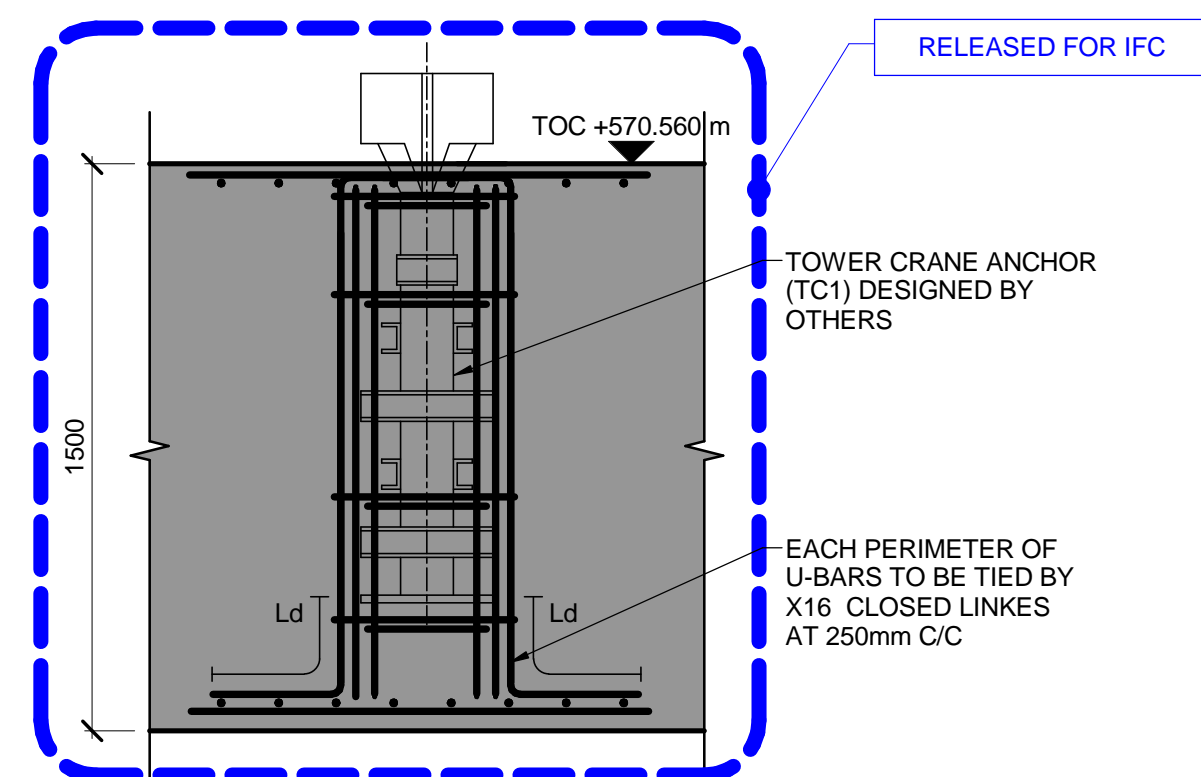


1 B04 - CONCOURSE - TC1 TOWER CRANE LOCATION



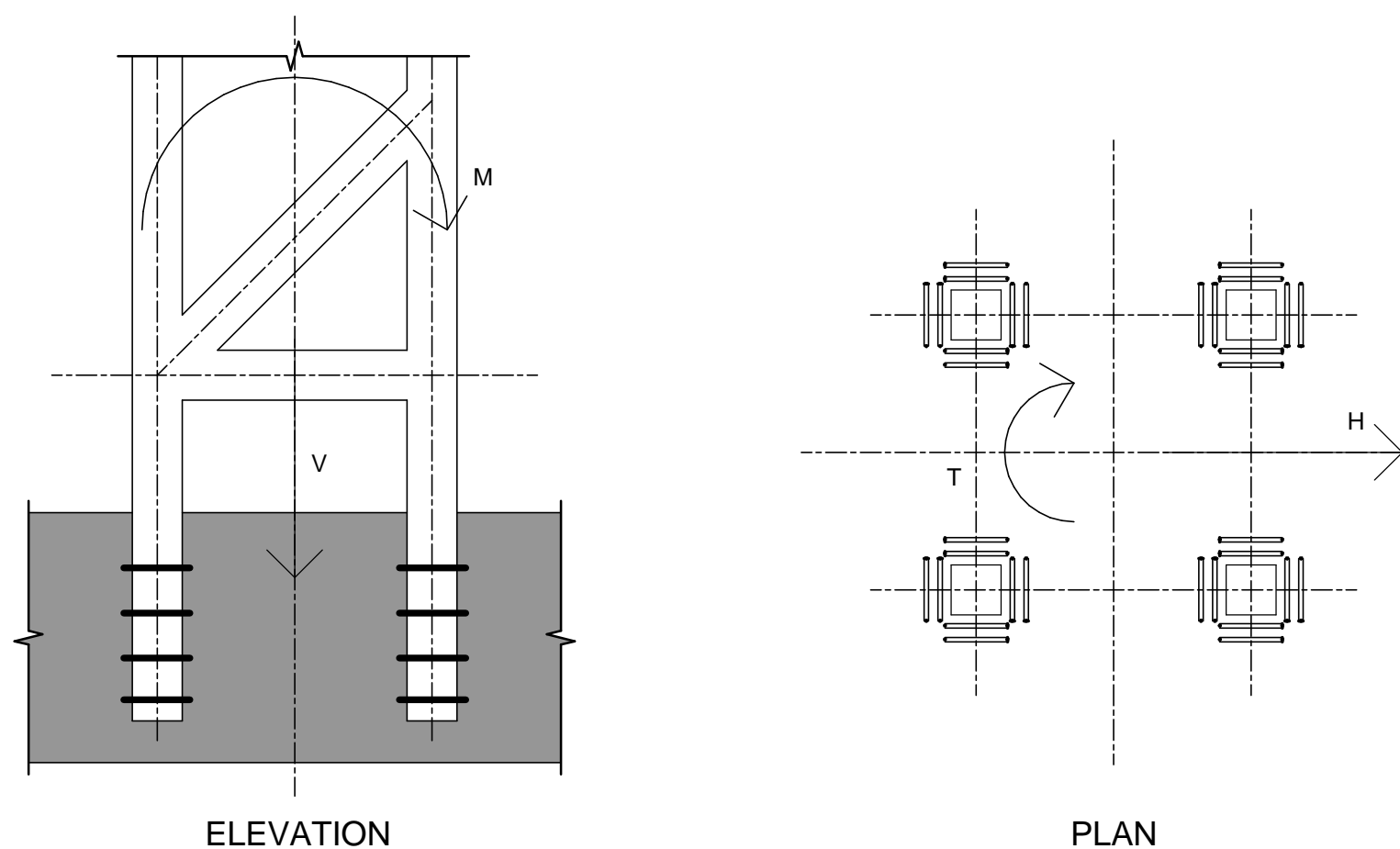
2 TYPICAL CRANE ANCHOR REINFORCEMENT DETAIL

