

DRAWING REGISTER SHEET 1

TRANSPORT DEPARTMENT

| DRAWING NUMBER | DRAWING TITLE | DRAWN BY |
|----------------|---|-------------------|
| 000-TR-2017 | DRAWING REGISTER SHEET 1 | GEORGE PHILLIPSON |
| 0000-TR-2017 | DRAWING REGISTER SHEET 2 | GEORGE PHILLIPSON |
| 0001-TR-2017 | PROJECT PLAN VIEW - NORTHERN SECTION | MUNISH KUMAR |
| 0002-TR-2017 | PROJECT PLAN VIEW - MIDDLE & SOUTHERN SECTION | MUNISH KUMAR |
| 0003-TR-2017 | BOTANIC/HACKNEY DETAILED INTERSECTION | MUNISH KUMAR |
| 0004-TR-2017 | ENTRANCE TO BOTANIC CARPARK TO ATHELNEY AVENUE DETAILED DESIGN | MUNISH KUMAR |
| 0005-TR-2017 | ATHELNEY AVENUE TO VALMA COURT DETAILED DESIGN | MUNISH KUMAR |
| 0006-TR-2017 | ENTRY/EXIT OF O-BAHN TUNNEL DETAILED DESIGN | MUNISH KUMAR |
| 0007-TR-2017 | ST PETERS COLLEGE TO TUNNEL ENTRY/EXIT DETAILED DESIGN | MUNISH KUMAR |
| 0008-TR-2017 | TUNNEL ENTRY/EXIT DETAILED DESIGN | MUNISH KUMAR |
| 0009-TR-2017 | RICHMOND STREET DETAILED DESIGN | MUNISH KUMAR |
| 0010-TR-2017 | BUNDEYS/HACKNEY INTERSECTION DETAILED DESIGN | MUNISH KUMAR |
| 0011-TR-2017 | SOUTHERN CARPARK DETAILED DESIGN | SEAN WILLIAMS |
| 0012-TR-2017 | TUNNEL LONG SECTION | SEAN WILLIAMS |
| 0013-TR-2017 | HACKNEY ROAD LONG SECTION | SEAN WILLIAMS |
| 0014-TR-2017 | TUNNEL CROSS SECTION | SAM KESKAR |
| 0015-TR-2017 | BARRIER KERB AND KERB AND CHANNEL DETAILS | ASHLEN FAHY |
| 0016-TR-2017 | TUNNEL EXTENT DETAILED DESIGN | SEAN WILLIAMS |
| 0017-TR-2017 | CONNECTION WITH EXISTING O-BAHN DETAILED DESIGN | SEAN WILLIAMS |
| 0018-TR-2017 | PERMANENT TRAFFIC MANAGEMENT SITE 1 | MARTIN REID |
| 0019-TR-2017 | PERMANENT TRAFFIC MANAGEMENT SITE 2 | MARTIN REID |
| 0020-TR-2017 | PERMANENT TRAFFIC MANAGEMENT SITE 3 | MARTIN REID |
| 0021-TR-2017 | PERMANENT TRAFFIC MANAGEMENT SITE 4 | MARTIN REID |
| 0022-TR-2017 | PERMANENT TRAFFIC MANAGEMENT SITE 5 | MARTIN REID |
| 0023-TR-2017 | SHEET PILING ON BUNDEYS ROAD | MARTIN REID |
| 0024-TR-2017 | HACKNEY ROAD WIDENING | MARTIN REID |
| 0025-TR-2017 | WESTERN BRIDGE CLOSURE | MARTIN REID |
| 0026-TR-2017 | TUNNEL ENTRANCE CONSTRUCTION | MARTIN REID |
| 0027-TR-2017 | DEDICATED BUS LANE CONSTRUCTION - CENTRE LANES CLOSED | MARTIN REID |
| 0028-TR-2017 | SHEET PILING ON PARK ROAD OUTBOUND | MARTIN REID |
| 0029-TR-2017 | SHEET PILING ON PARK ROUND INBOUND | MARTIN REID |

WATER and SERVICES DEPARTMENT

| DRAWING NUMBER | DRAWING TITLE | DRAWN BY |
|----------------|---|-------------------|
| 0001-WS-2017 | EXISTING CONDITIONS NORTHERN END | HARRIS TSIMIKLIS |
| 0002-WS-2017 | EXISTING CONDITIONS SOUTHERN END | HARRIS TSIMIKLIS |
| 0003-WS-2017 | NEW CONDITIONS NORTHERN END | HARRIS TSIMIKLIS |
| 0004-WS-2017 | NEW CONDITIONS SOUTHERN END | HARRIS TSIMIKLIS |
| 0005-WS-2017 | EXISTING MAINS WATER PIPES NORTHERN END | MANUEL MARTINS |
| 0006-WS-2017 | EXISTING MAINS WATER PIPES SOUTHERN END | MANUEL MARTINS |
| 0007-WS-2017 | IMPACTED MAINS WATER PIPES NORTHERN END | MANUEL MARTINS |
| 0008-WS-2017 | IMPACTED MAINS WATER PIPES SOUTHERN END | MANUEL MARTINS |
| 0009-WS-2017 | MAINS WATER SOLUTION NORTHERN END | MANUEL MARTINS |
| 0010-WS-2017 | MAINS WATER SOLUTION SOUTHERN END | MANUEL MARTINS |
| 0011-WS-2017 | LONG SECTION VIEW OF 426MM PIPE | MANUEL MARTINS |
| 0012-WS-2017 | LONG SECTION VIEW OF 800MM PIPE | MANUEL MARTINS |
| 0013-WS-2017 | EXISTING STORMWATER PIPE LOCATIONS NORTHERN END | HARRIS TSIMIKLIS |
| 0014-WS-2017 | EXISTING STORMWATER PIPE LOCATIONS SOUTHERN END | HARRIS TSIMIKLIS |
| 0015-WS-2017 | IMPACTED STORMWATER PIPES NORTHERN END | HARRIS TSIMIKLIS |
| 0016-WS-2017 | IMPACTED STORMWATER PIPES SOUTHERN END | HARRIS TSIMIKLIS |
| 0017-WS-2017 | STORMWATER SOLUTIONS NORTHERN END | HARRIS TSIMIKLIS |
| 0018-WS-2017 | STORMWATER SOLUTION SOUTHERN END | HARRIS TSIMIKLIS |
| 0019-WS-2017 | HACKNEY ROAD RELOCATION - LONG SECTION VIEW | TRACEY PHAM |
| 0020-WS-2017 | PARK ROAD RELOCATION - LONG SECTION | TRACEY PHAM |
| 0021-WS-2017 | EXISTING GAS PIPE LOCATIONS | MANUEL MARTINS |
| 0022-WS-2017 | IMPACTS FOR GAS PIPE | MANUEL MARTINS |
| 0023-WS-2017 | SOLUTION FOR GAS PIPE | MANUEL MARTINS |
| 0024-WS-2017 | EXISTING PILOT CABLE LOCATIONS | HARRIS TSIMIKLIS |
| 0025-WS-2017 | PILOT CABLE IMPACTS | HARRIS TSIMIKLIS |
| 0026-WS-2017 | PILOT CABLE SOLUTION | HARRIS TSIMIKLIS |
| 0027-WS-2017 | EXISTING NBN CABLES | MELISSA BUCHAN |
| 0028-WS-2017 | IMPACTED NBN CABLES | MELISSA BUCHAN |
| 0029-WS-2017 | SOLUTION FOR NBN CABLES | MELISSA BUCHAN |
| 0030-WS-2017 | EXISTING UNDERGROUND POWER CABLES | HARRIS TSIMIKLIS |
| 0031-WS-2017 | IMPACTED UNDERGROUND POWER CABLES | HARRIS TSIMIKLIS |
| 0032-WS-2017 | UNDERGROUND POWER CABLES SOLUTION | HARRIS TSIMIKLIS |
| 0033-WS-2017 | EXISTING OVERHEAD POWER NORTHERN END | NATHAN CERONE |
| 0034-WS-2017 | EXISTING OVERHEAD POWER SOUTHERN END | NATHAN CERONE |
| 0035-WS-2017 | OVERHEAD POWER IMPACTS NORTHERN END | NATHAN CERONE |
| 0036-WS-2017 | OVERHEAD POWER IMPACTS SOUTHERN END | NATHAN CERONE |
| 0037-WS-2017 | OVERHEAD POWER SOLUTION NORTHERN END | NATHAN CERONE |
| 0038-WS-2017 | OVERHEAD POWER SOLUTION SOUTHERN END | NATHAN CERONE |
| 0039-WS-2017 | EXISTING LUMINAIRE LOCATIONS NORTHERN END | NATHAN CERONE |
| 0040-WS-2017 | EXISTING LUMINAIRE LOCATIONS SOUTHERN END | NATHAN CERONE |
| 0041-WS-2017 | IMPACTED LUMINAIRE LOCATIONS NORTHERN END | NATHAN CERONE |
| 0042-WS-2017 | IMPACTED LUMINAIRE LOCATIONS SOUTHERN END | NATHAN CERONE |
| 0043-WS-2017 | LUMINAIRE SOLUTION NORTHERN END | NATHAN CERONE |
| 0044-WS-2017 | LUMINAIRE SOLUTION SOUTHERN END | NATHAN CERONE |
| 0045-WS-2017 | TUNNEL DRAINAGE SYSTEM LAYOUT - NORTHERN PART | GEORGE PHILLIPSON |
| 0046-WS-2017 | TUNNEL DRAINAGE SYSTEM LAYOUT - SOUTHERN PART | GEORGE PHILLIPSON |
| 0047-WS-2017 | TUNNEL NORTHERN END - LONG SECTION | TRACEY PHAM |
| 0048-WS-2017 | TUNNEL SOUTHERN END - LONG SECTION VIEW | TRACEY PHAM |
| 0049-WS-2017 | NEW TUNNEL VENTILATION FAN LOCATIONS | HARRIS TSIMIKLIS |

| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | |
| | | | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | |
| | | | DRAWING INFO | SCALE | A3 SHEET = NOT TO SCALE | |
| | | | DRAWN BY: GEORGE PHILLIPSON | DRAWING NO. | 000-TR-2017 | |
| | | | DEPARTMENT: CAD MANAGER | | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | | |

DRAWING REGISTER SHEET 2

GEOTECHNICAL DEPARTMENT

| DRAWING NUMBER | DRAWING TITLE | DRAWN BY |
|----------------|--|-----------------|
| 0001-GE-2017 | SERVICE BRIDGE FOUNDATION LAYOUT AND DETAILED DESIGN | BLAKE SAUNDERS |
| 0002-GE-2017 | TUNNEL BRIDGE FOUNDATION LAYOUT | GIA VO |
| 0003-GE-2017 | TUNNEL BRIDGE FOUNDATIONS DETAILED DESIGN | KARSTEN TRAAZIL |
| 0004-GE-2017 | SHEET PILE DETAILED DESIGN | PETER LOCK |
| 0005-GE-2017 | PAVEMENT DESIGN LOCATIONS NORTHERN SIDE | ALEC DAWSON |
| 0006-GE-2017 | PAVEMENT DESIGN LOCATIONS CENTRAL AND SOUTHERN SIDE | ALEC DAWSON |
| 0007-GE-2017 | PAVEMENT DETAILED DESIGN | BLAKE SAUNDERS |
| 0008-GE-2017 | PAVEMENT DETAILED DESIGN | ALEC DAWSON |
| 0009-GE-2017 | TUNNEL BRIDGE PAVEMENT DETAILED DESIGN | GIA VO |

STRUCTURAL DEPARTMENT

| DRAWING NUMBER | DRAWING TITLE | DRAWN BY |
|----------------|--|------------------|
| 0001-SE-2017 | STRUCTURAL CONTEXT MAP | HORIA RUSU |
| 0002-SE-2017 | SECTION 6 - SERVICES BRIDGE | JOSEPH CAVALLARO |
| 0003-SE-2017 | SECTION 6 - COLUMN AND HEADSTOCK DETAIL | LIAM WEGENER |
| 0004-SE-2017 | SECTION 5 - CEILING OF TUNNEL BRIDGE | ADRIAN MATTO |
| 0005-SE-2017 | SECTION 5 - TUNNEL BRIDGE WALL | ADRIAN MATTO |
| 0006-SE-2017 | SECTION 5 - BOTTOM SLAB OF TUNNEL BRIDGE | ADRIAN MATTO |
| 0007-SE-2017 | SECTION 5 - BOTTOM SLAB OF TUNNEL BRIDGE | ADRIAN MATTO |
| 0008-SE-2017 | SECTION 2 - TUNNEL CEILING PLANK 1 | HORIA RUSU |
| 0009-SE-2017 | SECTION 1 - TUNNEL CEILING PLANK 2 | HORIA RUSU |
| 0010-SE-2017 | SECTION 4 - TUNNEL CEILING PLANK 3 | HORIA RUSU |
| 0011-SE-2017 | SECTION 3 -TUNNEL CEILING PLANK 4 | HORIA RUSU |
| 0012-SE-2017 | SECTION 2 - COMPOSITE PAD CONNECTION 1 | HORIA RUSU |
| 0013-SE-2017 | SECTION 1 - COMPOSITE PAD CONNECTION 2 | HORIA RUSU |
| 0014-SE-2017 | SECTION 4 - COMPOSITE PAD CONNECTION 3 | HORIA RUSU |
| 0015-SE-2017 | SECTION 3 - COMPOSITE PAD CONNECTION 4 | HORIA RUSU |
| 0016-SE-2017 | SECTION 7 - TRAFFIC BARRIER DETAIL | DANIEL CADDY |
| 0017-SE-2017 | SUSPENDED SLAB EGRESS CORRIDOR LONG | NATHAN DUNCAN |
| 0018-SE-2017 | SUSPENDED SLAB EGRESS CORRIDOR SHORT | MICHAEL OLIVER |
| 0019-SE-2017 | ELEVATION VIEW OF EGRESS STAIR | JASON MADDISON |
| 0020-SE-2017 | EGRESS STAIR PLAN AND TYPICAL SECTION | JASON MADDISON |

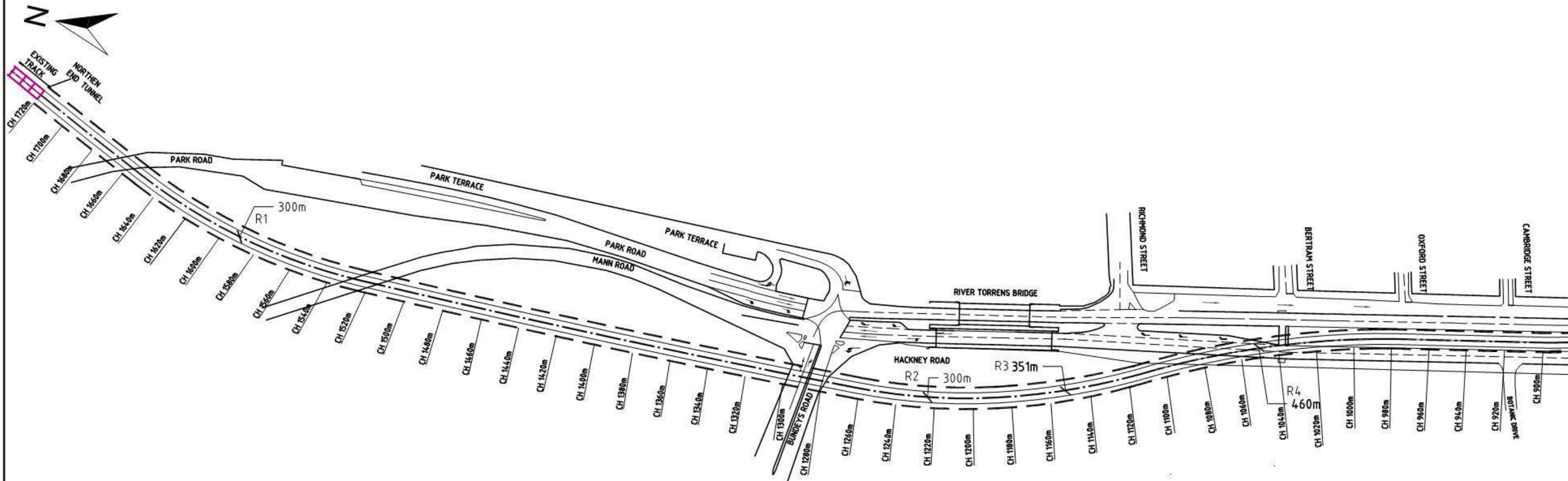
ENVIRONMENTAL DEPARTMENT

| DRAWING NUMBER | DRAWING TITLE | DRAWN BY |
|----------------|-----------------------------------|----------------------|
| 0001-EN-2017 | MASTER PLAN | ANDREW THOMPSON |
| 0002-EN-2017 | GREENWALL DETAIL | THOMAS GILMORE |
| 0003-EN-2017 | GREENWALL SECTION AND HOOK DETAIL | THOMAS GILMORE |
| 0004-EN-2017 | INFILTRATION TRENCH 1 - PLAN VIEW | ANDREW THOMPSON |
| 0005-EN-2017 | INFILTRATION TRENCH 2 - PLAN VIEW | ANDREW THOMPSON |
| 0006-EN-2017 | INFILTRATION TRENCH 3 - PLAN VIEW | ANDREW THOMPSON |
| 0007-EN-2017 | GROSS POLLUTANT TRAP 1 - PLAN | ANDREW THOMPSON |
| 0008-EN-2017 | GROSS POLLUTANT TRAP 2 - PLAN | ANDREW THOMPSON |
| 0009-EN-2017 | INFILTRATION TRENCH 1 - SECTION | ANDREW THOMPSON |
| 0010-EN-2017 | INFILTRATION TRENCH 2 - SECTION | ANDREW THOMPSON |
| 0011-EN-2017 | RIVER TORRENS RIPARIAN BUFFER | MITCHELL FEAKIN |
| 0012-EN-2017 | GREENWALL PATTERN | CHRISTOPHER CHISHOLM |
| 0013-EN-2017 | MODULES DETAIL | CHRISTOPHER CHISHOLM |
| 0014-EN-2017 | CONCRETE CHANNEL SECTION | CHRISTOPHER CHISHOLM |
| 0015-EN-2017 | CONCRETE CHANNEL REINFORCEMENT | CHRISTOPHER CHISHOLM |

URBAN PLANNING DEPARTMENT

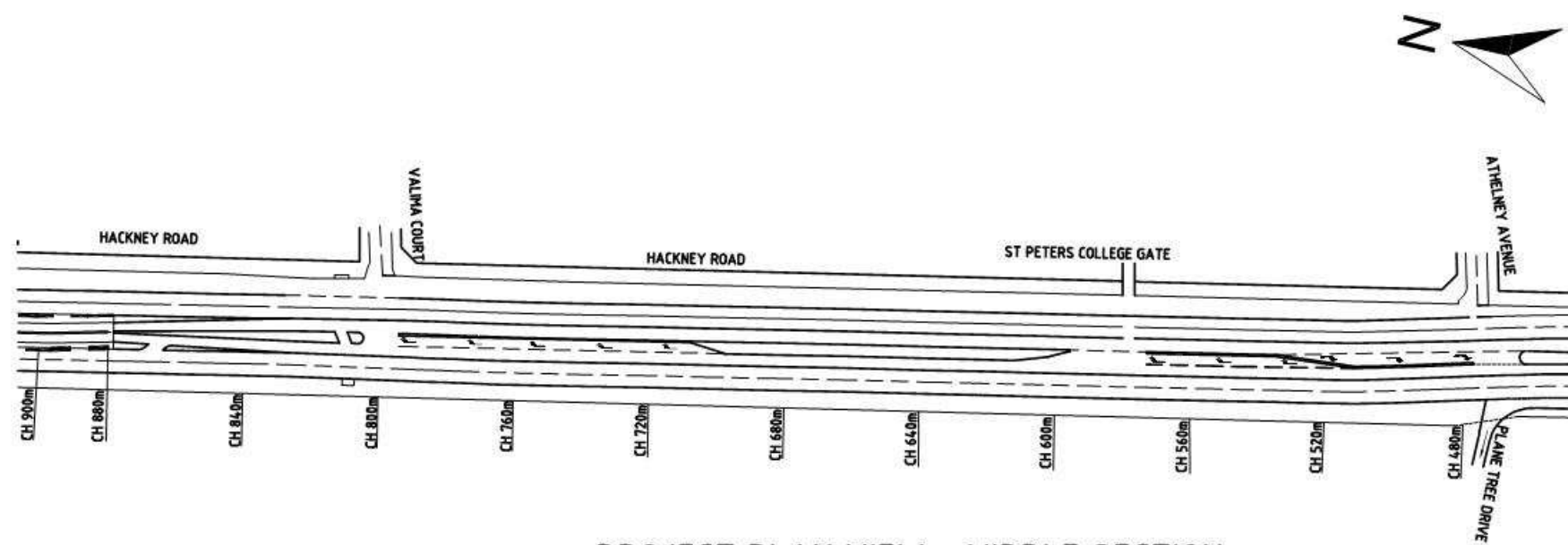
| DRAWING NUMBER | DRAWING TITLE | DRAWN BY |
|----------------|--|-------------------|
| 0001-UP-2017 | EXISTING SITE CONDITIONS - NORTH | SIMON BREDERECK |
| 0002-UP-2017 | EXISTING SITE CONDITIONS - MIDDLE AND SOUTH | SIMON BREDERECK |
| 0003-UP-2017 | NEW VEGETATION AND SHARED PATH - NORTH | SIMON BREDERECK |
| 0004-UP-2017 | NEW VEGETATION AND SHARED PATH | SIMON BREDERECK |
| 0005-UP-2017 | TRAFFIC CONTROL FOR SHARED PATH - NORTH | SIMON BREDERECK |
| 0006-UP-2017 | TRAFFIC CONTROL FOR SHARED PATH - MIDDLE AND SOUTH | SIMON BREDERECK |
| 0007-UP-2017 | NEW SERVICES PIPE EXTERIOR DESIGN | DUSAN BRANKOVIC |
| 0008-UP-2017 | HACKNEY ROAD TUNNEL EXIT DESIGN | DUSAN BRANKOVIC |
| 0009-UP-2017 | HACKNEY ROAD PEDESTRIAN BRIDGE HAND RAIL & GREENWALL | ARGYRIOS KIKIANIS |
| 0010-UP-2017 | ROAD BOLLARDS, BICYCLE AND PEDESTRIAN LANES | ARGYRIOS KIKIANIS |
| 0011-UP-2017 | SOLAR PANEL DESIGN | CONNOR WILLIAMS |

| | | | | | | |
|----------|---------------------|----------|---|---|----------------------------|---------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | |
| | | | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | |
| | | | DRAWING INFO | SCALE | | |
| | | | DRAWN BY: GEORGE PHILLIPSON | A3 SHEET = NOT TO SCALE | | |
| | | | DEPARTMENT: CAD MANAGER | DRAWING NO. | | |
| | | | | 0000-TR-2017 | | |

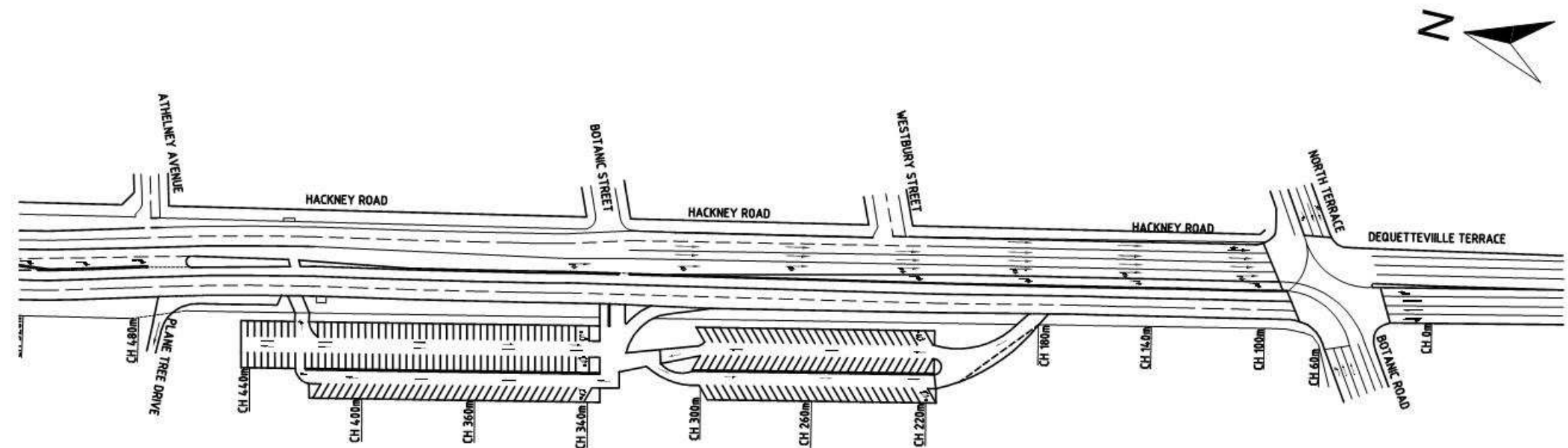


PROJECT PLAN VIEW - NORTHERN SECTION
SCALE 1:2000

| | | | | | | |
|--|---------------------|----------|--|-------------|-------------------------------|--------------------------------------|
| Issue No | Purpose | Date | | | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | PROJECT PLAN VIEW - NORTHERN SECTION |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWN BY: MUNISH KUMAR DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. | 0001-TR-2017 | |



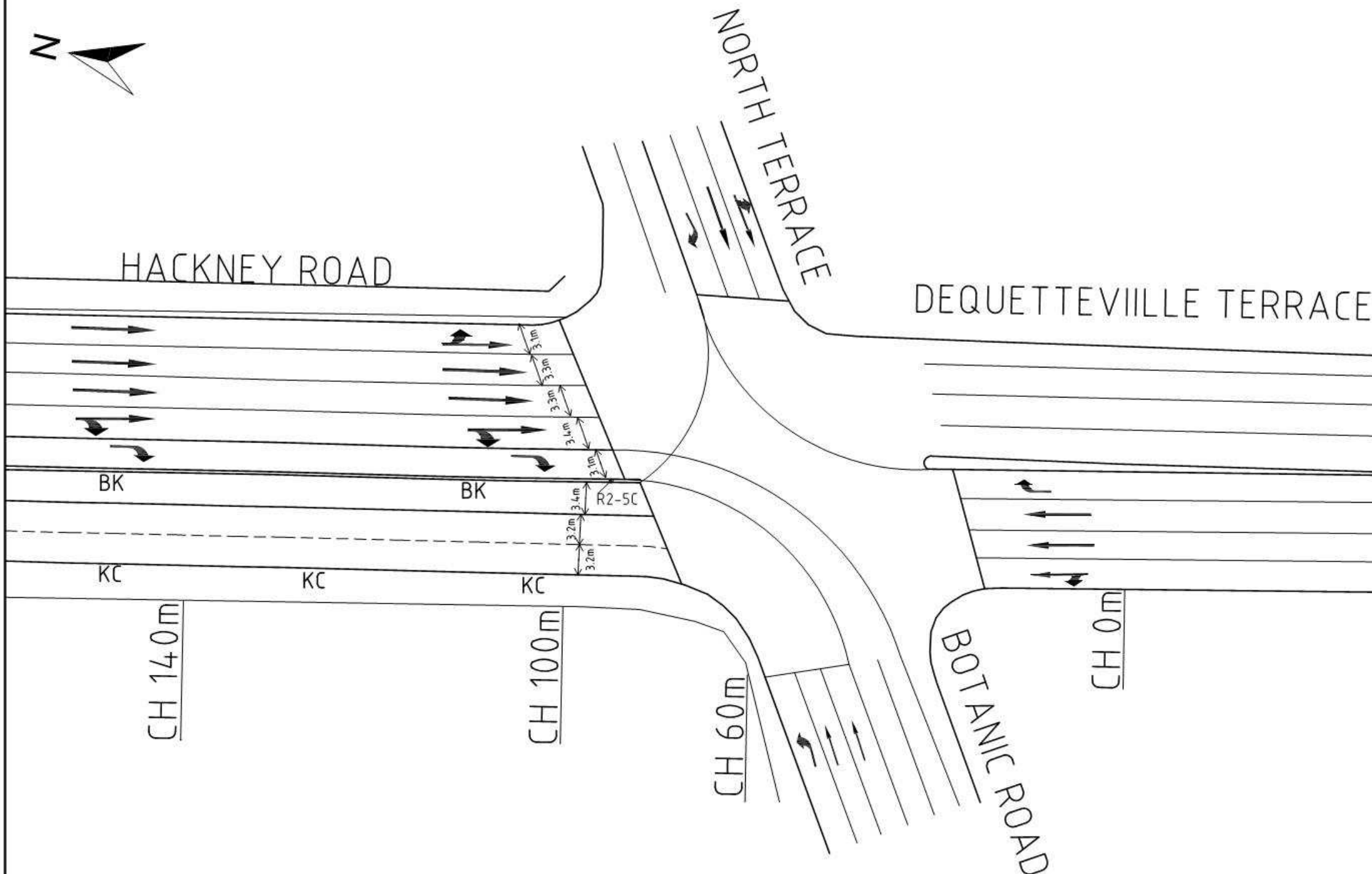
PROJECT PLAN VIEW - MIDDLE SECTION
SCALE 1:2000



PROJECT PLAN VIEW - SOUTHERN SECTION
SCALE 1:2000

| | | | | | | |
|----------|---------------------|----------|--|--|----------------------------------|---|
| Issue No | Purpose | Date | | | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | PROJECT PLAN VIEW – MIDDLE & SOUTHERN SECTION |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: MUNISH KUMAR | A3 SHEET = 1:2000 OR AS SHOWN |
| | | | | | DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. |
| | | | | | | 0002-TR-2017 |

ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE

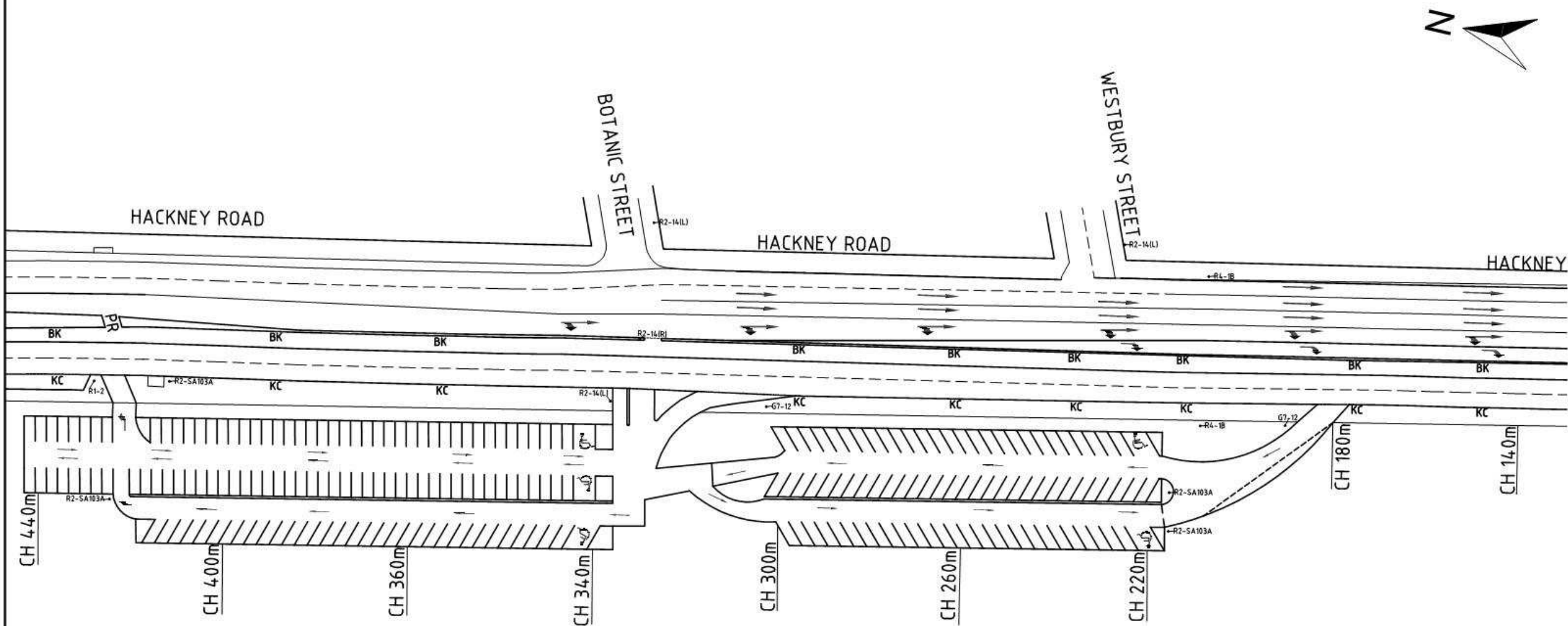


BOTANIC/HACKNEY DETAILED INTERSECTION
SCALE 1:500

| SIGN DETAILS | |
|--------------|--------------------------------------|
| CODE | DESCRIPTION |
| R2-5C | NO U-TURN |
| R6-2A | NO OVER TAKING ON BRIDGE |
| R1-2B | GIVE WAY |
| R2-15B | U-TURN |
| G7-12 | PARKING SIGN (NAMED) WITH DIRECTION |
| G9-40-1 | LOCAL TRAFFIC ONLY |
| R7-1-4B | BICYCLE LANE |
| R2-SA103A | NO ENTRY |
| R6-15 | NO PEDESTRIANS |
| R1-1 | STOP SIGN |
| R2-14(L) | LEFT TURN ONLY |
| D4-SA2-S | BIDIRECTIONAL HAZARD MARKER |
| R6-SA67 | BUS ONLY |
| G1-2+ G5-7 | INFORMATION SIGN |
| R4-1B | SPEED LIMIT SIGN |

| LEGEND | |
|--------|---------------------|
| SYMBOL | DESCRIPTION |
| ⊕ | SIGN - SINGLE POST |
| --- | CONTINUITY LINE |
| --- | BARRIER LINE |
| PR | PEDESTRAIN - REFUGE |
| BK | BARRIER KERB |
| KC | KERB & CHANNEL |

| | | | | | | |
|--|---------------------|----------|--|--|----------------------------------|---------------------------------------|
| Issue No | Purpose | Date | | | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | BOTANIC/HACKNEY DETAILED INTERSECTION |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: MUNISH KUMAR | A3 SHEET = 1:500 OR AS SHOWN |
| | | | | | DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. |
| | | | | | | 0003-TR-2017 |

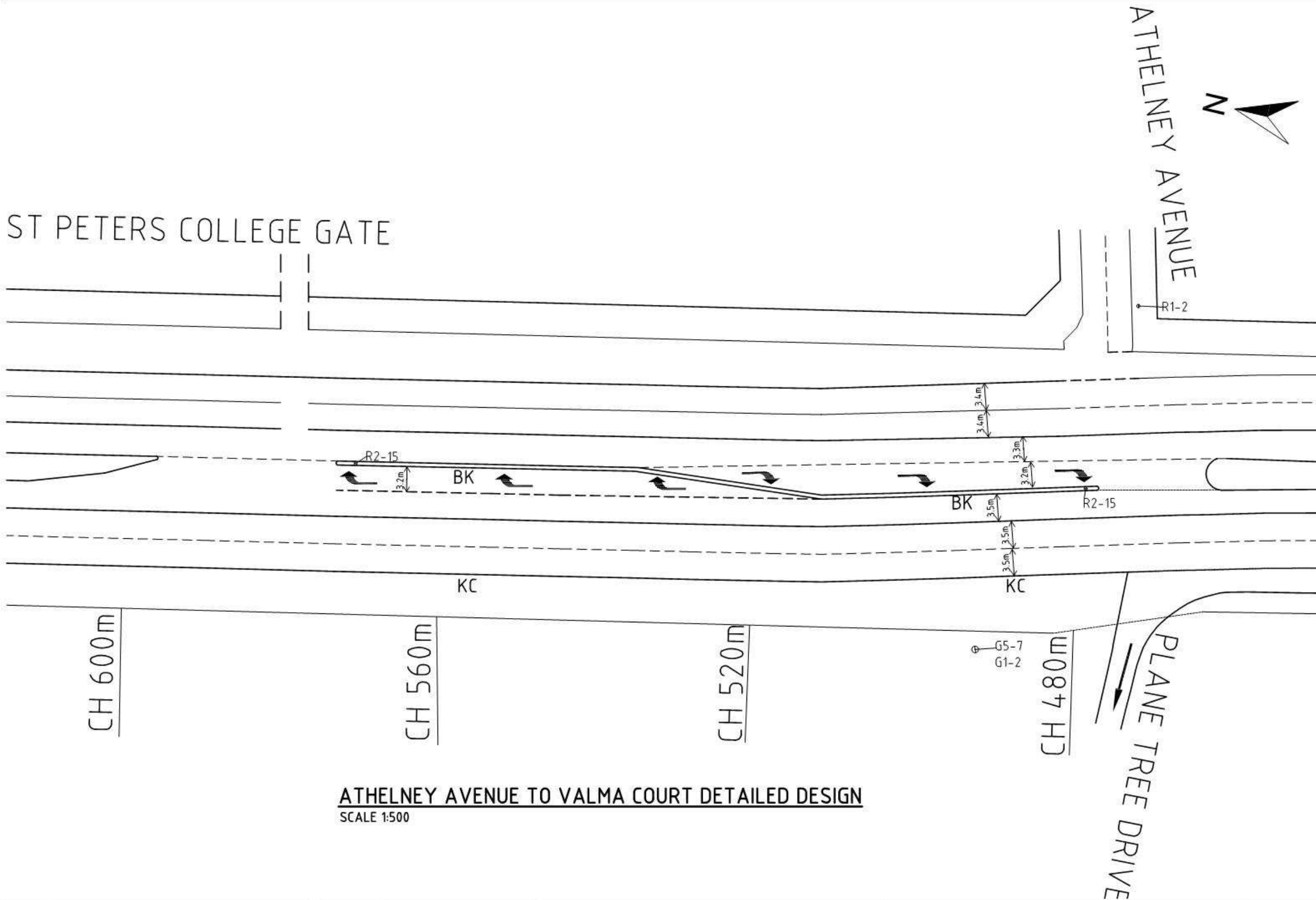


**ENTRANCE TO BOTANIC CARPARK TO
ATHELNEY AVENUE DETAILED DESIGN**
SCALE 1:1000

| SIGN DETAILS | |
|--------------|--------------------------------------|
| CODE | DESCRIPTION |
| R2-5C | NO U-TURN |
| R6-2A | NO OVER TAKING ON BRIDGE |
| R1-2B | GIVE WAY |
| R2-15B | U-TURN |
| G7-12 | PARKING SIGN (NAMED) WITH DIRECTION |
| G9-40-1 | LOCAL TRAFFIC ONLY |
| R7-1-4B | BICYCLE LANE |
| R2-SA103A | NO ENTRY |
| R6-15 | NO PEDESTRIANS |
| R1-1 | STOP SIGN |
| R2-14(L) | LEFT TURN ONLY |
| D4-SA2-S | BIDIRECTIONAL HAZARD MARKER |
| R6-SA67 | BUS ONLY |
| G1-2+ G5-7 | INFORMATION SIGN |
| R4-1B | SPEED LIMIT SIGN |

| LEGEND | |
|--------|----------------------|
| SYMBOL | DESCRIPTION |
| ⊕ | SIGN - SIGNEE POST |
| ---- | CONTINUITY LINE |
| ---- | BARRIER LINE |
| PR | PEDESTRAIN - REFUGUE |
| BK | BARRIER KERB |
| KC | KERB & CHANNEL |

| | | | | | | |
|--|---------------------|----------|--|-------------|-------------------------------|---|
| Issue No | Purpose | Date | | | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | ENTRANCE TO BOTANIC CARPARK TO ATHELNEY AVENUE DETAILED DESIGN |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | DRAWING INFO | SCALE | A3 SHEET = 1:1000 OR AS SHOWN | |
| | | | DRAWN BY: MUNISH KUMAR DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. | 0004-TR-2017 | |



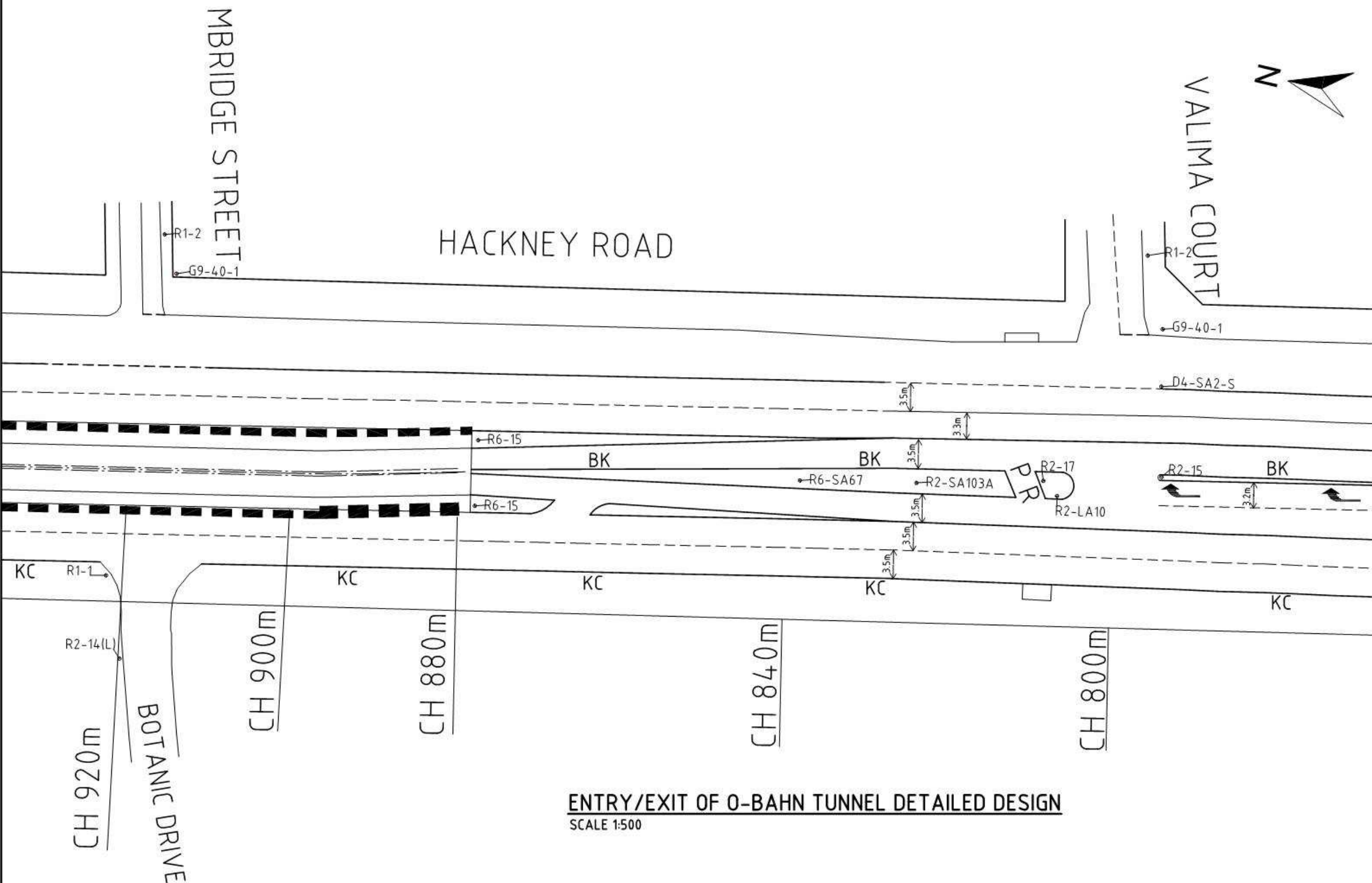
| SIGN DETAILS | |
|--------------|--------------------------------------|
| CODE | DESCRIPTION |
| R2-5C | NO U-TURN |
| R6-2A | NO OVER TAKING ON BRIDGE |
| R1-2B | GIVE WAY |
| R2-15B | U-TURN |
| G7-12 | PARKING SIGN (NAMED) WITH DIRECTION |
| G9-40-1 | LOCAL TRAFFIC ONLY |
| R7-1-4B | BICYCLE LANE |
| R2-SA103A | NO ENTRY |
| R6-15 | NO PEDESTRIANS |
| R1-1 | STOP SIGN |
| R2-14(L) | LEFT TURN ONLY |
| D4-SA2-S | BIDIRECTIONAL HAZARD MARKER |
| R6-SA67 | BUS ONLY |
| G1-2+ G5-7 | INFORMATION SIGN |
| R4-1B | SPEED LIMIT SIGN |

| LEGEND | |
|--------|----------------------|
| SYMBOL | DESCRIPTION |
| | SIGN - SIGNLE POST |
| | CONITNUITY LINE |
| | BARRIER LINE |
| PR | PEDESTRAIN - REFUGUE |
| BK | BARRIER KERB |
| KC | KERB & CHANNEL |

ATHELNEY AVENUE TO VALMA COURT DETAILED DESIGN
SCALE 1:500

| Issue No | Purpose | Date | | | CONTRACT NAME | DRAWING TITLE |
|----------|---------------------|----------|--|--|----------------------------------|--|
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | ATHELNEY AVENUE TO VALMA COURT DETAILED DESIGN |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: MUNISH KUMAR | A3 SHEET = 1:500 OR AS SHOWN |
| | | | | | DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. |
| | | | | | | 0005-TR-2017 |

ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE

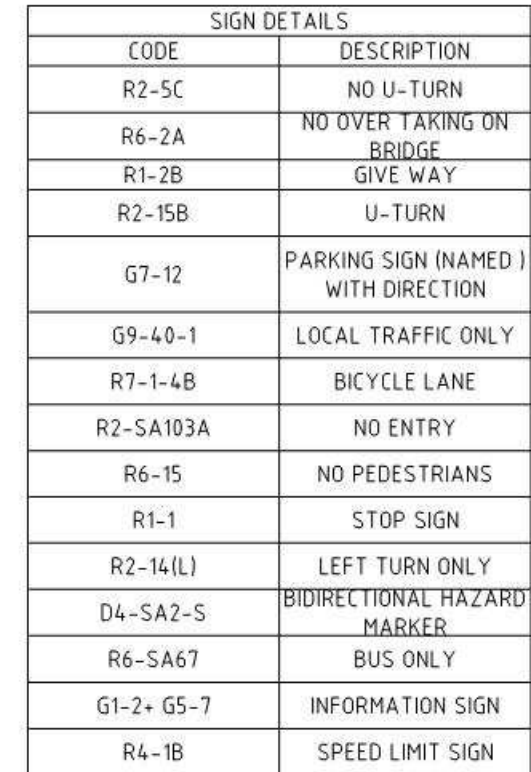





| SIGN DETAILS | |
|--------------|--------------------------------------|
| CODE | DESCRIPTION |
| R2-5C | NO U-TURN |
| R6-2A | NO OVER TAKING ON BRIDGE |
| R1-2B | GIVE WAY |
| R2-15B | U-TURN |
| G7-12 | PARKING SIGN (NAMED) WITH DIRECTION |
| G9-40-1 | LOCAL TRAFFIC ONLY |
| R7-1-4B | BICYCLE LANE |
| R2-SA103A | NO ENTRY |
| R6-15 | NO PEDESTRIANS |
| R1-1 | STOP SIGN |
| R2-14(L) | LEFT TURN ONLY |
| D4-SA2-S | BIDIRECTIONAL HAZARD MARKER |
| R6-SA67 | BUS ONLY |
| G1-2+ G5-7 | INFORMATION SIGN |
| R4-1B | SPEED LIMIT SIGN |

| LEGEND | |
|--------|----------------------|
| SYMBOL | DESCRIPTION |
| | SIGN - SIGNLE POST |
| | CONITNUITY LINE |
| | BARRIER LINE |
| PR | PEDESTRAIN - REFUGUE |
| BK | BARRIER KERB |
| KC | KERB & CHANNEL |

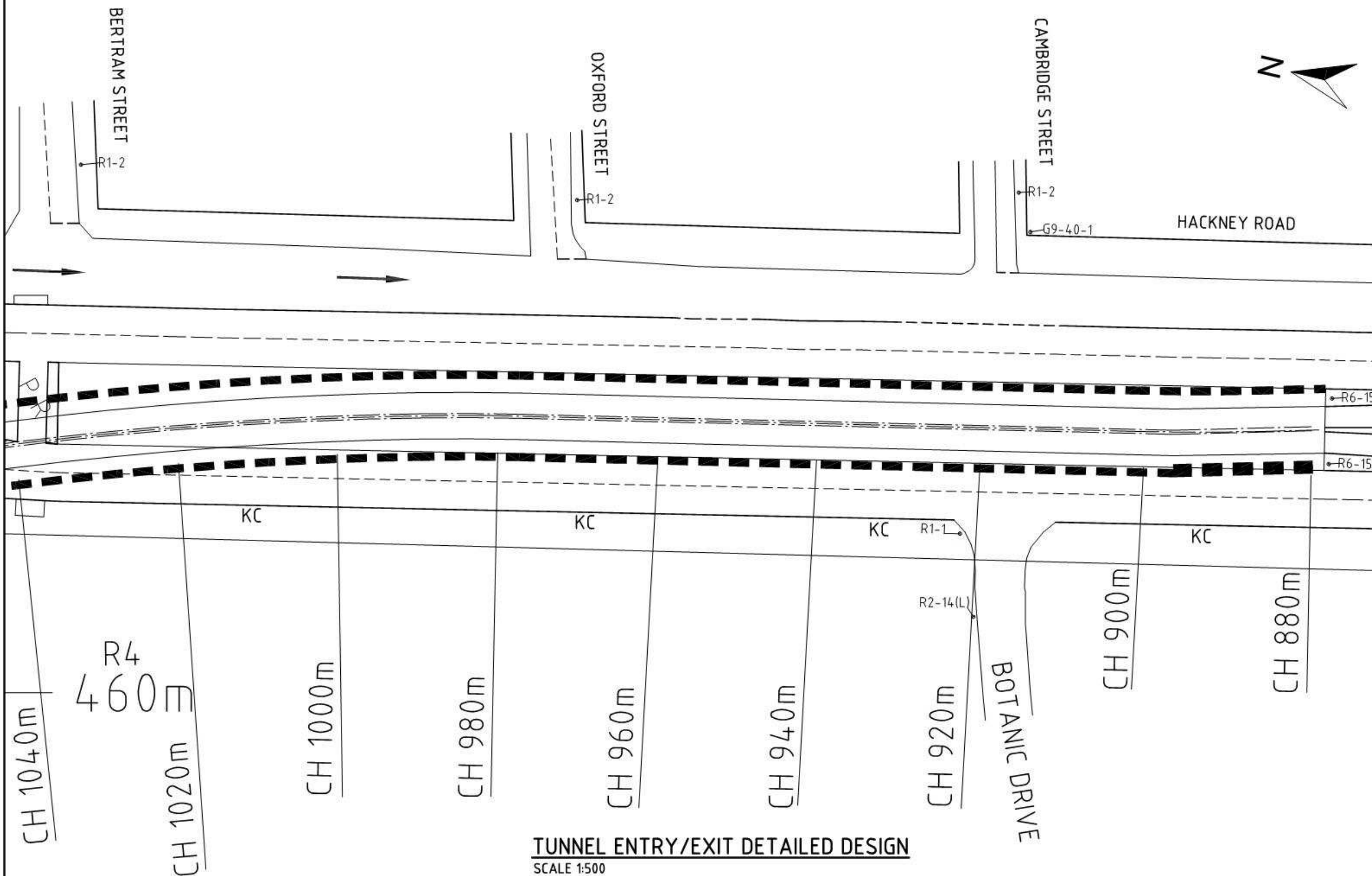
ENTRY/EXIT OF O-BAHN TUNNEL DETAILED DESIGN
SCALE 1:500

| | | | | | | |
|--|---------------------|----------|--|-------------|------------------------------|--|
| Issue No | Purpose | Date | | | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | ENTRY/EXIT OF O-BAHN TUNNEL DETAILED DESIGN |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:500 OR AS SHOWN | |
| | | | DRAWN BY: MUNISH KUMAR DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. | 0006-TR-2017 | |
| | | | | | | |
| | | | | | | |



| LEGEND | |
|---|---------------------|
| SYMBOL | DESCRIPTION |
|  | SIGN - SINGLE POST |
|  | CONTINUITY LINE |
|  | BARRIER LINE |
| PR | PEDESTRAIN - REFUGE |
| BK | BARRIER KERB |
| KC | KERB & CHANNEL |

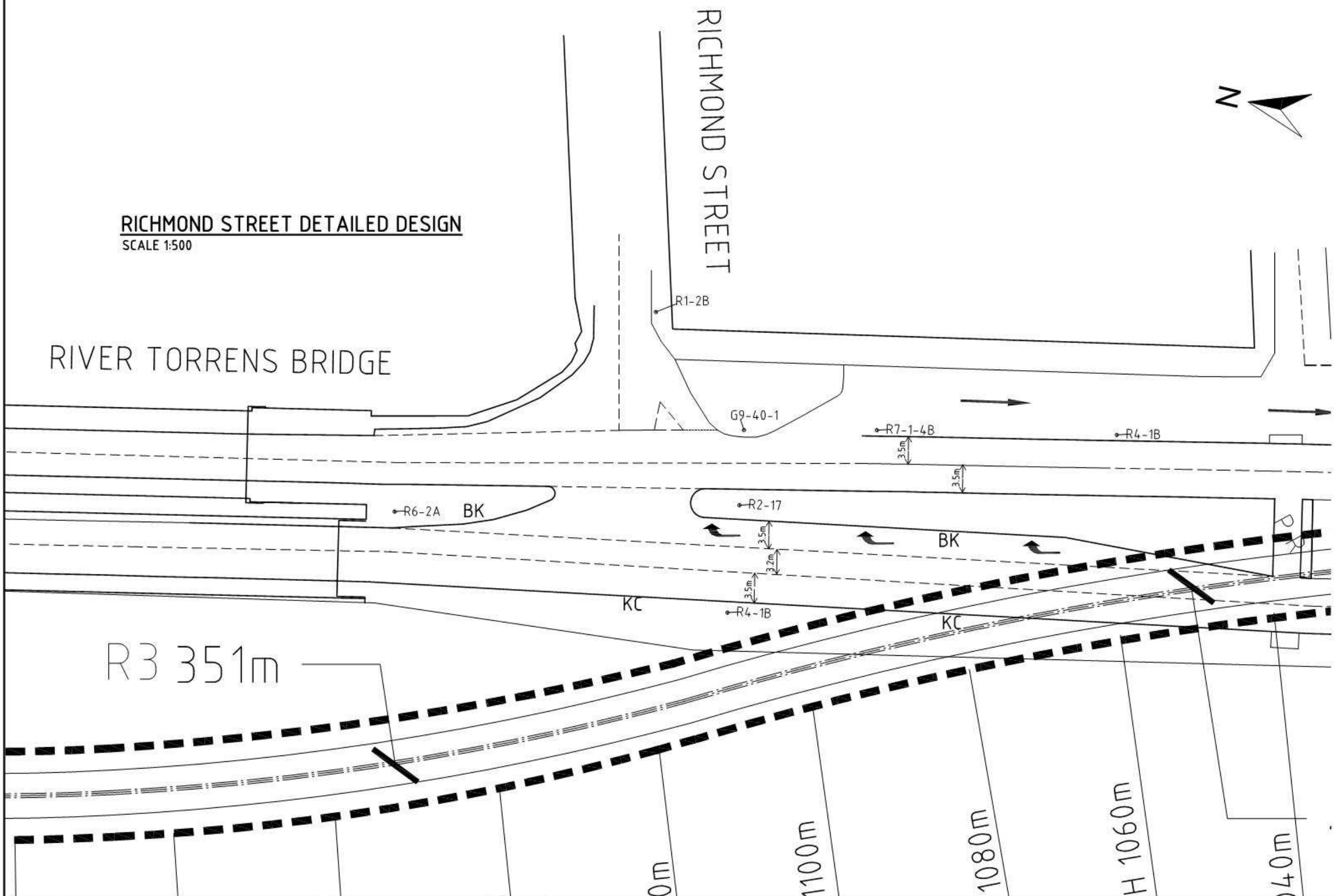
| | | | | | | |
|----------|---------------------|----------|--|--|----------------------------------|--|
| Issue No | Purpose | Date | | | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | ST PETERS COLLEGE TO TUNNEL ENTRY/EXIT DETAILED DESIGN |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: MUNISH KUMAR | A3 SHEET = 1:1000 OR AS SHOWN |
| | | | | | DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. |
| | | | | | | 0007-TR-2017 |



| SIGN DETAILS | |
|--------------|--------------------------------------|
| CODE | DESCRIPTION |
| R2-5C | NO U-TURN |
| R6-2A | NO OVER TAKING ON BRIDGE |
| R1-2B | GIVE WAY |
| R2-15B | U-TURN |
| G7-12 | PARKING SIGN (NAMED) WITH DIRECTION |
| G9-40-1 | LOCAL TRAFFIC ONLY |
| R7-1-4B | BICYCLE LANE |
| R2-SA103A | NO ENTRY |
| R6-15 | NO PEDESTRIANS |
| R1-1 | STOP SIGN |
| R2-14(L) | LEFT TURN ONLY |
| D4-SA2-S | BIDIRECTIONAL HAZARD MARKER |
| R6-SA67 | BUS ONLY |
| G1-2+ G5-7 | INFORMATION SIGN |
| R4-1B | SPEED LIMIT SIGN |

| LEGEND | |
|--------|----------------------|
| SYMBOL | DESCRIPTION |
| ⊕ | SIGN - SINGLE POST |
| --- | CONTINUITY LINE |
| --- | BARRIER LINE |
| PR | PEDESTRAIN - REFUGUE |
| BK | BARRIER KERB |
| KC | KERB & CHANNEL |

| | | | | | | |
|--|---------------------|----------|--|--|----------------------------|-----------------------------------|
| Issue No | Purpose | Date | | | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | TUNNEL ENTRY/EXIT DETAILED DESIGN |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | DRAWING INFO | | SCALE | A3 SHEET = 1:500 OR AS SHOWN |
| | | | DRAWN BY: MUNISH KUMAR DEPARTMENT: TRANSPORT DEPARTMENT | | DRAWING NO. | 0008-TR-2017 |



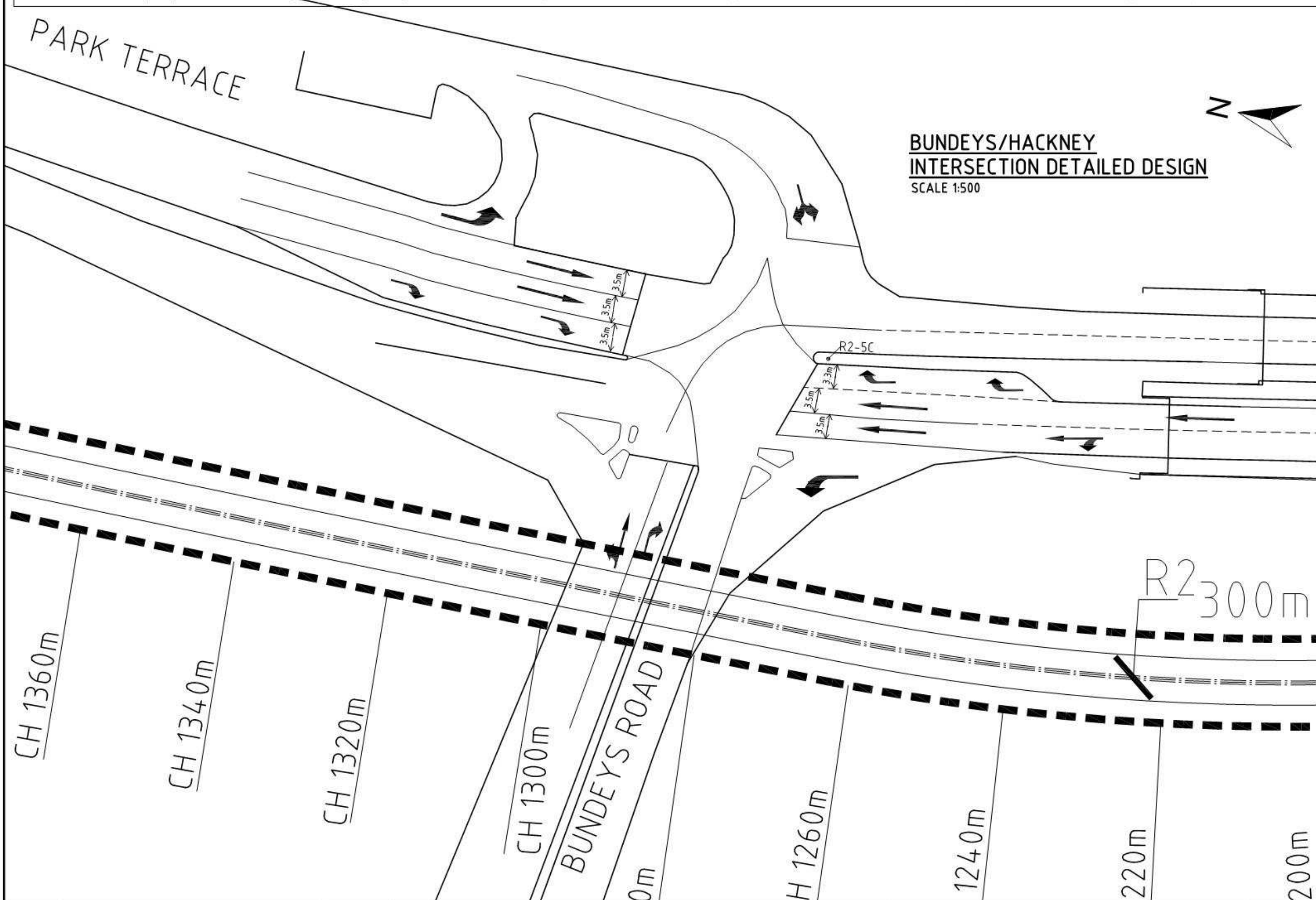
| SIGN DETAILS | |
|--------------|--------------------------------------|
| CODE | DESCRIPTION |
| R2-5C | NO U-TURN |
| R6-2A | NO OVER TAKING ON BRIDGE |
| R1-2B | GIVE WAY |
| R2-15B | U-TURN |
| G7-12 | PARKING SIGN (NAMED) WITH DIRECTION |
| G9-40-1 | LOCAL TRAFFIC ONLY |
| R7-1-4B | BICYCLE LANE |
| R2-SA103A | NO ENTRY |
| R6-15 | NO PEDESTRIANS |
| R1-1 | STOP SIGN |
| R2-14(L) | LEFT TURN ONLY |
| D4-SA2-S | BIDIRECTIONAL HAZARD MARKER |
| R6-SA67 | BUS ONLY |
| G1-2+ G5-7 | INFORMATION SIGN |
| R4-1B | SPEED LIMIT SIGN |

| LEGEND | |
|--------|----------------------|
| SYMBOL | DESCRIPTION |
| ⊕ | SIGN - SIGNLE POST |
| --- | CONITNUITY LINE |
| --- | BARRIER LINE |
| PR | PEDESTRAIN - REFUGUE |
| BK | BARRIER KERB |
| KC | KERB & CHANNEL |

| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |

| | | |
|--|--|----------------------------------|
| | | CONTRACT NAME |
| | | O-BAHN CITY ACCESS UPGRADE |
| | | SITE ADDRESS |
| | | HACKNEY ROAD, ADELAIDE SA |
| | | DRAWING INFO |
| | | DRAWN BY: MUNISH KUMAR |
| | | DEPARTMENT: TRANSPORT DEPARTMENT |

| | |
|---|------------------------------|
| DRAWING TITLE RICHMOND STREET DETAILED DESIGN | |
| SCALE | A3 SHEET = 1:500 OR AS SHOWN |
| DRAWING NO. | 0009-TR-2017 |



**BUNDEYS/HACKNEY
INTERSECTION DETAILED DESIGN**
SCALE 1:500

| SIGN DETAILS | |
|--------------|--------------------------------------|
| CODE | DESCRIPTION |
| R2-5C | NO U-TURN |
| R6-2A | NO OVER TAKING ON BRIDGE |
| R1-2B | GIVE WAY |
| R2-15B | U-TURN |
| G7-12 | PARKING SIGN (NAMED) WITH DIRECTION |
| G9-40-1 | LOCAL TRAFFIC ONLY |
| R7-1-4B | BICYCLE LANE |
| R2-SA103A | NO ENTRY |
| R6-15 | NO PEDESTRIANS |
| R1-1 | STOP SIGN |
| R2-14(L) | LEFT TURN ONLY |
| D4-SA2-S | BIDIRECTIONAL HAZARD MARKER |
| R6-SA67 | BUS ONLY |
| G1-2+ G5-7 | INFORMATION SIGN |
| R4-1B | SPEED LIMIT SIGN |

| LEGEND | |
|--------|----------------------|
| SYMBOL | DESCRIPTION |
| ⊕ | SIGN - SINGLE POST |
| --- | CONTINUITY LINE |
| --- | BARRIER LINE |
| PR | PEDESTRAIN - REFUGEE |
| BK | BARRIER KERB |
| KC | KERB & CHANNEL |

| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



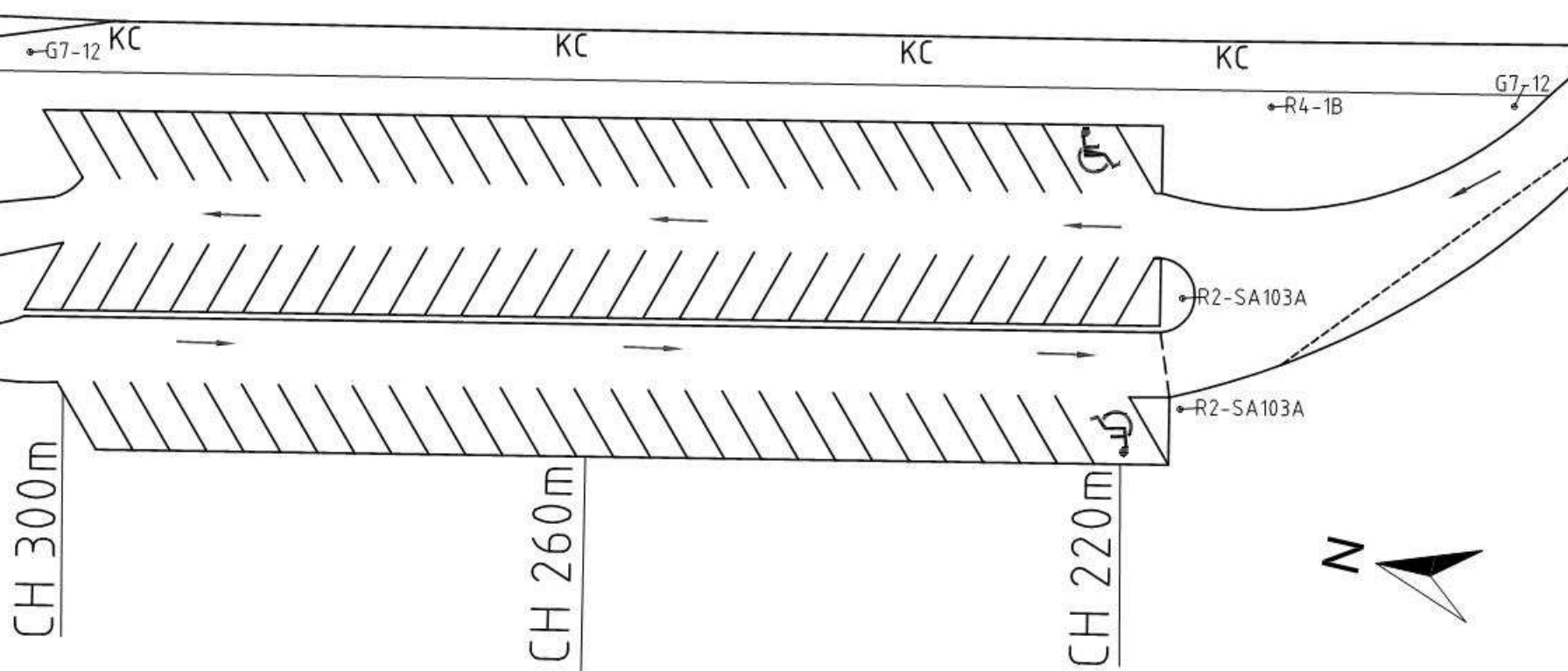
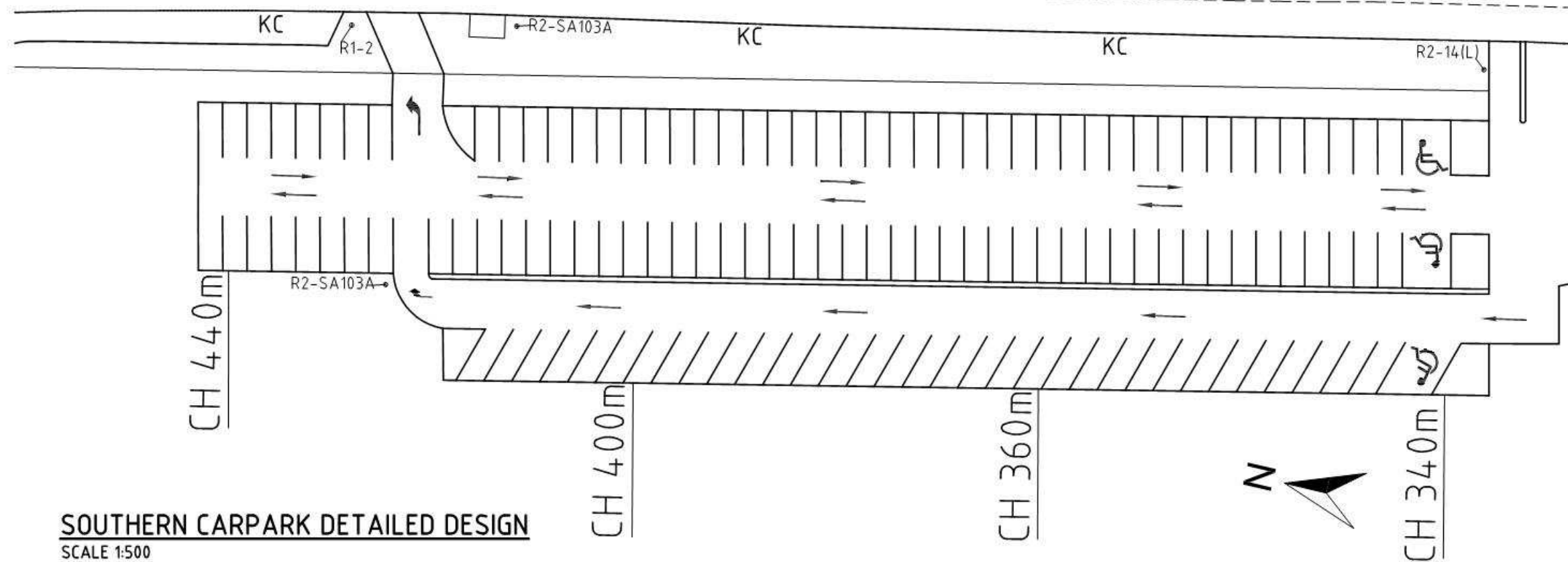
University of
South Australia



EB Consulting

| | |
|---------------|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: MUNISH KUMAR DEPARTMENT: TRANSPORT DEPARTMENT |

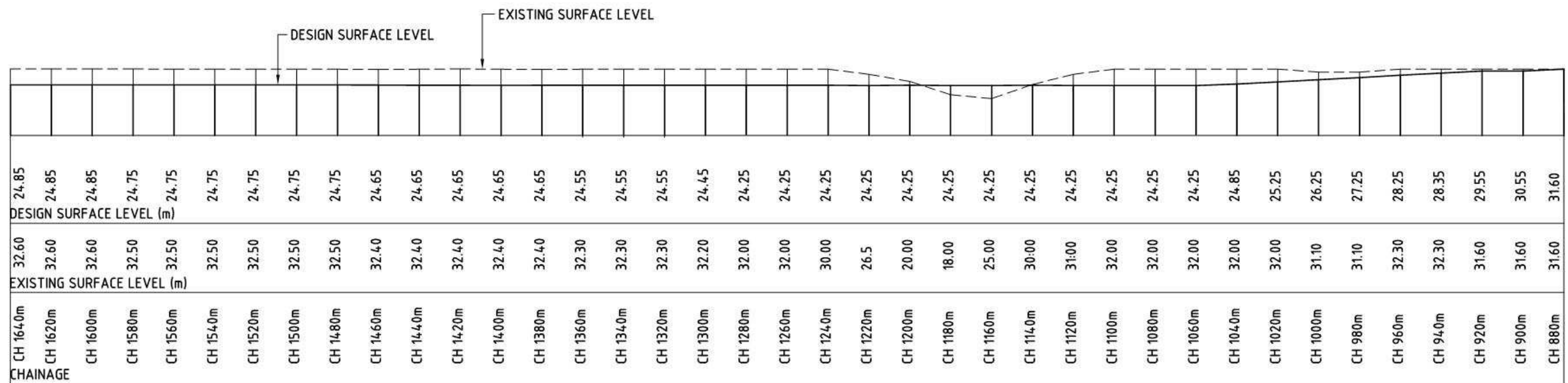
| | |
|---------------|--|
| DRAWING TITLE | BUNDEYS/HACKNEY INTERSECTION DETAILED DESIGN |
| SCALE | A3 SHEET = 1:500 OR AS SHOWN |
| DRAWING NO. | 0010-TR-2017 |



| SIGN DETAILS | |
|--------------|--------------------------------------|
| CODE | DESCRIPTION |
| R2-5C | NO U-TURN |
| R6-2A | NO OVER TAKING ON BRIDGE |
| R1-2B | GIVE WAY |
| R2-15B | U-TURN |
| G7-12 | PARKING SIGN (NAMED) WITH DIRECTION |
| G9-40-1 | LOCAL TRAFFIC ONLY |
| R7-1-4B | BICYCLE LANE |
| R2-SA103A | NO ENTRY |
| R6-15 | NO PEDESTRIANS |
| R1-1 | STOP SIGN |
| R2-14(L) | LEFT TURN ONLY |
| D4-SA2-S | BIDIRECTIONAL HAZARD MARKER |
| R6-SA67 | BUS ONLY |
| G1-2+ G5-7 | INFORMATION SIGN |
| R4-1B | SPEED LIMIT SIGN |

| LEGEND | |
|--------|----------------------|
| SYMBOL | DESCRIPTION |
| ⊕ | SIGN - SINGLE POST |
| --- | CONITNUITY LINE |
| --- | BARRIER LINE |
| PR | PEDESTRAIN - REFUGUE |
| BK | BARRIER KERB |
| KC | KERB & CHANNEL |

| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---|------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SOUTHERN CARPARK DETAILED DESIGN | |
| | | | | | SITE ADDRESS | | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | | DRAWING INFO | SCALE |
| | | | | | | DRAWN BY: SEAN WILLIAMS DEPARTMENT: TRANSPORT DEPARTMENT | A3 SHEET = 1:500 OR AS SHOWN |
| | | | | | | DRAWING NO. | 0011-TR-2017 |



TUNNEL LONG SECTION
SCALE 1:2000

| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | TUNNEL LONG SECTION |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | |
| | | | DRAWING INFO | SCALE | | |
| | | | DRAWN BY: SEAN WILLIAMS DEPARTMENT: TRANSPORT DEPARTMENT | A3 SHEET = 2000 OR AS SHOWN | | |
| | | | | DRAWING NO. | | |
| | | | | 0012-TR-2017 | | |

This document has been developed by students from the University of South Australia as part of the Civil Engineering Design Project course. This document and any associated works relating to it is for the purposes of academic study only and does not represent the views or opinions of the end client, (Department of Planning Transport and Infrastructure (DPTI))

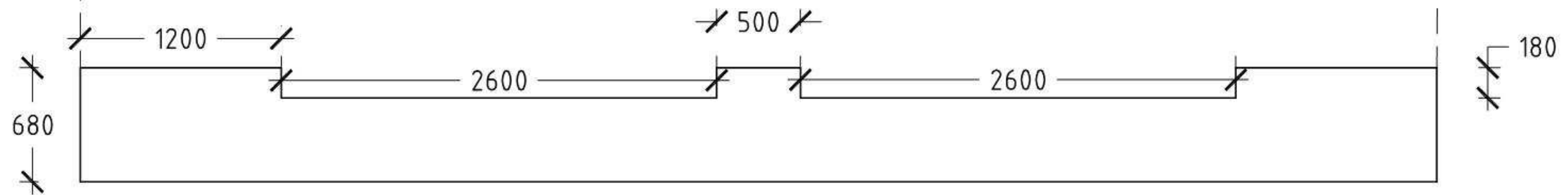
| CHAINAGE | EXISTING SURFACE LEVEL (m) | DESIGN SURFACE LEVEL (m) |
|----------|----------------------------|--------------------------|
| CH 880m | 32.40 | |
| CH 860m | 32.40 | |
| CH 820m | 32.50 | |
| CH 780m | 32.60 | 24.85 |
| CH 740m | 32.90 | 24.85 |
| CH 720m | 32.00 | 24.75 |
| CH 680m | 32.4 | 24.75 |
| CH 640m | 32.7 | 24.75 |
| CH 600m | 33.3 | 24.65 |
| CH 5600m | 33.5 | 24.65 |
| CH 520m | 34 | 24.55 |
| CH 480m | 33.9 | 24.55 |
| CH 440m | 33.9 | 24.25 |
| CH 400m | 33.8 | 24.25 |

