



# MAITAMA PROJECT

# BILL OF QUANTITIES Revision 01





#### **MAITAMA PROJECT**

ST. B.O.Q. "MAITAMA"

### <u>00000</u>

## Description

Preamble

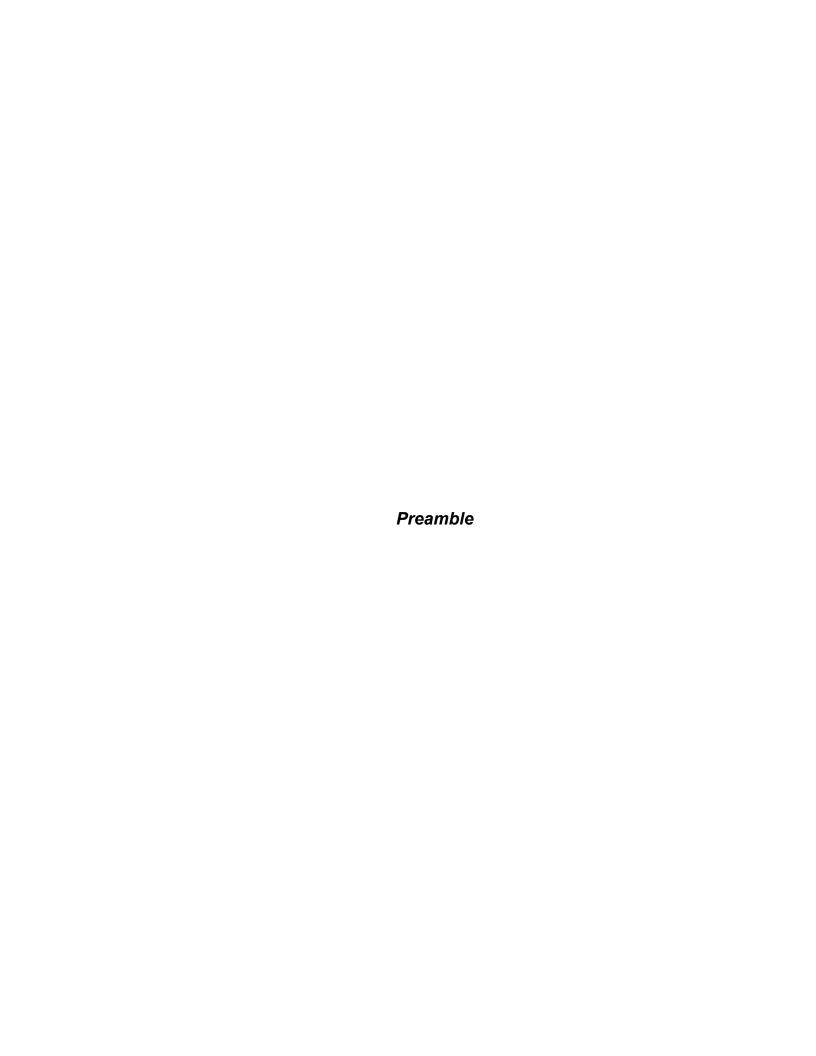
Division 1: General Requirements

Division 2: Site Construction

Division 3: Concrete

Division 4: Steel

GROUP TC.1







Item	Description	
1	Pricing	
1.01	The items in the Breakdown for the Lump Sum do not necessarily contain full description of the required Works, and when pricing, the Tenderer shall allow in his unit rates for all obligations, liabilities and services stipulated in the relevant sections of all Tender and Contract Documents to provide and maintain a complete construction and installation.	
1.02	The Tenderer shall, during his study of the Tender, address his queries, if any, to the Employer, who will study and clarify all such queries. Should the Tenderer during his study of the Tender, consider that there is any shortage, error or inconsistency in the Contract Documents, which would affect the rates/prices of his Tender, or the value of the works, the Tenderer must have all such points clarified by the Employer before submitting his Tender.	
1.03	Tenders shall be strictly in accordance with the Tender Documents and shall not be qualified in any way. Any such qualification is liable to result in a Tender which is otherwise favorable, not being considered. The Tenderer shall therefore ensure that any explanatory or descriptive matter included with his Tender does not constitute a qualification to the Contract requirements and the provisions and conditions as stipulated in the Documents.	
1.04	The Tenderer shall not alter the text of the Breakdown for the Lump Sum. Any alteration to the text inserted by the Tenderer shall lead to the rejection of the Offer.	
1.05	The Breakdown for the Lump Sum shall be priced in United States Dollars. All payment made to the successful Tenderer in accordance with all certificates, accounts and similar documents relating to this Contract shall be in US\$.	





