

SOCIAL HOUSING BUNDLE 4 DEVELOPMENT AT THE STANLEY STREET DEPOT, DUBLIN 7

Boundary Wall Survey SHB4-SSD-RP-MOR-CS-P3-004

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1 INTRODUCTION

1.1 Introduction

The 1.15 Hectare Stanley Street Depot will be developed into 167 apartments and duplex units at the former Dublin City Fire Brigade Maintenance Depot, Dublin 7,

The works will consist of the following:

- The demolition and site clearance of the existing buildings, sheds, warehouses, and garages with the retention of sections of boundary walls.
- Construction of 168 no. apartment and duplex units across Blocks A-K (including frontage onto Grangegorman Lower).

1.2 Site Description

The location of the proposed development is illustrated in Figure 1.1 below. The site is situated in the north central area of Smithfield, Dublin city centre. There is existing two storey houses with back gardens and apartments bordering the development on the northwest and northeast of the site. The western boundary is bordered by a mix of two storey housing/commercial units, a school, and an industrial yard off Manor Street.



Figure 1.1 – Site location

2 EXISTING BUILDING WALLS TO BE RETAINED AS BOUNDARY WALLS

This survey report is focused on the existing depot walls that are to be retained as boundary walls. Stanley street perimeter boundary walls are approximately 435m long and forms a boundary with approximately 11 properties along the north, west and south boundaries. On the east of Stanley Street Depot, the boundary is with Grangegorman street Lower, the wall here will be fully demolished for this section.

Starting at the Southeast the neighbouring properties that have a boundary Stanley depot are.

Southeast ESB Grange Gorman substation

South Old Wool Merchants building on Stanley Street.

Southwest Several properties on Manor Street,

West
 18 Stoneybatter, Dublin 7

West Stoneybatter Place apartment student accommodation,

Northwest
 North
 North
 North
 Stanhope street primary school,
 Daughters of Charity convent,
 Focus Ireland, Stanhope street,

Northeast Grange Court Apartments on Stanhope Street,

2.1 Length of free-standing boundary wall

Length of free-standing boundary wall; 20 + 52 + 20 + 4 + 25 = 100m

2.2 Length of boundary wall to be retained that forms part of existing buildings that are planned to be demolished.

Retained walls forming part of existing structure; 148m + 96 + 35 +30m= 329m

2.3 Length of boundary wall that forms part of a neighbouring building.

35m

Total length = 100m + 329m + 35m = 364m

3 Summary:

- Total Boundary wall Length: 464 meters
- Existing free-Standing Boundary Wall: 100 meters
- **Boundary Formed by Existing Buildings**: 364 meters
- Buildings to be Demolished: All except the Old Wool Merchant Building on Stanley Street
- **Wall Height Reduction**: To 2.4 meters where practicable

3.1 Condition of Boundary wall Section 4.7

Defects were noted on the old brickwork wall. Vertical cracking was visible running the full height of the wall. Remedial works were undertaken in the past in the form of stitching across the cracked brick sections of wall with steel channels and bolting into secure brickwork either side of the cracks.

3.2 Survey of Boundary wall Section 4.8

This wall section currently acts as a perimeter wall to the vehicle wash building. Wall design to be checked to ensure the wall can function as a free-standing 5m high wall once the building has been removed.



Figure 3.1 Plan Location of wall sections 4.1 to 4.9

4 CONDITION OF EXISTING WALLS

Boundary wall inspection started at the existing entrance on Stanley Street and continuing around the perimeter in an anti-clockwise direction, here is findings of the assessment:

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4.1 Chainage 0-94m Southeast perimeter of Stanley Street Depot

Southeast section of boundary walls consists of approximately 500mm thick stone walls. The first 27m forms part of the old Maltings building as shown in fig 4.1, the middle 19m (Fig 4.2) forms part of a free standing 3.7m high boundary between Stanley Street Depot and a neighbouring property. The final 47m as shown in fig 4.3 forms part of an existing Stanley depot building and ESB substation. The wall forms part of a retaining wall due to difference in ground floor level of 2.5m.



Figure 4.1 (500mm stone walls)



Figure 4.2 (500mm stone walls)



Figure 4.3 (500mm stone walls)



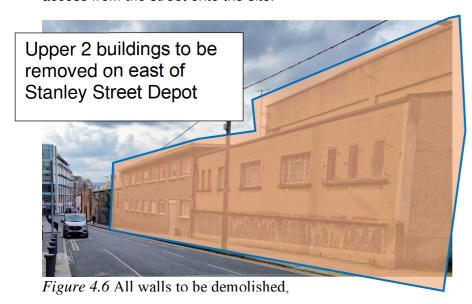
Figure 4.5 (500mm wide stone walls, upper ground floor)

4.1.1 Condition of walls

The wall is out of plum due to the horizontal forces from retaining 2.5m of soil. For the redevelopment of Stanley Street large openings will be provided in the stone wall and the soil will be removed for 23m section of the 30m long wall to allow the wall to act as a free-standing wall. The structural integrity of the wall seems sound in its current state and there is no concern with horizontally stability of the wall up to 6.1m, assuming the wall will be horizontally propped at Level +0.00 (13m AOD). The retaining section of the 7m long section of the stone wall will need to be investigated further to ensure it can continue to act as a retaining wall for the new development.

4.2 Chainage 94m-151m East of Stanley Street Depot

The buildings along Grange Gorman street lower are to be demolished down to ground level to allow full access from the street onto the site.



