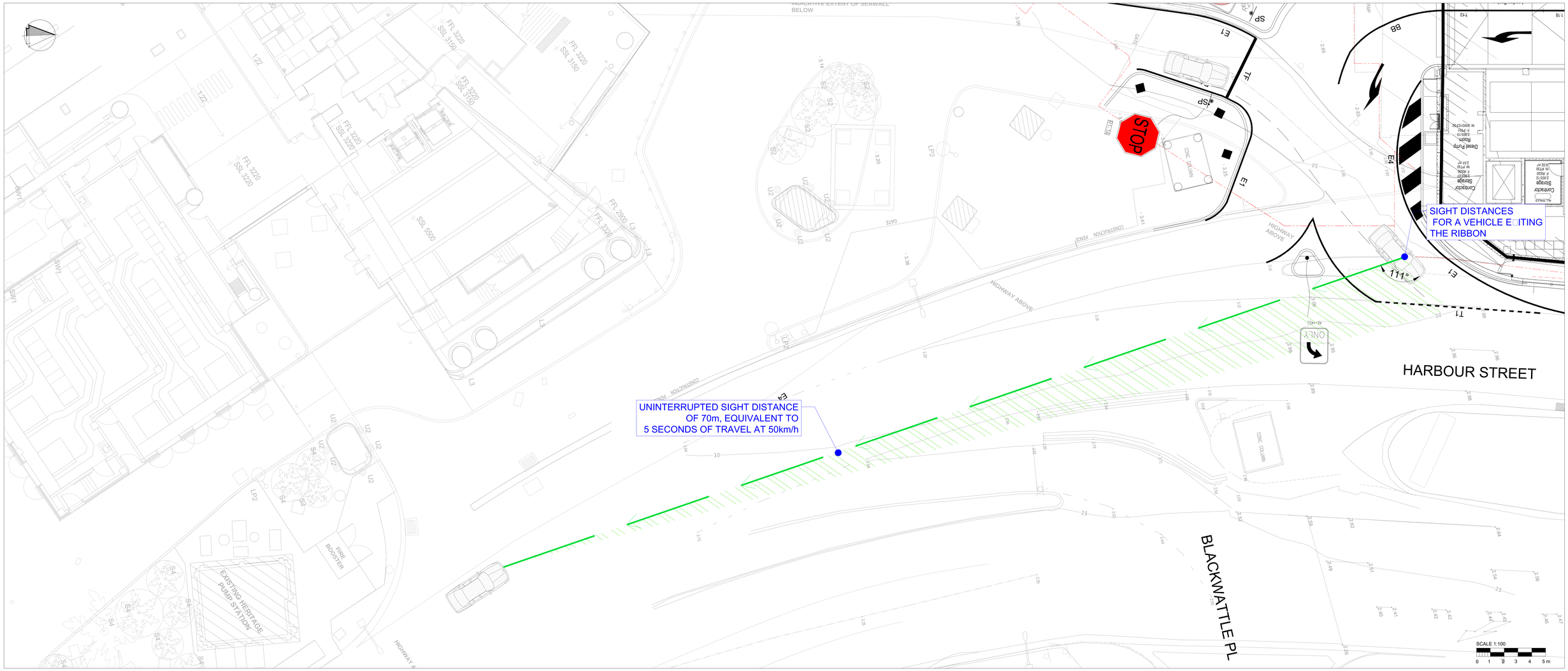
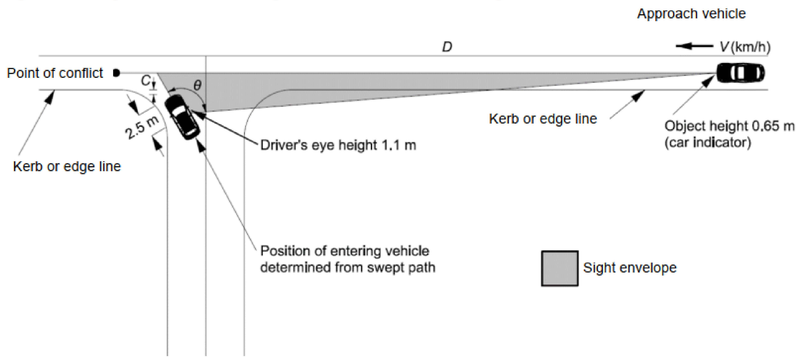


