' 32watt Circular fluorescent 300mm diameter diffuser c/w (2,500 - 3000 K) lamp.
Laundry/Store/WC's	Provide, Pierlite 'Townhouse' 32watt Circular fluorescent 300mm diameter diffuser c/w (2,500 - 3000 K) lamp.
Shower Room/s	Provide, centrally located small IXL 'Tastic' type fitting.
Bathroom	Provide, Pierlite 'Townhouse' 32watt Circular fluorescent 300mm diameter diffuser c/w (2,500 - 3000 K) lamp.
Alcove/Hand basin Area To 3-Way Bathroom	Provide, Pierlite FDP33D 2x18watt FAC REF D/Lights (either end of bathroom on centre line with hand basin) type fitting. In addition, provide centrally located large IXL 'Tastic' type fitting. Where provided and assuming provision of solar tube to this area provide also:
Sleepover Room	Pierlite FDP33D 2x18watt FAC REF D/Lights (Near and on centre line with hand basin).
Ensuite To Sleepover	Provide, 1 x 36watt battery fluorescent light to underside of overhead shelf unit for 'task lighting' to workbench.
Passage Areas	Provide, Pierlite 'Townhouse' 32watt Circular fluorescent 300mm diameter diffuser c/w (2,500 - 3000 K) lamp. Note - Separate switching for fittings.
Front Porch/External To Laundry Door	Provide, Pierlite 'Townhouse' 23watt Circular fluorescent 300mm diameter diffuser c/w (2,500 - 3000 K) lamp.
	Provide, provide Pierlite 'Townhouse' 32watt Circular fluorescent 300mm diameter diffuser c/w (2,500 - 3000 K) lamps are adequate for a 2d metre run of passage -- use this as a guide.
	Provide Pierlite 'Townhouse' 32watt Circular fluorescent 300mm diameter diffuser c/w (2,500 - 3000 K) lamp.

Double Cannon

Provide either:	Provide either:
Pierlite Townhouse 32watt Circular fluorescent 380mm diameter diffuser c/w (2,500 - 3000 K) lamps or,	Pierlite Townhouse 32watt Circular fluorescent 380mm diameter diffuser c/w (2,500 - 3000 K) lamps
fully recessed 1 x 38 watt fluorescents as shown on the drawings.	
(Do not encroach on the required 2700mm ceiling clearance requirement or where wall mounting is feasible)	
Rear Patch/Undercover Areas	Provide Pierlite Townhouse 32watt Circular fluorescent 380mm diameter diffuser c/w (2,500 - 3000 K) lamp.
Small Entry porches	Provide Pierlite Townhouse 32watt Circular fluorescent 380mm diameter diffuser c/w (2,500 - 3000 K) lamp.
Other	(State)
General Exterior Lighting (To Yard Areas)	Provide Parafloods c/w motion sensor's activation c/w override (manual) switching function in locations as shown on the drawings.
External floodlights:	Provide PDL eaves mounted Code No F150KL with lamp.
MATV system:	Not Applicable.
Additional information:	Provide TV aerial and TV outlets where shown on the drawings.
Emergency lighting:	Where shown on drawings, provide two incoming lines to Main Distribution Frame (MDF) in location shown on the drawings. All telephone outlets shall be wire from the MDF location i.e. no series connections
Emergency lighting:	To the locations shown on the drawings.
	Provide Esmco Goldstar non-maintained emergency lighting 10 watt Q1 lamp F8916G head (not 120mm out. bulb).
	Fittings shall be designed and installed to satisfy all requirements of AS 2293 current edition and amendments.
	Fittings shall be complete with all requirements for high light output and reliable performance and shall be fitted with dual rate battery chargers and nickel cadmium batteries for long life.
	Fittings shall be wired from a devoted circuit breaker from the Main Switchboard Emergency lighting circuit via the Brooks 2000 RFP EMERGENCY LIGHTING MODULE.
	Emergency lighting shall be activated by the Ancillary Module in the Brooks 2000 RFP as a result of activation

of the general fire alarm and or by the loss of AC power supply.

(It should be noted that the RFP has been fitted with control, testing and timer facilities conforming to the requirement of AS 2293). Suitably label all switches and circuit breakers provided for this purpose.

Sprinkler installation:

Sprinkler installation: Refer Part 3 Project Schedule Section 2(b) for details.

Future electric hoist:

Future electric hoist: Provide a scuba outlet on the ceiling of the disabled bathroom adjacent to location for future electric hoist. (e.g. Gouldmann Electric Hoist supplied by 'Trec' Tel (03) 9523-0811.)

Meister boxes:

Cabinet: Where shown on drawings, provide a Galvanized metal meter box (B&R Appliance) fully recessed into brickwork. Paint all exposed surfaces colour to match brickwork. Refer to electrical drawings for locations.

Prohibited locations:

Do not locate meter boxes on bedroom walls.

Requirement:

Provide one main meter box for the residence.

Identification:

Clearly label each circuit to describe its function.

Optional Fittings:

Down lights:

Provide AS Pierlite 13 watt, matt recessed anodized reflector, tool-less quick-fit, white ceiling trim where shown on the drawings.

Bollard:

Provide, incandescent garden bollard lights where shown on the drawings.

Post top:

Provide, incandescent garden post top lights where shown on the drawings.

Wall bracket:

Provide, 2 x 13watt, wall mounted fluorescent lights.

SECTION 2 (b) - FIRE PROTECTION (SCHEDULE)

This section is to read in conjunction with Part 2 Reference Specification and Section 2 (b) Fire Protection (Reference Specification.)

Sub-contractor's name:	TBA
Design:	Refer Part 2 Reference Specification and Part 3 Project Schedule Section 2(b) and attached drawings
Applicable Building Surveyor	TBA
Applicable DHG Capital Development Guideline (CDG) Series 7	CDG 7.4
BCA Classification:	Class 3 building

Other documents	Building Control Commission Certificate of Accreditation V 98 / 01 19 JUNE 1998
Applicable Standards	Building Control Commission Practice Note 30. Provide all labour and materials and install an automatic fire sprinkler system complying with AS 2118.4 Part 4; Refer later clauses for details.
Sub Contractor:	All fire protection work shall be installed by a single specialised Sub-Contractor having experience in DHS-O&H works. Proposed Sub Contractor shall be approved by DHS-O&H prior to engagement.
12 Months Maintenance:	N/A
Fire Alarm Panel:	Brooks 2000 Refer drawings, Part 2 Reference Specification and Part 3 Project Schedule Section Z(b).
Smoke Alarms:	Brooks various. Refer drawings, Part 2 Reference Specification and Part 3 Project Schedule Section Z(b).
Alarm system:	Refer drawings, Part 2 Reference Specification and Part 3(b) Project Schedules.
Sprinklers:	Refer drawings, Part 2 Reference Specification and Part 3 Project Schedule Section Z(b).
Air handling units shut-off:	Refer drawings, Part 2 Reference Specification and Part 3 Project Schedule Section Z(b). Ducted heater shutdown shall be activated by the ANCILLARY MODULE IN THE BROOKS 2000 RFP upon activation of the general alarm. Evaporative cooling shutdown shall be activated by the ANCILLARY MODULE IN THE BROOKS 2000 RFP upon activation of the general alarm. (Shut down is required for any air handling system.)
Air handling unit charge over switch.	Where there are two air-handling systems, such a ducted central heating system and an evaporative cooling system, provide a charge over on-off manual switch to prevent both systems running at once. Locate the switch adjacent to the controls in the sleeper room.
Electric door release strikes and/or magnetic locks	Provide, Padbe 24 V DC electric door release strikes and/or magnetic locks where shown on the drawings. Refer www.padbe.com.au for available units. No other product is acceptable. Door control devices shall be activated by the MANUAL OVERRIDE MODULE in the Brooks 2000 RFP upon activation of the general alarm. Refer drawings, Part 2 Reference Specification and Part 3 Project Schedule Section Z(b).
Fire extinguishers:	Provide type portable extinguisher, 2.1 kg or 200(E) to AS 1841.5. Refer drawings, Part 2 Reference Specification and Part 3 Project Schedule Section Z(b).
Fire blanket:	Complying with AS 3504, located in Kitchen area. Refer drawings, Part 2 Reference Specification and Part 3

Emergency Evacuation Plan and certificates.	Project Schedule Section Z(a). Refer drawings, Part 2 Reference Specification and Part 3(b) Project Schedules. Display documents as required prior to handover.
Additional Information:	Refer drawings, Part 2 Reference Specification and Part 3 Project Schedule Section Z(b).

SECTION 2 (b) - FIRE PROTECTION (REFERENCE SPECIFICATION)

This section is to be read in conjunction with Part 2 Reference Specification and Part 3 Project Schedule Section 2 (a) Fire Services (Schedules.)

CONTENTS

01	SUMMARY
02	SCOPE
03	OCCUPANCY CLASSIFICATION SYSTEM
03A	SUPPORTED COMMUNITY-BASED HOUSES (CRUs) (ODG 7.4)
04	REFERENCES
05	FIRE SAFETY STATUTORY REQUIREMENTS
06	SUBMISSIONS
07	FIRE SAFETY/SMOKE CONTROL MEASURES
08	AUTOMATIC FIRE SPRINKLERS
09	RESIDENTIAL DETECTION AND ALARM SYSTEM
10	AUTOMATIC DOOR RELEASE DEVICES
11	MAGNETIC DOOR HOLD OPEN DEVICES
12	FIRE EXTINGUISHERS
13	FIRE SAFETY BLANKETS
14	PERMANENT DISPLAY EVACUATION PLANS AND SAFETY INSTRUCTIONS
15	COMMISSIONING AND TESTING
16	TRAINING
17	CERTIFICATES AND ESSENTIAL SERVICES SCHEDULES DISPLAY.
18	PRIOR CHECK OF SATISFACTORY COMPLETION OF INSTALLATION.
19	DOCUMENTS TO BE SUPPLIED TO THE SUPERINTENDENT PRIOR TO HANDOVER.
20	JOINT INSPECTION OF EMERGENCY SERVICES PRE - HAND OVER
21	ONGOING ESSENTIAL SERVICES ROUTINE MAINTENANCE AND SERVICING.

01 SUMMARY

Provide fire protection including self contained smoke alarms, manual fire suppression, automatic fire detection and alarm, and automatic fire sprinklers, as required.

This section details the specific fire safety measures that must be included as part of the fire protection system for the CRU. Other trade sections within this specification as detailed below specify general requirements on the design and installation of the fire safety measures required and or systems/equipment affected.

- Refer to DOORS AND WINDOWS Section for construction requirements.
 - Refer to LIVING AND PLASTERING Section for construction requirements.
 - Refer to FLOOR AND WALL FINISHES Section for construction requirements on ceiling, wall and floor linings.
 - Refer to ELECTRICAL SERVICES Section for installation requirements of emergency lighting and earth leakage (RCD) protection.
 - Refer to MECHANICAL SERVICES Section for general requirements on ducted heating and heating and ventilation equipment and systems.
- A Definitions used in the Specification:**
- Defined expressions in the Contract shall have the same meaning in the Specification, and the following expressions used in the Specification shall have the associated meanings:
- SCA: Means the Building Code of Australia.
 - CDG: Means the Capital Development Guidelines published by the DnS.
 - DHS: Means the Department of Human Services.
 - CoH: Means the Office of Housing.
 - RFP: Means a Residential Fire Panel.
 - SSL: Means the Scientific Services Laboratory.

02 SCOPE

This Schedule describes the fire protection standards of the CoH.

03 OCCUPANCY CLASSIFICATION SYSTEM

The following Guideline (September 2001) is current and applicable to CoH.

- 7.4 Fire Risk Management in Supported Community-Based Houses
http://www.dhs.vic.gov.au/policies/ks7_04.pdf

The fire safety measures listed below for this occupancy includes mandatory measures and measures that must be included as part of the installation.

03A SUPPORTED COMMUNITY-BASED HOUSES (CRUs) (CDG 7.4)

A Smoke Detection/Smoke Alarm Systems:

A smoke alarm system in accordance with the requirements of AS 3786 and AS 1870.8 shall be provided. Smoke alarms shall be installed in every bedroom, in primary exit routes, hallways, living areas, staff offices/areas and the like and connected to a Residential Fire Panel (RFP). All smoke alarms shall be interconnected.

The following single product satisfies the specification requirements:

- Brooks Alarm 2000 Residential Fire Panel.

Smoke alarms shall not be installed in areas or close to equipment (e.g. kitchens, bathrooms) where they may be subject to spurious alarms.

B Occupant Warning System:

The smoke alarm system shall include an audible warning for staff and clients (as appropriate) throughout the building on activation of an alarm device (e.g. sprinkler, smoke alarm etc).

The A-weighted sound pressure level for the audible warning/alarm system shall comply with the following, unless otherwise specified:

- Exceed the noisiest background by at least 15 dBA.
- Not be less than 65 dBA at any point in the building.
- Not less than 75 dBA at the pillow position of the Caretaker's bedroom.

To minimise trauma and discomfort to occupants, the sound pressure level of the system shall not exceed 95 dBA at any point.

C Automatic Fire Sprinkler Systems:

An automatic fire sprinkler system complying with AS 2118.4 shall be installed.
Roof space sprinkler protection shall be provided.

Valve monitoring shall be provided as required by AS 2118.4.

To minimise the risk of damage 'Concealed' type sprinklers with flat or cone shaped cover plate shall be installed at ceiling level to provide below ceiling protection. Semi-recessed horizontal sidewall or pendant sprinklers shall only be used where approved by the CoH.

Installation of a sprinkler head shall initiate operation of the local fire alarm bell, occupant warning system i.e. smoke alarm initiation and emergency lighting system. Refer also to Section - Residential Detection and Alarm System

Initiation of the Monitored Valve alarm shall initiate the local fire alarm bell only (i.e. not the occupant warning system or the emergency lighting system).

D Emergency Lighting:

Emergency lighting shall be provided in every corridor, hallway, and the like that is part of the path of travel to the primary exit as shown on the drawings and shall comply with AS 2293.

All emergency lighting fittings shall operate in the event of power failure or initiation of any smoke alarm or sprinkler alarm installed in the residence. Refer also to Section - Residential Detection and Alarm System

E Means of Exit:

A primary means of exit from the occupancy shall be provided.

A secondary means of exit should, where practical, be provided and comprise:

- An alternative means of escape which satisfies the requirements for a primary exit, or
- Windows, readily openable without a key from inside provided in each bedroom, with a clear opening not less than 500 mm x 610 mm high and not more than 1.2m above floor level, to serve as a secondary means of escape which provides access to an area which is not land locked or an open space at least 6m x 6m.

F Door/External Gate Operation:

All doors on the primary exit path and doors leading to the primary exit path including security doors and fly wire doors and external gates leading to the Evacuation Assembly Area shall be readily openable without a key from the side that faces a person exiting the building.

Alternatively, where shown on the drawings, electric door release strikes and/or magnetic locks are to be provided to permit designated doors and/or gates to be locked to prevent unauthorised entry and/or egress from the residence and property. Refer later clauses for operational requirements.

Where bedroom doors are shown as being lockable, provide six (6) individual door keys and four (4) master keys capable of opening all doors. The doors shall be readily openable without a key from inside the bedroom.

G Fire Separation of Buildings:

Fire separation for this Supported Community-Based House shall comply with the requirements of the BCA 1998 for Class 3 classification.

H Fire Blankets and Portable Fire Extinguishers:

Supply and install a fire blanket complying with AS 3504 and a 2.1 kg or 20B(E) powder type portable extinguisher complying with AS 1841.5, or equivalent, in each kitchen area as shown on the drawings.

Portable fire extinguishers shall be certified to the requirements of the appropriate Australian Standard and AS 1841.5, and shall be provided and installed in accordance with AS 2444, and to the approval of the Fire Brigade and the relevant Building Surveyor.

Appropriate signage shall be provided to portable extinguishers and fire blankets in accordance with the requirements of the relevant Australian Standards and authorities and OOH requirements.

Fire blanket and fire extinguisher shall be secured in secure positions with means for them to be readily available in a fire emergency. A record of the installation of portable fire extinguishers shall be provided in accordance with AS 1851.1.

Extinguishers and fire blankets shall be easily accessible and in full view.

Appliance Safety:

Where shown on the drawings, individual heaters shall be fixed in position and shall be constructed, installed and guarded in accordance with appropriate Australian Standards, the BCA 1998, the manufacturer's instructions and other relevant acts and regulations.

In addition, a local isolator for electric hot plates is required. Refer to Electrical Services section of this document.

Section amended for Edition 10b 27/2/2004

J Electrical Protection:

Earth leakage protection employing residual current devices (RCD) shall be installed to the Main Switchboard supplying all socket outlets and lighting circuits.

All electrical services must be in accordance with AS/NZS 3000.

In addition, protection against or minimising the risk from electrical surges shall be provided.

K Wall and Ceiling Linings:

All wall and ceiling linings shall be non-combustible (e.g. plasterboard, cement sheeting etc). Wallpaper and / or paint of thickness not greater than 1 mm thick are considered acceptable, and Vinyl wall and floor linings may be permitted in bathroom and toilets.

Non-combustible means: Not deemed combustible by the BCA or when tested to AS 1530.1 - combustibility tests for materials.

L Floor Coverings:

All carpets shall have low flammability and low flame spread characteristics.

M Ducted Heating Systems:

Ducted heating systems can facilitate smoke and fire spread in the residence.

The following measures shall be implemented:

- The provision of adequate fire prevention measures at the heat sources including reliable thermal cutouts.
- Immediate shutdown of the system upon activation of a fire alarm. Refer also to Section - Residential Detention and Alarm System.
- The heat-source must be external to the building
- Ducting shall be tested in accordance with AS 1530.1 and deemed non-combustible.

N Telephones:

A fixed telephone point and a Telex lockable Touchphone shall be installed as near as possible to the final primary exit door where shown on the drawings. Emergency numbers i.e. '000' shall be readily accessible at all times.

O Operational Maintenance During Defects Liability Period

The OOH will become responsible for the maintenance of the installation from hand over. Also, refer later clauses.

The Contractor shall provide the Superintendent with the documents required to manage the installations. (Refer to checklist).

During the Defects Liability Period, the Contractor is required to provide immediate attention to major defects in the installation or original workmanship as required under the conditions of the contract.

04 REFERENCES

Comply with manufacturer's printed selection and installation instructions and all relevant codes, BCA, OOH Standards Policy Manual, DHS Capital Development Guidelines and statutory requirements at the time of issue of the Building Permit.

05 FIRE SAFETY STATUTORY REQUIREMENTS

The Contractor shall comply with the following:

- Victorian Building Act 1993 and subsequent amendments.
- Victorian Building Regulations 1994 and subsequent amendments including the Victoria Building (Amendments) Regulations 1997, which nominates the BCA.
- Victorian Occupational Health & Safety Act 1985.
- Victorian Dangerous Goods Act 1989.
- Minister's Guidelines and Practice Notes issued by the Building Control Commission and Ministry of Finance.

06 SUBMISSIONS

A Product data:

Submit manufacturer's product data, samples and design/installation instructions for selection and installation. Once accepted, retain as the reference benchmark for quality, workmanship, materials and finish of the final installed item. Any deviation in the final installed item from the submitted information may be cause for their rejection. Where an article is too large to submit as a sample, arrange for the item to be made available for inspection at a suitable location.

Submit information as follows:

- With not less than seven (7) working days for comment.
- With sufficient time to enable modifications to be made if necessary.
- With copies of relevant approval certificates and technical data.
- Complete in every detail including data submitted, make, model No. and purpose.

Retain copies on site until after inspection of built-in to the Works as the final unit.

Details of alternative equipment or products to those specified shall be submitted for approval.

B Shop drawings:

Submit shop drawings for the complete design and installation at a suitable scale, fully coordinated with all other services and the building fabric. Indicate all equipment, duct and register layout, and associated electrical wiring and control diagrams.

a) Schedule:

Submit a schedule of shop drawings listing the drawings to be submitted for inspection; update the schedule to show the date of submission and return of each drawing and resubmit the schedule when drawings are added to the list.

b) Drawings:

Take account of all dimensions, actual dimensions and access requirements for installation and servicing of the equipment supplied.

Comply with Statutory Requirements and show sufficient information to verify that the equipment can be installed, operated, adjusted and maintained in the manner for which the system was designed.

Dimensioning of services where required to be co-ordinated with other structures, finishes and services shall be taken from the nearest determinable structural elements of the building, e.g. column centre-lines, building centre-lines. Metric units of measurement shall be used throughout.

If alternative procedures are not specified elsewhere, submit in the form of one reproducible transparency in a scale of 1:50 and on standard sheet sizes as agreed for the project.
Do not order equipment or commence installation until the Superintendent has approved Shop Drawings.

c) Responsibility:

Approval by the Superintendent shall not reduce or modify responsibility of the Contractor for the finished work.

d) Procedure:

Submit two (2) copies to the Superintendent for comment prior to any construction commencement.

One annotated copy will be returned.

Submit two (2) copies of amended drawings for further comment by the Superintendent.
Resubmit drawings as required until the drawings are passed without comment.

The drawings shall include:

Full details of all systems and equipment installed

All sizes of all cables etc.

Layouts of all systems and equipment (1:50, 1:100)

Control schematics

Schematic of each system, complete in all respects.

Power and control wiring diagrams. (Symbols to AS 1102)

Power single line layout drawings

Communications single line layout diagrams

Coordination details where appropriate.

Installation details

All building works carried out

Prior to issue, all drawing shall be co-ordinated with all other services.

e) Record drawings:

The Contractor shall maintain on site one copy of the latest shop drawings which shall be used to record any on-site changes. These drawings shall be kept up to date and shall be available for viewing by the Superintendent during the progress of the work.

f) As installed drawings:

Submit two (2) copies for comment by the Superintendent before beginning commissioning.
One annotated copy will be returned.

Submit two (2) copies of amended drawings for further comment by the Superintendent.
Resubmit as required until drawing is passed without comment.

Submit three (3) copies of final drawing and one (1) computer data disk of same.

Drawings shall be at a scale of 1:100 or 1:50.

Drawings to include:

Full detailed and dimensioned layout of all the works carried out

Legend of symbols used

Installation details where required elsewhere in this Specification

All drawings must be submitted and approved prior to final handover

c) As-built drawings and Operating and Maintenance Manuals:

At completion of the installation and commissioning of the system, submit copies of a complete Operating and Maintenance Manual, including as-built drawings, final commissioning results and final equipment technical details.

As-built drawings shall reflect all variations that occurred during the installation.

One copy of each as-built drawing, suitable for AutoCAD Release 2000 (minimum) on a 1.4 megabyte 3-1/2 inch floppy disk, in IBM format shall be supplied prior to issue of a Certificate of Practical Completion.

One copy of each as-built drawing, suitable for AutoCAD Release 2000 (minimum) on a writeable compact disc shall be supplied prior to issue of a Certificate of Practical Completion.

The manual shall be bound into a hard covered, double ring binder. Print the manual on heavy A4 size paper with standard force hole punching. Label the spine and cover of the binder with the title of the manual.

The format of the manual shall be as follows:

- Cover sheet including names, addresses and telephone numbers of installer and consulting engineer.
- Index.
- Emergency information and procedures.
- Description of systems.
- Equipment specification, suppliers and service companies.
- Controls description, operational procedures and drawings.
- Manufacturer's pamphlets.
- Hydraulic calculations.
- As-built drawings. The complete set of as-built drawings prints shall be folded into transparent A4 sized plastic sleeves.
- Test reports.
- Copies of acceptance certificates.
- Inspection, testing and maintenance procedures.

Submit one copy of the Operation and Maintenance Manual on a writeable compact disc, in a format readable within Microsoft Windows 86. All documentation text shall be supplied in Microsoft Word Version 6.0 or higher.

Carry out scanning of manufacturer's data sheets and associated documentation in order to include this information on the writeable compact disc.

D Superintendent's Inspections:

Superintendent's inspections means that the work will be inspected during construction, and after completion for the purpose of determining whether such work has been conducted and completed in substantial conformity with the Drawings and the Specifications.

The work will be inspected to determine whether the quality of materials is as specified, to witness such tests as are specified, and as considered necessary to confirm that materials and equipment comply with and perform in accordance with the Drawings and Specifications.

Give two (2) days notice so that Superintendent may inspect the work.

07 FIRE SAFETY/SMOKE CONTROL MEASURES

A Thermal Cut-Out Devices:

An approved, proprietary high temperature thermal cut-out devices shall be provided to all ducted heating systems to prevent overheating due to blockage in air paths and/or system malfunction and minimise the risk of fire and smoke spread.

The thermal cut-out device shall be an integral part of the unit and on activation shall shut down the unit. The unit shall have provision to permit manual reset only (not automatic) to enable the unit to be activated after the fault has been rectified.

08 AUTOMATIC FIRE SPRINKLERS

A Generality:

The automatic fire sprinklers shall be a complete approved system in accordance with the relevant Australian Standards, associated relevant parts and referenced documents, which shall include the following:

- AS 2118.1 Automatic fire sprinkler systems - General requirements
- AS 2118.4 Automatic fire sprinkler systems - Residential
- AS 4118 Fire sprinkler systems.

In addition, the installation shall comply with the BCA and the requirements and regulations of all statutory authorities having jurisdiction.

These authorities shall include but not be limited to:

- The Fire Authority.
- The Water Supply Authority.
- The Relevant Fire Safety Engineer and Building Surveyor.
- The Local Council/Municipal Authority.
- An Independent Certifier.

The works shall comprise of the design and installation of an automatic Fire Sprinkler System to AS 2118.4 for the specific occupancy and the relevant authorities.

Generally the work shall comprise of the following:

- Connector to a town's main water supply having sufficient flow and pressure to meet system requirements as shown on the drawings.
- Provision of backflow prevention requirements where necessary to meet the relevant water supply authority and applicable code requirements.
- Provision and installation of suitable sized isolation valves and back flow prevention.
- Sprinkler Control Valve Assembly and housing cabinet.
- Flow switch/pressure switch alarm device to generate sprinkler alarms.
- Pipe work reticulation.
- Sprinkler heads below ceiling and in concealed spaces e.g. ceiling spaces.
- Valve monitoring devices to the sprinkler control valves.
- Local alarm at the Sprinkler Control Valve Assembly.

In addition, the sprinkler system installed shall interface with other new systems provided to the building as specified. The work shall include the following:

- Connection of sprinkler system alarm devices to the Residential Fire Panel for indication.
- Activation of the occupant warning system, emergency lighting, electric strikes and/or magnetic locks and ducted hearing systems shutdown.
- Provision for alarm transmission to appropriate monitoring organisation via the ASE.

B Sprinkler Control Valve Assembly (SCVA):

The sprinkler control valve assembly shall comprise the following items and all other equipment necessary for satisfactory operation and testing of the system:

- System stop valve in compliance with AS 4118 fitted with an approved monitoring device.
- Systems non-return valve in compliance with AS 4118;
- Drains and testing equipment to storm water, including associated valves.
- Lock - open alarm cocks on feed pipes to alarms.
- 100 mm diameter, diel type pressure gauges, complete with gauge cocks to separately indicate the system and the supply pressure.
- All necessary alarm cocks, gate and check valves, connecting pipe work and drains, padlocks, straps and labels required. Labels shall be engraved Trafalgar or brass and securely fixed.

The sprinkler control valve assembly, unless indicated otherwise, shall be installed in a purpose built, metal, weatherproof housing. The housing shall be finished painted in a colour to the approval of the relevant authority and the Superintendent. A Log Book holder of sufficient size to contain the Log Book shall be fitted to the door of the sprinkler control valve assembly.

C Electric fire alarm bell (a):

The fire alarm bell shall be listed by SSL and all other relevant authorities.

The alarm shall be of an approved type, having a neat and un-obstructive appearance.

The electric fire alarm bell (a) shall be 24 volt DC rated, and installed in an approved location.

D Flow switch / Pressure switch:

The switch shall be listed by SSL and all other relevant authorities.

The switch shall be mounted at the control valve.

The switch shall be 24 volt DC rated.

The purpose of the flow switch/pressure switch is to initiate a fire alarm at the Residential Fire Panel.

Include all wiring and connections from the switch to the RFP.

E Valve monitor:

The valve-monitoring device shall be listed by SSL and all other relevant authorities.

The monitoring device shall be installed on the sprinkler system main stop valve inside the sprinkler control valve assembly.

The monitoring device shall be 24 volt DC rated.

The purpose of the monitoring device is to indicate closure of the main stop valve to the Fire Alarm Panel and initiation of the local fire alarm bell.

Include all wiring and connections from the valve monitor to the RFP.

F Fire sprinkler heads:

All sprinklers shall be SSL tested and approved for the intended application and manufactured by 'The Reliable Automatic Sprinkler Co. Inc.'

The finish to all sprinklers and the associated escautcheon or cover plates shall be to the approval of the Superintendent.

Sprinkler heads shall be selected with operating temperatures suitable for the installed environment and in accordance with the requirements of AS 2118.4.

G Shields:

Install shields where required to prevent sprinkler heads from discharging directly on to electrical switchgear or open motors. Shields shall also be used in selected locations to act as a heat collector plate. Shields shall be fabricated from 1.6 mm thick galvanised steel and painted in a selected colour.

H Aboveground pipe work:

All aboveground pipe work and fittings shall be in accordance with the relevant requirements and parts of AS 2118 and AS 4118 and shall be SSL, FM or UL approved.

All pipe work installed within the building shall be concealed in the roof/ceiling space, wall cavities or chased into walls etc except where otherwise specified. Exposed pipe work below ceiling will not be permitted without approval.