#### Item Description

- 1.06 The Tenderer shall satisfy himself as to the meaning of each item in the Breakdown for the Lump Sum. Unless otherwise itemized separately, the rates inserted by the Tenderer shall be deemed to cover all costs, expenses, risks, liabilities, obligations and services described in the Tender Documents, the full cost of the Works, including all direct and indirect expenses, sundry labors, overhead and profit, and all matters for the proper construction, completion and maintenance of the Works.
- 1.07 Unless otherwise itemized separately, these rates shall allow, but not by way of limitation,
  - for complying with all Contract Documents;
  - for any design required by the Contractor where expressly stated in the Contract;
  - for all labor and material including samples, sampling and testing, waste, transport, mockups, and shop, fabrication and as-built drawings;
  - for all temporary work of each description required including any that may be required by Sub-Contractors whether nominated or otherwise;
  - for the provision and use of all equipment and plant of every kind, whether mechanical, non-mechanical or manual, required for the expeditious carrying out of the Works in their proper sequence;
  - for shifting, altering and adapting such temporary work and equipment as may be required during the progress of the Works and removing at completion and making good any surfaces disturbed;
  - for full customs and other import duties;
  - for cooperation and coordination of the Works with his Sub-Contractors;
  - for providing all required guarantees and bonds;
  - for providing all required insurances and the like;
  - for all necessary temporary services associated with the Works:
  - for Maintaining the Engineer's site office;
  - for providing until handing over, clean and uncontaminated water and all necessary adequate electrical power required for the works;
  - for the work in connection with measurement and remeasurement of all variations ordered by the Engineer, and the final account;





#### **Item Description**

- for daily site cleaning during execution of the Works and final cleaning after completion of the works including removing all waste, scrap and resulting materials to approved dumping areas;
- for overhead and profit;
- and for all other establishment charges and all costs of whatever nature.

No claim for additional payment or extension of time will be considered for any error or misunderstanding by the Tenderer in these respects.

- 1.08 Any item, which is not priced, shall be deemed to have been included in other rates and prices, and in the Contract Price.
- 1.09 The rates and final Contract Price inserted by the Tenderer in the Breakdown for the Lump Sum shall be in words and in figures. In case of discrepancy between the two, the rates written in words shall govern.
- 1.10 When pricing the Breakdown for the Lump Sum, the Tenderer must be aware of all site conditions.
- 1.11 The unit rates and prices inserted by the Tenderer shall apply throughout the Contract and to any additional work, which might be ordered by the Employer.
- 1.12 The Tenderer shall submit to the Employer, unless stated otherwise, a detailed breakdown of all his rates and lump sums prior to the signing of the Contract. The Tenderer shall liaise on this matter with the Employer.
- 1.13 The Tenderer should price all items he considers of value. If items are not priced by the Tenderer, they will be deemed to be of no value or that their value has been spread throughout the rates of other items.
- 1.14 The Tenderer shall price all items excluding taxes.
- 1.15 The Tenderer shall complete the collections at the end of each Division and carry the totals to the "General Summary" whose total shall be carried to the "Form of Tender".





Item	Description	
1.16	The Tenderer shall allow in his rates for protecting all Works against damage by whatever method deemed necessary and approved. Any work damaged before the Works are handed over shall be replaced or made good at the Tenderer's expense and to Engineer's satisfaction.	
1.17	The Tenderer is expected to take all necessary precautions to avoid damaging services and where they are interrupted to reconnect them immediately.  Any underground utility/service structure related to any local authority shall be properly disconnected, disposed, relocated and/or diverted under the supervision of the Engineer, and under the control of the relevant authority at no additional cost.  No separate payment shall be made and the rates in the Breakdown for the Lump Sum shall be deemed to cover adequately all costs.  The Tenderer's attention is drawn to the fact that the service authorities may impose, in addition to the cost of repair, statutory penalties. Details of these requirements may be obtained from the respective authorities.	
1.18	Unit rates and lump sums inserted by the Tenderer in the Breakdown for the Lump Sum shall be fixed and not subject to variation. The Tenderer shall not be able to claim for any compensation due to difficulties in the works, shortage of labor, equipment or material, bad weather or unforeseen circumstances.	
1.19	Any "Optional" or "Provisional" item included in the Breakdown for the Lump Sum, which is not carried out, shall be omitted from the interim and final statements. Any additional item of work carried out on the Engineer's written instructions shall be included in the relevant interim and final statements.	





