
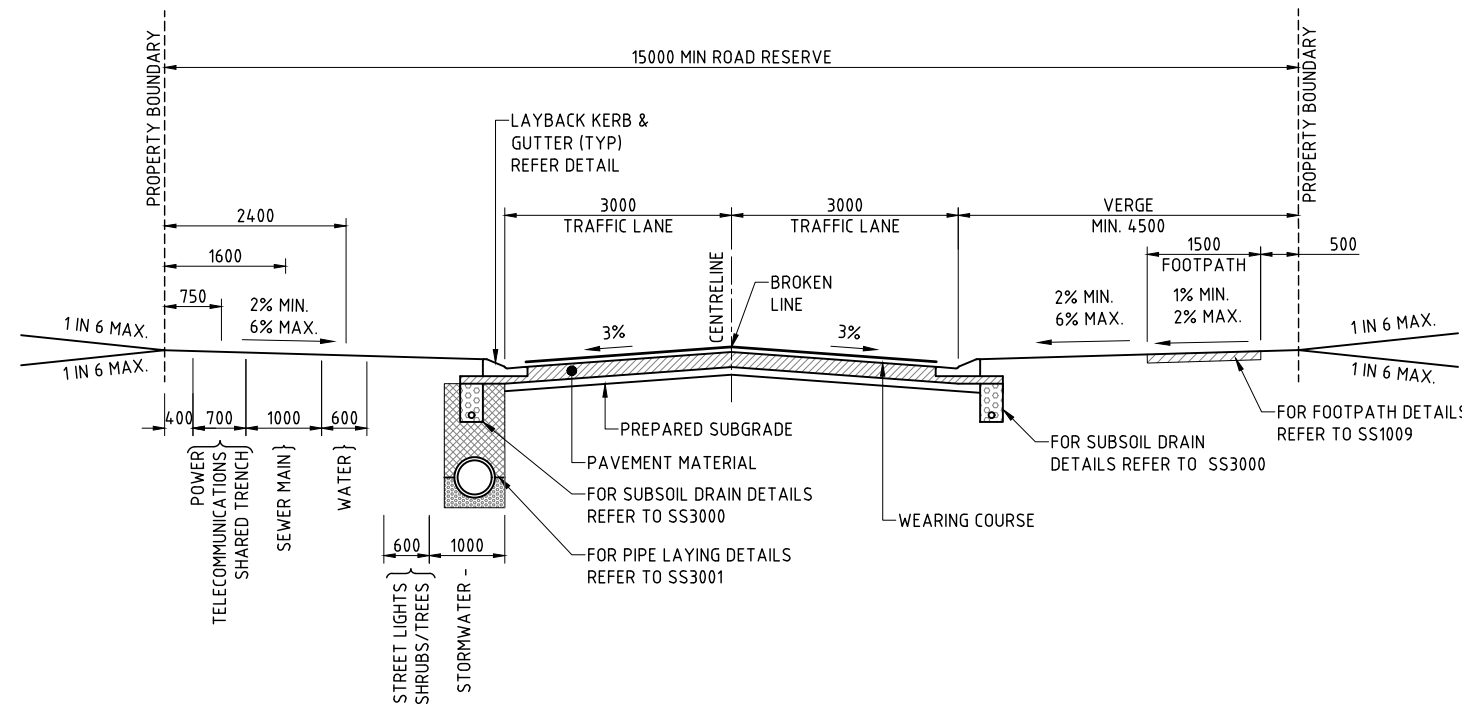


NOTES:  
1. ALL WORK MUST BE UNDERTAKEN IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.

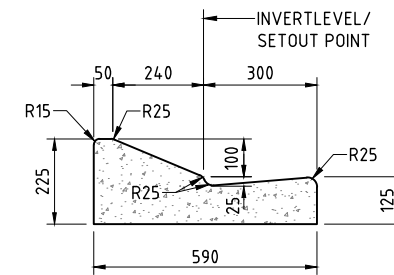
DRAWING No.	SUBDIVISION STANDARD DRAWINGS
<u>GENERAL</u>	
SS0000	SCHEDULE OF DRAWINGS
<u>STREETS AND PATHWAYS</u>	
SS1000	STREET HIERARCHY – CATEGORY A – RESIDENTIAL AND MIXED USE – SET TYPE 1 – SHEET 1 OF 4
SS1001	STREET HIERARCHY – CATEGORY A – RESIDENTIAL AND MIXED USE – SET TYPE 1 – SHEET 2 OF 4
SS1002	STREET HIERARCHY – CATEGORY A – RESIDENTIAL AND MIXED USE – SET TYPE 2 – SHEET 3 OF 4
SS1003	STREET HIERARCHY – CATEGORY A – INDUSTRIAL – SET TYPE 1 – SHEET 4 OF 4
SS1004	STREET HIERARCHY – CATEGORY B AND C – RESIDENTIAL, MIXED USE AND INDUSTRIAL
SS1005	STREET HIERARCHY – CATEGORY D AND E – RURAL
SS1006	VEHICLE ACCESS – CATEGORY A – TYPICAL DETAILS
SS1007	VEHICLE ACCESS – CATEGORY B – TYPICAL DETAILS
SS1008	VEHICLE ACCESS – CATEGORY C TO E – TYPICAL DETAILS
SS1009	FOOTPATHS, SHARED PATHS AND KERB RAMPS – TYPICAL DETAILS
SS1010	STREET NAME SIGNS – TYPICAL DETAILS
<u>PUBLIC OPEN SPACE AND LANDSCAPING</u>	
SS2000	PLANTING – TYPICAL DETAILS
<u>STORMWATER DRAINAGE</u>	
SS3000	SUBSOIL DRAINAGE – TYPICAL DETAILS
SS3001	STORMWATER PIPES – TYPICAL TRENCH DETAILS
SS3002	STORMWATER PIPES – TYPICAL LOT CONNECTION DETAILS
SS3003	STANDARD SIDE ENTRY PIT – TYPE A DETAILS – SHEET 1 OF 2
SS3004	STANDARD SIDE ENTRY PIT – TYPE B TO E DETAILS – SHEET 2 OF 2
SS3005	GRATED SIDE ENTRY PIT – GENERAL ARRANGEMENT – SHEET 1 OF 3
SS3006	GRATED SIDE ENTRY PIT – LINTEL & PIT ARRANGEMENT DETAILS – SHEET 2 OF 3
SS3007	GRATED SIDE ENTRY PIT – GRATE AND FRAME – SHEET 3 OF 3
SS3008	ACCESS CULVERT – TYPICAL ENDWALL DETAILS
<u>UTILITIES</u>	
SS4000	URBAN MASTER SERVICES PLAN – SAMPLE LAYOUT
SS4001	RURAL MASTER SERVICES PLAN – SAMPLE LAYOUT
<u>LIGHTING</u>	
SS5000	LIGHTING DRAWINGS LIST
SS5001	STEEL COLUMNS – 9.0m AND 12.0m TAPERED OUTREACH TYPE
SS5002	STEEL COLUMNS – 12.0m TAPERED OUTREACH TYPE VIAC
SS5003	STEEL COLUMNS – 5.5m TAPERED OUTREACH TYPE
SS5004	STEEL COLUMNS – 6.5m TAPERED CURVED OUTREACH TYPE
SS5005	STEEL COLUMNS – 5.5m TAPERED POST TOP TYPE
SS5006	TYPE 5 AND TYPE 9 RAG BOLT REINFORCEMENT DETAIL
SS5007	TYPE 12 RAG BOLT REINFORCEMENT DETAIL
SS5008	TYPE 5, 9 AND 12 RAG BOLT ASSEMBLY FOOTING DETAIL
SS5009	RAG BOLT REINFORCEMENT BAR – DEFORMED DETAILS
SS5010	OUTREACH ARMS
SS5011	CABLE PIT
SS5012	LED LUMINAIRE SWITCH PACK WIRING DIAGRAM
SS5013	LED LUMINARIE SWITCH PACK DETAILS
SS5014	MSB WITH TIME CONTROL WIRING DIAGRAM AND DETAILS
SS5015	MSB WITH NO TIME CONTROL WIRING DIAGRAM AND DETAILS

DRAWING No.	DEPARTMENT OF INFRASTRUCTURE, PLANNING & LOGISTICS STANDARD DRAWINGS
<u>DRAINAGE</u>	
CS-3100	GENERAL DRAINAGE NOTES AND APRON DETAILS
CS-3101	INSTALLATION, BEDDING AND FILLING/BACKFILLING AGAINST/OVER CULVERTS
CS-3102	RCP 375mm DIA. TO 675mm DIA. HEADWALL & WINGWALL DETAIL – NARROW CHANNELS
CS-3103	RCP 450mm DIA. TO 900mm DIA. HEADWALL & WINGWALL DETAILS 0 TO 20 SKEW ANGLE
CS-3104	RCP 450mm DIA. TO 900mm DIA. HEADWALL & WINGWALL DETAIL 21 TO 45 SKEW ANGLE
CS-3105	RCP 1050mm DIA. TO 1800mm DIA. HEADWALL & WINGWALL DETAILS 0 TO 20 SKEW ANGLE
CS-3106	RCP 1050mm DIA. TO 1800mm DIA. HEADWALL & WINGWALL DETAIL 21 TO 45 SKEW ANGLE
CS-3107	RCBC 450mm HIGH TO 1200mm HIGH HEADWALL & WINGWALL DETAILS 0 TO 20 SKEW ANGLE
CS-3108	RCBC 450mm HIGH TO 1200mm HIGH HEADWALL & WINGWALL DETAIL 21 TO 45 SKEW ANGLE
CS-3109	RCBC AND LINK SLABS ARRANGEMENT AND INSTALLATION OF PRECAST UNITS
CS-3110	RCBC AND LINK SLAB REINFORCED WING & HEADWALLS
CS-3111	RCBC AND LINK SLABS CONSTRUCTION OF BASES WITH NIBS AND APRONS
CS-3112	RCBC & LINK SLABS CONSTRUCTION OF BASES WITH RECESSES & APRONS
CS-3113	RCBC & LINK SLABS CROWN UNIT HOLDING DOWN ANCHORS
CS-3119	MANHOLES AND INLET PITS
CS-3120	CATCH DRAIN AND LETTER BOX PIT
CS-3123	GABION DROP STRUCTURE
<u>SAFETY BARRIERS</u>	
CS-3200	STEEL BEAM GUARDRAIL (WITH FLARED TERMINALS)
<u>KERBING, FENCING AND LANDSCAPING</u>	
CS-3300	STANDARD KERB PROFILES
CS-3302	PRAM RAMPS, WITH AND WITHOUT TACTILE GROUND SURFACE INDICATOR (TGSI)
CS-3303	TACTILE GROUND SURFACE INDICATOR (TGSI) INSTALLATION DETAILS FOR BUS STOPS, ISLAND CROSSINGS, STAIRS, RAMPS AND DIRECTION CHANGE
CS-3305	VEHICLE BARRIER FENCING, WHEELCHAIR CROSSING FOR MEDIANS & INTERSECTION HOLD RAIL DETAILS
CS-3306	CYCLE/SHARED PATH CULVERT CROSSING FENCE DETAILS
CS-3307	PEDESTRIAN FENCE
CS-3308	1800mm SECURITY FENCE
CS-3311	ACCESS GATE DETAILS
<u>TRAFFIC CONTROL DEVICES</u>	
CS-3400	LINE MARKING
<u>ROAD FURNITURE AND SIGN</u>	
CS-3500	FLEXIBLE GUIDE POSTS
CS-3501	FLOOD GAUGE POSTS
CS-3503	SCHOOL ZONE SIGN DETAILS

						Drawn KS Date: AUGUST 2020	Checked PB Date: AUGUST 2020	 Northern Territory Government	SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS GENERAL				
						Designed PB Date: AUGUST 2020	Checked SPB Date: AUGUST 2020		SCHEDULE OF DRAWINGS				
1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE		Design Project Leader SPB	NTG Project Manager N/A		NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE		Date: AUGUST 2020	Date: AUGUST 2020		-	-	1 OF 1	SS0000	1
No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY									A1



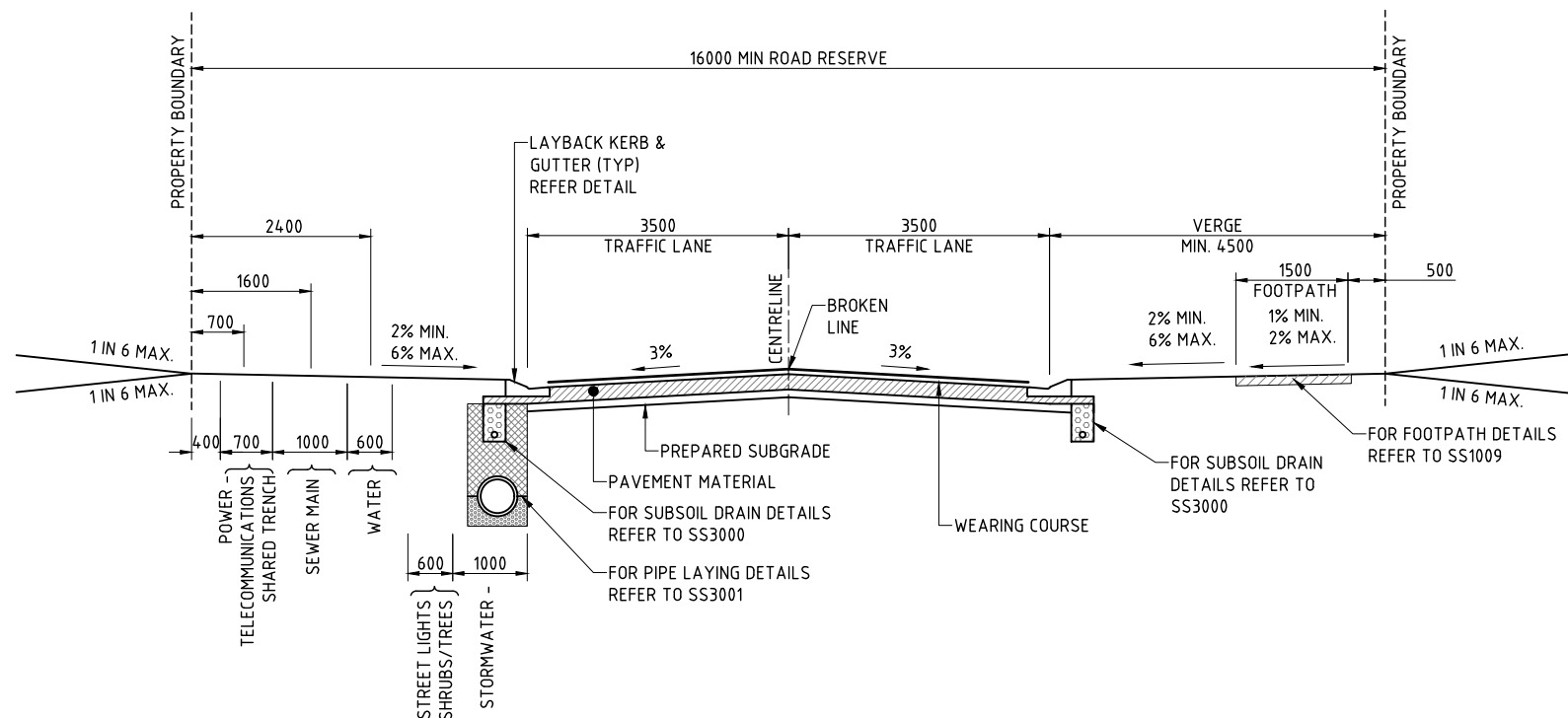
MINOR STREET / CUL-DE-SAC  
NOT TO SCALE



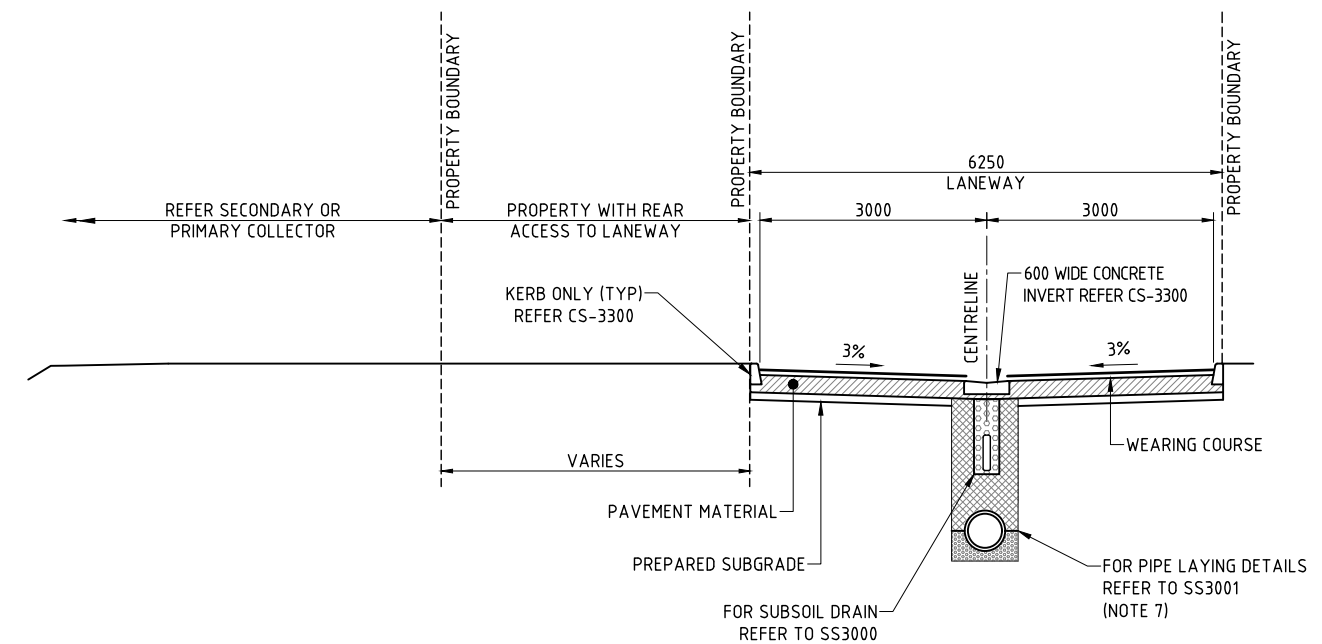
LAYBACK KERB & GUTTER DETAIL (LBK&G)  
NOT TO SCALE

#### NOTES:

1. ALL WORK MUST BE UNDERTAKEN IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
3. ALL LINEMARKINGS AND SIGNAGE MUST COMPLY WITH AS1742 AND DIPL STANDARD DRAWINGS. RRPMS AND GUIDEPOSTS MAY ALSO BE REQUIRED IN PROJECT SPECIFIC CIRCUMSTANCES.
4. EXTEND PAVEMENT MATERIAL UNDER KERB 75mm MINIMUM THICKNESS AND MIN 300mm BEHIND BACK OF KERB.
5. SERVICE CORRIDORS ARE SHOWN ON ONE SIDE OF STREET RESERVE FOR ILLUSTRATION PURPOSES; HOWEVER, THE NOMINATED SERVICE CORRIDORS EXIST ON BOTH SIDES OF THE STREET RESERVE AND ACTUAL SERVICES MAY BE LOCATED ON ONE OR BOTH SIDES OF THE ROAD, AS APPLICABLE.
6. PROVIDE 100mm TOPSOIL AND GRASS TO ALL VERGES AND MEDIANS, OR ALTERNATIVE LANDSCAPING TREATMENT.
7. STORMWATER PIPES MAY NOT BE REQUIRED IN LANEWAYS, DEPENDING ON LENGTH OF LANEWAY AND SIZE OF CONTRIBUTING STORMWATER CATCHMENTS.
8. REFER PROJECT DRAWINGS FOR EARTHWORKS, SUBGRADE PREPARATION, PAVEMENT MATERIALS AND WEARING SURFACE SPECIFICATIONS.
9. FOR STREET NETWORK PLANNING, HIERARCHY SELECTION CRITERIA AND DESIGN BASIS REQUIREMENTS, REFER TO PART 1 SUBDIVISION DEVELOPMENT GUIDELINES.



ACCESS STREET  
NOT TO SCALE



LANEWAY - BACK OF BLOCK  
NOT TO SCALE

No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY
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0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE

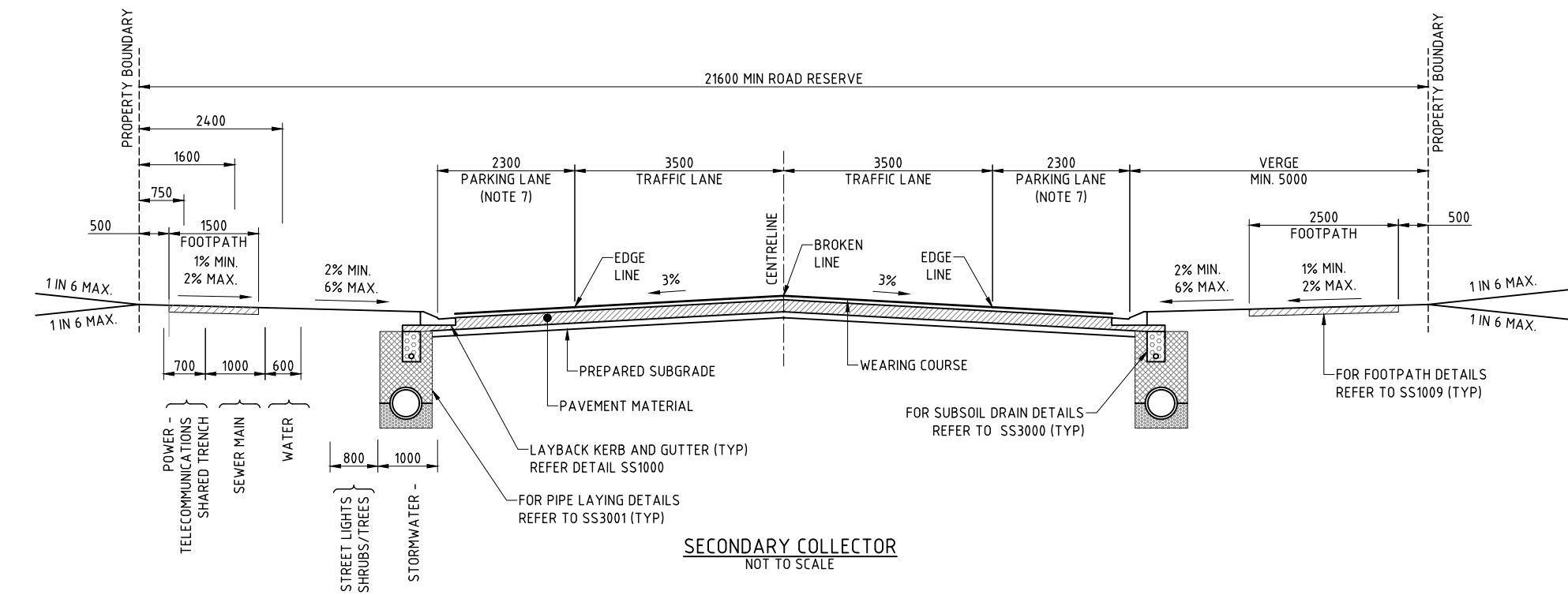
Drawn	KS	Checked	PB
Date:	AUGUST 2020	Date:	AUGUST 2020
Designed	PB	Checked	SPB
Date:	AUGUST 2020	Date:	AUGUST 2020
	Design Project Leader		NTG Project Manager
	SPB		N/A
Date:	AUGUST 2020	Date:	AUGUST 2020



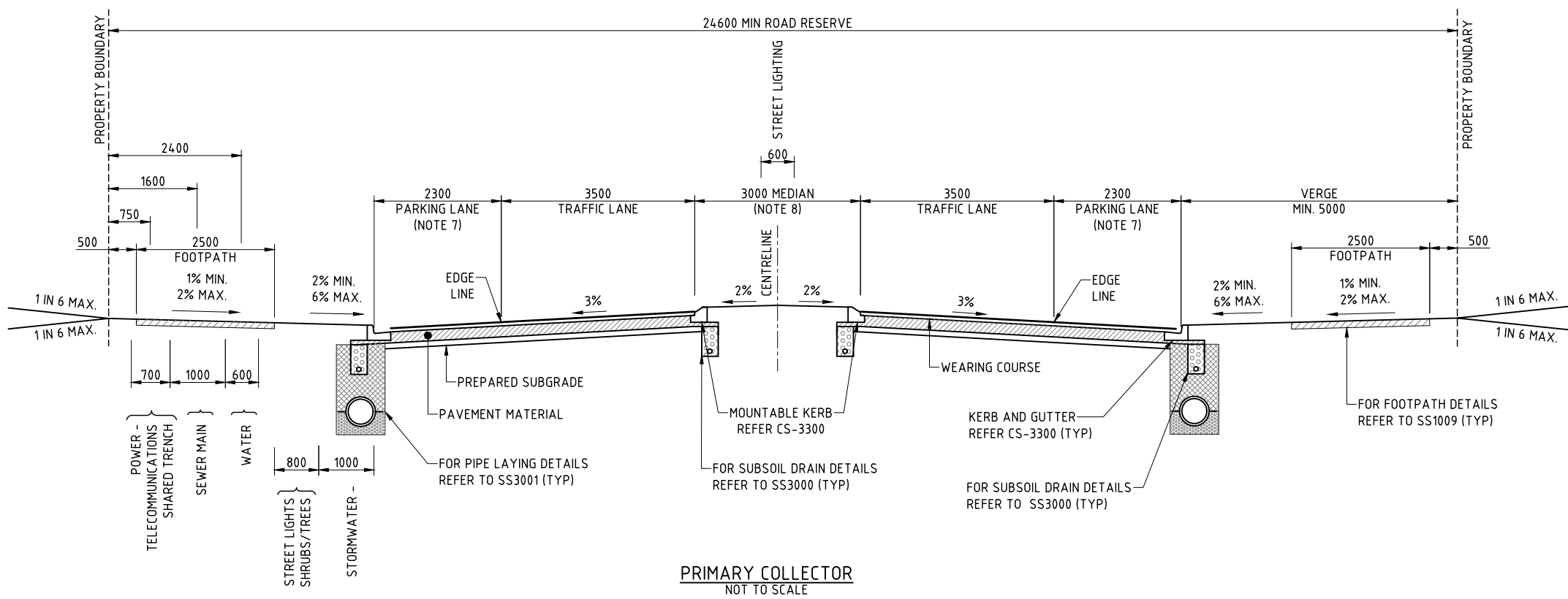
SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS  
STREETS AND PATHWAYS

STREET HIERARCHY - CATEGORY A  
RESIDENTIAL AND MIXED USE - SET TYPE 1

NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	1 OF 4	SS1000	1



SECONDARY COLLECTOR  
NOT TO SCALE



PRIMARY COLLECTOR  
NOT TO SCALE

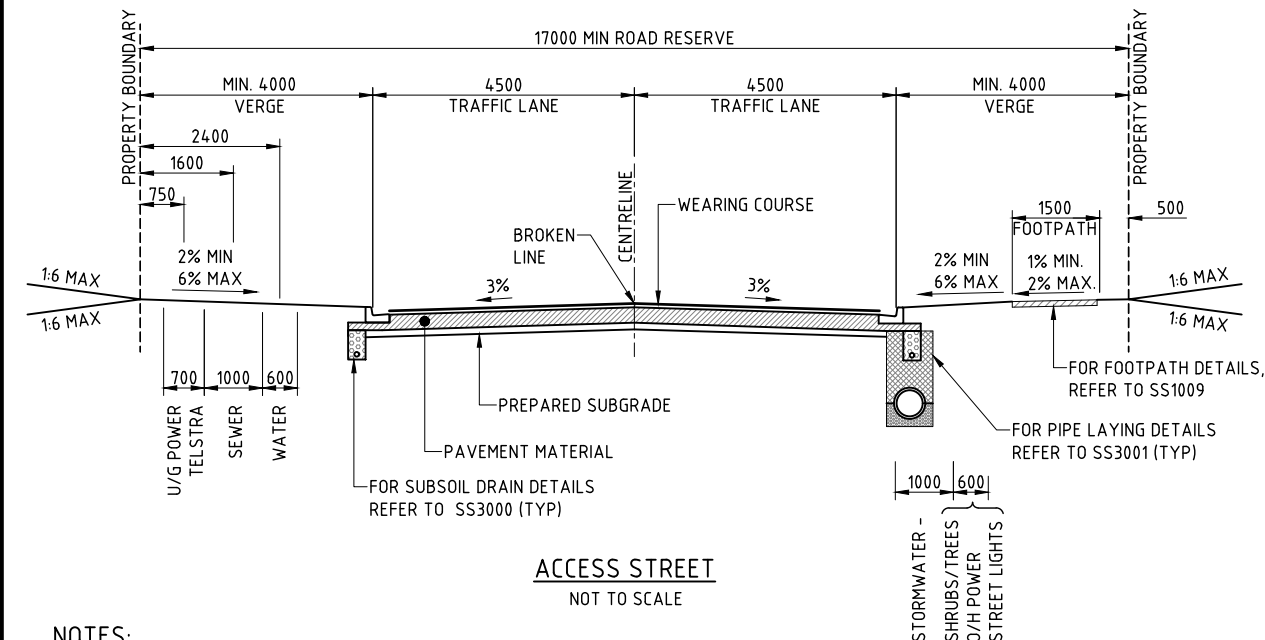
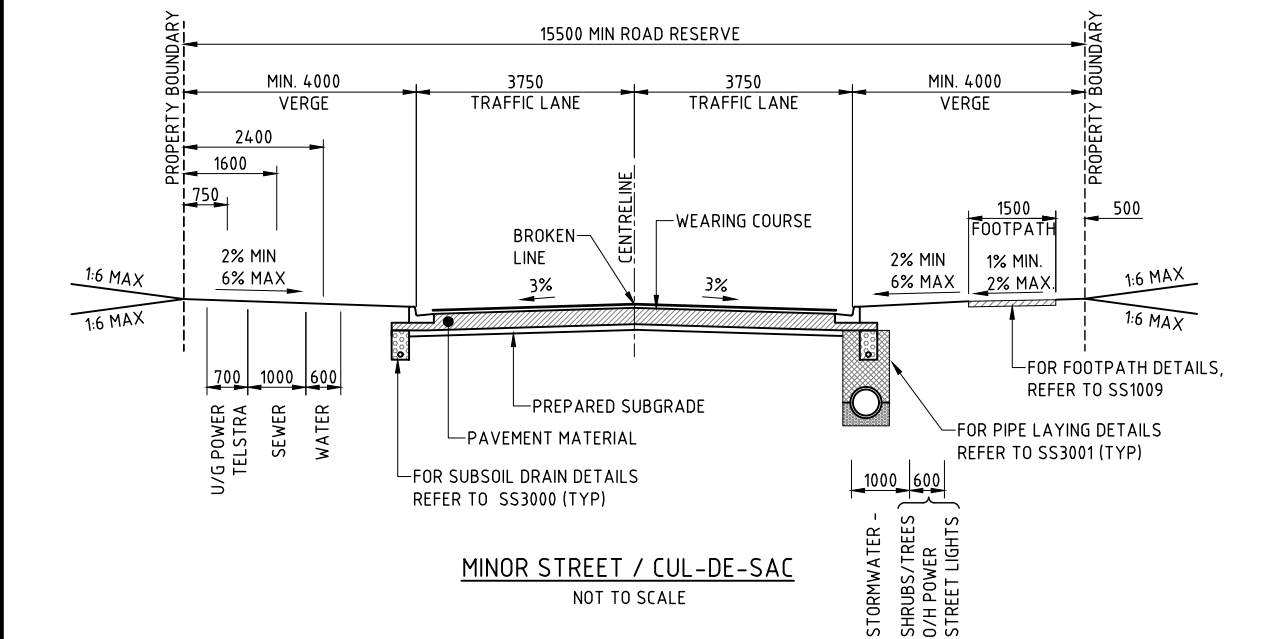
- NOTES:**
1. ALL WORK MUST BE UNDERTAKEN IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
  2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
  3. ALL LINEMARKINGS AND SIGNAGE MUST COMPLY WITH AS1742 AND DIPL STANDARD DRAWINGS. RRPMs AND GUIDEPOSTS MAY ALSO BE REQUIRED IN PROJECT SPECIFIC CIRCUMSTANCES.
  4. EXTEND PAVEMENT UNDER KERB 75mm MINIMUM THICKNESS AND MIN 300MM BEHIND BACK OF KERB.
  5. SERVICE CORRIDORS ARE SHOWN ON ONE SIDE OF STREET RESERVE FOR ILLUSTRATION PURPOSES; HOWEVER, THE NOMINATED SERVICE CORRIDORS EXIST ON BOTH SIDES OF THE STREET RESERVE AND ACTUAL SERVICES MAY BE LOCATED ON ONE OR BOTH SIDES OF THE ROAD, AS APPLICABLE.
  6. PROVIDE 100mm TOPSOIL AND GRASS TO ALL VERGES AND MEDIANS, OR ALTERNATIVE LANDSCAPING TREATMENT.
  7. PROVIDE BULB OUTS IN PARKING LANES AT MAX 100m CENTRES.
  8. MEDIANS MAY ALTERNATIVELY BE INVERTED WITH STORMWATER DRAINAGE INFRASTRUCTURE.
  9. REFER PROJECT DRAWINGS FOR EARTHWORKS, SUBGRADE PREPARATION, PAVEMENT MATERIALS AND WEARING SURFACE SPECIFICATIONS.
  10. FOR STREET NETWORK PLANNING, HIERARCHY SELECTION CRITERIA AND DESIGN BASIS REQUIREMENTS, REFER TO PART 1 SUBDIVISION DEVELOPMENT GUIDELINES.