For locations where it is not possible to conceal the pipe work it shall be located below ceiling and enclosed within suitable timber or plaster boxing to approval.

Where approved to be exposed and external of the building, pipe work shall be copper (type B) or hot dip galvanised steel pipe steel in accordance with the requirements of AS 4118. All above ground sprinkler system pipe work shall be approved metal pipe to AS 4118, installed in accordance with the manufacturer's requirements and the requirements of AS 4118.

Aboveground CPVC pipe work is not permitted.

Copper or other pipe work requiring internal 'hot-work' will not be permitted within any building.

I Underground pipe work:

All underground water supply pipe work shall be SSL approved and in accordance with the requirements of AS 4118. The underground pipe work shall be either Copper Type B to AS 1432 or UPVC pipe approved and suitable for the intended use.

All copper pipe, valves and fittings installed underground shall be fully wrapped with Densote tape or approved equivalent to prevent external corrosion.

The installation of all pipe work underground, including all trenching, excavation, bedding and backfilling shall be carried out in accordance with the requirements of AS 3600.1 and local authority requirements. Anchor bolts shall be provided as required.

The depth of cover provided to all pipe work, valves and fittings installed underground shall be in accordance with the requirements of AS 3600.1 and the Local Water Authority, except that a minimum cover of 500 mm shall be provided to all underground pipe work.

Access and inspection pits constructed of concrete or other approved material shall be provided for valves as required (e.g. non-return valve on the water supply connection). A heavy-duty metal or concrete cover shall be provided for access pits suitable for the application and fixed in place to prevent unauthorised access to the pit and damage.

J Sprayer and Sprinkler Control Valve Assembly cabinet:

The Sprinkler Control Valve Assembly cabinet shall be surface mounted or fully recessed in location shown on the drawings or as appropriate and fitted with DO3 keyed lock and a sign on the door which shall read: "SPRINKLER CABINET".

Include in the sprinkler control valve cabinet:

- One special sprinkler wrench for each type of sprinkler head;
- Three spare sprinklers of each type and model used in the Works except as otherwise required by AS 2118. Replacement sprinklers shall be complete with cover plates;
- One "Ponier Key";
- Approved locality and sprinkler Block Plan of the installation and operating instructions.

K Drawings:

Submit as-built drawings indicating the installed fire services and features to AS 2118.

All underground pipe work shall be clearly identified on the as-built drawings complete with dimensions to fixed permanent structures for future location.

Submit a sprinkler system block plan and locate at the Sprinkler valve assembly to AS 2118.4 requirements. The block plan shall be plastic laminated, and mounted in a durable glazed protective frame firmly fixed to a suitable surface.

08 RESIDENTIAL DETECTION AND ALARM SYSTEM

A Generality

The residential automatic smoke detection and alarm system shall be an approved system in accordance with the relevant Australian Standards, associated relevant parts and referenced documents which shall include the following:

- AS 1670.6 Smoke alarm installation
- AS/NZS 3000:2000 Electrical installations (AS/NZ Wiring Rules).
- AS 3708 Smoke Alarms - (Design and Performance)
- AS 4429 Fire detection, warning, control and intercom systems - Control and Indicating Equipment.

Building Control Commission Practice Note 27

DHS Capital Development Guidelines

In addition, the installation shall comply with the BCA and the requirements and regulations of all authorities having jurisdiction.

These authorities shall include but not be limited to:

- The relevant Fire Authority;
- The Electricity Supply Authority;
- The Relevant Fire Safety Engineer and Building Surveyor;
- The Local Council/Municipal Authority;
- An Independent System Certifier.

B Residential Fire Panel (RFP) - General Requirements

The RFP shall be installed in the Caretaker's room as shown on the drawings.

The following single product satisfies the specification requirements:

Brooks Alarm 2000

The RFP shall be a self-contained panel, powered by a 240 volt AC supply, complete with a stand-by power supply and power supply supervision to AS 4428.5.

The mains power supply to the RFP shall be supplied from the supply side of the Main Switchboard and shall be controlled by a dedicated main switch (i.e. circuit breaker). The main switch shall incorporate a dedicated circuit breaker and shall be labelled MAIN SWITCH - FIRE PANEL.

The stand-by power supply to the RFP shall consist of minimum 2 No 12 volt DC sealed lead acid batteries, sized to suit system design requirements and provide not less than 12 amp hour stand-by supply capable of maintaining the system outputs in normal working (quiescent) condition for a minimum period of 2 hours.

The RFP shall be expandable and able to accommodate the required input/output modules to permit the required system operation. Unused modules shall be blanked off as required.

The RFP shall include the following modules:

- Monitored Valve/Sprinkler;
- Ancillary Control;
- Manual Override/s.

The RFP shall be capable of providing a signal to the fire Brigade via an ASE or equivalent. However, the RFP shall not be connected to the fire Brigade. The RFP shall be labelled 'Local Alarm Only'.

Operating and emergency instructions for the RFP shall be prominently displayed in laminated plastic cover in an approved location.

A test record book (i.e. Log Book) shall also be provided and located within the RFP enclosure.

C Smoke Alarms

Smoke alarms shall be installed in locations as shown on the drawings and shall be:

- Brooks Model EIPFSTL Ionisation type smoke alarm;
- Brooks Model EIPFSTL Photoelectric type smoke alarm.

The above devices shall be self contained, 240 volt AC units powered from the RFP and fitted with a Lithium back-up battery.

Smoke alarms within an individual residence shall be interconnected. Cabling for interconnection should be double insulated and separate to the mains power cable.

Not more than 30 devices shall be interconnected.

Final location of smoke alarms shall take into consideration the potential for nuisance and false alarms due to dust, cooking fumes, moisture etc, and the most effective response to the expected combustion products.

Ionisation smoke alarms are generally considered suitable for use in corridors and areas leading to bedrooms where bedrooms are separated from the living area by a corridor.

Ionisation smoke alarms shall be equipped with a temporary alarming control ('Hush Control') facility as part of the device. The alarming position shall be indicated or be automatically reset after an interval not more than five minutes.

Photoelectric smoke alarms are generally considered suitable for installation within bedrooms, living areas and small compartments.

Provide warranty for smoke alarms against defects in materials and workmanship for a period of five years from Practical Completion. Include manufacturer's written product warranties.

10 AUTOMATIC DOOR RELEASE DEVICES

Where shown on the drawings, the electric door release strikes and/or magnetic locks shall be interfaced with the RFP and shall automatically unlock the doorframes when the RFP alarm is activated to permit egress.

Where the electric door release strikes and/or magnetic locks are powered from the RFP, the battery backed supply shall be sized to include the additional load.

Each electric door release strike and/or magnetic lock shall be controlled by an individual manual override release button on the Manual Override module fitted in the RFP. Where a combination of door/security door are fitted with an electric strike, they shall be controlled by the same manual override button.

Ensure door hardware is suitable for mounting of strikes and magnetic locks. Ensure all strikes and locks are wired fail-safe (i.e. fail open on fire alarm).

The control voltage required to operate the door release devices and/or magnetic locks shall be checked to ensure it can be provided from the RFP.

Where shown on the drawings, electric sliding doors are required to release on general fire alarm shall incorporate the following features:

- Key lockable electric solenoid locking device;
- Key switch with Auto-Open-Close-Lock positions located to approval;
- Battery back up to permit fail-safe operation;

Where more than six (6) doorframes are fitted with electric release strikes and/or magnetic locks are shown on the drawings, provide a second Manual Override module to the RFP. It should be noted that the Manual Override module has a capability of controlling six (6) devices only.

11 MAGNETIC DOOR HOLD OPEN DEVICES

Where shown on the drawings, the magnetic door hold open devices shall be interfaced with the RFP and shall automatically release the doors when the RFP alarm is activated.

Magnetic door hold open devices shall be installed on non-rated doors and shall be suitable for mounting on the floor or wall as appropriate to suit the situation, and have a minimum holding force of 30N. Final finish of door holders shall be satin chrome or as advised by the Superintendent.

No more than two door holders shall be powered from the RFP. Where the door hold open devices are powered from the RFP the battery backed supply shall be sized to include the additional load.

Include push button adjacent to each door equipped with a magnetic door holding device to interrupt power and enable the door to close.

The power supply to the door releases shall be current limited at the RFP.

The control voltage required to operate the magnetic door hold open devices shall be checked to ensure it can be provided from the RFP.

Each magnetic door hold open device shall be controlled by an individual manual override button on the RFP.

12 FIRE EXTINGUISHERS

Fire extinguishers shall comply with the relevant codes.

AS/NZS 1841.

AS 2444

AS 2700

Portable fire extinguishers. Portable fire extinguishers and fire blankets - Selection and location. Colour standards for general purposes.

Portable extinguishers shall be:

- Rechargeable,
- Hand operated,
- Comply with relevant codes,
- Of approved manufacturer,
- Acceptable to the Fire Authority,
- Of the type and size as scheduled or indicated on the Drawings.

Do not place extinguishers on the mounting brackets/cabinets until day of the final inspection.

All fire extinguishers shall be branded 'DHS' (DHS) in permanent white letters 40 mm high. Extinguishers shall be fully charged and date of testing indicated before delivery.

13 FIRE SAFETY BLANKETS

Fire safety blankets shall be 1000 x 1000 mm in accordance with the relevant codes and as specified.

AS/NZS 3504

AS 2444

Fire blankets. Portable fire extinguishers and fire blankets - Selection and location.

Unless otherwise indicated, install one fire safety blanket within reach of kitchen.

14 PERMANENT DISPLAY EVACUATION PLANS AND SAFETY INSTRUCTIONS

Evacuation Plans

Provide, professionally drafted and in colour, Emergency Evacuation Plans drafted using AutoCad or MFB or CFA kits depending on the jurisdiction of the authority.

Liaise with the Superintendent and Regional Fire Risk Manager to ascertain emergency egress paths, exits and assembly points.

Ensure Evacuation Plans comply with the requirements of the Building Permit and any additional requirements of the Building Surveyor.

Provide two (2) plans per residence or more as required by the Building Surveyor and erect in locations as directed by the Building Surveyor.

Safety Instructions

Prepare and display, RFP instructions including a Block Plan of the installed detection system and Sprinkler Control Valve (SCV) instructions including a Block Plan of the installed sprinkler installation as required by the BCA.

The RFP instructions and the Block Plan shall be laminated and fixed with double sided tape located adjacent to the panel.

In addition, the SCV instructions and Block Plan shall be laminated and fixed with double sided tape located within the SCV cabinet.

Laminated displays shall be fixed in locations with double sided tape.

Copies of all documents shall be clear quality copies on non-fade medium.

15 COMMISSIONING AND TESTING

On completion, commission and test the complete fire safety systems installed in accordance with the requirements of the relevant Australian Standards, Codes, Fire Safety Engineer's report and any specific requirements of the Superintendent.

The fire safety measures installed shall be checked and certified by an approved independent certifier.

A cause and effect matrix shall be prepared for all active fire systems provided as part of the work to the approval of the Superintendent, and shall be used as part of the system commissioning.

Provide warranty for the fire protection system against defects in materials and workmanship for a period of five years from Practical Completion. Include manufacturer's written product warranties.

16 TRAINING

Provide a detailed training session conducted by an experienced technical person(s) who has a complete technical knowledge of the installations and systems installed, to the Superintendent, facility and COH nominated representatives, to instruct and demonstrate the location and method of operation of all components and systems in the installation. All as-built drawing and operating manuals shall be available before the training session.

17 CERTIFICATES AND ESSENTIAL SERVICES SCHEDULES DISPLAY.

Display the Occupancy Certificate and Essential Services Requirements.

The Occupancy Permit (OP) and Essential Services requirements shall be laminated and mounted in durable aluminium frames glazed with clear polycarbonate, screwed to a suitable substrate on the wall at eye level in prominent positions as directed by the RBS and approved by the Superintendent. (A suitable location is in the Carer's room.)

Copies of all documents shall be clear good quality copies on non-fade medium.

18 PRIOR CHECK OF SATISFACTORY COMPLETION OF INSTALLATION.

Fire safety systems must be handed over with no defects.

Prior to hand over and occupation, the Superintendent shall ensure that the Contractor has completed all work to the satisfaction of the contract documents including the Capital Development Guideline (CDG) 7.4.

Any identified remedial works as noted during the joint inspection are to be rectified to the satisfaction of the Superintendent.

19 DOCUMENTS TO BE SUPPLIED TO THE SUPERINTENDENT PRIOR TO HANDOVER.

The handover is subject to the provision of the following documents certifying the adequacy and ability of the works with fire warning and fire suppression systems.

Provide originals or good-quality copies of the following items at Handover in order to facilitate the continued maintenance of the system.

The Contractor is required to provide a statement of satisfactory maintenance completion at the expiration of the Defects Liability Period.

CHECKLIST

Items required to be provided by Contractor.

1. Form 11 Occupancy Permit Including Schedule of Essential Services.
2. Plumbing Industry Commission Compliance Certificate - for Residential & Domestic Fire Sprinkler Systems (Items 5 and 90 circled.)
3. Certificate of Electrical Safety i.e. Prescribed and Non-Prescribed notices as applicable, as required by AS 3000:2000.

4. As Built Drawings (Marked 'as built' signed and dated). As built drawings in AutoCAD shall also be converted to PDF. A Compact Disc shall be included in each Operating and Maintenance Manual containing all as built drawing in both formats
5. Form 14 Certificate of Compliance (Inspection - for essential services, or an equivalent as provided by VBC Practice Note 2002-03.
6. Operators and Maintenance manuals (3 copies)
7. Manufacturers warranties for all components and installation.

Provide 1 copy of the Log Book for the installed detection system that includes the emergency lighting system and installed RCD's and separately, a Log Book for the installed sprinkler system.

Initial entries, signed and dated shall be included

Provide an airtight re-sealable PVC folder in the SCV Cabinet to accommodate and protect the Log Book against the effects of condensation.

Provide three (3) copies of the Operating and Maintenance manual; one (1) for the residence, one (1) for the Superintendent and one (1) for the Regional Fire Risk Manager to be held by the Regional Office of the Department.

Copies of all documents shall be clear good quality copies on non-fade medium.

Items required to be provided by others.

8. Form 2 Building Permit Documents
9. Form 13 Certificate of Compliance- Design
10. Specification for the services, Particular Specification
11. Hydraulic Calculations - for Sprinkler installation.

20 JOINT INSPECTION OF EMERGENCY SERVICES PRE - HAND OVER

The following procedure shall apply as part of the joint inspection of emergency services pre - handover prior to issue of a Certificate of Practical Completion:

- * Supported Community - Based Houses (FRM CDG 7.4) (Community Residential Units)

The inspection shall be convened by the Superintendent following satisfactory completion of the installation as detailed above.

As part of the inspection, the Contractor shall test all functions of the fire safety system including operation of all essential services demonstrating correct functioning, provision of the checklist of documents to be supplied, operation of RFP, operation of the SCVA, operation of all emergency lighting, provision of all signage and labelling, provision of all permanent displays and hand over of the Operating and Maintenance manuals and Log Books and liaison with Regional Fire Risk Manager demonstrating that arrangements are in place for the ongoing regulatory maintenance.

Attendees shall be as follows.

Mandatory attendance:

1. Head Consultant
2. Consultant Fire Services Engineer
3. Building Surveyor
4. Independent Certifier/s (Detection and/or Sprinkler Installation)
5. Contractor
6. Fire services Sub Contractor
7. ~~ESBCCOMAG representatives~~
 ~~included but attendees optional;~~
8. Project Manager
9. Regional Fire Risk Manager

21

ONGOING ESSENTIAL SERVICES ROUTINE MAINTENANCE AND SERVICING

The following procedures apply:

SUPPORTED COMMUNITY-BASED HOUSES (PRM COG 7.4) (Community Residential Units)

Department to provide Ongoing Routine Maintenance:

Following the JOINT INSPECTION OF EMERGENCY SERVICES PRE-HAND OVER and the rectification of all defects, immediately upon handover, the Superintendent shall arrange for the Department of Human Services, Office of Housing Engineering Services Branch to include the residence on the essential services maintenance program.

END OF SECTION

REVISION HISTORY

23.12.03 NEW ISSUE 10 (R)
27.02.2004 Edition 10 (R)
Part 3.2(b) COA 1

Revised

In section, a local isolator for the electric oven and electric hot plates as required by AS 3000:2000 and to reduce the risk of fire due to the unattended use of the electric oven and electric hot plates by the occupants (e.g. lighting standards) and to provide a fire and conditions shall be provided in the Main Switchboard to automatically isolate power to the electric oven and hot plates during the following hours:

- 11.00PM and 7.00AM

Also, a Press (3) position, 'Off-Auto-On', appropriately labelled (designated) control switch shall be provided in the Carver's room to override the timer control to allow isolation of power to the electric oven and hot plates during the hours of the day, to override the timer switch when activated to prevent power to the electric oven and hot plates to permit cooking during normally power off times (i.e. permit the boiling of water for a cup of tea etc.

Added

In addition, a local isolator for electric hot plates is required. Refer to Electrical Services section of this document.

Part 3.2(a)

Added Electric Ovens

All handling units shut-off including evaporative cooling

All handling unit change over switch added requirement

Part 3.1 Electrical Requirements

Revised

Over

Chief Select Electric Oven, Fan Forced, See Opening Data.

Model: EDCS3750SR831

Connected to the main supply via a 10A isolation switch and automatic timer for

use also during off-peak hours.

Also include an 'Off-Auto-On' control switch in Carver's room. Refer

also Part 3 Project Schedule Section 2(b).

Chief Electric Classic Ceramic Cooktop

Model: EHC640 (S).

Connected to power via local isolation switch and automatic timer for

isolation during short hours.

Also include an 'Off-Auto-On' control switch in Carver's room. Refer

also Part 3 Project Schedule Section 2(b).

Added

Chief Select Electric Oven, Fan Forced, See Opening Data.

Model: EDCS3750SR831.

Provides a local isolator for the electric oven located on wall above a

bench in Carver's room. As required by AS 3000:2000, the isolator

switch shall have a fluorescent indicator light.

Chief Electric Classic Ceramic Cooktop

Model: EHC640 (S).

Provides a local isolator for the electric oven located on wall

above bench in proximity to Oven as required by AS

3000:2000. The isolator switch shall have a fluorescent neon

indicator light.

(Note: One appliance per paragraph)

In addition to the isolator above provide a locking isolation

switch located in an overhead cupboard in close proximity to

the hot plate. The lock shall be keyed to master key system.

The switch shall have an enclosed reference on - off indicator.

Spot down required to both

Heating and cooling

Air handling unit change over switch required to heating and

cooling

1/2

OFFICE OF HOUSING
WORKS No. ##1
##2

PROJECT SCHEDULES - Part 3
COMMUNITY RESIDENTIAL UNIT
ATTACHMENTS

ATTACHMENTS

ATTACHMENT 1 - COPY OF TITLES
Attach here

OFFICE OF HOUSING
WORKS No. ##1
##2

PROJECT SCHEDULES - Part 3
COMMUNITY RESIDENTIAL UNIT
ATTACHMENTS

ATTACHMENT 2 - GEOTECHNICAL / CONTAMINATION REPORT
Attach here

OFFICE OF HOUSING
WORKS No. #441
#442

PROJECT SCHEDULES - Part 3
COMMUNITY RESIDENTIAL UNIT
ATTACHMENTS

ATTACHMENT 3 - COPY OF PLANNING PERMITS
Attach here.

File No. Part 3 Edition 100 Community Residential Unit

Page 55

OFFICE OF HOUSING
WORKS No. #441
#442

PROJECT SCHEDULES - Part 3
COMMUNITY RESIDENTIAL UNIT
ATTACHMENTS

ATTACHMENT 4 - MANUFACTURER'S HARDWARE SCHEDULE
Attach here.

File No. Part 3 Edition 100 Community Residential Unit

Page 56

OFFICE OF HOUSING
WORKS No. #441
##2

PROJECT SCHEDULES - Part 3
COMMUNITY RESIDENTIAL UNIT
ATTACHMENTS

ATTACHMENT 6 - OTHER SCHEDULES AND SPECIAL SPECIFICATIONS
Attach here.

OFFICE OF HOUSING
WORKS No. #441
##2

PROJECT SCHEDULES - Part 3
COMMUNITY RESIDENTIAL UNIT
REVISION HISTORY

EDITION 10

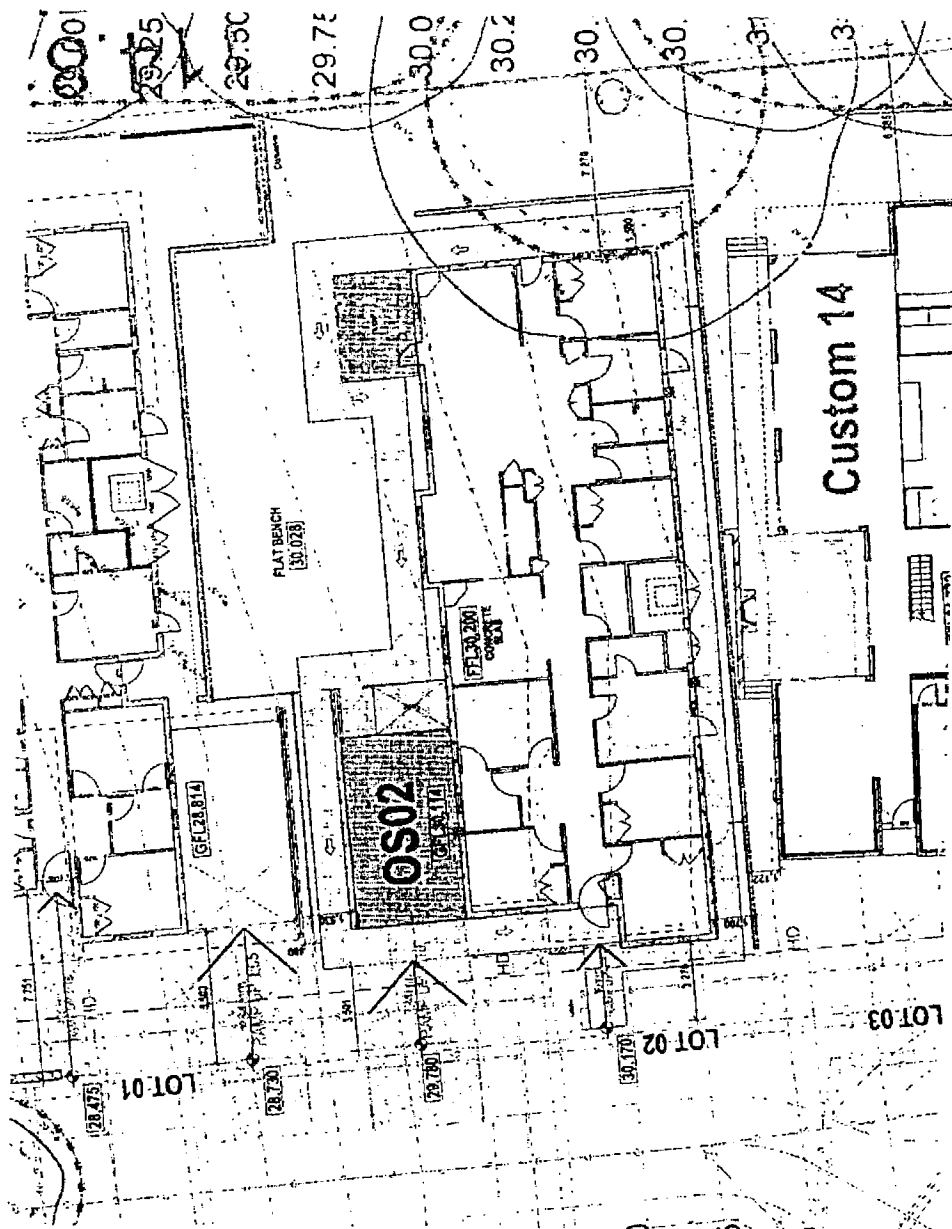
File No. Part 3 Edition 10a Community Residential Unit

Page 57

File No. Part 3 Edition 10a Community Residential Unit

Page 58

Part 3
Design Documents



- Legend:**
- | | | | |
|-----|--------------|----|-----------------------------|
| ST | Solar tube | CB | Sprinkler |
| EXT | Extinguisher | | Control Box |
| WPH | Wall Phone | GM | (semi-removed)
Gas meter |
| FB | Fire Blanket | | |
| CL | Clothes line | ↑ | Escape
path |

[illegible]

MKO architecture ply ltd
 level 2, michell house
 208 londale street, melbourne 3000
 TEL 03 9670 3098 FAX 03 9670 3064
 EMAIL info@eko.com.au AWA 58 740 1

dko

New Community Houses
Princess st.,
Kew V/c

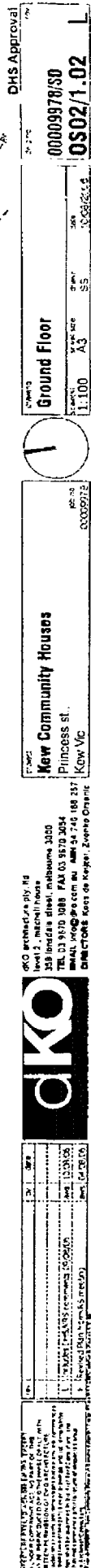
Site Plan

1:200 A3 154 155 156

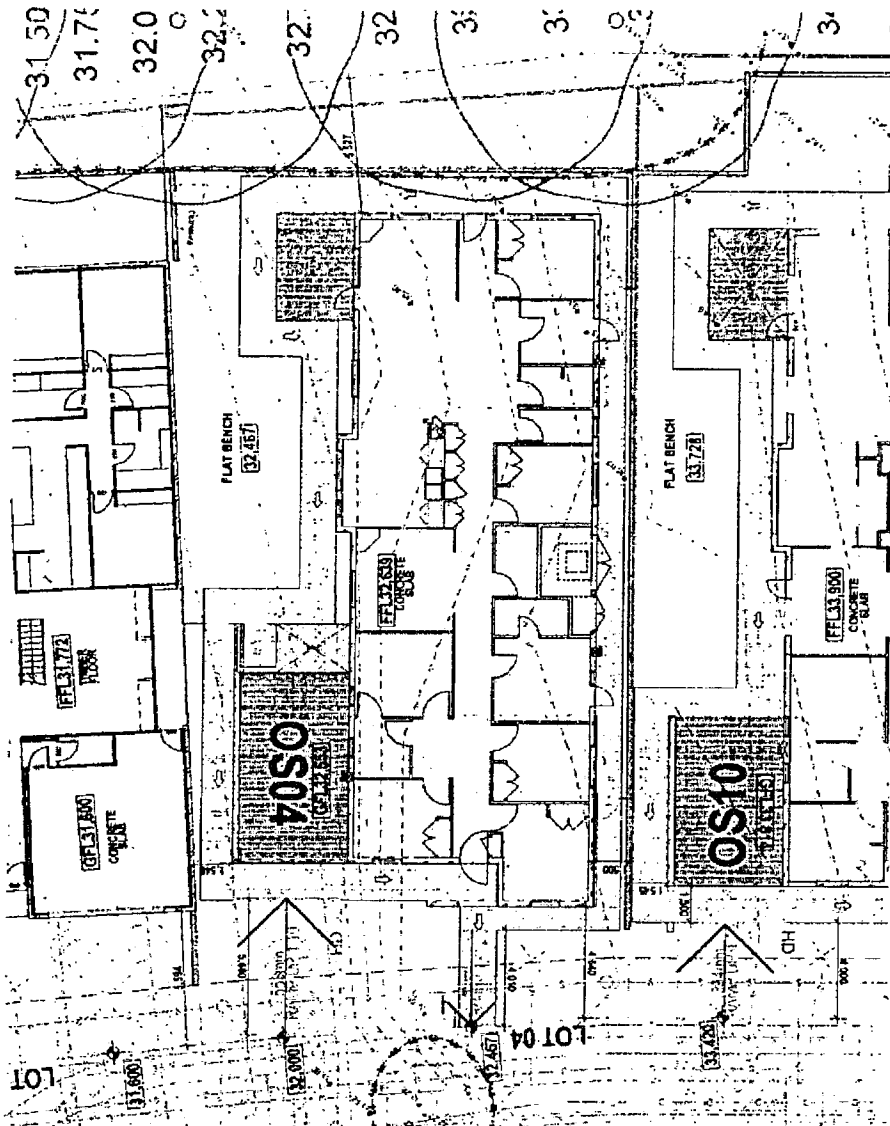
00009978/SD
OS02/1.01 M

- Extra power point in Bed 1 for an elec. wheelchair.
- Reinforced wall corners CG Acquiline 50x50x 1000.
- Bed 3 - Type 2 Behaviour - Sound proofing
- Colour scheme : Brown
- Ceiling beams to all bedrooms for future hoist.
- Curtains: Type 2

- Raised Sensory Garden.
- Curved path in northern private open space.



dKO RECORDS
 level 2, macmillan house
 359 emmala street, north
 TEL 03 9570 028 FAX 03 9570 029
 EMAIL info@dko.com.au
 DIRECTOR'S DESK OF KNO