Figure 3.6: Sight distance to a through vehicle from a vehicle turning left



Notes:

Sight envelope:

- *Assess sight distance both horizontally and vertically within this envelope.*
- *For rural areas – there should be no obstructions to sight lines in this area.*
- *For urban areas – fixed objects should not cause entering vehicles to lose sight of approaching vehicles.*

Θ observation angle for new or reconstructed work maximum 120º.

C 0.5 m from kerb or edgeline projection or
1.0 m from stop or give way line.

D minimum distance travelled by approaching vehicle in 5 seconds at design speed (V km/h).

Minimum distance travelled by approaching vehicle in 5 seconds based on ta for left-turn from Table 3.5.

PLAN - SIGHT DISTANCES - VEHICLE MERGING TO HARBOUR ST.
SCALE 1:100

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Rev.	Date	Description
01	17.06.22	FOR INFORMATION
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PROJECT NAME
COCKLE BAY PARK
PROJECT NUMBER: 6054

DRAWING TITLE
LOADING DOCK - CHECKS
SCALE AT A1: 1 : 100 | DRAWN BY: MEL | CHECKED BY: PAL

DRAWING STATUS
FOR INFORMATION
DRAWING NUMBER
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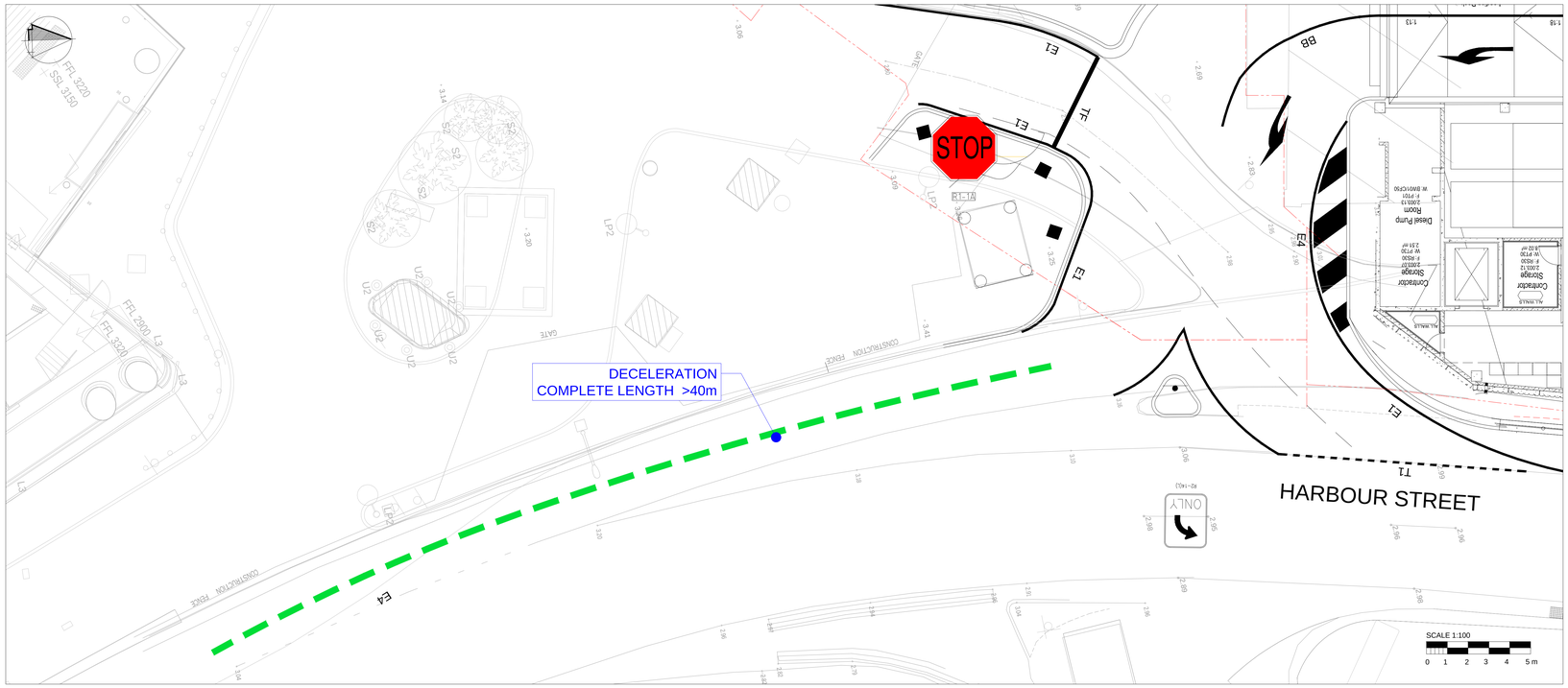
REV.
02



