



**ZIMBABWE REVENUE AUTHORITY
COMMISSIONER GENERAL**

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CALL AT:
**RECEPTION
6th FLOOR ZB
CENTRE
CORNER KWAME
NKRUMAH AVE/
FIRST STREET
HARARE**

IN REPLY PLEASE
QUOTE:
ICB02/2022

07 June, 2022.

TO ALL PROSPECTIVE BIDDERS.

**ADDENDUM NO.1 TO ZIMRA TENDER NO. ICB 02/2022 FOR THE CONSTRUCTION OF
ZIMRA TRUCK PARK AT FORBES BORDER POST.**

Reference is made to the above captioned tender which had a closing date of 19 May 2022.

Please take note of the following changes to the tender:

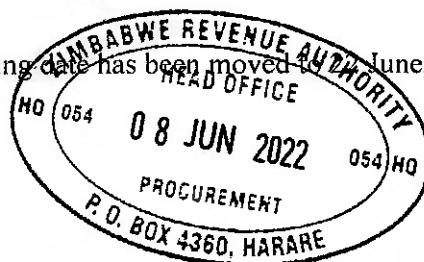
1. You must disregard the old Bill of Quantities and consider the revised Bill of Quantities for this procurement as per Annexure 1.
2. You must disregard all civil drawings and consider the revised drawings for this procurement as per Annexure 2,3,4,5,6,7, 8, 9 and 10.
3. All Structural and Architectural designs shall remain unchanged.

In light of these changes, the closing date has been moved to 08 June, 2022 @ 1000 hours.

Yours Faithfully

J. TARUME (MR.)

ACTING DIRECTOR, PROCUREMENT MANAGEMENT UNIT



THE GOVERNMENT OF ZIMBABWE



BILLS OF QUANTITIES

PROPOSED OFFICE BLOCK, GUARD HOUSE, ABLUTIONS AND CIVIL WORKS

AT FORBES BOARDER POST

IN

MUTARE

FOR

ZIMBABWE REVENUE AUTHORITY

ARCHITECTS, ENGINEERS AND QUANTITY SURVEYORS

MINISTRY OF LOCAL GOVERNMENT AND PUBLIC WORKS

P BAG 7755

CAUSEWAY

HARARE

JUNE 2022

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NOTICES TO BIDDERS

GENERALLY

These Bills of Quantities are to be read in conjunction with, and all workmanship and materials, unless otherwise describes, shall comply with the Ministry of Local Government and Public Works' "General Specification" revised in January 1978.

It is hereby made condition that the Contractor's submission of a tender based on these Bills of Quantities shall be accepted as proof that he is in possession of the above mentioned General Specification at the time of tendering and his tendered price was based on the requirements of such General Specification.

The Contractor is required to check the number of pages of all the documents, and all references thereto in Summary and the collections. Should any pages be missing or duplicated, or the figures or typing be indistinct, or the descriptions be ambiguous, he is to apply at once to the Ministry of Local Government and Public Works and have the same rectified.

Any errors or claims arising through the Contractor's failing to comply with the above will not be admitted after submission of his tender.

These Bills of Quantities are to be priced by the contractor and returned, fully priced in ink, only when his Tender is being considered for acceptance, and when called for by the Ministry of Local Government and Public Works.

SYSTEM OF MEASUREMENT

The method of measurement of these Bills of Quantities is in accordance with the general principles laid down in the System of Measurement of Building Work in Zimbabwe, third edition, dated 1st May 1985, as issued by the Zimbabwe Institute of Quantity Surveyors and Construction Industry Federation of Zimbabwe. This system may be modified in certain respects as described in these Bills of Quantities and it is to be understood that the system of measurement adopted in these Bills of Quantities is the only system which will be recognised in connection with this Contract.

TRADE NAMES, ETC.

Where names, manufacturer's catalogue or reference numbers, etc., are used in these Bills of Quantities, the items referred thereto shall be of equal quality, specification and mass in all respects to those specified and approved for any substitution shall be obtained in writing from the Ministry of Local Government and Public Works before submission of tenders, otherwise the specified materials, fittings, etc. will be assumed to have been allowed for in the tender.

DRAWINGS

The following drawings have been used in the preparation of these Bills of Quantities, and may be seen at offices of Ministry of Local Government and Public Works.

Architectural drawings

DRAWING TITTLE	PAPER SIZE	DRAWING No
Forbes boarder post guard room		
Forbes boarder temporary office		
Forbes boarder ablutions		

SECTION 1 - PRELIMINARIES AND GENERALS

BILL NO. 1

PRELIMINARIES

NOTES TO TENDERERS

- A The following Preliminaries shall apply to all tenders whether based on Bills of Quantities or on a Specification, issued by the Ministry of Local Government and Public Works.

- B In the case of a tender based on Bills of Quantities the Tenderer should allow for all costs incurred in complying with these Preliminaries in the money column of this Bill and carry the total (if any) to the appropriate Summary in the Main Bills of Quantities, or as otherwise instructed in the Tender Documents.

- C In the case of a Tender based on a Specification, the Tenderer should include for all costs and expenses in complying with these Preliminaries in his lump sum Tender figure for the work.

- D In the case of a Contract based on a Specification those Preliminaries which refer to "Bills of Quantities", shall apply only where such term is synonymous with the term "Specification".

- E The Specification or Bills of Quantities are to be read in conjunction with, and all workmanship and material, unless otherwise described, shall comply with the current edition of the Ministry of Local Government and Public Works "General Specification of Materials and Workmanship" and with any amendments thereto. It is hereby made a condition that the submission of a tender based on Bills of Quantities or a Specification issued by the Ministry of Local Government and Public Works shall be accepted as proof that the Tenderer was in possession of a copy of this "General Specification" and amendments thereto at the time of tendering and that his tender price was based upon the requirements of such "General Specification" and amendments thereto.

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A No representation, explanation or statement which in any way alters the tender or contract documents, made prior to the acceptance of a tender or during the progress of the contract shall bind the Secretary for Local Government and Public Works unless such explanation, statement or alteration be made and confirmed under the signature of the Secretary for Local Government and Public Works.

B Should there be any doubt or obscurity as to the meaning of any particulars in the Specification, Bills of Quantities or Tender Documents, the Tenderer must obtain an explanation as to the true intent and meaning in writing from the Secretary for Local Government and Public Works before submitting his tender. No claim for extras arising from any doubt or obscurity will be admitted after the delivery of his tender.

C The Tenderer is required to check the number of pages in the Specification (and in the case of Bills of Quantities all pages and references thereto in the "Collections" and Summary), and should any pages or references thereto be missing or duplicated or the figures or typing be indistinct, he is to apply at once to the Secretary for Local Government and Public Works and have the same rectified. Any errors arising through the Tenderer failing to do this will not be admitted after the submission of his tender.

D The Contractor shall, when requested by the Secretary for Local Government and Public Works, deposit his Bills of Quantities fully priced out in ink with the Secretary for Local Government and Public Works, and on the basis of this Bill of Quantities all extras and omissions will be valued. The Secretary for Local Government and Public Works shall be at liberty to call for such adjustments of individual rates and rectify discrepancies as he considers necessary provided that the Tendered Amount is not altered.

CONDITIONS OF CONTRACT

E The Tenderer is referred to the "Conditions of Contract" and if he considers any of the clauses (or any amplification thereof given below) in such Conditions involves expense not included elsewhere, he should include for same.

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- A Should the Tenderer not be in possession of the Ministry of Local Government and Public Works Standard Conditions of Contract, two copies will be issued to him on application being made.

- B A Tenderer's failure to obtain a copy of the Conditions of Contract will not absolve him from complying with such Conditions.

- C Clause No. 1: Scope of Contract.

- D Clause No. 2: Drawings, Specifications and Bills of Quantities, etc.

- E Clause No. 3: Local and Other Authorities' Notices and Fees.

- F Clause No. 4: Setting Out of Works.

- G Clause No.5: Materials and Workmanship to Conform to Description.

- H Clause No. 6: Foreman.

- J Clause No. 7: Access for Architect to Works.

- K Clause No. 8: Clerk of Works.

- L Clause No. 9: Ascertainment of Prices for Variations.

- M Clause No. 10: Bills of Quantities.

Should the Contractor not affix any figures in the money column against any particular items, he shall write hyphens thus:- - against such items.

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All measurements, sizes and quantities throughout the Bills of Quantities are taken nett and should be held to mean the finished measurement and sizes, unless otherwise stated. The Quantities represent the actual nett quantities left in the building. The Contractor must allow in his prices for all cutting and waste, etc.

The Bills of Quantities are not to be used for the ordering of materials except at the Contractor's own risk. They have been prepared in order to enable the Contractor to furnish an estimate for the work and to provide unit rates for adjustment of variations.

No alterations, erasures or additions are to be made by the Tenderer in the text of the Bills of Quantities, and should any such alterations or additions be made the same will not be recognised and the text of the Bills of Quantities will be adhered to.

To assist the Tenderer in casting the various trades in these Bills of Quantities, sufficient space has been left at the end of each trade to enable him to cast each page separately, and carry the same to a column on the page in question under the heading of "Collection".

A Clause No. 11: Unfixed Materials when taken into account to be Property of the Government.

B Clause No. 12: Defects After Completion.

C Clause No. 13: Assignment or Sub-letting.

D Clause No. 14: Injury to Persons or Property.

(a) Injury to Persons: The Contractor is to allow for all costs and charges in taking out an Insurance Policy covering THIRD PARTY RISKS, in the joint names of the Government and the Contractor.

(b) Workmen's Compensation.

(c) Injury to Property.

(d) Damage resulting from riot or civil commotion.

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A Clause No. 15: Insurance. The Contractor is to allow for all costs and charges in insuring the building against fire, for the full amount of the Contract plus 12½% to cover professional fees, from the commencement of work until the building is handed over. The policy is to be deposited with the Secretary for Local Government and Public Works and payments to the Contractor may be withheld until this Clause has been complied with.

B Clause No. 16: Occupation.

C Clause No. 17: Date of Possession and Completion.

D Clause No. 18: Damages for Non-completion.

E Clause No. 19: Delay and Extension of Time.

F Clause No. 20: Determination by Government.

G Clause No. 21: Determination by Contractor.

H Clauses No. 22 and 23: Nominated Sub-contractors and Suppliers.

Where the Government becomes the nominated sub-contractor or the nominated supplier no cash discount will be allowed.

When during the course of the contract the Government omits Provisional Sums included in the Bills of Quantities, Specification or Tender Documents for nominated sub-contractors or nominated suppliers and negotiates a separate contract for such work to be paid direct by the Government, the main Contractor shall allow such facilities and he shall be entitled to payment of profit and attendance at the rates included by him in the Bills of Quantities against the respective items, adjusted pro rata on the amount paid direct by the Government, but shall not be entitled to claim cash discount or compensation for loss thereof.

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In the event of Provisional Sums for nominated sub-contractors' or suppliers' work being omitted in whole or in part, and such work not being otherwise carried out during the period of this contract all cash discount, profit and attendance shall be similarly omitted in whole, or in part pro rata.

A Clause No. 24: Artists, Tradesmen and Works Outside the Contract.

The Government reserves the right at all times during the progress of the contract to let separate contracts for Specialists' work, or any other similar work not included in the Bills of Quantities, Specification or Tender Documents, and the main Contractor must grant access, and all facilities to such artists, tradesmen and others so engaged by the Government and such persons shall not be regarded as sub-contractors under this contract and no builders' discount or profit in respect thereof shall be payable to the Main Contractor, but in the event of attendance and making good being required payment will be made on a fair valuation of the services performed.

To assist the Contractor in arranging any attendance required, the Government may, when there is prior knowledge of specialist work, state in the Specification or Bills of Quantities the approximate value of such intended or existing separate contracts, but the inclusion of this information is for the Contractor's guidance only and shall not be deemed to be an amount included in the value of the Contract.

B Clause No. 25: Certificates and Payment

The Contractor when requiring a progress payment, shall furnish the Secretary for Local Government and Public Works with an approximate statement of the work executed, detailed and priced under trades and based on his original tender.

In all cases where the Contractor requires payment for unfixed materials on the site, the application for a progress payment must be accompanied by a complete list of all such materials, signed by the Contractor and countersigned by the Clerk of Works. All such material shall become the property of the Government and shall not be taken away (except for use in the building) without the written permission of the Secretary for Local Government and Public Works.

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Not more than 80% of the value of any materials on site will be included in progress payments and such payments will only be made for materials which are properly protected from weather and theft, and which have not, in the opinion of the Quantity Surveyor, been brought prematurely upon the site.

All monies due to the nominated sub-contractors or suppliers and which are included in the contractor's certificate shall be paid to the sub-contractors or suppliers by the Contractor within 21 days after the date of the certificate in which the sum due is included. in the event of such payment not being made within the above stipulated time, the Contractor shall lose all right to claim any cash discount on the monies involved and the Secretary for Local Government and Public Works reserves the right to deduct ALL sums of maney that are due to the said sub-contractors or suppliers from the Contractor's next certificate and pay them direct to the sub-contractors or suppliers.

It is a condition of this contract that the Government shall not be bound to pay (except under an Order of the Court) any monies due or to become due hereunder to any persons save the Contractor who shall not have the right to assign his rights to payment to any third party without first obtaining the written consent of the Government to such assignment.

A Clause No. 26: Wages

B Clause No. 27: Non-Payment of Certificates

Notwithstanding the provisions of Clause 25 of the "Conditions of Contract", the Government reserves the right to withhold retention money beyond the retention period until the Contractor has submitted to the Secretary for Local Government and Public Works all receipts in respect of monies due to nominated sub-contractors and nominated suppliers which have been included in payments made to the Contractor, and in the event of the Contractor failing to produce within 14 days of being asked in writing, conclusive evidence that such amounts have been fully paid, the Government shall have the right to make final payment direct to such sub-contractors or suppliers and to deduct the value thereof from the retention money, or other monies due under the Contract.

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A Clause No.28: Surety Bond
The Contractor is to allow for all costs and charges in taking out the surety bond.

B Clause No. 29: Corrupt Gifts and Payments of Commission.

C Clause No. 30: Photographs.

D Clause No. 31: Articles of Value or Antiquity.

E Clause No. 32: Patent Rights and Royalties.

F Clause No. 33: Arbitration.

PRELIMINARIES AND GENERAL

The tenderer is referred to section B, Preliminaries and General, Pages B.1 to B.9 of the General Specification and if he considers that any of the clauses or any amplification thereof given below involves expense not elsewhere included, he should include for same hereunder.

Clause B.1 Public Liability.

G 1.1 Noise control.

H 1.2 Nuisance.
The Contractor shall make adequate provision by spraying, erecting screens or other suitable methods, against nuisance or damage by dust to all works under this Contract, to persons or property in the vicinity, and he will be held solely responsible for any complaints, damage or claims in this connection.

J 1.3 Adjoining owners.
The Contractor shall not in the execution of the Works enter upon or otherwise make use of any lands adjoining the site of the Works as demarcated on the site plan, without the consent in writing of the Secretary for Local Government and Public Works or without the consent of the owners of such adjoining lands, having been previously obtained, but shall (except with such consent) confine his operations within the site of the Works. No trespassing beyond the limits as

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above described will be allowed.

- A 1.4 Adjoining property.
- B 1.5 Police regulations.
- C 1.6 Statutory obligations.
- D 1.7 Notices, fees and charges.

Clause B.2 Prevention of Damage or Loss

- E 2.1 Locate existing services.
- F 2.2 Protect existing services.
- G 2.3 Damage to services.
- H 2.4 Fire precautions.
- J 2.5 Damage to roads.
- K 2.6 Repairs to roads.
- L 2.7 Clear roads
Nothing shall be done by the Contractor or anyone employed by him that shall in anyway interfere with the free use by the public of any of the roads, gravel drives, paths, etc., within or approaching the site.
- M 2.8 Protect trees and shrubs.
- N 2.9 Replace trees and shrubs.
- O 2.10 Existing features.
Make good or reinstate at the Contractor's expense all damage which may occur to gates, fences, buildings or other Government property existing upon the site.
- P 2.11 Existing damage.

Clause B.3 Management/administration Procedures

- Q 3.1 Programme.
- R 3.2 Submit.
- S 3.3 Submission

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A	3.4	Receipt.	
B	3.5	Monitoring. The Contractor shall provide on site a carbon copy record book which shall provide one original and two copies in which shall be recorded all site visits and daily record of work done.	
C	3.6	Safety, health and welfare.	
D	3.7	Use of site.	
E	3.8	Site meetings.	
F	3.9	Minutes.	
G	3.10	Measurements.	
H	3.11	Labour return.	
J	3.12	Daywork vouchers.	
K	3.13	Order materials.	
		<u>Clause B.4 Resources/Temporary Works and Services</u>	
L	4.1	Locations.	
M	4.2	Temporary works.	
N	4.3	Roads.	
O	4.4	Buildings.	
P	4.5	SO's site office.	
Q	4.6	Storage for cement and lime.	
R	4.7	Sanitary accommodation for supervisory staff.	
S	4.8	Sanitary accommodation for artisan staff.	
T	4.9	Hoardings, gantries and scaffolding.	
U	4.10	Name boards.	
V	4.11	Telephones.	
W	4.12	Water. Allow for providing all water for the Works and for	
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sub-contractors, pay all fees and charges legally demandable and provide all necessary piping, taps and other fittings, storage tanks, etc.

If this Contract embodies work at a Government building or institution where water is already laid on, the Contractor may by agreeing in writing with the Secretary for Local Government and Public Works, use the water from this supply. (Any connection to or extensions of the existing supply pipes must be provided at the Contractor's expense.)

If permission be thus obtained and the Contractor uses the water from this source, he shall pay the Government (by deduction from the amount due under the contract) a sum equal to one quarter percent ($\frac{1}{4}\%$) of the final completed cost of the work executed under this contract as disclosed in the final statement, and shall allow in his price for water such amount as he considers necessary to cover this cost.

The use of water from a Government supply is granted subject to the condition that the water used by the Contractor shall be for building purposes only and should the Government be satisfied that the Contractor is unduly wasting water and/or using water for any subsidiary purpose such as providing for living accommodation of his workmen on the site, the Government reserves the right to deduct from monies due under the contract their assessment of all such additional water used.

- A 4.13 Lighting and power.
It is entirely the Contractor's responsibility to ascertain before tendering the availability of electricity and all costs and charges thereof, and no claim arising out of this clause will be considered after the submission of a tender.
- B 4.14 Plant.
- C 4.15 Sole use of plant.
- D 4.16 Removal of plant.
- E 4.17 Plant to comply.
- F 4.18 Protective clothing.

Clause B.5 Nominated Firms/Public Bodies

- G 5.1 Prime cost or provisional sums.
Where Provisional and Prime Cost Sums are included
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for works to be performed, or materials supplied by nominated sub-contractors or suppliers, the Secretary for Local Government and Public Works will invite tenders (or may request the Contractor to obtain not less than three tenders) and direct the Contractor to accept a tender from a sub-contractor who will then become a nominated sub-contractor or supplier in terms of the Conditions of Contract: Clauses 22 and 23". The main Contractor will be entirely responsible for the proper and timely execution of the sub-contract and no contract will exist between the will nominated sub-contractor or supplier and the Government, and it is the responsibility of the main Contractor to ensure that the sub-contractor indemnifies the Contractor against the same obligations in respect of the sub-contract, as those for which the Contractor is liable in respect of the main contract.

The Contractor shall not order any materials for which Provisional or Prime Cost Sums are included without first receiving instructions in writing from the Secretary for Local Government and Public Works so to do.

The Contractor will be required to produce all receipted invoices, if demanded by the secretary for Local Government and Public Works for the adjustment of accounts.

If items are reserved for work of a nature usually carried out by the Contractor in the course of his business, the Government may give the Contractor an opportunity of tendering for the same without prejudice to the Government's right to reject the lowest or any tender.

A 5.2 Sub-contractors.
The names of all sub-contractors (other than nominated) whom the Contractor proposes to employ shall be submitted to the Secretary for Local Government and Public Works for approval before the signing of the Contract. Such approval shall not be unreasonably withheld.

B 5.3 General Attendance.
Wherever the words "allow for attendance" occur, it shall be deemed to cover all the Contractor's costs involved in the following:-
(a) For giving the sub-contractor every facility to enable him to execute his work in a workmanlike manner and in proper order and sequence.

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- (b) For allowing the sub-contractor free use of all scaffolding and plant as may be reasonably required by him, and for erecting, shifting and removing as necessary such scaffolding and plant free of charge to the sub-contractor.
- (c) For providing water or electricity required by the sub-contractor.
- (d) For receiving, unloading, checking, and removing to store all the sub-contractor's materials, articles and fittings on arrival at the site, and where necessary for providing proper storage accommodation for the prevention of pilferage, damage, etc., returning all empties and packing of same carriage paid, and for hoisting or lowering materials, articles, or fittings to the requisite levels and positions in the the building.
- (e) For agreeing with the sub-contractor proper and accurate working dimensions and other particulars and for obtaining from the sub-contractor full data and particulars as to the sub-contractor's requirements, with particular regard to chases, recesses, mortices, notchings, holes, perforations, etc., and for obtaining full information from the sub-contractor to enable the Contractor to make proper arrangements and provisions during the general execution of the work for the receipt of the sub-contractor's work. The cost of any alterations consequent upon the non fulfilment of the foregoing stipulations will be at the Contractor's sole expense.
- (f) For all items, conditions or requirements with regard to the sub-contractor's work mentioned or described in the general Conditions of Contract, Specification and Preliminaries not specifically stated in the foregoing.

A 5.4 Supervision.

B 5.5 Programme.

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Clause B.6 Quality/Testing/Approvals.

- A 6.1 Commodities.
- B 6.2 Manufacturer's Recommendations.
- C 6.3 Standards.
- D 6.4 Single Sources.
- E 6.5 Samples of commodities.
- F 6.6 Samples of work.

Clause B.7 Accuracy/Setting Out.

- G 7.1 Set out the works.
- H 7.2 Profiles.
- J 7.3 Permanency.
- K 7.4 Instruments.
- L 7.5 Check all dimensions.
- M 7.6 Dimensions.

Clause B.8 Protection.

- N 8.1 Safeguard the site.
Provide all necessary barriers, hoardings, footways, etc., and provide all necessary watching and lighting as required for the protection of the Works and materials and plant on the site, and for the protection of the public. The Contractor will be held responsible for all injury or accident that may happen through failure to provide adequate protection and lighting.
- O 8.2 Inclement weather.
- P 8.3 Stormwater and surface water.
The Contractor must satisfy himself as to the quantities of subsoil and surface water to be dealt with and is to keep the building foundations and work generally clear of surface, subsoil and stormwater by baling, pumping or otherwise. Provide for dealing with springs, underground streams, etc., which may be opened up and provide all necessary pipes and machinery sufficient for the above purposes, and an ample supply

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of power, and apply the same as necessary to enable all operations to be promptly and efficiently performed, including night and day attendance and work as necessary.

- A 8.4 Overloading.
- B 8.5 Cleanliness.
- C 8.6 Damage by sunlight.
- D 8.7 Datum.

Clause B.9 Prefabricated Elements.

- E 9.1 Delivery.
- F 9.2 Check fixings.
- G 9.3 Authorise erection.
- H 9.4 Notice.

Clause B.10 Work at Completion.

- J 10.1 Clean the works.
- K 10.2 Cleaning.
- L 10.3 Remove.
- M 10.4 Painted surfaces.
- N 10.5 Moving parts.
- O 10.6 Security at completion.
- P 10.7 Making good defects.
- Q 10.8 Maintenance instructions.

Clause B.11 Miscellaneous.

- R 11.1 Photographs.
- S 11.2 Articles of value or antiquity.

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VISIT SITE

The Contractor must visit the site of the Works before submitting his tender and carefully examine the conditions that exist, and he is to satisfy himself as to the nature of the materials to be excavated as well as all natural conditions, water and light services, transport facilities, etc. No allowance will be made in the event of conditions being different from what he expected.

B

FLUCTUATIONS IN COSTS

1) Where applying to nominated sub-contractors or suppliers

Where the following provisions for fluctuations in wages, cost of living allowances or prices of materials are applicable to a nominated sub-contractor or nominated supplier, the additional payments to them are to be regarded as a reimbursement of expense only, upon which the contractor shall not be entitled to claim any additional pro rata profit in terms of Clause 25 (e) of the conditions of contract.

2) Fluctuations in wages and cost of living allowances

The Contractor is to pay not less than the recognised Standard Rate of wages and Allowances to all employees.

If at any time between the date of delivery of the Contractor's tender and the date for the completion of the Works any statutory fluctuation (i.e. any specific increase or decrease stipulated by the Government Gazette) takes place in the Standard Rate of Wages, Cost of Living Allowances, or other statutory compulsory contribution in respect of the men employed on the Works covered by this Contract, whether on the site or in the workshops or yards of the Contractor or sub-contractors (but not in respect of merchants or suppliers), the Contractor is to submit WEEKLY to the Secretary for Local Government and Public Works receipted time sheets, together with a weekly return of the number of hours worked, signed by the Foreman and countersigned by the Clerk of Works, and the contract price shall be adjusted in accordance with the statutory fluctuation. Variations, if any, made under this clause shall be a nett increase or increase or decrease, and no allowance will be made for any profit whatsoever. No claims will be admitted in respect of labour employed after the expiration of the contract completion date or any amendments thereto under Clause 19 of the Conditions of contract.

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3) Fluctuations in prices of materials

Should any statutory fluctuation (i.e. any specified increase or decrease in control prices of materials stipulated by notices published in the Government Gazette) take place after the date of delivery of the Contractor's tender, the Contractor is to submit invoices for such materials certified by the Clerk of Works and the contract price shall be adjusted in accordance with the statutory fluctuation. Such variations, if any, made under this clause shall be a net increase or decrease, and no allowance will be made for any profit whatsoever.

The term "statutory fluctuation" is accepted to cover variation in custom duty or other Government tax, duty or surcharge only when detailed in the relevant Act of Parliament or statutory notices as payable direct on specified building materials and items incorporated in a building structure but will not be accepted to cover any indirect variation of costs or overheads, etc., of the Contractor, sub-contractors, merchants or suppliers, arising from fluctuations in such items as railage, shipping rates, insurance, postage, dock dues, clearance charges, transport, power and fuel costs, etc., whether arising directly or indirectly from Government action.

No claims will be admitted under this Clause for statutory fluctuations coming into effect after the expiration of the contract completion date or any amendments - thereto under Clause 19 of the Conditions of Contract.

If the Contractor wishes to be protected against fluctuations in cost of any basic materials he is to attach to the Form of Tender a list of such materials and prices in respect of which he wishes to be protected. Such prices to be those upon which he bases his tender.

In support of these prices, the Contractor is to furnish with his tender bona fide current merchants quotations (for quantities as required for the job).

The prices actually paid must be substantiated by receipted invoices, and all adjustment will be net with no allowance for profit, provided that if the variations are positive then the Contractor may add not more than 5% to the net amount.

At completion of the works the Contractor will be required to substantiate the quantities used and the prices actually paid for all items listed in order that Government may benefit for any decrease in price that may have occurred.

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Orders for materials as listed shall have been placed within a reasonable time after the date of acceptance of the tender, otherwise no adjustment will be made. Such time to be mutually agreed when the tender is provisionally accepted.

All delivery notes for materials as listed must be certified by the Clerk of Works as having been delivered to the site, and shall be submitted to the Secretary for Local Government and Public Works failing which no adjustment will be made.

Where no materials have been listed the tender shall be treated as a firm tender.

Dumping duties are not acceptable as fluctuations, and it is a condition of the tender that any dumping duty levied at an time on items and goods incorporated in this contract shall be payable by the successful tenderer, and not recoverable from the government.

A AGREED WORKING HOURS

No work of any kind or description shall be done outside the agreed working hours of the building industry except such as shall be unavoidable or absolutely necessary for the saving of life or property, or the safety and protection of the works. Should the Contractor desire to execute any work outside the agreed working hours of the building industry, he shall first obtain the permission of the Secretary for Local Government and Public Works and any work executed outside such hours without the written permission having been first obtained will not be paid for, or if the Secretary for Local Government and Public Works desires the same taken out or pulled down and removed.

B DISMISSAL OF INCOMPETENT WORKMEN

The Contractor shall on the request of the Secretary for Local Government and Public Works immediately dismiss from the works any persons employed thereon who may, in the opinion of the Secretary for Local Government and Public Works be incompetent or misconduct himself, or is likely to cause or who has caused strikes, disturbances or delays, and such persons shall not again be employed on the works without permission from the Secretary for Local Government and Public Works.

Carried to Collection

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COLLECTION

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BILL NO. 1: PRELIMINARIES
CARRIED TO SUMMARY PAGE OF MAIN BILL

\$

.....
SIGNATURE OF CONTRACTOR

.....
DATE

SECTION 2 - OFFICE BLOCK

BILL NO.2

FOUNDATIONS (PROVISIONAL)

(For Preambles see General Specification)

Note: Foundations have been measured to top of surface bed.

