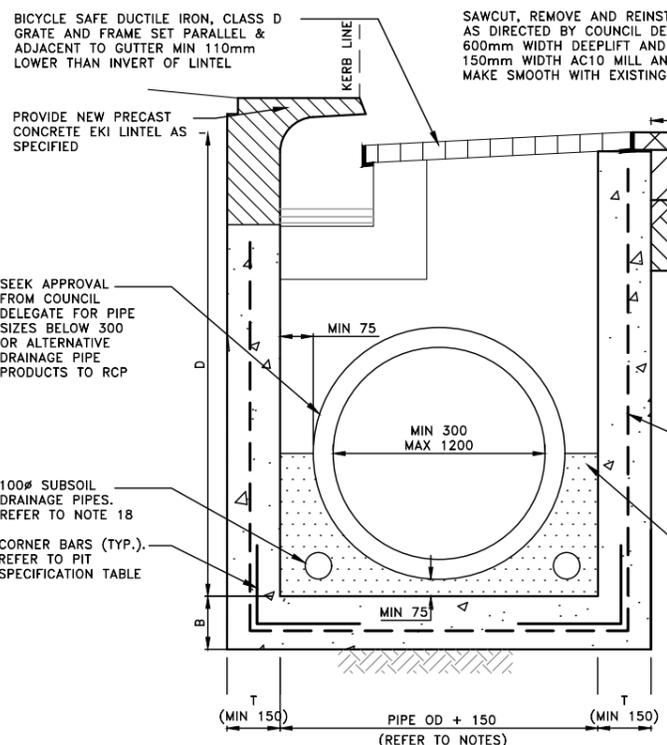


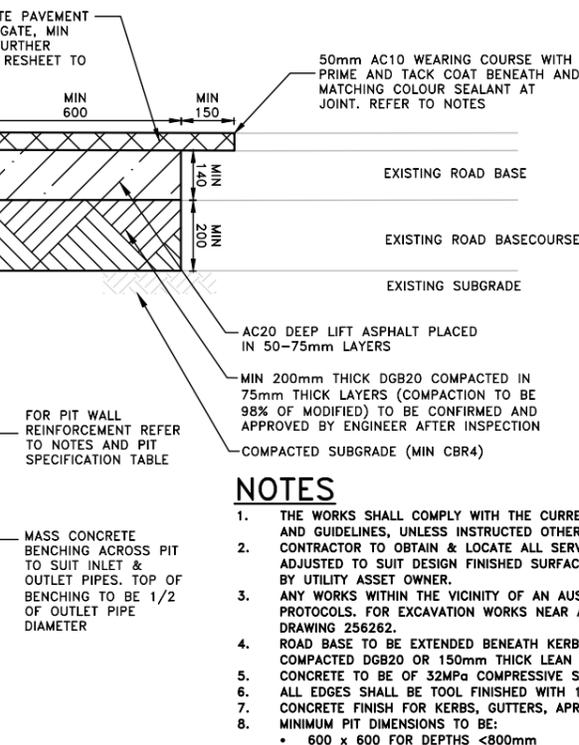
**PLAN**  
NOT TO SCALE

PIT SPECIFICATIONS				
DEPTH TO INVERT (D) (mm)	WALL THICKNESS (T) (mm)	BASE THICKNESS (B) (mm)	REINFORCEMENT MESH	CORNER BARS
0-1200	150	150	SL82	N12-300 L500
1200-2100	200	180	SL81	N12-200 L600
>2100	TO STRUCTURAL ENGINEERS SPECIFICATIONS			

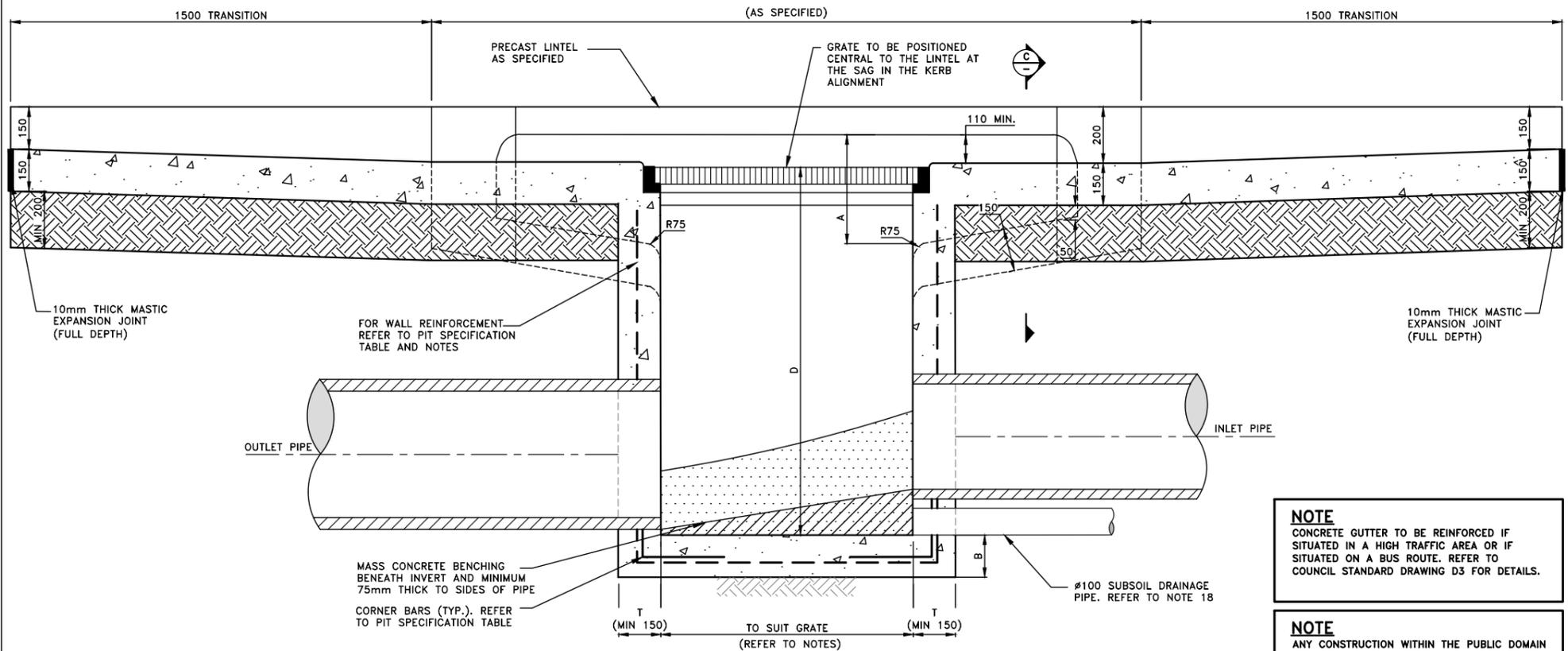
PIT SPECIFICATIONS	
INLET LENGTH EKI (mm)	MINIMUM HEIGHT TO LINTEL OVERT (A) (mm)
1800	250
2400	300
3000	400
3600	450
4200	500



**SECTION B**  
NOT TO SCALE



**SECTION C**  
NOT TO SCALE



**SECTION A**  
NOT TO SCALE

**NOTES**

- THE WORKS SHALL COMPLY WITH THE CURRENT AND RELEVANT AUSTRALIAN STANDARDS AND TNSW TECHNICAL DIRECTIONS AND GUIDELINES, UNLESS INSTRUCTED OTHERWISE BY THE COUNCIL DELEGATE.
  - CONTRACTOR TO OBTAIN & LOCATE ALL SERVICES PRIOR TO WORKS COMMENCING. UTILITY SERVICE COVERS ARE TO BE ADJUSTED TO SUIT DESIGN FINISHED SURFACE LEVELS. UTILITY COVERS TO BE CLASS D OR EQUIVALENT, OR AS SPECIFIED BY UTILITY ASSET OWNER.
  - ANY WORKS WITHIN THE VICINITY OF AN AUSGRID ASSET TO COMPLY TO RELEVANT AUSGRID STANDARDS AND SAFETY PROTOCOLS. FOR EXCAVATION WORKS NEAR AUSGRID POLES, REFER TO THE LATEST REVISION OF AUSGRID STANDARD DRAWING 256262.
  - ROAD BASE TO BE EXTENDED BENEATH KERBS, GUTTERS, APRONS AND DISH CROSSINGS. 150mm THICK RECYCLED COMPACTED DGB20 OR 150mm THICK LEAN MIX CONCRETE, COMPACTED TO 98% S.D.D.
  - CONCRETE TO BE OF 32MPa COMPRESSIVE STRENGTH AT 28 DAYS.
  - ALL EDGES SHALL BE TOOL FINISHED WITH 12mm RADIUS 50mm WIDE EDGING TOOL, UNLESS INDICATED OTHERWISE.
  - CONCRETE FINISH FOR KERBS, GUTTERS, APRONS AND CROSSINGS TO BE STEEL TROWEL.
  - MINIMUM PIT DIMENSIONS TO BE:
    - 600 x 600 FOR DEPTHS <800mm
    - 900 x 600 FOR DEPTHS >800mm AND <1800mm
    - 900 x 900 FOR DEPTHS >1800mm
  - FOR PITS GREATER THAN 900mm IN LENGTH OR 1200mm IN WIDTH SEPARATE DESIGN IS REQUIRED BY A PROFESSIONAL STRUCTURAL ENGINEER.
  - PROVIDE STEP IRONS WHERE PIT IS DEEPER THAN 1.0m AT 300 CENTERS. REFER TO STANDARD DRAWING DB FOR STEP IRON DETAILS
  - FOR PIT DEPTHS BETWEEN 1.5m AND 3.0m DEPTH, PROVIDE N12 @ 250C/C EACHWAY AT 40 COVER TO INSIDE FACE WALLS AND BASE. PROVIDE 400 LAP AT CORNERS. FOR PIT DEPTHS GREATER THAN 3.0m, SEPARATE DESIGN IS REQUIRED BY A PROFESSIONAL STRUCTURAL ENGINEER.
  - PROVIDE WELDLK HOT DIPPED GALVANISED GULLY GRATE GG50D (OR APPROVED EQUIVALENT) SET PARALLEL TO ADJACENT GUTTER AND 10 LOWER FOR RESIDENTIAL ROADS. FOR INDUSTRIAL ROADS USE WELDLK HEAVY DUTY HOT DIPPED GALVANISED GULLY GRATE GG42D (OR APPROVED EQUIVALENT) INSTALLED AS ABOVE.
  - ALL GRATES TO BE PROVIDED WITH A LOCKING CLIP.
  - ALL GRATES TO BE HOT DIP GALVANISED.
  - DURING INSTALLATION OF THE GRATE AND FRAME, THE CONTRACTOR IS TO ENSURE A MINIMUM CLEARANCE OF 40mm BETWEEN THE LINTEL AND OPENED GRATE.
  - WHERE EXTENDED CHAMBER WIDTH EXCEEDS 1.2m, ROOF REINFORCEMENT TO BE DESIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER.
  - INTERNAL PIT WIDTH SHALL BE INCREASED FOR PIPES AT AN ANGLE.
  - 100mm DIAM. SUBSOIL DRAINAGE PIPE 3m LONG WRAPPED IN GEOFABRIC SOCK TO BE PROVIDED AT INVERT LEVEL EITHER SIDE OF INLET PIPES.
  - IN UNDERTAKING TRENCH EXCAVATION, THE CONTRACTOR SHALL PROVIDE ANY SHORING, SHEET PILING OR OTHER STABILISATION OF THE TRENCH NECESSARY TO COMPLY WITH OH&S REGULATION REQUIREMENTS. THE SIDES ARE NOT TO BE LOADED & SHALL BE KEPT CLEAR OF LOOSE MATERIAL ETC. SAFE ACCESS & EGRESS SHALL BE PROVIDED AT ALL TIMES. THE CONTRACTOR SHALL ENSURE THAT ALL NECESSARY SEDIMENT CONTROL MEASURES ARE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT COUNCIL AND AUSTRALIAN STANDARDS AND STATUTORY AUTHORITIES. ALL SEDIMENT & EROSION CONTROLS SHALL BE MAINTAINED THROUGHOUT THE PERIOD OF WORKS, INCLUDING REPAIR AND/OR REPLACEMENT OF DAMAGED SECTIONS. INSPECTIONS ARE TO BE MADE PERIODICALLY AND AFTER STORM EVENTS FOR DAMAGE.
  - PROPERTY STORMWATER OUTLET TO BE 125x75x4 RHS, OR TO SUIT EXISTING, MAINTAINING GRAVITY TO FALL TO K&G. INVERT OF OUTLET TO BE LEVEL WITH INVERT OF GUTTER.
  - LEVELS FOR REINSTATEMENT WORKS TO MATCH EXISTING, UNLESS INSTRUCTED OTHERWISE BY THE COUNCIL DELEGATE.
  - THE CONCRETE IS TO USE TYPE A PORTLAND CEMENT AND IS NOT TO BE ARTIFICIALLY COLOURED, STENCILLED, STAMPED OR PATTERNED.
  - ALL REINFORCEMENT TO BE HOT DIP GALVANISED TO AS4671 WITH MINIMUM 50 COVER.
  - RE-SHEET MINIMUM 600mm WIDTH OF DEEP LIFT PAVEMENT AND A FURTHER 150mm WIDTH OF AC10 WEARING COARSE ADJACENT NEW KERB, GUTTER, DISH CROSSINGS OR LAYBACKS. REFER TO STANDARD DETAIL R6 FOR FURTHER DETAIL.
  - COUNCIL'S DELEGATE TO INSPECT FOR ALL UNSOUND AREAS BEFORE PROFILING AC PAVEMENT AND AFTER PROOF ROLLING. WEAK SECTIONS ARE TO BE IDENTIFIED AND HEAVY-PATCHED TO A NOMINAL THICKNESS OF 150mm WITH AC28 BEFORE RESEALING IN ACCORDANCE TO TYPICAL CROSS-SECTION.
  - UNLESS SPECIFIED, OVERLAY TO CONSIST OF 50mm THICK AC10.
  - UNLESS SPECIFIED, CRACK SEALANT FOR FLEXIBLE PAVEMENT TO BE BITULASTIC BITUFLEX OR APPROVED EQUIVALENT.
  - UNLESS SPECIFIED, CRACK SEALANT FOR RIGID PAVEMENT TO BE "DOW CORNING 888" OR APPROVED EQUIVALENT.
  - INSPECTIONS ARE REQUIRED AT THE FOLLOWING STAGES AND AS OTHERWISE DIRECTED BY THE COUNCIL DELEGATE. DO NOT CONTINUE UNTIL APPROVAL RECEIVED FROM COUNCIL DELEGATE.
- ROAD PAVEMENT**
- SUBGRADE TRIMMED AND CONSOLIDATED PRIOR TO FIRST PAVEMENT COURSE. (NOTE: SINGLE AXLE TRUCK WITH 8t LOAD TO BE AVAILABLE FOR PAVEMENT TEST).
  - EACH PAVEMENT LAYER SPREAD AND COMPACTED. (NOTE: SINGLE AXLE TRUCK WITH 8t LOAD TO BE AVAILABLE FOR PAVEMENT TEST).
  - PAVEMENT COMPLETED PRIOR TO SEALING.
- CONCRETE WORKS**
- SUBGRADE TRIMMED AND CONSOLIDATED.
  - EXCAVATION COMPLETED, FORMWORK AND REINFORCEMENT SET.
  - CONCRETE FORMED AND CURED.
- MATCH NEW PAVEMENT NEATLY AND FLUSH WITH EXISTING.
  - CONTRACTOR TO SUPPLY AND LAY TURF TO AREA AFFECTED BY PROPOSED WORKS OR AS DIRECTED BY THE COUNCIL DELEGATE.
    - THE SPECIES OF TURF TO BE "SOFT LEAF SHADEMASTER BUFFALO" UNLESS DIRECTED OTHERWISE
    - THE TURF SHOULD BE PLACED ON A MINIMUM 100mm DEEP LAYER OF IMPORTED TURF UNDERLAY TOPSOIL
    - SUBSOIL SHOULD BE CULTIVATED TO A MINIMUM DEPTH OF 100mm
    - IRRIGATE THE TURF TWICE A WEEK FOR 12 WEEKS
  - FOR TURFING NOTES REFER TO WAVERLEY COUNCIL STANDARD DRAWING R18.
  - ANY DISRUPTION TO EXISTING NATURE STRIPS OR PLANTED BEDS WITHIN COUNCIL LAND TO BE REINSTATED AS PER EXISTING. SEEK APPROVAL FROM COUNCIL DELEGATE FOR CHANGES TO PLANT SPECIES. EDGING OR PAVING TO NATURE STRIPS REQUIRES APPROVAL FROM THE COUNCIL DELEGATE.
  - ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

**NOTE**  
CONCRETE GUTTER TO BE REINFORCED IF SITUATED IN A HIGH TRAFFIC AREA OR IF SITUATED ON A BUS ROUTE. REFER TO COUNCIL STANDARD DRAWING D3 FOR DETAILS.

