GENERAL NOTES

- I. Contractor must verify all dimensions and existing levels on site prior to commencement of works. Any discrepancies to be reported to the SUPERINTENDENT.
- 2. Strip all topsoil from the construction area. All stripped topsoil shall 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; the Contractor is to ensure that the drawings used for construction have been approved by all relevant authorities prior to commencement site.
- 6. 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. 7. For all temporary batters refer to geotechnical recommendations.

REFERENCE DRAWINGS

I. 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.

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Consultant	Dwg Title	Dwg No	Rev	Date
MONTEATH & POWYS	SURVEY	220347B_02	2	04.04.23
BATES SMART	SITE PLAN	MH-01-03	1	02.08.24
BATES SMART	GROUND	MH-03-02	1	02.08.24
BATES SMART	LOWER GROUND	MH-03-01	1	02.08.24
WILD STUDIO	LANDSCAPE	SK002	-	04.06.24

PIT SCHEDULE

Note: Grate size does not necessarily reflect pit size, refer pit type details, shown on detail sheets -C190

Final internal pit dimensions are to comply with AS3500			
Туре	Description	Cover (Clear Opening)	Number
A	Kerb inlet pit 1800 lintel	450 x 900 Class D galvanised mild steel grate hinged to frame	?????????
В	Surface inlet pit	600 x 900 Class D galvanised mild steel grate hinged to frame	????????
В	Junction pit	600 x 900 Class D cast iron cover with concrete infill	????????
С	Headwall	Headwall	?????????

Existing pit to remain SURVEY AND SERVICES INFORMATION

SURVEY Origin of levels : SSM 45994 RL 20.624 Datum of levels : A.H.D

Coordinate system : MGA (GDA2020) Survey prepared by : MONTEATH & POWYS Setout Points : E 368921.526 N 6374350.406

Taylor Thomson Whitting does not guarantee that the survey information shown on these drawings is accurate and will accept no liability for any inaccuracies in the survey information provided to us from any cause whatsoever.

UNDERGROUND SERVICES - WARNING The locations of underground services shown on Taylor Thomson

Whittings drawings have been plotted from diagrams provided by service authorities. This information has been prepared solely for the authorities own use and may not necessarily be updated or accurate. The position of services as recorded by the authority at the time of installation may not reflect changes in the physical environment subsequent to installation.

Taylor Thomson Whitting does not guarantee that the services information shown on these drawings shows more than the presence or absence of services, and will accept no liability for inaccuracies in the services information shown from any cause whatsoever. The Contractor must confirm the exact location and extent of services prior to construction and notify any conflict with the drawings immediately to the Engineer/Superintendent.

The contractor is to get approval from the relevant state survey department, to remove/adjust any survey mark. This includes but is not limited to; State Survey Marks (SSM), Permanent Marks (PM), cadastral reference marks or any other survey mark which is to be removed or adjusted in any way. Taylor Thomson Whitting plans do not indicate the presence of any

SITEWORKS NOTES

- I. All basecourse material to comply with RMS specification No 3051 and compacted to minimum 98% modified standard dry density in accordance with AS 1289 5.2.1.
- 2. All trench backfill material shall be compacted to the same density as the adjacent material.

survey mark. The contractor is to undertake their own search.

3. All service trenches under vehicular pavements shall be backfilled with an approved select material and compacted to a minimum 98% standard maximum dry density in accordance with AS 1289 5.1.1

BOUNDARY AND EASEMENT NOTE The property boundary and easement locations shown on Taylor Thomson Whitting drawing's have been based from information received from : MONTEATH & POWYS

Taylor Thomson Whitting makes no guarantees that the boundary or easement information shown is correct. Taylor Thomson Whitting will accept no liabilities for boundary inaccuracies. The contractor/builder is advised to check/confirm all boundaries in relation to all proposed work prior to the commencement of construction. Boundary inaccuracies found are to be reported to the superintendent prior to construction starting.

BULK EARTHWORKS NOTES

1. All bulk earthworks setout from grid lines U.N.O. 2. All batters at a slope of 1(H) : 1(V) U.N.O.

Excavated material may be used as structural fill provided, (i) it complies with the specification requirements for fill material, (ii) the placement moisture content complies with the Geotechnical Consultants requirements, and allows filling to be placed and proofrolled in accordance with the specification. Where necessary the Contractor must moisture condition the

4. Compact fill areas and subgrade to not less than: ______

5 1289 5.1.1.)	(OMC)
98% 98% 95%	±2% ±2% ±2%

excavated material to meet these requirements.

