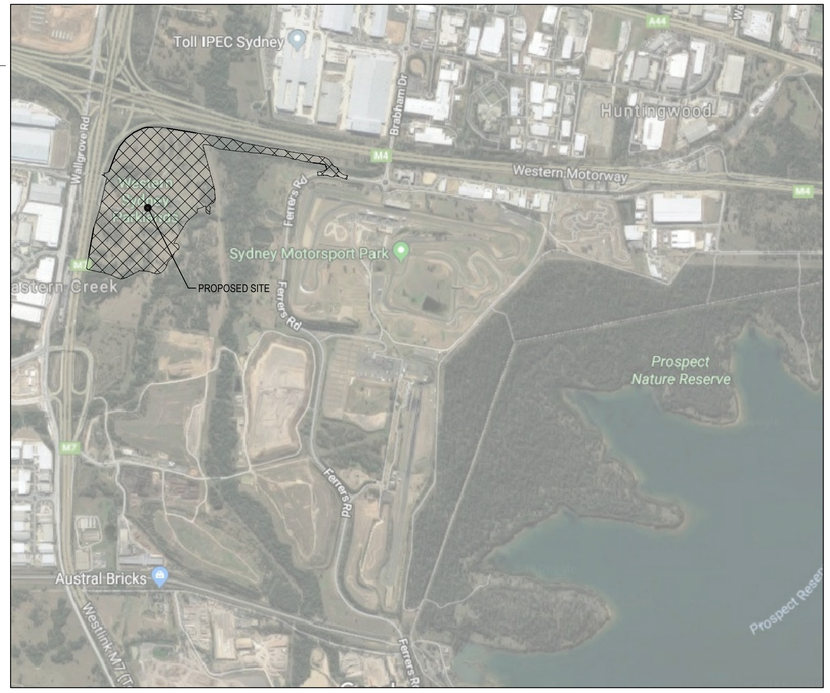
LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)
STAGE 1 - CIVIL ENGINEERING WORKS



LOCALITY SKETCH

SCALE: N.T.S.

DRAWING SCHEDULE	
18652_SSDA_C000	COVER SHEET, DRAWING SCHEDULE AND LOCALITY SKETCH
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18652_SSDA_C102	DETAIL PLAN - SHEET 2 OF 9
18652_SSDA_C103	DETAIL PLAN - SHEET 3 OF 9
18652_SSDA_C104	DETAIL PLAN - SHEET 4 OF 9
18652_SSDA_C105	DETAIL PLAN - SHEET 5 OF 9
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18652_SSDA_C107	DETAIL PLAN - SHEET 7 OF 9
18652_SSDA_C108	DETAIL PLAN - SHEET 8 OF 9
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18652_SSDA_C241	BASIN DETAILS - SHEET 2 OF 2
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18652_SSDA_C609	WATER MANAGEMENT BASIN MAINTENANCE TURNING PATHS
18652_SSDA_SE01	SEDIMENT AND EROSION CONTROL PLAN - SHEET 1 OF 2
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18652_SSDA_BE01	BULK EARTHWORKS CONCEPT CUT AND FILL PLAN - SHEET 1 OF 2
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18652_SSDA_EX01	EXTERNAL WORKS PLAN - WALLGROVE ROAD

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
07	ISSUED FOR APPROVAL	IK	NW	05.05.2020					
06	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
05	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
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02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019					
01	PRELIMINARY	IK	NW	29.03.2019					

Client: WESTERN SYDNEY PARKLANDS TRUST

Architect: NETTLETONTRIBE

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Project	Drawn	Designed	Date
LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667)	M.Stimova	L.Caha	FEB 2019
	Checked: N.Wetzlar	Approved: A.Francis	Scale @A1: NTS
Title: COVER SHEET, DRAWING SCHEDULE AND LOCALITY SKETCH	Drawing number: 18652_SSDA_C000		Revision: 07

GENERAL NOTES:

1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL SPECIFICATION. CONTRACTOR TO OBTAIN AND RETAIN A COPY ON SITE DURING THE COURSE OF THE WORKS.
2. ALL NEW WORKS ARE TO MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS AND MARRY IN A 'WORKMANLIKE' MANNER.
3. THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL SERVICES WITH EACH RELEVANT AUTHORITY. ANY DAMAGE TO SERVICES SHALL BE RECTIFIED BY THE CONTRACTOR OR THE RELEVANT AUTHORITY AT THE CONTRACTOR'S EXPENSE. SERVICES SHOWN ON THESE PLANS ARE ONLY THOSE EVIDENT AT THE TIME OF SURVEY OR AS DETERMINED FROM SERVICE DIAGRAMS. H & H CONSULTING ENGINEERS PTY. LTD CANNOT GUARANTEE THE INFORMATION SHOWN NOR ACCEPT ANY RESPONSIBILITY FOR INACCURACIES OR INCOMPLETE DATA.
4. SERVICES & ACCESSES TO THE EXISTING PROPERTIES ARE TO BE MAINTAINED IN WORKING ORDER AT ALL TIMES DURING CONSTRUCTION.
5. ADJUST EXISTING SERVICE COVERS TO SUIT NEW FINISHED LEVELS TO RELEVANT AUTHORITY REQUIREMENTS WHERE NECESSARY.
6. REINSTATE AND STABILISE ALL DISTURBED LANDSCAPED AREAS.
7. MINIMUM GRADE OF SUBSOIL SHALL BE 0.5% (1:200) FALL TO OUTLETS.
8. ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS, EROSION AND SEDIMENTATION CONTROL PLAN AND BLACKTOWN CITY COUNCIL REQUIREMENTS WHERE APPLICABLE.
9. CONTRACTOR TO CHECK AND CONFIRM SITE DRAINAGE CONNECTIONS ACROSS THE VERGE PRIOR TO COMMENCEMENT OF SITE DRAINAGE WORKS.
10. PROPERTIES AFFECTED BY THE WORKS ARE TO BE NOTIFIED IN ADVANCE WHERE DISRUPTION TO EXISTING ACCESS IS LIKELY.

SURVEY NOTES

1. THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY THE SURVEYOR SPECIFIED IN THE TITLE BLOCK.
2. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. HENRY AND HYMAS PTY. LTD. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.
3. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT HENRY AND HYMAS PTY. LTD. THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY FROM ORIGINAL SURVEY DOCUMENTS.

- ORIGIN OF LEVELS GPS RTK
- DATUM A.H.D.
- CONTOUR INTERVAL 1.0m

SUBGRADE PREPARATION - SITEWORKS.

1. THE EXISTING SURFACE IS TO BE STRIPPED OF ANY PAVEMENTS, TOPSOIL OR OBVIOUS UNSUITABLE MATERIAL.
2. EXCAVATE TO ACHIEVE SUBGRADE LEVELS WHERE NECESSARY.
3. THE EXPOSED SUBGRADE AFTER STRIPPING AND/ OR EXCAVATION IS TO BE PROOF ROLLED USING NOT FEWER THAN 5 PASSES OF A MINIMUM 8 TONNE DEAD WEIGHT STEEL SMOOTH-DRUM ROLLER UNDER THE SUPERVISION OF AN EXPERIENCED GEOTECHNICAL ENGINEER OR AN EXPERIENCED CIVIL ENGINEER. ANY AREAS ON THE SUBGRADE EXHIBITING EXCESSIVE DEFLECTION / MOVEMENT UNDER ROLLER TO BE EXCAVATED TO A MIN. DEPTH OF 0.5m AND REPLACED WITH APPROVED GRANULAR MATERIAL COMPACTED IN 250mm LOOSE LAYERS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
4. ENGINEERED FILL FOR REPLACEMENT OF SOFT OR HEAVING AREAS OR FOR BULK FILLING TO COMPRISE ESSENTIALLY OF GRANULAR MATERIALS (EG. EXCAVATED SHALE), WITH A PARTICLE SIZE NOT GREATER THAN 75mm DIAMETER. ENGINEERED FILL TO BE PLACED IN LAYERS NOT EXCEEDING 250mm LOOSE THICKNESS AND COMPACTED TO BETWEEN 98% AND 102% OF STANDARD MAXIMUM DRY DENSITY (SMDD) WITHIN ± 2% OF OPTIMUM MOISTURE CONTENT (OMC).
5. IMPORTED FILLING (IF REQUIRED) IS TO BE TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER. THE CONTRACTOR IS TO NOMINATE THE SOURCE AND PROVIDE A SAMPLE FOR APPROVAL PRIOR TO IMPORTATION AND PLACEMENT ON SITE.
6. ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE FOLLOWING.
   FREE FORM ORGANIC AND PERISHABLE MATTER
   MAXIMUM PARTICLE SIZE = 75mm
   MAXIMUM PLASTICITY INDEX = 15%

SUBSOIL DRAINAGE NOTES

1. GENERALLY PROVIDE SUBSOIL DRAINS TO INTERCEPT GROUNDWATER SEEPAGE AND PREVENT WATER BUILD-UP BEHIND WALLS AND UNDER FLOORS AND PAVEMENTS. CONNECT SUBSOIL TO SURFACE DRAINS OR TO THE STORMWATER DRAINAGE SYSTEM AS APPLICABLE.
2. PIPE DEPTH:
   PROVIDE THE FOLLOWING MINIMUM CLEAR DEPTH, MEASURED TO THE CROWN OF THE PIPE, WHERE THE PIPE PASSES BELOW THE FOLLOWING ELEMENTS:

- 100mm BELOW FORMATION LEVEL OF THE PAVEMENT, KERB OR CHANNEL.
- 100mm BELOW THE AVERAGE GRADIENT OF THE BOTTOM OF FOOTINGS.

3. JOINTING:
   AT JUNCTIONS OF SUBSOIL PIPES PROVIDE TEES, COUPLINGS OR ADAPTORS TO AS2439.1.
4. TRENCH WIDTH MINIMUM 300mm.
5. PIPE UNDERLAY
   GENERAL: GRADE THE TRENCH FLOOR EVENLY TO THE GRADIENT OF THE PIPELINE. IF THE TRENCH FLOOR IS ROCK, CORRECT ANY IRREGULARITIES WITH COMPACTED BEDDING MATERIAL. BED PIPING ON A CONTINUOUS UNDERLAY OF BEDDING MATERIAL, AT LEAST 75mm THICK AFTER COMPACTION. LAY THE PIPE WITH ONE LINE OF PERFORATIONS AT THE BOTTOM.

   CHASES: IF NECESSARY TO PREVENT PROJECTIONS SUCH AS SOCKETS AND FLANGES FROM BEARING ON THE TRENCH BOTTOM OR UNDERLAY.
6. PIPE SURROUNDS:
   GENERAL: PLACE THE MATERIAL IN THE PIPE SURROUND IN LAYERS SMALLER THAN OR EQUAL TO 200mm LOOSE THICKNESS, AND COMPACT WITHOUT DAMAGING OR DISPLACING PIPING.
   DEPTH OF OVERLAY: TO THE UNDERSIDE OF THE BASE OF OVERLYING STRUCTURES SUCH AS PAVEMENTS, SLABS AND CHANNELS TO WITHIN 150mm OF THE FINISHED SURFACE OF UNPAVED OR LANDSCAPED AREAS.
7. FILTER SOCKS:
   PROVIDE POLYESTER PERMEABLE SOCKS CAPABLE OF RETAINING PARTICLES OF 0.25mm SIZES. SECURELY FIT OR JOIN THE SOCK AT EACH JOINT.

SITEWORKS NOTES

1. DATUM : A.H.D.
2. ORIGIN OF LEVELS : REFER TO BENCH OR STATE SURVEY MARKS WHERE SHOWN ON PLAN.
3. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS & THE DIRECTIONS OF THE SUPERINTENDENT.
5. EXISTING SERVICES UNLESS SHOWN ON THE SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
6. WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS ACHIEVED.
7. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
8. CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATION IS TO BE UNDERTAKEN OVER TELSTRA OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
9. CONTRACTOR TO OBTAIN AUTHORITY APPROVALS WHERE APPLICABLE.
10. MAKE SMOOTH TRANSITION TO EXISTING SURFACES AND MAKE GOOD.
11. THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED LANDSCAPE, ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND SPECIFICATIONS
12. OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED RELATING
13. TO DEVELOPMENT AT THE SITE.
14. TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MINIMUM OF 50mm IN BITUMINOUS PAVING.
15. ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN Ø80 uPVC SEWER GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.
16. GRADES TO PAVEMENTS TO BE AS IMPLIED BY RL'S ON PLAN . GRADE EVENLY BETWEEN NOMINATED RL'S. AREAS EXHIBITING PONDING GREATER THAN 5mm DEPTH WILL NOT BE ACCEPTED UNLESS IN A DESIGNATED SAG POINT.
17. ALL COVERS AND GRATES ETC TO EXISTING SERVICE UTILITIES ARE TO BE ADJUSTED TO SUIT NEW FINISHED SURFACE LEVELS WHERE APPLICABLE.

DRAINAGE NOTES:

1. ALL STORMWATER WORK TO COMPLY WITH AS 3500 PART 3.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE MINIMUM COVER OF 600mm ON ALL PIPES.

3. PROTECTION OF PIPES DUE TO LOADS EXCEEDING W7 WHEEL LOAD SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

4. BEDDING TYPE SHALL BE TYPE H2 FOR RCP. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS. REFER TO THIS DRAWING FOR DETAILS.

5. MINIMUM COVER OVER EXISTING PIPES FOR PROTECTION DURING CONSTRUCTION SHALL BE 800mm.

6. NO CONSTRUCTION LOADS SHALL BE APPLIED TO PLASTIC PIPES.

7. FINISHED SURFACE LEVELS SHOWN ON LAYOUT PLAN DRGS TAKE PRECEDENCE OVER DESIGN DRAINAGE SURFACE LEVELS.

8. ALL PIPES UP TO AND INCLUDING 300 DIA. SHALL BE SOLVENT OR RUBBER RING JOINTED PVC CLASS SH PIPE TO AS1260. ALL OTHER PIPES TO BE RCP USING CLASS 2 RUBBER RING JOINTED PIPE. HARDIES FRC PIPE MAY BE USED IN LIEU OF RCP IF DESIRED IN GROUND. ALL AERIAL PIPES TO BE PVC CLASS SH.

9. ALL PITS IN NON TRAFFICABLE AREAS TO BE PREFABRICATED POLYESTER CONCRETE "POLYCRETE" WITH "LIGHT DUTY" CLASS B GALV. MILD STEEL GRATING AND FRAME.
ALL PITS IN TRAFFICABLE AREAS (CLASS "D" LOADING MAX) TO HAVE 150mm THICK CONCRETE WALLS AND BASE CAST IN-SITU fc=32 MPa, REINFORCED WITH N12-200 BOTH LOADING WAYS CENTRALLY PLACE .U.N.O. ON SEPARATE DESIGN DRAWINGS IN THIS SET. GALV.MILD STEEL GRATING AND FRAME TO SUIT DESIGN LOADING. PRECAST PITS, RECTANGULAR OR CIRCULAR IN SHAPE, MAY BE USED IN LIEU AND SHALL COMPLY WITH RELEVANT AUSTRALIAN STANDARDS.

10. ALL PITS, GRATINGS AND FRAMES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION AND TO BE IN ACCORDANCE WITH AS3500.3 AND AS3996.
11. PIT CHAMBER DIMENSIONS ARE TO BE SELECTED TO SATISFY THE FOLLOWING:
- PIPE SIZE
- DEPTH TO INVERT
- SKEW ANGLE
  REFER TYPICAL PIT CHAMBER DETAILS BELOW
IF PIT LID SIZE IS SMALLER THAN THE PIT CHAMBER SIZE THEN THE PIT LID IS TO BE CONSTRUCTED ON THE CORNER OF THE PIT CHAMBER WITH THE STEP IRONS DIRECTLY BELOW. ALTERNATIVELY THE PIT LID TO BE USED, IS TO BE THE SAME SIZE AS THE PIT CHAMBER.

12. FOR PIPE SIZES GREATER THAN Ø300mm, PIT FLOOR IS TO BE BENCHED TO FACILITATE FLOW.

13. GALVANISED STEP IRONS SHALL BE PROVIDED AT 300 CTS FOR PITS HAVING A DEPTH EXCEEDING 1200mm. SUBSOIL DRAINAGE PIPE SHALL BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES. (MINIMUM LENGTH 3m).

14. ALL SUBSOIL PIPES SHALL BE 100mm SLOTTED PVC IN A FILTER SOCK, UNO, WITH 3m INSTALLED UPSTREAM OF ALL PITS.

15. ALL PIPEWORK SHALL HAVE MINIMUM DIAMETER 100.

16. MINIMUM GRADE FOR ROOFWATER DRAINAGE LINES SHALL BE 1%.

17. ALL PIPE JUNCTIONS AND TAPER UP TO AND INCLUDING 300 DIA. SHALL BE VIA PURPOSE MADE FITTINGS.

20. PITS IN EXCESS OF 1.5 m DEEP TO HAVE WALL AND FLOOR THICKNESS INCREASED TO 200mm. REINFORCED WITH N12@200 CTS CENTRALLY PLACED BOTH WAYS THROUGHOUT U.N.O.ON SEPARATE DESIGN DRAWINGS IN THIS SET. IF DEPTH EXCEEDS 5m CONTACT ENGINEER.

21. SUBSOIL DRAINAGE LINES FOR LANDSCAPE AREA NOT SHOWN ON THESE DRAWINGS. REFER TO LANDSCAPING PLANS FOR DETAILS.

22. ALL STORMWATER PITS TO HAVE Ø100 uPVC SLOTTED SUBSOIL PIPES CONNECTED TO THEM. THESE SUBSOILS TO EXTEND 3m UPSTREAM OF THE PIT AT A MINIMUM GRADE.

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

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03	ISSUED FOR APPROVAL	MS	NW	09.04.2019					
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01	PRELIMINARY	IK	NW	29.03.2019					

Client: WESTERN SYDNEY PARKLANDS TRUST

Architect: NETTLETONTRIBE

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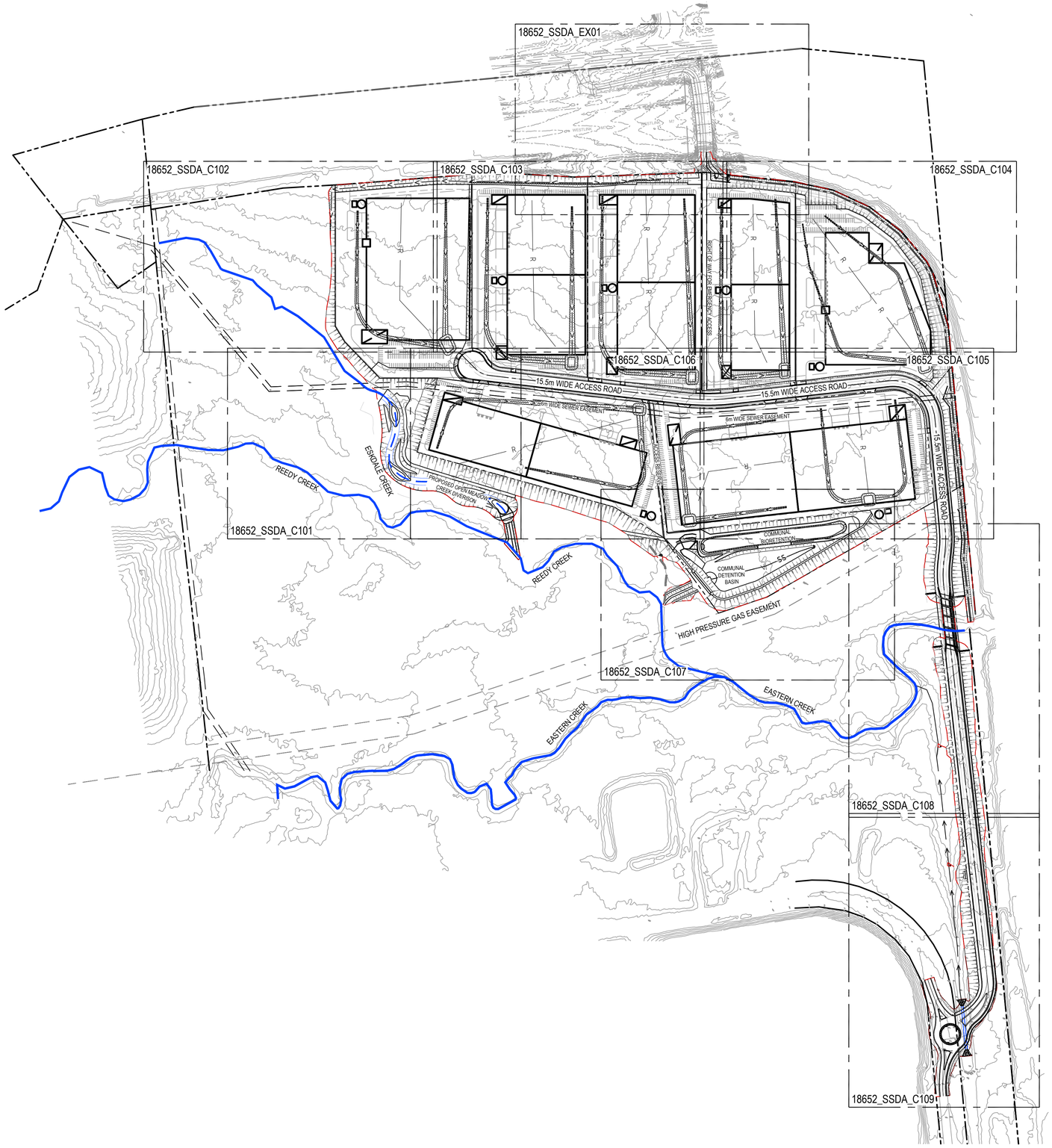
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	NTS

Title: STANDARD NOTES

Drawing number: 18652_SSDA_C010

Revision: 06



LEGEND

- PROPOSED LIMIT OF WORK
- SITE/ LOT BOUNDARY
- R — PROPOSED RIDGE LINE
- V — PROPOSED VALLEY LINE
- SS — SS — PROPOSED SUBSOIL LINE
- PROPOSED JUNCTION PITS
- PROPOSED SURFACE INLET PITS
- PROPOSED LINTEL ONGRADE & SAG PITS
- A-1 — LINE LETTER / PIT NUMBER — PROPOSED PIT TAG
- EXISTING STORMWATER PIPE
- PROPOSED STORMWATER PIPE
- PROPOSED BATTER LINE
- 54 — EXISTING CONTOURS
- 49.50 — PROPOSED CONTOURS
- PROPOSED COLLECTION LINE
- RW — PROPOSED RETAINING WALL
- 45.50 — PROPOSED DESIGN SPOT LEVEL
- PROPOSED CATCH DRAIN
- FP — PROPOSED FLUSHING POINT (FP)
- IR — PROPOSED INTERMEDIATE RISER (IR)
- PROPOSED CULVERT
- PROPOSED PERMEABLE PIPE

0 50 100 150 200 250 300m
60 40 20
SCALE 1:3000

GENERAL ARRANGEMENT PLAN

SCALE 1:3000

ISSUED FOR APPROVAL

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03	ISSUED FOR APPROVAL	MS	NW	09.04.2019					
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019					
01	PRELIMINARY	IK	NW	29.03.2019					

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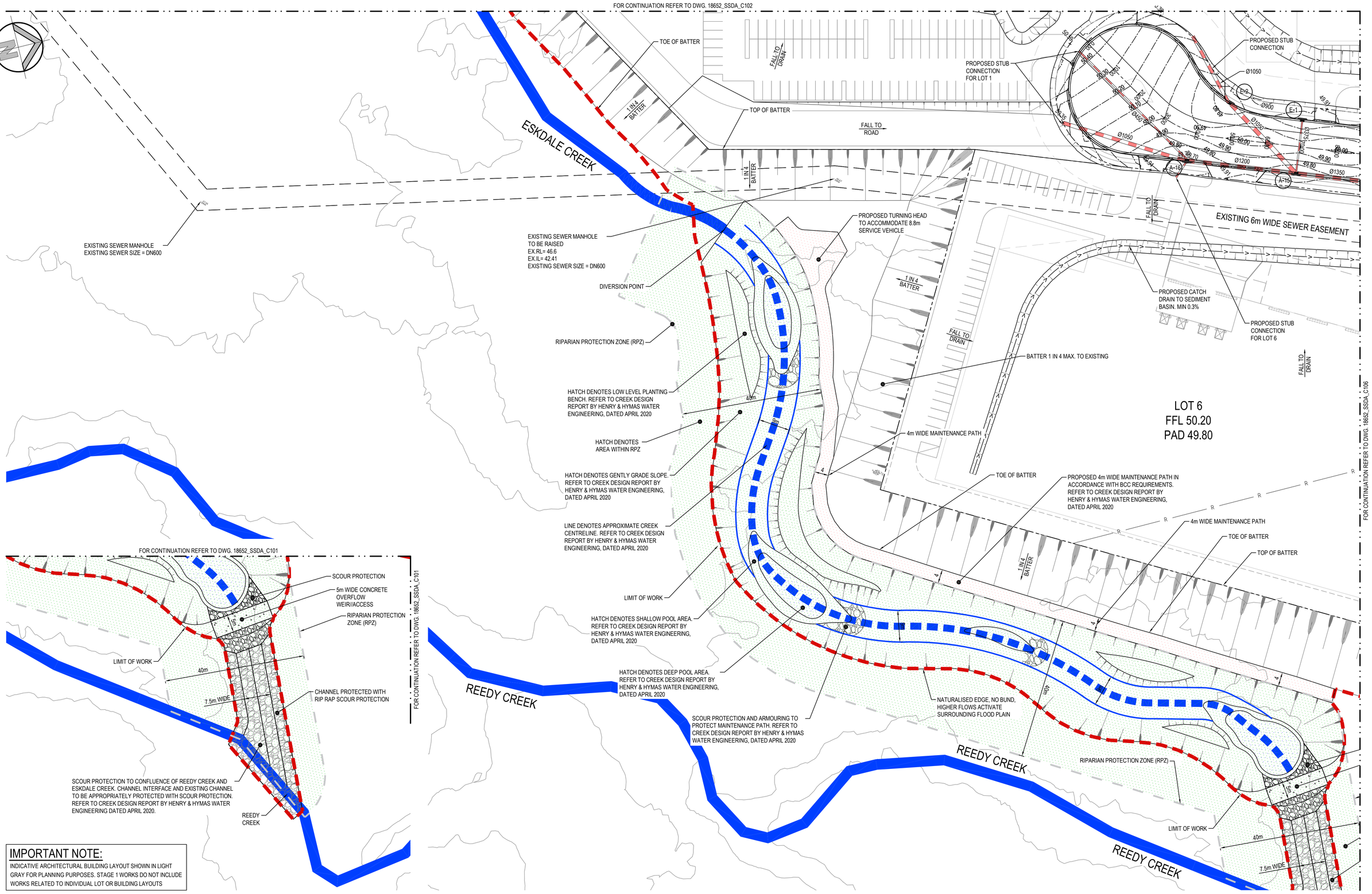
Project
LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title
GENERAL ARRANGEMENT PLAN

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:3000

Drawing number: 18652_SSDA_C100

Revision: 06



IMPORTANT NOTE:

INDICATIVE ARCHITECTURAL BUILDING LAYOUT SHOWN IN LIGHT GRAY FOR PLANNING PURPOSES. STAGE 1 WORKS DO NOT INCLUDE WORKS RELATED TO INDIVIDUAL LOT OR BUILDING LAYOUTS

DETAIL PLAN

SCALE: 1:500

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07	ISSUED FOR APPROVAL	IK	NW	24.01.2020					
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04	ISSUED FOR APPROVAL	MS	NW	11.04.2019					
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019					
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019					
01	PRELIMINARY	IK	NW	29.03.2019	08	ISSUED FOR APPROVAL	IK	NW	05.05.2020

NSW GOVERNMENT Western Sydney Parklands Trust

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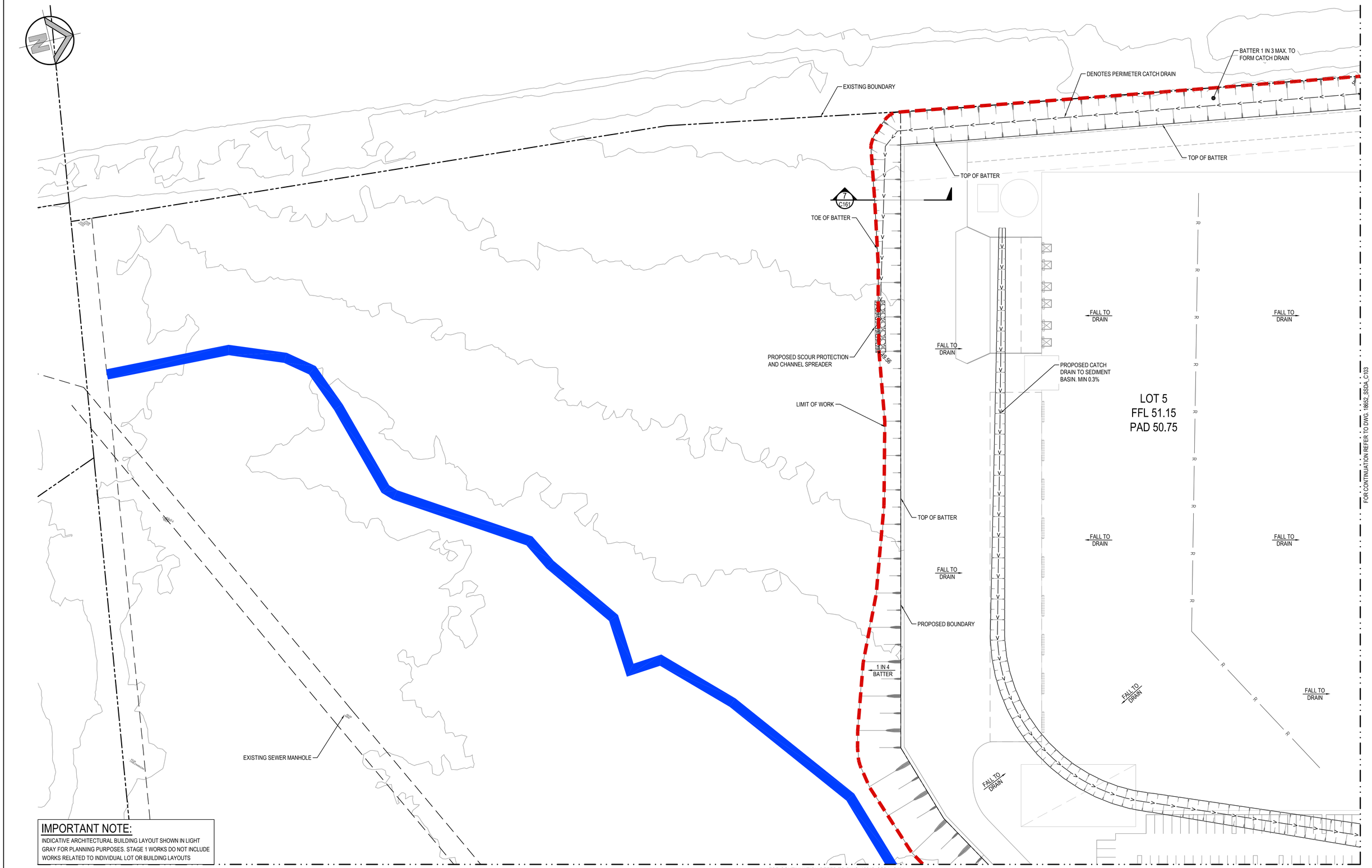
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: DETAIL PLAN
SHEET 1 OF 9