No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY
1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE
0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE

Drawn	KS	Checked	PB
Date:	AUGUST 2020	Date:	AUGUST 2020
Designed	PB	Checked	SPB
Date:	AUGUST 2020	Date:	AUGUST 2020
Design Project Leader	SPB	NTG Project Manager	N/A
Date:	AUGUST 2020	Date:	AUGUST 2020



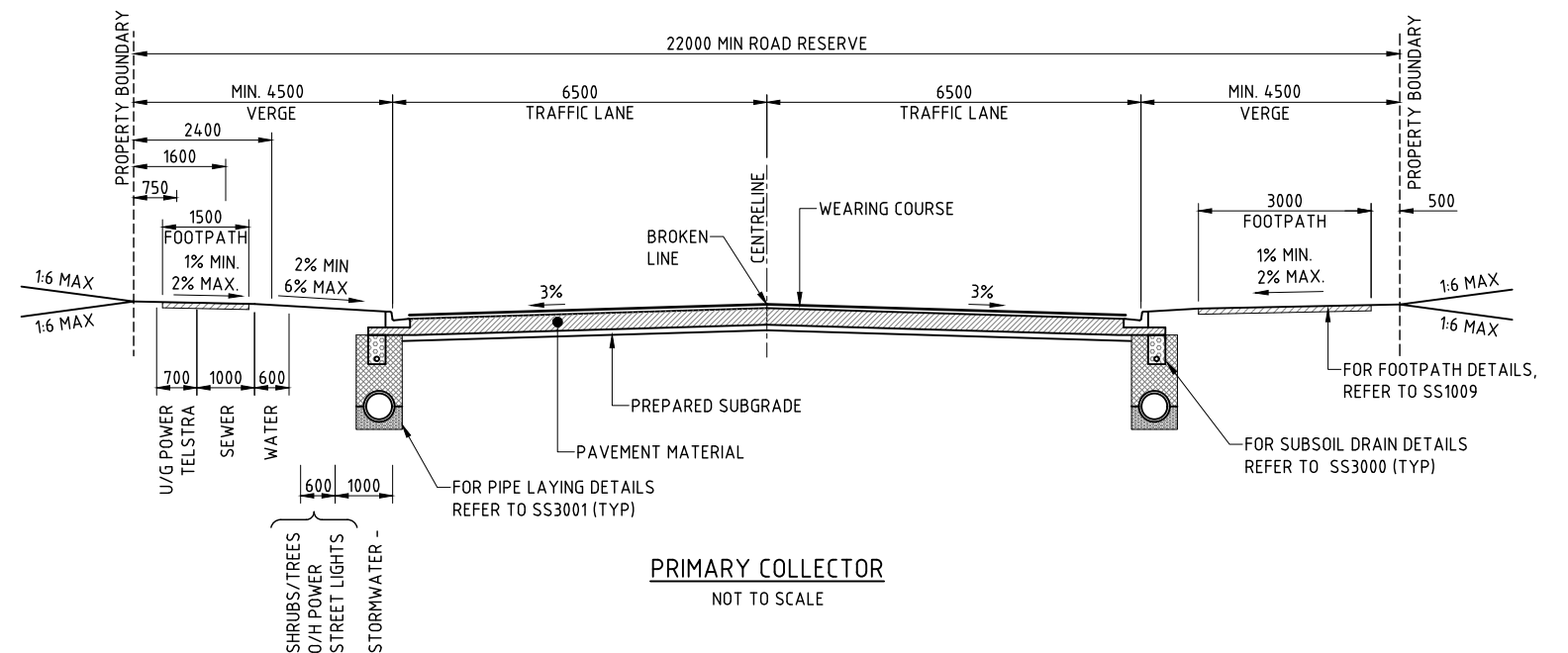
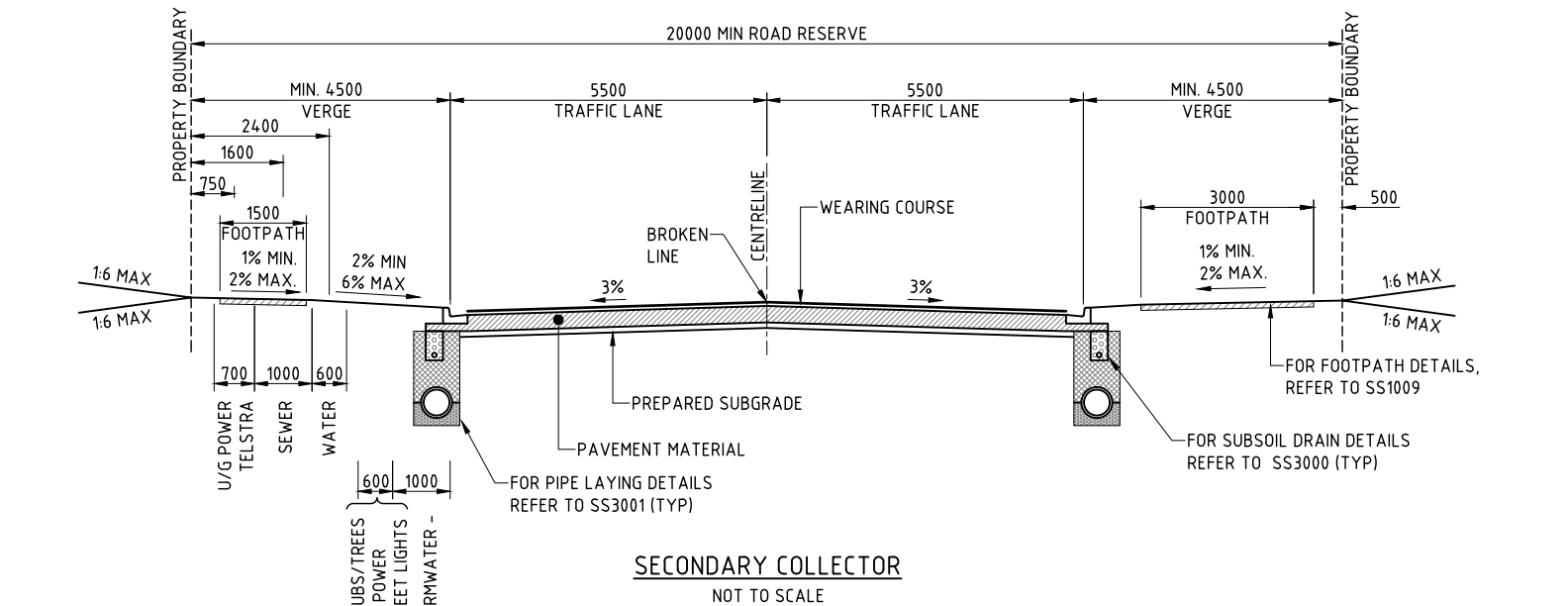
SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS				
STREETS AND PATHWAYS				
STREET HIERARCHY - CATEGORY A				
RESIDENTIAL AND MIXED USE - SET TYPE 1				
NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	2 OF 4	SS1001	1



#### NOTES:

- ALL WORK MUST BE UNDERTAKEN IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
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- ALL LINEMARKINGS AND SIGNAGE MUST COMPLY WITH AS1742 AND DIPL STANDARD DRAWINGS. RRPMS AND GUIDEPOSTS MAY ALSO BE REQUIRED IN PROJECT SPECIFIC CIRCUMSTANCES.
- EXTEND PAVEMENT MATERIAL UNDER KERB MINIMUM 75mm THICKNESS AND MINIMUM 300mm BEHIND BACK OF KERB.
- SERVICE CORRIDORS ARE SHOWN ON ONE SIDE OF STREET RESERVE FOR ILLUSTRATION PURPOSES; HOWEVER, THE NOMINATED SERVICE CORRIDORS EXIST ON BOTH SIDES OF THE STREET RESERVE AND ACTUAL SERVICES MAY BE LOCATED ON ONE OR BOTH SIDES OF THE ROAD, AS APPLICABLE.
- PROVIDE 100mm TOPSOIL AND GRASS TO ALL VERGES AND MEDIANS, OR ALTERNATIVE LANDSCAPING TREATMENT.
- REFER PROJECT DRAWINGS FOR EARTHWORKS, SUBGRADE PREPARATION, PAVEMENT MATERIALS AND WEARING SURFACE SPECIFICATIONS.
- FOR STREET NETWORK PLANNING, HIERARCHY SELECTION CRITERIA AND DESIGN BASIS REQUIREMENTS, REFER TO PART 1 SUBDIVISION DEVELOPMENT GUIDELINES.

No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY
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0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE



Drawn	KS	Checked	PB
Date:	AUGUST 2020	Date:	AUGUST 2020
Designed	PB	Checked	SPB
Date:	AUGUST 2020	Date:	AUGUST 2020
	Design Project Leader		NTG Project Manager
	SPB		N/A
Date:	AUGUST 2020	Date:	AUGUST 2020

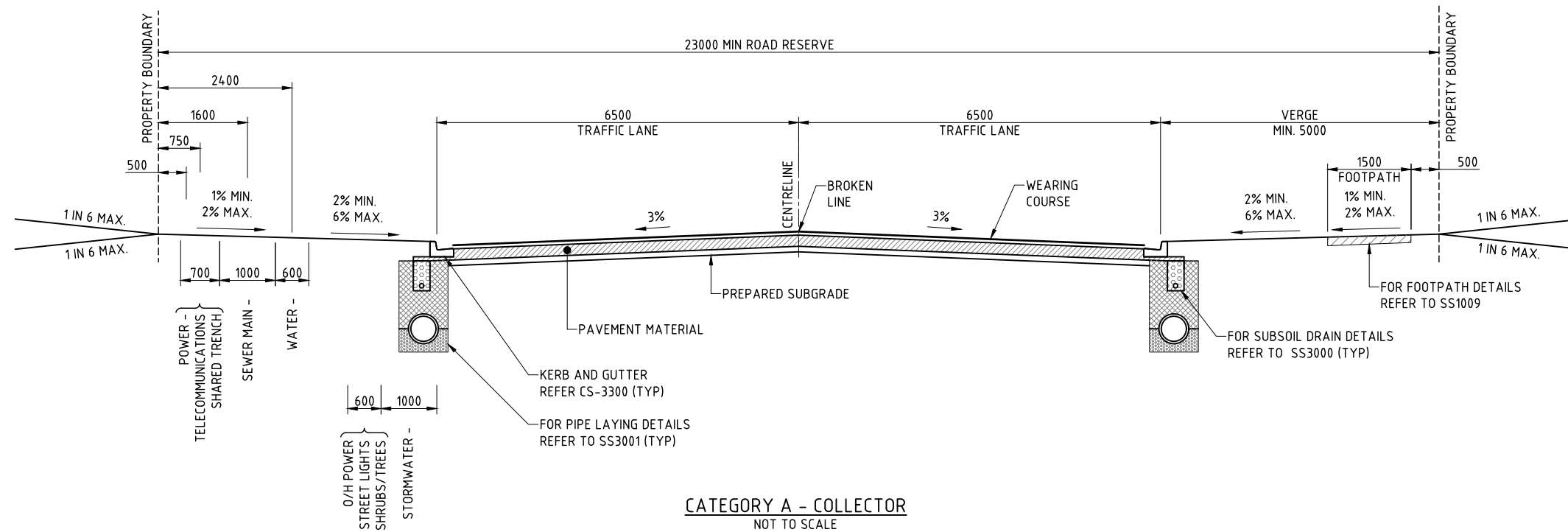
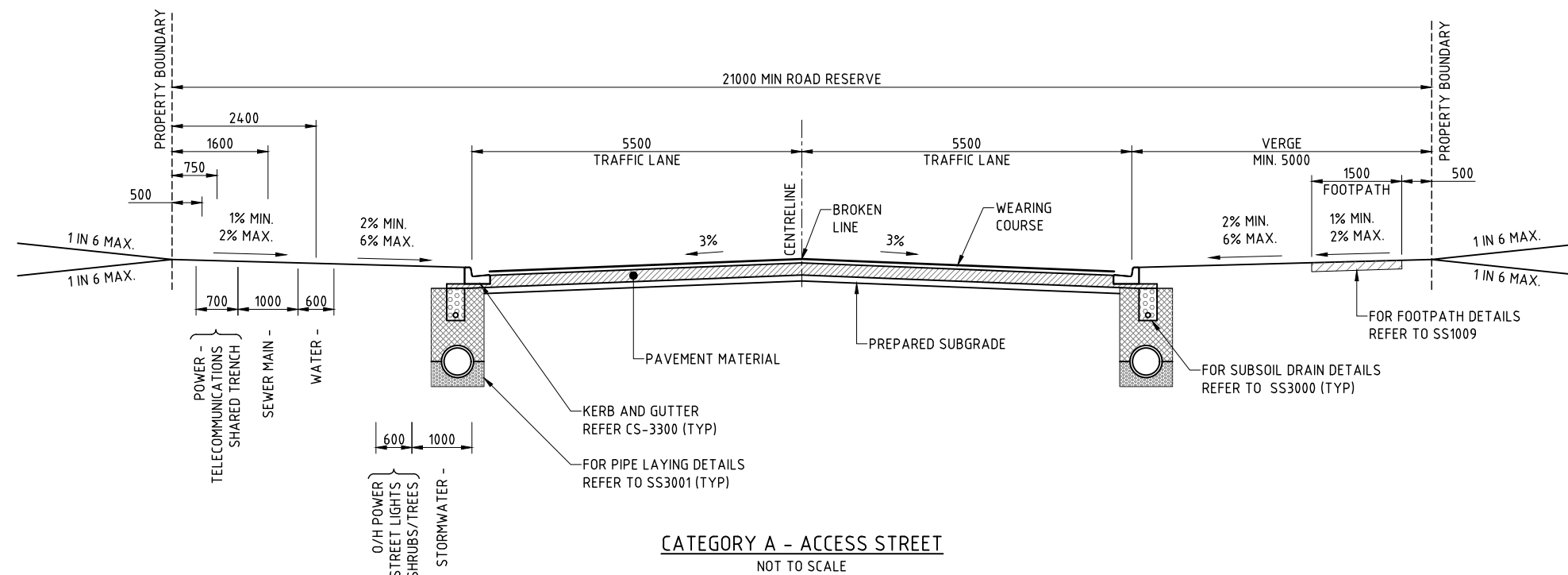


**SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS**  
STREETS AND PATHWAYS

**STREET HIERARCHY - CATEGORY A**  
**RESIDENTIAL AND MIXED USE - SET TYPE 2**

NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	3 OF 4	SS1002	1

- NOTES:**
1. ALL WORK MUST BE UNDERTAKEN IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
  2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
  3. ALL LINEMARKINGS AND SIGNAGE MUST COMPLY WITH AS1742 AND DIPL STANDARD DRAWINGS. RRPMs AND GUIDEPOSTS MAY ALSO BE REQUIRED IN PROJECT SPECIFIC CIRCUMSTANCES.
  4. EXTEND PAVEMENT UNDER KERB 75mm MINIMUM THICKNESS AND MIN 300mm BEHIND BACK OF KERB.
  5. SERVICE CORRIDORS ARE SHOWN ON ONE SIDE OF STREET RESERVE FOR ILLUSTRATION PURPOSES; HOWEVER, THE NOMINATED SERVICE CORRIDORS EXIST ON BOTH SIDES OF THE STREET RESERVE AND ACTUAL SERVICES MAY BE LOCATED ON ONE OR BOTH SIDES OF THE ROAD, AS APPLICABLE.
  6. PROVIDE 100mm TOPSOIL AND GRASS TO ALL VERGES AND MEDIANS, OR ALTERNATIVE LANDSCAPING TREATMENT.
  7. REFER PROJECT DRAWINGS FOR EARTHWORKS, SUBGRADE PREPARATION, PAVEMENT MATERIALS AND WEARING SURFACE SPECIFICATIONS.
  8. FOR STREET NETWORK PLANNING, HIERARCHY SELECTION CRITERIA AND DESIGN BASIS REQUIREMENTS, REFER TO PART 1 SUBDIVISION DEVELOPMENT GUIDELINES.



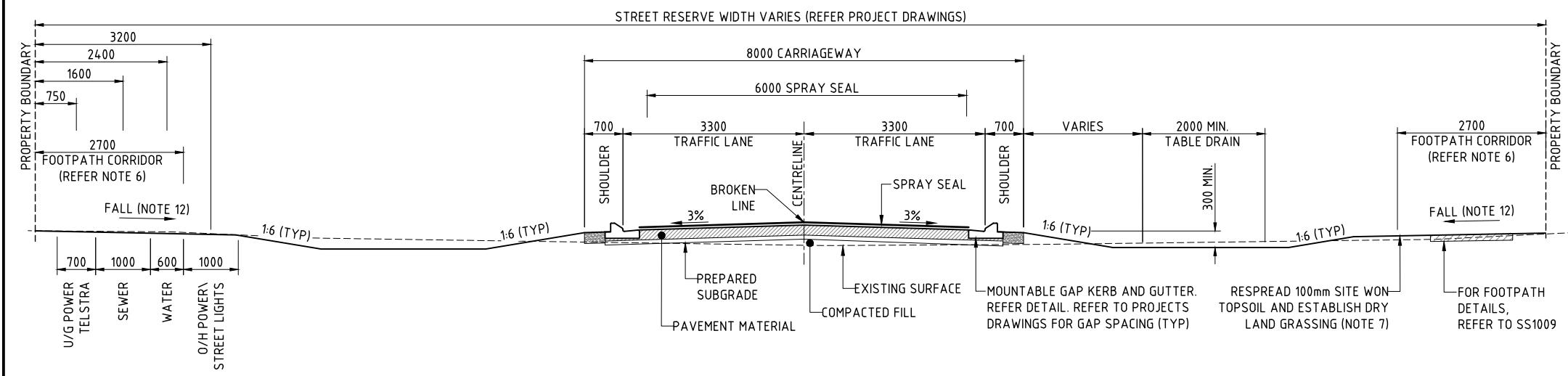
No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY
1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE
0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE

Drawn	KS	Checked	PB
Date:	AUGUST 2020	Date:	AUGUST 2020
Designed	PB	Checked	SPB
Date:	AUGUST 2020	Date:	AUGUST 2020
Design Project Leader	SPB	NTG Project Manager	N/A
Date:	AUGUST 2020	Date:	AUGUST 2020

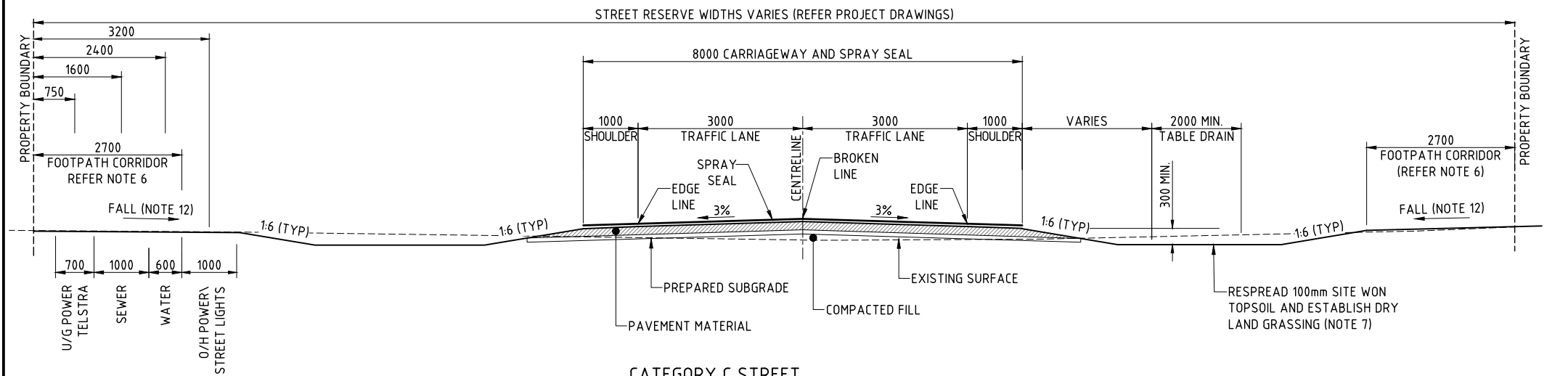


SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS				
STREETS AND PATHWAYS				
STREET HIERARCHY - CATEGORY A				
INDUSTRIAL - SET TYPE 1				
NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	4 OF 4	SS1003	1

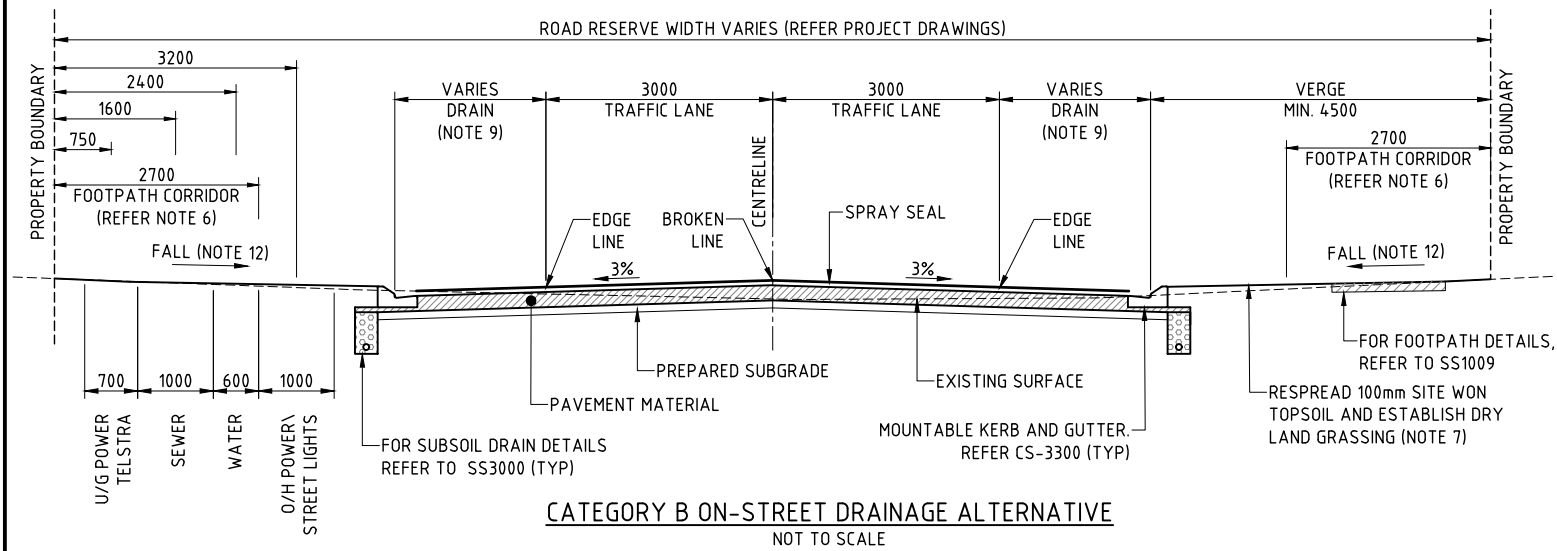




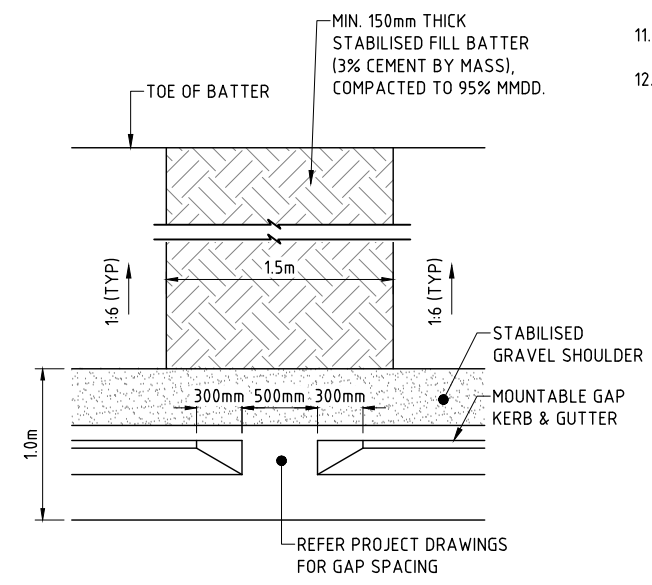
CATEGORY B STREET  
NOT TO SCALE



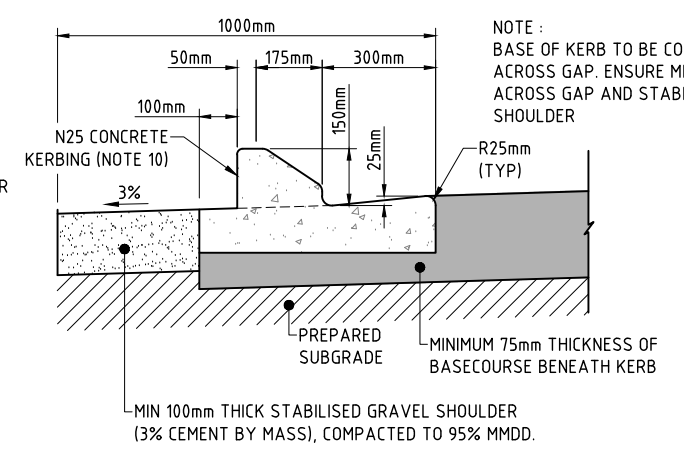
CATEGORY C STREET  
NOT TO SCALE



CATEGORY B ON-STREET DRAINAGE ALTERNATIVE  
NOT TO SCALE



KERB GAP PLAN VIEW  
NOT TO SCALE



MOUNTABLE GAP KERB & GUTTER (MGK&G)  
NOT TO SCALE

- NOTES:**
1. ALL WORK MUST BE UNDERTAKEN IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
  2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
  3. THE TYPICAL STREET CROSS-SECTIONS ILLUSTRATED WILL VARY BETWEEN PROJECTS DUE TO SITE SPECIFIC CIRCUMSTANCES. THE DEVELOPER'S CONSULTANT MUST DEVELOP A DESIGN WHICH APPROPRIATELY RESPONDS TO SITE CONSTRAINTS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
    - 3.1 TOPOGRAPHY MAY GOVERN ALTERNATIVE STORMWATER DRAINAGE ARRANGEMENTS, INCLUDING A COMBINATION OF TABLE DRAINS, VERGES SLOPING TOWARDS THE CARRIAGEWAY TO CONVEY WATER IN THE KERB AND GUTTER FOR CONTROLLED DISTANCES, AND/OR VERGES SLOPING AWAY FROM THE CARRIAGEWAY TO SHEETFLOW INTO ADJACENT LANDS WHERE APPROVED BY THE RELEVANT AUTHORITY. IT MAY ALSO BE DESIRABLE TO WIDEN TRAFFIC LANE WIDTHS IN CATEGORY B STREETS TO CONVEY MORE STORMWATER IN THE CARRIAGEWAY, AS ILLUSTRATED BY THE ON-STREET DRAINAGE ALTERNATIVE.
    - 3.2 ROAD AND TABLE DRAIN BATTERS ARE NOMINATED WITH SLOPES OF 1:6 (TYP). BATTER SLOPES MAY BE STEEPENED TO 1:4 (ABS MAX) WHERE SITE CONSTRAINTS GOVERN.
    - 3.3 TABLE DRAINS ARE NOMINATED AS 300mm MIN DEPTH FROM EDGE OF SHOULDER AND MUST BE MIN 150mm BELOW SUBGRADE LEVEL TO FACILITATE SUBSOIL DRAINAGE. IF NO TABLE DRAINS ARE PROPOSED FOR ONE OR MORE SIDES OF THE ROAD PAVEMENT, ALTERNATIVE SUBSOIL DRAINAGE INFRASTRUCTURE MUST BE PROVIDED UNLESS OTHERWISE APPROVED BY THE RELEVANT AUTHORITY.
    - 3.4 SERVICE CORRIDORS ARE SHOWN ON ONE SIDE OF STREET RESERVE FOR ILLUSTRATION PURPOSES; HOWEVER, THE NOMINATED SERVICE CORRIDORS EXIST ON BOTH SIDES OF THE STREET RESERVE AND ACTUAL SERVICES MAY BE LOCATED ON ONE OR BOTH SIDES OF THE ROAD, AS APPLICABLE.
    - 3.5 STREETLIGHTS ARE NOMINATED WITHIN THE OVERHEAD POWER SERVICE CORRIDOR, AS THEY ARE TYPICALLY ATTACHED TO OVERHEAD POWER POLES. WHERE TABLE DRAINS EXIST ON BOTH SIDES OF THE STREET, THIS MAY RESULT IN LARGE OFFSETS BETWEEN THE NOMINATED OVERHEAD POWER SERVICE CORRIDOR AND THE STREET CARRIAGEWAY LEADING TO DIFFICULTIES ACHIEVING REQUIRED STREET LIGHTING PERFORMANCE LEVELS. IF THIS OCCURS, STANDALONE STREET LIGHTING POLES MAY NEED TO BE ADOPTED.
    - 3.6 MINIMUM STREET RESERVE WIDTHS ARE NOT SPECIFIED DUE TO THE SIGNIFICANT NUMBER OF PROJECT SPECIFIC FACTORS WHICH INFLUENCE REQUIRED RESERVE WIDTHS. TYPICAL STREET RESERVE WIDTHS ARE IN THE ORDER OF 20m TO 30m FOR CATEGORY B AND C INFRASTRUCTURE LOCALITIES AND MUST ALLOW FOR MINIMUM 3700 WIDE SERVICE CORRIDORS ON BOTH SIDES OF THE RESERVE. SERVICE CORRIDORS MUST BE LOCATED ENTIRELY OUTSIDE OF TABLE DRAINS, UNLESS OTHERWISE APPROVED BY THE SERVICE AUTHORITIES.
  4. REFER PROJECT DRAWINGS FOR EARTHWORKS, SUBGRADE PREPARATION, PAVEMENT MATERIALS AND SPRAY SEAL SPECIFICATIONS.
  5. EXPOSED PAVEMENT MATERIALS IN SHOULDERS AND DRAIN BATTERS MUST BE APPROPRIATELY STABILISED TO MITIGATE EROSION.
  6. FOOTPATH CORRIDORS ARE NOMINATED AS 2700 WIDE TO ALLOW FOR 1500 WIDE FOOTPATHS WITH 600 WIDE SHOULDERS AT MAX 1:40 CROSSFALL, AS REQUIRED BY AS1428.1.
  7. RESPREAD 100mm SITE WON TOPSOIL AND ESTABLISH DRYLAND GRASSING ON ALL TABLE DRAINS, BATTERS AND UNPAVED AREAS WITHIN THE STREET RESERVE.
  8. ALL LINEMARKINGS AND SIGNAGE MUST COMPLY WITH AS1742 AND DIPL STANDARD DRAWINGS. RRPMS AND GUIDEPOSTS MAY ALSO BE REQUIRED IN PROJECT SPECIFIC CIRCUMSTANCES.
  9. WIDTH OF ON-STREET DRAIN IS TO BE DESIGNED TO ENSURE MINOR STORM FLOW CRITERIA IS MET, AS OUTLINED IN THE SUBDIVISION DEVELOPMENT GUIDELINES. DRAIN WIDTHS IN EXCESS OF 2.0m MUST BE APPROVED BY THE RELEVANT AUTHORITY. KERBED DISCHARGE INTO TABLE DRAINS MAY BE REQUIRED AT INTERIM LOCATIONS TO MANAGE ON-STREET FLOW WIDTH AND DEPTHS PRIOR TO ULTIMATE DISCHARGE INTO OUTLET DRAINS.
  10. KERBING TO COMPLY WITH AS2876: CONCRETE KERBS AND CHANNELS (GUTTERS) - MANUALLY OR MACHINE PLACED. EXTEND BASECOURSE UNDER ALL KERBS MIN 75mm THICKNESS.
  11. FOR STREET NETWORK PLANNING, HIERARCHY SELECTION CRITERIA AND DESIGN BASIS REQUIREMENTS, REFER TO PART 1 SUBDIVISION DEVELOPMENT GUIDELINES.
  12. CROSSFALL IN ROAD VERGES TO BE 2-6% GENERALLY, 1-2% WITHIN FOOTPATH CORRIDORS, AND MAX 1:4 ON ROAD/TABLE DRAIN BATTERS. FLATTER CROSSFALLS MAY BE PROVIDED WHERE MINIMUM 1% LONGITUDINAL FALL OCCURS IN THE ROAD RESERVE

1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE
0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE
No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY

Drawn	KS	Checked	PB
Date:	AUGUST 2020	Date:	AUGUST 2020
Designed	PB	Checked	SPB
Date:	AUGUST 2020	Date:	AUGUST 2020
	Design Project Leader		NTG Project Manager
	SPB		N/A
Date:	AUGUST 2020	Date:	AUGUST 2020



SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS				
STREETS AND PATHWAYS				
STREET HIERARCHY - CATEGORY B AND C				
RESIDENTIAL, MIXED USE AND INDUSTRIAL				
NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	1 OF 1	SS1004	1

- NOTES:**
1. ALL WORK MUST BE UNDERTAKEN IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
  2. ALL LINEMARKINGS AND SIGNAGES SHALL COMPLY WITH AS1742.
  3. RRPMS TO BE USED TO SUPPLEMENT LINE MARKING. COMPLY WITH AS1742.2.
  4. BATTER SLOPES MAY BE STEEPENED TO 1 IN 4, WHERE 1 IN 6 IS IMPRACTICAL, SUBJECT TO APPROVAL BY THE RELEVANT AUTHORITY.
  5. APPLY 12L/m<sup>2</sup> PRIME ON UNSEALED SHOULDERS. WHERE FINE CRUSHED ROCK (FCR) IS USED, ADDITIONAL EROSION PROTECTION MEASURES MUST BE PROVIDED TO MITIGATE UNRAVELING OF EXPOSED FCR IN SHOULDERS AND BATTERS.
  6. TOPSOIL AND DRYLAND GRASSING MUST BE ESTABLISHED ON ALL TABLE DRAINS, BATTERS AND UNPAVED AREAS WITHIN THE ROAD RESERVE.
  7. SERVICE CORRIDORS ARE SHOWN ON ONE SIDE OF THE ROAD RESERVE FOR ILLUSTRATION PURPOSES. THE NOMINATED SERVICE CORRIDORS EXIST ON BOTH SIDES OF THE ROAD RESERVE AND ACTUAL SERVICES MAY BE LOCATED ON ONE OR BOTH SIDES OF THE ROAD, AS APPLICABLE.
  8. CROSS FALL VARIES WHERE SUPERELEVATION REQUIRED.
  9. STREET RESERVE WIDTHS MUST BE EQUAL TO OR GREATER THAN THE MINIMUM VALUES NOMINATED IN TABLE 1. STREET RESERVE WIDTHS MUST BE APPROPRIATELY SIZED TO ACCOMMODATE TABLE DRAINS AND SEPARATE SERVICE CORRIDORS/FOOTPATH CORRIDORS.
  10. RESERVE WIDTHS ARE MINIMUM VALUES AND MAY NEED TO BE INCREASED TO FIT TABLE DRAINS WITHIN STREET RESERVES.
  11. TABLE DRAIN INVERTS MUST BE MIN 150mm BELOW SUBGRADE LEVEL TO FACILITATE SUBSOIL DRAINAGE. IF NO TABLE DRAINS ARE PROPOSED FOR ONE OR MORE SIDES OF THE ROAD PAVEMENT, SUBJECT TO APPROVAL BY THE RELEVANT AUTHORITY, ALTERNATIVE SUBSOIL DRAINAGE INFRASTRUCTURE MUST BE PROVIDED.
  12. FOR STREET NETWORK PLANNING, HIERARCHY SELECTION CRITERIA AND DESIGN BASIS REQUIREMENTS, REFER TO PART 1 SUBDIVISION DEVELOPMENT GUIDELINES.
  13. CROSSFALL IN ROAD VERGES TO BE 2-6% GENERALLY, 1-2% WITHIN FOOTPATH CORRIDORS, AND MAX 1:4 ON ROAD/TABLE DRAIN BATTERS. FLATTER CROSSFALLS MAY BE PROVIDED WHERE MINIMUM 1% LONGITUDINAL FALL OCCURS IN THE ROAD RESERVE
  14. FOOTPATH CORRIDORS ARE NOMINATED AS 2700 WIDE TO ALLOW FOR 1500 WIDE FOOTPATHS WITH 600 WIDE SHOULDERS AT MAX 1:40 CROSSFALL, AS REQUIRED BY AS1428.1.

