



SPECIFICATION

DMRB: 5700 mm to underside (minimum, checked across width of street. note curvature of road).
SPAN: Distance between the buildings: 12394 mm.
DIMS:

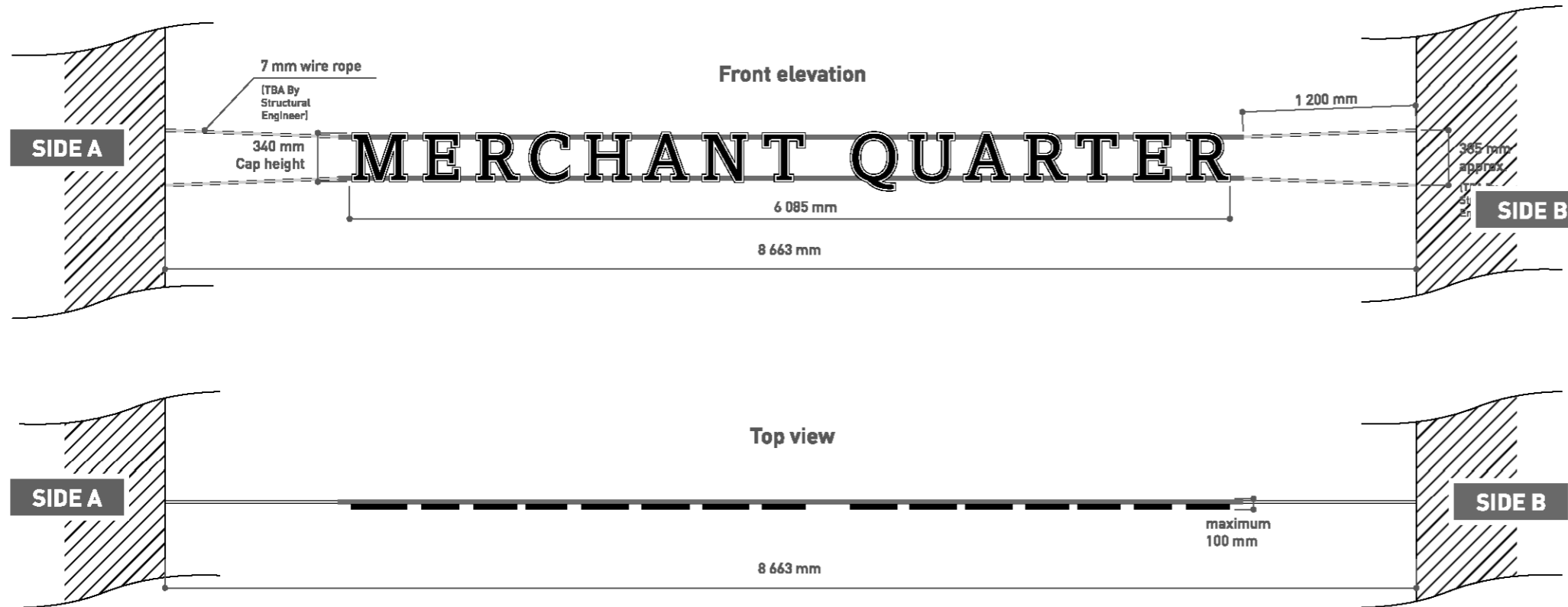
POWER: New Unmetered Supply and Supply Box needed.
New Small Connection Box needed at high level close to sign wall fixings
JB will be approx 15 m from sign (TBC)

LOCATION OF 2 QTY FIXINGS TO BE OPTION 1 or OPTION 2 (OPTION 1 PREFERRED)

