

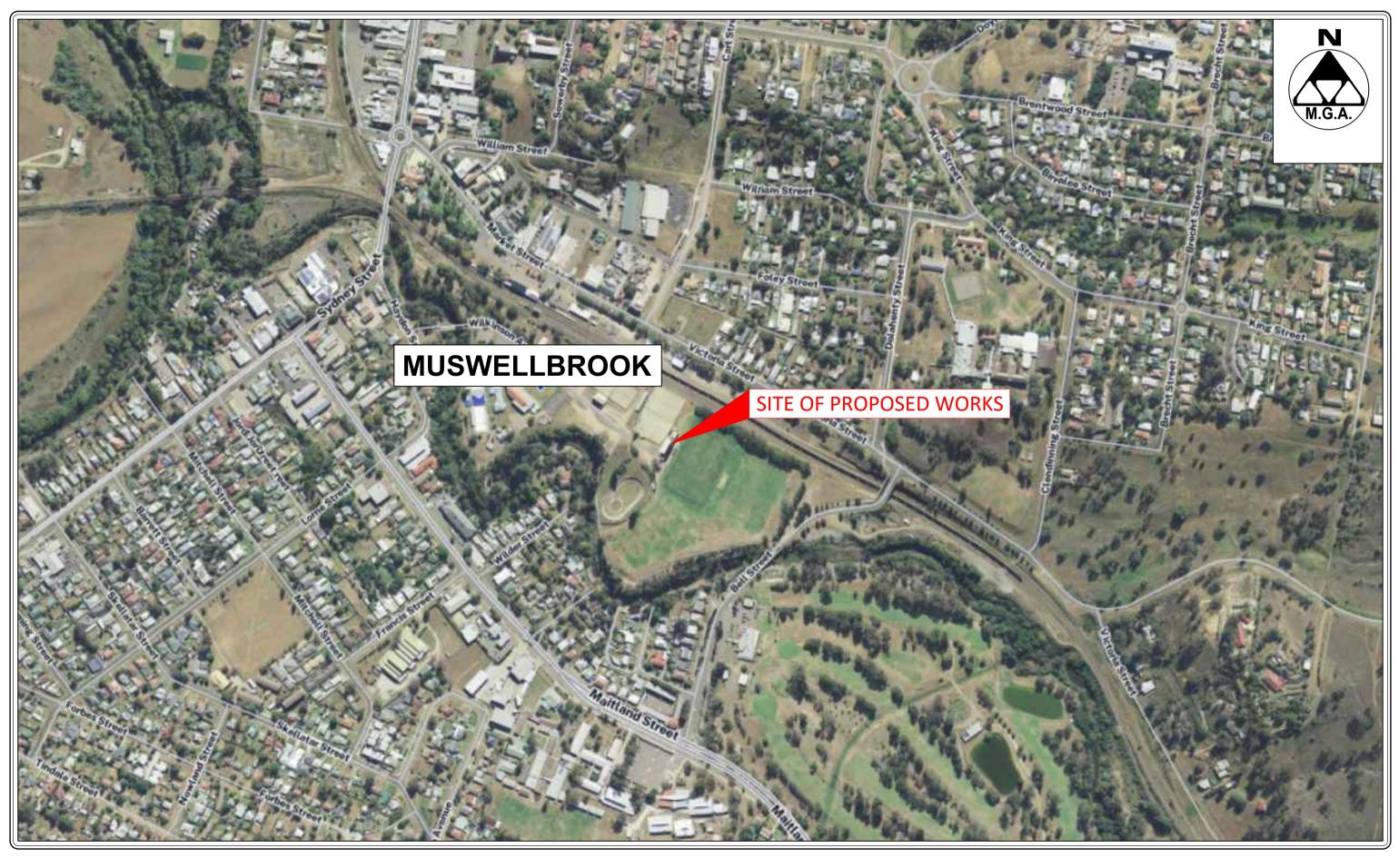
Civil Design Documentation

Proposed Olympic Park Grandstand Redevelopment OYLMPIC PARK

3 Wilkinson Avenue, Muswellbrook, NSW, 2333

SCHEDULE OF DRAWINGS

SHEET No.	DESCRIPTION
44840-C00 44840-C01 44840-C03	COVER SHEET AND DRAWING SCHEDULE EXISTING SITE PLAN PROPOSED OVERALL SITE PLAN
44840-C10 44840-C11 44840-C12	PROPOSED STORMWATER MANAGEMENT PLAN PROPOSED ROOF DRAINAGE PLAN STORMWATER SPECIFICATION
44840-C20	PROPOSED EARTHWORKS PLAN