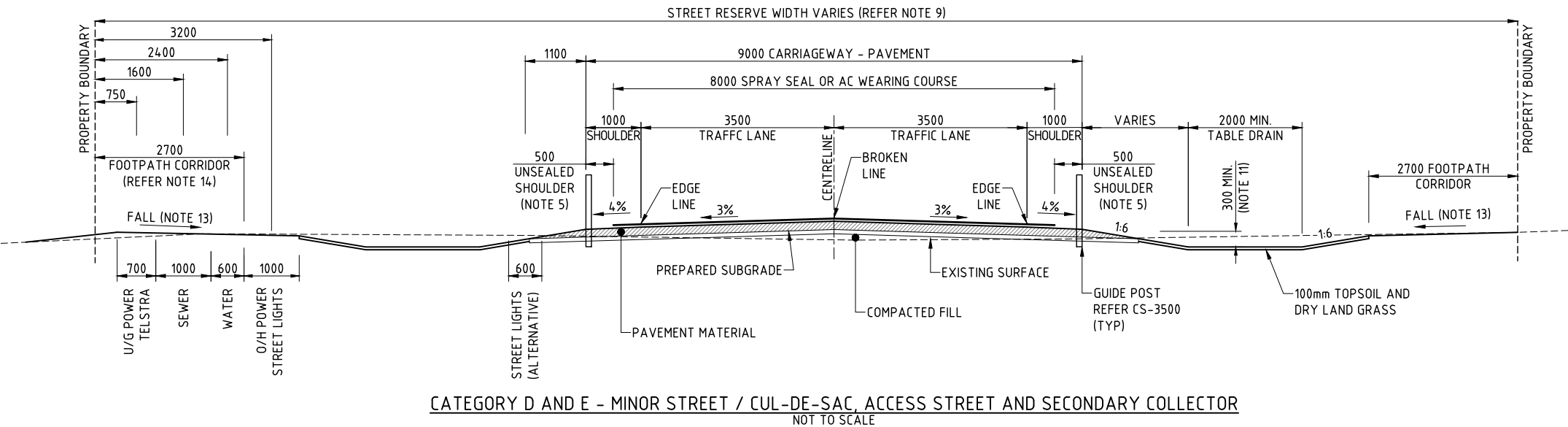
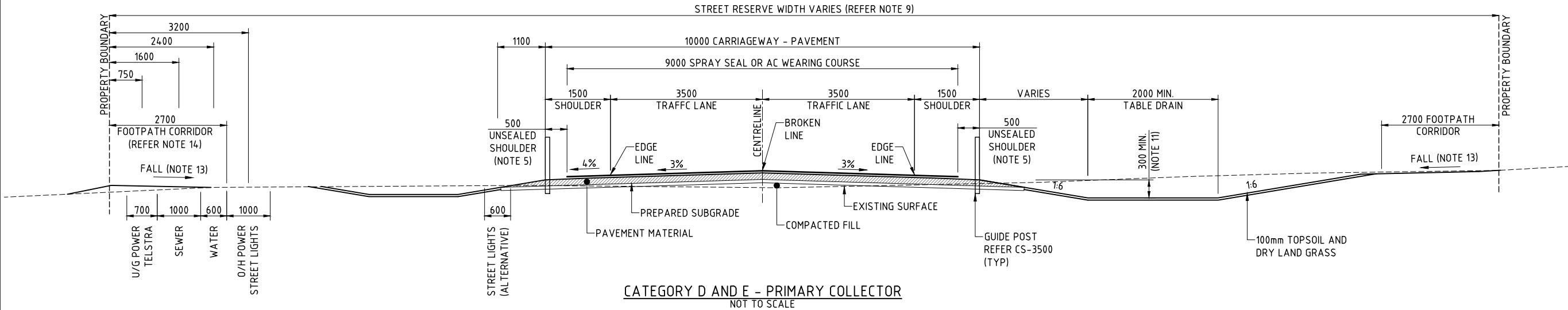


TABLE 1 (REFER NOTE 9)

STREET HIERARCHY	MINIMUM STREET RESERVE WIDTH (m)
MINOR STREET / CUL-DE-SAC	20
ACCESS STREET	22
SECONDARY COLLECTOR	25
PRIMARY COLLECTOR	30



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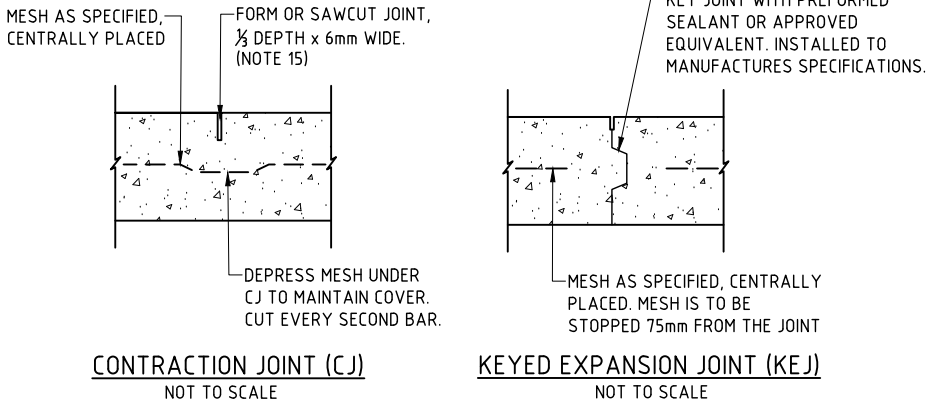


SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS  
STREETS AND PATHWAYS

STREET HIERARCHY - CATEGORY D AND E  
RESIDENTIAL, MIXED USE AND INDUSTRIAL

NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	1 OF 1	SS1005	1

LAND USE ZONE	THICKNESS	REINFORCING
RESIDENTIAL	100mm	SL72
NON-RESIDENTIAL	150mm	SL92



1. ALL WORK MUST COMPLY WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS  
ALONG WITH PROJECT SPECIFIC AMENDMENTS.

3. CONCRETE TO BE MINIMUM N32/20/80 UNO. CONCRETE DESIGN IS TYPICALLY BASED ON B1 EXPOSURE CLASSIFICATION, WITH MINIMUM REQUIRED COVER TO REINFORCEMENT OF 40mm IN ACCORDANCE WITH AS3600.

EXPOSURE CLASSIFICATION	CHARACTERISTIC STRENGTH (MPa)	REQUIRED COVER (mm)
A1, A2	N25/20/80	30mm
B1	N32/20/80	40mm
B2	N40/20/80	45mm
C1	N50/20/80	50mm
C2	N50/20/80	65mm

TABLE NOTE: EXPOSURE CLASSIFICATIONS B2, C1 AND C2 MAY TRIGGER INCREASED CONCRETE THICKNESSES TO ACHIEVE MINIMUM COVER REQUIREMENTS.

5. CONSTRUCTION JOINTS ARE REQUIRED FOR PLANNED INTERRUPTIONS. ROUGHEN AND CLEAN FACE OF HARD CONCRETE, REMOVE FOREIGN MATERIAL.

6. THE CONCRETE PATH MUST BE STEEL TROWELLED FOLLOWED BY A MOIST HAIR BROOM. THE FINAL SURFACE MUST BE NON-SLIP WITH A MINIMUM TEXTURED SURFACE OF 2mm.

8. MATCH NEW DRIVEWAYS TO EXISTING FOOTPATH AND VICE-VERSA. REFER SS1009 FOR FOOTPATH DETAILS.

9. THE FULL WIDTH OF THE FOOTPATH THAT TRAVERSES A VEHICULAR CROSSING SHALL HAVE A CROSSFALL OF 1% - 2% TOWARDS THE ROADWAY.

10. LIAISE WITH APPROPRIATE AUTHORITY FOR ADJUSTMENT OF EXISTING STRUCTURES WHERE NECESSARY. PITS MUST NOT BE LOCATED WITHIN DRIVEWAYS.

11. THE DRIVEWAY MUST MEET SIGHT DISTANCE CRITERIA FOR BOTH ENTRY AND EXIT IN ACCORDANCE WITH AS2890.1.

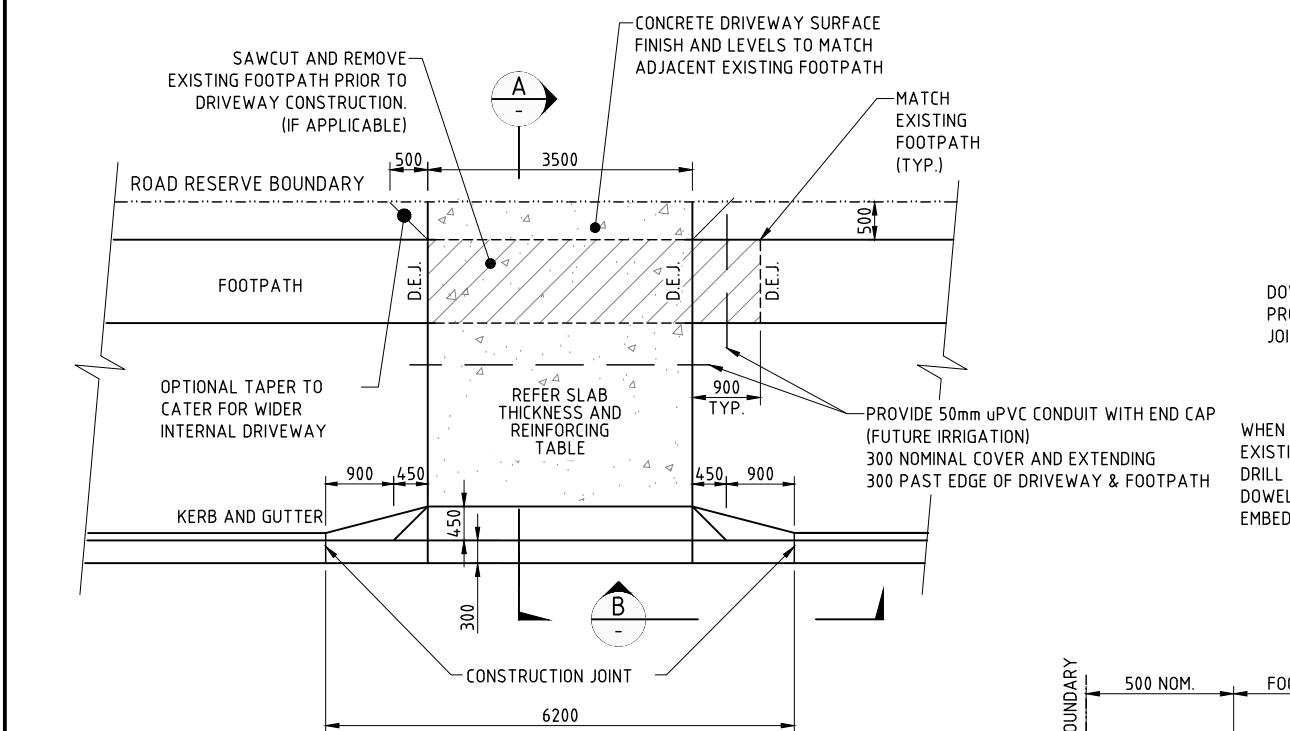
12. DRIVEWAYS MUST BE LOCATED WITH THE FOLLOWING MINIMUM SETBACKS/CLEARANCES AND PROVIDE ADEQUATE SIGHT DISTANCES IN ACCORDANCE WITH AUSTRROADS GUIDELINES:

- a. 500mm FROM STREET SIGNS
- b. 600mm FROM ANY STORMWATER DRAINAGE PIT
- c. 1000mm FROM OVERHEAD POWER/STREET LIGHT POLES
- d. 1200mm CLEAR OF SERVICE PITS, PILLARS, VALVE BOXES ETC.
- e. 6m FROM THE TANGENT POINT OF ANY INTERSECTIONS.

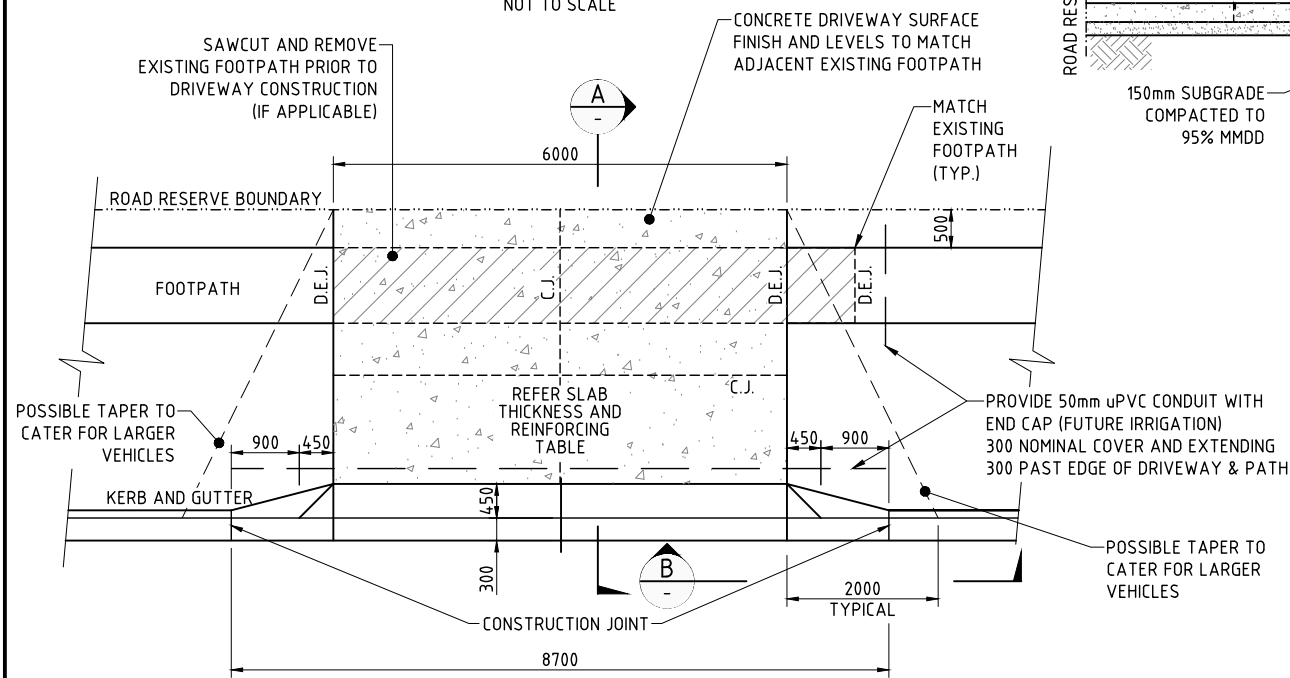
13. TRANSITION NOT REQUIRED WHERE DRIVEWAY INSTALLED AGAINST LAYBACK KERB.

14. ENSURE GROUND CLEARANCE CHECKS ARE COMPLETED IN ACCORDANCE WITH AS2890 TO CONFIRM ACCESS IS COMPLIANT FOR REQUIRED DESIGN VEHICLES.

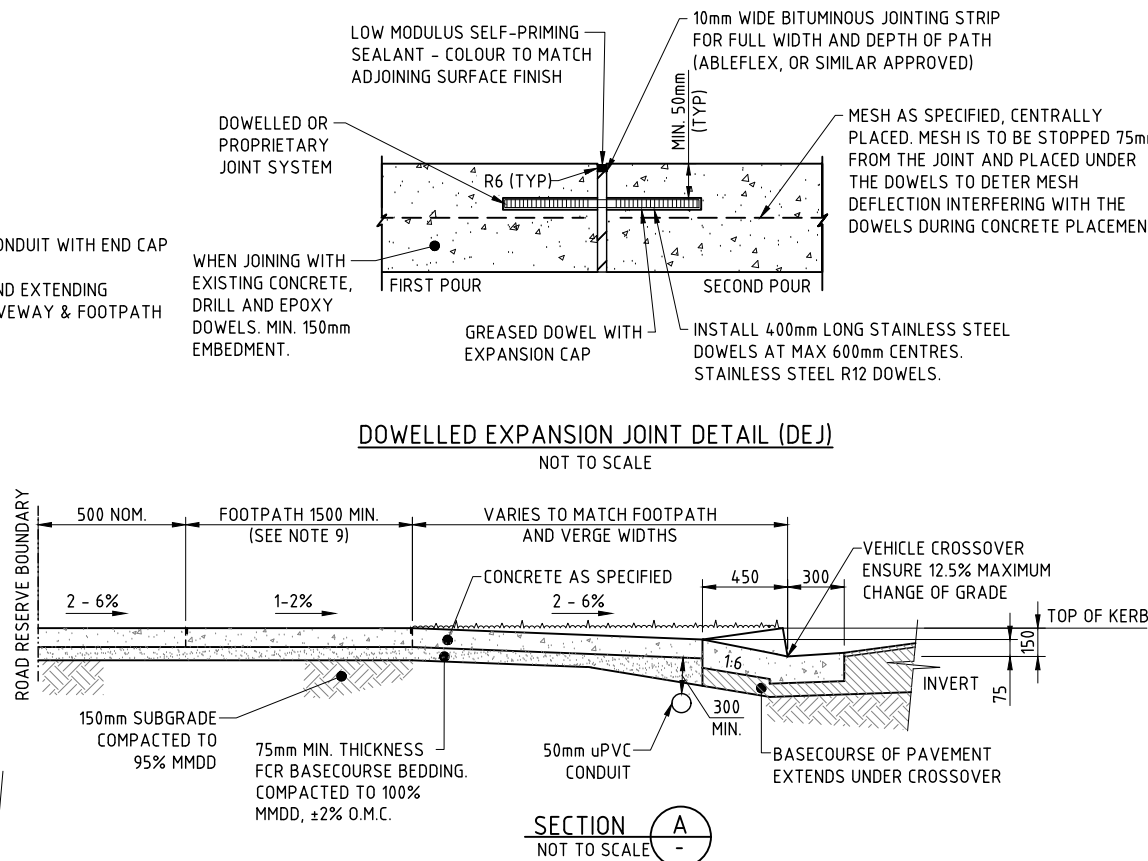
15. SAWCUT JOINTS SHOULD BE UNDERTAKEN BETWEEN 4 HOURS TO 12 HOURS AFTER LAYING CONCRETE, DEPENDING ON CONDITIONS. JOINT SEALANT IS REQUIRED IN SANDY AREAS.



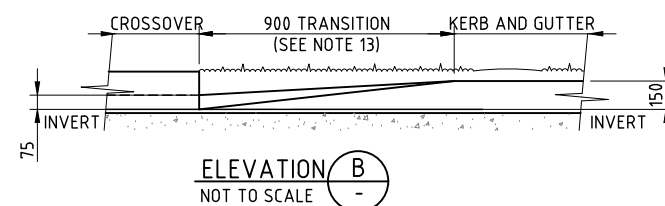
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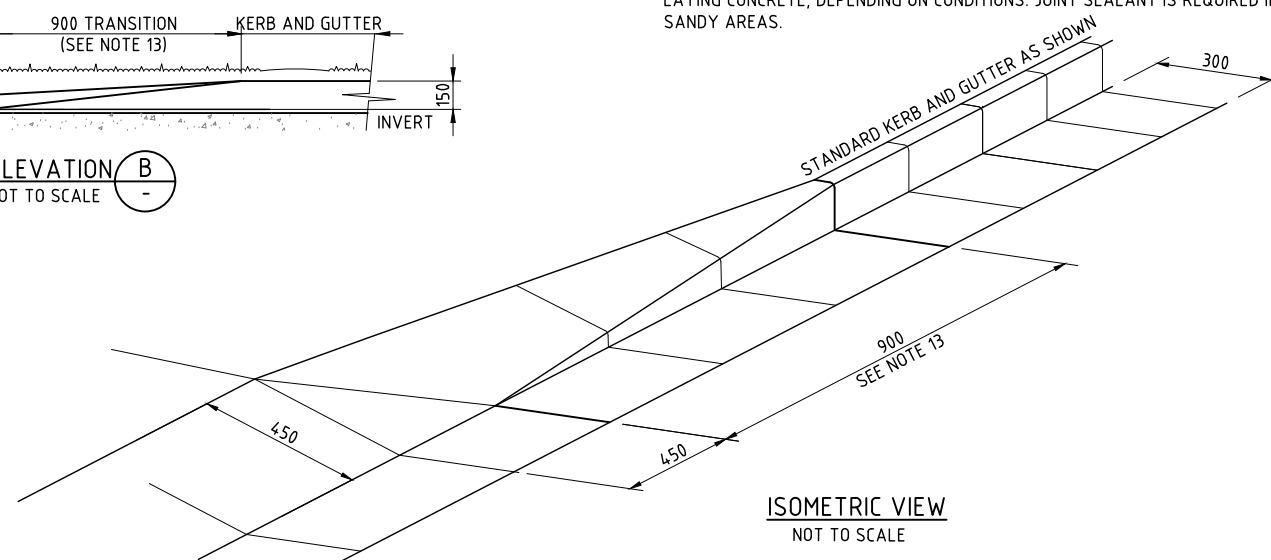
2. NON - RESIDENTIAL  
NOT TO SCALE



SECTION A  
NOT TO SCALE -



ELEVATION (B)  
NOT TO SCALE (-)



ISOMETRIC VIEW  
NOT TO SCALE

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Design Project Leader	NTG Project Manager
SPB	N/A
Date: AUGUST 2020	Date: AUGUST 2020



## SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS

### STREETS AND PATHWAYS

## VEHICLE ACCESS - CAT A

### TYPICAL DETAILS

NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment	
-	-	1 OF 1	SS1006	1	A1



LEGEND:

- 10mm SINGLE COAT SPRAY SEAL (S10E) SHOULDER.
- 3% CEMENT (BY MASS) STABILIZED FILL, 150mm THICKNESS.
- CONCRETE FOOTPATH (REFER SS1009)
- VEHICLE ACCESS TO BE EITHER CONCRETE OR SEALED AS PER TABLE 1.
- CONCRETE INVERT. REFER DETAIL.

NOTES:

- ALL WORK MUST COMPLY WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
- DETAIL SHOWN FOR SINGLE VEHICLE ACCESS. DUAL ACCESS SHALL BE CONSTRUCTED EQUAL ABOUT PROPERTY BOUNDARY. 4m OFFSET SHOWN IS TYPICAL U.N.O. REFER PROJECT DRAWINGS FOR ALTERNATIVE SET OUT DETAILS AS APPLICABLE
- ESTABLISH INVERT ON A COMPACTED SUBGRADE AND MATCH TO TABLE DRAIN INVERT LEVELS AND GRADES (MIN. 0.5%)
- UPSTREAM AND DOWNSTREAM PROTECTION WORKS MAY BE REQUIRED - EACH SITE SHALL BE INDIVIDUALLY ASSESSED.
- WHERE SPRAY SEAL SURFACE ABUTS CONCRETE DRIVEWAY, PROVIDE 100mm SPRAY SEAL OVERLAP OF CONCRETE DRIVEWAY.
- WHERE CONCRETE FOOTPATH ABUTS CONCRETE DRIVEWAY, PROVIDE DOWELLED EXPANSION JOINT AS PER SS1006.
- IN THE EVENT THE ACCESS IS LOCATED OFF AN EXISTING SEALED ROAD THEN:
  - PROVIDE A SAWCUT INTO SOUND UNCONTAMINATED PAVEMENT MATERIAL.
  - LAP TOPMOST COAT OF SEAL 100mm OVER SAWCUT.
  - ENSURE THE JOINT IS A SMOOTH TRANSITION OVER THE EXISTING SEAL WITHOUT FORMING INVERTS OR CRESTS.
- DRIVEWAYS MUST MEET SIGHT DISTANCE CRITERIA FOR BOTH ENTRY AND EXIT IN ACCORDANCE WITH AS2890.1 AND BE LOCATED WITH THE FOLLOWING MINIMUM SETBACKS/CLEARANCES AND PROVIDE ADEQUATE SIGHT DISTANCES IN ACCORDANCE WITH AUSTRROADS GUIDELINES:
  - 500mm FROM STREET SIGNS
  - 600mm FROM ANY STORMWATER DRAINAGE PIT
  - 1000mm FROM OVERHEAD POWER/STREET LIGHT POLES
  - 1200mm CLEAR OF SERVICE PITS, PILLARS, VALVE BOXES ETC.
  - 6m FROM THE TANGENT POINT OF ANY INTERSECTIONS.

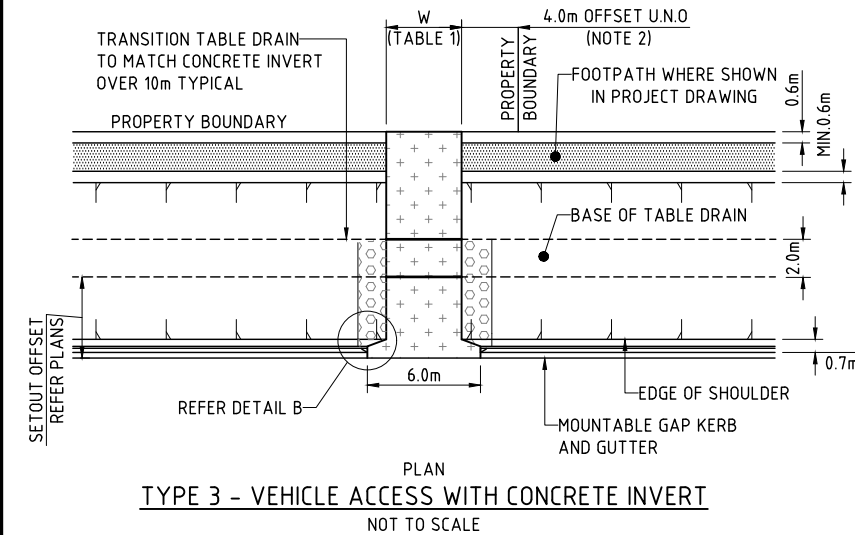
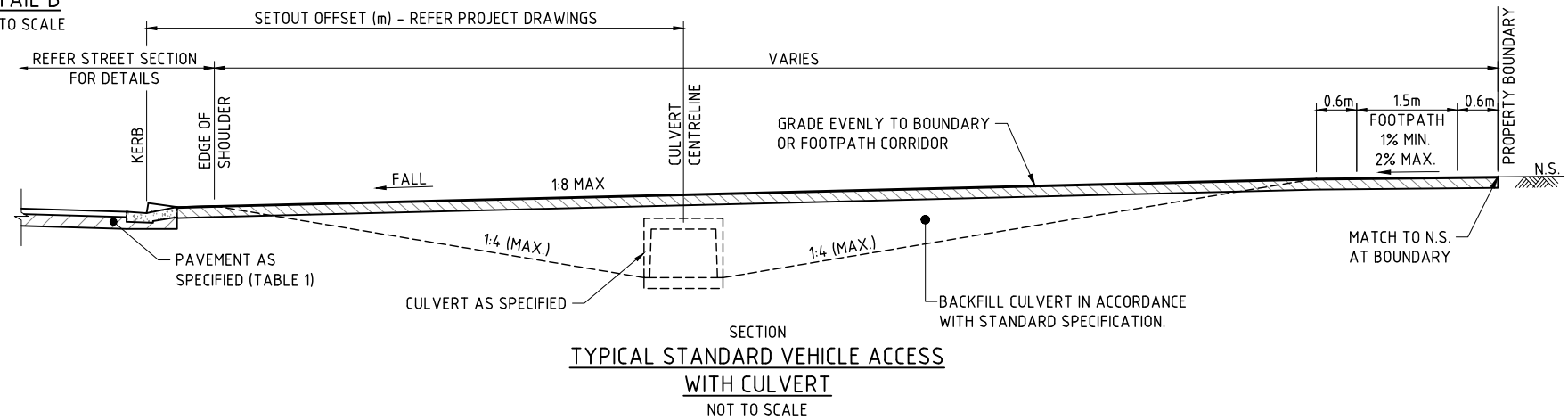
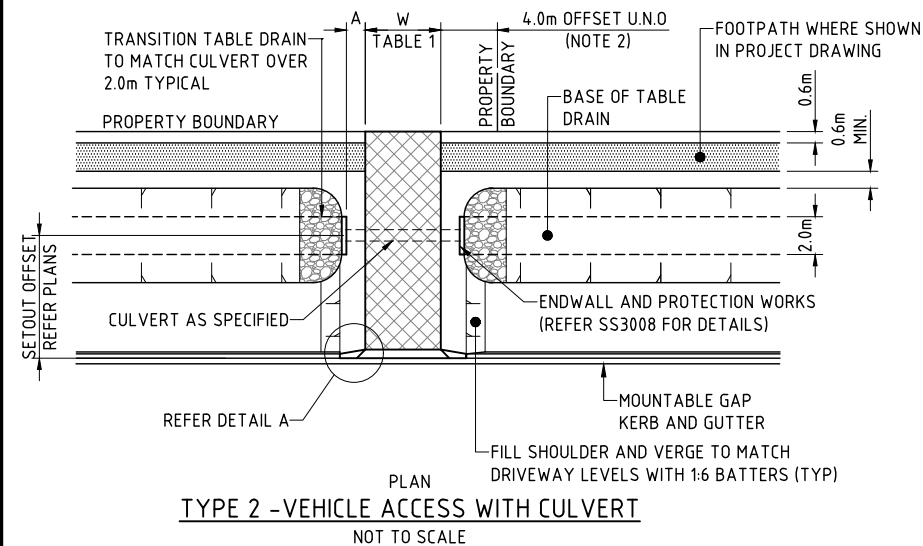
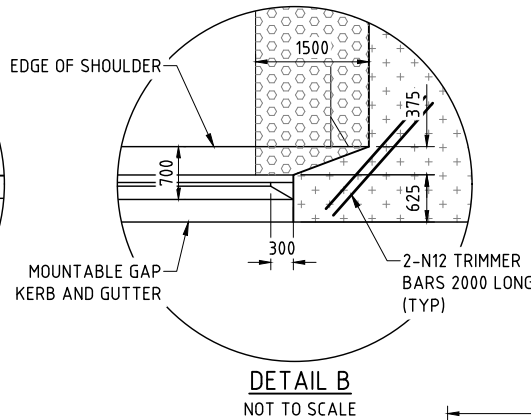
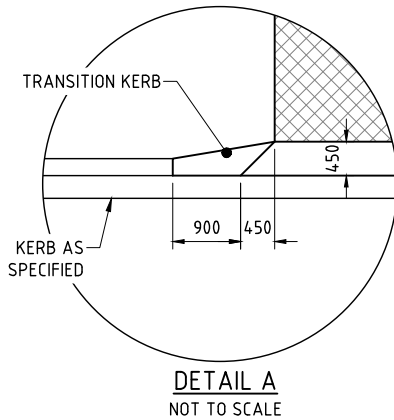
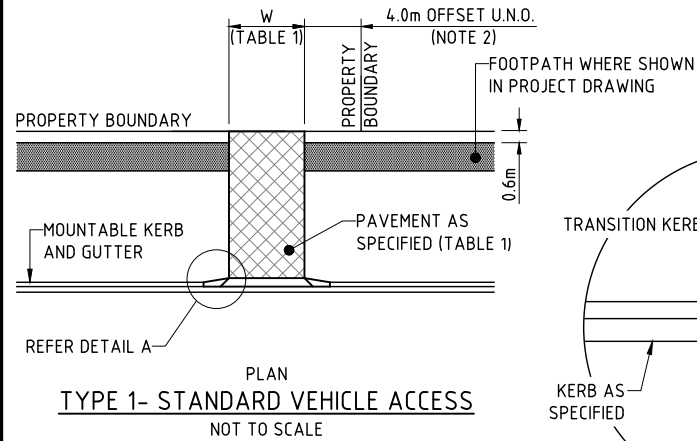
- CONCRETE WORKS MUST GENERALLY COMPLY WITH AS3600 AND AS1379.
- CONCRETE TO BE MINIMUM N32/20/80 UNO. CONCRETE DESIGN IS TYPICALLY BASED ON B1 EXPOSURE CLASSIFICATION, WITH MINIMUM REQUIRED COVER TO REINFORCEMENT OF 40mm IN ACCORDANCE WITH AS3600.