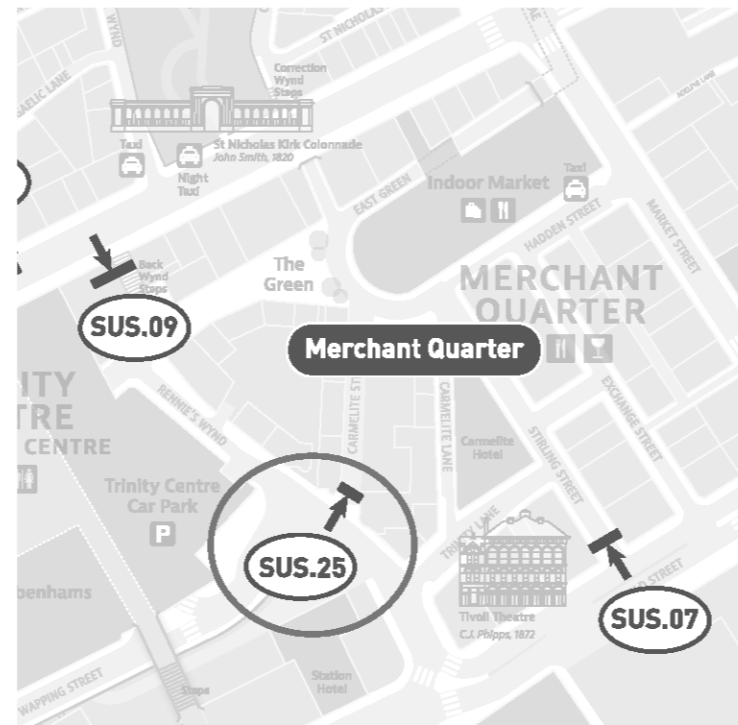
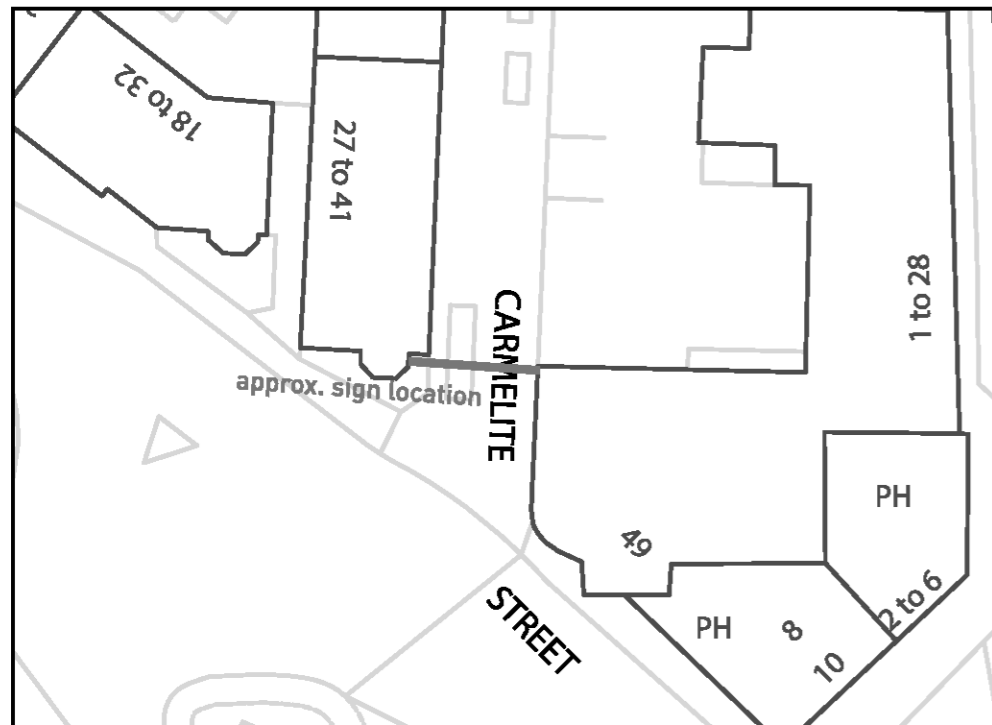
**ALL DIMENSIONS ARE APPROXIMATE AND TO BE CHECKED/ MEASURED ACCURATELY
FOR SIGN AND FIXING INSTALLATIONS NOTE DMRB REQUIREMENTS AS SPECIFIED ABOVE**

SUS.25 'MERCHANT QUARTER'