**NOTE**  
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ISSUE	ISSUE DESCRIPTION	DATE	DRN	DES	VER	ISSUE	ISSUE DESCRIPTION	DATE	DRN	DES	VER
A	ORIGINAL ISSUE	10/03/26	AM	AM	NZ						

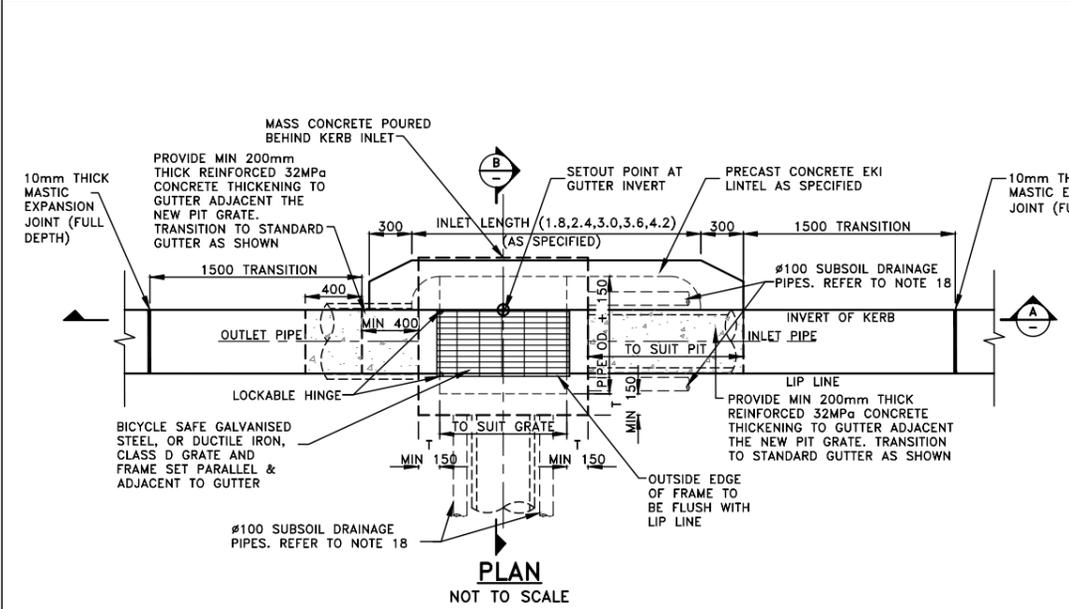
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DATE: N/A  
COORDINATION: N/A  
DATUM: N/A

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**WAVERLEY COUNCIL**  
CIVIL DESIGN, MAJOR PROJECTS  
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PO Box 9, Bondi Junction NSW 1555  
Tel: (02) 9083 8000  
Email: info@waverley.nsw.gov.au  
Web: www.waverley.nsw.gov.au

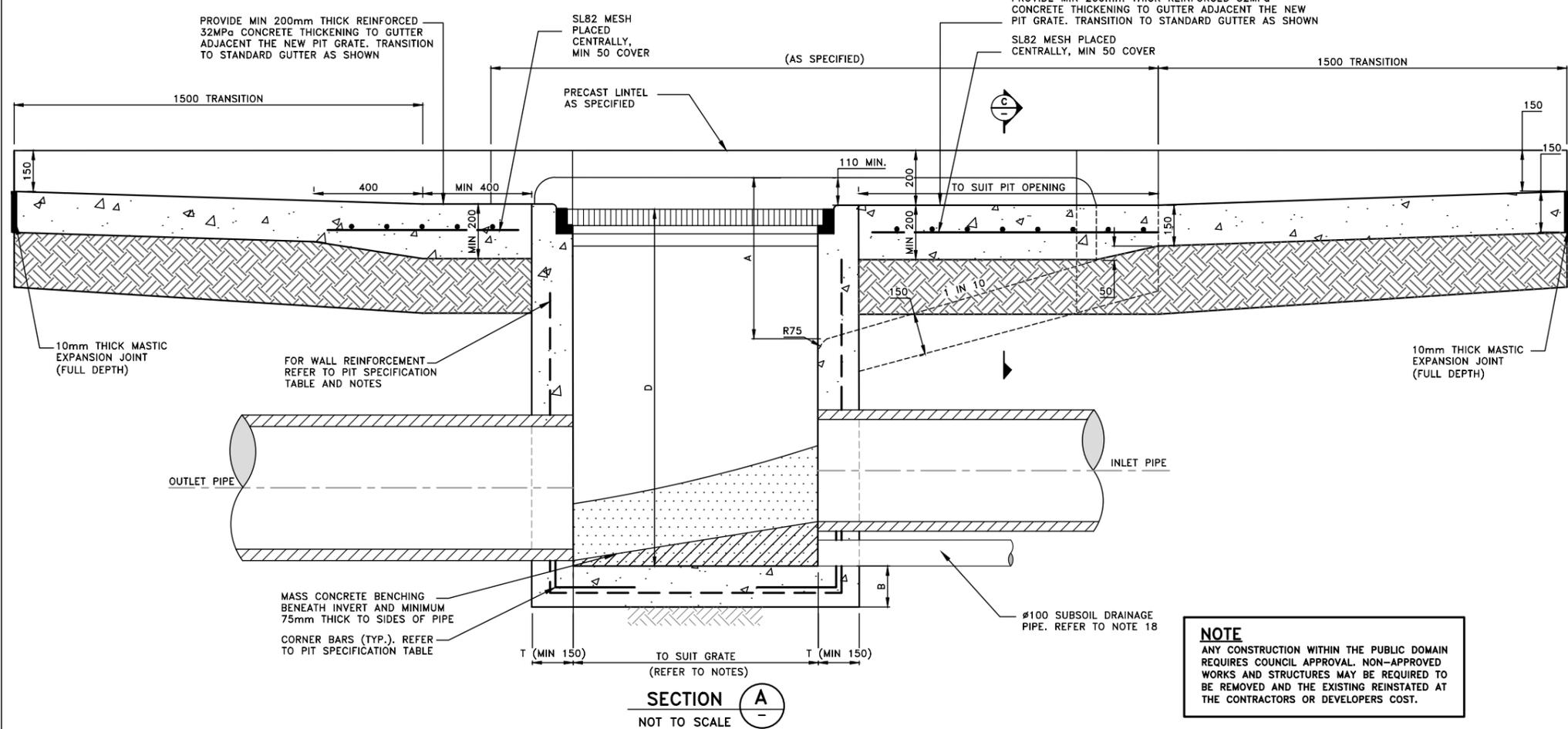
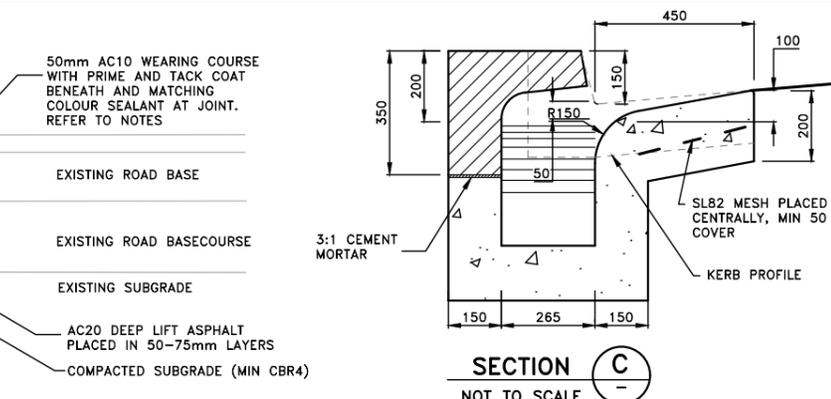
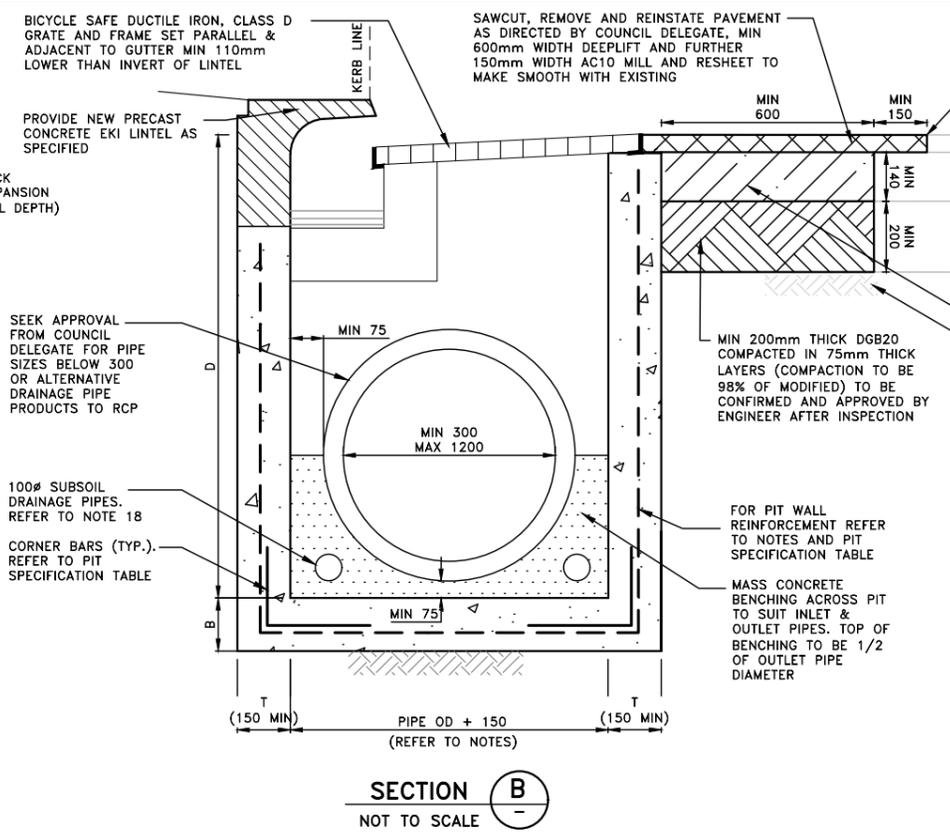
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Project Name: <b>STANDARD DRAWING - DRAINAGE - D2</b>	PROJ No: WC STD DRW
Drawing Title: <b>STANDARD GRATED KERB INLET - SAG</b>	TRIM No: -
	Drawing No: D2
	Issue: A



PIT SPECIFICATIONS				
DEPTH TO INVERT (D) (mm)	WALL THICKNESS (T) (mm)	BASE THICKNESS (B) (mm)	REINFORCEMENT MESH	CORNER BARS
0-1200	150	150	SL82	N12-300 L500
1200-2100	200	180	SL81	N12-200 L600
>2100	TO STRUCTURAL ENGINEERS SPECIFICATIONS			

PIT SPECIFICATIONS	
INLET LENGTH EKI (mm)	MINIMUM HEIGHT TO LINTEL OBVERT (A) (mm)
1800	250
2400	300
3000	400
3600	450
4200	500