HACKNEY ROAD LONG SECTION

SCALE 1:2000

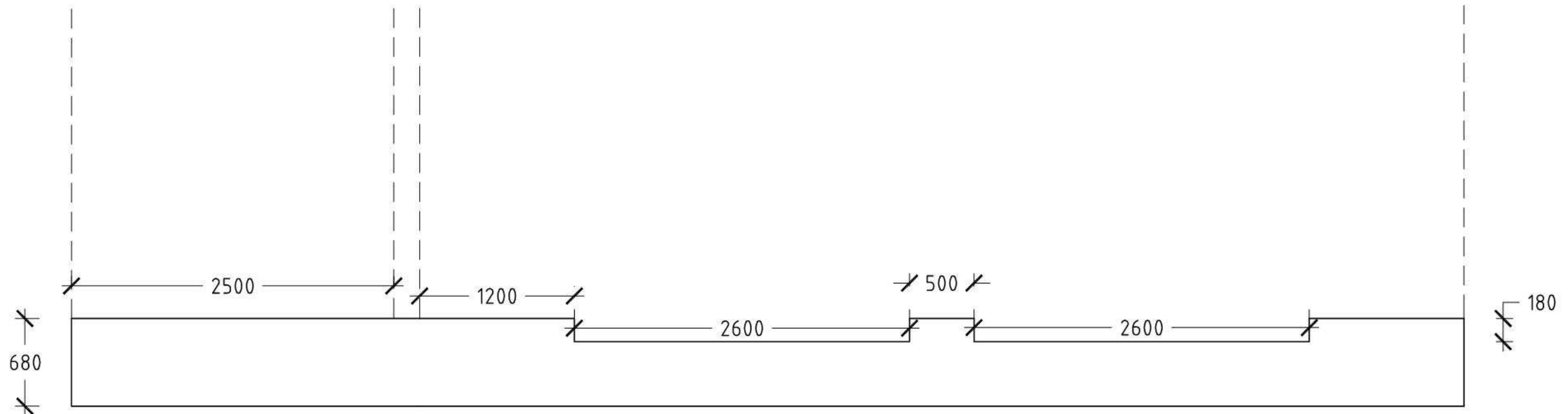
| | | |
|---------|------|-------|
| CH 360m | 33.8 | 24.25 |
| CH 320m | 33.7 | 24.25 |
| CH 280m | 33.7 | 24.25 |
| CH 220m | 33.7 | 24.25 |
| CH 180m | 33.6 | 24.85 |
| CH 140m | 33.5 | 26.25 |
| CH 100m | 33.4 | 28.25 |
| CH 60m | 33.2 | 29.55 |
| CH 0m | 33.3 | 31.60 |

| | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|---------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | HACKNEY ROAD LONG SECTION |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWN BY: SEAN WILLIAMS DEPARTMENT: TRANSPORT DEPARTMENT | | DRAWING NO. | 0013-TR-2017 |



TUNNEL CROSS SECTION - NO EGRESS CORRIDOR

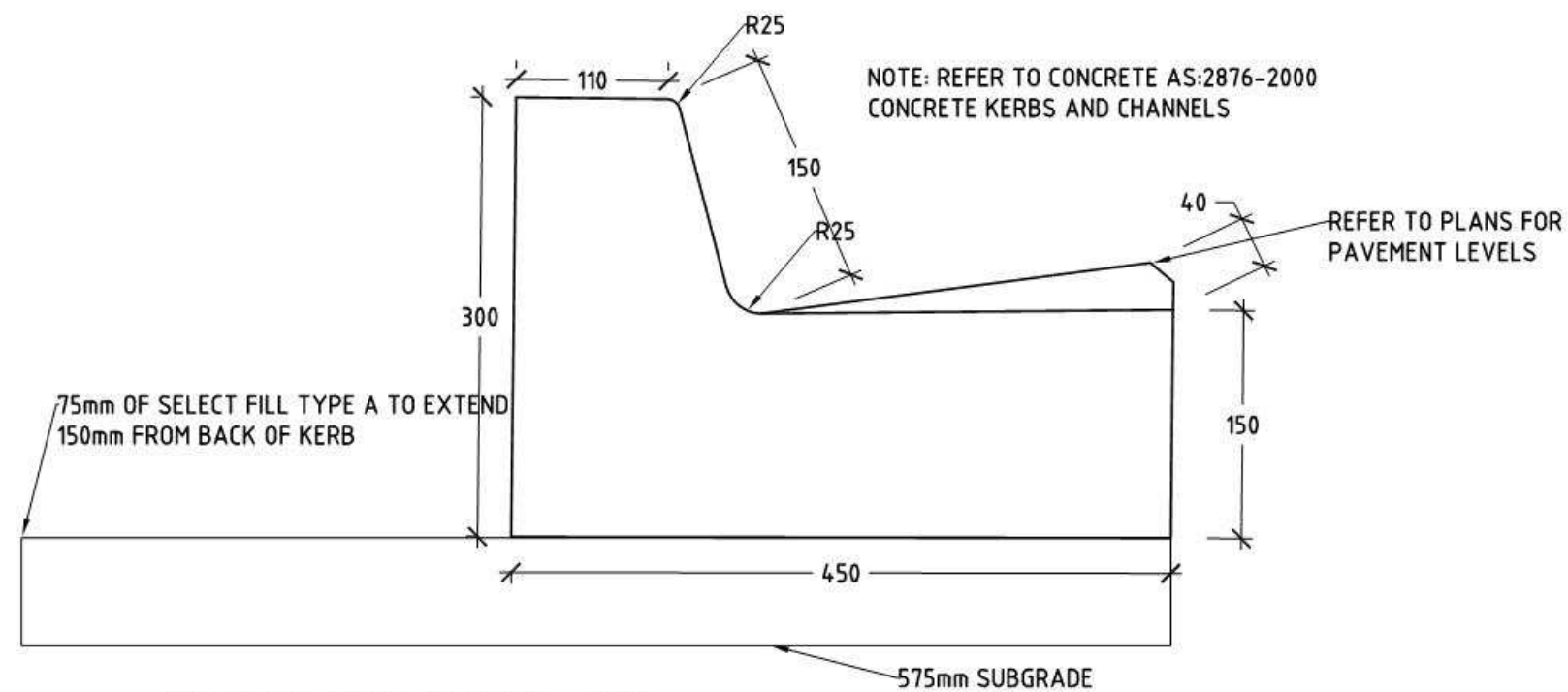
SCALE 1:30



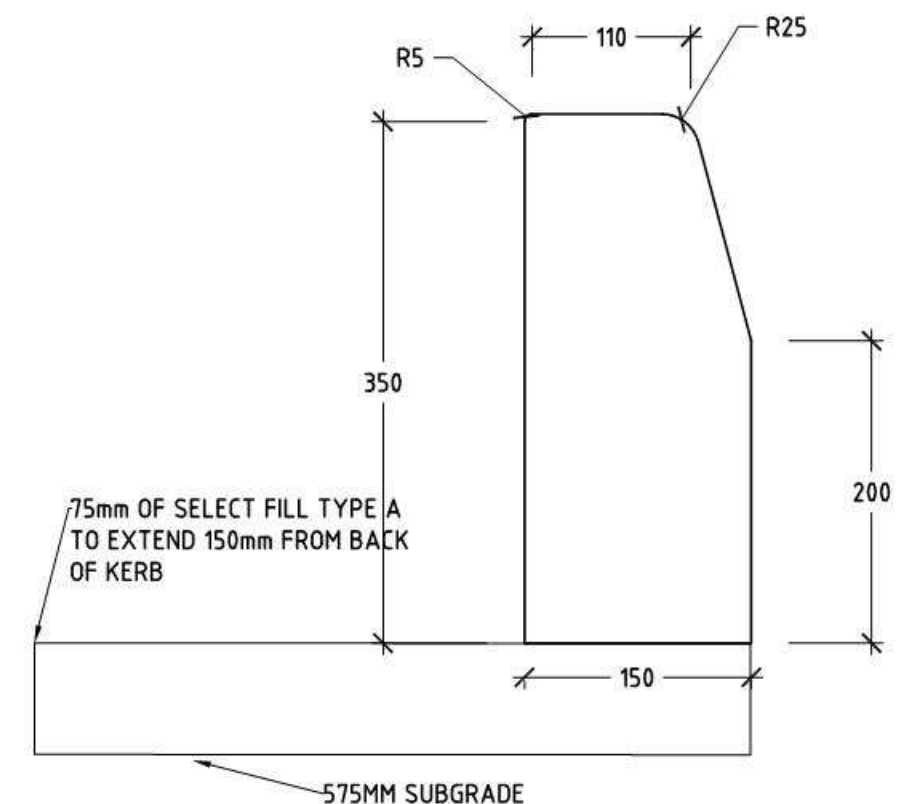
TUNNEL CROSS SECTION - WITH EGRESS CORRIDOR

SCALE 1:30

| | | | | | | |
|--|---------------------|----------|---|--|----------------------------|-----------------------------|
| Issue No | Purpose | Date |  University of South Australia |  EB Consulting | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | TUNNEL CROSS SECTION |
| | | | | | SITE ADDRESS | |
| | | | | HACKNEY ROAD, ADELAIDE SA | | |
| | | | | DRAWING INFO | SCALE | A3 SHEET = 1:30 OR AS SHOWN |
| | | | | DRAWN BY: SAM KESKAR | | |
| | | | | DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. | 0014-TR-2017 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | | |

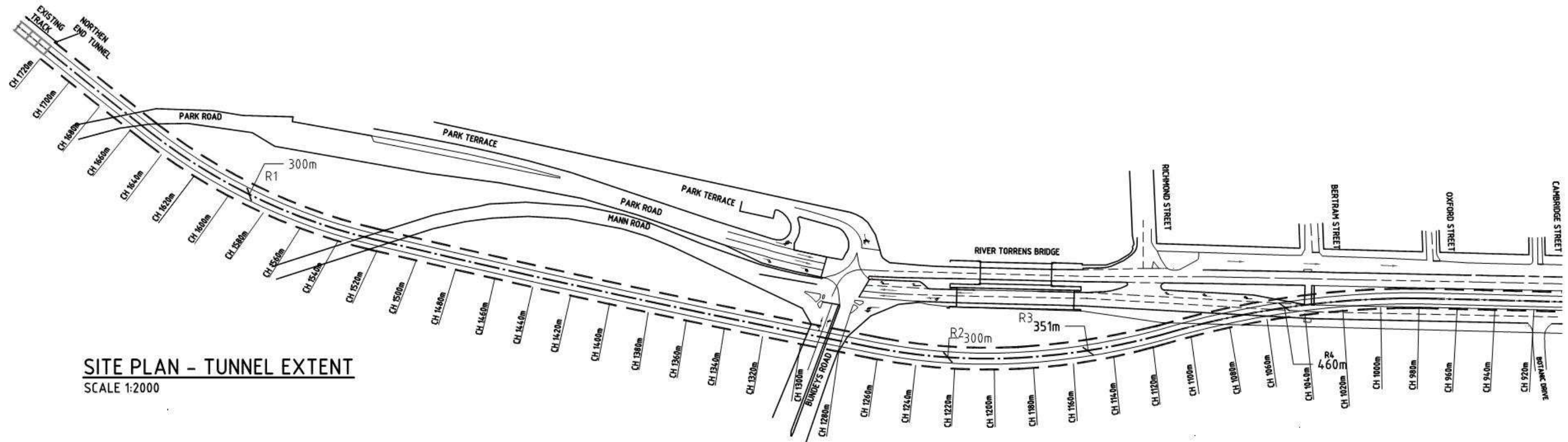


BARRIER KERB DETAIL - BK
SCALE 1:5



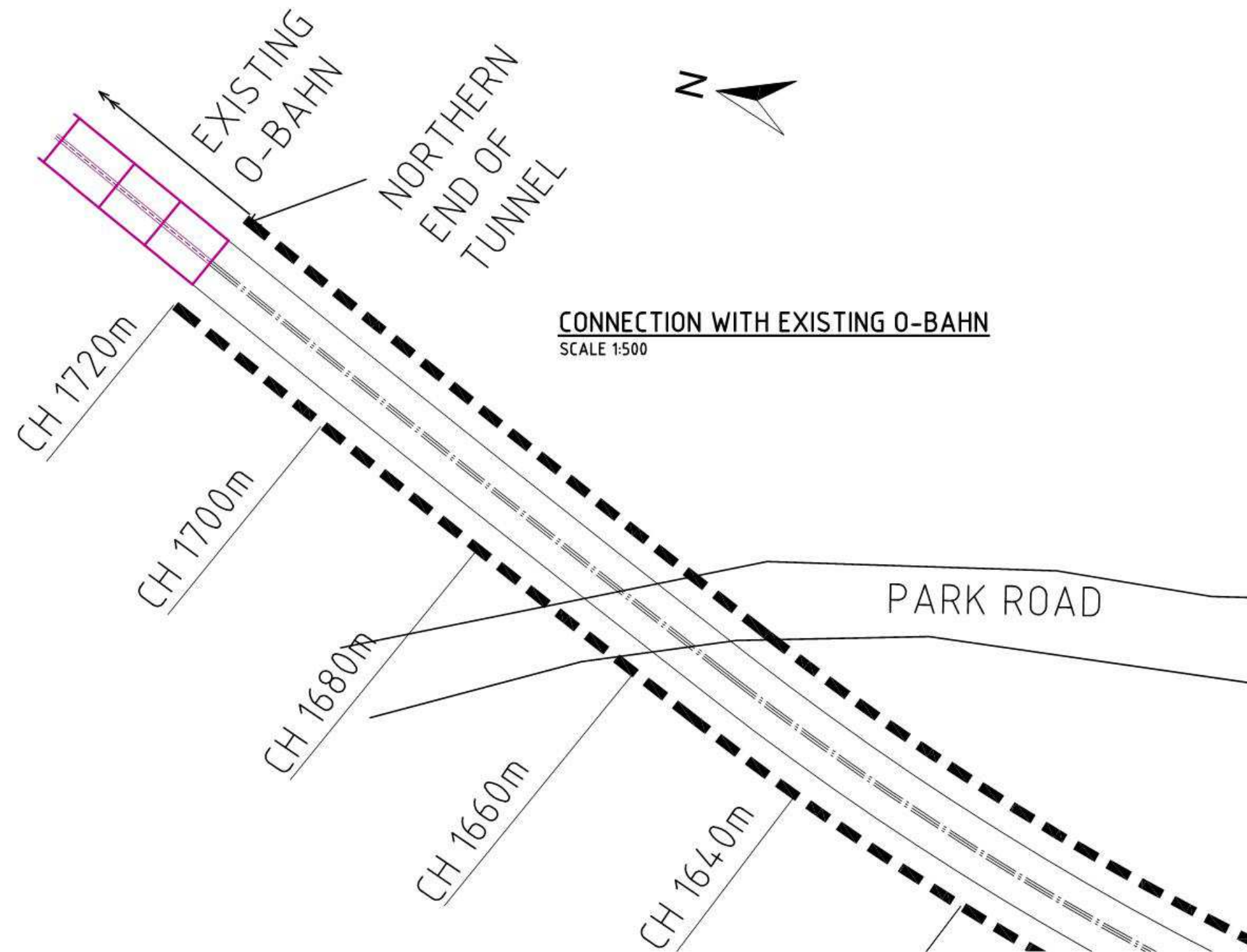
KERB and CHANNEL DETAIL- KC
SCALE 1:5

| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---|--|
| Issue No | Purpose | Date |  University of South Australia |  EB Consulting | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | BARRIER KERB and KERB AND CHANNEL DETAILS | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | | SCALE | A3 SHEET = 1:5 OR AS SHOWN | |
| | | | DRAWN BY: ASHLEN FAHY DEPARTMENT: TRANSPORT DEPARTMENT | | DRAWING NO. | 0015-TR-2017 | |

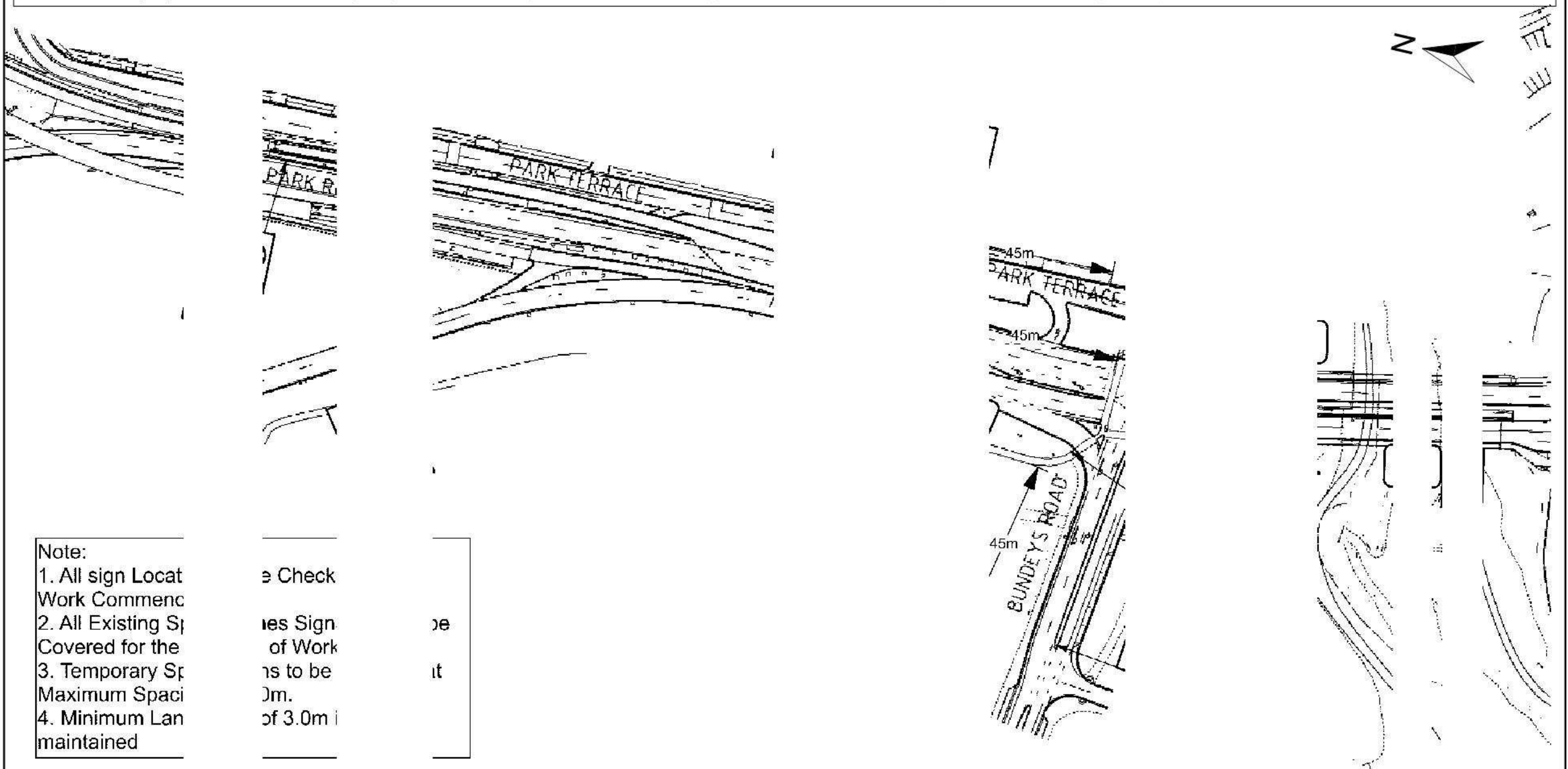


SITE PLAN - TUNNEL EXTENT
SCALE 1:2000

| | | | | | | |
|--|---------------------------------------|-------------------------|---|---|--|---|
| Issue No A | Purpose FOR CLIENT APPROVAL | Date 08/06/17 |  University of South Australia |  | CONTRACT NAME O-BAHN CITY ACCESS UPGRADE | DRAWING TITLE TUNNEL EXTENT DETAILED DESIGN |
| | | | | | SITE ADDRESS HACKNEY ROAD, ADELAIDE SA | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO DRAWN BY: SEAN WILLIAMS DEPARTMENT: TRANSPORT DEPARTMENT | SCALE A3 SHEET = 1:2000 OR AS SHOWN DRAWING NO. 0016-TR-2017 |



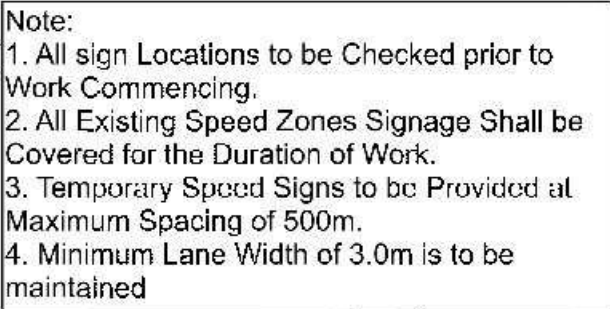
| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | CONNECTION WITH EXISTING O-BAHN DETAILED DESIGN |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE |
| | | | HACKNEY ROAD, ADELAIDE SA | | A3 SHEET = 500 OR AS SHOWN | |
| | | | DRAWING INFO | | DRAWING NO. | |
| | | | DRAWN BY: SEAN WILLIAMS DEPARTMENT: TRANSPORT DEPARTMENT | | 0017-TR-2017 | |



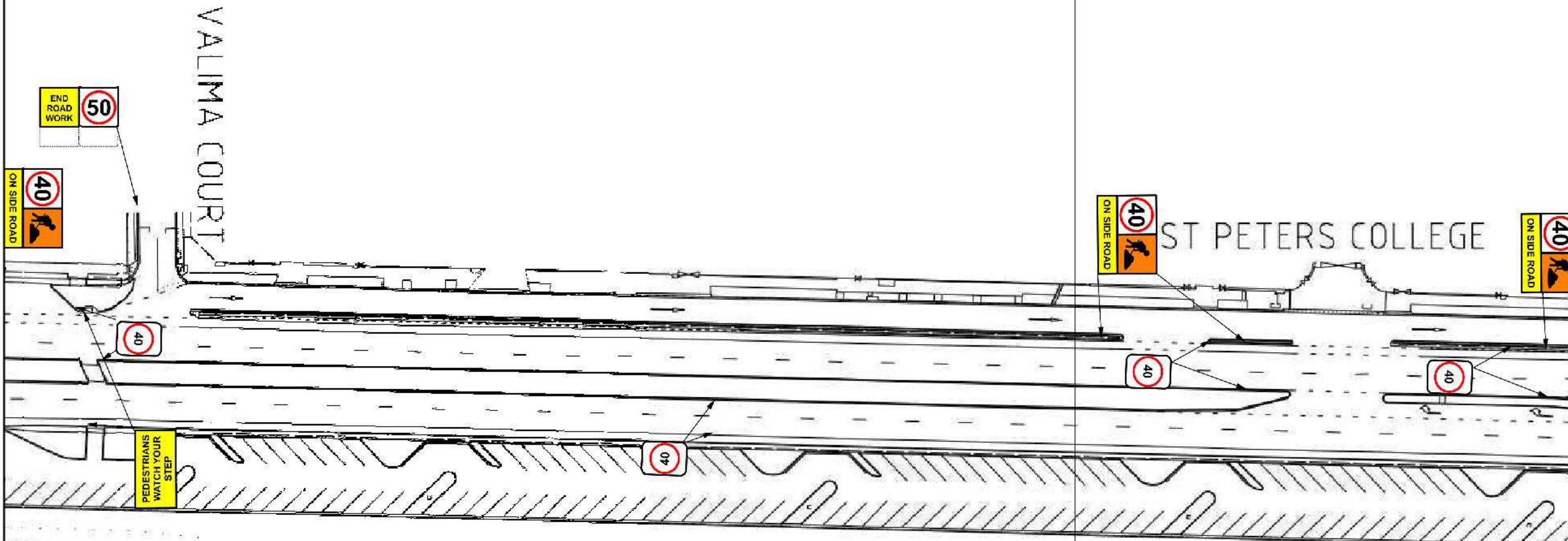
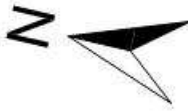
Note:

| | | |
|--------------------|-----------|----|
| 1. All sign Locat | e Check | |
| 2. All Existing Sp | ies Sign | oe |
| 3. Temporary Sp | of Work | it |
| 4. Minimum Lan | ns to be | |
| | 0m. | |
| | of 3.0m i | |
| | | |

| Issue No | Purpose | Date | | | CONTRACT NAME | DRAWING TITLE |
|----------|---------------------|----------|--|--|----------------------------------|-------------------------------------|
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | PERMANENT TRAFFIC MANAGEMENT SITE 1 |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: MARTIN REID | A3 SHEET = NOT TO SCALE |
| | | | | | DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. |
| | | | | | | 0018-TR-2017 |



| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|-------------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | PERMANENT TRAFFIC MANAGEMENT SITE 2 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | |
| | | | DRAWING INFO | SCALE | A3 SHEET = NOT TO SCALE | |
| | | | DRAWN BY: MARTIN REID DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. | 0019-TR-2017 | |



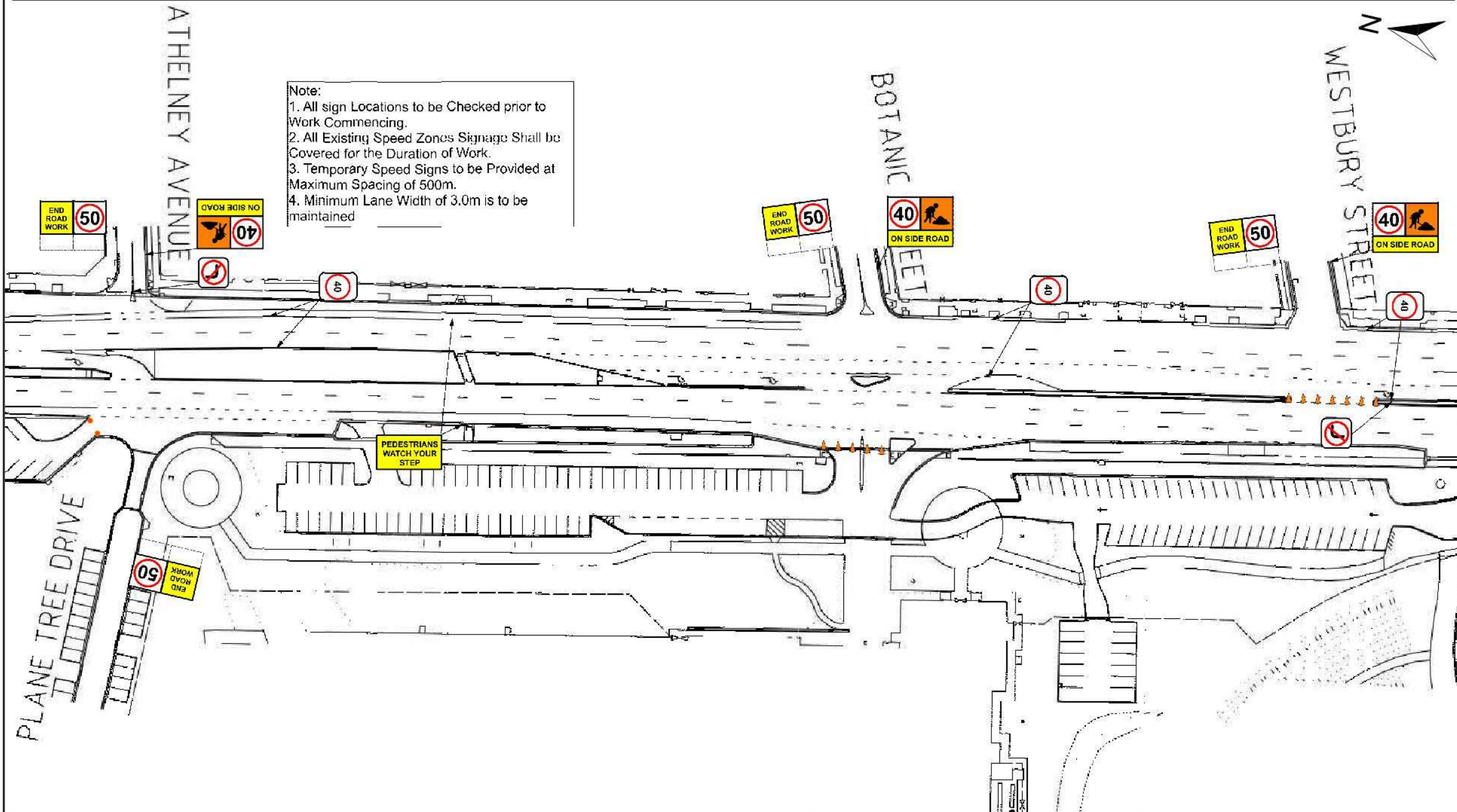
Note:
 1. All sign Locations to be Checked prior to Work Commencing.
 2. All Existing Speed Zones Signage Shall be Covered for the Duration of Work.
 3. Temporary Speed Signs to be Provided at Maximum Spacing of 500m.
 4. Minimum Lane Width of 3.0m is to be maintained

| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |

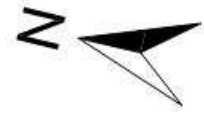


| | |
|---------------|---|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: MARTIN REID DEPARTMENT: TRANSPORT DEPARTMENT |

| | |
|---------------|-------------------------------------|
| DRAWING TITLE | PERMANENT TRAFFIC MANAGEMENT SITE 3 |
| SCALE | A3 SHEET = NOT TO SCALE |
| DRAWING NO. | 0020-TR-2017 |

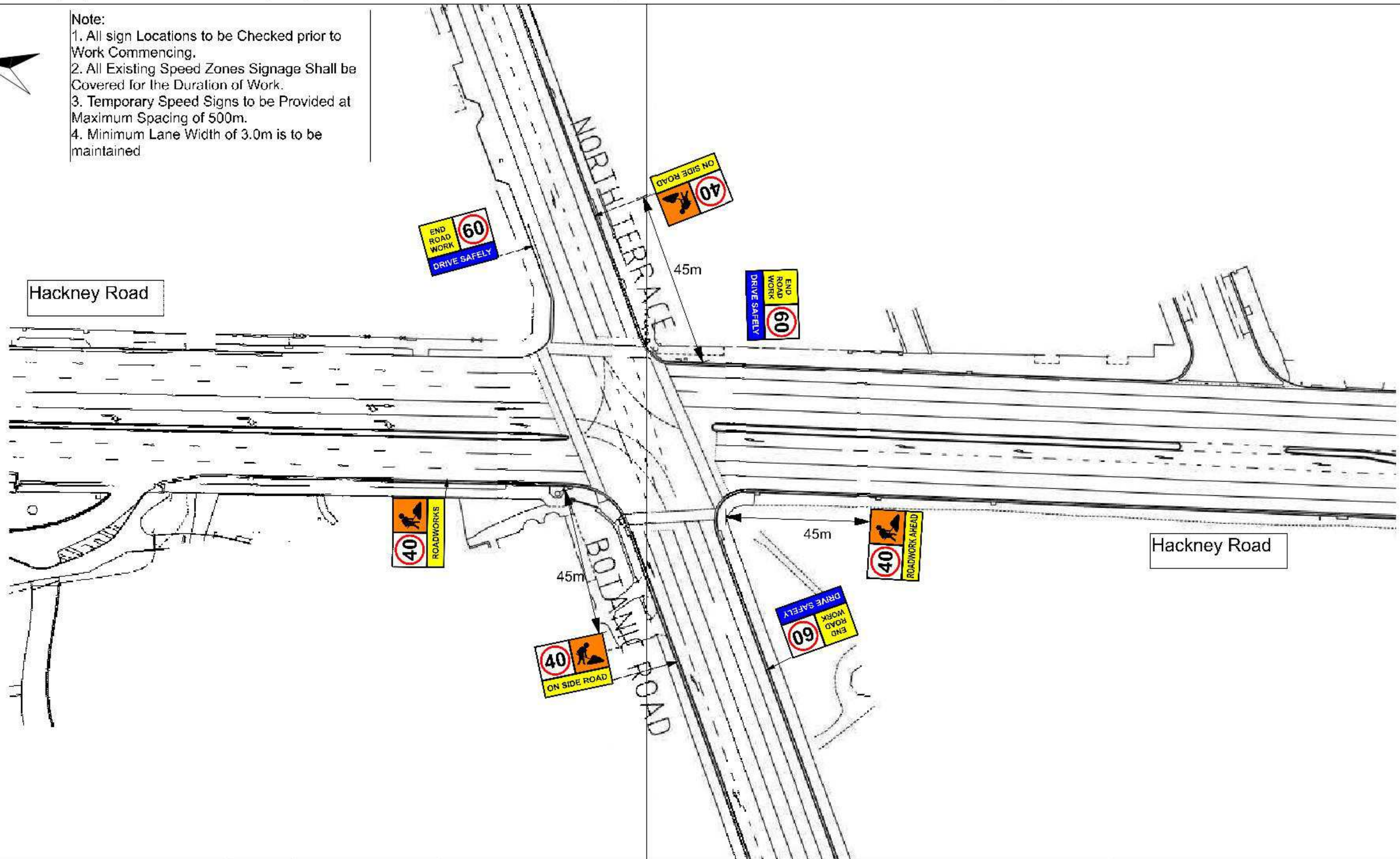


| | | | | | |
|--|---------------------|----------|--|---|-------------------------------------|
| Issue No | Purpose | Date |   | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | O-BAHN CITY ACCESS UPGRADE | PERMANENT TRAFFIC MANAGEMENT SITE 4 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | SITE ADDRESS | SCALE |
| | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = NOT TO SCALE |
| | | | | DRAWING INFO | DRAWING NO. |
| | | | | DRAWN BY: MARTIN REID DEPARTMENT: TRANSPORT DEPARTMENT | 0021-TR-2017 |

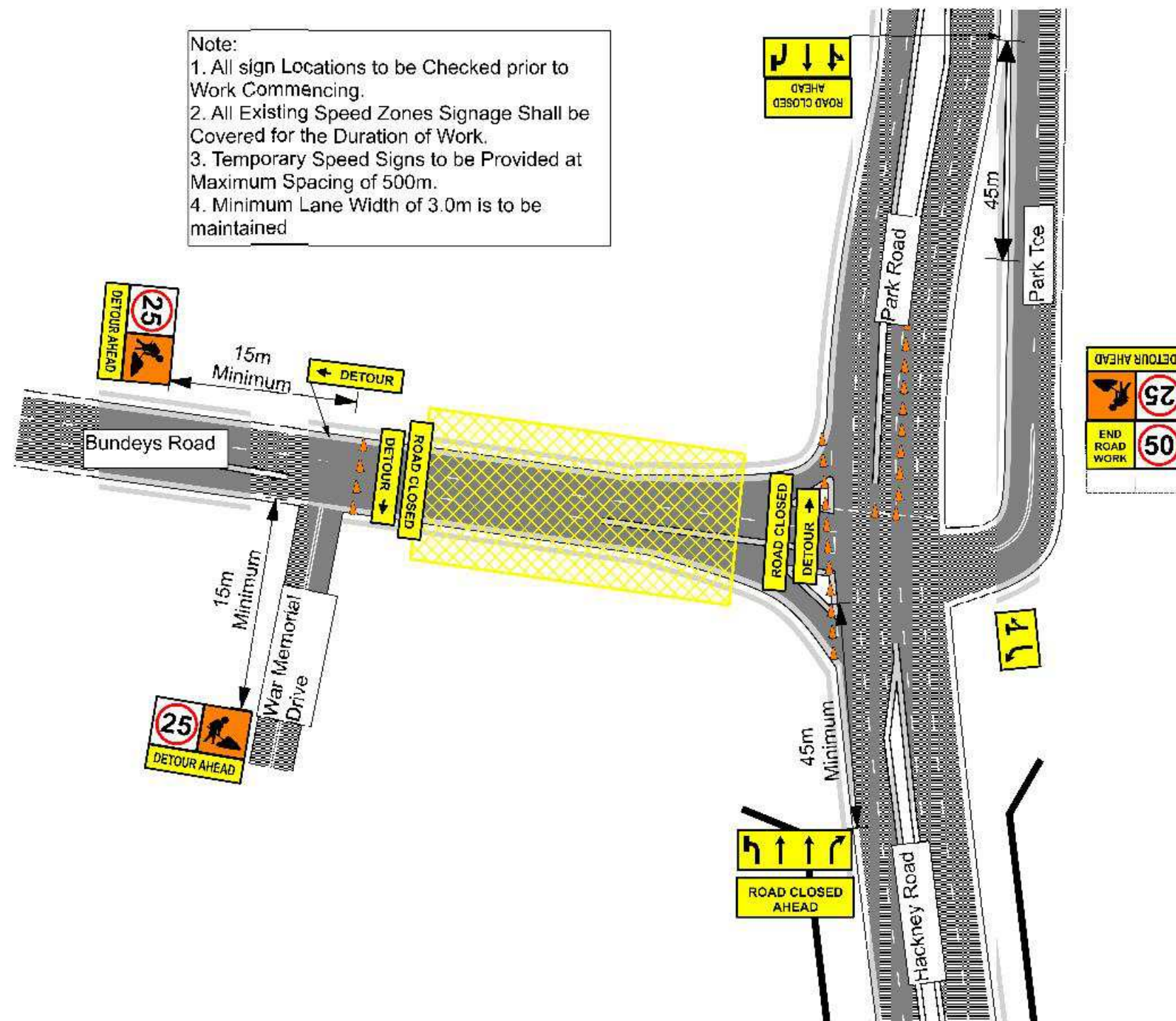


Note:

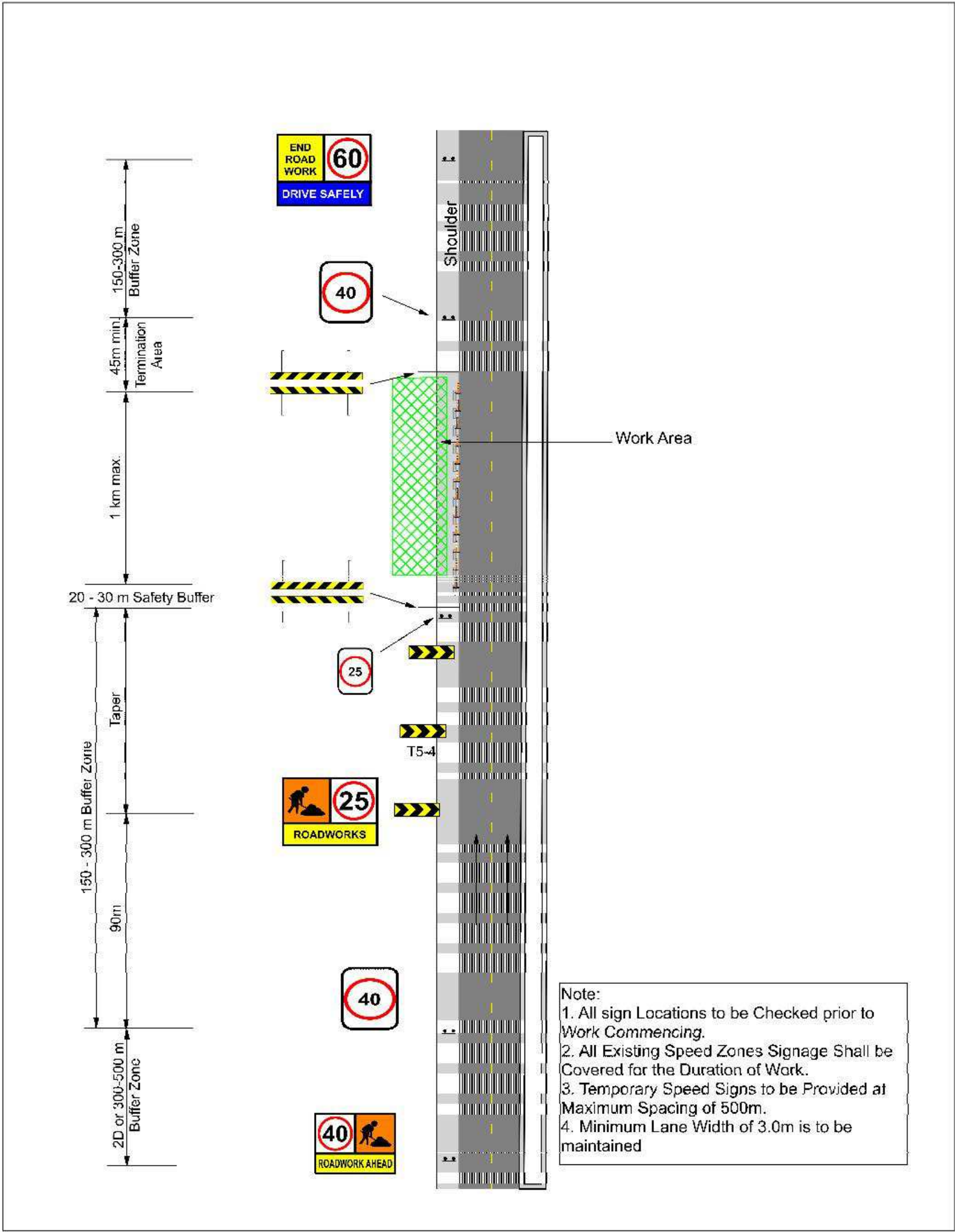
1. All sign Locations to be Checked prior to Work Commencing.
2. All Existing Speed Zones Signage Shall be Covered for the Duration of Work.
3. Temporary Speed Signs to be Provided at Maximum Spacing of 500m.
4. Minimum Lane Width of 3.0m is to be maintained



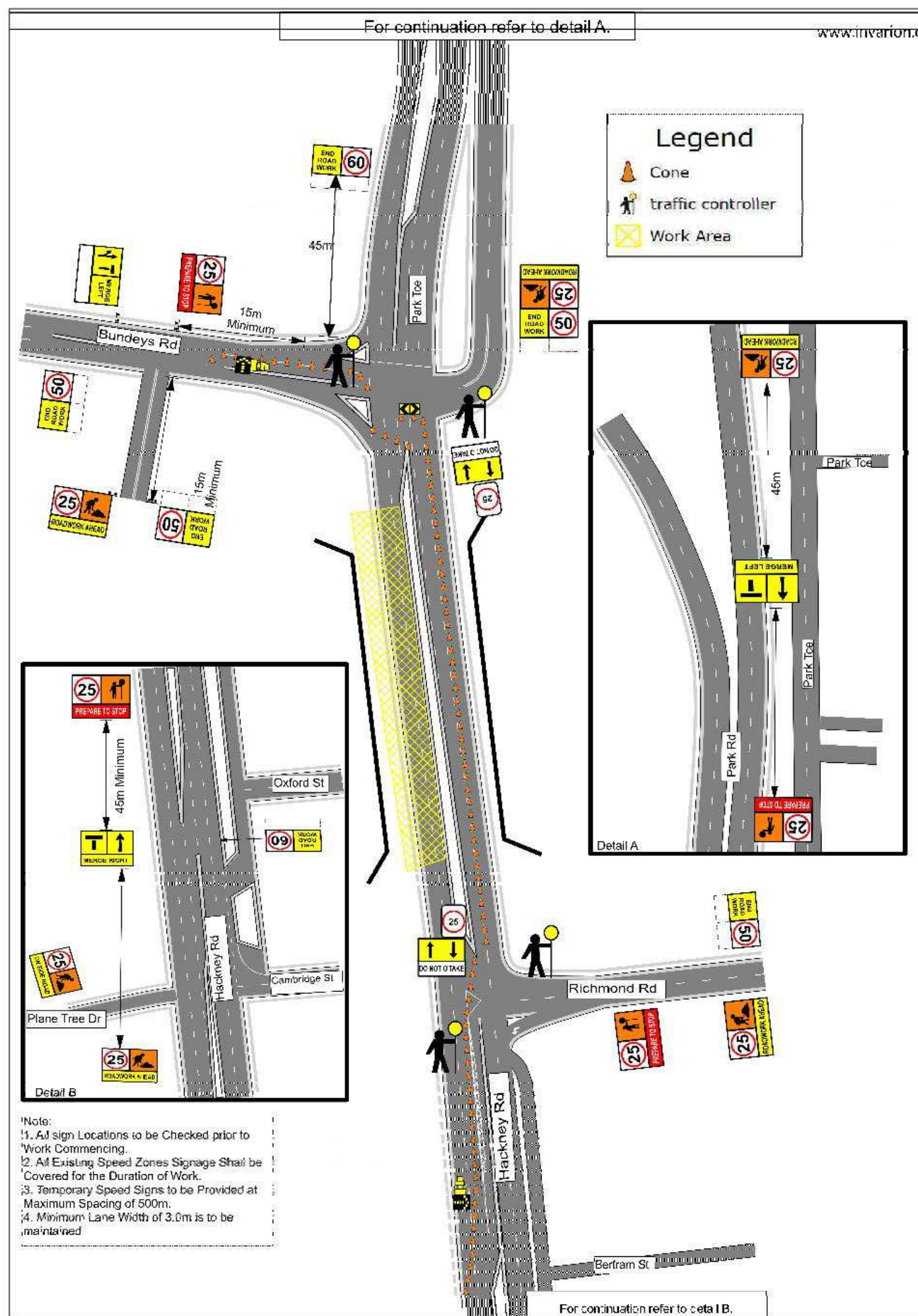
| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | PERMANENT TRAFFIC MANAGEMENT SITE 5 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = NOT TO SCALE | |
| | | | DRAWN BY: MARTIN REID DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. | 0022-TR-2017 | |



| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SHEET PILING ON BUNDEYS ROAD |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | |
| | | | DRAWING INFO | SCALE | A3 SHEET = NOT TO SCALE | |
| | | | DRAWN BY: MARTIN REID DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. | 0023-TR-2017 | |

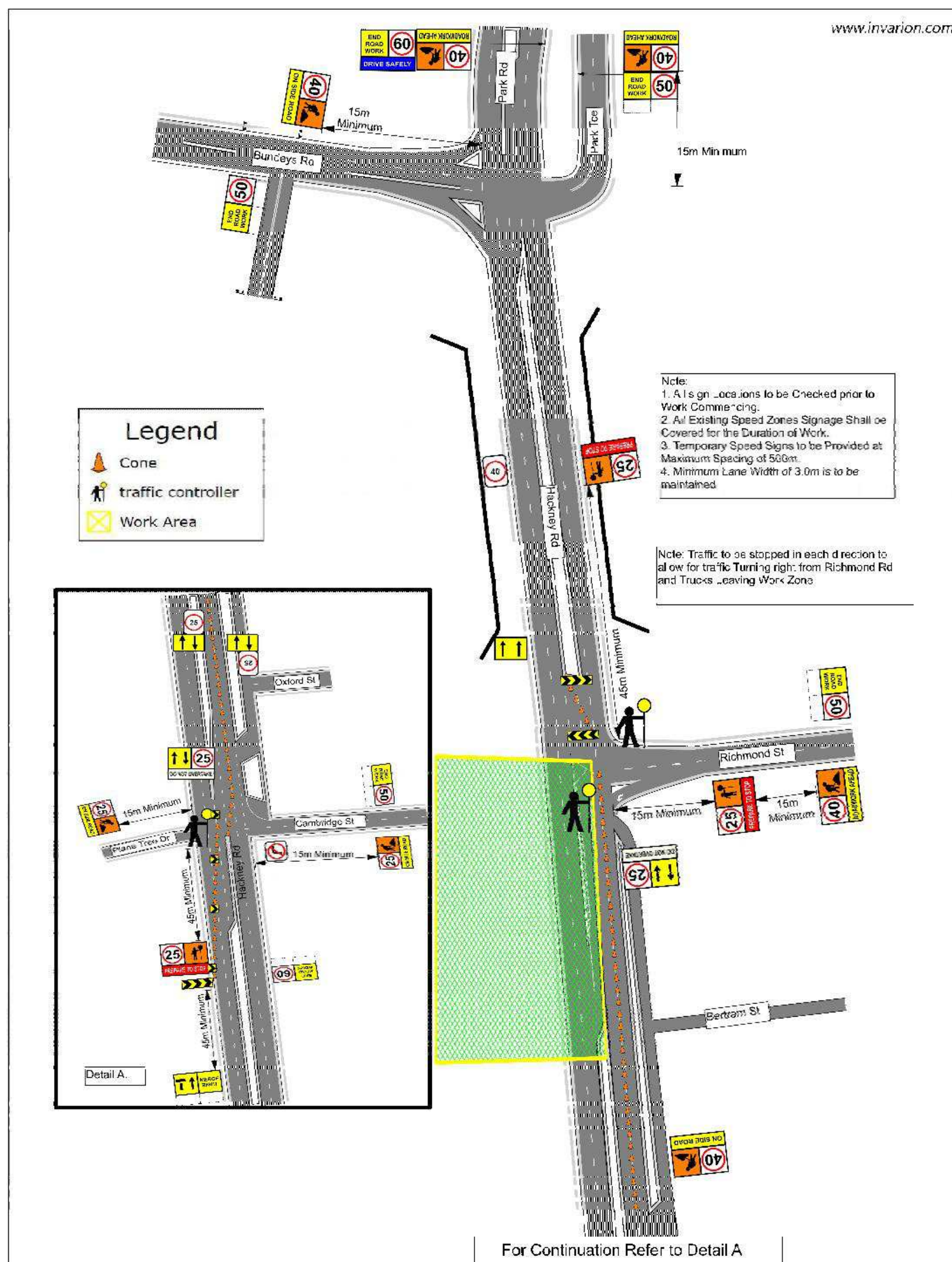


| | | | | |
|--|---------------------|----------|----------------------------------|-------------------------|
| Issue No | Purpose | Date | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | O-BAHN CITY ACCESS UPGRADE | HACKNEY ROAD WIDENING |
| | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE |
| | | | DRAWN BY: MARTIN REID | A3 SHEET = NOT TO SCALE |
| | | | DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | 0024-TR-2017 |

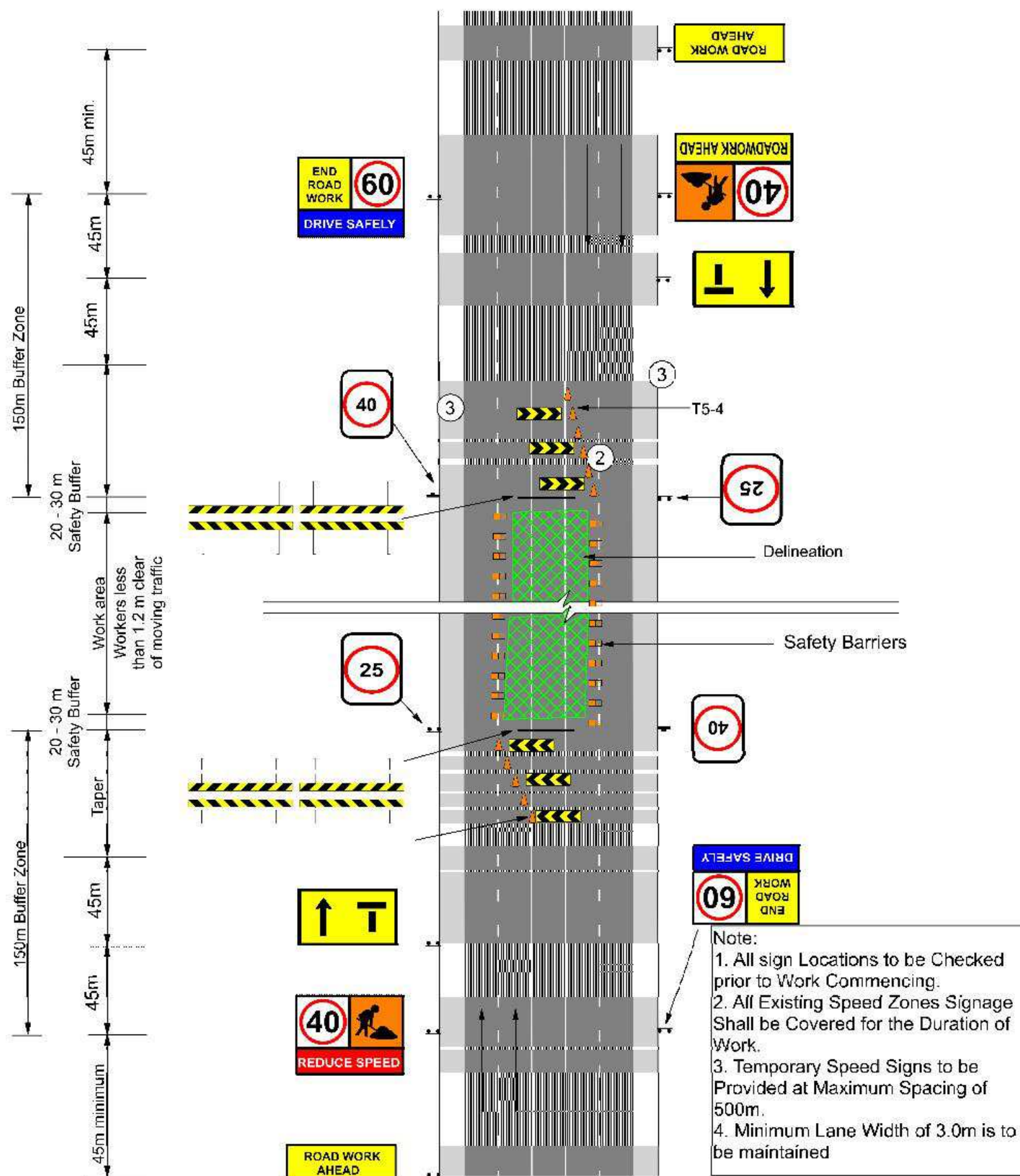


| Issue No | Purpose | Date | CONTRACT NAME | DRAWING TITLE |
|----------|---------------------|----------|----------------------------------|-------------------------|
| A | FOR CLIENT APPROVAL | 08/06/17 | O-BAHN CITY ACCESS UPGRADE | WESTERN BRIDGE CLOSURE |
| | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE |
| | | | DRAWN BY: MARTIN REID | A3 SHEET = NOT TO SCALE |
| | | | DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. |
| | | | | 0025-TR-2017 |

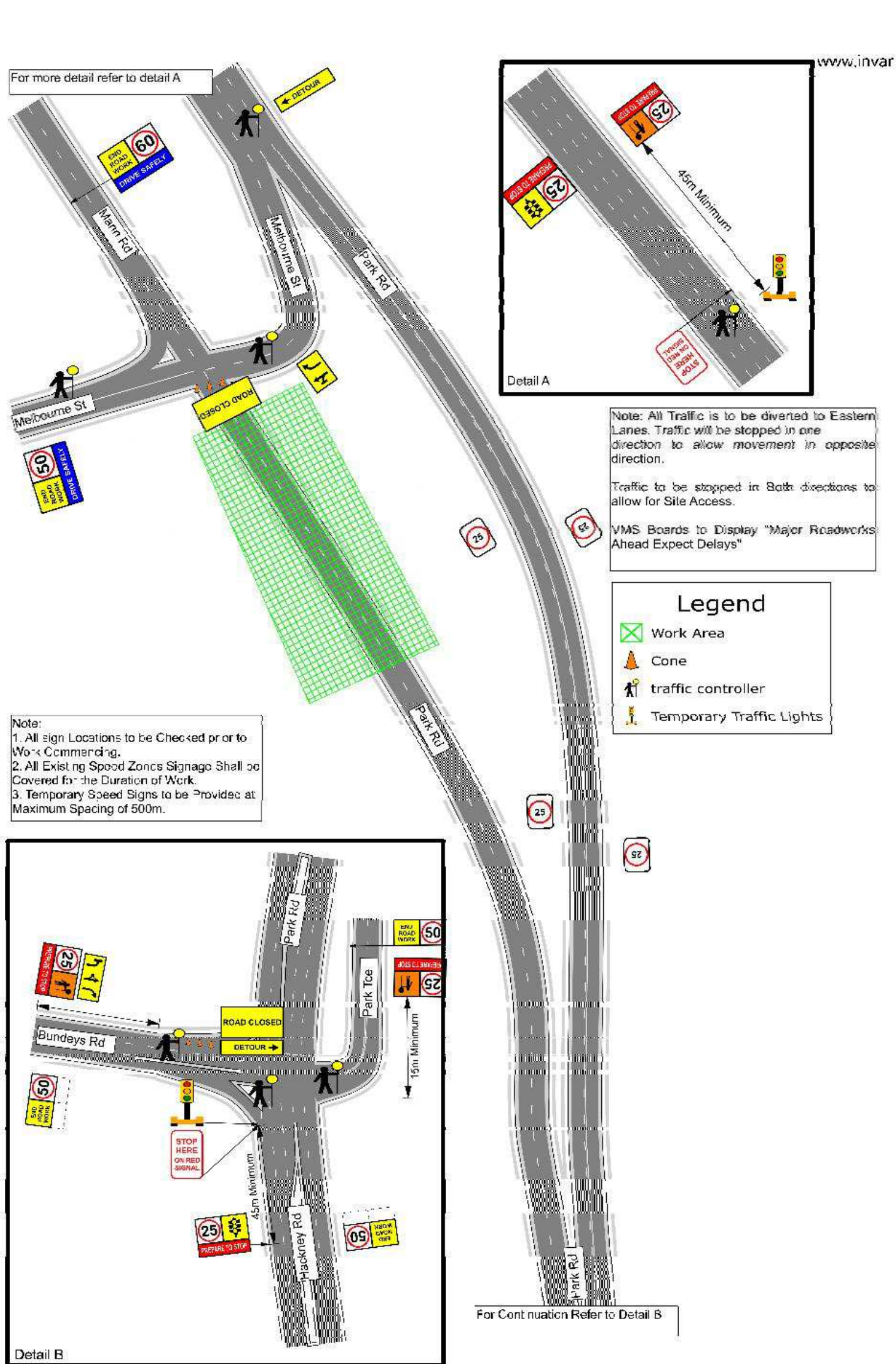
This document has been developed by students from the University of South Australia as part of the Civil Engineering Design Project course. This document and any associated works relating to it is for the purposes of academic study only and does not represent the views or opinions of the end client, (Department of Planning Transport and Infrastructure (DPTI))



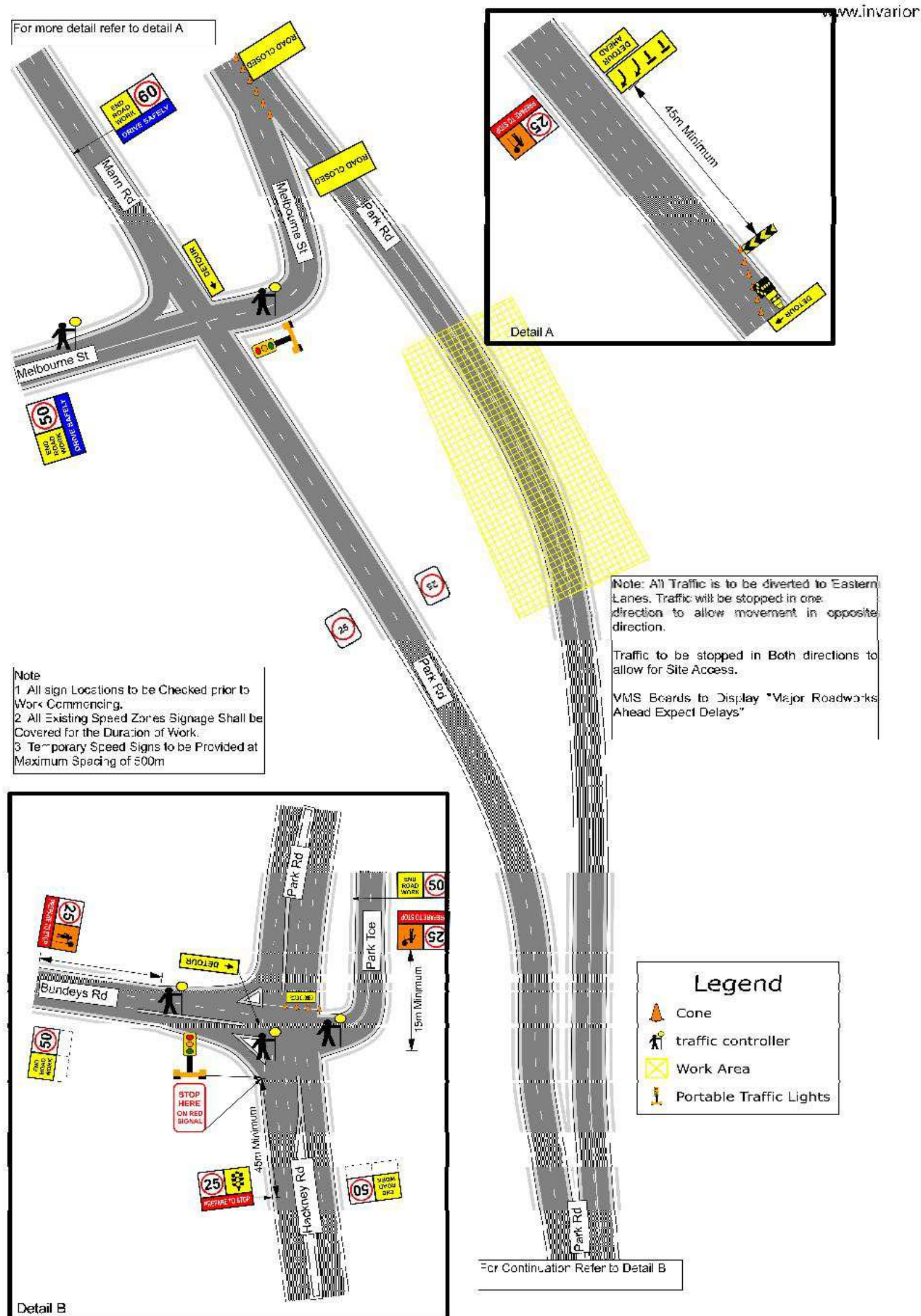
| | | | | |
|--|---------------------|----------|----------------------------------|------------------------------|
| Issue No | Purpose | Date | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | O-BAHN CITY ACCESS UPGRADE | TUNNEL ENTRANCE CONSTRUCTION |
| | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE |
| | | | DRAWN BY: MARTIN REID | A3 SHEET = NOT TO SCALE |
| | | | DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | 0026-TR-2017 |



| Issue No | Purpose | Date | CONTRACT NAME | DRAWING TITLE |
|----------|---------------------|----------|----------------------------------|----------------------------|
| A | FOR CLIENT APPROVAL | 08/06/17 | O-BAHN CITY ACCESS UPGRADE | DEDICATED BUS LANE |
| | | | SITE ADDRESS | CONSTRUCTION- CENTRE LANES |
| | | | HACKNEY ROAD, ADELAIDE SA | CLOSED |
| | | | DRAWING INFO | SCALE |
| | | | DRAWN BY: MARTIN REID | A3 SHEET = NOT TO SCALE |
| | | | DEPARTMENT: TRANSPORT DEPARTMENT | DRAWING NO. |
| | | | | 0027-TR-2017 |

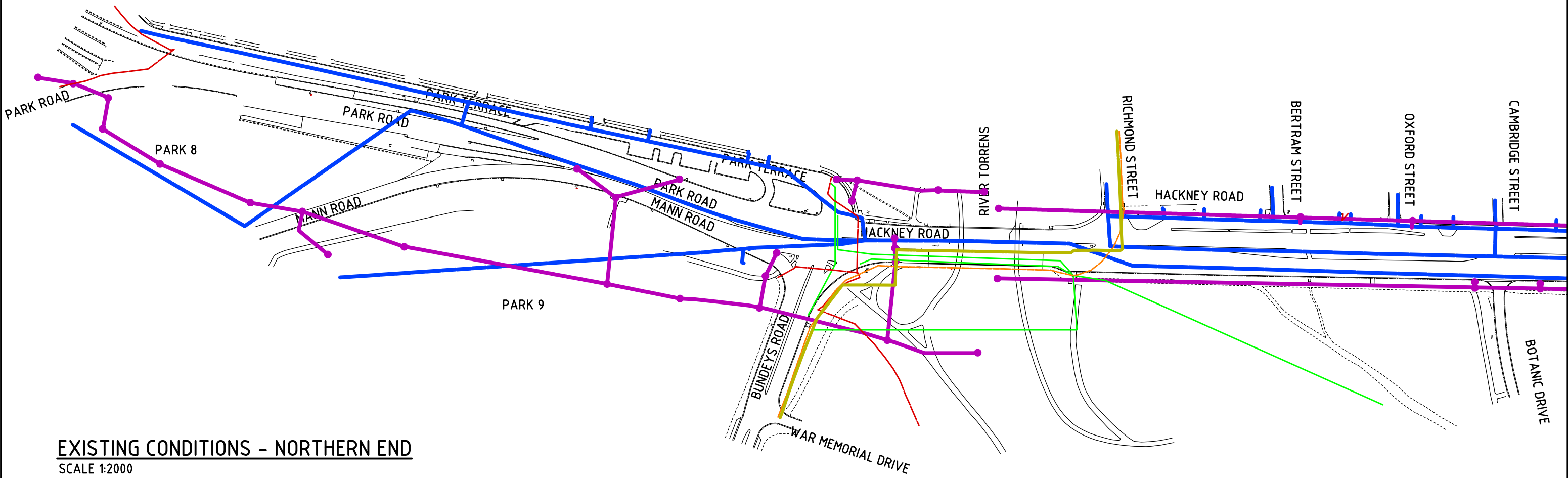
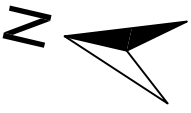


| Issue No | Purpose | Date | CONTRACT NAME | DRAWING TITLE |
|--|---------------------|----------|---|---------------------------------------|
| A | FOR CLIENT APPROVAL | 08/06/17 | O-BAHN CITY ACCESS UPGRADE | SHEET PILING ON PARK ROAD OUTBOUND |
| | | | SITE ADDRESS HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO DRAWN BY: MARTIN REID DEPARTMENT: TRANSPORT DEPARTMENT | SCALE A3 SHEET = NOT TO SCALE |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | DRAWING NO.: | 0028-TR-2017 |



| Issue No | Purpose | Date | CONTRACT NAME | DRAWING TITLE |
|--|---------------------|----------|----------------------------------|-----------------------------------|
| A | FOR CLIENT APPROVAL | 08/06/17 | O-BAHN CITY ACCESS UPGRADE | SHEET PILING ON PARK ROAD INBOUND |
| | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | |
| | | | DRAWN BY: MARTIN REID | SCALE |
| | | | DEPARTMENT: TRANSPORT DEPARTMENT | A3 SHEET = NOT TO SCALE |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | DRAWING NO. |
| | | | | 0029-TR-2017 |

VEGETATION OMITTED FOR CLARITY

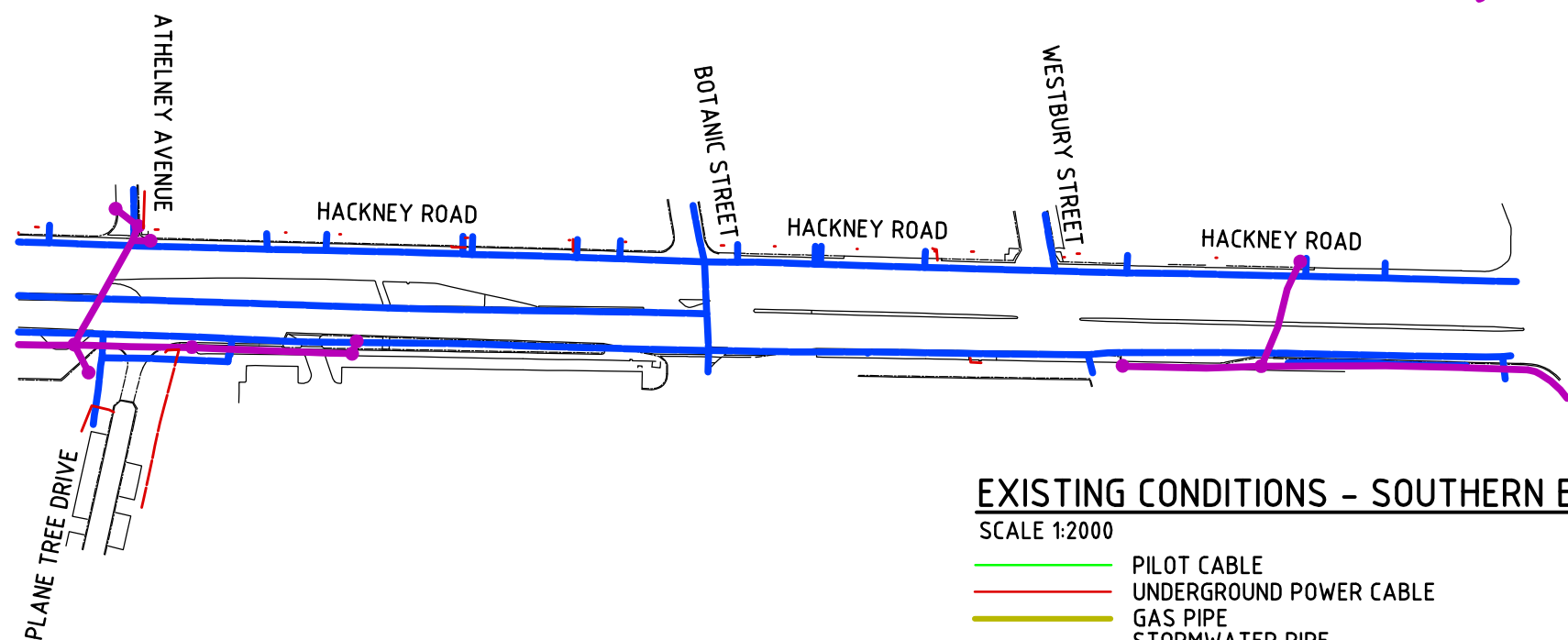
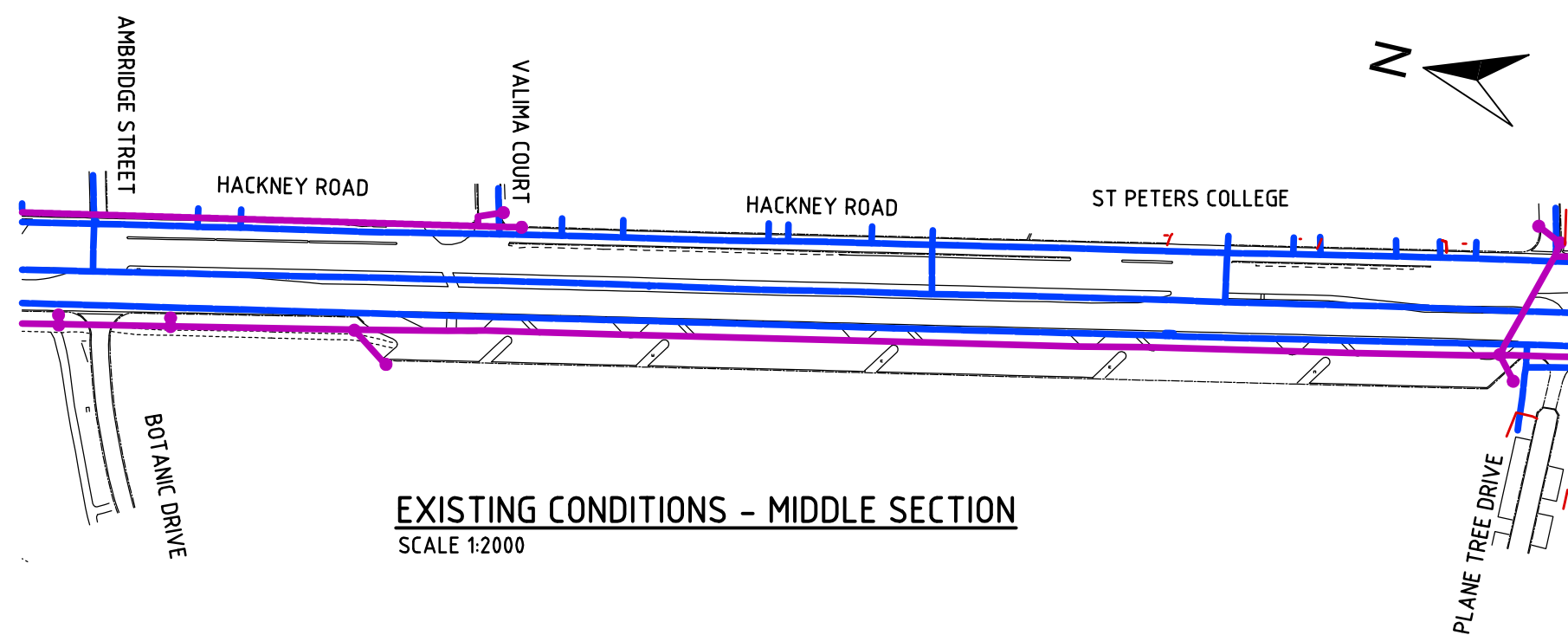


EXISTING CONDITIONS - NORTHERN END
SCALE 1:2000

- PILOT CABLE
- UNDERGROUND POWER CABLE
- GAS PIPE
- STORMWATER PIPE
- NBN CABLE
- MAINS WATER PIPE

| | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|----------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | EXISTING CONDITIONS NORTHERN END |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWN BY: HARRIS TSIMIKLIS DEPARTMENT: WATER AND SERVICES | DRAWING NO. | 0001-WS-2017 | |

VEGETATION OMITTED FOR CLARITY



EXISTING CONDITIONS - SOUTHERN END

SCALE 1:2000

- PILOT CABLE
- UNDERGROUND POWER CABLE
- GAS PIPE
- STORMWATER PIPE
- NBN CABLE
- MAINS WATER PIPE

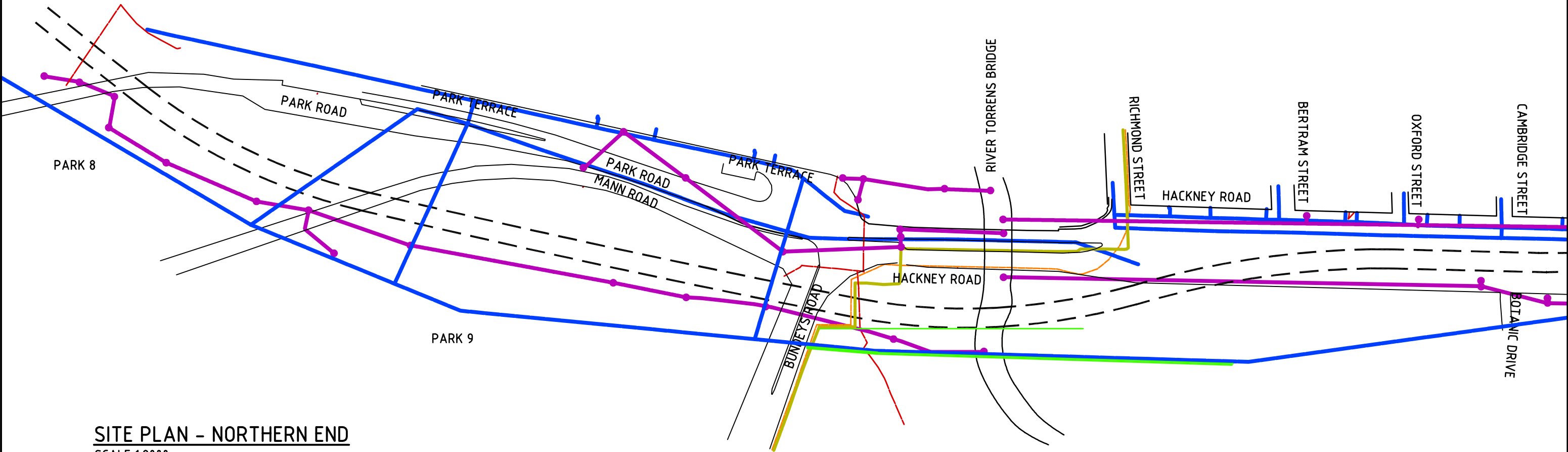
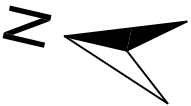
| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



| | |
|---------------|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: HARRIS TSIMIKLIS DEPARTMENT: WATER AND SERVICES |

| | |
|---------------|----------------------------------|
| DRAWING TITLE | EXISTING CONDITIONS SOUTHERN END |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0002-WS-2017 |