- 5. 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 fill U.N.O.
- 6. Contractor shall place safety barriers around excavations in accordance with relevant safety regulations.
- 7. For interpretation of bulk earthworks foot print line shown on the bulk earthworks drawings refer to the bulk earthworks construction
- legend. 8. Bulk earthwork drawings are not to be used for detailed excavation.
- 9. Refer to Geotechnical Report prepared by -

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. 3. Concrete pavements with grades greater than 10 % shall be
- heavily broomed finished. Carborundum to be added to all stair treads and rampea

CONCRETE NOTES

crossings U.N.O.

EXPOSURE CLASSIFICATION : External : B2 CONCRETE

Place concrete of the following characteristic compressive strength f'c as defined in AS 1379.			
Location	AS 1379 f'c MPa at 28 days	Specified Slump	Nominal Agg. Size
Kerbs	S20	80	20
Retaining wall footing	S40	80	20

- Use Type 'GP' cement, unless otherwise specified. All concrete shall be subject to project assessment and testing to
- AS 13/9. Consolidate by mechanical vibration. Cure all concrete surfaces as
- directed in the Specification For all falls in slab, drip grooves, reglets, chamfers etc. refer to Architects drawings and specifications.
- Unless shown on the drawings, the location of all construction joints shall be submitted to Engineer for review.
- No holes or chases shall be made in the slab without the approval of the Engineer. Conduits and pipes are to be fixed to the underside of the top
- reinforcement layer. Slurry used to lúbricate concrete pump lines is not to be used in
- any structural members. . All slabs cast on ground require sand blinding with a Concrete
- Underlay FORMWORK
- The design, certification, construction and performance of the formwork, falsework and backpropping shall be the responsibility of the contractor. Proposed method of installation and removal of formwork is to be submitted to the superintendent for comment prior to work being carried out.

CIVIL SAFETY IN DESIGN

Taylor Thomson Whitting (NSW) Pty Ltd operates under Safe Work Australia's Code of Conduct for the Safe Design of Structures. These drawings shall be read in conjunction with the Taylor Thomson Whitting Transfer of Information Letter and Civil Risk

- and Solutions Register. Under the Code of Conduct it is the Client's responsibility to provide a copy of the Civil Risk and Solutions Register to the
- Principal Contractor. It is the Principal Contractor's responsibility to review the hazards and risks identified during the design process to ensure a safe workplace is maintained for the construction, maintenance and

DBYD SERVICES NOTE

eventual demolition of the civil infrastructure.

"Public Service Utility information shown on plan has been complied from information received from Dial Before You Dig inquiry, reference Number _____, which was obtained on _____

Unless specifically shown otherwise, this location and depth of services shown on this plan have not been verified. The location of services shown on this drawing have been plotted as accurately as possible from diagrams provided by service authorities

and should be confirmed by site inspection."

- REINFORCEMENT NOTES . Fix reinforcement as shown on drawings. The type and grade is indicated by a symbol as shown below. On the drawings this is followed by a numeral which indicates the size in
- millimetres of the reinforcement. N. Hot rolled ribbed bar grade D500N R. Plain round bar grade R250N
- SL. Square mesh arade 500 RL. Rectangular mesh grade 500L
- Provide bar supports or spacers to give the following concrete cover to all reinforcement unless otherwise noted on drawings.
- Footings 50 top, 50 bottom, 50 sides.
- Walls 30 generally. 30 when cast in forms but later exposed to weather or ground. . — when cast directly in contact with ground. 6. Cover to reinforcement ends to be 50 mm u.n.o.
- 4. Provide N12-450 support bars to top reinforcement as required, Lap 500 U.N.O.
- Maintain cover to all pipes, conduits, reglets, drip grooves etc All cogs to be standard cogs unless noted otherwise. Fabric end and side laps are to be placed strictly in accordance with the manufacturers requirements to achieve a full tensile lap. Fabric shall be laid so that there is a maximum of 3 layers at any location.

