

LEGEND

- EXISTING CONTOUR (0.2m INTERVAL)
- DESIGN CONTOUR (0.2m INTERVAL)
- EXISTING DETAIL (TRACKS, BANKS, ETC)
- EXISTING PIPE
- PROPOSED PIPE (WITH HEADWALL)
- OVERHEAD POWER LINE
- PROPOSED TABLE DRAIN
- EXTENT OF NEW BITUMEN

| REV | DETAILS OF AMENDMENT | DESIGNED | DRAWN | CHECKED | APPROVED | DATE |
|-----|-------------------------------------|----------|-------|---------|----------|------|
| B | Revised Per RMS Preliminary Comment | DS | DS | | | |
| A | Original Issue | DS | DS | | | |

TATTERSALL LANDER PTY LTD
 DEVELOPMENT CONSULTANTS
 ENGINEERING, SURVEYING & PLANNING
 2 Bourke St. P.O. Box 580
 RAYMOND TERRACE 2324
 Fax (02) 49871733 Phone (02) 49871500

**PROPOSED ACCESS TO MID WESTERN HIGHWAY
 LOT 1 & 2 IN DP 749831
 MID WESTERN HIGHWAY
 GOOLGOWI**

| | |
|-------------------------------|---------------------|
| COUNCIL CARRATHOOL | REFERENCE ##### |
| PARISH WYCHEPROOF | SHEET SIZE A3 |
| SCALE 1:16000 | SHEET No. 1 of 9 |
| DATE : Plotted 10:31 29/11/17 | |

* Denote the original signature and date when revision was issued.

CLIENT: JAMES & CATHY MUSCAT

JOB No.: 215474

COMPUTER FILE : S:\Clients\2015\215474\Drawings\215474 Array 2 Design.dwg



| DESIGN SPEED OF APPROACH | DESIGN SPEED OF EXIT CURVE (km/h) | LENGTH OF DECELERATION (Including Taper, m) |
|--------------------------|-----------------------------------|---|
| 100 | 30 | 140 |

NOTE:
 - AGRD04A Section 5.3.1 STATES THAT IT IS GENERALLY ACCEPTABLE FOR HEAVY VEHICLES TO SLOW IN THE THROUGH LANE.
 - HEAVY VEHICLES ARE ALSO SPEED LIMITED TO 100km/h IN NSW.
 - FOR SMALLER VEHICLES APPROACHING AT A DESIGN SPEED OF APPROACH OF 120km/h A DECELERATION LENGTH OF 100m IS ALL THAT IS REQUIRED BY T8.2 FOR AN AUL(S) TURNING TREATMENT



| REV | DETAILS OF AMENDMENT | DESIGNED | DRAWN | CHECKED | APPROVED | DATE |
|-----|-------------------------------------|----------|-------|---------|----------|------|
| B | Revised Per RMS Preliminary Comment | DS | DS | | | |
| A | Original Issue | DS | DS | | | |