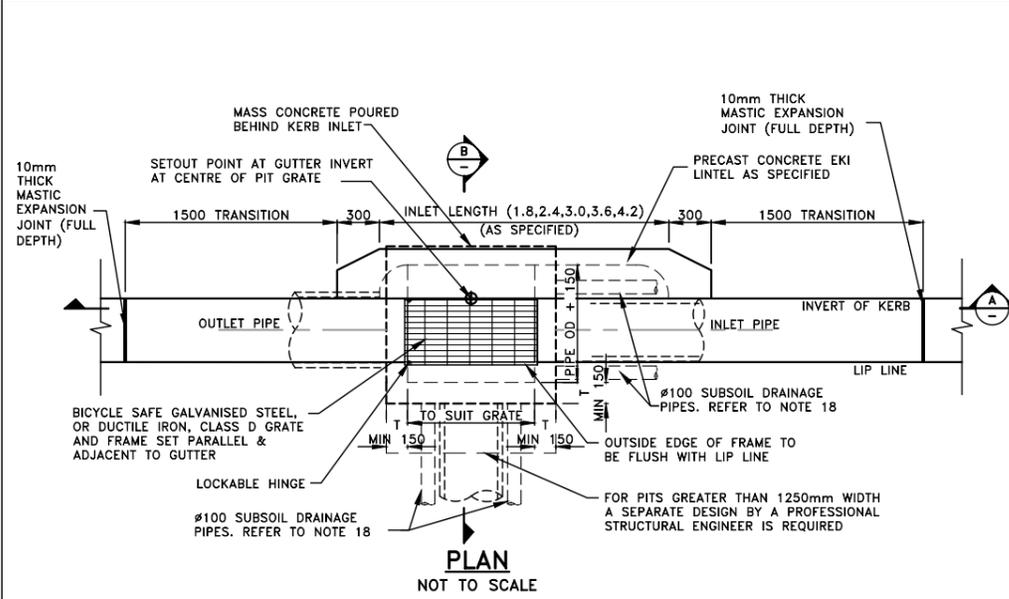


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  - CONCRETE TO BE OF 32MPa COMPRESSIVE STRENGTH AT 28 DAYS.
  - ALL EDGES SHALL BE TOOL FINISHED WITH 12mm RADIUS 50mm WIDE EDGING TOOL, UNLESS INDICATED OTHERWISE.
  - CONCRETE FINISH FOR KERBS, GUTTERS, APRONS AND CROSSINGS TO BE STEEL TROWEL.
  - MINIMUM PIT DIMENSIONS TO BE:
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    - 900 x 600 FOR DEPTHS >800mm AND <1800mm
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  - FOR PITS GREATER THAN 900mm IN LENGTH OR 1200mm IN WIDTH SEPARATE DESIGN IS REQUIRED BY A PROFESSIONAL STRUCTURAL ENGINEER.
  - PROVIDE STEP IRONS WHERE PIT IS DEEPER THAN 1.0m AT 300 CENTERS. REFER TO STANDARD DRAWING D8 FOR STEP IRON DETAILS
  - FOR PIT DEPTHS BETWEEN 1.5m AND 3.0m DEPTH, PROVIDE N12 @ 250C/C EACHWAY AT 40 COVER TO INSIDE FACE WALLS AND BASE. PROVIDE 400 LAP AT CORNERS. FOR PIT DEPTHS GREATER THAN 3.0m, SEPARATE DESIGN IS REQUIRED BY A PROFESSIONAL STRUCTURAL ENGINEER.
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  - INTERNAL PIT WIDTH SHALL BE INCREASED FOR PIPES AT AN ANGLE.
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  - RE-SHEET MINIMUM 600mm WIDTH OF DEEP LIFT PAVEMENT AND A FURTHER 150mm WIDTH OF AC10 WEARING COARSE ADJACENT NEW KERB, GUTTER, DISH CROSSINGS OR LAYBACKS. REFER TO STANDARD DETAIL R6 FOR FURTHER DETAIL.
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    - SUBSOIL SHOULD BE CULTIVATED TO A MINIMUM DEPTH OF 100mm
    - IRRIGATE THE TURF TWICE A WEEK FOR 12 WEEKS
  - FOR TURFING NOTES REFER TO WAVERLEY COUNCIL STANDARD DRAWING R18.
  - ANY DISRUPTION TO EXISTING NATURE STRIPS OR PLANTED BEDS WITHIN COUNCIL LAND TO BE REINSTATED AS PER EXISTING. SEEK APPROVAL FROM COUNCIL DELEGATE FOR CHANGES TO PLANT SPECIES. EDGING OR PAVING TO NATURE STRIPS REQUIRES APPROVAL FROM THE COUNCIL DELEGATE.
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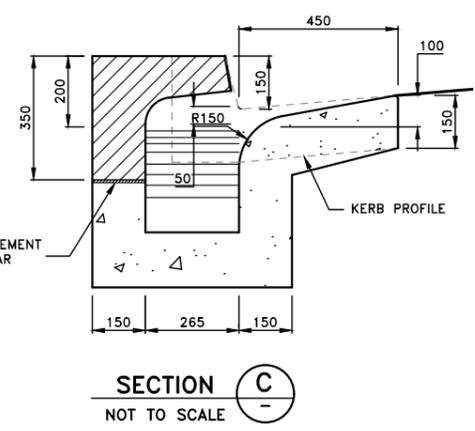
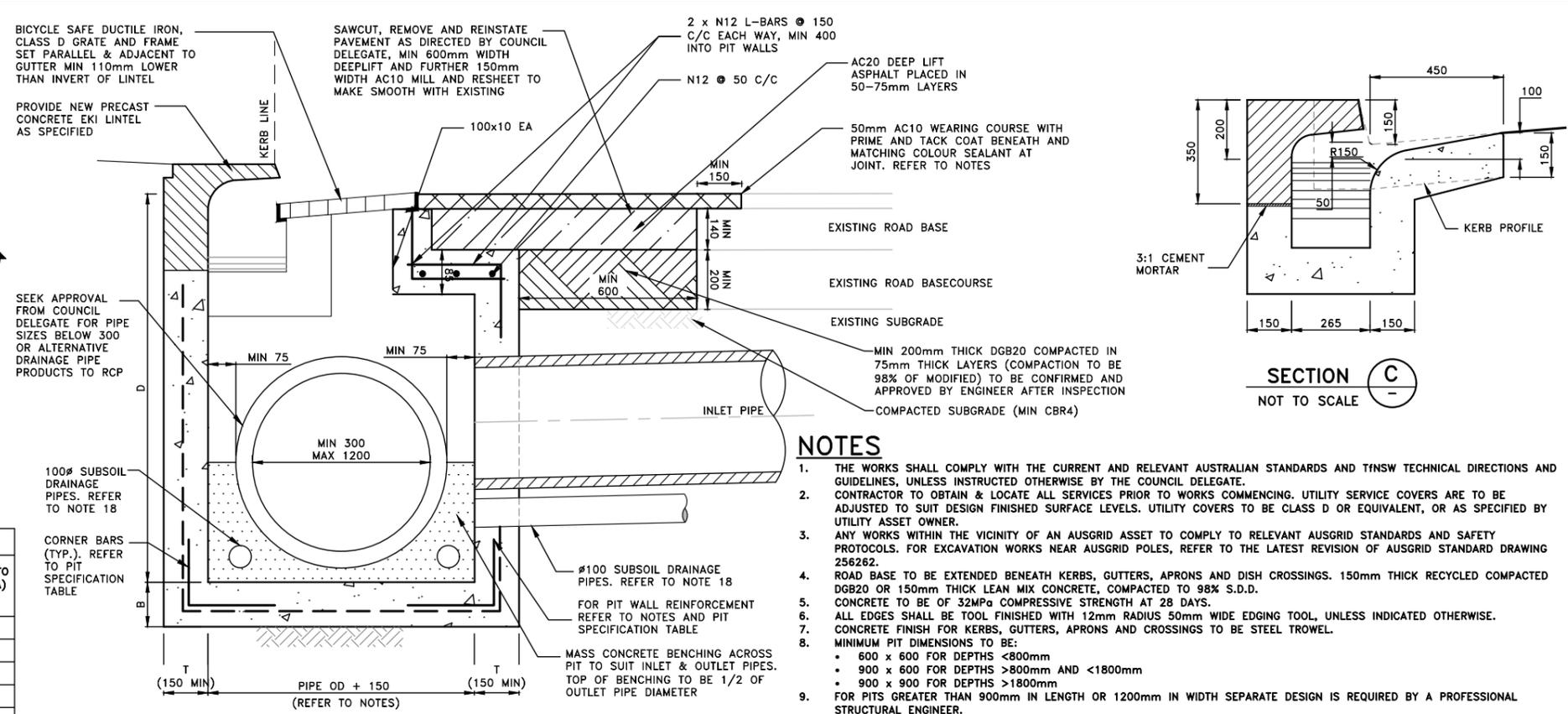
ISSUE	ISSUE DESCRIPTION	DATE	DRN	DES	VER	ISSUE	ISSUE DESCRIPTION	DATE	DRN	DES	VER
A	ORIGINAL ISSUE	10/03/26	AM	AM	NZ						

		SURVEYED BY: N/A DATE: N/A COORDINATION: N/A DATUM: N/A	CIVIL DESIGN, MAJOR PROJECTS Level 1, 87-89 Oxford Street, Bondi Junction, NSW, 2022 PO Box 9, Bondi Junction NSW 1555 Tel: (02) 9083 8000 Email: info@waverley.nsw.gov.au Web: www.waverley.nsw.gov.au	APPROVED: _____ DATE SIGNED: _____ SCALE AS SHOWN @ A3: PLAN: _____ LONG-SECTION: _____ VERT: _____ CROSS-SECTION: _____ VERT: _____	Project Name: <b>STANDARD DRAWING - DRAINAGE - D3</b> Drawing Title: <b>STANDARD GRATED KERB INLET FOR HEAVY TRAFFIC</b>	PROJ No: WC STD DRW TRIM No: - Drawing No: D3 Issue: A
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PIT SPECIFICATIONS				
DEPTH TO INVERT (D) (mm)	WALL THICKNESS (T) (mm)	BASE THICKNESS (B) (mm)	REINFORCEMENT MESH	CORNER BARS
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PIT SPECIFICATIONS	
INLET LENGTH EKI (mm)	MINIMUM HEIGHT TO LINTEL OVERT (A) (mm)
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3600	450
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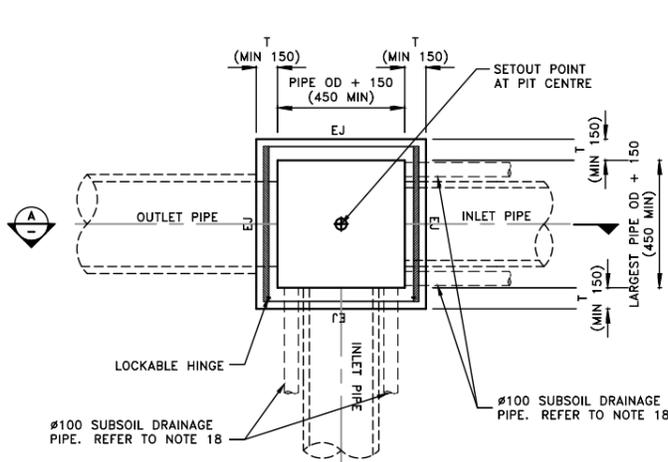
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  - ALL EDGES SHALL BE TOOL FINISHED WITH 12mm RADIUS 50mm WIDE EDGING TOOL, UNLESS INDICATED OTHERWISE.
  - CONCRETE FINISH FOR KERBS, GUTTERS, APRONS AND CROSSINGS TO BE STEEL TROWEL.
  - MINIMUM PIT DIMENSIONS TO BE:
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    - 900 x 600 FOR DEPTHS >800mm AND <1800mm
    - 900 x 900 FOR DEPTHS >1800mm
  - FOR PITS GREATER THAN 900mm IN LENGTH OR 1200mm IN WIDTH SEPARATE DESIGN IS REQUIRED BY A PROFESSIONAL STRUCTURAL ENGINEER.
  - PROVIDE STEP IRONS WHERE PIT IS DEEPER THAN 1.0m AT 300 CENTERS. REFER TO STANDARD DRAWING D8 FOR STEP IRON DETAILS.
  - FOR PIT DEPTHS BETWEEN 1.5m AND 3.0m DEPTH, PROVIDE N12 @ 250 C/C EACHWAY, MIN 40 COVER TO INSIDE FACE WALLS AND BASE. PROVIDE MIN 400 LAP AT CORNERS. FOR PIT DEPTHS GREATER THAN 3.0m, SEPARATE DESIGN IS REQUIRED BY A PROFESSIONAL STRUCTURAL ENGINEER.
  - PROVIDE WELDLOK HOT DIPPED GALVANISED GULLY GRATE GG50D (OR APPROVED EQUIVALENT) SET PARALLEL TO ADJACENT GUTTER AND 10 LOWER FOR RESIDENTIAL ROADS. FOR INDUSTRIAL ROADS USE WELDLOK HEAVY DUTY HOT DIPPED GALVANISED GULLY GRATE GG42D (OR APPROVED EQUIVALENT) INSTALLED AS ABOVE.
  - ALL GRATES TO BE PROVIDED WITH A LOCKING CLIP.
  - DURING INSTALLATION OF THE GRATE AND FRAME, THE CONTRACTOR IS TO ENSURE A MINIMUM CLEARANCE OF 40mm BETWEEN THE LINTEL AND OPENED GRATE.
  - WHERE EXTENDED CHAMBER WIDTH EXCEEDS 1.2m, ROOF REINFORCEMENT TO BE DESIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER.
  - INTERNAL PIT WIDTH SHALL BE INCREASED FOR PIPES AT AN ANGLE.
  - 100mm DIAM. SUBSOIL DRAINAGE PIPE 3m LONG WRAPPED IN GEOFABRIC SOCK TO BE PROVIDED AT INVERT LEVEL EITHER SIDE OF INLET PIPES.
  - IN UNDERTAKING TRENCH EXCAVATION, THE CONTRACTOR SHALL PROVIDE ANY SHORING, SHEET PILING OR OTHER STABILISATION OF THE TRENCH NECESSARY TO COMPLY WITH OH&S REGULATION REQUIREMENTS. THE SIDES ARE NOT TO BE LOADED & SHALL BE KEPT CLEAR OF LOOSE MATERIAL ETC. SAFE ACCESS & EGRESS SHALL BE PROVIDED AT ALL TIMES.
  - THE CONTRACTOR SHALL ENSURE THAT ALL NECESSARY SEDIMENT CONTROL MEASURES ARE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT COUNCIL AND AUSTRALIAN STANDARDS AND STATUTORY AUTHORITIES. ALL SEDIMENT & EROSION CONTROLS SHALL BE MAINTAINED THROUGHOUT THE PERIOD OF WORKS, INCLUDING REPAIR AND/OR REPLACEMENT OF DAMAGED SECTIONS. INSPECTIONS ARE TO BE MADE PERIODICALLY AND AFTER STORM EVENTS FOR DAMAGE.
  - PROPERTY STORMWATER OUTLET TO BE 125x75x4 RHS, OR TO SUIT EXISTING, MAINTAINING GRAVITY TO FALL TO K&G. INVERT OF OUTLET TO BE LEVEL WITH INVERT OF GUTTER.
  - LEVELS FOR REINSTATEMENT WORKS TO MATCH EXISTING, UNLESS INSTRUCTED OTHERWISE BY THE COUNCIL DELEGATE.
  - THE CONCRETE IS TO USE TYPE 1 PORTLAND CEMENT AND IS NOT TO BE ARTIFICIALLY COLOURED, STENCILED, STAMPED OR PATTERNED.
  - ALL REINFORCEMENT TO BE HOT DIP GALVANISED TO AS4671 WITH MINIMUM 50 COVER.
  - RE-SHEET MINIMUM 600mm WIDTH OF DEEP LIFT PAVEMENT AND A FURTHER 150mm WIDTH OF AC10 WEARING COARSE ADJACENT NEW KERB, GUTTER, DISH CROSSINGS OR LAYBACKS. REFER TO STANDARD DETAIL R6 FOR FURTHER DETAIL.
  - COUNCIL'S DELEGATE TO INSPECT FOR ALL UNSOUND AREAS BEFORE PROFILING AC PAVEMENT AND AFTER PROOF ROLLING. WEAK SECTIONS ARE TO BE IDENTIFIED AND HEAVY-PATCHED TO A NOMINAL THICKNESS OF 150mm WITH AC28 BEFORE RESEALING IN ACCORDANCE TO TYPICAL CROSS-SECTION.
  - UNLESS SPECIFIED, OVERLAY TO CONSIST OF 50mm THICK AC10.
  - UNLESS SPECIFIED, CRACK SEALANT FOR FLEXIBLE PAVEMENT TO BE BITULASTIC BITUFLEX OR APPROVED EQUIVALENT.
  - UNLESS SPECIFIED, CRACK SEALANT FOR RIGID PAVEMENT TO BE "DOW CORNING 888" OR APPROVED EQUIVALENT.
  - INSPECTIONS ARE REQUIRED AT THE FOLLOWING STAGES AND AS OTHERWISE DIRECTED BY THE COUNCIL DELEGATE. DO NOT CONTINUE UNTIL APPROVAL RECEIVED FROM COUNCIL DELEGATE.
- ROAD PAVEMENT**
- SUBGRADE TRIMMED AND CONSOLIDATED PRIOR TO FIRST PAVEMENT COURSE. (NOTE: SINGLE AXLE TRUCK WITH 8t LOAD TO BE AVAILABLE FOR PAVEMENT TEST).
  - EACH PAVEMENT LAYER SPREAD AND COMPACTED. (NOTE: SINGLE AXLE TRUCK WITH 8t LOAD TO BE AVAILABLE FOR PAVEMENT TEST).
  - PAVEMENT COMPLETED PRIOR TO SEALING.
- CONCRETE WORKS**
- SUBGRADE TRIMMED AND CONSOLIDATED.
  - EXCAVATION COMPLETED, FORMWORK AND REINFORCEMENT SET.
  - CONCRETE FORMED AND CURED.
- MATCH NEW PAVEMENT NEATLY AND FLUSH WITH EXISTING.
  - CONTRACTOR TO SUPPLY AND LAY TURF TO AREA AFFECTED BY PROPOSED WORKS OR AS DIRECTED BY THE COUNCIL DELEGATE.
    - THE SPECIES OF TURF TO BE "SOFT LEAF SHADEMASTER BUFFALO" UNLESS DIRECTED OTHERWISE
    - THE TURF SHOULD BE PLACED ON A MINIMUM 100mm DEEP LAYER OF IMPORTED TURF UNDERLAY TOPSOIL
    - SUBSOIL SHOULD BE CULTIVATED TO A MINIMUM DEPTH OF 100mm
    - IRRIGATE THE TURF TWICE A WEEK FOR 12 WEEKS
  - FOR TURFING NOTES REFER TO WAVERLEY COUNCIL STANDARD DRAWING R18.
  - ANY DISRUPTION TO EXISTING NATURE STRIPS OR PLANTED BEDS WITHIN COUNCIL LAND TO BE REINSTATED AS PER EXISTING. SEEK APPROVAL FROM COUNCIL DELEGATE FOR CHANGES TO PLANT SPECIES. EDGING OR PAVING TO NATURE STRIPS REQUIRES APPROVAL FROM THE COUNCIL DELEGATE.
  - ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

**NOTE**  
CONCRETE GUTTER TO BE REINFORCED IF SITUATED IN A HIGH TRAFFIC AREA OR IF SITUATED ON A BUS ROUTE. REFER TO COUNCIL STANDARD DRAWING D2 FOR DETAILS.

