

Cambridge Waste Water Treatment Plant Relocation Project  
Anglian Water Services Limited

# Appendix 19.3: Transport Assessment Part 2

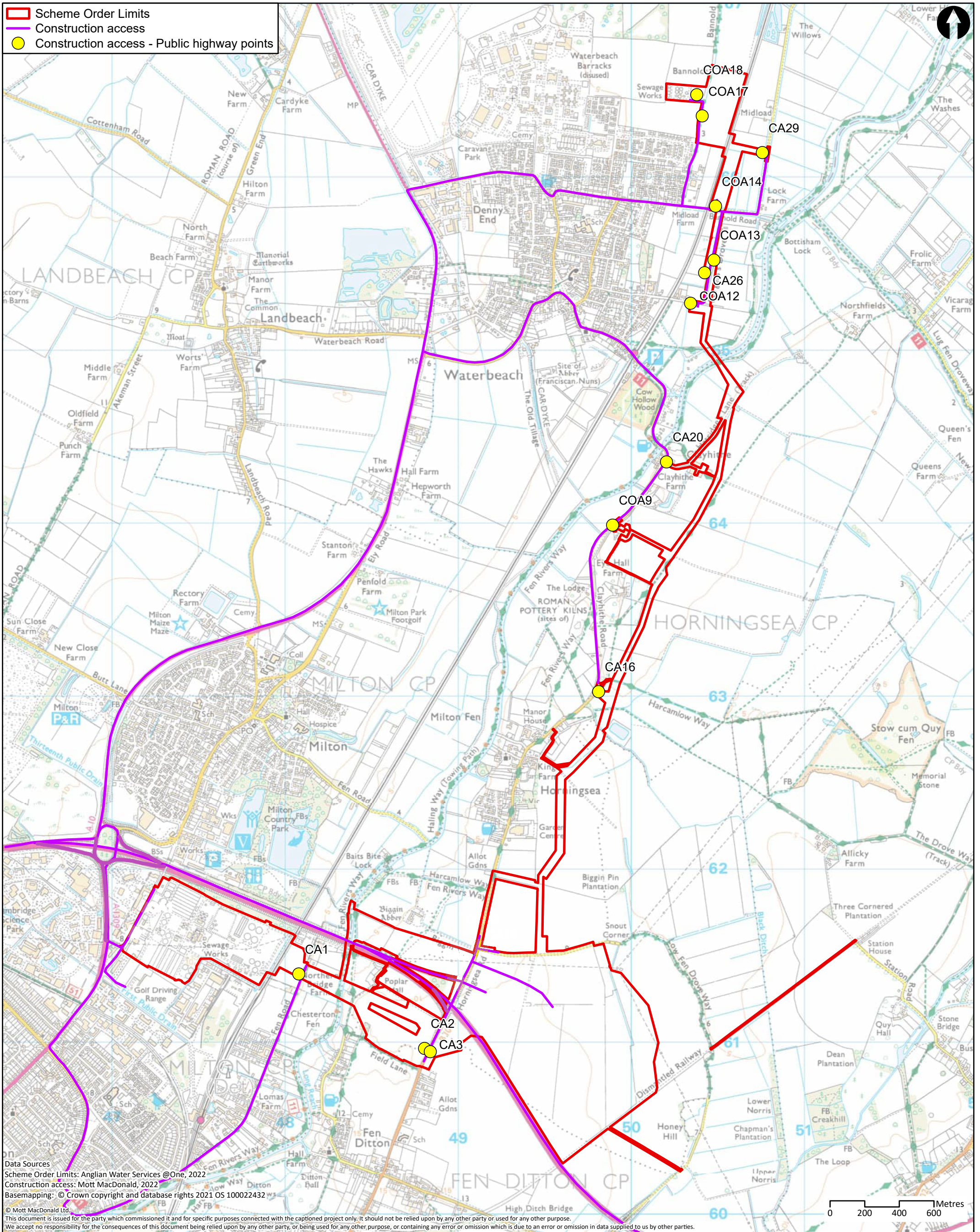
Application Document Reference: 5.4.19.3  
PINS Project Reference: WW010003  
APFP Regulation No. 5(2)a

Revision No. 05  
19 February 2024

Cambridge Waste Water Treatment Relocation Project  
Transport Assessment

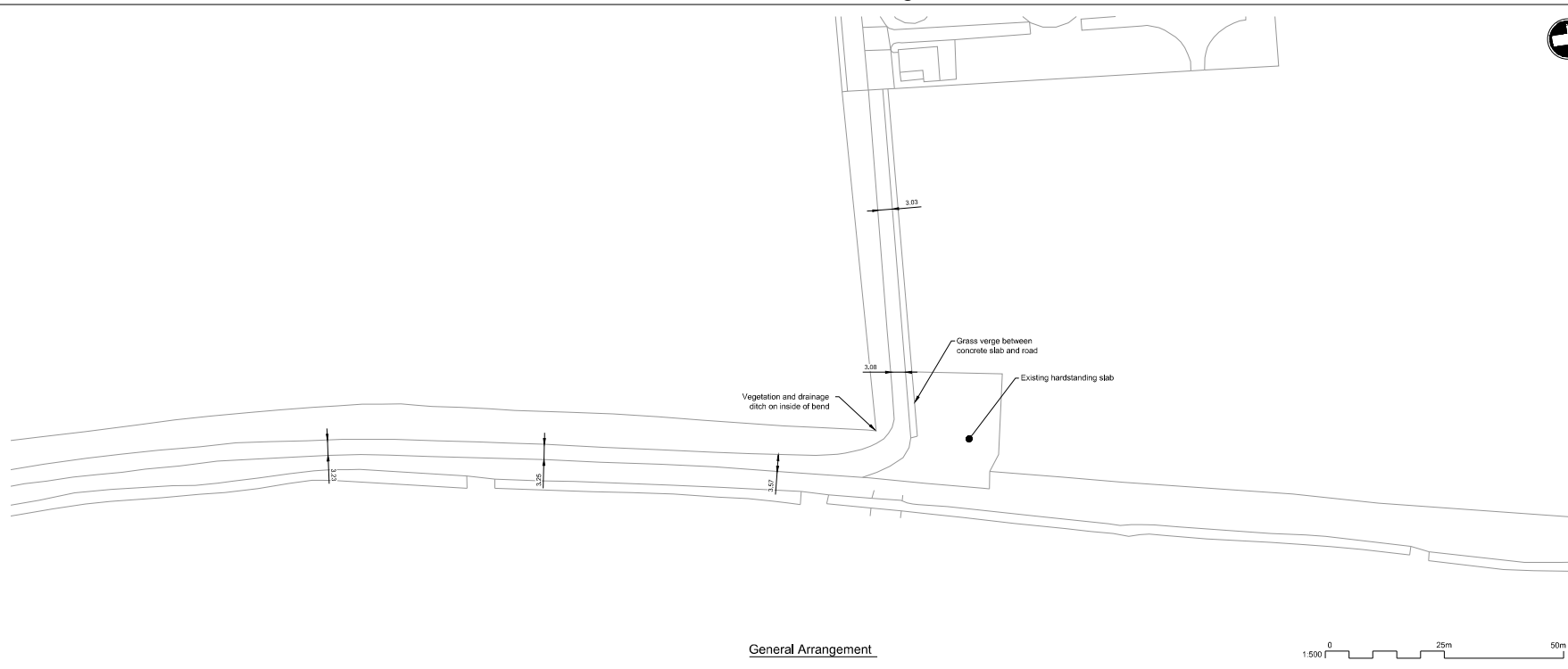


## Appendix G: Swept Path Analysis

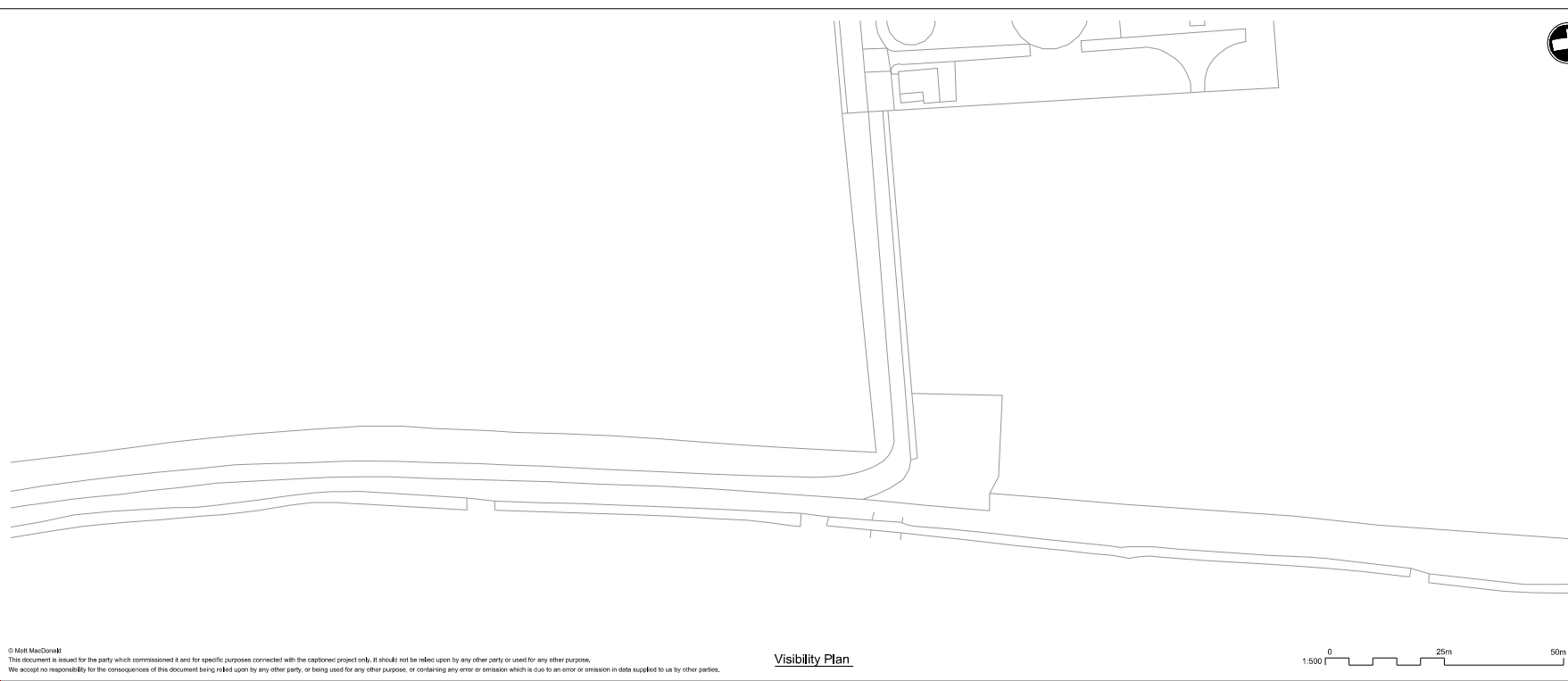


Data Sources  
 Scheme Order Limits: Anglian Water Services @One, 2022  
 Construction access: Mott MacDonald, 2022  
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<p><b>MOTT MACDONALD</b></p> <p>22 Station Road                  Cambridge CB1 2JD                  United Kingdom</p> <p>T +44 (0)20 8774 2000                  F +44 (0)20 8681 5706                  W mottmac.com</p>	Client 					Title Cambridge Waste Water Treatment Plant Relocation Project Transport Assessment Construction route and access points			Drawn	KL
									Checked	WT
									Approved	CS
								Scale at A3 1:20,000		
					Drawing Number			Security	Status	Rev
					WW01003-CAMEST-MOT-05-XX-DR-X-0697			STD	PRE	P3
Rev	Date	Drawn	Description	Ch'k'd	App'd					
P1	31/10/22	KL	First Draft	WT	CS					
P2	18/12/23	CC	Revision 01	WT	GW					
P3	22/01/24	CC	Revision 02	WT	GW					



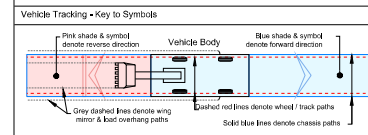
General Arrangement



Visibility Plan



- Notes
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  - Drawings to be read in conjunction with the Technical Memo.



Vehicle Tracking - Vehicle Details

Low Loader	
Overall Length	16,633m
Overall Width	2,500m
Overall Body Height	3,300m
Max Track Width	2,500m
Kerb to Kerb Turning Radius	6,700m
Large Mobile Crane	
Overall Length	12,200m
Overall Width	2,450m
Overall Body Height	3,460m
Track Width	2,450m
Kerb to Kerb Turning Radius	10,000m

Vehicle Tracking - Risks & Compliance

**High Risks**  
**H1** Explanation of risk,

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

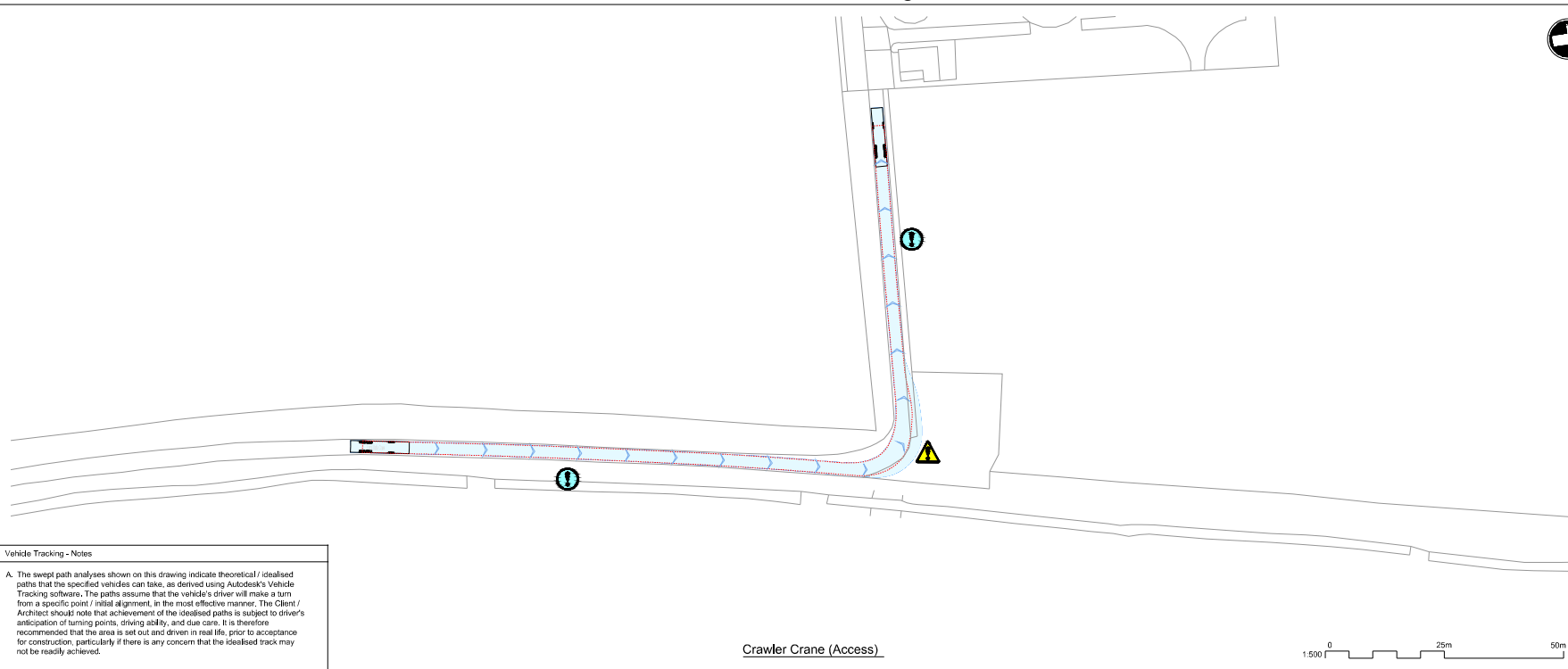
P1	10/23/25	ADC	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Drawn	Checked



The Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 COA17 – COA18  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Case	EC
Drawn	A.D.Castles	ADC	Coordination	A.M.Rawlings	AMR
Dwg check	-	-	Approved	-	-

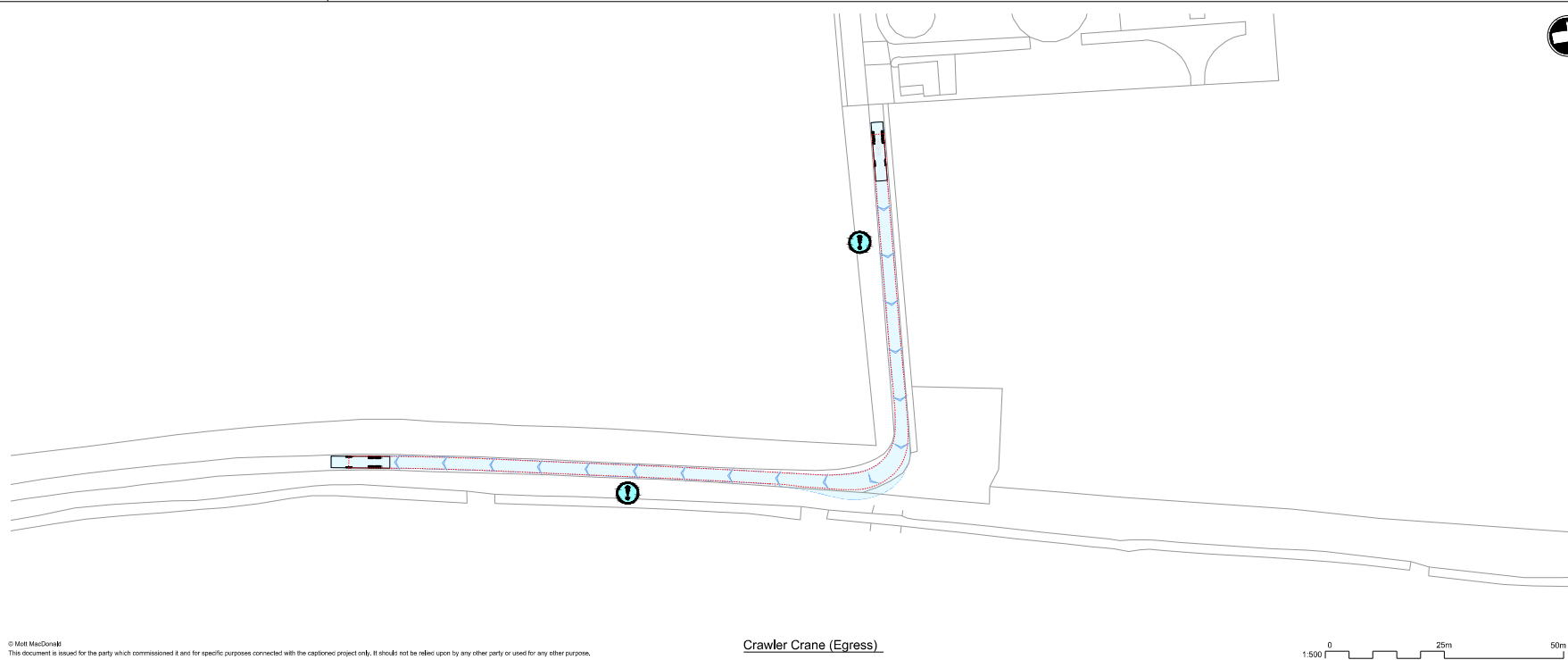
Scale: 1:500 Stat: PRE Rev: P1 Sec: STD  
 Drawing: 102375-MMD-01-XX-DR-C-DRAFT



**Vehicle Tracking - Notes**

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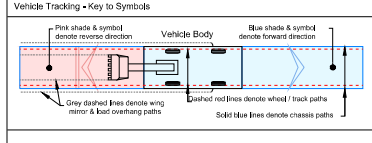
Crawler Crane (Access)



Crawler Crane (Egress)



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	Overall Width	2,500m
	Overall Body Height	3,300m
	Max Track Width	2,500m
	Kerb to Kerb Turning Radius	16,700m
	Large Mobile Crane	
	Overall Length	32,200m
	Overall Width	2,450m
	Overall Body Height	3,400m
	Track Width	2,450m
	Kerb to Kerb Turning Radius	10,000m

**Vehicle Tracking - Risks & Compliance**

**Risks**

	Kerb overrun
	Restrictive road width

P1	ADG	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Checked by

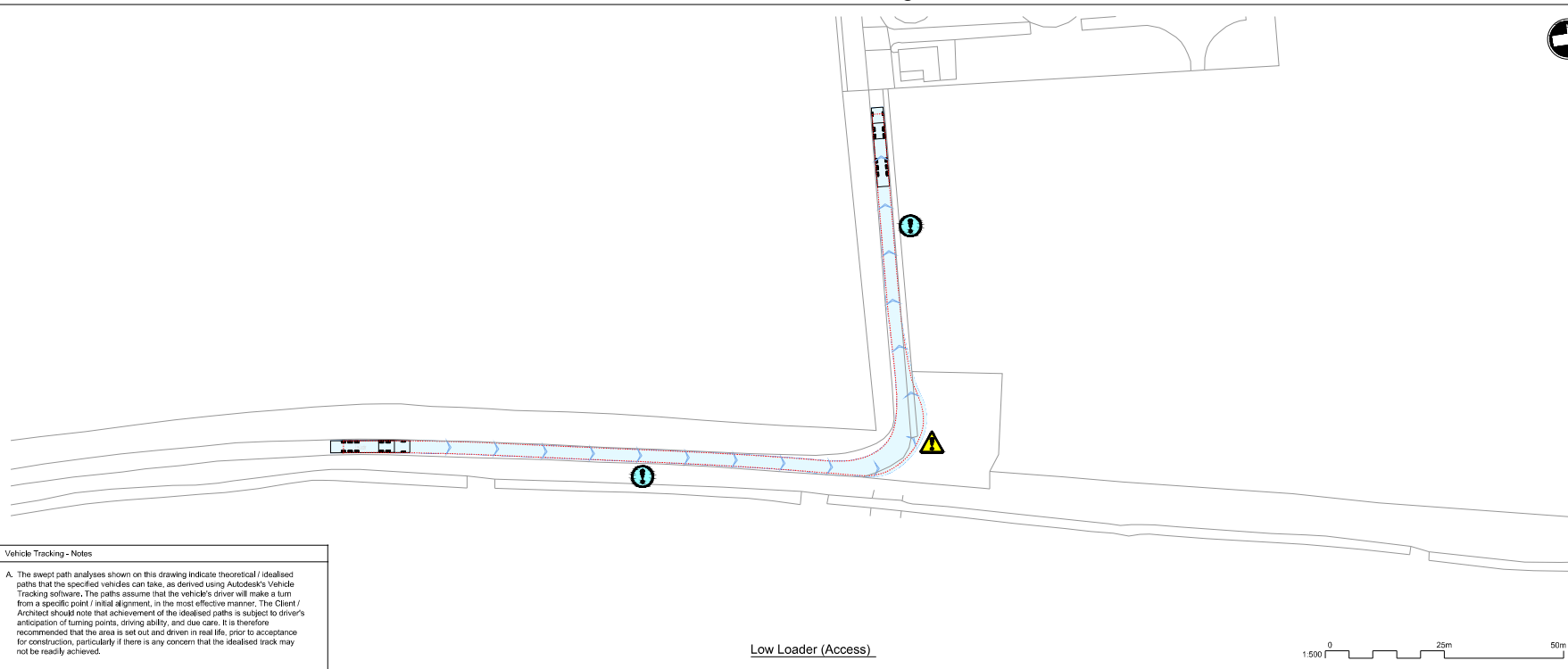


**Title**  
Cambridge Waste Water Treatment Works Relocation  
COA17 – COA18  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	A.D.Castles	ADG	Eng check	E.Case	EC
Drawn	-	-	Coordination	A.M.Rawlings	AMR
Dwg check	Approved				

Scale: 1:500    Stat: PRE    Rev: P1    Sec: STD

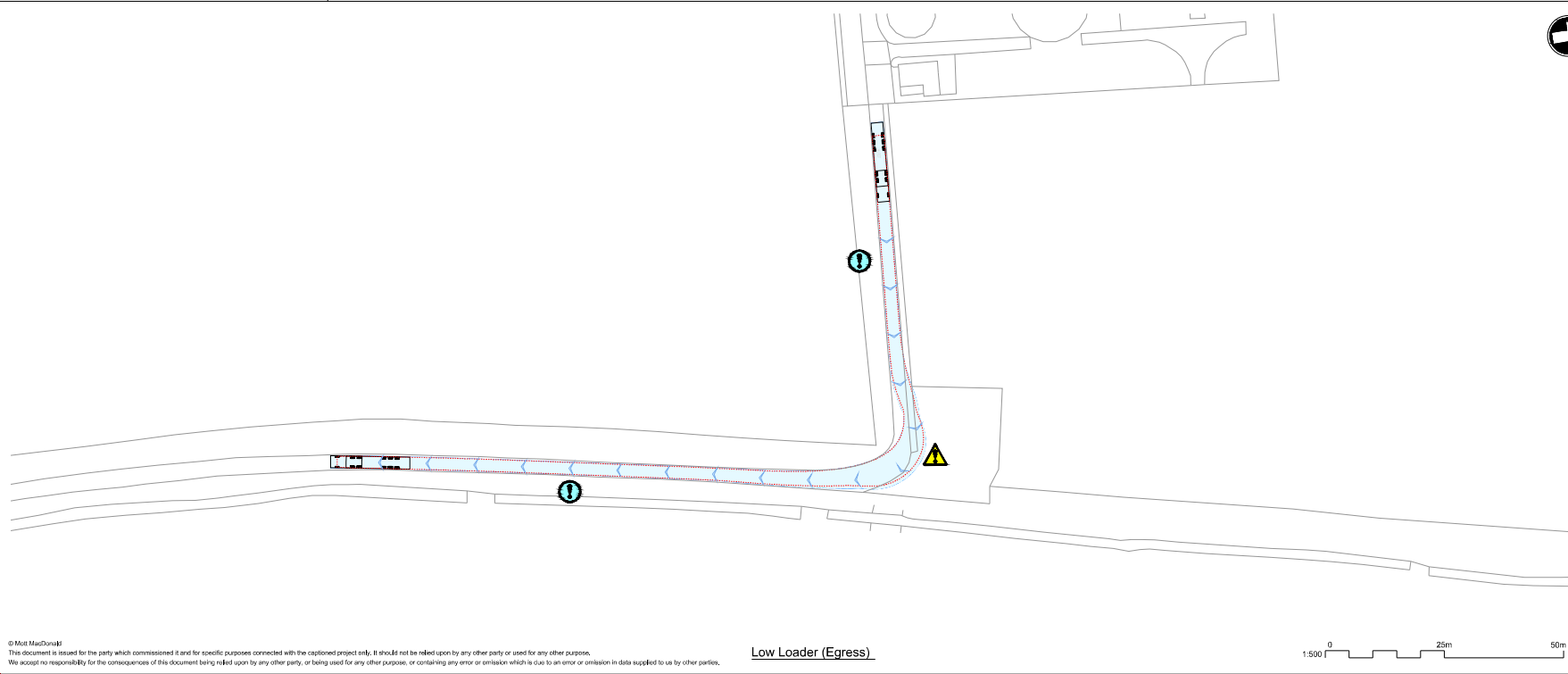
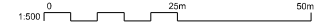
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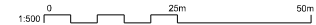
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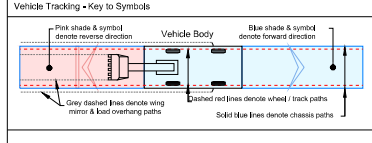
Low Loader (Access)



Low Loader (Egress)



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  - ~~DRAWINGS PREPARED IN COORDINATION~~ with the Technical Memo.



**Vehicle Ta**

Vehicle Type	Overall Length	Overall Width	Overall Body Height	Max Track Width	Kerb to Kerb Turning Radius
Low Loader	16.633m	2.500m	3.390m	2.500m	16.700m
Large Mobile Crane	12.100m	2.430m	3.460m	2.430m	10.000m

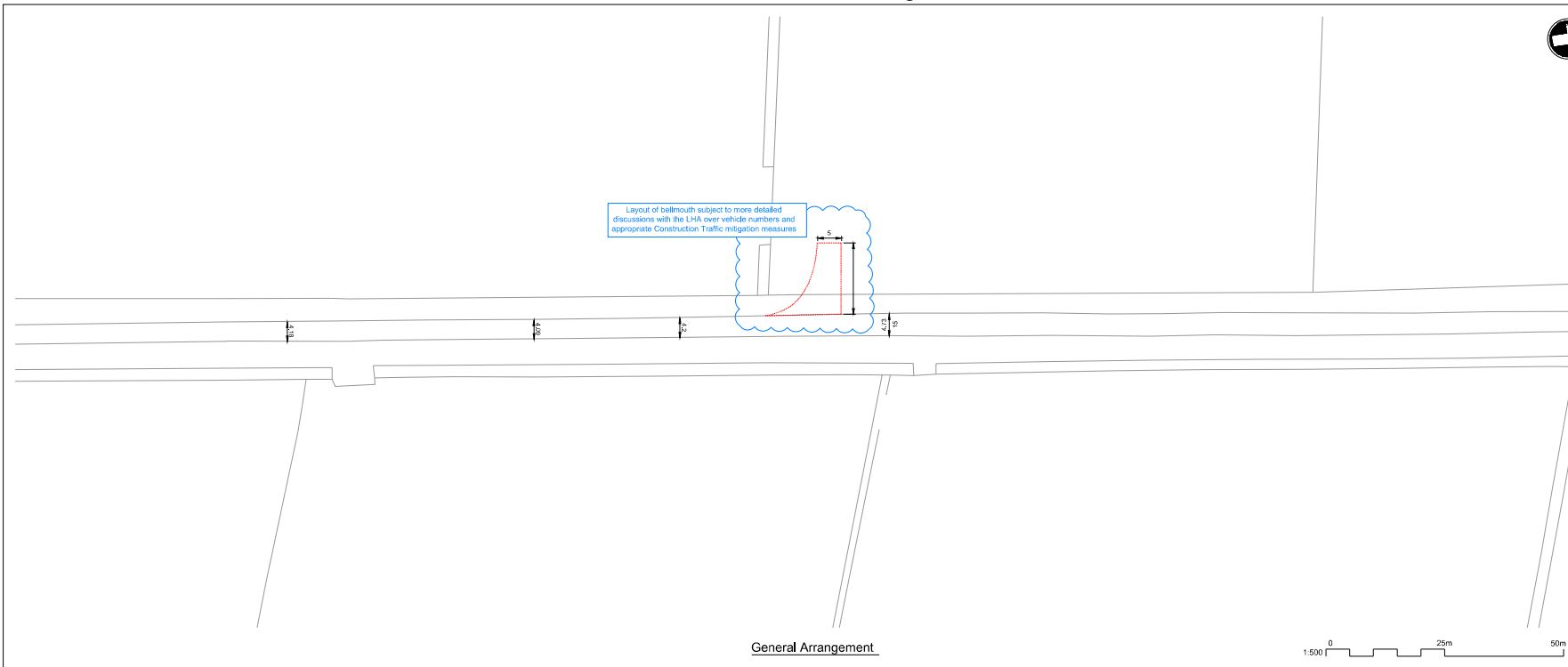
- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

Rev	Date	Drawn	Description	Rev	APP
P1		ADC	Draft for Discussion / Review.		ARR

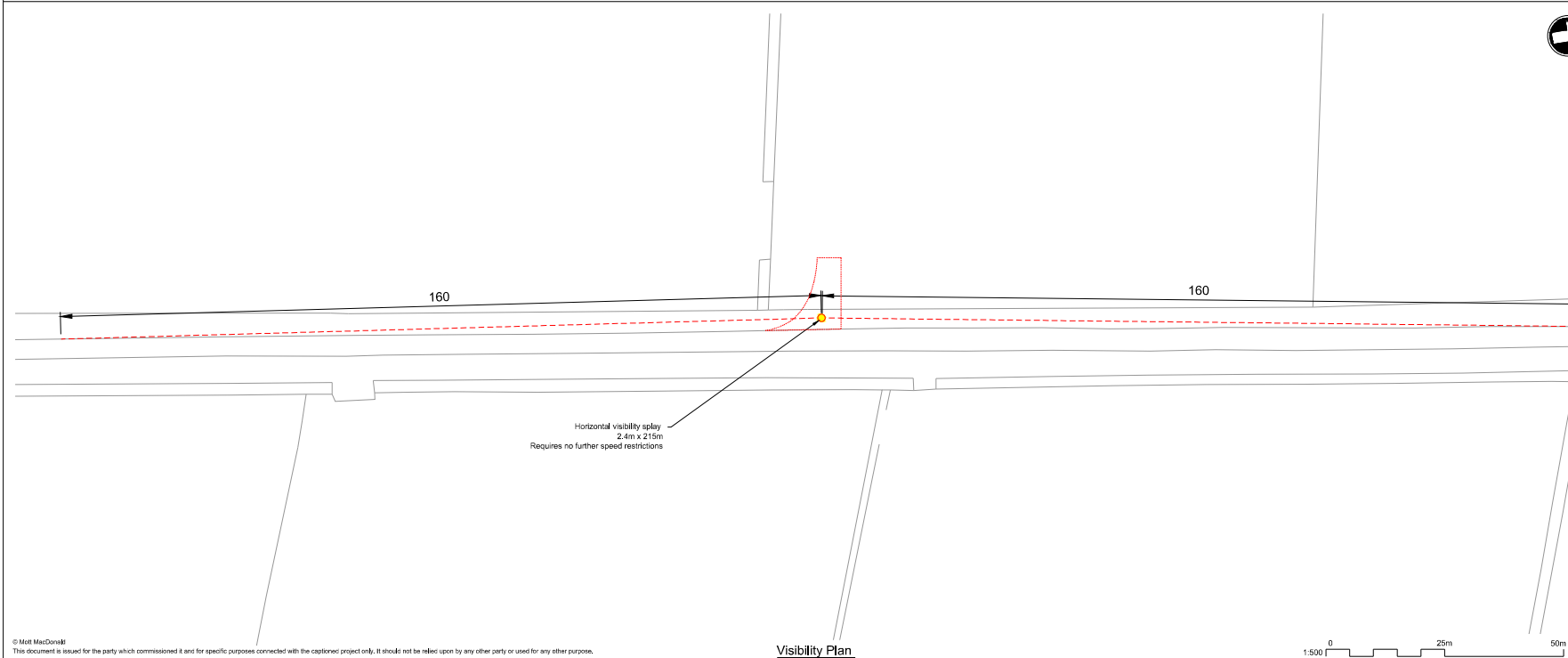


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
COA17 – COA18  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Case	EC
Drawn	-	-	Coordination	A.M.Rawlings	AMR
Dwg check	Approved				
Scale	1:500	Stat	PRE	Rev	P1
Section					STD
Drawing 102375-MMD-01-XX-DR-C-DRAFT					



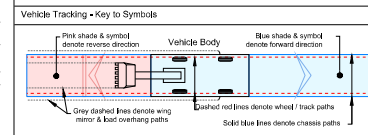
General Arrangement



Visibility Plan



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Vehicle Tracking - Vehicle Details

Low Loader	
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Overall Width	2,500m
Overall Body Height	3,300m
Max Track Width	2,500m
Kerb to Kerb Turning Radius	10,700m
Large Mobile Crane	
Overall Length	12,200m
Overall Width	2,450m
Overall Body Height	2,450m
Track Width	2,450m
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Vehicle Tracking - Risks & Compliance

	High Risks
	H1 Explanation of risk,

Vehicle Tracking - Notes

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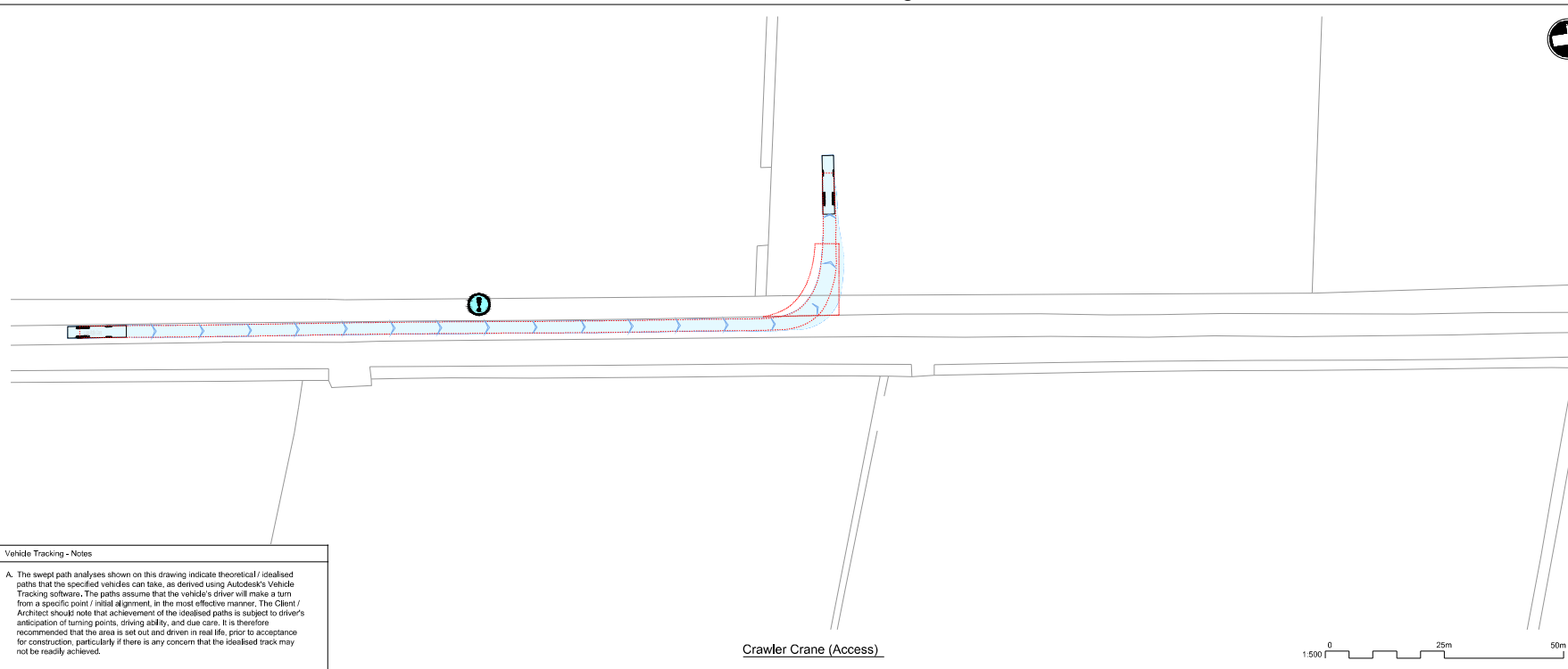
P1	17/05/2022	ADC	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Checked	Approved



The Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 CA29  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Castles	EC
Drawn	A.D.Castles	ADC	Coordination	A.M.Rawlings	AMR
Dwg check	-	-	Approved	-	-

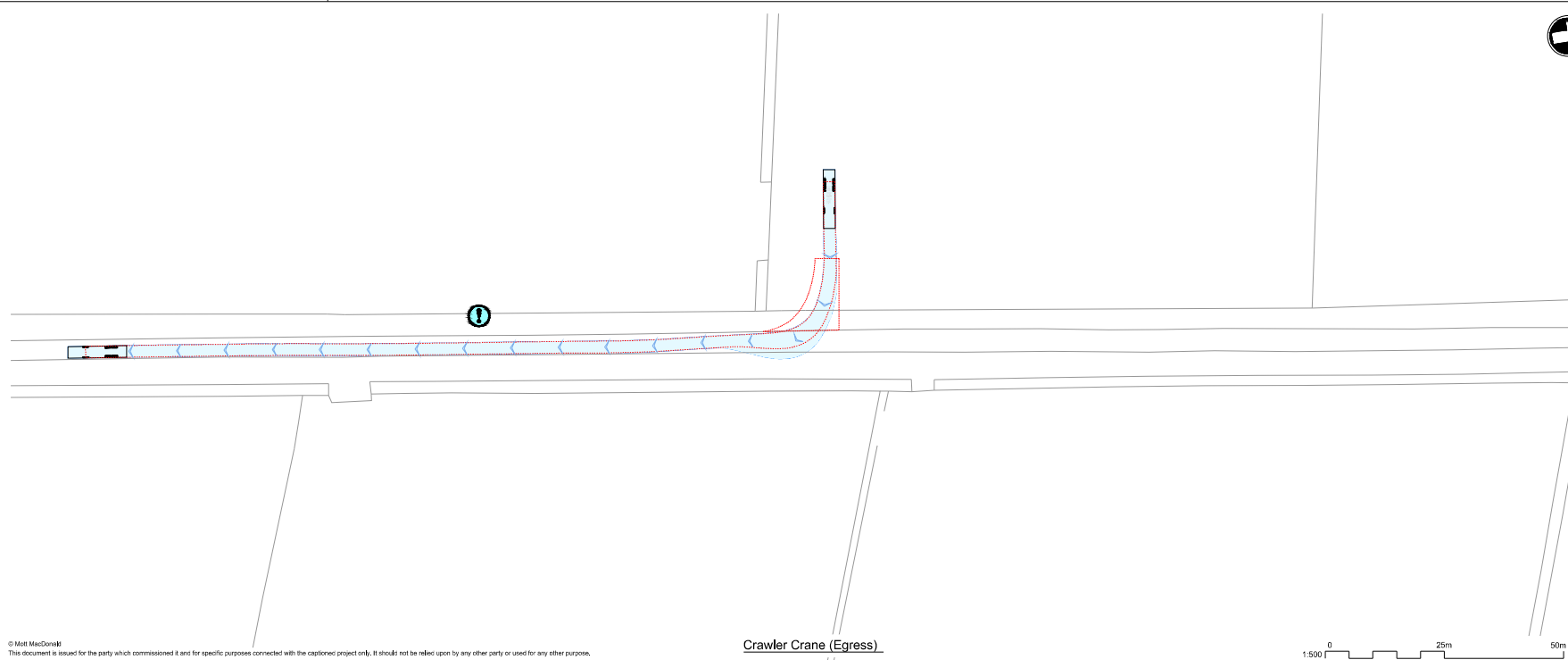
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 Drawing: 102375-MMD-01-XX-DR-C-DRAFT



**Vehicle Tracking - Notes**

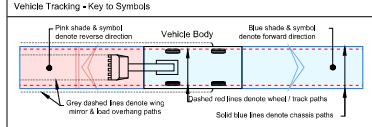
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Crawler Crane (Access)



Crawler Crane (Egress)

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**Vehicle Tracking - Risks & Compliance**

**Risks**

	Kerb overrun
	Restrictive road width

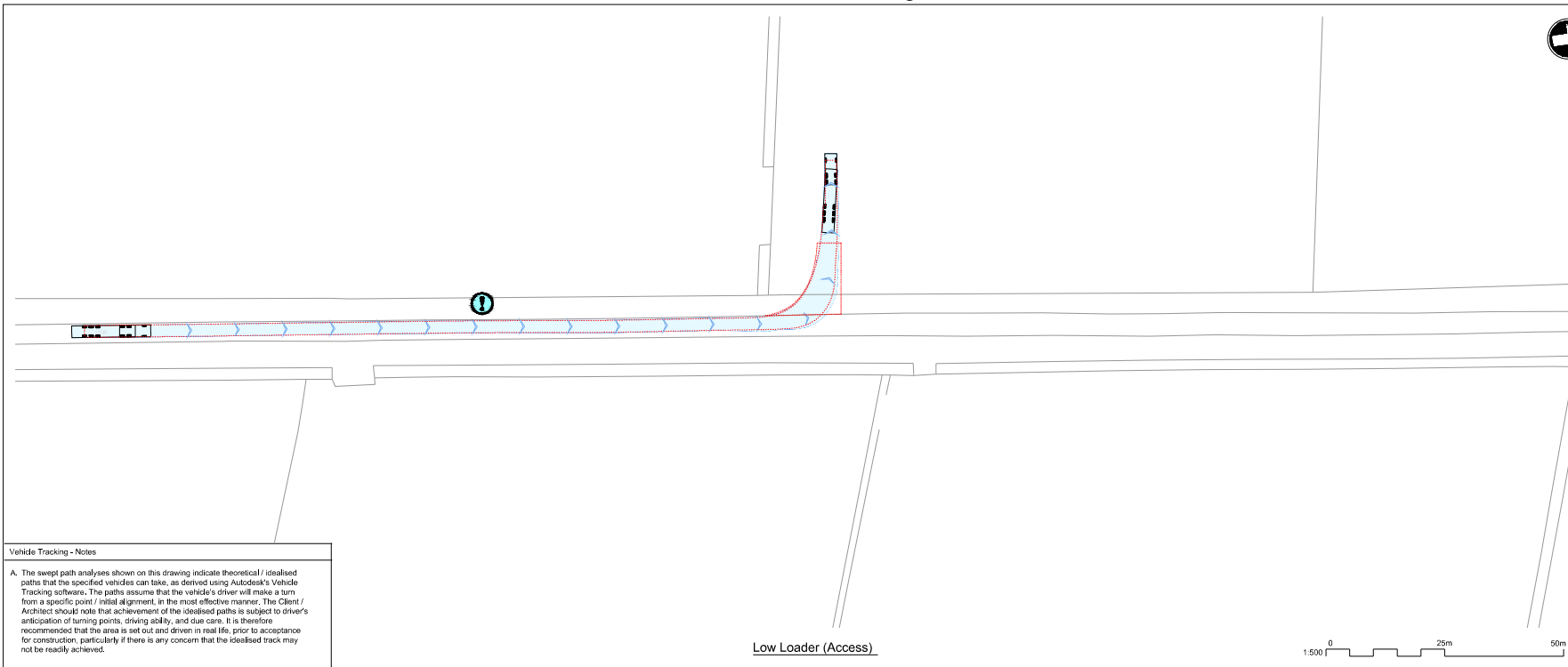
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**Title**  
Cambridge Waste Water Treatment Works Relocation  
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Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Castles	EC
Drawn	-	-	Coordination	A.M.Rawlings	AMR
Dwg check	Approved				
Scale	1:500	Stat	PRE	Rev	P1
				Sec	STD
Drawing 102375-MMD-01-XX-DR-C-DRAFT					



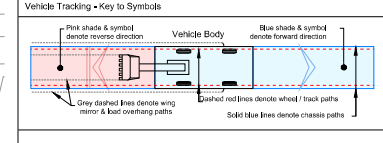


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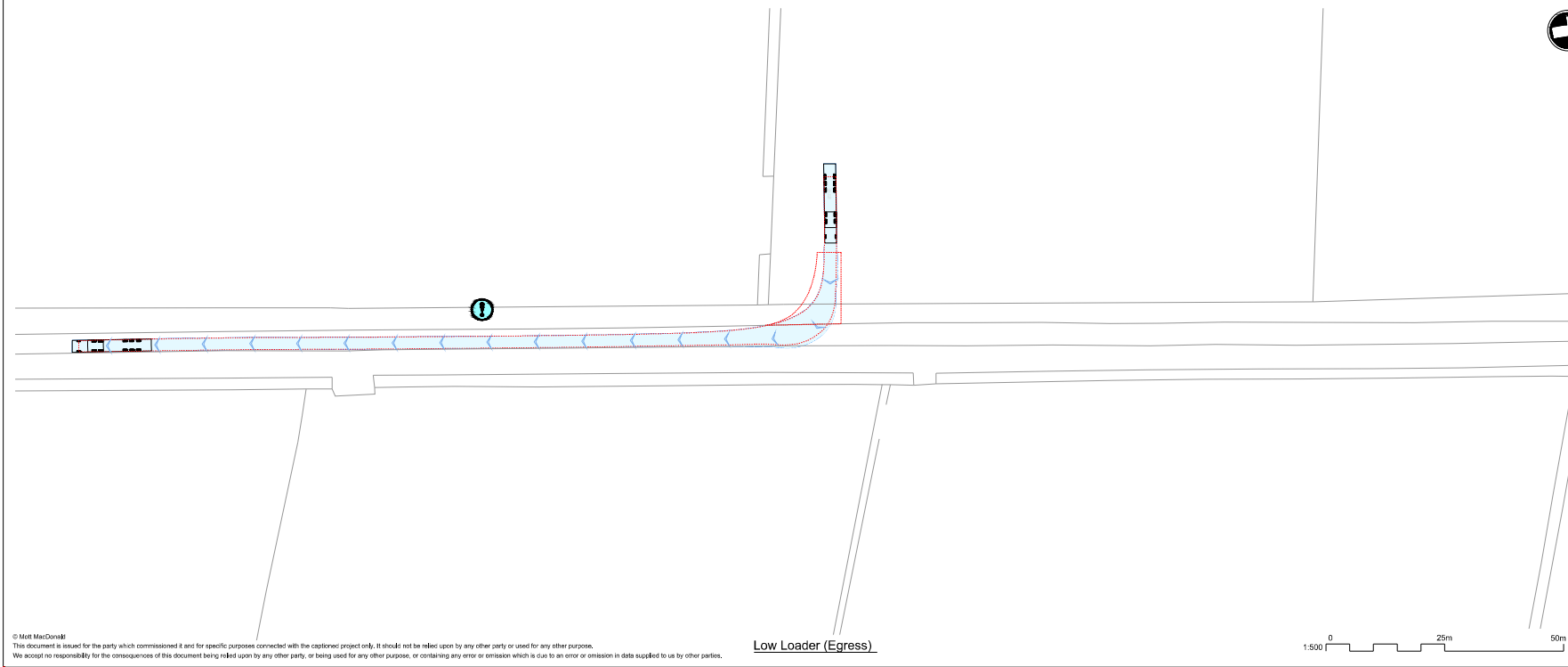
Low Loader (Access)

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**Vehicle Data**

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Low Loader (Egress)

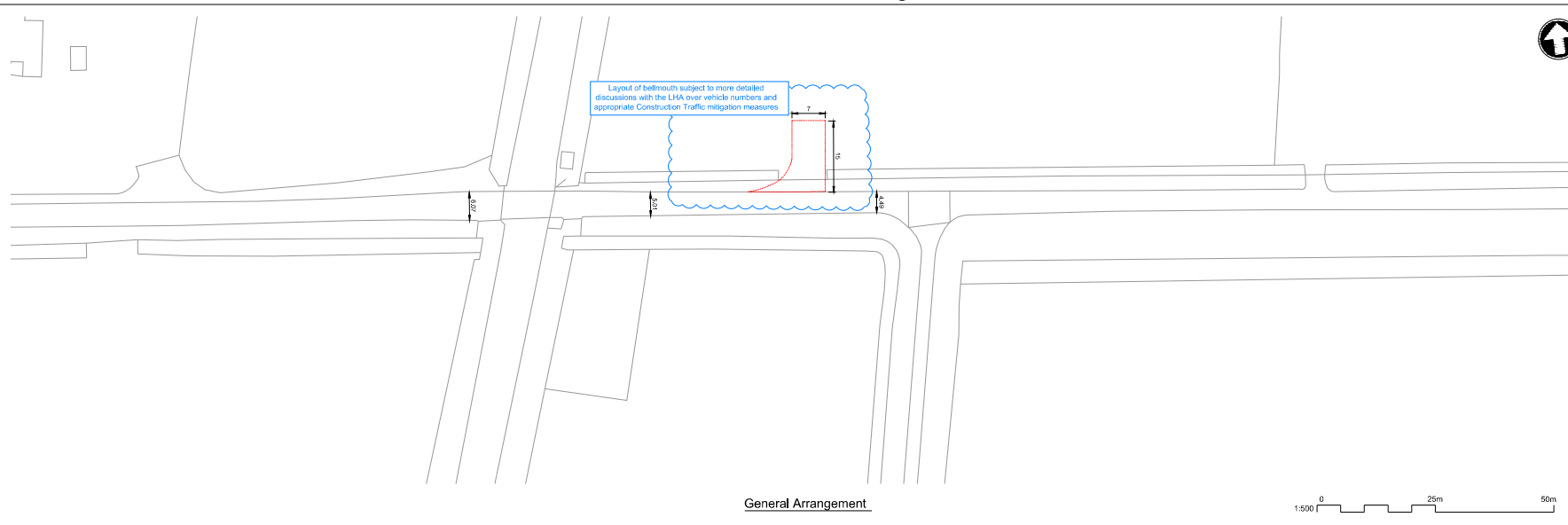
- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

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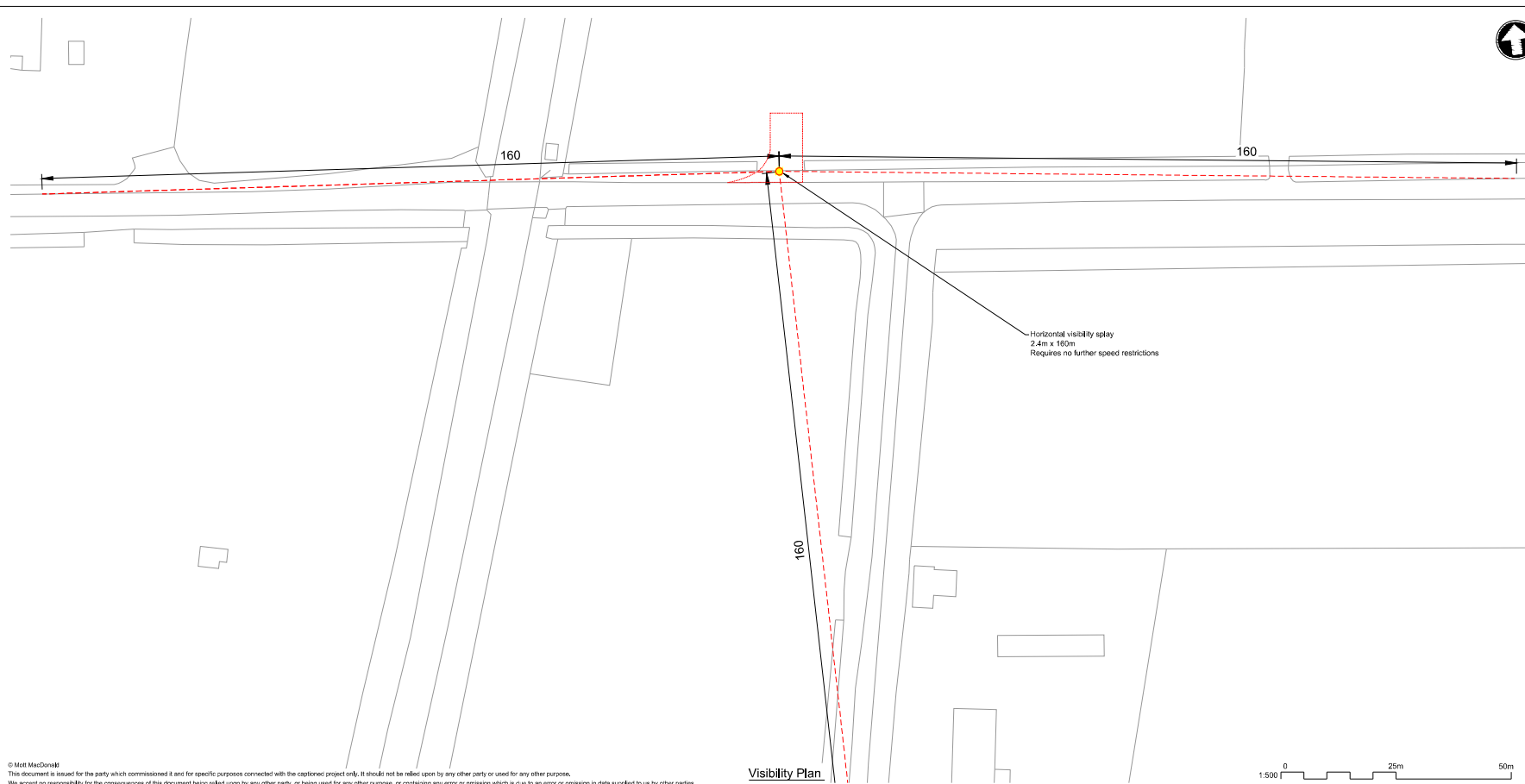


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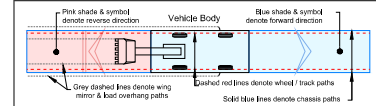
General Arrangement



Visibility Plan

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  12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads. Cambridge Waste Water Treatment Works Relocation is a brownfield site, any or proposed land take is to be determined during future stages of the design development of this option.
  13. DRAWINGS TO BE READ IN OCCURRENCE with the Technical Memo.

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

	Overall Length	16,633m
	Overall Width	2,500m
	Overall Body Height	3,300m
	Max Track Width	2,500m
	Keel to Keel Turning Radius	10,700m
	Overall Length	32,200m
	Overall Width	2,450m
	Overall Body Height	2,460m
	Track Width	2,450m
	Keel to Keel Turning Radius	10,000m

Vehicle Tracking - Risks & Compliance

	High Risks
	H1 Explanation of risk,

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

P1	10/23/25	ADC	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Drawn	Checked

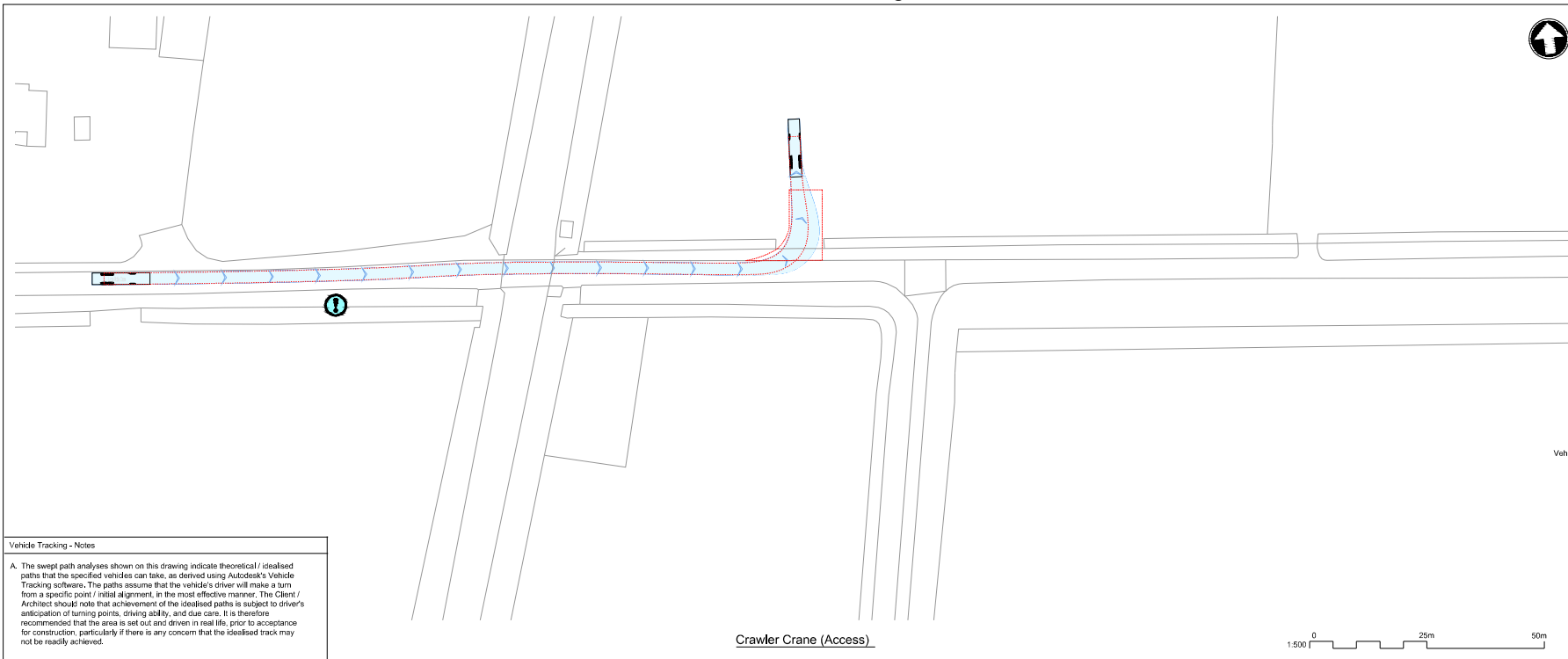


The Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 COA14  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Case	EC
Drawn	A.D.Castles	ADC	Coordination	E.Case	EC
Dwg check	-	-	Approved	A.M.Rawlings	AMR

Scale: 1:500 Stat: PRE Rev: P1 Sec: STD

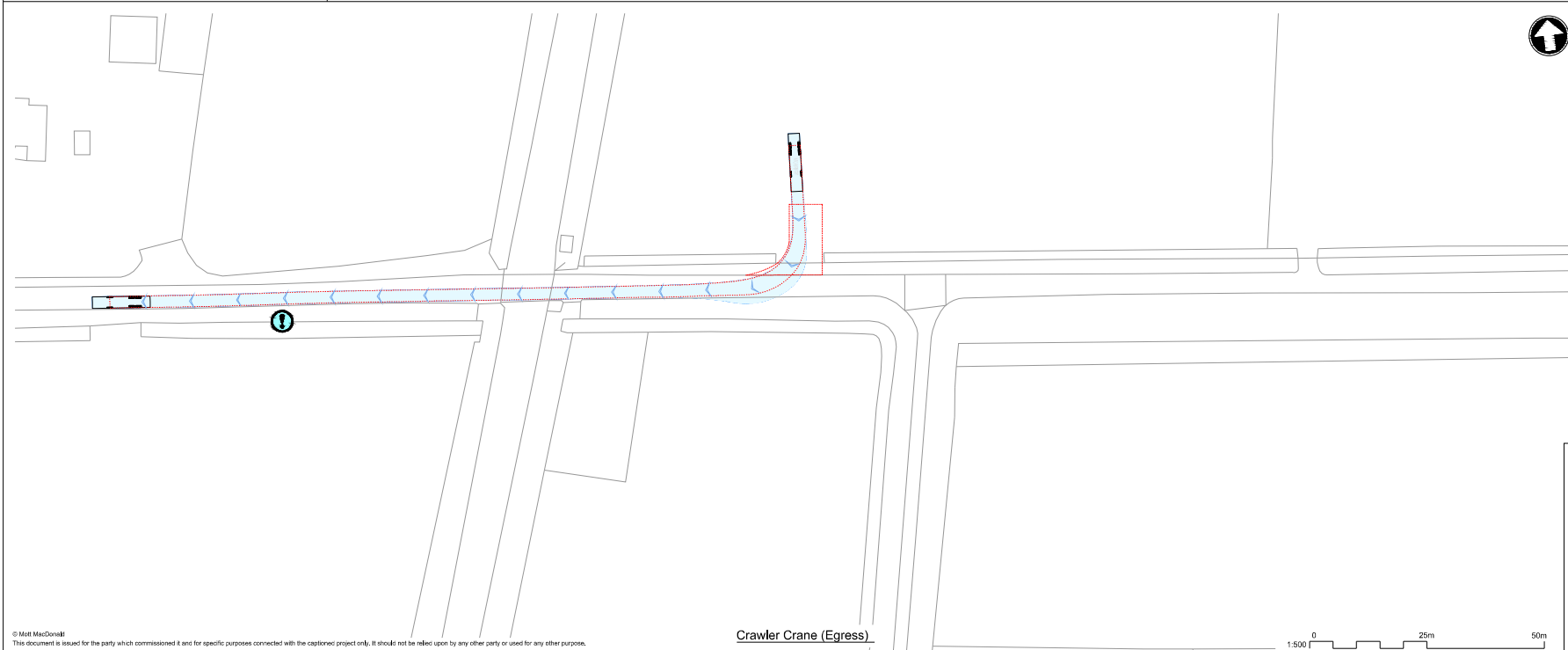
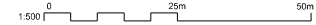
Drawing: 102375-MMD-01-XX-DR-C-DRAFT



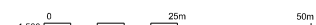
**Vehicle Tracking - Notes**

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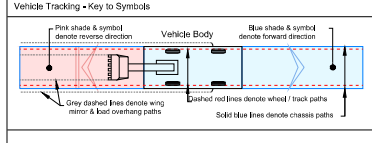
Crawler Crane (Access)



Crawler Crane (Egress)



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  - DRAWINGS TO BE READ IN OCCURRENCE with the Technical Memo.**



**Vehicle Tracking - Vehicle Details**

**Low Loader**

- Overall Length: 16,633m
- Overall Width: 2,500m
- Overall Body Height: 3,300m
- Max Track Width: 2,500m
- Kerb to Kerb Turning Radius: 10,700m

**Large Mobile Crane**

- Overall Length: 12,200m
- Overall Width: 2,450m
- Overall Body Height: 2,450m
- Track Width: 2,450m
- Kerb to Kerb Turning Radius: 10,000m

- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	10/23/25	ADC	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Checked	Approved

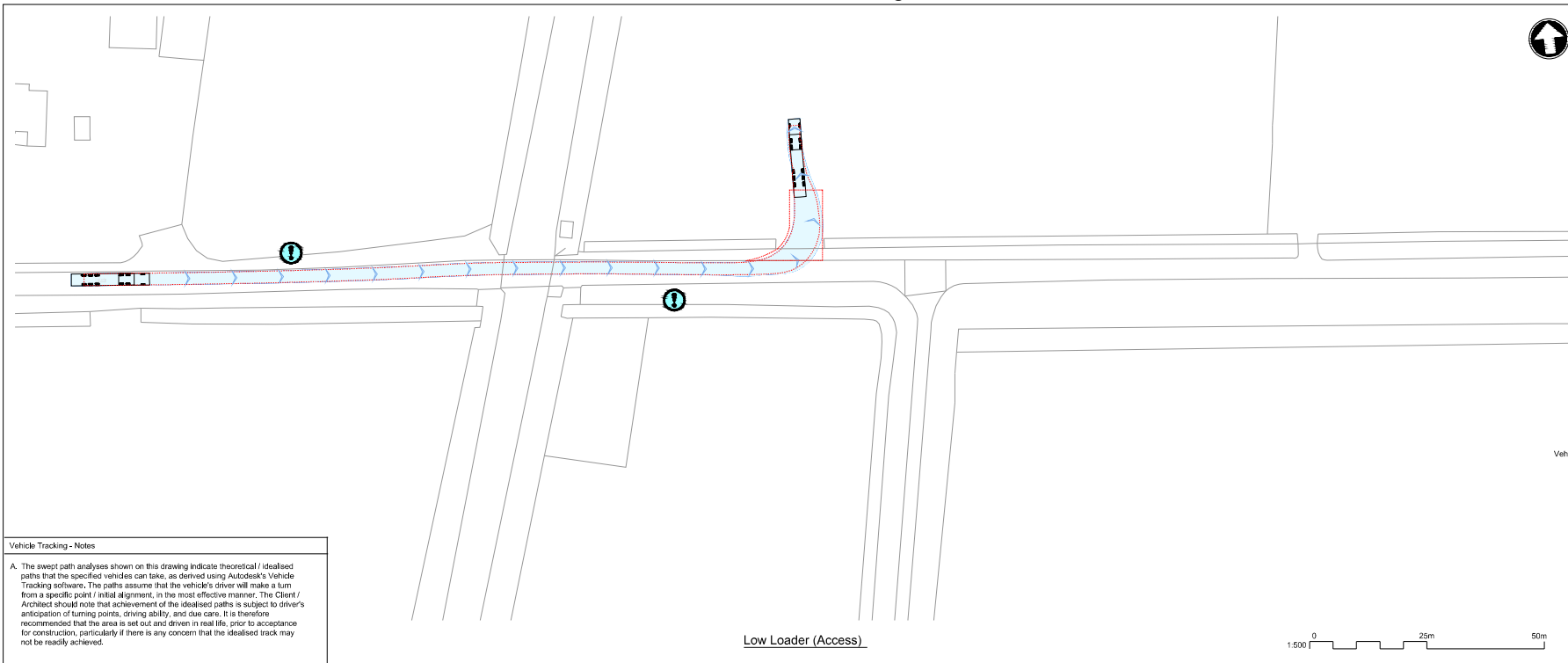


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
COA14  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Castles	EC
Drawn	-	-	Coordination	A.M.Rawlings	AMR
Dwg check	-	-	Approved	-	-

Scale: 1:500 | Status: PRE | Rev: P1 | Section: STD

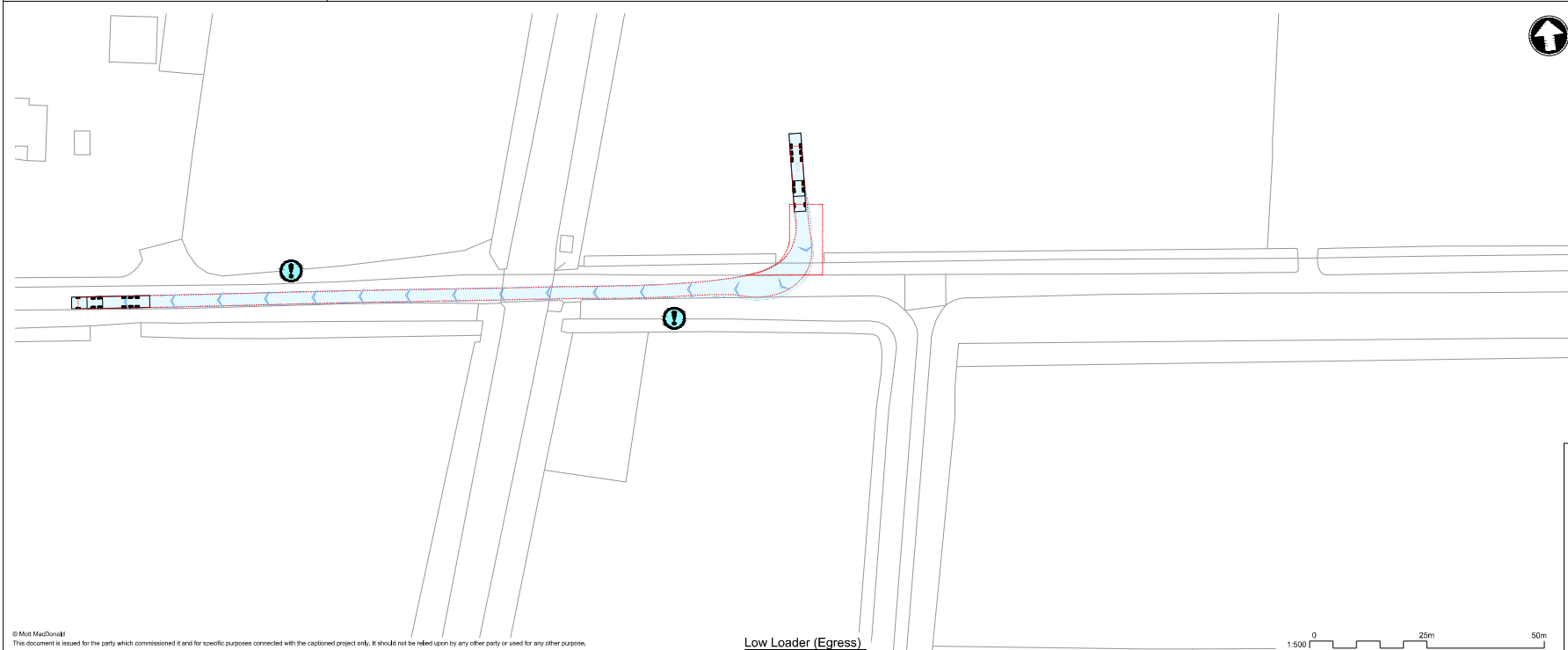
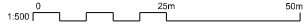
Drawing: 102375-MMD-01-XX-DR-C-DRAFT



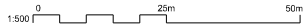
**Vehicle Tracking - Notes**

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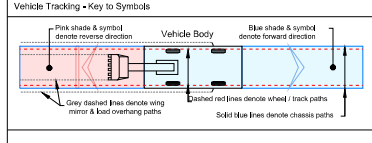
Low Loader (Access)



Low Loader (Egress)



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  - The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads. Cambridge Waste Water Treatment Works Relocation is a sensitive area, the proposed access road is subject to assessment during future stages of the design development of this option.
  - DRAWINGS PREPARED IN COORDINATION with the Technical Memo.**



**Vehicle**

	<b>Low Loader</b>	
Overall Length	16.633m	
Overall Width	2.500m	
Overall Body Height	3.300m	
Max Track Width	2.500m	
Kerb to Kerb Turning Radius	10.700m	

	<b>Large Mobile Crane</b>	
Overall Length	12.100m	
Overall Width	2.430m	
Overall Body Height	3.460m	
Track Width	2.430m	
Kerb to Kerb Turning Radius	10.000m	

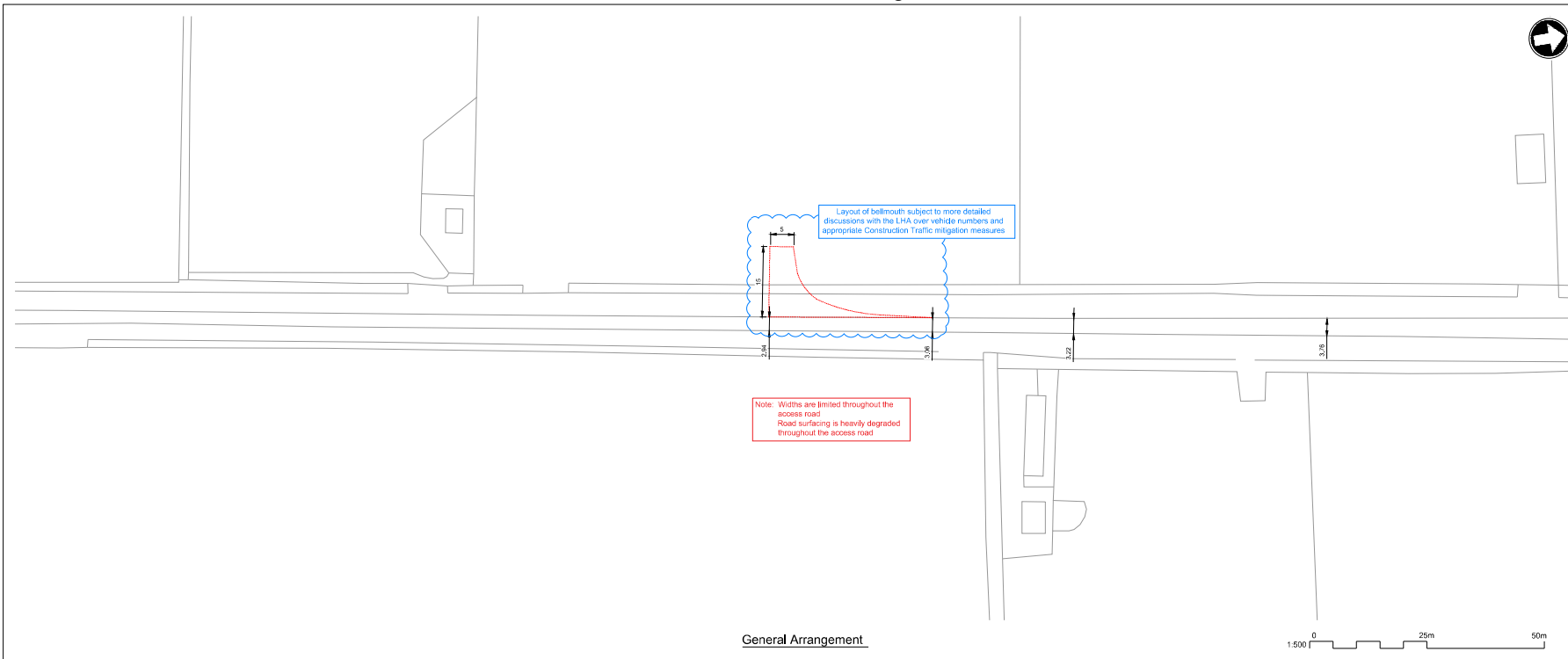
- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	ADC	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Checked by

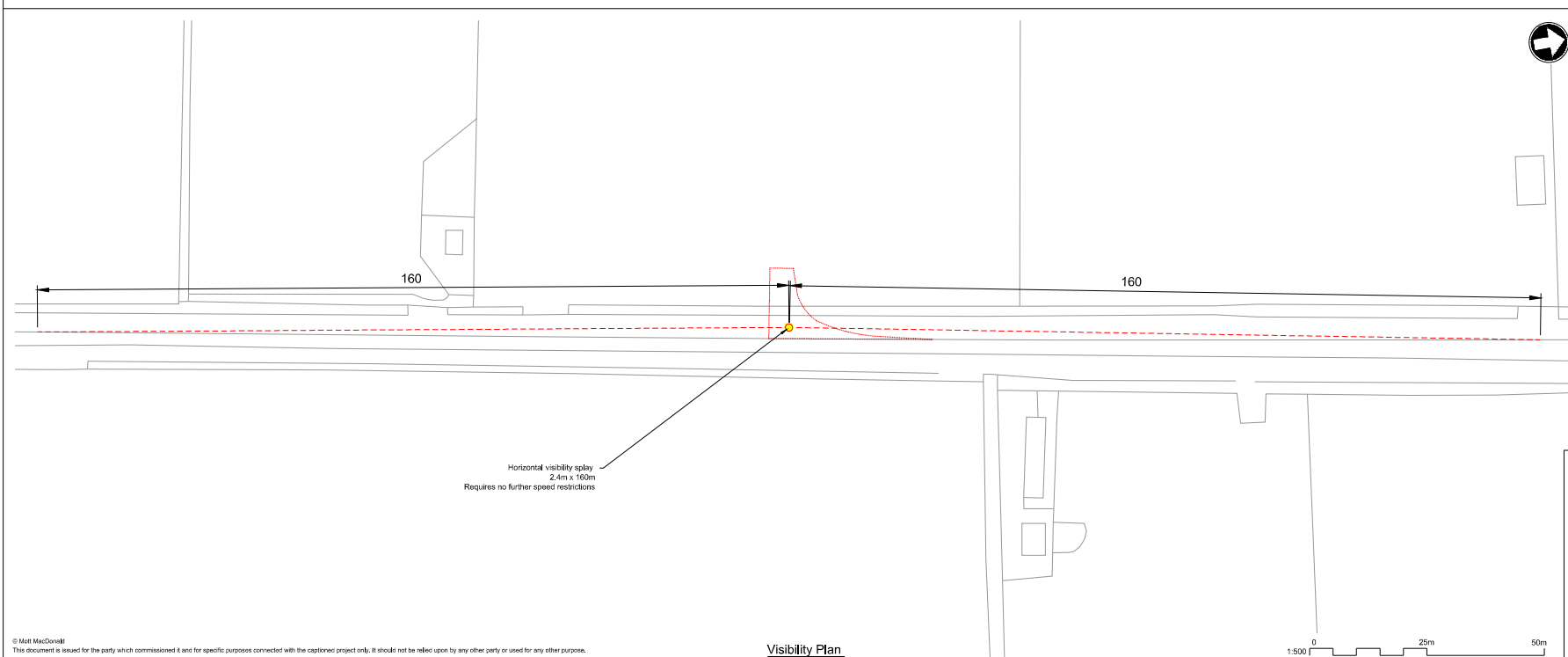


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
COA14  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Castles	EC
Drawn	-	-	Coordination	A.M.Rawlings	AMR
Dwg check	Approved				
Scale	1:500	Status	PRE	Rev	P1
				Sec	STD
Drawing 102375-MMD-01-XX-DR-C-DRAFT					

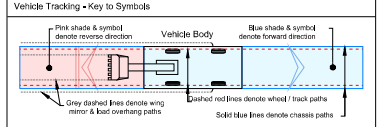


General Arrangement



Visibility Plan

- Notes
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  - Drawings to be read in conjunction with the Technical Memo.