FOR OTHER EXPOSURE CLASSIFICATIONS, COMPLY WITH AS3600 AND THE FOLLOWING MINIMUM STRENGTH AND COVER REQUIREMENTS:

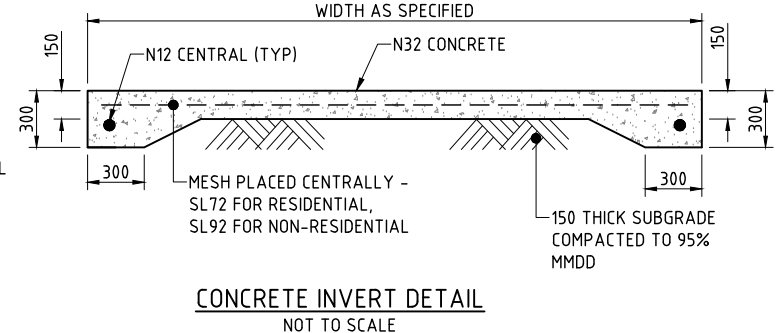
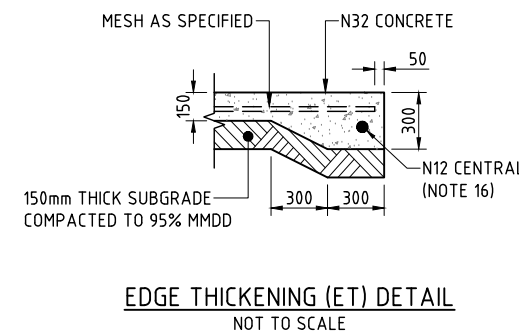
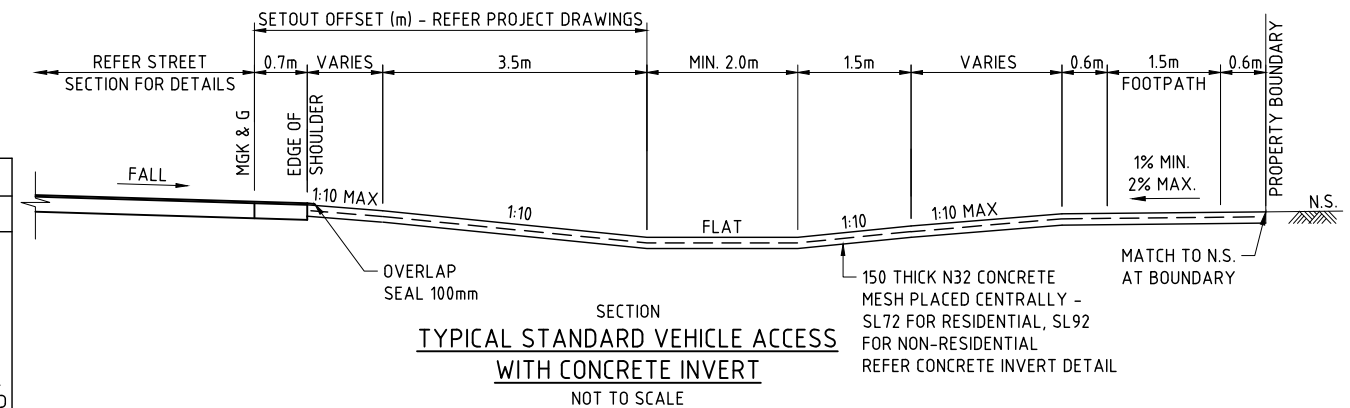
EXPOSURE CLASSIFICATION	CHARACTERISTIC STRENGTH (MPa)	REQUIRED COVER (mm)
A1, A2	N25/20/80	30mm
B1	N32/20/80	40mm
B2	N40/20/80	45mm
C1	N50/20/80	50mm
C2	N50/20/80	65mm

TABLE NOTE: EXPOSURE CLASSIFICATIONS B2, C1 AND C2 MAY TRIGGER INCREASED CONCRETE THICKNESSES TO ACHIEVE MINIMUM COVER REQUIREMENTS.

- PROVIDE CONTRACTION JOINTS AT MAX 5m CENTRES AND ANY CHANGES IN SHAPE AND DIRECTION. PROVIDE DOWELED EXPANSION JOINTS AT MAX 15m CENTRES. EACH CONCRETE PANEL MUST HAVE A MAXIMUM WIDTH TO LENGTH RATIO OF 1:1.5. REFER SS1006 FOR JOINT DETAILS.
- CONSTRUCTION JOINTS ARE REQUIRED FOR PLANNED INTERRUPTIONS. ROUGHEN AND CLEAN FACE OF HARD CONCRETE, REMOVE FOREIGN MATERIAL.
- MOISTEN BASECOURSE/SUBGRADE PRIOR TO CASTING CONCRETE.
- THE CONCRETE MUST BE STEEL TROWELLED FOLLOWED BY A MOIST HAIR BROOM. THE FINAL SURFACE MUST BE NON-SLIP WITH A MINIMUM TEXTURED SURFACE OF 2mm.
- CONCRETE TO BE MOIST CURED FOR A LEAST 48 HOURS AFTER CONCRETE POUR.
- BENT MESH MAY BE USED IN LIEU OF N12 BAR WITHIN EDGE THICKENINGS.
- ENSURE GROUND CLEARANCE CHECKS ARE COMPLETED IN ACCORDANCE WITH AS2890 TO CONFIRM ACCESS IS COMPLIANT FOR REQUIRED DESIGN VEHICLES.



ACCESS TYPE	W (m)	A (m)	CULVERT CONFIGURATION	PAVEMENT
RESIDENTIAL (SINGLE)	4.0m	0.240m	2x FULL LENGTH	PRIME AND 14mm SINGLE COAT SEAL (S10E) 150mm THICK COMPACTED GRAVEL ON 150mm THICK COMPACTED SUBGRADE MIN CBR 15
RESIDENTIAL (MULTI-DWELLING)	6.0m	0.472m	3x FULL LENGTH	
RESIDENTIAL (DUAL)	8.0m	0.705m	4x FULL LENGTH	
		0.082m	3x FULL LENGTH AND 1x HALF LENGTH CULVERT	PROVIDE 150mm N32 CONCRETE SL92 MESH CENTRAL, WITH EDGE THICKENING ALL-ROUND ON 75 MIN BASECOURSE BEDDING COMPACTED TO 100% MMDD, ON 150mm SUBGRADE COMPACTED TO 95% MMDD
NON-RESIDENTIAL (SINGLE)	6.0m	0.472 m	3x FULL LENGTH	
NON-RESIDENTIAL (DUAL)	12.0m	1.17m	6x FULL LENGTH	
		0.547m	5 FULL LENGTH AND 1x HALF LENGTH CULVERT	



1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE
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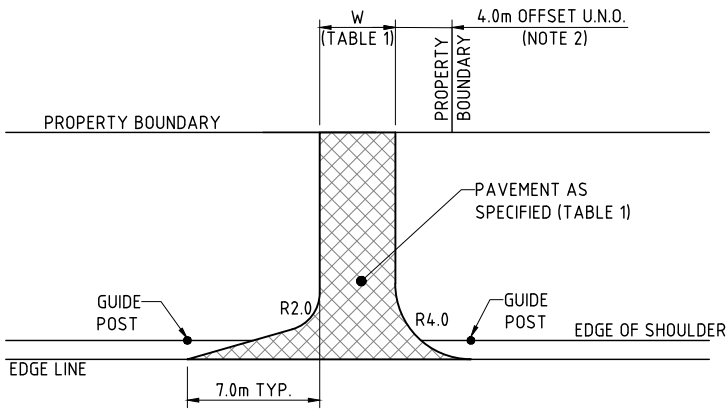
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Date:	AUGUST 2020	Date:	AUGUST 2020
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	Design Project Leader		NTG Project Manager
	SPB		N/A
Date:	AUGUST 2020	Date:	AUGUST 2020



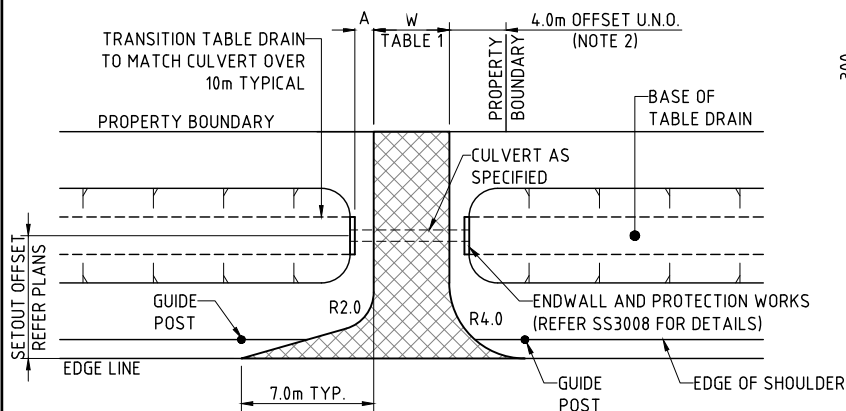
SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS  
STREETS AND PATHWAYS

VEHICLE ACCESS - CAT B  
TYPICAL DETAILS

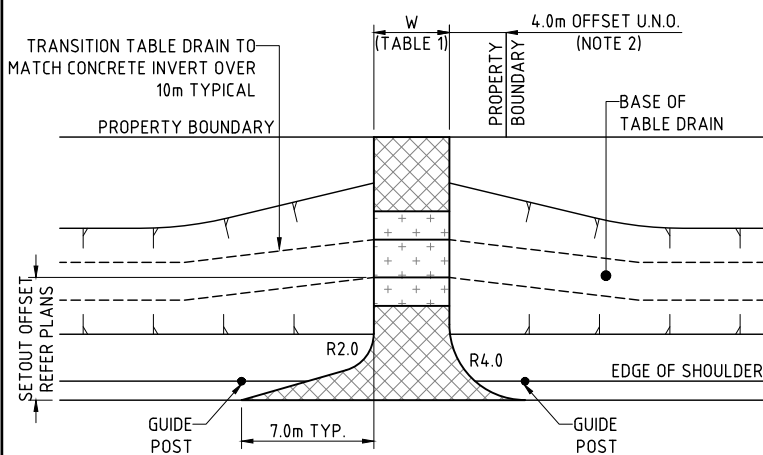
NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	1 OF 1	SS1007	1



PLAN  
TYPE 1- STANDARD  
VEHICLE ACCESS  
NOT TO SCALE



PLAN  
TYPE 2 - VEHICLE  
ACCESS WITH CULVERT  
NOT TO SCALE

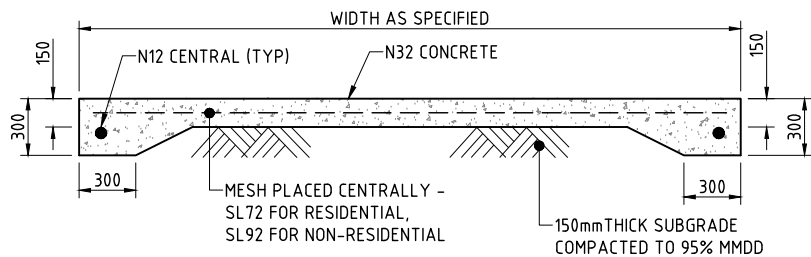


PLAN  
TYPE 3 - VEHICLE ACCESS WITH  
CONCRETE INVERT  
NOT TO SCALE

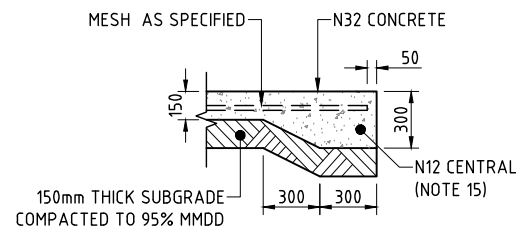
#### LEGEND:

- VEHICLE ACCESS TO BE EITHER CONCRETE OR SEALED AS PER TABLE 1.
- CONCRETE INVERT. REFER DETAIL.

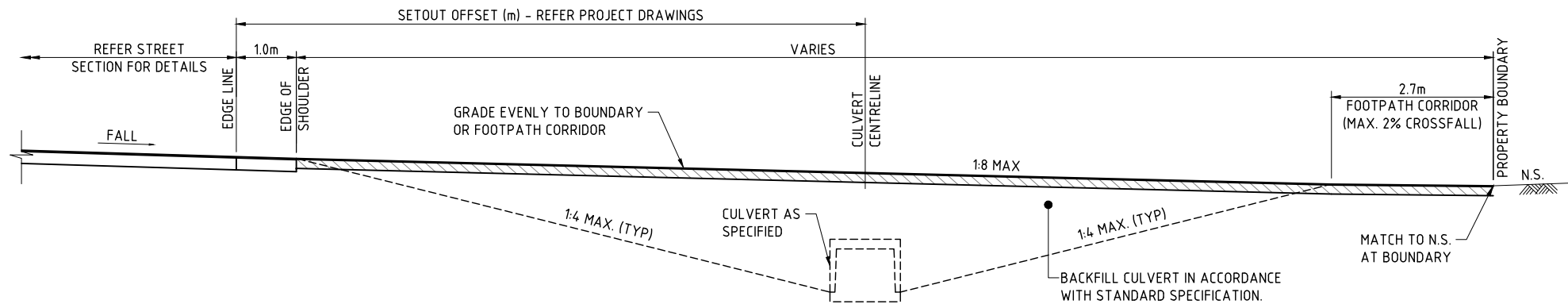
TABLE 1 - ACCESS PAVEMENT DETAIL				
ACCESS TYPE	W (m)	A (m)	CULVERT CONFIGURATION	PAVEMENT
RESIDENTIAL (SINGLE)	4.0m	0.240m	2x FULL LENGTH	PRIME AND 14mm SINGLE COAT SEAL (S10E) 150mm THICK COMPACTED GRAVEL ON 150mm THICK COMPACTED SUBGRADE MIN CBR 15
RESIDENTIAL (MULTI-DWELLING)	6.0m	0.472m	3x FULL LENGTH	
RESIDENTIAL (DUAL)	8.0m	0.705m	4x FULL LENGTH	
NON-RESIDENTIAL (SINGLE)	6.0m	0.472 m	3x FULL LENGTH	PROVIDE 150mm N32 CONCRETE SL92 MESH CENTRAL, WITH EDGE THICKENING ALL-ROUND ON 75 MIN BASECOURSE BEDDING COMPACTED TO 100% MMDD, ON 150mm SUBGRADE COMPACTED TO 95% MMDD
NON-RESIDENTIAL (DUAL)	12.0m	1.17m	6x FULL LENGTH	
		0.547m	5 FULL LENGTH AND 1x HALF LENGTH CULVERT	



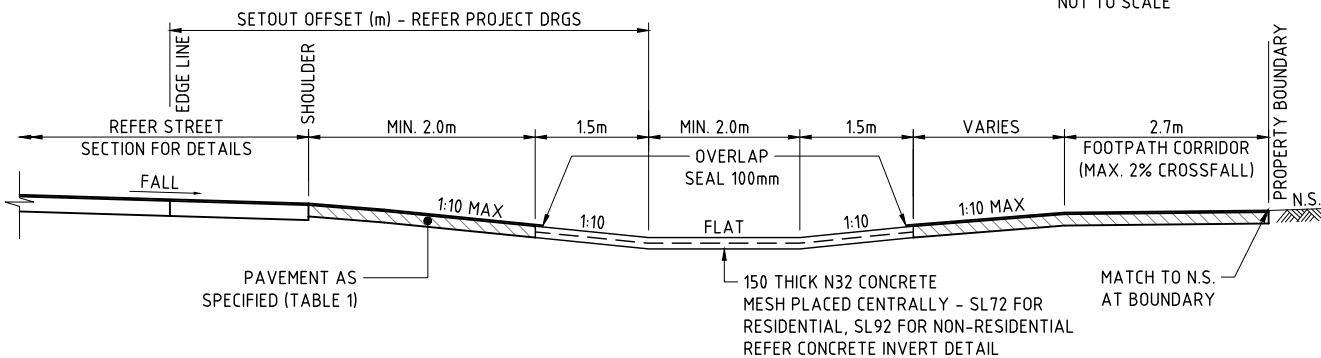
CONCRETE INVERT DETAIL  
NOT TO SCALE



EDGE THICKENING (ET) DETAIL  
NOT TO SCALE



SECTION  
TYPICAL STANDARD VEHICLE ACCESS WITH CULVERT  
NOT TO SCALE



SECTION  
TYPICAL STANDARD VEHICLE ACCESS  
WITH CONCRETE INVERT  
NOT TO SCALE

#### NOTES:

- ALL WORK MUST COMPLY WITH THE STANDARD SPECIFICATION FOR SUBDIVISION ALONG WITH PROJECT SPECIFIED AMENDMENTS.
- DETAIL SHOWN FOR SINGLE VEHICLE ACCESS DUAL, ACCESS SHALL BE CONSTRUCTED EQUAL ABOUT PROPERTY BOUNDARY. 4m OFFSET SHOWN IS TYPICAL U.N.O. REFER PROJECT DRAWINGS FOR ALTERNATIVE SET OUT DETAILS AS APPLICABLE
- ESTABLISH INVERT ON A COMPACTED SUBGRADE AND MATCH TO TABLE DRAIN INVERT LEVELS, AND GRADES. (MIN 0.5%)
- UPSTREAM AND DOWNSTREAM PROTECTION WORKS MAY BE REQUIRED - EACH SITE SHALL BE INDIVIDUALLY ASSESSED.
- PROPERTY ACCESSES ADJACENT AN UNSEALED ROAD MAY BE UNSEALED.
- IN THE EVENT THE ACCESS IS LOCATED OFF AN EXISTING SEALED ROAD THEN:
  - PROVIDE A SAWCUT INTO SOUND UNCONTAMINATED PAVEMENT MATERIAL.
  - LAP TOPMOST COAT OF SEAL 100mm OVER SAWCUT.
  - ENSURE THE JOINT IS A SMOOTH TRANSITION OVER THE EXISTING SEAL WITHOUT FORMING INVERTS OR CRESTS.
- DRIVEWAYS MUST MEET SIGHT DISTANCE CRITERIA FOR BOTH ENTRY AND EXIT IN ACCORDANCE WITH AS2890.1 AND BE LOCATED WITH THE FOLLOWING MINIMUM SETBACKS/CLEARANCES AND PROVIDE ADEQUATE SIGHT DISTANCES IN ACCORDANCE WITH AUSTRROADS GUIDELINES:
  - 500mm FROM STREET SIGNS
  - 600mm FROM ANY STORMWATER DRAINAGE PIT
  - 1000mm FROM OVERHEAD POWER/STREET LIGHT POLES
  - 1200mm CLEAR OF SERVICE PITS, PILLARS, VALVE BOXES ETC.
  - 6m FROM THE TANGENT POINT OF ANY INTERSECTIONS.
- CONCRETE WORKS MUST GENERALLY COMPLY WITH AS3600 AND AS1379.
- CONCRETE TO BE MINIMUM N32/20/80 UNO. CONCRETE DESIGN IS TYPICALLY BASED ON B1 EXPOSURE CLASSIFICATION, WITH MINIMUM REQUIRED COVER TO REINFORCEMENT OF 40mm IN ACCORDANCE WITH AS3600.

FOR OTHER EXPOSURE CLASSIFICATIONS, COMPLY WITH AS3600 AND THE FOLLOWING MINIMUM STRENGTH AND COVER REQUIREMENTS:

EXPOSURE CLASSIFICATION	CHARACTERISTIC STRENGTH (MPa)	REQUIRED COVER (mm)
A1, A2	N25/20/80	30mm
B1	N32/20/80	40mm
B2	N40/20/80	45mm
C1	N50/20/80	50mm
C2	N50/20/80	65mm

TABLE NOTE: EXPOSURE CLASSIFICATIONS B2, C1 AND C2 MAY TRIGGER INCREASED CONCRETE THICKNESSES TO ACHIEVE MINIMUM COVER REQUIREMENTS.

#### NOTES (CONT.):

- PROVIDE CONTRACTION JOINTS AT MAX 5m CENTERS AND ANY CHANGES IN SHAPE AND DIRECTION. PROVIDE DOWELED EXPANSION JOINTS AT MAX 15m CENTERS. EACH CONCRETE PANEL MUST HAVE A MAXIMUM WIDTH TO LENGTH RATIO OF 1:1.5. REFER SS1006 FOR JOINT DETAILS.
- CONSTRUCTION JOINTS ARE REQUIRED FOR PLANNED INTERRUPTIONS. ROUGHEN AND CLEAN FACE OF HARD CONCRETE, REMOVE FOREIGN MATERIAL.
- MOISTEN BASECOURSE/SUBGRADE PRIOR TO CASTING CONCRETE.
- THE CONCRETE MUST BE STEEL TROWELLED FOLLOWED BY A MOIST HAIR BROOM. THE FINAL SURFACE MUST BE NON-SLIP WITH A MINIMUM TEXTURED SURFACE OF 2mm.
- CONCRETE TO BE MOIST CURED FOR AT LEAST 48 HOURS AFTER CONCRETE POUR.
- BENT MESH MAY BE USED IN LIEU OF N12 BAR WITHIN EDGE THICKENINGS.
- ENSURE GROUND CLEARANCE CHECKS ARE COMPLETED IN ACCORDANCE WITH AS2890 TO CONFIRM ACCESS IS COMPLIANT FOR REQUIRED DESIGN VEHICLES.

1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE
0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE
No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY

Drawn	KS	Checked	PB
Date:	AUGUST 2020	Date:	AUGUST 2020
Designed	PB	Checked	SPB
Date:	AUGUST 2020	Date:	AUGUST 2020
	Design Project Leader		NTG Project Manager
	SPB		N/A
Date:	AUGUST 2020	Date:	AUGUST 2020

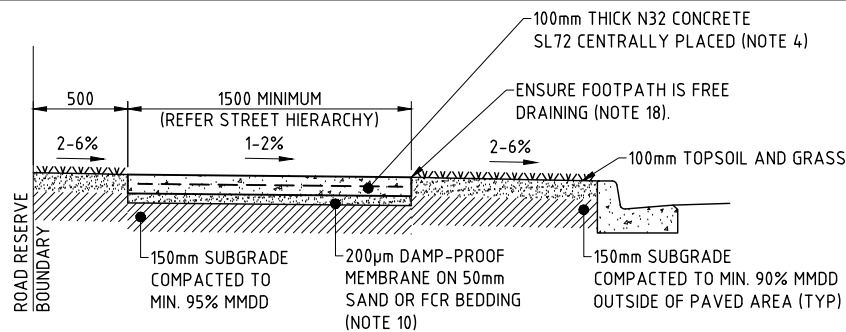


#### SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS STREETS AND PATHWAYS

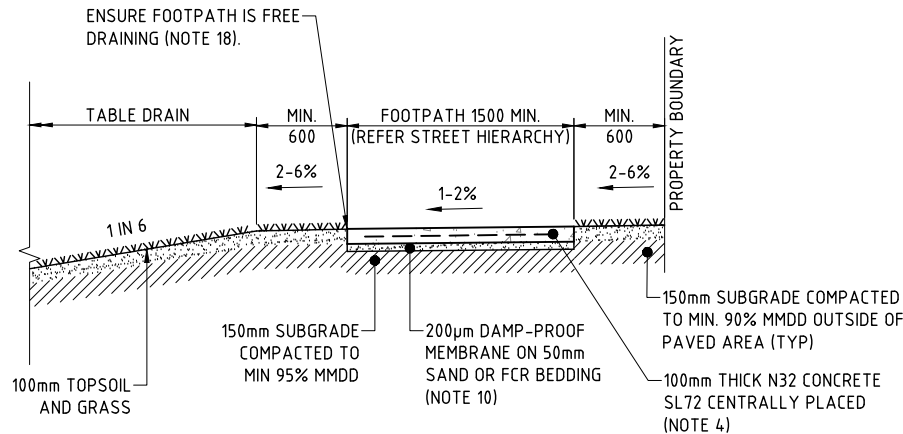
#### VEHICLE ACCESS - CAT C TO E TYPICAL DETAILS

NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	1 OF 1	SS1008	1

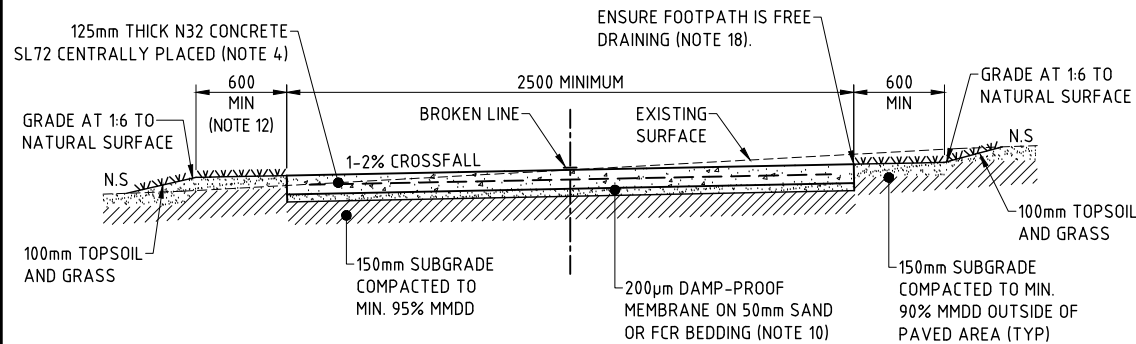




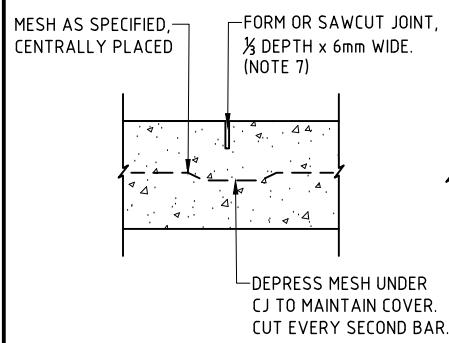
TYPICAL FOOTPATH SECTION - BEHIND KERB (NOTE 11)  
NOT TO SCALE



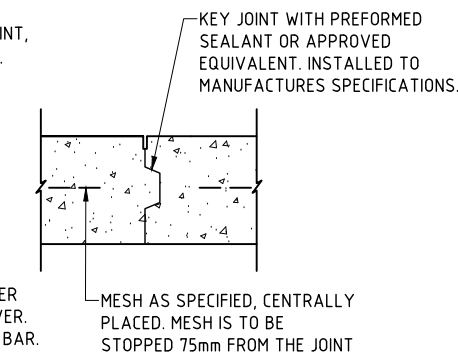
TYPICAL FOOTPATH SECTION - BEHIND TABLE DRAIN (NOTE 11)  
NOT TO SCALE



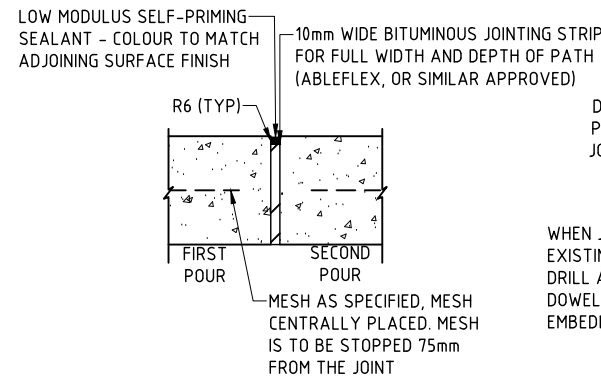
TYPICAL SHARED PATH SECTION  
NOT TO SCALE



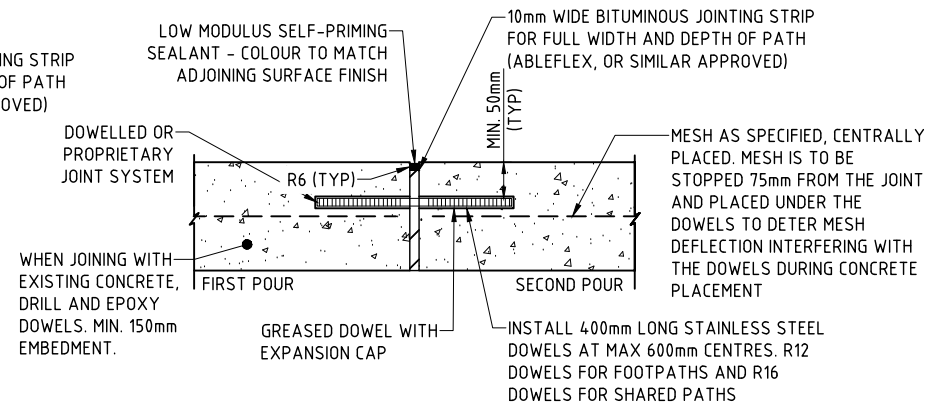
CONTRACTION JOINT (CJ)  
NOT TO SCALE



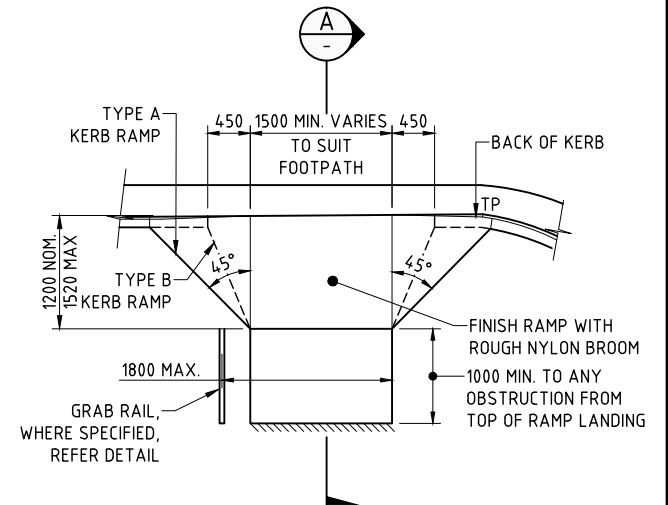
KEYED EXPANSION JOINT (KEJ)  
NOT TO SCALE



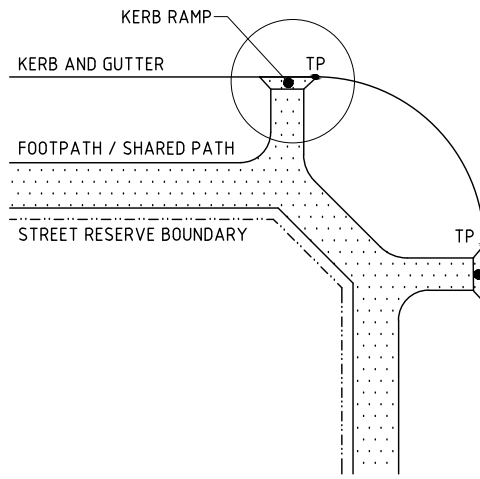
TYPICAL ISOLATION JOINT (IJ) DETAIL  
NOT TO SCALE



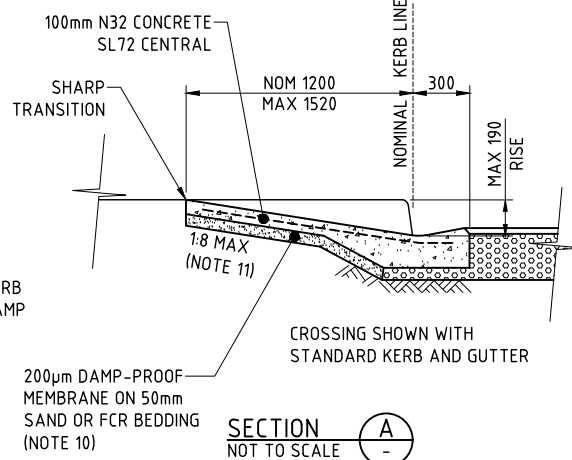
DOWELLED EXPANSION JOINT DETAIL (DEJ)  
NOT TO SCALE



PLAN OF KERB RAMP (NOTE 13)  
NOT TO SCALE



KERB RAMP PREFERABLE LOCATIONS  
NOT TO SCALE



SECTION A  
NOT TO SCALE

## GENERAL NOTES:

- ALL WORK MUST COMPLY WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- CONCRETE WORKS MUST COMPLY WITH AS3600 AND AS1379.
- CONCRETE TO BE MINIMUM N32/20/80 UNO. CONCRETE DESIGN IS TYPICALLY BASED ON B1 EXPOSURE CLASSIFICATION, WITH MINIMUM REQUIRED COVER TO REINFORCEMENT OF 40mm IN ACCORDANCE WITH AS3600.

FOR OTHER EXPOSURE CLASSIFICATIONS, COMPLY WITH AS3600 AND THE FOLLOWING MINIMUM STRENGTH AND COVER REQUIREMENTS:

EXPOSURE CLASSIFICATION	CHARACTERISTIC STRENGTH (MPa)	REQUIRED COVER (mm)
A1, A2	N25/20/80	30mm
B1	N32/20/80	40mm
B2	N40/20/80	45mm
C1	N50/20/80	50mm
C2	N50/20/80	65mm

TABLE NOTE: EXPOSURE CLASSIFICATIONS B2, C1 AND C2 MAY TRIGGER INCREASED CONCRETE THICKNESSES TO ACHIEVE MINIMUM COVER REQUIREMENTS.