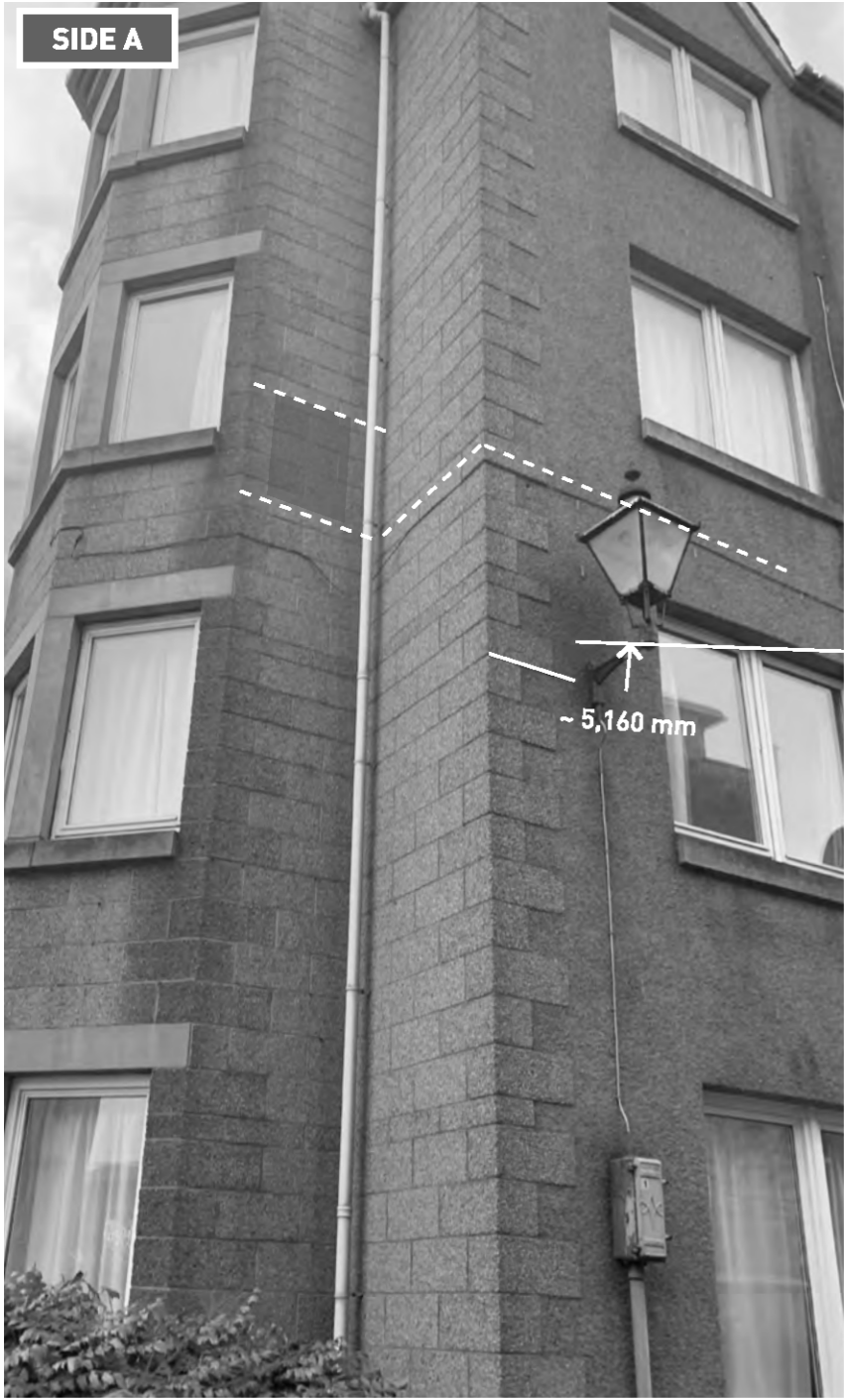
DRAWING 1:40@A3



SIGN LOCATION PLAN - SCALE 1:500 @ A3



- Engineer to confirm all fixing specifications and positions
- Sign sub-text to be included subject to budget and weight/loads
- Splays of wires are subject to fixing position locations



SPECIFICATION

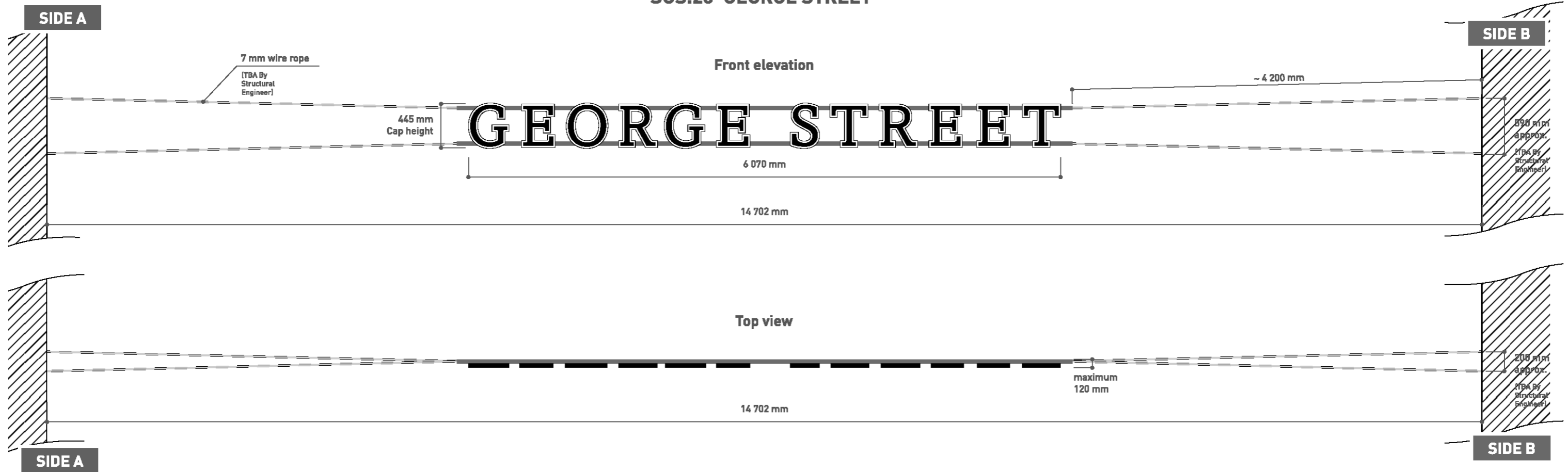
- DMRB: 5700 mm to underside (minimum, checked across width of street. note curvature of road).
- SPAN: Distance between the buildings: 8,663 mm.
- DIMS: Rendered 'blocks' on side A are 450 mm wide x 220 mm high
- POWER: Replace existing Bleeco Box (Side A) where shown
 New Small Connection Box needed at high level close to sign wall fixings
 JB is approx 10 m from sign (TBC)