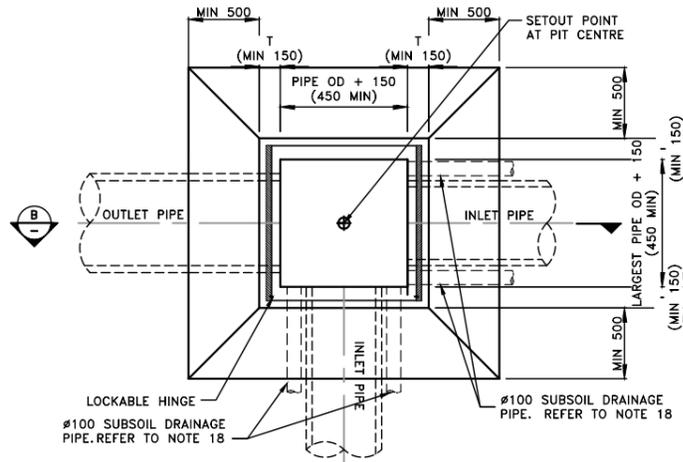
**NOTE**  
ANY CONSTRUCTION WITHIN THE PUBLIC DOMAIN REQUIRES COUNCIL APPROVAL. NON-APPROVED WORKS AND STRUCTURES MAY BE REQUIRED TO BE REMOVED AND THE EXISTING REINSTATED AT THE CONTRACTORS OR DEVELOPERS COST.

				SURVEYED BY: N/A DATE: N/A COORDINATION: N/A DATUM: N/A								CIVIL DESIGN, MAJOR PROJECTS Level 1, 87-89 Oxford Street, Bondi Junction, NSW, 2022 PO Box 9, Bondi Junction NSW 1555 Tel: (02) 9083 8000 Email: info@waverley.nsw.gov.au Web: www.waverley.nsw.gov.au				APPROVED: _____ DATE SIGNED: _____ SCALE AS SHOWN @ A3: PLAN: _____ LONG-SECTION: _____ VERT: _____ CROSS-SECTION: _____ VERT: _____				Project Name: <b>STANDARD DRAWING - DRAINAGE - D4</b>				PROJ No: WC STD DRW			
A ORIGINAL ISSUE ISSUE DESCRIPTION				10/03/26 AM AM NZ DATE DRN DES VER								Drawing Title: <b>HAUNCHED KERB INLET - GULLY PIT</b>				Drawing No: D4				Issue: A							





**GENERAL SURFACE PIT - PLAN DETAIL**  
NOT TO SCALE



**SURFACE PIT WITH APRON - PLAN DETAIL**  
NOT TO SCALE

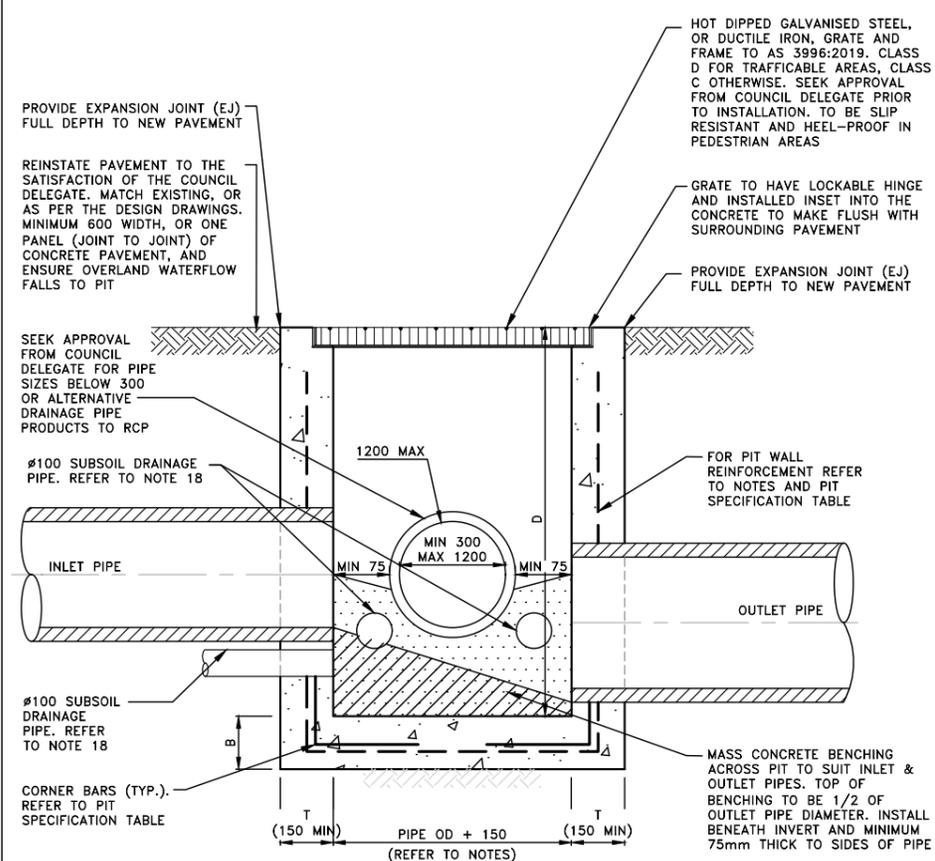
PIT SPECIFICATIONS				
DEPTH TO INVERT (D) (mm)	WALL THICKNESS (T) (mm)	BASE THICKNESS (B) (mm)	REINFORCEMENT MESH	CORNER BARS
0-1200	150	150	SL82	N12-300 L500
1200-2100	200	180	SL81	N12-200 L600
>2100	TO STRUCTURAL ENGINEERS SPECIFICATIONS			

**NOTE**  
CONCRETE APRON TO BE MIN 200mm THICK AND REINFORCED WITH SL82 IF SITUATED IN A HIGH TRAFFIC AREA OR IF SITUATED ON A BUS ROUTE. REFER TO COUNCIL STANDARD DRAWING D3 FOR DETAILS.

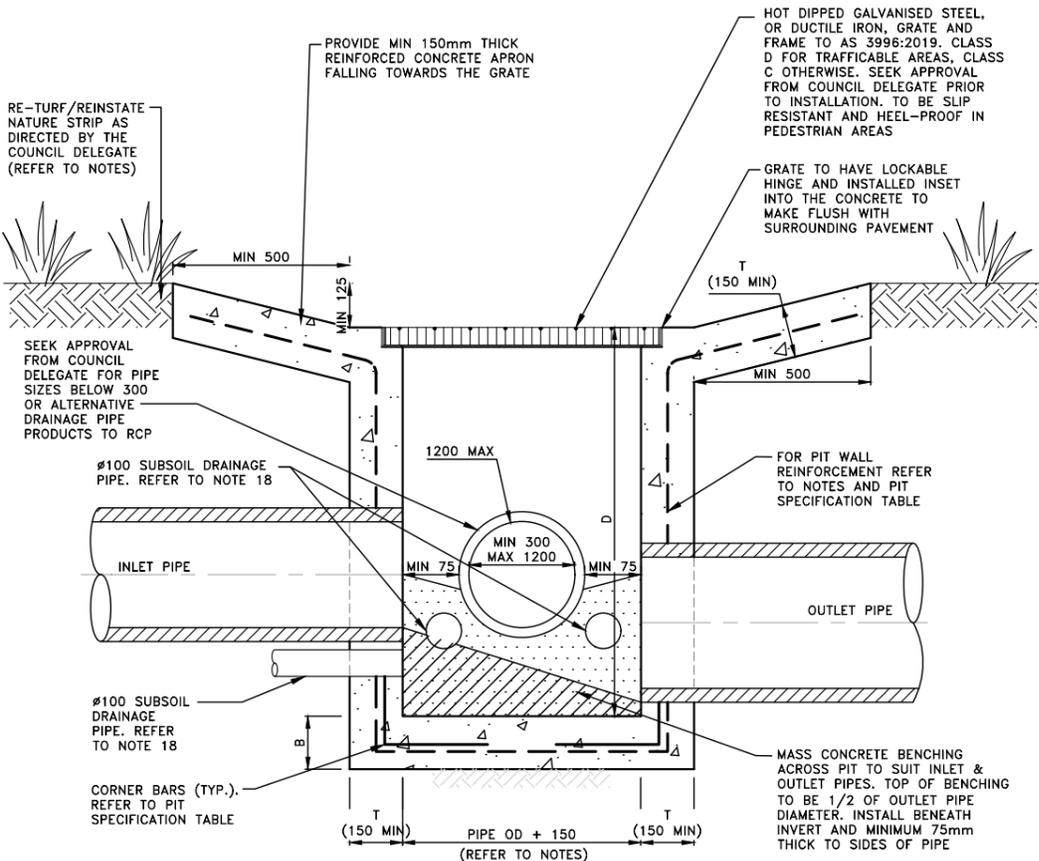
**NOTE**  
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**NOTES**

- THE WORKS SHALL COMPLY WITH THE CURRENT AND RELEVANT AUSTRALIAN STANDARDS AND TNSW TECHNICAL DIRECTIONS AND GUIDELINES, UNLESS INSTRUCTED OTHERWISE BY THE COUNCIL DELEGATE.
  - CONTRACTOR TO OBTAIN & LOCATE ALL SERVICES PRIOR TO WORKS COMMENCING. UTILITY SERVICE COVERS ARE TO BE ADJUSTED TO SUIT DESIGN FINISHED SURFACE LEVELS. UTILITY COVERS TO BE CLASS D OR EQUIVALENT, OR AS SPECIFIED BY UTILITY ASSET OWNER.
  - ANY WORKS WITHIN THE VICINITY OF AN AUSGRID ASSET TO COMPLY TO RELEVANT AUSGRID STANDARDS AND SAFETY PROTOCOLS. FOR EXCAVATION WORKS NEAR AUSGRID POLES, REFER TO THE LATEST REVISION OF AUSGRID STANDARD DRAWING 256262.
  - ROAD BASE TO BE EXTENDED BENEATH KERBS, GUTTERS, APRONS AND DISH CROSSINGS. 150mm THICK RECYCLED COMPACTED DGB20 OR 150mm THICK LEAN MIX CONCRETE, COMPACTED TO 98% S.D.D.
  - CONCRETE TO BE OF 32MPa COMPRESSIVE STRENGTH AT 28 DAYS.
  - ALL EDGES SHALL BE TOOL FINISHED WITH 12mm RADIUS 50mm WIDE EDGING TOOL, UNLESS INDICATED OTHERWISE.
  - CONCRETE FINISH FOR KERBS, GUTTERS, APRONS AND CROSSINGS TO BE STEEL TROWEL.
  - MINIMUM PIT DIMENSIONS TO BE:
    - 600 x 600 FOR DEPTHS <800mm
    - 900 x 600 FOR DEPTHS >800mm AND <1800mm
    - 900 x 900 FOR DEPTHS >1800mm
  - FOR PITS GREATER THAN 900mm IN LENGTH OR 1200mm IN WIDTH SEPARATE DESIGN IS REQUIRED BY A PROFESSIONAL STRUCTURAL ENGINEER.
  - PROVIDE STEP IRONS WHERE PIT IS DEEPER THAN 1.0m AT 300 CENTERS. REFER TO STANDARD DRAWING DB FOR STEP IRON DETAILS.
  - FOR PIT DEPTHS BETWEEN 1.5m AND 3.0m DEPTH, PROVIDE N12 @ 250C/C EACHWAY AT 40 COVER TO INSIDE FACE WALLS AND BASE. PROVIDE 400 LAP AT CORNERS. FOR PIT DEPTHS GREATER THAN 3.0m, SEPARATE DESIGN IS REQUIRED BY A PROFESSIONAL STRUCTURAL ENGINEER.
  - PROVIDE WELDLOK HOT DIPPED GALVANISED GULLY GRATE GG50D (OR APPROVED EQUIVALENT) SET PARALLEL TO ADJACENT GUTTER AND 10 LOWER FOR RESIDENTIAL ROADS. FOR INDUSTRIAL ROADS USE WELDLOK HEAVY DUTY HOT DIPPED GALVANISED GULLY GRATE GG42D (OR APPROVED EQUIVALENT) INSTALLED AS ABOVE.
  - ALL GRATES TO BE PROVIDED WITH A LOCKING CLIP.
  - ALL GRATES TO BE HOT DIP GALVANISED.
  - DURING INSTALLATION OF THE GRATE AND FRAME, THE CONTRACTOR IS TO ENSURE A MINIMUM CLEARANCE OF 40mm BETWEEN THE LINTEL AND OPENED GRATE.
  - WHERE EXTENDED CHAMBER WIDTH EXCEEDS 1.2m, ROOF REINFORCEMENT TO BE DESIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER.
  - INTERNAL PIT WIDTH SHALL BE INCREASED FOR PIPES AT AN ANGLE.
  - 100mm DIAM. SUBSOIL DRAINAGE PIPE 3m LONG WRAPPED IN GEOFABRIC SOCK TO BE PROVIDED AT INVERT LEVEL EITHER SIDE OF INLET PIPES.
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  - PROPERTY STORMWATER OUTLET TO BE 125x75x4 RHS, OR TO SUIT EXISTING, MAINTAINING GRAVITY TO FALL TO K&G. INVERT OF OUTLET TO BE LEVEL WITH INVERT OF GUTTER.
  - LEVELS FOR REINSTATEMENT WORKS TO MATCH EXISTING, UNLESS INSTRUCTED OTHERWISE BY THE COUNCIL DELEGATE.
  - THE CONCRETE IS TO USE TYPE I PORTLAND CEMENT AND IS NOT TO BE ARTIFICIALLY COLOURED, STENCILLED, STAMPED OR PATTERNEED.
  - ALL REINFORCEMENT TO BE HOT DIP GALVANISED TO AS4671 WITH MINIMUM 50 COVER.
  - RE-SHEET MINIMUM 600mm WIDTH OF DEEP LIFT PAVEMENT AND A FURTHER 150mm WIDTH OF AC10 WEARING COARSE ADJACENT NEW KERB, GUTTER, DISH CROSSINGS OR LAYBACKS. REFER TO STANDARD DETAIL R6 FOR FURTHER DETAIL.
  - COUNCIL'S DELEGATE TO INSPECT FOR ALL UNSOUND AREAS BEFORE PROFILING AC PAVEMENT AND AFTER PROOF ROLLING. WEAK SECTIONS ARE TO BE IDENTIFIED AND HEAVY-PATCHED TO A NOMINAL THICKNESS OF 150mm WITH AC28 BEFORE RESEALING IN ACCORDANCE TO TYPICAL CROSS-SECTION.
  - UNLESS SPECIFIED, OVERLAY TO CONSIST OF 50mm THICK AC10.
  - UNLESS SPECIFIED, CRACK SEALANT FOR FLEXIBLE PAVEMENT TO BE BITULASTIC BITUFLEX OR APPROVED EQUIVALENT.
  - UNLESS SPECIFIED, CRACK SEALANT FOR RIGID PAVEMENT TO BE "DOW CORNING 888" OR APPROVED EQUIVALENT.
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    - SUBSOIL SHOULD BE CULTIVATED TO A MINIMUM DEPTH OF 100mm
    - IRRIGATE THE TURF TWICE A WEEK FOR 12 WEEKS
  - FOR TURFING NOTES REFER TO WAVERLEY COUNCIL STANDARD DRAWING R18.
  - ANY DISRUPTION TO EXISTING NATURE STRIPS OR PLANTED BEDS WITHIN COUNCIL LAND TO BE REINSTATED AS PER EXISTING. SEEK APPROVAL FROM COUNCIL DELEGATE FOR CHANGES TO PLANT SPECIES. EDGING OR PAVING TO NATURE STRIPS REQUIRES APPROVAL FROM THE COUNCIL DELEGATE.
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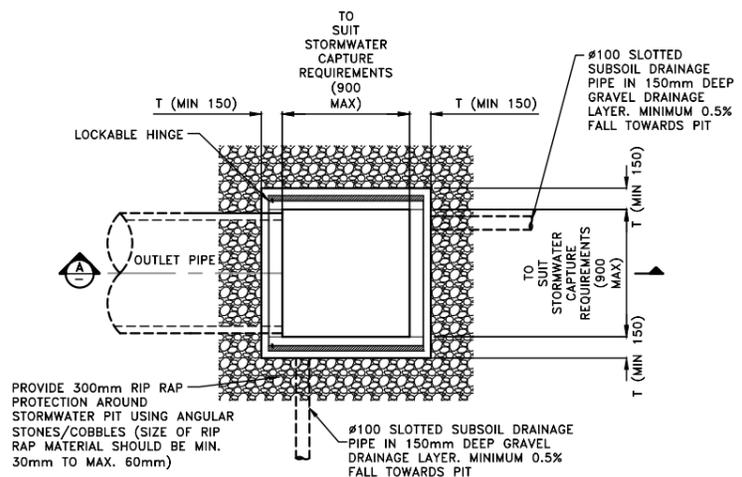