LOCALITY PLAN NOT TO REDUCTION RATIO

ISSUED FOR INTERNAL REVIEW



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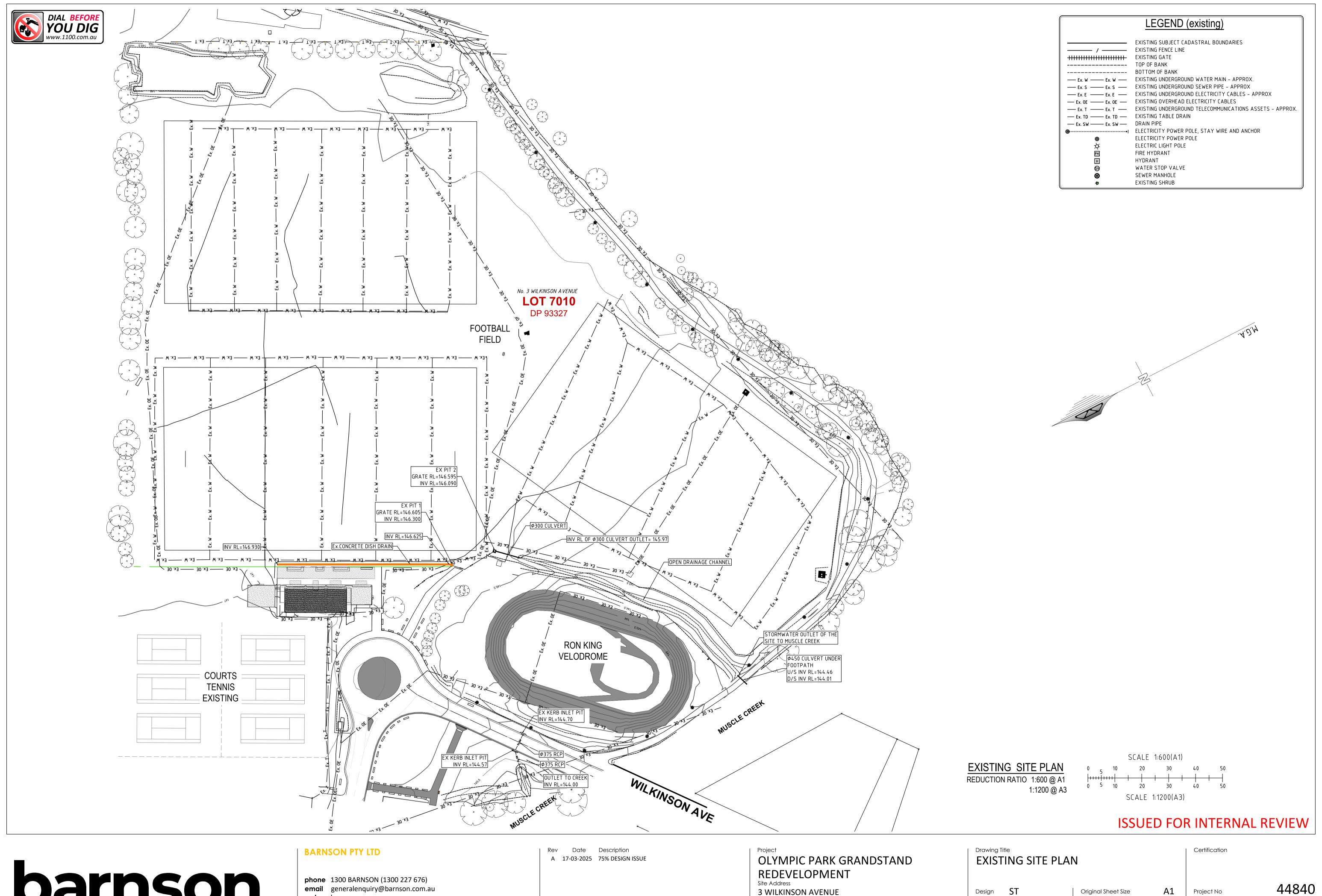
Description A 17-03-2025 75% DESIGN ISSUE **OLYMPIC PARK GRANDSTAND**