VEGETATION OMITTED FOR CLARITY



SITE PLAN - NORTHERN END

SCALE 1:2000

- PILOT CABLE
- UNDERGROUND POWER CABLE
- GAS PIPE
- STORMWATER PIPE
- NBN CABLE
- MAINS WATER PIPE

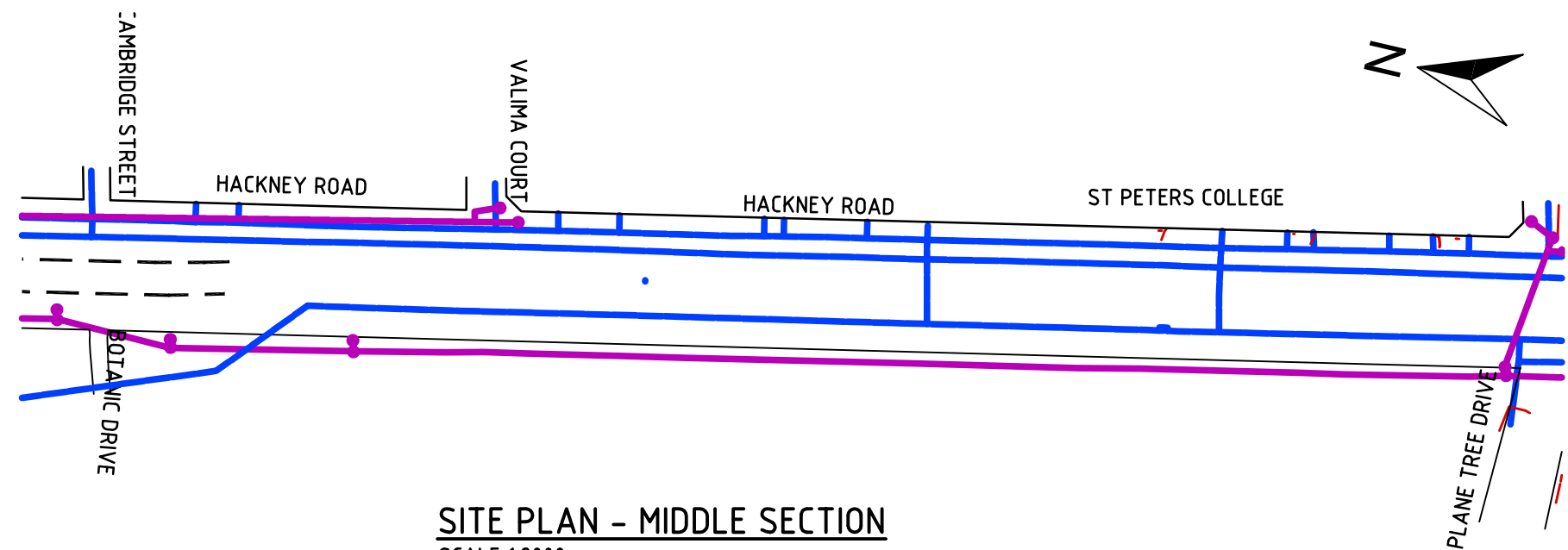
| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



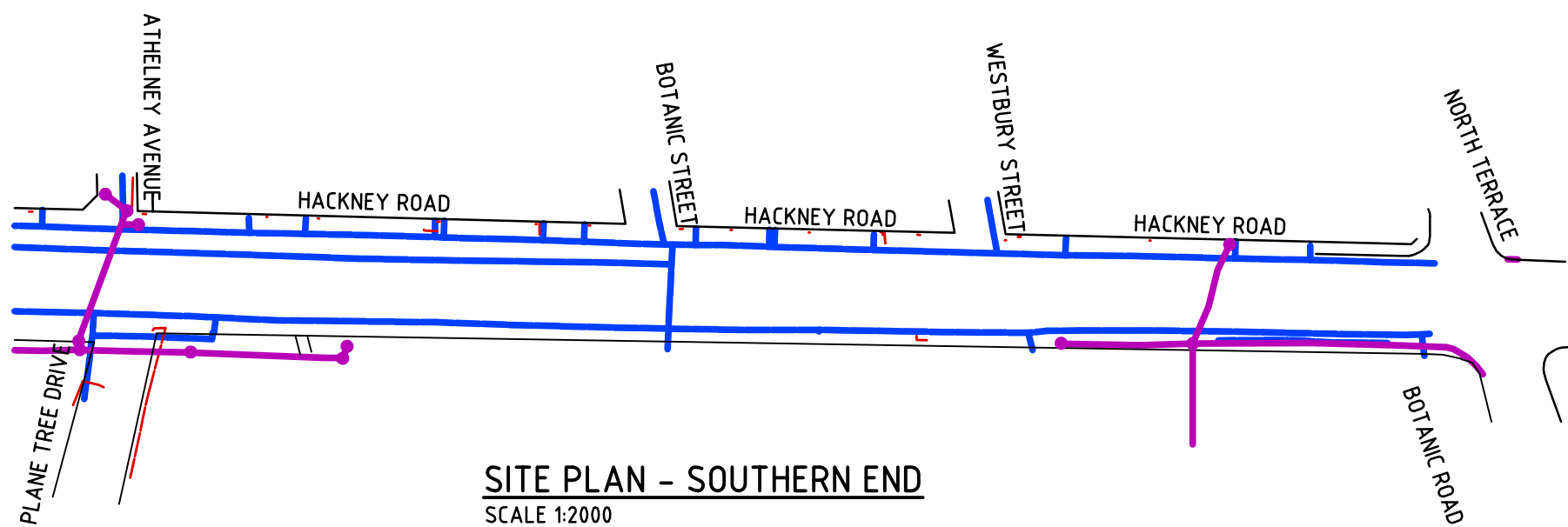
| | |
|---------------|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: HARRIS TSIMIKLIS DEPARTMENT: WATER AND SERVICES |

| | |
|---------------|-------------------------------|
| DRAWING TITLE | NEW CONDITIONS NORTHERN END |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0003-WS-2017 |

VEGETATION OMITTED FOR CLARITY



SITE PLAN - MIDDLE SECTION
SCALE 1:2000



SITE PLAN - SOUTHERN END
SCALE 1:2000

- PILOT CABLE
- UNDERGROUND POWER CABLE
- GAS PIPE
- STORMWATER PIPE
- NBN CABLE
- MAINS WATER PIPE

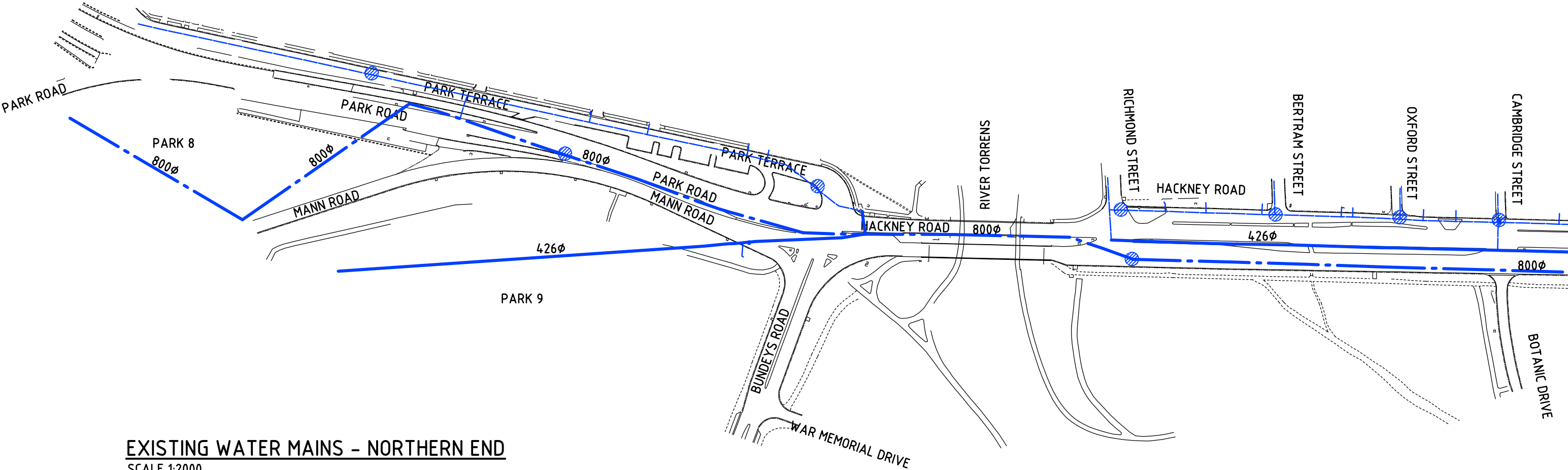
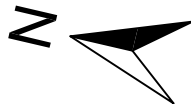
| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



| | |
|---------------|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: HARRIS TSIMIKLIS DEPARTMENT: WATER AND SERVICES |

| | |
|---------------|-------------------------------|
| DRAWING TITLE | NEW CONDITIONS SOUTHERN END |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0004-WS-2017 |

VEGETATION OMITTED FOR CLARITY



EXISTING WATER MAINS - NORTHERN END

SCALE 1:2000

- 122ø PIPE
- 426ø PIPE
- 800ø PIPE
- FIRE HYDRANT

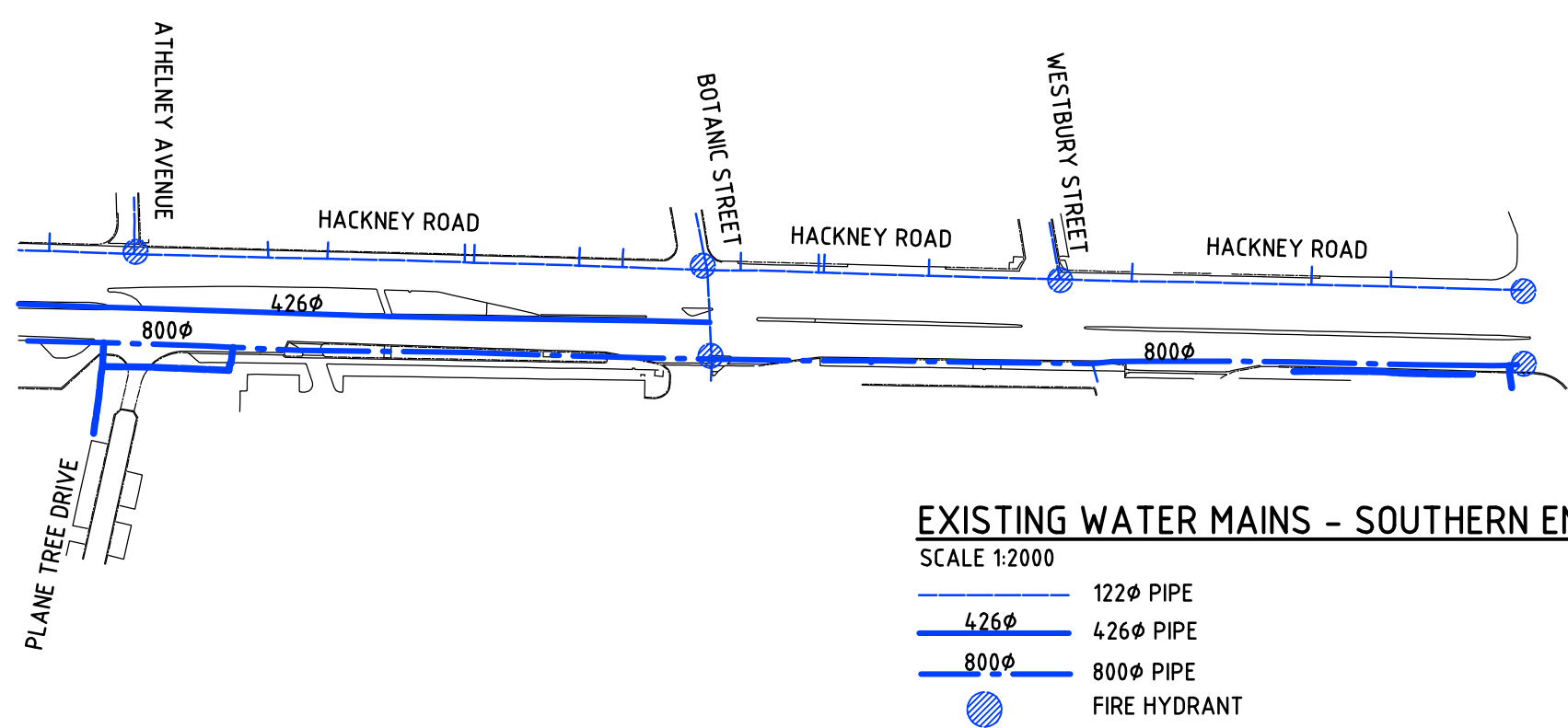
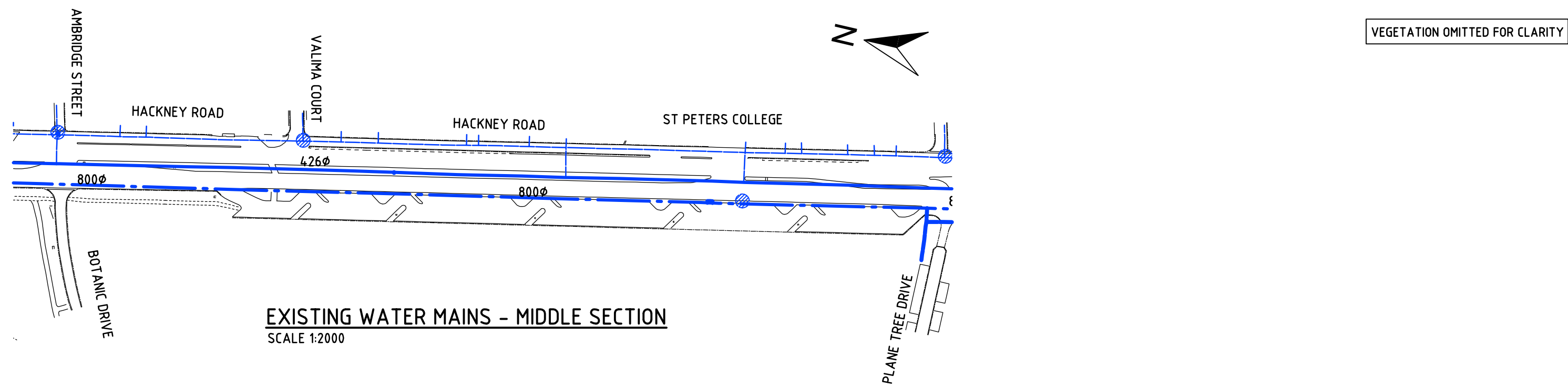
| Issue No | Purpose | Date |
|----------|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |

ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE



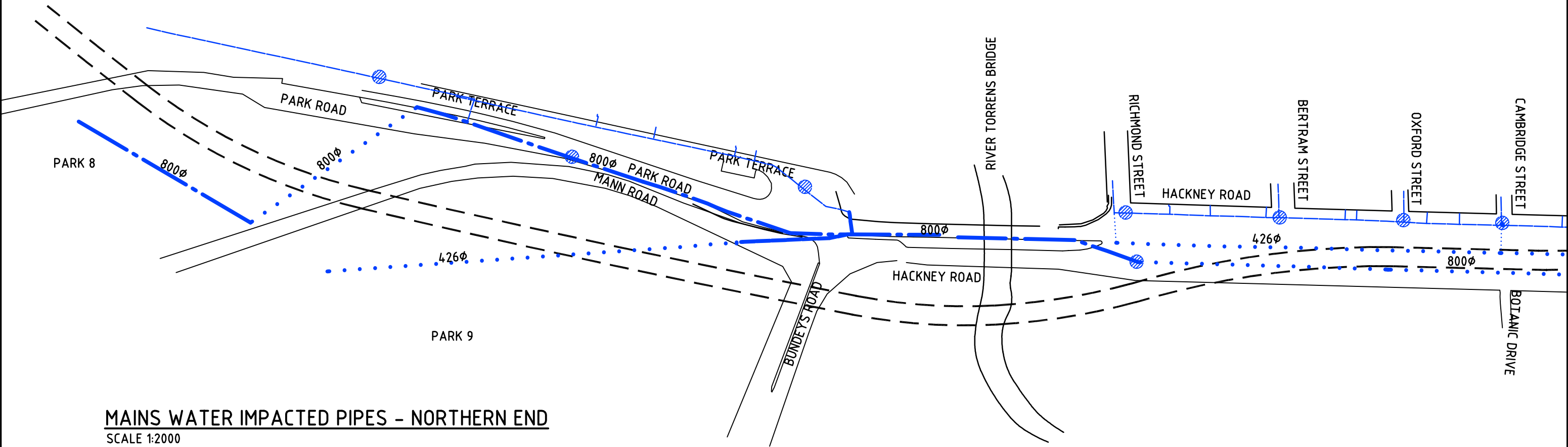
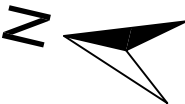
| | |
|---------------|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: MANUEL MARTINS DEPARTMENT: WATER AND SERVICES |

| | |
|---------------|--|
| DRAWING TITLE | EXISTING MAINS WATER PIPES NORTHERN END |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0005-WS-2017 |



| | | | | | | |
|----------|---------------------|----------|---|---|--------------------------------|-------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  EB Consulting | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: MANUEL MARTINS | A3 SHEET = 1:2000 OR AS SHOWN |
| | | | | | DEPARTMENT: WATER AND SERVICES | DRAWING NO. |
| | | | | | | 0006-WS-2017 |

VEGETATION OMITTED FOR CLARITY

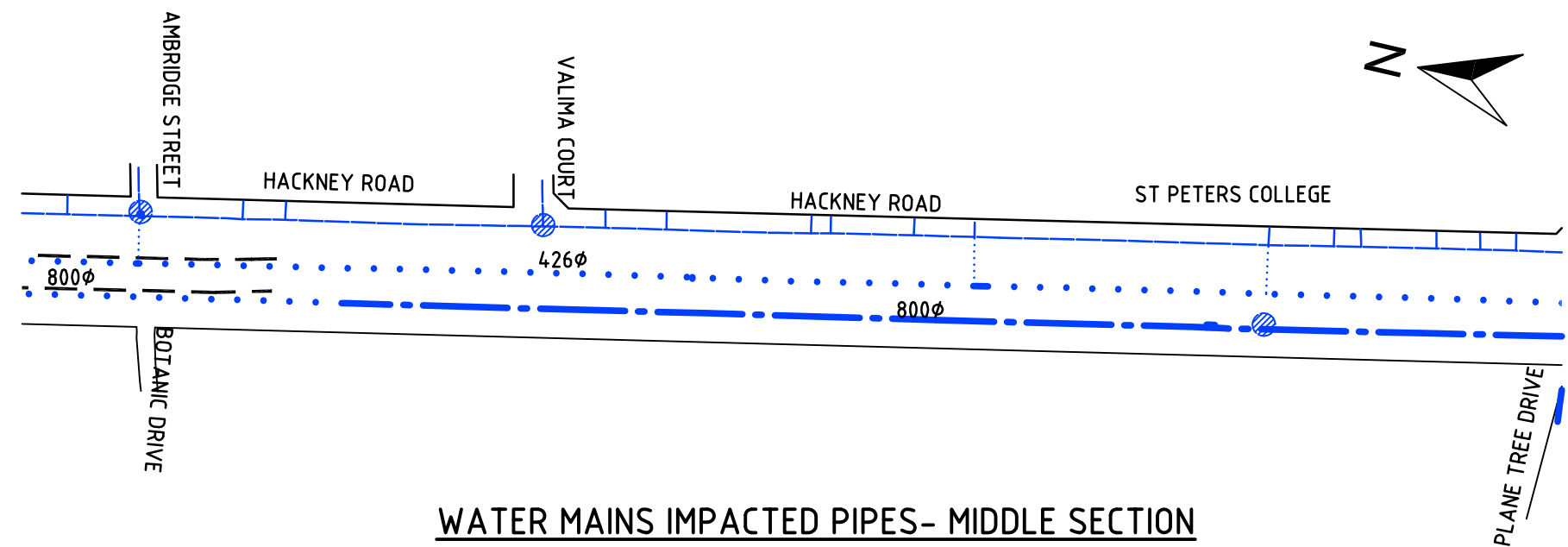


MAINS WATER IMPACTED PIPES - NORTHERN END

SCALE 1:2000

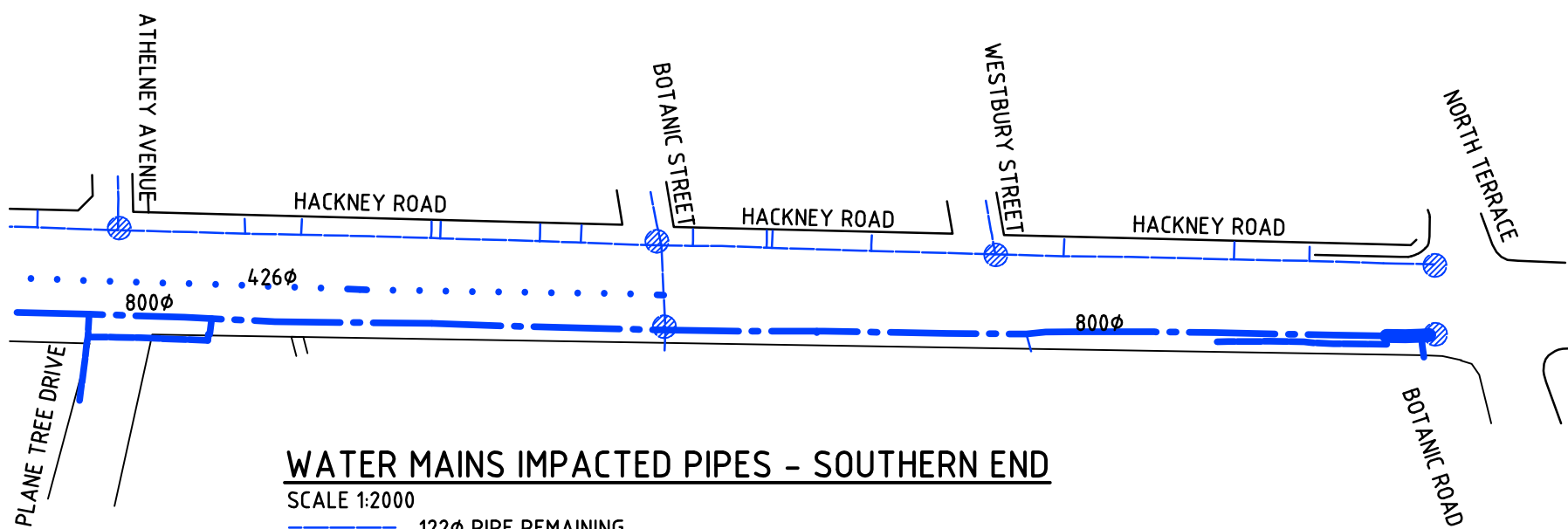
- 122φ PIPE REMAINING
- 426φ PIPE REMAINING
- 800φ PIPE REMAINING
- 426φ PIPE REMOVED
- 800φ PIPE REMOVED
- FIRE HYDRANT

| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE A3 SHEET = 1:2000 OR AS SHOWN DRAWING NO. 0007-WS-2017 |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | | | |
| | | | DRAWN BY: MANUEL MARTINS DEPARTMENT: WATER AND SERVICES | | | |



VEGETATION OMITTED FOR CLARITY

WATER MAINS IMPACTED PIPES- MIDDLE SECTION
SCALE 1:2000



WATER MAINS IMPACTED PIPES - SOUTHERN END
SCALE 1:2000

- 122mm PIPE REMAINING
- 426mm PIPE REMAINING
- 800mm PIPE REMAINING
- 426mm PIPE REMOVED
- 800mm PIPE REMOVED
- FIRE HYDRANT

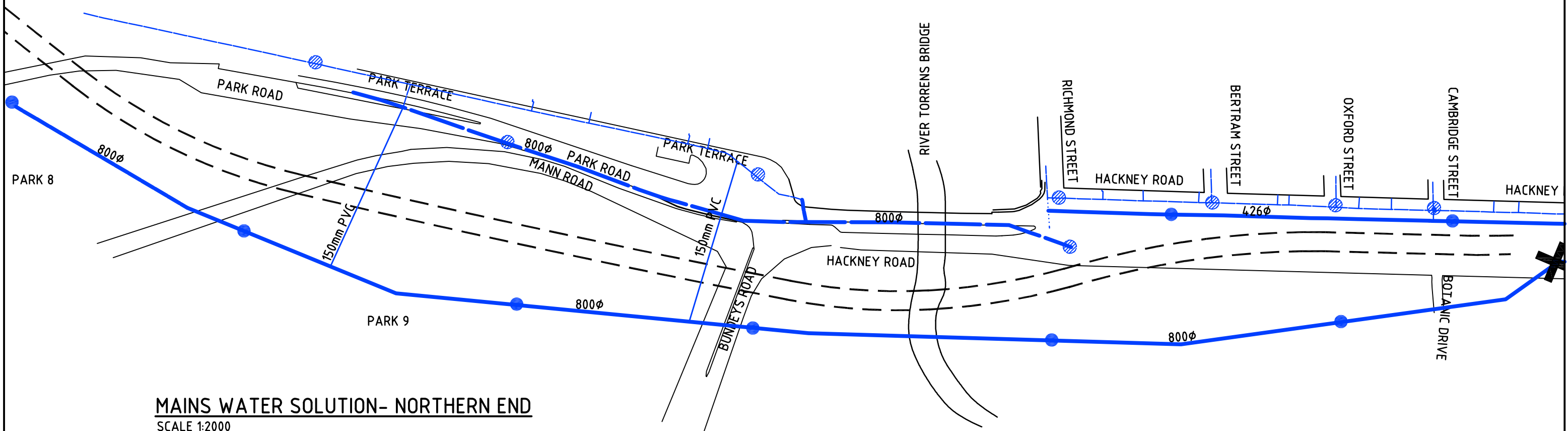
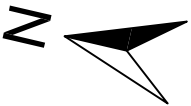
| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



| | |
|---------------|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: MANUEL MARTINS DEPARTMENT: WATER AND SERVICES |

| | |
|---------------|--|
| DRAWING TITLE | IMPACTED MAINS WATER PIPES SOUTHERN END |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0008-WS-2017 |

VEGETATION OMITTED FOR CLARITY



MAINS WATER SOLUTION- NORTHERN END
SCALE 1:2000

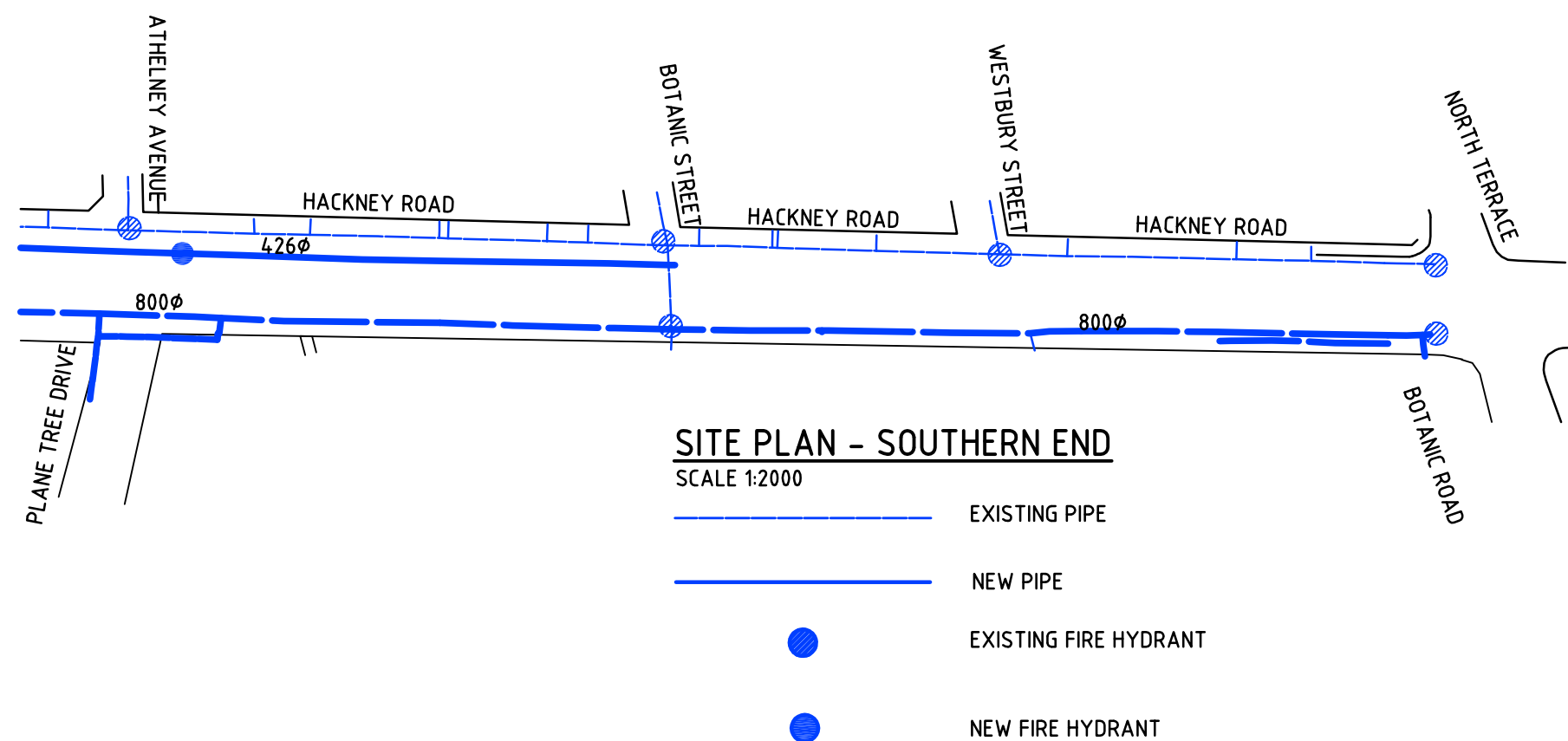
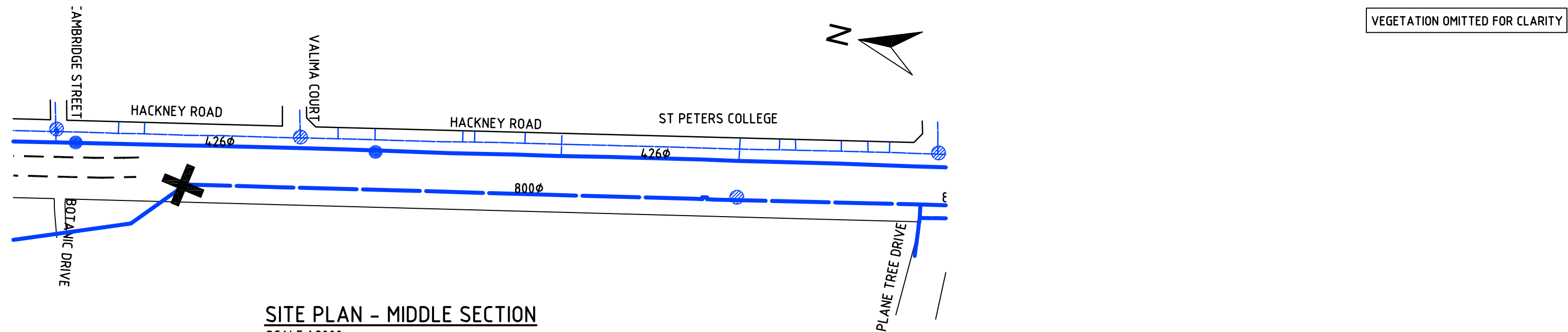
- EXISTING PIPE
- NEW PIPE
- EXISTING FIRE HYDRANT
- NEW FIRE HYDRANT
- STOP VALVE

| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



| | |
|---------------|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: MANUEL MARTINS DEPARTMENT: WATER AND SERVICES |

| | |
|---------------|--------------------------------------|
| DRAWING TITLE | MAINS WATER SOLUTION NORTHERN END |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0009-WS-2017 |

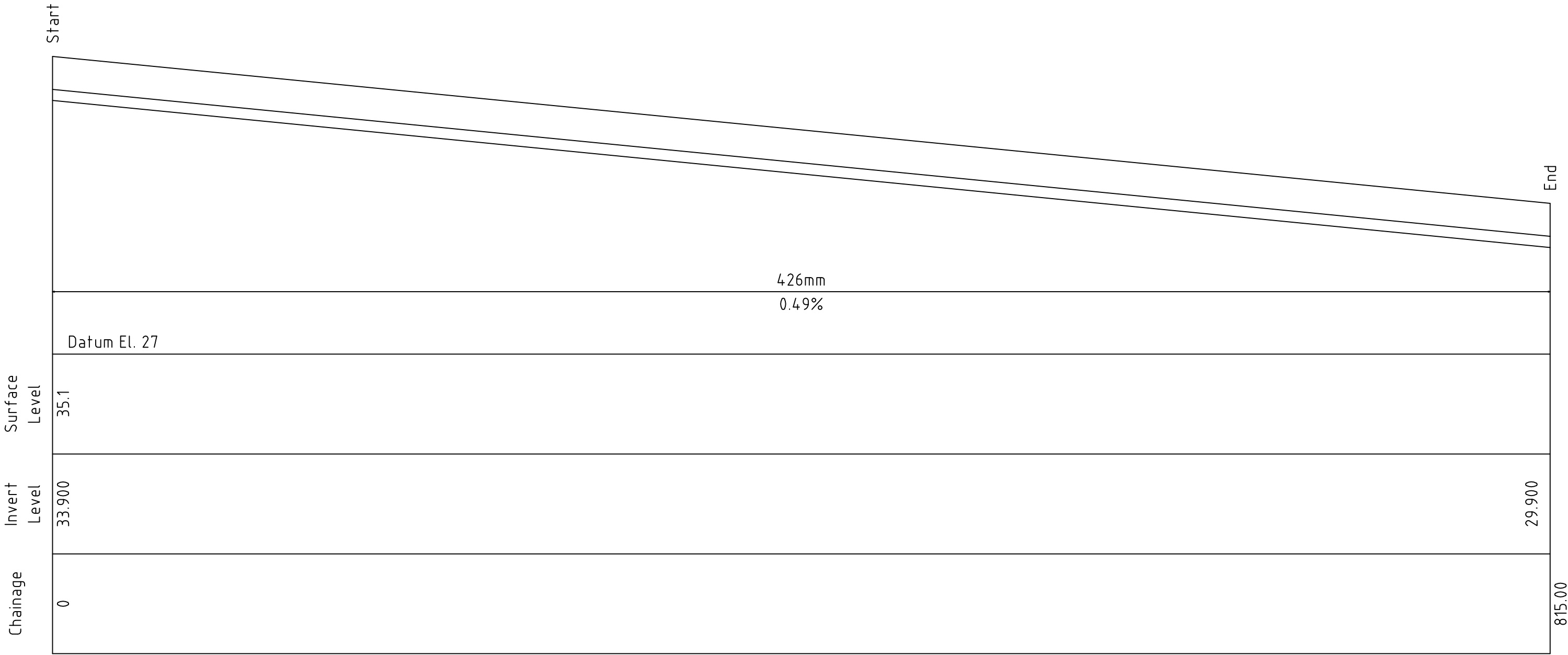


| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



| | |
|---------------|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: MANUEL MARTINS DEPARTMENT: WATER AND SERVICES |

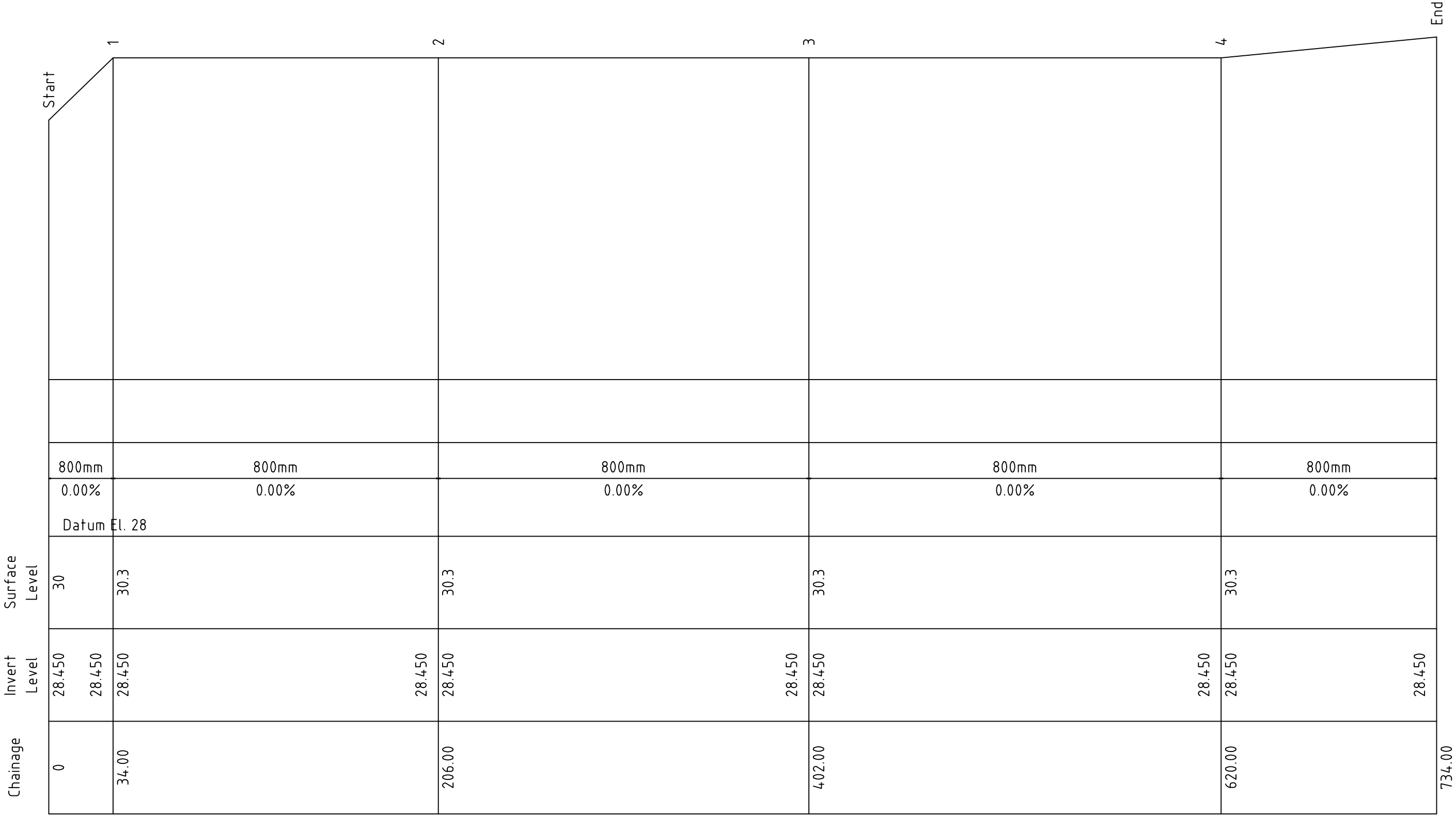
| | |
|---------------|--------------------------------------|
| DRAWING TITLE | MAINS WATER SOLUTION SOUTHERN END |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0010-WS-2017 |



426MM PIPE – LONG SECTION VIEW
SCALE N.T.S.

| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|----------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE A3 SHEET = NOT TO SCALE |
| | | | HACKNEY ROAD, ADELAIDE SA | | DRAWING NO. | |
| | | | DRAWING INFO | | 0011-WS-2017 | |
| | | | DRAWN BY: MANUEL MARTINS | | | |
| | | | DEPARTMENT: WATER AND SERVICES | | | |

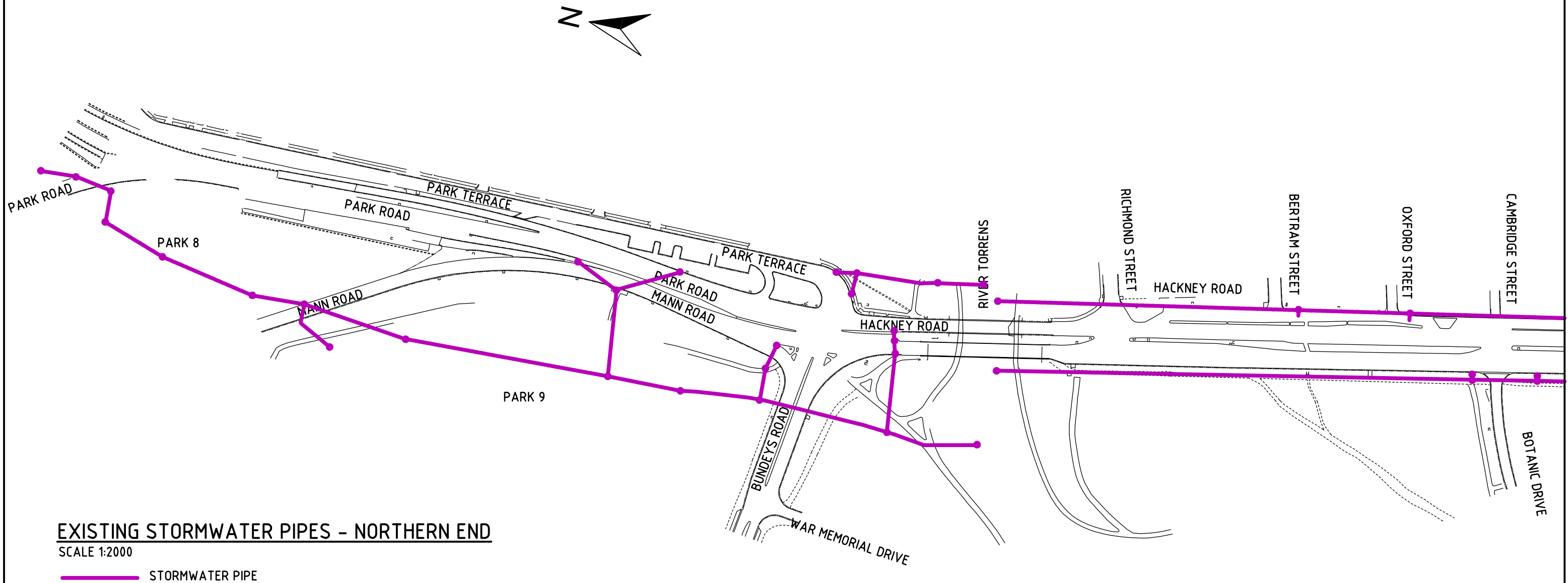
This document has been developed by students from the University of South Australia as part of the Civil Engineering Design Project course. This document and any associated works relating to it is for the purposes of academic study only and does not represent the views or opinions of the end client, (Department of Planning Transport and Infrastructure (DPTI))



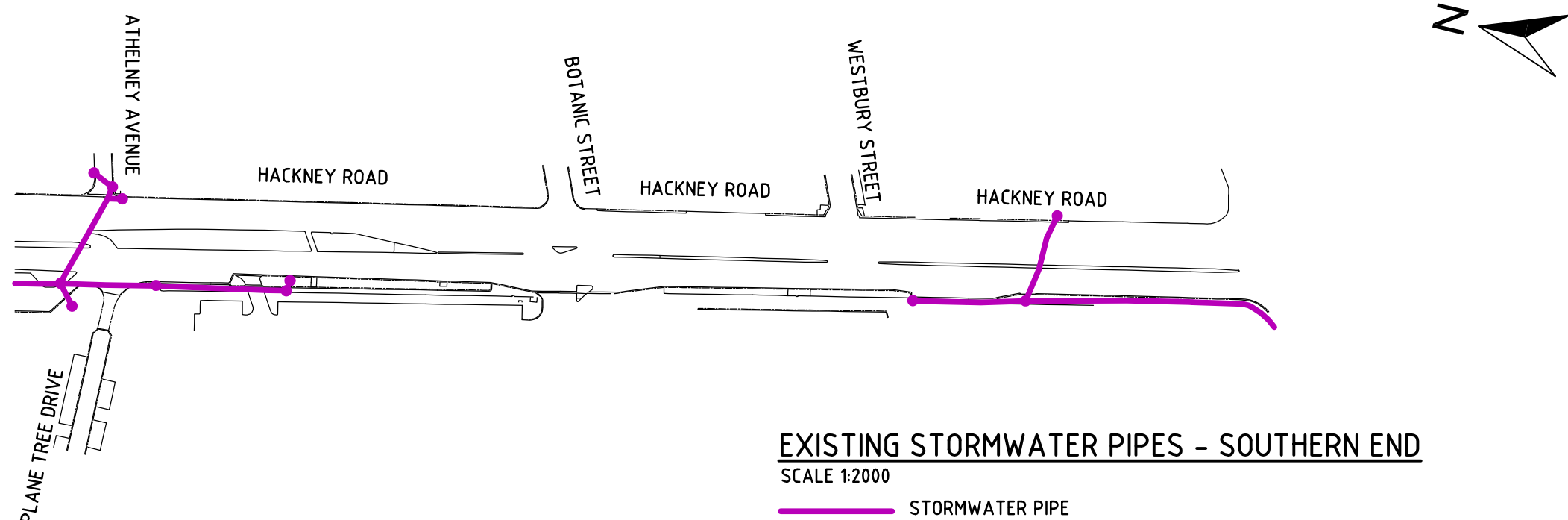
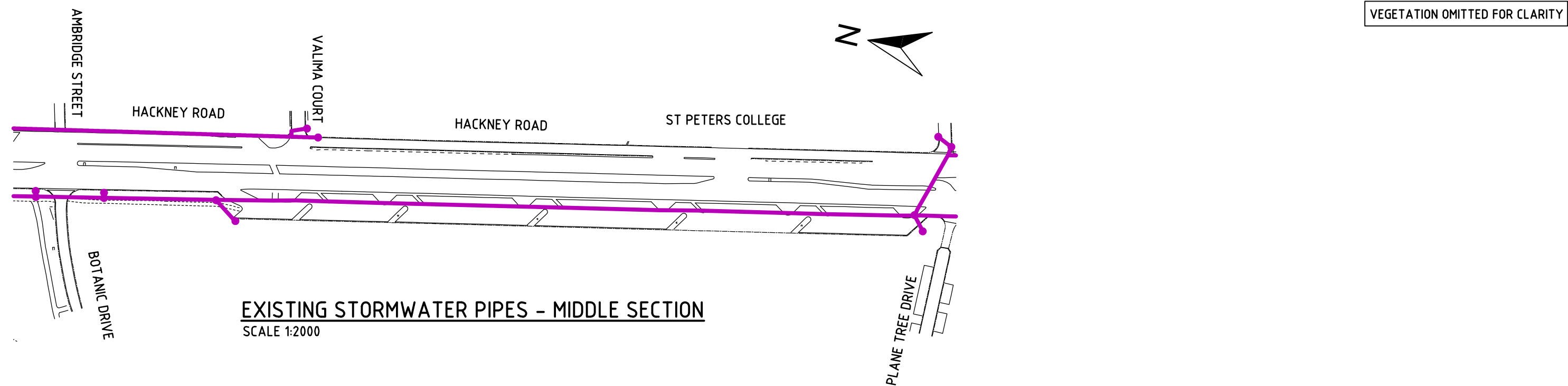
800MM PIPE - LONG SECTION VIEW
SCALE N.T.S

| | | | | | | |
|--|---------------------|----------|---|---|--|---------------------------------|
| Issue No | Purpose | Date |  |  | CONTRACT NAME | DRAWING TITLE |
| | | | | | O-BAHN CITY ACCESS UPGRADE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | SITE ADDRESS | LONG SECTION VIEW OF 800MM PIPE |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: MANUEL MARTINS DEPARTMENT: WATER AND SERVICES | A3 SHEET = NOT TO SCALE |
| | | | | | | DRAWING NO. |
| | | | | | | 0012-WS-2017 |

VEGETATION OMITTED FOR CLARITY

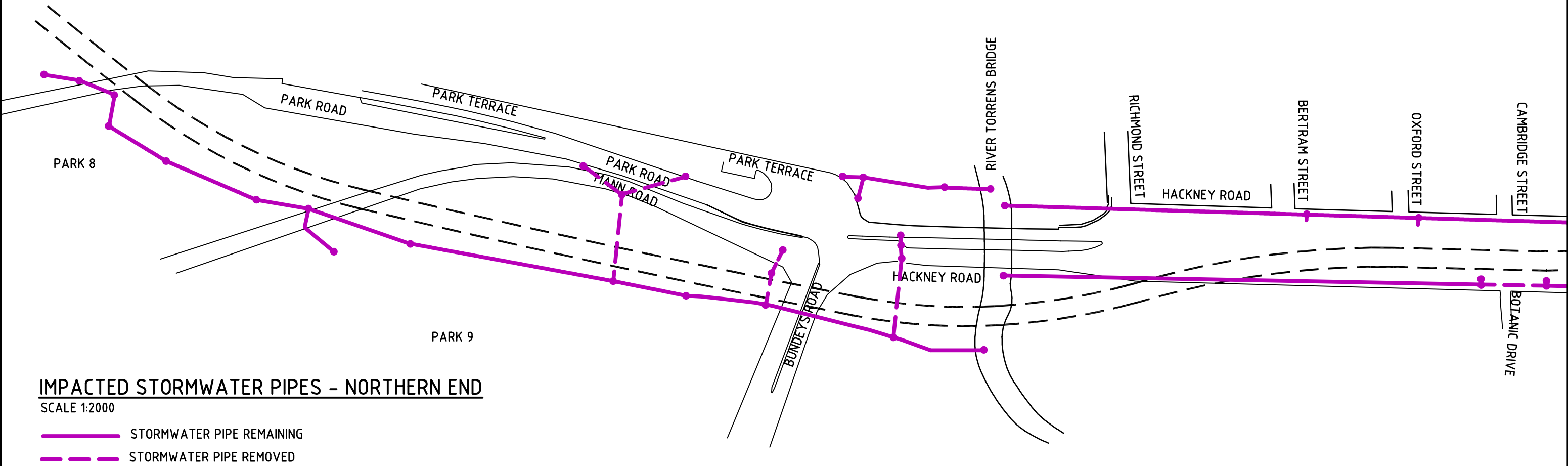
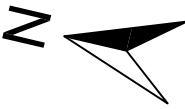


| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | EXISTING STORWATER PIPE LOACTIONS NORTHERN END | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:2000 OR AS SHOWN | | | |
| | | | DRAWING INFO | | DRAWING NO. | | |
| | | | DRAWN BY: HARRIS TSIMIKLIS DEPARTMENT: WATER AND SERVICES | | 0013-WS-2017 | | |



| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | EXISTING STORMWATER PIPE LOCATIONS SOUTHERN END | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWING INFO | DRAWING NO. | | | |
| | | | DRAWN BY: HARRIS TSIMIKLIS | 0014-WS-2017 | | | |
| | | | DEPARTMENT: WATER AND SERVICES | | | | |

VEGETATION OMITTED FOR CLARITY

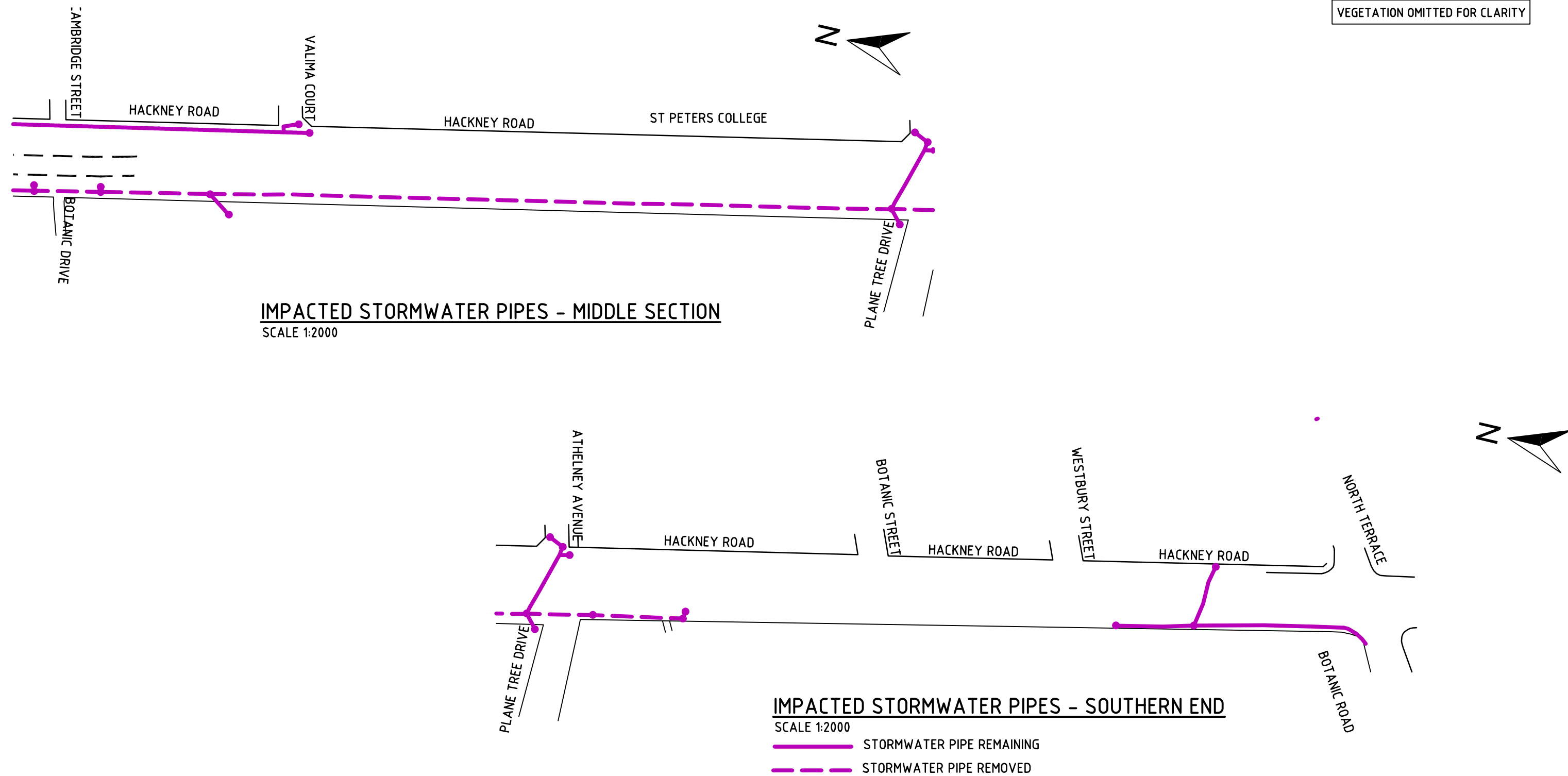


IMPACTED STORMWATER PIPES - NORTHERN END

SCALE 1:2000

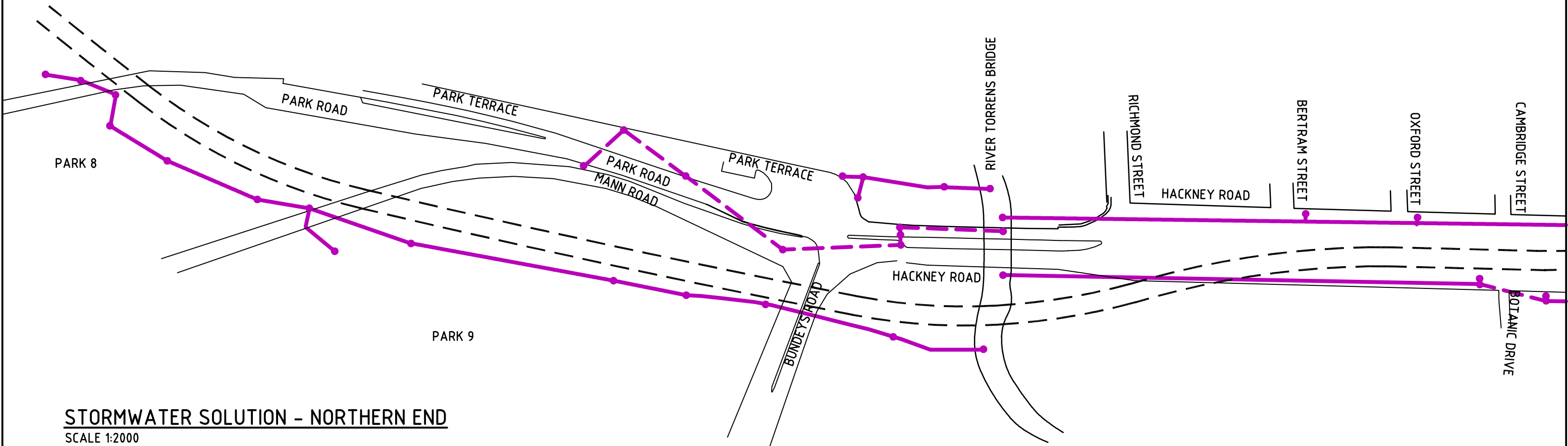
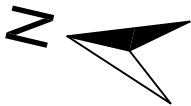
- STORMWATER PIPE REMAINING
- STORMWATER PIPE REMOVED

| | | | | | | |
|--|---------------------|----------|---|---|--|---|
| Issue No | Purpose | Date |  |  | CONTRACT NAME | DRAWING TITLE |
| | | | | | O-BAHN CITY ACCESS UPGRADE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | SITE ADDRESS | IMPACTED STORMWATER PIPES NORTHERN END |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: HARRIS TSIMIKLIS DEPARTMENT: WATER AND SERVICES | A3 SHEET = 1:2000 OR AS SHOWN |
| | | | | | | DRAWING NO. |
| | | | | | | 0015-WS-2017 |



| | | | | | | | |
|--|---------------------|----------|---|---|--|---|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | IMPACTED STORMWATER PIPES SOUTHERN END | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | | | DRAWING INFO | DRAWING NO. | |
| | | | | | DRAWN BY: HARRIS TSIMIKLIS DEPARTMENT: WATER AND SERVICES | 0016-WS-2017 | |

VEGETATION OMITTED FOR CLARITY



STORMWATER SOLUTION - NORTHERN END

SCALE 1:2000

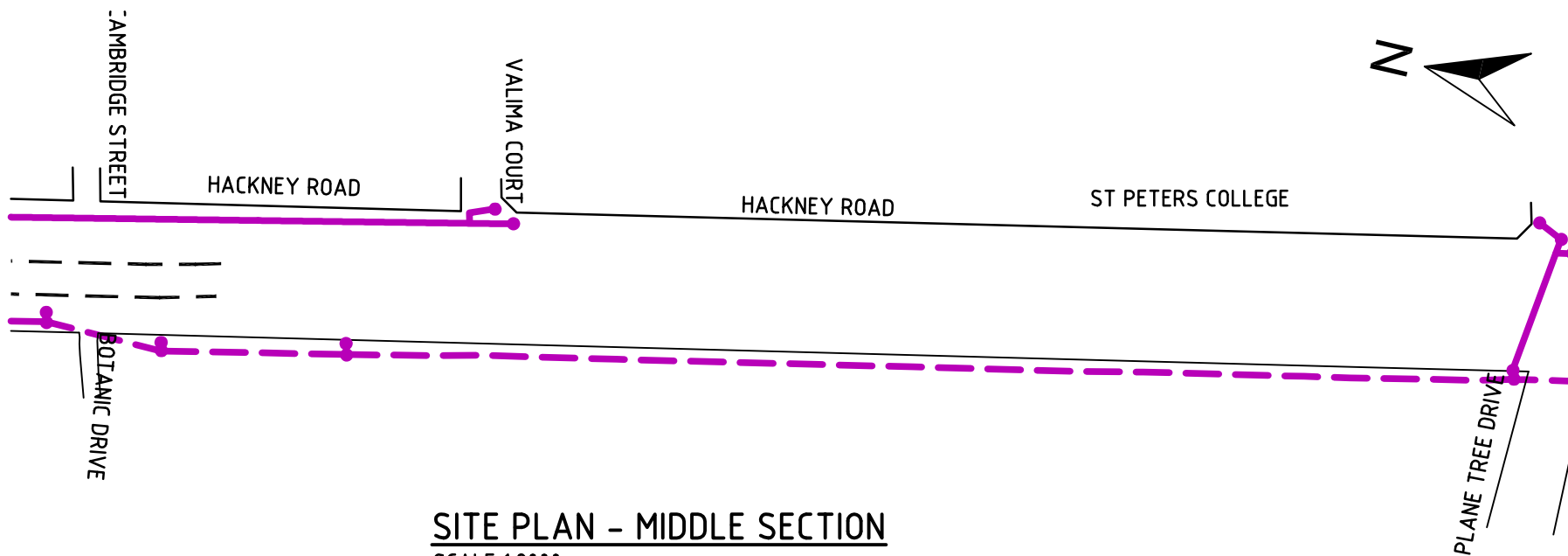
- NEW STORMWATER PIPE
- - - - EXISTING STORMWATER PIPE

| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |

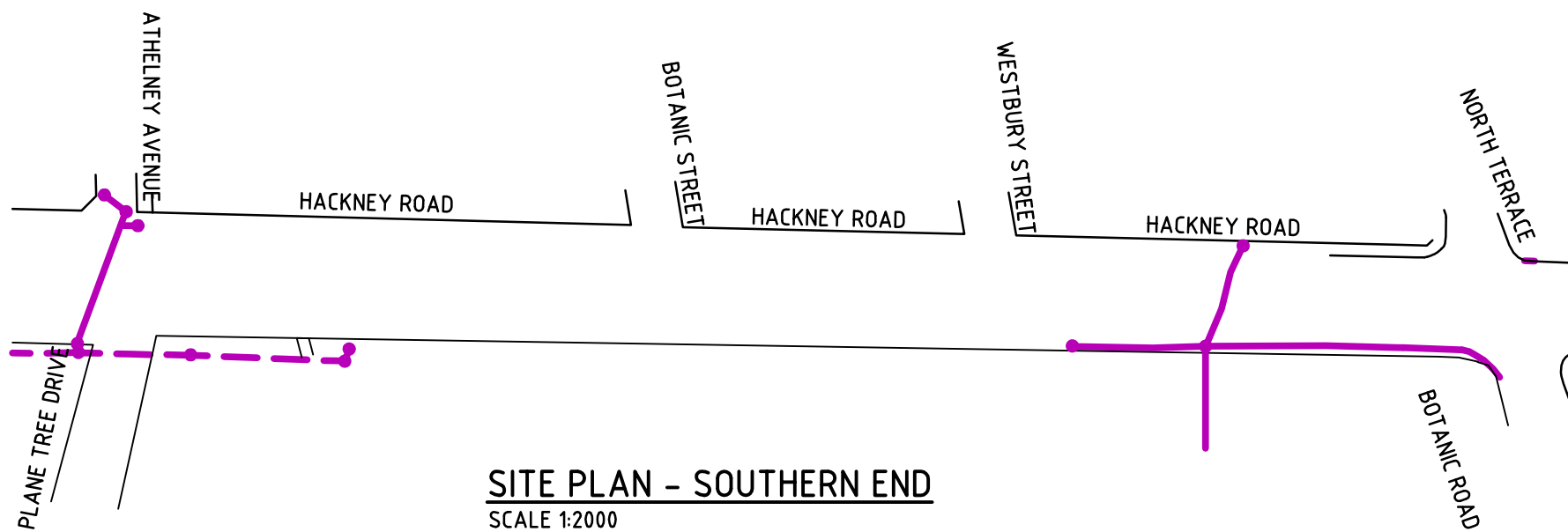


| | | | |
|--|--|---|-----------------------------|
| CONTRACT NAME O-BAHN CITY ACCESS UPGRADE | | DRAWING TITLE STORMWATER SOLUTIONS NORTHERN END | |
| SITE ADDRESS HACKNEY ROAD, ADELAIDE SA | | | |
| DRAWING INFO DRAWN BY: HARRIS TSIMIKLIS DEPARTMENT: WATER AND SERVICES | | SCALE A3 SHEET = 1:2000 OR AS SHOWN | DRAWING NO. 0017-WS-2017 |
| | | | |

VEGETATION OMITTED FOR CLARITY



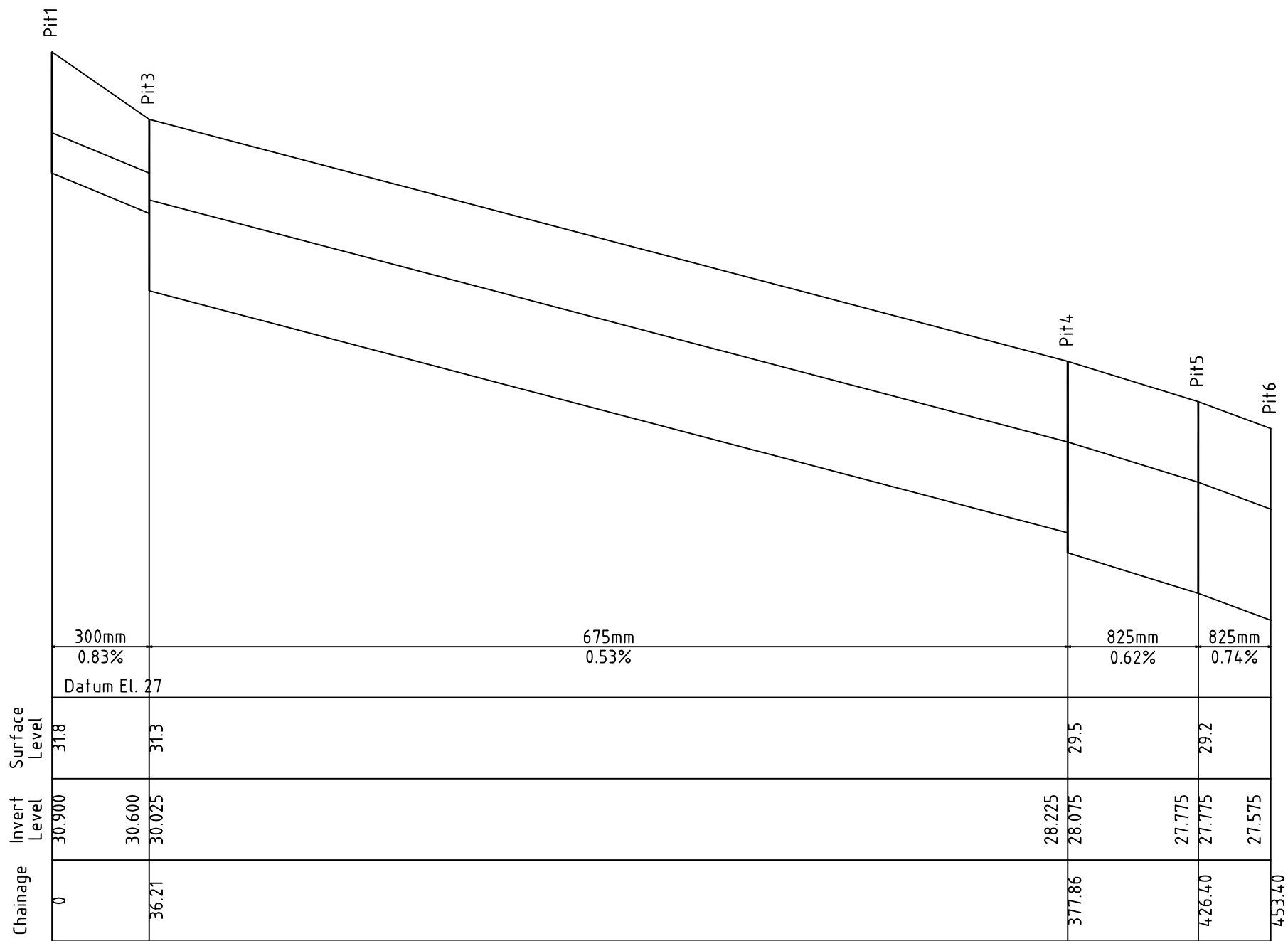
SITE PLAN - MIDDLE SECTION
SCALE 1:2000



SITE PLAN - SOUTHERN END
SCALE 1:2000

— NEW STORMWATER PIPE
- - - EXISTING STORMWATER PIPE

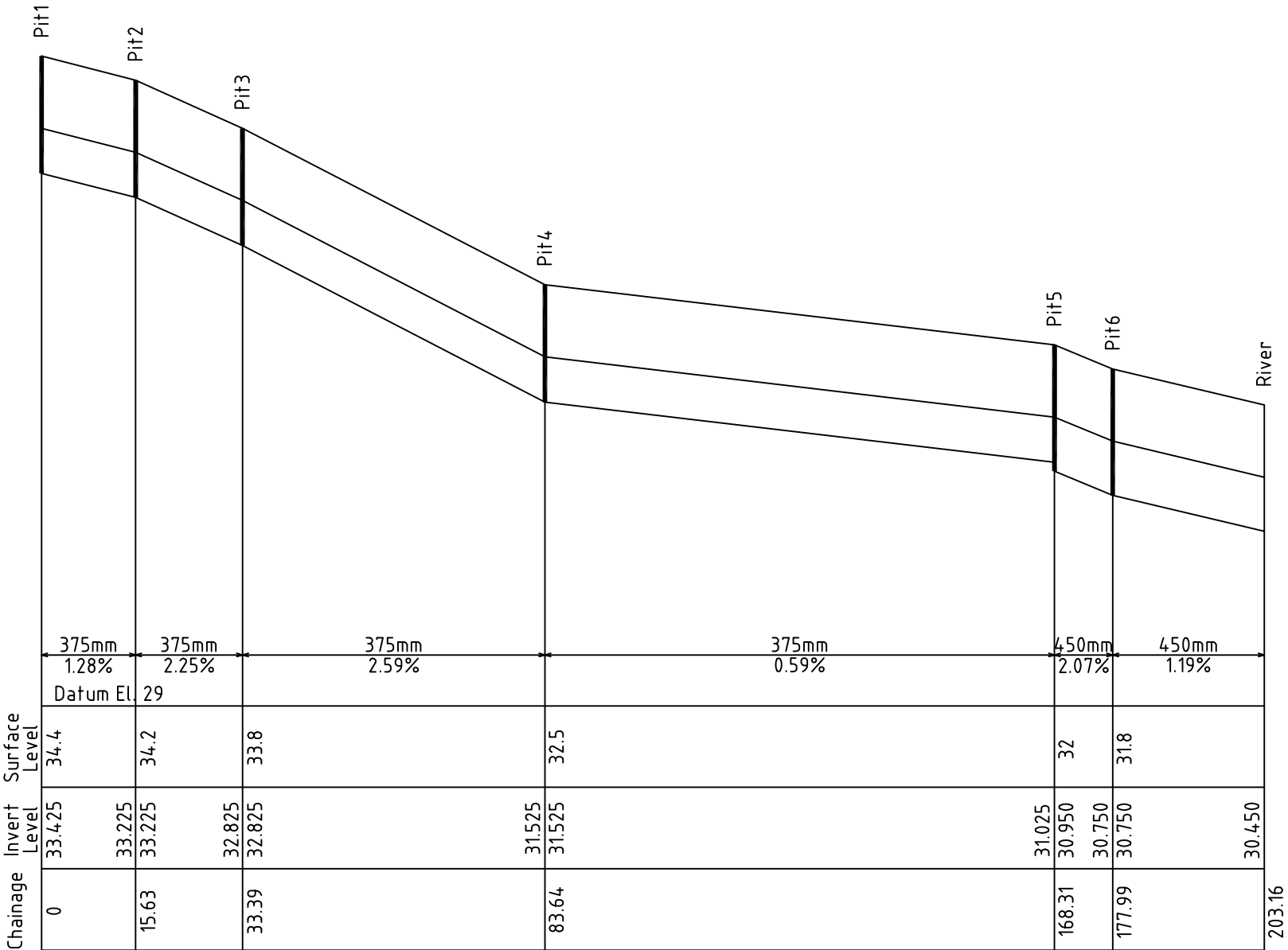
| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE A3 SHEET = 1:2000 OR AS SHOWN |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | | 0018-WS-2017 | |
| | | | DRAWN BY: HARRIS TSIMIKLIS DEPARTMENT: WATER AND SERVICES | | | |



HACKNEY ROAD RELOCATION - LONG SECTION VIEW

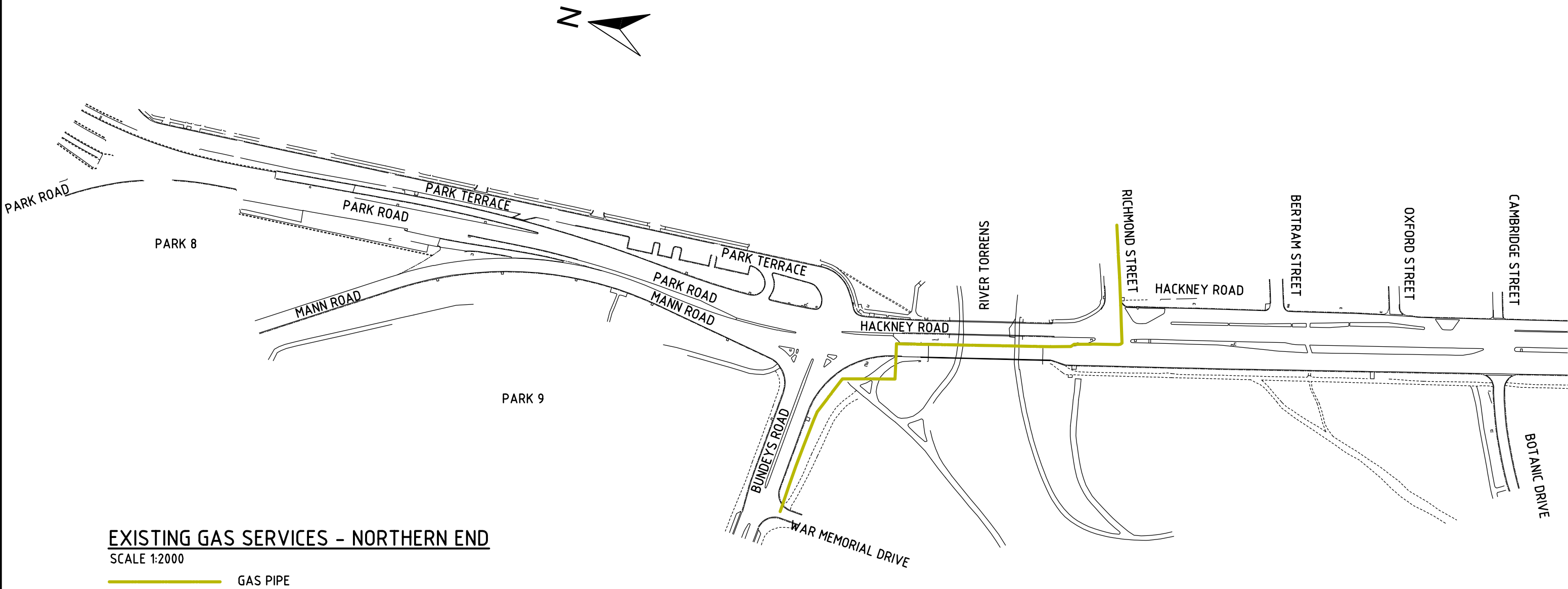
SCALE N.T.S.

| | | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---|--|--------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | | HACKNEY ROAD RELOCATION – LONG SECTION VIEW | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | | | DRAWING INFO | SCALE |
| | | | | | | DRAWN BY: TRACEY PHAM DEPARTMENT: WATER AND SERVICES | DRAWING NO. | 0019-WS-2017 |



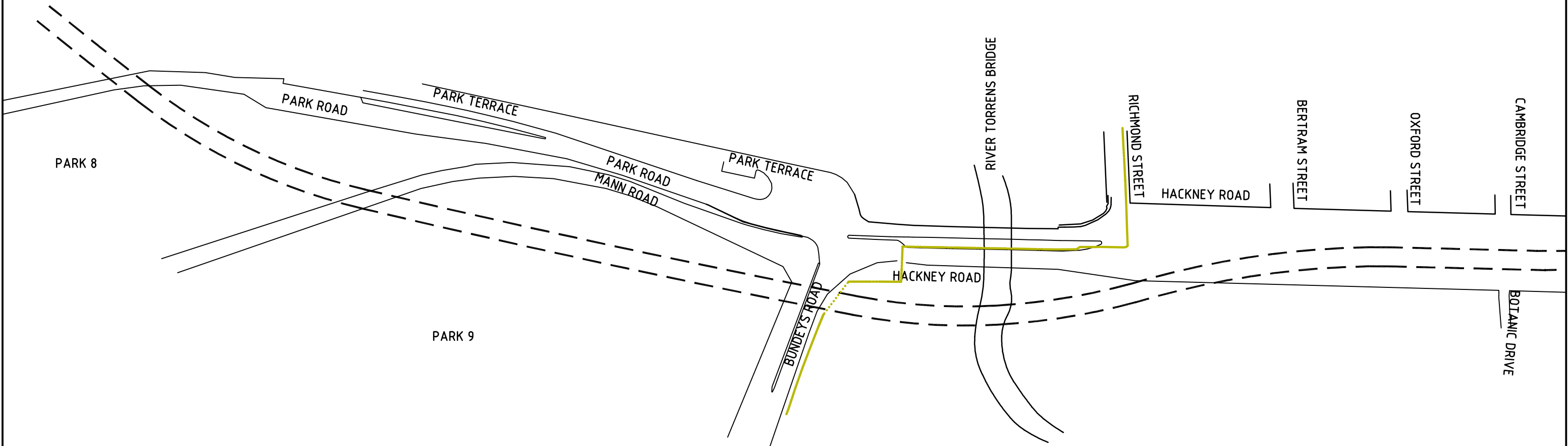
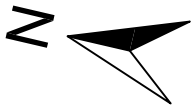
PARK ROAD RELOCATION – LONG SECTION VIEW