#### Item Description

- 1.20 Any discount offered by the Tenderer shall be applied uniformly on a pro-rate basis to all items in the Breakdown for the Lump Sum, and to items of any necessary variation (if any) made by the Employer, which shall be a part of the Tender Documents. Discount shall not be applied against Provisional Sums inserted by the Employer in the Breakdown for the Lump Sum.
- 1.21 The Contractor shall include in his rate the cost and time effect of coordinating and fully assisting any other Nominated Sub-Contractors, if any, appointed by the Employer, during schedule overlapping in the utilization of all equipment and facilities, and maintaining all equipment (cranes, generators, safety barriers, site security, etc.) operational until the end of all trades of the entire project. No claim for additional payment or extension of time will be considered in these respects.

#### 2 Measurement

2.01 The Quantities set-out in the Breakdown for the Lump Sum are estimated quantities and are intended to give a reasonable indication of the works shown on the Drawings, they are not to be taken as the actual and correct quantities of the Works to be executed by the Tenderer in fulfillment of his obligations under the Contract.

#### 2.02 This is a Lump Sum Contract.

The estimated quantities set-out in the Breakdown of the Lump Sum are indicative, and the actual and correct quantities needed for the execution of the Works are the sole responsibility of the Tenderer.

All executed and accepted Works shall not be subject to remeasurement on site, and payment shall be made at the corresponding lump sum or rates on the estimated quantities shown in the Breakdown of the Lump Sum.

Only modifications and variation in extent of work ordered by the Engineer shall be measured and paid for as executed, completed and accepted by the Engineer, and shall be calculated as an addition or deduction to the Lump Sum of the Contract on the basis of approved rates presented by the Tenderer.





#### Item Description 2.03 Permanent variations ordered by the Engineer, if any, shall be measured net as installed, with no allowance made for laps or waste, and irrespective of any trade, general or local customs. All measurement shall be applicable only to finished work as completed, and no allowance shall be made for wastage, working spaces, bulking, shrinkage, overlaps, etc.; the principle of net measurement shall be applied to all permanent variations ordered by the Engineer, if any, under this Contract. All measurement shall be rounded up or down to the nearest integer number, and exact half units shall be rounded up. Any thickness stated in this Document shall be the finished and specified thickness. The unit of measurement for each item shall be as indicated in the Breakdown of the Lump Sum. 2.04 Certain items in the Breakdown for the Lump Sum are designated "Provisional" or "Optional". The provision of such facilities as described in the items so designated, shall be used only upon written direction of the Engineer. If not used either wholly or in part, the amount not used shall be deducted from the Contract Price and no claim shall be entertained with respect to overhead charges or any other cost that may allegedly result therefrom. 2.05 Lump Sum items shall not be paid until all the requirements and obligations set forth in these respects are accomplished completely to the satisfaction of the Engineer; However, where Lump Sum items involve the Contractor in periodic costs, payment will be made at the Engineer's discretion. 3 **Expressions, Notations and Abbreviations** 3.01 The expression "approved shop drawings" shall be deemed to mean "shop drawings submitted by the Contractor and approved by the Engineer". 3.02 Whenever the expression "shown on the drawings" appears in the Breakdown for the Lump Sum, it shall be deemed to mean "shown on the Tender drawings and on approved shop drawings".





Item	Description
3.03	When the expression "ditto" appears under an item in the Breakdown for the Lump Sum, it shall be deemed to mean that the said item shall include the whole relevant description of the preceding item together with any description written before and/or after the said expression.
3.04	When the expression "extra-over" appears under an item in the Breakdown for the Lump Sum, it shall be deemed to mean that the said item shall be measured and paid for in addition to the measurement of the basic item to which it relates.
3.05	The following notations and abbreviations are used in the Breakdown for the Lump Sum:  Millimeter