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:500

Drawing number: 18652_SSDA_C101

Revision: 08



IMPORTANT NOTE:

INDICATIVE ARCHITECTURAL BUILDING LAYOUT SHOWN IN LIGHT GRAY FOR PLANNING PURPOSES. STAGE 1 WORKS DO NOT INCLUDE WORKS RELATED TO INDIVIDUAL LOT OR BUILDING LAYOUTS

0 10 20 30 40 50m
10 8 6 4 2
SCALE 1:500

DETAIL PLAN

SCALE: 1:500

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REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
06	ISSUED FOR APPROVAL	IK	NW	05.05.2020
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020
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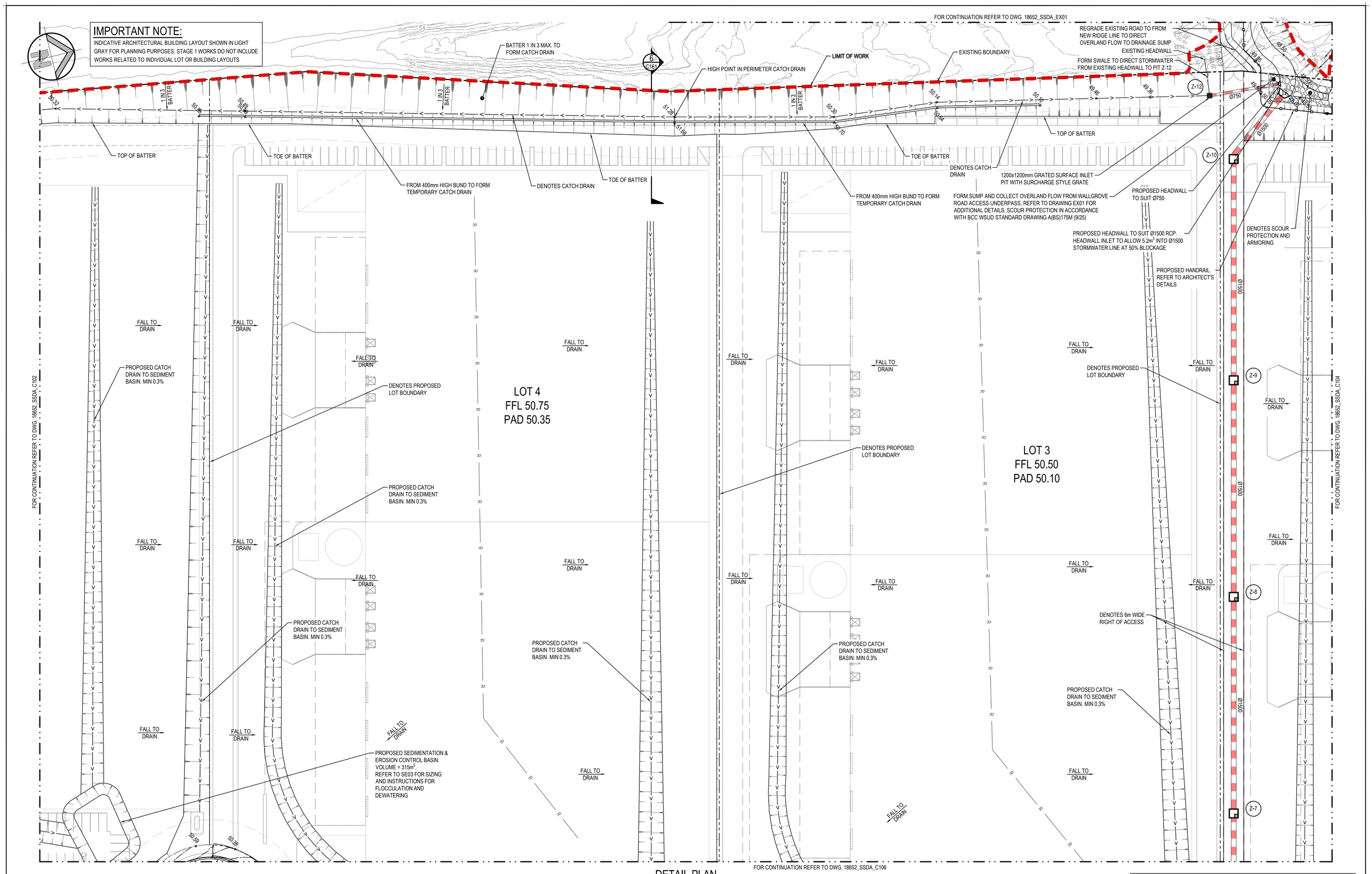
Project
LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title
DETAIL PLAN
SHEET 2 OF 9

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:500

Drawing number
18652_SSDA_C102

Revision
06



DETAIL PLAN

SCALE: 1:500

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
06	ISSUED FOR APPROVAL	IK	NW	05.05.2020
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019
01	PRELIMINARY	IK	NW	29.03.2019

Client: WESTERN SYDNEY PARKLANDS TRUST

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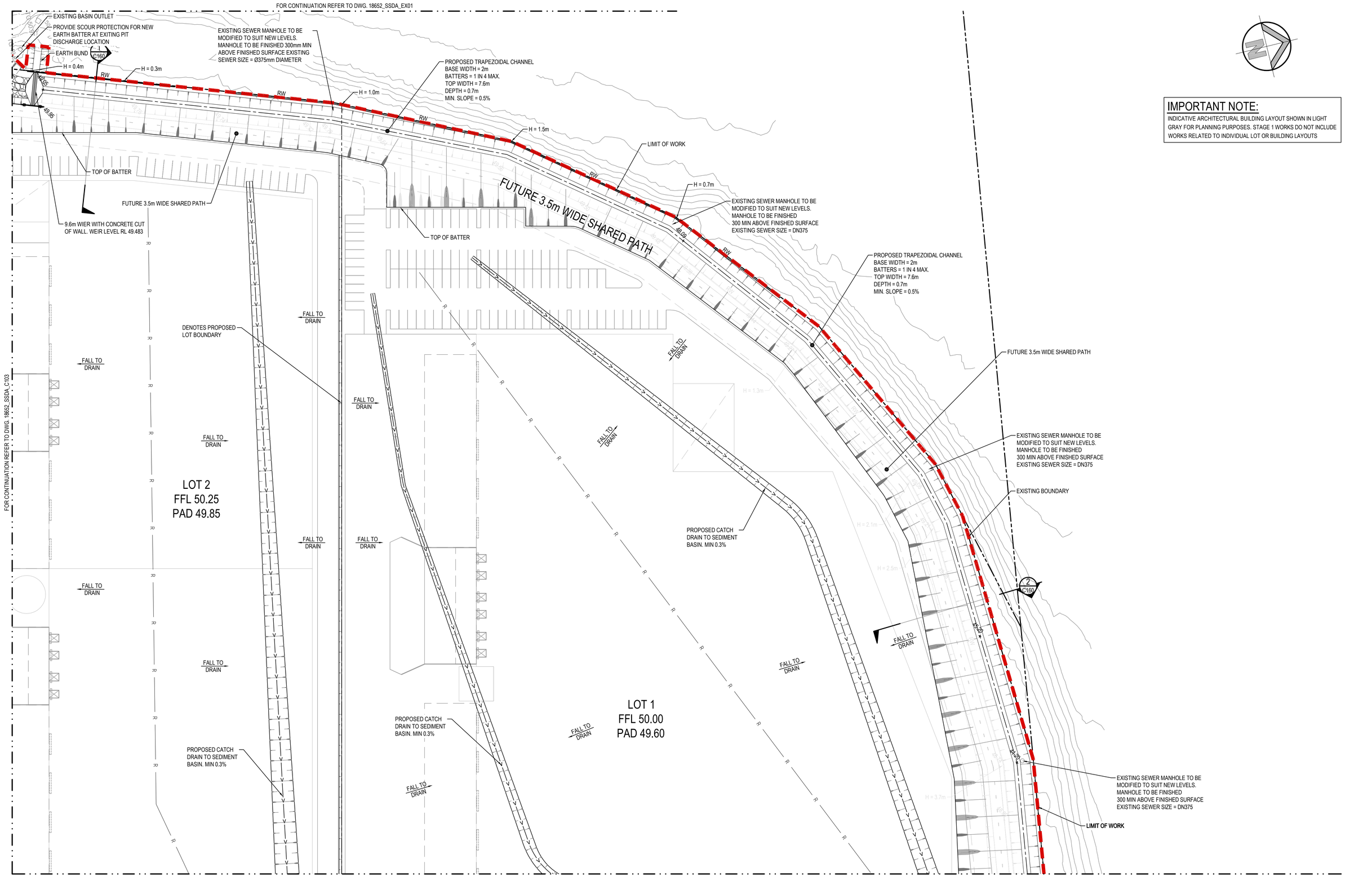
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667)

Title: DETAIL PLAN SHEET 3 OF 9

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:500

Drawing number: 18652_SSDA_C103

Revision: 06



IMPORTANT NOTE:

INDICATIVE ARCHITECTURAL BUILDING LAYOUT SHOWN IN LIGHT GRAY FOR PLANNING PURPOSES. STAGE 1 WORKS DO NOT INCLUDE WORKS RELATED TO INDIVIDUAL LOT OR BUILDING LAYOUTS

DETAIL PLAN

SCALE: 1:500

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
06	ISSUED FOR APPROVAL	IK	NW	05.05.2020
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019
01	PRELIMINARY	IK	NW	29.03.2019

Client: WESTERN SYDNEY PARKLANDS TRUST

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henry&hymas

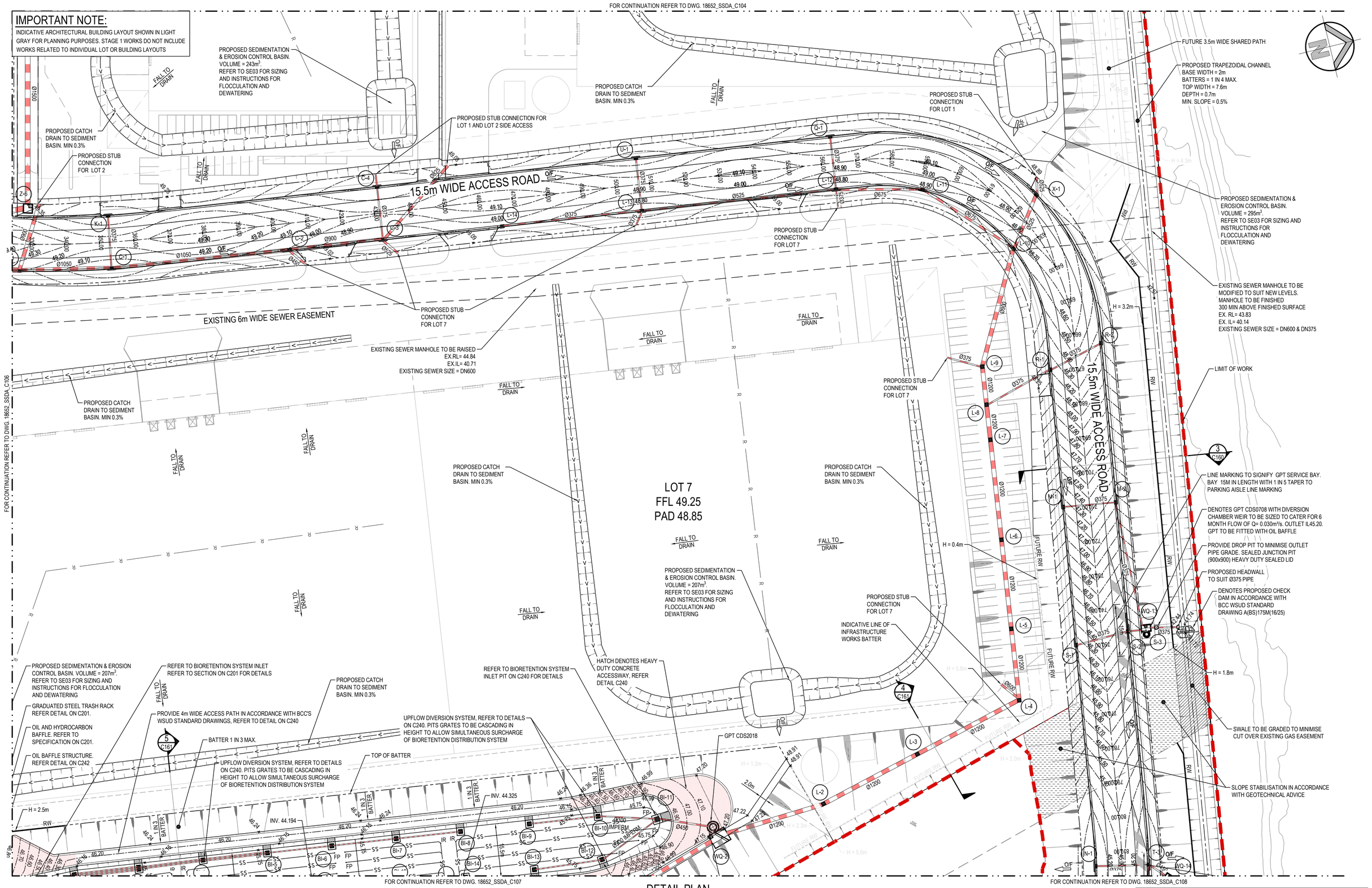
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667)

Title: DETAIL PLAN SHEET 4 OF 9

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:500

Drawing number: 18652_SSDA_C104

Revision: 06



IMPORTANT NOTE:

INDICATIVE ARCHITECTURAL BUILDING LAYOUT SHOWN IN LIGHT GRAY FOR PLANNING PURPOSES. STAGE 1 WORKS DO NOT INCLUDE WORKS RELATED TO INDIVIDUAL LOT OR BUILDING LAYOUTS

0 10 20 30 40 50m

10 8 6 4 2

SCALE 1:500

DETAIL PLAN

SCALE: 1:500

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
07	ISSUED FOR APPROVAL	IK	NW	05.05.2020					
06	ISSUED FOR APPROVAL	IK	NW	24.01.2020					
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019					
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019					
01	PRELIMINARY	IK	NW	29.03.2019	08	ISSUED FOR APPROVAL	IK	NW	11.05.2020

NSW GOVERNMENT Western Sydney Parklands Trust

Client: WESTERN SYDNEY PARKLANDS TRUST

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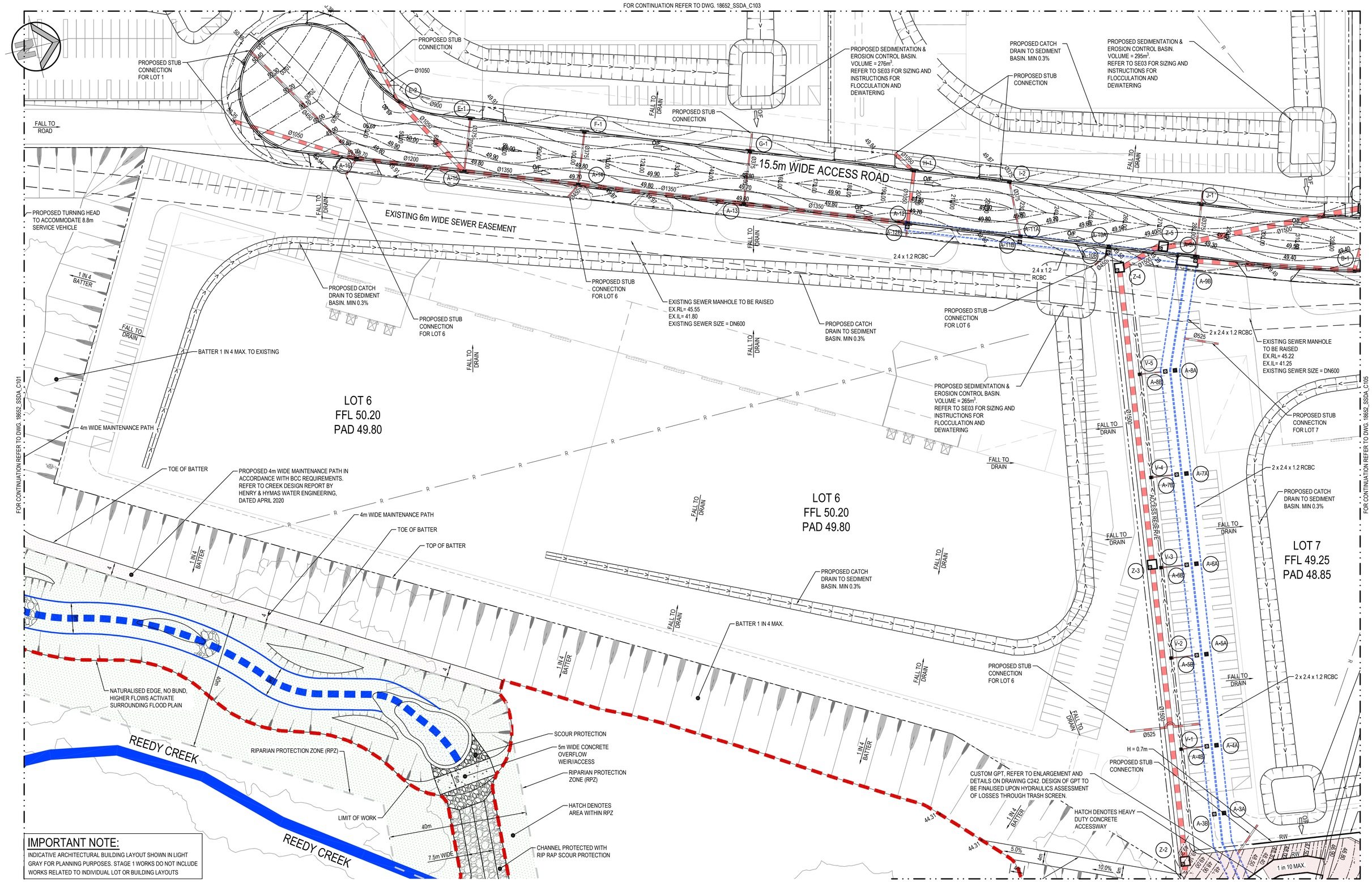
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: DETAIL PLAN
SHEET 5 OF 9

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:500

Drawing number: 18652_SSDA_C105

Revision: 08



IMPORTANT NOTE:
INDICATIVE ARCHITECTURAL BUILDING LAYOUT SHOWN IN LIGHT GRAY FOR PLANNING PURPOSES. STAGE 1 WORKS DO NOT INCLUDE WORKS RELATED TO INDIVIDUAL LOT OR BUILDING LAYOUTS

0 10 20 30 40 50m
10 8 6 4 2
SCALE 1:500

DETAIL PLAN
SCALE: 1:500

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
07	ISSUED FOR APPROVAL	IK	NW	05.05.2020
06	ISSUED FOR APPROVAL	IK	NW	24.01.2020
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019
01	PRELIMINARY	IK	NW	29.03.2019

NSW GOVERNMENT Western Sydney Parklands Trust

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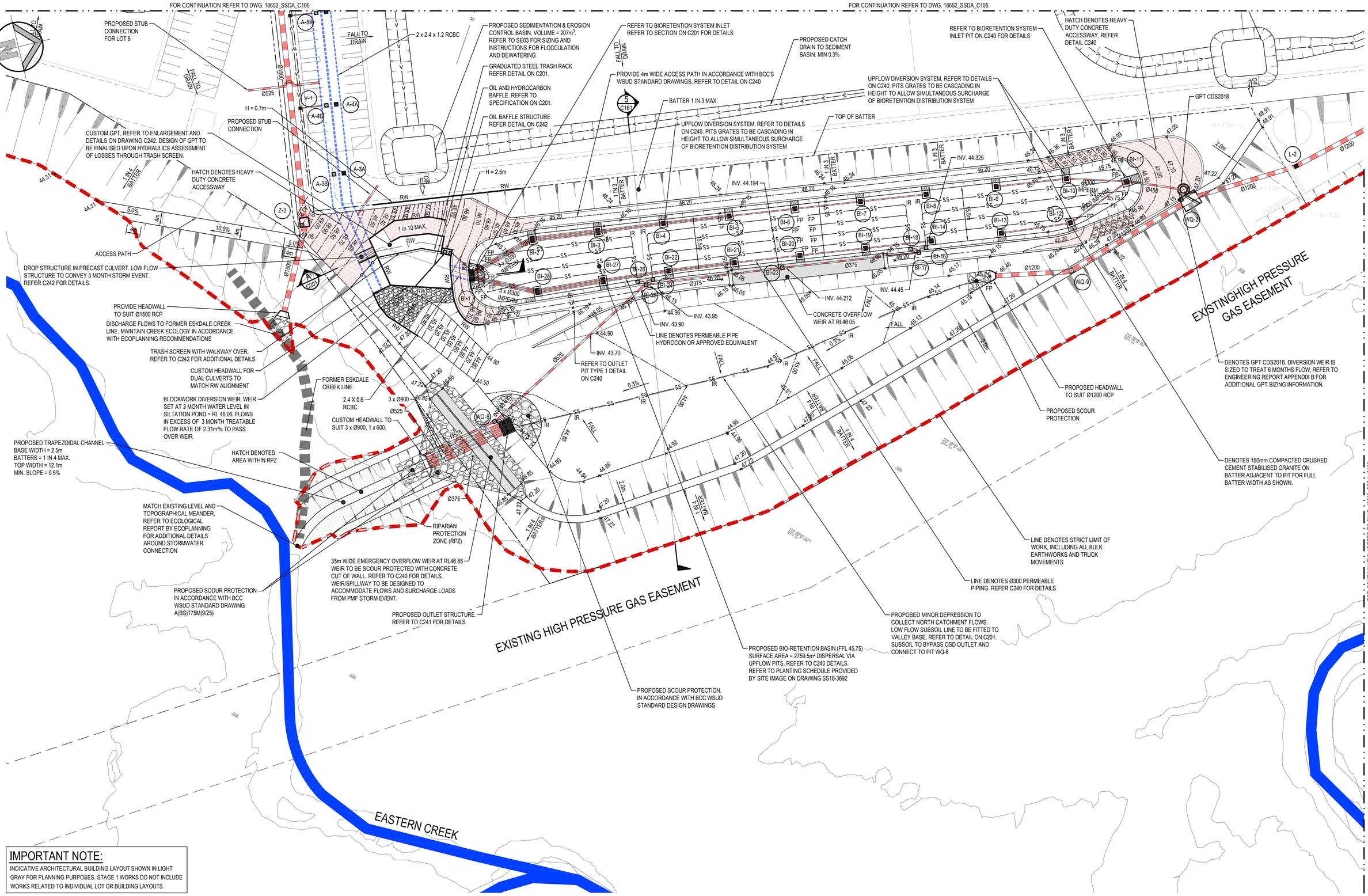
henry&hymas

Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: DETAIL PLAN
SHEET 6 OF 9

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:500

Drawing number: 18652_SSDA_C106
Revision: 07



IMPORTANT NOTE:

INDICATIVE ARCHITECTURAL BUILDING LAYOUT SHOWN IN LIGHT GRAY FOR PLANNING PURPOSES. STAGE 1 WORKS DO NOT INCLUDE WORKS RELATED TO INDIVIDUAL LOT OR BUILDING LAYOUTS

0 10 20 30 40 50m

10 8 6 4 2

SCALE 1:500

DETAIL PLAN

SCALE: 1:500

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
07	ISSUED FOR REVIEW ONLY	IK	NW	20.04.2020					
06	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
05	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
04	ISSUED FOR APPROVAL	MS	NW	11.04.2019	11	ISSUED FOR APPROVAL	IK	NW	11.05.2020
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019	10	ISSUED FOR APPROVAL	IK	NW	05.05.2020
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019	09	SKETCH FOR CONCEPT	IK	NW	29.04.2020
01	PRELIMINARY	IK	NW	29.03.2019	08	ISSUED FOR APPROVAL	IK	NW	22.04.2020

NSW GOVERNMENT Western Sydney Parklands Trust

Client: WESTERN SYDNEY PARKLANDS TRUST

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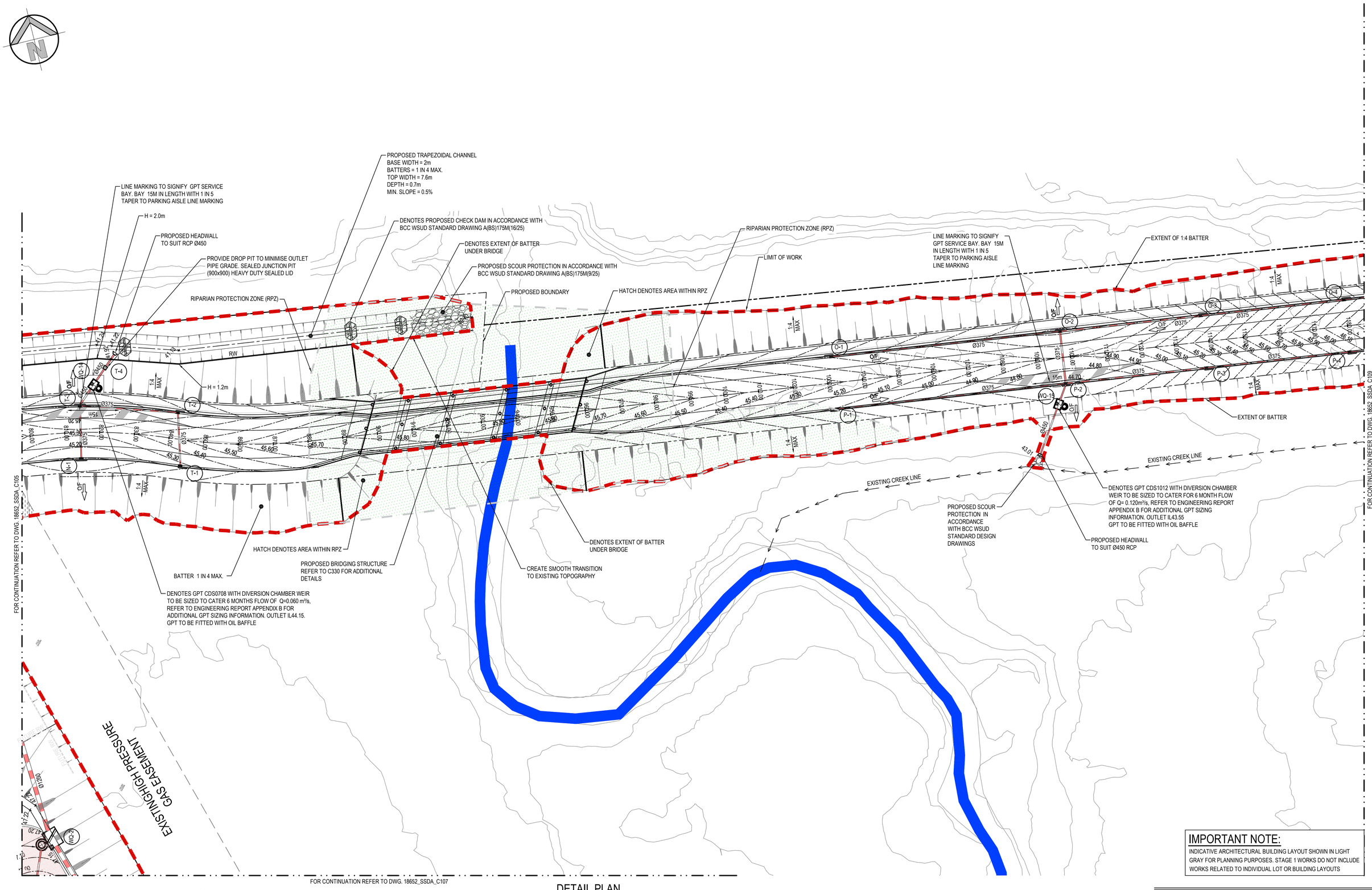
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667)

Title: DETAIL PLAN SHEET 7 OF 9

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:500

Drawing number: 18652_SSDA_C107

Revision: 11



DETAIL PLAN

SCALE: 1:500

IMPORTANT NOTE:

INDICATIVE ARCHITECTURAL BUILDING LAYOUT SHOWN IN LIGHT GRAY FOR PLANNING PURPOSES. STAGE 1 WORKS DO NOT INCLUDE WORKS RELATED TO INDIVIDUAL LOT OR BUILDING LAYOUTS

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
07	ISSUED FOR APPROVAL	IK	NW	11.05.2020
06	ISSUED FOR APPROVAL	IK	NW	05.05.2020
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019
01	PRELIMINARY	IK	NW	29.03.2019

NSW GOVERNMENT Western Sydney Parklands Trust

Client: WESTERN SYDNEY PARKLANDS TRUST

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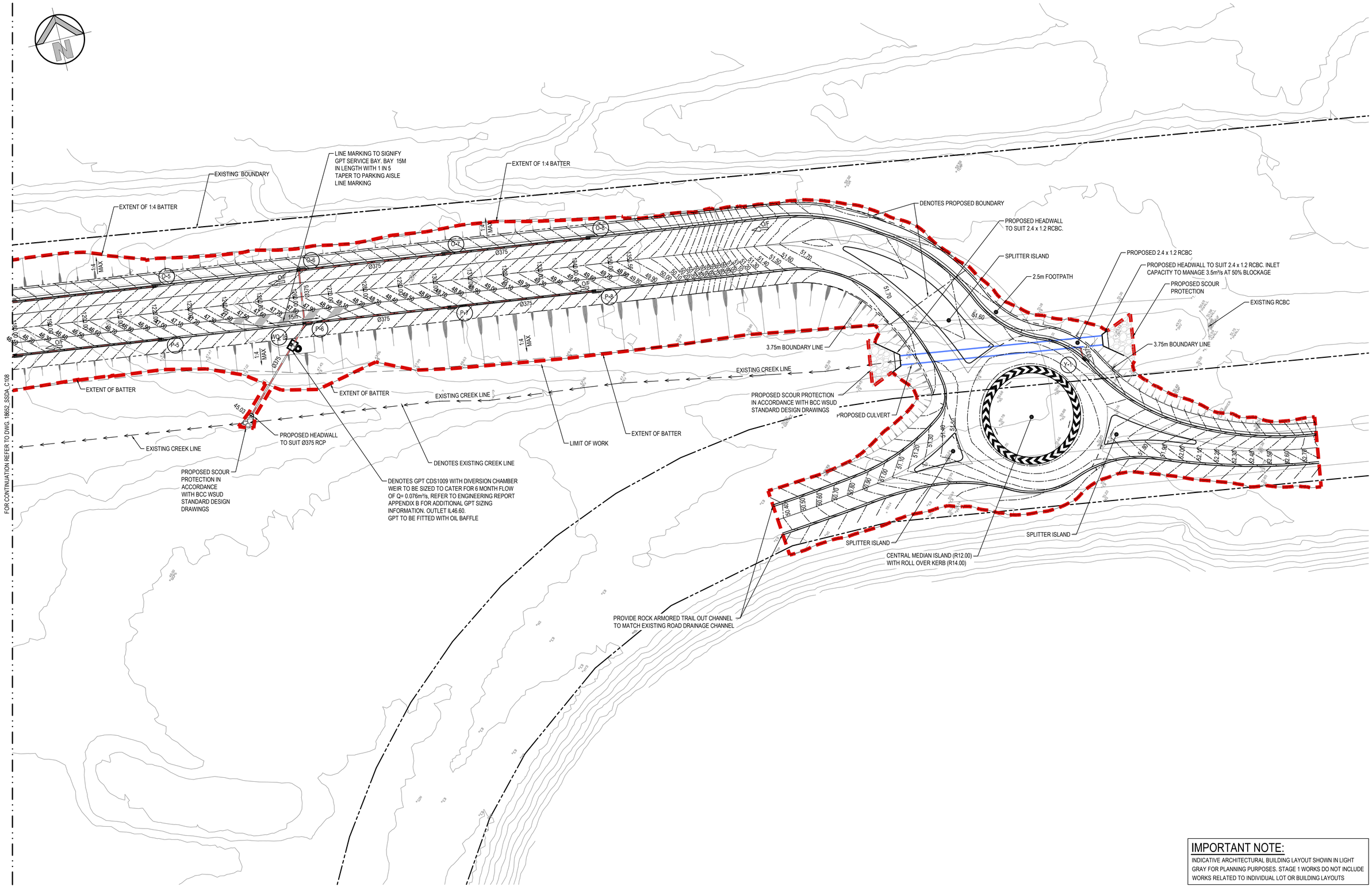
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667)

