

Relating to:

**Design and Access Statement for works to Summer Fields School
Boundary Wall**



At:

**Summer Fields School
Mayfield Road
Oxford
OX2 7EN**

DESIGN AND ACCESS STATEMENT

On behalf of Summer Fields School

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1. INTRODUCTION

- 1.1 Carter Jonas LLP have extensive experience in conservation, repair and sensitive alterations and adaptations to historic buildings and structures.
- 1.2 In 2020 Carter Jonas were appointed by Summer Fields School to advise upon repairs to the brick wall along the boundary of Summerfield Road. The appointment was to include for replacing the existing concrete block wall section with a brick section to match the adjacent taller and higher quality brick wall.
- 1.3 Investigation works have been undertaken by Solid Structures, who are experienced structural engineers, to provide advice on the structural requirements of replacing the existing concrete block section and for repairs required to the existing brick section.

2. CONTEXT AND CONSTRUCTION

- 2.1 Founded in 1864 and located in Summer Town, Oxford, Summer Fields is a full-boarding and day school for boys aged 4-13, around 200 of which currently live on-site in lodgings. This proposal aims to repair and improve the existing boundary wall in order to maintain safety for approaching pedestrians, prevent further degradation of the brick wall section and to improve the aesthetics and security of the concrete block section by constructing a taller brick wall section to match the older brick section.
- 2.2 The brick wall section is constructed using handmade bricks in sizes ranging from 220 x 108 x 64mm – 225 x 110 x 70mm – 227 x 110 x 64mm. The bricks are laid in a Flemish Garden Wall bond with header bricks every 4th brick. This section is one brick thick, approximately 2400mm tall and has 5 no. brick piers to the south facing elevation. The majority of copings are flat concrete coping stones with half-round brick copings used adjacent to the school entrance. A former blocked up door opening is visible within the wall which has previously been infilled using bricks. The wall is constructed upon a 200mm deep rubble stone footing, approximately 500mm beneath the finished ground level.
- 2.3 The later concrete block section is constructed using a single skin of concrete blocks with concrete coping stones fitted to the top. The concrete block section is approximately 1900mm high with 7 no. piers to the south facing elevation. The wall is constructed upon a 200mm deep rubble stone footing, with brick and then a layer of concrete. As the stone footing matches that of the older brick wall section, it suggests that the brick wall was originally constructed to the entire length of the boundary and that this section has been replaced with concrete blocks in later years.
- 2.4 The existing wall is in poor condition with a section that is bowing. The wall is adjacent to a public highway and therefore requires repairs to prevent further deterioration and a potential health and safety risk to the public. The blockwork wall is unsightly and detrimental to the appearance of the streetscape. The blockwork wall is also too low which presents a security risk from intruders into the boarding school. There are boarding houses nearby the wall and there have been previous incidents of intruders climbing the wall.

3. CONSULTATION

- 3.1 As a section of the brick wall is bowing on the north facing elevation, we have coordinated a structural survey of the wall to establish the cause of the movement as well as to ascertain what would be required for the proposed replacement brick section.
- 3.2 We have not sought any additional informal or pre application advice in relation to this application, as we consider the improvement works to be minor and would enhance the appearance of the concrete block section of the wall. The remaining works comprise of sympathetic repairs to the brick wall section.

