## **GENERAL**:

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH CONTRACT DOCUMENTS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS DURING THE COURSE OF THE CONTRACT. READ THE DRAWINGS CAREFULLY AND REFER ANY DISCREPANCIES TO THE SUPERINTENDENTS REPRESENTATIVE FOR DECISION PRIOR TO PROCFEDING WITH THE WORK
- 2. ALL DIMENSIONS RELEVANT TO SETTING OUT AND OFF-SITE WORK SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION AND FABRICATION. DO NOT OBTAIN DIMENSIONS BY SCALING FROM THE DRAWINGS.
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE (U.N.O.). WORKMANSHIP AND MATERIALS
  SHALL BE IN ACCORDANCE WITH THE RELEVANT STANDARDS ASSOCIATION OF AUSTRALIA (SAA) CODES
  AND RELEVANT BUILDING AUTHORITY.
- 4. THE BUILDER SHALL BE RESPONSIBLE FOR THE STRUCTURE DURING ERECTION AND PROVIDE ADEQUATE PROPPING AND SUPPORTS
- 5. WHERE DTC STANDARDS ARE REFERENCED THESE REFER TO STANDARDS WITHIN THE NORTHERN TERRITORY DEEMED TO COMPLY MANUAL PREPARED BY THE DEPARTMENT OF LANDS AND PLANNING.
- 6. BUILDING FROM THESE DRAWINGS IS NOT TO COMMENCE WITHOUT A BUILDING APPROVAL BEING ISSUED.
- 7. THE STRUCTURAL WORK SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED FOR THE FOLLOWING LOADS (TO THE CURRENT AS1170.1 & AS1170.2):

WIND LOADS (IN ACCORDANCE WITH CURRENT AS 1170.2)			
IMPORTANCE LEVEL;	2		
Ms , Mt	1,1		
WIND REGION	С		
REGIONAL WIND SPEEDS; V500 V20	69.3m/s (ULS) 45m/s (SLS)		
TERRAIN CATEGORY	2		
INTERNAL PRESSURE COEFFICIENT (CPi)	-		
LIVE LOADS (IN ACCORDANCE WITH C	JRRENT AS 1170.1)		
FLOOR - SLAB	5kPa		
THE ALLOWABLE FOUNDATION BEARING PRESSURE	100kPa		

#### **EXISTING CONDITIONS AND SERVICES:**

- 1. CONTRACTOR TO USE "DIAL BEFORE YOU DIG" PRIOR TO COMMENCEMENT OF ANY SITE WORKS.
- CONTRACTOR TO ENSURE THAT NEW WORKS DO NOT DAMAGE ANY EXISTING SERVICES. CONTRACTOR TO LOCATE ALL EXISTING ABOVEGROUND AND UNDERGROUND SERVICES IN THE VICINITY OF THE SITE OF WORKS. DUE CARE SHOULD BE MAINTAINED WHEN WORKING AND EXCAVATING IN ALL AREAS.

### STEELWORK:

- 1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT AS4100 AND THE CURRENT AS1554, BUILDING CODE OF AUSTRALIA (BCA) AND NT WORKSAFE REGULATIONS.
- 2. ALL WELDS TO BE 6MM CONTINUOUS SPECIAL CLASS FILLET WELDS U.N.O.
- ALL WELDS SHALL BE PERFORMED BY A QUALIFIED WELDER IN ACCORDANCE WITH THE CURRENT AS 1554
  AND WITH E41XX ELECTRODES.
- 4. STEELWORK THAT IS SITE WELDED OR SUSTAINS ANY OTHER TYPE OF SURFACE DAMAGE SHALL BE PREPARED TO THE CURRENT AS 1627 PART 2 (CLASS 3) AND PRIMED WITH TWO COATS OF SINGLE PACK, ZINC-RICH PRIMER IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION.
- 5. FINISH COATS TO EXPOSED STEELWORK TO BE PAINT COMPATIBLE WITH PRIMER AND IN ACCORDANCE WITH ARCHITECTS SPECIFICATIONS.
- 6. ALL BOLT TYPES (AND DESIGNATIONS WHERE USED) SHALL BE AS FOLLOWS:
- 6.1. 4.6/S COMMERCIAL BOLTS TO THE CURRENT AS 1111-2015 AND AS 1112 SNUG TIGHT.
- 6.2. 8.8/S HIGH STRENGTH STRUCTURAL BOLTS, NUTS AND HARDENED WASHERS TO THE CURRENT AS 1252. SNUG TIGHTENED ONLY.
- ALL BOLTS, NUTS AND WASHERS INCLUDING H.D. BOLTS/REO ARE TO BE HOT DIP GALVANISED. ALL
  CAST-IN FERRULES AND MASONRY ANCHORS TO BE PASSIVATED ZINC COATED. ALL GALVANISED
  COMPONENTS CAST-IN TO CONCRETE MUST BE PASSIVATED.
- 8. ALL STEELWORK SHALL HAVE STEEL GRADE AS FOLLOWS