ALL DIMENSIONS ARE APPROXIMATE AND TO BE CHECKED/ MEASURED ACCURATELY
 FOR SIGN AND FIXING INSTALLATIONS NOTE DMRB REQUIREMENTS AS SPECIFIED ABOVE

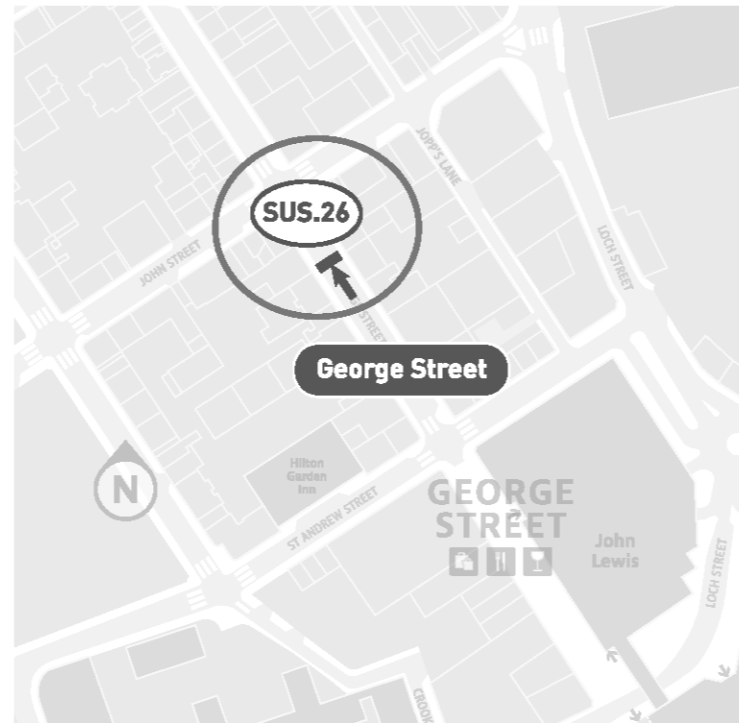


SUS.26 'GEORGE STREET'

DRAWING 1:40@A3



SIGN LOCATION PLAN - SCALE 1:500 @ A3



- Engineer to confirm all fixing specifications and positions
- Sign sub-text to be included subject to budget and weight/loads
- Splays of wires are subject to fixing position locations



SPECIFICATION

- DMRB: 5700 mm to underside (minimum, checked across width of street. note curvature of road).
- SPAN: Distance between the buildings: 14,702 mm.
- DIMS: Height from ground level to underside of horizontal detail (Side B) = 4548 mm

- POWER: Replace existing Bleeco Box (Side A) where shown
New Small Connection Box needed at high level close to sign wall fixings
JB is approx 20 m from sign (TBC)

ALL DIMENSIONS ARE APPROXIMATE AND TO BE CHECKED/ MEASURED ACCURATELY
FOR SIGN AND FIXING INSTALLATIONS NOTE DMRB REQUIREMENTS AS SPECIFIED ABOVE





MOMENTUM WAYSHOWING

ABERDEEN SUSPENDED STREET SIGNS PROJECT BRIEF

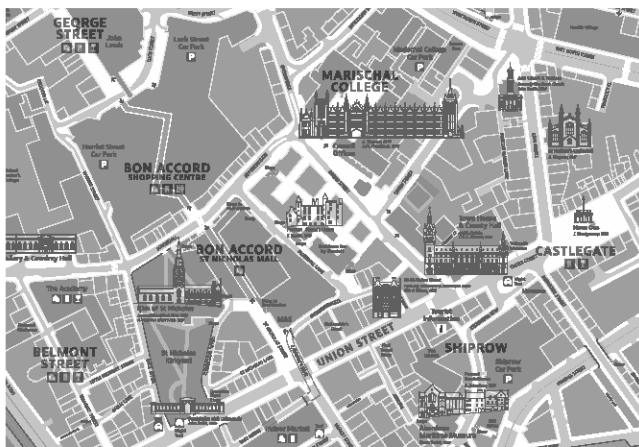
AB2-001-BRIEF
REVISION: VERSION 1.0
DATE: 05.03.2021