- CONCRETE TO BE MOIST CURED FOR AT LEAST 48 HOURS AFTER CONCRETE POUR.
- NO LONGITUDINAL JOINTS IN PATHS. TRANSVERSE JOINTS MUST BE PROVIDED AS FOLLOWS:
  - CONTRACTION JOINTS (CJ) AT MAX 2m CENTERS, AND ALL CHANGES IN SHAPE AND DIRECTION.
  - EXPANSION JOINTS (KEJ, OR DEJ) AT MAX 6m CENTERS. CONCRETE THICKNESS MAY NEED TO BE INCREASED WHEN USING DEJs DUE TO RISK OF SPALLING IN THIN SLABS.
- SAWCUT JOINTS SHOULD BE UNDERTAKEN BETWEEN 4 HOURS TO 12 HOURS AFTER LAYING CONCRETE, DEPENDING ON CONDITIONS. JOINT SEALANT IS REQUIRED IN SANDY AREAS.
- CONSTRUCTION JOINTS ARE REQUIRED FOR PLANNED INTERRUPTIONS. ROUGHEN AND CLEAN FACE OF HARDENED CONCRETE, REMOVE LOOSE AND FOREIGN MATERIAL.
- THE CONCRETE PATH MUST BE STEEL TROWELLED FOLLOWED BY A MOIST HAIR BRUSH. THE FINAL SURFACE MUST BE NON-SLIP WITH A MINIMUM TEXTURED SURFACE OF 2mm.
- SAND OR FCR BEDDING MAY BE OMITTED FOR CATEGORY B AND C INFRASTRUCTURE LOCALITIES.
- CROSSFALL IN VERGE ADJACENT TO FOOTPATH TO COMPLY WITH AS1428.1, WHERE APPLICABLE.
- INCREASED CLEARANCE TO BATTERS MAY BE REQUIRED FOR SHARED PATHS PER AUSTRROADS GUIDELINES.
- TYPE A KERB RAMP TO BE USED WHEREVER PAVED SURFACES (PEDESTRIAN CORRIDORS) EXTEND TO BACK OF KERB. TYPE B MAY BE USED WHEREVER PAVED SURFACES (PEDESTRIAN CORRIDORS) EXTEND NO FURTHER THAN TOP OF KERB RAMP LOCATION.
- IF HEIGHT DIFFERENCE BETWEEN KERB INVERT AND LEVEL OF PATH EXCEEDS 150mm, OR LENGTH OF CROSSOVER EXCEEDS 1200mm, THEN GRADE OF CROSSOVER TO BE 1 IN 14. (REFER TO AS1428.1)
- GRAB RAILS TO BE FROM 50mm N.B GALVANISED STEEL PIPE WITH WALL THICKNESS NOT LESS THAN 3mm. ALL JOINTS SHALL BE WELDED & SHARP EDGES GROUND SMOOTH. ALL WELDING SLAG TO BE SHIPPED AWAY AND AREAS OF DAMAGED GALVANISING SHALL BE MADE GOOD WITH AN APPROVED WHITE ZINC RICH PAINT.
- REFLECTIVE TAPE TO BE CLASS 1 TO AS1906.1
- WHERE FOOTPATH IS PROVIDED WITH BLOCK-OUTS FOR SERVICE PIT LIDS (OR SIMILAR), PROVIDE ISOLATION JOINTS (IJ) AROUND SERVICE PIT LID AND N12 TRIMMER BARS AT ALL SERVICE PIT LID CORNERS.
- ALL PATHS MUST BE FREE DRAINING AND NOT CONCENTRATE FLOWS ON OR ALONG THE EDGE OF PATH. FINISH PATHS 0 - 20mm LOWER THAN ADJACENT GROUND ON UPSLOPE SIDE AND 0 - 20mm HIGHER THAN ADJACENT GROUND ON DOWNSLOPE SIDE.

No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY
1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE
0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE

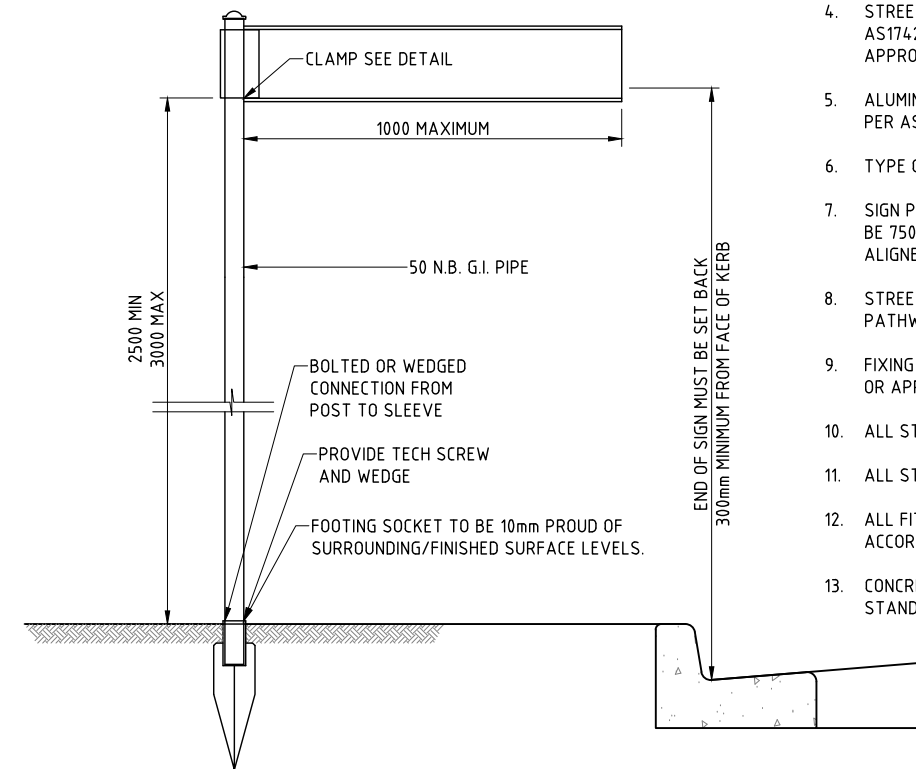
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Date:	AUGUST 2020	Date:	AUGUST 2020
Designed	PB	Checked	SPB
Date:	AUGUST 2020	Date:	AUGUST 2020
Design Project Leader	SPB	NTG Project Manager	N/A
Date:	AUGUST 2020	Date:	AUGUST 2020



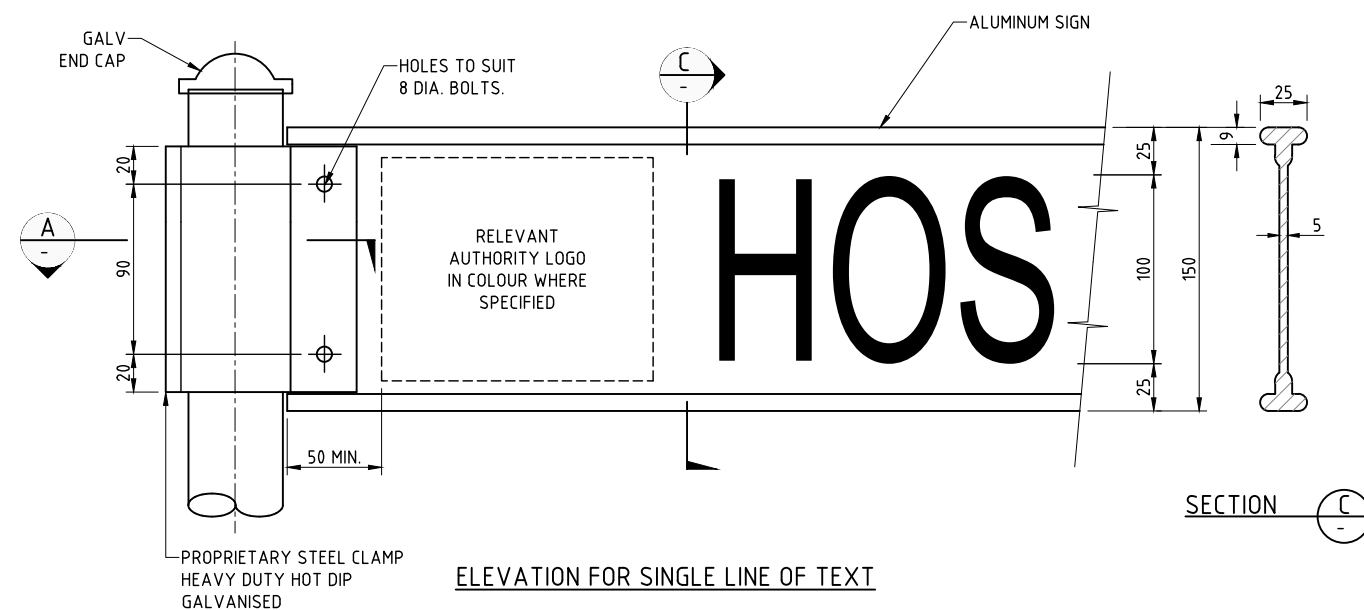
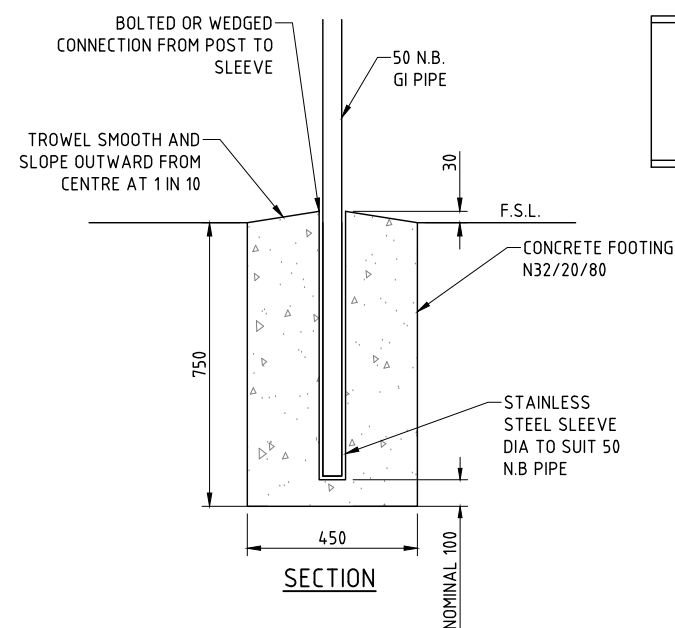
## SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS STREETS AND PATHWAYS

## FOOTPATHS, SHARED PATHS AND KERB RAMPS TYPICAL DETAILS

NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	1 OF 1	SS1009	1



1. ALL WORK MUST BE UNDERTAKEN IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
2. STREET Nos. ARE ONLY REQUIRED WHERE NOMINATED ON PROJECT DRAWINGS OR REQUIRED BY RELEVANT AUTHORITY.
3. ALL STREET NAME SIGN POSTS MUST BE REMOVABLE.
4. STREET NAME SIGN COLORS, LETTER SIZE, LETTER TYPES TO CONFORM TO AS1742.5. SPECIAL DECORATIVE, HERITAGE, OTHER SIGN STYLES SUBJECT TO APPROVAL OF RELEVANT AUTHORITY.
5. ALUMINUM STREET NAME SIGN TO CONSIST OF RETRO-REFLECTIVE MATERIALS AS PER AS1906.1.
6. TYPE OF FOOTING TO BE AGREED WITH RELEVANT AUTHORITY.
7. SIGN POST HEIGHT MUST BE TO AS1742. SETOUT OF STREET NAME SIGN POST TO BE 750mm BEHIND KERB SET OUT LINE OR 2000-4000mm FROM EDGE OF SEAL, ALIGNED WITH PROPERTY BOUNDARY PROJECTION OF MINOR ROAD.
8. STREET NAME SIGN POSTS MUST HAVE MIN 0.5m CLEARANCE FROM ALL PATHWAYS.
9. FIXING TO UTILITY POLES: USE 13mm WIDE 'BAND-IT' STAINLESS STEEL STRAPPING OR APPROVED EQUIVALENT. SUBJECT TO APPROVAL BY SERVICE AUTHORITY.
10. ALL STEEL PIPES MUST BE CLASS 1 TO AS1074.
11. ALL STEEL PLATES MUST BE AS3678.
12. ALL FITTINGS AND POSTS MUST BE HEAVY HOT DIPPED GALVANISED IN ACCORDANCE WITH AS4680.
13. CONCRETE SUPPLY AND PLACEMENT MUST COMPLY WITH AS1379, AS3600 AND STANDARD SPECIFICATION FOR SUBDIVISIONS.



NOT TO SCALE



## STREET SIGNS WITH LOGO

1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE
0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE
No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY

Drawn	Checked
KS	PB
Date: AUGUST 2020	Date: AUGUST 2020
Designed	Checked
PB	SPB
Date: AUGUST 2020	Date: AUGUST 2020
Design Project Leader	NTG Project Manager
SPB	N/A
Date: AUGUST 2020	Date: AUGUST 2020



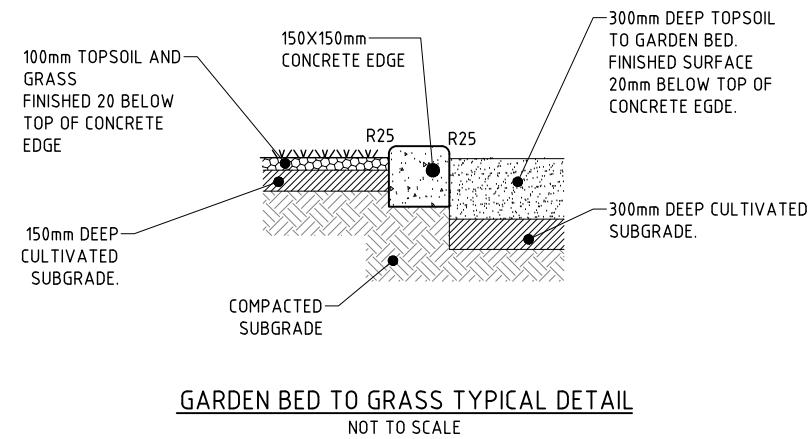
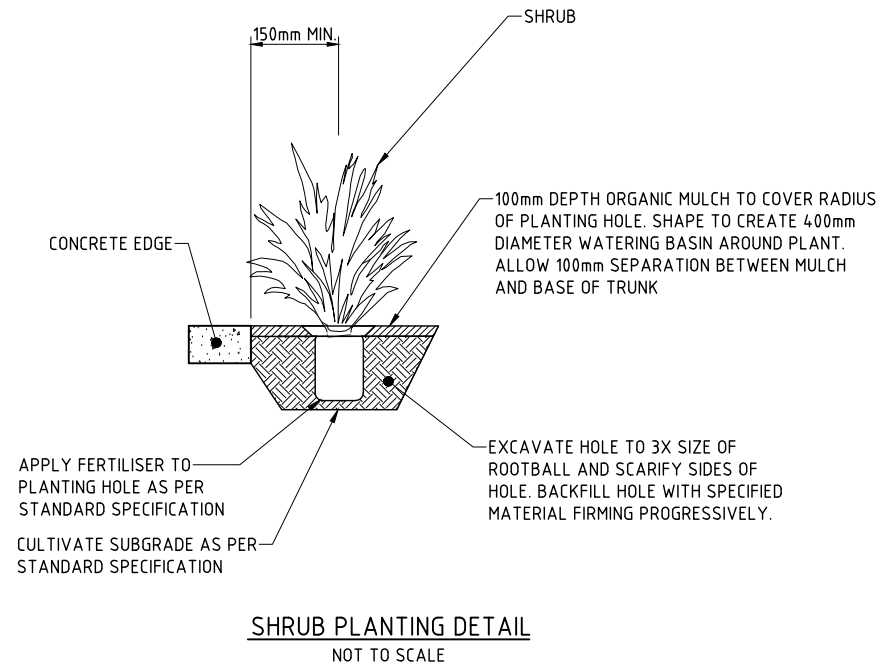
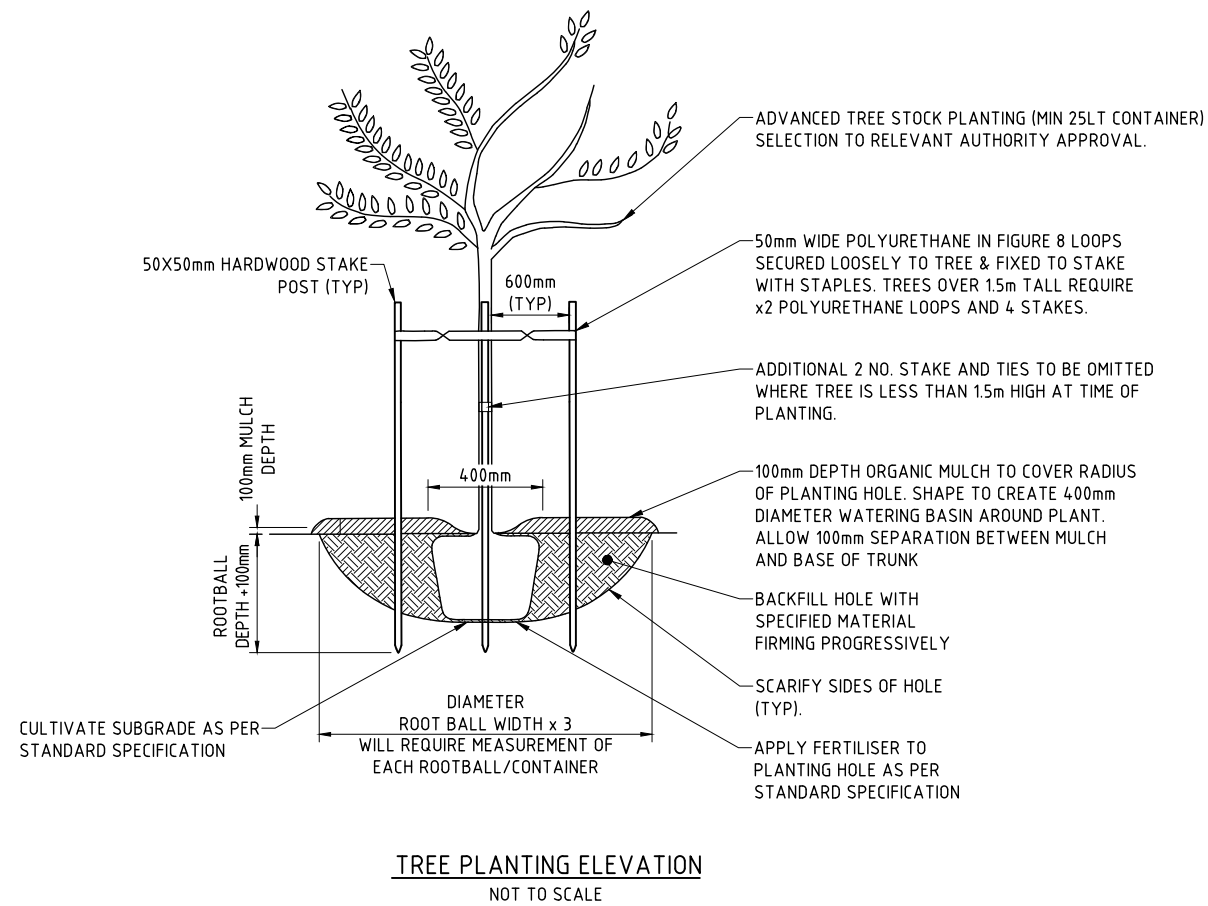
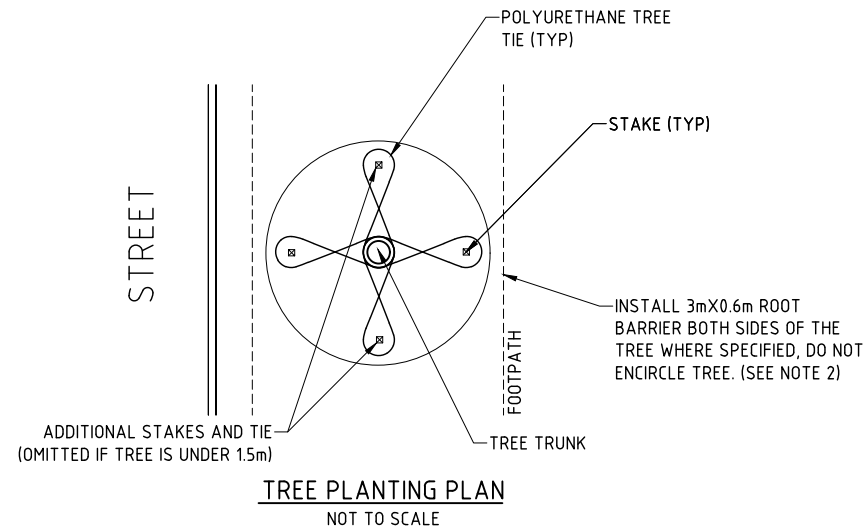
## SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS

### STREETS AND PATHWAYS

## STREET NAME SIGNS TYPICAL DETAILS

NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment	
-	-	1 OF 1	SS1010	1	A1





- NOTES:**
1. ALL WORK MUST BE UNDERTAKEN IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH SPECIFIC AMENDMENTS.
  2. WHERE TREES ARE LOCATED LESS THAN 3m FROM BUILT INFRASTRUCTURE (ROADS, PATHWAYS, SHELTERS, BUILDING ETC.), OR 1m FROM SERVICES, ROOT BARRIERS MUST BE INSTALLED. EXISTING NATIVE TREES MAY REQUIRE GREATER DISTANCES IN ACCORDANCE WITH AS4970.
  3. REFER PROJECT LANDSCAPING AND IRRIGATION DESIGN DRAWINGS FOR FURTHER DETAILS.

No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY
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0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE

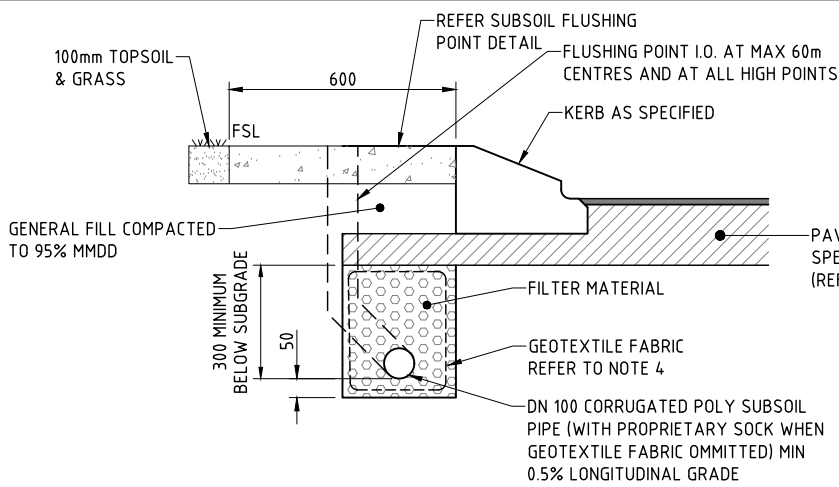
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Design Project Leader	SPB	NTG Project Manager	N/A
Date:	AUGUST 2020	Date:	AUGUST 2020



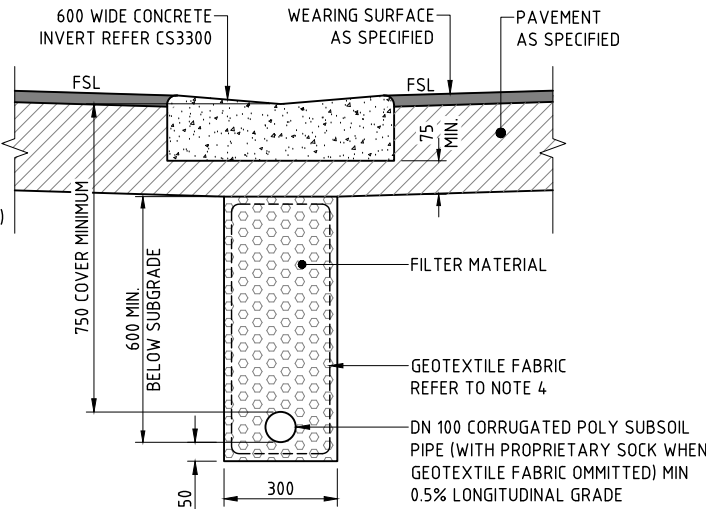
SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS					
PUBLIC OPEN SPACE AND LANDSCAPING					
PLANTING TYPICAL DETAILS					
NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment	
-	-	1 OF 1	SS2000	1	A1

NOTES:

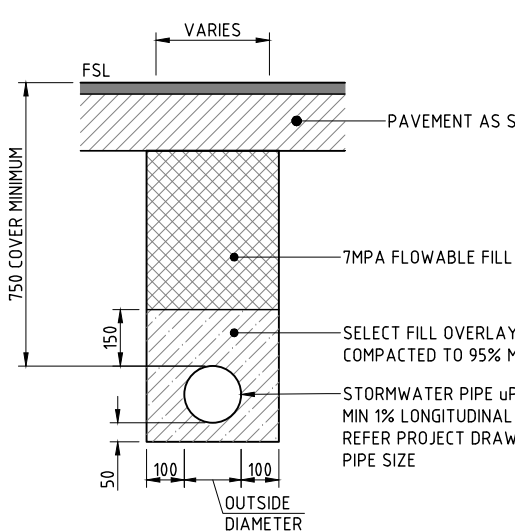
1. ALL WORK MUST BE UNDERTAKEN IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
2. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
3. PROVIDE MINIMUM COVER TO ALL PIPES IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
4. GEOTEXTILE FABRIC TO COMPLY WITH STANDARD SPECIFICATION FOR SUBDIVISIONS. LAY GEOTEXTILE FABRIC CONTINUOUSLY. PROVIDE MINIMUM LAP LENGTHS IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS. GEOTEXTILE FABRIC MAY BE OMITTED IN ROCK, WHERE APPROVED BY CERTIFYING ENGINEER.
5. PROVIDE WEEPHOLE CONNECTIONS TO DEWATER DRAINAGE TRENCH. INSTALL TO UPSTREAM SIDES OF ALL PITS AND HEADWALLS.
6. ALL PVC PIPE JOINTS TO BE SPIGOT AND SOCKET TYPE WITH RUBBER RING JOINT UNLESS OTHERWISE APPROVED BY THE RELEVANT AUTHORITY.
7. LOCATE FLUSHING POINTS AT TOP OF LINE AND MAX. 60m SPACINGS. LOCATE TO AVOID CONFLICT WITH OTHER SERVICES AND LOT ACCESSES.
8. CONCRETE SURROUND MAY BE OMITTED WHERE FLUSHING POINT LOCATED IN CONCRETE PAVEMENT.
9. OUTLET ALL SUBSOILS TO DRAINAGE STRUCTURES GENERALLY. FOR SUBSOIL DRAIN OUTLET TO BATTERS/TABLE DRAINS, REFER DETAIL.
10. EXTEND PAVEMENT BENEATH KERB, 75 MIN. THICKNESS AND 300 BEYOND THE BACK OF KERB.



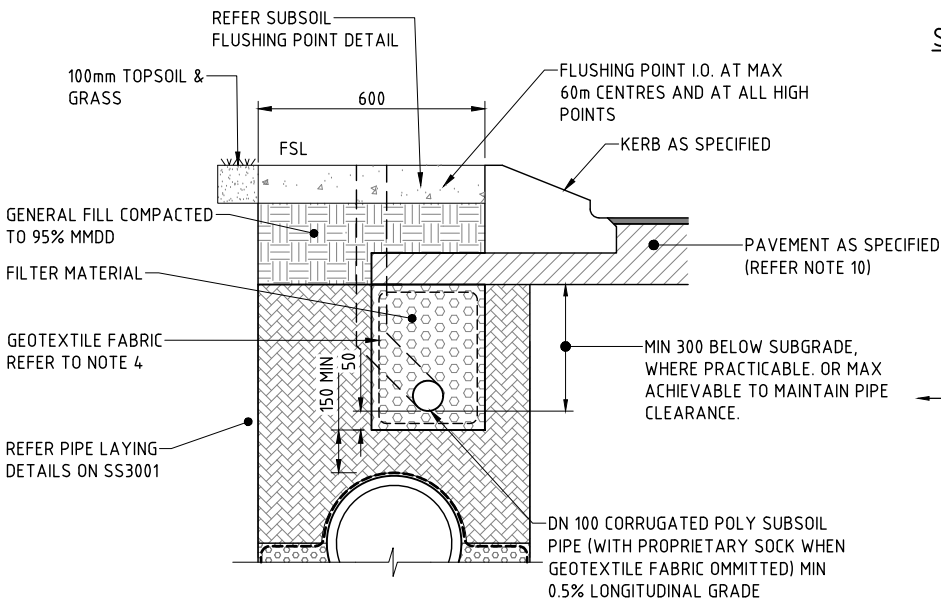
SUBSOIL DRAIN TYPE 1 - BEHIND KERB  
NOT TO SCALE



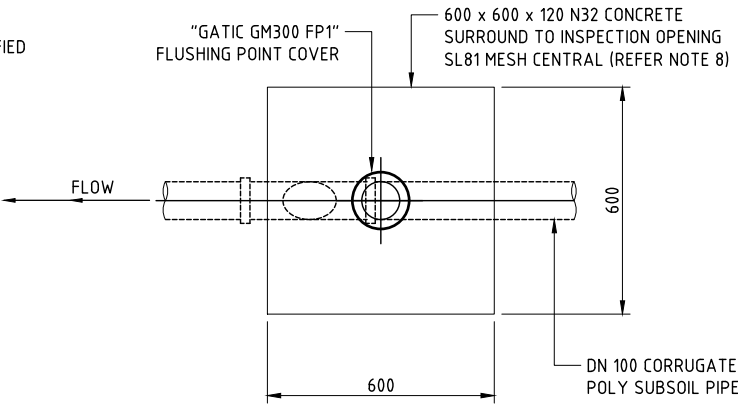
SUBSOIL DRAIN TYPE 3 - BENEATH CONCRETE INVERT  
NOT TO SCALE



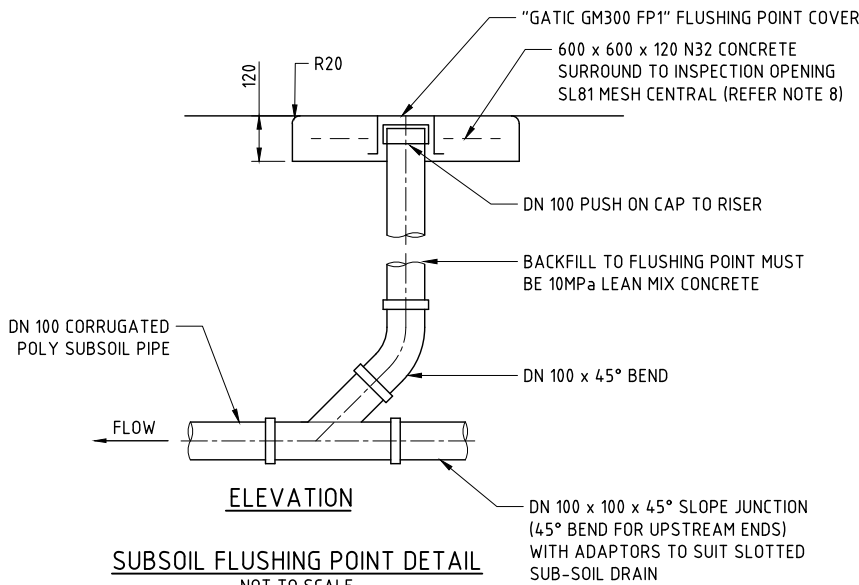
SUBSOIL DRAIN - TYPICAL ROAD CROSSING  
NOT TO SCALE



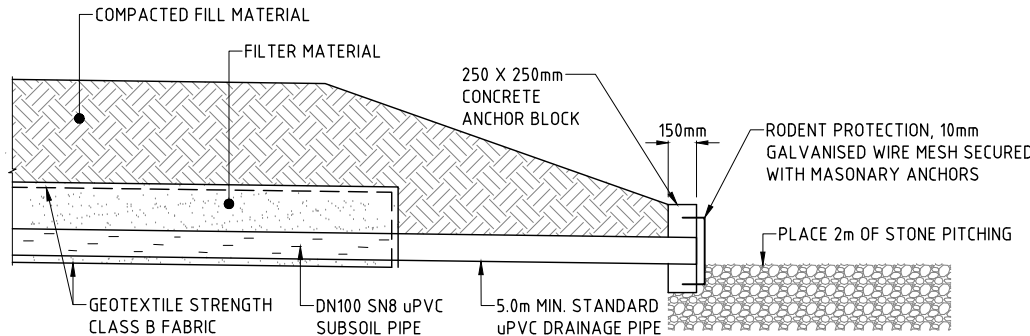
SUBSOIL DRAIN TYPE 2 - BEHIND KERB IN COMMON TRENCH  
NOT TO SCALE



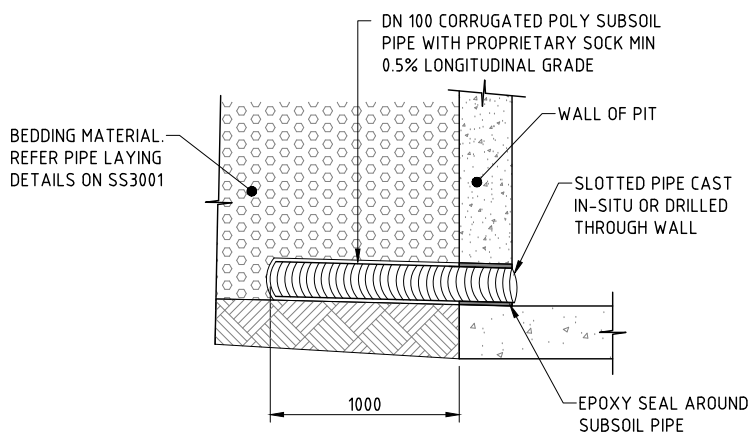
PLAN



SUBSOIL FLUSHING POINT DETAIL  
NOT TO SCALE

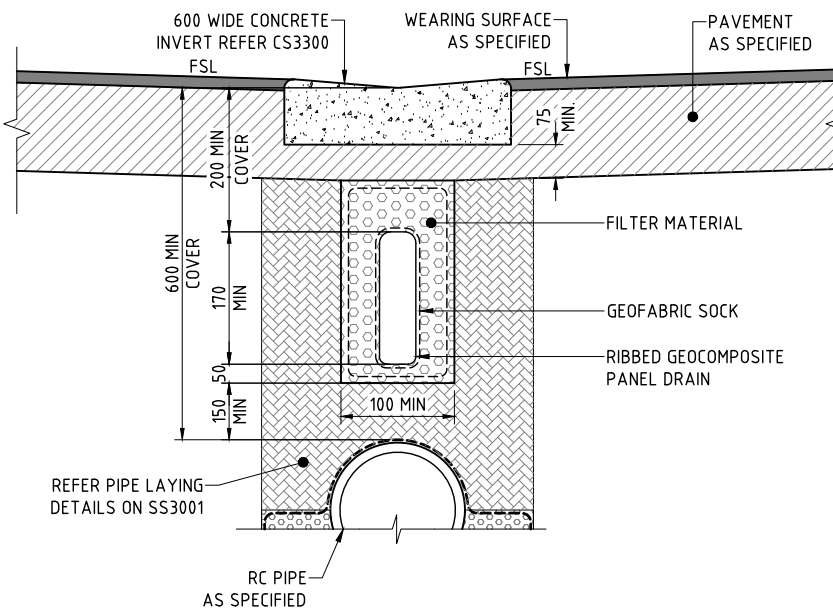


SUBSOIL DRAIN OUTLET TO BATTERS/TABLE DRAINS  
NOT TO SCALE



WEEPHOLE CONNECTION TO MANHOLES,  
SIDE ENTRY PITS AND HEADWALLS  
NOT TO SCALE

(REFER NOTE 5)



SUBSOIL DRAIN TYPE 4 - BENEATH CONCRETE INVERT IN COMMON TRENCH  
NOT TO SCALE

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1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE
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Drawn	KS	Checked	PB
Date:	AUGUST 2020	Date:	AUGUST 2020
Designed	PB	Checked	SPB
Date:	AUGUST 2020	Date:	AUGUST 2020
Design Project Leader	SPB	NTG Project Manager	N/A
Date:	AUGUST 2020	Date:	AUGUST 2020



SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS  
STORMWATER DRAINAGE

SUBSOIL DRAINAGE  
TYPICAL DETAILS

NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	1 OF 1	SS3000	1

- NOTES:**
1. ALL WORK MUST BE UNDERTAKEN IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
  2. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
  3. DETAILS REFLECT STORMWATER PIPES ONLY. FOR ALL OTHER SERVICES, REFER TO RELEVANT AUTHORITY TECHNICAL REQUIREMENTS.
  4. PROVIDE MINIMUM COVER TO PIPES IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS.
  5. GEOTEXTILE FABRIC TO COMPLY WITH STANDARD SPECIFICATION FOR SUBDIVISIONS. LAY GEOTEXTILE FABRIC CONTINUOUSLY. PROVIDE MINIMUM LAP LENGTHS IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS. GEOTEXTILE FABRIC MAY BE OMITTED IN ROCK, WHERE APPROVED BY CERTIFYING ENGINEER.
  6. STABILISE ALL BACKFILL WITH 2% CEMENT BY MASS AND COMPACT TO 95% RELATIVE COMPACTION WHERE THE TRENCH OR EMBANKMENT IS LOCATED, OR WILL BE LOCATED, BENEATH A PAVEMENT.
  7. FLOWABLE FILL MAY BE USED AS AN ALTERNATIVE BACKFILL, WHERE APPROVED BY THE RELEVANT AUTHORITY.
  8. TRENCHING MUST ONLY BE USED FOR EXISTING ROAD CROSSINGS WHERE APPROVAL IS OBTAINED FROM THE RELEVANT AUTHORITY.