SITE CLEARANCE

A	Clear site of all rubbish, bushes, shrubs, undergrowth, hedges, small trees, stumps, roots,	m ²	266
B	Cut down and remove tree exceeding 500 and not exceeding 1000 mm girth measured 1000 mm above ground level including grubbing up roots and filling in holes.	no.	3
C	Ditto tree exceeding 1000 mm and not exceeding 2000 mm ditto.	no.	3

EXCAVATION

Pumping and bailing

D	Allow for the keeping excavations free of storm, surface and mud by pumping and bailing.	item	1
E	Excavate over site to remove vegetable soil average 150 mm deep and deposit on site not exceeding 100 metres.	m ²	202
F	Disposal of topsoil	m ³	31

Carried to collection

	<u>Excavate in pickable earth for</u>			
A	Reduced levels not exceeding 2 metres deep.	m ³	31	
B	Surface trenches not exceeding 2 metres deep.	m ³	69	
C	Allow for searching and excavation all ants' nests below ground level, treating with "Shelldrite Ant Poison "fill in and well ram selected excavated material and consolidate.	m ³	1	
D	Extra over excavation in pickable material for excavation in hard pickable material.	m ³	20	
E	Ditto excavation in rock.	m ³	13	
	<u>Planking and strutting</u>			
F	Allow for maintaining and supporting sides of all excavations and making good all slips.	m ²	287	
	<u>Disposal</u>			
G	Redig from spoil heap, return, fill and well compact selected excavated material around foundations to 95% L.C.E. density.	m ³	33	
H	Redig from spoil heap and cart off site.	m ³	68	
	Carried to collection			

	<u>Formation</u>			
A	Scarify ground to a depth of 150 mm and compact to 95% L.C.E. density.	m ²	202	
B	Selected and approved clean, hard, non-expansive granular filling supplied and brought onto site by the contractor well watered and mechanically compacted under ground slabs in layers of 150 mm thick to 90% HCE density	m ³	62	
	<u>SUNDRIES</u>			
C	250 Micron black polythene sheeting well lapped at joints including all cutting and waste (measured nett) laid over filling to receive concrete.	m ²	202	
	<u>TERMITES</u>			
D	Termite treatment as described to top of filling and foundation walls with "Shelldrite Ant Poison" by a specialist company and provide a written 10 year guarantee.	m ²	202	
	<u>PLAIN CONCRETE</u>			
	<u>Concrete (Grade 25MPa) in</u>			
E	Footings.	m ³	16	
F	Ground floor slabs.	m ³	19	
	<u>Sundries</u>			
G	Strike off and cure top of concrete.	m ²	202	
	Carried to collection			

	<u>Welded fabric reinforcement of approved manufacture including all cutting, tying, placing in position with necessary temporary supports and minimum 300 mm laps both ways (measured nett)</u>			
A	Ref. S193 (mass of 1.93 kg/square metre) in top reinforcement to slab.	m ²	186	
	<u>BRICKWORK</u>			
	<u>Brickwork in approved common bricks in cement mortar as described</u>			
B	Half brick wall.	m ²	68	
C	One brick wall.	m ²	56	
	<u>Reinforcement</u>			
	<u>Brickforce lapped at joints and junctions and building in as the work proceeds (measured nett)</u>			
D	Ref. C1 in half brick walls.	m	261	
E	Ref. C2 in one brick walls.	m	215	
	Carried to collection			

COLLECTION

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BILL NO.2: FOUNDATIONS (PROVISIONAL)
CARRIED TO SUMMARY

BILL NO.3

CONCRETE, FORMWORK AND REINFORCEMENT

(For Preambles see General Specification)

STRUCTURAL CONCRETE

Vibrated reinforced concrete Grade 25 Mpa in

A	Beams	m ³	1
	<u>Formwork Class A as described to</u>		
B	Soffit of beams, lintels.	m ²	1
C	Sides of beams, lintels.	m ²	2

REINFORCEMENT

Steel bar reinforcement

D	High yield deformed steel reinforcement bars all sizes.	kg	21
---	---	----	----

Sundries

E	Strike off and cure top of concrete.	m ²	1
---	--------------------------------------	----------------	---

Carried to collection

PRECAST CONCRETE

Lintels

A	115 x 170 x 1273mm long	no	10
B	115 x 170 x 1460mm long	no	1
C	230 x 170 x 990mm long	no	2
D	230 x 170 x 2000mm long	no	6
E	230 x 170 x 2060mm long	no	1
F	230 x 170 x 2330mm long	no	6
G	230 x 170 x 2950mm long	no	9

Dripstones

H	Rainwater dripstone 200 mm wide and 120 mm thick and 800 mm long with segmental channel formed in top and place in position.	no.	4
---	--	-----	---

TESTING

I	Allow for carrying out slump tests when directed as described.	item	1
---	--	------	---

Carried to collection

COLLECTION

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BILL NO.3: CONCRETE, FORMWORK AND
REINFORCEMENT CARRIED TO SUMMARY

BILL NO.4

BRICKWORK

(For Preambles see General Specification)

SAMPLES

A	Allow for providing samples of all bricks as described.	item	1
---	---	------	---

BRICKWORK

Brickwork in approved common bricks in cement mortar as described

B	Half brick wall.	m ²	203
---	------------------	----------------	-----

C	Half brick in beam filling.	m ²	11
---	-----------------------------	----------------	----

D	One brick wall.	m ²	125
---	-----------------	----------------	-----

SUNDRIES

E	Bed wall plate in cement mortar.	m	61
---	----------------------------------	---	----

F	1,25 mm Galvanised hoop iron tie 25 mm wide and 1000 mm long one end built into brickwork or cast into concrete and other end wrapped around and spiked to wall plate and foot of truss.	no.	82
---	--	-----	----

G	230 x 150 mm Terra Cotta louvred and gauze backed external air brick and building into brick wall.	no.	46
---	--	-----	----

H	230 x 150 mm cast plaster internal air brick and building into opening in plastered wall.	no.	46
---	---	-----	----

	Precast terrazzo external cill with brashed finish.	m	44
--	---	---	----

	Softwood internal cill.	m	44
--	-------------------------	---	----

Carried to collection

<u>DAMP PROOF COURSE</u>			
<u>One layer of three ply bituminous felt sheeting as damp proof course as described, well lapped at joints and junctions (measured nett)</u>			
A	On half brick walls.	m ²	9
B	On one brick walls.	m ²	14
C	Under cills.	m ²	6
<u>REINFORCEMENT</u>			
<u>Brickforce lapped at joints and junctions and in as the work proceeds (measured nett)</u>			
D	Ref. C1 in half brick walls.	m	629
E	Ref. C2 in one brick walls.	m	368
<u>BUILDING IN</u>			
F	Set up in position, cross brace and build in steel door frame not exceeding 5 square metres.	no.	11
<u>Leave or form opening through one brick wall including temporary centering to flat soffits of brickwork complete with all strutting, shoring not exceeding 5 metres high, bolting, wedging easing, striking and removing</u>			
G	Opening for Purpose made aluminium doors not exceeding 5 square metres in area	no.	23
Carried to collection			

COLLECTION

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BILL NO.4: BRICKWORK
CARRIED TO SUMMARY

BILL NO.5

ROOF COVERINGS

(For Preambles see General Specification)

0.6 mm Chromadek roof sheeting to be fixed in strict accordance with the manufacturer's printed instructions, on timber purlins at 900 mm centres including all square cutting and waste

A	Roofing sheets to be fixed on softwood purlins.	m ²	235
B	Ridge or hip capping.	m	43
C	Two layers of alucushion insulation half lapped.	m ²	235

BILL NO.5: ROOF COVERINGS
CARRIED TO SUMMARY

BILL NO.6

CARPENTRY

(For Preambles see General Specification)

PREFABRICATED ROOF TRUSSES

The trusses are to be "Gangnail" Hydronail or other equal and approved prefabricated timber trusses with all members in the same plane and jointed together with steel plate nails. All timbers are to be SW.

The roof is to be created in accordance with the drawings.

Prices are to include for all necessary trusses and bracing, and for hoisting and fixing in position.

The roof is designed to carry chromadeck roofing sheets and, plasterboard ceilings with trusses spaced at approximately 1200 mm centres and the contractor may be required to produce all design calculations for checking, notwithstanding which, he will be held responsible for the sufficiency of the design.

A	Trusses, necessary hips, jack rafters, bracing, purlins etc fixed complete as per drawings	item	1
---	--	------	---

Sawn softwood

B	38 x 114 mm wall plate.	m	61
---	-------------------------	---	----

EAVES AND VERGES

C	225 x 12 mm cement fibre fascia board	m	64
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**BILL NO.6: CARPENTRY
CARRIED TO SUMMARY**

BILL NO.7

JOINERY AND IRONMONGERY

(For Preambles see General Specification)

CEILINGS

A	6 mm plasterboard ceiling boarding (plaster finish elsewhere measured) and fixing to and including 50 x 25 mm sawn softwood branderling at 400mm centres one way next wall and at end joints, skew nailed in opposite directions to roof timbers (elsewhere measured) including covering all joints with and including 75 mm wide strip of scrim planted on including all square cutting and waste	m ²	186
---	--	----------------	-----

Cornices

B	75mm Rhino coved cornice including mitres, etc.#	m	208
---	--	---	-----

DOORS

Semi-solid core internal quality flush doors with vanner suitable for painting both sides.

C	44 mm Door. Size 813 x 2030 mm.	no.	10
D	44 mm Door. Size 1000 x 2030 mm.	no.	1

Solid core external quality fire rated flush doors with veneer suitable for painting both sides

E	44 mm Double door. Size 1600 x 2030 mm.	no.	1
---	---	-----	---

Carried to collection

IRONMONGERY

A	Union No. CZ682 - 24 - 95CH two lever mortice lockset.	no.	11
B	Union No. CZ682 - 24 - 77CH three lever mortice lockset.	no.	1

BUILT IN CUPBOARDS (PROVISIONAL)

C	Provide a sum for the installation of kitchen cupboards with granite vanity top executed complete as per drawing and specifications.	item	1
---	--	------	---

Wrot hardwood miscellaneous items

D	19 x 76mm Wrot Meranti skirting plugged to wall including 19mm quadrant.	m	143
---	--	---	-----

Carried to collection

COLLECTION

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BILL NO.7: JOINERY AND IRONMONGERY
CARRIED TO SUMMARY

BILL NO.8

METALWORK

(For Preambles see General Specification)

STANDARD DOOR FRAMES

Standard full profile pressed steel door frames with chromium plated striking plates where appropriate (building in elsewhere measured)

To suit half brick wall (P.B.S.) for

A 44 mm Door size 813 x 2030 mm. no. 2

B 44 mm Door size 813 x 2030 mm with fanlight size 305 x 813mm. no. 8

C 44 mm Door size 1000 x 2030 mm. no. 1

To suit one brick wall (P.B.S.) for

D 44mm Door size 832 x 2030 mm. no.

PURPOSE MADE ALUMINIUM WINDOWS AND FRAMES AS DESCRIBED (BUILDING IN ELSEWHERE MEASURED) INCLUDING GLAZING

The whole to be executed by an approved firm of specialists. (Refer to the Window Schedule for type in parenthesis)

E Window type AC5F size 530 x 950 mm high with and including 4-6mm obscure laminated glass. no. 2

F Window type AZC4 size 1870 x 950 mm high with and including 4-6mm clear laminated glass. no. 6

G Window type W1 size 2490 x 1545 mm high with and including 4-6mm clear laminated glass. no. 9

H Window type W2 size 1540 x 350 mm high with and including 4-6mm clear laminated glass. no. 6

BILL NO.8: METALWORK CARRIED TO SUMMARY

BILL NO.9

PLASTERING AND WALL LININGS

(For Preambles see General Specification)

EXTERNALLY

One coat cement plaster (1:4) as described including all labours with a fine woodfloat finish on

A	Walls.	m ²	125
B	Ditto in narrow widths.	m ²	11

INTERNALLY

One coat cement/sand plaster (1:4) and set in rhinaset plaster with woodfloat finish on to the following surfaces

C	Walls.	m ²	531
D	Ditto in narrow widths.	m ²	11

Two coats "Rhinobond" plaster and one skimming coat of "Rhinaset" plaster applied with an approved flicking machine to give a tyrolean finish to an even thickness to the Architect approval on plasterboard

E	Ceilings	m ²	186
---	----------	----------------	-----

Carried to collection

A	Extra for 50 mm wide steel trowelled margin to edge of ceiling	m	208
---	--	---	-----

Sundries

B	150 x 150 mm recessed type toilet roll holder with spring loaded removable wood spindle and building into plastered brickwork.	no.	2
---	--	-----	---

Carried to collection

COLLECTION

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BILL NO.9: PLASTERING AND WALL LININGS
CARRIED TO SUMMARY

BILL NO.10

PAVINGS, FLOOR COVERINGS, PLASTIC LININGS, ETC

(For Preambles see General Specification)

SCREEDS

Cement and sand screed (1:4) finished to a true and even surface

A	40 mm thick screed to receive ceramic tiles.	m ²	22
B	40 mm screed to receive carpet	m ²	159
C	Untinted granolithic finish as described including all labours	m ²	5
D	100 mm high skirting with cove at junction with floor and square top edge, including mitres, etc.	m	9

CERAMIC FLOOR TILES

300 x 300mm Ceramic tiles with non-slip surface, as in "Samca Tiles" or similar approved, colour from manufacturer's standard colour range, on adhesive to manufacturer's recommendation and 3mm wide grout joints.

E	Tiles laid on floors.	m ²	22
F	100 mm Skirting.	m	36

CARPETS

G	"Berber Point" carpets or equal approved 100% poly proylene stable fibre plain backed carpets on screed (elsewhere measured).	m ²	159
H	Raking cutting	m	43

Carried to collection

Sundries

A 3 x 40mm Aluminium division strip set in position between different floor finishes.

m

4

Carried to collection

COLLECTION

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BILL NO.10: PAVINGS, FLOOR COVERINGS,
PLASTIC LININGS, ETC CARRIED TO

BILL NO.11

PLUMBING (PROVISIONAL)

(For Preambles see General Specification)

RAINWATER DISPOSAL AND FLASHINGS

PVC as described in

A	100 mm Diametre semi-circle section eaves gutter on brackets as described to fascia boards.	m	64
B	100 mm Dia stop ends.	no.	4
C	Extra for angle.	no.	4
D	Ditto outlet with nozzle for and joint to 100 mm Dia rainwater down pipe.	no.	4
E	100 mm Diameter rainwater pipe fixed 38 mm clear of wall with holderbats.	m	13
F	Extra for shoe.	no.	4
G	Ditto eaves offset.	no.	4

SANITARY FITTINGS

H	510 x 405 mm white glazed vitreous china wash hand basin with concealed brackets, complete with integral overflow, chromium plated outlet, plug and chain, pair of 15 mm chromium plated colour coded pillar taps, bolt to brackets to wall and connect up.	no.	2
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Carried to collection

A	Approved low level W.C. Suite comprising white glazed vitreous china pan with "P" trap, plastic double flap seat , 14 litre cistern and white plastic flush pipe, bolt to cistern to wall, fix pan to concrete floor and connect up.	no.	2
---	--	-----	---

B	Citi Metal Series double bowl overlay stainless steel sink unit, size 1500 x 535mm, complete with integral overflow, chromium plated waste outlet, plug, chain and backnut, with turndown at edge; tap set in position and including fixing one pair of Citi metal 25 x 25 mm galvanised mild steel gallows, square fixing (code SGB)	no.	1
---	---	-----	---

SANITARY PLUMBING

"Promat" or equal rigid P.V.C. waste piping with solvent cement and joints and fitting as described

C	110 mm diameter pipe laid in ground including excavating in trench not exceeding 2 metres deep and fill in and ram and cart off site surplus material.	m	2
---	--	---	---

D	50 mm diameter pipe laid under floors	m	3
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E	50 mm diameter pipe fixed to walls.	m	4
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Carried to collection

<u>Extra on P.V.C. piping for</u>				
A	50 mm bend.	no.	3	
B	50 mm bend with inspection eye.	no.	3	
C	110 mm bend.	no.	2	
D	110 mm bend with inspection eye.	no.	2	
E	110mm Inspection junction.	no.	2	
F	110mm Reducing junction.	no.	1	
G	110 mm Straight pan connector and joint to W.C. pan.	no.	2	
H	110 mm P.V.C. vent cowl and fixing to top of 110 mm diameter pipe.	no.	1	
I	Assembled gulley trap with 110 mm diameter outlet connected to drain and gulley head with universal back inlet and removable grate.	no.	1	
J	Joint small pipe to gulley.	no.	1	
K	Ditto large pipe to gulley.	no.	1	
<u>Traps</u>				
L	32 - 40 mm diameter "Flexitrap" or equal "P" trap and joint to fitting and P.V.C. pipe.	no.	4	
Carried to collection				

HOT AND COLD WATER RETICULATION

Copper tubing as described

A	15 mm diameter pipe fixed to walls.	m	1
B	15 mm ditto to walls in and including chase.	m	5
C	20 mm diameter pipe fixed to walls.	m	2
D	20 x 15 mm reducer.	no.	1
E	15 mm elbow.	no.	5
F	20 mm elbow.	no.	1
G	20 x 15 x 20 mm tee.	no.	1
H	20 mm socket union.	no.	1
I	15 mm diameter bent connector	no.	5
J	15 mm swivel elbow.	no.	1
K	15 mm socket union.	no.	2

Carried to collection

	<u>Brasswork</u>			
A	15 mm diameter brass high pressure screw down stop cock and joints to copper pipe.	no.	3	
B	25 mm diameter brass or equal high pressure undertile stopcock, and joint to copper pipe.	no.	1	
	<u>PVC pipes as described</u>			
C	22 mm diameter pipe fixed to walls.	m	1	
D	22 mm ditto to walls in and including chase.	m	1	
E	22 mm diameter pipe underground.	m	4	
F	22 x 20 mm reducer.	no.	1	
G	22 mm elbow.	no.	1	
H	22 mm socket union.	no.	1	
	<u>FIRE SERVICE INSTALLATION</u>			
	<u>Galvanised Iron Pipes to BS 2871</u>			
I	50mm service pipe fixed to walls, etc	m	4	
J	Ditto, but under concrete surface beds	m	2	
K	Ditto, but in trench not exceeding 1 metre deep	m	12	
	<u>Extra over galvanised pipes for fittings</u>			
L	50mm Bend	no.	3	
M	50 mm tee	no.	1	
N	50mm Socket	no.	1	
O	50mm Isolating valves and jointing to pipes	no.	2	
	Carried to collection			

	<u>Sundries</u>			
A	Approved fire hose reel of the swinging type holding 30m long 25mm bore non-kink rubber hose with nozzle and cock, complete with inlet valve with hand wheel marked to show direction of opening (the reel assembly shall have been tested to a pressure of at least 14 bars) and roller or bead type hose guide with check plates free of sharp edges and finished in red enamel and with all bright fittings chromium plated complete and fixed in position to wall including jointing to water supply.	no.	1	
B	Approved 9 litre water-gas fire extinguisher including fixing backing plate to wall	no.	2	
C	Approved 9kg dry powder fire extinguisher including fixing backing plate to wall	no.	2	
	<u>BUILDER'S WORK IN CONNECTION WITH PLUMBING (PROVISIONAL)</u>			
I	Chase brickwork for small pipe and flush up in cement mortar (1:3).	m	6	
	<u>Hole for small pipe including making good through</u>			
J	Half brick wall.	no.	1	
K	One brick wall.	no.	5	
	<u>Hole for large pipe including making good through</u>			
L	One brick wall.	no.	2	
	<u>TESTING</u>			
M	Allow for the testing of all the Plumber's work to the satisfaction of the Engineers and for the retesting after making good defects.	item	1	
	Carried to collection			

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BILL NO.11: PLUMBING (PROVISIONAL)
CARRIED TO SUMMARY

BILL NO.12

GLAZING

(For Preambles see General Specification)

Mirrors

A 6 mm clear float quality glass silvered and sealed mirror with bevelled edges sprayed on back with clear lacquer before fixing four times drilled for and plugged and screwed to plastered walls with and including chromium plated capped mirror screws and rubber washers, size 600 x 600 mm.

no. 2

BILL NO.12: GLAZING
CARRIED TO SUMMARY

BILL NO.13

PAINTING

(For Preambles see General Specification)

ON PLASTER, ETC

Prepare and apply three coats external quality
P.V.A. emulsion paint externally on

A Fine woodfloat plastered walls. m² 125

B Fine woodfloat plastered walls in narrow widths m² 11

Prepare and apply three coats internal quality
P.V.A. emulsion paint internally on

C Steel trowelled plastered walls. m² 531

D Ditto in narrow widths. m² 11

Prepare and apply three coats internal quality
ceiling white PVA paint internally on

E Ceilings m² 186

Carried to collection

ON METAL

Clean down, touch up priming coat and apply one undercoat and two finishing coats high gloss enamel paint on

A Pressed door frames. m² 14

ON WOOD, ETC

C Carbolineum saturate sawn softwood wall plate before fixing. m² 19

Clean down, prime, stop and apply one undercoat and two finishing coats high gloss enamel pain on

D General surfaces of doors. m² 44

LEAVE CLEAN

E Allow for touching up all work throughout, clean off all paint, oil, cement or other stains or marks, floors, ceilings, glass, etc. and leave all surfaces in full and proper working order. item 1

Carried to collection

COLLECTION

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BILL NO.13: PAINTING
CARRIED TO SUMMARY

BILL NO.14

SPECIALIST SERVICES

(For Preambles see General Specification)

PROVISIONAL SUMS

A Electrical fittings and installations executed complete.

sum 1

**BILL NO.14: SPECIALIST SERVICES
CARRIED TO SUMMARY**

SUMMARY

<u>Bill No.</u>	<u>Trade</u>	<u>PAGE</u>
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14	SPECIALIST SERVICES	53

CARRIED TO MAIN SUMMARY

SECTION 3 - GUARD HOUSE

BILL NO.2

FOUNDATIONS (PROVISIONAL)

(For Preambles see General Specification)

Note: Foundations have been measured to top of surface bed.

SITE CLEARANCE

A	Clear site of all rubbish, bushes, shrubs, undergrowth, hedges, small trees, stumps,	m ²	64
B	Cut down and remove tree exceeding 500 and not exceeding 1000 mm girth measured 1000 mm above ground level including grubbing up roots and filling in holes.	no.	2
C	Ditto tree exceeding 1000 mm and not exceeding 2000 mm ditto.	no.	2

EXCAVATION

Pumping and bailing

D	Allow for the keeping excavations free of storm, surface and mud by pumping and bailing.	item	1
E	Excavate over site to remove vegetable soil average 150 mm deep and deposit on site not exceeding 100 metres.	m ²	42
F	Disposal of topsoil	m ³	7

Carried to collection

Excavate in pickable earth for

A	Reduced levels not exceeding 2 metres deep.	m ³	7
B	Surface trenches not exceeding 2 metres deep.	m ³	23
C	Allow for searching and excavation all ants' nests below ground level, treating with "Shelldrite Ant Poison "fill in and well ram selected excavated material and consolidate.	m ³	1
D	Extra over excavation in pickable material for excavation in hard pickable material.	m ³	5
E	Ditto excavation in rock.	m ³	3

Planking and strutting

F	Allow for maintaining and supporting sides of all excavations and making good all slips.	m ²	73
---	--	----------------	----

Disposal

G	Redig from spoil heap, return, fill and well compact selected excavated material around foundations to 95% L.C.E. density.	m ³	11
H	Redig from spoil heap and cart off site.	m ³	20

Carried to collection

	<u>Formation</u>			
A	Scarify ground to a depth of 150 mm and compact to 95% L.C.E. density.	m ²	42	
B	Selected and approved clean, hard, non-expansive granular filling supplied and brought onto site by the contractor well watered and mechanically compacted under ground slabs in layers of 150 mm thick to 90% HCE density	m ³	14	
	<u>SUNDRIES</u>			
C	250 Micron black polythene sheeting well lapped at joints including all cutting and waste (measured nett) laid over filling to receive	m ²	42	
	<u>TERMITES</u>			
D	Termite treatment as described to top of filling and foundation walls with "Shelldrite Ant Poison" by a specialist company and provide a written 10 year guarantee.	m ²	42	
	<u>PLAIN CONCRETE</u>			
	<u>Concrete (Grade 25MPa) in</u>			
E	Footings.	m ³	6	
F	Ground floor slabs.	m ³	4	
	<u>Sundries</u>			
G	Strike off and cure top of concrete.	m ²	42	
	Carried to collection			

Welded fabric reinforcement of approved manufacture including all cutting, tying, placing in position with necessary temporary supports and minimum 300 mm laps both ways (measured nett)

A	Ref. S193 (mass of 1.93 kg/square metre) in top reinforcement to slab.	m ²	36
---	--	----------------	----

BRICKWORK

Brickwork in approved common bricks in cement mortar as described

B	Half brick wall.	m ²	9
---	------------------	----------------	---

C	One brick wall.	m ²	26
---	-----------------	----------------	----

Reinforcement

Brickforce lapped at joints and junctions and building in as the work proceeds (measured

D	Ref. C1 in half brick walls.	m	36
---	------------------------------	---	----

E	Ref. C2 in one brick walls.	m	103
---	-----------------------------	---	-----

Carried to collection

COLLECTION

PAGE

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BILL NO.2: FOUNDATIONS (PROVISIONAL)
CARRIED TO SUMMARY

BILL NO.3

CONCRETE, FORMWORK AND REINFORCEMENT

(For Preambles see General Specification)

PRECAST CONCRETE

Lintels

A	115 x 170 x 1273mm long	no	3
B	230 x 170 x 1273mm long	no	1
C	230 x 170 x 990mm long	no	2
D	230 x 170 x 2330mm long	no	1
E	230 x 170 x 2950mm long	no	2

Dripstones

F	Rainwater dripstone 200 mm wide and 120 mm thick and 800 mm long with segmental channel formed in top and place in position.	no.	4
---	--	-----	---

Carried to collection

STRUCTURAL CONCRETE

Vibrated reinforced concrete Grade 25 Mpa in

A Beams m³ 1

Formwork Class A as described to

B Soffit of beams m² 2

C Sides of beams m² 2

REINFORCEMENT

Steel bar reinforcement

D High yield deformed steel reinforcement bars all sizes. kg 30

Sundries

E Strike off and cure top of concrete. m² 5

Carried to collection

COLLECTION

PAGE

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BILL NO.3: CONCRETE, FORMWORK AND
REINFORCEMENT CARRIED TO SUMMARY

BILL NO.4

BRICKWORK

(For Preambles see General Specification)

SAMPLES

A	Allow for providing samples of all bricks as described.	item	1
---	---	------	---

BRICKWORK

Brickwork in approved common bricks in cement mortar as described

B	Half brick wall.	m ²	23
C	Half brick in beam filling.	m ²	5
D	One brick wall.	m ²	62

SUNDRIES

E	Bed wall plate in cement mortar.	m	28
F	1,25 mm Galvanised hoop iron tie 25 mm wide and 1000 mm long one end built into brickwork or cast into concrete and other end wrapped around and spiked to wall plate and foot of	no.	37
G	230 x 150 mm Terra Cotta louvred and gauze backed external air brick and building into brick wall.	no.	10
H	230 x 150 mm cast plaster internal air brick and building into opening in plastered wall.	no.	10
	Precast terrazzo external cill with brashed finish.	m	8
	Softwood internal cill.	m	8

Carried to collection

DAMP PROOF COURSE

One layer of three ply bituminous felt sheeting damp proof course as described, well lapped at joints and junctions (measured nett)

A	On half brick walls.	m ²	2
B	On one brick walls.	m ²	7
C	Under cills.	m ²	1

REINFORCEMENT

Brickforce lapped at joints and junctions and bedding in as the work proceeds (measured nett)

D	Ref. C1 in half brick walls.	m	82
E	Ref. C2 in one brick walls.	m	182

BUILDING IN

F	Set up in position, cross brace and build in steel door frame not exceeding 5 square metres.	no.	4
---	--	-----	---

Leave or form opening through one brick wall including temporary centering to flat soffits of brickwork complete with all strutting, shoring not exceeding 5 metres high, bolting, wedging easing, striking and removing

G	Opening for Purpose made aluminium windows not exceeding 5 square metres in area.	no.	5
---	---	-----	---

Carried to collection

COLLECTION

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**BILL NO.4: BRICKWORK
CARRIED TO SUMMARY**

BILL NO.5

ROOF COVERINGS

(For Preambles see General Specification)

0.6 mm Chromadek roof sheeting to be fixed in strict accordance with the manufacturer's printed instructions, on timber purlins at 900 mm centres including all square cutting and waste

A	Roofing sheets to be fixed on softwood purlins.	m ²	58
B	Two layers of alucushion insulation half lapped.	m ²	58

BILL NO.5: ROOF COVERINGS
CARRIED TO SUMMARY

BILL NO.6

CARPENTRY

(For Preambles see General Specification)

PREFABRICATED ROOF TRUSSES

The trusses are to be "Gangnail" Hydronail or other equal and approved prefabricated timber trusses with all members in the same plane and jointed together with steel plate nails. All timbers are to be sw.

The roof is to be created in accordance with the drawings.

Prices are to include for all necessary trusses and bracing, and for hoisting and fixing in position.

The roof is designed to carry chromadeck roofing sheets and, plasterboard ceilings with trusses spaced at approximately 1200 mm centres and the contractor may be required to produce all design calculations for checking, notwithstanding which, he will be held responsible for the sufficiency of the design.

A	Trusses, necessary hips, jack rafters, bracing, purlins etc fixed complete as per drawings	item	1
---	--	------	---

Sawn softwood

B	38 x 114 mm wall plate.	m	28
---	-------------------------	---	----

EAVES AND VERGES

C	225 x 12 mm cement fibre fascia board	m	30
---	---------------------------------------	---	----

**BILL NO.6: CARPENTRY
CARRIED TO SUMMARY**

BILL NO.7

JOINERY AND IRONMONGERY

(For Preambles see General Specification)

CEILINGS

A	6 mm plasterboard ceiling boarding (plaster finish elsewhere measured) and fixing to and including 50 x 25 mm sawn softwood brandering at 400mm centres one way next wall and at end joints, skew nailed in opposite directions to roof timbers (elsewhere measured) including covering all joints with and including 75 mm wide strip of scrim planted on including all square cutting and waste	m ²	36
---	---	----------------	----

Cornices

B	50 x 25mm hardwood cornice planted on	m	46
---	---------------------------------------	---	----

DOORS

Semi-solid core internal quality flush doors with veneer suitable for painting both sides.

C	44 mm Door. Size 813 x 2032 mm.	no.	3
---	---------------------------------	-----	---

Solid core external quality flush doors with veneer suitable for painting both sides

D	44 mm Door. Size 813 x 2030 mm.	no.	1
---	---------------------------------	-----	---

Carried to collection

IRONMONGERY

- | | | | |
|---|--|-----|---|
| A | Union No. CZ682 - 24 - 95CH two lever mortice lockset. | no. | 3 |
| B | Union No. CZ682 - 24 - 77CH three lever mortice lockset. | no. | 1 |

CUPBOARDS

- | | | | |
|---|--|------|---|
| C | Provide a sum for the installation of kitchen cupboards with granite vanity top executed complete as per drawing and specifications. | item | 1 |
|---|--|------|---|

Carried to collection

COLLECTION

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BILL NO.7: JOINERY AND IRONMONGERY
CARRIED TO SUMMARY

BILL NO.8

METALWORK

(For Preambles see General Specification)

STANDARD DOOR FRAMES

Standard full profile pressed steel door frames with chromium plated striking plates where appropriate (building in elsewhere measured)

To suit half brick wall (P.B.S.) for

A	44 mm Door size 813 x 2032 mm.	no.	3
---	--------------------------------	-----	---

To suit one brick wall (P.B.S.) for

B	44mm Door size 813 x 2032 mm.	no.	1
---	-------------------------------	-----	---

PURPOSE MADE ALUMINIUM WINDOWS AND FRAMES AS DESCRIBED (BUILDING IN ELSEWHERE MEASURED) INCLUDING GLAZING

The whole to be executed by an approved firm of specialists. (Refer to the Window Schedule for type in parenthesis)

C	Window type AC5F size 530 x 950 mm high with and including 4-6mm obscure laminated glass.	no.	2
---	---	-----	---

D	Window type AZC4 size 1870 x 950 mm high with and including 4-6mm clear laminated glass.	no.	1
---	--	-----	---

E	Window type W1 size 2490 x 1545 mm high with and including 4-6mm clear laminated glass.	no.	2
---	---	-----	---

BILL NO.8: METALWORK CARRIED TO SUMMARY

BILL NO.9

PLASTERING AND WALL LININGS

(For Preambles see General Specification)

EXTERNALLY

One coat cement plaster (1:4) as described including all labours with a fine woodfloat finish on

A	Walls.	m ²	62
B	Ditto in narrow widths.	m ²	3

INTERNALLY

One coat cement/sand plaster (1:4) and set in rhinaset plaster with woodfloat finish on to the following surfaces

C	Walls.	m ²	100
D	Ditto in narrow widths.	m ²	3

Two coats "Rhinobond" plaster and one skimming coat of "Rhinaset" plaster applied with an approved flicking machine to give a tyrolean finish to an even thickness to the Architect approval on plasterboard

E	Ceilings	m ²	36
---	----------	----------------	----

Carried to collection

A	Extra for 50 mm wide steel trowelled margin to edge of ceiling	m	46		
	<u>Sundries</u>				
B	150 x 150 mm recessed type toilet roll holder with spring loaded removable wood spindle and building into plastered brickwork.	no.	1		
C	150 x 150 mm white glazed ceramic recessed type soap dish and building into plastered brickwork including bedding in an approved tile adhesive and neatly pointing all round in white cement.	no.	1		
	Carried to collection				

COLLECTION

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BILL NO.9: PLASTERING AND WALL
CARRIED TO SUMMARY

BILL NO.10

PAVINGS, FLOOR COVERINGS, PLASTIC LININGS, ETC

(For Preambles see General Specification)

SCREEDS

Cement and sand screed (1:4) finished to a true and even surface

A	40 mm thick screed to receive ceramic tiles.	m ²	36
---	--	----------------	----

CERAMIC FLOOR TILES

600 x 600mm Ceramic tiles with non-slip surface, as in "Samca Tiles" or similar approved, colour from manufacturer's standard colour range, on adhesive to manufacturer's recommendation and 3mm wide grout joints.