Vehicle Tracking - Vehicle Details

**Low Loader**

Overall Length	16,633m
Overall Width	2,500m
Overall Body Height	3,300m
Max Track Width	2,500m
Kerb to Kerb Turning Radius	6,700m

**Large Mobile Crane**

Overall Length	12,200m
Overall Width	2,450m
Overall Body Height	2,450m
Track Width	2,450m
Kerb to Kerb Turning Radius	10,000m

Vehicle Tracking - Risks & Compliance

**High Risks**

**H1** Explanation of risk,

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

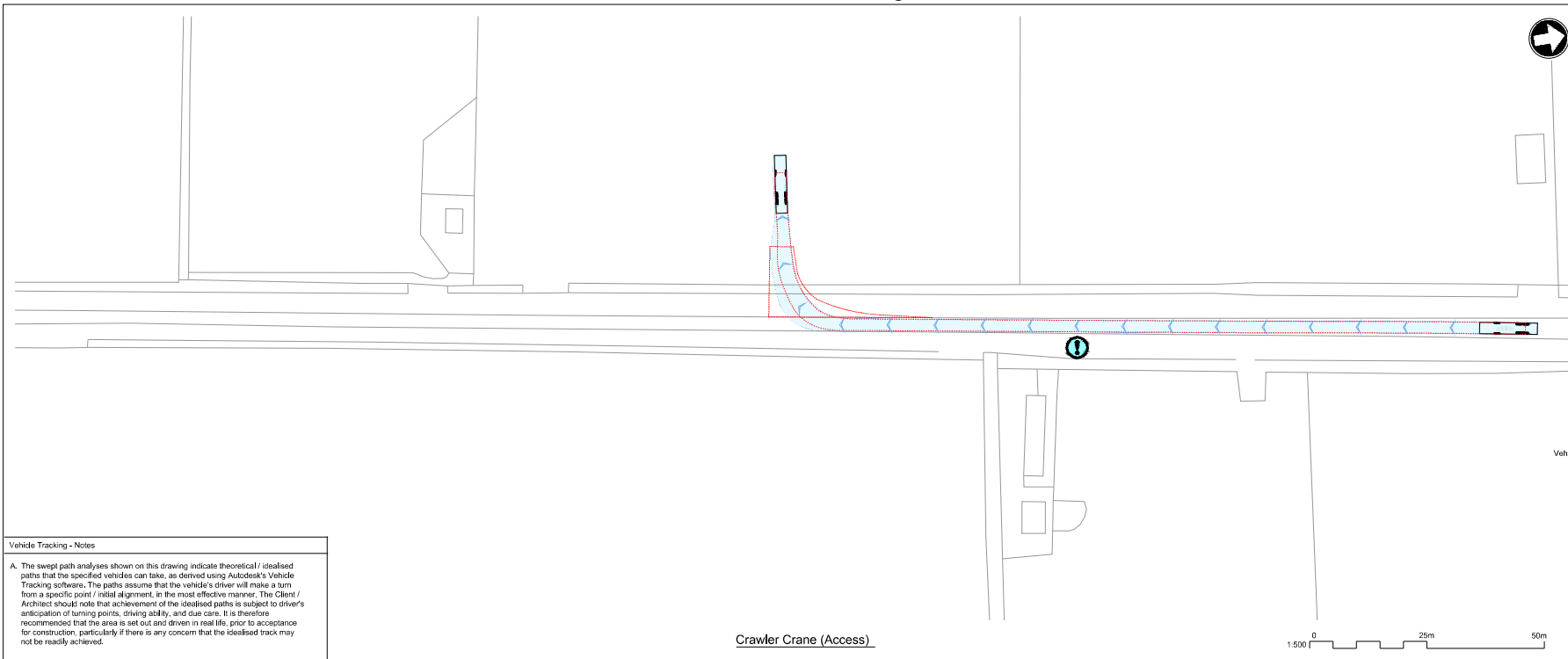
P1	2022-05-17	ADC	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Drawn	Checked



The Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
CA26  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Case	EC
Drawn	A.D.Castles	ADC	Coordination	A.M.Rawlings	AMR
Dwg check	-	-	Approved	-	-

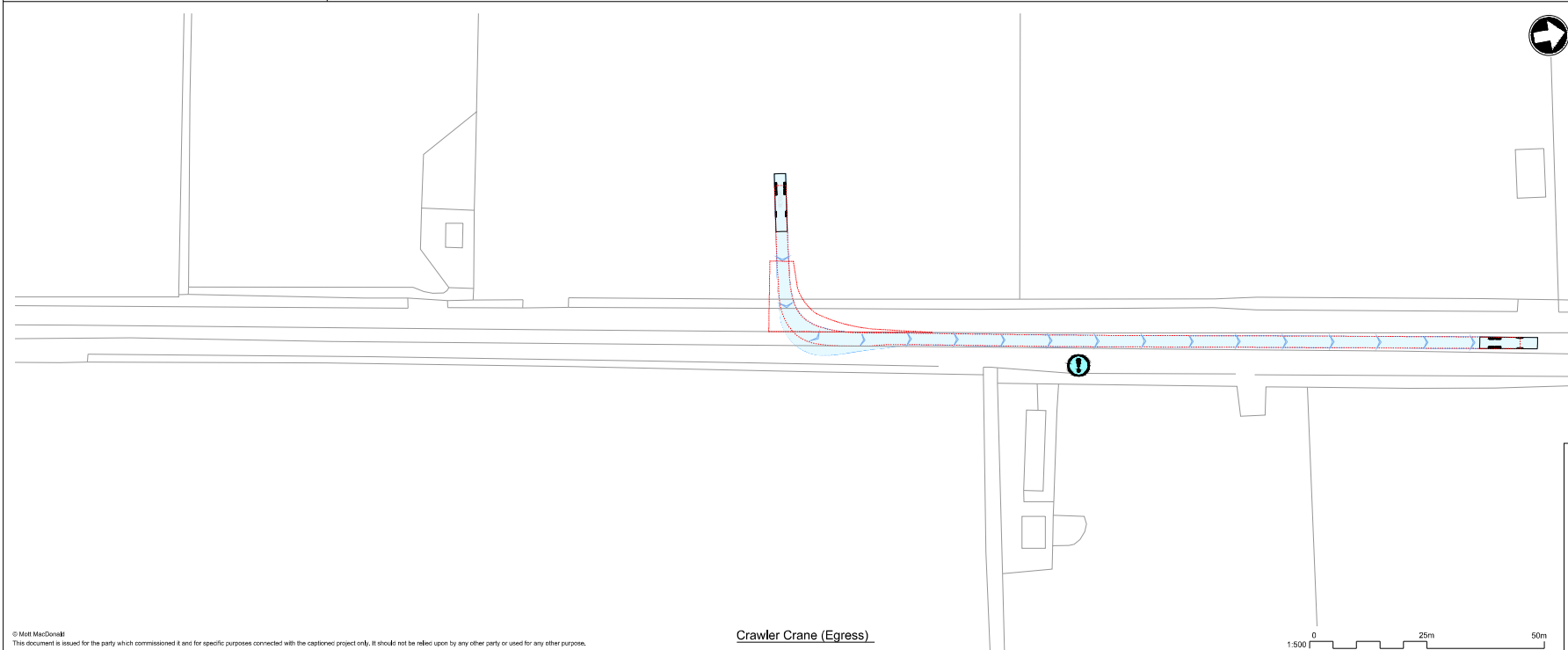
Scale: 1:500 Stat: PRE Rev: P1 Sec: STD  
Drawing: 102375-MMD-01-XX-DR-C-DRAFT



**Vehicle Tracking - Notes**

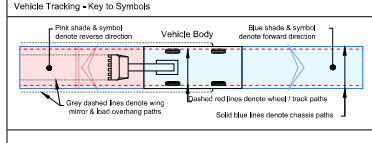
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Crawler Crane (Access)



Crawler Crane (Egress)

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**Vehicle Tracking - Vehicle Details**

<b>Low Loader</b>	
Overall Length	16,633m
Overall Width	2,500m
Overall Body Height	3,300m
Max Track Width	2,500m
Kerb to Kerb Turning Radius	16,700m

<b>Large Mobile Crane</b>	
Overall Length	12,200m
Overall Width	2,450m
Overall Body Height	3,460m
Track Width	2,450m
Kerb to Kerb Turning Radius	10,000m

- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	Rev	Date	Drawn	Description	AWK	AWR
				Draft for Discussion / Review.		

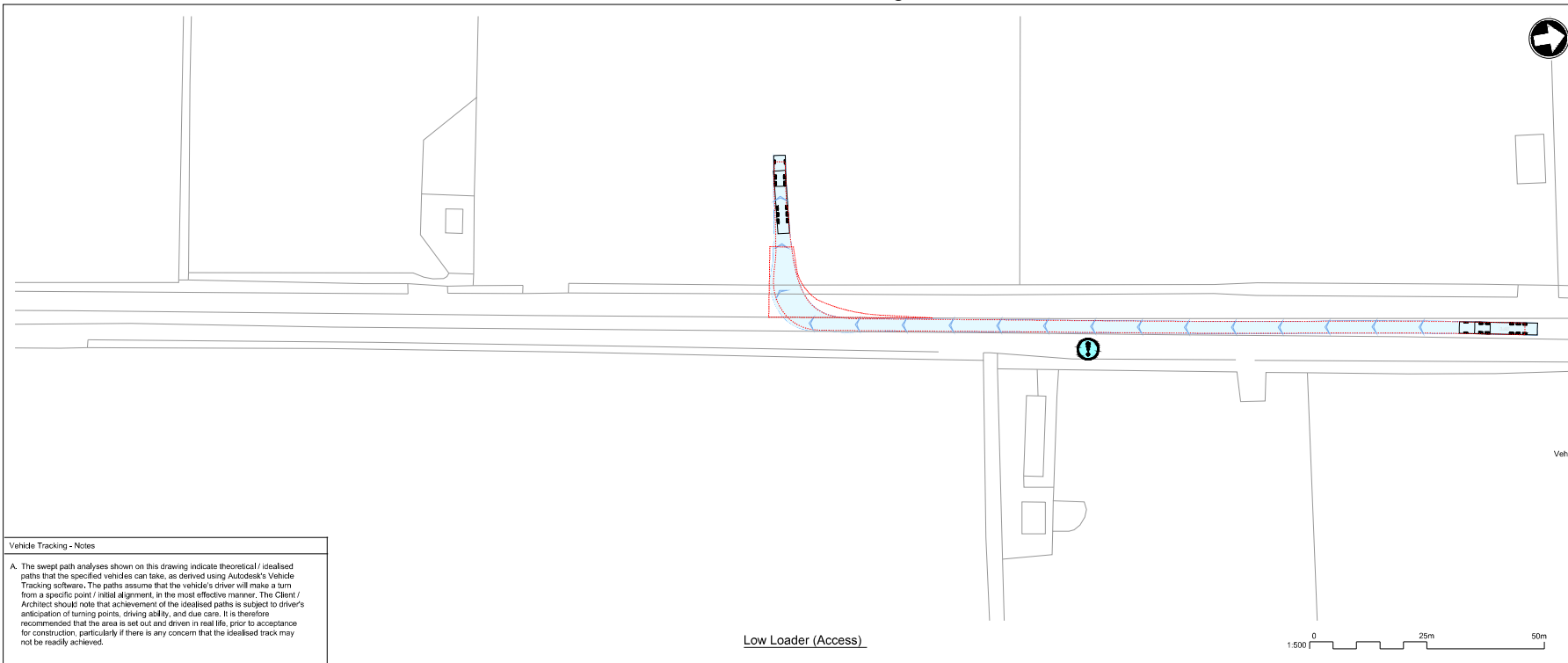


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
CA26  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	A.D.Casillas	ADC	Eng check	E.Case	EC
Drawn	-	-	Coordination	E.Case	EC
Dwg check	-	-	Approved	A.M.Rawlings	AMR

Scale: 1:500    Stat: PRE    Rev: P1    Sec: STD

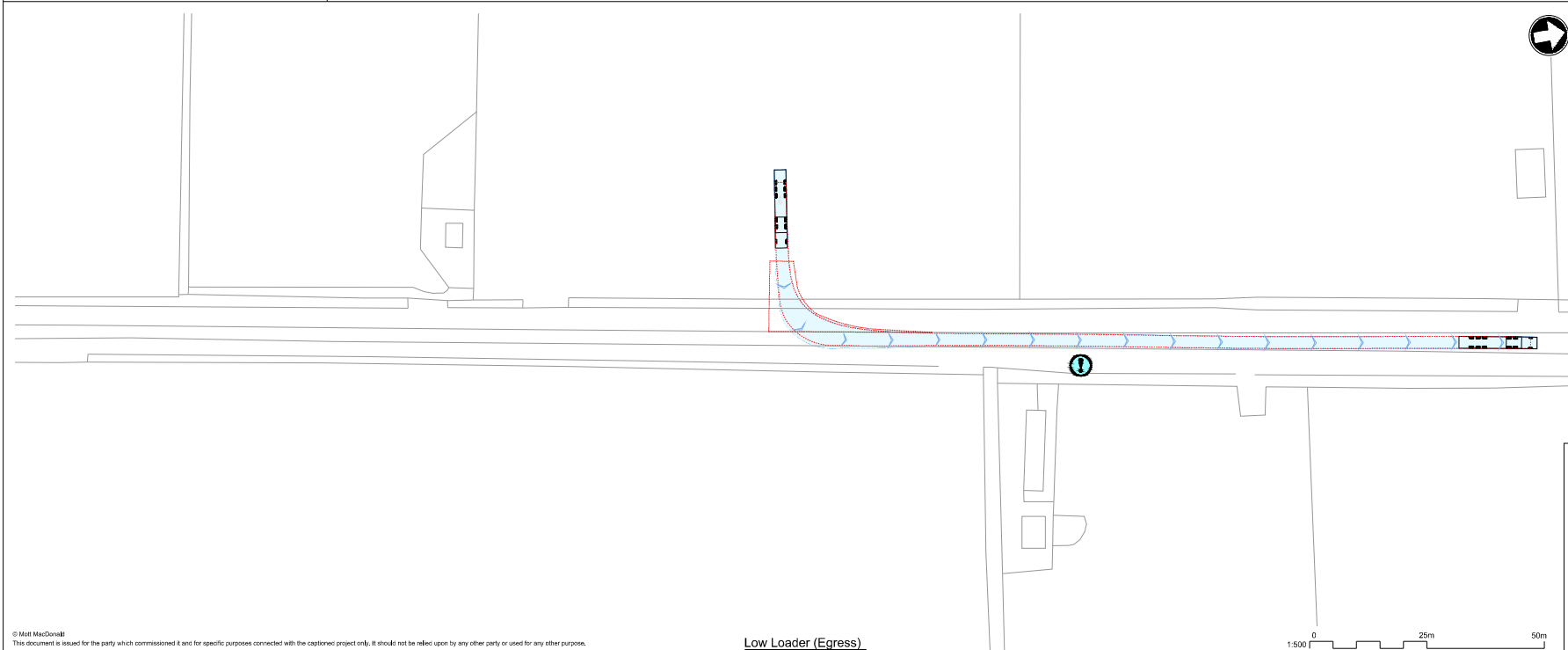
Drawing: 102375-MMD-01-XX-DR-C-DRAFT



**Vehicle Tracking - Notes**

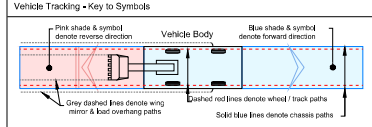
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Low Loader (Access)



Low Loader (Egress)

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  - DRAWINGS TO BE READ IN OCCURRENCE with the Technical Memo.**



**Vehicle Data**

	<b>Low Loader</b>	
Overall Length	16,633m	
Overall Width	2,500m	
Overall Body Height	3,300m	
Max Track Width	2,500m	
Kerb to Kerb Turning Radius	16,700m	

	<b>Large Mobile Crane</b>	
Overall Length	12,200m	
Overall Width	2,450m	
Overall Body Height	3,460m	
Track Width	2,450m	
Kerb to Kerb Turning Radius	10,000m	

- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	Rev	Date	Drawn	Description	AWK	AWR
				Draft for Discussion / Review.		

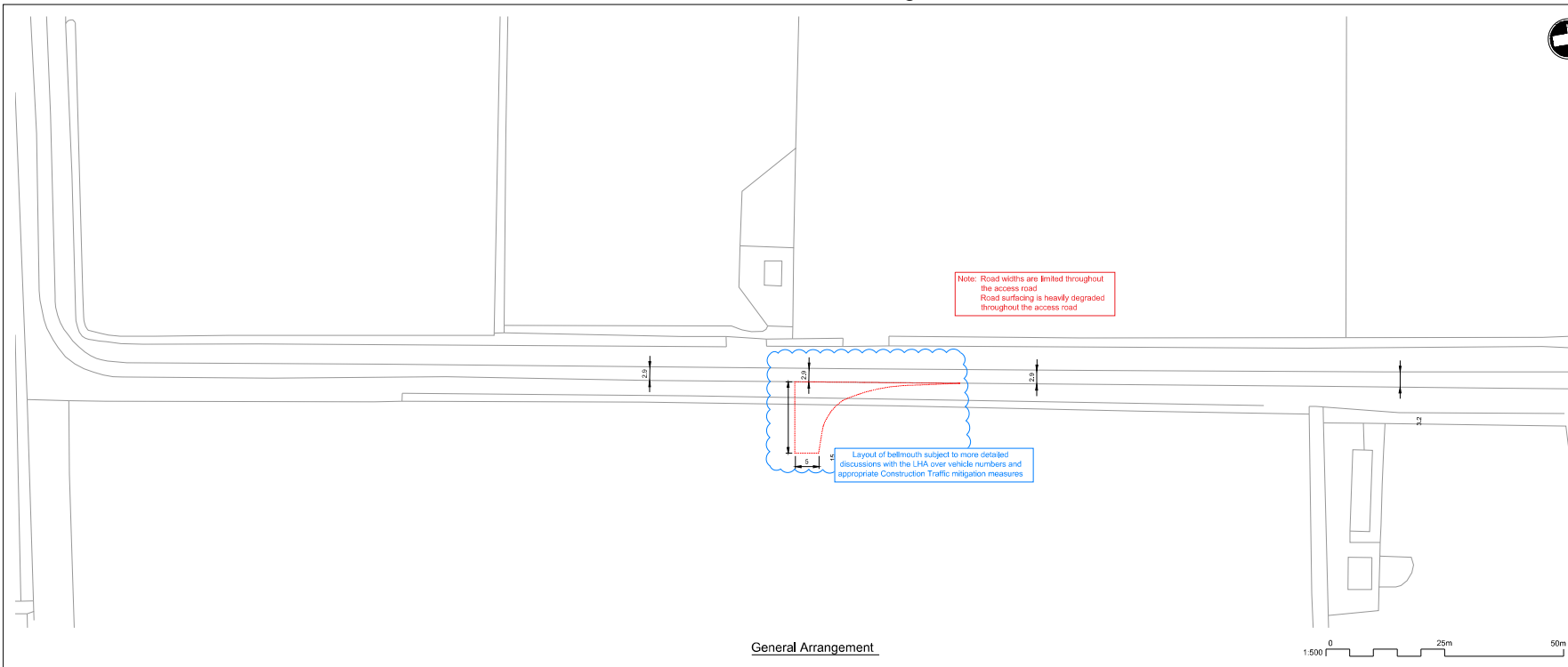


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
CA26  
Highways GA, Visibility Splay and  
Vehicle Tracking

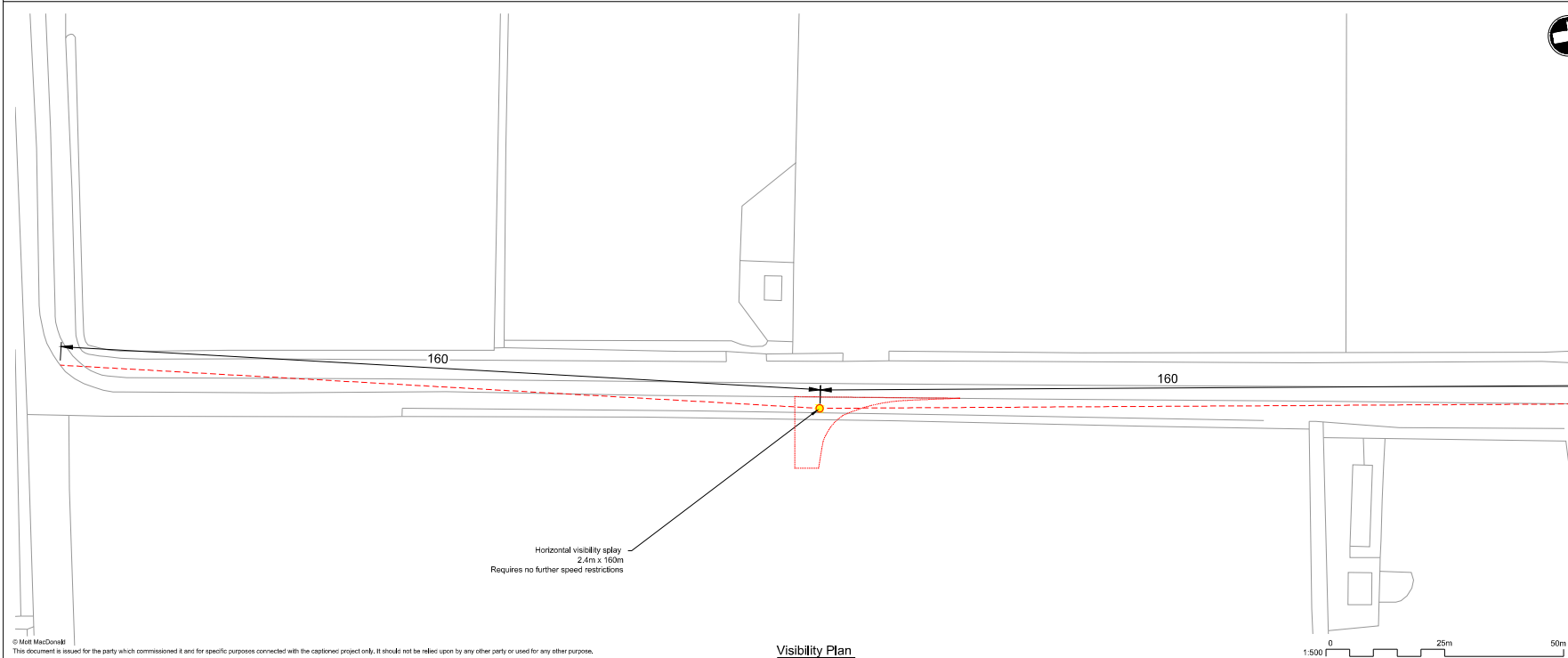
Designed	A.D.Casillas	AWC	Eng check	E.Case	EC
Drawn	-	-	Coordination	A.M.Rawlings	AWR
Dwg check			Approved		

Scale: 1:500    Stat: PRE    Rev: P1    Sec: STD

Drawing: 102375-MMD-01-XX-DR-C-DRAFT



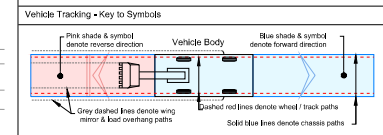
General Arrangement



Visibility Plan



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Vehicle Tracking - Vehicle Details

Vehicle Type	Overall Length	Overall Width	Overall Body Height	Max Track Width	Kerb to Kerb Turning Radius
Low Loader	16,633m	2,500m	3,300m	2,500m	6,700m
Large Mobile Crane	12,200m	2,400m	2,400m	2,400m	10,000m

Vehicle Tracking - Risks & Compliance

Risk Level	Explanation of risk
High Risks	H1 Explanation of risk

Vehicle Tracking - Notes

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Rev	Date	Drawn	Description	Checked
P1		ADC	Draft for Discussion / Review	AWR

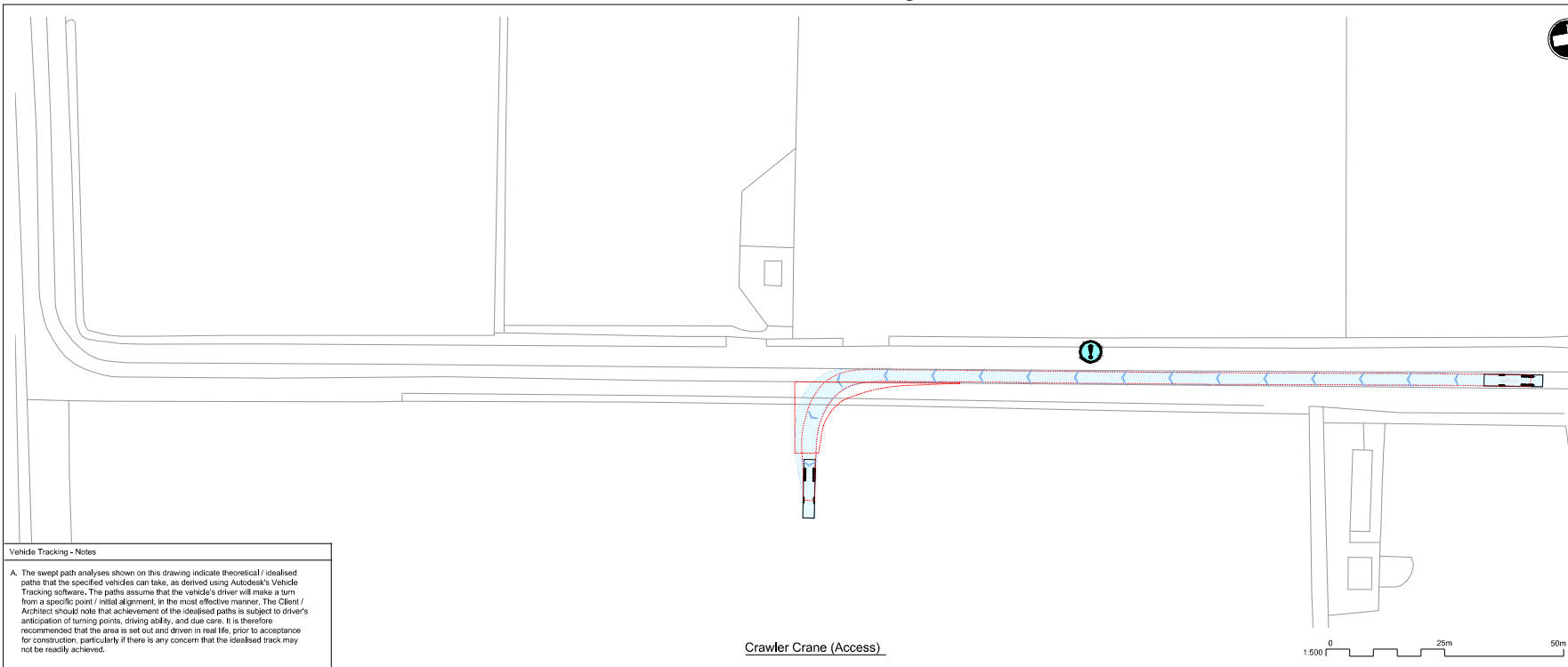


Title  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
COA13  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Case	EC
Drawn	A.D.Castles	ADC	Coordination	A.M.Rawlings	AMR
Dwg check	Approved				

Scale: 1:500 Stat: PRE Rev: P1 Sec: STD  
Drawing: 102375-MMD-01-XX-DR-C-DRAFT

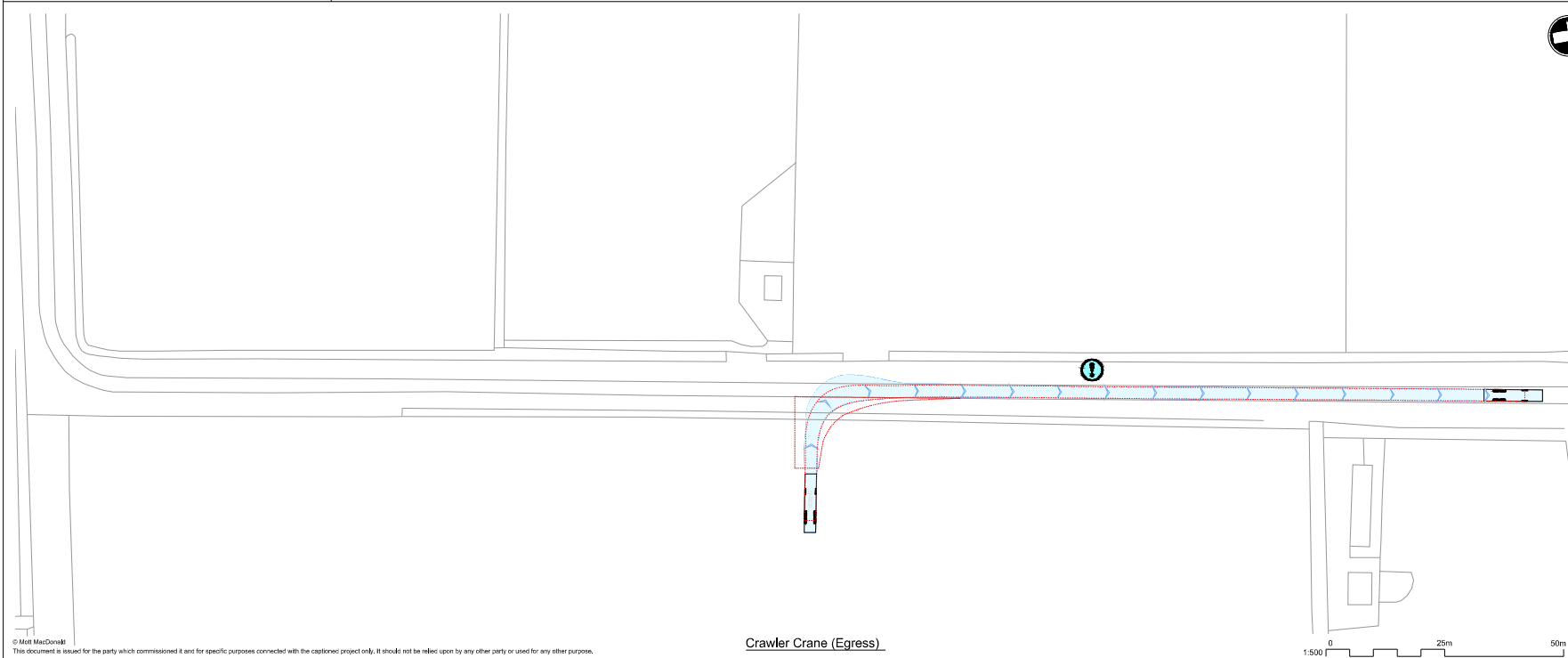




**Vehicle Tracking - Notes**

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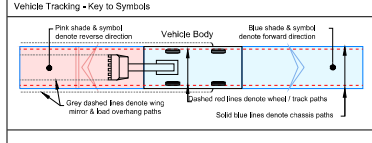
Crawler Crane (Access)



Crawler Crane (Egress)

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  - Drawings to be read in conjunction with the Technical Memo.**



**Tracking - Vehicle Details**

	Low Loader	
	Overall Length	16,633m
	Overall Width	2,500m
	Overall Body Height	3,300m
	Max Track Width	2,500m
	Kerb to Kerb Turning Radius	16,700m

	Large Mobile Crane	
	Overall Length	12,200m
	Overall Width	2,450m
	Overall Body Height	2,450m
	Track Width	2,450m
	Kerb to Kerb Turning Radius	10,000m

- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

Rev	Date	Drawn	Description	CHK	APP
P1		ADC	Draft for Discussion / Review.	AWK	AWK

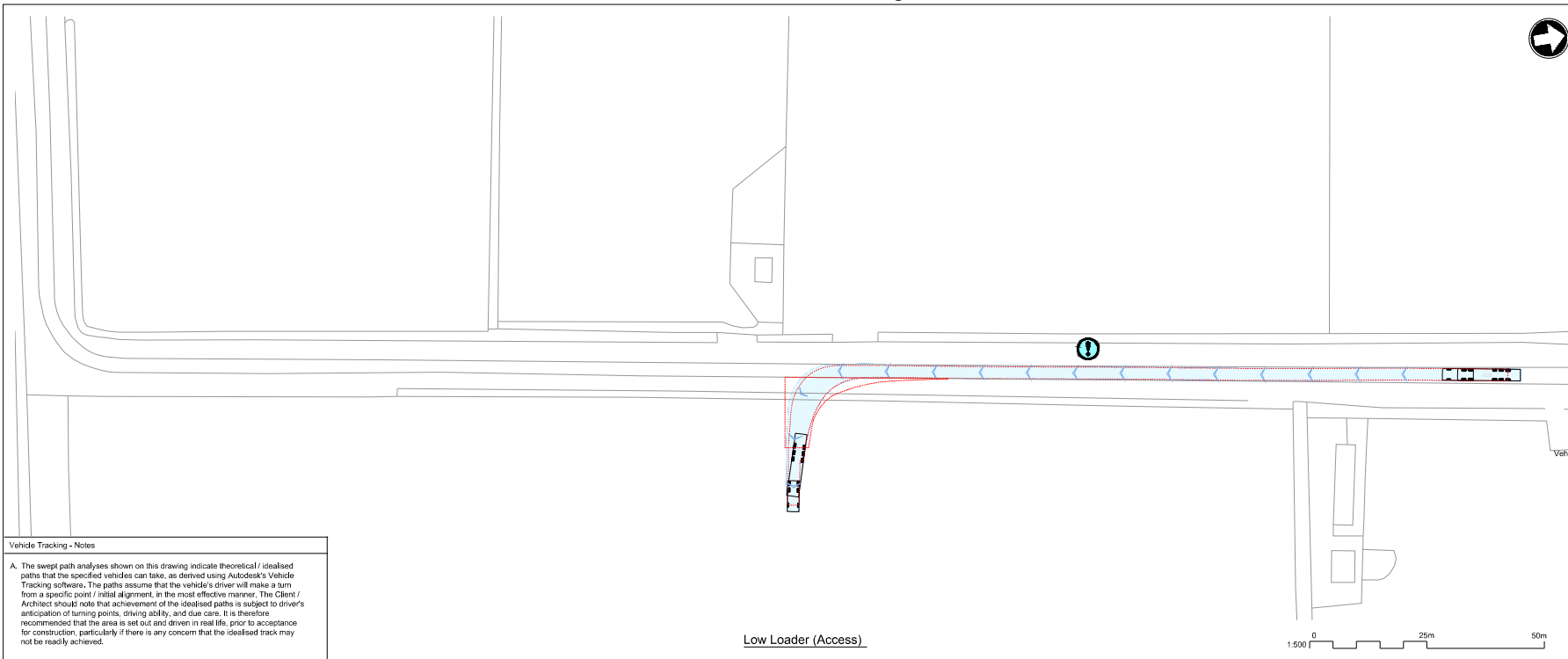


Title  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 COA13  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Case	EC
Drawn	-	-	Coordination	A.M.Rawlings	AMR
Dwg check			Approved		

Scale: 1:500    Stat: PRE    Rev: P1    Sec: STD

Drawing: 102375-MMD-01-XX-DR-C-DRAFT

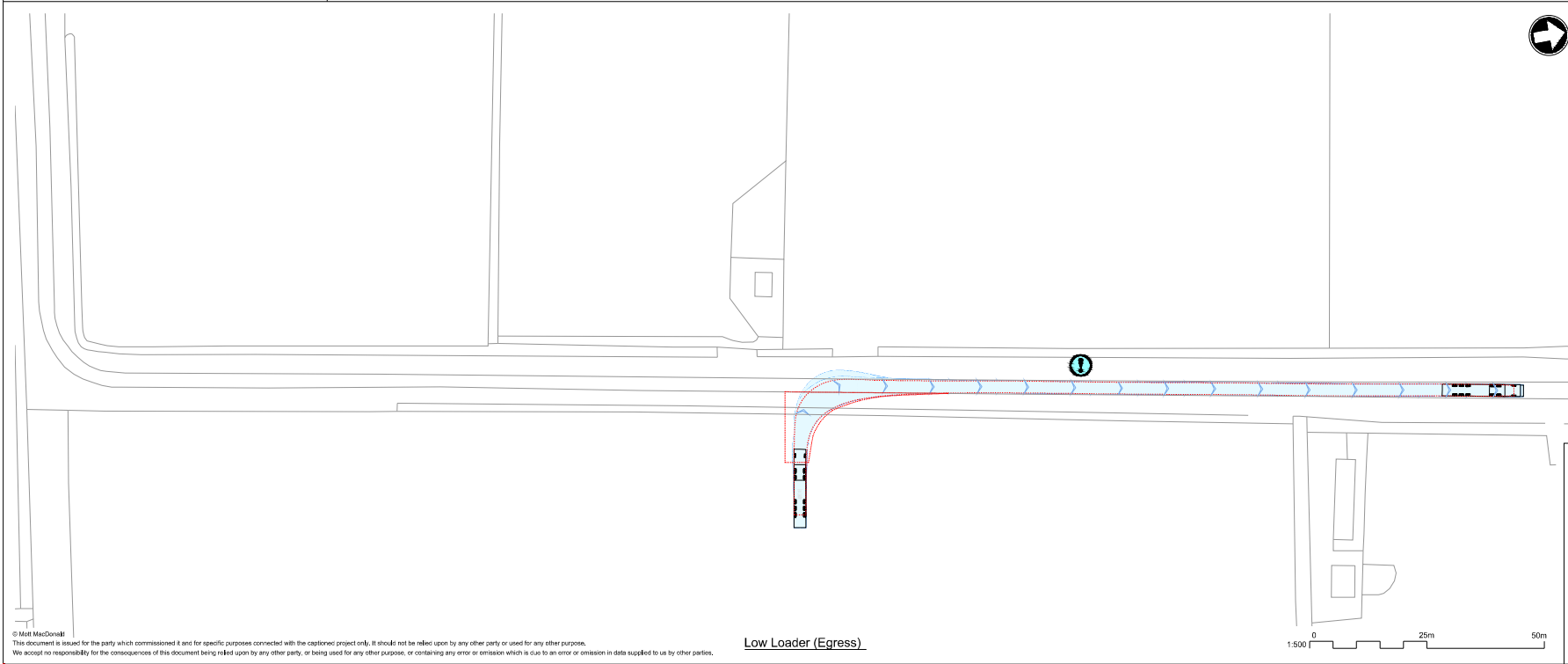
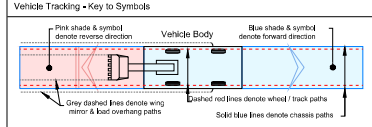


**Vehicle Tracking - Notes**

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Low Loader (Access)

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  13. DRAWINGS TO BE READ IN OCCURRENCE with the Technical Memo.



Low Loader (Egress)

- Vehicle Tracking - Risks & Compliance**
- Risks**
- ⚠️ Kerb overrun
  - 🚫 Restrictive road width

Rev	Date	Drawn	Description	CHK	APP
P1		ADC	Draft for Discussion / Review.	AWK	AWK

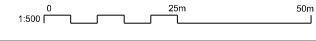
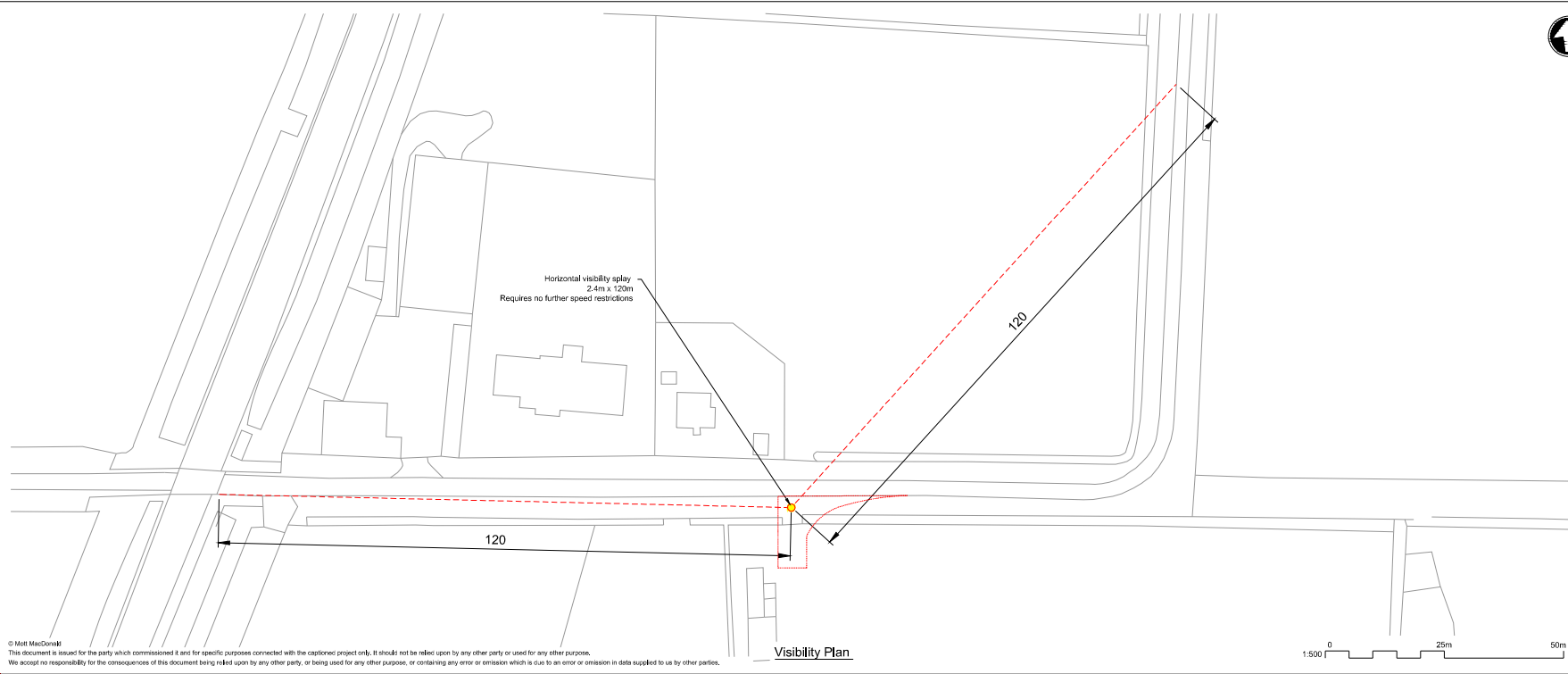
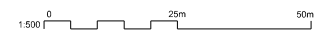
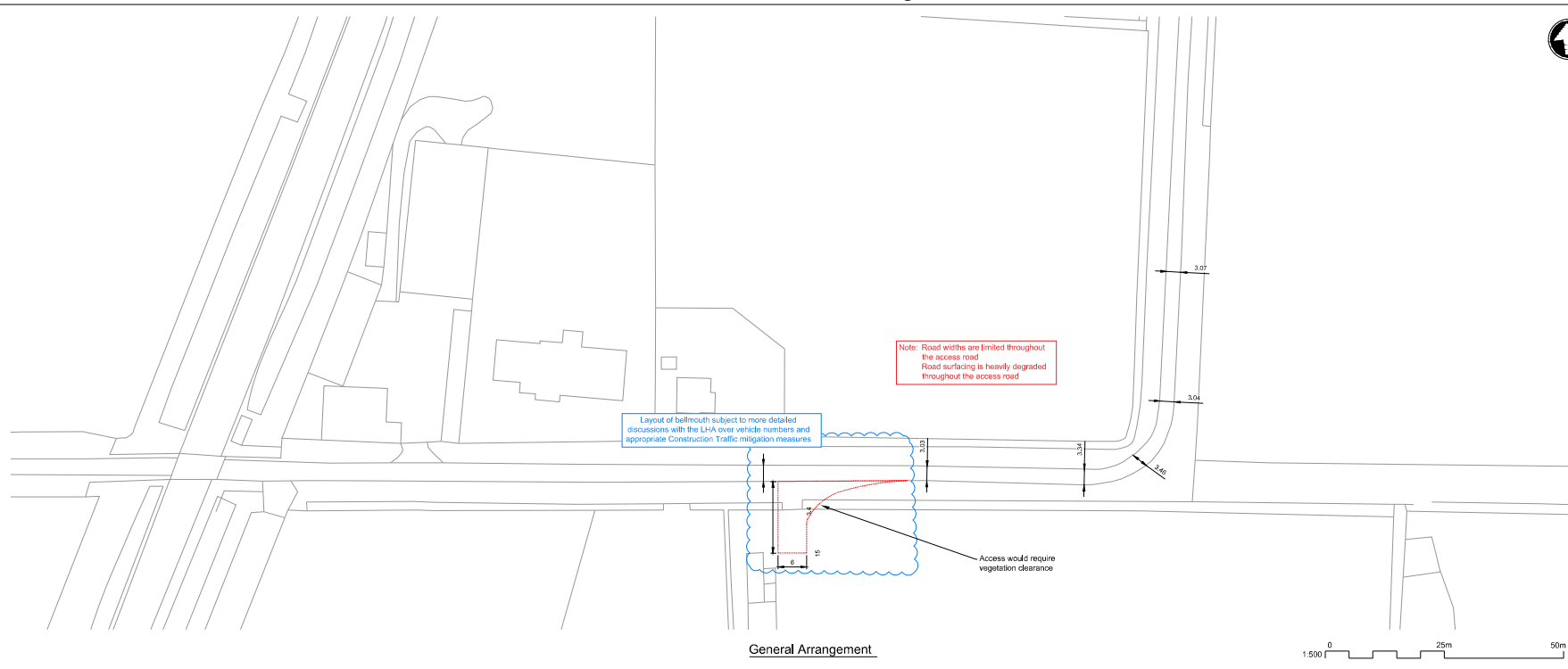


**Title**  
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Temporary Access Junctions  
COA13  
Highways GA, Visibility Splay and  
Vehicle Tracking

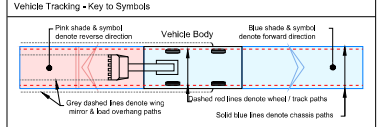
Designed	A.D.Castles	ADC	Eng check	E.Case	EC
Drawn	-	-	Coordination	A.M.Rawlings	AMR
Dwg check	Approved				

Scale: 1:500    Stat: PRE    Rev: P1    Sec: STD

Drawing: 102375-MMD-01-XX-DR-C-DRAFT



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  - DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo.**



Vehicle Tracking - Vehicle Details

	Low Loader	16,633m
	Overall Length	2,500m
	Overall Width	2,500m
	Overall Body Height	2,500m
	Max Track Width	2,500m
	Kerb to Kerb Turning Radius	10,000m
	Large Mobile Crane	12,200m
	Overall Length	2,450m
	Overall Width	2,450m
	Overall Body Height	2,450m
	Track Width	2,450m
	Kerb to Kerb Turning Radius	10,000m

Vehicle Tracking - Risks & Compliance

**High Risks**  
**H1** Explanation of risk,

Vehicle Tracking - Notes

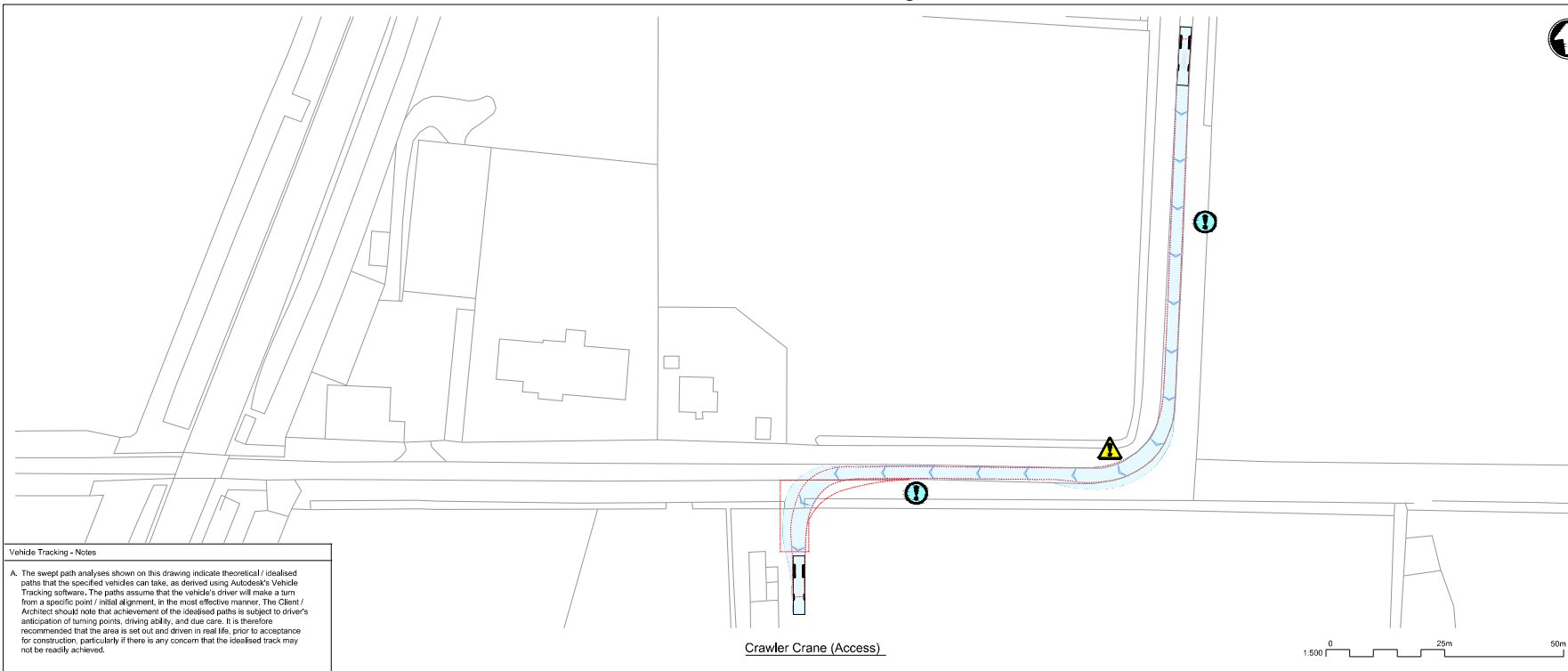
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P1	13/05/2022	ADC	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Drawn	Checked



The Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 COA12  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

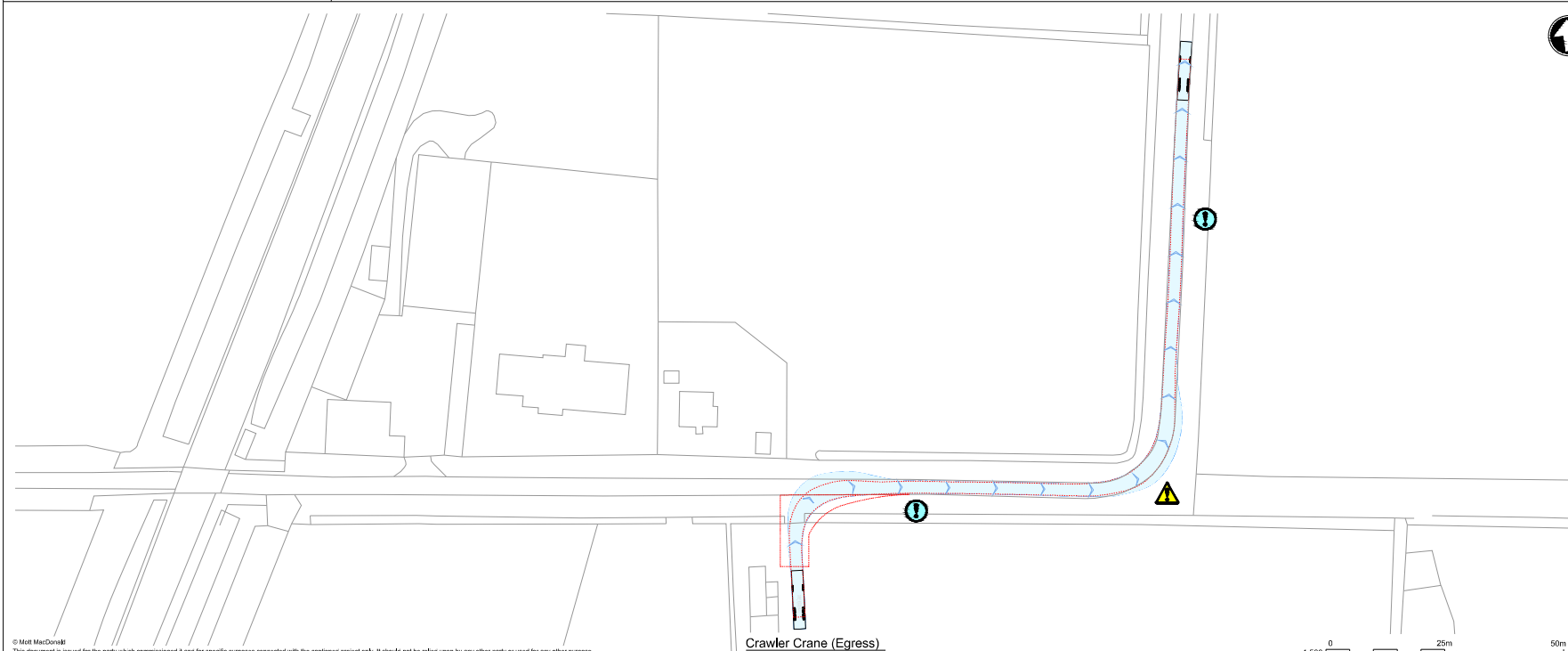
Designed	A.D.Castles	ADC	Eng check	E.Castles	EC
Drawn	-	-	Coordination	A.M.Rawlings	AMR
Dwg check	-	-	Approved	-	-
Scale	1:500	Status	PRE	Rev	P1
				Sec	STD
Drawing 102375-MMD-01-XX-DR-C-DRAFT					



**Vehicle Tracking - Notes**

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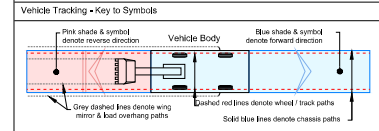
Crawler Crane (Access)



Crawler Crane (Egress)



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- 15. DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo.**



**Vehicle Tracking - Vehicle Details**

Vehicle Type	Overall Length	Overall Width	Overall Body Height	Max Track Width	Kerb to Kerb Turning Radius
Low Loader	16,633m	2,500m	2,300m	2,500m	10,700m
Large Mobile Crane	12,200m	2,400m	2,400m	2,400m	10,000m



- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

Rev	Date	Drawn	Description	AWK	AWR
P1		ADC	Draft for Discussion / Review.		

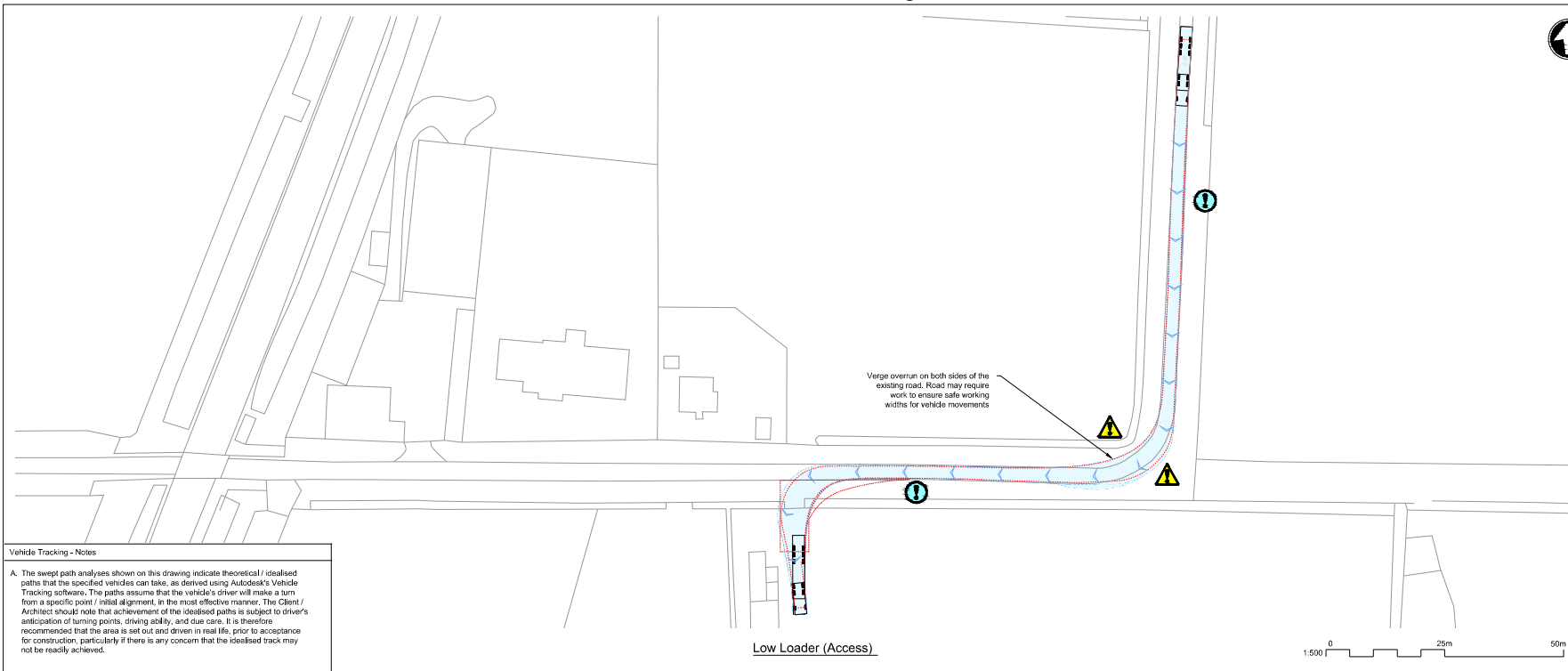


**Title**  
Cambridge Waste Water Treatment Works Relocation  
COA12  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	A.D. Casillas	ADC	Eng check	E. Case	EC
Drawn	-	-	Coordination	A.M. Rawlings	AMR
Dwg check	Approved				

Scale: 1:500    Stat: PRE    Rev: P1    Sec: STD

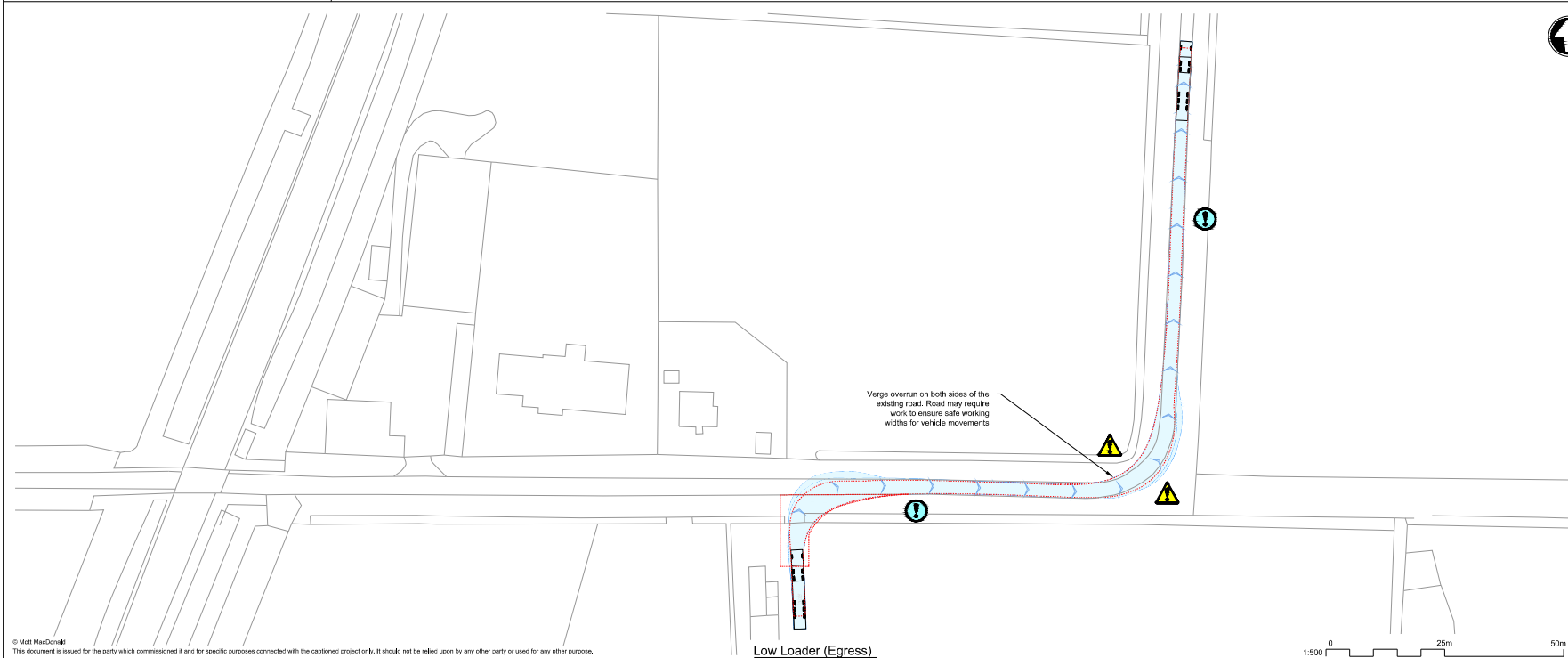
Drawing: 102375-MMD-01-XX-DR-C-DRAFT



**Vehicle Tracking - Notes**

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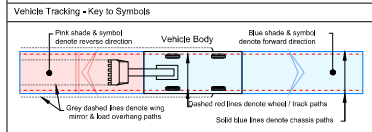
Low Loader (Access)



Low Loader (Egress)



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  - DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo.**



**Vehicle**

<b>Low Loader</b>	
Overall Length	16,633m
Overall Width	2,500m
Overall Body Height	3,300m
Max Track Width	2,500m
Kerb to Kerb Turning Radius	16,700m

<b>Large Mobile Crane</b>	
Overall Length	12,200m
Overall Width	2,450m
Overall Body Height	2,450m
Track Width	2,450m
Kerb to Kerb Turning Radius	10,000m



- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	ADG	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Checked

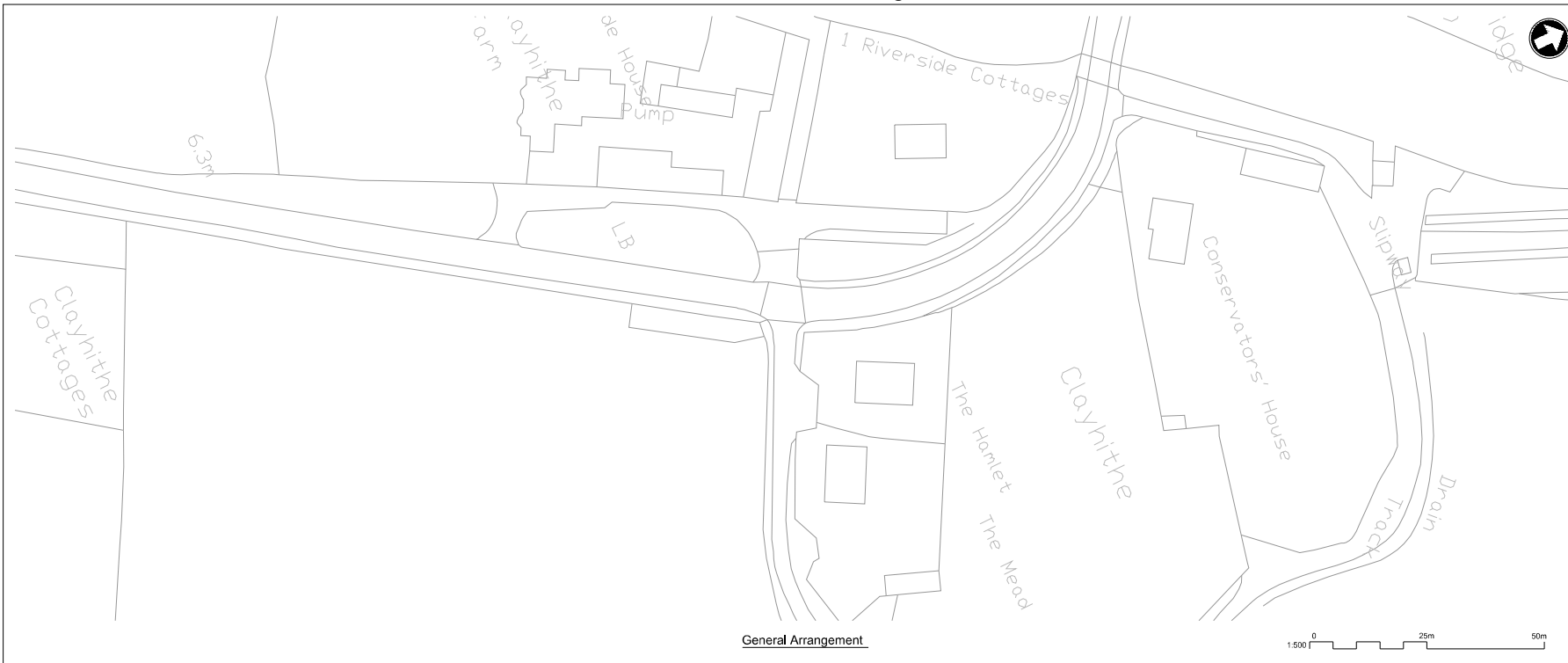


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
COA12  
Highways GA, Visibility Splay and  
Vehicle Tracking

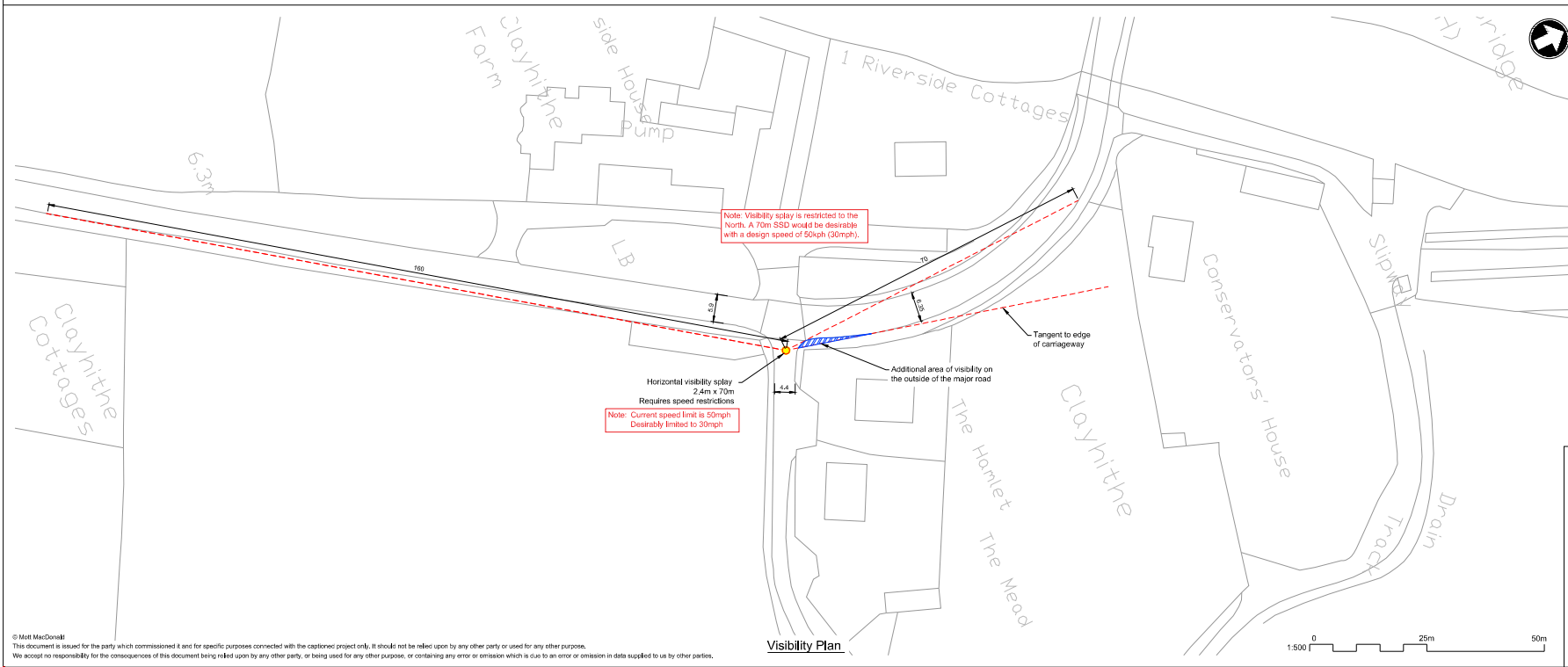
Designed	A.D.Castles	ADG	Eng check	E.Case	EC
Drawn	-	-	Coordination	A.M.Rawlings	AMR
Dwg check	Approved				

Scale: 1:500    Stat: PRE    Rev: P1    Sec: STD

Drawing: 102375-MMD-01-XX-DR-C-DRAFT

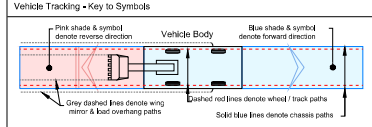


General Arrangement



Visibility Plan

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  - DRAWINGS TO BE READ IN OCCURRENCE WITH THE Technical Memo.**



Vehicle Tracking - Vehicle Details

	Low Loader	Overall Length	16,633m
		Overall Width	2,500m
		Overall Body Height	3,300m
		Max Track Width	2,500m
		Kerb to Kerb Turning Radius	10,700m
	Large Mobile Crane	Overall Length	32,300m
		Overall Width	2,800m
		Overall Body Height	2,400m
		Track Width	2,400m
		Kerb to Kerb Turning Radius	10,000m

Vehicle Tracking - Risks & Compliance

**High Risks**  
**H1** Explanation of risk,

Vehicle Tracking - Notes

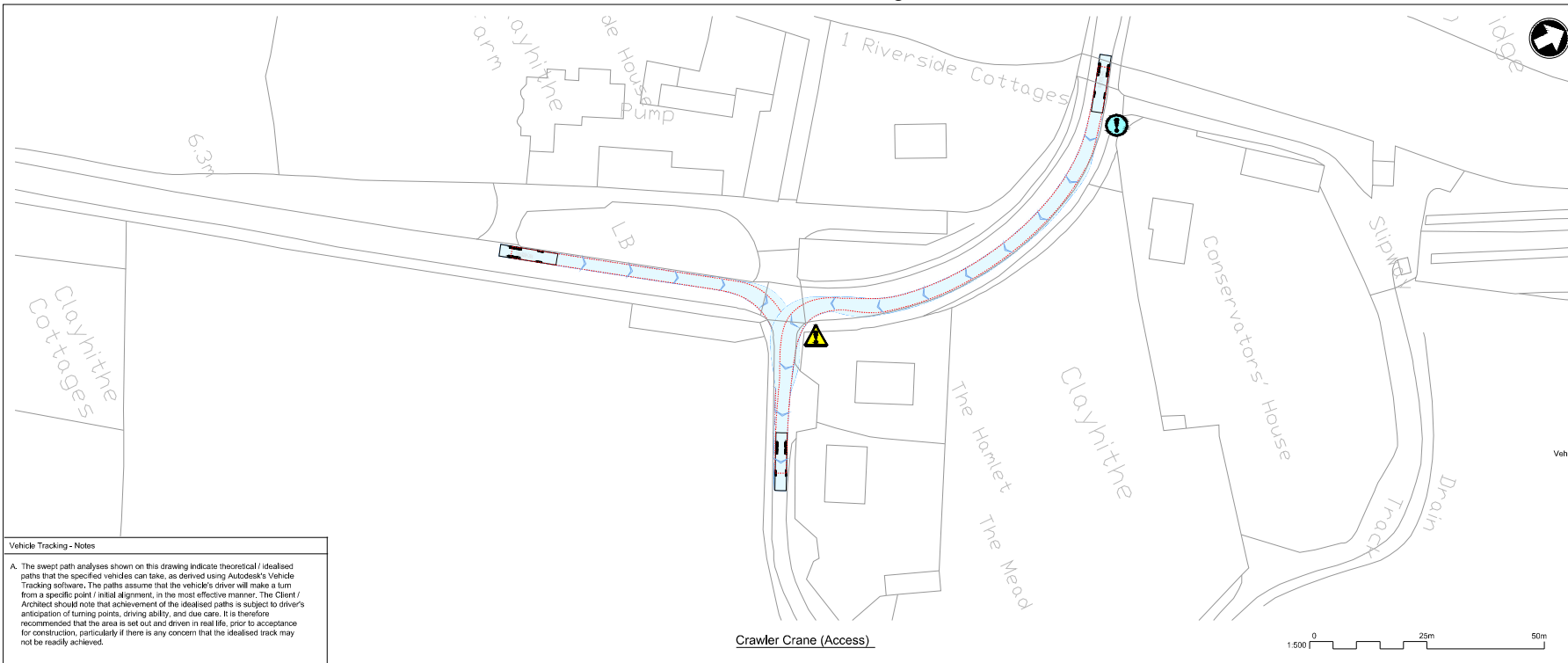
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P1	ABC	ABC	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description		CWWTW



The Cambridge Waste Water Treatment Works Relocation  
 COA20  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

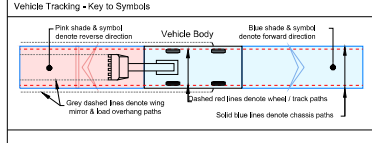
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Drawn	A.D.Castles	ABC	Coordination	A.M.Rawlings	AMR
Dwg check	-	-	Approved	-	-
Scale	1:500	Status	PRE	Rev	P1
			Sec	STD	
Drawing 102375-MMD-01-XX-DR-C-DRAFT					



**Vehicle Tracking - Notes**

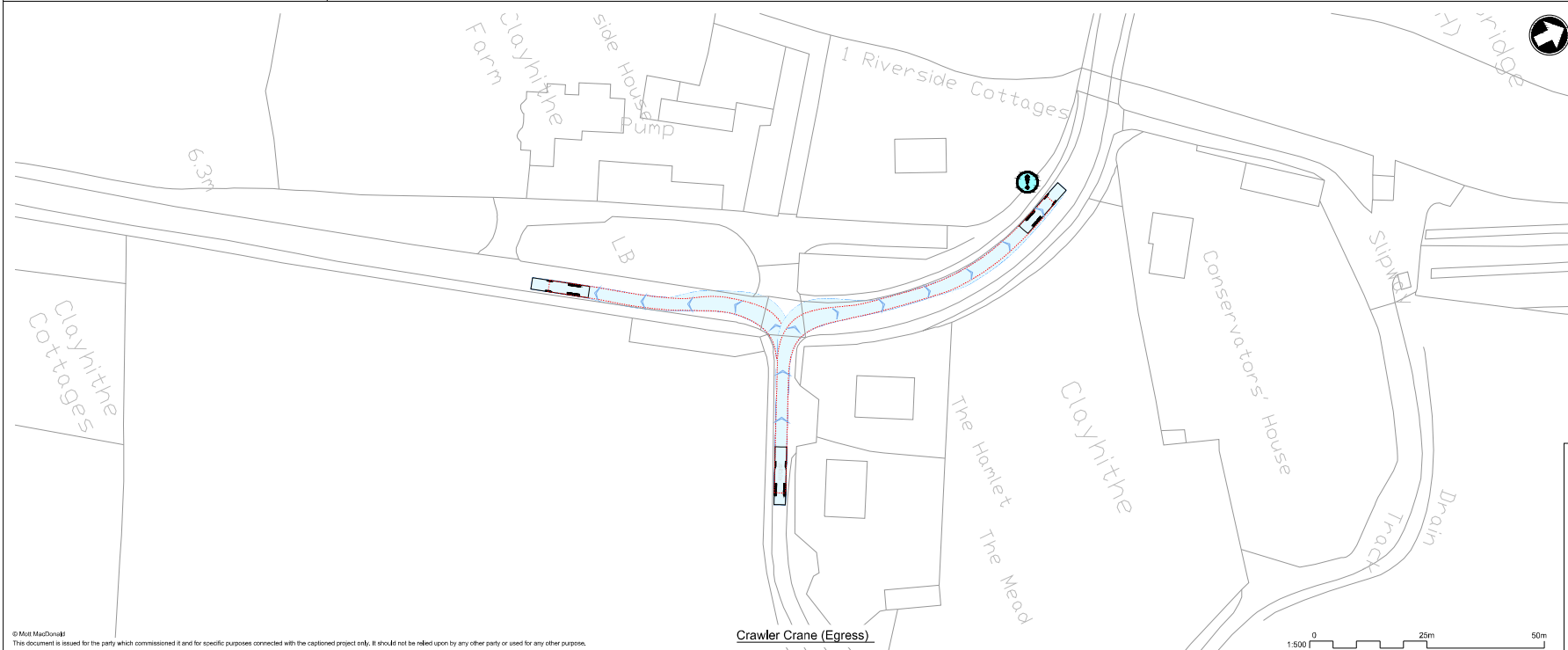
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  13. DRAWINGS PREPARED IN COORDINATION with the Technical Memo.