Title: DETAIL PLAN SHEET 8 OF 9

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:500

Drawing number: 18652_SSDA_C108

Revision: 07



DETAIL PLAN

SCALE: 1:500

IMPORTANT NOTE:

INDICATIVE ARCHITECTURAL BUILDING LAYOUT SHOWN IN LIGHT GRAY FOR PLANNING PURPOSES. STAGE 1 WORKS DO NOT INCLUDE WORKS RELATED TO INDIVIDUAL LOT OR BUILDING LAYOUTS

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
07	ISSUED FOR APPROVAL	IK	NW	11.05.2020
06	ISSUED FOR APPROVAL	IK	NW	05.05.2020
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019
01	PRELIMINARY	IK	NW	29.03.2019

NSW GOVERNMENT Western Sydney Parklands Trust

Client: WESTERN SYDNEY PARKLANDS TRUST

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henry&hymas

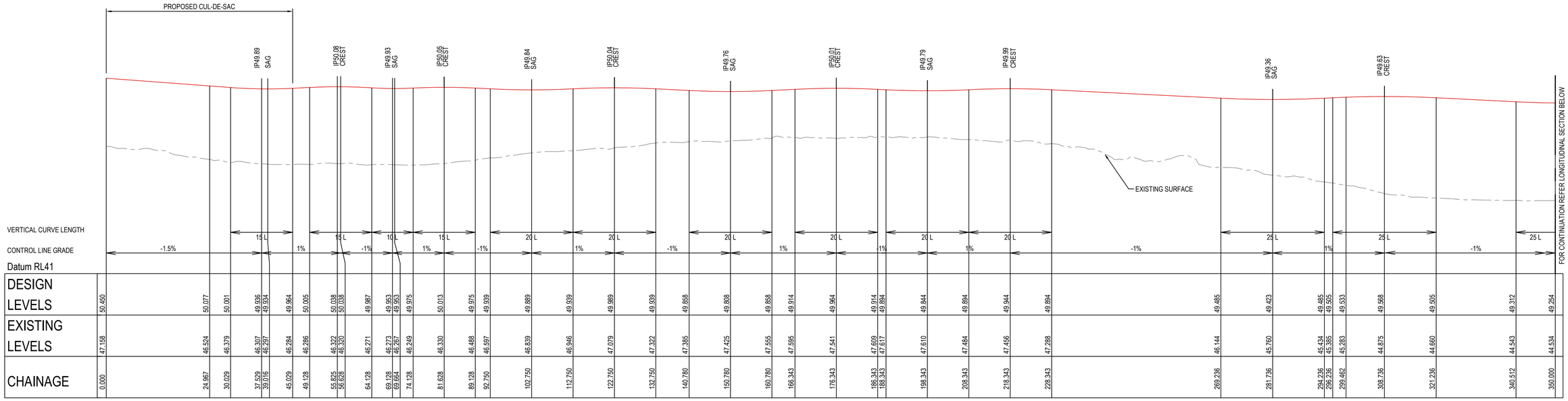
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667)

Title: DETAIL PLAN SHEET 9 OF 9

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:500

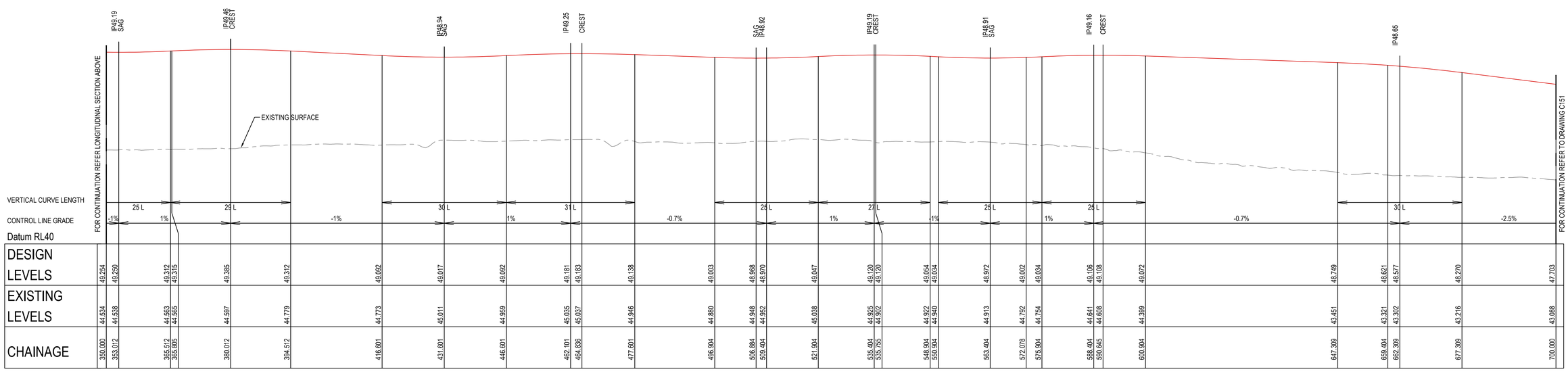
Drawing number: 18652_SSDA_C109

Revision: 07



LONGITUDINAL SECTION ROAD 1

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION ROAD 1 - CONTINUATION

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

0 10 20 30 40 50m
10 8 6 4 2
SCALE 1:500

0 2 4 6 8 10m
2 1
SCALE 1:100

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
06	ISSUED FOR APPROVAL	IK	NW	22.04.2020					
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019					
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019					
01	PRELIMINARY	IK	NW	29.03.2019					

NSW GOVERNMENT Western Sydney Parklands Trust

Client: WESTERN SYDNEY PARKLAND TRUST

Architect: NETTLETONTRIBE

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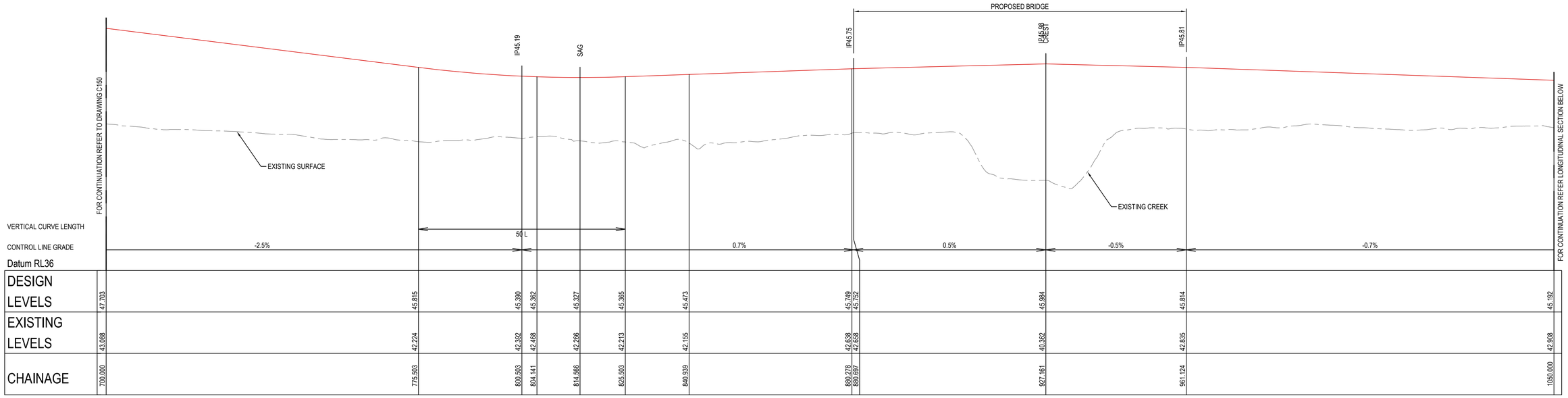
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: ROAD 1 LONGITUDINAL SECTION
SHEET 1 OF 2

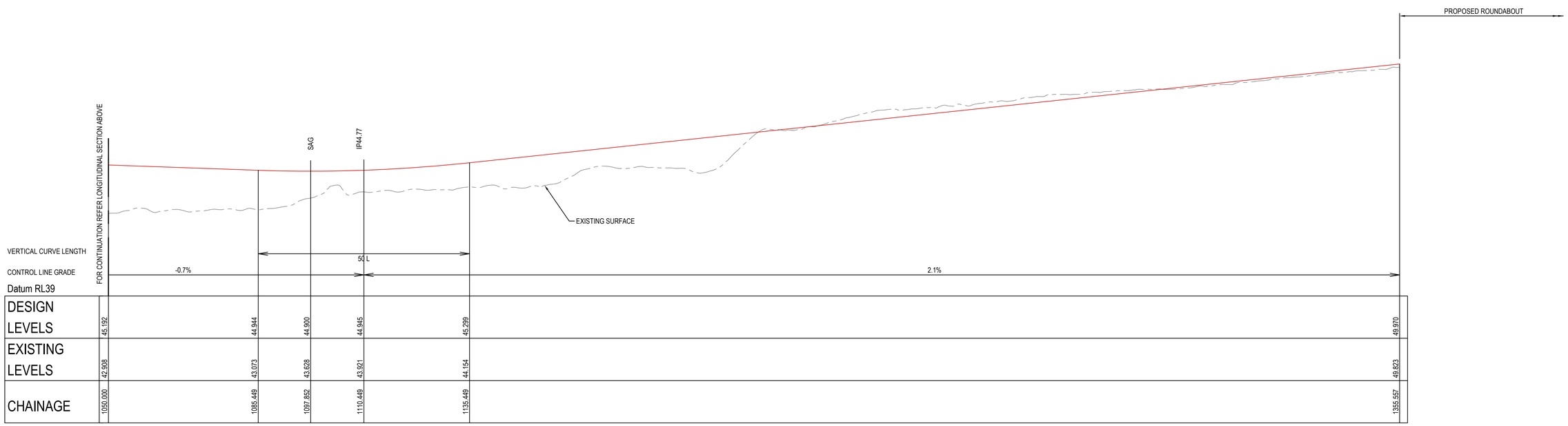
Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale
N.Wetzlar	A.Francis	AS SHOWN @ A1

Drawing number: 18652_SSDA_C150
Revision: 06



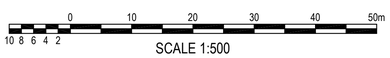
LONGITUDINAL SECTION ROAD 1 - CONTINUATION

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

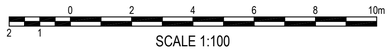


LONGITUDINAL SECTION ROAD 1 - CONTINUATION

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



SCALE 1:500



SCALE 1:100

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
06	ISSUED FOR APPROVAL	IK	NW	22.04.2020
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019
01	PRELIMINARY	IK	NW	29.03.2019

Client: WESTERN SYDNEY PARKLAND TRUST

Architect: NETTLETONTRIBE

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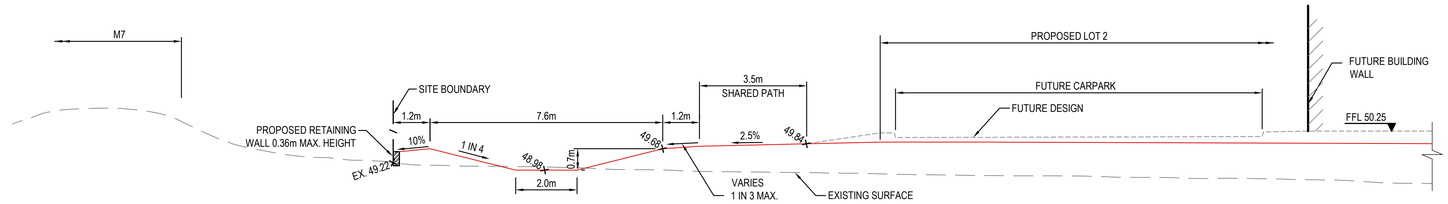
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

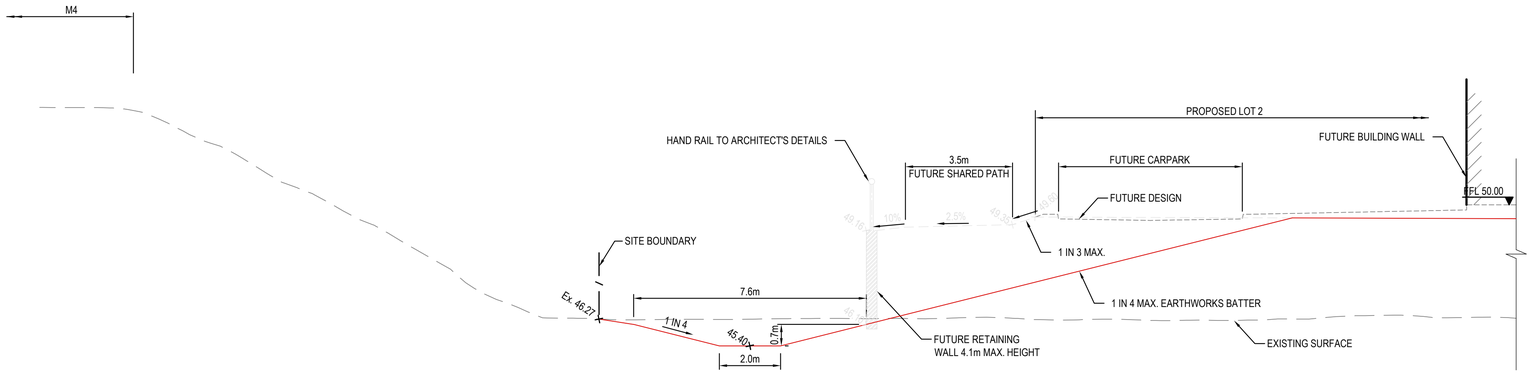
Title: ROAD 1 LONGITUDINAL SECTION
SHEET 2 OF 2

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale
N.Wetzlar	A.Francis	AS SHOWN @ A1

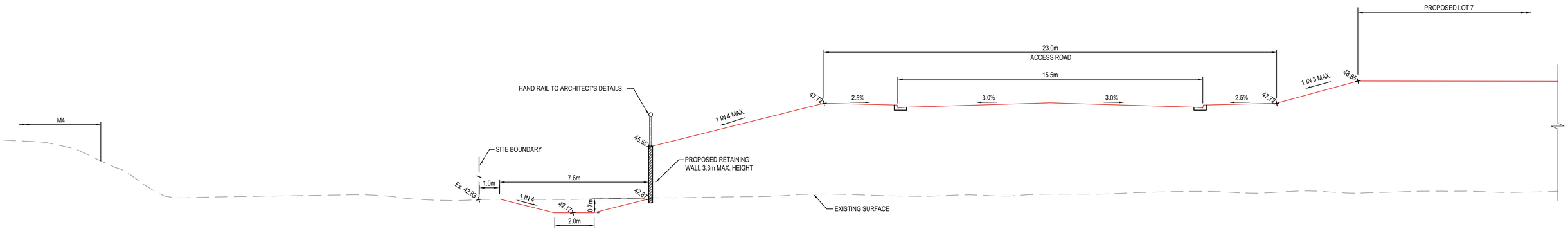
Drawing number: 18652_SSDA_C151
Revision: 06



SECTION 1 / C104
SCALE: 1:100 @ A1



SECTION 2 / C104
SCALE: 1:100 @ A1



SECTION 3 / C105
SCALE: 1:100 @ A1

0 2 4 6 8 10m
2 1
SCALE 1:100

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
06	ISSUED FOR APPROVAL	IK	NW	22.04.2020
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019
01	PRELIMINARY	IK	NW	29.03.2019

NSW GOVERNMENT Western Sydney Parklands Trust

Client: WESTERN SYDNEY PARKLANDS TRUST

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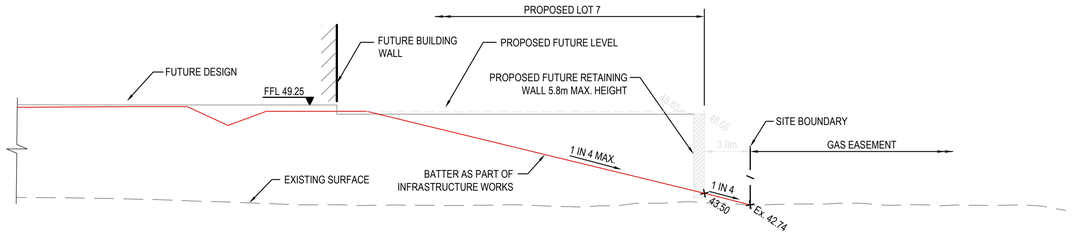
henry&hymas

Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

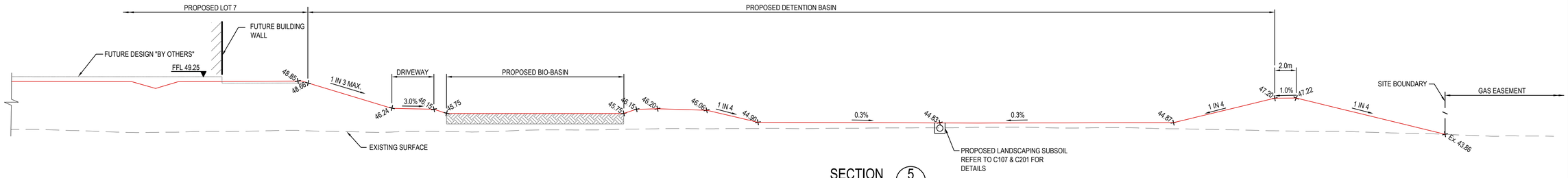
Title: SITE SECTIONS
SHEET 1 OF 2

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:100

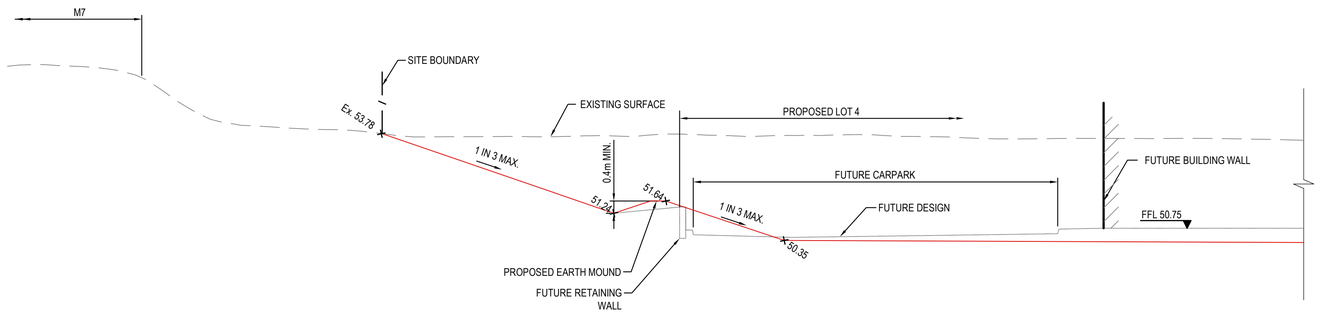
Drawing number: 18652_SSDA_C160
Revision: 06



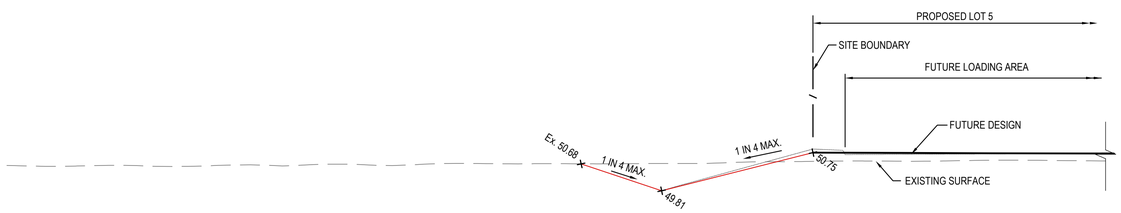
SECTION 4 / C105
SCALE: 1:200 @ A1



SECTION 5 / C107
SCALE: 1:200 @ A1



SECTION 6 / C103
SCALE: 1:100 @ A1



SECTION 7 / C102
SCALE: 1:100 @ A1

0 2 4 6 8 10m
2 1
SCALE 1:100

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
06	ISSUED FOR APPROVAL	IK	NW	05.05.2020
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019
01	PRELIMINARY	IK	NW	29.03.2019

Client: WESTERN SYDNEY PARKLANDS TRUST

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Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: SITE SECTIONS
SHEET 2 OF 2

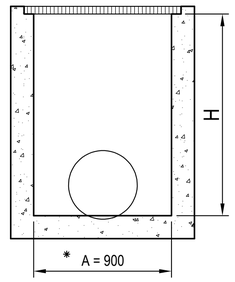
Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:100

Drawing number: 18652_SSDA_C161
Revision: 06

TYPICAL PIT CHAMBER SIZES

IT IS THE CONTRACTORS RESPONSIBILITY TO SELECT PIT CHAMBER SIZE WITH REGARDS TO PIPE SIZE, DEPTH TO INVERT AND SKEW ANGLE. REFER SKETCHES BELOW.

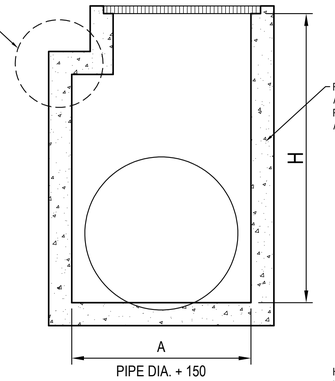
1. SELECT PIT CHAMBER USING THE STEPS BELOW:
2. SELECT PIT CHAMBER SIZE DEPENDING ON THE PIPE DIAMETERS.
3. CHECK PIT CHAMBER SIZE TO SATISFY DEPTH TO INVERT REQUIREMENTS.
   CHECK PIT CHAMBER DIMENSIONS TO SATISFY THE SKEW ANGLE IN THE TABLE.



SECTION
NTS

*A = 600 FOR PIPES UP TO 375 DIA.

1 PIT CHAMBER DIMENSIONS FOR PIPES UP TO 600 DIA.



PIPE DIA. + 150

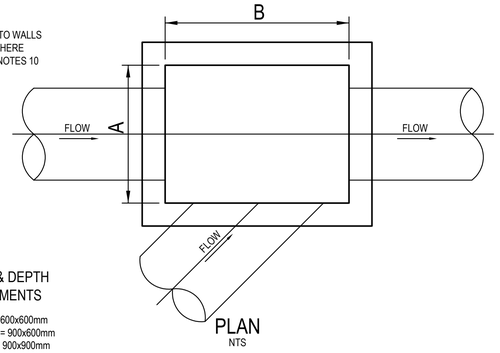
SECTION
NTS

1 PIT CHAMBER FOR PIPES GREATER THAN 600 DIA.

2 PIT SIZE & DEPTH REQUIREMENTS

H = 0-900mm - AxB = 600x600mm
H = 900-1200mm - AxB = 900x600mm
H = >1200mm - AxB = 900x900mm

FOR B = 600mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 225mm
FOR B = 900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 375mm
FOR B = 1200mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 600mm
FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm
FOR B = 1900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 1050mm



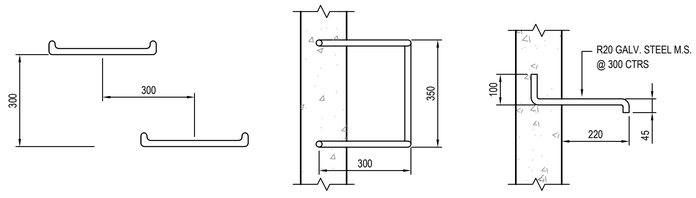
PLAN
NTS

3 PIT CHAMBER FOR SIDE ENTRY ON SKEW

TABLE 1	
SIEVE SIZE (MM)	WEIGHT PASISNG (%)
75.0	100
9.5	100 TO 50
2.36	100 TO 30
0.60	50 TO 15
0.075	25 TO 0

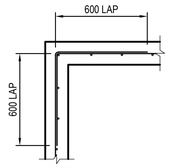
TABLE 2	
SIEVE SIZE (MM)	WEIGHT PASISNG (%)
19.0	100
2.36	100 TO 50
0.60	90 TO 20
0.30	60 TO 10
0.15	25 TO 0
0.075	10 TO 0

TABLE 3				
SUPPORT TYPE	BED ZONE X	HAUNCH ZONE Y	BED AND HAUNCH ZONES COMPACTION	MAX BEDDING FACTOR
HS1	100 IF D<=1500, OR 150 IF D>=1500	0.1D	50	2.0
HS2		0.3D	60	2.5
HS3		0.3D	70	4.0

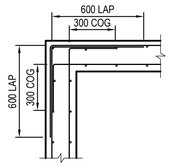


ELEVATION PLAN SECTION

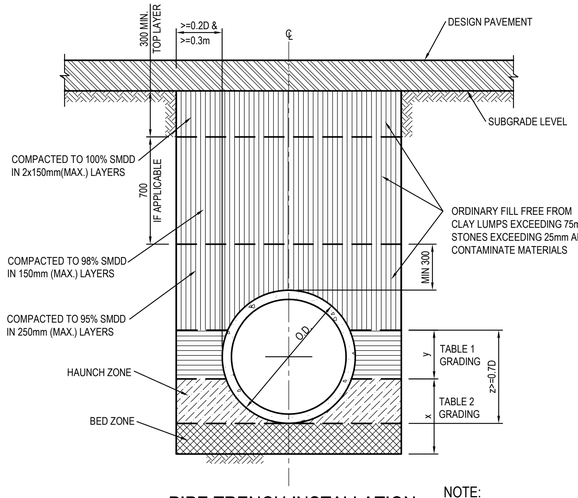
TYPICAL STEP IRON DETAIL
SCALE 1:10



150 WALL - CORNER DETAIL



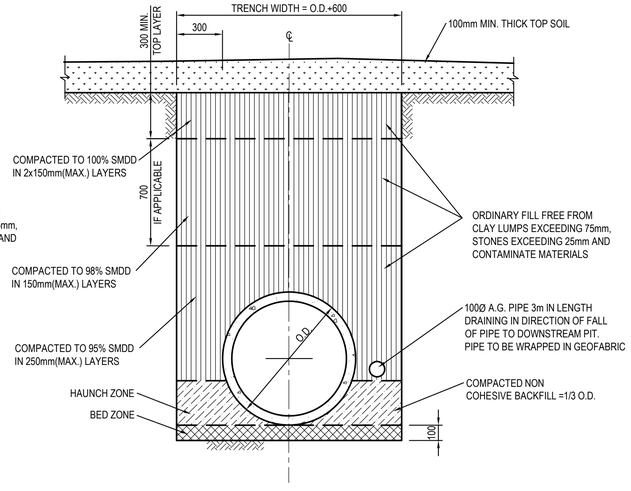
200 WALL - CORNER DETAIL



PIPE TRENCH INSTALLATION BENEATH PAVEMENT

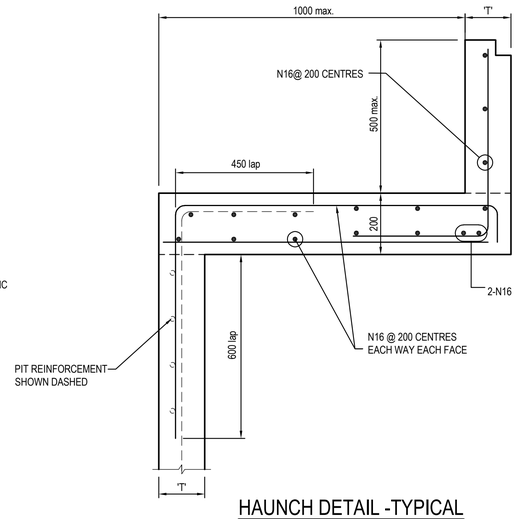
(HS SUPPORT TO BE USED UNDER ROADWAY)
SCALE 1:20

NOTE:
TYPE HS2 TO BE USED AS A TYPICAL SUPPORT FOR TRENCHES UNDER ROADWAY UNLESS SPECIFIED SEPERATELY



PIPE TRENCH INSTALLATION IN LANDSCAPE AREAS

(H1 & H2 SUPPORT)
SCALE 1:20



HAUNCH DETAIL -TYPICAL
SCALE 1:10

PIT LID SCHEDULE

PIT/STRUCTURE NUMBER	LID DESCRIPTION
L-10, L-11, L-14, C-2, B-1, A-10A, A-11A, I-2, R-1, X-1, Y-1, R-2, M-1, M-2, S-1, S-2, T-1, T-2, P-5, P-6, P-7, P-8, O-5, O-6, O-7, O-1, O-3, O-4, O-8, P-1, P-3, P-4	ON GRADE KERB INLET PIT WITH 1.8m LINTEL AND HEAVY DUTY GRATED LID CLASS "D" IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
L-12, U-1, L-13, Q-1, C-3, C-4, C-1, K-1, J-1, A-9A, E-2, A-12, H-1, A-13, G-1, A-14, F-1, A-15, E-1, A-16, N-1, T-3, P-2, O-2	SAG KERB INLET PIT WITH 2.4m LINTEL AND HEAVY DUTY GRATED LID CLASS "D" IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
Z-2, Z-4, Z-5, Z-6, Z-10, A-3B, A-4B, A-10B, A-11B, A-12B, A-5B, A-6B, A-7B, A-8B, A-9B, T-4, S-3	SEALED JUNCTION PIT WITH 900 X 900 HINGED HEAVY DUTY CLASS "D"" CONCRETE LID IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
WQ-9, WQ-8	SEALED JUNCTION PIT WITH 900 X 900 HINGED LIGHT DUTY CLASS "B"" CONCRETE LID IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
A-3A, A-4A, A-5A, A-6A, A-7A, A-8A, L-7, L-8, L-9	SURFACE INLET PIT WITH 900 X 900 HINGED HEAVY DUTY CLASS "D"" GRATED ACCESS LID IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
Z-12	SURFACE INLET PIT WITH 1200x1200 LIGHT DUTY SURCHARGE STYLE GRATE IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
Z-3, Z-7, Z-8, Z-9	SEALED SADDLE PIT WITH 900 x 900 HINGED HEAVY DUTY CLASS "D"" CONCRETE LID. PIT RISERS TO BE CONNECTED TO Ø1500 STORMWATER LINE. PIT TO BE FINISHED IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
L-5, L-6, L-3, L-4, L-2	SURFACE INLET PIT TO BE FINISHED AT BULK EARTHWORKS LEVEL. PITS TO BE RAISED AND FINISHED UNDER LOT 7 WORKS. PIT TO BE FINISHED WITH 900 X 900 HEAVY DUTY CLASS "D" LID
V-1, V-2, V-3, V-4, V-5	SURFACE INLET PIT WITH 450 x 450 HEAVY DUTY "CLASS D" GRADED LID IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
WQ-13, WQ-14, WQ-15, WQ-16, WQ-2	STORMWATER QUALITY IMPROVEMENT DEVICE: REFER NOTE ON PLAN
BI -1	BIORETENTION SYSTEM INLET PIT. CUSTOM SURCHARGE STYLE GRATE (3000 x 1200). GRATE TO BE LIGHT DUTY CLASS 'B'. PIT TO BE SURROUNDED IN RIP RAP SCOUR PROTECTION. REFER TO C201 FOR DETAILS
BI -2, BI -3, BI -27, BI -28	BIORETENTION UPFLOW OUTLET PIT. CUSTOM SURCHARGE STYLE GRATE (1500 x 900). GRATE TO BE LIGHT DUTY CLASS 'B'. PIT SURFACE LEVEL TO BE DETERMINED DURING DETAIL DESIGN TO ALLOW SIMULTANEOUS SURCHARGE OF BIORETENTION SYSTEM. REFER TO C240 FOR DETAILS
BI -4, BI -5, BI -6, BI -7, BI -8, BI -9, BI -10, BI -12, BI -13, BI -14, BI -19, BI -20, BI -21, BI -22	BIORETENTION UPFLOW OUTLET PIT. CUSTOM SURCHARGE STYLE GRATE (900 x 900). GRATE TO BE LIGHT DUTY CLASS 'B'. PIT SURFACE LEVEL TO BE DETERMINED DURING DETAIL DESIGN TO ALLOW SIMULTANEOUS SURCHARGE OF BIORETENTION SYSTEM. REFER TO C240 FOR DETAILS
BI -16, BI -18, BI -24, BI -26	BIORETENTION OUTLET PIT. CUSTOM INSITU PIT WITH WEIR WALL FITTED WITH KNIFE VALVE. PIT TO HAVE (900 x 900) LIGHT DUTY CLASS 'B' SEALED CONCRETE LID. REFER TO C240 FOR DETAILS
BI -17, BI -23, BI -25	BIORETENTION OUTLET PIT. SEALED JUNCTION PIT WITH (900 x 900) HEAVY DUTY CONCRETE LID CLASS 'D'. REFER TO C240 FOR DETAILS
BI -11	BIORETENTION SYSTEM INLET PIT.PIT TO HAVE SURCHARGE STYLE GRATE (900 x 900) LIGHT DUTY CLASS 'B'. REFER TO C240 FOR DETAILS

IMPORTANT NOTES:

1. FOR SPECIFICATION OF PIT LIDS WITHIN OSD AND BIO-RETENTION BASINS, REFER TO DRAWING C101-C109 & C240-C241
2. ALL PIT LIDS TO BE CONSTRUCTED IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS AND WSUD STANDARD DRAWINGS.