B	Tiles laid on floors.	m ²	36
---	-----------------------	----------------	----

C	100 mm Skirting.	m	35
---	------------------	---	----

Sundry

D	3 x 40mm Aluminium edge strip set in position.	m	5
---	--	---	---

BILL NO.10: PAVINGS, FLOOR COVERINGS, PLASTIC LININGS, ETC CARRIED TO SUMMARY

BILL NO.11

PLUMBING (PROVISIONAL)

(For Preambles see General Specification)

RAINWATER DISPOSAL AND FLASHINGS

PVC as described in

A	100 mm Diametre semi-circle section eaves gutter on brackets as described to fascia	m	30
B	100 mm Dia stop ends.	no.	4
C	Extra for angle.	no.	4
D	Ditto outlet with nozzle for and joint to 100 mm Dia rainwater down pipe.	no.	4
E	100 mm Diameter rainwater pipe fixed 38 mm clear of wall with holderbats.	m	13
F	Extra for shoe.	no.	4
G	Ditto eaves offset.	no.	4

SANITARY FITTINGS

H	510 x 405 mm white glazed vitreous china wash hand basin with concealed brackets, complete with integral overflow, chromium plated outlet, plug and chain, pair of 15 mm chromium plated colour coded pillar taps, bolt to brackets to wall and connect up.	no.	1
---	---	-----	---

Carried to collection

A Approved low level W.C. Suite comprising white glazed vitreous china pan with "P" trap, plastic double flap seat , 14 litre cistern and white plastic flush pipe, bolt to cistern to wall, fix pan to concrete floor and connect up. no. 1

B Citi Metal Series single bowl overlay stainless steel sink unit, size 533 x 500mm, complete with integral overflow, chromium plated waste outlet, plug, chain and backnut, with turndown at edge; tap set in position and including fixing one pair of Citi metal 25 x 25 mm galvanised mild steel gallows, square fixing (code SGB) no. 1

C Shower set comprising pair of 15 mm chromium colour coded undertile stopcocks, bridging piece, 900 mm copper riser with chromium plated arm and approved chromium plated rose including chasing into wall and joint one valve to copper pipes. no. 1

SANITARY PLUMBING

"Promat" or equal rigid P.V.C. waste piping with solvent cement and joints and fitting as

D 110 mm diameter pipe laid in ground including excavating in trench not exceeding 2 metres deep and fill in and ram and cart off site surplus m 3

E 50 mm diameter pipe laid under floors m 3

F 50 mm diameter pipe fixed to walls. m 4

Carried to collection

Extra on P.V.C. piping for

A	50 mm bend.	no.	3
B	50 mm bend with inspection eye.	no.	2
C	110 mm bend.	no.	1
D	110 mm bend with inspection eye.	no.	1
E	110mm Inspection junction.	no.	1
F	110mm Reducing junction.	no.	1
G	110 mm Straight pan connector and joint to W.C. pan.	no.	1
H	110 mm P.V.C. vent cowl and fixing to top of 110 mm diameter pipe.	no.	1
I	Assembled gulley trap with 110 mm diameter outlet connected to drain and gulley head with universal back inlet and removable grate.	no.	1
J	Joint small pipe to gulley.	no.	1
K	Ditto large pipe to gulley.	no.	1

Traps

L	32 - 40 mm diameter "Flexitrap" or equal "P" trap and joint to fitting and P.V.C. pipe.	no.	3
---	---	-----	---

Carried to collection

HOT AND COLD WATER RETICULATION

Copper tubing as described

A	15 mm diameter pipe fixed to walls.	m	1
B	15 mm ditto to walls in and including chase.	m	5
C	20 mm diameter pipe fixed to walls.	m	6
D	20 x 15 mm reducer.	no.	1
E	15 mm elbow.	no.	3
F	20 mm elbow.	no.	3
G	20 x 15 x 20 mm tee.	no.	1
H	20 mm socket union.	no.	2
I	15 mm diameter bent connector	no.	3
J	15 mm swivel elbow.	no.	1
K	15 mm socket union.	no.	1

Carried to collection

	<u>Brasswork</u>			
A	15 mm diameter brass high pressure screw down stop cock and joints to copper pipe.	no.	4	
B	25 mm diameter brass or equal high pressure undertile stopcock, and joint to copper pipe.	no.	1	
	<u>PVC pipes as described</u>			
C	22 mm diameter pipe fixed to walls.	m	1	
D	22 mm ditto to walls in and including chase.	m	1	
E	22 mm diameter pipe underground.	m	4	
F	22 x 20 mm reducer.	no.	1	
G	22 mm elbow.	no.	1	
H	22 mm socket union.	no.	1	
	<u>BUILDER'S WORK IN CONNECTION WITH PLUMBING (PROVISIONAL)</u>			
I	Chase brickwork for small pipe and flush up in cement mortar (1:3).	m	6	
	<u>Hole for small pipe including making good through</u>			
J	Half brick wall.	no.	4	
K	One brick wall.	no.	1	
	<u>Hole for large pipe including making good through</u>			
L	One brick wall.	no.	1	
	Carried to collection			

GEYSERS

A	100 Litre Approved roof type solar gravity geyser with electrical backup heating ,and jointing to water supplies, and electrical supply ; installed complete.	no.	2
---	---	-----	---

TESTING

B	Allow for the testing of all the Plumber's work to the satisfaction of the Engineers and for the retesting after making good defects.	item	1
---	---	------	---

Carried to collection

COLLECTION

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BILL NO.11: PLUMBING (PROVISIONAL)
CARRIED TO SUMMARY

BILL NO.12

GLAZING

(For Preambles see General Specification)

Mirrors

A 6 mm clear float quality glass silvered and sealed mirror with bevelled edges sprayed on back with clear lacquer before fixing four times drilled for and plugged and screwed to plastered walls with and including chromium plated capped mirror screws and rubber washers, size no.	1
---	---

BILL NO.12: GLAZING
CARRIED TO SUMMARY

BILL NO.13

PAINTING

(For Preambles see General Specification)

ON PLASTER, ETC

Prepare and apply three coats external quality
P.V.A. emulsion paint externally on

A	Fine woodfloat plastered walls.	m ²	62
B	Fine woodfloat plastered walls in narrow widths	m ²	3

Prepare and apply three coats internal quality
P.V.A. emulsion paint internally on

C	Steel trowelled plastered walls.	m ²	100
D	Ditto in narrow widths.	m ²	3

Prepare and apply three coats internal quality
ceiling white PVA paint internally on

E	Ceilings	m ²	36
---	----------	----------------	----

Carried to collection

ON METAL

Clean down, touch up priming coat and apply one undercoat and two finishing coats high gloss enamel paint on

A Pressed door frames. m² 5

ON WOOD, ETC

B Carbolineum saturate sawn softwood wall plate before fixing. m² 9

Clean down, prime, stop and apply one undercoat and two finishing coats high gloss

C General surfaces of doors. m² 4

LEAVE CLEAN

D Allow for touching up all work throughout, clean off all paint, oil, cement or other stains or marks, floors, ceilings, glass, etc. and leave all surfaces in full and proper working order. item 1

Carried to collection

COLLECTION

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BILL NO.13: PAINTING
CARRIED TO SUMMARY

BILL NO.14

SPECIALIST SERVICES

(For Preambles see General Specification)

PROVISIONAL SUMS

A	Provide a sum of USD20,000.00 for the supply and delivery of ten (10) "2021 model, 11 inch iPad Pro, 256 GB, M1 Processor, Wifi+ Cellular connectivity" or similar approved tablets.	sum	1	20,000.00
B	Electrical fittings and installations executed complete.	sum	1	

BILL NO.14: SPECIALIST SERVICES
CARRIED TO SUMMARY

<u>SUMMARY</u>		
<u>Bill No.</u>	<u>Trade</u>	<u>PAGE</u>
2	FOUNDATIONS (PROVISIONAL)	59
3	CONCRETE, FORMWORK AND REINFORCEMENT	62
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7	JOINERY AND IRONMONGERY	70
8	METALWORK	71
9	PLASTERING AND WALL LININGS	74
10	PAVINGS, FLOOR COVERINGS, PLASTIC LININGS, ETC	75
11	PLUMBING (PROVISIONAL)	82
12	GLAZING	83
13	PAINTING	86
14	SPECIALIST SERVICES	87
CARRIED TO MAIN SUMMARY		

SECTION 4 - ABLUTIONS

BILL NO.2

FOUNDATIONS (PROVISIONAL)

(For Preambles see General Specification)

Note: Foundations have been measured to top of surface bed.

SITE CLEARANCE

A	Clear site of all rubbish, bushes, shrubs, undergrowth, hedges, small trees, stumps, roots,	m ²	156
B	Cut down and remove tree exceeding 500 and not exceeding 1000 mm girth measured 1000 mm above ground level including grubbing up roots and filling in holes.	no.	1
C	Ditto tree exceeding 1000 mm and not exceeding 2000 mm ditto.	no.	1

EXCAVATION

Pumping and bailing

D	Allow for the keeping excavations free of storm, surface and mud by pumping and bailing.	item	1
E	Excavate over site to remove vegetable soil average 150 mm deep and deposit on site not exceeding 100 metres.	m ²	110
F	Disposal of topsoil	m ³	17

Carried to collection

<u>Excavate in pickable earth for</u>		
A	Reduced levels not exceeding 2 metres deep.	m ³ 17
B	Surface trenches not exceeding 2 metres deep.	m ³ 54
C	Allow for searching and excavation all ants' nests below ground level, treating with "Shelldrite Ant Poison "fill in and well ram selected excavated material and consolidate.	m ³ 1
D	Extra over excavation in pickable material for excavation in hard pickable material.	m ³ 14
E	Ditto excavation in rock.	m ³ 9
<u>Planking and strutting</u>		
F	Allow for maintaining and supporting sides of all excavations and making good all slips.	m ² 193
<u>Disposal</u>		
G	Redig from spoil heap, return, fill and well compact selected excavated material around foundations to 95% L.C.E. density.	m ³ 29
H	Redig from spoil heap and cart off site.	m ³ 42
Carried to collection		

--

	<u>Formation</u>		
A	Scarify ground to a depth of 150 mm and compact to 95% L.C.E. density.	m ²	110
B	Selected and approved clean, hard, non-expansive granular filling supplied and brought onto site by the contractor well watered and mechanically compacted under ground slabs in layers of 150 mm thick to 90% HCE density	m ³	34
	<u>SUNDRIES</u>		
C	250 Micron black polythene sheeting well lapped at joints including all cutting and waste (measured nett) laid over filling to receive concrete.	m ²	110
	<u>TERMITES</u>		
D	Termite treatment as described to top of filling and foundation walls with "Shelldrite Ant Poison" by a specialist company and provide a written 10 year guarantee.	m ²	110
	<u>PLAIN CONCRETE</u>		
	<u>Concrete (Grade 25MPa) in</u>		
E	Footings.	m ³	13
F	Ground floor slabs.	m ³	10
	<u>Sundries</u>		
G	Strike off and cure top of concrete.	m ²	110
	Carried to collection		

	<u>Welded fabric reinforcement of approved manufacture including all cutting, tying, placing in position with necessary temporary supports and minimum 300 mm laps both ways (measured nett)</u>			
A	Ref. S193 (mass of 1.93 kg/square metre) in top reinforcement to slab.	m ²	100	
	<u>BRICKWORK</u>			
	<u>Brickwork in approved common bricks in cement mortar as described</u>			
B	Half brick wall.	m ²	38	
C	One brick wall.	m ²	51	
	<u>Reinforcement</u>			
	<u>Brickforce lapped at joints and junctions and building in as the work proceeds (measured nett)</u>			
D	Ref. C1 in half brick walls.	m	150	
E	Ref. C2 in one brick walls.	m	201	
	Carried to collection			

COLLECTION

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BILL NO.2: FOUNDATIONS (PROVISIONAL)
CARRIED TO SUMMARY

BILL NO.3

CONCRETE, FORMWORK AND REINFORCEMENT

(For Preambles see General Specification)

STRUCTURAL CONCRETE

Vibrated reinforced concrete Grade 25 Mpa in

A Beams m³

Formwork Class A as described to

B Soffit of beams, lintels. m²

C Sides of beams, lintels. m²

REINFORCEMENT

Steel bar reinforcement

D High yield deformed steel reinforcement bars all sizes. kg

Sundries

E Strike off and cure top of concrete. m²

Carried to collection

PRECAST CONCRETE

Lintels

A	115 x 170 x 1273mm long	no	8
B	230 x 170 x 990mm long	no	27
C	230 x 170 x 1273mm long	no	2

Dripstones

D	Rainwater dripstone 200 mm wide and 120 mm thick and 800 mm long with segmental channel formed in top and place in position.	no.	4
---	--	-----	---

TESTING

E	Allow for carrying out slump tests when directed as described.	item	1
---	--	------	---

Carried to collection

COLLECTION

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**BILL NO.3: CONCRETE, FORMWORK AND
REINFORCEMENT CARRIED TO SUMMARY**

BILL NO.4

BRICKWORK

(For Preambles see General Specification)

SAMPLES

A	Allow for providing samples of all bricks as described.	item	1
---	---	------	---

BRICKWORK

Brickwork in approved common bricks in cement mortar as described

B	Half brick wall.	m ²	17
C	Half brick wall 2100mm high.	m ²	59
D	Half brick in beam filling.	m ²	7
E	One brick wall.	m ²	131

SUNDRIES

F	Bed wall plate in cement mortar.	m	40
G	1,25 mm Galvanised hoop iron tie 25 mm wide and 1000 mm long one end built into brickwork or cast into concrete and other end wrapped around and spiked to wall plate and foot of truss.	no.	54
H	230 x 150 mm Terra Cotta louvred and gauze backed external air brick and building into brick	no.	54
I	230 x 150 mm cast plaster internal air brick and building into opening in plastered wall.	no.	54
J	Precast terrazzo external cill with brashed finish.	m	15
K	Softwood internal cill.	m	15

Carried to collection

DAMP PROOF COURSE

One layer of three ply bituminous felt sheeting as damp proof course as described, well lapped at joints and junctions (measured nett)

A	On half brick walls.	m ²	5
B	On one brick walls.	m ²	13
C	Under cills.	m ²	2

REINFORCEMENT

Brickforce lapped at joints and junctions and in as the work proceeds (measured nett)

D	Ref. C1 in half brick walls.	m	244
E	Ref. C2 in one brick walls.	m	385

BUILDING IN

F	Set up in position, cross brace and build in steel door frame not exceeding 5 square metres.	no.	10
---	--	-----	----

Leave or form opening through one brick wall including temporary centering to flat soffits of brickwork complete with all strutting, shoring not exceeding 5 metres high, bolting, wedging easing, striking and removing

G	Opening for Purpose made aluminium windowa not exceeding 5 square metres in area	no.	27
---	--	-----	----

Carried to collection

COLLECTION

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**BILL NO.4: BRICKWORK
CARRIED TO SUMMARY**

BILL NO.5

ROOF COVERINGS

(For Preambles see General Specification)

0.6 mm Chromadek roof sheeting to be fixed in strict accordance with the manufacturer's printed instructions, on timber purlins at 900 mm centres including all square cutting and waste

A	Roofing sheets to be fixed on softwood purlins.	m ²	135
B	Ridge or hip capping.	m	33
C	Two layers of alucushion insulation half lapped.	m ²	135

BILL NO.5: ROOF COVERINGS
CARRIED TO SUMMARY

BILL NO.6

CARPENTRY

(For Preambles see General Specification)

PREFABRICATED ROOF TRUSSES

The trusses are to be "Gangnail" Hydronail or other equal and approved prefabricated timber trusses with all members in the same plane and jointed together with steel plate nails. All timbers are to be SW.

The roof is to be created in accordance with the drawings.

Prices are to include for all necessary trusses and bracing, and for hoisting and fixing in position.

The roof is designed to carry chromadeck roofing sheets and, plasterboard ceilings with trusses spaced at approximately 1200 mm centres and the contractor may be required to produce all design calculations for checking, notwithstanding which, he will be held responsible for the sufficiency of the design.

A Trusses, necessary hips, jack rafters, bracing, purlins etc fixed complete as per drawings item 1

Sawn softwood

B 38 x 114 mm wall plate. m 40

EAVES AND VERGES

C 225 x 12 mm cement fibre fascia board m 48

BILL NO.6: CARPENTRY
CARRIED TO SUMMARY

BILL NO.7

JOINERY AND IRONMONGERY

(For Preambles see General Specification)

CEILINGS

A	6 mm plasterboard ceiling boarding (plaster finish elsewhere measured) and fixing to and including 50 x 25 mm sawn softwood bandering at 400mm centres one way next wall and at end joints, skew nailed in opposite directions to roof timbers (elsewhere measured) including covering all joints with and including 75 mm wide strip of scrim planted on including all square cutting and waste	m ²	100
---	--	----------------	-----

Cornices

B	75mm Rhino coved cornice including mitres, etc.	m	86
---	---	---	----

DOORS

Semi-solid core internal quality flush doors with vanner suitable for painting both sides.

C	44 mm Door. Size 813 x 2032 mm.	no.	8
---	---------------------------------	-----	---

Solid core external quality fire rated flush doors with veneer suitable for painting both sides

D	44 mm Door. Size 813 x 2032 mm.	no.	2
---	---------------------------------	-----	---

Carried to collection

IRONMONGERY

A	Union No. CZ682 - 24 - 95CH two lever mortice lockset.	no.	8
B	Union No. CZ682 - 24 - 77CH three lever mortice lockset.	no.	2

Carried to collection

COLLECTION

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**BILL NO.7: JOINERY AND IRONMONGERY
CARRIED TO SUMMARY**

BILL NO.8

METALWORK

(For Preambles see General Specification)

STANDARD DOOR FRAMES

Standard full profile pressed steel door frames with chromium plated striking plates where appropriate (building in elsewhere measured)

To suit half brick wall (P.B.S.) for

A 44 mm Door size 813 x 2032 mm. no. 8

To suit one brick wall (P.B.S.) for

B 44mm Door size 832 x 2032 mm. no. 2

PURPOSE MADE ALUMINIUM WINDOWS AND FRAMES AS DESCRIBED (BUILDING IN ELSEWHERE MEASURED) INCLUDING

The whole to be executed by an approved firm of specialists. (Refer to the Window Schedule for type in parenthesis)

C Window type AC5F size 530 x 950 mm high with and including 4-6mm obscure laminated glass. no. 27

BILL NO.8: METALWORK CARRIED TO SUMMARY

BILL NO.9

PLASTERING AND WALL LININGS

(For Preambles see General Specification)

EXTERNALLY

One coat cement plaster (1:4) as described including all labours with a fine woodfloat finish on

A	Walls.	m ²	131
B	Ditto in narrow widths.	m ²	8

INTERNALLY

One coat cement/sand plaster (1:4) and set in rhinaset plaster with woodfloat finish on to the following surfaces

C	Walls.	m ²	281
D	Ditto in narrow widths.	m ²	8

Two coats "Rhinobond" plaster and one skimming coat of "Rhinaset" plaster applied with an approved flicking machine to give a tyrolean finish to an even thickness to the Architect approval on plasterboard

E	Ceilings	m ²	100
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Carried to collection

A	Extra for 50 mm wide steel trowelled margin to edge of ceiling	m	86
---	--	---	----

Sundries

B	150 x 150 mm recessed type toilet roll holder with spring loaded removable wood spindle and building into plastered brickwork.	no.	8
---	--	-----	---

C	150 x 150 recessed type soap dish and building into plastered brickwall	no.	7
---	---	-----	---

Carried to collection

COLLECTION

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BILL NO.9: PLASTERING AND WALL LININGS
CARRIED TO SUMMARY

BILL NO.10

PAVINGS, FLOOR COVERINGS, PLASTIC LININGS, ETC

(For Preambles see General Specification)

SCREEDS

Cement and sand screed (1:4) finished to a true and even surface

A	Untinted granolithic finish as described including all labours	m ²	100
B	100 mm high skirting with cove at junction with floor and square top edge, including mitres, etc.	m	140

BILL NO.10: PAVINGS, FLOOR COVERINGS, PLASTIC LININGS, ETC CARRIED TO

BILL NO.11

PLUMBING (PROVISIONAL)

(For Preambles see General Specification)

RAINWATER DISPOSAL AND FLASHINGS

PVC as described in

A	100 mm Diametre semi-circle section eaves gutter on brackets as described to fascia boards.	m	43
B	100 mm Dia stop ends.	no.	4
C	Extra for angle.	no.	4
D	Ditto outlet with nozzle for and joint to 100 mm Dia rainwater down pipe.	no.	4
E	100 mm Diameter rainwater pipe fixed 38 mm clear of wall with holderbats.	m	12
F	Extra for shoe.	no.	4
G	Ditto eaves offset.	no.	4

SANITARY FITTINGS

H	510 x 405 mm white glazed vitreous china wash hand basin with concealed brackets, complete with integral overflow, chromium plated outlet, plug and chain, pair of 15 mm chromium plated colour coded pillar taps, bolt to brackets to wall and connect up.	no.	16
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Carried to collection

A	Approved low level W.C. Suite comprising white glazed vitreous china pan with "P" trap, plastic double flap seat , 9 litre cistern and white plastic flush pipe, bolt to cistern to wall, fix pan to concrete floor and connect up.	no.	6	
B	Vaal Potteries vitreous china "Protea" or equal approved floor mounted paraplegic suite (comprising 90 degree outlet pan and matching 9 litre cistern), complete with lid fitments and purpose made side flush lever bottom inlet with water supplied from same side as flush lever and connect	no.		
C	32mm Stainless steel side grab rails, fixed to walls walls.	no.	2	
D	32mm Stainless steel rear grab rail around cistern, fixed to walls.	no.	2	
E	Vaal Potteries vitreous china wall mounted "Lavatera" or equal approved urinal bowl, size 610 x 385mm complete with top inlet, 38mm chromium plated domical grating, chromium plated spreader and two hanger brackets, with and including Springbok automatic 4.5litre syphonic cistern complete with flush pipe and fitting code ; brackets plugged and screwed to walls, and jointing to waste pipes and water supplies.	no.	6	
F	Vaal Potteries vitreous china division pieces, overall size 610 x 310mm.	no.	10	
G	Double bowl precast concrete laundry sink unit, chromium plated waste outlet, plug, chain and backnut, with turndown at edge; pair of 15 mm chromium plated colour coded pillar taps, fix sink to floor and wall connect up.	no.	2	
Carried to collection				

SANITARY PLUMBING

"Promat" or equal rigid P.V.C. waste piping with solvent cement and joints and fitting as described

A 110 mm diameter pipe laid in ground including excavating in trench not exceeding 2 metres deep and fill in and ram and cart off site surplus material. m 12

B 50 mm diameter pipe laid under floors m 24

C 50 mm diameter pipe fixed to walls. m 12

Extra on P.V.C. piping for

D 50 mm bend. no. 25

E 50 mm bend with inspection eye. no. 31

F 110 mm bend. no. 4

G 110 mm bend with inspection eye. no. 8

H 110mm Inspection junction. no. 5

I 110mm Reducing junction. no. 2

J 110 mm Straight pan connector and joint to W.C. pan. no. 8

K 110 mm P.V.C. vent cowl and fixing to top of 110 mm diameter pipe. no. 8

L Assembled gulley trap with 110 mm diameter outlet connected to drain and gulley head with universal back inlet and removable grate. no. 3

M Joint small pipe to gulley. no. 2

N Ditto large pipe to gulley. no. 4

Traps

O 32 - 40 mm diameter "Flexitrap" or equal "P" trap and joint to fitting and P.V.C. pipe. no. 31

Carried to collection

HOT AND COLD WATER RETICULATION

Copper tubing as described

A	15 mm diameter pipe fixed to walls.	m	12
B	15 mm ditto to walls in and including chase.	m	36
C	20 mm diameter pipe fixed to walls.	m	12
D	20 x 15 mm reducer.	no.	2
E	15 mm elbow.	no.	2
F	20 mm elbow.	no.	18
G	20 x 15 x 20 mm tee.	no.	1
H	20 mm socket union.	no.	3
I	15 mm diameter bent connector	no.	31
J	15 mm swivel elbow.	no.	3
K	15 mm socket union.	no.	7

Carried to collection

<u>Brasswork</u>		
A	15 mm diameter brass high pressure screw down stop cock and joints to copper pipe.	no. 15
B	25 mm diameter brass or equal high pressure undertile stopcock, and joint to copper pipe.	no. 3
<u>PVC pipes as described</u>		
C	22 mm diameter pipe fixed to walls.	m 3
D	22 mm ditto to walls in and including chase.	m 3
E	22 mm diameter pipe underground.	m 12
F	22 x 20 mm reducer.	no. 1
G	22 mm elbow.	no. 3
H	22 mm socket union.	no. 2
<u>FIRE SERVICE INSTALLATION</u>		
<u>Galvanised Iron Pipes to BS 2871</u>		
I	50mm service pipe fixed to walls, etc	m 6
J	Ditto, but under concrete surface beds	m 6
K	Ditto, but in trench not exceeding 1 metre deep	m 6
<u>Extra over galvanised pipes for fittings</u>		
L	50mm Bend	no. 2
M	50 mm tee	no. 2
N	50mm Socket	no. 2
O	50mm Isolating valves and jointing to pipes	no. 2
Carried to collection		

<u>Sundries</u>		
A	Approved fire hose reel of the swinging type holding 30m long 25mm bore non-kink rubber hose with nozzle and cock, complete with inlet valve with hand wheel marked to show direction of opening (the reel assembly shall have been tested to a pressure of at least 14 bars) and roller or bead type hose guide with check plates free of sharp edges and finished in red enamel and with all bright fittings chromium plated complete and fixed in position to wall including jointing to water supply.	no. 1
B	Approved 9 litre water-gas fire extinguisher including fixing backing plate to wall	no. 1
C	Approved 9kg dry powder fire extinguisher including fixing backing plate to wall	no. 1
<u>BUILDER'S WORK IN CONNECTION WITH PLUMBING (PROVISIONAL)</u>		
D	Chase brickwork for small pipe and flush up in cement mortar (1:3).	m 17
<u>Hole for small pipe including making good through</u>		
E	Half brick wall.	no. 6
F	One brick wall.	no. 6
<u>Hole for large pipe including making good through</u>		
G	One brick wall.	no. 10
<u>TESTING</u>		
H	Allow for the testing of all the Plumber's work to the satisfaction of the Engineers and for the retesting after making good defects.	item 1
Carried to collection		

COLLECTION

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BILL NO.11: PLUMBING (PROVISIONAL)
CARRIED TO SUMMARY

BILL NO.12

GLAZING

(For Preambles see General Specification)

Mirrors

A 6 mm clear float quality glass silvered and sealed mirror with bevelled edges sprayed on back with clear lacquer before fixing four times drilled for and plugged and screwed to plastered walls with and including chromium plated capped mirror screws and rubber washers, size 600 x 600 mm.

no. 6

BILL NO.12: GLAZING
CARRIED TO SUMMARY

BILL NO.13

PAINTING

(For Preambles see General Specification)

ON PLASTER, ETC

Prepare and apply three coats external quality
P.V.A. emulsion paint externally on

A Fine woodfloat plastered walls. m² 131

B Fine woodfloat plastered walls in narrow widths m² 8

Prepare and apply three coats internal quality
P.V.A. emulsion paint internally on

C Steel trowelled plastered walls. m² 281

D Ditto in narrow widths. m² 8

Prepare and apply three coats internal quality
ceiling white PVA paint internally on

E Ceilings m² 100

Carried to collection

ON METAL

Clean down, touch up priming coat and apply one undercoat and two finishing coats high gloss enamel paint on

A Pressed door frames. m² 15

ON WOOD, ETC

B Carbolineum saturate sawn softwood wall plate before fixing. m² 13

Clean down, prime, stop and apply one undercoat and two finishing coats high gloss enamel pain on

C General surfaces of doors. m² 33

LEAVE CLEAN

D Allow for touching up all work throughout, clean off all paint, oil, cement or other stains or marks, floors, ceilings, glass, etc. and leave all surfaces in full and proper working order. item 1

Carried to collection

COLLECTION

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BILL NO.13: PAINTING
CARRIED TO SUMMARY

BILL NO.14

SPECIALIST SERVICES

(For Preambles see General Specification)

PROVISIONAL SUMS

A Electrical fittings and installations executed complete.

sum 1

**BILL NO.14: SPECIALIST SERVICES
CARRIED TO SUMMARY**

SUMMARY

<u>Bill No.</u>	<u>Trade</u>	<u>PAGE</u>
2	FOUNDATIONS (PROVISIONAL)	93
3	CONCRETE, FORMWORK AND REINFORCEMENT	96
4	BRICKWORK	99
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11	PLUMBING (PROVISIONAL)	116
12	GLAZING	117
13	PAINTING	120
14	SPECIALIST SERVICES	121
CARRIED TO MAIN SUMMARY		

