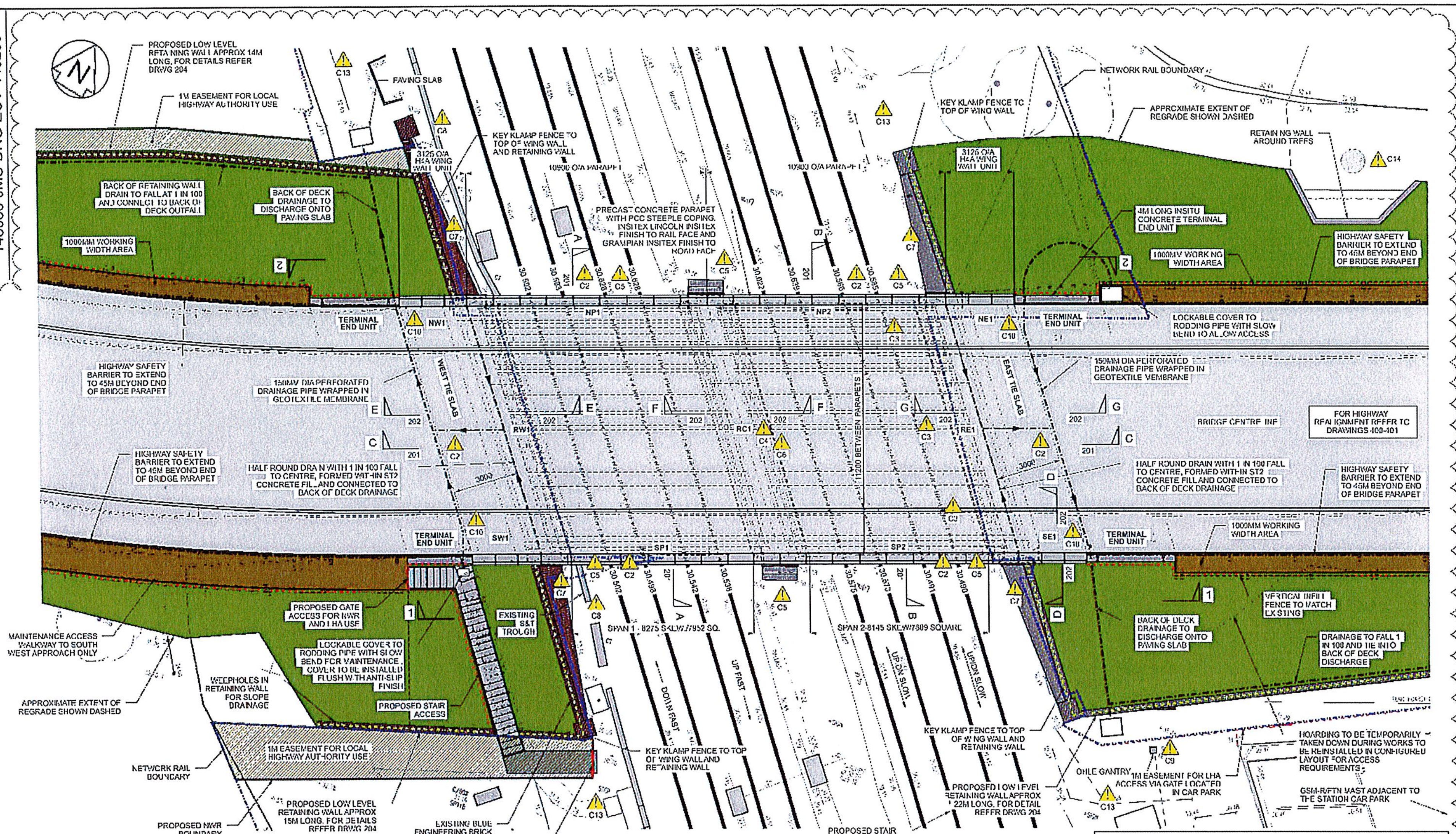
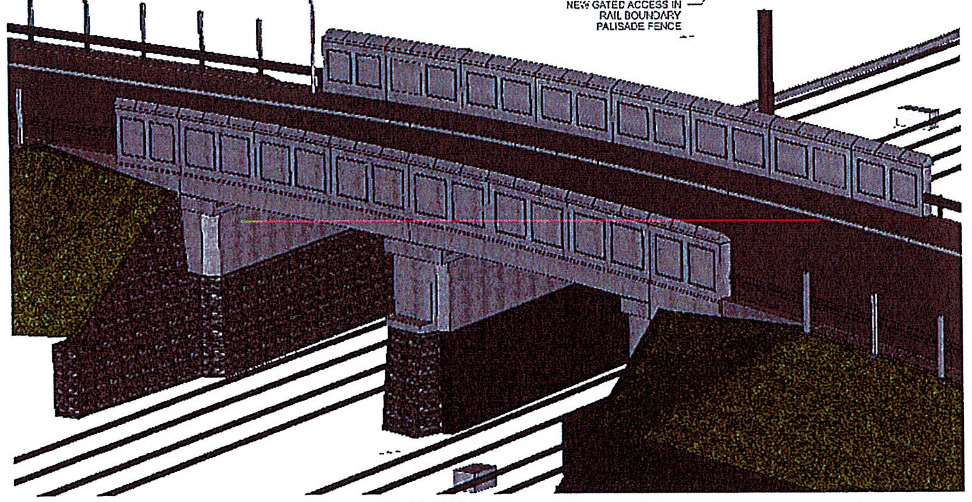
Appendix D

Bromham Road Bridge General Arrangement Drawing
Bromham Road Bridge Public Access Scaffold Bridge Drawings 1 & 2