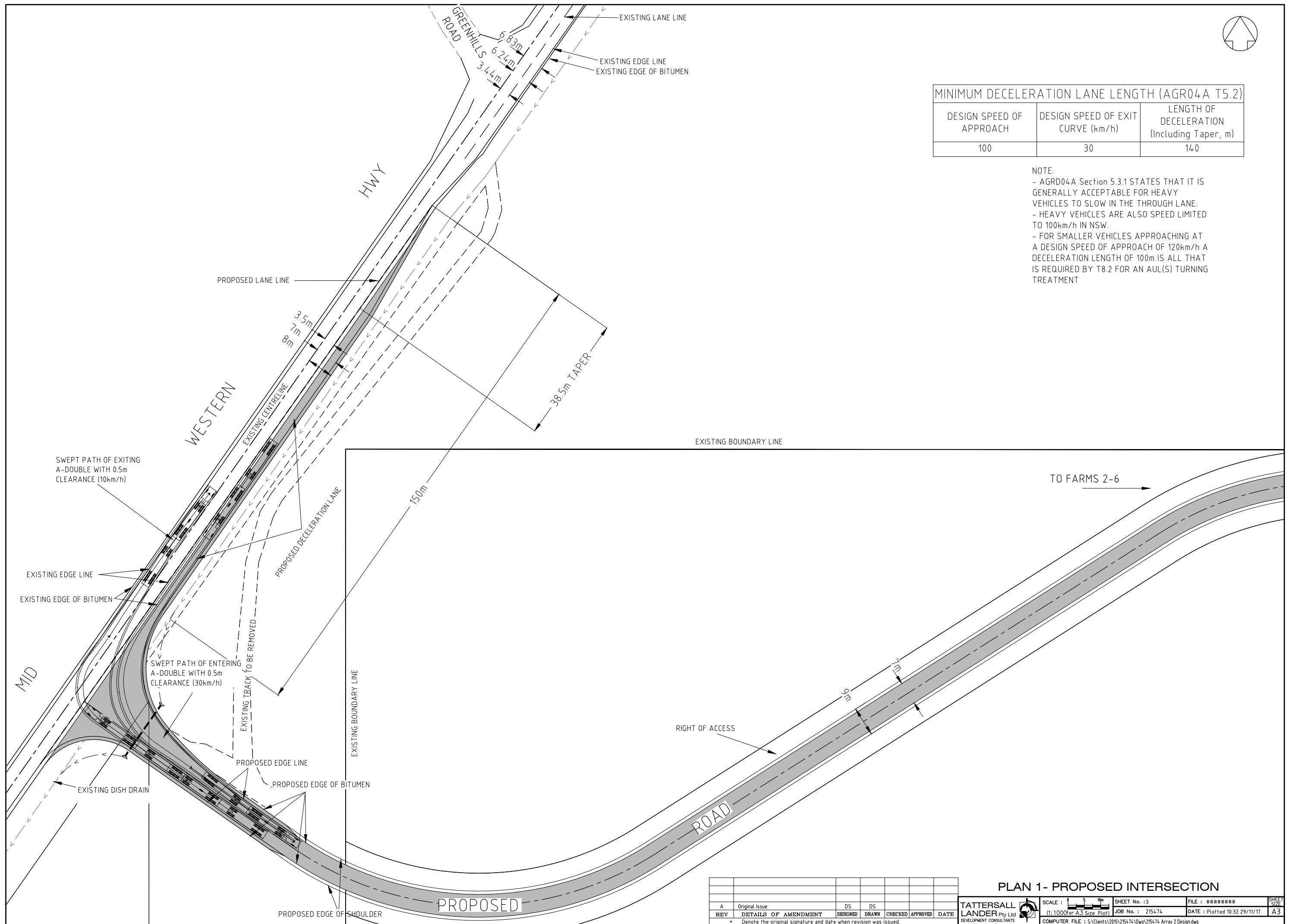
PLAN 1- PROPOSED INTERSECTION

| | | | | |
|--|--|------------------|-------------------------------|-----------------|
| TATTERSALL LANDER Pty Ltd DEVELOPMENT CONSULTANTS | SCALE : 1:1000 or A3 Size Plot | SHEET No. : 2 | FILE : ##### | SHEET SIZE : A3 |
| | COMPUTER FILE : S:\Clients\2015\215474\Drawg\215474 Array 2 Design.dwg | JOB No. : 215474 | DATE : Plotted 10/32 29/11/17 | |



| MINIMUM DECELERATION LANE LENGTH (AGR04A T5.2) | | |
|--|-----------------------------------|---|
| DESIGN SPEED OF APPROACH | DESIGN SPEED OF EXIT CURVE (km/h) | LENGTH OF DECELERATION (Including Taper, m) |
| 100 | 30 | 140 |

NOTE:
 - AGR04A Section 5.3.1 STATES THAT IT IS GENERALLY ACCEPTABLE FOR HEAVY VEHICLES TO SLOW IN THE THROUGH LANE.
 - HEAVY VEHICLES ARE ALSO SPEED LIMITED TO 100km/h IN NSW.
 - FOR SMALLER VEHICLES APPROACHING AT A DESIGN SPEED OF APPROACH OF 120km/h A DECELERATION LENGTH OF 100m IS ALL THAT IS REQUIRED BY T8.2 FOR AN AUL(S) TURNING TREATMENT



| REV | DETAILS OF AMENDMENT | DESIGNED | DRAWN | CHECKED | APPROVED | DATE |
|--|----------------------|----------|-------|---------|----------|------|
| A | Original Issue | DS | DS | | | |
| * Denote the original signature and date when revision was issued. | | | | | | |

