TUBE AND FITTING SCAFFOLD NOTES

1. 225 x 38mm BS EN 2482 visually graded scaffold board as toe board secured against movement using board clips or single couplers to uprights. Where a joint in boards occurs install additional tube(s) from handrails to ledger to enable toe boards to be secured against movement.
2. 225mm x 38mm BS EN 2482 visually graded scaffold boards as decking members with no greater gap than 25mm between boards. (Except between main boards and inside boards where gap should not exceed 50mm). Where there is a risk of falling materials causing injury all gaps should be covered with plywood or similar. Boards to have no greater overhang than 150mm.
3. Where there are three (3) inside boards the maximum design service load should not exceed 0.75kN/m² on levels indicated.
4. Ply board cover to be installed by principal contractor. Fixed securely to boarded deck using screws.
5. Where required, base lift to be double boarded with a polythene/visqueen membrane sandwiched between scaffold board layers as means of protection to persons walking below.
6. Board transoms at indicated c/c secured using EN 74 single couplers.
7. All board transoms to abut the existing structure.
8. Scaffold tube ledgers secured to standards using double couplers or using prefabricated transoms as necessary. Joints in ledgers to be made using EN 74 sleeve couplers.
9. Scaffold tube guardrails secured at every lift for full perimeter using. Joints in handrail to be made using EN 74 sleeve couplers only.
10. All un-boarded lifts should have a single principal guardrail and board transoms to facilitate erection and dismantling in accordance with SG4:Current.
11. Scaffold tube internal guardrails must installed at each lift where falls internally are possible.
12. Uprights to be installed at positions indicated not exceeding the maximum bay sizes shown (±50mm tolerance). All uprights to be within 1% of plumb (10mm out of plumb every 1000mm vertical tolerance).
13. Joints in uprights to be made using EN 74 sleeve couplers.
14. Pedestrian lift heights to be as indicated. Foam bumpers and coupler bolt nipples to be used as pedestrian protection or similar protection measure as necessary.
15. Ladder access to be installed at a gradient of 1 horizontal to 4 vertical, fixed securely to scaffold transoms. Ladder gates/ trapdoors to be installed as per manufactures guidance to prevent falls through decking.
16. Facade bracing secured at positions indicated on design between standards using swivels or to ledgers/transoms using doubles to full height. All bracing connections must be within 300mm of the node.
17. Ledger brace secured at centres indicated on drawings. All bracing must be within 150mm of the node. Secure to uprights using swivels or to ledgers/transoms using doubles.
18. All load bearing transoms to abut the wall. Plastic end caps to be used if required under the specification for works in order to protect the existing structure.
19. Scaffold tie tube secured to both inside and outside standards or ledgers. The tie tube should be within 300mm of the node.
20. Scaffold to be tied into the existing structure at positions indicated on the design using tie detail(s) shown as the method of fixing.
21. All supplementary couplers fixed tight to existing connection ensuring main body of the coupler abuts the main body of the coupler above. As indicated on design.
22. Debris netting secured to the inside or outside face of the outside upright secured using zip ties or similar at 500mm c/c to 'sheeting rails' at 1000mm c/c vertically up the height of the scaffold.
23. Hoarding to be fixed to the face of the scaffold by principal contractor at low level to prevent unauthorised access.

PREFABRICATED BEAMS

24. Beams are to be installed as per manufacturers guidance. All puncheons/ supports are to be fixed as indicated on the design using Class A or B double couplers.
25. Where beams are connected together manufacturer supplied pins and spigots are to be used in accordance with manufacturers guidance.
26. Horizontal lacings tubes are to be installed at centres indicated to both top and bottom chord using load bearing couplers.
27. Diagonal bracing is to be installed between the beam chords at every line of lacing tubes secured using load bearing couplers.
28. Plan bracing is to be installed in top or bottom chord as indicated on the design.

CONTRACTOR NOTES

DESIGN APPROACH

29. This 'design' has been carried out using the limit state approach in accordance with BS EN 12811-1, NASC TG20:(Current) and the Eurocode Suite.

PROPRIETARY EQUIPMENT

30. All proprietary equipment should be installed and used in accordance with the manufacturers instructions.

DESIGN SPECIFICATION AND INTERPRETATION

31. The design has been produced using information provided to us by yourself and/or by others involved in the project. It is your responsibility to ensure that the 'services' provided are correct and the specification for the works has been interpreted correctly. This includes but is not limited to; loading, dimensions, lift heights etc. It is your responsibility to ensure that you produce a Risk Assessment and Method Statement (RAMS) in line with the design and that all items detailed are practicable.