STEEL MEMBER	STEEL GRADE	CORRESPONDING CURRENT STANDARD
HOT ROLLED PLATES	250	AS 3678
HOT ROLLED STEEL SECTIONS	300	AS 3679
RECTANGULAR & SQUARE HOLLOW SECTIONS	450	AS 1163

#### FOUNDATIONS:

- FOUNDATION MATERIAL (AFTER EXCAVATION) SHALL BE APPROVED FOR A SAFE BEARING CAPACITY OF 100kPa.
- SUB-BASE FOR SLAB ON GROUND AND BACKFILL OVER FOOTINGS SHALL BE APPROVED GRANULAR
  MATERIAL, COMPACTED IN LAYERS OF 150mm MAX. TO 95% MAXIMUM MODIFIED DRY DENSITY (MMDD) IN
  ACCORDANCE WITH THE CURRENT AS 1289.
- SURFACE TO BE STRIPPED OF ALL ORGANIC MATTER (e.g. TOP SOIL). PROOF ROLL SUBGRADE TO 95% MMDD
- 4. SELECTED FILL SHALL BE A GRAVEL, DECOMPOSED OR BROKEN ROCK, FREE FROM ORGANIC MATTER AND LUMPS OF CLAY AND SHALL CONFORM TO THE FOLLOWING CRITERIA:

AS METRIC SIEVE	% PASSING BY WEIGHT
75.0mm	100
9.5mm	30 – 100
2.36mm	15 - 65
0.075mm	5 - 25

- 4.1 % PASSING 0.075mm/% PASSING 2.36mm : 0.2% 0.4%
- 4.2 LINEAR SHRINKAGE (PASSING 0.425mm) : 2% 8%
- 4.3 MINIMUM 4 DAY SOAKED C.B.R. (95%
  - RELATIVE COMPACTION)
- TESTING OF MATERIALS AND FOR COMPACTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALLOW FOR A MINIMUM OF COMPACTION TESTS FOR THE BUILDING PAD.
- 6. FOUNDATIONS SHALL BE INSPECTED BY THE CERTIFYING DESIGN ENGINEER PRIOR TO PLACEMENT OF CONCRETE.

#### CONCRETE:

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT AS 3600.
- ALL FORMWORK SHALL CONFORM TO THE CURRENT AS 3610. RE-SHORING IS NOT PERMITTED.
- B. CONCRETE CHARACTERISTICS SHALL BE AS FOLLOWS U.N.O.:

STRUCTURAL ELEMENT	COMPRESSIVE STRENGTH (F'c – 28 Days MPa)	SLUMP (mm)	MAX. AGGREGATE SIZE (mm)
MASS CONCRETE & STRIP FOOTINGS	25	65 ± 15	20
SLAB ON GROUND	32	65 ± 15	20

