This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

LORETO NORMANHURST
THROUGH SITE LINK AND P1A CARPARK

GENERAL NOTES

1. Contractor must verify all dimensions and existing levels on site prior to commencement of works. Any discrepancies to be reported to the Engineer .
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 footprint.
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

1. 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.

Consultant	Dwg Title	Dwg No	Rev	Date
AJ+C	SITE PLAN	DA1000	1	20.11.20
OCULUS	GROUND FLOOR PLAN	L200	1	25.11.20

SURVEY AND SERVICES INFORMATION

SURVEY

Origin of levels : SSM46458, RL189.789
Datum of levels : A.H.D. AUSTRALIAN HEIGHT DATUM
Coordinate system : MGA
Survey prepared by : LTS LOCKLEY
Setout Points : CONTACT THE SURVEYOR

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

BOUNDARY AND EASEMENT NOTE

The property boundary and easement locations shown on Taylor Thomson Whitting drawing's have been based from information received from : No boundary information received.
Refer architect for boundary information and locations
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.

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 works to be carried out as far as practicably possible from existing structure(s).

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 JK Geotechnics ref:31772L2rpt for details.

HAZARDOUS MATERIALS

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 JK Geotechnics ref:31772L2rpt 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 works.

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.

SITEWORKS NOTES

1. 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.
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

STORMWATER DRAINAGE NOTES

1 Stormwater Design Criteria :
(A) Average exceedance probability –
1% AEP for roof drainage to first external pit
5% AEP for paved and landscaped areas
(B) Rainfall intensities –
Time of concentration: 5 minutes
1% AEP = mm/hr
5% AEP = mm/hr
(C) Rainfall losses –
Impervious areas: IL = 1.5 mm , CL = 0 mm/hr
Pervious areas: IL = mm , CL = mm/hr

2. Pipes 300 dia and larger to be reinforced concrete Class "2" approved spigot and socket with rubber ring joints U.N.O.
3. 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 Engineer.
6. Enlargers, connections and junctions to be manufactured fittings where pipes are less than 300 dia.
7. 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.
11. All stormwater pipes to be 150 dia at 1.0% min fall U.N.O.
12. Subsoil drains to be slotted flexible uPVC U.N.O.
13. Adopt invert levels for pipe installation (grades shown are only nominal).

RETAINING WALLS

1. 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.
5. For all temporary batters obtain geotechnical engineers recommendations.

CONCRETE FINISHING NOTES

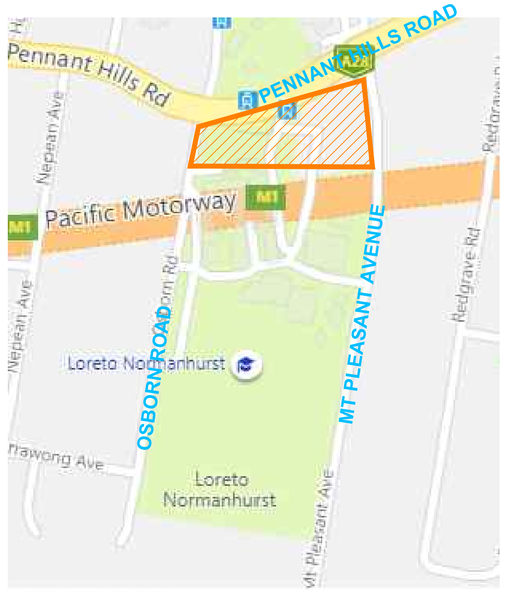
1. All exposed concrete pavements are to be broomed finished.
2. All edges of the concrete pavement including keyed and dowelled joints are to be finished with an edging tool.
3. Concrete pavements with grades greater than 10 % shall be heavily broomed finished.
4. Carborundum to be added to all stair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

SURVEY LEGEND

+18.48	Surface level
19	Contour
	Kerb line
	Batter
	Retaining wall
SW	Stormwater drainage line
T	Telecommunications line
G	Gas line
W	Water main
S	Sewer line
E	Electrical line
EASEMENT FOR ____(__m WIDE)	Easement
	Fence
	Tree to be removed/be retained
	Boundary
SGN	Sign
H	Hydrant
MH	Manhole
G	Gas
SV	Stop Valve
W	Water
TEL	Telecomunications
TRAP	Trap
	Gully
	Grate
S	Sewer Manhole
E	Electricity
ELP	Electric Light Pole
TL	Traffic Light
TLL	Traffic Light Lid
TLB	Traffic Light Box
TB	Telephone Box
PXM	Parking Meter
PM 1234	Permanent Mark
BM 51.10	Bench Mark
BH 0	Borehole
TP No	Test Pit

EXISTING SERVICES LEGEND

S S S	Existing sewer
W W W	Existing water
EU	Existing underground electrical
EA	Existing aerial electrical
T T T	Existing communications
G G G	Existing gas
SW	Existing stormwater



SITE LOCALITY PLAN
NOT TO SCALE

CIVIL DRAWING SCHEDULE

Drawing No.	Drawing Title
C300	COVER, NOTES AND LEGEND
C305	EROSION & SEDIMENT CONTROL PLAN SHEET 1 AND DETAILS
C306	EROSION & SEDIMENT CONTROL PLAN SHEET 2
C310	SITEWORKS & PAVEMENT PLAN SHEET 1 AND SECTIONS
C311	SITEWORKS & PAVEMENT PLAN SHEET 2
C330	DETAILS SHEET

FileName: C300.dwg - USER: jheath - Plot File Created: Dec 17, 2020 - 12:17pm

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P4	ISSUE FOR SSDA	GC	JH	17.12.20
P3	ISSUE FOR SSDA	GC	JH	09.12.20
P2	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P1	ISSUE FOR DRAFT SSDA	GC	LW	30.10.20

Architect
AJ+C Allen Jack+Cottier
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

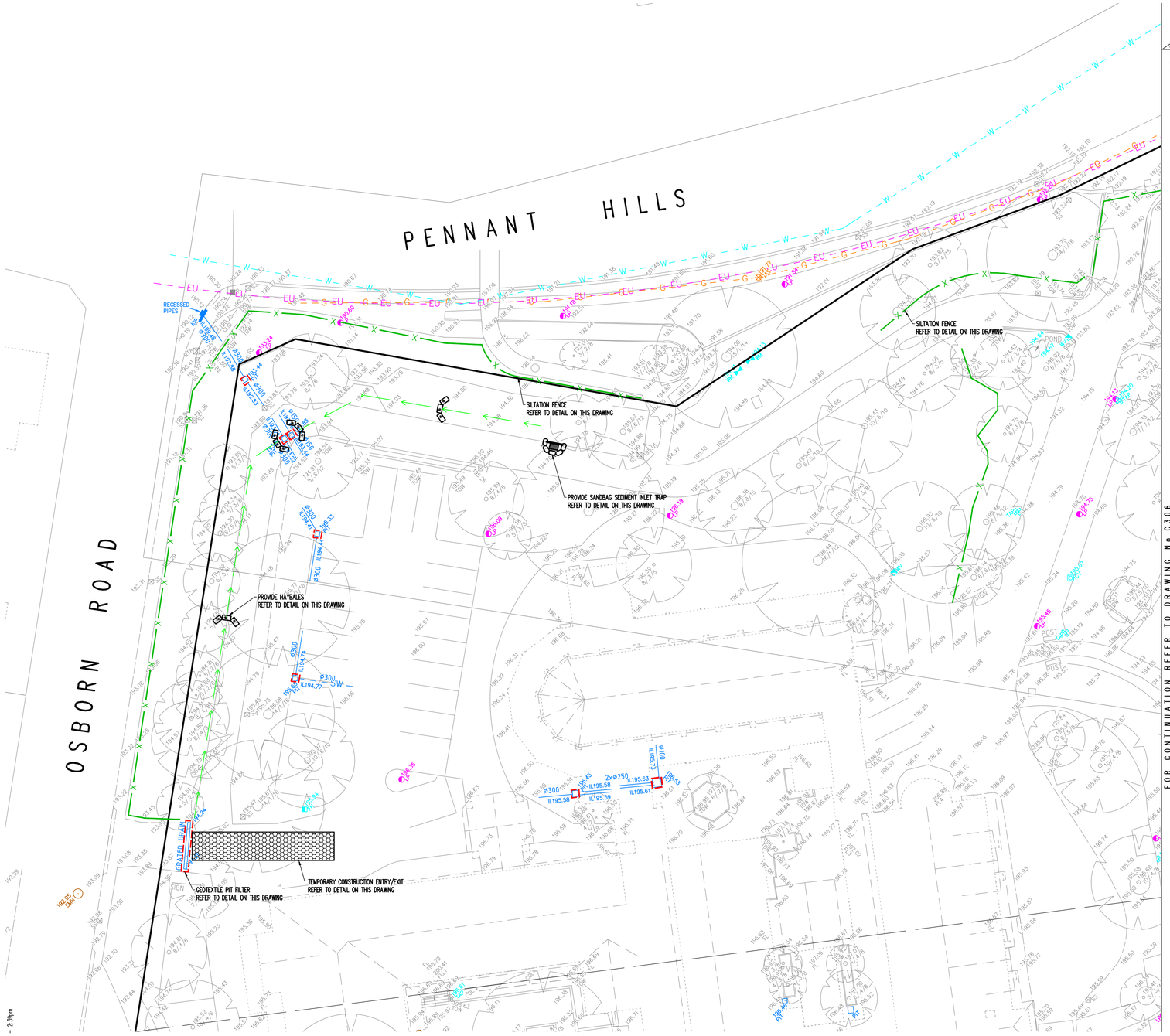
Project: LORETO NORMANHURST THROUGH SITE LINK AND PA1 CARPARK

Sheet Subject: COVER, NOTES AND LEGENDS SHEET

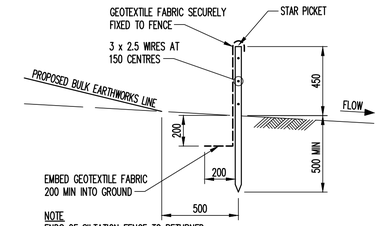
Scale : A1: NTS
Drawn: LW
Authorised:
Job No: 201435
Drawing No: C300
Revision: P4
Plot File Created: Dec 17, 2020 - 12:17pm

This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

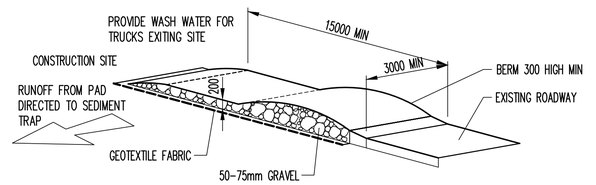
THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C300



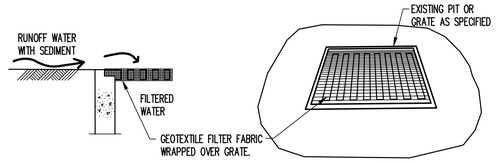
PLAN
SCALE 1: 250



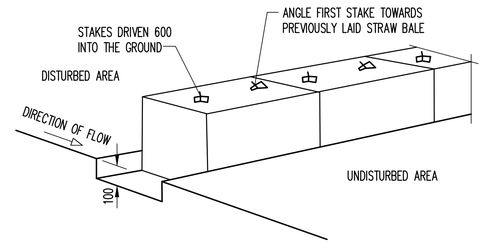
SILTATION FENCE DETAIL
SCALE 1: 20



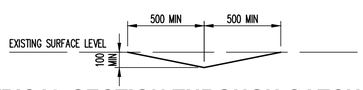
TEMPORARY CONSTRUCTION EXIT
NTS



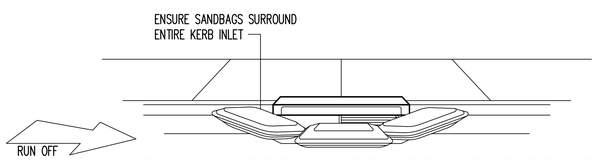
GEOTEXTILE PIT FILTER
NTS



HAY BALE SEDIMENT FILTER
NTS
NOTE: STAKE TO BE EITHER TAR COATED STAR OR 50 x 50 HARDWOOD



TYPICAL SECTION THROUGH CATCH DRAIN
SCALE 1: 20



SANDBAG KERB INLET SEDIMENT TRAP
NTS

EROSION AND SEDIMENT CONTROL NOTES

1. 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").
2. 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.
3. Maintain all erosion and sediment control devices to the satisfaction of the superintendent and the local authority.
4. When stormwater pits are constructed prevent site runoff entering the pits unless silt fences are erected around pits.
5. Minimise the area of site being disturbed at any one time.
6. Protect all stockpiles of materials from scour and erosion. Do not stockpile loose material in roadways, near drainage pits or in watercourses.
7. 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.
8. Control water from upstream of the site such that it does not enter the disturbed site.
9. All construction vehicles shall enter and exit the site via the temporary construction entry/exit.
10. All vehicles leaving the site shall be cleaned and inspected before leaving.
11. Maintain all stormwater pipes and pits clear of debris and sediment. Inspect stormwater system and clean out after each storm event.
12. Clean out all erosion and sediment control devices after each storm event.

Sequence Of Works

1. Prior to commencement of excavation the following soil management devices must be installed.
1.1. Construct silt fences below the site and across all potential runoff sites.
1.2. Construct temporary construction entry/exit and divert runoff to suitable control systems.
1.3. Construct measures to divert upstream flows into existing stormwater system.
1.4. Construct sedimentation traps/basin including outlet control and overflow.
1.5. Construct turf lined swales.
1.6. Provide sandbag sediment traps upstream of existing pits.
2. Construct geotextile filter pit surround around all proposed pits as they are constructed.
3. 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.