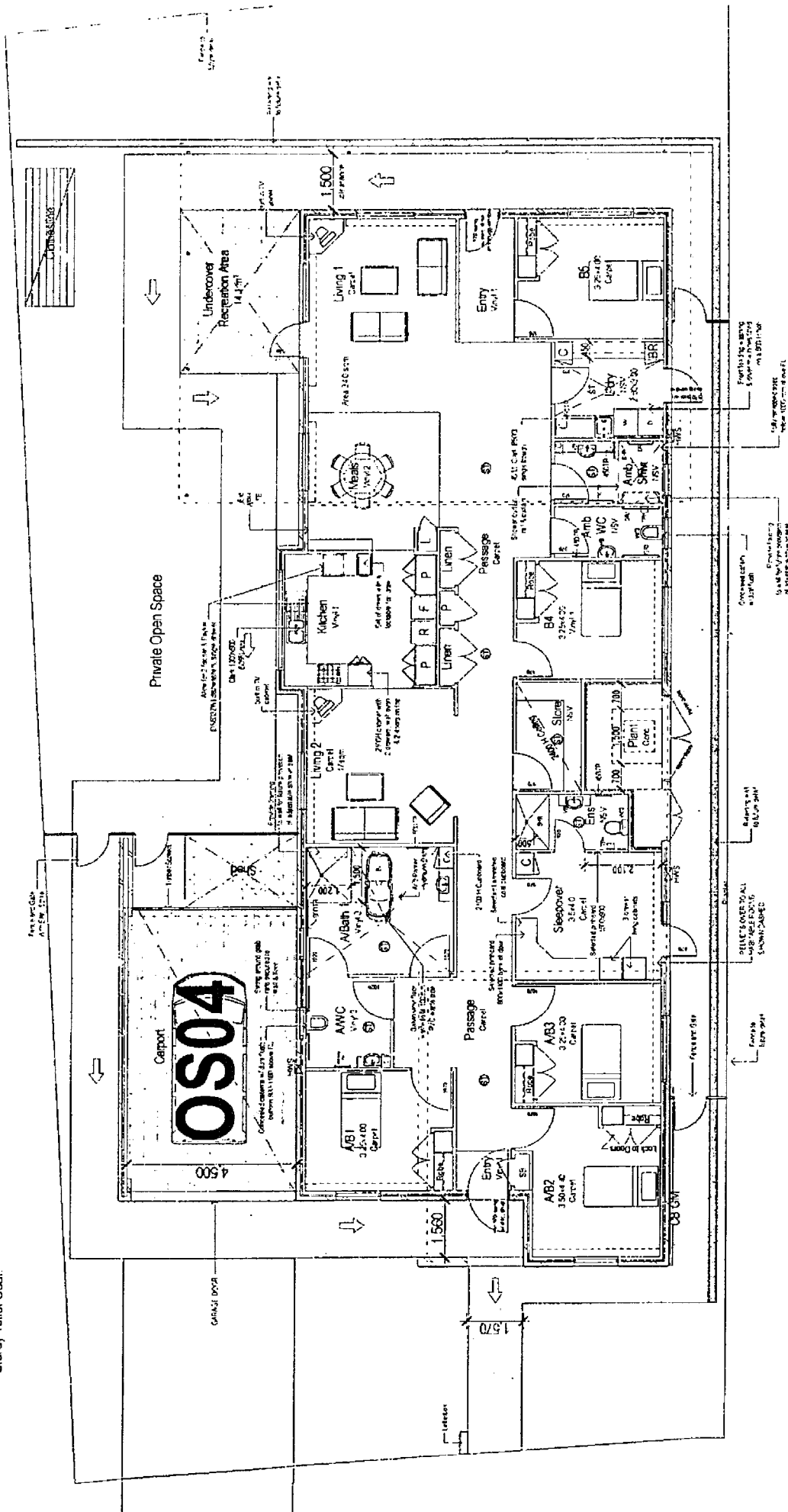


- Legend:**
- ST Solar tube
 - EXT Extinguisher
 - WPH Wall Phone
 - FB Fire Blanket
 - CL Clothes Line
 - CS Sprinkler
 - CB Control Box (semi-recessed)
 - GM Gas meter
 - ↑ Escape Path

dko DKO Architects Pty Ltd Level 2, Mitchell House 111-113 Mitchell Street, Sydney NSW 2000 TEL: 02 9550 5131 FAX: 02 9550 5044 EMAIL: info@dko.com.au WEB: www.dko.com.au DIRECTORS: Scott de Vries, Zenna Grant		New Community Houses PRINCESS ST. KNOX VIC		Site Plan 1:200 A3 11/200 A3 05/04/1.01		DHS Approval 00009878/SD 05/04/1.01	
---	--	--	--	--	--	--	--

NOTES:

- Lock to Bed 2 ward robe.
- Reinforced wall corners CG Aculene 50x50x1000.
- Porta Panel Molding (PM3012) to hallways
- Colour scheme : Green
- Ceiling beams to all bedrooms.
- Standard Curtains.
- Study Toilet Seat.



NO.	DATE	BY	CHKD.
1	10/08/2006	OS04	OS04
2	10/08/2006	OS04	OS04
3	10/08/2006	OS04	OS04
4	10/08/2006	OS04	OS04
5	10/08/2006	OS04	OS04
6	10/08/2006	OS04	OS04
7	10/08/2006	OS04	OS04
8	10/08/2006	OS04	OS04
9	10/08/2006	OS04	OS04
10	10/08/2006	OS04	OS04

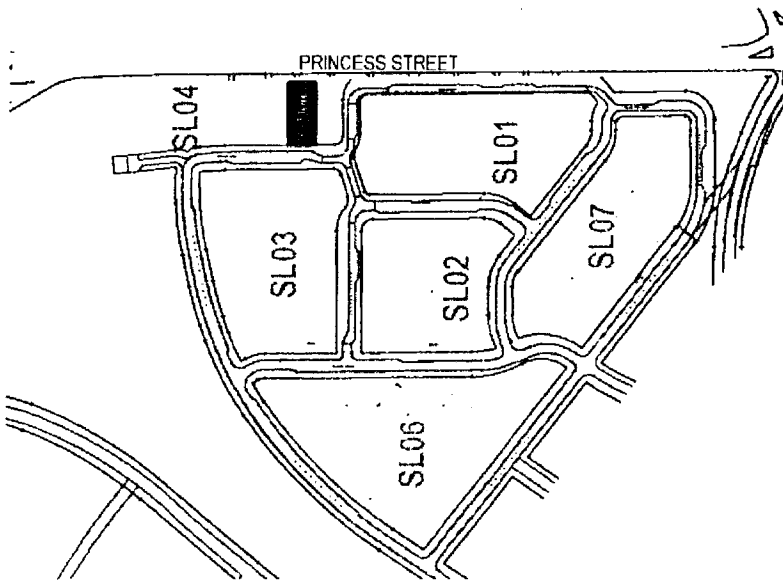
dko

300 MARRACRAH RD.
 Suite 12, Mitchell, Melbourne 3000
 TEL 03 9610 3008 FAX 03 9610 0054
 EMAIL info@dko.com.au WEB 03 9610 100 231
 DIRECTOR'S Kiosk in Kiosk, Zone 1 Centre

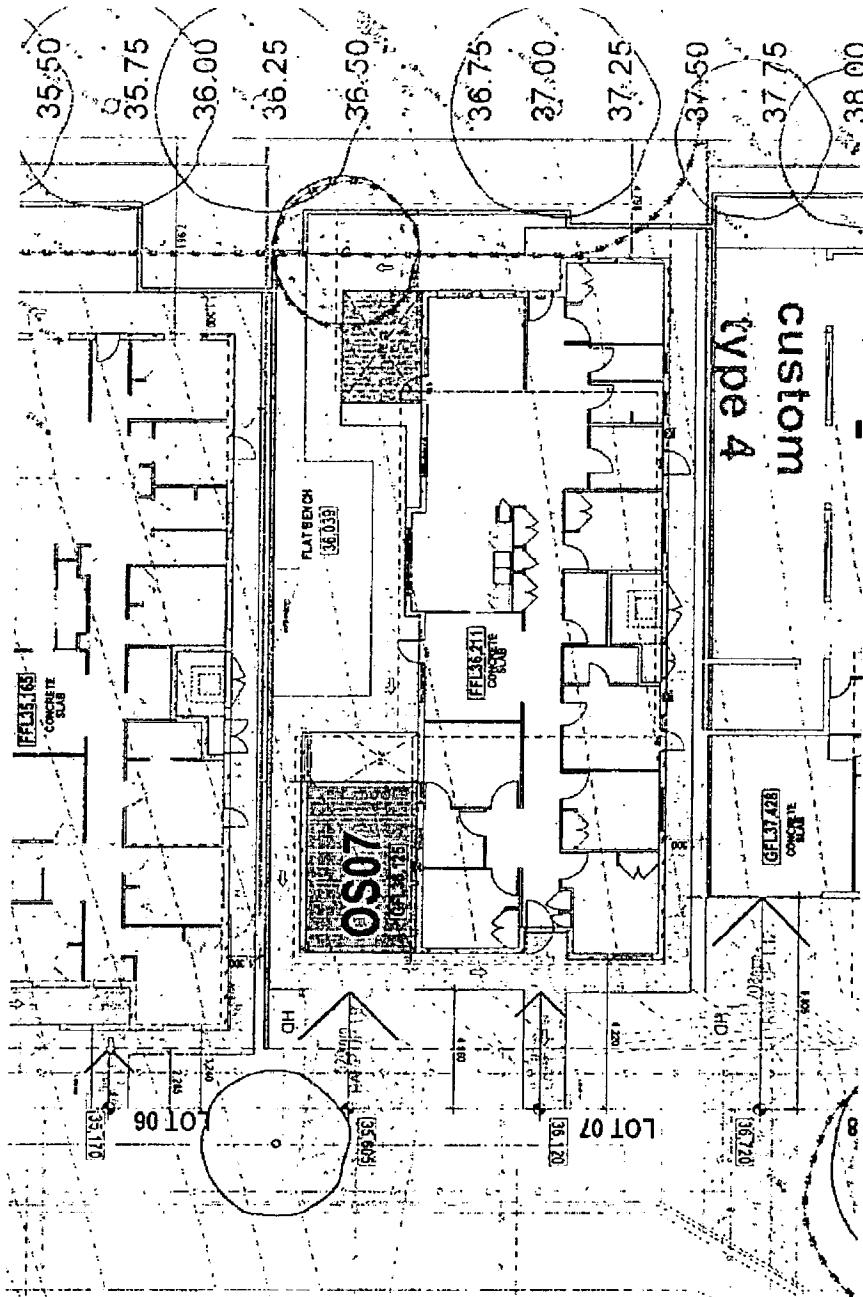
New Community Houses
 Princess St.
 Kew VIC

Ground Floor
 Scale: 1:100
 Date: 10/08/2006

DHS Approval
 0000978/SD
 OS04/1.02 M



- Legend:
- ST Solar tube
 - EXT Extinguisher
 - WPH Wall Phone
 - FB Fire Blanket
 - CL Clothes Line
 - C8 Sprinkler
 - Colrail Box (as required)
 - GM Gas meter
 - ↑ Escape
 - Path



THIS DOCUMENT IS THE PROPERTY OF DKO ARCHITECTURE. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF DKO ARCHITECTURE. ANY UNAUTHORIZED USE OF THIS DOCUMENT IS PROHIBITED AND WILL BE PROSECUTED TO THE FULL EXTENT OF THE LAW.

NO.	DATE	DESCRIPTION
1	10/20/07	ISSUED FOR PERMITTING
2	11/01/07	REVISED TO ADD COMMENTS



DKO ARCHITECTURE P/LD
 Level 2, Mitchell House
 358 Monmouth Street, Melbourne 3000
 TEL: 03 9570 3000 FAX: 03 9570 3004
 Email: info@dko.com.au A/NZ 14 740 186 257
 DIRECTOR: Ross de Klerk, Zuzanne Ormrod

Project: **New Community Houses**
 Location: **Princess St., Kew VIC**
 Project No: **00009978**

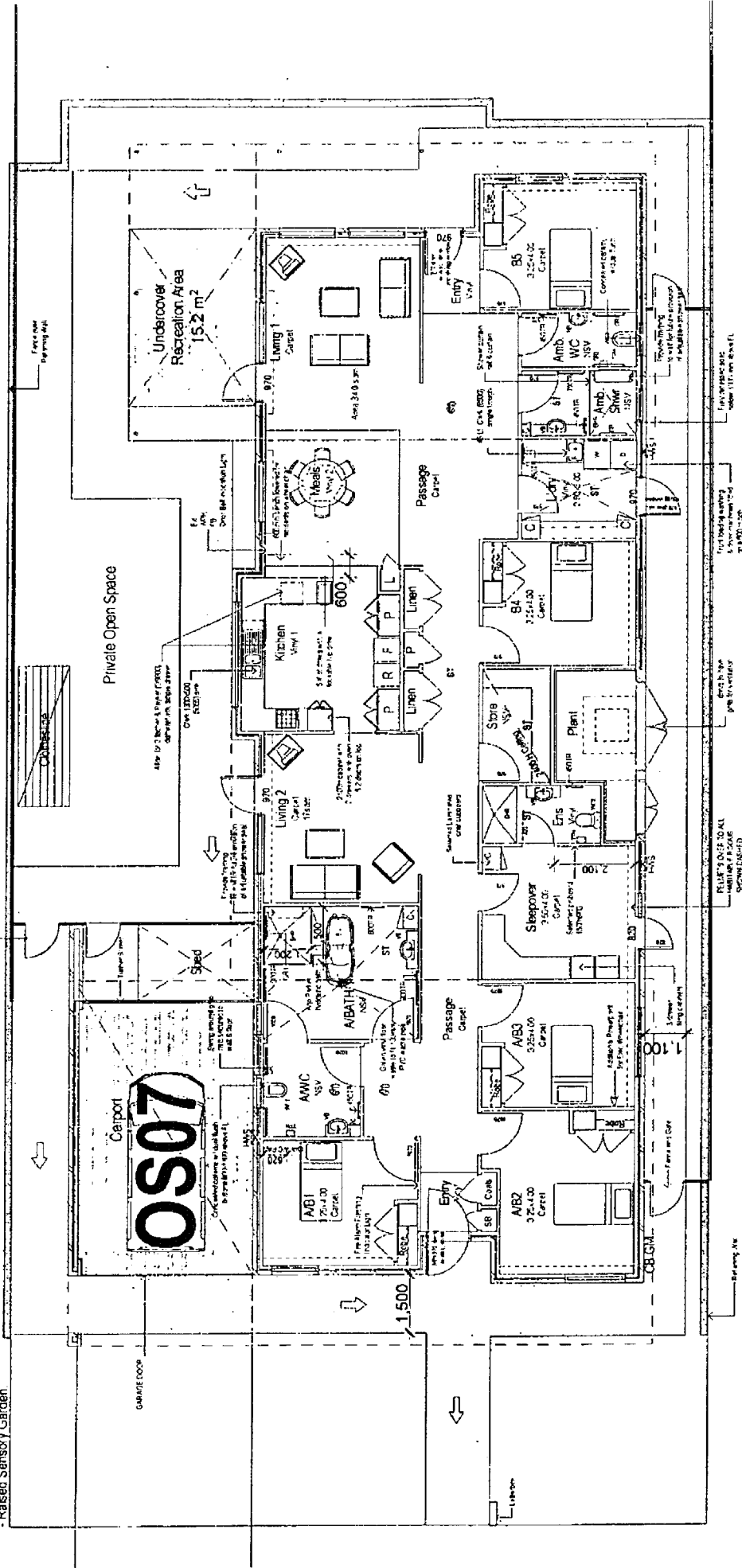
Drawn: **Site Plan**
 Scale: **1:200**
 Date: **10/20/07**

DHS Approval
 Approval No: **00009978/SD**
 Approval Date: **0507/1.01**
 North Arrow: **N**

NOTES:

- Reinforced wall corners CG Aquiline 50x50x100
- Front Entry & Kitchen - Flashing light for door bell.
- Bed 1 - Flashing light for fire alarm.
- Sound proofing throughout the house. (Type 2 behaviour)
- Extra power point in Bed 3
- Standard Curtains.
- Ceiling Hoist Beams to all Bedrooms
- Colour scheme: Brown
- Sturdy Toilet Seat

Future Landscaps Detail
- Raised Sensory Garden



OKO ARCHITECTURE Pty Ltd
355 Northcote Road, Northcote, VIC 3070
TEL: 03 9370 3000 FAX: 03 9370 3004
EMAIL: info@oko.com.au ABN: 64 740 483 217
DIRECTOR: Grant de Klerk, Zeno O'Neil

Ground Floor

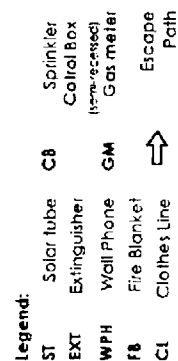
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North Arrow

OS07/1.02

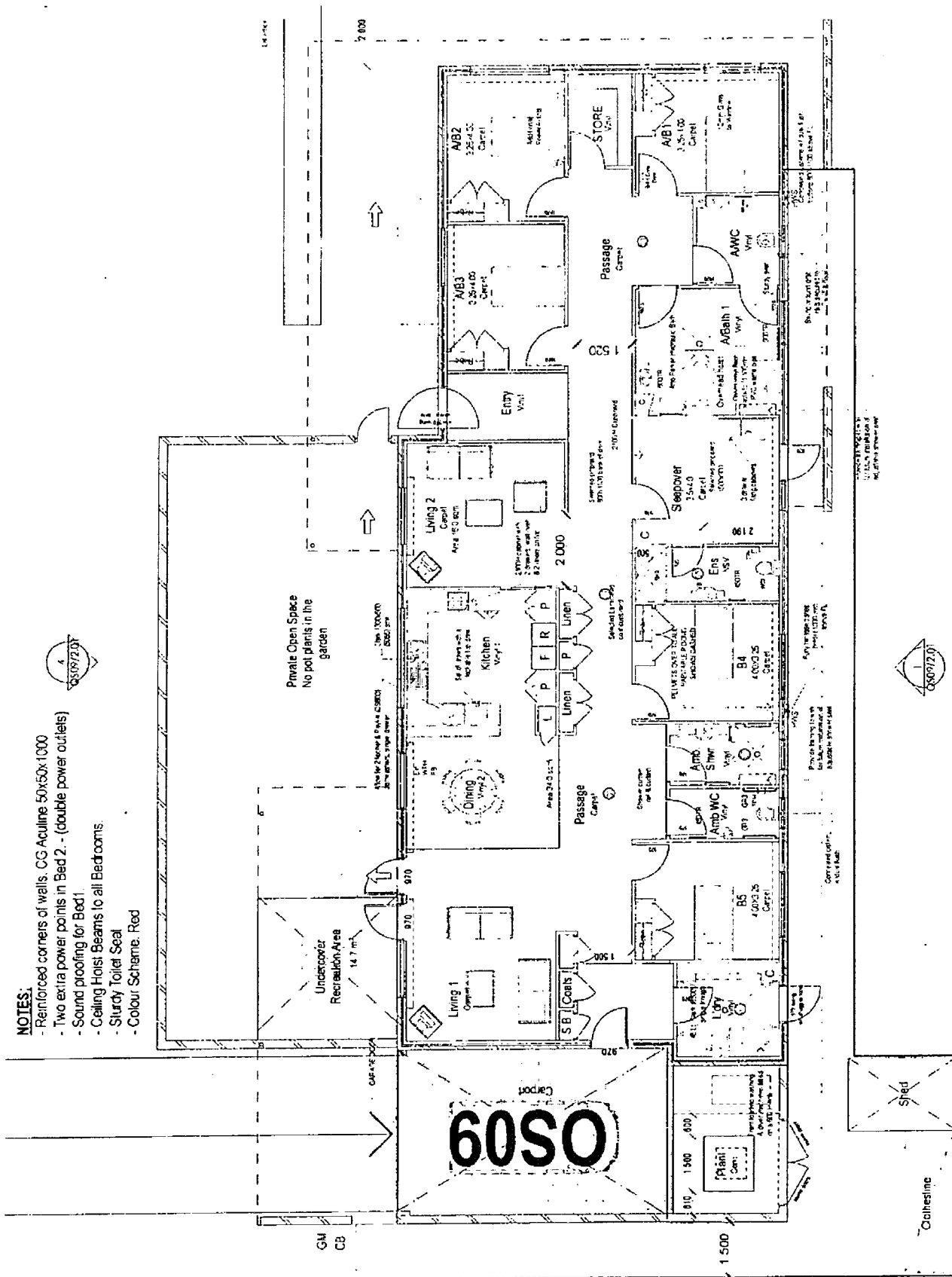
00009978/30

05/07/2008

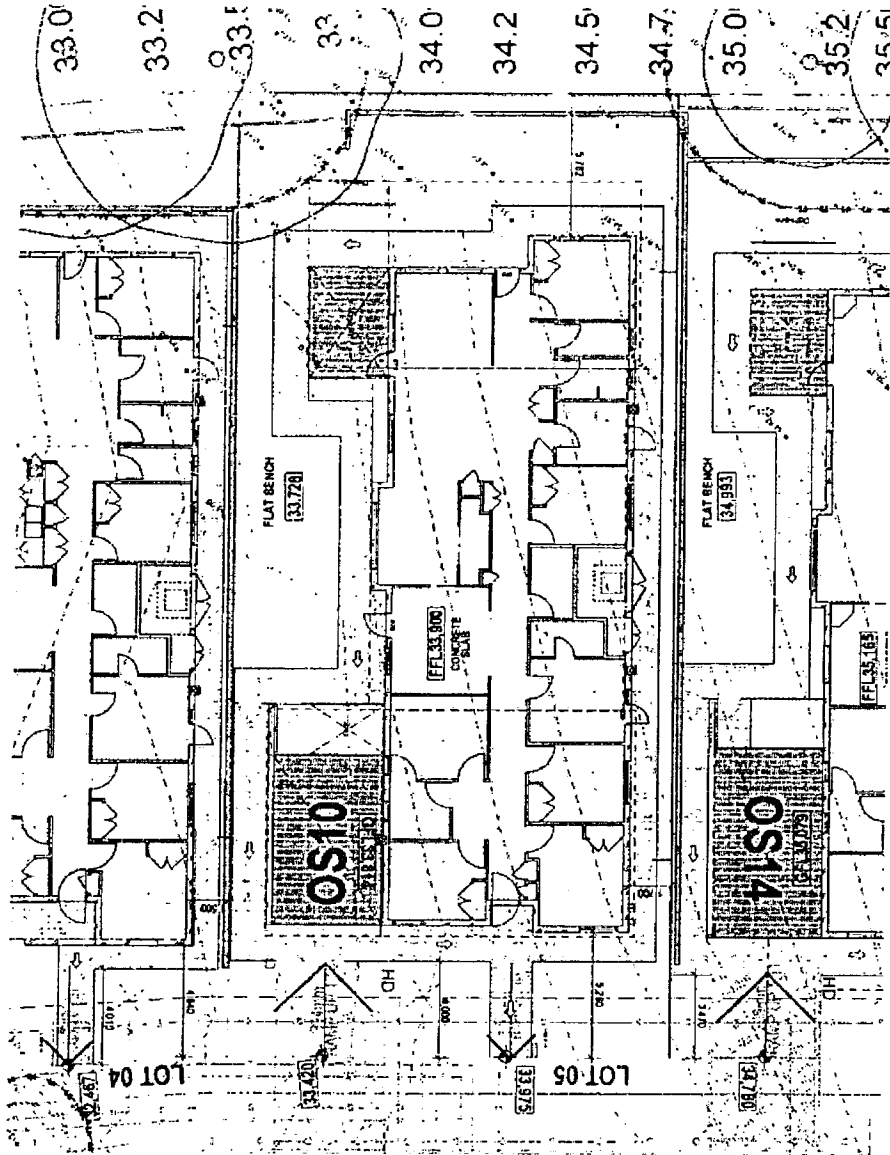
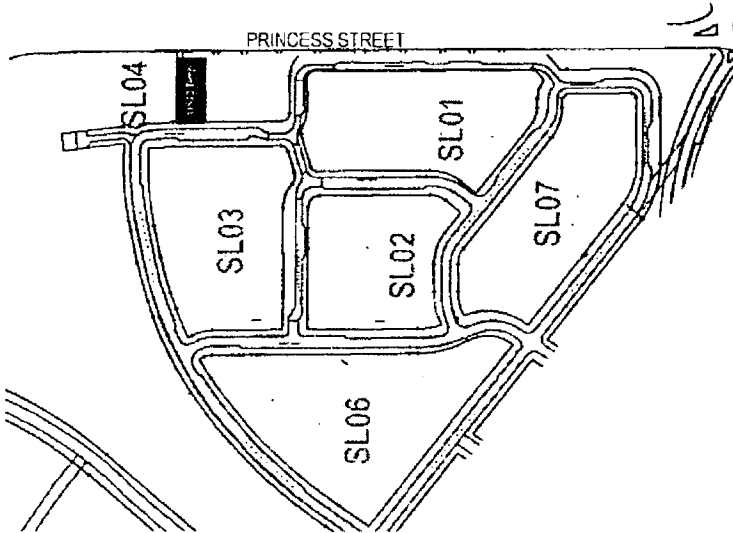


NOTES:

- Reinforced corners of walls, CG Aculene 50x50x1000
- Two extra power points in Bed 2. - (double power outlets)
- Sound proofing for Bed 1
- Ceiling Hoist Beams to all Bedrooms.
- Sturdy Toilet Seat
- Colour Scheme: Red



DKO 100 Architecture Pty. Ltd. Level 2, mixed house 281 fords street melbourne 3000 Tel: 03 870 3088 Fax: 03 870 3104 Email: info@dko.com.au DKO00818 Kook of Kook, Toronto Ontario		DKO 100 Architecture Pty. Ltd. Level 2, mixed house 281 fords street melbourne 3000 Tel: 03 870 3088 Fax: 03 870 3104 Email: info@dko.com.au DKO00818 Kook of Kook, Toronto Ontario		DKO 100 Architecture Pty. Ltd. Level 2, mixed house 281 fords street melbourne 3000 Tel: 03 870 3088 Fax: 03 870 3104 Email: info@dko.com.au DKO00818 Kook of Kook, Toronto Ontario	
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- Legend:**
- ST Solar tube
 - EXT Extinguisher
 - WPH Wall Phone
 - FB Fire Blanket
 - CL Clothes Line
 - CB Sprinkler Control Box
 - GM Gas meter
 - ZZZ Letter Box
 - Escape Path

dko

dko architecture Pty. Ltd.
Level 2, Mitchell House
358 Bridge Street, Melbourne 3000
TEL 03 8770 3396 FAX 03 9570 3054
EMAIL: info@dko.com.au WEB: www.dko.com.au
DIRECTOR: Peter G. Kuper, AIAA, AIAA, AIAA

Site Plan

Scale: 1:200

Project: Kew Community Houses
Princess St., Kew Vic.

Client: Kew Community Houses

Architect: dko architecture Pty. Ltd.

Project No: 0000978/S0

Site No: OS10/1.01

Date: 11/09/2005

Author: [Name]

Checker: [Name]

Reviewer: [Name]

Approved: [Signature]

Approved: [Signature]

- Reinforced wall corners CG Aculene 50x50x1000
- Porta Panel Molding (PM3012) to hallways
- Bed 1 Type 2 Behaviour, solid core door, acoustic insulation, 10mm glass
- Colour scheme : Red
 - Ceiling beams to all bedrooms.
 - Standard Curtains.
 - Slurpy Toilet Seal.