**PIPE SETOUT TABLE**

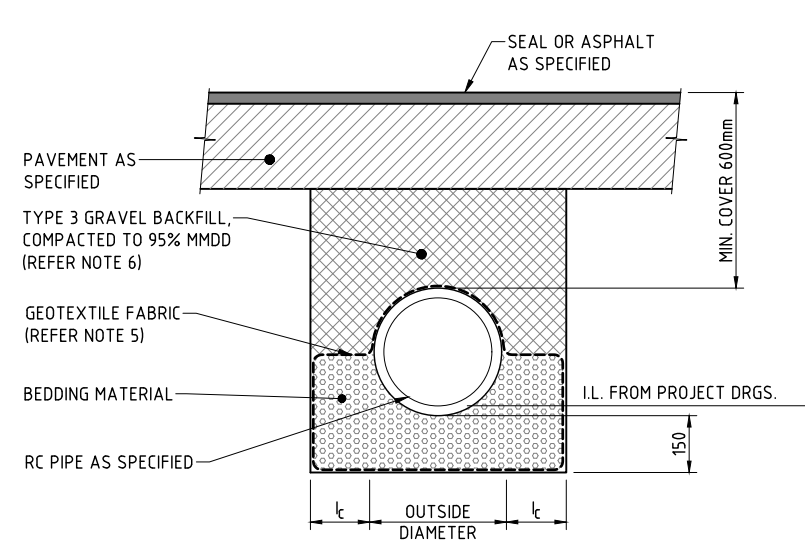
CORRESPONDING PIPE SIZES	
RANGE OF PIPE SIZES	BACK OF KERB OFFSET TO PIPE C.L.
375 AND 450	240 BEHIND
525 TO 750	110 BEHIND
825 TO 1200	150 IN FRONT
1350 TO 1650	375 IN FRONT
1800 TO 2100	675 IN FRONT

**TRENCH WIDTH PARAMETERS TABLE**

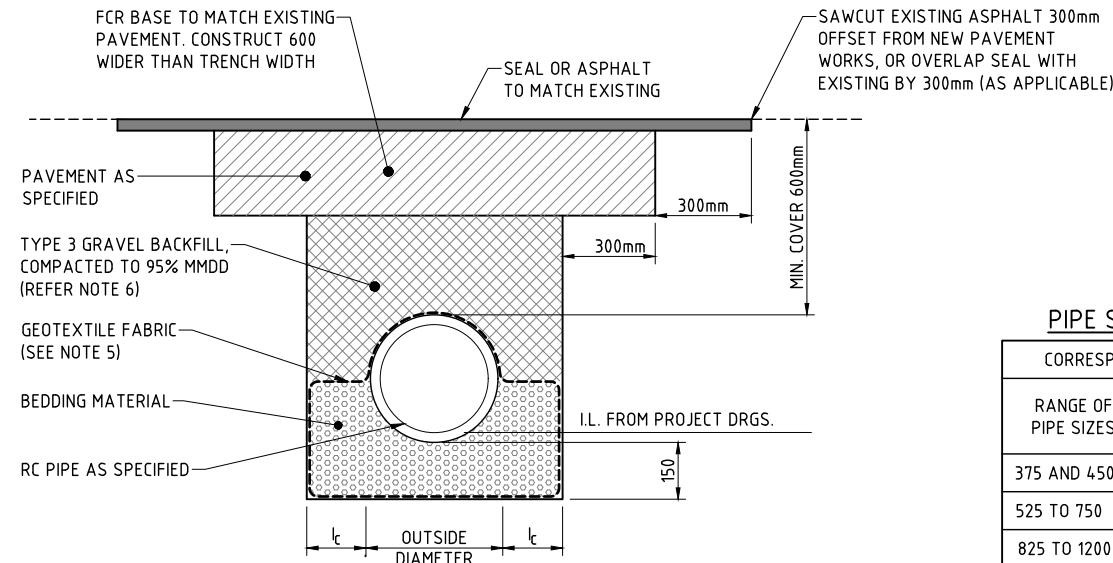
NOMINAL PIPE DIAMETER DN	MINIMUM $t_c$ (mm)	SPACING BETWEEN MULTIPLE CULVERTS (mm)
≤600	150	300
600-1200	200	600
1200-1800	D/6	600
>1800	D/6	900

**TABLE NOTES:**

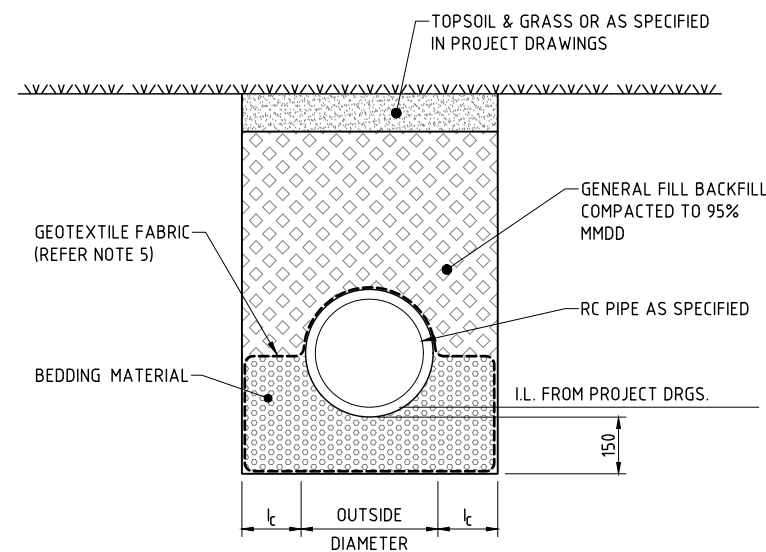
1. THE MINIMUM VALUES SHOULD ONLY BE USED WHEN NECESSARY COMPACTION BETWEEN THE PIPES CAN BE ASSURED.
2. MINIMUM VALUES MAY NEED TO BE INCREASED FOR RUBBER RING JOINT PIPES TO ENSURE MIN. 50mm SEPARATION BETWEEN SOCKETS.



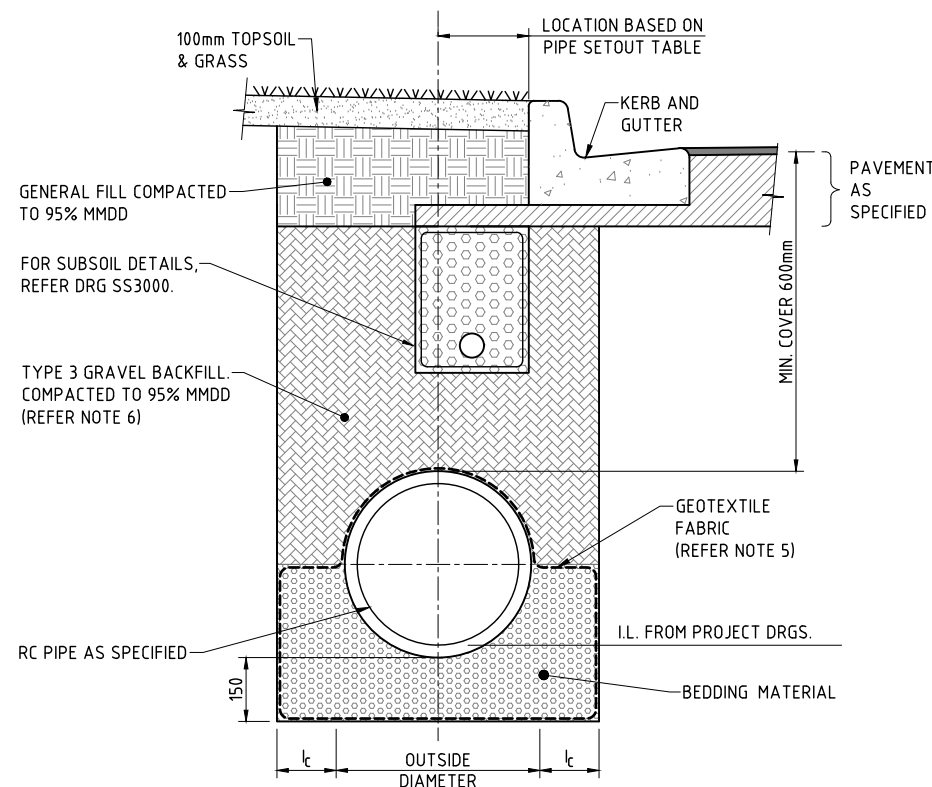
**NEW ROAD CROSSING**  
NOT TO SCALE



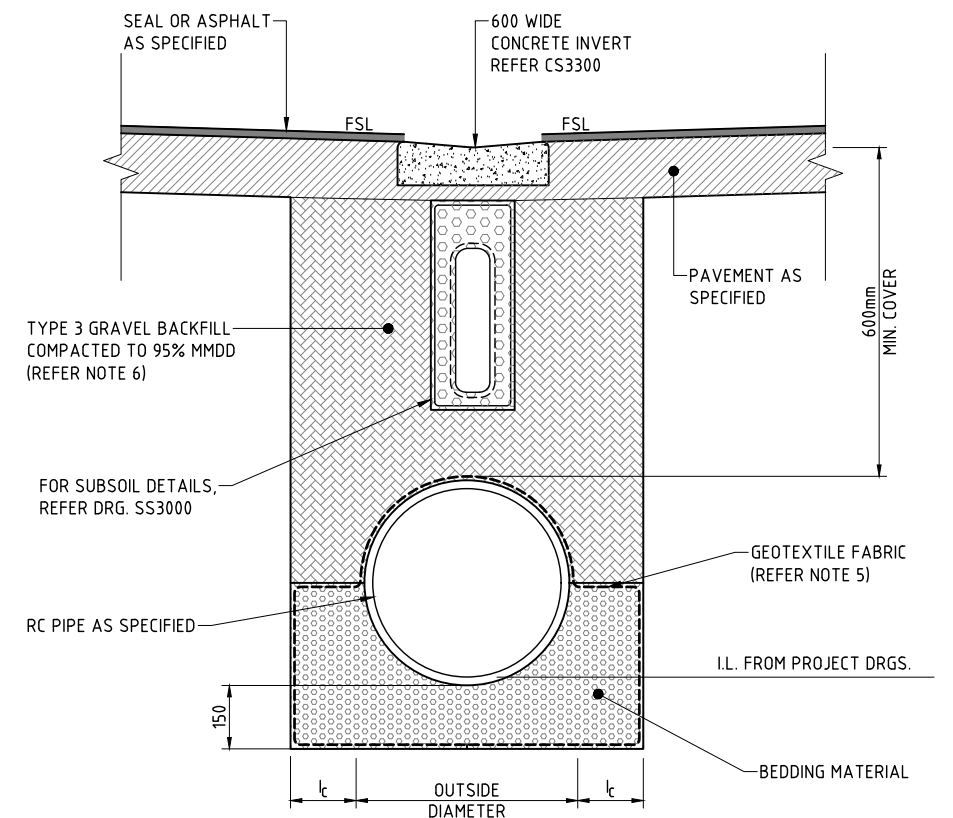
**EXISTING ROAD CROSSING**  
NOT TO SCALE  
(REFER NOTE 8)



**NON TRAFFICABLE AREAS**  
NOT TO SCALE



**ROADSIDE**  
NOT TO SCALE



**PIPE BENEATH INVERT**  
NOT TO SCALE

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Date:	AUGUST 2020	Date:	AUGUST 2020
	Design Project Leader		NTG Project Manager
	SPB		N/A
Date:	AUGUST 2020	Date:	AUGUST 2020

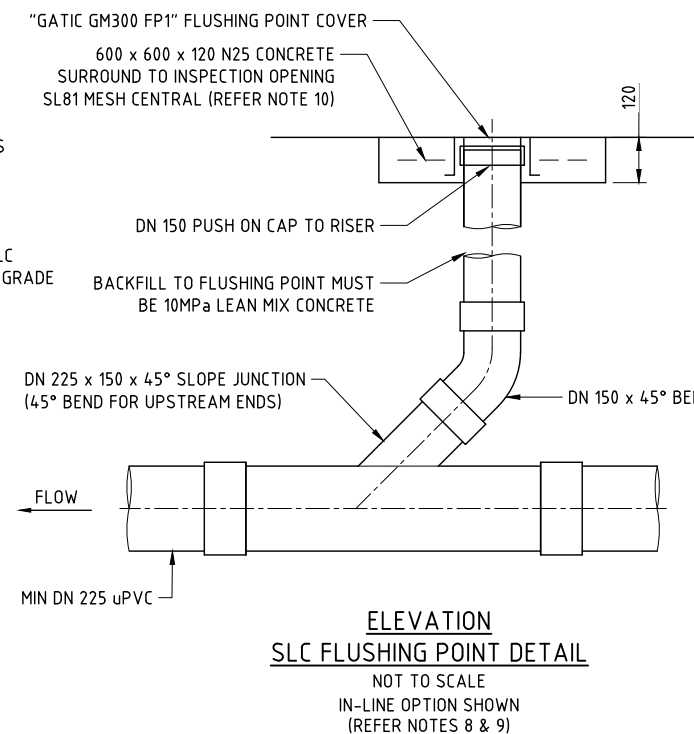
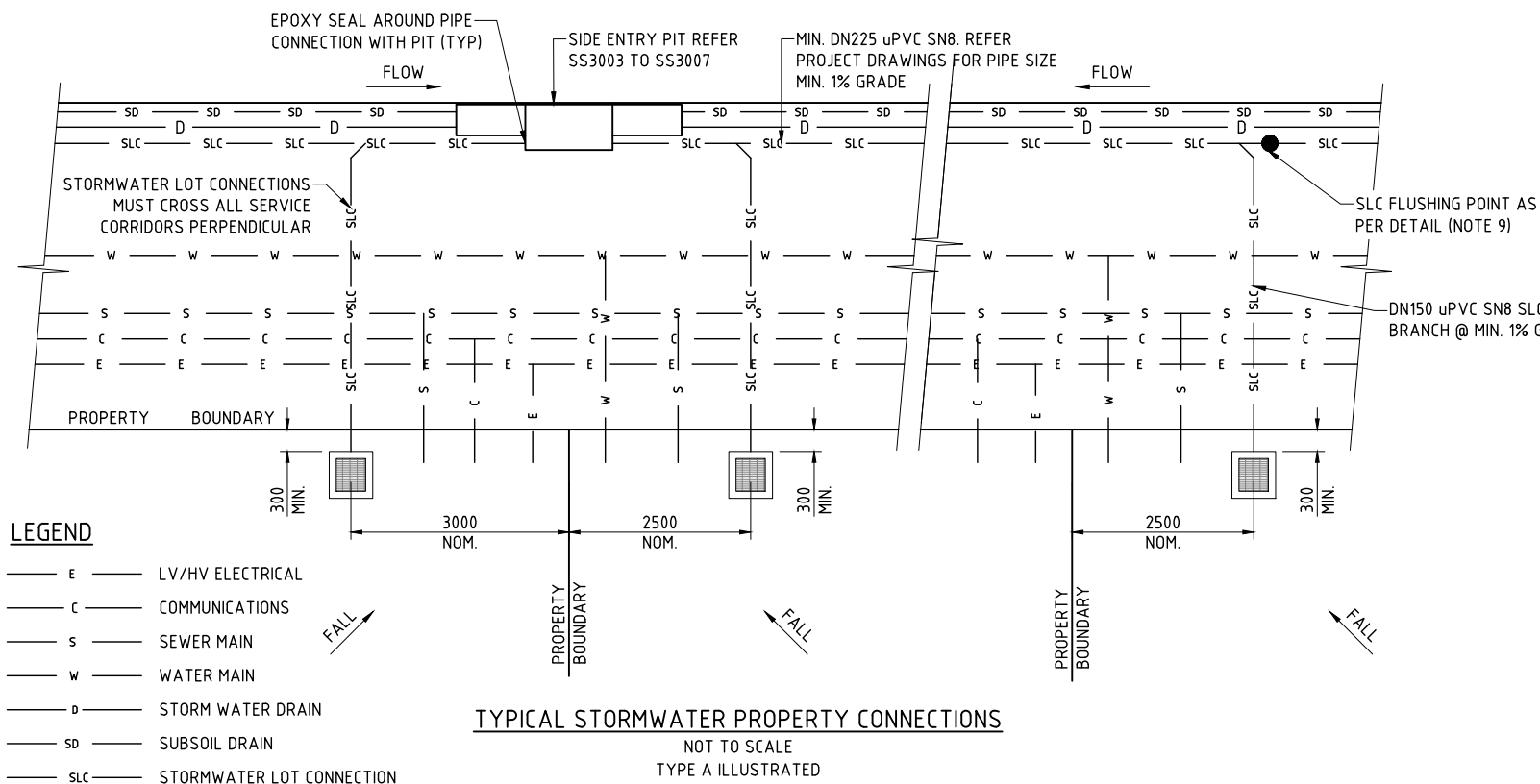
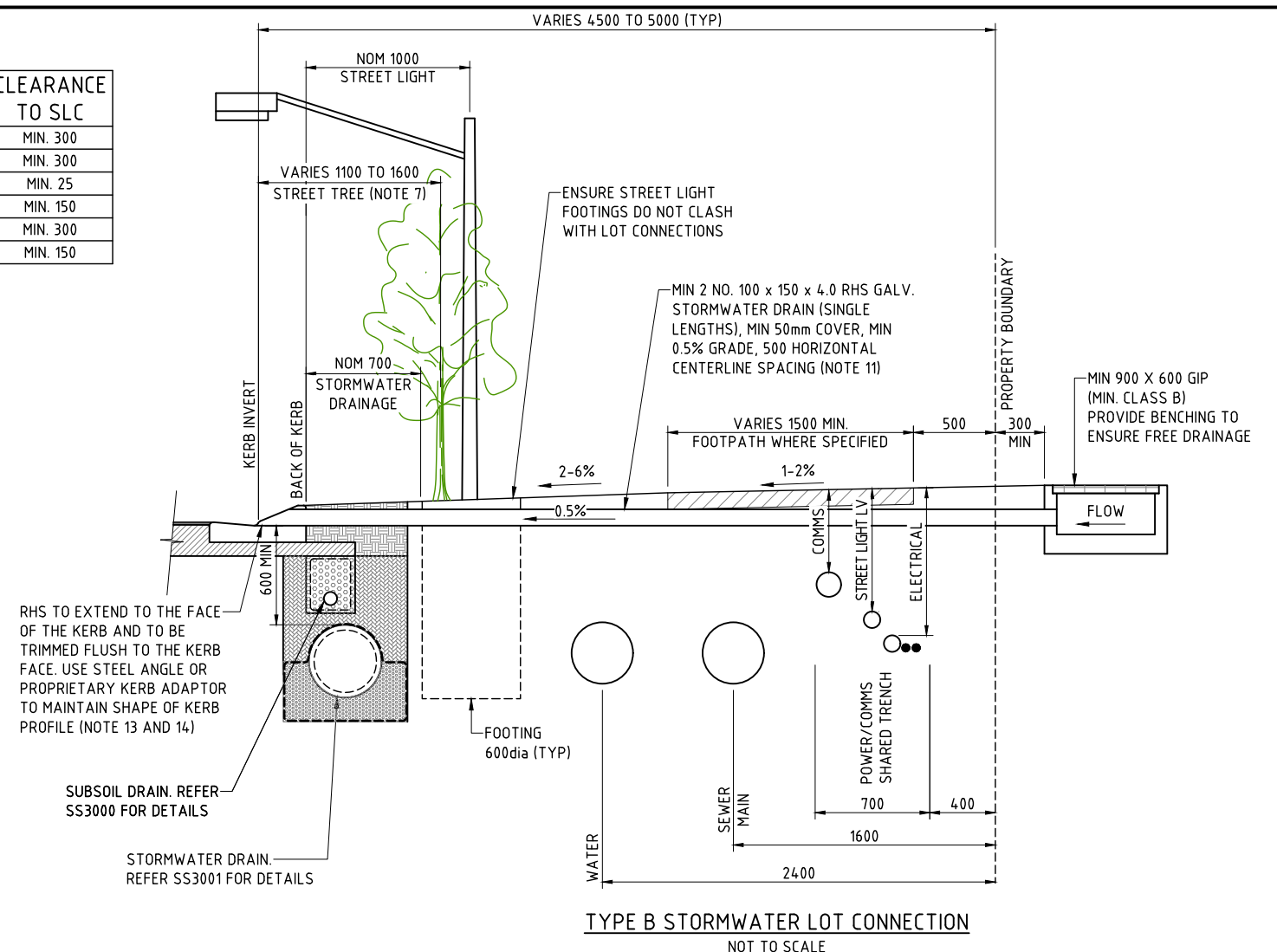
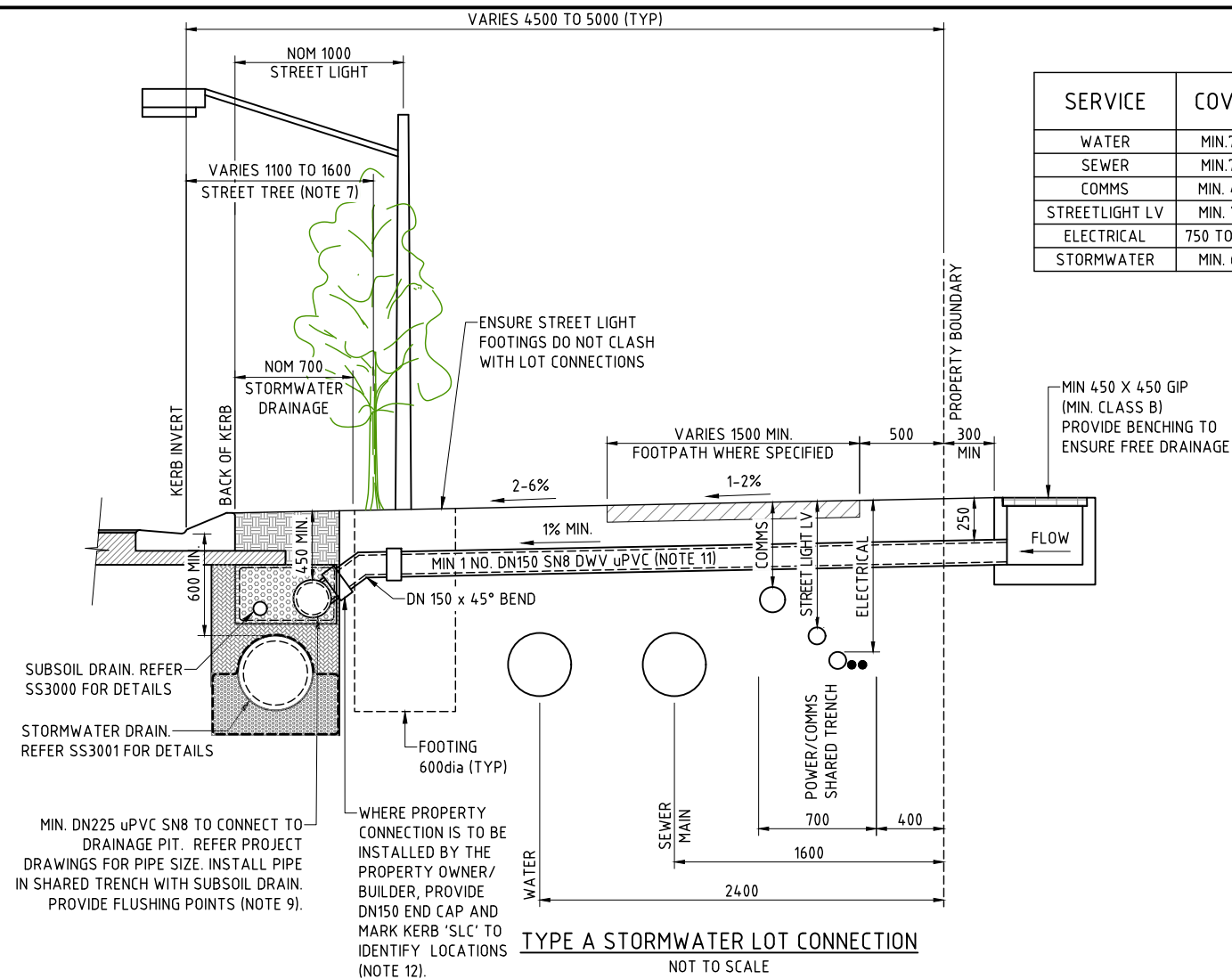


**SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS**  
STORMWATER DRAINAGE

**STORMWATER PIPES**  
**TYPICAL TRENCH DETAILS**

NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	1 OF 1	SS3001	1





- ## NOTES:
1. ALL WORK SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS, AND AS3500.3 U.O.
  2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
  3. THIS TYPICAL DETAIL APPLIES TO RESIDENTIAL ZONES SD AND MD ONLY. REFER CLAUSE 7.2.5 OF THE GUIDELINES FOR ADDITIONAL DETAILS ON APPLICATION.
  4. LOT CONNECTIONS ARE GENERALLY TO BE 900mm FROM THE LOWEST SIDE BOUNDARY AND MIN 300 FROM STREET RESERVE BOUNDARY. EXACT SETOUT OF PIT AND PIPE TO SUIT SERVICE CONNECTION ARRANGEMENTS IN ACCORDANCE WITH SERVICE AUTHORITY REQUIREMENTS.
  5. LAY STORMWATER LOT CONNECTION PIPES IN ACCORDANCE WITH AS3500.3 U.O.
  6. CONNECTING STORMWATER LOT CONNECTIONS DIRECTLY INTO STREET STORMWATER DRAINAGE PIPES USING PROPRIETARY SADDLE CONNECTORS (OR SIMILAR) MUST ONLY BE USED WHERE APPROVED BY THE RELEVANT AUTHORITY, AND INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
  7. STREET TREES TO TYPICALLY BE AT 1100 OFFSET FOR UP TO 4500 VERGE WIDTH AND 1600 OFFSET FOR 5000 VERGE WIDTH.
  8. ALL PVC PIPE JOINTS TO BE SPIGOT AND SOCKET TYPE WITH RUBBER RING JOINT UNLESS OTHERWISE APPROVED BY THE RELEVANT AUTHORITY.
  9. LOCATE FLUSHING POINTS AT TOP OF LINE AND MAX. 60m SPACINGS. LOCATE TO AVOID CONFLICT WITH OTHER SERVICES AND LOT ACCESSES.
  10. CONCRETE SURROUND MAY BE OMITTED WHERE FLUSHING POINT LOCATED IN CONCRETE PAVEMENT.
  11. NUMBER AND SIZE OF PIPES TO BE DETERMINED BY THE DEVELOPER TO SUIT PROJECT SPECIFIC CIRCUMSTANCES, NOT LESS THEN SPECIFIED.
  12. DEVELOPER TO ARRANGE BOND WITH RELEVANT AUTHORITY WHERE RESPONSIBILITY FOR INSTALLATION OF PROPERTY CONNECTION IS TRANSFERRED TO THE PROPERTY OWNER/ BUILDER.
  13. TYPE B LOT CONNECTIONS POSITIONED WITHIN 500mm OF THE UPSTREAM SIDE OF A STORMWATER PIT (MEASURED FROM THE NEAREST PIT COMPONENT) MUST BE DIRECTED INTO THE PIT.
  14. KERB ADAPTORS AND OTHER ANCILLARY COMPONENTS WITHIN THE VERGE ARE TO BE DESIGNED TO CATER FOR RESIDENTIAL VEHICLE LOADINGS AND BE APPROVED BY THE RELEVANT AUTHORITY.