REDEVELOPMENT 3 WILKINSON AVENUE MUSWELLBROOK NSW 2333

MUSWELLBROOK SHIRE COUNCIL

COVER SHEET & NOTES

Certification Original Sheet Size

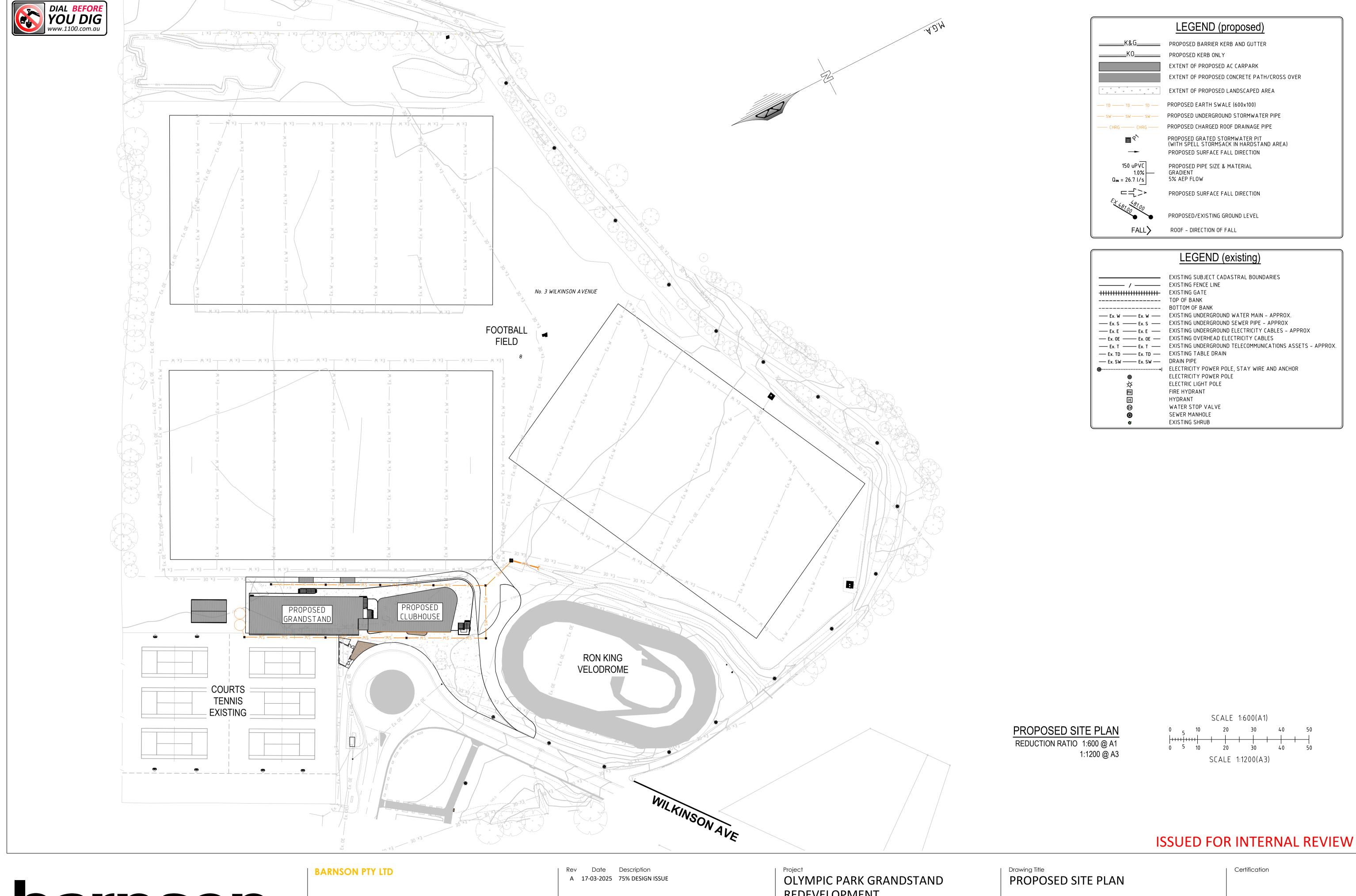


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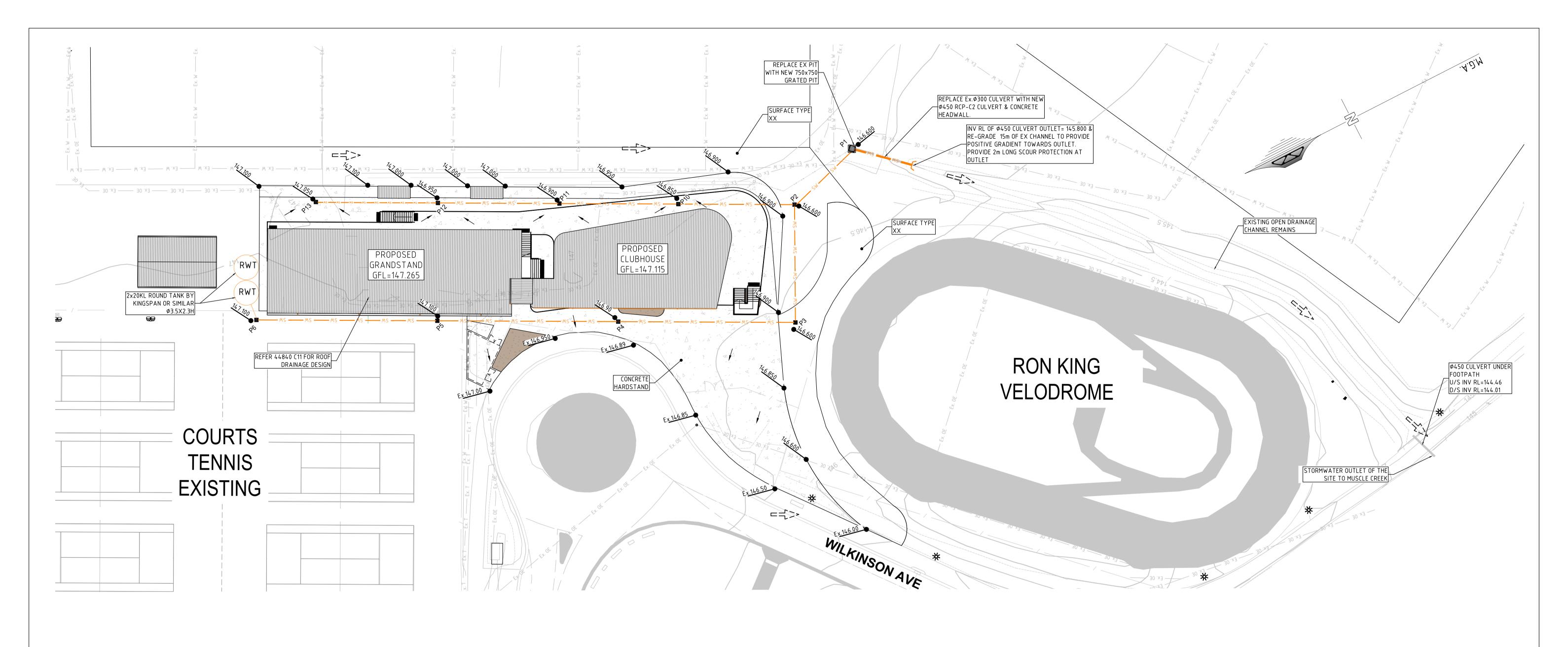
REDEVELOPMENT

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Original Sheet Size

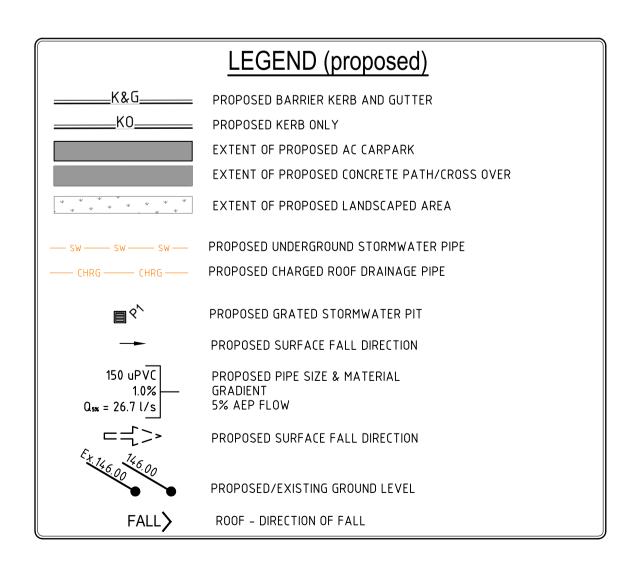
Project No

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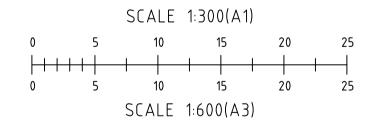
LEGEND (existing)

EXISTING SUBJECT CADASTRAL BOUNDARIES EXISTING FENCE LINE EXISTING GATE ---- BOTTOM OF BANK — Ex. W — Ex. W — EXISTING UNDERGROUND WATER MAIN - APPROX. — Ex. S — Ex. S — EXISTING UNDERGROUND SEWER PIPE - APPROX — Ex. E — EXISTING UNDERGROUND ELECTRICITY CABLES - APPROX — Ex. OE — Ex. OE — EXISTING OVERHEAD ELECTRICITY CABLES — Ex. T — Ex. T — EXISTING UNDERGROUND TELECOMMUNICATIONS ASSETS – APPROX. — Ex. TD — Ex. TD — EXISTING TABLE DRAIN — Ex. SW — Ex. SW — DRAIN PIPE ---I ELECTRICITY POWER POLE, STAY WIRE AND ANCHOR ELECTRICITY POWER POLE ELECTRIC LIGHT POLE FIRE HYDRANT HYDRANT WATER STOP VALVE SEWER MANHOLE EXISTING SHRUB