VEGETATION OMITTED FOR CLARITY



| | | | | | | |
|--|---------------------|----------|---|---|--|-------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | EXISTING GAS PIPE LOCATIONS |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: MANUEL MARTINS DEPARTMENT: WATER AND SERVICES | A3 SHEET = 1:2000 OR AS SHOWN |
| | | | | | DRAWING NO. | 0021-WS-2017 |

VEGETATION OMITTED FOR CLARITY



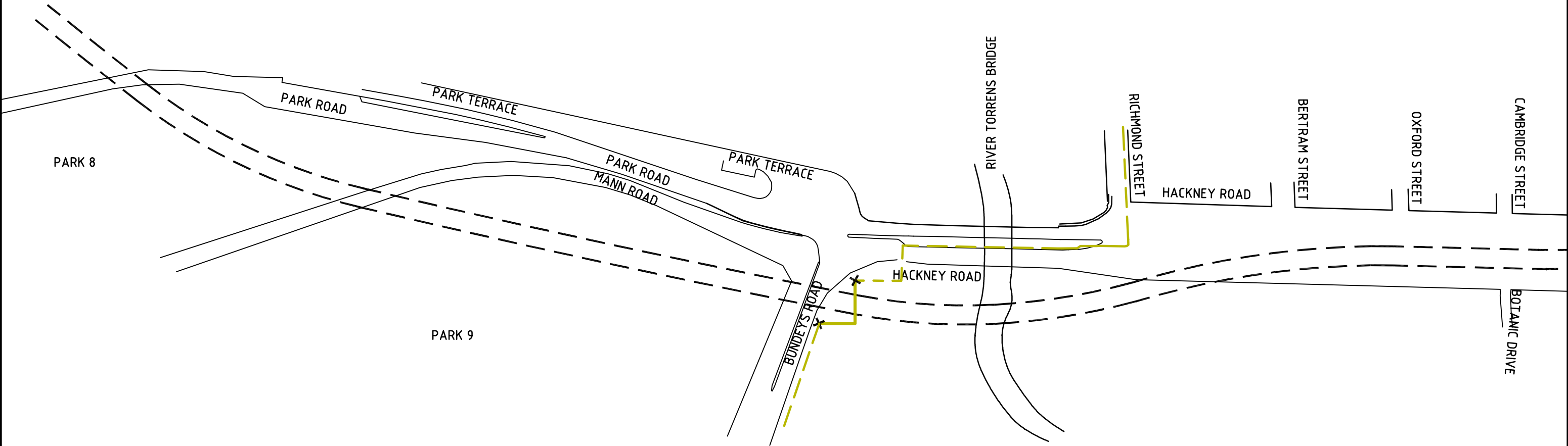
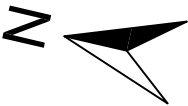
IMPACTED GAS PIPES - NORTHERN END

SCALE 1:2000

- GAS PIPE REMAINING
- GAS PIPE REMOVED

| | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|-----------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | IMPACTS FOR GAS PIPES |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWN BY: MANUEL MARTINS | DRAWING NO. | 0022-WS-2017 | |
| | | | DEPARTMENT: WATER AND SERVICES | | | |

VEGETATION OMITTED FOR CLARITY



GAS PIPE SOLUTION - NORTHERN END

SCALE 1:2000

--- EXISTING GAS PIPE

— NEW GAS PIPE



CUTTING LOCATION

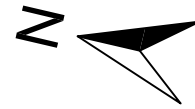
| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



| | |
|---------------|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: MANUEL MARTINS DEPARTMENT: WATER AND SERVICES |

| | |
|---------------|-------------------------------|
| DRAWING TITLE | SOLUTION FOR GAS PIPE |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0023-WS-2017 |

VEGETATION OMITTED FOR CLARITY



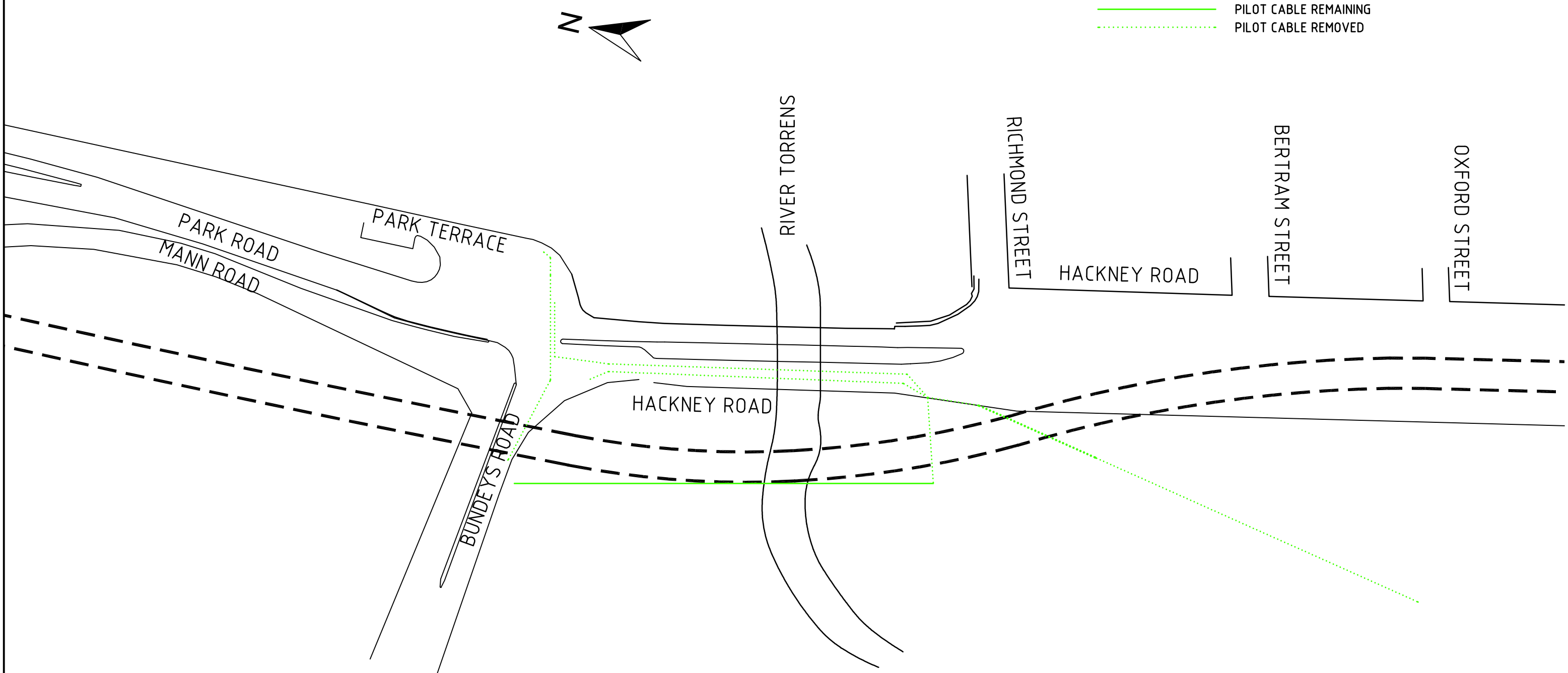
| | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|--------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | EXISTING PILOT CABLE LOCATIONS |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | |
| | | | DRAWING INFO | SCALE | | |
| | | | DRAWN BY: HARRIS TSIMIKLIS DEPARTMENT: WATER AND SERVICES | | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | | DRAWING NO. | | |
| | | | | 0024-WS-2017 | | |

This document has been developed by students from the University of South Australia as part of the Civil Engineering Design Project course. This document and any associated works relating to it is for the purposes of academic study only and does not represent the views or opinions of the end client, (Department of Planning Transport and Infrastructure (DPTI))

VEGETATION OMITTED FOR CLARITY

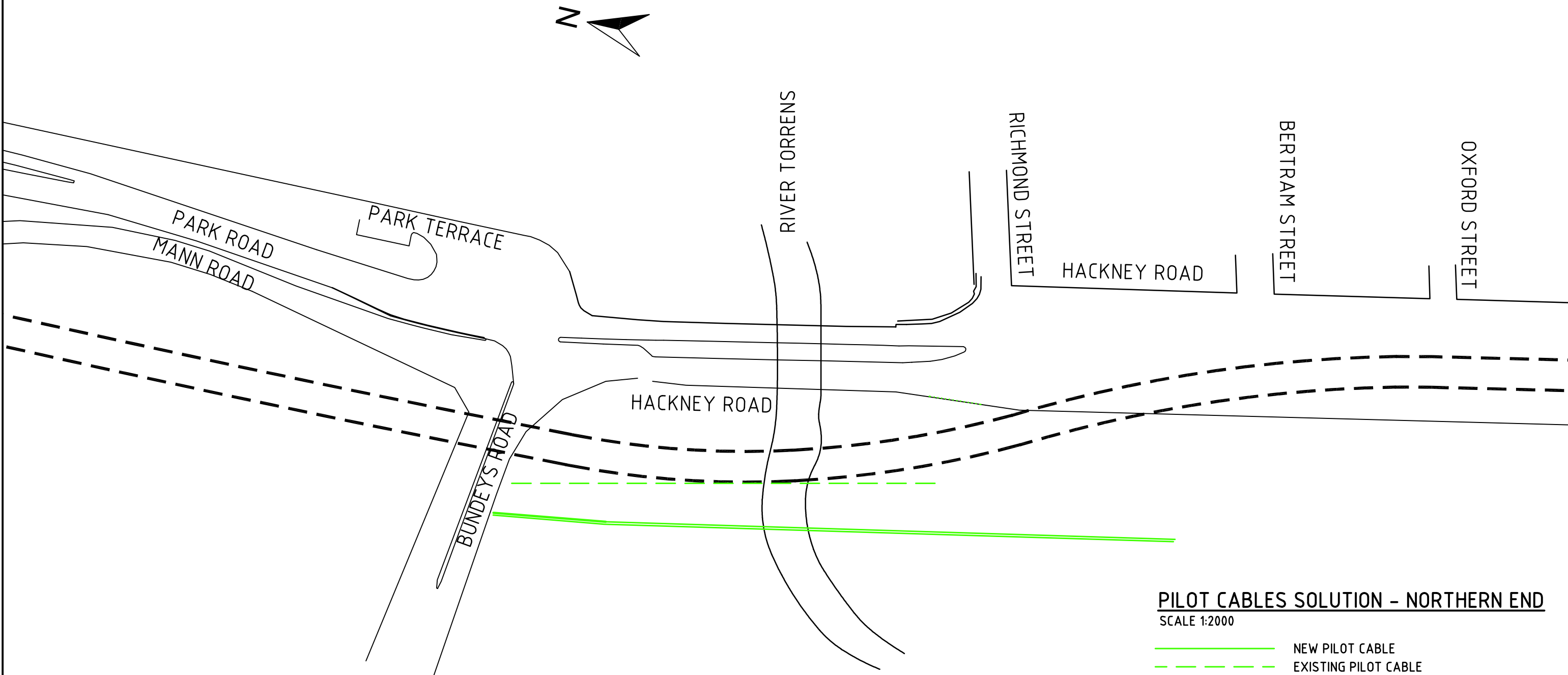
PILOT CABLE IMPACTS - NORTHERN END
SCALE 1:2000

- PILOT CABLE REMAINING
- PILOT CABLE REMOVED



| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | PILOT CABLE IMPACTS |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | | | DRAWING INFO | SCALE |
| | | | DRAWN BY: HARRIS TSIMIKLIS | A3 SHEET = 1:2000 OR AS SHOWN | | |
| | | | DEPARTMENT: WATER AND SERVICES | DRAWING NO. | | |
| | | | | 0025-WS-2017 | | |

VEGETATION OMITTED FOR CLARITY

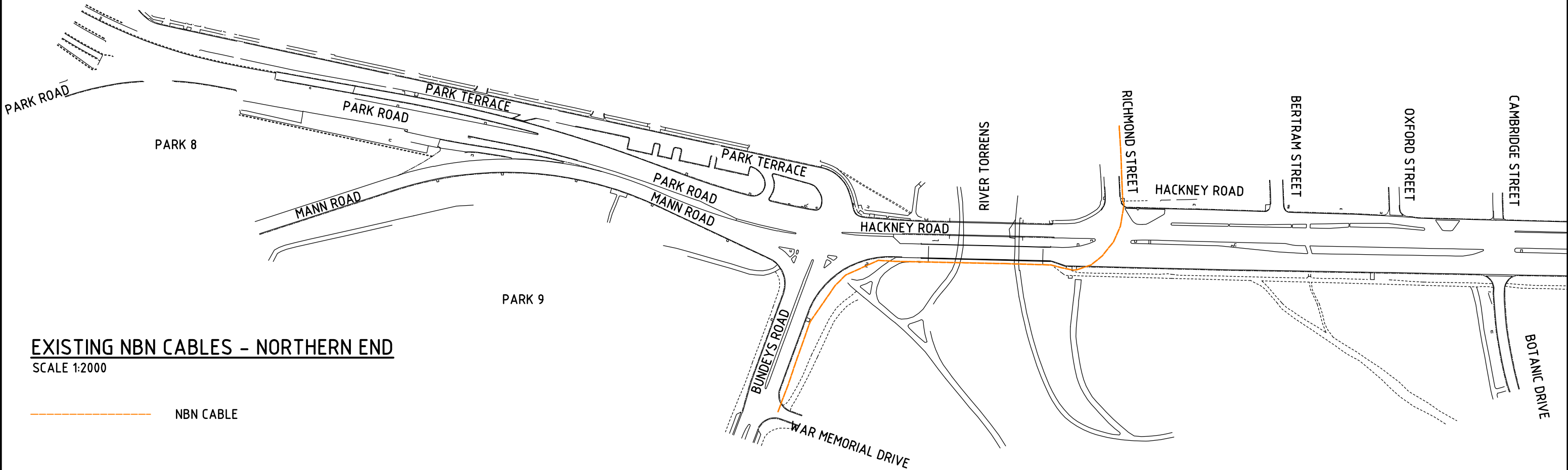
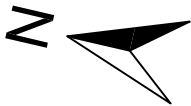


PILOT CABLES SOLUTION - NORTHERN END
SCALE 1:2000

- NEW PILOT CABLE
- EXISTING PILOT CABLE

| | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|----------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | PILOT CABLE SOLUTION |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWN BY: HARRIS TSIMIKLIS | DRAWING NO. | 0026-WS-2017 | |
| | | | DEPARTMENT: WATER AND SERVICES | | | |

VEGETATION OMITTED FOR CLARITY

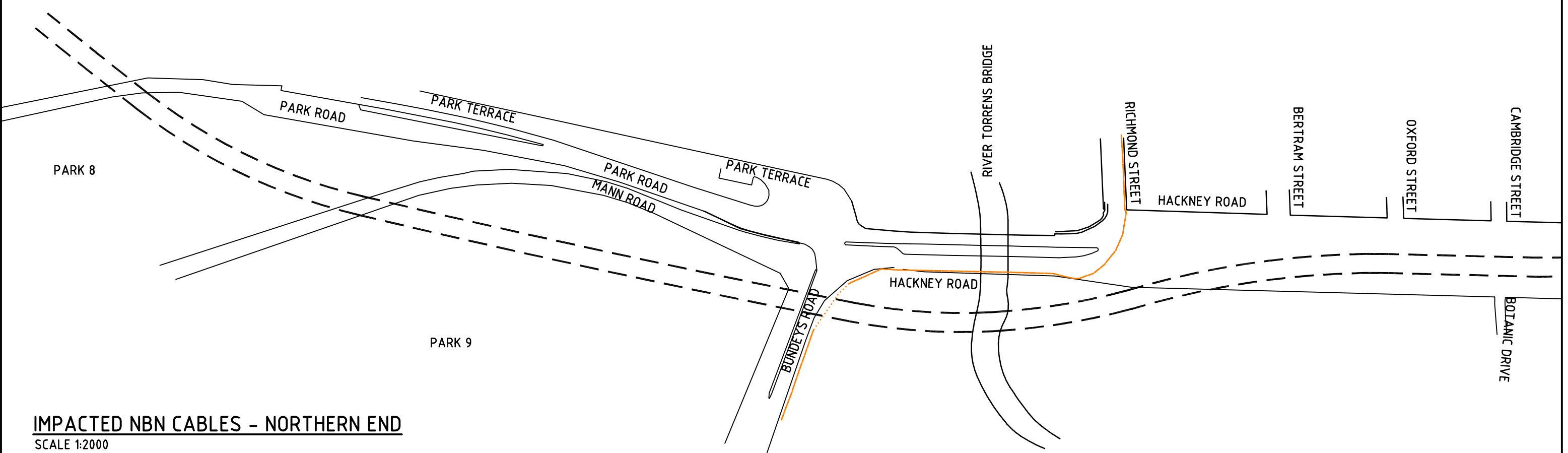
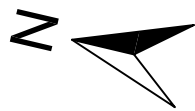


EXISTING NBN CABLES - NORTHERN END
SCALE 1:2000

----- NBN CABLE

| | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|---------------------|
| Issue No | Purpose | Date |  University of South Australia |  EB Consulting | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | EXISTING NBN CABLES |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWN BY: MELISSA BUCHAN | DRAWING NO. | 0027-WS-2017 | |
| | | | DEPARTMENT: COMPANY MEDIA DIRECTOR | | | |

VEGETATION OMITTED FOR CLARITY



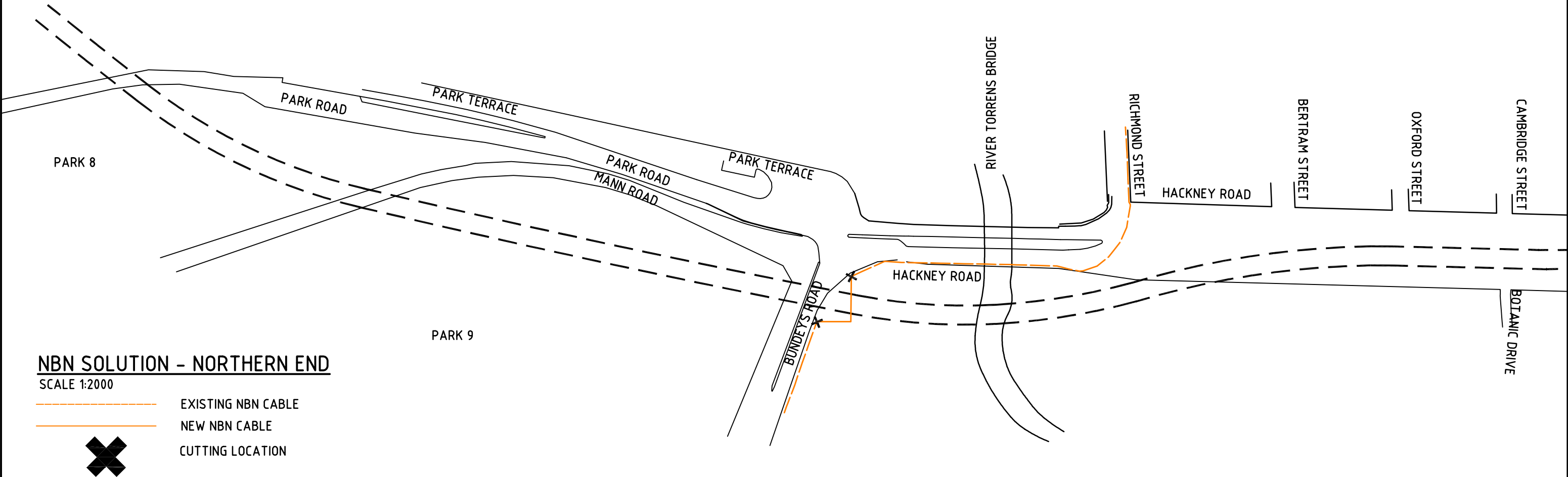
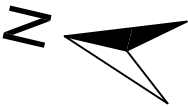
IMPACTED NBN CABLES - NORTHERN END

SCALE 1:2000

- NBN CABLE REMAINING
- NBN CABLE REMOVED

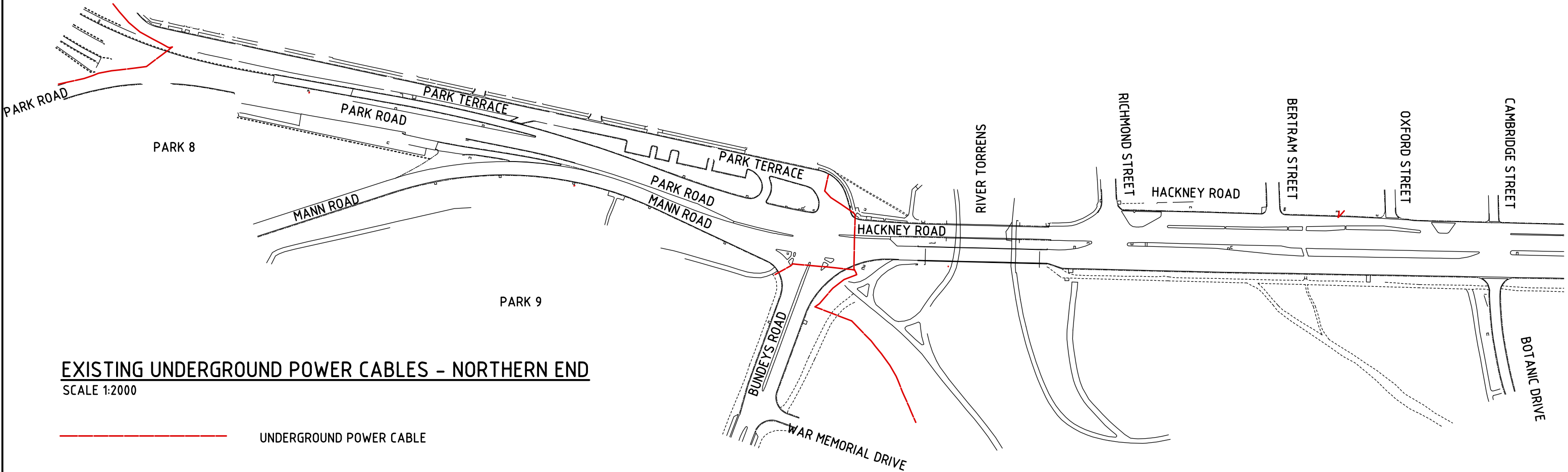
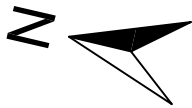
| | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|---------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | IMPACTED NBN CABLES |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWN BY: MELISSA BUCHAN | DRAWING NO. | 0028-WS-2017 | |
| | | | DEPARTMENT: COMPANY MEDIA DIRECTOR | | | |

VEGETATION OMITTED FOR CLARITY



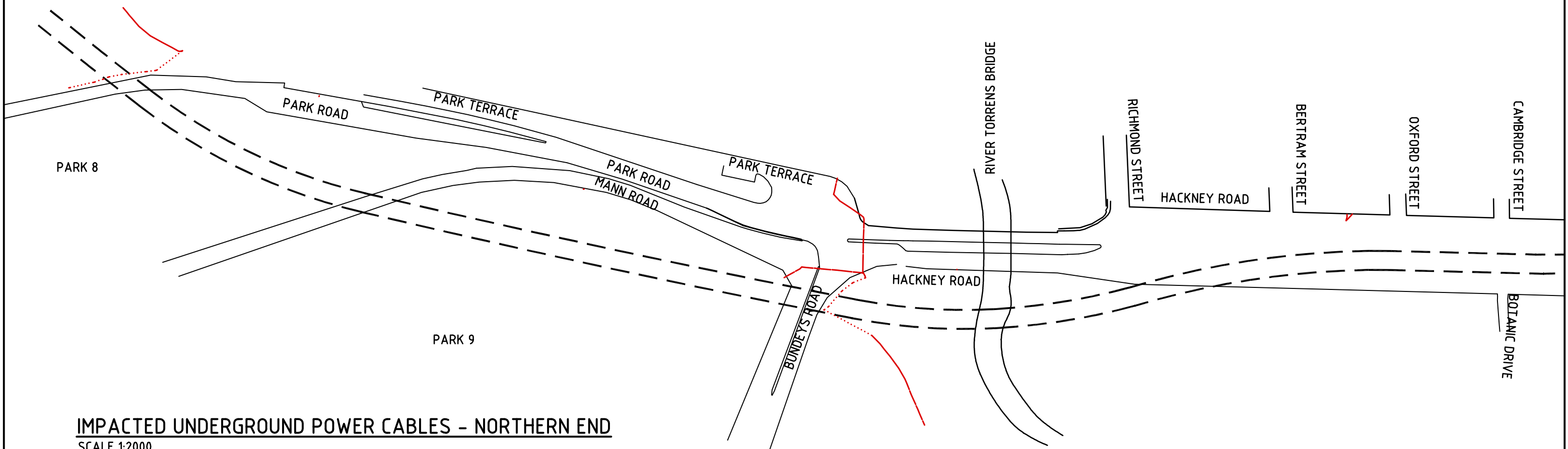
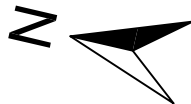
| | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|-------------------------|
| Issue No | Purpose | Date |  University of South Australia |  EB Consulting | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SOLUTION FOR NBN CABLES |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | DRAWING INFO | SCALE | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWN BY: MELISSA BUCHAN DEPARTMENT: COMPANY MEDIA DIRECTOR | DRAWING NO. | 0029-WS-2017 | |

VEGETATION OMITTED FOR CLARITY



| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|-----------------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | EXISTING UNDERGROUND POWER CABLES | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWING INFO | | DRAWING NO. | | |
| | | | DRAWN BY: HARRIS TSIMIKLIS DEPARTMENT: WATER AND SERVICES | | 0030-WS-2017 | | |

VEGETATION OMITTED FOR CLARITY



IMPACTED UNDERGROUND POWER CABLES - NORTHERN END
SCALE 1:2000

- UNDERGROUND POWER CABLE REMAINING
- UNDERGROUND POWER CABLE REMOVED

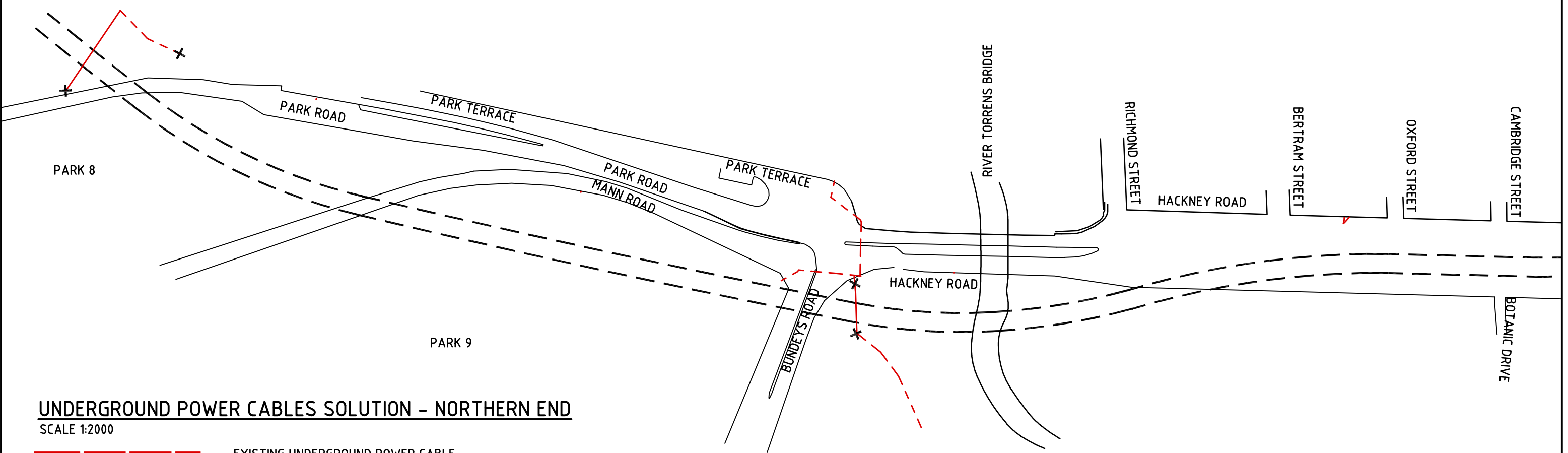
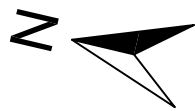
| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



| | |
|---------------|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: HARRIS TSIMIKLIS DEPARTMENT: WATER AND SERVICES |

| | |
|---------------|-----------------------------------|
| DRAWING TITLE | IMPACTED UNDERGROUND POWER CABLES |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0031-WS-2017 |

VEGETATION OMITTED FOR CLARITY



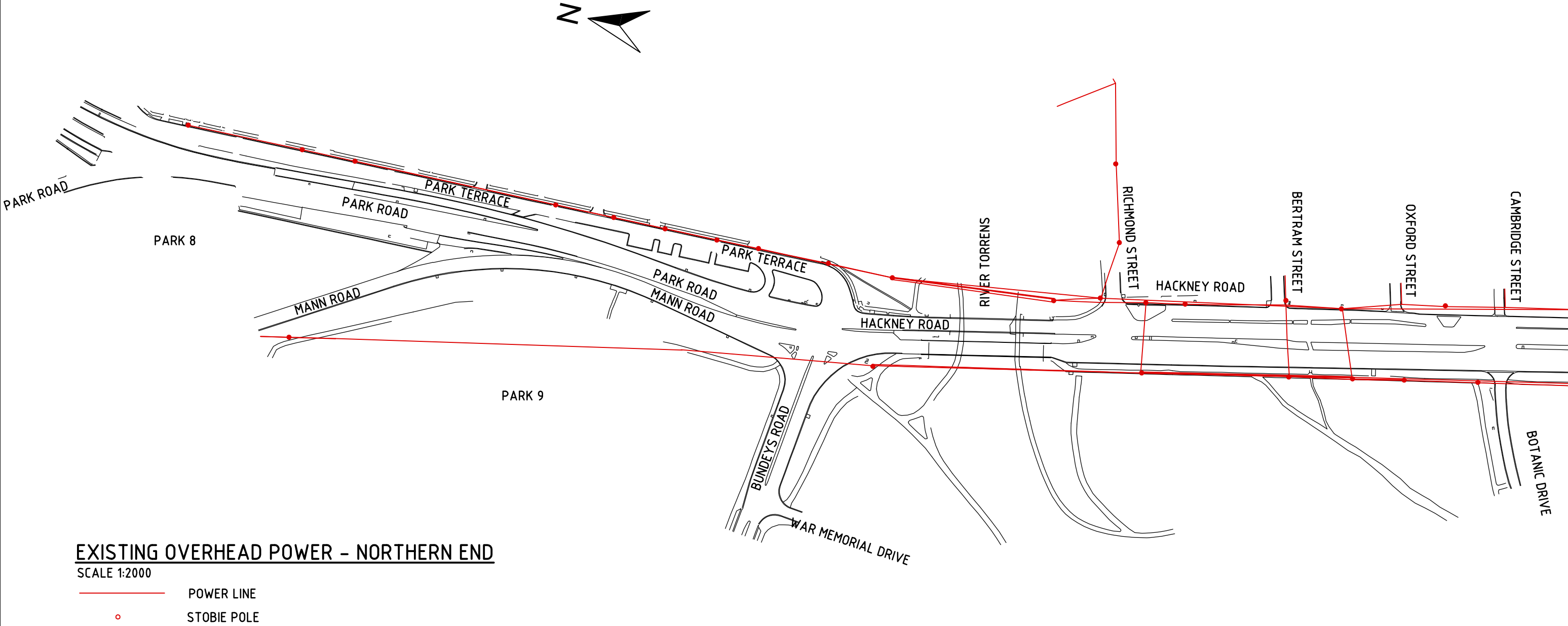
UNDERGROUND POWER CABLES SOLUTION - NORTHERN END

SCALE 1:2000

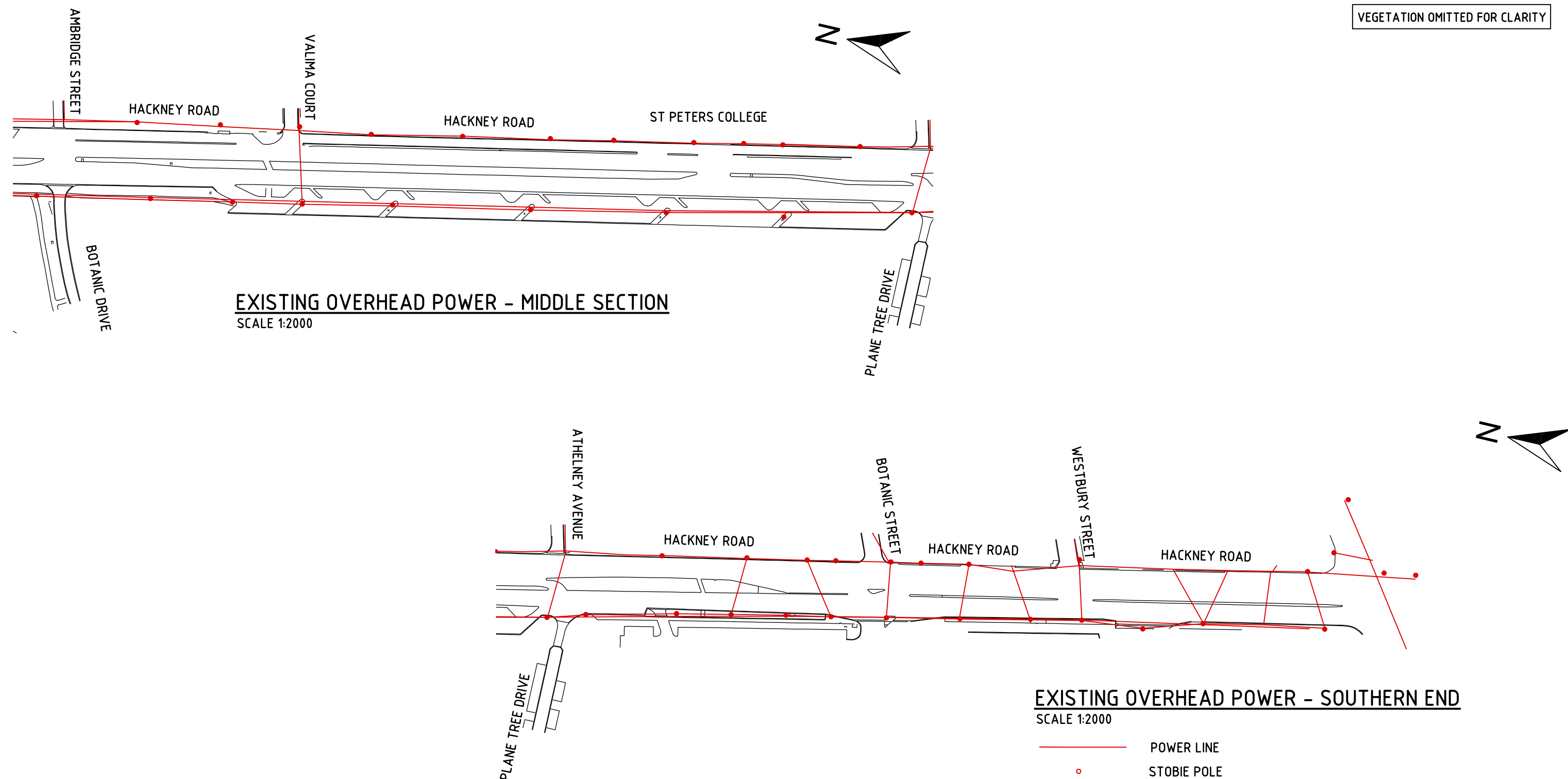
- EXISTING UNDERGROUND POWER CABLE
- NEW UNDERGROUND POWER CABLE
- CUTTING LOCATION

| | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|--------------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | UNDERGROUND POWER CABLES SOLUTION |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWN BY: HARRIS TSIMIKLIS DEPARTMENT: WATER AND SERVICES | DRAWING NO. | 0032-WS-2017 | |

VEGETATION OMITTED FOR CLARITY

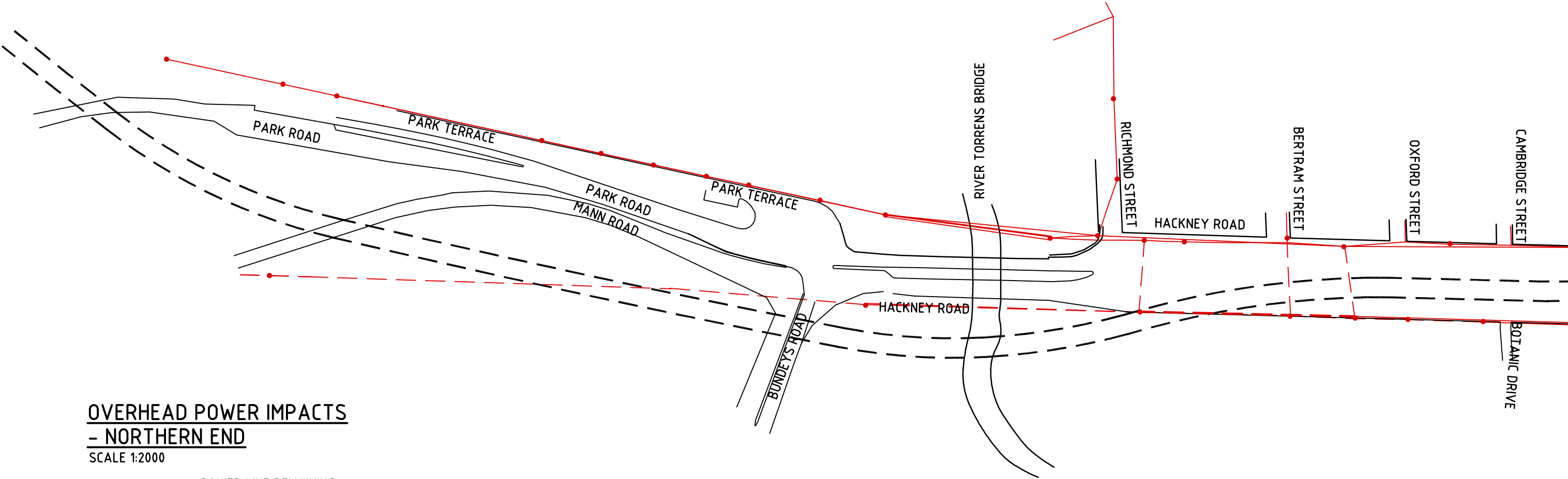
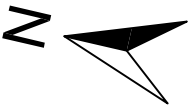


| | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|---|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | EXISTING OVERHEAD POWER NORTHERN END |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWN BY: NATHAN CERONE | DRAWING NO. | 0033-WS-2017 | |
| | | | DEPARTMENT: WATER AND SERVICES | | | |



| | | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|--------------------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | EXISTING OVERHEAD POWER SOUTHERN END | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | HACKNEY ROAD, ADELAIDE SA | | A3 SHEET = 1:2000 OR AS SHOWN | | |
| | | | DRAWING INFO | | DRAWING NO. | | |
| | | | DRAWN BY: NATHAN CERONE DEPARTMENT: WATER AND SERVICES | | 0034-WS-2017 | | |

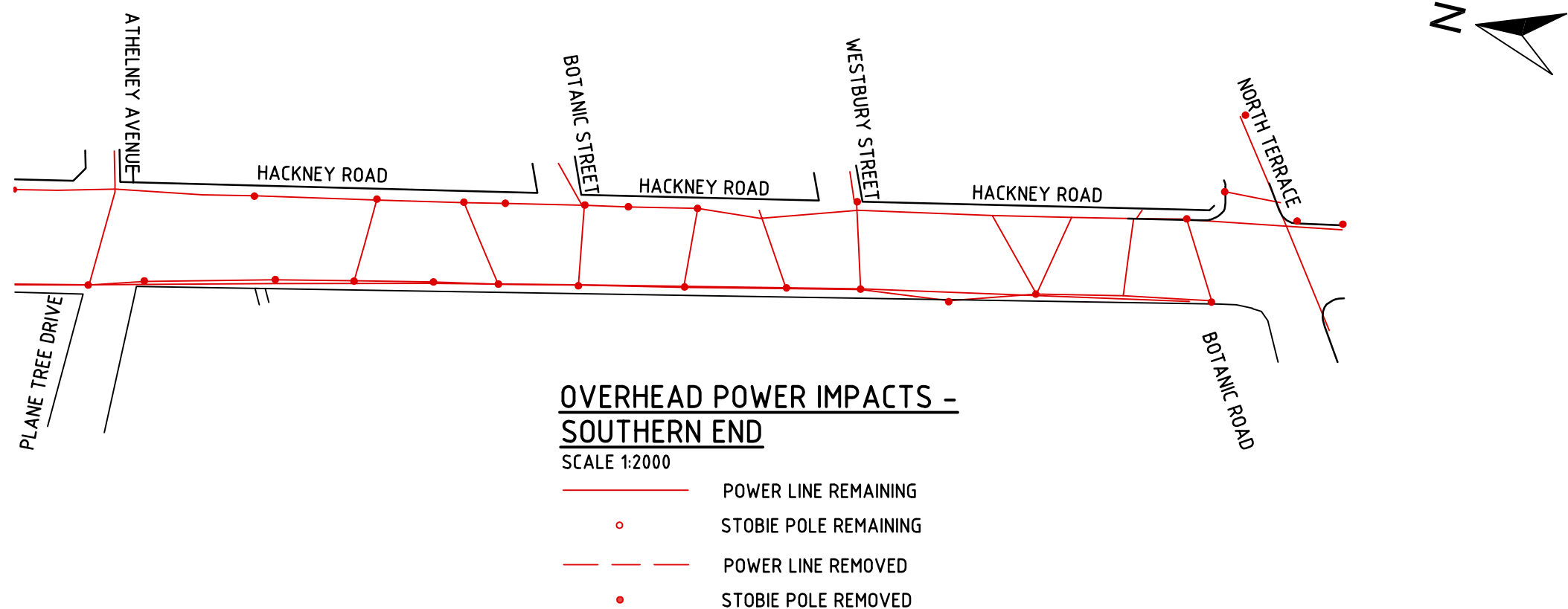
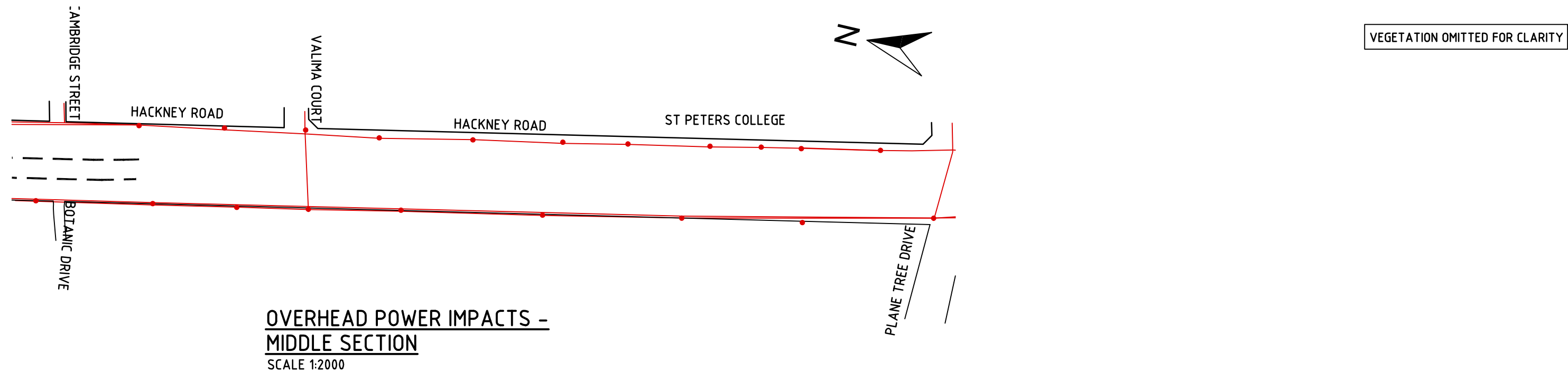
VEGETATION OMITTED FOR CLARITY



**OVERHEAD POWER IMPACTS
- NORTHERN END**
SCALE 1:2000

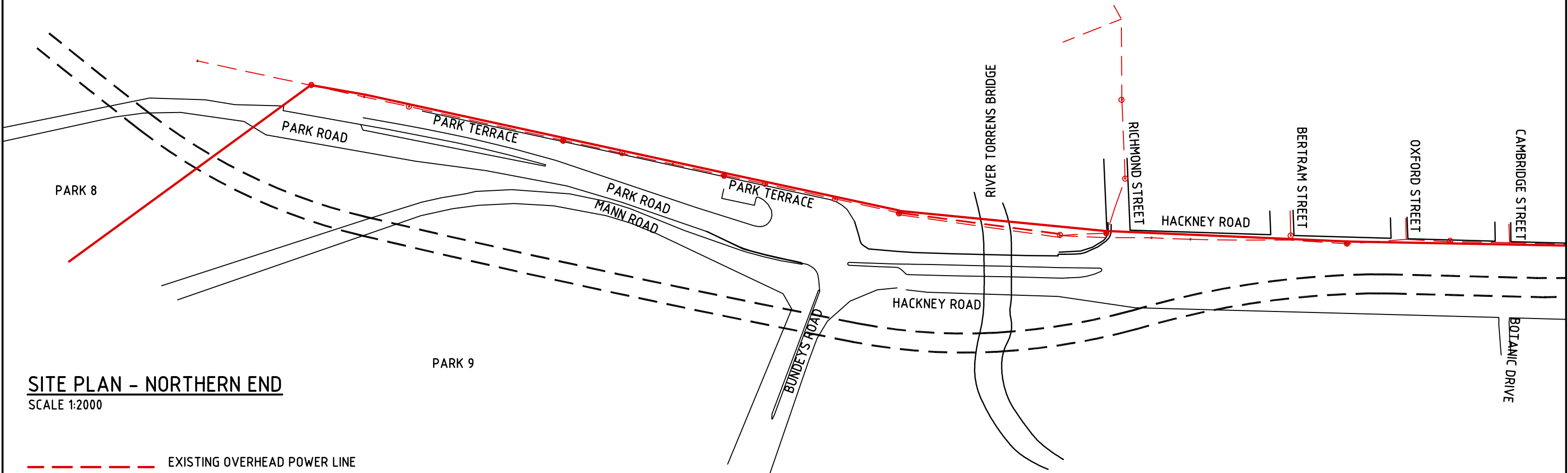
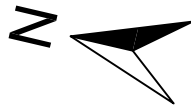
- POWER LINE REMAINING
- STOBIE POLE REMAINING
- POWER LINE REMOVED
- STOBIE POLE REMOVED

| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|--|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | OVERHEAD POWER IMPACTS NORTHERN END | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWING INFO | DRAWING NO. | | | |
| | | | DRAWN BY: NATHAN CERONE DEPARTMENT: WATER AND SERVICES | 0035-WS-2017 | | | |



| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|--|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | OVERHEAD POWER IMPACTS SOUTHERN END | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWING INFO | | DRAWING NO. | | |
| | | | DRAWN BY: NATHAN CERONE DEPARTMENT: WATER AND SERVICES | | 0036-WS-2017 | | |


VEGETATION OMITTED FOR CLARITY




SITE PLAN - NORTHERN END
SCALE 1:2000

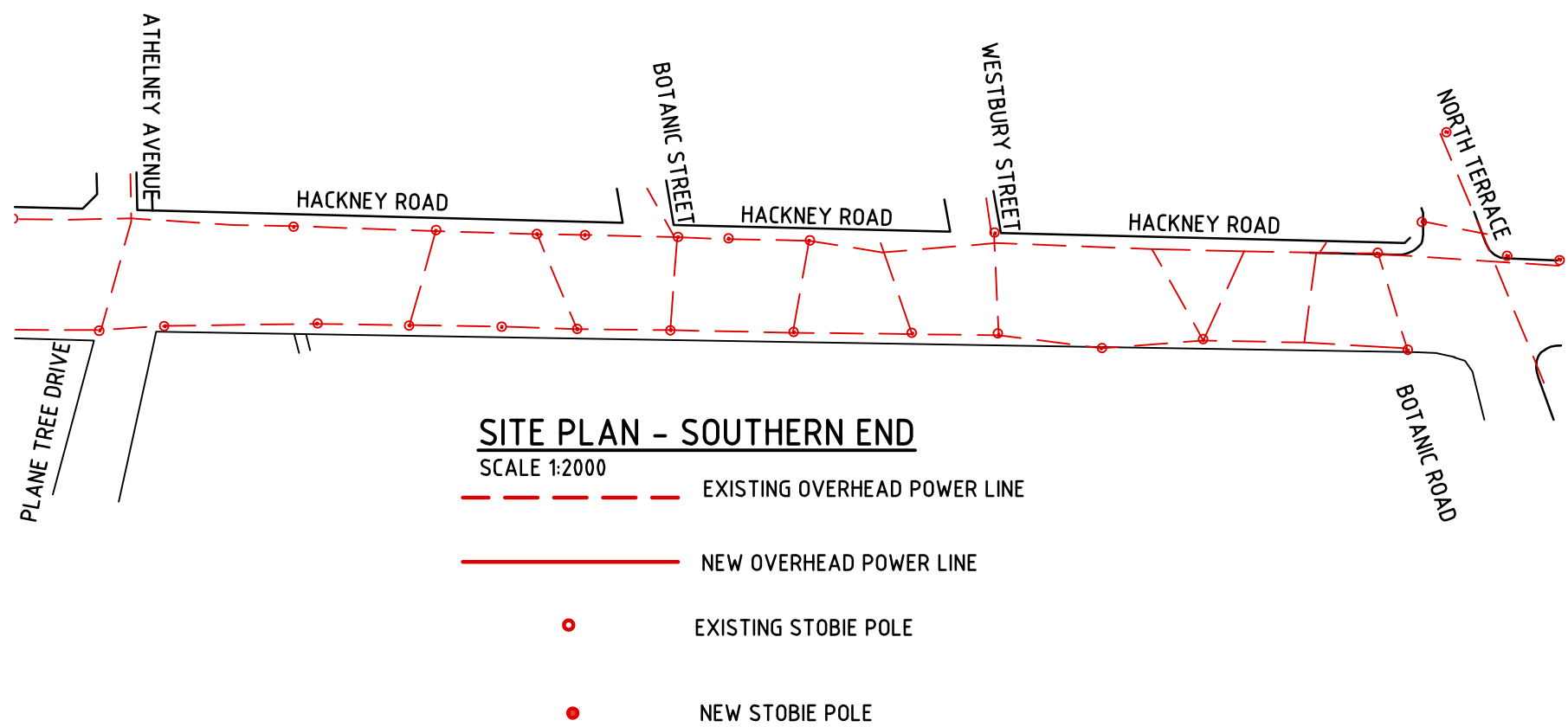
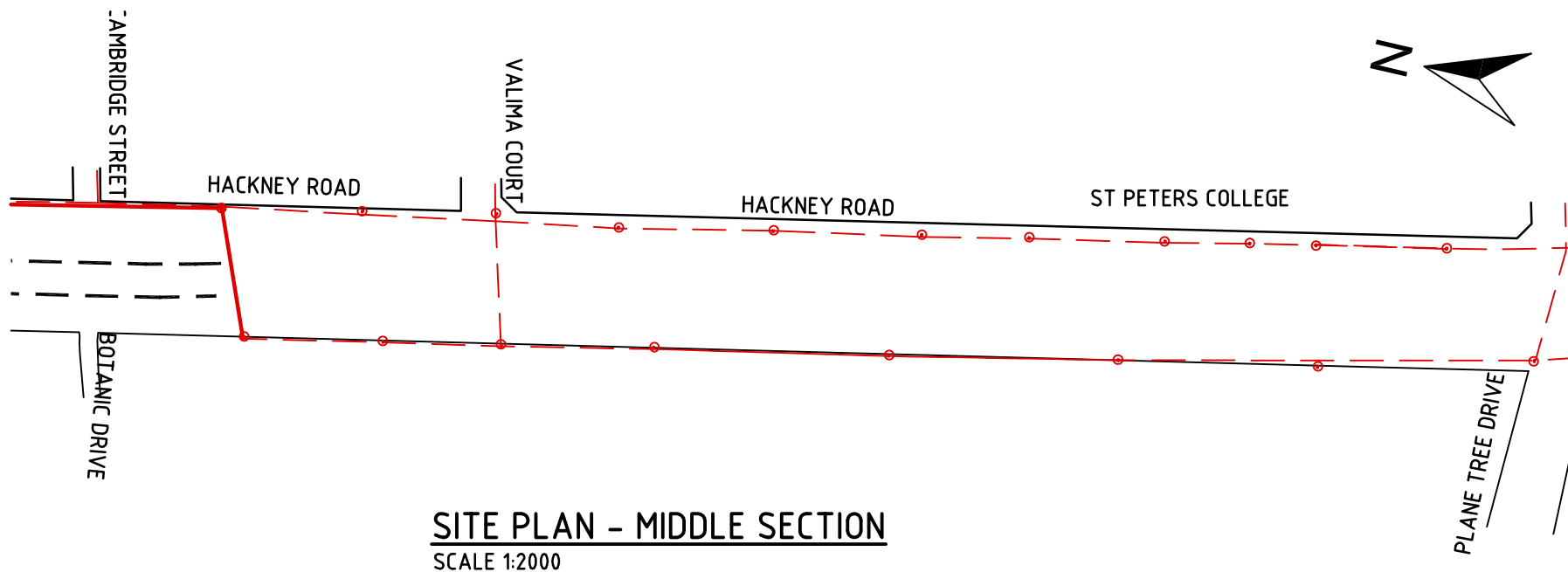
- EXISTING OVERHEAD POWER LINE
- NEW OVERHEAD POWER LINE
- EXISTING STOBIE POLE
- NEW STOBIE POLE

| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |





| | | | |
|--|----------------------------|---------------|---|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE | DRAWING TITLE | OVERHEAD POWER SOLUTION NORTHERN END |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA | | |
| DRAWING INFO | | SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWN BY: NATHAN CERCONE DEPARTMENT: WATER AND SERVICES | | DRAWING NO. | 0037-WS-2017 |



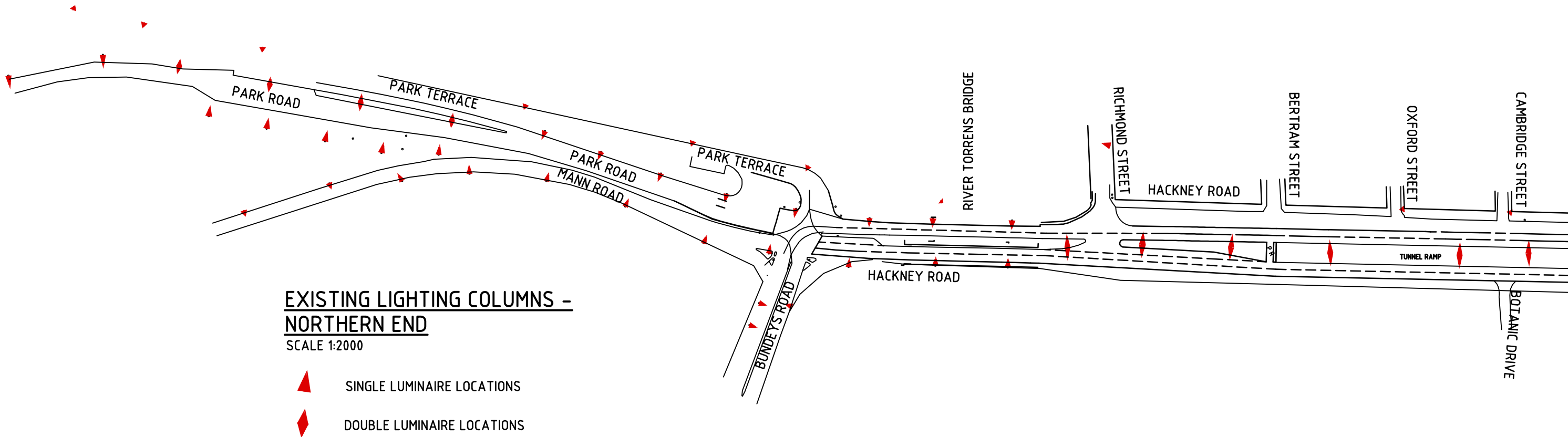
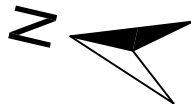
| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



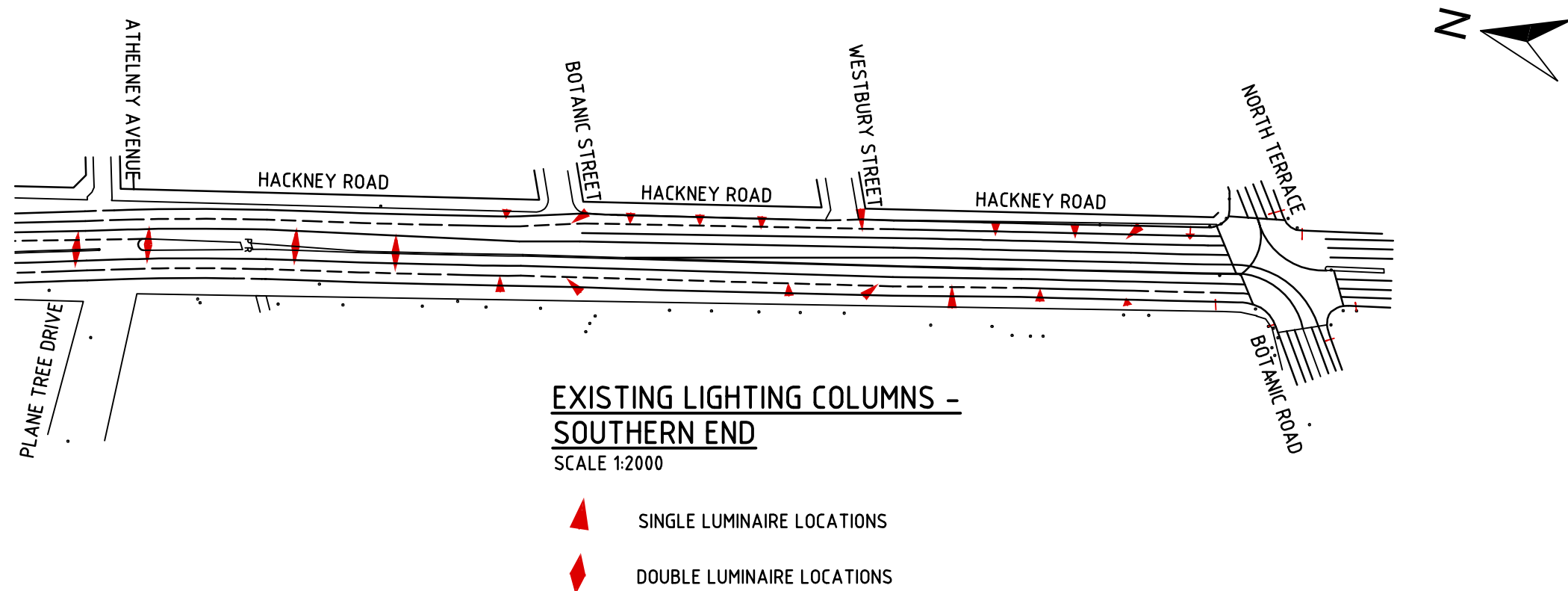
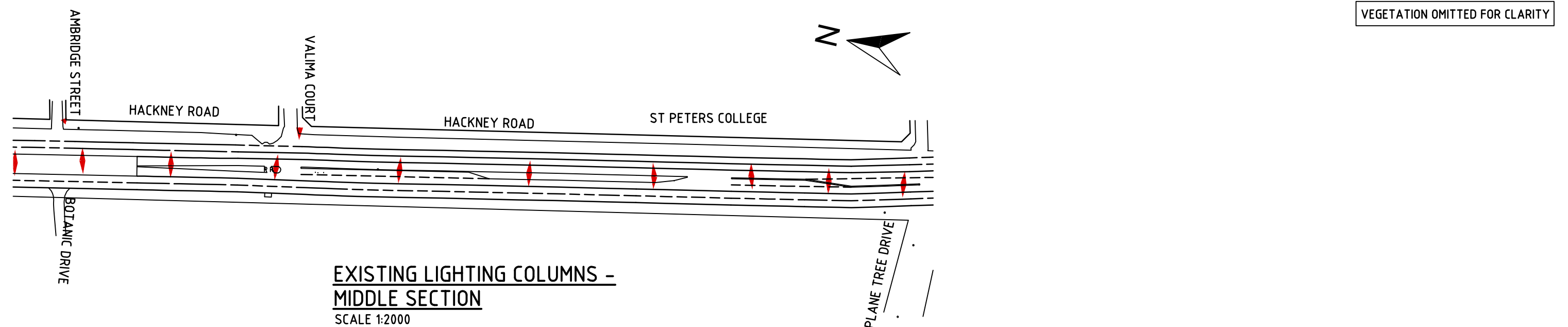
| | |
|---------------|---|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: NATHAN CERONE DEPARTMENT: WATER AND SERVICES |

| | |
|---------------|---|
| DRAWING TITLE | OVERHEAD POWER SOLUTION SOUTHERN END |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0038-WS-2017 |

VEGETATION OMITTED FOR CLARITY

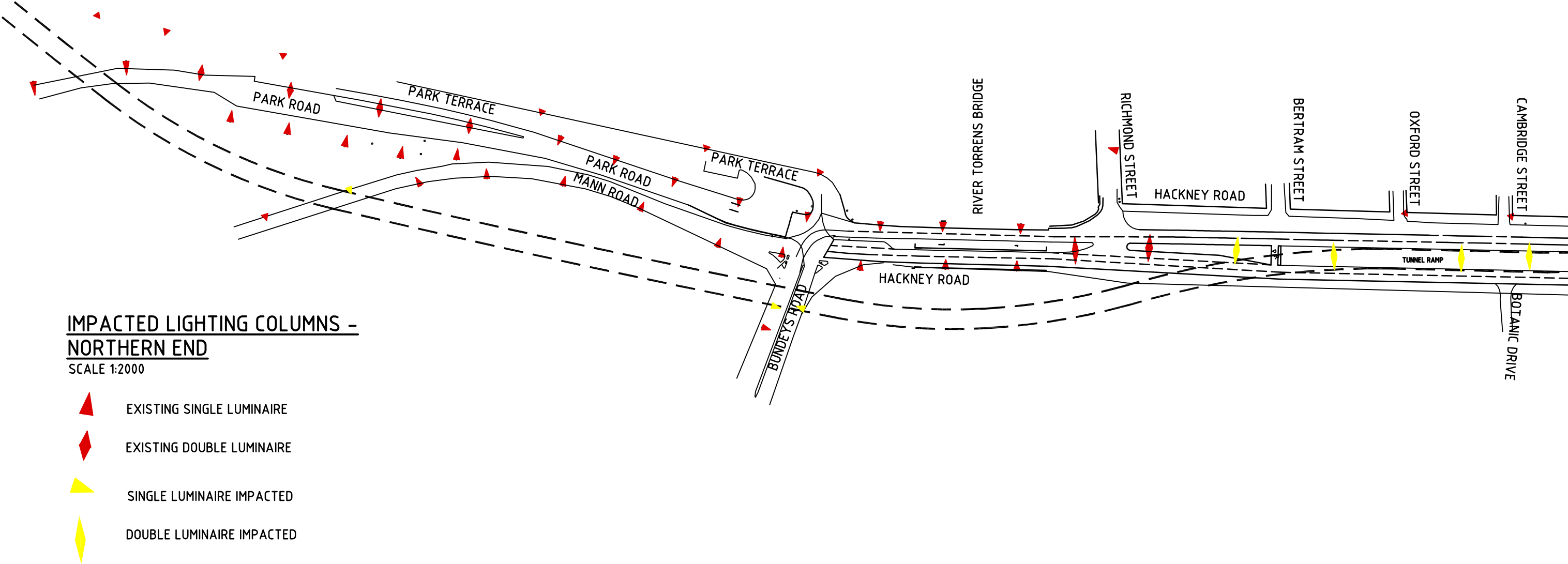
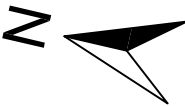


| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|--|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | EXISTING LUMINAIRE LOCATIONS NORTHERN END | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWING INFO | DRAWING NO. | | | |
| | | | DRAWN BY: NATHAN CERONE | 0039-WS-2017 | | | |
| | | | DEPARTMENT: WATER AND SERVICES | | | | |

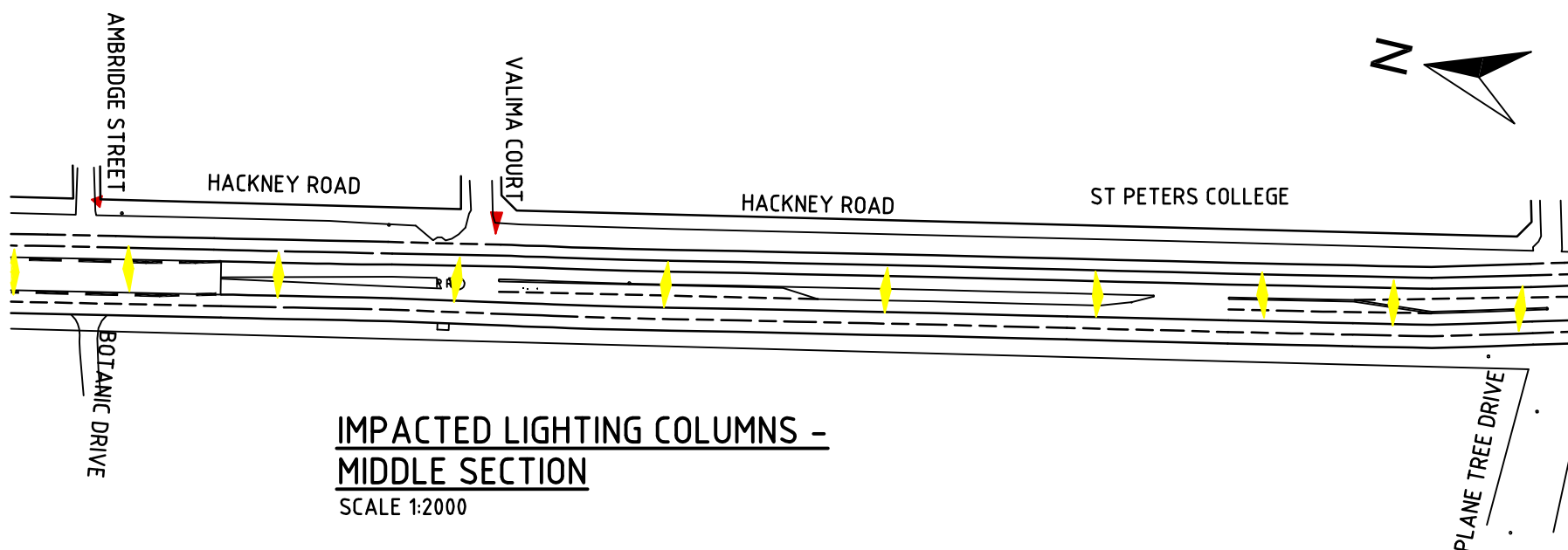


| | | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|--|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | EXISTING LUMINAIRE LOCATIONS SOUTHERN END | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:2000 OR AS SHOWN | | |
| | | | | DRAWING INFO | DRAWING NO. | | |
| | | | | DRAWN BY: NATHAN CERONE | 0040-WS-2017 | | |
| | | | | DEPARTMENT: WATER AND SERVICES | | | |

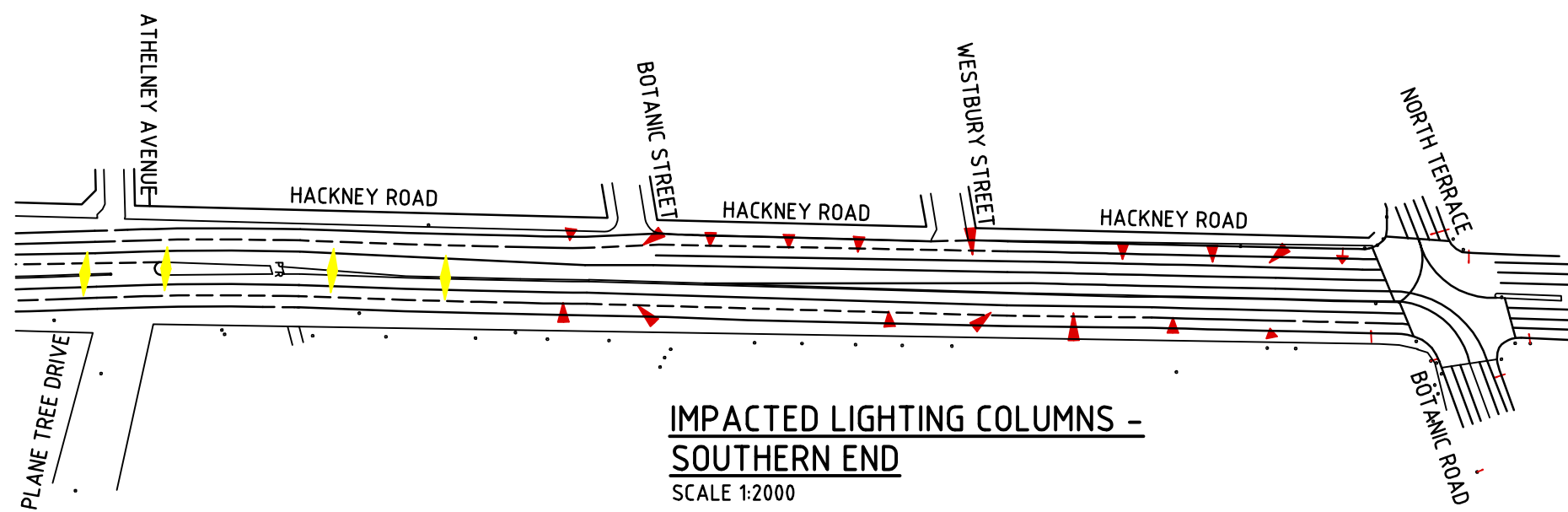
VEGETATION OMITTED FOR CLARITY



| | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | IMPACTED LUMINAIRE LOCATIONS NORTHERN END |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | DRAWN BY: NATHAN CERONE DEPARTMENT: WATER AND SERVICES | DRAWING NO. | 0041-WS-2017 | |



**IMPACTED LIGHTING COLUMNS -
MIDDLE SECTION**
SCALE 1:2000



**IMPACTED LIGHTING COLUMNS -
SOUTHERN END**
SCALE 1:2000

- EXISTING SINGLE LUMINAIRE
- EXISTING DOUBLE LUMINAIRE
- SINGLE LUMINAIRE IMPACTED
- DOUBLE LUMINAIRE IMPACTED

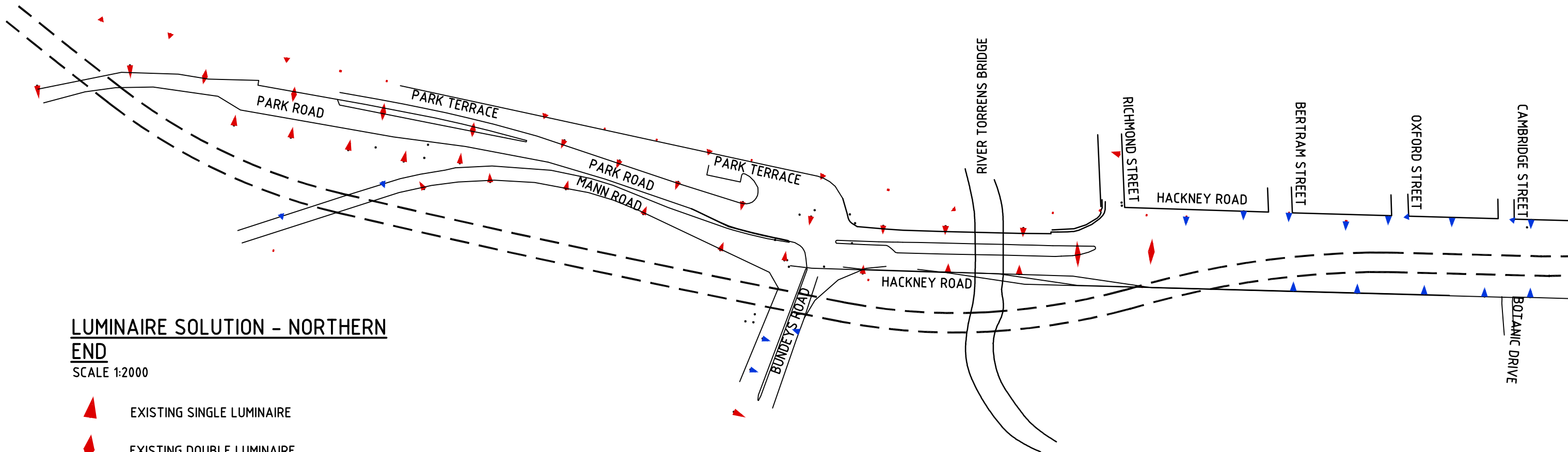
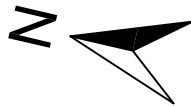
| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



| | |
|---------------|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: NATHAN CERCONO DEPARTMENT: WATER AND SERVICES |

| | |
|---------------|--|
| DRAWING TITLE | IMPACTED LUMINAIRE LOCATIONS SOUTHERN END |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0042-WS-2017 |