**Vehicle Tracking - Vehicle Details**

Vehicle Type	Overall Length	Overall Width	Overall Body Height	Max Track Width	Kerb to Kerb Turning Radius
Low Loader	16.633m	2.500m	3.300m	2.500m	10.700m
Large Mobile Crane	12.300m	2.430m	2.430m	2.430m	10.000m



- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

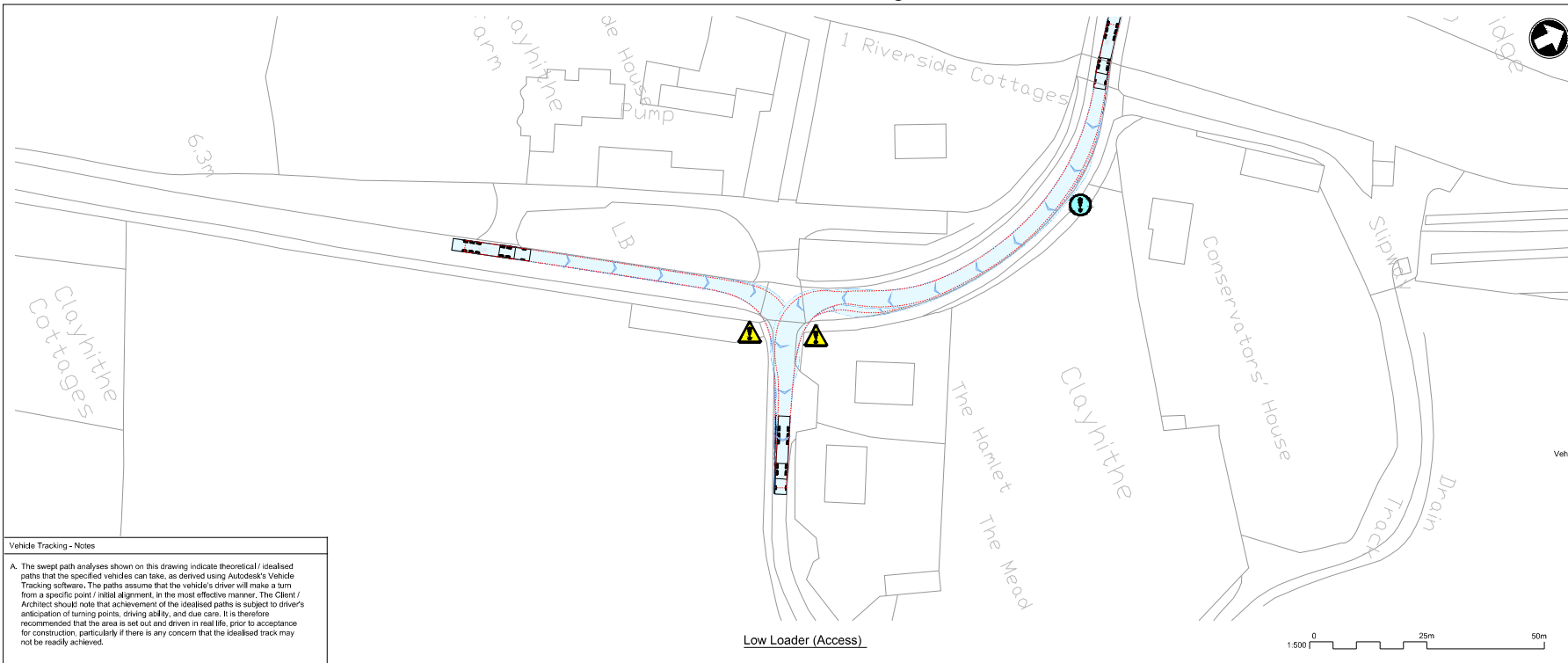
Rev	Date	Drawn	Description	Rev	Rev
P1		ADC	Draft for Discussion / Review.		ARR



**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
COA20  
Highways GA, Visibility Splay and  
Vehicle Tracking

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Drawn	A.D. Castles	ADC	-	E.Case	EC
Dwg check	-	-	Coordination	A.M. Rawlings	AMR
Approved					

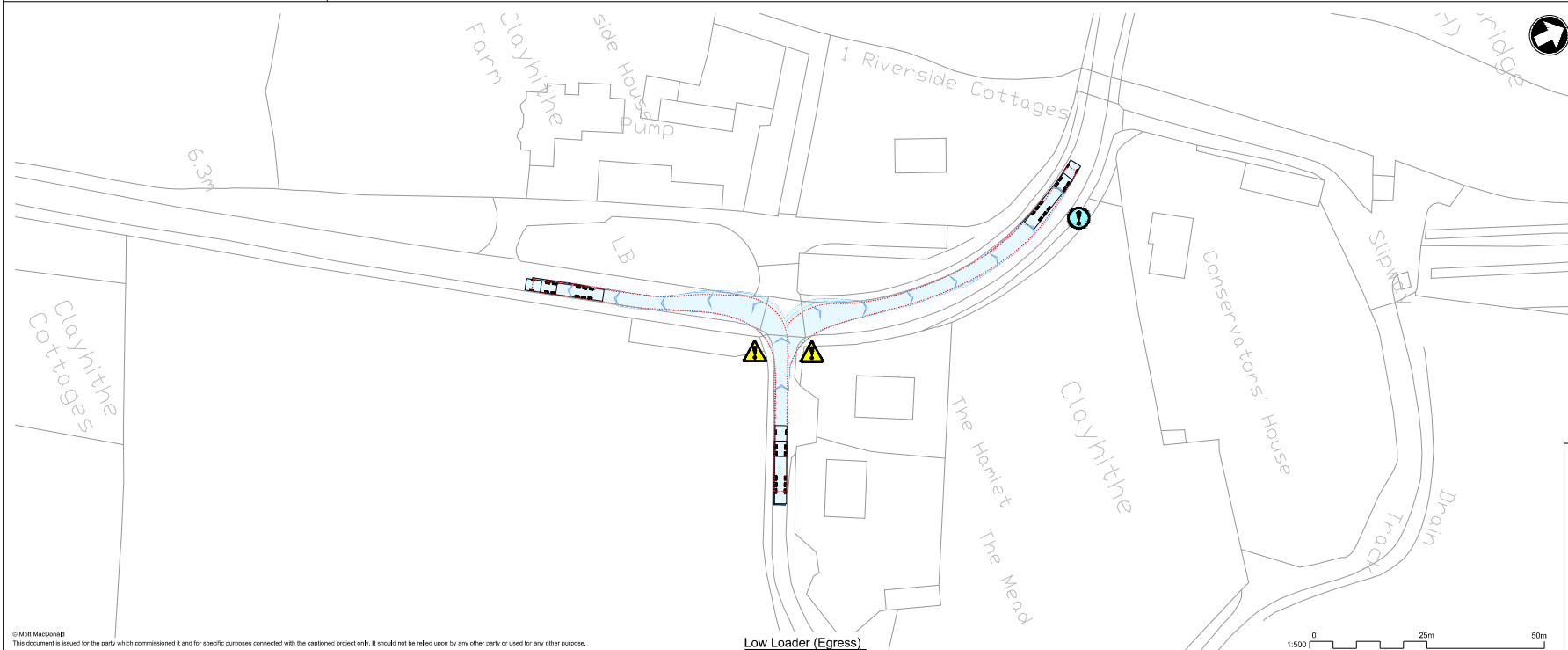
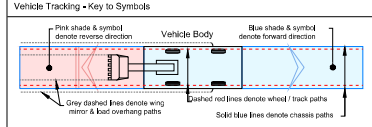
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Drawing: 102375-MMD-01-XX-DR-C-DRAFT



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  - The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
  - The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
  - The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
  - The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads. Cambridge Waste Water Treatment Works Relocation is based on a 1:3 embankment slope take is acceptable determined during future stages of the design development of this option.
  - NO DRAWINGS TO BE READ IN OCCURRENCE WITH THE TECHNICAL MEMO.**



- Vehicle Tracking - Risks & Compliance**
- Risks**
- ⚠️ Kerb overrun
  - 🚫 Restrictive road width

P1	ADG	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Checked



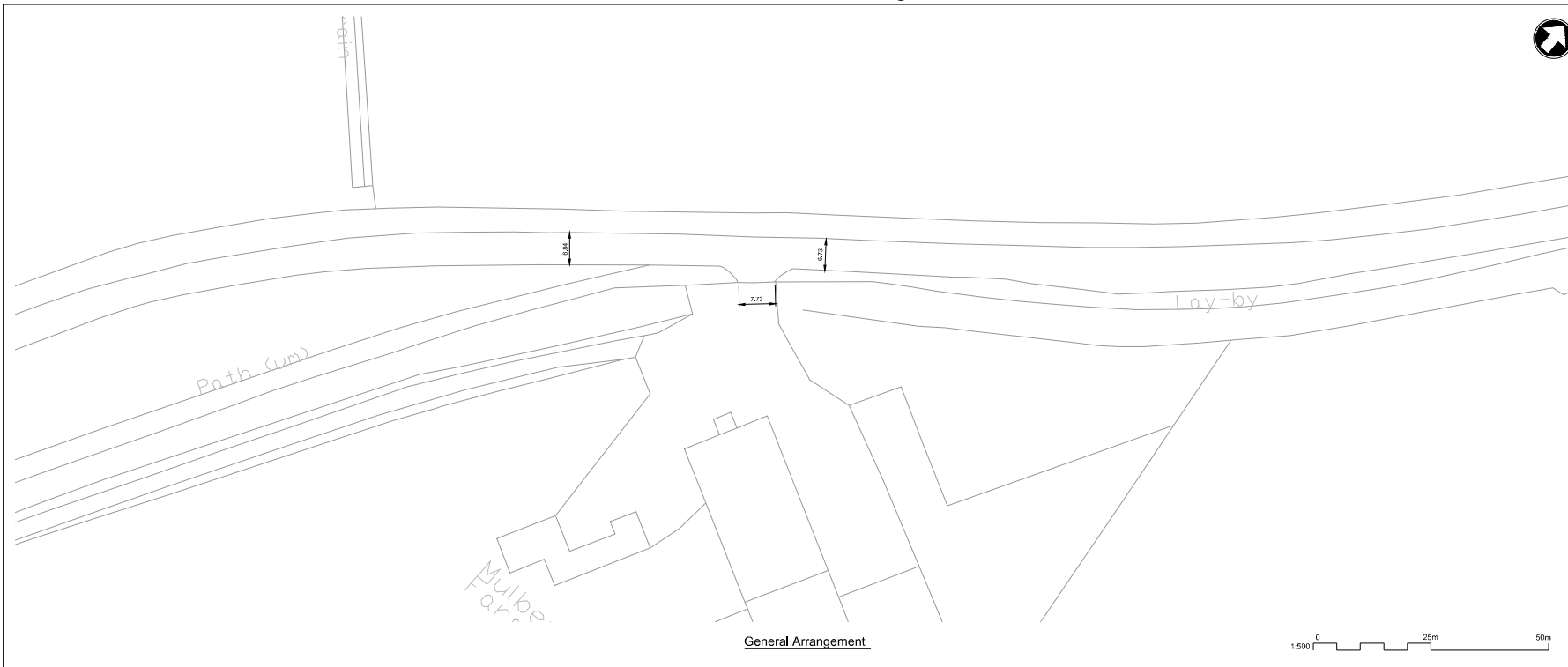
**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
COA20  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	A.D. Casillas	ADG	Eng check	E. Case	EC
Drawn	-	-	Coordination	-	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR

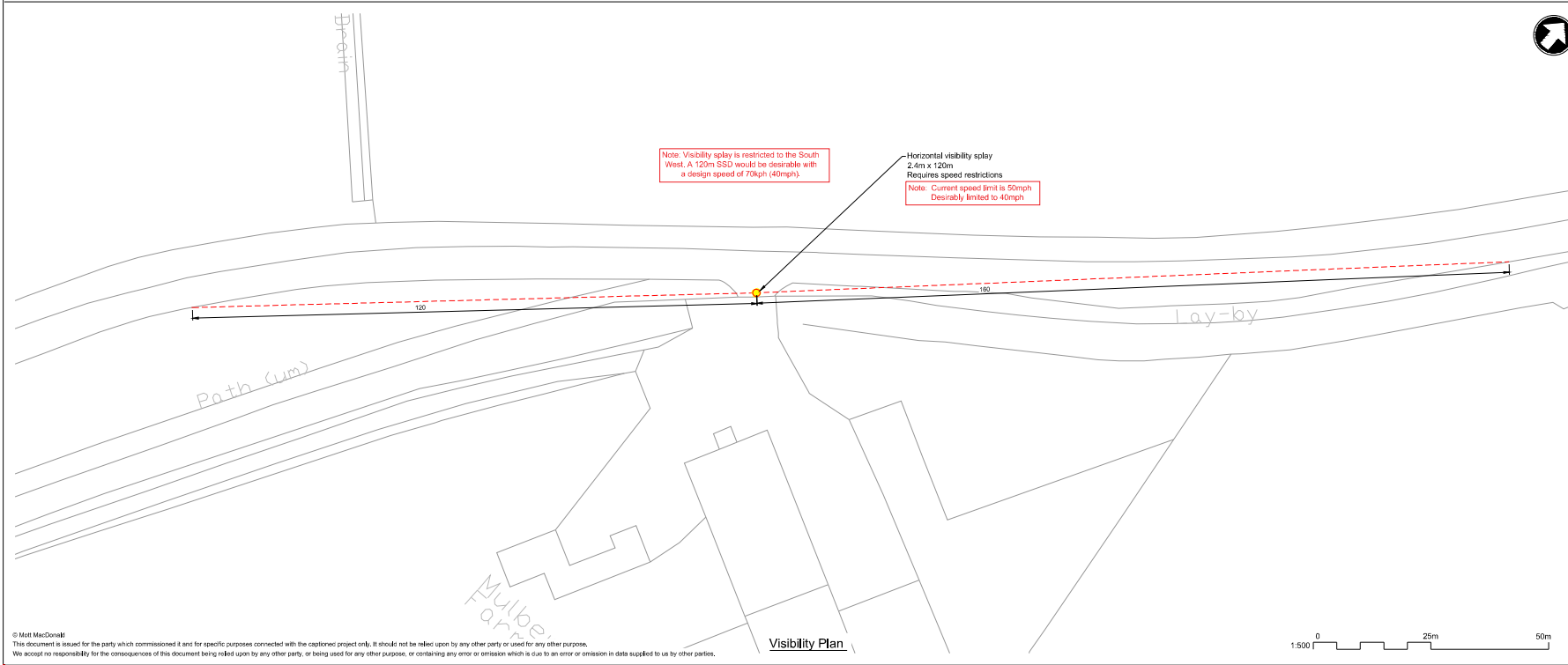
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Drawing: 102375-MMD-01-XX-DR-C-DRAFT



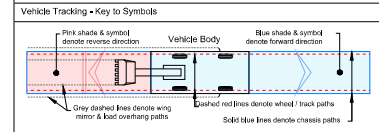


General Arrangement



Visibility Plan

- Notes
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  - The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
  - The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
  - The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads. Cambridge Waste Water Treatment Works Relocation is a business activity and the proposed layout take is subject to approval during future stages of the design development of this option.
  - DRAWINGS TO BE READ IN OCCUPATION** with the Technical Memo.



Vehicle Tracking - Vehicle Details

	<b>Low Loader</b>	
	Overall Length	16,633m
	Overall Width	2,500m
	Overall Body Height	3,300m
	Max Track Width	2,500m
	Kerb to Kerb Turning Radius	
	<b>Large Mobile Crane</b>	
	Overall Length	12,200m
	Overall Width	2,450m
	Overall Body Height	2,450m
	Track Width	2,450m
	Kerb to Kerb Turning Radius	10,000m

Vehicle Tracking - Risks & Compliance

	<b>High Risks</b>
	H1 Explanation of risk,

Vehicle Tracking - Notes

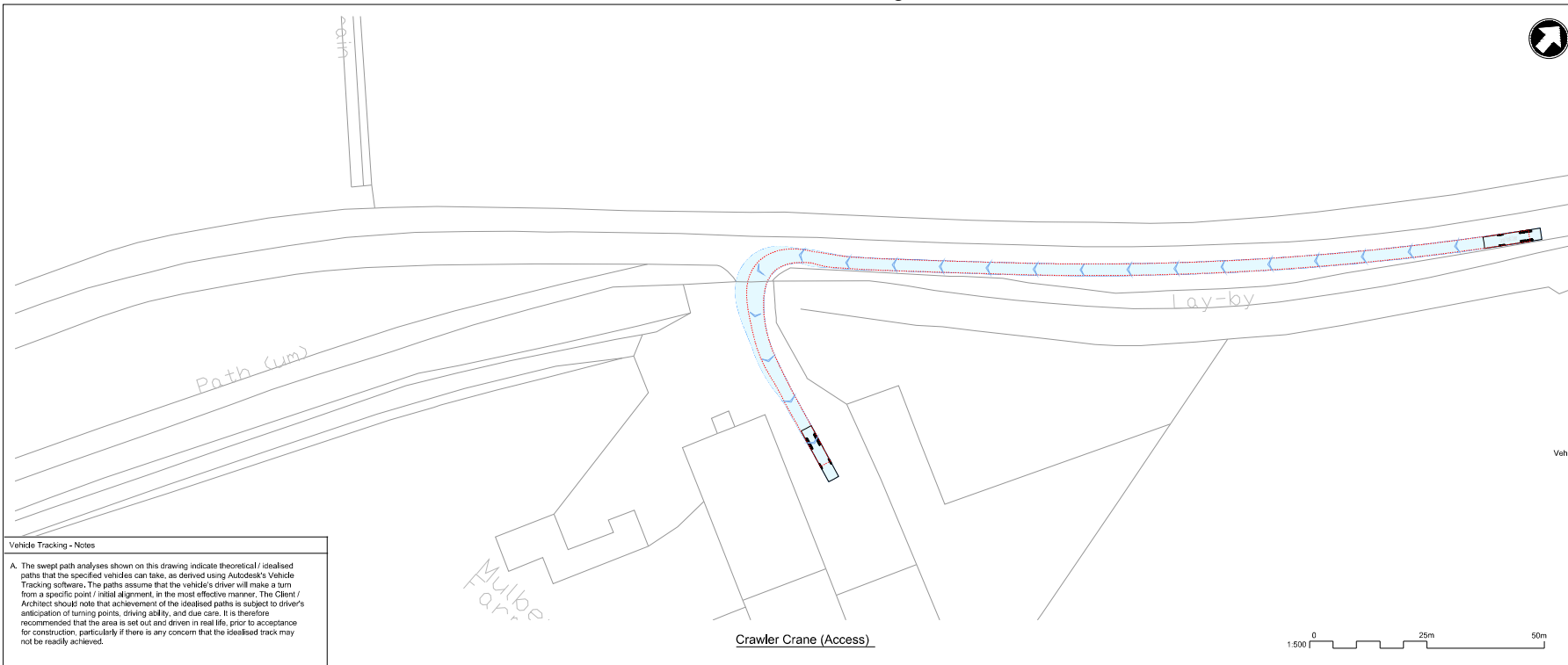
A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

P1	ADP	Draft for Discussion / Review.	AWR	AWR
Rev	Date	Drawn	Description	Checked by



Title  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
COA9  
Highways GA, Visibility Splay and  
Vehicle Tracking

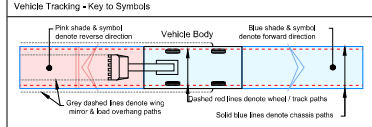
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Drawn	A.D.Castles	ADP	Coordination	A.M.Rawlings	AMR
Dwg check			Approved		
Scale	1:500	Stat	PRE	Rev	P1
Section					STD
Drawing 102375-MMD-01-XX-DR-C-DRAFT					



**Vehicle Tracking - Notes**

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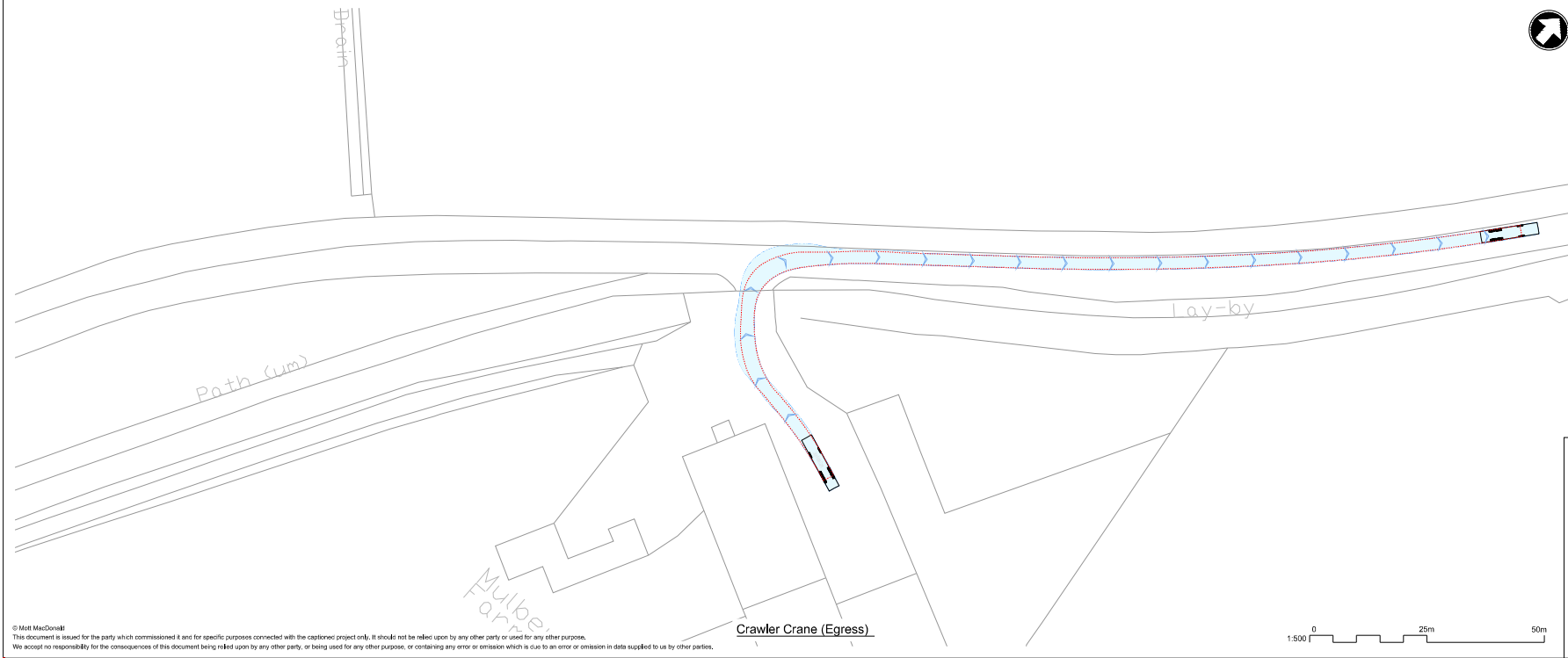
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  - The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
  - The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
  - The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads. Cambridge Waste Water Treatment Works Relocation is a brownfield site and any proposed access take is to be determined during future stages of the design development of this option.
  - NO DRAWINGS TO BE READ IN OCCURRENCE WITH THE TECHNICAL MEMO.**



**Vehicle Tracking - Vehicle Details**

<b>Low Loader</b>	
Overall Length	16,633m
Overall Width	2,500m
Overall Body Height	3,300m
Max Track Width	2,500m
Kerb to Kerb Turning Radius	10,700m

<b>Large Mobile Crane</b>	
Overall Length	12,200m
Overall Width	2,450m
Overall Body Height	2,450m
Track Width	2,450m
Kerb to Kerb Turning Radius	10,000m



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- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	ADG	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Checked by

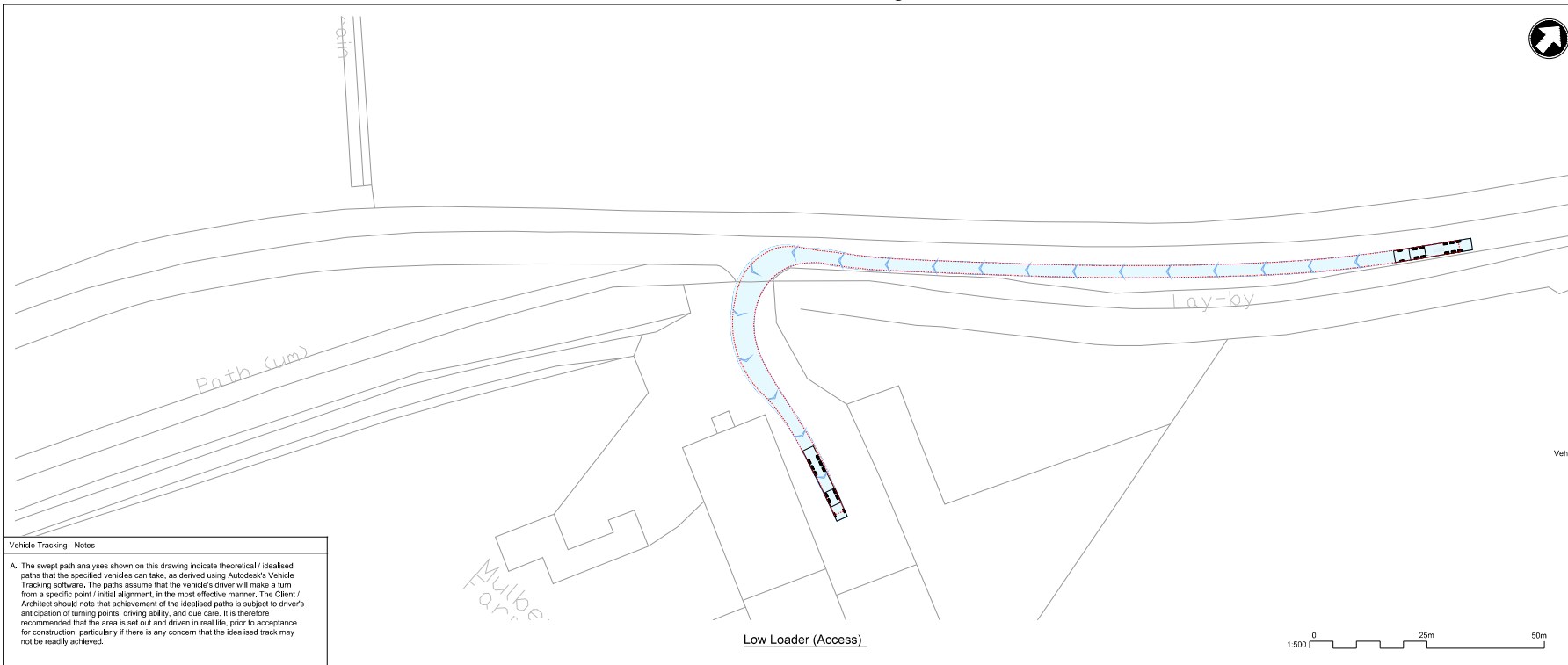


**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 COA9  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	A.D. Caselles	ADG	Eng check	E. Case	EC
Drawn	-	-	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR

Scale: 1:500    Stat: PRE    Rev: P1    Sec: STD

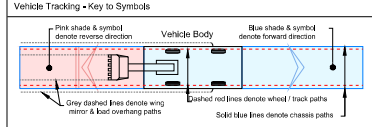
Drawing: 102375-MMD-01-XX-DR-C-DRAFT



**Vehicle Tracking - Notes**

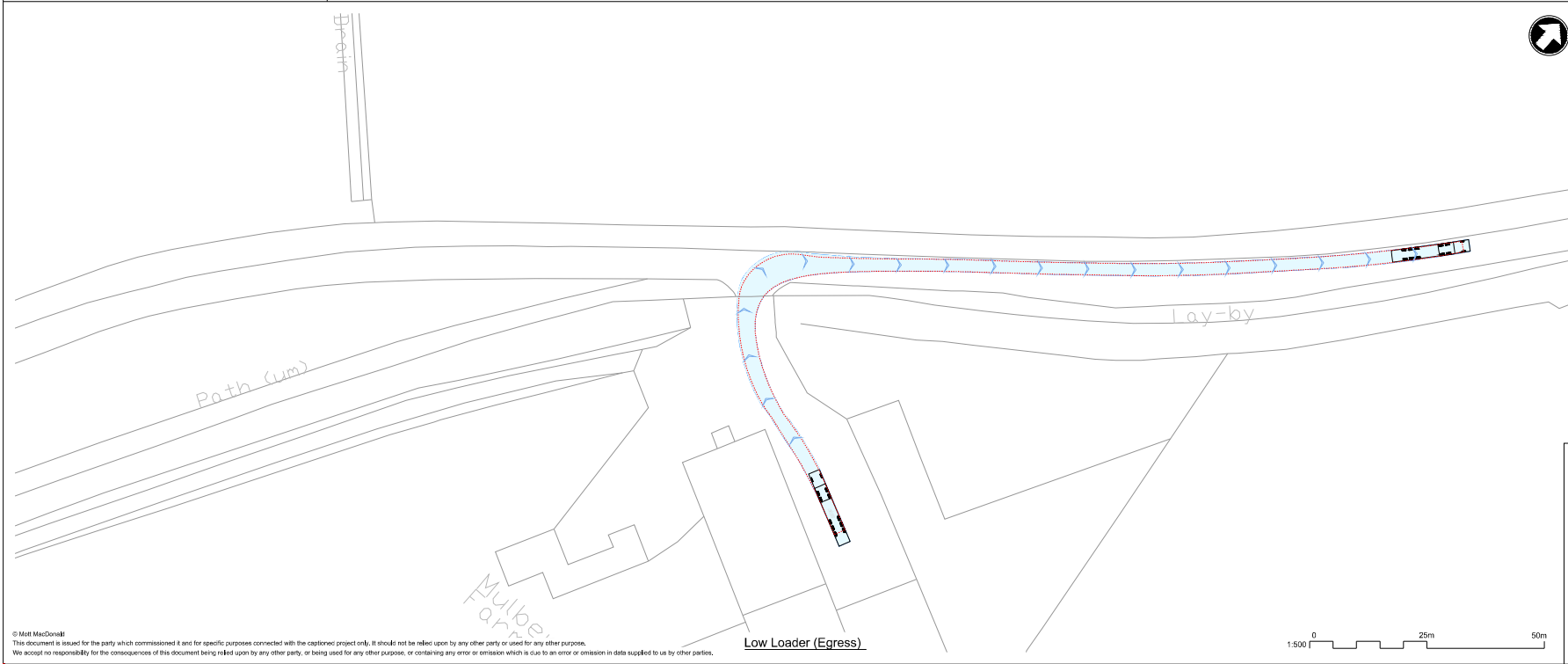
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  - NO DRAWINGS TO BE READ IN OCCURRENCE WITH THE TECHNICAL MEMO.**



**Vehicle Data**

<b>Low Loader</b>	
Overall Length	16,633m
Overall Width	2,500m
Overall Body Height	3,300m
Max Track Width	2,500m
Kerb to Kerb Turning Radius	10,700m
<b>Large Mobile Crane</b>	
Overall Length	12,200m
Overall Width	2,450m
Overall Body Height	3,360m
Track Width	2,450m
Kerb to Kerb Turning Radius	10,000m



- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	ADG	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Checked

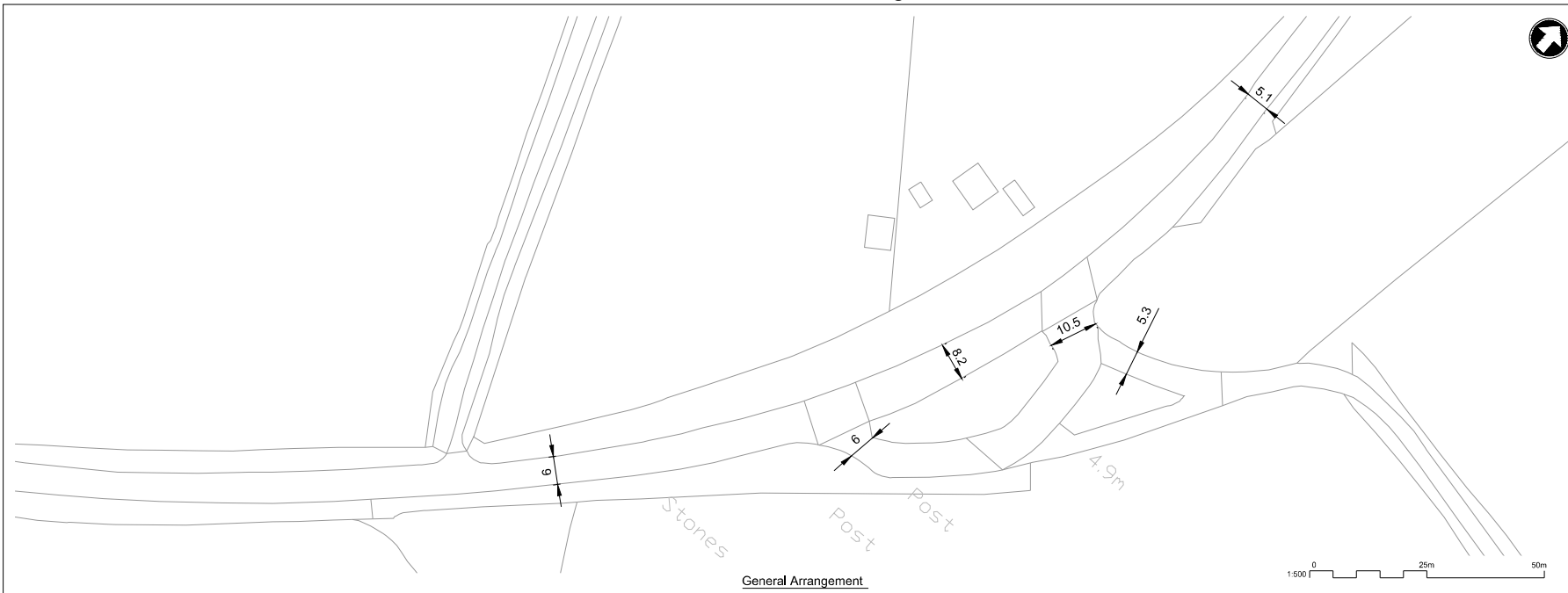


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
COA9  
Highways GA, Visibility Splay and  
Vehicle Tracking

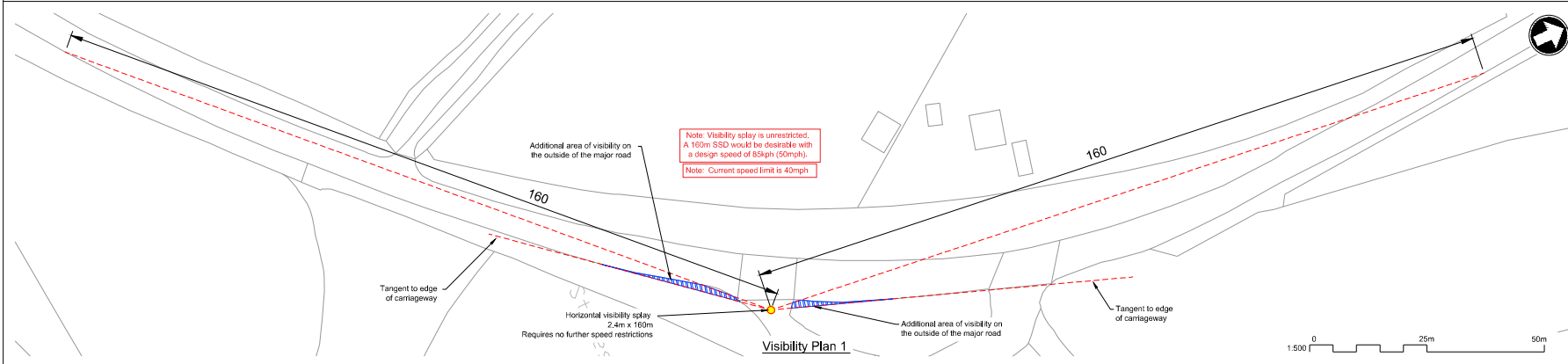
Designed	A.D. Casillas	ADG	Eng check	E. Case	EC
Drawn	-	-	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR

Scale: 1:500    Stat: PRE    Rev: P1    Sec: STD

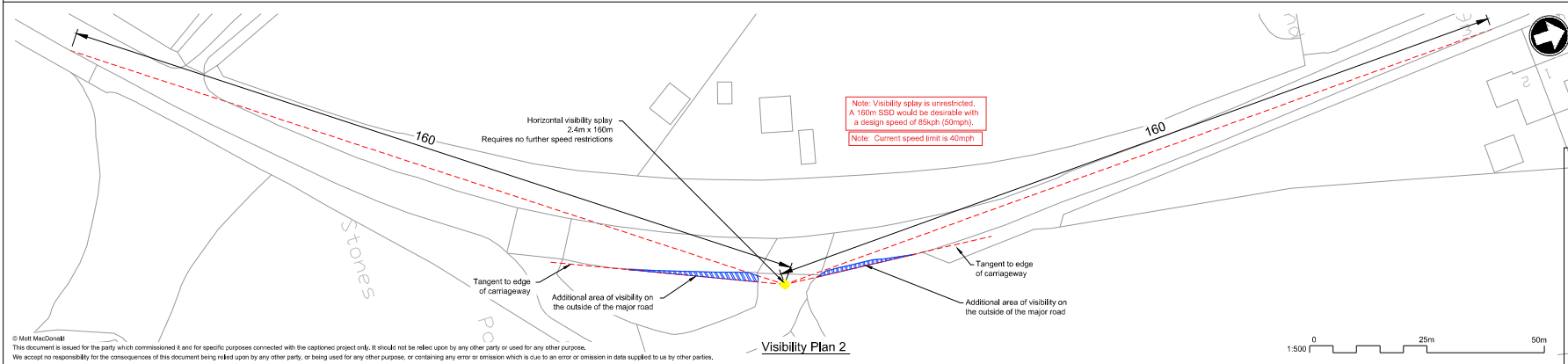
Drawing: 102375-MMD-01-XX-DR-C-DRAFT



General Arrangement

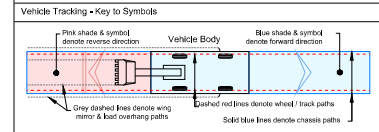


Visibility Plan 1



Visibility Plan 2

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  - Drawings to be read in conjunction with the Technical Memo.



Vehicle Tracking - Vehicle Details



Vehicle Tracking - Risks & Compliance

**High Risks**  
**H1** Explanation of risk,

Vehicle Tracking - Notes

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Rev	Date	Drawn	Description	AWK	AWR
P1		ADC	Draft for Discussion / Review.		



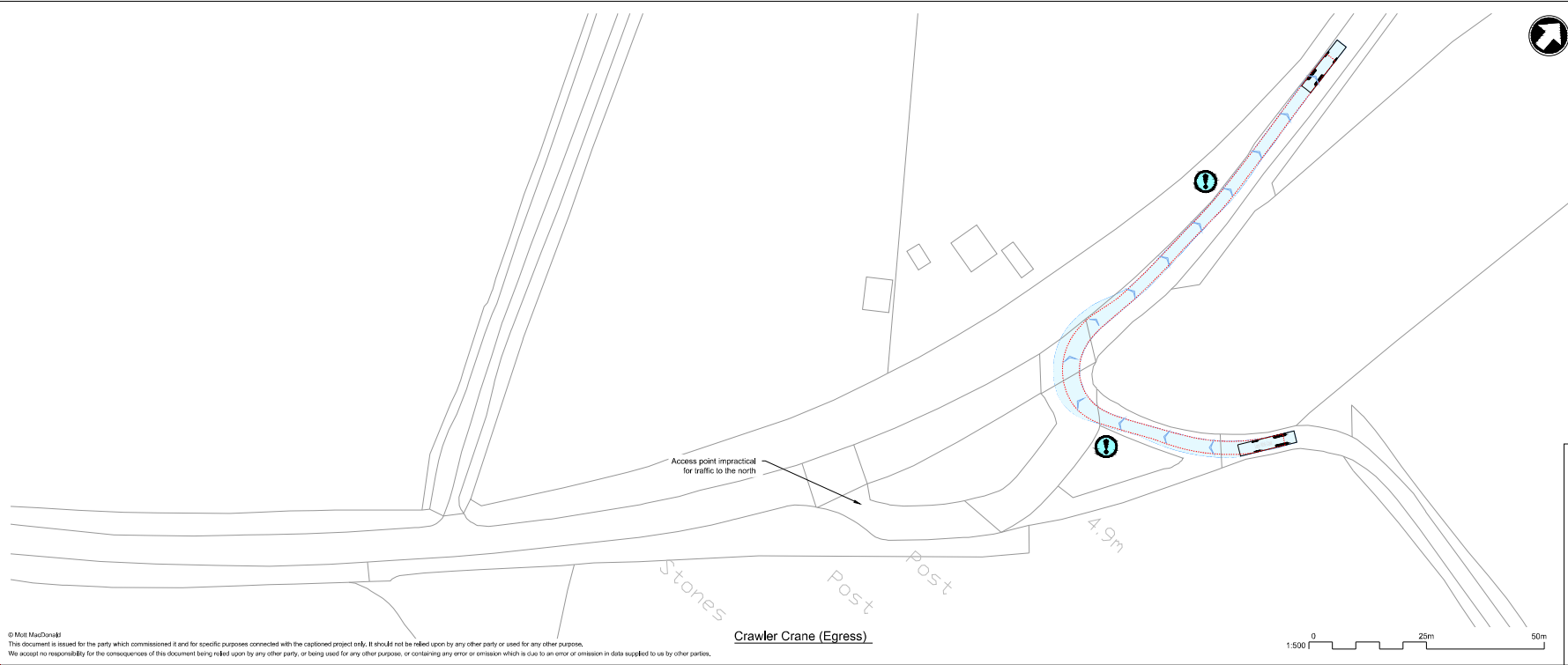
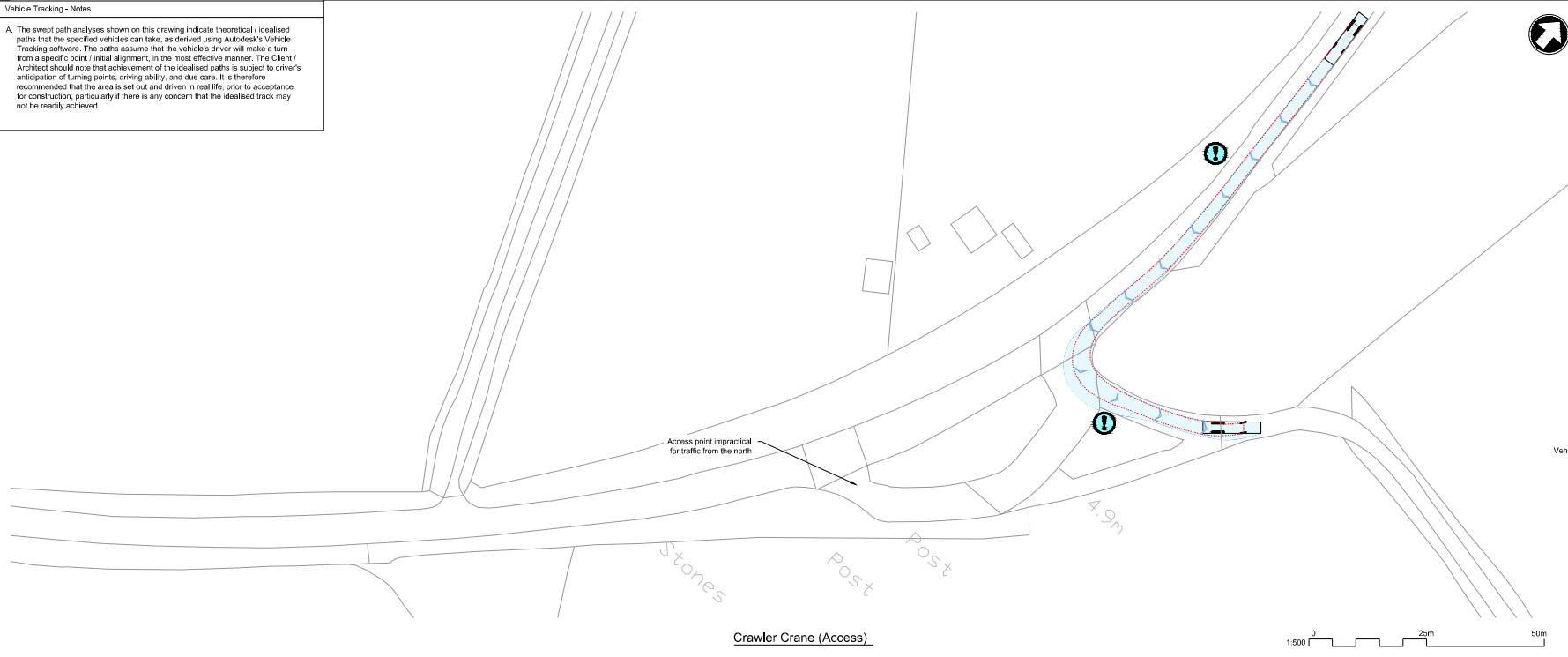
The Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 CA16  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Case	EC
Drawn	A.D.Castles	ADC	-	E.Case	EC
Dwg check	-	-	Coordination	A.M.Rawlings	AMR
Approved					
Scale	1:500	Stat	PRE	Rev	P1
Sheet					5 of 10

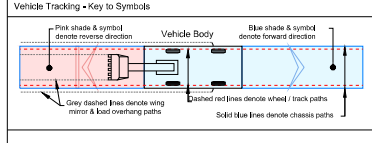
Drawing 102375-MMD-01-XX-DR-C-DRAFT

**Vehicle Tracking - Notes**

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- 15. DRAWINGS PREPARED IN COORDINATION with the Technical Memo.**



**Vehicle Tracking - Vehicle Details**

**Low Loader**

Overall Length	16.633m
Overall Width	2.500m
Overall Body Height	3.300m
Max Track Width	2.500m
Kerb to Kerb Turning Radius	6.700m

**Large Mobile Crane**

Overall Length	12.000m
Overall Width	2.430m
Overall Body Height	3.360m
Track Width	2.430m
Kerb to Kerb Turning Radius	10.000m

- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	ADC	Draft for Discussion / Review.	AMK	ARR
Rev	Date	Drawn	Description	Checked by

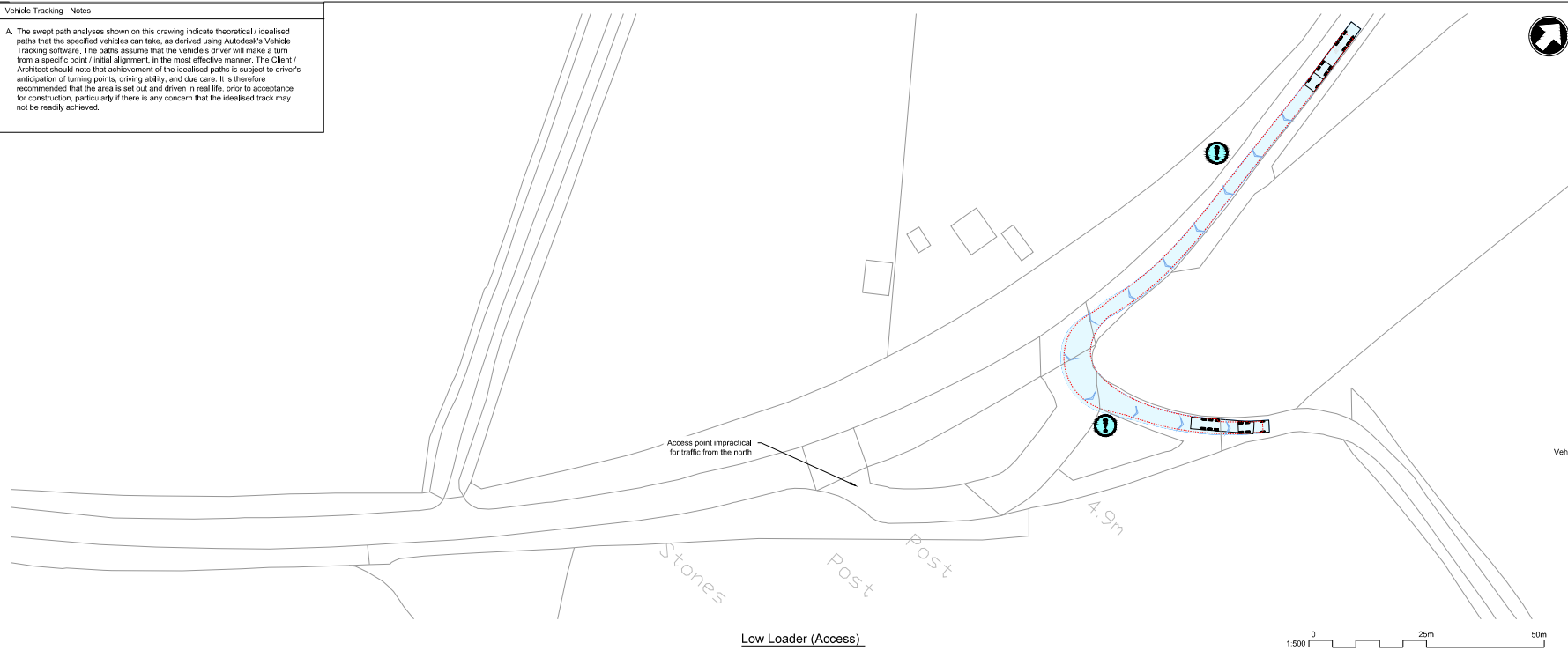


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
CA16  
Highways GA, Visibility Splay and  
Vehicle Tracking

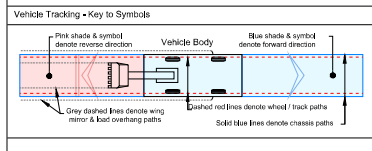
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Drawn	-	-	Coordination	A.M.Rawlings	AMR	
Dwg check	-	-	Approved	-	-	
Scale	1:500	Status	PRE	Rev	P1	
Drawings				102375-MMD-01-XX-DR-C-DRAFT	Sec	STD

**Vehicle Tracking - Notes**

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  - The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads. Cambridge Waste Water Treatment Works Relocation CA16 is based on the design of the proposed access roads. Cambridge Waste Water Treatment Works Relocation CA16 is based on the design of the proposed access roads. Cambridge Waste Water Treatment Works Relocation CA16 is based on the design of the proposed access roads. Cambridge Waste Water Treatment Works Relocation CA16 is based on the design of the proposed access roads.



**Vehicle**

**Low Loader**

Overall Length	16,633m
Overall Width	2,500m
Overall Body Height	3,300m
Max Track Width	2,500m
Kerb to Kerb Turning Radius	10,700m

**Large Mobile Crane**

Overall Length	12,200m
Overall Width	2,500m
Overall Body Height	3,300m
Track Width	2,400m
Kerb to Kerb Turning Radius	10,000m

- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	10/23/25	ADC	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	By	Checked

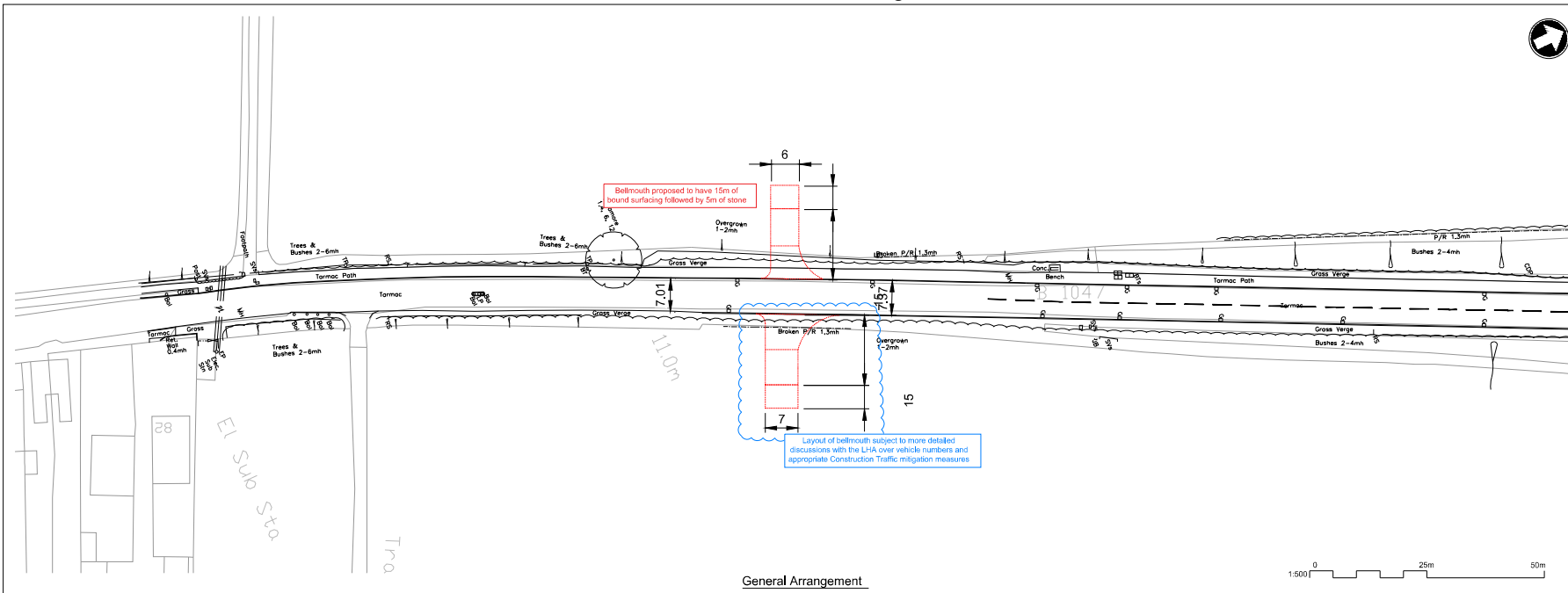


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
CA16  
Highways GA, Visibility Splay and  
Vehicle Tracking

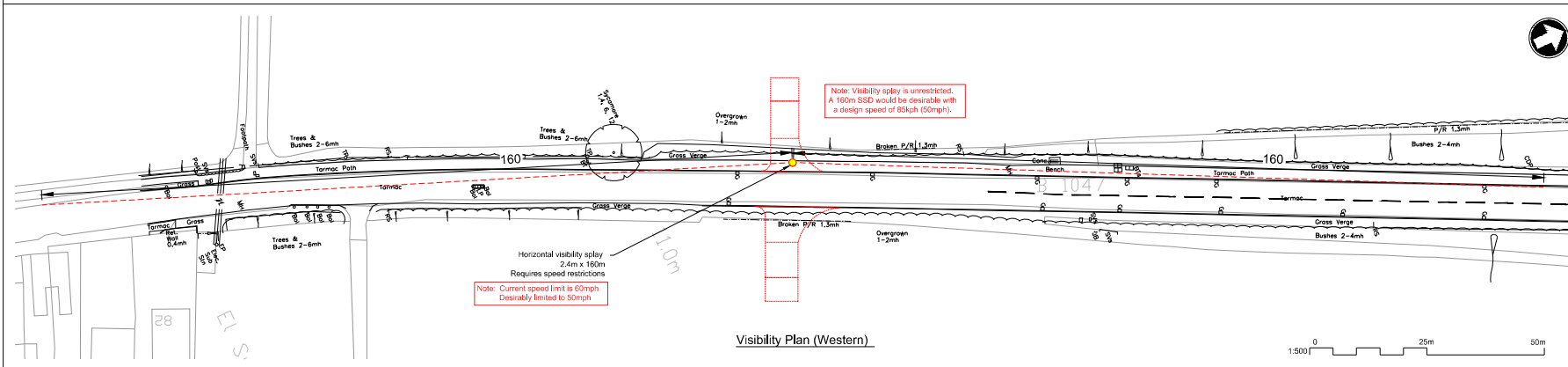
Designed	A.D. Casillas	ADC	Eng check	E. Case	EC
Drawn	-	-	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR

Scale: 1:500    Stat: PRE    Rev: P1    Sec: STD

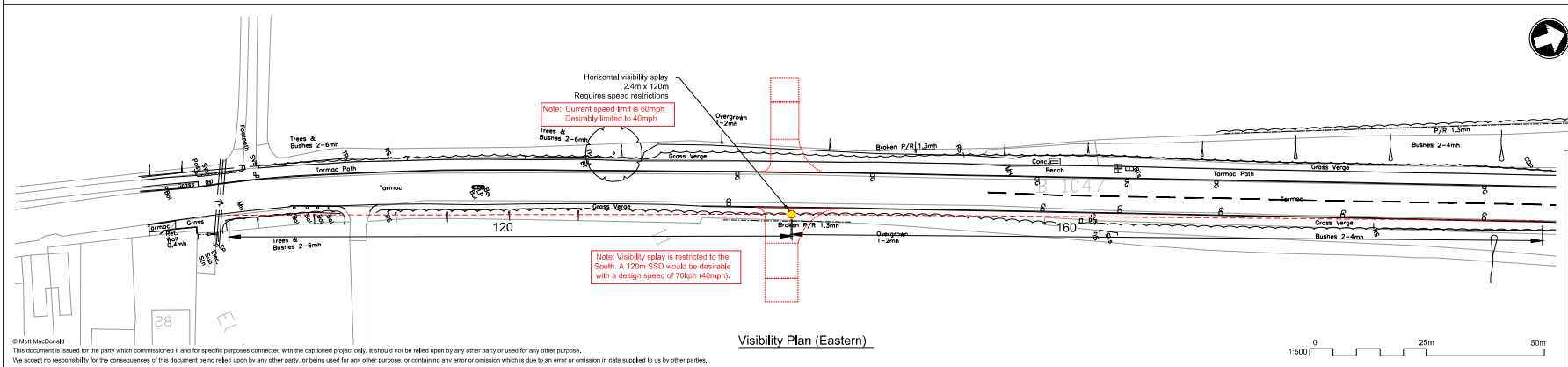
Drawing: 102375-MMD-01-XX-DR-C-DRAFT



General Arrangement



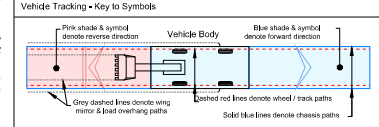
Visibility Plan (Western)



Visibility Plan (Eastern)

- Notes
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  - The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
  - The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extent of the proposed access roads.
  - The proposal requires third party land to be constructed, the extent of the land take is to be determined during future stages of the design development of this option.
  - This drawing should be read in conjunction with the Technical Memo.

Water Treatment Works Relocation Early assessment and siting of proposed site access options  
**15. DRAWING MUST BE READ IN COLOUR**



Vehicle Tracking - Risks & Compliance

**High Risks**  
 H1 Explanation of risk.

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

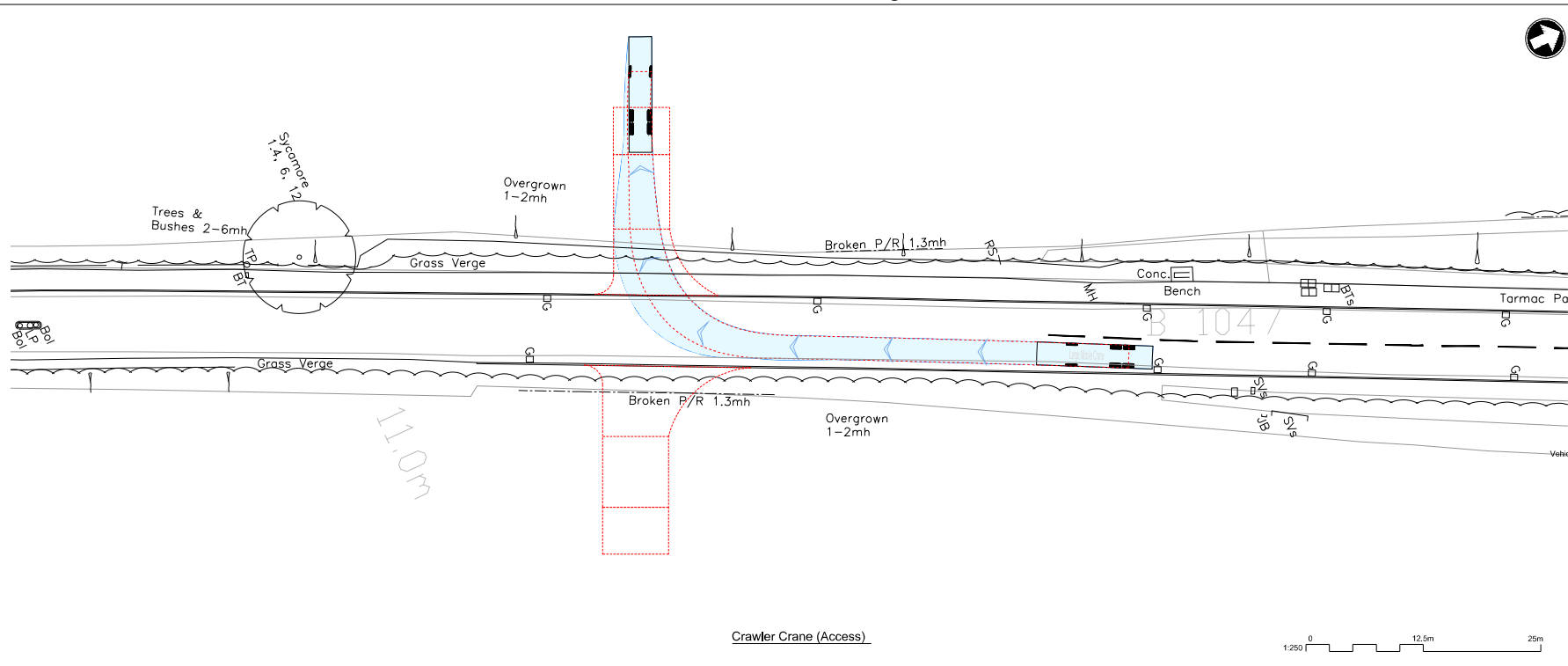
Reference drawings

P1	ADC	Draft for Discussion / Review.	AWR	AWR
Rev	Date	Drawn	Description	Checked

Client

Title  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 CA2 / CA3  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Case	EC
Drawn	-	-	Coordination	A.M.Rawlings	A/R
Dwg check			Approved		
Scale	1:500	Status	PRE	Rev	P1
Drawing No	102375-MMD-01-XX-DR-C-DRAFT	Section			STD



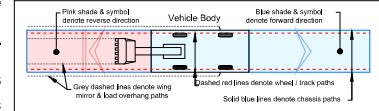
Crawler Crane (Access)

- Noise
1. Do not scale from this drawing.
  2. All dimensions are in metres unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). All dimensions & levels should be checked on site.
  3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
  4. This drawing has been prepared for the initial high level optioneering study for the CWWTW project.
  5. The drawing is based on OS mapping information and LIDAR data.
  6. The information is preliminary and subject to further detailed design.
  7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
  8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
  9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
  10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
  11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
  12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some elements of the proposed access roads.
  13. This proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
  14. This drawing should be read in conjunction with the Technical Memo.

Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site

15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



**Large Mobile Crane**

Overall Length	12,300m
Overall Width	2,400m
Overall Body Height	3,385m
Track Width	2,400m
Kerb to Kerb Turning Radius	10,000m

Vehicle Tracking - Risks & Compliance

**High Risks**  
H1 Explanation of risk.

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

Reference drawings

Rev	Date	Drawn	Description	AWK	ARR
P1		ADC	Draft for Discussion / Review.		

Rev	Date	Drawn	Description	AWK	ARR

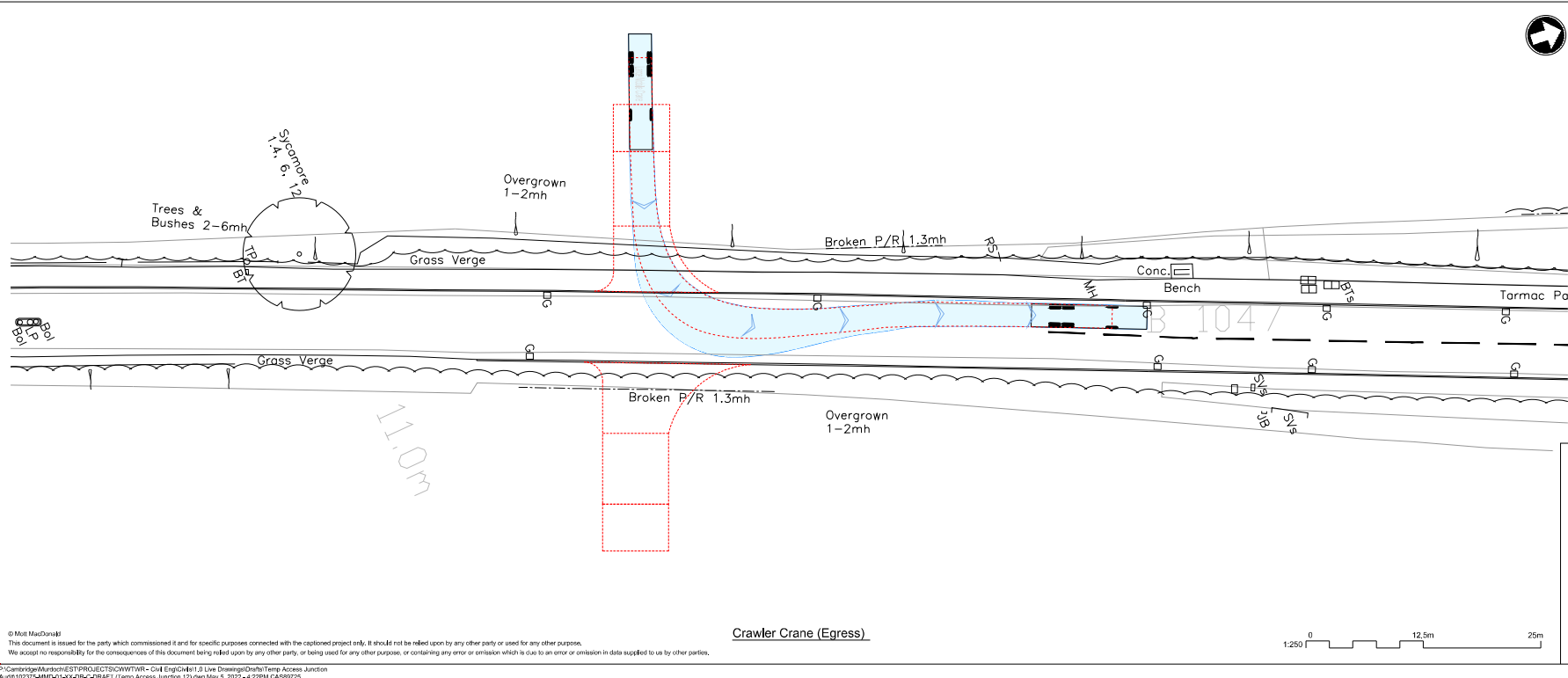


Title  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
CA2 / CA3  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Case	EC
Drawn	A.D.Castles	ADC	Coordination	A.M.Rawlings	AMR
Dwg check			Approved		

Scale: 1:250 Stat: PRE Rev: P1 Sec: STD

Drawing: 102375-MMD-01-XX-DR-C-DRAFT

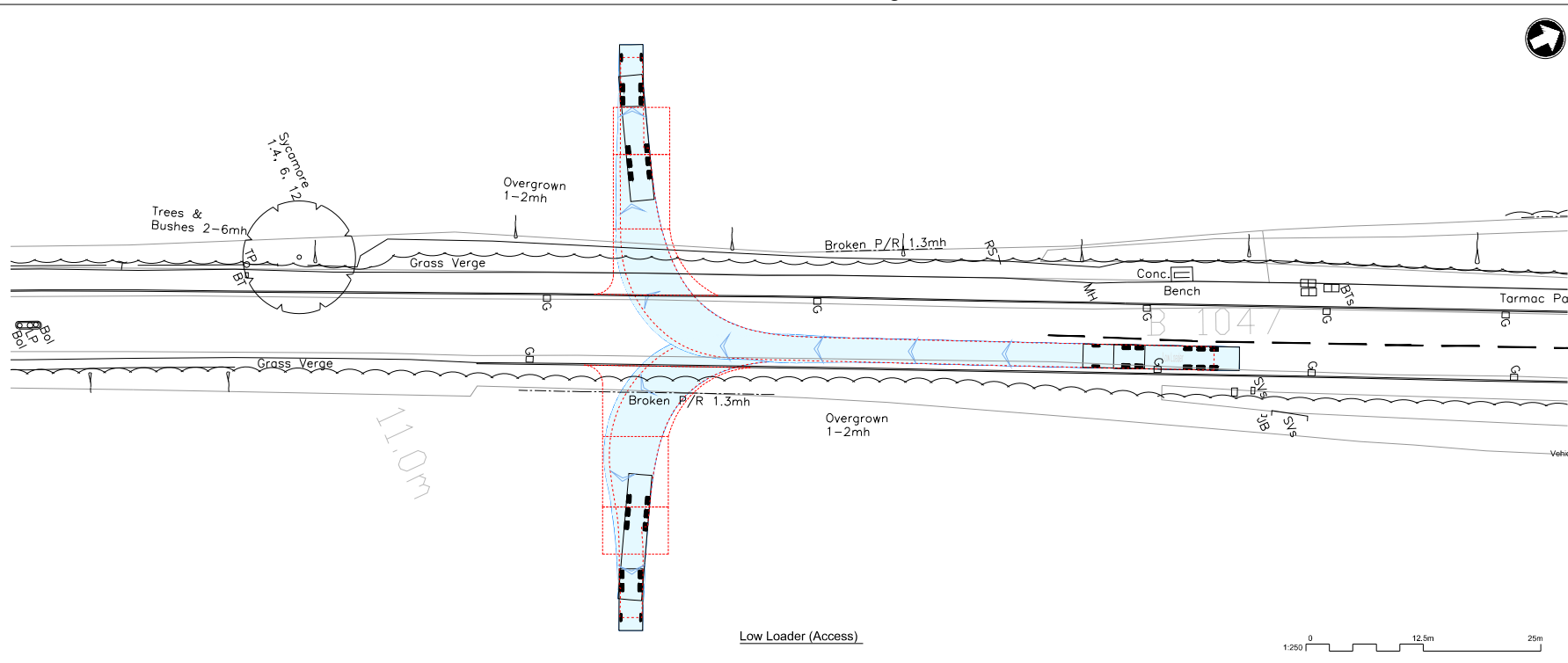


Crawler Crane (Egress)

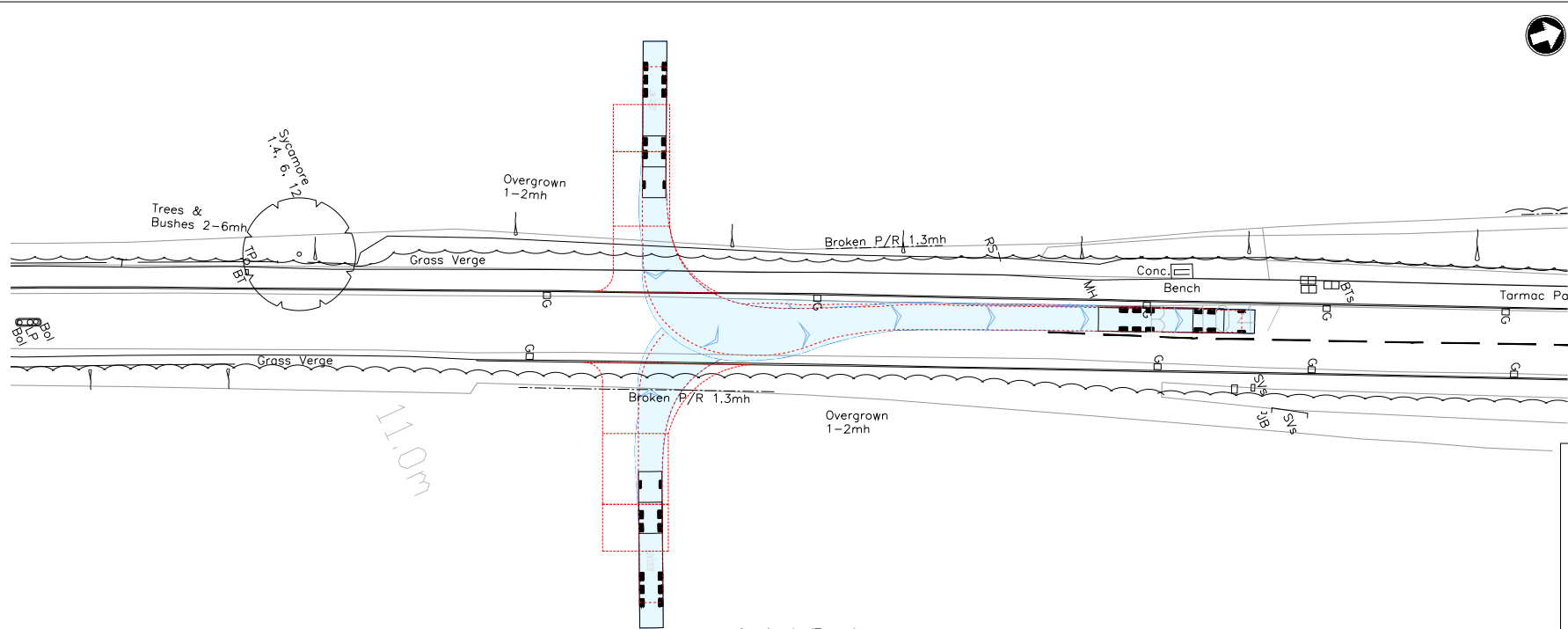
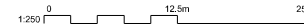
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Low Loader (Access)



Low Loader (Egress)

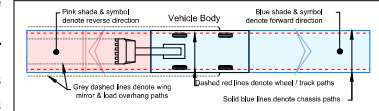


- Notes
1. Do not scale from this drawing.
  2. All dimensions are in metres unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). All dimensions & levels should be checked on site.
  3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
  4. This drawing has been prepared for the final high level optioning study for the CWWTW project.
  5. The drawing is based on OS mapping information and LIDAR data.
  6. The information is preliminary and subject to further detailed design.
  7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
  8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
  9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
  10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
  11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
  12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some elements of the proposed access roads.
  13. The proposal requires third party land to be constructed, the extent of the land take is to be determined during future stages of the design development of this option.
  14. This drawing should be read in conjunction with the Technical Memo.

Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options

15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



Low Loader	
Overall Length	16.63m
Overall Width	2.92m
Overall Body Height	2.92m
Max Travo Width	2.92m
Kerb to Kerb Turning Radius	6.79m

Vehicle Tracking - Risks & Compliance

**High Risks**  
 H1 Explanation of risk.

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

Reference drawings

P1	ADG	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Checked

Client

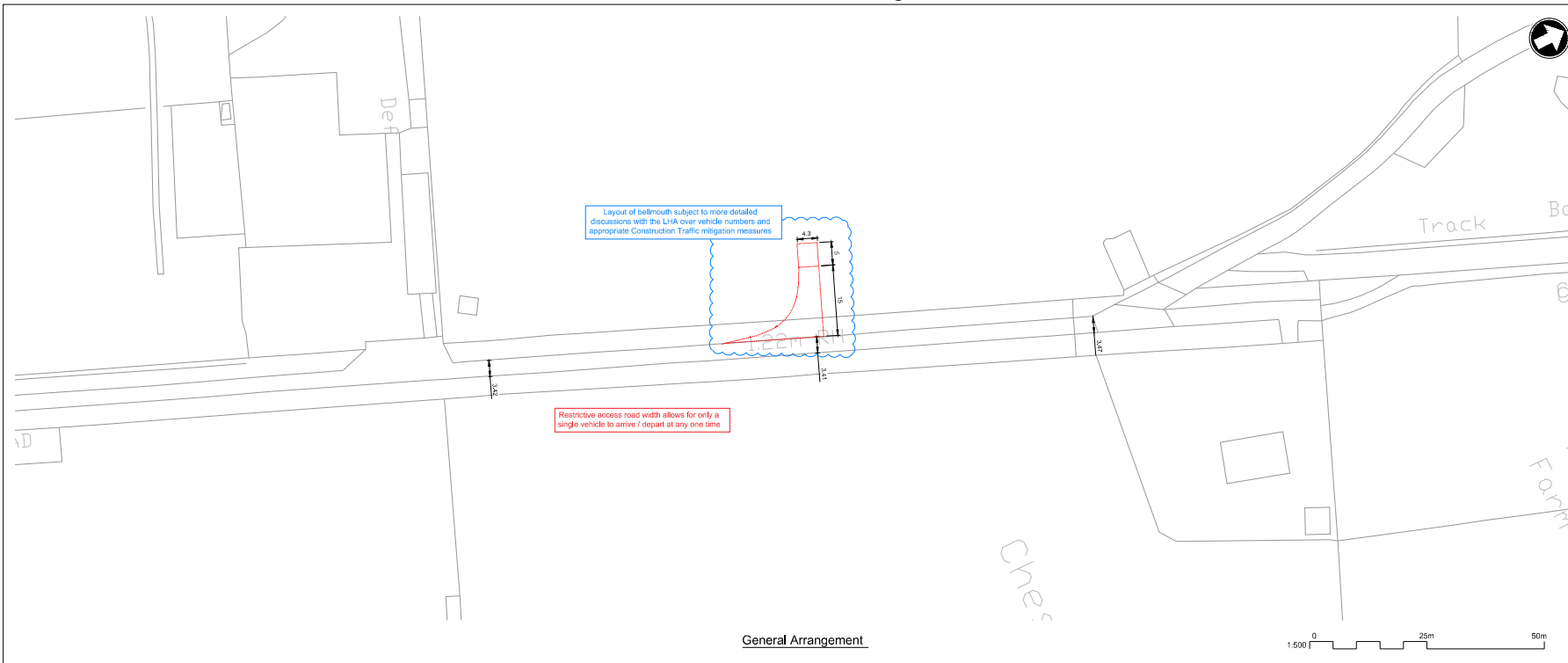


Title  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 CA2 / CA3  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

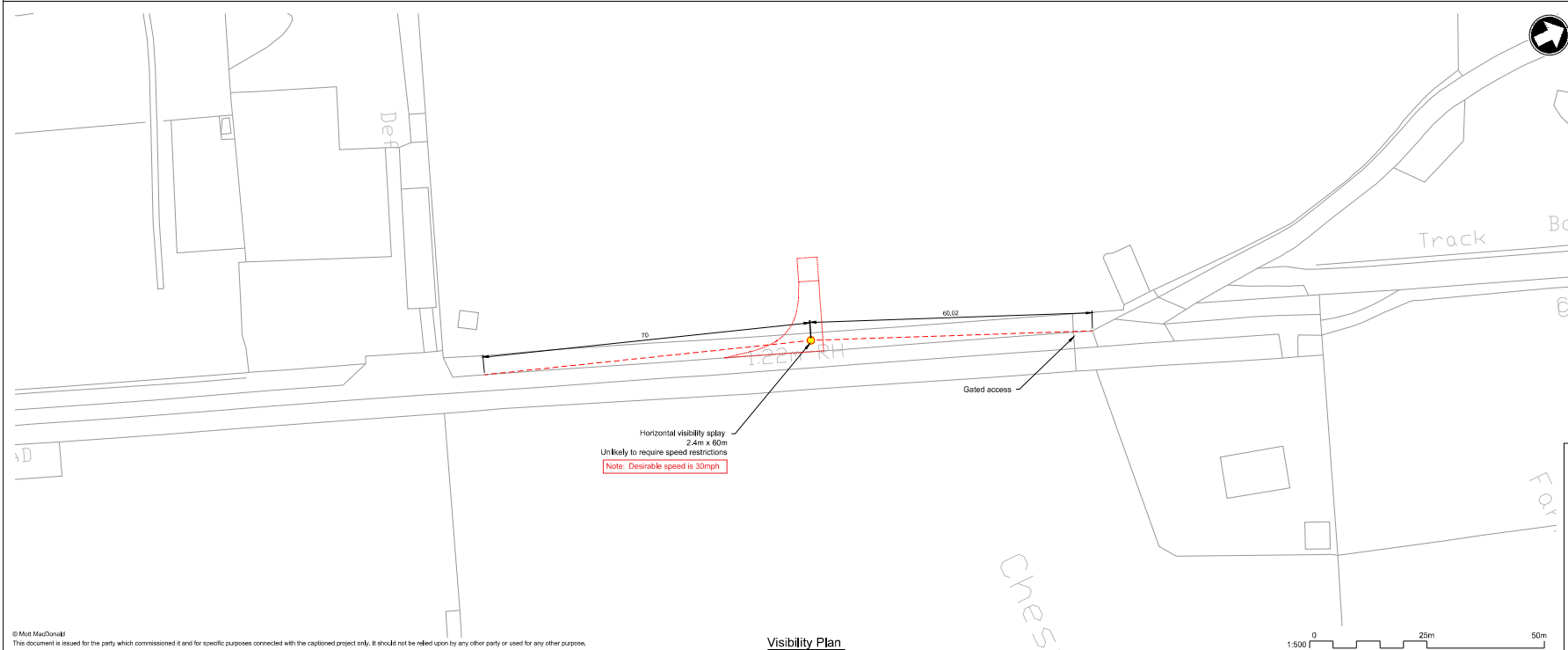
Designed	A.D.Castles	ADG	Eng check	E.Case	EC
Drawn	-	-	Coordination	A.M.Rawlings	AMR
Dwg check	Approved				

Scale: 1:250 Stat: PRE Rev: P1 Sec: STD

Drawing: 102375-MMD-01-XX-DR-C-DRAFT

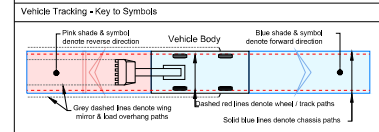


General Arrangement



Visibility Plan

- Noises
1. Do not scale from this drawing.
  2. All dimensions are in metres unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). All dimensions & levels should be checked on site.
  3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the block.
  4. This drawing has been prepared for the initial high level optioneering study for the CWWT10 project.
  5. The drawing is based on OS mapping information and LIDAR data.
  6. The information is preliminary and subject to further detailed design.
  7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
  8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
  9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
  10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
  11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
  12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads. Cambridge Waste Water Treatment Works Relocation is based on the design embankment of this option.
  13. DRAWINGS PREPARED IN COORDINATION with the Technical Memo.



Vehicle Tracking - Vehicle Details

**Low Loader**

Overall Length	16,633m
Overall Width	2,500m
Overall Body Height	3,300m
Max Track Width	2,500m
Kerb to Kerb Turning Radius	6,700m

**Large Mobile Crane**

Overall Length	12,000m
Overall Width	2,430m
Overall Body Height	2,430m
Track Width	2,430m
Kerb to Kerb Turning Radius	10,000m

Vehicle Tracking - Risks & Compliance

- High Risks**
- H1 Explanation of risk,

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

Rev	Date	Drawn	Description	AWK	ARR
P1		ADC	Draft for Discussion / Review.		

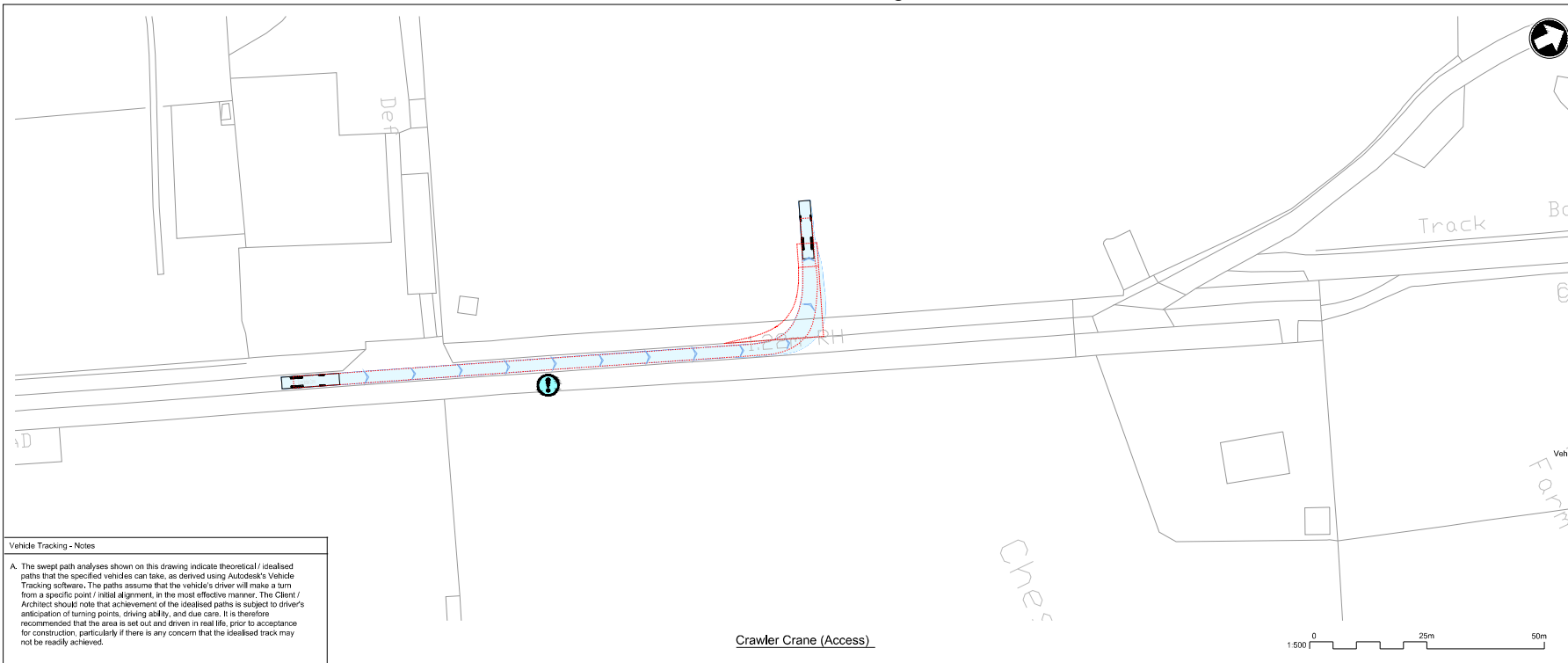


The Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 CA1  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Case	EC
Drawn	A.D.Castles	ADC	Coordination	A.M.Rawlings	AMR
Dwg check			Approved		

Scale: 1:500 Stat: PRE Rev: P1 Sec: STD  
 Drawing: 102375-MMD-01-XX-DR-C-DRAFT

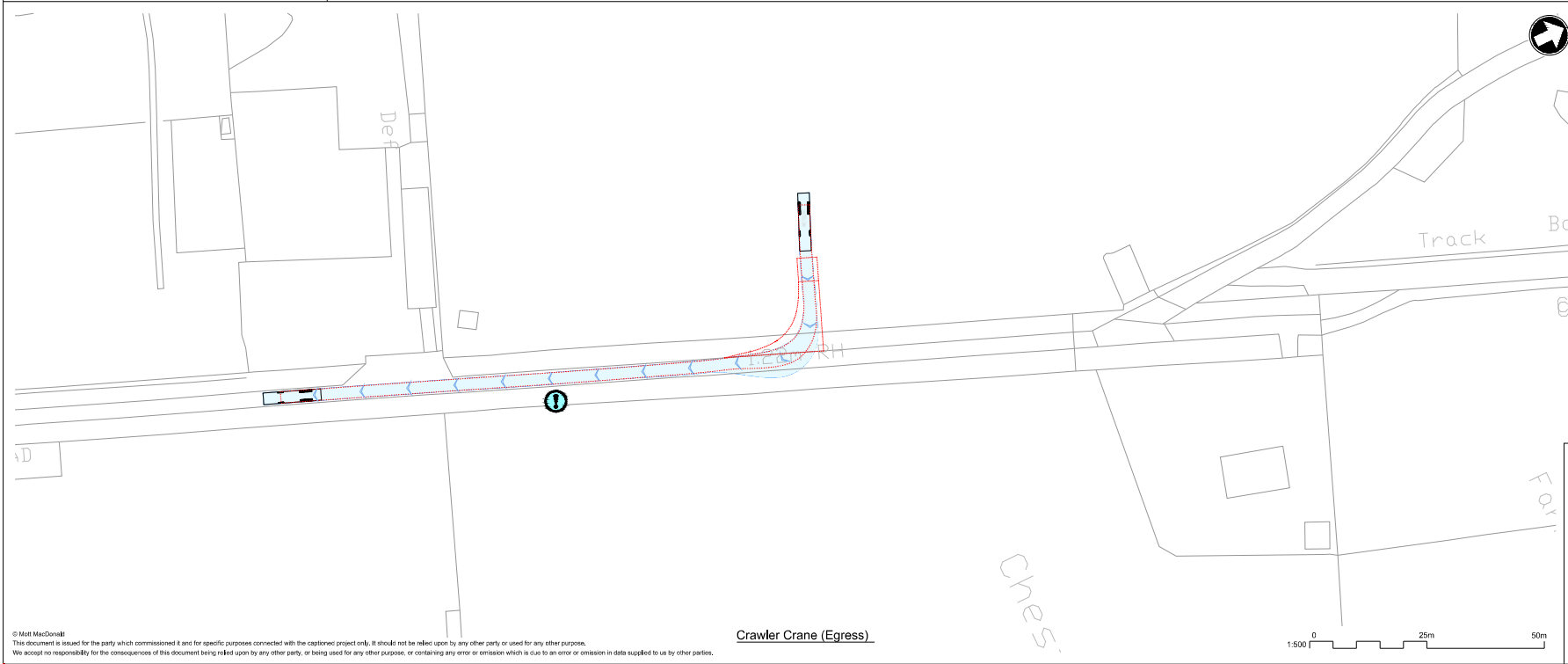
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 We accept no responsibility for the consequences of this document being relied upon by any other party, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.  
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**Vehicle Tracking - Notes**

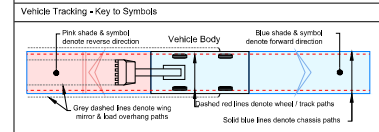
A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's application of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

Crawler Crane (Access)



Crawler Crane (Egress)

- Notes**
- Do not scale from this drawing.
  - All dimensions are in metres unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). All dimensions & levels should be checked on site.
  - Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
  - This drawing has been prepared for the initial high level optioneering study for the CWWTW project.
  - The drawing is based on OS mapping information and LIDAR data.
  - The information is preliminary and subject to further detailed design.
  - The design has not been submitted to the Highway Authority or Highways England for their technical review.
  - The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
  - The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
  - The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
  - The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
  - The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads. Cambridge Waste Water Treatment Works Relocation is a business activity, and any proposed access roads are subject to approval during future stages of the design development of this option.
  - DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo.**



**Vehicle Tracking - Vehicle Details**

Vehicle Type	Overall Length	Overall Width	Overall Body Height	Max Track Width	Kerb to Kerb Turning Radius
Low Loader	16,633m	2,500m	3,300m	2,500m	16,700m
Large Mobile Crane	12,200m	2,450m	2,450m	2,450m	10,000m

**Vehicle Tracking - Risks & Compliance**

**Risks**

- Kerb overrun
- Restrictive road width

Rev	Date	Drawn	Description	CHK	APP
P1		ADC	Draft for Discussion / Review.		ARK
Rev	Date	Drawn	Description	CHK	APP

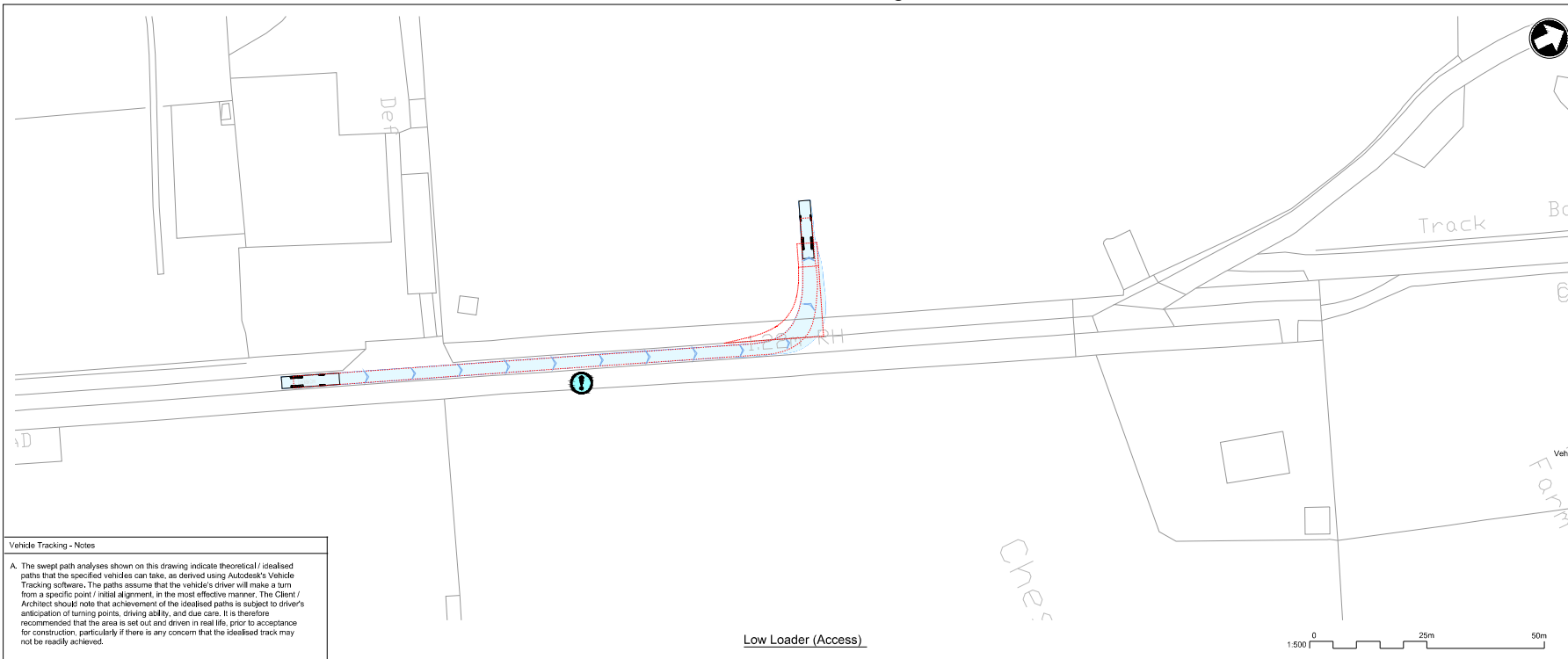


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
CA1  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	A.D. Casillas	ADC	Eng check	E. Case	EC
Drawn	A.D. Casillas	ADC	-	E. Case	EC
Dwg check	-	-	Coordination	A.M. Rawlings	AMR
Approved	-	-	Approved	-	-

Scale: 1:500    Stat: PRE    Rev: P1    Sec: STD

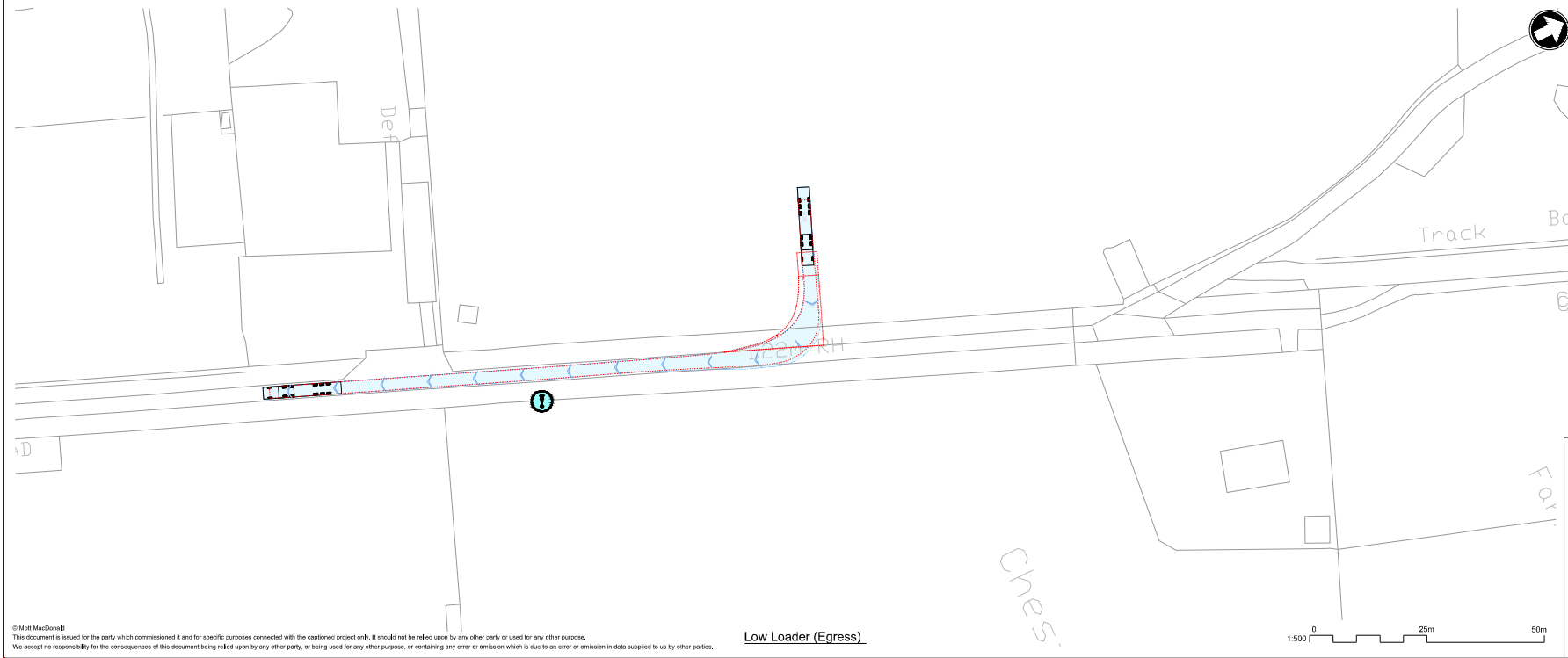
Drawing: 102375-MMD-01-XX-DR-C-DRAFT



**Vehicle Tracking - Notes**

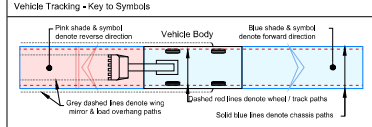
A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

Low Loader (Access)



Low Loader (Egress)

- Notes**
- Do not scale from this drawing.
  - All dimensions are in metres unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). All dimensions & levels should be checked on site.
  - Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
  - This drawing has been prepared for the initial high level optioneering study for the CWWTW project.
  - The drawing is based on OS mapping information and LIDAR data.
  - The information is preliminary and subject to further detailed design.
  - The design has not been submitted to the Highway Authority or Highways England for their technical review.
  - The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
  - The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
  - The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
  - The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
  - The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads. Cambridge Waste Water Treatment Works Relocation is based on a 10% probability of exceedance. The design is subject to change and additional land take is possible during future stages of the design development of this option.
  - DRAWINGS TO BE READ IN OCCURRENCE with the Technical Memo.**



	<b>Low Loader</b>	
	Overall Length	16,633m
	Overall Width	2,500m
	Overall Body Height	3,300m
	Max Track Width	2,500m
	Kerb to Kerb Turning Radius	16,700m
	<b>Large Mobile Crane</b>	
	Overall Length	12,200m
	Overall Width	2,450m
	Overall Body Height	3,360m
	Track Width	2,450m
	Kerb to Kerb Turning Radius	10,000m

- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	ADC	Draft for Discussion / Review.	ARK	ARK
Rev	Date	Drawn	Description	Checked

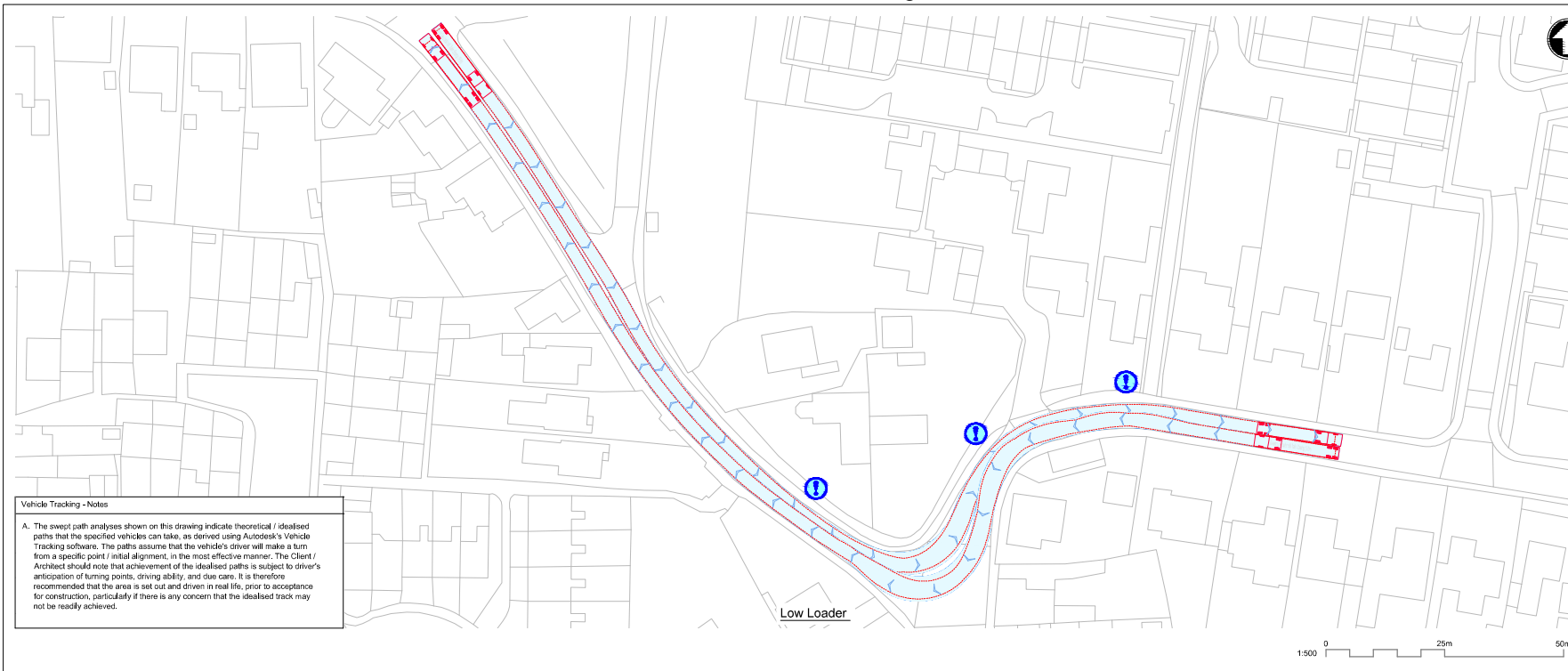


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
CA1  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	A.D.Casillas	ADC	Eng check	E.Case	EC
Drawn	-	-	Coordination	A.M.Rawlings	AMR
Dwg check	Approved				

Scale: 1:500    Stat: PRE    Rev: P1    Sec: STD

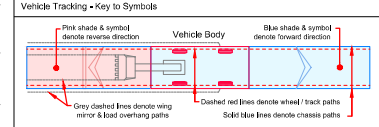
Drawing: 102375-MMD-01-XX-DR-C-DRAFT



**Vehicle Tracking - Notes**

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

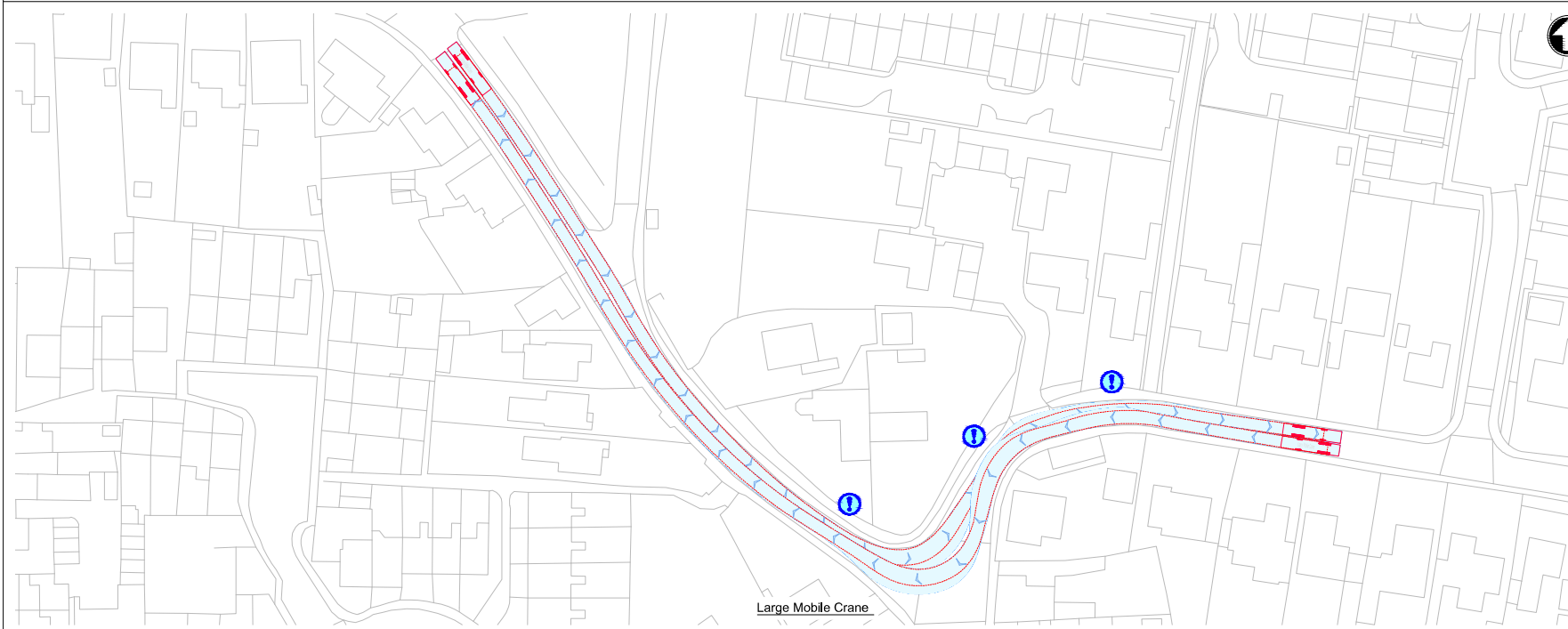
- Notes**
1. Do not scale from this drawing.
  2. All dimensions are in metres unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). All dimensions & levels should be checked on site.
  3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
  4. This drawing has been prepared for the initial high level engineering study for the CWWTW project.
  5. The drawing is based on OS mapping information and LIDAR data.
  6. The information is preliminary and subject to further detailed design.
  7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
  8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
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  10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
  11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
  12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
  13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
  14. This drawing should be read in conjunction with the Technical Memo - Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.
  15. DRAWING MUST BE READ IN COLOUR



**Vehicle Tracking - Vehicle Details**

<p>General Low loader with Trailer (Steering 1820m)</p> <p>Overall Length 24.60m Overall Width 2.40m Overall Body Height 2.40m Max Body Ground Clearance 2.00m Max. track time 6.00m Kerb to Kerb Turning Radius 6.00m</p>	<p>Large Mobile Crane</p> <p>Overall Length 12.00m Overall Width 2.40m Overall Body Height 3.30m Max Body Ground Clearance 2.00m Max. track time 6.00m Kerb to Kerb Turning Radius 10.00m</p>
--	---

<p>Large Tipper</p> <p>Overall Length 10.00m Overall Width 2.85m Overall Body Height 2.85m Max Body Ground Clearance 2.00m Max. track time 11.50m Kerb to Kerb Turning Radius</p>	<p>Standard Design Vehicle (SDV)</p> <p>Overall Length 4.60m Overall Width 2.00m Overall Body Height 2.00m Max Body Ground Clearance 2.00m Max. track time 4.00m Kerb to Kerb Turning Radius</p>
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- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/07/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	CHK'd	App'd

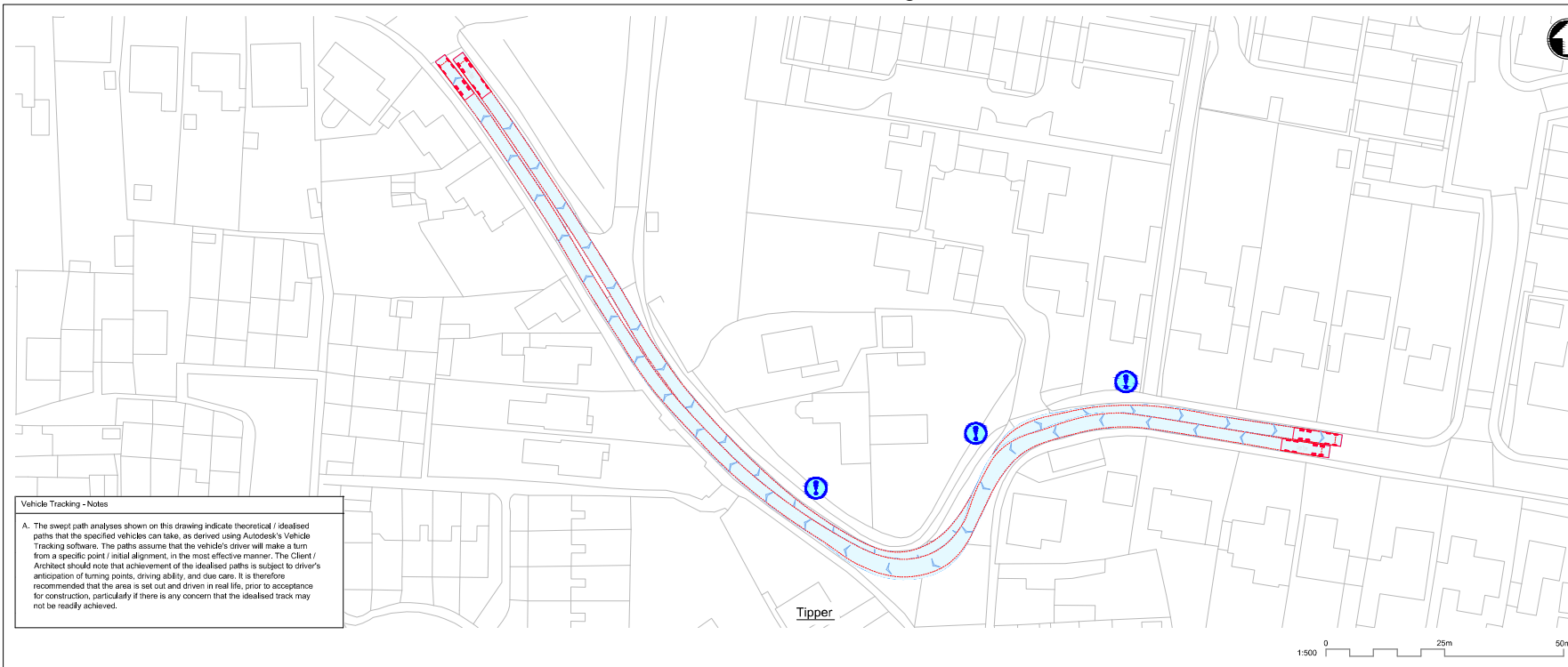


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
Denny End Rd - Bannold Rd  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

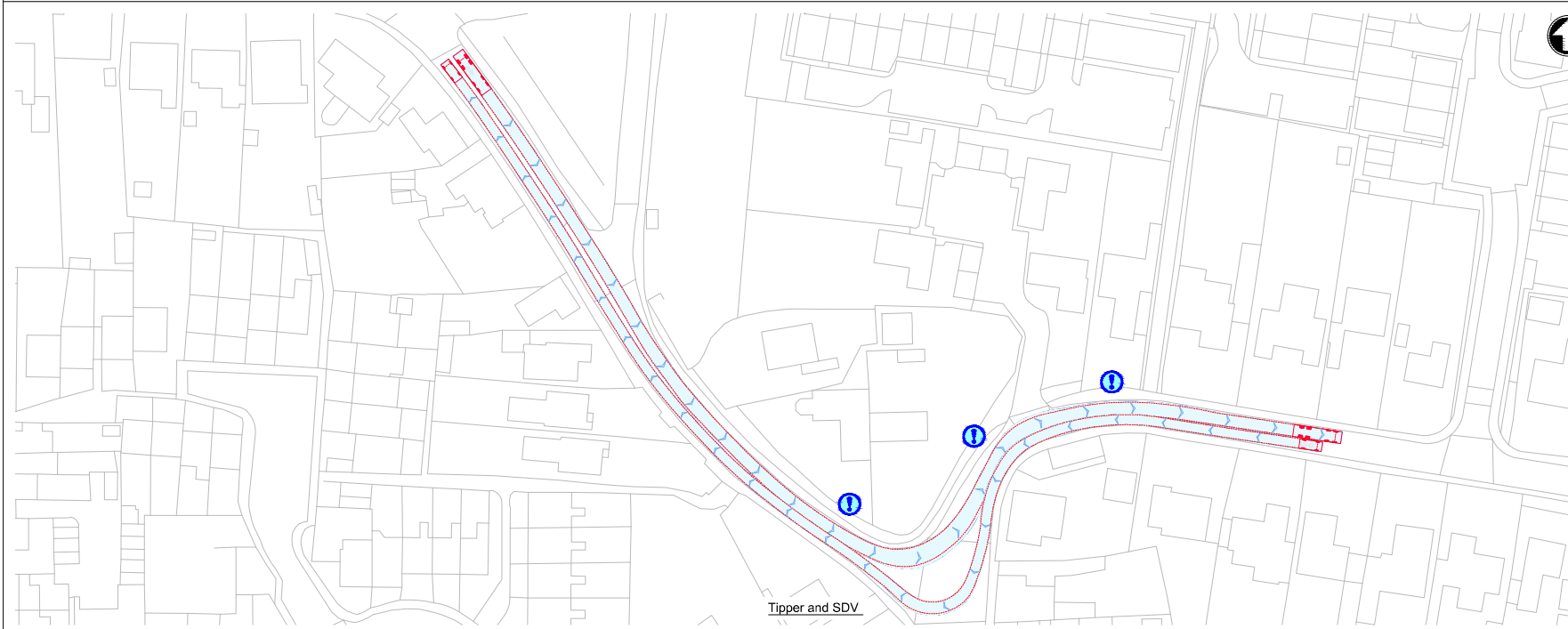
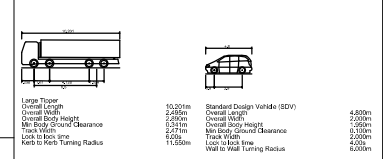
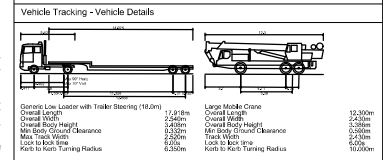
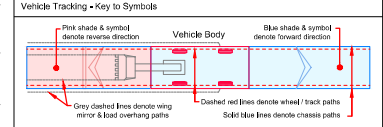
Drawing Number  
102375-MMD-01-XX-DR-C-DRAFT



**Vehicle Tracking - Notes**

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- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/07/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	CHK'd	App'd

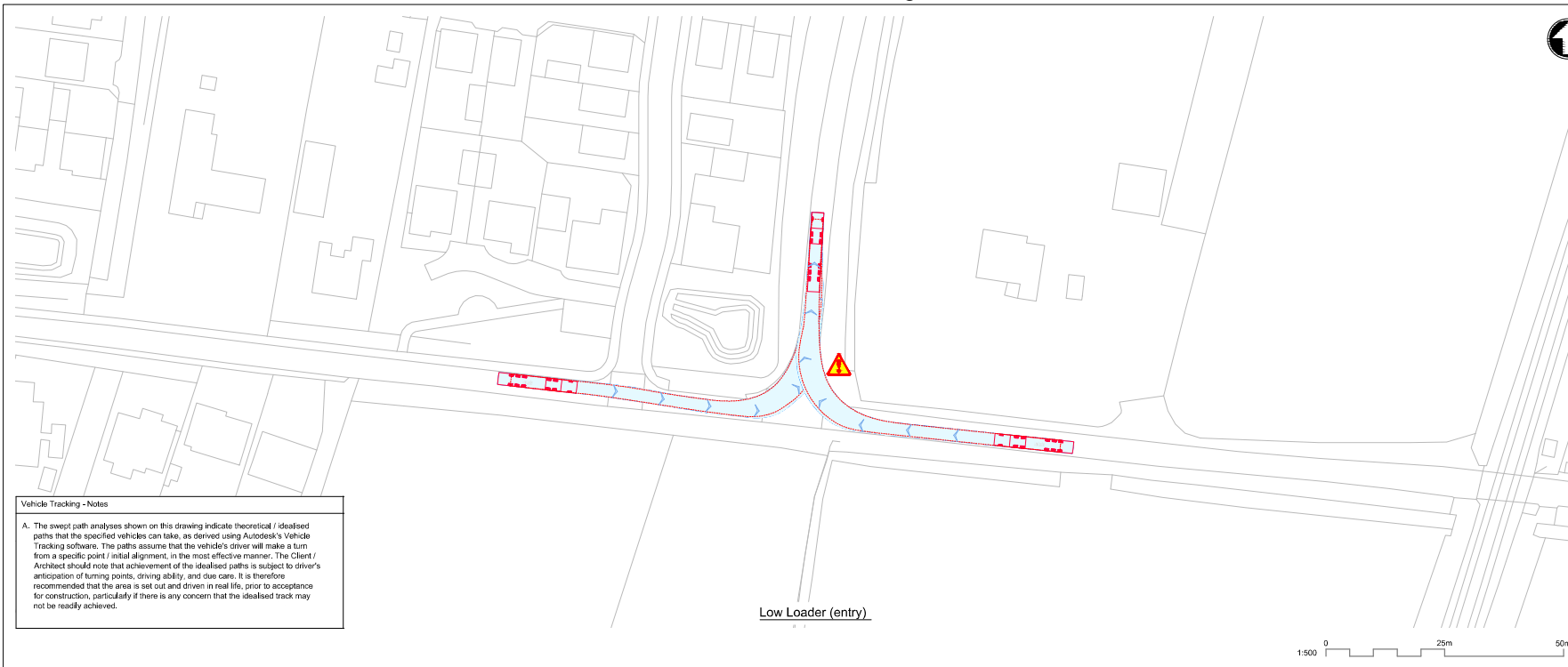


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
Denny End Rd - Bannold Rd  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
102375-MMD-01-XX-DR-C-DRAFT



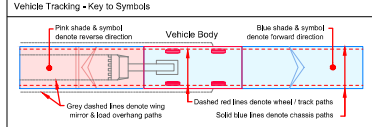
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Low Loader (entry)

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**15. DRAWING MUST BE READ IN COLOUR**



**Vehicle Tracking - Vehicle Details**

	Low Loader with Trailer (Steering 1820m)	Overall Length	24.60m	Overall Width	2.40m	Overall Height	12.20m
	Large Mobile Crane	Overall Length	24.60m	Overall Width	2.40m	Overall Height	24.00m
	Large Tipper	Overall Length	16.00m	Overall Width	2.85m	Overall Height	4.60m
	Standard Design Vehicle (SDV)	Overall Length	11.50m	Overall Width	2.00m	Overall Height	3.00m
		Max Body Ground Clearance	2.00m	Max Body Ground Clearance	2.00m	Max Body Height	3.00m
		Max. Wheel Overlap	0.50m	Max. Wheel Overlap	0.50m	Max. Wheel Overlap	0.50m
		Lock to Lock time	6.00s	Lock to Lock time	6.00s	Lock to Lock time	6.00s
		Kerb to Kerb Turning Radius	6.00m	Kerb to Kerb Turning Radius	6.00m	Kerb to Kerb Turning Radius	6.00m

	Large Tipper	Overall Length	16.00m	Overall Width	2.85m	Overall Height	4.60m
	Standard Design Vehicle (SDV)	Overall Length	11.50m	Overall Width	2.00m	Overall Height	3.00m
		Max Body Ground Clearance	2.00m	Max Body Ground Clearance	2.00m	Max Body Height	3.00m
		Max. Wheel Overlap	0.50m	Max. Wheel Overlap	0.50m	Max. Wheel Overlap	0.50m
		Lock to Lock time	6.00s	Lock to Lock time	6.00s	Lock to Lock time	6.00s
		Kerb to Kerb Turning Radius	6.00m	Kerb to Kerb Turning Radius	6.00m	Kerb to Kerb Turning Radius	6.00m

**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/07/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	Checked	Approved



**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Bannold Rd - Bannold Drove  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT



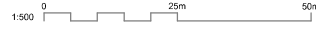
Low Loader (egress)



**Vehicle Tracking - Notes**

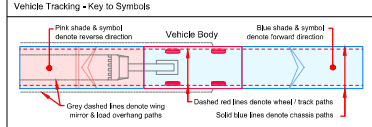
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Crane (entry)



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**15. DRAWING MUST BE READ IN COLOUR**



**Vehicle Tracking - Vehicle Details**

Control Line Loader with Trailer Steering (1620m)	Large Mobile Crane	
Overall Length 24.60m	Overall Length 12.300m	
Overall Width 2.640m	Overall Width 2.410m	
Overall Body Height 2.400m	Overall Body Height 3.300m	
Min Body Ground Clearance 0.300m	Min Body Ground Clearance 0.400m	
Max. Track Spacing 6.00m	Max. Track Spacing 6.00m	
Lock to Lock Time 6.00m	Lock to Lock Time 6.00m	
Kerb to Kerb Turning Radius 6.00m	Kerb to Kerb Turning Radius 10.00m	

Large Tipper	Standard Design Vehicle (SDV)	
Overall Length 10.00m	Overall Length 4.600m	
Overall Width 2.850m	Overall Width 2.000m	
Overall Body Height 2.650m	Overall Body Height 2.000m	
Min Body Ground Clearance 0.300m	Min Body Ground Clearance 0.300m	
Lock to Lock Time 11.500m	Lock to Lock Time 4.00m	
Kerb to Kerb Turning Radius 11.500m	Kerb to Kerb Turning Radius 4.00m	



Crane (egress)



**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/10/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	Checked	Appr



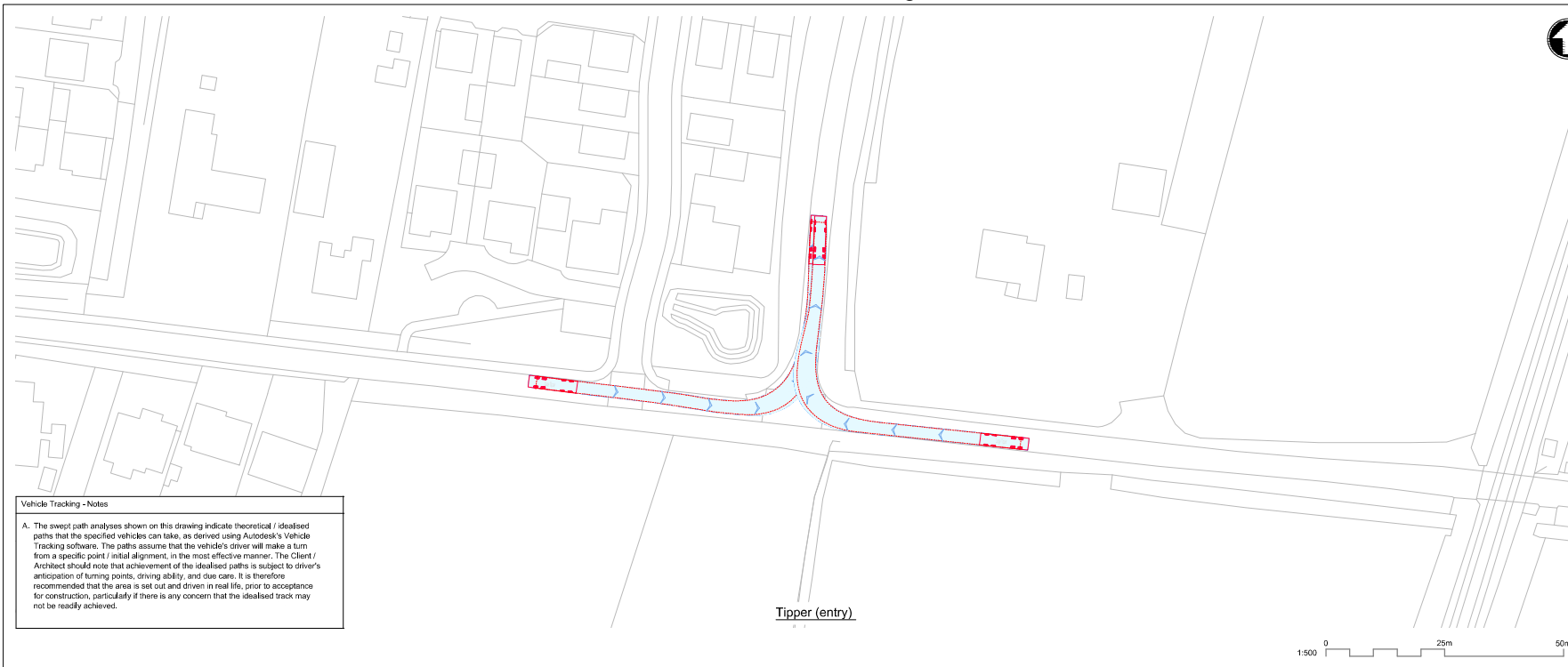
Title  
**Cambridge Waste Water Treatment Works Relocation  
 Bannold Rd - Bannold Drove  
 Highways GA, Visibility Splay and  
 Vehicle Tracking**

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
**102375-MMD-01-XX-DR-C-DRAFT**



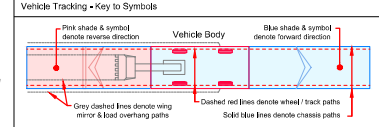


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**Vehicle Tracking - Vehicle Details**

Overall Length with Trailer (Steering 1820m)	7.97m	Overall Length	12.30m
Overall Width	2.66m	Overall Width	2.43m
Overall Body Height	3.49m	Overall Body Height	3.36m
Min Body Ground Clearance	232mm	Min Body Ground Clearance	210mm
Max. Rear Overhang	6.07m	Max. Rear Overhang	6.07m
Lock to Lock time	6.03sec	Lock to Lock time	6.03sec
Kerb to Kerb Turning Radius	6.03m	Kerb to Kerb Turning Radius	10.00m

Overall Length	10.07m	Overall Length	4.60m
Overall Width	2.85m	Overall Width	2.00m
Overall Body Height	2.56m	Overall Body Height	2.00m
Min Body Ground Clearance	5.51m	Min Body Ground Clearance	1.00m
Max. Rear Overhang	4.57m	Max. Rear Overhang	3.10m
Lock to Lock time	11.55sec	Lock to Lock time	4.03sec
Kerb to Kerb Turning Radius	11.55m	Kerb to Kerb Turning Radius	6.00m



**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/07/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	Checked	Approved

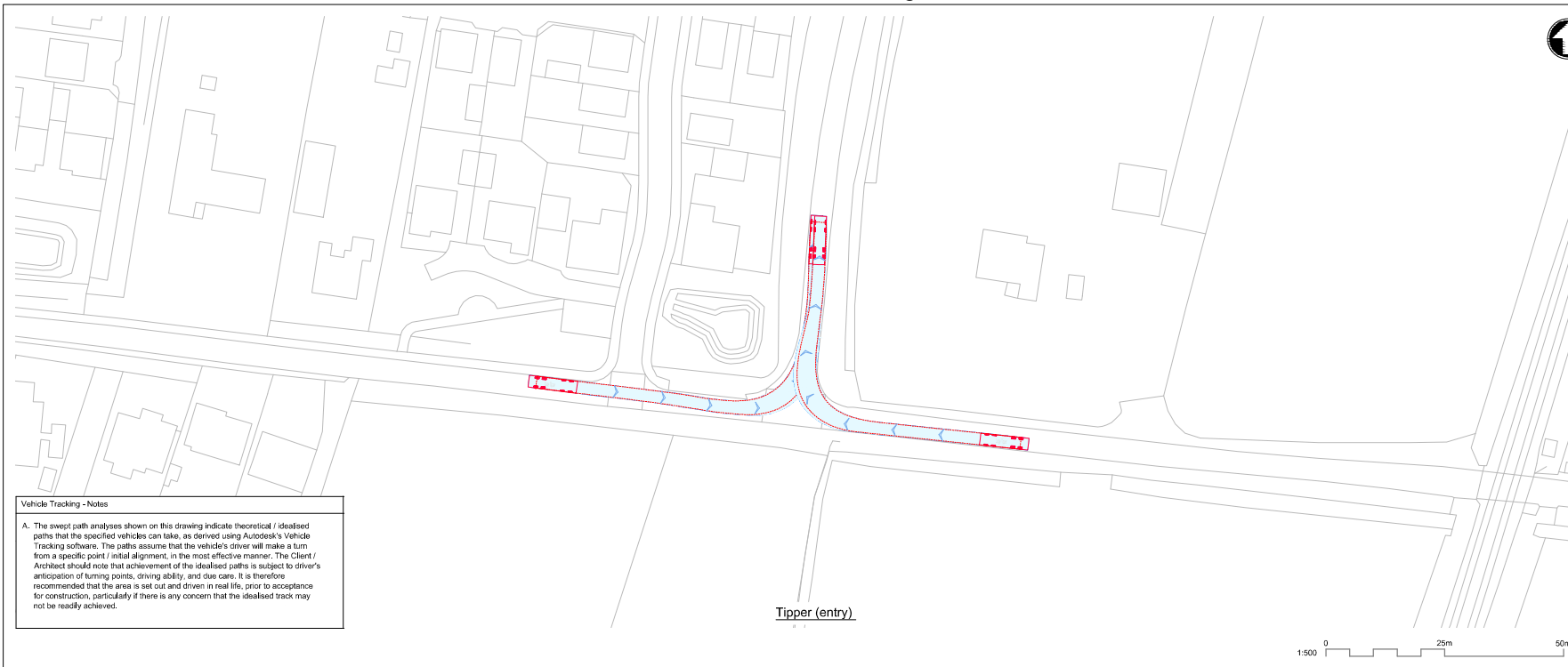


Title  
**Cambridge Waste Water Treatment Works Relocation  
 Bannold Rd - Bannold Drove  
 Highways GA, Visibility Splay and  
 Vehicle Tracking**

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
**102375-MMD-01-XX-DR-C-DRAFT**



**Vehicle Tracking - Notes**

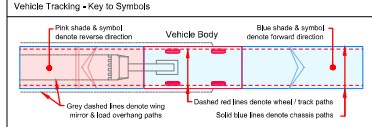
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Tipper (entry)



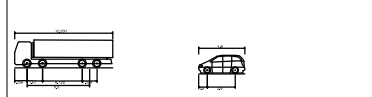
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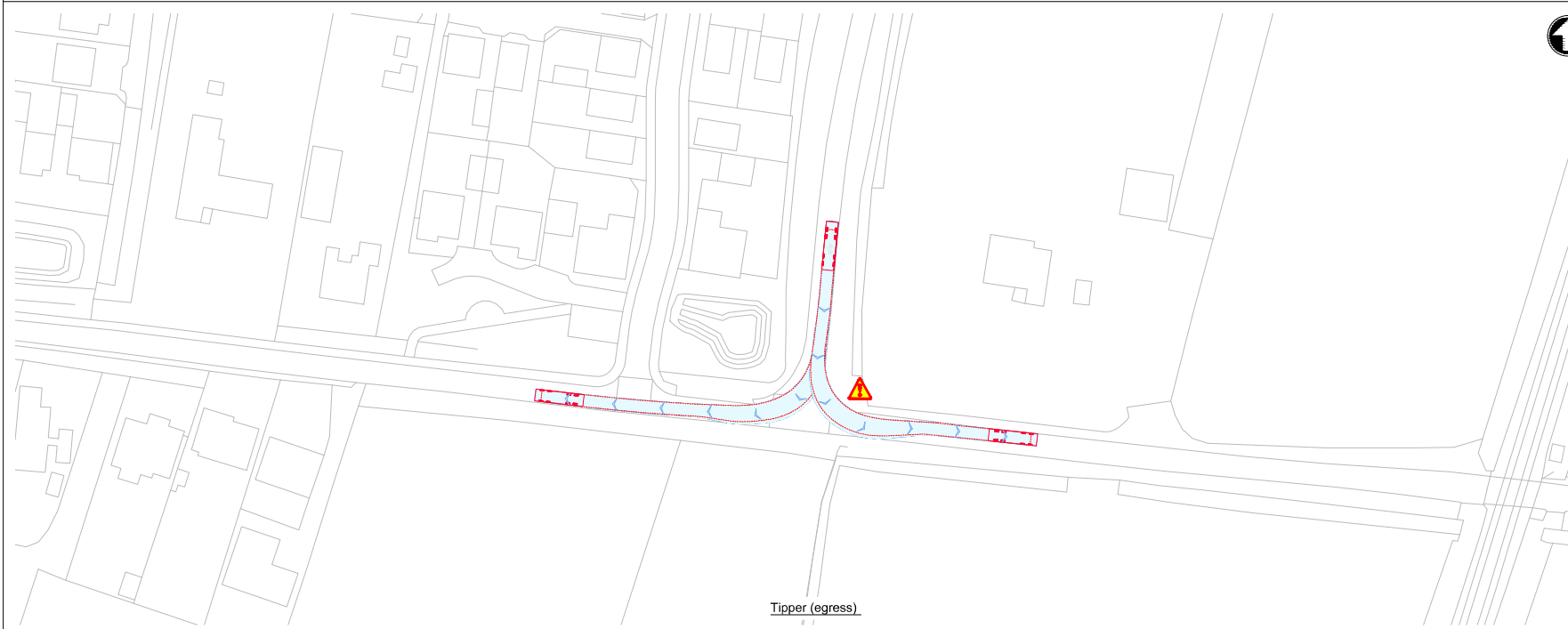


**Vehicle Tracking - Vehicle Details**

General Low loader with Trailer Steering (1620m)	Large Mobile Crane	Standard Design Vehicle (SDV)	
Overall Length 24.60m	Overall Length 12.200m	Overall Length 4.600m	
Overall Width 2.600m	Overall Width 2.400m	Overall Width 2.000m	
Overall Body Height 2.400m	Overall Body Height 3.500m	Overall Body Height 2.000m	
Min Body Ground Clearance 0.200m	Min Body Ground Clearance 0.200m	Min Body Ground Clearance 0.200m	
Max. track time 6.00m	Max. track time 6.00m	Max. track time 6.00m	
Lock to lock time 6.00m	Lock to lock time 6.00m	Lock to lock time 6.00m	
Kerb to Kerb Turning Radius 6.000m	Kerb to Kerb Turning Radius 6.000m	Kerb to Kerb Turning Radius 6.000m	



Large Tipper	Standard Design Vehicle (SDV)		
Overall Length 10.000m	Overall Length 4.600m		
Overall Width 2.650m	Overall Width 2.000m		
Overall Body Height 2.650m	Overall Body Height 2.000m		
Min Body Ground Clearance 0.200m	Min Body Ground Clearance 0.200m		
Max. track time 11.500m	Max. track time 6.000m		
Lock to lock time 11.500m	Lock to lock time 6.000m		
Kerb to Kerb Turning Radius 11.500m	Kerb to Kerb Turning Radius 6.000m		



Tipper (egress)



**Vehicle Tracking - Risks & Compliance**

**Risks**

	Kerb overrun		
	Restrictive road width		

P1	01/07/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	Checked	Approved

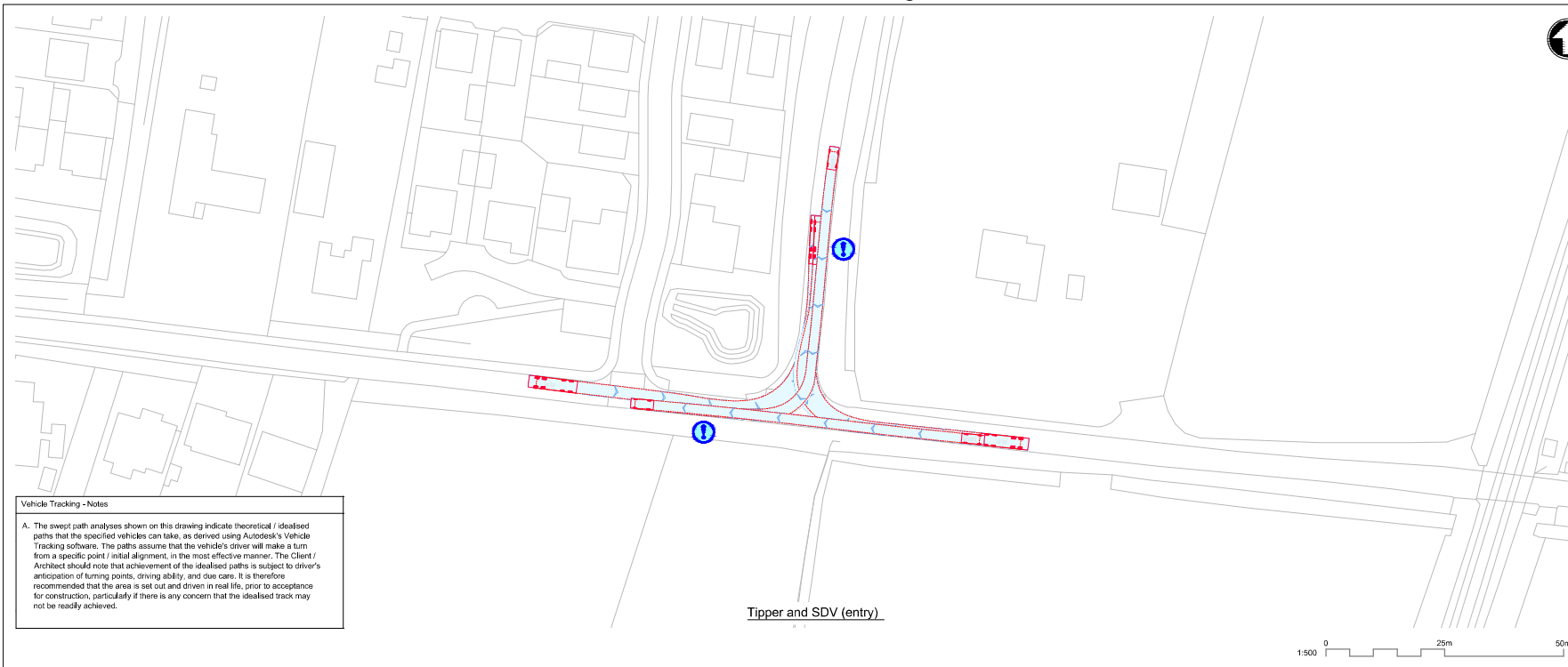


Title  
 Cambridge Waste Water Treatment Works Relocation  
 Bannold Rd - Bannold Drove  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-		Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

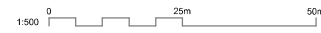
Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT



**Vehicle Tracking - Notes**

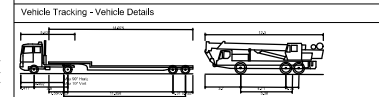
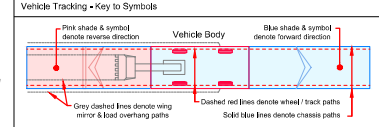
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Tipper and SDV (entry)



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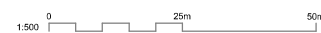


Overall Length with Trailer (Steering 1820m)	7.97m	Overall Length	12.20m
Overall Width	2.66m	Overall Width	2.40m
Overall Body Height	3.40m	Overall Body Height	3.30m
Min Body Ground Clearance	230mm	Min Body Ground Clearance	200mm
Max. Rear Overhang	6.07m	Max. Rear Overhang	2.50m
Lock to Lock time	6.07m	Lock to Lock time	6.07m
Kerb to Kerb Turning Radius	6.07m	Kerb to Kerb Turning Radius	10.00m

Overall Length	10.07m	Overall Length	4.60m
Overall Width	2.65m	Overall Width	2.00m
Overall Body Height	2.55m	Overall Body Height	2.00m
Min Body Ground Clearance	250mm	Min Body Ground Clearance	200mm
Max. Rear Overhang	11.50m	Max. Rear Overhang	4.00m
Lock to Lock time	11.50m	Lock to Lock time	4.00m
Kerb to Kerb Turning Radius	11.50m	Kerb to Kerb Turning Radius	6.00m



Tipper and SDV (egress)



- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/07/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	Checked	Appr'd

Client	
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**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Bannold Rd - Bannold Drove  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-			
Drawn	M Fonseca	M/F	Coordination	-			
Dwg check	-	-	Approved	-			
Scale at A1	1:500	Status	PRE	Rev	P1	Security	STD

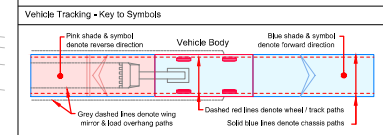
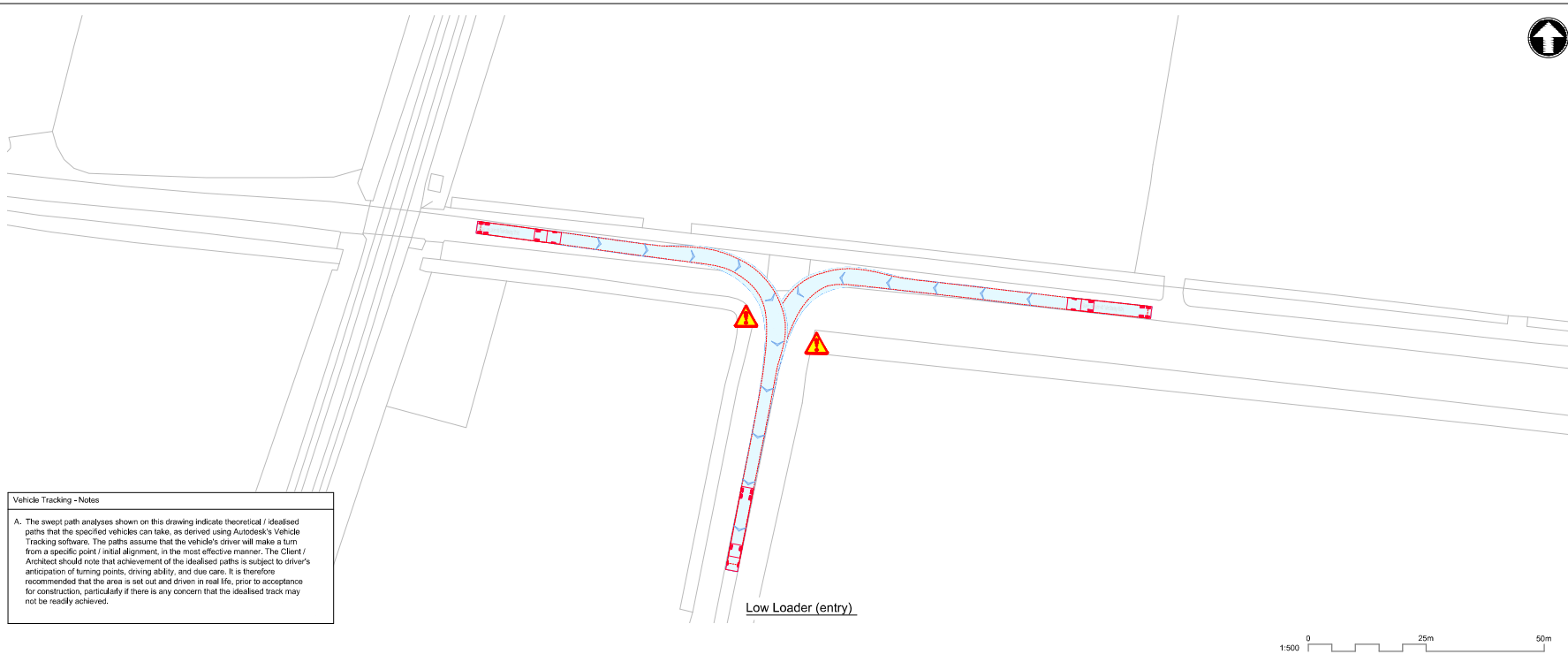
Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT



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  15. **DRAWING MUST BE READ IN COLOUR**

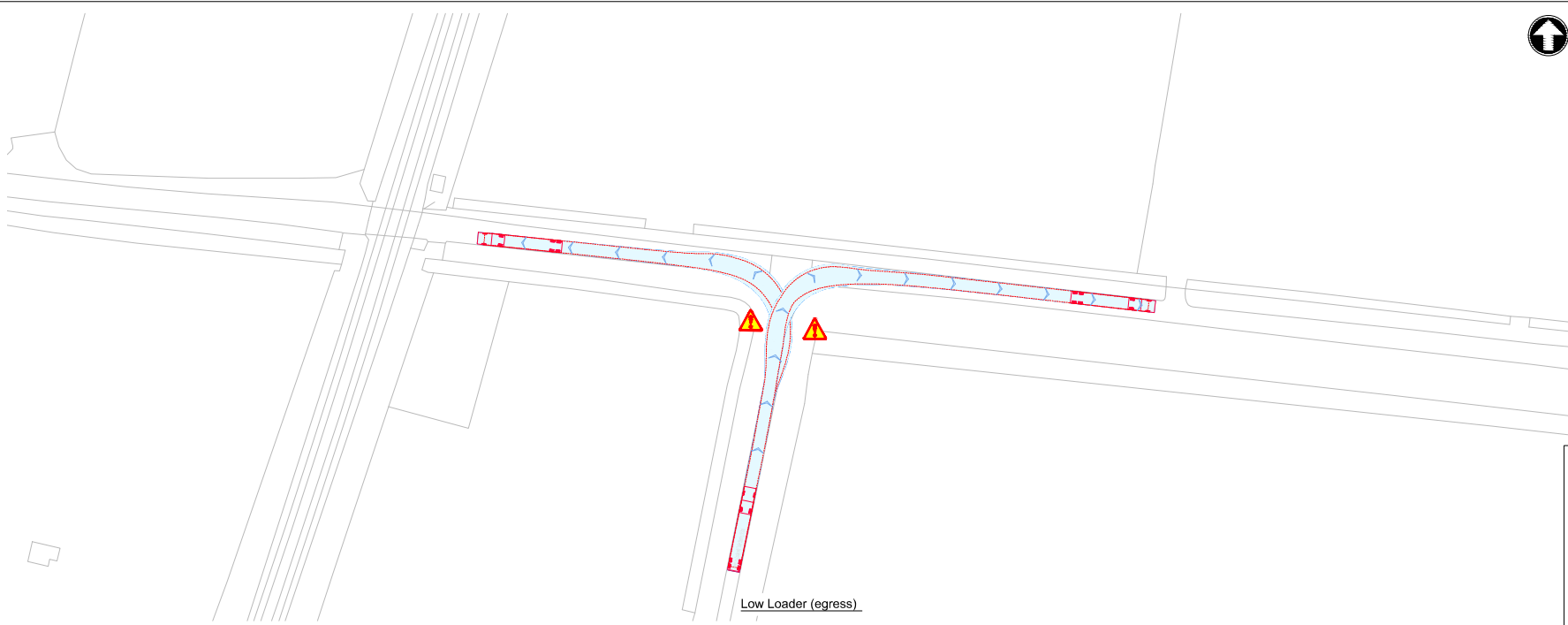
**Vehicle Tracking - Notes**

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**Vehicle Tracking - Vehicle Details**