SERVICE	COVER	CLEARANCE TO SLC
WATER	MIN.750	MIN. 300
SEWER	MIN.750	MIN. 300
COMMS	MIN. 450	MIN. 25
STREETLIGHT LV	MIN. 750	MIN. 150
ELECTRICAL	750 TO 1000	MIN. 300
STORMWATER	MIN. 600	MIN. 150

1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE
0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE
No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY

Drawn	Checked
KS	PB
Date: AUGUST 2020	Date: AUGUST 2020
Designed	Checked
PB	SPB
Date: AUGUST 2020	Date: AUGUST 2020
Design Project Leader	NTG Project Manager
SPB	N/A
Date: AUGUST 2020	Date: AUGUST 2020

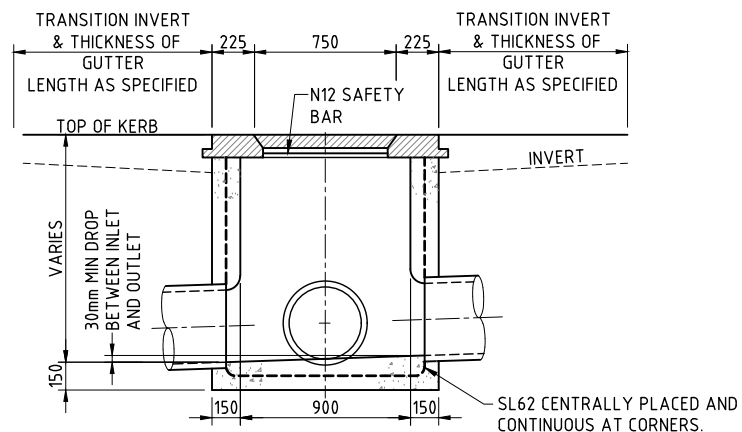


SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS  
STORMWATER DRAINAGE

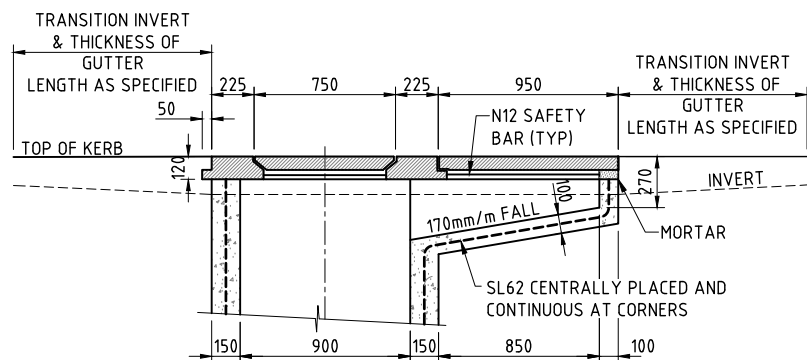
## STORMWATER PIPES TYPICAL RESIDENTIAL LOT CONNECTION DETAILS

NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment	A1
-	-	1 OF 1	SS3002	1	

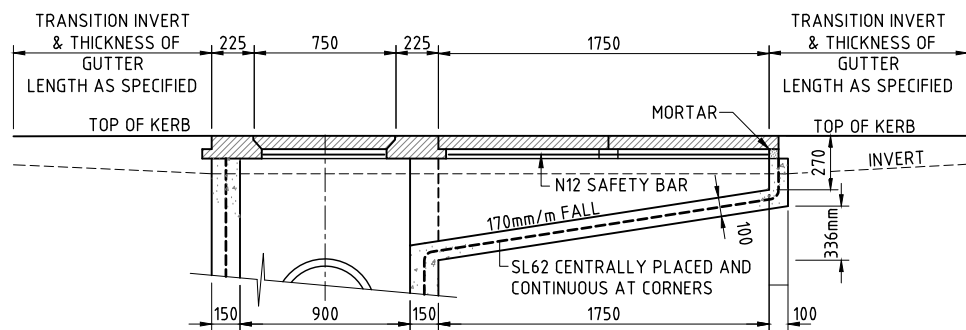




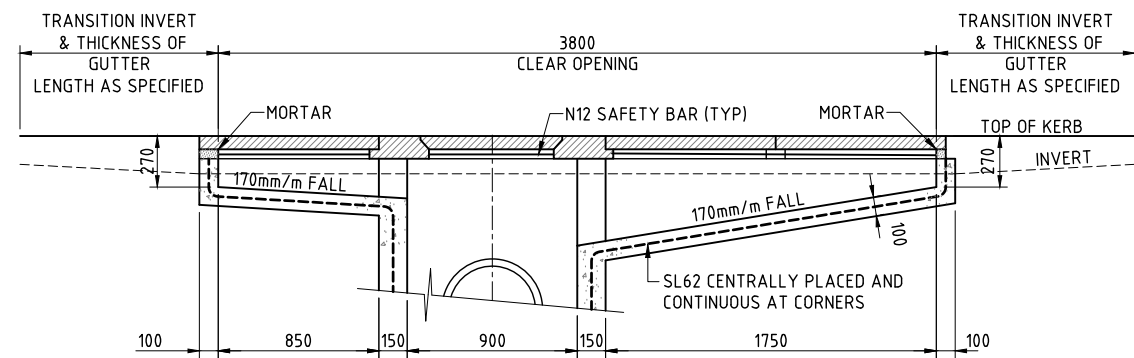
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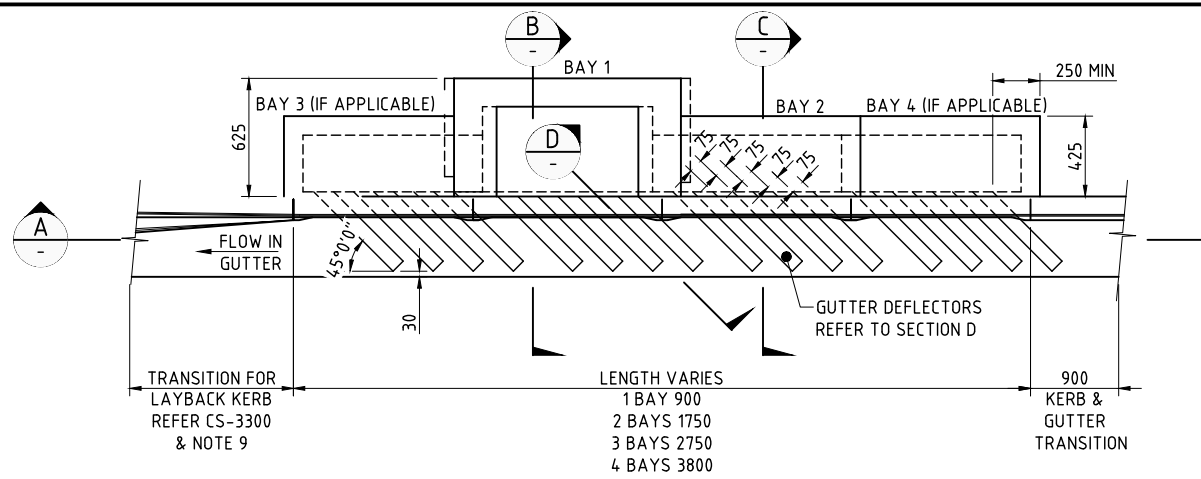
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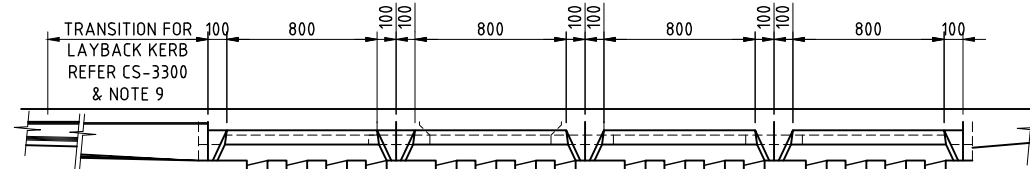
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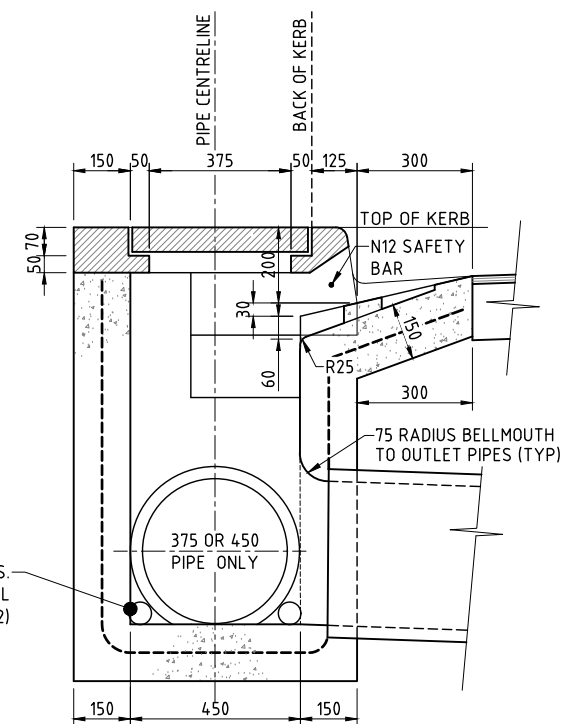
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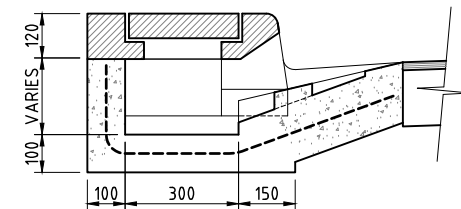
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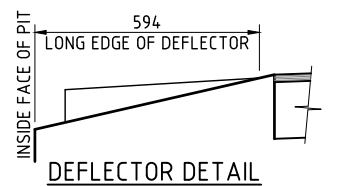
SECTION  
NOT TO SCALE



SECTION  
NOT TO SCALE



SECTION  
NOT TO SCALE



SECTION  
NOT TO SCALE

## NOTES:

- ALL WORK MUST COMPLY WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
- ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- CONCRETE TO BE MINIMUM N32/20/80 UNO. CONCRETE DESIGN IS TYPICALLY BASED ON B1 EXPOSURE CLASSIFICATION, WITH MINIMUM REQUIRED COVER TO REINFORCEMENT OF 40mm IN ACCORDANCE WITH AS3600.

FOR OTHER EXPOSURE CLASSIFICATIONS, COMPLY WITH AS3600 AND THE FOLLOWING MINIMUM STRENGTH AND COVER REQUIREMENTS:

EXPOSURE CLASSIFICATION	CHARACTERISTIC STRENGTH (MPa)	REQUIRED COVER (mm)
A1, A2	N25/20/80	30mm
B1	N32/20/80	40mm
B2	N40/20/80	45mm
C1	N50/20/80	50mm
C2	N50/20/80	65mm

TABLE NOTE: EXPOSURE CLASSIFICATIONS B2, C1 AND C2 MAY TRIGGER INCREASED CONCRETE THICKNESSES TO ACHIEVE MINIMUM COVER REQUIREMENTS.

- ALL CONCRETE WORKS MUST COMPLY WITH AS1379 AND AS3600.
- ALL REINFORCING MUST COMPLY WITH AS1304 AND AS4671.
- ALL WORK IN CONFINED SPACES MUST COMPLY WITH AS2865.
- ALL WORK AT HEIGHTS MUST COMPLY WITH WORKSAFE AUSTRALIA GENERAL CODE OF PRACTICE FOR THE PREVENTION OF FALLS IN GENERAL CONSTRUCTION.
- SAG PITS DO NOT REQUIRE DEFLECTORS.
- TRANSITIONS TO LAYBACK KERB :  
SAG PITS - 1m (UPSTREAM AND DOWNSTREAM)  
PITS ON GRADE - 3m (BOTH SIDES) ON STRAIGHTS  
- 1.5m ON CURVES LESS THAN R20m
- PRECAST COMPONENTS DETAILED ARE MANUFACTURED BY HUMES - SIMILAR APPROVED PRECAST COMPONENTS MAY BE USED.
- FOR FIXING OF PRECAST COMPONENTS USE MORTAR MIXED WITH 'BONDCRETE' OR SIMILAR APPROVED AGENT.
- WEEPHOLES MUST BE PROVIDED REFER SS3000 FOR DETAILS.
- LOCATE KERB RAMPS CLEAR OF TRANSITION SECTIONS TO PITS.
- ALL FRAMES, COVERS, LINTELS AND LIDS TO BE CLASS C LOAD RATING GENERALLY AND CLASS D WHERE LOCATED AT TANGENT POINTS OR WITHIN THE KERB RADIUS AT INTERSECTIONS.
- REFER PROJECT DRAWINGS FOR ACTUAL LOCATION OF PIPE(S).
- N12 SAFETY BAR TO BE HOT DIPPED GALVANISED.
- PROVIDE 7 MPa FLOWABLE FILL BACKFILL TO ALL DRAINAGE STRUCTURES.
- DESIGN AND INSTALLATION OF PRECAST PITS WHERE APPROVED, SHALL ENSURE THAT PENETRATIONS DO NOT COMPROMISE THE OVERALL STRENGTH CAPACITY OF THE PIT.
- PITS TO BE MAX 3m DEEP UNLESS OTHERWISE APPROVED BY THE RELEVANT AUTHORITY. PITS EXCEEDING 3m DEPTH MUST BE CERTIFIED BY A STRUCTURAL ENGINEER.
- WHERE PIPE ENTRY ANGLE(S) WARRANTS AN INCREASE IN PIT WIDTH, REFER TO SS3004 FOR LARGER PIT DETAILS

LOCATION OF WEEP HOLES.  
PLACE IN UPSTREAM WALL  
(SEE NOTE 12)

No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY
1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE
0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE

Drawn	KS	Checked	PB
Date:	AUGUST 2020	Date:	AUGUST 2020
Designed	PB	Checked	SPB
Date:	AUGUST 2020	Date:	AUGUST 2020
Design Project Leader	SPB	NTG Project Manager	N/A
Date:	AUGUST 2020	Date:	AUGUST 2020

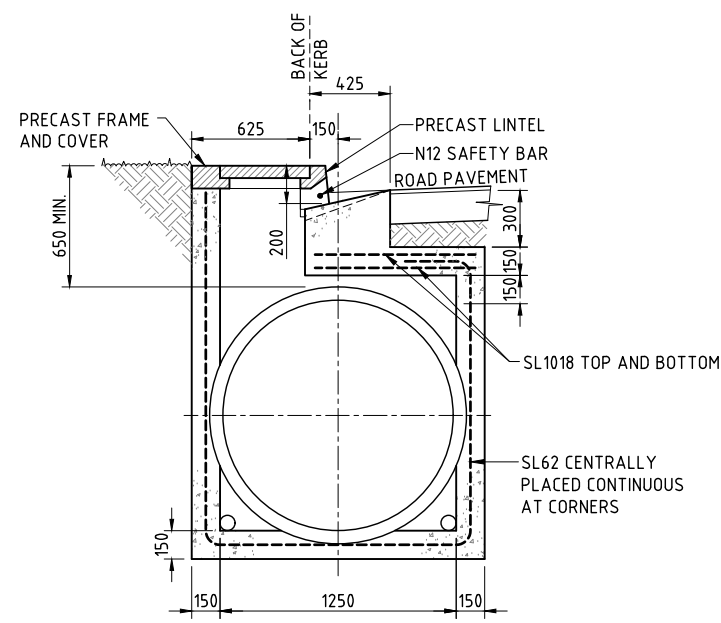


SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS  
STORMWATER DRAINAGE

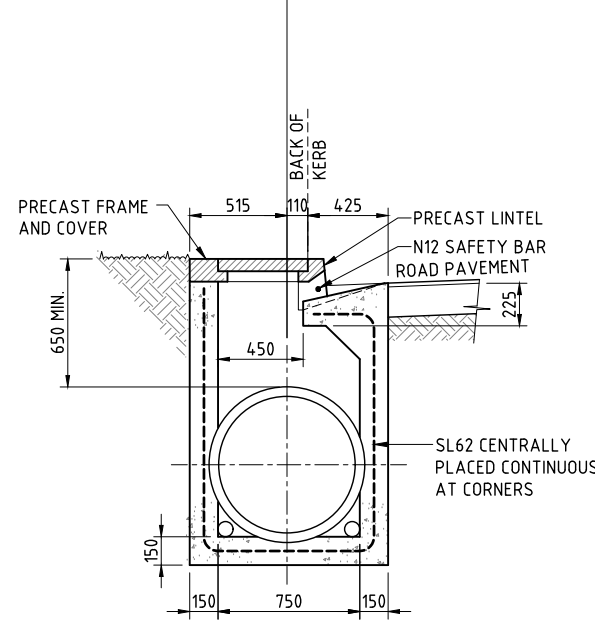
STANDARD SIDE ENTRY PIT  
TYPE A DETAILS

NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	1 OF 2	SS3003	1

NOTES:  
1. REFER SS3003 FOR NOTES.



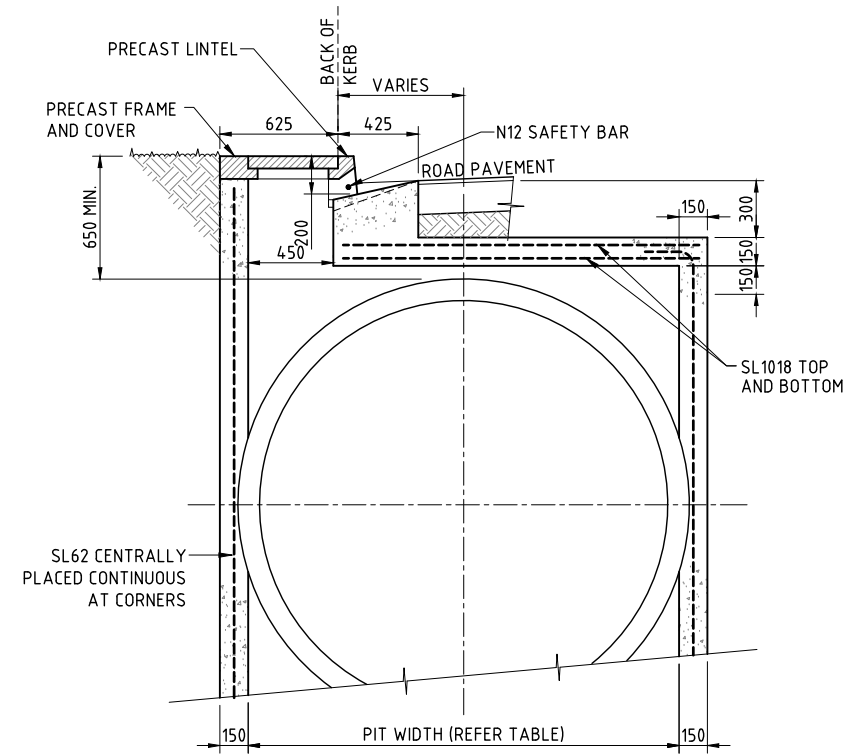
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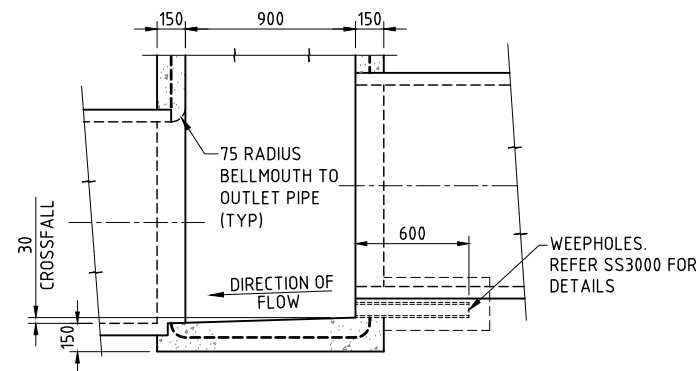
TYPICAL SECTION TYPE B  
NOT TO SCALE

TABLE

PIT TYPES AND CORRESPONDING PIPE SIZES			
PIT TYPE	RANGE OF PIPE SIZES	BACK OF KERB OFFSET TO PIPE C.L.	PIT WIDTH
A	375 AND 450	REFER TO SS3003	
B	525 TO 750	110 BEHIND	770
C	825 TO 1200	150 IN FRONT	1250
D	1350 TO 1650	375 IN FRONT	1700
E	1800 TO 2100	675 IN FRONT	2150
LENGTH OF ALL PITS AS DETAILED = 900			



TYPICAL SECTION TYPE D-E  
NOT TO SCALE



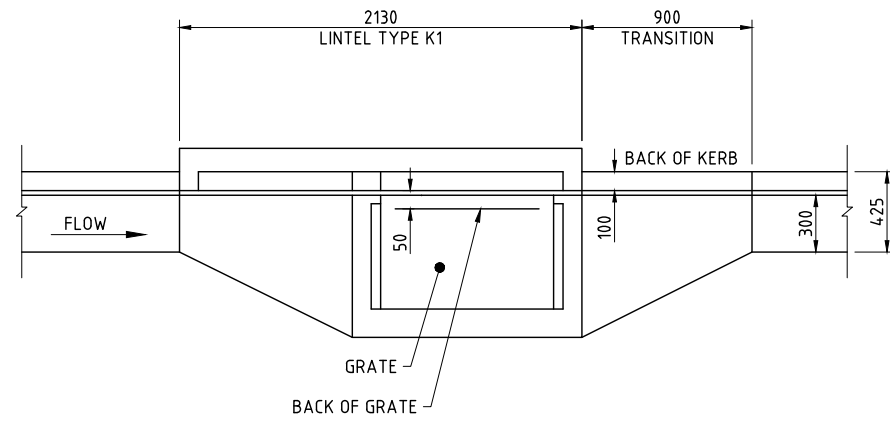
TYPICAL SECTION ALONG GRADE  
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No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY
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0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE

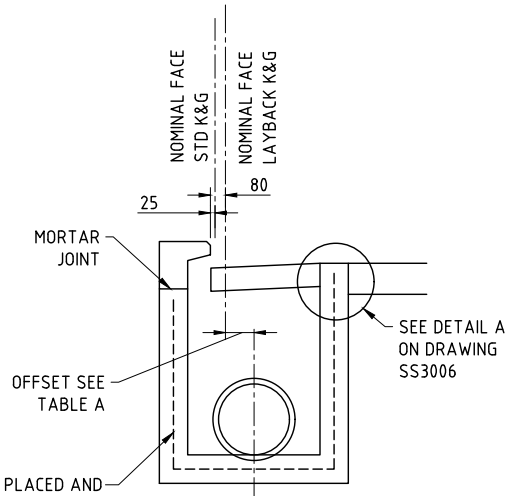
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Date:	AUGUST 2020	Date:	AUGUST 2020
Designed	PB	Checked	SPB
Date:	AUGUST 2020	Date:	AUGUST 2020
Design Project Leader	SPB	NTG Project Manager	N/A
Date:	AUGUST 2020	Date:	AUGUST 2020



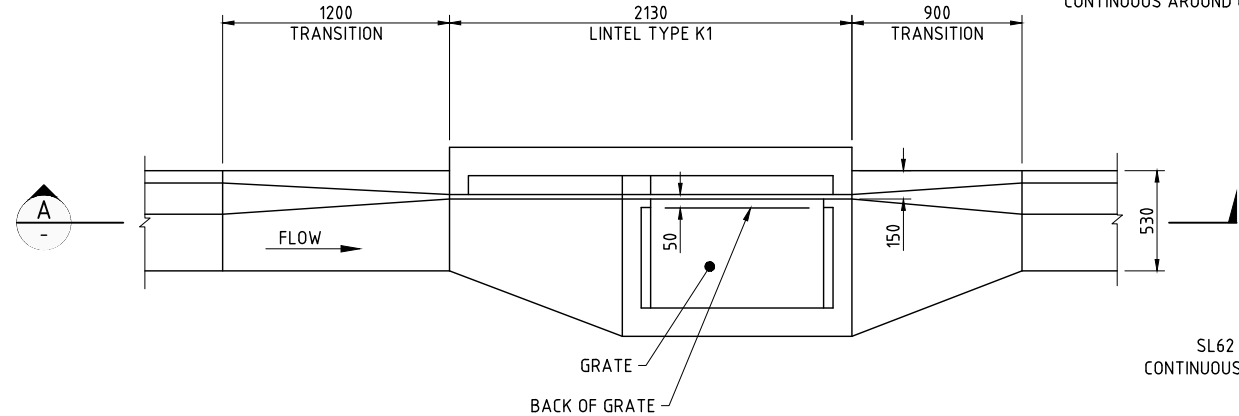
SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS					
STORMWATER DRAINAGE					
STANDARD SIDE ENTRY PIT					
TYPE B TO E DETAILS					
NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment	
-	-	2 OF 2	SS3004	1	A1



**SINGLE BAY SIDE ENTRY PIT PLAN**  
(STANDARD KERB & GUTTER)  
NOT TO SCALE



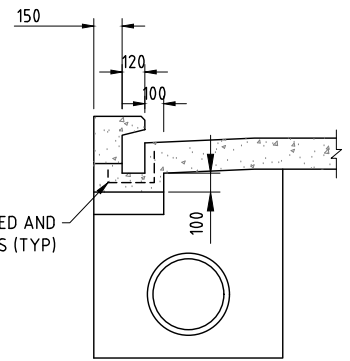
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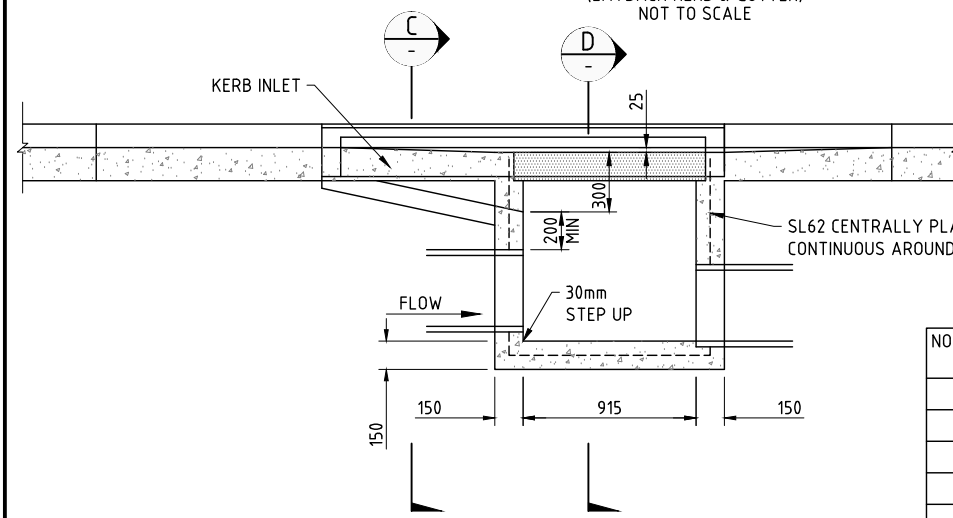
**SINGLE BAY SIDE ENTRY PIT PLAN**  
(LAYBACK KERB & GUTTER)  
NOT TO SCALE

SL62 CENTRALLY PLACED AND CONTINUOUS AROUND CORNERS (TYP)

SL62 CENTRALLY PLACED AND CONTINUOUS AROUND CORNERS (TYP)



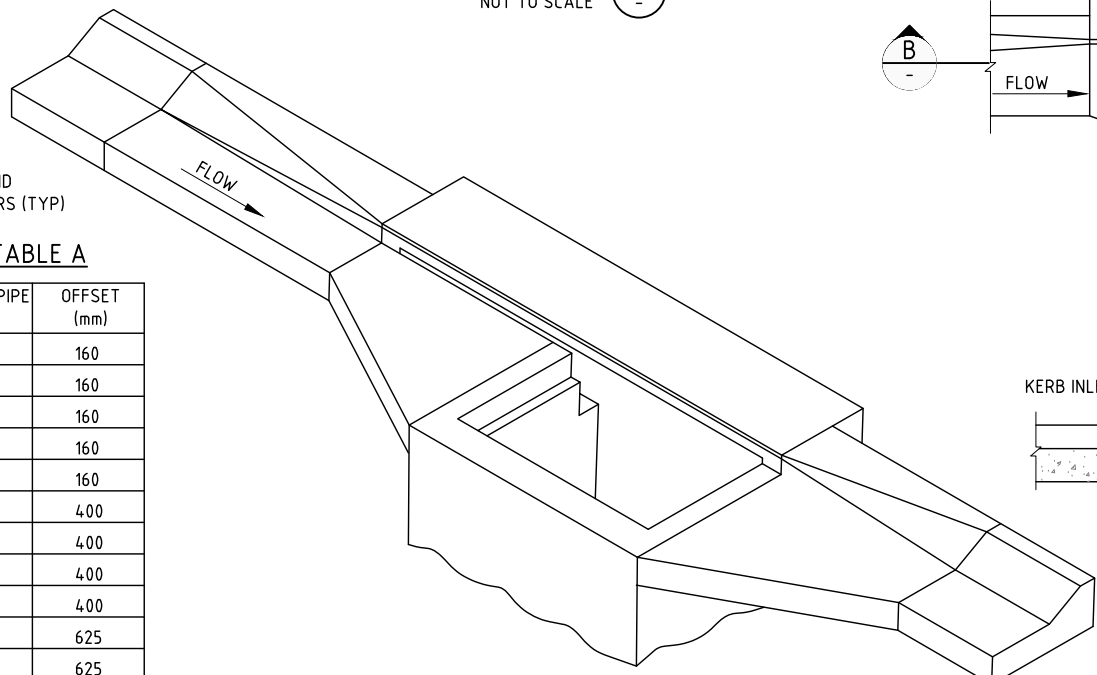
**SECTION C**  
NOT TO SCALE



**SECTION A**  
NOT TO SCALE

**TABLE A**

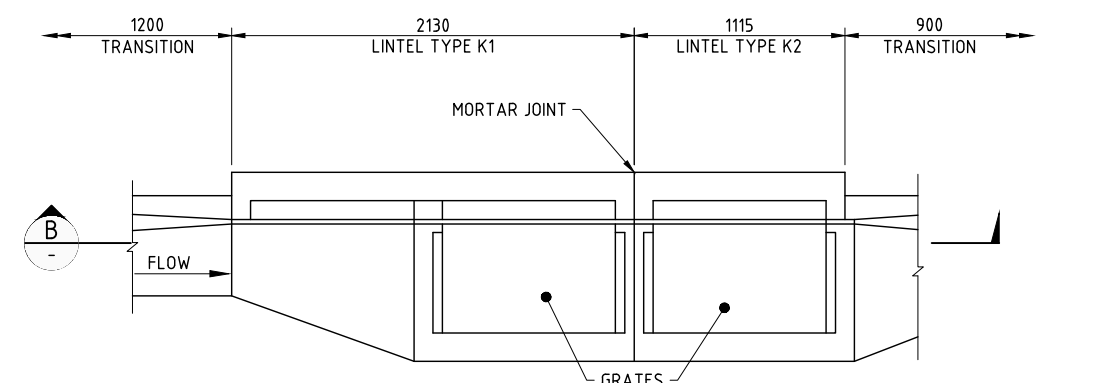
NOM Ø OF PIPE (mm)	OFFSET (mm)
375	160
450	160
525	160
600	160
675	160
750	400
900	400
1050	400
1200	400
1350	625
1500	625
1650	625



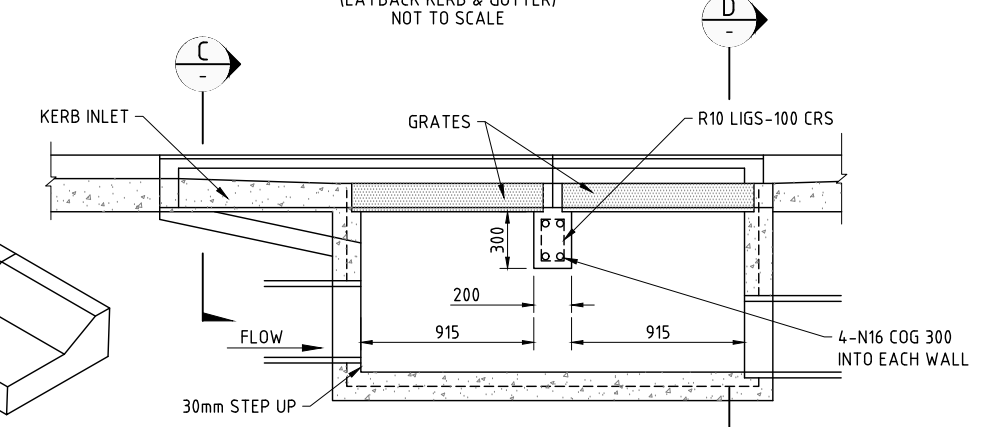
**ISOMETRIC VIEW TYPE 'A'**  
1 BAY PIT ON GRADE

**NOTES:**

- ALL WORK MUST COMPLY WITH THE STANDARDS SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
  - ALL DIMENSIONS IN MILLIMETERS (mm) UNLESS NOTES OTHERWISE.
  - CONCRETE TO BE MINIMUM N32/20/80 UNO. CONCRETE DESIGN IS TYPICALLY BASED ON B1 EXPOSURE CLASSIFICATION, WITH MINIMUM REQUIRED COVER TO REINFORCEMENT OF 40mm IN ACCORDANCE WITH AS3600.
- FOR OTHER EXPOSURE CLASSIFICATIONS, COMPLY WITH AS3600 AND THE FOLLOWING MINIMUM STRENGTH AND COVER REQUIREMENTS:
- | EXPOSURE CLASSIFICATION | CHARACTERISTIC STRENGTH (MPa) | REQUIRED COVER (mm) |
|-------------------------|-------------------------------|---------------------|
| A1, A2                  | N25/20/80                     | 30mm                |
| B1                      | N32/20/80                     | 40mm                |
| B2                      | N40/20/80                     | 45mm                |
| C1                      | N50/20/80                     | 50mm                |
| C2                      | N50/20/80                     | 65mm                |
- TABLE NOTE: EXPOSURE CLASSIFICATIONS B2, C1 AND C2 MAY TRIGGER INCREASED CONCRETE THICKNESSES TO ACHIEVE MINIMUM COVER REQUIREMENTS.
- ALL CONCRETE WORKS MUST COMPLY WITH AS1379 AND AS3600.
  - ALL REINFORCING MUST COMPLY WITH AS1304 AND AS4671.
  - ALL WORK IN CONFINED SPACES MUST COMPLY WITH AS2865.
  - ALL WORK AT HEIGHTS MUST COMPLY WITH WORKSAFE AUSTRALIA GENERAL CODE OF PRACTICE FOR THE PREVENTION OF FALLS IN GENERAL CONSTRUCTION.
  - FOR FIXING OF PRECAST COMPONENTS USE MORTAR MIXED WITH 'BONDCRETE' OR SIMILAR APPROVE AGENT.
  - WEEPHOLES MUST BE PROVIDED REFER SS3000 FOR DETAILS.
  - LOCATE KERB RAMPS CLEAR OF TRANSITION SECTIONS TO PITS.
  - ALL FRAMES, COVERS, LINTELS AND LIDS TO BE CLASS C LOAD RATING GENERALLY AND CLASS D WHERE LOCATED AT TANGENT POINTS OR WITHIN THE KERB RADIUS AT INTERSECTIONS.
  - REFER PROJECT DRAWINGS FOR ACTUAL LOCATION OF PIPE(S).
  - PROVIDE 7 MPa FLOWABLE FILL BACKFILL TO ALL DRAINAGE STRUCTURES.
  - DESIGN AND INSTALLATION OF PRECAST PITS WHERE APPROVED, SHALL ENSURE THAT PENETRATIONS DO NOT COMPROMISE THE OVERALL STRENGTH CAPACITY OF THE PIT.
  - PIPES ENTERING ON FRONT OR BACK WALLS OF MULTIPLE BAY PITS SHALL BE CENTERED ON BAY CENTRELINES NOT ON SUPPORT BEAM CENTRELINES.
  - FOR LINTEL AND PIT ARRANGEMENTS ON-GRADE / IN-SAG AND WITH MULTIPLE BAYS, REFER DRAWINGS SS3006.
  - FOR GRATE AND FRAME DETAILS REFER DRAWING SS3007.
  - PITS TO BE MAX 3m DEEP UNLESS OTHERWISE APPROVED BY THE RELEVANT AUTHORITY. PITS EXCEEDING 3m DEPTH MUST BE CERTIFIED BY A STRUCTURAL ENGINEER.