**GENERAL SURFACE PIT SECTION A**  
NOT TO SCALE



**SURFACE PIT IN VERGE WITH APRON SECTION B**  
NOT TO SCALE

				SURVEYED BY: N/A DATE: N/A COORDINATION: N/A DATUM: N/A				CIVIL DESIGN, MAJOR PROJECTS Level 1, 87-89 Oxford Street, Bondi Junction, NSW, 2022 PO Box 9, Bondi Junction NSW 1555 Tel: (02) 9083 8000 Email: info@waverley.nsw.gov.au Web: www.waverley.nsw.gov.au				APPROVED: _____ DATE SIGNED: _____ SCALE AS SHOWN @ A3: PLAN: _____ LONG-SECTION VERT: _____ CROSS-SECTION VERT: _____				Project Name: <b>STANDARD DRAWING - DRAINAGE - D6</b> Drawing Title: <b>GRATED SURFACE INLET PIT</b>				PROJ No: WC STD DRW TRIM No: - Drawing No: D6 Issue: A	
A	ORIGINAL ISSUE	10/03/26	AM	AM	NZ																
ISSUE	ISSUE DESCRIPTION	DATE	DRN	DES	VER	ISSUE	ISSUE DESCRIPTION	DATE	DRN	DES	VER										



**GENERAL LETTERBOX INLET PIT - PLAN DETAIL**

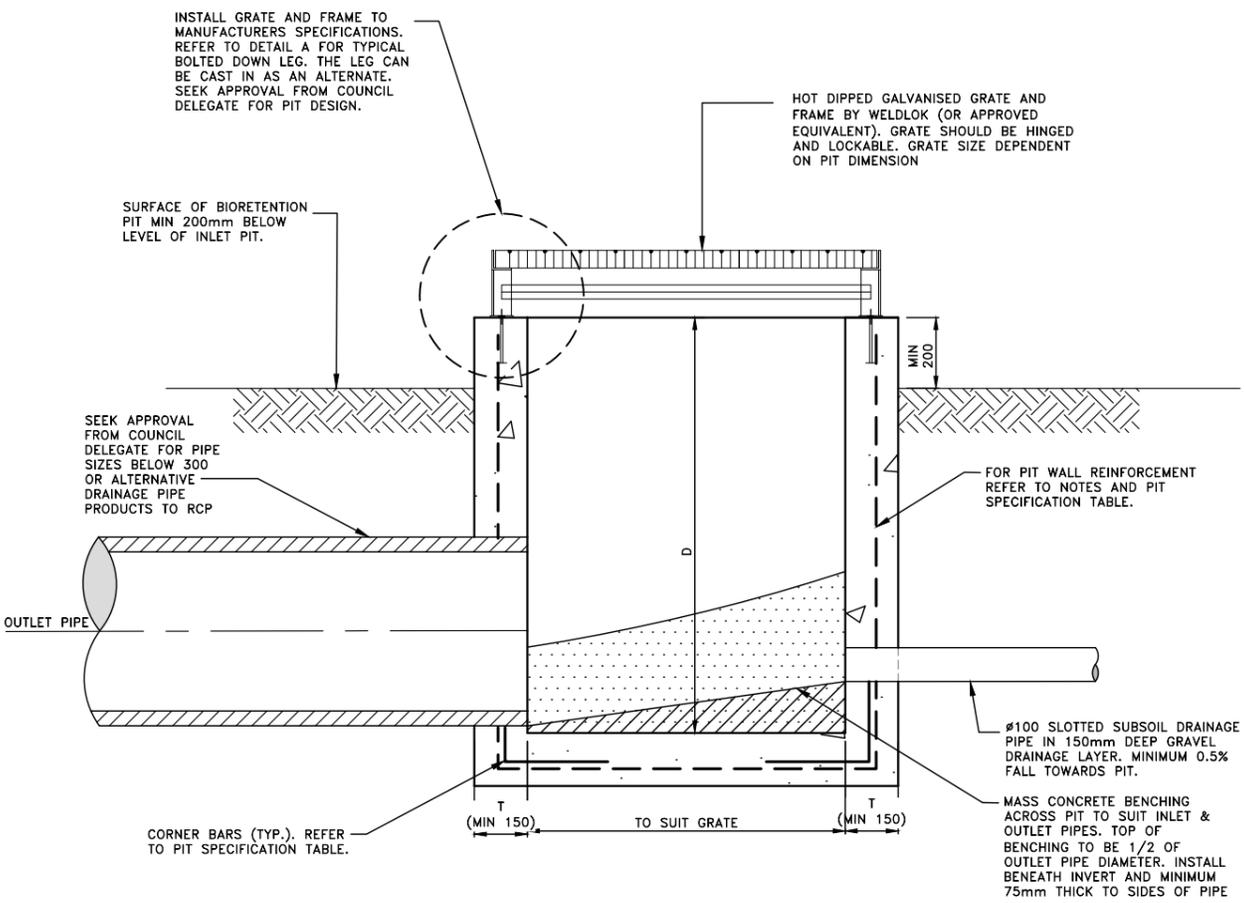
NOT TO SCALE

PIT SPECIFICATIONS				
DEPTH TO INVERT (D) (mm)	WALL THICKNESS (T) (mm)	BASE THICKNESS (B) (mm)	REINFORCEMENT MESH	CORNER BARS
0-1200	150	150	SL82	N12-300 L500
1200-2100	200	180	SL81	N12-200 L600
>2100	TO STRUCTURAL ENGINEERS SPECIFICATIONS			

**NOTE**  
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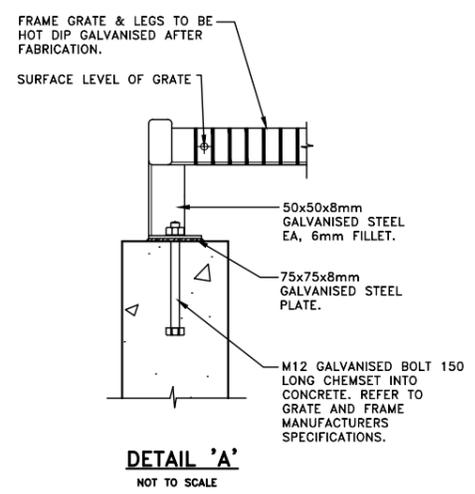
**NOTES**

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  - ROAD BASE TO BE EXTENDED BENEATH KERBS, GUTTERS, APRONS AND DISH CROSSINGS. 150mm THICK RECYCLED COMPACTED DGB20 OR 150mm THICK LEAN MIX CONCRETE, COMPACTED TO 98% S.D.D.
  - CONCRETE TO BE OF 32MPa COMPRESSIVE STRENGTH AT 28 DAYS.
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  - MINIMUM PIT DIMENSIONS TO BE:
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    - 900 x 600 FOR DEPTHS >800mm AND <1800mm
    - 900 x 900 FOR DEPTHS >1800mm
  - FOR PITS GREATER THAN 900x900mm IN WIDTH SEPARATE DESIGN IS REQUIRED BY A PROFESSIONAL STRUCTURAL ENGINEER.
  - PROVIDE STEP IRONS WHERE PIT IS DEEPER THAN 1.0m AT 300 CENTERS. REFER TO STANDARD DRAWING DB FOR STEP IRON DETAILS
  - FOR PIT DEPTHS BETWEEN 1.5m AND 3.0m DEPTH, PROVIDE N12 @ 250C/C EACHWAY AT 40 COVER TO INSIDE FACE WALLS AND BASE. PROVIDE 400 LAP AT CORNERS. FOR PIT DEPTHS GREATER THAN 3.0m, SEPARATE DESIGN IS REQUIRED BY A PROFESSIONAL STRUCTURAL ENGINEER.
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  - RE-SHEET MINIMUM 600mm WIDTH OF DEEP LIFT PAVEMENT AND A FURTHER 150mm WIDTH OF AC10 WEARING COARSE ADJACENT NEW KERB, GUTTER, DISH CROSSINGS OR LAYBACKS. REFER TO STANDARD DETAIL R6 FOR FURTHER DETAIL.
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    - THE TURF SHOULD BE PLACED ON A MINIMUM 100mm DEEP LAYER OF IMPORTED TURF UNDERLAY TOPSOIL
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**GENERAL LETTERBOX PIT SECTION**

NOT TO SCALE

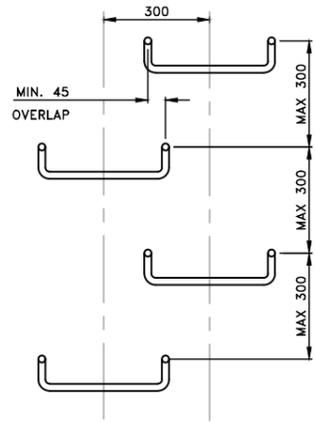


**DETAIL 'A'**

NOT TO SCALE

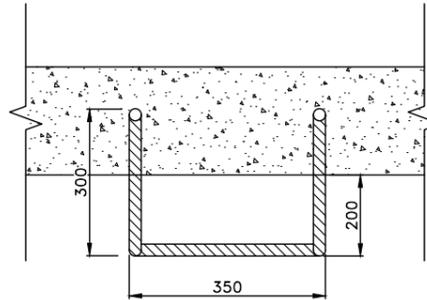
ISSUE	ISSUE DESCRIPTION	DATE	DRN	DES	VER	ISSUE	ISSUE DESCRIPTION	DATE	DRN	DES	VER
A	ORIGINAL ISSUE	10/03/26	AM	AM	NZ						

	SURVEYED BY: N/A DATE: N/A COORDINATION: N/A DATUM: N/A	CIVIL DESIGN, MAJOR PROJECTS Level 1, 87-89 Oxford Street, Bondi Junction, NSW, 2022 PO Box 9, Bondi Junction NSW 1555 Tel. (02) 9083 8000 Email: info@waverley.nsw.gov.au Web: www.waverley.nsw.gov.au	APPROVED: DATE SIGNED: SCALE AS SHOWN @ A3: PLAN: LONG-SECTION:    HORIZ: -            HORIZ: - VERT: -                    CROSS-SECTION: VERT: -	Project Name: <b>STANDARD DRAWING - DRAINAGE - D7</b> Drawing Title: <b>LETTERBOX INLET PIT</b>	PROJ No: WC STD DRW TRIM No: - Drawing No: D7 Issue: A
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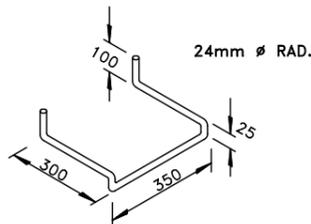
**STEP IRON PLACEMENT DIAGRAM**

NOT TO SCALE



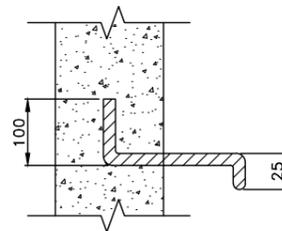
**STEP IRON TOP VIEW DETAIL**

NOT TO SCALE



**STEP IRON 3D DIAGRAM**

NOT TO SCALE



**STEP IRON ELEVATION DETAIL**

NOT TO SCALE

**NOTE**  
ANY CONSTRUCTION WITHIN THE PUBLIC DOMAIN REQUIRES COUNCIL APPROVAL. NON-APPROVED WORKS AND STRUCTURES MAY BE REQUIRED TO BE REMOVED AND THE EXISTING REINSTATED AT THE CONTRACTORS OR DEVELOPERS COST.