PROPOSED STORMWATER MANAGEMENT PLAN

REDUCTION RATIO 1:300 @ A1 1:600 @ A3



STORMWATER PIT SCHEDULE							
PIT No.	TOP R.L.	DEPTH (mm)	IL INLET	IL OUTLET	LxB	LID TYPE	
P1	X	X	145.850	145.850	750×750	HD GRATED (GALV)	
P2	Х	X	145.920	145.920	600×600	HD GRATED (GALV)	
P3	Х	X	146.020	146.020	600×600	HD GRATED (GALV)	
Р4	Х	X	146.170	146.170	600×600	HD GRATED (GALV)	
P5	Х	X	146.320	146.320	600×600	HD GRATED (GALV)	
P6	Х	X	-	146.470	600×600	HD GRATED (GALV)	
P10	Х	X	146.020	146.020	600×600	HD GRATED (GALV)	
P11	X	X	146.120	146.120	600×600	HD GRATED (GALV)	
P12	Х	X	146.220	146.220	600×600	HD GRATED (GALV)	
P13	Х	X	-	146.320	600×600	HD GRATED (GALV)	

Revision

NOTE: ALL TOP RLs ARE INDICATIVE ONLY. LID RL TO MATCH FINISHED SURFACE LEVELS.

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Date Description A 07-03-2025 75% DESIGN ISSUE OLYMPIC PARK GRANDSTAND REDEVELOPMENT

Site Address 3 WILKINSON AVENUE MUSWELLBROOK NSW 2333

MUSWELLBROOK SHIRE COUNCIL

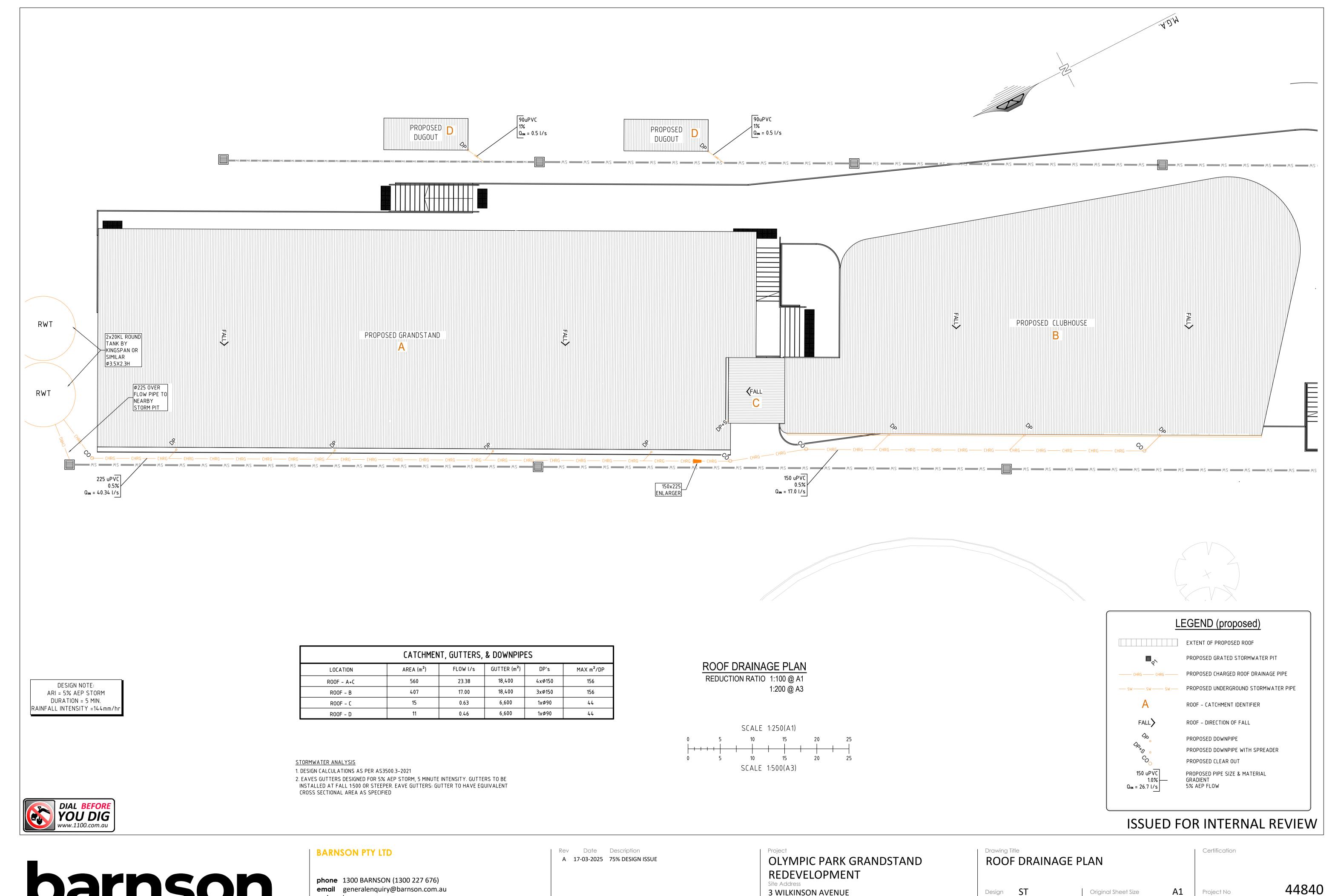
Drawing Title PROPOSED STORMWATER MANAGEMENT PLAN