4. PROPOSED SCOPE OF WORKS

Replace the Concrete Block Wall Section

- 4.1 The concrete block section is a later addition to the wall and bears no significance to the wall or the Summer Fields School site. The section does not match the adjacent brick wall and does not reflect the high-quality nature of the school.
- 4.2 We have engaged Solid Structures, who are experienced structural engineers, to design an appropriate replacement brick section that would match the adjacent historic brick section in height and aesthetics. Solid Structure's drawing can be found within appendix A.
- 4.3 The proposed works comprise the following:
- Removal of ivy and vegetation from the wall prior to bird nesting season.
 - Dismantle concrete block section down to existing concrete footings.
 - Excavate and construct new, larger brick piers with large concrete footings as recommended in Solid Structures' drawing, no more than 5m apart.
 - Construct new brick section of wall to height matching the existing brick wall section. Wall to use new bricks supplied by Imperial Handmade Bricks Ltd with colouring to match the existing brick section as closely as possible. Bricks to be laid in Flemish Garden Wall bond with header bricks every 4th brick to match existing. A variety of brick sizes are to be used, within the range of those used in the existing brick wall section, in order to replicate the construction of the wall. The wall will be constructed using a lime mortar to match the existing brick wall section.
 - The proposed brick section will tied in to the existing brick section using movement ties, a 10mm movement joint with mastic sealant finish as recommended by the Structural Engineer.
 - New natural limestone single weathered coping stones are to be fitted to improve the appearance of the wall. The copings will slope towards the Summer Fields School site and will be fixed using cramps fixed to brickwork, with a bitumen polymer DPC within the mortar bed.
 - All disturbed tarmac along the public footpath will be made good to the Oxford City Council specification and carried out by licensed highways contractors.



Concrete block section - north facing elevation.



Concrete block section abutting brick section - north facing elevation.



Concrete block section.



Proposed brick to use for replacing concrete block section.

Existing Brick Wall Section Repairs

4.4 In conjunction with replacing the concrete block section, we intend to repair the existing brick wall section. Repair works are outlined on Solid Structures drawing in Appendix A and Carter Jonas Drawings 04 & 05, submitted as part of this application. The repairs will improve safety where the wall is currently bowing and help to prevent further deterioration of the historic wall. The proposed works comprise the following:

- Rebuild the bowing section of wall and adjacent pier. Existing bricks in good condition are to be retained and reused throughout the repairs. This section is to be predominantly new Imperial Handmade Bricks as described above but with some salvaged bricks used. The existing bowing section is due to bricks becoming detached and is a safety issue for pedestrians along the public footpath.
- Existing brick piers are to be dismantled and replaced with larger brick piers as described on Solid Structures drawing in Appendix A. New concrete footings are to be provided to allow for the increased pier size.
- Additional brick piers with new concrete footings are to be constructed to provide additional strength to the wall. Piers are to be constructed no more than 5m apart as recommended by Structural Engineer.
- A 10mm expansion joint with mastic finish will be provided adjacent to the middle rebuild pier. This will accommodate for future movement in the wall as recommended by the Structural Engineer.

- The top 9 no. brick courses of the wall are in poor condition with many damaged and spalled bricks. It is proposed to carefully dismantle the top 9 no. courses, retain bricks in good condition and rebuild using a mixture of new Imperial Handmade Bricks and salvaged bricks. Sections closer to the new proposed brick wall section will utilise a higher ratio of new bricks while sections further away from this will use a higher ratio of salvaged bricks. We propose that this graduated approach will provide a more sympathetic blend of new and old bricks from the rebuilt section which requires all new bricks to the areas further along the wall which require more minor repairs. New bricks will be required as there will not be enough salvageable bricks that can be reused.
- Existing flat concrete copings will be replaced with new natural limestone single weathered copings to the entire length of wall, up to the existing half-round brick copings. Each coping stone is to include drip detailing and will slope towards the Summer Fields School site. A bitumen polymer DPC will be fitted within the lime mortar bed. The copings are considered to be an improvement to the existing concrete copings and are more fitting to the historic and high-quality nature of the school and site.
- Loose and friable areas of mortar will be raked out and repointed in an NHL 3.5 lime mortar. This will provide more strength to areas with missing mortar. The use of lime mortar will allow for some movement in the wall, continue to allow the handmade bricks to breathe and release moisture and is more in-keeping with the historic construction of the original wall.
- Damaged and spalled bricks will be cut out and replaced. New and salvaged bricks will be pieced in according to distance from the new brick wall section as described above.
- The uneven brickwork of the infilled historic doorway will be made good using salvaged bricks to create flush reveals. A mild steel plate will be installed into the mortar bed above the doorway to create a lintel and prevent further deterioration.
- All disturbed tarmac along the public footpath will be made good to the Oxford City Council specification and carried out by licensed highways contractors.