OS10

Private Open Space

Recreation Area 15.2 m²

Living 1 3.70 x 3.70

Kitchen 3.70 x 3.70

Bathroom 3.70 x 3.70

Store 3.70 x 3.70

Plant 3.70 x 3.70

Stepover 3.70 x 3.70

Passage 3.70 x 3.70

Entrance 3.70 x 3.70

Carport 3.70 x 3.70

Garage Door

Garage

1. The following information was obtained from the records of the Department of the Interior, Bureau of Land Management, regarding the land owned by the United States in the State of California:

WILCO STRUCTURE Pty Ltd
Level 2, Mitchell House
158 Adelaide Street, Melbourne 3000
TEL 03 9670 3086 FAX 03 9670 3054
Email: info@wco.com.au AEN 54 740

AKO architecture ply nd
 ave/2, mitchell house
 158 bondale street, mels
 TEL 03 9670 3086 FAX 0
 EMAIL info@akod.com.au

dko

File	By	Date
N. J. [illegible]		10/10/75
N. J. [illegible]		10/10/75
N. J. [illegible]		10/10/75

[illegible]

New Community Houses

MIKO ARCHITECTURAL PLY LTD
Box 2, Mitchell Road
155 Lonsdale Street, Melbourne 3000
TEL 03 9670 3086 FAX 03 9670 3054
Email: info@miko.com.au APM 54 740 188 257

dko

File	By	Date
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N. J. [illegible]		10/10/75
N. J. [illegible]		10/10/75

[illegible]

00009978/SD
0510/102

Room	Area	Volume	Notes
Ground Floor	1,100	1,100	
1st Floor	1,100	1,100	
2nd Floor	1,100	1,100	
3rd Floor	1,100	1,100	
4th Floor	1,100	1,100	
5th Floor	1,100	1,100	
6th Floor	1,100	1,100	
7th Floor	1,100	1,100	
8th Floor	1,100	1,100	
9th Floor	1,100	1,100	
10th Floor	1,100	1,100	
11th Floor	1,100	1,100	
12th Floor	1,100	1,100	
13th Floor	1,100	1,100	
14th Floor	1,100	1,100	
15th Floor	1,100	1,100	
16th Floor	1,100	1,100	
17th Floor	1,100	1,100	
18th Floor	1,100	1,100	
19th Floor	1,100	1,100	
20th Floor	1,100	1,100	
21st Floor	1,100	1,100	
22nd Floor	1,100	1,100	
23rd Floor	1,100	1,100	
24th Floor	1,100	1,100	
25th Floor	1,100	1,100	
26th Floor	1,100	1,100	
27th Floor	1,100	1,100	
28th Floor	1,100	1,100	
29th Floor	1,100	1,100	
30th Floor	1,100	1,100	
31st Floor	1,100	1,100	
32nd Floor	1,100	1,100	
33rd Floor	1,100	1,100	
34th Floor	1,100	1,100	
35th Floor	1,100	1,100	
36th Floor	1,100	1,100	
37th Floor	1,100	1,100	
38th Floor	1,100	1,100	
39th Floor	1,100	1,100	
40th Floor	1,100	1,100	
41st Floor	1,100	1,100	
42nd Floor	1,100	1,100	
43rd Floor	1,100	1,100	
44th Floor	1,100	1,100	
45th Floor	1,100	1,100	
46th Floor	1,100	1,100	
47th Floor	1,100	1,100	
48th Floor	1,100	1,100	
49th Floor	1,100	1,100	
50th Floor	1,100	1,100	
51st Floor	1,100	1,100	
52nd Floor	1,100	1,100	
53rd Floor	1,100	1,100	
54th Floor	1,100	1,100	
55th Floor	1,100	1,100	
56th Floor	1,100	1,100	
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78th Floor	1,100	1,100	
79th Floor	1,100	1,100	
80th Floor	1,100	1,100	
81st Floor	1,100	1,100	
82nd Floor	1,100	1,100	
83rd Floor	1,100	1,100	
84th Floor	1,100	1,100	
85th Floor	1,100	1,100	
86th Floor	1,100	1,100	
87th Floor	1,100	1,100	
88th Floor	1,100	1,100	
89th Floor	1,100	1,100	
90th Floor	1,100	1,100	
91st Floor	1,100	1,100	
92nd			

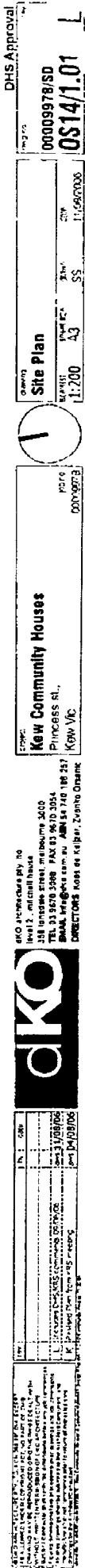
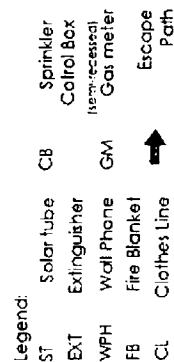
Kew Community Houses
Princess St.,
Kew VIC

MIKO ARCHITECTURAL PLY LTD
Box 2, Mitchell Road
158 Middle Street, Melbourne 3000
TEL 03 9670 3086 FAX 03 9670 3054
Email: info@miko.com.au AWH 54 740 188 257

dko

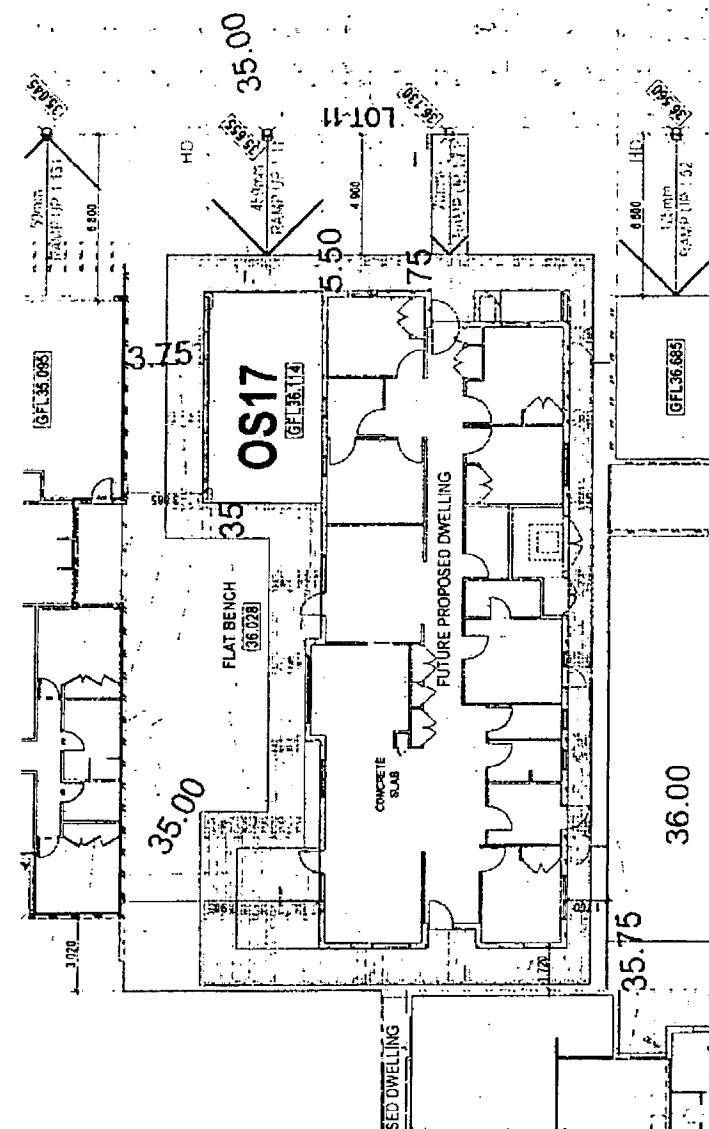
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N. J. [illegible]		10/10/75
N. J. [illegible]		10/10/75
N. J. [illegible]		10/10/75

[illegible]



- Extra power points in Bed 1 & 2 for an elec. wheelchair.
- Reinforced wall corners CG Acufine 50x50x1000
- Type 2 Behaviour, - Acoustic Soundproofing required to Bed 1 & 5
- Colour scheme, Green
- Ceiling Hoist beams to all bedrooms.
- Standard Curtains.
- Slurry Toller: Seals

[illegible]

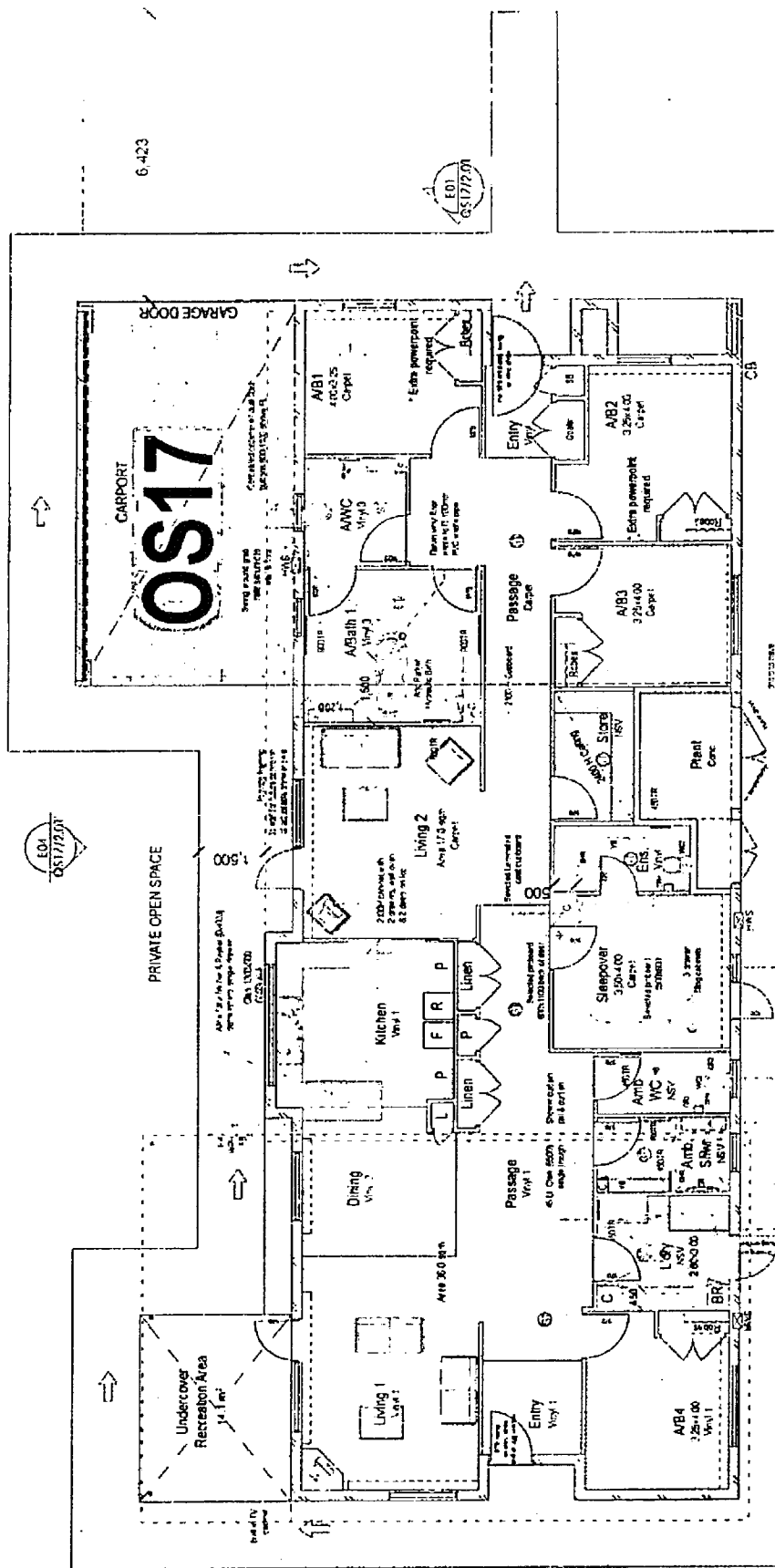


- Legend:**
- | | | | |
|-----|--------------|----|-----------------------------|
| ST | Solar tube | C8 | Sprinkler |
| EXT | Extinguisher | | Control Box |
| WPH | Wall Phone | GM | (4mm recessed)
Gas meter |
| F8 | Fire Blanket | | |
| CL | Clothes Line | ↑ | Escape Path |

[illegible]

- Extra power point in Bed 1 & 2 for an electric wheelchair.
- Reinforced wall corners CG Aquiline 50x50x1000
- Sound proofing to bed 2 & 4
- Colour scheme Green
- Ceiling beams to all bedrooms
- Curtains Standard.
- Sturdy Toilet Seat.

Coathline.

[illegible]

RECEIVED OVER 100
HAPPY PEOPLE FOR
RENEWAL 05/17/201

of the 1980s, the 1990s, and the 2000s.

FGV

[illegible]

	IN	DATE
1. Have string period previously LG 7		11/17/102/103
2. On Specify Information Added		10/25/07/006
3. DHS Signoff		1/16/10/08/076
4. DHS Signoff		1/10/10/08/074

KKO entered the dry rd.
level 2, matched house

KCO Architects, Inc. 200
Level 2, Mitchell House
5810 Leslie Street, Milwaukee 53000
TEL 03 9870 3088 FAX 03 9870 3054
E-MAIL info@kco.com WWW WWW.KCO.COM

New Community Houses
Purness st.
Kew Vic

Count 3
Ground Floor
 1:100
 1" = 40' 0"

DHS Approval

00009978/SD
0517/1-02



Department of Infrastructure

20 October 2006

The Principal
DKO Architecture Pty Ltd
Level 2
Mitchell House
358 Lonsdale Street
Melbourne Vic 3000

Major Projects Victoria
Level 18
80 Collins Street
Melbourne Victoria 3000
Telephone (03) 9655 8622
Facsimile (03) 9655 8633
www.mpv.vic.gov.au
DX 210738
Our Ref:

Dear sir,

Kew Residential Services Project - licence for plans and designs

The State of Victoria acting through the Secretary to the Department of Infrastructure (the **Department**) requires a licence to use certain plans and designs owned by DKO Architecture Pty Ltd for the Kew Residential Services Project (the **Project**). Under this letter agreement, DKO Architecture Pty Ltd agrees to grant a licence to the Department in relation to those plans and designs.

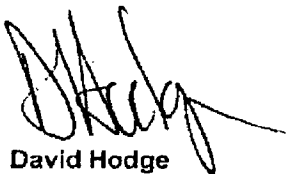
- 1 In this letter agreement:
 - (i) **Community House Designs** means those parts of the drawings, specifications and other design documents relating to the Community Houses which were created by DKO Architecture Pty Ltd and its employees and contractors; and
 - (ii) **Site Layout Designs** means those parts of the drawings, specifications and other design documents prepared as part of the Project and which were created by DKO Architecture Pty Ltd and its employees and contractors.
- 2 DKO Architecture Pty Ltd hereby grants to the Department a perpetual, irrevocable, royalty-free, non-exclusive licence to construct buildings in accordance with, reproduce, adapt, publish and communicate:
 - (iii) the Site Layout Designs solely for the purposes of the Project; and
 - (iv) the Community House Designs for the purposes of the Project and any other projects conducted by the State of Victoria.
- 3 In consideration of the assignments made and licence granted under this letter agreement, the Department agrees to pay DKO Architecture Pty Ltd the sum of \$1.00, payable promptly after signing of this letter by DKO Architecture Pty Ltd.
- 4 DKO Architecture Pty Ltd warrants to the Department that:
 - (i) all rights (including all intellectual property rights) in the Site Layout Designs and the Community House Designs are owned by DKO Architecture Pty Ltd (and, where necessary, DKO Architecture Pty Ltd has obtained an assignment of those rights from its contractors);

- (ii) the Site Layout Designs and the Community House Designs comprise the original works of DKO Architecture Pty Ltd, its employees and contractors and are not copied wholly or substantially from any other works; and
- (iii) the Site Layout Designs and the Community House Designs do not infringe any rights (including any intellectual property rights) of any person.

5 DKO Architecture Pty Ltd agrees that the licence granted to the Department in clause 2 may be assigned to any person by the Department without DKO Architecture Pty Ltd's consent.

Please sign both copies of this letter in the presence of a witness to indicate DKO Architecture Pty Ltd's acceptance of this letter agreement and return one copy to me at your earliest convenience.

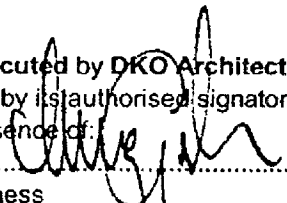
Yours sincerely,

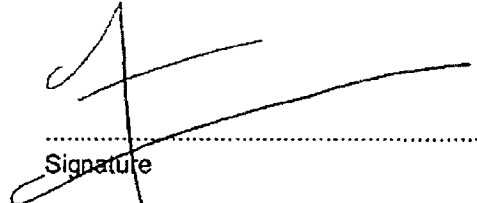


David Hodge
Director, Property and Development Group

Executed by DKO Architecture Pty Ltd by its authorised signatory in the presence of:

Witness


CRAIG GORDON
Name of Witness (print)


Signature

Koos de Keijzer
Name of signatory (print)

25.10.06
Date of signing

Schedule 4

Key Personnel	Role	Skills
Kevin Hunt	Advisor regarding design, implementation and marketing of the Project and interface and liaison with DHS in relation to Community House and KRS issues	Demonstrated experience in marketing and design associated with delivery of large scale medium density residential build out developments and an ability to manage high level Government stakeholders.

Note: DKO and MDG cease to be Key Personnel following the Completion of Stage 1 and Stage 2.

Walker Corporation Pty Limited

Walker Development Plan-New

DECEMBER 2005

PLANNING and ENVIRONMENT ACT	
BOROON DARRA PLANNING SCHEME	
CLAUSE	43.04
ENDORSED PLAN	
Signed	1. [Signature] of Walker Development Plan-New
Signed	[Signature]
MINISTER FOR PLANNING	
Date	9/2/06

December 2005

CONTENTS

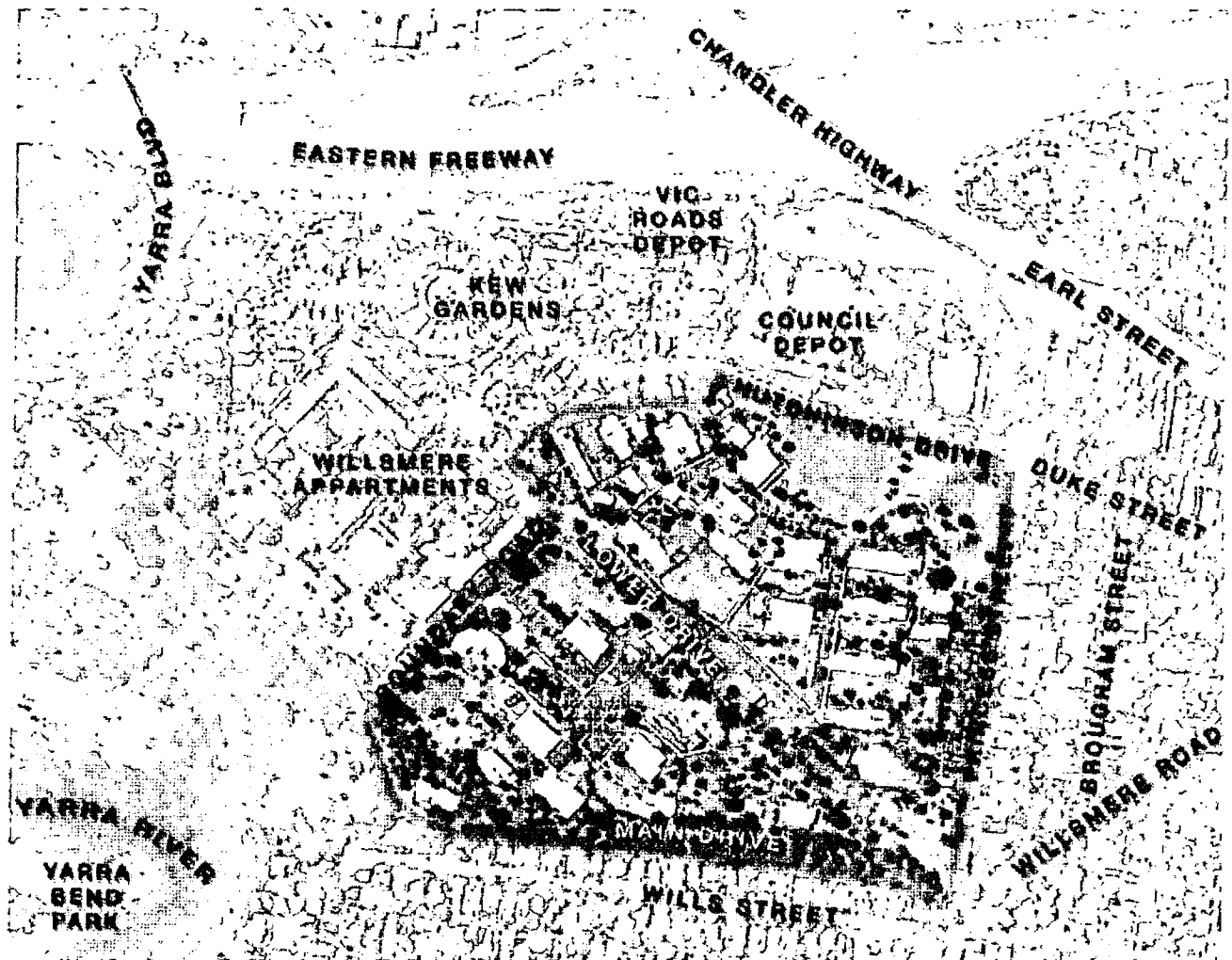
1	INTRODUCTION	1
1.1	The Walker Development Plan Area	1
1.2	The Development Plan	1
1.3	Walker Corporation Pty Limited	1
1.4	Department of Human Services Requirements	2
2	SITE CONTEXT AND ANALYSIS	3
2.1	Cultural Heritage	3
2.1.1	Aboriginal Heritage	
2.1.2	Post-Contact Heritage	
2.1.3	Cultural Significance of the Subject Land	
2.2	Natural Environment	6
2.2.1	Topography and Soils	
2.2.2	Landscape and Visual Character	
2.2.3	Flora and Fauna	
2.3	Existing Planning Controls, Land Uses and Development	9
2.3.1	Zoning and Overlays	
2.3.2	Kew Residential Services	
2.3.3	Surrounding Area	
3	THE MAP DESCRIBED	11
4	THE MAP ELEMENTS AND DESIGN RESPONSE	15
4.1	Kew Residential Services Urban Design Framework	15
4.2	Subdivision and Housing	15
4.2.1	Subdivision Design	
4.2.2	Building Heights and Setbacks	
4.2.3	Edge Treatments	
4.2.4	Design Objectives - Dwellings	
4.2.5	Design Objectives - Community Houses	

4.3	Community Facilities and Services	29
4.3.1	Recreation Centre	
4.3.2	Public Open Space	
4.3.3	Temporary Sales and Information Centre	
4.4	Accessibility	32
4.4.1	Traffic Impact Assessment and Design	
4.4.2	Non-Motorised Transport	
4.5	Significant Vegetation	33
4.6	Landscape Concept Plan	35
4.7	Heritage Features	36
4.7.1	Archaeological Sites	
4.7.2	Buildings	
4.7.3	Memorials	
4.8	Sustainable Development Plan	38
4.8.1	Public and Non Motorised Transport	
4.8.2	Energy Demand and Peak Loads	
4.8.3	Heating and Cooling Systems	
4.8.4	Power, Electronics and Home Automation	
4.8.5	Natural and Artificial Lighting	
4.8.6	Materials and Construction Specification	
4.8.7	Waste Minimisation	
4.8.8	Water Usage	
4.9	Engineering Infrastructure	40
4.9.1	Integrated Water Management Strategy	
4.9.2	Water Supply	
4.9.3	Drainage	
4.9.4	Sewerage	
4.9.5	Other Services	
5	IMPLEMENTATION	43
5.1	Indicative Staging	43
5.2	Development Approvals Process	43
5.3	Design Objectives and Building Envelopes	43



APPENDICES

- A Traffic Impact Assessment
- B Project Team Enquiries



WALKER DEVELOPMENT PLAN AREA

1 INTRODUCTION

1.1 THE WALKER DEVELOPMENT PLAN AREA

The Walker Development Plan area in Kew (the subject land) is approximately 6 kilometres east of the Melbourne central activities district and consists of approximately 27 hectares of land on the west side of Princess Street, Kew. It is bordered by Hutchinson Drive to the north, Princess Street to the east, the rear of properties fronting Wills Street to the south and Yarra Bend Park to the west and the developments known as Willsmere Apartments and Kew Gardens to the north west.

The subject land will be occupied in part until the end of 2006 by Kew Residential Services (KRS), formerly known as 'Kew Cottages'. KRS is a congregate institution for people with an intellectual disability and is managed by the Department of Human Services (DHS).

The Victorian Government announced in May 2001 that the subject land would be redeveloped to provide better quality services and housing for KRS residents. This decision included the sale of the subject land and the relocation of KRS residents into the community, although 100 KRS residents continue to live on the subject land in new purpose built accommodation.

1.2 THE DEVELOPMENT PLAN

The Boroondara Planning Scheme (the Scheme) includes the subject land within Schedule 3 to the Development Plan Overlay (DPO3 - Kew Residential Services).

The purpose of the Development Plan Overlay (DPO) includes the following.

- "To identify areas which require the form and conditions of future use and development to be shown on a development plan before a permit can be granted to use or develop the land.
- To exempt an application from notice and review if it is generally in accordance with a development plan". (Clause 43.04).

The DPO requires generally that a development plan be prepared to the satisfaction of the responsible authority before a planning permit is granted to use or subdivide land, construct a building or construct or carry out works.

A development plan is a report and enclosed map that provides a general outline of the way land is intended to be developed. A development plan designates proposed housing areas, street layouts and other main land uses for a comprehensively planned development of land.

The development plan forms the framework for more detailed planning at subdivision and development stage level. The detail may vary or 'fine tune' the development plan provided it does not change its general intent (except to the satisfaction of the responsible authority).

Once the development plan has been prepared to the satisfaction of the responsible authority, any planning permit application that is generally in accordance with it is exempt from notice requirements, decision requirements and review rights. Any permit granted must also be generally in accordance with the development plan. The development plan may be amended to the satisfaction of the responsible authority.

DPO3 details the building height, building setback and information requirements for this Walker Development Plan-Kew (WDP-K) and states that a "development plan must be generally in accordance with the Kew Residential Services Urban Design Framework, October 2003 incorporated into this planning scheme".

This WDP-K provides a response to the requirements detailed in DPO3 and includes a site and strategic context analysis of the subject land. Also included in the WDP-K is a response to the Kew Residential Services Urban Design Framework October 2003 (KRSUDF).

1.3 WALKER CORPORATION PTY LIMITED

WDP-K has been prepared by Walker Corporation Pty Limited (Walker Corporation) as the developer of the subject land.

Walker Corporation has completed over 245 residential, commercial, industrial and retail projects across Australia. It prides itself on responding to community and commercial needs, managing processes and providing the finest creative design solutions. Walker Corporation understands and

develops for diversity and is responsible for creating unique new communities. It is committed to innovative planning and urban design.

"Our strategic approach combined with our track record of success in tackling sometimes difficult, complex and large scale projects gives us the competitive edge. We will deliver yield, certainty and quality environments in a well timed and sensitively managed development program. We will bring commercial acumen and financial skills to all elements of the development and marketing program and work hard to achieve and exceed expectations" (Lang Walker, Executive Chairman, Walker Corporation).

1.4 DEPARTMENT OF HUMAN SERVICES REQUIREMENTS

The key objectives of the Victorian Government for the development of the subject land are to:

- "create a new and integrated residential neighbourhood which both meets the requirements and aspirations of those existing KRS Residents who will be remaining on the Site while at the same time achieving the planning amenity and commercial outcomes merited by the Site;
- achieve new Community Houses and ancillary facilities for those existing KRS Residents who will remain in the Site;
- consistent with meeting the above objectives, provide the best value for money commercial outcome for the State for reinvestment into services for people with a disability" (Department of Human Services, Request for Proposals, 2004 p. 31).

The accommodation and facilities advised as required by DHS on the subject land include the following.

- Twenty new community houses with eleven houses in three, 'loose groupings'. Each community house is to be constructed on a lot generally of up to 800 square metres, to be single-storey and to accommodate five to six residents.
- A facility, including a hydrotherapy pool, available to both KRS and new residents and the wider community. The hydrotherapy pool is to

accommodate a minimum of five disabled users and their carers at any one time.

- Consultation rooms in close proximity to the facility for use by visiting health professionals.
- A designated building or flexible indoor space in close proximity to the facility for community-based activities relevant to the needs of KRS residents, as well as the wider community.
- A good level of accessibility across the development for people of all abilities.

2 SITE CONTEXT AND ANALYSIS

2.1 CULTURAL HERITAGE

2.1.1 Aboriginal Heritage

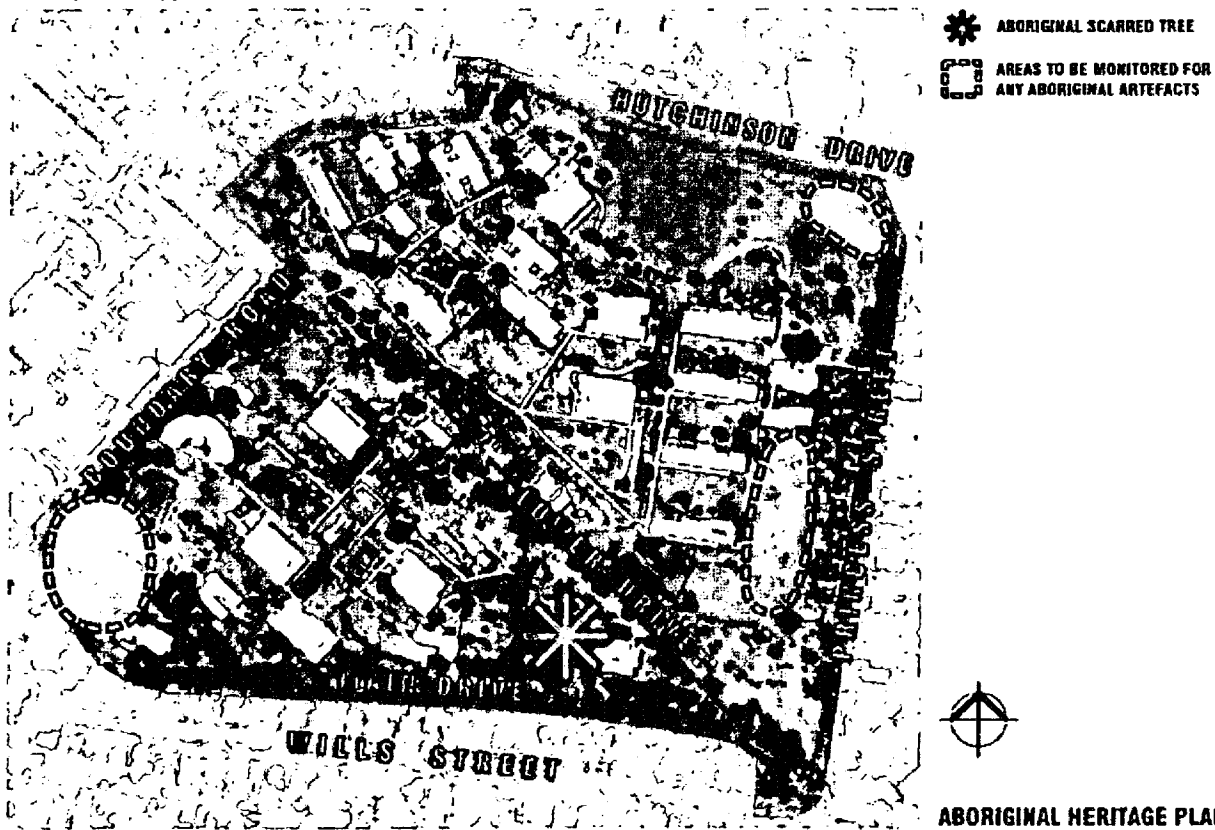
The subject land is located in the territory of the Woi wurrung language group, which occupied most of metropolitan Melbourne. The relevant clan of the Woi wurrung was divided into patrilineal groups - the Wurundjeri Willam and Bulug Willam. The Wurundjeri Tribe Land Compensation and Cultural Heritage Council Incorporated (the Wurundjeri) represents today the Aboriginal people in the Melbourne area.