Parameter	Low Loader with Trailer (1620m)	Large Mobile Crane	Standard Design Vehicle (SDV)
Overall Length	24.60m	12.300m	24.30m
Overall Width	2.90m	2.40m	2.55m
Overall Body Height	3.40m	3.30m	3.30m
Min Body Ground Clearance	0.30m	0.30m	0.30m
Max Body Height	6.00m	6.00m	6.00m
Lock to Lock time	6.00m	6.00m	6.00m
Lock to Kerb Turning Radius	11.50m	11.50m	11.50m



**Vehicle Tracking - Risks & Compliance**

**Risks**

- Kerb overrun
- Restrictive road width

P1	Rev	Date	Drawn	Description	Checked	Approved

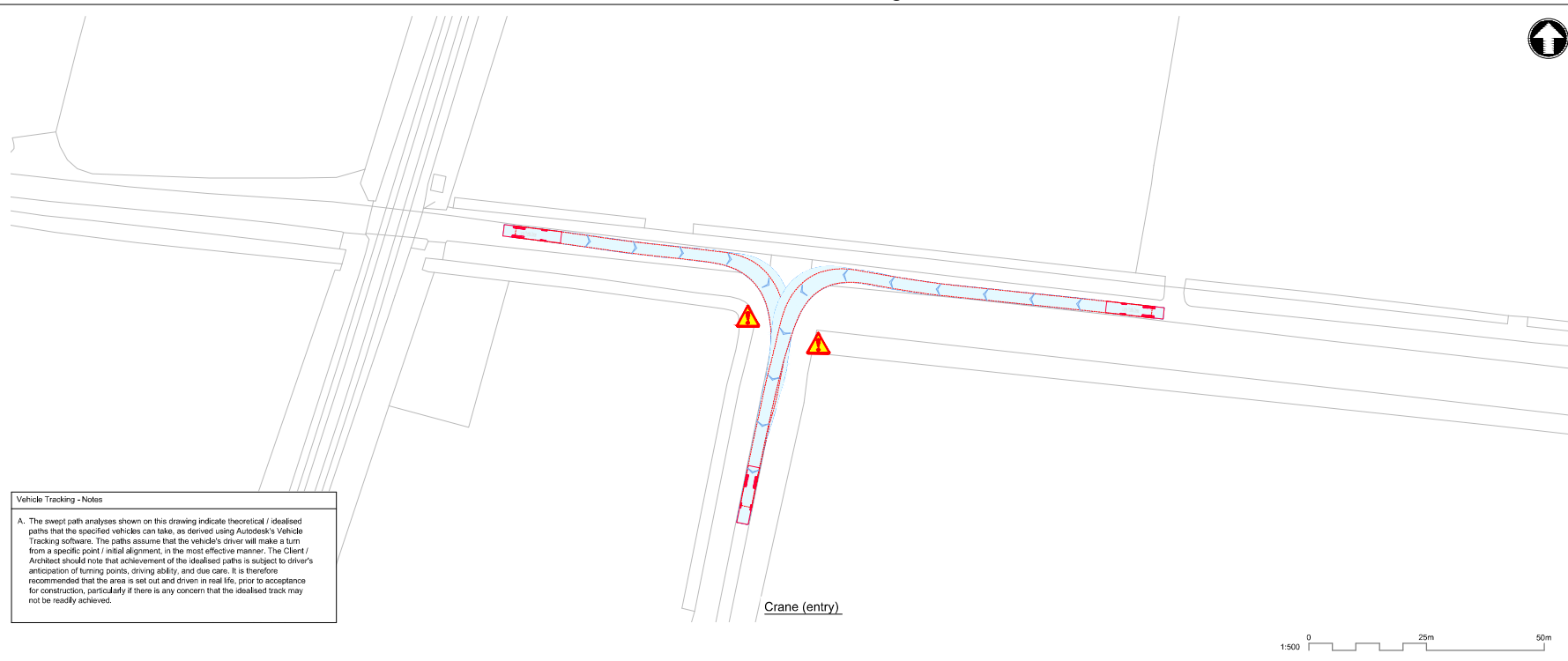


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
Bannold Rd - Burgess's Drove  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-		Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

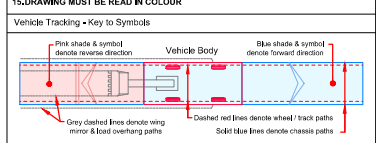
Drawing Number  
**102375-MMD-01-XX-DR-C-DRAFT**



**Vehicle Tracking - Notes**

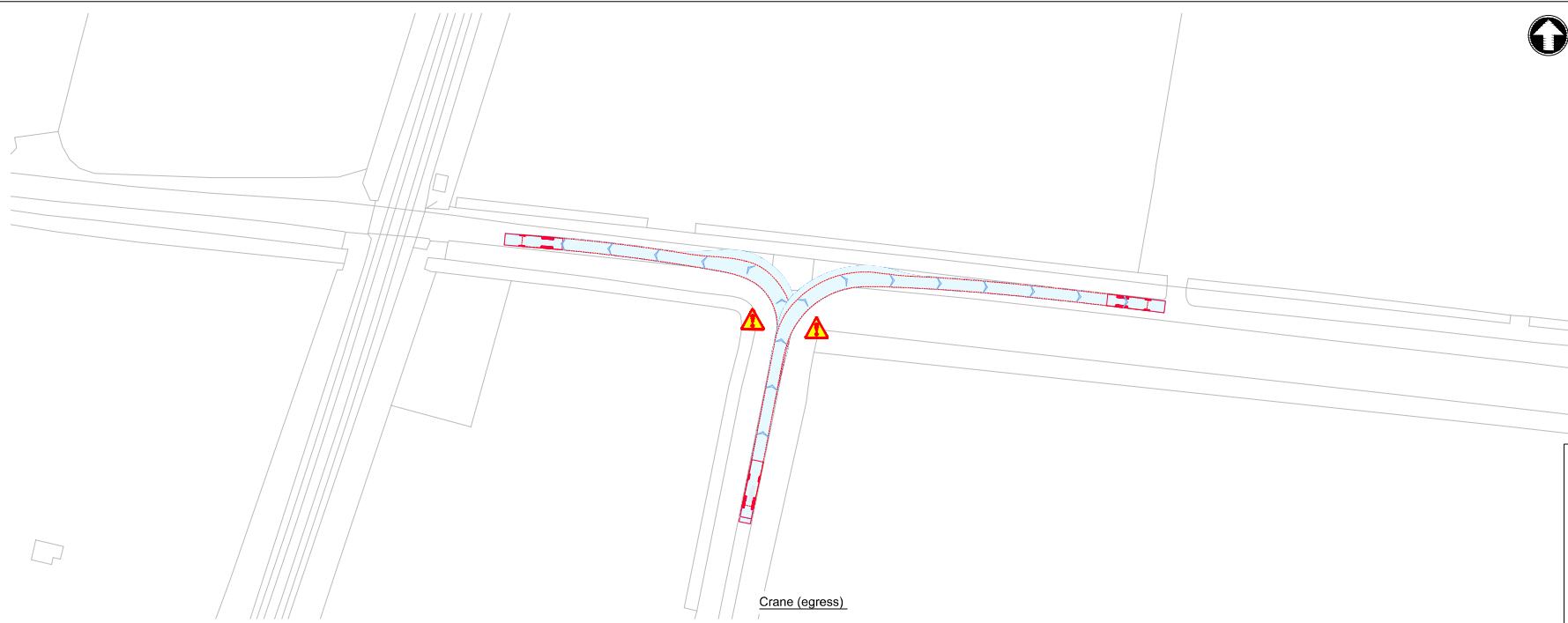
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**Vehicle Tracking - Vehicle Details**

Crane	Large Tipper	Standard Design Vehicle (SDV)
Overall Length	10.07m	Overall Length
Overall Width	2.85m	Overall Width
Overall Body Height	2.95m	Overall Body Height
Min Body Ground Clearance	0.27m	Min Body Ground Clearance
Max Track Spacing	4.57m	Max Track Spacing
Lock to Lock Time	11.50m	Lock to Lock Time
Kerb to Kerb Turning Radius	11.50m	Kerb to Kerb Turning Radius



Crane	Large Tipper	Standard Design Vehicle (SDV)
Overall Length	10.07m	Overall Length
Overall Width	2.85m	Overall Width
Overall Body Height	2.95m	Overall Body Height
Min Body Ground Clearance	0.27m	Min Body Ground Clearance
Max Track Spacing	4.57m	Max Track Spacing
Lock to Lock Time	11.50m	Lock to Lock Time
Kerb to Kerb Turning Radius	11.50m	Kerb to Kerb Turning Radius

- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/07/2022	M/F	Draft for Discussion / Review	M/F	M/F
Rev	Date	Drawn	Description	CHK'd	App'd

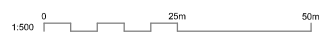


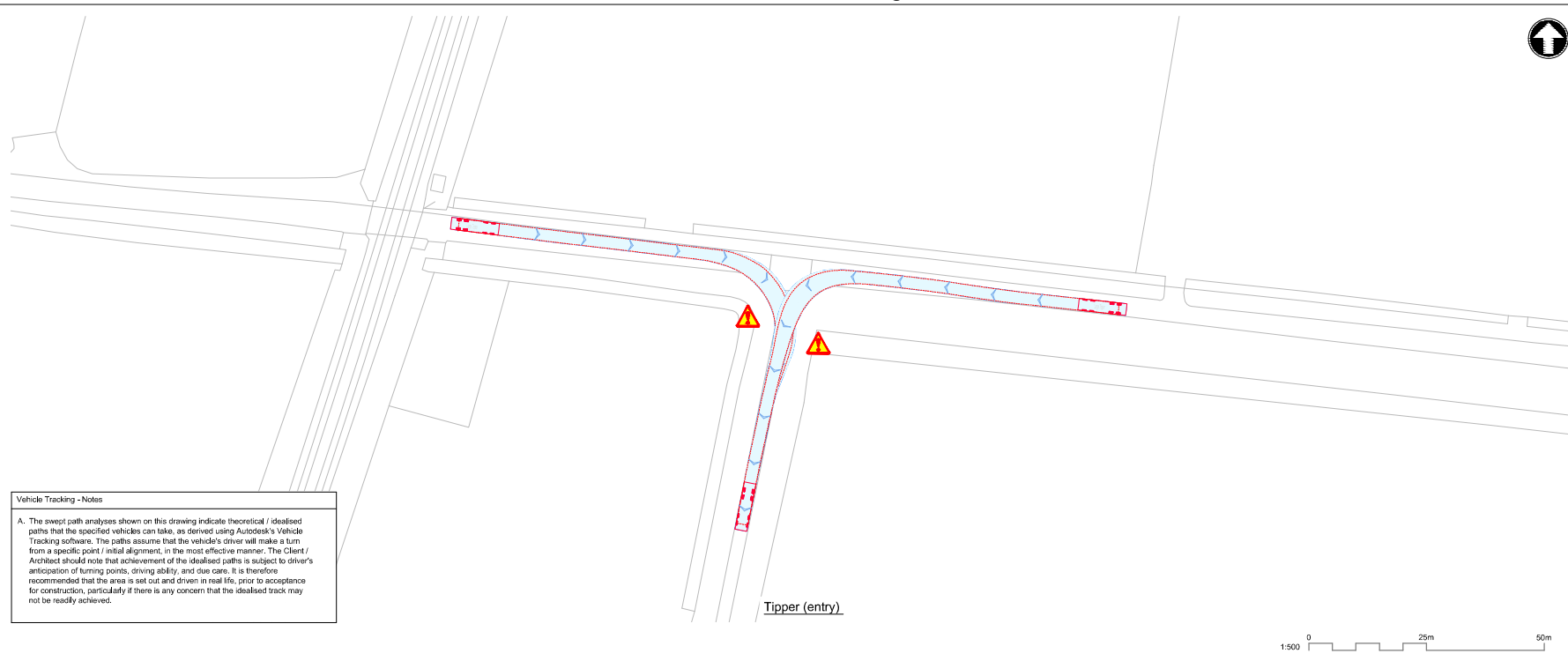
**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 Bannold Rd - Burgess's Drove  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT





**Vehicle Tracking - Notes**

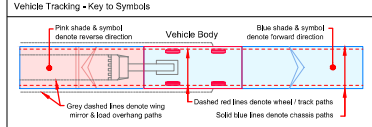
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Tipper (entry)



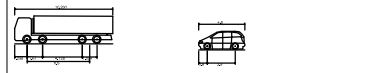
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**15. DRAWING MUST BE READ IN COLOUR**

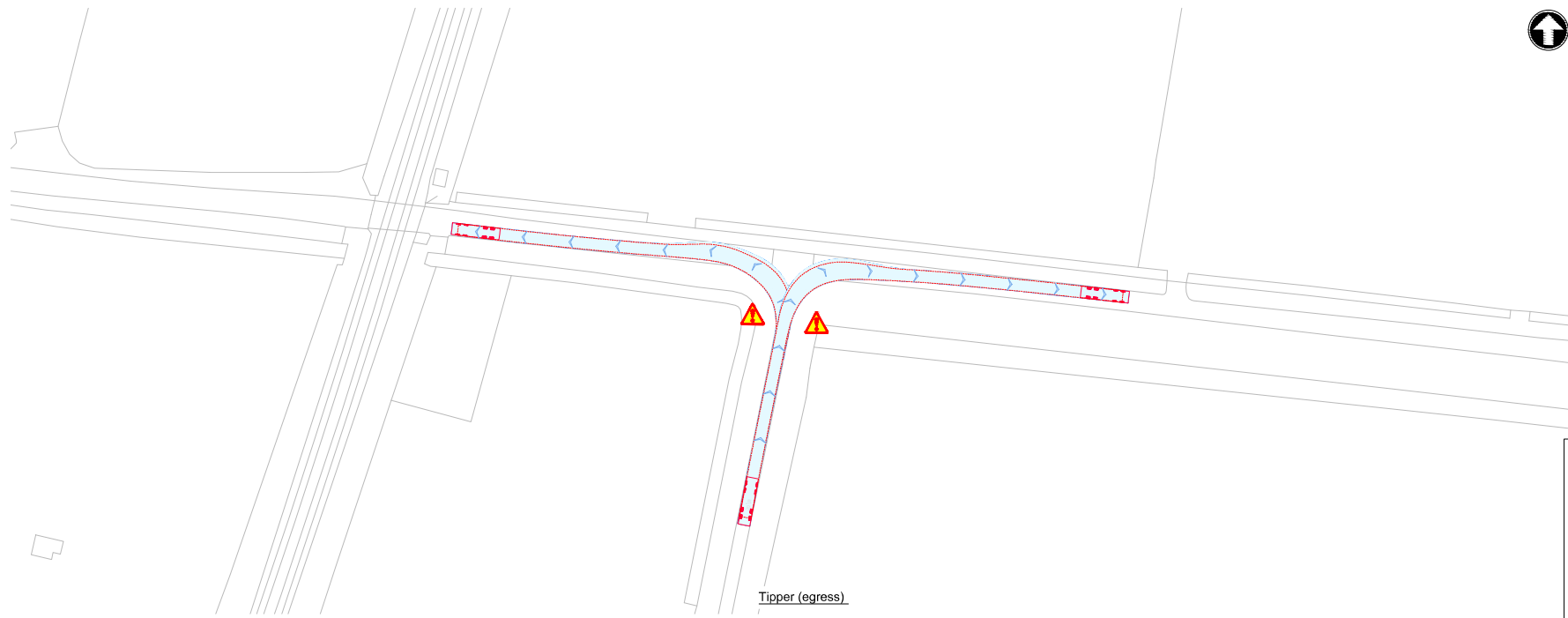


**Vehicle Tracking - Vehicle Details**

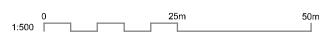
<p>Standard Low Loader with Trailer (Steering 1820m)</p> <p>Overall Length 24.60m Overall Width 2.40m Overall Body Height 3.40m Min Body Ground Clearance 0.20m Max Body Height 4.00m Lock to Lock time 6.00m Kerb to Kerb Turning Radius 10.00m</p>	<p>Large Mobile Crane</p> <p>Overall Length 12.30m Overall Width 2.40m Overall Body Height 3.30m Min Body Ground Clearance 0.20m Max Body Height 4.00m Lock to Lock time 6.00m Kerb to Kerb Turning Radius 10.00m</p>
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<p>Large Tipper</p> <p>Overall Length 10.00m Overall Width 2.85m Overall Body Height 3.50m Min Body Ground Clearance 0.20m Max Body Height 4.00m Lock to Lock time 11.50m Kerb to Kerb Turning Radius</p>	<p>Standard Design Vehicle (SDV)</p> <p>Overall Length 4.80m Overall Width 2.00m Overall Body Height 2.00m Min Body Ground Clearance 0.20m Max Body Height 2.50m Lock to Lock time 4.00m Kerb to Kerb Turning Radius 6.00m</p>
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Tipper (egress)



**Vehicle Tracking - Risks & Compliance**

**Risks**

- Kerb overrun
- Restrictive road width

P1	01/07/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	CHK'd	App'd



**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
Bannold Rd - Burgess's Drove  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-	
Drawn	M Fonseca	M/F	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

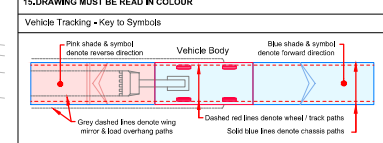
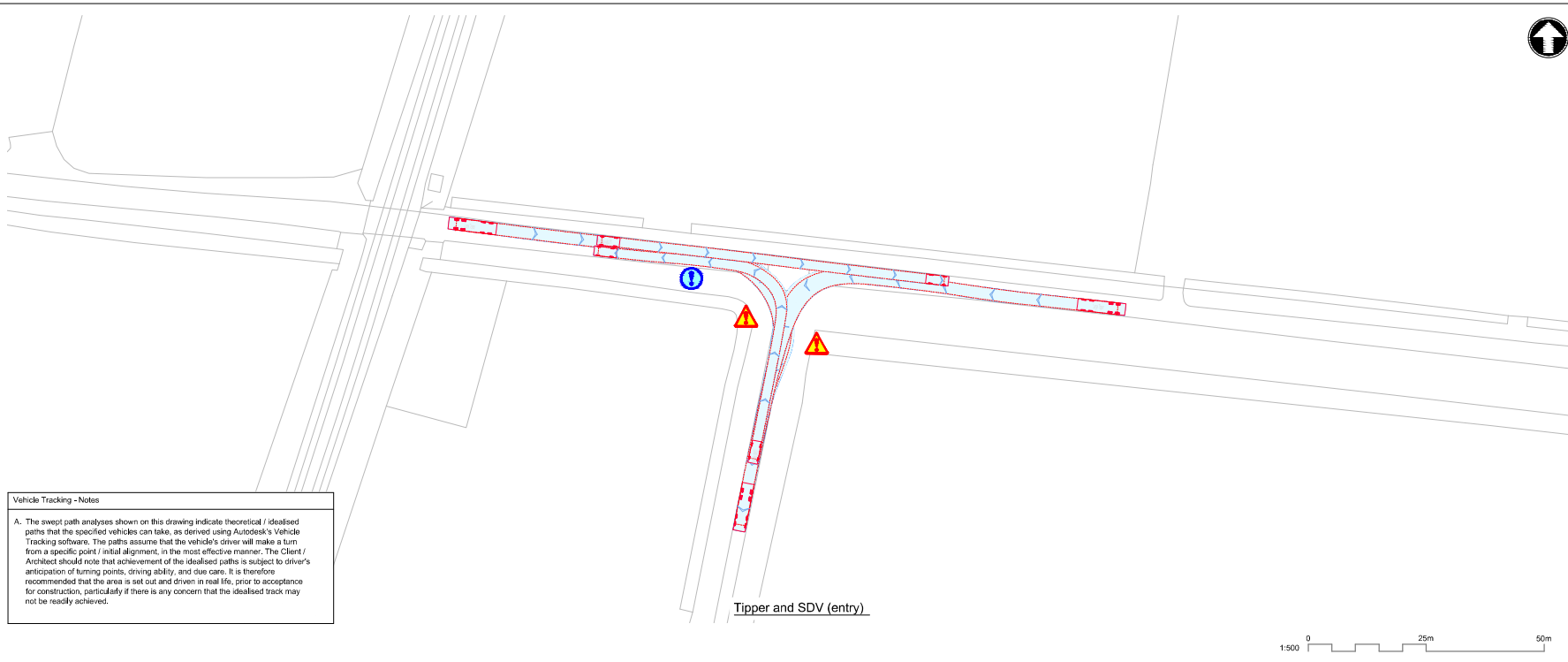
Drawing Number  
**102375-MMD-01-XX-DR-C-DRAFT**



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**Vehicle Tracking - Notes**

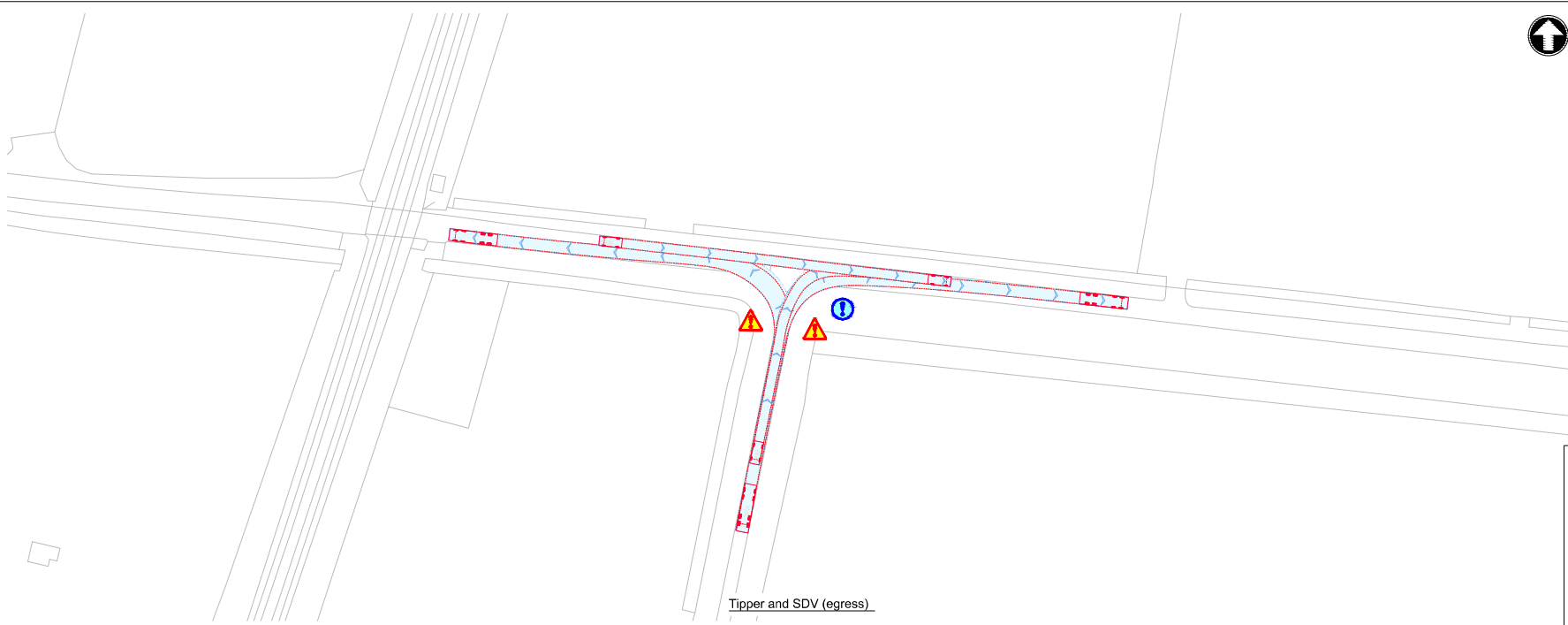
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**Vehicle Tracking - Vehicle Details**

Overall Length	7.90m	Overall Length	12.00m
Overall Width	2.60m	Overall Width	2.40m
Overall Body Height	3.40m	Overall Body Height	3.30m
Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.20m
Max Body Height	4.00m	Max Body Height	3.50m
Lock to Lock Time	6.00s	Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	6.00m	Kerb to Kerb Turning Radius	10.00m

Overall Length	10.00m	Overall Length	4.60m
Overall Width	2.65m	Overall Width	2.00m
Overall Body Height	2.60m	Overall Body Height	2.50m
Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.20m
Max Body Height	3.20m	Max Body Height	3.10m
Lock to Lock Time	5.00s	Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	11.50m	Kerb to Kerb Turning Radius	6.00m



**Vehicle Tracking - Risks & Compliance**

**Risks**

- Kerb overrun
- Restrictive road width

P1	MF	MF	Draft for Discussion / Review.	MF	MF
Rev	Date	Drawn	Description	CHK'd	App'd



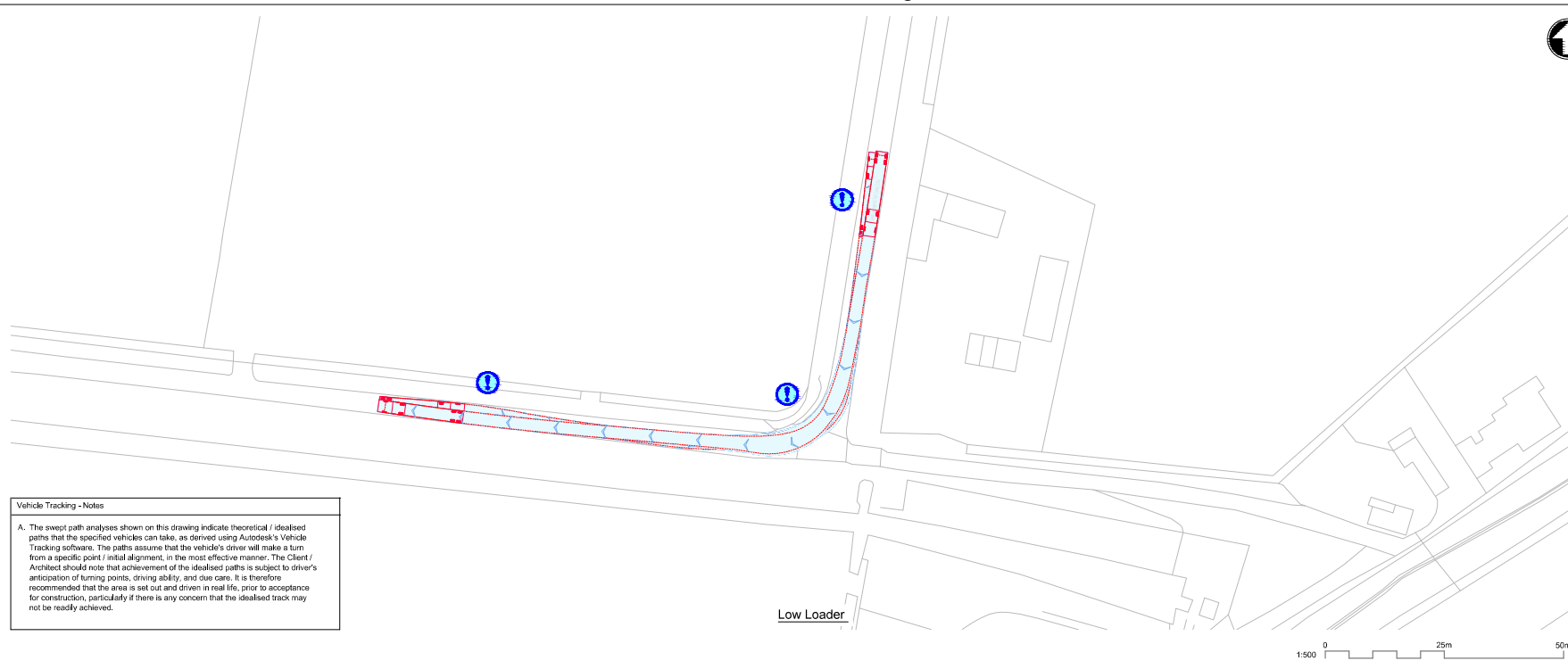
Title  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
Bannold Rd - Burgess's Drove  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
102375-MMD-01-XX-DR-C-DRAFT

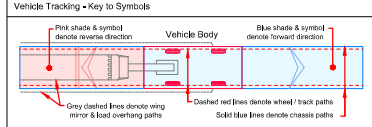




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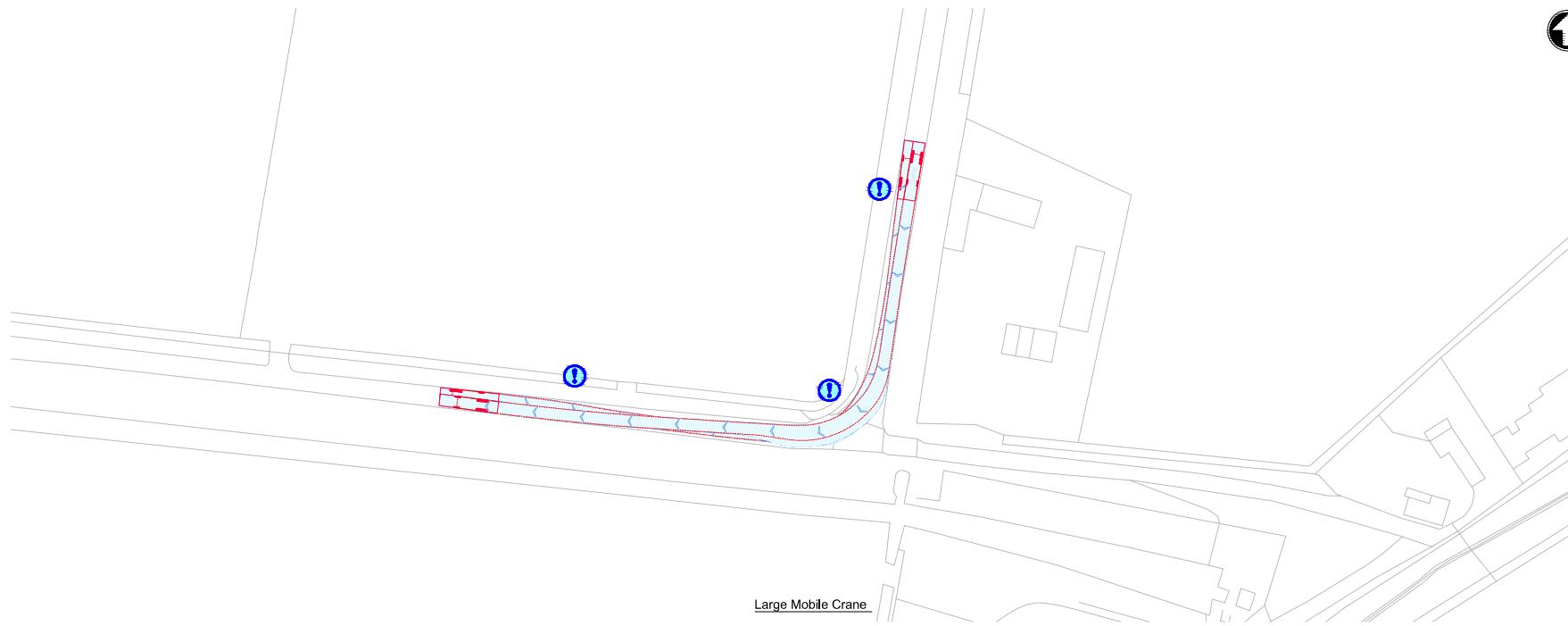
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**Vehicle Tracking - Vehicle Details**

Overall Length with Trailer (Steering 180°)	24.60m	Overall Length	12.300m
Overall Width	2.460m	Overall Width	2.430m
Overall Body Height	3.430m	Overall Body Height	3.300m
Min. Body Ground Clearance	0.300m	Min. Body Ground Clearance	0.300m
Max. Trail Over	6.00m	Trail Over	2.500m
Lock to Lock Time	6.00m	Lock to Lock Time	6.00m
Kerb to Kerb Turning Radius	6.00m	Kerb to Kerb Turning Radius	10.000m

Overall Length	10.000m	Overall Length	4.600m
Overall Width	2.850m	Overall Width	2.000m
Overall Body Height	3.500m	Overall Body Height	2.000m
Min. Body Ground Clearance	0.300m	Min. Body Ground Clearance	0.300m
Lock to Lock Time	11.500m	Lock to Lock Time	4.000m
Kerb to Kerb Turning Radius	11.500m	Kerb to Kerb Turning Radius	6.000m



**Vehicle Tracking - Risks & Compliance**

**Risks**

- Kerb overrun
- Restrictive road width

P1	10/23	MF	Draft for Discussion / Review.	MF	MF
Rev	Date	Drawn	Description	CHK'd	App'd



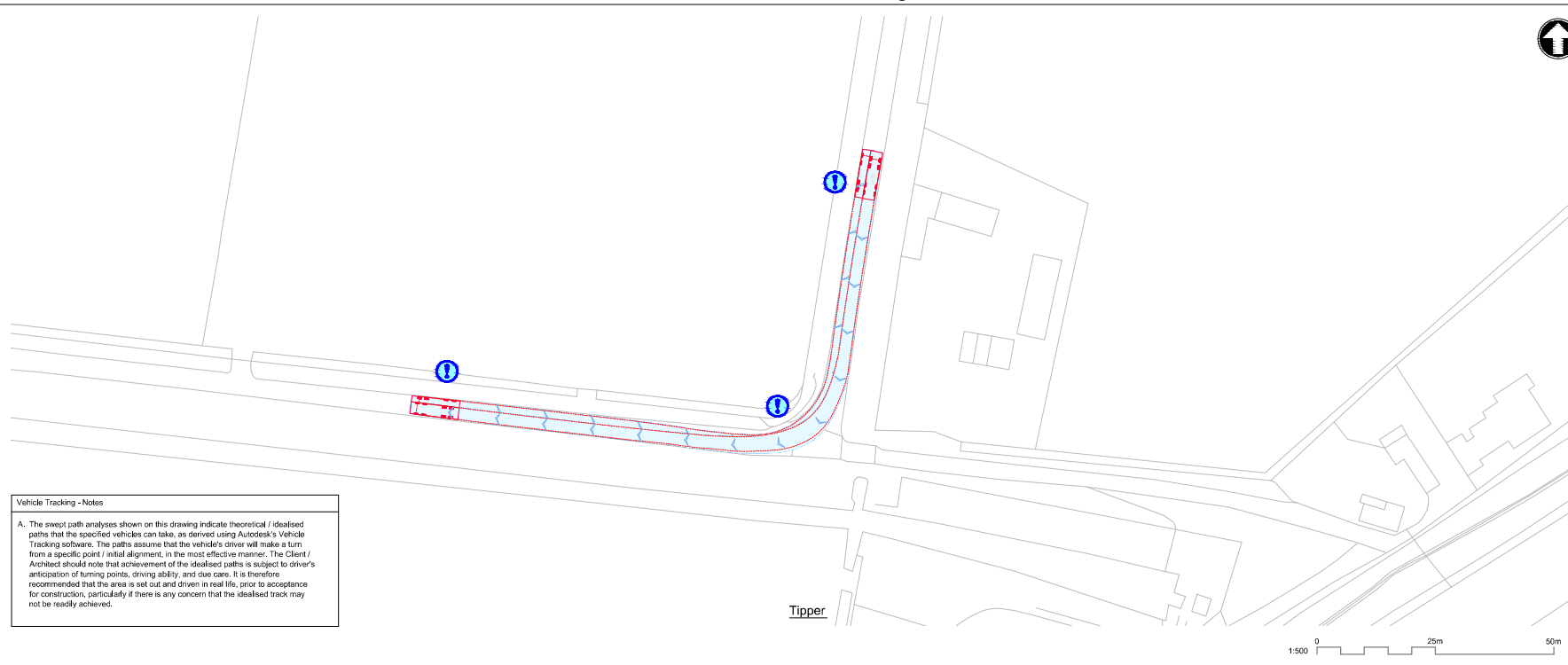
**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Bannold Rd - Long Drive  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

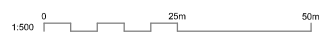
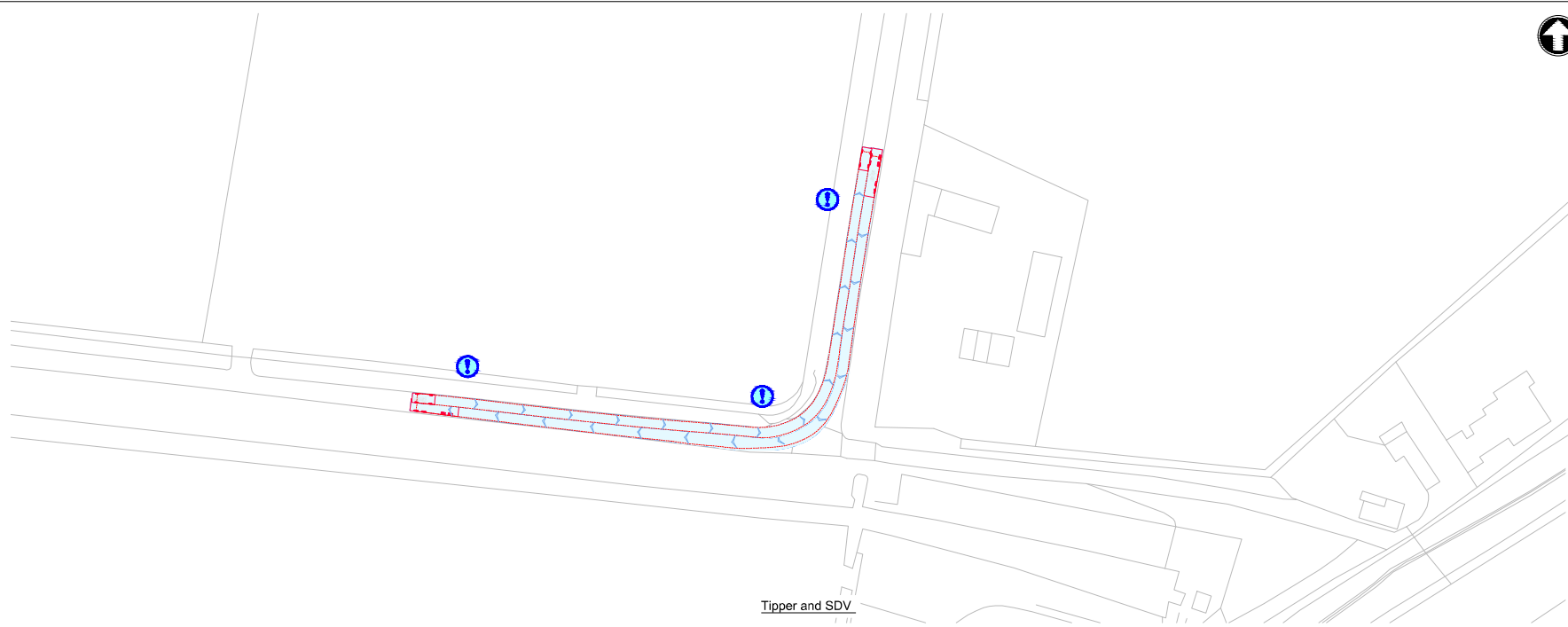
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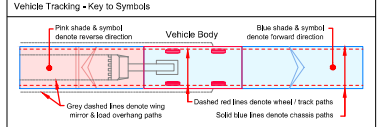
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**15. DRAWING MUST BE READ IN COLOUR**



**Vehicle Tracking - Vehicle Details**

Overall Length with Trailer Steering (180°)	24.60m	Overall Length	12.00m
Overall Width	2.40m	Overall Width	2.40m
Overall Body Height	3.40m	Overall Body Height	3.00m
Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m
Max. Track Overlap	0.20m	Max. Track Overlap	0.20m
Lock to Lock Time	6.00s	Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	6.00m	Kerb to Kerb Turning Radius	10.00m

Overall Length	10.00m	Standard Design Vehicle (SDV)	4.80m
Overall Width	2.05m	Overall Width	2.05m
Overall Body Height	2.50m	Overall Body Height	2.50m
Min Body Ground Clearance	0.20m	Min Body Ground Clearance	0.20m
Max. Track Overlap	0.15m	Max. Track Overlap	0.15m
Lock to Lock Time	4.00s	Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	4.00m	Kerb to Kerb Turning Radius	4.00m

**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	15/07/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	Checked	Approved

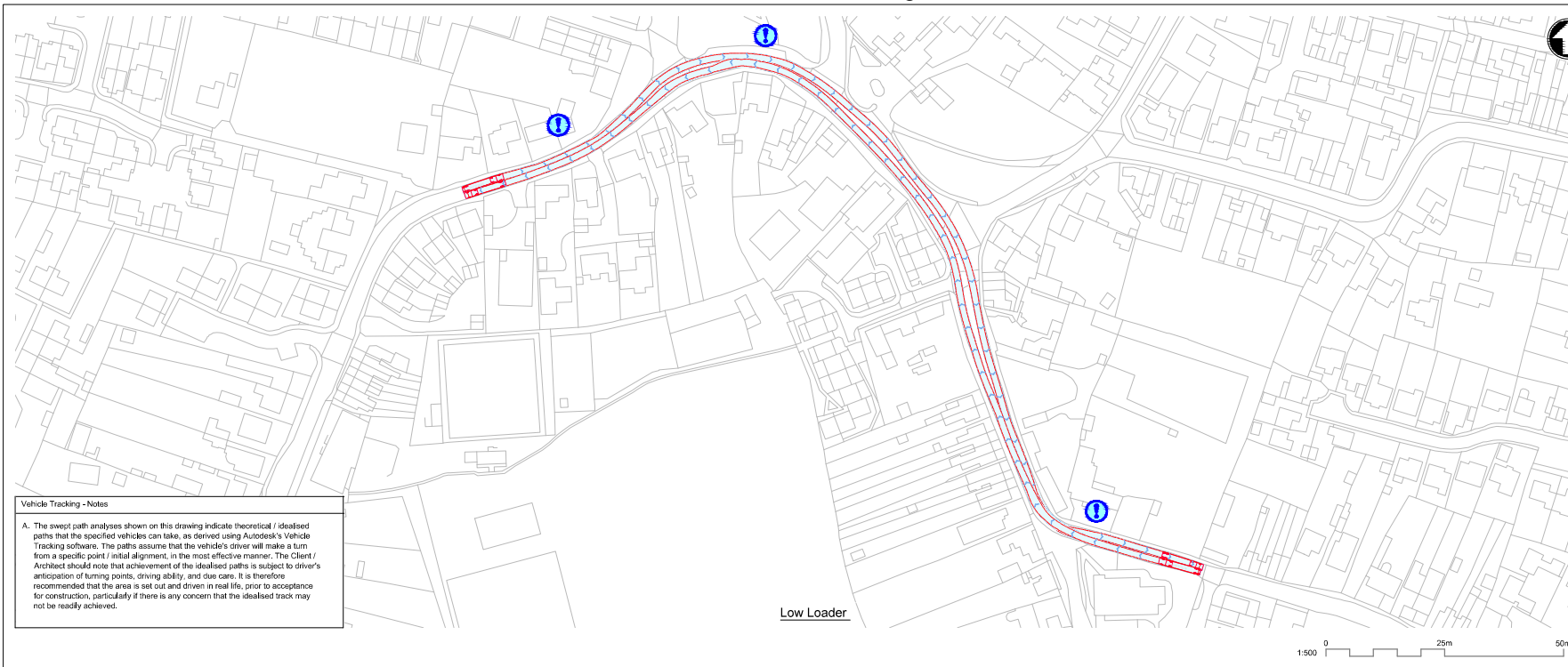


**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 Bannold Rd - Long Drive  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT



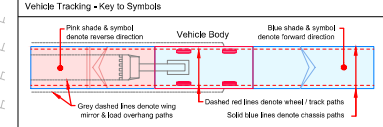
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Low Loader



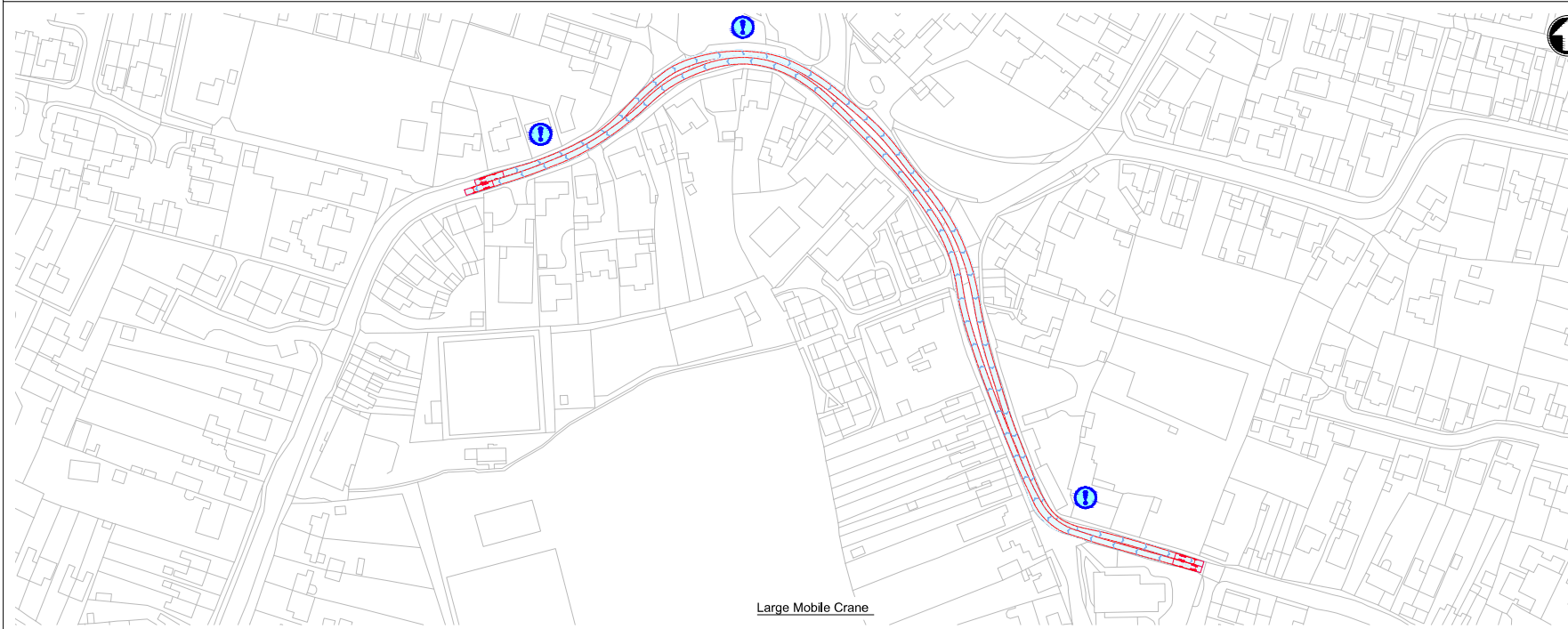
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- 15. DRAWING MUST BE READ IN COLOUR**



**Vehicle Tracking - Vehicle Details**

Vehicle Type	Overall Length	Overall Width	Overall Height	Overall Depth
Standard Low Loader with Trailer (Steering 1820m)	24.90m	2.90m	12.20m	24.00m
Large Mobile Crane	24.90m	2.90m	12.20m	24.00m
Large Tipper	16.00m	2.85m	4.60m	19.00m
Standard Dogon Vehicle (EDV)	16.00m	2.85m	4.60m	19.00m

Vehicle Type	Overall Length	Overall Width	Overall Height	Overall Depth
Standard Low Loader with Trailer (Steering 1820m)	24.90m	2.90m	12.20m	24.00m
Large Mobile Crane	24.90m	2.90m	12.20m	24.00m
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Standard Dogon Vehicle (EDV)	16.00m	2.85m	4.60m	19.00m



Large Mobile Crane



- Vehicle Tracking - Risks & Compliance**
- Risks**
- ⚠️ Kerb overrun
  - 🚫 Restrictive road width

Rev	Date	Drawn	Description	Rev	Appr
P1		M/F	Draft for Discussion / Review.	M/F	M/F

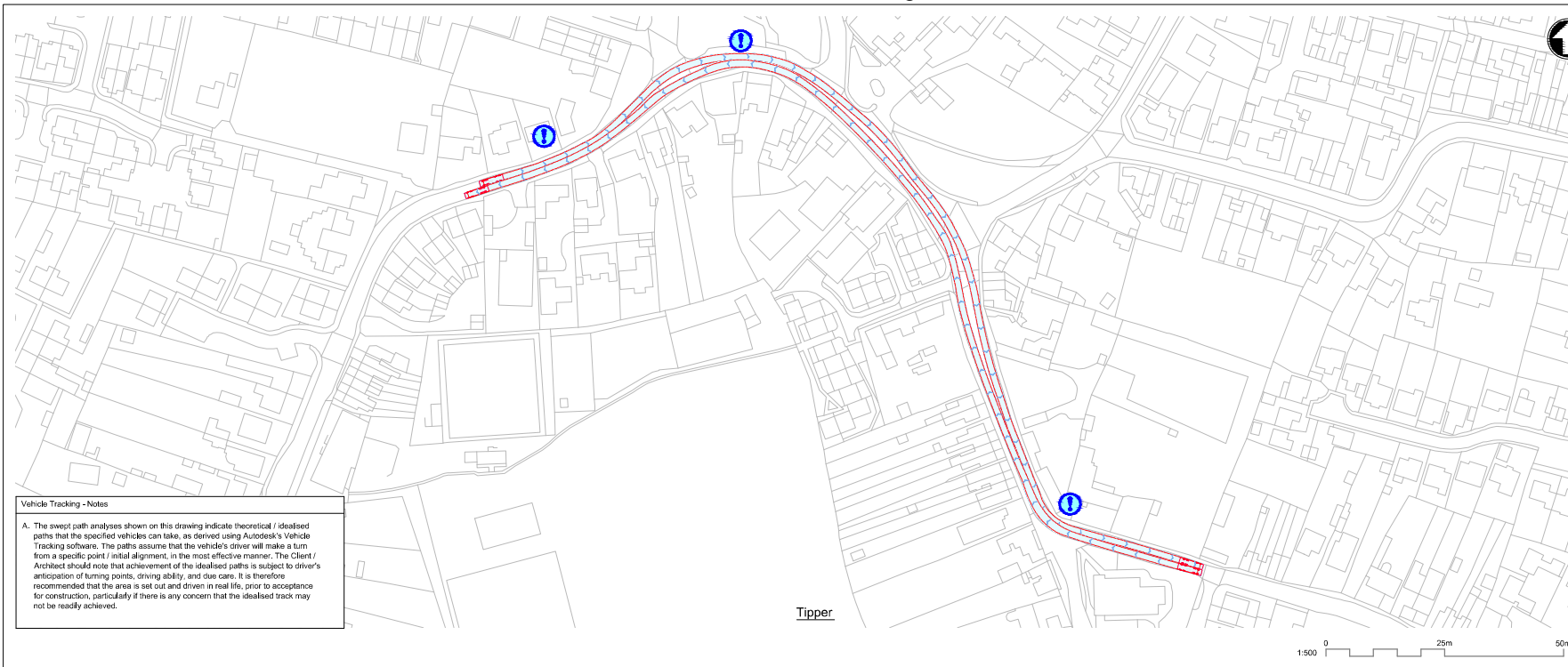


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
Cambridge Rd - Chapel St - Station Rd  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

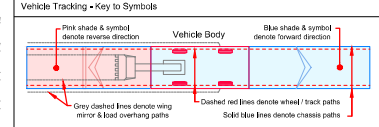
Drawing Number  
**102375-MMD-01-XX-DR-C-DRAFT**



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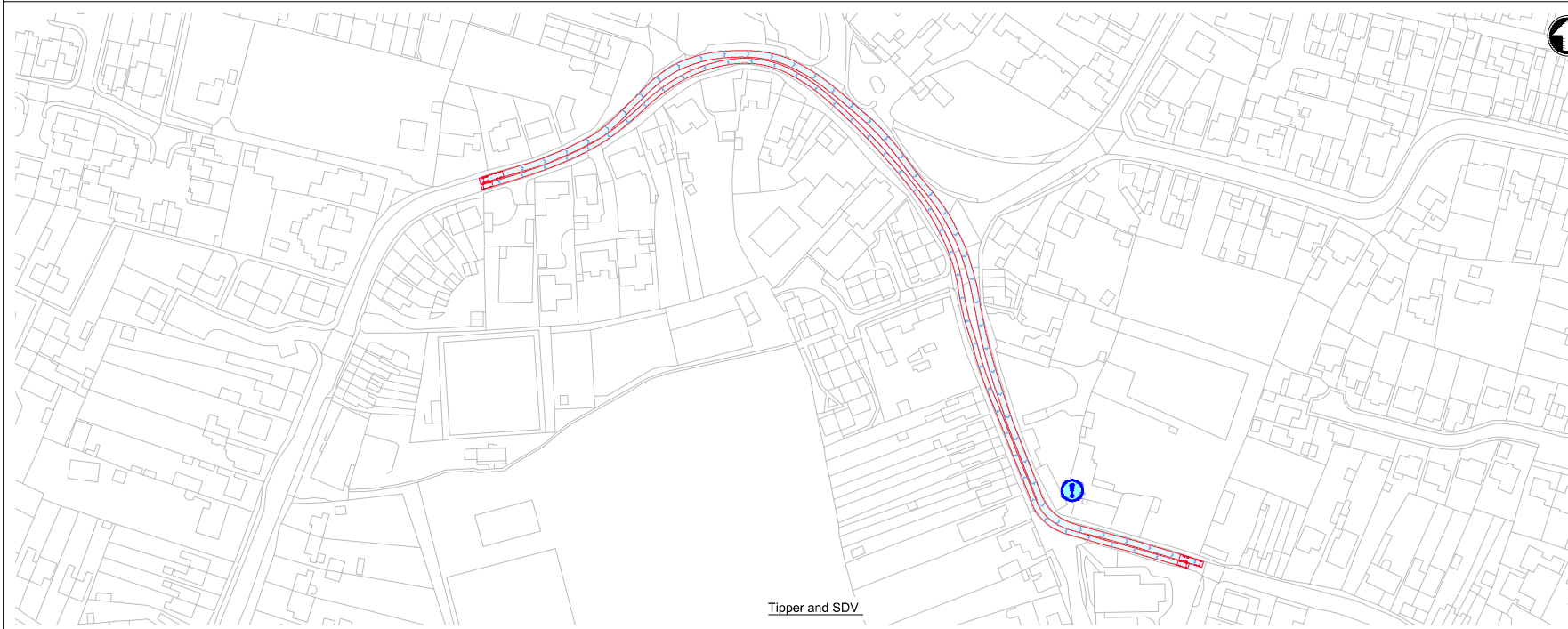
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  15. **DRAWING MUST BE READ IN COLOUR**



**Vehicle Tracking - Vehicle Details**

Dimension	Tipper	Standard Design Vehicle (SDV)
Overall Length	7.975m	12.200m
Overall Width	2.640m	2.450m
Overall Body Height	3.410m	3.350m
Max Body Ground Clearance	0.320m	0.400m
Max Wheel	6.07m	2.500m
Lock to Lock time	6.07m	6.07m
Kerb to Kerb Turning Radius	6.07m	10.000m

Dimension	Large Tipper	Standard Design Vehicle (SDV)
Overall Length	10.070m	4.600m
Overall Width	2.850m	2.500m
Overall Body Height	3.570m	3.350m
Max Body Ground Clearance	0.270m	0.350m
Max Wheel	11.550m	6.070m
Lock to Lock time	6.07m	6.07m
Kerb to Kerb Turning Radius	11.550m	10.000m



- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

Rev	Date	Drawn	Description	Rev	Appr
P1		M/F	Draft for Discussion / Review.	M/F	M/F
				CHW	Appr

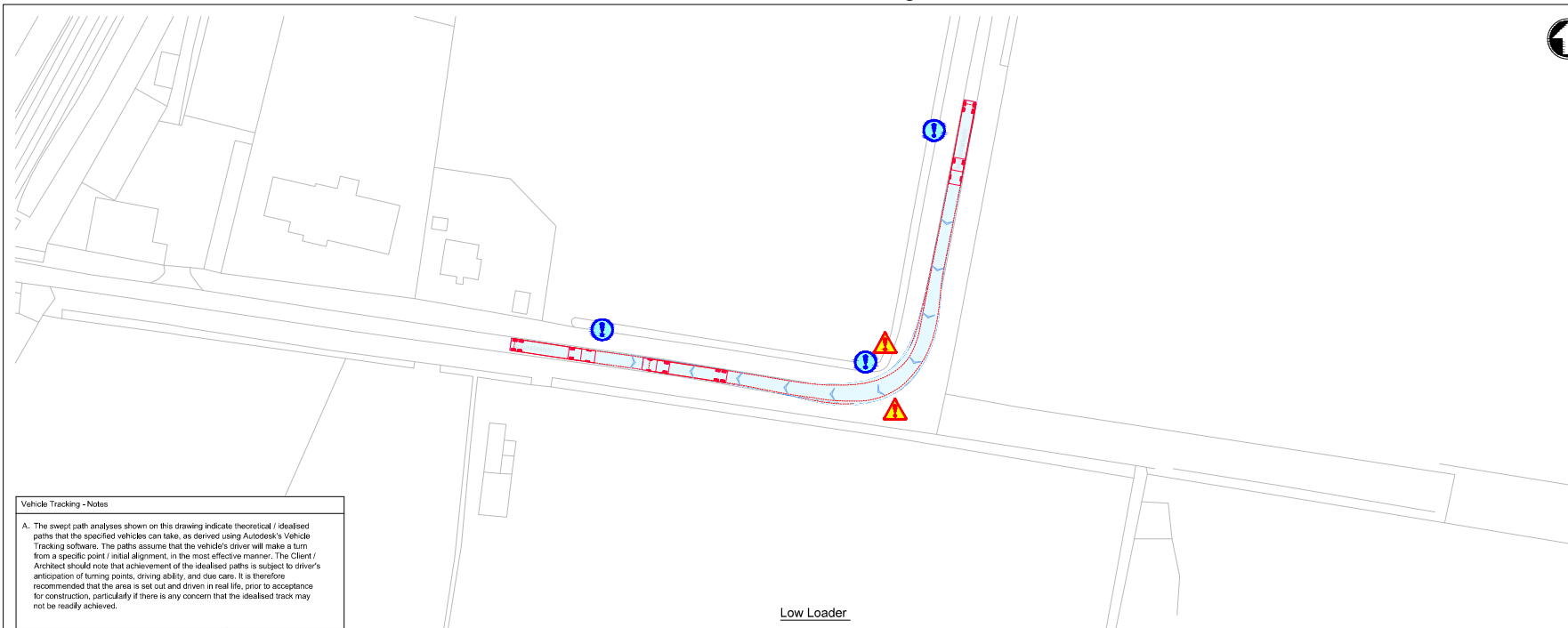


**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 Cambridge Rd - Chapel St - Station Rd  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

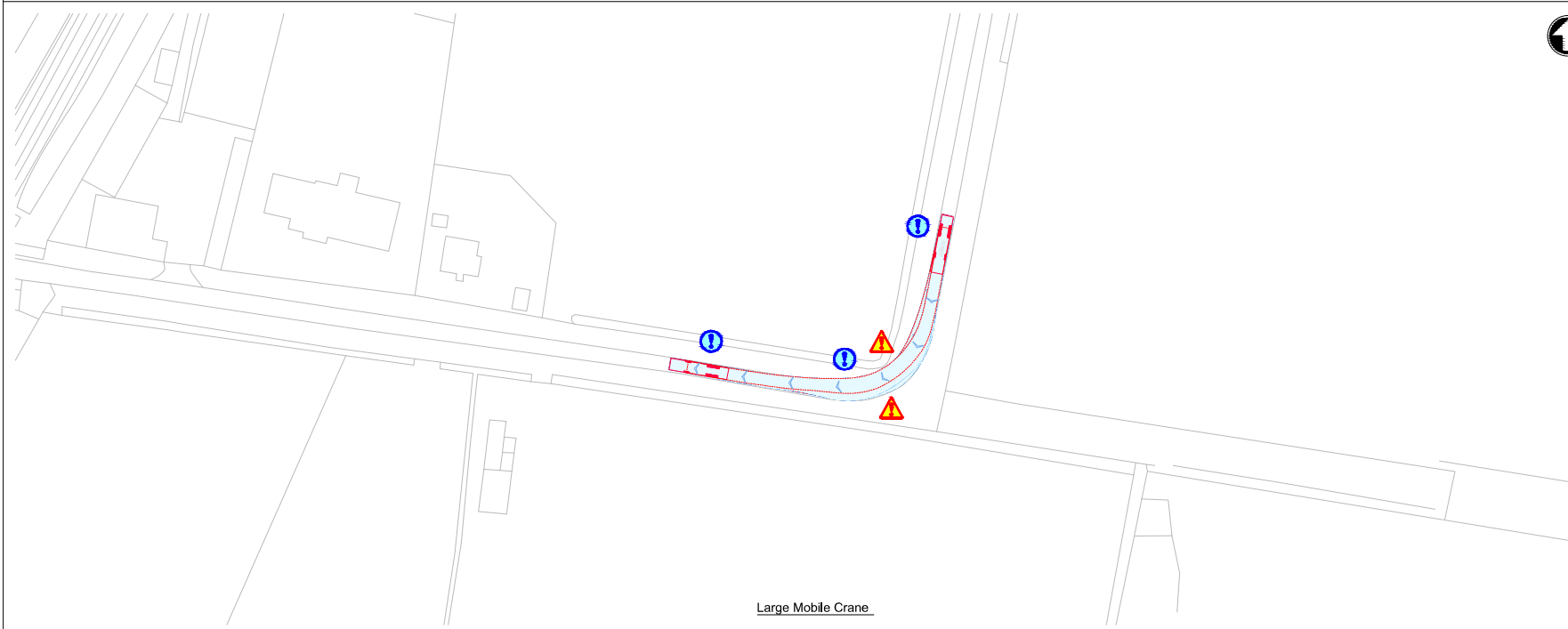
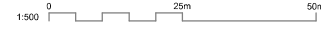
Drawing Number  
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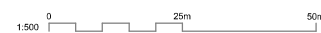
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Low Loader

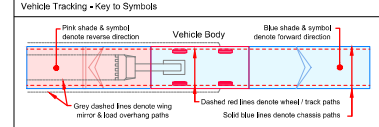


Large Mobile Crane



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**15. DRAWING MUST BE READ IN COLOUR**



**Vehicle Tracking - Vehicle Details**

Overall Length with Trailer Steering (1820m)	Overall Length	Overall Length	Overall Length
2460m	7.91m	10.07m	4.60m
Overall Width	2.66m	2.85m	Overall Width
2.40m	2.40m	2.85m	2.85m
Overall Body Height	3.30m	3.31m	Overall Body Height
3.30m	3.30m	3.31m	3.31m
Min Body Ground Clearance	0.30m	0.30m	Min Body Ground Clearance
0.30m	0.30m	0.30m	0.30m
Max. Wheel	2.5m	2.5m	Max. Wheel
2.5m	2.5m	2.5m	2.5m
Lock to Lock time	6.07m	6.07m	Lock to Lock time
6.07m	6.07m	6.07m	6.07m
Kerb to Kerb Turning Radius	6.07m	6.07m	Kerb to Kerb Turning Radius
6.07m	6.07m	6.07m	6.07m

**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	15/07/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	Checked	Approved

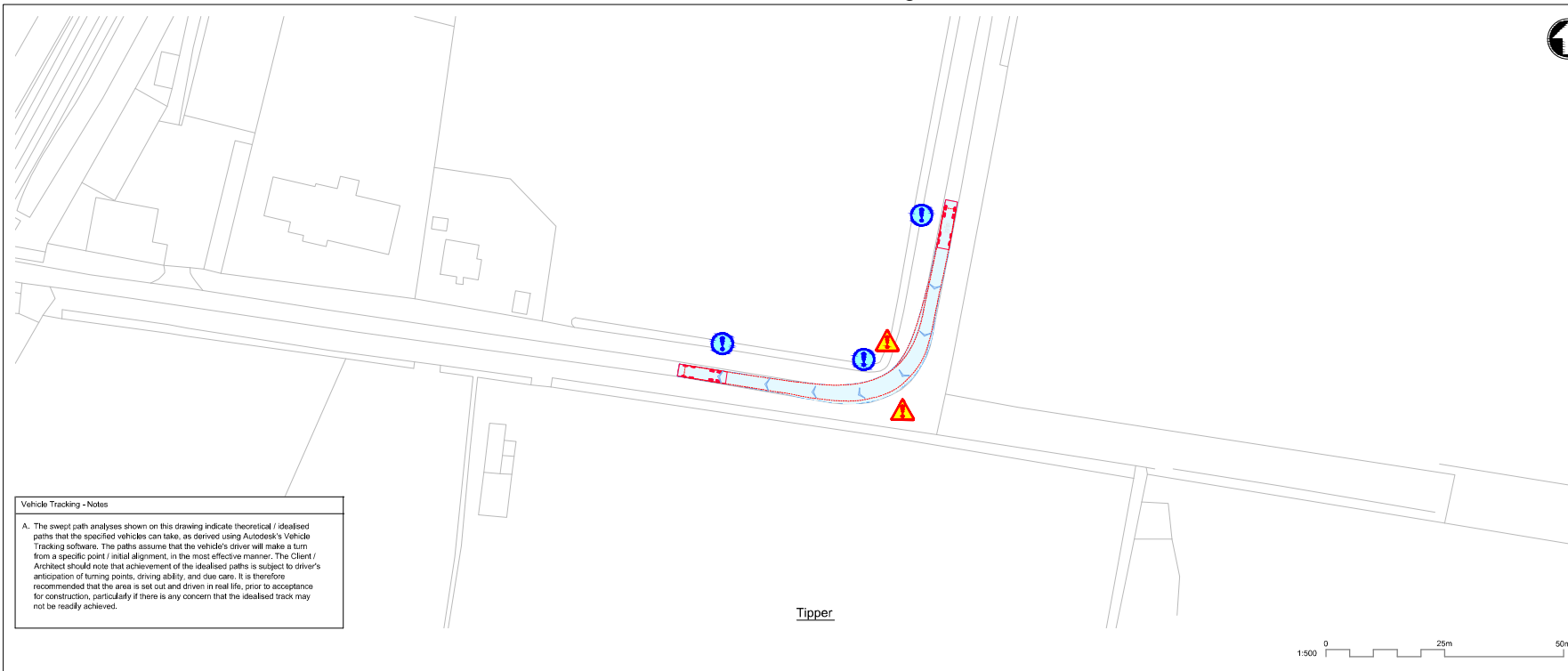


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
Burgess's Drove  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

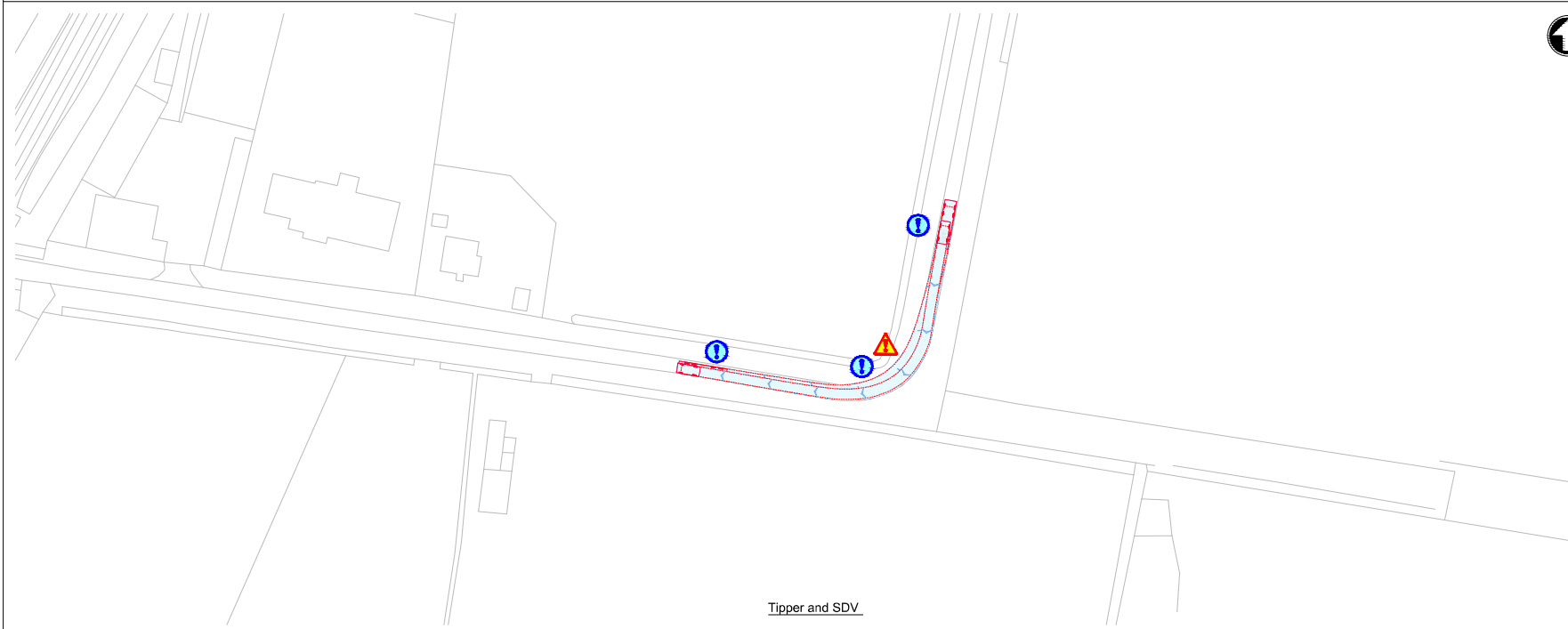
Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
**102375-MMD-01-XX-DR-C-DRAFT**

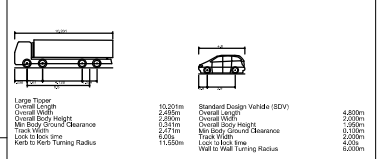
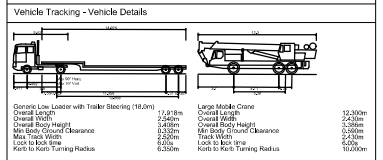
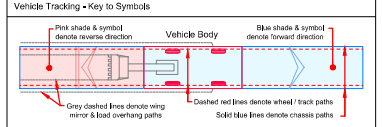


**Vehicle Tracking - Notes**

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- Vehicle Tracking - Risks & Compliance**
- Risks**
- ⚠️ Kerb overrun
  - ⓘ Restrictive road width

P1	10/23	MF	Draft for Discussion / Review.	MF	MF
Rev	Date	Drawn	Description	CHK'd	App'd

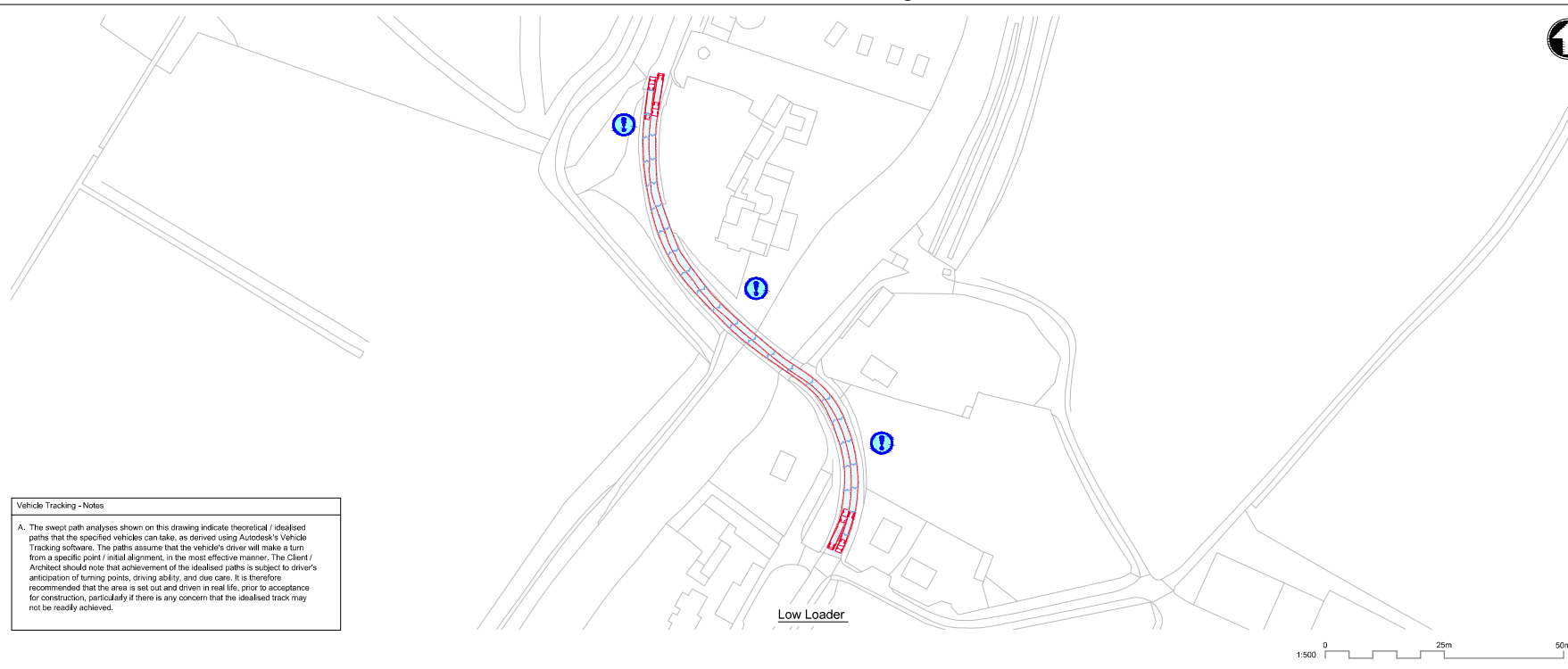


Title  
**Cambridge Waste Water Treatment Works Relocation  
 Burgess's Drove  
 Temporary Access Junctions  
 Highways GA, Visibility Splay and  
 Vehicle Tracking**

