# **RESIDENTIAL DEVELOPMENT 128 HERRING ROAD MACQUARIE PARK - BUILDINGS A - E**

Energy Australia (Electricity)

Tree to be removed/be retained

# GENERAL NOTES

. Contractor must verify all dimensions and existing levels on site prior to commencement of works. Any discrepancies to be reported to the 2. Strip all topsoil from the construction area. All stripped topsoil shall

JOINTING NOTES

<u>Vehicular Pavement Jointing</u>

maximum of 6m centres.

maximum of 30m centres.

and all concrete or unit pavers.

5. Vehicular pavement jointing as follows.

S

6m MAX

Pedestrian Footpath Jointing

adjacent pavement joints.

the pavement.

CONCRETE NOTES

EXPOSURE CLASSIFICATION

Pits, kerbs, footpaths

Vehicular pavements

testing to AS 1379.

approval of the Engineer.

strength f'c as defined in AS 1379.

CONCRETE

Location

Footings

\_\_\_\_

of curves and elsewhere at max 6.0m centres.

4. All pedestrian footpath jointings as follows (uno).

FACE OF KERB

. Place concrete of the following characteristic compressive

S(25)

S(32)

at 90 days

. All concrete shall be subject to project assessment and

. Consolidate by mechanical vibration. Cure all concrete

. For all falls in slab, drip grooves, reglets, chamfers etc.

5. Unless shown on the drawings, the location of all construction

. No holes or chases shall be made in the slab without the

8. Conduits and pipes are to be fixed to the underside of

2. Use Type 'GP' cement, unless otherwise specified.

surfaces as directed in the Specification.

refer to Architects drawings and specifications.

joints shall be submitted to Engineer for review.

1. All vehicular pavements to be jointed as shown on drawings.

. Keyed construction joints should generally be located at a

. Sawn joints should generally be located at a maximum of 6m

centres or 1.5 x the spacing of keyed joints, where key joint

4. Provide 10mm wide full depth expansion joints between buildings

6. The timing of the saw cut is to be confirmed by the contractor

on site. Site conditions will determine how many hours after the

concrete pour before the saw cuts are commenced. Refer to the

FACE; OF ;KERB

30m MAX

FACE OF BUILDING

. Expansion joints are to be located where possible at tangent points

. Where possible joints should be located to match kerbing and / or

6.0m MAX

AS 1379 f'c | Specified | Nominal

|MPa at 28 days| Slump |Agg. Size

SF(32) 80 20

80

80

. Weakened plane joints are to be located at a max 1.5 x width of

\_\_\_\_

 $1.5 x_1 W (1.5 m_1 MAX)$ 

20

20

specification for weather conditions and temperatures required.

spacina is less than 4m, with dowelled expansion joints at

- be disposed of off-site unless directed otherwise. 3. Make smooth connection with all existing works.
- 4. Compact subgrade under buildings and pavements to minimum 98% standard maximum dry density in accordance with AS 1289 5.1.1. Compaction under buildings to extend 2m minimum beyond building
- 5. All work on public property, property which is to become public property, or any work which is to come under the control of the Statutory Authority is to be carried out in accordance with the requirements of the relevant Authority. The Contractor shall obtain these requirements from the Authority. Where the requirements of the Authority are different to the drawings and specifications, the requirements of the Authority shall be applicable.
- 6. For all temporary batters refer to geotechnical recommendations.

### REFERENCE DRAWINGS

. These drawings have been based from, and to be read in conjunction with the following Consultants drawings. Any conflict to the drawings must be notified immediately to the Engineer.

| must be notified inificalately to the Engineer. |                 |               |            |             |  |  |  |  |
|---|-----------------|---------------|------------|-------------|--|--|--|--|
| <u>Consultant</u> <u>Dw</u>                     | <u>g Title</u>  | <u>Dwg No</u> | <u>Rev</u> | <u>Date</u> |  |  |  |  |
| Barrie Green                                    | Survey Plans    | 6041          | D          | 24.08.09    |  |  |  |  |
| Turner & Associates                             | Architect Plans | 09047-A126    | 0          | 27.09.10    |  |  |  |  |
| Turner & Associates                             |                 | 09047-A127    | Ρ          | 27.09.10    |  |  |  |  |
| Turner & Associates                             |                 | A171-A176     | F          | 02.09.10    |  |  |  |  |
| Turner & Associates                             |                 | A177          | С          | 02.09.10    |  |  |  |  |
|   |                 |               |            |             |  |  |  |  |

