AMP/44657.3 - Fletcher Moss Botanical Gardens - Rebuilding and Repairing Stenner Lane Boundary Wall
Schedule of Works

Item	Description	Quantity	Unit	Rate	£ p
1.0	**General**				
1.1	All works shall be carried out in accordance with good building practice and shall comply with all current regulations, British Standards, relevant codes of practice and manufacturers' recommendations. The Contractor must carry out the works conforming to all current Health & Safety legislation, including the Construction (Design and Management) Regulations 2015. It is the Contractor's responsibility to arrange for Notice to be provided to the relevant authority within the appropriate time-scale.		Item		
1.2	Where reference is made to the British Standards Specification, the British Standards Code of Practice, the latest revision will apply. Where no particular standards are available, the materials are to be to the best of their respective kinds and to the approval of the Contract Administrator (CA).		Item		
1.3	The Contractor must visit site and familiarise themselves fully with the scope of work when compiling the cost plan. The contractor must also satisfy themselves as to the facilities for welfare, access and storage of material and other site conditions. No additional costs will be accepted attributable to site conditions.		Item		
1.4	This Schedule of Works is to be read in conjunction with the following documents:- - MCC_XX_XX_DR_B_001_S2 Site Location Plan Rev A - MCC_XX_XX_DR_B_002_S2 Work Locations Rev A - MCC_XX_XX_DR_B_003_S2 Existing Elevation Rev A - MCC_XX_XX_DR_B_004_S2 Proposed Elevation Rev A - MCC_XX_XX_DR_B_005_S2 Retaining Wall Details Rev A - AMP44657.3 - Existing Photographic Schedule - AMP44657.3 - MCC Designer Risk Assessment - AMP44657.3 - PEP - General Information - AMP44657.3 - Project Execution Plan - AMP44657.3 - Authority's Requirements - Information Required		Item		
1.5	Any rates tendered should include for all works reasonably associated with the item, and the Contractor should determine the best manner to carry out the works.		Item		
1.6	It is the Contractor's responsibility to check all measurements on site and ascertain the exact nature of the work prior to submitting a target cost plan. Claims for additional expense resulting from failure to comply with this clause will not be entertained.		Item		
1.7	Any quantities contained within this section of the tender document are for tendering purposes only. Any quantities derived from this information should be considered an estimate only. The contractor must ascertain precise actual quantities by site inspection. Any significant discrepancies must be brought to the attention of the CA as soon as they become apparent.		Item		
1.8	The contractor is to allow for working around and providing adequate protection to all surfaces, finishes and equipment that are not to be affected/altered as part of the work at all times. The Contractor is to include for tidying up and making good all surfaces.		Item		
1.9	All items within this schedule shall be priced independently; no inclusive pricing is permitted.		Item		
1.10	Contractor to ensure that the work area is securely segregated at all times to prevent unauthorised entry to the site.		Item		
1.11	Structural Engineer (SE) input for the project is to be provided by Capital Programmes assigned consultant Pick Everard.		Item		
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Item	Description	Quantity	Unit	Rate	£ p
1.12	All works are to be carried out in a competent and workmanlike manner. The site shall be kept clean and tidy at all times.		Item		
1.13	The Contractor will be required, by way of certification, that all spoil, debris and rubbish resulting from the works is properly disposed of via a recognised tipping facility.		Item		
1.14	Where materials are specified by Manufacturer's name, this infers that the nominated manufacturer should be used or, alternatively, an approved and equal manufacturer will be acceptable. This will be subject to (without prejudice) a reasonable assessment of the alternative product by the CA.		Item		
1.15	The Employer reserve the right to amend or omit the final scope of any items of the works by instruction. No claims for loss, expense or delay shall be allowed in connection with the issue of any such instructions.		Item		
1.16	**Site Compound –** Proposed location of Contractor site compound to be agreed with CA.		Item		
2.0	**Sub-Contractor Selection**				
2.1	Prior to selection of sub-contractor, satisfactory references to be provided to CA of previous stonework repair schemes to listed buildings of a similar nature to the works outlined in this document.		Item		
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Item	Description	Quantity	Unit	Rate	£ p
3.0	**Background and the Setting**				