FABRIC LAPS

Laps in reinforcement shall be made only where shown on the drawings unless otherwise approved. Lap lengths as per table

EROSION AND SEDIMENT CONTROL NOTES

- All work shall be generally carried out in accordance with (A) Local authority requirements, (B) EPA — Pollution control manual for urban stormwater, (C) LANDCOM NSW — Managing Urban Stormwater: Soils and
- Construction ("Blue Book"). Erosion and sediment control drawings and notes are provided for the whole of the works. Should the Contractor stage these works then the design may be required to be modified. Variation to these
- details may require approval by the relevant authorities. The erosion and sediment control plan shall be implemented and
- adapted to meet the varying situations as work on site progresses. | works to be carried out as far as practicably possible from existing Maintain all erosion and sediment control devices to the satisfaction | structure(s). of the superintendent and the local authority.
- . When stormwater pits are constructed prevent site runoff entering the pits unless silt fences are erected around pits.
- Minimise the area of site being disturbed at any one time. . Protect all stockpiles of materials from scour and erosion. Do not stockpile loose material in roadways, near drainage pits or in
- watercourses. All soil and water control measures are to be put back in place at the end of each working day, and modified to best suit site
- conditions. . Control water from upstream of the site such that it does not
- enter the disturbed site. . All construction vehicles shall enter and exit the site via the
- temporary construction entry/exit. 0. All vehicles leaving the site shall be cleaned and inspected before
- leavina. 1. Maintain all stormwater pipes and pits clear of debris and sediment. Inspect stormwater system and clean out after each storm event. 2. Clean out all erosion and sediment control devices after each

storm event. Sequence Of Works

- Prior to commencement of excavation the following soil management devices must be installed.
- . Construct silt fences below the site and across all potential runoff sites.
- 2. Construct temporary construction entry/exit and divert runoff to suitable control systems.
- 3. Construct measures to divert upstream flows into existing stormwater system.
- .4. Construct sedimentation traps/basin including outlet control and overflow. 5. Construct turf lined swales.
- 6. Provide sandbag sediment traps upstream of existing pits. . Construct geotextile filter pit surround around all proposed pits
- as they are constructed. On completion of pavement provide sand bag kerb inlet sediment traps around pits.
- 4. Provide and maintain a strip of turf on both sides of all roads after the construction of kerbs.

WATER QUALITY TESTING REQUIREMENTS

Prior to discharge of site stormwater, groundwater and seepage water into council's stormwater system, contractors must undertake water quality tests in conjunction with a suitably qualified environment consultant outlining the following:

Compliance with the criteria of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) If required subject to the environmental consultants advice, provide remedial measures to improve the quality of water that is to be discharged into Councils storm water drainage system. This should include comments from a suitably qualified environmental consultant confirming the suitability of these remedial measures to manage the water discharged from the site into Councils storm water drainage system. Outlining the proposed, ongoing monitoring, contingency plans and validation program that will be in place to continually monitor the quality of water discharged from this site. This should outline the frequency of water quality testing that will be undertaken by a suitably qualified environmental consultant.

JOINTING NOTES Vehicular Pavement Jointing

All vehicular pavements to be jointed as shown on drawings. Dowelled expansion joints (DEJ) should generally be located at a maximum of 24.0m centres. Dowel bars to be plain round steel bars of Grade 250N, 450mm long and placed at 300mm spacing. Dowel diameter as specified below U.N.O

Design base thickness, D (mm)	Dowel diameter (mm)
150 < D ≤ 190	20
200 < D ≤ 240	24
250 < D ≤ 270	30
280 < D ≤ 340	33
D > 350	36 (500 long)

- Dowelled expansion joint type A (DEJA) should generally be located longitudinally and at a maximum of 24.0m centres. Refer to DEJA detail provided on detail sheets. . Sawn joints should generally be located at a maximum of 6.0m
- centres or 1.5 x the spacing of perpendicular sawn joints . Provide 10mm wide full depth expansion joints (EJ) between
- buildings/structures and all concrete or unit pavers. 5. The timing of the saw cut is to be confirmed by the contractor on |

site. Site conditions will determine how many hours after the

specification for weather conditions and temperatures required.

__+_^{JU}_+__+_|_+___+___

MAX

MAX

1.5 x_I W (1.5m MAX)

6.0m MAX

__+_-

Vehicular pavement jointing as follows.

Face of kerb

__+_^j______

MAX

Face of building or structure

. Expansion joints (EJ) are to be located where possible at

tangent points of curves and elsewhere at max 6.0m centres.