One Aboriginal site - a salvaged portion of a scarred tree - has been recorded previously on the subject land. There is inconsistency in the recording of the original location of the tree however, its remaining portion is reported to have been in its current location since 1984.

The 3 metres high section of the scarred tree has been set on a concrete foundation under a small rotunda. The main scar, identified as a canoe scar, is 1.9 metres long and 0.38 metre wide. The base of the scar was lost when the tree was cut down. A smaller scar 0.4 metre long and 0.15 metre wide occupies the opposite side of the tree.

A cultural heritage survey (Kew Cottages Cultural Heritage Survey) was prepared by Biosis Research in 2001 and identified the following three areas of Aboriginal archaeological potential on the subject land.

- The south west corner of the site, which abuts the Yarra Bend Park, has extensive views to the west and maintains an under-storey of indigenous grass. This area has a low to moderate potential for the occurrence of stone artefact scatters, isolated artefacts and / or hearths relating to camping and food preparation.
- The east of the site among the mature River Red-gums, which is relatively undisturbed. This area has a low potential for the occurrence of isolated artefacts.
- The north east corner of the site surrounding the largest of the remnant River Red-gums and where a former creek gully may have been filled.



ABORIGINAL HERITAGE PLAN

2.1.2 Post-Contact Heritage

Thomas Glass was one the first permanent settlers in the Kew area establishing a homestead and squatting run in 1839 on what is now Kew Golf Course. By the 1840s, a bullock track passed through Kew and connected the city centre to the Yarra Valley.

Kew was originally surveyed as part of the Parish of Boroondara in 1844 by Robert Hoddle. A large area was reserved on the banks of the Yarra River initially for a village reserve but in 1856 changed to a reserve for a mental asylum.

In 1879 nearly 600 children, representing a quarter of all patients, were accommodated in various institutions in Victoria. Between 1872 and 1886, various reports, enquiries and Royal Commissions suggested the need for a separate, cottage-style institution for children.

Kew Cottages (now known as KRS) opened in 1887, adjacent to the Kew Asylum (also known as Willsmere Hospital). The first buildings accommodated approximately 60 children in three cottages, each equipped with its own kitchen. A school (more recently known as the parents retreat / chapel) was established in 1887. More cottages were added in the late 1880s and 1890s.

The grounds of the Kew Asylum and the subject land were landscaped in the tradition of an English country park. It is likely that the landscape of the site is a combination of the supply of trees and plants by Baron Ferdinand Von Mueller (keeper of the Botanic Gardens), extension and maintenance by Hugh Linaker (head gardener of Mont Park Mental Health complex) and construction by 'institutional labour'.

Conditions at the subject land deteriorated during and following the economic depression of the 1890s and while extensive renovations were completed in 1928, conditions were at their worst when the Mental Hygiene Authority (MHA) was created in 1952.

The first chairman of the MHA, Dr E Cunningham Dax, instigated improvements in the operation and condition of KRS. A rebuilding program began in 1953 with the support of community organisations and following a public appeal. The Victorian Government matched the amount raised by the appeal. By 1963, all of the original cottages were replaced or renovated and seven new accommodation units were constructed. New activity programs also were established.

Management of KRS was transferred from the Kew Asylum in 1956. The role of KRS in accommodating intellectually and physically disabled children expanded to cover socially disadvantaged children. Its role also changed as young residents grew up and continued to live as adults on the subject land.

The Kew Cottages Parents Association (KCPA) was formed in 1957 to provide a means for parents to assist in the care of residents of KRS.

A second public appeal in 1975, with the Victorian Government matching the amount raised, resulted in the construction of four new education facilities.

In 1987 The Ten Year Plan for Services Redevelopment in Victoria recommended the dismantling of all institutions in seven to ten years, including the relocation of all residents and the sale of institution sites.

In accordance with Victorian Government policy, KRS began to wind down in the early 1990s. A fire in 1996 resulted in the death of nine residents. Subsequently, a fire safety upgrade, a fire risk management system and the refurbishment of four accommodation units, were completed. The relocation also continued of residents out into the wider community.

As outlined above, the Victorian Government announced in May 2001 that the subject land would be redeveloped to provide better quality services and housing for KRS residents. This decision will lead to the redevelopment of the land and the continued relocation of many remaining KRS residents into the community.

2.1.3 Cultural Significance of the Subject Land

The cultural heritage survey concluded that the Aboriginal scarred tree is of high scientific significance.

DPO3 of the Scheme requires the WDP-K to retain the Aboriginal scarred tree in an appropriate setting but envisages the possible relocation of the remaining portion of the tree. Any relocation will require the approval of the Wurundjeri and Aboriginal Affairs Victoria.

DPO3 requires the WDP-K to include an archaeological

assessment and this summary of the previously prepared reports meets that requirement.

The cultural heritage survey recommended that with any works in the identified areas of Aboriginal archaeological potential, a qualified archaeologist and representative of the Wurundjeri be enlisted to monitor such works.

The plan above in 2.1.1 indicates the location of the Aboriginal scarred tree and areas to be monitored with development for Aboriginal archaeological artefacts.

On 25 November 2004, the subject land was added to the Victorian Heritage Register (VHR) as listing H2073. The extent of the VHR designation is as follows.

The VHR Statement of Significance states that the "Former Kew Cottages (Kew Residential Services) site is of architectural, historical, aesthetic, scientific (horticultural) and social significance to the State of Victoria" and details why the subject land is significant.

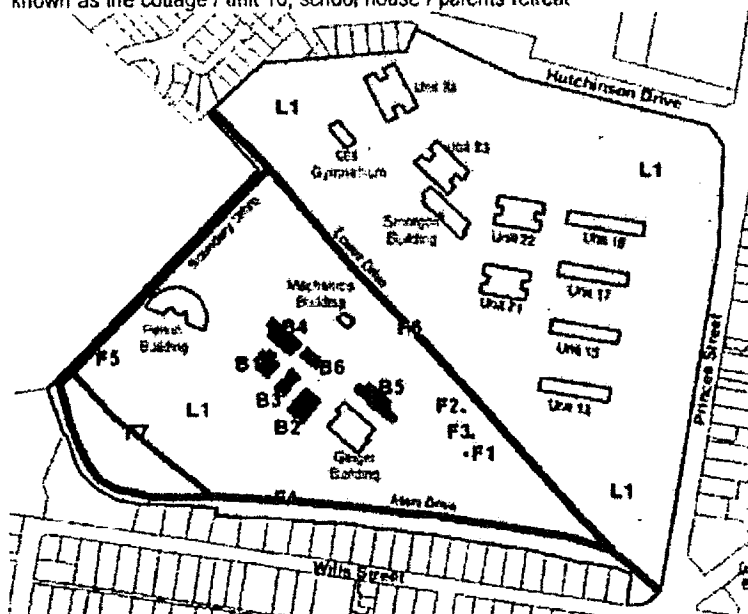
On 9 September 2005, Heritage Victoria issued a permit (permit P9639) for the demolition of three buildings formerly known as B2, B4 and B5 (also known as 'hostel house', unit 11 and unit 9, respectively), as shown on the VHR designation map above. Permit P9639 also relates to the refocating of three memorials, removal of specified vegetation, approval of the proposed site layout and the proposed residential development of the subject land. The remaining three buildings covered by the VHR designation as detailed above, being B1, B3 and B6 (also known as the cottage / unit 10, school house / parents retreat

and the dining room / STAD building), are to be retained (for details refer to Section 4.7.2).

Conversely, the Scheme includes two buildings on the site formerly known as B3 and B6 (also known as the school house / parents retreat and the dining room / STAD building) in the Schedule to the Heritage Overlay and specified trees in Schedule 2 (Kew Residential Services Significant Vegetation Protection) to the Vegetation Protection Overlay (VPO2). DPO3 requires the WDP-K to include the following.

- The retention of the two buildings formerly known as B3 and B6 (also known as the school house / parents retreat and the dining room / STAD building) in an appropriate setting and with a minimum curtilage of 3 metres.
- The retention of the ceramic sculpture created by KRS residents, the memorial plaque for long-term residents and the 1996 fire memorial. DPO3 states that the relocation of these items may be acceptable.
- A tree protection strategy to protect retained trees during construction and after development is completed.

It is expected that the Scheme will be amended to be consistent with the VHR designation (as outlined above) and the Heritage Victoria permit (P9639).



- L1 Land
- B1 Cottage (unit 10)
- B2 Cottage (house hostel)
- B3 School house (parents retreat / chapel)
- B4 Cottage (unit 11)
- B5 Female hospital block (unit 9)
- B6 Dining room (STAD building)
- F1 Fire memorial
- F2 Long-term residents' memorial
- F3 Residents' sculpture
- F4 Main Drive
- F5 Boundary Drive
- F6 Lower Drive
- F7 Oak Walk

2.2 NATURAL ENVIRONMENT

2.2.1 Topography and Soils

The subject land has a substantial fall of approximately 40 metres from south (Wills Street) to north (Hutchinson Drive).

The soil consists of predominately sedimentary rocks including sandstone, mudstone and shale overlaid with sand in places. The ground is generally rocky but with well developed soil able to support vegetation. A small gully in the north east has been filled.

2.2.2 Landscape and Visual Character

The original condition of the subject land has changed substantially with development over time however, there are still some stands of remnant vegetation (River Red-gum and native grasses). These areas of vegetation contribute to the visual character.

The strong tree planting along key existing roads and pedestrian networks and other planted trees, shrubs and open grassy areas scattered throughout the subject land, provide visual interest.

The substantial fall over the land provides views in a northerly direction, including towards the Willsmere Apartments development to the north west. Long distance views include those towards the north east and the City from the south west corner of the subject land. The high voltage power lines that run through the subject land are visually dominant.

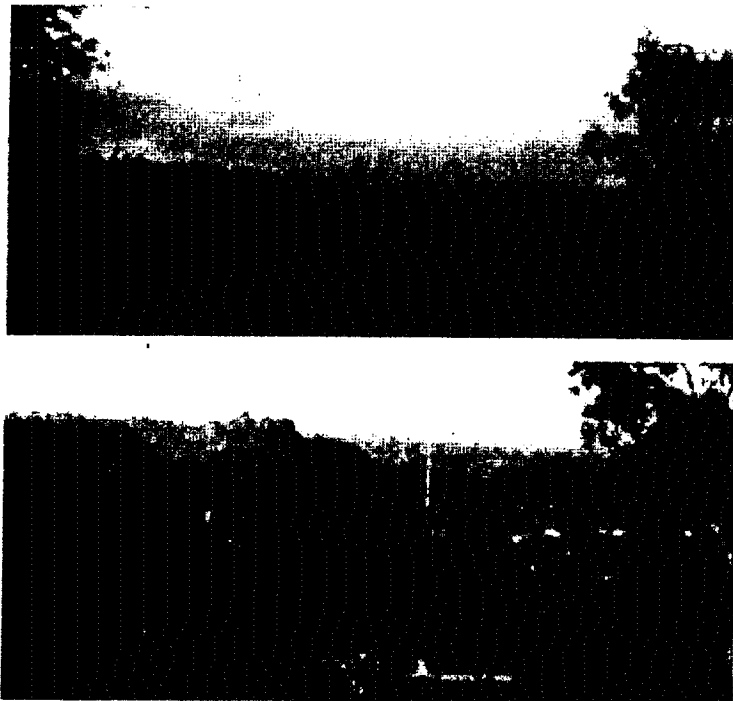
2.2.3 Flora and Fauna

(a) Flora

An ecological assessment (Ecological Assessment of Kew Cottages, Kew, Victoria) was prepared by Biosis Research in 2001 and concluded that the majority of the subject land "is covered in either buildings, roads, planted exotic or non-indigenous gardens or mown exotic grasses" and "there is little remnant native vegetation" (Biosis 2001b, p. 7).

The ecological assessment did identify however, the following remnant native vegetation.

- A large River Red-gum (*Eucalyptus camaldulensis*) in the north east of the site with a number of young, regenerating River Red-gums near its base.



Distant views from the subject land

- A stand of six, mature River Red-gums in the east of the site.
- Two young River Red-gums and a number of regenerating saplings near the south east corner of the site.
- A portion of wallaby grass (*Austrodanthonia* sp) in the south west corner of the site.

The River Red-gums in the north east and east of the subject land are remnant overstorey of the Plains Grassy Woodland ecological vegetation class (EVC). The wallaby grass in the south west corner of the site may be remnant understorey of the Plains Grassy Woodland EVC or the Valley Grassy Forest EVC.

(b) Fauna

The ecological assessment identified the following three fauna habitat types on the subject land.

- Grassy woodland in the north east and east.
- Grassland in patches throughout.
- Planted vegetation in gardens and street planting throughout.

It also recorded a total of twenty terrestrial vertebrate fauna species from the subject land, including sixteen native species (two mammals and fourteen birds) and four introduced species (all birds).



Large River Red-gum in north east corner of the subject land

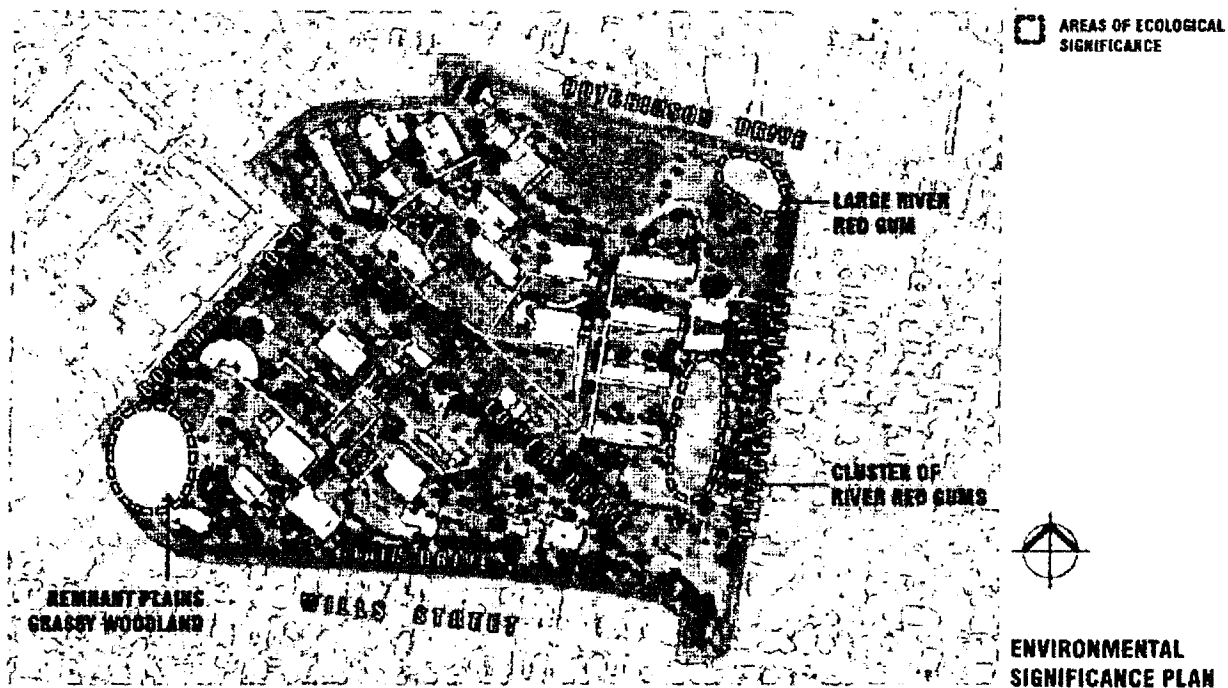
(c) Environmental Significance of the Subject Land

The ecological assessment concludes that:

- the River Red-gums in the north east and east are of high local significance and all the other remnant native vegetation is of local significance;
- the remnant Plains Grassy Woodland EVC is of local botanical significance;
- the habitat quality of the grassy woodland fauna habitat type is moderate and that of the grassland and planted vegetation is low;

- the River Red-gums make only a minor contribution to the Yarra River wildlife corridor;
- none of the terrestrial vertebrate fauna species recorded from the site are of national or state conservation significance.

As outlined above, the Scheme includes specified trees, including all River Red-gums, in VPO2. DPO3 requires the WDP-K to include the retention of significant vegetation identified for protection, unless permits for removal are sought and granted.



2.3 EXISTING PLANNING CONTROLS, LAND USES AND DEVELOPMENT

2.3.1 Zoning and Overlays

The Scheme includes the subject land within a Residential 1 Zone (R1Z) and DPO3. It also includes part of the site within Schedule 2 (Kew Residential Services Significant Vegetation Protection) to the Vegetation Protection Overlay (VPO2) and two buildings, formerly known as B3 and B6 (also known as the school house / parents retreat (HO253) and the dining room / STAD building (HO254)), in the Schedule to the Heritage Overlay.

2.3.2 Kew Residential Services

As outlined above, the subject land was for many years fully occupied by KRS.

There were a number of the buildings located on the subject land that were constructed between 1887 and the late 1970s in association with the KRS use however, most were found to be of limited heritage value. Three buildings, formerly known as B1, B3 and B6 (also known as unit 10, the school house / parents retreat and the dining room / STAD building) are of heritage value and were excluded from the demolition plans.

2.3.3 Surrounding Area

The Scheme includes the majority of the area surrounding the subject land in a R1Z, which reflects the predominantly residential land use. The exceptions to this are as follows.

- The land on the north side of Hutchinson Drive, opposite the site, is included in a Public Use Zone 6 (Local Government) and a Public Use Zone 3 (Health and Community).
- Princess Street, which borders the site to the east, is included in a Road Zone Category 1.
- Yarra Bend Park, which borders the site to the south west, is included in a Public Park and Recreation Zone.

3 THE MAP DESCRIBED

The WDP-K map below is characterised by:

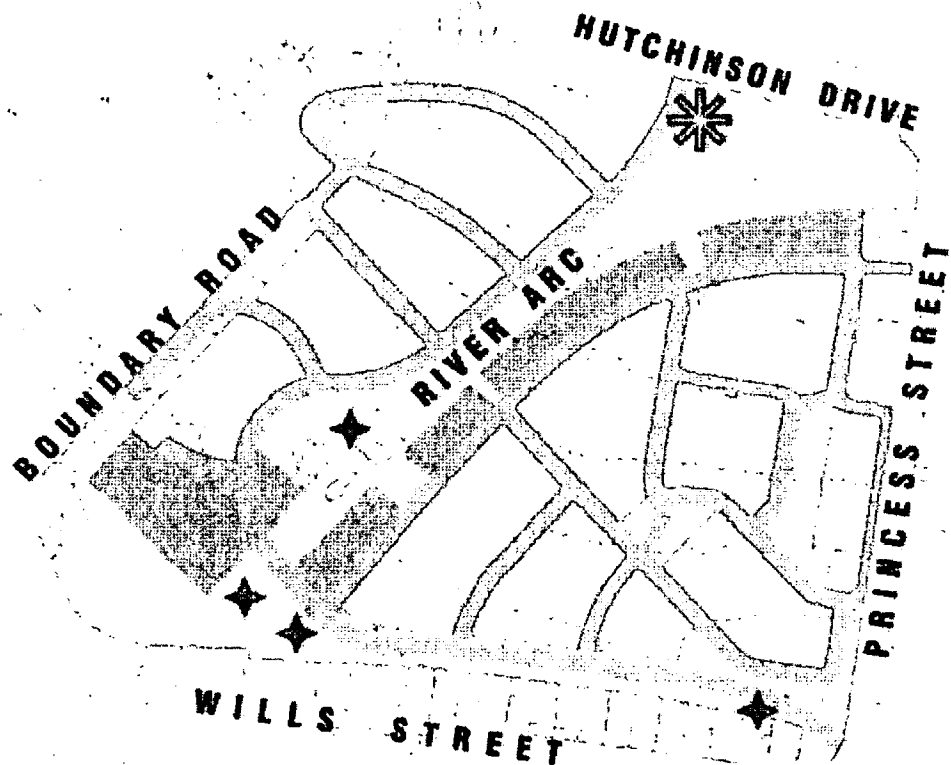
- predominantly residential land use;
- the retention of most of the significant heritage items and vegetation features;
- a recreation centre in the northern portion of the subject land;
- substantial areas of public open space;
- a network of safe walking / cycling paths providing a good level of accessibility across the subject land for people of all abilities and with good access to and from the surrounding area;
- appropriate vehicle connections to the surrounding area and a hierarchy of access streets and lanes.

The above configuration of uses, networks and spaces was developed from the comprehensive studies that resulted in the provisions of the Scheme and the VHR listing.

The key elements and design response of the map are described in the following sections.

EASTERN FREEWAY

Kew Gardens



-  **CONVENTIONAL DENSITY RESIDENTIAL DEVELOPMENT**
MAY ALSO INCLUDE ANY RESIDENTIAL USE PERMISSIBLE UNDER SECTION 1 OR 2 OF THE RESIDENTIAL 1 ZONE INCLUDING APARTMENTS AND DISPLAY HOMES
-  **APARTMENTS**
CONVENTIONAL DENSITY RESIDENTIAL DEVELOPMENT AND FUTURE DISPLAY HOMES ALSO POSSIBLE
-  **HERITAGE BUILDINGS AND CURTLAGE**
RESIDENTIAL, COMMUNITY OR COMMERCIAL USE (INCLUDING VEHICLE ACCESS FROM LOCAL STREET)
-  **PUBLIC OPEN SPACE**
AREAS AND BOUNDARIES SUBJECT TO 'FINE TUNING' WITH MORE DETAILED DESIGN BUT NO LESS THAN A TOTAL OF 30 PER CENT OF THE SUBJECT LAND

-  **PROPOSED ROAD**
SUBJECT TO 'FINE TUNING' WITH MORE DETAILED DESIGN
-  **RECREATION CENTRE**
-  **TEMPORARY SALES AND INFORMATION CENTRE**
POTENTIAL SITES



WALKER DEVELOPMENT PLAN-KEW MAP

4 THE MAP ELEMENTS AND DESIGN RESPONSE

4.1 PRINCIPLES, OBJECTIVES AND FRAMEWORK PLAN

A description of how the WDP-K addresses the principles, objectives and Framework Plan-The Vision in the KRSUOF, is integrated throughout this document. Design objectives for elements of the site, such as subdivision, dwelling design, community facilities and services and accessibility, are outlined in the remainder of this section.

4.2 SUBDIVISION AND HOUSING

4.2.1 Subdivision Design

The final number and size of lots to be created on the subject land will be determined over time to satisfy market demand and to provide variety and choice however, the WDP-K area will incorporate no more than 520 dwellings on 520 lots.

The final mix of dwelling types, namely houses and apartments, to be created on the subject land will be determined over time however, the *total maximum* number will not exceed 520 dwellings on 520 lots.

The future apartment lots will be located adjacent to public open space, for example, on the south east side of the central open space spine and near the south west corner of the site, to maximise passive surveillance of these areas, to provide an active edge to the open spaces and to provide easy access to public open space for apartment residents.

Community houses will be located generally in the north and east portions of the subject land where lot sizes will be generally larger than elsewhere in the WDP-K area.

A mix of rear and side access arrangements will be applied to lots throughout the remainder of the subject land. Lots outside stage 1 of the WDP-K area will be smaller generally in size than in stage 1. A number of small lots with rear lane access will be located abutting large areas of public open space within the WDP-K area.

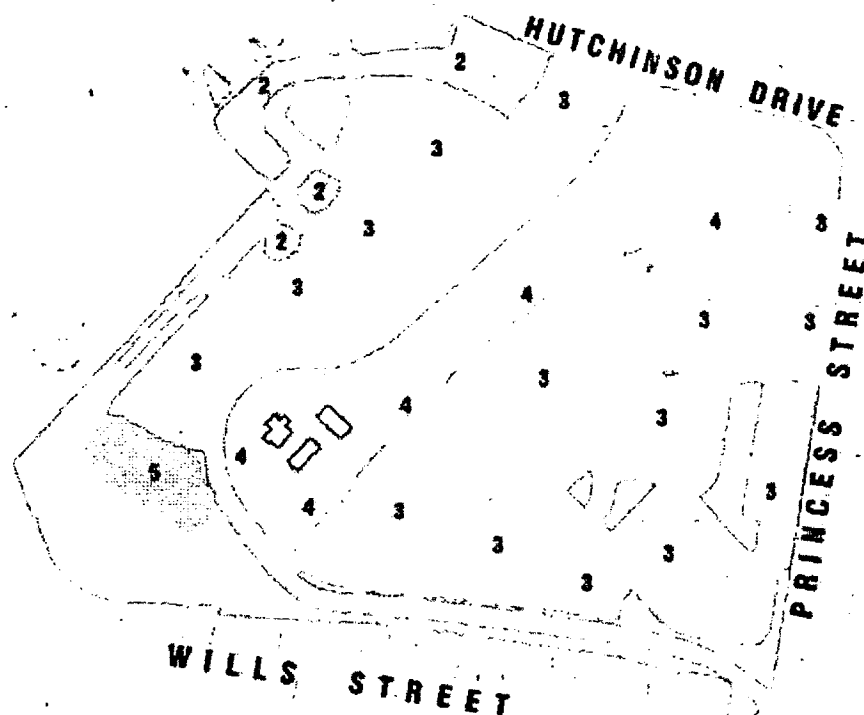
4.2.2 Building Heights and Setbacks

DPO3 of the Scheme states the following in relation to building heights and setbacks.

- "A building must not exceed the maximum building height shown for areas on the Building Envelopes and Setback Plan that is part of the Kew Residential Services Urban Design Framework, October 2003.
- The edges of the building height envelopes shown on the Building Envelopes and Setback Plan are indicative only. Minor variations, other than to dimensioned set backs, resulting from the detailed design of the road layout, public open space and lot boundaries may be acceptable provided the principles and objectives in the Kew Residential Services Urban Design Framework, October 2003 are met to the satisfaction of the responsible authority.
- All buildings more than 3.5 metres above ground level must be set back from the south and west boundaries of the KRS land at least the minimum set back distance shown on the Building Envelopes and Setback Plan".

The 'Building Envelopes and Setbacks' plan within the KRSUOF (2003 p. 9):

- designates a maximum building height envelope of between two and five storeys on each part of the subject land;
- specifies a minimum 26 metres building setback from the south boundary (common with the rear of properties fronting Wills Street) of the land;
- specifies a minimum 26 metres setback from the west boundary (common with Willsmere Apartments) of the site;



Note 1: The envelope designated as five storeys refers to storeys wholly above natural ground level and does not include a storey or any other part(s) of a building partly or wholly below natural ground level.

Note 2: The boundaries and locations of the building height envelopes are subject to future changes as the detailed design of each stage of the subject land is finalised but will be generally in accordance with the KRSUDF.

Note 3: A three metre curbside will be provided to the heritage buildings.



**BUILDING HEIGHT
ENVELOPE PLAN**

- specifies a minimum 4 metres one-storey and 6 metres two-storey setback from the north west boundary (common with the rear of properties fronting Cremin Close in Kew Gardens) of the site.

The building envelope plan above for the redevelopment of the subject land indicates maximum building height envelopes in accordance generally with the KRSUDF 'Building Envelopes and Setbacks' plan. As indicated in Note 1 to the building envelope plan, the area nominated as five storeys excludes a basement, which may be used for car parking and the areas nominated as two, three, or four storeys may include a car parking level that is partly but not wholly below natural ground level. These specifications relate to the design constraint resulting from the significant cross fall of the subject land.

The setbacks of the future buildings from the site boundaries will be in accordance with the dimensioned setbacks specified on the KRSUDF 'Building Envelopes and Setbacks' plan and in DPO3.

4.2.3 Edge Treatments

The KRSUDF identifies the following six 'edges' of the subject land and provides design objectives / guidelines for each edge.

- Boundary Road / Willsmere Walk
- Yarra Bend Park
- Main Drive / Wills Street
- Princess Street
- Hutchinson Drive
- Kew Gardens

The key concepts of the KRSUDF and the objectives of the WDP-K for the treatment of these edges are as follows.

- "Provision and enhancement of physical and visual permeability.
- Recognition of boundary landscapes, including existing avenue planting.

- Acknowledge amenity of adjacent areas without seeking to directly replicate existing built form" (KRSUDF 2003 p. 8).