Drawing Number
143058-JMS-DRG-ECV-140200


N
PROPOSED LOW LEVEL RETAINING WALL APPROX 14M LONG, FOR DETAILS REFER DRWG 204
1M EASEMENT FOR LOCAL HIGHWAY AUTHORITY USE
C13
PAVING SLAB
C4
KEY KLAMP FENCE TO TOP OF WING WALL AND RETAINING WALL
3125 O/A H4A WING WALL UNIT
10900 O/A PARAPET
10900 O/A PARAPET
BACK OF RETAINING WALL DRAIN TO FALL AT 1 IN 100 AND CONNECT TO BACK OF DECK OUTFALL
BACK OF DECK DRAINAGE TO DISCHARGE ONTO PAVING SLAB
1000MM WORKING WIDTH AREA
PRECAST CONCRETE PARAPET WITH PCC STEEPLE COPING. INSITEX LINCOLN INSITEX FINISH TO RAIL FACE AND GRAMPIAN INSITEX FINISH TO ROAD FACE
KEY KLAMP FENCE TO TOP OF WING WALL
NETWORK RAIL BOUNDARY
APPROXIMATE EXTENT OF REGRADE SHOWN DASHED
RETAINING WALL AROUND TREES
C14
3125 O/A H4A WING WALL UNIT
4M LONG INSITU CONCRETE TERMINAL END UNIT
1000MM WORKING WIDTH AREA
HIGHWAY SAFETY BARRIER TO EXTEND TO 45M BEYOND END OF BRIDGE PARAPET
TERMINAL END UNIT
NW1
NP1
NP2
NE1
LOCKABLE COVER TO RODDING PIPE WITH SLOW BEND TO ALLOW ACCESS
WEST TIE SLAB
EAST TIE SLAB
150MM DIA PERFORATED DRAINAGE PIPE WRAPPED IN GEOTEXTILE MEMBRANE
HIGHWAY SAFETY BARRIER TO EXTEND TO 45M BEYOND END OF BRIDGE PARAPET
RW1
RC1
RE1
11200 BETWEEN PARAPETS
BRIDGE CENTRE LINE
FOR HIGHWAY REALIGNMENT REFER TO DRAWINGS 100-101
HALF ROUND DRAIN WITH 1 IN 100 FALL TO CENTRE, FORMED WITHIN ST2 CONCRETE FILL AND CONNECTED TO BACK OF DECK DRAINAGE
3000
SW1
SP1
SP2
SE1
1000MM WORKING WIDTH AREA
PROPOSED GATE ACCESS FOR NWR AND LHA USE
EXISTING S&T TROUGH
SPAN 1 - 8275 SKEW/7952 SQ.
SPAN 2-8145 SKEW/7809 SQUARE
DOWN FAST
UP FAST
UP/DN SLOW
UP/DN SLOW
VERTICAL INFILL FENCE TO MATCH EXISTING
BACK OF DECK DRAINAGE TO DISCHARGE ONTO PAVING SLAB
DRAINAGE TO FALL 1 IN 100 AND TIE INTO BACK OF DECK DISCHARGE
MAINTENANCE ACCESS WALKWAY TO SOUTH WEST APPROACH ONLY
LOCKABLE COVER TO RODDING PIPE WITH SLOW BEND FOR MAINTENANCE. COVER TO BE INSTALLED FLUSH WITH ANTI-SLIP FINISH
WEEPHOLES IN RETAINING WALL FOR SLOPE DRAINAGE
APPROXIMATE EXTENT OF REGRADE SHOWN DASHED
PROPOSED STAIR ACCESS
1M EASEMENT FOR LOCAL HIGHWAY AUTHORITY USE
NETWORK RAIL BOUNDARY
KEY KLAMP FENCE TO TOP OF WING WALL AND RETAINING WALL
PROPOSED NWR BOUNDARY FENCE
PROPOSED LOW LEVEL RETAINING WALL APPROX 15M LONG. FOR DETAILS REFER DRWG 204
EXISTING BLUE ENGINEERING BRICK WING WALL
NEW GATED ACCESS IN RAIL BOUNDARY PALISADE FENCE
KEY KLAMP FENCE TO TOP OF WING WALL AND RETAINING WALL
HOARDING TO BE TEMPORARILY TAKEN DOWN DURING WORKS TO BE REINSTALLED IN CONFIGURED LAYOUT FOR ACCESS REQUIREMENTS
OHLE GANTRY
1M EASEMENT FOR LHA ACCESS VIA GATE LOCATED IN CAR PARK
PROPOSED LOW LEVEL RETAINING WALL APPROX 22M LONG. FOR DETAIL REFER DRWG 204
GSM-R/FTN MAST ADJACENT TO THE STATION CAR PARK
PROPOSED STAIR ACCESS
C2
C3
C5
C6
C7
C8
C9
C10
A
B
C
D
E
F
G
1
2
201
202

PLAN
SCALE 1:100



3D VIEW
SCALE 1:100

PARTS SCHEDULE			
REF	NO. OF	WEIGHT (T)	DESCRIPTION
CU1	1	18.03	WEST CU1 UNIT
CU2	1	34.18	CENTRAL CU2 UNIT
CU3	1	18.03	EAST CU3 UNIT
NP1	1	49.7	NORTH PARAPET UNIT (INC. 3NO. STEEL BEAMS)
NP2	1	49.7	NORTH PARAPET UNIT (INC. 3NO. STEEL BEAMS)
SP1	1	49.7	SOUTH PARAPET UNIT (INC. 3NO. STEEL BEAMS)
SP2	1	49.7	SOUTH PARAPET UNIT (INC. 3NO. STEEL BEAMS)
NE1	1	16.7	NORTH EAST H4A UNIT
NW1	1	16.7	NORTH WEST H4A UNIT
SE1	1	16.7	SOUTH EAST H4A UNIT
SW1	1	16.7	SOUTH WEST H4A UNIT
RW1	1	37.35	WEST RISER UNIT
RC1	1	76.53	CENTRAL RISER UNIT (SPLIT INTO 2 38T PIECES FOR LIFTING PURPOSES)
RE1	1	36.40	EAST RISER UNIT
RNE1	1	15.0	NORTH EAST RISER UNIT
RNW1	1	15.53	NORTH WEST RISER UNIT
RSE1	1	15.0	SOUTH EAST RISER UNIT
RSW1	1	15.53	SOUTH WEST RISER UNIT
B2	22	2	INNER STEEL BEAM

Safety, Health and Environmental Information

Notes below are additional to hazards/risks normally associated with this type of work. Numbers correspond to Risk Register references - see General Notes drawing for details.