- NOTES:**
1. THE BASE SLAB HAS BEEN CHECKED FOR THE FOLLOWING ANCHOR FORCE SPER ANCHOR:

FOR TC1 : PULL-OUT (UPLIFT) - 1735kN (UNFACTORED)
 - 2776kN (FACTORED)
CO-EXISTING HORIZONTAL SHEAR : 43kN (UNFACTORED)
 69kN (FACTORED)
- ANCHOR SUPPLIER TO CONFIRM DESIGN FORCES ARE COMPATIBLE WITH CRANE LOADING.
2. ANCHOR SUPPLIER TO CONFIRM LOCALISED CONCRETE BEARING PRESSURES ARE COMPATIBLE WITH BASE SLAB ($f_{cd}=45\text{Mpa}$)
 3. ANY PROPOSED CHANGES TO THE ANCHOR LOCATIONS SHOWN SHOULD BE AGREED PRIOR TO CASTING INTO THE BASE SLAB.
 4. ANCHOR FORCES ARE BASED ON THE TOWER CRANE REACTIONS GIVEN IN ARUP REF. _20161018-RFI-1F4-00 FOR TC-1.

TOWER CRANE LOADING SPECIFICATION

1. SIGN CONVENTION



* THE ORIENTATION OF H & M ARE FREE TO ROTATE ABOUT THE ζ OF TOWER CRANE

2. ASSUMED DESIGN GRANUL LOADING TO BE ADOPTED

TOWER CRANE TC-1			CRANE IN OPERATION			CRANE OUT OF OPERATION						CRANE DURING ERECTION		
						STORM FROM REAR			STORM FROM FRONT					
JIB (m)	POSITION OF TROLLEY OUT OF OPERATION	SION/T (kNm)	M (kNm)	H (kN)	V (kN)	M (kNm)	H (kN)	V (kN)	M (kNm)	H (kN)	V (kN)	M (kNm)	H (kN)	V (kN)
70.0	2.3	460	4021	67	941	4128	134	907	5493	107	912	3309	32	577

[illegible]

PROJECT



CLIENT



لَهَيْمَةُ الْعُلَيَّا
نَطَوِيْر مَدِيْنَةِ الرَّبَااضِ

© 2015 High Commission for the Development of ArRiyadh

BACS CONSORTIUM



LEAD DESIGN ENTITY (LDE)

BACS APPROVAL



This drawing has been Approved and
Certified as acceptable on behalf of the
BACS Consortium.

APPROVED BY LDR

DATE _____

SCALE As indicated

SIZE **A1**

DRAWING STATUS	Indicated
ISSUED FOR CONSTRUCTION	

CONSULTANT / SUB-CONTRACTOR	
-----------------------------	--

	DRAWN BY
--	----------

DATE 08/12/2012

<p> APPROVED BY  CHECKED BY </p>	<p> DATE 11/11/2011 </p>
--	--

DATE 08/12/2

<p> APPROVED BY  CHECKED BY </p>	<p> DATE 11/11/2011 </p>
--	--

DATE 08/12/2

APPROVED BY _____

DATE 08/12/2015

	DRAWING TITLE
--	---------------

DEEP UNDERGROUND STATION
LINE 1 - TRANSFER STATION 1F4
STRUCTURE
CRANE ANCHORAGE SETTING OUT
SHEET 1

	DRAWING NUMBER
--	----------------

REVISION

[illegible]