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

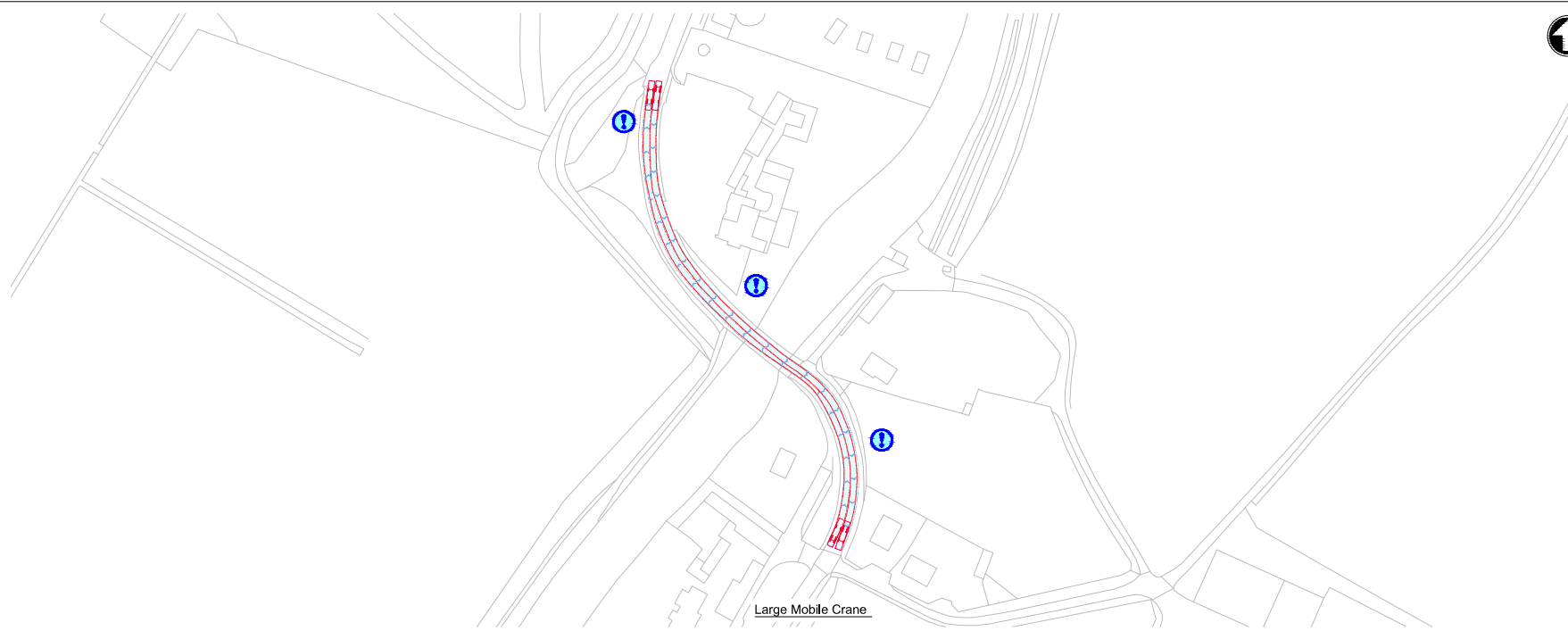
Drawing Number  
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Low Loader

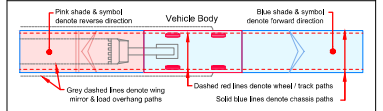


Large Mobile Crane



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**Vehicle Tracking - Vehicle Details**

<p>General Low Loader with Trailer Steering (1620m)</p> <p>Overall Length 24.60m          Overall Width 2.40m          Overall Body Height 2.40m          Max Body Overall Clearance 2.00m          Max. track time 6.00m          Kerb to Kerb Turning Radius 10.00m</p>	<p>Large Mobile Crane</p> <p>Overall Length 12.00m          Overall Width 2.40m          Overall Body Height 2.40m          Max Body Overall Clearance 2.00m          Max. track time 6.00m          Kerb to Kerb Turning Radius 10.00m</p>	
<p>Large Tipper</p> <p>Overall Length 10.00m          Overall Width 2.40m          Overall Body Height 2.40m          Max Body Overall Clearance 2.00m          Max. track time 6.00m          Kerb to Kerb Turning Radius 11.50m</p>	<p>Standard Design Vehicle (SDV)</p> <p>Overall Length 4.50m          Overall Width 1.90m          Overall Body Height 1.90m          Max Body Overall Clearance 1.50m          Max. track time 4.00m          Kerb to Kerb Turning Radius 6.00m</p>	

**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	15/07/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	CHK'd	Appr'd

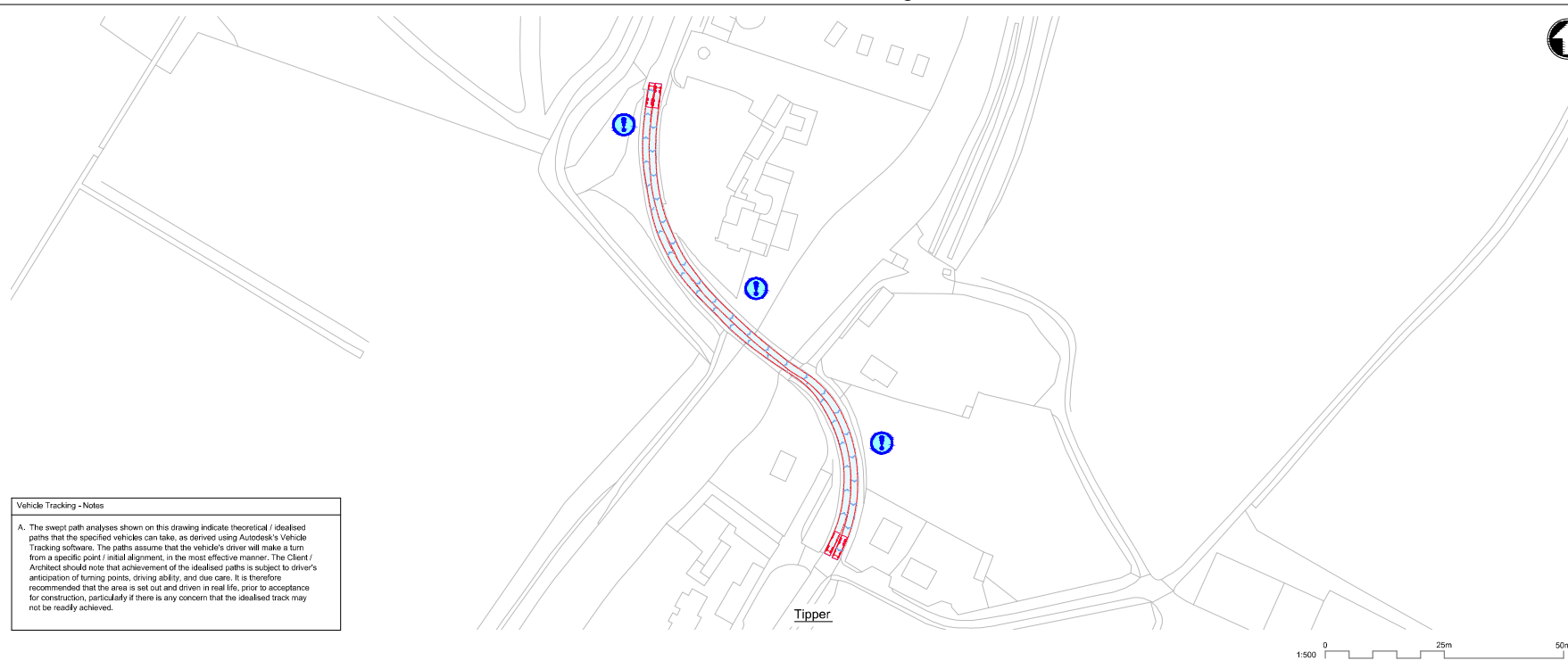


**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 Clayhithe Bridge  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

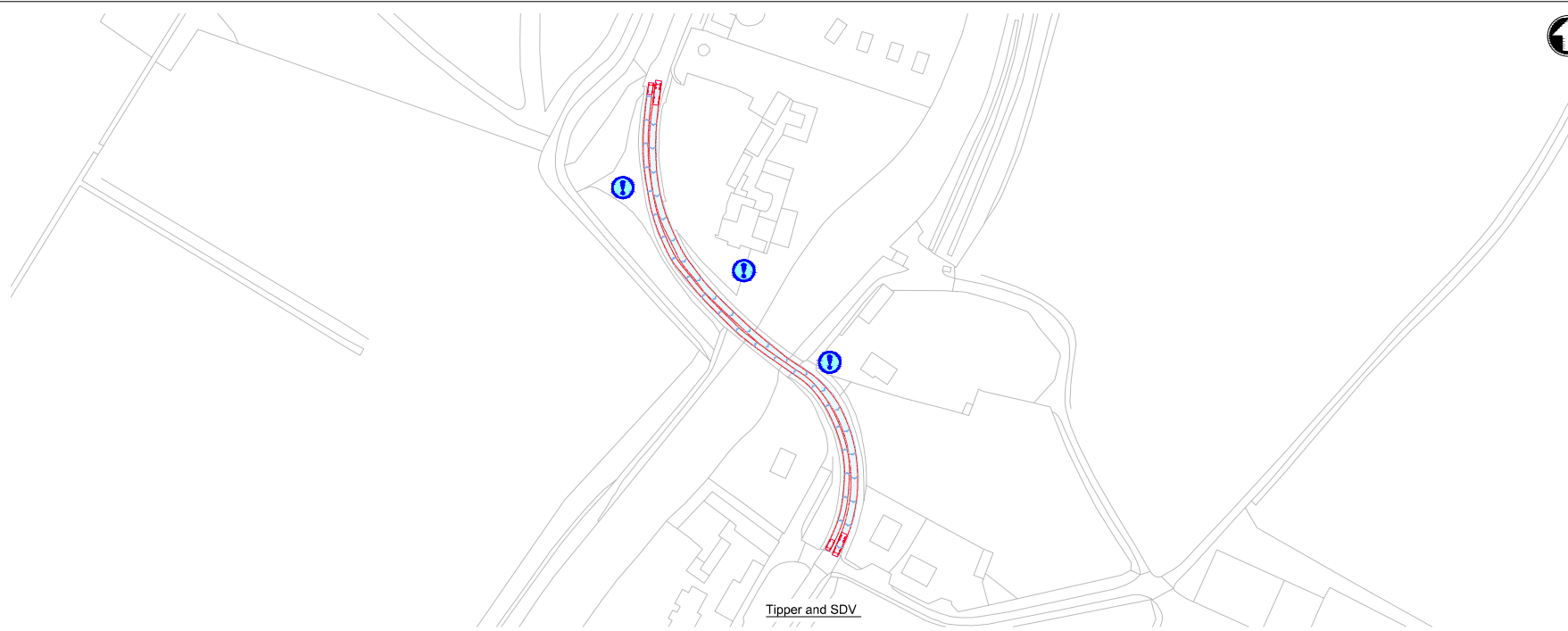
Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT



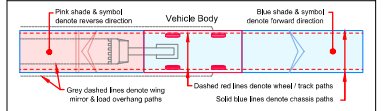
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**Vehicle Tracking - Vehicle Details**

Containerised Low Loader with Trailer Steering (1620m)	Large Mobile Crane	
Overall Length 24.60m	Overall Length 12.200m	
Overall Width 2.40m	Overall Width 2.40m	
Overall Body Height 2.40m	Overall Body Height 3.500m	
Min Body Ground Clearance 0.200m	Min Body Ground Clearance 0.200m	
Max. Track Time 6.00m	Max. Track Time 6.00m	
Kerb to Kerb Turning Radius 11.500m	Kerb to Kerb Turning Radius 11.500m	

Large Tipper	Standard Design Vehicle (SDV)	
Overall Length 10.00m	Overall Length 4.600m	
Overall Width 2.850m	Overall Width 2.000m	
Overall Body Height 2.850m	Overall Body Height 2.000m	
Min Body Ground Clearance 0.200m	Min Body Ground Clearance 0.200m	
Max. Track Time 6.00m	Max. Track Time 6.00m	
Kerb to Kerb Turning Radius 11.500m	Kerb to Kerb Turning Radius 11.500m	

**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	15/07/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	CHK'd	App'd

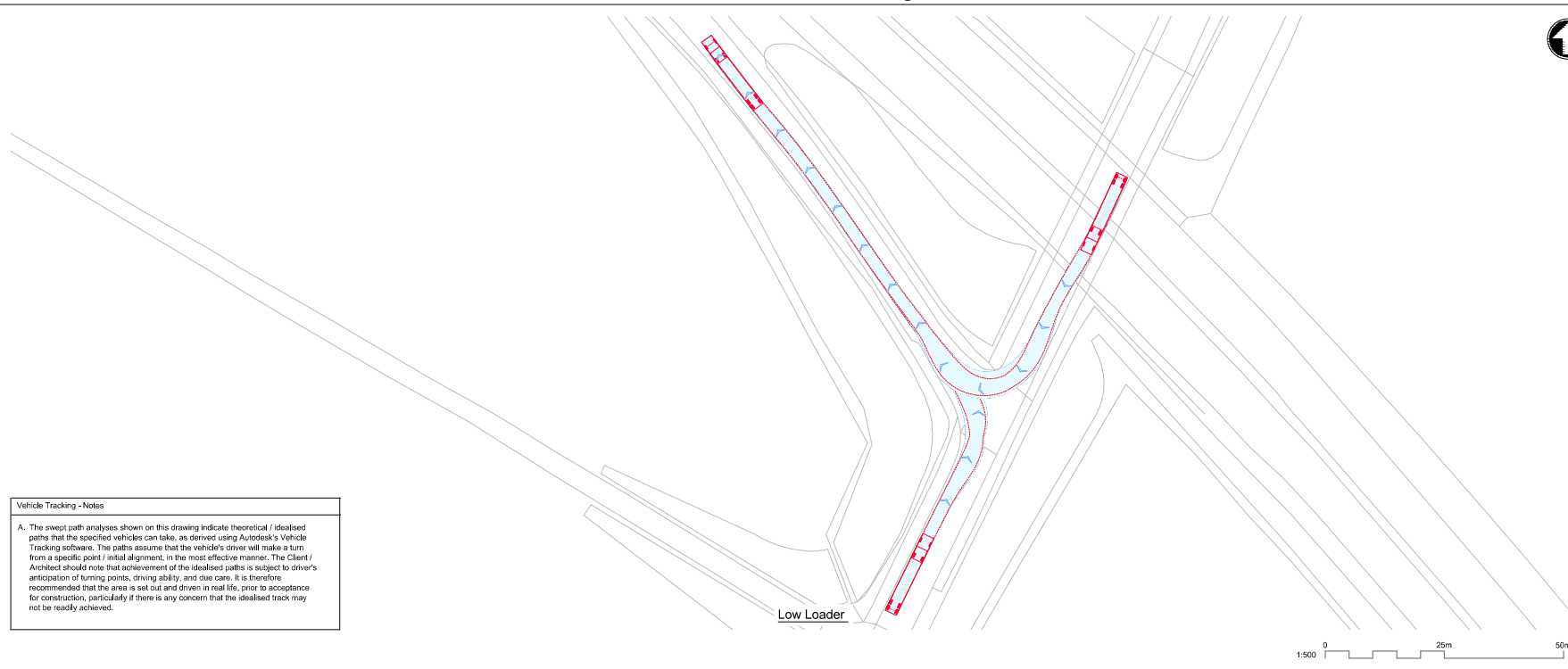


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
Clayhithe Bridge  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

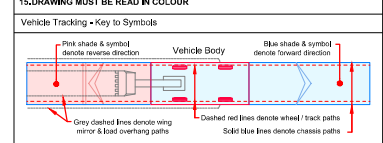
Drawing Number  
**102375-MMD-01-XX-DR-C-DRAFT**



**Vehicle Tracking - Notes**

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

- Notes**
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  4. This drawing has been prepared for the initial high level engineering study for the CWWTW project.
  5. The drawing is based on OS mapping information and LIDAR data.
  6. The information is preliminary and subject to further detailed design.
  7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
  8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
  9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
  10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
  11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
  12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
  13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
  14. This drawing should be read in conjunction with the Technical Memo - Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.



**Vehicle Tracking - Vehicle Details**

<p><b>Low Loader</b></p> <p>Overall Length 12.00m Overall Width 2.40m Overall Body Height 2.40m Min Body Ground Clearance 0.20m Max. Track Overhang 6.00m Lock to Lock Time 6.00m Kerb to Kerb Turning Radius 10.00m</p>	<p><b>Large Mobile Crane</b></p> <p>Overall Length 12.00m Overall Width 2.40m Overall Body Height 2.40m Min Body Ground Clearance 0.20m Max. Track Overhang 6.00m Lock to Lock Time 6.00m Kerb to Kerb Turning Radius 10.00m</p>
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<p><b>Large Tipper</b></p> <p>Overall Length 10.00m Overall Width 2.40m Overall Body Height 2.40m Min Body Ground Clearance 0.20m Max. Track Overhang 6.00m Lock to Lock Time 6.00m Kerb to Kerb Turning Radius 11.50m</p>	<p><b>Standard Design Vehicle (SDV)</b></p> <p>Overall Length 4.50m Overall Width 1.90m Overall Body Height 1.90m Min Body Ground Clearance 0.20m Max. Track Overhang 2.50m Lock to Lock Time 4.00m Kerb to Kerb Turning Radius 6.00m</p>
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- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/07/2022	MF	Draft for Discussion / Review.	MF	MF
Rev	Date	Drawn	Description	CHK'd	App'd



**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
B1047 - A14 Junction 34  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

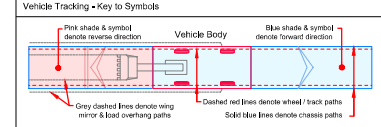
Drawing Number  
102375-MMD-01-XX-DR-C-DRAFT





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  14. This drawing should be read in conjunction with the Technical Memo, Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.

**15. DRAWING MUST BE READ IN COLOUR**



**Vehicle Tracking - Vehicle Details**

Overall Length with Trailer (Steering 1820m)	24.60m	Overall Length	12.200m
Overall Width	2.400m	Overall Width	2.400m
Overall Body Height	3.400m	Overall Body Height	3.200m
Min Body Ground Clearance	0.300m	Min Body Ground Clearance	0.300m
Max. Rear Overhang	6.00m	Max. Rear Overhang	2.500m
Lock to Lock time	6.00m	Lock to Lock time	6.00m
Kerb to Kerb Turning Radius	10.00m	Kerb to Kerb Turning Radius	10.00m

Overall Length	10.00m	Overall Length	4.600m
Overall Width	2.400m	Overall Width	2.000m
Overall Body Height	3.200m	Overall Body Height	2.800m
Min Body Ground Clearance	0.300m	Min Body Ground Clearance	0.300m
Lock to Lock time	11.500m	Lock to Lock time	4.00m
Kerb to Kerb Turning Radius		Kerb to Kerb Turning Radius	6.000m

**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	مراجعة	MF	Draft for Discussion / Review.	MF	MF
Rev	Date	Drawn	Description	CHK'd	App'd

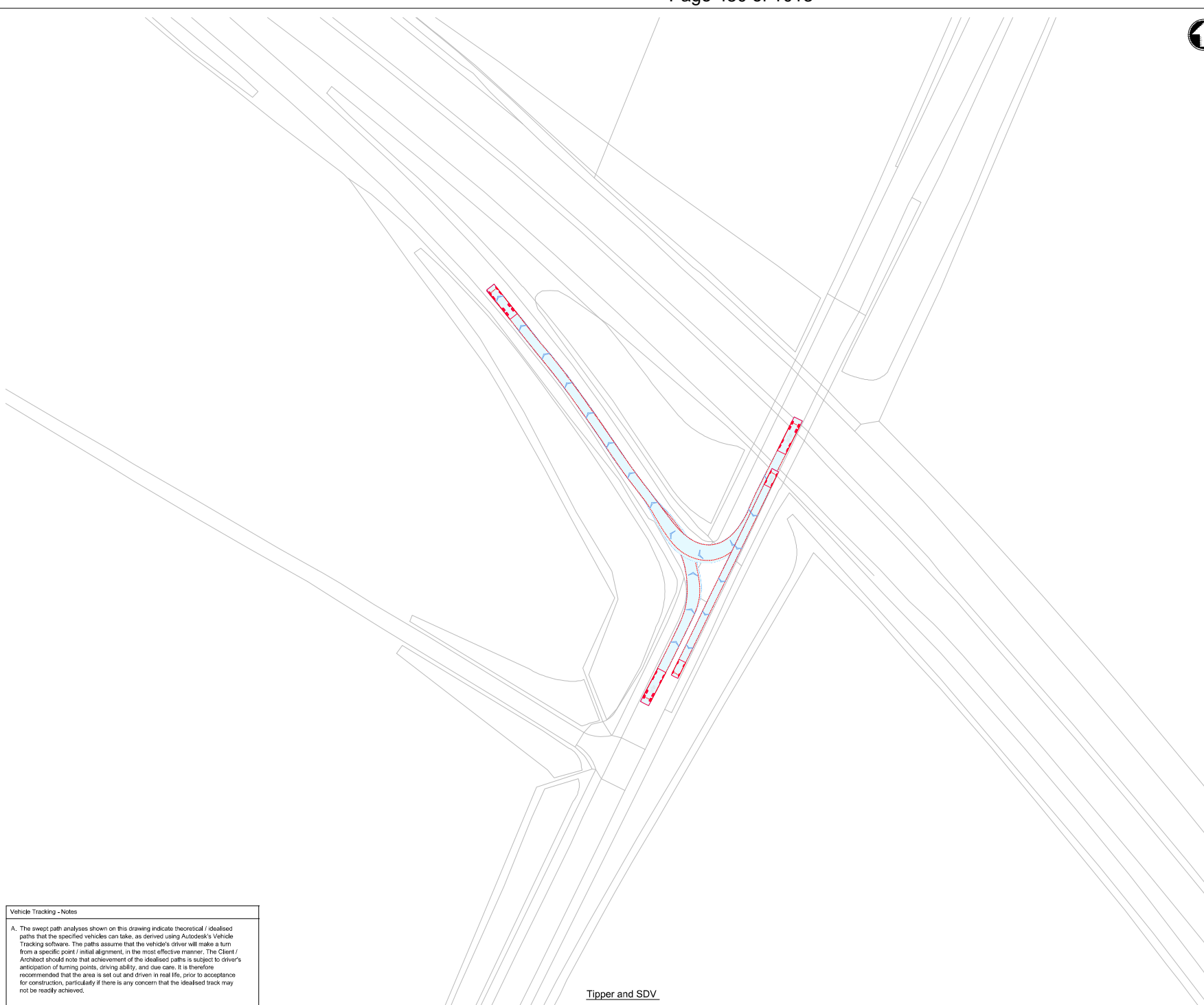


Title  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 B1047 - A14 Junction 34  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

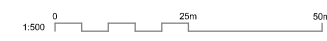
Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT

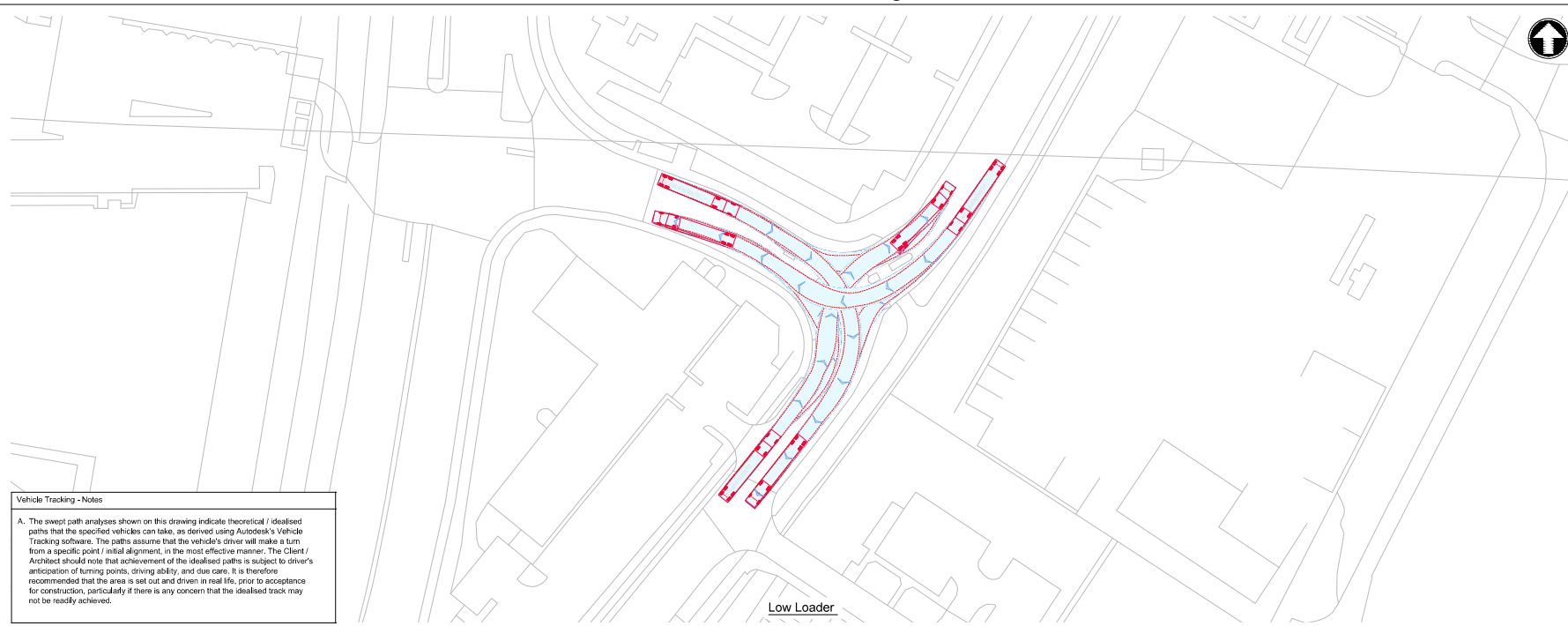


Tipper and SDV

**Vehicle Tracking - Notes**

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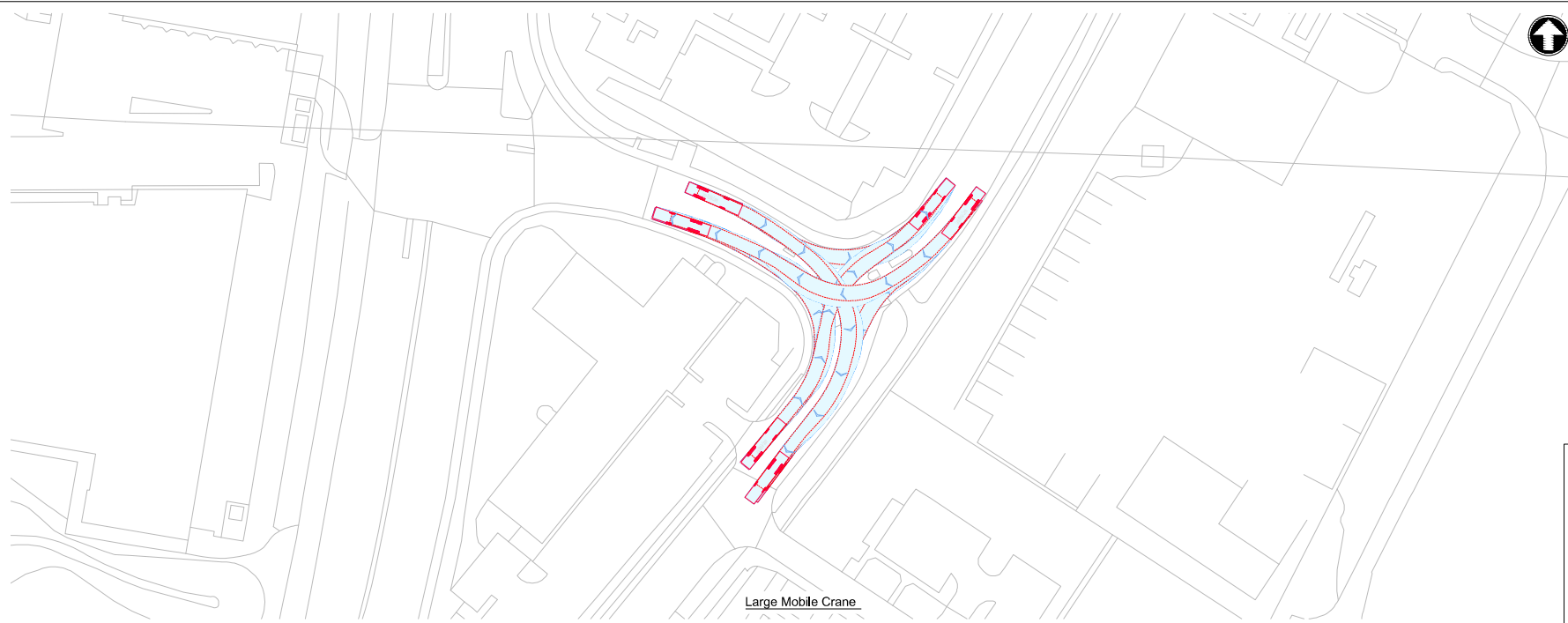




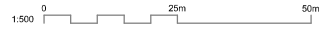
**Vehicle Tracking - Notes**

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

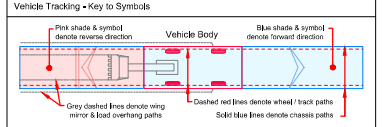
Low Loader



Large Mobile Crane



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  14. This drawing should be read in conjunction with the Technical Memo - Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.
  15. DRAWING MUST BE READ IN COLOUR



**Vehicle Tracking - Vehicle Details**

<p>Container Low Loader with Trailer Steering (1620m)</p> <p>Overall Length: 24.60m Overall Width: 2.40m Overall Body Height: 2.40m Min Body Ground Clearance: 0.20m Max. Rear Overhang: 6.00m Lock to Lock time: 6.00m Kerb to Kerb Turning Radius: 6.00m</p>	<p>Large Mobile Crane</p> <p>Overall Length: 12.00m Overall Width: 2.40m Overall Body Height: 3.00m Min Body Ground Clearance: 0.20m Lock to Lock time: 6.00m Kerb to Kerb Turning Radius: 10.00m</p>
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<p>Large Tipper</p> <p>Overall Length: 10.00m Overall Width: 2.85m Overall Body Height: 2.50m Min Body Ground Clearance: 0.20m Lock to Lock time: 11.50m Kerb to Kerb Turning Radius: 4.00m</p>	<p>Standard Design Vehicle (SDV)</p> <p>Overall Length: 4.60m Overall Width: 1.90m Overall Body Height: 1.90m Min Body Ground Clearance: 0.20m Lock to Lock time: 4.00m Kerb to Kerb Turning Radius: 4.00m</p>
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- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/2022	MF	Draft for Discussion / Review.	MF	MF
Rev	Date	Drawn	Description	CHK'd	App'd

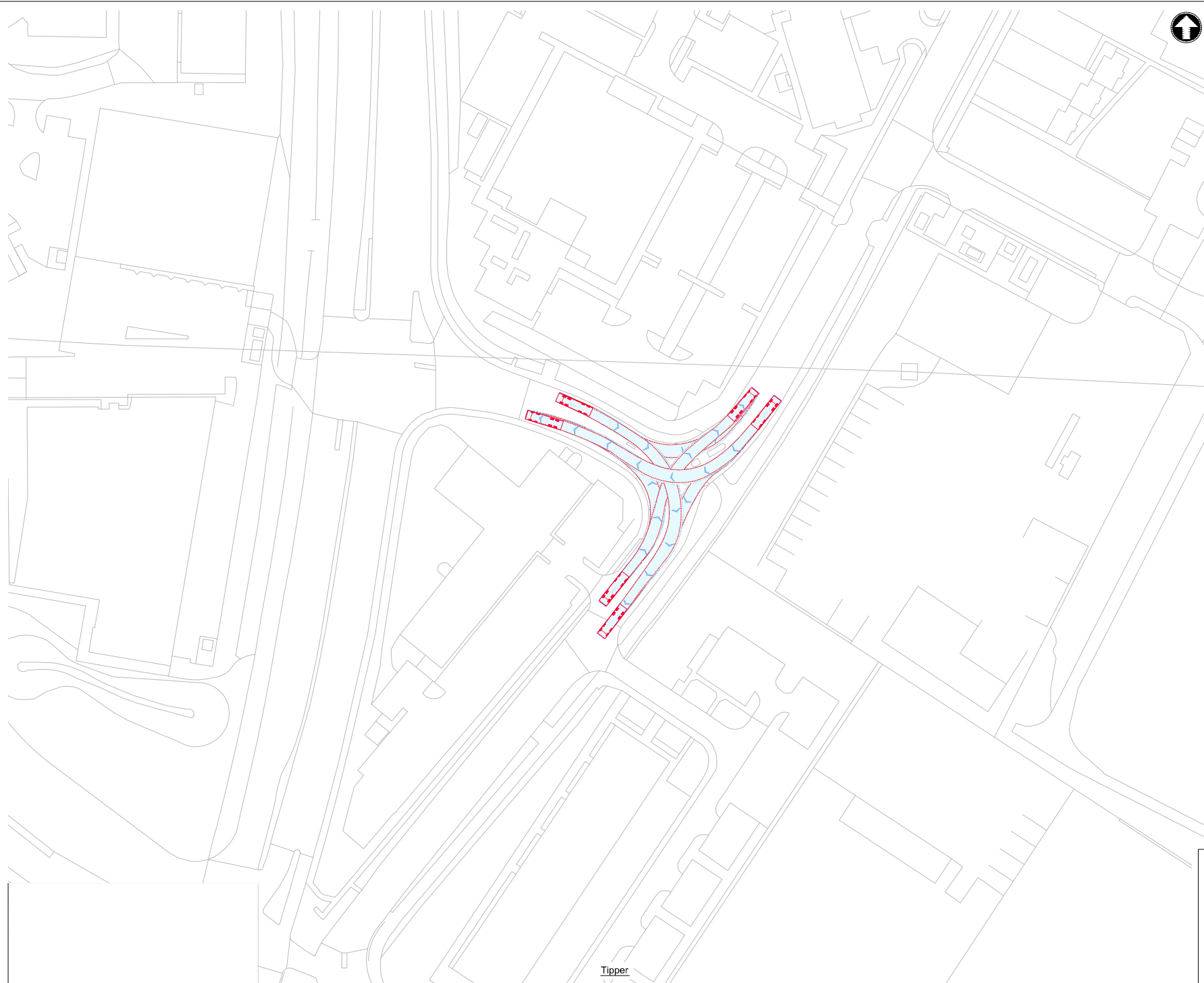


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
Cowley Rd Junction  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
102375-MMD-01-XX-DR-C-DRAFT

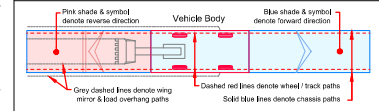


Tipper



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**15. DRAWING MUST BE READ IN COLOUR**



**Vehicle Tracking - Vehicle Details**

Overall Length with Trailer (Steering 1820m)	2460m	Large Mobile Crane	Overall Length	12.200m
Overall Width	2.400m	Overall Width	Overall Width	2.240m
Overall Body Height	3.400m	Overall Body Height	Overall Body Height	3.300m
Min Body Ground Clearance	0.300m	Min Body Ground Clearance	Min Body Ground Clearance	0.200m
Max Track Width	2.500m	Max Track Width	Max Track Width	2.500m
Lock to Lock Time	6.00m	Lock to Lock Time	Lock to Lock Time	6.00m
Kerb to Kerb Turning Radius	11.500m	Kerb to Kerb Turning Radius	Kerb to Kerb Turning Radius	11.000m

Large Tipper	Overall Length	10.000m	Standard Design Vehicle (SDV)	Overall Length	4.600m
Overall Width	Overall Width	2.400m	Overall Width	Overall Width	2.000m
Overall Body Height	Overall Body Height	3.500m	Overall Body Height	Overall Body Height	2.000m
Min Body Ground Clearance	Min Body Ground Clearance	0.300m	Min Body Ground Clearance	Min Body Ground Clearance	0.200m
Max Track Width	Max Track Width	2.500m	Max Track Width	Max Track Width	2.500m
Lock to Lock Time	Lock to Lock Time	6.00m	Lock to Lock Time	Lock to Lock Time	6.00m
Kerb to Kerb Turning Radius	Kerb to Kerb Turning Radius	11.500m	Kerb to Kerb Turning Radius	Kerb to Kerb Turning Radius	6.000m

**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/07/22	MF	Draft for Discussion / Review.	MF	MF
Rev	Date	Drawn	Description	Checked	Approved

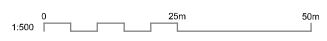


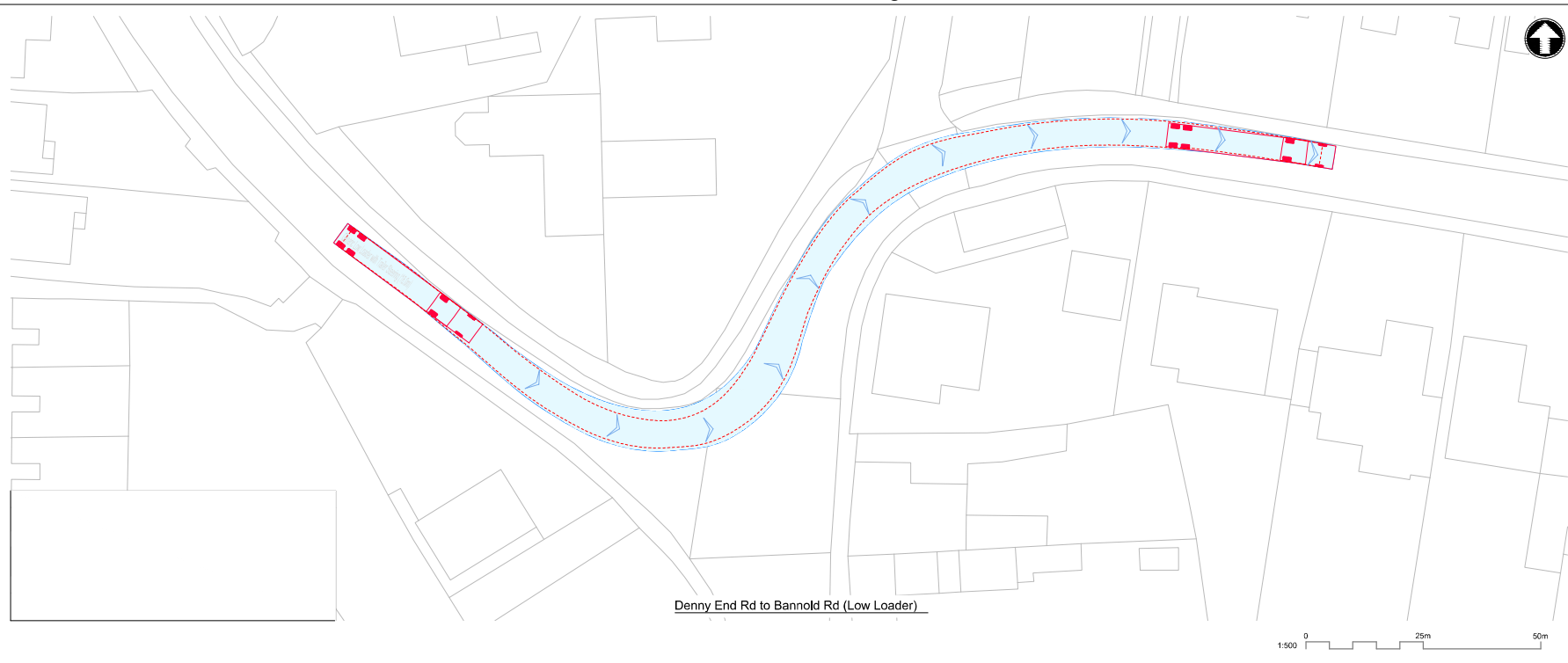
Title  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
Cowley Rd Junction  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-	-	Approved	-

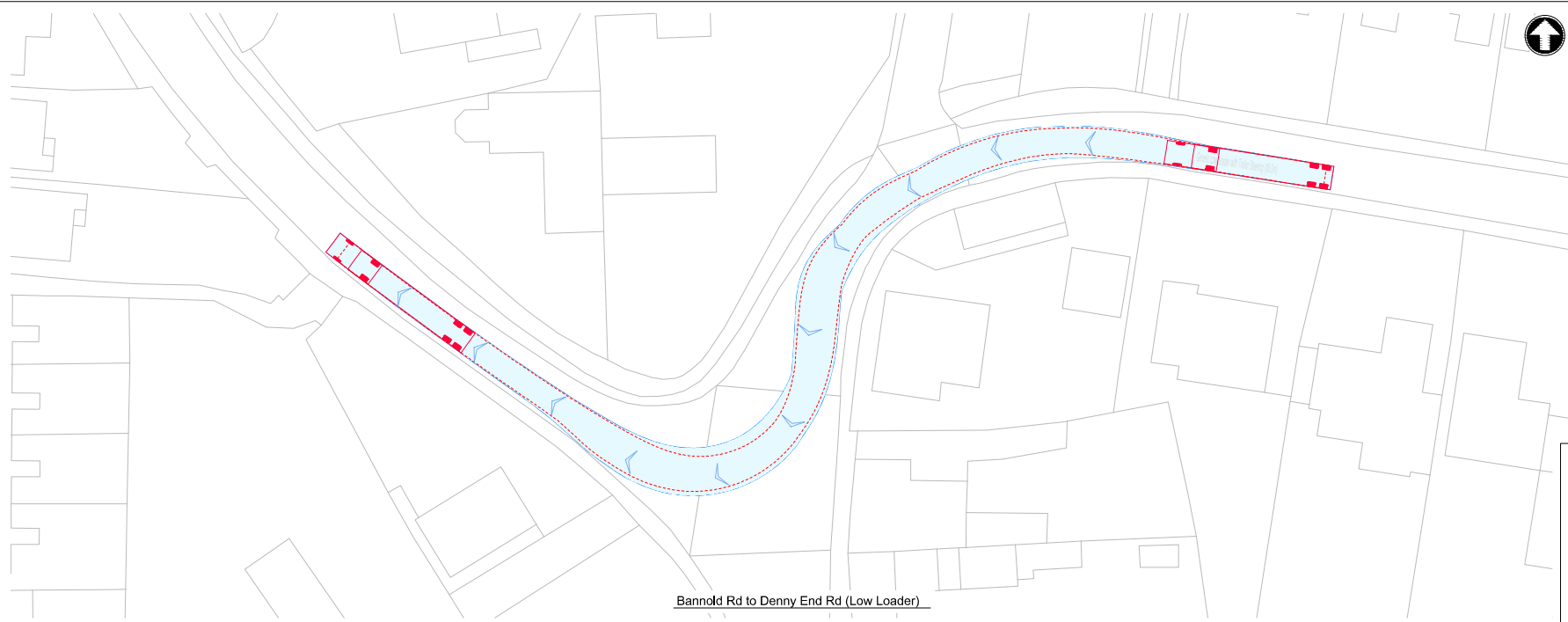
Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
102375-MMD-01-XX-DR-C-DRAFT





Denny End Rd to Bannold Rd (Low Loader)

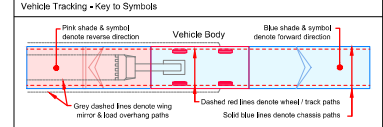


Bannold Rd to Denny End Rd (Low Loader)



- Notes**
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**15. DRAWING MUST BE READ IN COLOUR**



**Vehicle Tracking - Vehicle Details**

<p><b>Standard Low Loader with Trailer (1620m)</b></p> <ul style="list-style-type: none"> <li>Overall Width: 2.60m</li> <li>Overall Length: 7.90m</li> <li>Overall Body Height: 3.40m</li> <li>Min Body Ground Clearance: 0.30m</li> <li>Max Body Height: 6.00m</li> <li>Lock to Lock time: 6.00m</li> <li>Kerb to Kerb Turning Radius: 10.00m</li> </ul>	<p><b>Large Mobile Crane</b></p> <ul style="list-style-type: none"> <li>Overall Length: 12.00m</li> <li>Overall Width: 2.40m</li> <li>Overall Body Height: 3.50m</li> <li>Min Body Ground Clearance: 0.30m</li> <li>Max Body Height: 6.00m</li> <li>Lock to Lock time: 6.00m</li> <li>Kerb to Kerb Turning Radius: 10.00m</li> </ul>
<p><b>Large Tipper</b></p> <ul style="list-style-type: none"> <li>Overall Width: 2.65m</li> <li>Overall Length: 6.50m</li> <li>Overall Body Height: 3.50m</li> <li>Min Body Ground Clearance: 0.30m</li> <li>Max Body Height: 6.00m</li> <li>Lock to Lock time: 6.00m</li> <li>Kerb to Kerb Turning Radius: 11.50m</li> </ul>	<p><b>Standard Design Vehicle (SDV)</b></p> <ul style="list-style-type: none"> <li>Overall Width: 2.50m</li> <li>Overall Length: 5.50m</li> <li>Overall Body Height: 3.50m</li> <li>Min Body Ground Clearance: 0.30m</li> <li>Max Body Height: 6.00m</li> <li>Lock to Lock time: 6.00m</li> <li>Kerb to Kerb Turning Radius: 10.00m</li> </ul>

**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/09/2022	MF	Draft for Discussion / Review.	MF	MF
Rev	Date	Drawn	Description	Checked	Approved

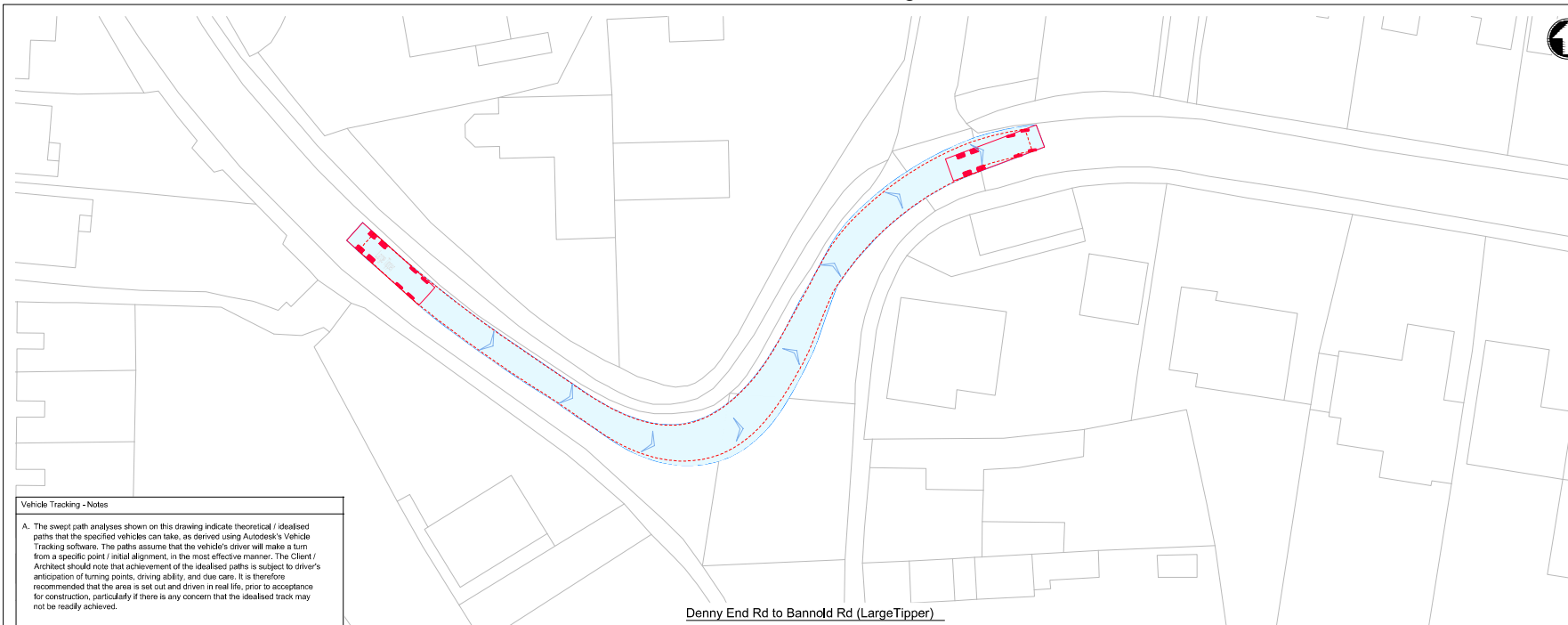


**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 Denny End Rd - Bannold Rd  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:250	PRE	P1	STD

Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT



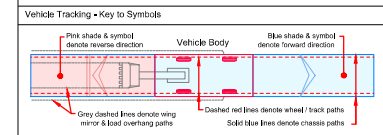
**Vehicle Tracking - Notes**

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Denny End Rd to Bannold Rd (Large Tipper)



- Notes**
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**Vehicle Tracking - Vehicle Details**

Overall Load Limit with Trailer (1620m) Overall Length Overall Width Overall Body Height Max Body Ground Clearance Max. Wheel Overlap Lock to Lock time Kerb to Kerb Turning Radius	Overall Length Overall Width Overall Body Height Max Body Ground Clearance Max. Wheel Overlap Lock to Lock time Kerb to Kerb Turning Radius
2460m 7.97m 2.66m 2.49m 2.02m 6.07m 6.03m	12.00m 2.43m 2.35m 2.02m 2.5m 6.07m 6.03m

Large Tipper Overall Length Overall Width Overall Body Height Max Body Ground Clearance Max. Wheel Overlap Lock to Lock time Kerb to Kerb Turning Radius	Standard Design Vehicle (SDV) Overall Length Overall Width Overall Body Height Max Body Ground Clearance Max. Wheel Overlap Lock to Lock time Kerb to Kerb Turning Radius
16.07m 2.65m 2.51m 2.02m 2.5m 6.07m 6.03m	4.60m 2.00m 1.95m 1.50m 1.50m 4.05m 4.05m

**Vehicle Tracking - Risks & Compliance**

**Risks**

- Kerb overrun
- Restrictive road width

P1	01/09/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	CHK'd	App'd

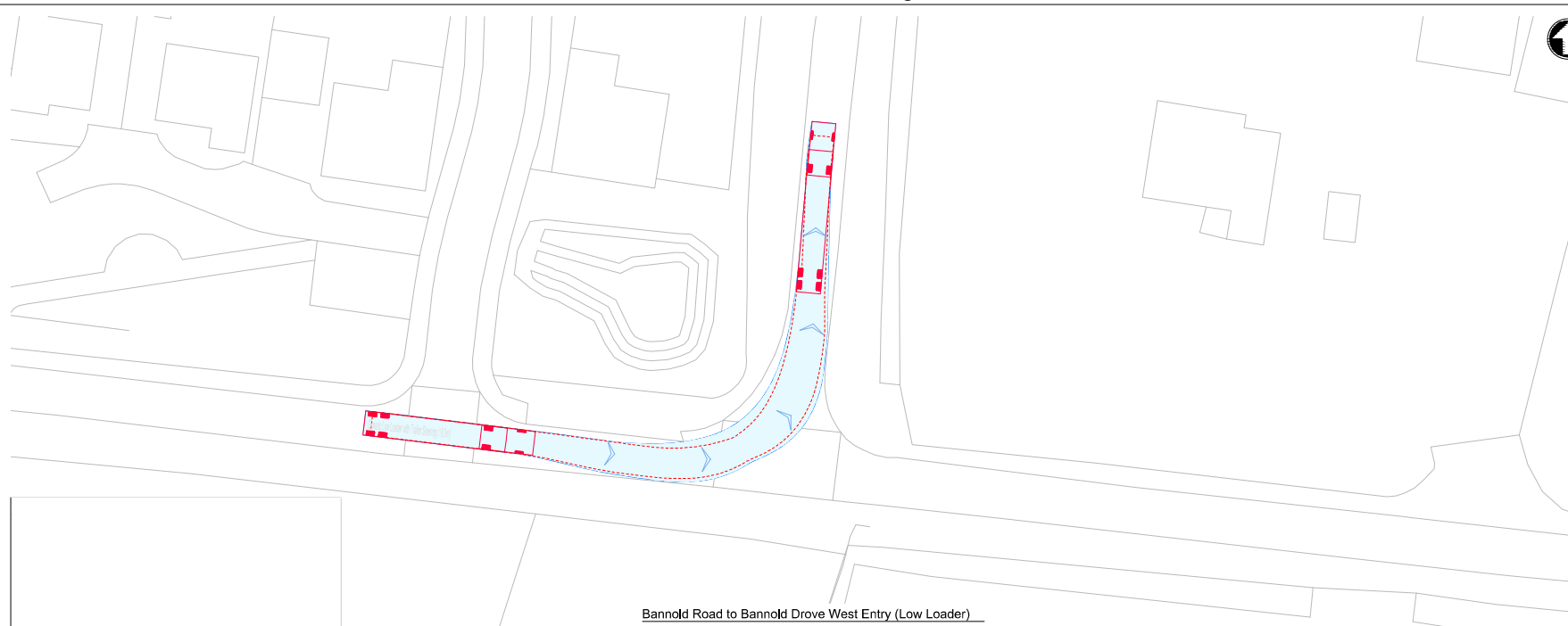


**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 Denny End Rd - Bannold Rd  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

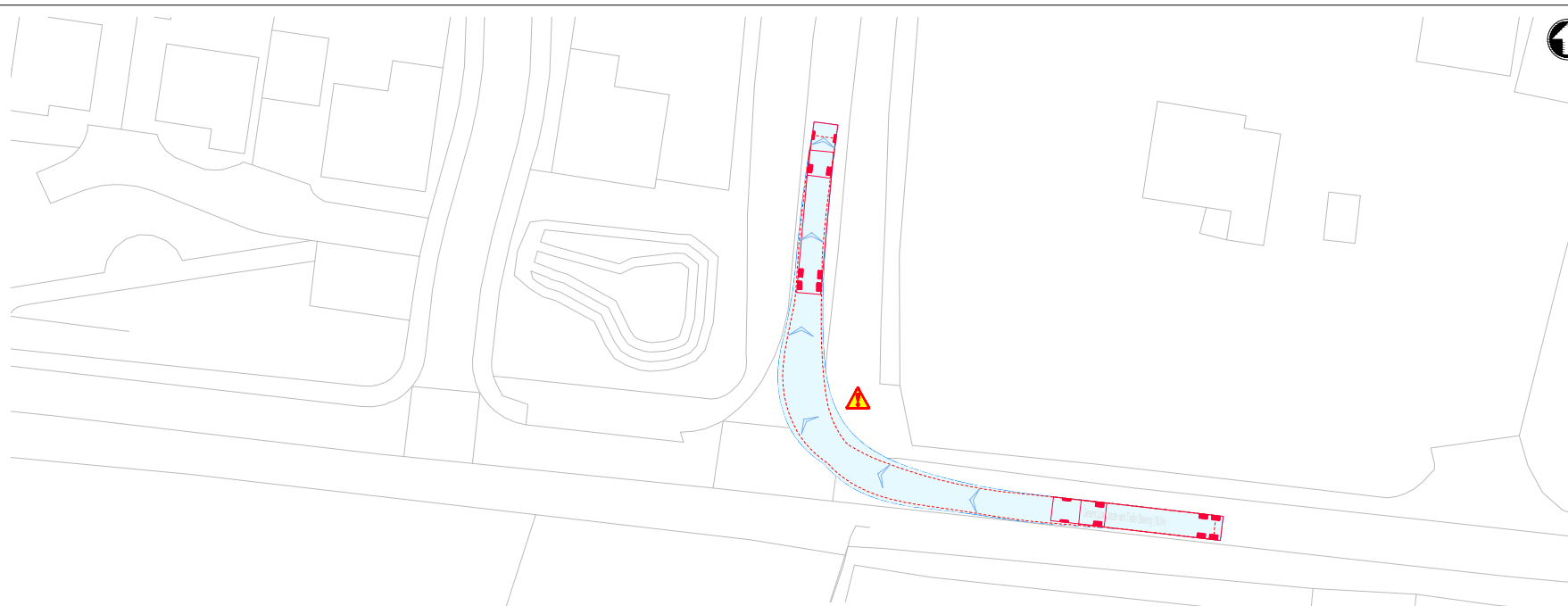
Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:250	PRE	P1	STD

Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT



Bannold Road to Bannold Drove West Entry (Low Loader)

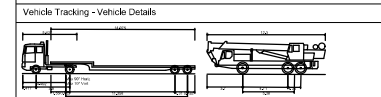
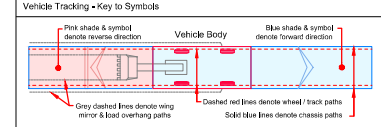


Bannold Road to Bannold Drove East Entry (Low Loader)

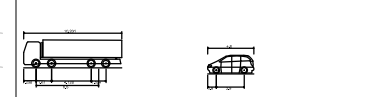


- Notes
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15. DRAWING MUST BE READ IN COLOUR



Overall Low loader with Trailer (Steering 1820m)	2460m	Overall Length	12,300m
Overall Width	2,910m	Overall Width	2,430m
Overall Body Height	3,430m	Overall Body Height	3,300m
Min Body Ground Clearance	13,000m	Min Body Ground Clearance	0,000m
Max. Track Spacing	6,000m	Max. Track Spacing	2,500m
Lock to Lock Time	6,000m	Lock to Lock Time	6,000m
Kerb to Kerb Turning Radius	11,500m	Kerb to Kerb Turning Radius	10,000m



Large Tipper	10,000m	Standard Design Vehicle (SDV)	4,600m
Overall Width	2,850m	Overall Width	2,000m
Overall Body Height	3,250m	Overall Body Height	2,000m
Min Body Ground Clearance	13,000m	Min Body Ground Clearance	0,000m
Max. Track Spacing	6,000m	Max. Track Spacing	2,500m
Lock to Lock Time	6,000m	Lock to Lock Time	6,000m
Kerb to Kerb Turning Radius	11,500m	Kerb to Kerb Turning Radius	10,000m

Vehicle Tracking - Risks & Compliance

- Risks
- Kerb overrun
  - Restrictive road width

P1	01	01	Draft for Discussion / Review.	01	01
Rev	Date	Drawn	Description	Checked	Approved

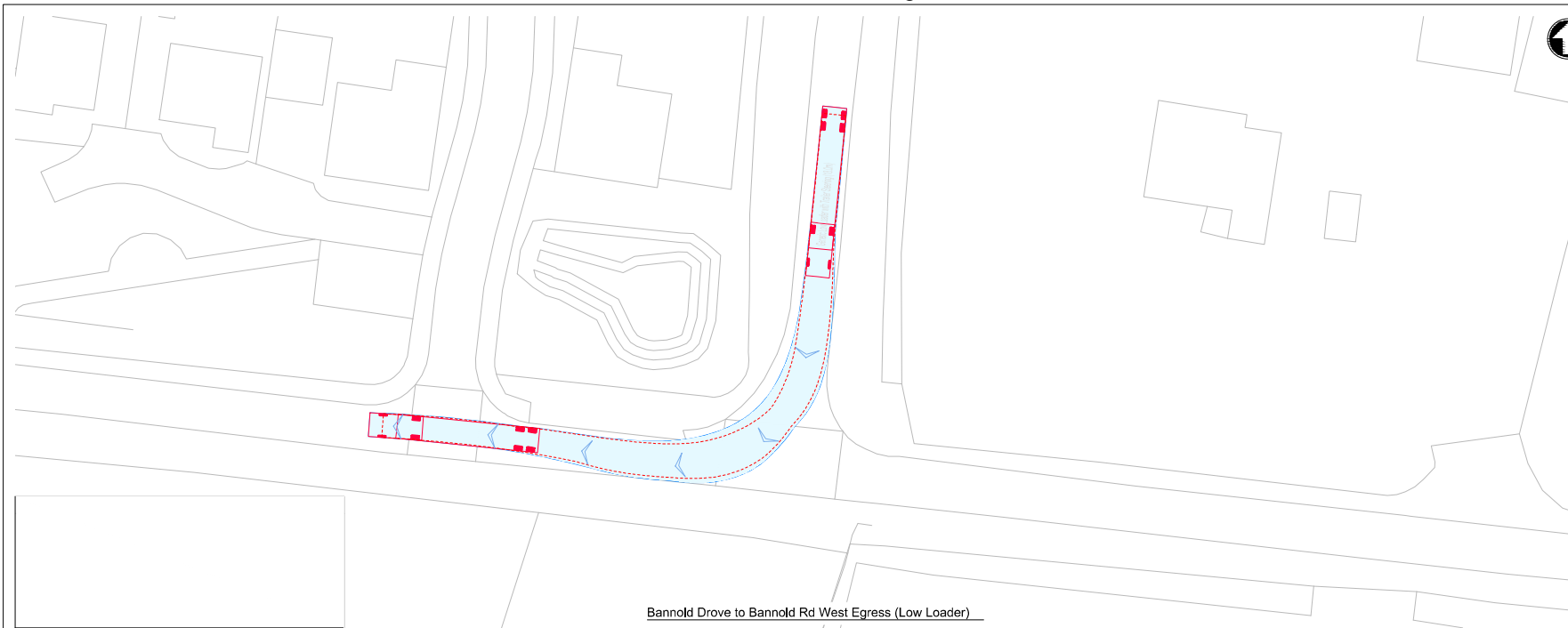


Title  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
Bannold Rd - Bannold Drove  
Highways GA, Visibility Splay and  
Vehicle Tracking

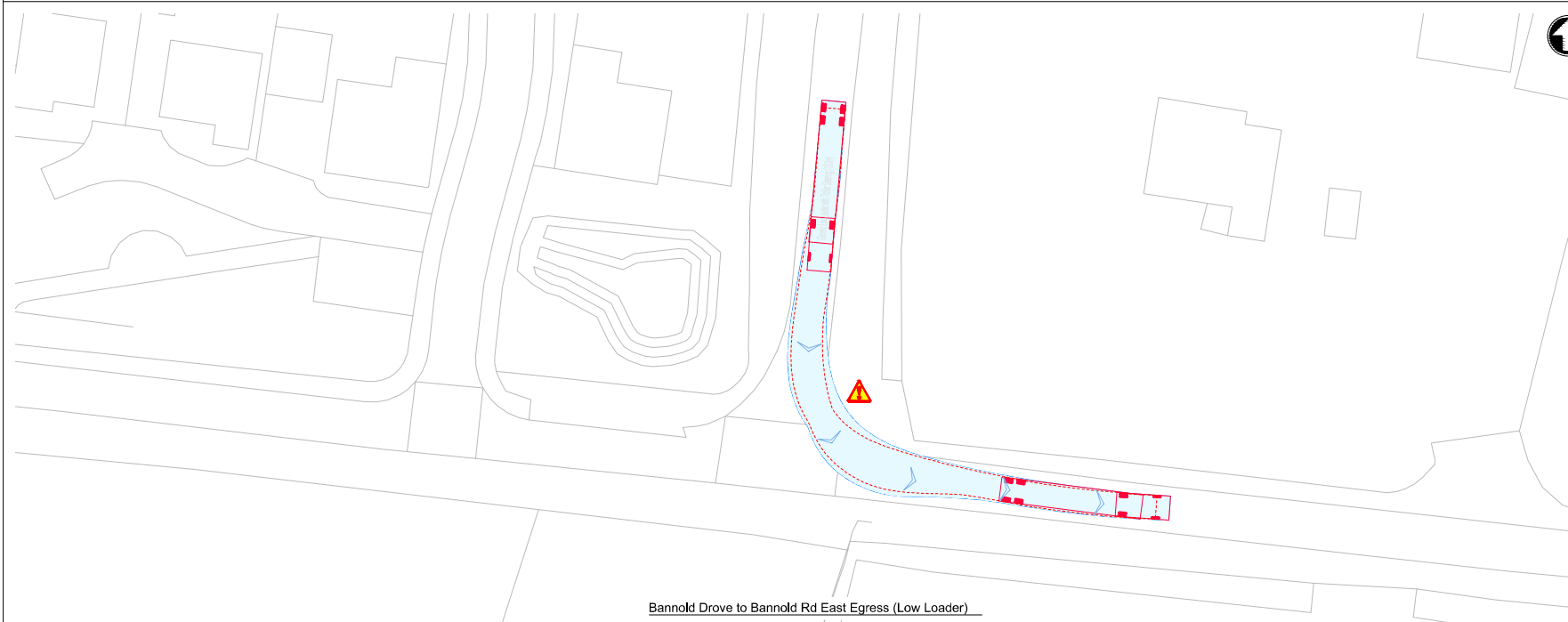
Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:250	PRE	P1	STD

Drawing Number  
102375-MMD-01-XX-DR-C-DRAFT



Bannold Drove to Bannold Rd West Egress (Low Loader)

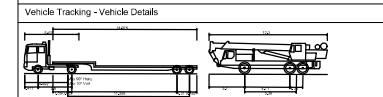
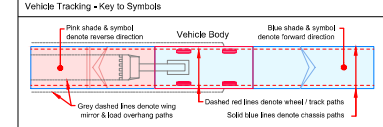


Bannold Drove to Bannold Rd East Egress (Low Loader)

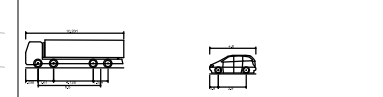


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**15. DRAWING MUST BE READ IN COLOUR**



Overall Low Loader with Trailer (Steering 1820m)	2460m	Overall Length	12.300m
Overall Width	2.960m	Overall Width	2.960m
Overall Body Height	3.400m	Overall Body Height	3.300m
Min Body Ground Clearance	0.300m	Min Body Ground Clearance	0.300m
Max. Rear Overhang	6.00m	Max. Rear Overhang	6.00m
Lock to Lock Time	6.00m	Lock to Lock Time	6.00m
Kerb to Kerb Turning Radius	11.500m	Kerb to Kerb Turning Radius	11.500m



Large Tipper	10.00m	Standard Design Vehicle (SDV)	4.800m
Overall Width	2.850m	Overall Width	2.950m
Overall Body Height	3.250m	Overall Body Height	3.200m
Min Body Ground Clearance	0.300m	Min Body Ground Clearance	0.300m
Lock to Lock Time	6.00m	Lock to Lock Time	6.00m
Kerb to Kerb Turning Radius	11.500m	Kerb to Kerb Turning Radius	11.500m

**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	Rev	Date	Drawn	Description	Rev	Appr



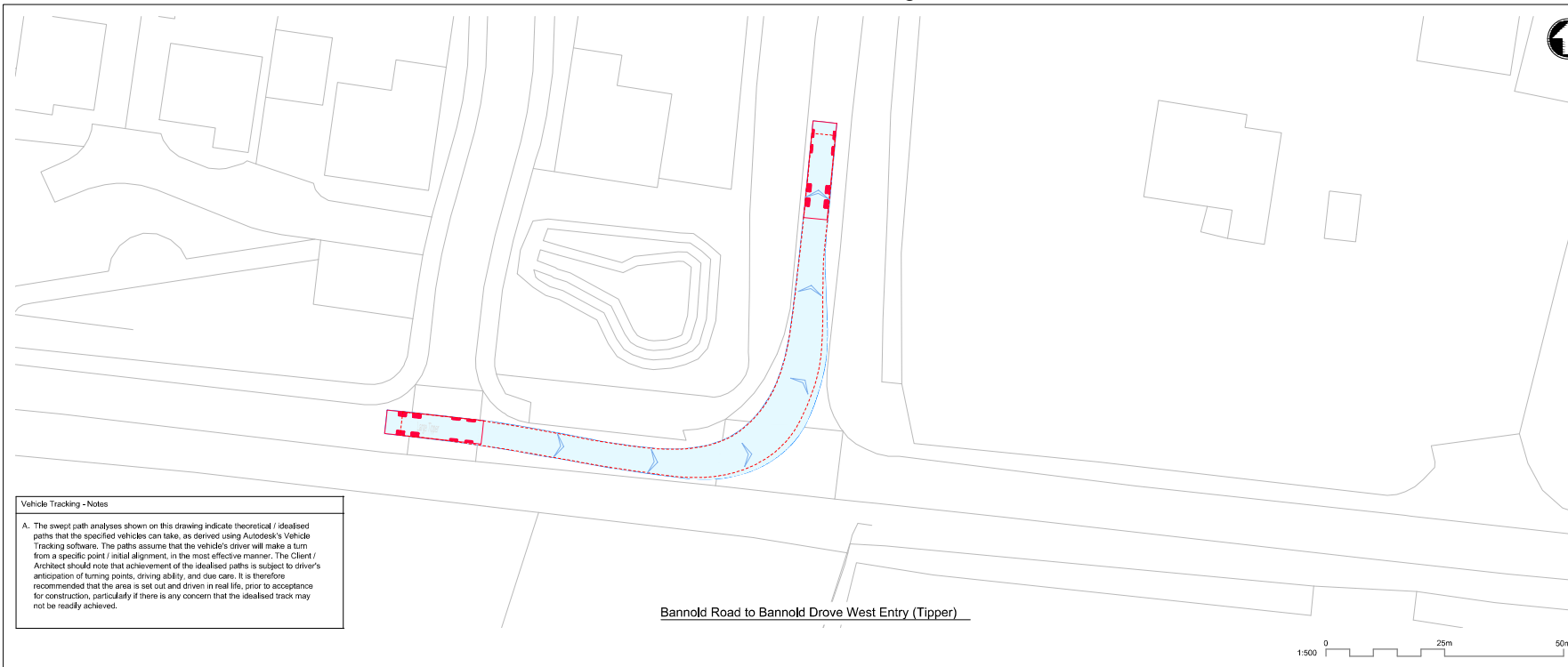
**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 Bannold Rd - Bannold Drove  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-		Approved	-

Scale at A1	Status	Rev	Security
1:250	PRE	P1	STD

Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT

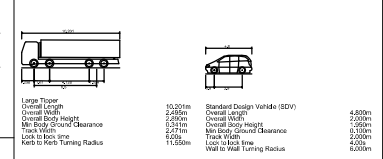
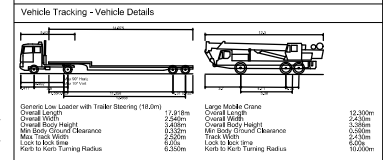
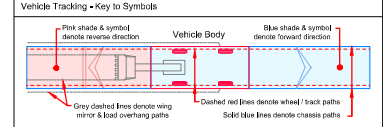
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**Vehicle Tracking - Notes**

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- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/09/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	CHK'd	App'd



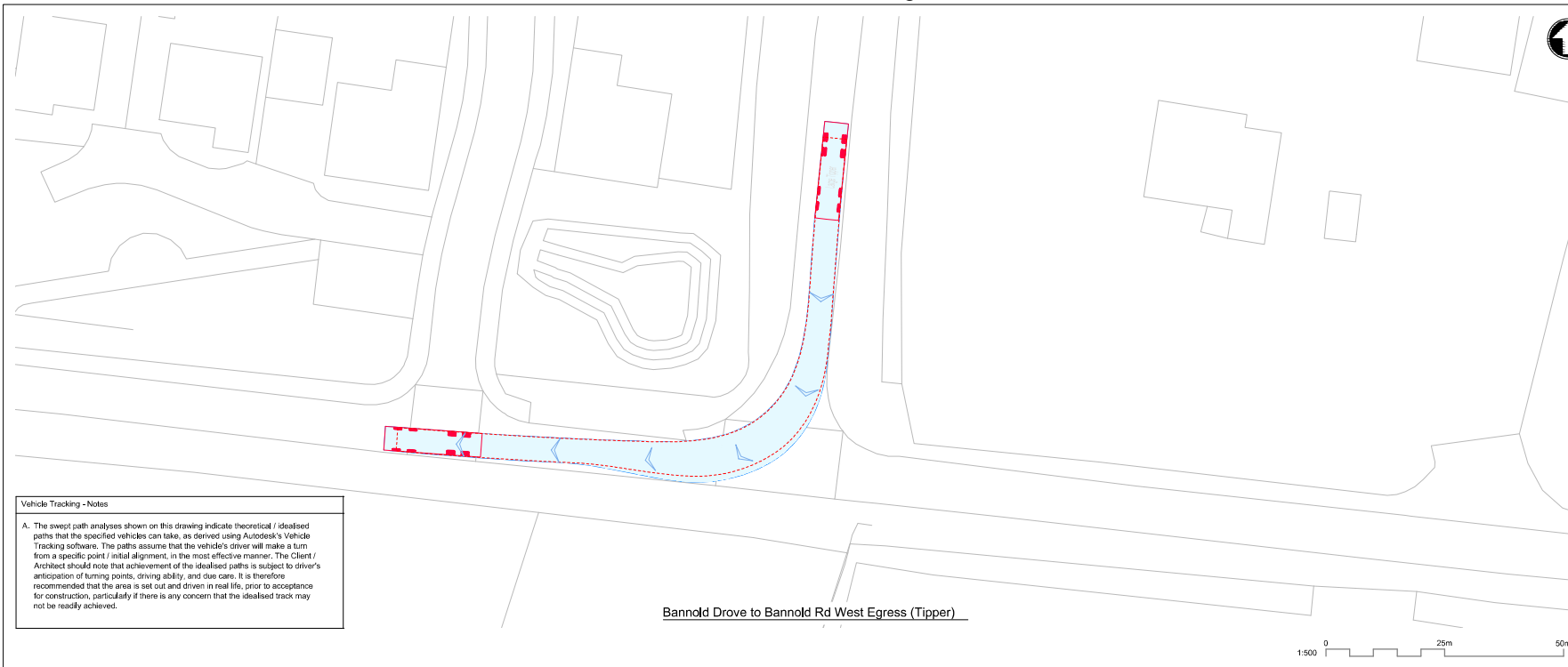
**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 Bannold Rd - Bannold Drove  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-	
Drawn	M Fonseca	M/F	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:250	PRE	P1	STD

Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT

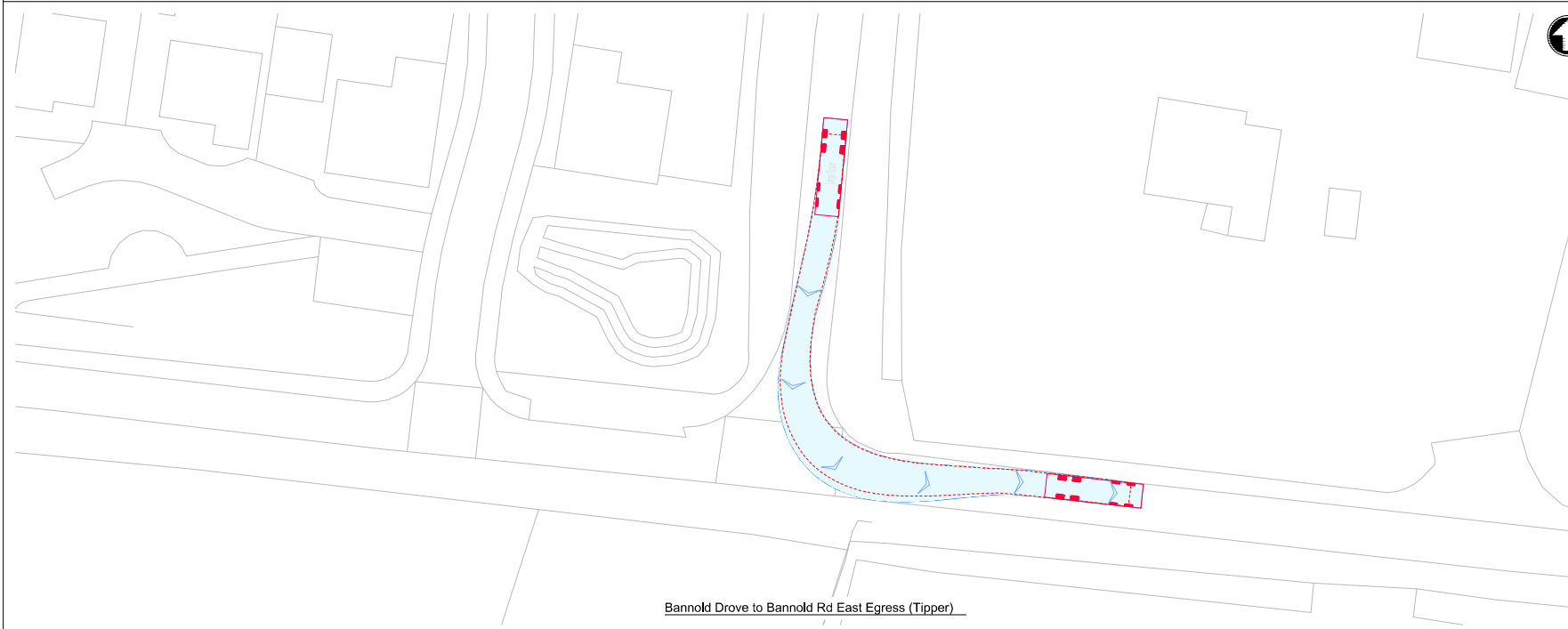




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Bannold Drive to Bannold Rd West Egress (Tipper)