VEGETATION OMITTED FOR CLARITY



**LUMINAIRE SOLUTION - NORTHERN
END**

SCALE 1:2000

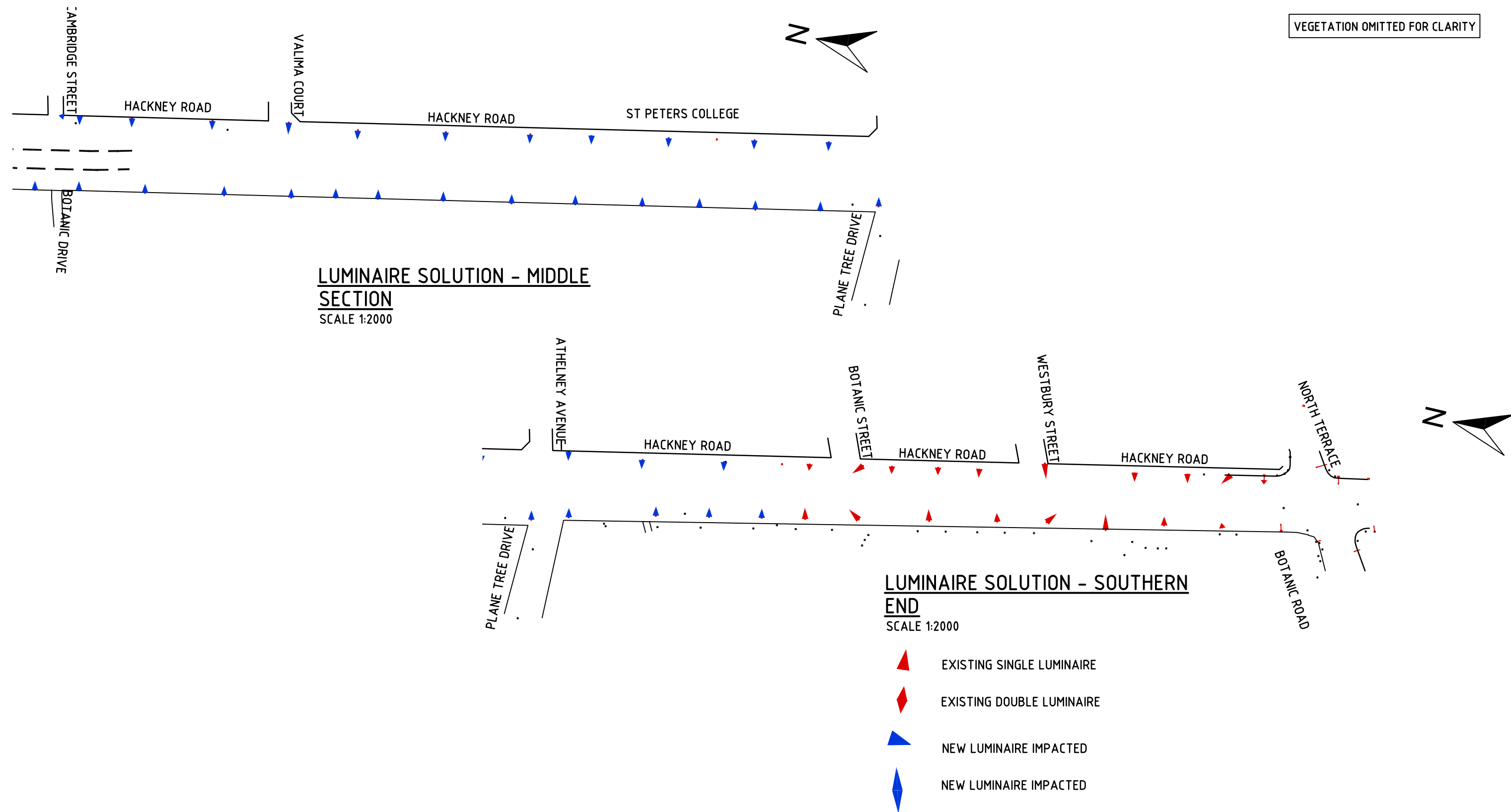
- EXISTING SINGLE LUMINAIRE
- EXISTING DOUBLE LUMINAIRE
- NEW LUMINAIRE IMPACTED
- NEW LUMINAIRE IMPACTED

| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |

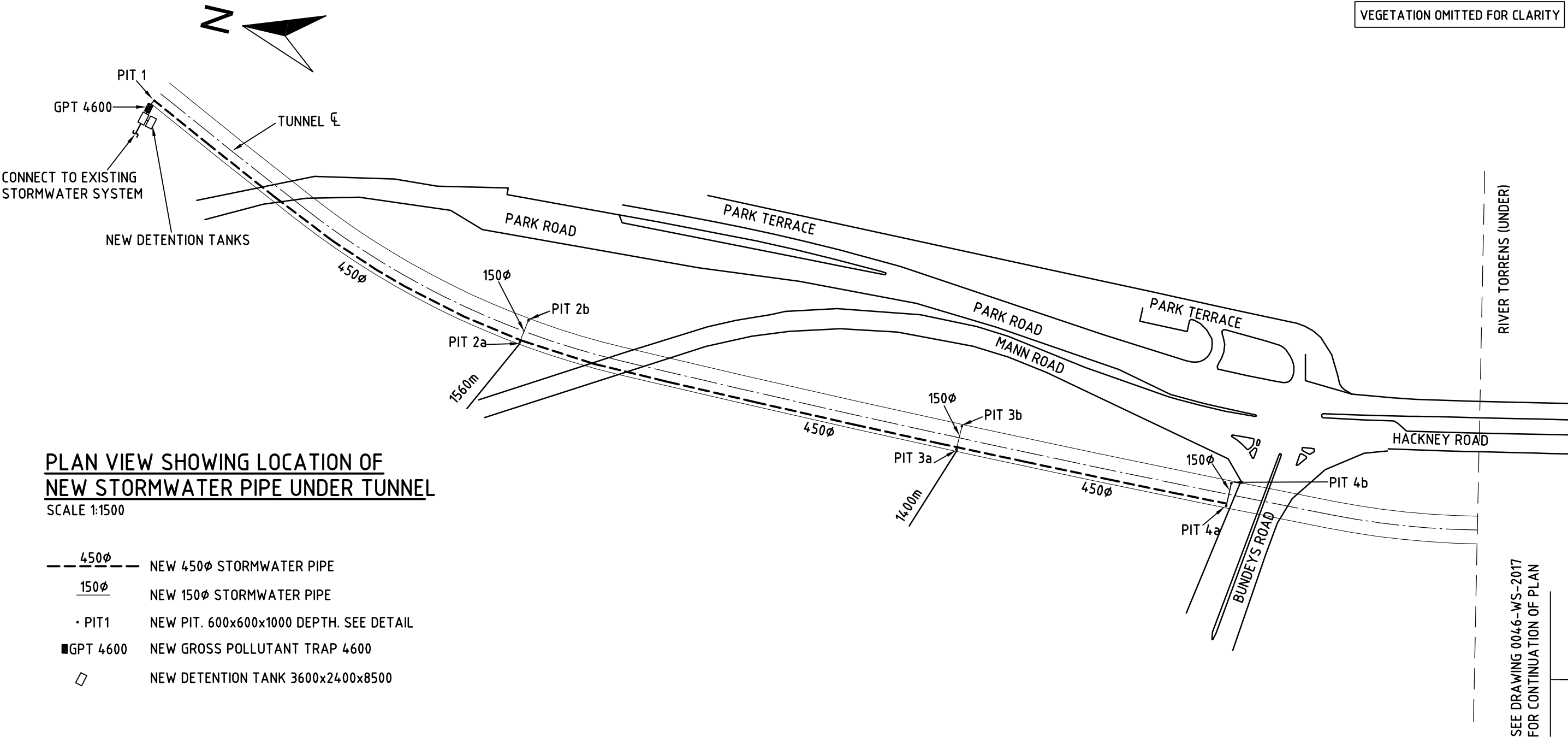


| | |
|---------------|---|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: NATHAN CERONE DEPARTMENT: WATER AND SERVICES |

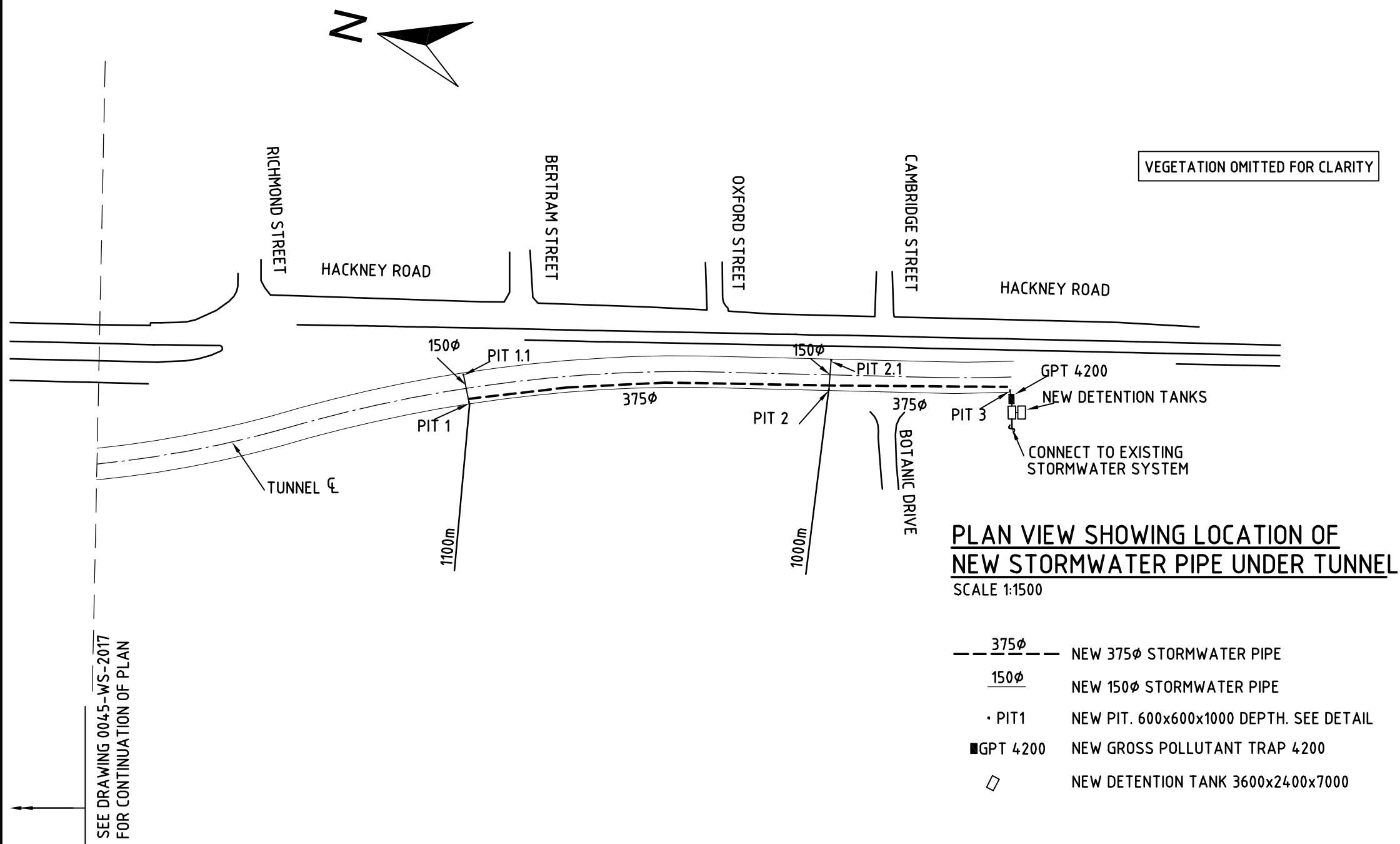
| | |
|---------------|------------------------------------|
| DRAWING TITLE | LUMINAIRE SOLUTION NORTHERN END |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0043-WS-2017 |



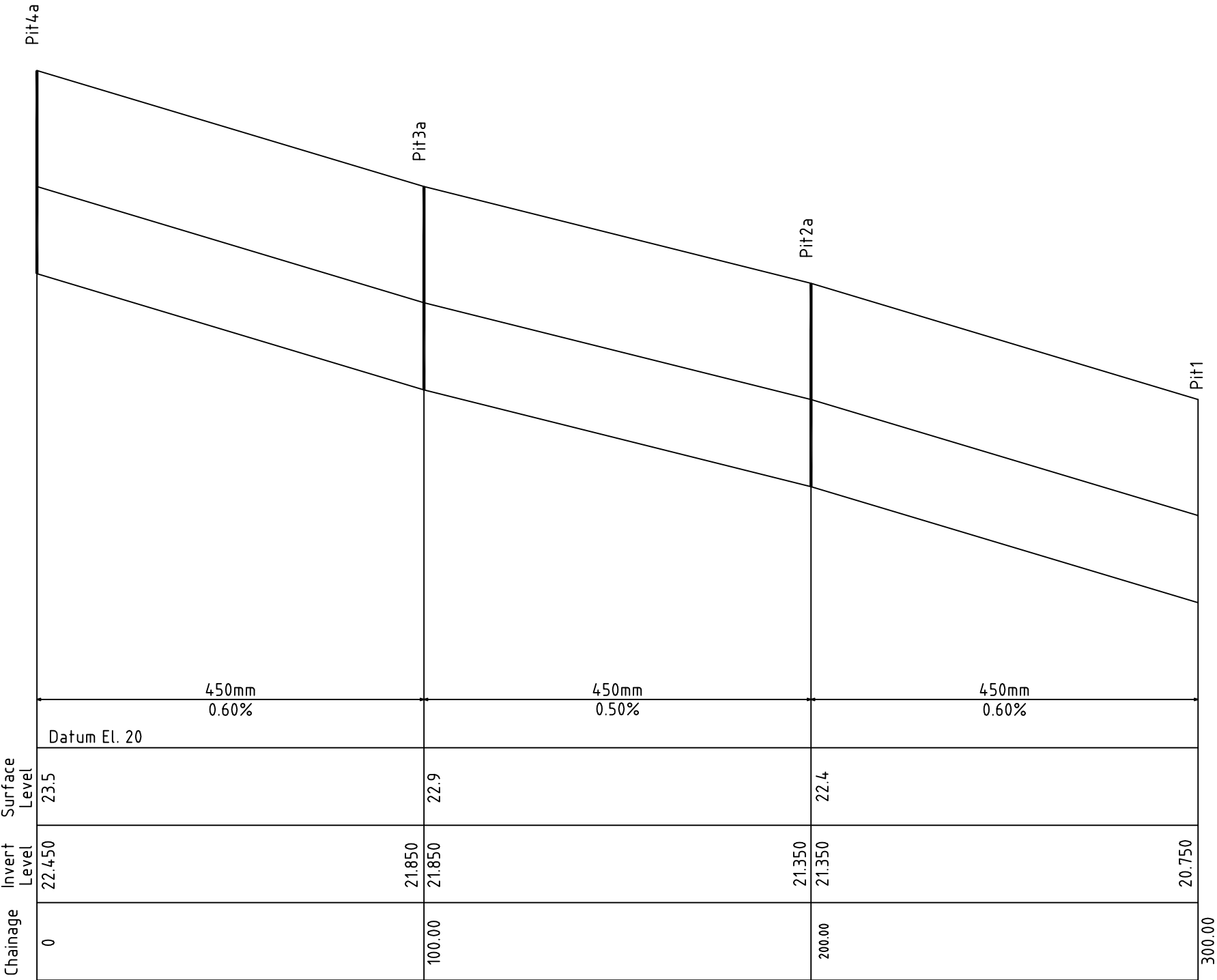
| | | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|------------------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | LUMINAIRE SOLUTION SOUTHERN END | |
| | | | | | SITE ADDRESS | | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | | |
| | | | DRAWING INFO | | SCALE | | |
| | | | DRAWN BY: NATHAN CERCONO | | A3 SHEET = 1:2000 OR AS SHOWN | | |
| | | | DEPARTMENT: WATER AND SERVICES | | DRAWING NO. | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | 0044-WS-2017 | | |



| | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|--|
| Issue No | Purpose | Date |  |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | TUNNEL DRAINAGE SYSTEM LAYOUT- NORTHERN PART |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:1500 OR AS SHOWN | |
| | | | DRAWN BY: GEORGE PHILLIPSON | DRAWING NO. | 0045-WS-2017 | |
| | | | DEPARTMENT: CAD MANAGER | | | |

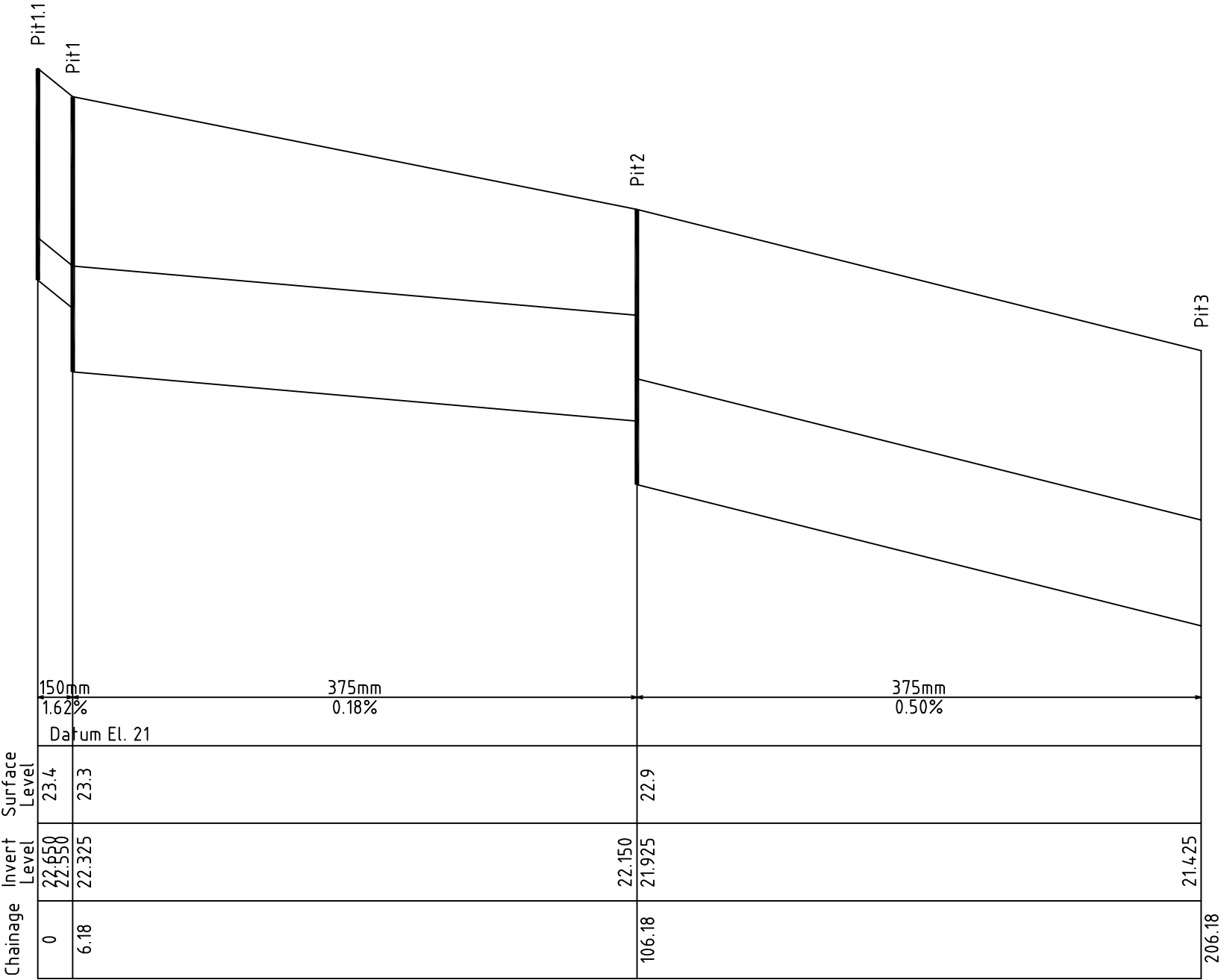


| | | | | | | | |
|--|---------------------|----------|---|---|-------------------------------|--|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | TUNNEL DRAINAGE SYSTEM LAYOUT- SOUTHERN PART | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | HACKNEY ROAD, ADELAIDE SA | | A3 SHEET = 1:1500 OR AS SHOWN | | |
| | | | DRAWING INFO | | DRAWING NO. | | |
| | | | DRAWN BY: GEORGE PHILLIPSON DEPARTMENT: CAD MANAGER | 0046-WS-2017 | | | |



TUNNEL NORTHERN END - LONG SECTION VIEW
SCALE N.T.S.

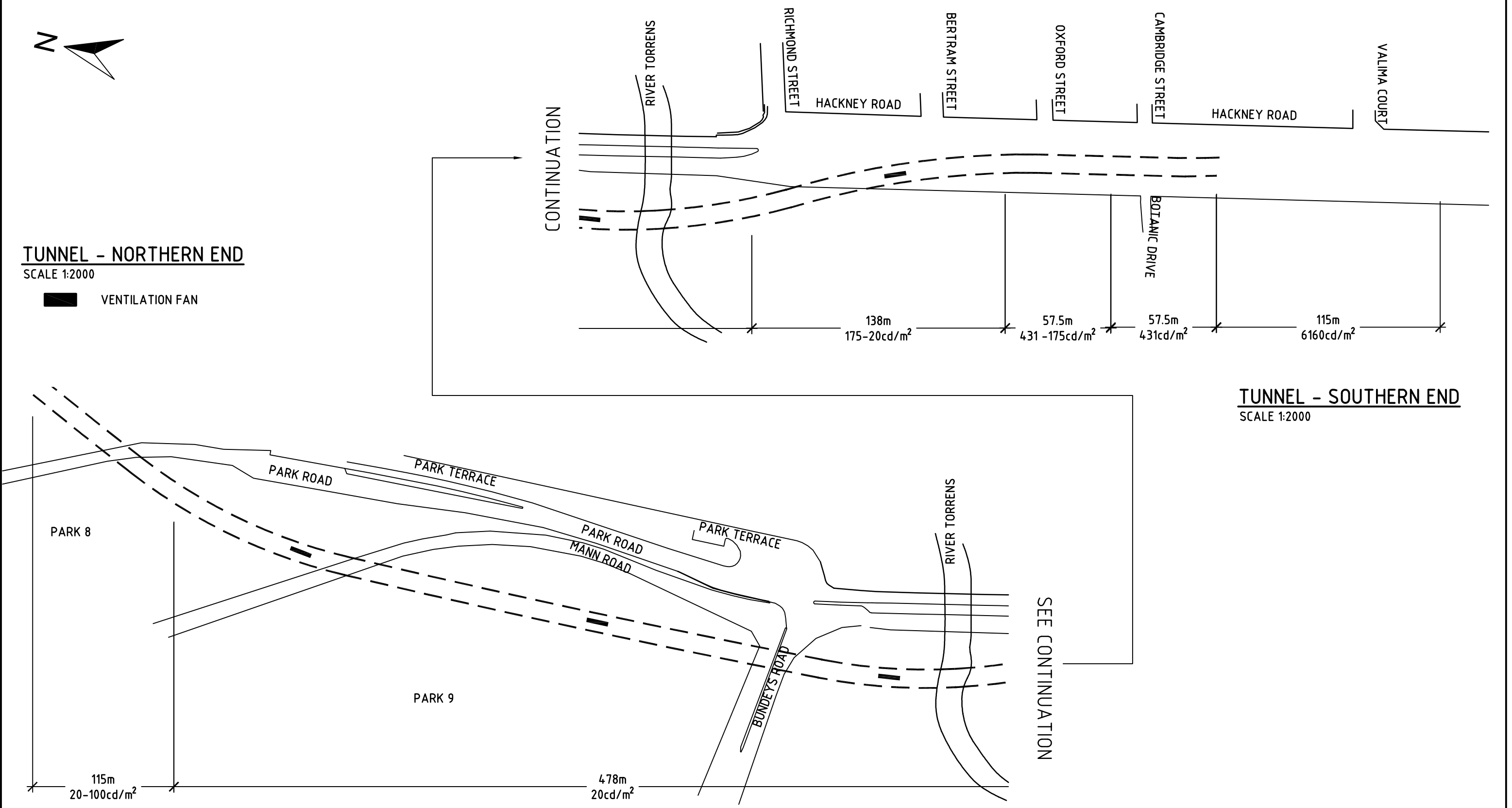
| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---|--|
| Issue No | Purpose | Date |  |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | TUNNEL NORTHERN END - LONG SECTION VIEW | |
| | | | | | SITE ADDRESS | | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | | |
| | | | DRAWING INFO | | SCALE | | |
| | | | DRAWN BY: TRACEY PHAM | | A3 SHEET = NOT TO SCALE | | |
| | | | DEPARTMENT: WATER AND SERVICES | | DRAWING NO. | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | 0047-WS-2017 | | | |



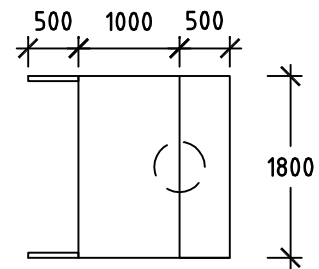
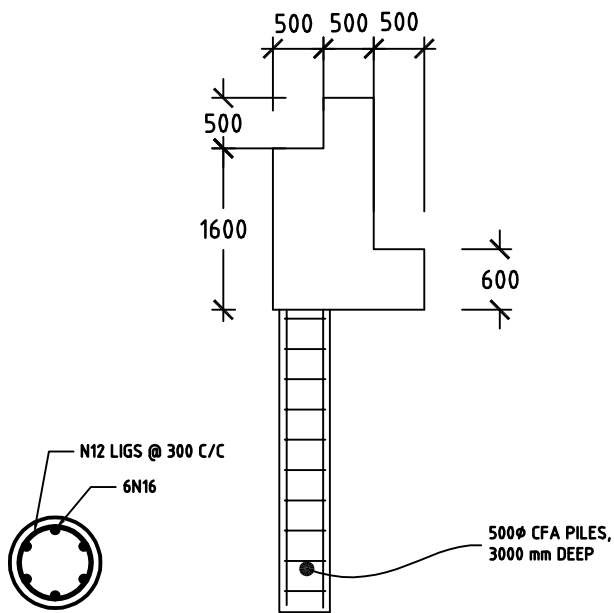
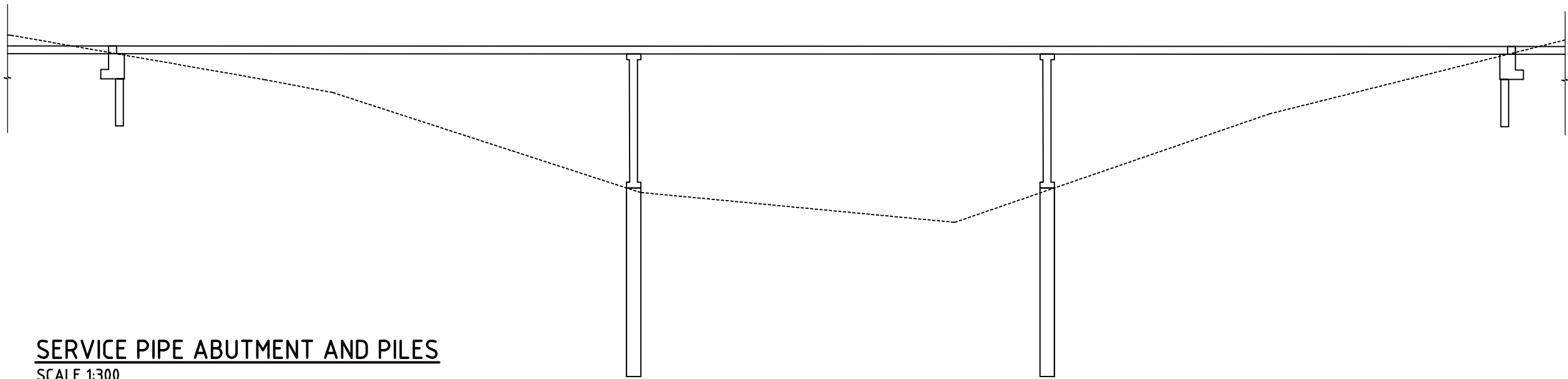
TUNNEL SOUTHERN END - LONG SECTION VIEW
SCALE N.T.S.

| | | | | | | |
|--|---------------------|----------|---|---|---|---|
| Issue No | Purpose | Date |  |  | CONTRACT NAME | DRAWING TITLE |
| | | | | | O-BAHN CITY ACCESS UPGRADE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | SITE ADDRESS | TUNNEL SOUTHERN END - LONG SECTION VIEW |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: TRACEY PHAM DEPARTMENT: WATER AND SERVICES | A3 SHEET = NOT TO SCALE |
| | | | | | | DRAWING NO. 0048-WS-2017 |

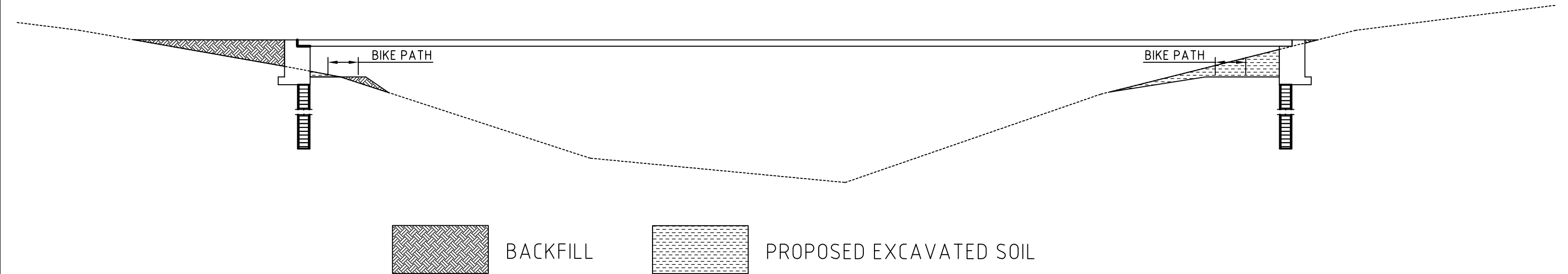
This document has been developed by students from the University of South Australia as part of the Civil Engineering Design Project course. This document and any associated works relating to it is for the purposes of academic study only and does not represent the views or opinions of the end client, (Department of Planning Transport and Infrastructure (DPTI))



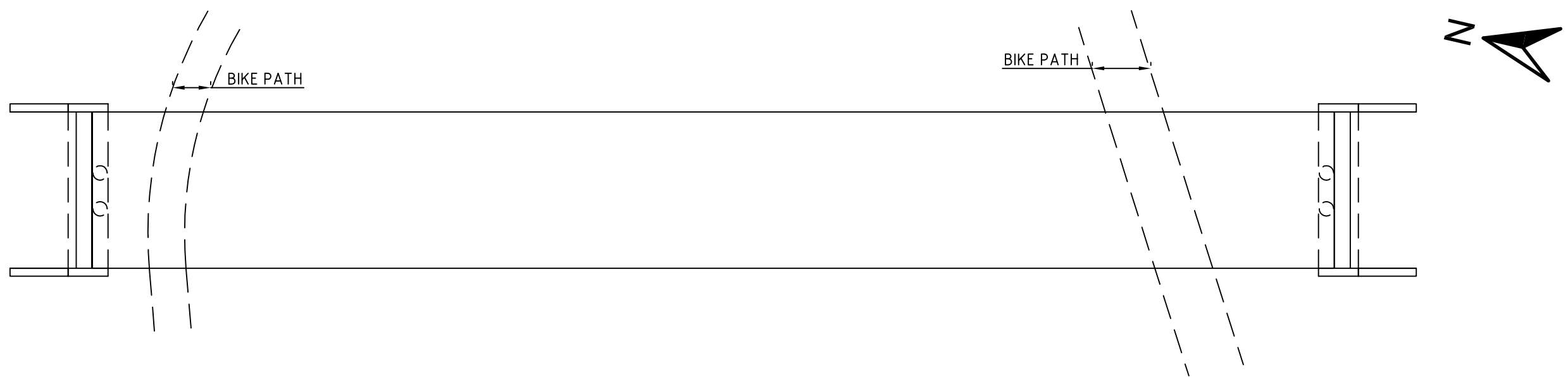
| | | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|--------------------------------------|--|--|
| Issue No | Purpose | Date |  |  | CONTRACT NAME | DRAWING TITLE | | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | NEW TUNNEL VENTILATION FAN LOCATIONS | | |
| | | | | | SITE ADDRESS | SCALE | | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:2000 OR AS SHOWN | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | DRAWING INFO | | | DRAWING NO. | | |
| | | | DRAWN BY: HARRIS TSIMIKLIS | | | 0049-WS-2017 | | |
| | | | DEPARTMENT: WATER AND SERVICES | | | | | |



| | | | | | | |
|--|---------------------|----------|---|---|------------------------------------|---|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SERVICE BRIDGE FOUNDATION LAYOUT AND DETAILED DESIGN |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE |
| | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:75, 1:300 OR AS SHOWN | |
| | | | | DRAWING INFO | DRAWING NO. | |
| | | | | DRAWN BY: BLAKE SAUNDERS DEPARTMENT: GEOTECHNICAL | 0001-GE-2017 | |

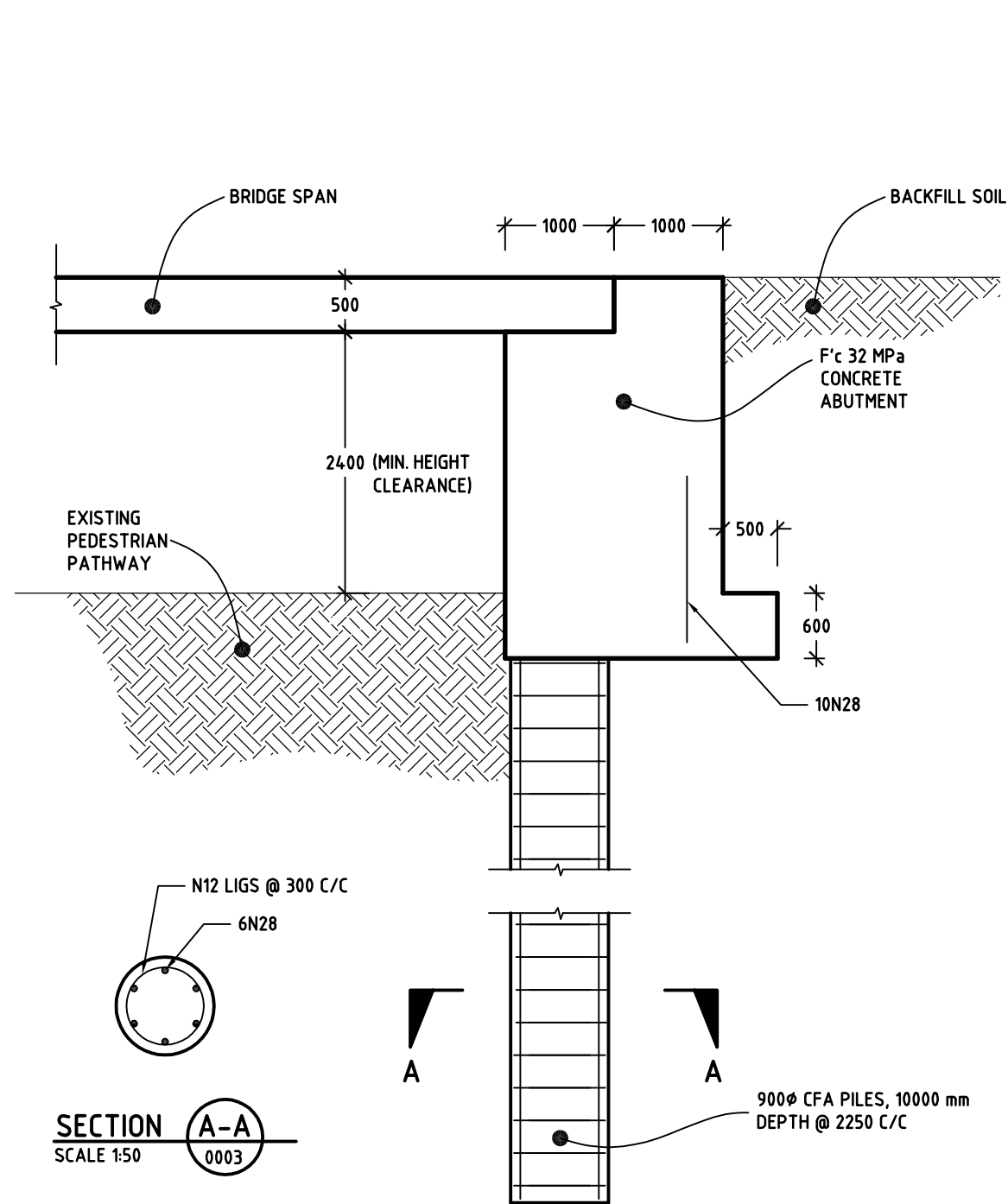


TUNNEL BRIDGE ABUTMENT
SCALE 1:300

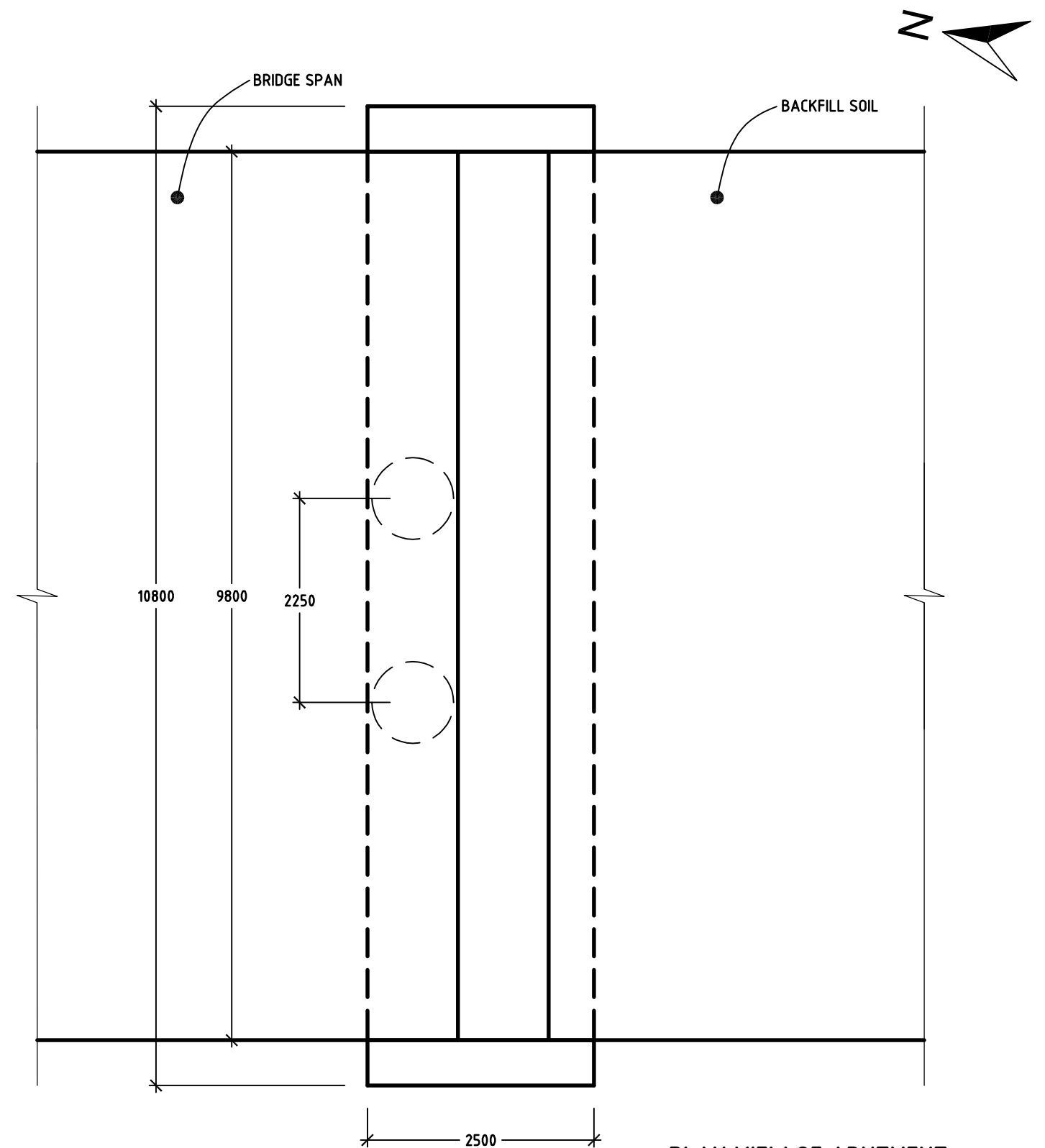


TUNNEL BRIDGE ABUTMENT PLAN VIEW
SCALE 1:300

| | | | | | | | |
|--|---------------------|----------|---|---|------------------------------|---------------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | TUNNEL BRIDGE FOUNDATION LAYOUT | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:300 OR AS SHOWN | | |
| | | | | DRAWING INFO | DRAWING NO. | | |
| | | | | DRAWN BY: GIA VO | 0002-GE-2017 | | |
| | | | | DEPARTMENT: GEOTECHNICAL | | | |

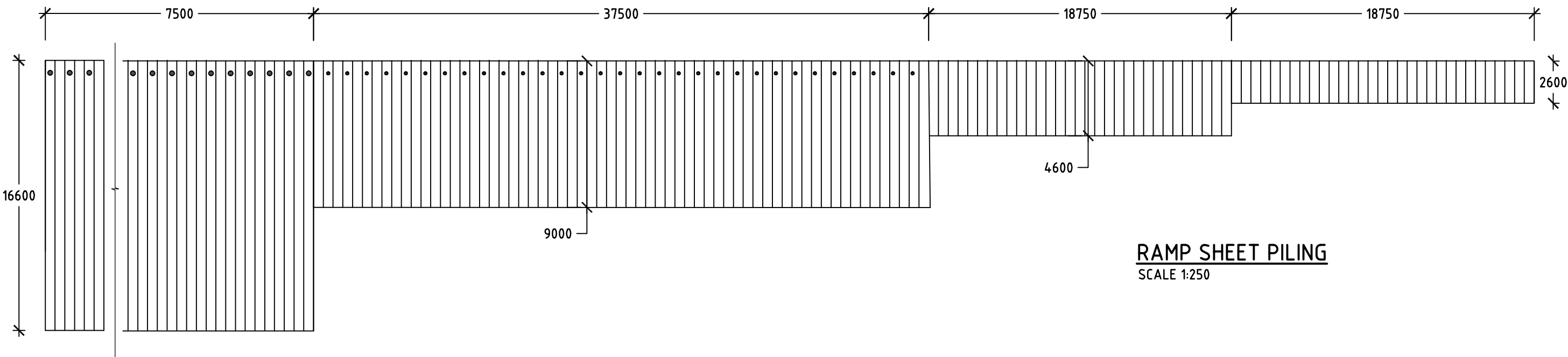


CROSS-SECTION OF ABUTMENT
SCALE 1:50

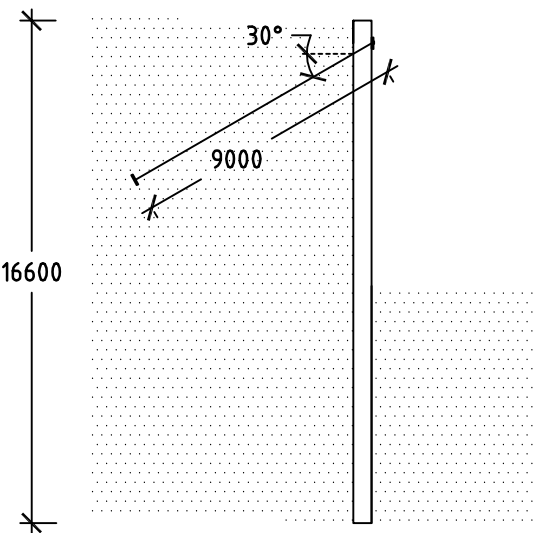


PLAN VIEW OF ABUTMENT
SCALE 1:60

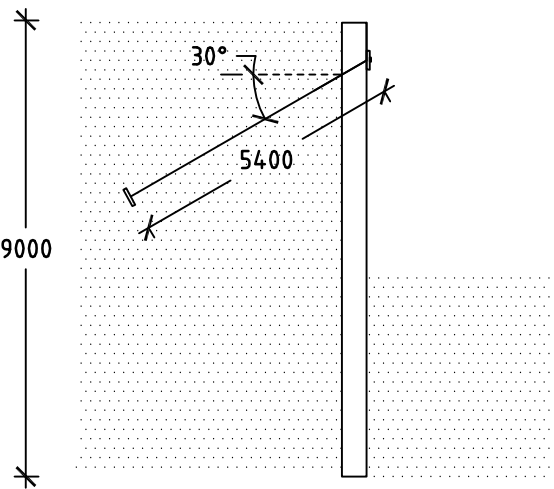
| | | | | | | |
|--|---------------------|----------|---|---|-----------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | TUNNEL BRIDGE FOUNDATIONS DETAILED DESIGN |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE |
| | | | HACKNEY ROAD, ADELAIDE SA | | A3 SHEET = 1:10 OR AS SHOWN | |
| | | | DRAWING INFO | | DRAWING NO. | |
| | | | DRAWN BY: KARSTEN TARAAZIL DEPARTMENT: GEOTECHNICAL | | 0003-GE-2017 | |



RAMP SHEET PILING
SCALE 1:250

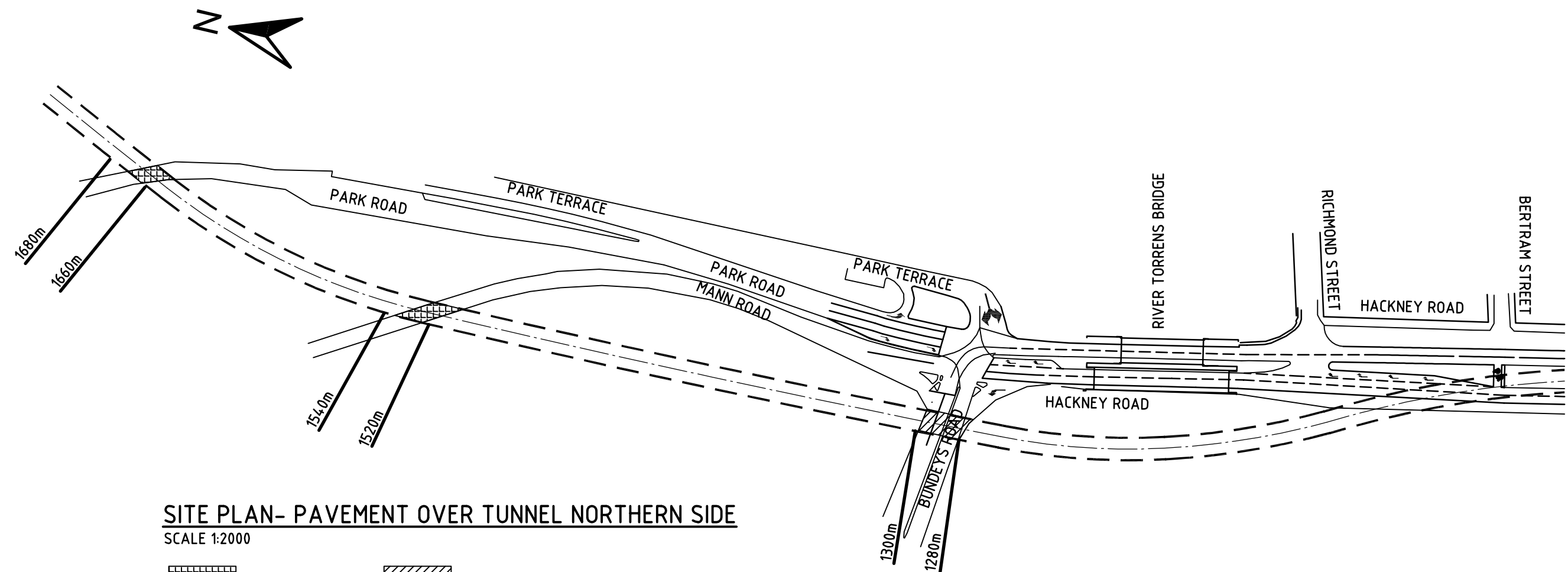


300mm Grout Anchor
SCALE 1:150



200mm Grout Anchor
SCALE 1:150

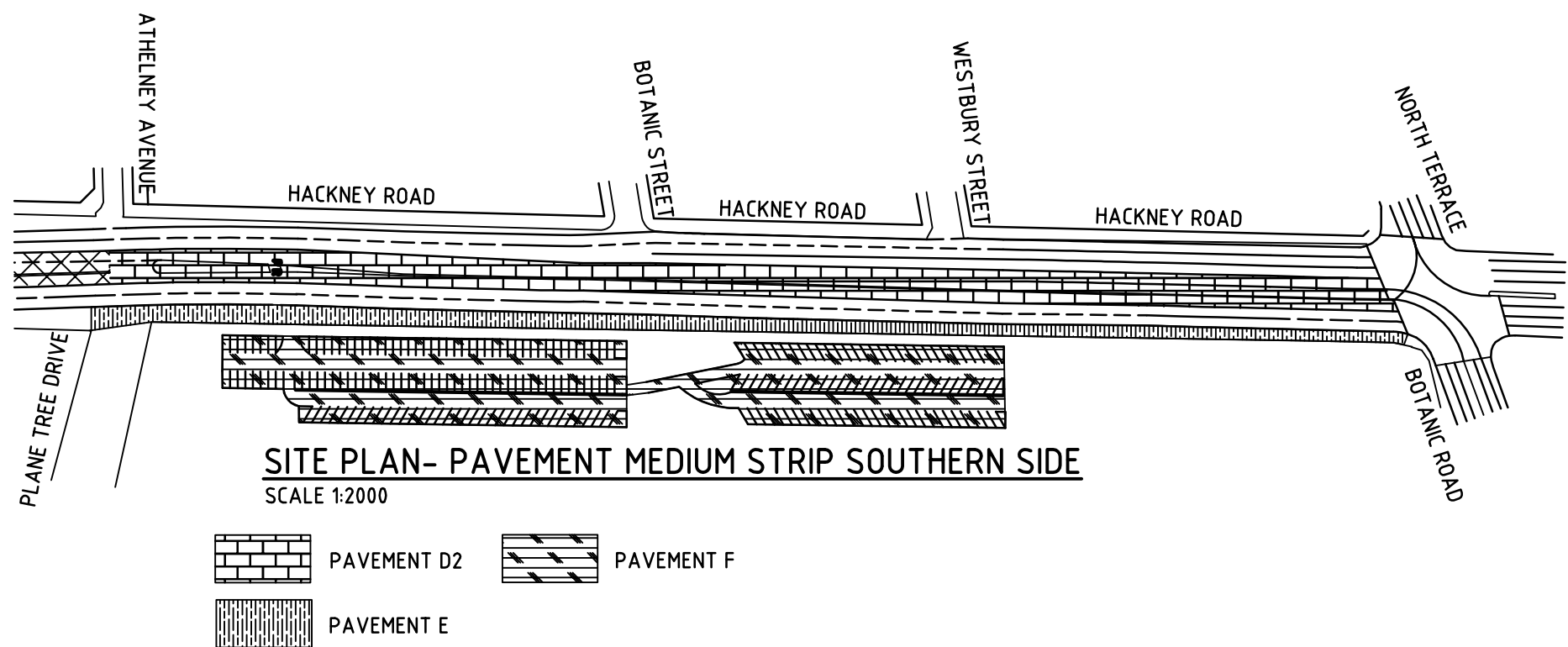
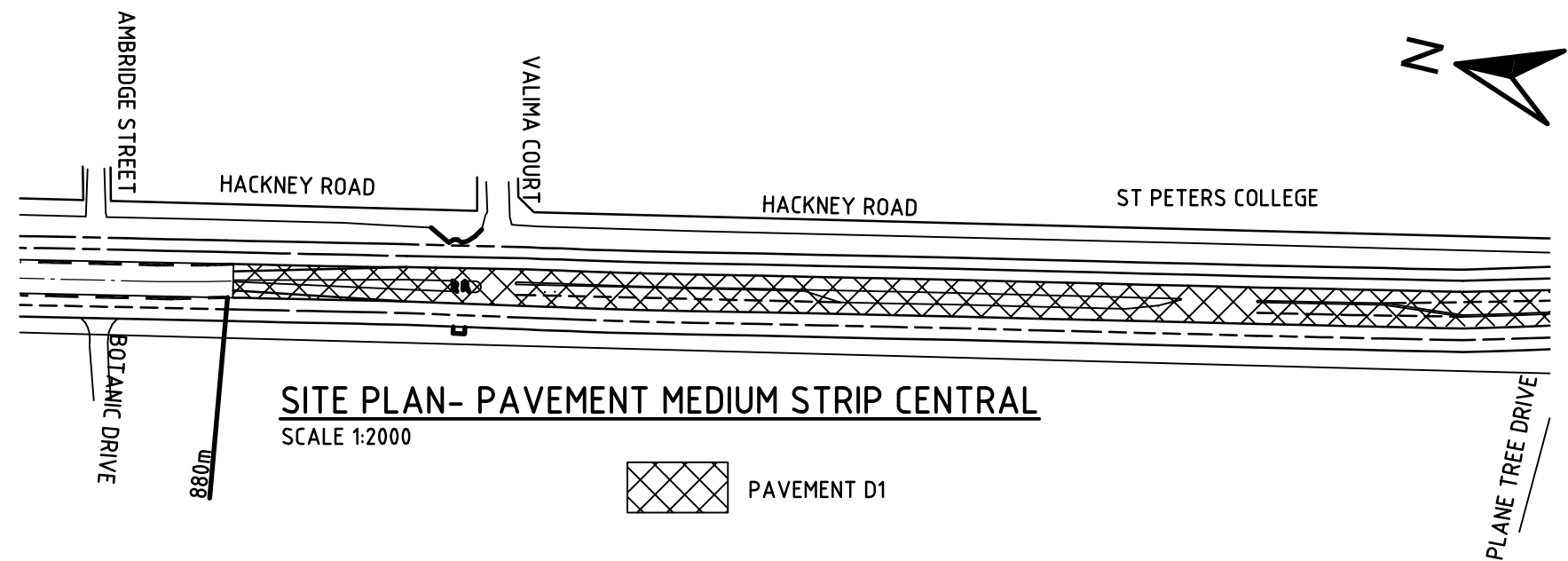
| Issue No | Purpose | Date |   | | CONTRACT NAME | DRAWING TITLE | |
|--|---------------------|----------|---|--|--|---------------|-------------------------------------|
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | | |
| | | | | | DRAWING INFO | SCALE | A3 SHEET = 1:150, 1:250 OR AS SHOWN |
| | | | | | DRAWN BY: PETER LOCK DEPARTMENT: GEOTECHNICAL | DRAWING NO. | 0004-GE-2017 |



SITE PLAN- PAVEMENT OVER TUNNEL NORTHERN SIDE
SCALE 1:2000

- PAVEMENT A
- PAVEMENT B
- PAVEMENT C

| | | | | | | | | |
|--|---------------------|----------|---|---|---|--|---|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME O-BAHN CITY ACCESS UPGRADE | | DRAWING TITLE PAVEMENT DESIGN LOCATIONS NORTHERN SIDE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | SITE ADDRESS HACKNEY ROAD, ADELAIDE SA | | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO DRAWN BY: ALEC DAWSON DEPARTMENT: GEOTECHNICAL | | SCALE A3 SHEET = 1:2000 OR AS SHOWN | |
| | | | | | DRAWING NO. | | 0005-GE-2017 | |

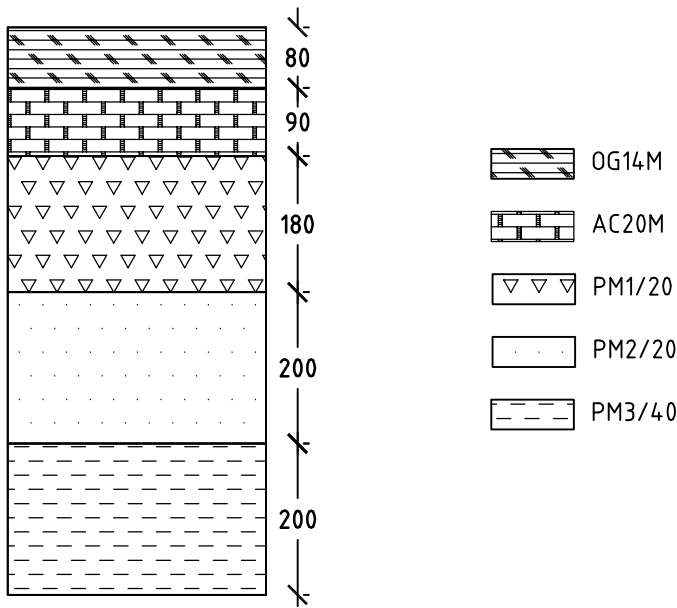


| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |

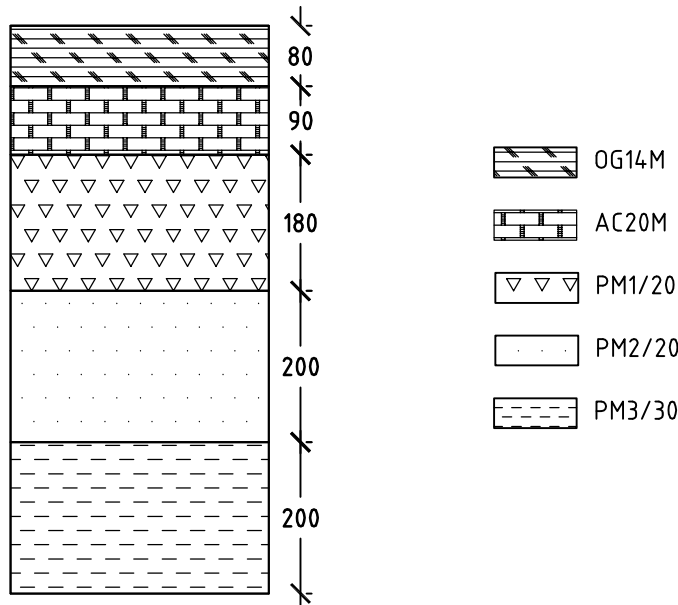


| | |
|---------------|---|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: ALEC DAWSON DEPARTMENT: GEOTECHNICAL |

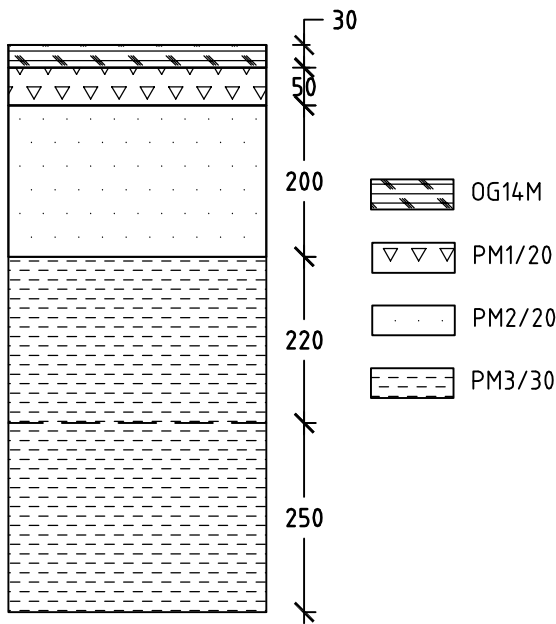
| | |
|---------------|--|
| DRAWING TITLE | PAVEMENT DESIGN LOCATIONS CENTRAL AND SOUTHERN SIDE |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0006-GE-2017 |



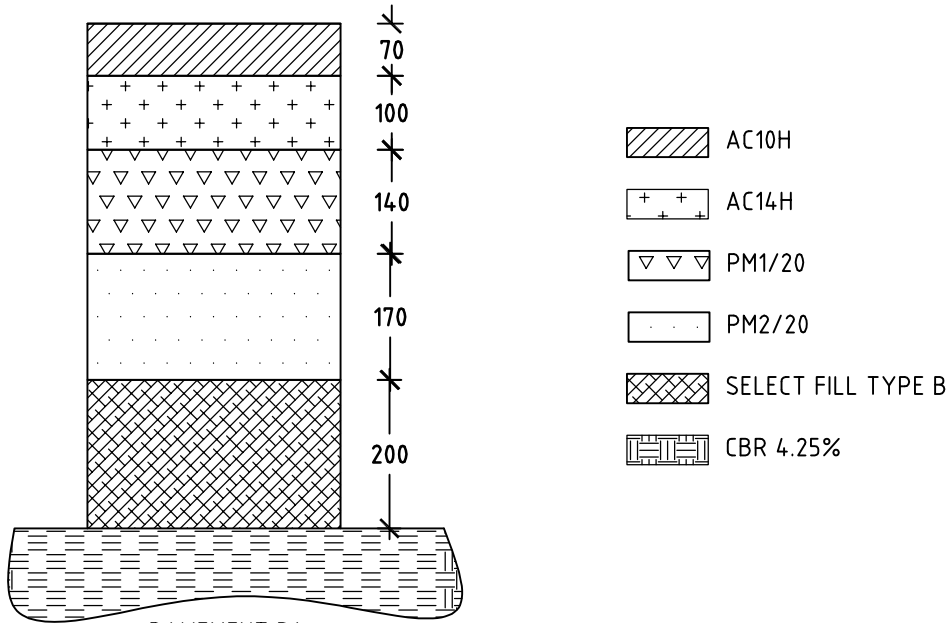
PAVEMENT A



PAVEMENT B



PAVEMENT C

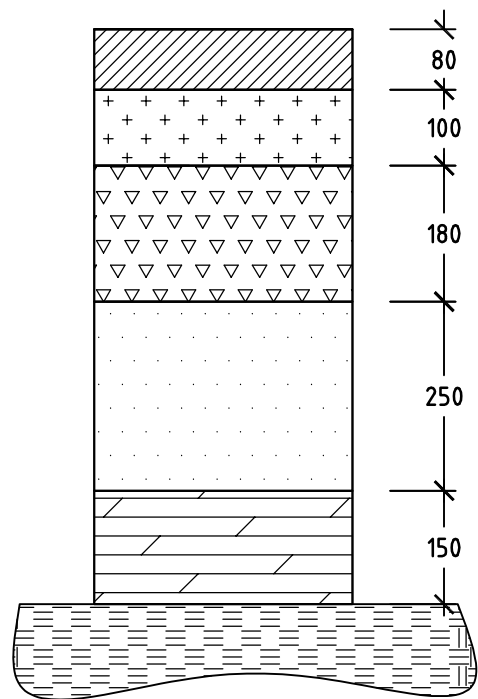


PAVEMENT D1

PAVEMENT DESIGNS
SCALE 1:10

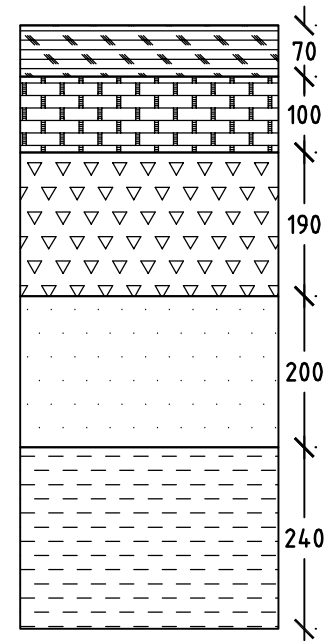
| | | | | | | |
|----------|---------------------|----------|---|---|----------------------------|-----------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | PAVEMENT DETAILED DESIGN |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: BLAKE SAUNDERS | A3 SHEET = 1:10 OR AS SHOWN |
| | | | | | DEPARTMENT: GEOTECHNICAL | DRAWING NO. |
| | | | | | | 0007-GE-2017 |

ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE



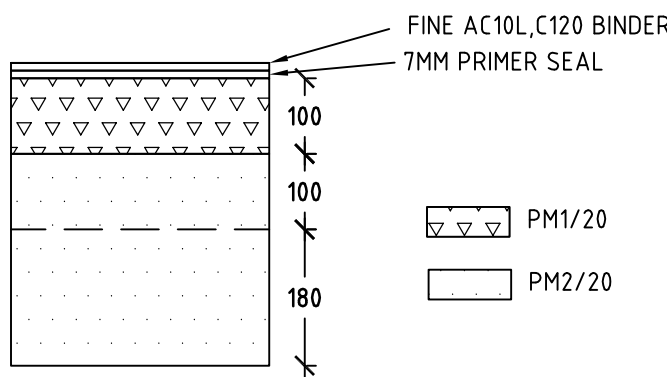
PAVEMENT D2

- AC10H
- AC14H
- PM1/20
- PM2/20
- SELECT FILL TYPE C
- CBR 3%



PAVEMENT E

- OG14M
- AC20M
- PM1/20
- PM2/20
- PM3/40



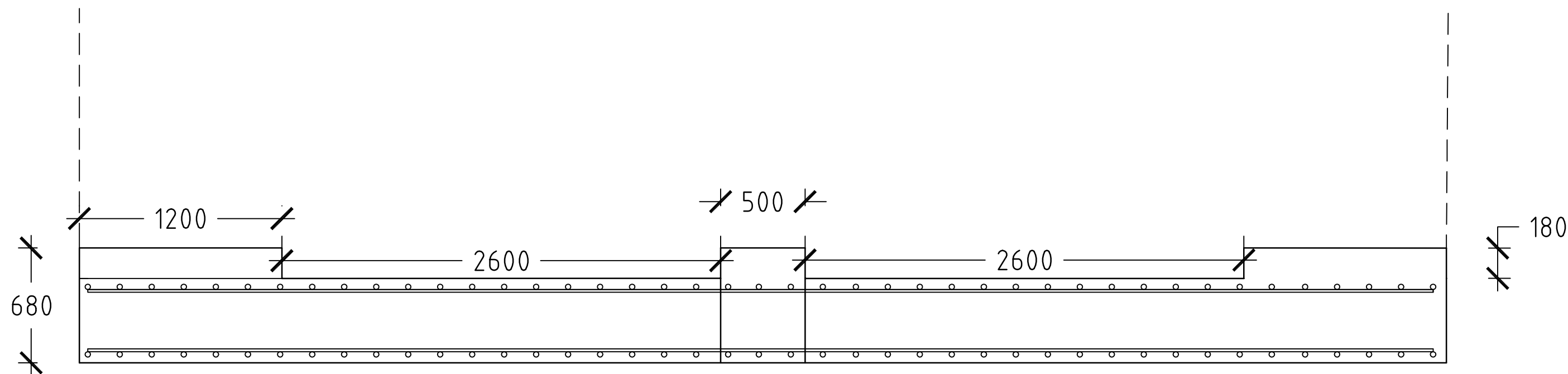
PAVEMENT F

- PM1/20
- PM2/20

PAVEMENT DESIGNS

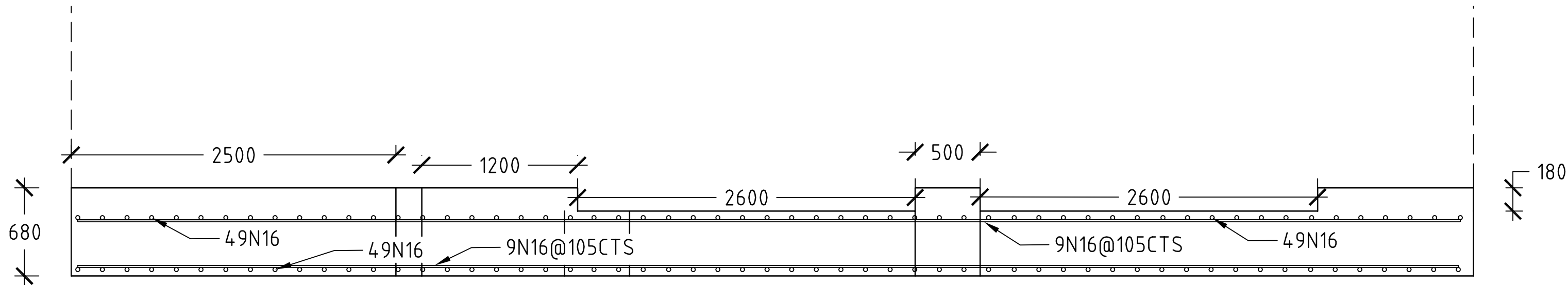
SCALE 1:10

| | | | | | | |
|--|---------------------|----------|---|---|-----------------------------|--------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | PAVEMENT DETAILED DESIGN |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:10 OR AS SHOWN | |
| | | | DRAWN BY: ALEC DAWSON DEPARTMENT: GEOTECHNICAL | DRAWING NO. | 0008-GE-2017 | |



TUNNEL BRIDGE PAVEMENT

SCALE 1:300



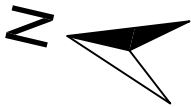
TUNNEL BRIDGE PAVEMENT

SCALE 1:300

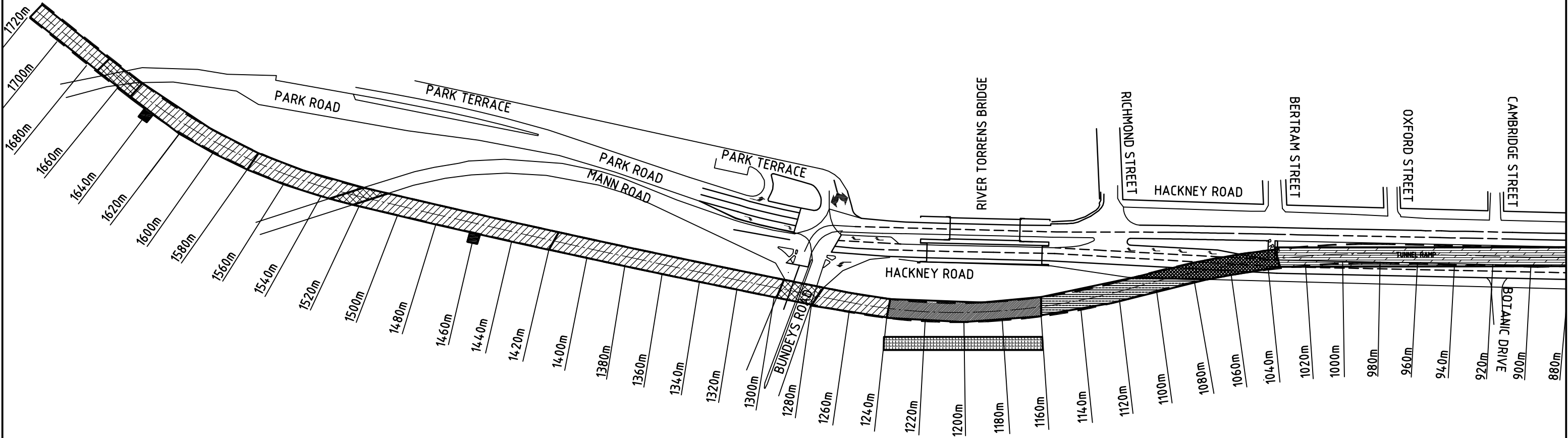
| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | TUNNEL BRIDGE PAVEMENT DETAILED DESIGN |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:300 OR AS SHOWN |
| | | | | | DRAWING INFO | DRAWING NO. |
| | | | DRAWN BY: GIA VO DEPARTMENT: GEOTECHNICAL | 0009-GE-2017 | | |

SITE PLAN - STRUCTURAL COMPONENT SECTION LOCATIONS

SCALE 1:2000



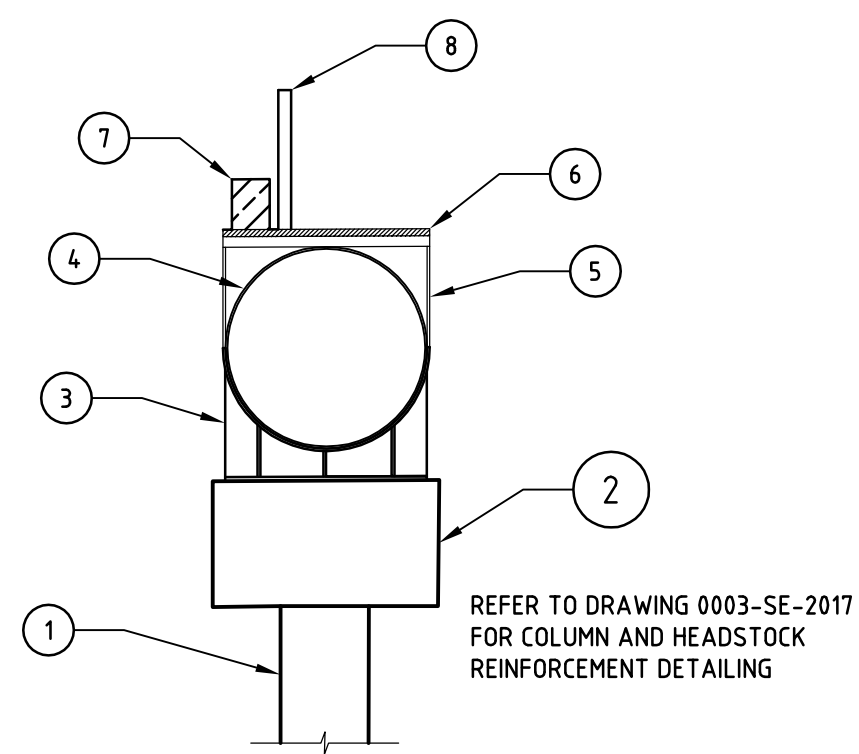
- SECTIONS 1 (TUNNEL): 0009 PARK PLANK (P2)
0013 COMPOSITE CONNECTION (C2)
- SECTIONS 2 (TUNNEL): 0008 ROAD PLANK (P1)
0012 COMPOSITE CONNECTION (C1)
- SECTIONS 3 (TUNNEL): 0011 PARK PLANK (P4)
0015 COMPOSITE CONNECTION (C4)
- SECTIONS 4 (TUNNEL): 0010 ROAD PLANK (P3)
0014 COMPOSITE CONNECTION (C3)
- SECTIONS 5 (TUNNEL BRIDGE): 0004 CEILING
0005 WALLS
0006 SLAB
0007 CROSS-SECTION
- SECTIONS 6 (SERVICE BRIDGE): 0002 SECTION
0003 HEAD-STOCK
- SECTION 7 (LEVEL): 0016 TRAFFIC BARRIERS
- SECTION 8 (STAIRWELL): 0019 STAIRWAY DETAILING



| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |

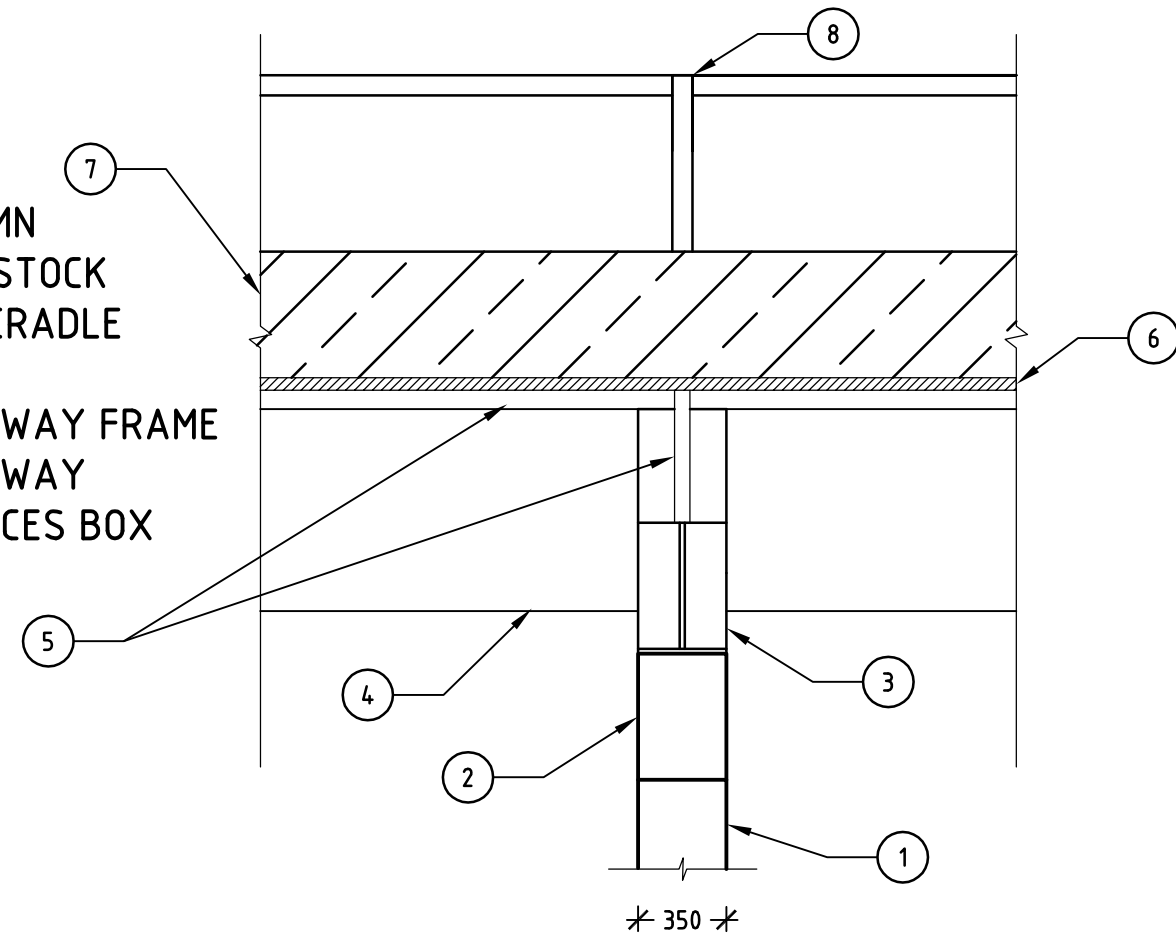
| | | | |
|-----------------------------------|-------------------|--|---|
| University of South Australia | EB Consulting | CONTRACT NAME O-BAHN CITY ACCESS UPGRADE | DRAWING TITLE STRUCTURAL CONTEXT MAP |
| | | SITE ADDRESS HACKNEY ROAD, ADELAIDE SA | |
| | | DRAWING INFO DRAWN BY: HORIA RUSU DEPARTMENT: STRUCTURAL | SCALE A3 SHEET = 1:2000 OR AS SHOWN DRAWING NO. 0001-SE-2017 |