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
06	ISSUED FOR APPROVAL	IK	NW	22.04.2020
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019
01	PRELIMINARY	IK	NW	29.03.2019

Client: WESTERN SYDNEY PARKLANDS TRUST

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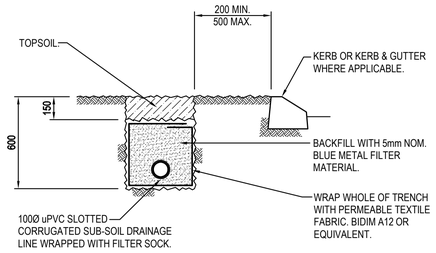
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667)

Title: STORMWATER MISCELLANEOUS DETAILS & PIT LID SCHEDULE

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	AS NOTED

Drawing number: 18652_SSDA_C200

Revision: 06

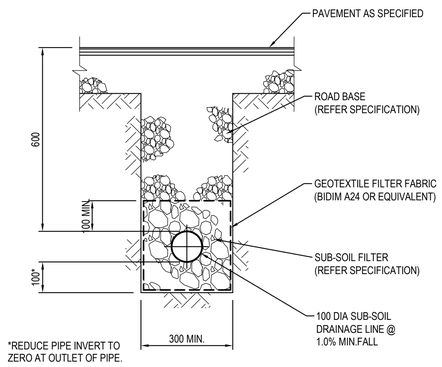


SUB-SOIL DRAIN DETAIL

SCALE 1:20

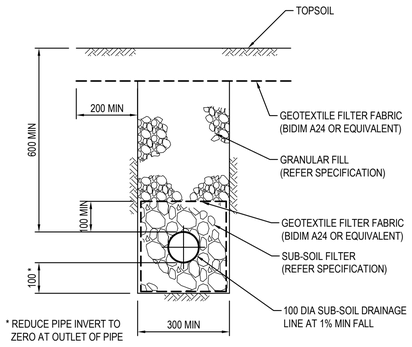
NOTE

UNLESS SPECIFICALLY NOTED SUBSOIL DRAIN TO BE PROVIDED AROUND ALL KERB WITH SURFACE GRADING TOWARDS THE ROAD



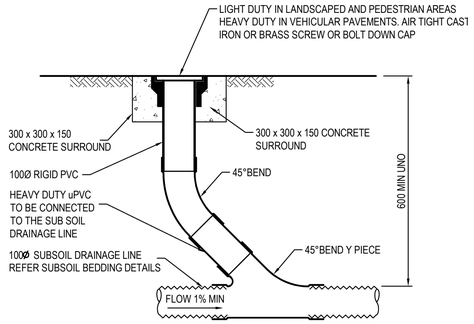
SUB-SOIL IN PAVED AREAS

SCALE 1:10



SUB-SOIL IN LANDSCAPED AREAS

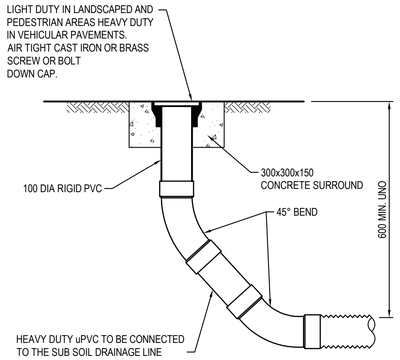
SCALE 1:10



INTERMEDIATE RISER (IR)

SCALE 1:10

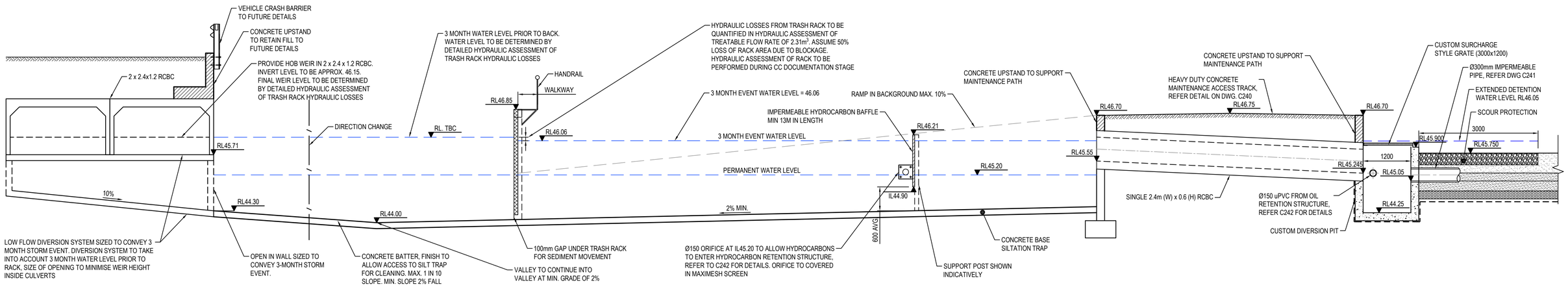
NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED



FLUSHING POINT (FP)

SCALE 1:10

NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED



SECTION A / C107

SCALE: 1:50

0 200 400 600 800 1000mm
200 100
SCALE 1:10

0 1000 2000 3000 4000 5000mm
1000 600 200
SCALE 1:50

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
07	ISSUED FOR APPROVAL	IK	NW	05.05.2020					
06	ISSUED FOR APPROVAL	IK	NW	22.04.2020					
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019					
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019					
01	PRELIMINARY	IK	NW	29.03.2019					

NSW GOVERNMENT Western Sydney Parklands Trust

Client: WESTERN SYDNEY PARKLANDS TRUST

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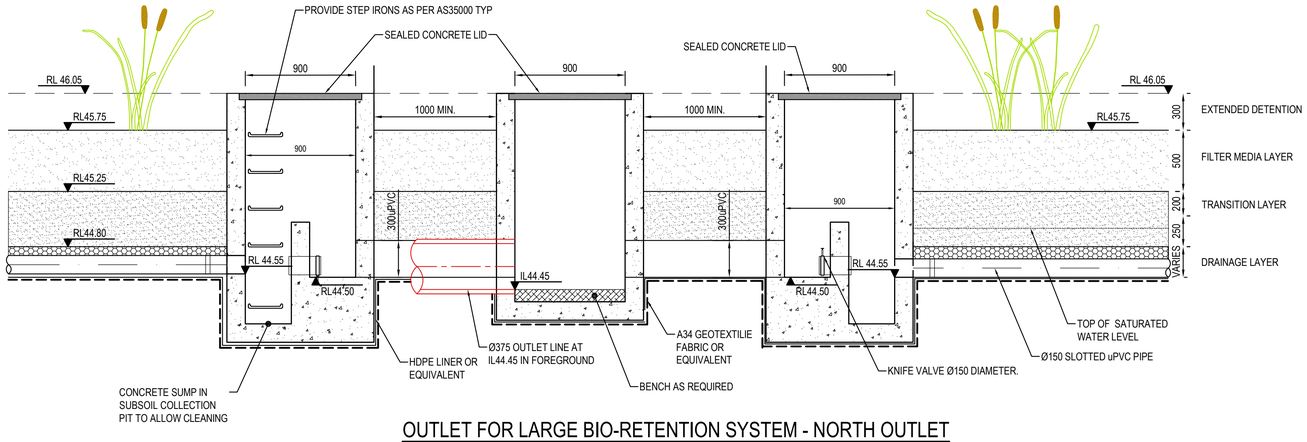
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667)

Title: STORMWATER MISCELLANEOUS DETAILS

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	AS NOTED

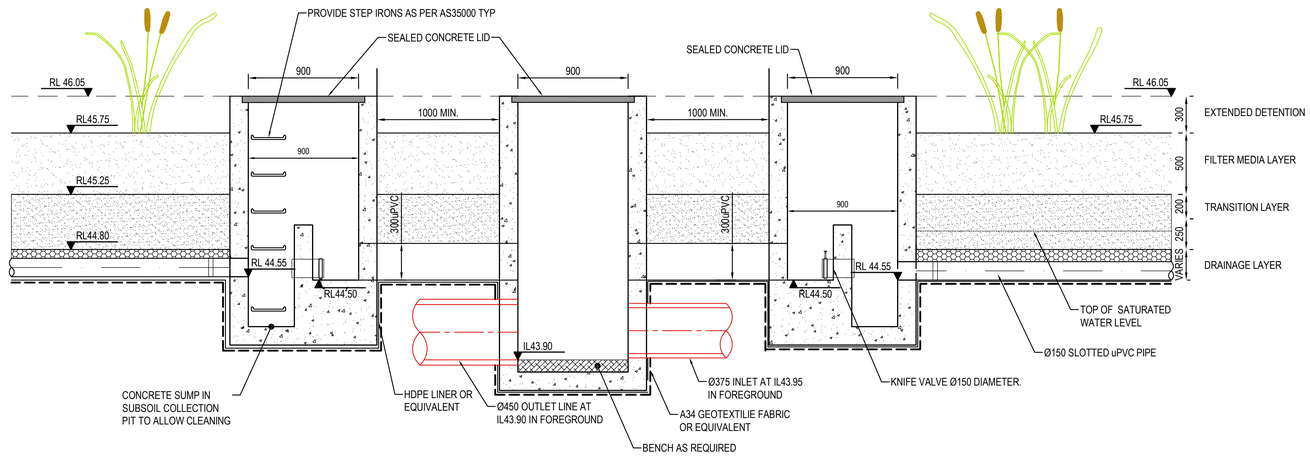
Drawing number: 18652_SSDA_C201

Revision: 07



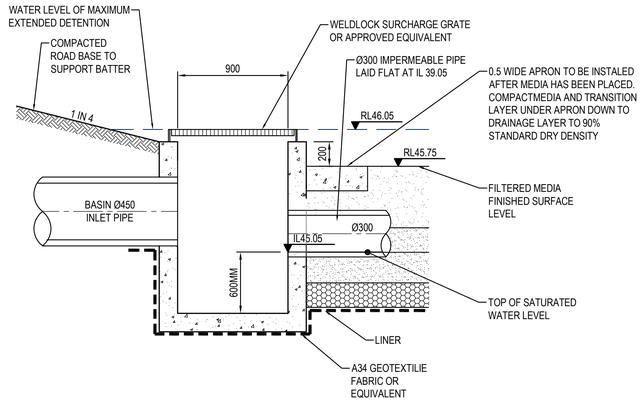
OUTLET FOR LARGE BIO-RETENTION SYSTEM - NORTH OUTLET

SCALE 1:25



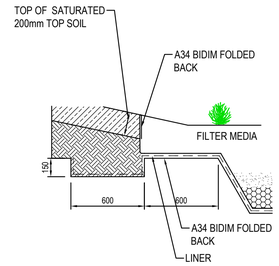
OUTLET FOR LARGE BIO-RETENTION SYSTEM - SOUTH OUTLET

SCALE 1:25



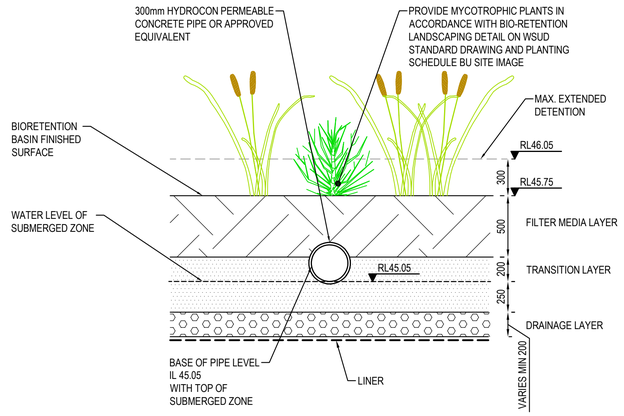
BIO-RETENTION SYSTEM INLET PIT - BI-11

SCALE 1:25



BIO-RETENTION LINER DETAIL

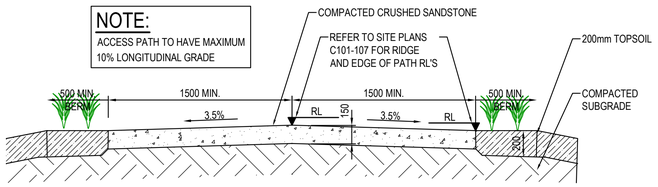
NTS



BIO-RETENTION FILTER PROFILE

SCALE 1:25

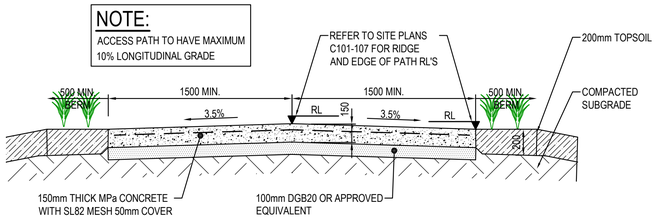
NOTE:
ACCESS PATH TO HAVE MAXIMUM 10% LONGITUDINAL GRADE



MAINTENANCE ACCESS TRACK

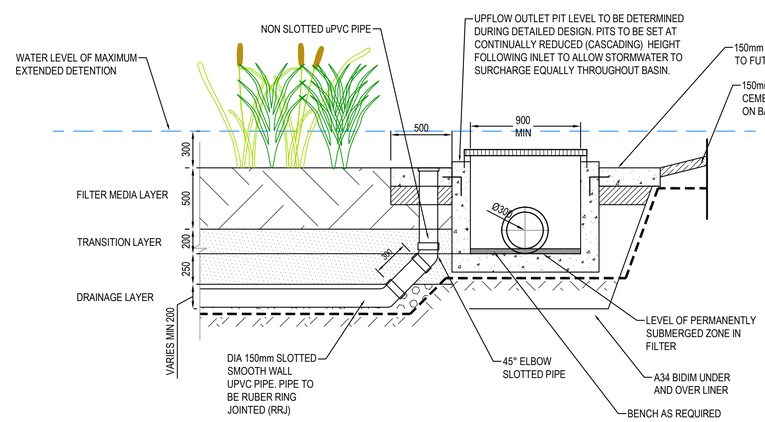
SCALE 1:25

NOTE:
ACCESS PATH TO HAVE MAXIMUM 10% LONGITUDINAL GRADE

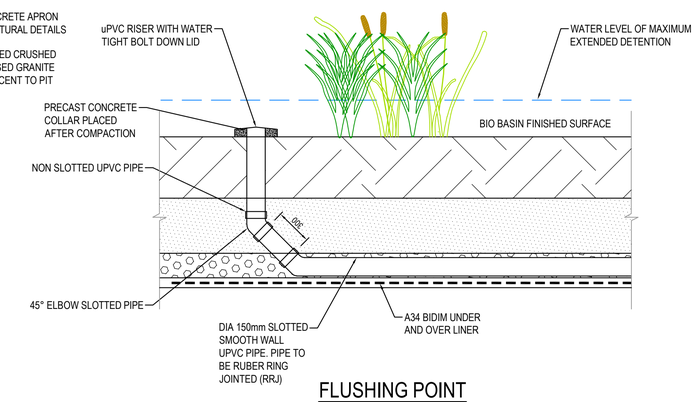


HEAVY DUTY CONCRETE ACCESS TRACK

SCALE 1:25



TYPICAL UPFLOW OUTLET PIT LOCATED IN BIORETENTION BASIN



FLUSHING POINT

NTS

0 500 1000 1500 2000 2500mm

500 300 100

SCALE 1:25

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
06	ISSUED FOR APPROVAL	IK	NW	05.05.2020					
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019					
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019					
01	PRELIMINARY	MS	NW	29.03.2019					

NSW GOVERNMENT Western Sydney Parklands Trust

Client: WESTERN SYDNEY PARKLANDS TRUST

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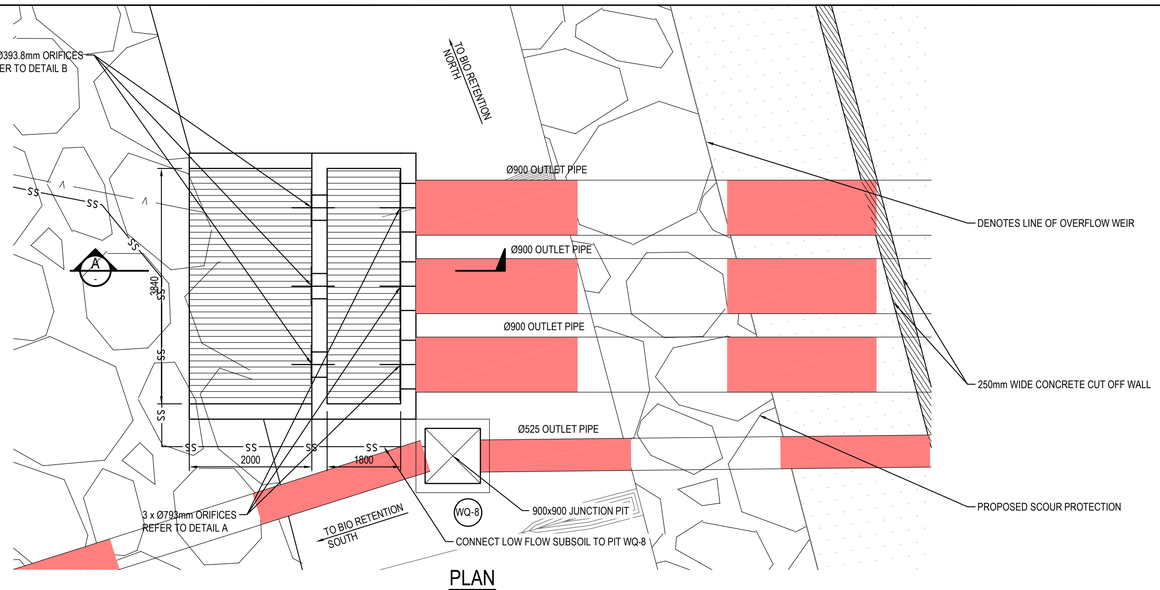
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667)

Title: BASIN DETAILS SHEET 1 OF 2

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	AS NOTED

Drawing number: 18652_SSDA_C240

Revision: 06



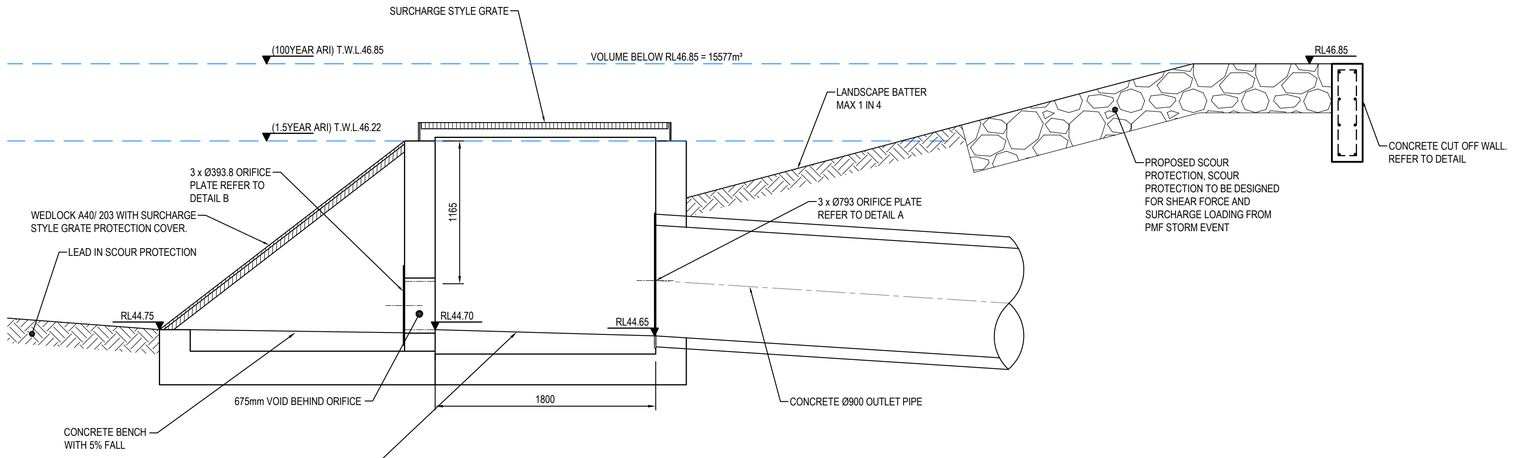
PLAN

SCALE 1:50

Above Ground OSD Summary with calculated values	
Site:	
Site Area	336294 m²
Site Area NOT Draining to OSD	18128 m²
Reduced Levels (AHD):	
RL of Top of Tank	47.22
RL of Bottom of OSD Tank	45
RL of 1.5 Year ARI Overflow Weir	46.22
RL of Emergency Overflow Weir	46.85
RL of 1.5 Year ARI Orifice Centerline	44.897
RL of 100 Year ARI Orifice Centreline	45.047
RL of Invert of Discharge to Council Drainage Pit	0
RL of obvert of Pit outlet pipe	44.95
Minium RL of Garage Floor	47.31
Minium RL of House Floor	47.41
OSD Volume:	
Required Storage BELOW 1.5 Year ARI Overflow Weir	10270.4 m³
Required Storage BELOW Emergency Overflow Weir	15576.8 m³
Discharge Details:	
Using Filter Cartridges to Manage Water Quality	No
Discharge Location	Council Drainage Pit
Length of Emergency Overflow Weir	35.00 m
Maximum 1.5 Year ARI Site Discharge	1236.41 L/s
1.5 Year ARI Orifice Discharge	1110.50 L/s
Maximum 100 Year ARI Site Discharge	5374.418
100 Year ARI Orifice Discharge	5374.42 L/s
Orifice Details:	
Number of 1.5 Year ARI Orifices	3
Number of 100 Year ARI Orifices	3
1.5 Year ARI Orifice Size (mm)	393.8 mm
100 Year ARI Orifice Size (mm)	793.0 mm
Notifications:	
Due to the Outlet Orifice being drowned by 2.4% during 100 ARI event an extra 1.8% of Storage volume has been added.	

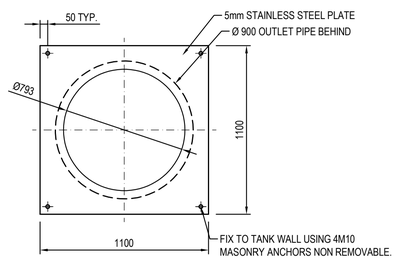
1236.4L/s - 123.2L/s - 3.2L/s
REFER BELOW NOTE

1. FLOW VIA BIORETENTION SYSTEM. 2759m² x FLOW ALLOWANCE 4.45L/s/100m² (A(BS)175m 2/25). FLOW FROM BIORETENTION = 122.7L/s.
2. FLOW FROM SUBSOIL LINE = 146m x 0.5m WIDE x 4.4L/s/100m² = 3.2L/s
3. ORIFICE TO BE DESIGNED FOR FLOW RATE 1236.4L/s - 122.7L/s - 3.2L/s = 1110.5L/s



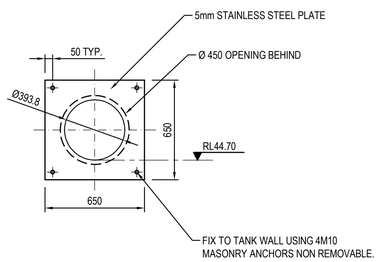
DISCHARGE CONTROL PIT - SECTION A

SCALE 1:25



ORIFICE PLATE DETAIL A

SCALE 1:20

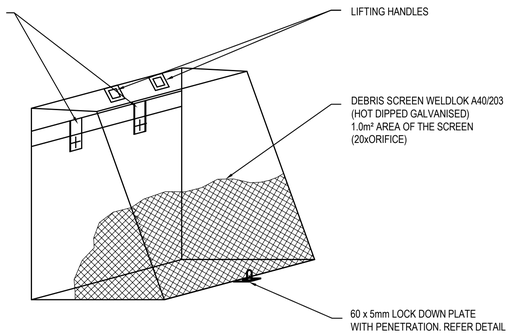


ORIFICE PLATE DETAIL B

SCALE 1:20

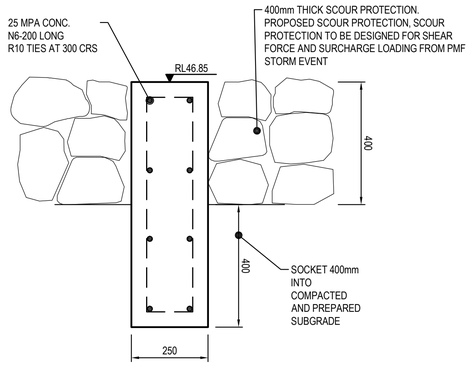
100 x 16 MOUNTING BAR WITH BRACKETS, SCREEN TO BE ATTACHED (GENERALLY ON A SLIDING MECHANISM) TO THE WALL, BUT SHOULD BE REMOVABLE (WITHOUT THE USE OF TOOLS) TO PERMIT CLEANSING AND EASY INSPECTION OF THE OUTLET CONTROL. ALL STEEL TO BE HOT DIPPED GALVANISED.