EROSION AND SEDIMENT CONTROL LEGEND

- Batter
- Siltation fence
- Stormwater pit with Geotextile filter surround
- Sandbag sediment trap
- Hay bale barriers
- Catch drain

0 2.5 5 7.5 10 12.5 15 17.5 20m
1:250 A1 1:500 A3

A1 0 1 2 3 4 5 6 7 8 9 10

FileName: C305.dwg – USER: jhatch – Plot File Created: Dec 17, 2020 - 2:39pm

Rev	Description	Eng	Draft	Date
P3	ISSUE FOR SSDA	GC	JH	17.12.20
P2	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P1	ISSUE FOR DRAFT SSDA	GC	LW	30.10.20

Architect
AJ+C Allen Jack+Cottier
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project
LORETO NORMANHURST THROUGH SITE LINK AND PA1 CARPARK

Sheet Subject
EROSION & SEDIMENT CONTROL PLAN SHEET 1 AND DETAILS

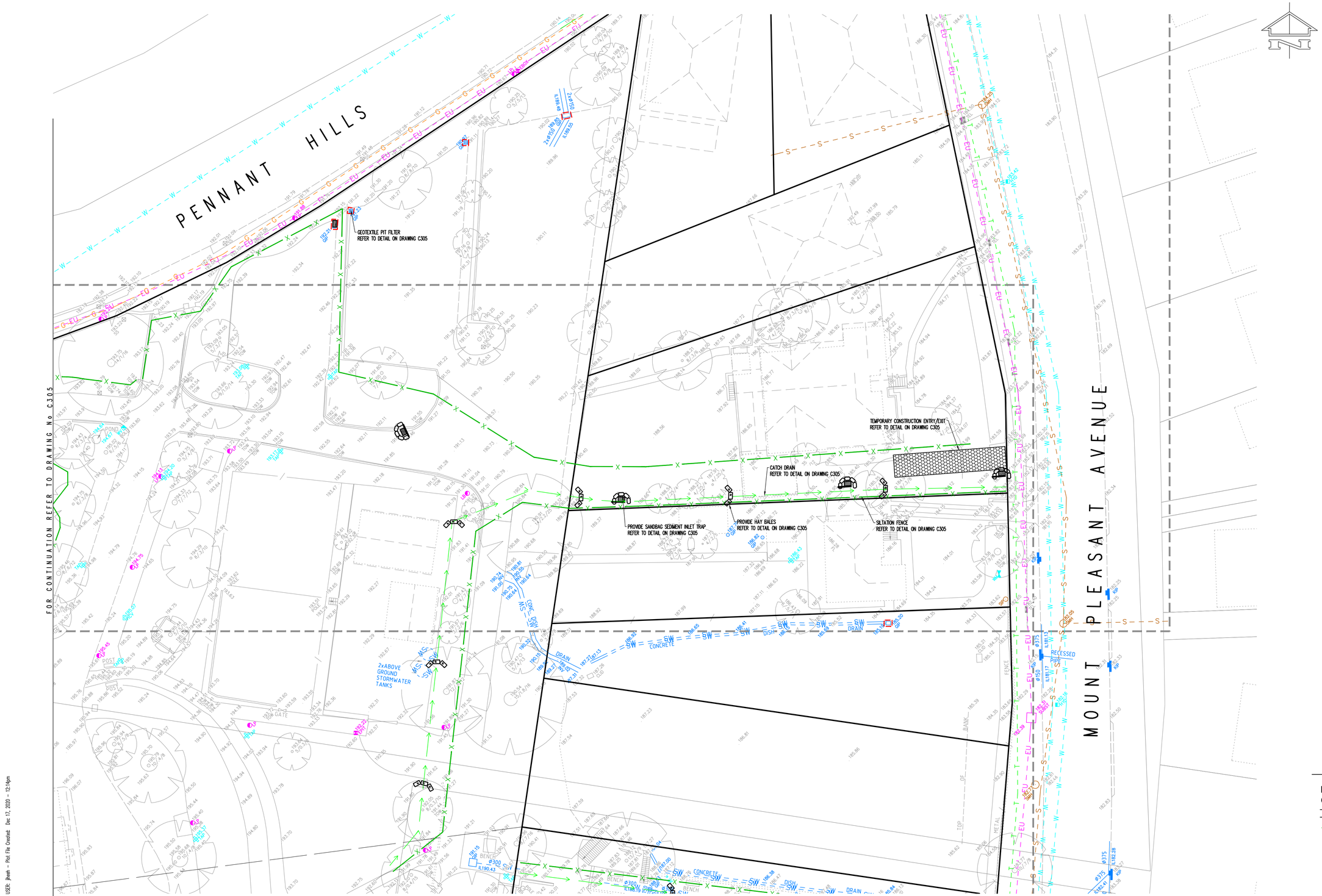
Scale : A1	Drawn	Authorised
1:250 U.N.O	JH	SB

Job No	Drawing No	Revision
201435	C305	P3

Plot File Created: Dec 17, 2020 - 2:39pm

This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C300



PLAN
SCALE 1: 250

EROSION AND SEDIMENT CONTROL LEGEND

- Batter
- Siltation fence
- Stormwater pit with Geotextile filter surround
- Sandbag sediment trap
- Hay bale barriers
- Catch drain

0 2.5 5 7.5 10 12.5 15 17.5 20m

1:250 A1 1:500 A3

FileName: C306.dwg - USER: jheath - Plot File Created: Dec 17, 2020 - 12:14pm

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P3	ISSUE FOR SSDA	GC	JH	17.12.20
P2	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P1	ISSUE FOR DRAFT SSDA	GC	LW	30.10.20

Architect
AJ+C Allen Jack+Cottier
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project
LORETO NORMANHURST THROUGH SITE LINK AND PA1 CARPARK

Sheet Subject
EROSION & SEDIMENT CONTROL PLAN SHEET 2

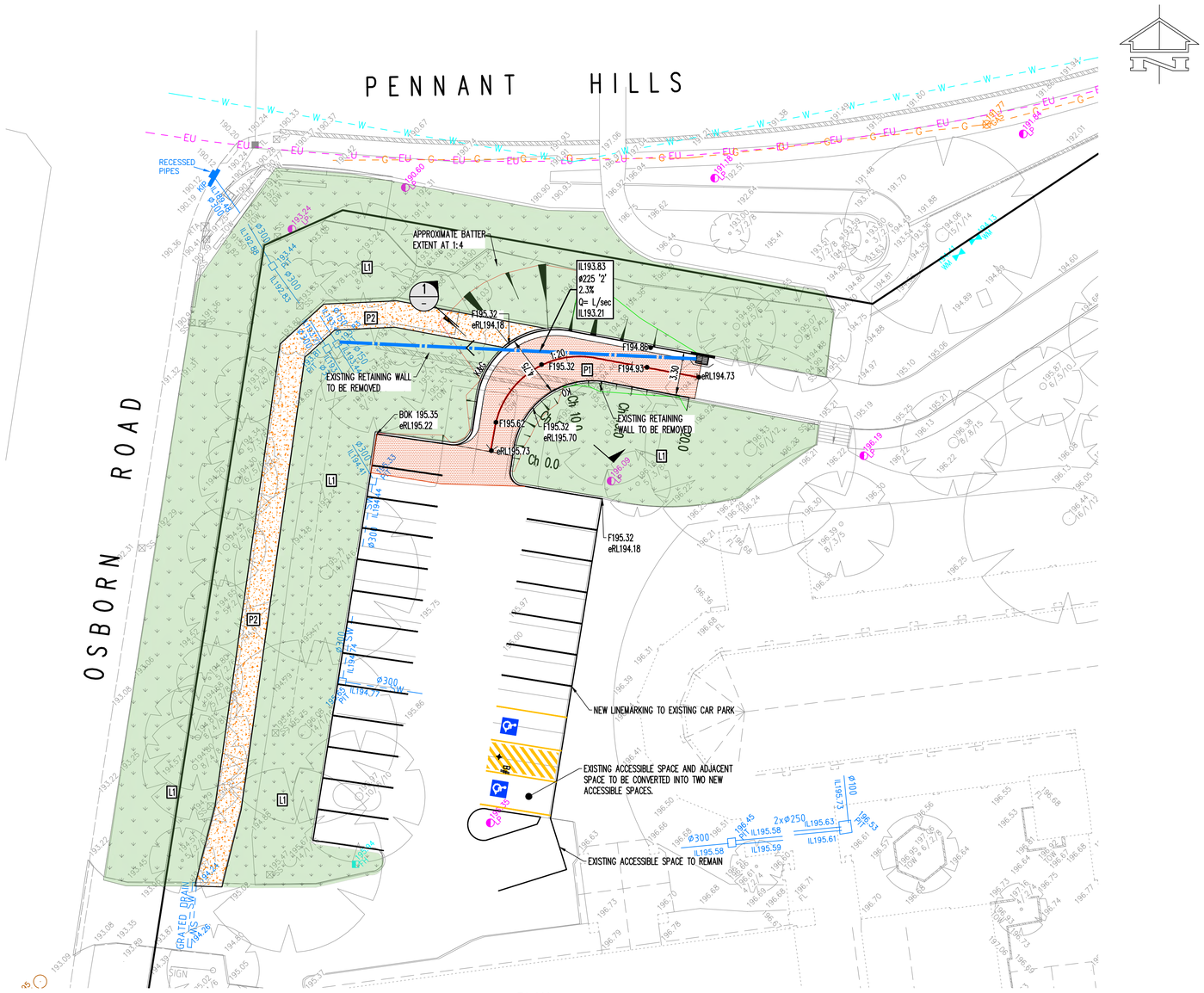
Scale : A1	Drawn	Authorised
1:250	JH	SB

Job No	Drawing No	Revision
201435	C306	P3

Plot File Created: Dec 17, 2020 - 12:14pm

This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C300

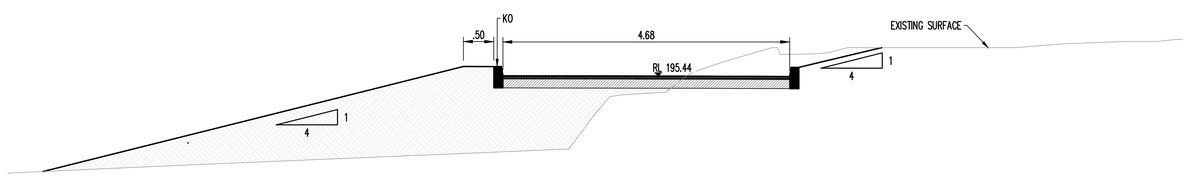


PLAN
SCALE 1: 200

DATUM RL 193.00													
PROPOSED CENTRE LINE LEVEL	195.73	195.63	195.61	195.23	195.15	195.14	194.93	194.74	194.73
EXISTING SURFACE LEVEL	195.73	195.74	195.73	194.34	194.39	194.39	194.55	194.72	194.73
CHAINAGE	0.00	2.11	2.41	10.00	11.77	11.84	16.14	20.00	20.18

-5.0% GRADE -5.0% GRADE

AL1 LONGITUDINAL SECTION
SCALE 1:100 HORIZONTAL
1:50 VERTICAL



SECTION 1
SCALE 1:20

SITEWORKS LEGEND

- F22.20 — Finished surface level
- F22.00 — Finished contour
- K&G — Kerb and gutter
- K0 — Kerb only
- IL10.00 / 600 ø 'Z' / 1.25% / Q=345 L/s / IL9.65 — Stormwater pit, flow direction and line with; Invert level upstream; Pipe size and class; Pipe grade; Flow (Litres per second); Invert level downstream

PAVEMENT LEGEND

NOTES

1. Asphaltic concrete shall conform to AS2150 and the specification
2. Pavement based on geotechnical report by JK Geotechnics dated 24 October 2018 (31772Lrpt)

- P1 — ASPHALTIC PAVEMENT
- P2 — CONCRETE PAVEMENT
- P3 — FEATURE PAVING TREATMENT
- P4 — GRAVEL PAVEMENT
- L1 — LANDSCAPING
- BUILDING EXTENT

0 2 4 6 8 10 12 14 16m
1:200 A1 1:400 A3

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P3	ISSUE FOR SSDA	GC	JH	17.12.20
P2	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P1	ISSUE FOR DRAFT SSDA	GC	LW	30.10.20

Architect
AJ+C Allen Jack+Cottier
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project: LORETO NORMANHURST THROUGH SITE LINK AND PA1 CARPARK

Sheet Subject: SITEWORKS & PAVEMENT SHEET 1 AND SECTIONS

Scale : A1: AS SHOWN | Drawn: JH | Authorised: SB

Job No: 201435 | Drawing No: C310 | Revision: P3

Plot File Created: Dec 17, 2020 - 2:17pm

FileName: C310.dwg - USER: jheath - Plot File Created: Dec 17, 2020 - 2:17pm

This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C300

PENNANT HILLS

MOUNT PLEASANT AVENUE

CONVERT EXISTING KERB INLET PIT INTO SURFACE INLET PIT

BATTER EXTENT AT 1:6

HERITAGE STONE WALL TO RETURN NEXT TO PEDESTRIAN PATH

BATTER EXTENT AT 1:3

BATTER EXTENT AT 1:4

BATTER EXTENT AT 1:4

APPROXIMATE BATTER EXTENT AT 1:4

APPROXIMATE BATTER EXTENT AT 1:4

IL190.55
ø300 'Z'
8.9%
Q= L/sec
IL187.88

IL187.85
ø300 'Z'
11.8%
Q= L/sec
IL184.38

IL184.35
ø300 'Z'
14.6%
Q= L/sec
IL181.45

IL181.42
ø300 'Z'
2.4%
Q= L/sec
IL181.15

6.0m @5%

TOK182.10

RL191.00

RL190.50

F191.50

F192.70

F194.63

F195.69

F196.0

F194.98

F195.32

F195.80

F193.60

F192.67

F192.85

F193.75

BASEMENT
FFL 191.50

TENNIS COURT
FFL 194.50

2xABOVE GROUND STORMWATER TANKS

MAKE SMOOTH CONNECTION WITH EXISTING WORKS

DOWNSTREAM CONNECTION TO ELC DRAINAGE SYSTEM. OUTLET TO HORNSBY SHIRE COUNCIL'S STORMWATER SYSTEM ON MOUNT PLEASANT AVENUE.