- 1. COLUMN
- 2. HEADSTOCK
- 3. PIPE CRADLE
- 4. PIPE
- 5. WALKWAY FRAME
- 6. WALKWAY
- 7. SERVICES BOX
- 8. RAIL

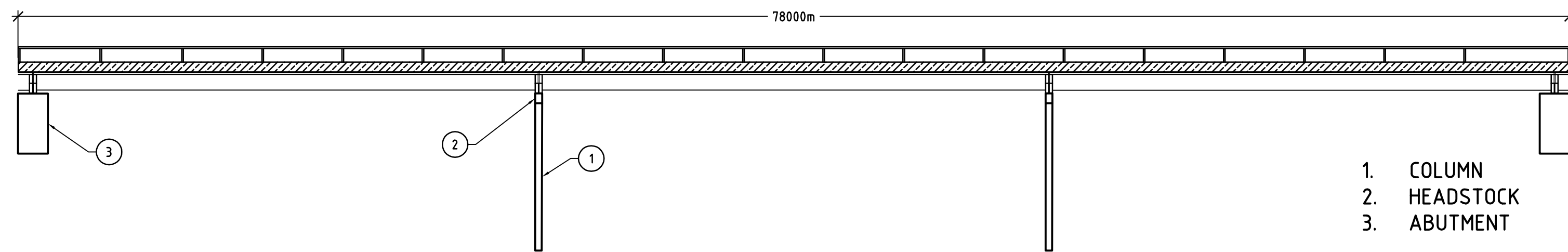


SERVICES BRIDGE CROSS SECTION
SCALE 1:30

- 1. COLUMN
- 2. HEADSTOCK
- 3. PIPE CRADLE
- 4. PIPE
- 5. WALKWAY FRAME
- 6. WALKWAY
- 7. SERVICES BOX
- 8. RAIL



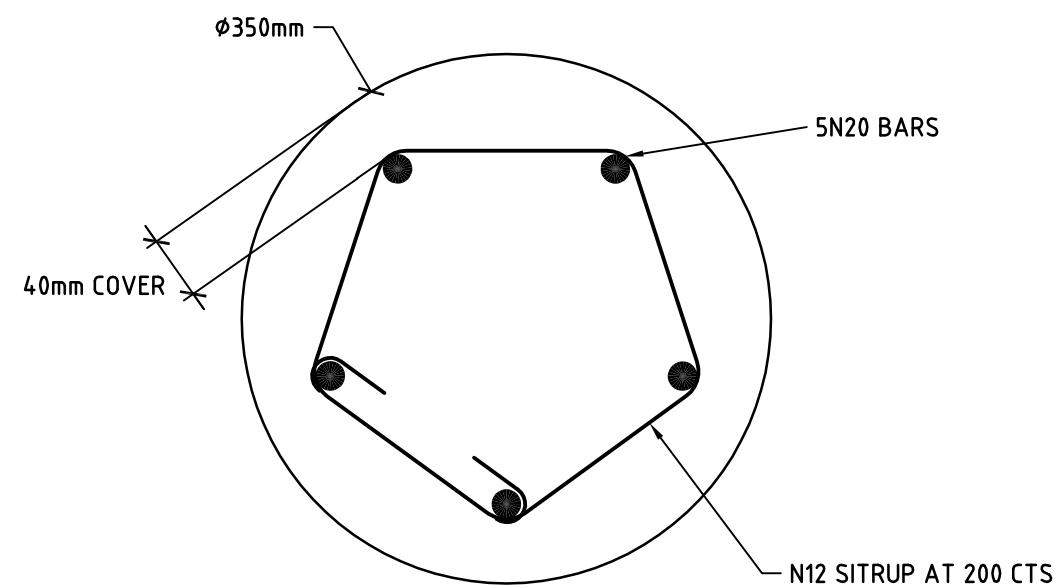
SERVICES BRIDGE ELEVATION AT CONNECTION
SCALE 1:30



- 1. COLUMN
- 2. HEADSTOCK
- 3. ABUTMENT

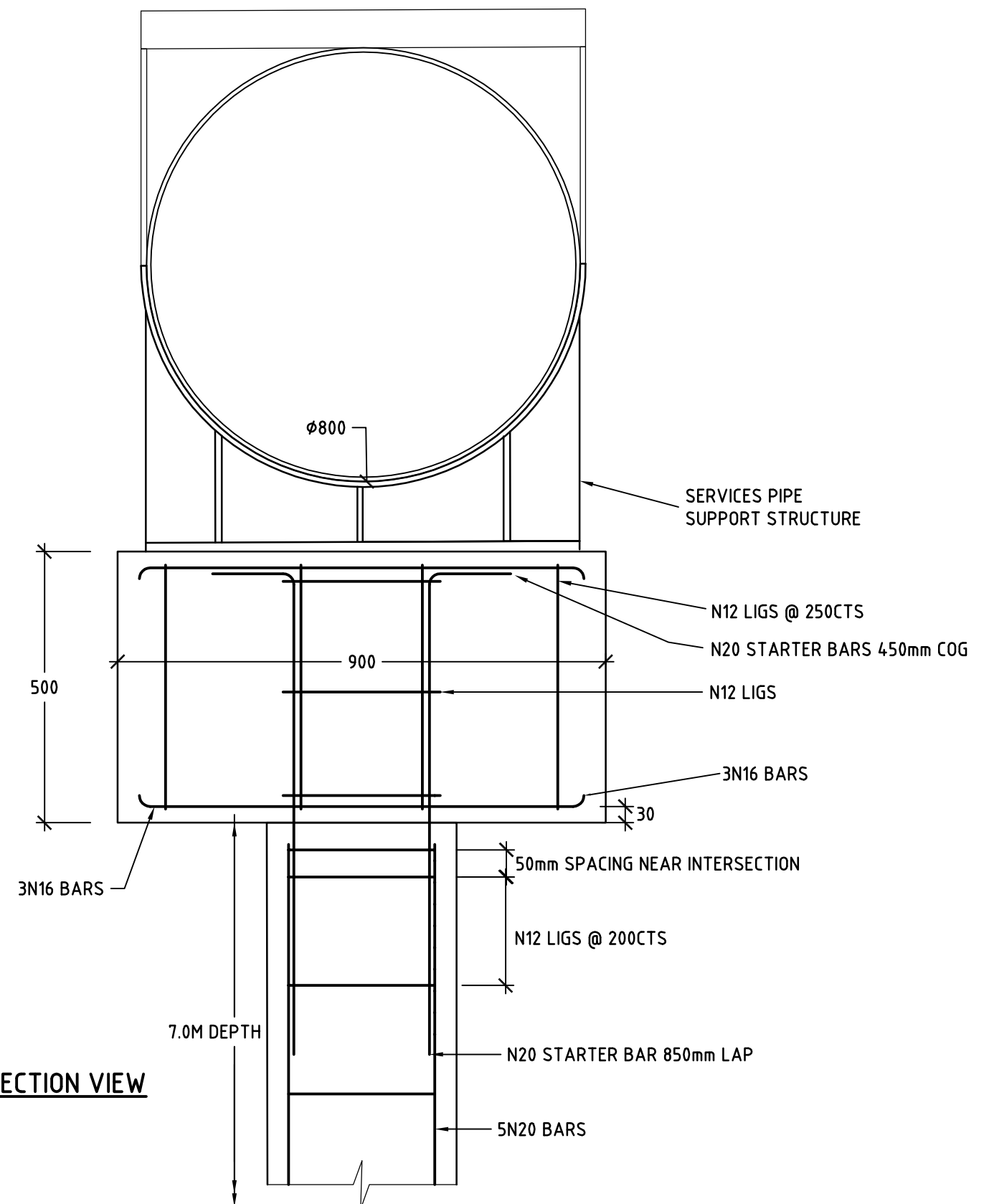
SERVICE BRIDGE ELEVATION
SCALE 1:200

| | | | | | | |
|--|------------------------------------|----------|---|---|----------------------------|-----------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 6 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SERVICES BRIDGE |
| | | | HACKNEY ROAD, ADELAIDE SA | | | |
| | | | | | | DRAWING INFO |
| DRAWN BY: JOSEPH CAVALLARO | A3 SHEET = 1:30, 1:200 OR AS SHOWN | | | | | |
| | | | DEPARTMENT: STRUCTURAL | DRAWING NO. | | |
| | | | | 0002-SE-2017 | | |



COLUMN PLAN VIEW
SCALE 1:5

NOTE
CONCRETE STRENGTH: 40MPa



COLUMN AND HEADSTOCK SECTION VIEW
SCALE 1:10

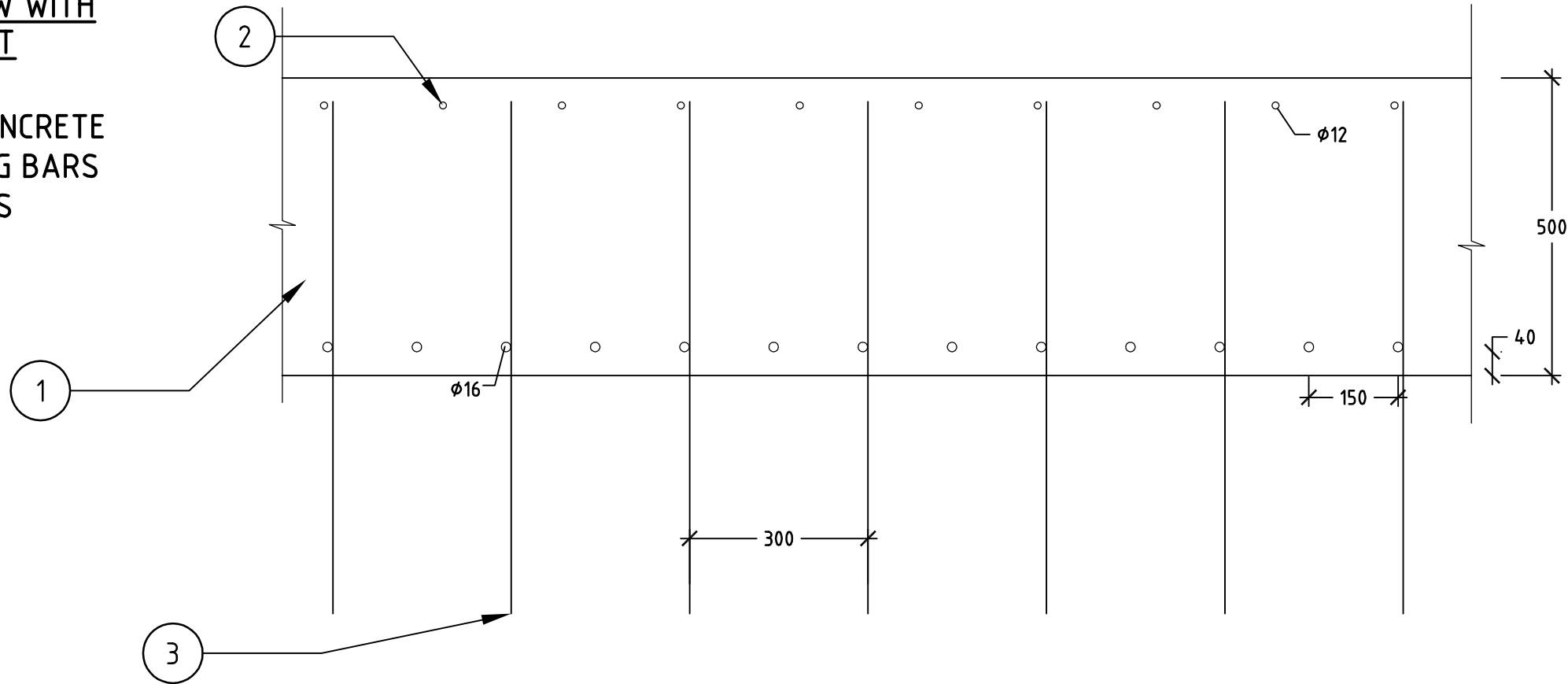
NOTE
CONCRETE STRENGTH: 40MPa

| | | | | | | |
|--|---------------------|----------|---|---|----------------------------------|-----------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 6 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | COLUMN AND HEADSTOCK DETAIL |
| | | | | | DRAWING INFO | SCALE |
| | | | DRAWN BY: LIAM WEGENER | | A3 SHEET = 1:5, 1:10 OR AS SHOWN | |
| | | | DEPARTMENT: STRUCTURAL | | DRAWING NO. | |
| | | | | | 0003-SE-2017 | |

CEILING ELEVATION VIEW WITH REINFORCEMENT LAYOUT

SCALE 1:10

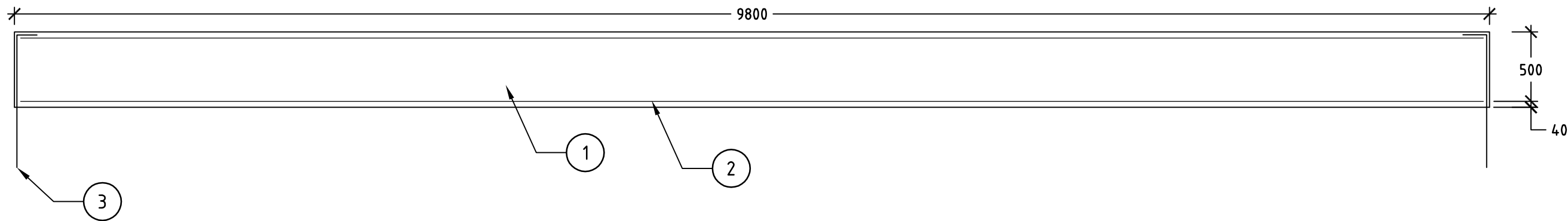
- 1. IN-SITU 40 MPa CONCRETE
- 2. STEEL REINFORCING BARS
- 3. N16 STARTER BARS



CROSS-SECTION OF TOP SLAB (CEILING)

SCALE 1:30

- 1. 40 MPa IN-SITU CONCRETE
- 2. STEEL REINFORCING BARS
- 3. N16 STARTER BARS AT 300 CTS



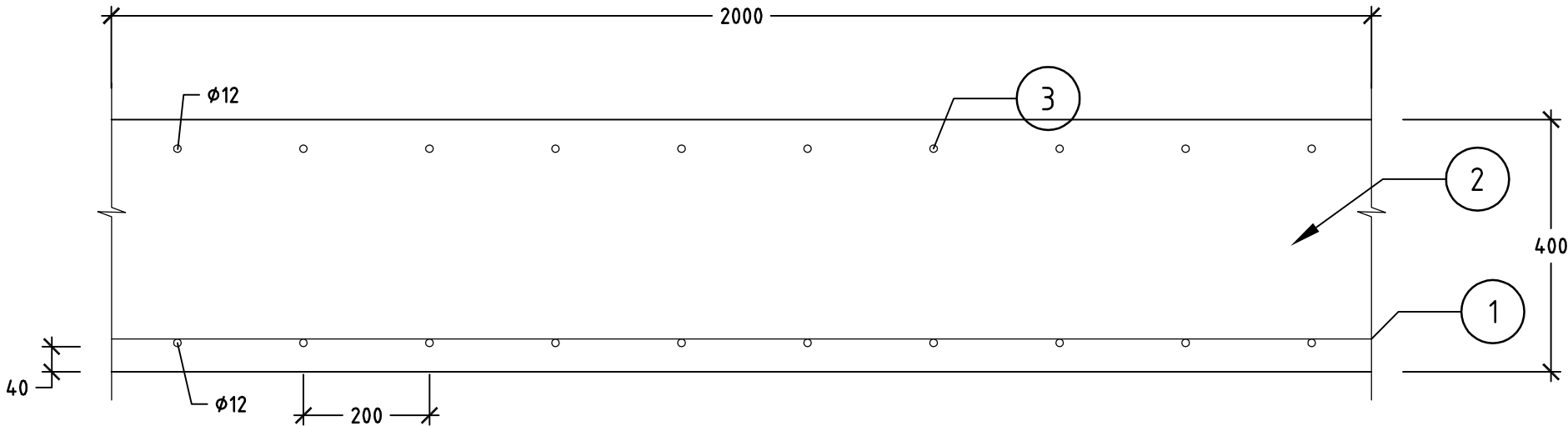
| | | | | | | |
|----------|---------------------|----------|---|---|----------------------------|---------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 5 |
| | | | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | CEILING OF TUNNEL BRIDGE | | |
| | | | DRAWING INFO | SCALE | | |
| | | | DRAWN BY: ADRIAN MATTO | A3 SHEET = 1:10, 1:30 OR AS SHOWN | | |
| | | | DEPARTMENT: STRUCTURAL | DRAWING NO. | | |
| | | | | 0004-SE-2017 | | |

ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE

PLAN VIEW OF THE TUNNEL WALLS SHOWING REINFORCEMENT LAYOUT

SCALE 1:10

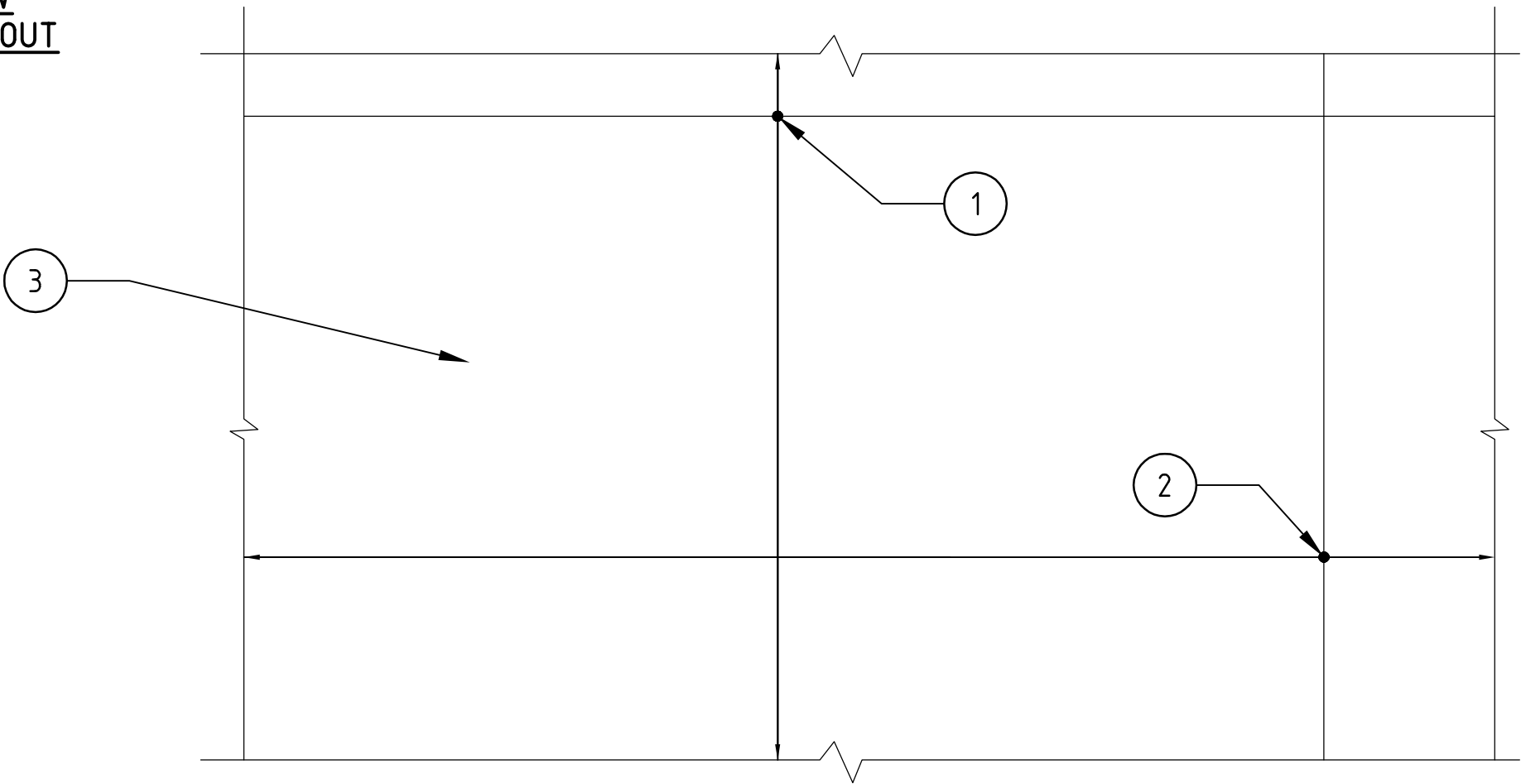
- 1. N16 BARS AT 100 CENTRES
- 2. IN-SITU 40 MPA CONCRETE
- 3. STEEL REINFORCING BARS



TUNNEL WALL ELEVATION VIEW
SHOWING REINFORCEMENT LAYOUT

SCALE 1:30

- 1. N16 BARS AT 100 CENTRES
- 2. N12 BARS AT 200 CENTRES
- 3. 40 MPa IN-SITU CONCRETE

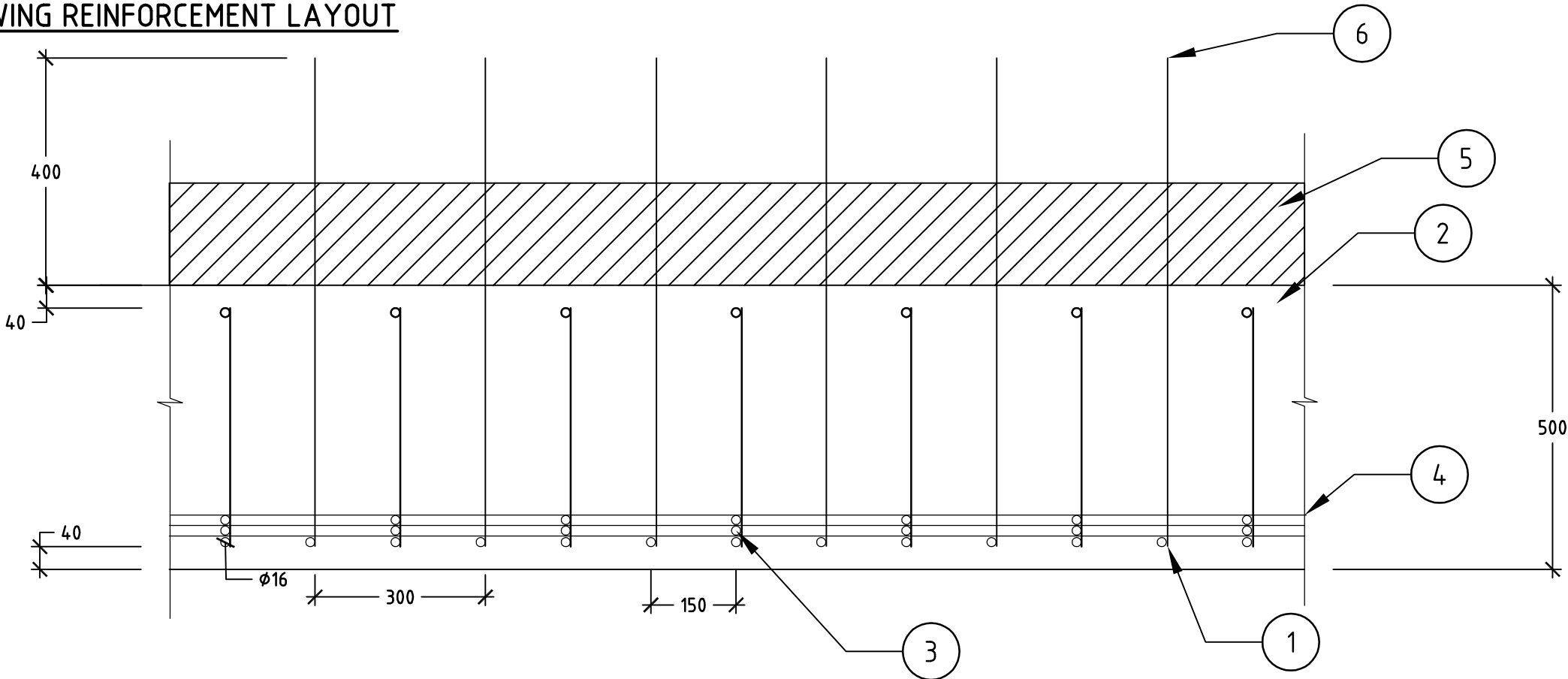


| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|--------------------|-----------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 5 | |
| | | | | | SITE ADDRESS | TUNNEL BRIDGE WALL | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | | |
| | | | | | DRAWING INFO | SCALE | A3 SHEET = 1:10, 1:30 OR AS SHOWN |
| | | | | | DRAWN BY: ADRIAN MATTO | DRAWING NO. | 0005-SE-2017 |
| | | | | | DEPARTMENT: STRUCTURAL | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | | | |

BOTTOM SLAB ELEVATION SHOWING REINFORCEMENT LAYOUT

SCALE 1:10

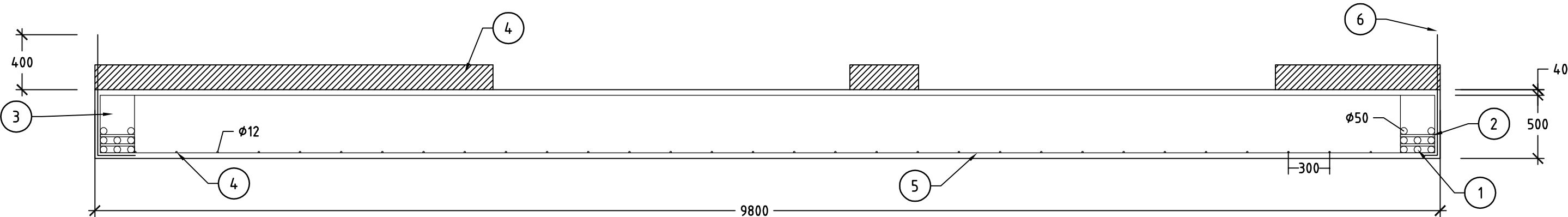
- 1. N12 LIGATURES
- 2. IN-SITU 40 MPa CONCRETE
- 3. N16 SPACER BARS
- 4. N50 REINFORCEMENT BARS
- 5. NON-STRUCTURAL CONCRETE KERB
- 6. N16 STARTER BARS



CROSS-SECTION OF THE BOTTOM SLAB

SCALE 1:30

- 1. N12 LIGATURES
- 2. N16 SPACER BARS
- 3. IN-SITU 50 MPa CONCRETE
- 4. DISTRIBUTION REINFORCEMENT
- 5. MAIN REINFORCEMENT
- 6. N16 STARTER BARS AT 300 CENTRES

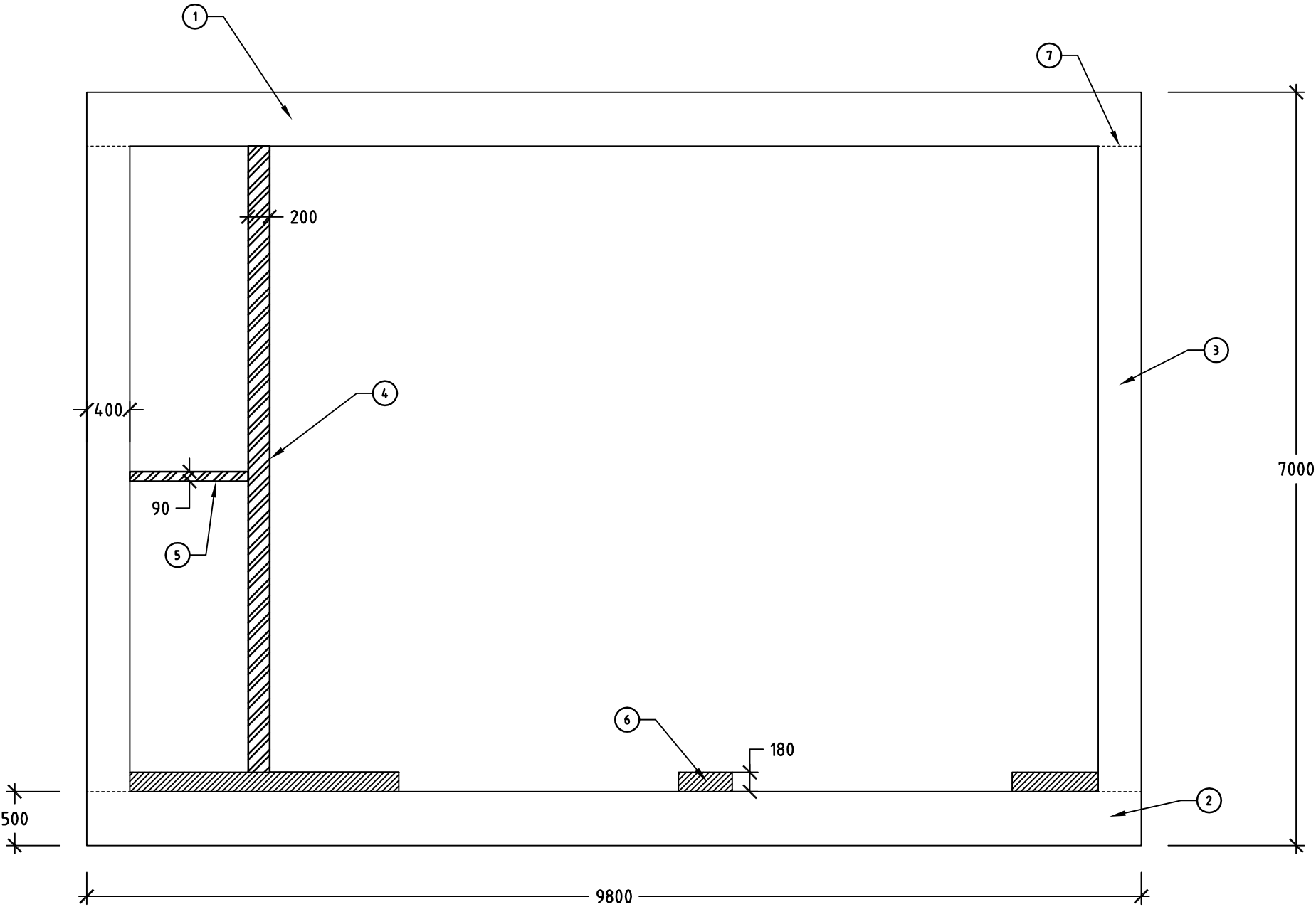


| | | | | | | |
|--|---------------------|----------|---|---|-----------------------------------|------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 5 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | BOTTOM SLAB OF TUNNEL BRIDGE |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:10, 1:30 OR AS SHOWN | |
| | | | DRAWN BY: ADRIAN MATTO DEPARTMENT: STRUCTURAL | DRAWING NO. | 0006-SE-2017 | |

TUNNEL BRIDGE CROSS-SECTION

SCALE 1:50

- 1. TUNNEL CEILING
- 2. TUNNEL BOTTOM SLAB
- 3. TUNNEL WALLS
- 4. SPEED PANEL IN BRACKET
- 5. SUSPENDE SLAB
- 6. CONCRETE BUS KERB
- 7. GREEN CUT CONSTRUCTION JOINT

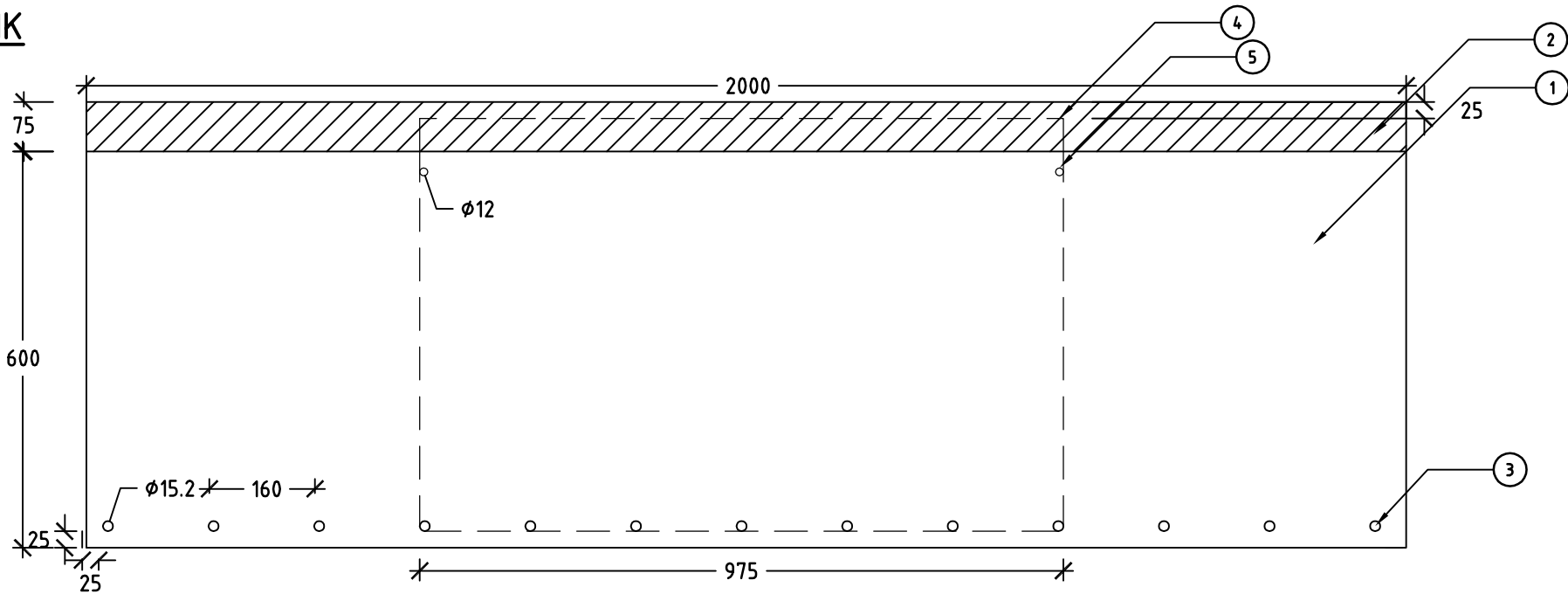


| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|--------------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 5 | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | CROSS SECTION OF TUNNEL BRIDGE | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | | |
| | | | DRAWING INFO | | | | |
| | | | DRAWN BY: ADRIAN MATTO | | SCALE | A3 SHEET = 1:50 OR AS SHOWN | |
| | | | DEPARTMENT: STRUCTURAL | | DRAWING NO. | 0007-SE-2017 | |
| | | | | | | | |

9.8M SPAN - ROAD PLANK TUNNEL CEILING: FRONT ELEVATION

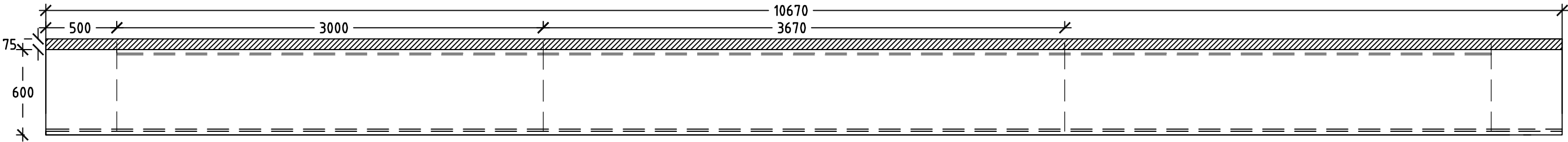
SCALE 1:10

- 1: PRECAST PRESTRESSED 65MPa CONCRETE PLANK
- 2: IN-SITU CONCRETE TOP
- 3: 13 x PRESTRESSED STRANDS
- 4: 4 x N12 LIGS
- 5: 2 x N12 REINFORCEMENT



9.8M SPAN - ROAD PLANK TUNNEL CEILING: SIDE ELEVATION

SCALE 1:30

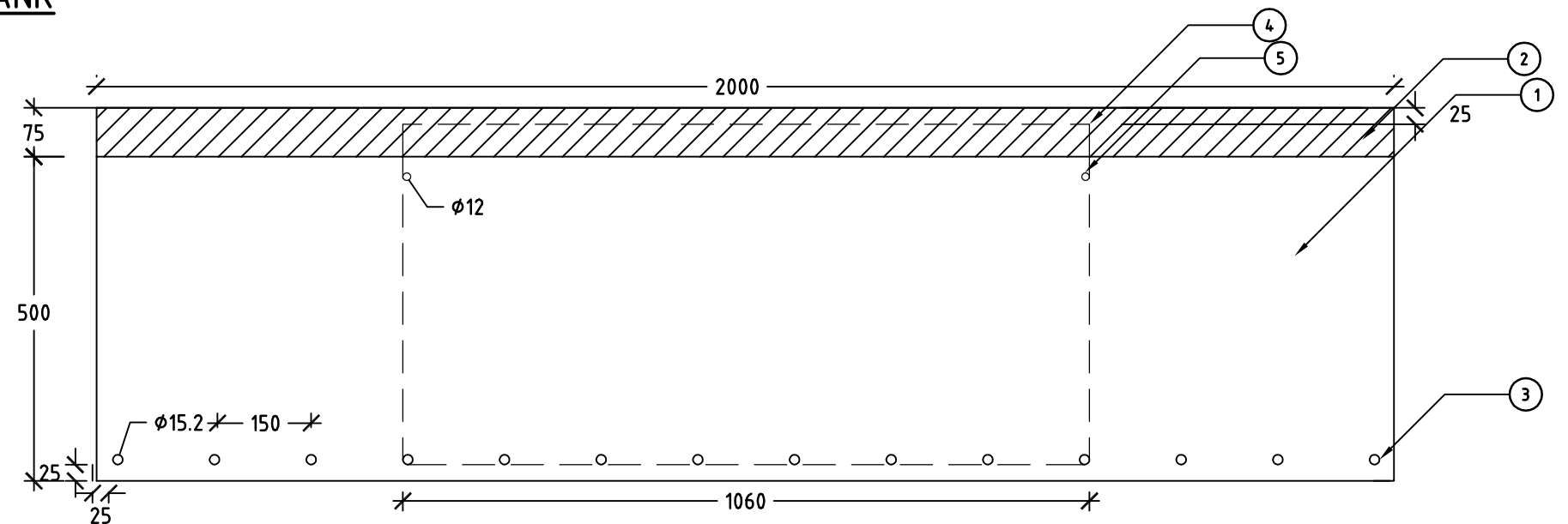


| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|-----------------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 2 | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | TUNNEL CEILING PLANK 1 | |
| | | | DRAWING INFO | | SCALE | A3 SHEET = 1:10, 1:30 OR AS SHOWN | |
| | | | DRAWN BY: HORIA RUSU DEPARTMENT: STRUCTURAL | | DRAWING NO. 0008-SE-2017 | | |

9.8M SPAN - PARK PLANK TUNNEL CEILING: FRONT ELEVATION

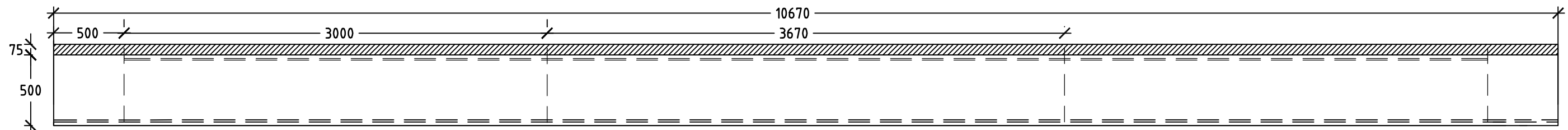
SCALE 1:10

- | | | |
|----|---|--|
| 1: | <u>PRECAST PRESTRESSED 65MPa CONCRETE PLANK</u> | |
| 2: | <u>IN-SITU CONCRETE TOP</u> | |
| 3: | <u>14 x PRESTRESSED STRANDS</u> | |
| 4: | <u>4 x N12 LIGS</u> | |
| 5: | <u>2 x N12 REINFORCEMENT</u> | |



9.8M SPAN - PARK PLANK TUNNEL CEILING: SIDE ELEVATION

SCALE 1:30

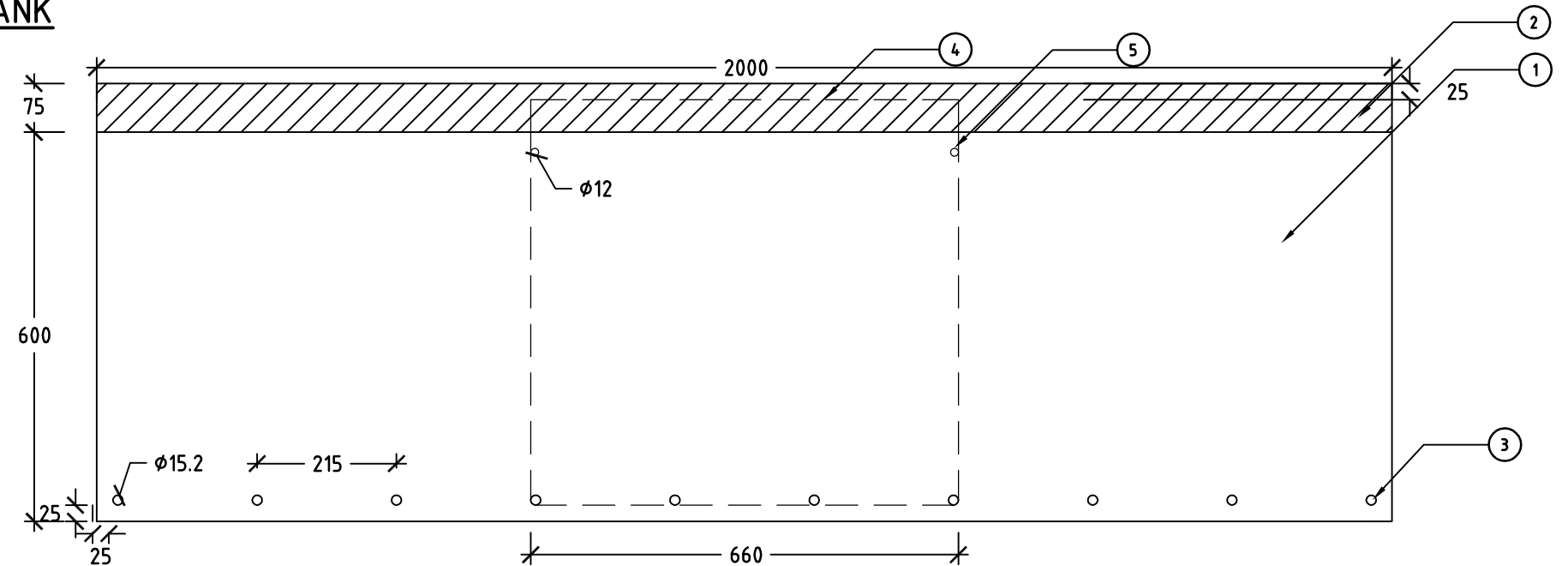


| | | | | | | |
|--|---------------------|----------|---|---|--|------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 1 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | TUNNEL CEILING PLANK 2 |
| | | | DRAWING INFO DRAWN BY: HORIA RUSU DEPARTMENT: STRUCTURAL | | SCALE A3 SHEET = 1:10, 1:30 OR AS SHOWN DRAWING NO. 0009-SE-2017 | |

8.1M - ROAD PLANK TUNNEL CEILING: FRONT ELEVATION

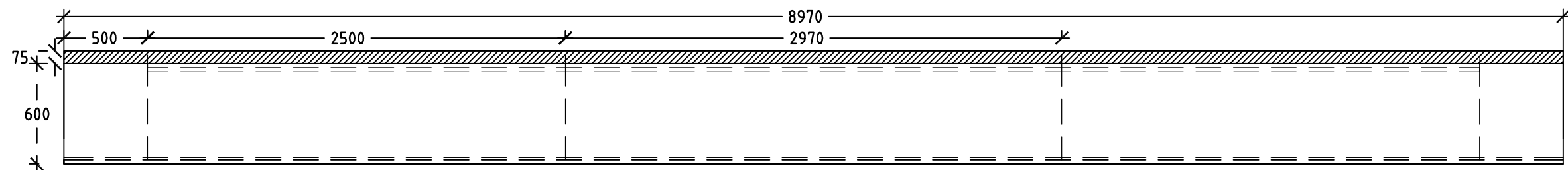
SCALE 1:10

- | | | |
|----|---|----|
| 1: | <u>PRECAST PRESTRESSED 65MPa CONCRETE PLANK</u> | |
| 2: | <u>IN-SITU CONCRETE TOP</u> | |
| 3: | <u>10 x PRESTRESSED STRANDS</u> | 75 |
| 4: | <u>4 x N12 LIGS</u> | |
| 5: | <u>2 x N12 REINFORCEMENT</u> | |



8.1M SPAN - ROAD PLANK TUNNEL CEILING: SIDE ELEVATION

SCALE 1:30

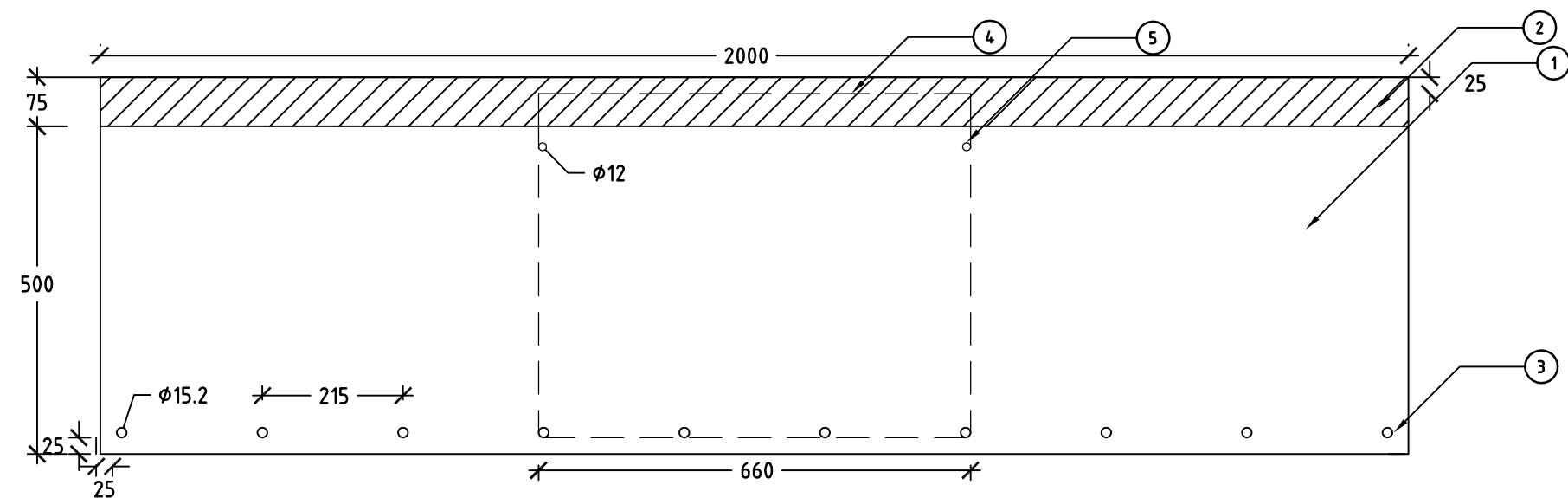


| | | | | | | |
|--|---------------------|----------|---|---|--|------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 4 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | TUNNEL CEILING PLANK 3 |
| | | | DRAWING INFO DRAWN BY: HORIA RUSU DEPARTMENT: STRUCTURAL | | SCALE A3 SHEET = 1:10, 1:30 OR AS SHOWN DRAWING NO. 0010-SE-2017 | |

8.1M SPAN – PARK PLANK TUNNEL CEILING: FRONT ELEVATION

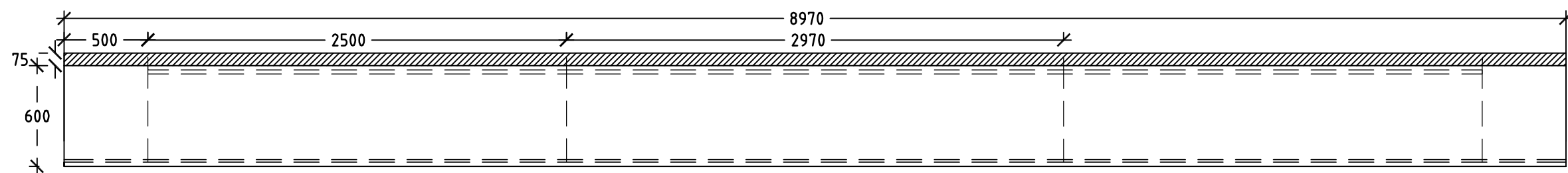
SCALE 1:10

- 1: PRECAST PRESTRESSED 65MPa CONCRETE PLANK
- 2: IN-SITU CONCRETE TOP
- 3: 10 x PRESTRESSED STRANDS
- 4: 4 x N12 LIGS
- 5: 2 x N12 REINFORCEMENT



8.1M SPAN – PARK PLANK TUNNEL CEILING: SIDE ELEVATION

SCALE 1:30

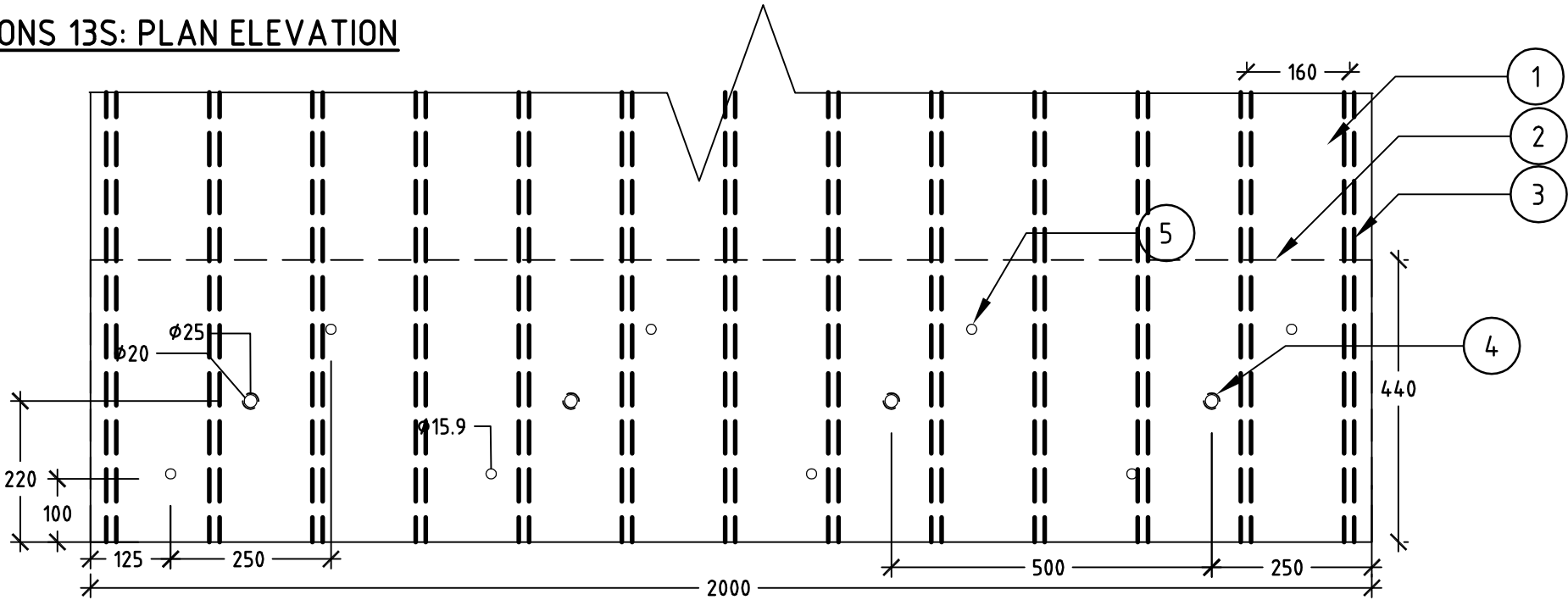


| | | | | | | | |
|----------|---------------------|----------|---|---|----------------------------|------------------------|-----------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 3 | |
| | | | | | SITE ADDRESS | TUNNEL CEILING PLANK 4 | |
| | | | | | | DRAWING INFO | SCALE |
| | | | | | | DRAWN BY: HORIA RUSU | A3 SHEET = 1:10, 1:30 OR AS SHOWN |
| | | | | | | DEPARTMENT: STRUCTURAL | DRAWING NO. |
| | | | | | | | 0011-SE-2017 |

COMPOSITE CONNECTION PAD - 75MM DEPTH ROAD SECTIONS 13S: PLAN ELEVATION

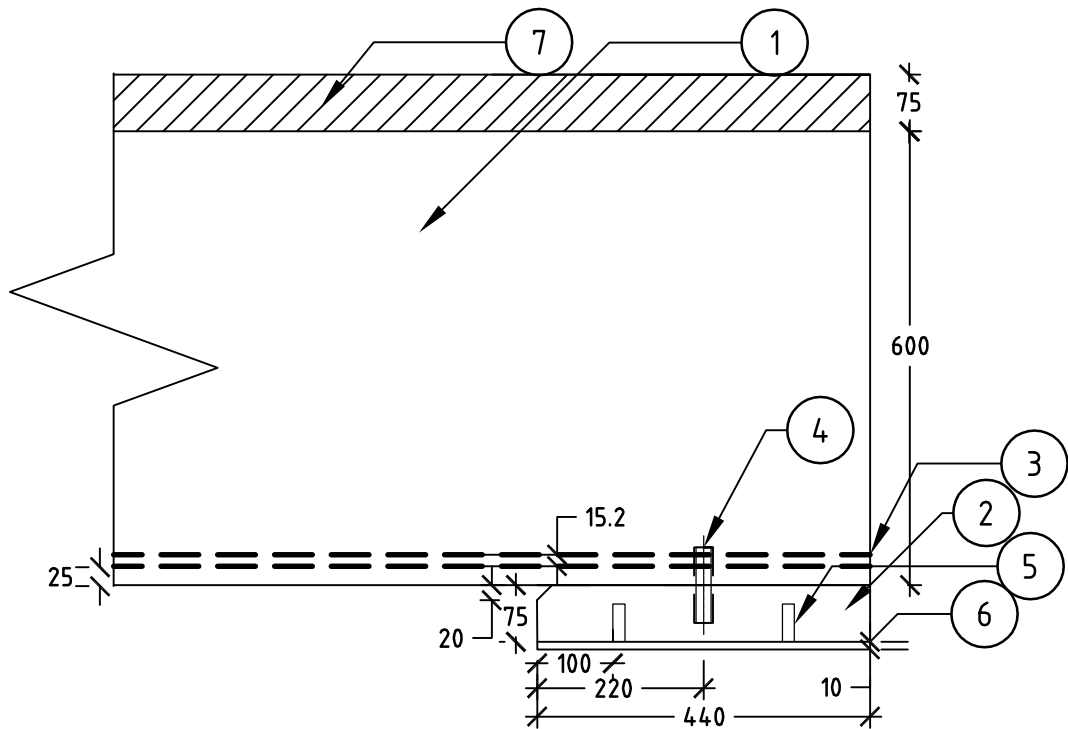
SCALE 1:10

- 1: PRECAST PRESTRESSED 65MPa CONCRETE PLANK
- 2: COMPOSITE CONCRETE PAD
- 3: 13 x PRESTRESSED STRANDS
- 4: 4 x N20 REINFORCEMENT BARS
- 5: 8 x M15.9 SHEAR STUDS
- 6: MILD STEEL
- 7: IN-SITU CONCRETE TOP



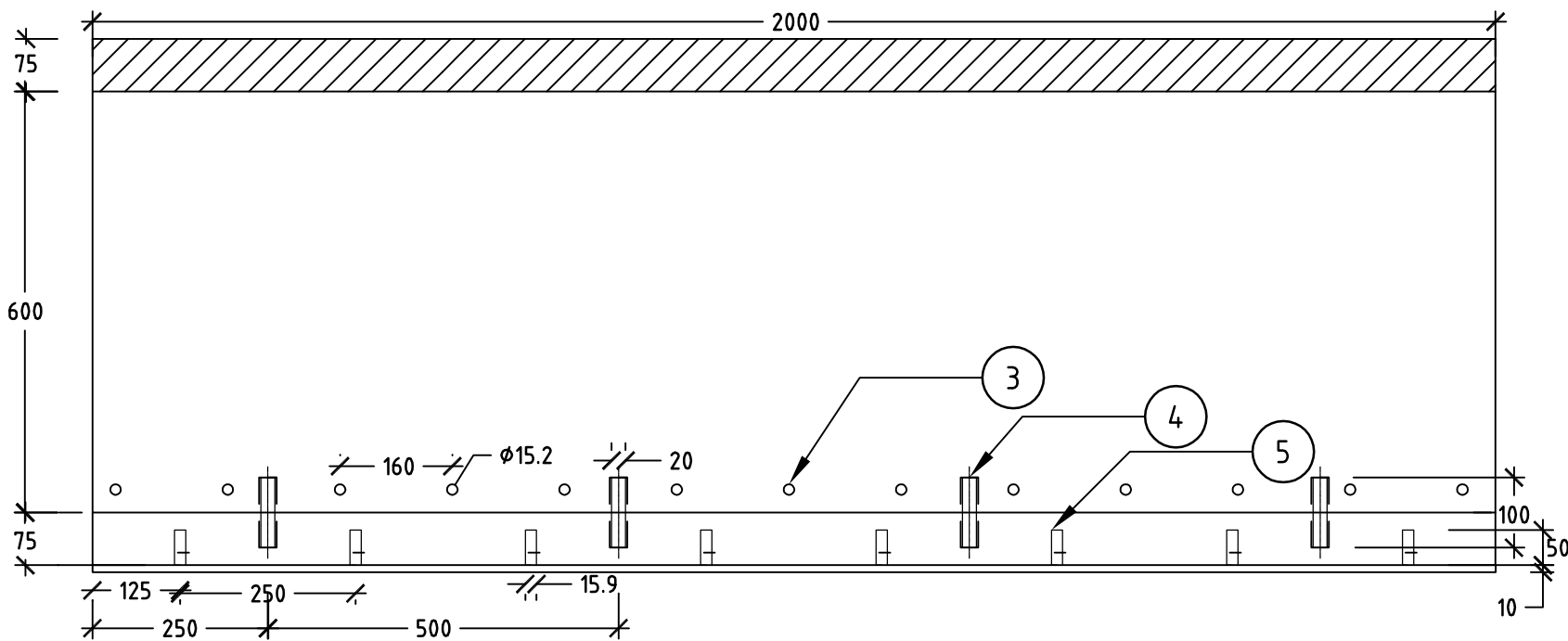
SIDE ELEVATION

SCALE 1:10



FRONT ELEVATION

SCALE 1:10

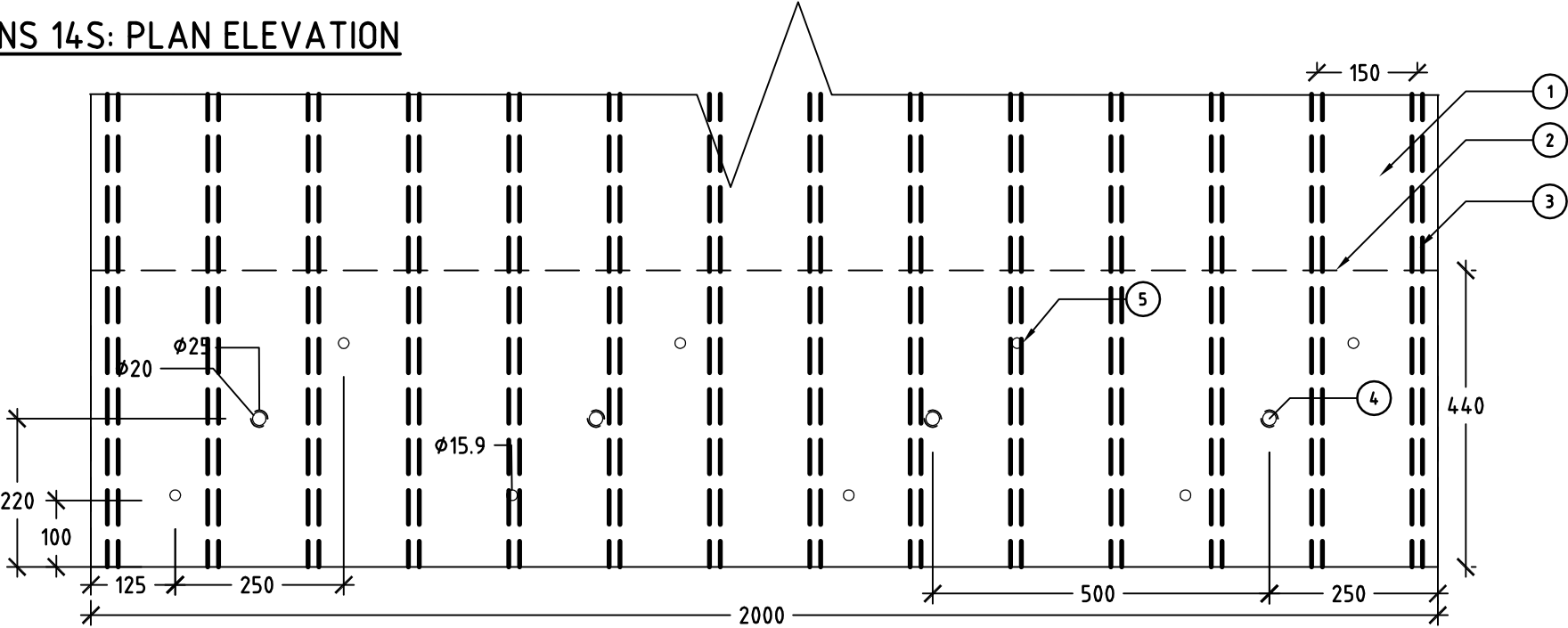


| | | | | | | |
|--|---------------------|----------|---|---|-----------------------------|----------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 2 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | COMPOSITE PAD CONNECTION 1 |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:10 OR AS SHOWN | |
| | | | DRAWN BY: HORIA RUSU DEPARTMENT: STRUCTURAL | DRAWING NO. | 0012-SE-2017 | |

COMPOSITE CONNECTION PAD - 175MM DEPTH ROAD SECTIONS 14S: PLAN ELEVATION

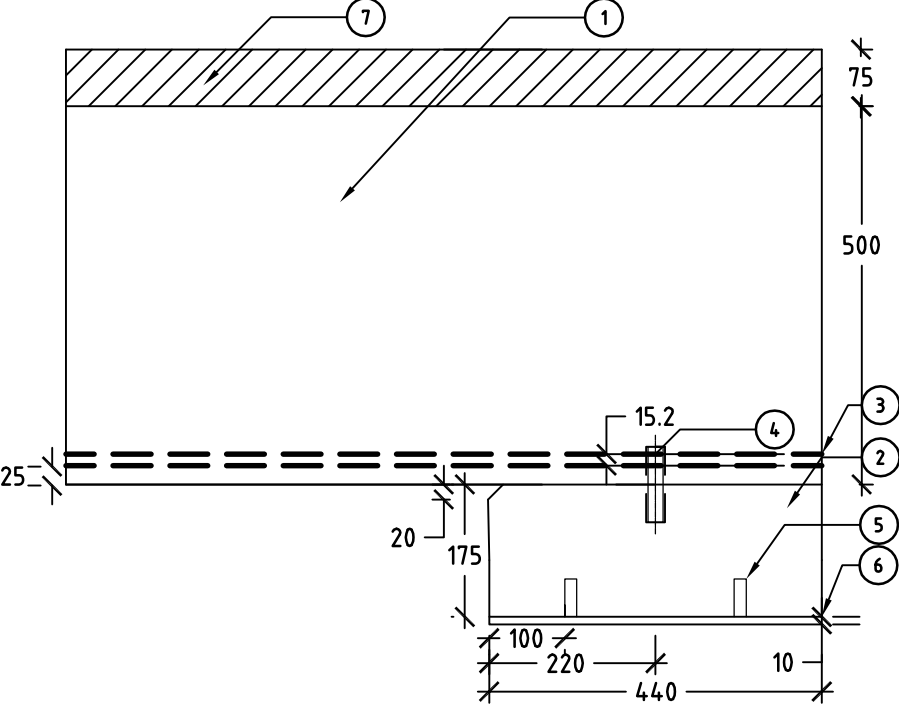
SCALE 1:10

- 1: PRECAST PRESTRESSED 65MPa CONCRETE PLANK
- 2: COMPOSITE CONCRETE PAD
- 3: 14 x PRESTRESSED STRANDS
- 4: 4 x N20 REINFORCEMENT BARS
- 5: 8 x M15.9 SHEAR STUDS
- 6: MILD STEEL
- 7: IN-SITU CONCRETE TOP



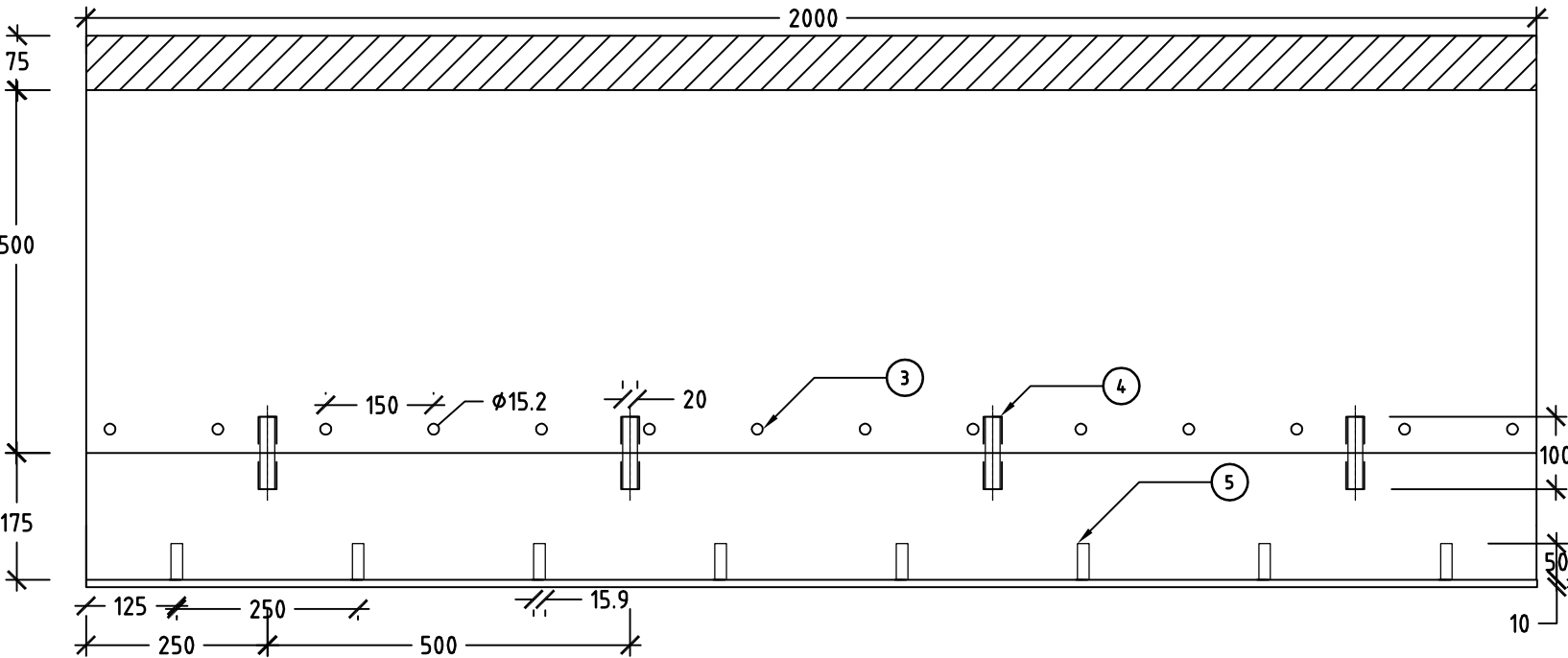
SIDE ELEVATION

SCALE 1:10



FRONT ELEVATION

SCALE 1:10

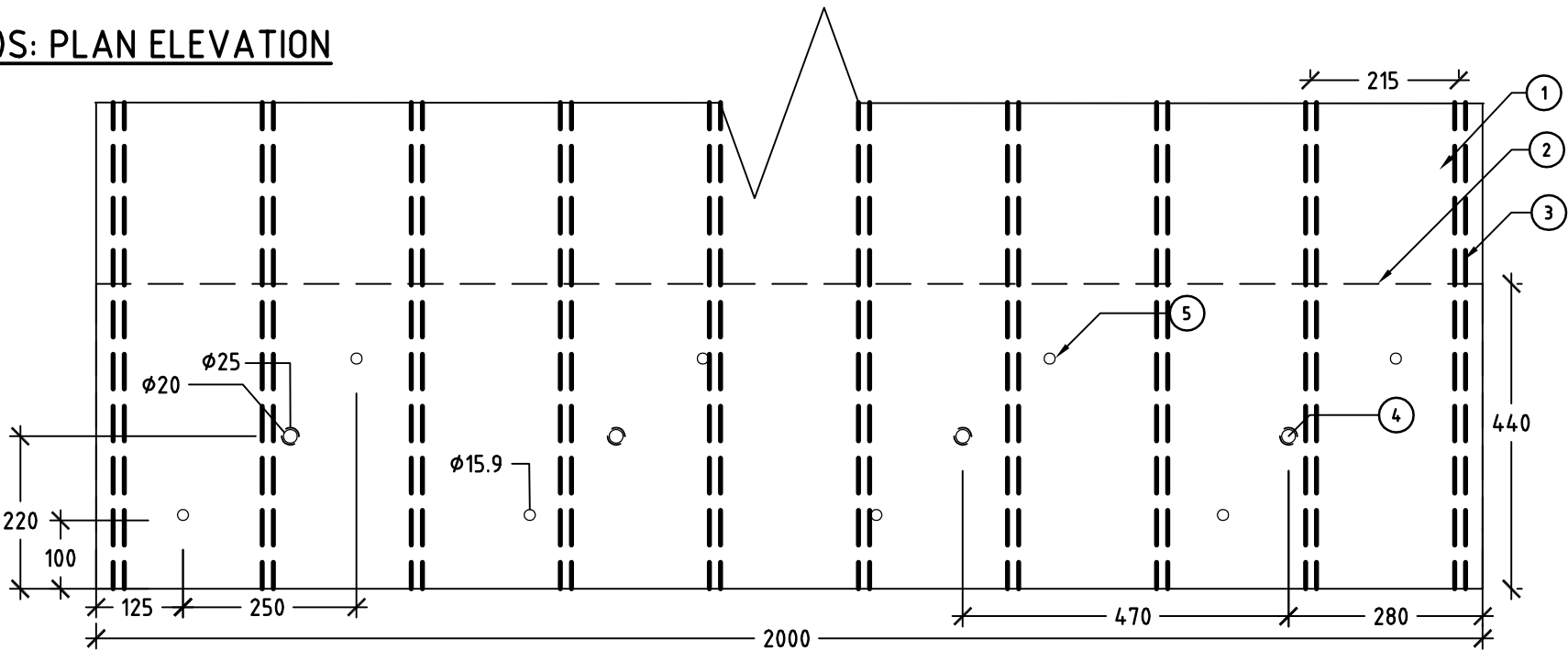


| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|----------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 1 | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | COMPOSITE PAD CONNECTION 2 | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | | |
| | | | DRAWING INFO | SCALE | | | |
| | | | DRAWN BY: HORIA RUSU | A3 SHEET = 1:10 OR AS SHOWN | | | |
| | | | DEPARTMENT: STRUCTURAL | DRAWING NO. | | | |
| | | | | 0013-SE-2017 | | | |

COMPOSITE CONNECTION PAD - 175MM DEPTH ROAD SECTIONS 10S: PLAN ELEVATION

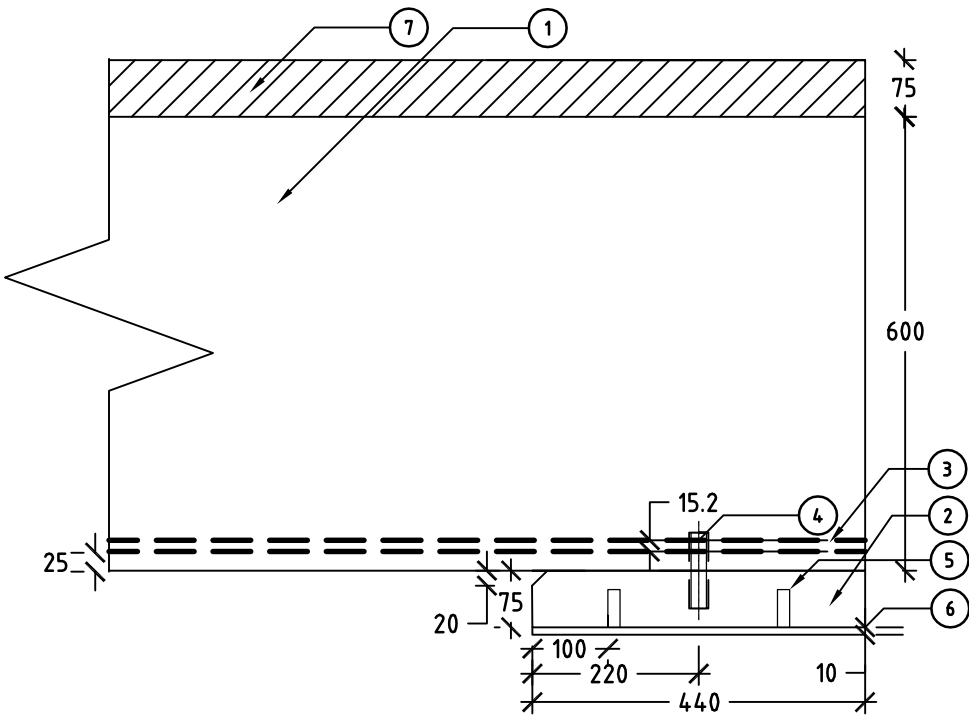
SCALE 1:10

- 1: PRECAST PRESTRESSED 65MPa CONCRETE PLANK
- 2: COMPOSITE CONCRETE PAD
- 3: 10 x PRESTRESSED STRANDS
- 4: 4 x N20 REINFORCEMENT BARS
- 5: 8 x M15.9 SHEAR STUDS
- 6: MILD STEEL
- 7: IN-SITU CONCRETE TOP



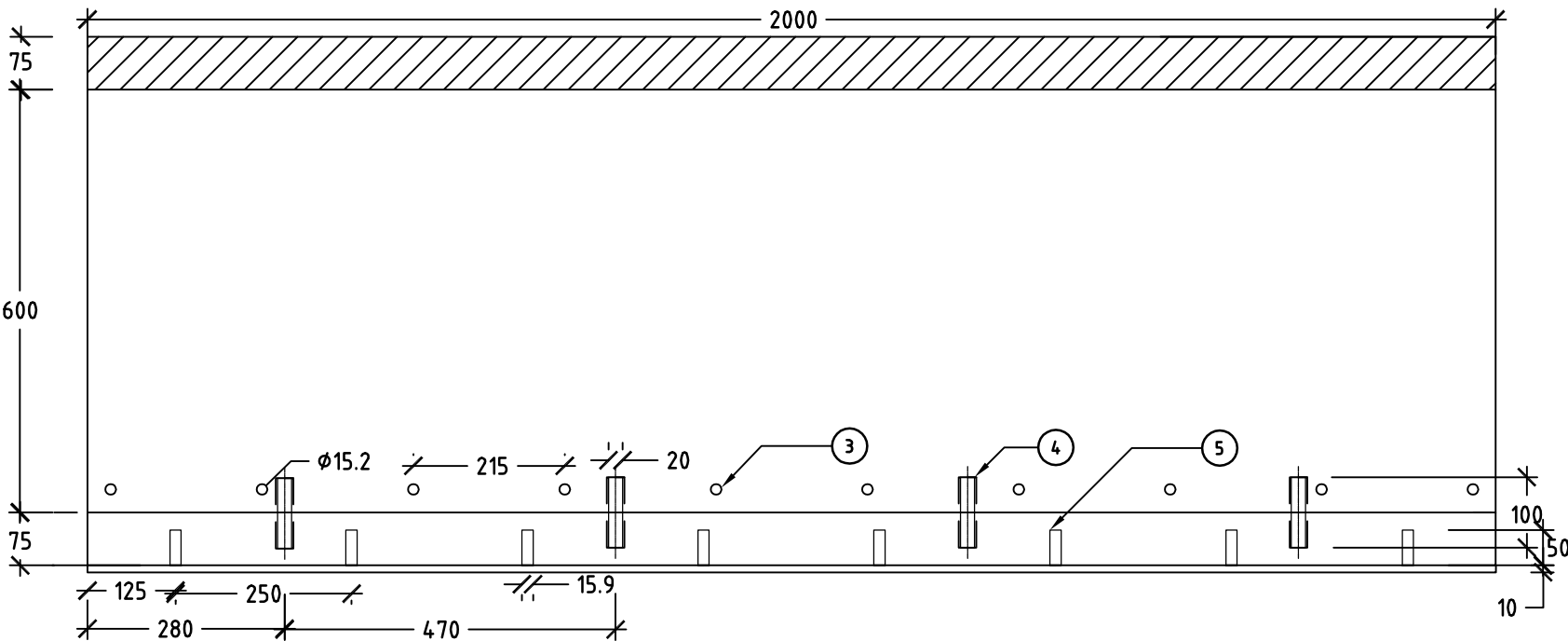
SIDE ELEVATION

SCALE 1:10



FRONT ELEVATION

SCALE 1:10

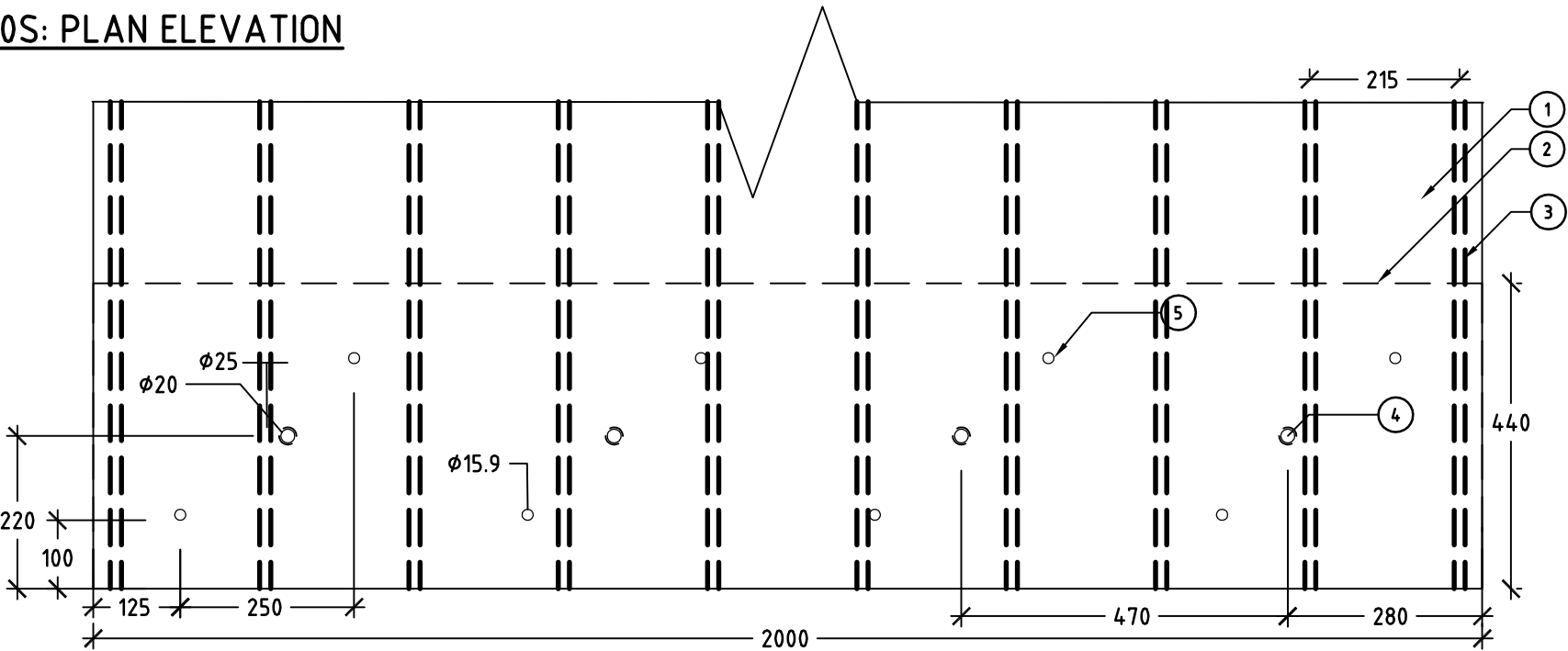


| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|-------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 4 |
| | | | | | SITE ADDRESS | COMPOSITE PAD CONNECTION 3 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: HORIA RUSU | A3 SHEET = 1:2000 OR AS SHOWN |
| | | | | | DEPARTMENT: STRUCTURAL | DRAWING NO. |
| | | | | | | 0014-SE-2017 |