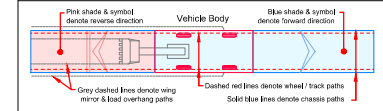


Bannold Drive to Bannold Rd East Egress (Tipper)



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**15. DRAWING MUST BE READ IN COLOUR**



**Vehicle Tracking - Vehicle Details**

Overall Length with Trailer Steering (1620m)	2460m	Large Mobile Crane	Overall Length	12.300m
Overall Width	2.400m	Overall Height	Overall Width	2.400m
Overall Body Height	2.400m	Overall Body Height	Overall Body Height	3.300m
Min Body Ground Clearance	0.300m	Min Body Ground Clearance	Min Body Ground Clearance	0.300m
Max. Rear Overhang	6.00m	Max. Rear Overhang	Max. Rear Overhang	6.00m
Lock to Lock Time	6.00m	Lock to Lock Time	Lock to Lock Time	6.00m
Kerb to Kerb Turning Radius	6.00m	Kerb to Kerb Turning Radius	Kerb to Kerb Turning Radius	10.00m

Overall Length	10.00m	Standard Design Vehicle (SDV)	Overall Length	4.600m
Overall Width	2.400m	Overall Height	Overall Width	2.400m
Overall Body Height	2.400m	Overall Body Height	Overall Body Height	3.300m
Min Body Ground Clearance	0.300m	Min Body Ground Clearance	Min Body Ground Clearance	0.300m
Max. Rear Overhang	6.00m	Max. Rear Overhang	Max. Rear Overhang	6.00m
Lock to Lock Time	6.00m	Lock to Lock Time	Lock to Lock Time	6.00m
Kerb to Kerb Turning Radius	11.500m	Kerb to Kerb Turning Radius	Kerb to Kerb Turning Radius	6.00m

- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/09/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	CHK'd	App'd

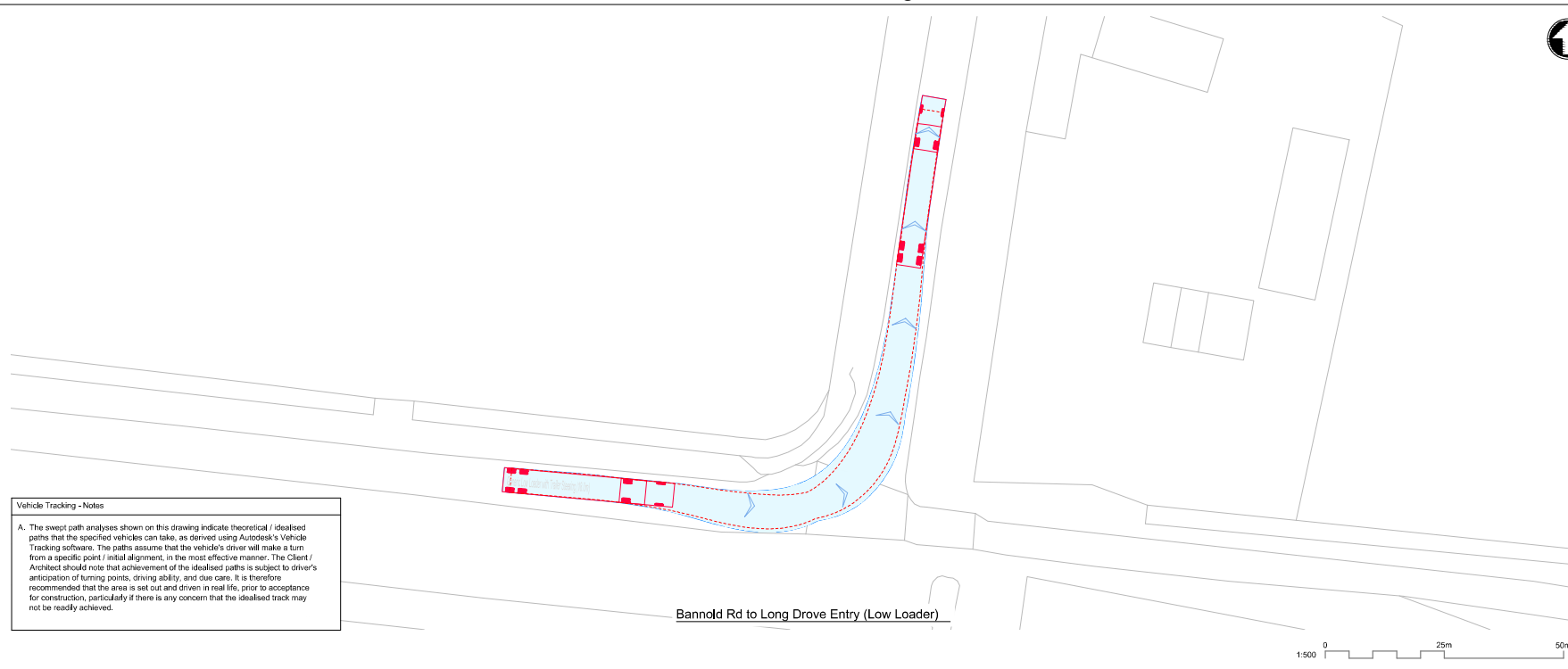


**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 Bannold Rd - Bannold Drive  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:250	PRE	P1	STD

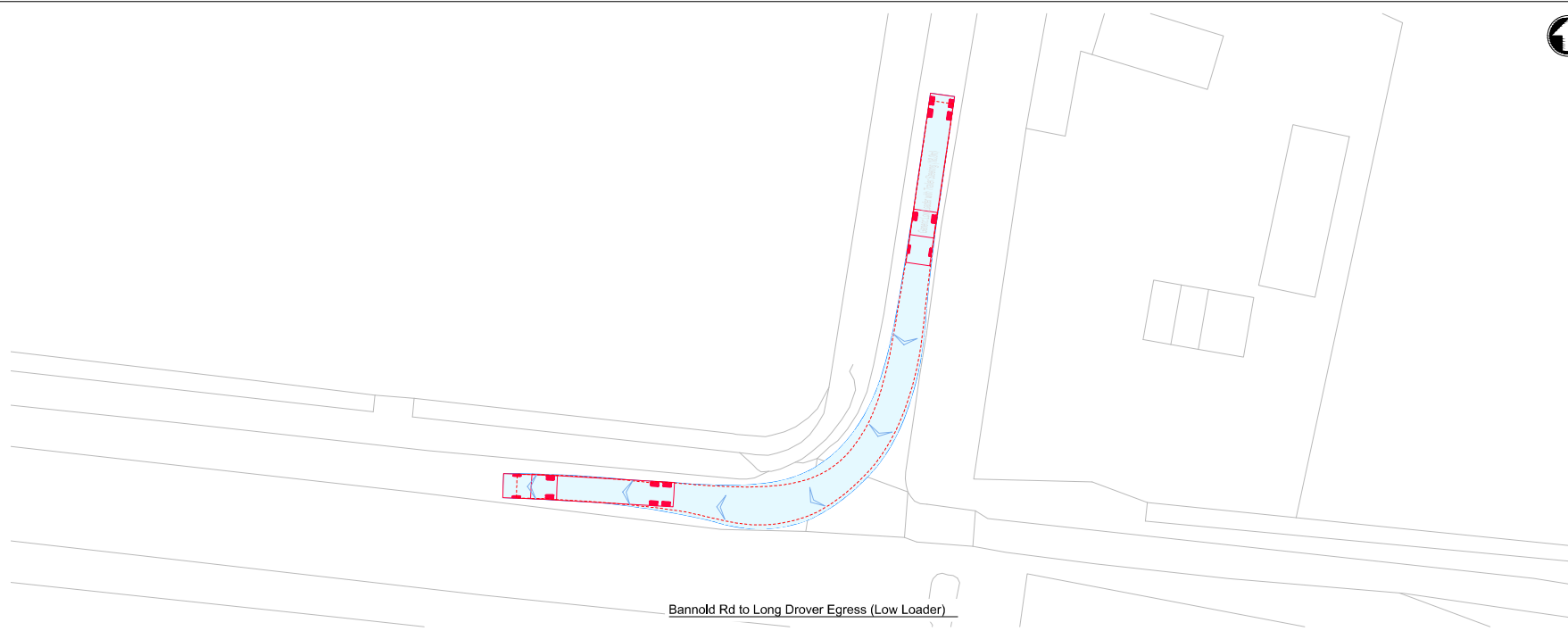
Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT



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Bannold Rd to Long Drive Entry (Low Loader)

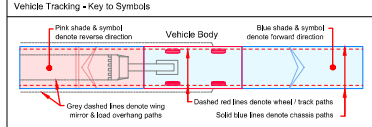


Bannold Rd to Long Drive Egress (Low Loader)



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**Vehicle Tracking - Vehicle Details**

<b>Overhead Low Loader with Trailer (Steering 180°)</b>	<b>Large Mobile Crane</b>	<b>Standard Design Vehicle (SDV)</b>
Overall Length: 24.60m	Overall Length: 12.300m	Overall Length: 4.600m
Overall Width: 2.460m	Overall Width: 2.430m	Overall Width: 2.050m
Overall Body Height: 3.400m	Overall Body Height: 3.300m	Overall Body Height: 2.000m
Min Body Ground Clearance: 0.300m	Min Body Ground Clearance: 0.300m	Min Body Ground Clearance: 0.300m
Max. Trail Over: 2.00m	Trail Over: 0.25m	Trail Over: 0.25m
Lock to Lock Time: 6.00m	Lock to Lock Time: 6.00m	Lock to Lock Time: 4.00m
Kerb to Kerb Turning Radius: 6.00m	Kerb to Kerb Turning Radius: 6.00m	Kerb to Kerb Turning Radius: 4.00m

**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	13/09/22	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	CHK'd	App'd

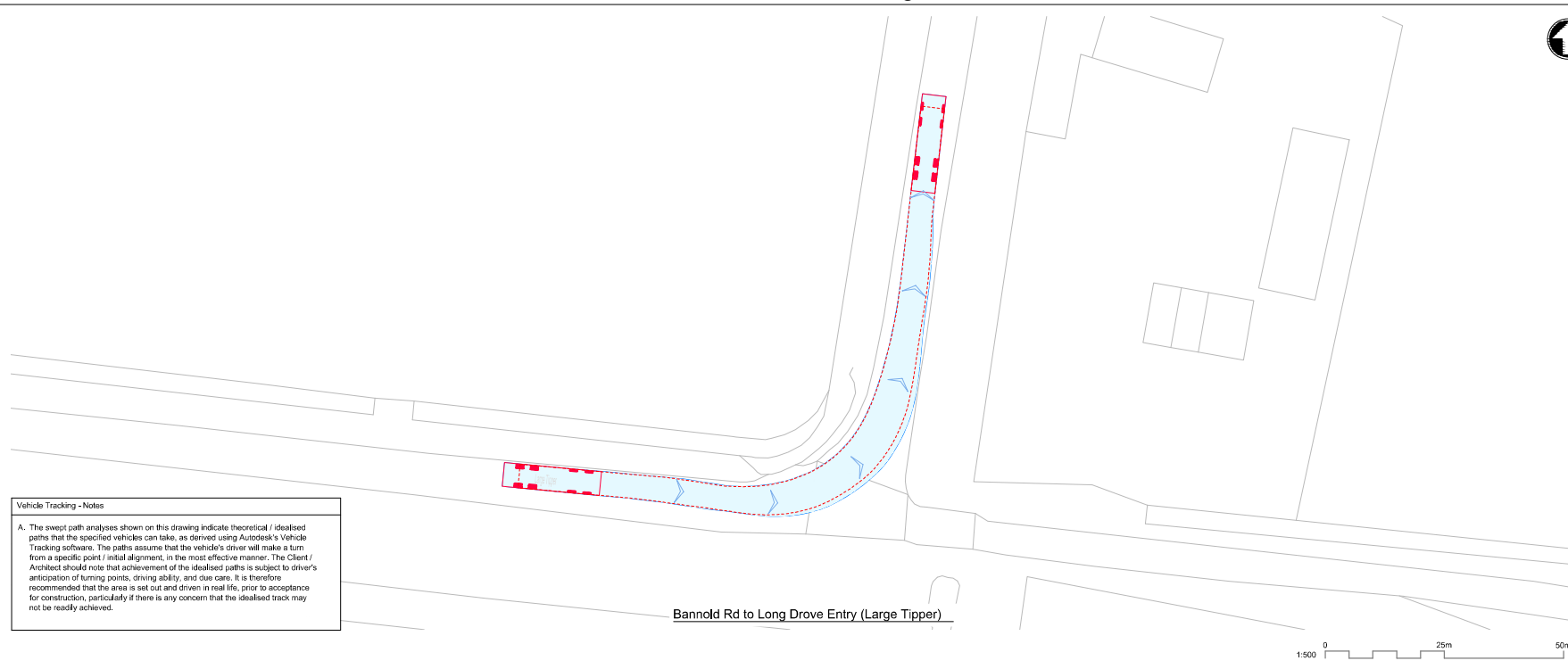


Title  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 Bannold Rd - Long Drive  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

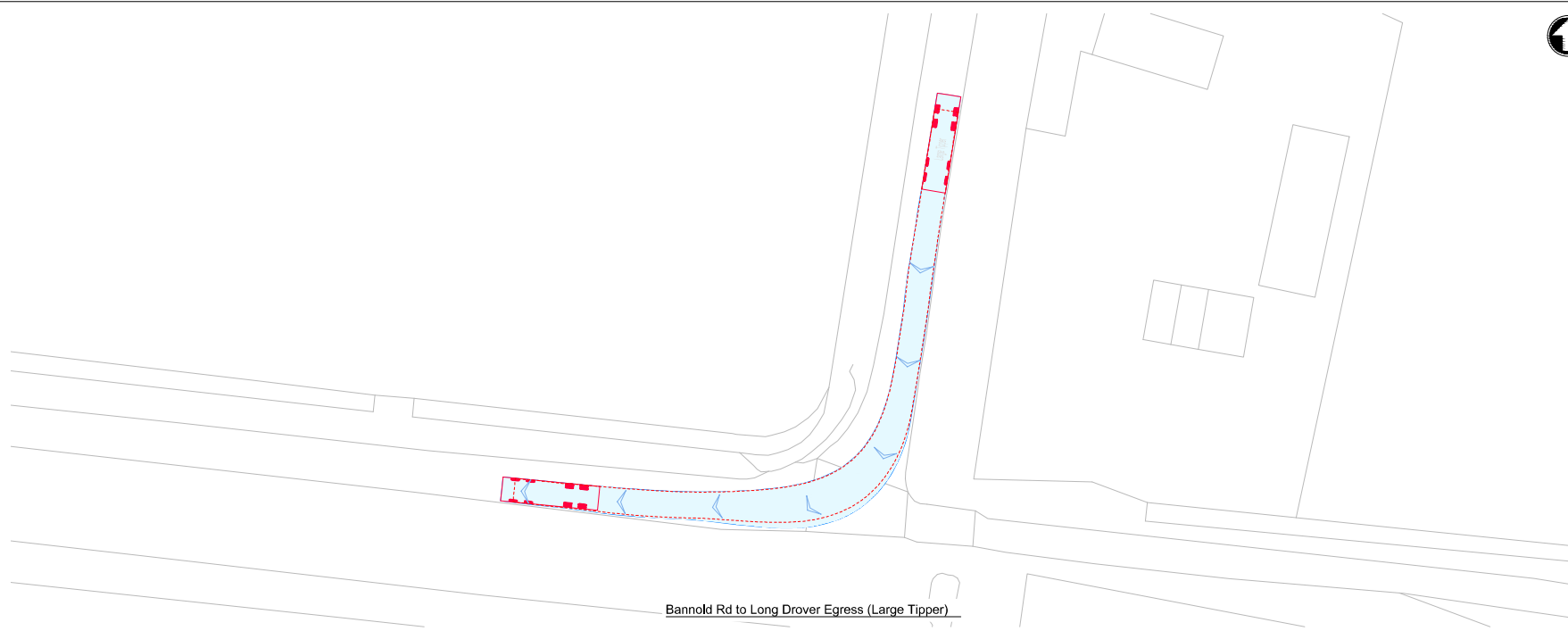
Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:250	PRE	P1	STD

Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT



Bannold Rd to Long Drove Entry (Large Tipper)

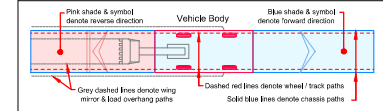


Bannold Rd to Long Drove Egress (Large Tipper)



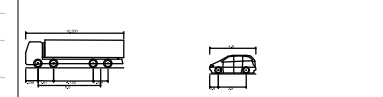
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**15. DRAWING MUST BE READ IN COLOUR**



**Vehicle Tracking - Vehicle Details**

<p>Standard Low Loader with Trailer (Steering 1820m)</p> <p>Overall Length 24.60m Overall Width 2.40m Overall Body Height 2.40m Min Body Ground Clearance 0.30m Max. Trail Over 6.00m Lock to Lock time 6.00m Kerb to Kerb Turning Radius 18.20m</p>	<p>Large Mobile Crane</p> <p>Overall Length 12.30m Overall Width 2.40m Overall Body Height 2.40m Min Body Ground Clearance 0.30m Max. Trail Over 6.00m Lock to Lock time 6.00m Kerb to Kerb Turning Radius 18.20m</p>
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<p>Large Tipper</p> <p>Overall Length 18.00m Overall Width 2.85m Overall Body Height 2.85m Min Body Ground Clearance 0.30m Max. Trail Over 11.550m Lock to Lock time 11.550m</p>	<p>Standard Design Vehicle (SDV)</p> <p>Overall Length 4.80m Overall Width 1.95m Overall Body Height 1.95m Min Body Ground Clearance 0.30m Max. Trail Over 4.80m Lock to Lock time 4.80m Kerb to Kerb Turning Radius 6.00m</p>
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**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	15/09/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	Checked	Appr

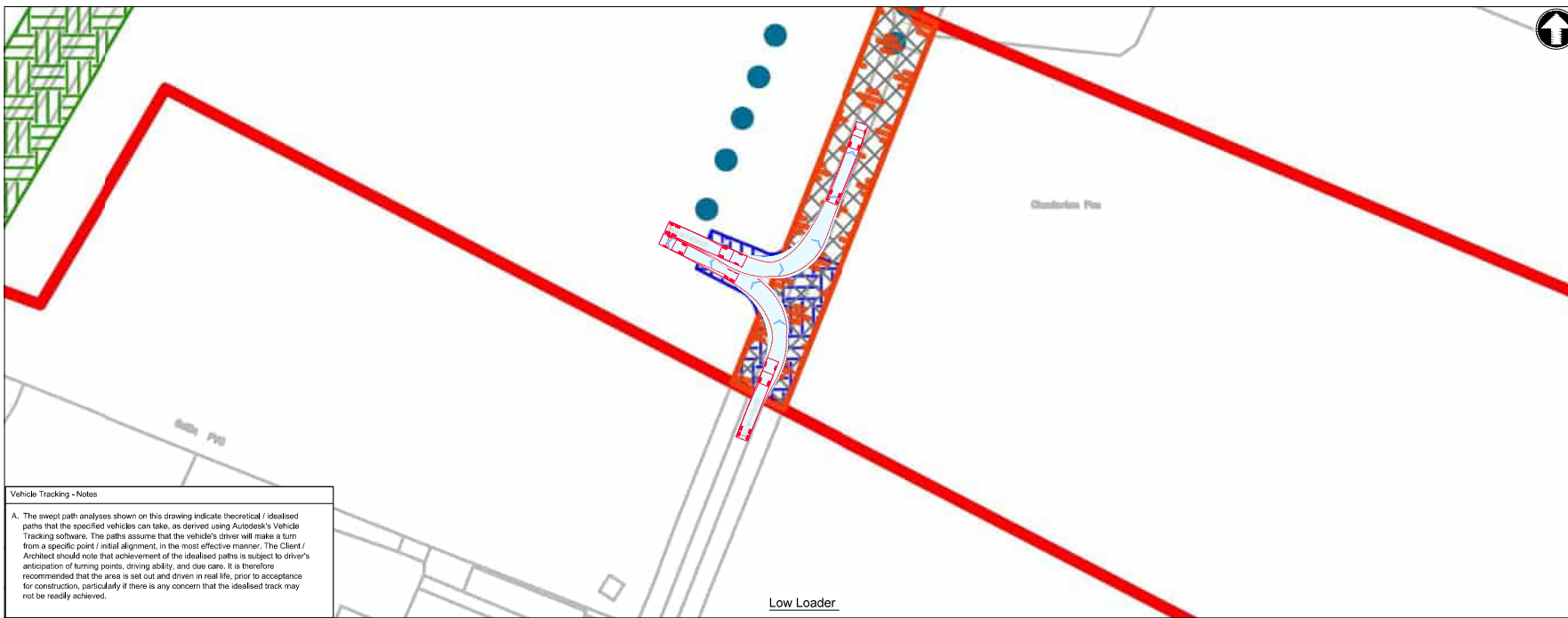


Title  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 Bannold Rd - Long Drove  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:250	PRE	P1	STD

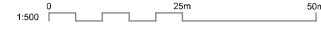
Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT



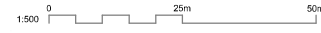
**Vehicle Tracking - Notes**

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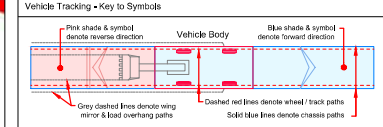
Low Loader



Large Mobile Crane



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**Vehicle Tracking - Vehicle Details**

<p>General Low Loader with Trailer (Steering 180°)</p> <p>Overall Length 24.60m                  Overall Width 2.40m                  Overall Body Height 2.40m                  Max Body Ground Clearance 0.20m                  Max Wheel Overhang 4.00m                  Lock to Lock time 4.00m                  Kerb to Kerb Turning Radius 10.00m</p>	<p>Large Mobile Crane</p> <p>Overall Length 12.00m                  Overall Width 2.40m                  Overall Body Height 2.40m                  Max Body Ground Clearance 0.20m                  Max Wheel Overhang 4.00m                  Lock to Lock time 4.00m                  Kerb to Kerb Turning Radius 10.00m</p>
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<p>Large Tipper</p> <p>Overall Length 10.00m                  Overall Width 2.40m                  Overall Body Height 2.40m                  Max Body Ground Clearance 0.20m                  Max Wheel Overhang 4.00m                  Lock to Lock time 4.00m                  Kerb to Kerb Turning Radius 11.50m</p>	<p>Standard Design Vehicle (SDV)</p> <p>Overall Length 4.80m                  Overall Width 1.90m                  Overall Body Height 1.90m                  Max Body Ground Clearance 0.20m                  Max Wheel Overhang 2.00m                  Lock to Lock time 4.00m                  Kerb to Kerb Turning Radius 6.00m</p>
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- Vehicle Tracking - Risks & Compliance**
- Risks**
- ⚠️ Kerb overrun
  - 🚫 Restrictive road width

P1	MF	MF	Draft for Discussion / Review.	MF	MF
Rev	Date	Drawn	Description	Checked	Approved

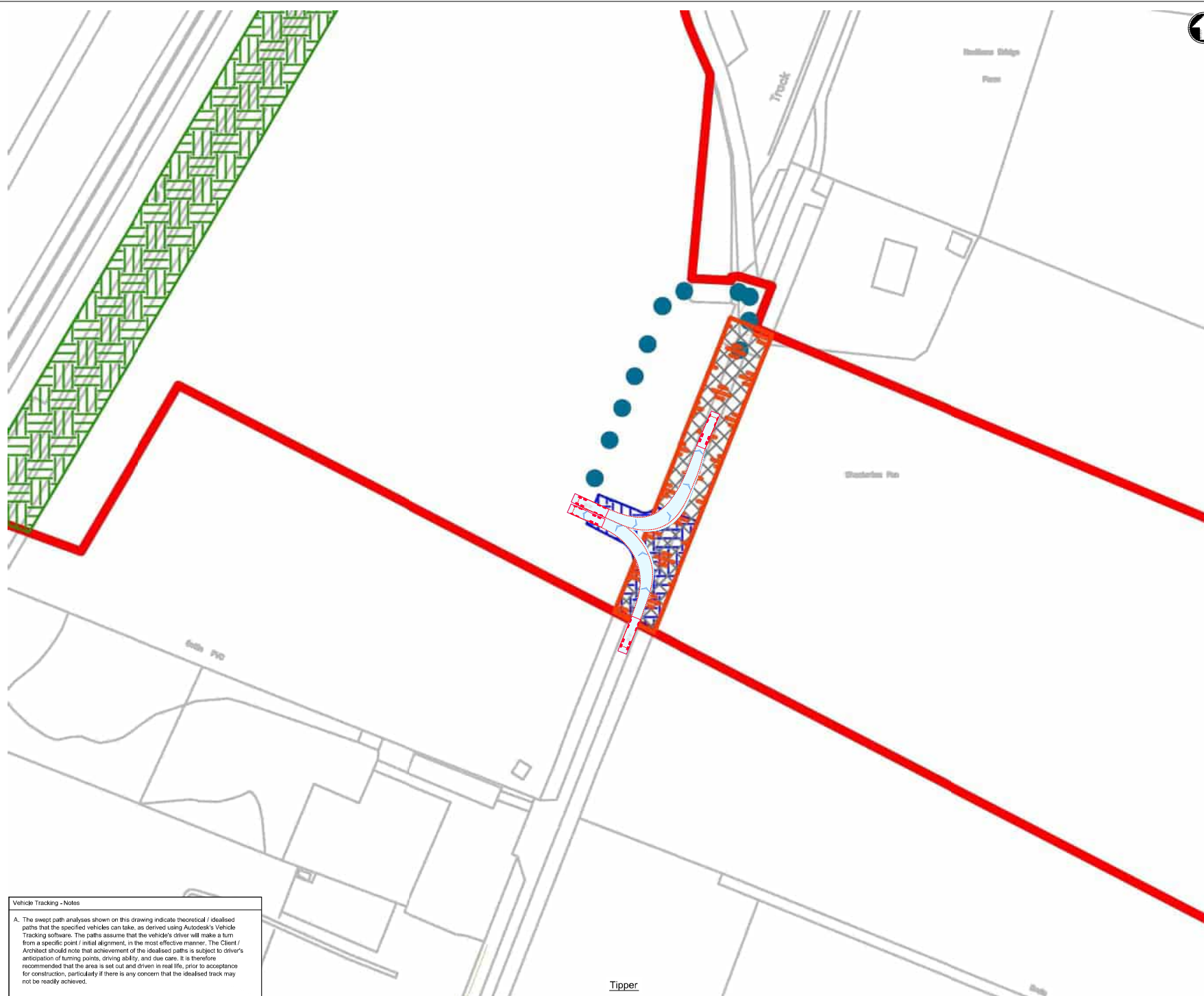


**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 9012  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

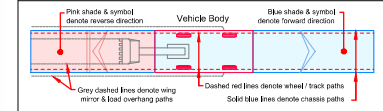
Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT



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Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

 General Low loader with Trailer (Steering 1820m) Overall Length 24.60m Overall Width 2.40m Overall Body Height 3.30m Max Body Ground Clearance 0.20m Max. Track Width 6.00m Lock to lock time 6.00m Kerb to Kerb Turning Radius 10.00m	 Large Mobile Crane Overall Length 12.200m Overall Width 2.40m Overall Body Height 3.30m Max Body Ground Clearance 0.20m Max. Track Width 6.00m Lock to lock time 6.00m Kerb to Kerb Turning Radius 10.00m
 Large Tipper Overall Length 10.00m Overall Width 2.850m Overall Body Height 3.30m Max Body Ground Clearance 0.20m Max. Track Width 6.00m Lock to lock time 11.500m Kerb to Kerb Turning Radius 11.500m	 Standard Design Vehicle (EDV) Overall Length 4.800m Overall Width 2.000m Overall Body Height 1.900m Max Body Ground Clearance 0.200m Max. Track Width 4.000m Lock to lock time 4.000m Kerb to Kerb Turning Radius 6.000m

Vehicle Tracking - Risks & Compliance

- Risks
- Kerb overrun
  - Restrictive road width

Rev	Date	Drawn	Description	CHK'd	App'd
P1		MF	Draft for Discussion / Review.	MF	MF



Title  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 9012  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-		Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT

Vehicle Tracking - Notes

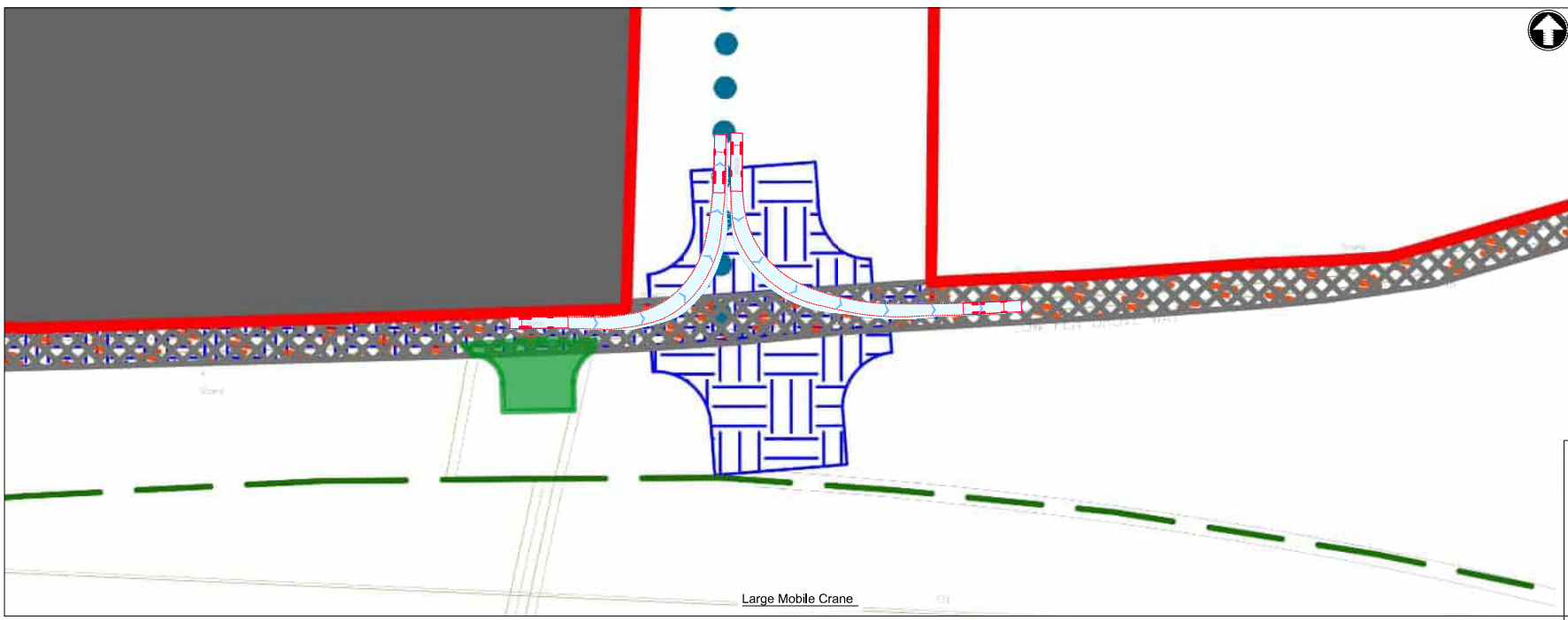
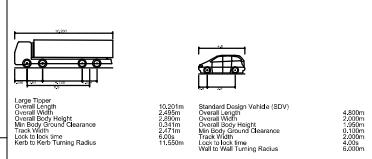
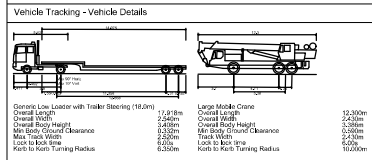
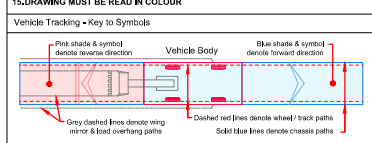
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**Large Mobile Crane**

- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

Rev	Date	Drawn	Description	CHK'd	App'd
P1		MF	Draft for Discussion / Review.	MF	MF

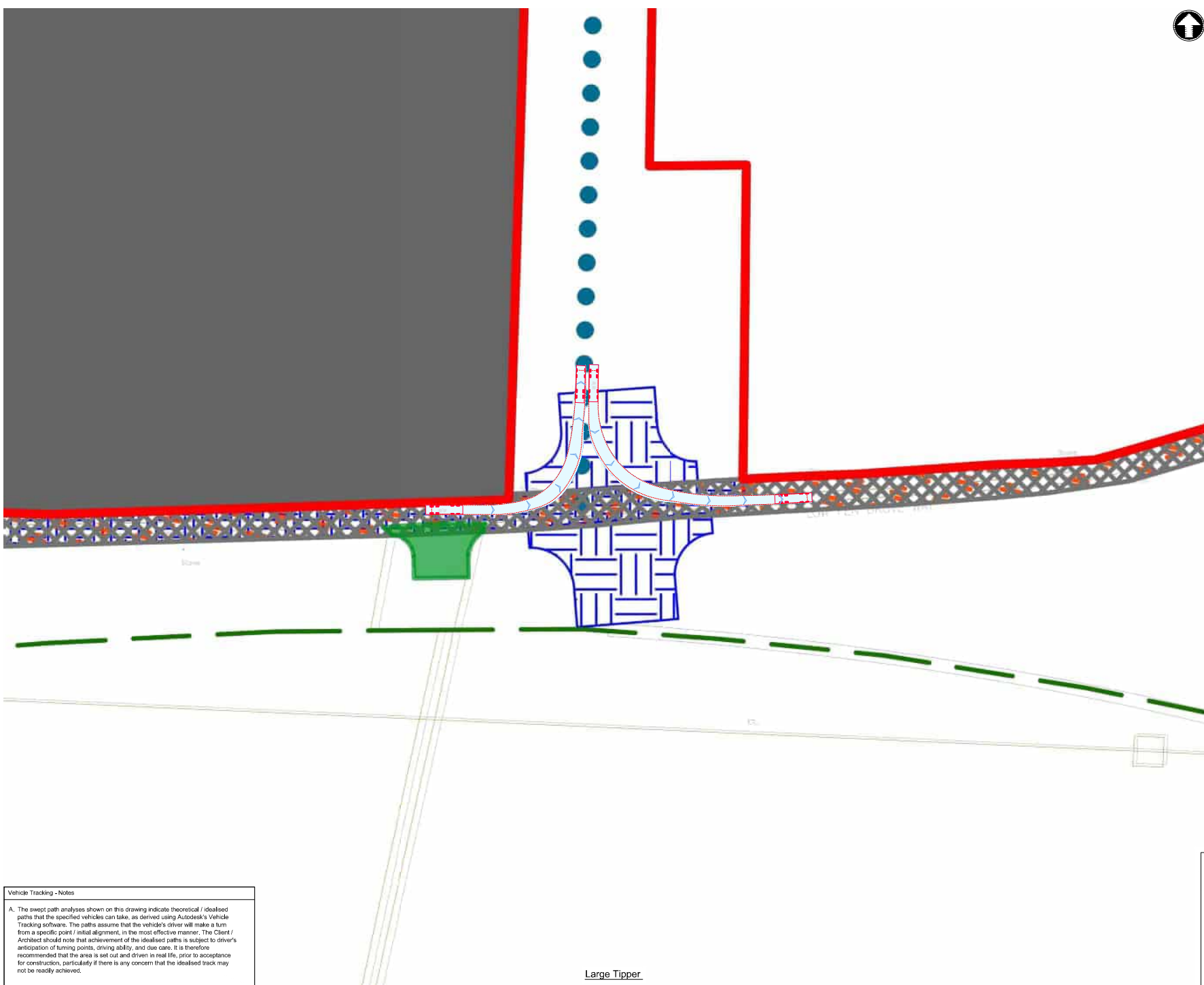


**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
9013  
Highways GA, Visibility Splay and  
Vehicle Tracking

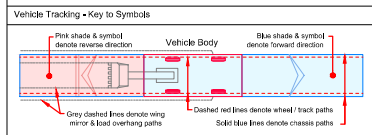
Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
102375-MMD-01-XX-DR-C-DRAFT



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**Vehicle Tracking - Vehicle Details**

Parameter	Large Tipper	Standard Design Vehicle (SDV)
Overall Length	10.00m	4.60m
Overall Width	2.45m	2.00m
Overall Body Height	3.25m	1.90m
Min Body Ground Clearance	0.25m	0.10m
Lock to lock time	6.00m	4.00m
Kerb to Kerb Turning Radius	11.50m	6.00m

- Vehicle Tracking - Risks & Compliance**
- Risks**
- ⚠️ Kerb overrun
  - 🚫 Restrictive road width

Rev	Date	Drawn	Description	Appr	Appr
P1		MF	Draft for Discussion / Review.	MF	MF



**Title**  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 9013  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-		Approved	-

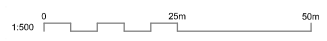
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1:500	PRE	P1	STD

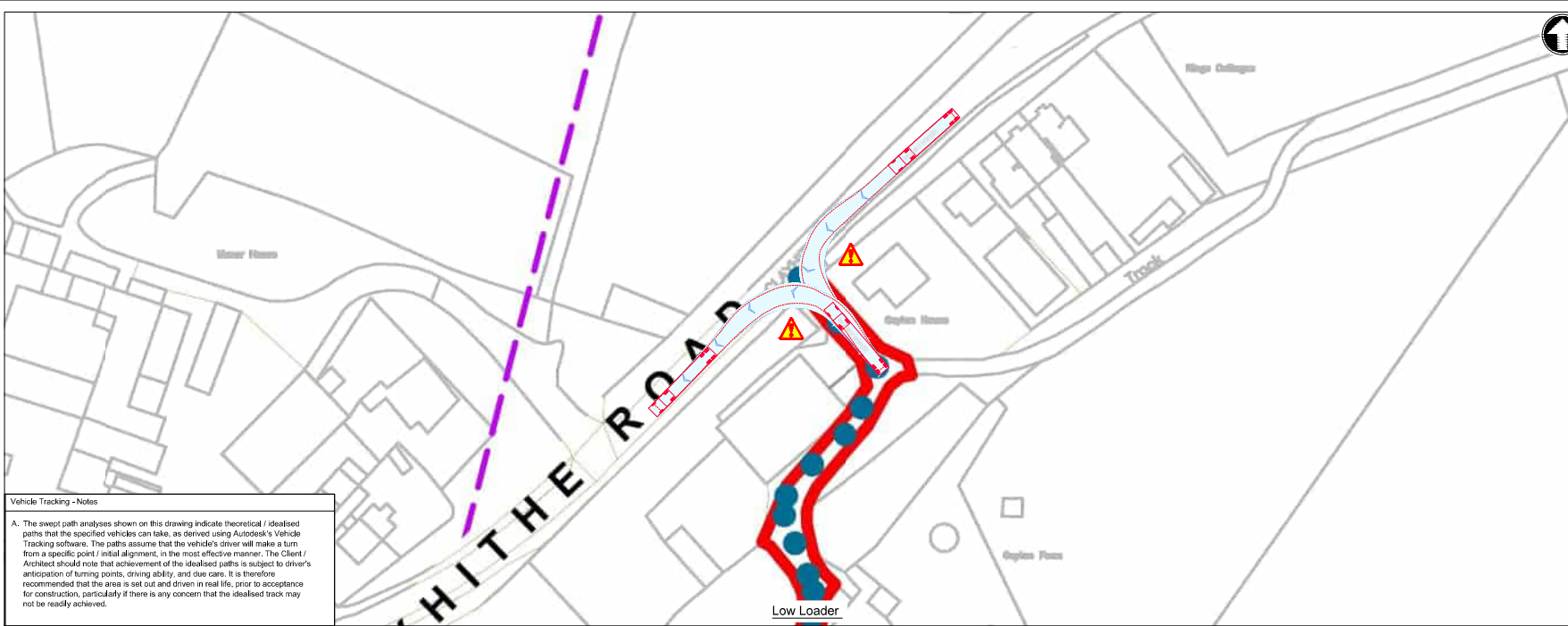
Drawing Number  
**102375-MMD-01-XX-DR-C-DRAFT**

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Large Tipper





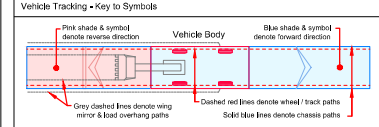
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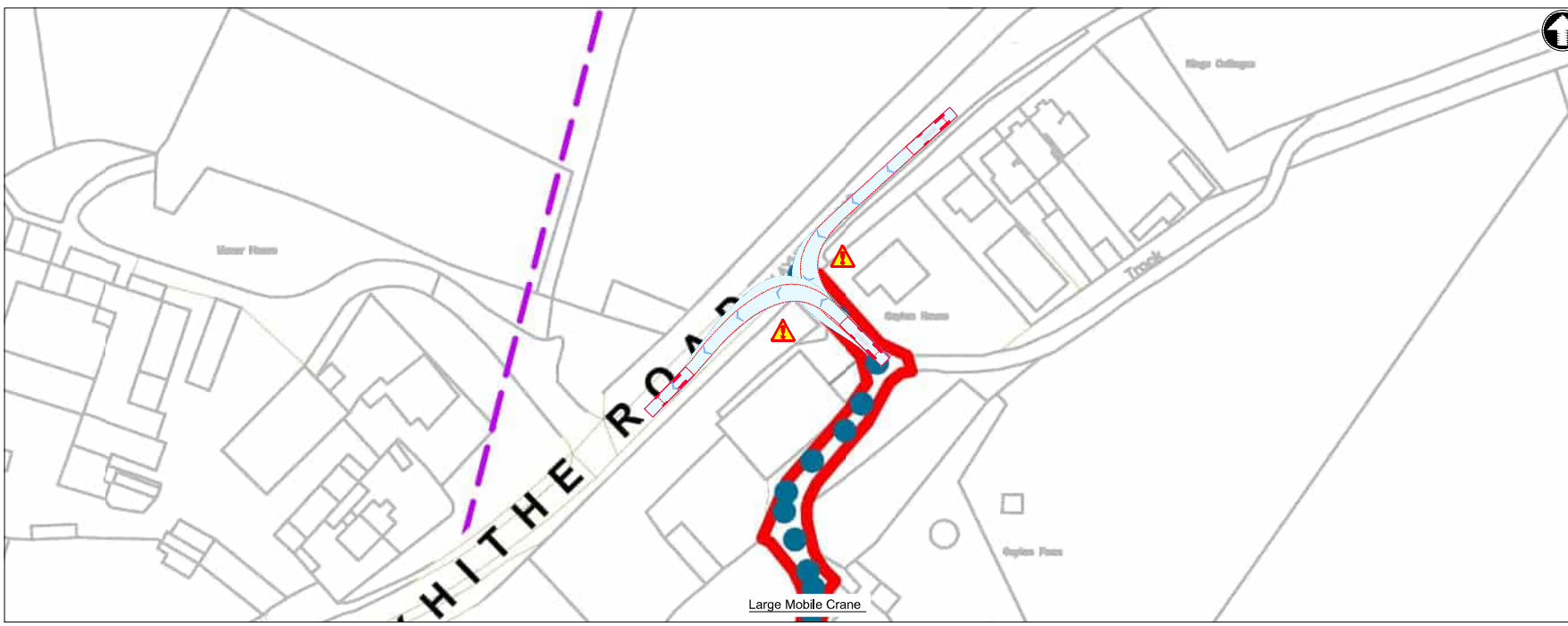
**15. DRAWING MUST BE READ IN COLOUR**



**Vehicle Tracking - Vehicle Details**

Parameter	Value	Parameter	Value
Overall Length	24.60m	Overall Length	12.300m
Overall Width	2.460m	Overall Width	2.460m
Overall Body Height	3.400m	Overall Body Height	3.300m
Min Body Ground Clearance	0.300m	Min Body Ground Clearance	0.300m
Max. Track Spacing	6.00m	Max. Track Spacing	6.00m
Lock to Lock Time	6.00m	Lock to Lock Time	6.00m
Kerb to Kerb Turning Radius	11.500m	Kerb to Kerb Turning Radius	11.500m

Overall Length	10.00m	Overall Length	4.600m
Overall Width	2.850m	Overall Width	2.850m
Overall Body Height	3.300m	Overall Body Height	3.300m
Min Body Ground Clearance	0.300m	Min Body Ground Clearance	0.300m
Max. Track Spacing	6.00m	Max. Track Spacing	6.00m
Lock to Lock Time	6.00m	Lock to Lock Time	6.00m
Kerb to Kerb Turning Radius	11.500m	Kerb to Kerb Turning Radius	11.500m



- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
  - Restrictive road width

Rev	Date	Drawn	Description	CHK'd	App'd
P1		MF	Draft for Discussion / Review.	MF	MF



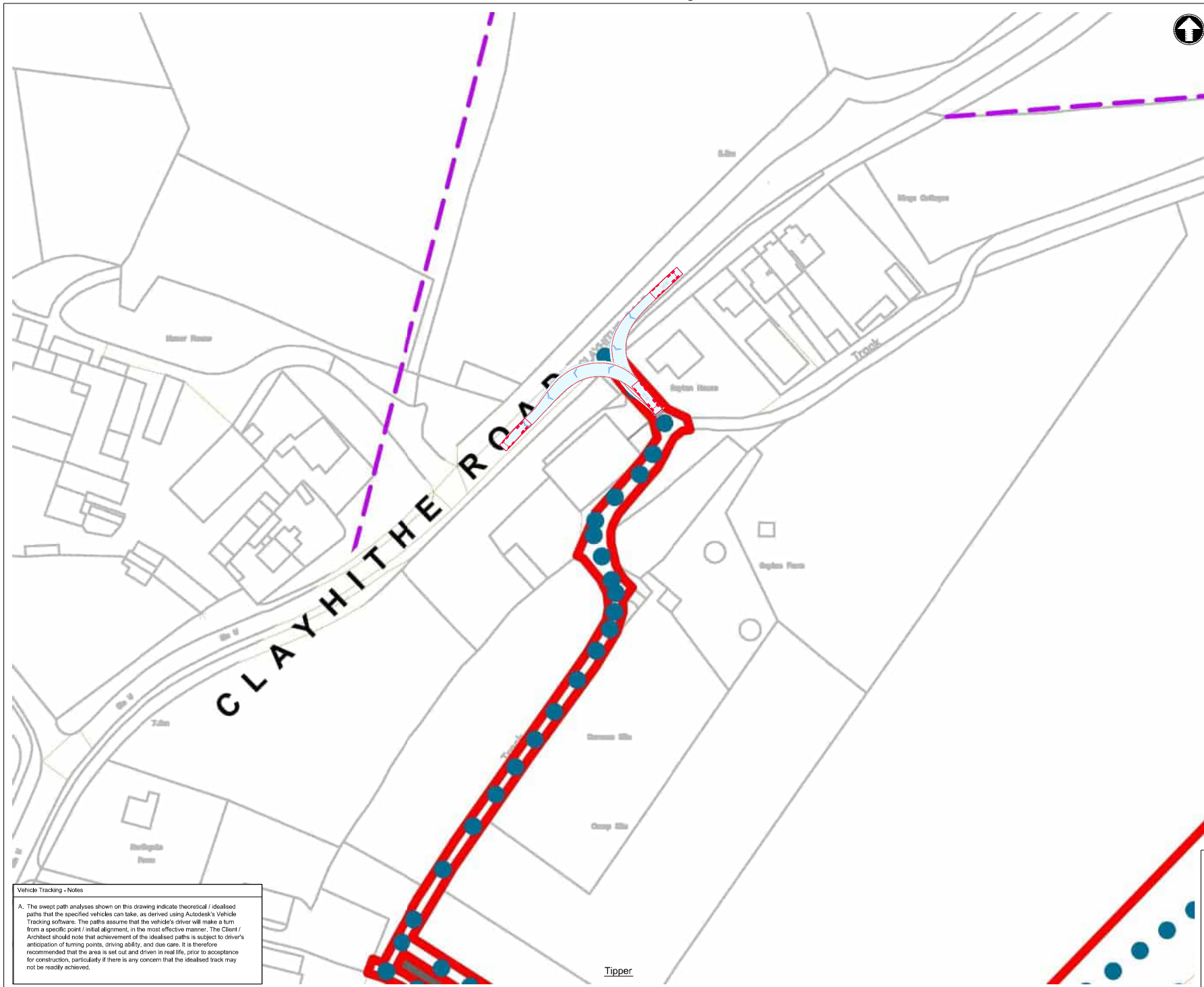
**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
9016  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-	-	Approved	-

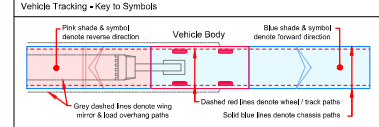
Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
**102375-MMD-01-XX-DR-C-DRAFT**





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Vehicle Tracking - Vehicle Details

<p>General Low Loader with Trailer (Steering 1820m)</p> <p>Overall Length 24.60m Overall Width 2.40m Overall Body Height 3.40m Min Body Ground Clearance 0.20m Max Body Height 6.00m Lock to Lock time 6.00m Kerb to Kerb Turning Radius 18.00m</p>	<p>Large Mobile Crane</p> <p>Overall Length 12.20m Overall Width 2.40m Overall Body Height 3.20m Min Body Ground Clearance 0.20m Max Body Height 6.00m Lock to Lock time 6.00m Kerb to Kerb Turning Radius 18.00m</p>
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<p>Large Tipper</p> <p>Overall Length 10.00m Overall Width 2.85m Overall Body Height 3.20m Min Body Ground Clearance 0.20m Max Body Height 6.00m Lock to Lock time 11.50m Kerb to Kerb Turning Radius 11.50m</p>	<p>Standard Design Vehicle (SDV)</p> <p>Overall Length 4.80m Overall Width 2.00m Overall Body Height 2.00m Min Body Ground Clearance 0.20m Max Body Height 4.00m Lock to Lock time 4.00m Kerb to Kerb Turning Radius 4.00m</p>
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- Vehicle Tracking - Risks & Compliance
- Risks
- Kerb overrun
  - Restrictive road width

P1	01	01	Draft for Discussion / Review.	01	01
Rev	Date	Drawn	Description	Checked	Approved

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9016  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

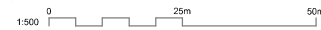
Drawing Number  
102375-MMD-01-XX-DR-C-DRAFT



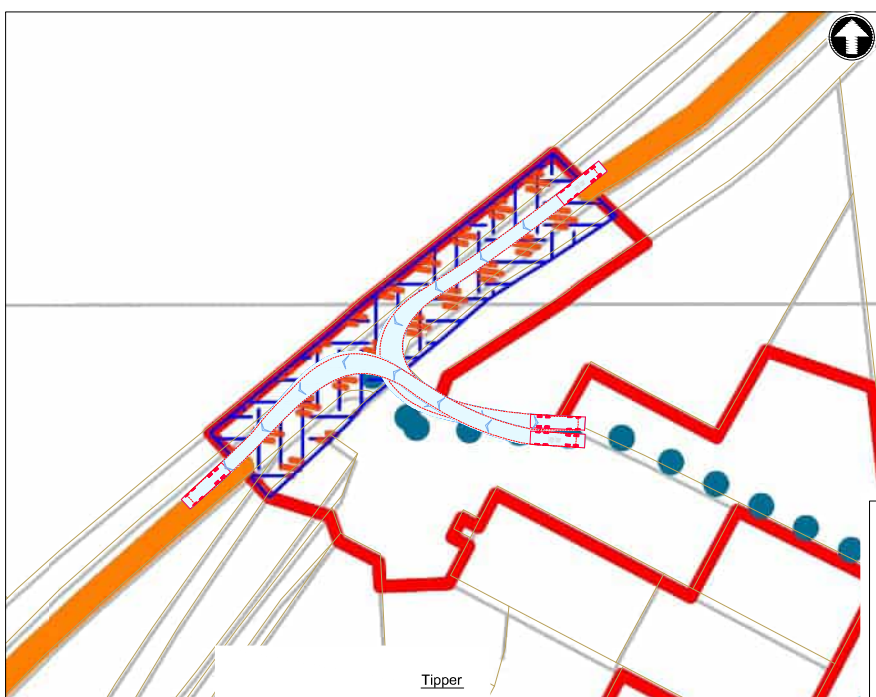
Low Loader



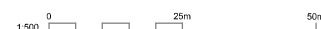
Large Mobile Crane



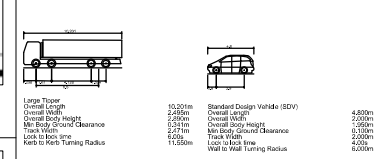
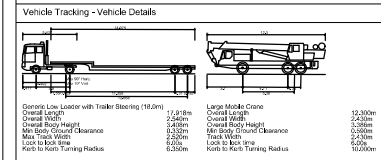
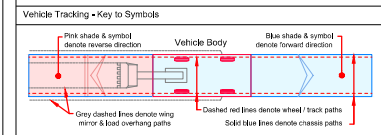
Tipper



Tipper



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- Vehicle Tracking - Risks & Compliance
- Risks
- Kerb overrun
  - Restrictive road width

P1	01/11/2022	MF	Draft for Discussion / Review.	MF	MF
Rev	Date	Drawn	Description	Checked	Approved

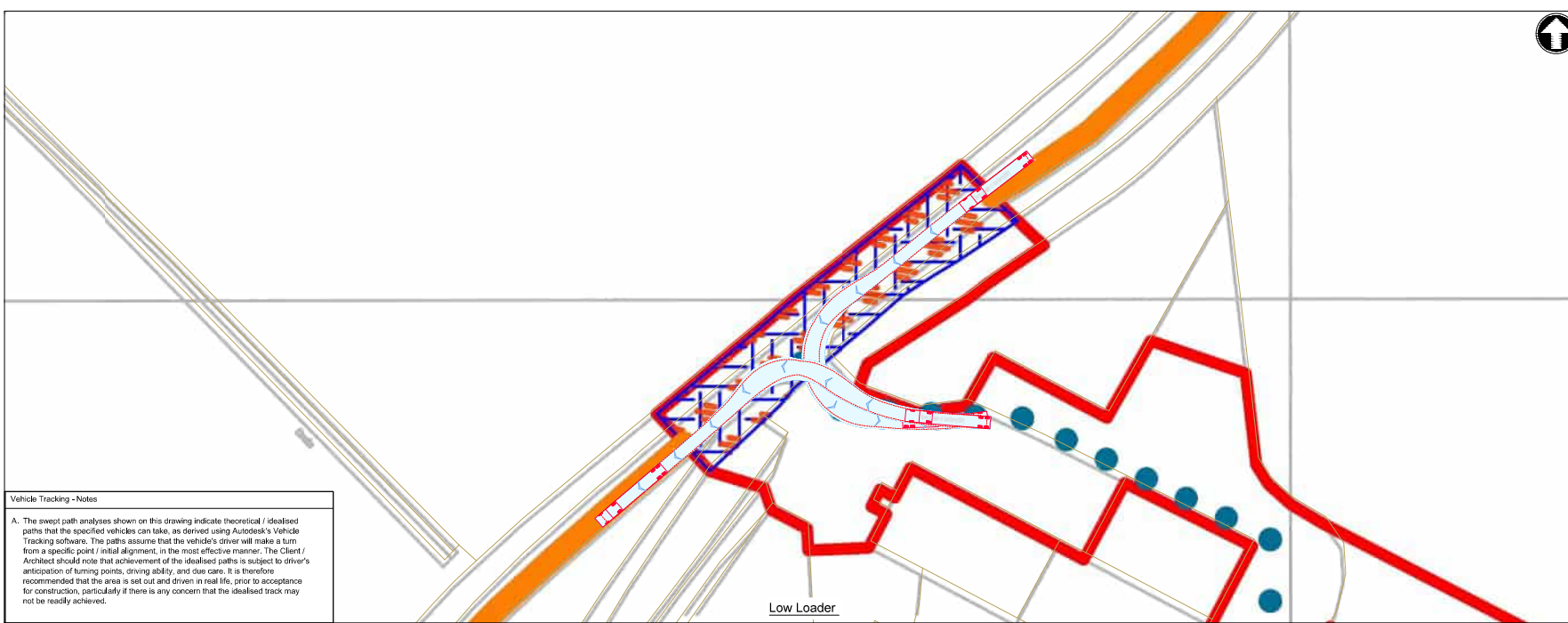


Title  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
9017  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

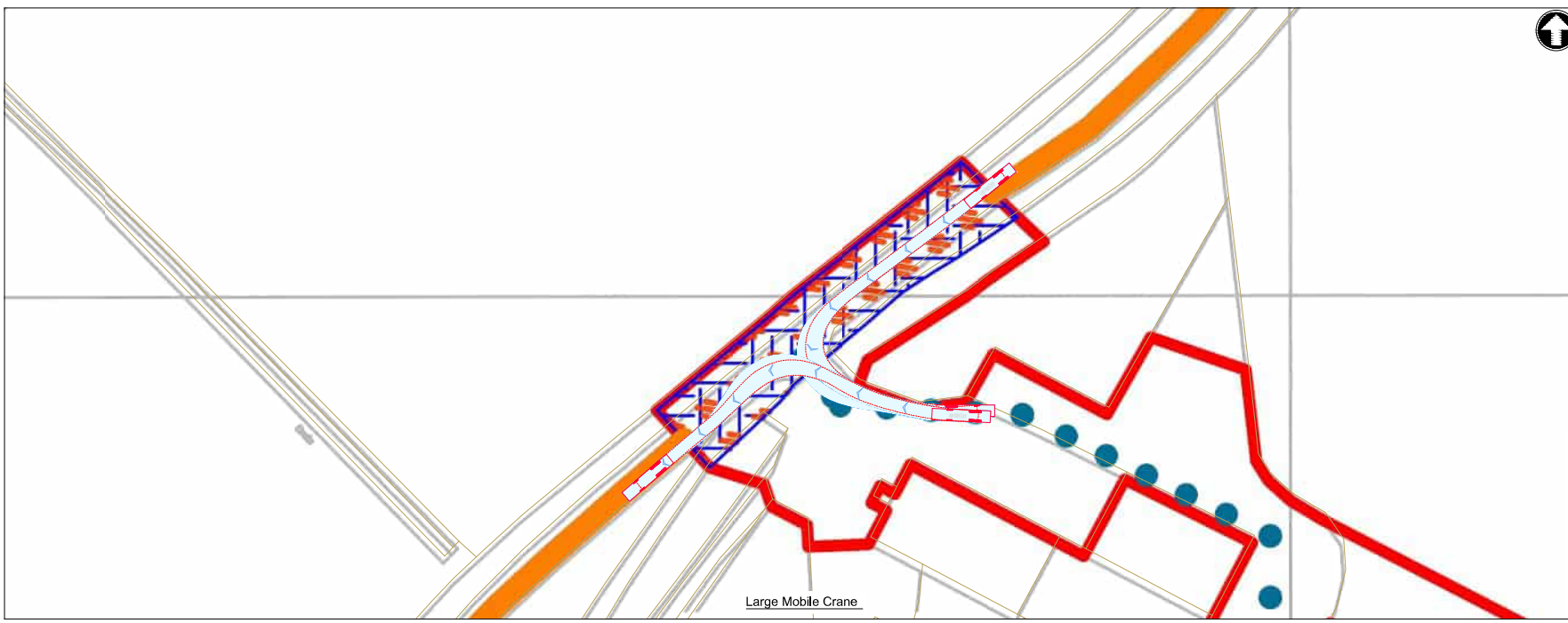
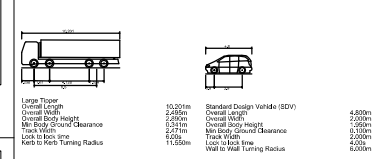
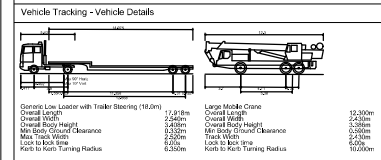
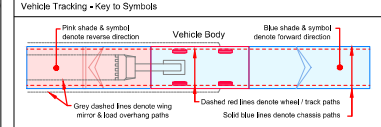
Drawing Number  
102375-MMD-01-XX-DR-C-DRAFT



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- Vehicle Tracking - Risks & Compliance**
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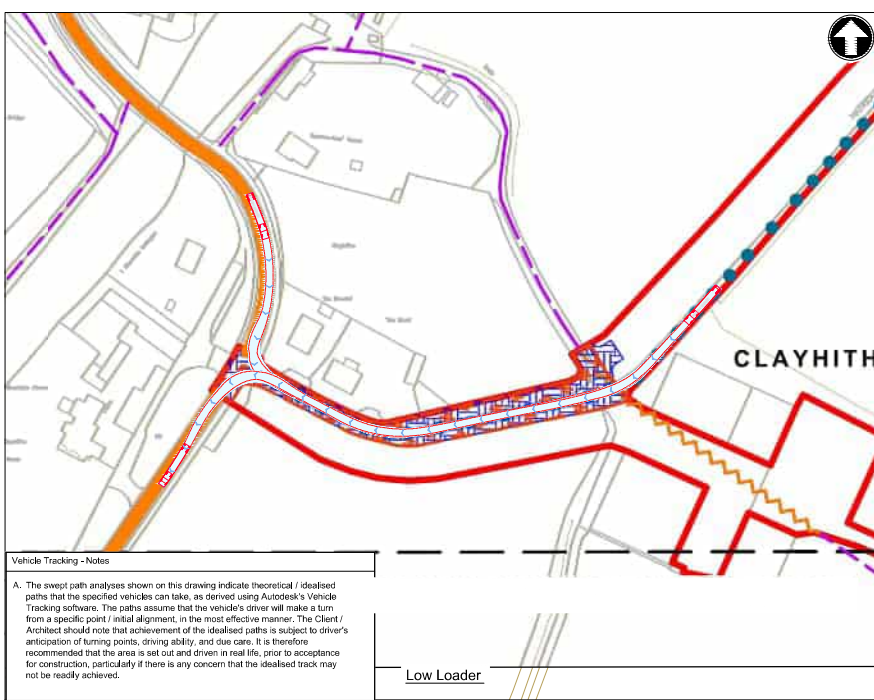


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Temporary Access Junctions  
9017  
Highways GA, Visibility Splay and  
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Dwg check	-	-	Approved	-

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1:500	PRE	P1	STD

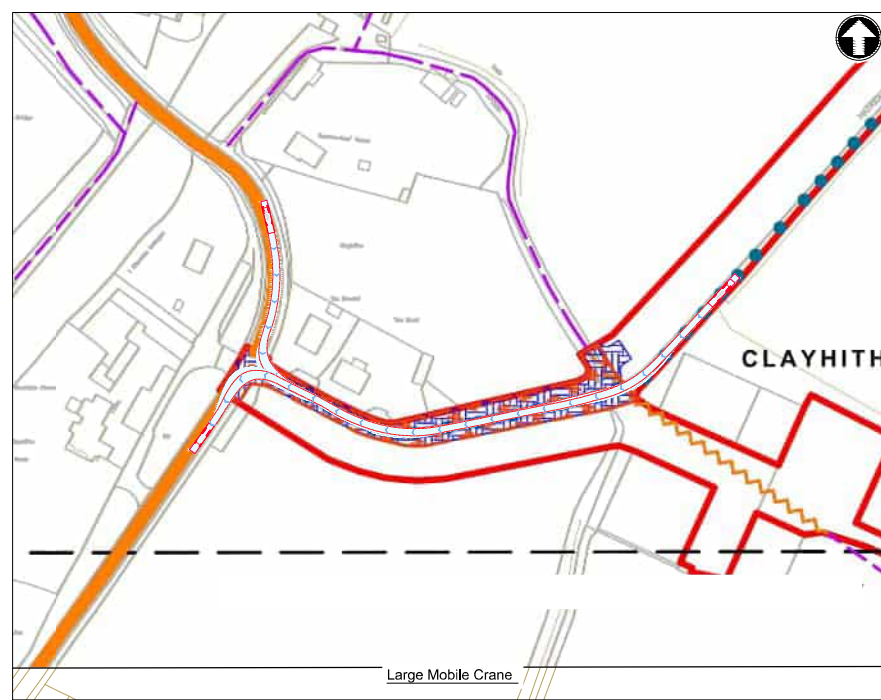
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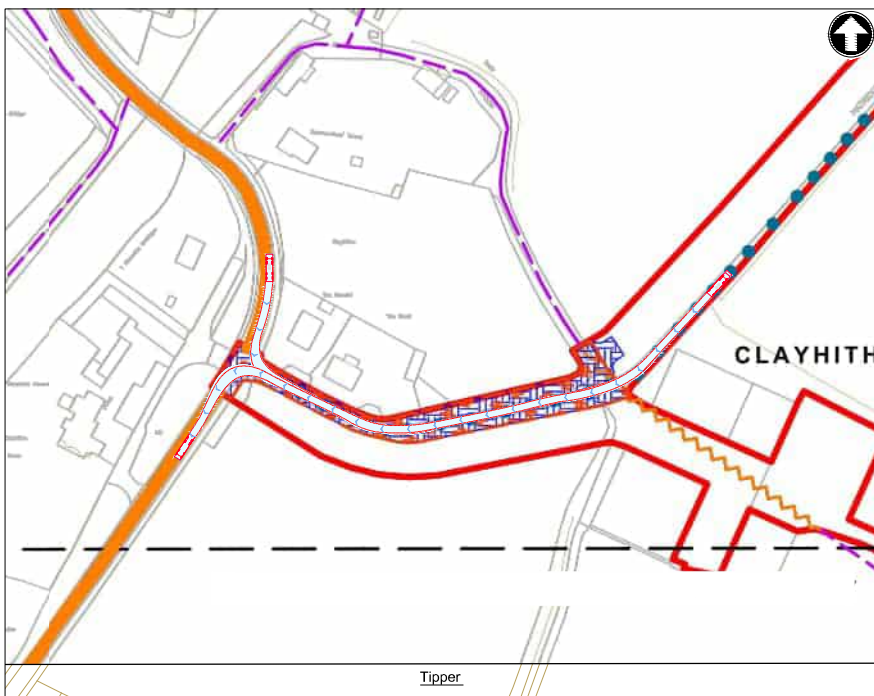
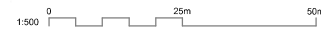
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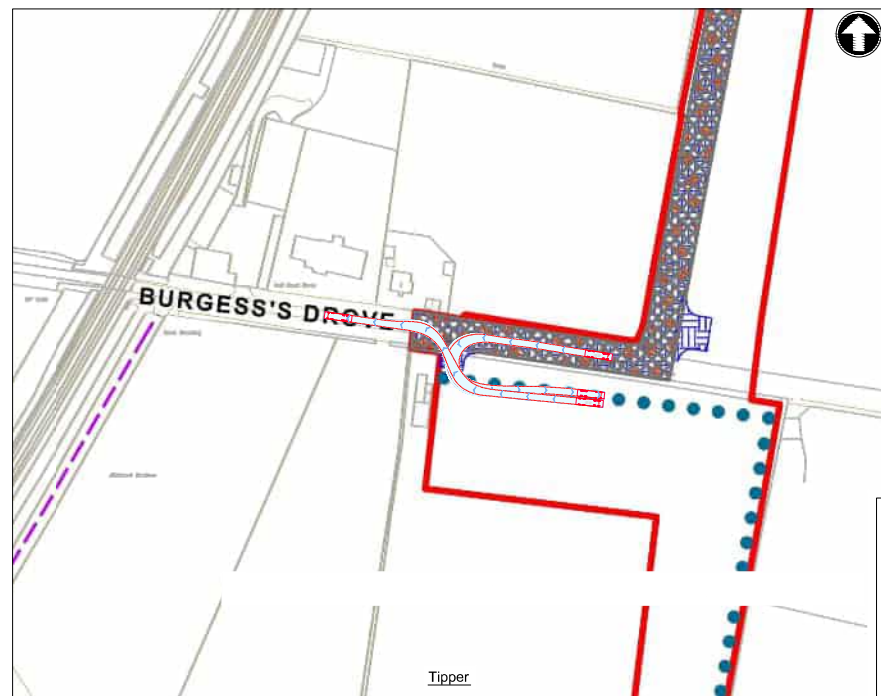
Low Loader



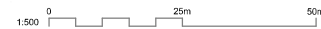
Large Mobile Crane



Tipper

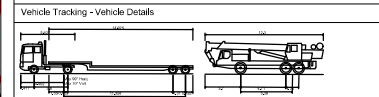
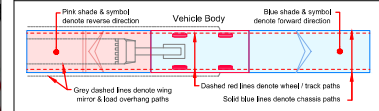


Tipper



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**15. DRAWING MUST BE READ IN COLOUR**



Overall Length with Trailer (Steering 180°)	24.60m	Large Mobile Crane	Overall Length	12.200m
Overall Width	2.460m	Overall Width	2.460m	2.460m
Overall Body Height	3.400m	Overall Body Height	3.300m	3.300m
Min Body Ground Clearance	0.300m	Min Body Ground Clearance	0.300m	0.300m
Max. Rear Overhang	6.00m	Max. Rear Overhang	6.00m	6.00m
Lock to Lock Time	6.00s	Lock to Lock Time	6.00s	6.00s
Kerb to Kerb Turning Radius	6.00m	Kerb to Kerb Turning Radius	6.00m	10.00m

Overall Length	10.00m	Standard Design Vehicle (SDV)	Overall Length	4.800m
Overall Width	2.850m	Overall Width	2.850m	2.850m
Overall Body Height	3.500m	Overall Body Height	3.500m	3.500m
Min Body Ground Clearance	0.300m	Min Body Ground Clearance	0.300m	0.300m
Max. Rear Overhang	2.500m	Max. Rear Overhang	2.500m	2.500m
Lock to Lock Time	11.500m	Lock to Lock Time	4.00s	4.00s
Kerb to Kerb Turning Radius	11.500m	Kerb to Kerb Turning Radius	4.00m	6.000m

**Vehicle Tracking - Risks & Compliance**

- Risks**
- Kerb overrun
  - Restrictive road width

P1	01/11/2022	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	Checked	Approved

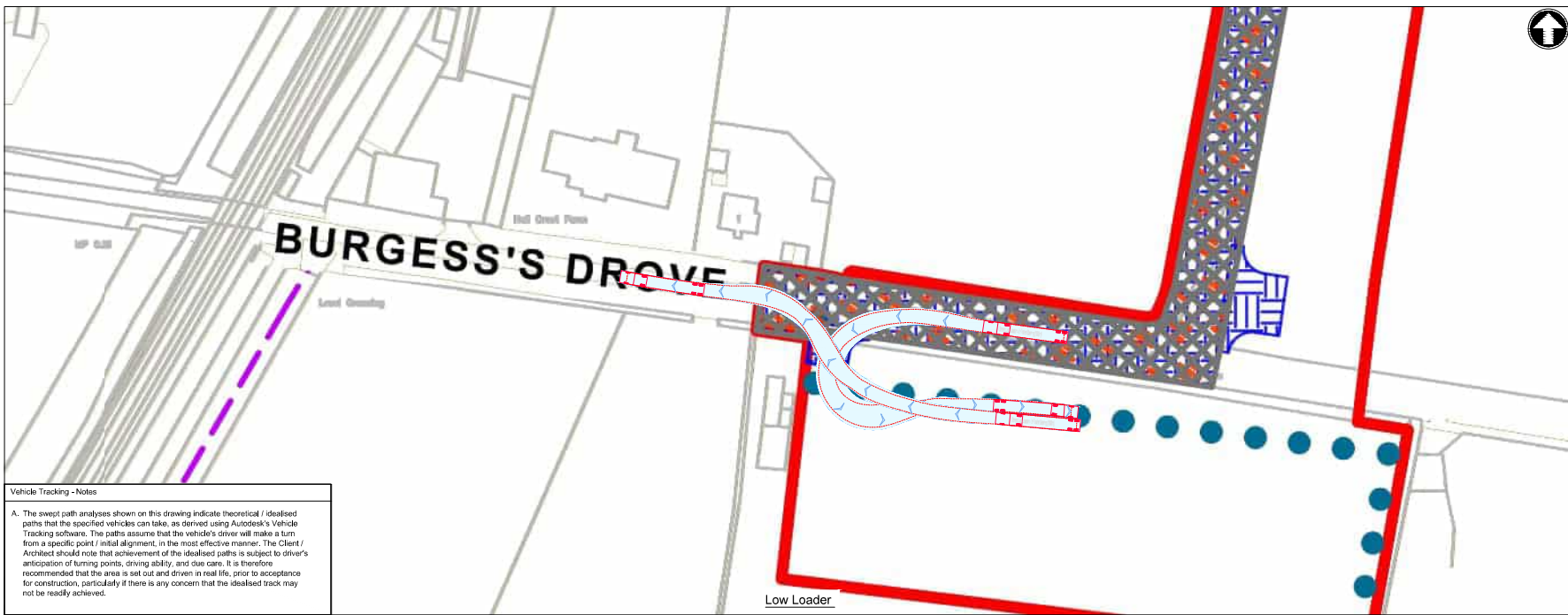


Title  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
9018  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:1000	PRE	P1	STD

Drawing Number  
102375-MMD-01-XX-DR-C-DRAFT

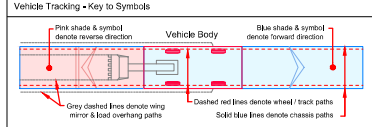


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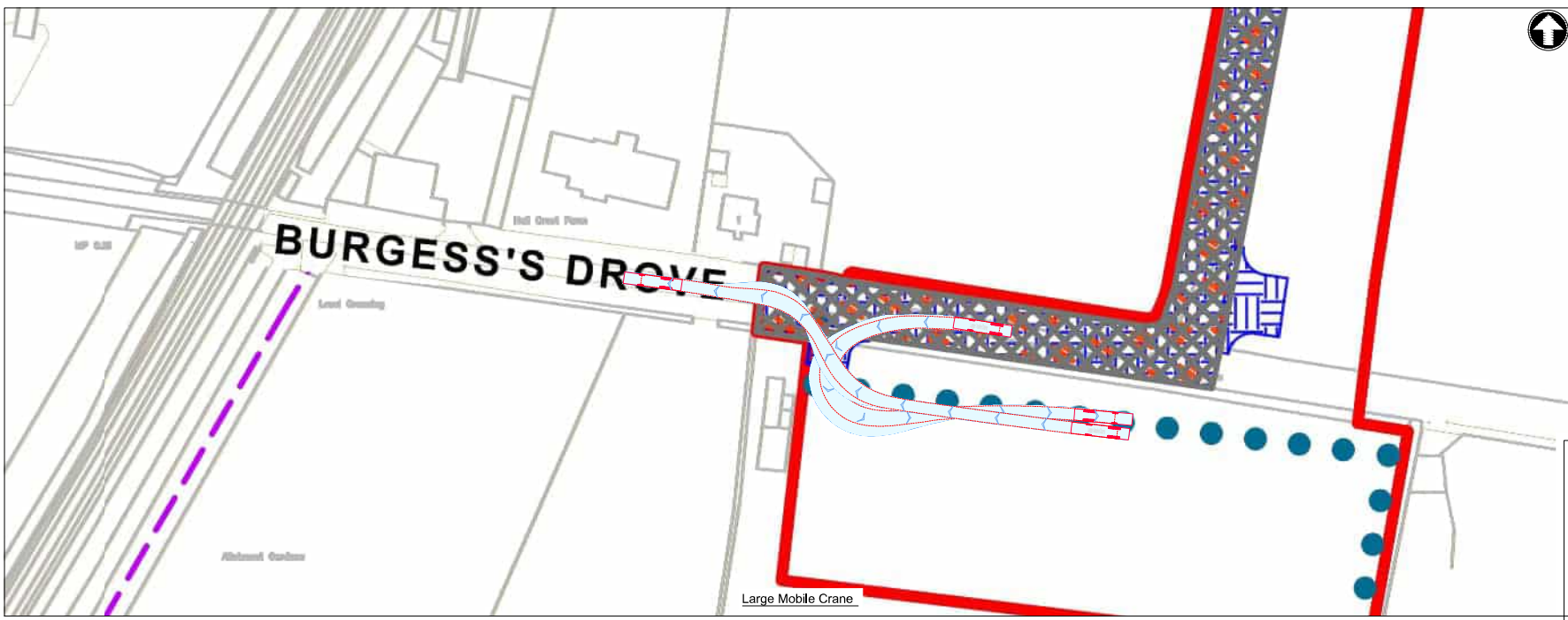
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**Vehicle Tracking - Vehicle Details**