Weakened plane joints (WPJ) are to be located at a max 1.5 x

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

—Face of kerb —Back of kerb

. For concrete walls, weakened plane joints (WPJ) or control joints (CJ

For blockwork walls, dowelled control joints (CJ) to be located at

to be located at a maximum of 30.0m centres U.N.O.

maximum of 8.0m spacing U.N.O.

to be located at a maximum of 8.0m centres. Expansion joints (EJ)

MAX ₩AX

Pedestrian Footpath Jointing

width of the pavement.

or adjacent pavement joints.

4. All pedestrian footpath jointings as follows U.N.O.

L LU

Wall Jointing

_____DEJA_____&

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

SAFETY IN DESIGN

Contractor to refer to Appendix B of the Civil Specification for the Civil Risk and Solutions Register.

EXISTING SERVICES Contractor to be aware existing services are located within the site. Location of all services to be verified by the Contractor prior to commencing works. Contractor to confirm with relevant authority regarding measures to be taken to ensure services are protected or procedures are in place to demolish and/or relocate.

EXISTING STRUCTURES Contractor to be aware existing structures may exist within the site. To prevent damage to existing structure(s) and/or personnel, site

EXISTING TREES

Contractor to be aware existing trees exist within the site which need to be protected. To prevent damage to trees and/or personnel, site works to be carried out as far as practicably possible from existing trees. Advice needs to be sought from Arborist and/or Landscape Architect on measures required to protect trees.

GROUNDWATER Contractor to be aware ground water levels are close to existing surface level. Temporary de-watering may be required during construction works.

EXCAVATIONS

Deep excavations due to stormwater drainage works is required. Contractor to ensure safe working procedures are in place for works. All excavations to be fenced off and batters adequately supported to approval of Geotechnical Engineer.

GROUND CONDITIONS

Contractor to be aware of the site geotechnical conditions. Refer to geotechnical report by (insert report details) for

HAZARDOUS MATERIALS

details.

works.

Existing asbestos products & contaminated material may be present on site. Contractor to ensure all hazardous materials are identified prior to commencing works. Safe working practices as per relevant authority to 📃 be adopted and appropriate PPE to be used when handling all hazardous materials. Refer to geotechnical/environmental report by (insert report details) for details.

CONFINED SPACES

Contractor to be aware of potential hazards due to working in confined spaces such as stormwater pits, trenches and/or tanks. Contractor to provide safe working methods and use appropriate PPE when entering confined spaces.

MANUAL HANDLING

Contractor to be aware manual handling may be required during construction. Contractor to take appropriate measures to ensure manual handling procedures and assessments are in place prior to commencing

WATER POLLUTION Contractor to ensure appropriate measures are taken to

prevent pollutants from construction works contaminating the surrounding environment. SITE ACCESS/EGRESS Contractor to be aware site works occur in close proximity to footpaths and roadways. Contractor to erect appropriate barriers and

signage to protect site personnel and public. VEHICLE MOVEMENT

Contractor to supply and comply with traffic management plan and provide adequate site traffic control including a certified traffic marshall to supervise vehicle movements where necessary.

STORMWATER DRAINAGE NOTES

1 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 = X mm/hr 1:20 years = X mm/hr

Landscaped areas: C₂₀ = <u>C20</u>

(C) Runoff coefficients -Roof areas: $C_{100} = \mathcal{L}_{100}$ Roads and paved areas: C₂₀ = C20

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 may be sewer grade uPVC with solvent welded joints, subject to approval by the engineer.

4. Equivalent strength VCP or FRP pipes may be used subject to approval 5. Precast pits may be used external to the building subject to approval by X/ 6. 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 invert levels of stormwater lines. Grades shown are not to be reduced without approval. I. 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).

------ G ------ PROPOSED GAS

KERBING NOTES

Includes all kerbs, gutters, dish drains, crossings and edges.

- . All kerbs, gutters, dish drains and crossings to be constructed on minimum 75mm granular basecourse compacted to minimum 98% modified maximum dry density in accordance with AS 1289 5.2.1. 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 points
- of curves and elsewhere at 12m centres except for integral kerbs where the expansion joints are to match the joint locations in slabs. . Weakened plane joints to be min 3mm wide and located at 3m centres except for integral kerbs where weakened plane joints are to match the joint locations in slabs.
- 4. Broomed finished to all ramped and vehicular crossings, all other kerbing or dish drains to be steel float finished. 5. 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.