ABERDEEN SUSPENDED STREET SIGNS

BACKGROUND TO THIS PROJECT

1. A bespoke wayfinding scheme comprising 54 Corian Wayshowing Totems was implemented in Aberdeen City Centre in 2016. The scheme was subsequently extended, with 18 more Totems implemented, in 2020.
2. The scheme is designed to improve people's experience of visiting the Granite City.
3. The principle of highlighting and identifying specific streets with suspended signage was a concept dating back to the early stages of the Wayfinding Strategy, prior to Scheme Design.
4. We found that some streets and routes within the City were more significant than others. Some were important destinations in their own right, whilst others were important connections or gateways.
5. The Suspended Signs project, is to be implemented this year, with all signs installed and works complete by September 2021.
6. The project will create highly visible, yet sensitive, architectural signage which draws people's attention to some of the city's streets and spaces, and helps lead them to discover and enjoy all that Aberdeen has to offer.



DESIGN OBJECTIVES

7. Illuminated lettering which is to be supported on a suitable framework, which is to be supported by tensioned and visually unobtrusive, stainless steel wires and fixings
8. With white keyline lettering and contrasting dark letter infill, these are designed to achieve daytime contrast and legibility, regardless of weather or backdrop
9. Keyline illumination (face lit only) to be lit during agreed hours for visual prominence and stand-out in evenings and when light levels are low
10. Smaller face-illuminated sub-text lettering is included in key locations for secondary identification of important amenities
11. The signage is proposed as high quality, low-maintenance, illuminated signage, with marine-grade fixing solutions - all of which are to be highly robust and to serve the City for years to come
12. Minimum quantities of fixings into granite, as necessary, whilst absolutely being both safe and robust, all to the specifications of the Structural Engineer
13. Consideration to be given, and unobtrusive solutions provided for, bird proofing and all other practicalities
14. Project funding stipulations necessitate a strict adherence to programme, as identified within this Project Brief, as well as all costs being agreed in advance to cover a 5 year maintenance programme.

PROJECT DELIVERABLES: PACKAGES OF WORK

15. The strategy to deliver this project in line with the funding requirements, requires the works to be split into 3 defined packages, for flexibility of procurement (A = Signage Package, B = Installation & Maintenance, C = Electricals)
16. Tenderers can price for all packages of work, or they may exclude one or more Packages from their submissions. Tenderers are, however, requested to price as many Packages as they are able
17. The Client reserves the right to award the contract according to what is deemed to be the best, most robust and appropriate solution
18. The Client reserves the right to amend the final scope of this contract, according to budget availability
19. In order to be able to fulfil and price for the requirements of all packages, Tenderers may propose to work with suitably qualified, capable, and experienced sub-contractors. Ideally, these should be companies and teams with whom the Tenderers have previously worked, where possible. Such arrangements must be clearly stated by Tenderers in their returns, with full details, prior experience of such working arrangements with the noted sub-contractors, and with clearly defined allocation of responsibilities
20. Each work package should be priced individually, as a stand alone package of work. Should there be any cost benefit (reduction) due to award of multiple packages, this can be identified in the submission, or discussed post-submission, but prior to award of contract
21. Each work package should price for the works required at each sign or sign location, individually and independent of other signs or locations (in case of any amends to the scope). However, for Tender pricing purposes, it can be assumed that 80% or more of all signs or sign locations will be instructed at point of Tender award.

22. Efficient phasing and co-ordination of works is expected. The package should be costed on this basis
23. Any activities such as drilling which incur high levels of noise or vibration must be undertaken during working hours as dictated by the City Council
24. All City Centre works generally must be undertaken during hours as agreed with the City Council, please price as such. Any queries in this respect must be made prior to Tender Close. All prices returned will be assumed to apply to whatever hours are agreeable to the City Council
25. In considering and pricing this work you should consider all structural matters such as anticipated frame sizing, such that all pricing is accurate and additionally covers any minor variance during the development phase
26. Notice must be given to the City Council prior to undertaking all works.

PACKAGE A: SIGNAGE PACKAGE - DELIVERABLES:

27. The scope for Package A is to cover all signage and illumination manufacture and associated activities
28. To include the requirements for the design development, samples, prototypes, and manufacture of the signage, frames and illumination, as defined in the Tender Package. Please refer to all documents as necessary
29. 11 No. Signs are suspended on wires, 1 No. Frame will be secured directly to the buildings (no wires required) and 1 No element is illumination only
30. For clarity, Package A will include the following items and requirements:
31. Strict adherence to programme
32. Initial design and engineering development drawings (also sketches, discussions, liaison)
33. Detailed design development and prototype fabrication drawings, for approval
34. Production of complete assembled prototype letters, for approval
35. Final manufacture drawings, for all signs and locations, for approval
36. Calculation at the earliest opportunity of all weights for each signage and framework element including all electrical components
37. Regular and prompt liaison and coordination with Momentum, and the clients appointed structural engineer, David Narro Associates, will be required
38. You must instruct your own qualified and experienced Structural Engineer, who must sign off all manufacture drawings and prepare calculations for all structural elements, at the earliest opportunity, for review by David Narro Associates (Client's Structural Engineers)
39. Structural Calculations must be issued prior to, or at latest with, the manufacture drawings (for review and approval)
40. Full and prompt co-ordination with Packages B and C, on matters of structural integrity, fixings, installation, electrical connection, delivery, installation, and any other pertinent matters, will be required.
41. Manufacture and delivery (to Aberdeen, to programme and in advance of any agreed sign installation dates) of all assembled and quality checked signage elements
42. Package A should include all illuminated lettering as required. Illumination should include the electrical cabling, transformers, and all components associated with, to the point of connection to supply. All metal parts and components of the signage and frameworks should be electrically grounded
43. The supply connection point for the signs will be a high-level electrical box connection on the buildings, to be supplied, located and installed (as part of Package C) close to a sign wall fixing point
44. All structural sign framework to support the illuminated lettering and to enable the proposed method of cross street installation as proposed, is to be designed and manufactured
45. Frames must include appropriate, robust and suitable sign fixings at each corner, to which the support wires must fix
46. Support wires, turnbuckles and all fixings to the walls (plus installation of all) are part of Package B.
47. Design development and preparation of manufacture drawings should be allowed or, including revisions, as necessary, to point of approval by the project team
48. Design development and preparation of sample and prototype drawings should be allowed or, including revisions, as necessary, to point of approval by the project team

49. Manufacture of all necessary samples and prototypes for review, approval, and for final design sign-off prior to signage and frame manufacture
50. All electrical equipment and components to be high quality, designed for long-life. Transformers and any other controllers must be securely located on the sign framework and in such a position (and suitably protected from the elements, such that they are completely safe and entirely weatherproof, without risk of overheating)
51. The Project Team are to be permitted to review all signs during production and such times as they deem appropriate to inspect for quality and workmanship and quality control at key stages to review and provide feedback, technical support or
52. Any defects in quality or workmanship, or failure to comply with the specifications, requirements, identified during such inspections, are to be subsequently and promptly addressed by the Tenderer such that no delay is caused to the project installation dates or project critical milestones
53. The Project Team are to conduct a final sign quality control (QC) review – of fully assembled and operational Signs – prior to leaving the factory
54. All signs must be signed off by Momentum prior to stage invoicing
55. Secure and robust protective packaging and dedicated transportation to Aberdeen
56. Delivery and offloading of packaged signage and associated components will be to an Aberdeen address for secure storage prior to installation, address details of which are to be confirmed. Note: Storage requirements form part of Package B.
57. The supply and delivery to Aberdeen of any future replacement sign parts or electrical components, (excluding transformers which, outside of initial warranty, will be supplied under the installation and maintenance Package B) due to failure under normal circumstances, is to form part of the Warranty price. Any such requirement for parts or components should be by exception
58. Attendance to be at time of signage installations (AS DEFINED BY PACKAGE B, #5) to assist with any matters of co-ordination at installation, to undertake final electrical connections for all signs, and to sign-off that the signs have been installed to your satisfaction and are illuminating correctly and as designed
59. Please ensure the cost identified cover fees, travel and all necessary expenses,
60. Please note that annual inspection, cleaning and maintenance will be undertaken, however this forms part of Package B. This will be carried out according to the requirements of the O&M Manual (Signage Element) which you must prepare.
61. All signage elements to be designed and constructed to be as far as possible maintenance-free
62. A 5 year all cost warranty, including a lump sum to cover the supply of Package A spare parts as required (either to be supplied at outset, or as and when required), is to be provided.
63. Allowance must be made for any exceptional site attendance for inspection due to serious or significant failure or problems with the signage or framework, post installation. Any costs or expenses for this, for a period of 5 years from project completion, must be provided within the 5 year warranty & spares costs in the cost schedule under Package A. No additional costs outside of the award, can be borne
64. All signage must be Quality Control checked, including approval of illumination quality, by Momentum, prior to despatch for installation