APPROVED UNDER SEPARATE APPLICATION

5' PLATE TO BE INSTALLED AT OUTLET OF STORMWATER (APPROVED AS A SEPARATE DEVELOPMENT APPLICATION)

RECESSED PIPE

SITEWORKS LEGEND

- F22.20 — Finished surface level
- F22.00 — Finished contour
- K&G — Kerb and gutter
- KO — Kerb only
- B — Bollard
- IL10.00 / 600 ø 'Z' / 1.25% / Q=345 L/s / IL9.65 — Stormwater pit, flow direction and line with; Invert level upstream; Pipe size and class; Pipe grade; Flow (Litres per second); Invert level downstream
- GD — Grated drain
- Ch 0.00 — Ch 5.00 — Road alignment chainage

PAVEMENT LEGEND

NOTES

1. Asphaltic concrete shall conform to AS2150 and the specification
2. Pavement based on geotechnical report by JK Geotechnics dated 24 October 2018 (31772Lrpt)

- P1 — ASPHALTIC PAVEMENT
- P2 — CONCRETE PAVEMENT
- P3 — FEATURE PAVING TREATMENT
- P4 — GRAVEL PAVEMENT
- L1 — LANDSCAPING
- BUILDING EXTENT

0 2 4 6 8 10 12 14 16m

1:200 A1 1:400 A3

FileName: C311.dwg - USER: jthesh - Plot File Created: Dec 17, 2020 - 2:24pm

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P5	ISSUE FOR SSDA	GC	JH	17.12.20
P4	ISSUE FOR SSDA	GC	JH	09.12.20
P3	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P2	ISSUE FOR COORDINATION	GC	LW	13.11.20
P1	ISSUE FOR DRAFT SSDA	GC	LW	30.10.20

Rev Description Eng Draft Date

Rev Description Eng Draft Date

Architect
AJ+C Allen Jack+Cottier
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project
LORETO NORMANHURST
THROUGH SITE LINK AND PA1
CARPARK

Sheet Subject
SITEWORKS & PAVEMENT PLAN
SHEET 2

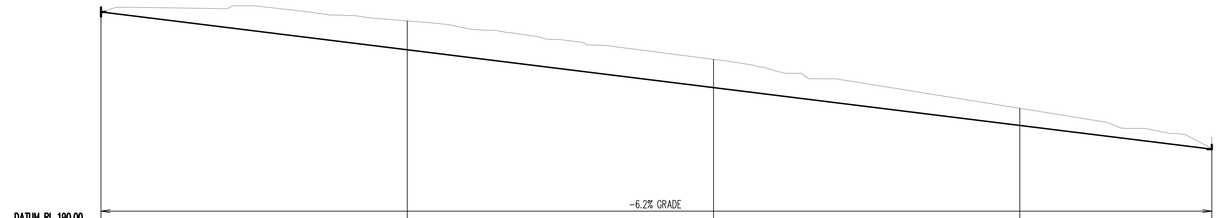
Scale : A1 1:200
Drawn JH
Authorised SB

Job No 201435
Drawing No C311
Revision P5

Plot File Created: Dec 17, 2020 - 2:24pm

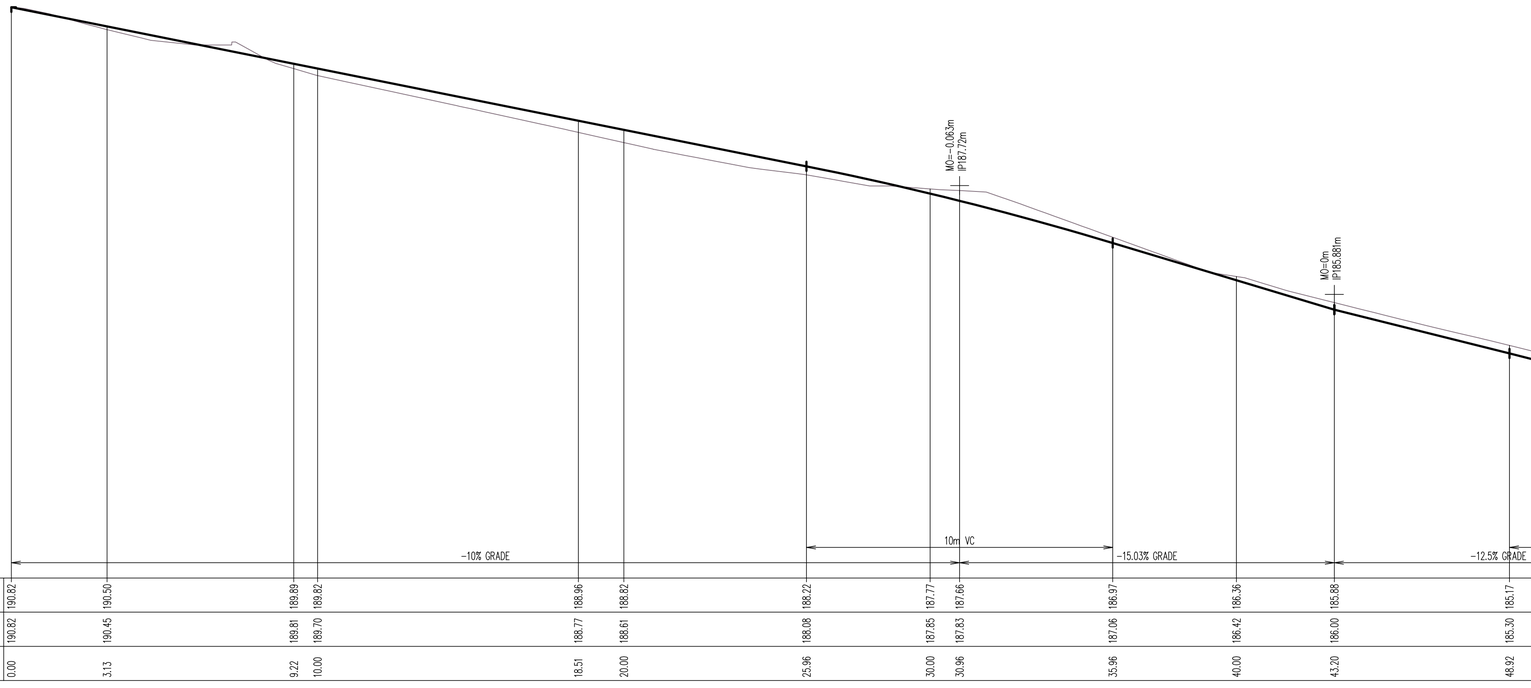
This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C300



DATUM RL 190.00					
PROPOSED CENTRE LINE LEVEL	193.50	192.88	192.26	191.65	191.26
EXISTING SURFACE LEVEL	193.50	193.35	192.73	191.93	191.26
CHAINAGE	0.00	10.00	20.00	30.00	36.27

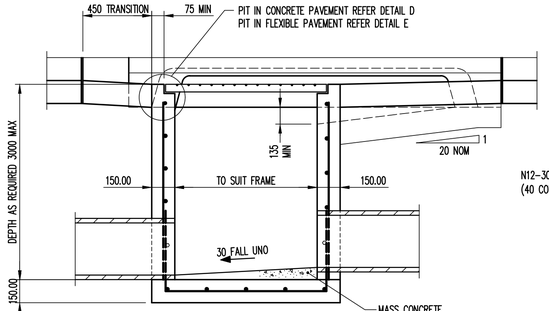
AL2 LONGITUDINAL SECTION
SCALE 1:100 HORIZONTAL
1:50 VERTICAL



| | | | | |

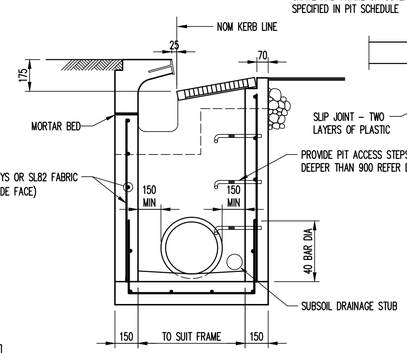
This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C300

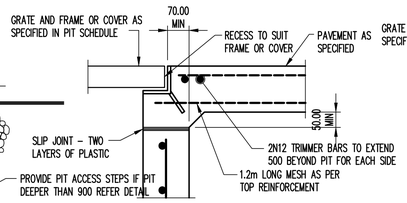


SECTION 5 CXX
SCALE 1:SCALE

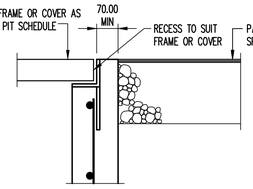
NOTE:IF REINFORCING FABRIC IS TO BE USED REFER TO WALL AND CORNER DETAILS



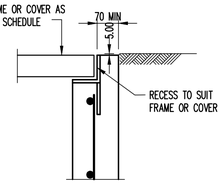
SECTION 6 CXX
SCALE 1:SCALE



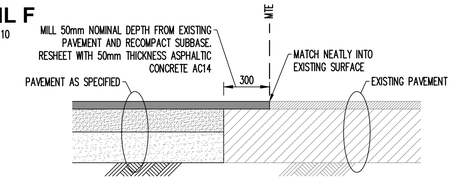
DETAIL D
SCALE 1: 10



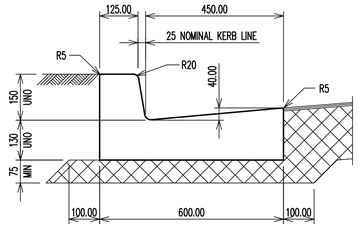
DETAIL E
SCALE 1: 10



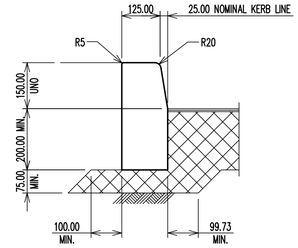
DETAIL F
SCALE 1: 10



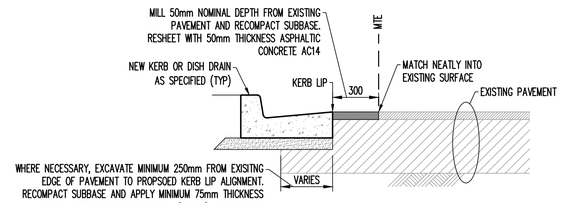
NEW PAVEMENT INTERFACE INTO EXISTING PAVEMENT DETAIL
SCALE 1:20



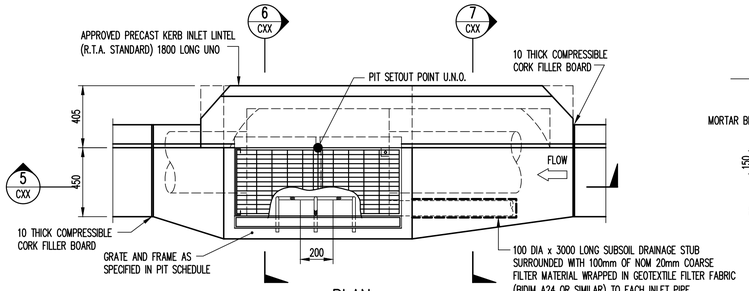
KERB AND GUTTER (K&G)
SCALE 1:10



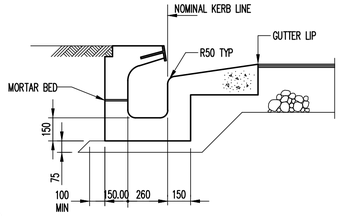
KERB ONLY (KO)
SCALE 1:10



NEW KERB INTERFACE INTO EXISITNG PAVEMENT DETAIL
SCALE 1:20

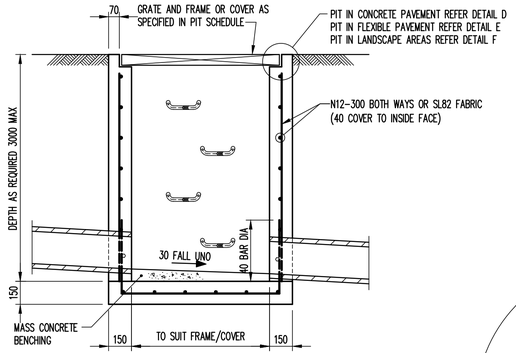


PLAN
SCALE 1: 20



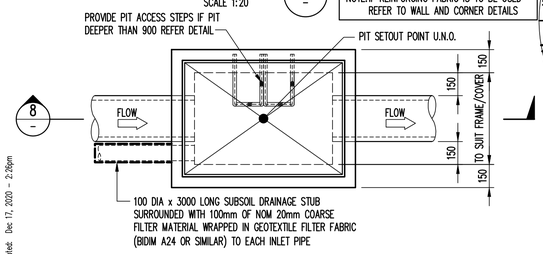
SECTION 7 CXX
SCALE 1:SCALE

PIT TYPE PIT-TYPE



SECTION 8 –
SCALE 1:20

NOTE:IF REINFORCING FABRIC IS TO BE USED REFER TO WALL AND CORNER DETAILS



PLAN
SCALE 1: 20

PIT TYPE PIT-TYPE

PLAN

DETAIL FOR LOCKABLE BOLLARD
SCALE 1:5

SECTION

REMOVABLE BOLLARD TO CONCRETE PAVEMENT
SCALE 1:10

(CONFIRM LOCATION WITH BOTH CIVIL ENGINEERING AND ARCHITECTURAL DRAWINGS)

SECTION A-A
LAYBACK AND GUTTER SECTION

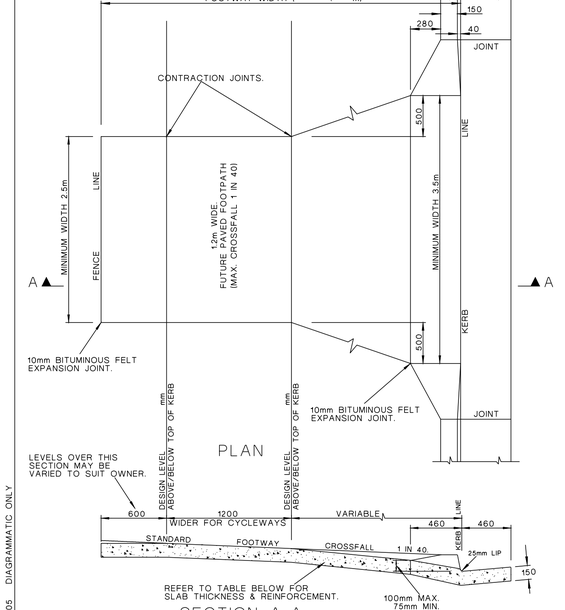
NOTES:
1. ALL EDGES TO BE SHAPED WITH AN EDGING TOOL (25mm RADIUS).
2. COMPRESSIVE STRENGTH OF CONCRETE TO BE NOT LESS THAN 20MPa AT 28 DAYS.
3. THE ROAD BASE COURSE IS TO BE EXTENDED BENEATH THE KERB AND GUTTER.
4. MASTIC JOINTS TO BE PLACED NO MORE THAN 6.0m AND NOT LESS THAN 4.0m INTERVALS.