Poor condition of top 9 no. brick courses and areas of repointing required - north facing elevation.



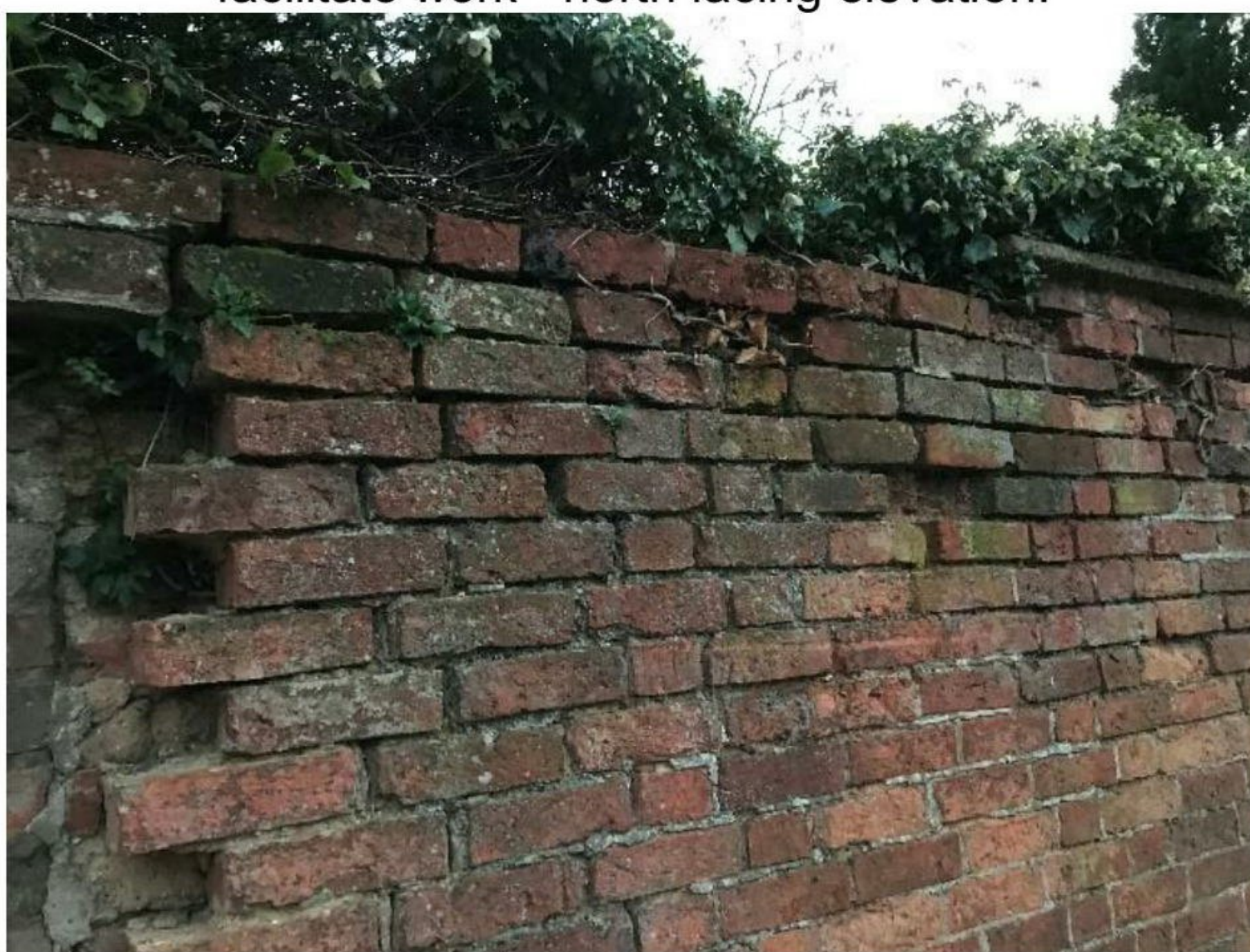
Poor condition of top 9 no. brick courses and areas of repointing required - north facing elevation.