**End of Preamble** 







Carried to Collection

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	Note				
	These General Requirements are applicable to the whole of				
	the Works. If the Tenderer wishes to price any of the items				
	contained herein then each such item, clause, or sub-clause				
	must be individually priced. The Tenderer shall not enter				
	any lump sums covering more than one or all items, clauses				
	and sub-clauses. If the General Requirements item has not				
	been priced it will be deemed that the value of such item,				
	clause or sub-clause is included in the rates for measured				
	items elsewhere in the Breakdown of the Lump Sum.				
	<u>Preliminaries</u>				
01	Insurance				
	Provide the following insurances from an approved				
	insurance company, all as detailed in the Conditions of				
	Contract.				
	- Contractor's all risk insurance;				
	- Contractor's plant and equipment insurance;				
	<ul><li>Workmen compensation insurance;</li><li>Third party insurance;</li></ul>	LS	1		
	Lump Sum in Words:	LS	1		
	Lump Sam in Words.				
.02	Programme of Works				
	Prepare and submit to the Engineer for approval a detailed				
	Construction Programme showing the proposed order and				
	method to execute the Works, the dates upon which the				
	various elements, trades, sections and items of the works				
	will be started and completed, and the cash flow estimate,				
	complete including monthly forty-five day program, all				
	necessary revisions and updates, monitoring, all required				
	supporting data, computer analysis and schedules, and all other related works, all as specified and to the satisfaction of				
	the Engineer.				
	the Engineer.	LS	1		
	Lump Sum in Words:	LS	1		
	Lump Sam in riorus.				
.03	Mobilization and Demobilization				
	Mobilization to site and demobilization on completion of the				
	Works.	LS	1		
	Lump Sum in Words:				





tem	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
.04	Accommodation and Services for the Engineer  Maintain during and until completion of the Works, existing temporary accommodation and services for the Engineer complete including, but not limited to:				
	<ul><li>Engineer's site office;</li><li>Equipment and assistance;</li><li>Computer with Internet connection including all monthly</li></ul>				
	<ul><li>internet charges and invoices;</li><li>Telephone lines including cost of all local call charges and invoices;</li></ul>				
	<ul> <li>All supplies, furniture, equipment, services and utilities;</li> <li>Parking and access, and car ports;</li> <li>Demobilization on completion of works of all</li> </ul>				
	accommodations and services; - and all other related works, all as specified and to the satisfaction of the Engineer.	LS	1		
	Lump Sum in Words:				
)5	Peripheral Protection Fence with Access Gates  Maintain and remove upon completion of works existing peripheral protection fence around the site, complete all as specified, to the satisfaction of the Engineer, and in				
	accordance with relevant authorities' regulations.	LS	1		
	Lump Sum in Words:				
06	Signboards Provide, maintain and remove upon completion of works, signboards at the site giving information on the Project,				
	Employer's name, Engineer's name, Contractor's name, project duration and all other details prescribed by the Engineer, complete with all necessary instructed alterations to the signboard (if any), all as specified, shown on				
	approved shop drawings and to the satisfaction of the Engineer.  Unit Rate in Words:	№	1		
7	Water for the Works Provide until handing over, clean and uncontaminated				
	Water for the Works and suitable for all purposes, complete including coordination with all relevant authorities, transportation to site, pipework, pumps, connections and storage facilities where necessary. Test to BS 3148 when				
	instructed.	LS	1		
			C	arried to Co	llection _





**Division 1: General Requirements** 

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	Lump Sum in Words:				

Carried to Collection \_\_\_\_\_





tem	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
.08	Electrical Power for the Works Provide all necessary adequate Electrical Power Supply required for the Works until handing over using silent generated powers, complete including all necessary connections, fuel, maintenance, and if main power is available, allow for all necessary coordination and connections with relevant local authorities, and for all charges and fees incurred during the total duration of the Contract.  Lump Sum in Words:	LS	1		
.09	Wheel or Vehicle Washing Facilities Provide during the total duration of the Contract, adequate on-site wheel or vehicle washing facilities for construction vehicles leaving the site, all in accordance with relevant Authorities' regulations, and to the satisfaction of the Engineer.  Lump Sum in Words:	LS	1		
10	Setting Out and Accuracy Provide all necessary survey works and tasks required for "Field Engineering", all as specified and to the satisfaction of the Engineer.  Lump Sum in Words:	LS	1		
.11	Monthly Progress Reports Provide monthly progress reports showing the actual progress of work by identifying works commenced and/or completed during the previous month including progress photographs, works to be carried out during the following month, and the estimated time required to complete all activities and works in relation with the programme of works, all as specified and to the satisfaction of the Engineer.  Lump Sum in Words:	LS	1		