RETAINING WALLS

- . Drainage shall be provided as shown on the drainage drawings. 2. Backfilling shall be carried out after grout or concrete has reached a minimum strength of 0.85 f'c. Backfilling shall be approved granular material compacted in layers not exceeding
- 200mm to 95% Standard compaction unless noted otherwise. 3. Provide waterproofing to back of walls as specified or noted. 4. Where retaining walls rely on connecting structural elements
- for stability, do not backfill against the wall unless it is adequately propped or the elements have been constructed and have sufficient strength to withstand the loads.

. For all temporary batters obtain geotechnical engineers

recommendations.

FINISHED S

recommendations.	
FINISHED SURFACE LEGEND	
× F22.20	FINISHED SURFACE LEVEL
22.50	MAJOR FINISHED SURFACE CONTOUR 0.5m INTERVAL
22.10	MINOR FINISHED SURFACE CONTOUR 0.1m INTERVAL
KERBS LEGEND	
KG	KERB AND GUTTER
КО	KERB ONLY
FK	FLUSH KERB
DD	DISH DRAIN
KT	KERB AND TOE
VC	VEHICULAR CROSSING
	PEDESTRIAN KERB RAMP
т	CASTELLATED KERB & GUTTER
	THICKENED EDGE
*	TAPER KERB TO ZERO HEIGHT OVER 1.0m
* * *	EXISTING LINEMARKING TO BE REMOVED
STORMWATER LEGEND	
eSW	EXISTING STORMWATER PIPE
	STORMWATER PIPE, FLOW DIRECTION STORMWATER PIPE, FLOW DIRECTION
ulL10.00	UPSTREAM PIPE INVERT LEVEL
ø600 '2' 1.25%	PIPE SIZE AND STRENGTH CLASS PIPE GRADIENT
Q=345L/s dIL9.65	PEAK DESIGN FLOW DOWNSTREAM PIPE INVERT LEVEL
	JUNCTION PIT
	GRATED INLET PIT
	HAUNCHED GRATED INLET PIT
	SAG KERB INLET PIT
	ON-GRADE KERB INLET PIT
	CONCRETE HEADWALL
(R)	GROSS POLLUTANT TRAP
D01-2	DRAINAGE LINE AND PIT NUMBER
	SUBSOIL DRAINAGE LINE, Ø100mm U.N.O.
—————————————————— FP	FLUSHING POINT
	INTERMEDIATE RISER
$\rightarrow \rightarrow \rightarrow -$	GRASS CATCH DRAIN
	OVERLAND FLOW PATH
EXISTING SERVICES LEGEND	
	EXISTING UNDERGROUND ELECTRICAL
eG	EXISTING GAS EXISTING TELECOMMUNICATIONS
elel	
eS	
esw	
PROPOSED SERVICES LEGEND	
	PROPOSED OVERHEAD ELECTRICAL
EU	PROPOSED UNDERGROUND ELECTRICAL

PAVEMENT LEGEND

P1	ASPHALT CARPARK40mmThickness asphaltic concrete (AC10) on120mmCompacted thickness fine crushed rock (DGB20) on180mmCompacted thickness fine crushed rock (DGS40) on Subgrade CBR 5%
P2	<u>CONCRETE PAVEMENT</u> 180mm Thickness N32 concrete with SL82 mesh top on 150mm Compacted thickness fine crushed rock (DGB20)
P3	<u>ACCESS ROAD</u> 100mm 2% CEMENT STABILISED DGB20 100mm DGS40
Ρ4	<u>PEDESTRIAN FOOTPATH</u> 100mm Thickness concrete with SL72 mesh centrally placed on 100mm Compacted thickness fine crushed rock (DGB20)
L1	<u>LANDSCAPE</u> REFER TO LANDSCAPE DOCUMENTATION

This drawing is copyright and is the property of TTW and must not be used without authorisation. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C01



LW 221372 TTW-CIV-DWG-MH-101 P2 Plot File Created: Aug 30, 2024 - 2:41pm

612 9439 7288 | Level 6, 73 Miller Street, North Sydney, NSW 2060

AH LW 30.08.24

AH LW 07.06.24

Eng Draft Date

P2 SCHEMATIC DESIGN

P1 SCHEMATIC DESIGN

PROJECT

Sheet Subject

Project Manager

Scale : A0

MAITLAND HEALTH CAMPUS

GENERAL NOTES SHEET

Health Infrastructure

BATESSMART

Turner & Townsend

Structural Civil

Rev Description

Proiect