PLAN 1 - PROPOSED INTERSECTION

| | | | | |
|--|---|------------------|-------------------------------|-----------------|
| TATTERSALL LANDER Pty Ltd DEVELOPMENT CONSULTANTS | SCALE : 1:1000 or A3 Size Plot | SHEET No. : 3 | FILE : ##### | SHEET SIZE : A3 |
| | COMPUTER FILE : S:\Clients\2015\215474\Drawings\215474 Array 2 Design.dwg | JOB No. : 215474 | DATE : Plotted 10/32 29/11/17 | |

SAFE INTERSECTION SIGHT DISTANCE - AGRD04A SECTION 3.2.2 - Equation 2

| VEHICLE | OBSERVATION TIME (s) | REACTION TIME (s) | DECISION TIME (s) | VELOCITY (km/h) | COEFFICIENT OF DECELERATION | LONGITUDINAL GRADE (%) | SISD (m) |
|----------------|----------------------|-------------------|-------------------|-----------------|-----------------------------|------------------------|----------|
| CAR | 3 | 2.5 | 5.5 | 120 | 0.362 | 0 | 340 |
| CAR AT NIGHT | 3 | 2.5 | 5.5 | 120 | 0.46 | 0 | 307 |
| TRUCK | 2.5 | 2.5 | 5 | 120 | 0.24 | 0 | 403 |
| TRUCK AT NIGHT | 2.5 | 2.5 | 5 | 120 | 0.29 | 0 | 362 |

NOTE:
 - THE DISTANCE FOR AN APPROACHING TRUCK HAS BEEN ADOPTED AS THE MAJOR ROAD IS A RURAL HIGHWAY.
 - VERTICAL HAS NOT CURRENTLY BEEN CONSIDERED BUT IS ASSUMED TO BE APPROXIMATELY 0% GRADE

MINIMUM GAP SIGHT DISTANCE

| CRITICAL GAP ACCEPTANCE TIME (S) | APPROACHING VEHICLE SPEED (km/h) | MGSD (M) |
|----------------------------------|----------------------------------|----------|
| 21.3 | 120 | 710 |

NOTE: CRITICAL GAP ACCEPTANCE TIME BASED ON AGRD04 TABLE B.3 FOR A LADEN ROAD TRAIN TO CLEAR A RAIL CROSSING.



| REV | DETAILS OF AMENDMENT | DESIGNED | DRAWN | CHECKED | APPROVED | DATE |
|-----|----------------------------------|----------|-------|---------|----------|------|
| B | Design Speed and Vehicle Revised | DS | DS | | | |
| A | Original Issue | DS | DS | | | |

| | | | | | |
|--|--|-----------------------------------|--|---|--|
| TATTERSALL LANDER Pty Ltd DEVELOPMENT CONSULTANTS | | SCALE : 1:2000 (for A3 Size Plot) | SHEET No. : 4 JOB No. : 215474 DATE : Plotted 10/33 29/11/17 | FILE : ##### DATE : Plotted 10/33 29/11/17 | SHEET SIZE : A3 COMPUTER FILE : S:\Clients\2015\215474\Drawings\215474 Array 2 Design.dwg |
|--|--|-----------------------------------|--|---|--|

