

SECTION A-A <u>1:50</u>

STRUCTURAL CONCRETE

CONCRETE TO BE MANUFACTURED, TRANSPORTED, PLACED AND TESTED IN ACCORDANCE WITH THE REINFORCEMENT REFERENCE NATIONAL STRUCTURAL CONCRETE SPECIFICATION 4th EDITION [NSCS], BS 8500 & BS EN 206

MATERIALS

CONCRETE MIXES MUST CONFORM TO EN 206, CONSTITUENTS MUST CONFORM TO:

CEMENT EN 197-1	AGGREGATES EN 12620	MIXING WATER EN 1008	ADMIXTURES EN 934-2

28 DAY CHARACTERISTIC CUBE STRENGTH, f ck AS SHOWN BELOW

	28 DAY CUBE STRENGTH [N/mm ²]	MAXIMUM AGGREGATE SIZE [mm]
FOOTINGS	30	20
SLABS	35	20
COLUMNS/BEAMS	35	20

ALL REINFORCEMENT SHALL COMPLY WITH THE REQUIREMENTS OF BS 4449, BS 4483 & BS 8666 AS APPROPRIATE. REINFORCEMENT SHALL BE GRADE 500 UNLESS OTHERWISE STATED

COVER

MINIMUM COVER SHOULD BE TO PROVIDE ADEQUATE BONDING. PROTECTION AGAINST CORROSION & FIRE RESISTANCE. UNLESS OTHERWISE NOTED COVER VALUES BELOW SHOULD BE USED

		COVER [mm]			COVER [m
FOOTINGS/ GROUND BEAMS	UPPER FACE	40	SLABS	UPPER FACE	40
	LOWER FACE	75		LOWER FACE	40
	SIDES	75		GROUND BEARING	75
BEAMS	UPPER FACE	40		SIDES	40
	LOWER FACE	40	COLUMNS	SIDES	40
				SIDES	40

H10-200 T1--H10-200 T2 LH10-200 B2 H10-200 B1-RADE BAR MA

GEOMETRIC TOLERANCES

GEOMETRIC TOLERANCE SHOULD BE IN ACCORDANCE WITH NSCS SECTION 10. TOLERANCE CLASS 1 PER BS EN 13670 SHOULD BE SATISFIED

SURFACE FINISH

THE ARCHITECT SHOULD SPECIFIY REQUIRED SURFACE FINISH IN ACCORDANCE WITH NSCS SECTION 8 FORMWORK

FORMWORK SHALL BE CLEAR OF ALL DEBRIS, SNOW & ICE BEFORE CONCRETE IS PLACED, WHERE TEMPORARY SUPPORT IS TAKEN FROM THE GROUND IT SHOULD BE ENSURED THE GROUND HAS ADEQUATE CAPACITY TO TAKE THE LOADS. FORMWORK SHALL BE REMOVED CAREFULLY AS TO NOT DAMAGE THE CONCRETE

CONSTRUCTION JOINTS

PROVIDE CONSTRUCTION & CONTROL JOINTS AS INDICATED ON THE DRAWINGS. NOTIFY STRUCTURAL ENGINEER OF PROPOSED CONSTRUCTION JOINT OR CONTROL JOINT LOCATIONS WHICH ARE DIFFERENT OR IN ADDITION TO JOINTS INDICATED ON DRAWINGS

CHECKING & TESTING

ONCE FIXED THE CONTRACTOR MUST ENSURE ALL REINFORCEMENT IS CHECKED BY A SUITABLY QUALIFIED PERSON IN ACCORDANCE WITH BS 13670

CONCRETE TEST CUBES PREPARED BY THE CONSTRUCTOR SHALL BE INITIALLY CURED &

SUBSEQUENTLY TRANSPORTED TO AN INDEPENDENT LABORATORY IN ACCORDANCE WITH BS EN 12390-2 FOR DENSITY & COMPPRESSIVE STRENGTH TESTING IN ACCORDANCE WITH BS EN 12390-7 & 12390-3 RESPECTIVELY

UNDERPINNING TO BE CARRIED OUT IN ACCORDANCE WITH BS 8004

- PRIOR TO COMMENCING WORK THE CONTRACTOR SHALL EXAMINE, NOTE AND PHOTOGRAPH ALL EXISTING CRACKS OR OTHER DAMAGE IN THE BUILDING TO BE UNDERPINNED
- BAYS SHOULD BE CAREFULLY EXCAVATED IN SEQUENCE WITH NOT LESS THAN 72 HOURS BETWEEN 2. COMPLETION OF CURRENT BAY AND EXCAVATION OF THE NEXT BAY
- 3. CONCRETE SHOULD BE POURED IMMEDIATELY AFTER EACH BAY HAS BEEN EXCAVATED & INSPECTED
- THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER IF UNEXPECTED CIRCUMSTANCES OR 4. OBSTRUCTIONS ARE REVEALED BY THE UNDERPINNING EXCAVATIONS
- THE UNDERSIDE OF THE EXISTING FOUNDATIONS MUST BE CLEAN AND LEVELLED 5.
- THE UNDERPINNING SHALL BE CARRIED OUT IN SUCH A WAY TO MINIMISE DISTURBANCE TO THE BUILDINGS TO 6. WHICH THE WORK APPLIES AND THOSE ADJACENT TO THE WORK
- THE CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY TEMPORARY WORKS INCLUDING SHORING AND 7. PROPPING, IF NECESSARY THE CONTRACTOR SHALL PROVIDE PROPPING TO THE UNDERSIDE OF THE EXISTING FOUNDATION TO PREVENT PARTIAL COLLAPSE DUE TO LOSS OF BOND BETWEEN MASONRY COURSES
- THE CONTRACTOR SHALL APPOINT A COMPETENT PERSON, PROPERLY QUALIFIED AND EXPERIENCED WHO SHALL BE CAPABLE OF RECOGNISING AND ASSESSING ANY POTENTIAL HAZARDS AS THEY ARISE 8. TO SUPERVISE THE UNDERPINNING WORKS
- THE BEARING STRATA SHALL BE UNDISTURBED GROUND AT DEPTH DETERMINED BY BUILDING CONTROL 9
- 10. CONCRETE SHALL BE POURED TO 235 mm BELOW THE EXISTING FOUNDATION AND BE PROPERLY VIBRATED
- 11. NOT LESS THAN 24 HOURS AFTER THE CONCRETE IS POURED THE 235 mm GAP SHALL BE FILLED WITH A HIGH STRENGTH FOUNDATION BLOCKS EXTENDING THE ENTIRE WIDTH OF THE EXISTING WALL/FOUNDATION
- 12. ALL JOINTS IN UNDERPINNING BAYS ALREADY CAST SHALL BE THOROUGHLY CLEANED AND LAITANCE REMOVED TO EXPOSE THE AGGREGATE
- 13. AT NO TIME SHALL THE SUM OF THE TEMPORARILY UNSUPPORTED LENGTHS OF ANY EXISTING WALL / FOUNDATION / GROUNTING / DRY PACKING EXCEED 25%, EQUALLY DISTRIBUTED OVER THE LENGTH OF THE WALL
- 14. AT NO TIME SHALL A SECTION BE EXCAVATED IMMEDIATELY ADJACENT TO A SECTION IN SHICH CONCRETE HAS JUST BEEN COMPLETED



NOTES

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FOUNDATION DETAIL <u>1:20</u>