### PIT SCHEDULE

Note: Grate size does not necessarily reflect pit size, refer pit type details, shown on detail sheets - C209

| Type | Description Cover (Clear Opening)  |  | Number                           |
|------|--|--|----------------------------------|
| A    | Kerb inlet pit 450 x 900 Class D galvanised mild<br>900 lintel steel grate hinged to frame |  | 2,3,8,9,10<br>13,14,17,<br>23,24 |
|      | Surface<br>inlet pit   | 900 x 900 Class D galvanised mild<br>steel grate hinged to frame | 19                               |
| В    | Junction<br>pit  | 600 x 900 Class D cast iron cover<br>with concrete infill        | 1                                |
|      |  | 900 x 900 Class D cast iron cover<br>with concrete infill        | 20                               |
| С    | GPT  | Rocla PL0506 CDS unit with Class C<br>access cover               | 6,11,15,16<br>18                 |
| U    |  | Rocla CDS unit 0708 Class C access cover                         | 21                               |
| D    | Headwall   | Concrete Headwall — size to suit<br>outlet pipe                  | 4,5,25,26                        |

STORMWATER DRAINAGE NOTES

Stormwater Design Criteria :

- (A) Average recurrence interval -1:100 years for roof drainage to first external pit 1:20 years for paved and landscaped areas (B) Rainfall intensities —
- Time of concentration: 6 minutes 1:100 years = 245.47 mm/hr
- 1:20 years = 194.90 mm/hr (C) Runoff coefficients -

### Roof areas: $C_{100} = 1.0$ Roads and paved areas: C20 = 0.95

- Landscaped areas:  $C_{20} = 0.56$
- 2. Pipes 300 dia and larger to be reinforced concrete Class "2 approved spigot and socket with rubber ring joints U.N.O.
- . Pipes up to 300 dia shall be sewer grade uPVC with solvent welded ioints.
- 4. Equivalent strength VCP or FCP pipes may be used subject
- to approval. 5. Precast pits may be used external to the building subject
- to approval by Superintendent . Enlargers, connections and junctions to be manufactured
- fittings where pipes are less than 300 dia.
- . Where subsoil drains pass under floor slabs and vehicular pavements, unslotted uPVC sewer grade pipe is to be used.
- 8. Grates and covers shall conform with AS 3996-2006, and
- AS 1428.1 for access requirements. 9. Pipes are to be installed in accordance with AS 3725. All
- bedding to be type H2 U.N.O.
- 10. Care is to be taken with levels of stormwater lines. Grades shown are not to be reduced without approval. 1. All stormwater pipes to be 150 dia at 1.0% min fall U.N.O. 2. Subsoil drains to be slotted flexible uPVC U.N.O.
- 13. Adopt invert levels for pipe installation (grades shown are only nominal).



responsibility of the contractor. Proposed method of nstallation and removal of formwork is to be submitted to the superintendent for comment prior to work being carried out.

# CONCRETE FINISHING NOTES

- 1. All exposed concrete pavements are to be broomed finished. 2. All edges of the concrete pavement including keyed and dowelled
- joints are to be finished with an edging tool. . Concrete pavements with grades greater than 10 % shall be heavily broomed finished.
- 4. Carborundum to be added to all stair treads and ramped crossings U.N.O.

## KERBING NOTES

- Includes all kerbs, gutters, dish drains, crossings and edges. . All kerbs, gutters, dish drains and crossings to be constructed o
- minimum 75mm granular basecourse compacted to minimum 98 modified maximum dry density in accordance with AS 1289 5.2. . Expansion joints (EJ) to be formed from 10mm compressible cork filler board for the full depth of the section and cut to profile. Expansion joints to be located at drainage pits, on tangent poin
- of curves and elsewhere at 12m centres except for integral kerbs where the expansion joints are to match the joint locations in s Weakened plane joints to be min 3mm wide and located at 3m centres except for integral kerbs where weakened plane joints are match the joint locations in slabs.
- Broomed finished to all ramped and vehicular crossings, all other kerbing or dish drains to be steel float finished. In the replacement of kerbs -
- Existing road pavement is to be sawcut 900mm from lip of gutter. Upon completion of new kerbs, new basecourse and surface is to be laid 900mm wide to match existing materials and thicknesses.
- Existing allotment drainage pipes are to be built into the new kerb with a 100mm dia hole. Existing kerbs are to be completely removed where new kerbs are shown.