SCREEN TYPE WELDLOK A40/203 IS RECOMMENDED FOR ORIFICES LARGER THAN 150mm AND SCREEN AREA 20 x THE ORIFICE AREA, FOR FIRST ORIFICE IN SERIES



DEBRIS SCREEN DETAIL

NOT TO SCALE
ALL STEEL TO BE HOT DIPPED GALVANISED



CUT OF WALL DETAIL

SCALE 1:10

0 500 1000 1500 2000 2500mm
500 300 100
SCALE 1:25

0 1000 2000 3000 4000 5000mm
1000 600 200
SCALE 1:50

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
06	ISSUED FOR APPROVAL	IK	NW	22.04.2020					
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019					
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019					
01	PRELIMINARY	MS	NW	29.03.2019					

NSW GOVERNMENT Western Sydney Parklands Trust

Client: WESTERN SYDNEY PARKLANDS TRUST

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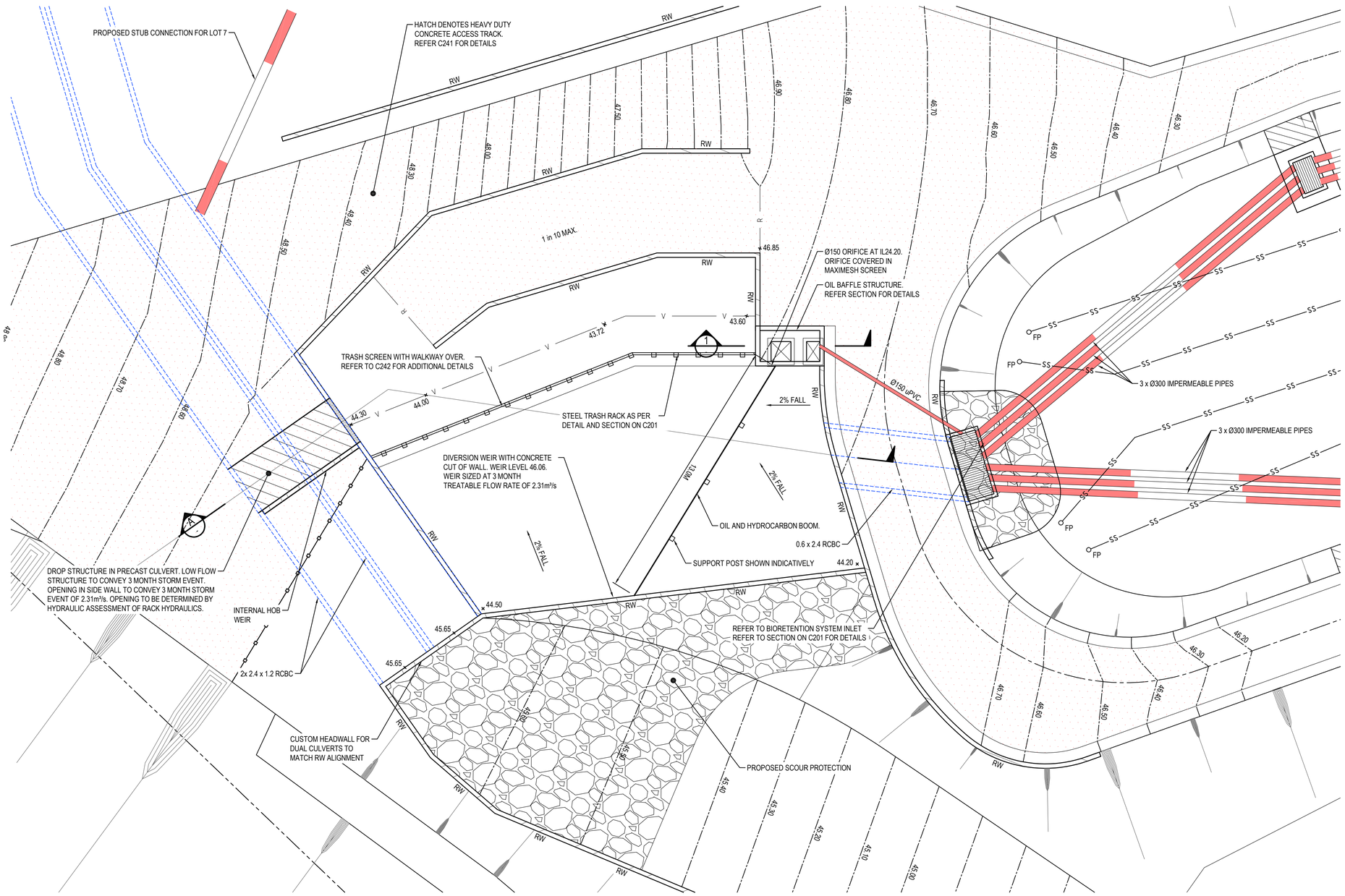
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: BASIN DETAILS
SHEET 2 OF 2

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	AS NOTED

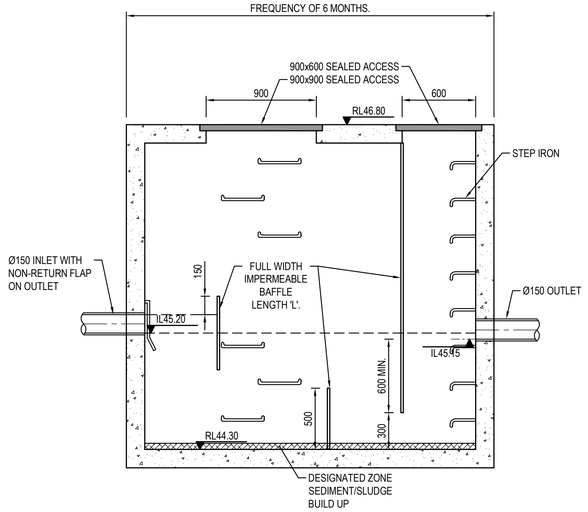
Drawing number: 18652_SSDA_C241
Revision: 06



CUSTOM GPT DETAIL PLAN

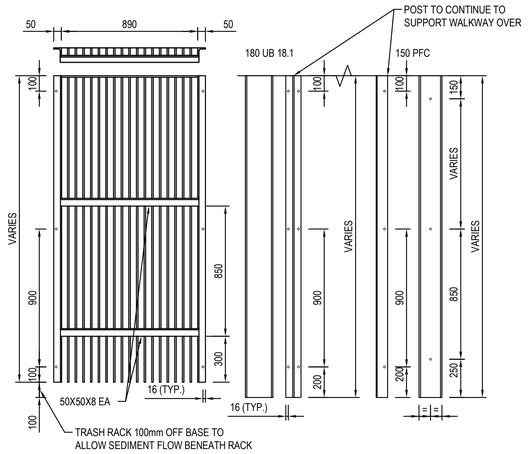
SCALE 1:100

SIZE TO BE DETERMINED BASED ON EXPECTED OIL AND HYDROCARBON LOADING. SIZE TO RETAIN AND STORE HYDROCARBONS FOR A REMOVAL FREQUENCY OF 6 MONTHS.



SECTION 1

SCALE: 1:25



RACK DETAILS WITH SUPPORT POST

SCALE: 1:20

NOTES:

- HOT DIP GALVANIZING AFTER STEEL FABRICATION.
- HOT DIP GALVANIZING STEEL BOLTS WITH ASSOCIATED NUTS & WASHER TO COMPLY WITH AS/NZS 1559.
- TRASHRACK TO BE 6-8MM RACKS, 35-45MM APERTURE.
- OPTIONAL PAINTING WITH A GREEN COLOUR.

0 2 4 6 8 10m — 2 1 — SCALE 1:100

0 500 1000 1500 2000 2500mm — 500 300 100 — SCALE 1:25

0 400 800 1200 1600 2000mm — 400 200 — SCALE 1:20

ISSUED FOR APPROVAL

NSW GOVERNMENT Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR APPROVAL	IK	NW	05.05.2020					

Client: WESTERN SYDNEY PARKLANDS TRUST

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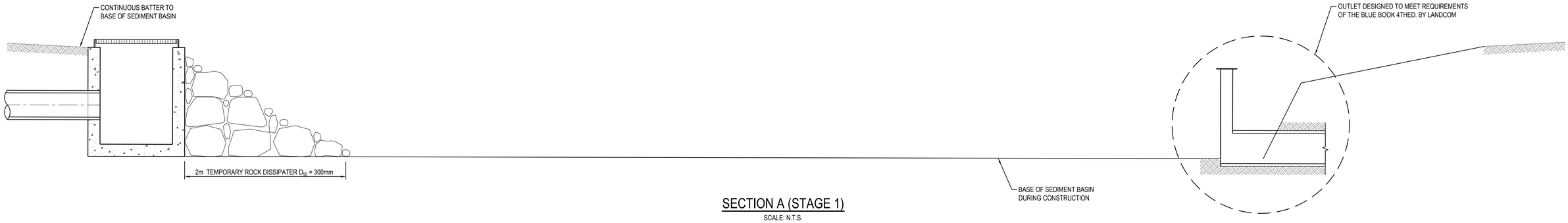
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667)

Title: CUSTOM GPT DETAIL PLAN AND DETAILS

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	AS NOTED

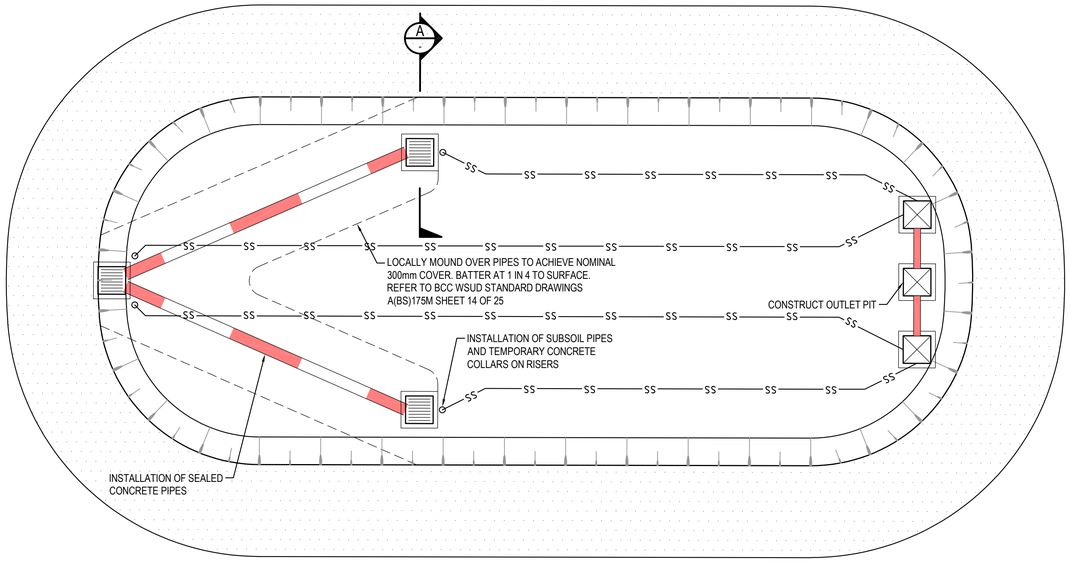
Drawing number: 18652_SSDA_C242

Revision: 01



SECTION A (STAGE 1)

SCALE: N.T.S.



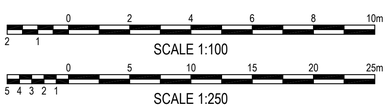
TYPICAL BIO RETENTION BASIN PLAN

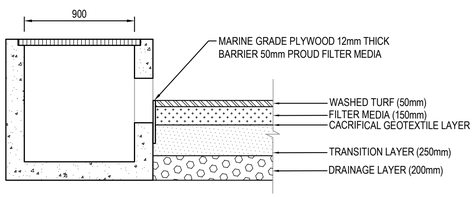
SCALE: N.T.S

NOTES:

1. DETAIL IS TYPICAL IN NATURE AND SHOULD BE ADJUSTED TO SUIT BIORETENTION SYSTEM ONSITE.
2. NOTES AND DETAIL LISTED ON THIS DRAWING DETAIL, IN A TYPICAL FASHION, A STAGED BIORETENTION BASIN CONSTRUCTION ONLY WHEN THE BASIN LOCATION IS USED AS A SEDIMENTATION BASIN.

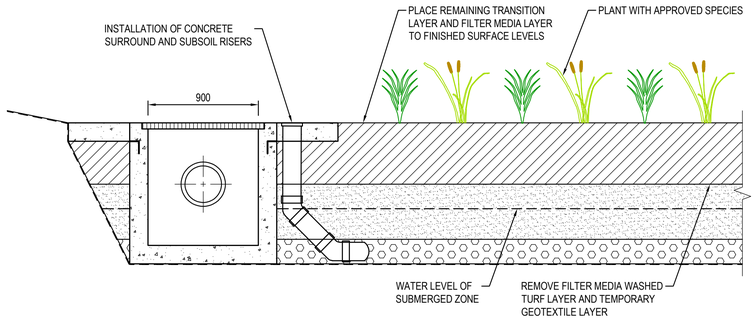
IMPORTANT NOTE:
NOTES AND DETAIL LISTED ON THIS DRAWING DETAIL, IN A TYPICAL FASHION, A STAGED BIORETENTION BASIN CONSTRUCTION ONLY WHEN THE BASIN LOCATION IS USED AS A SEDIMENTATION BASIN.





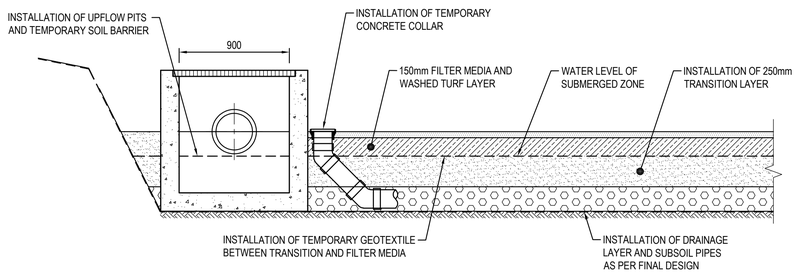
STAGE 2 TEMPORARY SOIL BARRIER ON UPFLOW PIT

SCALE: N.T.S.



SECTION A (STAGE 3)

SCALE: N.T.S.



SECTION A (STAGE 2)

SCALE: N.T.S.

STAGING OF BIORETENTION CONSTRUCTION WORKS

DESIGN NOTES:

1. WHERE THE UPSTREAM CATCHMENT HAS NOT ACHIEVED 90% OF FINAL CONSTRUCTION, INCLUDING LANDSCAPING, WHERE THE UPSTREAM CATCHMENT HAS NOT ACHIEVED 90% OF FINAL CONSTRUCTION, INCLUDING LANDSCAPING, THE BIORETENTION SYSTEM IS TO BE CONSTRUCTED WITH A SACRIFICIAL LAYER.
2. ONCE THE 90% TARGET HAS BEEN ACHIEVED, THE BIORETENTION SYSTEM IS TO BE CONSTRUCTED WITHIN 6 ONCE THE 90% TARGET HAS BEEN ACHIEVED, THE BIORETENTION SYSTEM IS TO BE CONSTRUCTED WITHIN 6 MONTHS. CAPTURED SEDIMENT AND SATURATED SOIL IS TO BE REMOVED AND THE BIORETENTION SYSTEM CONSTRUCTED AS PER THE DESIGN.
3. THE MAINTENANCE PERIOD OF THE SYSTEM IS TO EXTEND FOR MINIMUM 36 MONTHS FROM WHEN THE BIORETENTION THE MAINTENANCE PERIOD OF THE SYSTEM IS TO EXTEND FOR MINIMUM 36 MONTHS FROM WHEN THE BIORETENTION SYSTEM IS FULLY PLANTED BEFORE HANDOVER TO ANY FINAL CUSTODIAN.
4. BIORETENTION SYSTEMS SHALL ACHIEVE A MINIMUM DENSITY OF 8 PLANTS PER m AT 36 MONTHS AND BE BIORETENTION SYSTEMS SHALL ACHIEVE A MINIMUM DENSITY OF 8 PLANTS PER m AT 36 MONTHS AND BE 2 AT 36 MONTHS AND BE VIGOROUS, HEALTHY AND FREE OF WEEDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADVISE COUNCIL IF THIS DENSITY IS NOT ACHIEVED AT 24 MONTHS AND TO REPLANT SO THAT ALL PLANTS HAVE BEEN GROWING A MINIMUM OF 12 MONTHS AT THE SPECIFIED DENSITY AT HAND OVER.
5. ANY REQUIREMENT OF FENCING OR OTHER MEASURE TO ENSURE PUBLIC SAFETY IS THE RESPONSIBILITY OF THE ANY REQUIREMENT OF FENCING OR OTHER MEASURE TO ENSURE PUBLIC SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE MAINTAINED IN ACCORDANCE WITH COUNCIL OR OTHER REQUIREMENTS FOR THE DURATION OF THE CONSTRUCTION AND ESTABLISHMENT PERIOD.

CONSTRICTION ACTIVITIES CAN GENERATE LARGE SEDIMENT LOADS IN RUNOFF WHICH CAN SMOTHER VEGETATION AND CLOG BIORETENTION FILTER MEDIA. BIORETENTION BASINS ARE BEST CONSTRUCTED IN STAGES, IN CONJUNCTION WITH OTHER DEVELOPMENT ACTIVITIES:

STAGE 1:

TEMPORARY SEDIMENT BASIN - EXCAVATE BULK EARTHWORKS, INSTALLATION OF OUTLET TO MEET REQUIREMENTS OF BLUE BOOK, INSTALLATION OF SYSTEM INLET PIT, SURROUNDED EACH SIDE BY TEMPORARY ROCK DISSIPATOR. DISSIPATOR SHALL EXTEND A MINIMUM OF 2M AROUND THE INLET PIT AND HAVE A D50 = 300mm.

STAGE 2:

FUNCTIONAL INSTALLATION OF SACRIFICIAL BIORETENTION - ONCE UPSTREAM CATCHMENTS BULK EARTHWORKS ARE COMPLETE AND HAVE EFFECTIVELY BEEN SEALED A SACRIFICIAL FILTER SYSTEM SHALL BE CONSTRUCTED. THIS INCLUDES:

- REMOVAL OF TEMPORARY ROCK DISSIPATER AT SYSTEM INLET PIT
- REMOVAL OF ALL SEDIMENT
- INSTALLATION OF GEOTEXTILE AND LINERS UNDER
- INSTALLATION OF SUBSOIL DRAINS AND DRAINAGE LAYERS. TEMPORARY SUPPORT FLUSHING POINTS
- INSTALLATION OF 250MM OF TRANSITION LAYER
- INSTALLATION OF UPFLOW PITS, CONNECTING PIPES AND TEMPORARY SOIL BARRIERS
- LOCALISED MOUNDING OVER PIPES
- INSTALLATION OF TEMPORARY GEOTEXTILE AND 150mm MEDIA OR COARSE SAND LAYER
- INSTALLATION OF WASHED TURF OVER THE SACRIFICIAL MEDIA LAYER

STAGE 3:

OPERATIONAL ESTABLISHMENT ONCE 90% DEVELOPMENT HAS OCCURRED - REMOVAL OF TURF, SACRIFICIAL MEDIA LAYER AND TEMPORARY GEOTEXTILE INSTALLATION OF:

- REMAINING UPFLOW PITS
- PERMEABLE CONCRETE PIPE
- UPPER 200MM OF TRANSITION LAYER
- FILTER MEDIA LAYER
- PLANTING
- REMOVAL OF ALL SEDIMENT FROM PIPES, INLETS AND OUTLETS

ESTABLISHMENT / STAGING OF WORKS

IT IS RECOMMENDED THAT BIO- RETENTION SYSTEMS BE ESTABLISHED OFF-LINE WHEREVER POSSIBLE. THIS ALLOWS VEGETATION TO ESTABLISH WITHOUT BEING IMPACTED BY HIGH STORMWATER FLOWS. DESIGN DRAWINGS SHALL SHOW TEMPORARY WORKS FOR THE ESTABLISHMENT PHASE, SUCH AS A TEMPORARY COVER ON AN INLET, TEMPORARY IRRIGATION AND TEMPORARY EROSION CONTROL. REFER TO BLACKTOWN CITY COUNCIL BIO-RETENTION SPECIFICATION FOR FURTHER INFORMATION. STAGES AS FOLLOWS:

WHEN INCORPORATING WATER QUALITY CONTROLS IN A SUBDIVISION DEVELOPMENT, COUNCIL REQUIRES A STAGED IMPLEMENTATION. STAGES TYPICALLY INCLUDE:

1. DURING BULK EARTHWORKS PHASE A SEDIMENT BASIN IN PLACE OF THE FINAL BIO-RETENTION.
2. FOLLOWING COMPLETION OF THE EARTHWORKS A SACRIFICIAL BASIN SHOULD BE CONSTRUCTED TO HAVE THE SUBDIVISION CERTIFICATE/ LINEN PLANS RELEASED.
3. ONCE 90% OF CATCHMENT DEVELOPMENT IS COMPLETE A FULLY FUNCTIONAL BIO-RETENTION SYSTEM IS MADE OPERATIONAL. THIS IS A T THE DISCRETION OF COUNCIL WHO MAY VARY THIS REQUIREMENTS.

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR APPROVAL	IK	NW	22.04.2020					

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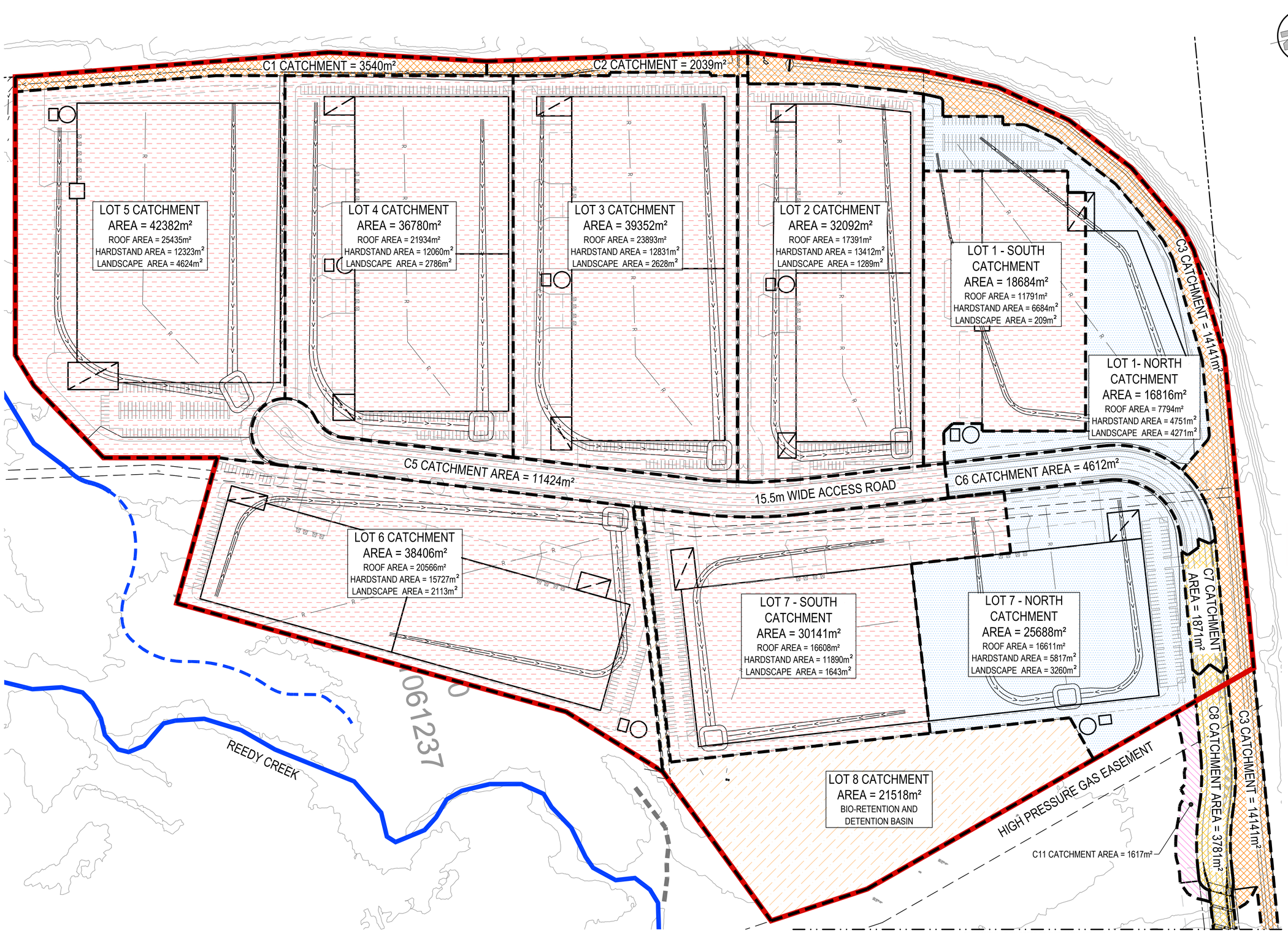
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB FERRERS ROAD, EASTERN CREEK, NSW

Title: BIORETENTION - CONSTRUCTION WORKS STAGING

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	AS SHOWN

Drawing number: 18652_SSDA_C245

Revision: 01



CATCHMENT PLAN

SCALE 1:1250

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
07	ISSUED FOR APPROVAL	IK	NW	11.05.2020					
06	ISSUED FOR APPROVAL	IK	NW	05.05.2020					
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019					
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019					
01	PRELIMINARY	IK	NW	29.03.2019					

NSW GOVERNMENT Western Sydney Parklands Trust

Client: WESTERN SYDNEY PARKLANDS TRUST

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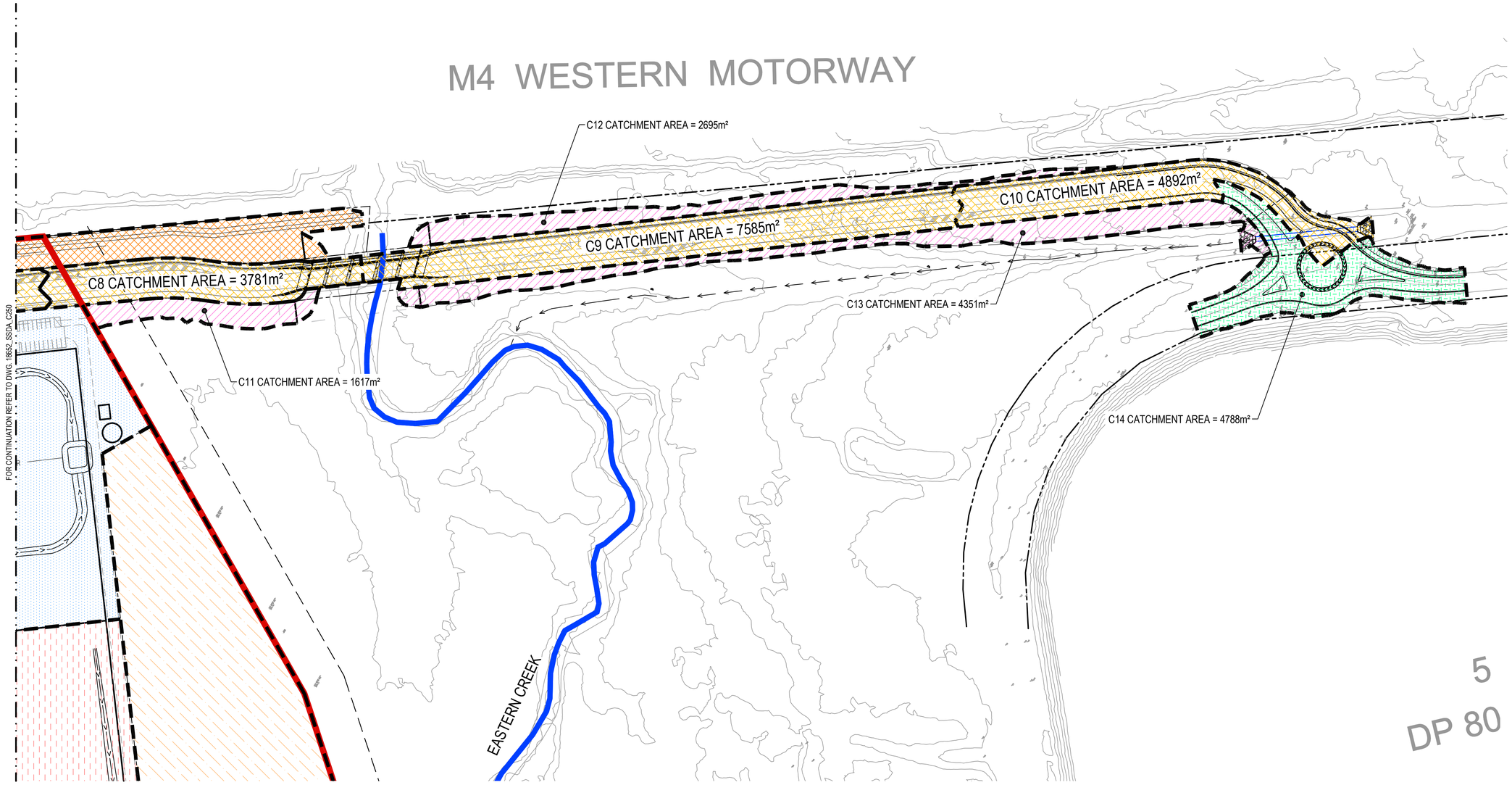
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: CATCHMENT PLAN

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:1250

Drawing number: 18652_SSDA_C250

Revision: 07



ACCESS ROAD CATCHMENT AREA
AREA: 18129m²

RE-VEGETATE BATTER AREA
AREA: 8663m²

FERRERS ROAD CATCHMENT AREA
AREA: 4788m²

5
DP 80

CATCHMENT PLAN - ACCESS ROAD
SCALE 1:1250

0 25 50 75 100 125m
25 15 5
SCALE 1:1250

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
04	ISSUED FOR APPROVAL	IK	NW	11.05.2020
03	ISSUED FOR APPROVAL	IK	NW	21.04.2020
02	ISSUED FOR APPROVAL	IK	NW	21.01.2020
01	ISSUED FOR APPROVAL	IK	NW	13.12.2019

Client: WESTERN SYDNEY PARKLANDS TRUST

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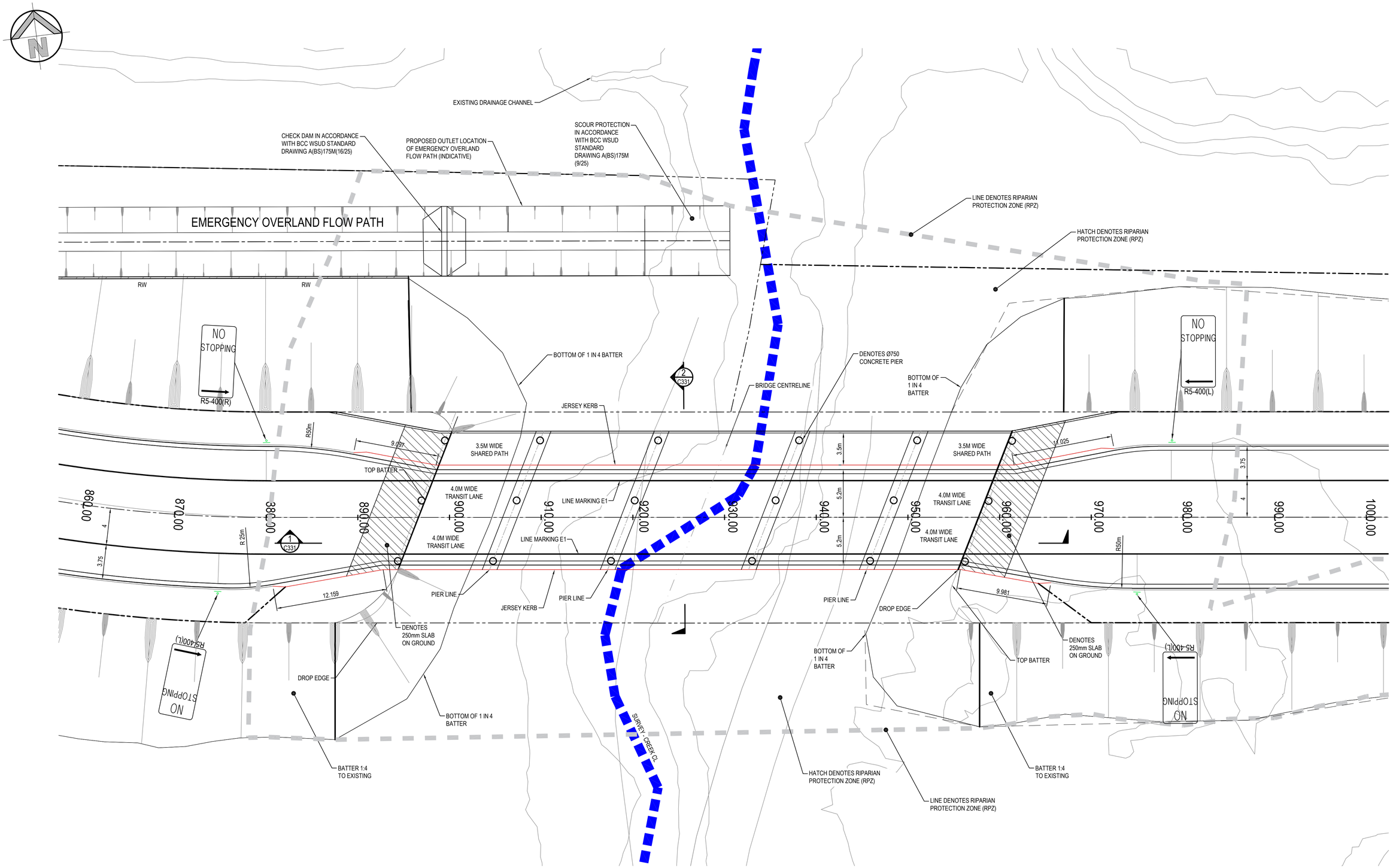
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: CATCHMENT PLAN
ACCESS ROAD