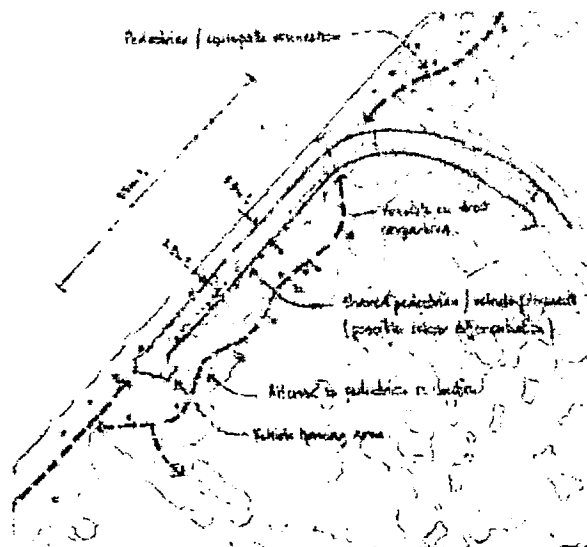
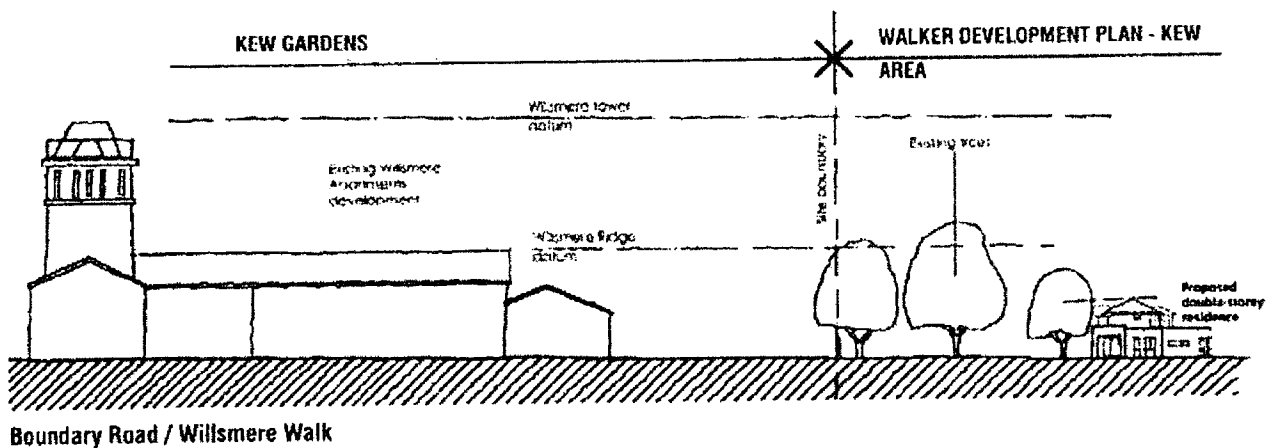
The following sections outline the response of the WDP-K to the design objectives / guidelines of the KRSUDF for each edge. The edge treatments may be further refined during the detailed planning of the development but will remain generally in accordance with the KRSUDF.

(a) Boundary Road / Willsmere Walk

The WDP-K proposes the retention of a portion of Boundary Road within the park reserve fronting the western boundary, including the majority of the Algerian Oaks lining the road. This retained portion of Boundary Road will act as a shared accessway and will provide a front address to houses

facing the adjacent open space thus encouraging passive surveillance of this area. The shared accessway has been designed to avoid safety and security concerns that can arise in secluded pedestrian only corridors. The introduction of visitor traffic to Boundary Road will encourage the use of and create an activate edge to, the area. The shared accessway will be designed to encourage low speed vehicular movement and provide opportunity for off street visitor parking to serve houses fronting Boundary Road / Willsmere Walk. The paved area to the shared accessway is not included in the 30 per cent open space calculation.

A walking path incorporating various features including sheltered rest points, where appropriate, will be provided in the vicinity of the retained portion of Boundary Road. All new streets are to the south and east of Boundary Road and the Algerian Oaks.

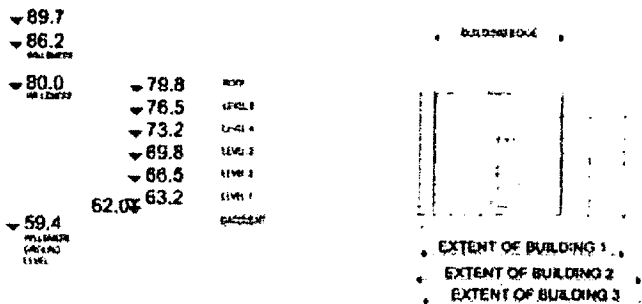


Boundary Road: Indicative Shared Zone Treatment

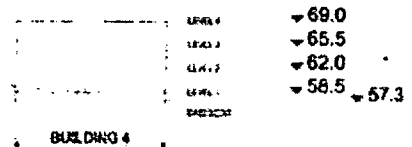
(b) Yarra Bend Park

The WDP-K map identifies the south west corner of the subject land, adjacent to Yarra Bend Park, as public open space (Yarra Bend Grove). It also proposes the retention of the majority of trees, including those within VPO2, in this location and the extension of the informal grassland character of Yarra Bend Park into the WDP-K area. The main walking / cycling path through the north east to south west public open space spine will connect Yarra Bend Park, Yarra Bend Grove and Princess Street.

The design of future buildings to be located adjacent to Yarra Bend Park will be carried out in close consultation with Heritage Victoria as required under Heritage Permit No. P9639 (as described in Section 2.1.3). A Heritage Impact Assessment will be completed for this area of the site and will accompany the planning permit application for the related Stage of the development.



Section EE

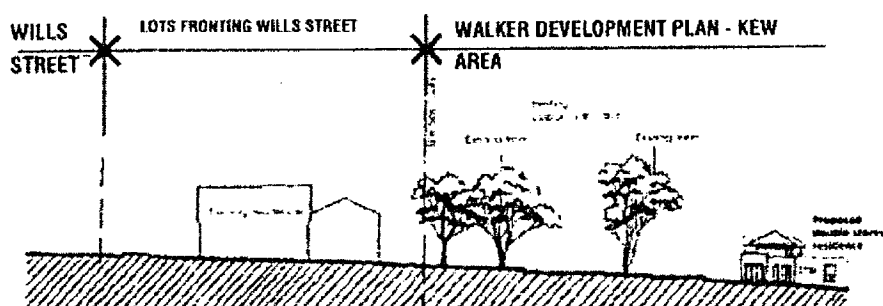


Yarra Bend Edge Treatment

(c) Main Drive / Wills Street Lots

The alignment of Main Drive and the avenue plantings comprising a mix of Algerian Oaks, English Elms, Moreton Bay Figs and Bhutan Cypress are proposed generally to be retained. A new walking path is proposed generally on the south side of Main Drive, set back from the carriageway. The landscape concept plan envisages the planting of semi-advanced shrubs along the south boundary of the subject land, abutting the rear of the properties fronting Wills Street.

The planting will soften the interface between the rear fences of existing dwellings fronting Wills Street and the Main Drive road reserve. The intention is to soften the existing hard edge (fence line) in this location however, the planting may provide some acoustic relief. The provision of additional planting along the Wills Street interface will help to integrate the development with the existing surrounding neighbourhood, particularly to the south.



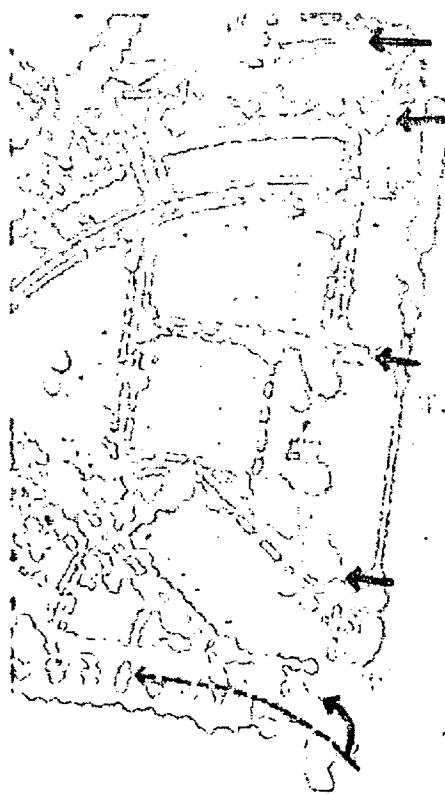
Wills Street Edge Condition

(d) Princess Street

The width on Princess Street of the future lots will be complementary to the frontage width of the existing lots on the east side of Princess Street. The WDP-K identifies up to four access points along the Princess Street frontage. In addition to access (vehicle and pedestrian) from the south east corner of the site, three other pedestrian connections are proposed along Princess Street. These four connections will enhance physical and visual permeability and help integrate the development with the surrounding community.

The range of edge treatments that will be used along this frontage include:

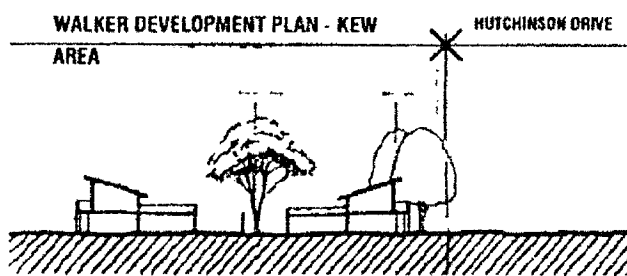
- for sites that contain dwellings with side frontages - a 1.8 to 2.4 metres high panel wall;
- for shared zone-lanes that provide rear access to dwellings adjacent to public open spaces - landscaping with a feature architectural wall;
- for sites that contain east (Princess Street) facing dwellings - a 1.8 to 2.4 metres high panel wall designed to incorporate established mature trees;
- for the north east corner of the site - feature architectural walls along both boundaries.



Princess Street: Indicative Edge Treatment

(e) Hutchinson Drive

Hutchinson Drive is proposed as one of two vehicle access points, including for potential public transport, to the subject land. The WDP-K map identifies approximately two thirds of the Hutchinson Drive frontage of the site as public open space (River Arc). The River Arc continues to the south west where it intersects with retained heritage buildings before connecting to Yarra Bend Grove and Park. The River Arc creates an open landscape vista into the WDP-K area and combines with proposed lower building heights to maintain the vista to Willsmere tower.



Hutchinson Drive Edge Condition

(f) Kew Gardens

As outlined above, the setbacks of future building from the north west boundary of the subject land, which is common with the rear of properties fronting Cremin Close in Kew Gardens, will be in accordance with the dimensioned setbacks specified on the KRSUDF 'Building Envelopes and Setbacks' plan and in DPO3. The future buildings will also address streets internal to the WDP-K area.

An access corridor will provide a direct pedestrian connection from the north west corner of the WDP-K area to the adjoining Kew Gardens development. This pedestrian link will connect with the pedestrian network in the WDP-K area.

4.2.4 Design Objectives - Dwellings

A range of dwelling types are proposed in the WDP-K area including detached and attached dwellings, community housing and apartments. The overall architectural theme is characterised by contemporary design incorporating a mix of materials that are responsive to the features of the subject land and complementary to the character of the surrounding area. The architectural detail of the dwellings will vary throughout.

A range of access arrangements will be utilised to serve the dwelling types including, rear access, side access and access handle / battle-axe / shared driveway arrangements.

Some indicative dwelling types are presented below. These dwelling types will be refined and expanded as the detailed design for each stage progresses.

- Dwelling Types A will be two to three storeys and will be orientated north-south with front access at the ground level, with the exception of Dwelling Type A3 that will have side access from the ground level.
- Dwelling Types B will be two storeys and will be orientated north-south with front access at the lower level. The majority of the living areas (including bedrooms) will be provided at the ground level.
- Dwelling Types C will be single storey and will be orientated east-west with front access at ground level, with the exception of Type C2, which will have rear access.
- Dwelling Types D will be two storeys and will be orientated north-south with rear access. The majority of living areas will be provided at ground level.
- Dwelling Types E will be two storeys and will be orientated north-south with front access at the ground level and bedrooms provided generally at the upper level.
- Dwelling Types F will be two storeys and will be orientated north-south with front access at the ground level and bedrooms provided at both the ground and upper levels.

The dwelling types shown in the diagrams below indicate lot type, access arrangement, garage position, entry point, lot frontage width and number of storeys. All dwellings are based on a courtyard model. As noted above, these dwelling types will be added to as the detailed design as each stage progresses.

The various dwelling types will be distributed across the site in the manner detailed on the Indicative Dwelling Type Allocation Plan on page 24.

The following Indicative mix of materials and finishes is proposed for future dwellings in the WDP-K area.

Roofing

- Metal roof sheeting (select non-reflective colours)
- Low profile concrete roof tiles (select non-reflective colours)

Wall Cladding

- Brick veneer – render finish
- Lightweight cladding – render finish
- Face brickwork
- Feature timber cladding – clear coat finish

Windows

- Aluminium window frames (anodised and powdercoat finish)
- Panel lift garage doors – timber finish and colourbond finish)

Miscellaneous

- Timber, brick and rendered block retaining walls
- Timber screening to carports, entries and building design features
- Timber decking, concrete pavers to decks and entrances

Colours

- Crisp and neutral colours to façades with contemporary accent colours to building
- Design features

In terms development in the southwest corner of the WDP-K area (within the five storey building envelope) Walker Corporation is committed to a selection of sensitive materials, colours and finishes to complement the neighbouring Willsmere Hospital Building. All design relating to this area will comply with the requirements of Heritage Permit No. P9639, including the provision to Heritage Victoria of full design details accompanied by a Heritage Impact Assessment.

In terms of the dwelling design, the key concepts of the KRSUDF and the objectives of the WDP-K for the treatment of the private / public interface are as follows.

- "Active frontages to public open spaces, including streets, pavements and circulation paths.
- Building frontage to define the edges of landscaped

spines and retained avenues.

- "Habitable" (attractive, comfortable and safe) private open space to be located adjacent to public open spaces and street frontages.
- Appropriate levels of amenity to private open space (privacy, sunlight).
- Recognition of existing landscape quality and maturity.
- Maximise views and passive surveillance.
- Development patterns to maximise number of people who benefit from accessibility and views of public open space.
- Fencing and building frontages to provide defined and structured public and private realms on street frontage.
- Degree of formality of edge treatments to accord with role of adjacent open areas" (KRSUDF 2003 p.15).

The design of dwellings within the WDP-K area responds to the key concepts of the KRSUDF and Walker Corporation objectives for the treatment of the private / public interface in the following manner.

- Dwellings have been designed to facilitate diversity in streetscapes, addressing corners and providing active frontages.
- Both sides and fronts of dwellings address street corners and parkland within the development to provide an active frontage to the public realm.
- Active frontages will be provided to the central north east to south west River Arc public open space spine to maximise passive surveillance of this area and provide an active edge to the open space.
- Well designed private open space areas (with direct access to habitable rooms of dwellings) will be located adjacent to public open space areas and street frontages.
- The location of public open space areas will maximise solar access and privacy for future residents.
- The design of landscaping for private open space areas will reference surrounding landscape quality and maturity.
- Apartments and terraces will be located in close proximity to key public open space areas to maximise the number of future residents that will

benefit from accessibility and views of the public open space.

- Fencing, where appropriate, will define and provide structure to public and private spaces with appropriate regard for visual amenity in the following manner.

- Fencing within the development will be considered carefully and integrated with local architecture. For example, for corners where fencing is dominant, materials, colours and / or finishes used in the fence design will be similar to those used in the dwelling. Along the Princess Street interface, fencing will incorporate a mix of textured pre-cast panels, timber screening and fencing and planting.

- Materials will be chosen for fences including materials that age well and require minimum maintenance. Fencing materials will not include 'colorbond' or corrugated iron or the like.

- The delineation of private and public space within the development will be treated with a variety of edge treatments that will contribute to the amenity of future residents of the development. These treatments include the following.

- Where front yards face central public open space areas, the following edge treatments may be used to delineate the spaces:

- a change of ground level between front yards and public open space areas;
- a wide band of planting located at the path edge to conceal retaining wall treatments capped with an open style fence;
- planting within private open space areas to screen views from the adjacent public open space.

- Where side fences are located adjacent to a street (with a footpath), the following edge treatment may be used to delineate

the spaces:

- a solid style fence that will be articulated or broken periodically by a setback and / or change in construction materials that allow planting to be incorporated in the streetscape (the location of breaks in the fencing will be coordinated and will protect the privacy of residents);

- open type fences, which will allow screened or 'veiled' views to the street.

- Where front yards face a street (with a footpath), the following informal edge treatments may be used to delineate the spaces:

- low planting including specimen trees;
- letter boxes.

4.2.5 Design Objectives - Community Houses

The key objectives of the Victorian Government for the development of KRS 'community housing' on the subject land are as follows:

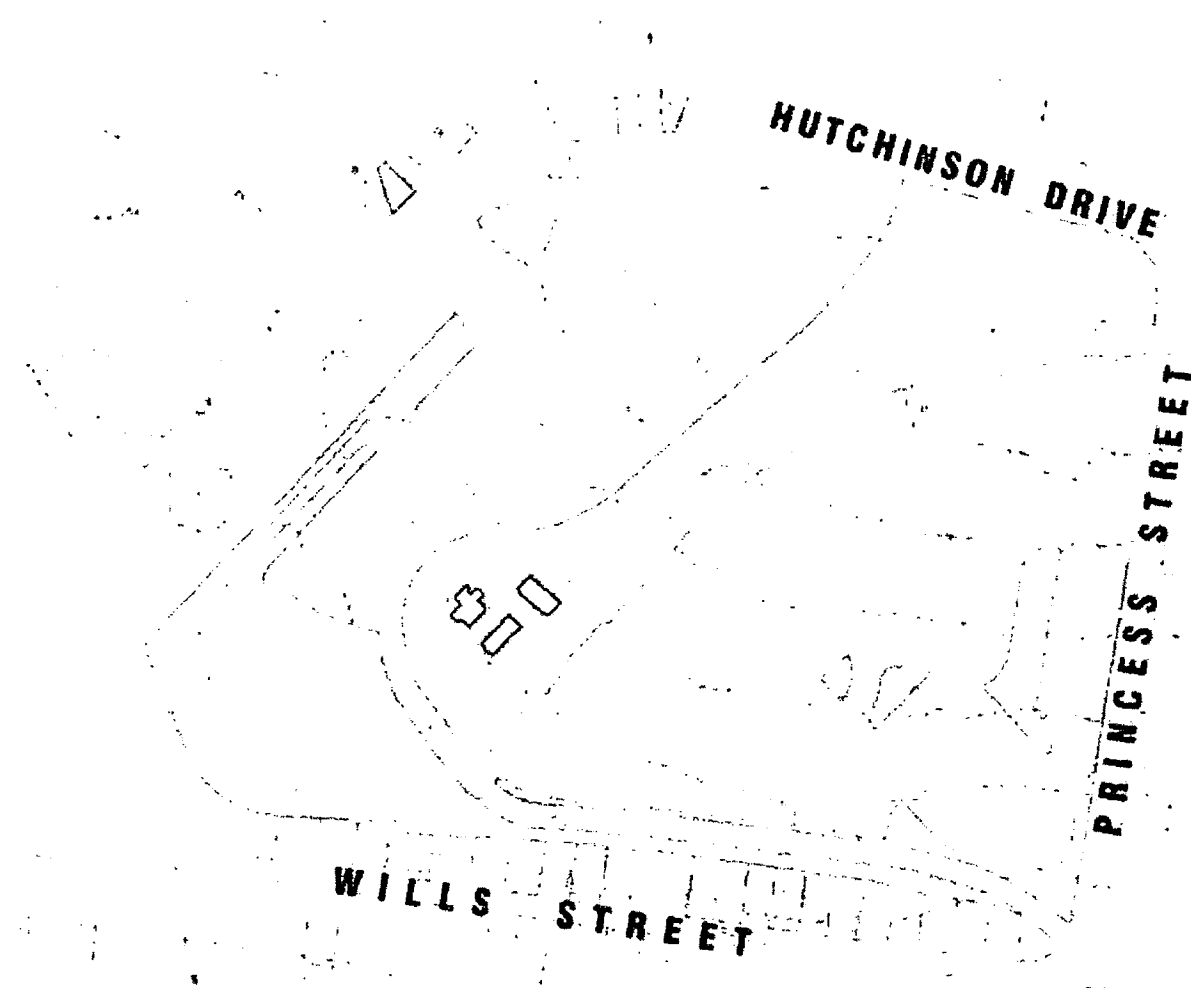
- that the new area as a whole be planned around accessibility;
- that KRS houses be consistent with surrounding houses and do not stand out;
- that housing standards for disability housing be incorporated with additional consideration given to the specific needs of the individual KRS residents;
- given the requirements for client support, safety and legislative requirements that houses be built with a consideration for potential future use and / or replacement;
- that the locations of houses for KRS residents remaining on site encourage safety for residents and staff;
- that houses and their groupings where appropriate, support the needs of existing residents but are configured such that they provide flexibility to meet such needs and those of potential future residents;
- that shared boundaries are generally to be avoided

- if it is appropriate to have adjacent KRS houses, it is preferred that they be back to back and not side by side;
- locations take into account slope and suitability for wheelchairs;
- that where two KRS houses share open space, it should be able to be separated to enable privacy and security of possessions for residents;
- that shared space should not disadvantage resident community access - that is, it should not be a replacement for community access;
- everyone should have access to private open space;
- groupings should refer to KRS houses that are no more than a short walk apart;
- houses that are grouped should share a common footpath - that is, there should be no road crossing to move between them;
- different groupings should not be in close proximity.

The specific accommodation and facilities required by DHS on the subject land include twenty new community houses with eleven houses in three, 'loose groupings' (short walk apart with no road crossing required to move between the community houses in each group). Each community house is to be constructed generally on a lot of up to 800 square metres, to be one-storey and to accommodate five to six residents, as noted in Section 1.4.

Typically, lots containing community houses will be orientated east-west with living and private open space areas orientated to the north.

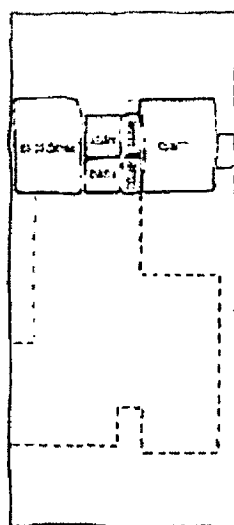
The location of the community houses generally has been determined having regard to the overall topography of the site and the need to maximise easy access to the dwellings for future residents.



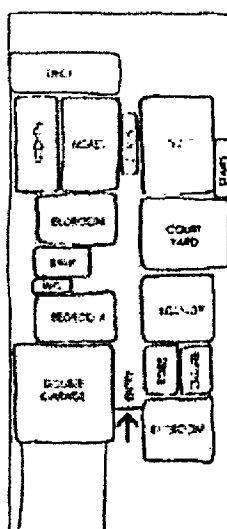
- ☐ **DETACHED / ATTACHED HOUSING**
 DWELLING TYPES A1, A2, A3, B, B1, C, D1, D2, D, E, E1, F AND VARIATIONS
 REFER WORK PAGES 25 - 28
- ☐ **APARTMENTS**
 REFER WDP-K BUILDING HEIGHT ENVELOPE PLAN PAGE 18 FOR MAXIMUM BUILDING HEIGHTS
 DETACHED / ATTACHED HOUSING ALSO POSSIBLE
 DWELLING TYPES A1, A2, A3, B, B1, C, D1, D2, D, E, E1, F AND VARIATIONS
 REFER WORK PAGES 25 - 28



INDICATIVE DWELLING TYPE ALLOCATION PLAN

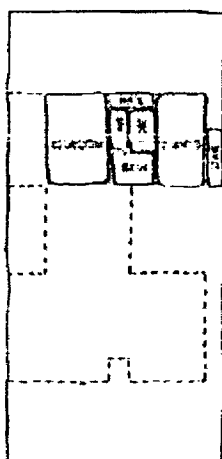


LOWER LEVEL

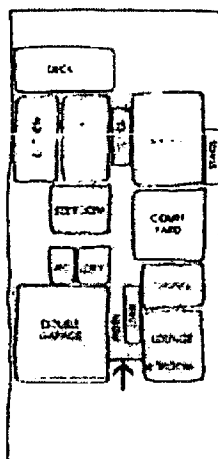


GROUND LEVEL

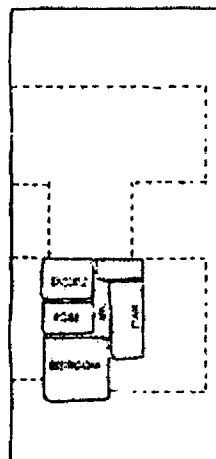
DWELLING TYPE A1	
ORIENTATION	North-South
LOT TYPE	Internal
ACCESS	Front
GARAGE POSITION	High Side
ENTRY POINT	Primary Front
FRONTAGE WIDTH	Under 15m
STOREYS	2



LOWER LEVEL

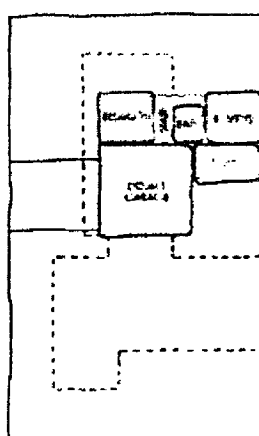


GROUND LEVEL

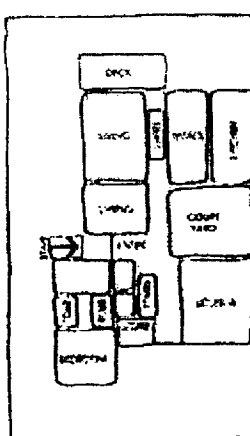


UPPER LEVEL

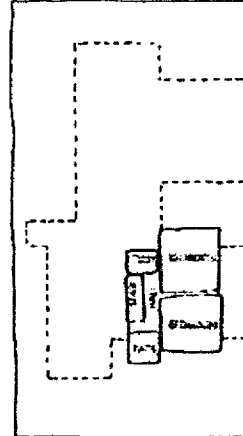
DWELLING TYPE A2	
ORIENTATION	North-South
LOT TYPE	Internal
ACCESS	Front
GARAGE POSITION	High Side
ENTRY POINT	Primary Frontage
FRONTAGE WIDTH	Under 15m
STOREYS	3



LOWER LEVEL

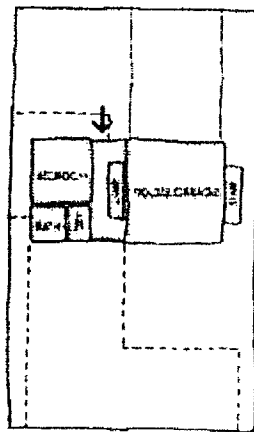


GROUND LEVEL

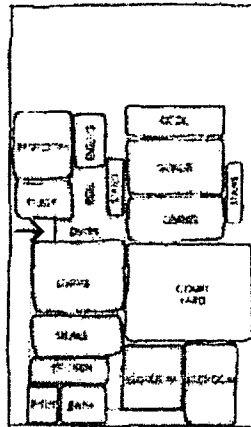


UPPER LEVEL

DWELLING TYPE A3	
ORIENTATION	North-South
LOT TYPE	Corner
ACCESS	Side
GARAGE POSITION	Low Side
ENTRY POINT	Secondary Front
FRONTAGE WIDTH	15 - 20m
STOREYS	3

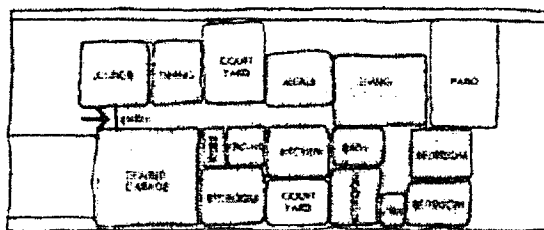


LOWER LEVEL



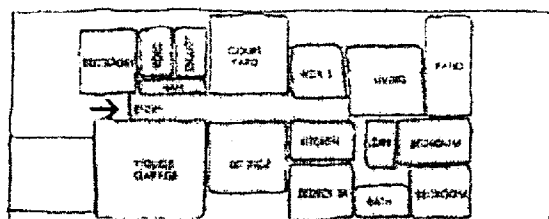
GROUND LEVEL

DWELLING TYPE B1	
ORIENTATION	North-South
LOT TYPE	Internal
ACCESS	Front
GARAGE POSITION	Low Side
ENTRY POINT	Primary Front
FRONTAGE WIDTH	Under 15m
STOREYS	2



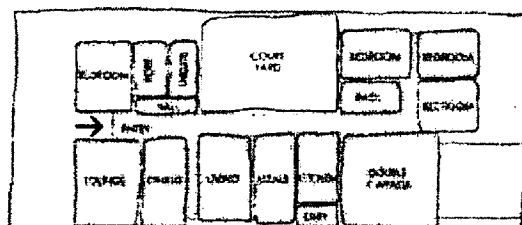
GROUND LEVEL

DWELLING TYPE C	
ORIENTATION	East-West
LOT TYPE	Internal
ACCESS	Front
GARAGE POSITION	N/A
ENTRY POINT	Primary Front
FRONTAGE WIDTH	Under 15m
STOREYS	1