D'WAY TYPE	LAYBACK THICKNESS & REINFORCEMENT
RESIDENTIAL	150mm
RESIDENTIAL H.D.	150mm, F72
COMMERCIAL	200mm, 2×F72

STD. DWG No.4

HORNSBY COUNCIL

STANDARD LAYBACK



SECTION A-A

NOTES:
1. ALL EDGES TO BE SHAPED WITH AN EDGING TOOL (25mm RADIUS).
2. COMPRESSIVE STRENGTH OF CONCRETE TO BE NOT LESS THAN 20MPa AT 28 DAYS.
3. THE ROAD BASE COURSE IS TO BE EXTENDED BENEATH THE KERB AND GUTTER.
4. MASTIC JOINTS TO BE PLACED NO MORE THAN 6.0m AND NOT LESS THAN 4.0m INTERVALS.
5. ALL REINFORCEMENT TO HAVE MINIMUM 40mm COVER.
6. ADJUST NATURESTRIP TO SUIT NEW CROSSING (MAX. SLOPE 1 IN 8)

CROSSING TYPE	SLAB THICKNESS & REINFORCEMENT	LAYBACK THICKNESS & REINFORCEMENT
RESIDENTIAL	125mm, F62	150mm
RESIDENTIAL H.D.	150mm, F72,	150mm, F72
COMMERCIAL	200mm, 2×F72	200mm, 2×F72

STD. DWG No.16A

HORNSBY COUNCIL

STANDARD CROSSING

HORNSBY COUNCIL DIAGRAMMATIC ONLY APRIL 2005

FileName: C330.dwg - USER: jhnah - Plot File Created: Dec 17, 2020 - 2:26pm

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P4	ISSUE FOR SSDA	GC	JH	17.12.20
P3	ISSUE FOR SSDA	GC	JH	09.12.20
P2	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P1	ISSUE FOR DRAFT SSDA	GC	LW	30.10.20

Architect
AJ+C ALLEN JACK+COTTIER
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project
LORETO NORMANHURST THROUGH SITE LINK AND PA1 CARPARK

Sheet Subject
DETAILS SHEET

Scale : A1 — AS SHOWN
Drawn — LW
Authorised

Job No — 201435
Drawing No — C330
Revision — P4

Plot File Created: Dec 17, 2020 - 2:26pm

This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

LORETO NORMANHURST
P3 OSBORN CARPARK

GENERAL NOTES

1. Contractor must verify all dimensions and existing levels on site prior to commencement of works. Any discrepancies to be reported to the Engineer .
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 footprint.
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

1. 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.

Consultant	Dwg Title	Dwg No	Rev	Date
AJ+C	SITE PLAN	DA1000	1	20.11.20
OCULUS	GROUND FLOOR PLAN	L200	1	25.11.20

SURVEY AND SERVICES INFORMATION

SURVEY

Origin of levels : SSM46458, RL189.789
Datum of levels : A.H.D. AUSTRALIAN HEIGHT DATUM
Coordinate system : MGA
Survey prepared by : LTS LOCKLEY
Setout Points : CONTACT THE SURVEYOR

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

BOUNDARY AND EASEMENT NOTE

The property boundary and easement locations shown on Taylor Thomson Whitting drawing's have been based from information received from : No boundary information received.
Refer architect for boundary information and locations
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.

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 works to be carried out as far as practicably possible from existing structure(s).

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 JK Geotechnics ref: 31772L2rpt for details.

HAZARDOUS MATERIALS

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 JK Geotechnics ref: 31772L2rpt 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 works.

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.

SITEWORKS NOTES

1. 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.
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

STORMWATER DRAINAGE NOTES

1 Stormwater Design Criteria :
(A) Average exceedance probability –
1% AEP for roof drainage to first external pit
5% AEP for paved and landscaped areas
(B) Rainfall intensities –
Time of concentration: 5 minutes
1% AEP = mm/hr
5% AEP = mm/hr
(C) Rainfall losses –
Impervious areas: IL = 1.5 mm , CL = 0 mm/hr
Pervious areas: IL = mm , CL = mm/hr

2. Pipes 300 dia and larger to be reinforced concrete Class "2" approved spigot and socket with rubber ring joints U.N.O.
3. 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 Engineer.
6. Enlargers, connections and junctions to be manufactured fittings where pipes are less than 300 dia.
7. 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.
11. All stormwater pipes to be 150 dia at 1.0% min fall U.N.O.
12. Subsoil drains to be slotted flexible uPVC U.N.O.
13. Adopt invert levels for pipe installation (grades shown are only nominal).

RETAINING WALLS

1. 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.
5. For all temporary batters obtain geotechnical engineers recommendations.

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.
4. Carborundum to be added to all stair treads and ramped crossings U.N.O.

SIGNS AND LINE MARKING NOTES

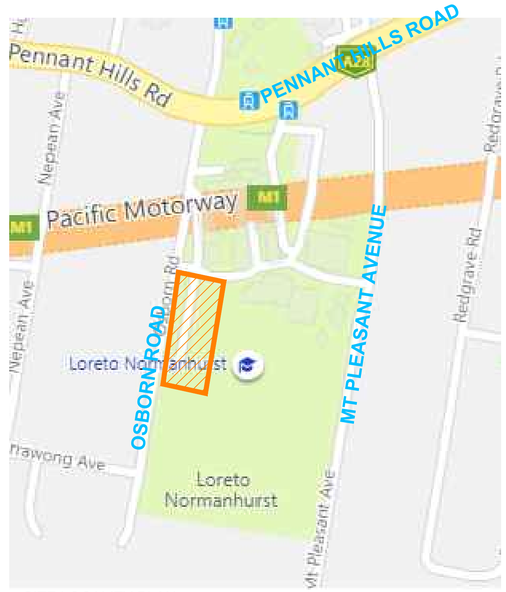
1. Pavement marking and sign posting on public roads shall be in accordance with the requirements of the relevant Road Authority. The contractor shall obtain these requirements from the Road Authority.
1. Pavement marking and sign posting to be in accordance with R.T.A. 'Interim Guide to Signs and Markings'.
2. Contractor is to provide guide posts, spaced in accordance with AS1742.2. They are to be located near all head walls and pipe outlets.
3. 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 ahead 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.
11. The design of major directional sign posting to be prepared and assessed by the R.T.A.

SURVEY LEGEND

+18.48	Surface level
19	Contour
	Kerb line
	Batter
	Retaining wall
SW	Stormwater drainage line
T	Telecommunications line
G	Gas line
W	Water main
S	Sewer line
E	Electrical line
EASEMENT FOR ____(__m WIDE)	Easement
	Fence
	Tree to be removed/be retained
	Boundary
SSN	Sign
H	Hydrant
MH	Manhole
G	Gas
SV	Stop Valve
W	Water
TEL	Telecommunications
TRAP	Trap
	Gully
	Grate
S	Sewer Manhole
E	Electricity
ELP	Electric Light Pole
TL	Traffic Light
TLL	Traffic Light Lid
TLB	Traffic Light Box
TB	Telephone Box
PKM	Parking Meter
PM 1234	Permanent Mark
BM 51.10	Bench Mark
BH 0	Borehole
TP No	Test Pit

EXISTING SERVICES LEGEND

S	Existing sewer
W	Existing water
EU	Existing underground electrical
EA	Existing aerial electrical
T	Existing communications
G	Existing gas
SW	Existing stormwater



SITE LOCALITY PLAN
NOT TO SCALE

CIVIL DRAWING SCHEDULE

Drawing No.	Drawing Title
C400	COVER, NOTES AND LEGEND
C405	EROSION & SEDIMENT CONTROL PLAN AND DETAILS
C410	SITEWORKS & PAVEMENT PLAN
C430	DETAILS SHEET

FileName: C400.dwg - USER: jheath - Plot File Created: Dec 17, 2020 - 3:19pm

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P3	ISSUE FOR SSDA	GC	JH	17.12.20
P2	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P1	ISSUE FOR DRAFT DA	GC	LW	30.10.20

Architect
AJ+C Allen Jack+Cottier
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

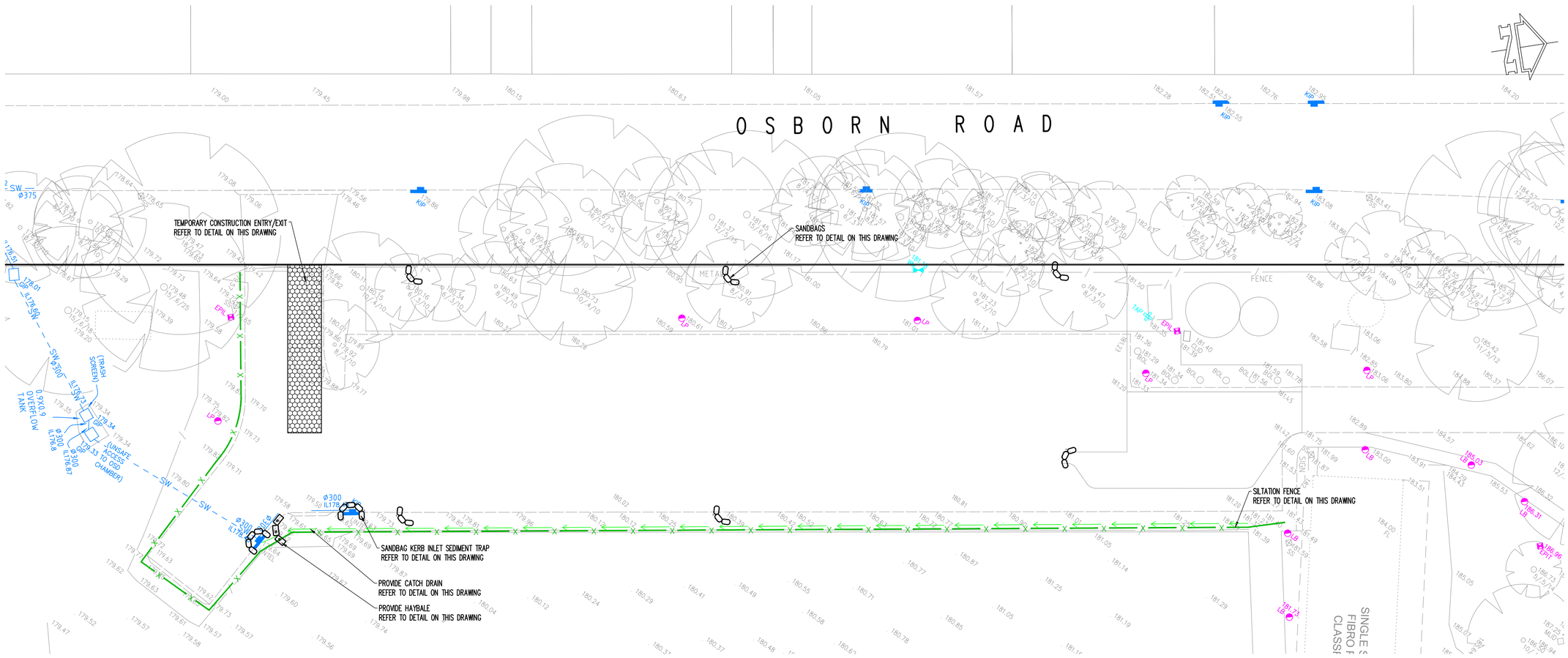
Project
LORETO NORMANHURST
P3 OSBORN CARPARK

Sheet Subject
NOTES AND LEGENDS SHEET

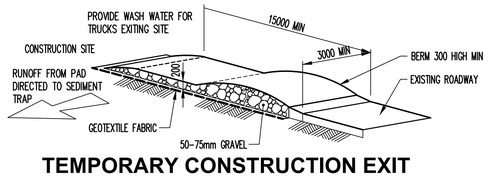
Scale : A1 NTS
Drawn LW
Authorised
Job No 201435
Drawing No C400
Revision P3
Plot File Created: Dec 17, 2020 - 3:19pm

This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

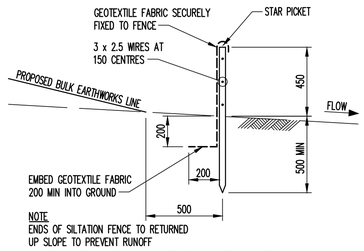
THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C400



PLAN
SCALE 1: 200

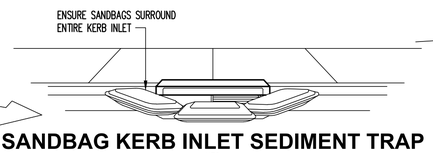


TEMPORARY CONSTRUCTION EXIT
NTS

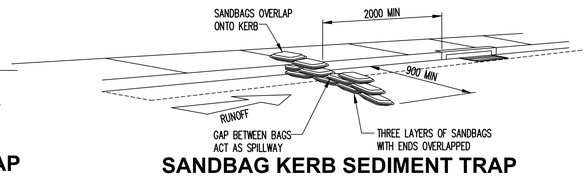


SILTATION FENCE DETAIL
SCALE 1: 20

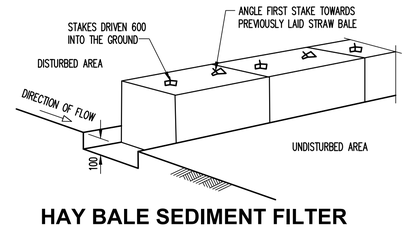
TYPICAL SECTION THROUGH CATCH DRAIN
SCALE 1: 20



SANDBAG KERB INLET SEDIMENT TRAP
NTS



SANDBAG KERB SEDIMENT TRAP
NTS



HAY BALE SEDIMENT FILTER
NTS
NOTE: STAKE TO BE EITHER TAR COATED STAR OR 50 x 50 HARDWOOD

EROSION AND SEDIMENT CONTROL NOTES

1. 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").
2. 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.
3. Maintain all erosion and sediment control devices to the satisfaction of the superintendent and the local authority.
4. When stormwater pits are constructed prevent site runoff entering the pits unless silt fences are erected around pits.
5. Minimise the area of site being disturbed at any one time.
6. Protect all stockpiles of materials from scour and erosion. Do not stockpile loose material in roadways, near drainage pits or in watercourses.
7. 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.
8. Control water from upstream of the site such that it does not enter the disturbed site.
9. All construction vehicles shall enter and exit the site via the temporary construction entry/exit.
10. All vehicles leaving the site shall be cleaned and inspected before leaving.
11. Maintain all stormwater pipes and pits clear of debris and sediment. Inspect stormwater system and clean out after each storm event.
12. Clean out all erosion and sediment control devices after each storm event.