Poor condition of top 9 no. brick courses and areas of repointing required. Vegetation removal required to facilitate work - north facing elevation.



Historic door opening – north facing elevation.



Top 9 no. courses in poor condition – north facing elevation.



Missing brickwork to returns of historic doorway to be made good and mild steel lintel installed.

5. ACCESS

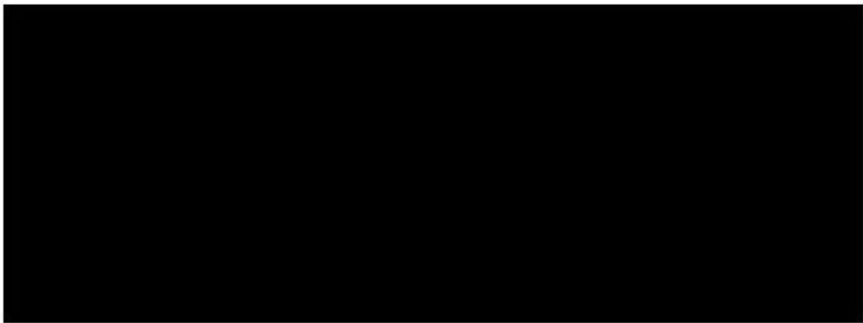
- 5.1 The planned works will have no impact on existing access arrangements to the site. The increased height of the proposed brick section will improve security to the site which has been an issue in the past.

6. SUMMARY

- 6.1 We are eager to obtain planning permission for the work that has been outlined above which we intend to complete during the March / April Easter Holidays of this year.
- 6.2 The use of traditional and natural materials and techniques have been proposed where possible. The proposed repairs to the existing brick wall are considered to be sympathetic, practical and non-contentious and generally consist of 'like with like' repairs. The proposed replacement brick wall section utilises materials and techniques similar to those used on the adjacent existing brick wall section where possible. This will significantly improve the appearance of the wall and streetscape by

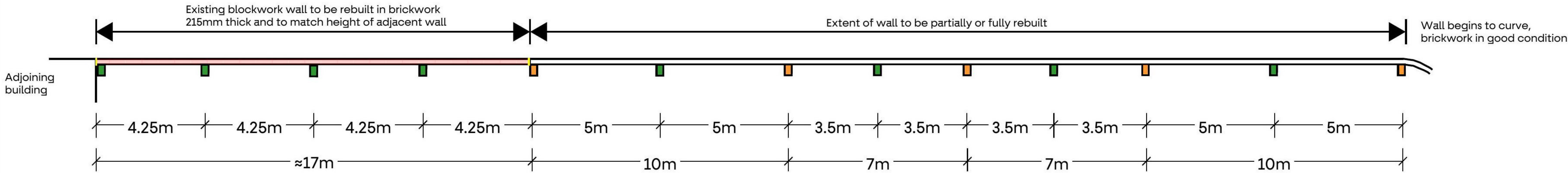
removing what is considered an unsightly blockwork wall v [REDACTED]
[REDACTED]

- 6.3 The proposed works comprise principally of repairs to safeguard the wall from further deterioration and a new brick wall section to improve the overall appearance of the wall in a way that is more appropriate for the surroundings and school site.