3.1	The boundary wall at The Old Parsonage Gardens located on Stenner Lane adjacent the Didsbury Public House has shown signs of significant movement and cracking over the past 18 months. This damage to the wall is due to a conflict of interest between the brick boundary wall and the four Lime trees running parallel with the wall. Fletcher Moss Art Gallery is a Grade II* Listed Building, and is located in the Conservation Area of St James, Didsbury. All works should have cognisance to the listed status of the building, its grounds and the conservation area. The boundary wall at Fletcher Moss Art Gallery is a solid free-standing masonry retaining wall built from common brick units arranged in English Garden Wall bond i.e. 3 or 5 courses of stretchers between header courses. The joints have been finished with a flush mortar joint. Wall thickness varies from 225mm at the top to 340mm at the lower section. Additional 110mm deep piers have been provided at varying centres on the inside of the wall. In consideration of the history of the site and condition of the wall it is estimated that it dates to Victorian times i.e. circa late nineteenth century. There are pronounced vertical and diagonal fractures that have propagated through both mortar and brick. These fractures appear to be associated with tree growth where the tree roots and the trunk has impinged the rear face of the wall. Gradual tree movement and growth will have produced adequate force to overstress the brickwork and cause the type of cracking visible. Some emergency works were undertaken in June 2021 to remove the potential for the top section of the boundary wall falling onto the pavement. The wall was reduced in height by 9 courses of brickwork and by approx. 1800mm at the front of the one of the lime tree. This section of the wall has been temporarily enclosed. Front Elevation - Immediately noticeable is the differential out-of-plane 'lean' of the wall across the movement joint adjacent to the stone arch entrance wall elevation. The top of the wall to the left-hand side of the joint is leaning forwards approximately 70mm beyond the bottom of the wall at pavement level. Rear Elevation - The trees growing in the retained earth are located very close to the rear wall face and in two locations. At these locations, the wall has been locally reduced in thickness by cutting out one leaf of brickwork to allow the tree to occupy this space. The worst case occurs at the point where the very tall lime tree impinges on the rear of the wall. After altering the wall, it is assumed that the tree grew and quickly occupied the additional space created and presumably continued to apply force on the wall and cause the fractures currently visible. The wall has a stepped design i.e. it gradually reduces in height as it progresses westwards along Stenner Lane i.e. 2.075m tall at the start of the boundary wall near the stone arch entrance reducing to 1.775m tall at the other end. The wall appears to have been constructed to retain earth on the inside based on the following observations; a) Existing weep holes located near pavement level were provided to allow water in the retained material behind the wall to drain away. b) Increasing wall thickness towards the base as can be seen on the inside face to provide weight and stability. c) The height of retained soil to the rear of the wall is approximately 1m above pavement level. An elevation drawing of Stenner Lane boundary wall provided (001 Stenner Lane Boundary Wall) shows the level of retained earth behind it and significant fractures on the front face. The existing weep holes are formed from cutting parts of a full brick during construction at approximately 1.5m centres. The weep holes do not appear to be allowing water to drain away from the retained material and flow onto the pavement. They are most likely to be blocked. Fletcher Moss Art Gallery is fully accessible to the public. The Contractor should make full allowance for adequate segregation and security to prevent unauthorised access into the site and theft of materials and/ or plant and equipment.		Item		
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Item	Description	Quantity	Unit	Rate	£ p
4.0	**Proposals**				
4.1	To remove T1 in tree report referenced Stenner Lane Didsbury Manchester Tree Survey Dec 2020 and allow excavation behind the wall in order to install the new boundary wall in this area. A mitigation strategy will be submitted at a later date with the help of MCC Arborist Department and Estates to confirm proposed locations, species, quantity and sizes for replanting in near by locations. The section of wall adjacent to the stone arch entrance that is leaning outwards towards the path it is proposed this section of wall be carefully dismantled down to the pavement level and rebuilt, with those bricks either beyond repair or missing, replaced on a like-for-like basis. The newly built wall will be built to the height of the adjacent boundary wall reducing its original height by 5 courses of brick. An expansion joint will be required were the newly built wall meets the existing wall. New coping stones will be required to the tops of all new and existing wall heads. Some additional works are required to the boundary wall on Stenner Lane adjacent to Fletcher Moss Park (Botanical Gardens), this includes rebuilding and repointing sections of the wall where vegetation and tree growth has caused cracking and damage. All sections of walls to be repointed with a lime based mortar, and re-installing any removed copings in a lime based mortar.				