SAFE INTERSECTION SIGHT DISTANCE - AGRD04A SECTION 3.2.2 - Equation 2

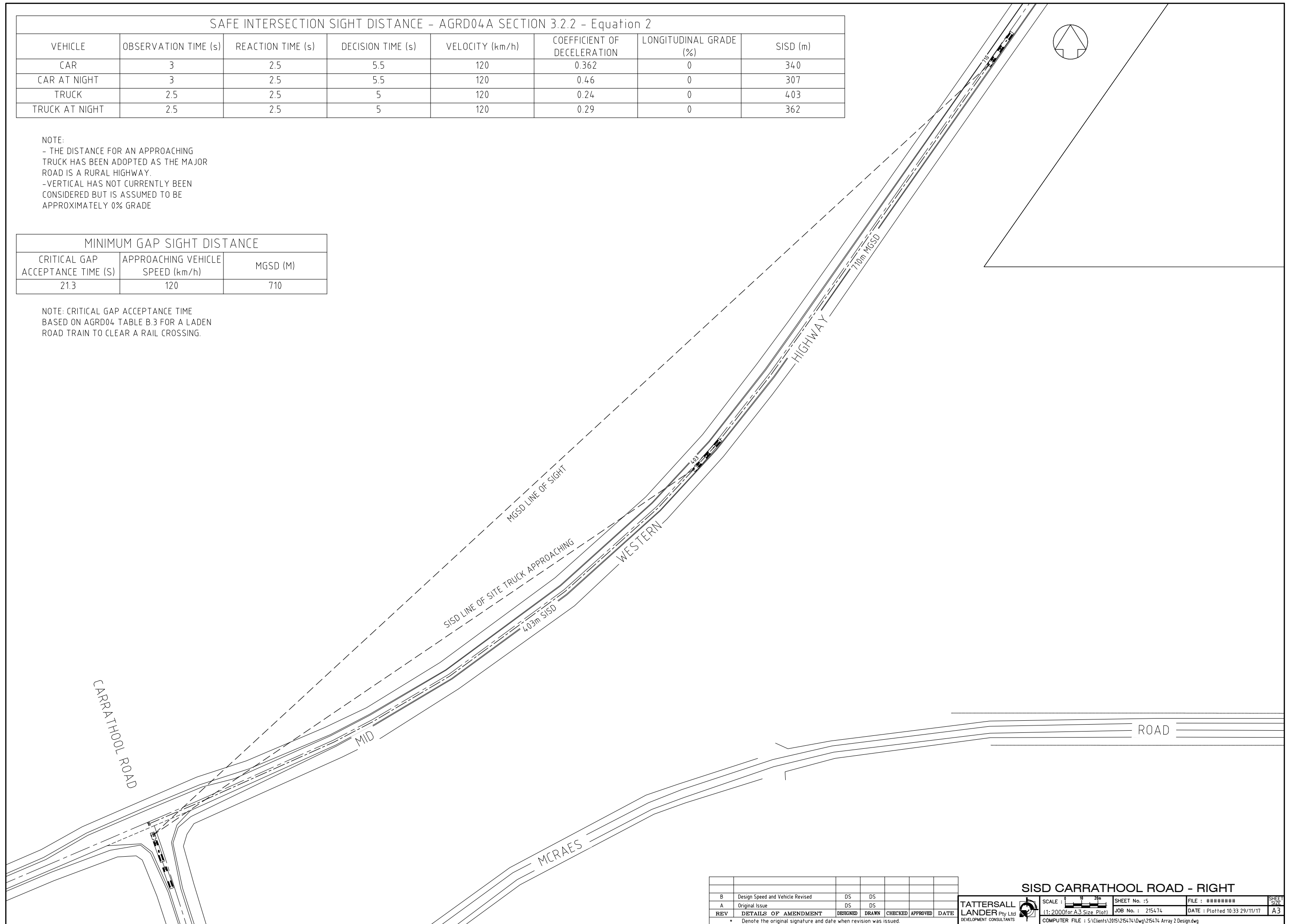
| VEHICLE | OBSERVATION TIME (s) | REACTION TIME (s) | DECISION TIME (s) | VELOCITY (km/h) | COEFFICIENT OF DECELERATION | LONGITUDINAL GRADE (%) | SISD (m) |
|----------------|----------------------|-------------------|-------------------|-----------------|-----------------------------|------------------------|----------|
| CAR | 3 | 2.5 | 5.5 | 120 | 0.362 | 0 | 340 |
| CAR AT NIGHT | 3 | 2.5 | 5.5 | 120 | 0.46 | 0 | 307 |
| TRUCK | 2.5 | 2.5 | 5 | 120 | 0.24 | 0 | 403 |
| TRUCK AT NIGHT | 2.5 | 2.5 | 5 | 120 | 0.29 | 0 | 362 |

NOTE:
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MINIMUM GAP SIGHT DISTANCE

| CRITICAL GAP ACCEPTANCE TIME (S) | APPROACHING VEHICLE SPEED (km/h) | MGSD (M) |
|----------------------------------|----------------------------------|----------|
| 21.3 | 120 | 710 |

NOTE: CRITICAL GAP ACCEPTANCE TIME BASED ON AGRD04 TABLE B.3 FOR A LADEN ROAD TRAIN TO CLEAR A RAIL CROSSING.



| REV | DETAILS OF AMENDMENT | DESIGNED | DRAWN | CHECKED | APPROVED | DATE |
|-----|----------------------------------|----------|-------|---------|----------|------|
| B | Design Speed and Vehicle Revised | DS | DS | | | |
| A | Original Issue | DS | DS | | | |

* Denote the original signature and date when revision was issued.

