Existing Legend

- Boundary
- Kerb & gutter
- Road crown
- Telstra cable with pit (TELSTRA PIT, et)
- Electrical underground cable with light pole (eeUG, ELP)
- Electrical overhead cable with power pole (eeAG, PP)
- Gas main with meter (eg, GAS)
- Sewer main with manhole (es, SMH, CL19.68, IL 17.2)
- Stormwater drainage line with pit (esw)
- Water main with stop valve and hydrant (ew, SV, FH)
- Tree with type, diameter & height (EUC, Ø:0.8, Ht:14)
- Existing site contours (major) (21.0)
- Existing site contours (minor) (21.1)

Survey Symbol Legend:

	Street Sign (& Legend)		Electrical Cable Marker
T	Traffic Light		Light Pole
T	Traffic Sign		Power Pole
IA	Inspection Opening		Power Pole & Light
V	Sewer Vent		Telecom. Junction Box/Pit
GLT	Gully Trap		Telecom. Pillar
HP	Hydrant (Pillar)	B	Bollard
H	Hydrant (Ground)	EP	Electrol Test Point
WM	Water Meter	GAS	Gas Marker Stone
SC	Stop Cock	VU	Gas Valve U/Ground
	Stop Valve	K & G	Kerb & Gutter
T	Water Tap	KO	Kerb Only
	Cable Box/Pillar	MK	Mountable kerb

General Notes

GN1 All workmanship and materials shall comply with the National Construction Code of Australia and the relevant current Australian Standards.

GN2 Any discrepancies, omissions or errors shall be reported to the Superintendent for clarification before proceeding with the work.

GN3 Do NOT scale measurements from the drawings.

Existing Services Notes

ES1 Existing services have been plotted from supplied data and as such their accuracy cannot be guaranteed. It is the responsibility of the contractor to establish the location and level of all existing services prior to the commencement of any work. Any discrepancies shall be reported to the superintendent.

ES2 The contractor shall allow for the capping off, excavation and removal if required of all redundant existing services in areas affected by works within the contract area, as shown on the drawings unless directed otherwise by the superintendent.

ES3 The contractor shall ensure that at all times services to all buildings not affected by the works are not disrupted.

ES4 If required, the contractor shall construct temporary services to maintain existing supply to buildings remaining in operation during works to the satisfaction and approval of the superintendent. Once diversion is complete and commissioned the contractor shall remove all such temporary services and make good to the satisfaction of the superintendent and the relevant service authority.

ES5 Interruption to supply of existing services shall be done so as not to cause any inconvenience to the principal. The contractor is to gain approval from the superintendent for time of interruption - the contractor is responsible for all liaison.

ES6 All branch gas and water services under driveways and brick paving shall be located in Ø80mm uPVC sewer grade conduits extending a minimum of 500mm beyond the edge of paving.

ES7 Clearance and cover requirements shall be obtained from the relevant service authority before commencement of works and shall be adhered to at all times.

ES8 Care is to be taken when excavating near existing services. No mechanical excavations are to be undertaken over telecom or electrical services. Hand excavate in these areas only.

Proposed Legend

- RW — Construct reinforced concrete block retaining wall
- FP-W — Construct flood protection wall
- KO — Construct kerb only
- KG — Construct kerb and gutter
- DD — Construct dish drain
- VC — Construct vehicular crossing
- PR — Construct pram ramp
- P10.00 — Proposed surface level
- G10.00 — Proposed grate level
- TOK10.00 — Proposed Top of Kerb
- 10.00 — Major Contour and Level
- 10.00 — Minor Contour
- CREST — Proposed crest
- B — Bollard (refer to architectural plans for details)
- Proposed surface inlet/juntion pit
- Proposed kerb inlet pit with lintel
- GD — Construct grated drain
- SW — Excavate and lay stormwater drainage line with;
  - IL 25.30
  - 375Ø
  - 1.5%
  - 10m
  - IL 25.10

  Invert level upstream
  Pipe size
  Pipe grade
  Pipe Length
  Invert level downstream
- Proposed rainwater tank
- Proposed Humeceptor. Sizing to be confirmed during detail design.
- Proposed Humeguard. Sizing to be confirmed during detail design.
- WS-F — Proposed wheel stops
- OSD System 1 — 415m³ above ground storage
- OSD System 2 — 215m³ below ground storage