SECTION 5 - CIVIL WORKS

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	BILL NO.2				
B	ROADS AND STORMWATER				
	Site Clearance				
B1.1	Clearing of road reserve and car parks,including cutting down of trees of girth less than 1m(including parking area)	m ²	72000		
B1.2	Remove trees and stumps of girth more than 1m measured 1m above ground level, including stacking and grubbling roots.	No	50		
	Road Earthworks				
B1.3	Remove topsoil to a depth of 150mm from parking/roadbed width ,spread to waste withiin 0.5km free haul	m ³	10800		
B1.4	Excavate to formation level, stockpile,haul not exceeding 1km and fill layers and control compact in layers to 93% ModAASHTO density. (Cut to fill)	m ³	33100		
B1.5	Excavate to formation level, haul to spoil haul distance not exceeding 1km .Include for spreading and levelling.(Cut to spoil)	m ³	5600		
B1.6	Excavate for removal of anthills and backfilling.	m ³	108		
B1.7	Allow for poisoning of anthills using an approved antkiller at the specialist's specified rate	Sum	1		
B1.8	Extra over items B1.4 and B1.5 for i) intermediate excavation ii) rock excavation	m ³ m ³	3000 1000		
B1.9	Scarify/rip, water, mix, trim and compact upper 150mm of road formation to form subgrade for roadbed and carparks to not less than 93% Mod.AASHTO	m ²	10800		
	Pavement Construction				
	There will be no pavement material obtainable on site.The contractor is to source all imported material from commercial or own sources to the best price advantage. Allow for sourcing base 1,2 and 3 gravel material from nearest commercial source gravel borrow pits and dump along road formation or carpark, volume measured as compacted.				
B2.2	Gravel Base 3 (150mm) material, class 3.0 including hauling, spreading, watering,mixing and compacting in 150mm layers to 96% mod AASHTO	m ³	10800		
B2.3	Gravel Base 2 (150mm) material, class 3.0 including hauling, spreading, watering,mixing and compacting in 150mm layers to 96% mod AASHTO	m ³	10800		
	Total carried forward				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
B2.4	Crusher run (150mm) for base 1 material including hauling, spreading, watering, mixing and compacting in 150mm layers to 98% mod AASHTO	m ³	10800		
	SURFACING				
	<u>Bituminous Surfacing</u>				
B3	PRIME Prime all roads/parking and surfaces to be Bituminous sealed				
B3.1	Supply all materials and apply Wankie Tar Prime(TP7) or cutback bitumen MC30 at the rate of 0.8 To 1.1l/m ²	m ²	2900		
B3.2	Apply 40mm Asphalt Concrete	m ²	2900		
	<u>G-Blocks Surfacing</u>				
B3.3	Supply, spread and compact 50mm Quarry Dust	m ³	3600		
B3.4	Supply and lay 80mm minimum crushing strength 35MPa interlocking pavers.	no	3600000		
B3.5	Sand cover as may be ordered by the Engineer	m ³	100		
B4	Culverts and stormwater pipes				
B4.1	Excavate for all pipe culverts	m ³	273		
B4.2	Extra over item B4.1 Supply and install Class S standard reinforced stormwater pipes with interlocking Ogee joints for underground drainage pipes and culverts i.450 diameter ii.900 diameter	m m	1900 26		
B4.3	Concrete to haunches, surrounds and foundation for culverts i. Grade 10 to haunches/blinding ii. Grade 20 to surrounds	m ³ m ³	173 190		
B4.4	Supply and construct catchpit	no	18		
B4.5	Stone pitching to end of pipe culverts	m ²	1100		
	<u>Trapezoidal drains</u>				
B4.6	Excavate trim for lined and unlined trapezoidal drains and make ready to receive concrete drains	m ³	1552		
B4.7	Extra over B4.6 for constructing G20 concrete lined trapezoidal drains as detailed	m ³	442		
	Total carried forward				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
B4.8	Allow for reinforcing trapezoidal drains with S193 mesh	m ²	5600		
B4.9	Allow for carting away excavated material within 0.5km from site	m ³	1552		
B4.10	Allow a provisional sum for any other stormwater materials not specified above	SUM	1		
	Rectangular Drain				
B5.0	Excavate trim for concrete lined rectangular drains and make ready to receive concrete drains.	m ³	784		
B5.1	Extra over B5.0 for constructing G20 concrete lined rectangular drains as detailed.	m ³	550		
B5.2	Supply and instal reinforced concrete slabs for rectangular drains	no	2903		
B5.3	Allow for reinforcing rectangular drains with S245 mesh wire	m ²	7316		
B5.4	Allow for carting away excavated material within 0.5km from site	m ³	784		
B5.5	Allow a provisional sum for any other stormwater materials not specified above	SUM	1		
	Shelverts				
B5.6	Excavate trim for shelvert concrete bases	m ³	12		
B5.7	Extra over B5.6 for constructing G25 shelvert concrete bases	m ³	12		
B5.8	Allow for reinforcing shelvert concrete bases with S245 mesh wire	m ²	20		
B5.9	Allow for constructing 125mm thick concrete slab(G25) on waterway as detailed	m ³	11		
B6.0	Allow for reinforcing concrete slab on waterway with S245 mesh wire	m ²	80		
B6.1	Allow a provisional sum for any other shelvert materials not specified above	SUM	1		
	Retaining wall				
	D-Blocks Retaining wall				
B6.2	Supply and lay D-Blocks on top of one another as detailed to form retaining wall	m ²	7074		
B6.3	Fill D-Blocks voids with loam soil	m ³	1415		
	Total carried forward				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
B6.4	Supply and lay lawn on top of D-Blocks	m ²	7074		
	Stone Pitched Retaining wall				
B6.5	Allow for constructing 20mm thick G20 concrete apron	m ³	60		
B6.6	Supply and lay glitter stones on top of concrete apron form retaining wall	m ²	7074		
	Landscaping				
B6.5	Supply and spread loam soil over areas to be landscapped as shown on drawing layout	m ²	11876		
B6.6	Supply and lay lawn for landscaping	m ²	11876		
	Traffic Signs				
B6.7	"Stop Signs"	No	3		
	Carriageway Markings				
B6.8	Carriageway markings as directed onsite				
	i.Markings in reflective white paint	m ²	200		
	ii.Markings in reflective white paint	m ²	200		
	iii.Shoulder markings in reflective yellow paint	m ²	200		
	Kerbing				
B6.9	Supply and lay where shown on the drawing or as directed, municipal kerbing including excavation excavation and concrete bedding,jointing,haunching , backfilling behind and painting in alternate black and white PVA,two coats				
	i.305 x 100mm H7 Barrier Kerbs	m	5404		
	ii.Roll over Kerbing	m	95		
	TOTAL CARRIED TO SUMMARY				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
C	BILL NO.3 WATER RETICULATION				
	Site Clearance				
C1.1	Clear vegetation and trees of girth up to 1m,measuring 1m above ground level (width of line maximum 2m)	m ²			
C2.1	Excavation Excavation in all materials for trenches backfill and compact depth between 0.5m-1m for pipes i)63mm PVC class 12 pipes	m ³	443		
C2.2	Extra-over all excavations For i)Hard material excavations ii)Hard rock excavations	m ³ m ³	20 5		
	Pipe Bedding				
C3.1	Supply and place bedding material as directed by the Engineer and measured compacted for i)Selected granular/sand material.	m ³	110		
C3.2	Allow for alternative concrete bedding under roadways and shallow areas, i.Grade 15 concrete	m ³	0.5		
C3.3	Allow for carting away and disposing of unsuitable or surplus material from trench	m ³ /km	110		
C3.4	Allow for pumping of trenches to remove excess water in excavations	sum	1		
	PIPE LAYING				
C3.5	Supply,handle and lay Pvc pipes complete with fluid-tight joints i.50mm PVC class 12 pipes ii.63mm PVC class 12 pipes	m m	315 1664		
	FITTINGS Supply,lay,bed and joint,including cut pipes to length where required,test and include for CISC joints Supply and fix the following fittings:				
C3.6	Gate valves clockwise closing i.50mm PVC class 12 pipes ii.63mm PVC class 12 pipes	No No	9 17		
C3.7	PVC Bends i.63*90 degree bends ii.63*45degree bends iii.63*22.5 degree bends iv.63*11.25degree bends v.50*90 degree bends	No No No No No	21 11 6 1 7		
	Total carried forward				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
C3.8	Fire hydrants				
	i.50mm PVC class 12 pipes	No	5		
	ii.63mm PVC class 12 pipes	No	5		
C3.9	PVC tees				
	63mm*63mm equal tees.	No	9		
	63mm*50mm unequal tees.	No	12		
C4.1	Reducer				
	63mm*50mm reducer	No			
C4.2	End Caps				
	i.50mm PVC class 12 pipes	No	4		
	ii.63mm PVC class 12 pipes	No	2		
C4.3	Non-return valve	No	2		
C4.4	Supply and fix precast chambers as detailed for the following fittings with C.I covers				
	i.Gate valves	No	24		
	ii.Fire hydrant	No	10		
	iii.Non-return valve	No	2		
C4.5	Supply and fix marker posts for the following fittings as detailed.				
	i.Gate valves	No	24		
	ii.Fire hydrant	No	10		
	iii.Non-return valve	No	2		
C4.6	Allow a provisional sum for any other fittings not specified above	SUM	1		
C4.7	Supply and fix 4*10 000litre plastic water tanks with necessary fittings	SUM	1		
C4.8	Supply and instal 2 pump houses with neccsary fittings	SUM	1		
	Ancillaries				
C4.9	Anchor/Thrust blocks and pedestals including formwork where required				
	Grade 20 concrete	m ³	0.5		
	Pressure testing of water mains				
C5.0	Allow for all costs for pressure testing as specified or directed by the Engineer.	SUM	1		
	Disinfect pipelines				
C5.1	Allow for all cost of flushing and sterilizing of pipelines as specified or directed by the Engineer	SUM	1		
	Total carried forward				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
C5.2	Allow for connection into existing pipelines including all municipal charges and connection fees	SUM	1		
	Borehole Drilling				
C5.3	Site and Install boreholes with all necessary fittings	No	2		
C5.4	Allow for water quality test for boreholes	No	2		
C5.5	Allow for all cost for water quality test for boreholes	No	2		
Total water reticulation carried to summary					

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
D	BILL NO.4 SEWERAGE RETICULATION				
	Site Clearance				
D1.1	Clear vegetation and trees of girth up to 0.5m(width of line maximum 1.5m)	m ²			
D1.2	Extra over item D1.1 for trees with girth over 0.5m	no			
	Excavation				
D1.3	Excavate in all materials for trenches backfill and compact for depth up to 2m	m ³	380		
D1.4	Extra over all excavations for:				
	Hard material excavation	m ³	40		
	Hard rock excavation	m ³	10		
	Pipe bedding				
D1.5	Allow for supplying and placing bedding material for all sewer pipes measured compacted i)Selected granular/sand material	m ³	72		
D1.6	Concrete bedding or concrete surround including formwork and compacting for shallow pipework under roads. i) Grade 10 concrete sorround ii) Grade 15 concrete sorround	m ³ m ³	1 1		
D1.7	Allow for carting away excess and unsuitable material from trenches	m ³ /km	72		
	Pipework				
	Supply, lay, bed, joint and test sewer pipes :Bed Class to be determined by Engineer on site				
D1.8	Pvc sewer pipes i) 110mm diam.	m	615		
	Construction of Manholes				
D1.9	Allow for supplying and pouring G20 concrete for manhole slabs including for making good benching and channels with smooth finish.	m ³	7.2		
D2.0	Supply and fix 900*300mm precast manhole rings and ensure water tight joints for manholes exceeding 1.5m deep.	no	240		
D2.1	Supply and fix stepping irons for deep manholes.(each stepping iron)	no	240		
D2.2	Supply and install precast concrete manholes slabs complete with cover and frames(915mm diam) for i) heavy duty manhole covers ii) ordinary manhole covers	no no	40		
	Total carried forward				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
	Sundries				
D2.3	Test Manholes for water tightness	No	40		
D2.4	Break into and connect into existing sewer line including flexible joints and make good all benching at the connection point.	sum			
D2.5	Allow for pumping of trenches to remove excess water	sum	1		
	Septic Tank for 35 People *2				
D2.6	Excavate for 35 persons septic tank(5m*3m*2.5m)	m ³	75		
D2.7	Supply and pour G20 concrete for base slabs of septic tank including screed	m ³	5		
D2.8	Supply and erect brickwork and plastering	m ²	100		
D2.9	Supply pour G20 concrete to septic tank top slab	m ³	5		
D3.0	Supply and install S193 wire mesh	m ²	92		
D3.1	Provide for shuttering for top septic slab	m ²	30		
D3.2	Provide and fix manhole covers complete with frames(600*450)	no	4		
D3.3	Provide and fix 110mm T-pieces	no	4		
D3.4	Provide and fix rodding eye	no			
	Soakaway for 35 people*2				
D3.5	Excavate for soakaway (30m*3m*1.8m depth)	m ³	216		
D3.6	Scarify floor of excavation	m ²	180		
D3.7	Provide and place distribution aggregates	m ³	189		
D3.8	Supply and place corrugated iron sheet over distribution aggregate	m ²	180		
D3.9	Backfill over corrugated iron sheet or dispose by spreading on site	m ³	27		
D4.1	Supply and lay pvc slotted drainage pipe 110mm or 110mm pvc slotted borehole casing	m	120		
D4.2	Supply and lay 110mm pvc pipe	m	6		
	Total carried forward				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
D4.3	110mm pvc pipe fittings				
	i) Tees	no	2		
	ii)110*90mm bends	no	2		
	Septic Tank for 150 People *4				
D4.4	Excavate for 150 persons septic tank(6m*4m*2m)	m ³	192		
D4.5	Supply and pour G20 concrete for base slabs of septic tank including screed	m ³	15		
D4.6	Supply and erect brickwork and plastering	m ²	168		
D4.7	Supply pour G20 concrete to septic tank top slab	m ³	15		
D4.8	Supply and install S193 wire mesh	m ²	288		
D4.9	Provide for shuttering for top septic slab	m ²	96		
D5.0	Provide and fix manhole covers complete with frames(600*450)	no	8		
D5.1	Provide and fix 110mm T-pieces	no	8		
D5.2	Provide and fix rodding eye	no			
	Soakaway for 150 people*4				
D5.3	Excavate for soakaway (40m*4m*0.8m depth)	m ³	512		
D5.4	Scarify floor of excavation	m ²	96		
D5.5	Provide and place distribution aggregates	m ³	416		
D5.6	Supply and place corrugated iron sheet over distribution aggregate	m ²	96		
D5.7	Backfill over corrugated iron sheet or dispose by spreading on site	m ³	96		
D5.8	Supply and lay pvc slotted drainage pipe 110mm or 110mm pvc slotted borehole casing	m	320		
D5.9	Supply and lay 110mm pvc pipe	m	8		
D6.0	110mm pvc pipe fittings				
	i) Tees	no	4		
	ii)Cross	no	4		
	Total carried forward				

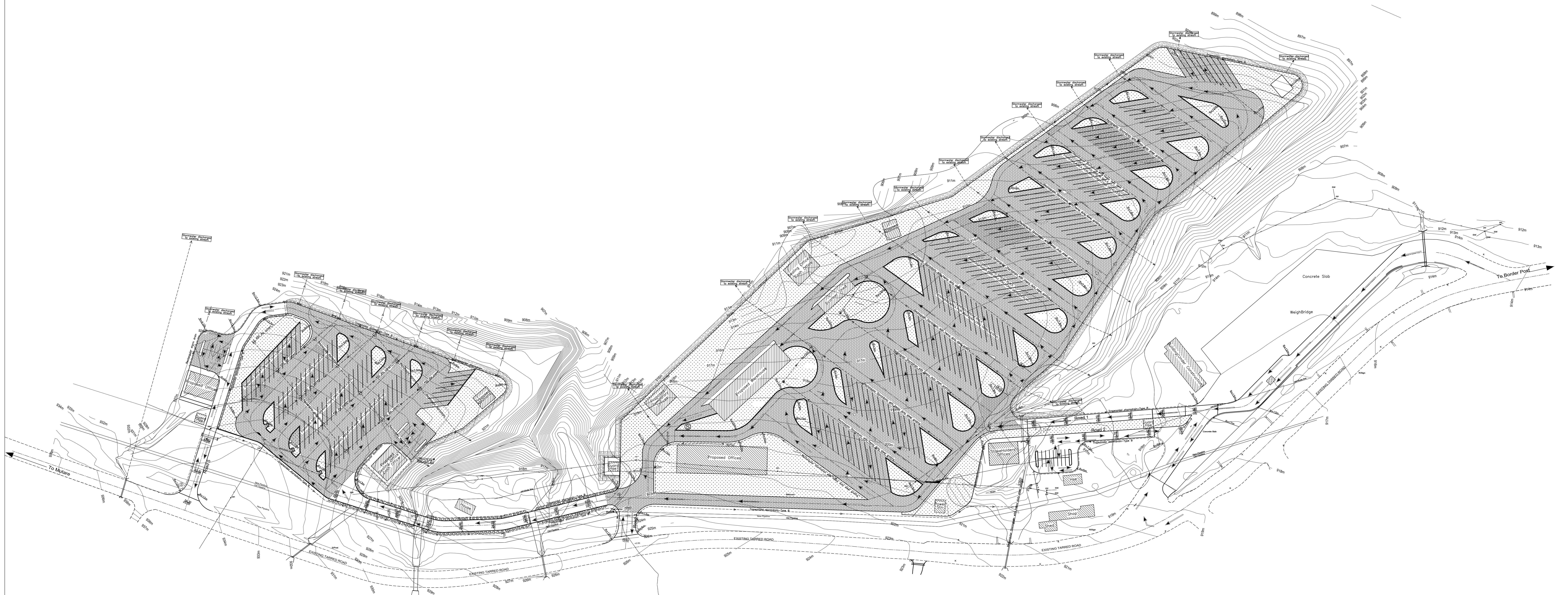
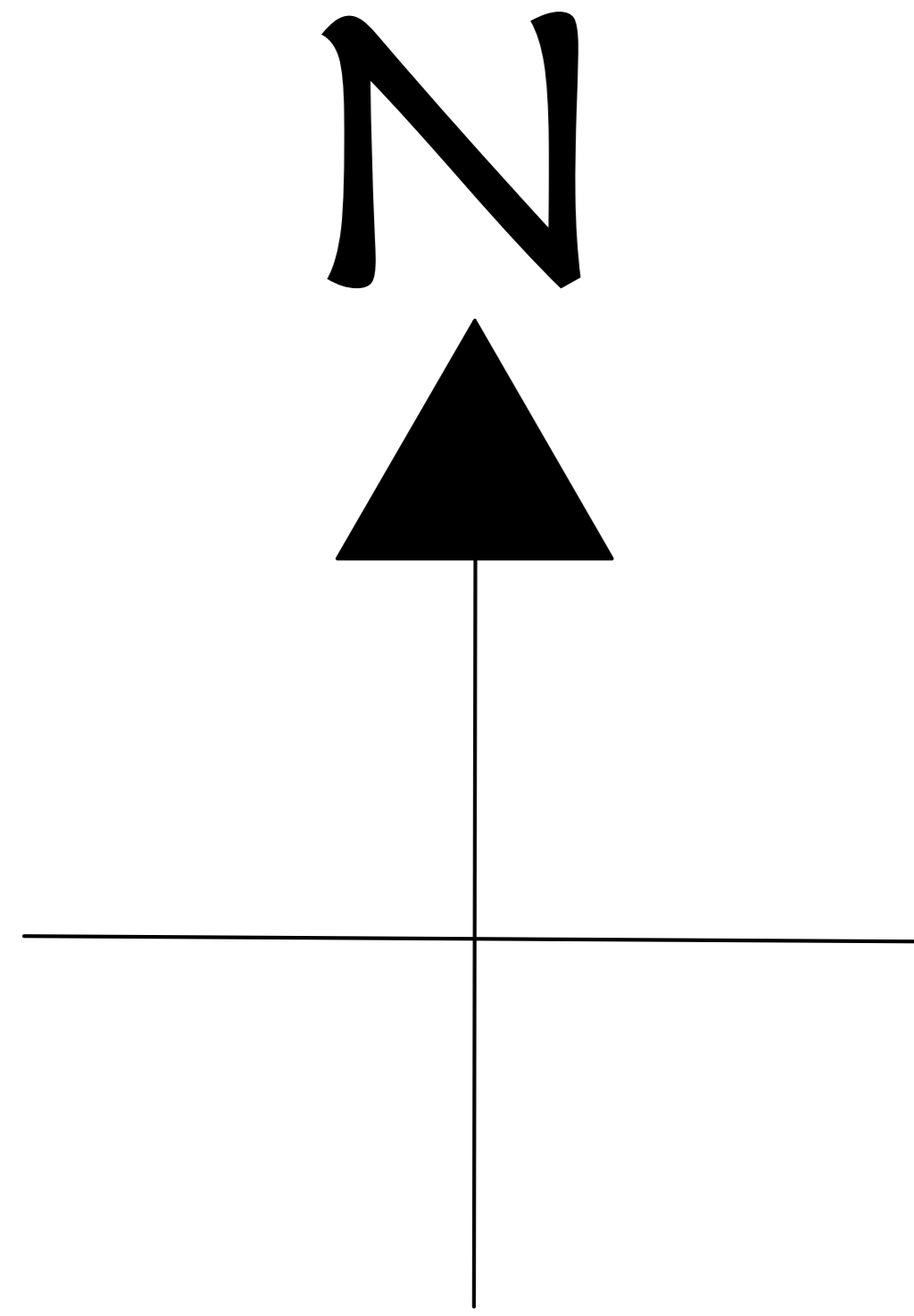
ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
	Septic Tank for 5 People *2				
D6.1	Excavate for 5 persons septic tank(2m*1m*1.5m)	m ³	6		
D6.2	Supply and pour G20 concrete for base slabs of septic tank including screed	m ³	0.6		
D6.3	Supply and erect brickwork and plastering	m ²	11		
D6.4	Supply pour G20 concrete to septic tank top slab	m ³	0.6		
D6.5	Supply and install S193 wire mesh	m ²	12		
D6.6	Provide for shuttering for top septic slab	m ²	4		
D6.7	Provide and fix manhole covers complete with frames(600*450)	no	4		
D6.8	Provide and fix 110mm T-pieces	no	4		
D6.9	Provide and fix rodding eye	no			
	Soakaway for 5 people*2				
D7.0	Excavate for soakaway (15m*1.2m*0.9m depth)	m ³	94		
D7.1	Scarify floor of excavation	m ²	18		
D7.2	Provide and place distribution aggregates	m ³	11.5		
D7.3	Supply and place corrugated iron sheet over distribution aggregate	m ²	30		
D7.4	Backfill over corrugated iron sheet or dispose by spreading on site	m ³	82.5		
D7.5	Supply and lay pvc slotted drainage pipe 110mm or 110mm pvc slotted borehole casing	m	30		
D7.6	Supply and lay 110mm pvc pipe	m	4		
D7.7	110mm pvc pipe fittings				
	i) Tees	no			
	ii)Cross	no			
	Total sewer reticulation carried to summary				

COST ESTIMATES FOR CIVIL WORKS

SECTION	DESCRIPTION				AMOUNT
BILL 1	PRELIMINARY & GENERAL				
BILL 2	ROADS AND STORMWATER				
BILL 3	WATER RETICULATION				
BILL 4	SEWER RETICULATION				
	TOTAL CARRIED TO MAIN SUMMARY				

SECTION 6 - MAIN SUMMARY

<u>SECTION</u>	<u>MAIN SUMMARY</u>	<u>PAGE</u>	<u>AMOUNT</u>
1	PRELIMINARIES AND GENERALS	19	
2	OFFICE BLOCK	54	
3	GUARD HOUSE	88	
4	ABLUTIONS	122	
5	CIVIL WORKS	134	
	SUB-TOTAL A		
	Add 10% CONTIGENCY		
	SUB-TOTAL B		
	Add 14.5% VAT		
 Signature of Contractor Date	
	TOTAL CARRIED TO FORM OF TENDER		

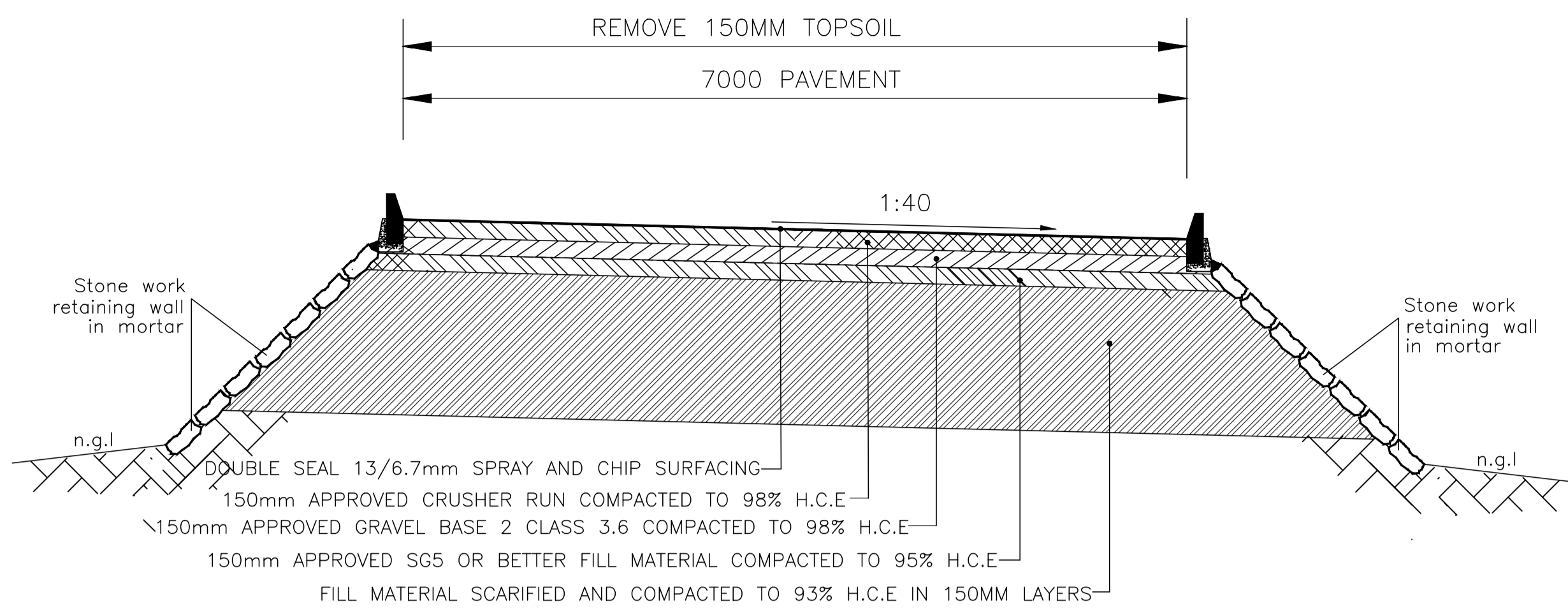


NOTES:	AMENDMENT	Description :
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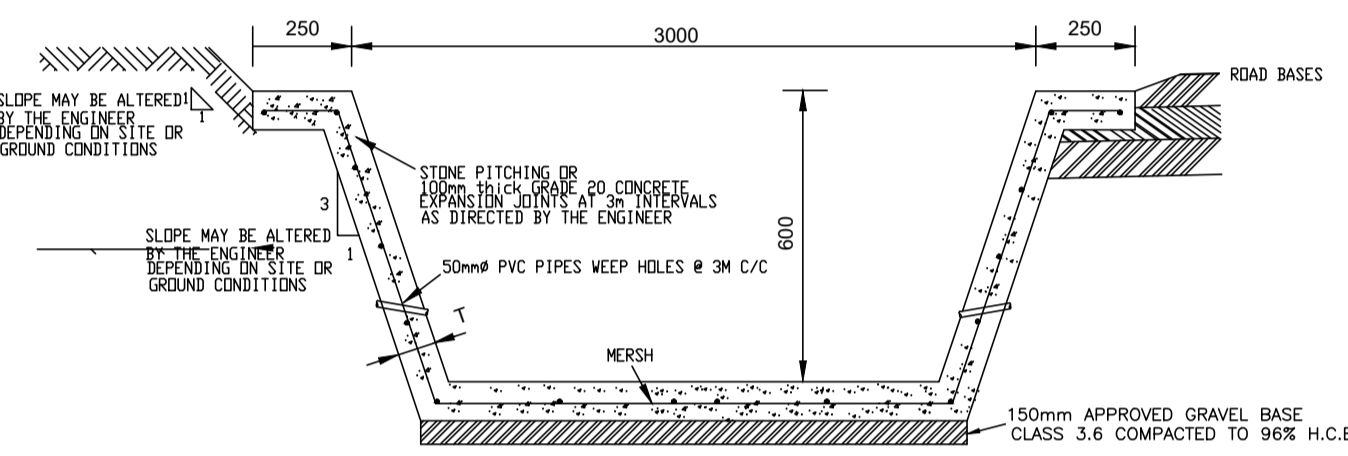


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Public Works and National Housing
P.O. Box CY7755 , Causeway
Zimbabwe

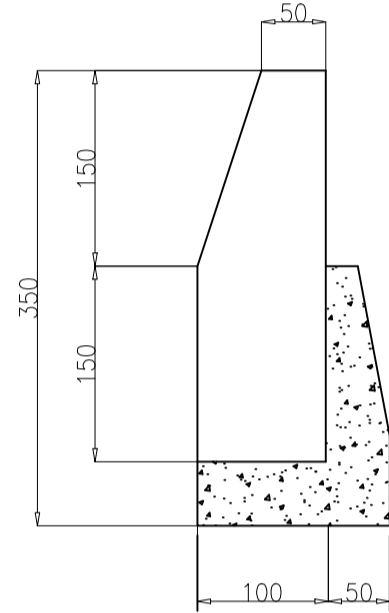
Engineer: L.M	Director Eng: H.Hungwe	Ministry: ZIMBABWE REVENUE AUTHORITY	Centre: MUTARE
Designed: L.M	Branch head: E.N	Title: FORBES HEAVY VEHICLE PARKING LOT	
Drawn: S.K	Scale: 1:850	Description: ROAD AND STORMWATER LAYOUT	
Checked: M.M	Date: 2022	Project No: FORBES/CE/RLO1	
Telephone 700811			



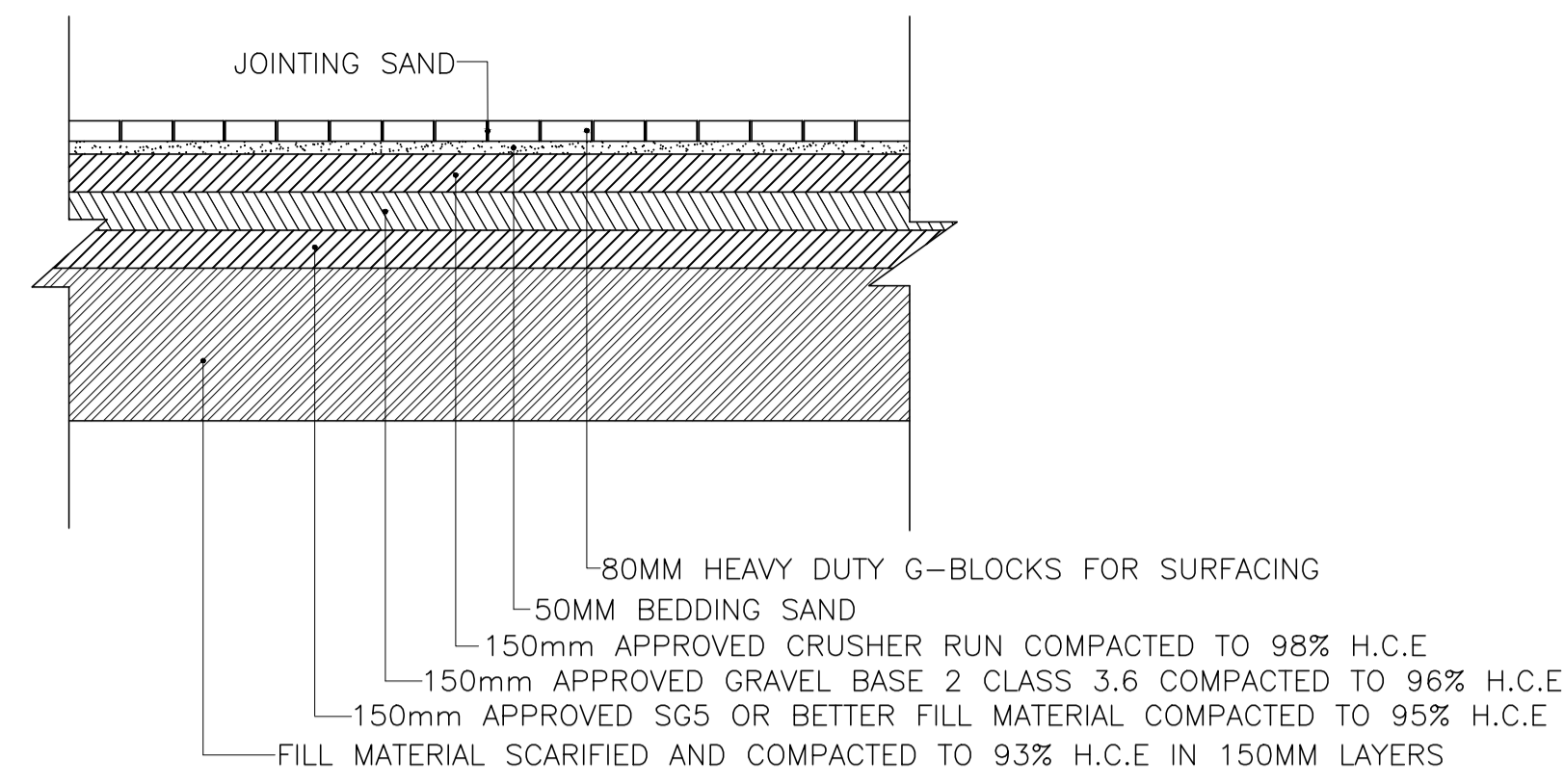
SECTION THROUGH ROAD 4
N.T.S.