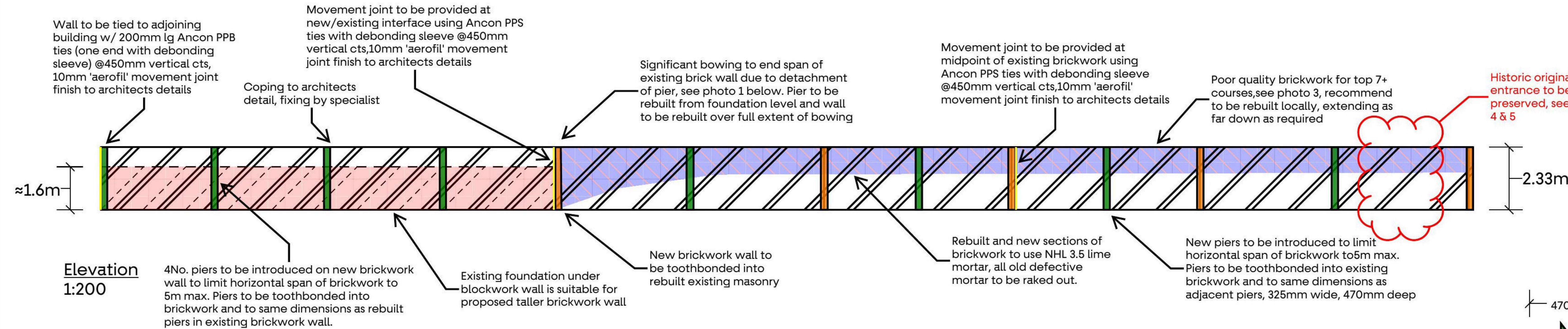


Eric Catmull
Surveyor
For and on behalf of Carter Jonas LLP

APPENDIX A SOLID STRUCTURES – STRUCTURAL SURVEY REPORT



Plan View
1:200



Elevation
1:200



Photo 1



Photo 3



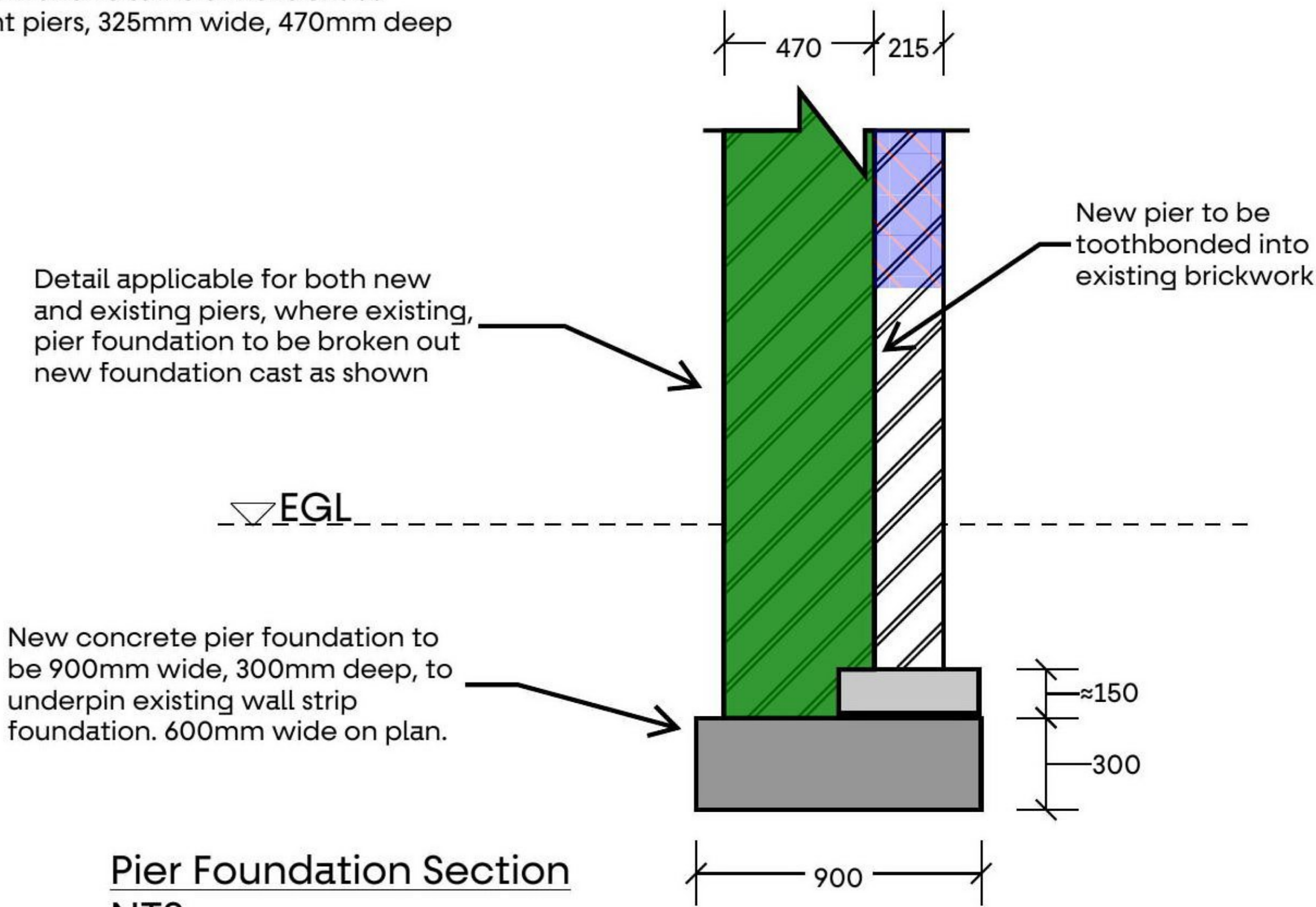
Photo 2



Photo 4



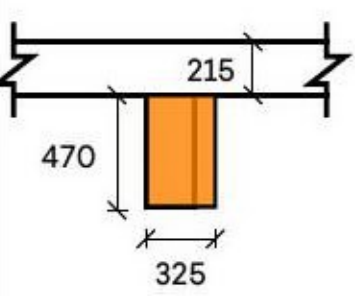
Photo 5



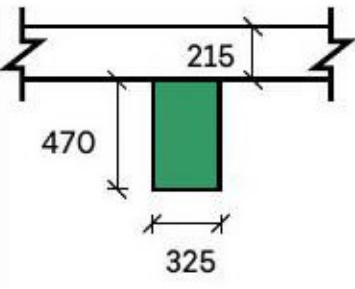
Pier Foundation Section
NTS

NOTES

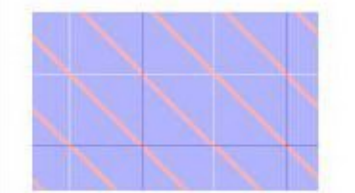
1. All Structural Engineer's drawings are to be read in conjunction with all relevant Architect's & Services Engineer's drawings and specifications.



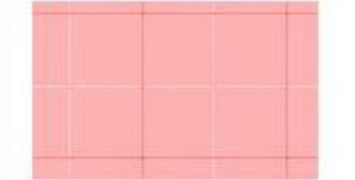
Denotes existing pier, all existing piers to be rebuilt as 325 wide, 470 deep.



Denotes new pier to be tooth bonded into existing wall, to same dimensions as rebuilt existing piers



Denotes sections to be rebuilt



Denotes sections to be demolished

Masonry Specification:

All exposed brickwork (to BS EN 772 & BS EN 771) to be to Architect's specification & details but to have min. compressive strength 20N/mm & to have a water absorption rate of between 7% & 12% UNO. Facing bricks to be min. Class 3 to BS EN 1996-1-1. All bricks to have F2 frost resistance.

All masonry to be laid in NHL3.5 lime mortar.

Existing foundations not shown. Foundations are approx 450mm wide in a gravelly SAND, deemed suitable for new brickwork wall in place of existing blockwork. No thickening or underpinning required. Once wall is demolished, strip foundation to be inspected and any variations reported to SOLID.

Rev	Description	Date	By	Chk
P02	Pier Foundation Detail Added	14.01.21	AGH	AJR
P01	Issue for Comment	13.01.21	AGH	AJR