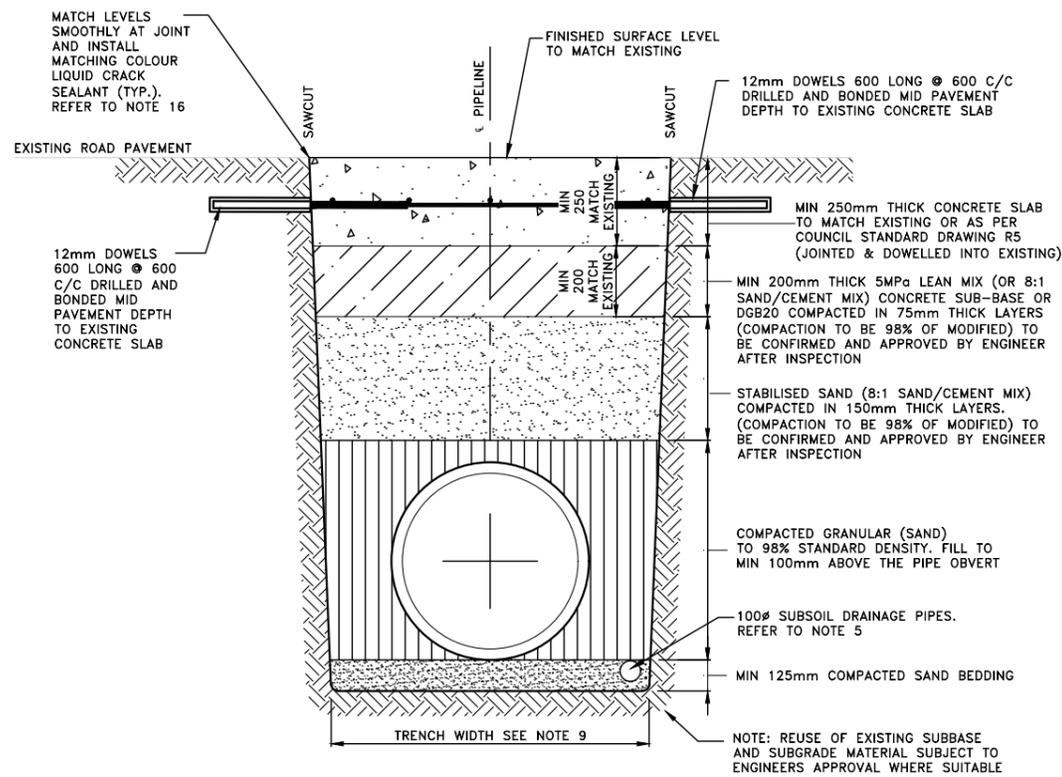
**NOTES**

- THE WORKS SHALL COMPLY WITH THE CURRENT AND RELEVANT AUSTRALIAN STANDARDS AND TNSW TECHNICAL DIRECTIONS AND GUIDELINES, UNLESS INSTRUCTED OTHERWISE BY THE COUNCIL DELEGATE.
- CONTRACTOR TO OBTAIN & LOCATE ALL SERVICES PRIOR TO WORKS COMMENCING. UTILITY SERVICE COVERS ARE TO BE ADJUSTED TO SUIT DESIGN FINISHED SURFACE LEVELS. UTILITY COVERS TO BE CLASS D OR EQUIVALENT, OR AS SPECIFIED BY UTILITY ASSET OWNER.
- ANY WORKS WITHIN THE VICINITY OF AN AUSGRID ASSET TO COMPLY TO RELEVANT AUSGRID STANDARDS AND SAFETY PROTOCOLS. FOR EXCAVATION WORKS NEAR AUSGRID POLES, REFER TO THE LATEST REVISION OF AUSGRID STANDARD DRAWING 256262. CONCRETE TO BE OF 32MPa COMPRESSIVE STRENGTH AT 28 DAYS.
- MINIMUM PIT DIMENSIONS TO BE:
  - 600 x 600 FOR DEPTHS <800mm
  - 900 x 600 FOR DEPTHS >800mm AND <1800mm
  - 900 x 900 FOR DEPTHS >1800mm
- FOR PITS GREATER THAN 900mm IN LENGTH OR 1200mm IN WIDTH SEPARATE DESIGN IS REQUIRED BY A PROFESSIONAL STRUCTURAL ENGINEER.
- PROVIDE STEP IRONS WHERE PIT IS DEEPER THAN 1.0m AT 300 CENTERS.
  - FIRST RUNG PLACED MAXIMUM 1.5m FROM INVERT OF PIT.
  - LAST RUNG PLACED MAXIMUM 600mm FROM PAVEMENT SURFACE.
  - STEP IRONS SHOULD ONLY BE USED WHERE THE VERTICAL WALL HEIGHT DOES NOT EXCEED 6m.
  - STEP IRONS SHALL BE LOCATED:
    - DIRECTLY ON A WALL WITHOUT PIPE OPENINGS.
    - DESIRABLY ON ONE OF THE LONG SIDES OF THE PIT.
    - DIRECTLY BELOW THE OPENING OF THE COVER.
  - STEP IRONS SHALL BE OF MATERIAL GIVING EQUIVALENT PERFORMANCE TO 24mm DIAMETER SOLID LOW-CARBON STEEL AND SHALL HAVE A TREAD DEPTH OF NOT LESS THAN 24mm.
  - ALL BENDS TO BE FORMED AROUND 12MM PIN.
  - STEP IRONS SHALL HAVE SHARP EDGES ROUNDED AND HOT DIP GALVANISED AFTER FABRICATION.
  - MATERIAL FOR STEP IRONS SHALL BE STRUCTURAL GRADE 250, OR APPROVED EQUIVALENT TO AS1204.
- FOR PIT DEPTHS BETWEEN 1.5m AND 3.0m DEPTH, PROVIDE N12 @ 250C/C EACHWAY AT 40 COVER TO INSIDE FACE WALLS AND BASE. PROVIDE 400 LAP AT CORNERS. FOR PIT DEPTHS GREATER THAN 3.0m, SEPARATE DESIGN IS REQUIRED BY A PROFESSIONAL STRUCTURAL ENGINEER.
- WHERE EXTENDED CHAMBER WIDTH EXCEEDS 1.2m, ROOF REINFORCEMENT TO BE DESIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER.
- INTERNAL PIT WIDTH SHALL BE INCREASED FOR PIPES AT AN ANGLE.
- ALL REINFORCEMENT TO BE HOT DIP GALVANISED TO AS4671 WITH MINIMUM 50 COVER.
- INSPECTIONS ARE REQUIRED AT THE FOLLOWING STAGES AND AS OTHERWISE DIRECTED BY THE COUNCIL DELEGATE. DO NOT CONTINUE UNTIL APPROVAL RECEIVED FROM COUNCIL DELEGATE.
 

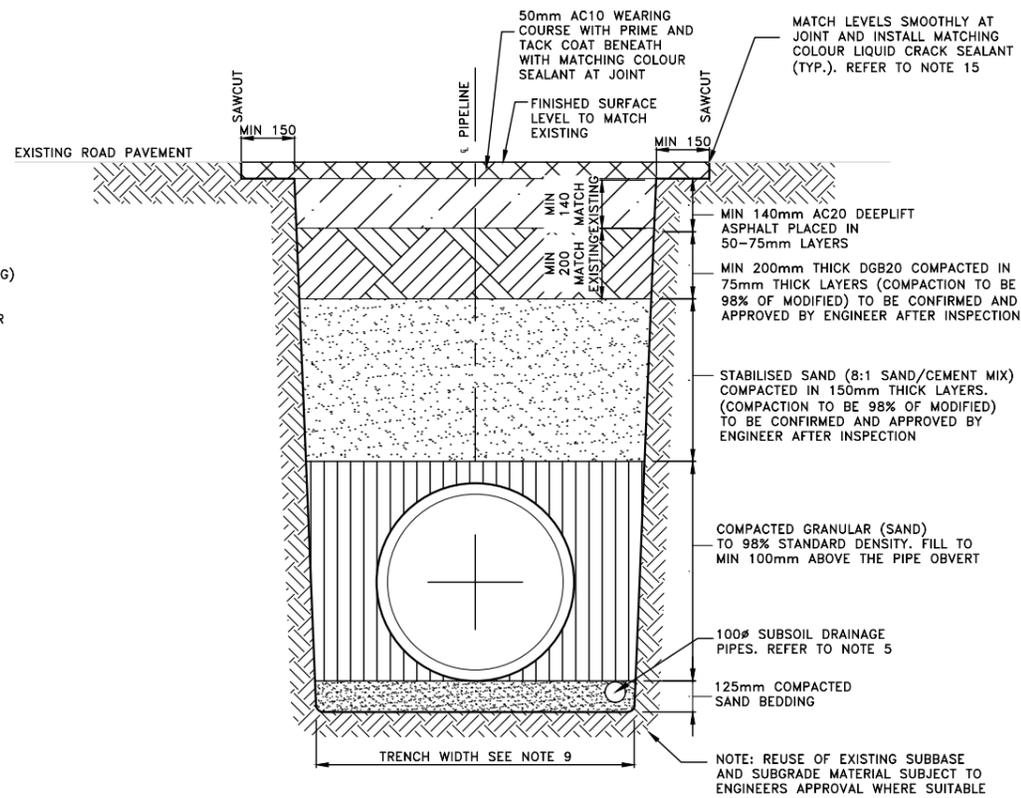
**CONCRETE WORKS**

  - FORMWORK AND REINFORCEMENT SET.
  - CONCRETE FORMED AND CURED.
- MATCH NEW PAVEMENT NEATLY AND FLUSH WITH EXISTING.
- CONTRACTOR TO SUPPLY AND LAY TURF TO AREA AFFECTED BY PROPOSED WORKS OR AS DIRECTED BY THE COUNCIL DELEGATE.
  - THE SPECIES OF TURF TO BE "SOFT LEAF SHADEMASTER BUFFALO" UNLESS DIRECTED OTHERWISE
  - THE TURF SHOULD BE PLACED ON A MINIMUM 100mm DEEP LAYER OF IMPORTED TURF UNDERLAY TOPSOIL
  - SUBSOIL SHOULD BE CULTIVATED TO A MINIMUM DEPTH OF 100mm
  - IRRIGATE THE TURF TWICE A WEEK FOR 12 WEEKS
- FOR TURFING NOTES REFER TO WAVERLEY COUNCIL STANDARD DRAWING R18.
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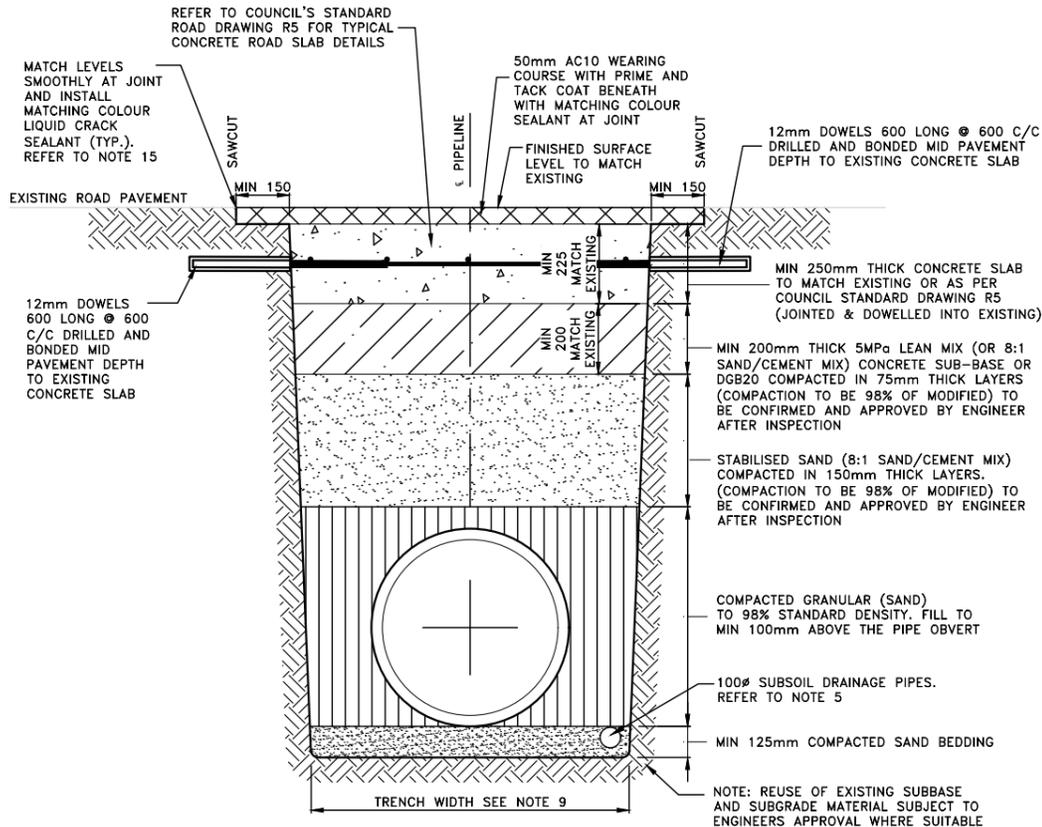
														CIVIL DESIGN, MAJOR PROJECTS Level 1, 87-89 Oxford Street, Bondi Junction, NSW, 2022 PO Box 9, Bondi Junction NSW 1355 Tel. (02) 9083 8000 Email: info@waverley.nsw.gov.au Web: www.waverley.nsw.gov.au		APPROVED: DATE SIGNED:		Project Name: <b>STANDARD DRAWING - DRAINAGE - D8</b>		PROJ No: WC STD DRW																							
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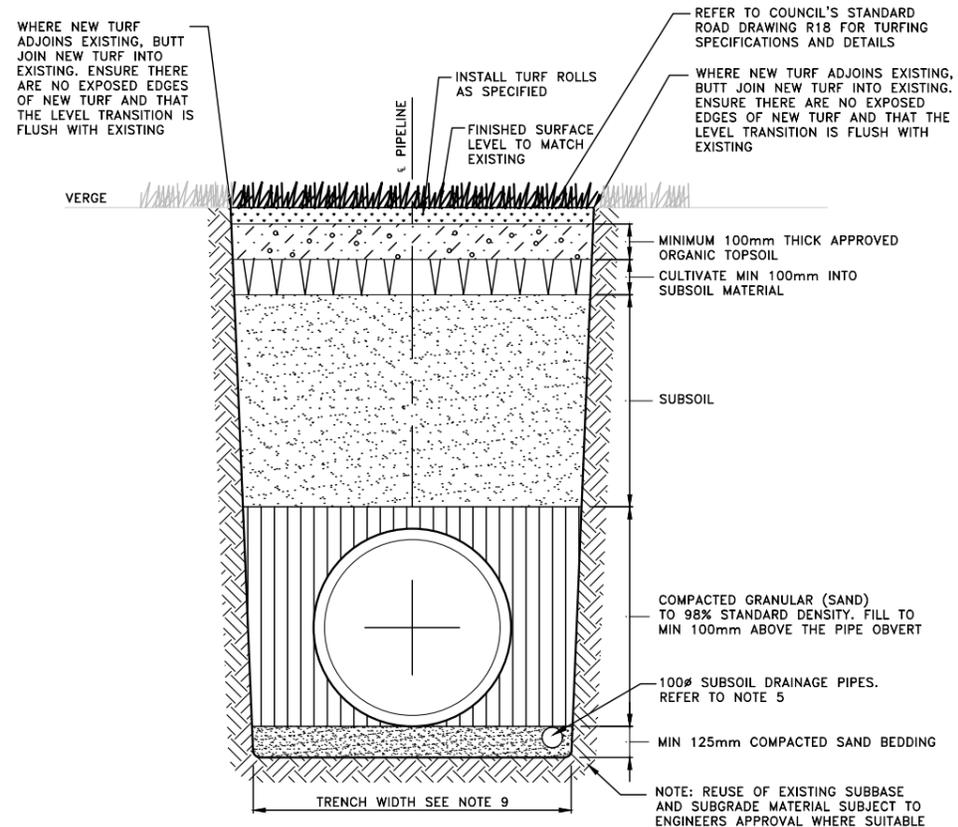
**TYPICAL SECTION—CONCRETE PAVEMENT  
OVER PIPELINE**  
NOT TO SCALE