PLAN - DECELERATION LENGTH
SCALE 1:100

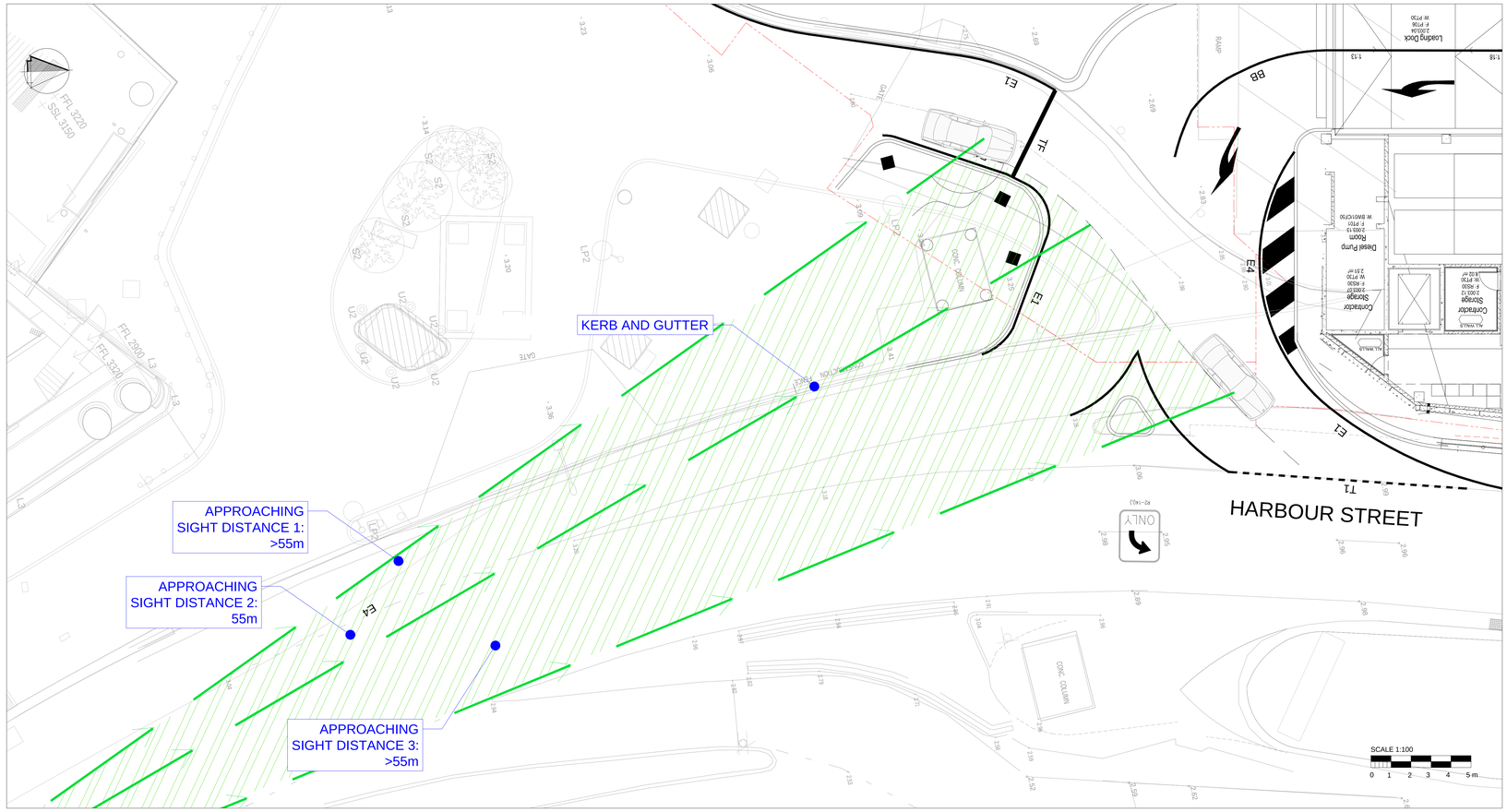
Table 5.2: Deceleration distances required for cars on a level grade