65. QC reviews should be conducted well in advance of any installation dates (identified under Package B), and may require access to the internals of the signs. This would need to be reflected in the Tenderers programme
66. It is the Tenderers responsibility as manufacturer and/ or installer to ensure the signs can be made and installed safely and securely and that the product is at no risk of failure during it's operating life
67. The Tenderer is responsible for ensuring the necessary structural calculations are undertaken by a qualified engineer and that these calculations and engineers recommendations are complied with. Additionally the Tenderer is responsible for ensuring a high level of Quality Control during manufacture and installation, to ensure that the Specifications are complied with and that the installed signs are safe and robust
68. All Technical Concepts provided herein are provided only as an indication of a potentially suitable technical solution to the visual and performance requirements as stated. Further technical development work will be required to develop suitable final solutions
69. Best practice guidelines should be followed for the specification, processing, manufacture and installation of the components and materials used*
70. The signs and fixings should be designed for the loads which they may incur
71. It is particularly important that materials and finishes are carefully chosen such that no part of the sign [visible or hidden] corrodes
72. The signs should take the appropriate load from wind for the locality
73. Any fixings must not work loose
74. Methodology and responsibilities to be discussed with Momentum and the Project Team
75. Any concerns regarding any of the specifications or performance requirements should be stated during the tender process and documented clearly in the tender response.
76. All drawings should be specifically reviewed for Health & Safety compliance and risk identification. A statement of confirmation and report of such will be required
77. SUS.12-LS: Located close to SUS.12 at the entrance to Langstane Place, at Dee Street, is the [Lang Stane](#) (also, [here](#)). As part fo this project we would like to discretely illuminate this historic artefact. Initial scope and specifications are included, for tender purposes, however development of a discrete, secure and sensitive illumination and fixing solution should be allowed for.
78. As part of the design development process consideration should be given to how the frames and fixings might fail if vehicular impact were to occur.
79. Consideration must be given to an approach as to how the signage might best and most safely fail, under such circumstances. A fail-safe mechanism on each frame design may be designed, or alternately the signage or fixing designs may be amended, to increase the safety and reduce the chances of personal injury or damage to buildings or property under such circumstances.

PACKAGE B: INSTALLATION & MAINTENANCE PACKAGE - DELIVERABLES:

80. Scope for Package B is to cover all site works and installation activities. The following is the suggested sequence of events for installation and pre-installation activities. This approach may be varied, as necessary, however all works must be undertaken in a robust manner, and allows for approvals at key stages, as necessary
81. 11 No. Signs are suspended on wires, 1 No. Frame will be secured directly to the buildings (no wires required) and 1 No element is illumination only
82. For clarity, Package B will additionally include the following items and requirements:
83. Strict adherence to programme
84. Development of fixing solutions which achieve the design intent, enable secure installation, and comply with the objectives and requirements of the project
85. In terms of installation activities, it is anticipated that several pre-installation and installation visits will be required, at each location. All works should be phased as efficiently as possible.
86. #1: Requirement to visit and undertake, in conjunction with Client's Structural Engineer, a review of a very small number of locations. Intention being to undertake initial physical inspections and some initial testing
87. #2: Survey of all locations using access equipment, measuring equipment and lasers/ levels. Purpose being to determine and identify fixing locations, and to gather comprehensive and accurate dimensions. Which comply with minimum height guidance and Structural Engineer's guidance. Client's Structural Engineer may choose to attend and provide guidance for selection of best fixing locations where necessary. Surveys of electrical requirements and proposed best route for cabling connections should be captured at this stage for subsequent feedback and approval by Aberdeen City Council
88. The output of #2 should be marked up locations (and clear and accurate records of these locations) of each proposed fixing location, for formal approval by the project team and by Aberdeen City Council. Accurate and comprehensive dimensions (including suitable checks) including multiple dimensions to the ground (including measurements taken at the highest ground point to ensure DMRB compliance) should also be gathered and documented
89. #3: Installation of approved wall fixings in approved locations, and to procedure and specifications approved by the Clients Structural Engineer. Depth tests must be undertaken as part of the installation process, to ensure that there is no penetration of the external façade. Levels and measurements between all fixings, vertical, horizontal and diagonal, should be gathered and recorded. Vertical measurements to ground level at key locations should also be recorded
90. #4: Pull tests taken at all fixings. Safety check/ inspection of all fixings prior to install of illuminated lettering, and to ensure all fixings are confirmed secure prior to installation of signage. Pull-tests must be undertaken with suitable and accurate testing equipment, and to check that required loads as defined by the structural engineer can be absorbed
91. Receive delivery, carefully unload and safely and securely store signs, sign frames & fixings until such time as installation is programmed. Long term storage will not be required, but storage costs should be included in your pricing