Construction:

- ⚠ C1 Substructure to be monitored throughout the works
- C2 Edge protection required to back of deck excavation
- C3 Services to be protected/diverted prior to works
- C4 Lift plans to be developed for erection of units
- C5 Stability of parapets during installation - holding down bolts to be secured prior to removal of lifting equipment (to be removed following completion of deck insitu concrete)
- C6 Stability of precast units is to be considered during fabrication, trial erection, transportation and lay down. Laydown areas to be inspected to ensure flat ground. FOS is >2.0 when set in designed position
- C7 Brickwork repairs to be completed prior to demolition of the structure
- C8 S&T to be protected during the works
- C9 Siding OHLE to be isolated during lifting operations and when works are required within 5m of the gantry. CPP shall denote all activities that will be affected by the OHLE
- C10 Ensure bedding of H4A unit is installed correct to ensure stability of the units in their temporary state
- C11 Temporary works design to be submitted for Crane pad foundations, edge protection and slopes cut back steeper than 1 in 1
- C12 Stability of existing substructure during demolition: - Reduce depth of fill from above the arches until down to springing level (reduce the fill to both sides equally ensuring the level difference is less than 500mm). Demolish both arches concurrently. Provide plant exclusion zones of 5m
- C13 NR boundary fencing to be reinstated to prevent unauthorised access to the railway
- C14 Tree roots to be protected during regrading.
- C15 GSM-R/FTN Mast adjacent to the car park.

Operations, Maintenance:

- ⓘ M1 Jacking points provided for bearing replacement (possession required).

Dismantling / Demolition (Future):

- ⓘ D1 Propping required to the edge beam during dismantling of the structure
- D2 All exposed edges during demolition will require fall restraint systems

These notes are based on the use of experienced and competent contractors carrying out the work using an approved safe method of working.

Legend/Notes

GENERAL NOTES

G1. DO NOT SCALE FROM THIS DRAWING.

G2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

G3. ALL LEVELS IN METRES ABOVE ORDNANCE DATUM.

G4. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL THE DRAWINGS LISTED ON DRG:
V-R6390.01-200

G5. THIS DRAWING IS BASED ON TOPOGRAPHICAL SURVEY INFORMATION UNDERTAKEN BY MALCOLM HUGHES LAND SURVEYORS LTD. REFER SURVEY MODEL 143058-JMS-MOD-ESU-140001. ALL CO-ORDINATES ARE TO SURVEY GRID MML07.

G6. ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR.

CLEARANCE NOTES

CL1. CLEARANCE ENVELOPES ARE AS FOLLOWS
W6A KINEMATIC ENVELOPE
W10 KINEMATIC ENVELOPE
W12 KINEMATIC ENVELOPE
ENHANCED FREE RUN 4305MM PAN ENVELOPE
(ELECTRICAL CLEARANCE ENVELOPE
TAKEN FROM 121620-CPL-DRG-EOH-120053)

DRAWING LIST

V-R6390.01-100-EXISTING GA-PLAN
V-R6390.01-101-EXISTING GA-ELEVATIONS AND SECTIONS
V-R6390.01-200-PROPOSED GA-PLAN
V-R6390.01-201-PROPOSED GA-ELEVATIONS AND SECTIONS
V-R6390.01-202-PROPOSED GA-SECTIONS AND DETAILS
V-R6390.01-203-PROPOSED GA-DETAILS
V-R6390.01-204-PROPOSED GA-EMBANKMENT DETAILS

BRIDGE SIGNS

3 NO. BRIDGE SIGNS - 2NO. AT TRACK LEVEL AND 1 NO. AT ROAD LEVEL
2 NO. BRIDGE STRIKE SIGNS TO BE INCLUDED AT ROAD LEVEL
8NO. LIMITED CLEARANCE SIGNS REQUIRED

REMEDIAL WORKS

ALL REMEDIAL WORKS TO ABUTMENTS AND PIER WILL BE SCHEDULED AT DETAILED DESIGN AND MUST BE COMPLETED PRIOR TO DEMOLITION PROPOSED WORKS

SERVICES

SERVICE DUCTS WITHIN FOOTWAYS ON APPROACHES TO THE BRIDGE WILL BE SKEWED AND REALIGNED AS REQUIRED TO CONNECT WITH THE CORRESPONDING DUCTS PROVIDED IN THE BRIDGE DECK.

A04

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
A04	16-07-18	REVISED TO SUIT [illegible] COMMENTS	DGJ	LWJ	RDB
A03	20.06.17	SERVICES TO BE ADDED	DGJ	LWJ	RDB
A02	26.05.17	MINOR AMENDMENTS	DGJ	LWJ	RDB
A01	19.04.17	FORM 001 FIRST ISSUE	DGJ	LWJ	RDB

Status: FORM 001
Suitability: S3

NetworkRail
Brunel House
RTC Business Park
Derby
DE24 8UP

Contractor(s)
MURPHY
WORLD CLASS INFRASTRUCTURE
OPUS

Project
MIDLAND MAINLINE ELECTRIFICATION
ROUTE CLEARANCE-K01
BROMHAM ROAD SPC2 O/B 40

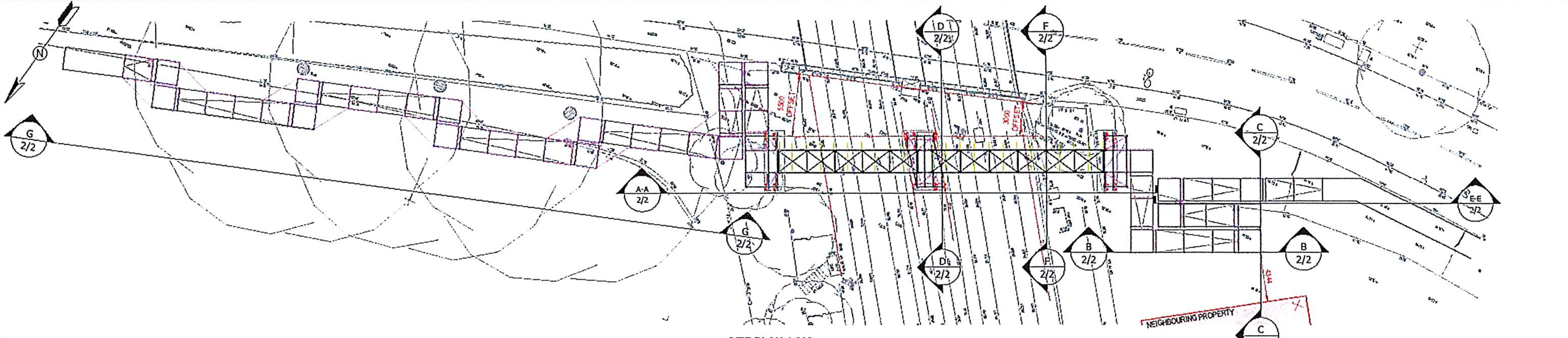
Drawing Title
1-BEDFORD TO KETTERING NORTH
CIVILS-LAYOUT
PROPOSED GA
PLAN