Sequence Of Works

1. Prior to commencement of excavation the following soil management devices must be installed.
1.1. Construct silt fences below the site and across all potential runoff sites.
1.2. Construct temporary construction entry/exit and divert runoff to suitable control systems.
1.3. Construct measures to divert upstream flows into existing stormwater system.
1.4. Construct sedimentation traps/basin including outlet control and overflow.
1.5. Construct turf lined swales.
1.6. Provide sandbag sediment traps upstream of existing pits.
2. Construct geotextile filter pit surround around all proposed pits as they are constructed.
3. 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.

EROSION AND SEDIMENT CONTROL LEGEND

- Batter
- Siltation fence
- Stormwater pit with Geotextile filter surround
- Sandbag sediment trap
- Hay bale barriers
- Catch drain

0 2 4 6 8 10 12 14 16m
1:200 A1 1:400 A3

FileName: C405.dwg – USER: jhnish – Plot File Created: Dec 17, 2020 – 2:42pm

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P3	ISSUE FOR SSDA	GC	JH	17.12.20
P2	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P1	ISSUE FOR DRAFT DA	GC	LW	30.10.20

Architect
AJ+C Allen Jack+Cottier
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

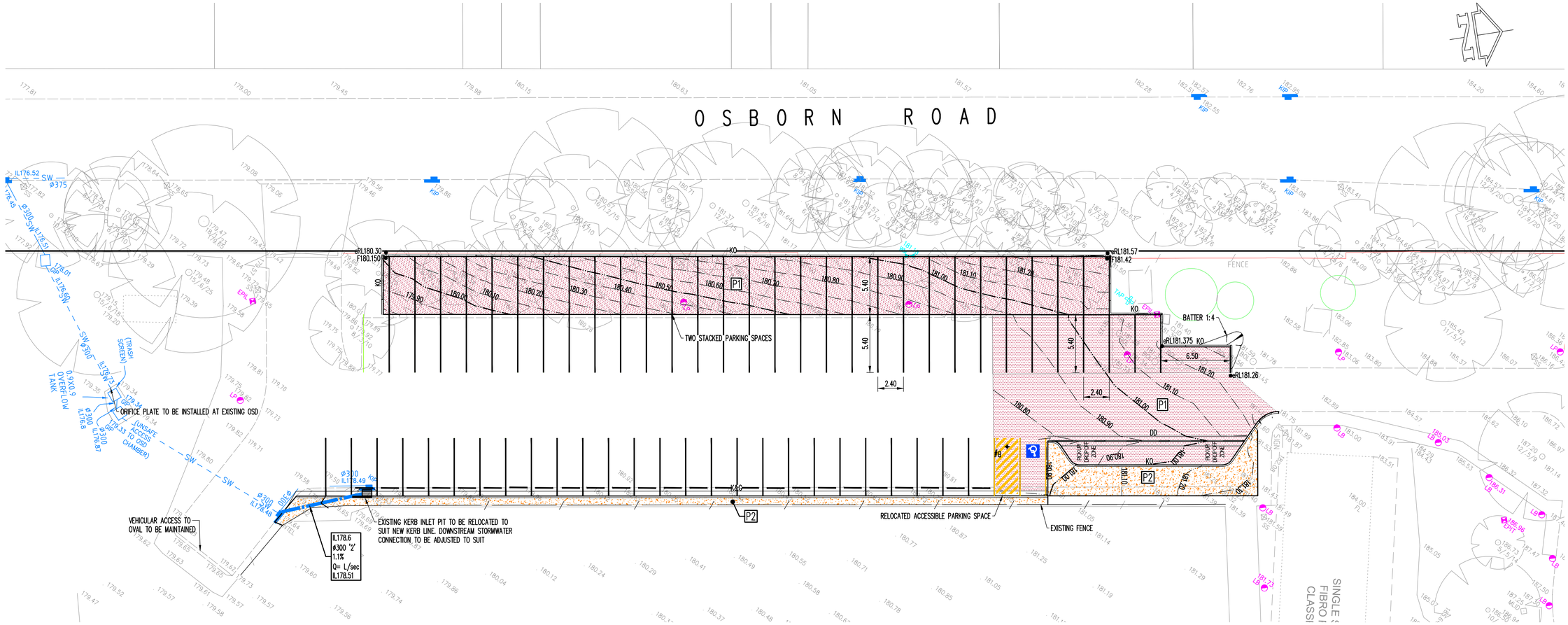
Project
LORETO NORMANHURST
P3 OSBORN CARPARK

Sheet Subject
EROSION & SEDIMENT CONTROL PLAN AND DETAILS

Scale : A1 1:200 U.N.O
Drawn JH
Authorised SB
Job No 201435
Drawing No C405
Revision P3
Plot File Created: Dec 17, 2020 - 2:42pm

This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C400



SITEWORKS LEGEND

- F22.20 — Finished surface level
- F22.00 — Finished contour
- KO — Kerb only
- DD — Dish drain
- Stormwater pit, flow direction and line with
- IL10.00 / 600 ϕ 'Z' / 1.25% / Q=345 L/s / IL9.65 — Invert level upstream; Pipe size and class; Pipe grade; Flow (Litres per second); Invert level downstream
- Wheelstop
- Bollard

PAVEMENT LEGEND

NOTES

1. Asphaltic concrete shall conform to AS2150 and the specification
2. Pavement based on geotechnical report by JK Geotechnics dated 24 October 2018 (31772Lrpt)

- P1 — ASPHALTIC PAVEMENT
- P2 — CONCRETE PAVEMENT
- P3 — FEATURE PAVING TREATMENT
- P4 — GRAVEL PAVEMENT
- L1 — LANDSCAPING
- BUILDING EXTENT

0 2 4 6 8 10 12 14 16m

1:200 A1 1:400 A3

FileName: C410.dwg - USER: jhelen - Plot File Created: Dec 17, 2020 - 3:23pm

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P3	ISSUE FOR SSDA	GC	JH	17.12.20
P2	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P1	ISSUE FOR DRAFT DA	GC	LW	30.10.20

Architect
AJ+C Allen Jack+Cottier
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project
LORETO NORMANHURST
P3 OSBORN CARPARK

Sheet Subject
SITEWORKS & PAVEMENT PLAN

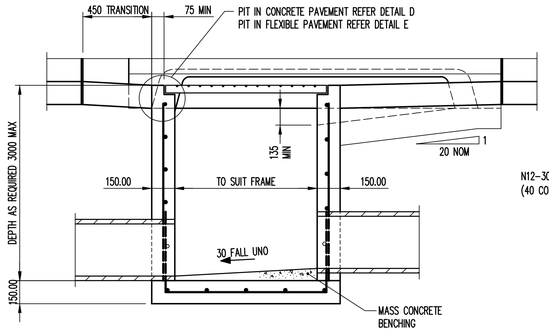
Scale : A1 1:200 | Drawn JH | Authorised SB

Job No 201435 | Drawing No C410 | Revision P3

Plot File Created: Dec 17, 2020 - 3:23pm

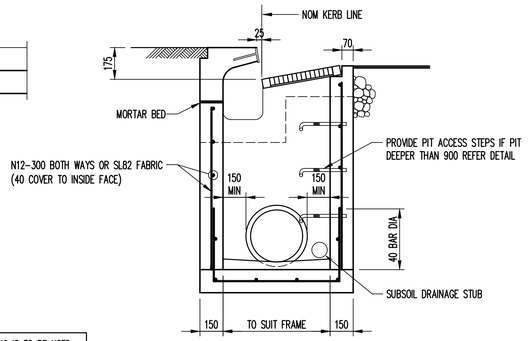
This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C400

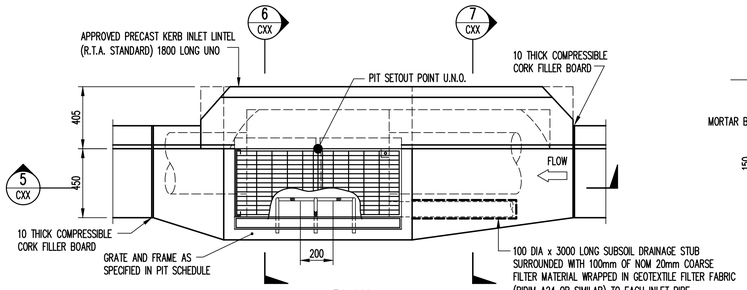


SECTION 5 CXX
SCALE 1:SCALE

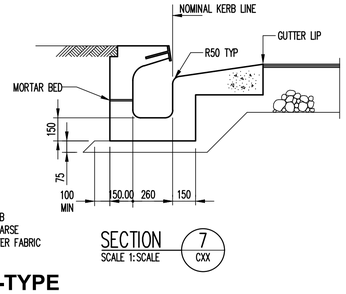
NOTE:IF REINFORCING FABRIC IS TO BE USED REFER TO WALL AND CORNER DETAILS



SECTION 6 CXX
SCALE 1:SCALE

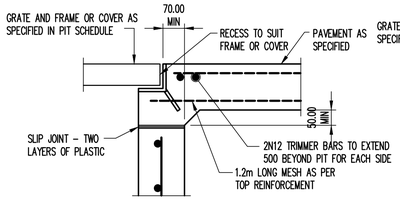


PLAN
SCALE 1: 20

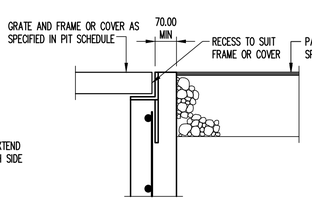


SECTION 7 CXX
SCALE 1:SCALE

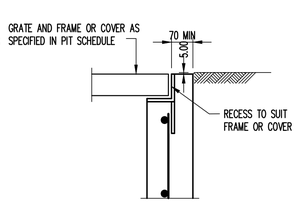
PIT TYPE PIT-TYPE



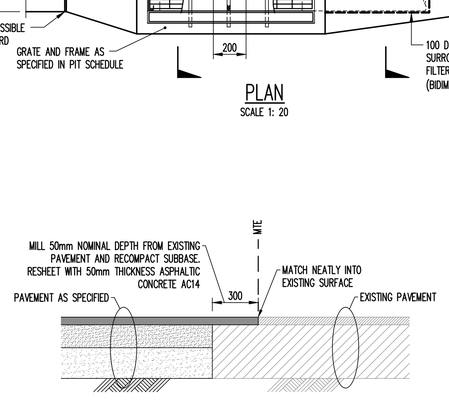
DETAIL D
SCALE 1: 10



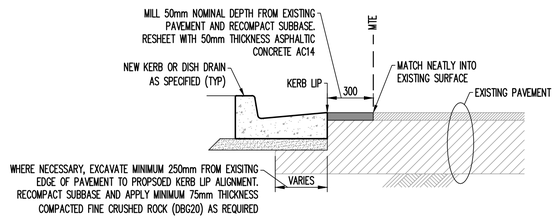
DETAIL E
SCALE 1: 10



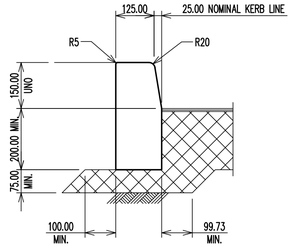
DETAIL F
SCALE 1: 10



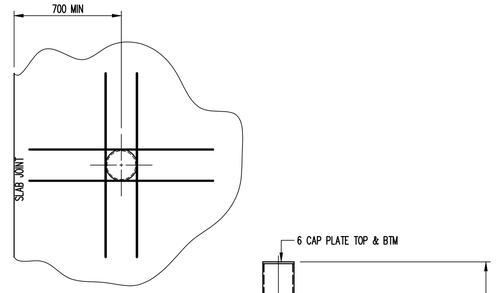
NEW PAVEMENT INTERFACE INTO EXISTING PAVEMENT DETAIL
SCALE 1:20



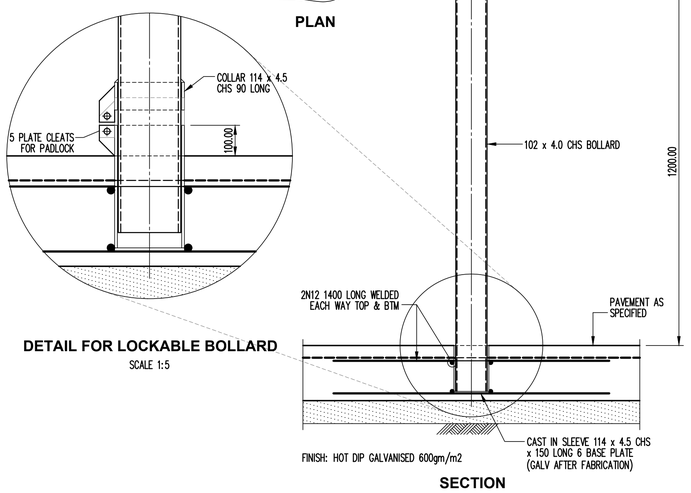
NEW KERB INTERFACE INTO EXISITNG PAVEMENT DETAIL
SCALE 1:20



KERB ONLY (KO)
SCALE 1:10



PLAN



DETAIL FOR LOCKABLE BOLLARD
SCALE 1:5

SECTION

REMOVABLE BOLLARD TO CONCRETE PAVEMENT
SCALE 1:10

(CONFIRM LOCATION WITH BOTH CIVIL ENGINEERING AND ARCHITECTURAL DRAWINGS)