## BULK EARTHWORKS NOTES

. All bulk earthworks setout from arid lines U.N.O. . All batters at a slope of **2** (H) : **1** (V) U.N.O. . Excavated material may be used as structural fill provided (i) it complies with the specification requirements for fill mate (ii) the placement moisture content complies with the Geotechn Consultants requirements, and allows filling to be placed ar proofrolled in accordance with the specification. Where necessary the Contractor must moisture condition the excavated material to meet these requirements.

### \_\_\_\_\_ Compact fill areas and subgrade to not less than:

### Standard dry density Moisture (AS 1289 5.1.1.) (OMC)

98%

98%

±2%

±2%

±2%

or other fault exist or seem to exist in the documents, immediately

. Rates shown on the drawings are for the final structure/civil

works in place and do not allow for any wastage, rolling margins,

notify in writing to the Superintendendent.

over supply or fabrication requirements. etc.

\_\_\_\_\_

\_\_\_\_\_ Under building slabs on ground: Under roads and carparks:

Location

- 95% Landscaped areas: \_\_\_\_\_ . Before placing fill, proof roll exposed subgrade with a 10 tonne minimum roller to test subgrade and then remove soft spots (areas with more than 3mm movement under roller).
- Soft spots to be replaced with select fill U.N.O. . Contractor shall place safety barriers around excavations in
- accordance with relevant safety regulations. . For interpretation of bulk earthworks foot print line shown on the bulk earthworks drawings refer to the bulk earthworks constructio
- 8. Bulk earthwork drawings are not to be used for detailed excavatio 9. Refer to Geotechnical Report

## SIGNS AND LINE MARKING NOTES

- . Pavement marking and sign posting on public roads shall be in accordance with the requirements of the relevant Road Authority The contractor shall obtain these requirements from the Road Authority
- . Contractor is to provide guide posts, spaced in accordance with AS1742.2. They are to be located near all head walls and pipe outlets
- . Raised pavement markers to be in accordance with AS1742.2 4. Where existing pavement marking conflicts with proposed, it is to be removed.
- 5. Lane widths do not include width of gutter.
- 6. Line marking plan does not define boundaries. 7. Erect temporary sign 'changed traffic conditions ahead' 120m ahe
- of new work in both directions. 8. Establish the location of existing utility services and locate new
- signs clear of these installations. 9. The sloped face of the SF median kerbs which adjoin through lanes are to be painted white in lieu of an E3 edge line. The reflective pavement markers normally associated with an E3 edge line are to
- be located on the pavement adjacent to the SF kerb. 10. Bicycle pavement markings and sign posting to be in accordance with Austroads Standards.