Design speed of approach road (km/h)	Length of deceleration D – including diverge taper *T* (m)										Diverge length L_d[3] for lane widths (m)	
	Stop condition[1] (m)		Design speed of exit curve (km/h)[2]									
	0	0	20	30	40	50	60	70	80	90	3.5 m[4]	3.0 m[4]
	Comfortable 2.5 m/s²	Maximum 3.5 m/s²	Comfortable average rate of deceleration 2.5 m/s²									
50	40	30	30	25	15						33	27
60	55	40	50	40	30	15					40	33
70	75	55	70	60	50	40	20				47	40
80	100	70	95	85	75	60	45	25			54	44
90	125	90	120	110	100	85	70	50	25		60	50
100	155	110	150	140	130	115	100	80	55	30	67	57
110	185	135	180	175	160	150	130	110	90	60	74	62

1 *Rates of deceleration are: 2.5 m/s² for comfortable deceleration; 3.5 m/s² is the maximum for design purposes.*
2 *Speed of exit curve depends on radius and crossfall (Figure 5.2).*
3 *Distance Ld assumes a lateral rate of movement of 1.5 m/s.*
4 *Example lane widths – use actual lateral shift distance of vehicle.*

Notes:
The pink shading indicates that the deceleration lengths given are greater than the diverge length. The length of the deceleration lane should be based on these values.
The green shading indicates that the diverge length is greater than the deceleration length. In these cases, the length of the deceleration lane should be based on the diverge length (the values shown in yellow shading).
Adjust for grade using Table 5.3.

Source: Department of Main Roads (2006)[15].



PLAN - SIGHT DISTANCES - VEHICLE ENTERING LOADING DOCK
SCALE 1:100

Table 3.1: Approach sight distance (ASD) and corresponding minimum crest vertical curve size for sealed roads (S < L)

Design speed (km/h)	Based on approach sight distance for a car[1] h_1 = 1.1, h_2 = 0, d = 0.36[2]					
	R_T = 1.5 sec[3]		R_T = 2.0 sec		R_T = 2.5 sec	
	ASD (m)	*K*	ASD (m)	*K*	ASD (m)	*K*
40	34	5.3	40	7.2	–	–
50	48	10.5	55	13.8	–	–
60	64	18.8	73	24.0	–	–
70	83	31.1	92	38.9	–	–
80	103	48.5	114	59.5	–	–
90	126	72.3	139	87.3	151	104
100	151	104	165	124	179	146
110	–	–	193	171	209	198
120	–	–	224	229	241	264
130	–	–	257	301	275	344
Truck stopping capability provided by the minimum crest curve size[4]	h_1 = 2.4 m, h_2 = 0 m, d = 0.22					