- 4. DIMENSIONS OF CONCRETE ELEMENTS IN THESE DRAWINGS DO NOT INCLUDE APPLIED FINISHES THICKNESS.
- 6. ALL FORMED EDGES AND CORNERS OF CONCRETE MEMBERS SHALL HAVE 20mm CHAMFERS U.N.O.
- NO ADMIXTURES ARE TO BE USED WITHOUT THE WRITTEN APPROVAL OF THE CERTIFYING DESIGN ENGINEER.
- . ALL CONCRETE TO BE COMPACTED USING MECHANICAL VIBRATION.
- NO HOLES OR CHASES OTHER THAN THOSE SHOWN ON THESE DRAWINGS SHALL BE MADE IN CONCRETE WITHOUT PRIOR APPROVAL OF THE CERTIFYING DESIGN ENGINEER.
- 9. ALL CONCRETE SURFACES ARE TO BE CURED FOR 7 DAYS AFTER CASTING USING A METHOD IN ACCORDANCE WITH THE SPECIFICATION.
- 10. ABUTMENT OF SURFACES SHALL HAVE A SMOOTH TRANSITION. DESIGN TRANSITION SHALL BE 0 mm. CONSTRUCTION TOLERANCES SHALL BE AS FOLLOWS:
  - a) 0±3 mm VERTICAL
    - 0 ±5 mm,PROVIDED THE EDGES HAVE A BEVELLED OR ROUNDED EDGE TO REDUCE THE LIKLIHOOD OF TRIPPING.

#### TACTILE NOTES:

- PROVIDE TILE TACTILE GROUND SURFACE INDICATORS (TGSIs) AND INSTALL IN ACCORDANCE WITH DIPL ROAD WORKS SPECIFICATION AND COMPLY WITH THE CURRENT AS/NZS 1428.4.1 REQUIREMENT.
- 2. USE SURFACE APPLIED TILES ON EXISTING CONCRETE AND CAST IN TILES ON NEW CONCRETE.
- PROVIDE CAST IN UNITS WITH LUGS, WHICH ARE EMBEDDED IN THE CONCRETE SUBSTRATE AND WHICH ENABLE REPLACEMENT OF TGSI UNIT IF IT NEEDS TO BE REPLACED.
- TGSI MUST ACHIEVE A MIN OF PERFORMANCE CRITERIA MENTIONED IN THE CURRENT DIPL ROAD WORKS SPECIFICATIONS AND UPDATES.
- . CONFIRM CONTRAST COLOUR WITH SUPERINTENDENT PRIOR TO INSTALLATION.

#### DRAWING SCHEDULE

DIVA WING SCHEDOLL					
BUS TOTEM	DRAWING	DRAWING SHEET TITLE			
	NUMBER				
BUS TOTEM	CS-3724	GENERAL STRUCTURAL NOTES			
	CS-3725	SETOUT AND SLAB LAYOUT PLAN			
	CS-3726	SECTIONS AND DETAILS			
	CS-3732	BUS STOP TYPICAL SEAT AND TIME TABLE DETAILS			

# DRAWING IS TYPICAL ONLY. OBTAIN ENGINEERING STRUCTURAL CERTIFICATE BEFORE CONSTRUCTION

0	RENUMBERED AND REISSUED WITH DDA COMPLIANCE	APR 2022	S.J.	EES/DIPL		
No.	DESCRIPTION	DATE	NAME	DEPT/COMPANY		

WARNING
BEWARE OF UNDERGROUND SERVICES. THE LOCATION 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.



DRAWN		CHECKED		
DIPL		DIPL		
DATE	APR 2022	DATE	APR 2022	
DESIGNED	)	CHECKED		
DIPL		DIPL		
DATE	APR 2022	DATE	APR 2022	
DESIGN LEADER		DESIGN DIRECTOR		
DESIGN L	EADER	DESIGN D	IRECTOR	
DESIGN L	DIPL	DESIGN D	DIPL	
DESIGN L		DESIGN D		



STANDARD DRAWINGS

BUS SHELTERS & ASSOCIATED INFRASTRUCTURE

# BUS TOTEM STRUCTURE

GENERAL STRUCTURAL NOTES					
FILE No.	ASSET No.	SHEET No.	DRAWING No.		
-	-	1 OF 3	CS3724		

AMEND.

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