## B1 1 2 3 4 5 6 7 8 9 10

|              | SURVEY AND SERVICES INFORMATION   | PAVEMENT LEGEND   | SURVEY LEGEND        |                                |
|--------------|---|---|----------------------|--------------------------------|
|              | <u>SURVEY</u><br>Origin of levels : SSM 21836 RL 62.425 AHD   | 50mm Thickness asphaltic concrete (AC14) on                                       | +18.48<br>19         | Surface level                  |
|              | Datum of levels : A.H.D. AUSTRALIAN HEIGHT DATUM<br>Coordinate system : LOCAL   | P1 150mm Compacted thickness fine crushed rock (DGB20) on                         | <u>1</u> 9           | Contour                        |
|              | Survey prepared by : Barrie Green and Associates  | 250mm Compacted thickness fine crushed<br>rock (DGS40) with 4% lime stabilisation |                      | Kerb line                      |
|              | Setout Points : CONTACT THE SURVEYOR  | rock (DG340) with 4% lime stabilisation   |                      | Batter                         |
|              | Taylor Thomson Whitting does not guarantee that the survey information shown on these drawings is accurate and will accept no liability for any | 180mm Thickness concrete (f'c=32MPa)<br>with SL92 fabric (40 top cover) on        |                      | Retaining wall                 |
|              | inaccuracies in the survey information provided to us from any cause  | 100mm Compacted thickness fine crushed  | SW                   | Stormwater drainage line       |
|              | whatsoever.<br><u>UNDERGROUND SERVICES — WARNING</u>  | rock (DGB 20)   | T                    | Telecommunications line        |
| n            | The locations of underground services shown on Taylor Thomson   | 100mm Thickness concrete (f'c=25MPa) with<br>expansion joints at max 6.0m centres | G                    | Gas line                       |
| %            | Whittings drawings have been plotted from diagrams provided by service authorities. This information has been prepared solely for the           | and weakened plane joints at max 1.5m   | W                    | Water main                     |
| k.           | authorities own use and may not necessarily be updated or accurate.   | centres on<br>30mm Sand bedding   | S                    | Sewer line                     |
| its          | The position of services as recorded by the authority at the time of installation may not reflect changes in the physical environment           | •   | EASEMENT FOR(m WIDE) | Easement                       |
| os<br>slabs. | subsequent to installation.   | 80mm Pavers to Architects specification on<br>30mm Thick mortar bedding on        |                      |                                |
|              | Taylor Thomson Whitting does not guarantee that the services  | P4<br>30mm Thick mortar bedding on<br>180mm Thickness concrete (f'c=32MPa) with   |                      | Fence                          |
| re to        | information shown on these drawings shows more than the presence<br>or absence of services, and will accept no liability for inaccuracies       | SL72 fabric (40 top cover) on<br>100mm Compacted thickness fine crushed           |                      | Tree to be removed/be r        |
|              | in the services information shown from any cause whatsoever.  | rock (DGB20)<br>NOTE  |                      | Boundary                       |
|              | The Contractor must confirm the exact location and extent of<br>services prior to construction and notify any conflict with the drawings        | Asphaltic concrete shall conform to AS2150 and the specification                  | O SGN                | Sign                           |
|              | immediately to the Engineer/Superintendent.   |   |                      | Hydrant                        |
| 3            | The contractor is to get approval from the relevant state survey  | SITEWORKS LEGEND  | МН                   | Manhole                        |
|              | department, to remove any survey mark. This includes but is not limited<br>to; State Survey Marks (SSM), Permanent Marks (PM), cadastral        | • F22.20 Finished surface level   | G C                  | Gas<br>Stop Valve              |
|              | reference marks or any other survey mark which is to be removed or adjusted in any way.   |   | □ W                  | Water                          |
|              | Taylor Thomson Whitting plans do not indicate the presence of any   | K&G Kerb and gutter   | TEL                  | Telstra                        |
|              | survey mark. The contractor is to undertake their own search.   | КО  | TRAP                 | Trap                           |
|              | LINEMARKING LEGEND  | FK  |                      | Gully                          |
|              | E1  | Flush kerb DD   |                      | Grate<br>Sewer Manhole         |
| erial,       | Edge line type E1   | Dish drain  | E                    | Energy Australia (Electrici    |
| nical        | Edge line type E5   | MK<br>Mountable kerb  | O ELP                | Electric Light Pole            |
| nd           | Barrier line  | Mountable kerb  | OTL                  | Traffic Light                  |
|              | TB  |   |                      | Traffic Light Lid              |
| _            | TF Stop line  | IL10.00 Invert level upstream   | ТВ                   | Traffic Light Box              |
| _            | C1<br>Continuity line   | 600 ø '2'<br>1.25% Pipe size and class<br>Pipe grade                              | O PKM                | Telephone Box<br>Parking Meter |
|              | T1 Turn line  | Q=345 L/s<br>IL9.65 Flow (Litres per second)<br>Invert level downstream           | <b>PM</b> 1234       | Permanent Mark                 |
| _            | S1  | GD  | <b>A</b> BM 51.10    | Bench Mark                     |
|              | S2 Separation line type S1  | Grated drain  | O FC                 | Fuel Cock                      |
| _            | Separation line type S2   | Subsoli didindye nine (100 did)   | O FL                 | Flood Light                    |
|              | Lane line type L1<br>B1   | ······ <b>o</b> FP Flushing point   | ОШ                   | Lamp Hole                      |
|              | Bike lane line  | DP Down pipe  | LB                   | Letter Box                     |
|              | <u>NOTE</u><br>Line marking to be in accordance with AS1742.2 and the   |   | SEAT                 | Seat                           |
|              | relevant local or state authority guidelines  | Concrete encased stormwater line  | 0 КО                 | Kerb Outlet                    |
| e<br>on      | SITEWORKS NOTES   | Taper kerb to zero height   |                      |                                |
| ion.         | 1. All basecourse material to comply with RTA specification No 3051   | over 500 mm<br>Wheelstop  |                      |                                |
| 1011.        | and compacted to minimum 98% modified standard dry density in accordance with AS 1289 5.2.1.  | RW#<br>Blockwork retaining wall   |                      |                                |
|              | 2. All trench backfill material shall be compacted to the same density  | RW#   |                      |                                |
|              | as the adjacent material.<br>3. All service trenches under vehicular pavements shall be backfilled  | DEJ Brickwork retaining wall  |                      |                                |
|              | with an approved select material and compacted to a minimum 98% standard maximum dry density in accordance with AS 1289 5.1.1                   | Dowelled expansion joint  |                      |                                |
| y.           |   | ——————————————————————————————————————  |                      |                                |
|              | TENDER NOTES  | WPJ Keyed construction joint  |                      |                                |
|              |   | Weakened plane joint  |                      |                                |
|              | 1. These drawings are preliminary drawings issued for tender as an indication of the extent of works only. They are not a complete              | EJ Expansion joint  |                      |                                |
|              | construction set of drawings.<br>2. To determine the full extent of work, these drawings shall be read  | TKJ Tied keyed joint  |                      |                                |
|              | in conjunction with the architectural drawings and other contract documents.  | Crass catch drain   |                      |                                |
|              | Allow for all items shown on architectural and other drawings as  | < - < < Overland flow path  |                      |                                |
| ead          | not all items are shown on the structural/civil works drawings.<br>3. Should any ambiguity, error, omissions, discrepancy, inconsistency        | Guard Rail  |                      |                                |
|              |   |   |                      |                                |