Pavement Legend

- Asphaltic Concrete Pavement - Type 1 — Details to be confirmed during detail design.
- Asphaltic Concrete Pavement - Type 2 — Details to be confirmed during detail design.
- Heavy Duty Concrete Pavement — Details to be confirmed during detail design.
- Heavy Duty Concrete Driveway — To Penrith City Council standards
- Concrete Driveway — To Penrith City Council standards
- Footpath Pavement — To Penrith City Council standards
- Deeplift Pavement — Refer detail on drawing 0030

Siteworks Notes

SN1 Datum : Australian Height Datum (AHD)
Origin of levels : BM / SSM RL
Origin of co-ordinates : Mapping Grid Of Australia (MGA)
Survey prepared by : Dunlop Thorpe & Co
447 Kent Streel
Sydney NSW

SN2 The contractor must verify all dimensions and existing levels on site prior to commencement of work, and report any discrepancies to the superintendent.

SN3 All existing services (including any not shown on the plans) must be accurately located in position and level prior to any excavation. Any discrepancies shall be reported to the superintendent. minimum service clearances shall be maintained from the relevant service authority.

SN4 The contractor shall arrange for all setting out by a registered surveyor.

SN5 The contractor shall obtain all regulatory authority approvals at their own expense.

SN6 Where new works abut existing, the contractor must ensure that a smooth and even profile, free from abrupt changes is obtained.

SN7 All disturbed areas shall be restored to their original condition, unless specified otherwise.

SN8 Excavated trenches shall be compacted to the same density as the adjacent natural material. Any subsidence's during the period to be rectified as directed by the superintendent.

SN9 Any existing trees which form part of the final landscaping plan will be protected from construction activities in accordance with the landscape architect's details and / or by -

Protecting them with barrier fencing or similar materials installed outside the drip line, ensuring that nothing is nailed to them, prohibiting paving, grading, sediment wash or placing of stockpiles within the drip line except under the following conditions -
Encroachment only occurs on one side and no closer to the trunk than either 1.5m or half the distance between the outer edge of the drip line and the trunk, which ever is the greater, a drainage system that allows air and water to circulate through the root zone (eg a gravel bed) is placed under all fill layers of more than 300mm care is taken not to cut roots unnecessarily nor to compact the soil around them.

SN10 Receptors for concrete and mortar slurries, paints, acid washings, light-weight waste materials and litter are to be emptied as necessary. Disposal of waste shall be in a manner approved by the superintendent or as specified in the works contract.

Earthworks Notes

EW1 All work shall comply with AS3798 (2007) - Guidelines on earthworks for commercial and residential developments.

EW2 All work shall comply with the project geotechnical report -
Douglas Partners
73080
18 July 2012

EW3 Strip topsoil to expose naturally occurring engineering material and stockpile on site for reuse as directed by the superintendent.

EW4 All soft, wet or unsuitable material to be removed as directed by the superintendent and replaced with approved fill material.

EW5 All fill material shall be from a source approved by the superintendent and shall comply with the following -
a) free from organic and perishable matter,
b) maximum particle size 75mm,
c) plasticity index - between 2% and 15%.

EW6 All fill material shall be placed in maximum 200mm thick layers and compacted at optimum moisture content (+ or - 2%) to achieve a dry density determined in accordance with AS1289.5.1.1 - 2003 - methods of testing soils for engineering purposes of not less than the following standard minimum dry density -

location	standard dry density
under building slabs	98%
vehicular paved areas	100%
non-vehicular paved areas	98%
landscaped areas	95%

EW7 The contractor shall program the earthworks operation so that the working areas are adequately drained during the period of construction. The surface shall be graded and sealed off to remove depressions, roller marks and similar which would allow water to pond and penetrate the underlying material. any damage resulting from the contractor not observing these requirements shall be rectified by the contractor at their own expense.

EW8 Testing of the fill material shall be carried out by an approved NATA registered laboratory at the contractors expense.

EW9 Where the subgrade is unable to support construction equipment, or it is not possible to compact overlying pavement layers, only because of the subgrade moisture content, then the contractor shall condition or replace the material at the contractors discretion and expense.

EW10 Earthworks calculations are volumetric only and do not allow for bulking of excavated material. It is the contractors responsibility to make allowances for these items as part of the tender / works.

EW11 No allowance has been made for footings or foundations, retaining walls or trenching. It is the contractors responsibility to make allowances for these items as part of the tender / works.