Designed	R.D BARTON	Signed		Date	16/07/18
Drawn	D.G.JONES	Signed		Date	16/07/18
Checked	L.W.JOHNSON	Signed		Date	16/07/18
Approved	R.D BARTON	Signed		Date	16/07/18
Scale(s)	As Shown	ELR & Mileage	SPC2-40 50M-0220YDS		

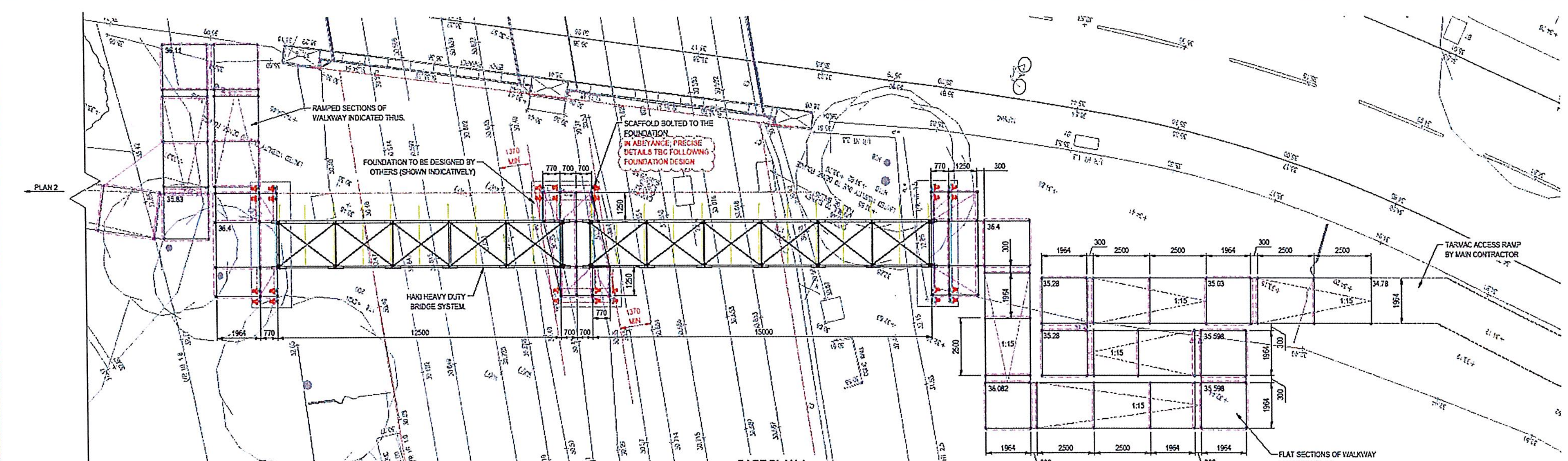
Alternative Reference: V-R6390.01-200
Sheet: 1 of 1
Drawing Number: 143058-JMS-DRG-ECV-140200
Revision: A04

Sheet Size A1 594 x 841

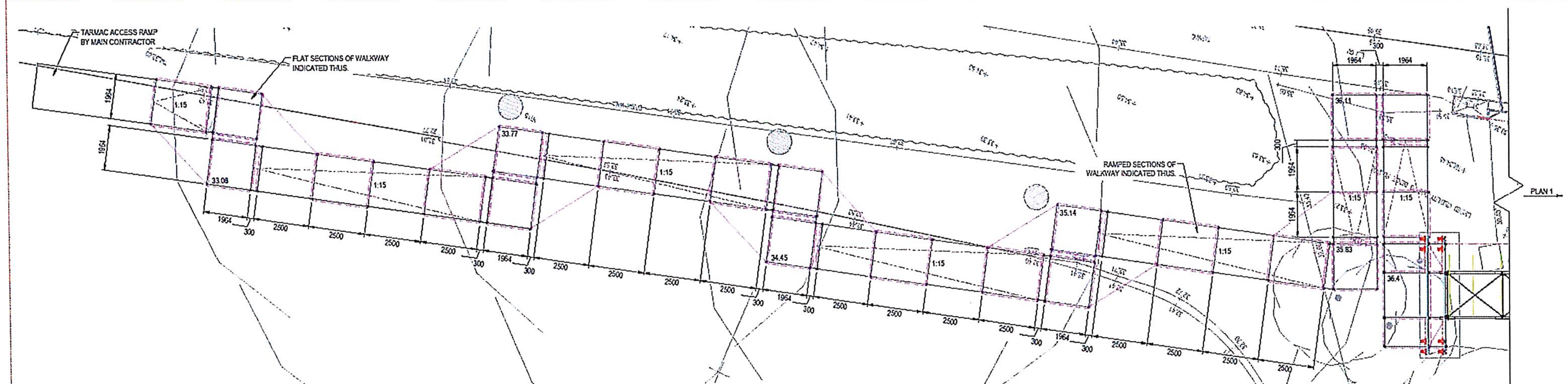
Winckworth
Sherwood



SITE PLAN 1:200


RAMPED SECTIONS OF WALKWAY INDICATED THUS.
FOUNDATION TO BE DESIGNED BY OTHERS (SHOWN INDICATIVELY)
SCAFFOLD BOLTED TO THE FOUNDATION.
IN ABEYANCE; PRECISE DETAILS TBC FOLLOWING FOUNDATION DESIGN
1370 MIN
770 700 700
770 1250 300
PLAN 2
36.4
HAKI HEAVY DUTY BRIDGE SYSTEM.
1964 770
12500
15000
1964 300 2500 2500 1964 300 2500 2500
35.28
35.03
34.78
TARMAC ACCESS RAMP BY MAIN CONTRACTOR
1:15
35.598
36.082
FLAT SECTIONS OF WALKWAY INDICATED THUS.
1964 2500 2500 1964 1964
300 300

PART PLAN 1
1:100


TARMAC ACCESS RAMP BY MAIN CONTRACTOR
FLAT SECTIONS OF WALKWAY INDICATED THUS.
1:15
33.08
33.77
34.45
35.14
35.83
36.41
36.4
RAMPED SECTIONS OF WALKWAY INDICATED THUS.
1964 1964
PLAN 1
1964 2500 2500 2500 300

PART PLAN 2
1:100

0m 1m 2m 3m 4m 5m
0ft 5ft 10ft 15ft
SCALE BAR FOR 1:100

GENERAL NOTES

Property

This drawing is confidential and is the property of Optima Scaffold Designs LLP. No unauthorised use, copy or disclosure is to be made without written permission.