FileName: C430.dwg - USER: jhash - Plot File Created: Dec 17, 2020 - 3:18pm

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P4	ISSUE FOR SSDA	GC	JH	17.12.20
P3	ISSUE FOR SSDA	GC	JH	09.12.20
P2	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P1	ISSUE FOR DRAFT DA	GC	LW	30.10.20

Architect
AJ+C ALLEN JACK+COTTIER
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project
LORETO NORMANHURST
P3 OSBORN CARPARK

Sheet Subject
DETAILS SHEET

Scale : A1: AS SHOWN
Drawn: LW
Authorised:
Job No: 201435
Drawing No: C430
Revision: P4
Plot File Created: Dec 17, 2020 - 3:18pm

This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

LORETO NORMANHURST
P4A CARPARK

GENERAL NOTES

1. Contractor must verify all dimensions and existing levels on site prior to commencement of works. Any discrepancies to be reported to the Engineer .
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 footprint.
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

1. 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.

Consultant	Dwg Title	Dwg No	Rev	Date
AJ+C	SITE PLAN	DA1000	N/A	N/A

SURVEY AND SERVICES INFORMATION

SURVEY

Origin of levels : SSM46458, RL189.789
Datum of levels : A.H.D. AUSTRALIAN HEIGHT DATUM
Coordinate system : MGA
Survey prepared by : LTS LOCKLEY
Setout Points : CONTACT THE SURVEYOR

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

BOUNDARY AND EASEMENT NOTE

The property boundary and easement locations shown on Taylor Thomson Whitting drawing's have been based from information received from : No boundary information received.
Refer architect for boundary information and locations
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.

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 works to be carried out as far as practicably possible from existing structure(s).

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 JK Geotechnics ref: 31772L2rpt for details.

HAZARDOUS MATERIALS
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 JK Geotechnics ref: 31772L2rpt 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 works.

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.

SITEWORKS NOTES

1. 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.
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

STORMWATER DRAINAGE NOTES

1 Stormwater Design Criteria :
(A) Average exceedance probability –
1% AEP for roof drainage to first external pit
5% AEP for paved and landscaped areas
(B) Rainfall intensities –
Time of concentration: 5 minutes
1% AEP = mm/hr
5% AEP = mm/hr
(C) Rainfall losses –
Impervious areas: IL = 1.5 mm , CL = 0 mm/hr
Pervious areas: IL = mm , CL = mm/hr

2. Pipes 300 dia and larger to be reinforced concrete Class "2" approved spigot and socket with rubber ring joints U.N.O.
3. 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 Engineer.
6. Enlargers, connections and junctions to be manufactured fittings where pipes are less than 300 dia.
7. 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.
11. All stormwater pipes to be 150 dia at 1.0% min fall U.N.O.
12. Subsoil drains to be slotted flexible uPVC U.N.O.
13. Adopt invert levels for pipe installation (grades shown are only nominal).

RETAINING WALLS

1. 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.
5. For all temporary batters obtain geotechnical engineers recommendations.

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.
4. Carborundum to be added to all stair treads and ramped crossings U.N.O.

SURVEY LEGEND

+18.48	Surface level
19	Contour
	Kerb line
	Batter
	Retaining wall
SW	Stormwater drainage line
T	Telecommunications line
G	Gas line
W	Water main
S	Sewer line
E	Electrical line
EASEMENT FOR ____(__m WIDE)	Easement
	Fence
	Tree to be removed/be retained
	Boundary
SGN	Sign
H	Hydrant
MH	Manhole
G	Gas
SV	Stop Valve
W	Water
TEL	Telecomunications
TRAP	Trap
	Gully
	Grate
S	Sewer Manhole
E	Electricity
ELP	Electric Light Pole
TL	Traffic Light
TLL	Traffic Light Lid
TLB	Traffic Light Box
TB	Telephone Box
PKM	Parking Meter
PM 1234	Permanent Mark
BM 51.10	Bench Mark
BH 0	Borehole
TP No	Test Pit

EXISTING SERVICES LEGEND

S S	Existing sewer
W W	Existing water
EU	Existing underground electrical
EA	Existing aerial electrical
T T	Existing communications
G G	Existing gas
SW	Existing stormwater

SITE LOCALITY PLAN
NOT TO SCALE

CIVIL DRAWING SCHEDULE

Drawing No.	Drawing Title
C500	COVER, NOTES AND LEGEND SHEET
C505	EROSION & SEDIMENT CONTROL PLAN AND DETAILS
C510	SITEWORKS AND PAVEMENT PLAN
C530	DETAILS SHEET

FileName: C500.dwg - USER: jheath - Plot File Created: Dec 17, 2020 - 10:59am

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P3	ISSUE FOR SSDA	GC	JH	17.12.20
P2	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P1	ISSUE FOR DRAFT DA	GC	LW	30.10.20

Architect
AJ+C Allen Jack+Cottier
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

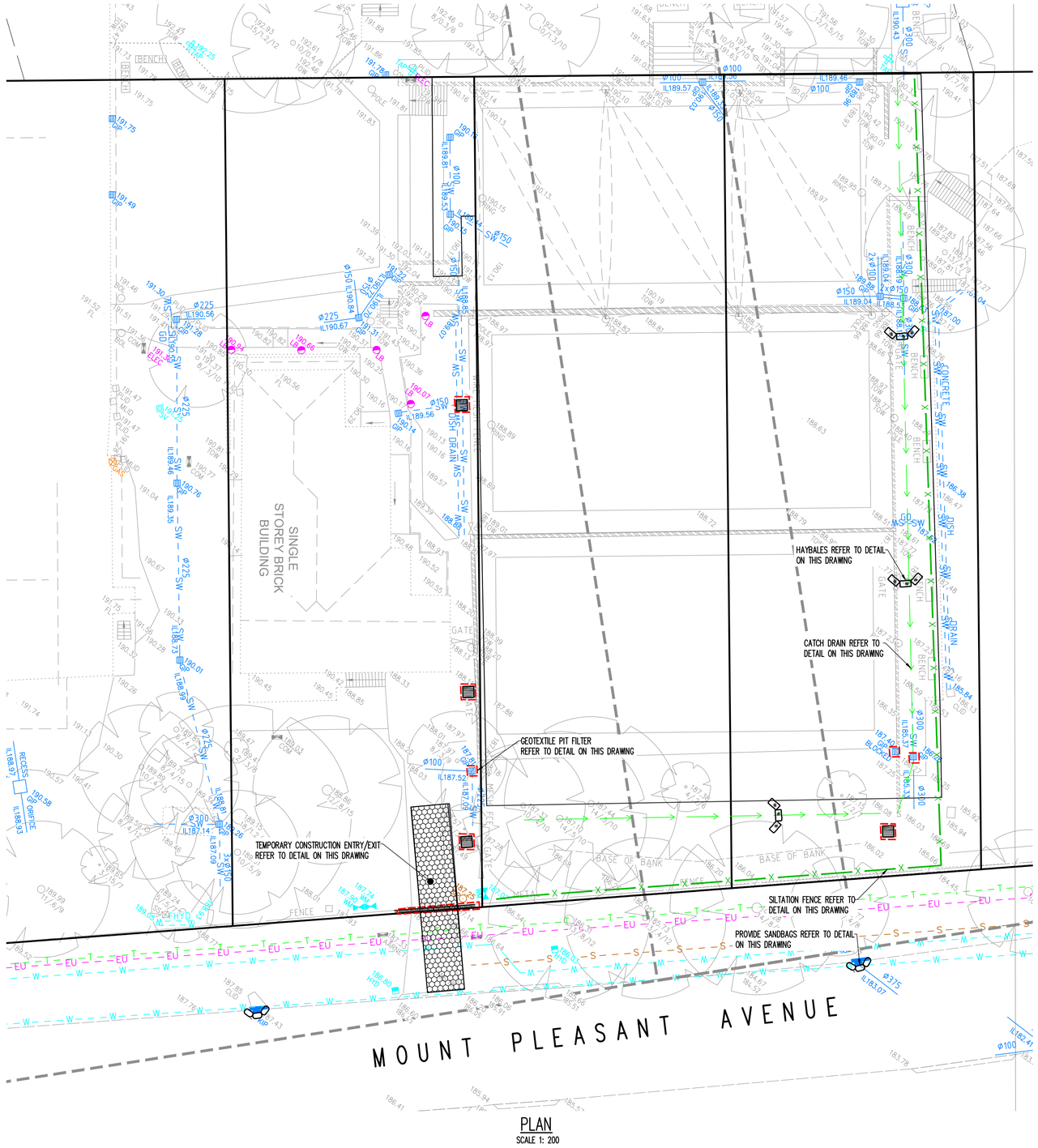
Project
LORETO NORMANHURST
PA4 CARPARK

Sheet Subject
COVER, NOTES AND LEGENDS SHEET

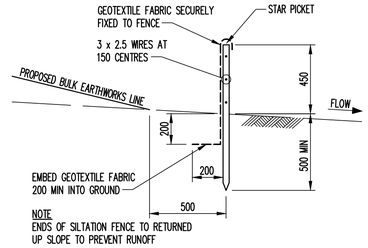
Scale : A1 NTS
Drawn LW
Authorised
Job No 201435
Drawing No C500
Revision P3
Plot File Created: Dec 17, 2020 - 10:59am

This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

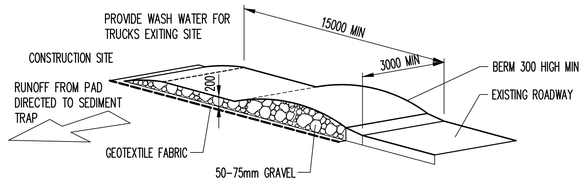
THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C500



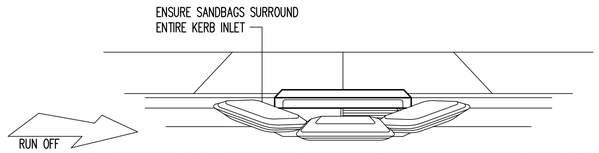
PLAN
SCALE 1: 200



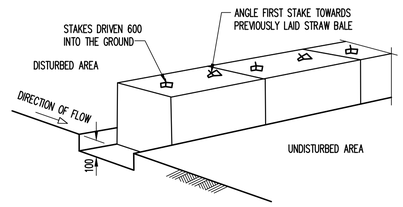
SILTATION FENCE DETAIL
SCALE 1: 20



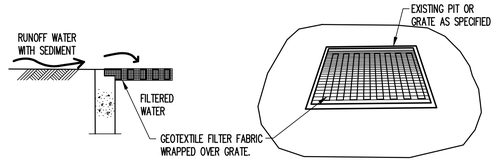
TEMPORARY CONSTRUCTION EXIT
NTS



SANDBAG KERB INLET SEDIMENT TRAP
NTS



HAY BALE SEDIMENT FILTER
NTS
NOTE: STAKE TO BE EITHER TAR COATED STAR OR 50 x 50 HARDWOOD



GEOTEXTILE PIT FILTER
NTS

EROSION AND SEDIMENT CONTROL NOTES

1. 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").
2. 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.
3. Maintain all erosion and sediment control devices to the satisfaction of the superintendent and the local authority.
4. When stormwater pits are constructed prevent site runoff entering the pits unless silt fences are erected around pits.
5. Minimise the area of site being disturbed at any one time.
6. Protect all stockpiles of materials from scour and erosion. Do not stockpile loose material in roadways, near drainage pits or in watercourses.
7. 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.
8. Control water from upstream of the site such that it does not enter the disturbed site.
9. All construction vehicles shall enter and exit the site via the temporary construction entry/exit.
10. All vehicles leaving the site shall be cleaned and inspected before leaving.
11. Maintain all stormwater pipes and pits clear of debris and sediment. Inspect stormwater system and clean out after each storm event.
12. Clean out all erosion and sediment control devices after each storm event.

Sequence Of Works

1. Prior to commencement of excavation the following soil management devices must be installed.
1.1. Construct silt fences below the site and across all potential runoff sites.
1.2. Construct temporary construction entry/exit and divert runoff to suitable control systems.
1.3. Construct measures to divert upstream flows into existing stormwater system.
1.4. Construct sedimentation traps/basin including outlet control and overflow.
1.5. Construct turf lined swales.
1.6. Provide sandbag sediment traps upstream of existing pits.
2. Construct geotextile filter pit surround around all proposed pits as they are constructed.
3. 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.