ANCHORS (TIES)

32. The anchors / ties used in design are based on correct installation in accordance with manufacturer's details and the implementation of proof tests in accordance with NASC TG4:(Current) to ensure suitability of building strata. A minimum of 5% of the total number of anchors/ties should be tested to the values indicated in 'LOADINGS' notes. It is the responsibility of the Principal Contractor or Project Management Team to ensure approval of loads is sought from a structural engineer - CREATOR Ltd cannot take responsibility for the existing structure and its load capacity/integrity It is the responsibility of the scaffold contractor to ensure that load bearing couplers are used for all ties, that they are installed correctly and fully in accordance with the design. Under no circumstances should ties be removed once installed as per the design. Should a tie require removal Creator Ltd should be contacted for advice.

FOUNDATIONS (SOIL AS A BEARING STRATA)

33. It is the responsibility of the Principal Contractor to prepare all ground prior to erection. The forces/pressures to the ground, as detailed in 'LOADINGS', should be approved by the Principal Contractor prior to erection ensuring that settlement is kept to an absolute minimum. All foundations should be regularly inspected and as a minimum during the statutory weekly inspection. If at any stage the Principal Contractor / Contractor has concerns with the ground CREATOR Ltd should be contacted immediately.

FOUNDATIONS (EXISTING STRUCTURAL MEMBER AS A BEARING STRATA)

34. It is the responsibility of the Principal Contractor to ensure that all loads applied to the existing structure are approved by a competent structural engineer prior to erection of the scaffold structure as this involves matters beyond our remit. See 'LOADINGS' for summary of loads to the existing structure. Should the existing structure be unsuitable to support the applied loads contact CREATOR Ltd prior to erection to obtain new proposals. Once approval of loads has been made and scaffold has been erected, the existing structure should be regularly inspected by the Principal Contractor.

DESIGN SERVICE LOADS (LIVE LOADS)

35. It is the responsibility of the Principal Contractor and Scaffold Contractor should ensure that the loads allowed in 'LOADINGS' notes are suitable for the work being undertaken and that the loading can be effectively managed by the Principal Contractor during the in-use phase.

BOARDED LEVELS

36. The maximum number of boarded levels is as indicated on the design and in the 'LOADINGS' section of the design. It is the responsibility of the scaffold contractor to ensure that the correct number of boarded levels are installed, that boards are in good condition showing no signs of defects and that they are effectively secured against movement.

MATERIALS

37. All materials should be in good condition showing no signs of defects. The design is based on the use of BS EN 2482 visually graded scaffold boards, EN 74 couplers and BS 1139 good quality galvanised scaffold tube. All beams and prefabricated members should have a manufacturers identifier and should be in good condition showing no signs of defects.

DIMENSIONS

38. All written dimensions should take precedence over scaled dimensions. Any dimensional discrepancies on the design should be notified to Creator Ltd. It is the responsibility of the Scaffold Contractor and/or Scaffold Contractor to ensure the scaffold is set out correctly and in accordance with the design.

PERMITS AND PERMISSIONS

39. It is the responsibility of the Principal Contractor/Scaffold Contractor to obtain all permits and permissions prior to erection of the scaffold.

PROPERTY / MODIFICATION

40. This document remains the exclusive property of Creator Ltd and should be returned immediately upon request. No modification or alteration should be made to the design without written permission from Creator Ltd.

DESIGNERS RISK ASSESSMENT

Likelihood		Severity		Risk Level					
Probability of Occurrence	Probability Index	Hazard Severity / Potential Maximum Consequence	Severity Index	Hazard Severity Index	Probability Index A	B	C	D	E
So unlikely that probability is close to zero	A	Minor injury/illness resulting in lost time of 3 days or less	1	1	L	L	M	H	H
Unlikely though conceivable	B	Injury/illness resulting in lost time of more than 3 days	2	2	L	M	H	H	H
Likely to occur sometime	C	Major Injury causing long term loss of work	3	3	L	M	H	S	S
Occurrence not surprising. May occur more than once.	D	Major Illness / Disability / Single Fatality	4	4	M	H	S	S	S
Occurrence inevitable. May occur many times.	E	Multiple Fatality	5	5	M	H	S	S	S

Risk Assessment Notes

- **Risk assessment in accordance with the Construction (Design and Management) Regulations 2015**
- **All control measures to be managed on site by party indicated in 'action to be taken by;' column**
- **All residual risks will be indicated on the design as follows;**

Description of control Measure to be adopted

Description of Risk

RISK - [.....]

Control Measure: [.....]