CDM Regulations 2015

The Construction (Design & Management) Regulations 2015, regulation 8, requires that we make the client aware of their duties imposed by the regulations.

Guidance on your duties are detailed within The Construction (Design & Management) Regulations 2015.

Basis of Design

This drawing has been prepared from information supplied to us by, or on behalf of the contractor, who should check that his requirements have been correctly interpreted and that all loading, dimensions, lift heights, bay sizes, erection/striking sequences etc. are as required and practicable.

This drawing has been prepared in accordance with the following:

NASC TG20:13, BS EN 12811-1:2003

BS 5975:2008+A1:2011 Code of practice for temporary works procedures and the permissible stress design of falsework.

BS EN 1991-1-3:2003+A1:2015 Snow Loads

BS EN 1991-1-4:2005+A1:2010 Wind Actions

All scaffolding materials forming this structure are to comply with NASC TG20:13 & BS EN 12811-1:2003.

Scaffold tube taken as BS EN 39:2001 type 4 "as new" condition.

All scaffold fittings taken as load-bearing class A fittings unless stated otherwise.

All proprietary equipment must be used in accordance with the manufacturers information.

Scaffolding structure to be erected by competent operatives in accordance with NASC SG4 and Work at Height Regulations 2005.

Scheme to be read in conjunction with the scaffold contractors quotation, risk assessment and method statement for which the scaffold contractor is totally responsible.

The design life-span of this temporary structure is a maximum of 2 years, unless reduced by environmental factors detailed below. Specific advice must be sought if the intended life-span is to exceed 2 years.

Wind / Snow Loads

Scaffold to be inspected by competent personnel after all adverse weather conditions prior to works proceeding.

Working Platforms

All working platforms must comply with the statutory regulations at all times.

Scaffold boards are to be restrained against movement as per NASC TG12

Foundations/Supports

The contractor is responsible for foundation design, below the scaffold baseplate.

Where equipment is supported or suspended from an existing structure the contractor must ensure that the existing structure is adequate to safely support the scaffold loads.

Ties

The contractor is responsible for ensuring the existing structure is capable of safely withstanding the scaffold tie loads.

Tie selection should be made by the contractor using guidance from NASC TG4.

Anchors should be fixed and tested in accordance with NASC TG4.

All ties tubes to be fixed with load-bearing couplers.

The contractor is to ensure that no ties are removed without the approval of Optima Scaffold Designs LLP.

Shoring Work

Optima Scaffold Designs LLP cannot and will not pass comment on the building being shored as this involves matters beyond our knowledge. It is the contractors responsibility to ensure that the existing structure will safely span between our supports, and can be safely shored in the way indicated.

Temporary Roofs

No temporary roof can be made water tight.

When kentledge or anchorage is specified on the drawing, it must be installed prior to erection of the scaffold above the 1st lift.

For mono-pitch temporary roofs, the minimum slope angle of the roof sheeting is 5° when using C1 sheets. For all roof systems the manufacturers recommendations should be followed.

All temporary roofs to be in accordance with NASC TG9.

Sheeting/Fans

No wind protection, sheeting or fans etc. is are to be added to the scaffolding structure unless otherwise stated on this drawing.

Kentledge

Where a scaffold requires kentledge for stability, the kentledge should be placed in position prior to erection of the scaffold above the 1st lift.

Modifications

No alterations are to be made to the scaffold structure detailed on this drawing without written permission from Optima Scaffold Designs LLP.

Dimensions

Written dimensions shall take precedence over scaled dimensions.

The contractor should verify all site dimensions and notify Optima Scaffold Designs LLP of any discrepancies.

The contractor is responsible for accurately setting the position of the scaffold structure.

Platform Imposed Load
1No. lift @ 5.00kN/m²

Environmental Loads
wind (qp) = 0.46kN/m²
snow (s) = 0.32kN/m²
exposure period, <2yrs

Foundation Load
maximum load per standard = 82.2kN + kentledge

Interface Load
NA, Ground anchors TBC

Check Category (BS5975)
category 2

FOR DISCUSSION

Revision	Date	Description	Prepared	Checked
F	05.09.18	Ramp Altered, Reactions Added	J.L.	R.S.L.
E	10.08.18	Ramp Altered	J.L.	R.S.L.
D	10.08.18	Central Tower Support Reactions Added	J.L.	R.S.L.
C	03.08.18	Views Added for Approval in Principle	J.L.	R.S.L.
B	13.07.18	Layout Altered	J.L.	R.S.L.
A	12.07.18	Layout Altered	J.L.	R.S.L.

OPTIMA
Scaffold Designs LLP

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NASC

Client
Attridge Scaffolding Ltd

Job Title
Bromham Road Bridge SPC2/ O/B 40

Drawing Title
Bridged Public Access Scaffold (WIP)

Scale	Date	Drawing Number	Sheet	Revision
As Shown	19.06.18	17opt4693-005	1 of 2	F
Prepared by J.L.	Checked by R.S.L.			

⚠ ALL EXPOSED TUBE ENDS & FITTINGS TO BE FITTED WITH PROTECTIVE CAPS. GROUND LEVEL TUBE WORK TO BE FITTED WITH FOAM PADDING.

⚠ HAKI HBS TO BE CONSTRUCTED AS PER MANUFACTURERS INSTRUCTIONS. HAKI COMPONENTS TO BE SECURED IN TENSION USING LOCKING SPRINGS AND PINS THROUGHOUT.

⚠ KENTLEDGE TO BE PROVIDED BEFORE SECOND LIFT IS INSTALLED. AFTER INSTALLATION OF KENTLEDGE & BRACING STAIRCASES MAY BE LEFT FREESTANDING IN THE TEMPORARY STATE PRIOR TO THE INSTALLATION OF THE BRIDGE BEAMS.

⚠ ALL SECTION BRACING IN BUTTRESSES TO BE SECURED ON CLASS B 90s/SWIVELS WITH 1No CHECK FITTING EITHER SIDE

⚠ MAX IMPOSED LOAD ALLOWANCE = 5.00kN/m²

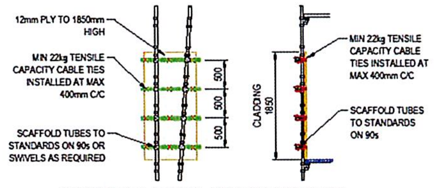
⚠ ALL SCAFFOLD BOARD DECKING TO BE TOPPED WITH PLY BOARD OR SIMILAR AND A NON SLIP COATING.