**MULTI-BAY SIDE ENTRY PIT PLAN**  
(LAYBACK KERB & GUTTER)  
NOT TO SCALE



**SECTION B**  
NOT TO SCALE

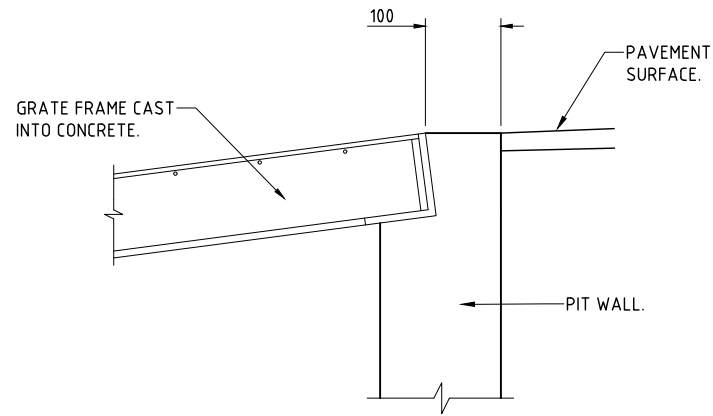
No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY
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0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE

Drawn	KS	Checked	PB
Date:	AUGUST 2020	Date:	AUGUST 2020
Designed	PB	Checked	SPB
Date:	AUGUST 2020	Date:	AUGUST 2020
	Design Project Leader		NTG Project Manager
	SPB		N/A
Date:	AUGUST 2020	Date:	AUGUST 2020

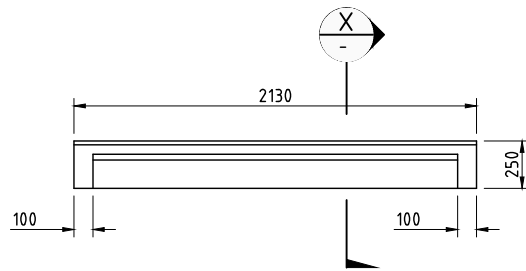


SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS				
STORMWATER DRAINAGE				
GRATED SIDE ENTRY PIT GENERAL ARRANGEMENT				
NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	1 OF 3	SS3005	1

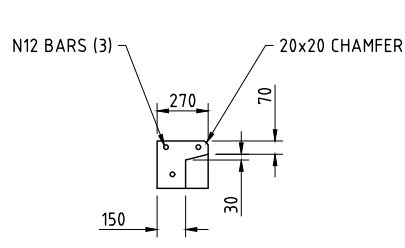
NOTES:  
1. REFER SS3005 FOR NOTES.



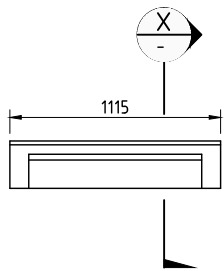
DETAIL A  
REFER SS3005



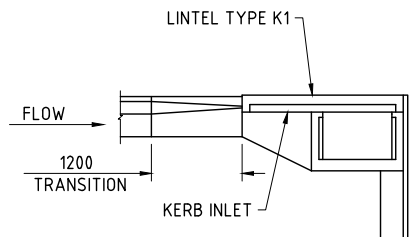
LINTEL K1  
ELEVATION  
NOT TO SCALE



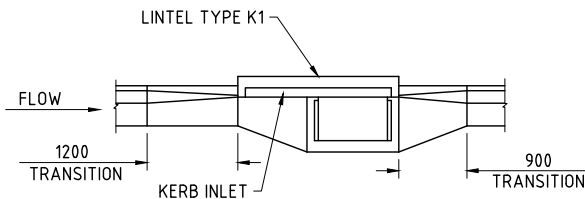
SECTION



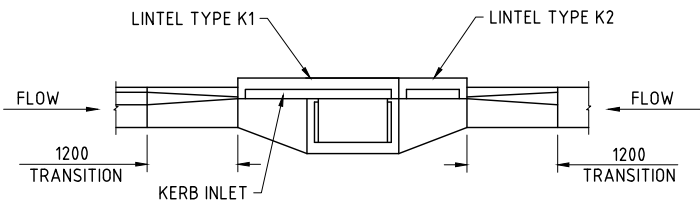
LINTEL K2  
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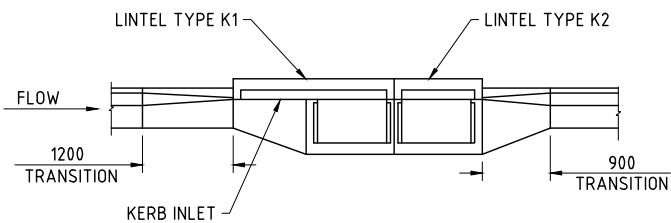
1BAY CORNER SEP



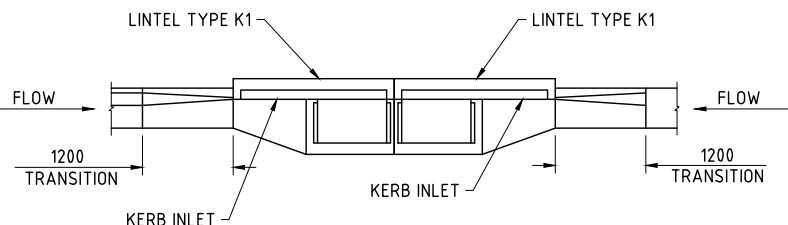
1BAY SEP ON GRADE



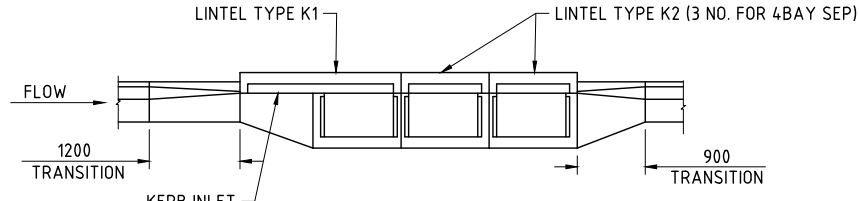
1BAY SEP IN SAG



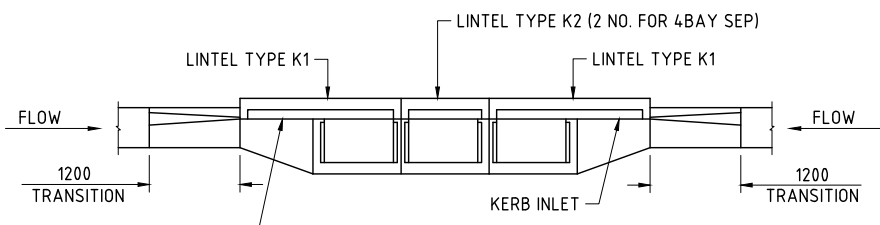
2BAY SEP ON GRADE



2BAY SEP IN SAG



3BAY AND 4BAY SEP ON GRADE



3BAY AND 4BAY SEP IN SAG

PIT ARRANGEMENT DETAILS

NOT TO SCALE  
NOTE: TRANSITIONS ARE SHOWN FOR LAYBACK KERB  
REFER SS3005 FOR TYPICAL KERB AND GUTTER TRANSITIONS

1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE
0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE
No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY

Drawn	KS	Checked	PB
Date:	AUGUST 2020	Date:	AUGUST 2020
Designed	PB	Checked	SPB
Date:	AUGUST 2020	Date:	AUGUST 2020
Design Project Leader	SPB	NTG Project Manager	N/A
Date:	AUGUST 2020	Date:	AUGUST 2020



SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS  
STORMWATER DRAINAGE

GRATED SIDE ENTRY PIT  
LINTEL & PIT ARRANGEMENT DETAILS

NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment	
-	-	2 OF 3	SS3006	1	A1





GENERAL NOTES:

1.

ALL WORK MUST COMPLY WITH THE STANDARD SPECIFICATION FOR SUBDIVISIONS ALONG WITH PROJECT SPECIFIC AMENDMENTS.
2.

ALL DIMENSIONS IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
3.

R.C.B.C SIZE AND EXTENT OF PROTECTION WORKS MUST BE APPROVED BY THE RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF WORKS. PROTECTION SHOULD BE EXTENDED OVER AREAS WHERE THE BATTER SLOPE EXCEEDS 1:4.
4.

FOR MULTIPLE BOXES THE SPACING BETWEEN BOXES MUST BE 40mm MINIMUM AND INFILLED BY PLACING N32/20 CONCRETE PLUGS OF 250mm MINIMUM LENGTH AT BOTH ENDS OF THE STRUCTURE, AND INFILLING THE REMAINING GAP WITH 1:10 LEAN MIX HAVING MAXIMUM AGGREGATE SIZE OF 10mm PACKED DRY.
5.

CONCRETE TO BE MINIMUM N32/20/80 UNO. CONCRETE DESIGN IS TYPICALLY BASED ON B1 EXPOSURE CLASSIFICATION, WITH MINIMUM REQUIRED COVER TO REINFORCEMENT OF 40mm IN ACCORDANCE WITH AS3600.
- FOR OTHER EXPOSURE CLASSIFICATIONS, COMPLY WITH AS3600 AND THE FOLLOWING MINIMUM STRENGTH AND COVER REQUIREMENTS:

EXPOSURE CLASSIFICATION	CHARACTERISTIC STRENGTH (MPa)	REQUIRED COVER (mm)
A1, A2	N25/20/80	30mm
B1	N32/20/80	40mm
B2	N40/20/80	45mm
C1	N50/20/80	50mm
C2	N50/20/80	65mm

TABLE NOTE: EXPOSURE CLASSIFICATIONS B2, C1 AND C2 MAY TRIGGER INCREASED CONCRETE THICKNESSES TO ACHIEVE MINIMUM COVER REQUIREMENTS.
6.

ALL CONCRETE WORKS MUST COMPLY WITH AS1379 AND AS3600. ALL EXPOSED EDGES TO BE PROVIDED WITH 20mm CHAMFERS
7.

ALL REINFORCING MUST COMPLY WITH AS1304 AND AS4671.
8.

RL1118 MESH LONGITUDINAL BARS IN CULVERT SLABS MUST BE LAID IN DIRECTION OF TRAFFIC.
9.

CONCRETE FLOOR SLAB TO EXTEND MIN 100mm PAST R.C.B.C OUTER WALLS.
10.

ON DRIVEWAYS, STONE PITCHING MUST MATCH WITH THE BITUMINOUS SURFACE. NO GAP BETWEEN THE SURFACE OF THE DRIVEWAY AND HEADWALL PROTECTION WILL BE ACCEPTED.
11.

MIN CULVERT HEIGHT 450MM UNLESS OTHERWISE AGREED WITH THE RELEVANT AUTHORITY.
12.

FOR CULVERTS EXCEEDING A HEIGHT OF 600mm, REFER TO DIPL STANDARD DRAWINGS FOR DETAILS. CONSIDER NEED FOR BARRIERS/EDGE TREATMENTS.
13.

DRIVEWAY ENDWALLS MUST BE LOCATED OUTSIDE OF CLEAR ZONES.
14.

SAND OR FCR BEDDING MAY BE OMITTED FOR CATEGORY B AND C INFRASTRUCTURE LOCALITIES.

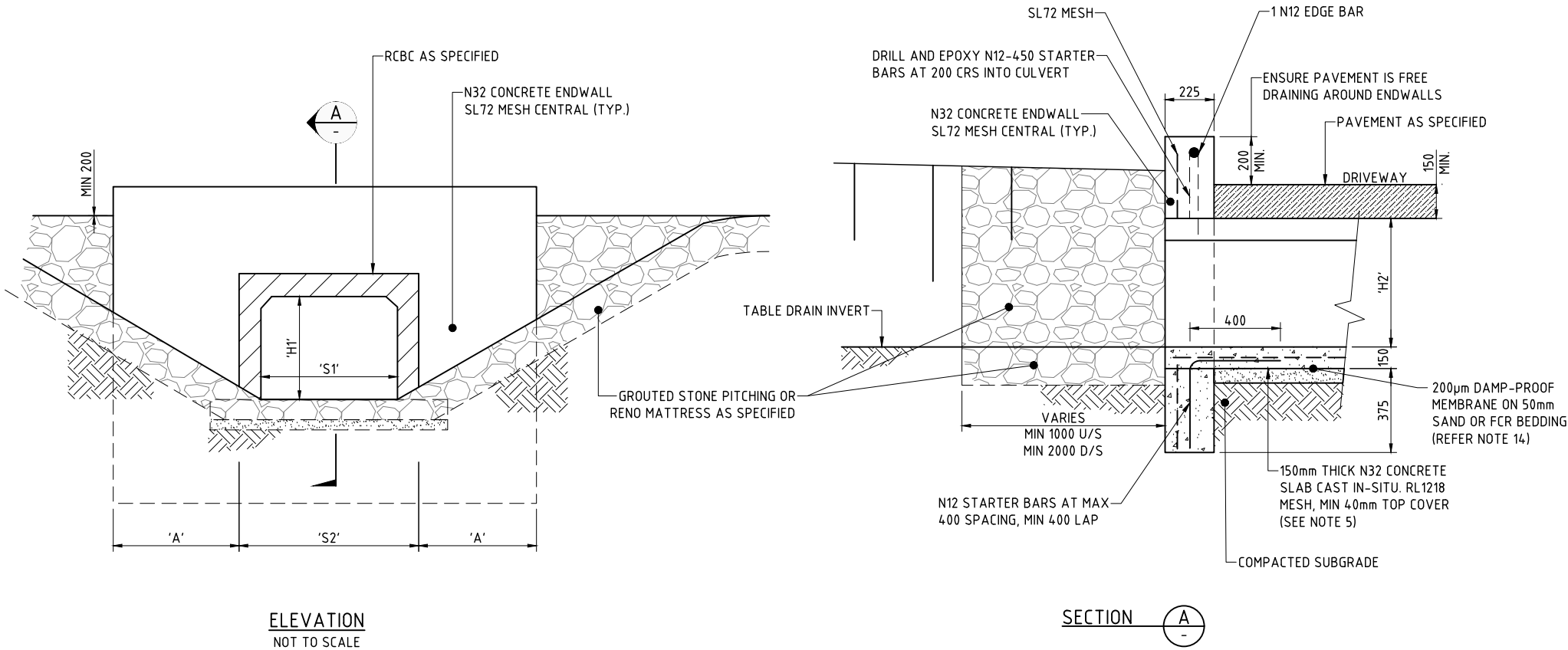
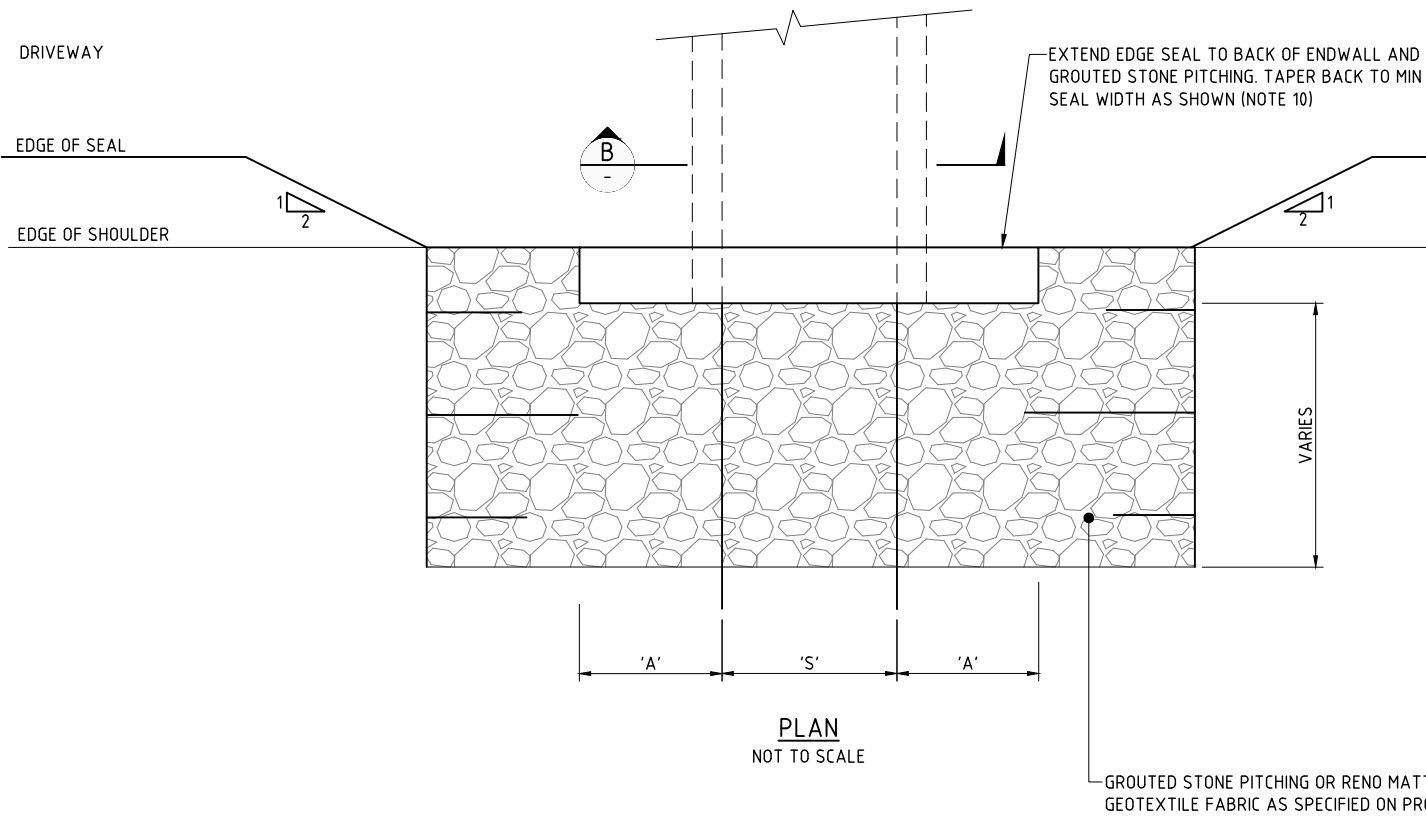
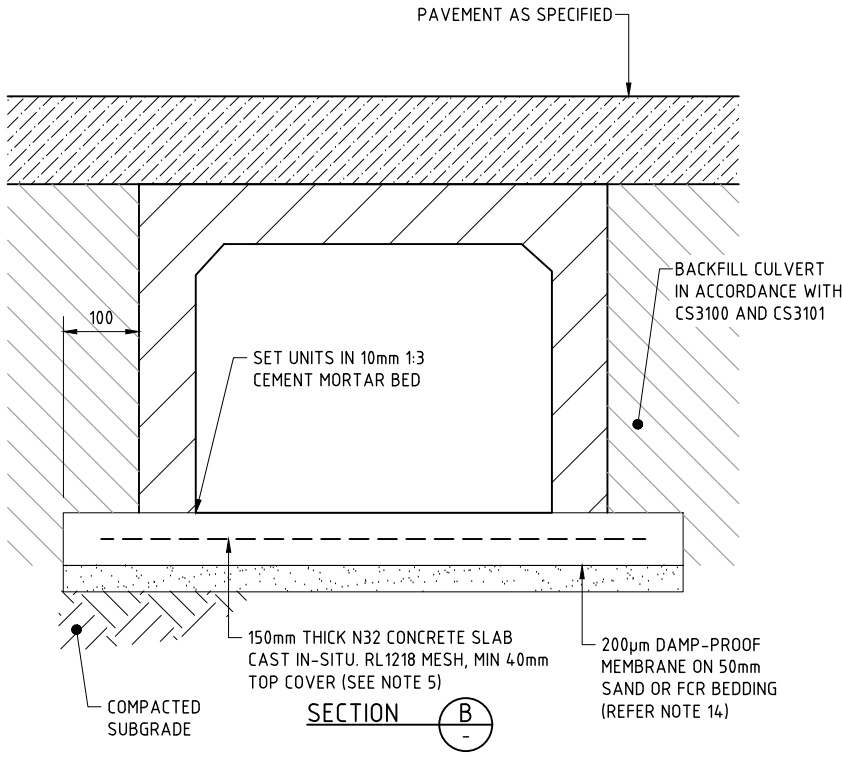


TABLE OF DIMENSIONS					
BOX CULVERT SIZE	'S1'	'H1'	'S2'	'H2'	'A'
450x450	451	457	611	552	450
600x450	606	457	766	572	690
750x450	756	457	948	582	710
750x600	756	610	948	735	940
900x450	908	457	1100	582	710
900x600	908	610	1100	735	940
1200x450	1212	457	1404	582	730
1200x600	1212	610	1404	735	960

TABLE NOTE: DIMENSIONS SHOWN ARE NOMINAL ONLY AND BASED ON A B2 EXPOSURE CLASSIFICATION. EXACT CULVERT DIMENSIONS, INCLUDING WALL THICKNESS AND CROWN THICKNESS, WILL VARY DEPENDING ON EXPOSURE CLASSIFICATION, LOADING, AND MANUFACTURER'S SPECIFICATIONS.



1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE
0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE
No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY

Drawn	Checked
KS	PB
Date: AUGUST 2020	Date: AUGUST 2020
Designed	Checked
PB	SPB
Date: AUGUST 2020	Date: AUGUST 2020
Design Project Leader	NTG Project Manager
SPB	N/A
Date: AUGUST 2020	Date: AUGUST 2020



SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS  
STORMWATER DRAINAGE

ACCESS CULVERT  
TYPICAL ENDWALL DETAILS

NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	1 OF 1	SS3008	1



**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The locations of underground services are approximate only  
and their exact position should be proven on site  
No guarantee is given that all existing services are shown

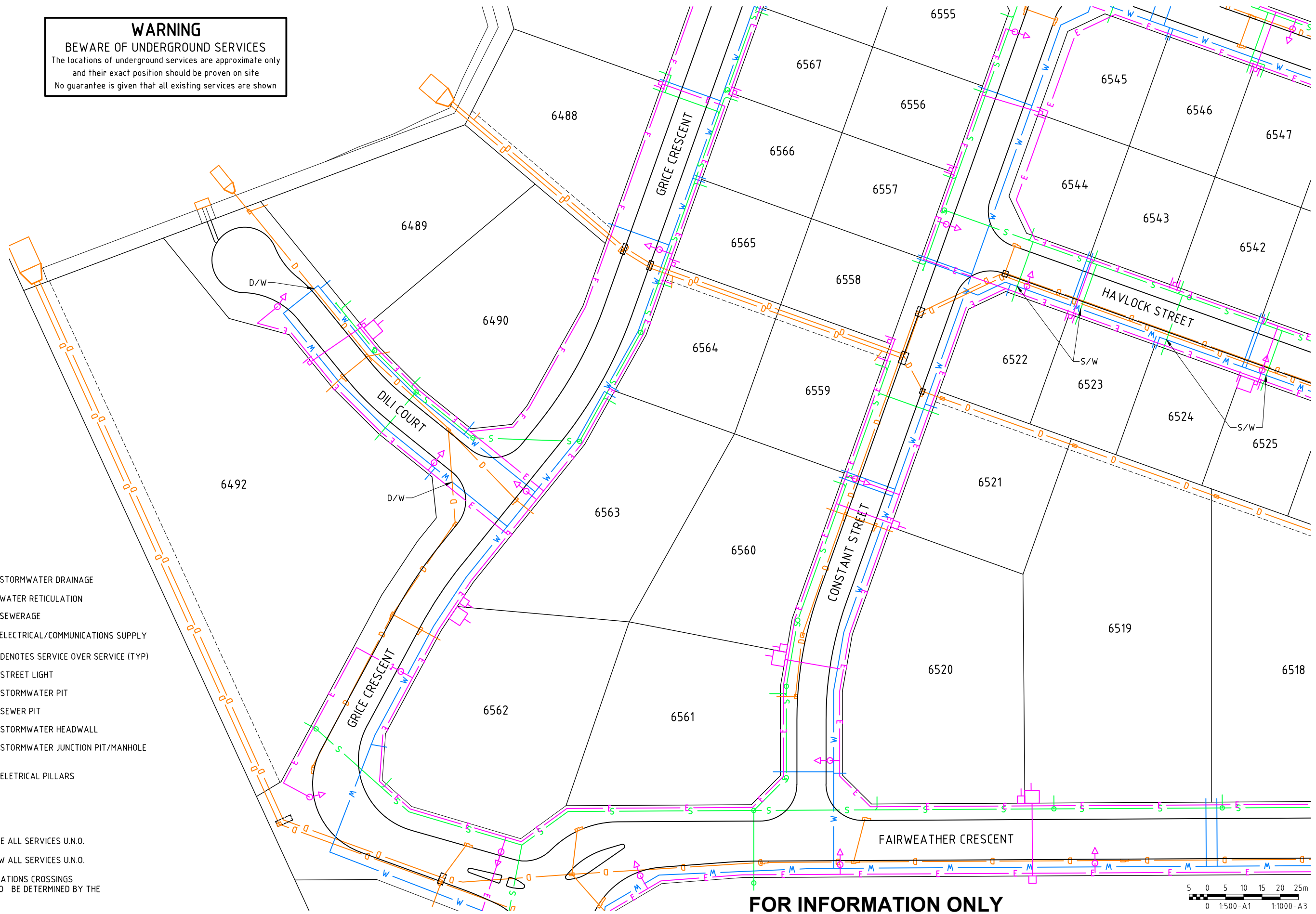
**LEGEND**

**PROPOSED WORKS**

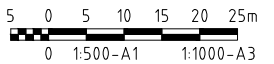
- STORMWATER DRAINAGE
- WATER RETICULATION
- SEWERAGE
- ELECTRICAL/COMMUNICATIONS SUPPLY
- DENOTES SERVICE OVER SERVICE (TYP)
- STREET LIGHT
- STORMWATER PIT
- SEWER PIT
- STORMWATER HEADWALL
- STORMWATER JUNCTION PIT/MANHOLE
- ELETRICAL PILLARS

**GENERAL NOTES:**

1. WATERMAINS ARE ABOVE ALL SERVICES U.N.O.
2. SEWERMAINS ARE BELOW ALL SERVICES U.N.O.
3. ELECTRICAL / COMMUNICATIONS CROSSINGS (UNDERS AND OVERS) TO BE DETERMINED BY THE CONTRACTOR.



**FOR INFORMATION ONLY**

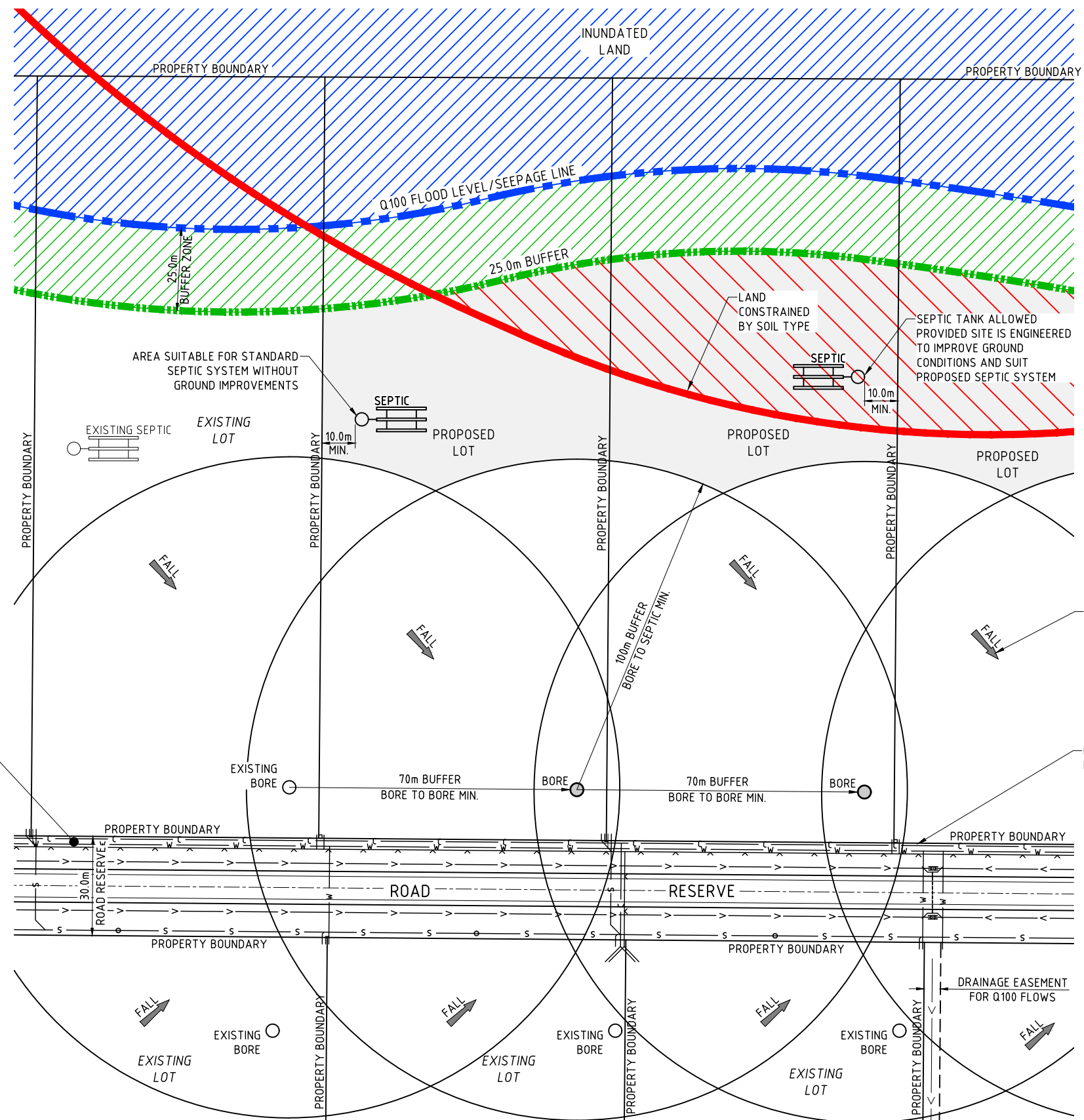


1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE
0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE
No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY

Drawn	KS	Checked	PB
Date:	AUGUST 2020	Date:	AUGUST 2020
Designed	PB	Checked	SPB
Date:	AUGUST 2020	Date:	AUGUST 2020
	Design Project Leader		NTG Project Manager
	SPB		N/A
Date:	AUGUST 2020	Date:	AUGUST 2020



SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS				
UTILITIES				
URBAN MASTER SERVICES PLAN				
SAMPLE LAYOUT				
NTG Project No.	NTG Asset No.	Sheet Reference	NTG Drawing No.	Amendment
-	-	1 OF 1	SS4000	1
				A1



LEGEND

Q100 FLOOD LEVEL/SEEPAGE LINE

Q100 BUFFER ZONE

EXTENT OF CONSTRAINED LAND BY SOIL TYPE

INUNDATED LAND

BUFFER ZONE (NO WORKS PERMITTED)

CONSTRAINED LAND BY SOIL TYPE - (WORKS PERMITTED ONLY AFTER GROUND IMPROVEMENTS)

PERMISSIBLE LAND FOR SEPTIC TANKS

BORE

EXISTING BORE

EXISTING / PROPOSED ELECTRICAL

EXISTING / PROPOSED COMMUNICATIONS

EXISTING/ PROPOSED TABLE DRAIN

PROPOSED CULVERT

OVERLAND FLOW PATH

NOTE:  
1. ILLUSTRATED BUFFER / SEPARATION DISTANCES AND SET BACKS ARE SUBJECT TO CHANGE. REFER CURRENT REGULATORY REQUIREMENTS.

EXISTING OVERLAND SHEET FLOW TO BE MAINTAINED.

REFER SS1005 FOR TYPICAL RURAL ROAD CROSS-SECTION, INCLUDING STANDARD OFFSETS FOR SERVICES.

TYPICAL RURAL SERVICES LAYOUT PLAN  
NOT TO SCALE


WARNING

BEWARE OF UNDERGROUND SERVICES

The locations of underground services are approximate only and their exact position should be proven on site

No guarantee is given that all existing services are shown

FOR INFORMATION ONLY

						Drawn KS Date: AUGUST 2020	Checked PB Date: AUGUST 2020	 <b>Northern Territory Government</b>	SUBDIVISION DEVELOPMENT GUIDELINES STANDARD DRAWINGS UTILITIES					
						Designed PB Date: AUGUST 2020	Checked SPB Date: AUGUST 2020		RURAL MASTER SERVICES PLAN SAMPLE LAYOUT					
1	REISSUED AS A STANDARD DRAWING	APR 23	KS	BYRNE		Design Project Leader SPB Date: AUGUST 2020	NTG Project Manager N/A Date: AUGUST 2020		NTG Project No. -	NTG Asset No. -	Sheet Reference 1 OF 1	NTG Drawing No. SS4001	Amendment 1	A1
0	ISSUED AS A STANDARD DRAWING	AUG 20	KS	BYRNE										
No.	AMENDMENT DESCRIPTION	DATE	INIT.	DEPT/COMPANY										