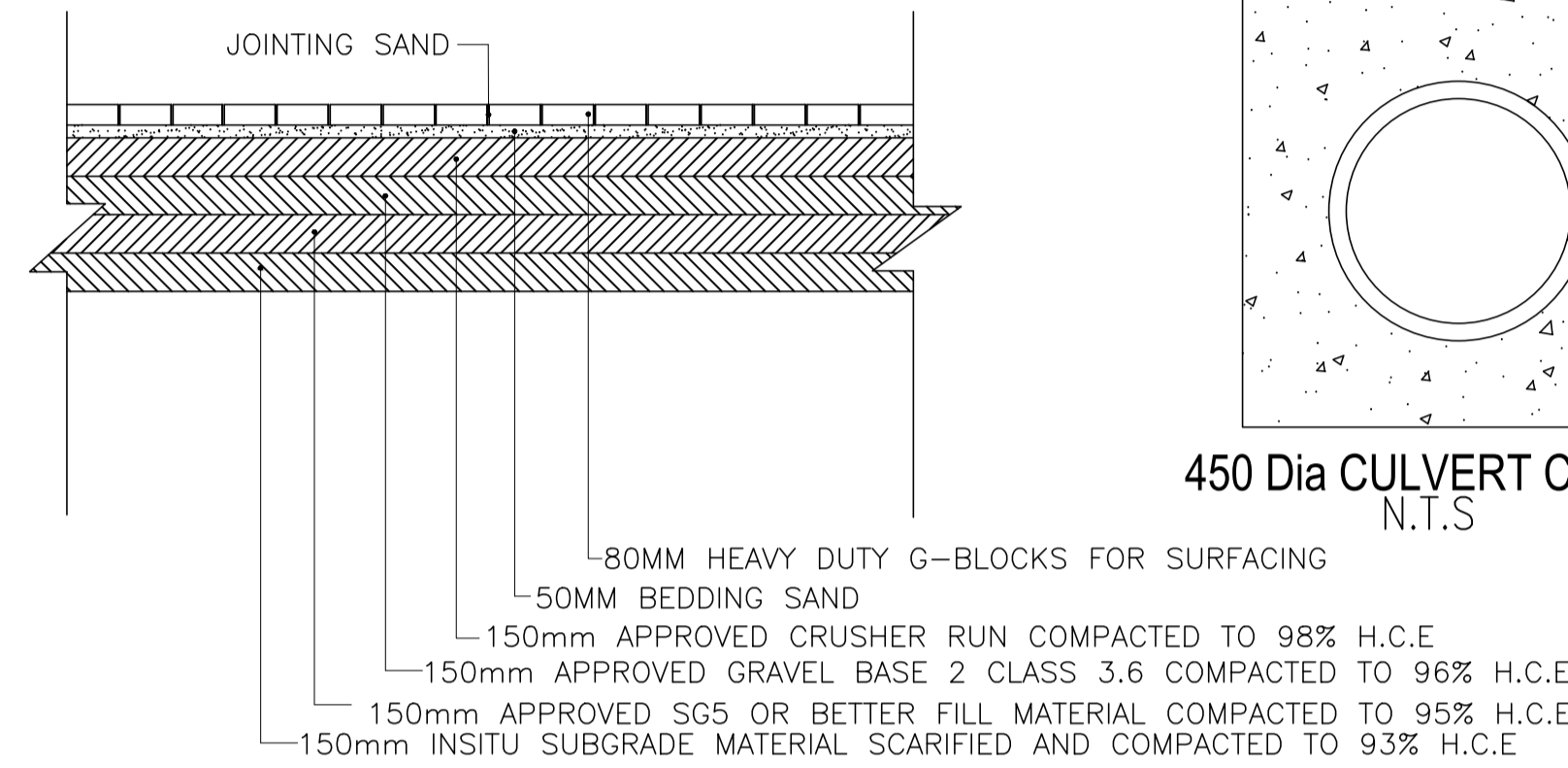
LINED TRAPEZOIDAL DRAIN(Type A)
N.T.S.



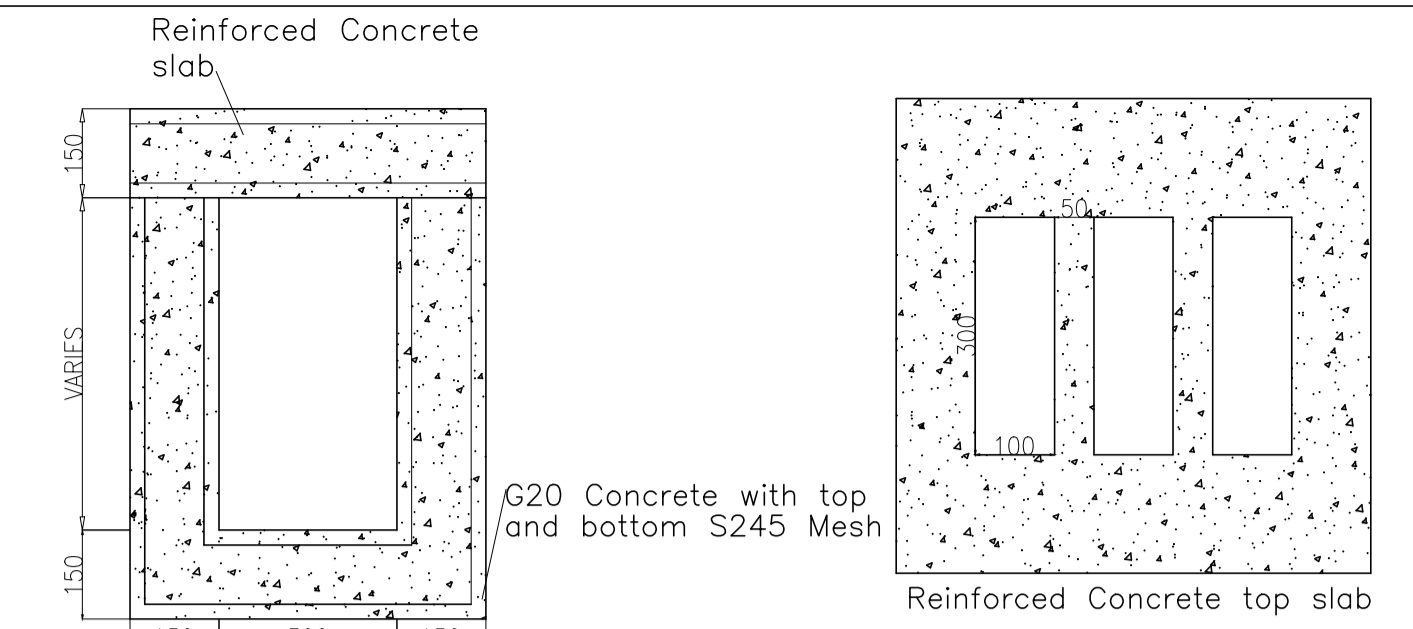
BARRIER KERBING(N.T.S.)
N.T.S.



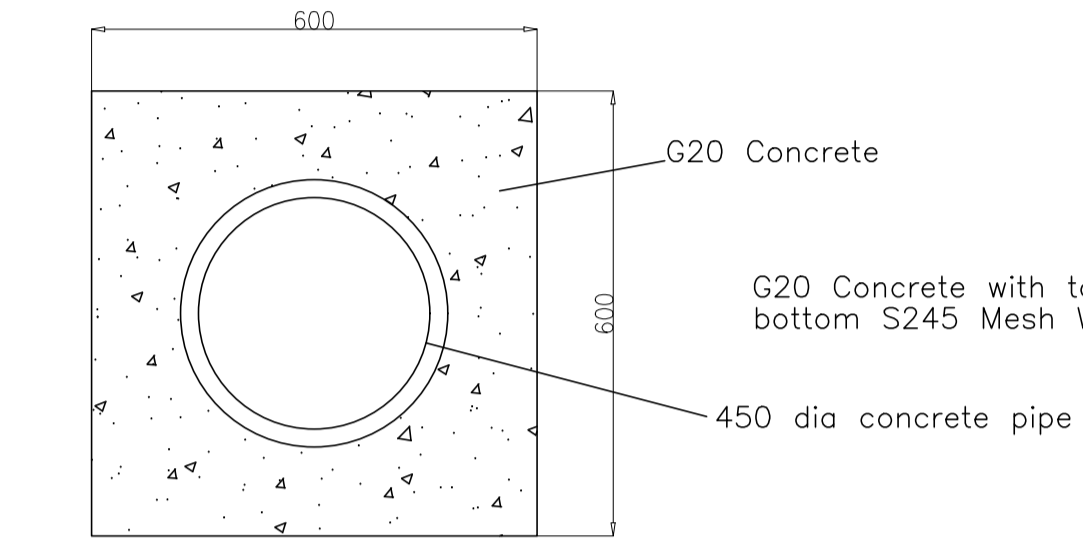
CROSS SECTION FOR FILL AREAS
N.T.S.



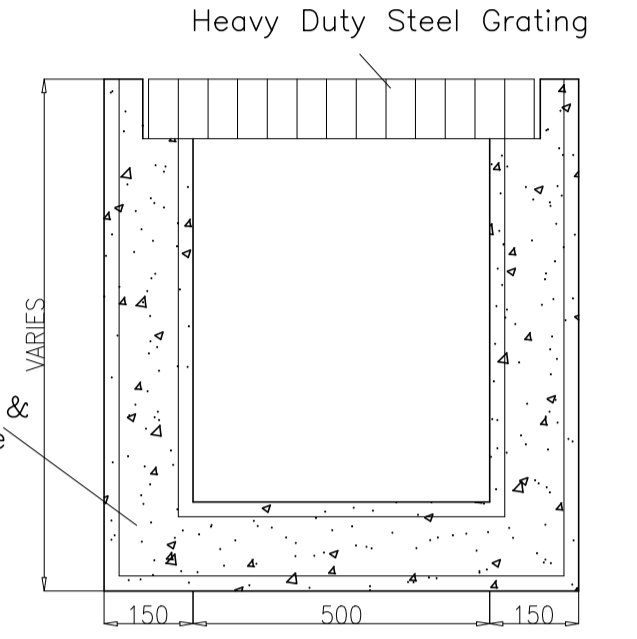
CROSS SECTION FOR CUT AREAS
N.T.S.



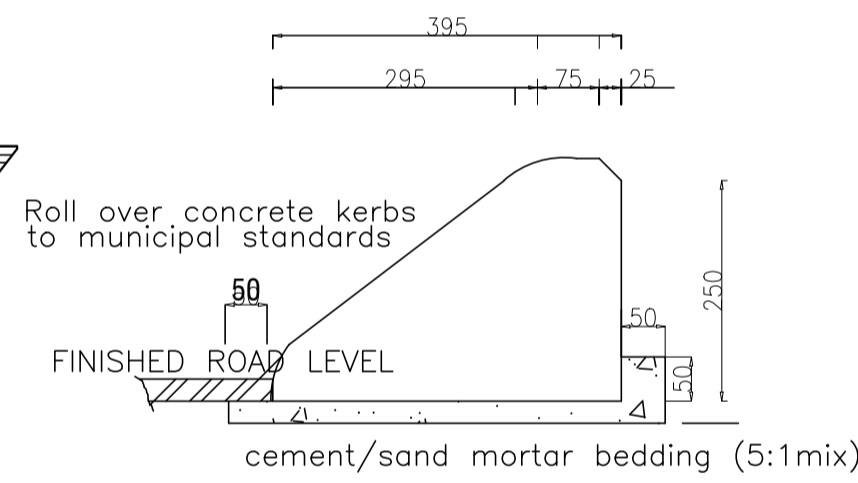
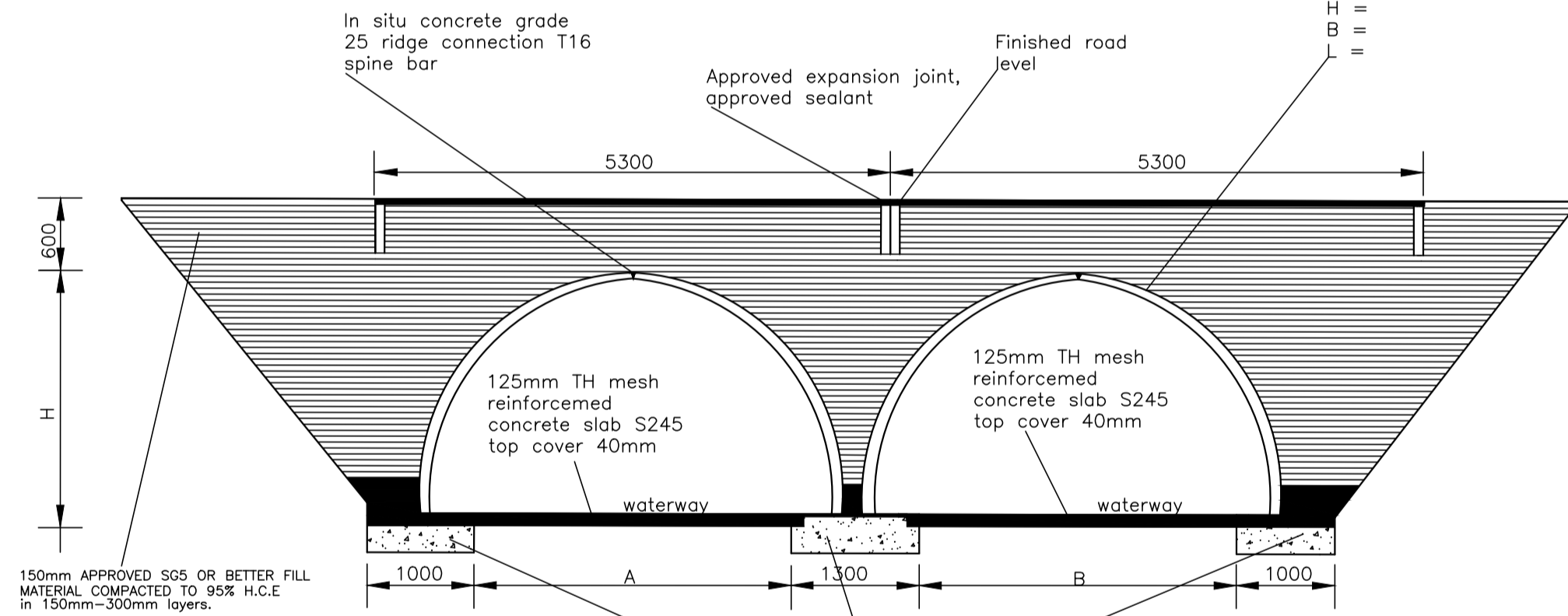
RECTANGULAR DRAIN-SIDE VIEW & PLAN VIEW
N.T.S.



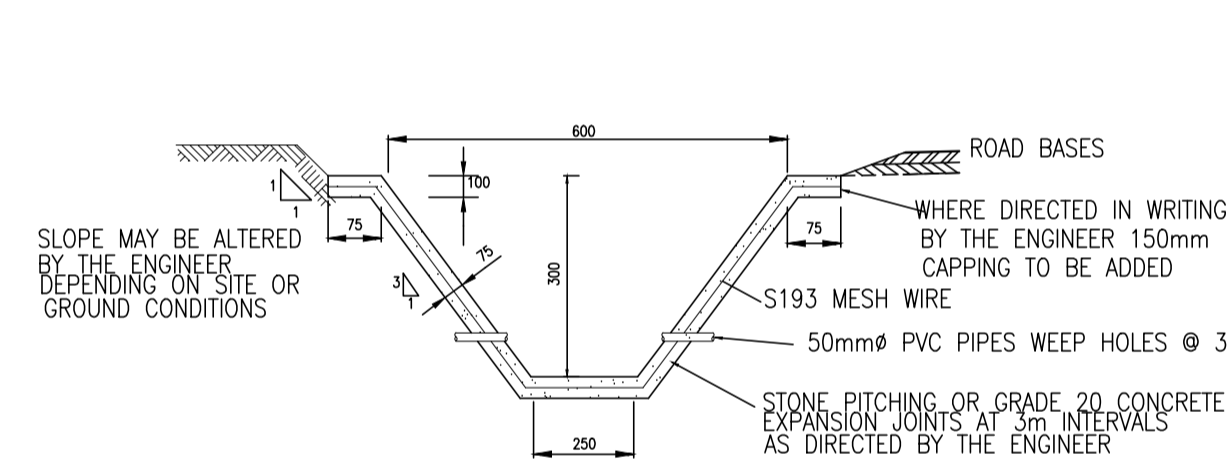
450 Dia CULVERT CROSS SECTION
N.T.S.



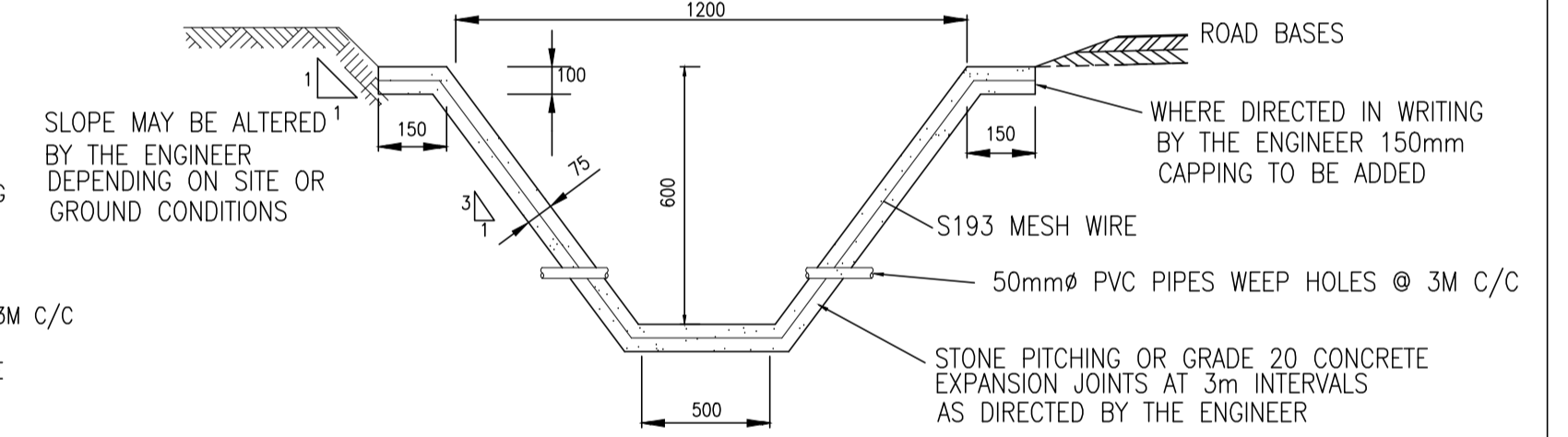
CATCH PIT
N.T.S.



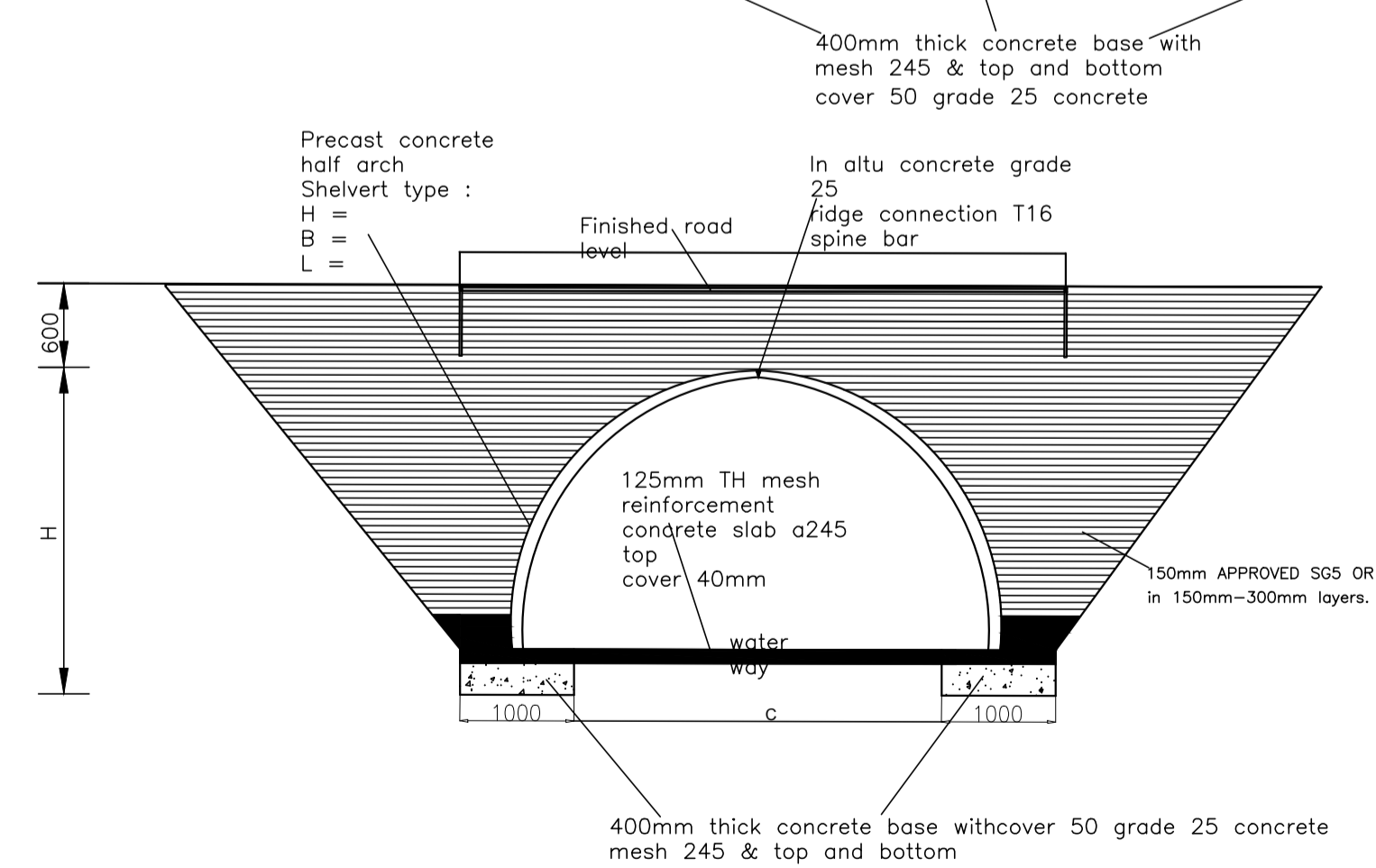
ROLL OVER CONCRETE KERBING
N.T.S.



LINED TRAPEZOIDAL DRAIN(Type C)
N.T.S.

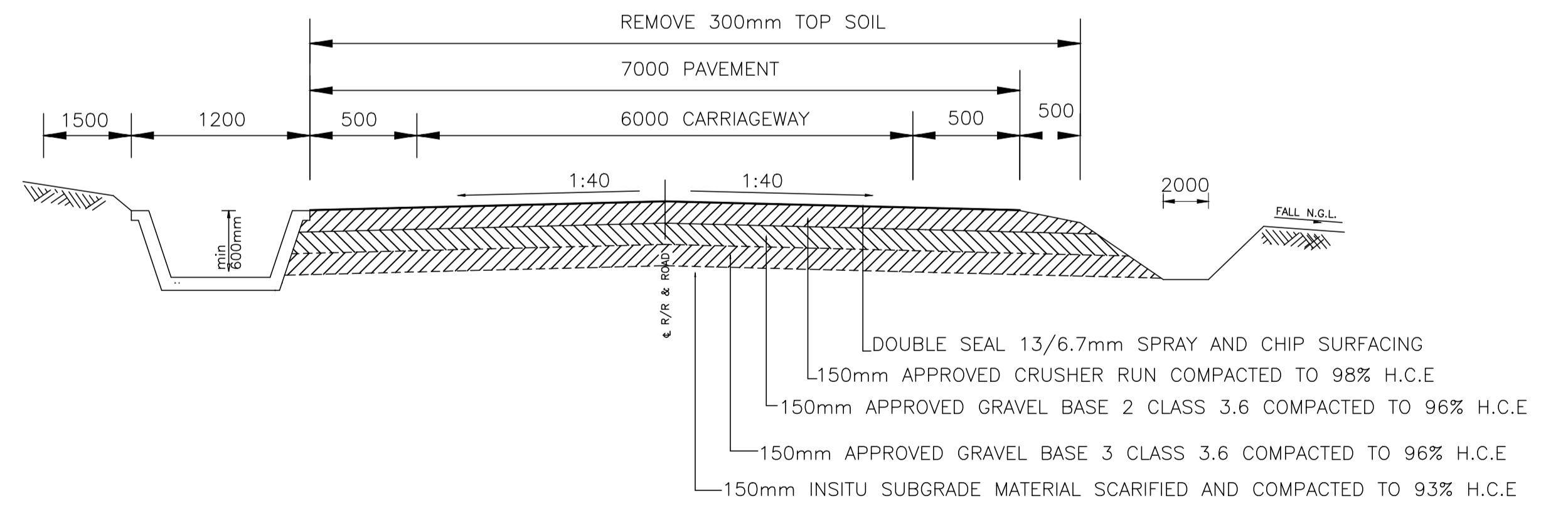


LINED TRAPEZOIDAL DRAIN(Type B)
N.T.S.



TYPE	waterway	section mm	Mass/unit kg	H mm	B mm	L mm
1m2 shelvert	1	395x150	105	876	1740	400
2m2 shelvert	2	395x150	148	1220	2440	400
3m2 shelvert	3	395x150	165	1800	2500	400
4m2 shelvert	4	395x200/150	225	1850	3000	400
6m2 shelvert	6	595x200/250	520	2195	3900	600
8m2 shelvert	8	695x200/300	760	2520	4500	700
10m2 shelvert	10	795x200/300	960	2830	5000	800
15m2 shelvert	15	895x200/400	1400	3520	6000	900

(Specifications can be altered by the Engineer to suit ground conditions)
SHELVERTS DRAIN DIMENSIONS TABLE



SECTION THROUGH ROAD 3&5
N.T.S.

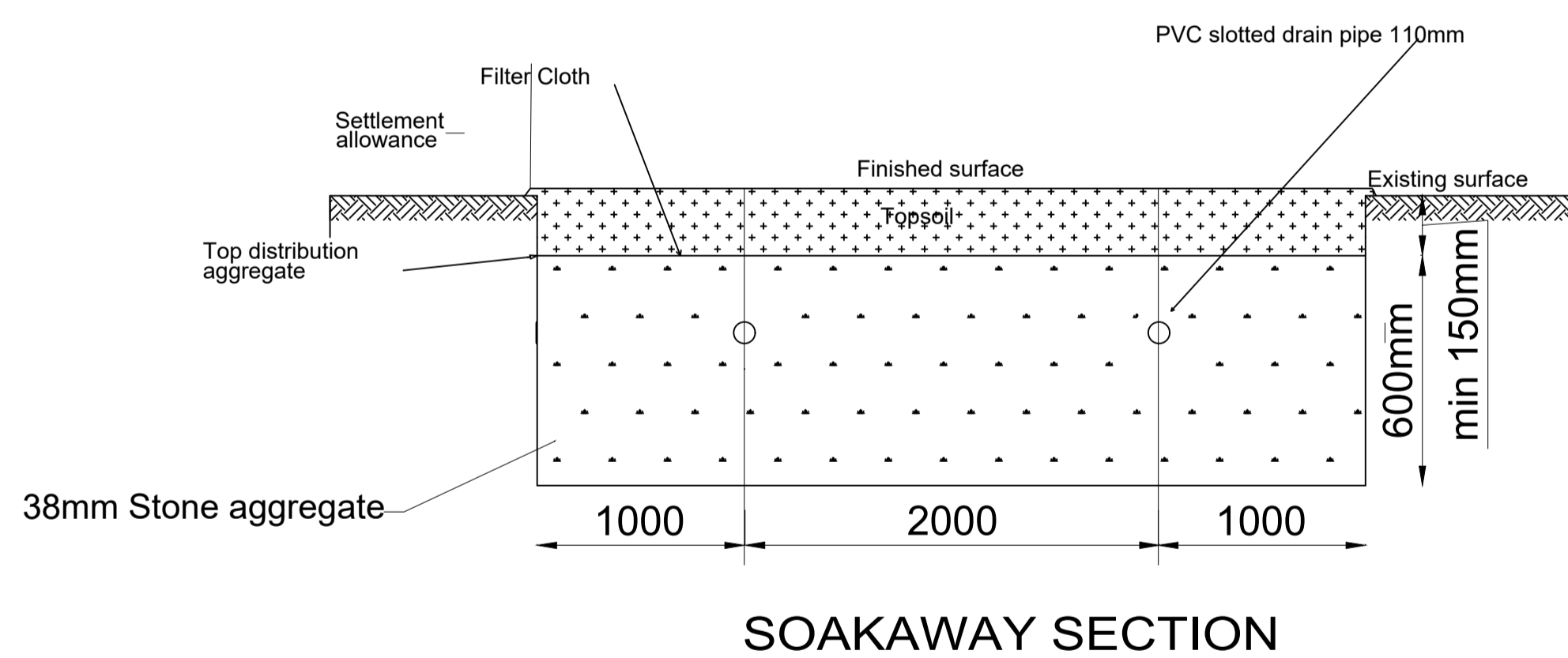
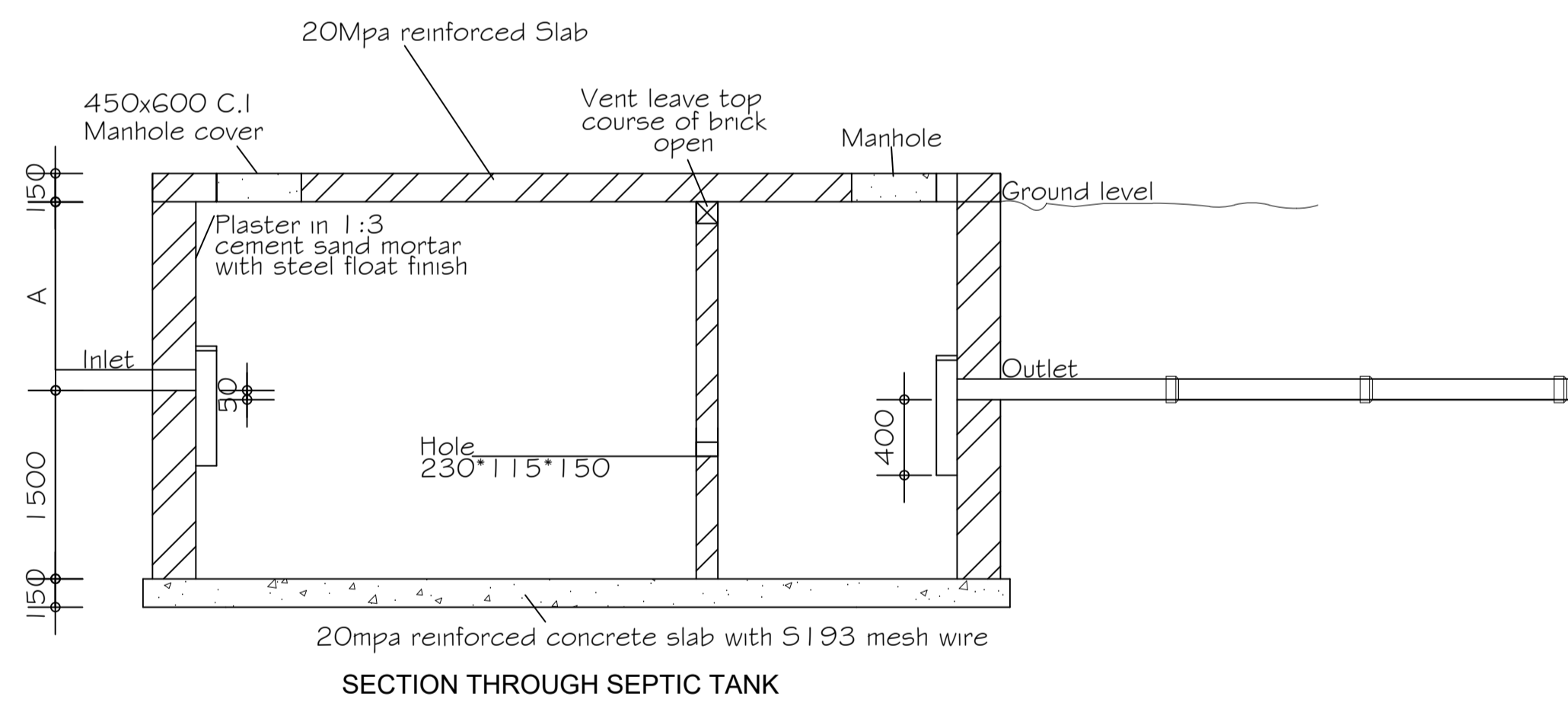
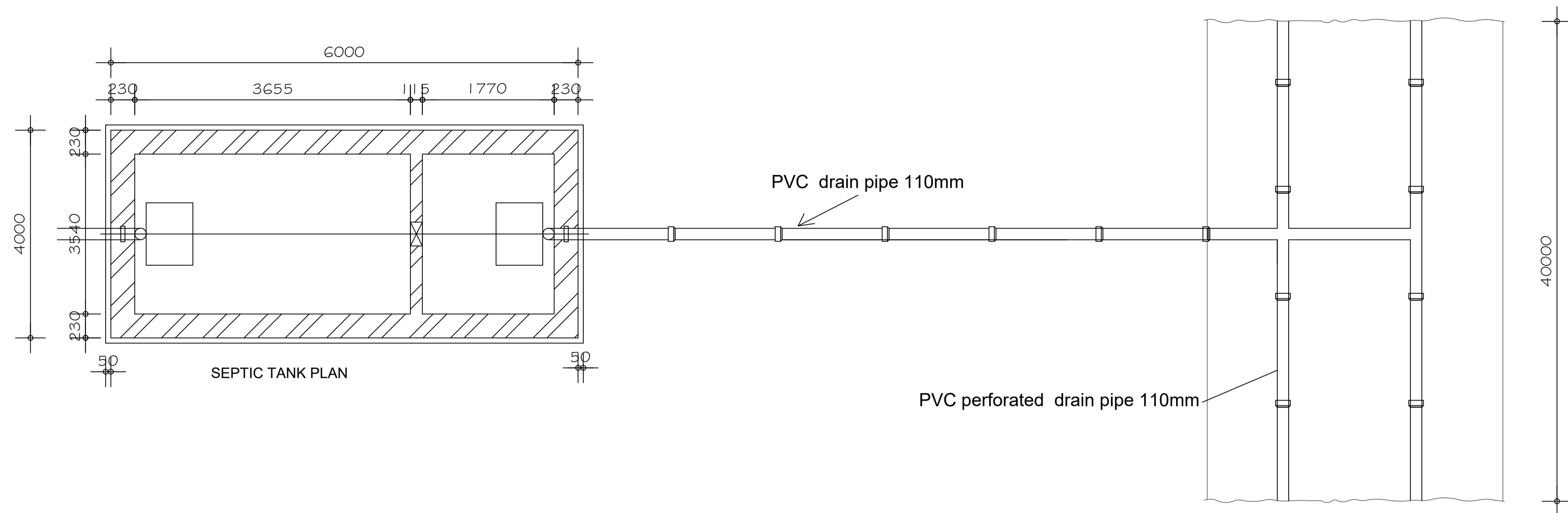
NOTES:

AMENDMENT			Description :
Ltr	date	Init	
Micro-film			
Drwg No			



Ministry of Local Government,
Public Works and National Housing
P.O. Box CY7755 , Causeway
Zimbabwe

Arch Eng A.S.	A/Director Eng E.N.	Ministry ZIMRA	Centre MUTARE
Designed LM	Branch Head E.N.	Title FORBES HEAVY VEHICLE PARKING LOT	
Drawn LM	Scale NTS	Description ROAD CROSS SECTIONS AND STANDARD DETAILS	
Checked E.M.	Date 2021		
Telephone 700811		G.P. No 	Proj No FORBES /CE/RD/01



SEPTIC TANK DIMENSIONS				
No. of persons	LENGTH (m)	WIDTH (m)	Slab thickness (mm) top and bottom	Capacity (m³)
150	6	4	150	36

SOAKAWAY DIMENSIONS				
No. of persons	LENGTH (m)	WIDTH (m)		
150	40	4		

NOTES: DIMENSION 'A' TO BE DETERMINED ON SITE

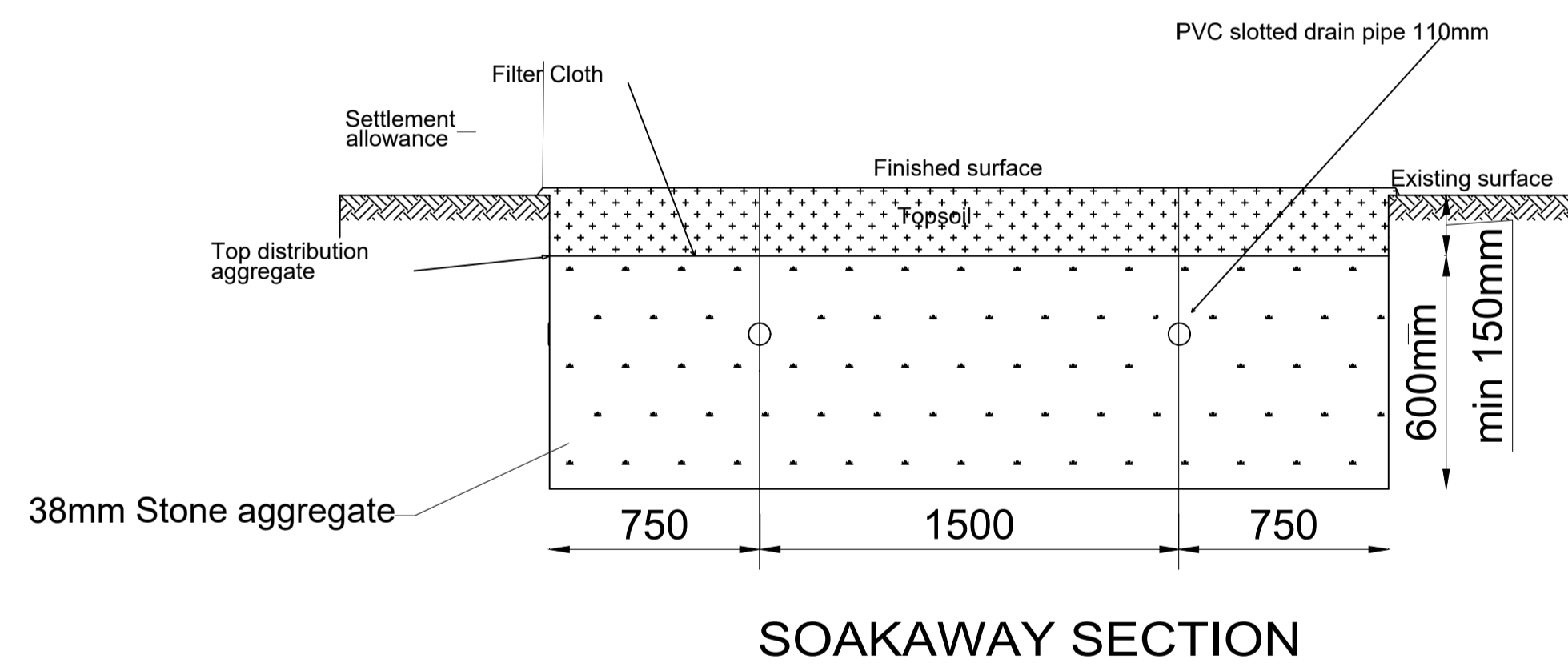
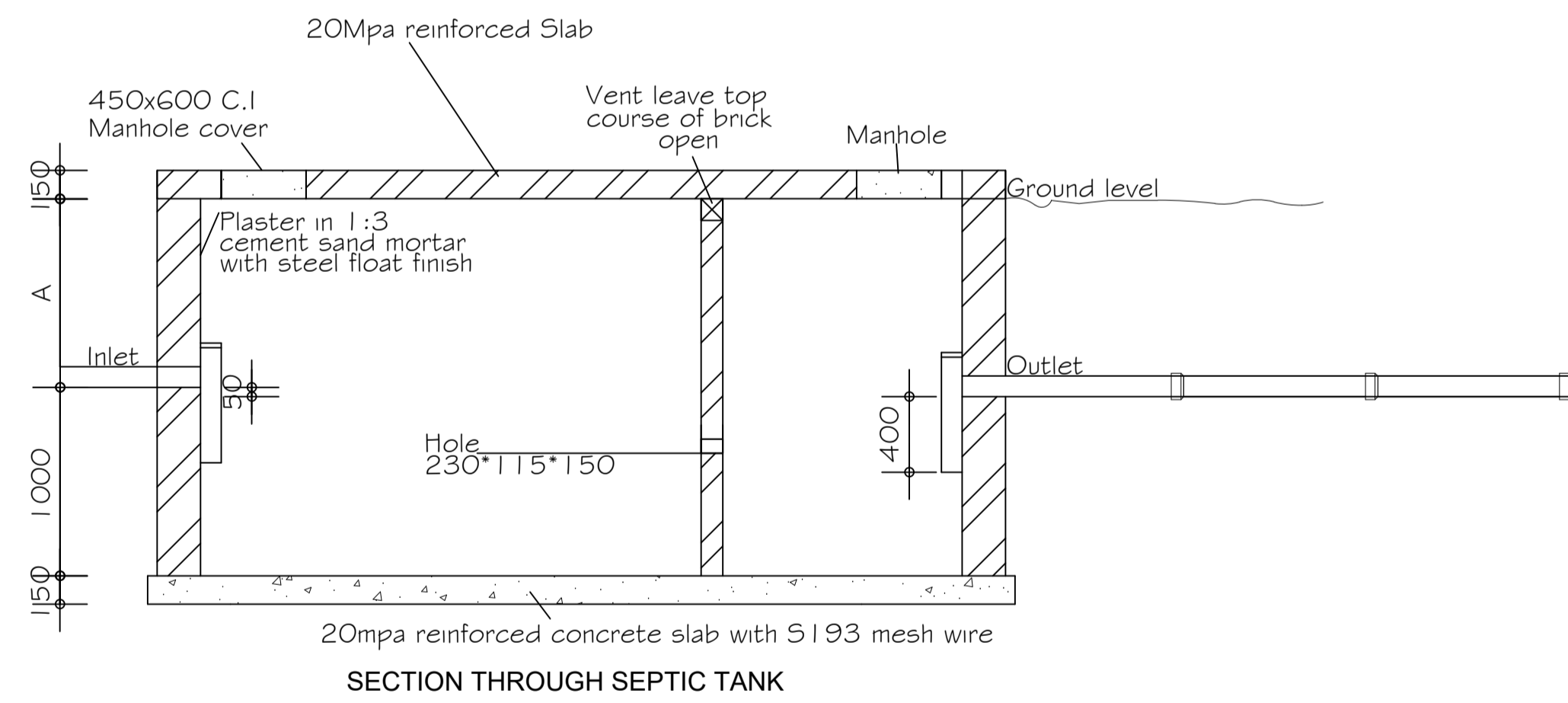
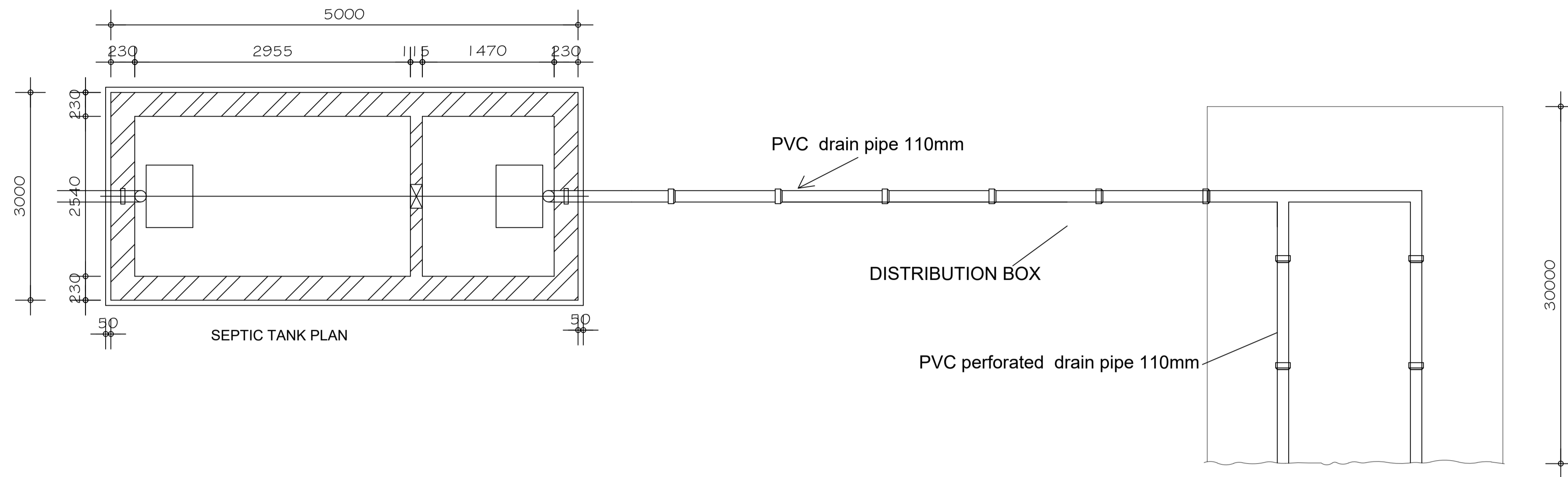
AMENDMENT			Description :
Ltr	date	Init	

Micro-film	Drwg No



Ministry of Local Government,
Public Works and National Housing
P.O. Box CY7755 , Causeway
Zimbabwe

Arch Eng A.S	Director Eng H.Hungwe	Ministry ZIMRA	Centre HARARE
Designed L.M	Branch Head E.N	Title FORBES HEAVY VEHICLE PARKING LOT	
Drawn L.M	Scale N.T.S	Description SEPTIC TANKS AND SOAK AWAY DETAILS	
Checked M.M	Date JUNE 2022	Proj.No FORBES/CE/SP01	
Telephone 700811			



SEPTIC TANK DIMENSIONS				
No. of persons	LENGTH (m)	WIDTH (m)	Slab thickness (mm) top and bottom	Capacity (m ³)
35	5	3	150	15
SOAKAWAY DIMENSIONS				
No. of persons	LENGTH (m)	WIDTH (m)		
35	30	3		

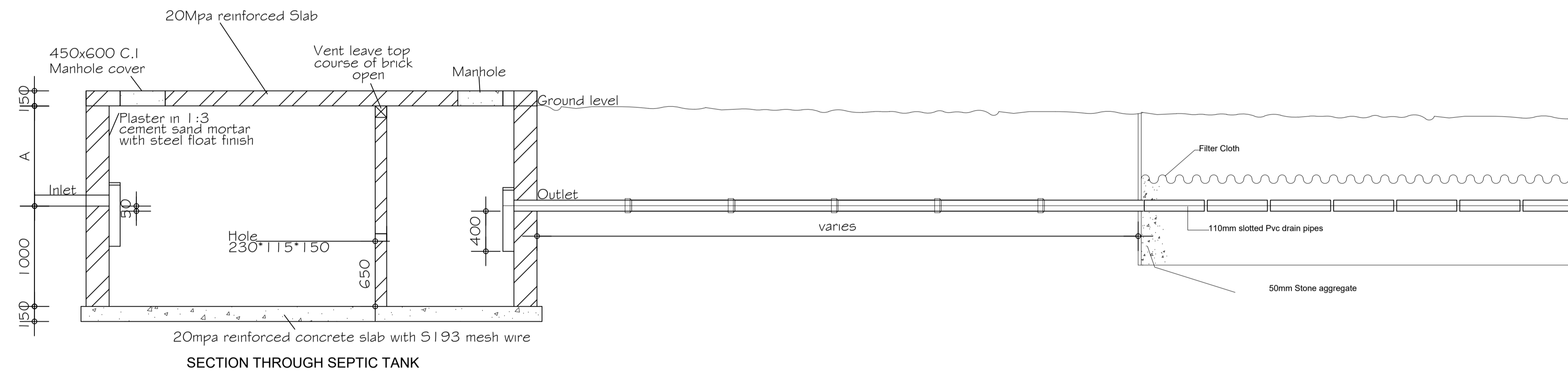
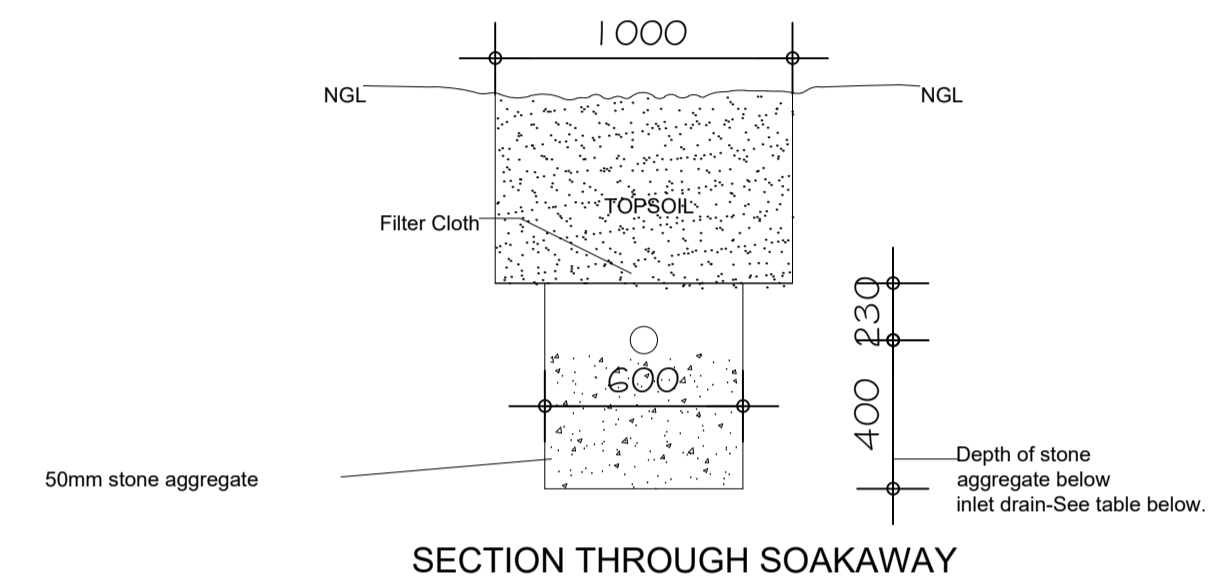
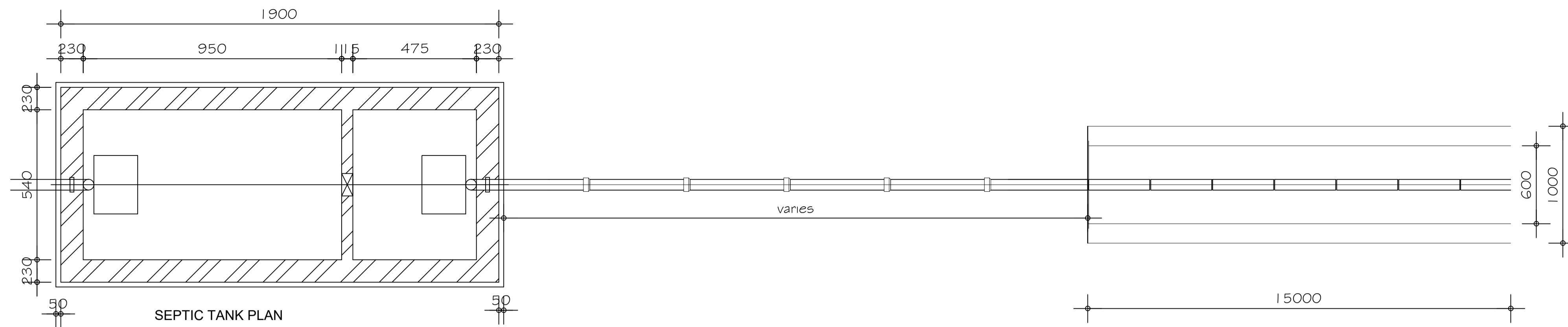
NOTES:
DIMENSION 'A' TO BE DETERMINED ON SITE

AMENDMENT			Description :
Ltr	date	Init	
Micro-film			
Drwg No			



Ministry of Local Government,
Public Works and National Housing
P.O. Box CY7755 , Causeway
Zimbabwe

Arch Eng A.S	Director Eng H.Hungwe	Ministry ZIMRA	Centre HARARE
Designed L.M	Branch Head E.N	Title FORBES HEAVY VEHICLE PARKING LOT	
Drawn L.M	Scale N.T.S	Description SEPTIC TANKS AND SOAK AWAY DETAILS	
Checked M.M	Date JUNE 2022	Proj.No FORBES/CE/SP02	
Telephone 700811			



SEPTIC TANK DIMENSIONS				
No. of persons	LENGTH (m)	WIDTH (m)	Slab thickness (mm) top and bottom	Capacity (m³)
5	2	1	150	3

SOAKAWAY DIMENSIONS				
No. of persons	LENGTH (m)	WIDTH (m)		
5	15	1.2		

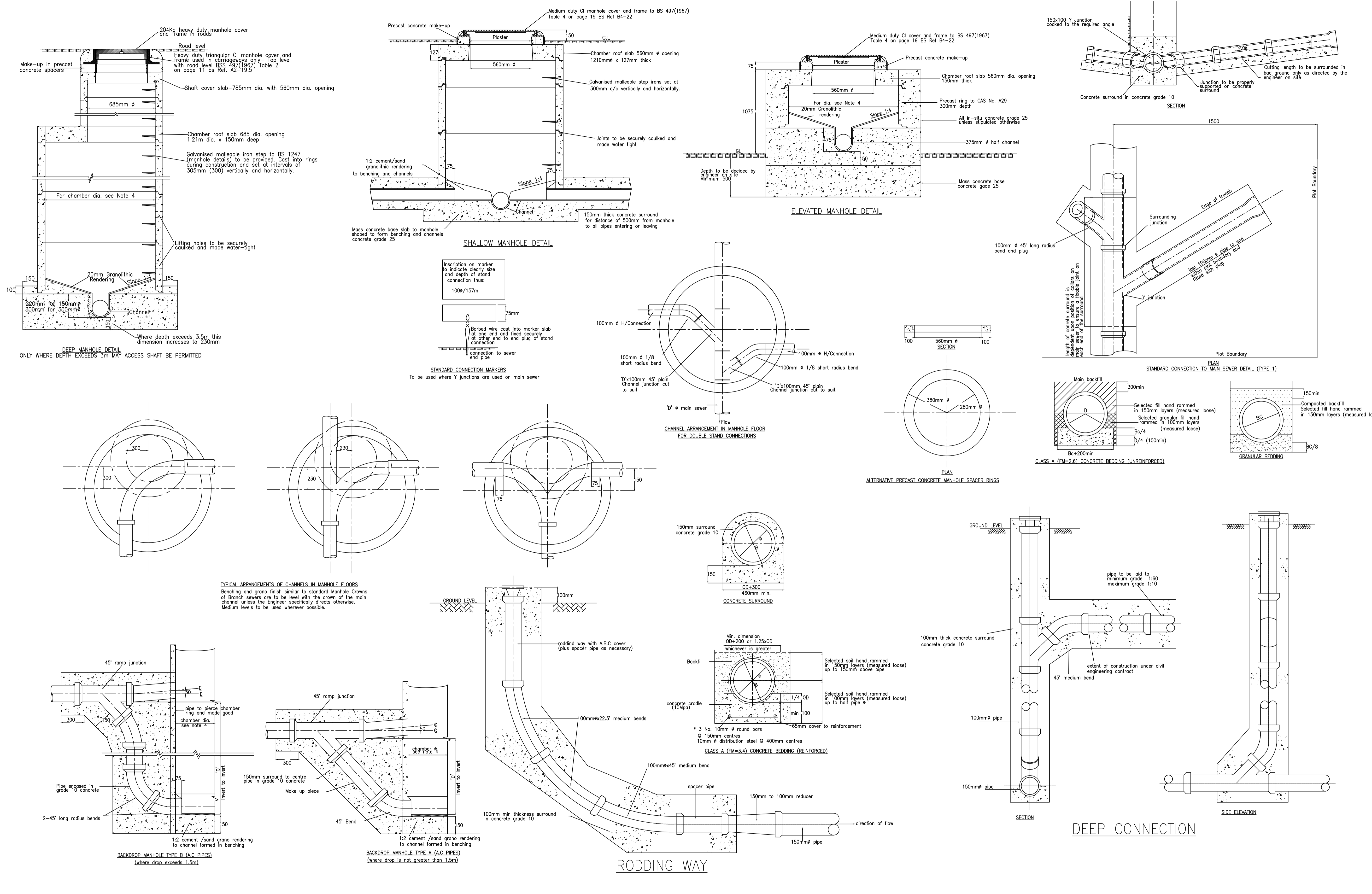
NOTES: DIMENSION 'A' TO BE DETERMINED ON SITE


AMENDMENT	Description:		
Ltr	date	Init	
Micro-film Drwg No			

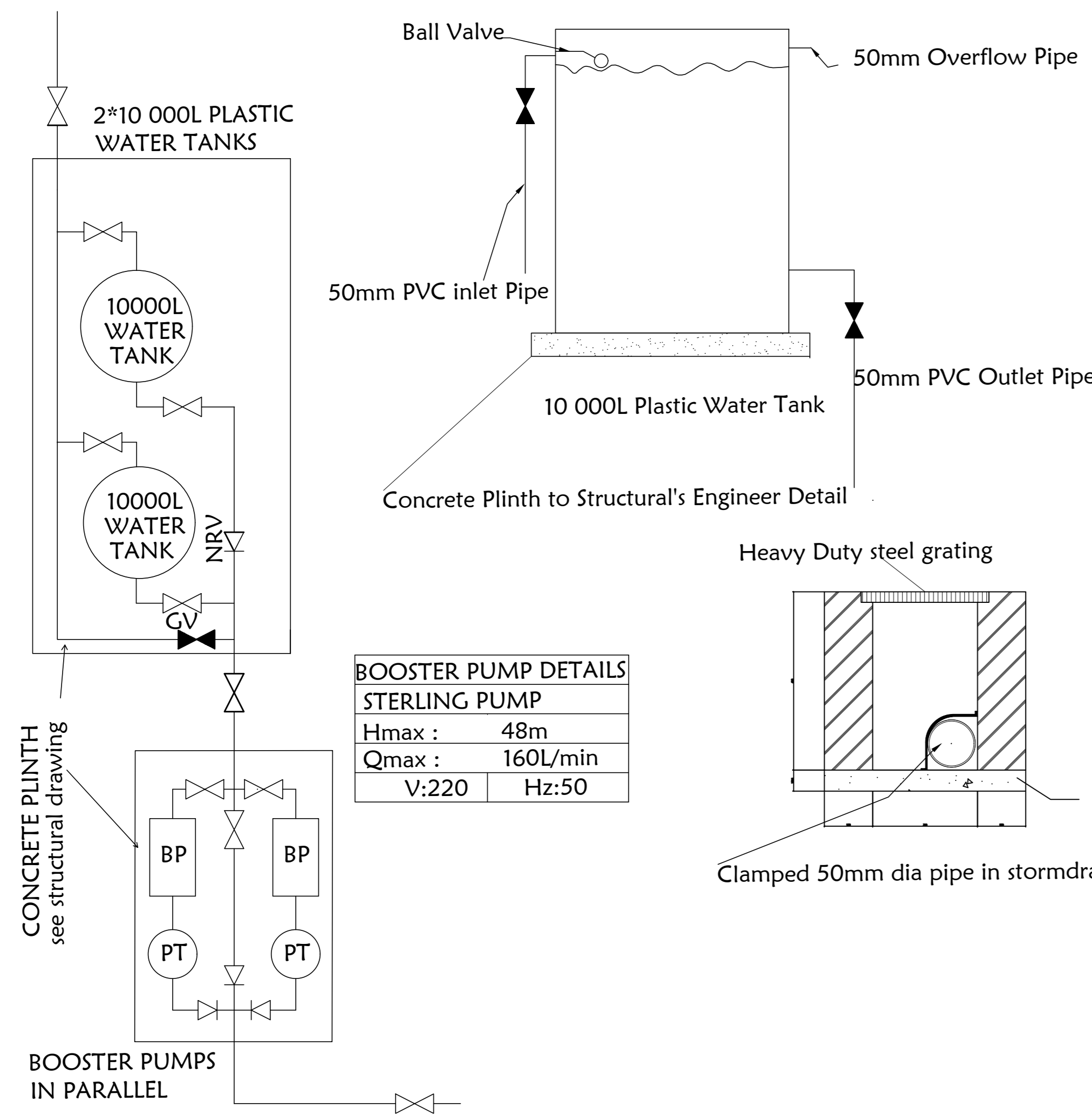


Ministry of Local Government,
 Public Works and National Housing
 P.O. Box CY7755 , Causeway
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Arch Eng	A.S	Director Eng	H. Hungwe	Ministry	ZIMRA	Centre	MUTARE
Designed	L.M	Branch Head	E.N	Title	FORBES HEAVY VEHICLE PARKING LOT		
Drawn	T.M	Scale	N.T.S	Description	Septic Tank and Soak Away Details		
Checked	M.M	Date	JUNE 2022	Proj No	G.P. No FORBES/CE/SP03		
Telephone	700811						