⚠ ALL TRADITIONAL LOAD BEARING FITTINGS TO BE CLASS B. ALL SCAFFOLD TUBE TO BE S355 HIGH TENSILE STEEL (EXCLUDING HAKI COMPONENTS)

⚠ ANTI-CLIMB FENCING TO BE INSTALLED TO TOWERS. ADDITIONAL WIND ALLOWANCE ACCOUNTED FOR WHERE FENCING IS LESS THAN 40% SOLID.

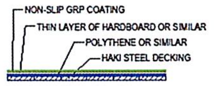
⚠ SUFFICIENT LOAD BEARING CAPACITY REMAINS TO ACCOUNT FOR INSTALLATION OF TEMPORARY LIGHTING AND CABLES. SERVICES ASSUMED <= 0.1kN/m².

⚠ BRIDGE SUPPORT TOWERS ARE TO BE STABILISED BY BOLTED CONNECTIONS TO THE REINFORCED CONCRETE FOUNDATIONS. THE INDICATED REACTIONS ARE UN-FACTORED. IF THE INDICATED FOUNDATION SELF WEIGHTS CANNOT BE ACHIEVED FURTHER DESIGN INPUT WILL BE REQUIRED AND KENTLEDGE WILL NEED TO BE ADDED TO THE SCAFFOLD

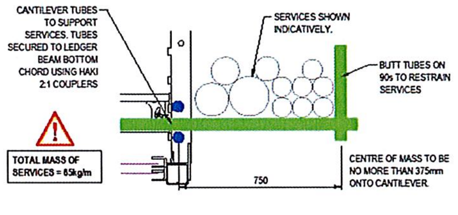

12mm PLY TO 1850mm HIGH
MIN 22kg TENSILE CAPACITY CABLE TIES INSTALLED AT MAX 400mm C/C
SCAFFOLD TUBES TO STANDARDS ON 90s OR SWIVELS AS REQUIRED
500
500
500
CLADDING 1850
MIN 22kg TENSILE CAPACITY CABLE TIES INSTALLED AT MAX 400mm C/C
SCAFFOLD TUBES TO STANDARDS ON 90s

PLYWOOD CLADDING CONNECTION DETAIL

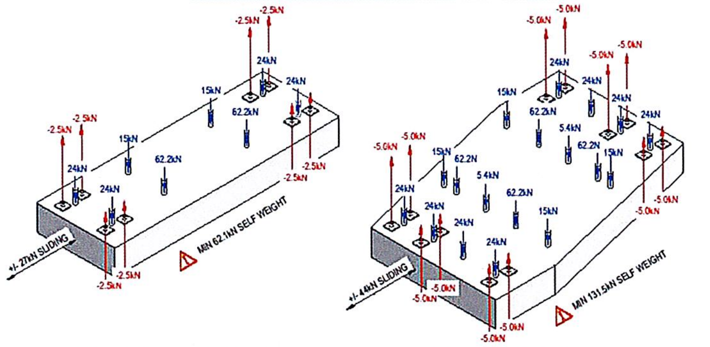
TO BE USED AT INTERFACE BETWEEN RAMPED AND LEVEL WALKWAYS



PROTECTION DECK COMPOSITION


CANTILEVER TUBES TO SUPPORT SERVICES. TUBES SECURED TO LEDGER BEAM BOTTOM CHORD USING HAKI 2:1 COUPLERS
SERVICES SHOWN INDICATIVELY.
BUTT TUBES ON 90s TO RESTRAIN SERVICES
TOTAL MASS OF SERVICES = 65kg/m
CENTRE OF MASS TO BE NO MORE THAN 375mm ONTO CANTILEVER.
750

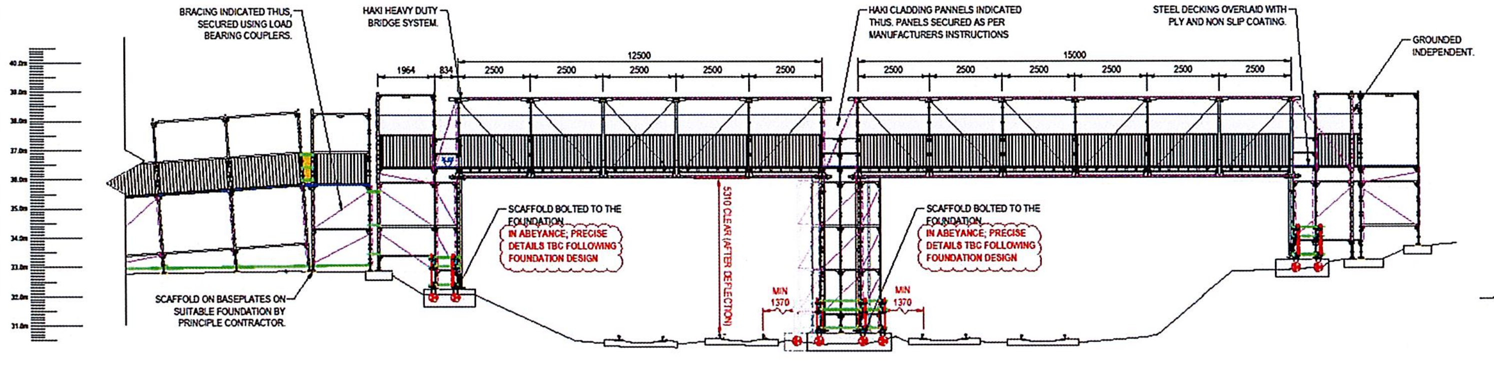
SERVICE SUPPORT DETAIL



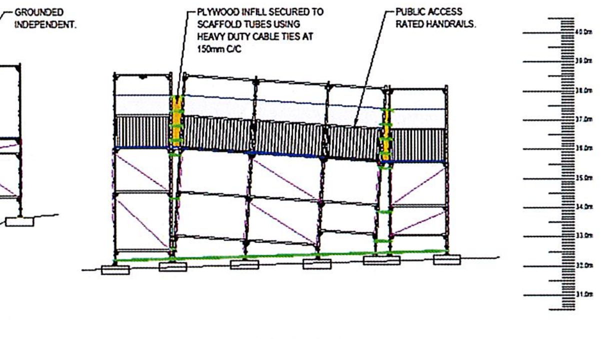
UN-FACTORED REACTIONS AT EDGE TOWER FOUNDATIONS