Vehicle	Overall Length	Overall Width	Overall Height	Max Body Ground Clearance	Max Wheel Ground Clearance	Lock to Lock time	Kerb to Kerb Turning Radius
General Low Loader with Trailer (Steering 1820m)	24.60m	2.40m	3.90m	2.00m	2.00m	6.00m	10.00m
Large Mobile Crane	12.00m	2.40m	3.50m	2.00m	2.00m	6.00m	10.00m

Vehicle	Overall Length	Overall Width	Overall Height	Max Body Ground Clearance	Max Wheel Ground Clearance	Lock to Lock time	Kerb to Kerb Turning Radius
Large Tipper	10.00m	2.85m	3.50m	2.00m	2.00m	6.00m	10.00m
Standard Design Vehicle (SDV)	4.80m	1.90m	1.90m	2.00m	2.00m	4.00m	6.00m



- Vehicle Tracking - Risks & Compliance**
- Risks**
- ⚠️ Kerb overrun
  - 🚫 Restrictive road width

Rev	Date	Drawn	Description	Rev	Appr
P1		M/F	Draft for Discussion / Review.	M/F	M/F

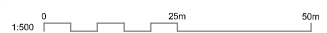


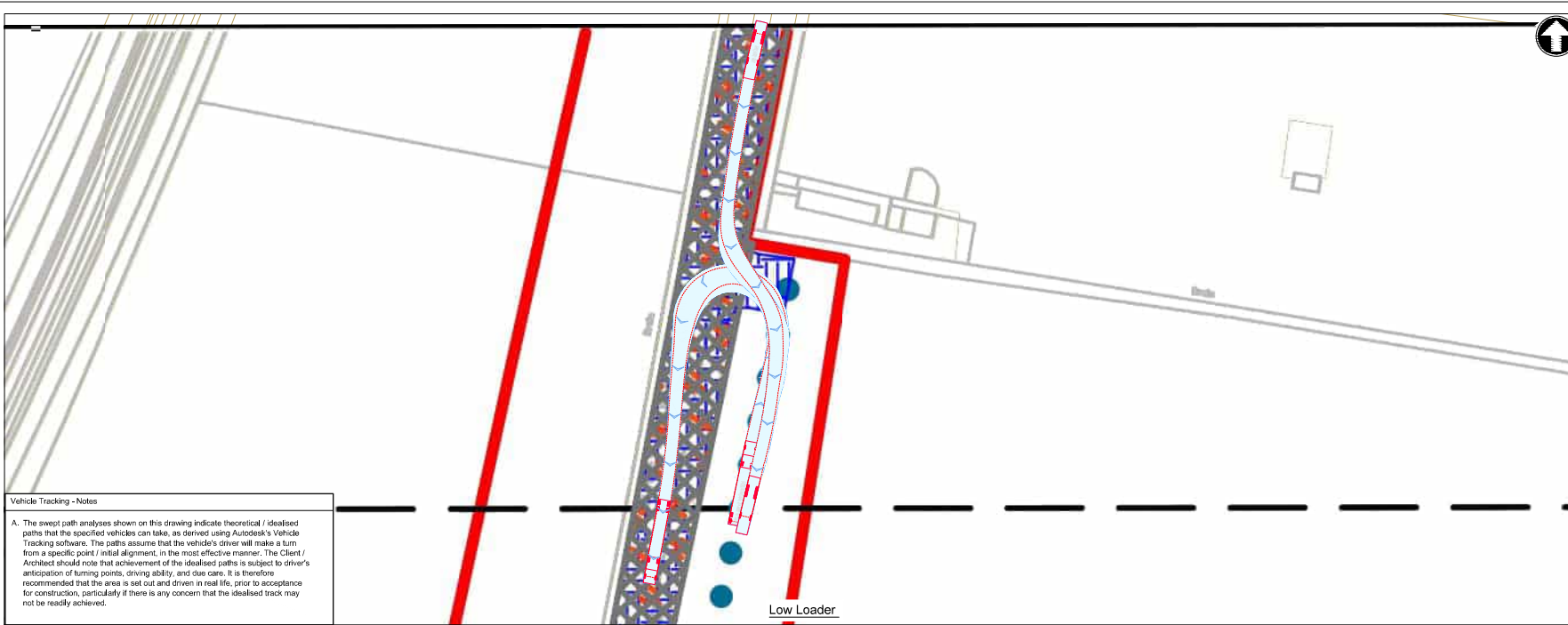
Title  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 9018  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-
Drawn	M Fonseca	M/F	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT



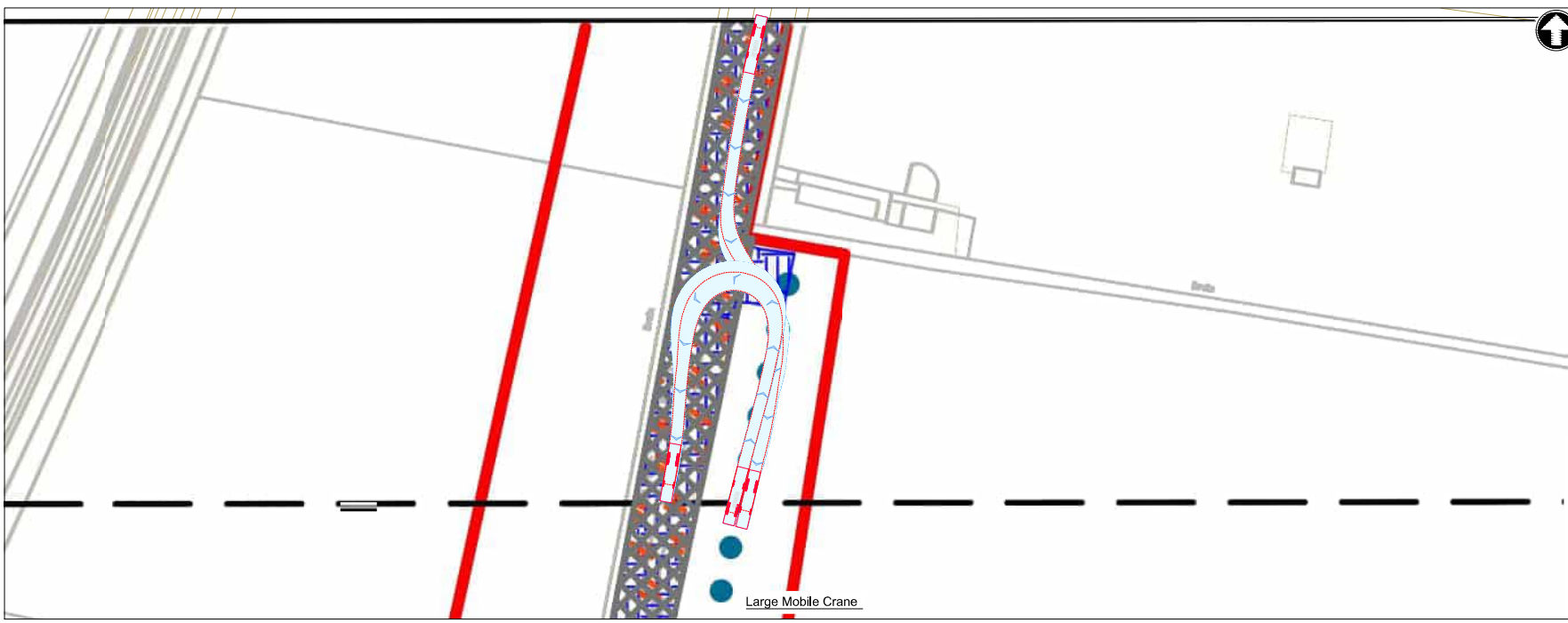
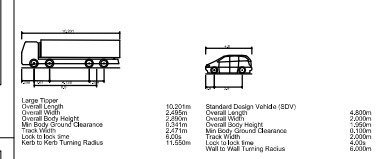
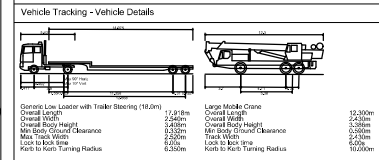
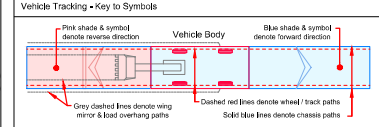


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- Vehicle Tracking - Risks & Compliance**
- Risks**
- ⚠️ Kerb overrun
  - 🚫 Restrictive road width

P1	13/07/22	M/F	Draft for Discussion / Review.	M/F	M/F
Rev	Date	Drawn	Description	CHK'd	App'd



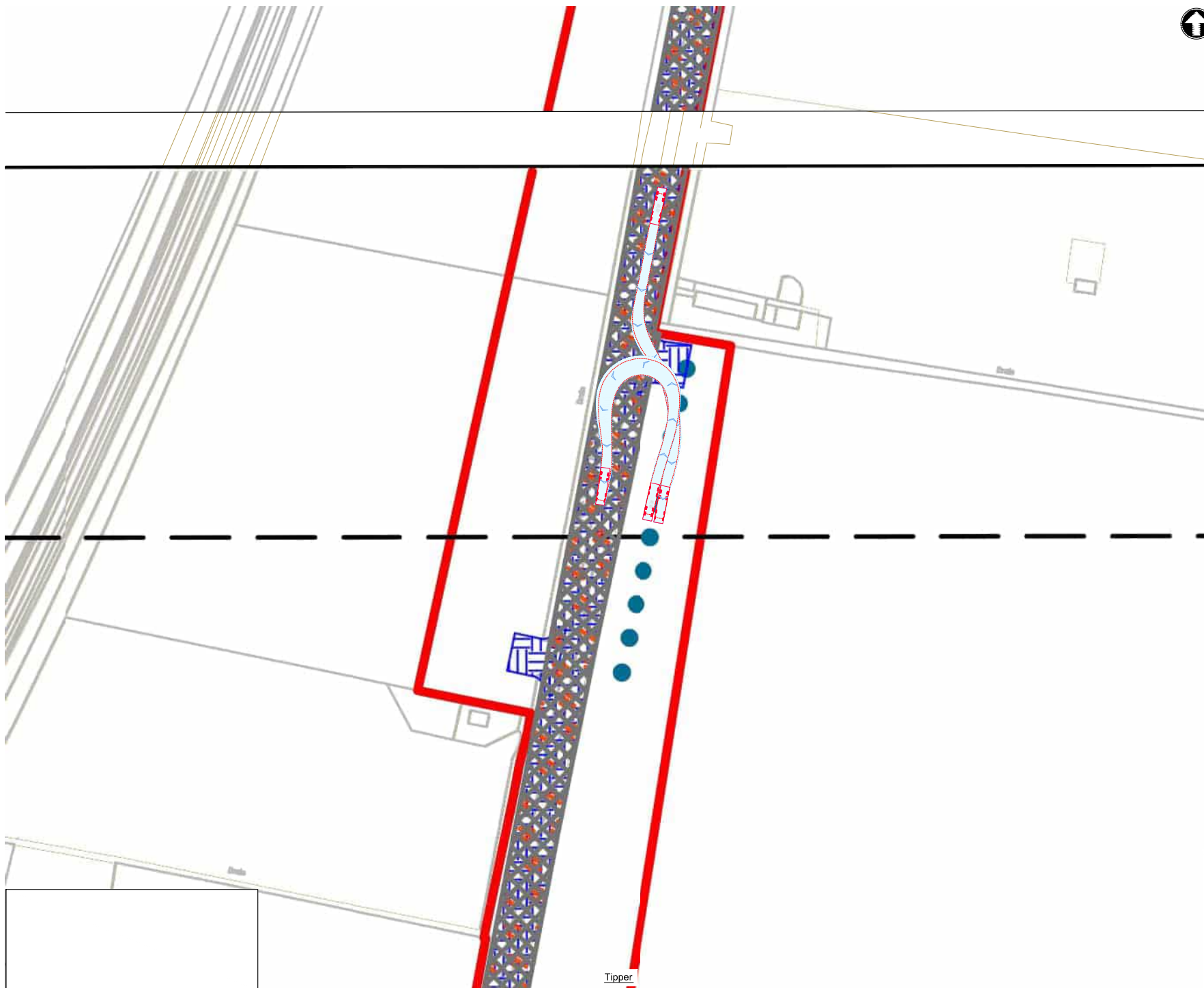
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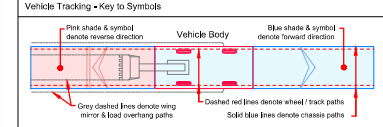
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Vehicle Tracking - Vehicle Details

General Low Loader with Trailer (Steering 180°)	Large Mobile Crane	Standard Design Vehicle (SDV)	
Overall Length	Overall Length	Overall Length	4.60m
Overall Width	Overall Width	Overall Width	2.00m
Overall Body Height	Overall Body Height	Overall Body Height	2.00m
Min. Body Ground Clearance	Min. Body Ground Clearance	Min. Body Ground Clearance	0.20m
Max. Wheel Span	Max. Wheel Span	Max. Wheel Span	2.50m
Lock to Lock Time	Lock to Lock Time	Lock to Lock Time	4.00m
Lock to Kerb Turning Radius	Lock to Kerb Turning Radius	Lock to Kerb Turning Radius	10.00m

Vehicle Tracking - Risks & Compliance

- Risks
- Kerb overrun
  - Restrictive road width

P1	Rev	Date	Drawn	Description	Rev	Appr



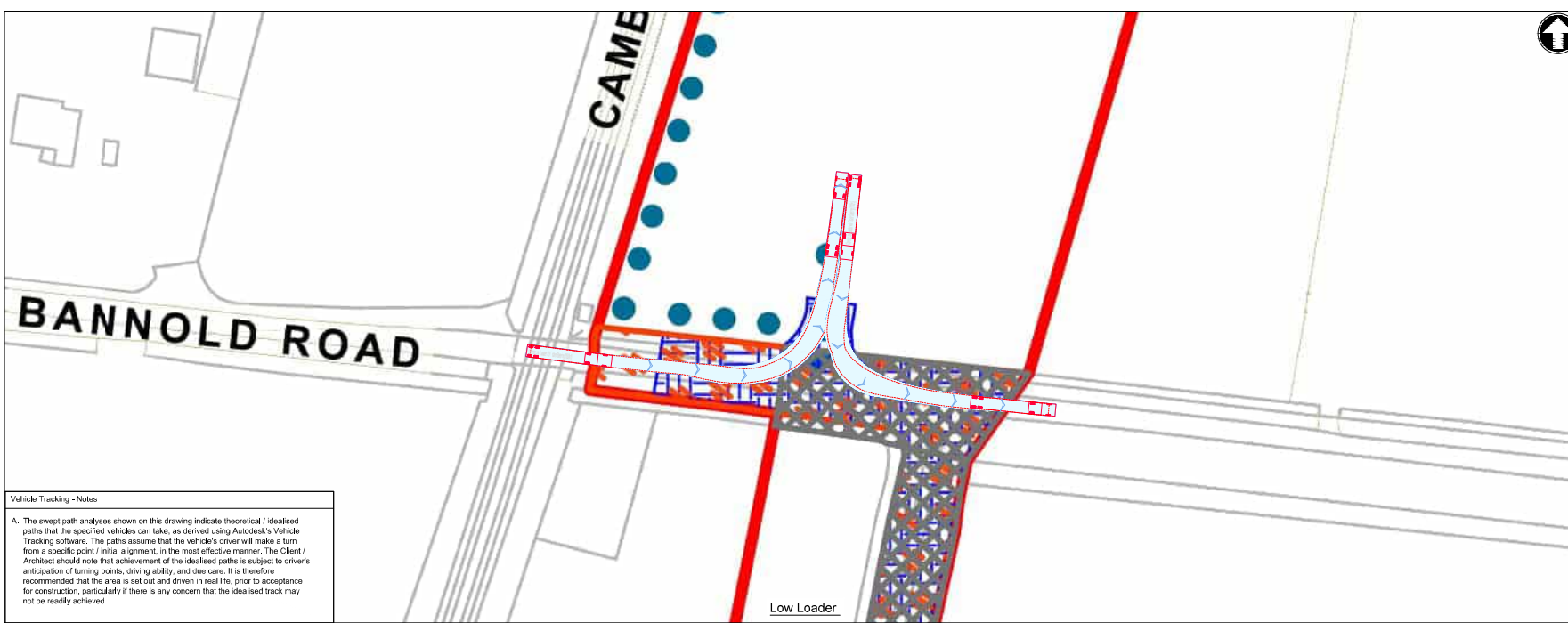
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1:500	PRE	P1	STD

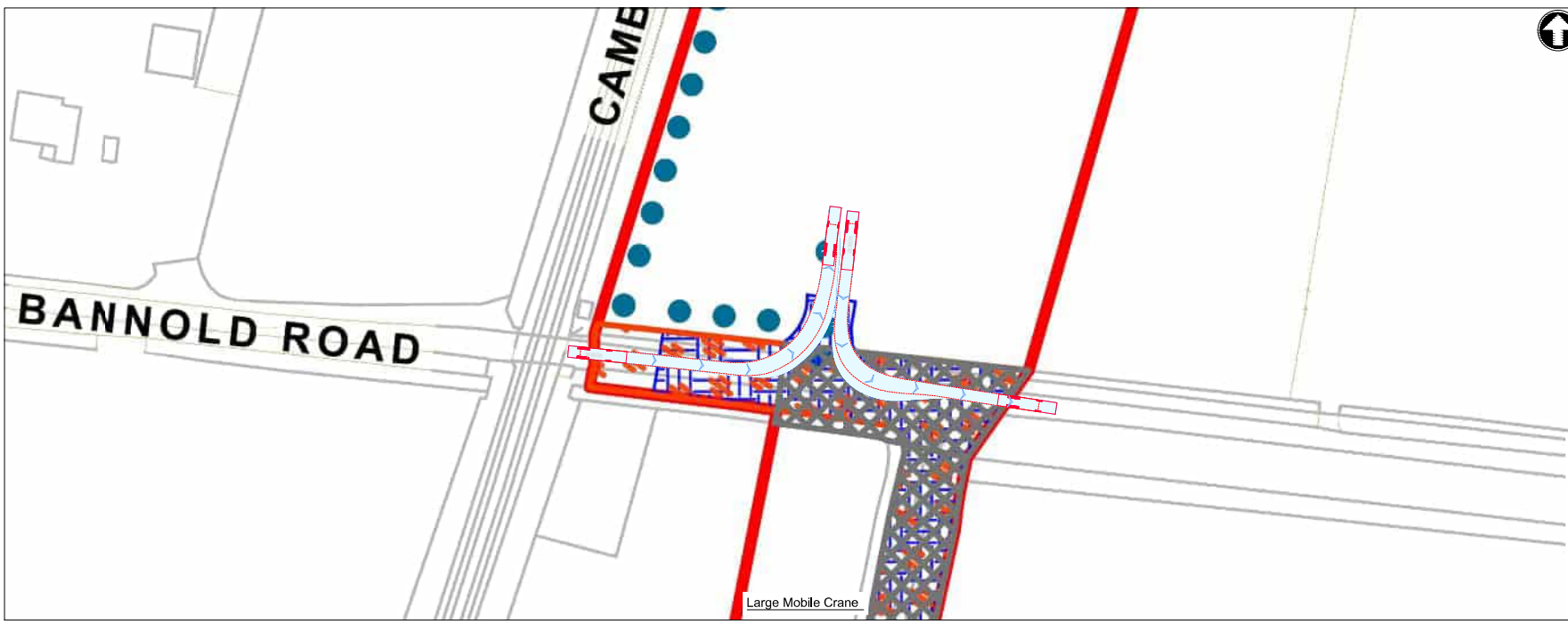
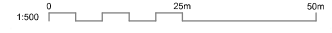
Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT





**Vehicle Tracking - Notes**

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

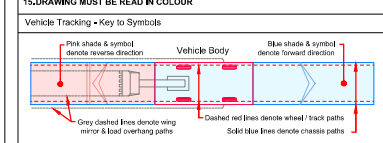


**Vehicle Tracking - Notes**

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.



- Notes**
1. Do not scale from this drawing.
  2. All dimensions are in metres unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). All dimensions & levels should be checked on site.
  3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
  4. This drawing has been prepared for the initial high level optioneering study for the CWWTW project.
  5. The drawing is based on OS mapping information and LIDAR data.
  6. The information is preliminary and subject to further detailed design.
  7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
  8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
  9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
  10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
  11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
  12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
  13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
  14. This drawing should be read in conjunction with the Technical Memo, Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.



**Vehicle Tracking - Vehicle Details**

Dimension	Low Loader with Trailer (1620w)	Large Mobile Crane
Overall Length	7.97m	12.20m
Overall Width	2.66m	2.43m
Overall Body Height	3.49m	3.30m
Min Body Ground Clearance	0.32m	0.27m
Max. Track Rise	0.20m	0.25m
Lock to Lock Time	6.07m	6.07m
Kerb to Kerb Turning Radius	6.07m	10.00m

Dimension	Large Tipper	Standard Design Vehicle (SDV)
Overall Length	10.07m	4.60m
Overall Width	2.85m	2.00m
Overall Body Height	3.56m	3.00m
Min Body Ground Clearance	0.31m	0.28m
Max. Track Rise	0.27m	0.28m
Lock to Lock Time	11.50m	4.00m
Kerb to Kerb Turning Radius	11.50m	4.00m

**Vehicle Tracking - Risks & Compliance**

**Risks**

- Kerb overrun
- Restrictive road width

Rev	Date	Drawn	Description	Rev	Appr
P1		MF	Draft for Discussion / Review.	MF	MF



**Title**  
Cambridge Waste Water Treatment Works Relocation  
Temporary Access Junctions  
9019  
Highways GA, Visibility Splay and  
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-		Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

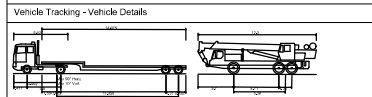
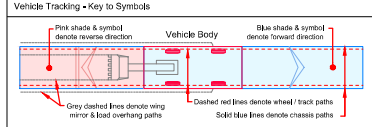
Drawing Number  
102375-MMD-01-XX-DR-C-DRAFT





- Notes
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  13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
  14. This drawing should be read in conjunction with the Technical Memo - Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.

**15. DRAWING MUST BE READ IN COLOUR**



Overall Length	7.910m	Overall Length	12.200m
Overall Width	2.660m	Overall Width	2.430m
Overall Body Height	3.490m	Overall Body Height	3.300m
Min Body Ground Clearance	0.320m	Min Body Ground Clearance	0.250m
Max. Rear Overhang	6.020m	Max. Rear Overhang	2.510m
Lock to Lock time	6.020m	Lock to Lock time	6.020m
Kerb to Kerb Turning Radius	11.550m	Kerb to Kerb Turning Radius	10.000m

Overall Length	10.070m	Overall Length	4.680m
Overall Width	2.285m	Overall Width	2.030m
Overall Body Height	2.560m	Overall Body Height	2.280m
Min Body Ground Clearance	0.270m	Min Body Ground Clearance	0.200m
Max. Rear Overhang	6.020m	Max. Rear Overhang	4.020m
Lock to Lock time	11.550m	Lock to Lock time	6.020m
Kerb to Kerb Turning Radius	11.550m	Kerb to Kerb Turning Radius	6.020m

Overall Length	10.070m	Overall Length	4.680m
Overall Width	2.285m	Overall Width	2.030m
Overall Body Height	2.560m	Overall Body Height	2.280m
Min Body Ground Clearance	0.270m	Min Body Ground Clearance	0.200m
Max. Rear Overhang	6.020m	Max. Rear Overhang	4.020m
Lock to Lock time	11.550m	Lock to Lock time	6.020m
Kerb to Kerb Turning Radius	11.550m	Kerb to Kerb Turning Radius	6.020m

Vehicle Tracking - Risks & Compliance

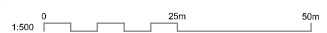
- Risks
- Kerb overrun
  - Restrictive road width

P1	01/07/2022	MF	Draft for Discussion / Review.	MF	MF
Rev	Date	Drawn	Description	CHK'd	App'd

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

Tipper



Title  
 Cambridge Waste Water Treatment Works Relocation  
 Temporary Access Junctions  
 9019  
 Highways GA, Visibility Splay and  
 Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number  
 102375-MMD-01-XX-DR-C-DRAFT

The ExA:

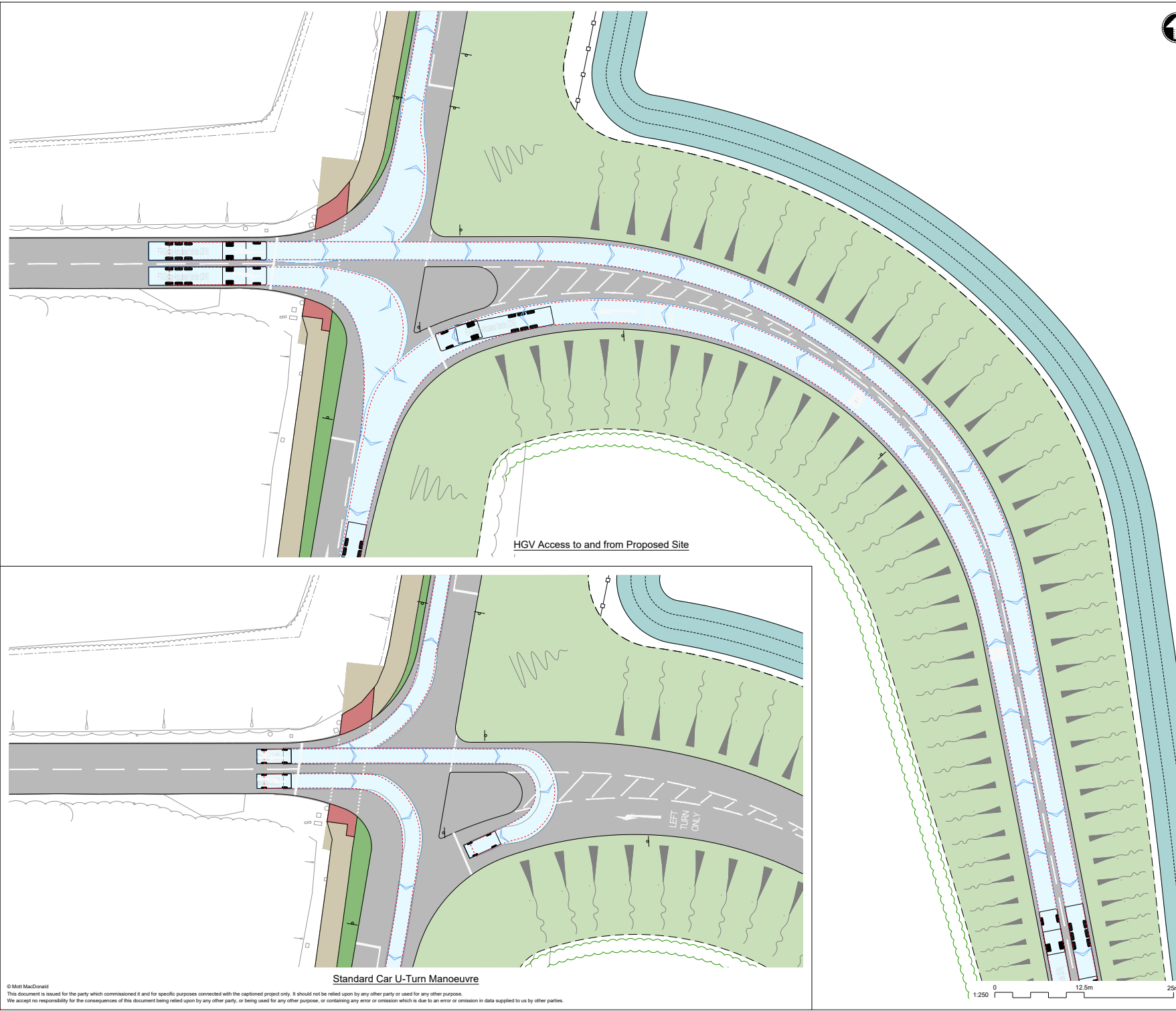
Construction traffic routes – safety

At Appendix G of the TA [AS-108] there are swept path analyses of the J34 on-slip. Please provide:

- a. a swept path analysis for the off-slip junction with the A14 overbridge, including for tipper trucks; and
- b. commentary on whether construction vehicles would be able to safely turn left or right from the J34 off-slip in the event that southbound queuing to the J34 on-slip extends close to or beyond (to the north of) the junction of the J34 off-slip and the A14 overbridge (for example when concrete pouring / directional drilling works take place during the peak periods).

The Applicant has produced these drawings. The Applicant's commentary for these swept paths is as follows:

There are no issues noted for an articulated vehicle (maximum vehicle size expected at site) to complete the left and right turn from the offslip onto Horningsea Road. It is noted that for both manoeuvres, articulated vehicles would need to encroach slightly into the opposite lane to complete the manoeuvres. In spite of this, there is no risk of collision with vehicles from opposite lanes when turning from the offslip as the traffic signal sequence at the junction ensures that when the traffic signals on the offslip are green, traffic signals on other arms would be red. In the event that southbound queuing on A14 overbridge from the on-slip extends close to or beyond the junction of the J34 offslip and the A14 overbridge, articulated vehicles would not be able to complete the right turn from the offslip due to lack of space. The left turn from the offslip onto Horningsea Road northbound north of J34 can be completed as vehicles are not expected to queue in front of the stop line on Horningsea Road southbound leading towards the offslip/A14 overbridge. Therefore, even if an articulated vehicle were to encroach on the opposite lane, there would be no traffic present on that lane owing to the location of the stop line.

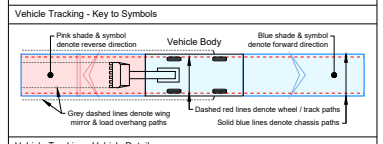


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  3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
  4. This drawing has been prepared as an initial technical audit and Road Safety Audit Stage 1 by Cambridgeshire County Council.
  5. The drawing is based on OS mapping and topographic survey information.
  6. The information is preliminary and subject to further detailed design.
  7. The drawing does not include any information on existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
  8. The proposal requires third party land to be constructed. The extent of the land take is to be determined during detailed design development.
  9. The design is based on the requirements of DMRB.
  10. The design assumes an embankment slope of 1:2 is acceptable to the relevant stakeholders.
  11. The design is based on the requirements of DMRB.
  12. Street lighting on Homingssea Road to remain as existing with minor changes to the locations of the lamp columns due to the reconfigured 'off-slip' junction and the realignment of Homingssea Road.

**13. DRAWING MUST BE READ IN COLOUR**

Key to Symbols

	Carriageway
	Footway
	Tactile Paving (Buff - Uncontrolled)
	Tactile Paving (Red - Controlled)
	Verge
	Reprofiled Embankments
	Swale



Vehicle Tracking - Vehicle Details

<p>FTA Design Articulated Vehicle (1998)</p> <p>Overall Length 16.480m Chassis Width 2.950m Overall Width inc. Wing Mirrors 3.150m Overall Body Height 3.870m Max. Track Width 2.470m Kerb to Kerb Turning Radius 6.050m</p>	<p>Standard Design Vehicle (From ICE Car Park Designers' Handbook)</p> <p>Overall Length 4.900m Chassis Width 2.000m Overall Width inc. Wing Mirrors 2.300m Track Body Height 2.000m Track Width 2.000m Wheel to Wheel Turning Radius 6.000m</p>

Reference drawings

P2	14.12.23	LJR	HGV viewpoint adjusted to include Northern stop line.	JRT	dvt
P1	05.07.22	LJR	Preliminary Issue	JR	ARR
Rev	Date	Drawn	Description	CHKD	App'd

**M**  
**MOTT**  
**MACDONALD**

Mott MacDonald  
22 Station Road  
Cambridge, CB1 2JD  
United Kingdom

T +44 (0)1223 463 500  
F +44 (0)1223 461 007  
W mottmac.com



Title  
**Cambridge Waste Water Treatment Works Relocation  
Vehicle Tracking  
Homingssea Road Junction**

Scale at A1  
**1:250**

Status  
**PRE**

Rev  
**P2**

Security  
**STD**

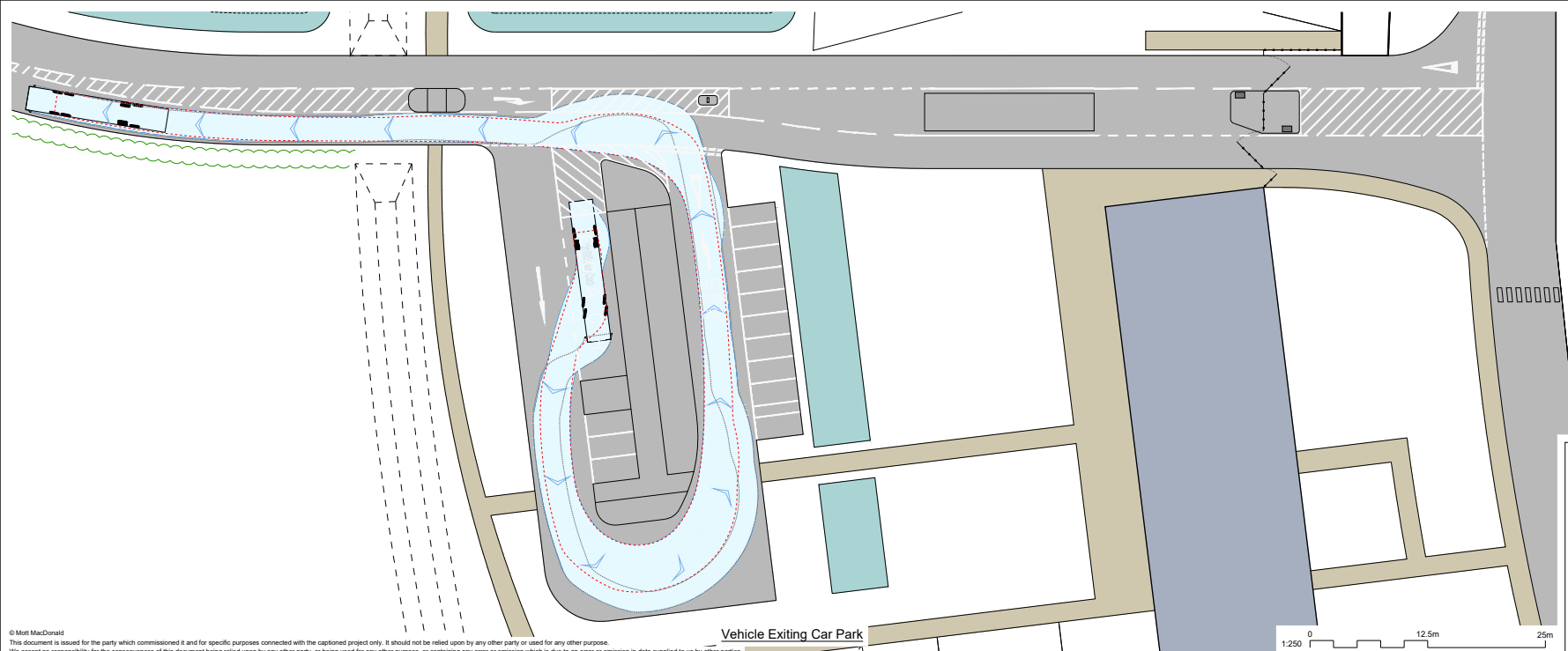
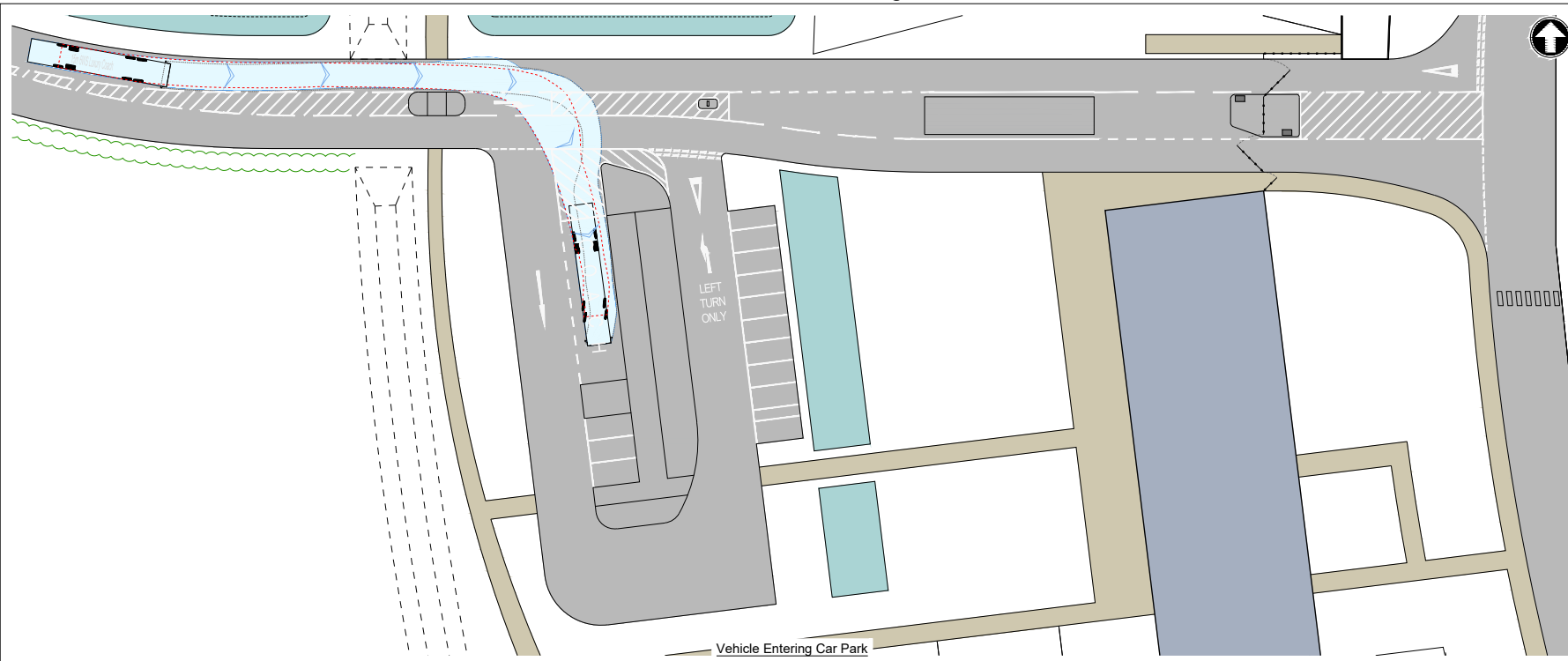
Designed	J.Reeve	JJR	Eng check	W.Tong	WJT
Drawn	L.W.Russell	LJR	Coordination	A.M.Rawlings	AMR
Dwg check	J.D.Seaton	JDS	Approved	G.Wicks	GW

Drawing Number  
**102375-MMD-01-XX-DR-C-1121**

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We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

C:\Users\RUS46566\Mott MacDonald\CWWTWR Highway Access - Project - CAD (Civils Design)\2\_1 Issued Drawings (Main Site Works)\102375-MMD-01-XX-DR-C-1121\_P2.dwg Dec 14, 2023 - 2:20AM RUS46566

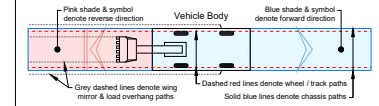
**NOT FOR CONSTRUCTION**



Notes

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4. **DRAWING MUST BE READ IN COLOUR**

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details



**Luxury Coach (Nespolin Magalier)**  
 Overall Length 15.000m  
 Overall Width 2.500m  
 Overall Body Height 4.157m  
 Track Width 2.500m  
 Kerb to Kerb Turning Radius 9.773m  
 Note: This vehicle incorporates rear steering.

Vehicle Tracking - Risks & Compliance

**Moderate Risks**  
**M1** Vehicle must overrun opposite lane to exit car park.

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

Reference drawings

Rev	Date	Drawn	Description	WT	GW
P1	14.12.23	LJR	Preliminary Issue		

**MOTT MACDONALD**  
 Mott MacDonald  
 22 Station Road  
 Cambridge, CB1 2JD  
 United Kingdom  
 T +44 (0)1223 463 500  
 F +44 (0)1223 461 007  
 W mottmac.com



Title  
**Cambridge Waste Water Treatment Works Relocation  
 Site Access and Visitor Car Park  
 Coach Access to Visitor's Car Park**

Designed	J.Reeve	JJR	Eng check	W.Tong	WT
Drawn	L.W.Russell	LJR	Coordination	A.M.Rawlings	AMR
Dwg check	J.D.Seaton	JDS	Approved	G.Wicks	GW
Scale at A1	1:250	Status	PRE	Rev	P1
		Security			STD

Drawing Number  
**102375-MMD-01-XX-DR-C-1142**

NOT FOR CONSTRUCTION



## Appendix H: Discovery Centre TRICS® Data

Calculation Reference: AUDIT-704113-220804-0830

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE  
 Category : I - ART GALLERIES/MUSEUMS/EXHIBITIONS  
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

16 ULSTER (REPUBLIC OF IRELAND)  
 DN DONEGAL 1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

## Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Gross floor area  
 Actual Range: 750 to 750 (units: sqm)  
 Range Selected by User: 200 to 5000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 23/11/19

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Wednesday 1 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count 1 days  
 Directional ATC Count 0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

Edge of Town Centre 1

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

High Street 1

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

## Secondary Filtering selection:

Use Class:

F1(c) 1 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

## Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000 1 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*Population within 5 miles:

5,001 to 25,000 1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*Car ownership within 5 miles:

0.6 to 1.0 1 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*Travel Plan:

No 1 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*PTAL Rating:

No PTAL Present 1 days

*This data displays the number of selected surveys with PTAL Ratings.*

LIST OF SITES relevant to selection parameters

1	DN-07-I-02 HIGH ROAD LETTERKENNY BALLYBOE GLENCAR Edge of Town Centre High Street Total Gross floor area: <i>Survey date: WEDNESDAY</i>	COUNTY MUSEUM      750 sqm <i>10/10/18</i>	DONEGAL       <i>Survey Type: MANUAL</i>
---	--	---	---

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
DU-07-I-01	Location unsuitable
ES-07-I-01	Location unsuitable



TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.88

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	750	0.267	1	750	0.133	1	750	0.400
10:00 - 11:00	1	750	0.000	1	750	0.133	1	750	0.133
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000
12:00 - 13:00	1	750	0.133	1	750	0.000	1	750	0.133
13:00 - 14:00	1	750	0.133	1	750	0.133	1	750	0.266
14:00 - 15:00	1	750	0.400	1	750	0.267	1	750	0.667
15:00 - 16:00	1	750	0.533	1	750	0.267	1	750	0.800
16:00 - 17:00	1	750	0.133	1	750	0.667	1	750	0.800
17:00 - 18:00	1	750	0.000	1	750	0.133	1	750	0.133
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			1.599			1.733			3.332

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

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#### Parameter summary

Trip rate parameter range selected:	750 - 750 (units: sqm)
Survey date date range:	01/01/14 - 23/11/19
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	750	0.267	1	750	0.133	1	750	0.400
10:00 - 11:00	1	750	0.000	1	750	0.133	1	750	0.133
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000
12:00 - 13:00	1	750	0.133	1	750	0.000	1	750	0.133
13:00 - 14:00	1	750	0.267	1	750	0.133	1	750	0.400
14:00 - 15:00	1	750	0.533	1	750	0.533	1	750	1.066
15:00 - 16:00	1	750	0.933	1	750	0.533	1	750	1.466
16:00 - 17:00	1	750	0.133	1	750	0.800	1	750	0.933
17:00 - 18:00	1	750	0.000	1	750	0.133	1	750	0.133
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			<b>2.266</b>			<b>2.398</b>			<b>4.664</b>

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	750	0.000	1	750	0.000	1	750	0.000
10:00 - 11:00	1	750	0.400	1	750	0.400	1	750	0.800
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000
12:00 - 13:00	1	750	0.000	1	750	0.000	1	750	0.000
13:00 - 14:00	1	750	0.400	1	750	0.133	1	750	0.533
14:00 - 15:00	1	750	0.000	1	750	0.000	1	750	0.000
15:00 - 16:00	1	750	0.000	1	750	0.267	1	750	0.267
16:00 - 17:00	1	750	0.000	1	750	0.000	1	750	0.000
17:00 - 18:00	1	750	0.000	1	750	0.000	1	750	0.000
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			0.800			0.800			1.600

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.88

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	750	0.267	1	750	0.133	1	750	0.400
10:00 - 11:00	1	750	0.400	1	750	0.533	1	750	0.933
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000
12:00 - 13:00	1	750	0.133	1	750	0.000	1	750	0.133
13:00 - 14:00	1	750	0.667	1	750	0.267	1	750	0.934
14:00 - 15:00	1	750	0.533	1	750	0.533	1	750	1.066
15:00 - 16:00	1	750	0.933	1	750	0.800	1	750	1.733
16:00 - 17:00	1	750	0.133	1	750	0.800	1	750	0.933
17:00 - 18:00	1	750	0.000	1	750	0.133	1	750	0.133
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			3.066			3.199			6.265

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS

MULTI-MODAL CARS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	750	0.267	1	750	0.133	1	750	0.400
10:00 - 11:00	1	750	0.000	1	750	0.133	1	750	0.133
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000
12:00 - 13:00	1	750	0.133	1	750	0.000	1	750	0.133
13:00 - 14:00	1	750	0.133	1	750	0.133	1	750	0.266
14:00 - 15:00	1	750	0.400	1	750	0.267	1	750	0.667
15:00 - 16:00	1	750	0.533	1	750	0.267	1	750	0.800
16:00 - 17:00	1	750	0.133	1	750	0.667	1	750	0.800
17:00 - 18:00	1	750	0.000	1	750	0.133	1	750	0.133
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			1.599			1.733			3.332

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

**TRICS 7.9.2****Trip Rate Parameter: Gross floor area**

TRIP RATE for Land Use 07 - LEISURE/I - ART

GALLERIES/MUSEUMS/EXHIBITIONS

Calculation Factor: 100 sqm

Count Type: TOTAL VEHICLES

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00									
08:00-09:00									
09:00-10:00	1	750	0.267	1	750	0.133	1	750	0.4
10:00-11:00	1	750	0	1	750	0.133	1	750	0.133
11:00-12:00	1	750	0	1	750	0	1	750	0
12:00-13:00	1	750	0.133	1	750	0	1	750	0.133
13:00-14:00	1	750	0.133	1	750	0.133	1	750	0.266
14:00-15:00	1	750	0.4	1	750	0.267	1	750	0.667
15:00-16:00	1	750	0.533	1	750	0.267	1	750	0.8
16:00-17:00	1	750	0.133	1	750	0.667	1	750	0.8
17:00-18:00	1	750	0	1	750	0.133	1	750	0.133
18:00-19:00									
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			1.599			1.733			3.332

**TRICS 7.9.2****Trip Rate Parameter: Gross floor area**

TRIP RATE for Land Use 07 - LEISURE/I - ART

GALLERIES/MUSEUMS/EXHIBITIONS

Calculation Factor: 100 sqm

Count Type: VEHICLE OCCUPANTS

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00									
08:00-09:00									
09:00-10:00	1	750	0.267	1	750	0.133	1	750	0.4
10:00-11:00	1	750	0	1	750	0.133	1	750	0.133
11:00-12:00	1	750	0	1	750	0	1	750	0
12:00-13:00	1	750	0.133	1	750	0	1	750	0.133
13:00-14:00	1	750	0.267	1	750	0.133	1	750	0.4
14:00-15:00	1	750	0.533	1	750	0.533	1	750	1.066
15:00-16:00	1	750	0.933	1	750	0.533	1	750	1.466
16:00-17:00	1	750	0.133	1	750	0.8	1	750	0.933
17:00-18:00	1	750	0	1	750	0.133	1	750	0.133
18:00-19:00									
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			2.266			2.398			4.664

**TRICS 7.9.2****Trip Rate Parameter: Gross floor area**

TRIP RATE for Land Use 07 - LEISURE/I - ART

GALLERIES/MUSEUMS/EXHIBITIONS

Calculation Factor: 100 sqm

Count Type: PEDESTRIANS

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00									
08:00-09:00									
09:00-10:00	1	750	0	1	750	0	1	750	0
10:00-11:00	1	750	0.4	1	750	0.4	1	750	0.8
11:00-12:00	1	750	0	1	750	0	1	750	0
12:00-13:00	1	750	0	1	750	0	1	750	0
13:00-14:00	1	750	0.4	1	750	0.133	1	750	0.533
14:00-15:00	1	750	0	1	750	0	1	750	0
15:00-16:00	1	750	0	1	750	0.267	1	750	0.267
16:00-17:00	1	750	0	1	750	0	1	750	0
17:00-18:00	1	750	0	1	750	0	1	750	0
18:00-19:00									
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			0.8			0.8			1.6



**TRICS 7.9.2****Trip Rate Parameter: Gross floor area**

TRIP RATE for Land Use 07 - LEISURE/I - ART

GALLERIES/MUSEUMS/EXHIBITIONS

Calculation Factor: 100 sqm

Count Type: TOTAL PEOPLE

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00									
08:00-09:00									
09:00-10:00	1	750	0.267	1	750	0.133	1	750	0.4
10:00-11:00	1	750	0.4	1	750	0.533	1	750	0.933
11:00-12:00	1	750	0	1	750	0	1	750	0
12:00-13:00	1	750	0.133	1	750	0	1	750	0.133
13:00-14:00	1	750	0.667	1	750	0.267	1	750	0.934
14:00-15:00	1	750	0.533	1	750	0.533	1	750	1.066
15:00-16:00	1	750	0.933	1	750	0.8	1	750	1.733
16:00-17:00	1	750	0.133	1	750	0.8	1	750	0.933
17:00-18:00	1	750	0	1	750	0.133	1	750	0.133
18:00-19:00									
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			3.066			3.199			6.265

**TRICS 7.9.2****Trip Rate Parameter: Gross floor area**

TRIP RATE for Land Use 07 - LEISURE/I - ART

GALLERIES/MUSEUMS/EXHIBITIONS

Calculation Factor: 100 sqm

Count Type: CARS

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00									
08:00-09:00									
09:00-10:00	1	750	0.267	1	750	0.133	1	750	0.4
10:00-11:00	1	750	0	1	750	0.133	1	750	0.133
11:00-12:00	1	750	0	1	750	0	1	750	0
12:00-13:00	1	750	0.133	1	750	0	1	750	0.133
13:00-14:00	1	750	0.133	1	750	0.133	1	750	0.266
14:00-15:00	1	750	0.4	1	750	0.267	1	750	0.667
15:00-16:00	1	750	0.533	1	750	0.267	1	750	0.8
16:00-17:00	1	750	0.133	1	750	0.667	1	750	0.8
17:00-18:00	1	750	0	1	750	0.133	1	750	0.133
18:00-19:00									
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			1.599			1.733			3.332

**TRICS 7.9.2****Trip Rate Parameter: Gross floor area****Mode split**

<b>Mode</b>	<b>Total number of trips</b>	<b>Mode split</b>
<b>Taxis</b>	0	0.0%
<b>OGVs</b>	0	0.0%
<b>PSVs</b>	0	0.0%
<b>LGVs</b>	0	0.0%
<b>Cars</b>	7	34.7%
<b>Cyclists</b>	0	0.0%
<b>Pedestrians</b>	13	65.3%
<b>Bus</b>	0	0.0%
<b>Rail</b>	0	0.0%
<b>Motorcycles</b>	0	0.0%
<b>Total</b>	20	100.0%

**Total people**

Calculation factor: 100sqm

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Trip rate for site1	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip Rate2
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00	1	750	0.267	1	1	750	0.133	0	1	750	0.4	1
10:00-11:00	1	750	0.4	1	1	750	0.533	1	1	750	0.933	2
11:00-12:00	1	750	0	0	1	750	0	0	1	750	0	0
12:00-13:00	1	750	0.133	0	1	750	0	0	1	750	0.133	0
13:00-14:00	1	750	0.667	1	1	750	0.267	1	1	750	0.934	2
14:00-15:00	1	750	0.533	1	1	750	0.533	1	1	750	1.066	2
15:00-16:00	1	750	0.933	2	1	750	0.8	2	1	750	1.733	4
16:00-17:00	1	750	0.133	0	1	750	0.8	2	1	750	0.933	2
17:00-18:00	1	750	0	0	1	750	0.133	0	1	750	0.133	0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			3.066	6			3.199	7			6.265	13

Total proposed floorspace (sqm)      209      100sqm conversion factor      2.09

## Total vehicles

Calculation factor: 100sqm

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip Rate2
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00	1	750	0.267	1	1	750	0.133	0	1	750	0.4	1
10:00-11:00	1	750	0	0	1	750	0.133	0	1	750	0.133	0
11:00-12:00	1	750	0	0	1	750	0	0	1	750	0	0
12:00-13:00	1	750	0.133	0	1	750	0	0	1	750	0.133	0
13:00-14:00	1	750	0.133	0	1	750	0.133	0	1	750	0.266	1
14:00-15:00	1	750	0.4	1	1	750	0.267	1	1	750	0.667	1
15:00-16:00	1	750	0.533	1	1	750	0.267	1	1	750	0.8	2
16:00-17:00	1	750	0.133	0	1	750	0.667	1	1	750	0.8	2
17:00-18:00	1	750	0	0	1	750	0.133	0	1	750	0.133	0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			1.599	3			1.733	4			3.332	7

Total proposed  
floorspace (sqm) 209  
100sqm  
conversion factor 2.09

**Taxis**

**Calculation factor: 100sqm**

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip rate for site22
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

**Total proposed  
floorspace (sqm) 209**  
**100sqm  
conversion factor 2.09**

## Vehicle occupants

Calculation factor: 100sqm

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip Rate2
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00				0				0				0
06:00-07:00				0				0				0
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00	1	750	0.267	1	1	750	0.133	0	1	750	0.4	1
10:00-11:00	1	750	0	0	1	750	0.133	0	1	750	0.133	0
11:00-12:00	1	750	0	0	1	750	0	0	1	750	0	0
12:00-13:00	1	750	0.133	0	1	750	0	0	1	750	0.133	0
13:00-14:00	1	750	0.267	1	1	750	0.133	0	1	750	0.4	1
14:00-15:00	1	750	0.533	1	1	750	0.533	1	1	750	1.066	2
15:00-16:00	1	750	0.933	2	1	750	0.533	1	1	750	1.466	3
16:00-17:00	1	750	0.133	0	1	750	0.8	2	1	750	0.933	2
17:00-18:00	1	750	0	0	1	750	0.133	0	1	750	0.133	0
18:00-19:00				0				0				0
19:00-20:00				0				0				0
20:00-21:00				0				0				0
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			2.266	5			2.398	5			4.664	10

Total proposed  
floorspace (sqm) 209  
100sqm  
conversion factor 2.09

## Cars

Calculation factor: 100sqm

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00				0				0				0
06:00-07:00				0				0				0
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00	1	750	0.267	1	1	750	0.133	0	1	750	0.4	1
10:00-11:00	1	750	0	1	1	750	0.133	0	1	750	0.133	0
11:00-12:00	1	750	0	1	1	750	0	0	1	750	0	0
12:00-13:00	1	750	0.133	1	1	750	0	0	1	750	0.133	0
13:00-14:00	1	750	0.133	1	1	750	0.133	0	1	750	0.266	1
14:00-15:00	1	750	0.4	1	1	750	0.267	1	1	750	0.667	1
15:00-16:00	1	750	0.533	1	1	750	0.267	1	1	750	0.8	2
16:00-17:00	1	750	0.133	1	1	750	0.667	1	1	750	0.8	2
17:00-18:00	1	750	0	1	1	750	0.133	0	1	750	0.133	0
18:00-19:00				0				0				0
19:00-20:00				0				0				0
20:00-21:00				0				0				0
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			1.599	3			1.733	4			3.332	7

Total proposed  
floorspace (sqm) 209  
100sqm  
conversion 2.09  
factor



## Pedestrians

Calculation factor: 100sqm

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA2	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA3	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00	1	750	0	0	1	750	0	0	1	750	0.4	1
10:00-11:00	1	750	0.4	1	1	750	0.4	1	1	750	0.933	2
11:00-12:00	1	750	0	0	1	750	0	0	1	750	0	0
12:00-13:00	1	750	0	0	1	750	0	0	1	750	0.133	0
13:00-14:00	1	750	0.4	1	1	750	0.133	0	1	750	0.934	2
14:00-15:00	1	750	0	0	1	750	0	0	1	750	1.066	2
15:00-16:00	1	750	0	0	1	750	0.267	1	1	750	1.733	4
16:00-17:00	1	750	0	0	1	750	0	0	1	750	0.933	2
17:00-18:00	1	750	0	0	1	750	0	0	1	750	0.133	0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			0.8	2			0.8	2			6.265	13

Total proposed  
floorspace (sqm) 209  
100sqm  
conversion factor 2.09

**OGVs**

**Calculation factor: 100sqm**

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

**Total proposed  
floorspace (sqm) 209**  
**100sqm  
conversion factor 2.09**

**PSVs**

Calculation factor: 100sqm

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

**Total proposed  
floorspace (sqm)  
100sqm  
conversion  
factor**                      **209  
  
2.09**

**LGVs**

**Calculation factor: 100sqm**

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00				0				0				0
06:00-07:00				0				0				0
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00				0				0				0
20:00-21:00				0				0				0
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

**Total proposed  
floorspace (sqm)  
100sqm  
conversion  
factor**                      **209  
  
2.09**

**Bus passengers**

**Calculation factor: 100sqm**

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA2	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA3	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

**Total proposed  
floorspace (sqm)  
100sqm  
conversion  
factor**

**0**

**Cyclists**

Calculation factor: 100sqm

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00				0				0				0
06:00-07:00				0				0				0
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00				0				0				0
20:00-21:00				0				0				0
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

**Total proposed  
floorspace (sqm)**            **209**  
**100sqm  
conversion  
factor**                        **2.09**

**Motorcyclists**

Calculation factor: 100sqm

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA2	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA3	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00				0				0				0
06:00-07:00				0				0				0
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00				0				0				0
20:00-21:00				0				0				0
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

**Total proposed  
floorspace (sqm)  
100sqm  
conversion  
factor**                      **209  
  
2.09**

**Rail passengers**

**Calculation factor: 100sqm**

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA2	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA3	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

**Total proposed  
floorspace (sqm)  
100sqm  
conversion  
factor**

**0**





## Appendix I: MCC and ATC comparisons



## Document Control

<b>Document title</b>	5.4.19.13 ATC to MCC Comparison
<b>Version No.</b>	1
<b>Date Approved</b>	17 October 2022
<b>Date 1<sup>st</sup> Issued</b>	

## Version History

Version	Date	Author	Checked	Approved	Description of change
1		—	—	—	Final

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1.4	ATC Site 3 – Clayhithe Road .....	3
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## Tables

<b>Table 1.1:</b>	<b>Summary of sites surveyed .....</b>	<b>1</b>
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# 1 Sites surveyed

## 1.1 Overview

**Table 1.1: Summary of sites surveyed**

Site number	Road name	% difference	Summary
Site 1	Denny End Road	8.0%	ATC is around 8% higher than MCC counts in both AM and PM peak. A possible explanation for the higher ATC figures than MCC is that the ATC captures traffic accessing and egressing the construction site access point along Denny End Lane at the Cambridgeshire Army Cadets Force from the Waterbeach direction whereas the MCC does not as the MCC is placed at the A10/Denny End Lane junction. Traffic could choose to egress from the construction site by turning left as there are queues on the right hand turn towards the A10 from the site construction access point and the MCC would not capture this movement.
Site 2	Car Dyke Road	1.1%	MCC is 10% higher than ATC in AM Peak, However ATC is 7% higher than MCC in the PM peak
Site 3	Clayhithe Road	Comparable location not available	N/A
Site 4	Bannold Road	3.5%	ATC is 2% higher than MCC in AM Peak and around 5% higher in the PM peak
Site 5	Horningsea Road	1.0%	MCC is around 109% higher than ATC counts in AM peak and 91% higher in PM peak
Site 6	Miltom Road	0.4%	MCC is 4% higher than ATC counts in AM peak, however ATC is 3% higher in PM peak
Site 7	Fen Road	Comparable location not available	N/A
Site 8	Green End Road	3.1%	MCC is 11% higher than ATC counts in AM peak, however ATC is 5% higher in PM peak
Site 9	Water Street	10.5%	MCC is around 14% higher than ATC counts in AM peak and around 8% higher in PM peak
Average		3.9%	

## 1.2 ATC Site – Denny End Road

	3-day Average (Tue-Thur)			Summary
	ATC	MCC	Percentage Difference	
7000-1000	1472	1359	8.3%	ATC is around 8% higher than MCC counts in both AM and PM peak. A possible explanation for the higher ATC figures than MCC is that the ATC captures traffic accessing and egressing the construction site access point along Denny End Lane at the Cambridgeshire Army Cadets Force from the Waterbeach direction whereas the MCC does not as the MCC is placed at the A10/Denny End Lane junction. Traffic could choose to egress from the construction site by turning left as there are queues on the right hand turn towards the A10 from the site construction access point and the MCC would not capture this movement.
1600-1800	1494	1388	7.6%	
Total	2966	2747	8.0%	

ATC Site 1 location



ATC location



MCC location



### 1.3 ATC Site 2 – Car Dyke Road

	3-day Average (Tue-Thur)			Summary
	ATC	MCC	Percentage difference	
7000-1000	1067	1176	10.2%	MCC is 10% higher than ATC in AM Peak, However ATC is 7% higher than MCC in the PM peak
1600-1800	1205	1121	7.4%	
Total	2272	2297	1.1%	

### 1.4 ATC Site 3 – Clayhithe Road

	3-day Average (Tue-Thur)		
	ATC	MCC	Percentage difference
7000-1000	908	NA	
1600-1800	1025	NA	
Total	1933	0	Comparable location not available

### 1.5 ATC Site 4 – Clayhithe Road

	3-day Average (Tue-Thur)			Summary
	ATC	MCC	Percentage difference	
7000-1000	628	615	2.1%	ATC is 2% higher than MCC in AM Peak and around 5% higher in the PM peak
1600-1800	722	689	4.7%	
Total	1350	1304	3.5%	

## 1.6 ATC Site 5 – Horningsea Road

	3-day Average (Tue-Thur)			Summary
	ATC	MCC	Percentage difference	
				MCC is around 109% higher than ATC counts in AM peak and 91% higher in PM peak
7000-1000	1108	1147	3.5%	
1600-1800	1206	1144	5.4%	
Total	2314	2291	1.0%	

## 1.7 ATC Site 6 - Milton Road

	3-day Average (Tue-Thur)			Summary
	ATC	MCC	Percentage difference	
				MCC is 4% higher than ATC counts in AM peak, however ATC is 3% higher in PM peak
7000-1000	4369	4542	4.0%	
1600-1800	4269	4132	3.3%	
Total	8639	8674	0.4%	

## 1.8 ATC Site 7 – Fen Road

	3-day Average (Tue-Thur)		
	ATC (Fen Road)	MCC (Water Lane)	Percentage Difference
7000-1000		521	
1600-1800		600	
Total		1121	Comparable location not available

## 1.9 ATC Site 8 – Green End Road

	3-day Average (Tue-Thur)			Summary
	ATC (Green End Road)	MCC (Green End Road) (NE)	Percentage Difference	
				MCC is 11% higher than ATC counts in AM peak, however ATC is 5% higher in PM peak
7000-1000		1848	2055	11.2%
1600-1800		1862	1768	5.3%
Total		3710	3823	3.1%

## 1.10 ATC Site 9 – Water Street

	3-day Average (Tue-Thur)			Summary
	ATC (Water Street)	MCC (Site 20 Water Lane (SE))	Percentage difference	
7000- 1000	998	1135	13.7%	MCC is around 14% higher than ATC counts in AM peak and around 8% higher in PM peak
1600- 1800	1100	1183	7.6%	
Total	2098	2318	10.5%	



Cambridge Waste Water Treatment Relocation Project  
Transport Assessment



## Appendix J: Consultation 2 Stakeholder Feedback

Date	Consultee	Points raised	How and where addressed
18/08/21	Cambridge Past, Present & Future (CPPF)	The main area of uncertainty is the vehicle access. CPPF strongly objects to any proposals to provide vehicular access into the site from the farm access bridge at Honey Hill via Junction 35 (Option 2).	Option 2 was not selected, the access within the Proposed Development is Option 1b, which does not interact directly with Junction 35. The selection of vehicle access and consideration of all options is discussed further within Chapter 3: Site Selection and Alternatives (Application Document Reference 5.2.3). The assessment provided in Section 4 (Assessment of Effects) of this chapter assesses Option 1b.
12 August 2021	National Highways	Access option 1a remains National Highways' preferred option, closely followed by Option 1b. Access option 3 would be contrary to policy 'The Strategic Road Network and the delivery of sustainable development' and therefore National Highways object to this proposal.	Option 3 has not been selected on account of technical issues around creating a new junction off the A14 based on National Highways' feedback – the access is Option 1b. The selection of vehicle access and consideration of all options is discussed in further within Chapter 3: Alternatives Considered. The assessment provided in Section 4 (Assessment of Effects) of this chapter assesses Option 1b.
12 August 2021	National Highways	The TA should also consider any other development that makes up part of the application, such as the proposed recreation facilities.	Noted and accepted. The Transport Assessment Application Document Reference 5.4.19.3) covers all aspects of Proposed Development, including the proposed visitor centre.
13 August 2021	East Cambridge District Council	Most acceptable options are options 1a and 1b. To create an additional access from the A14 is unlikely to be acceptable.	The preferred access option is Option 1b.
18 August 2021	Urban and Civic	U&C offers a preliminary view that a new junction off the A14 appears, without the benefit of the detailed assessments that will follow, to be preferable and justified given the strategic importance of the proposed facility.	Noted. Option 3 has not been selected on account of technical issues around creating a new junction off the A14 based feedback provided by National Highways– the access is Option 1b. The selection of vehicle access and consideration of all options is discussed in further detail within Chapter 3: Site Selection and Alternatives (Application Document Reference 5.2.3). The assessment provided in Section 4 (Assessment of Effects) of this chapter assesses Option 1b.
16 August 2021	Natural England	Access assessment needs to include air quality assessment. A CEMP is also needed.	Noted. An air quality assessment has been undertaken as part of Chapter 7: Air Quality (Application Document Reference 5.2.7). The CoCP Part A and B (Application Document Reference. 5.4.2.1, 5.4.2.2) requires a CEMP to be produced prior to any works commencing on site.

Date	Consultee	Points raised	How and where addressed
17 August 2021	Cambridgeshire County Council	Cambridgeshire County Council (CCC) has worked with the applicant to ensure that this junction (junction 34 of the A14) has been modelled in accordance with CCC requirements and the modelling done so far shows that this junction will operate within capacity. This is subject to further work on the flows and so is the preliminary findings of the modelling. The assessment will need to include the construction traffic as well as the operational, and visitor traffic once built. Improvements are proposed to the cycle and pedestrian route on the north and south of the proposed Waste Water Treatment Plant site access. The Applicant is asked to continue to ensure that the drawings for this area are coordinated with the Greater Cambridge Partnership and the Horningsea Greenway project.	Noted and accepted. As stated, Junction 34 of the A14 has been modelling in accordance with CCC requirements, whereby preliminary findings show that the junction works within capacity. The Transport Assessment (Application Document Reference. 5.4.19.3) includes information on modelling during construction, operation (including visitor traffic) and decommissioning. Mitigation proposals and drawings for Horningsea Road have taken into account the Horningsea Greenway project.
17 August 2021	South Cambridge District Council	If Option 1b remains, the District Council will expect to see within the DCO, carefully detailed designs for the junction and details of control systems to prevent vehicles travelling to and from the site using any access routes other than the A14 during the construction and operation stages. Given the rationale presented by Anglian Water for the choice of Option 1b, the District Council's recommendation again if this remains the proposed option, it should also deliver enhanced pedestrian and cycle access, cycling facilities. Importantly, details indicating how access to the site would not compromise cycling safety along Horningsea Road, in the vicinity of the new junction/4th arm will be required as part of the DCO. In addition, the District Council considers that measures to avoid traffic queuing/congestion on Denny End Road and Bannold Road need to be incorporated into the DCO proposals as this route is prone to congestion. The District Council remains of the opinion that direct access from the A14 would be the preferred option rather than Option 1b and asks Anglian Water to reconsider.	Option 1b-has been selected and taken forward into the Proposed Development. Option 3 has not been selected on account of technical issues around creating a new junction off the A14 based on feedback provided by National Highways. The Transport Assessment (Application Document Reference.- 5.4.19.3) provides details on the mitigation measures on Horningsea Road, which is also summarised in the section 2.8 of this chapter. These mitigation measures ensure that access to the site does not compromise safety along Horningsea Road. The Transport Assessment Application Document Reference. 5.4.19.3) includes a review of the junctions with the A10 / Denny End Road and A10 / Car Dyke Lane to assess capacity and delay during the construction works. Bannold Road at its junction with Denny End Road is noted as narrow (Application Document Reference. 5.4.19.3) and mitigation will be in place to prevent parking on that corner to minimise traffic conflicts. The CTMP (Application Document Reference. 5.4.19.7) and CoCP (Application Document Reference. 5.4.2.1, 5.4.2.2) set out the construction route to and from the proposed WWTP site.

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Appendix J: Consultation 2 stakeholder feedback

Date	Consultee	Points raised	How and where addressed
17 August 2021	Fen Ditton Parish Council	FDPC considers extra mitigation is required and should include: <ul style="list-style-type: none"> <li>Commitment to model overall traffic performance with historic data as a baseline and not rely on AWS surveys since these were at a time when traffic into Cambridge was below historic levels.</li> </ul>	The modelling approach and use of survey information has been discussed and agreed with CCC. This includes checks to ensure survey results provided by AWS are not abnormal due to the Covid-19 pandemic. The Transport Assessment (Application Document Reference.- 5.4.19.3) is supported by additional surveys completed to verify the data used.
24 August 2021	Horningsea Parish Council	HPC is not aware of any evaluation assessment material being published by AWS and would like to request this information to allow HPC a full understanding of the relevant facts. We also request a copy of the determination by Highways that found it was not possible to access the site from the A14, Option 3.	Chapter 3: Site Selection and Alternatives (Application Document Reference 5.2.3) provides details of the access options considered for the project. Option 3 has not been selected on account of technical issues around creating a new junction off the A14 based on feedback from National Highways.
24 August 2021	Horningsea Parish Council	We fear that the traffic volume has been underestimated. We would like to see this analysis including all of the access routes into the site; including A14 westbound and A14 eastbound.	The modelling approach and use of survey information has been discussed and agreed with CCC. This includes checks to ensure that survey results provided by AWS are not abnormal due to the Covid-19 pandemic. The Transport Assessment (Application Document Reference. 5.4.19.3) is supported by additional surveys completed to verify the data used.
24 August 2021	Horningsea Parish Council	HPC also supports reduced speed limits on Horningsea Road. Suggest reduce to 30mph and 20mph in the village and enforce with speed cameras and traffic calming measures. We also want confirmation that this mitigation is within the control of AWS.	A set of mitigation measures for Horningsea Road have been included in the design and are outlined in mitigation measures adopted as part of the Proposed Development.
24 August 2021	Horningsea Parish Council	It is a significant concern that we believe AWS has failed to factor in the cumulative traffic impact of previous recorded congestion at junction 34, reduction in traffic flows (due to Covid) during the 2021 AWS surveys, CWWTP Construction traffic, CWWTP operational traffic, the proposed additional J34 arm, Waterbeach New Town, Marleigh, development at Fulbourn, dualling of the A10, general traffic growth and the pending development of the airport site.	The modelling approach and use of survey information has been discussed and agreed with CCC. This includes checks to ensure survey results provided by the Applicant are not abnormal due to the Covid-19 pandemic. The Transport Assessment (Document Reference.- 5.4.19.3) is supported by additional surveys completed to verify the data used. Impacts associated with committed developments in the area are accounted for within the TEMPro growth factors used, which has been agreed with CCC.
24 August 2021	Horningsea Parish Council	We request forecast operational HGV movements. Most of the movements are liquid sludge imports and septic tank	The Transport Assessment (Application Document Reference. 5.4.19.3) provides information on operational HGV movements. The routing of

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Date	Consultee	Points raised	How and where addressed
		<p>movements, why are these being trucked here from destinations such as Ely and Huntingdon? We request forecast for operational HGV movements and an alternative plan for the movement of sludge lorries to more appropriate sites.</p>	<p>HGVs in operation has been based on sludge imports at the existing Cambridge WWTP. A technical note (Appendix C, Application Document Ref: 5.4.19.3) outlines the origins of sludge imports during operation in 2020 at the existing Cambridge WWTP.</p>

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Transport Assessment



## Appendix K: TEMPro Growth Factor Technical Note

## Document Control

<b>Document title</b>	Technical Note: Modelling Overview and TEMPro Growth Factor
<b>Version No.</b>	1
<b>Date Approved</b>	
<b>Date 1<sup>st</sup> Issued</b>	12/01/2022

## Version History

<b>Version</b>	<b>Date</b>	<b>Author</b>	<b>Description of change</b>
0	12/01/2022	-	Technical note at PEI.
1	15/02/2024	-	Revisions to TEMPro growth factors following modelling review and formatting updates.



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# 1 Technical Note: Modelling overview and TEMPro growth factors

## 1.1 Preliminary Modelling Overview

- 1.1.1 Each option has been assessed using the industry-standard software of either Junctions 9 (PICADY) or LinSig (Version 3) to anticipate if the proposed junction designs would be predicted to operate within capacity.
- 1.1.2 Junctions9 software measures performance as the ratio of flow to capacity (RFC). An RFC value is greater than one means that a turning movement has a higher level of traffic flow than its theoretical capacity. As a result, queues may occur. An RFC below 0.85 is considered acceptable as there is still scope to accommodate future growth.
- 1.1.3 LinSig is a computer software package for assessing and designing traffic signal junctions either individually or as a network comprised of several junctions. It is used by traffic engineers to construct a model of the junction or network which can then be used to assess different designs and methods of operation. LinSig v3 software measures performance as the degree of saturation (DoS). A DoS value of greater than 100% means that a lane movement has a higher level of traffic flow than its theoretical capacity. As a result, queues may occur. A DoS below 90% is considered acceptable as there is still scope to accommodate future growth.

## 1.2 Survey and TEMPro growth factors

- 1.2.1 Survey (December 2021) data has been used to inform the base years. To estimate the future 2025 base, a TEMPro 7.2 growth factors for South Cambridgeshire have been applied to the base flows. The applied factors are outlined in Table 1-1 below:

**Table 1-1: TEMPro growth factors**

Base Year to Scenario Year	TEMPro growth factors
2021 – 2026	1.060
2021 – 2028	1.082
2021 – 2033	1.1362
2021 – 2038	1.1857

- 1.2.2 To predict future growth as accurate as possible, TEMPro 7.2 reflects all planned growth in the area. TEMPro 7.2 growth factors are in line with the most recent Road Traffic Forecast (2018). However, as land use developments are a source of uncertainty, TEMPro 7.2 growth factors are blanket, and they do not predict where exactly growth will appear.



- 1.2.3 It is suggested to apply unadjusted growth factors to estimate the future base as the Cambridge Wastewater Treatment plant will not generate a significant number of homes or jobs in the area.
- 1.2.4 However, if any significant developments appear in the area, forecasted trips could be excluded from the growth to avoid double counting. In this case, the developments and the number of excluded trips should be agreed with CCC.