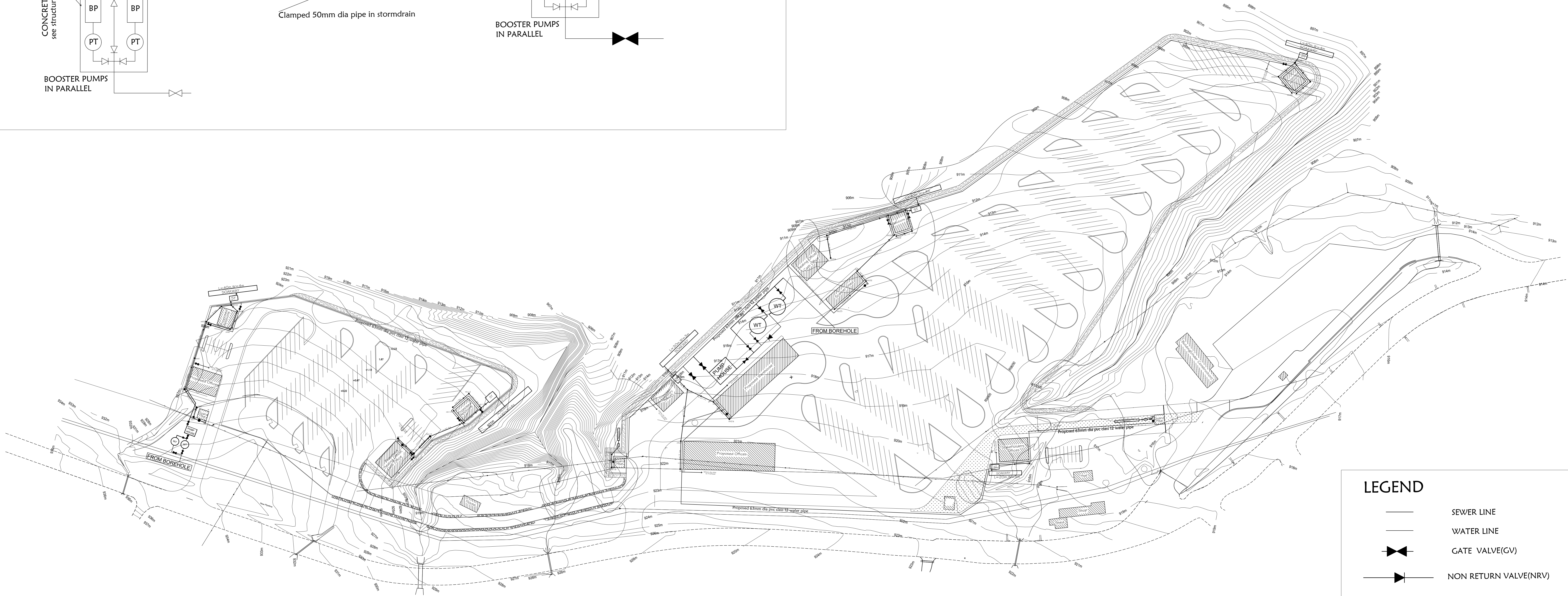
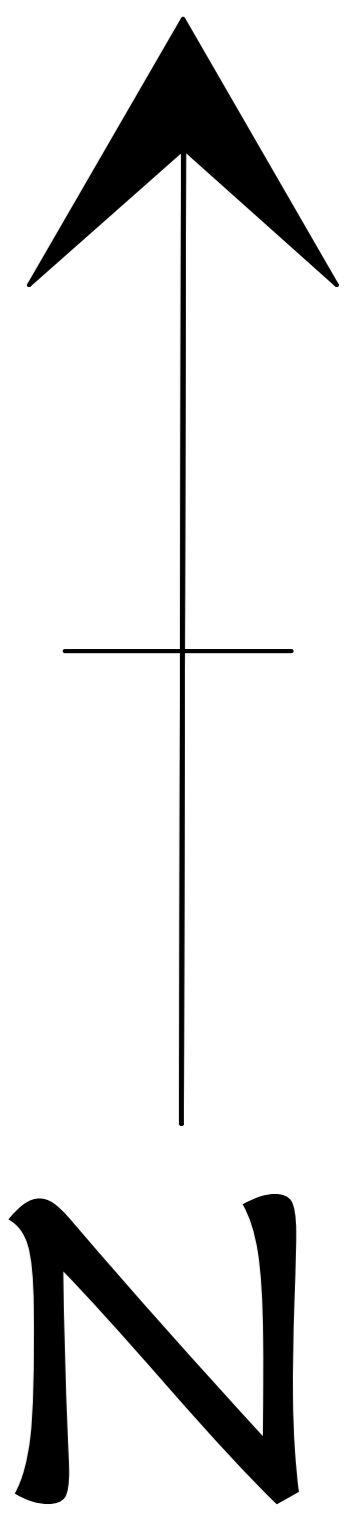
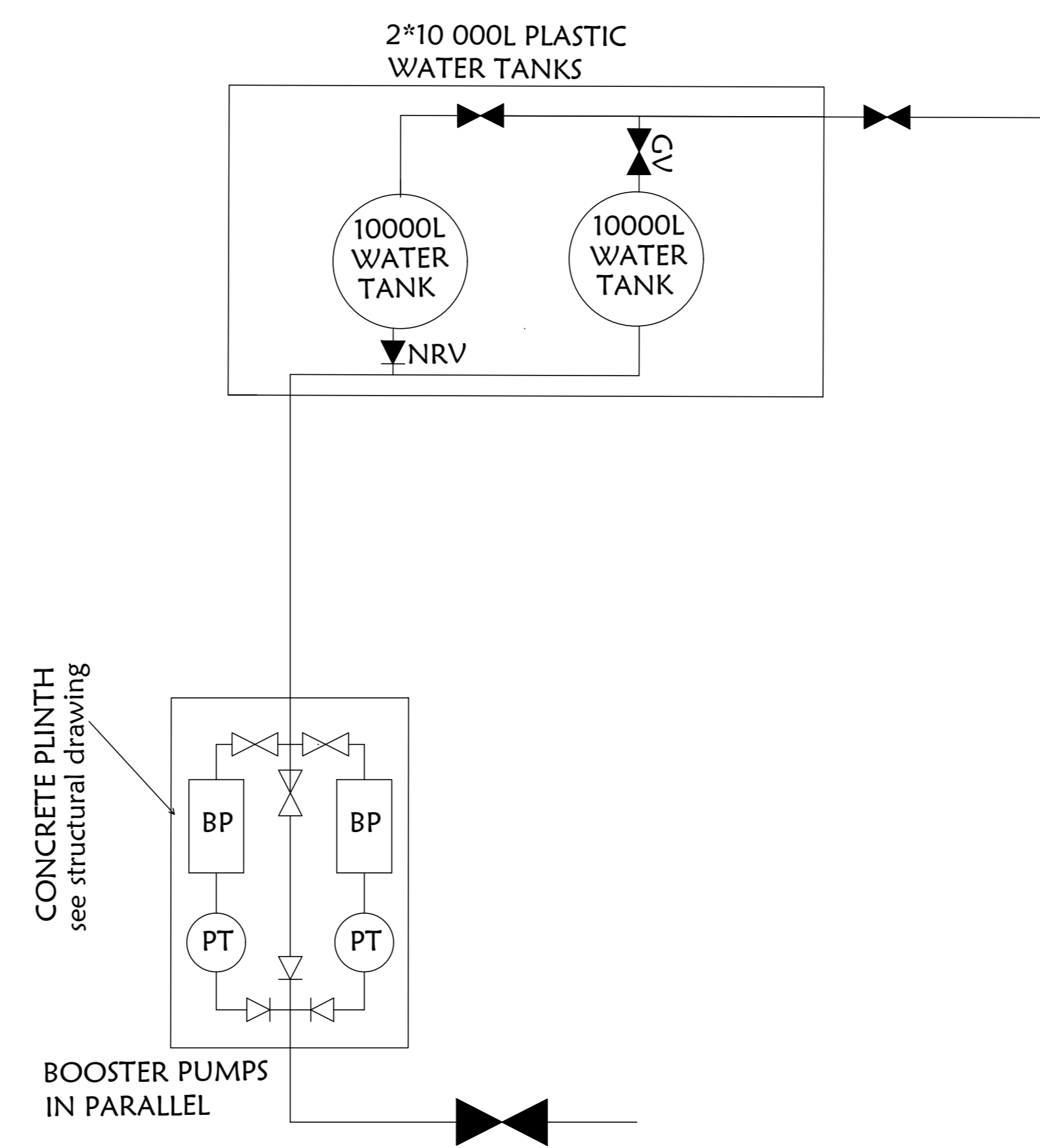


NOTES:	AMENDMENT		Description :	 Ministry of Local Government, Public Works and National Housing P.O. Box CY7755 , Causeway Zimbabwe	Arch Eng	A.S	A/Director Eng	E.N	Ministry	ZIMBABWE REVENUE AUTHORITY		Centre	MUTARE
	Ltr	date			init	Designed	L.M	Branch Head	E.N	Title	FORBES HEAVY VEHICLE PARKING LOT		
					Drawn	L.M	Scale	NTS	Description	SEWER STANDAERD DETAILS			
					Checked	M.M	Date	2022			G.P. No	Proj No	FORBES/CE/SW01
							Telephone	700811					



**BOOSTER PUMP DETAILS
STERLING PUMP**

Hmax :	48m
Qmax :	160L/min
V:	220
Hz:	50



LEGEND

	SEWER LINE
	WATER LINE
	GATE VALVE(GV)
	NON RETURN VALVE(NRV)
	SCOUR VALVE
	END CAP

NOTES:
 1. Borehole location to be determined on site.
 2. All sewer pipes to 110mm dia.

AMENDMENT	Description :

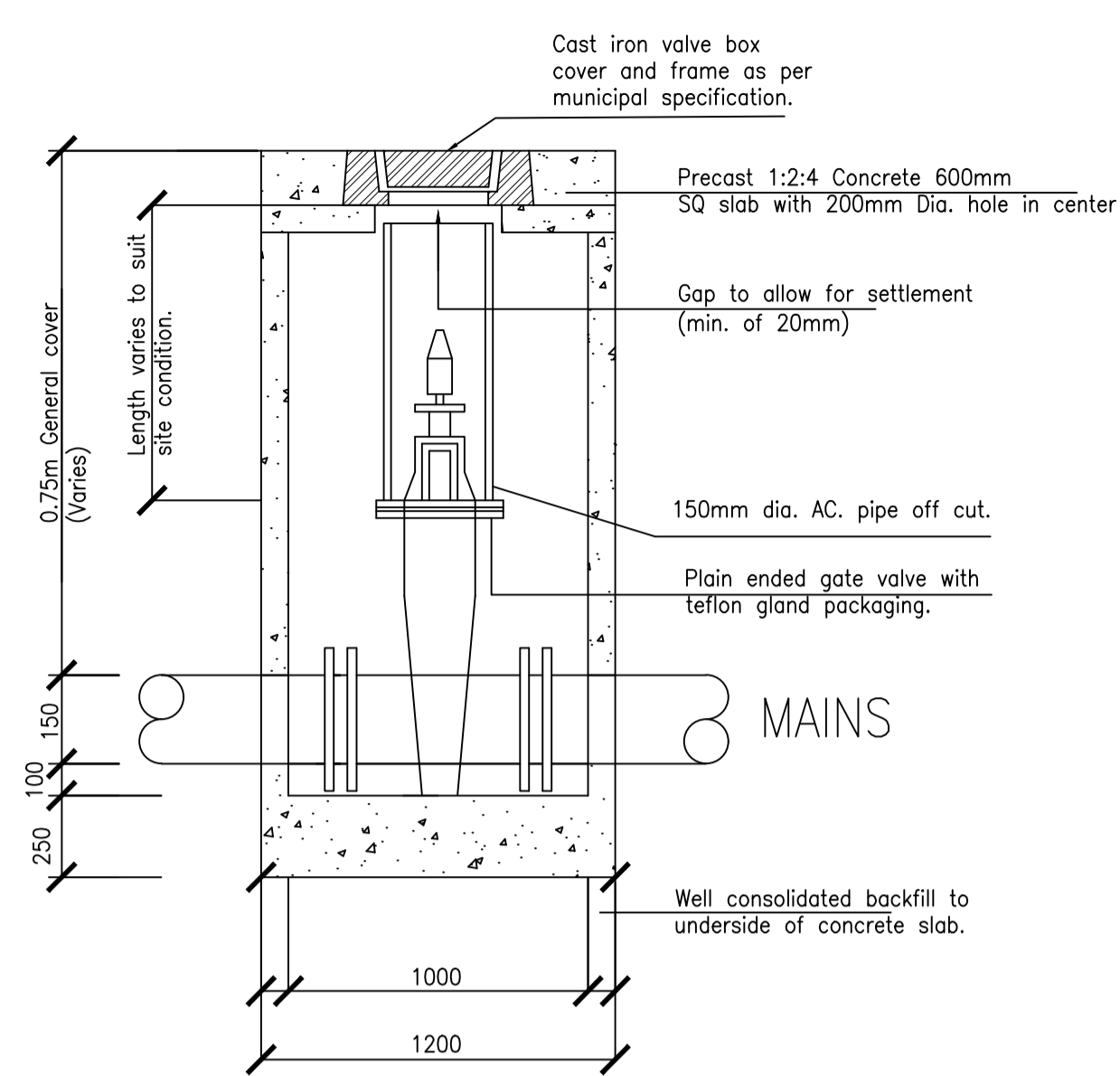
Ministry of Local Government,
 Public Works and National Housing
 P.O. Box CY7755 , Causeway
 Zimbabwe

Engineer:	L.M
Designed:	L.M
Drawn:	S.K
Checked:	M.M
Telephone	700811

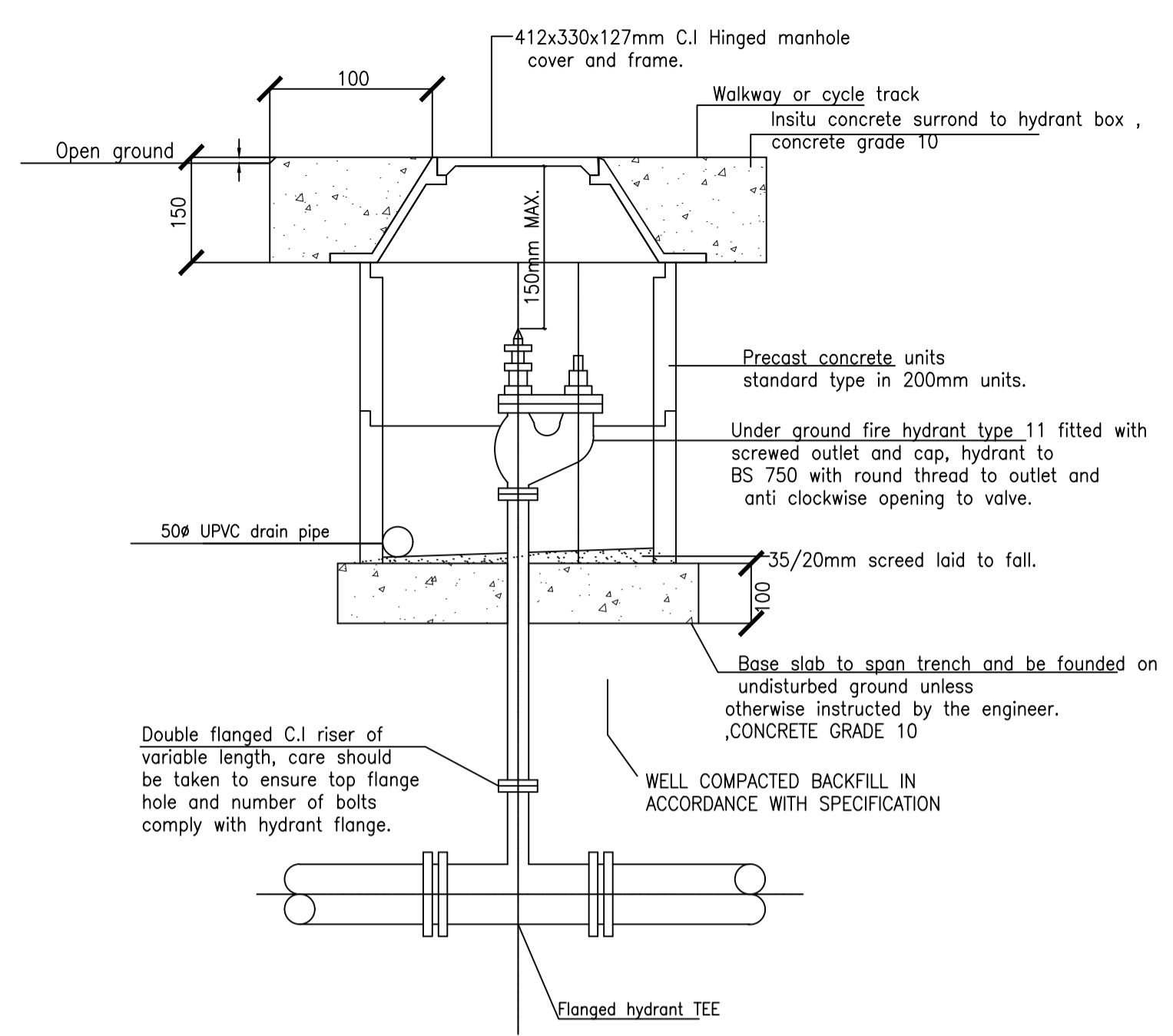
Director Eng:	H.Hungwe
Branch head:	E.N
Scale:	1:850
Date:	2021
Description :	

Ministry:	ZIMRA
Title:	FORBES HEAVY VEHICLE PARKING LOT
Description:	WATER & SEWER RETICULATION LAYOUT
Project No:	FORBES/CE/02

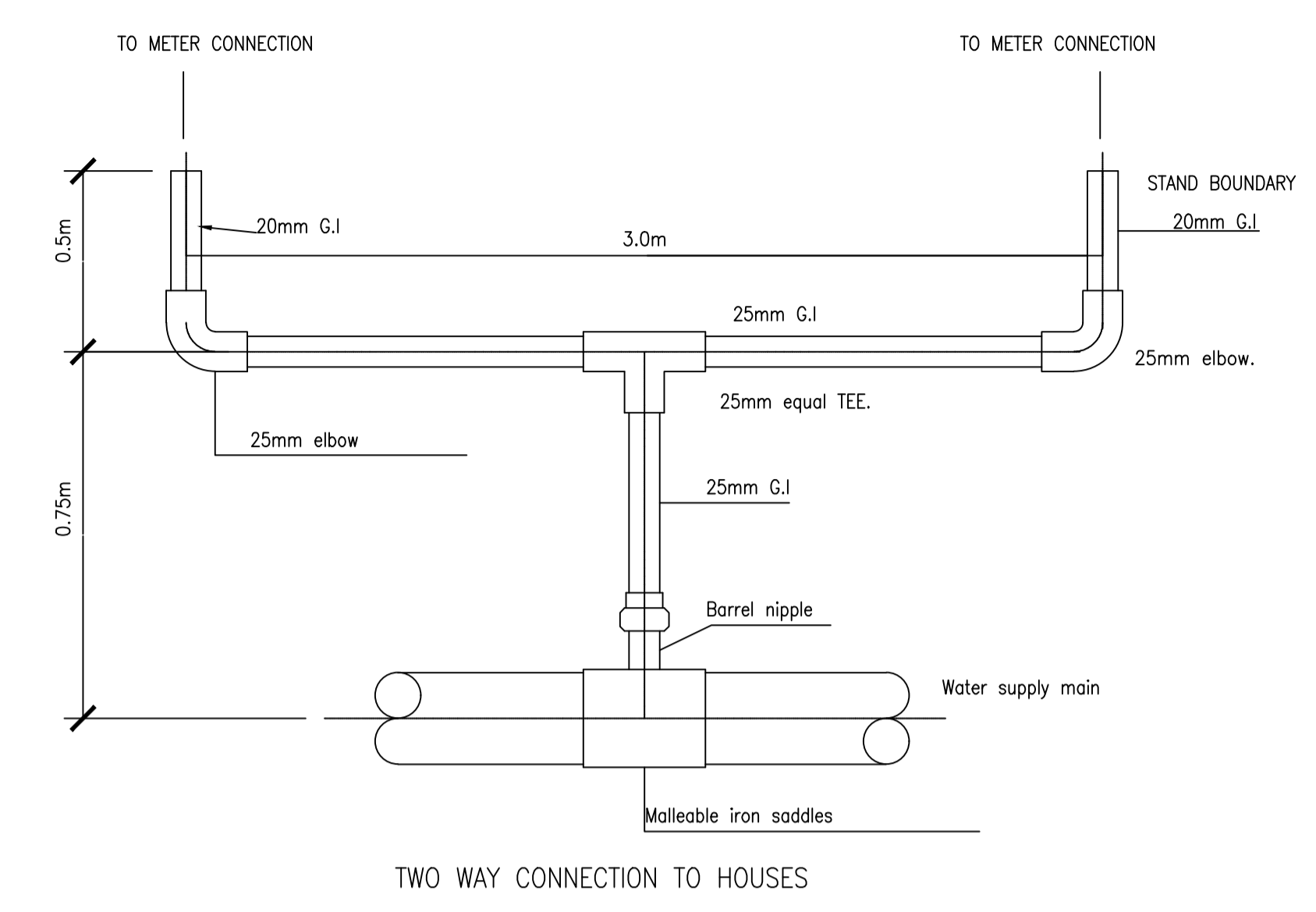
Centre: HARARE



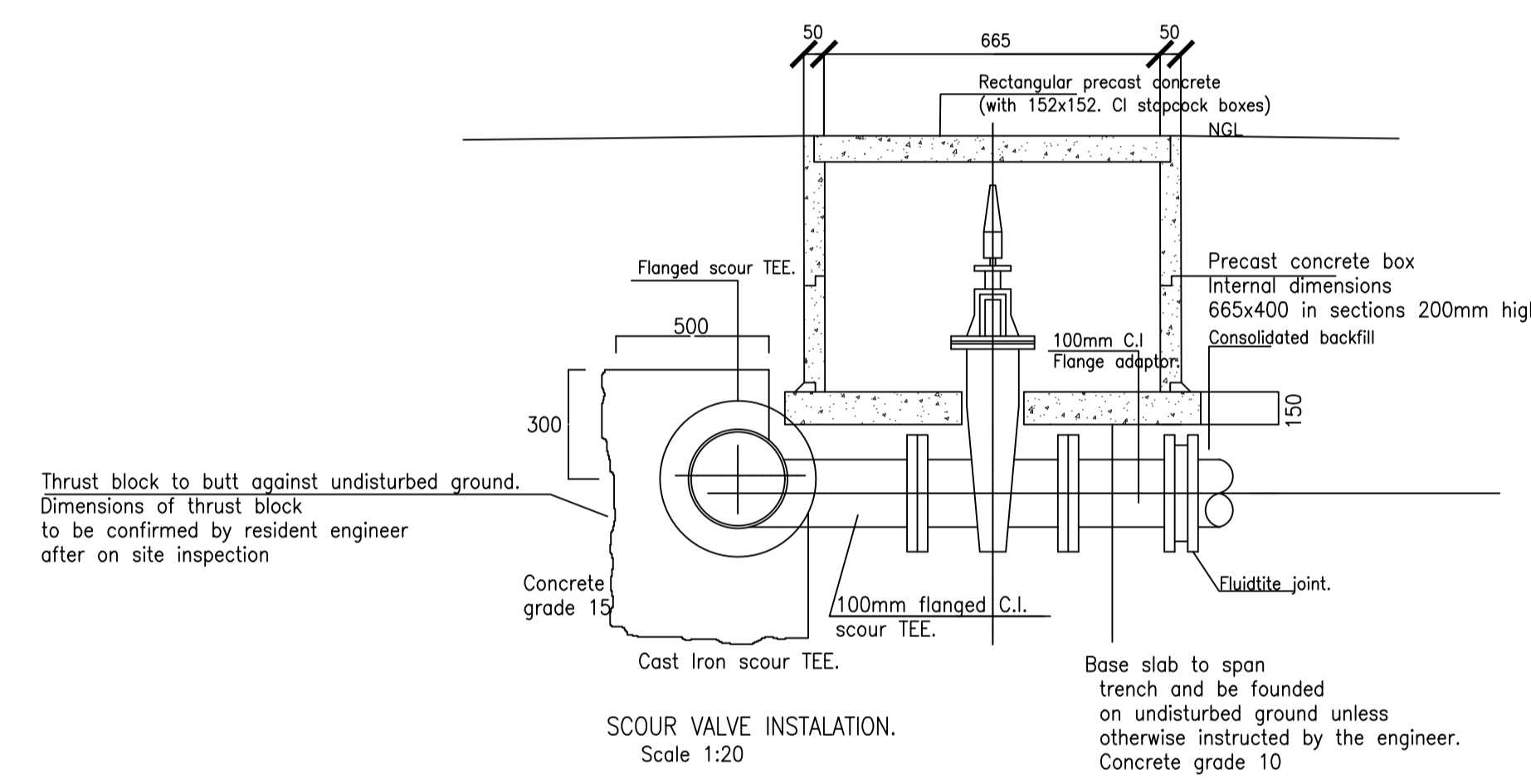
GATE VALVE INSTALLATION AND BOX
(MAINS up to 300mm)