1 *If the average grade over the braking length is not zero, calculate the approach sight distance (ASD) values using the correction factors in Table 3.4 (or use Equation 1) by applying the average grade over the braking length.*
2 *In constrained locations (typically lower volume roads, less important roads, mountainous roads, lower speed urban roads and tunnels), a coefficient of deceleration of 0.46 may be used. For any horizontal curve with a side friction factor greater than the desirable maximum value for cars (in constrained locations), use a coefficient of deceleration of 0.41. The resultant crest curve size can then be calculated using the relevant equations in AGRD Part 3 (Austroads 2016b).*
3 *A 1.5 sec reaction time is only to be used in constrained situations where drivers will be alert. Typical situations are given in Table 5.2 of AGRD Part 3. The general minimum reaction time is 2 sec.*
4 *This check case assumes the same combination of design speed and reaction time as those listed in the table, except that the 120 km/h and 130 km/h speeds are not used.*

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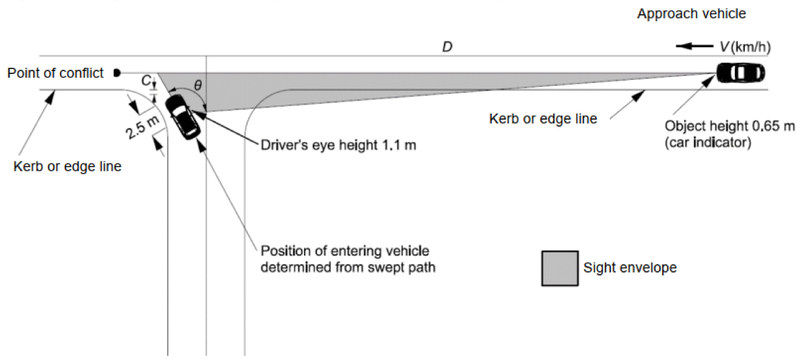
PROJECT NAME: COCKLE BAY PARK
PROJECT NUMBER: 6054
DRAWING TITLE: LOADING DOCK - CHECKS
SCALE AT A1: 1 : 100
DRAWN BY: MEL
CHECKED BY: PAL
DRAWING STATUS: FOR INFORMATION
DRAWING NUMBER: CBP-SK-ENS-CIV-DRW-30-0006
REV. 03

Figure 3.6: Sight distance to a through vehicle from a vehicle turning left



Notes:

Sight envelope:

- *Assess sight distance both horizontally and vertically within this envelope.*
- *For rural areas – there should be no obstructions to sight lines in this area.*
- *For urban areas – fixed objects should not cause entering vehicles to lose sight of approaching vehicles.*

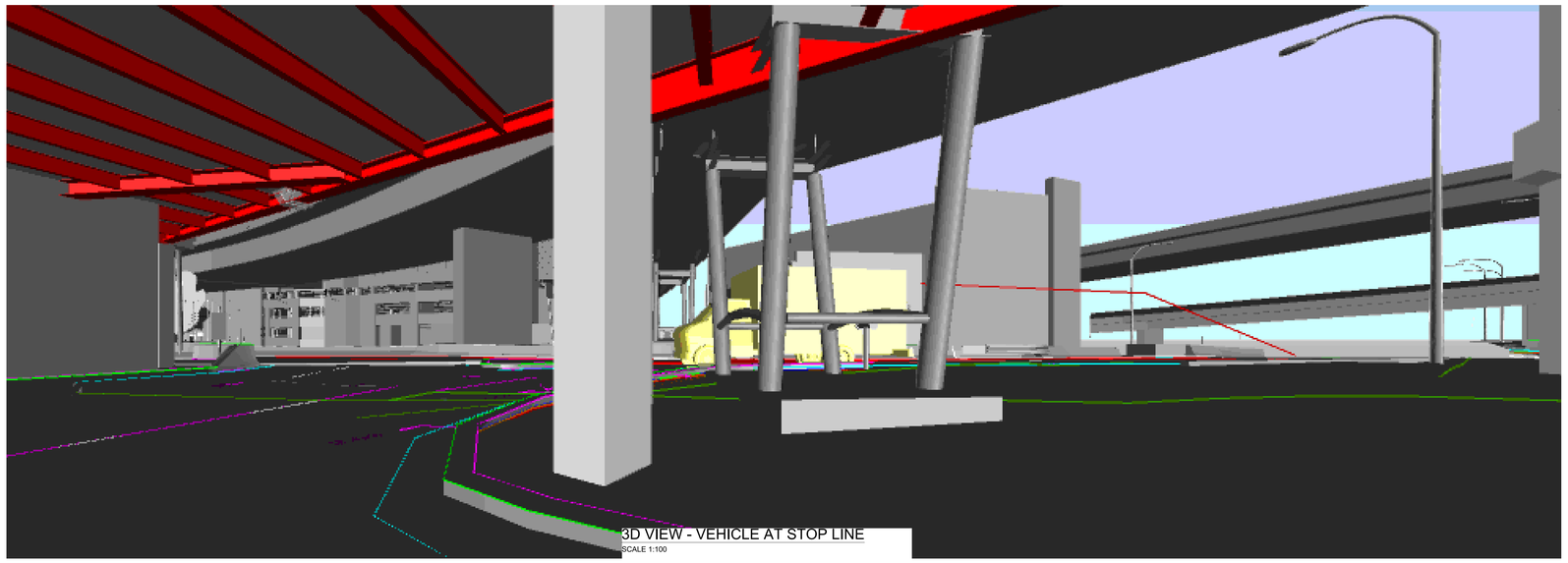
θ observation angle for new or reconstructed work maximum 120º.