# **CIVIL DRAWING LIST**

Drawing No Drawing Title

- NOTES AND LEGEND SHEET C100
- C101 SITEWORKS & STORMWATER OVERALL PLAN
- C102 SITEWORKS & STORMWATER PLAN SHEET ' C103 SITEWORKS & STORMWATERPLAN SHEET 2
- C104 **BUILDING A CONSTRUCTION - SITEWORKS PLAN SHEET 1**
- C105 **BUILDING A CONSTRUCTION - SITEWORKS PLAN SHEET 2**
- C106 BUILDING A CONSTRUCTION - EROSION AND SEDIMENT CONTROL PLAN C107 ROAD LONG SECTIONS & KERB RETURNS
- C108 ROAD CROSS SECTIONS
- C109 DETAILS SHEET 1
- C110 DISPLAY SUITE CONNECTION PLAN
- C120 BUILDING C, D, E TURNING PATHS C121 **BUILDING A TURNING PATHS**
- C201 **BUILDING B CONSTRUCTION - OVERALL PLAN** C202 **BUILDING B CONSTRUCTION - SITEWORKS PLAN SHEET 1** C203 **BUILDING B CONSTRUCTION - SITEWORKS PLAN SHEET 2**
- **BUILDING C CONSTRUCTION SITEWORKS PLAN** C302
- C402 **BUILDING D CONSTRUCTION - SITEWORKS PLAN**
- C502 **BUILDING E CONSTRUCTION - SITEWORKS PLAN**
- OVERALL (BUILDINGS A E) EROSION AND SEDIMENT CONTROL PLAN C601
- C701 SERVICES ALLOCATION OVERALL PLAN

**ISSUE FOR TENDER ONLY** 

NOT TO BE USED FOR CONSTRUCTION

- C702 SERVICES ALLOCATION PLAN SHEET 1 OF 2
- C703 SERVICES ALLOCATION PLAN SHEET 2 OF 2



ISSUED FOR COUNCIL APPROVAL

128 HERRING ROAD,

MACQUARIE PARK

TURNER + ASSOCIATES

TOGA GROUP PTY LTD

t 02 9356 1000 f 02 9356 1073

Level 5, 45 Jones Street. Ultimo NSW 2007

Consulting Engineers

Drawr

DH

Plot File Created: Nov 29, 2011 - 2:34pm

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Drawing No

C100

Level 1, 410 Crown Street.

Surry Hills NSW 2010

ISSUED FOR TENDER

Rev Description

Sheet Subject

SHEET

Scale : B1

Job No

NO SCALE

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