5.0	**Programme**				
5.1	As part of the target cost plan return, the Contractor is to submit a proposed programme for the works.		Item		
6.0	**Contract Arrangements**				
6.1	The contractual arrangements for this project will be Public Sector Partnering Contract (PSPC) Form of Contract, Authority design (Option 5), and PSPC10 Pre-start agreement for any pre-construction works.		Item		
6.2	Manchester City Council's Capital Programme & Procurement Team will perform the role of Contract Administrator for the duration of the works.		Item		
6.3	The Principal Design Advisor under the CDM (2015) Regulations is Franklin Safety Services.		Item		
7.0	**Method Statements**				
7.1	Step-by-step Method Statements for all stone repairs to be provided to CA for review prior to commencing works on site; method statements subject to Planning/ Conservation Officer approval.		Item		
8.0	**Access**				
8.1	Access to Stenner Lane is from Wilmslow Road, between The Didsbury Public House and The Old Cock Inn Public House. The contractor will need to establish what materials and equipment will need to be delivered to the work areas by hand or by plant. The footpath in the park should not be used by large vehicles or plant for off loading materials.				
8.2	Access to Fletcher Moss Art Gallery and Fletcher Moss Park is through the entrances on Stenner Lane.				
9.0	**Site Related Hazard / Risk**				
9.1	Where it is necessary to puncture the pavement to install the new wall foundations, the contractor must apply to the Highways Officer Steve McNeill Mobile No. 07984 156179 for a temporary closure and to complete a New Road & Street Act Certificate. Contractor to check to ensure that no services could be damaged by these excavations. Contractor to include for providing temporary diversions for pedestrians as required by the Highways Officer. Pavement to be made good on completion to the satisfaction of the Highways Department.				
9.2	All road/paving to be plated and protected when accessing the site.				
9.3	Live services - make appropriate physical checks on site, CAT scan for exact location of known services or for suspected "rogue" services.				
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Item	Description	Quantity	Unit	Rate	£ p
10.0	**Stenner Lane Boundary Wall Treatment**				
10.1	**General**				
10.1.1	All demolition/stripping out works are to be undertaken in accordance with BS 6187:2011 and Health and Safety Executive Guidance Notes GS29/1, 3 and 4.	1	Item		
10.1.2	All removed brickwork and coping stones are to be cleaned down using Doff cleaning system to remove biological growth and loose surface contaminants. A decision is to be made on the bricks and coping stones that can be salvaged for reinstatement (extent to be agreed with CA).	1	Item		
10.1.3	The Contractor must apply for and obtain any temporary footpath and road closures, diversions, scaffold permits, hoarding permits etc which are necessary for the safe completion of his works. The contact for this will be Highways Officer Steve McNeill Mobile No. 07984 156179 (see also note 9.1). The anticipated cost of these closures and permits must be included as identified risk items within the contractor's cost plan. All demolition sub-contractor quotations must have identical provision in identified risk. The contractor's programme must account for the time taken to obtain these permits and licences.	1	Item		
10.1.4	Include for all associated H & S works to exclude the general public from the works area whilst the works are carried out. Allow for Chapter 8 type temporary barriers to enclose the work area and all appropriate temporary signage.	1	Item		
10.1.5	Rebuild wall using reclaimed bricks and install copings using existing stock and to previously numbered sequence to ensure copings are fitted in exact previous positions.				