**TYPICAL SECTION—FLEXIBLE PAVEMENT  
OVER PIPELINE**  
NOT TO SCALE



**TYPICAL SECTION—CONCRETE PAVEMENT  
WITH AC OVERLAY OVER PIPELINE**  
NOT TO SCALE



**TYPICAL SECTION—TURF OVER PIPELINE**  
NOT TO SCALE

**NOTE**  
SEEK APPROVAL FROM COUNCIL DELEGATE FOR PIPE SIZES BELOW 300 OR ALTERNATIVE DRAINAGE PIPE PRODUCTS TO RCP

**NOTE**  
GEOTECHNICAL INVESTIGATION AND CONFIRMATION OF SUITABILITY OF THE EXISTING SUBGRADE MATERIAL REQUIRED PRIOR TO LAYING NEW PAVEMENT. SEEK APPROVAL FROM COUNCIL DELEGATE FOR PAVEMENT DESIGN

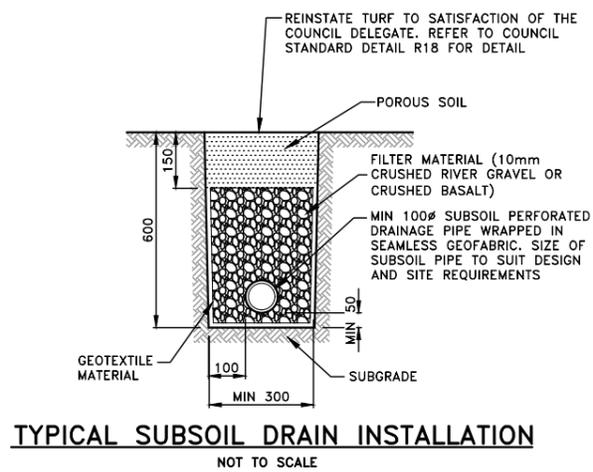
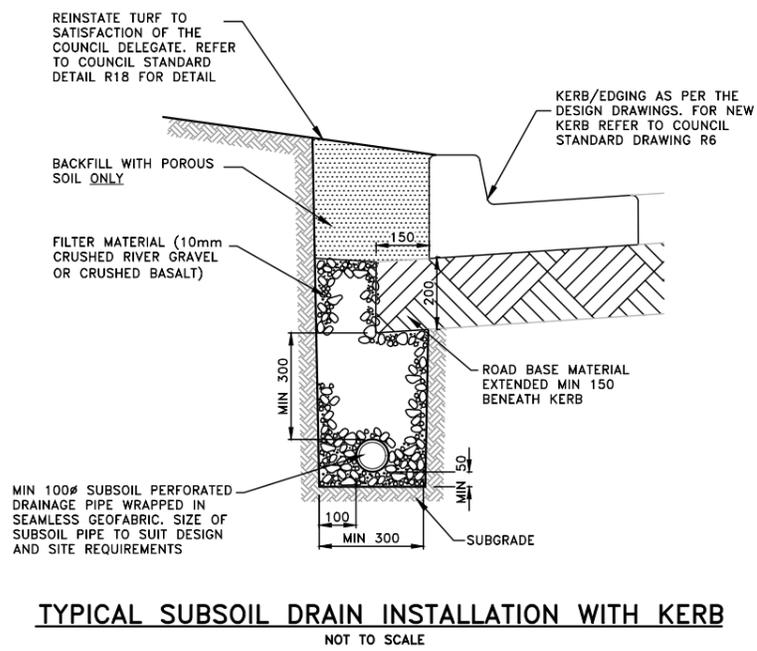
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**NOTES**

- THE WORKS SHALL COMPLY WITH THE CURRENT AND RELEVANT AUSTRALIAN STANDARDS AND TNSW TECHNICAL DIRECTIONS AND GUIDELINES, UNLESS INSTRUCTED OTHERWISE BY THE COUNCIL DELEGATE.
  - DESIGN AND CONSTRUCTION OF WORKS INCLUDING KERBS, GUTTERS, VEHICULAR CROSSINGS, KERB RAMPS, STORMWATER INFRASTRUCTURE, AND THE LIKE, ON STATE ROADS TO BE APPROVED BY TNSW AND TO THE SATISFACTION OF THE COUNCIL DELEGATE.
  - CONTRACTOR TO OBTAIN & LOCATE ALL SERVICES PRIOR TO WORKS COMMENCING. UTILITY SERVICE COVERS ARE TO BE ADJUSTED TO SUIT DESIGN FINISHED SURFACE LEVELS. UTILITY COVERS TO BE CLASS D OR EQUIVALENT, OR AS SPECIFIED BY UTILITY ASSET OWNER.
  - ANY WORKS WITHIN THE VICINITY OF AN AUSGRID ASSET TO COMPLY TO RELEVANT AUSGRID STANDARDS AND SAFETY PROTOCOLS. FOR EXCAVATION WORKS NEAR AUSGRID POLES, REFER TO THE LATEST REVISION OF AUSGRID STANDARD DRAWING 256262.
  - 100mm DIAM. SUBSOIL DRAINAGE PIPE 3m LONG WRAPPED IN GEOFABRIC SOCK TO BE PROVIDED AT INVERT LEVEL EITHER SIDE OF INLET PIPES.
  - IN UNDERTAKING TRENCH EXCAVATION, THE CONTRACTOR SHALL PROVIDE ANY SHORING, SHEET PILING OR OTHER STABILISATION OF THE TRENCH NECESSARY TO COMPLY WITH OH&S REGULATION REQUIREMENTS. THE SIDES ARE NOT TO BE LOADED & SHALL BE KEPT CLEAR OF LOOSE MATERIAL ETC. SAFE ACCESS & EGRESS SHALL BE PROVIDED AT ALL TIMES.
  - TRANSVERSE TRENCH:** BENCHING WIDTH FOR WEARING COURSE AND DEEP LIFT TO BE MINIMUM 600mm.
  - LONGITUDINAL TRENCH:** BENCHING WIDTH FOR WEARING COURSE TO BE FULL LANE WIDTH. DEEP LIFT TO BE 600mm ONLY.
  - THE TRENCH SHALL BE EXCAVATED TO A WIDTH 1.4 TIMES THE EXTERNAL DIAMETER OF THE PIPE, OR TO THE EXTERNAL DIAMETER OF THE PIPE PLUS 300mm ON EACH SIDE, WHICHEVER IS THE GREATER.
  - EXCAVATION ON PAVEMENTS SHALL BE FROM EXISTING JOINTS WHERE AVAILABLE OR OTHERWISE SHALL BE SAWN ALONG ALL EDGES.
  - ALL REINFORCEMENT TO BE HOT DIP GALVANISED TO AS4671 WITH MINIMUM 50 COVER.
  - RE-SHEET MINIMUM 600mm WIDTH OF DEEP LIFT PAVEMENT AND A FURTHER 150mm WIDTH OF AC10 WEARING COURSE ADJACENT NEW KERB, GUTTER, DISH CROSSINGS OR LAYBACKS. REFER TO STANDARD DETAIL R6 FOR FURTHER DETAIL.
  - COUNCIL'S DELEGATE TO INSPECT FOR ALL UNSOUND AREAS BEFORE PROFILING AC PAVEMENT AND AFTER PROOF ROLLING. WEAK SECTIONS ARE TO BE IDENTIFIED AND HEAVY-PATCHED TO A NOMINAL THICKNESS OF 150mm WITH AC28 BEFORE RESEALING IN ACCORDANCE TO TYPICAL CROSS-SECTION.
  - UNLESS SPECIFIED, OVERLAY TO CONSIST OF 50mm THICK AC10.
  - UNLESS SPECIFIED, CRACK SEALANT FOR FLEXIBLE PAVEMENT TO BE BITULASTIC BITUFLEX OR APPROVED EQUIVALENT.
  - UNLESS SPECIFIED, CRACK SEALANT FOR RIGID PAVEMENT TO BE "DOW CORNING 888" OR APPROVED EQUIVALENT.
  - INSPECTIONS ARE REQUIRED AT THE FOLLOWING STAGES AND AS OTHERWISE DIRECTED BY THE COUNCIL DELEGATE. DO NOT CONTINUE UNTIL APPROVAL RECEIVED FROM COUNCIL DELEGATE.
- ROAD PAVEMENT**
- SUBGRADE TRIMMED AND CONSOLIDATED PRIOR TO FIRST PAVEMENT COURSE. (NOTE: SINGLE AXLE TRUCK WITH 8t LOAD TO BE AVAILABLE FOR PAVEMENT TEST).
  - EACH PAVEMENT LAYER SPREAD AND COMPACTED. (NOTE: SINGLE AXLE TRUCK WITH 8t LOAD TO BE AVAILABLE FOR PAVEMENT TEST).
  - PAVEMENT COMPLETED PRIOR TO SEALING.
- CONCRETE WORKS**
- SUBGRADE TRIMMED AND CONSOLIDATED.
  - EXCAVATION COMPLETED, FORMWORK AND REINFORCEMENT SET.
  - CONCRETE FORMED AND CURED.
- THE CONCRETE IS TO USE TYPE A PORTLAND CEMENT AND IS NOT TO BE ARTIFICIALLY COLOURED, STENCILLED, STAMPED OR PATTERNED. MATCH NEW PAVEMENT NEATLY AND FLUSH WITH EXISTING.
  - ALL LINEMARKING & SIGNPOSTING AFFECTED BY WORKS IS TO BE REINSTATED IN ACCORDANCE WITH AS 1742 & THE TNSW INTERIM GUIDE TO SIGNS & MARKINGS.
  - LEVELS FOR REINSTATEMENT WORKS TO MATCH EXISTING, UNLESS INSTRUCTED OTHERWISE BY THE COUNCIL DELEGATE.
  - MATCH NEW PAVEMENT NEATLY AND FLUSH WITH EXISTING.
  - CONTRACTOR TO SUPPLY AND LAY TURF TO AREA AFFECTED BY PROPOSED WORKS OR AS DIRECTED BY THE COUNCIL DELEGATE.
    - THE SPECIES OF TURF TO BE "SOFT LEAF SHADEMASTER BUFFALO" UNLESS DIRECTED OTHERWISE
    - THE TURF SHOULD BE PLACED ON A MINIMUM 100mm DEEP LAYER OF IMPORTED TURF UNDERLAY TOPSOIL
    - SUBSOIL SHOULD BE CULTIVATED TO A MINIMUM DEPTH OF 100mm
    - IRRIGATE THE TURF TWICE A WEEK FOR 12 WEEKS
  - FOR TURFING NOTES REFER TO WAVERLEY COUNCIL STANDARD DRAWING R18.
  - ANY DISRUPTION TO EXISTING NATURE STRIPS OR PLANTED BEDS WITHIN COUNCIL LAND TO BE REINSTATED AS PER EXISTING. SEEK APPROVAL FROM COUNCIL DELEGATE FOR CHANGES TO PLANT SPECIES. EDGING OR PAVING TO NATURE STRIPS REQUIRES APPROVAL FROM THE COUNCIL DELEGATE. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

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		PLAN:	PIPE INSTALLATION	
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**TYPICAL SUBSOIL DRAIN INSTALLATION**