4.2.1 Condition:

No further action, as all walls to be demolished.

4.3 Chainage 151-194m Northeast of Stanley Street Depot

Building 01 is to be demolished leaving the north boundary wall at a reduced height of 2.4m high to form a boundary with the Grange Court apartments on Stanhope Street.

This wall consists of 300mm x 300mm concrete columns at 3m centres with 5.5m high 200mm wide solid blockwork infill and a 900mm deep concrete beam on top, making the overall height of the wall internally 6.4m. Photos below show the external wall elevation on the north and internal wall elevation on the southside. The difference in level on both sides of the wall is 700mm with Grange court having a FFL of 13.45m and Stanley street building 05 having a FFL 12.85m.



6.4m high wall Reduced to 3m

Figure 4.7 North Boundary wall of Building 05



Figure 4.8 boundary with the Grange Court apartments on Stanhope Street.

4.3.1 Condition of walls

No evidence of structural stability issues. Preliminary guidance is that wall heights are going to be reduced to 2.4m. The wall seems sound in its current state. However, the building it part will be demolished, and the wall will be reduced in height. We are not concerned with stability once reduced to a height of 3.5m.

4.4 Chainage 194-197m North of Stanley Street Depot

The existing boundary is situated between two buildings. The wall consists of a 200mm wide solid block wall of dimensions 3m long and 4.9m high wall.



Figure 4.9 Solid Blockwork wall of 200mm Thickness

4.4.1 Condition of walls

No evidence of structural stability issues. The wall seems sound in its current state, and there is no concern with the stability once reduced to a height of 3.5m.

4.5 Chainage 197-245m North of Stanley Street Depot

5m high internal concrete wall of assumed 200mm thickness with external stone wall of varying thickness as shown in photos below.

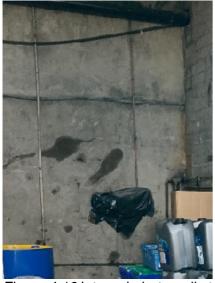


Figure 4.10 Internal photos-oil store



Figure 4.11 Garden of Stanhope Green Terrace Houses

4.5.1 Condition of walls

No evidence of structural stability issues. The wall seems sound in its current state, and we are not concerned with stability once the height is reduced to 3.5m.

4.6 Chainage 245m to 302m Northwest of Stanley Street Depot

10.5m high boundary wall with varying thickness forms part of a two-storey building on Stanley depot. There is a stonewall up to 3m high on the external north elevation with concrete wall behind up to 5.8m height of unknown thickness. Concrete wall is capped with 2.2m high blockwork 200mm wide (as photos below).



Figure 4.12

4.6.1 Condition of walls

No evidence of structural stability issues. The wall seems sound in its current state. However, the building it part will be demolished, and the wall will be reduced in height. We are not concerned with stability once reduced to a height of 3.5m.

4.7 Chainage 302m to 327m west of Stanley Street Depot

The historic brickwork wall will be maintained to its fully height. Wall is of unknown thickness. Steel sections have been used to tie the wall together to stitch across the vertical cracks visible in the external brickwork. Cracking and the remedial works are to be investigated further, along with the wall existing foundation and foundation retaining structure. The wall is retaining 1.5m of soil due, to a difference between FFL on the Student Accommodation side and the Stanley Street Depot side.



Figure 4.13



Fig. 4.15 Internal photo

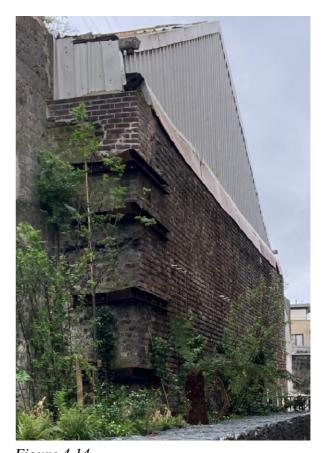


Figure 4.14

4.7.1 Condition of walls

The wall has had repairs and stiffening works in the past. We are of the opinion that sections of the wall will become unstable if the surrounding walls are interfered with or removed. Permanent support will be required.

4.8 Chainage 327m to 357m west boundary of Stanley Street Depot

The wall forms part of the of the vehicle wash building. The wall is 225mm thick hollow block with outer 100mm solid block outer leaf. The boundary wall is 3m high of the Stanley street depot side and 5m high on the Manor Street side and the wall forms part of a 2 metre high retaining wall.





(Figure 4.16 & 4.17) Vehicle wash building external photo on the Manor Street and Internal photo.

4.8.1 Condition of walls

No Evidence of structural defects. Wall stability is required to be checked as a free-standing wall.

4.9 Chainage 357m-435m Southwest boundary of Stanley Street Depot

The existing boundary wall consists of 225mm wide hollow block with piers at 3.4m centres and movement joints at 6.8 metre centres. Wall height is 2.9m on the southern boundary and increases to 4.3m on the western boundary. The wall will be reduced on the height on the southern boundary.



Figure 4.18

4.9.1 Condition of walls

No evidence of structural stability issues. Wall can continue to function as a boundary wall for the new development.

5 LIMITATIONS

5.1 Survey was a visual inspection.

The survey was a visual inspection from ground level of the sections of boundary wall that were visible, and where there was access to survey the wall. The thickness of the boundary wall was not established for the northern and western sections, but from inspection the thickness of the walls was estimated. There were no boundary wall record drawings available, and no excavation of the foundations were undertaking to inform of the substructure supporting the wall.