	Hazard:	Initial Risk P	R	L	Risk Control Measures:	Residual Risk P	R	L
	Inaccuracies in the visual representation and detailing of existing 'structure' and ground based obstacles etc.	C	1	M	**Accuracies to be checked on site and any discrepancies made aware of to Creator Ltd as erection progresses.**	C	1	M
	Excessive bay sizes installed during erection process causing structural failure of various members.	C	4	S	**Bay sizes indicated to be maintained with the tolerances level indicated on the design. This tolerance should not be the norm for all bays**	C	1	M
	Failure of the scaffold during the in-use phase caused by overloading.	A	4	M	**The maximum design service load indicated to be managed by the principal contractor and all loads indicated on the Scaftag**	A	3	L
	Excessive lift heights installed during erection causing buckling of the uprights.	C	4	S	**Maximum lift heights to be installed by the scaffold contractor as detailed in the design ±100mm.**	A	3	L
	Scaffold conductivity causing electric shock or fatality	C	5	S	**No OHLE lines present on the immediate site however earthing and bonding should be carried out by the principal contractor as necessary. This should be carried out by a suitably competent person.**	A	1	L
	Unauthorised access onto/into the scaffold structure	D	3	S	**Where appropriate, ladder access will be installed and dismantled when required. Where indicated on the design, hoarding will be installed by the principal contractor.**	A	3	L
	Damage to the scaffold structure caused by on-site works or otherwise.	B	4	H	**The principal contractor is to ensure all relevant procedures are in place when site vehicles are operating in close proximity of the scaffold structure.**	A	3	L
	Overloading of existing structure due to the need to support the scaffold structure.	B	4	H	**All loads to the existing structure(s) will be checked by a structural engineer before erecting the scaffold.**	A	3	L
	Clearance from tracks to scaffold structure causing insufficient sighting to signals, collision with scaffolding etc.	C	5	S	**All scaffold to be kept an agreed distance from tracks and platform edges.**	A	3	L
	Failure of the existing bearing stratum by means of: exceeding the bearing stratum, immediate settlement, consolidation settlement, saturated soils etc.	C	4	S	**The maximum legloads and reactions should be appraised by the principal contractor. All founded on hardstanding.**	A	3	L
	Instability of scaffold boards to main boarded deck(s) during all stages i.e. in-use and out-of-use.	A	4	M	**All boards to be secured down against uplift using board clips or similar.**	A	4	M
	Instability of ladder access and the ability for persons to fall as a result. Also, falls as a result of no handrails adjacent to ladder access.	B	4	H	**Ladder to be effectively secured against movement and access gate provided adjacent to the ladder access**	A	1	L
	Insufficient board bearers (transoms) causing boards to fail under maximum design service load	A	4	M	**Transoms to be installed at positions / centres indicated on the design**	A	3	L
	Boards of insufficient 'quality' to sustain maximum design service load (defects in boards such as rotting, 'cut' etc)	C	4	S	**Boards should be visually inspected regularly to ensure they are of sufficient 'quality' to sustain the loads. Boards of insufficient quality should be replaced.**	A	3	L
	Materials / objects falling from boarded deck level / persons passing through void between intermediate guardrail and deck	A	5	M	**Toeboards to be secured to leading edges and double guardrails installed where falls from height are possible**	A	1	L
	Materials / objects falls through scaffold into a pedestrianised area or other area causing damage / injury to persons / objects.	B	5	H	**Toeboards to be secured to leading edges and double guardrails installed where falls from height are possible. A protective polythene layer is to be installed between boards.**	B	1	L
	Falls from height / gaps in decking members	B	5	H	**Double guardrails installed where falls from height are possible. Gaps to be a maximum of 25mm except between any inside board and main boards which should be 50mm**	B	1	L
	Coupler of insufficient tightness, grade and quality	C	5	S	**Couplers to be manufactured to EN74 and should be tightened to a 50Nm torque. Couplers should be undamaged**	C	1	M
	Collision of vehicles with scaffold	C	5	S	**Demarcation to be implemented. To prevent collision temporary vehicle crash barriers to be installed by the principal contractor.**	C	1	M

LEGEND

- Structural Steel
- Scaffold Beams
- Timber Products / Scaffold Boards
- Building Line
- Facade Brace (Plan, Section)
- Kentledge Hatch
- Ledger Brace (Plan, Elevation)
- Plan Brace (Plan, Section, Elevation)
- Scaffold Centre Line (Plan)
- 48.3mm Diameter Scaffold Tube
- Cladding Material (Sheeting / Netting)
- Splice Detail
- Supplementary Coupler / Check Fitting
- Tie Location (Plan, Section, Elevation)
- Puncheon
- Upright Cut Off
- Residual Risk
- Ledger Brace (Elevation, Section)
- Facade Brace (Elevation, Section)

* Some of the above 'key' items may not be present in design but are indicated on all designs for conformity

DOCUMENT REFERENCES

This design is to be read in conjunction with the following design drawings and/or documents:

CRE-IBN-189-001-001A_REPORT

APPENDIX A - CRE-IBN-189-001-001A_1,2,3,4.dwg

AMENDMENTS / REVISIONS

REV	BY	DATE	CHECK	DATE	APP'D	DATE
A	CH	16.05.23	KRB	16.05.23		
-	SLS	05.05.23	RWB	05.05.23	AJB	05.05.23

Prepared for:

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FOR CONSTRUCTION

Project Number:	Page Number:	Scale:	Size:
CRE-IBN-189-001-001A	4	1 : 50,25	A2

Project Title/Description:

ACCESS SCAFFOLD
MANCHESTER OPERA HOUSE
QUAY STREET
M3 3HP

Principal Contractor:

SEE QUOTE

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