SOLID.
Structures & Infrastructure

Solid Studio
12 Albion Street
Chipping Norton OX7 5BJ

T +44(0)1608 690 858
E info@solid-engineering.co.uk
W solid-engineering.co.uk

Project

Boundary Wall
Summerfields School
Oxford

Drawing Title

ASSESSMENT OF EXISTING
WALL AND NEW WALL

Scale

1:200 @ A3

Role

Structural

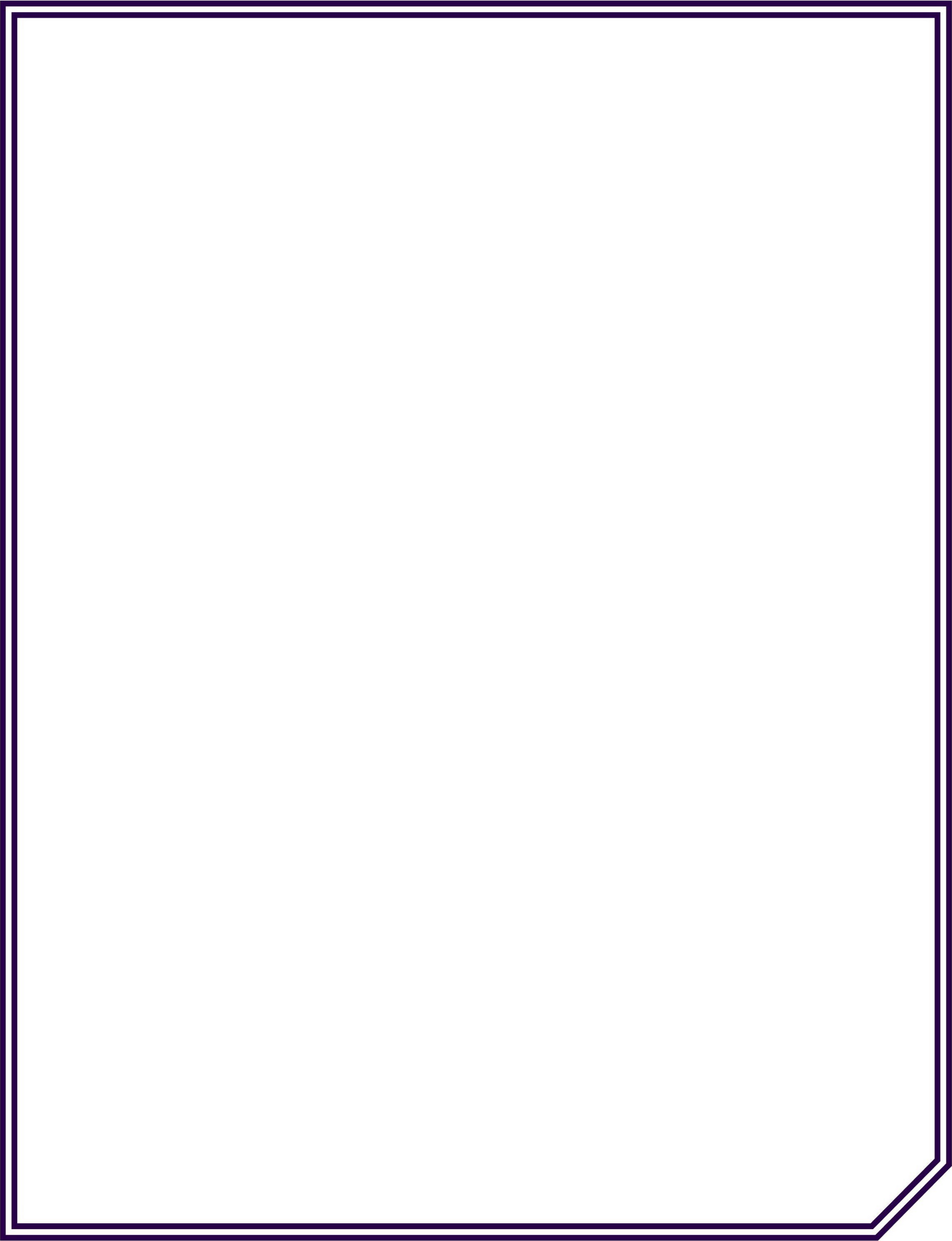
Status / Stage

S3 - For Review & Comment

Job No

2018A

Ref	Org	Zone	Level	Type	Role	Number	Rev
BWS	SOLID	XX	XX	DR	S	01	P02



Carter Jonas