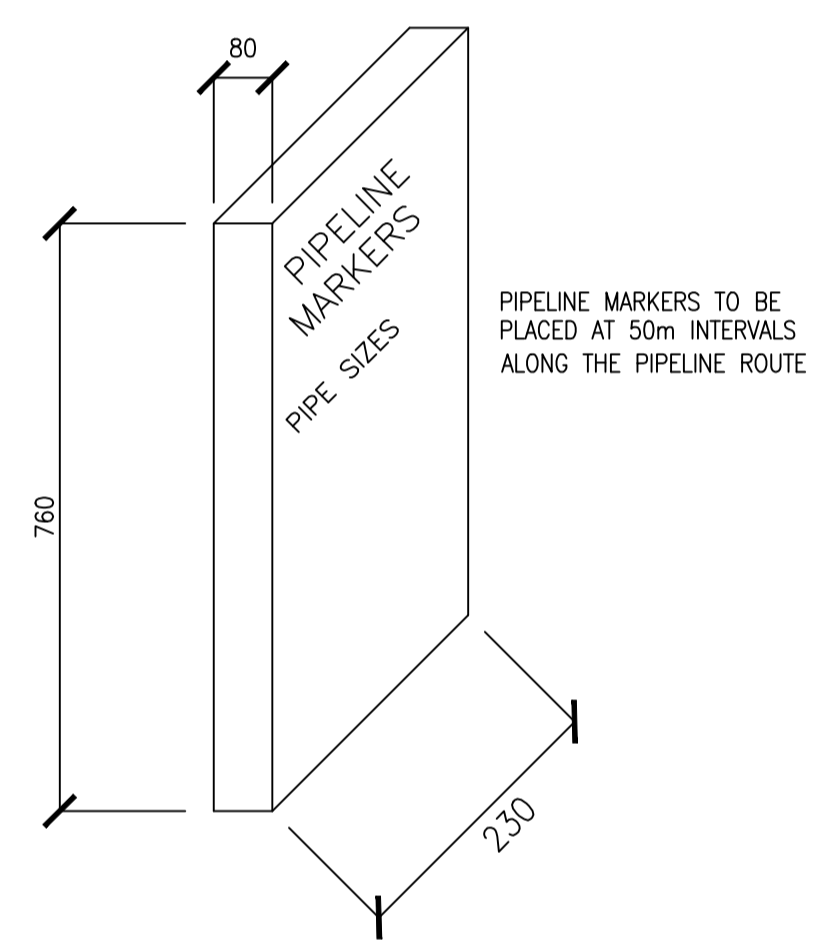
FIRE HYDRANT AND BOX DETAILS



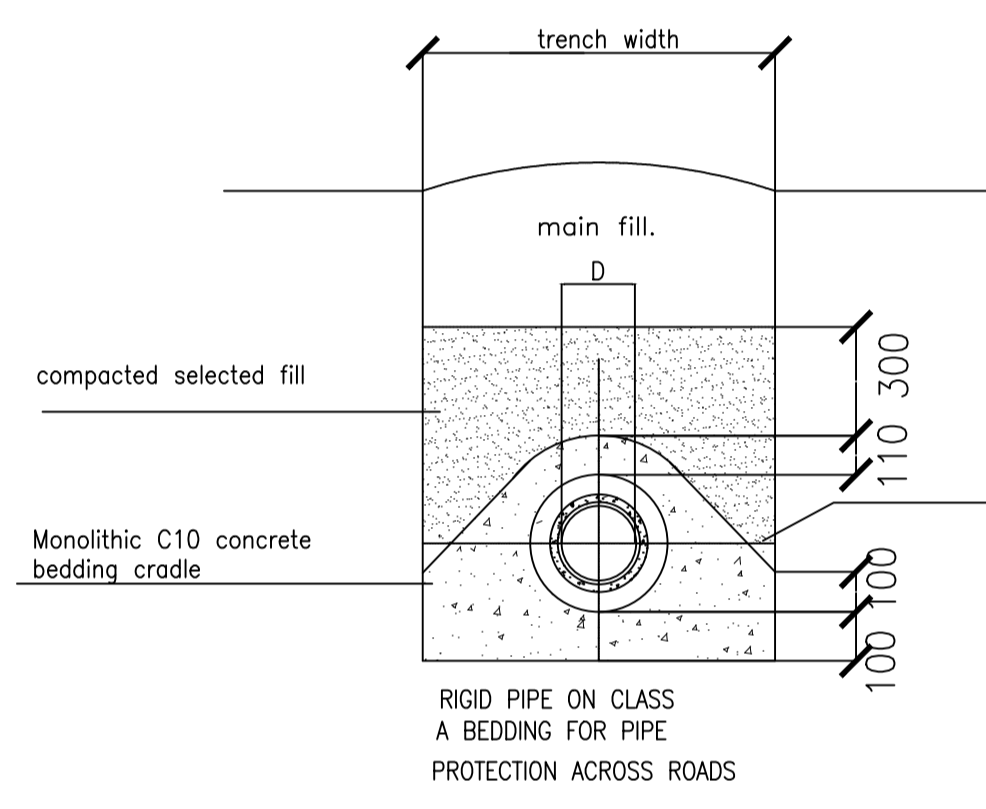
TWO WAY CONNECTION TO HOUSES



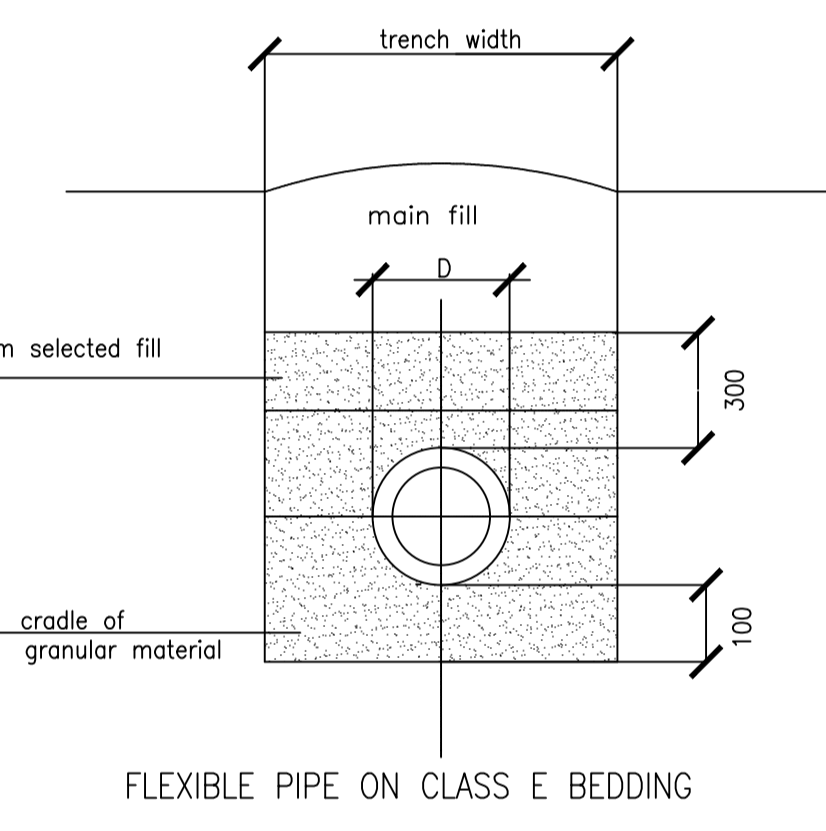
SCOUR VALVE INSTALLATION.
Scale 1:20



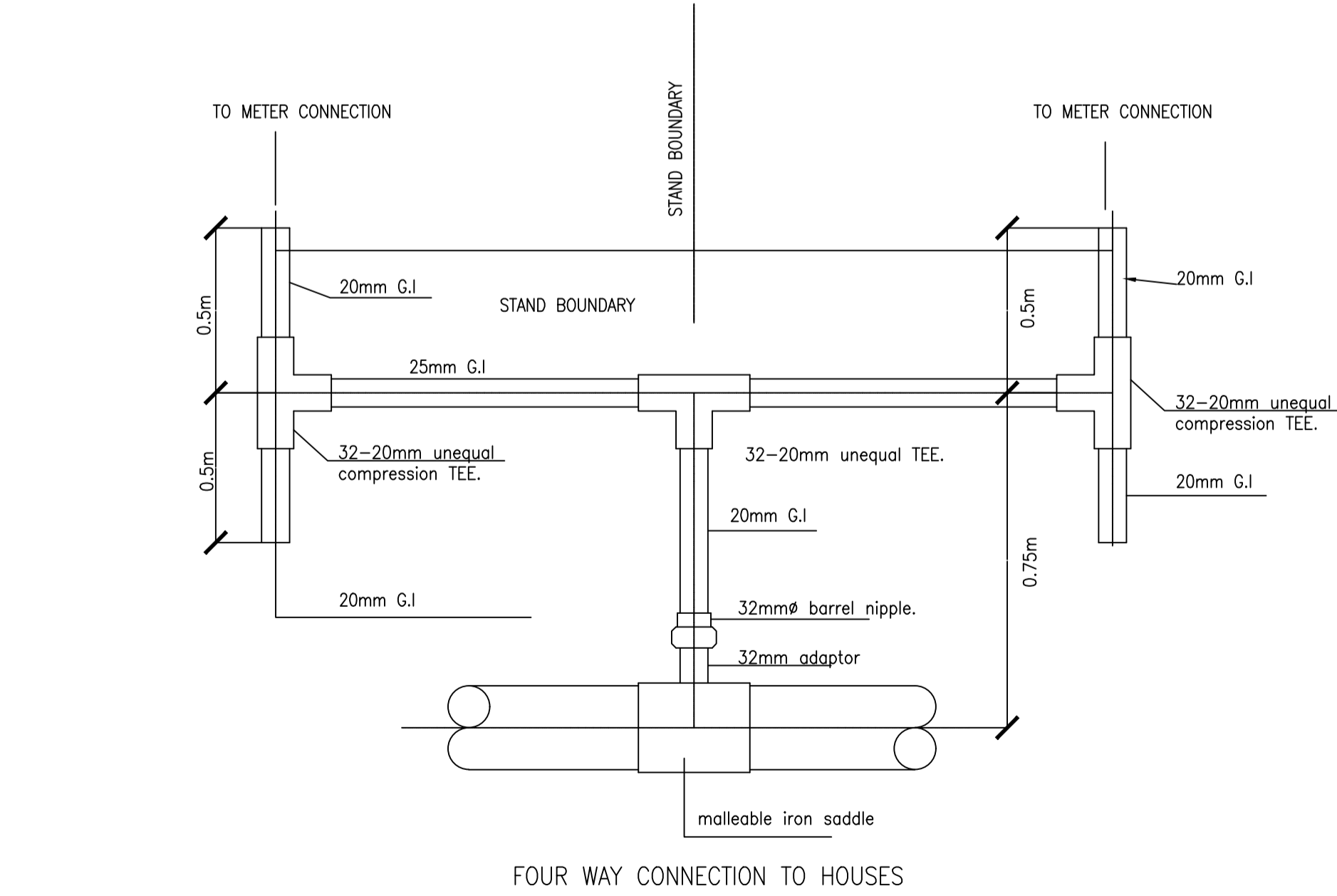
PRECAST CONCRETE PIPELINE MAKER DETAILS



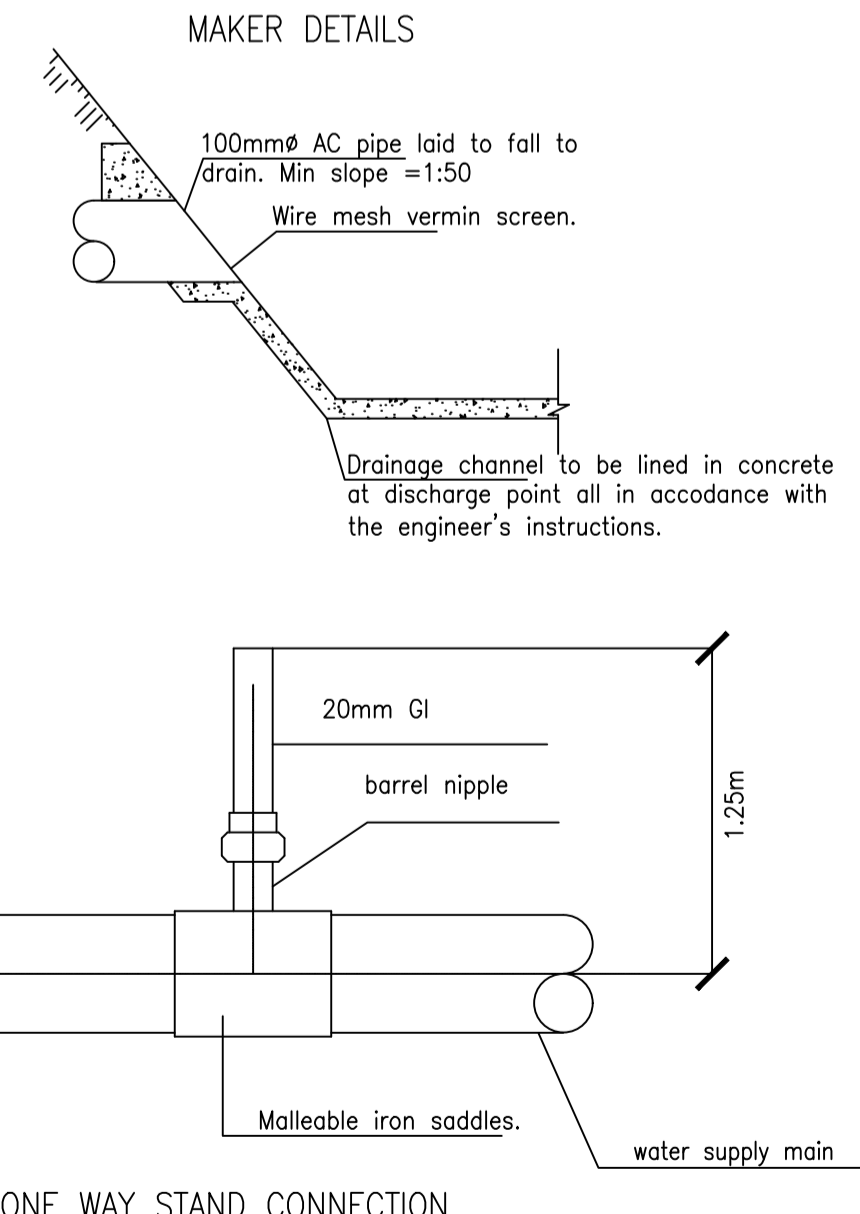
RIGID PIPE ON CLASS A BEDDING FOR PIPE PROTECTION ACROSS ROADS



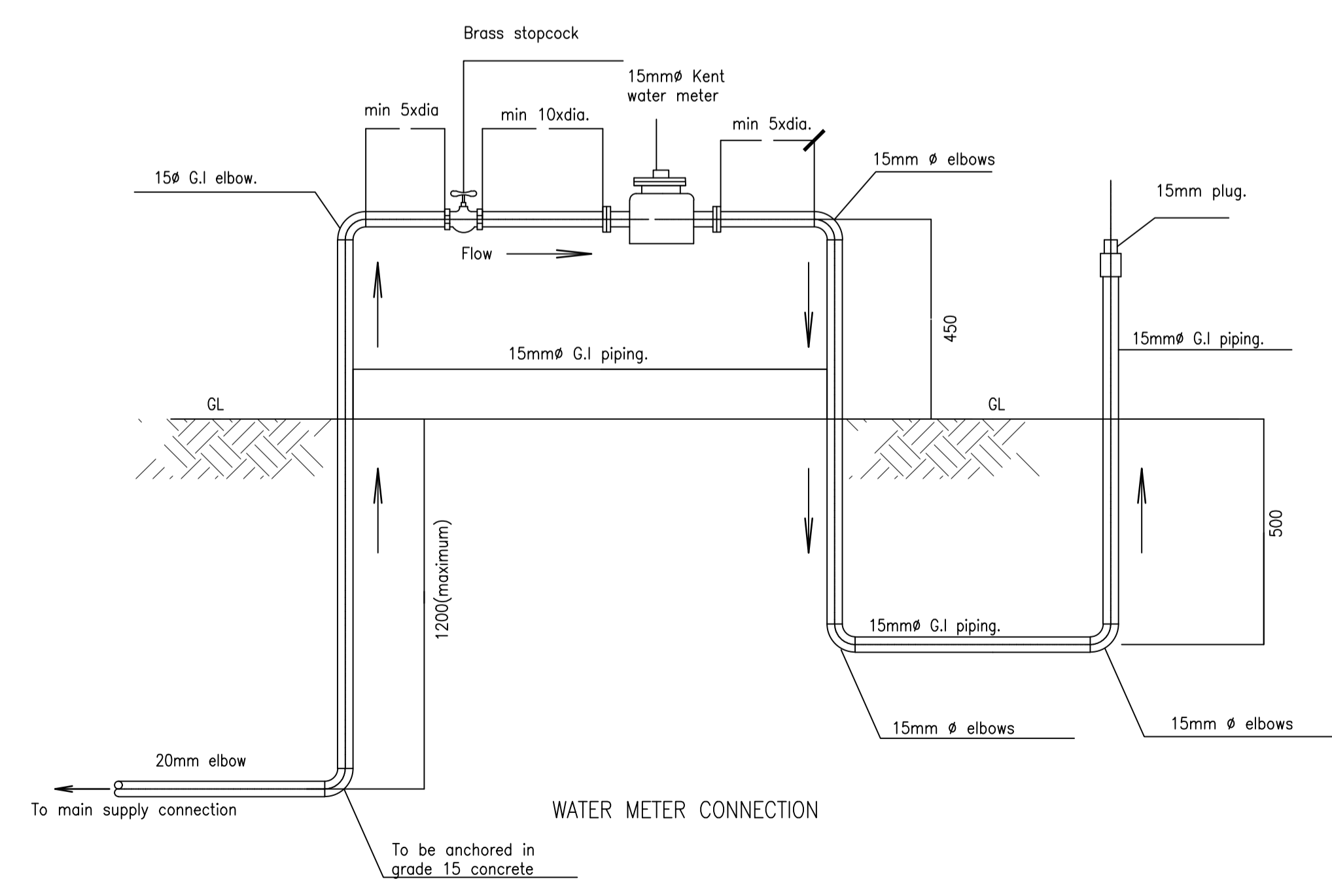
FLEXIBLE PIPE ON CLASS E BEDDING



FOUR WAY CONNECTION TO HOUSES



ONE WAY STAND CONNECTION



WATER METER CONNECTION

NOTES:

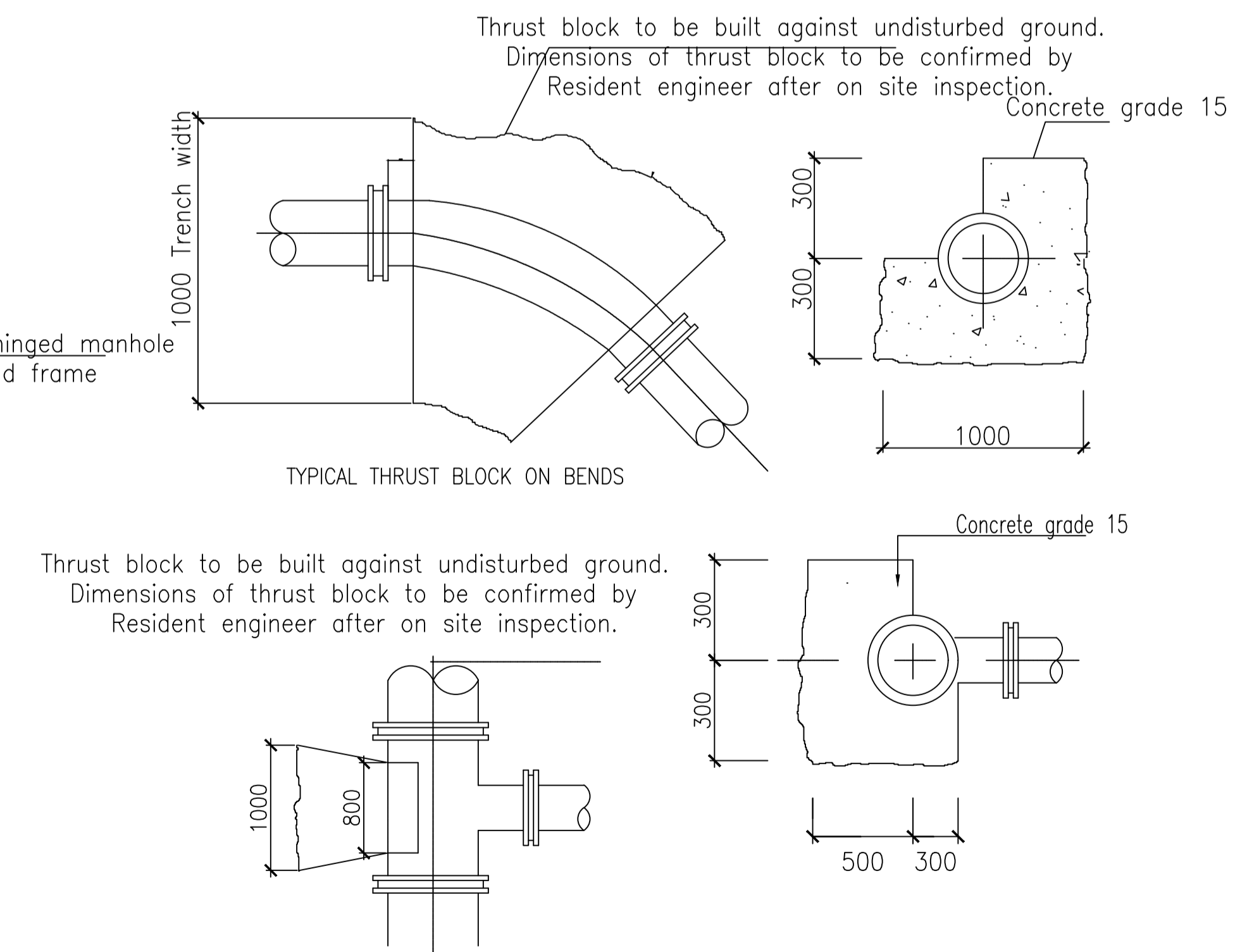
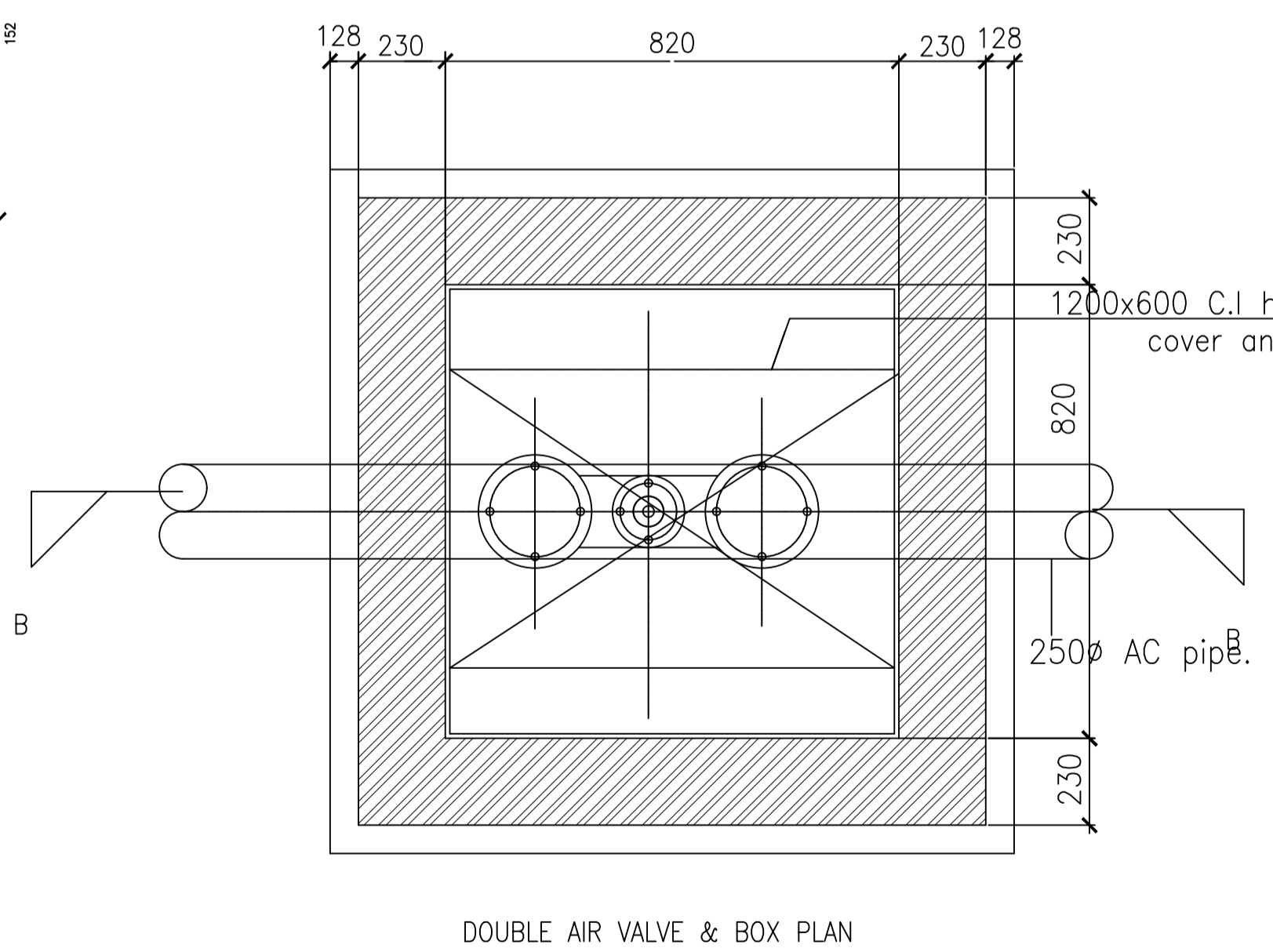
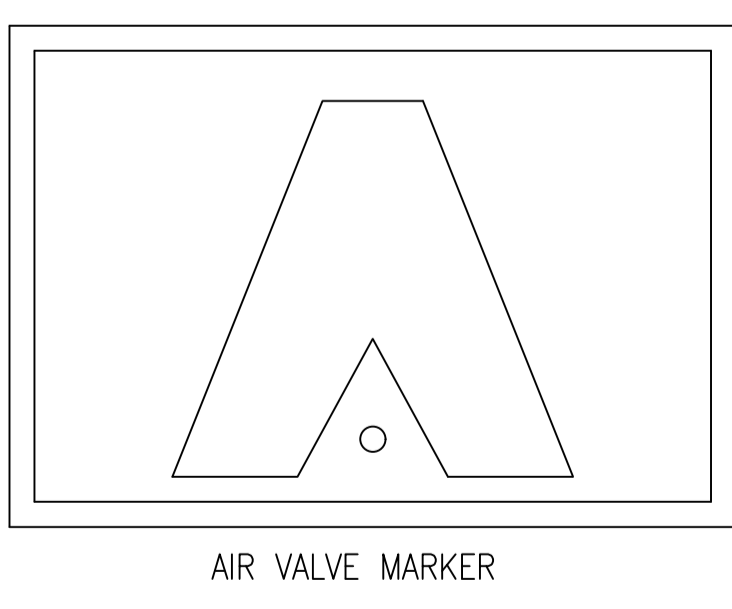
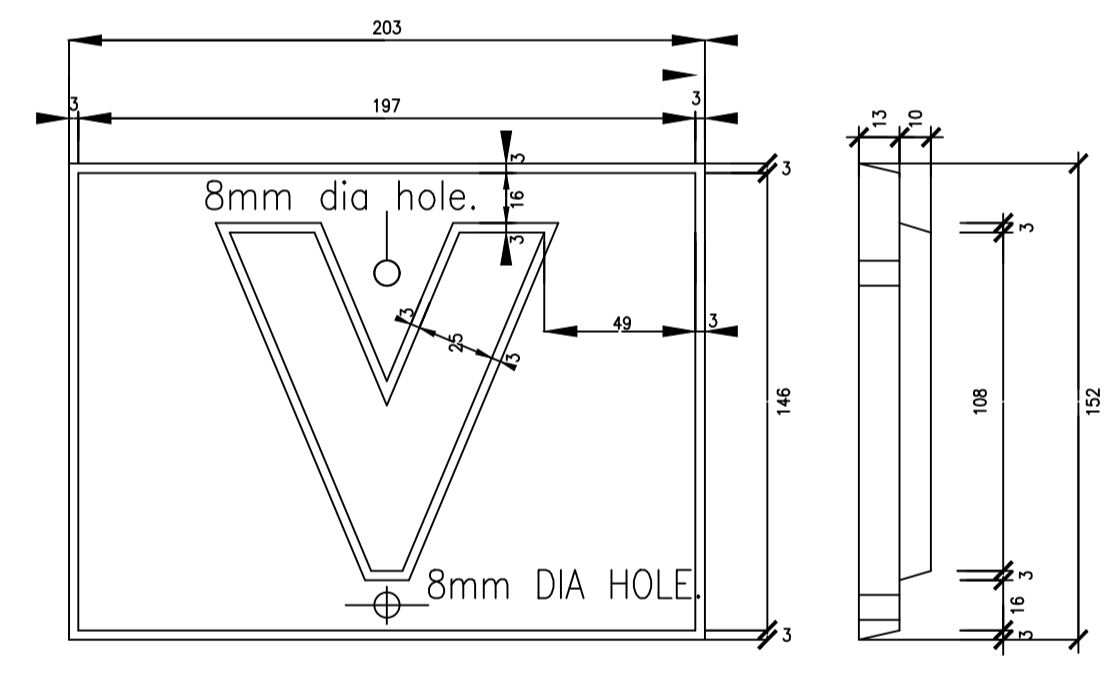
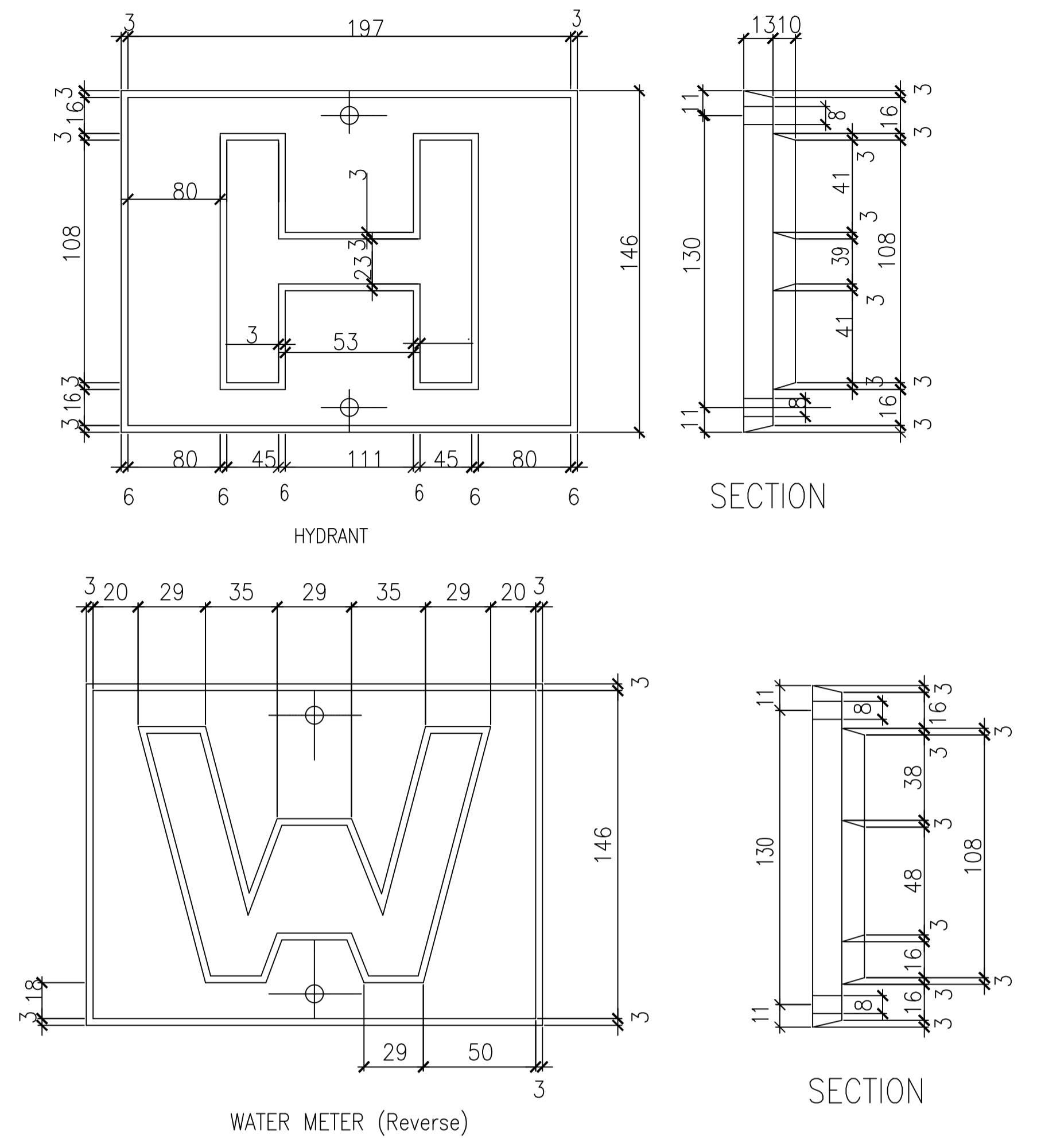
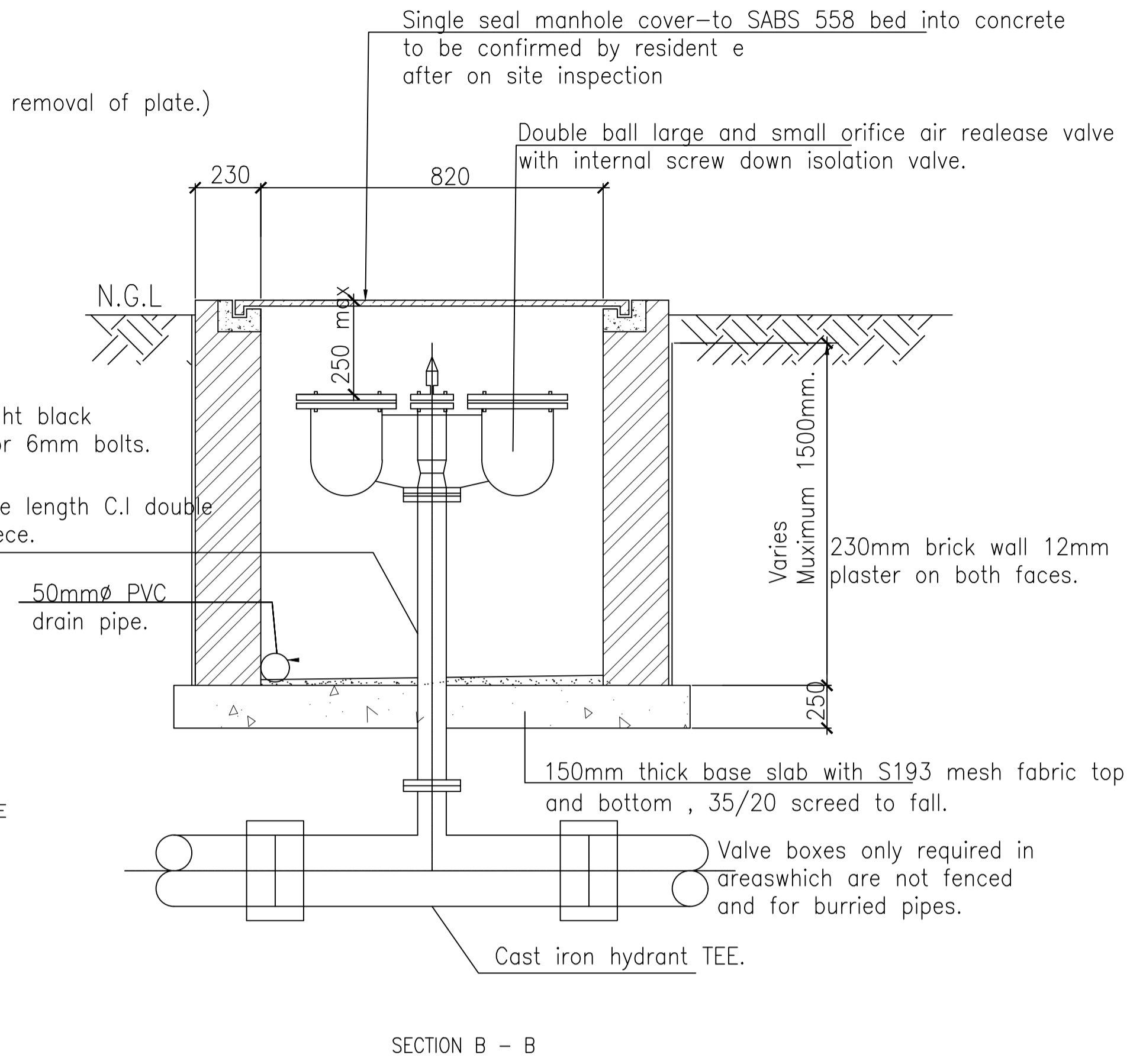
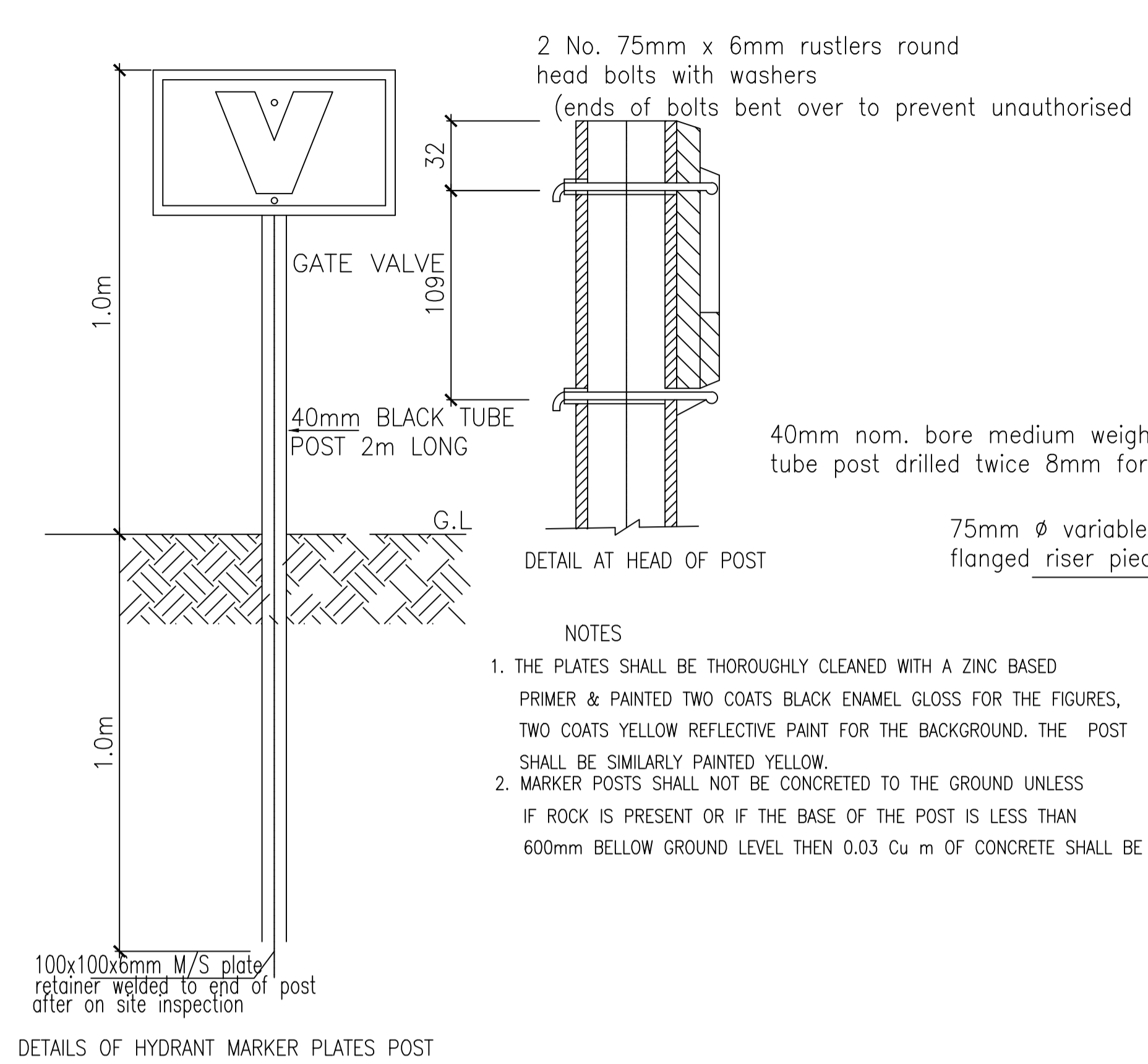
AMENDMENT			Description :
Ltr	date	init	



Ministry of Local Government,
Public Works and National Housing
P.O. Box CY7755 , Causeway
Zimbabwe

Arch Eng	A.S	A/Director Eng	E.N
Designed	L.M	Branch Head	E.N
Drawn	L.M	Scale	NTS
Checked	E.M	Date	2022
Telephone	700811		

Ministry	ZIMBABWE REVENUE AUTHORITY		Centre	MUTARE
Title	FORBES HEAVY VEHICLE PARKING LOT			
Description	STANDARD WATER DETAILS 1			
G.P. No		Proj No	FORBES/CE/WS01	



NOTES:

AMENDMENT	Description :
Ltr	date
init	
Micro-film	
Drwg No	

AMENDMENT		Description :
Ltr	date	
init		
Micro-film		
Drwg No		

Ministry of Local Government,
Public Works and National Housing
P.O. Box CY7755 , Causeway
Zimbabwe

Arch Eng	A.S	A/Director Eng	E.N
Designed	L.M	Branch Head	E.N
Drawn	L.M	Scale	NTS
Checked	E.M	Date	2022
Telephone 700811			

Ministry	ZIMBABWE REVENUE AUTHORITY	Centre	MUTARE
Title	FORBES HEAVY VEHICLE PARKING LOT		
Description	STANDARD WATER DETAILS 2		
	G.P.No	Proj No	FORBES/CE/WS02