Design **ST**

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SITEWORKS NOTES

- 1. ORIGIN OF LEVELS :- AHD
- CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK.
- ALL WORK IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS, THE SPECIFICATIONS AND THE DIRECTIONS OF THE SUPERINTENDENT.
- EXISTING SERVICES HAVE BEEN OBTAINED FROM SURFACE INSPECTION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND THE LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
- 5. WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
- 6. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A QUALIFIED SURVEYOR.
- CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER TELECOM OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
- 8. ON COMPLETION OF CONSTRUCTION, ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AND GRASSED AREAS AND ROAD PAVEMENTS.
- 9. MAKE SMOOTH TRANSITION TO EXISTING AREAS.
- 10. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DIVERSION DRAINS AND MOUNDS TO ENSURE THAT AT ALL TIMES EXPOSED SURFACES ARE FREE DRAINING AND WHERE NECESSARY EXCAVATE SUMPS AND PROVIDE PUMPING EQUIPMENT TO DRAIN EXPOSED AREAS. ALL WORK TO BE UNDERTAKEN WITH ADHERENCE TO THE REQUIREMENTS OF THE SOIL AND WATER MANAGEMENT PLAN.
- 11. THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED ARCHITECTURAL STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND SPECIFICATIONS.

SURVEY NOTES

- CONTOURS SHOWN DEPICT THE TOPOGRAPHY. EXCEPT AT SPOT LEVELS SHOWN THEY DO NOT REPRESENT THE EXACT LEVEL AT ANY PARTICULAR POINT
- SERVICES SHOWN HEREON HAVE BEEN DETERMINED FROM VISUAL EVIDENCE AND ARE INDICATIVE ONLY. PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON THE SITE THE RELEVANT AUTHORITY SHOULD BE CONTACTED TO ESTABLISH DETAILED LOCATION AND DEPTH.

PIPE TRENCH - FILL NOTES

BEDDING SAND

BEDDING SAND SHALL BE GRANULAR MATERIAL HAVING A LOW PERMEABILITY AND HIGH STABILITY WHEN SATURATED, CONFORMING TO THE GRADING LIMITS FOR BEDDING SAND AS INDICATED IN THE CONTRACT DOCUMENTS. BEDDING SAND SHALL BE COMPACTED TO A DENSITY INDEX OF 95% AS DETERMINED IN ACCORDANCE WITH AS1289.

APPROVED IMPORTED GRANULAR FILL

ONLY IMPORTED GRANULAR FILL MATERIAL APPROVED BY THE SUPERINTENDENT SHALL BE USED. THIS FILL MATERIAL SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 300mm THICK TO A DRY DENSITY OF 100% OF THE STANDARD MAXIMUM DRY DENSITY OF THE MATERIAL AND WITH A MOISTURE CONTENT NO MORE THAN 1% ABOVE OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH AS1289.

ORDINARY EXCAVATED FILL MATERIAL

ORDINARY EXCAVATED FILL MATERIAL IS EXCAVATED TRENCH MATERIAL THAT IS FREE OF VEGETABLE MATTER, HUMUS, LARGE CLAY LUMPS AND ROCK BOULDERS. THIS FILL MATERIAL SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 300mm THICK. TO A DENSITY OF 95% OF THE STANDARD MAXIMUM DRY DENSITY OF THE MATERIAL WITH A MOISTURE CONTENT OF NOT MORE THAN 1% ABOVE THE OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH AS1289.

STORMWATER NOTES

- 1. ALL DOWNPIPE LINES SHALL BE SEWER GRADE uPVC WITH SOLVENT WELD JOINTS (U.N.O)
- 2. EQUIVALENT STRENGTH VCP OR FCP PIPES MAY BE USED.
- 3. MINIMUM GRADE TO STORMWATER LINES TO BE 0.5% MINIMUM (U.N.O)
- CONTRACTORS TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.
- 5. ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.
- APPROVED PRECAST PITS MAY BE USED.
- 7. WHERE TRENCHES ARE IN ROCK, THE PIPE SHALL BE BEDDED ON A MIN. 50mm CONCRETE BED (75mm THICK BED OF 12mm BLUE METAL) UNDER THE BARREL OF THE PIPE. THE PIPE COLLAR AT NO POINT SHALL BEAR THE ROCK. IN OTHER THAN ROCK, PIPES SHALL BE LAID ON A 75mm THICK SAND BED. IN ALL CASES, BACKFILL THE TRENCH WITH THE SAND TO 200mm ABOVE THE PIPE .WHERE THE PIPE IS UNDER PAVEMENTS, BACKFILL REMAINDER OF TRENCH WITH SAND OR APPROVED GRANULAR BACKFILL COMPACTED IN 150mm LAYERS TO 98% MAX. DRY DENSITY.
- 8. WHERE STORMWATER LINES PASS UNDER FLOOR SLABS, SEWER GRADE RUBBER RING JOINTS ARE TO BE USED.
- 9. ALL PIPES IN THE ROADWAY AND FOOTPATH AREAS, WHERE THE DEPTH OF PIPE IS LESS THAN 500mm FROM THE FINISHED SURFACE LEVEL ARE TO BE CONCRETE ENCASED.