**NOTES**

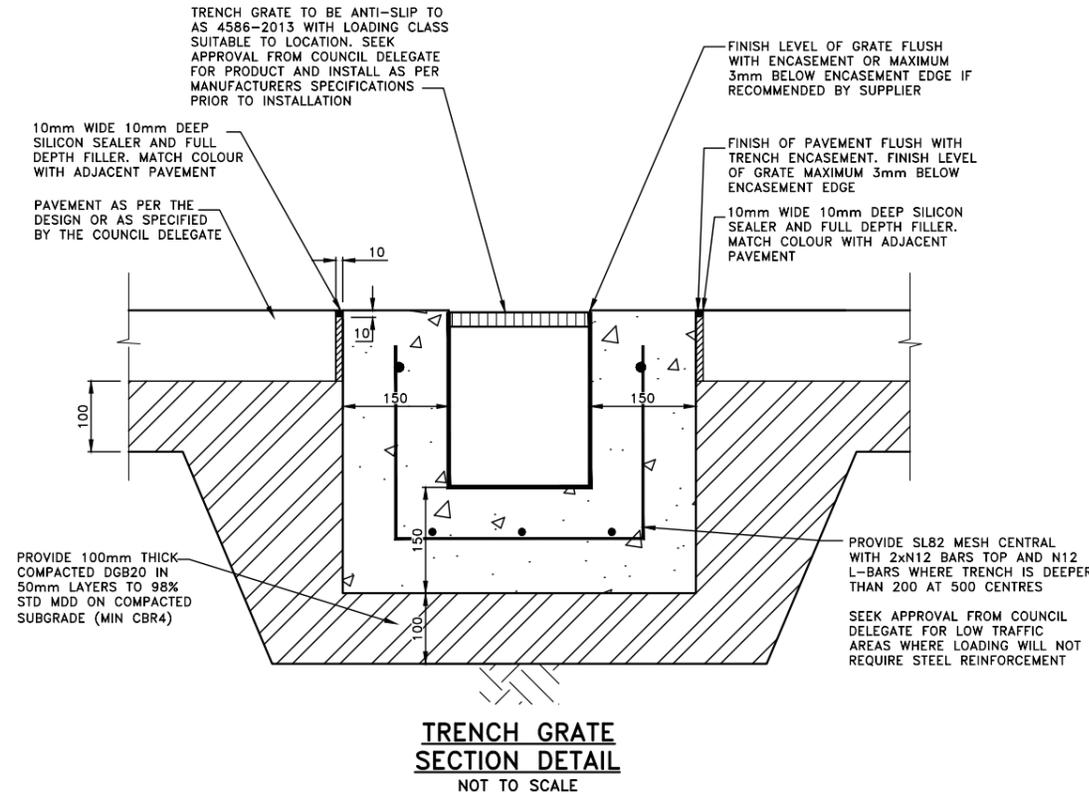
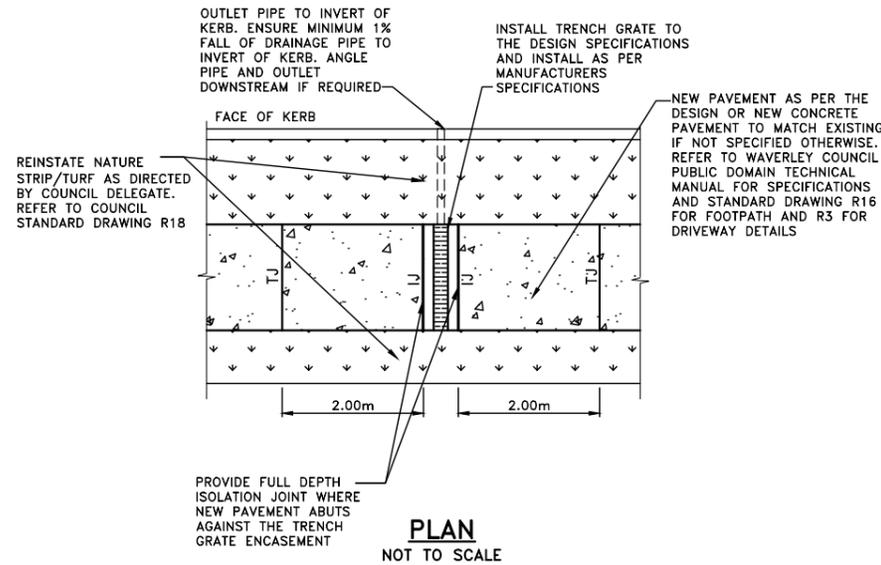
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2. CONTRACTOR TO OBTAIN & LOCATE ALL SERVICES PRIOR TO WORKS COMMENCING. UTILITY SERVICE COVERS ARE TO BE ADJUSTED TO SUIT DESIGN FINISHED SURFACE LEVELS. UTILITY COVERS TO BE CLASS D OR EQUIVALENT, OR AS SPECIFIED BY UTILITY ASSET OWNER. ROAD BASE TO BE EXTENDED BENEATH KERBS, GUTTERS, APRONS AND DISH CROSSINGS. 150mm THICK RECYCLED COMPACTED DGB20 OR 150mm THICK LEAN MIX CONCRETE, COMPACTED TO 98% S.D.D.
3. ANY WORKS WITHIN THE VICINITY OF AN AUSGRID ASSET TO COMPLY TO RELEVANT AUSGRID STANDARDS AND SAFETY PROTOCOLS. FOR EXCAVATION WORKS NEAR AUSGRID POLES, REFER TO THE LATEST REVISION OF AUSGRID STANDARD DRAWING 256262.
4. IN UNDERTAKING TRENCH EXCAVATION, THE CONTRACTOR SHALL PROVIDE ANY SHORING, SHEET PILING OR OTHER STABILISATION OF THE TRENCH NECESSARY TO COMPLY WITH OH&S REGULATION REQUIREMENTS. THE SIDES ARE NOT TO BE LOADED & SHALL BE KEPT CLEAR OF LOOSE MATERIAL ETC. SAFE ACCESS & EGRESS SHALL BE PROVIDED AT ALL TIMES.
5. THE CONTRACTOR SHALL ENSURE THAT ALL NECESSARY SEDIMENT CONTROL MEASURES ARE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT COUNCIL AND AUSTRALIAN STANDARDS AND STATUTORY AUTHORITIES. ALL SEDIMENT & EROSION CONTROLS SHALL BE MAINTAINED THROUGHOUT THE PERIOD OF WORKS, INCLUDING REPAIR AND/OR REPLACEMENT OF DAMAGED SECTIONS. INSPECTIONS ARE TO BE MADE PERIODICALLY AND AFTER STORM EVENTS FOR DAMAGE.
6. EXCAVATION, INSTALLATION AND TRENCH BACKFILL IS TO AVOID CONTAMINATION OF THE SUBSOIL FILTER MATERIAL.
7. MINIMUM GRADE OF THE SUBSOIL PIPELINE IS TO BE 1 IN 200, FALLING UNIFORMLY TO PREVENT BLOCKAGES.
8. TRENCH BACKFILL MATERIAL ABOVE ANY SUBSOIL PIPES IS TO BE POROUS SOIL ONLY.
9. SEEK APPROVAL OF FILTER MATERIAL. MAXIMUM FILTER AGGREGATE SIZE IS TO BE 10mm.
10. LAY SUBSOIL PIPE ON MINIMUM 50mm DEPTH OF APPROVED FILTER MATERIAL.
11. GEOFABRIC MATERIAL TO BE INSTALLED SO NO SEAMS EXIST AND ALLOWS FILTERED WATER TO PENETRATE.
12. LEVELS FOR REINSTATEMENT WORKS TO MATCH EXISTING, UNLESS INSTRUCTED OTHERWISE BY THE COUNCIL DELEGATE.
13. CONTRACTOR TO SUPPLY AND LAY TURF TO AREA AFFECTED BY PROPOSED WORKS OR AS DIRECTED BY THE COUNCIL DELEGATE.
  - THE SPECIES OF TURF TO BE "SOFT LEAF SHADEMASTER BUFFALO" UNLESS DIRECTED OTHERWISE
  - THE TURF SHOULD BE PLACED ON A MINIMUM 100mm DEEP LAYER OF IMPORTED TURF UNDERLAY TOPSOIL
  - SUBSOIL SHOULD BE CULTIVATED TO A MINIMUM DEPTH OF 100mm
  - IRRIGATE THE TURF TWICE A WEEK FOR 12 WEEKS
14. FOR TURFING NOTES REFER TO WAVERLEY COUNCIL STANDARD DRAWING R18.
15. ANY DISRUPTION TO EXISTING NATURE STRIPS OR PLANTED BEDS WITHIN COUNCIL LAND TO BE REINSTATED AS PER EXISTING. SEEK APPROVAL FROM COUNCIL DELEGATE FOR CHANGES TO PLANT SPECIES. EDGING OR PAVING TO NATURE STRIPS REQUIRES APPROVAL FROM THE COUNCIL DELEGATE.
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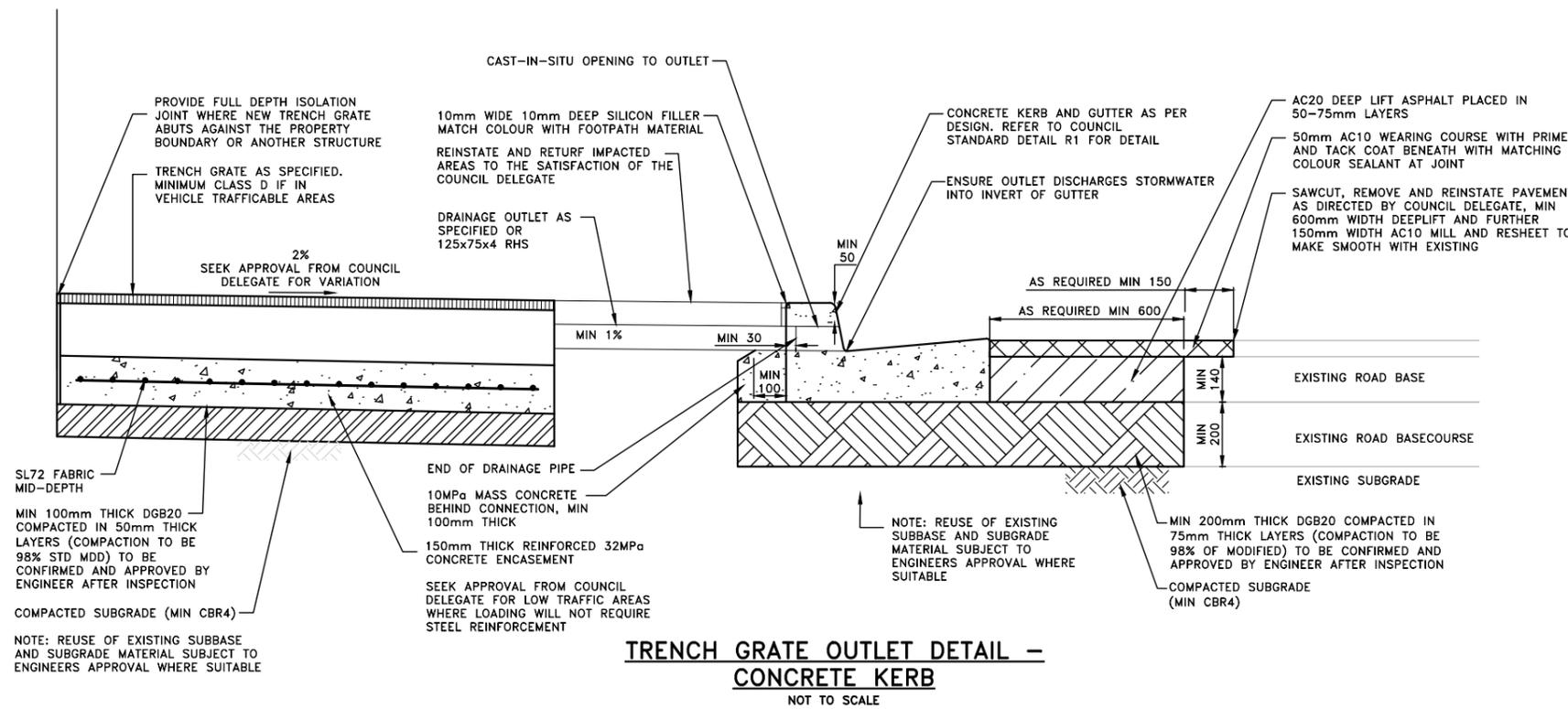


**NOTE**  
SEEK APPROVAL FROM COUNCIL DELEGATE FOR CONNECTION OF TRENCH GRATE OUTLET TO EXISTING STORMWATER NETWORK IF AVAILABLE

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  - ROAD BASE TO BE EXTENDED BENEATH KERBS, GUTTERS, APRONS AND DISH CROSSINGS. 150mm THICK RECYCLED COMPACTED DGB20 OR 150mm THICK LEAN MIX CONCRETE, COMPACTED TO 98% S.D.D.
  - CONCRETE TO BE OF 32MPa COMPRESSIVE STRENGTH AT 28 DAYS.
  - ALL EDGES SHALL BE TOOL FINISHED WITH 12mm RADIUS 50mm WIDE EDGING TOOL, UNLESS INDICATED OTHERWISE.
  - CONCRETE FINISH FOR KERBS, GUTTERS, APRONS AND CROSSINGS TO BE STEEL TROWEL.
  - ALL GRATES TO BE PROVIDED WITH A LOCKING CLIP.
  - ALL STEEL GRATES TO BE HOT DIP GALVANISED.
  - 100mm DIAM. SUBSOIL DRAINAGE PIPE 3m LONG WRAPPED IN GEOFABRIC SOCK TO BE PROVIDED AT INVERT LEVEL EITHER SIDE OF INLET PIPES.
  - IN UNDERTAKING TRENCH EXCAVATION, THE CONTRACTOR SHALL PROVIDE ANY SHORING, SHEET PILING OR OTHER STABILISATION OF THE TRENCH NECESSARY TO COMPLY WITH OH&S REGULATION REQUIREMENTS. THE SIDES ARE NOT TO BE LOADED & SHALL BE KEPT CLEAR OF LOOSE MATERIAL ETC. SAFE ACCESS & EGRESS SHALL BE PROVIDED AT ALL TIMES.
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  - PROPERTY STORMWATER OUTLET TO BE 125x75x4 RHS, OR TO SUIT EXISTING, MAINTAINING GRAVITY TO FALL TO K&G. INVERT OF OUTLET TO BE LEVEL WITH INVERT OF GUTTER.
  - LEVELS FOR REINSTATEMENT WORKS TO MATCH EXISTING, UNLESS INSTRUCTED OTHERWISE BY THE COUNCIL DELEGATE.
  - THE CONCRETE IS TO USE TYPE A PORTLAND CEMENT AND IS NOT TO BE ARTIFICIALLY COLOURED, STENCILLED, STAMPED OR PATTERNED.
  - ALL REINFORCEMENT TO BE HOT DIP GALVANISED TO AS4671 WITH MINIMUM 50 COVER.
  - RE-SHEET MINIMUM 600mm WIDTH OF DEEP LIFT PAVEMENT AND A FURTHER 150mm WIDTH OF AC10 WEARING COARSE ADJACENT NEW KERB, GUTTER, DISH CROSSINGS OR LAYBACKS. REFER TO STANDARD DETAIL R6 FOR FURTHER DETAIL.
  - COUNCIL'S DELEGATE TO INSPECT FOR ALL UNSOUND AREAS BEFORE PROFILING AC PAVEMENT AND AFTER PROOF ROLLING. WEAK SECTIONS ARE TO BE IDENTIFIED AND HEAVY-PATCHED TO A NOMINAL THICKNESS OF 150mm WITH AC28 BEFORE RESEALING IN ACCORDANCE TO TYPICAL CROSS-SECTION.
  - UNLESS SPECIFIED, OVERLAY TO CONSIST OF 50mm THICK AC10.
  - UNLESS SPECIFIED, CRACK SEALANT FOR FLEXIBLE PAVEMENT TO BE BITULASTIC BITUFLEX OR APPROVED EQUIVALENT.
  - UNLESS SPECIFIED, CRACK SEALANT FOR RIGID PAVEMENT TO BE "DOW CORNING 888" OR APPROVED EQUIVALENT.
  - INSPECTIONS ARE REQUIRED AT THE FOLLOWING STAGES AND AS OTHERWISE DIRECTED BY THE COUNCIL DELEGATE. DO NOT CONTINUE UNTIL APPROVAL RECEIVED FROM COUNCIL DELEGATE.
- ROAD PAVEMENT**
- SUBGRADE TRIMMED AND CONSOLIDATED PRIOR TO FIRST PAVEMENT COURSE. (NOTE: SINGLE AXLE TRUCK WITH 8t LOAD TO BE AVAILABLE FOR PAVEMENT TEST).
  - EACH PAVEMENT LAYER SPREAD AND COMPACTED. (NOTE: SINGLE AXLE TRUCK WITH 8t LOAD TO BE AVAILABLE FOR PAVEMENT TEST).
  - PAVEMENT COMPLETED PRIOR TO SEALING.
- CONCRETE WORKS**
- SUBGRADE TRIMMED AND CONSOLIDATED.
  - EXCAVATION COMPLETED, FORMWORK AND REINFORCEMENT SET.
  - CONCRETE FORMED AND CURED.
- MATCH NEW PAVEMENT NEATLY AND FLUSH WITH EXISTING.
  - CONTRACTOR TO SUPPLY AND LAY TURF TO AREA AFFECTED BY PROPOSED WORKS OR AS DIRECTED BY THE COUNCIL DELEGATE.
    - THE SPECIES OF TURF TO BE "SOFT LEAF SHADEMASTER BUFFALO" UNLESS DIRECTED OTHERWISE
    - THE TURF SHOULD BE PLACED ON A MINIMUM 100mm DEEP LAYER OF IMPORTED TURF UNDERLAY TOPSOIL
    - SUBSOIL SHOULD BE CULTIVATED TO A MINIMUM DEPTH OF 100mm
    - IRRIGATE THE TURF TWICE A WEEK FOR 12 WEEKS
  - FOR TURFING NOTES REFER TO WAVERLEY COUNCIL STANDARD DRAWING R18.
  - ANY DISRUPTION TO EXISTING NATURE STRIPS OR PLANTED BEDS WITHIN COUNCIL LAND TO BE REINSTATED AS PER EXISTING. SEEK APPROVAL FROM COUNCIL DELEGATE FOR CHANGES TO PLANT SPECIES. EDGING OR PAVING TO NATURE STRIPS REQUIRES APPROVAL FROM THE COUNCIL DELEGATE.
  - ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.



										SURVEYED BY: N/A DATE: N/A COORDINATION: N/A DATUM: N/A				CIVIL DESIGN, MAJOR PROJECTS Level 1, 87-89 Oxford Street, Bondi Junction, NSW, 2022 PO Box 9, Bondi Junction NSW 1555 Tel: (02) 9083 8000 Email: info@waverley.nsw.gov.au Web: www.waverley.nsw.gov.au		APPROVED: DATE SIGNED:		Project Name: <b>STANDARD DRAWING - DRAINAGE - D13</b>		PROJ No: WC STD DRW TRIM No:	
A ORIGINAL ISSUE 10/03/26 AM AM NZ ISSUE ISSUE DESCRIPTION DATE DRN DES VER ISSUE ISSUE DESCRIPTION DATE DRN DES VER										Drawing Title: <b>TRENCH GRATE</b>		Drawing No: D13		Issue: A							