92. #5: Installation of the signs supplied as per Package A, as detailed above, and tensioning of cables, to point of signage and fixings all being fully installed and works complete
93. As part of the annual maintenance provision, to undertake annual inspections of fixings, signs & electrical elements. These works will include close visual inspection of all frames, wire fixing points and all letter and frame fixings to ensure that all signage is secure and safe. This will be carried out according to the requirements of the O&M Manual [Installation & Fixings Element] which you must prepare upon completion of all sign installations
94. Setting and adjustment of time-clocks (located in Junction Boxes at low level) which define illuminated hours, must be undertaken twice a year as part of the annual maintenance contract.
95. Notice must be given to the City Council prior to undertaking all works
96. Completion of any necessary maintenance, all signs and locations/ for a period of 5 years from completion, or September
97. Undertaking annual pull-out testing of all fixings for the duration of the 5 year contract. Exact frequency of testing is to be determined (and therefore may be on a % basis each year), however please for the purpose of the tender than
98. Provision of all access equipment required to safely carry out the necessary visits
99. Provision of all Health & Safety documentation for safe installation and pre-installation activities
100. Permissions - You will also be required to liaise with the relevant departments of Aberdeen City Council regarding the impact on road traffic & pedestrian foot paths, in relation to the machinery & access equipment required to install the signs
101. Assume all works are out of hours, so that there are less pedestrians and vehicles present. Evening cut-offs for certain works may be prescribed by the City Council
102. Such liaison with the council may necessitate working during less busy times (e.g. Sundays) or involve provision of road closures or diversions
103. Please ensure you consider the likelihood of such and make suitable allowance within your pricing
104. Provision of electrical transformers for the signage, outside of the initial 1 year initial warranty [Provided under Package A] and installation of these during annual maintenance
105. As part of the design development process consideration should be given to how the frames and fixings might fail if vehicular impact were to occur. You should similarly consider such events, and additionally fully consider the methodology for install or maintenance such that all risks are as far as possible mitigated

PACKAGE C: ELECTRICALS & ASSOCIATED WORKS - DELIVERABLES:

106. Undertake all works associated with the provision of electrical supplies for all locations, and as detailed in the Scheme
107. All works will primarily be electrical but with some associated Civil works/groundworks, and electrical connection works (which must be undertaken by SSE)
108. There are two aspects to the Electrical Package - provision of additional electrical supplies to existing Junction Boxes (in two instances, completely new supplies are required, which will necessitate i), and provision of one small electrical connection boxes in the close vicinity of a wall fixing point for each suspended sign
109. Electrical installation works to include cable routing and connection to sign from existing power supplies (from nearby junction boxes or Bleeco box). To include all junction box upgrades/ replacements/ installations all cabling at appropriate specification for the length of run and voltages required, and all fixing to the buildings which must be to Aberdeen City Council's approval. All cable runs
110. Cable routing to be approved by Aberdeen City Council, therefore drawings are to be provided to allow sufficient information for sign off
111. Package to optionally include a Provisional Sum for all works associated with groundworks and installations for 2 qty new electrical supplies from below ground level to a new junction box in an appropriate location
112. Works to include provision of additional supply cables to existing Supply/Junction Boxes, generally located at lower level on buildings
113. Additional supply cables will generally require minor Civil works by way of lifting a small number of paving slabs, with connection to mains supplies undertaken via SSE. New cables will run vertically from pavement level to Junction Boxes
114. Provision of new Supply/Junction Boxes is required, where necessary (as indicated in the scheme document)
115. Provision of suitable time-clocks for inclusion in Junction Boxes

DESIGN RIGHTS

116. The Design Rights, Copyright and Intellectual Property of the Suspended Signs and any and all project documents and production drawings associated with the project will be owned by the Project Team.

PROJECT CO-ORDINATION ALL PARTIES

117. Gain a full understanding of the requirements and deliverables as defined in the Tender Documentation
118. Briefing, discussions regarding programme and refinement of methodology
119. Initial and ongoing discussion regarding risks and milestones
120. Develop a detailed programme which meets the specified key dates, updated monthly (as a minimum)
121. Ongoing liaison and co-ordination during the course of the project
122. Ongoing project management reporting and progress meetings are required as necessary on a two-weekly basis.

PAYMENT SCHEDULE

123. Invoicing can be made upon successful completion and approval of key milestones according to each Package
124. A retention of 10% may be deducted from all invoices, however this will be released upon successful completion of the project in September 2021.

PROGRAMME MILESTONES & CRITICAL DATES

Packages A, B, C:

Deadline for return of completed Tender Responses: 24 March 2021

Contract/s to be awarded prior to: 31 March 2021 (funding-critical date)

Project Completion: September 2021 (funding-critical date)

Package A (Signage):

Initial Manufacture Design Drawings (first-off, to cover all key scenarios/ variables): April 2021

Prototype Manufacture Design Drawings: April 2021

Prototype Manufacture Complete for Review & Approval: April 2021

Structural Engineer's Calculations to accompany drawings: May 2021

Final Manufacture Design Drawings - to cover all locations: May 2021

Deadline for Project Team Approval of All Drawings: May 2021

Manufacture Completion, QC and Approval of all manufactured signage: July 2021

Package B (Installation & Maintenance):

Testing with Structural Engineer: March 2021

Survey, Location, and Approval of all fixing locations: May 2021

Drilling and installation of all wall fixings: July 2021

Installation of all signage and project completion: August-September 2021 (funding-critical date)

Package C (Electrical Works)

All Low Level Electrical Works complete: June 2021

All high Level Electrical Works complete: July 2021.