STORMWATER ANALYSIS

DESIGN CALCULATIONS AS PER AS3500.3-2021

PRE-DEVELOPED:

-TOTAL APPLICABLE CATCHMENT AREA (A) = 3,400m² -RAINFALL INTENSITY (I1) = 144 mm/hr (5min- 5% AEP) -Cr = RUNOFF COEFFICIENT FOR ROOFED AREA = 1.0-Ar = TOTAL ROOFED AREA = 230 m² -Ci = RUNOFF COEFFICIENT FOR UNROOFED IMPERVIOUS AREA = 0.9 -Ai = TOTAL UNROOFED IMPERVIOUS AREA = 900 m² -Cp = RUNOFF COEFFICIENT FOR PERVIOUS AREA = 0.3

-Ap = TOTAL PERVIOUS GRASS AREA = 2,270m²

POST-DEVELOPED:

-TOTAL APPLICABLE CATCHMENT AREA (A) = 3,400m² -RAINFALL INTENSITY (I) = 144 mm/hr (5min -5% AEP) -Cr = RUNOFF COEFFICIENT FOR ROOFED AREA = 1.0 -Ar = TOTAL ROOFED AREA=1,000 m² -Ci = RUNOFF COEFFICIENT FOR UNROOFED IMPERVIOUS AREA = 0.9

-TOTAL FLOW QPRE = (Cr Ar +Ci Ai + Cp Ap). 11 / 3600 = 68.8 l/s

-Ai = TOTAL UNROOFED IMPERVIOUS AREA = 1,375 m² -Cp = RUNOFF COEFFICIENT FOR PERVIOUS AREA = 0.3 -Ap = TOTAL PERVIOUS AREA = 1025 m²

-TOTAL FLOW QPOST = (Cr Ar +Ci Ai + Cp Ap). 11 / 3600 = 101.80 l/s

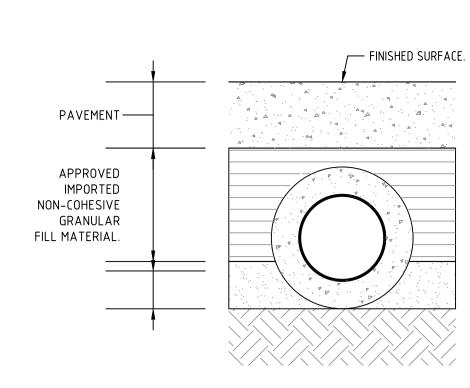
PERMISSIBLE PEAK DISCHARGE = PRE-DEVELOPMENT PEAK FLOW

OSD CALCULATION

- REQUIRED OSD VOLUME = $(101.8-68.8)\times5\times60/1000 = 9.9$ CUM
- PROPOSED ON RWT OSD = 15 CUM
- OSD-BY-PASS =61.41/s(ALL SURFACE AREA) - REQUIRED CONTROL FLOW FROM OSD = (68.8-61.4)=7.41/s

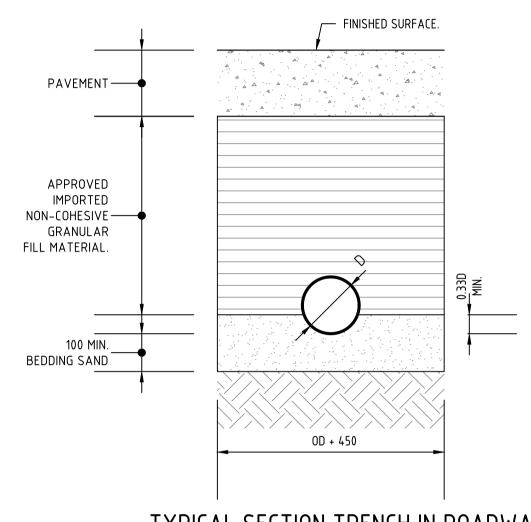
ORIFICE CALCULATION (ONGROUND)