COMPOSITE CONNECTION PAD - 175MM DEPTH PARK SECTIONS 10S: PLAN ELEVATION

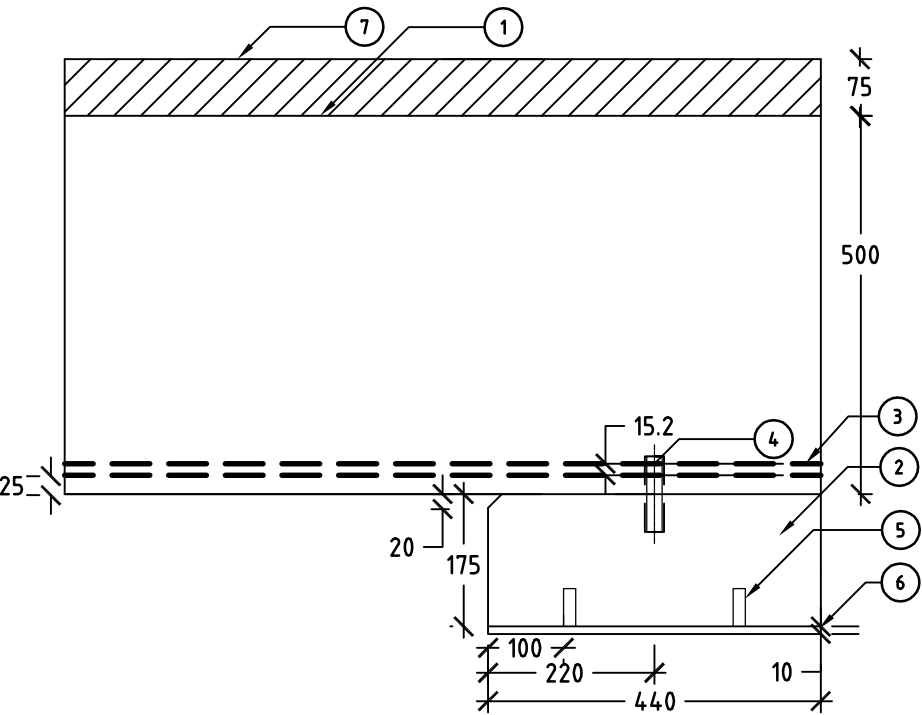
SCALE 1:10

- 1: PRECAST PRESTRESSED 65MPa CONCRETE PLANK
- 2: COMPOSITE CONCRETE PAD
- 3: 10 x PRESTRESSED STRANDS
- 4: 4 x N20 REINFORCEMENT BARS
- 5: 8 x M15.9 SHEAR STUDS
- 6: MILD STEEL
- 7: IN-SITU CONCRETE TOP



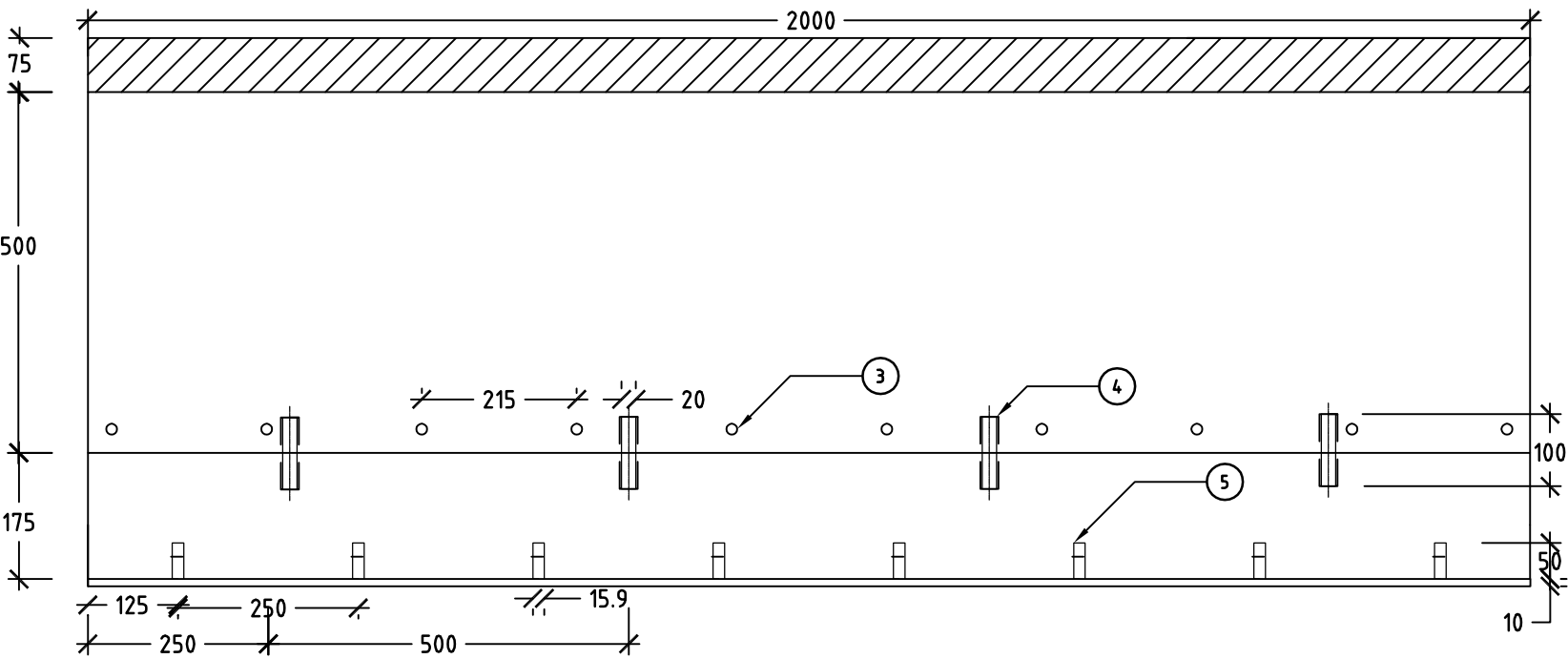
SIDE ELEVATION

SCALE 1:10

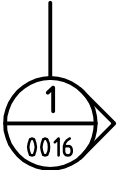
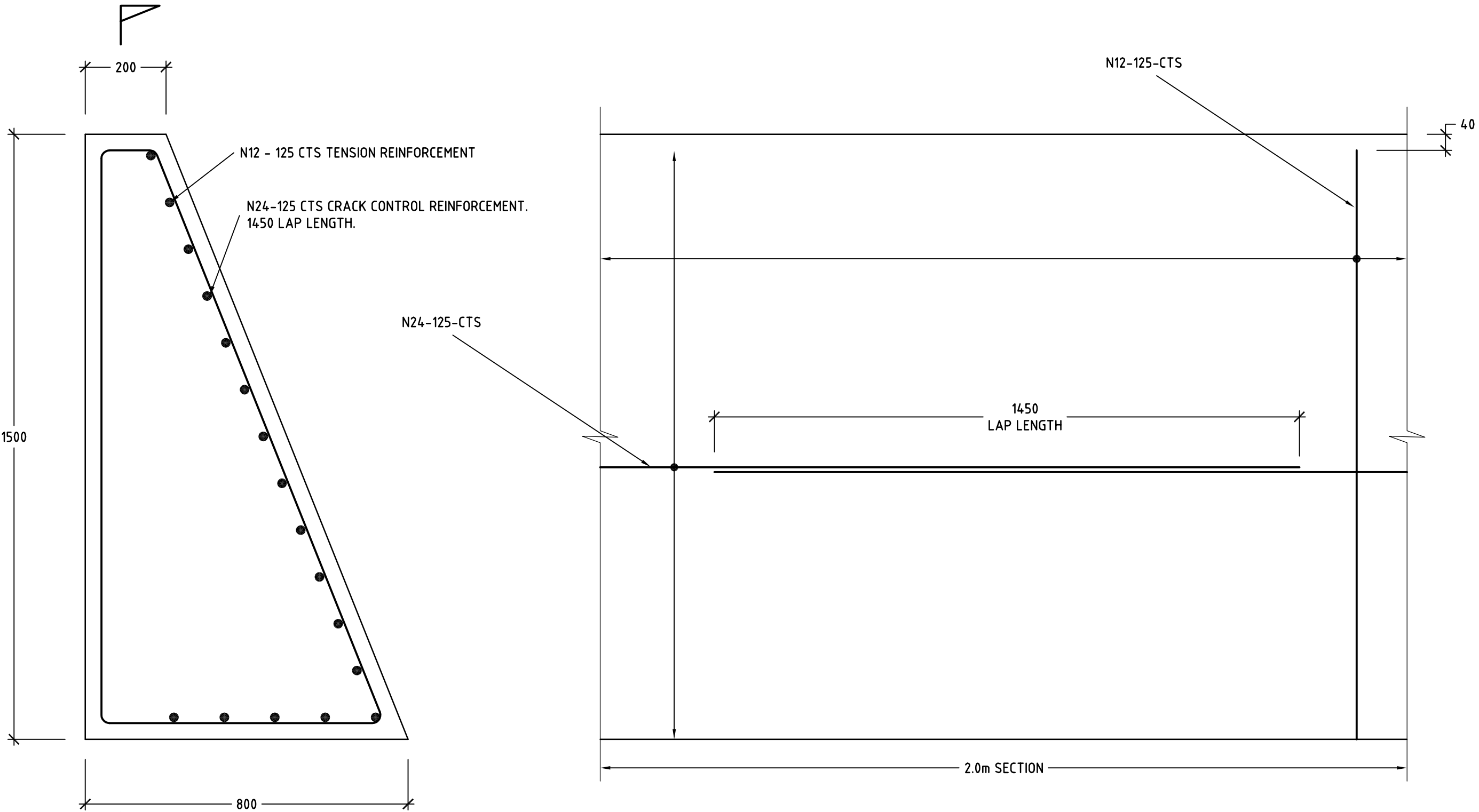


FRONT ELEVATION

SCALE 1:10



| | | | | | | |
|--|---------------------|----------|---|---|-----------------------------|----------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SECTION 3 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | COMPOSITE PAD CONNECTION 4 |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:10 OR AS SHOWN | |
| | | | DRAWN BY: HORIA RUSU DEPARTMENT: STRUCTURAL | | DRAWING NO. | 0015-SE-2017 |





REINFORCED CONCRETE BARRIER DETAIL.
SCALE: 1:10

SECTION
SCALE 1:10

1
0016

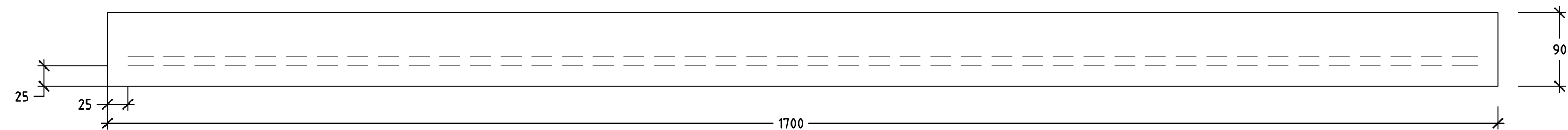
NOTE:
CONCRETE STRENGTH = 32MPA
COVER TO REINFORCEMENT = 40MM

| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |

| | | | |
|---|---|----------------------------|-----------------------------|
|  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| | | O-BAHN CITY ACCESS UPGRADE | SECTION 7 |
| | | SITE ADDRESS | TRAFFIC BARRIER DETAIL |
| | | HACKNEY ROAD, ADELAIDE SA | |
| | | DRAWING INFO | SCALE |
| | | DRAWN BY: DANIEL CADDY | A3 SHEET = 1:10 OR AS SHOWN |
| | | DEPARTMENT: STRUCTURAL | DRAWING NO. |
| | | | 0016-SE-2017 |

IN-GROUND EGRESS CORRIDOR SUSPENDED
SLAB CROSS SECTION

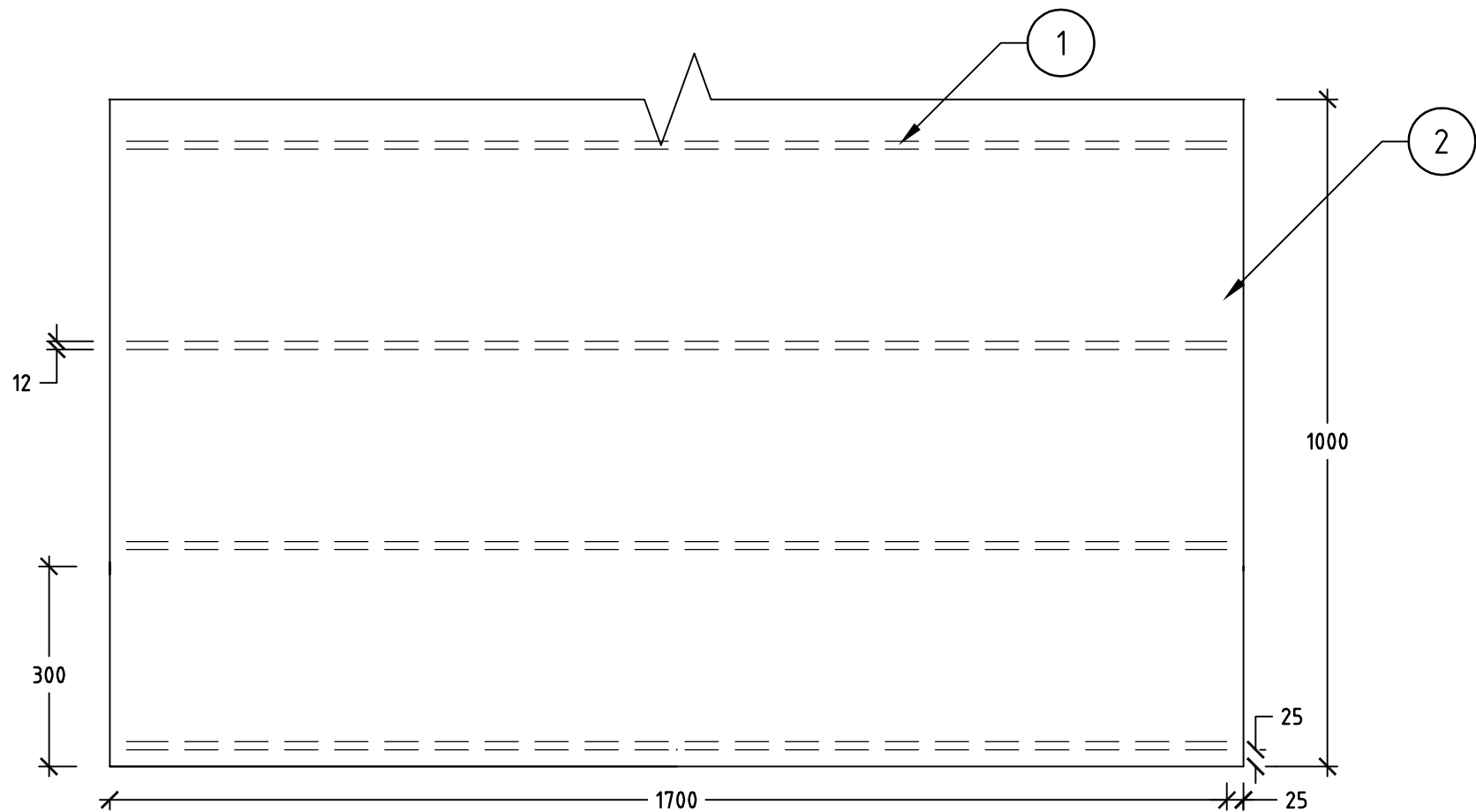
SCALE 1:5



IN-GROUND EGRESS CORRIDOR SUSPENDED
SLAB PLAN ELEVATION

SCALE 1:10

- 1: N12 REINFORCEMENT BARS
2: 32MPa CONCRETE

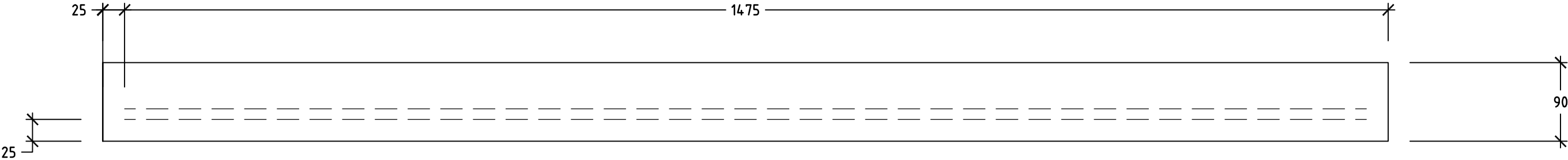


| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------------|--|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SUSPENDED SLAB EGRESS CORRIDOR LONG | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:5, 1:10 OR AS SHOWN | | |
| | | | | DRAWING INFO | DRAWING NO. | | |
| | | | | DRAWN BY: NATHAN DUNCAN DEPARTMENT: STRUCTURAL | 0017-SE-2017 | | |

TUNNEL BRIDGE EGRESS CORRIDOR SUSPENDED SLAB

SLAB CROSS SECTION

SCALE 1:5

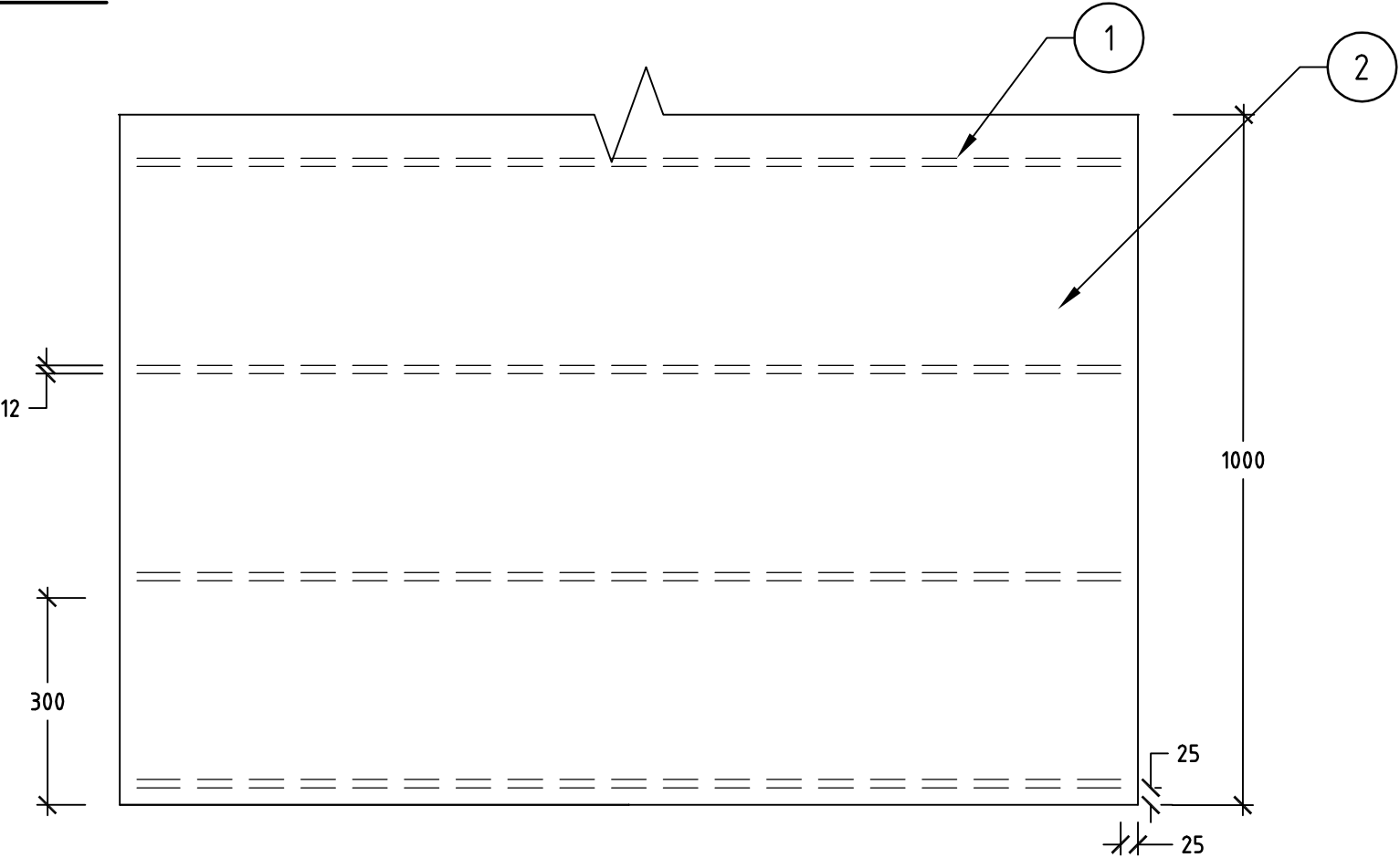


TUNNEL BRIDGE EGRESS CORRIDOR SUSPENDED SLAB

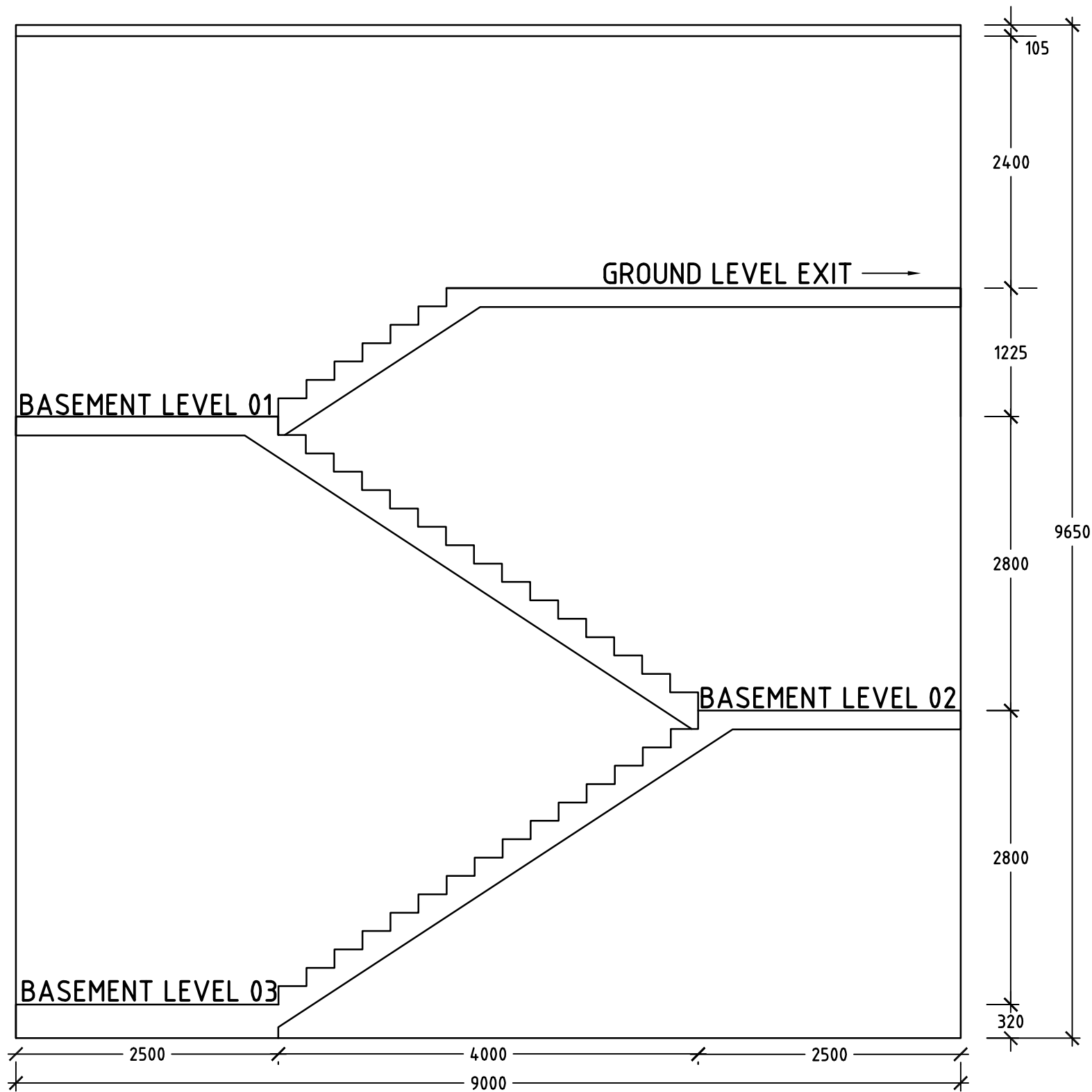
SLAB PLAN ELEVATION

SCALE 1:10

- 1: N12 REINFORCEMENT BARS
2: 32 MPa CONCRETE

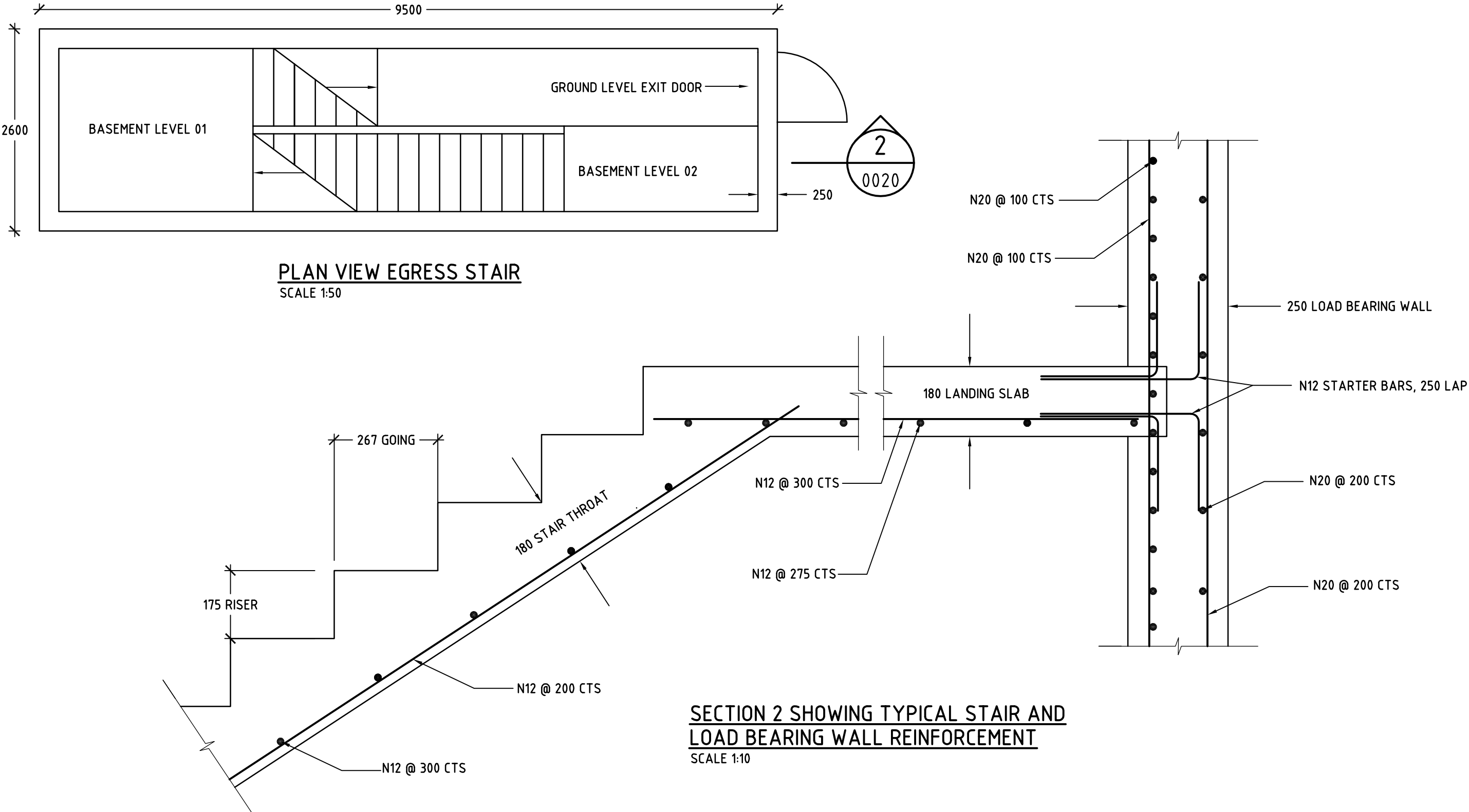


| | | | | | | | |
|--|---------------------|----------|---|---|--|---|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | SUSPENDED SLAB EGRESS CORRIDOR SHORT | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:5, 1:10 OR AS SHOWN | |
| | | | | | DRAWING INFO | DRAWING NO. | |
| | | | | | DRAWN BY: MICHAEL OLIVER DEPARTMENT: STRUCTURAL | 0018-SE-2017 | |

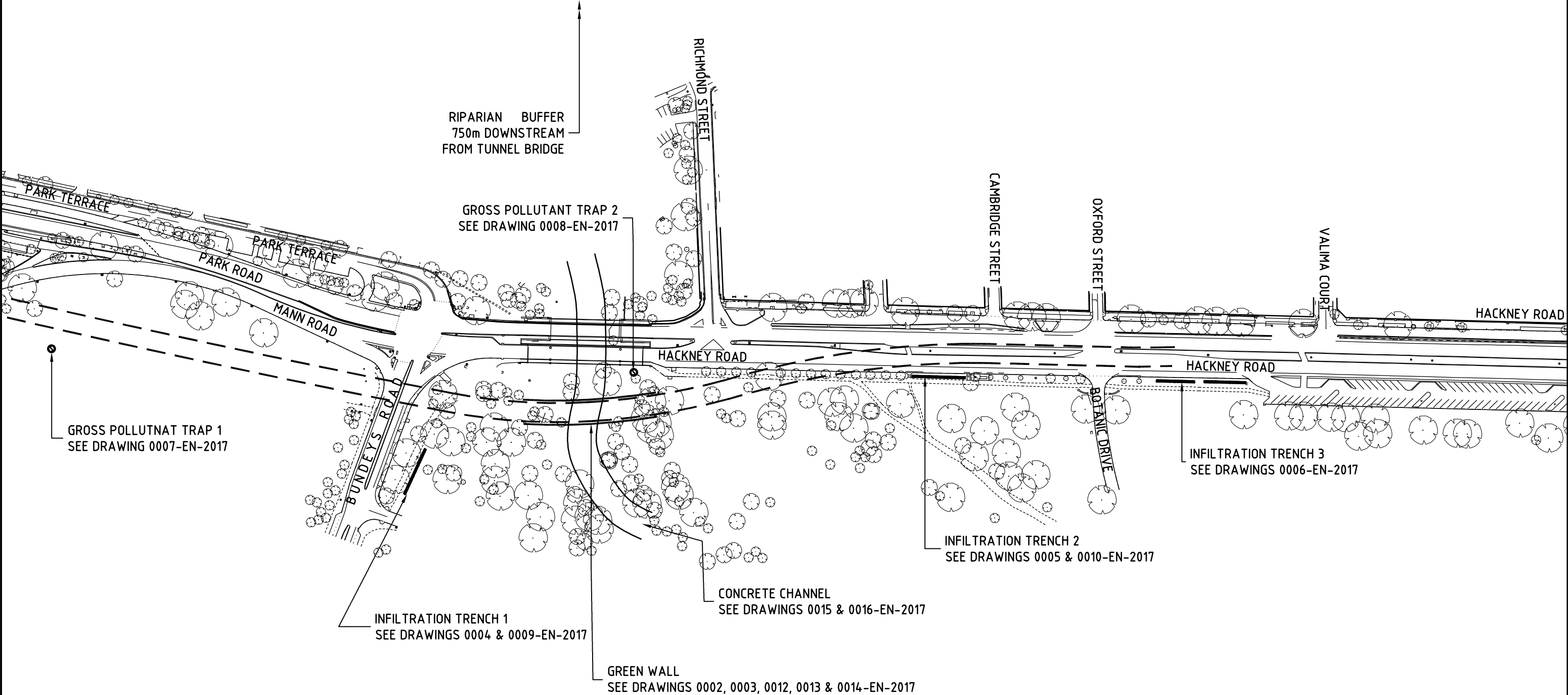


ELEVATION VIEW EGRESS STAIR
SCALE 1:50

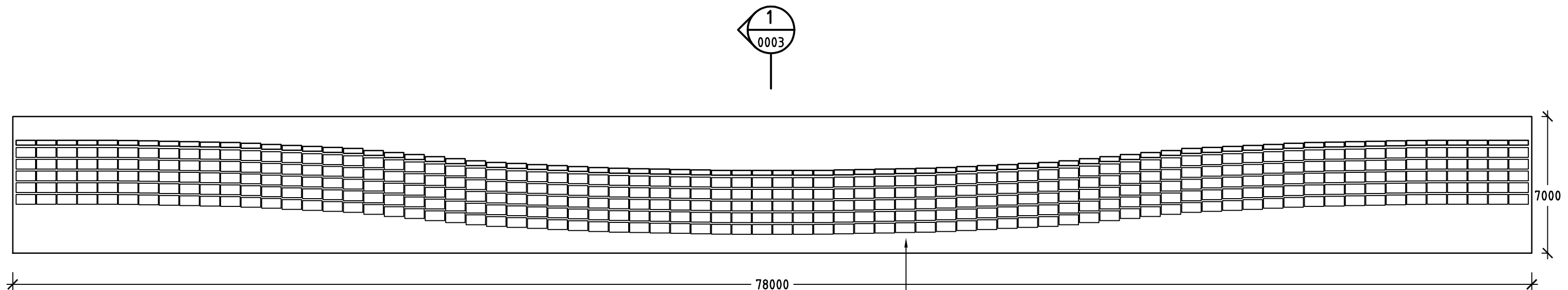
| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|-----------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | ELEVATION VIEW EGRESS STAIR | |
| | | | | | SITE ADDRESS | | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | | |
| | | | DRAWING INFO | | SCALE | A3 SHEET = 1:50 OR AS SHOWN | |
| | | | DRAWN BY: JASON MADDISON DEPARTMENT: STRUCTURAL | | DRAWING NO. | 0019-SE-2017 | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | | | |



| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE |
| | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:10, 1:50 OR AS SHOWN | | |
| | | | DRAWING INFO | DRAWING NO. | | |
| | | | DRAWN BY: JASON MADDISON | 0020-SE-2017 | | |
| | | | DEPARTMENT: STRUCTURAL | | | |

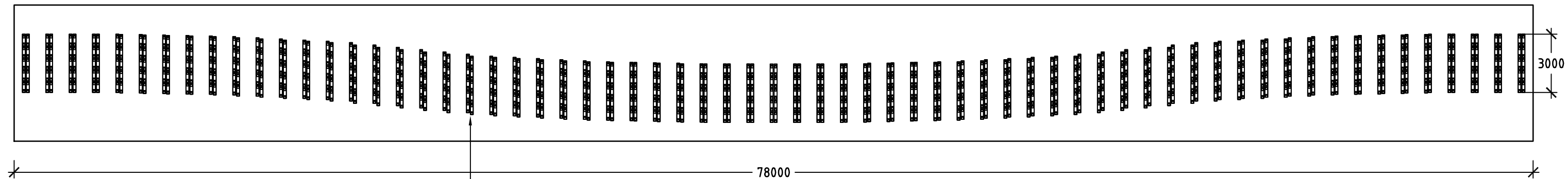


| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|-------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | ENVIRONMENTAL MASTER PLAN |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: ANDREW THOMPSON | A3 SHEET = 1:2000 OR AS SHOWN |
| | | | | | DEPARTMENT: ENVIRONMENTAL | DRAWING NO. |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | | 0001-EN-2017 |



GREEN WALL - MODULE DESIGN
SCALE 1:200

- MATERIALS**
- 370 planter boxes
 - 74 green facades
 - 130 RHS
 - 1300 hooks
 - 650 M16 bolts
 - 632 dynabolts

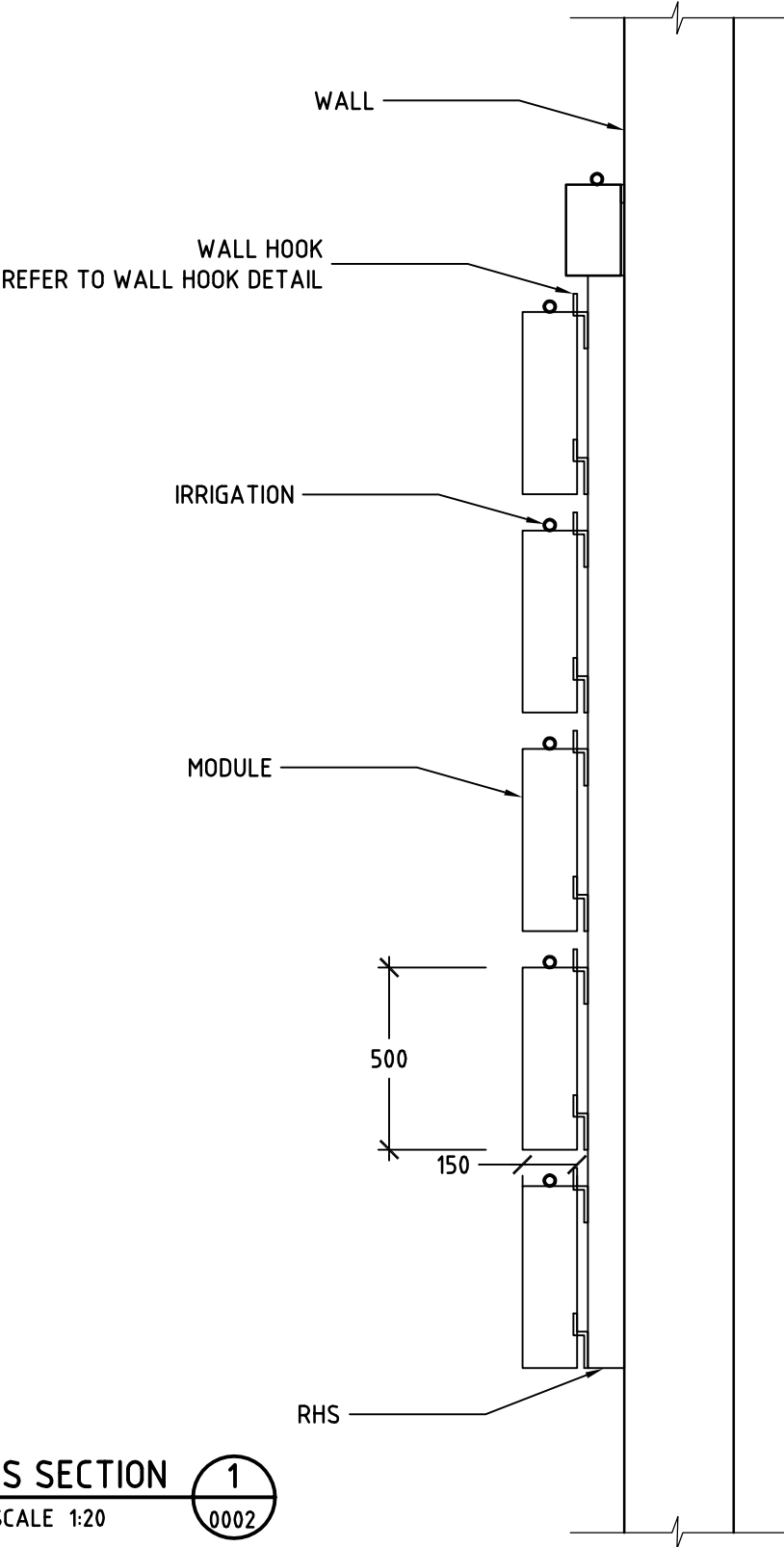


GREEN WALL - STRUCTURAL COMPONENTS
SCALE 1:200

STRUCTURAL RHS COMPONENT FIXED TO WALL
WITH DYNABOLTS AND SLEEVE ANCHORS.

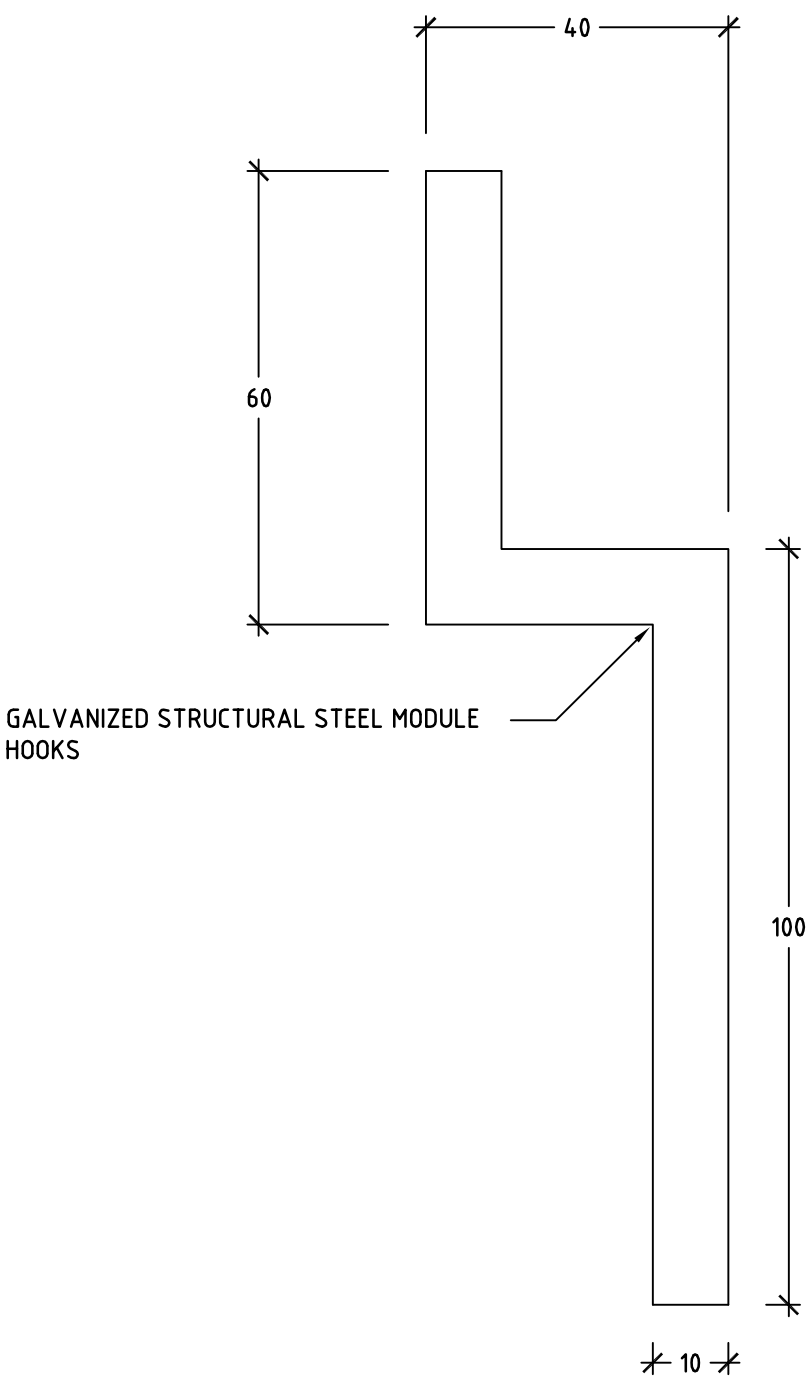
STRUCTURAL HOOKS FASTENED USING
2 x M16 HEX BOLTS

| | | | | | | |
|--|---------------------|----------|---|---|--|------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | GREENWALL DETAIL |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: ANDREW THOMPSON DEPARTMENT: ENVIRONMENTAL | A3 SHEET = 1:200 OR AS SHOWN |
| | | | | | DRAWING NO. | 0002-EN-2017 |



GREEN WALL CROSS SECTION
SCALE 1:20

1
0002



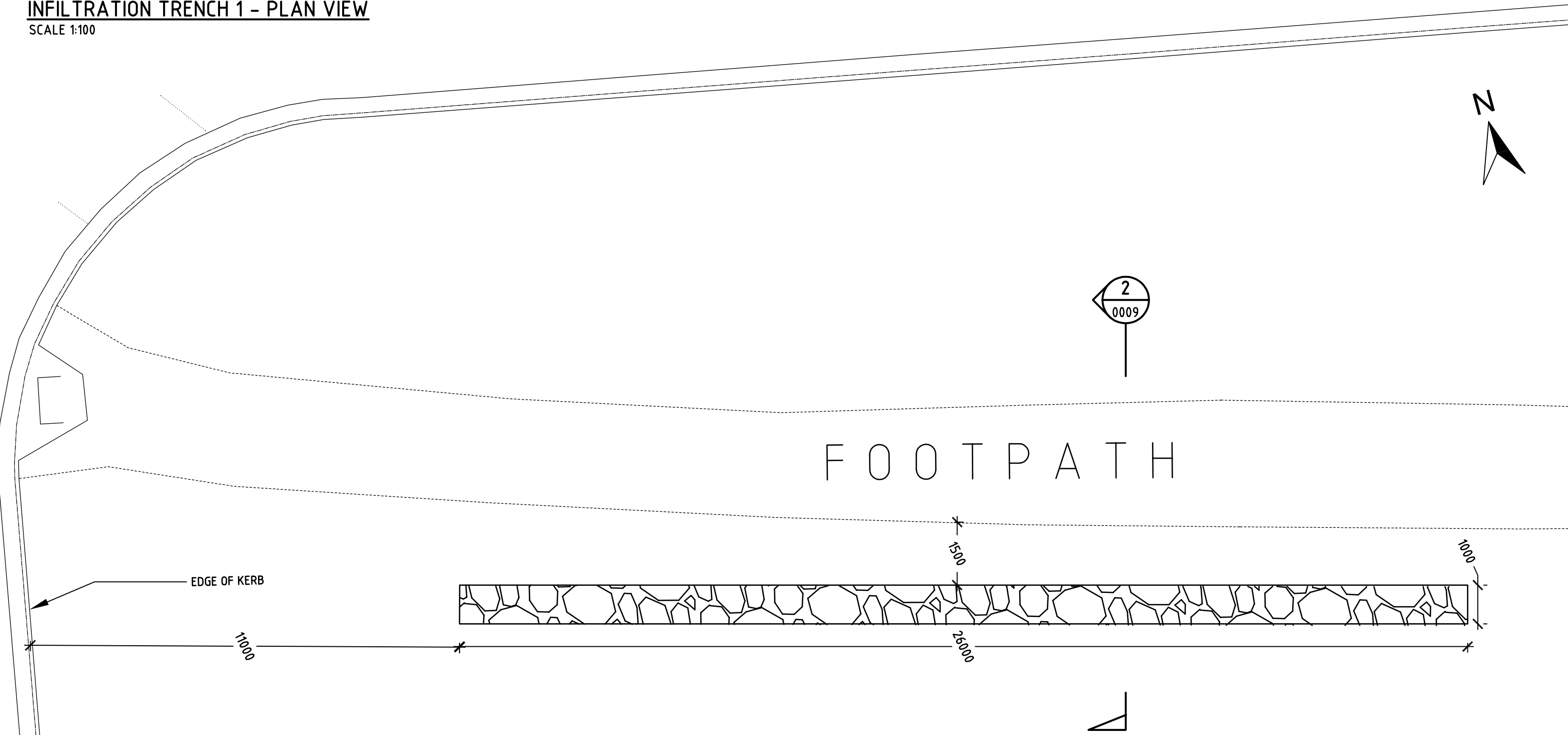
WALL HOOK DETAIL
SCALE 1:1

| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE A3 SHEET = 1:20, 1:1 OR AS SHOWN |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | | 0003-EN-2017 | |
| | | | DRAWN BY: ANDREW THOMPSON DEPARTMENT: ENVIRONMENTAL | | | |



SEE DRAWING 0001-EN-2017 FOR SITE LOCATION

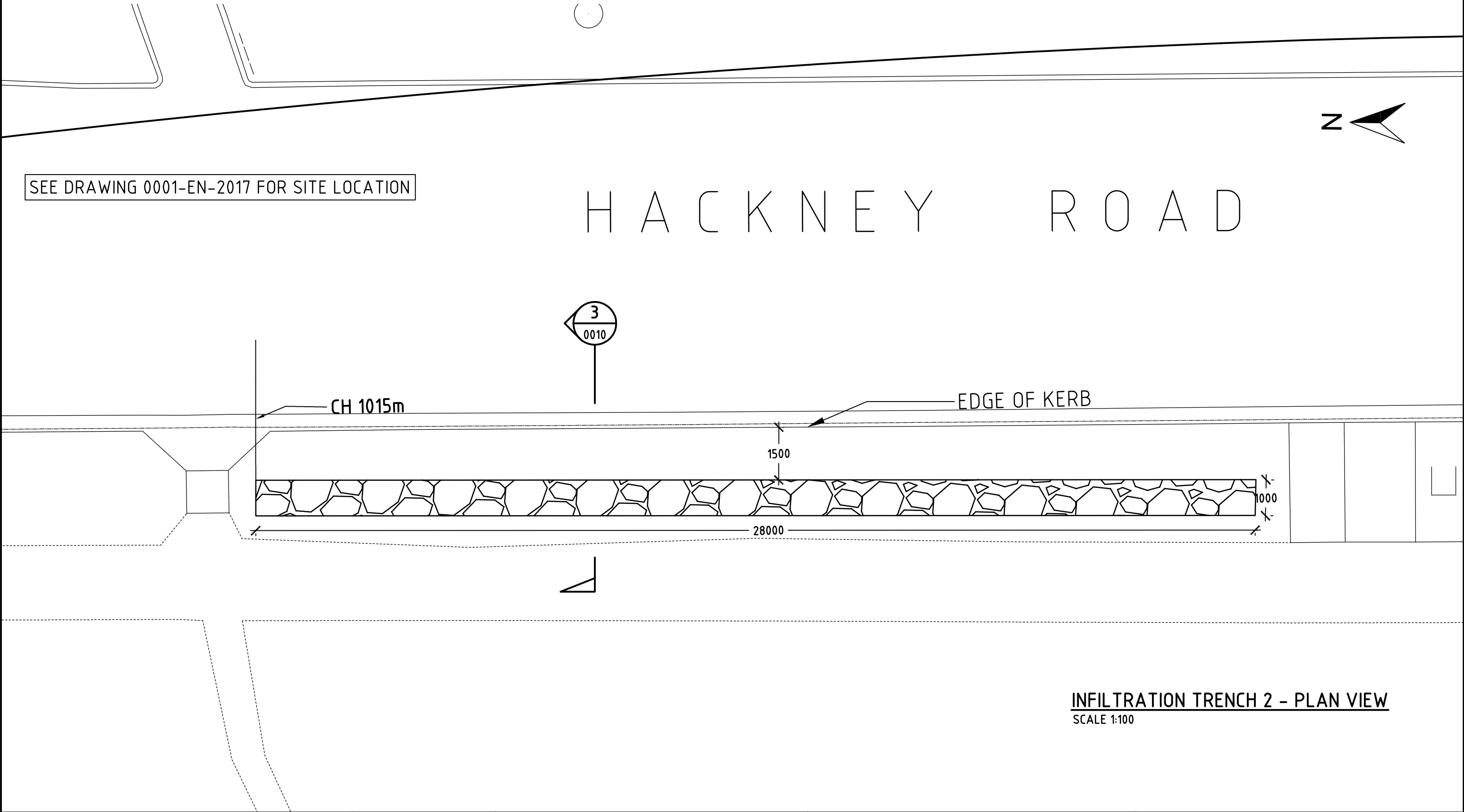
BUNDEYS ROAD

INFILTRATION TRENCH 1 - PLAN VIEW
SCALE 1:100



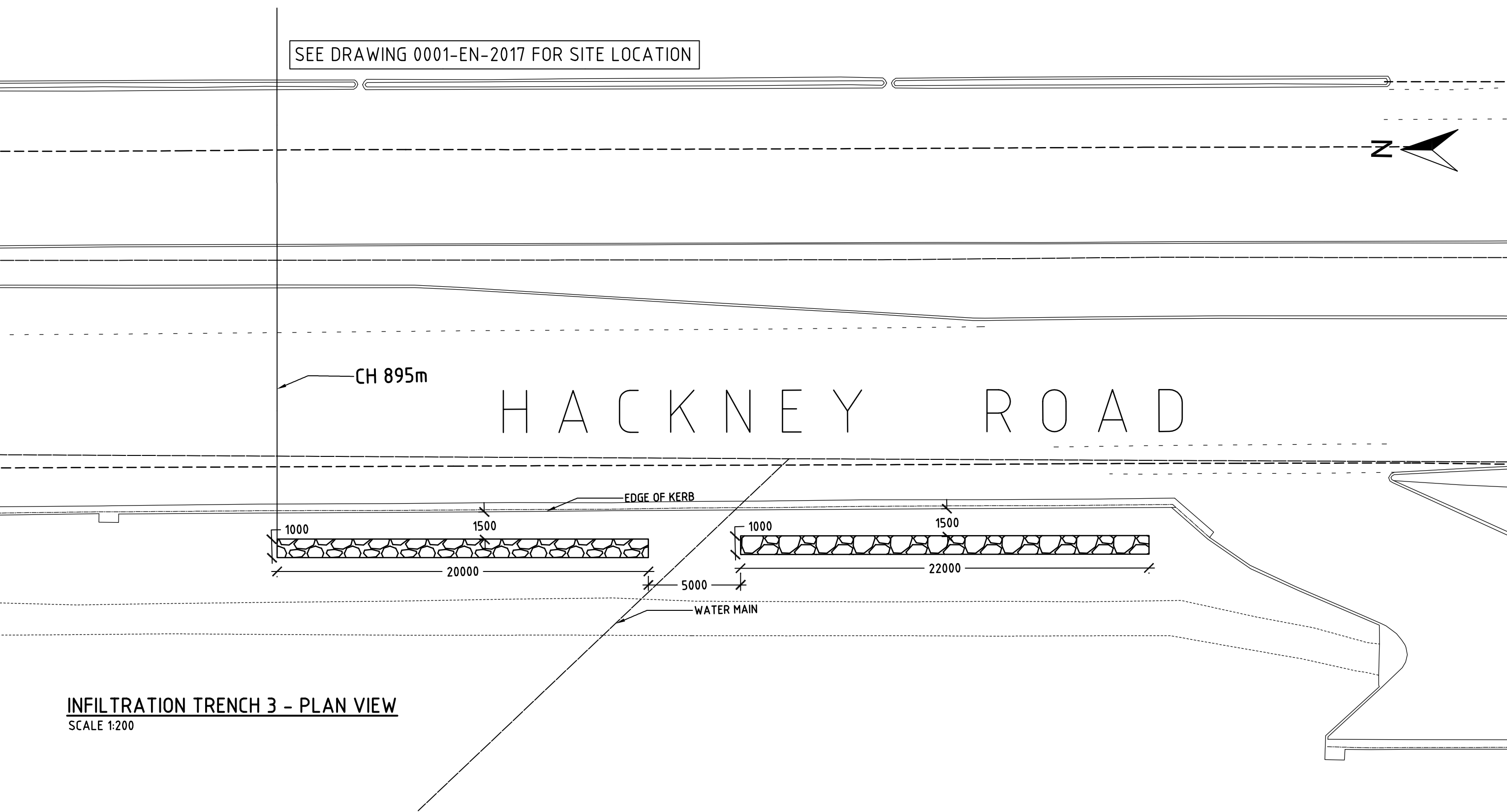
| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |

| | | | |
|---|---|--|--|
|  University of South Australia |  | CONTRACT NAME O-BAHN CITY ACCESS UPGRADE | DRAWING TITLE INFILTRATION TRENCH 1 - PLAN VIEW |
| | | SITE ADDRESS HACKNEY ROAD, ADELAIDE SA | |
| | | DRAWING INFO DRAWN BY: ANDREW THOMPSON DEPARTMENT: ENVIRONMENTAL | SCALE A3 SHEET = 1:100 OR AS SHOWN DRAWING NO. 0004-EN-2017 |



INFILTRATION TRENCH 2 - PLAN VIEW
SCALE 1:100

| | | | | | | |
|--|---------------------|----------|---|---|--|-----------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  EB Consulting | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | INFILTRATION TRENCH 2 - PLAN VIEW |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: ANDREW THOMPSON DEPARTMENT: ENVIRONMENTAL | A3 SHEET = 1:100 OR AS SHOWN |
| | | | | | DRAWING NO. | 0005-EN-2017 |



| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



| | |
|---------------|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: ANDREW THOMPSON DEPARTMENT: ENVIRONMENTAL |

| | |
|---------------|-----------------------------------|
| DRAWING TITLE | INFILTRATION TRENCH 3 - PLAN VIEW |
| SCALE | A3 SHEET = 1:200 OR AS SHOWN |
| DRAWING NO. | 0006-EN-2017 |

SEE DRAWING 0001-EN-2017 FOR SITE LOCATION

GROSS POLLUTANT TRAP

15500

CH 1472m

TUNNEL CENTRELINE

STORMWATER PIPE

GROSS POLLUTANT TRAP 1 - PLAN VIEW
SCALE 1:200

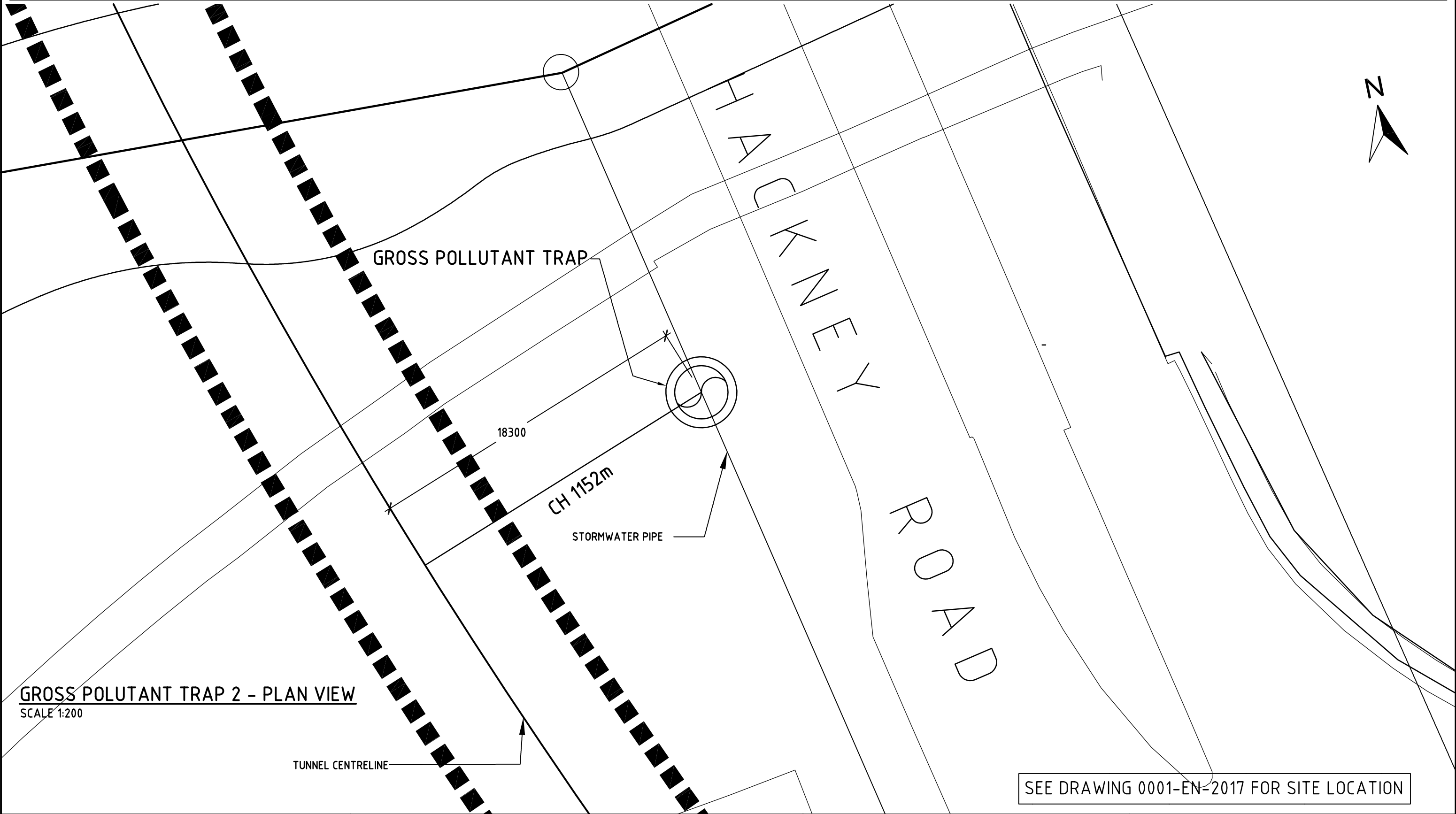
| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



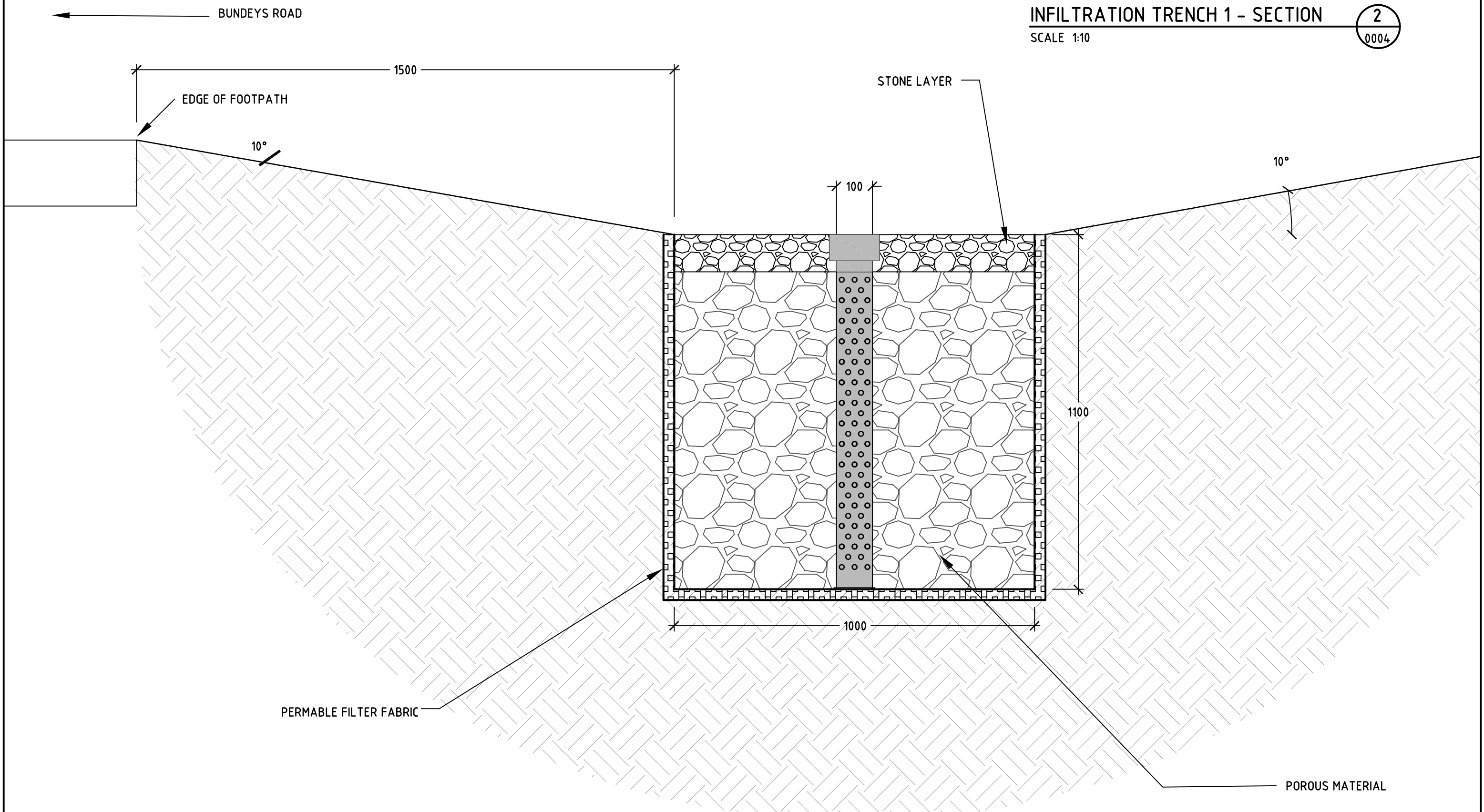
| | |
|---------------|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: ANDREW THOMPSON DEPARTMENT: ENVIRONMENTAL |

| | |
|---------------|-------------------------------|
| DRAWING TITLE | GROSS POLLUTANT TRAP 1 - PLAN |
| SCALE | A3 SHEET = 1:200 OR AS SHOWN |
| DRAWING NO. | 0007-EN-2017 |

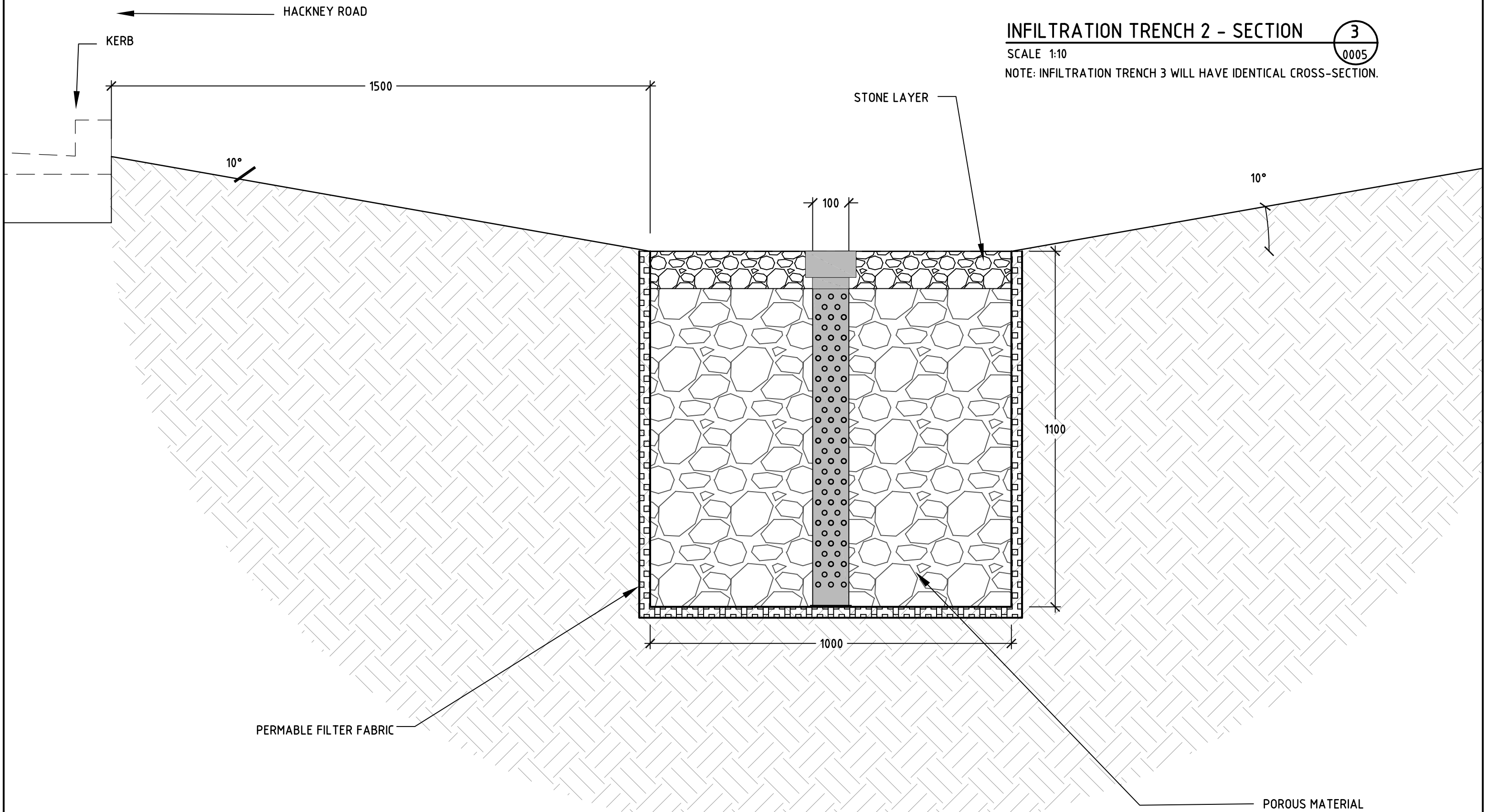
This document has been developed by students from the University of South Australia as part of the Civil Engineering Design Project course. This document and any associated works relating to it is for the purposes of academic study only and does not represent the views or opinions of the end client, (Department of Planning Transport and Infrastructure (DPTI))



| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|-------------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | GROSS POLLUTANT TRAP 2 - PLAN | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:200 OR AS SHOWN | |
| | | | | DRAWING INFO | DRAWING NO. | | |
| | | | | DRAWN BY: ANDREW THOMPSON | 0008-EN-2017 | | |
| | | | | DEPARTMENT: ENVIRONMENTAL | | | |



| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---------------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | INFILTRATION TRENCH 1 - SECTION | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:10 OR AS SHOWN | |
| | | | DRAWING INFO | | DRAWING NO. | | |
| | | | DRAWN BY: ANDREW THOMPSON DEPARTMENT: ENVIRONMENTAL | | 0009-EN-2017 | | |



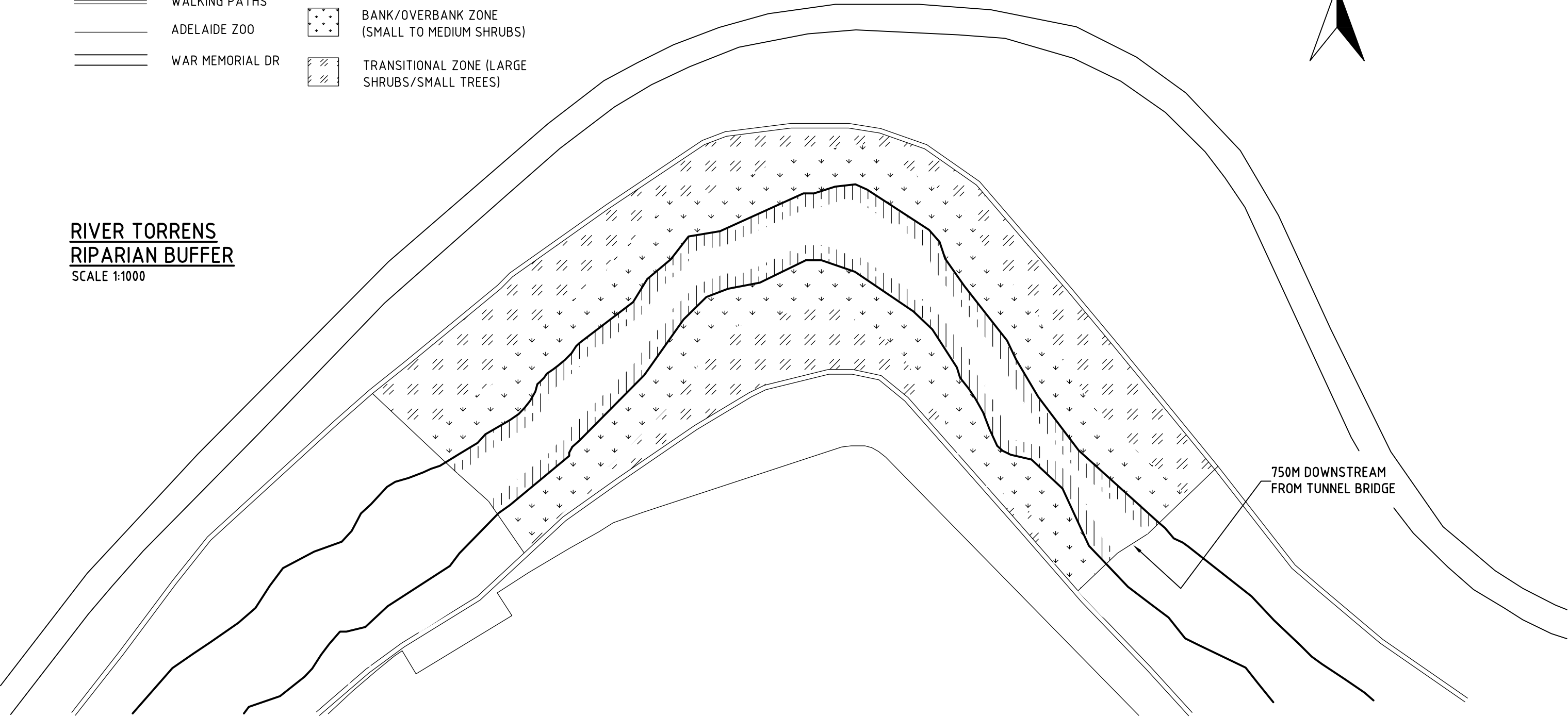
| | | | | | | | | |
|--|---------------------|----------|---|---|--|--|---|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME O-BAHN CITY ACCESS UPGRADE | | DRAWING TITLE INFILTRATION TRENCH 2 SECTION | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | SITE ADDRESS HACKNEY ROAD, ADELAIDE SA | | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO DRAWN BY: ANDREW THOMPSON DEPARTMENT: ENVIRONMENTAL | | SCALE A3 SHEET = 1:10 OR AS SHOWN | |
| | | | | | | | DRAWING NO. 0010-EN-2017 | |

LEGEND

- RIVER TORRENS
- WALKING PATHS
- ADELAIDE ZOO
- WAR MEMORIAL DR
- TOE ZONE (AQUATIC SPECIES)
- BANK/OVERBANK ZONE
(SMALL TO MEDIUM SHRUBS)
- TRANSITIONAL ZONE (LARGE
SHRUBS/SMALL TREES)



RIVER TORRENS
RIPARIAN BUFFER
SCALE 1:1000



| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|-------------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | RIVER TORRENS RIPARIAN BUFFER | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:1000 OR AS SHOWN | |
| | | | DRAWING INFO | | DRAWING NO. | | |
| | | | DRAWN BY: MITCHELL FEAKIN DEPARTMENT: ENVIRONMENTAL | | 0011-EN-2017 | | |