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:1250

Drawing number: 18652_SSDA_C251
Revision: 04



BRIDGE CONCEPT PLAN

SCALE 1:200

0 4 8 12 16 20m

4 3 2 1

SCALE 1:200

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
07	ISSUED FOR APPROVAL	IK	NW	11.05.2020					
06	ISSUED FOR APPROVAL	IK	NW	05.05.2020					
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019					
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019					
01	PRELIMINARY	IK	NW	04.04.2019					

Client: WESTERN SYDNEY PARKLANDS TRUST

Architect: NETTLETONTRIBE

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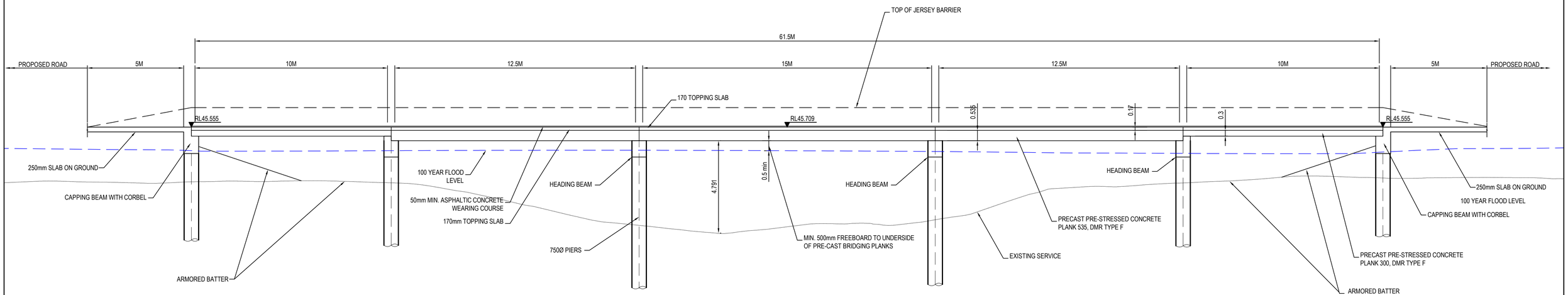
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: BRIDGE CONCEPT PLAN

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:200

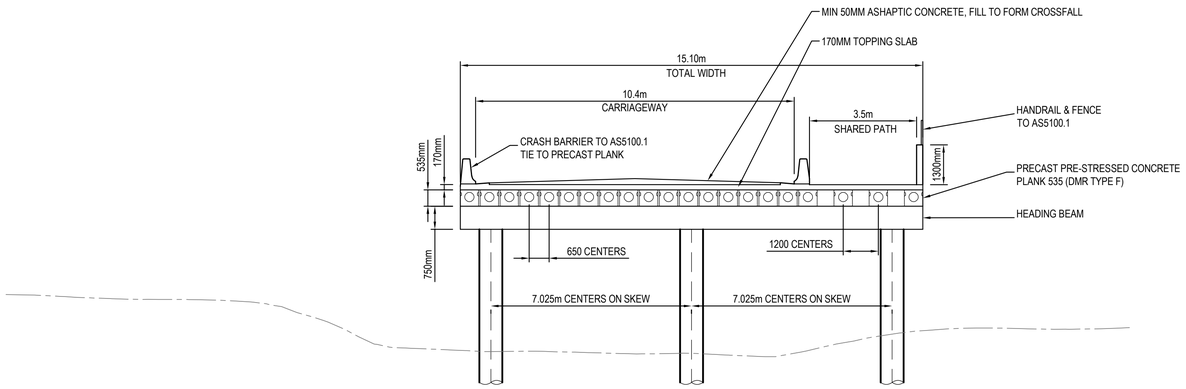
Drawing number: 18652_SSDA_C330

Revision: 07



SECTION 1 / C330

SCALE: 1:100



SECTION 2 / C330

SCALE: 1:100

0 2 4 6 8 10m

2 1

SCALE 1:100

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
06	ISSUED FOR APPROVAL	IK	NW	22.04.2020					
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019					
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019					
01	CONCEPT	IK	NW	04.04.2019					

NSW GOVERNMENT Western Sydney Parklands Trust

Client: WESTERN SYDNEY PARKLANDS TRUST

Architect: NETTLETONTRIBE

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henry&hymas

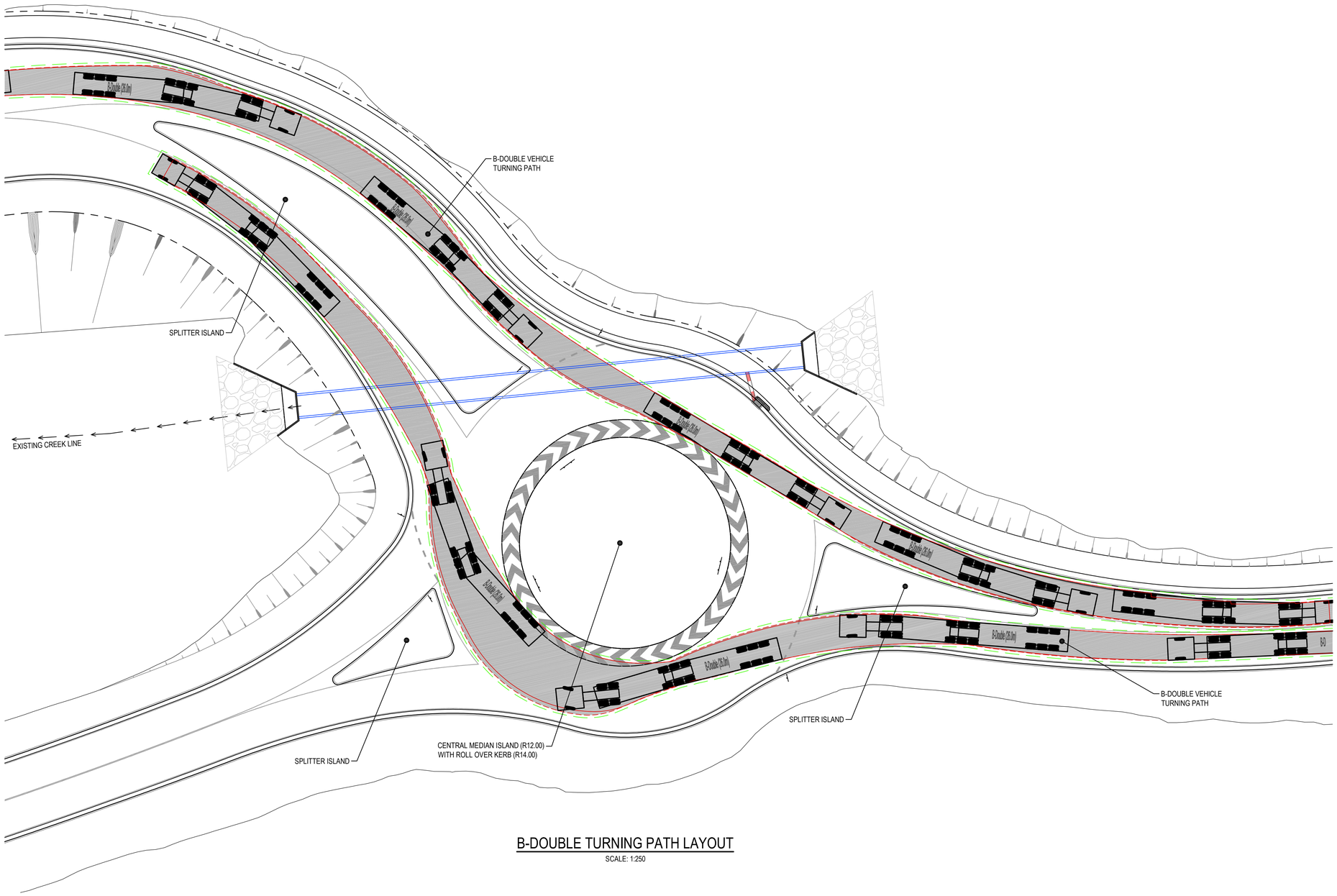
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: BRIDGE CONCEPT SECTIONS

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	**Approved**	**Scale @A1**
N.Wetzlar	A.Francis	1:100

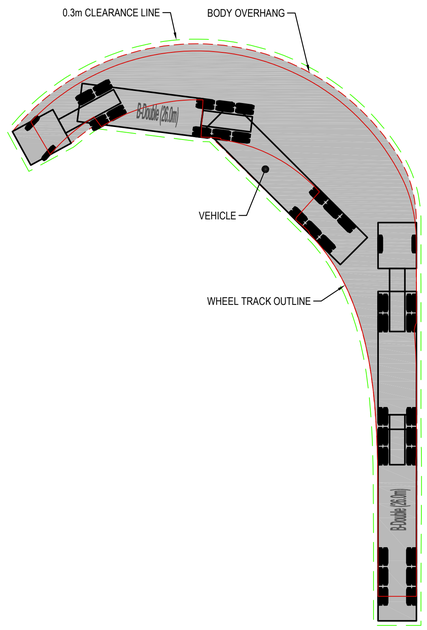
Drawing number: 18652_SSDA_C331

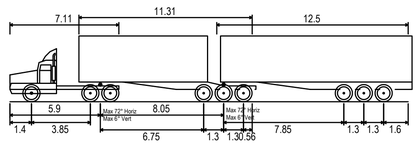
Revision: 06



B-DOUBLE TURNING PATH LAYOUT

SCALE: 1:250





B-Double (26.0m)

Overall Length	26.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m

B-DOUBLE VEHICLE PROFILE

SCALE: 1:500

0 5 10 15 20 25m

5 4 3 2 1

SCALE 1:250

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
04	ISSUED FOR APPROVAL	IK	NW	22.04.2020					
03	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
02	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
01	ISSUED FOR APPROVAL	BH	BH	23.05.2019					

Client
WESTERN SYDNEY PARKLANDS TRUST

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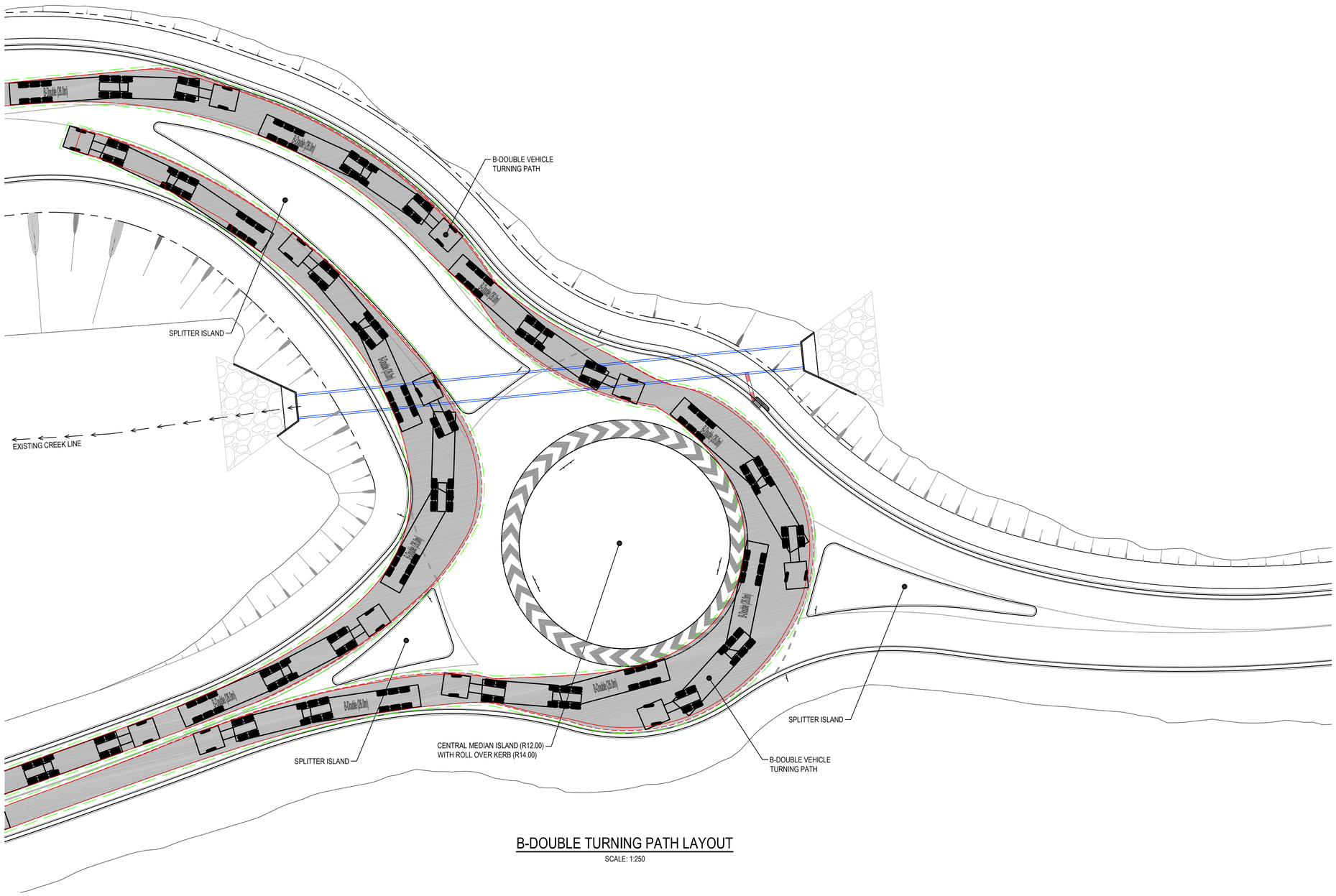
Project
LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title
B-DOUBLE VEHICLE TURNING PATHS
SHEET 1 OF 8

Drawn	Designed	Date
B.Hurlstone	B.Hurlstone	MAY 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:250

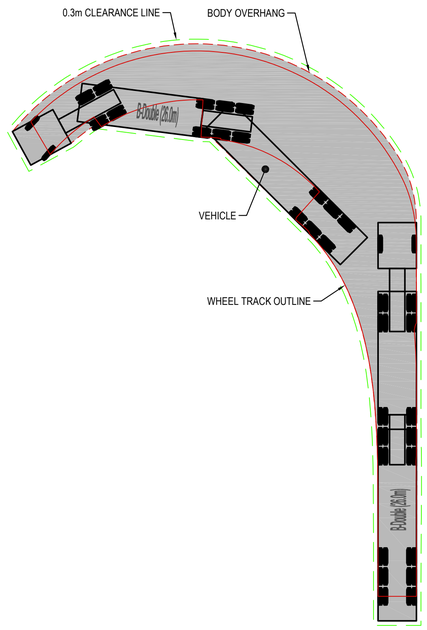
Drawing number 18652_SSDA_C600

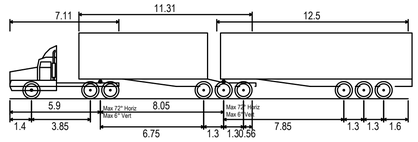
Revision 04



B-DOUBLE TURNING PATH LAYOUT

SCALE: 1:250





B-Double (26.0m)	
Overall Length	26.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m

B-DOUBLE VEHICLE PROFILE

SCALE: 1:500

0 5 10 15 20 25m

5 4 3 2 1

SCALE 1:250

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
04	ISSUED FOR APPROVAL	IK	NW	22.04.2020					
03	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
02	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
01	ISSUED FOR APPROVAL	BH	BH	23.05.2019					

Client
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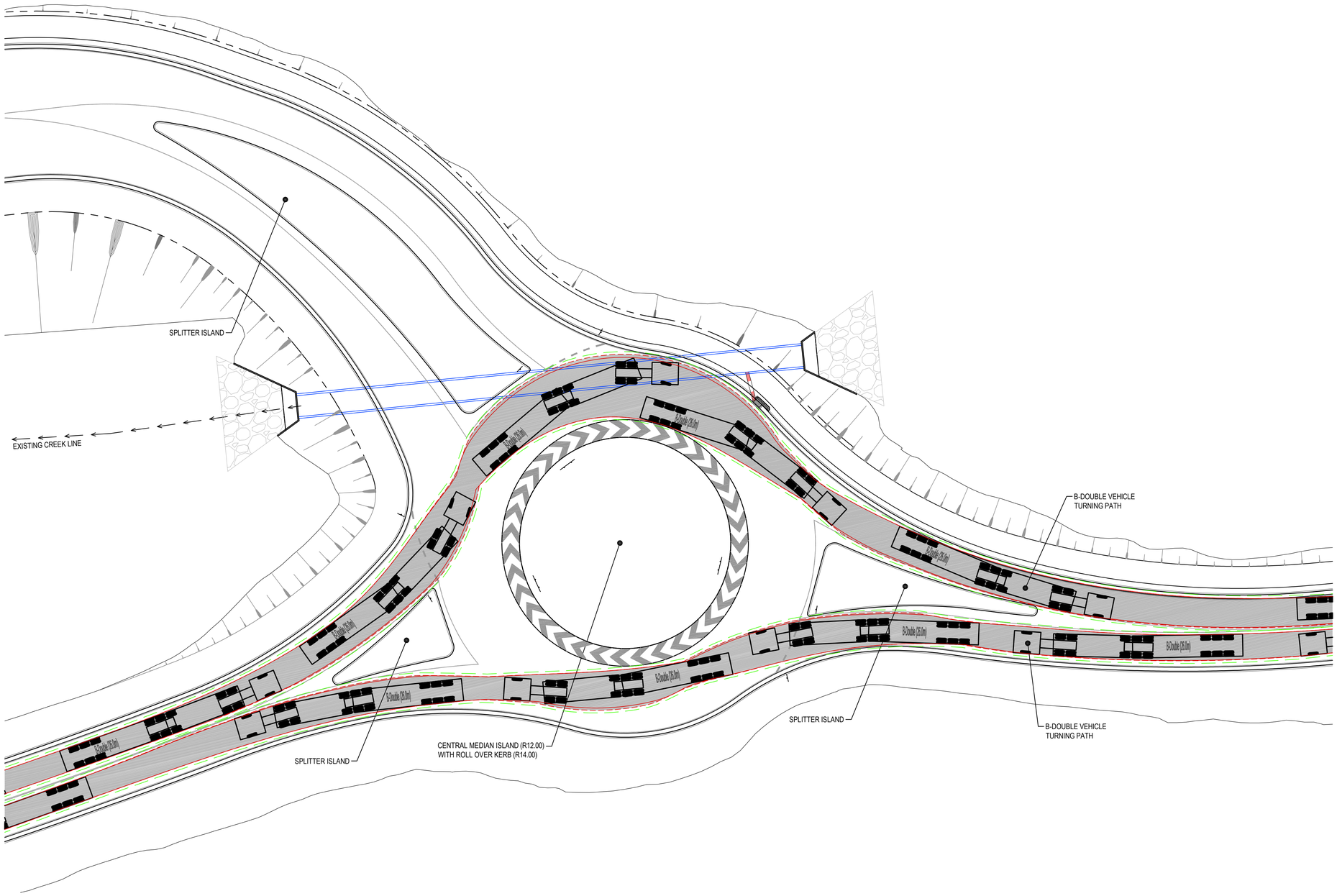
Project
LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title
B-DOUBLE VEHICLE TURNING PATHS
SHEET 2 OF 8

Drawn	Designed	Date
B.Hurlstone	B.Hurlstone	MAY 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:250

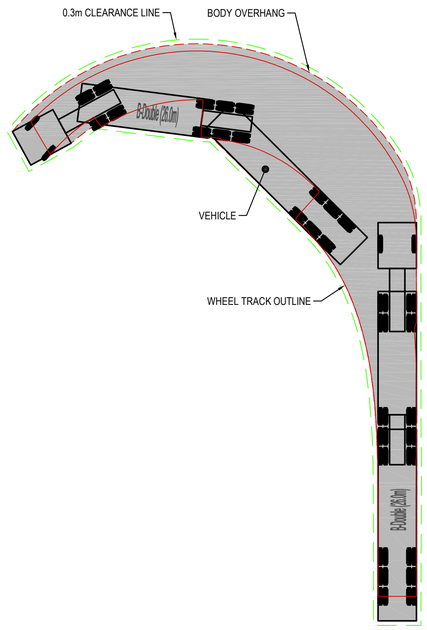
Drawing number: 18652_SSDA_C601

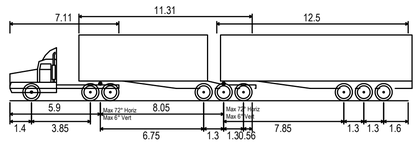
Revision: 04



B-DOUBLE TURNING PATH LAYOUT

SCALE: 1:250





B-Double (26.0m)

Overall Length	26.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m

B-DOUBLE VEHICLE PROFILE

SCALE: 1:500

0 5 10 15 20 25m

5 4 3 2 1

SCALE 1:250

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
04	ISSUED FOR APPROVAL	IK	NW	22.04.2020
03	ISSUED FOR APPROVAL	IK	NW	21.01.2020
02	ISSUED FOR APPROVAL	IK	NW	13.12.2019
01	ISSUED FOR APPROVAL	BH	BH	23.05.2019

Client: WESTERN SYDNEY PARKLANDS TRUST

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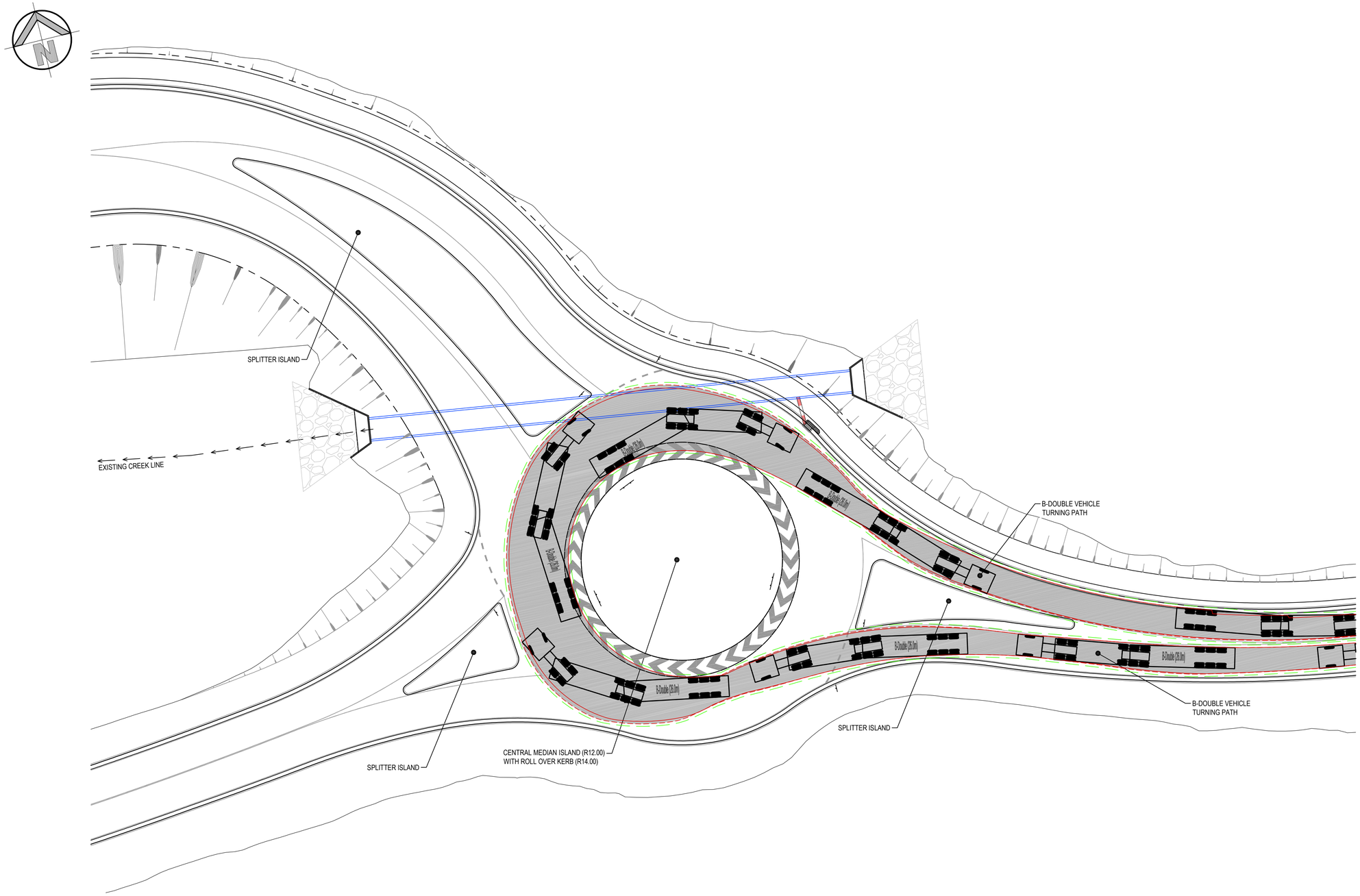
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667)

Title: B-DOUBLE VEHICLE TURNING PATHS SHEET 3 OF 8

Drawn	Designed	Date
B.Hurlstone	B.Hurlstone	MAY 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:250

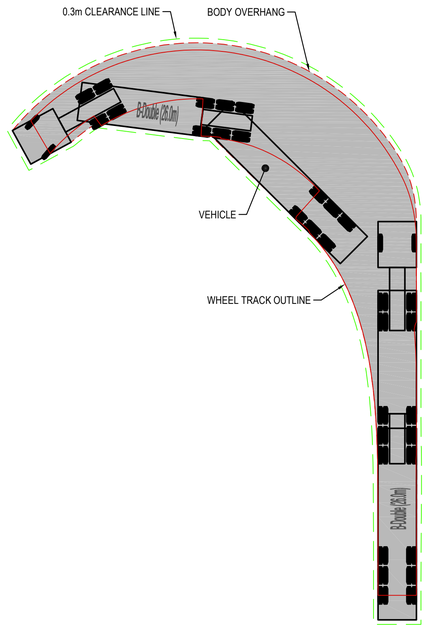
Drawing number: 18652_SSDA_C602

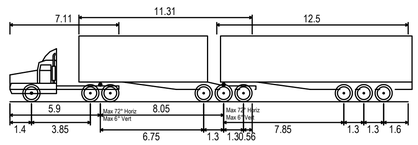
Revision: 04



B-DOUBLE TURNING PATH LAYOUT

SCALE: 1:250





B-Double (26.0m)

Overall Length	26.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m

B-DOUBLE VEHICLE PROFILE

SCALE: 1:500

0 5 10 15 20 25m

5 4 3 2 1

SCALE 1:250

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
04	ISSUED FOR APPROVAL	IK	NW	22.04.2020					
03	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
02	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
01	ISSUED FOR APPROVAL	BH	BH	23.05.2019					

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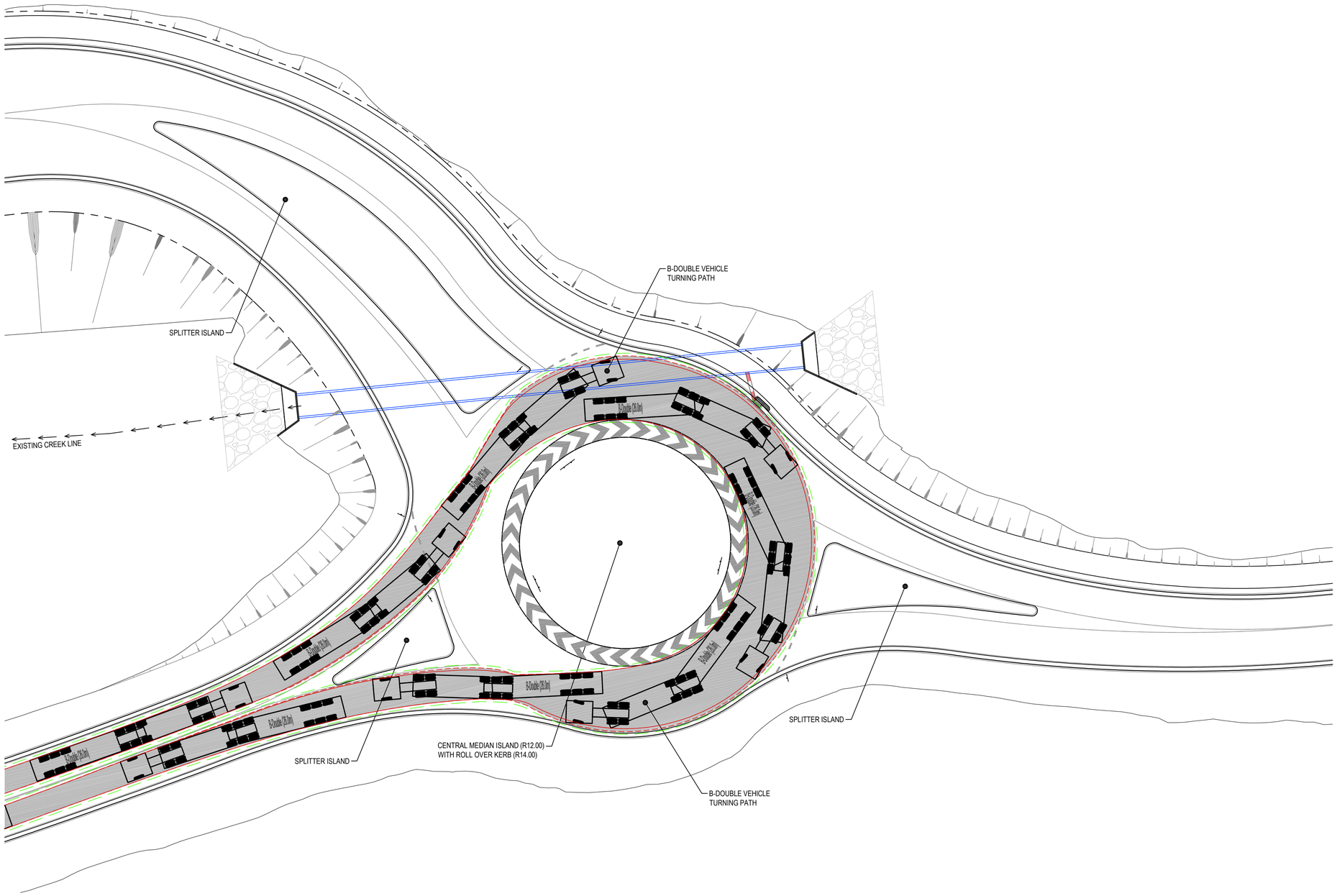
Project
LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title
B-DOUBLE VEHICLE TURNING PATHS
SHEET 4 OF 8

Drawn	Designed	Date
B.Hurlstone	B.Hurlstone	MAY 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:250

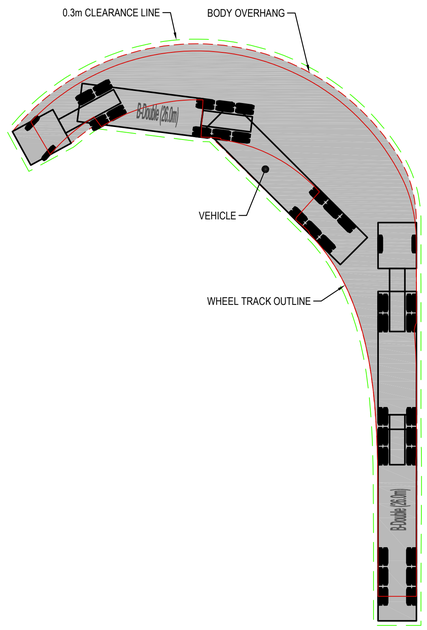
Drawing number 18652_SSDA_C603

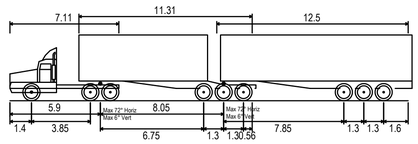
Revision 04



B-DOUBLE TURNING PATH LAYOUT

SCALE: 1:250





B-Double (26.0m)	
Overall Length	26.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m