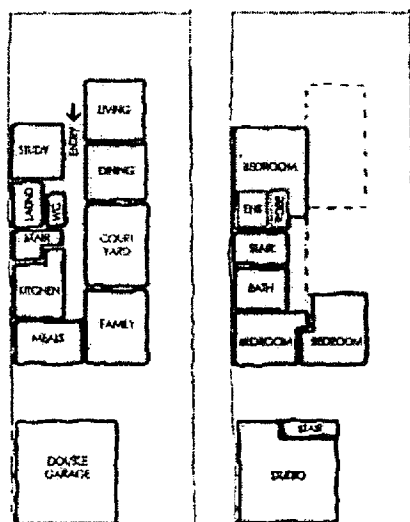
GROUND LEVEL

DWELLING TYPE C1	
ORIENTATION	East-West
LOT TYPE	Internal
ACCESS	Front
GARAGE POSITION	N/A
ENTRY POINT	Primary Front
FRONTAGE WIDTH	Under 15m
STOREYS	1



GROUND LEVEL

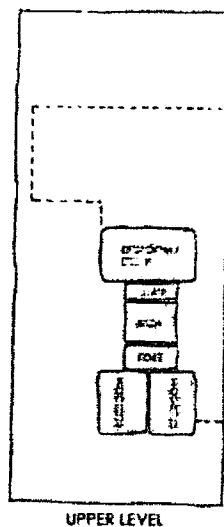
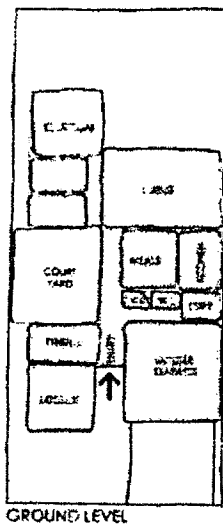
DWELLING TYPE C2	
ORIENTATION	East-West
LOT TYPE	Corner
ACCESS	Rear
GARAGE POSITION	N/A
ENTRY POINT	Primary Front / Rear Access
FRONTAGE WIDTH	Under 15m
STOREYS	1



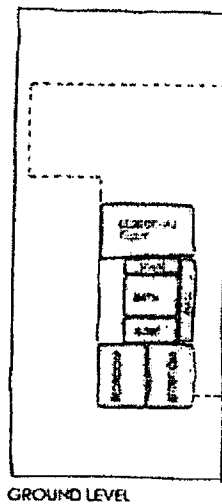
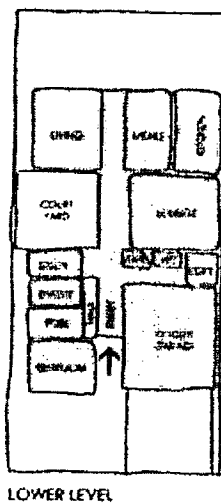
GROUND LEVEL

UPPER LEVEL

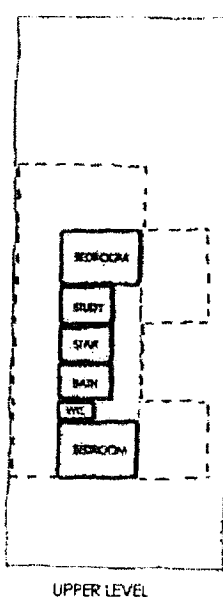
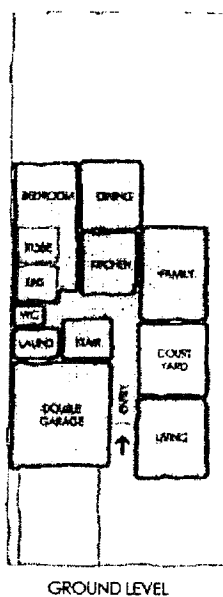
DWELLING TYPE D	
ORIENTATION	North-South
LOT TYPE	Corner
ACCESS	Rear
GARAGE POSITION	Low Side
ENTRY POINT	Primary Front / Rear Access
FRONTAGE WIDTH	2m +
STOREYS	2



DWELLING TYPE E	
ORIENTATION	North-South
LOT TYPE	Internal
ACCESS	Front
GARAGE POSITION	Low Side
ENTRY POINT	Primary Front
FRONTAGE WIDTH	Under 12m
STOREYS	2



DWELLING TYPE E1	
ORIENTATION	North-South
LOT TYPE	Internal
ACCESS	Front
GARAGE POSITION	Low Side
ENTRY POINT	Primary Front
FRONTAGE WIDTH	Under 12m
STOREYS	2



DWELLING TYPE F	
ORIENTATION	North-South
LOT TYPE	Internal
ACCESS	Front
GARAGE POSITION	Low Side
ENTRY POINT	Primary Front
FRONTAGE WIDTH	Under 12m
STOREYS	2

4.3 COMMUNITY FACILITIES AND SERVICES

4.3.1 Recreation Centre

The 'Framework Plan - The Vision' within the KRSUDF shows 'potential sports and recreational facilities' near the north boundary of the subject land. As outlined above, DHS requires particular facilities to be provided.

The WDP-K map proposes a recreation centre within the central open space spine adjacent to Hutchinson Drive in the north of the subject land. The recreation centre will incorporate the following.

- A lap pool.
- A gymnasium.
- A kiosk / cafe.
- Consultation rooms for use by visiting health professionals.
- Space for community-based activities.
- A hydrotherapy pool to accommodate a minimum of five disabled users and their carers at any one time.

The proposed location will maximise public (including pedestrian) access to the facility from within the development and surrounding residential areas.

The recreation centre will have visual prominence to the broader community, which will help to encourage knowledge and use of the facility.

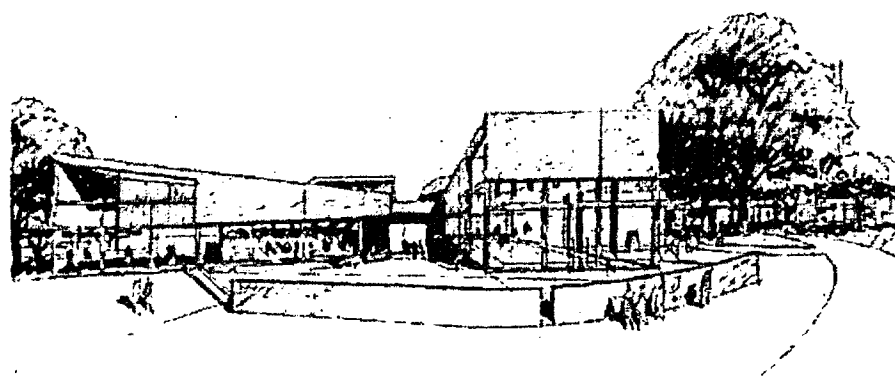
Subject to stakeholder discussions and a more detailed assessment, possible ownership and management arrangements for the recreation centre are as follows.

- Public or private ownership and / or leased or sold to a commercial operator with social objectives included in the lease or sale arrangements.
- Body corporate, including KRS residents, ownership and management.

4.3.2 Public Open Space

DPO3 of the Scheme requires the WDP-K to provide a minimum of 27 per cent of the subject land as public open space and that space to be located in the general areas shown on the 'Framework Plan - The Vision' within the KRSUDF. This Plan shows the south west corner of the site as 'Major Public Open Space No. 1', the north east corner as 'Major Public Open Space No. 2' and two public open space spines ('North South and East West').

The WDP-K public open space plan shows a minimum of 30 per cent of public open space located in accordance generally with the KRSUDF and exceeding the requirements of the DPO3 of the Scheme. In the WDP-K, the term 'public open



Architectural impression of recreation centre

space is used in accordance with the definition contained in the Subdivision Act 1988 as follows.

"public open space" means land set aside in a plan or land in a plan zoned or reserved under a planning scheme—

(a) for public recreation or public resort; or

(b) as parklands; or

(c) for similar purposes" (Subdivision Act 1988 (3)(1)).

Land set aside in the WDP-K as public open space includes:

- all open space up to the back of the road kerb in instances where public open space is adjacent to a road;
- all open space between the back fences of properties (outside the WDP-K area) fronting Wills Street and the back of kerb to Main Drive;
- all open space between the back of kerb to Main Drive and the boundaries of properties to the immediate north of Main Drive (within the WDP-K area);
- the area covered by the recreation centre consistent with the above definition and the KRSUDF, and other such areas affected by infrastructure / facilities found commonly in public open space elsewhere in the Municipality.

In terms of the open space provided along Main Drive it is noted that, combined with the road reserve, the area is significantly wider than a normal road reserve, to cater for the retention of trees along Main Drive. The width of the public open space at this location will cater for a range of recreation opportunities.

The north west to south east spine (Lower Drive) is retained with a wider than normal street reservation rather than public open space but is not included generally in the 30 per cent. The street reservation facilitates the retention of the majority of the Algerian and English Oaks along Lower Drive to emphasise the landscape character of the spine.

Where public open space adjoins a road reserve, services may be provided in an easement within the public open space area.

The public open space will be transferred as reserves to be owned and managed by the City of Boroondara.

Any public open spaces additional to those shown on the KRSUDF 'Framework Plan - The Vision' and confirmed at

planning, permit stage will facilitate the retention of significant vegetation on the site (for example, Red Gum Grove) or provide extra amenity to future residents in specific locations.

The Public Open Space Contributions Policy (Clause 22.09) of the Scheme applies to applications for subdivision and the assessment of the percentage contribution to open space (whether by levy or land). The Policy has the following objectives.

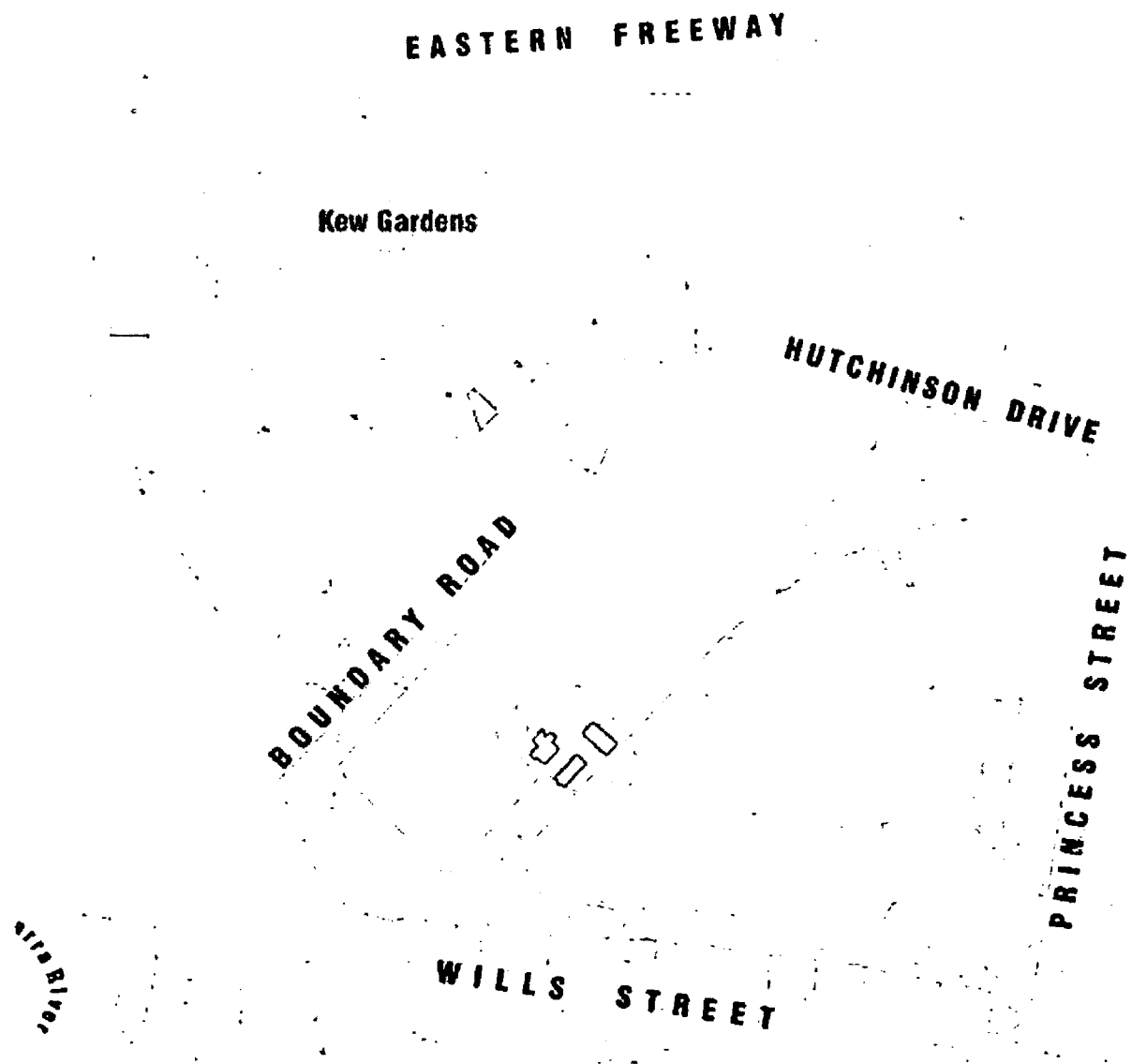
- "To levy new subdivision contributions on a fair and equitable basis to provide funding towards the provision of adequate open space proportionate to the needs of any intensified use which will arise from new subdivision.
- To diversify and improve the settings, services and facilities provided in the open space system to meet the needs of the broadest range of residents of the City.
- To provide for new open space, with an emphasis on completing missing links and filling the gaps in the overall provision, in accordance with the recommendations of the Open Space Policy" (Clause 22.09-2).

It is expected that the open space provision and embellishment as proposed in the WDP-K more than meets the requirements of this policy.

4.3.3 Temporary Sales and Information Centre

The WDP-K map proposes four potential sites for temporary sales and information centres within the subject land. These temporary centres will provide initial sales, land and community information to any existing and potential residents and the wider community, including details of the development and opportunities available for involvement in public consultative processes.

The proposed potential locations will maximise public access to the centres from within the development and surrounding residential areas.



☐ PUBLIC OPEN SPACE - MINIMUM 30 PER CENT



PUBLIC OPEN SPACE PLAN

4.4 ACCESSIBILITY

4.4.1 Traffic Impact Assessment and Design

A detail traffic impact assessment and design for the WDP-K area has been prepared by TTM Consulting Pty Ltd and is enclosed in Appendix A. The report addresses the following aspects of the proposed development.

- Future vehicle traffic volumes.
- Street design.
- Intersection management.
- Traffic speed management.
- Public transport

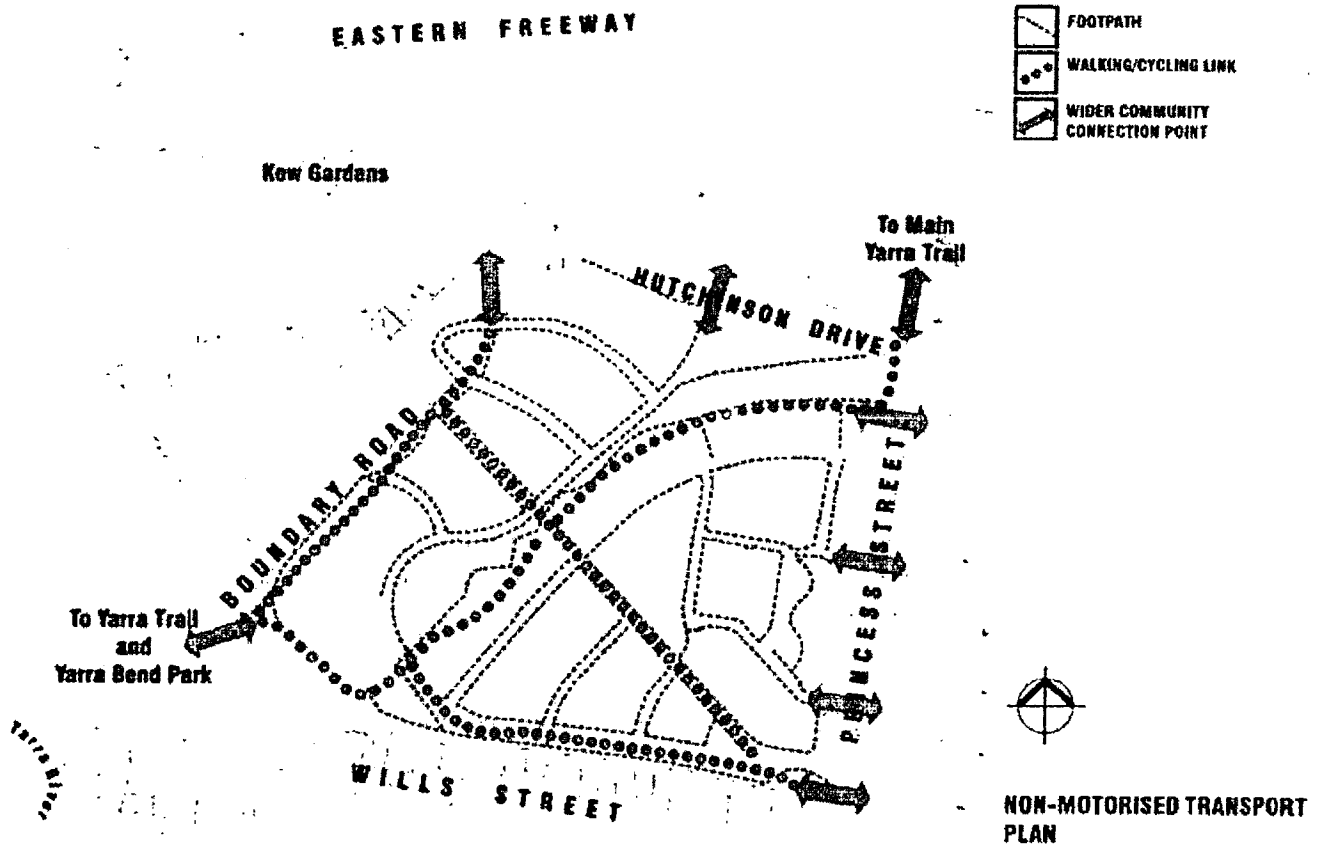
4.4.2 Non-Motorised Transport

The 'Main Pedestrian Movement' plan within the KRSUDF shows the main paths around the perimeter (excluding the north west corner) of the subject land and in two diagonals (north east to south west and north west to south east) across the site. It also shows single connections to Hutchinson Drive

and Yarra Bend Park and multiple connections to Princess Street.

The path network plan below for the redevelopment of the WDP-K area indicates main walking / cycling paths in accordance generally with the KRSUDF. Single connections to Hutchinson Drive and Yarra Bend Park and four connections to Princess Street are proposed. The main cycling path is through the north east to south west public open space spine and will connect Yarra Bend Park, Yarra Bend Grove, the retained heritage buildings, Princess Street and the main Yarra Trail. There will be no marked on-pavement cycle lanes within the subject land.

The paths, where possible, will be designed across the contours of the site and with appropriate materials to facilitate access for people of all abilities. The path materials may include concrete with a variety of surface finishes, bitumen, pre-cast concrete for highlight paving and compacted granitic sand.



4.5 SIGNIFICANT VEGETATION

The Scheme includes the following trees in VPO2.

- The avenue plantings along Lower Drive comprising a mix of Algerian Oaks and English Oaks.
- The avenue plantings along Main Drive comprising a mix of Algerian Oaks, English Elms, Moreton Bay Figs and Bhutan Cypress.
- The avenue plantings along Boundary Road comprising Algerian Oaks.
- The central garden plantation comprising a pair of Algerian Oaks and a Holly-leaf Cherry.
- The Bishop Pine, Lower Drive.
- The Holly-leaf Cherry located near the Princess Street entry to the subject land.
- The south west garden plantation comprising a dense planting of Norfolk Island Pines, Bunya Bunya, Canary Island and Monterey Pines, Deodar and Irish Strawberry trees.
- All the River Red-gums and in particular the large River Red-gum located in the north east of the site (refer to photograph in section 2.2.3).

The vegetation protection objectives to be achieved in VPO2 are as follows.

- "To recognise the contribution that the significant trees make to the landscape quality of the Kew Residential Services site.
- To conserve trees of historical, visual, landscape or botanical significance.
- To protect significant trees during construction and after the redevelopment of the Kew Residential Services site.
- To plan the redevelopment of the site in a way that is compatible with the retention and continued health of the significant trees".

A planning permit is required to remove, destroy or lop vegetation included in VPO2.

The intention of Walker Corporation is to retain significant trees including those covered by VPO2 and a Heritage listing. Walker Corporation is committed to the relevant planning processes in any future case of a significant tree(s) being required to be removed.

Walker Corporation will endeavour to retain the damaged River Red-gum (known as Tree 305) located in the southeast portion of the site within the future Stage 1 subject to Council accepting the associated safety and public risk.

The subject land development will be in accordance with VPO2.

The protection strategy for the trees to be retained will be detailed in the planning permit application for each stage of development but is expected to include the following.

- The appointment of a consultant arborist and the specification of activities to be completed by the arborist.
- The provision of a tree protection envelope plan showing a tree protection envelope for each tree or cluster of trees to be retained. The tree protection envelope will be generally a circle with a radius ten times the diameter (measured at 1.5 metres above natural ground level) of the trunk of the tree and measured from the centre of the trunk at its base.
- The temporary fencing of the tree protection envelope until work is complete.
- The specification of work and activities (with associated conditions) allowed to be completed within the tree protection envelope. This may include temporary or permanent mulching, irrigation works and pruning to enhance the growing environment of the tree.
- The briefing by the appointed consultant arborist of all personnel involved in construction that may impact on the tree protection envelopes.
- The mechanism for managing any damage to the trees within the tree protection envelopes during construction.

A tree protection envelope plan has been prepared for Stage 1 but is yet to be finalised. Walker Corporation propose to submit revised tree protection plans on an ongoing basis as a component of the planning permit application for each stage of the development and in keeping with relevant requirements.

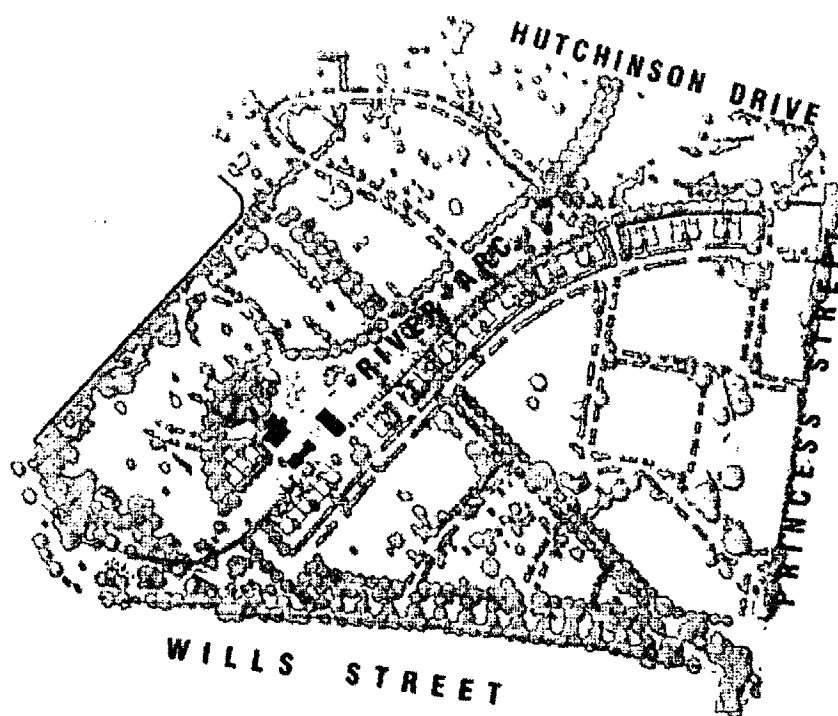
The inclusion of the trees within VPO2 ensures that following the redevelopment of the subject land, a planning permit will continue to be required to remove, destroy or lop vegetation.



Planting along Main Drive



Cluster of River Red-gums on east side of the subject land



LANDSCAPE CONCEPT PLAN
Indicative lot layout only

4.6 LANDSCAPE CONCEPT PLAN

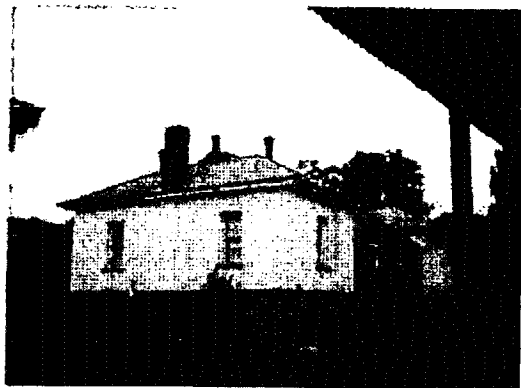
The landscape concept plan above shows significant vegetation on the subject land, primarily in public open space and street reservations. The avenue plantings along Main Drive, the west boundary and Lower Drive will be augmented with inter-planting of the same species to reinforce the historic landscape character. Indicative species for inter-planting include the following.

- Algerian Oak (*Quercus canariensis*)
- English Oak (*Quercus robur*)
- River Red-gum (*Eucalyptus camaldulensis*)
- Yellow Box (*Eucalyptus melliodora*)
- Bhutan Cypress (*Cupressus torulosa*)
- English Elm (*Ulmus procera*)

- Callery Pear (*Pyrus calleryana*)
- Honey Locust (*Gleditsia tricanthos* 'Shademaster')
- Lemon-scented Gum (*Corymbia citriodora*)
- Red Ironbark (*Eucalyptus sideroxylon*)
- Hill's Weeping Fig (*Ficus hillei*)
- Paper-bark (*Melaleuca* sp.)
- Crepe Myrtle (*Lagerstroemia indica*)
- Water-gum (*Tristanopsis laurina*)
- London Plane (*Platanus acerifolia*)
- Chinese Elm (*Ulmus parvifolia*)
- Bechtel's Crab (*Malus ioensis* 'Plena')
- Narrow-leaved Ash (*Fraxinus angustifolia*)
- Weeping Lillypilly (*Waterhousea floribunda*)
- Lillypilly (*Acmena smithii*)

The new streets and public open spaces will be planted with a variety of appropriate deciduous and evergreen native and exotic trees. An indicative list of species includes the following.

- Smooth-barked Apple (*Angophora costata*)
- Manchurian Pear (*Pyrus ussuriensis*)



Heritage buildings on the subject land including B3 and B6 (also known as the school house / parents retreat and the dining room / STAD building)

4.7 HERITAGE FEATURES

4.7.1 Archaeological Sites

The WDP-K proposes the relocation of the Aboriginal scarred tree to one of a series of key nodes where significant walking paths intersect with the north east to south west open space spine. Each key node is envisaged as a paved space potentially incorporating interpretative signage, lighting and seating.

The cultural heritage survey recommended that with any works in the identified areas of Aboriginal archaeological potential, a qualified archaeologist and representative of the Wurundjeri be enlisted to monitor such works.

4.7.2 Buildings

As outlined above, the Scheme anticipates the retention of the buildings formerly known as B3 and B6 (also known as the school house / parents retreat (HO253)) and the dining room / STAD building (HO254) in the Schedule to the Heritage Overlay (HO).

The purpose of the HO includes the following.

- "To conserve and enhance heritage places of natural or cultural significance.
- To conserve and enhance those elements which contribute to the significance of heritage places.
- To ensure that development does not adversely affect the significance of heritage places"(Clause 43.01).

Within HO253 and HO254, a planning permit generally is required to:

- subdivide or consolidate land;
- demolish or remove a building;
- construct a building;
- externally alter a building by structural work, rendering, sandblasting or in any other way;
- construct or carry out works;
- construct or display a sign;
- externally paint a building;
- externally paint an unpainted surface;
- externally paint a building if the painting constitutes an advertisement.

As the subject land is listed on the VHR, a planning permit is not required under the HO, if the proposed development is exempt under the Heritage Act 1995 or Heritage Victoria has granted a permit for the proposed development. The WDP-K proposes the removal of three buildings designated under the VHR for retention. The three buildings were known as B2, B4 and B5 (also known as 'hostel house', unit 11 and unit 9, respectively). As detailed in Section 2.1.3, Heritage Victoria has approved the removal of the three buildings and it is expected that the Scheme will be amended to be consistent with the Heritage Victoria permit (P9639).

The Heritage Policy of the Scheme (Clause 22.05) applies to all heritage places and has the following objectives.

- "To encourage the conservation and enhancement of areas and individual elements of heritage value in the City.
- To ensure that any replacement / extension of heritage buildings are respectful to the heritage character of the area.
- To minimise disturbance of sites which are known or likely to contain Aboriginal cultural heritage elements"(Clause 22.05-2).

Any future planning permit applications required under the HO will address the provisions of this Policy.

The WDP-K proposes the retention of three buildings within the central open space spine including the following.

- Two buildings formerly known as B3 and B6 (also known as the school house / parents retreat and the dining room / STAD building) within the north

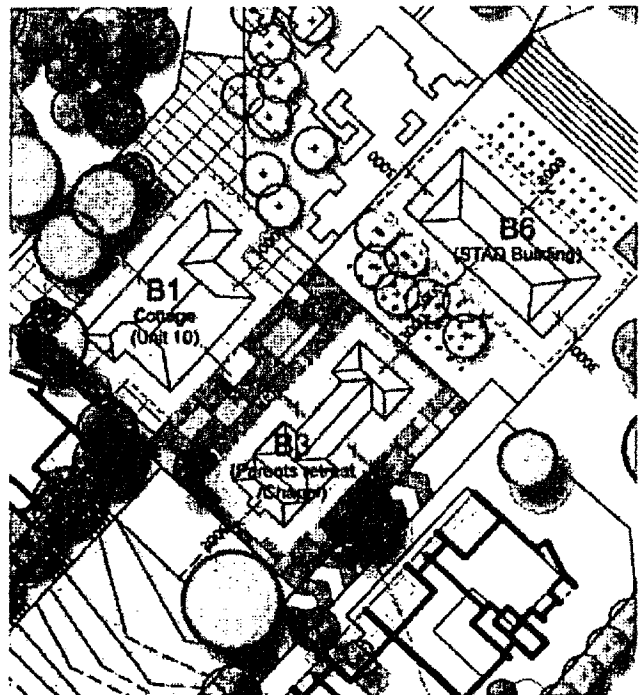


Building B1 (also known as cottage / unit 10)

east to south west open space spine. As shown in the diagram below, each building will have a minimum curtilage of 3 metres, as required by DPO3.