LEGEND

LOMANDRA LONGIFOLIA

ISOLEPIS NODOSA

ASPLENIUM BULBIFERIA

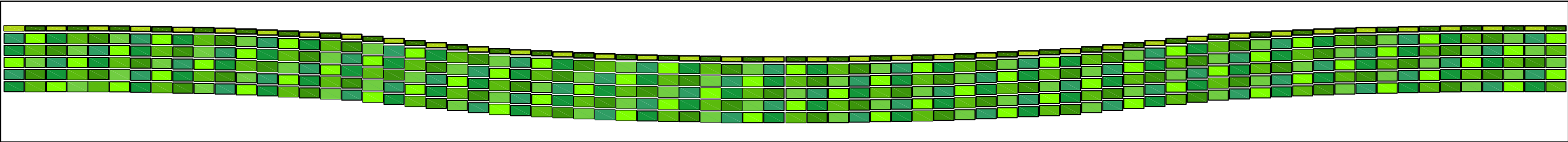
ASPLENIUM AUSTRALASICUM

ACACIA COGNATA DWARF

PANDORA JASMINOIDES

CISSUS ANTARCTICA

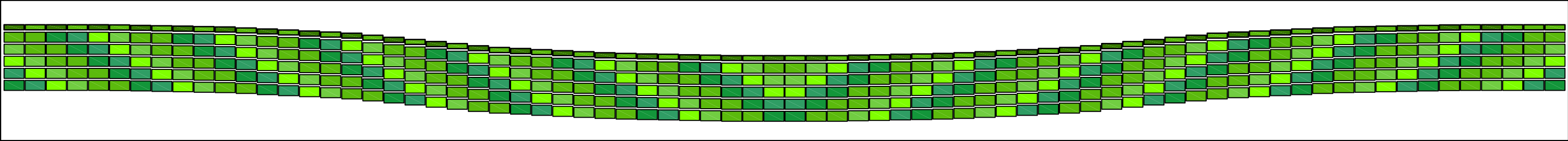
GREEN WALL PATTERN EASTERN SIDE



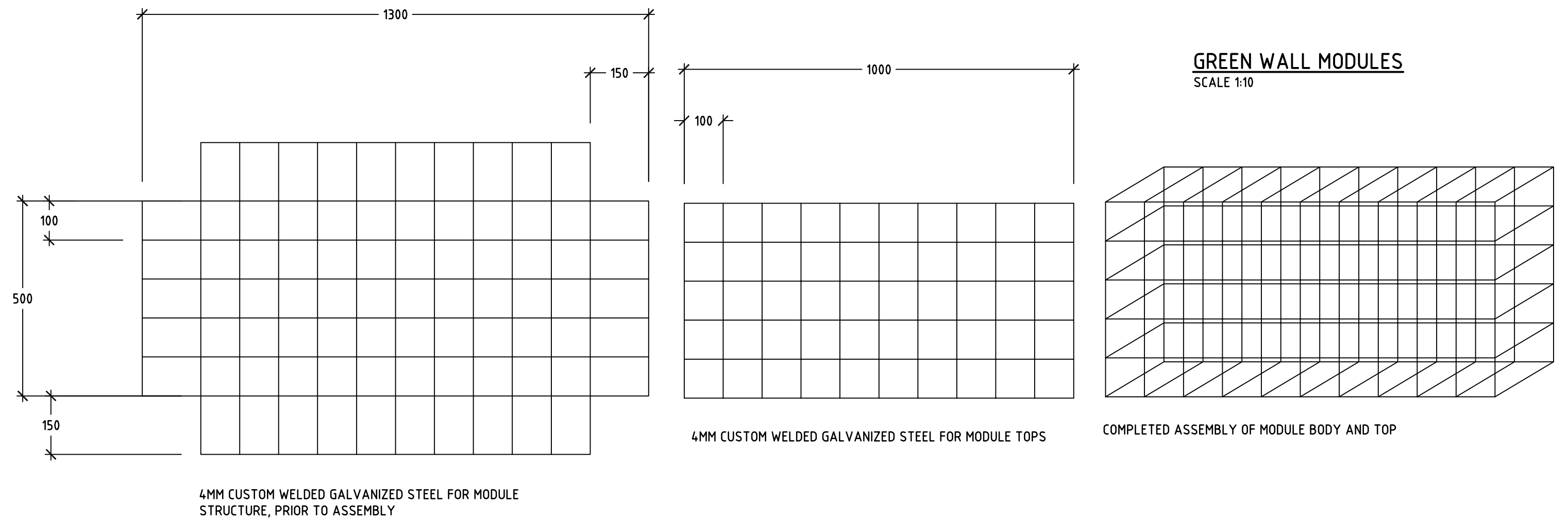
MODULES DESIGNATED LOCATIONS PRIOR TO ARRIVAL ON SITE IN ORDER TO ACHIEVE PROPOSED PATTERN

GREEN WALL PATTERNS
SCALE 1:200

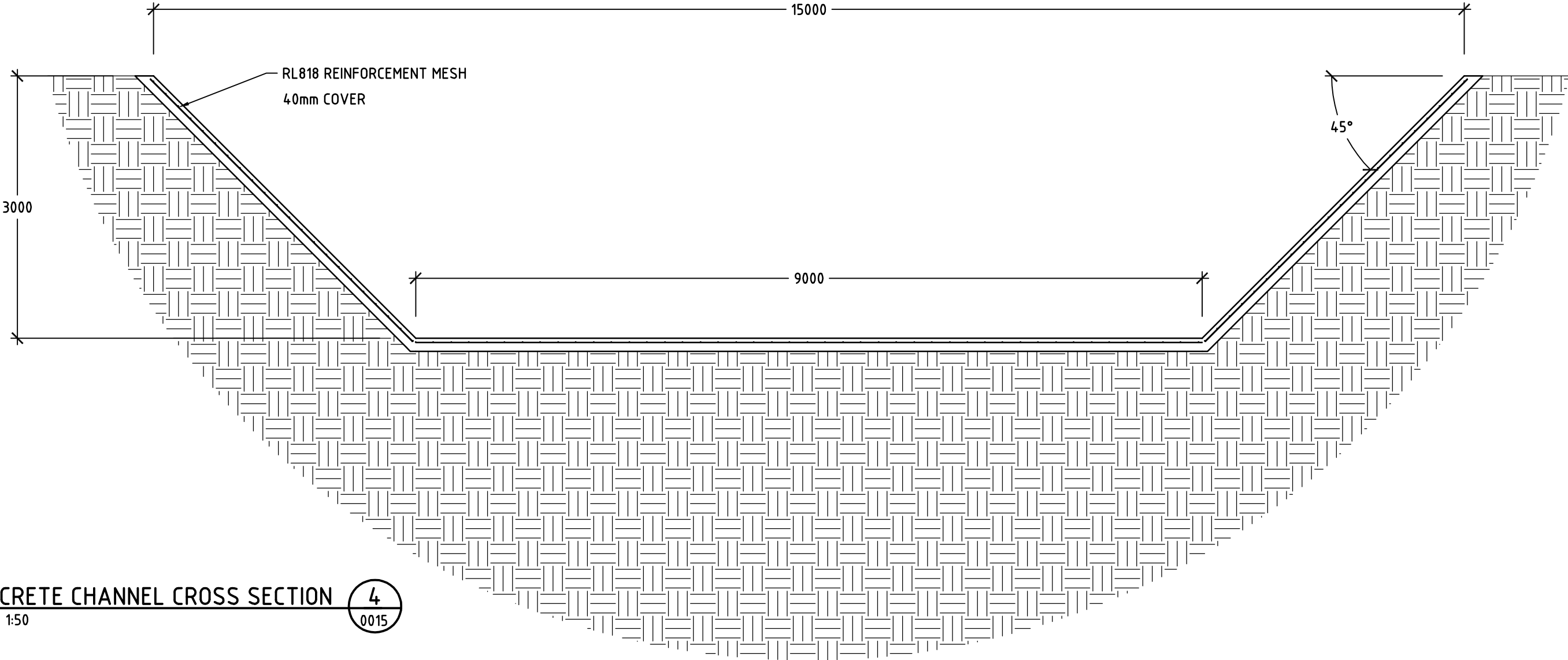
GREEN WALL PATTERN WESTERN SIDE



| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---------------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | |
| | | | | | SITE ADDRESS | SCALE A3 SHEET = 1:200 OR AS SHOWN |
| | | | HACKNEY ROAD, ADELAIDE SA | | DRAWING NO. | |
| | | | DRAWING INFO | | 0012-EN-2017 | |
| | | | DRAWN BY: CHRISTOPHER CHISHOLM DEPARTMENT: ENVIRONMENTAL | | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | | |



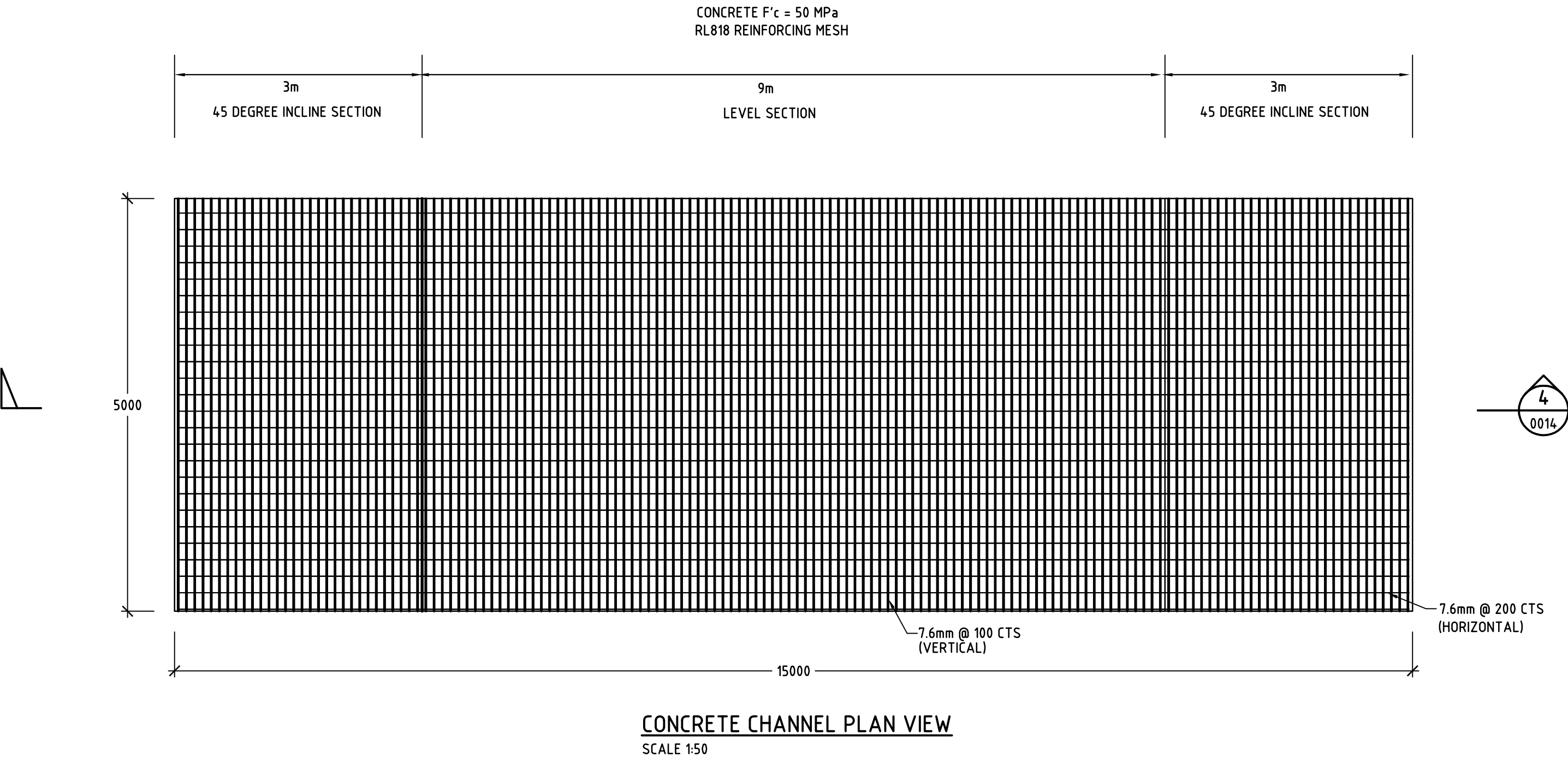
| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|-----------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | GREEN WALL MODULES | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:10 OR AS SHOWN | |
| | | | DRAWING INFO | DRAWING NO. | | | |
| | | | DRAWN BY: CHRISTOPHER CHISHOLM DEPARTMENT: ENVIRONMENTAL | 0013-EN-2017 | | | |



CONCRETE CHANNEL CROSS SECTION
SCALE 1:50

4
0015

| | | | | | | |
|--|---------------------|----------|---|---|---|--------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | CONCRETE CHANNEL CROSS SECTION |
| | | | | | SITE ADDRESS | |
| | | | | HACKNEY ROAD, ADELAIDE SA | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: CHRISTOPHER CHISHOLM DEPARTMENT: ENVIRONMENTAL | A3 SHEET = 1: 50 OR AS SHOWN |
| | | | | | DRAWING NO. | 0014-EN-2017 |




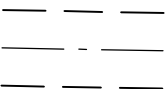


| | | | | | | |
|--|---------------------|----------|---|---|-----------------------------|---------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | |
| | | | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | | | |
| | | | DRAWING INFO | SCALE | A3 SHEET = 1:50 OR AS SHOWN | |
| | | | DRAWN BY: CHRISTOPHER CHISHOLM | DRAWING NO. | 0015-EN-2017 | |
| | | | DEPARTMENT: ENVIRONMENTAL | | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | | |

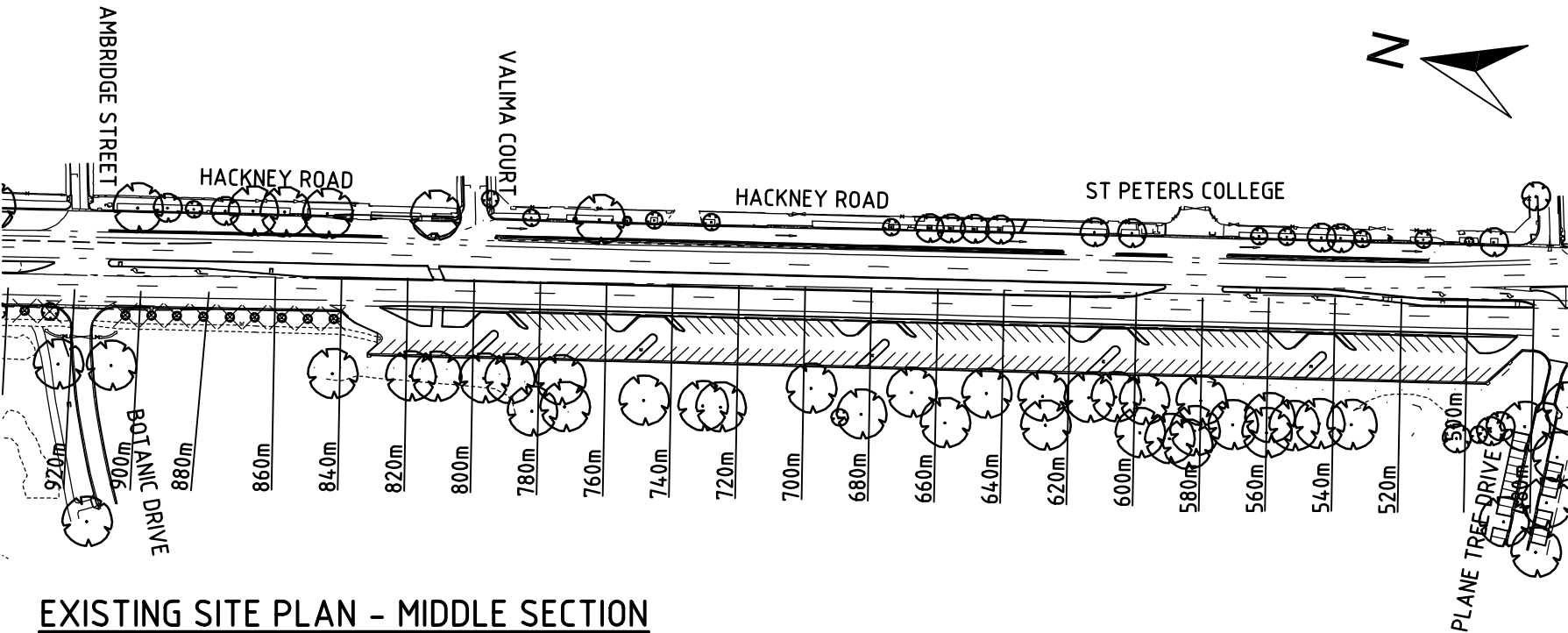


EXISTING SITE PLAN - NORTHERN SECTION
SCALE 1:2000

LEGEND




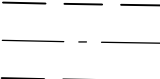
-  TREE TO REMAIN
-  SIGNIFICANT OR REGULATED TREE
-  TREE TO BE REMOVED
-  TUNNEL ALIGNMENT WITH 20M CONSTRUCTION ZONE

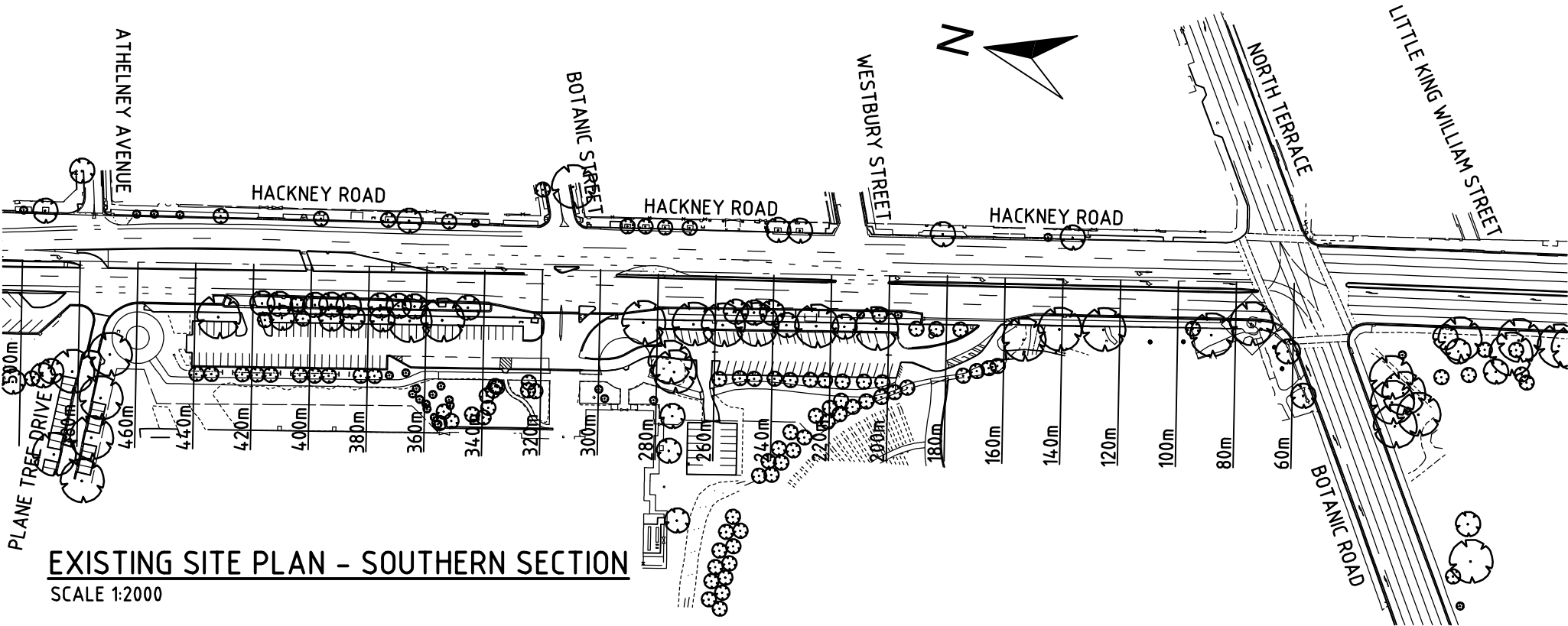
| | | | | | | |
|--|---------------------|----------|---|---|---|----------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | EXISTING SITE CONDITIONS - NORTH |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: SIMON BREDERECK DEPARTMENT: URBAN PLANNING | A3 SHEET = 1:2000 OR AS SHOWN |
| | | | | | DRAWING NO. | 0001-UP-2017 |



EXISTING SITE PLAN - MIDDLE SECTION
SCALE 1:2000

LEGEND

-  TREE TO REMAIN
-  SIGNIFICANT OR REGULATED TREE
-  TREE TO BE REMOVED
-  TUNNEL ALIGNMENT WITH 20M CONSTRUCTION ZONE



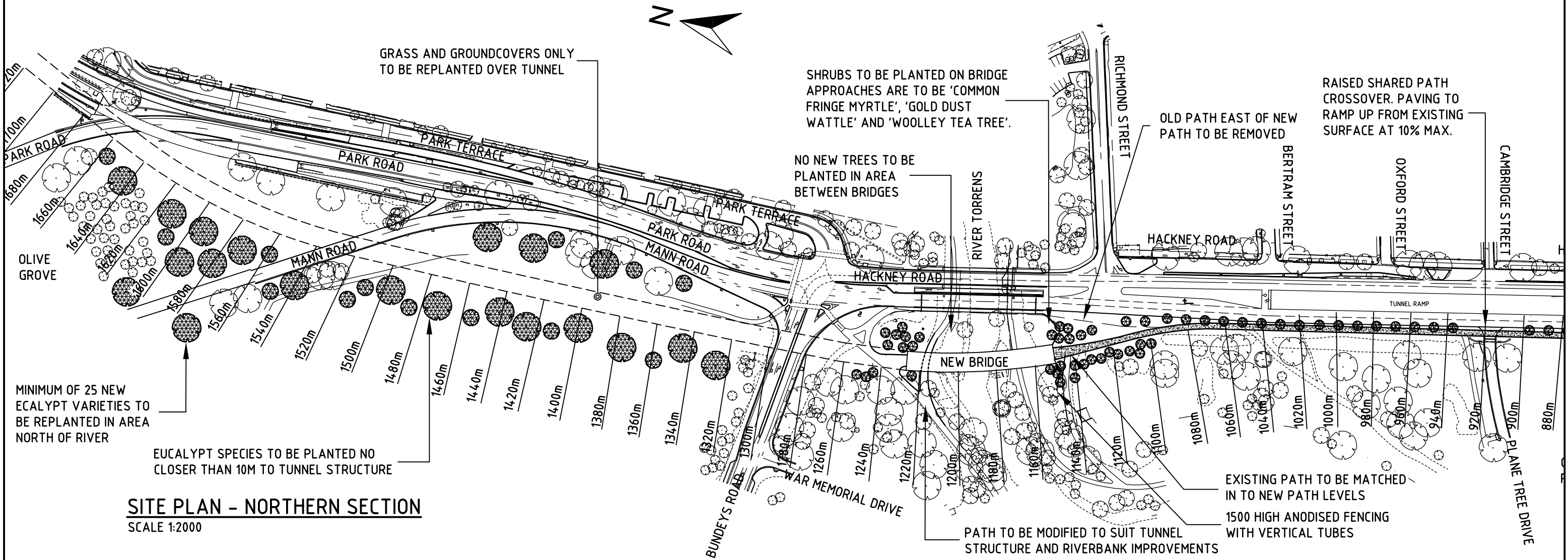
EXISTING SITE PLAN - SOUTHERN SECTION
SCALE 1:2000

| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |

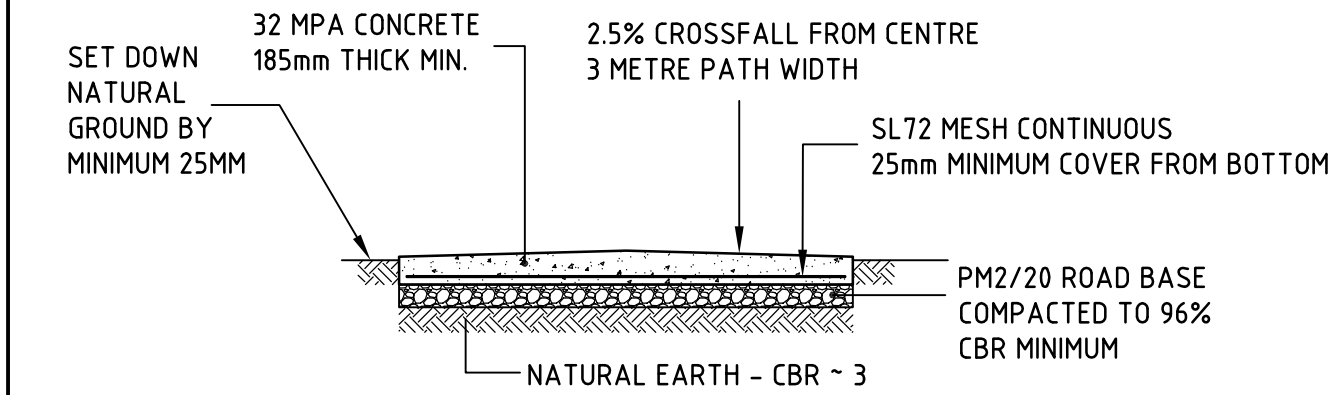


| | |
|---------------|---|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA |
| DRAWING INFO | DRAWN BY: SIMON BREDERECK DEPARTMENT: URBAN PLANNING |

| | |
|---------------|---|
| DRAWING TITLE | EXISTING SITE CONDITIONS - MIDDLE AND SOUTH |
| SCALE | A3 SHEET = 1:2000 OR AS SHOWN |
| DRAWING NO. | 0002-UP-2017 |



SITE PLAN - NORTHERN SECTION
SCALE 1:2000



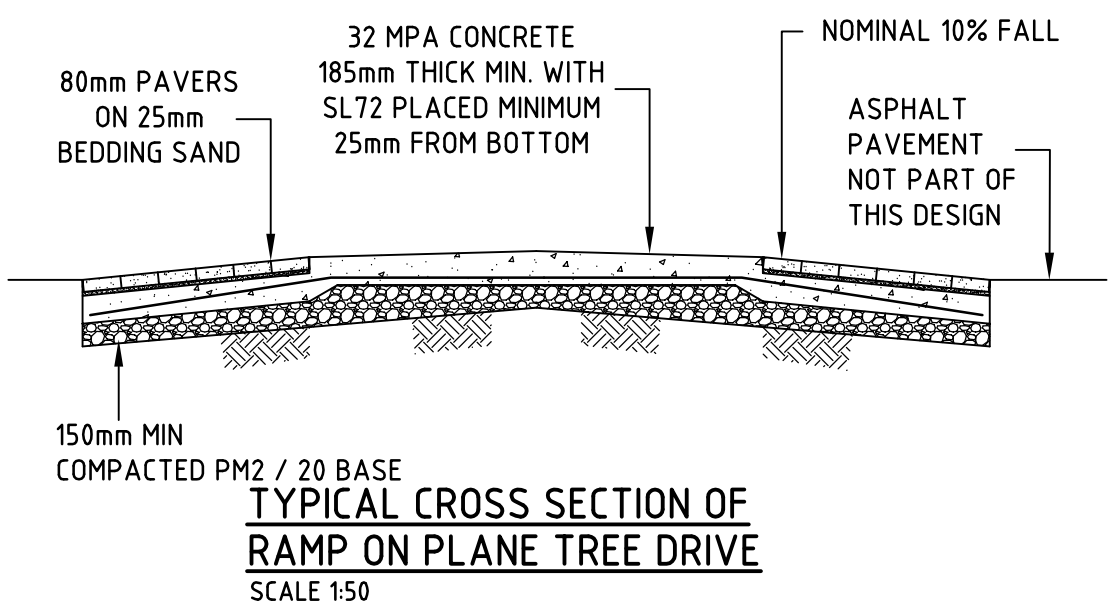
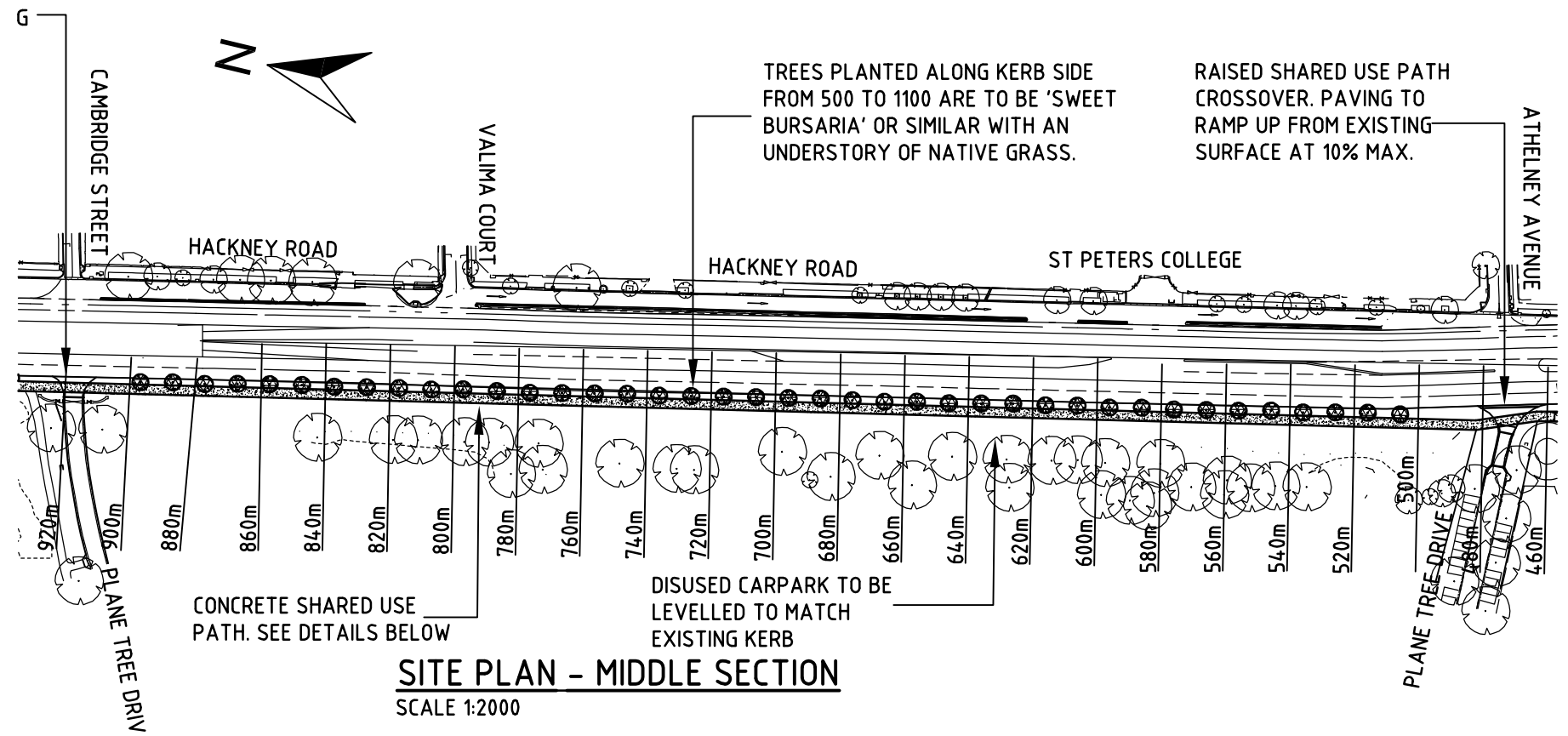
TYPICAL CROSS SECTION OF SHARED PATH
SCALE 1:50

LEGEND

-  TREE TO REMAIN
-  NEW TREE

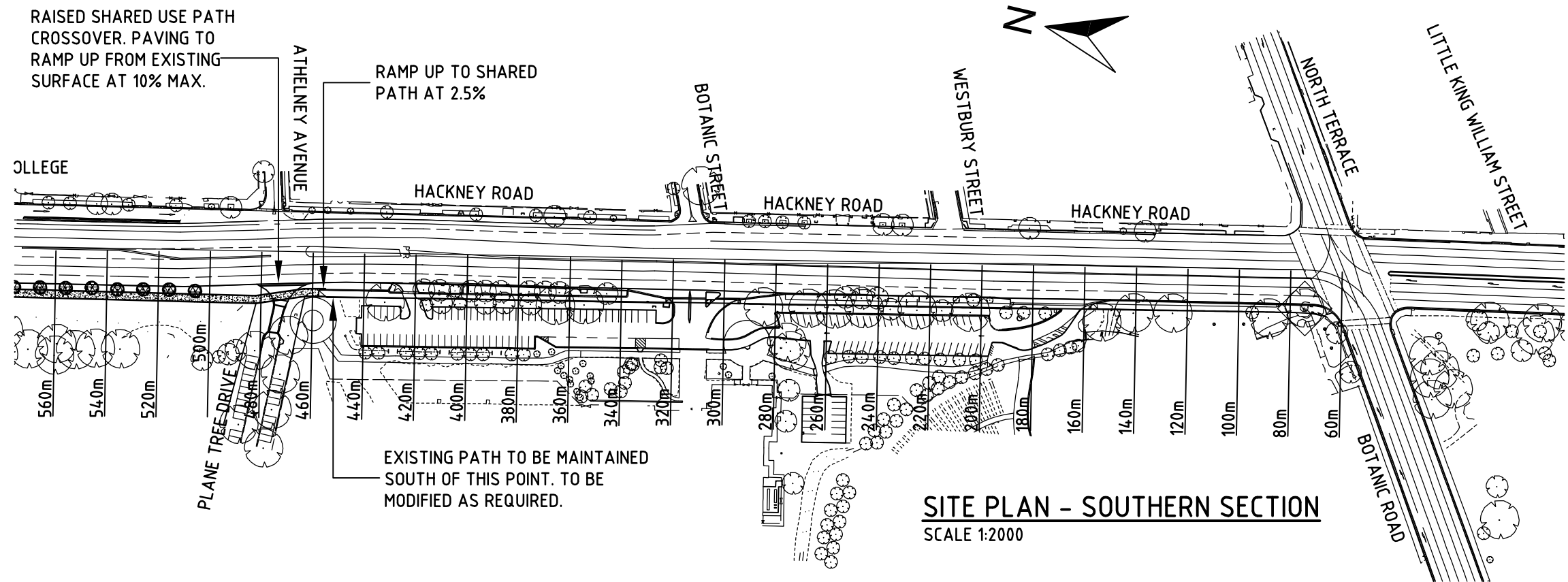
| | | | | |
|--|---------------------|----------|---|--|
| Issue No | Purpose | Date | CONTRACT NAME O-BAHN CITY ACCESS UPGRADE | DRAWING TITLE NEW VEGETATION AND SHARED PATH - NORTH |
| A | FOR CLIENT APPROVAL | 08/06/17 | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | SITE ADDRESS HACKNEY ROAD, ADELAIDE SA | SCALE A3 SHEET = 1:50, 1:2000 OR AS SHOWN |
| | | | DRAWING INFO DRAWN BY: SIMON BREDERECK DEPARTMENT: URBAN PLANNING | DRAWING NO. 0003-UP-2017 |



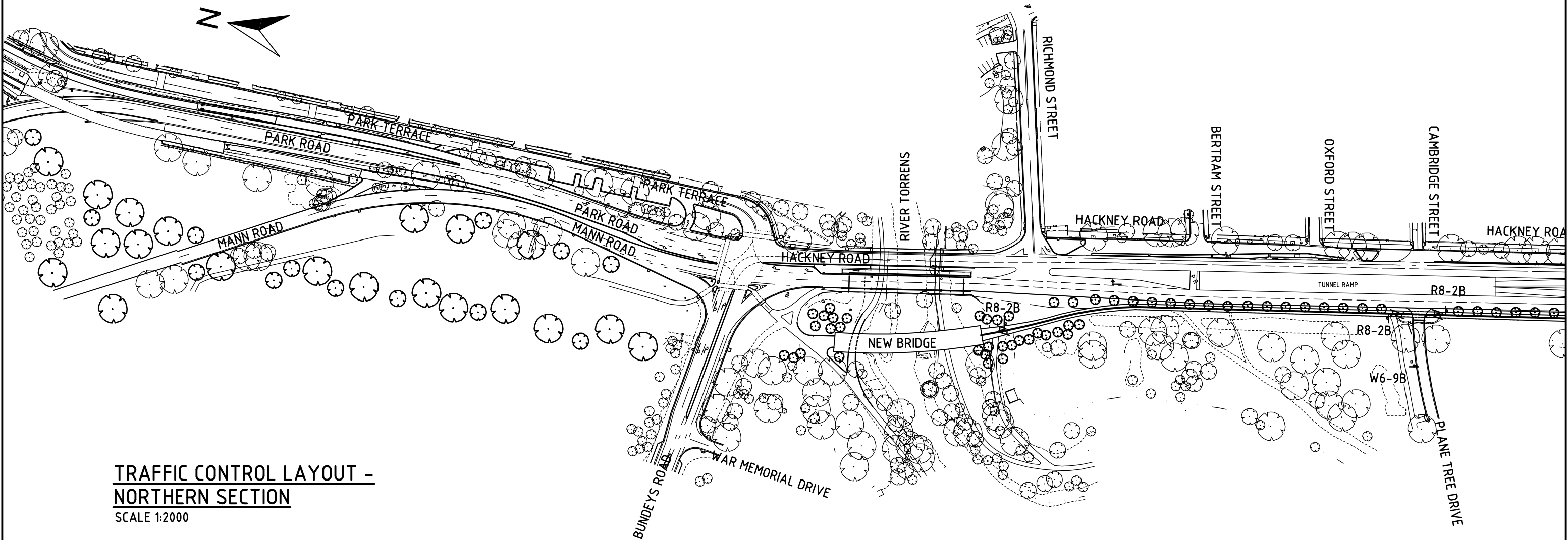


LEGEND

- TREE TO REMAIN
- NEW TREE



| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|-------------------------------------|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | NEW VEGETATION AND SHARED PATH |
| | | | | | SITE ADDRESS | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | DRAWING INFO | SCALE |
| | | | | | DRAWN BY: SIMON BREDERECK | A3 SHEET = 1:50, 1:2000 OR AS SHOWN |
| | | | | | DEPARTMENT: URBAN PLANNING | DRAWING NO. |
| | | | | | | 0004-UP-2017 |



**TRAFFIC CONTROL LAYOUT -
NORTHERN SECTION**
SCALE 1:2000

LEGEND

| CODE | DESCRIPTION |
|-----------|--|
| R8-2B | SHARED PATH |
| W6-9B | SHARED PATH WARNING SIGN |
| W8-SA3B-L | 'ON SIDE ROAD' WITH LEFT ARROW SUPPLEMENTARY PLATE |
| A | SHARED PATH PAINTED SYMBOL - DIRECTION OF TRAVEL |
| — — | CONTINUOUS WHITE LINE - 100mm WIDE |
| - - | CONTINUITY WHITE LINE - 100mm WIDE, 1m LINE, 3m GAP |

SIGN TYPES

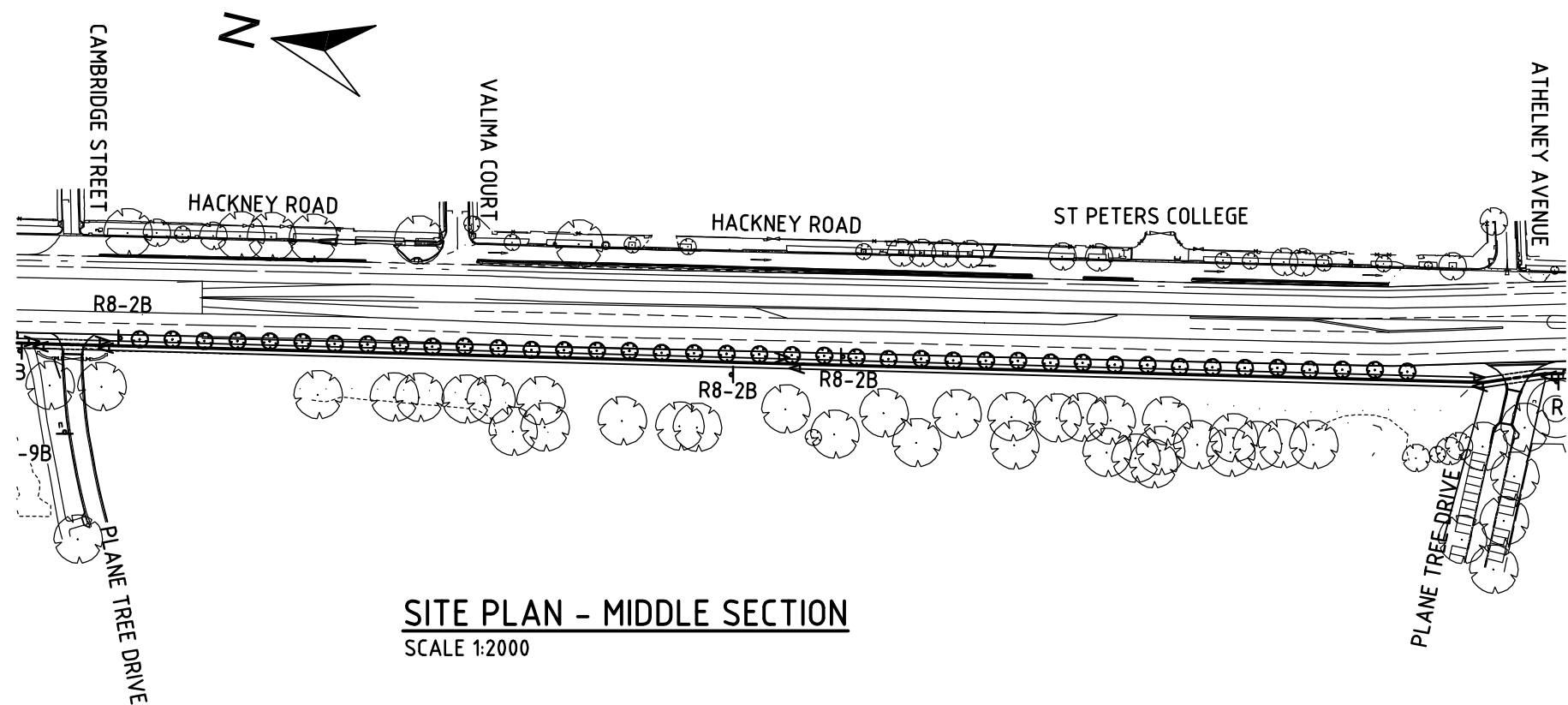


ALL SIGNS TO BE INSTALLED ON 80x40
GALVANISED POSTS WITH A MINIMUM
CLEARANCE OF 2.1m ABOVE SURFACE

| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |



| | | | | | |
|---------------|---|--|---------------|--|--|
| CONTRACT NAME | O-BAHN CITY ACCESS UPGRADE | | DRAWING TITLE | TRAFFIC CONTROL FOR SHARED PATH - NORTH | |
| SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA | | SCALE | A3 SHEET = 1:2000 OR AS SHOWN | |
| DRAWING INFO | DRAWN BY: SIMON BREDERECK DEPARTMENT: URBAN PLANNING | | DRAWING NO. | 0005-UP-2017 | |



SITE PLAN - MIDDLE SECTION
SCALE 1:2000

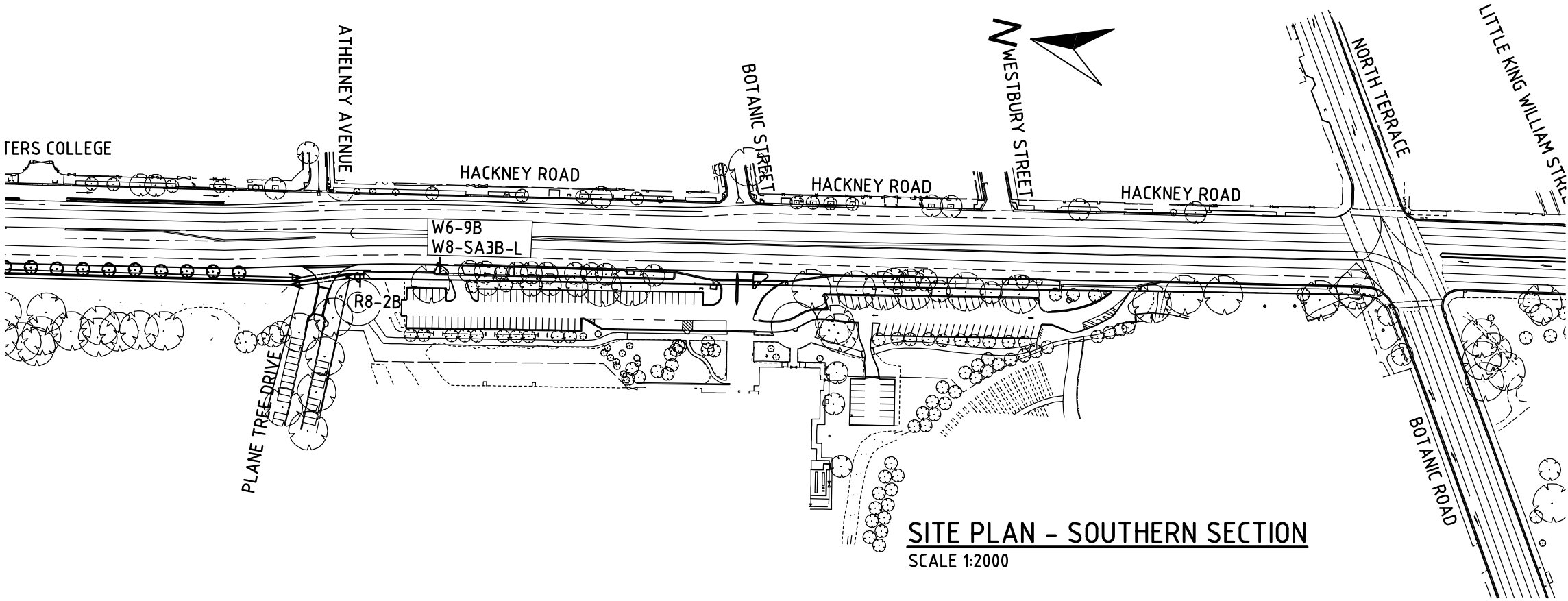
SIGN TYPES



ALL SIGNS TO BE INSTALLED ON 80x40 GALVANISED POSTS WITH A MINIMUM CLEARANCE OF 2.1m ABOVE SURFACE



LEGEND

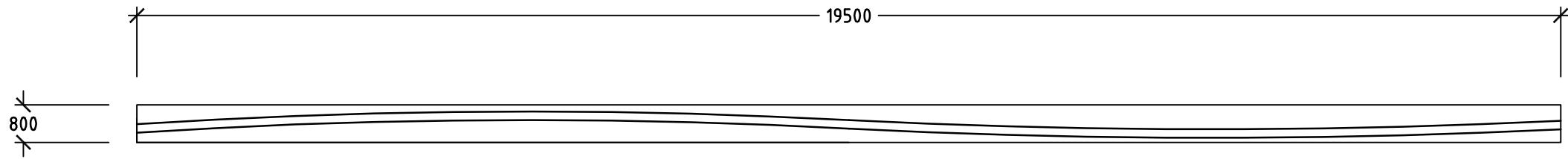
| CODE | DESCRIPTION |
|-----------|---|
| R8-2B | SHARED PATH |
| W6-9B | SHARED PATH WARNING SIGN |
| W8-SA3B-L | 'ON SIDE ROAD' WITH LEFT ARROW SUPPLEMENTARY PLATE |
| A | SHARED PATH PAINTED SYMBOL - DIRECTION OF TRAVEL |
| — | CONTINUOUS WHITE LINE - 100mm WIDE |
| - - | CONTINUITY WHITE LINE - 100mm WIDE, 1m LINE, 3m GAP |



SITE PLAN - SOUTHERN SECTION
SCALE 1:2000

| Issue No | Purpose | Date |
|--|---------------------|----------|
| A | FOR CLIENT APPROVAL | 08/06/17 |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | |

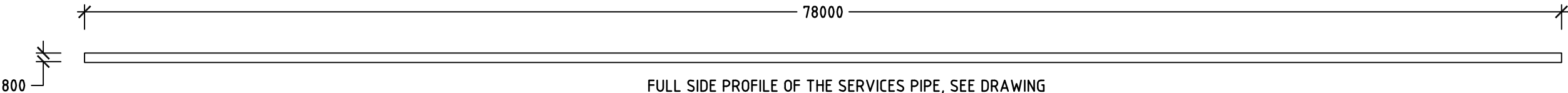
| | | | | |
|---|---|---|--|--|
|  University of South Australia |  | CONTRACT NAME O-BAHN CITY ACCESS UPGRADE | | DRAWING TITLE TRAFFIC CONTROL FOR SHARED PATH - MIDDLE AND SOUTH |
| | | SITE ADDRESS HACKNEY ROAD, ADELAIDE SA | | |
| | | DRAWING INFO DRAWN BY: SIMON BREDERECK DEPARTMENT: URBAN PLANNING | | SCALE A3 SHEET = 1:2000 OR AS SHOWN |
| | | | | DRAWING NO. 0006-UP-2017 |



SIDE VIEW OF A QUARTER OF THE SERVICES BRIDGE,
THE PARABOLIC PATTERN WILL BE CONTINUED OVER
THE FULL LENGTH OF THE BRIDGE

NEW SERVICES PIPE EXTERIOR DESIGN SMALL SECTION

SCALE 1:75

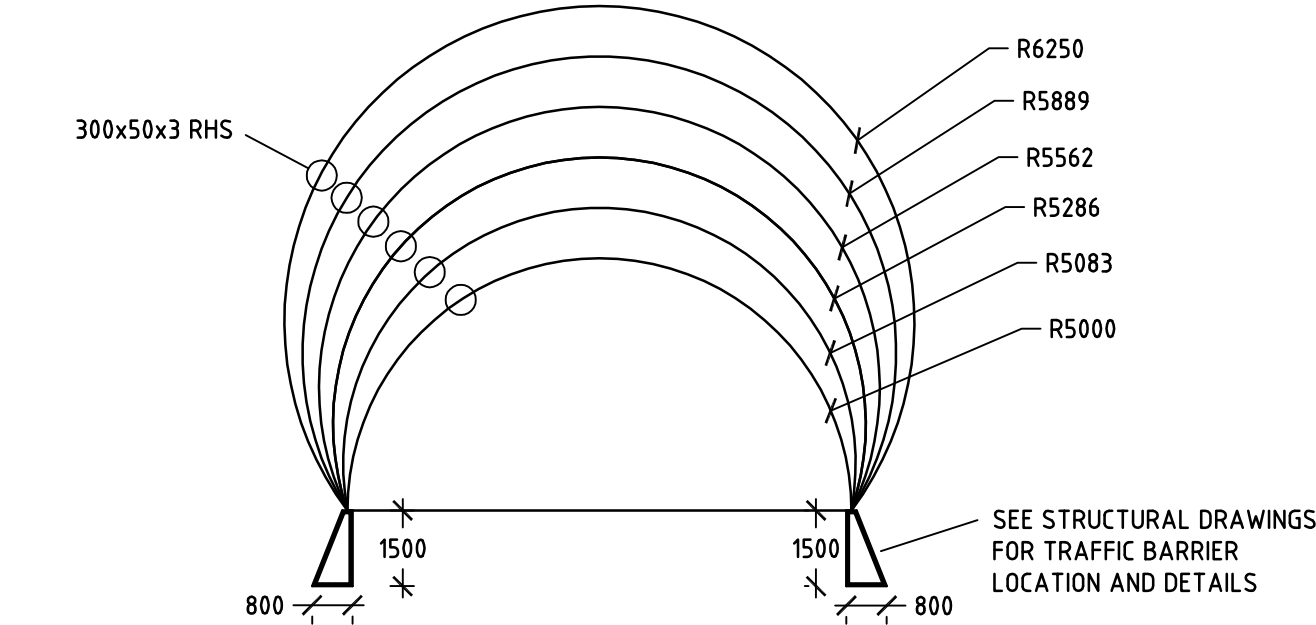


FULL SIDE PROFILE OF THE SERVICES PIPE, SEE DRAWING
..(SERVICES DEPARTMENTS DRAWING OF SERVICES PIPE)..
FOR FULL PROFILE OF THE SERVICES BRIDGE

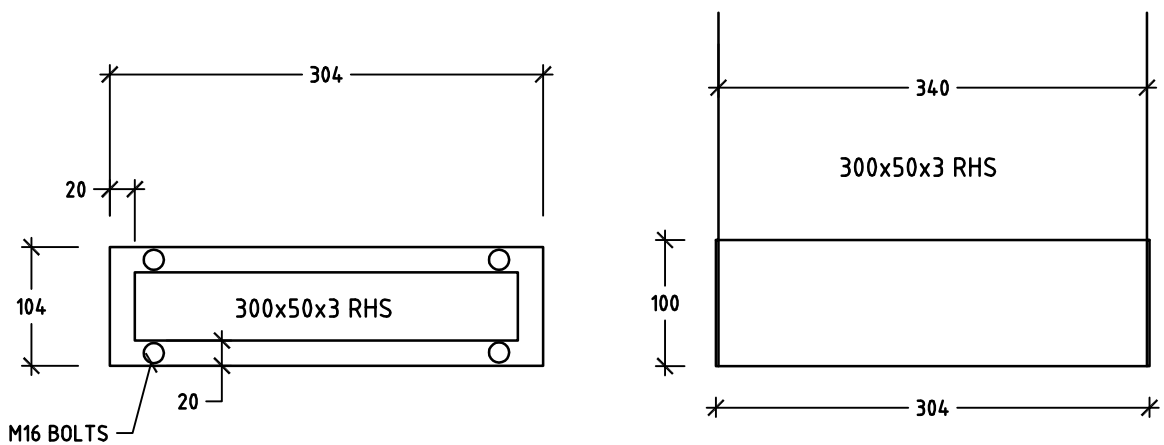
SERVICES PIPE

SCALE 1:250

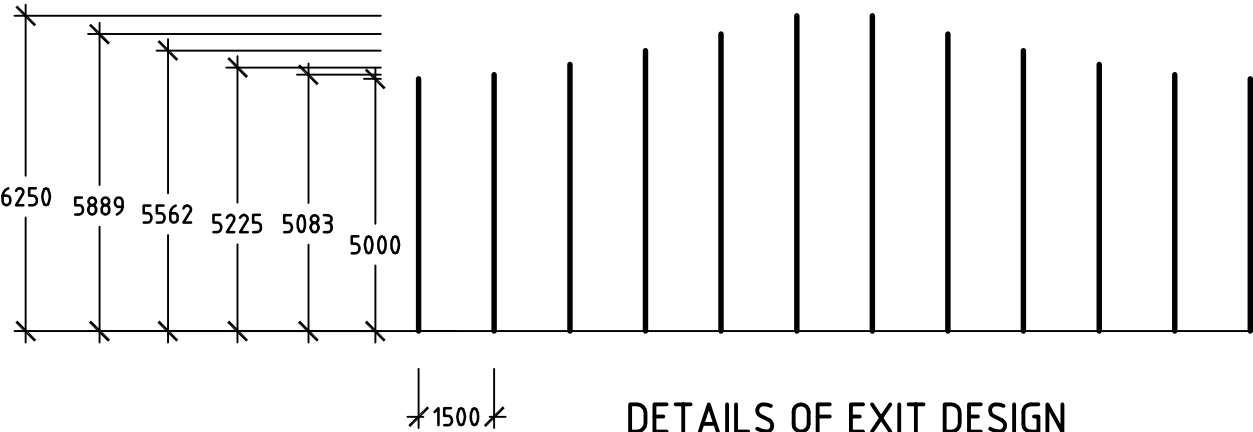
| | | | | | | | |
|--|---------------------|----------|---|---|------------------------------------|--------------------------------------|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | NEW SERVICES PIPE EXTERIOR DESIGN | |
| | | | | | SITE ADDRESS | | |
| | | | | HACKNEY ROAD, ADELAIDE SA | | | |
| | | | | DRAWING INFO | SCALE | | |
| | | | | DRAWN BY: DUSAN BRANKOVIC | A3 SHEET = 1:250, 1:75 OR AS SHOWN | | |
| | | | | DEPARTMENT: URBAN PLANNING DEPARTMENT | DRAWING NO. | | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | 0007-UP-2017 | | |



NEW TUNNEL EXIT DESIGN FRONT VIEW
SCALE 1:150

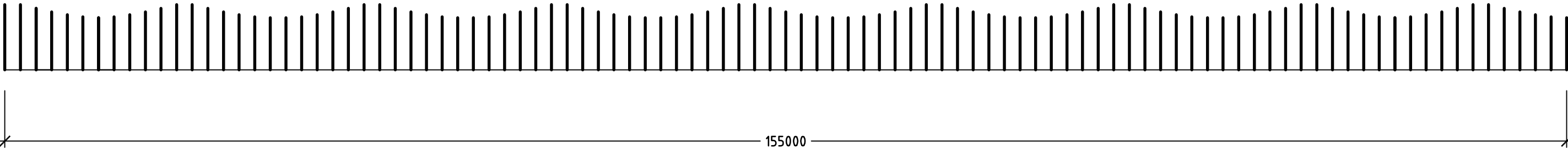


RECTANGULAR HOLLOW SECTION (RHS) STEEL BRACKET DESIGN
SCALE 1:6

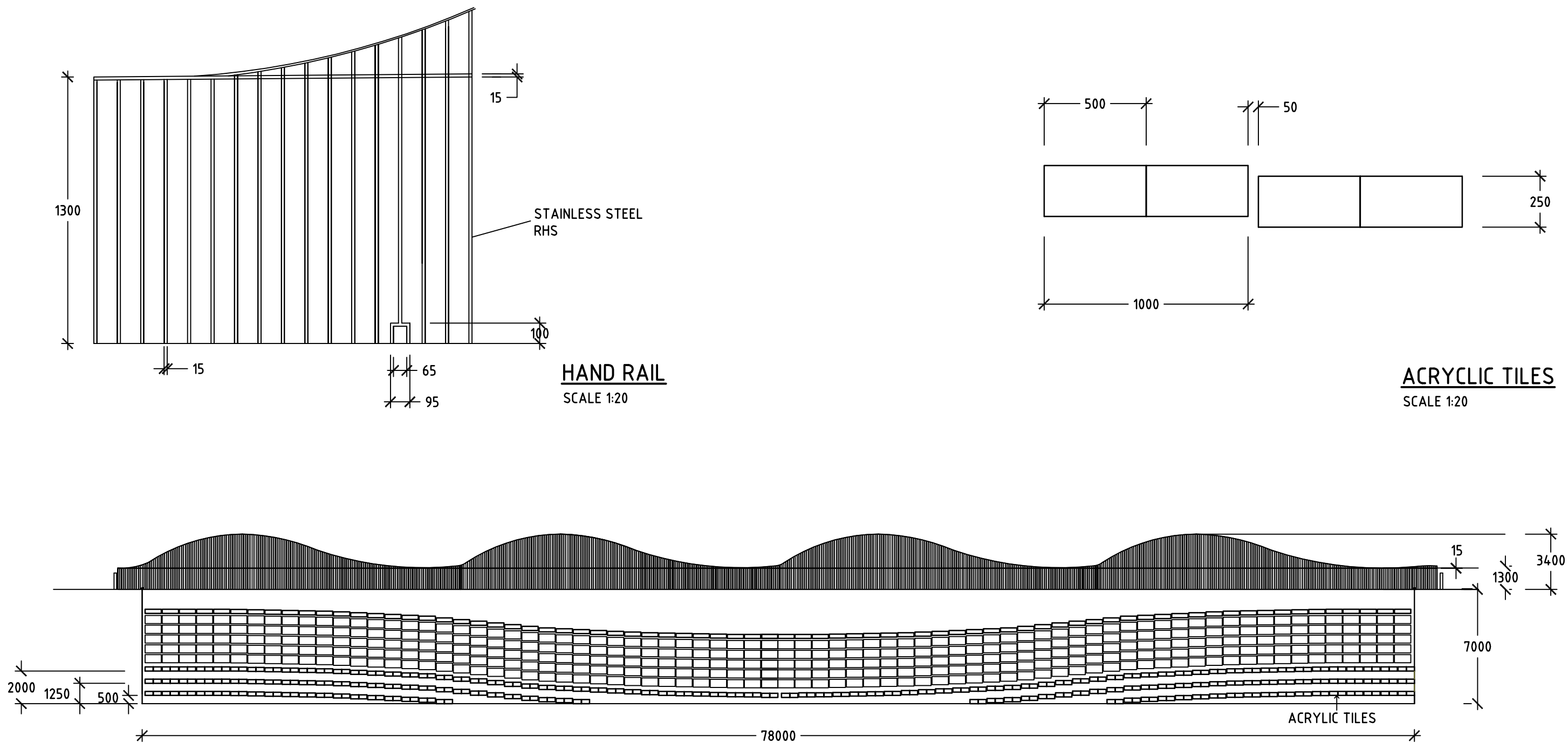


DETAILS OF EXIT DESIGN
SCALE 1:150

HACKNEY ROAD TUNNEL EXIT SIDE VIEW
SCALE 1:400

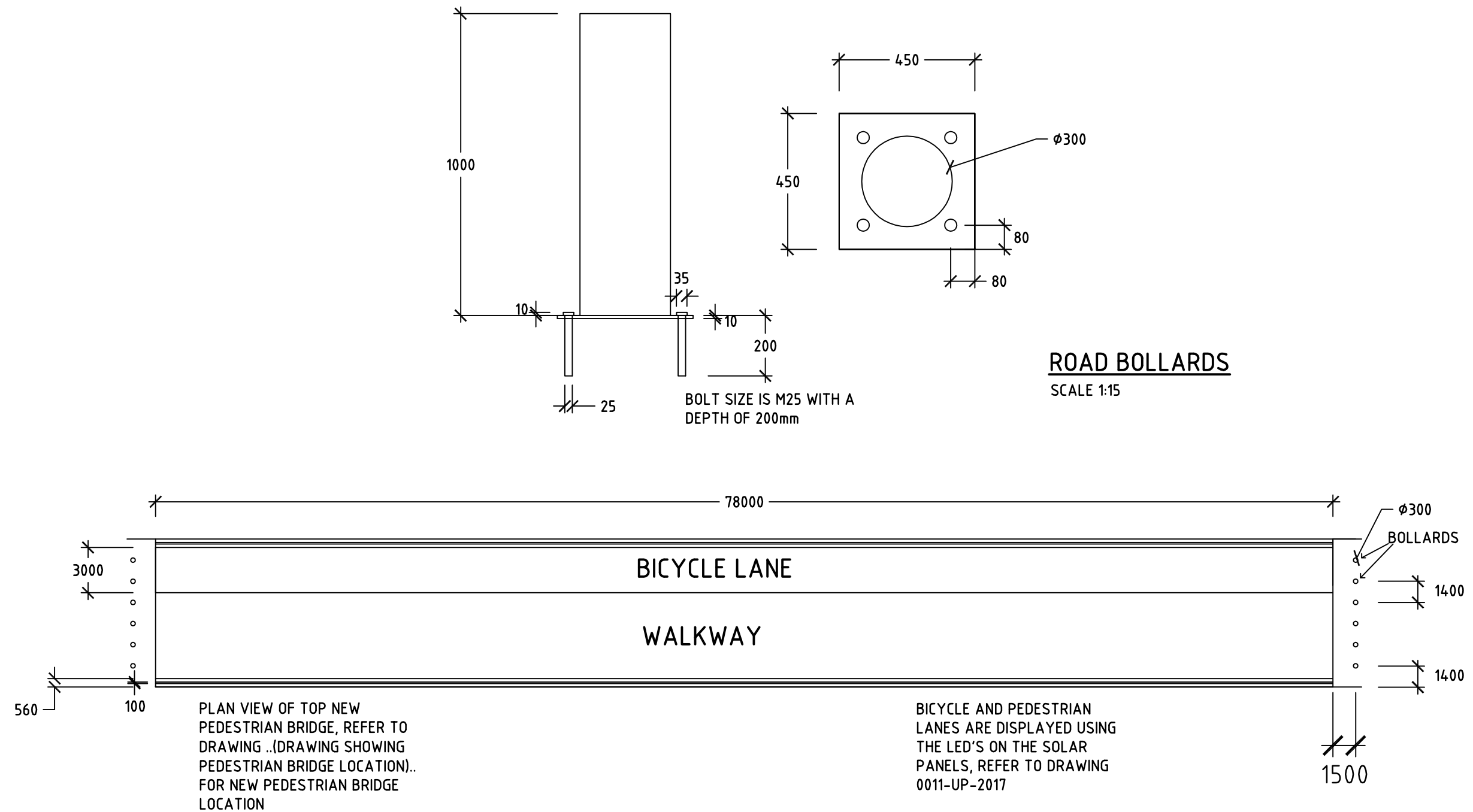


| | | | | | | |
|--|---------------------|----------|---|---|----------------------------|---|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE A3 SHEET = 1:150, 1:6, 1:400 OR AS SHOWN |
| | | | | | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | | 0008-UP-2017 | |
| | | | DRAWN BY: DUSAN BRANKOVIC | | | |
| | | | DEPARTMENT: URBAN PLANNING DEPARTMENT | | | |



| | | | | | | | |
|--|---------------------|----------|---|---|---|--|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | HACKNEY ROAD PEDESTRIAN BRIDGE HAND RAIL & GREEN WALL | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | SCALE | |
| | | | | | HACKNEY ROAD, ADELAIDE SA | A3 SHEET = 1:250, 1:20 OR AS SHOWN | |
| | | | | | DRAWING INFO | DRAWING NO. | |
| | | | | | DRAWN BY: ARGYRIOS KIKIANIS DEPARTMENT: URBAN PLANNING | 0009-UP-2017 | |

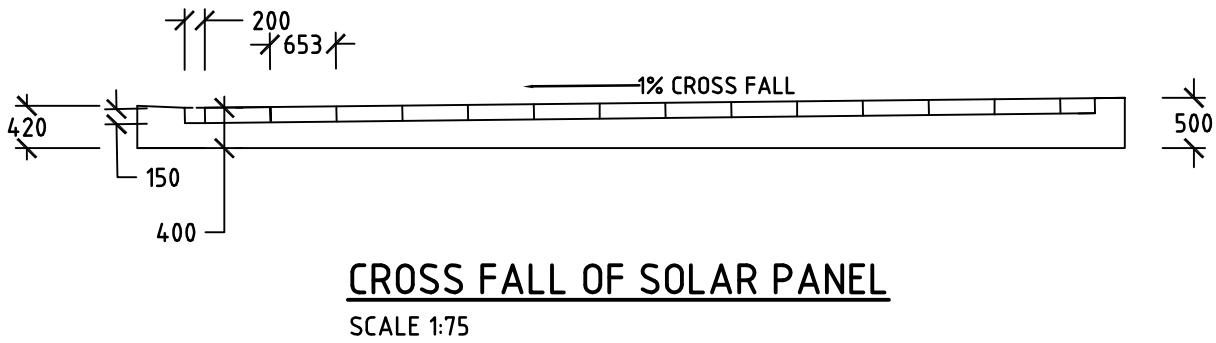
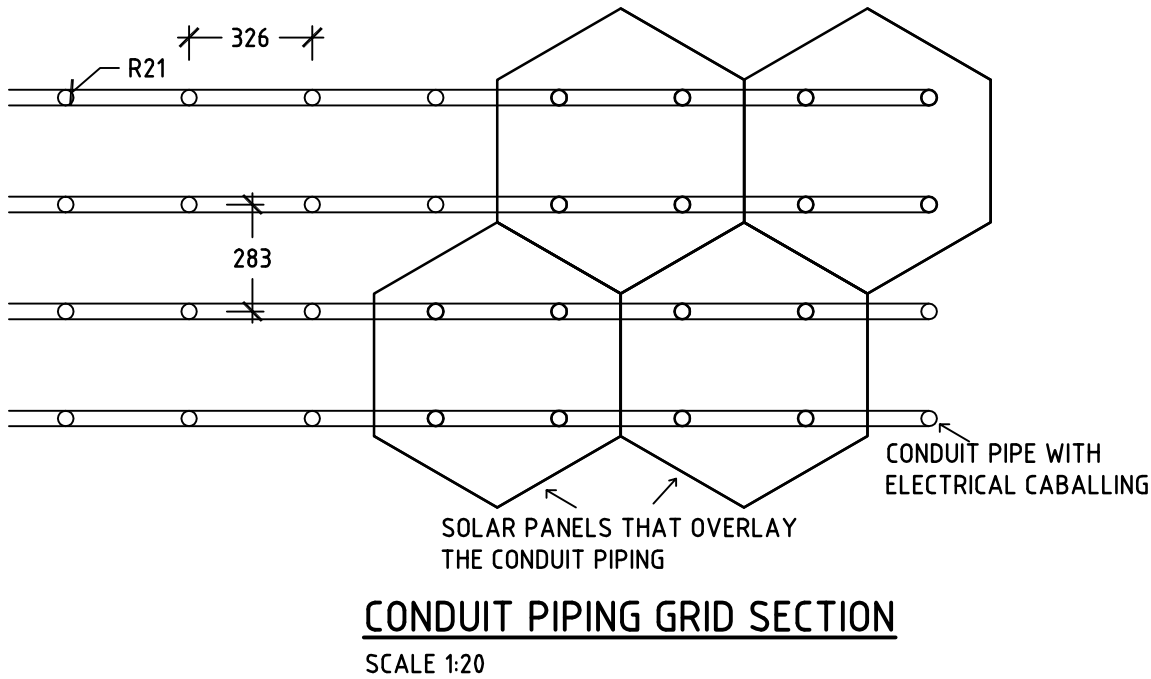
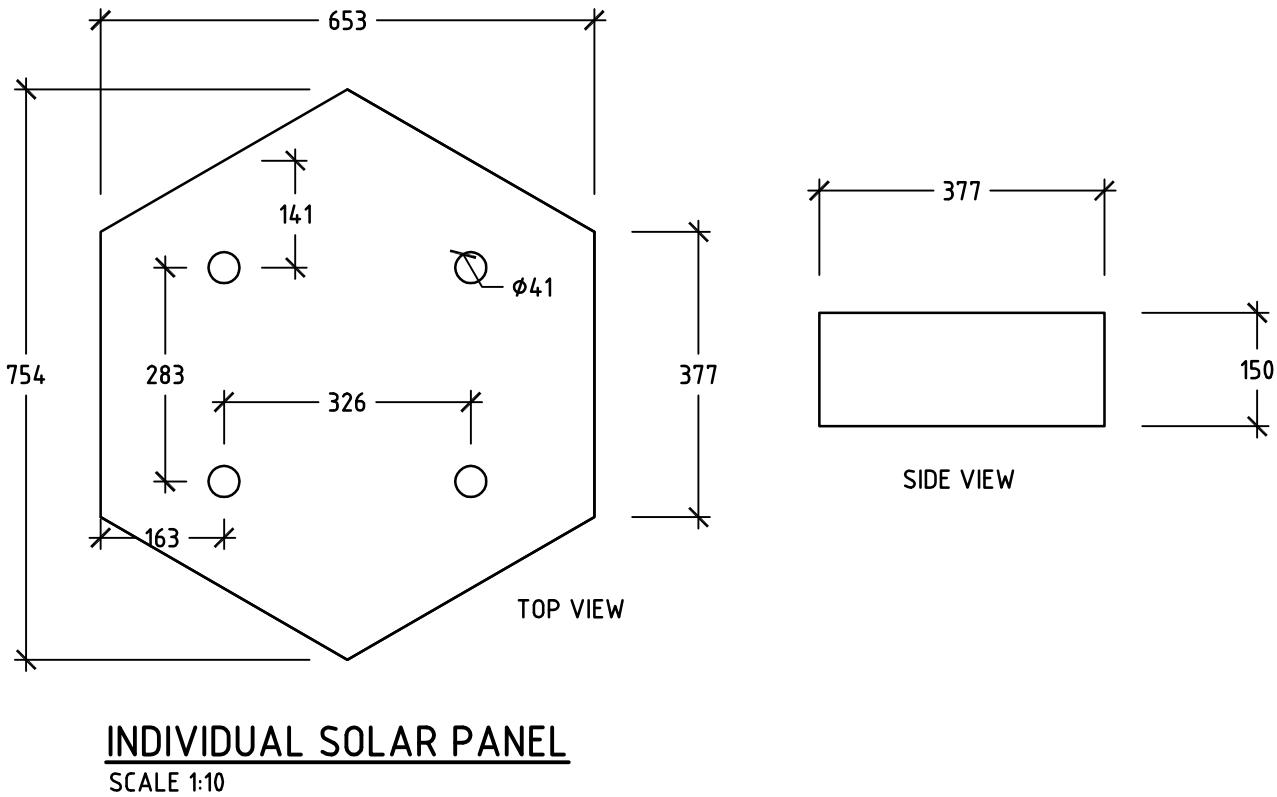
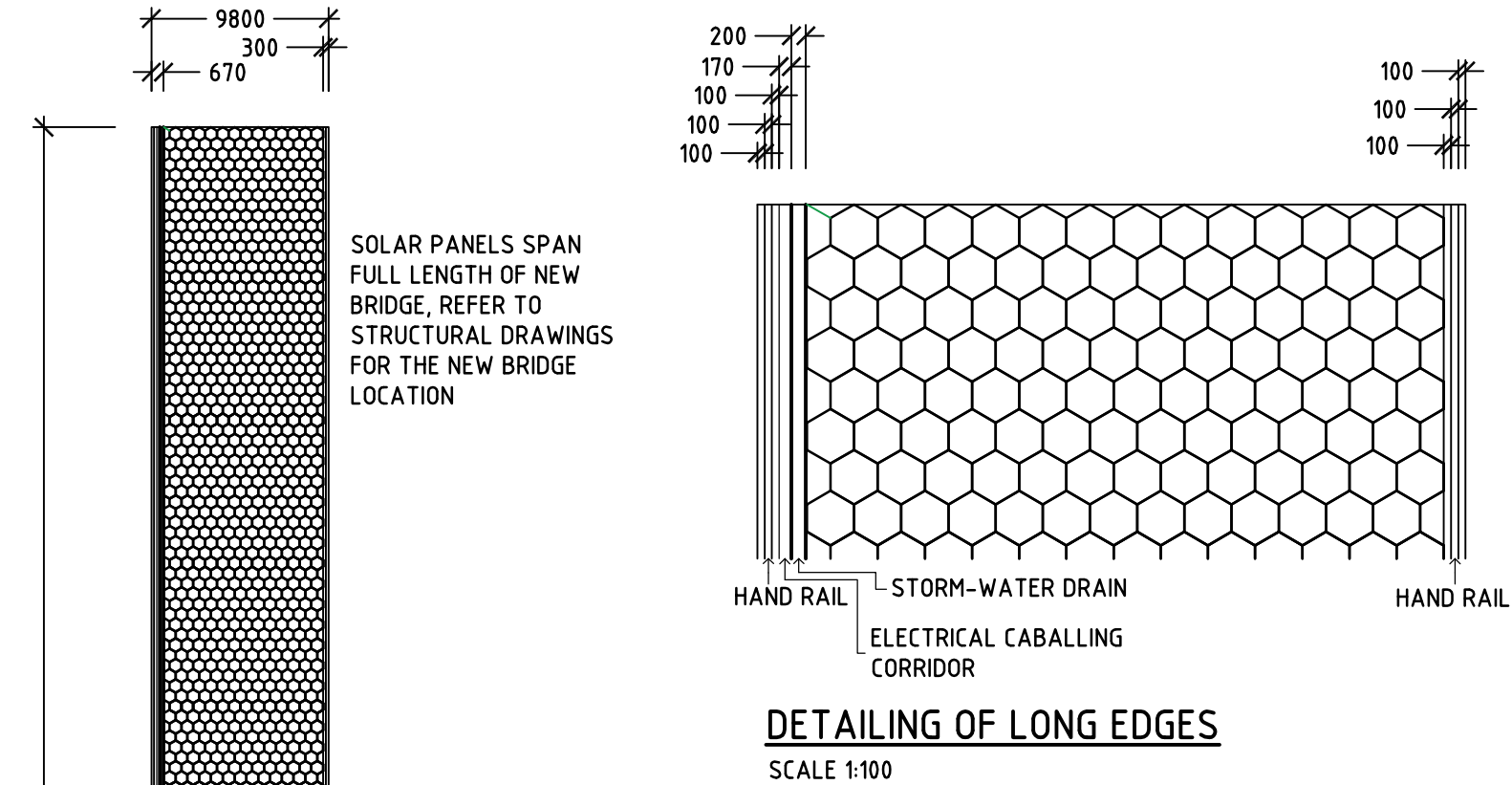
This document has been developed by students from the University of South Australia as part of the Civil Engineering Design Project course. This document and any associated works relating to it is for the purposes of academic study only and does not represent the views or opinions of the end client, (Department of Planning Transport and Infrastructure (DPTI))



HACKNEY BICYCLE & PEDESTRIAN LANES PLAN VIEW

SCALE 1:300

| | | | | | | | |
|--|---------------------|----------|---|---|----------------------------|--|--|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE | |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | ROAD BOLLARDS, BICYCLE AND PEDESTRIAN LANES | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | HACKNEY ROAD, ADELAIDE SA | |
| | | | DRAWING INFO | | SCALE | A3 SHEET = 1:300, 1:15 OR AS SHOWN | |
| | | | DRAWN BY: ARGYRIOS KIKIANIS DEPARTMENT: URBAN PLANNING | | DRAWING NO. 0010-UP-2017 | | |



HACKNEY ROAD PEDESTRIAN BRIDGE SOLAR PANEL LAYOUT
SCALE 1:400

| | | | | | | |
|--|---------------------|----------|---|---|---------------------------------------|---|
| Issue No | Purpose | Date |  University of South Australia |  | CONTRACT NAME | DRAWING TITLE |
| A | FOR CLIENT APPROVAL | 08/06/17 | | | O-BAHN CITY ACCESS UPGRADE | |
| ALL UNITS ARE IN mm UNLESS NOTED OTHERWISE | | | | | SITE ADDRESS | |
| | | | HACKNEY ROAD, ADELAIDE SA | | DRAWING INFO | SCALE A3 SHEET = 1:400, 1:100, 1:75, 1:20, 1:10 OR AS SHOWN |
| | | | | | DRAWN BY: CONNOR WILLIAMS | DRAWING NO. |
| | | | | | DEPARTMENT: URBAN PLANNING DEPARTMENT | 0011-UP-2017 |