B-DOUBLE VEHICLE PROFILE

SCALE: 1:500

0 5 10 15 20 25m

5 4 3 2 1

SCALE 1:250

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
04	ISSUED FOR APPROVAL	IK	NW	22.04.2020					
03	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
02	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
01	ISSUED FOR APPROVAL	BH	BH	23.05.2019					

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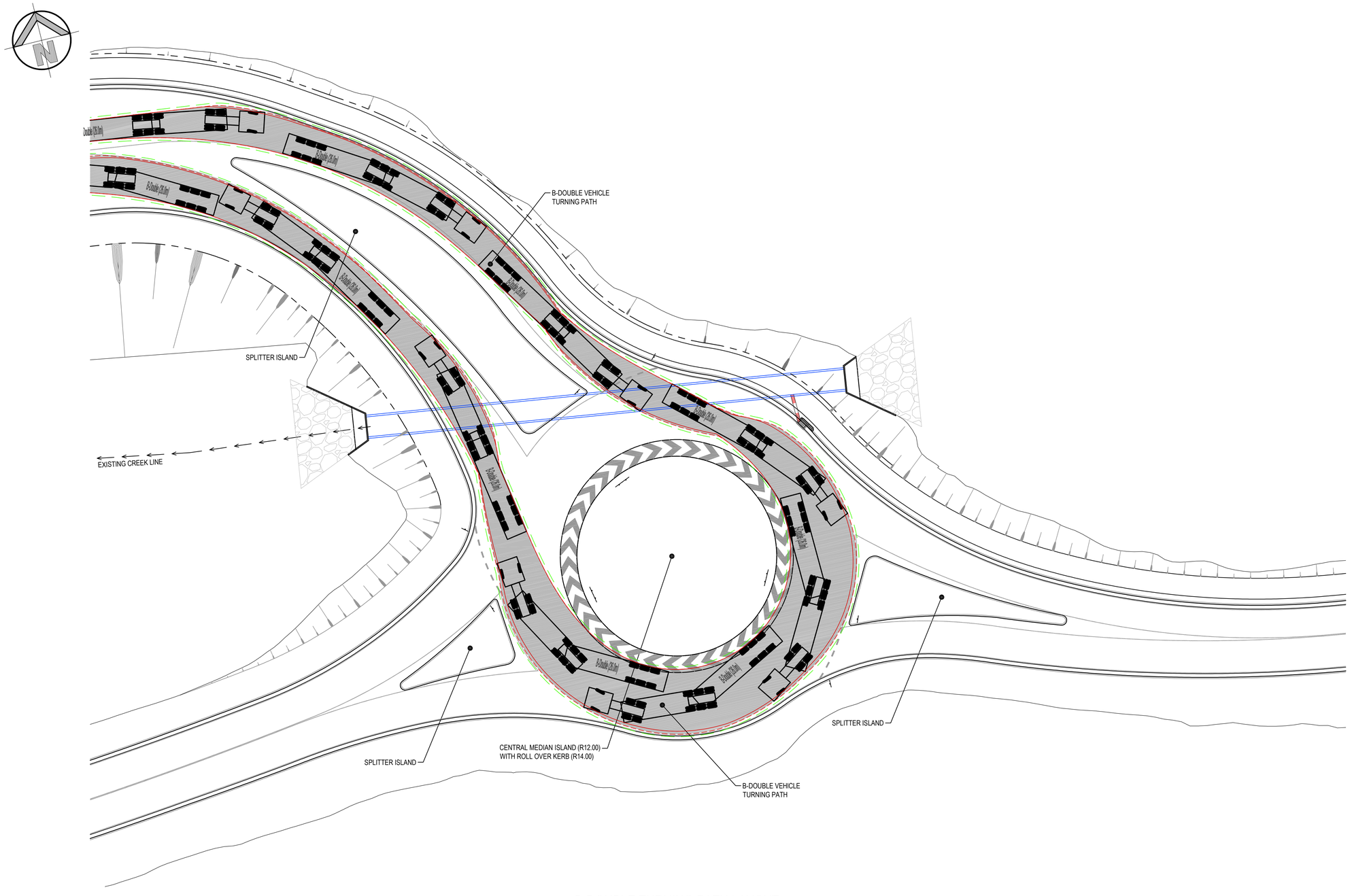
Project
LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Drawn	Designed	Date
B.Hurlstone	B.Hurlstone	MAY 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:250

Title
B-DOUBLE VEHICLE TURNING PATHS
SHEET 5 OF 8

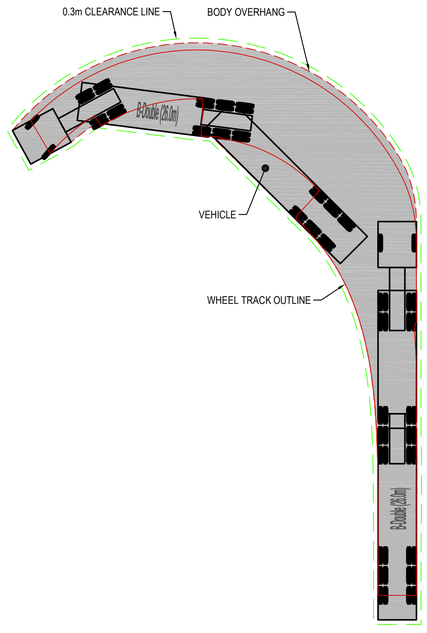
Drawing number
18652_SSDA_C604

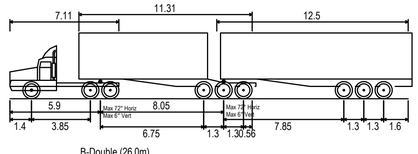
Revision
04



B-DOUBLE TURNING PATH LAYOUT

SCALE: 1:250





B-Double (26.0m)	
Overall Length	26.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m

B-DOUBLE VEHICLE PROFILE

SCALE: 1:500

0 5 10 15 20 25m

5 4 3 2 1

SCALE 1:250

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
04	ISSUED FOR APPROVAL	IK	NW	22.04.2020
03	ISSUED FOR APPROVAL	IK	NW	21.01.2020
02	ISSUED FOR APPROVAL	IK	NW	13.12.2019
01	ISSUED FOR APPROVAL	BH	BH	23.05.2019

Client
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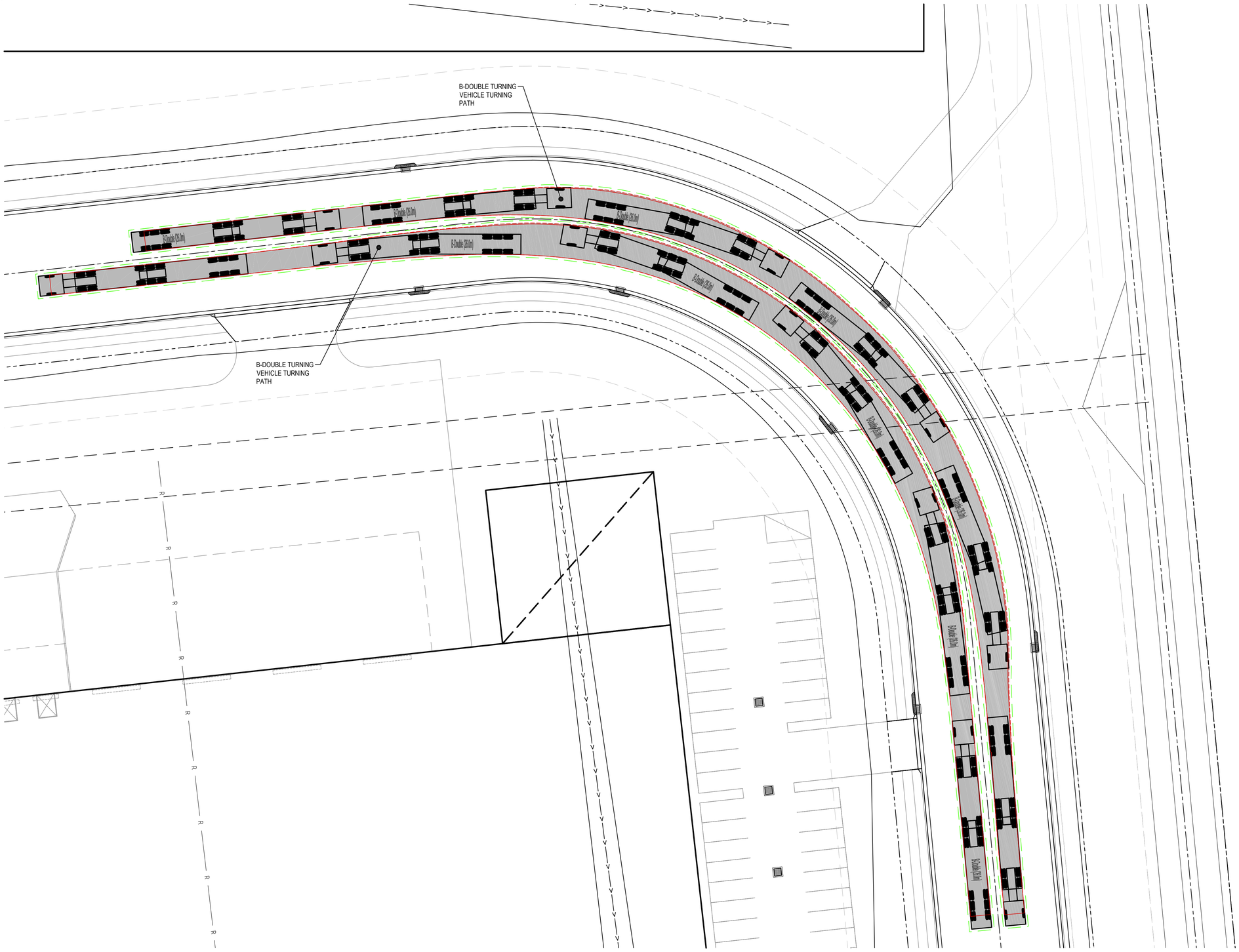
Project
LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title
B-DOUBLE VEHICLE TURNING PATHS
SHEET 6 OF 8

Drawn	Designed	Date
B.Hurlstone	B.Hurlstone	MAY 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:250

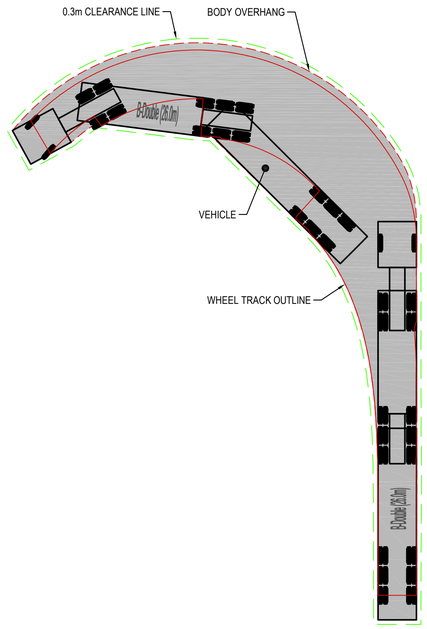
Drawing number: 18652_SSDA_C605

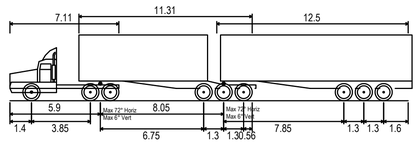
Revision: 04



B-DOUBLE TURNING PATH LAYOUT

SCALE: 1:250





B-Double (26.0m)	
Overall Length	26.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m

B-DOUBLE VEHICLE PROFILE

SCALE: 1:500

0 5 10 15 20 25m

5 4 3 2 1

SCALE 1:250

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
05	ISSUED FOR APPROVAL	IK	NW	11.05.2020					
04	ISSUED FOR APPROVAL	IK	NW	22.04.2020					
03	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
02	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
03	ISSUED FOR APPROVAL	BH	BH	23.05.2019					

NSW GOVERNMENT Western Sydney Parklands Trust

Client: WESTERN SYDNEY PARKLANDS TRUST

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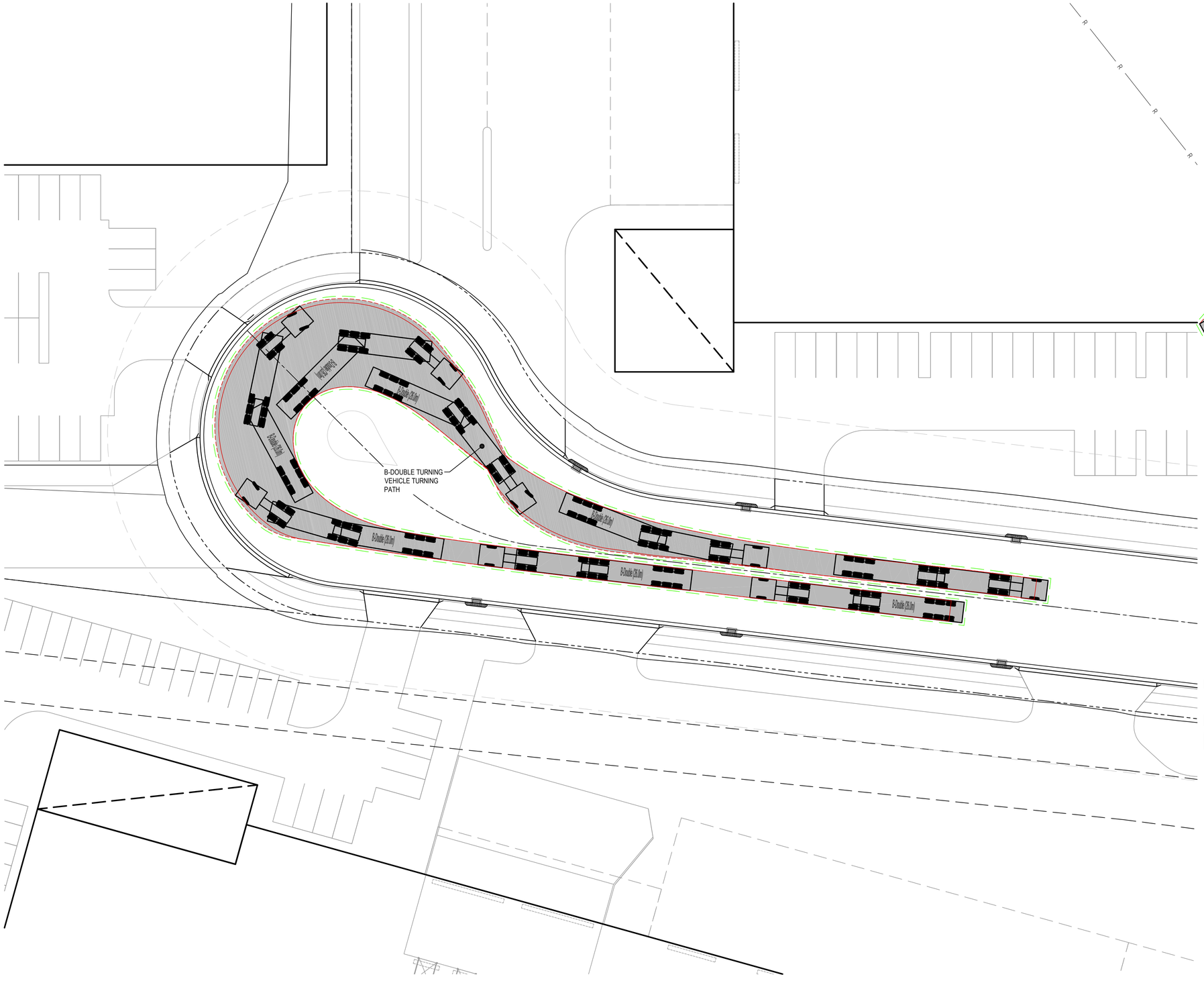
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: B-DOUBLE VEHICLE TURNING PATHS
SHEET 7 OF 8

Drawn	Designed	Date
B.Hurlstone	L.Caha	MAY 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:250

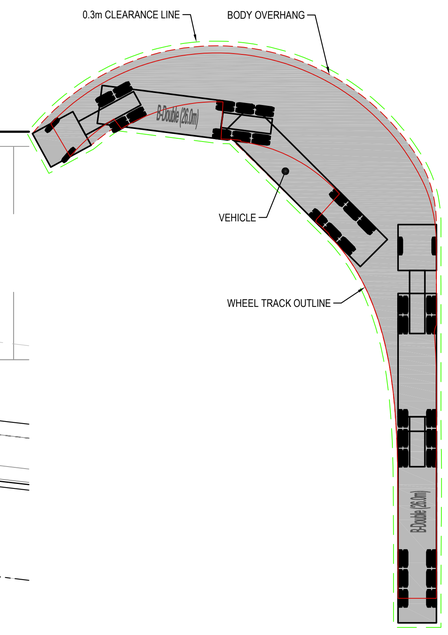
Drawing number: 18652_SSDA_C606

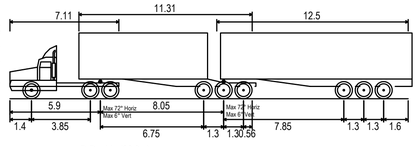
Revision: 05



B-DOUBLE TURNING PATH LAYOUT

SCALE: 1:250





B-Double (26.0m)	
Overall Length	26.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m

B-DOUBLE VEHICLE PROFILE

SCALE: 1:500

0 5 10 15 20 25m

5 4 3 2 1

SCALE 1:250

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
04	ISSUED FOR APPROVAL	IK	NW	22.04.2020
03	ISSUED FOR APPROVAL	IK	NW	21.01.2020
02	ISSUED FOR APPROVAL	IK	NW	13.12.2019
03	ISSUED FOR APPROVAL	BH	BH	23.05.2019

Client
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Project
LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title
B-DOUBLE VEHICLE TURNING PATHS
SHEET 8 OF 8

Drawn	Designed	Date
B.Hurlstone	L.Caha	MAY 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:250

Drawing number 18652_SSDA_C607

Revision 04

LOT 5
FFL 51.15
PAD 50.75

LOT 4
FFL 50.75
PAD 50.35

LOT 3
FFL 50.50
PAD 50.10

LOT 2
FFL 50.25
PAD 49.85

LOT 1
FFL 50.00
PAD 49.60

LOT 6
FFL 50.20
PAD 49.80

LOT 6
FFL 50.20
PAD 49.80

15.5m WIDE ACCESS ROAD

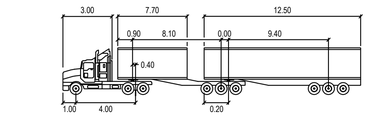
6m WIDE SEWER EASEMENT

ESKDALE CREEK

ACCESS RESERVE

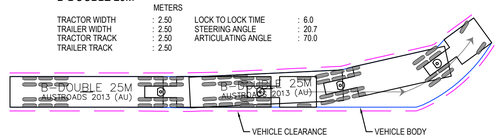
INTERLOT TURNING PATHS PLAN

SCALE: 1:1000



B-DOUBLE 25M

	METERS		
TRACTOR WIDTH	: 2.50	LOCK TO LOCK TIME	: 6.0
TRAILER WIDTH	: 2.50	STEERING ANGLE	: 20.7
TRACTOR TRACK	: 2.50	ARTICULATING ANGLE	: 70.0
TRAILER TRACK	: 2.50		



VEHICLE LEGEND

SCALE: N.T.S.

0 20 40 60 80 100m

20 15 10 5

SCALE 1:1000

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
04	ISSUED FOR APPROVAL	IK	NW	05.05.2020
03	ISSUED FOR APPROVAL	IK	NW	24.01.2020
02	ISSUED FOR APPROVAL	IK	NW	21.01.2020
01	ISSUED FOR APPROVAL	IK	NW	13.12.2019

Client: WESTERN SYDNEY PARKLANDS TRUST

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Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: INTERLOT TURNING PATHS PLAN

Drawn	Designed	Date
M.Stimova	L.Caha	NOV 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:1000

Drawing number: 18652_CC_C608

Revision: 04

LOT 6
FFL 50.20
PAD 49.80

LOT 7
FFL 49.50
PAD 49.10

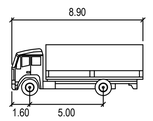
COMMUNAL
BIORETENTION

COMMUNAL
DETENTION
BASIN

HIGH PRESSURE GAS EASEMENT

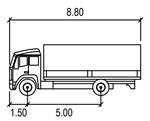
WATER MANAGEMENT BASIN MAINTENANCE TURNING PATHS

SCALE 1:500



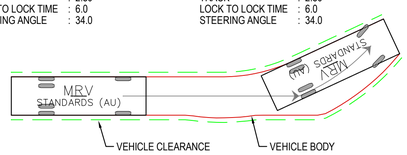
EDUCTOR TRUCK

	METERS
WIDTH	: 2.50
TRACK	: 2.50
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 34.0



MRV

	METERS
WIDTH	: 2.50
TRACK	: 2.50
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 34.0



VEHICLE LEGEND

SCALE: N.T.S.

0 10 20 30 40 50m
10 8 6 4 2
SCALE 1:500

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
03	ISSUED FOR APPROVAL	IK	NW	05.05.2020
02	ISSUED FOR APPROVAL	IK	NW	21.01.2020
01	ISSUED FOR APPROVAL	IK	NW	13.12.2019

Client
WESTERN SYDNEY PARKLANDS TRUST

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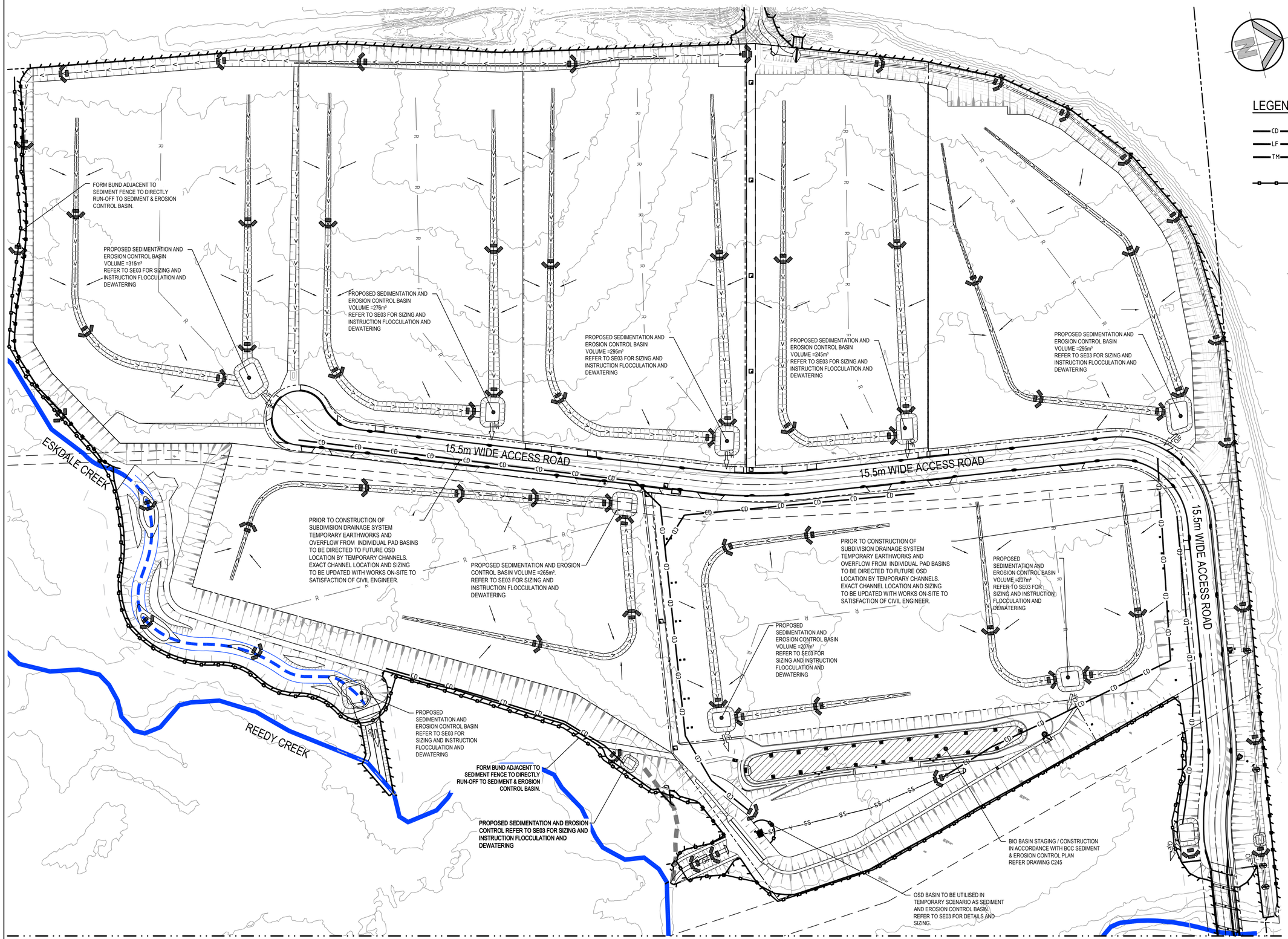
Project
LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:500

Title
WATER MANAGEMENT BASIN
MAINTENANCE TURNING PATHS

Drawing number
18652_SSDA_C609

Revision
03



LEGEND

- CATCH DIVERSION DRAIN
- LOW FLOW DIVERSION DRAIN
- TRAFFIC MANOEUVRING
- OVERLAND FLOW PATH
- PROPOSED SEDIMENTATION FENCE
- PROPOSED VEHICLE SHAKER GRID
- PROPOSED STABILISED SITE ACCESS
- PROPOSED STOCKPILE LOCATION
- PROPOSED HAYBALE FILTER
- GEOTEXTILE INLET FILTER
- PROPOSED MESH & GRAVEL INLET FILTER

SEDIMENT & EROSION CONTROL NOTES

- ALL SEDIMENT CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL SPECIFICATIONS AND LANDCOM'S "SOIL AND CONSTRUCTION" MANUAL.
- ALL PERIMETER & SILTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN EARTH WORKS AND/OR CLEARING.
- THE SEDIMENT & EROSION CONTROL PLAN MAY REQUIRE FUTURE ADJUSTMENT TO REFLECT CONSTRUCTION STAGING. IT IS ALSO THE CONTRACTORS RESPONSIBILTY TO PREPARE THEIR OWN SEDIMENT AND EROSION CONTROL PLAN WHICH SUITS THE DESIGNED CONSTRUCTION STAGING.
- FILTRATION BUFFER ZONES ARE TO BE FENCED OFF AND ACCESS PROHIBITED TO ALL PLANT AND MACHINERY.
- ALL TEMPORARY EARTH BERMS, DIVERSIONS & SILT DAM EMBANKMENTS ARE TO BE MACHINE COMPACTED, SEEDED & MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED.
- ALL SEDIMENT TRAPPING STRUCTURES AND DEVICES ARE TO BE INSPECTED AFTER STORMS FOR STRUCTURAL DAMAGE OR CLOGGING. TRAPPED MATERIAL IS TO BE REMOVED TO A SAFE LOCATION.
- ALL TOPSOIL IS TO BE STOCKPILED ON SITE FOR REUSE (AWAY FROM TREES AND DRAINAGE LINES). MEASURES SHALL BE APPLIED TO PREVENT EROSION OF THE STOCKPILES.
- ALL EARTHWORK AREAS SHALL BE ROLLED EACH EVENING TO SEAL THE EARTHWORKS.
- ALL FILLS ARE TO BE LEFT WITH A LIP AT THE TOP OF THE SLOPE AT THE END. ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND STRAW MULCHED WITHIN 14 DAYS OF COMPLETION OF FORMATION U.N.O. BY LANDSCAPE ARCHITECTS.
- UPON COMPLETION OF ALL EARTHWORKS OR AS DIRECTED BY COUNCIL SOIL CONSERVATION TREATMENTS SHALL BE APPLIED SO AS TO RENDER AREAS THAT HAVE BEEN DISTURBED, EROSION PROOF WITHIN 14 DAYS.
- EROSION AND SILT PROTECTION MEASURES ARE TO BE MAINTAINED AT ALL TIMES.