10.1.6	All repointing between joints of coping stones and brickwork, shall be filled thoroughly with Natural Hydraulic Lime Mortar, strength grade NHL3.5 mixed in accordance with manufacturers recommendations. Include for protecting new pointing from inclement weather / rapid drying out, until set; mortar mix subject to sample agreed with CA. Mortar joint finish to best match existing and all other areas of parapet wall on completion, this should be confirmed with the CA.				
10.1.7	Treat all mortar joints with an appropriate pesticide after cutting out existing pointing. This is required to reduce the chance of further weed/vegetation growth at the joints.				
10.2	**Brick Boundary Wall (Boundary Wall of Old Parsonage Gardens and Stenner Lane):**				
10.2.1	**Removal of spoil** and earth retained inside Old Parsonage Gardens Grounds - when sections of boundary walls have been taken down carefully hand excavate adjacent retained earth to establish extent of removal required to allow for rebuilding requirements including foundations. CA approval and agreement on extent of roots to be removed. Consultant Arboculturist to be present on site during this exercise. Allow for reinstating graded spoil back to original location, between 700 to 1000mm earth/spoil to be removed at sections of retaining wall that are to be rebuilt. See SE design and specification for requirements.	20	m3		
10.2.2	**Copings Stones:** Carefully remove two existing coping stones in-situ to the boundary walls on Stenner Lane; clean down to remove any residual mortar. Number all coping stones and store for re-use. Contractor to allow for provision of adequate on site storage facility to secure all loose materials from theft/ damage.	1	Item		
10.2.3	**Remove Wall Sections:** Carefully take down all sections of brick masonry wall to be rebuilt; clean down to remove any residual mortar and store bricks for re-use. See drawing MCC_XX_XX_DR_B_005_S2 Retaining Wall Detail for information. Replacement bricks required should best match existing in colour and profile, subject to agreed sample. CA will approve and agree extent of parapet wall to be cut back on site. Existing brick sizes = 210x110x70mm; these are approximate measures and should be checked on site. See SE design and specification for requirements.	32	m2		
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Item	Description	Quantity	Unit	Rate	£ p
10.2.4	**Install New Strip Foundation:** Install new foundations to walls to be rebuilt. The foundation design and specification will be provided by our SE. See drawing references MAN024-PEV-XX-ZZ-DR-S-5901_Masonry Details_P01 and MAN024-PEV-XX-ZZ-DR-S-5001_General Arrangement - Structural Details_P01.	16	m		
10.2.5	**Rebuild Wall Sections:** Refer to SE design and specification for proposed foundation and wall design. Using reclaimed bricks (where practicable), lime based mortar for pointing to best match existing rebuild wall. Sample for lime based mortar to be approved by planning prior to starting on site. Additional new bricks should best match existing, sample to be provided to CA for approval. Refer to SE design to include weep holes and drainage requirements for retained earth and expansion joints if required. See drawing MCC_XX_XX_DR_B_005_S2 Retaining Wall Detail for information showing sections of walls to be removed and rebuilt. Where new openings are formed for railings the brick reveals will need to be rebuilt to one brick thickness to allow space for new railing fixings.	25	m2		
10.2.6	**Undertake localised replacement:** To existing brickwork to boundary wall. Brickwork either missing or deemed beyond repair should be replaced with bricks to match existing profile, Indent repairs using brick in colour and profile to match existing, subject to agreed sample. CA approval and agree extent of brick repairs and repointing to be cut back on site.	200	No		
10.2.7	**Pointing Sample Patch:** Allow for pointing four trial patches to an area of approximately 1 metre square each on the existing wall. These should be inspected and approval given by the conservation officer/planning officer assigned to the contract and the CA before commencing the rebuild of the boundary wall and undertaking any repair work.	4	m2		