Carried to Collection \_\_\_\_\_





Carried to Collection

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1.12	Shop Drawings and As-Built Drawings Prepare and furnish to the approval of the Engineer all required and/or necessary Shop Drawings during the execution of the Works, and the required final As-Built Drawings on completion of the Works embodying all working drawings, detail drawings, as constructed drawings, and all approved latest amendments and variations to the Contract.  Lump Sum in Words:	LS	1		
1.13	Protection of Neighboring Properties  Take all measures necessary to protect neighboring constructions, buildings, roads, sidewalks and others from damage due to subsidence or other and from noise and other nuisances such as vibrations, dust and other disturbing elements, all as specified and to the satisfaction of the Engineer.  Lump Sum in Words:	LS	1		
1.14	Cost and Time Effect Coordinate and fully assist any other Nominated Sub-Contractors (if any) appointed by the Employer, during schedule overlapping in the utilization of all equipment and facilities, and maintaining all equipment (cranes, generators, safety barriers, site security, etc.) operational until the end of all trades of the entire project.  No claim for any additional payment or extension of time will be considered in these respects.  Lump Sum in Words:	LS	1		
2	Unforeseen Items  The Contractor shall list below any unmentioned Items that he considers to be of value and for which he wishes to include in his Tender, and shall include details of quantities and rates accordingly after the client's agreement.				
2.01	Unit Rate or Lump Sum in Words:	Item			





Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
2.02	Unit Rate or Lump Sum in Words:	Item			
2.03	Unit Rate or Lump Sum in Words:	Item			
2.04	Unit Rate or Lump Sum in Words:	Item			
2.05	Unit Rate or Lump Sum in Words:	Item			
3	Provisional Items  The Client shall list below any Additional Items that he considers to add to the sope of work, and shall include details of quantities and rates accordingly after the contractor's agreement.				
3.01	Unit Rate or Lump Sum in Words:	Item			
3.02	Unit Rate or Lump Sum in Words:	Item			
3.03	Unit Rate or Lump Sum in Words:	Item			
3.04	Unit Rate or Lump Sum in Words:	Item			
3.05	Unit Rate or Lump Sum in Words:	Item			

Carried to Collection \_\_\_\_\_





#REF!					
Item	Description	Unit		Unit Rate #REF!	Amount #REF!
03100	Concrete Forms and Accessories				
03100.1	Vapor Retarder Supply and install the following vapor retarders complete including all necessary laps and accessories, all as specified, shown on the drawings and to the satisfaction of the Engineer.				
03100.1.1	0.25 mm thick polyethylene sheet under blinding as per drawings.  Unit Rate in Words:	m²	5800		
03200	Cast-In-Place Concrete				
Notes: -	The Contractor shall, at no additional cost, produce a high quality fair faced finish to all concrete surfaces, and shall make them ready to receive the required finishes.				
03200.1	Plain Concrete (Type I, 15 MPa on Cylinder)  Cast-in-place plain concrete using Ordinary Portland Cement to ASTM C150, Type I, 15 MPa on Cylinder.Complete including all necessary formwork and accessories, all as specified, shown on the drawings and to the satisfaction of the Engineer.				
03200.1.1	Blinding for foundation beds, 100 mm thick.  Unit Rate in Words:	m³	580		





#REF!					
Item	Description	Unit		Unit Rate #REF!	Amount #REF!
03200.2	Reinforced Concrete (Type I, 30 MPa on Cylinder) Cast-in-place reinforced concrete Cement to ASTM C150, Type I,30 MPa on Cylinder, complete including formwork of any type and shape, accessories, construction joints, waterstops to each casting edge, inserts, sleeves, etc., and all other related works, all as specified, shown on the drawings and to the satisfaction of the Engineer.				
03300.2.1	Foundations, any type and any thickness  Unit Rate in Words:	m³	5800		
03200.3	Reinforced Concrete (Type I, 25 MPa on Cylinder) Cast-in-place reinforced concrete Cement to ASTM C150, Type I,25 MPa on Cylinder, complete including formwork of any type and shape, accessories, construction joints, waterstops to each casting edge, inserts, sleeves, etc., and all other related works, all as specified, shown on the drawings and to the satisfaction of the Engineer.				
03300.3.1	WALLS, any shape, size and any height.  Unit Rate in Words:	m³	1453		
03200.3.3	Flat slabs including slabs for top of roof, with smooth fair faced finish, any thickness including their drop beams.  Unit Rate in Words:	m³	10470		
03200.4	Reinforced Concrete (Type I, 30 MPa on Cylinder) Cast-in-place reinforced concrete using Ordinary Portland Cement to ASTM C150, Type I, 30 MPa on Cylinder, complete including formwork of any type and any shape, accessories, construction joints, waterstops to each casting edge, inserts for openings, sleeves, etc., and all other related works, all as specified, shown on the drawings and to the satisfaction of the Engineer.				
03200.4.1	Columns, any shape, size and any height.  Unit Rate in Words:	m³	1094		