EROSION AND SEDIMENT CONTROL LEGEND

- Batter
- Siltation fence
- Stormwater pit with Geotextile filter surround
- Sandbag sediment trap
- Hay bale barriers
- Catch drain

0 2 4 6 8 10 12 14 16m
1:200 A1 1:400 A3

FileName: C505.dwg – USER: jheath – Plot File Created: Dec 17, 2020 - 12:03pm

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P3	ISSUE FOR SSDA	GC	JH	17.12.20
P2	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P1	ISSUE FOR DRAFT DA	GC	LW	30.10.20

Architect
AJ+C Allen Jack+Cottier
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project
LORETO NORMANHURST
PA4 CARPARK

Sheet Subject
EROSION & SEDIMENT CONTROL PLAN AND DETAILS

Scale : A1 1:200 U.N.O
Drawn JH
Authorised SB
Job No 201435
Drawing No C505
Revision P3
Plot File Created: Dec 17, 2020 - 12:03pm

This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C500

PAVEMENT LEGEND

NOTES

1. Asphaltic concrete shall conform to AS2150 and the specification
2. Pavement based on geotechnical report by JK Geotechnics dated 24 October 2018 (31772Lrpt)

- P1 — ASPHALTIC PAVEMENT
- P2 — CONCRETE PAVEMENT
- P3 — FEATURE PAVING TREATMENT
- P4 — GRAVEL PAVEMENT
- L1 — LANDSCAPING
- BUILDING EXTENT

SITEWORKS LEGEND

- F22.20 — Finished surface level
- F22.00 — Finished contour
- Stormwater pit, flow direction and line with
- IL10.00 / 600 ø 'z' / 1.25% / Q=345 L/s / IL9.65 — Invert level upstream, Pipe size and class, Pipe grade, Flow (Litres per second), Invert level downstream
- GD — Grated drain
- RW1 — Brickwork retaining wall
- Swale

0 2 4 6 8 10 12 14 16m

1:200 A1 1:400 A3

A1 0 1 2 3 4 5 6 7 8 9 10

FileName: C510.dwg - USER: jheath - Plot File Created: Dec 17, 2020 - 11:00am

Rev	Description	Eng	Draft	Date
P4	ISSUE FOR SSDA	GC	JH	17.12.20
P3	ISSUE FOR SSDA	GC	JH	09.12.20
P2	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P1	ISSUE FOR DRAFT DA	GC	LW	30.10.20

Architect
AJ+C Allen Jack+Cottier
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project
LORETO NORMANHURST
PA4 CARPARK

Sheet Subject
SITEWORKS AND PAVEMENT PLAN

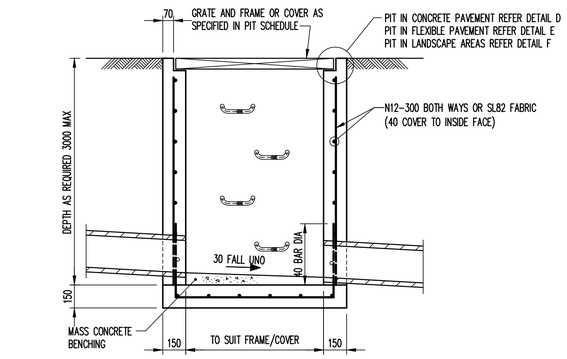
Scale : A1 1:200 | Drawn JH | Authorised SB

Job No 201435 | Drawing No C510 | Revision P4

Plot File Created: Dec 17, 2020 - 11:00am

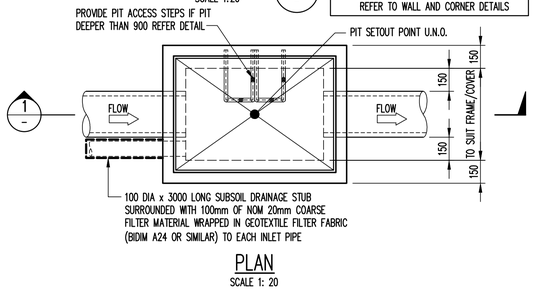
This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C500



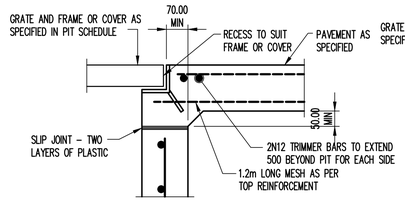
SECTION 1 –
SCALE 1:20

NOTE:IF REINFORCING FABRIC IS TO BE USED REFER TO WALL AND CORNER DETAILS

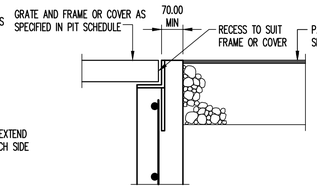


PLAN
SCALE 1: 20

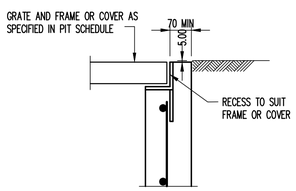
PIT TYPE PIT-TYPE



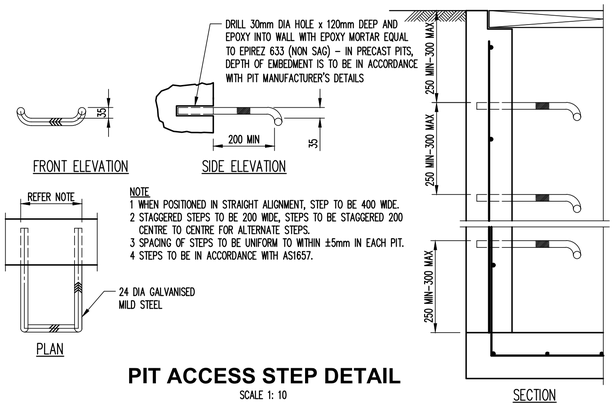
DETAIL D
SCALE 1: 10



DETAIL E
SCALE 1: 10

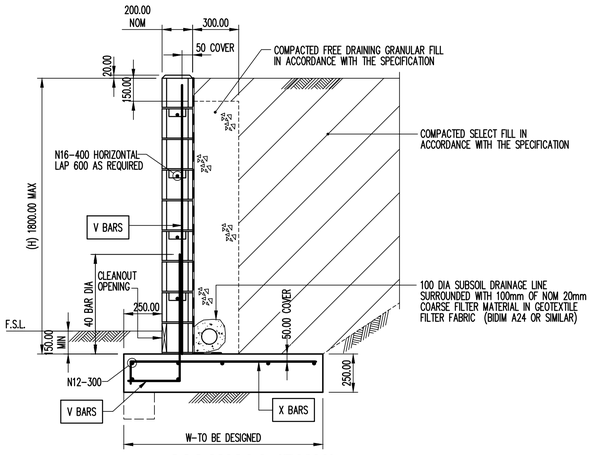


DETAIL F
SCALE 1: 10

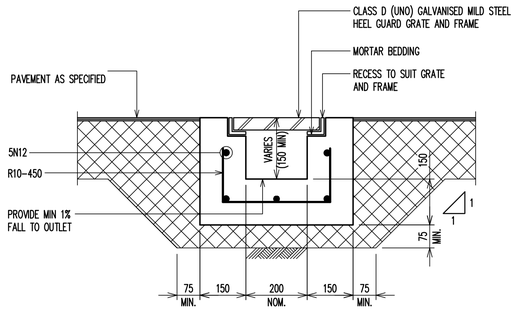


NOTE
1 WHEN POSITIONED IN STRAIGHT ALIGNMENT, STEP TO BE 400 WIDE.
2 STAGGERED STEPS TO BE 200 WIDE, STEPS TO BE STAGGERED 200 CENTRE TO CENTRE FOR ALTERNATE STEPS.
3 SPACING OF STEPS TO BE UNIFORM TO WITHIN ±5mm IN EACH PIT.
4 STEPS TO BE IN ACCORDANCE WITH AS1657.

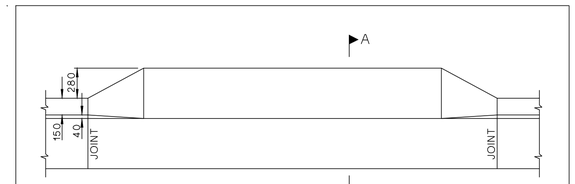
PIT ACCESS STEP DETAIL
SCALE 1: 10

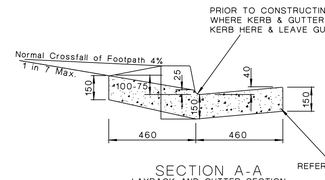


200 WALL (RW1)
SCALE 1: 20



GRATED DRAIN TYPE A (GD)
SCALE 1:10





SECTION A-A
LAYBACK AND GUTTER SECTION

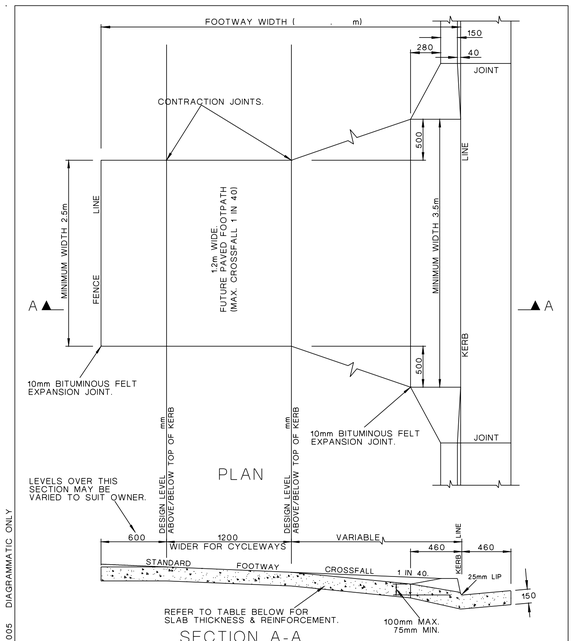
NOTES:
1. ALL EDGES TO BE SHAPED WITH AN EDGING TOOL (25mm RADIUS).
2. COMPRESSIVE STRENGTH OF CONCRETE TO BE NOT LESS THAN 20MPa AT 28 DAYS.
3. THE ROAD BASE COURSE IS TO BE EXTENDED BENEATH THE KERB AND GUTTER.
4. MASTIC JOINTS TO BE PLACED NO MORE THAN 6.0m AND NOT LESS THAN 4.0m INTERVALS.

D'WAY TYPE	LAYBACK THICKNESS & REINFORCEMENT
RESIDENTIAL	150mm
RESIDENTIAL H.D.	150mm, F72
COMMERCIAL	200mm, 2xF72

STD DWG No.4

HORNSBY COUNCIL DESIGN BRANCH APRIL 2005 DIAGRAMMATIC ONLY

HORNSBY COUNCIL
STANDARD LAYBACK



SECTION A-A

NOTES:
1. ALL EDGES TO BE SHAPED WITH AN EDGING TOOL (25mm RADIUS).
2. COMPRESSIVE STRENGTH OF CONCRETE TO BE NOT LESS THAN 20MPa AT 28 DAYS.
3. THE ROAD BASE COURSE IS TO BE EXTENDED BENEATH THE KERB AND GUTTER.
4. MASTIC JOINTS TO BE PLACED NO MORE THAN 6.0m AND NOT LESS THAN 4.0m INTERVALS.
5. ALL REINFORCEMENT TO HAVE MINIMUM 40mm COVER.
6. ADJUST NATURESTRIP TO SUIT NEW CROSSING (MAX. SLOPE 1 IN 8)

CROSSING TYPE	SLAB THICKNESS & REINFORCEMENT	LAYBACK THICKNESS & REINFORCEMENT
RESIDENTIAL	125mm, F62	150mm
RESIDENTIAL H.D.	150mm, F72,	150mm, F72
COMMERCIAL	200mm, 2xF72	200mm, 2xF72

STD DWG No.16A

HORNSBY COUNCIL DESIGN BRANCH APRIL 2005 DIAGRAMMATIC ONLY

HORNSBY COUNCIL
STANDARD CROSSING

FileName: C530.dwg – USER: jhetch – Plot File Created: Dec 17, 2020 - 11:01am

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P3	ISSUE FOR SSDA	GC	JH	17.12.20
P2	ISSUE FOR DRAFT SSDA	GC	LW	30.11.20
P1	ISSUE FOR DRAFT DA	GC	LW	30.10.20

Architect
AJ+C Allen Jack+Cottier
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200
ABN 53 003 782 250

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project
LORETO NORMANHURST
PA4 CARPARK

Sheet Subject
DETAILS SHEET

Scale : A1
AS SHOWN

Drawn
LW

Authorised

Job No
201435

Drawing No
C530

Revision
P3

Plot File Created: Dec 17, 2020 - 11:01am

This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING SKC000

MARY WARD

LORETO NORMANHURST, 91-93 PENNANT HILLS ROAD, NORMANHURST

GENERAL NOTES

1. Contractor must verify all dimensions and existing levels on site prior to commencement of works. Any discrepancies to be reported to the Engineer .
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 footprint.
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

1. 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.

Consultant	Dwg Title	Dwg No	Rev	Date
OCULUS	MARY WARD	DA2001	3	09.01.19
AJ+C	MARY WARD COURTYARD	DA9000	1	07.01.19

SURVEY AND SERVICES INFORMATION

SURVEY

Origin of levels : SSM46458, RL189.789
Datum of levels : A.H.D. AUSTRALIAN HEIGHT DATUM
Coordinate system : MGA
Survey prepared by : LTS LOCKLEY
Setout Points : CONTACT THE SURVEYOR

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

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 works to be carried out as far as practicably possible from existing structure(s).

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 details.

HAZARDOUS MATERIALS

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 works.

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.

BOUNDARY AND EASEMENT NOTE

The property boundary and easement locations shown on Taylor Thomson Whitting drawing's have been based from information received from : No boundary information received.
Refer architect for boundary information and locations

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.

KERBING NOTES

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

1. 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.
3. 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.

