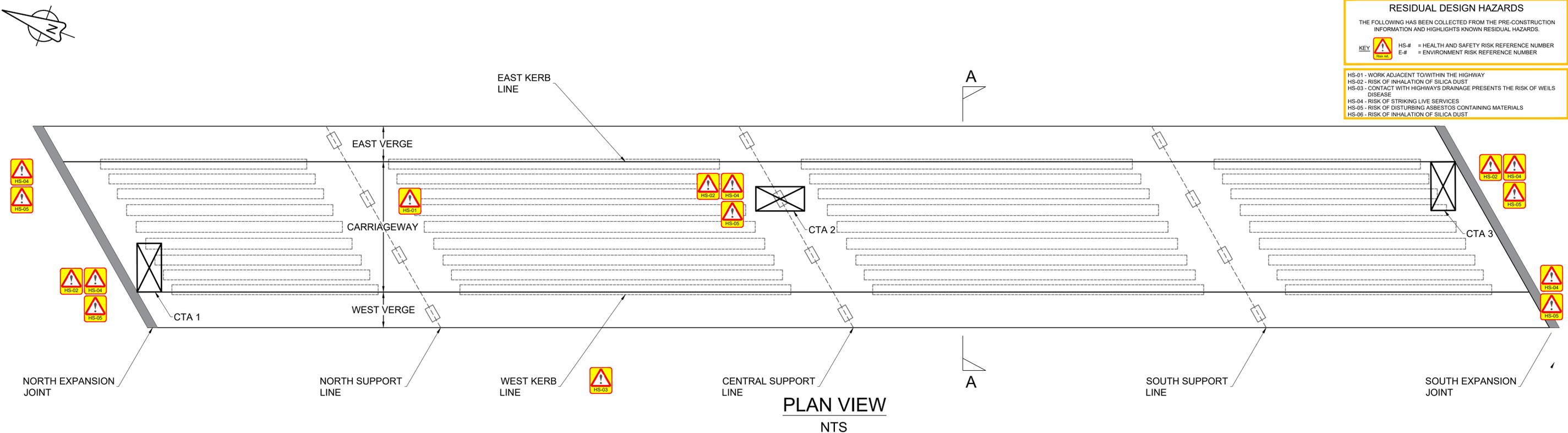


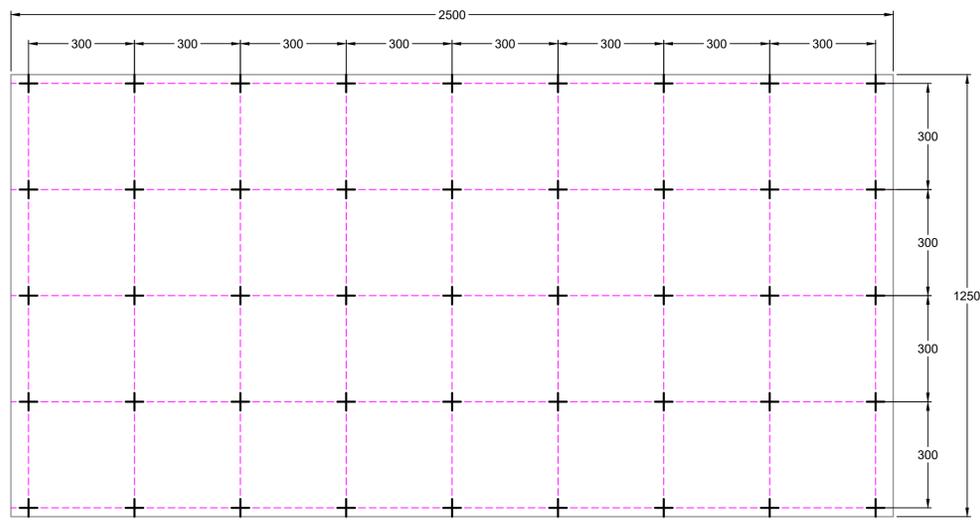
**RESIDUAL DESIGN HAZARDS**  
 THE FOLLOWING HAS BEEN COLLECTED FROM THE PRE-CONSTRUCTION INFORMATION AND HIGHLIGHTS KNOWN RESIDUAL HAZARDS.