SISD CARRATHOOL ROAD - RIGHT

| | | | | |
|--|---|------------------|-------------------------------|-----------------|
| TATTERSALL LANDER Pty Ltd DEVELOPMENT CONSULTANTS | SCALE : 1:2000 (for A3 Size Plot) | SHEET No. : 5 | FILE : ##### | SHEET SIZE : A3 |
| | COMPUTER FILE : S:\Clients\2015\215474\Drawings\215474 Array 2 Design.dwg | JOB No. : 215474 | DATE : Plotted 10:33 29/11/17 | |

SAFE INTERSECTION SIGHT DISTANCE - AGRD04A SECTION 3.2.2 - Equation 2

| VEHICLE | OBSERVATION TIME (s) | REACTION TIME (s) | DECISION TIME (s) | VELOCITY (km/h) | COEFFICIENT OF DECELERATION | LONGITUDINAL GRADE (%) | SISD (m) |
|----------------|----------------------|-------------------|-------------------|-----------------|-----------------------------|------------------------|----------|
| CAR | 3 | 2.5 | 5.5 | 120 | 0.362 | 0 | 340 |
| CAR AT NIGHT | 3 | 2.5 | 5.5 | 120 | 0.46 | 0 | 307 |
| TRUCK | 2.5 | 2.5 | 5 | 120 | 0.24 | 0 | 403 |
| TRUCK AT NIGHT | 2.5 | 2.5 | 5 | 120 | 0.29 | 0 | 362 |

NOTE:
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 - VERTICAL HAS NOT CURRENTLY BEEN CONSIDERED BUT IS ASSUMED TO BE APPROXIMATELY 0% GRADE

MINIMUM GAP SIGHT DISTANCE

| CRITICAL GAP ACCEPTANCE TIME (S) | APPROACHING VEHICLE SPEED (km/h) | MGSD (M) |
|----------------------------------|----------------------------------|----------|
| 21.3 | 120 | 710 |

NOTE: CRITICAL GAP ACCEPTANCE TIME BASED ON AGRD04 TABLE B.3 FOR A LADEN ROAD TRAIN TO CLEAR A RAIL CROSSING.



| | | | | | | | |
|---|-------------------------------|-----------------------------------|-------|-----------------------------------|-----------------------------------|---|--|
| | | | | | SISD PROPOSED ROAD - RIGHT | | |
| B | Revised Intersection Location | DS | DS | | | | |
| A | Original Issue | DS | DS | | | | |
| REV | DETAILS OF AMENDMENT | DESIGNED | DRAWN | CHECKED | APPROVED | DATE | |
| * Denote the original signature and date when revision was issued. | | | | | | | |
| TATTERSALL LANDER Pty Ltd DEVELOPMENT CONSULTANTS | | SCALE : 1:2000 (for A3 Size Plot) | | SHEET No. : 6 JOB No. : 215474 | | FILE : ##### DATE : Plotted 10:34:29/11/17 | |
| | | | | | | SHEET SIZE A3 | |
| COMPUTER FILE : S:\Clients\2015\215474\Drawings\215474 Array 2 Design.dwg | | | | | | | |