STORMWATER DRAINAGE NOTES

1 Stormwater Design Criteria :
(A) Average exceedance probability –
1% AEP for roof drainage to first external pit
5% AEP for paved and landscaped areas
(B) Rainfall intensities –
Time of concentration: 5 minutes
1% AEP = 21.7 mm
5% AEP = 16.1 mm
(C) Rainfall losses –
Impervious areas: IL = 1.5 mm , CL = 0 mm/hr
Pervious areas: IL =26.6 mm , CL = 2 mm/hr

2. Pipes 300 dia and larger to be reinforced concrete Class "2" approved spigot and socket with rubber ring joints U.N.O.
3. 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 Engineer
6. Enlargers, connections and junctions to be manufactured fittings where pipes are less than 300 dia.
7. 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.
11. All stormwater pipes to be 150 dia at 1.0% min fall U.N.O.
12. Subsoil drains to be slotted flexible uPVC U.N.O.
13. Adopt invert levels for pipe installation (grades shown are only nominal).

RETAINING WALLS

1. 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.
5. For all temporary batters obtain geotechnical engineers recommendations.

SURVEY LEGEND

+18.48	Surface level
19	Contour
	Kerb line
	Batter
	Retaining wall
SW	Stormwater drainage line
T	Telecommunications line
G	Gas line
W	Water main
S	Sewer line
E	Electrical line
EASEMENT FOR ____(__m WIDE)	Easement
	Fence
	Tree to be removed/be retained
	Boundary
SGN	Sign
H	Hydrant
MH	Manhole
G	Gas
SV	Stop Valve
W	Water
TEL	Telecommunications
TRAP	Trap
	Gully
	Grate
S	Sewer Manhole
E	Electricity
ELP	Electric Light Pole
TL	Traffic Light
TLL	Traffic Light Lid
TLB	Traffic Light Box
TB	Telephone Box
PKM	Parking Meter
PM 1234	Permanent Mark
BM 51.10	Bench Mark
BH 0	Borehole
TP No	Test Pit

EXISTING SERVICES LEGEND

S	Existing sewer
W	Existing water
EU	Existing underground electrical
EA	Existing aerial electrical
T	Existing communications
G	Existing gas
SW	Existing stormwater

SITE LOCALITY PLAN
NOT TO SCALE – IMAGE COURTESY OF NSW SPATIAL INFORMATION EXCHANGE

DRAWING SCHEDULE

Drawing No	Drawing Title
SKC200	NOTES AND LEGENDS SHEET
SKC201	EROSION & SEDIMENT CONTROL PLAN
SKC202	SITEWORKS CONCEPT PLAN
SKC203	CATCHMENT PLAN

FileName: SKC200.dwg – USER: grace – Plot File Created: Jan 17, 2019 - 12:26pm

A1 0 1 2 3 4 5 6 7 8 9 10

FOR APPROVAL

Rev	Description	Eng	Draft	Date
P1	ISSUE FOR DA	GC	DM	17.01.19

Architect
AJ+C ARCHITECTS
LEVEL 2/79 MYRTLE ST, CHIPPENDALE NSW 2008
P) 02 9311 8222
http://architectsajc.com/

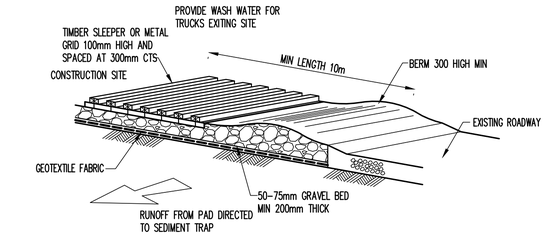
Civil Engineer
Taylor Thomson Whitting
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project
LORETO NORMANHURST,
91-93 PENNANT HILLS ROAD,
NORMANHURST

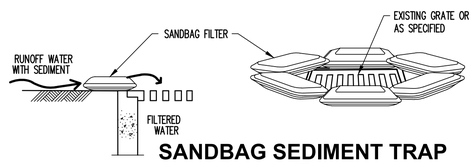
Sheet Subject
NOTES AND LEGEND SHEET

Scale : A1 -
Drawn DM
Authorised
Job No 181202
Drawing No SKC200
Revision P1
Plot File Created: Jan 17, 2019 - 12:26pm

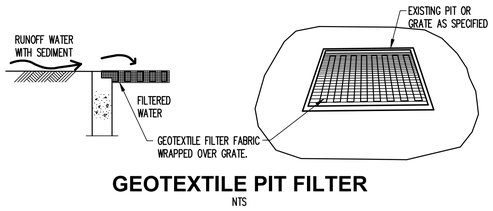
This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.



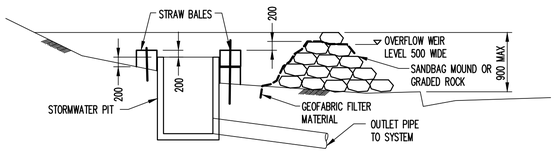
TEMPORARY CONSTRUCTION VEHICLE EXIT
NTS



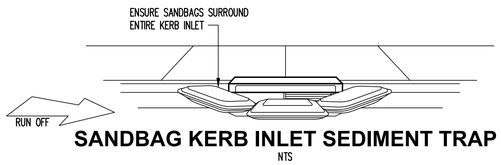
SANDBAG SEDIMENT TRAP
NTS



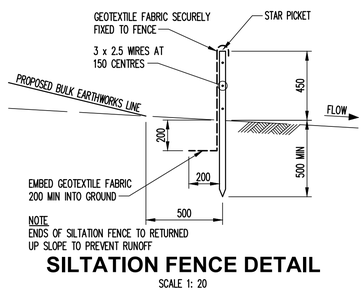
GEOTEXTILE PIT FILTER
NTS



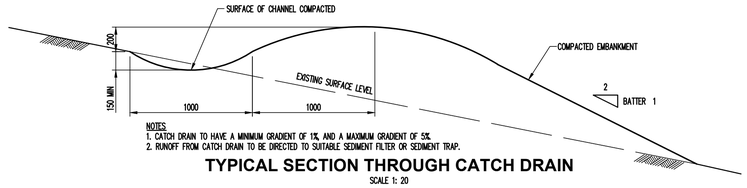
SEDIMENTATION TRAP
NTS



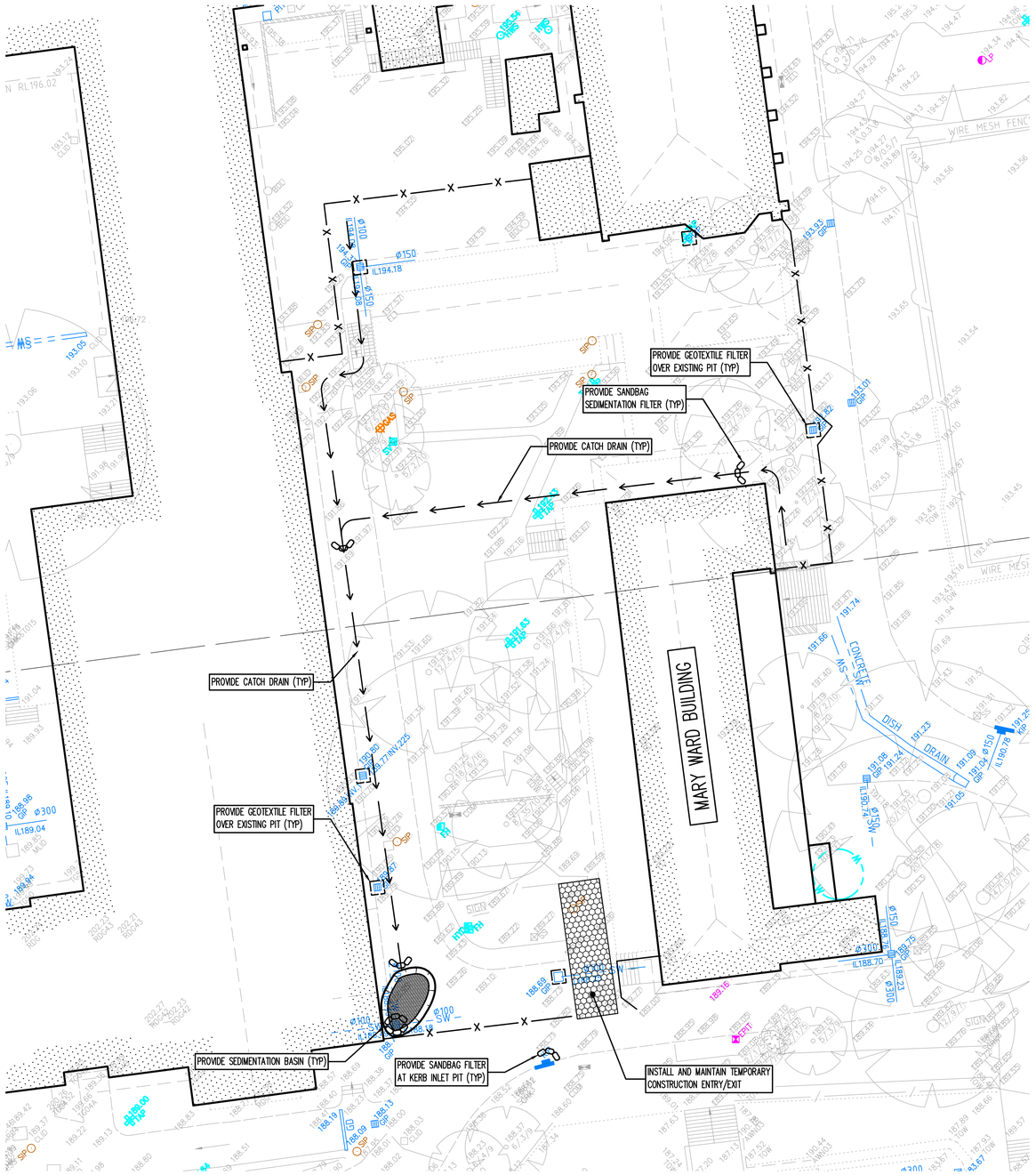
SANDBAG KERB INLET SEDIMENT TRAP
NTS



SILTATION FENCE DETAIL
SCALE 1: 20



TYPICAL SECTION THROUGH CATCH DRAIN
SCALE 1: 20


PROVIDE GEOTEXTILE FILTER OVER EXISTING PIT (TYP)
PROVIDE SANDBAG SEDIMENTATION FILTER (TYP)
PROVIDE CATCH DRAIN (TYP)
PROVIDE CATCH DRAIN (TYP)
PROVIDE GEOTEXTILE FILTER OVER EXISTING PIT (TYP)
PROVIDE SEDIMENTATION BASIN (TYP)
PROVIDE SANDBAG FILTER AT KERB INLET PIT (TYP)
INSTALL AND MAINTAIN TEMPORARY CONSTRUCTION ENTRY/EXIT
MARY WARD BUILDING
WIRE MESH FENCE
CONCRETE SW
DISH DRAIN
Ø100
Ø150
IL194.18
Ø300
IL188.70
Ø150
IL188.75
Ø300
IL189.22
Ø150
IL190.78
Ø150
IL190.79
Ø150
IL188.19
Ø100
IL188.09
Ø300
IL189.04
Ø300
IL188.98
193.82 RL193.77 INV.225
188.69 INV
188.19 INV
188.09 INV
188.13 INV
188.00 INV
191.74
191.66
191.24
191.23
191.09
191.04
191.05
193.56
193.54
193.53
193.45
193.35
193.19
193.16
193.05
193.06
193.02
192.98
192.53
192.39
192.27
192.23
192.21
192.20
192.10
192.03
191.98
191.94
191.89
191.85
191.69
191.66
191.57
191.43
191.39
191.34
191.04
190.97
190.67
190.57
190.44
190.11
189.98
189.83
189.69
189.42
189.22
189.13
188.98
188.83
188.66
188.51
188.40
188.27
188.17
188.03
187.98
187.63
187.20
186.85
186.79
186.66
186.57
186.50
186.16
185.79
185.66
185.57
185.46
185.2
185.3
194.47
194.41
194.36
194.34
194.32
194.29
194.27
194.22
194.13
194.11
194.08
194.05
194.03
193.98
193.89
193.82
193.80
193.71
193.66
193.65
193.56
193.55
193.53
193.45
193.43
193.39
193.37
193.34
193.31
193.29
193.27
193.25
193.23
193.21
193.19
193.17
193.15
193.13
193.11
193.09
193.07
193.05
193.03
193.01
192.99
192.97
192.95
192.93
192.91
192.89
192.87
192.85
192.83
192.81
192.79
192.77
192.75
192.73
192.71
192.69
192.67
192.65
192.63
192.61
192.59
192.57
192.55
192.53

This drawing is copyright and is the property of TAYLOR THOMSON WHITTING (NSW) Pty Ltd and must not be used without authorisation.

SITEWORKS LEGEND

- F22.20 — Finished surface level
- KO — Kerb only
- Stormwater pit, flow direction and line with
  - Invert level upstream
  - Pipe size and class
  - Pipe grade
  - Flow (Litres per second)
  - Invert level downstream
  - (IL10.00 / 600 ø 'Z' / 1.25% / Q=345 L/s / IL9.65)
- IR — Intermediate riser with subsoil drainage line (100 dia)
- FP — Flushing point with subsoil drainage line (100 dia)
- DP — Down pipe
- RW# — Blockwork retaining wall
- SW — Existing stormwater pipe

MARY WARD BUILDING

0 1 2 3 4 5 6 7 8m

1:100 A1 1:200 A3

FOR APPROVAL

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P2	ISSUE FOR DA	GC	DM	11.01.19
P1	ISSUE FOR DA	GC	DM	20.12.18

Architect
AJ+C ARCHITECTS
LEVEL 2/79 MYRTLE ST, CHIPPENDALE NSW 2008
P) 02 9311 8222
http://architectsajc.com/

Civil Engineer
Taylor Thomson Whitting
612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project
MARY WARD BUILDING
LORETO NORMANHURST,
91-93 PENNANT HILLS ROAD,
NORMANHURST

Sheet Subject
SITEWORKS CONCEPT PLAN

Scale : A1 — 1:100
Drawn — DM
Authorised
Job No — 181202
Drawing No — SKC202
Revision — P2
Plot File Created: Jan 11, 2019 - 5:18pm

File Name: SKC202.dwg - USER: gmace - Plot File Created: Jan 11, 2019 - 5:18pm