KEY HS-# = HEALTH AND SAFETY RISK REFERENCE NUMBER  
 E-# = ENVIRONMENT RISK REFERENCE NUMBER

HS-01 - WORK ADJACENT TO/WITHIN THE HIGHWAY  
 HS-02 - RISK OF INHALATION OF SILICA DUST  
 HS-03 - CONTACT WITH HIGHWAYS DRAINAGE PRESENTS THE RISK OF WEILS DISEASE  
 HS-04 - RISK OF STRIKING LIVE SERVICES  
 HS-05 - RISK OF DISTURBING ASBESTOS CONTAINING MATERIALS  
 HS-06 - RISK OF INHALATION OF SILICA DUST



**PLAN VIEW**  
NTS



**PLAN VIEW OF CORROSION TEST AREA**  
NTS

**KEY**

- DECK VOIDS
- CORROSION TEST AREA (CTA) WITHIN 1250mm X 2500mm TRIAL PIT
- TESTING GRID
- HALF CELL TEST LOCATION

**TABLE 1 - SUMMARY TABLE OF CONCRETE TESTING TO THE DECK SURFACE**

TEST DESCRIPTION	TEST NO. PER TEST AREA			TOTAL NO.
	CTA 1	CTA 2	CTA 3	
VISUAL AND DELAMINATION SURVEY	1	1	1	3
HALF-CELL POTENTIAL	45	45	45	135
COVER METER SURVEY	32	32	32	96
CEMENT CONTENT	1	1	1	3
SULPHATE CONTENT	1	1	1	3
ALKALI CONTENT	1	1	1	3
RESISTIVITY	1	1	1	3
CHLORIDE TESTING	3	3	3	9
CARBONATION TESTING	1	1	1	3

**CONCRETE TESTING REQUIREMENTS**

- CONCRETE TESTING IN EACH CORROSION TEST AREA (CTA) SHALL BE COMPLETED AS FOLLOWS:
  - VISUAL AND DELAMINATION SURVEY TO THE DECK SURFACE
  - HALF-CELL POTENTIAL READINGS
  - COVER METER SURVEY
  - COLLECTION OF SAMPLES FOR THE DETERMINATION OF CEMENT, SULPHATE AND ALKALI CONTENT
  - RESISTIVITY TESTING
  - COLLECTION OF SAMPLES FOR CHLORIDE TESTING FROM DEPTHS 5-30mm, 30-55mm AND 55-80mm.
  - CARBONATION TESTING
- REFER TO TABLE 1 FOR THE NUMBER OF TESTS TO BE COMPLETED WITHIN EACH CTA.
- WHERE CONCRETE HAS SPALLED EXPOSING STEEL REINFORCEMENT, THE COVER SHALL BE MEASURED FROM THE ORIGINAL CONCRETE SURFACE WITH THE USE OF A STRAIGHT EDGE.
- THE LOCATION OF CHLORIDE, CARBONATION, CEMENT CONTENT AND RESISTIVITY TESTING SHALL BE DETERMINED FROM THE HALF-CELL AND COVER METER TEST RESULTS.
- TESTING SHOULD BE COMPLETED IN SEQUENCE WITH THE RESULTS PROVIDED TO THE PROJECT MANAGER AT THE END OF EACH DAY.

**NOTES**

- DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
- DO NOT SCALE FROM THIS DRAWING. IN CASE OF ANY DOUBTS, OMISSIONS OR ERRORS, SEEK CLARIFICATIONS FROM THE DESIGNER.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH TST DOCUMENTS
- EXACT LOCATIONS OF TRIAL HOLES TO BE CONFIRMED ON SITE
- NO TESTING SHALL PROCEED WITHOUT CONSULTATION AND AGREEMENT WITH THE SITE SUPERVISOR
- PROVIDE PHOTOGRAPHIC EVIDENCE OF ALL DEFECTIVE AREAS AND ORIENTATION/LOCATION, FROM THE VISUAL AND DELAMINATION SURVEY OF THE DECK SURFACE.
- ALL TRIAL PITS FOR THE CONCRETE TESTING SHALL BE EXCAVATED BY THE ASBESTOS TESTING CONTRACTOR

REV	DETAILS	DATE



CLIENT: highways england  
 AGENT: KIER  
 SCHEME NAME: M5 MP 91.5 WINNYCROFT LANE BRIDGE  
 DRAWING TITLE: CONCRETE TESTING REQUIREMENTS

DRAWN: MB	SCALE:	DRAWING STATUS:
DESIGN: MB	DIMENSIONS:	WORK IN PROGRESS
CHKD: CK	ORIG DWG SIZE: A1	PRELIMINARY DRAWING
APPD: CK	COPYRIGHT © KIER	EXTERNAL ISSUE
DATE: 19/06/2020		AS-BUILT
SUITABILITY: S2	FOR INFORMATION	

DRAWING NUMBER	PROJECT	ORIGINATOR	VOLUME	SCHEME REFERENCE No.
570135	570135	KIER	SBR	570135
M5_MP91.5	DR	CB	0004	REVISION
LOCATION	TYPE	ROLE	NUMBER	C 1