C 0.5 m from kerb or edgeline projection or
1.0 m from stop or give way line.

D minimum distance travelled by approaching vehicle in 5 seconds at design speed (V km/h).

Minimum distance travelled by approaching vehicle in 5 seconds based on ta for left-turn from Table 3.5.

PLAN - SIGHT DISTANCES - VEHICLE AT STOP LINE
SCALE 1:100



3D VIEW - VEHICLE AT STOP LINE
SCALE 1:100

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Rev.	Date	Description
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COCKLE BAY PARK
PROJECT NUMBER: 6054

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SCALE AT A1: 1 : 100 | DRAWN BY: JAF | CHECKED BY: PAL

DRAWING STATUS
FOR INFORMATION

DRAWING NUMBER
CBP-SK-ENS-CIV-DRW-30-0009

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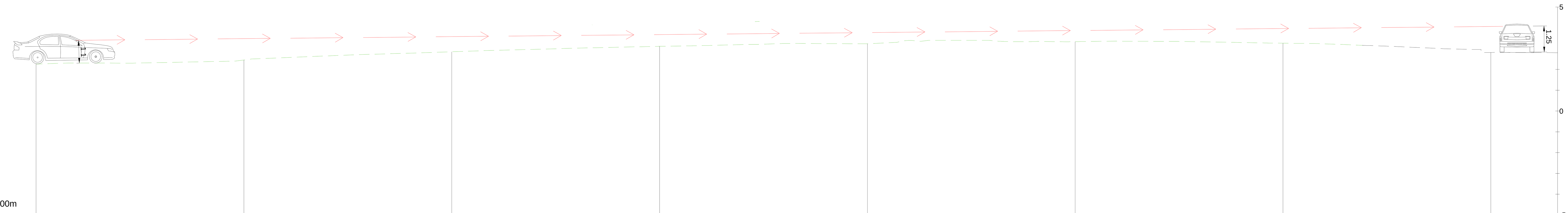
02

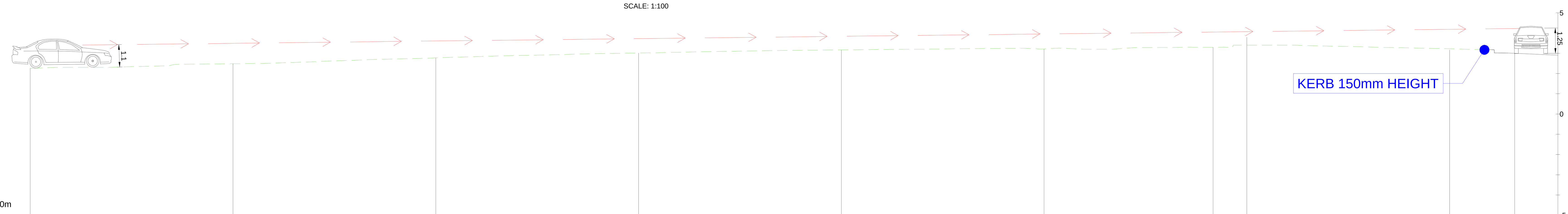
A0



DATUM -5.000m

DESIGN LEVELS								2.836	2.734
EXISTING LEVELS		2.454	2.848	3.109	3.232	3.334	3.259		
CHAINAGE		10.000	20.000	30.000	40.000	50.000	60.000	70.000	73.210