- A building formerly known as B1 (also known as cottage / unit 10). The Scheme does not require the retention of building B1 however, Walker Corporation has liaised with Heritage Victoria and agreed to retain the building based on its contribution to the heritage significance of the subject land, particularly in combination with the other two buildings to be retained.

The three buildings to be retained form a 'cluster' of heritage buildings on the subject land. As shown in the diagram below, though not required by DPO3, a minimum curtilage of 3 metres may also be applied to building B1.



HERITAGE SIGNIFICANT AND / OR VPO TREE TO BE RETAINED

FOOTPRINT OF COTTAGES DEFINED IN LANDSCAPE

NOTE: CONSERVATION WORKS TO B1, B3 AND B6 TO BE COMPLETED TO LATER DESIGN DETAIL.

INTERPRETIVE INFORMATION ON THE HISTORY OF THE SITE AND ORIGINAL LAYOUT WILL BE PROVIDED WITHIN THIS AREA

Subject to stakeholder discussions and a more detailed assessment, potential uses for these buildings include the following:

- commercial uses such as a medical centre, child care centre, café or gallery;
- community uses such as a hall, senior citizens centre or such;
- residential uses.

In accordance with the recommendation of the cultural heritage survey, the demolition of buildings and preliminary construction work on the site will be monitored to determine if evidence of earlier buildings and structures survives.

4.7.3 Memorials

The WDP-K proposes the relocation of the following memorials:

- the ceramic sculpture created by KRS residents;
- the memorial plaque for long-term residents;
- the 1996 fire memorial.

These memorials will be relocated based on the following key design principles.

- That the memorials be relocated within a public open space area to provide a high level of accessibility for the general public.
- That the context, siting and landscape treatment for each memorial be determined in consultation with Heritage Victoria as required under Heritage Permit No. P9639.

4.8 SUSTAINABLE DEVELOPMENT PLAN

4.8.1 Public and Non-Motorised Transport

Sections 4.4.5 and 4.4.6 provide a description of the public and non-motorised transport initiatives for the subject land.

As noted in the enclosed traffic assessment, the WDP-K proposes a street network designed to facilitate a future bus route that could connect key recreational and community elements on the subject land and beyond. A bus route is planned to traverse the site along Main Drive and will connect Hutchinson Drive and Princess Street. It is intended that

discussions will be initiated with bus service providers to understand whether they would consider a bus route traversing the site to be feasible at any appropriate time. The WDP-K will also maximise access to use of the existing bus routes that run along Princess Street and link to the tram services in High Street, to reduce reliance on motorised transport and therefore, reduce energy demand. All future lots on the site will be within 400 metres of an existing or potential bus route.

The WDP-K proposes an extensive network of walking and cycling paths to connect residents with key elements on the subject land and surrounds including Hutchinson Drive, Yarra Bend Park, Yarra Bend Grove, the retained heritage buildings and Princess Street. The central open space corridor and Main Drive, in particular, provide a continuous and accessible walking and bicycle circuit through the site connecting open space areas within the site and the surrounding area. The generous width of paved paths through the WDP-K area will encourage pedestrian and bicycle use and, where possible (taking into account site constraints), comply with the relevant disability access requirements.

The provision of bicycle racks, seating, drinking fountains and rubbish bins will further promote activity around and general use of open space areas. The walking and cycling networks will provide opportunities to reduce energy demand associated with motorised transport.

4.8.2 Energy Demand and Peak Loads

The WDP-K aims to reduce energy demand and peak loads associated with development on the subject land. Initiatives will include minimising the energy required for space heating, cooling, hot water, lighting and general power and optimising the energy savings through selected use wherever possible of low embodied-energy construction materials.

4.8.3 Heating and Cooling Systems

The WDP-K envisages the maximum use of passive heating and cooling systems in all buildings to reduce energy demand and peak loads. Building interiors will be isolated and maintained to a constant temperature throughout daily and seasonal changes in the climate, where possible. In this regard, the following initiatives will be implemented.

- Orientation of dwellings to maximise exposure to winter sun.

- Provision of sun shades, awnings, eaves and screens, where appropriate, to reduce solar access to dwellings, when required (generally during the summer months).
- Placement of building openings on either side of buildings and considering window placement and sizing, to ensure potential for cross ventilation.
- Ensuring well insulated and thermally stable buildings.

With solar orientation and natural ventilation optimised, active heating and cooling systems with low energy demand will be chosen to minimise the energy use required for resident comfort.

The following initiatives will be implemented for the active heating and cooling systems.

- Installing low energy use gas or reverse cycle heating systems.
- Discouraging electric heating provision at all times.
- Locating mechanical equipment to minimise noise impacts.

4.8.4 Power, Electronics and Home Automation

Dwellings will be provided with and residents will be encouraged to add, new appliances that are low energy, particularly in terms of clothes washing machines and gas cooking appliances. The use of energy efficient rated appliances will help to reduce energy demand and running costs for residents.

4.8.5 Natural and Artificial Lighting

The lot layout and orientation to be utilised in the WDP-K area will maximise the availability of natural lighting to dwellings and particularly to habitable rooms. Dwellings will be sited to maximise solar access into secluded private open space areas. There will be a limit on the extent of development (including landscaping) on the north boundary of secluded private open space areas to reduce any potential overshadowing impacts.

Highly efficient fluorescent lamps will be used throughout the development, including within public open space areas and streetscapes, to reduce energy demands as a result of the development.

4.8.6 Materials and Construction Specification

'Green building' practices will be implemented to address material selection, waste minimisation and environmental impact. The use of materials with a low environmental impact, in terms of sourcing and manufacturing, will be maximised.

Environmentally responsible materials to be used include plantation timber sources, wherever appropriate. Light organic solvent preservative (LOSP) timbers will be used in the development where appropriate and possible.

Permeable paving will be encouraged where appropriate to reduce the amount of stormwater runoff and reduce the potential risk of localised flooding. Where appropriate, specified concrete pavers will consist of concrete containing waste products, which will contribute to the overall use of recycled material.

Other materials to be used in the WDP-K area such as paints (external and internal), wood and timber products, window frames (approved timber and aluminium), floor coverings, plumbing, electrical cabling and joinery products, will be selected with consideration for toxicity and air quality in general. Materials that contain formaldehyde glues will not be used in internal finishes, fixtures or structures in direct contact with the internal air of the dwellings. The use of materials that contain PVC will be minimised in all construction.

4.8.7 Waste Minimisation

Waste volumes sent to land fill will be reduced through re-use and recycling. Waste sorting and recycling will be encouraged as an important part of maintaining a 'green' building site. This will be achieved by minimising waste from building construction and using recycled materials.

Recycling bin storage areas will be provided to all apartment buildings and other dwellings. Walker Corporation also intends to investigate alternate means of recycling and waste reduction with the Environmental Protection Authority and the appropriate Council representatives to ensure that appropriate methods are applied from the outset of the development.

4.8.8 Water Usage

The use of water will be minimised within the WDP-K area by implementing the following initiatives:

- all appliances will have a minimum AAA water use classification;
- selection of appropriate plant species including indigenous trees, shrubs and grasses and in general, drought tolerant plants;
- consideration of the location of planting in terms of the distance to built form;
- installation of flow restrictors to selected plumbing fixtures;
- installation of toilets that have a dual flush system (3 and 6 litres flush options).

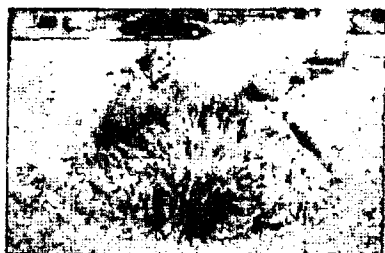
4.9 ENGINEERING INFRASTRUCTURE

4.9.1 Integrated Water Management Strategy

The WDP-K proposes an integrated approach to urban stormwater management and water sensitive urban design to ensure compliance with the CSIRO Urban Stormwater - Best Practice Environmental Management Guidelines (the Guidelines) 1999.

The Guidelines provide a framework of strategies to improve the environmental management of urban catchments and waterways. In particular, it specifies performance objectives in relation to the quality of urban stormwater run-off discharging to receiving waters. These objectives are outlined in the table below.

Pollutant	Receiving water objective	Current best practice performance objective
Suspended solids (SS)	Comply with SEPP (e.g. not exceed the 90th percentile of 80mg/L)(1)	80% retention of the typical urban annual load
Total phosphorus (TP)	Comply with SEPP (e.g. base flow concentration not to exceed 0.8mg/L)(2)	45% retention of the typical urban annual load
Total nitrogen (TN)	Comply with SEPP (e.g. base flow concentration not to exceed 0.5mg/L)(2)	45% retention of the typical urban annual load
Litter	Comply with SEPP (e.g. no litter in waterways)(1)	70% retention of typical urban annual load
Flows	Maintain flows at pre-urbanization levels	Maintain discharge for the 1.5 year ARI at pre-development levels



Indicative engineering infrastructure treatments

Walker Corporation has worked closely with Ecological Engineering to identify water management strategies to implement throughout the WDP-K area. The criteria will be achieved within the WDP-K area on a 'whole-of-site' basis by the implementation of an Integrated Water Management Strategy, including the following treatment options.

- Primary treatment to remove litter and coarse sediments using gross pollutant traps on all stormwater outlets.
- Detention basins to reduce peak flows off site back to existing levels.
- Bioretention trenches, grassed swales and basins incorporated into parklands providing treatment through filtration, settlement and nutrient up-take.
- A potential constructed wetlands area in the northeast portion of the site associated with detention basin/s to provide stormwater treatment prior to re-use for irrigation of trees and parkland elements.
- Rain water tanks to collect roof run-off for re-use on gardens.

These facilities are proposed within streets and public open space and will form part of the works to be taken over by the City of Boroondara (Boroondara) for future care and maintenance. In addition to the above criteria, Walker Corporation is committed to liaising closely with the appropriate Council representatives to ensure an effective and sustainable integrated water management strategy for the site.

4.9.2 Water Supply

The subject land is served by two water mains (400 and 450 millimetres diameter) that traverse the site. These water mains are proposed to be decommissioned and replaced by 225 millimetres diameter water mains in Princess Street and Hutchinson Street, which will provide the necessary water supply to the redevelopment.

4.9.3 Drainage

A 600 millimetres diameter stormwater drain traverses the site from north to south and services dwellings in Wills Street and further south. The drain will be redirected on an appropriate alignment through the subject land as part of the redevelopment.

4.9.4 Sewerage

A sewer traverses the south east corner of the subject land, services the dwellings in Wills Street and will be redirected through the WDP-K area. Three sewerage connection points - two on the north site boundary and one on the east side of Princess Street - have been nominated as the points for the redevelopment to direct discharge. The private sewers that service the KRS facilities will be retained temporarily where necessary but decommissioned progressively and replaced as the redevelopment proceeds.

4.9.5 Other Services

Two overhead powerlines (66 and 11 kilovolts) traverse the subject land and service it and Willsmere Apartments. Both powerlines will be redirected underground on alignments to be determined in consultation with the service authority.

A 150 millimetres diameter high pressure gas main and telecommunications services are in Princess Street and will provide adequate supply and service to the WDP-K area.

The Telecommunications Policy (Clause 22.11) of the Scheme applies to all land in Boroondara and has the following objectives.

- "To minimise the visual impact of infrastructure associated with the provision of telecommunications services.
- To minimise any health risks associated with the provision of telecommunications services.
- To facilitate the provision of efficient, modern and cost effective telecommunications services to the ratepayers of the City of Boroondara" (Clause 22.11-02).

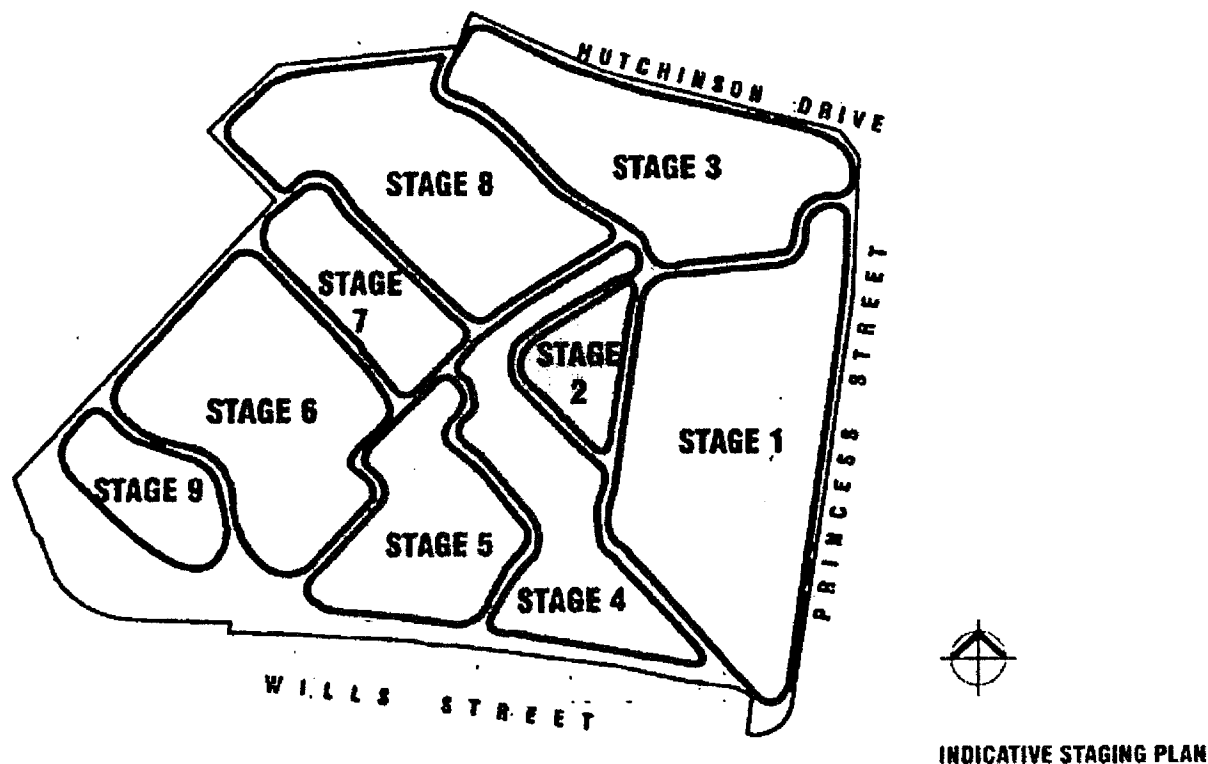
Any future planning permit applications for telecommunications facilities will address the provisions of this Policy.

5 IMPLEMENTATION

5.1 INDICATIVE STAGING

The indicative sequence for the redevelopment of the subject land is depicted on the plan below. The staging will not "prejudice the future use or development of the land in an integrated manner" (DPO3).

Additional approvals may be required from Heritage Victoria over the life of the project.



The indicative development staging may vary as the detailed design for each stage is completed and depending on market demand. An indication of stage timing on expected market conditions is stages 1 and 2 to commence in 2005, stages 3 and 4 to commence in 2007, stage 5 to commence in 2008, stages 6 and 7 to commence in 2009, stage 8 to commence in 2010 and stage 9 to commence in 2011.

5.2 DEVELOPMENT APPROVALS PROCESS

Walker Corporation will apply to the Minister for Planning (the Minister), as the responsible authority, for planning permits for subdivision and all other development and uses requiring a planning permit under the R1Z and the relevant overlays of the Scheme. Generally, subdivision and development will need to be in accordance with the approved WDP-K, as required by DPO3.

5.3 DESIGN OBJECTIVES AND BUILDING ENVELOPES

Approved Building Envelope Plans (BEP) are to be prepared by Walker Corporation and will be submitted for endorsement (to the satisfaction of the responsible authority) as part of the development approvals process.

ABEP will be prepared for each stage. In addition to complying with the WDP-K, all buildings and works must comply with the BEP.

The BEP will be prepared and submitted following each stage subdivision permit and will contain the design and siting parameters that differ from those under clauses 54 and 55 in the Scheme.

In review of the design outcomes sought for the subject land, various design parameters in Clauses 54 and 55 of the Scheme and the relevant siting requirement of the Building Regulations, have been reviewed. The review has resulted in new specific design parameters to tailor outcomes specifically for the subject land.

In accordance with the Scheme and the Building Regulations, the BEP, including the varied parameters, will be implemented via the permit and an appropriate condition, a notice of restriction on plans of subdivision affecting each lot and restrictions on title via memoranda of common provisions.

These varied parameters will promote a preferred neighbourhood character and are anticipated to include:

- potential for reduced minimum front and side street setbacks of dwellings;
- reduced minimum side and rear setbacks of dwellings;
- increased maximum building height of dwellings;
- increased maximum site coverage of dwellings;
- increased maximum length of new boundary walls;
- increased minimum setback of north-facing windows from the north boundary of lots.

20 December 2005

Collie Pty Ltd

URBAN PLANNERS | URBAN DESIGNERS | LANDSCAPE ARCHITECTS

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APPENDIX A

TRAFFIC IMPACT ASSESSMENT

TTM Consulting Pty Ltd



**KEW RESIDENTIAL SERVICES SITE
PROPOSED REDEVELOPMENT
THE WALKER CORPORATION SCHEME
TRAFFIC IMPACT ASSESSMENT**

Prepared By

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For

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EXECUTIVE SUMMARY

The Walker Corporation Scheme for the redevelopment of the Kew Residential Services site provides a well connected movement network with provision for all modes of transport. The movement network conforms with the Urban Design Framework incorporated in the Boroondara Planning Scheme.

The internal street system allows adequately for parking and for movement of vehicles, pedestrians, cyclists, service and emergency vehicles. All streets proposed conform to the requirements of Clause 56 of the Boroondara Planning Scheme.

Traffic related amenity conditions are maintained by the design, in that, there is no section of street that has houses fronting and more than around 1,600 vehicle movements per day.

As well as provision for a bus route to loop through the site the Walker Corporation Scheme provides good pedestrian linkages along streets through the site and to connect with Princes Street where there are existing bus stops. Pedestrian amenity and safety is enhanced by the use of rear lanes for vehicular access where smaller frontage lots abut the central open space, Main Drive and other streets that will have footpaths providing important pedestrian routes.

External traffic impacts are all manageable, even during peak periods. The current scheme provides 520 dwellings, whereas earlier traffic analysis had concluded that up to 1,500 dwellings could be accommodated on the site on the basis of peak period traffic access considerations.

Computer analysis of intersection impacts indicate satisfactory operation during peak periods, conservatively allowing for growth in base peak period traffic on Princes Street at 1.5% per annum up to year 2012. VicRoads has approved the intersection arrangement proposed at Princess Street, which comprise use of the existing connections at Hutchinson Drive and the roundabout at the Princes Street/Willsmere Road/Wills Street intersection.

1. INTRODUCTION AND SCOPE

DKO Architecture Pty. Ltd. on behalf of Walker Corporation has prepared a development scheme for the Kew Residential Services (KRS) site. This scheme is part of a tender process to secure the right to redevelop the land in accordance with a brief by the Department of Human Services (DHS) and an Urban Design Framework (UDF) included in the Boroondara Planning Scheme.

This report describes the traffic impacts that are likely to occur as a result of redevelopment of the Kew Residential Services (KRS) site pursuant to the Walker Corporation Scheme, and proposes a suite of traffic engineering solutions for the necessary on-site traffic facilities.

2. BACKGROUND STUDIES

VicUrban as project manager for DHS commissioned two traffic studies to assess the impact of development on the KRS site. These studies, by Ratio Consultants and GTA Consultants provided a traffic capacity analysis for a range of development scenarios on the KRS site, each allowing for growth in traffic on Princess Street. The conclusions were that traffic conditions on Princess Street would be acceptable for up to about 1,500 dwellings on the KRS site. The studies are respectively titled:-

*Proposed Residential Development of the KRS Site, Kew
Traffic Impact Report
Prepared by Ratio Consultants Pty Ltd
for VicUrban, 30 October 2003,*

and a letter format report by GTA Consultants addressed to Mr. Mark Whinfield, Manager Urban Development VicUrban, dated 10 September 2003 and headed:

KRS SITE REDEVELOPMENT – SIMULATION MODELING DISCUSSION AND RESULTS

These reports are copied into Appendix C of this report.

The Ratio study included traffic counts, future predictions for Princes Street, SIDRA analysis for each of the two intersections on Princess Street, and a notation in respect of the capacity of Kew Junction to be able to receive or supply traffic to the levels necessary for "unsatisfactory" conditions local to the KRS site.

Given that there is no difference between the connections proposed in the Walker Corporation Scheme and those analysed by Ratio, and that the Walker Corporation Scheme proposes 520 dwelling units for the site, there is no reason to revisit the analysis or the findings of that report in respect of external traffic impacts. However VicRoads has requested that the Ratio work be revised, and accordingly Section 5 of this report has now been added.

Further, the Walker Corporation Scheme is generally in accordance with the UDF in respect of the traffic facilities proposed and the consequentially implied impacts.



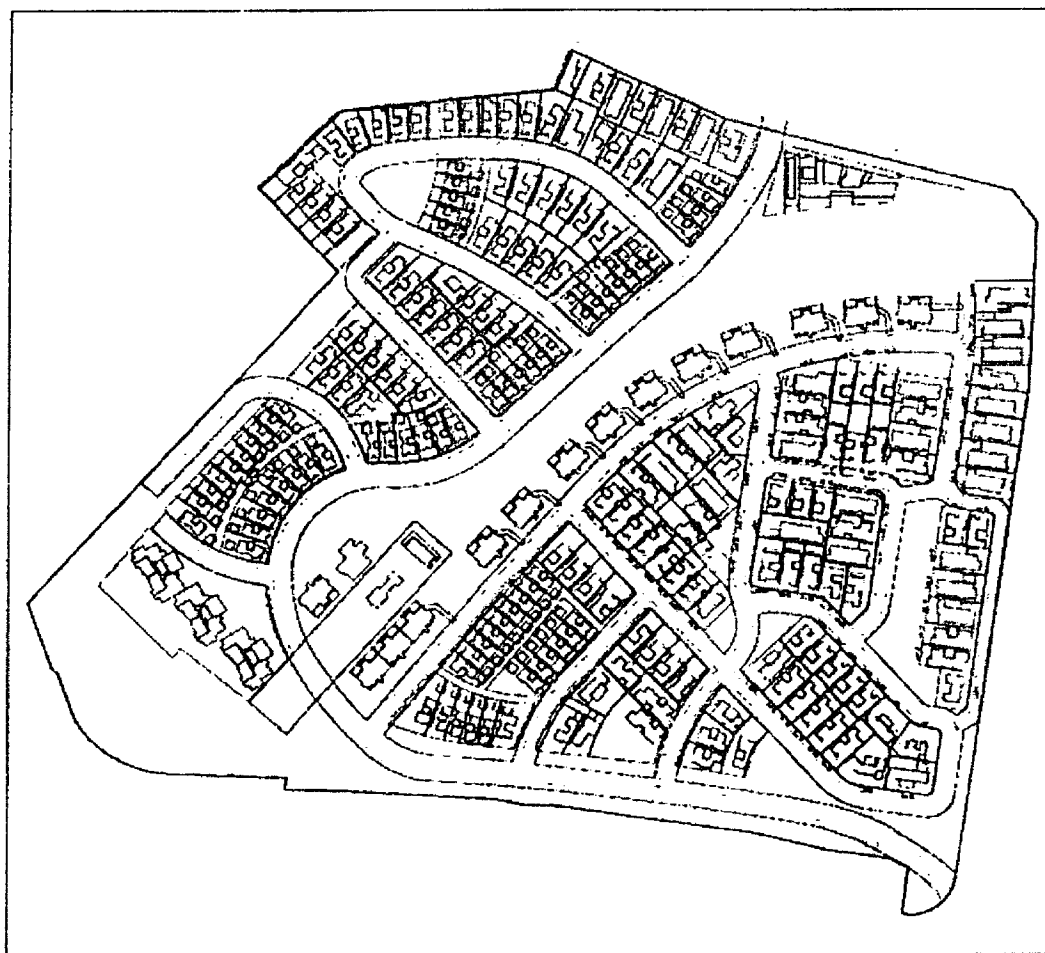
A further element of conservatism in respect of the Ratio analysis is that growth in Princess Street peak period traffic is presumed as a basis for impact analysis. Such growth would generally be caused by development in relatively remote areas, less compliant with Melbourne 2030 principles than development on the KRS site.

Traffic growth generated by less sustainable development should never be used as a basis to limit more sustainable development.

3. THE PROPOSED DEVELOPMENT

The Walker Corporation Scheme involves development of 520 dwelling units on the land, and is depicted in the drawing MP-6 by DKO Architects.

A reduced scale version is copied hereunder :-



THE WALKER CORPORATION SCHEME

4. MOVEMENT NETWORK ANALYSIS

4.1 Overview

All elements of the movement network in the Walker Corporation Scheme are generally in accordance with the UDF.

Further, all proposals comply with the relevant provisions within Clause 56 of the Boroondara Planning Scheme.

4.2 Provisions for Public Transport

Several bus services currently operate in Princess Street, Kew. Stops are located near Main Drive and Hutchinson Street. It is relatively simple for northbound buses to divert into the site to provide a service without significantly reducing existing bus accessibility for people accessing the Princess Street stops. Clearly, service times would be affected.

Southbound services would need to make a right turn into the KRS site at Hutchinson Drive, and then travel through the site to the roundabout at the south-eastern corner. This movement would add to travel time for the service, and may be resisted by the service provider.

Nonetheless the Walker Corporation Scheme includes an allowance for buses on the major movement network through the site, linking the roundabout at Princess Street/Elgin Street with Hutchinson Drive. This allowance is by way of adopting a 7.5 metres wide carriageway for this route, in accordance with Clause 56 of the Boroondara Planning Scheme, as shown in the diagram at section 4.4 of this report.

Further, the Walker Corporation Scheme includes several open linkages to Princess Street, affording easy pedestrian access to the bus stops.

4.3 Traffic Volumes on Internal Streets

At full development of the site, the total vehicular daily traffic generation to external streets is likely to be around 2,600 vehicle movements, or 5 movements per dwelling per day. Assigned to the street network, the highest volumes are expected to be as shown in the Transport Access Plan at Section 4.9.

The heaviest volume will be around 1,600 vehicle movements per day at the connection to the roundabout in the south eastern corner of the site. This is well under the Clause 56 environmental capacity for an "Access Street" (3,000 vehicles per day), ensuring adequate traffic related amenity outcomes.

Boroondara City Council has requested an analysis of the impacts of traffic generation at 6 vehicle movements per day per household, which is highly unlikely for the form of housing that is being proposed. Assuming that all of the vehicular trip generation reaches the external street network, the heaviest traffic volumes on any part of the internal street network will be around 1850 vehicle movements per day in the short section of Main Drive near the south eastern corner of the site.

There are no houses proposed to front this section of street, but the higher volume is still well within the amenity related environmental capacity for an "Access Street" as described in Clause 56 of the Boroondara Planning Scheme.

The northern connection, to Hutchinson Drive, will carry around 1,100 vehicle movements per day. Again this is well within appropriate environmental capacity bounds, ensuring acceptable traffic related amenity outcomes. On the basis of these environmental capacity limits there is no need for additional street linkages to reduce vehicular traffic volumes on any part of the Walker Corporation Scheme.

4.4 Street Form

"Access Street" in accordance with Clause 56 of the Boroondara Planning Scheme is the appropriate form for all streets in the plan. On the linkages that may be used as a bus route a carriageway width of 7.5 metres between kerb faces is proposed. For the balance of the site 7.0 metres is the preferred street form. The Transport Access Plan at Section 4.9 indicates the location of the proposed street forms in the Walker Corporation Scheme.

Service lanes that are providing access to garages at the rear of residential properties are proposed generally at 6 metres width. Paving and landscaping will be used in combination to provide for fully sealed accessibility for vehicles using the lanes as well as landscaping and pervious surfaces where vehicular passage is not needed. Along Princess Street a 5.5m wide service street with verges is proposed for rear access to residential buildings.

Individual driveways need only be generally 3 metres wide, and shared zones are to be comprehensively designed in accordance with the provisions of Clause 56 of the Boroondara Planning Scheme for "Access Place".

4.5 Pedestrian and Cycling Facilities

There will be no section of street internal to the site that will have traffic at more than 3,000 vehicle movements per day. Part 14 recommends separate cycle facilities, and consequently there are no on-pavement cycle lanes proposed.

Through the open space areas there will be shared paths linking to the traffic signals at Hutchinson Drive and generally throughout the site.

Every street will have footpath wherever there are houses fronting and to provide connections where needed. Only where open space is fronted will there be only one footpath.

The Transport Access Plan at Section 4.9 indicates the major pedestrian access points and the linkages with public transport.