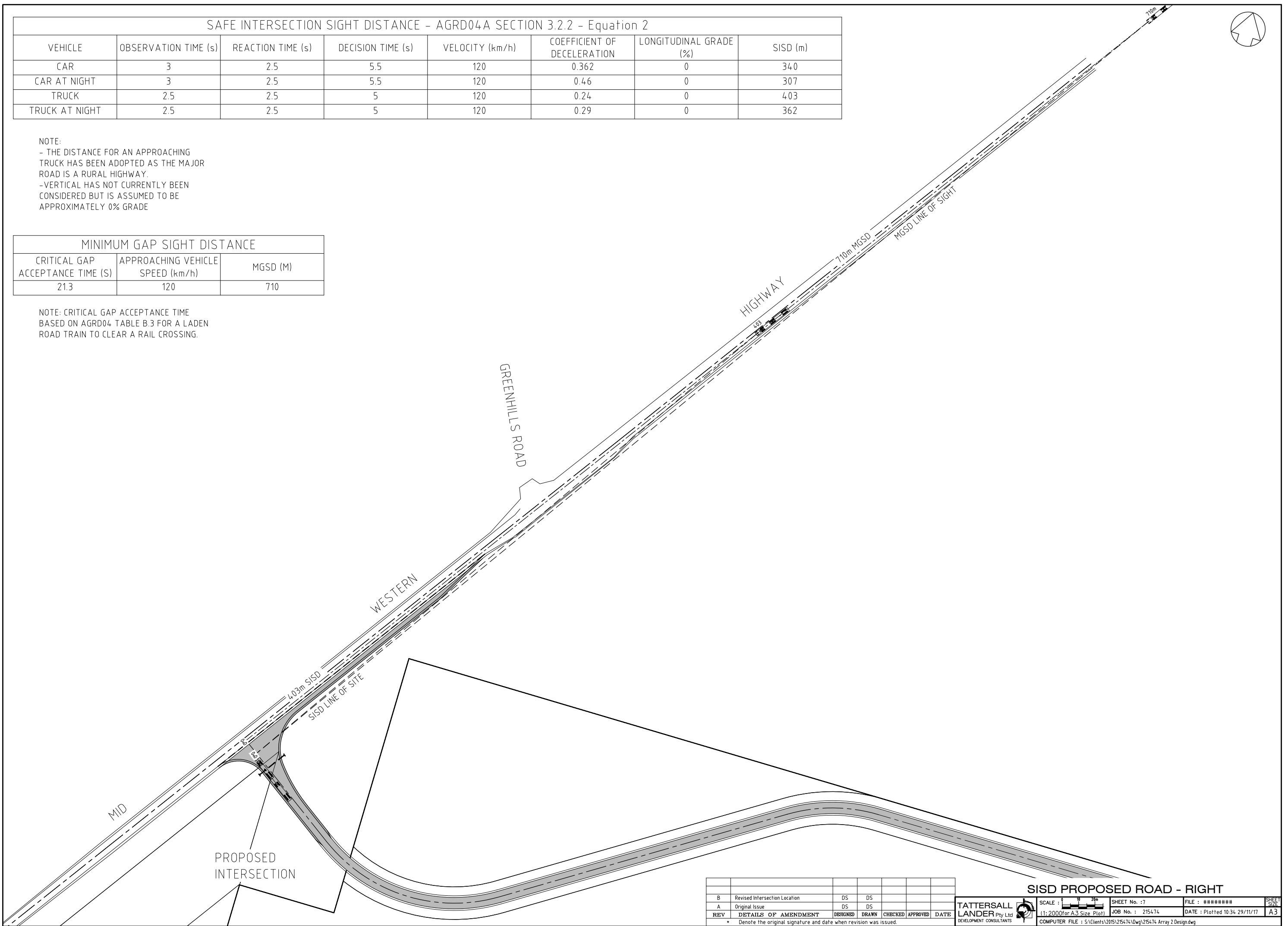
SAFE INTERSECTION SIGHT DISTANCE - AGRD04A SECTION 3.2.2 - Equation 2

| VEHICLE | OBSERVATION TIME (s) | REACTION TIME (s) | DECISION TIME (s) | VELOCITY (km/h) | COEFFICIENT OF DECELERATION | LONGITUDINAL GRADE (%) | SISD (m) |
|----------------|----------------------|-------------------|-------------------|-----------------|-----------------------------|------------------------|----------|
| CAR | 3 | 2.5 | 5.5 | 120 | 0.362 | 0 | 340 |
| CAR AT NIGHT | 3 | 2.5 | 5.5 | 120 | 0.46 | 0 | 307 |
| TRUCK | 2.5 | 2.5 | 5 | 120 | 0.24 | 0 | 403 |
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 - VERTICAL HAS NOT CURRENTLY BEEN CONSIDERED BUT IS ASSUMED TO BE APPROXIMATELY 0% GRADE

| MINIMUM GAP SIGHT DISTANCE | | |
|----------------------------------|----------------------------------|----------|
| CRITICAL GAP ACCEPTANCE TIME (S) | APPROACHING VEHICLE SPEED (km/h) | MGSD (M) |
| 21.3 | 120 | 710 |

NOTE: CRITICAL GAP ACCEPTANCE TIME BASED ON AGRD04 TABLE B.3 FOR A LADEN ROAD TRAIN TO CLEAR A RAIL CROSSING.



| REV | DETAILS OF AMENDMENT | DESIGNED | DRAWN | CHECKED | APPROVED | DATE |
|-----|-------------------------------|----------|-------|---------|----------|------|
| B | Revised Intersection Location | DS | DS | | | |
| A | Original Issue | DS | DS | | | |

* Denote the original signature and date when revision was issued.