UN-FACTORED REACTIONS AT CENTRAL TOWER FOUNDATION

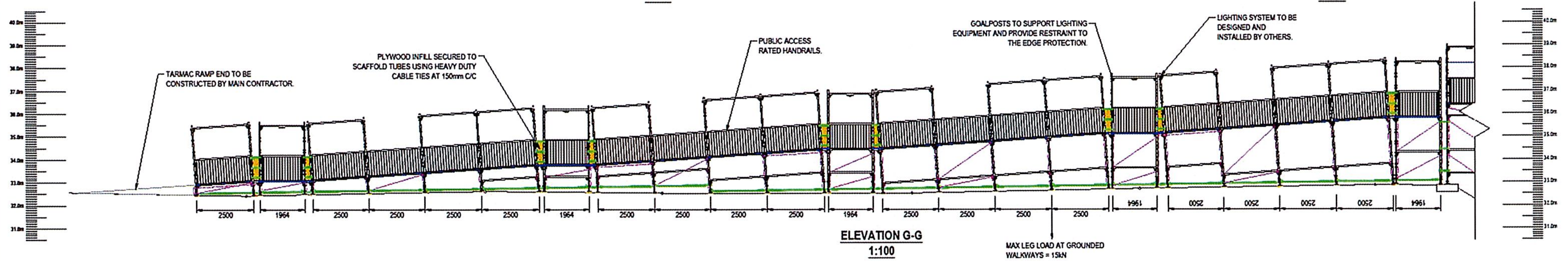
SUPPORT REACTIONS AT CENTRAL SUPPORT TOWER


BRACING INDICATED THUS, SECURED USING LOAD BEARING COUPLERS.
HAKI HEAVY DUTY BRIDGE SYSTEM.
HAKI CLADDING PANNELS INDICATED THUS. PANELS SECURED AS PER MANUFACTURERS INSTRUCTIONS
STEEL DECKING OVERLAID WITH PLY AND NON SLIP COATING.
GROUNDED INDEPENDENT.
12500
15000
1964
834
2500
SCAFFOLD BOLTED TO THE FOUNDATION.
IN ABEYANCE; PRECISE DETAILS TBC FOLLOWING FOUNDATION DESIGN
5310 CLEAR (AFTER DEFLECTION)
MIN 1370
SCAFFOLD ON BASEPLATES ON SUITABLE FOUNDATION BY PRINCIPLE CONTRACTOR.

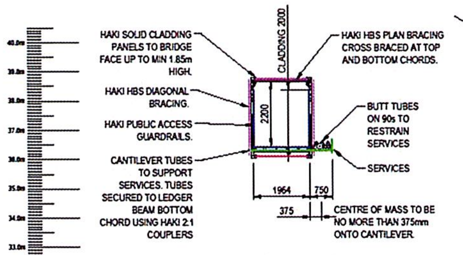
SECTION A-A
1:100


PLYWOOD INFILL SECURED TO SCAFFOLD TUBES USING HEAVY DUTY CABLE TIES AT 150mm C/C
PUBLIC ACCESS RATED HANDRAILS.

ELEVATION B-B
1:100

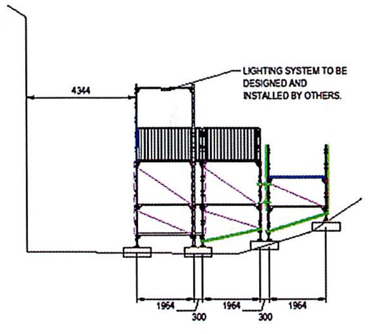

TARMAC RAMP END TO BE CONSTRUCTED BY MAIN CONTRACTOR.
PLYWOOD INFILL SECURED TO SCAFFOLD TUBES USING HEAVY DUTY CABLE TIES AT 150mm C/C
PUBLIC ACCESS RATED HANDRAILS.
GOALPOSTS TO SUPPORT LIGHTING EQUIPMENT AND PROVIDE RESTRAINT TO THE EDGE PROTECTION.
LIGHTING SYSTEM TO BE DESIGNED AND INSTALLED BY OTHERS.
2500
1964
MAX LEG LOAD AT GROUNDED WALKWAYS = 15kN

ELEVATION G-G
1:100

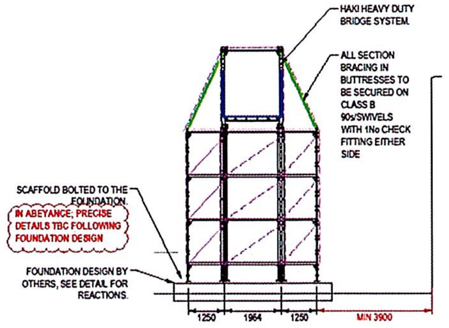

HAKI SOLID CLADDING PANELS TO BRIDGE FACE UP TO MIN 1.85m HIGH.
HAKI HBS DIAGONAL BRACING.
HAKI PUBLIC ACCESS GUARDRAILS.
CANTILEVER TUBES TO SUPPORT SERVICES. TUBES SECURED TO LEDGER BEAM BOTTOM CHORD USING HAKI 2:1 COUPLERS
CLADDING 2000
2200
HAKI HBS PLAN BRACING CROSS BRACED AT TOP AND BOTTOM CHORDS.
BUTT TUBES ON 90s TO RESTRAIN SERVICES
SERVICES
1964
750
375
CENTRE OF MASS TO BE NO MORE THAN 375mm ONTO CANTILEVER.