- HEAD ABOVE THE CENTRELINE,D = Xm ORIFICE COEFFICIENT, C = 0.8
- ORIFICE DIAMETER.D = Xmm
- CONTROL FLOW=7.4l/s

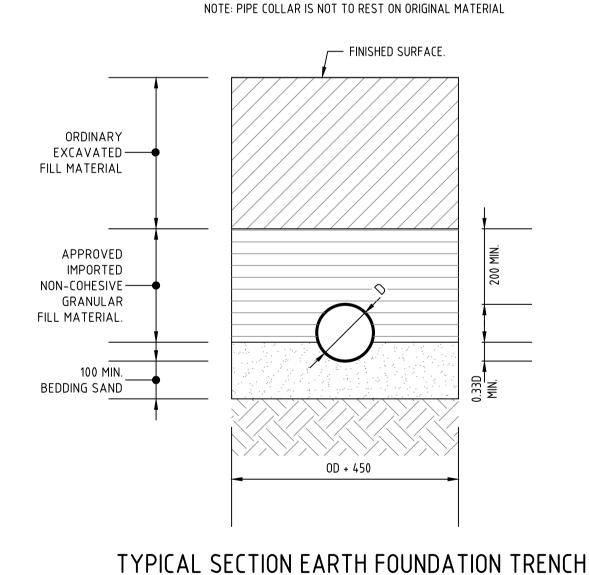


TYPICAL PIPE ENCASEMENT

SCALE 1:10 NOTE: PIPE COLLAR IS NOT TO REST ON ORIGINAL MATERIAL



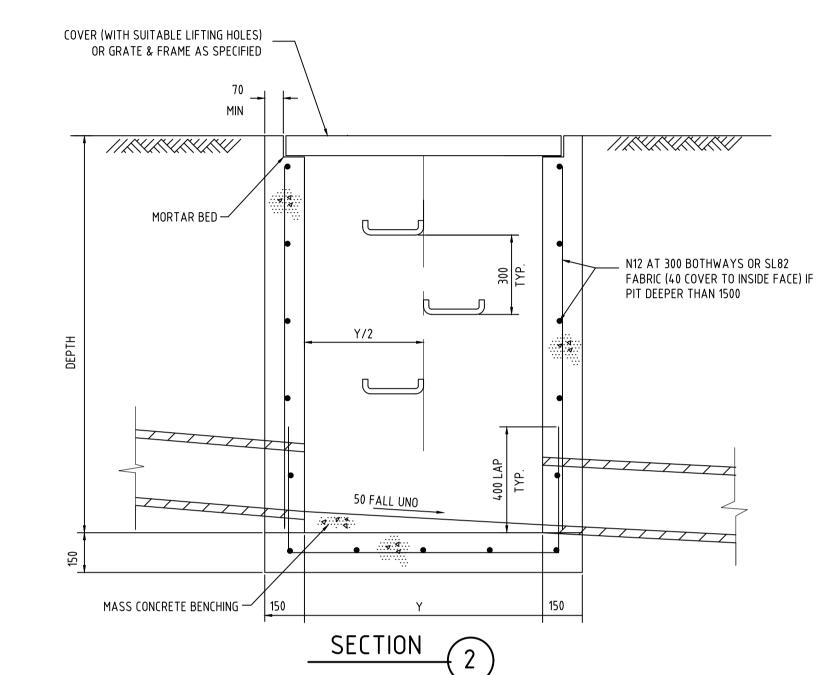
TYPICAL SECTION TRENCH IN ROADWAY SCALE 1:10



NOTE: PIPE COLLAR IS NOT TO REST ON ORIGINAL MATERIAL

PLAN GRATED INLET PIT

FLOW



N.T.S.

INSPECTION HOLD POINTS

- INSTALLATION OF SEDIMENT & EROSION CONTROL MEASURES.
- 2. WATER & SEWER LINE INSTALLATION PRIOR TO BACKFILL.
- 3. ESTABLISHMENT OF LINE & LEVEL FOR KERB & GUTTER PLACEMENT.
- ROAD PAVEMENT CONSTRUCTION.
- ROAD PAVEMENT SURFACING.
- 6. PRACTICAL COMPLETION.

- PROVIDE STEP IRONS IF PIT DEEPER THAN

PIT DIMENSIONS

1500<D<2400 | 900 | 900

| X | Y

450 450

600 | 600

600 900

| 750 | 1200

DEPTH

D<600

D<1000

D<1500

D>2400

SERVICES INSTALLATION

1. INSTALLATION OF ALL UNDERGROUND PIPES BE INSTALLED PRIOR TO INSTALLATION OF ROAD PAVEMENT.

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OLYMPIC PARK GRANDSTAND REDEVELOPMENT

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STORMWATER SPECIFICATIONS

DOS

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Revision

Certification Project No

44840 Drawing No