NOTE:

- THE SEDIMENT AND EROSION MEASURES SHOWN ON THIS PLAN ARE FOR THE OVERALL SUBDIVISION EARTHWORKS STAGE AND ARE GENERAL IN NATURE.
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FOR CONTINUATION REFER TO DWG. 18652_SSDA_SE02

0 25 50 75 100 125m

25 15 5

SCALE 1:1250

SEDIMENT AND EROSION CONTROL PLAN

SCALE 1:1250

ISSUED FOR APPROVAL

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NSW GOVERNMENT Western Sydney Parklands Trust

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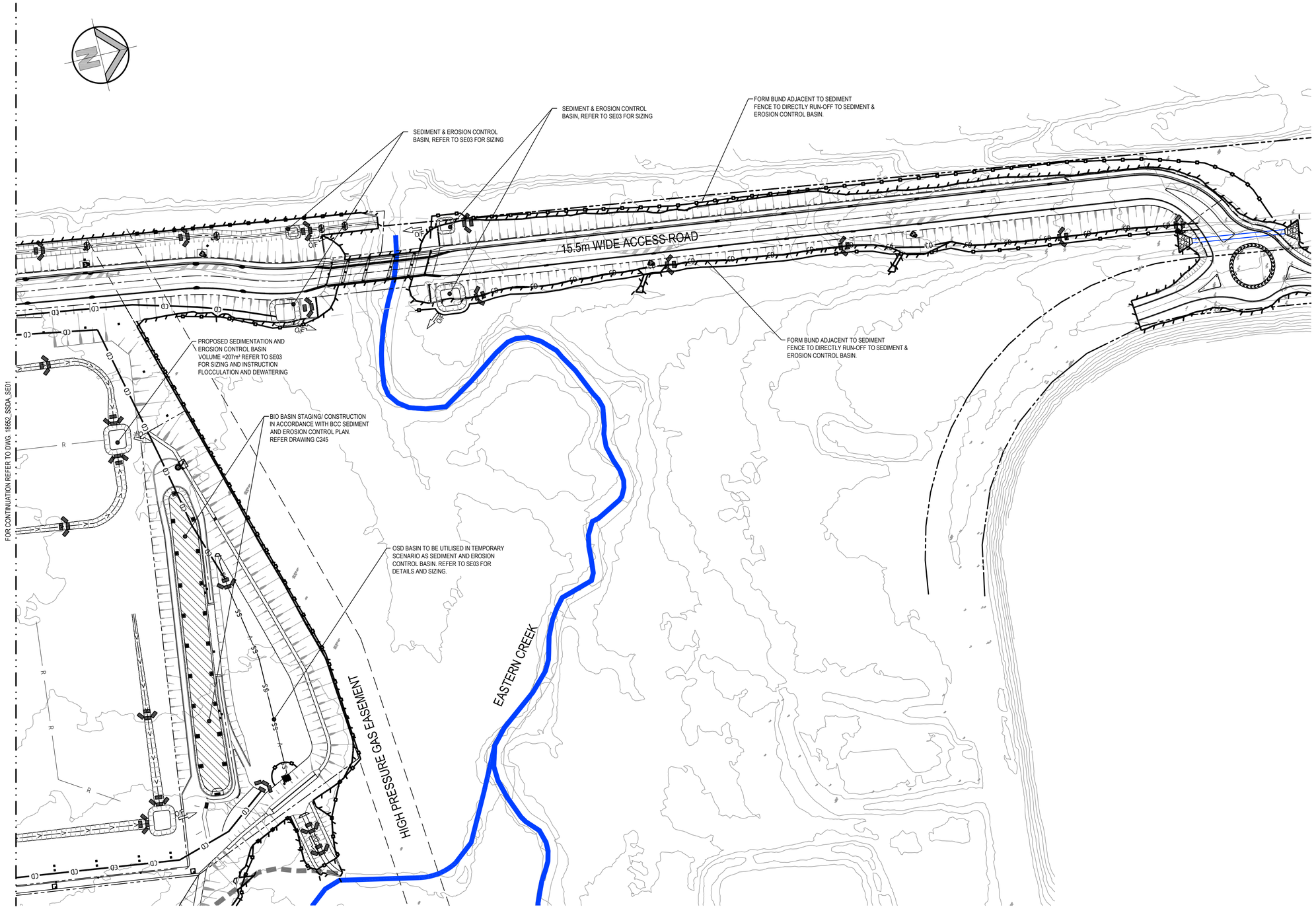
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: SEDIMENT AND EROSION CONTROL PLAN
SHEET 1 OF 2

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:1250

Drawing number: 18652_SSDA_SE01

Revision: 07



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SEDIMENT AND EROSION CONTROL PLAN

SCALE 1:1250

0 25 50 75 100 125m

25 15 5

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EASTERN CREEK, NSW (SSD9667)

Title: SEDIMENT AND EROSION CONTROL PLAN
SHEET 2 OF 2

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Drawing number: 18652_SSDA_SE02

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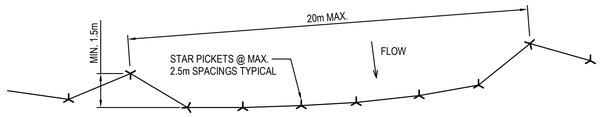
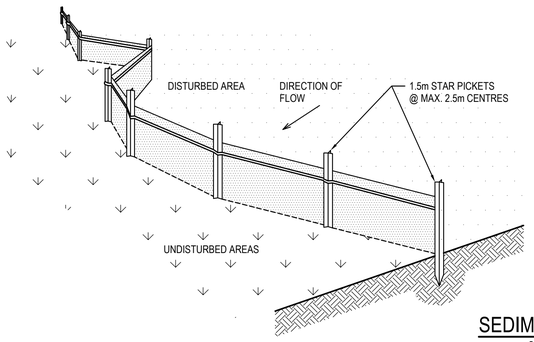
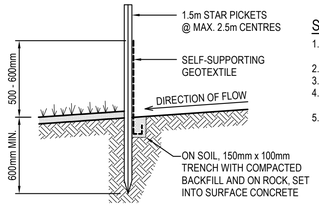


PLAN





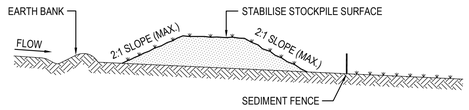
SECTION DETAIL

SEDIMENT FENCE

SCALE N.T.S.

SEDIMENT FENCE CONSTRUCTION NOTES:

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. 3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND @ 2.5m INTERVALS (MAX.) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. 4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. 5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP. 6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

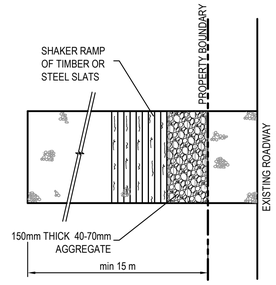


STOCKPILE CONSTRUCTION NOTES:

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. WHERE THEY ARE TO BE PLACED FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED E.S.C.P. OR S.W.M.P. TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.

STOCKPILES

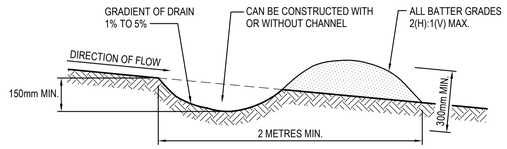
SCALE N.T.S.



PLAN

STABILISED SITE ACCESS WITH SHAKER RAMP

N.T.S.



NOTE: ONLY TO BE USED AS TEMPORARY BANK WHERE MAXIMUM UPSLOPE LENGTH IS 80 METRES.

EARTH BANK CONSTRUCTION NOTES:

1. BUILD WITH GRADIENTS BETWEEN 1% AND 5%.
2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE - WORK AROUND THEM.
3. ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT COULD IMPEDE WATER FLOW.
4. BUILD THE DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS-SECTIONS, NOT "V" SHAPED.
5. ENSURE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE.
6. COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS OF CONSTRUCTION.

EARTH BANK (LOW FLOW)

SCALE N.T.S.

STABILISED SITE ACCESS WITH SHAKER RAMP

N.T.S.

NOTES:

1. THIS DEVICE IS TO BE LOCATED AT ALL EXITS FROM CONSTRUCTION SITE.
2. THIS DEVICE IS TO BE REGULARLY CLEANED OF DEPOSITED MATERIAL SO AS TO MAINTAIN A 50mm DEEP SPACE BETWEEN PLANKS.
3. ANY UNSEALED ROAD BETWEEN THIS DEVICE AND NEAREST ROADWAY IS TO BE TOPPED WITH 100mm THICK 40-70mm SIZE AGGREGATE.
4. ALTERNATIVELY, THREE(3) PRECAST CONCRETE CATTLE GRIDS (AS MANUFACTURED BY "HUMES CONCRETE MAY BE USED. 1, 2 & 3 ABOVE ALSO APPLY.

SEDIMENT BASIN SIZING

1. THE SEDIMENT BASIN SHALL BE CONSTRUCTED ON A RATE PER HECTARE BASIS AND HAS BEEN IN ACCORDANCE WITH THE REQUIREMENTS OF THE LANDCOM MANUAL "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION", FOR SEDIMENTATION **TYPE D** SOILS. THE DISTURBED AREA WITHIN THIS CATCHMENT AT ANY ONE TIME SHOULD BE LIMITED TO AN AREA FOR WHICH EACH SEDIMENT BASIN CAN HANDLE. EACH BASIN SHALL BE SIZED IN ACCORDANCE WITH THE TABLE BELOW.

SEDIMENT BASIN SIZING TYPE D SOILS	
VOLUMETRIC RUNOFF COEFFICIENT, CV	0.25 (APPENDIX F - TABLE F2)
85TH PERCENTILE 5 DAY TOTAL RAINFALL DEPTH, R	32.2 mm
CATCHMENT AREA, A	1 Ha (UNIT AREA)
SETTLING ZONE VOLUME (PER HECTARE) 10 CV A R	80.5 m^3
DISTURBED CATCHMENT AREA	1 Ha (UNIT AREA)
R K LS P C	110.87m^3
SEDIMENT ZONE VOLUME (0.17 A (R K LS P C)/1.3	14.5m^3 < 50% SETTLING VOL
TOTAL SEDIMENT BASIN VOLUME REQUIRED :	120.75 m^3/Ha

* (LANDCOM MANAGING URBAN STORMWATER MANUAL REFERENCE)

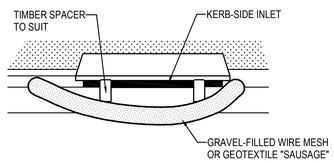
2. THE FOLLOWING DESIGN PARAMETERS HAVE BEEN ASSESSED FOR THE SITE:

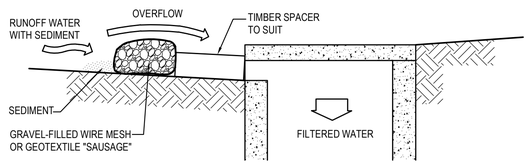
CONSTRAINT	VALUE	(SOURCE)*
RAINFALL EROSIVITY (R-FACTOR)	2350	APPENDIX B
LENGTH/SLOPE GRADIENT FACTOR, LS	0.955	APPENDIX A - TABLE A1
SOIL ERODIBILITY (K-FACTOR)	0.038	(TABLE C20 - BLACKTOWN)
EROSION CONTROL PRACTICE FACTOR (P-FACTOR)	1.3 (COMPACTED)	APPENDIX A - TABLE A2
COVER FACTOR (C-FACTOR)	1.0 (DURING EARTHWORKS)	APPENDIX A - FIGURE A5
CALCULATED SOIL LOSS, A (RUSLE EQUATION)	110.87t/Ha/YR	A = R K LS P C
SOIL HYDROLOGIC GROUP	GROUP C	APPENDIX C TABLE 20
SEDIMENT TYPE	TYPE D	APPENDIX C TABLE 4
85TH PERCENTILE 5-DAY RAINFALL EVENT	32.2mm (BLACKTOWN)	TABLE 6.3A

* (LANDCOM MANAGING URBAN STORMWATER MANUAL REFERENCE)

BASIN MANAGEMENT

1. THE CAPTURED STORMWATER IN THE SETTLING ZONE SHOULD BE DRAINED TO MEET THE MINIMUM STORAGE CAPACITY REQUIRED WITHIN A FIVE (5) DAY PERIOD FOLLOWING RAINFALL, PROVIDED THE ACCEPTABLE WATER QUALITY (NFR) AND TURBIDITY HAVE BEEN ACHIEVED.
2. CHEMICAL FLOCCULENT SUCH AS GYPSUM MAY BE DOSED TO AID SETTLING WITHIN 24 HOURS OF CONCLUSION OF EACH STORM. THE APPLIED DOSING RATES SHOULD ACHIEVE THE TARGET QUALITY WITHIN 36 TO 72 HOURS OF THE STORM EVENT.
3. INSPECT THE SEDIMENT BASINS AFTER EACH RAINFALL EVENT AND/OR WEEKLY. ENSURE THAT ALL SEDIMENT IS REMOVED ONCE THE SEDIMENT STORAGE ZONE IS FULL (REFER TO PEGS INSTALLED IN BASINS IN ACCORDANCE WITH THE SWMP). ENSURE THAT OUTLET AND EMERGENCY SPILLWAY WORKS ARE MAINTAINED IN A FULLY OPERATIONAL CONDITION AT ALL TIMES.



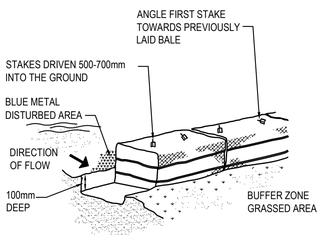


MESH & GRAVEL INLET FILTER CONSTRUCTION NOTES:

1. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
2. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
3. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
4. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
5. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY CAN FIRMLY ABUT EACH OTHER AND SEDIMENT / LADEN WATERS CANNOT PASS BETWEEN.

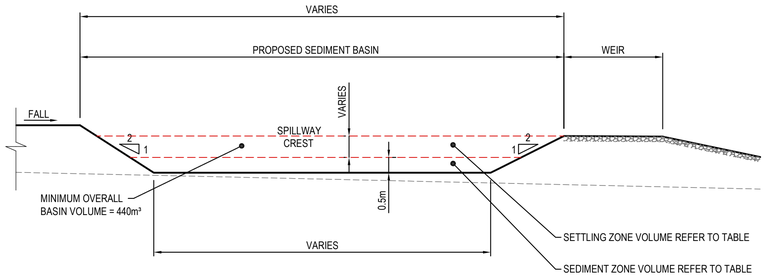
MESH & GRAVEL INLET FILTER

SCALE N.T.S.



HAYBALE BARRIERS

N.T.S.



TYPICAL SECTION

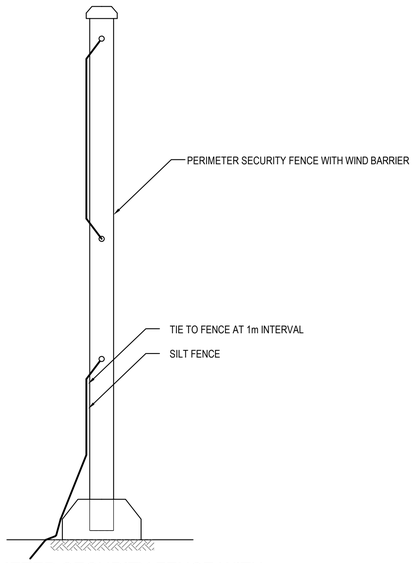
SEDIMENTATION BASIN

N.T.S.

CONSTRUCTION SEQUENCE

WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:

1. INSTALL SEDIMENT FENCING AND CUT DRAINS TO MEET THE REQUIREMENTS OF THE SEDIMENT AND EROSION CONTROL PLAN. WASTE COLLECTION BINS SHALL BE INSTALLED ADJACENT TO SITE OFFICE.
2. CONSTRUCT STABILISED SITE ACCESS IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL'S REQUIREMENTS.
3. REDIRECT CLEAN WATER AROUND THE CONSTRUCTION SITE.
4. INSTALL SEDIMENT CONTROL PROTECTION MEASURES AT ALL NATURAL AND MAN-MADE DRAINAGE STRUCTURES. MAINTAIN UNTIL ALL THE DISTURBED AREAS ARE STABILISED.
5. CLEAR AND STRIP THE WORK AREAS. MINIMISE THE DAMAGE TO THE GRASS AND LOW GROUND COVER OF NON-DISTURBED AREAS.
6. ANY DISTURBED AREAS, OTHER THAN BUILDING PAD AREAS, SHALL IMMEDIATELY BE COVERED WITH SITE TOPSOIL WITHIN 7 DAYS OF CLEARING. BUILDING PAD AREAS SHALL BE COVERED WITH BITUMEN EMULSION AS SPECIFIED.
7. APPLY PERMANENT STABILISATION TO SITE (LANDSCAPING).



PERIMETER SECURITY FENCE WITH WIND BARRIER & SILT FENCE

N.T.S.

SOWING SEASON	SEED MIX
AUTUMN/WINTER	OATS@40KG/Ha + JAPANESE MILLET@10kg/Ha
SPRING/SUMMER	OATS@20kg/Ha + JAPANESE MILLET@20kg/Ha

NOTE : THESE PLANT SPECIES ARE FOR TEMPORARY REVEGETATION ONLY. THEY WILL ONLY PROVIDE PROTECTION FROM EROSION FOR SIX MONTHS. WHERE THE PADS ARE TO BE LEFT UNDEVELOPED FOR A LONGER PERIOD, THE CONTRACTOR SHALL SEEK ADVICE FROM THE SITE SUPERINTENDENT AS TO MORE APPROPRIATE REVEGETATION METHODS.

REVEGETATION IN ACCORDANCE WITH THE ABOVE TABLE WILL BE ENHANCED BY ADDING LIME AT A RATE OF 4kg/TONNE OF TOPSOIL AND 7.5kg/TONNE OF SUBSOIL.

4. THE LONG TERM GROUND COVER FACTORS FOR THE CONSTRUCTION WORKS IS NOT TO EXCEED THE FOLLOWING LIMITS:

LAND	MAXIMUM C-FACTOR	REMARKS
WATERWAYS AND OTHER AREAS OF CONCENTRATED FLOWS, POST CONSTRUCTION	0.05	APPLIES AFTER TEN WORKING DAYS OF COMPLETION OF FORMATION AND BEFORE CONCENTRATED FLOWS ARE APPLIED. FOOT AND VEHICULAR TRAFFIC IS PROHIBITED IN THIS AREA AND 70% GROUND COVER IS REQUIRED.
STOCKPILES, POST CONSTRUCTION	0.10	APPLIES AFTER TEN WORKING DAYS FROM COMPLETION OF FORMATION. 60% GROUND COVER IS REQUIRED.
ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES, DURING CONSTRUCTION.	0.15	APPLIES AFTER 20 DAYS OF INACTIVITY, EVEN THOUGH WORKS MAY BE INCOMPLETE. 50% GROUND COVER IS REQUIRED.

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04	ISSUED FOR APPROVAL	IK	NW	13.12.2019
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02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019
01	PRELIMINARY	IK	NW	29.03.2019

Client: WESTERN SYDNEY PARKLANDS TRUST

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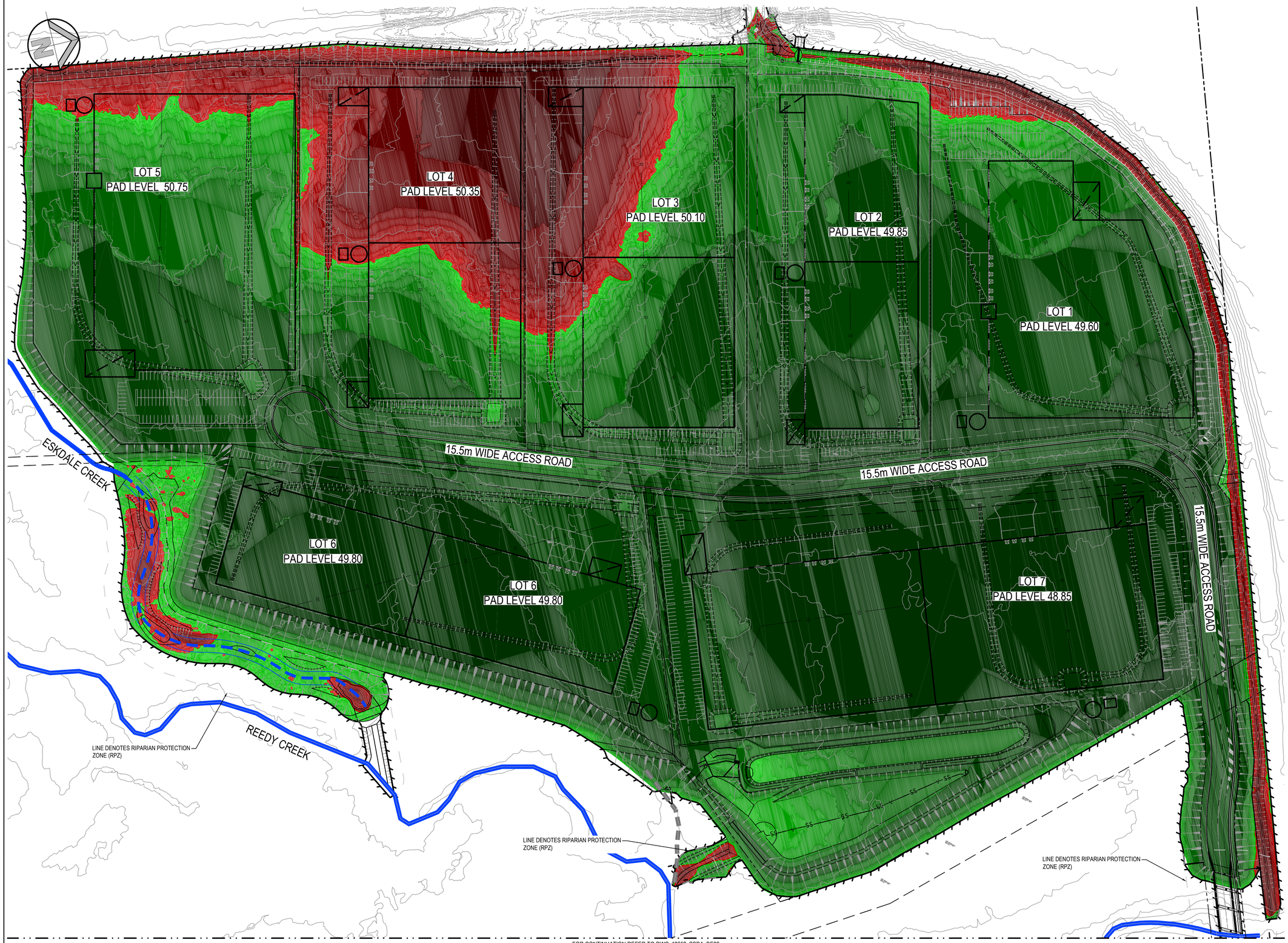
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667)

Title: SEDIMENT AND EROSION CONTROL TYPICAL SECTIONS AND DETAILS

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	N.T.S.

Drawing number: 18652_SSDA_SE03

Revision: 06



EARTHWORKS QUANTITIES

(APPROXIMATE ONLY)
NOT TO BE USED FOR CONTRACTUAL PURPOSES. TENDERERS TO DETERMINE VOLUMES USING THEIR OWN METHOD OF CALCULATION.

- EARTHWORKS QUANTITIES -	
CUT	65117 m³
FILL	947481 m³
SHORT FALL	882364 m³
ALLOWANCE FOR TOPSOIL TO BE BLENDED AT A RATIO LESS THAN 1:20	38345 m³
ALLOWANCE FOR SERVICE TRENCHING 1750M³/HA FOR SUBDIVISION INFRASTRUCTURE LOTS AND CORRIDORS	10535 m³
ESTIMATED IMPORT = SHORTFALL - ALLOWANCES ABOVE	833484 m³

DEPTH RANGE Lower_value		Upper_value	Colour
-6	to	-4	Meters
-4	to	-2	Meters
-2	to	-1	Meters
-1	to	-.8	Meters
-.8	to	-.6	Meters
-.6	to	-.4	Meters
-.4	to	-.2	Meters
-.2	to	-.1	Meters
-.1	to	-.05	Meters
-.05	to	.0	Meters
.0	to	.05	Meters
.05	to	.1	Meters
.1	to	.2	Meters
.2	to	.4	Meters
.4	to	.6	Meters
.6	to	.8	Meters
.8	to	1	Meters
1	to	2	Meters
2	to	4	Meters
4	to	6	Meters

FOR CONTINUATION REFER TO DWG. 18652_SSDA_BE02

0 25 50 75 100 125m
25 15 5
SCALE 1:1250

BULK EARTHWORKS CONCEPT CUT AND FILL PLAN

SCALE 1:1250

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
06	ISSUED FOR APPROVAL	IK	NW	05.05.2020					
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
03	ISSUED FOR APPROVAL	IK	NW	09.04.2019					
02	PRELIMINARY	IK	NW	05.04.2019					
01	PRELIMINARY	IK	NW	28.03.2019					

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Project
LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title
BULK EARTHWORKS CONCEPT CUT AND FILL PLAN - SHEET 1 OF 2

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:1250

Drawing number
18652_SSDA_BE01

Revision
06

BULK EARTHWORKS CONCEPT CUT AND FILL PLAN

SCALE 1:1250

EARTHWORKS QUANTITIES

(APPROXIMATE ONLY)
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ALLOWANCE FOR SERVICE TRENCHING 1750M³/HA FOR SUBDIVISION INFRASTRUCTURE LOTS AND CORRIDORS	10535 m³
ESTIMATED IMPORT = SHORTFALL - ALLOWANCES ABOVE	833484 m³

DEPTH RANGE Lower_value		Upper_value	Colour
-6	to	-4	Meters
-4	to	-2	Meters
-2	to	-1	Meters
-1	to	-.8	Meters
-.8	to	-.6	Meters
-.6	to	-.4	Meters
-.4	to	-.2	Meters
-.2	to	-.1	Meters
-.1	to	-.05	Meters
-.05	to	.0	Meters
.0	to	.05	Meters
.05	to	.1	Meters
.1	to	.2	Meters
.2	to	.4	Meters
.4	to	.6	Meters
.6	to	.8	Meters
.8	to	1	Meters
1	to	2	Meters
2	to	4	Meters
4	to	6	Meters

0 25 50 75 100 125m
25 15 5
SCALE 1:1250

ISSUED FOR APPROVAL

Western Sydney Parklands Trust

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
06	ISSUED FOR APPROVAL	IK	NW	22.04.2020					
05	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
04	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
03	ISSUED FOR APPROVAL	IK	NW	09.04.2019					
02	PRELIMINARY	IK	NW	05.04.2019					
01	PRELIMINARY	IK	NW	28.03.2019					

Client
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Project
LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title
BULK EARTHWORKS CONCEPT CUT AND FILL PLAN - SHEET 2 OF 2

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:1250

Drawing number
18652_SSDA_BE02

Revision
06

RETAIN EXISTING SHOULDER FOR LARGER EMERGENCY VEHICLE TURNING MANEUVERS

LINE MARKING FOR 3.5m SHARED PATH

EXISTING EDGE OF BITUMEN

EXISTING EDGE OF BITUMEN

EXISTING BRIDGE

3.5m

EXISTING EDGE OF BITUMEN

RETAIN EXISTING FENCES AND GATE

3.5m

EXISTING EDGE OF BITUMEN

TRANSITION TO EXISTING PAVEMENT TO FUTURE DETAILS

EXISTING BRIDGE 4.8m CLEARANCE APPROXIMATELY

CONNECT PROPOSED SHARED PATH TO EXISTING CYCLEWAY.

FENCE SECTION ALTERED TO ALLOW ACCESS TO AND FROM M7 CYCLEWAY, REFER INSET

LINE MARKING FOR 3.5m SHARED PATH

EXISTING BRIDGE 4.8m CLEARANCE APPROXIMATELY

3.5m

EXISTING BRIDGE. 4.8m CLEARANCE APPROXIMATELY

EXISTING BRIDGE

LIMITS OF WORK

EXTEND EXISTING ACCESS WAY TO INTERNAL RIGHT OF WAY

TRANSITION SHARED PATH TO SOUTH SIDE OF EXISTING ACCESS WAY EXTENSION

TRANSITION TO EXISTING PAVEMENT TO FUTURE DETAILS

INSTALL LOW HEIGHT CONVENTIONAL GATE FOR ACCESS BY M7 SERVICE VEHICLE ONLY.

MINOR RETAINING WALL TO ACCESS WAY AND SHARED PATH, REFER TO DETAIL

CONNECT 3.5M SHARED PATH TO INTERNAL SHARED PATH PROVIDE BOLLARD TREATMENT TO PREVENT VEHICLE ACCESS.

NEW "NO ACCESS" & "AUTHORISED VEHICLES EXCEPTED" SIGNPOSTING

LINE DENOTES HANDRAIL TO ARCHITECT'S SPECIFICATIONS

7.6m WIER WITH CONCRETE CUT OF WALL. WEIR LEVEL TBC

PROPOSED TRAPEZOIDAL CHANNEL
BASE WIDTH = 2m
BATTERS = 1 IN 4 MAX.
TOP WIDTH = 7.6m
DEPTH = 0.7m
MIN. SLOPE = 0.5%

NEW "CAUTION, SHARED ZONE" SIGN

LOCKABLE GATE

NEW "CAUTION, SHARED ZONE" SIGN

6m WIDE RIGHT OF WAY

FOR CONTINUATION REFER TO DWG. 18652_SSDA_C103

FOR CONTINUATION REFER TO DWG. 18652_SSDA_C104

FOR CONTINUATION REFER TO DWG. 18652_SSDA_C103

FOR CONTINUATION REFER TO DWG. 18652_SSDA_C104

EXTERNAL WORKS PLAN

SCALE: 1:500

NEW "CAUTION, SHARED ZONE" SIGN

GATE ACCESS

EXISTING GATE

EXISTING GATE & FENCE TO REMAIN

EXISTING GATES & FENCE TO REMAIN

REMOVE LINEMARKING

PROPOSED LINEMARKING

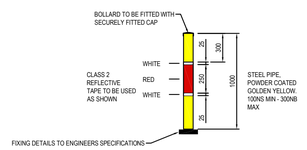
PROVIDE CONNECTION TO EXISTING SHARED PATH. MODIFY EXISTING FENCE AS REQUIRED.

EXISTING GATED ACCESS

NEW "CAUTION, SHARED ZONE" SIGN

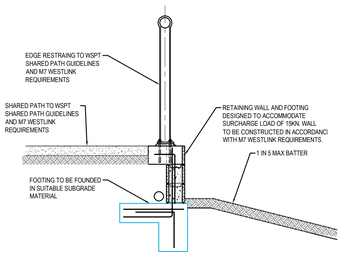
INSET

SCALE: 1:250



BOLLARD MARKING DETAIL

SCALE: 1:20



RETAINED EDGE - SHARED PATH

SCALE: 1:20

0 5 10 15 20 25m
5 4 3 2 1
SCALE 1:250

0 10 20 30 40 50m
10 8 6 4 2
SCALE 1:500

ISSUED FOR APPROVAL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
07	ISSUED FOR APPROVAL	IK	NW	22.04.2020					
06	ISSUED FOR APPROVAL	IK	NW	21.01.2020					
05	ISSUED FOR APPROVAL	IK	NW	13.12.2019					
04	ISSUED FOR APPROVAL	MS	NW	15.11.2019					
03	ISSUED FOR APPROVAL	MS	NW	09.04.2019					
02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019					
01	PRELIMINARY	IK	NW	29.03.2019					

NSW GOVERNMENT Western Sydney Parklands Trust

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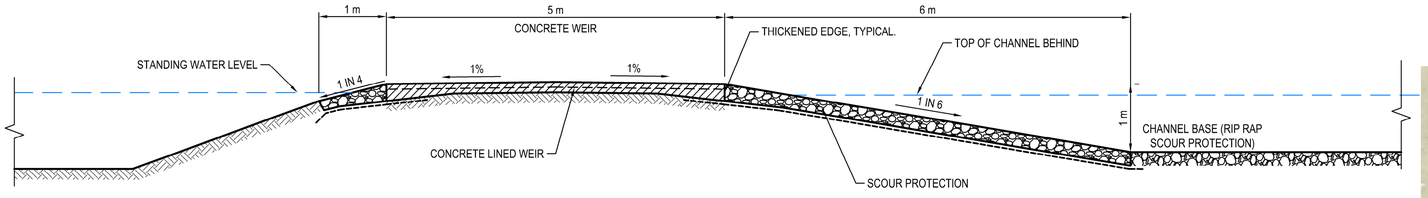
Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: EXTERNAL WORKS PLAN
WALLGROVE ROAD

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	AS NOTED

Drawing number: 18652_SSDA_EX01

Revision: 07



SECTION A

SCALE: 1:50

LEGEND

- LIMIT OF WORKS
- CHANNEL BASE EXTENT
- CHANNEL CENTRELINE
- RIPARIAN PROTECTION ZONE
- GRADED SLOPE
- MAINTENANCE PATH
- PLANTING/ FLAT BENCHED ZONE
- POOL LOCATION
- SCOUR PROTECTION AND ARMOURING

0 8 16 24 32 40m

8 6 4 2

SCALE 1:400

ESKDALE CREEK DESIGN

SCALE: 1:400

CONCEPT

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
03	RE-ISSUED AS CONCEPT SKETCH	IK	NW	05.05.2020
02	RE-ISSUED AS CONCEPT SKETCH	IK	NW	23.04.2020
01	ISSUED AS CONCEPT SKETCH	IK	NW	21.01.2020

Client: WESTERN SYDNEY PARKLANDS TRUST

Architect: NETTLETONTRIBE

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Project: LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)

Title: ESKDALE CREEK DESIGN

Drawn	Designed	Date
M.Stimova	L.Caha	FEB 2019
Checked	Approved	Scale @A1
N.Wetzlar	A.Francis	1:400

Drawing number: 18652_SK_14

Revision: 03