SECTION F-F
1:100

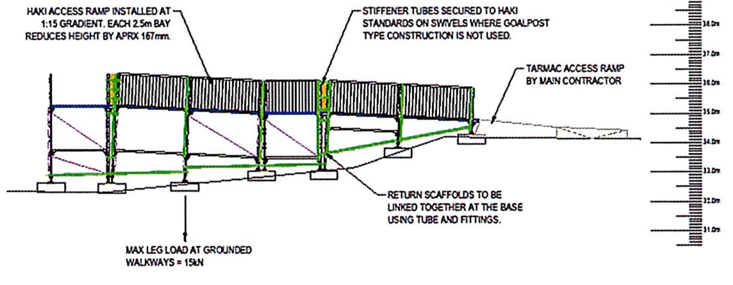
SCALE BAR FOR 1:100



SECTION C-C
1:100


HAKI HEAVY DUTY BRIDGE SYSTEM.
ALL SECTION BRACING IN BUTTRESSES TO BE SECURED ON CLASS B 90s/SWIVELS WITH 1No CHECK FITTING EITHER SIDE
SCAFFOLD BOLTED TO THE FOUNDATION.
IN ABEYANCE; PRECISE DETAILS TBC FOLLOWING FOUNDATION DESIGN
FOUNDATION DESIGN BY OTHERS, SEE DETAIL FOR REACTIONS.
1250
1964
1250
MIN 3900

SECTION D-D
1:100


HAKI ACCESS RAMP INSTALLED AT 1:15 GRADIENT. EACH 2.5m BAY REDUCES HEIGHT BY APRX 167mm.
STIFFENER TUBES SECURED TO HAKI STANDARDS ON SWIVELS WHERE GOALPOST TYPE CONSTRUCTION IS NOT USED.
TARMAC ACCESS RAMP BY MAIN CONTRACTOR
RETURN SCAFFOLDS TO BE LINKED TOGETHER AT THE BASE USING TUBE AND FITTINGS.
MAX LEG LOAD AT GROUNDED WALKWAYS = 15kN

SECTION E-E
1:100

GENERAL NOTES

Property

This drawing is confidential and is the property of Optima Scaffold Designs LLP. No unauthorised use, copy or disclosure is to be made without written permission.

CDM Regulations 2015

The Construction (Design & Management) Regulations 2015, regulation 9, requires that we make the client aware of their duties imposed by the regulations.

Guidance on your duties are detailed within The Construction (Design & Management) Regulations 2015.

Basis of Design

This drawing has been prepared from information supplied to us by, or on behalf of the contractor, who should check that his requirements have been correctly interpreted and that all loading, dimensions, lift heights, bay sizes, erection/lifting sequences etc. are as required and practicable.

This drawing has been prepared in accordance with the following:

NASC TG20:13, BS EN 12811-1:2003

BS 5975:2008+A1:2011 Code of practice for temporary works procedures and the permissible stress design of falsework.

BS EN 1991-1-3:2003+A1:2015 Snow Loads

BS EN 1991-1-4:2005+A1:2010 Wind Actions

All scaffolding materials forming this structure are to comply with NASC TG20:13 & BS EN 12811-1:2003.

Scaffold tube taken as BS EN 39:2001 type 4 "as new" condition.

All scaffold fittings taken as load-bearing class A fittings unless stated otherwise.

All proprietary equipment must be used in accordance with the manufacturers information.

Scaffolding structure to be erected by competent operatives in accordance with NASC SG4 and Work at Height Regulations 2005.

Scheme to be read in conjunction with the scaffold contractors quotation, risk assessment and method statement for which the scaffold contractor is totally responsible.

The design life-span of this temporary structure is a maximum of 2 years, unless reduced by environmental factors detailed below. Specific advice must be sought if the intended life-span is to exceed 2 years.

Wind / Snow Loads

Scaffold to be inspected by competent personnel after all adverse weather conditions prior to works proceeding.

Working Platforms

All working platforms must comply with the statutory regulations at all times.

Scaffold boards are to be restrained against movement as per NASC TG12

Foundations/Supports

The contractor is responsible for foundation design, below the scaffold baseplate.

Where equipment is supported or suspended from an existing structure the contractor must ensure that the existing structure is adequate to safely support the scaffold loads.

Tying

The contractor is responsible for ensuring the existing structure is capable of safely withstanding the scaffold tie loads.

Tie selection should be made by the contractor using guidance from NASC TG4.

Anchors should be fixed and tested in accordance with NASC TG4.

All ties tubes to be fixed with load-bearing couplers.

The contractor is to ensure that no ties are removed without the approval of Optima Scaffold Designs LLP.

Shoring Work

Optima Scaffold Designs LLP. cannot and will not pass comment on the building being shored as this involves matters beyond our knowledge. It is the contractors responsibility to ensure that the existing structure will safely span between our supports, and can be safely shored in the way indicated.

Temporary Roofs

No temporary roof can be made watertight.

When kentledge or anchorage is specified on the drawing, it must be installed prior to erection of the scaffold above the 1st lift.

For mono-pitch temporary roofs, the minimum slope angle of the roof sheeting is 5° when using C/I sheets. For all roof systems the manufacturers recommendations should be followed.

All temporary roofs to be in accordance with NASC TG9

Sheeting/Fans

No wind protection, sheeting or fans etc. to are to be added to the scaffolding structure unless otherwise stated on this drawing.

Kentledge

Where a scaffold requires kentledge for stability, the kentledge should be placed in position prior to erection of the scaffold above the 1st lift.

Modifications

No alterations are to be made to the scaffold structure detailed on this drawing without written permission from Optima Scaffold Designs LLP.

Dimensions

Written dimensions shall take precedence over scaled dimensions.

The contractor should verify all site dimensions and notify Optima Scaffold Designs LLP. of any discrepancies.

The contractor is responsible for accurately setting the position of the scaffold structure.

Platform Imposed Load

1No. lift @ 5.00kN/m²

Environmental Loads

wind (qp) = 0.456kN/m²

snow (s) = 0.320kN/m²

exposure period, <2yrs

Foundation Load

maximum load per standard = 62.2kN

Interface Load

5kN tension & shear per plate, 4No anchors per plate. Details TBC

Check Category (BS5975)

category 2

🟥 ***FOR DISCUSSION***

F	05.09.18	Ramp Altered, Reactions Added	J.L.	R.S.L.
E	10.08.18	Ramp Altered	J.L.	R.S.L.
D	10.08.18	Central Tower Support Reactions Added	J.L.	R.S.L.
C	03.08.18	Views Added for Approval in Principle	J.L.	R.S.L.
B	13.07.18	Layout Altered	J.L.	R.S.L.
A	12.07.18	Layout Altered	J.L.	R.S.L.
Revision	Date	Description	Prepared	Checked

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ISO A1, 841mm x 594mm

NASC

Client
Attridge Scaffolding Ltd

Job Title
Bromham Road Bridge SPC2/ O/B 40

Drawing Title
Bridged Public Access Scaffold (WIP)

Scale	Date	Drawing Number	Sheet	Revision
As Shown	19.06.18	17opt4693-005	2 of 2	F
Prepared by J.L.	Checked by R.S.L.			