Description  Excavation  General and Structural Excavation  Excavation in any type of soil including rock and to any lepth required, complete including all necessary site clearing, keeping excavation free from all water sources, and disposing off all resulting materials to approved lumping areas, all as specified, shown on the drawings and to the satisfaction of the Engineer.			Unit Rate #REF!	Amount #REF!
General and Structural Excavation Excavation in any type of soil including rock and to any lepth required, complete including all necessary site clearing, keeping excavation free from all water sources, and disposing off all resulting materials to approved lumping areas, all as specified, shown on the drawings and				
Excavation in any type of soil including rock and to any lepth required, complete including all necessary site clearing, keeping excavation free from all water sources, and disposing off all resulting materials to approved lumping areas, all as specified, shown on the drawings and				
Excavation as per excavation drawings and as directed by the Engineer to reach the neccessary levels.				
Unit Rate in Words:	m3	41760		
<u>Backfill</u>				
Filling and Backfilling Works Filling and backfilling with selected excavated or borrow ill materials and compacting in layers not exceeding 200 nm thick after compaction to required density, complete all is specified, shown on the drawings and to the satisfaction of the Engineer.				
Filling and backfilling works to reach the required levels and as directed by the Engineer as layers of 200mm each.	М3			
Fill fill nn s of t	ling and backfilling with selected excavated or borrow materials and compacting in layers not exceeding 200 in thick after compaction to required density, complete all specified, shown on the drawings and to the satisfaction the Engineer.  Ling and backfilling works to reach the required levels	ling and backfilling with selected excavated or borrow materials and compacting in layers not exceeding 200 in thick after compaction to required density, complete all specified, shown on the drawings and to the satisfaction the Engineer.  ling and backfilling works to reach the required levels it as directed by the Engineer as layers of 200mm each.	ling and backfilling with selected excavated or borrow materials and compacting in layers not exceeding 200 in thick after compaction to required density, complete all specified, shown on the drawings and to the satisfaction the Engineer.  ling and backfilling works to reach the required levels it as directed by the Engineer as layers of 200mm each.	ling and backfilling with selected excavated or borrow materials and compacting in layers not exceeding 200 in thick after compaction to required density, complete all specified, shown on the drawings and to the satisfaction the Engineer.  ling and backfilling works to reach the required levels it as directed by the Engineer as layers of 200mm each.





#REF!					
Item	Description	Unit		Unit Rate #REF!	Amount #REF!
04100	STEEL BOO				
04100.1.1	Raft Foundation ( X,Y & Add st.+ hooks ) Reffer to sheet No: S500	TON	522		
04100.1.2	Level +3.3( Columns+ walls + Slab ) Reffer to sheet No: S501,S801,S802,S803	TON	240		
04100.1.3	Level 6.6 ( Columns+Walls + Slab ) Reffer to sheet No: S502,S801,S802,S803	TON	235		
04100.1.4	Level 10.4 ( Columns +Walls+Slab)  Reffer to sheet No: S503,S801,S802,S803	TON	151		
04100.1.5	Level +13.8 (Columns+Salls+Slab) Reffer to sheet No: S504,S801,S802,S803	TON	151		
04100.1.6	Level +17.4 (Columns+Salls+Slab) Reffer to sheet No: S505,S801,S802,S803	TON	151		
04100.1.6	Level +21 (Columns+Salls+Slab) Reffer to sheet No: S505,S801,S802,S803	TON	151		
04100.1.6	Level +24.6 (Columns+Salls+Slab) Reffer to sheet No: S505,S801,S802,S803	TON	151		
04100.1.6	Level +28.2 (Columns+Salls+Slab) Reffer to sheet No: S505,S801,S802,S803	TON	161		
04100.1.6	Level +31.8 (Columns+Salls+Slab) Reffer to sheet No: S506,S801,S802,S803	TON	126		
04100.1.6	Level +35.4 (Columns+Salls+Slab) Reffer to sheet No: S506,S801,S802,S803	TON	50		