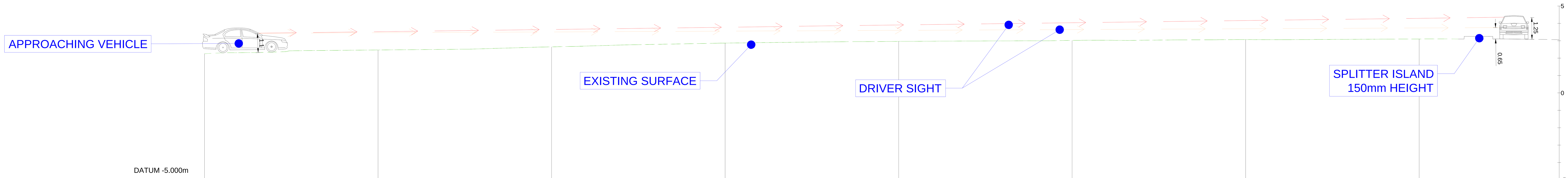
APPROACHING SIGHT DISTANCE 1
SCALE: 1:100



DATUM -5.000m

DESIGN LEVELS							3.304	3.795	3.169	2.992	
EXISTING LEVELS		2.487	2.777	3.018	3.170	3.215					
CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	58.337	60.000	70.000	73.205	75.337

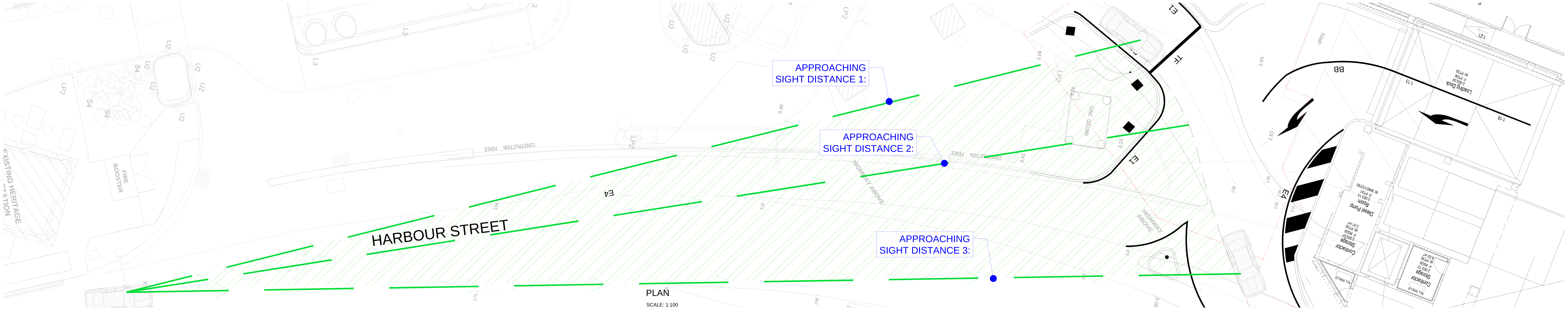
APPROACHING SIGHT DISTANCE 2
SCALE: 1:100



DATUM -5.000m

DESIGN LEVELS									
EXISTING LEVELS		2.474	2.651	2.867	2.964	3.012	3.067	3.103	3.00
CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	78.071

APPROACHING SIGHT DISTANCE 3
SCALE: 1:100



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SCALE: 1:100

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PROJECT NAME
COCKLE BAY PARK
PROJECT NUMBER: 6054

DRAWING TITLE
LOADING DOCK - VERTICAL SIGHT DISTANCE CHECK
SCALE AT A1: 1 : 100
DRAWN BY: MEL
CHECKED BY: PAL

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