SISD PROPOSED ROAD - RIGHT

| | | | | |
|---|---------------------------|------------------|-------------------------------|-------------------------|
| TATTERSALL LANDER Pty Ltd DEVELOPMENT CONSULTANTS | SCALE : | SHEET No. : 7 | FILE : ##### | SHEET SIZE A3 |
| | (1:2000 for A3 Size Plot) | JOB No. : 215474 | DATE : Plotted 10:34:29/11/17 | |
| COMPUTER FILE : S:\Clients\2015\215474\Drawings\215474 Array 2 Design.dwg | | | | |

SAFE INTERSECTION SIGHT DISTANCE - AGRD04A SECTION 3.2.2 - Equation 2

| VEHICLE | OBSERVATION TIME (s) | REACTION TIME (s) | DECISION TIME (s) | VELOCITY (km/h) | COEFFICIENT OF DECELERATION | LONGITUDINAL GRADE (%) | SISD (m) |
|----------------|----------------------|-------------------|-------------------|-----------------|-----------------------------|------------------------|----------|
| CAR | 3 | 2.5 | 5.5 | 120 | 0.362 | 0 | 340 |
| CAR AT NIGHT | 3 | 2.5 | 5.5 | 120 | 0.46 | 0 | 307 |
| TRUCK | 2.5 | 2.5 | 5 | 120 | 0.24 | 0 | 403 |
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MINIMUM GAP SIGHT DISTANCE

| CRITICAL GAP ACCEPTANCE TIME (S) | APPROACHING VEHICLE SPEED (km/h) | MGSD (M) |
|----------------------------------|----------------------------------|----------|
| 21.3 | 120 | 710 |

NOTE: CRITICAL GAP ACCEPTANCE TIME BASED ON AGRD04 TABLE B.3 FOR A LADEN ROAD TRAIN TO CLEAR A RAIL CROSSING.



| | | | | | | |
|---|----------------------|-----------------------------------|-------|-----------------------------------|----------------------------------|---|
| | | | | | SISD PROPOSED ROAD - LEFT | |
| A | Original Issue | DS | DS | | | |
| REV | DETAILS OF AMENDMENT | DESIGNED | DRAWN | CHECKED | APPROVED | DATE |
| * Denote the original signature and date when revision was issued. | | | | | | |
| TATTERSALL LANDER Pty Ltd DEVELOPMENT CONSULTANTS | | SCALE : 1:2000 (for A3 Size Plot) | | SHEET No. : 8 JOB No. : 215474 | | FILE : ##### DATE : Plotted 10:34:29/11/17 |
| | | | | | | SHEET SIZE A3 |
| COMPUTER FILE : S:\Clients\2015\215474\Drawings\215474 Array 2 Design.dwg | | | | | | |