Stormwater Notes

SW1 For residential subdivisions and public roads -

All Ø375mm to Ø600mm drainage pipes shall be class 4 approved spigot and socket reinforced concrete pipes with rubber ring joints (UNO). All Ø675mm or larger drainage pipes shall be class 3 approved spigot and socket reinforced concrete pipes with rubber ring joints (UNO).

All uPVC drainage pipes in footways or accessways shall be DWV grade class SN8 in accordance with AS/NZS 1260:2009 - PVC-u pipes and fittings for drain, waste and vent application. heavy duty uPVC pipes to be in accordance with AS/NZS 1254 ; 2010 - PVC pipes and fittings for storm and surface water applications may be used within allotments.

SW2 For commercial or industrial sites -

All Ø300mm to Ø600mm drainage pipes shall be class 4 approved spigot and socket reinforced concrete pipes with rubber ring joints (UNO). All Ø675mm or larger drainage pipes shall be class 3 approved spigot and socket reinforced concrete pipes with rubber ring joints (UNO).

All drainage pipes less than or equal to Ø225mm shall be uPVC DWV grade class SN8 in accordance with AS/NZS 1260 : 2009 - PVC-u pipes and fittings for drain, waste and vent application with solvent welded joints.

SW3 Equivalent strength fibrous reinforced concrete (F.R.C.) and / or High density polyethylene (H.D.P.E.) may be used subject to approval by the superintendent.

SW4 All pipe junctions up to and including Ø450mm and tapers, shall be via purpose made fittings (UNO).

SW5 Minimum grade to stormwater lines to be 1% (UNO).

SW6 Contractor to supply and install all fittings and specials including various pipe adaptors to ensure proper connection between dissimilar pipework.

SW7 All connections to existing drainage pits shall be made in a tradesman-like manner and the internal wall of the pit at the point of entry shall be cement rendered to ensure a smooth finish with no protrusions.

SW8 All in-situ concrete pits to be 32Mpa minimum at 28 days.

SW9 Pits and pipes in areas of salinity hazard shall have increased cover to any reinforcement.

SW10 Precast concrete pits may be installed in lieu of cast in-situ pits, when pipe junctions are accommodated within the overall dimensions of the pit, and approved by the superintendent.

SW11 Pits deeper than 1000mm shall have step irons installed in accordance with the local or statutory authority requirements.

SW12 Bedding shall be type H2 (UNO) for pipes not under pavements, and type HS2 for pipes under pavements in accordance with AS/NZS 3725 : 2007 - design for installation of buried concrete pipes.

SW13 Backfill trench with sand or approved granular backfill to 300mm (min) above the pipe. Where the pipe is under pavements backfill remainder of trench to pavement subgrade with sand or approved gravel sub-base compacted in 150mm layers to 98% standard maximum dry density. The contractor is to ensure compaction equipment is appropriate for the pipe class used.

SW14 Where stormwater lines pass under floor slabs DWV grade uPVC rubber ring joints are to be used (UNO).

SW15 Where subsoil drainage lines pass under floor slabs and vehicular pavements, unslotted uPVC DWV grade class SN8 pipe shall be used.

SW16 Provide 3m length of Ø100mm subsoil drainage line or 200 'Nylex' strip drain surrounded with 150mm of 20mm blue metal or gravel, and wrapped in 'Bidum' A24 geotextile filter fabric or approved equivalent, at invert of incoming upstream pipe on each pit.

Preliminary - Not for Construction

Notes

Key to symbols

Reference drawings

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	31.05.13	AMP	Issued for DA	JG	CJA

Mott MacDonald
Level 3, 90 Phillip Street
Parramatta, NSW 2150
Australia
PO Box 163, Parramatta
NSW 2124, Australia
T +61 (0)2 9891 5044
F +61 (0)2 9891 5386
W www.mottmac.com.au

Client: PARKVIEW CONSTRUCTIONS • DEVELOPMENTS • PROJECTS • INTERIORS

Title: Masters Home Improvement Centre
Nepean Green Penrith
Notes and Legends Sheet 1

Designed	DR	.	Eng check	JG	.
Drawn	AMP	.	Coordination	JG	.
Dwg check	DR	.	Approved	CJA	.

Scale at A1	Status	Rev
N.T.S	PRE	P1

Drawing Number: MMD-310574-C-DR-MA-XX-0005