10.2.9	**Coping Stones:** Supply and install new sandstone coping stones to head of wall along Stenner Lane, Coping stones should best match existing in size and profile and be bed on NHL mortar bed. Sample to be approved by CA. Existing coping stone sizes - 300x980x70mm. **Stone copings to be retained with stainless steel cramps, positions to be show on setting out drawing**. Joints to be pointed in NHL mortar mix, sample to be provided. New coping stone colour/shade to be confirmed and agreed with planning/conservation officer and CA. Sample to be provided by Contractor.	16	m		
10.3	**Brick Boundary Wall (Boundary Wall of Flecther Moss Park and Stenner Lane):**				
10.3.1	Remove vegetation and tree sections from inside Fletcher Moss Park. Locations and extent to be checked and agreed with CA prior to starting on site.	1	Item		
10.3.2	Carefully take down damaged sections of brick masonry wall to be rebuilt; clean down bricks and coping stones to remove any residual mortar and store for re-use. Replacement bricks and coping stones required should best match existing in colour and profile, subject to agreed sample. CA will approve and agree extent of wall to be rebuilt on site.	2	m2		
10.3.3	Rebuild sections of walls damaged due to tree growth.	2	m2		
10.3.4	Contractor to report at the earliest opportunity to CA the % of loss and breakages of brickwork and or coping stones.	1	Item		
10.3.5	**Repointing to visible cracking:** Rake out joints to a minimum depth of 20mm, brush & flush clear of any vegetation growth, dust & debris with clean water, and dampen prior to repointing in designated mortar. Undertake repointing of all remaining parapet wall brickwork on St James' Church side.	1	m2		
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Item	Description	Quantity	Unit	Rate	£ p
11.0	**Cleaning**				
11.1	On completion of the rebuilding and alterations to the boundary wall allow for 30 metres section of wall to be cleaned down using Doff cleaning system to remove biological growth and loose surface contaminants (subject to sample area agreed with CA). This will only be required on the brick elevation facing the road at Stenner Lane.	60	m2		
12.0	**Identified Risk Items**				
12.1	Include the sum of 4000 pounds for temporary weathering (adverse weather period) that may delay the programme.	1	Item		
12.2	Include the sum of 2000 pounds for any additional building works.	1	Item		
12.3	Include the sum of 1000 pounds for replacing any coping stones damaged during the removal works.	1	Item		
12.4	Allow the sum of 500 pounds for installing an expansion joint where the newly built section of boundary wall connects to the remaining section of boundary wall. Requirements To be confirmed upon further investigation and agreement with conservation officer and planning.	1	Item		
12.5	Include the sum of 750 pounds for permits in connection with working on a public highway.	1	Item		
12.6	Making good public footpath areas - Include the sum of 3,000 pounds for making good the tarmac areas adjacent the newly constructed boundary walls at Fletcher Moss Art Gallery and Stenner Lane.	1	Item		
12.7	Allow a sum of 500 pounds for obtaining samples of existing mortar mix. Mortar should best match existing in appearance and will form part of the planning consent process prior to the work commencing	1	Item		
12.8	Allow a sum of 4000 pounds for replacement of any flowers or plants inside the grounds of the Old Parsonage Gardens, that may be affected by the planned works.	1	Item		
12.9	Include a sum of 3000 pounds for additional bricks and additional repointing for the sections of walls being rebuilt and adjacent locations.	1	Item		
12.10	Allow a sum of 1000 pounds for the removal of trees and vegetation causing damage to the sections of walls on Stenner Lane at the park boundary. Extent of removal unknown, further investigation required, access required on park side of the boundary wall. See section 10.3.1 of this schedule.	1	Item		
12.11	Allow a sum of 1000 pounds for additional repointing of boundary walls and additional new bricks required for the rebuild of the wall.	1	Item		
12.12	Allow a sum of 2000 pounds for reducing the canopy of the tree No.4 (see plans for tree location). Reduce the canopy to a 5m nature pole. This is to reduce the amount of pressure on the routes in high winds and the movement of the tree and street to the wall.	1	Item		
				To Collection	