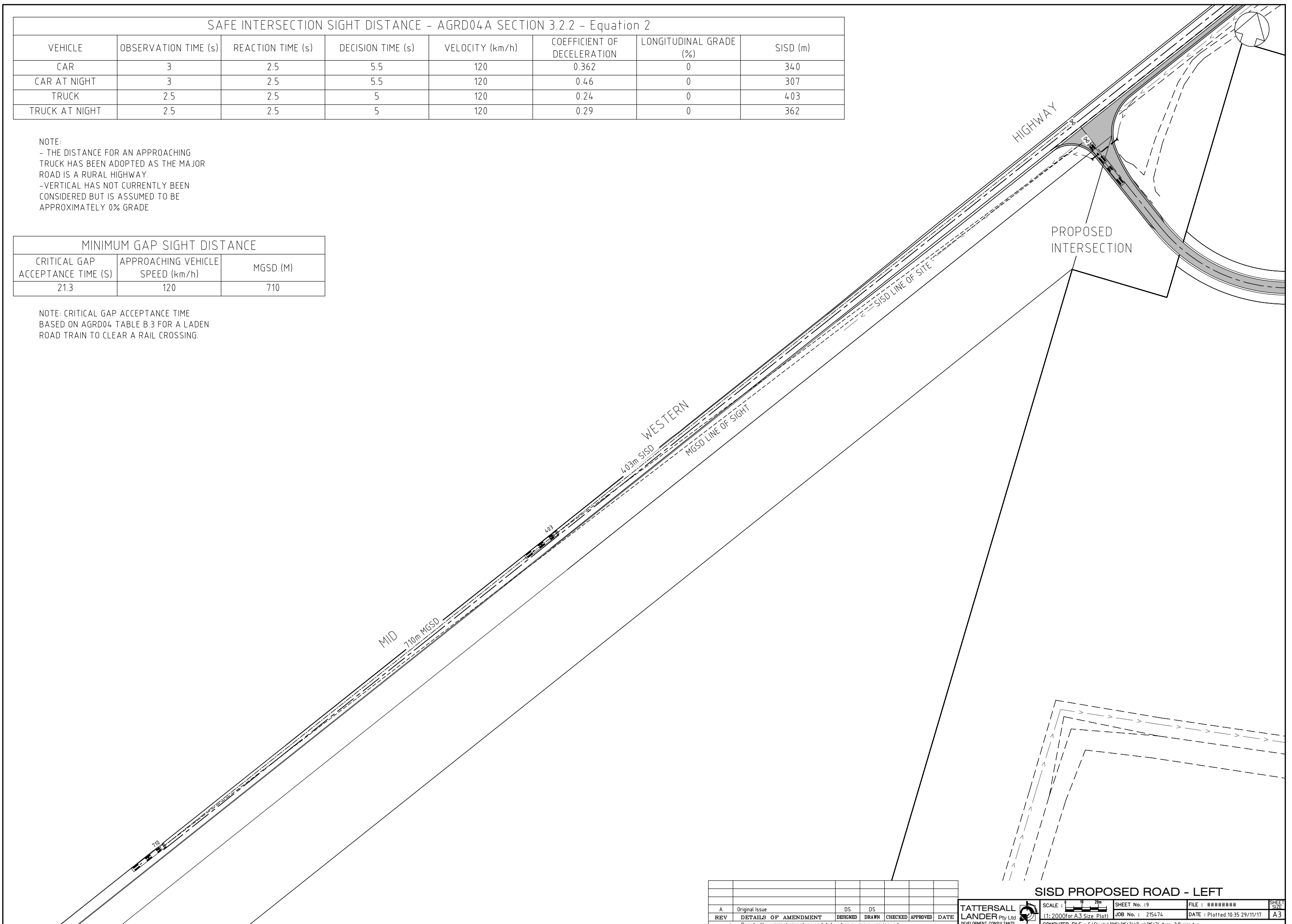
SAFE INTERSECTION SIGHT DISTANCE - AGRD04A SECTION 3.2.2 - Equation 2

| VEHICLE | OBSERVATION TIME (s) | REACTION TIME (s) | DECISION TIME (s) | VELOCITY (km/h) | COEFFICIENT OF DECELERATION | LONGITUDINAL GRADE (%) | SISD (m) |
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| MINIMUM GAP SIGHT DISTANCE | | |
|----------------------------------|----------------------------------|----------|
| CRITICAL GAP ACCEPTANCE TIME (S) | APPROACHING VEHICLE SPEED (km/h) | MGSD (M) |
| 21.3 | 120 | 710 |

NOTE: CRITICAL GAP ACCEPTANCE TIME BASED ON AGRD04 TABLE B.3 FOR A LADEN ROAD TRAIN TO CLEAR A RAIL CROSSING.



| REV | DETAILS OF AMENDMENT | DESIGNED | DRAWN | CHECKED | APPROVED | DATE |
|-----|----------------------|----------|-------|---------|----------|------|
| A | Original Issue | DS | DS | | | |

TATTERSALL
 LANDER Pty Ltd
 DEVELOPMENT CONSULTANTS

SCALE : 1:2000 (for A3 Size Plot)

SHEET No. : 9
 JOB No. : 215474
 DATE : Plotted 10:35 29/11/17
 SHEET SIZE : A3

SISD PROPOSED ROAD - LEFT

COMPUTER FILE : S:\Clients\2015\215474\Drawings\215474 Array 2 Design.dwg